BEGIN
ROLL

531

MICROFILMED PLAN RECORD

Supplement No. 13 Date 8-1-79 District 5 Card 12C

County SEDGWICK Rte. & Co. 35W87 Project No. I 35W-1(58)48 PH. 1,2,3

Tracing Dr. No. 800 805 Approx. Length 2.294 Mi. or Ft. Year 6/77

Location INTRACITY VIADUCT IN WICHITA (ENGLISH to 18th STR.)

Type of Construction GRADING, BRIDGES, & CONCRETE PAVEMENT, FENCING, SEEDING

Remarks AS BUILT PLANS - 1997

OFFICIAL SHEETS - 324

MICROFILM RECORD SEE ROLLS #528, 529, 530

First Frame No. 1 Last Frame No. _____ Roll No. ROLL 531

STATE OF KANSAS

STATE HIGHWAY COMMISSION

35W-87-I35W-1-(58)48 (Phase I-II-III)

PLAN AND PROFILE OF PROPOSED

STATE HIGHWAY

FEDERAL AID PROJECT

SEDGWICK COUNTY

I-35 W

STA 333+31.1 (LT)
BR NO 35W-87-15.51
36'-48'-36' CONT R.C. HA...
SLAB SPAN 27' 3" ROADWA...

STA 387+78.53 (RT)
BR NO 35W-87-16.54
36'-48'-36' CONT R.C. HAUNCHED
SLAB SPANS 51'-3" ROADWAY

(VACATED)

Path B-10

ROAD "D"

ROAD "E"

STA 312+88.54
BR NO 35W-87-15.[illegible]
36'-48'-36' CONT. R.C. HAUNCHED
SLAB SPANS 52'-0" ROADWAY

STA 416+85.38, NORTHBOUND LANES END
PROJ 35W-87-135W-1-(58)48
℄ STA 416+85.38 BEGIN
PROJ 35W-87-135W-1-(58)50

DESIGN DESIGNATION

A D T (1962) [illegible]
A D T (1986) [illegible]
D H V [illegible] 5 R
D [illegible]
T [illegible]
V [illegible]
C OF A [illegible]

STA [illegible] CONT
PROJ [illegible]
STA 330+[illegible] RTHB
PROJ 35X-87-135W-1-(33)46

STA 310+68.53
BR NO 35W-87-15.24
36'-48-36' CONT. R.C. HAUNCHED
SLAB SPANS 52'-0" ROADWAY

STA 387+78.53(RT)
BR NO 35W-87-16.53
36'-48-36' CONT R.C. HAUNCHED
SLAB SPANS 51'-3" ROADWAY

CONVENTIONAL SIGNS

[illegible]
RETAINING WALL
RAILROAD CENTER LINE
FENCE
[illegible]
DRIVE OUTS
A [illegible]
P WATER LINE
[illegible]
MARSH
TREES
[illegible]

BR NO [illegible]
36'-48'-36' CONT R.C. HAUNCHES
SLAB SPANS 63'-3" ROADWAY

PLANS PREPARED BY
ANDREW J. HA[illegible] STA[illegible]35 SCHNACKE
ENGINEERS ARCHITECTS
TOPEKA KANSAS

APR 23 1973

JULY 1973

John D. McNeal

DIST. 5 SEDGWICK CO. ROLL 531

1

16X 14.5X 12X 12X 14.5X 16X

MICROFILMED PLAN RECORD
Supplement No. 13 Date 8-1-79 District 5 Card 12C
PH. 1,2,3
Project SEDGWICK 35W87 Project No. I35W-1(58)48
Sheet No. 800 805 Approx. Length 2.29M Microfilmed Year 6/27
Description INTRACITY VIADUCT IN WICHITA (ENGLISH To 18TH STR.)
GRADING, BRIDGES, & CONCRETE PAVEMENT, FENCING, SEEDING
Remarks AS BUILT PLANS - 1997
OFFICIAL SHEETS- 324
MICROFILM RECORD SEE ROLLS #528, 529 530
ROLL 531

STATE OF KANSAS

STATE HIGHWAY COMMISSION

PLAN AND PROFILE OF PROPOSED

STATE HIGHWAY

FEDERAL AID PROJECT

SEDGWICK COUNTY

I-35 W

35W-87-I35W-1-(58)48 (Phase I-II-III)

Phase I Grading Concrete Pavement Bridges

Phase II Bridges Concrete Pavement

Phase III Bridge Concrete Pavement

NOTE: (Phase III)
All sheets for this project carry Project Number 35W-87-135W-1(58)48.
For the construction of Phase III, this project is to be contracted and funded by Project No 35W-87-EAC(35W-1(135)48

Note:
Traffic shall be carried through construction at the following locations:
Douglas Ave. Eleventh St.
Third St. Fifteenth St.
Murdock Ave. Seventeenth St.
Tenth St.

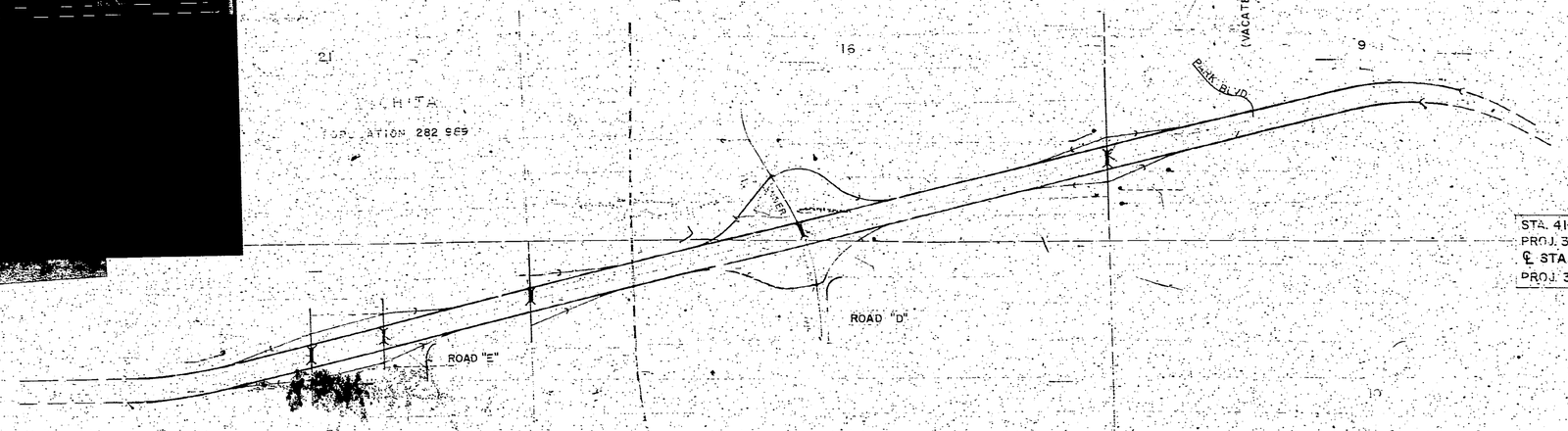
Traffic shall be carried through construction except for duration of pavement placement on individual streets as follows:
See Construction Sequence Sheet 5
First St. Eleventh St.
Iconic St. Seventeenth St.
Central Ave.

STA 333+31.11 (LT)
BR. NO. 35W-87-15.51
36'-48'-36' CONT. R.C. HAUNCHED
SLAB SPAN 27'-3" ROADWAY

BR. NO. 35W-87-15.99

SCALE: 1" = 600'

STA. 387+76.55 (LT)
BR. NO. 35W-87-16.54
36'-48'-36' CONT. R.C. HAUNCHED
SLAB SPANS. 51'-3" ROADWAY



STA. 312+88.54
BR. NO. 35W-87-15.12
36'-48'-36' CONT. R.C. HAUNCHED
SLAB SPANS 52'-0" ROADWAY

STA. 416+85.38, NORTHBOUND LANES, END
PROJ. 35W-87-135W-1-(58)48
℄ STA. 416+85.38 BEGIN
PROJ. 35W-87-135W-1-(53)50

DESIGN DESIGNATION

A.D.T. (1962) = 40,300
A.D.T. (1986) = 59,100
D.H.V. = 8,800
D = 60 %
T = 4 %
V = 60 MPH
C. OF A. = FULL

STA. 295+74.77, NORTHBOUND LANES, BEGIN
PROJ. 35W-87-135W-1-(53)48 =
STA. 330+13.10, NORTHBOUND LANES, END
PROJ. 35W-87-135W-1-(33)46

STA 319+68.53
BR. NO. 35W-87-15.24
36'-48-36' CONT. R.C. HAUNCHED
SLAB SPANS. 52'-0" ROADWAY

STA 387+78.53 (RT)
BR NO. 35W-87-16.53
36'-48'-36' CONT. R.C. HAUNCHED
SLAB SPANS. 51'-3" ROADWAY

PLANS PREPARED BY
VAN DOREN-HAZARD-STALLINGS-SCHNACKE
ENGINEERS - ARCHITECTS
TOPEKA KANSAS

CONVENTIONAL SIGNS

COUNTY LINE	RETAINING WALL
CORPORATE LIMITS	BASE OR SURVEY LINE
STATE OR NATIONAL LINE	LEVEE
TOWNSHIP LINE	CULVERTS
SECTION LINE	DROP INLETS
GRANT LINE	ACCESS CONTROL
FENCE LINE	POWER LINE
GUARD FENCE	TELEPHONE OR TELEGRAPH LINE
UNFENCED PROPERTY	MARSH
RIGHT OF WAY LINE	HEDGE
TRAVELLED WAY	TREES
RAILROADS	GRADE ELEVATION

GROSS LENGTH OF PROJECT 12,110.61 FT.
EXCEPTIONS
ADDITIONS
NET LENGTH OF PROJECT 12,110.61 FT. 2.29 MI.
NET LENGTH OF BRIDGES 12,110.61 FT. 2.29 MI.
NET LENGTH OF ROAD 0 FT. 0 MI.

STA. 355+52.32
BR. NO. 35W-87-16.00
36'-48'-36' CONT. R.C. HAUNCHED
SLAB SPANS 60'-0" ROADWAY

RECOM. FOR APPROVAL DATE APR 23 1973
ENGINEER OF DESIGN
STATE HIGHWAY COMMISSION OF KANSAS

RECOM. FOR APPROVAL DATE
DIVISION ENGINEER, BUREAU OF PUBLIC ROADS
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

APPROVED DATE
STATE HIGHWAY ENGINEER
STATE HIGHWAY COMMISSION OF KANSAS

APPROVED DATE
DIVISION ENGINEER, BUREAU OF PUBLIC ROADS
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

DIST. 5 SEDGWICK CO. ROLL 531

PUB. ROAD DIV. NO	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	135W-87-13.51W V-(39)KS Phase I-II-III	1970	2	2137

PROJECT PHASE	SHEET	DESCRIPTION
I II III	1	TITLE SHEET
I II III	2	INDEX OF SHEETS
I	3	TYPICAL SECTIONS - SIDE STREETS
I II III	4	TYPICAL SECTIONS - RAMPS & FRONTAGE ROADS
I II III	5	CONSTRUCTION SEQUENCE
I	6-31	PLAN & PROFILE MAINLINE
II	18, 20, 22, 24, 26, 28, 30	PLAN - MAINLINE
III	8, 10, 12, 14, 16, 18, 28, 30	PLAN - MAINLINE
I	32-40	PLAN & PROFILE SIDE STREETS
I II III	41-45	INTERCHANGE ALIGNMENT
I III	46-47	PLAN & PROFILE RAMPS J & K
II	48-49	PLAN & PROFILE RAMPS L & M
I	50-54	PROFILE RAMPS C - H & N - Q
I	55-66	PAVING DETAILS SIDE STREETS
I III	67-70	PAVING DETAILS RAMPS
I II III	71	PAVING DETAILS RAMPS
I II	72-74	PAVING DETAILS RAMPS
I	75-87	STORM SEWER PLAN MAINLINE
I	88-90	STORM SEWER PLAN SIDE STREETS
I	91-106	STORM SEWER PROFILES
I	107	SANITARY SEWER SIPHONS
I	108-109	SANITARY SEWER PROFILES
I	109A	SANITARY ~~SEWER~~ PROFILE LINE "D"
III	110-114	CANAL LINING DETAILS
I III	115-130	RIGHT OF WAY SHEETS
I II III	131-132	CONCRETE PAVEMENT
II	133-134	SPECIAL CONCRETE PAVEMENT APPROACH
	135	OMIT
II III	136-137	SPECIAL CONCRETE PAVEMENT APPROACH
I	138-139	SPECIAL CONCRETE PAVEMENT APPROACH
I	140	TERMINAL ANCHORAGE
I II III	141-142	EXPANSION & CONTRACTION JOINTS
I	143	DOWELED CONTRACTION JOINTS
I II III	144	COMBINED CURB & GUTTER TYPE I
I	145	CONCRETE PAVEMENT AUXILIARY DETAILS I
I	146	CONCRETE PAVEMENT AUXILIARY DETAILS II
I	147	CONCRETE PAVEMENT AUXILIARY DETAILS III
~~II III~~	~~147A~~	~~CONCRETE PAVEMENT AUXILIARY DETAILS IV~~ DELETED
I	148	SIDEWALK AND STEPS
I	149	CURB INLET (TYPE A SPECIAL)
I	150	CURB INLET (TYPE B)
I	151	CURB INLET (TYPE B SPECIAL) 8"
I II	151A	GUTTER-GUTTER INLET
I	152	DITCH INLETS (TYPES I & II)
I	153	COMBINED INLET MANHOLE (TYPE A SPECIAL)
I	154	COMBINED INLET MANHOLE (TYPE B)
I	155	REINFORCED CONCRETE MANHOLE
I	156	STORM SEWER MANHOLE SPECIAL
I	157	JUNCTION BOX DETAILS (TYPE I & II)
I	158-191	STORM SEWER SCHEDULE
I	191A	CONCRETE HEADWALL
I	192-194	HEADWALL DETAILS
I	195	SANITARY SEWER MANHOLE
I	196	SANITARY SEWER MANHOLE RELOCATION
I	197-197A	SANITARY SEWER ENCASEMENT DETAIL
I	198	SANITARY SEWER SCHEDULE
III	199-200	HIGHWAY FENCING
II III	201-204	GUARD FENCE
I II	205	METAL END SECTIONS
I	206	CONCRETE END SECTIONS
I	207	AUTOMATIC FLAP GATE
I	208-220	BRIDGE NO. 35 W-87-15.12 (FIRST STREET)
I	221-233	BRIDGE NO. 35 W-87-15.24 (SECOND STREET)
I	234-256	BRIDGE NO. 35 W-87-15.50 & 15.51 (CENTRAL)
I	257-277	BRIDGE NO. 35 W-87-16.00 (INNERLOOP)
I	278-293	BRIDGE NO. 35 W-87-16.53 & 16.54 (THIRTEENTH STREET)
I II III	294-2009A(SEE NOTE BELOW)	BRIDGE NO. 35 W-87-15.96 & 15.99 (I 35 W)
I	2010	LINSEED OIL SURFACE TREATMENT - CANAL BRIDGES
I II III	2011	LINSEED OIL SURFACE TREATMENT - I 35W VIADUCT
I II III	2012	STANDARD PILE DETAILS
II III	2013	BRIDGE HANDRAIL - STANDARD DETAILS
III	2014-2015	CONCRETE RIP-RAP LAYOUTS
II	2016-2018	CONCRETE RIP-RAP LAYOUTS
II III	2019	RIP-RAP STANDARD
I II III	2020	BRIDGE EXCAVATION STANDARD
I II III	2021	SUPPORTS & SPACERS FOR REINFORCING STEEL STANDARD
I	2022-2025	SUMMARY OF QUANTITIES (PHASE I)
II	2026	SUMMARY OF QUANTITIES (PHASE II)
III	2027	SUMMARY OF QUANTITIES (PHASE III)
I II III	2027A	RECAPITULATION OF QUANTITIES
I II III	2027B	RECAPITULATION OF BRIDGE QUANTITIES
III	2028	SPACING OF BERMUDA GRASS, PLUGS & SOD ROOTS
I	2029-2029A	TEMPORARY SEEDING & SUMMARY OF SEEDING QUANTITIES
I	2030	INSTALLATION DETAIL - EROSION CONTROL
I III	2031	TRAFFIC CONTROL DEVICES FOR ROADSIDE IMPROVEMENT, SIGNING, DELINEATION, ELECTRIC LIGHTS, BRIDGE PAINTING & SEEDING
I II	2032	ASPHALTIC SURFACING QUANTITIES
I II III	2033	TRAFFIC CONTROL
I II III	2034	IDENTIFICATION SIGNS
I	2035	DRAINAGE AREAS
I III	2036-2137	CROSS SECTIONS

ADDITIONAL SHEETS USED: 139A, ~~151A~~, 191A, 197A, 294A, 493A, 2011, 2012A, 2026A, 2027A, 2027B, 2028A, 2029A, 2030A, 2031A, 2032A, 2033A, 2034A, 2035A, 2036A, 2037A, 2037B, 2038A, 2039A, 2040A, 2041A, 2042A, 2043A, 2044A, 2045A, 2046A, 2047A, 2048A, 2049A, 2050A, 2051A, 2052A, 2053A, 2054A, 2055A, 2056A, 2057A, 2058A, 2059A, 2060A, 2061A, 2062A, 2063A, 2064A, 2065A, 2066A, 2067A, 2068A, 2069A, 2070A, 2071A, 2072A, 2073A, 2074A, 2075A, 2076A, 2077A, 2078A, 2079A, 2080A, 2081A, 2082A, 2083A, 2084A, 2085A, 2086A, 2087A, 2088A, 2089A, 2090A, 2091A, 2092A, 2093A, 2094A, 2095A, 2096A, 2097A, 2098A, 2099A, 2100A, 2101A, 2102A, 2103A, 2104A, 2105A, 2106A, 2107A, 2108A, 2109A, 2110A, 2111A, 2112A, 2113A, 2114A, 2115A, 2116A, 2117A, 2118A, 2119A, 2120A, 2121A, 2122A, 2123A, 2124A, 2125A, 2126A, 2127A, 2128A, 2129A, 2130A, 2131A, 2132A, 2133A, 2134A, 2135A, 2136A, 2137A

SHEET NOT USED: ~~85~~, 147A

NOTE: SEE SHEET NO. 295 FOR INDEX OF DRAWINGS FOR BR. NO. 35W-87-15.96 & 15.99

NO	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

INDEX OF SHEETS

SHEET NO.	OF	SCALE	APP'D
DESIGNED		DETAILED	QUANTITIES
DESIGN CK		DETAIL CK	QUAN. CK

TRACED

TRACE CK

DIST. 5 SEDGWICK CO. ROLL 531

2

REV. PLANS 11-1-71

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	~~35W-87-135W-1(58)48~~ Phase I, I & II	1970	295	2187

PROJECT PHASE			SHEET NUMBER	DESCRIPTION
I	II	III	294	UNIT LOCATION PLAN
I	II	III	294A	I 35W SIGNING LAYOUT
I	II	III	295	INDEX OF BRIDGE DRAWINGS
I	II	III	296	GENERAL NOTES AND DESIGN DATA
I			297-300	SUMMARY OF QUANTITIES - PHASE I
	II		301-302	SUMMARY OF QUANTITIES - PHASE II
		III	303-304	SUMMARY OF QUANTITIES - PHASE III
I		III	305-328	CONSTRUCTION LAYOUTS UNIT ON-18N
I	II		329-350	CONSTRUCTION LAYOUTS UNIT 19N-35N
I		III	351-374	CONSTRUCTION LAYOUTS UNIT 0S-18S
I	II		375-398	CONSTRUCTION LAYOUTS UNIT 19S-36S
I			399-492	ENGINEERING GEOLOGY
I			493	DRILLED SHAFT DETAILS
I			493A	CLASS III EXCAVATION FOR DRILLED SHAFTS
I			494-507	DRILLED SHAFT SCHEDULES
I			508-538	FOUNDATION BEAMS
I			539	PIER COLUMN DETAILS
I			540-553	PIER COLUMN SCHEDULES
		III	554-570	DETAILS UNIT 0N
		III	571-580	DETAILS UNIT 1N
		III	581-600	DETAILS UNIT 2N
		III	601-631	DETAILS UNIT 3N
		III	632-642	DETAILS UNIT 4N
		III	643-652	DETAILS UNIT 4NR
		III	653-668	DETAILS UNIT 5N
		III	669-676	DETAILS UNIT 6N
		III	677-692	DETAILS UNIT 7N
		III	693-700	DETAILS UNIT 8N
		III	701-710	DETAILS UNIT 8NR
		III	711-737	DETAILS UNIT 9N
		III	738-752	DETAILS UNIT 10N
		III	753-775	DETAILS UNIT 11N
		III	776-784	DETAILS UNIT 12N
		III	785-796	DETAILS UNIT 12NR
		III	797-822	DETAILS UNIT 13N
		III	823-842	DETAILS UNIT 14N
		III	843-872	DETAILS UNIT 15N
		III	873-886	DETAILS UNIT 16N
		III	887-900	DETAILS UNIT 16NR
		III	901-908	DETAILS UNIT 17N
		III	909-916	DETAILS UNIT 18N
	II		917-924	DETAILS UNIT 19N
	II		925-933	DETAILS UNIT 20N
	II		934-952	DETAILS UNIT 20NR
	II		953-980	DETAILS UNIT 21N
	II		981-989	DETAILS UNIT 22N
	II		990-1006	DETAILS UNIT 23N
	II		1007-1025	DETAILS UNIT 24N
	II		1026-1053	DETAILS UNIT 25N
	II		1054-1065	DETAILS UNIT 26N
	II		1066-1075	DETAILS UNIT 26NR
	II		1076-1091	DETAILS UNIT 27N
	II		1092-1099	DETAILS UNIT 28N
	II		1100-1110	DETAILS UNIT 28NR
	II		1111-1138	DETAILS UNIT 29N
	II		1139-1161	DETAILS UNIT 30N
	II		1162-1185	DETAILS UNIT 31N
	II		1186-1194	DETAILS UNIT 32N
	II		1195-1203	DETAILS UNIT 33N
	II		1204-1214	DETAILS UNIT 34N
	II		1215-1233	DETAILS UNIT 35N
		III	1234-1249	DETAILS UNIT 0S
		III	1250-1259	DETAILS UNIT 1S
		III	1260-1278	DETAILS UNIT 2S
		III	1279-1308	DETAILS UNIT 3S
		III	1309-1316	DETAILS UNIT 4S
		III	1317-1326	DETAILS UNIT 4SR
		III	1327-1342	DETAILS UNIT 5S
		III	1343-1350	DETAILS UNIT 6S
		III	1351-1366	DETAILS UNIT 7S
		III	1367-1377	DETAILS UNIT 8S
		III	1378-1387	DETAILS UNIT 8SR
		III	1388-1419	DETAILS UNIT 9S
		III	1420-1444	DETAILS UNIT 10S
		III	1445-1460	DETAILS UNIT 11S
		III	1461-1472	DETAILS UNIT 12S
		III	1473-1482	DETAILS UNIT 12SR
		III	1483-1510	DETAILS UNIT 13S
		III	1511-1536	DETAILS UNIT 14S
		III	1537-1556	DETAILS UNIT 15S
		III	1557-1582	DETAILS UNIT 16S
		III	1583-1601	DETAILS UNIT 16SR

PROJECT PHASE			SHEET NUMBER	DESCRIPTION
		III	1602-1609	DETAILS UNIT 17S
		III	1610-1617	DETAILS UNIT 18S
	II		1618-1632	DETAILS UNIT 19S
	II		1633-1648	DETAILS UNIT 20S
	II		1649-1663	DETAILS UNIT 20SR
	II		1664-1693	DETAILS UNIT 21S
	II		1694-1702	DETAILS UNIT 22S
	II		1703-1719	DETAILS UNIT 23S
	II		1720-1733	DETAILS UNIT 24S
	II		1734-1760	DETAILS UNIT 25S
	II		1761-1769	DETAILS UNIT 26S
	II		1770-1782	DETAILS UNIT 26SR
	II		1783-1798	DETAILS UNIT 27S
	II		1799-1810	DETAILS UNIT 28S
	II		1811-1820	DETAILS UNIT 28SR
	II		1821-1848	DETAILS UNIT 29S
	II		1849-1869	DETAILS UNIT 30S
	II		1870-1885	DETAILS UNIT 31S
	II		1886-1893	DETAILS UNIT 32S
	II		1894-1901	DETAILS UNIT 33S
	II		1902-1912	DETAILS UNIT 34S
	II		1913-1924	DETAILS UNIT 35S
	II		1925-1938	DETAILS UNIT 36S
I		III	1939-1940	SUPER ELEV. DIAGRAMS UNITS 0N, 1N, 2N & 3N
I	II		1941	SUPER ELEV. DIAGRAMS UNITS 33N, 34N & 35N
I		III	1942-1943	SUPER ELEV. DIAGRAMS UNITS 0S, 1S, 2S & 3S
I	II		1944	SUPER ELEV. DIAGRAMS UNITS 34S, 35S & 36S
	II	III	1945	BEARING SEAT & BEARING DEVICE DETAILS
	II	III	1946-1947	BEARING SEAT ELEVATIONS
	II	III	1948	ACCESS DOOR DETAILS
⚠ SEE BELOW	II	III	~~1949~~	~~EXPANSION DEVICE SCHEDULE~~
	II		~~1950-1954~~	~~EXPANSION DEVICE DETAILS~~
		III	~~1949-1951~~	~~EXPANSION DEVICE DETAILS~~
	II	III	~~1789-1988~~	~~EXPANSION DEVICE DETAILS~~
	II	III	1989	DECK DRAIN SCHEDULE
	II		1990	DECK DRAIN SCHEDULE
	II	III	1991	DECK DRAIN SCHEDULE
		III	1992	DECK DRAIN SCHEDULE
	II	III	1993	DECK DRAIN DETAIL
	II	III	1994	REINFORCING DETAILS AT DECK DRAINS
		III	1995	DOWNSPOUT SCHEDULE
	II	III	1996	DOWNSPOUT SCHEDULE
	II	III	1997-2001	DOWNSPOUT SCHEDULE & DETAILS
	II	III	2002-2003	GUTTER DETAILS
	II	III	2004	STANDARD LIGHTING BRACKET DETAILS
	II	III	2005	MERGING TRAFFIC SIGN BRACKET
	II	III	2006-2007	OVERHEAD SIGN BRACKET
	II	III	2008	CANTILEVER SIGN BRACKET
	II	III	2008A	EXIT GORE DETAILS
I		III	2009-2009A	CLEARANCE DIAGRAMS FOR S.L. & S.F. R.R. & CROSS STREETS
I			2010	LINSEED OIL SURFACE TREATMENT - CANAL BRIDGES
	II	III	2011	LINSEED OIL SURFACE TREATMENT - I 35W-VIADUCT
I	II	III	2012	STANDARD PILE DETAILS
	II	III	2013	BRIDGE HANDRAIL STANDARD DETAILS - I 35W-VIADUCT
		III	2014-2015	CONCRETE RIPRAP LAYOUTS
	II		2016-2018	CONCRETE RIPRAP LAYOUTS
	II	III	2019	RIPRAP STANDARD
I	II	III	2020	BRIDGE EXCAVATION STANDARD
I	II	III	2021	SUPPORTS AND SPACERS FOR REINFORCING STEEL STANDARD

630A

ADDITIONAL SHEETS USED: 294A, 493A, 778A, 878A, 928A, 1024A, 1190A, 1346A, 1443A, 1613A, 1729A, 1868A, 1897A, 1957A, 1965A, 2008A, 2009A.

⚠	II	III	1949R - 1950R	ELASTOMERIC EXPANSION DEVICE SCHEDULES
	II	III	1951R - 1955R	ELASTOMERIC EXPANSION DEVICE DETAILS

VOID SHEETS - ~~INCLUDED FOR REFERENCE ONLY~~

this FR. #3
FOR REFER.
TO VIADUCT
SHEETS ON
THIS ROLL

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
⚠ 1	11-1-71	Rev. Exp. Devices	VHSS	

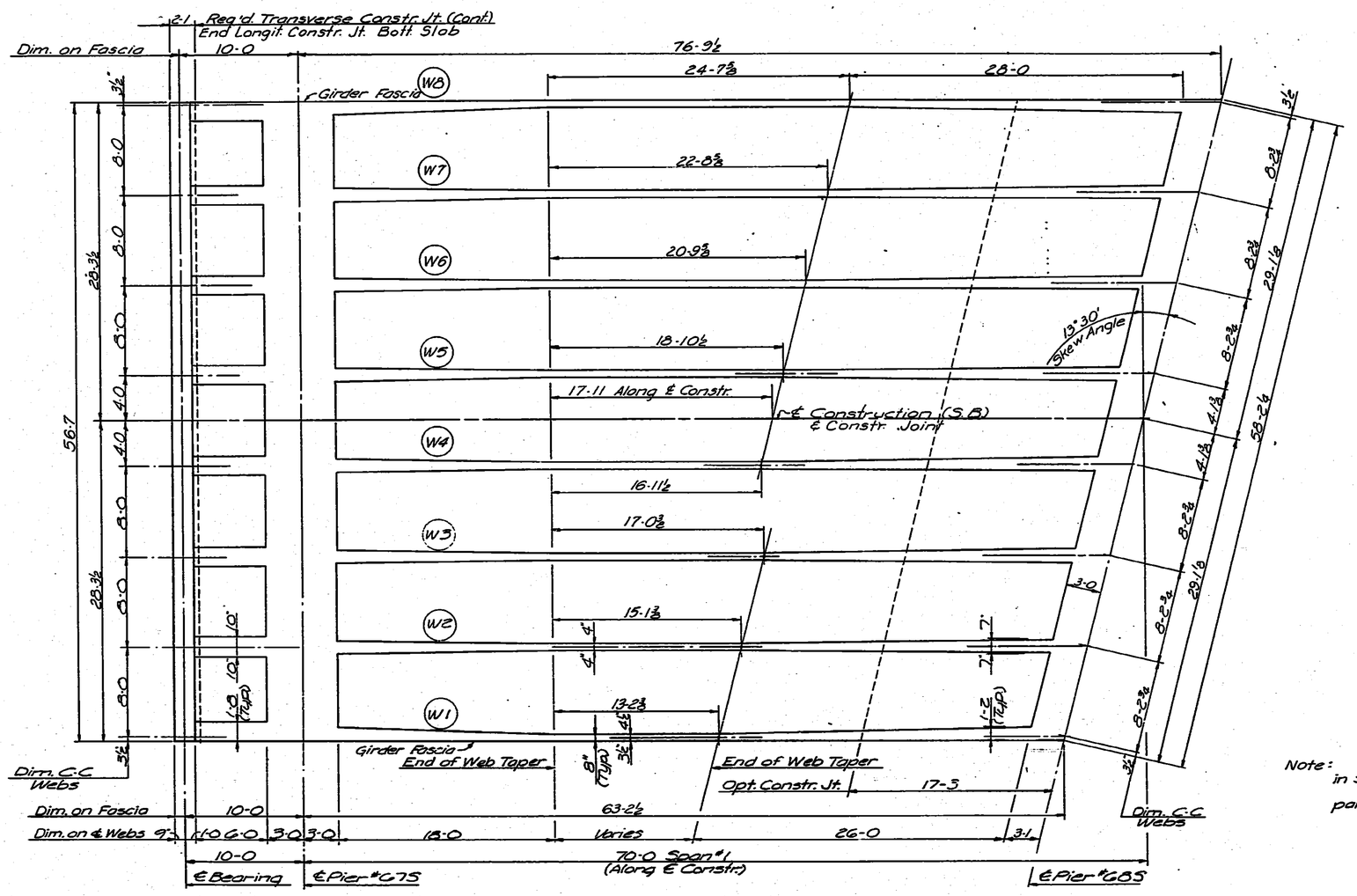
STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
INDEX OF BRIDGE DRAWINGS.
I-35W VIADUCT
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 1 OF 1	SCALE		APP'D				
DESIGNED DRS	DETAILED JWH		QUANTITIES JWH		TRACED EB		
DESIGN CK. JWH	DETAIL CK. ELF		QUAN. CK. ELF		TRACE CK. ELF		

DIST. 5 SEDGWICK CO. ROLL 531 3

12X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase III	10	1557	2197



WEB PLAN LAYOUT

Note: See Web Elevation Sheet for stirrups in Span #1 & Span #3. Transverse Construction Joint is parallel to ℄ Pier.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

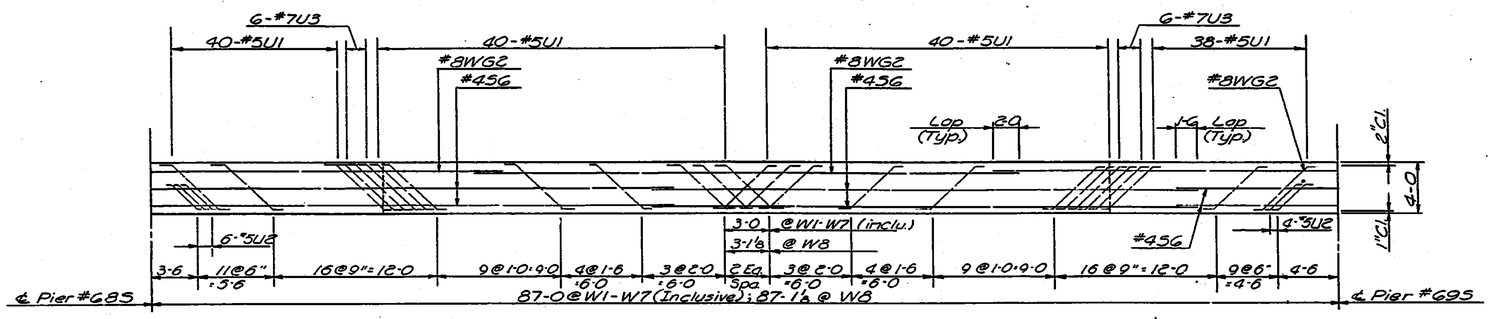
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE.)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 1 OF 20	SCALE	APP'D.
DESIGNED DFG	DETAILED RCP	QUANTITIES LKD / TRACED RCP
DESIGN CK. RBS	DETAIL CK. DFG	GRADE CK. EES / TRACE CK. RBS

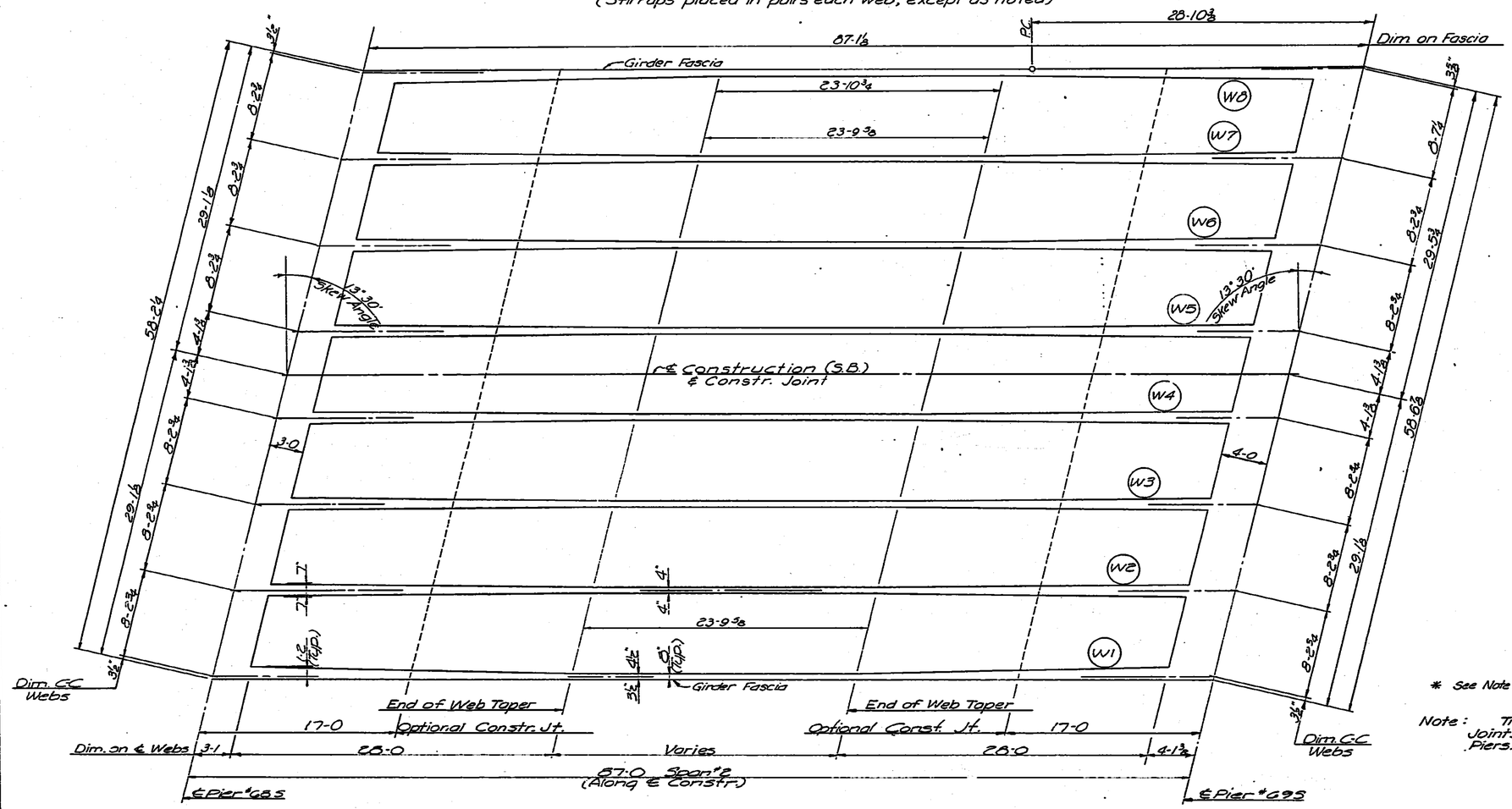
DIST. 5 | SEDGWICK CO. | ROLL 531 | [redacted] 4

12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase III	19	1538	2137



ELEVATION OF WEBS W1 TO W8 SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web, except as noted)



WEB PLAN LAYOUT

* See Note * on Sheet No. 1540.

Note: Transverse Construction Joints are parallel to ℄ Piers.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

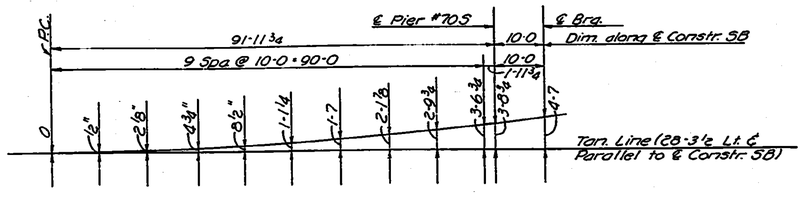
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE.)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 2 OF 20	SCALE		APP'D.		
DESIGNED DFG	DETAILED RCP		QUANTITIES LKD	TRACED RCP	
DESIGN CK. RBS	DETAIL CK. DFG		QUAN. CK. EES	TRACE CK. RBS	

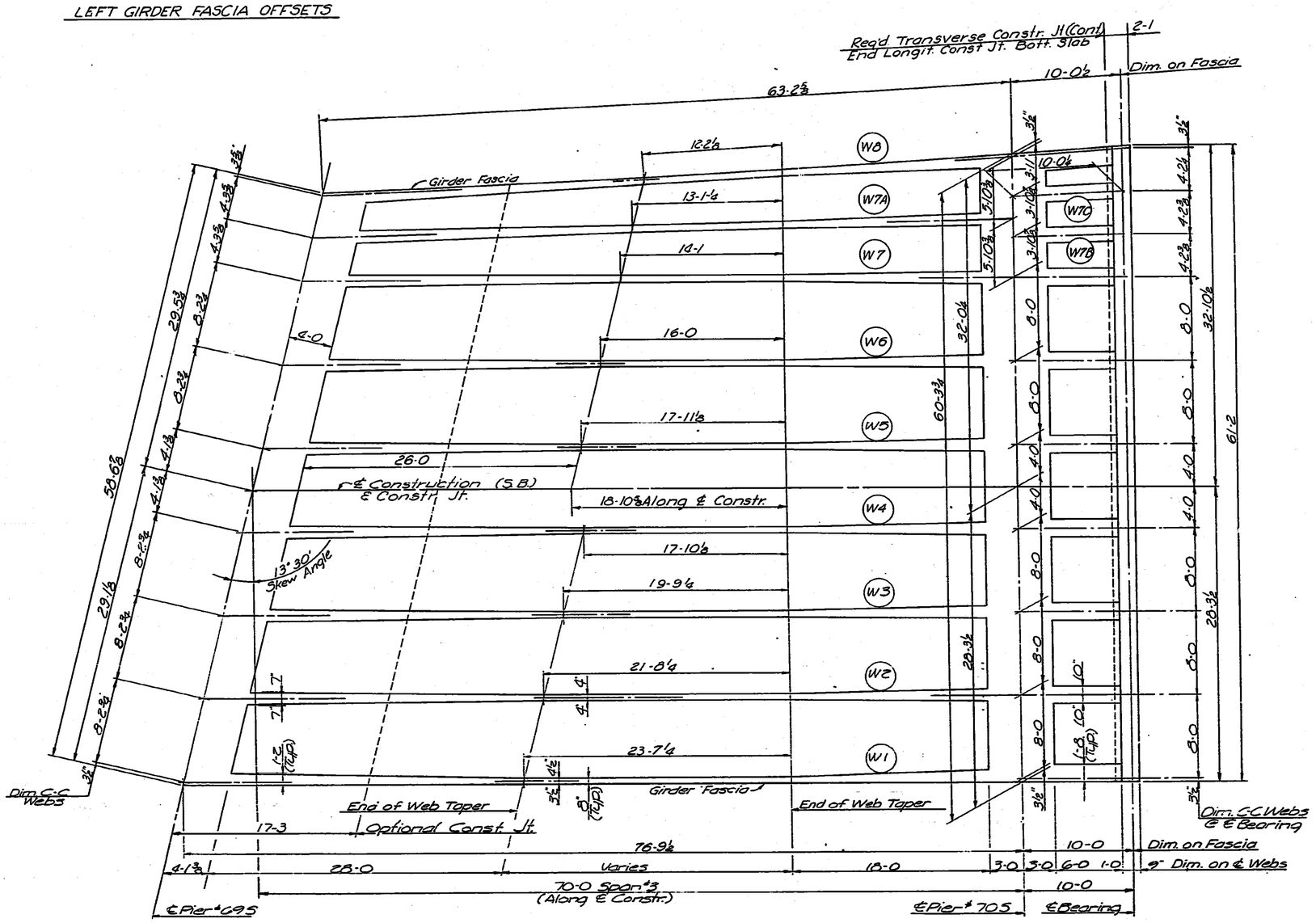
DIST. 5 | SEDGWICK CO. | ROLL 531 | [redacted] 5

16X | 14.5X | 12X | 12X | 14.5X | 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)46 Phase III	19	1539	2137



LEFT GIRDER FASCIA OFFSETS



WEB PLAN LAYOUT

Note: Transverse Construction Joints are parallel to ℄ Piers.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

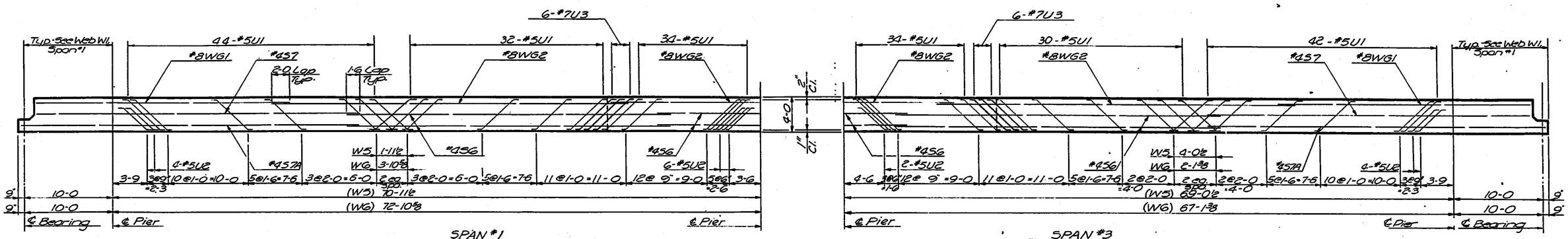
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE.)
PROJ. 35W-87-135W-1(58)46 SEDGWICK CO.

SHEET NO. 3 OF 20	SCALE		APP'D.		
DESIGNED DFG	DETAILED RCP		QUANTITIES LKD	TRACED RCP	
DESIGN CK. RBS	DETAIL CK. DFG		QUANT. CK. EES	TRACE CK. RBS	

DIST. 5 | SEDGWICK CO. | ROLL 531 | 6

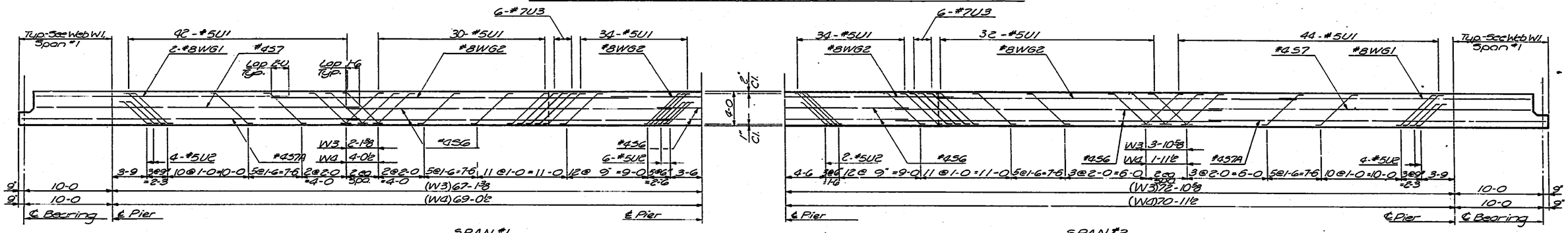
16X | 14.5X | 12X | 12X | 14.5X | 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W I-135)48 Phase III	19	1540	2137



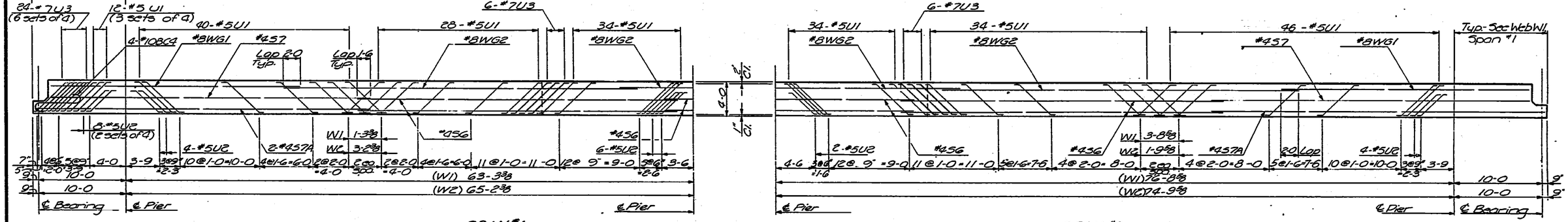
SPAN #1 — SPAN #3

ELEVATION OF WEBS W5 & W6 SHOWING STIRRUP SPACING *



SPAN #1 — SPAN #3

ELEVATION OF WEBS W3 & W4 SHOWING STIRRUP SPACING *



SPAN #1 — SPAN #3

ELEVATION OF WEBS W1 & W2 SHOWING STIRRUP SPACING *

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top & beneath bottom main reinforcing steel. See Roadway Deck Section.

NOTE: See web elevation for stirrups in Span #2. Stirrups placed in pairs each web, except as noted.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE.)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

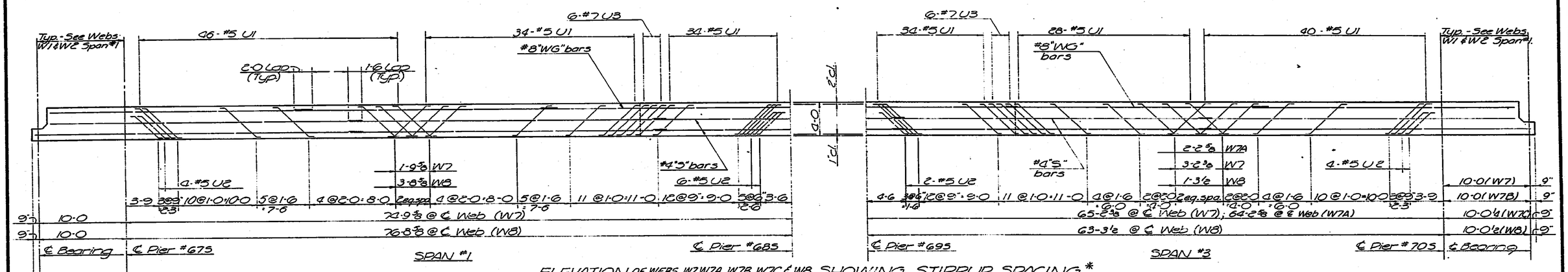
SHEET NO. 6 OF 20	SCALE	APP'D.	
DESIGNED DFG	DETAILED RCP	QUANTITIES LKD/	TRACED RCP
DESIGN CK. EBS	DETAIL CK. RBS	CHKD. CK. DGT/	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 7

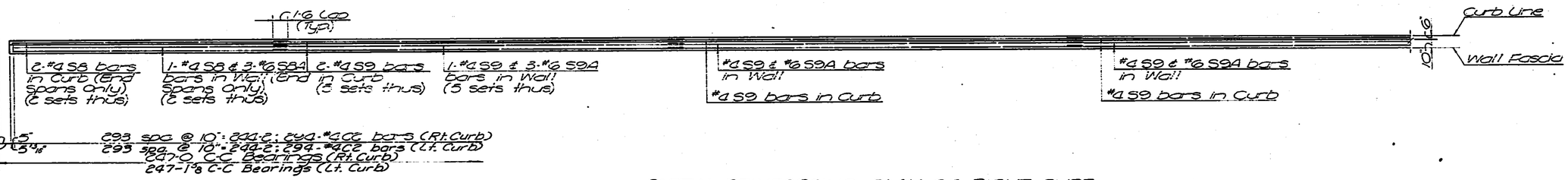
16X 14.5X 12X 12X 14.5X 16X

FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(56)48 Phase III	19	1541	2137



ELEVATION OF WEBS W7, W7A, W7B, W7C & W8 SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web, except as noted)

* See Note on Previous Sheet.



PARTIAL REINFORCING PLAN OF RIGHT CURB
(Left Curb is Similiar)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE.)
PROJ. 35W-87-I35W-1(56)48 SEDGWICK CO.

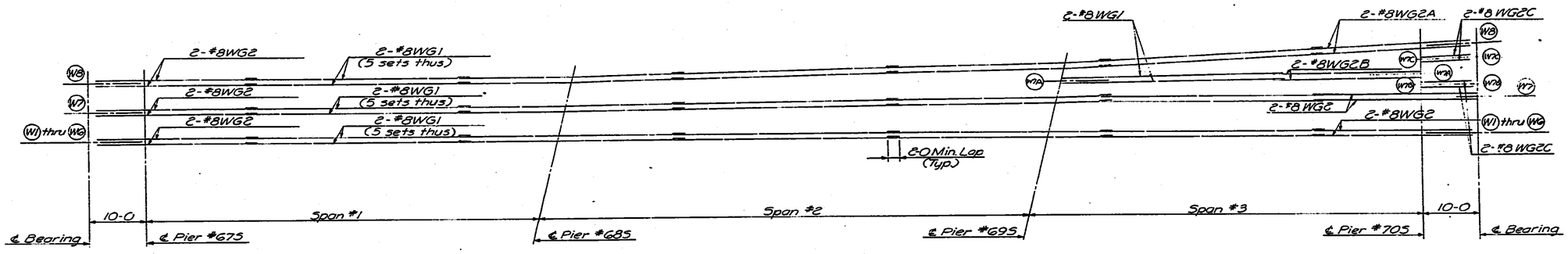
SHEET NO. 5 OF 20	SCALE	APP'D.	
DESIGNED DFG	DETAILED DRA	QUANTITIES LKD	TRACED DRA
DESIGN CK. RBS	DETAIL CK. DFG	GRAPH. CK. EES	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

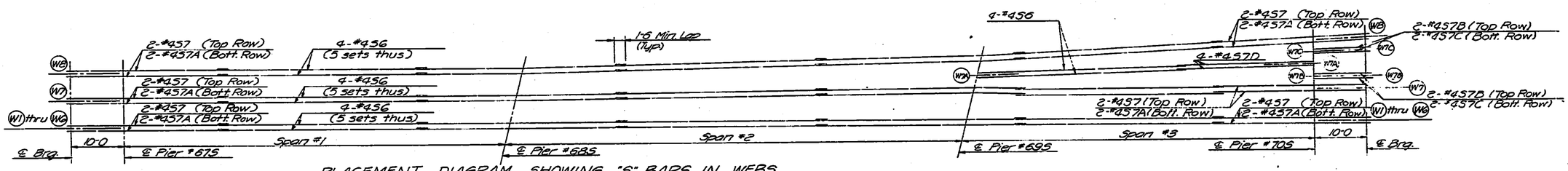
[redacted] 8

16X 14.5X 12X 12X 14.5X 16X

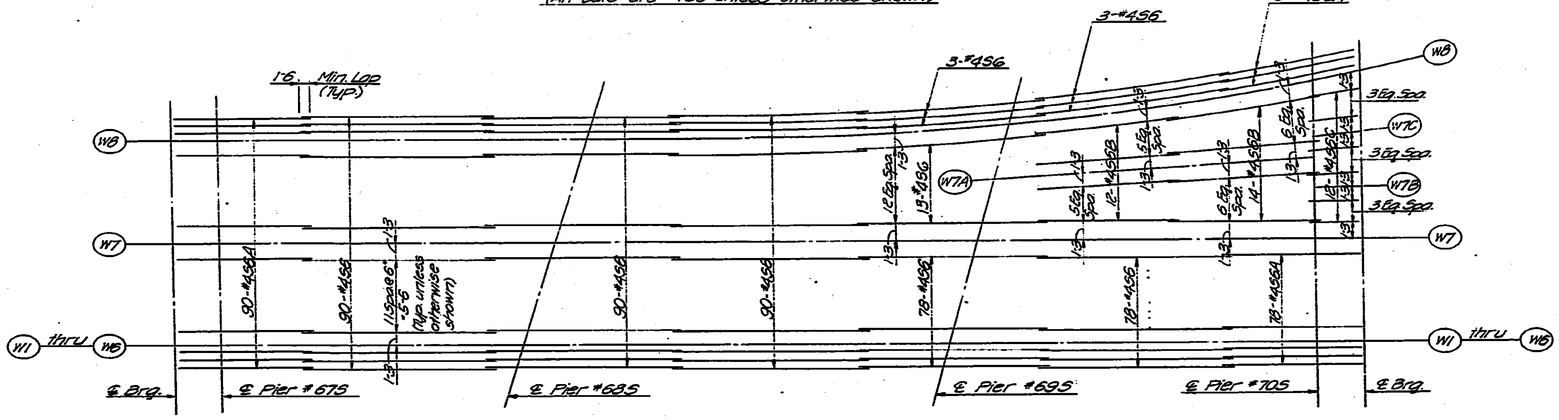
FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase III	19	1542	2137



PLACEMENT DIAGRAM SHOWING "WG" BARS IN WEBS
(All bars are #8WG1 unless otherwise noted.)



PLACEMENT DIAGRAM SHOWING "S" BARS IN WEBS
(All bars are #456 unless otherwise shown)



PLACEMENT DIAGRAM SHOWING "S" BARS IN BOTTOM OF TOP SLAB

NOTE:- There are five typical 8'-0 cells from W1 to W6. See Deck Sections for location of "W6" & "S" bars in webs and slab.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE.)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

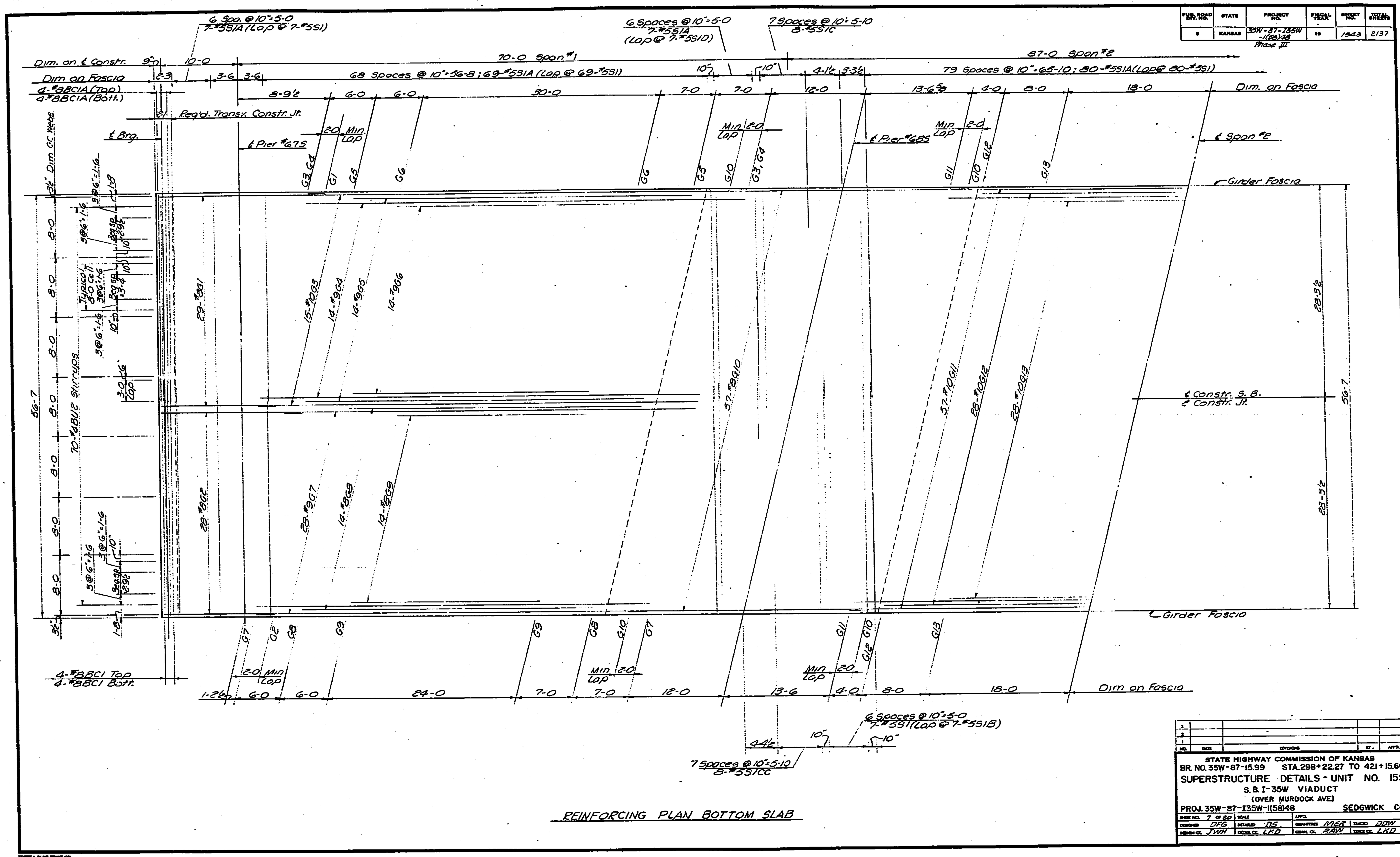
SHEET NO. G of 20	SCALE		APP'D.		
DESIGNED DFG	DETAILED RCP		CHECKED LKD	TRACED RCP	
DESIGN CK. RBS	DETAIL CK. DFG		QUAN. CK. EES	TRACE CK. RBS	

TOPEKA BLUE PRINT CO.

DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted] 9

16X | 14.5X | 12X | 12X | 14.5X | 16X



PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase III	19	1543	2137

REINFORCING PLAN BOTTOM SLAB

NO.	DATE	REVISIONS	BY.	APPD.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 7 OF 20	SCALE	APPD.	
DESIGNED DFG	DETAILED DS	QUANTITIES MER	TRACED DDW
DESIGN CK. JWH	DETAIL CK. LKD	QUAN. CK. RAW	TRACE CK. LKD

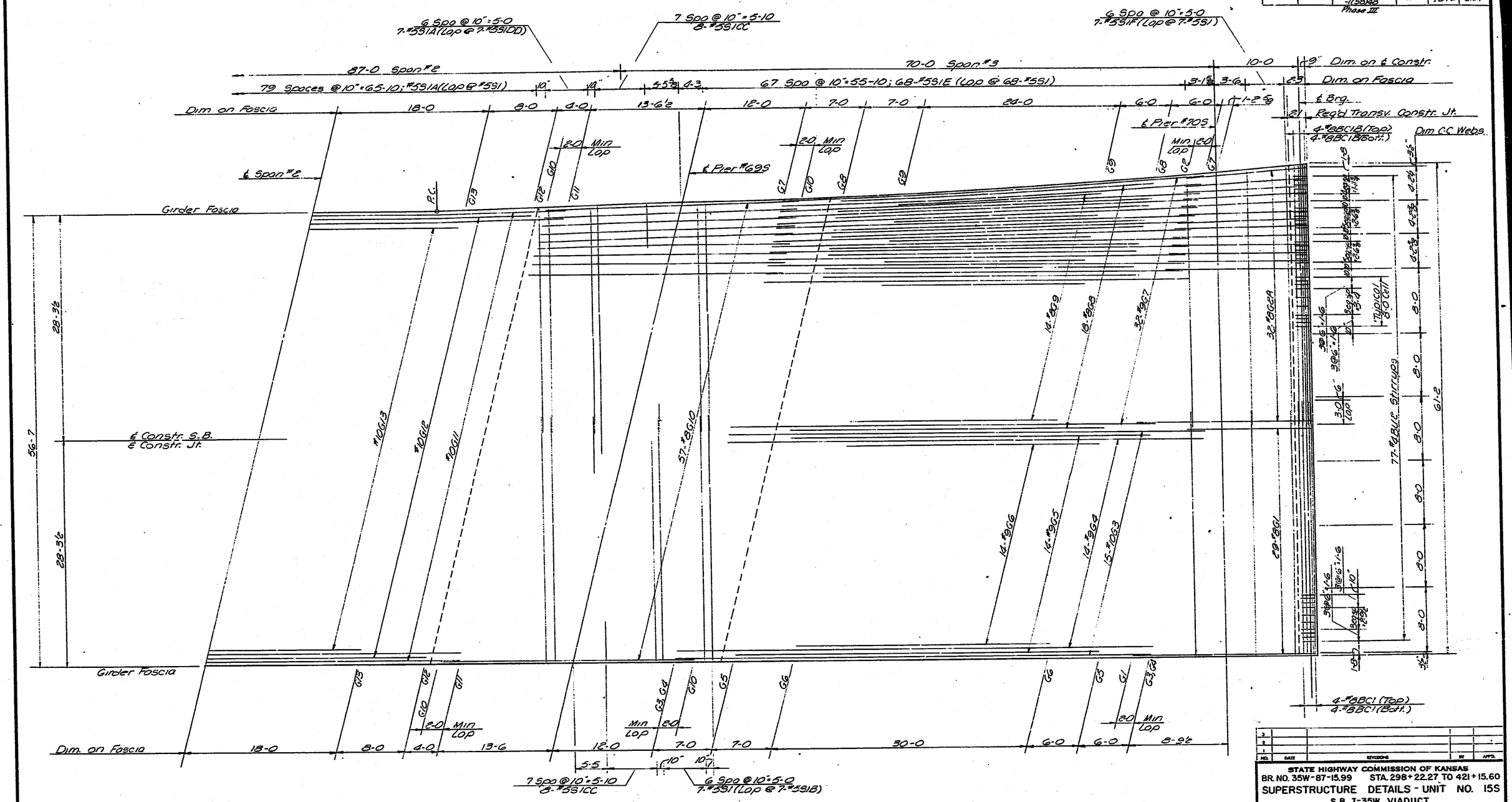
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

1 0

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase III	19	1544	2137



REINFORCING PLAN BOTTOM SLAB

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 6 of 20	SCALE	APP'D.	TRACED DDW
DESIGNED DFG	DETAILED DS	CHECKED MER	
DESIGN CK. JWH	DETAIL CK. LRD	CONST. CK. MAH	TRACE CK. LKD

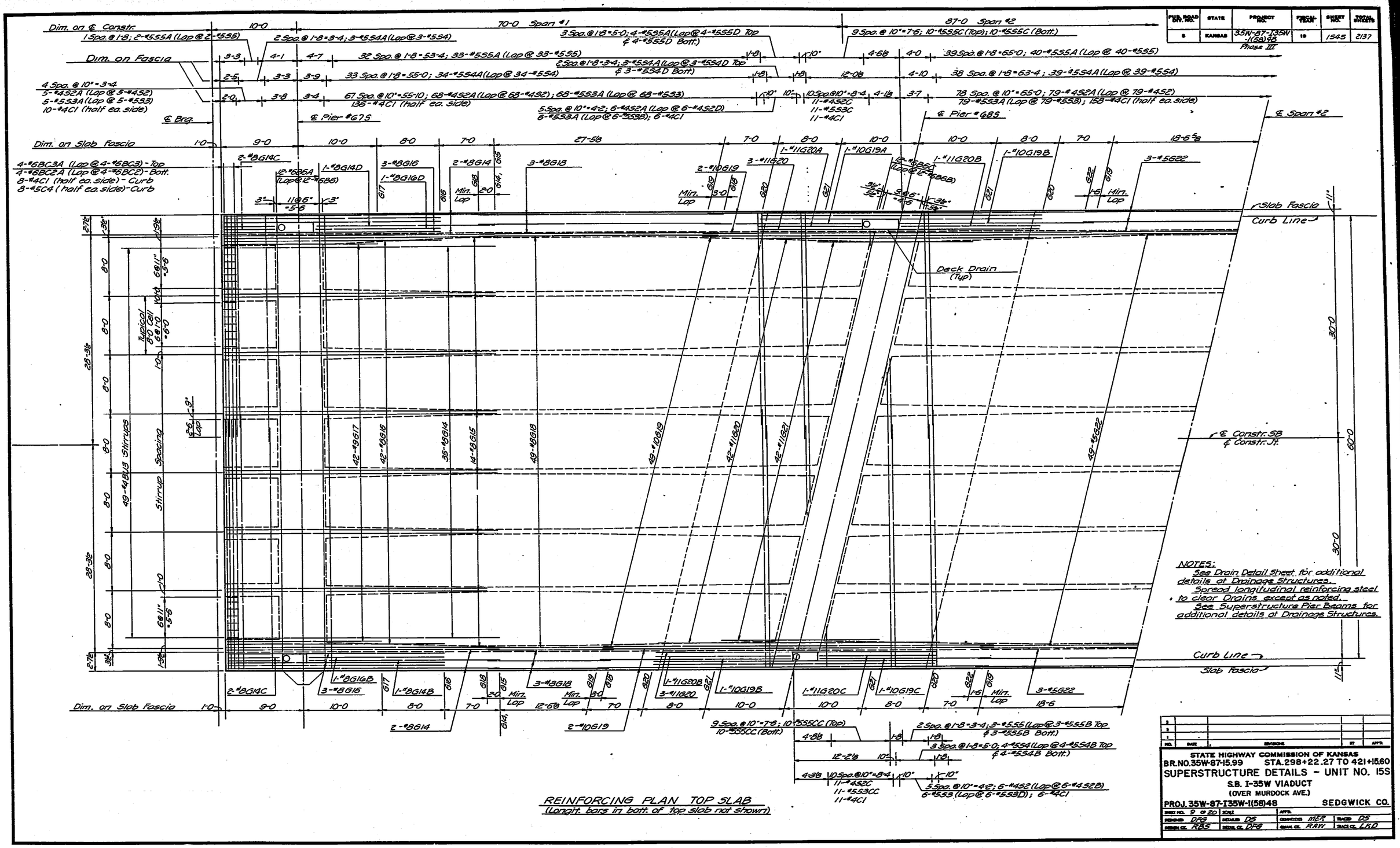
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 1 1

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-I(58)48 Phase III	19	1545	2137



NOTES:
See Drain Detail Sheet for additional details at Drainage Structures.
Spread longitudinal reinforcing steel to clear Drains except as noted.
See Superstructure Pier Beams for additional details at Drainage Structures.

REINFORCING PLAN TOP SLAB
(Longit. bars in bott. of top slab not shown)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR.NO.35W-87-15.99 STA.298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE.)
PROJ. 35W-87-I35W-I(58)48 SEDGWICK CO.

SHEET NO. 9 OF 20	SCALE	APP'D.	
DESIGNED DFB	DETAILED DS	CHECKED MER	TRACED DS
DESIGN CK. RBS	DETAIL CK. DFB	GRAN. CK. RAW	TRACE CK. LKD

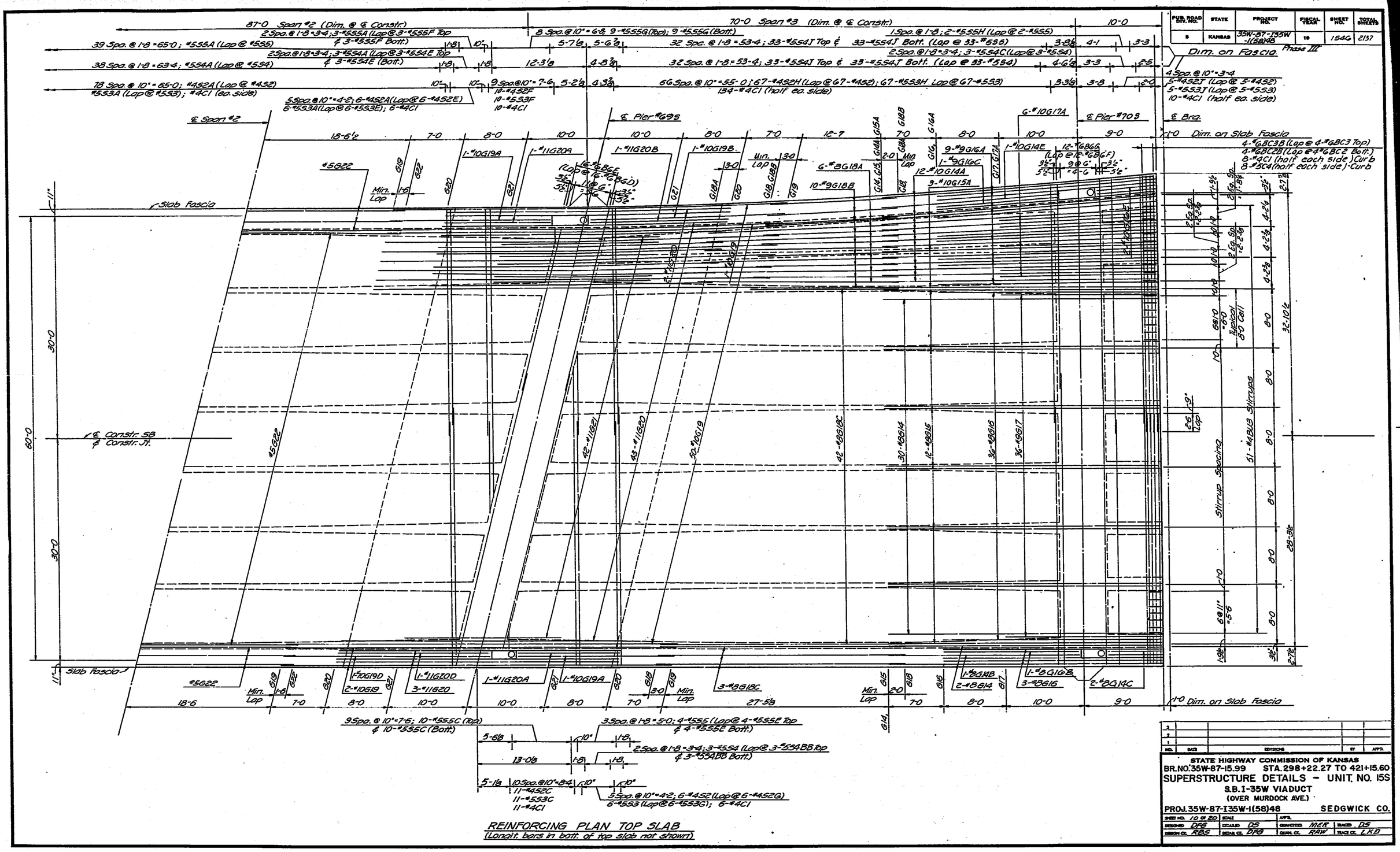
DIST. 5 SEDGWICK CO. ROLL 531

1 2

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48	19	154G	2137

Phase III



REINFORCING PLAN TOP SLAB
(Longit. bars in bott. of top slab not shown)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE.)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

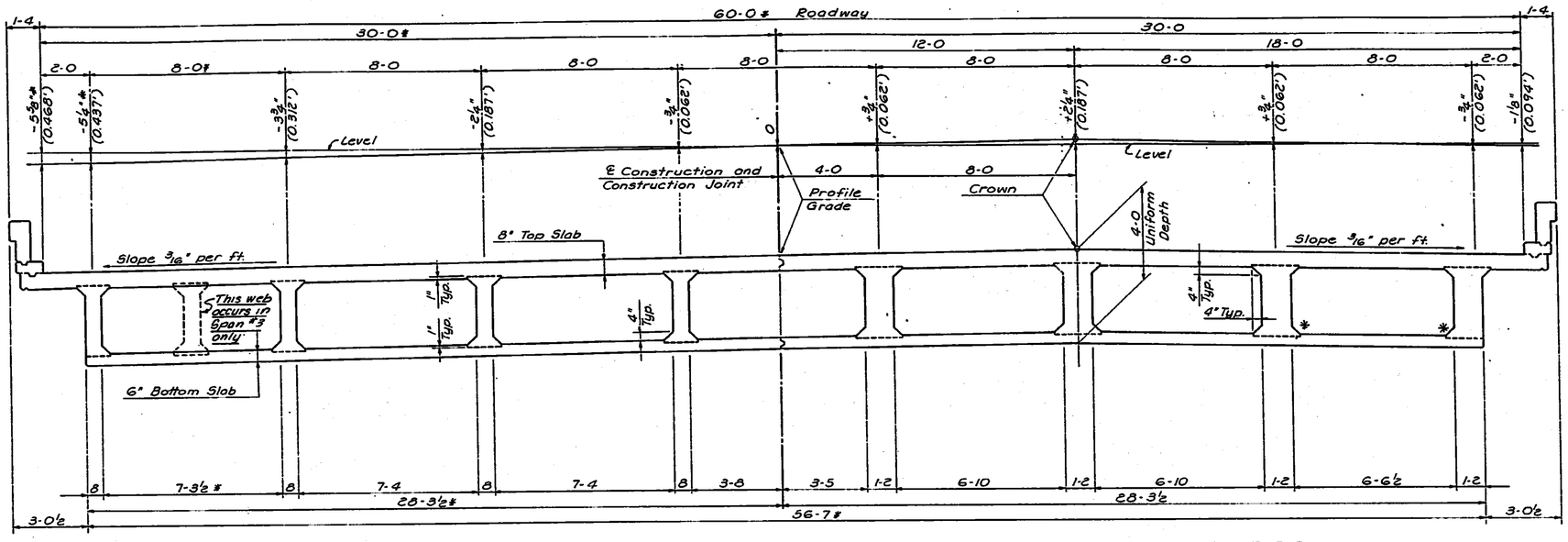
SHEET NO. 10 OF 20	SCALE		APP'D.		
DESIGNED DFB	DETAILED DS		QUANTITIES MER	TRACED DS	
DESIGN CK. ABS	DETAIL CK. DFB		GEN. CK. RAW	TRACE CK. LKD	

DIST. 5 SEDGWICK CO. ROLL 531

1 3

16X 14.5X 12X 14.5X 16X

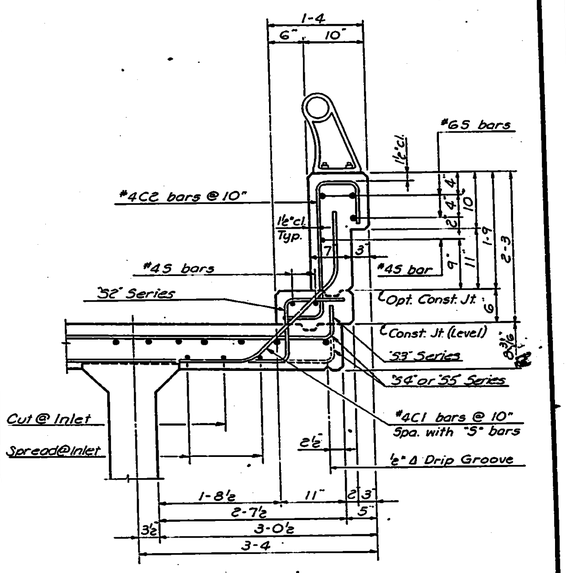
PUB. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1-(58)48 Phase III	19	1547	2197



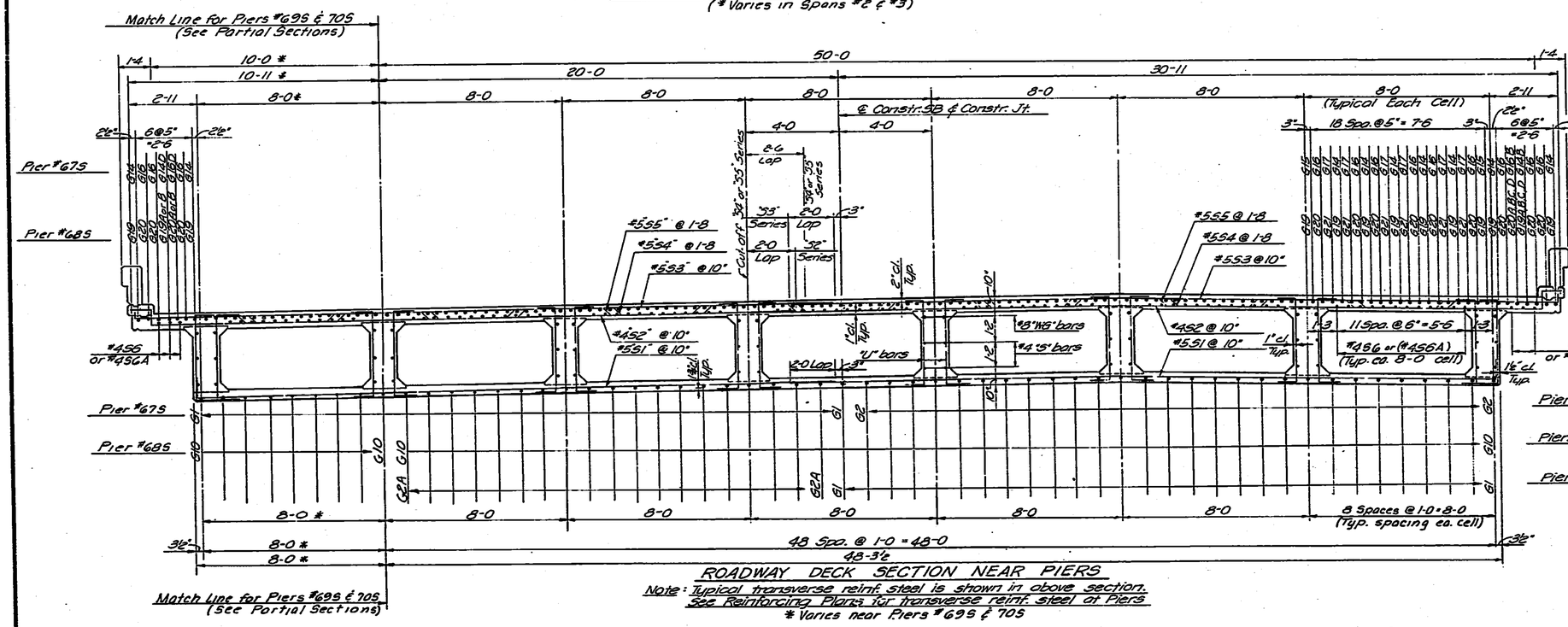
NEAR MID-SPAN

NEAR PIER

ROADWAY DECK SECTION
(* Varies in Spans #2 & #3)



TYPICAL CURB SECTION



ROADWAY DECK SECTION NEAR PIERS

Note: Typical transverse reinf. steel is shown in above section. See Reinforcing Plans for transverse reinf. steel at Piers

* Varies near Piers #69S & 70S

Notes:
See Web Elevation for quantities, size & spacing of "U" bars.

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.

Piers #67S & 70S

Piers #68S & 69S

Note: Transverse bars on left side in Span #3 are provided in incremented series and shall be placed with outside end as shown in Typical Curb Section. Lap varies with widening.
Transverse bars near interior piers shall be placed with lap or cut-off as shown.
See slab plan for quantity, mark and location of transverse bars.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60

SUPERSTRUCTURE DETAILS-UNIT NO. 15S

S.B. I-35W VIADUCT
(OVER MURDOCK AVE.)

PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

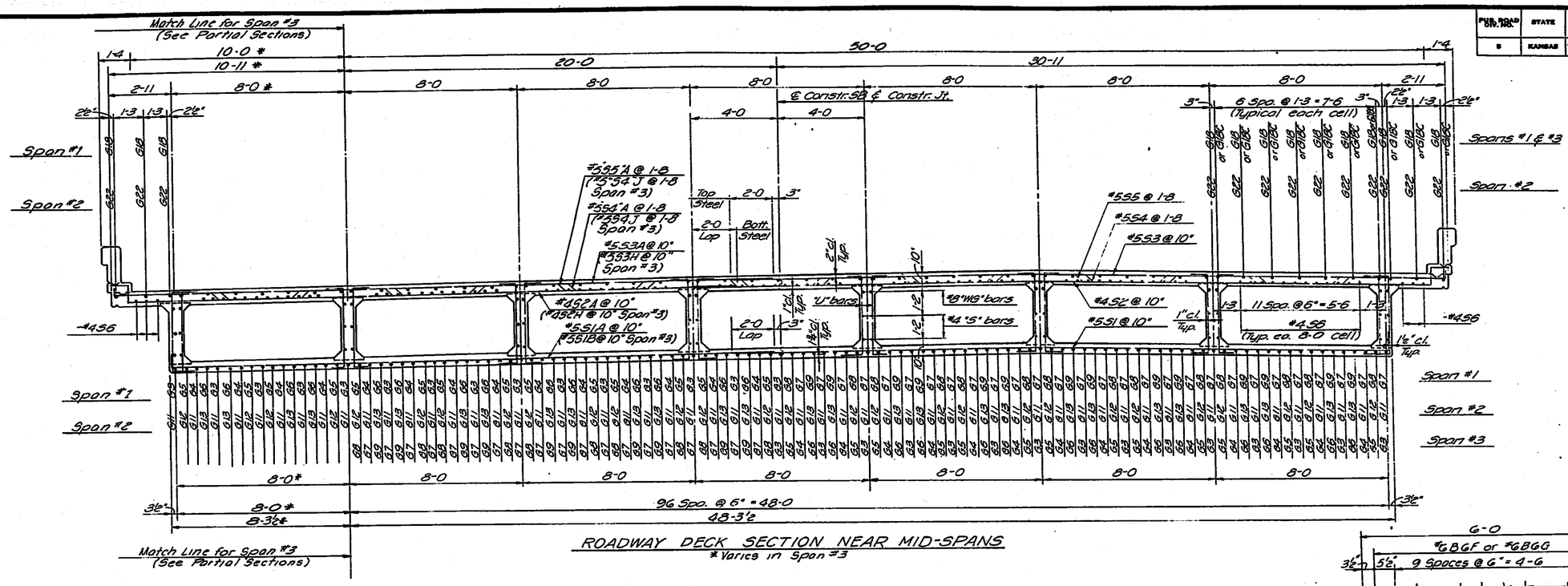
SHEET NO. 11 OF 20	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	CHECKED MER	TRACED DS
DESIGN CK. RBS	DETAIL CK. DFG	GRAN. CK. RGW	TRACE CK. DFG

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 1 4

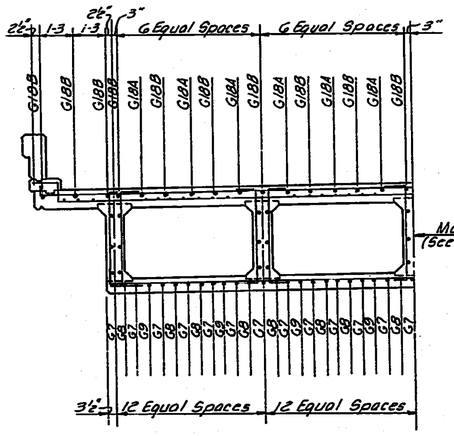
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase III	19	1548	2137

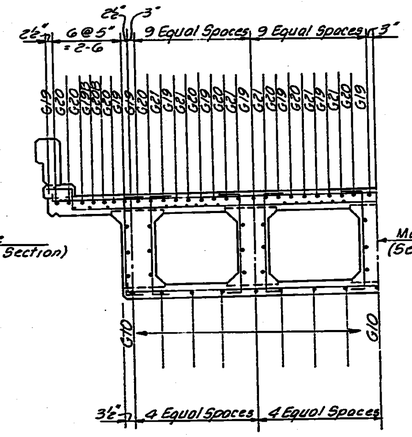


ROADWAY DECK SECTION NEAR MID-SPANS

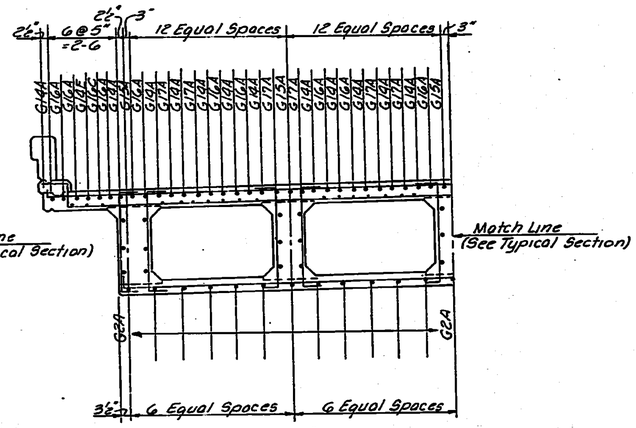
*Varies in Span #3



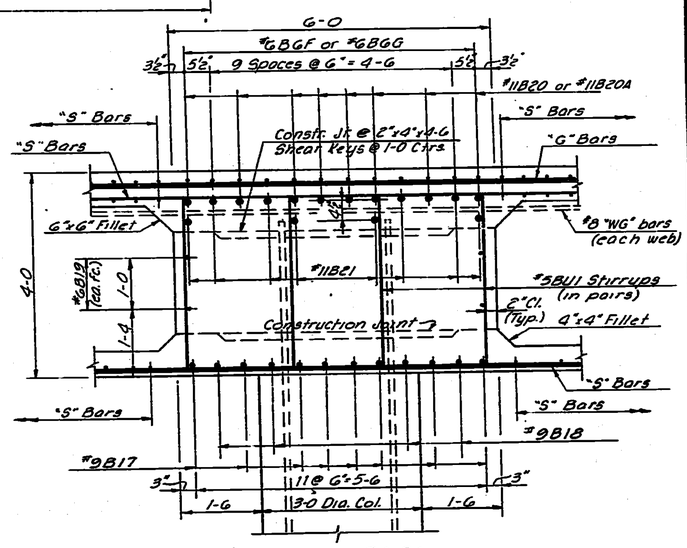
NEAR MID-SPAN #3



NEAR PIER #69S (in span #3)



NEAR PIER #70S (in span #3)



SECTION B4-B4 (@ Pier # 70S)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

BR. NO. 35W-87-15.99 STA 298+22.27 TO 421+15.60

SUPERSTRUCTURE DETAILS - UNIT NO. 15S

S.B. I-35W VIADUCT

(OVER MURDOCK AVE.)

PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

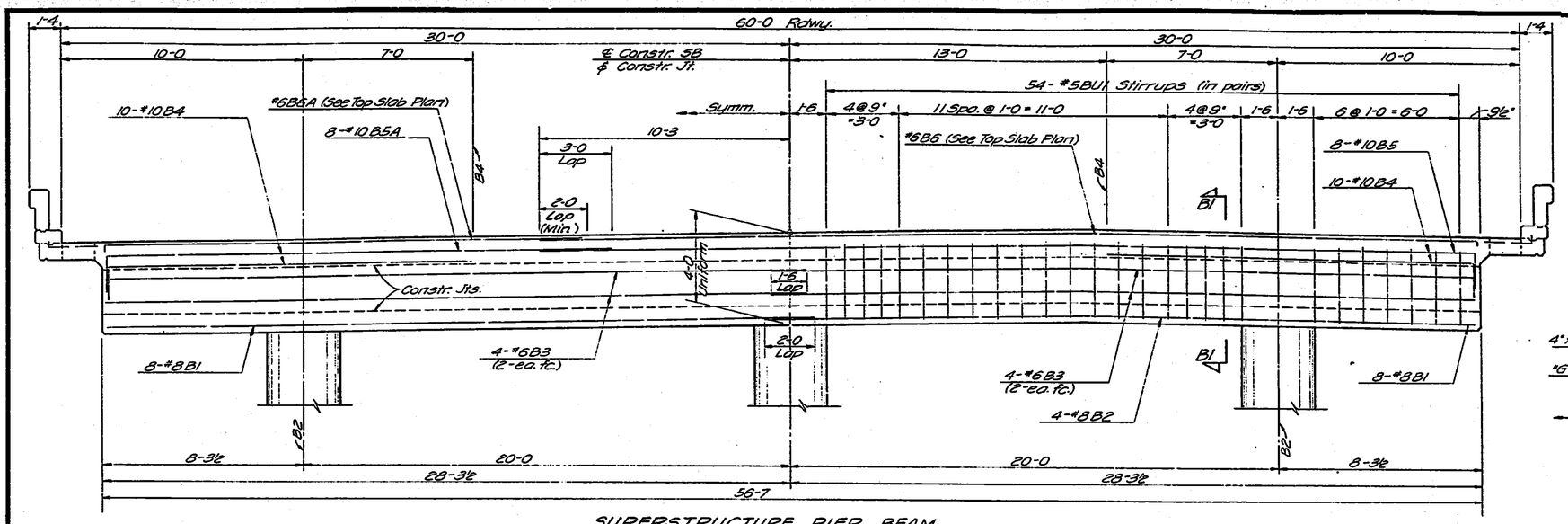
SHEET NO. 12 OF 20	SCALE	APP'D.	
DESIGNED DFB	DETAILED DS	QUANTITIES MER	TRACED DS
DESIGN CK. RBS	DETAIL CK. DFB	QUANT. CK. RAW	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

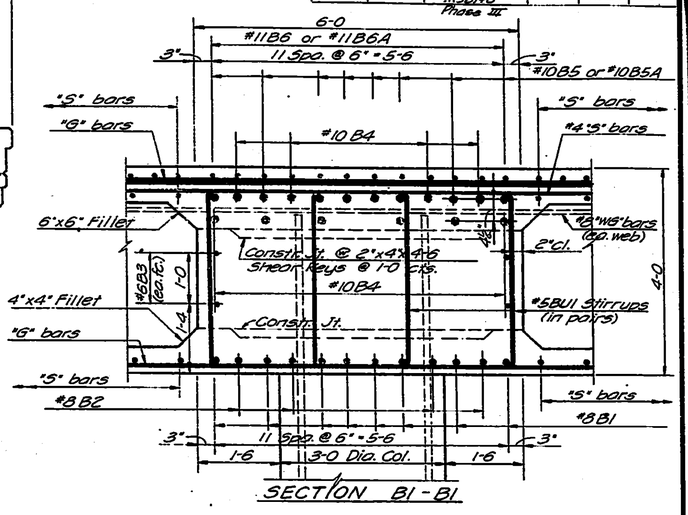
[redacted] 1 5

16X 14.5X 12X 12X 14.5X 16X

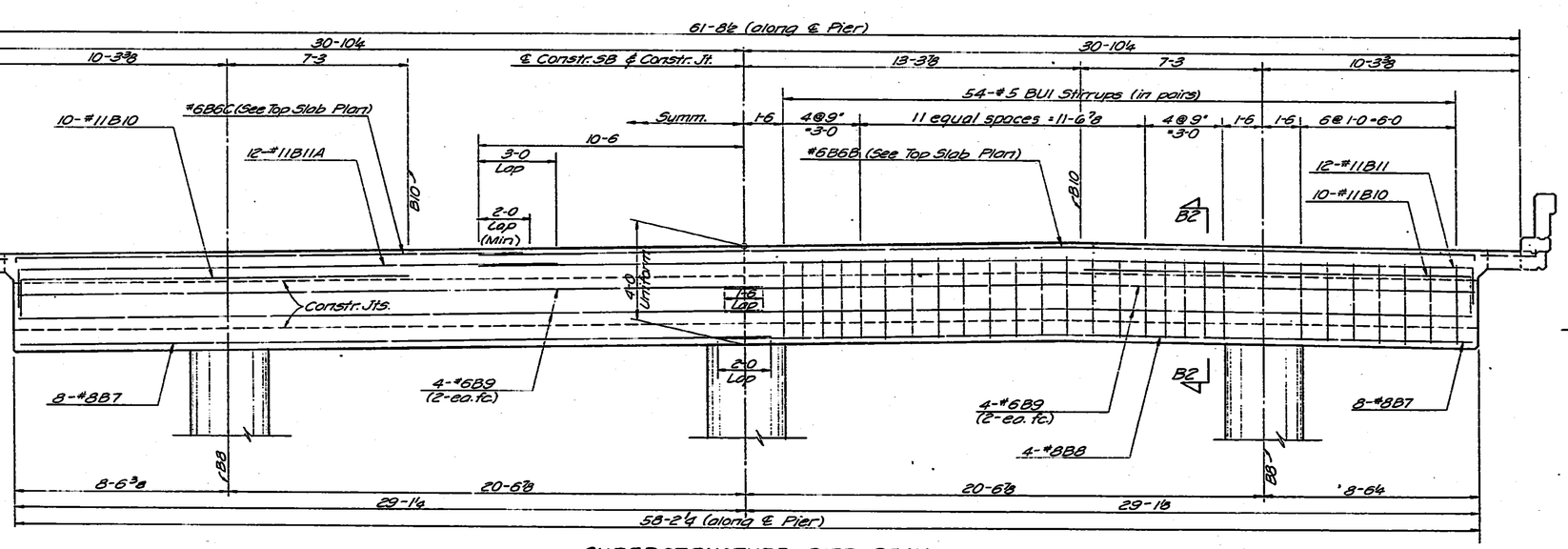
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase III	19	15A9	2137



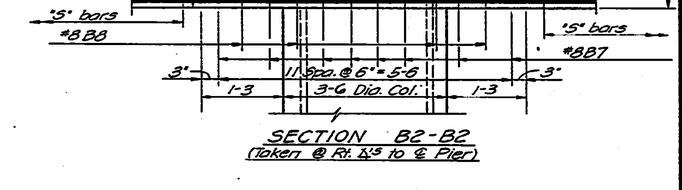
SUPERSTRUCTURE PIER BEAM
(Pier #675)



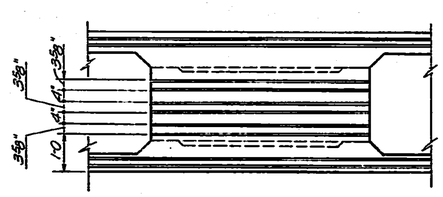
SECTION B1 - B1



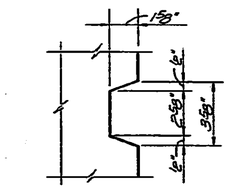
SUPERSTRUCTURE PIER BEAM
(Skewed Pier #685)



SECTION B2-B2
(Taken @ Rt. ∠'s to ℄ Pier)



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing location of keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE.)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

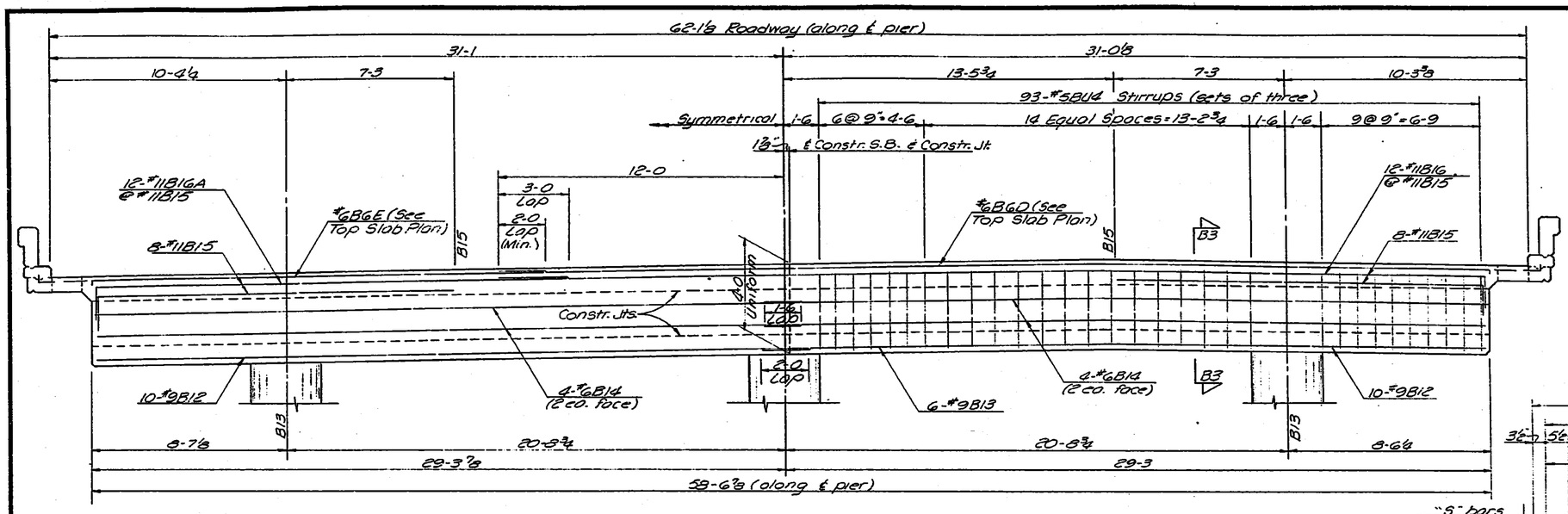
SHEET NO. 13 OF 20	SCALE	APP'D.	
DESIGNED PDP	DETAILED DS	QUANTITIES MER	TRACED DS
DESIGN CK. DFS.	DETAIL CK. PDP	QUAN. CK. RAW	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

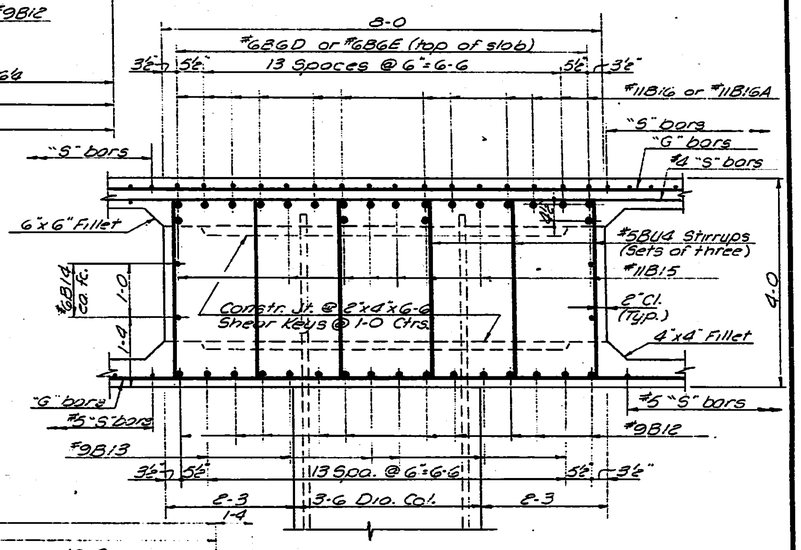
[redacted]

16X 14.5X 12X 12X 14.5X 16X

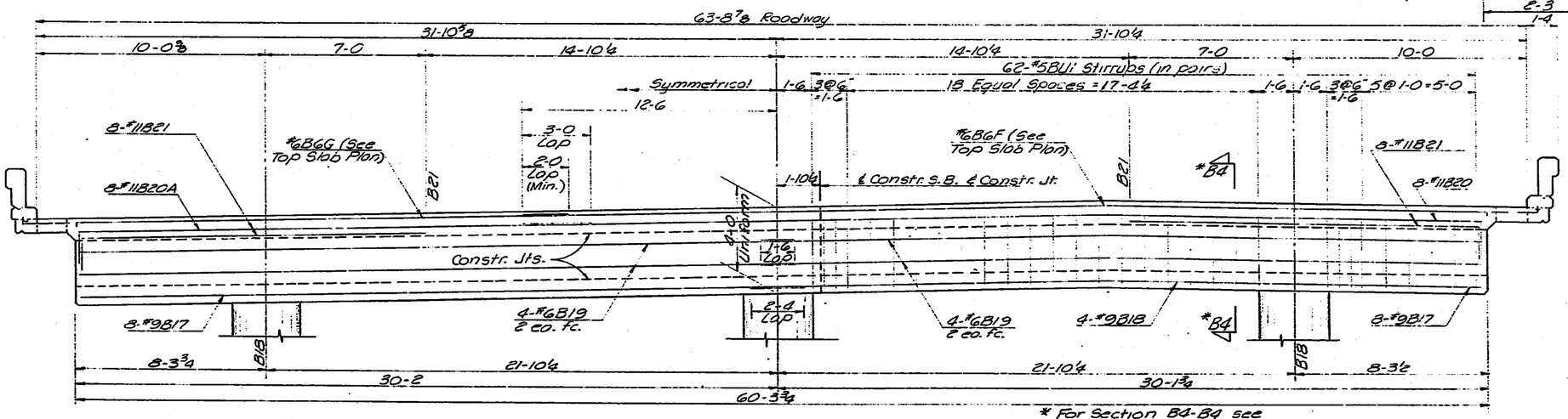
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-(58)48 Phase III	19	1550	2137



SUPERSTRUCTURE PIER BEAM #69S



SECTION B3-B3



SUPERSTRUCTURE PIER BEAM #70S

* For Section B4-B4 see Deck Section Sheet

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE.)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 16 OF 20	SCALE		APP'D.		
DESIGNED PDP	DETAILED DS		QUANTITIES MER	TRACED DDW	
DESIGN CK. DFG	DETAIL CK. PDP		GRAN. CK. RAW	TRACE CK. LKD	

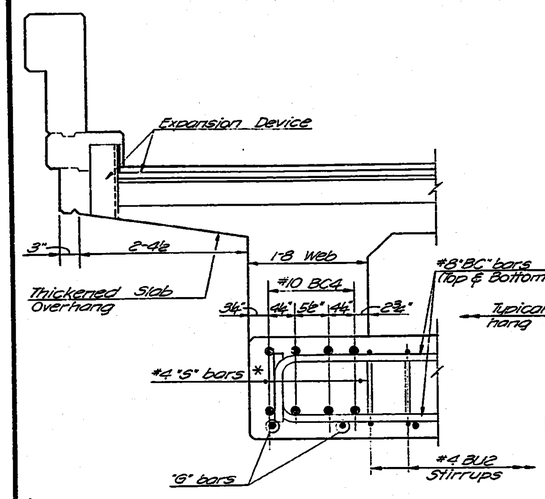
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

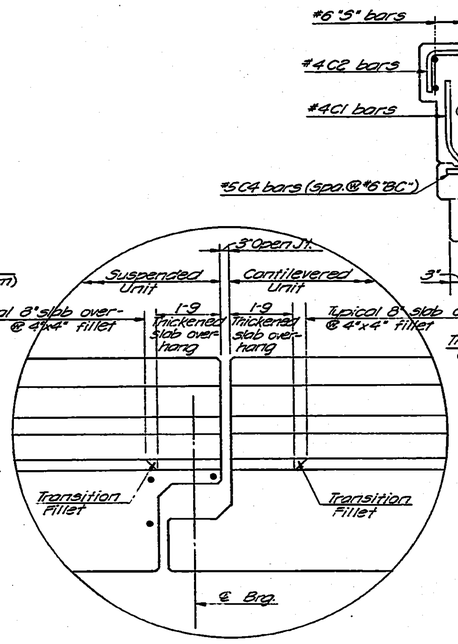
[redacted] 1 7

16X 14.5X 12X 12X 14.5X 16X

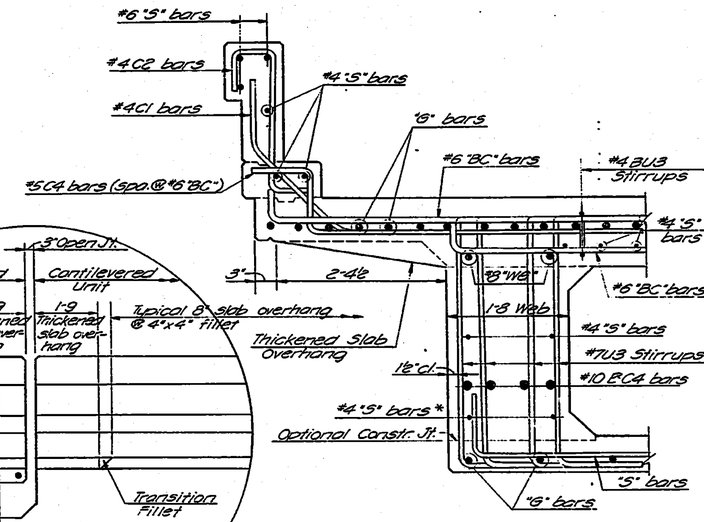
FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase III	19	1551	2137



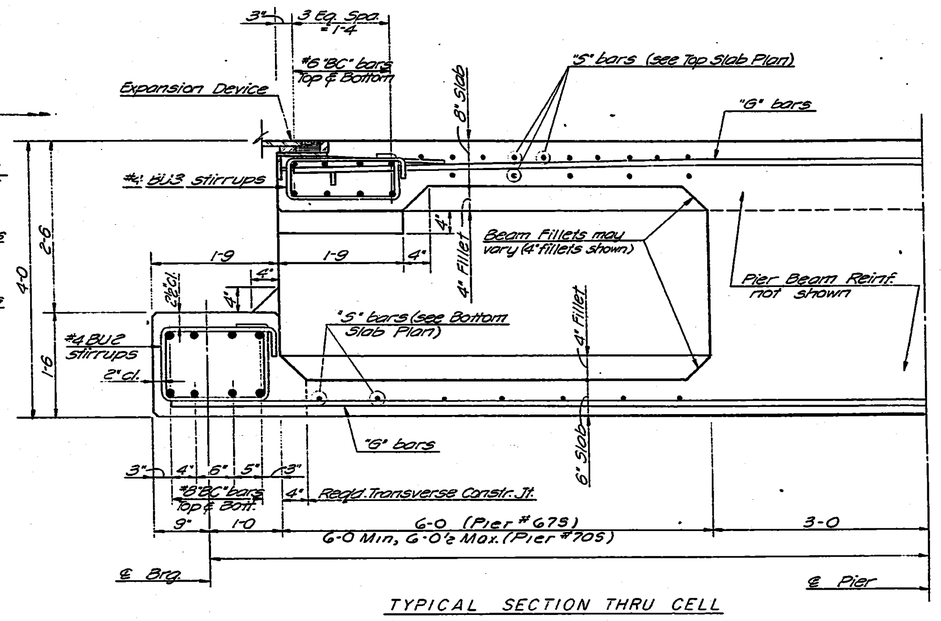
SECTION C3 – C3
(Exterior Web)



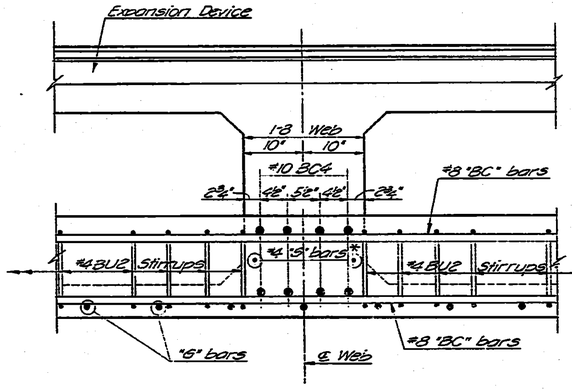
VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)



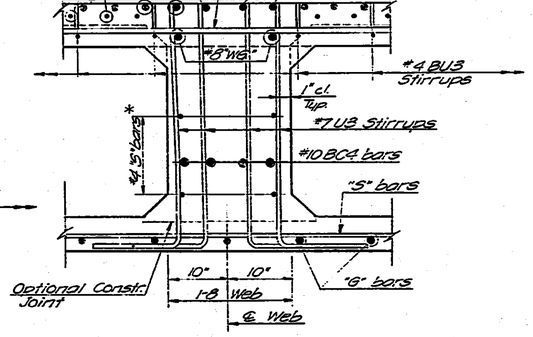
SECTION C4 – C4
(Exterior Web)



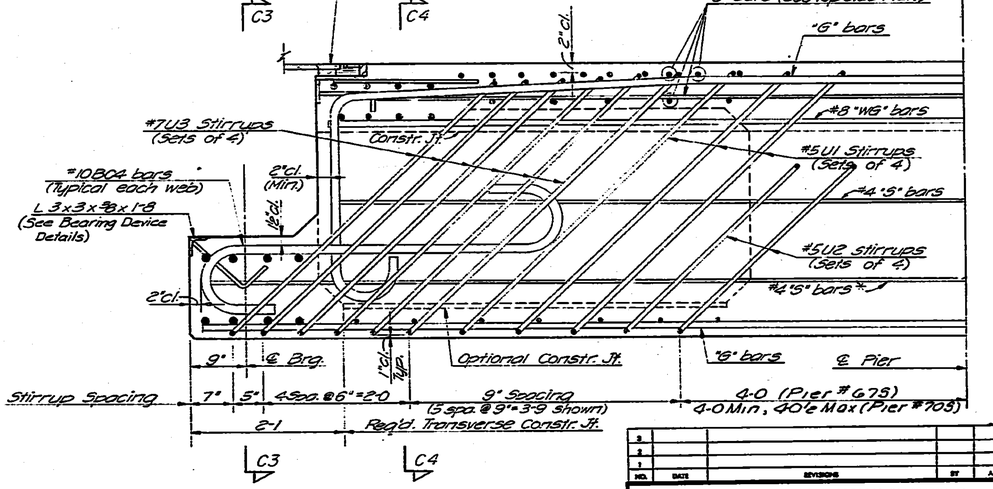
TYPICAL SECTION THRU CELL



SECTION C3 – C3
(Interior Web)



SECTION C4 – C4
(Interior Web)



TYPICAL SECTION THRU WEB

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

BEARING BEAM DETAILS

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE.)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

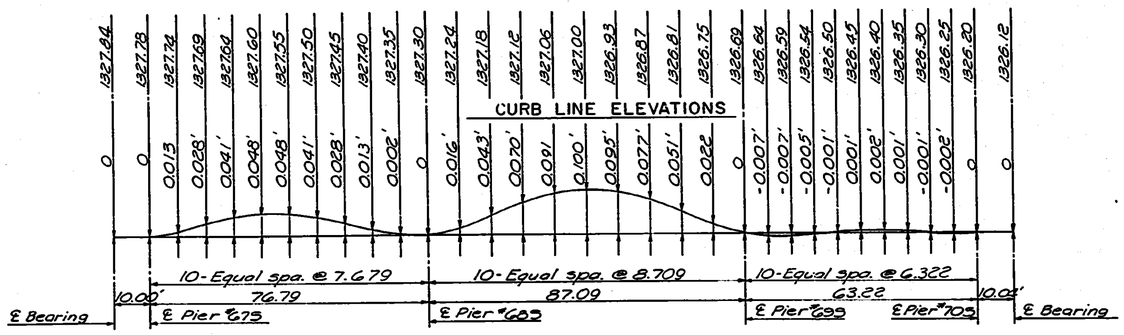
SHEET NO. 15 of 20	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	CHECKED MER	TRACED DS
DESIGN CK. RBS	DETAIL CK. RBS	CHAN. CK. RAW	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

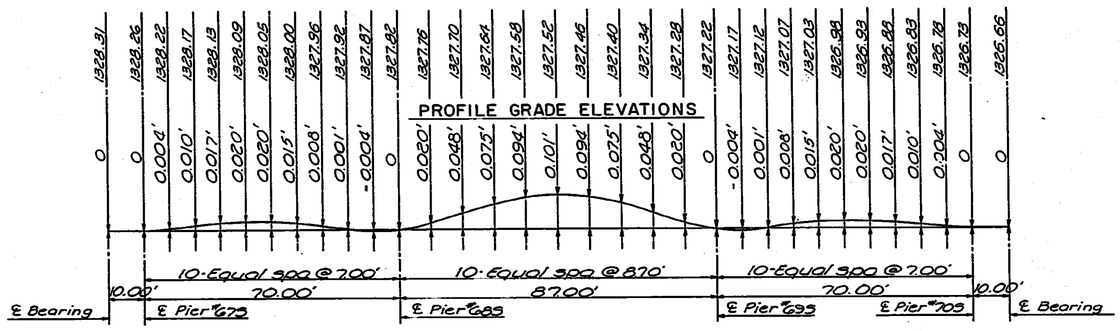
[redacted] 1 8

16X 14.5X 12X 12X 14.5X 16X

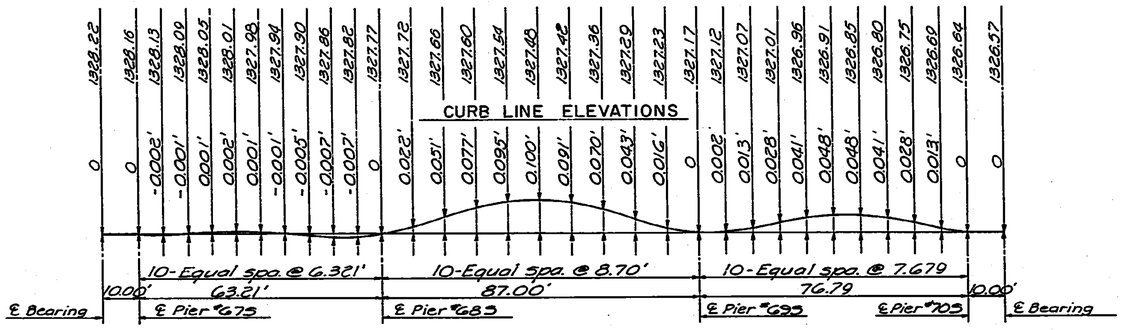
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase III	19	1552	2137



DEAD LOAD CAMBER IN FEET
ALONG LEFT GIRDER FASCIA



DEAD LOAD CAMBER IN FEET
ALONG ℄ CONSTRUCTION



DEAD LOAD CAMBER IN FEET
ALONG RIGHT GIRDER FASCIA

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL TOP OF SLAB ELEVATIONS AT TENTH POINTS

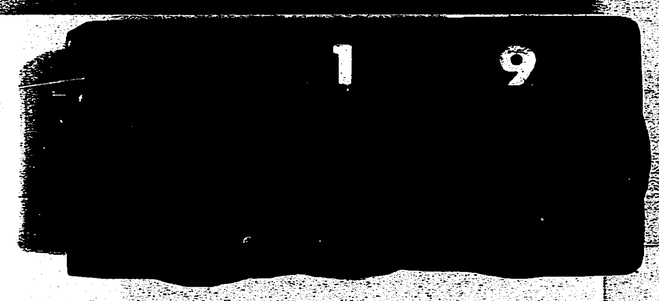
NOTE: Add dead load camber to theoretical top of slab elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ psi.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

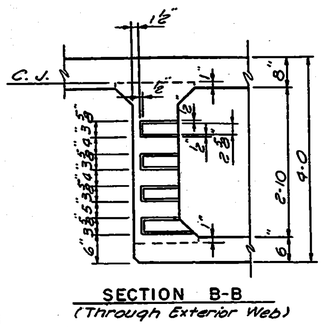
SHEET NO. 16 OF 32	SCALE	APP'D.	
DESIGNED DFG	DETAILED RCP	QUANTITIES LVD	TRACED RCP
DESIGN CH. RBS	DETAIL CH. DFG	CHECK CH. EES	TRACE CH. RBS

DIST. 5 SEDGWICK CO. ROLL 531

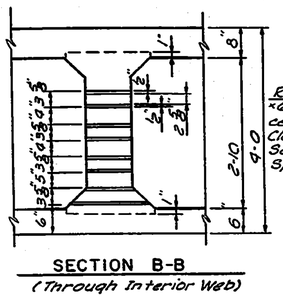


16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-I35W I-(58)48 Phase III	19	1553	2137

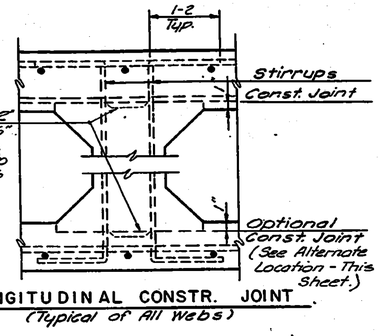


SECTION B-B
(Through Exterior Web)

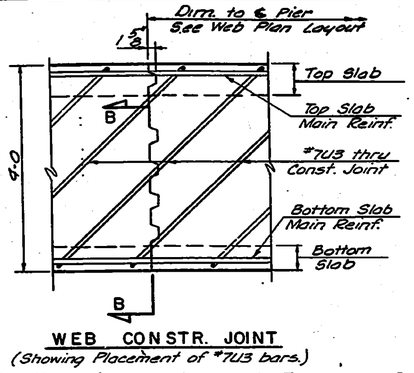


SECTION B-B
(Through Interior Web)

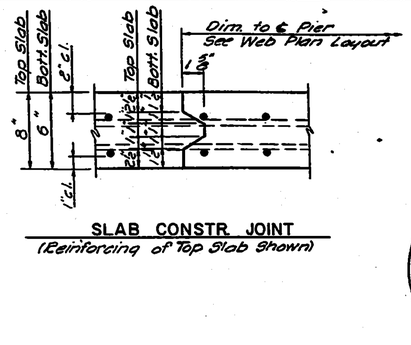
Rake or form ¾"×1" ×6 Shear Keys @ 6" centers as shown. Clean according to Sec. F1-4(g), 1966 Specs.



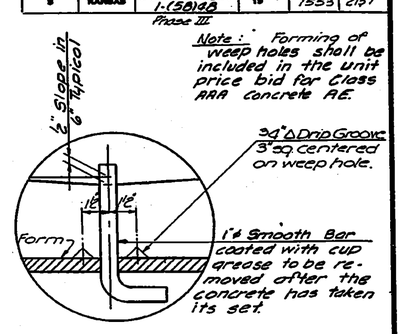
LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)



WEB CONSTR. JOINT
(Showing Placement of #7@3 bars.)



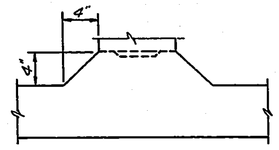
SLAB CONSTR JOINT
(Reinforcing of Top Slab Shown)



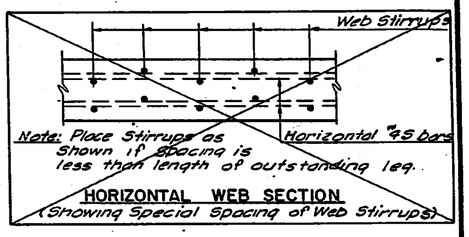
Note: Forming of weep holes shall be included in the unit price bid for Class AAA concrete AE.

DETAIL OF WEEP HOLES

SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS

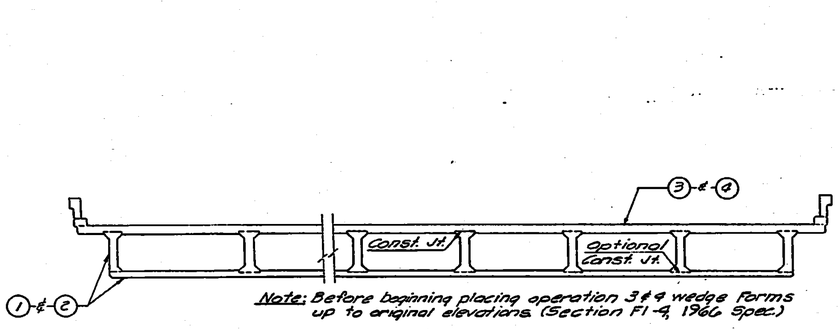


ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer.)



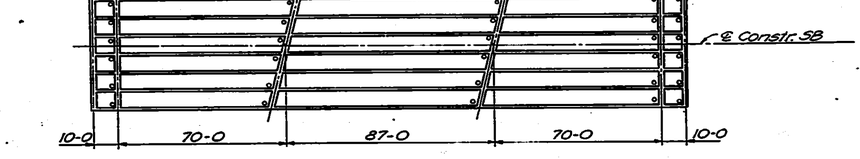
Note: Place Stirrups as shown if spacing is less than length of outstanding leg.

HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)

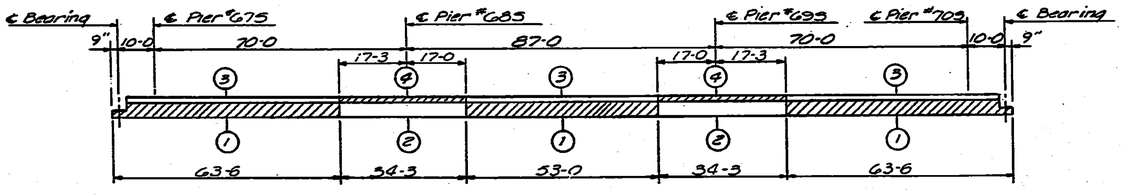


Note: Before beginning placing operation 3 ℄ 4 wedge forms up to original elevations. (Section F1-4, 1960 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



LOCATION OF WEEP HOLES



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework

NOTES:

See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-Span-Steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE.)
PROJ. 35W-87-I35W-I(58)48 SEDGWICK CO.

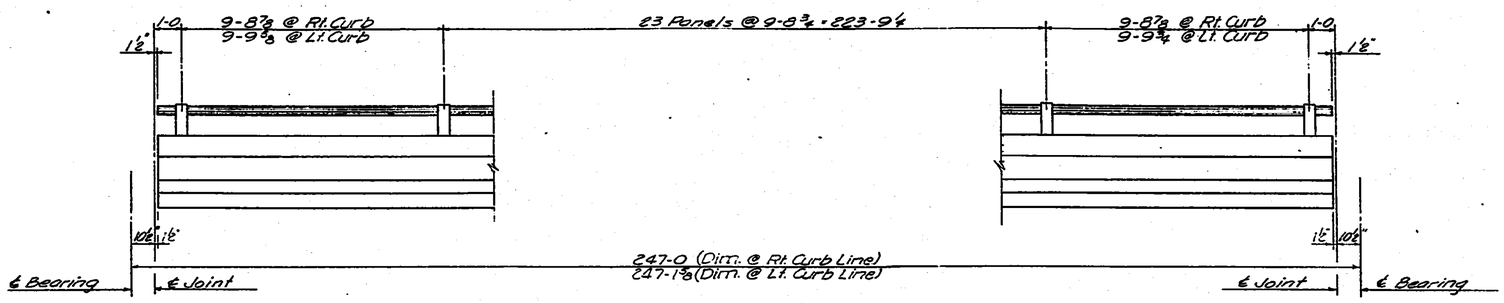
SHEET NO. 17 OF 20	SCALE	APP'D.	
DESIGNED DFG	DETAILED DGT	TRANSMITTED LKD	TRACED DGT
DESIGN CK. PBS	DETAIL CK. PAW	CONST. CK. EES	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

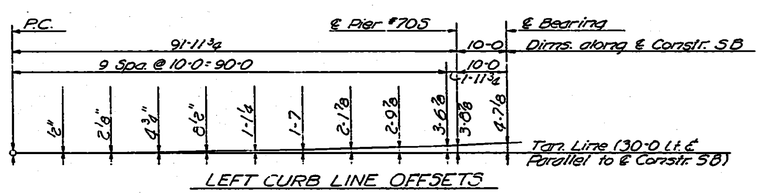
[redacted] 2 0

16X 14.5X 12X 12X 14.5X 16X

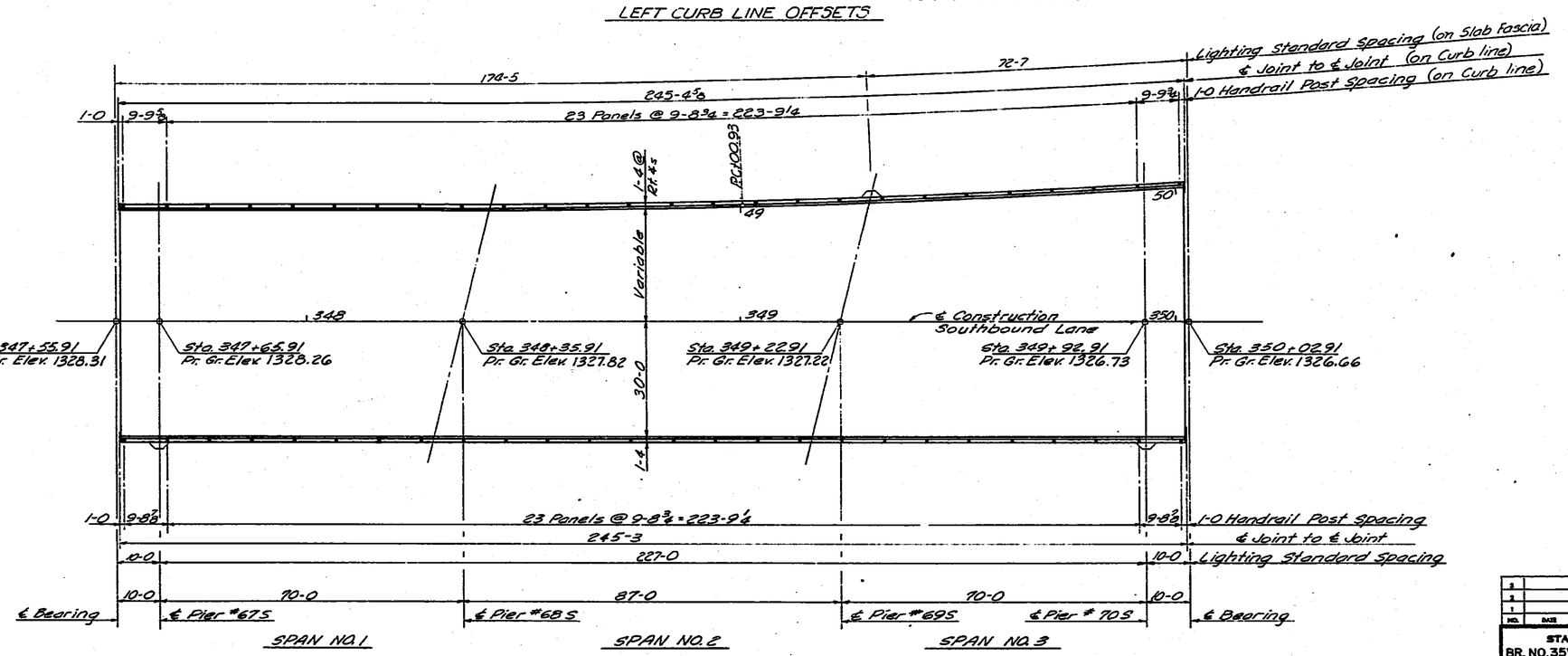
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase III	19	1554	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)



LEFT CURB LINE OFFSETS



SUPERSTRUCTURE LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 15S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE.)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 15 OF 20	SCALE	APP'D.	
DESIGNED JWH	DETAILED RBS	CHECKED LKD	TRACED CRB
DESIGN CK. RDS	DETAIL CK. DEG	CHECK CK. EES	TRACE CK. RDS

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 1

16X 14.5X 12X 12X 14.5X 16X

REV. PLANS 11-1-71

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1-(58)48 Phase III	1970	1555	2137

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	245	5	31-5
				S1A	170	5	28-11
S1B	14	5	*				
				S1C	8	5	*
				S1CC	24	5	*
S1D	7	5	*				
S1DD	7	5	*				
				S1E	68	5	*
				S1F	7	5	33-3
				S2	236	4	35-11
				S2A	164	4	29-11
S2B	6	4	*				
				S2C	33	4	*
S2D	6	4	*				
S2E	6	4	*				
				S2F	10	4	*
				S2G	6	4	*
				S2H	67	4	*
				S2J	5	4	34-3
				S3	236	5	33-6
				S3A	164	5	31-0
S3B	6	5	*				
				S3C	22	5	*
				S3CC	11	5	*
S3D	6	5	*				
S3E	6	5	*				
				S3F	10	5	*
S3G	6	5	*				
				S3H	67	5	*
				S3J	5	5	35-0
				S4	119	5	36-5
				S4A	82	5	31-5
S4B	8	5	*				
S4BB	6	5	*				
				S4C	3	5	34-0
S4D	6	5	*				
S4E	6	5	*	S4J	132	5	*
				S5	117	5	36-5
				S5A	82	5	31-5
S5B	6	5	*				
				S5C	40	5	*
				S5CC	20	5	*
S5D	8	5	*				
S5E	8	5	*				
S5F	6	5	*				
				S5G	18	5	*
				S5H	2	5	34-0

* See Bending Diagrams

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
S6	609	4	40-0				
S6A	171	4	26-10				
S6B	26	4	29-6				
S6C	12	4	9-6				
S7	32	4	26-10				
S7A	32	4	28-7				
S7B	4	4	8-10				
S7C	4	4	10-7				
S7D	4	4	26-0				
S8	12	4	26-10				
S8A	12	6	26-10				
S9	30	4	40-0				
S9A	30	6	40-0				
G1	58	8	*				
G2	28	8	*				
G2A	32	8	*				
G3	30	10	56-0				
G4	28	9	56-0				
G5	28	9	43-0				
G6	28	9	30-0				
G7	60	9	50-0				
G8	32	8	37-0				
G9	28	8	24-0				
G10	114	8	29-6				
G11	57	10	60-0				
G12	28	10	52-0				
G13	28	10	36-0				
G14	71	8	33-10				
G14A	12	10	33-10				
G14B	2	8	24-6				
G14C	6	8	6-0				
G14D	1	8	23-0				
G14E	1	10	22-6				
				G15	26	8	38-1
				G15A	3	10	38-5
G16	87	8	26-10				
G16A	9	9	26-10				
G16B	2	8	17-6				
G16C	1	9	16-0				
G16D	1	8	16-0				
G16E	2	10	7-6				
G17	78	9	18-10				
G17A	6	10	18-10				
G18	55	8	*				
G18A	6	8	*				
G18B	10	9	*				
G18C	45	8	*				

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
G19	106	10	50-0				
G19A	3	10	20-6				
G19B	3	10	25-0				
G19C	1	10	22-0				
G19D	1	10	26-6				
G20	96	11	36-0				
G20A	3	11	13-6				
G20B	3	11	18-0				
G20C	1	11	15-0				
G20D	1	11	19-6				
G21	84	11	20-0				
G22	55	5	40-0				
B1	16	8	29-3				
B2	4	8	40-0				
B3	8	6	29-0				
				B4	20	10	16-9
				B5	8	10	40-0
				B5A	8	10	22-6
				B6	12	6	41-5
				B6A	12	6	22-11
				B6B	12	6	42-6
				B6C	12	6	23-6
				B6D	16	6	44-2
				B6E	16	6	22-3
				B6F	12	6	45-6
				B6G	12	6	22-6
B7	16	8	30-0				
B8	4	8	41-2				
B9	8	6	29-8				
				B10	20	11	17-2
				B11	12	11	40-11
				B11A	12	11	23-0
B12	20	9	30-2				
B13	6	9	41-6				
B14	8	6	30-0				
				B15	16	11	17-2
				B16	12	11	42-7
				B16A	12	11	21-8
B17	16	9	31-2				
B18	4	9	43-9				
B19	8	6	30-9				
				B20	8	11	44-0
				B20A	8	11	22-0
				B21	16	11	16-8

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				BU1	340	5	15-4
				BU2	147	4	6-1
				BU3	100	4	5-1
				BU4	186	5	17-4
				BC1	16	8	32-9
				BC1A	8	8	28-9
				BC1B	8	8	33-3
				BC2	8	6	31-11
				BC2A	4	6	27-11
				BC2B	4	6	32-6
				BC3	8	6	34-6
				BC3A	4	6	30-6
				BC3B	4	6	35-1
				BC4	72	10	8-2
				C1	567	4	3-5
				C2	588	4	3-8
				C3	68	4	2-5
				C4	16	5	5-7
C5	32	4	2-6				
				U1	3310	5	7-7
				U2	358	5	6-1
				U3	630	7	7-7
WG1	82	8	40-0				
WG2	30	8	28-4				
WG2A	2	8	28-6				
WG2B	2	8	26-6				
WG2C	4	8	8-10				
				LB1	12	4	7-4
				LB2	9	4	9-4

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

All bar marks shall be prefixed with the Unit Number when fabricated. Example: #8G1 bars shall be marked 1558G1.

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	1022.1	Cu. Yds.
Reinforcing Steel	356,890	Lbs.
Cast Iron Scuppers		Lbs.
Wrought Iron Drains & Grates	4,909	Lbs.
8" ⌀ Downspouts	256.23	Lin. Ft.
Gutters		Lin. Ft.
Bridge Handrail	486.64	Lin. Ft.
Structural Steel		
Corner Angles (A36) 12@19Lbs.	342	Lbs.
Expansion Devices (A36)	4,580	Lbs.
Elastomeric Exp. Device (13½")	129	Lin. Ft.
Linseed Oil Surface Treatment (Bridges)	1650.2	Sq. Yds.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1	11-1-71	Rev. Exp. Devices	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SCHEDULE OF QUANTITIES — UNIT NO. 15S
S. B. I-35W VIADUCT
(OVER MURDOCK AVE.)
PROJ. 35W-87-I 35W-1(58)48 SEDGWICK CO.

SHEET NO. 19 OF 20	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	QUANTITIES MER	TRACED RLC
DESIGN CK. RBS	DETAIL CK. LKD	QUAN. CK. RAW	TRACE CK. RAW

DIST. 5 SEDGWICK CO. ROLL 531

2 2

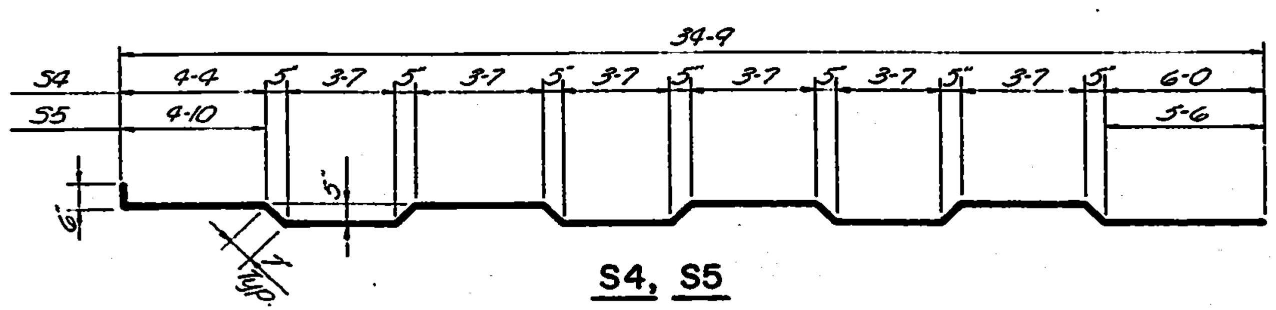
16X 14.5X 12X 12X 14.5X 16X

BENDING DIAGRAMS
(Bar Dimensions are Out to Out)

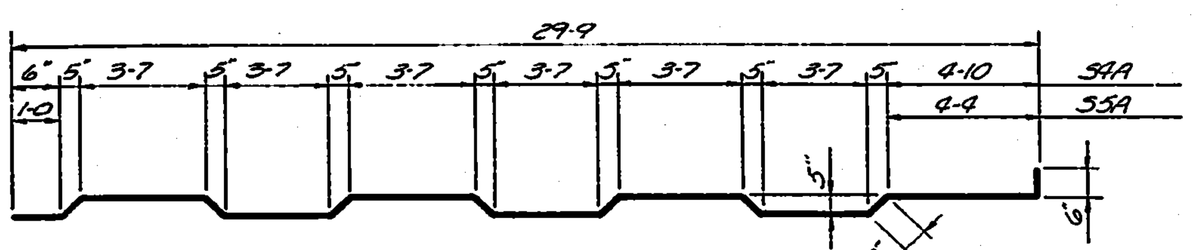
REV. PLANS 11-1-71

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1-(58)48	19	1556	2137

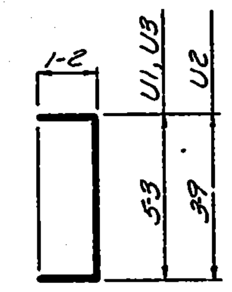
Phase III



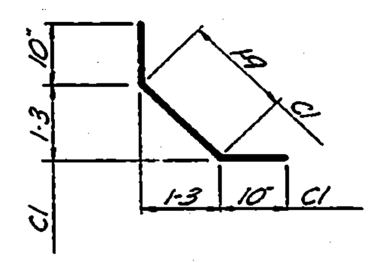
S4, S5



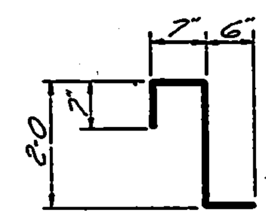
S4A, S5A



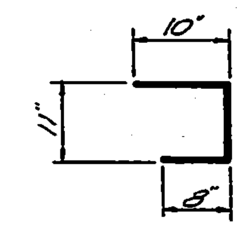
U1, U2, U3,



C1,



C2



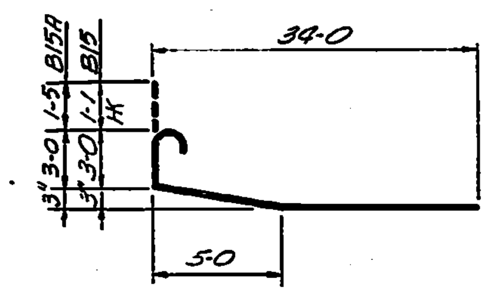
C3

G18C	Increase by 7" Increment from 20-2 to 33-0	Cut 2 ea. length except 1@ 20-2
G18B	Increase by 4" increment from 17-8 to 20-8	Cut 1 ea. length
G18A	Increase by 4" Increment from 25-6 to 27-4	Cut 1 ea. length
G18	Increase by 7" increment from 17-7 to 33-4	Cut 2 ea. length except 1@ 17-7
G2A	Increase by 3" increment from 13-9 to 21-6	Cut 1 ea. length
G2	Increase By 3" increment from 13-9 to 20-6	Cut 1 ea. length
G1	Increase by 3" increment from 14-9 to 21-9	Cut 1 ea. length

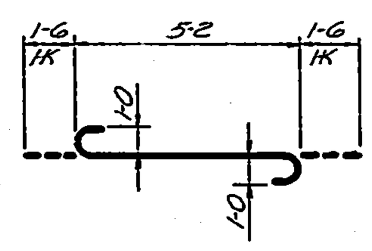
G1, G2, G18, G2A, G18A, G18B, G18C

S5D	By 7-0 incr. from 14-6 to 35-6	Cut 2 ea. length
S5B	By 7-0 incr. from 13-3 to 27-3	Cut 2 ea. length
S4D	By 7-0 incr. from 18-0 to 32-0	Cut 2 ea. length
S4B	By 7-0 incr. from 10-0 to 31-0	Cut 2 ea. length
S3D	By 3-6 incr. from 13-0 to 30-6	Cut 1 ea. length
S3B	By 3-6 incr. from 14-6 to 32-0	Cut 1 ea. length
S2D	By 3-6 incr. from 16-0 to 33-6	Cut 1 ea. length
S2B	By 3-6 incr. from 11-0 to 28-6	Cut 1 ea. length
S1D	By 3-6 incr. from 7-0 to 28-0	Cut 1 ea. length
S1B	By 3-6 incr. from 5-9 to 26-9	Cut 2 ea. length

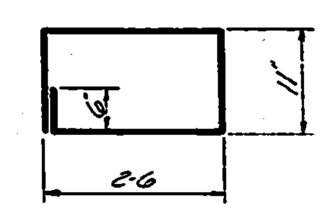
S1B, S2B, S3B, S4B, S5B, S1D, S2D, S3D, S4D, S5D,



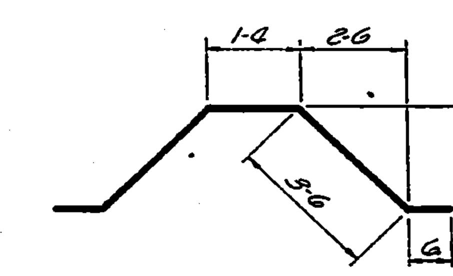
G15, G15A



BC4

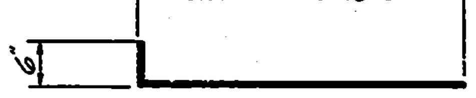


LB1



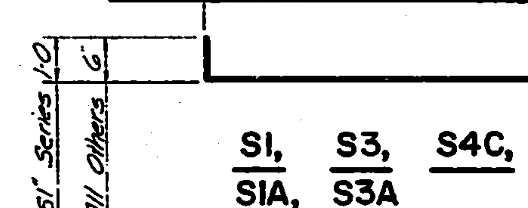
LB2

S4J	Increase by 6" Incr. from 29-9 to 32-9	40 ea. length except 24 @ 29-9
S5CC	Increase by 3-6 Incr. from 7-3 to 38-9	Cut 2 ea. length
S3H	Increase by 6" Incr. from 31-0 to 34-0	Cut 10 ea. length except 7@31-0
S3CC	Increase by 3-6 Incr. from 5-6 to 40-6	Cut 1 ea. length



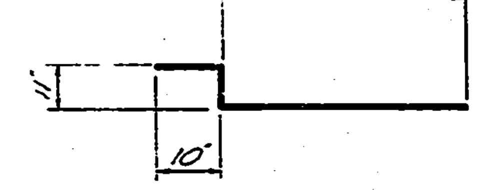
S3CC, S4J, S5CC, S3H,

S5H, S4C	33-6
S3J	34-6
S3A	30-6
S3	33-0
S1A	27-11
S1	30-5
S1F	32-3



S1, S3, S4C, S5H, S1A, S3A, S1F, S3J

S2J	32-5	
S2H	Incr. by 6 Incr. from 28-9 to 31-9	Cut 10 ea. length except 7@28-9
S2F	Incr. by 3-6 Incr. from 4-6 to 36-0	Cut 1 ea. length
S2C	Incr. by 3-6 incr. from 4-3 to 39-3	Cut ea. length
S2A	28-2	
S2	34-2	

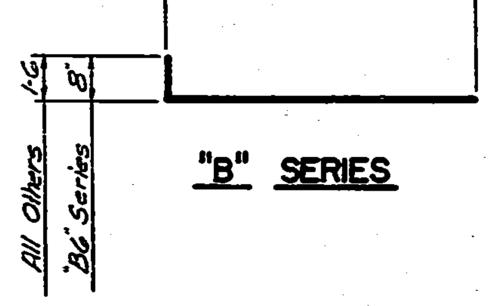


S2, S2A, S2C, S2F, S2H, S2J

S4E	By 7-0 incr. from 14-9 to 28-9	Cut 2 ea. length
S4BB	By 7-0 incr. from 12-6 to 26-6	Cut 2 ea. length
S3G	By 3-6 incr. from 12-0 to 29-6	Cut 1 ea. length
S3E	By 3-6 incr. from 11-3 to 28-9	Cut 1 ea. length
S2G	By 3-6 incr. from 10-3 to 27-9	Cut 1 ea. length
S2E	By 3-6 incr. from 13-0 to 30-6	Cut 1 ea. length
S5E	By 7-0 incr. from 9-0 to 30-0	Cut 2 ea. length
S5F	By 7-0 incr. from 11-3 to 25-3	Cut 2 ea. length
S1DD	By 3-6 incr. from 8-0 to 29-0	Cut 1 ea. length

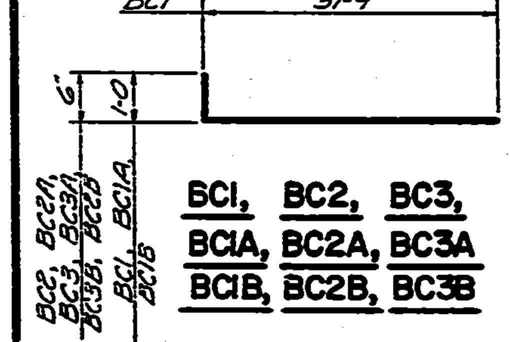
S1DD, S2E, S3E, S4BB, S5E, S2G, S3G, S4E, S5F

B21	15-2
B20A	20-6
B20	42-6
B16A	20-2
B16	41-1
B15	15-8
B11A	21-6
B11	39-5
B10	15-8
B6G	21-10
B6F	44-10
B6E	21-7
B6D	43-6
B6C	22-10
B6B	44-10
B6A	22-3
B6	40-9
B5A	21-0
B5	38-6
B4	15-3



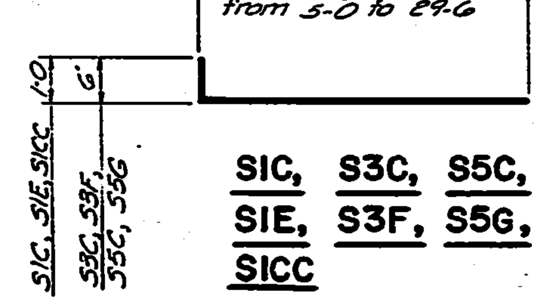
"B" SERIES

BC3B	34-7
BC3A	30-0
BC3	34-0
BC2B	32-0
BC2A	27-5
BC2	31-5
BC1B	32-3
BC1A	27-9
BC1	31-9

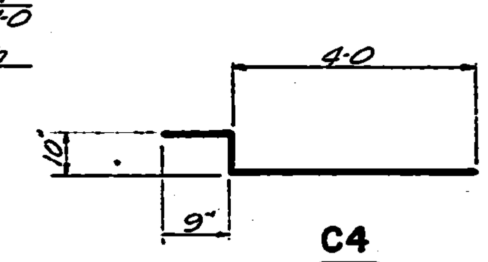


BC1, BC2, BC3, BC1A, BC2A, BC3A, BC1B, BC2B, BC3B

S5G	Increase by 3-6 incr. from 7-0 to 35-0	Cut 2 ea. length
S5C	Increase by 3-6 Incr. from 6-6 to 38-0	Cut 4 ea. length
S3F	Increase by 3-6 Incr. from 5-0 to 36-6	Cut 1 ea. length
S3C	Increase by 3-6 Incr. from 5-0 to 40-0	Cut 2 ea. length
S1CC	Increase by 3-6 Incr. from 6-0 to 30-6	Cut 3 ea. length
S1E	Increase by 6" Incr. from 28-0 to 31-0	Cut 10 ea. length except 8@31-0
S1C	Increase by 3-6 Incr. from 5-0 to 29-6	Cut 1 ea. length

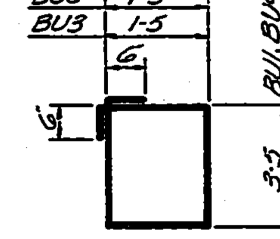


S1C, S3C, S5C, S1E, S3F, S5G, S1CC



C4 ⚠1

BU4	4-9
BU1	3-9
BU2	1-5
BU3	1-5



BU1, BU2, BU3, BU4

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1	11-1-71	Rev. Exp. Devices	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING DIAGRAMS — UNIT NO. 15 S
S.B. I-35W VIADUCT
(OVER MURDOCK AVE.)
PROJ. 35W-87-135W-1(58) 48 SEDGWICK CO.

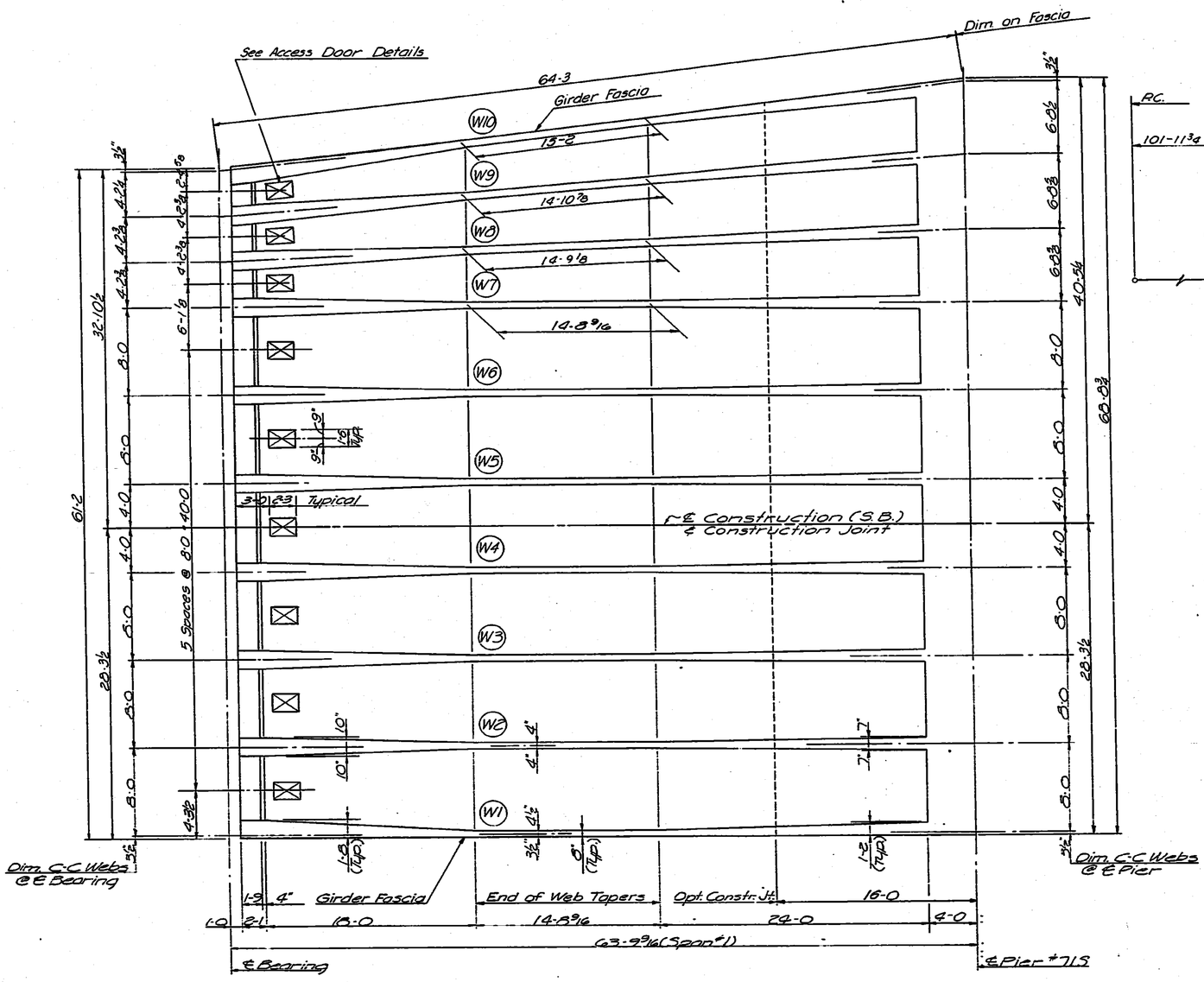
SHEET NO. 20 OF 20	SCALE	APPR.	
DESIGNED DFG	DETAILED DS	QUANTITIES MER	TRACED RLC
DESIGN CK. JWH	DETAIL CK. LKD	QUAN. CK. RAW	TRACE CK. RAW

TOPEKA BLUE PRINT CO.

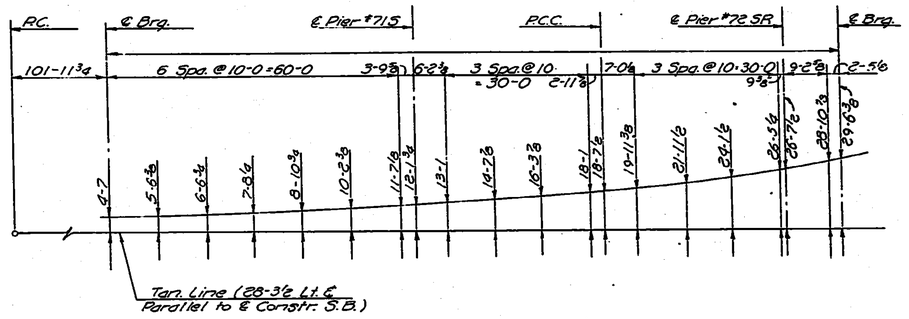
DIST. 5 SEDGWICK CO. ROLL 531 2 3

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase III	1970	1557	2137



WEB PLAN LAYOUT



LEFT GIRDER FASCIA OFFSETS
(Spans #1 & 2R)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 16S
S. B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

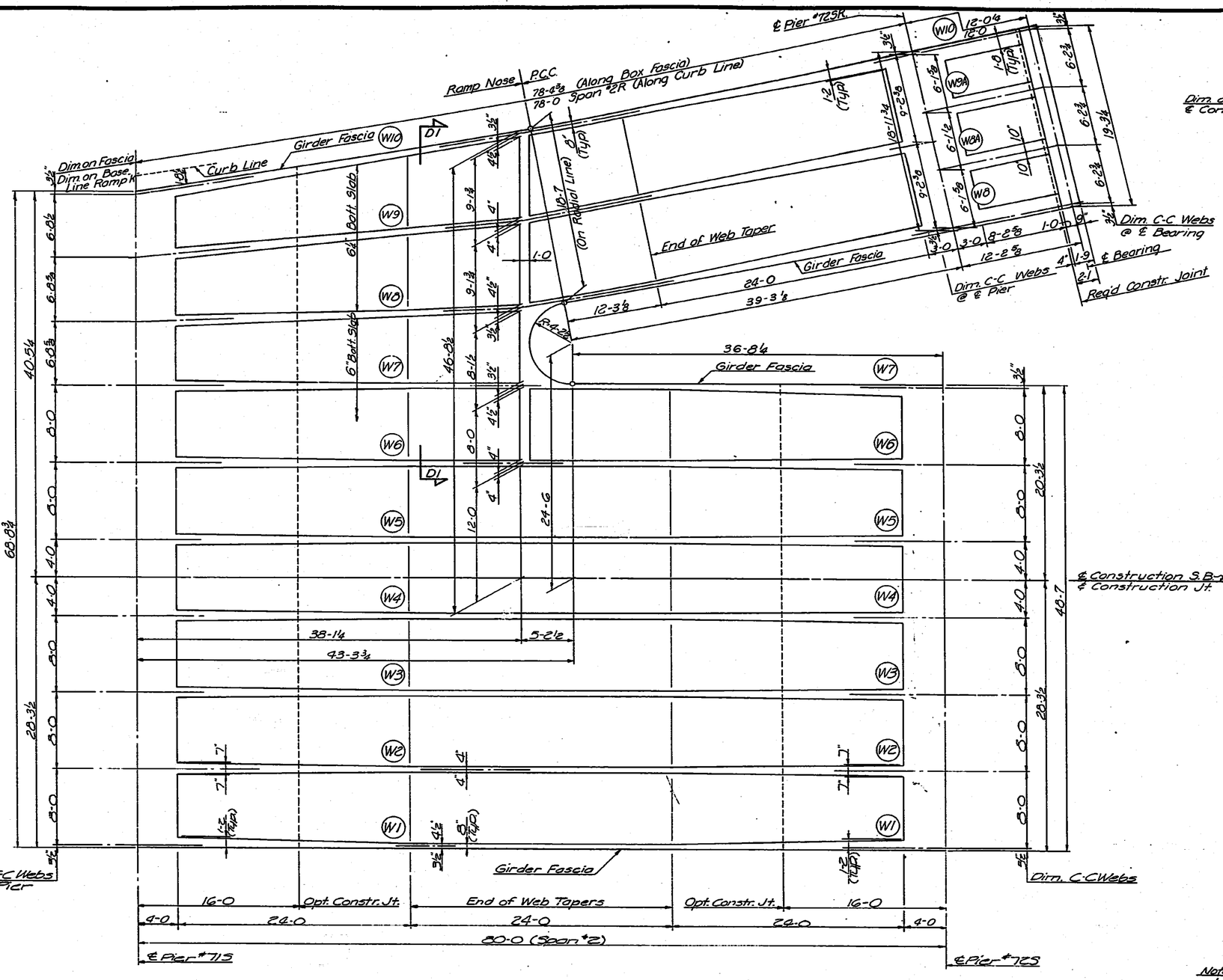
SHEET NO. 1 of 26	SCALE		APP'D.		
DESIGNED DPG	DETAILED RCP		CHECKED LKD/AV	TRACED RCP	
DESIGN CK. RBS	DETAIL CK. RBS		QUAN. CK. DGT/TL	TRACE CK. RBS	

DIST. 5 SEDGWICK CO. ROLL 531

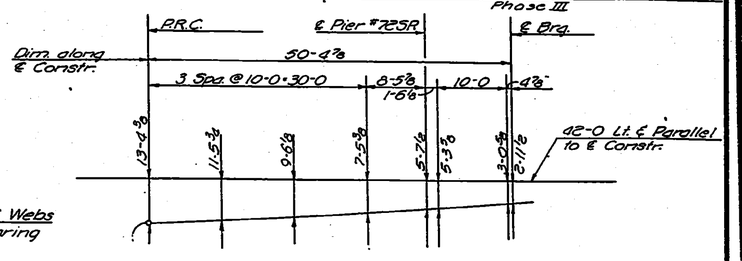
[redacted] 2 4

9X | 16X | 14.5X | 12X | 12X | 14.5X | 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
- 5	KANSAS	35W-87-1-75W -1(58)48 Phase III	19 70	1558	2137



WEB PLAN LAYOUT



RIGHT GIRDER FASCIA OFFSETS
(Along Span #2R)

Note: See Sheet 1579 for limits of 6¼" bottom slab.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 16S
S. B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. E of 66	SCALE		APP'D.		
DESIGNED DFG	DETAILED RCP	CHECKED LKH AV	TRACED RCP		
DESIGN CK. RBS	DETAIL CK. RBS	DETAIL CK. DST/TL	TRACE CK. RBS		

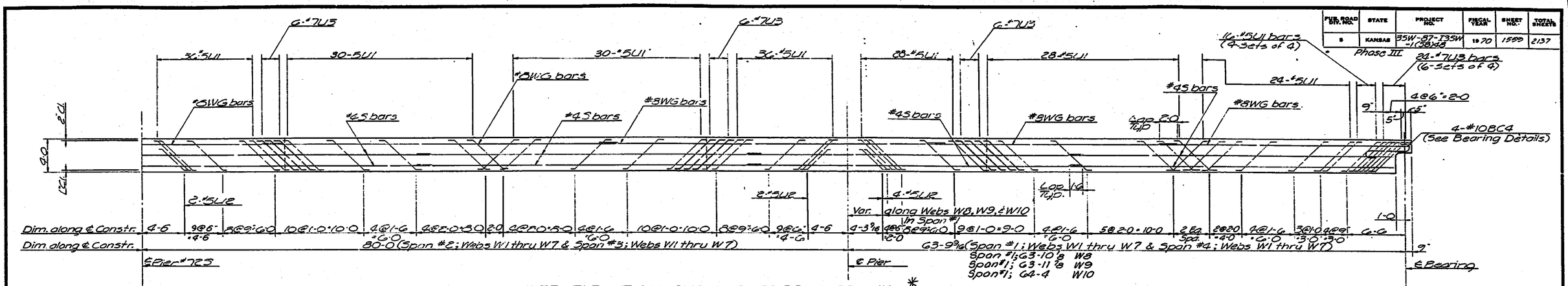
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 5

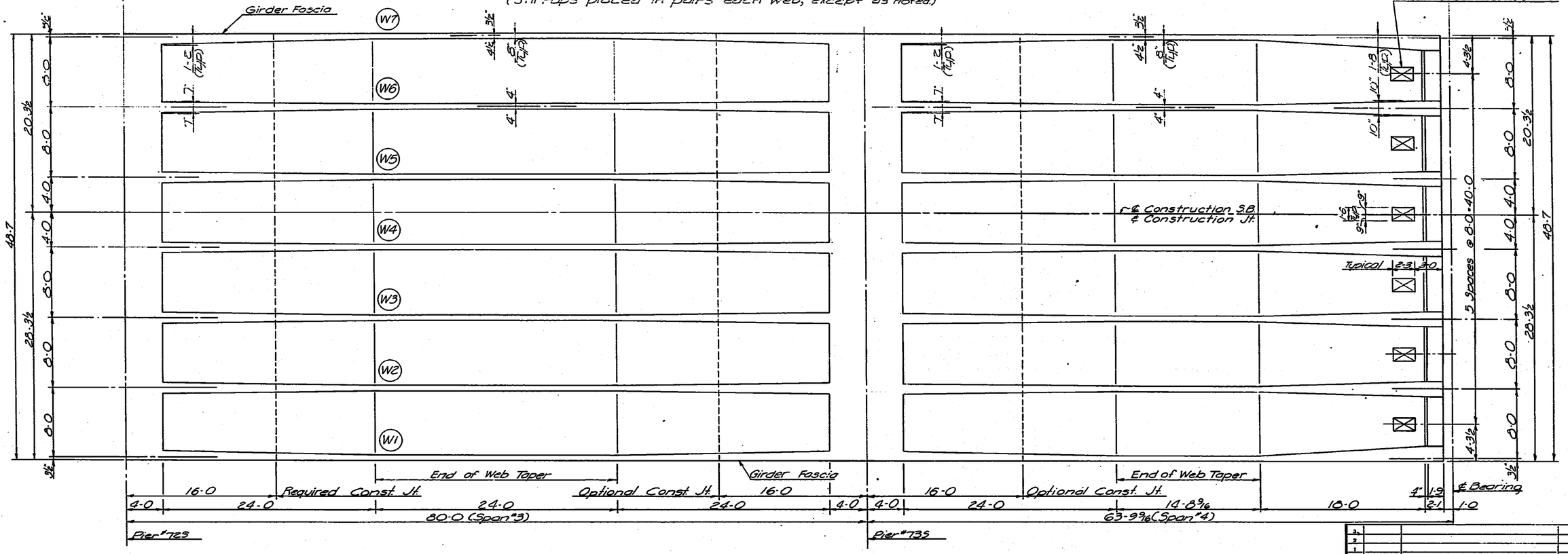
9X 16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48	1970	1559	2137

Phase III



WEB ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web, except as noted.)



WEB PLAN LAYOUT

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top and beneath bottom main reinforcing steel. See Roadway Deck Section.

Note:
See Placement Diagrams for longitudinal reinforcing in webs.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I 35W-1(58)48 SEDGWICK CO.

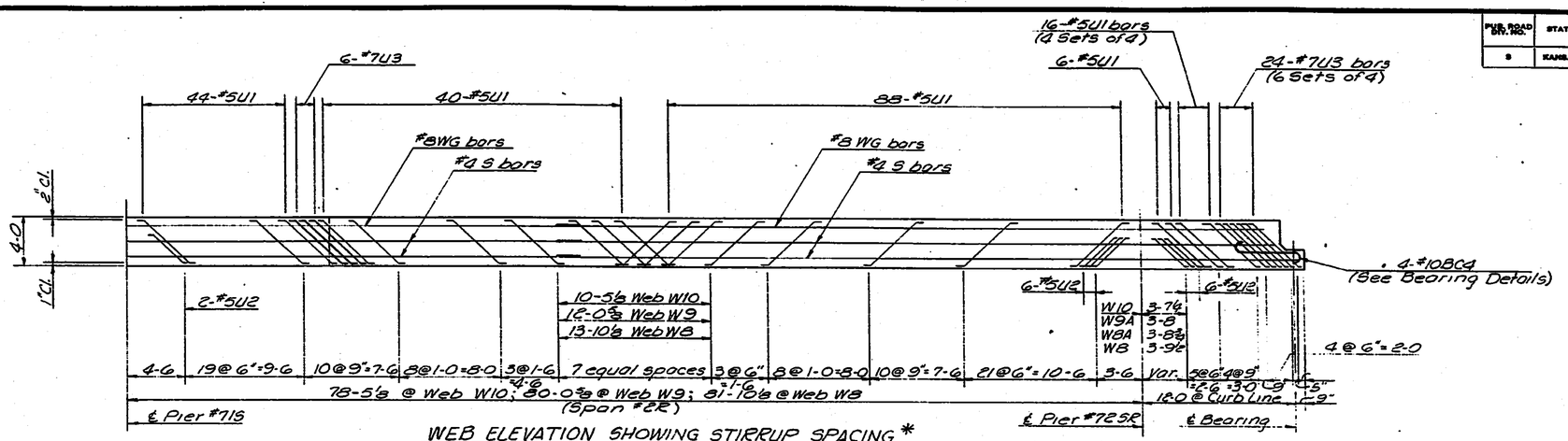
SHEET NO. 3 OF 26	SCALE		APP'D.		
DESIGNED DFG	DETAILED RCP	QUANTITIES LKD/ AV	TRACED RCP		
DESIGN CK. RBS	DETAIL CK. RBS	CHAN. CK. DIST/ TL	TRACE CK. RBS		

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 6

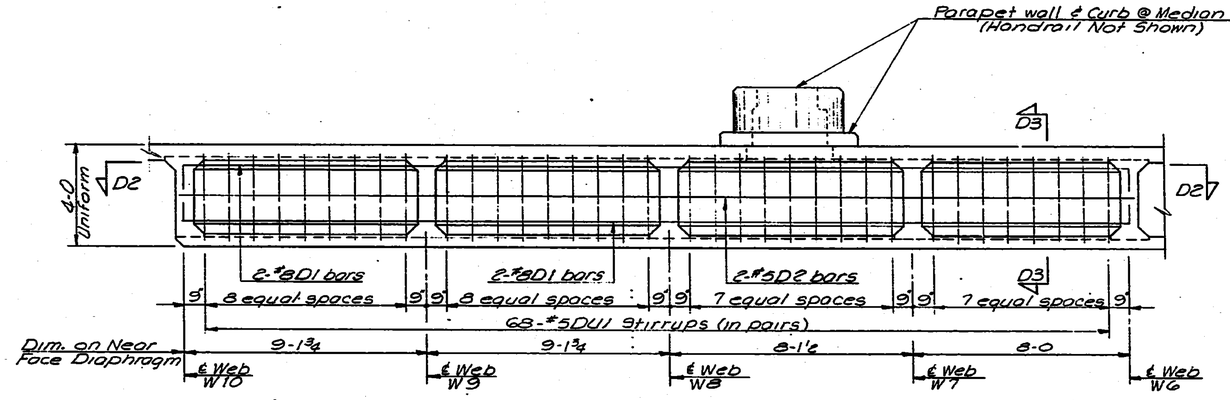
4X | 16X | 14.5X | 12X | 12X | 14.5X | 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W-1(58)48 Phase III	1970	1560	2137

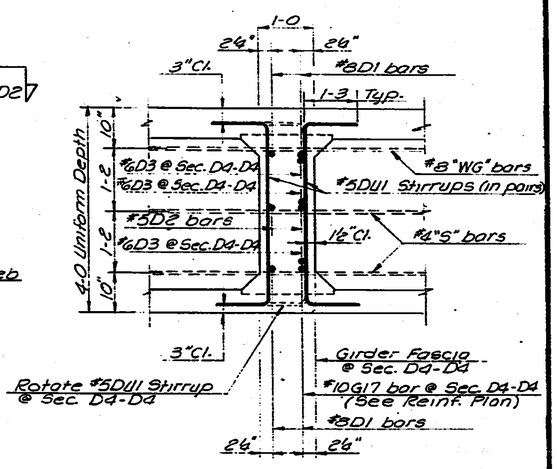


WEB ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web, except as noted)

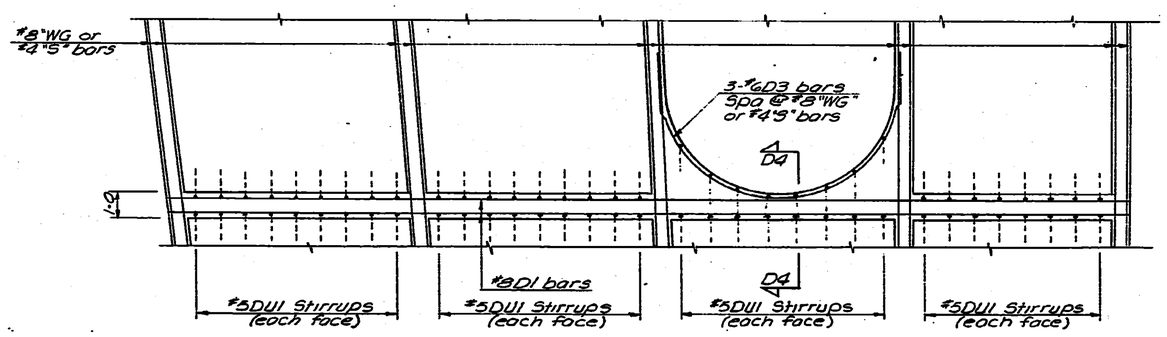
* See Note on Previous Sheet.



SECTION D1-D1
(See Web Plan Layout - Span #2 & #22)



SECTION D3-D3
(Section D4-D4 similar as noted)



PLAN D2-D2
(See Web Plan Layout Span #2)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 2 of 26	SCALE	APP'D.	
DESIGNED DFG	DETAILED EES	CHECKED AV	TRACED EES
DESIGN CK. JWH	DETAIL CK. RLF	CHIEF CK. TL	TRACE CK. RLF

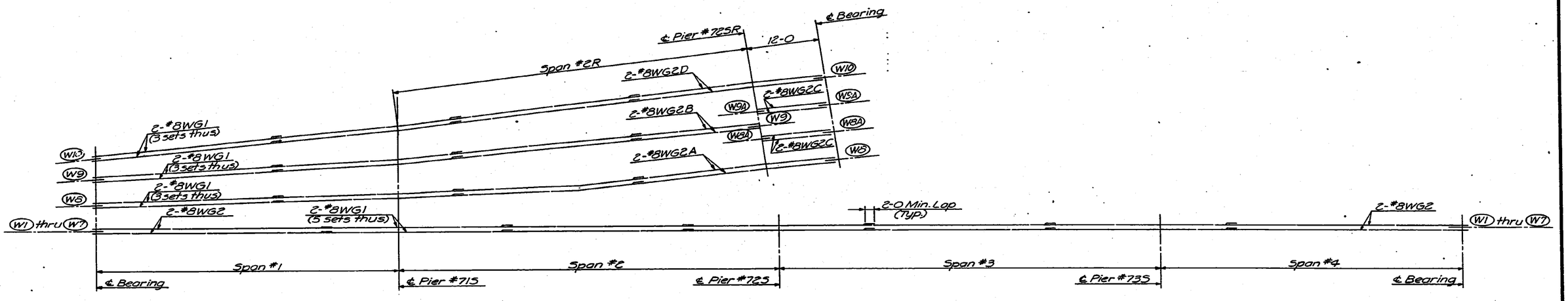
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

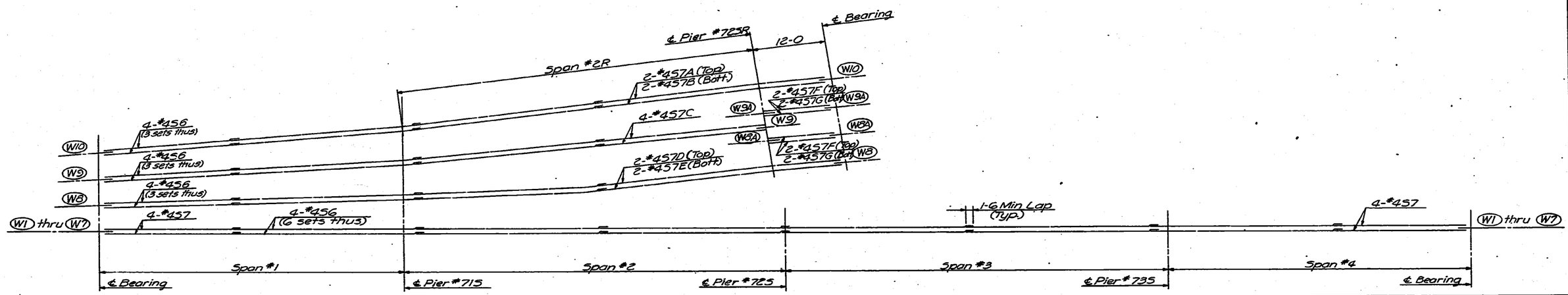
[redacted] 2 7

20X 16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)28 Phase III	1970	1561	2137



PLACEMENT DIAGRAM SHOWING "WG" BARS IN WEBS



PLACEMENT DIAGRAM SHOWING "S" BARS IN WEBS

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16S
S. B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 5 of 26	SCALE	APP'D.	
DESIGNED DFG	DETAILED RCP	QUANTITIES LKD/AV	TRACED RCP
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. DST/TC	TRACE CK. RBS

TOPEKA BLUE PRINT CO.

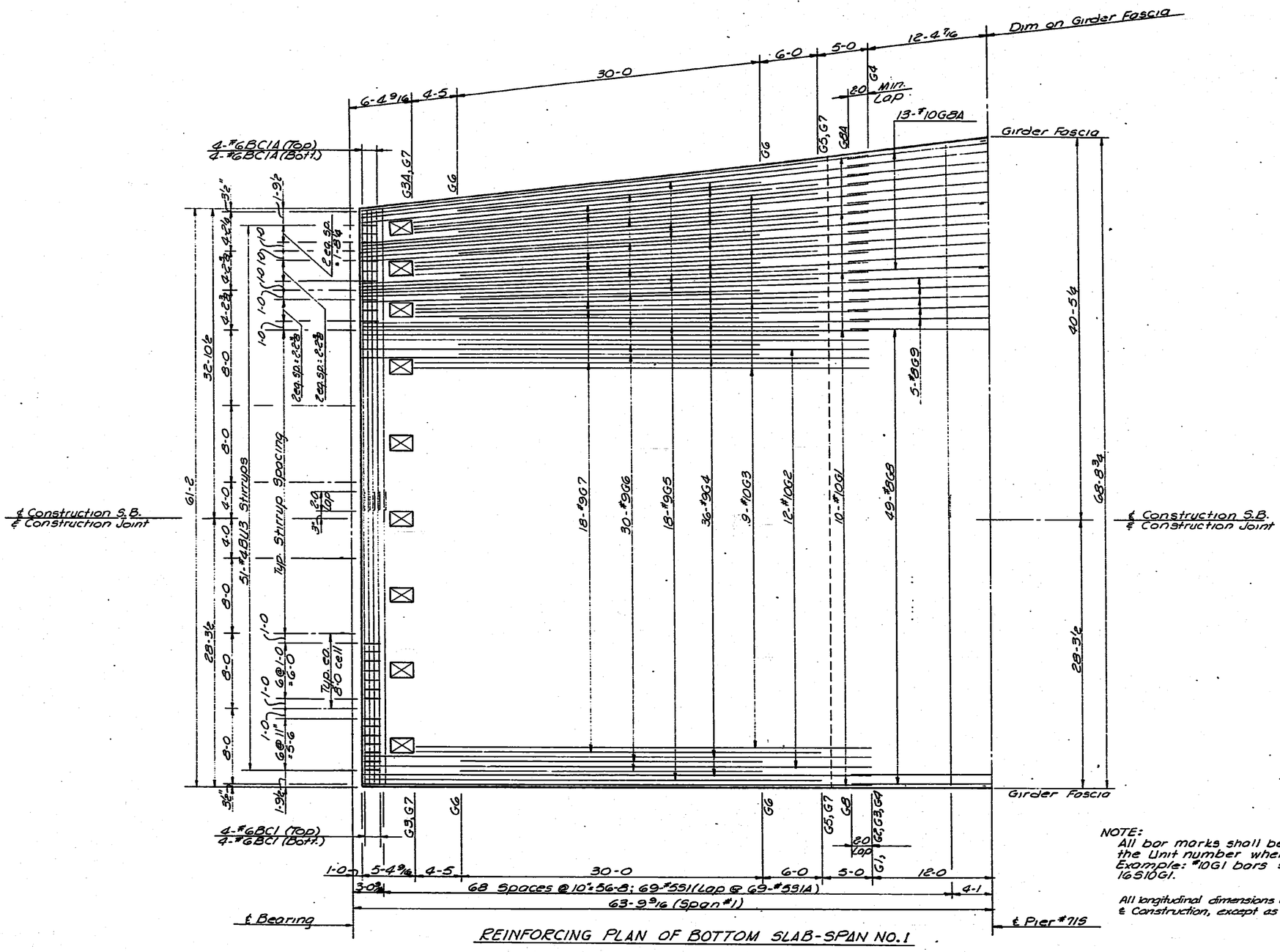
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 8

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W -1(58)48	1970	1562	2137

Phase III



REINFORCING PLAN OF BOTTOM SLAB-SPAN NO. 1

NOTE:
All bar marks shall be pre-fixed with the Unit number when fabricated. Example: #10G1 bars shall be marked 16S10G1.

All longitudinal dimensions are along the & Construction, except as otherwise indicated.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE & INNER LOOP)
PROJ. 35W-87-I 35W-1(58)48 SEDGWICK CO.

SHEET NO. 6 OF 26	SCALE	APP'D.		
DESIGNED DFG	DETAILED EES	QUANTITIES AV	TRACED EES	
DESIGN CK. JWH	DETAIL CK. RLF	QUAN. CK. TL	TRACE CK. RLF	

TOPEKA BLUE PRINT CO.

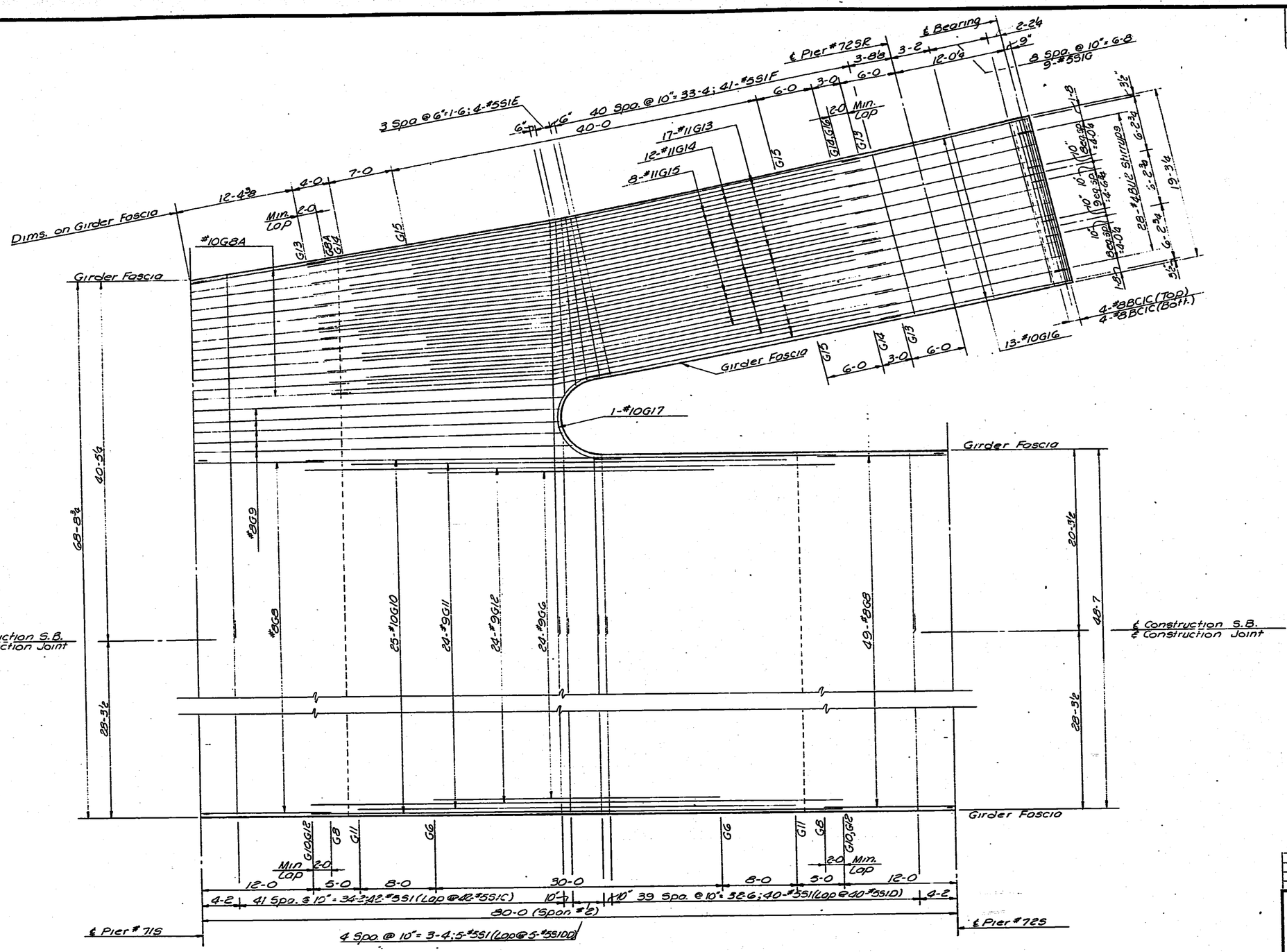
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 9

16X 14.5X 12X 12X 14.5X 16X

FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	KANSAS	35W-87-135W -1(58)48	1970	1503	2137

Phase III



REINFORCING PLAN OF BOTTOM SLAB-SPAN NO. 2

NO.	DATE	REVISIONS	BY	APP'D.

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 7 OF 26	SCALE		APP'D.		
DESIGNED DFG	DETAILED EES		COMPUTED AV	TRACED EES	
DESIGN CK. JWH	DETAIL CK. RLF		CHK. CK. TL	TRACE CK. RLF	

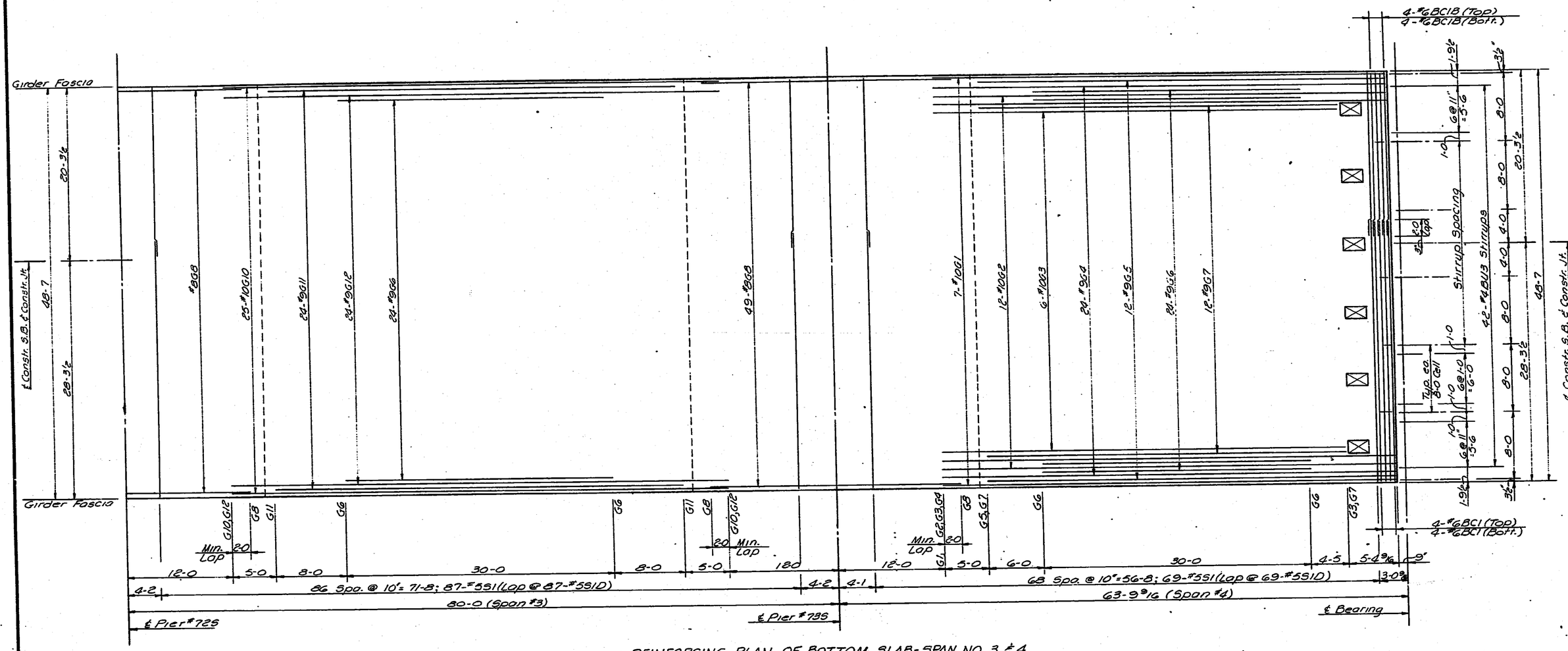
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted]

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W-1(58)48 Phase III	1970	154A	2137



REINFORCING PLAN OF BOTTOM SLAB-SPAN NO. 3 & 4

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 8 OF 26	SCALE	APP'D.		
DESIGNED DFG	DETAILED EES	QUANTITIES AV	TRACED	EES
DESIGN CK. JWH	DETAIL CK. RLF	CHKD. CK. TL	TRACE CK.	RLF

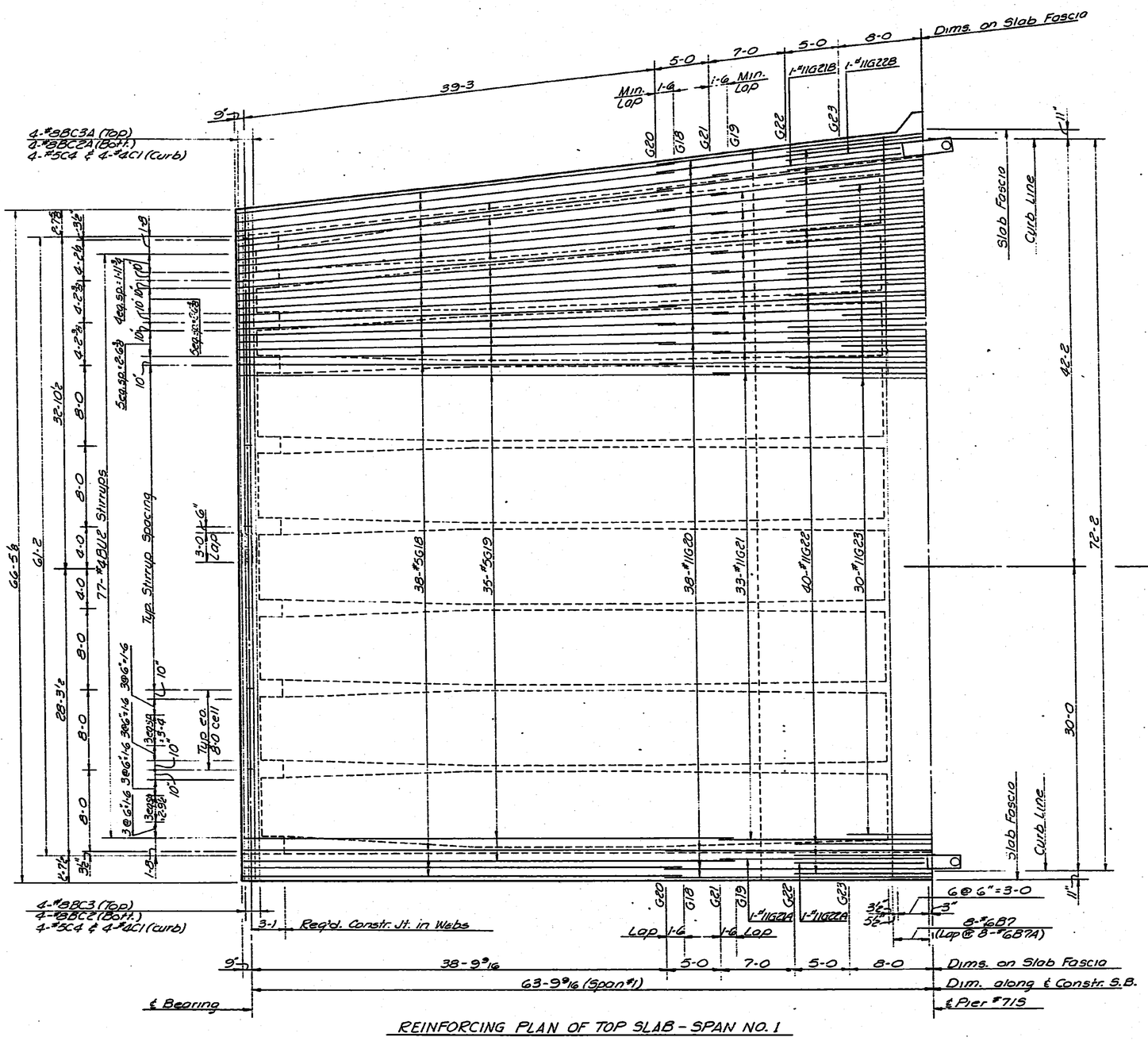
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 1

16X | 14.5X | 12X | 12X | 14.5X | 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase III	1970	1565	2137



REINFORCING PLAN OF TOP SLAB - SPAN NO. 1

Note:
See Drain Detail Sheet for additional details at Drainage Structures.
See Superstructure Pier Beams for additional details at Drainage Structures.
Spread Longitudinal Reinforcing Steel to clear drains except as noted.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 9 of 26	SCALE	APP'D.	
DESIGNED DFG	DETAILED EES	QUANTITIES AV	TRACED EES
DESIGN CK. JWH	DETAIL CK. RLF	GENERAL CK. TL	TRACE CK. RLF

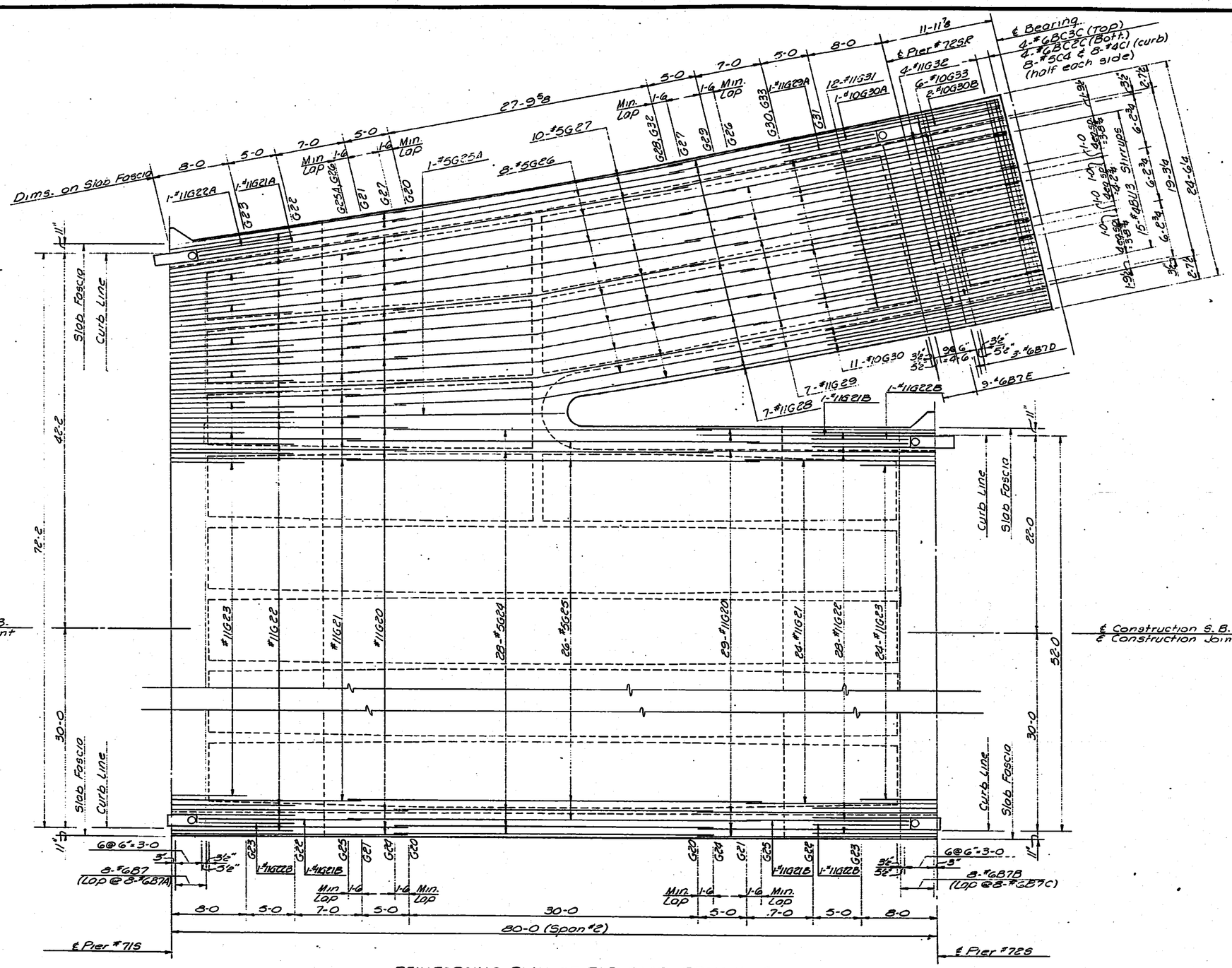
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 2

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W-I(58)48 Phase III	1970	1564	2137



REINFORCING PLAN OF TOP SLAB - SPAN NO. 2

TOPEKA BLUE PRINT CO.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-I(58)48 SEDGWICK CO.

SHEET NO. 10 OF 26	SCALE		APP'D.		
DESIGNED DFG	DETAILED EES		CHECKED AV	TRACED EES	
DESIGN CK. JWH	DETAIL CK. RLF		QUAN. CK. TL	TRACE CK. RLF	

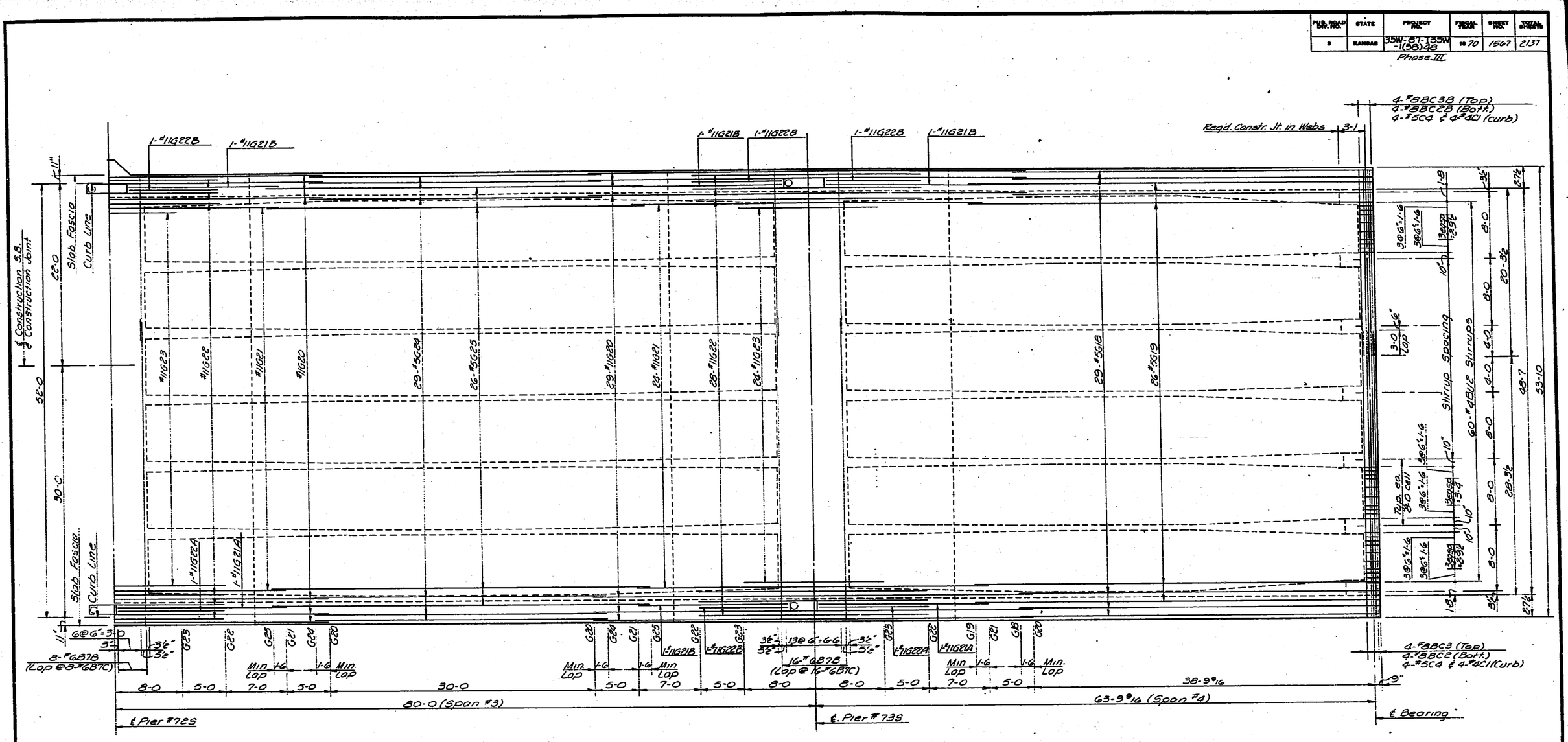
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 3

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48	1970	1567	2137

Phase III



REINFORCING PLAN OF TOP SLAB-SPANS NO. 3 & 4

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60

SUPERSTRUCTURE DETAILS-UNIT NO. 16S

S.B. I-35W VIADUCT

(BETWEEN MURDOCK AVE. & INNER LOOP)

PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 11 of 26	SCALE	APPR.		
DESIGNED DFG	DETAILED EES	CHECKED AV	TRACED EES	
DESIGN CK. JWH	DETAIL CK. RCP	CHECK CK. TL	TRACE CK. RCP	

TOPEKA BLUE PRINT CO.

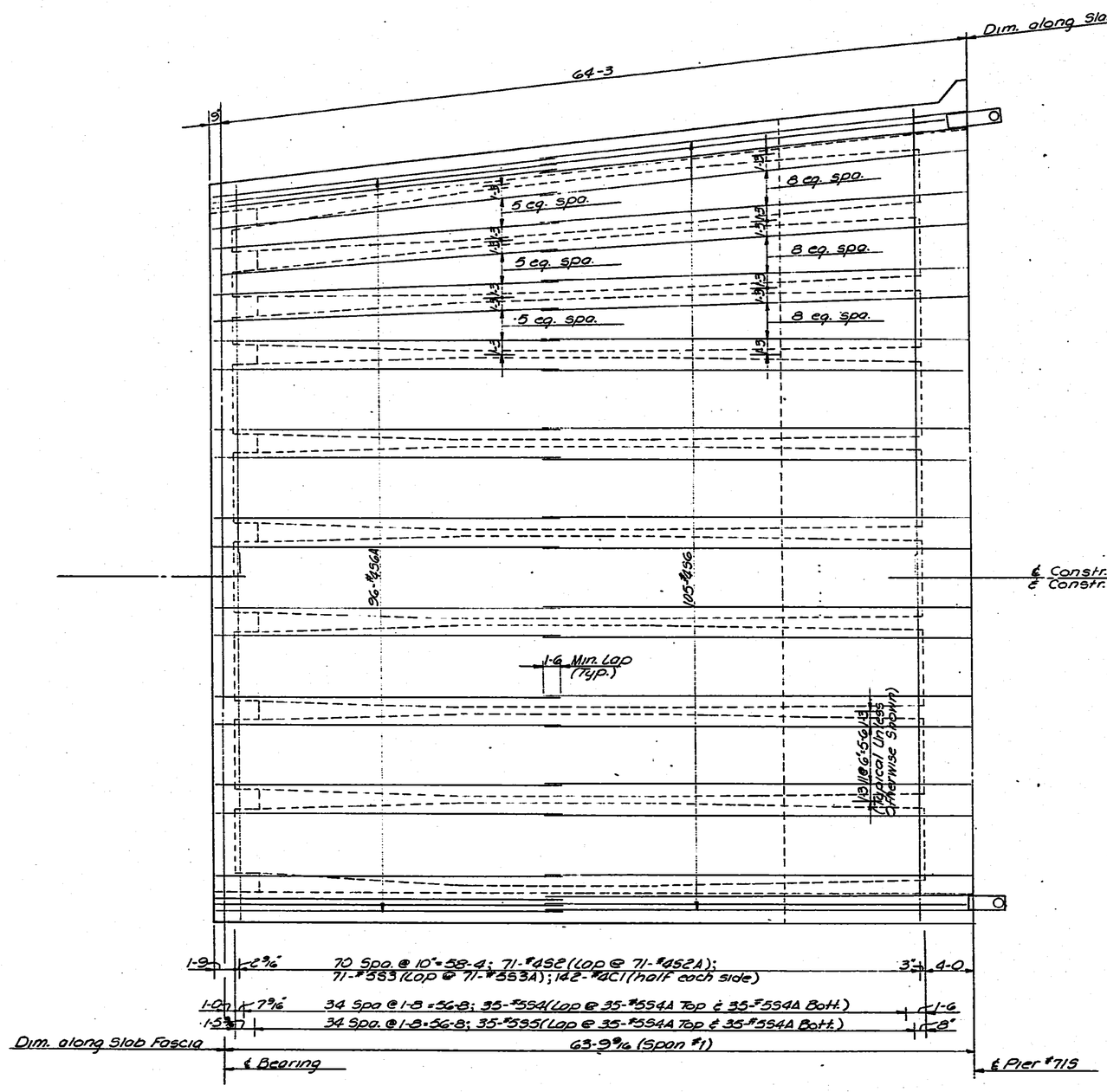
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 4

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48	1970	1568	2137

Phase III



REINFORCING PLAN OF TOP SLAB-SPAN NO. 1
(Showing Transverse Reinf. & Bottom Longit. bars)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET 12 OF 26 SHEETS		APP'D.			
DRAWN DFG	RECHKD EES	CONSTRUCTION AV	TRACED EES		
DESIGN CK. JWH	DETAIL CK. RLF	CORR. CK. TL	TRACE CK. RLF		

TOPEKA BLUE PRINT CO.

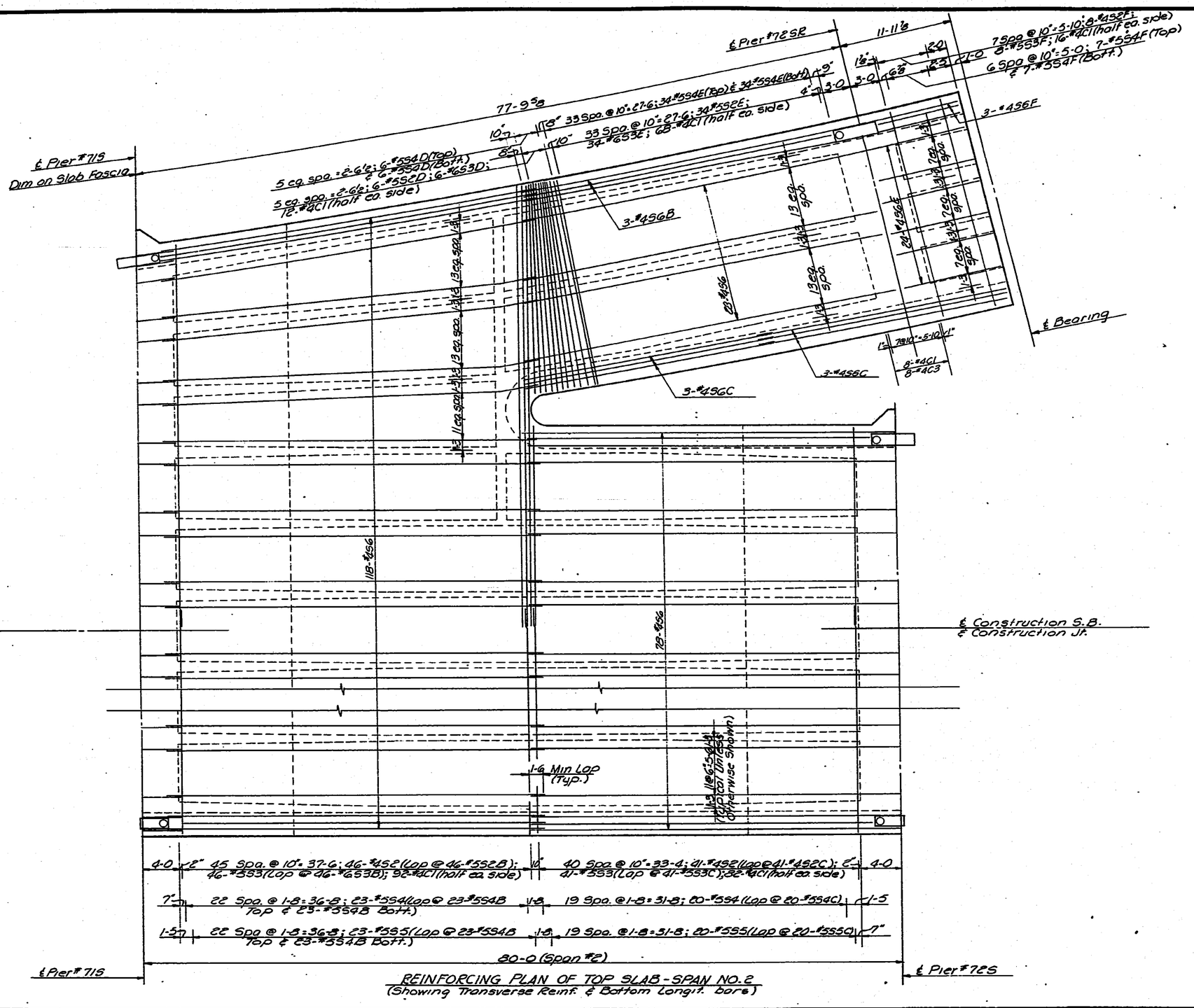
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 5

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48	1970	1569	2137

Phase III



REINFORCING PLAN OF TOP SLAB - SPAN NO. 2
(Showing Transverse Reinf. & Bottom Longit. bars)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 13 OF 24	SCALE	APP'D.	
DESIGNED DFS	DETAILED EES	QUANTITIES AV	TRACED EES
DESIGN CK. JWH	DETAIL CK. RLF	GENERAL CK. TL	TRACE CK. RLF

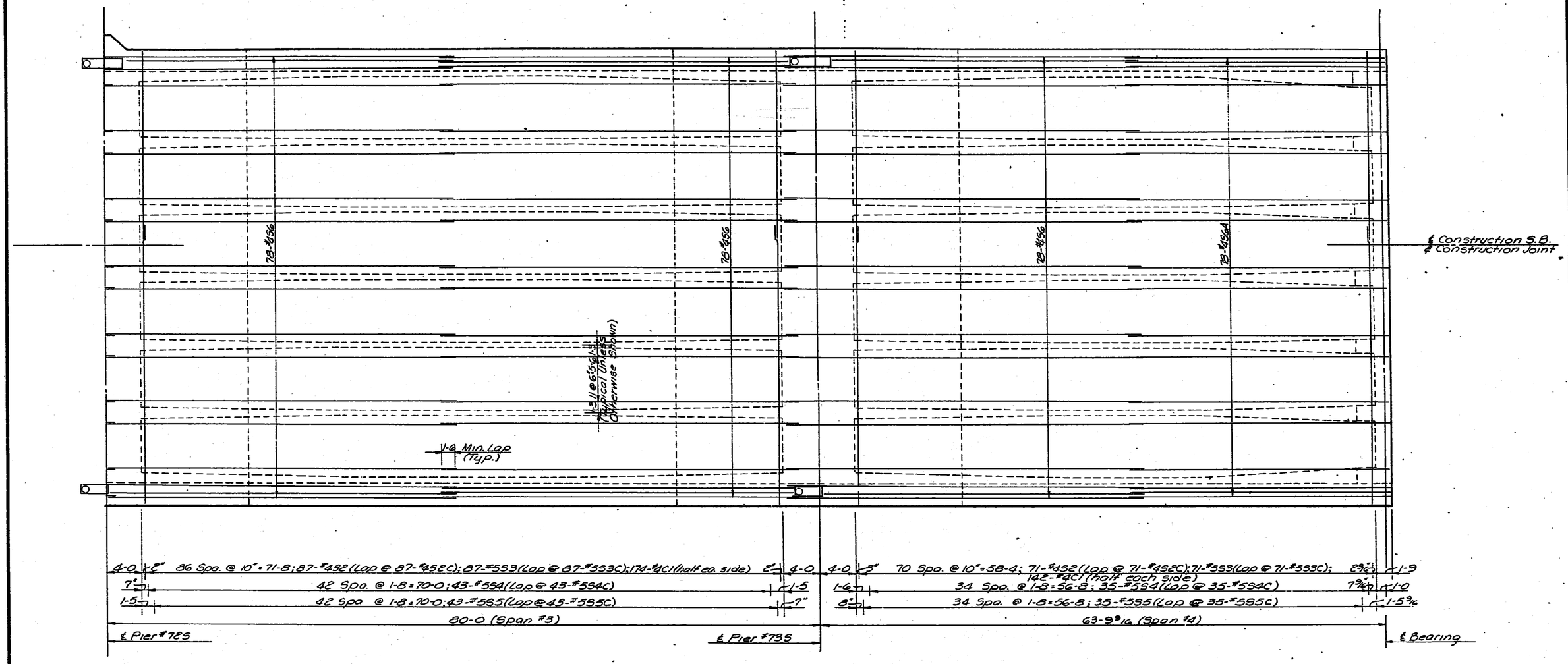
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 6

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase III	19 70	1570	2137



REINFORCING PLAN TOP SLAB - SPANS NO. 3 & NO. 4
(Showing Transverse Reinf. & Bottom Longit. bars)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 12 of 26	SCALE	APP'D.			
DESIGNED DFG	DETAILED EES	CHECKED AV	TRACED EES		
DESIGN CK. JWH	DETAIL CK. RLP	CHECK CK. TL	TRACE CK. RLP		

TOPEKA BLUE PRINT CO.

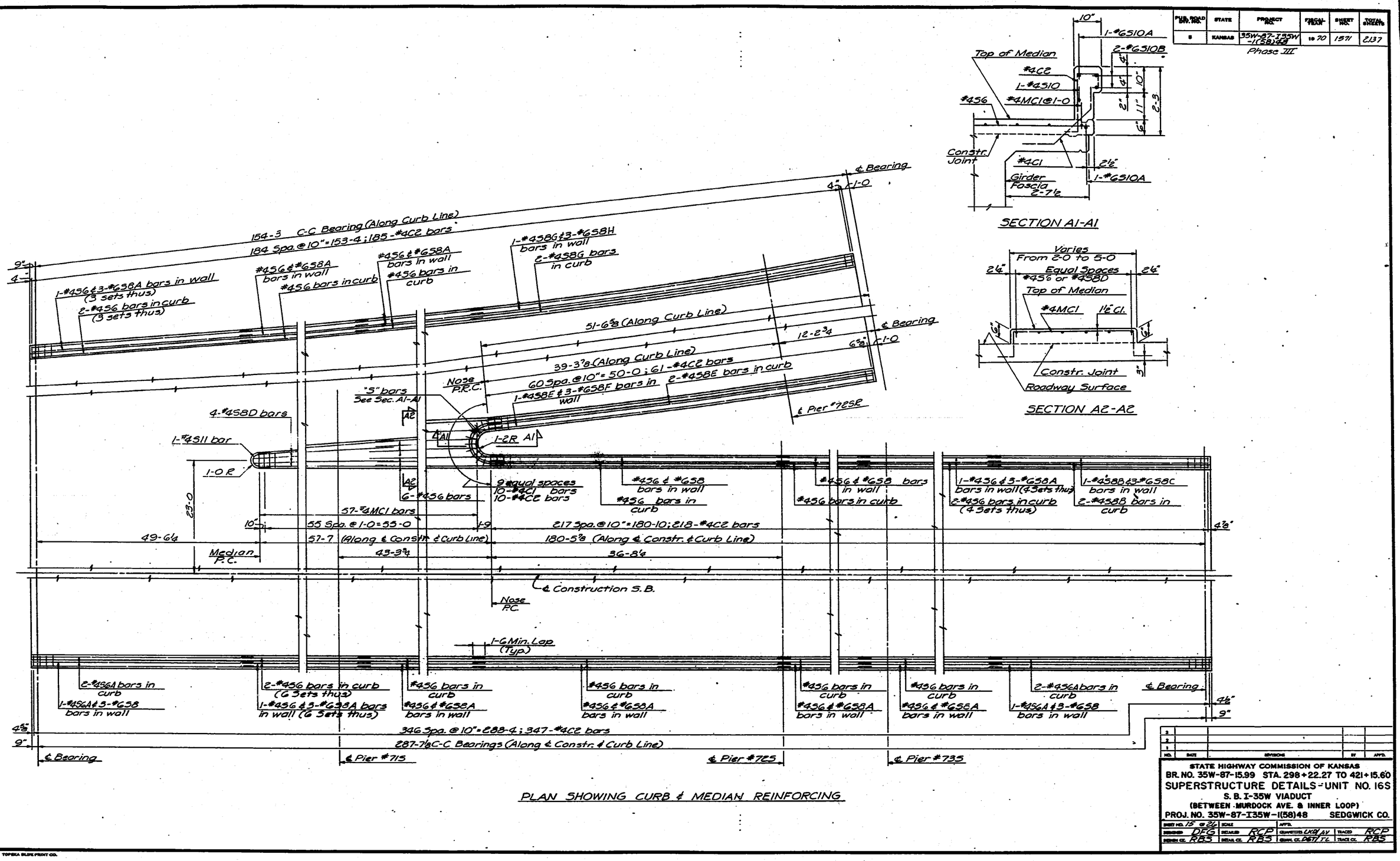
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 7

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48	19 70	1571	2137

Phase III



PLAN SHOWING CURB & MEDIAN REINFORCING

SECTION A1-A1

SECTION A2-A2

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16S
S. B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 15 OF 26	SCALE		APP'D.		
DESIGNED DFG	DETAILED RCP		QUANTITIES LKB/AV	TRACED RCP	
CHECKED RBS	DETAIL CK. RBS		CHECK. CK. PBT/TC	TRACE CK. RBS	

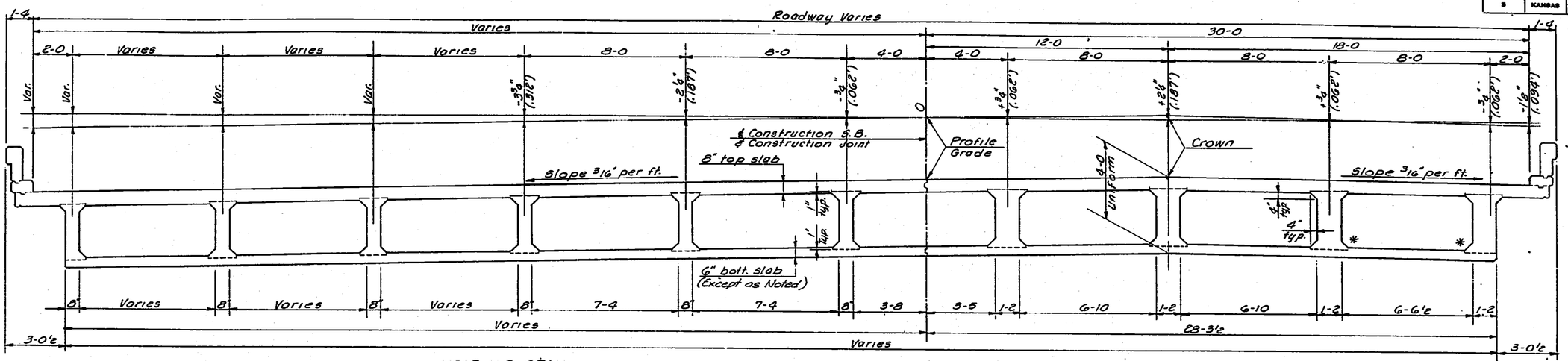
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 8

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W-1(58)48 Phase III	1970	1572	2137

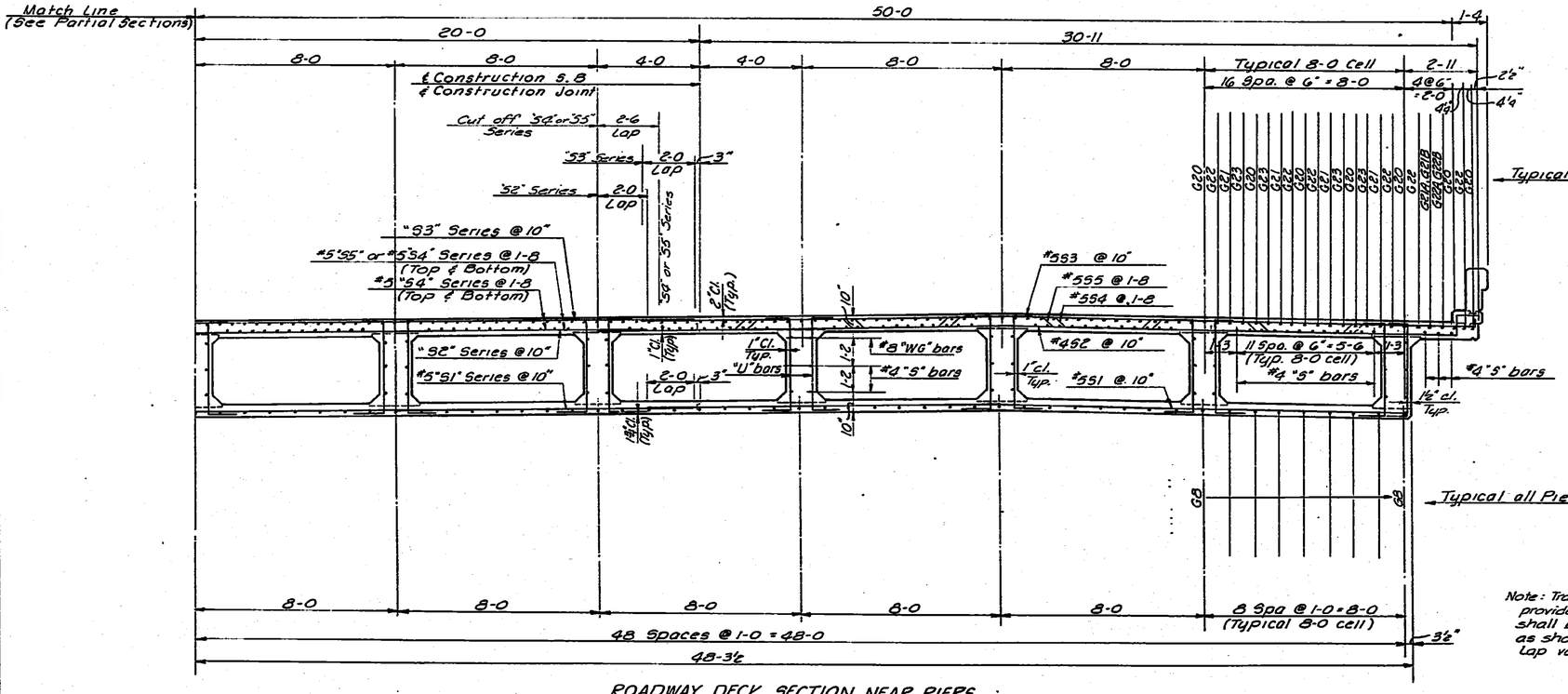


NEAR MID-SPAN

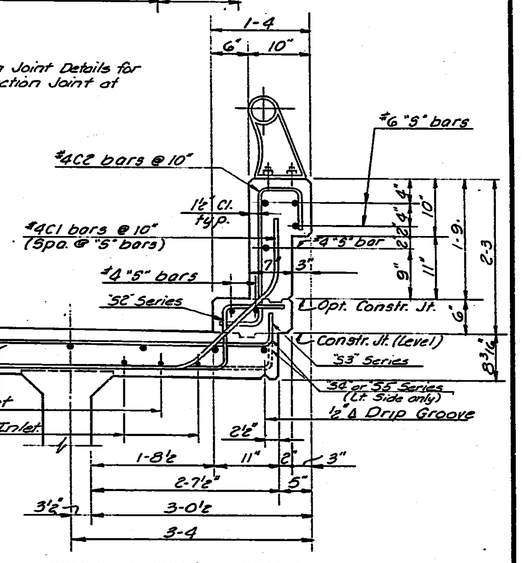
ROADWAY DECK SECTION

NEAR PIER

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.



ROADWAY DECK SECTION NEAR PIERS
(See Reinf. Plans for Specific Transv. Reinf.)



TYPICAL CURB SECTION

NOTE:
See web drawings for #8 "WG" bars, #4 "S" bars, and "U" bars.
See top slab plans for #4 "S" bars in bottom of top slab.

Note: Transverse bars on left side are provided in incremented series and shall be placed with outside end as shown on Typical Curb Section. Lap varies with widening.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE . DETAILS-UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 16 OF 26	SCALE	APP'D.	
DESIGNED DPG	DETAILED EES	QUANTITIES AV	TRACED EES
DESIGN CK. JWH	DETAIL CK. RLF	QUAN. CK. TL	TRACE CK. RLF

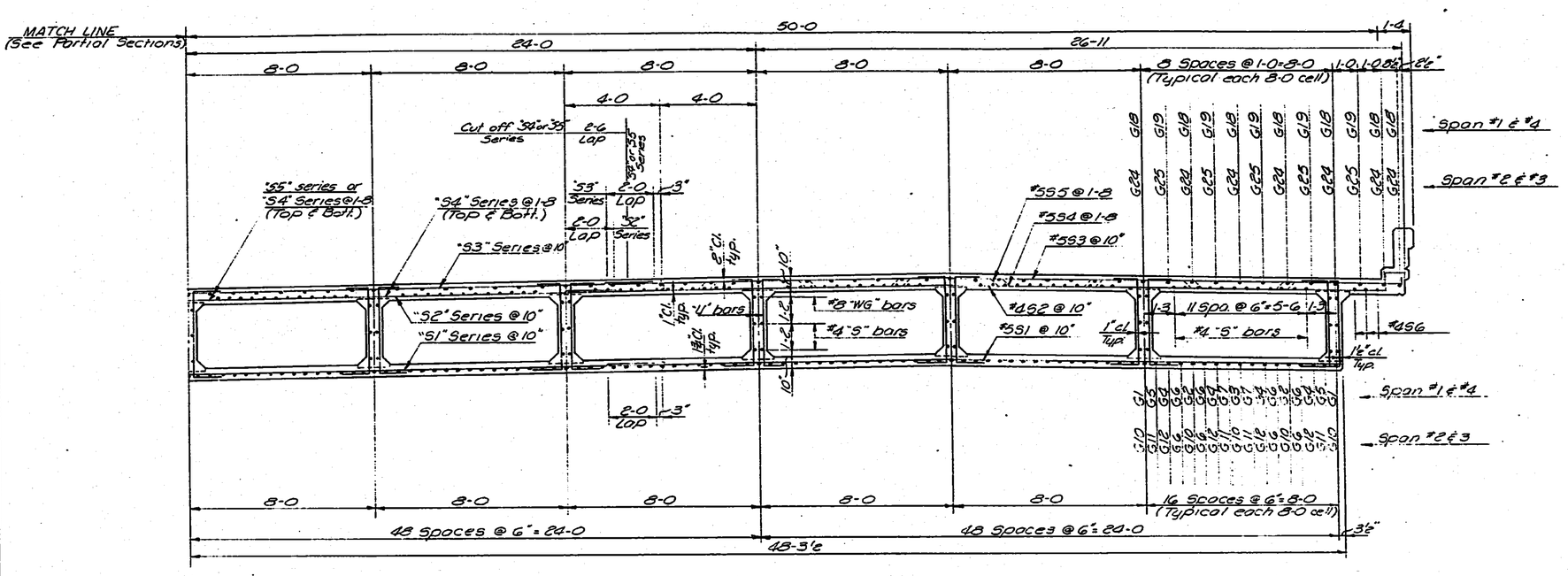
TOPEKA BLUE PRINT CO.

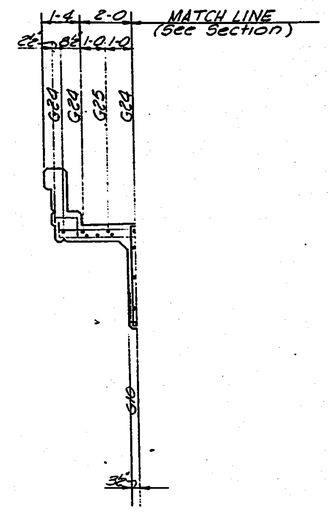
DIST. 5 SEDGWICK CO. ROLL 531

[redacted]

16X 14.5X 12X 12X 14.5X 16X

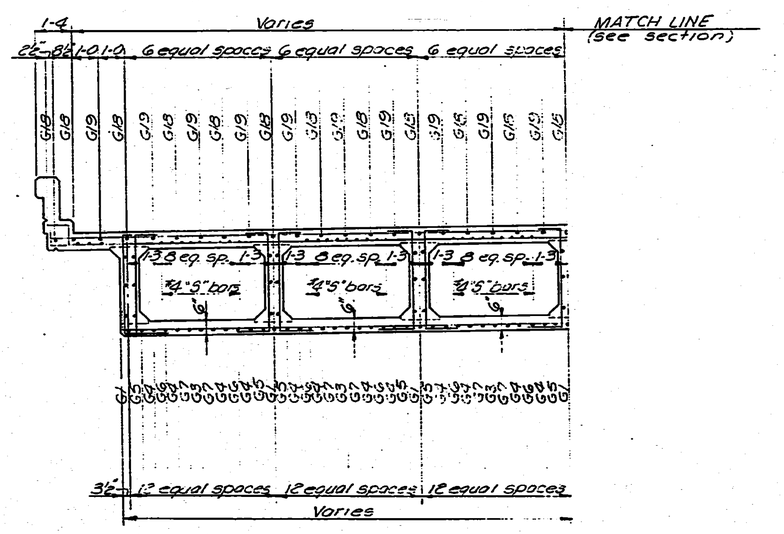
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase III	1970	1578	2137



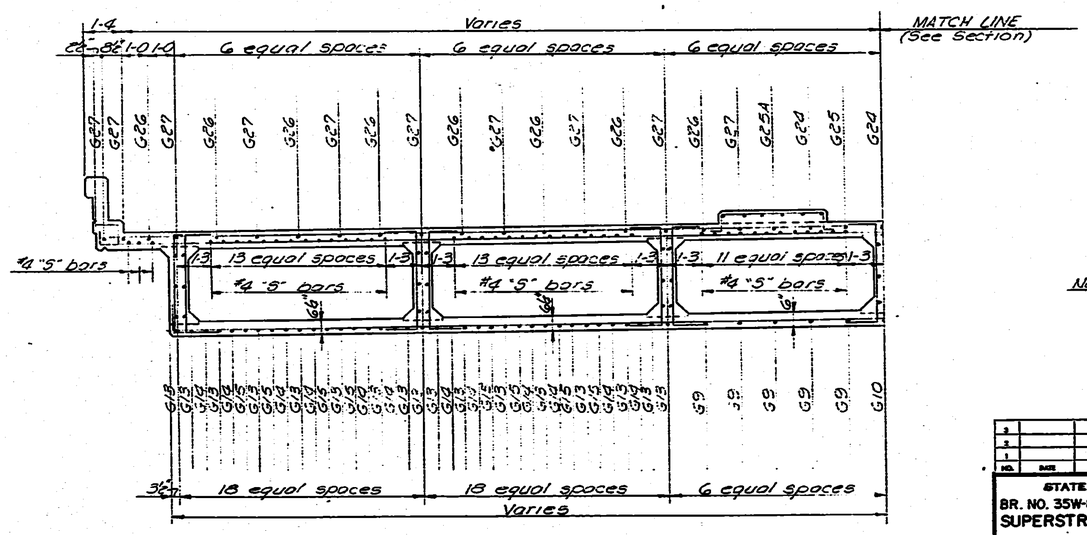


NEAR MID-SPAN NO. 3 & NO. 4

ROADWAY DECK SECTION NEAR MID-SPAN
(See Reinforcing Plans for Specific Transv. Reinf. Steel)



NEAR MID-SPAN NO. 1



NEAR MID-SPAN NO. 2

Note: See Sheet No. 1579 for limits of 66" bottom Slab.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

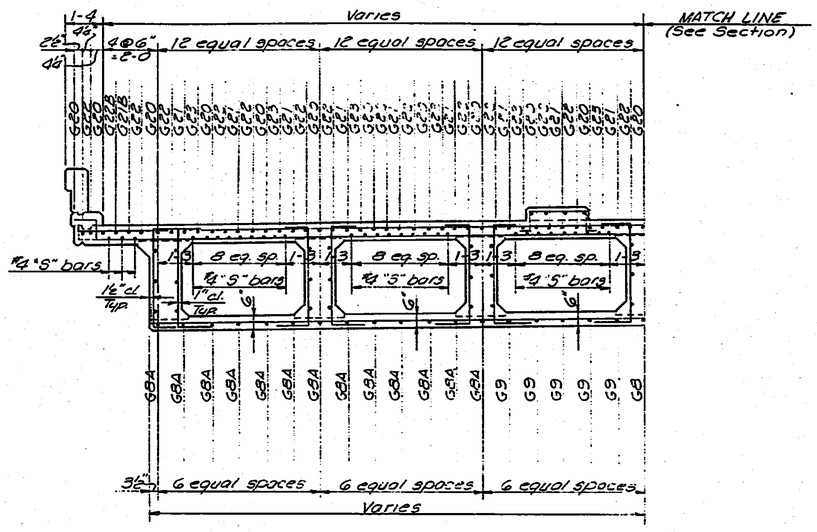
SHEET NO. 17 of 26	SCALE		APP'D.		
DESIGNED DFG	DETAILED EES		QUANTITIES AV	TRACED EES	
DESIGN CK. JWH	DETAIL CK. RLF		SIGNAL CK. TL	TRACE CK. RLF	

TOPEKA BLUE PRINT CO.

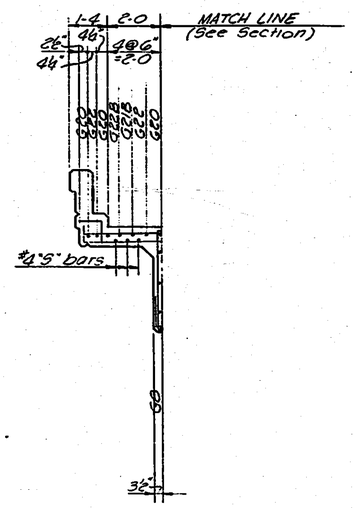
DIST. 5 SEDGWICK CO. ROLL 531

[redacted]

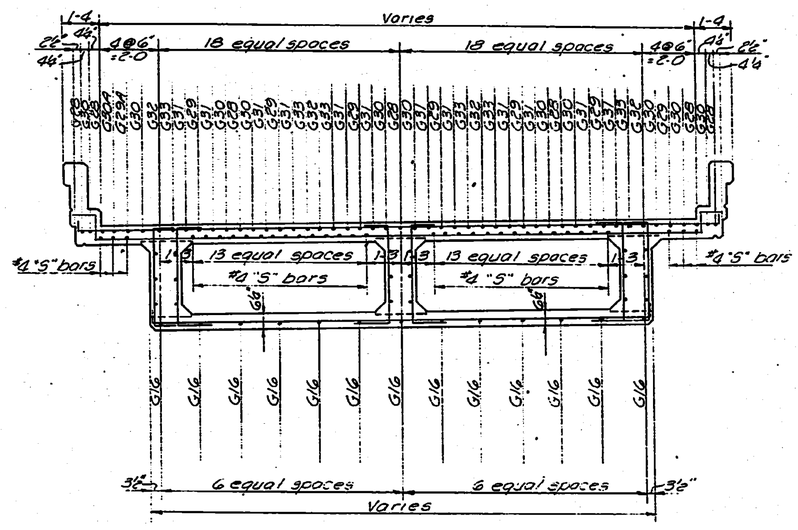
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W-1(58)48 Phase III	1970	1574	2137



NEAR PIER NO. 71S
(In Span #1)



NEAR PIERS NO. 72S & NO. 73S



NEAR PIER NO. 72SR
(In Span #3R)

Note: See Sheet No. 1579 for limits of 6½" bottom slab.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 18 OF 26	SCALE	APP'D.		
DESIGNED DFG	DETAILED EES	QUANTITIES AV	TRACED EES	
DESIGN CK. JWH	DETAIL CK. RLF	QUANT. CK. TL	TRACE CK. RLF	

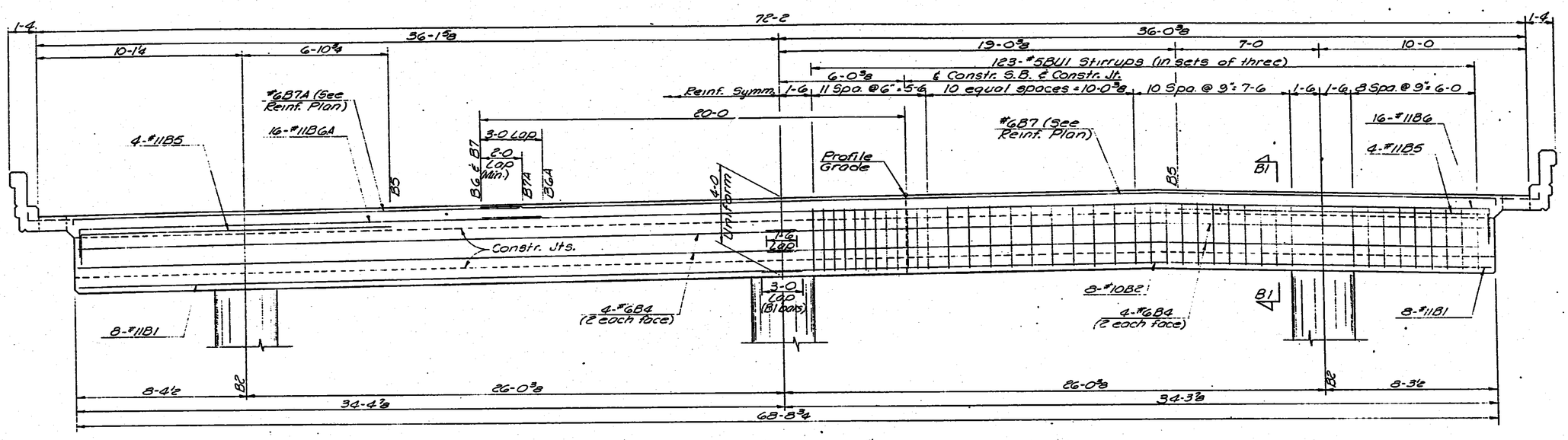
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

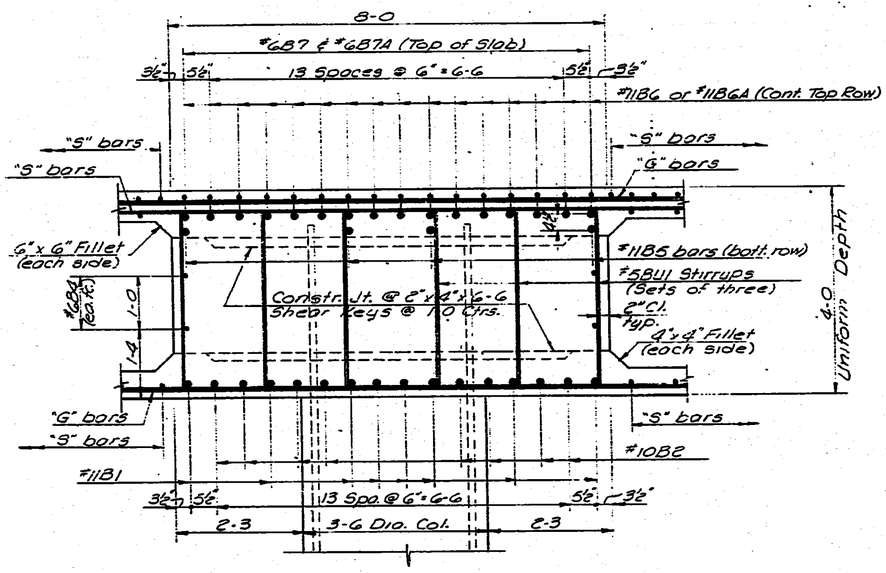
[redacted] 4 1

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase III	1970	1575	2137



SUPERSTRUCTURE PIER BEAM #7IS



SECTION B1-B1
(Pier #718)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 19 of 26	SCALE		APP'D.		
DESIGNED PDP	DETAILED EES		CHECKED AV	TRACED EES	
DESIGN CK. DFG	DETAIL CK. RLF		STRUC. CK. TL	TRACE CK. RLF	

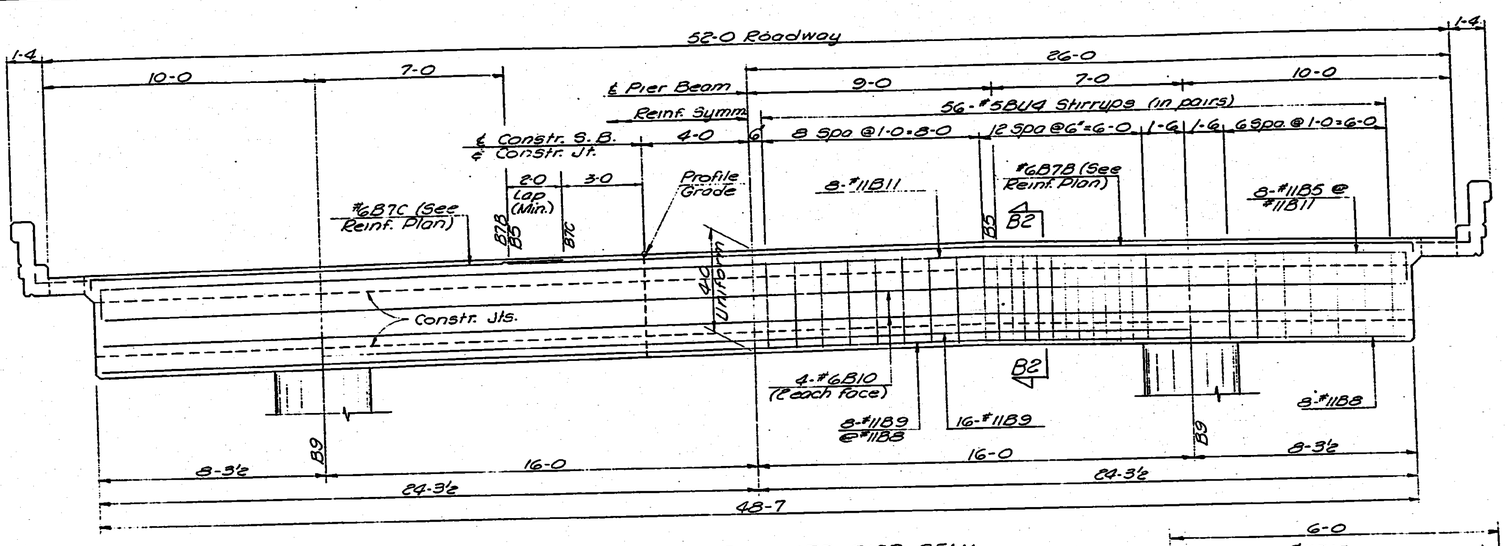
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

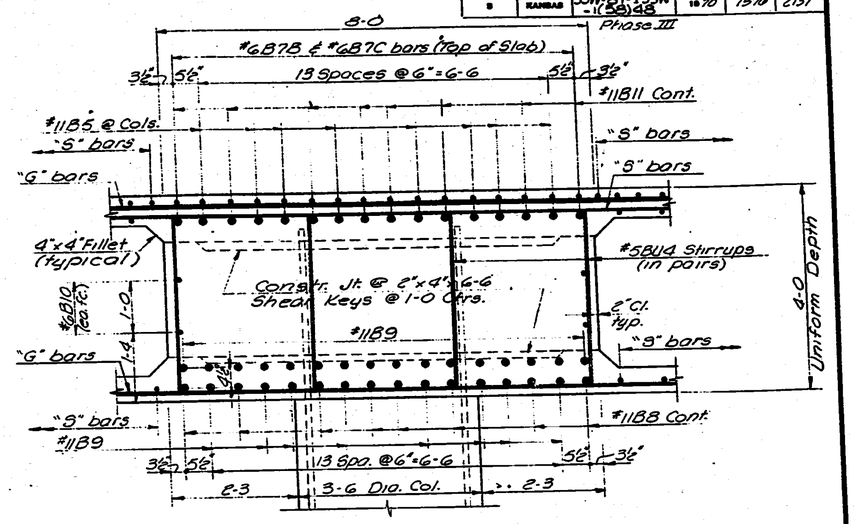
[redacted] 4 2

14X 14.5X 12X 12X 14.5X 16X

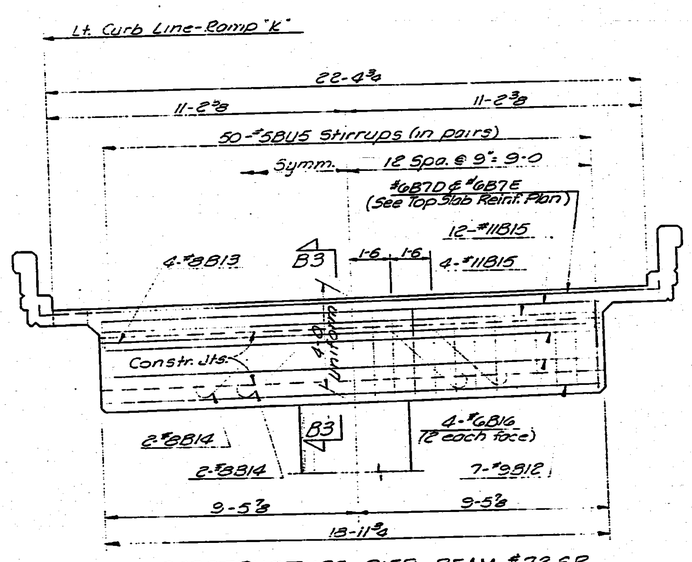
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48	1970	1576	2137



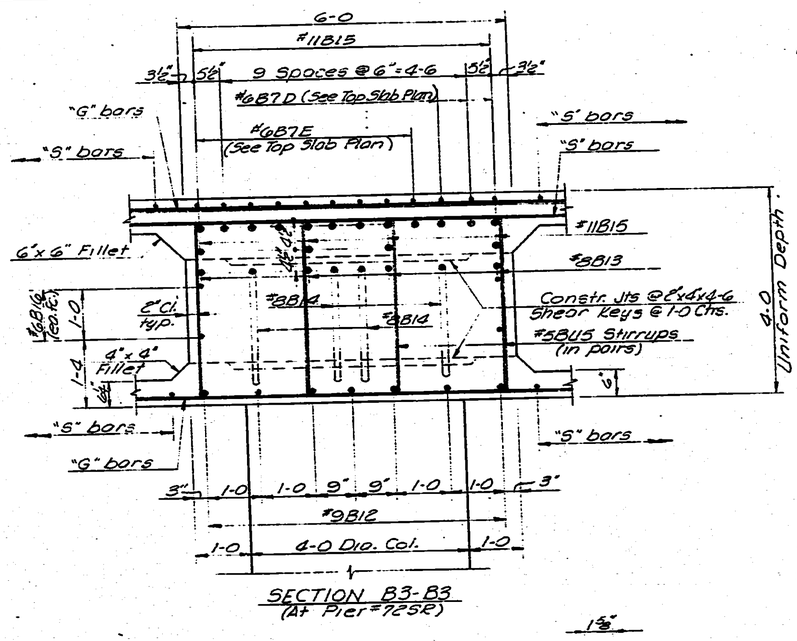
SUPERSTRUCTURE PIER BEAM
(Piers #72S & #73S)



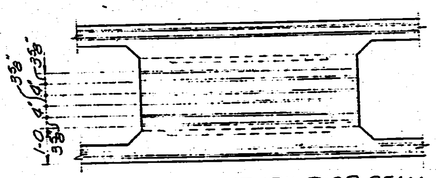
SECTION B2-B2
(Piers #72S & #73S)



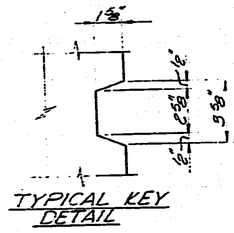
SUPERSTRUCTURE PIER BEAM #72 SR



SECTION B3-B3
(At Pier #72SR)



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing location of keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 20 of 26	SCALE	APP'D.	
DESIGNED PDP	DETAILED EES	COMPUTED AV	TRACED EES
DESIGN CK. DFG	DETAIL CK. RLP	CONST. CK. TL	TRACE CK. RLP

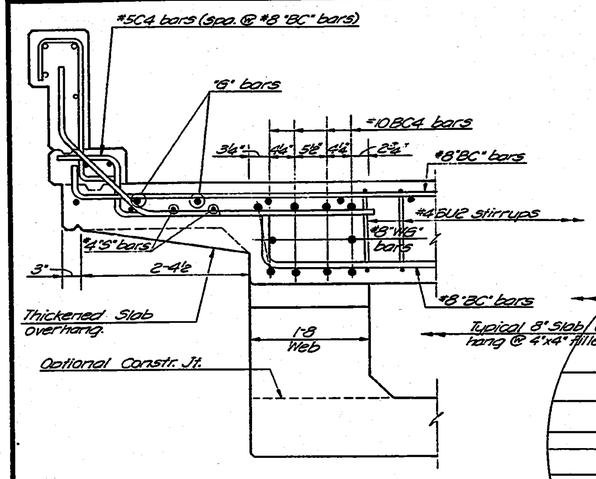
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 3

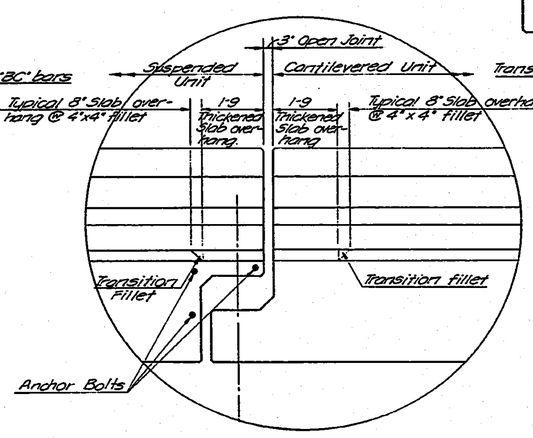
14X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(58)(48)	1970	1577	2137

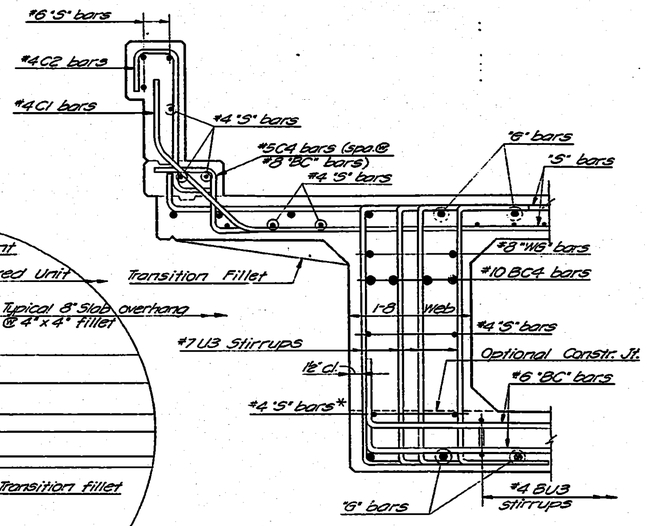
Phase III



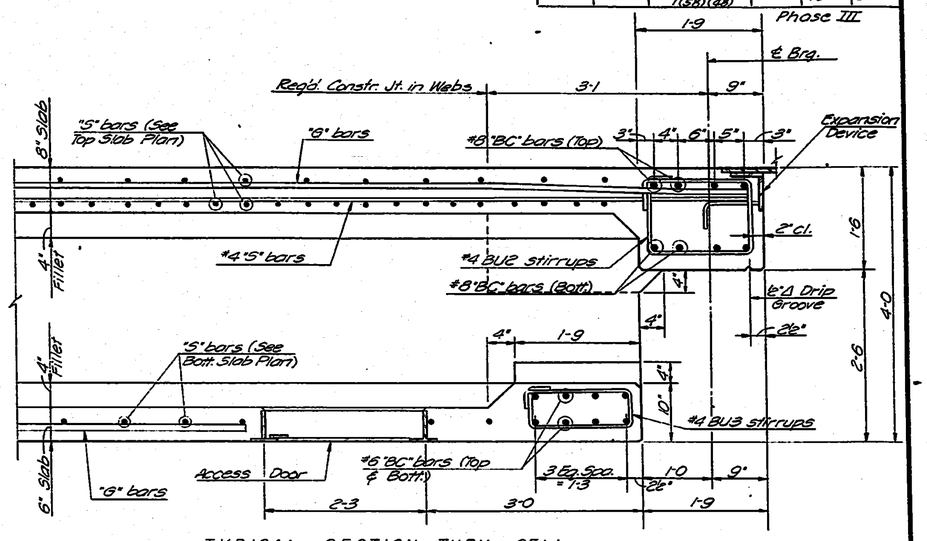
SECTION C2-C2
(Exterior Web)



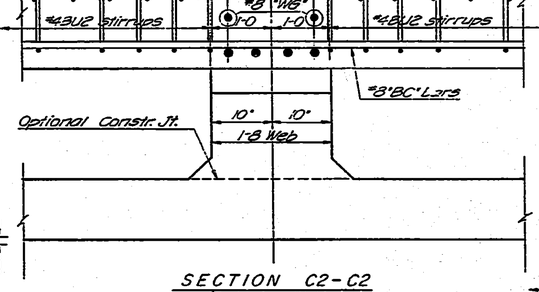
VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)



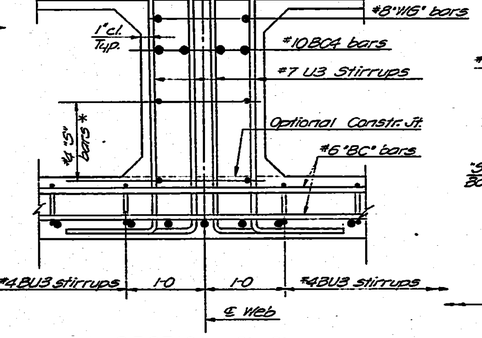
SECTION C1-C1
(Exterior Web)



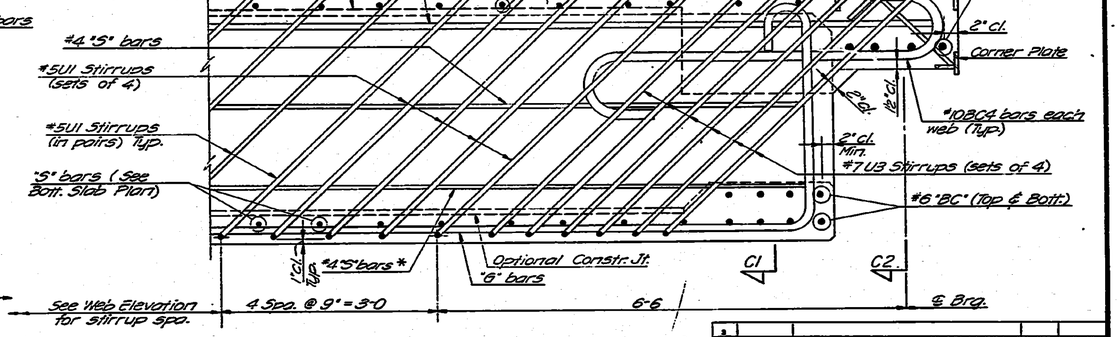
TYPICAL SECTION THRU CELL



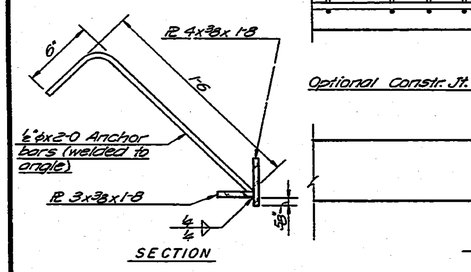
SECTION C2-C2
(Interior Web)

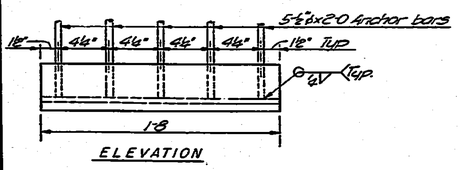


SECTION C1-C1
(Interior Web)



TYPICAL SECTION THRU WEB





CORNER PLATE DETAILS
Computed weight of one assembly is 22 Lbs.

BEARING BEAM DETAILS

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 21 OF 26	SCALE		APP'D.		
DESIGNED DFB	DETAILED DS		QUANTITIES AV	TRACED DS	
DESIGN CK. RBS	DETAIL CK. RBS		QUANT. CK. TL	TRACE CK. RBS	

TOPEKA BLUE PRINT CO.

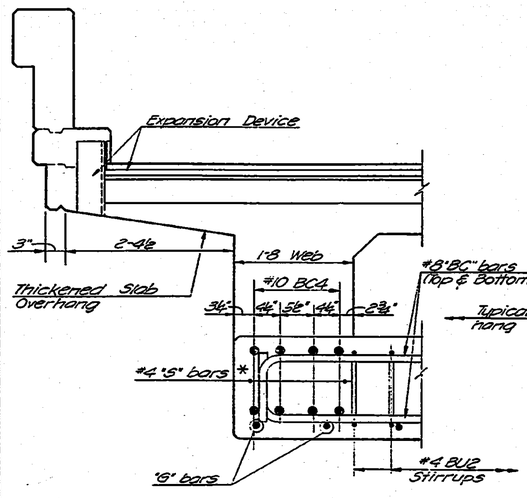
DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted]

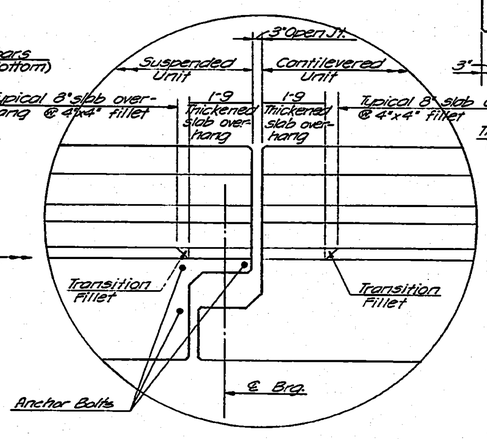
14X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (CSB) 4B	19 70	1578	2137

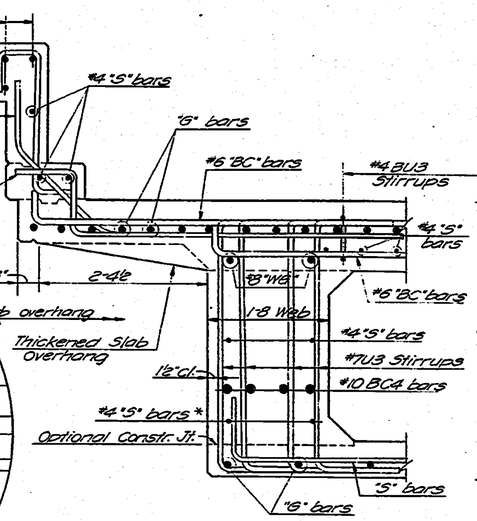
Phase III



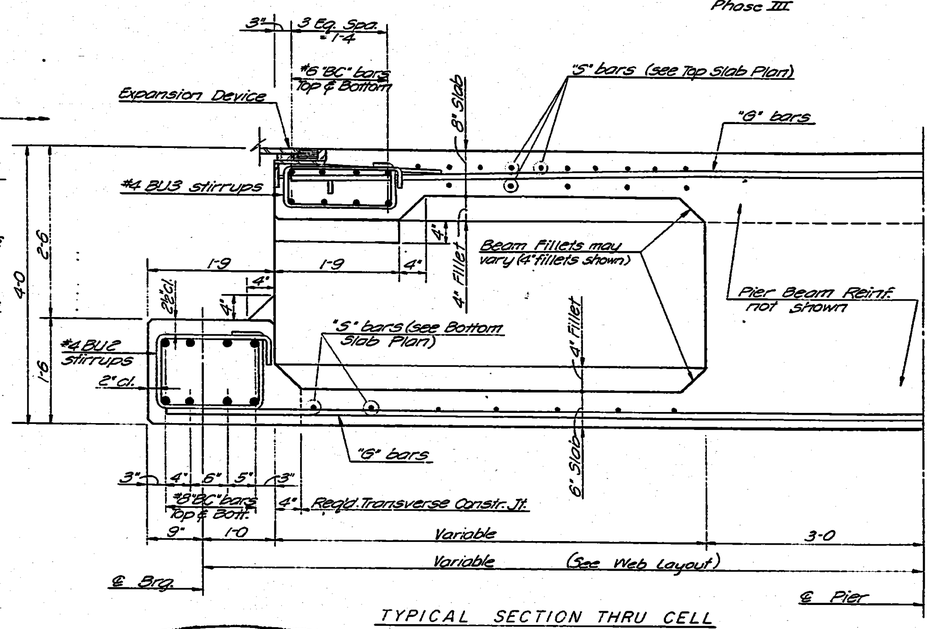
SECTION C3 – C3
(Exterior Web)



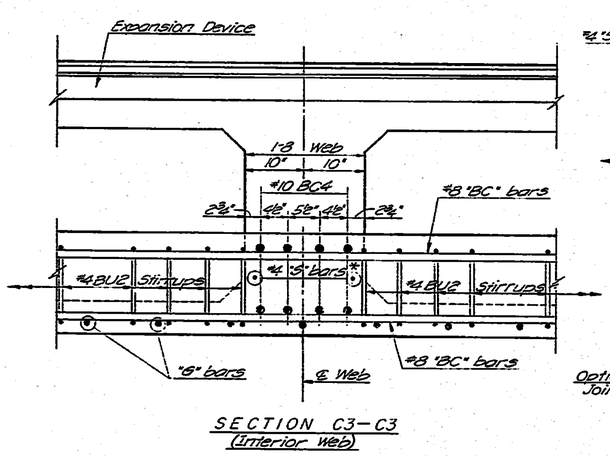
VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)



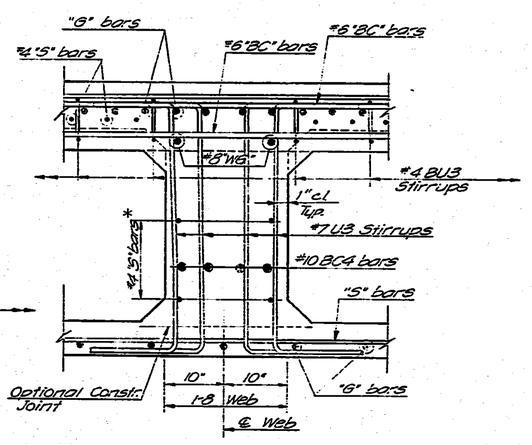
SECTION C4 – C4
(Exterior Web)



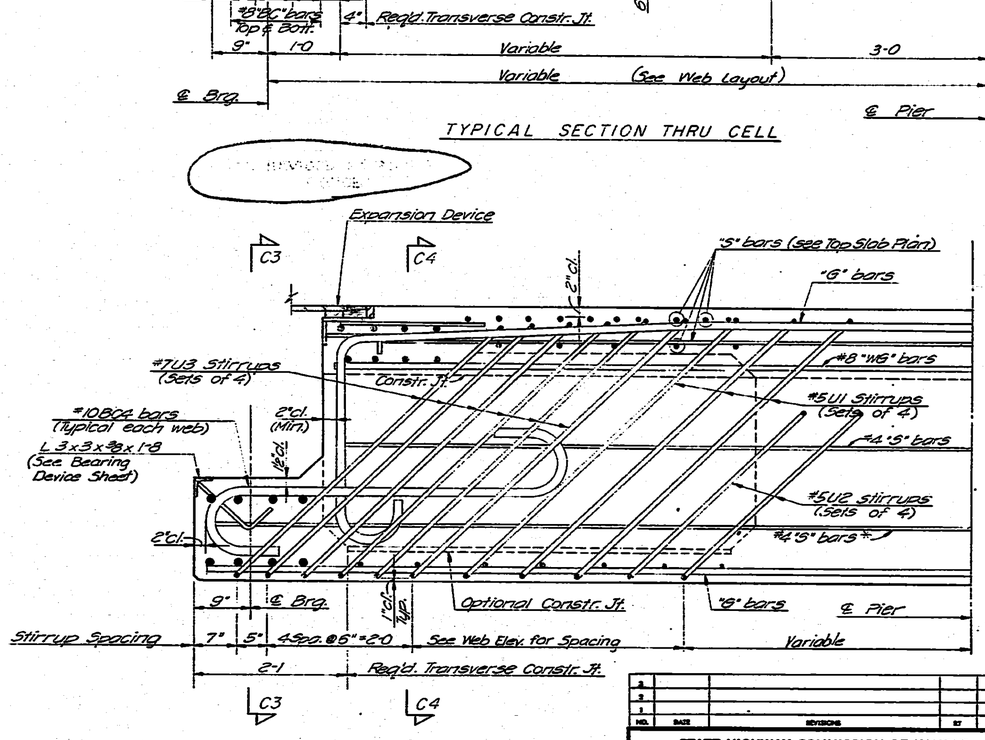
TYPICAL SECTION THRU CELL



SECTION C3 – C3
(Interior Web)



SECTION C4 – C4
(Interior Web)



TYPICAL SECTION THRU WEB

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

BEARING BEAM DETAILS

NO.	DATE	REVISIONS	BY	APP'D.
1				
2				
3				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

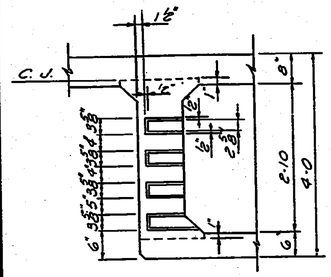
SHEET NO. 22 OF 26	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	COMPUTED AV	TRACED DS
DESIGN CK. RBS	DETAIL CK. RBS	COMP. CK. TL	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

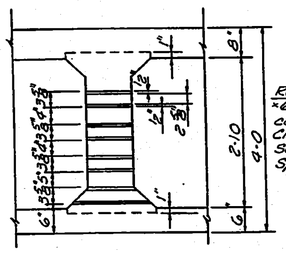
[redacted] 4 5

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase III	1970	1579	2187

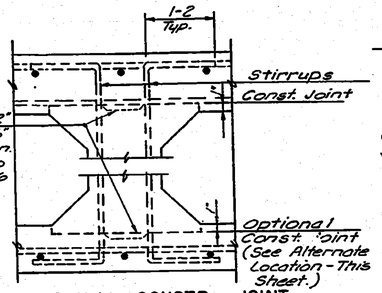


SECTION B-B
(Through Exterior Web)

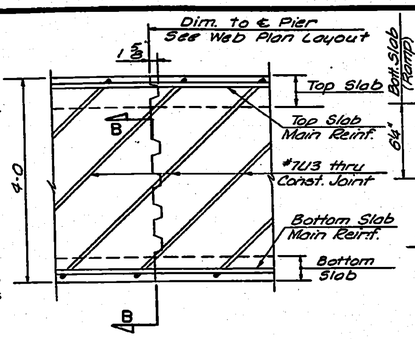


SECTION B-B
(Through Interior Web)

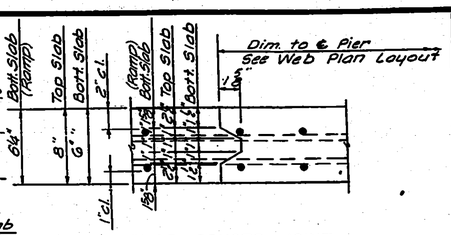
Rake or form ¾"x2" #6 Shear Keys @ 6" centers as shown. Clean according to Sec. F1-4(g), 1966 Specs.



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

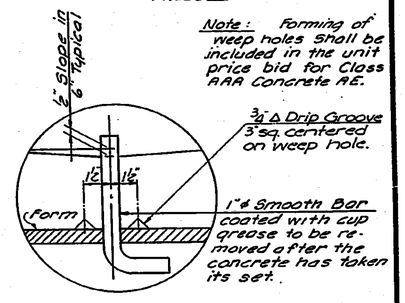


WEB CONSTR. JOINT
(Showing Placement of #7U3 bars.)



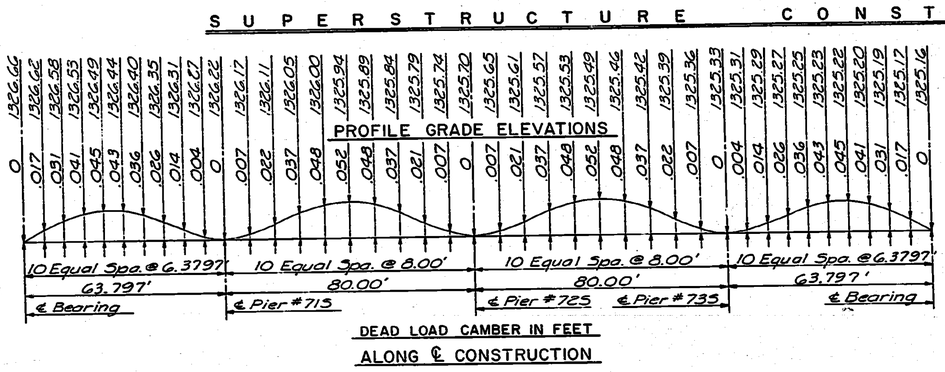
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of weep holes shall be included in the unit price bid for Class AAA Concrete AE.

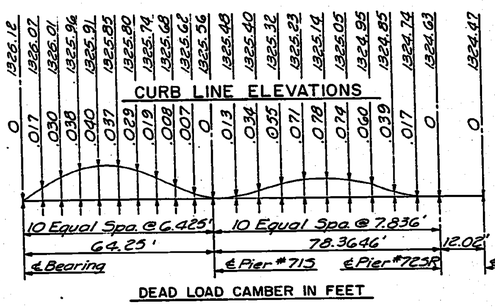


DETAIL OF WEEP HOLES

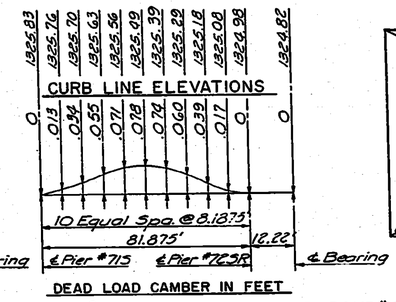
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



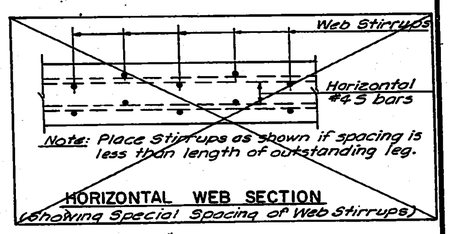
DEAD LOAD CAMBER IN FEET
ALONG ℄ CONSTRUCTION



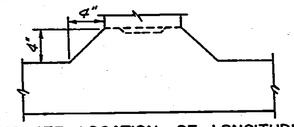
DEAD LOAD CAMBER IN FEET
ALONG LEFT GIRDER FASCIA



DEAD LOAD CAMBER IN FEET
ALONG ℄ RIGHT FASCIA GIRDER - RAMP "K"



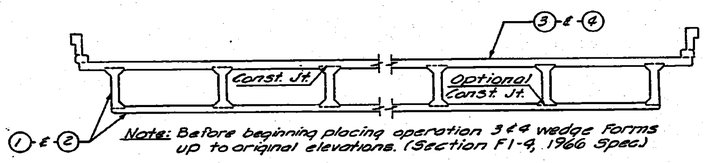
HORIZONTAL WEB SECTION
(showing Special Spacing of Web Stirrups)



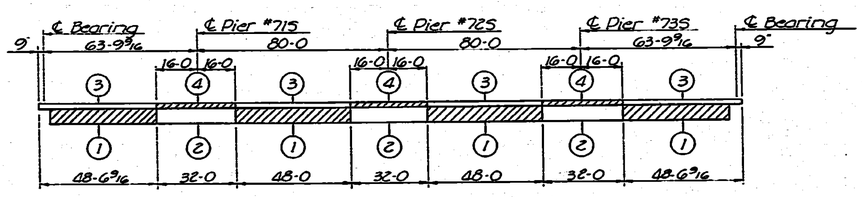
ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer.)

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL TOP OF SLAB ELEVATIONS AT TENTH POINTS

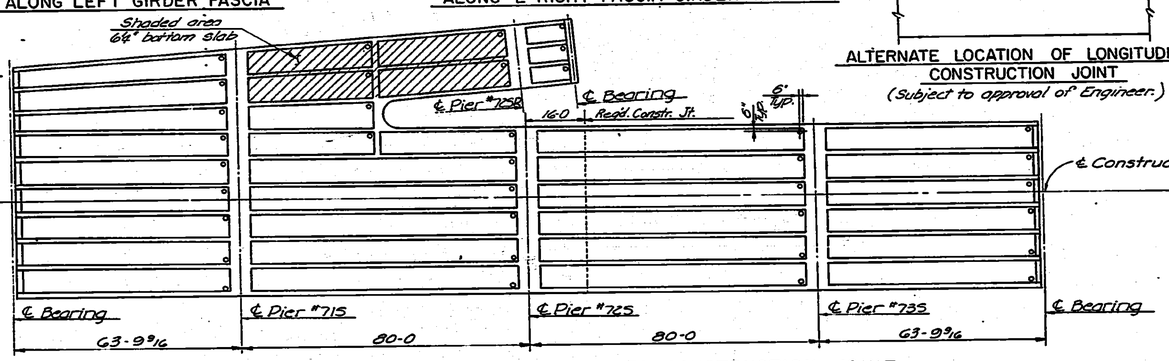
NOTE: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ p.s.i.



CROSS SECTION OF SUPERSTRUCTURE



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework



LOCATION OF WEEP HOLES & REQUIRED CONSTRUCTION JOINT

See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 23 of 26	SCALE		APP'D.		
DESIGNED DEC	DETAILED RAW	CHECKED LKD/AV	TRACED DGT		
DESIGN CK. PBS	DETAIL CK. PBS	CHKR. OF DIGITIZ.	DIGITIZ. CK. PBS		

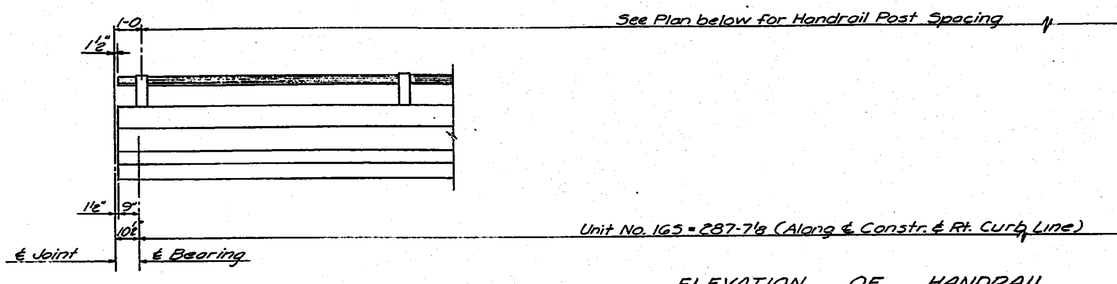
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 6

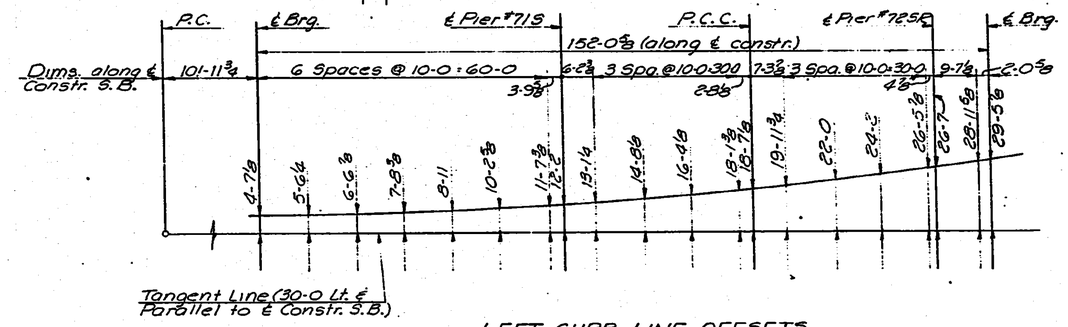
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-I35W-1(58)48	1970	1680	2137

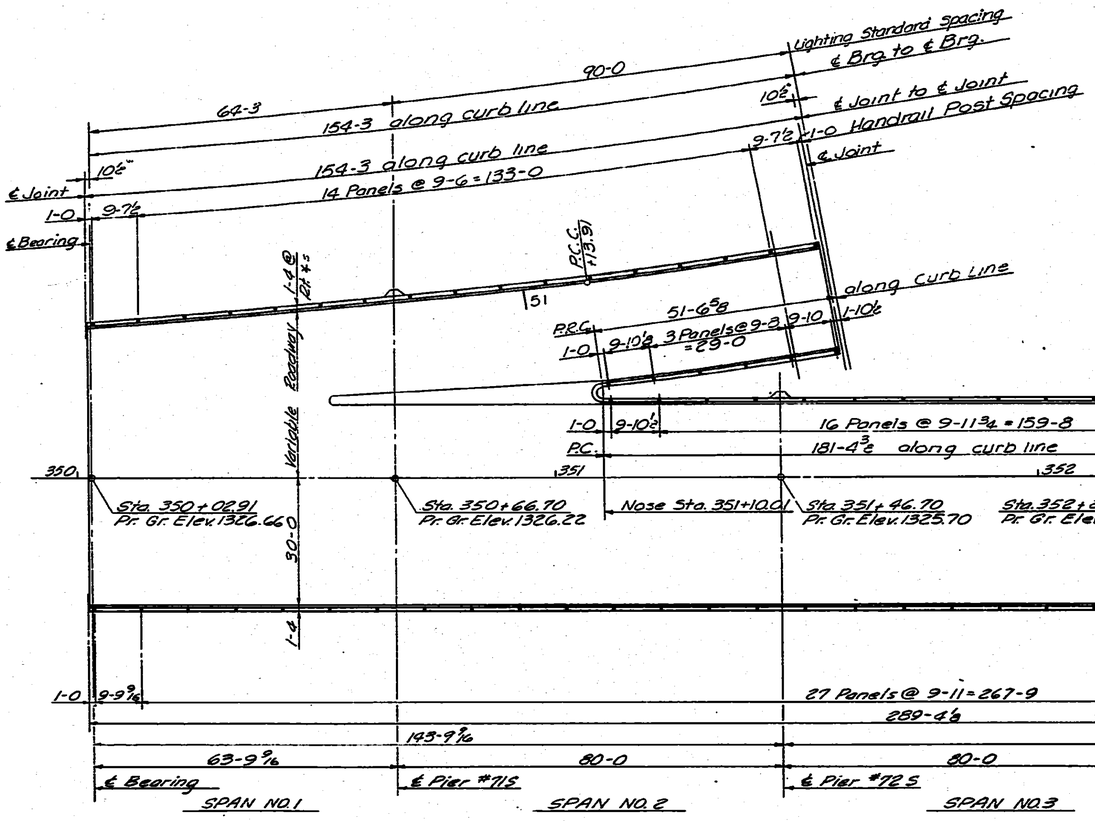
Phase III



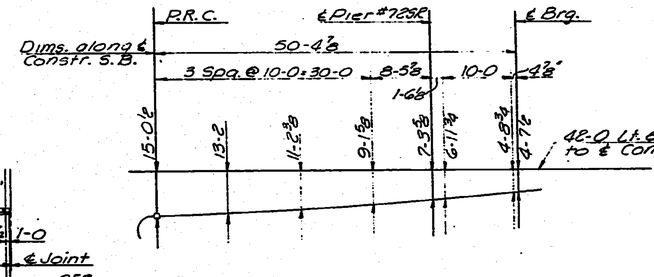
ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)



LEFT CURB LINE OFFSETS
(Span #1 ℄ #2R)



SUPERSTRUCTURE LAYOUT



RIGHT CURB LINE OFFSETS
(Along Span "2R")

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 22 OF 26 SHEETS		APP'D.	
DESIGNED JWH	DETAILED RBS	CHECKED LJD/AV	TRACED CRB
DESIGN CK. RBS	DETAIL CK. RBS	GRADE CK. DSTT/TL	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 7

16X 14.5X 12X 12X 14.5X 16X

REV. PLANS 11-1-71

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 PROJECT NO.	1970	1581	2137

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	312	5	31-5
				S1A	69	5	*
				S1C	42	5	*
				S1D	196	5	20-11
				(See below)			
				S2	316	4	35-11
				S2A	71	4	*
				S2B	46	5	*
				S2C	199	4	21-11
				S2D	6	5	26-0
				S2E	34	5	*
				S2F	8	4	26-6
				S3	316	5	33-6
				S3A	71	5	*
				S3B	46	6	*
				S3C	199	5	23-0
				S3D	6	6	24-6
				S3E	34	6	*
				S3F	8	5	25-0
				S4	156	5	36-5
				S4A	190	5	*
				S4B	92	5	*
				S4C	98	5	23-1
				S4D	12	5	24-6
				S4E	68	5	*
				S4F	14	5	25-0
				S5	156	5	36-5
				S5C	98	5	23-1
S6	812	4	40-0				
S6A	180	4	30-0				
S6B	3	4	33-0				
S6C	6	4	27-0				
S6D	Not	Used					
S6E	24	4	11-0				
S6F	3	4	8-0				
S7	56	4	27-11				
S7A	2	4	37-3				
S7B	2	4	39-0				
S7C	4	4	27-4				
S7D	2	4	41-0				
S7E	2	4	42-9				
S7F	4	4	10-10				
S7G	4	4	12-8				
S8	6	6	30-0	S10D	5	5	*
S8A	39	6	40-0	S1E	4	5	*
S8B	3	4	27-0	S1F	41	5	*
S8C	3	6	27-0	S1G	9	5	20-9
S8D	4	4	20-0				
S8E	3	4	50-5				
S8F	3	6	50-5				
S8G	3	4	38-6				

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
S8H	3	6	38-6				
				S10	1	4	9-5
				S10A	2	6	9-5
				S10B	2	6	8-0
				S11	1	4	6-0
				G1	17	10	55-2
G2	24	10	50-5				
G3	15	10	25-5				
G4	60	9	50-5				
				G5	30	9	50-0
G6	102	9	30-0				
G7	30	9	40-5				
G8	147	8	28-0				
G8A	13	10	31-0				
G9	5	8	34-4				
G10	50	10	56-0				
G11	98	9	46-0				
G12	98	9	56-0				
G13	17	11	60-0				
G14	12	11	53-0				
G15	8	11	40-0				
G16	13	10	20-6				
				G17	1	10	19-1
G18	67	5	41-5				
G19	61	5	46-5				
G20	96	11	50-0				
G21	81	11	40-0				
G21A	4	11	19-0				
G21B	8	11	17-0				
G22	96	11	26-0				
G22A	4	11	12-0				
G22B	8	11	10-0				
G23	78	11	16-0				
G24	57	5	33-0				
G25	52	5	49-0				
G25A	1	5	23-0				
G26	8	5	*				
G27	10	5	*				
G28	7	11	36-0				
G29	7	11	31-0				
G29A	1	11	16-0				
G30	11	10	24-0				
G30A	1	10	10-0				
G30B	2	10	8-0				
G31	12	11	19-0				
				G32	4	11	40-7
				G33	6	10	28-5

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
B1	16	11	35-9				
B2	8	10	52-0				
B4	8	6	35-0				
				B5	40	11	16-8
				B6	16	11	49-7
				B6A	16	11	28-9
				B7	16	6	51-5
				B7A	16	6	25-7
				B7B	32	6	36-5
				B7C	32	6	20-5
				B7D	3	6	25-4
				B7E	9	6	22-0
B8	16	11	48-3				
B9	48	11	32-0				
B10	8	6	48-3				
				B11	16	11	51-3
B12	7	9	18-8				
B13	4	8	18-8				
				B14	4	8	18-8
				B15	16	11	21-8
B16	4	6	18-8				
				BC1	16	6	31-5
				BC1A	8	6	33-7
				BC1B	8	6	20-11
				BC1C	8	8	21-0
				BC2	8	8	32-8
				BC2A	4	8	33-2
				BC2B	4	8	20-8
				BC2C	4	6	19-9
				BC3	8	8	34-9
				BC3A	4	8	35-3
				BC3B	4	8	22-9
				BC3C	4	6	25-4
				BC4	84	10	8-2
				C1	809	4	3-3
				C2	821	4	3-8
				C3	76	4	2-5
				C4	24	5	5-7
C5	28	4	2-6				
				BU1	246	5	17-4
				BU2	165	4	6-1
				BU3	108	4	4-11
				BU4	224	5	18-0
				BU5	50	5	15-4
				U1	4084	5	7-7
				U2	172	5	6-1
				U3	792	7	7-7

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				D1	4	8	36-6
D2	2	5	34-6				
				D3	3	6	17-1
				DU1	68	5	6-0
				MC1	57	4	*
WG1	88	8	40-0				
WG2	28	8	50-5				
WG2A	2	8	43-8				
WG2B	2	8	30-10				
WG2C	4	8	11-2				
WG2D	2	8	40-9				
				LB1	8	4	7-4
				LB2	6	4	9-4

* See Bending Diagrams.

All bar marks shall be prefixed with the Unit Number when fabricated. Example: #1061 bars shall be marked 16S1061.

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Elastomeric Exp. Device (13")	25	Lin. Ft.
Class AAA Concrete AE	1618.5	Cu. Yds.
Reinforcing Steel	420,150	Lbs.
Cast Iron Scuppers		Lbs.
Wrought Iron Drains & Grates	4,360	Lbs.
8" ϕ Downspouts	220.94	Lin. Ft.
Gutters		Lin. Ft.
Bridge Handrail	676.51	Lin. Ft.
Structural Steel		
Bearing Devices (A36) 17@242 Lbs.	4114	Lbs.
Expansion Devices (A36)	868	Lbs.
Access Doors (A36) 15@130 Lbs.	1950	Lbs.
Corner Angles (A36) 4@19 Lbs.	76	Lbs.
Corner Plates & Cover Plates (A36)	562	Lbs.
Linseed Oil Surface Treatment (Bridges)	1994.0	Sq. Yds.

NO.	DATE	REVISIONS	BY	APP'D.
1	11-1-71	Rev. Exp. Devices	WHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SCHEDULE OF QUANTITIES-UNIT NO. 16S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-1 35W-(58)48 SEDGWICK CO.

SHEET NO. 25 OF 26 SHEETS		APP'D.	
DESIGNED DFG	DETAILED EES	CHECKED AV	TRACED EES
DESIGN CH. RBS	DETAIL CH. RLF	QUANT. CH. TL	TRACE CH. RLF

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 8

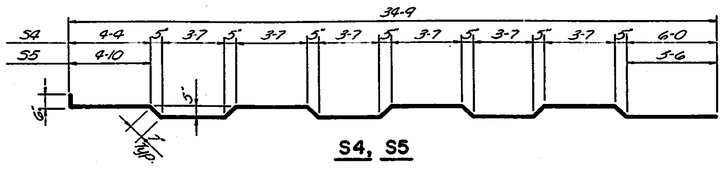
16X 14.5X 12X 12X 14.5X 16X

BENDING DIAGRAMS

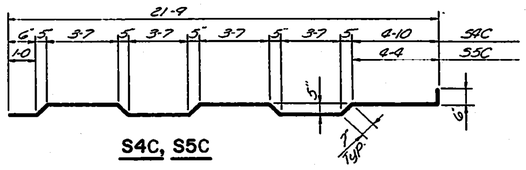
(Bar Dimensions are Out to Out.)

REV. PLANS 11-1-71

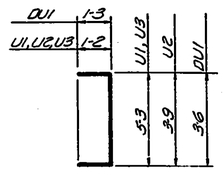
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W I-(58)48 Phase III	1970	1582	2137



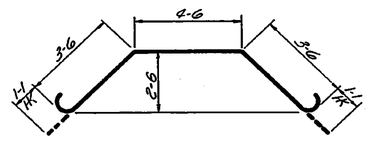
S4, S5



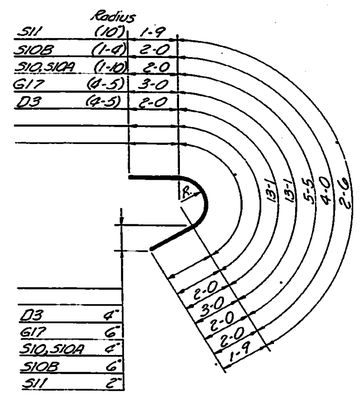
S4C, S5C

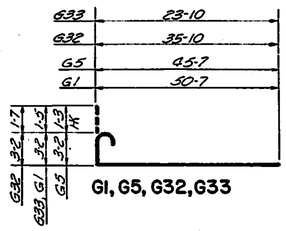


U1, U2, U3

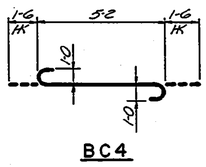


B14

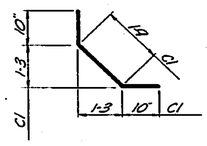




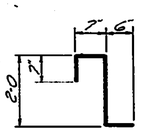
G1, G5, G32, G33



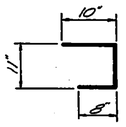
BC4



C1



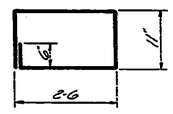
C2



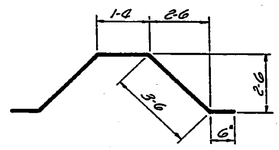
C3

G26	by 6" incr. from 41-0 to 45-6	Cut 1 ea.
G27	by 5" incr. from 30-10 to 36-5	Cut 1 ea.

G26, G27

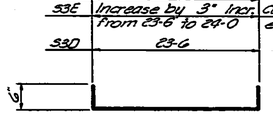


LB1



LB2

S4E	Increase by 3" Incr. from 23-6 to 24-0	Cut 22 ea. length except 2 @ 24-0
S4D	23-6	
S4F	24-0	
S3F	24-0	
S3E	Increase by 3" Incr. from 23-6 to 24-0	Cut 11 ea. length except 12 @ 24-0
S3D	23-6	

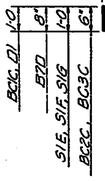


S3D, S3E, S3F
S4D, S4E, S4F

B15	18-8
B11	48-3

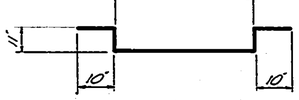
B11, B15

S16	18-9
S1F	20 @ 18-3 ; 21 @ 18-6
S1E	Incr. by 3" incr. from 18-3 to 19-3 — Cut 1 ea. length
BC3C	24-4
BC2C	18-9
D1	34-6
BC1C	19-0
B7D	24-0



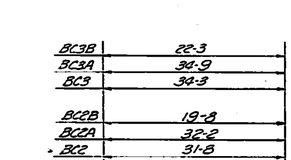
B7D, BC1C, D1
BC2C, BC3C,
S1E, S1F, S1G

MC1	Incr. by 6" Incr. from 1-8 to 4-8	Cut 3 ea.
S2F	23-0	
S2E	Incr. by 3" Incr. from 22-6 to 23-0	Cut 11 ea. except 12 @ 23-0
S2D	22-6	



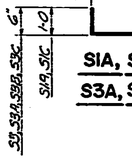
MC1, S2D, S2E, S2F

BC3B	22-3
BC3A	34-9
BC3	34-3
BC2B	19-8
BC2A	32-2
BC2	31-8
BC1B	19-11
BC1A	32-7
BC1	30-5



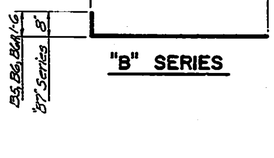
"BC" SERIES

S3C	22-6	
S3B	Increase by 6" incr. from 43-4 to 48-4	Cut 4 ea. length except 6 @ 48-4
S3A	Increase by 6" incr. from 35-1 to 41-7	Cut 5 ea. length except 6 @ 41-7
S3	33-0	
S1C	Increase by 6" incr. from 40-9 to 45-9	Cut 4 ea. length except 2 @ 45-9
S1A	Increase by 6" incr. from 32-6 to 39-0	Cut 5 ea. length except 4 @ 39-0



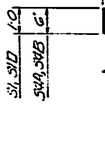
S1A, S1C, S3
S3A, S3B, S3C

B7C	21-4
B7C	19-9
B7B	35-9
B7A	28-11
B7	30-9
B6A	23-3
B6	48-1
B5	15-2



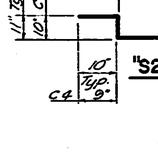
"B" SERIES

S1DD	Increase by 6" incr. from 20-0 to 22-0	Cut 1 ea. length
S4B	Increase by 6" Incr. from 42-0 to 47-0	Cut 8 ea. length except 12 @ 47-0
S4A	Increase by 6" incr. from 33-10 to 40-4	Cut 10 ea. length
S1D	19-11	
S1	30-5	

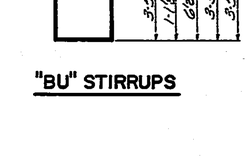


S1, S1D, S1DD
S4B, S4A

C4	4-0	
S2C	20-2	
S2B	By 6" Incr. from 41-0 to 46-0	Cut 4 ea. except 6 @ 46-0
S2A	By 6" Incr. from 32-9 to 39-3	Cut 5 ea. except 6 @ 39-3
S2	34-2	



"S2" SERIES, C4



"BU" STIRRUPS

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1	11-1-71	Rev. Exp. Devices.	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING DIAGRAMS — UNIT NO. 16S
SB. 1-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 22 OF 26	SCALE		APP'D.		
DESIGNED DEG	DETAILED EES		CHECKED AV	TRACED EES	
DESIGN CK. JWH	DETAIL CK. RLF		QUAN. CK. TL	TRACE CK. RLF	

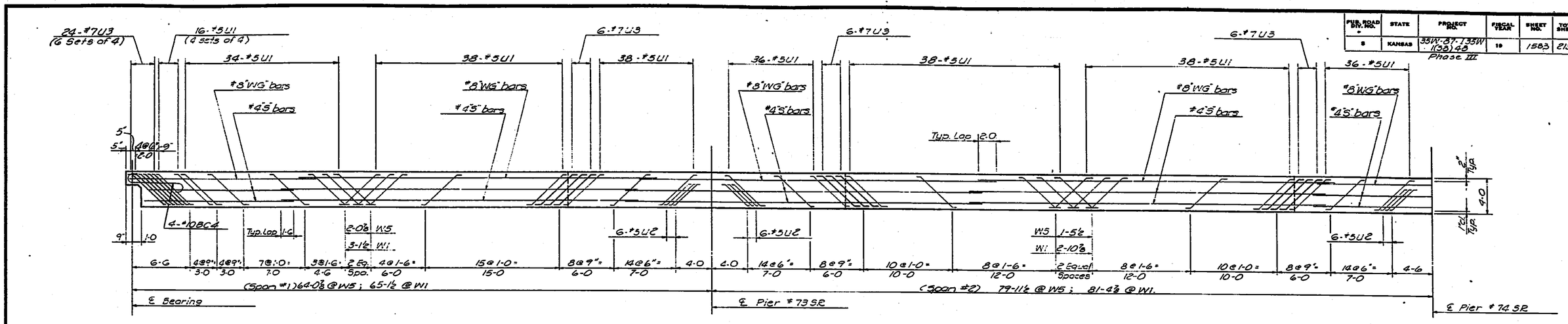
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 9

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase III	19	1583	2137

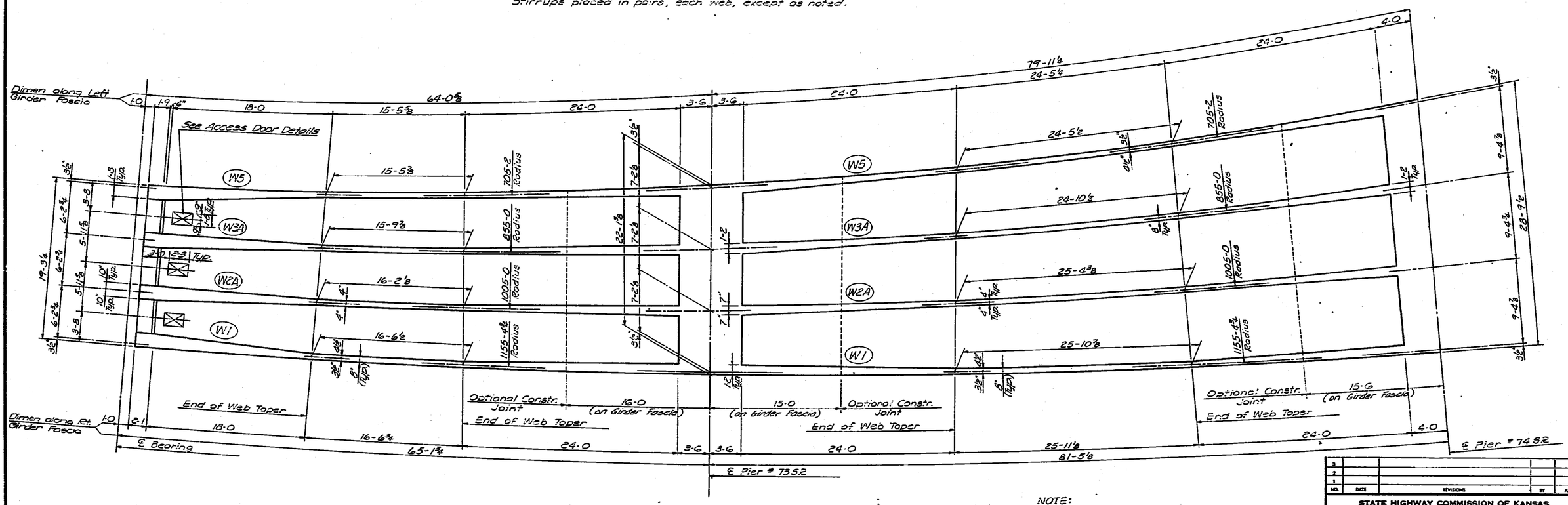


ELEVATION OF WEBS W1 and W5 SHOWING STIRRUP SPACING *

Spans #1 and #2

Stirrups placed in pairs, each web, except as noted.

Note: See placement diagram for "W6" & "3" bars in webs.



WEB PLAN LAYOUT

NOTE:
Transverse Construction Joints are parallel to ℄ Pier.

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top and beneath bottom main reinforcing steel. See Roadway Deck Section.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO. 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 16SR
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

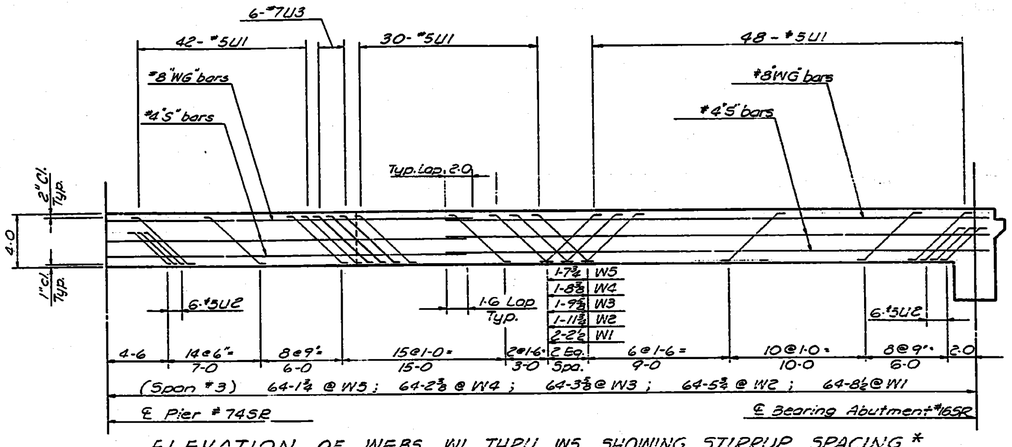
SHEET NO. 1 OF 19	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	QUANTITIES LKD	TRACED JMG
DESIGN CK. DFG	DETAIL CK. DFG	QUANT. CK. DST	TRACE CK. DS

DIST. 5 SEDGWICK CO. ROLL 531

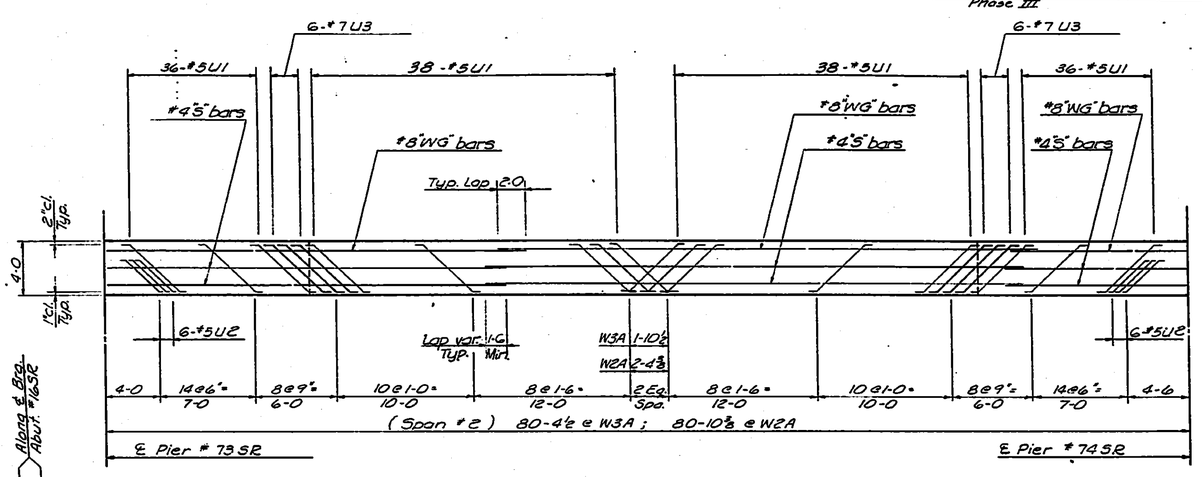
[redacted]

16X 14.5X 12X 12X 14.5X 16X

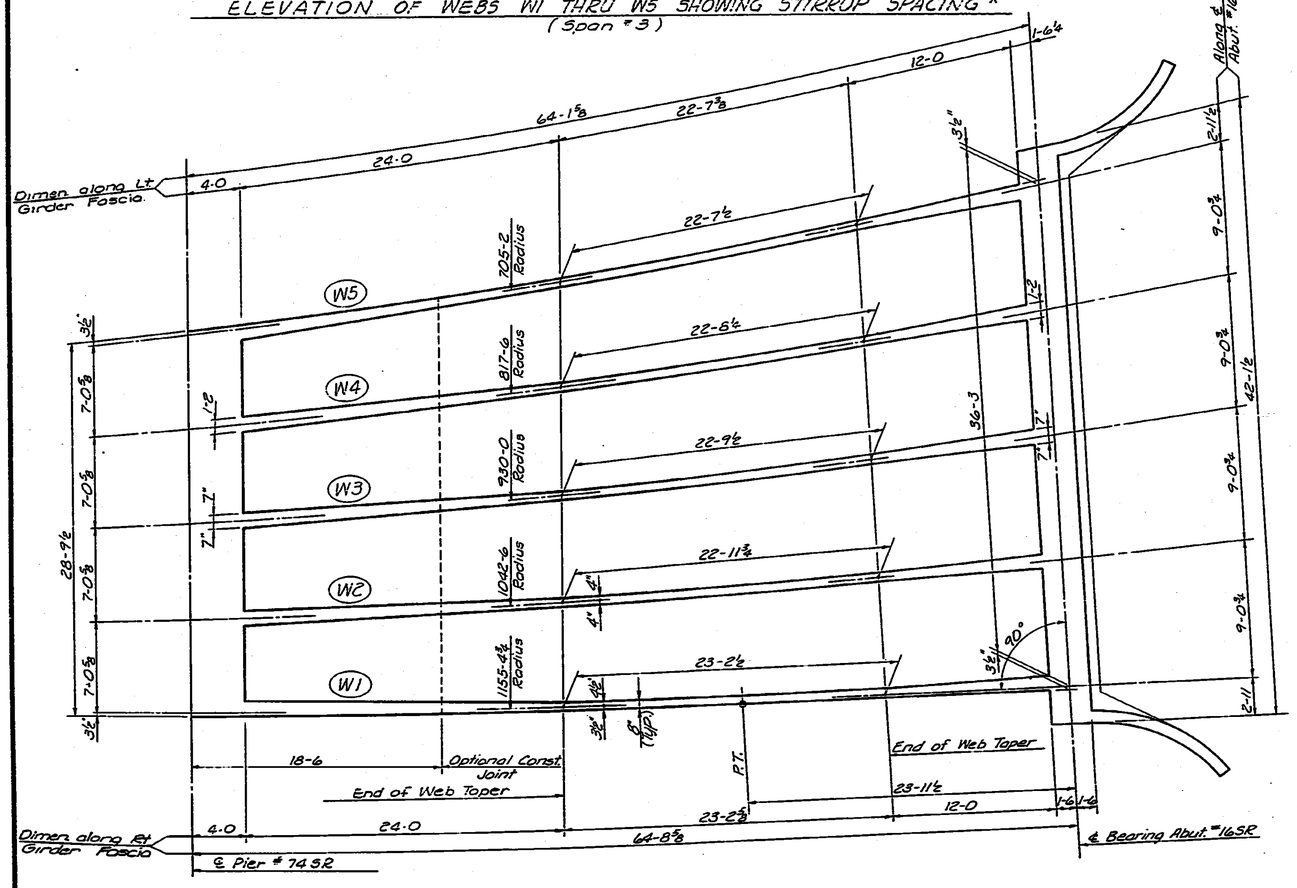
SPUR ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
S	KANSAS	35W-87-135W (58)48 Phase III	19	1584	2197



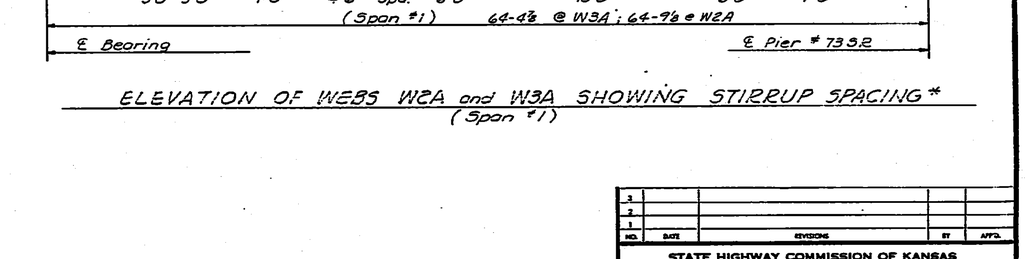
ELEVATION OF WEBS W1 THRU W5 SHOWING STIRRUP SPACING *
(Span #3)



ELEVATION OF WEBS W2A and W3A SHOWING STIRRUP SPACING *
(Span #2)



WEB PLAN LAYOUT



ELEVATION OF WEBS W2A and W3A SHOWING STIRRUP SPACING *
(Span #1)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA 298+22.27 TO. 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 16SR
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 2 of 19	SCALE		APP'D.		
DESIGNED LLW	DETAILED JMG		QUANTITIES LKD	TRACED JMG	
DESIGN CK. DFG	DETAIL CK. DFG		QUANT. CK. DST	TRACE CK. DS	

NOTE: All stirrups placed in pairs, each web, except as noted.

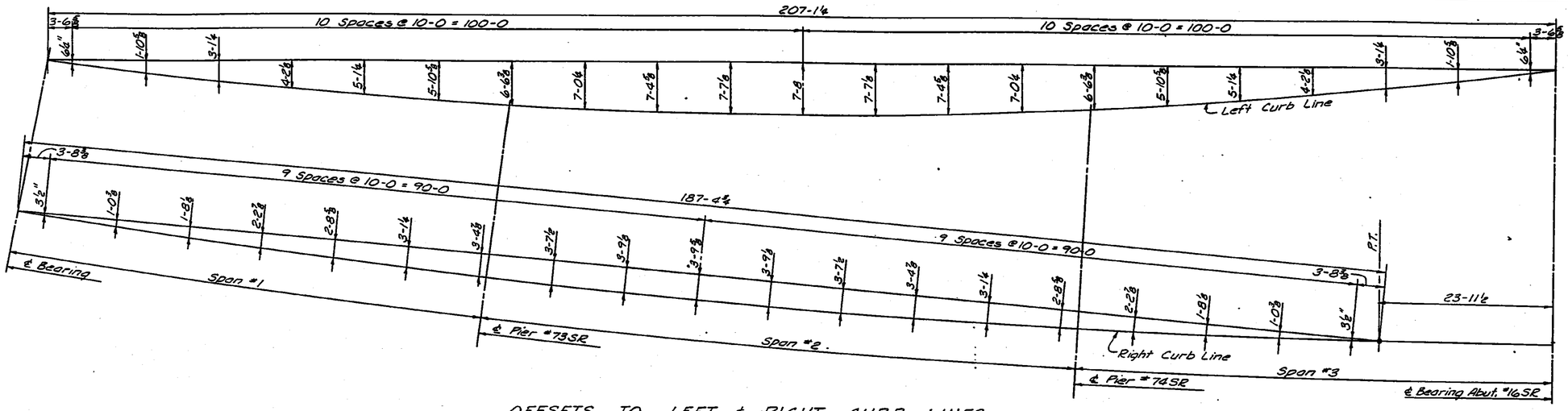
* See note on previous sheet

DIST. 5 SEDGWICK CO. ROLL 531

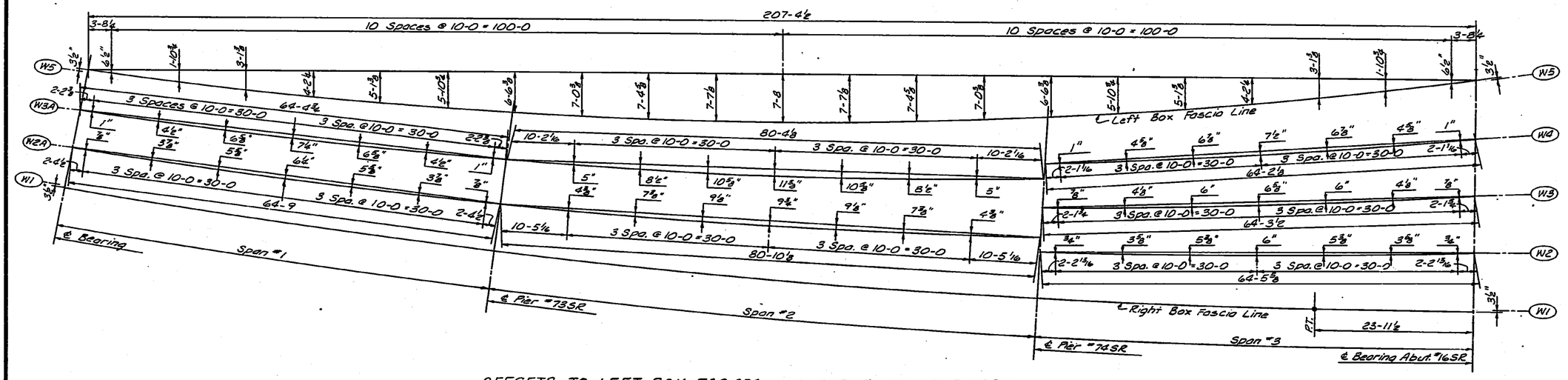
[redacted] 5 1

16X 14.5X 12X 12X 14.5X 16X

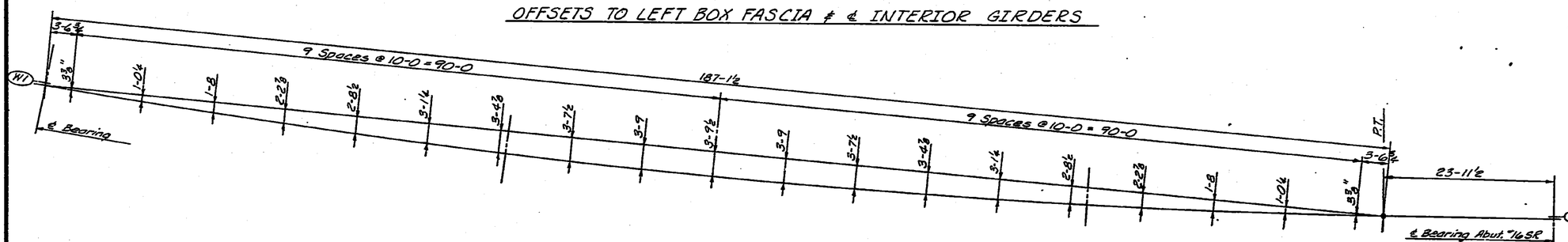
FED. ROAD STY. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	KANSAS	35W-87-I35W -1(58)48 Phase III	19	1985	2187



OFFSETS TO LEFT & RIGHT CURB LINES



OFFSETS TO LEFT BOX FASCIA & ℄ INTERIOR GIRDERS



OFFSETS TO RIGHT BOX FASCIA

Note: For Curve data @℄ Construction See Construction Layout.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO. 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16SR
S. B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 5 OF 19	SCALE		APP'D.			
DESIGNED LJW	DETAILED JMG		QUANTITIES LKD	TRACED JML		
DESIGN CK. DFG	DETAIL CK. DFG		QUAN. CK. DGT	TRACE CK. RLF		

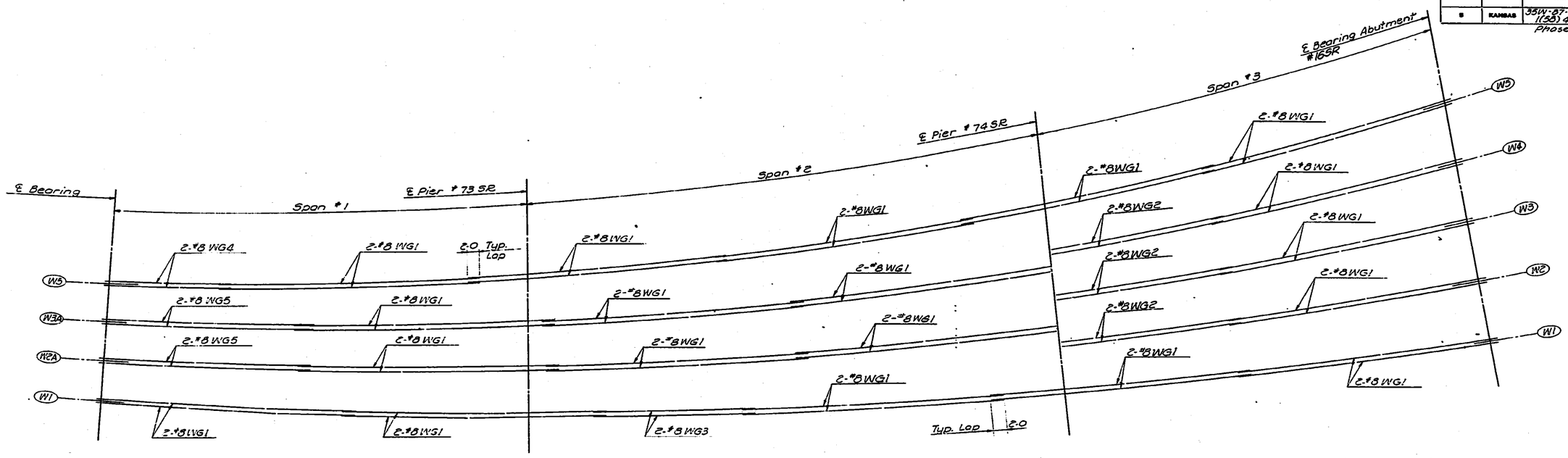
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

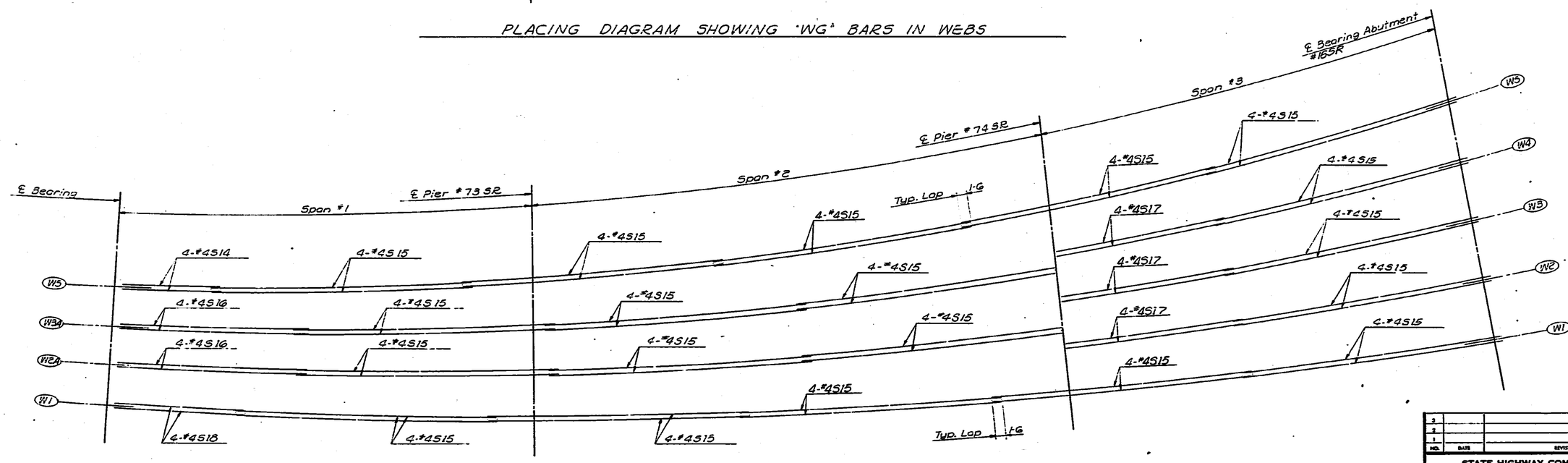
[redacted] 5 2

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (158) 48 Phase III	19	1586	2137



PLACING DIAGRAM SHOWING 'WG' BARS IN WEBS



PLACING DIAGRAM SHOWING "S" BARS IN WEBS

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO. 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 16SR
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I 35W-1(58)48 SEDGWICK CO.

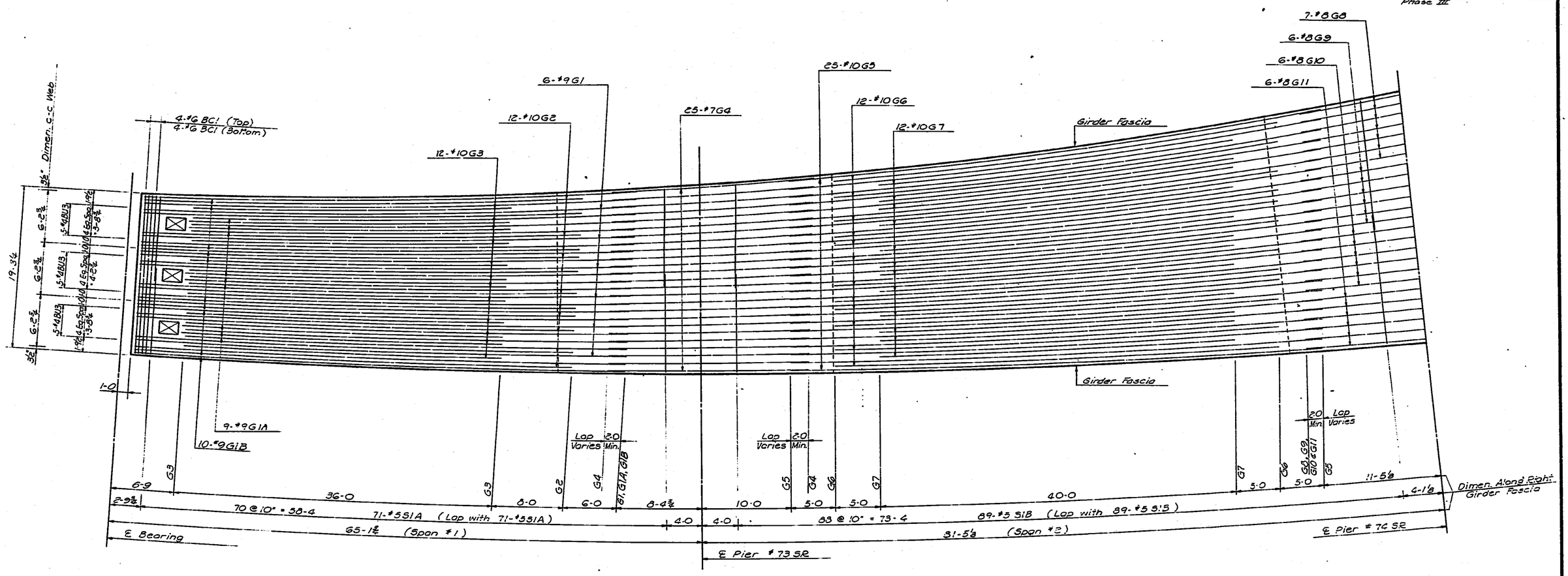
SHEET NO. 4 OF 19	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	QUANTITIES LKD	TRACED JMG
DESIGN CK. DPS	DETAIL CK. DPS	QUAN. CK. DST	TRACE CK. DS

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 5 3

16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W I(58)48 Phase III	19	1587	2137



REINFORCING PLAN - BOTTOM SLAB

Bar Placing Notes:
Transverse bars shall be placed on radial lines between piers.
Longitudinal bars shall be centered on Span #2 with reference to bar cut-offs.
Longitudinal bars shall be placed in the end spans starting at the ℄ Bearing.
Set minimum lap on the long side and increase lap as span shortens due to curvature.

NOTE:
All bar marks shall be pre-fixed with the unit number when fabricated. Example: #361 bars shall be marked 16SR361.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16SR
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

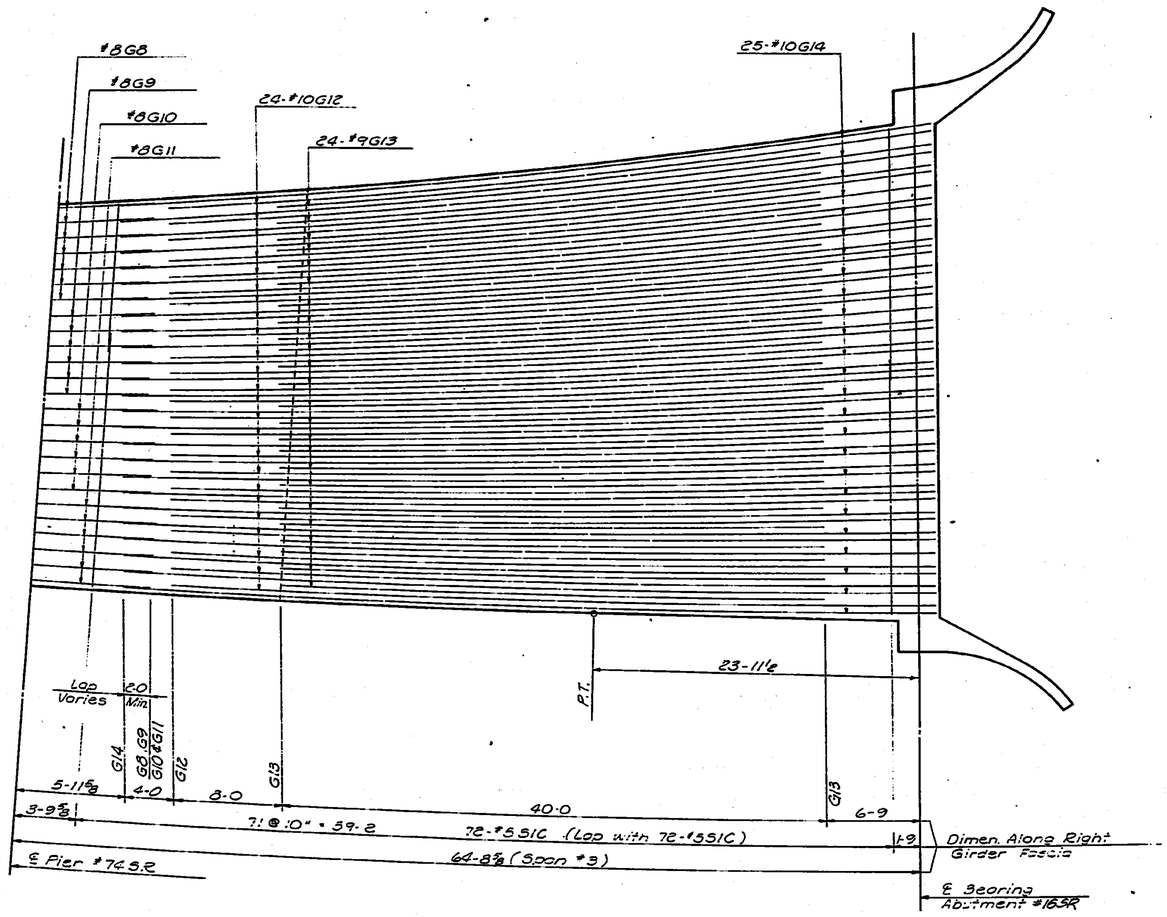
SHEET NO. 5 OF 19	SCALE		APP'D.		
DESIGNED LWJ	DETAILED JMS		QUANTITIES LKD	TRACED JMG	
DESIGN CK. DPS	DETAIL CK. DPS		QUAN. CK. DST	TRACE CK. DS	

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 5 4

16X 14.5X 12X 12X 14.5X 16X

FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-133W I(58) 48 Phase III	19	1566	2187



REINFORCING PLAN - BOTTOM SLAB

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO. 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16SR
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-1 35W-1(58)48 SEDGWICK CO.

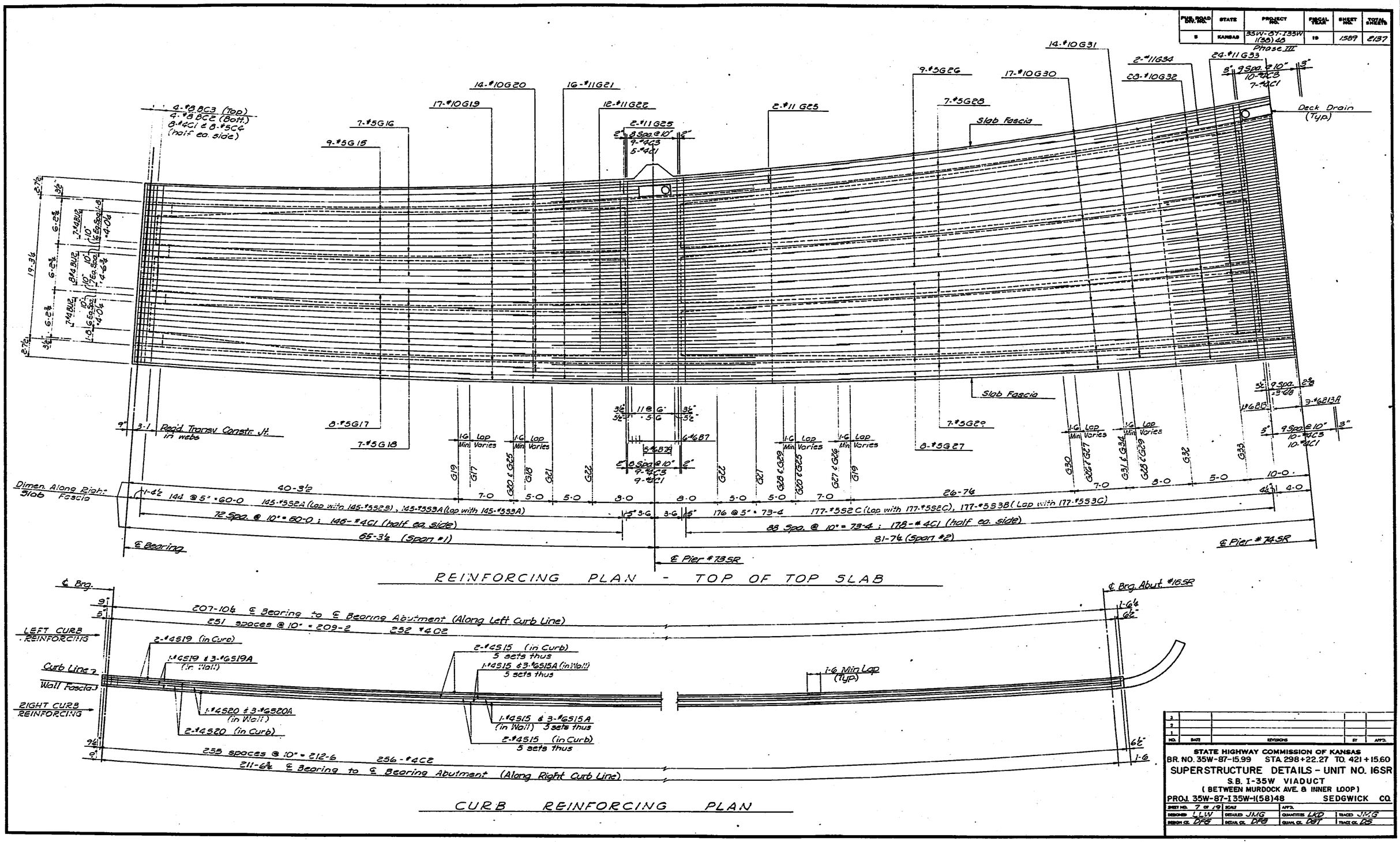
SHEET NO. 6 OF 19	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	QUANTITIES LKD	TRACED JMG
DESIGN CK. DFB	DETAIL CK. DFB	QUANT. CK. DGT	TRACE CK. DS

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 5 5

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W I(58)48	19	1589	2137



NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO. 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16SR
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

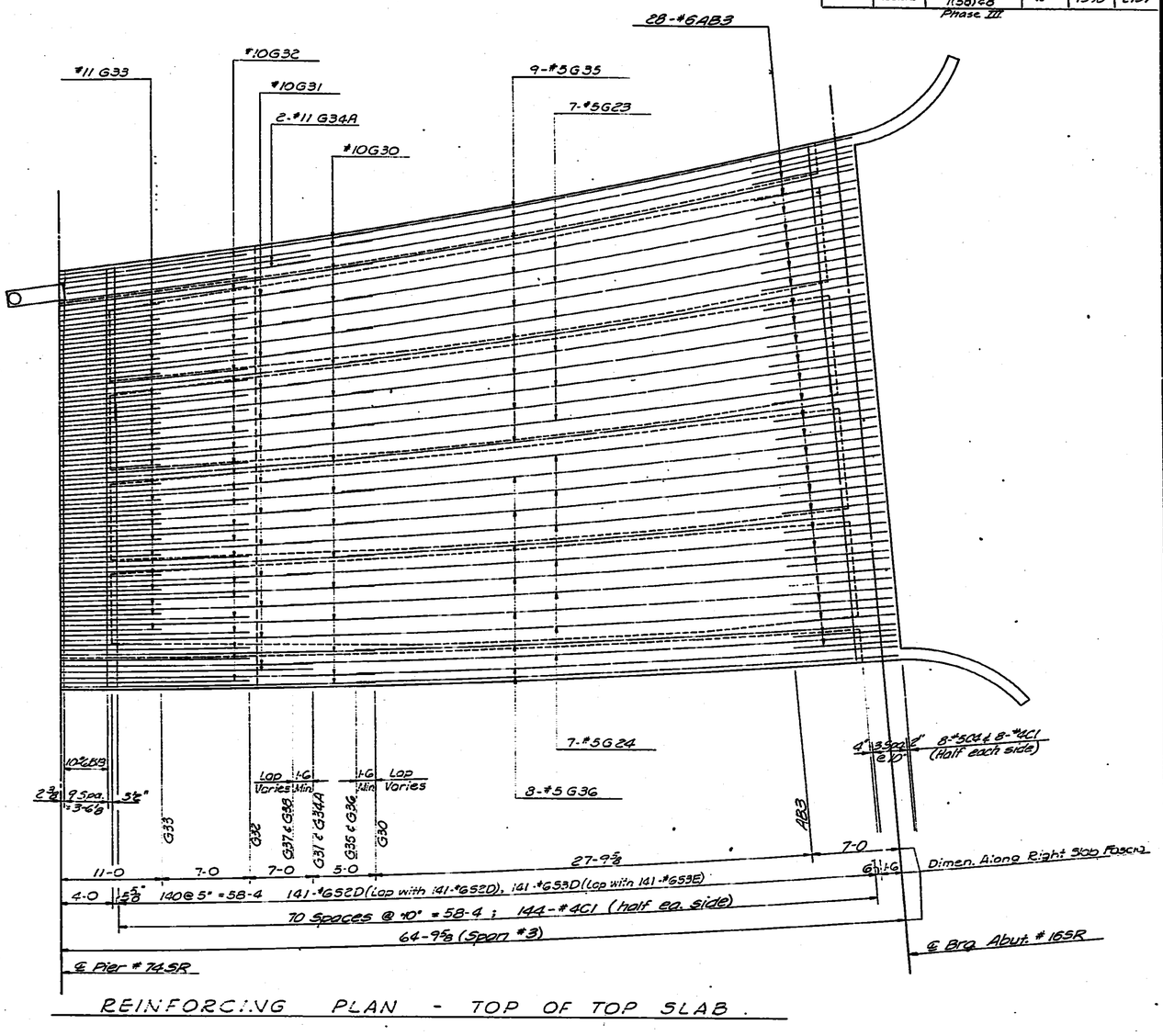
SHEET NO. 7 OF 19	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	QUANTITIES LKD	TRACED JMG
DESIGN CK. DPB	DETAIL CK. DPB	QUAN. CK. DBT	TRACE CK. DS

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 5 6

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W I(58)48 Phase III	19	1590	2187



REINFORCING PLAN - TOP OF TOP SLAB.

Note:
See Drain Detail sheet for additional details of Drainage Structures.
See Superstructure Pier Beams for additional details of Drainage Structures.
Spread Longitudinal Reinforcing Steel to clear Drains except as noted.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA 298+22.27 TO. 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16SR
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-I(58)48 SEDGWICK CO.

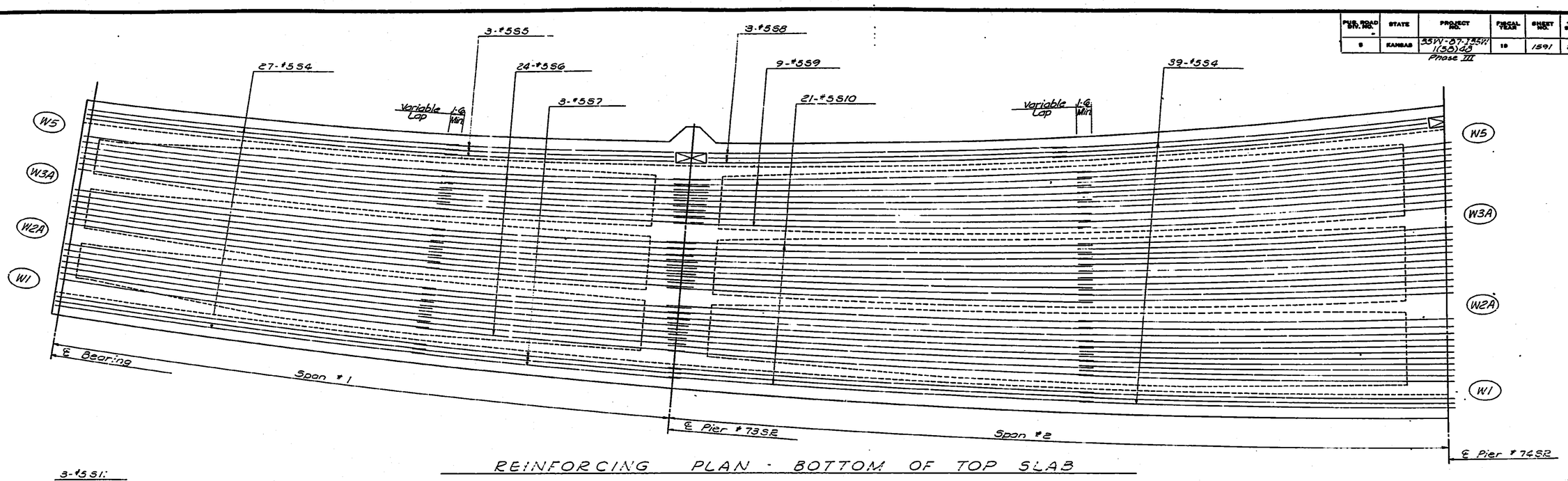
SHEET NO. 2 of 19	SCALE	APP'D.	
DESIGNED LJW	DETAILED JMG	QUANTITIES LKD	TRACED JMG
DESIGN OF DFS	DETAIL OF DFS	CHKD. OF DST	TRACE OF DS

DIST. 5 SEDGWICK CO. ROLL 531

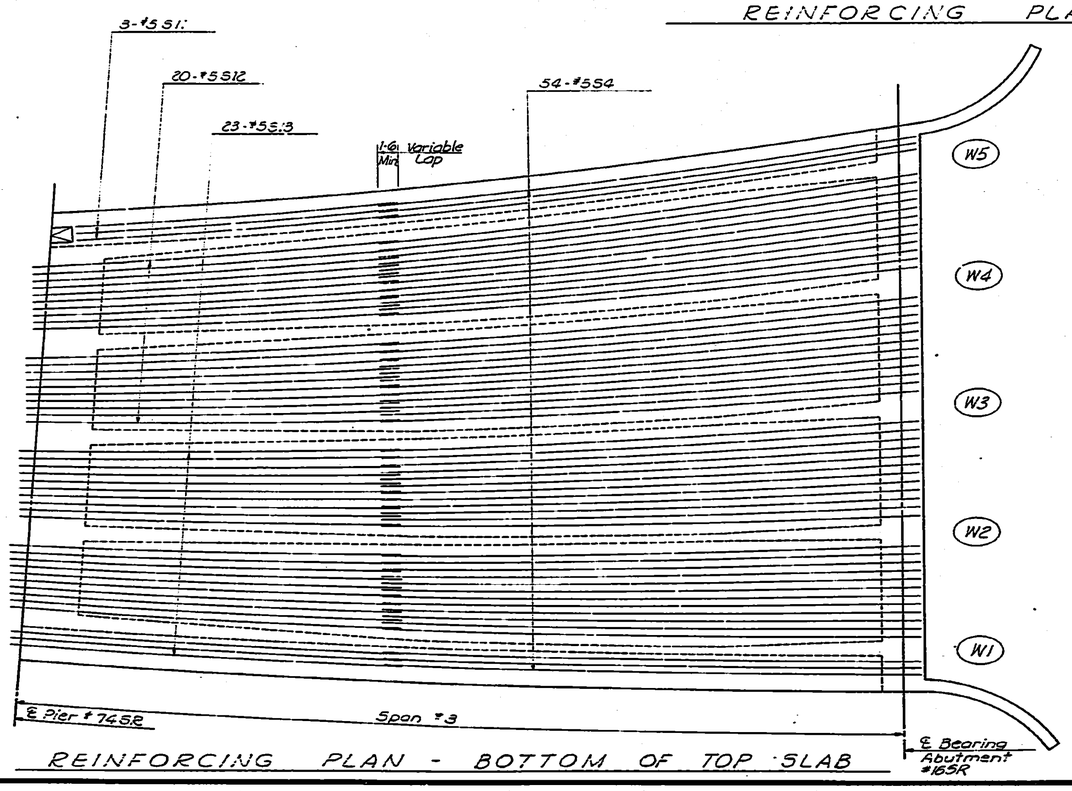
[redacted] 5 7

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase III	19	1591	2137



REINFORCING PLAN - BOTTOM OF TOP SLAB



REINFORCING PLAN - BOTTOM OF TOP SLAB

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA 298+22.27 TO. 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16SR
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

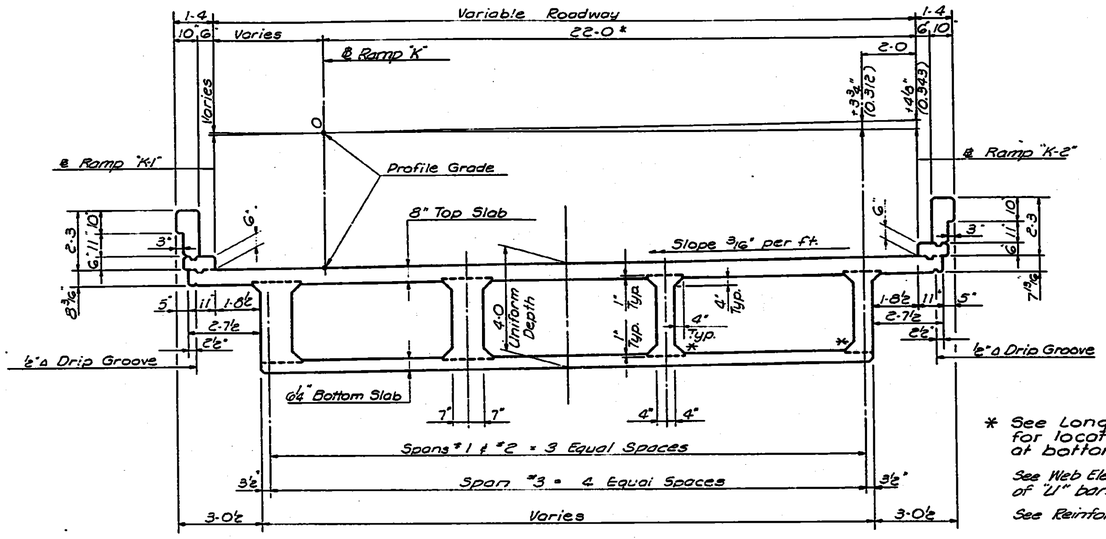
SHEET NO. 9 OF 19	SCALE	APPD.
DESIGNED LWW	DETAILED JMS	CHECKED LKD
DRAWN BY DFB	TRACED BY DFB	DESIGN OF DST

DIST. 5 SEDGWICK CO. ROLL 531

5 8

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (158)48 Phase III	19	1592	2187



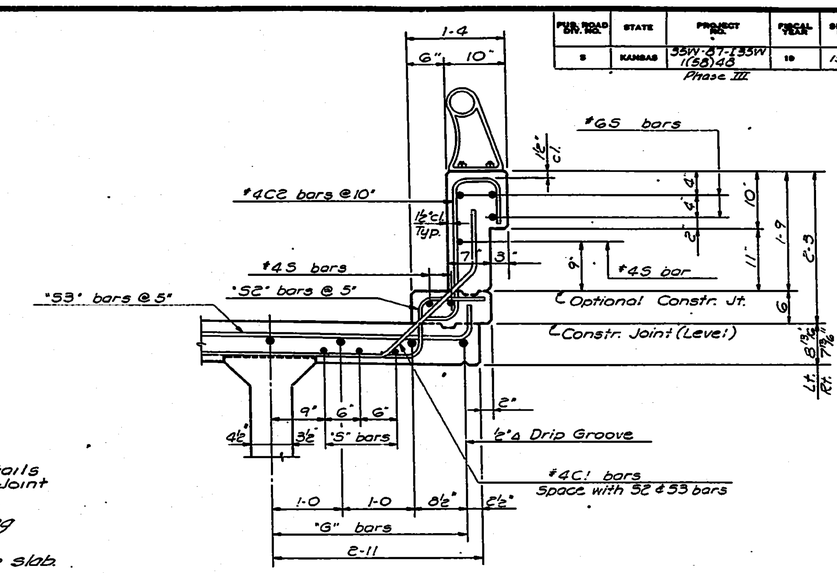
ROADWAY DECK SECTION

* Except at North end Span #3

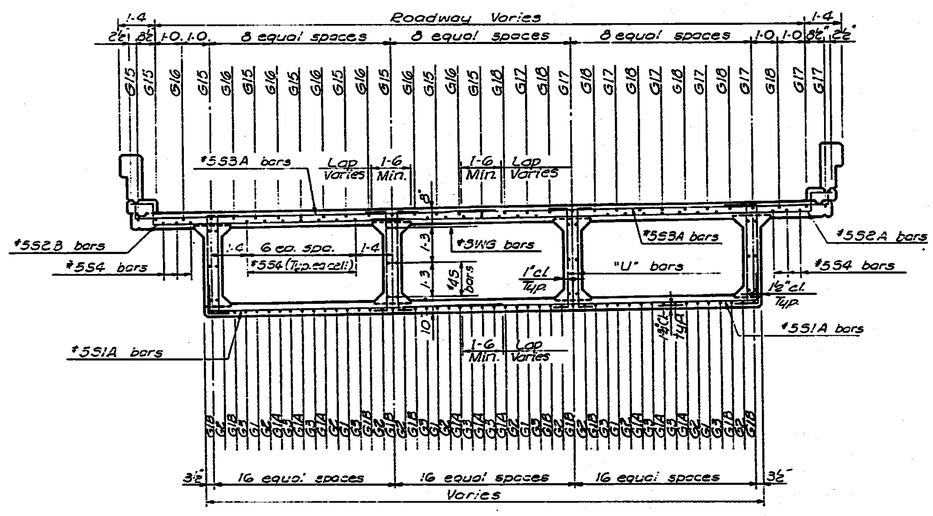
* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.

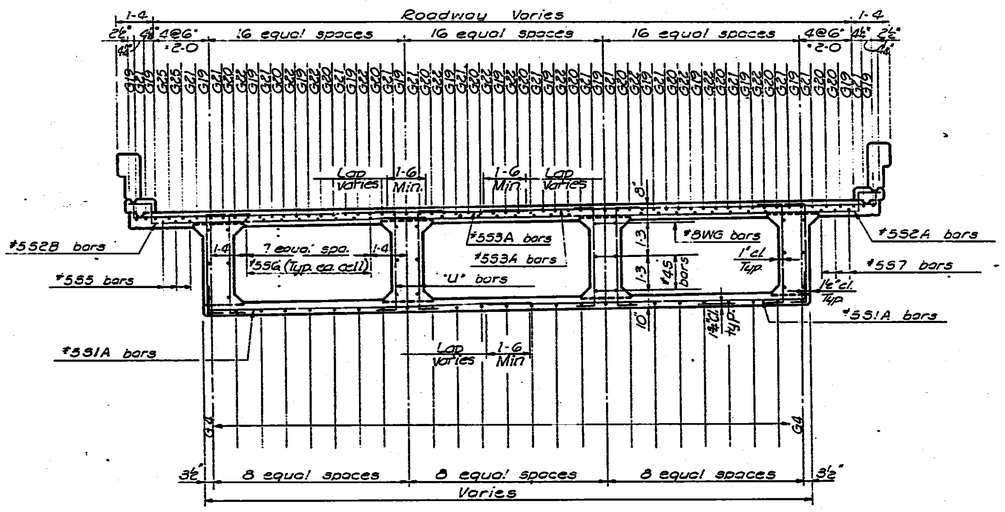
See Web Elevations for quantity, size and spacing of "U" bars.

See Reinforcing Plan for bars in bottom of top slab.



TYPICAL CURB SECTION





NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 16SR
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

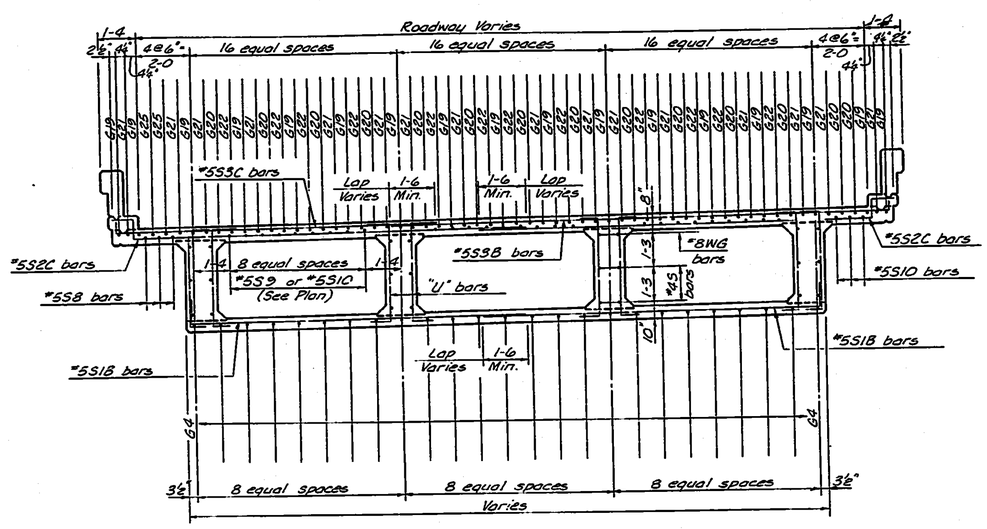
SHEET NO. 10 OF 19	SCALE	APP'D.	
DESIGNED LLW	DETAILED JJG	QUANTITIES LKD	TRACED JMG
DESIGN CK. DPS	DETAIL CK. DPS	QUAN. CK. DST	TRACE CK. DS

DIST. 5 SEDGWICK CO. ROLL 531

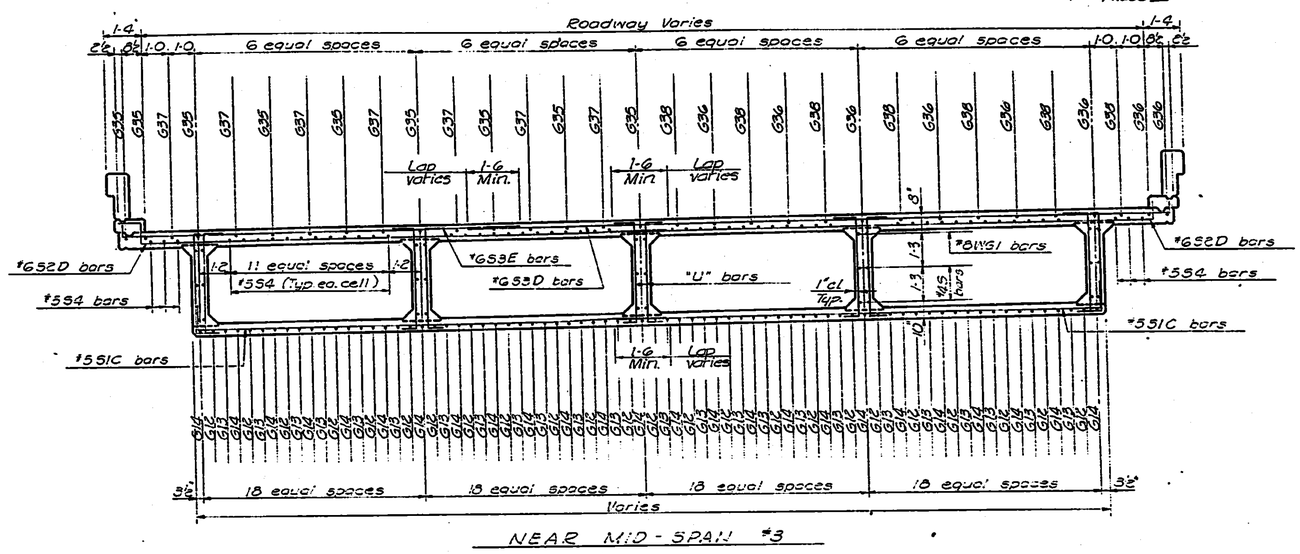
[redacted] 5 9

16X 14.5X 12X 12X 14.5X 16X

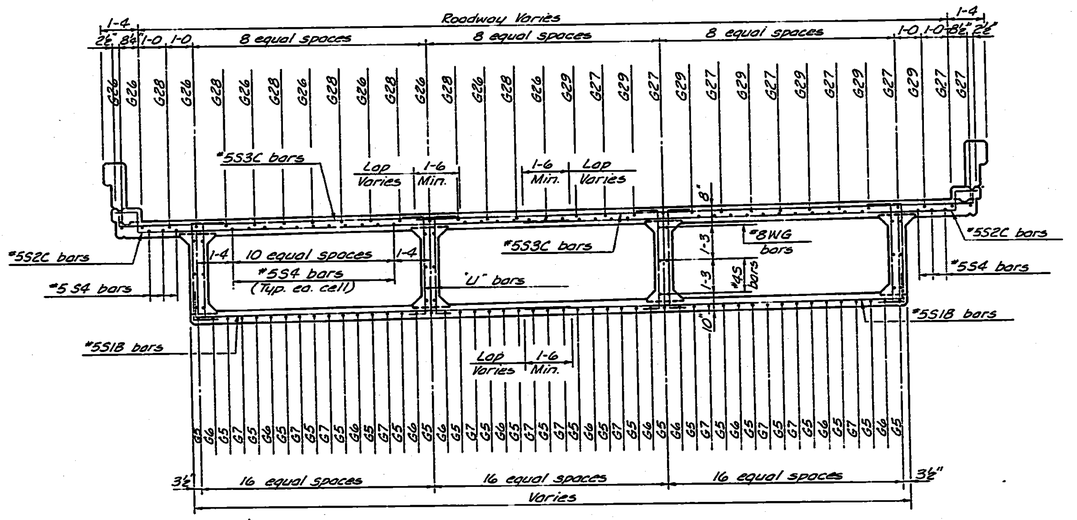
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-1351(58)48 Phase 2L	19	1593	2157



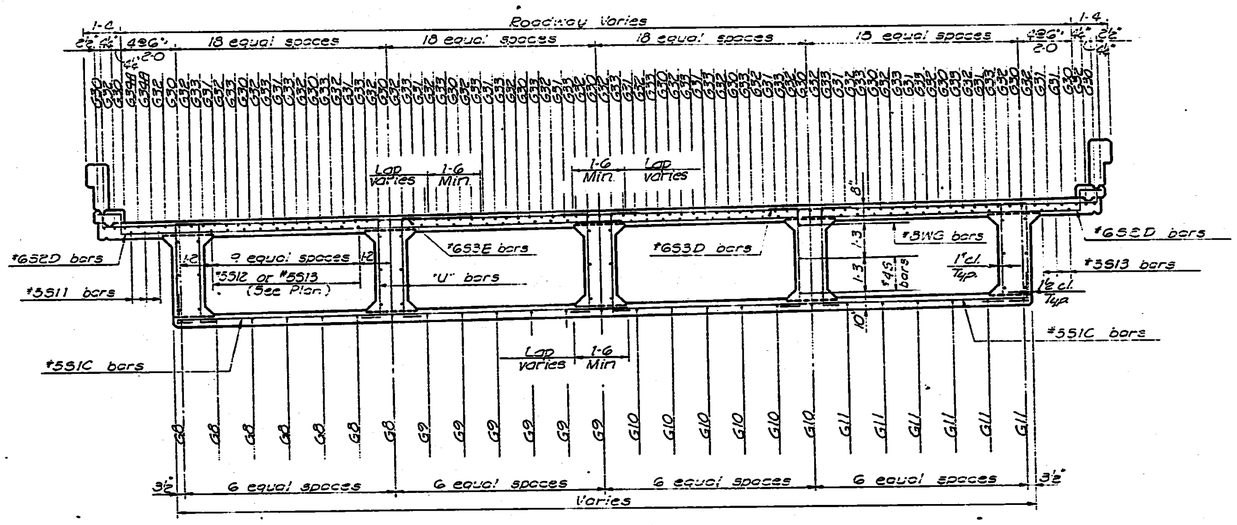
NEAR PIER #73SR
(In Span #2)



NEAR MID-SPAN #3



NEAR MID-SPAN #2



NEAR PIER #74SR
(In Span #3)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16SR
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I 35W-1(58)48 SEDGWICK CO.

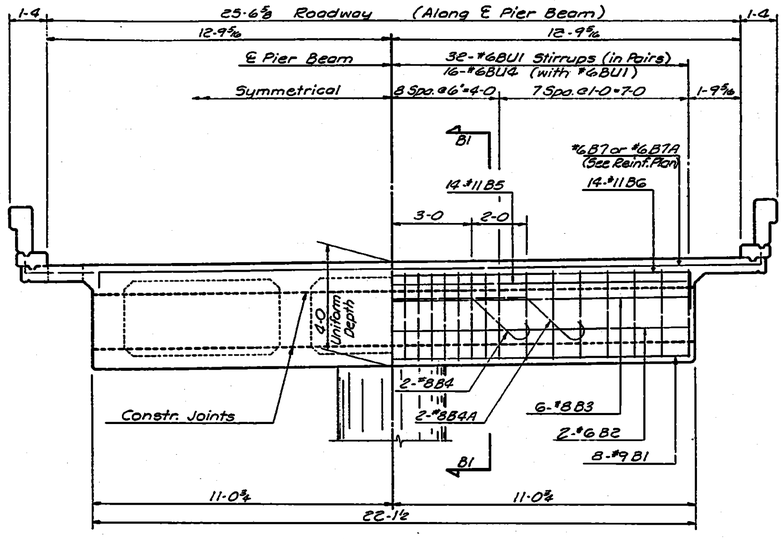
SHEET NO. 11 OF 13 SHEETS	SCALE	APP'D.	
DESIGNED L.E.W.	DETAILED JMG	CHECKED LKD	TRACED JMG
DESIGN CK. DFS	DETAIL CK. DFS	QUAN. CK. DBT	TRACE CK. DS

DIST. 5 SEDGWICK CO. ROLL 531

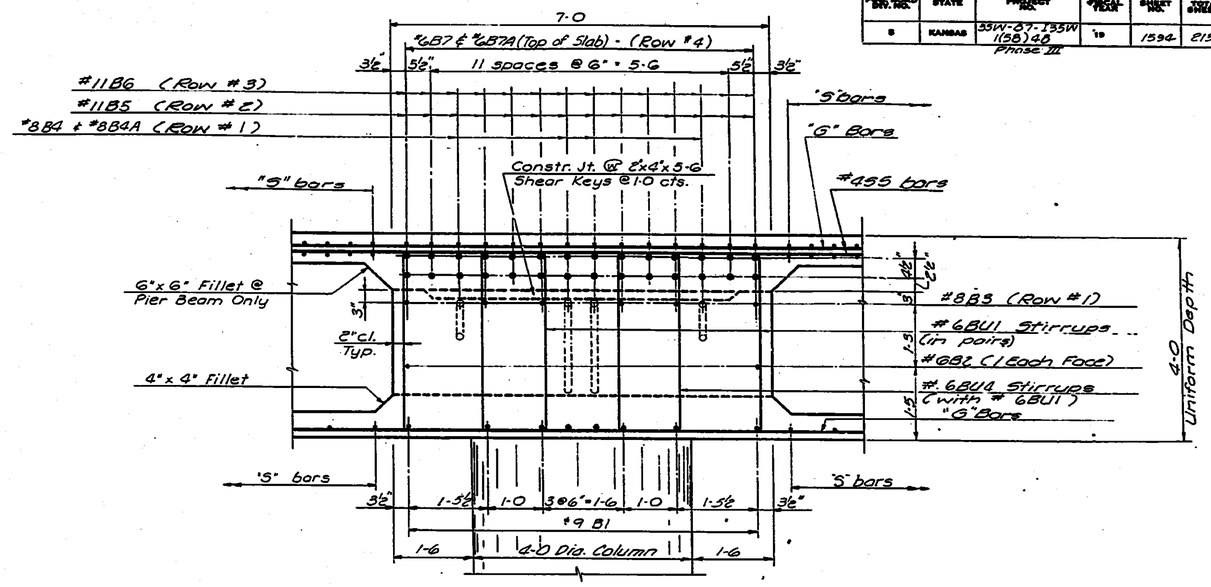
[redacted]

16X 14.5X 12X 12X 14.5X 16X

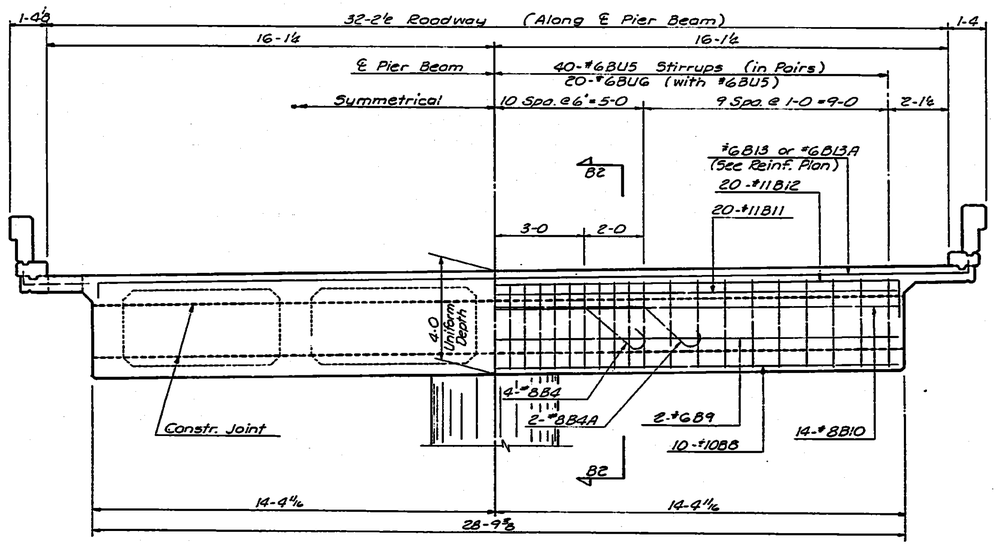
FED. ROAD DIV. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase III	1594	2197



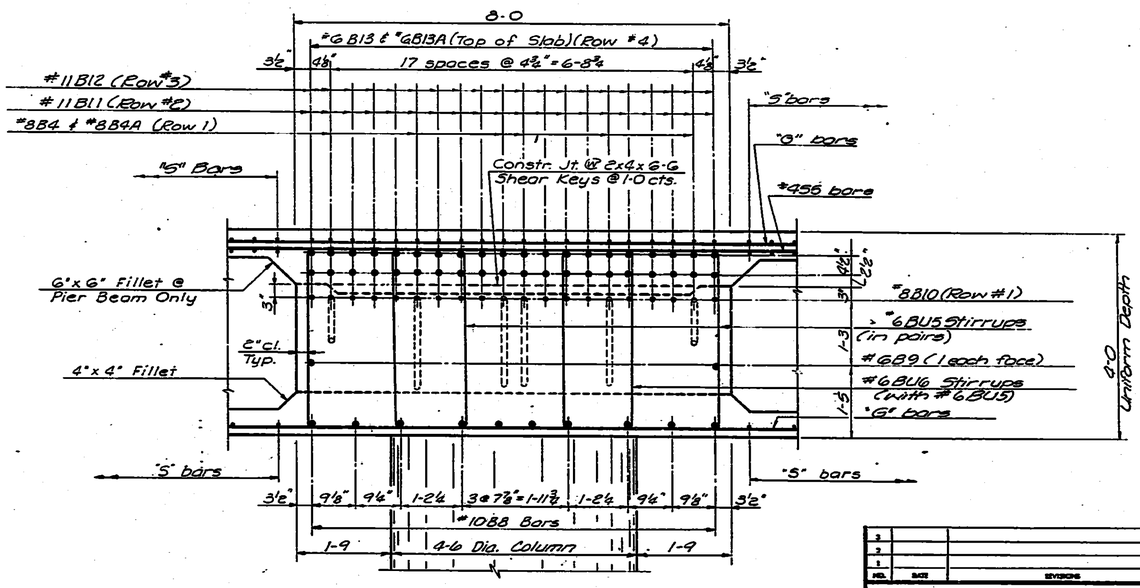
SUPERSTRUCTURE PIER BEAM
(Pier #735R)



SECTION B1 - B1



SUPERSTRUCTURE PIER BEAM
(Pier #745R)



SECTION B2-B2

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16SR.
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

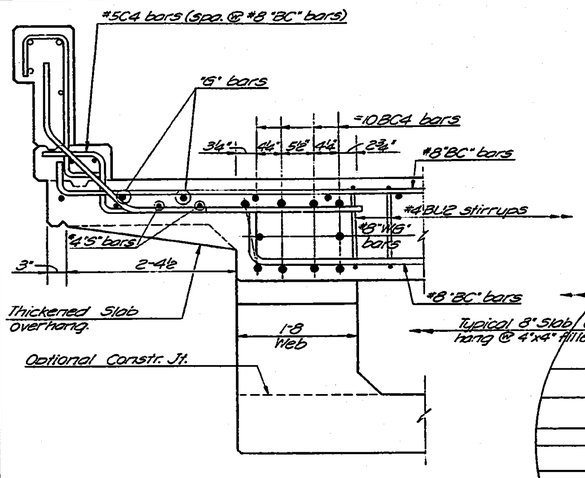
SHEET NO. 12 of 13	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	CHECKED LKD	TRACED JMG
DESIGN CK. DPB	DETAIL CK. DPB	CONST. CK. DBT	TRACE CK. DB

DIST. 5 SEDGWICK CO. ROLL 531

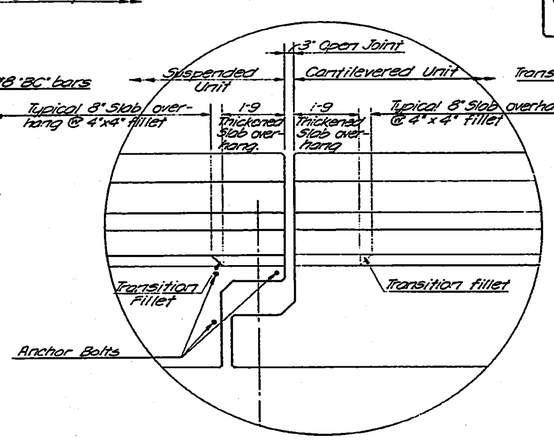
[redacted] 6 1

16X 14.5X 12X 12X 14.5X 16X

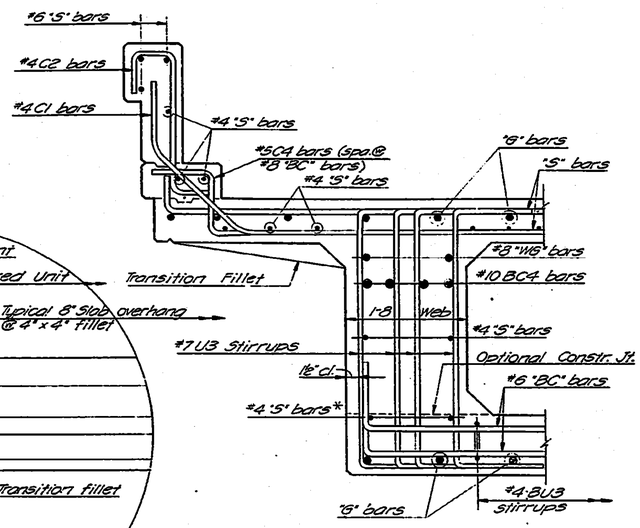
FED. ROAD STW. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
S	KANSAS	35W-87-13&W I-58)48 PROJ. NO.	19	1595	2137



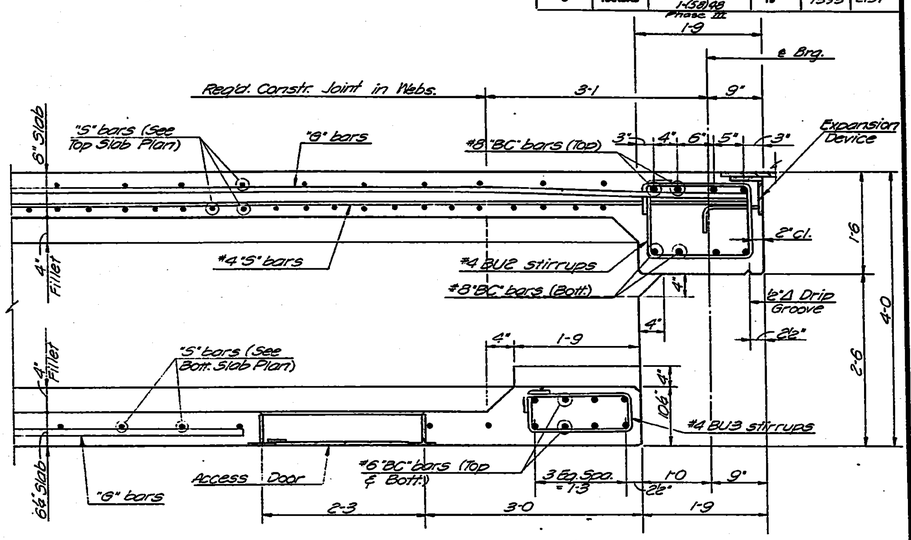
SECTION C2-C2
(Exterior Web)



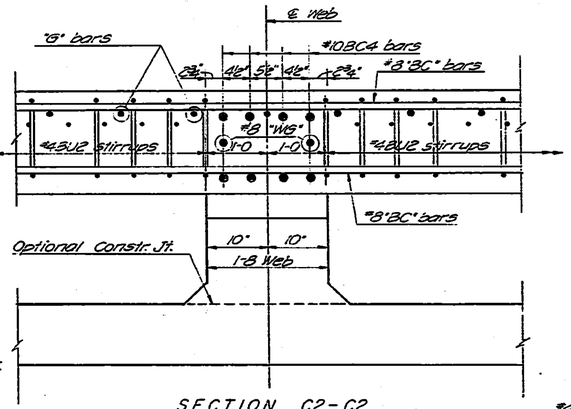
VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)



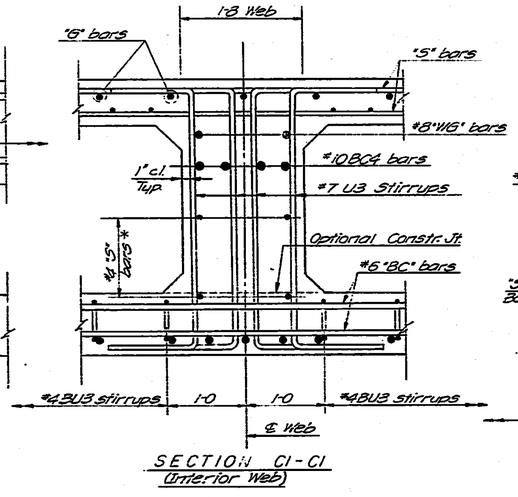
SECTION C1-C1
(Exterior Web)



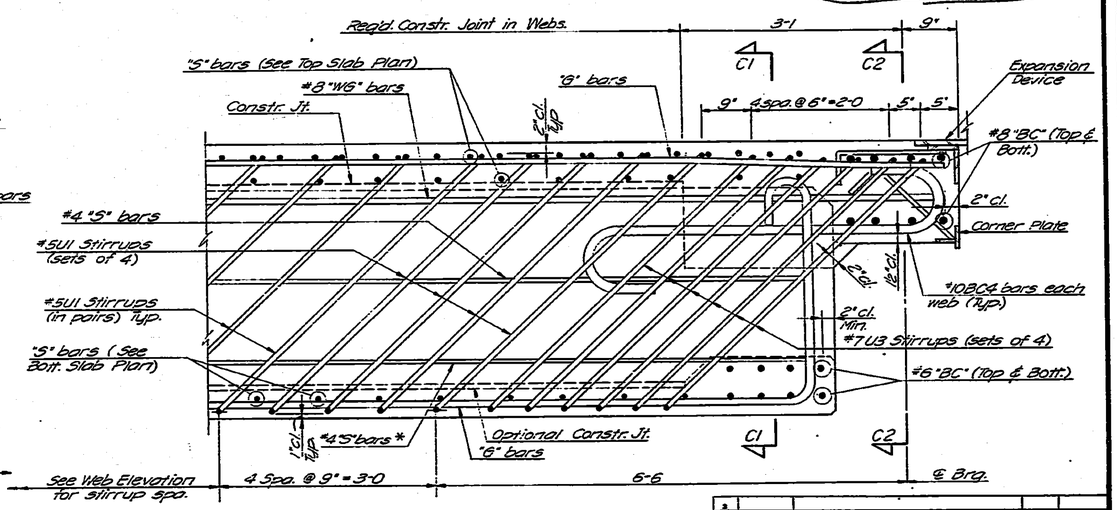
TYPICAL SECTION THRU CELL *



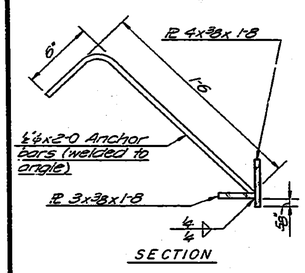
SECTION C2-C2
(Interior Web)



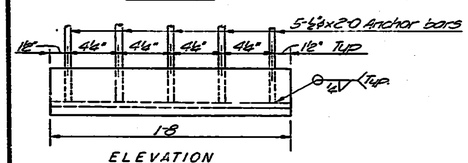
SECTION C1-C1
(Interior Web)



TYPICAL SECTION THRU WEB *



SECTION



ELEVATION

CORNER PLATE DETAILS
Computed Weight of one assembly is 22#.

BEARING BEAM DETAILS

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

† See Web Elevation on Sheet No 1548 for Span #3 at Abutment.

NO.	DATE	REVISIONS	BY	APP'D.
1				
2				
3				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16SR
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 13 OF 19	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	QUANTITIES	TRACED DS
DESIGN CK. RBS	DETAIL CK. RBS	QUANT. CK.	TRACE CK. RBS

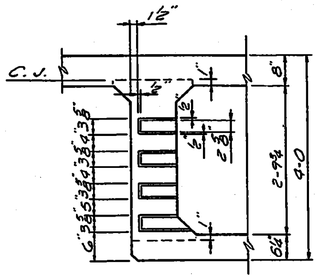
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

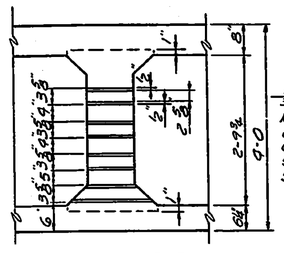
[redacted] 6 2

16X 14.5X 12X 12X 14.5X 16X

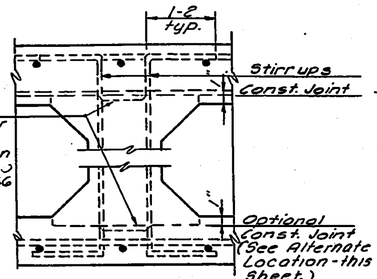
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W -(58)48 Phase III	19	1596	2137



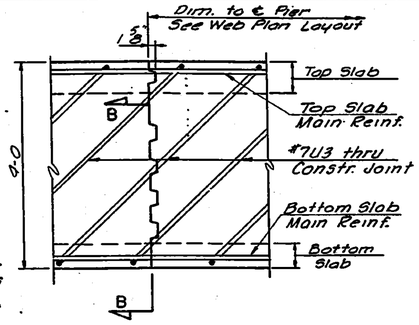
SECTION B-B
(Through Exterior Web)



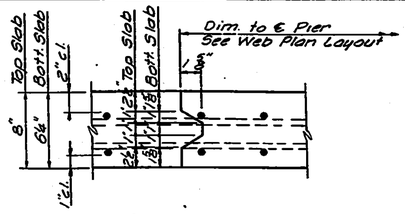
SECTION B-B
(Through Interior Web)



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

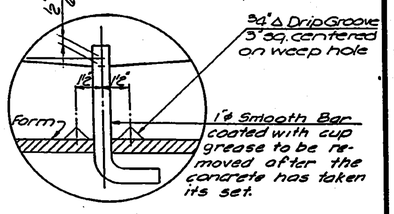


WEB CONSTR. JOINT
(Showing Placement of #7@3 bars)



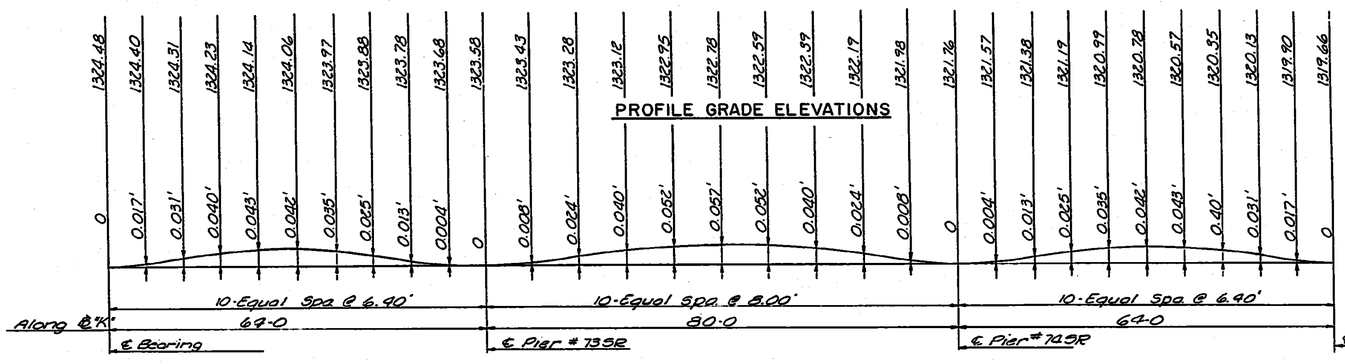
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of weep holes shall be included in the unit price bid for Class AAA Concrete AE.



DETAIL OF WEEP HOLES

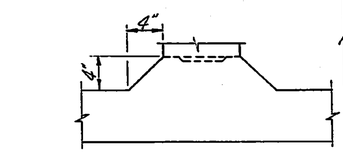
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



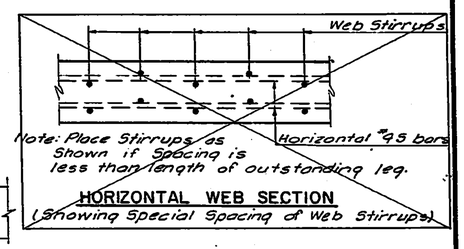
DEAD LOAD CAMBER IN FEET

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS ON BASE LINE RAMP "K"

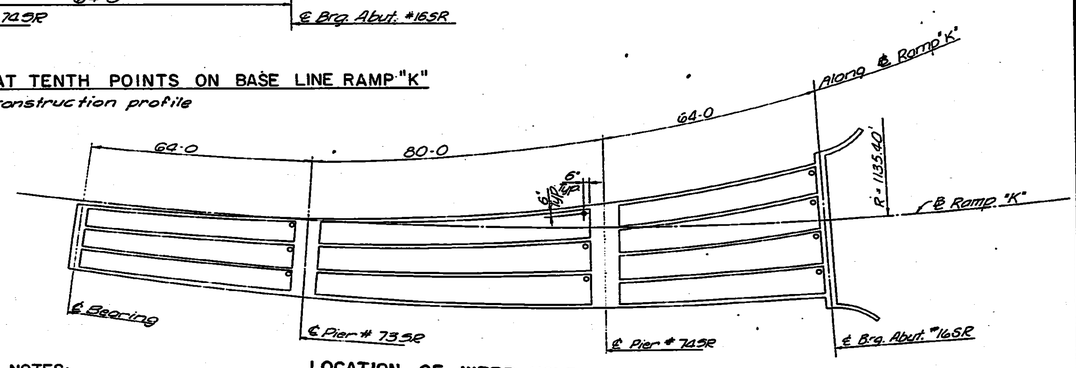
Note: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ p.s.i.



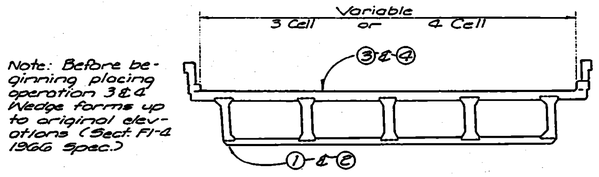
ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer)



HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)

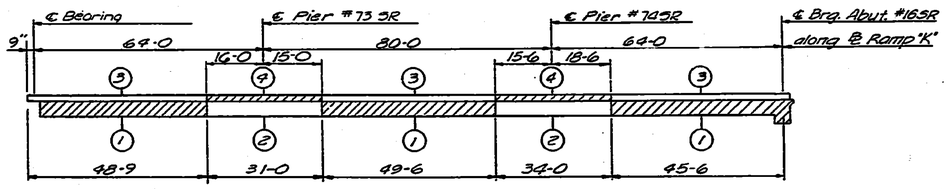


LOCATION OF WEEP HOLES



Note: Before beginning placing operation 3 & 4 Wedge forms up to original elevations (Sect. F1-4 1966 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework

NOTES:

See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework is to be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-Span Steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16SR
S. B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I 35W-K58148 SEDGWICK CO.

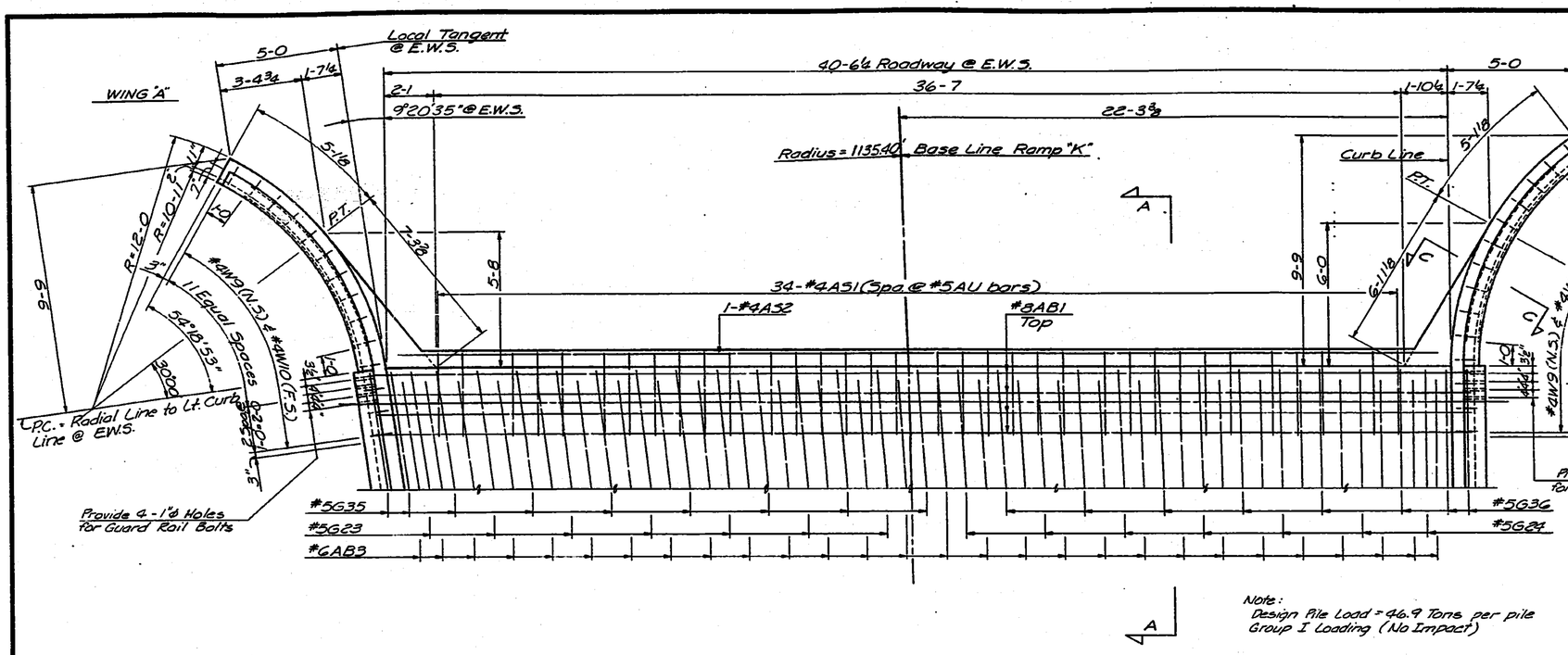
SHEET NO. 14 OF 19	SCALE	APP'D.		
DESIGNED DFG	DETAILED RAW	QUANTITIES LKD	TRACED DGT	
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. DGT	TRACE CK. RBS	

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 6 3

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I 35W -1(58)48 Phase III	19	1597	2137

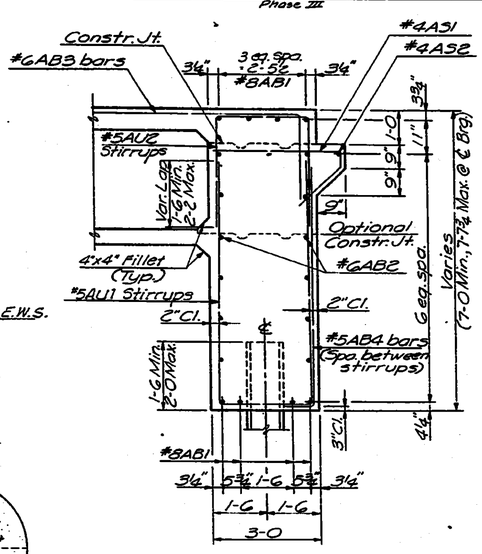


PLAN OF ABUTMENT

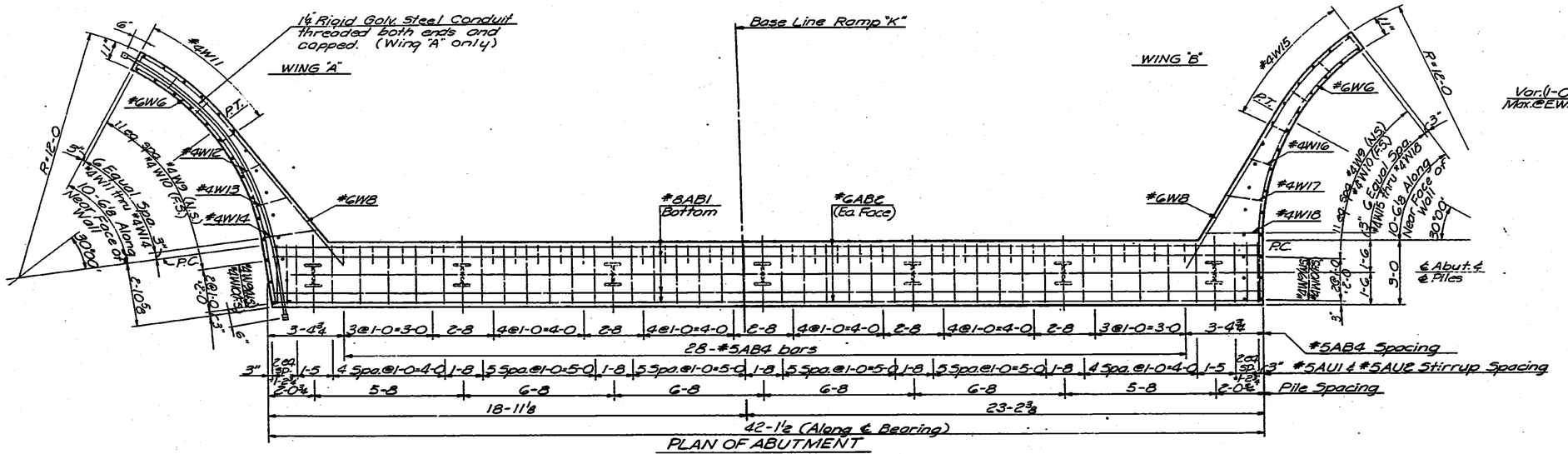
REINFORCING STEEL IN TOP OF ABUTMENT & CURB

Note:
Design Pile Load = 46.9 Tons per pile
Group I Loading (No Impact)

SECTION D-D



SECTION A-A

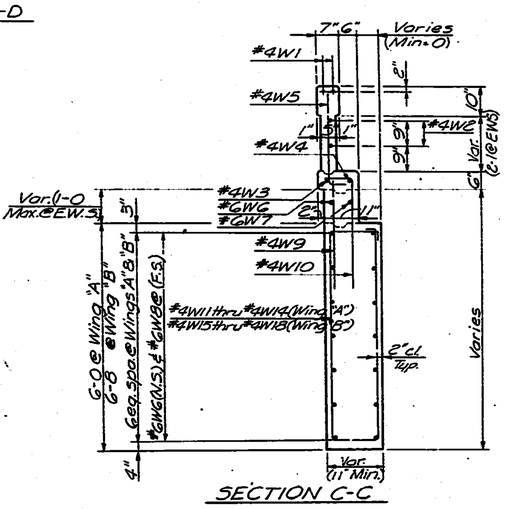


PLAN OF ABUTMENT

SECTION B-B

REINFORCING STEEL IN BOTTOM OF ABUTMENT

Note: All Piles shall be 10 BP42 Steel Piles



SECTION C-C

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
ABUTMENT DETAILS - UNIT NO. 16SR
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 15 OF 19	SCALE		APP'D.	
DESIGNED DFG	DETAILED RCP	QUANTITIES LKD	TRACED RCP	
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. DST	TRACE CK. DS	

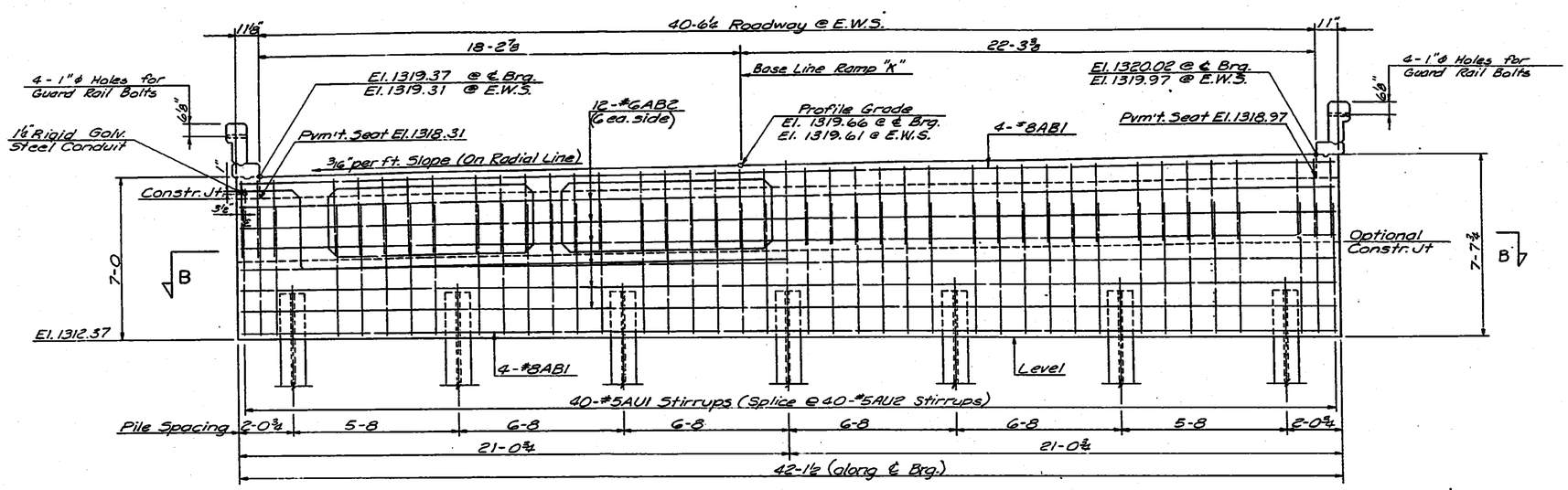
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

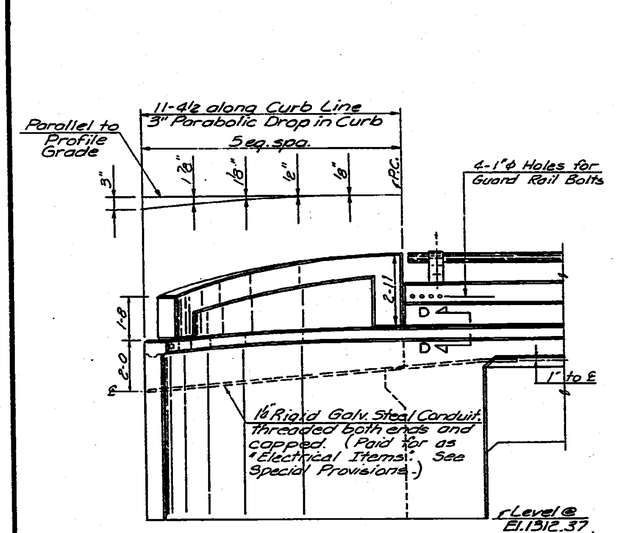
[redacted] 6 4

16X 14.5X 12X 12X 14.5X 16X

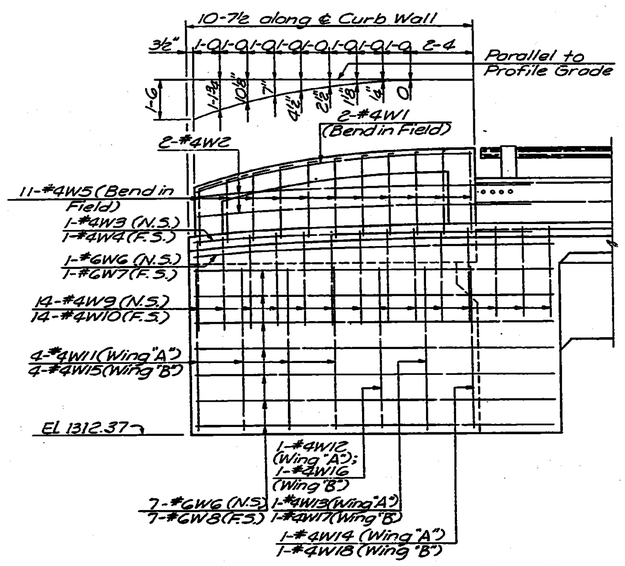
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase III	19	1598	2157



ELEVATION OF ABUTMENT



WING ELEVATION
Wing "A" Shown; Wing "B" Similar



DEVELOPED VIEW OF WING
Wing "A" Shown; Wing "B" Similar

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
ABUTMENT DETAILS - UNIT NO. 16SR
S. B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 16 OF 19	SCALE		APP'D.		
DESIGNED DFG	DETAILED RCP		QUANTITIES LKD	TRACED RCP	
DESIGN CK. RBS	DETAIL CK. RBS		DRAW. CK. DGT	TRACE CK. DS	

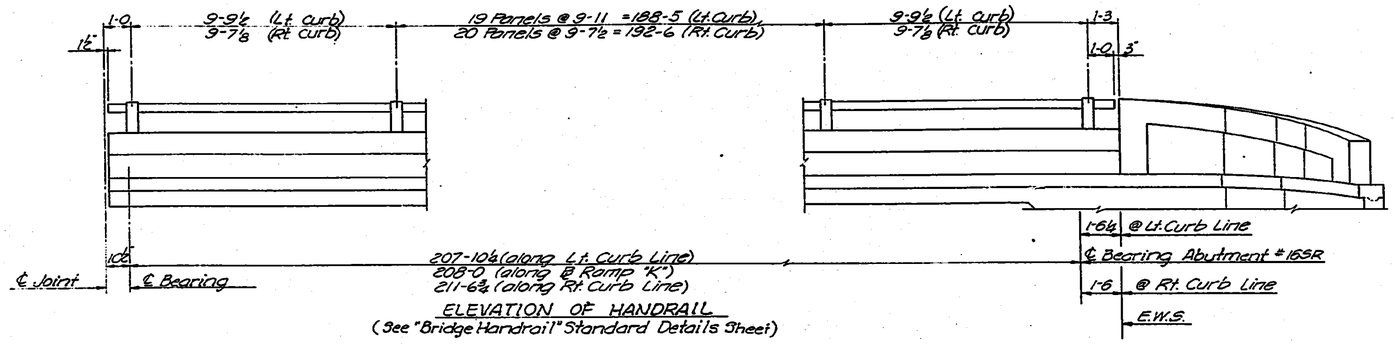
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 6 5

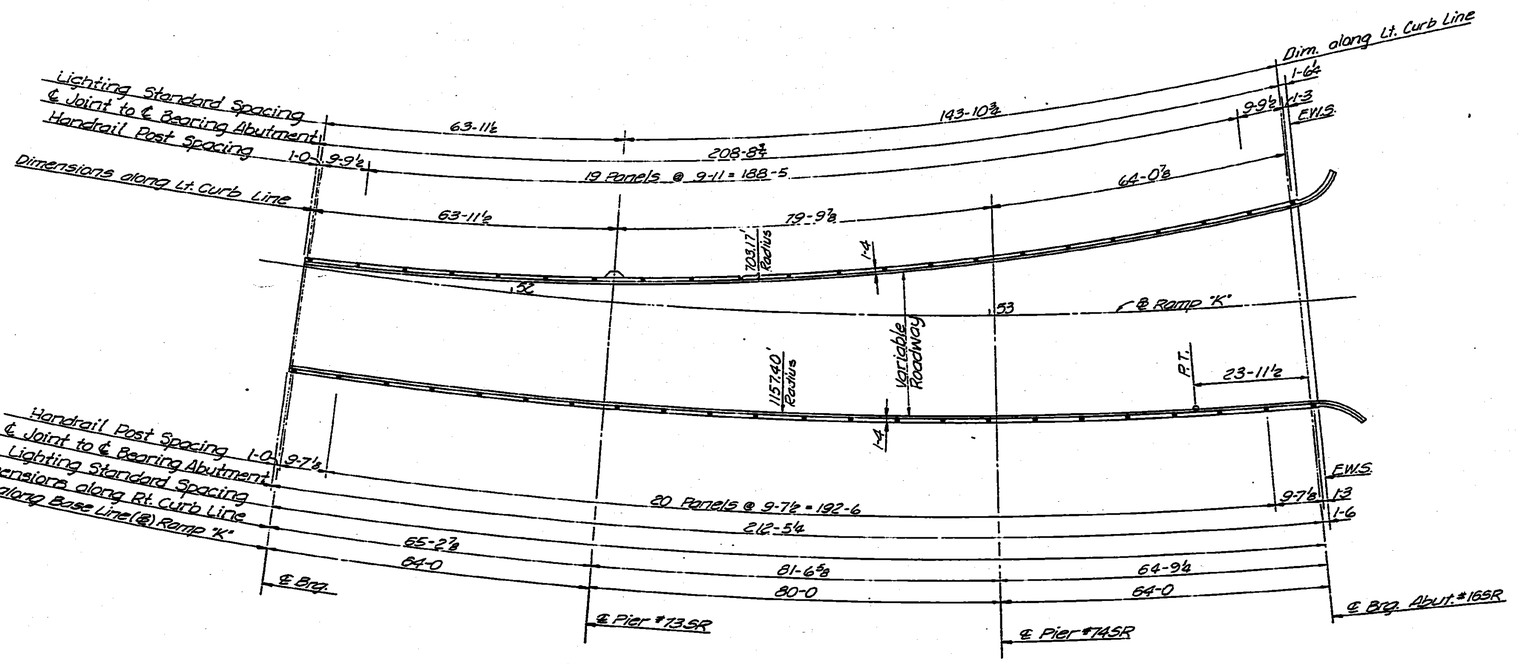
16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase III	19	1599	2137



ELEVATION OF HANDRAIL

(See "Bridge Handrail" Standard Details Sheet)



SPAN NO. 1 SPAN NO. 2 SPAN NO. 3

SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 16SR
SB I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-1(58) 48 SEDGWICK CO.

SHEET NO. 17 of 19	SCALE	APP'D.	
DESIGNED JWH	DETAILED RBS	QUANTITIES LKD	TRACED DRA
DESIGN CK. DPG	DETAIL CK. DPG	QUANT. CK. DBT	TRACE CK. DS

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 6 6

16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W 1-(58)48 Phase III	19	1600	2187

BILL OF REINFORCING STEEL

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
				S1A	142	5	*
				S1B	178	5	*
				S1C	144	5	*
				S2A	145	5	14-1
				S2B	145	5	*
				S2C	354	5	*
				S2D	282	6	*
				S3A	290	5	*
				S3B	177	5	15-6
				S3C	177	5	*
				S3D	141	6	20-6
				S3E	141	6	*
S4	120	5	40-0				
S5	3	5	23-6				
S6	24	5	28-6				
S7	3	5	28-6				
S8	3	5	36-6				
S9	9	5	44-0				
S10	21	5	45-0				
S11	3	5	25-6				
S12	20	5	27-9				
S13	23	5	28-6				
S14	4	4	15-9				
S15	106	4	40-0				
S15A	30	6	40-0				
S16	8	4	29-0				
S17	12	4	27-3				
S18	4	4	18-9				
S19	3	4	17-6				
S19A	3	6	17-6				
S20	3	4	21-3				
S20A	3	6	21-3				
G1	6	9	55-10				
G1A	9	9	50-7				
				G1B	10	9	60-0
G2	12	10	49-10				
G3	12	10	36-0				
G4	25	7	22-6				
G5	25	10	60-0				
G6	12	10	50-0				
G7	12	10	40-0				
G8	7	8	18-9				
G9	6	8	19-6				
G10	6	8	20-9				
G11	6	8	21-6				

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
G12	24	10	56-0				
G13	24	9	40-0				
G14	25	10	60-0				
G15	9	5	42-0				
G16	7	5	49-0				
G17	8	5	42-5				
G18	7	5	49-5				
G19	17	10	50-0				
G20	14	10	36-0				
G21	16	11	26-0				
G22	12	11	16-0				
G23	7	5	41-9				
G24	7	5	42-6				
G25	4	11	15-0				
G26	9	5	28-9				
G27	8	5	29-7				
G28	7	5	42-9				
G29	7	5	43-7				
G30	17	10	60-0				
G31	14	10	48-0				
G32	28	10	33-0				
G33	24	11	21-0	LB1	4	4	7-4
G34	2	11	20-0	LB2	3	4	9-4
G35	9	5	36-9				
G36	8	5	37-6				
G34A	2	11	24-9				
B1	8	9	21-9				
B2	2	6	21-9				
B3	6	8	21-9	B4	6	8	13-6
				B4A	4	8	17-6
B5	14	11	21-9				
				B6	14	11	24-9
				B7	6	6	28-0
				B7A	8	6	25-4
B8	10	10	28-5				
B9	2	6	28-5				
B10	14	8	28-5				
B11	20	11	28-5				
				B12	20	11	31-5
				B13	11	6	34-8
				B13A	9	6	32-0

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
				BU1	62	6	13-6
				BU2	22	4	6-1
				BU3	15	4	4-11
				BU4	31	6	15-6
				BU5	78	6	14-0
				BU6	39	6	17-0
				BC1	8	6	20-11
				BC2	4	8	19-11
				BC3	4	8	25-2
				BC4	16	10	8-2
				C1	515	4	3-5
				C2	508	4	3-8
				C3	38	4	2-5
				C4	16	5	5-7
C5	8	4	2-6				
				U1	1692	5	7-7
				U2	132	5	6-1
				U3	198	7	7-7
WG1	38	8	40-0				
WG2	6	8	27-9				
WG3	2	8	23-0				
WG4	2	8	20-0				
WG5	4	8	32-3				
AB1	8	8	41-7				
AB2	12	6	41-7				
				AB3	28	6	10-6
				AB4	28	5	7-3
				AS1	34	4	5-6
AS2	1	4	40-0				
				AU1	40	5	13-9
				AU2	40	5	9-1

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
				W1	4	4	10-2
				W2	4	4	11-11
				W3	2	4	12-3
				W4	2	4	12-10
				W5	22	4	3-7
				W6	16	6	13-3
				W7	2	6	13-9
				W8	14	6	13-0
W9	28	4	3-3				
				W10	28	4	4-0
				W11	4	4	13-6
				W12	1	4	14-0
				W13	1	4	15-0
				W14	1	4	17-0
				W15	4	4	14-10
				W16	1	4	15-4
				W17	1	4	16-4
				W18	1	4	18-4

*See Bending Diagrams

All bar marks shall be prefixed with the Unit Number when fabricated. Example: #9G1 bars shall be marked 16SR9G1.

NO.	DATE	REVISIONS	BY	APPD.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING, REINF. & QUAN.— UNIT NO. 16SR
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 18 OF 19	SCALE	APPD.	
DESIGNED DFG	DETAILED LKD	QUANTITIES LKD	TRACED DS
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. DGT	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531 6 7

16X 14.5X 12X 12X 14.5X 16X

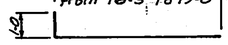
BENDING DIAGRAMS

REV. PLANS 11-1-71

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-13.5W I(68)98 Phase III	19	1601	8197

Bar Dimensions are Out to Out

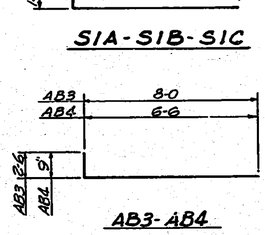
S1A	Increase by 3" Incr. from 10-4 to 11-10	Cut 20 Ea. Length Except Cut 22@11-10
S1B	Increase by 3" Incr. from 12-6 to 15-0	Cut 16 Ea. Length Except Cut 18@15-0
S1C	Increase by 3" Incr. from 16-3 to 19-0	Cut 12 Ea. Length



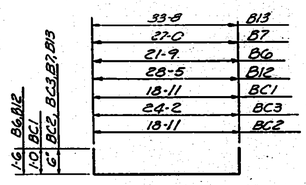
S1A-S1B-S1C

S3A	Increase by 3" Incr. from 13-0 to 14-6	Cut 42 Ea. Length Except Cut 38 @ 14-6
S3B	15-0	
S3C	Increase by 4" Incr. from 14-0 to 20-4	Cut 9 Ea. Length Except Cut 6 @ 14-0
S3D	20-0	
S3E	Increase by 4" Incr. from 16-0 to 23-4	Cut 6 Ea. Length Except Cut 9 @ 23-4

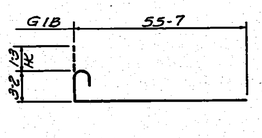
S3A-S3B-S3C-S3D-S3E



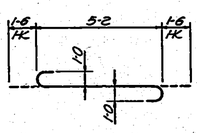
AB3-AB4



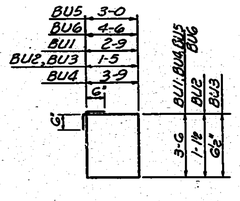
B6-BC1-BC2-BC3
B7-B12-B13



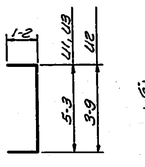
G1B



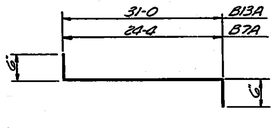
BC4



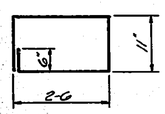
BU1-BU2-BU3
BU4-BU5-BU6



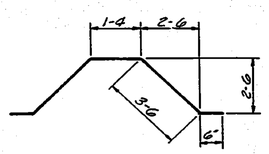
U1 - U2 - U8



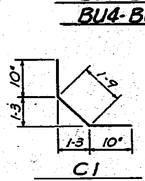
B7A - B13A



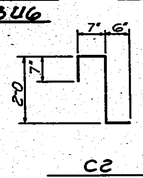
LB1



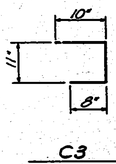
LB2



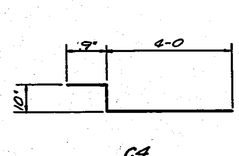
C1



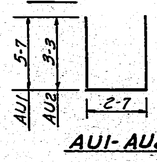
C2



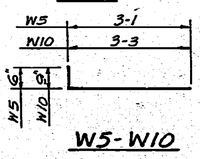
C3



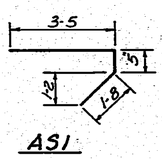
C4 ⚠



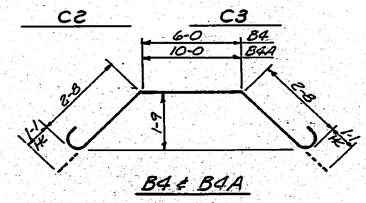
AU1-AU2



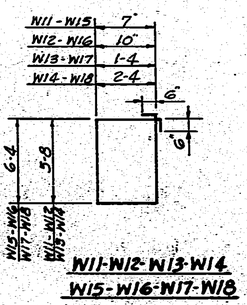
W5-W10



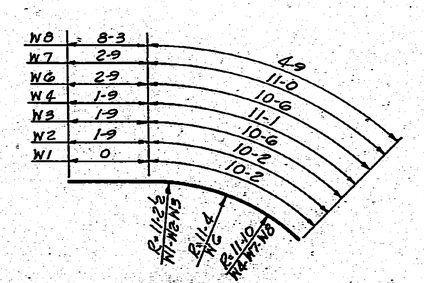
A51



B4 & B4A

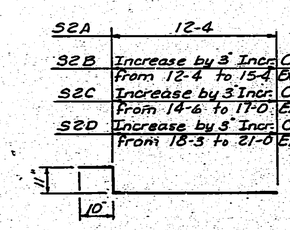


W11-W12-W13-W14
W15-W16-W17-W18



W1-W2-W3-W4-W6-W7-W8

S2A	12-4	
S2B	Increase by 3" Incr. from 12-4 to 15-4	Cut 11 Ea. Length Except Cut 13 @ 15-4
S2C	Increase by 3" Incr. from 14-6 to 17-0	Cut 34 Ea. Length Except Cut 14 @ 14-6
S2D	Increase by 3" Incr. from 18-3 to 21-0	Cut 24 Ea. Length Except Cut 18 @ 18-3



S2A-S2B-S2C-S2D

SUMMARY OF QUANTITIES

Class III Excavation	59	Cu. Yds.
Class AAA Concrete AE	465.6	Cu. Yds.
Reinforcing Steel	177,100	Lbs.
Wrought Iron Drains & Grates	1,227	Lbs.
8" ϕ Downspouts	6489	Lin. Ft.
Bridge Handrail	419.69	Lin. Ft.
Structural Steel		
Bearing Devices (A36) 6@242 Lbs.	968	Lbs.
Cover Plates & Corner Plates (A36)	182	Lbs.
Access Doors (A36) 3@130 Lbs.	390	Lbs.
10BP42 Steel Piles 78@56'	3912	Lin. Ft.
Reinforced Concrete Riprap (4")	285	Sq. Yds.
Linseed Oil Surface Treatment (Bridges)	692.5	Sq. Yds.

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

⚠ TO SH. 1298A FOR OPTIONAL PIER REINF.

NO.	DATE	REVISIONS	BY	APP'D.
2	6-1-73	Provide Optional Pier Reinf.	VHES	
1	11-1-71	Rev. Exp. Devices	WHJ33	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.50
BENDING - REINF. & QUAN. - UNIT NO. 16SR
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-13.5W-I(68)98 SEDGWICK CO.

DES. DRB	DET. JMG	APP. LKD	TRACED JMG
QUAN. CK. RDS	QUAN. CK. EDS	QUAN. CK. DJT	TRACE CK. EDS

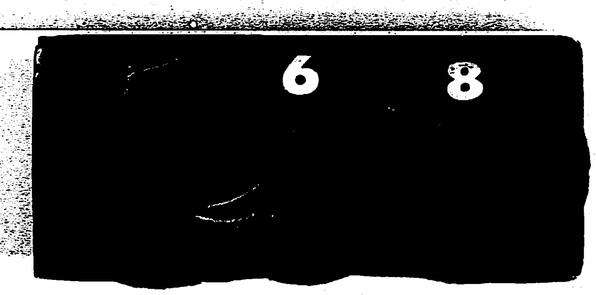
From 17N - Typ. Cont. Unit - 44' Rdw

64-02

DIST. 5 SEDGWICK CO. ROLL 531

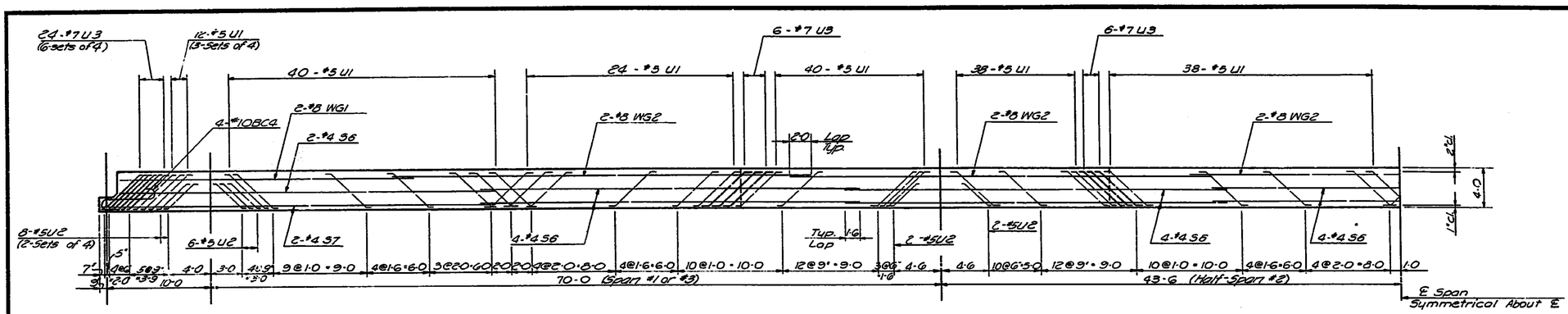
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)



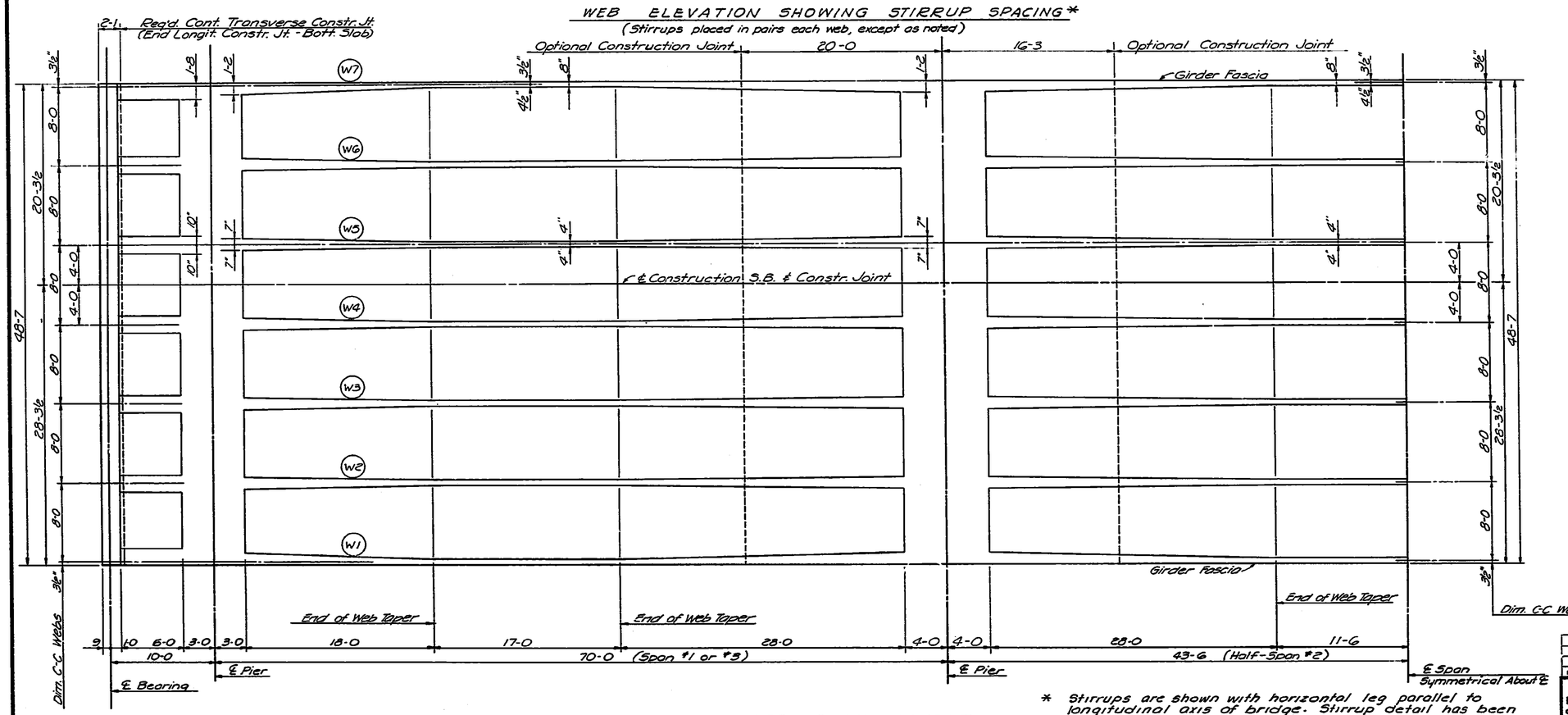
20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-1.35W I-(58)48 Phase III	1970	1602	2137



WEB ELEVATION SHOWING STIRRUP SPACING*

(Stirrups placed in pairs each web, except as noted)



WEB PLAN LAYOUT

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top ℄ beneath bottom main reinforcing steel. See Roadway Deck Section.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 17S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 1 OF 8	SCALE	APP'D.	
DESIGNED DFS	DETAILED DS	CHECKED LKO1	TRACED DS
DRAWN CC. RBS	DETAIL CC. RBS	CHECK CC. DGT1	TRACE CC. RBS

64-08

DIST. 5 SEDGWICK CO. ROLL 531

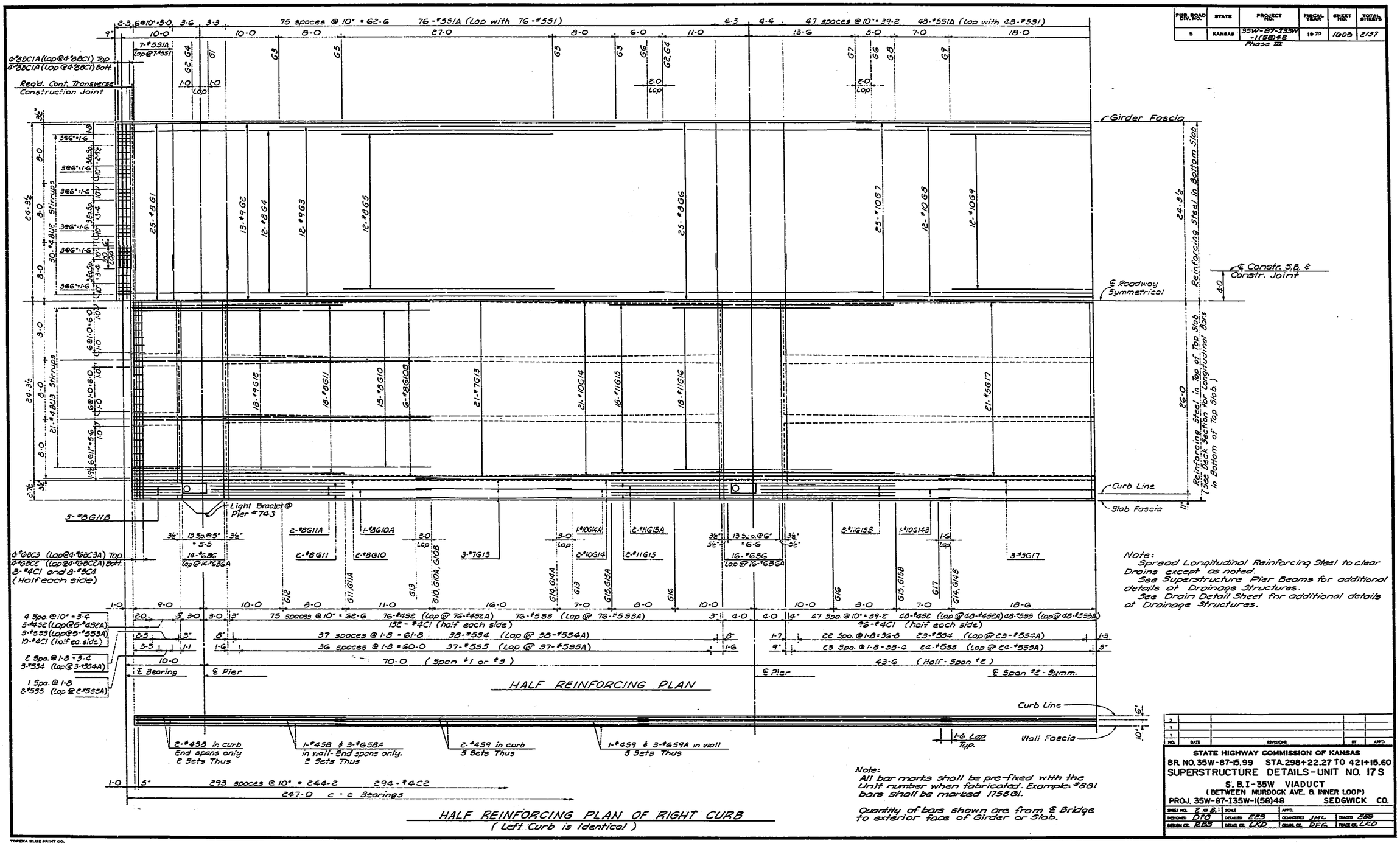
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

6 9

20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase III	1970	1608	2197



Note:
Spread Longitudinal Reinforcing Steel to clear Drains except as noted.
See Superstructure Pier Beams for additional details of Drainage Structures.
See Drain Detail Sheet for additional details at Drainage Structures.

Note:
All bar marks shall be pre-fixed with the Unit number when fabricated. Example: #861 bars shall be marked 17861.

Quantity of bars shown are from ℄ Bridge to exterior face of Girder or Slab.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 17S
S. B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

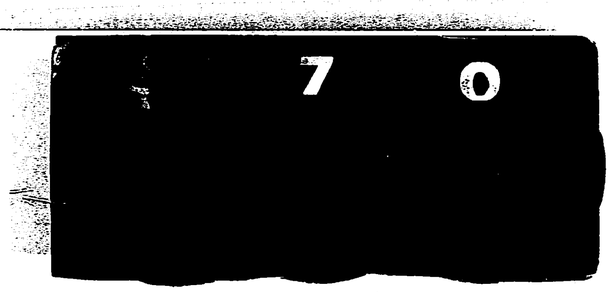
SHEET NO. 2 OF 8	SCALE	APP'D.	
REVISED DFG	DETAILED EES	QUANTITIES JHL	TRACED EES
DESIGN CK. RBS	DETAIL CK. LKD	GRAM. CK. DFG	TRACE CK. LED

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

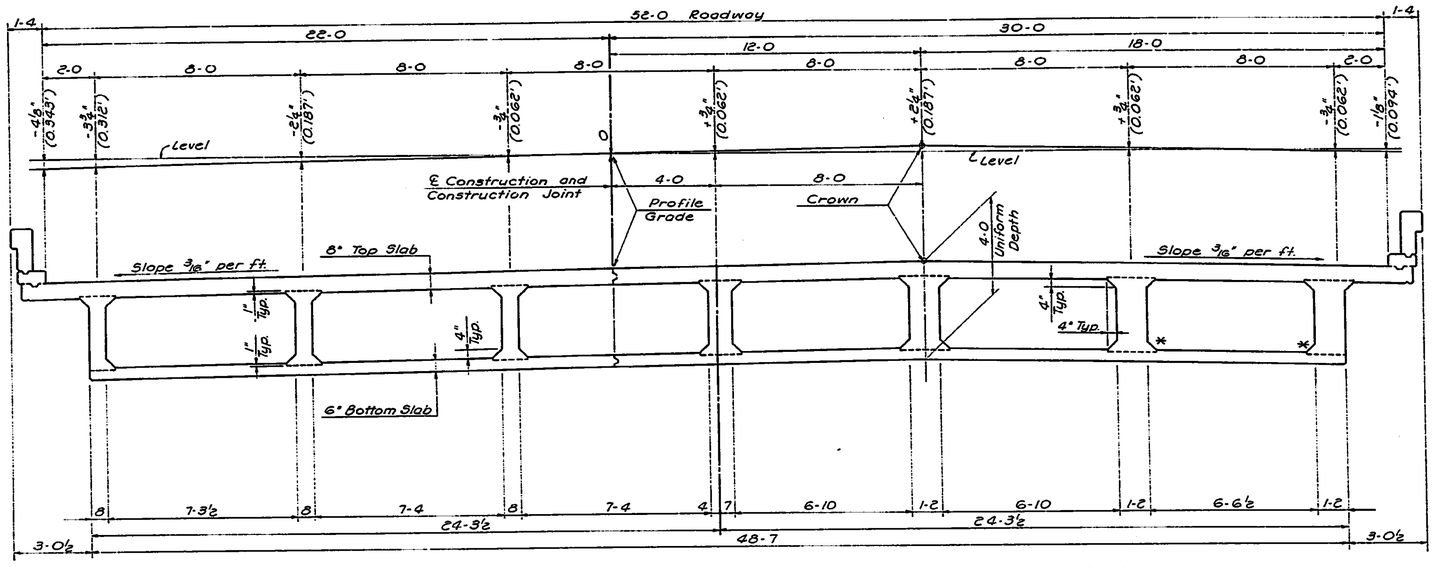
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)



20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

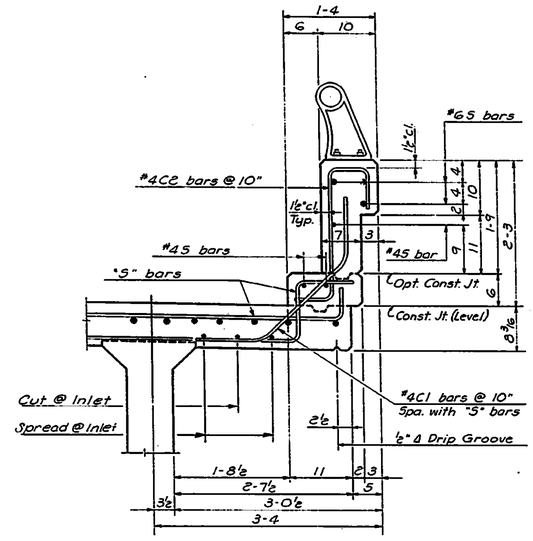
FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(68)48 Phase III	1970	1604	2137



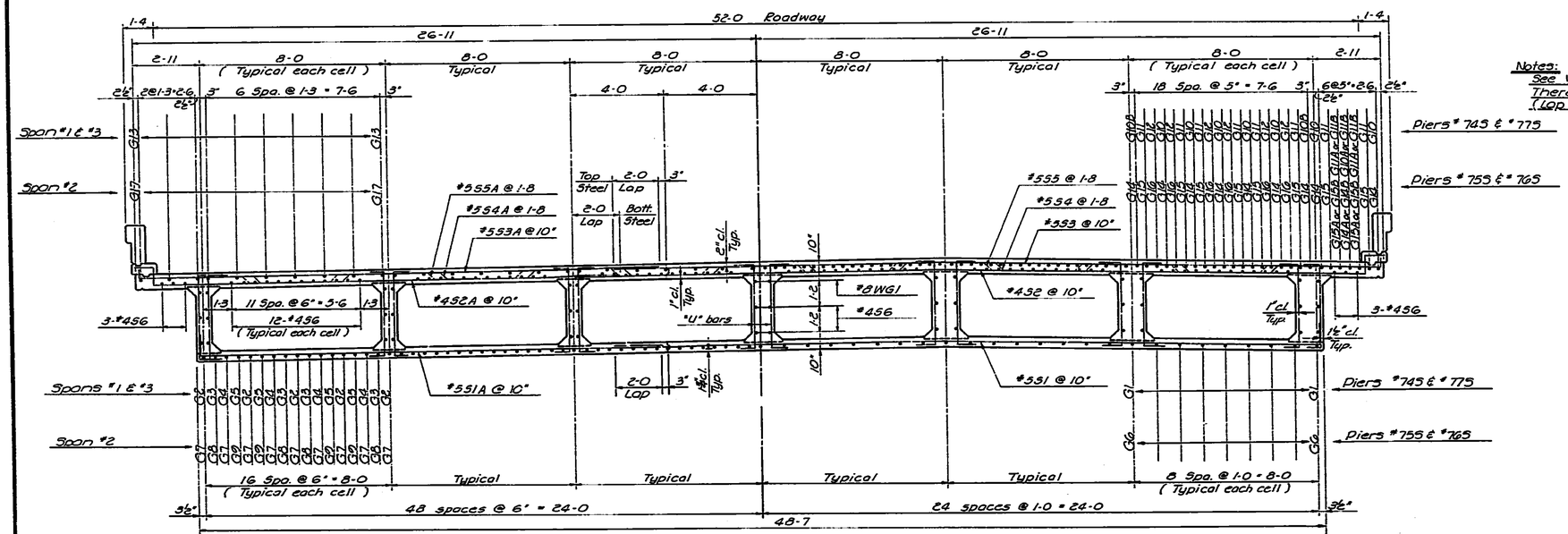
NEAR MID-SPAN

NEAR PIER

ROADWAY DECK SECTION



TYPICAL CURB SECTION



NEAR MID-SPAN

NEAR PIER

ROADWAY DECK SECTION

Notes:
See Web Elevation for quantity, size and spacing of "U" bars.
There are 7 sets of #456 bars in the bottom of the top slab. (Gp 1-6)

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 17 S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

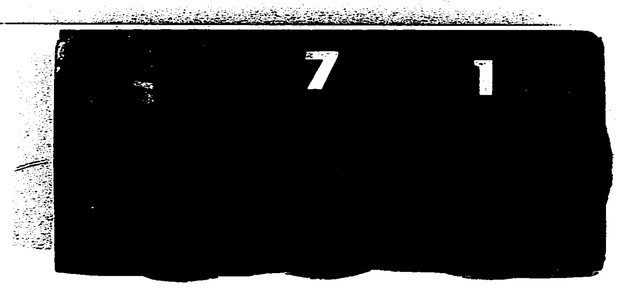
SHEET NO. 20 of 21	SCALE	APP'D.			
DESIGNED DFG	DETAILED EES	QUANTITIES JML	TRACED EES		
DESIGN CK. JWH	DETAIL CK. LED	SUBM. CK. DFG	TRACE CK. LED		

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

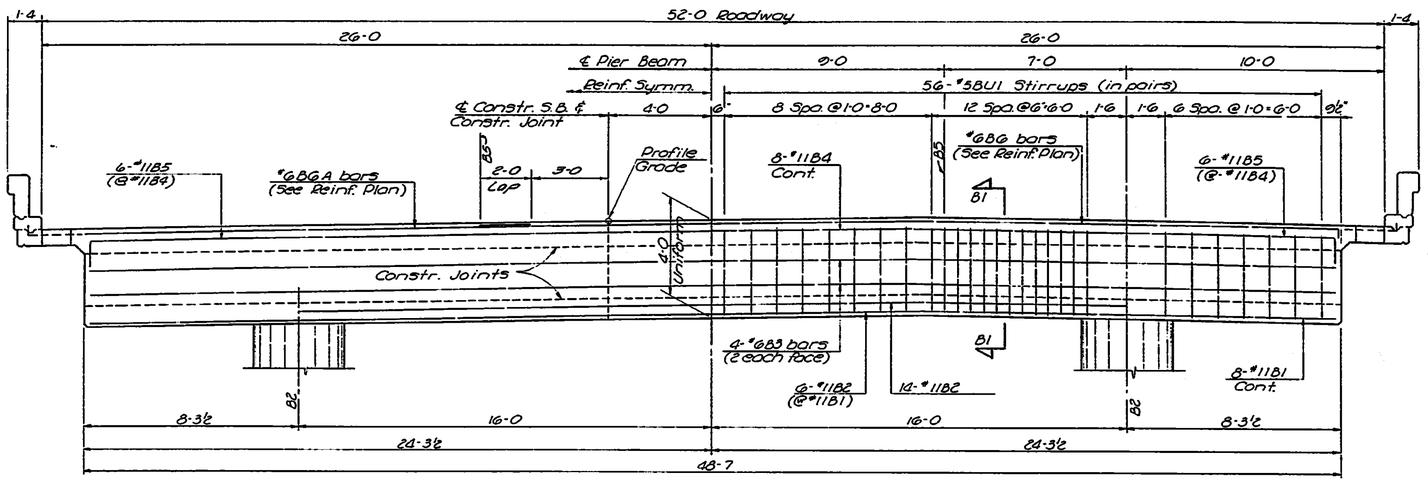
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

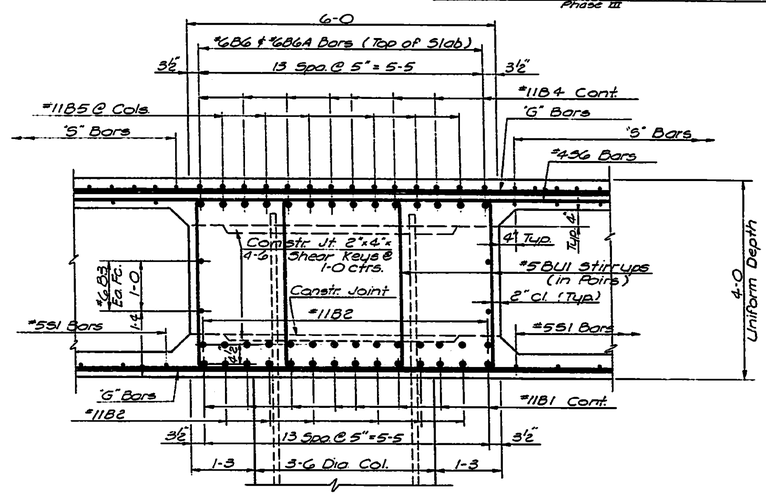


20X 16X 14.5X 12X 12X 14.5X 16X 20X

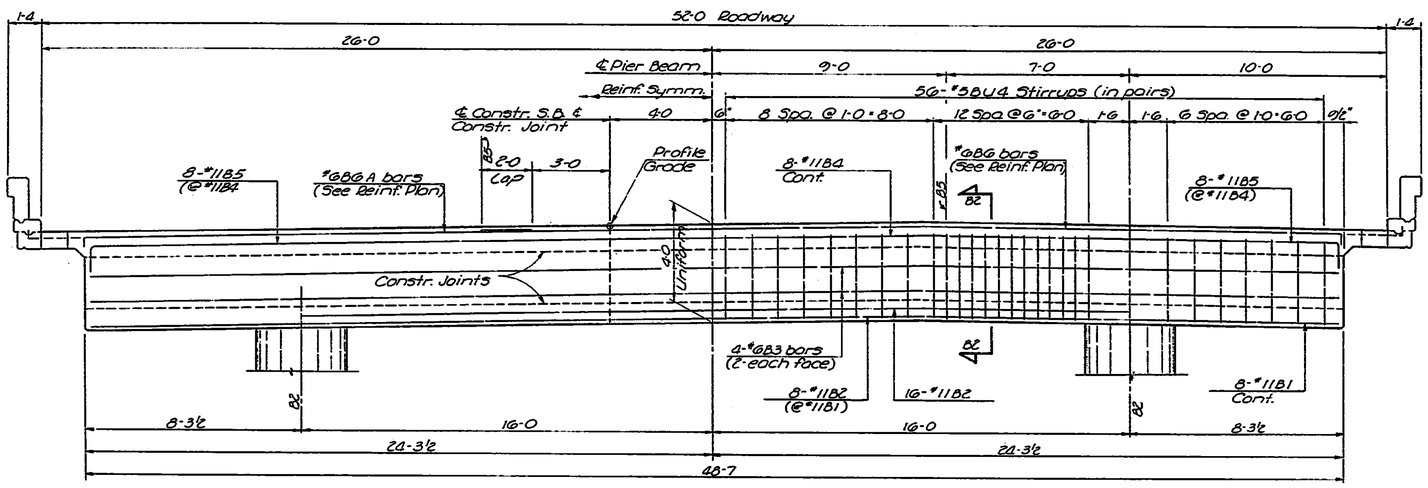
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -I(58)48 Phase III	1970	1605	2137



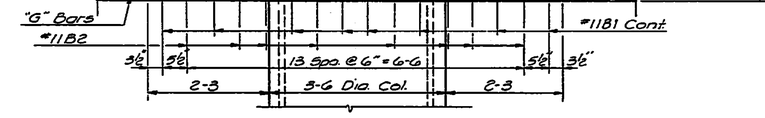
SUPERSTRUCTURE PIER BEAM
(At Piers #745 & #775)



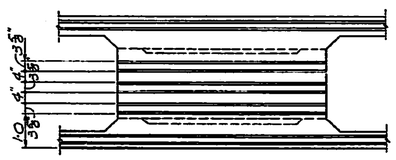
SECTION B1-B1



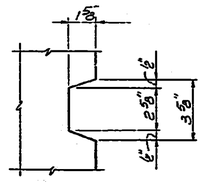
SUPERSTRUCTURE PIER BEAM
(At Piers #755 & #765)



SECTION B2-B2



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing Location of Keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 17S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-I(58)48 SEDGWICK CO.

SHEET NO. 2 of 8	SCALE		APP'D.			
DESIGNED DFG	DETAILED EES		QUANTITIES JHL		TRACED EES	
DESIGN CK. JWH	DETAIL CK. LKD		QUANT. CK. DFG		TRACE CK. LKD	

TOPEKA BLUE PRINT CO.

2 Negatives, 5 Prints

68-03-00-58

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

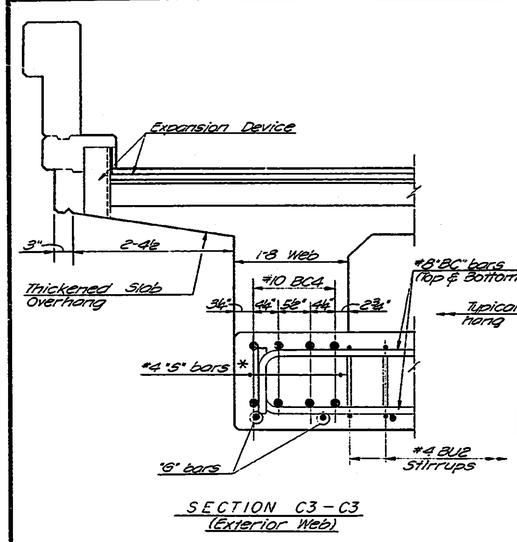
THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

[redacted] 7 2

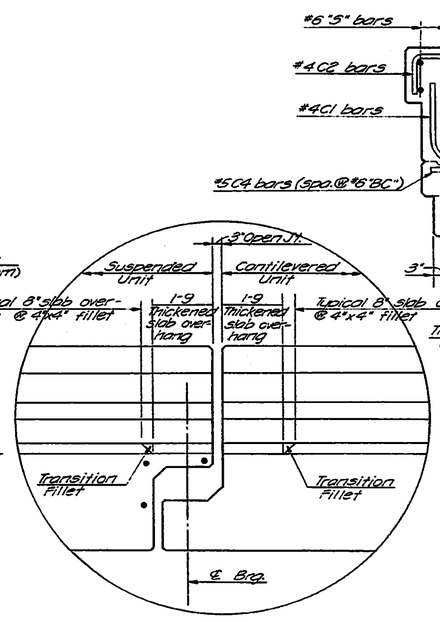
20X | 16X | 14.5X | 12X

12X | 14.5X | 16X | 20X

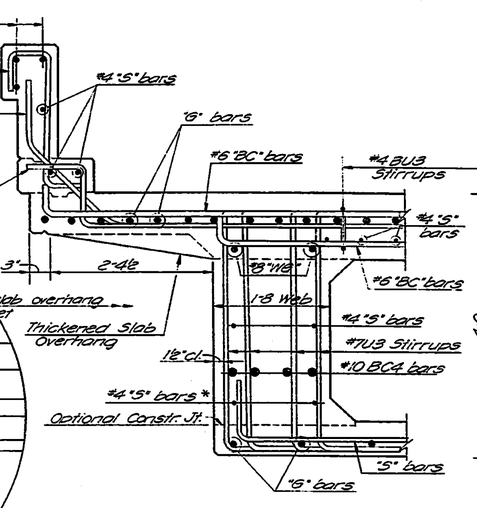
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-15.99W -I(58)48 Phase III	1970	1606	2137



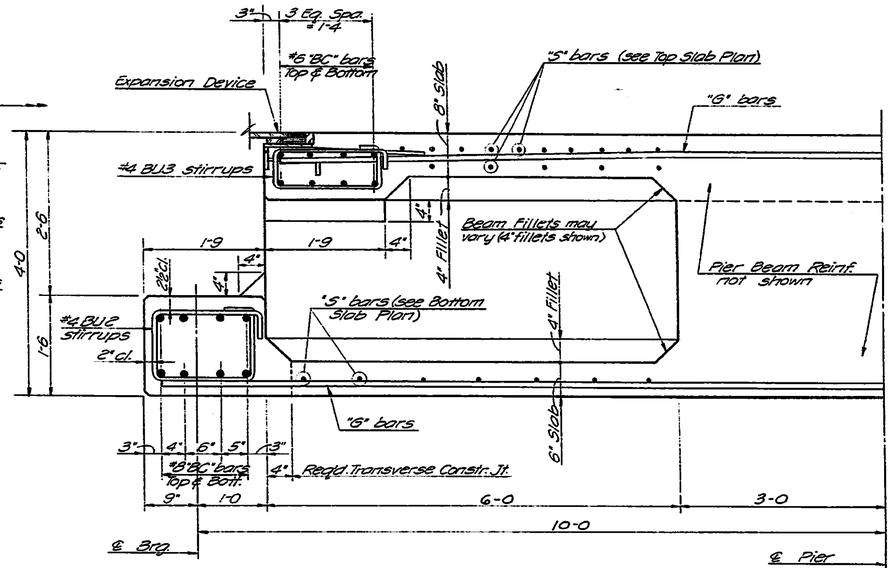
SECTION C3 – C3
(Exterior Web)



VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)

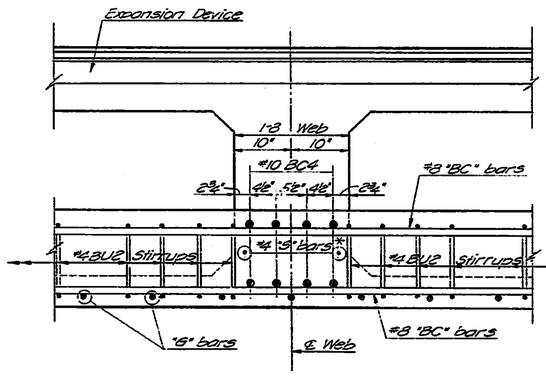


SECTION C4 – C4
(Exterior Web)

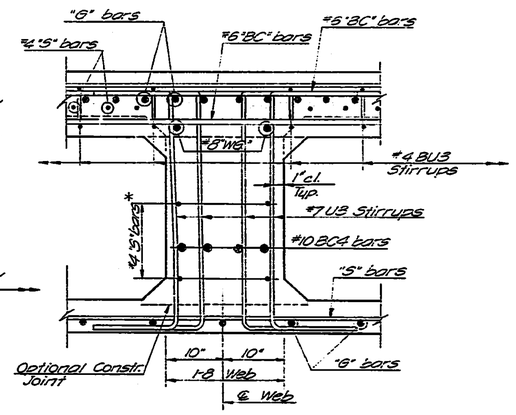


TYPICAL SECTION THRU CELL

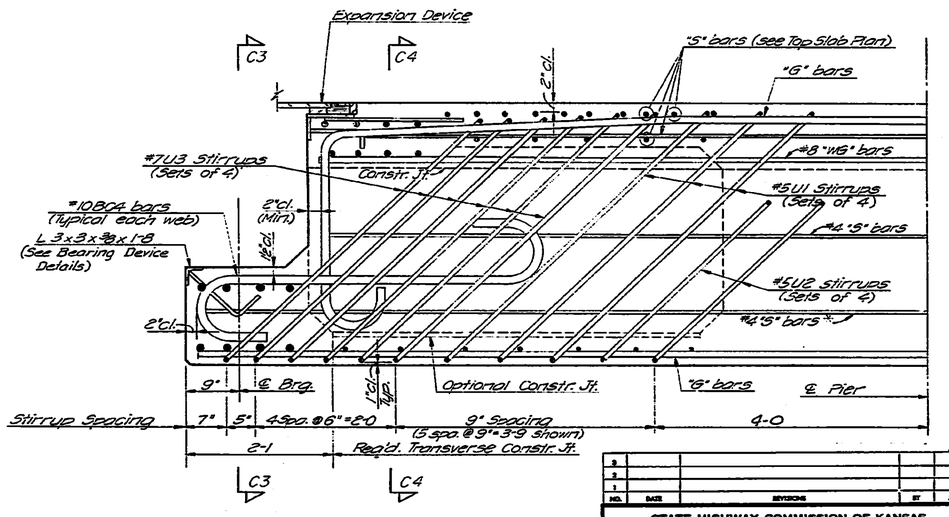
SEE REVISED EXPANSION DEVICES



SECTION C3 – C3
(Interior Web)



SECTION C4 – C4
(Interior Web)



TYPICAL SECTION THRU WEB

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

BEARING BEAM DETAILS

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 17S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-67-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 5 of 8	SCALE	APP'D.	
DESIGNED DFG	MEASURED DS	COMPUTED JMC	TRACED DS
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. DFG	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

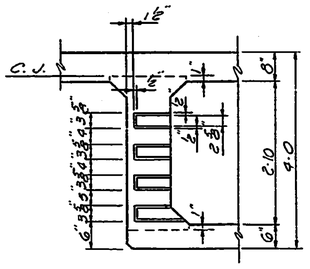
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

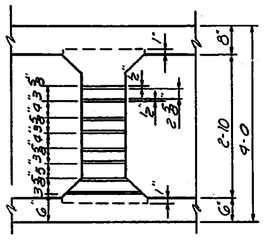
[redacted] 7 3

20X 16X 14.5X 12X 12X 14.5X 16X 20X

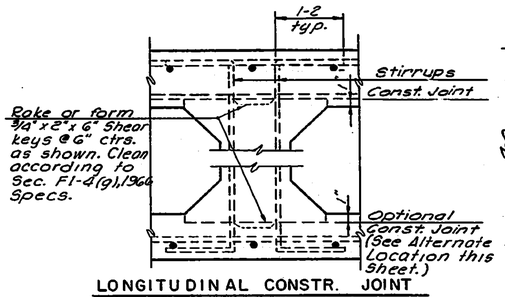
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase III	1970	1601	2137



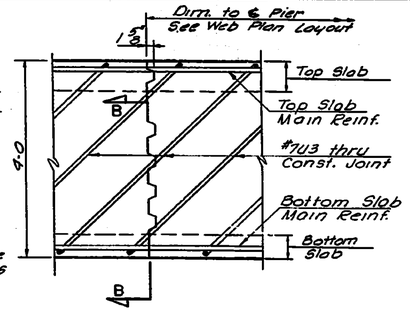
SECTION B-B
(Through Exterior Web)



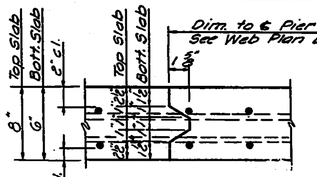
SECTION B-B
(Through Interior Web)



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

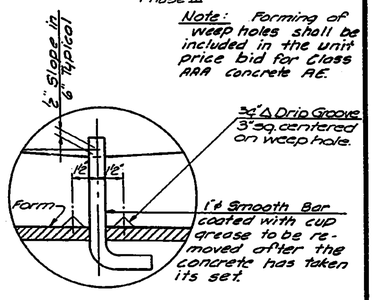


WEB CONSTR. JOINT
(Showing Placement #7U3 bars)



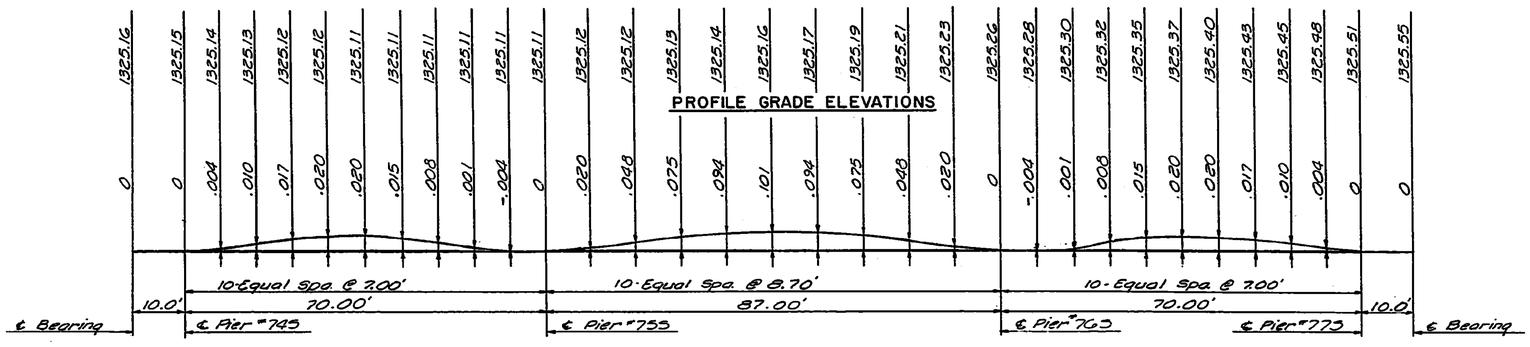
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of weep holes shall be included in the unit price bid for Class AAA concrete AE.



DETAIL OF WEEP HOLES

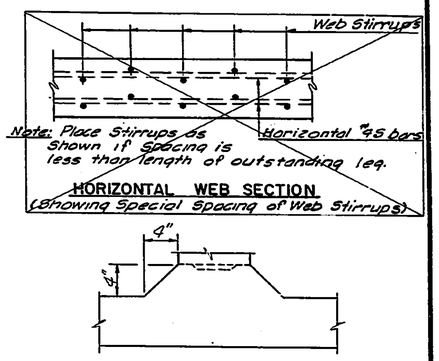
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



DEAD LOAD CAMBER IN FEET

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS

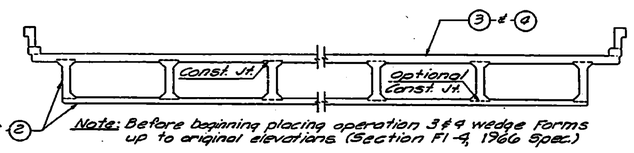
Note: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ p.s.i.



Note: Place Stirrups As Shown if Spacing is less than length of outstanding leg.

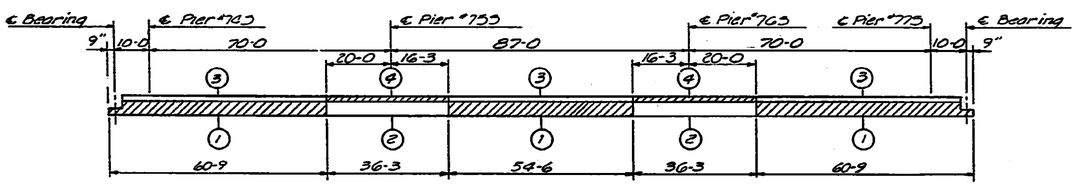
HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)

ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer)

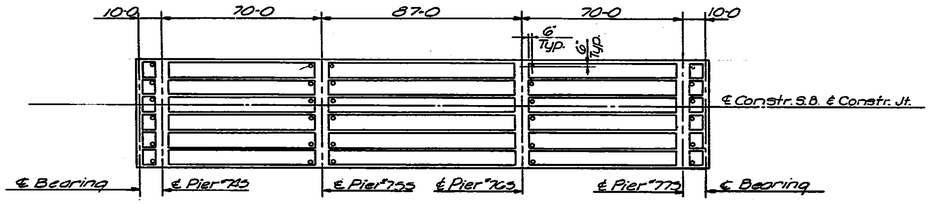


Note: Before beginning placing operation 3 & 4 wedge forms up to original elevations (Section FI-4, 1966 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework



LOCATION OF WEEP HOLES

NOTES:

See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained it's design strength.

Construction Joints: Construction Joints shown are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
1				
2				
3				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 17S
S. B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 6 OF 8	SCALE	APP'D.	
DESIGNED DPG	DETAILED DGT	CHECKED LKO	TRACED DGT
DRAWN CK. PDS	DETAIL CK. LAW	DESIGN CK. DGT	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

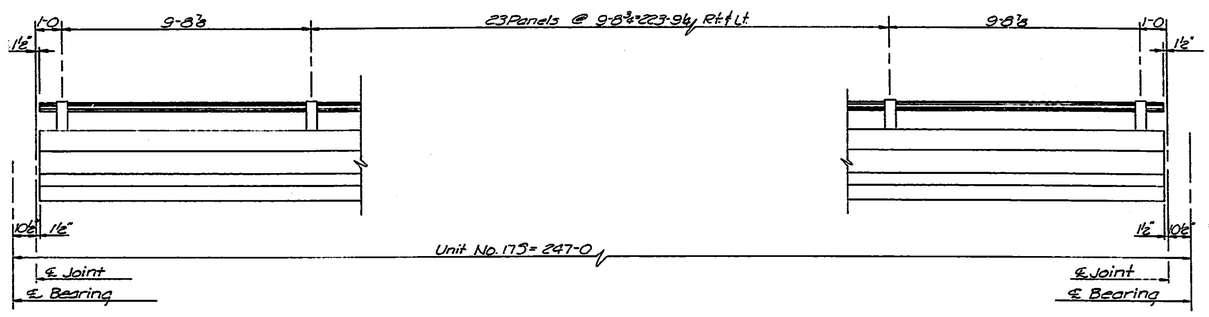
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

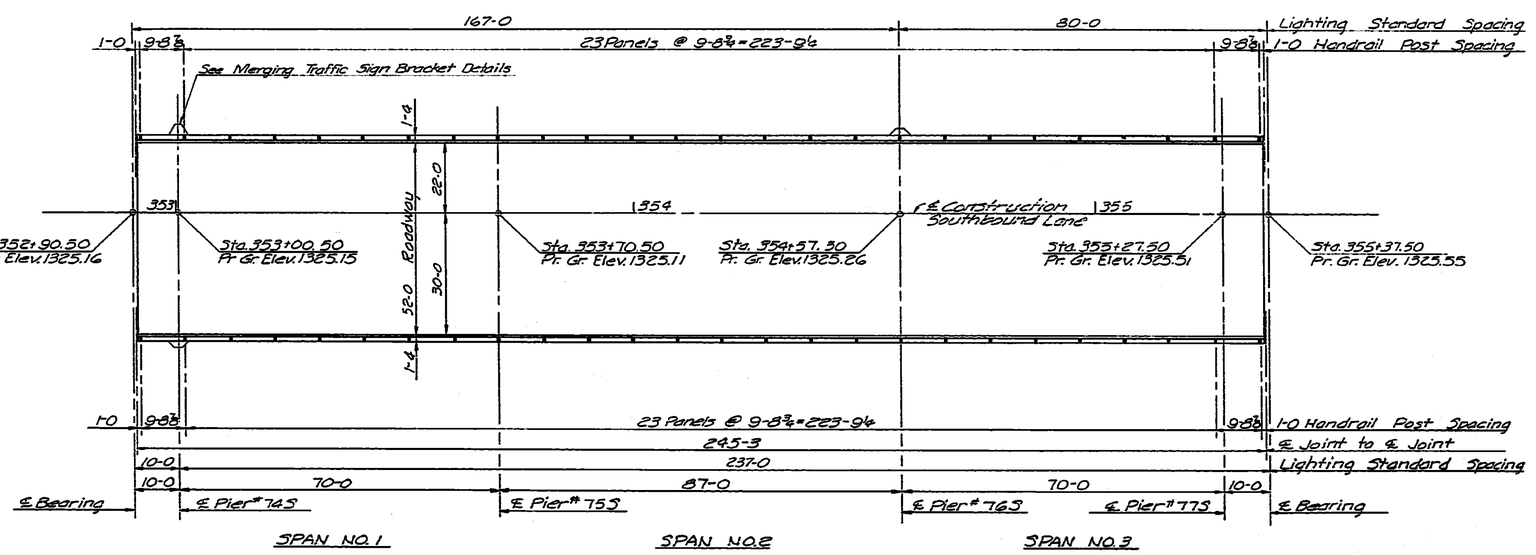
[redacted] 7 4

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35-1(58)48 Phase III	1970	1608	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 17S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 7 of 8 SHEETS	APP'D.		
DESIGNED JWH	CHECKED KBS	QUANTITIES LWH	TRACED KWK
COMPUTED RBS	DETAIL CK. DS	DRAWN CK. DGT	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS # 1601 thru # 1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
1601 thru # 1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. # 68 thru FR # 168)

[redacted] 7 5

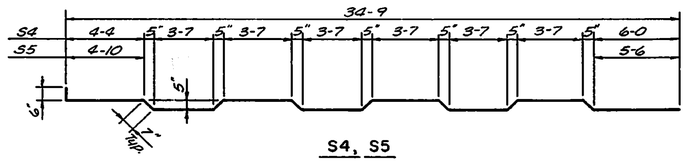
20X 16X 14.5X 12X 12X 14.5X 16X 20X

BENDING DIAGRAMS

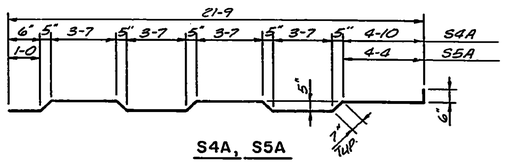
(Bar Dimensions are Out to Out.)

REV. PLANS 11-1-71

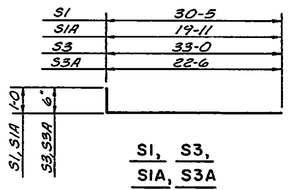
PUB. ROAD DIV. NO.	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	KANSAS	35W-87-135W-(58)48 Phase III	1970	1609	2137



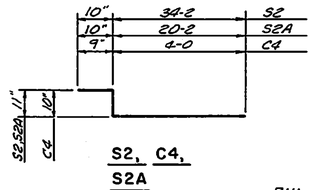
S4, S5



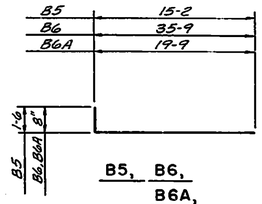
S4A, S5A



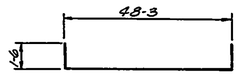
S1, S3, S1A, S3A



S2, C4, S2A



B5, B6, B6A,



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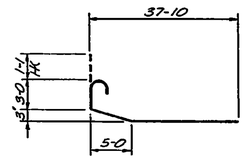
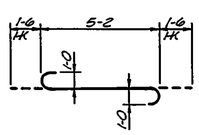


G10B



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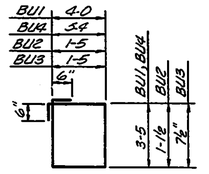
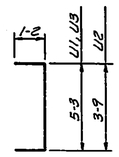
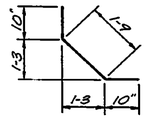


BU1, BU2, BU3, BU4



U1, U2, U3



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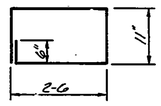
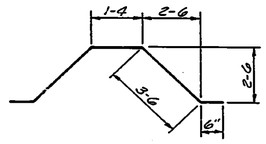
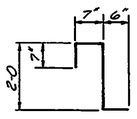


LB1



LB2



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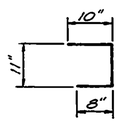

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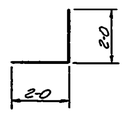


C6

BC1	31-8
BC1A	19-8
BC2	31-5
BC2A	19-5
BC3	34-0
BC3A	22-0

1-2, BC1A, 6", BC2, BC2A, BC3, BC3A

BC1, BC2, BC3, BC1A, BC2A, BC3A

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	262	5	31-5
				S1A	262	5	20-11
				S2	258	4	35-11
				S2A	258	4	21-11
				S3	258	5	33-6
				S3A	258	5	23-0
S6	714	4	36-3				
S7	28	4	38-0	S4	189	5	36-5
S8	12	4	26-10	S4A	189	5	23-1
S8A	12	6	26-10				
S9	30	4	40-0	S5	125	5	36-5
S9A	30	6	40-0	S5A	125	5	23-1
G1	98	8	11-7				
G2	50	9	60-0				
G3	48	9	43-0				
G4	48	8	60-0				
G5	48	8	27-0				
G6	98	8	28-6				
G7	49	10	60-0				
G8	24	10	50-0				
G9	24	10	36-0				
G10	68	8	37-10				
G10A	4	8	29-0				
				G10B	24	8	41-11
G11	80	8	26-10				
G11A	8	8	18-0				
G11B	12	8	6-0	LB1	8	4	7-4
G12	72	9	18-10	LB2	6	4	9-4
G13	96	7	21-0				
G14	92	10	50-0				
G14A	4	10	22-3				
G14B	4	10	25-0				
G15	80	11	36-0				
G15A	8	11	15-3				
G15B	8	11	18-0				
G16	72	11	20-0				
G17	48	5	40-0				

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
B1	32	11	48-3				
B2	88	11	32-0				
B3	16	6	48-3				
				B4	32	11	51-3
				B5	56	11	16-8
				B6	60	6	36-5
				B6A	60	6	20-5
				BU1	224	5	15-10
				BU2	120	4	6-1
				BU3	84	4	5-1
				BU4	224	5	18-6
				BC1	16	8	32-8
				BC1A	16	8	20-8
				BC2	8	6	31-11
				BC2A	8	6	19-11
				BC3	8	6	34-6
				BC3A	8	6	22-6
				BC4	56	10	8-2
				C1	574	4	3-5
				C2	588	4	3-8
				C3	72	4	2-5
				C4	16	5	5-7
C5	32	4	2-6	C6	8	4	4-0
				U1	2688	5	7-7
				U2	252	5	6-1
				U3	504	7	7-7
WG1	28	8	28-4				
WG2	70	8	40-0				

All bar marks shall be prefixed with the Unit Number when fabricated. Example: #BC1 bars shall be marked 175BC1.

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	888.7	Cu.Yds.
Reinforcing Steel	309,650	Lbs.
Cast Iron Scuppers @ 37.6 Lbs.	150	Lbs.
Wrought Iron Drains & Grates	4,781	Lbs.
8" ϕ Downspouts	240.52	Lin. Ft.
Gutters	74.32	Lin. Ft.
Bridge Handrail	486.50	Lin. Ft.
Structural Steel		
Corner Angles (A36) 14@ 19Lbs.	266	Lbs.
Expansion Devices (A36)	3,848	Lbs.
Elastomeric Exp. Device (13½")	108	Lin. Ft.
Linseed Oil Surface Treatment (Bridges)	1413.5	Sq. Yds.

△ SEE SH. 1938A FOR OPTIONAL PIER REINF.

NO.	DATE	REVISIONS	BY	APP'D
3				
△	5-1-73	Provide Optional Pier Reinf.	VHSS	
△	11-1-71	Rev. Exp. Devices	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 17S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 8 OF 8	SCALE	APP'D					
DESIGNED D.P.G.	DETAILED EES	QUANTITIES JML	TRACED JML				
DESIGN CK. JWH	DETAIL CK. LKD	QUAN. CK. DPG	TRACE CK. DPG				

DIST. 5 SEDGWICK CO. ROLL 531

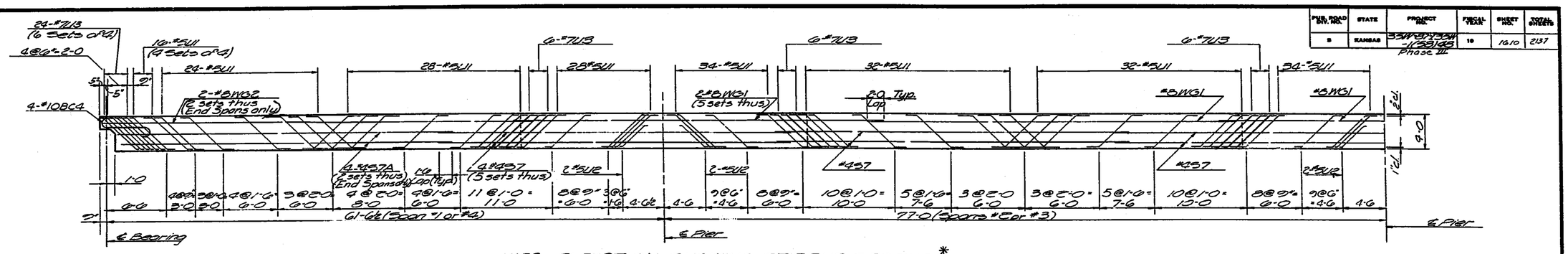
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

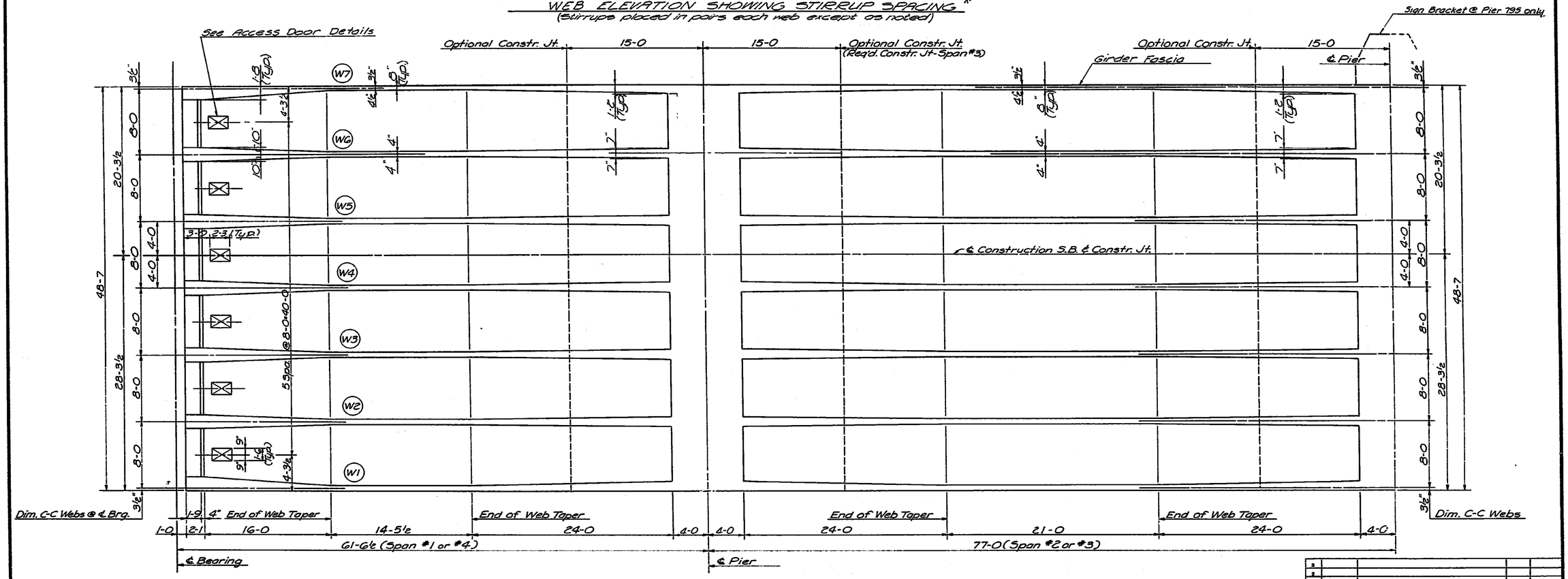
[redacted]

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-15.99 (58)48 Phase III	19	1610	2137



WEB ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web except as noted)



WEB PLAN LAYOUT

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top and beneath bottom main reinforcing steel. See Roadway Deck Section.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 18S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 1 of 8	SCALE	APP'D.	
DESIGNED DFG	DETAILED RAF	CHECKED LKD	TRACED RAF
DESIGN CK. RBS	DETAIL CK. RBS	EQUAL CK. DSTT	TRACE CK. RBS

64-03

DIST. 5 SEDGWICK CO. ROLL 531

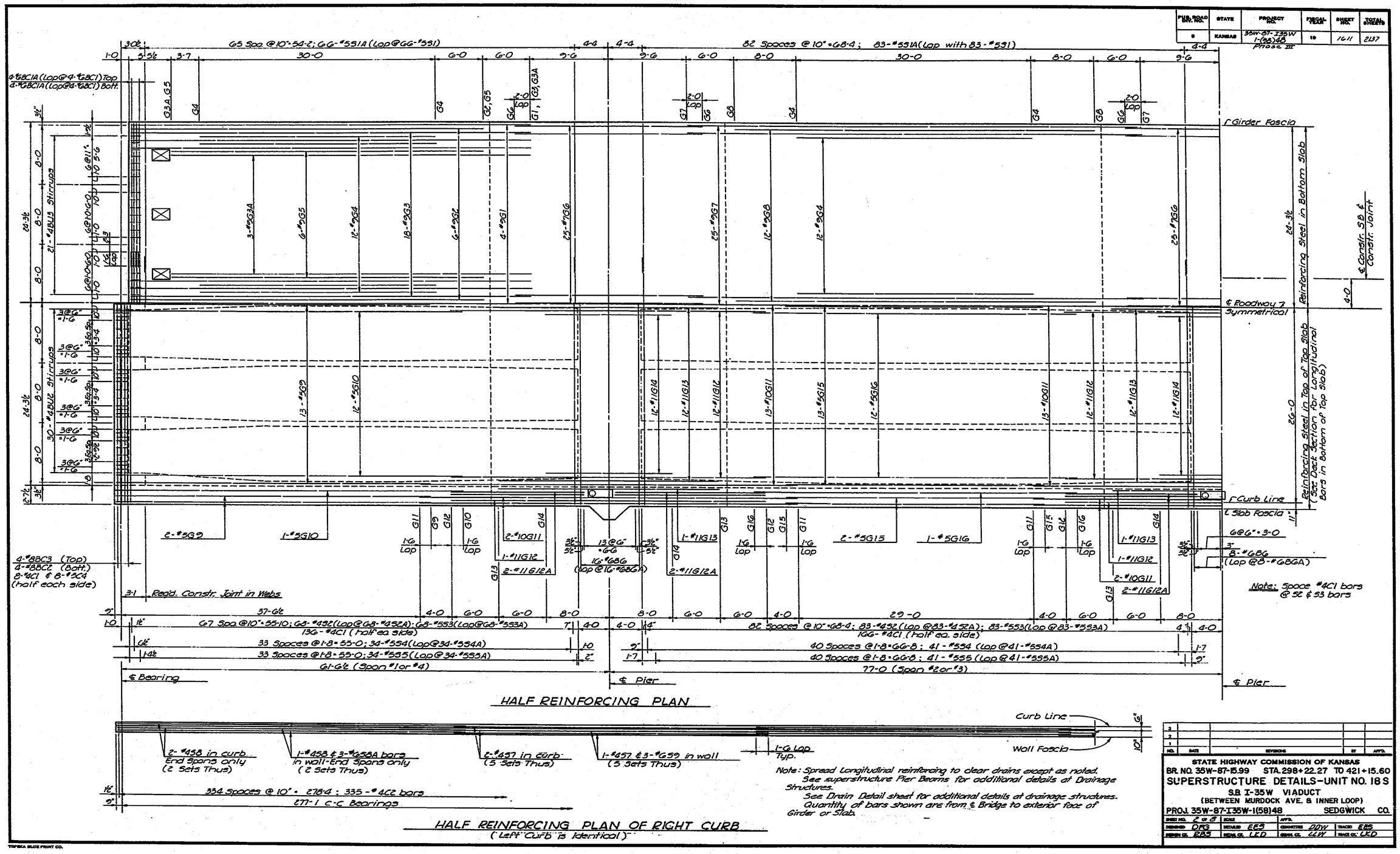
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

[redacted] 7 7

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	KANSAS	35W-87-I35W 1-(58)48 Phase III	19	1611	2137



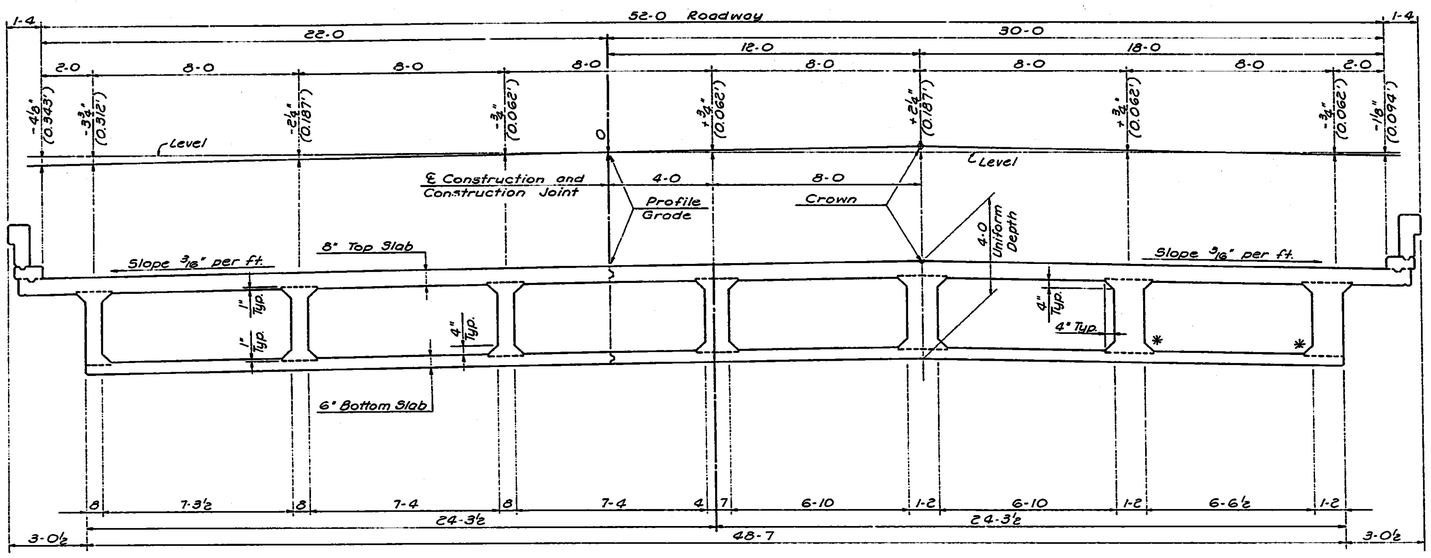
NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 18 S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 2 OF 8 SHEETS		APP'D.			
DESIGNED DPG	DETAILED EES	CHECKED DDW	TRACED EES		
DESIGN GR. BRS	DETAIL CK. LED	CHECK GR. LLW	TRACE CK. LED		

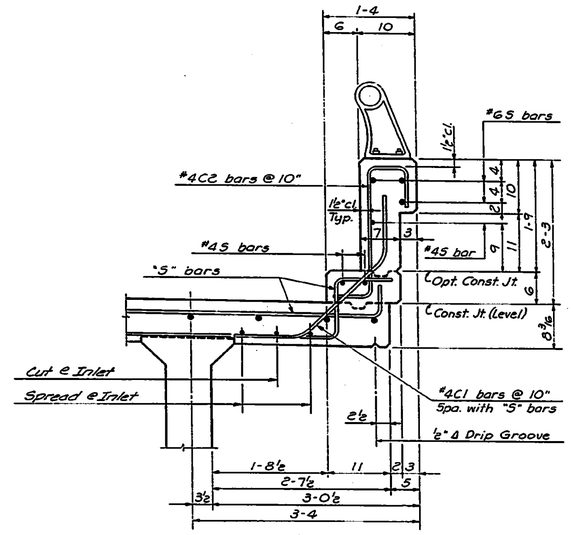
DIST. 5 SEDGWICK CO. ROLL 531
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT
THESE SHEETS #1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)
7 8

FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase III	19	16/12	2137

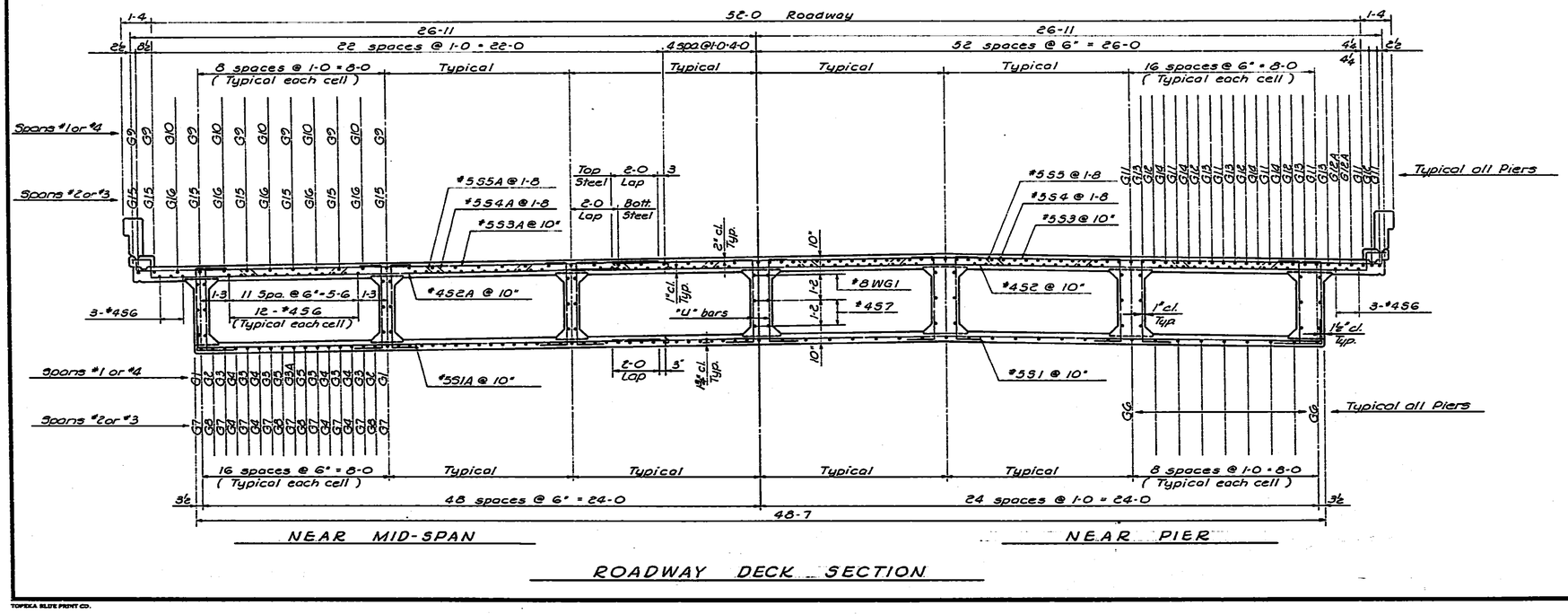


NEAR MID-SPAN — NEAR PIER

ROADWAY DECK SECTION



TYPICAL CURB SECTION



NEAR MID-SPAN — NEAR PIER

ROADWAY DECK SECTION

Notes:
See Web Elevation for quantity, size and spacing of "U" bars.
There are 7 sets of #4S6 bars in the bottom of the top Slab. (Lap 1'-6)

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 18S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 5 OF 8	SCALE	APP'D.		
DESIGNED DFG	DETAILED EES	QUANTITIES DDW	TRACED EES	
DESIGN CK. RBS	DETAIL CK. LMD	QUANT. CK. LLW	TRACE CK. LMD	

TOPEKA BLUE PRINT CO.

3' 2Cr W.H. Southbound
2 Hdd-Hdd 10 288 Ft.

DIST. 5 SEDGWICK CO. ROLL 531

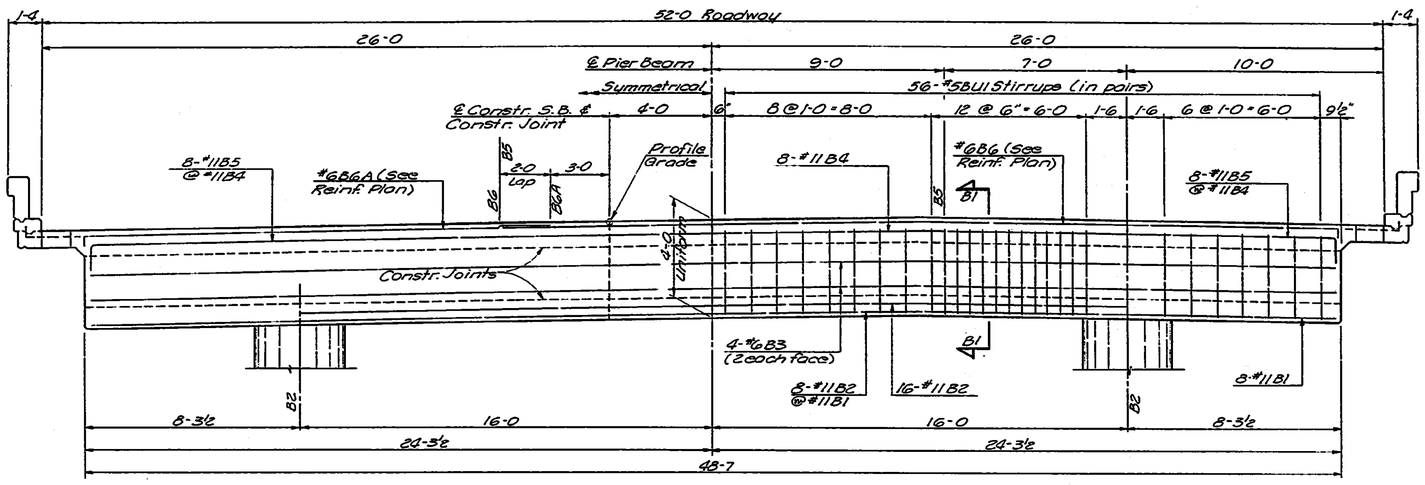
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

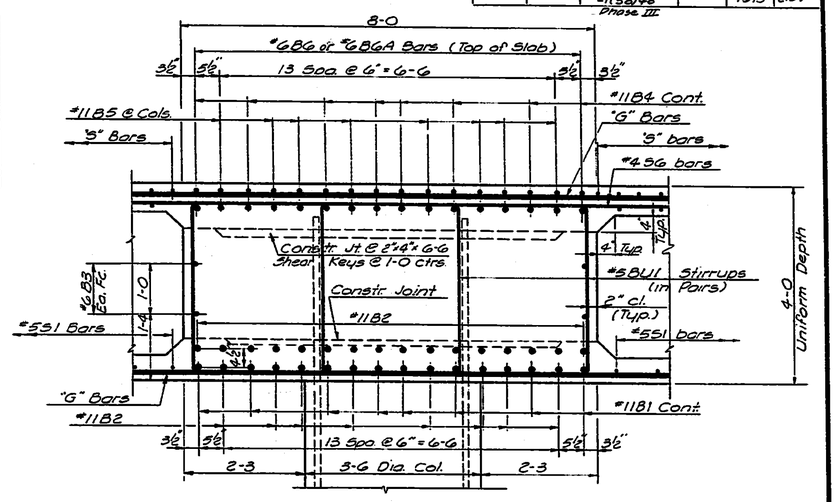
7 9

20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

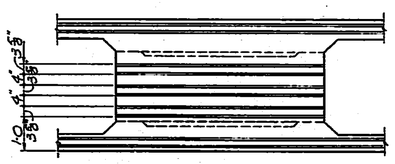
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase III	19	1613	2137



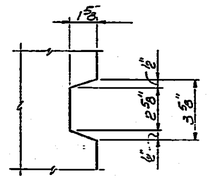
SUPERSTRUCTURE PIER BEAM
(Typical @ Piers 785 & 805)



SECTION B1. - B1



SECTION THRU PIER BEAM
AT ℄ CONSTRUCTION
(Showing Location of Keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 18S
S. B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO.	2 OF 8	SCALE		APP'D.			
DESIGNED	PDP	DETAILED	EES	QUANTITIES	DDW	TRACED	EES
DESIGN CK.	DFD	DETAIL CK.	LKD	QUANT. CK.	LLW	TRACE CK.	LKD

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

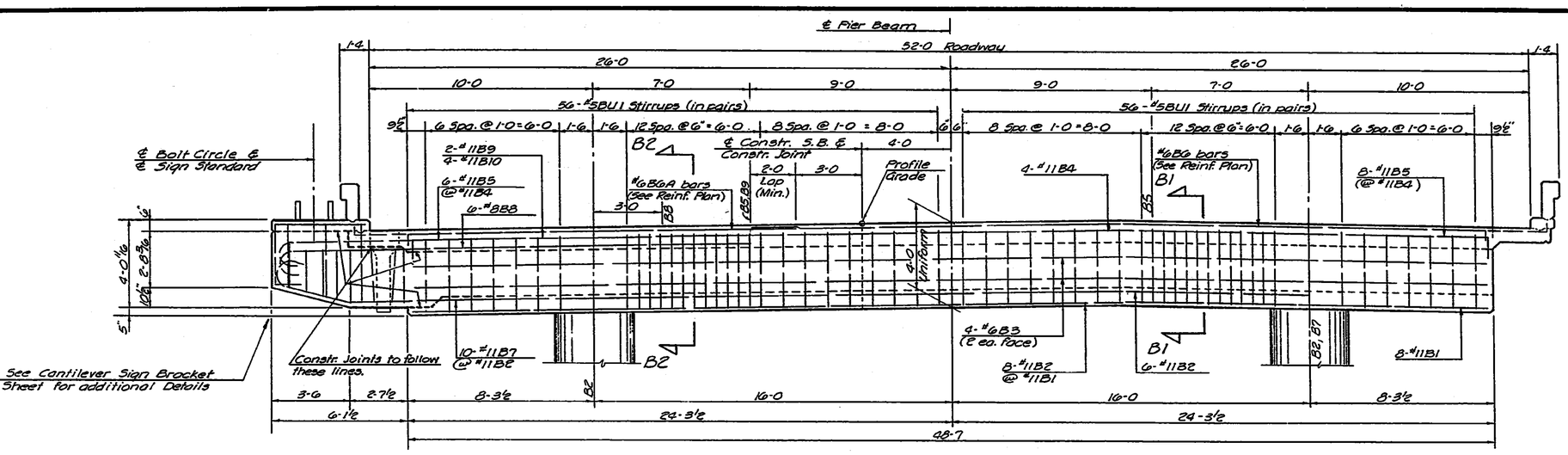
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

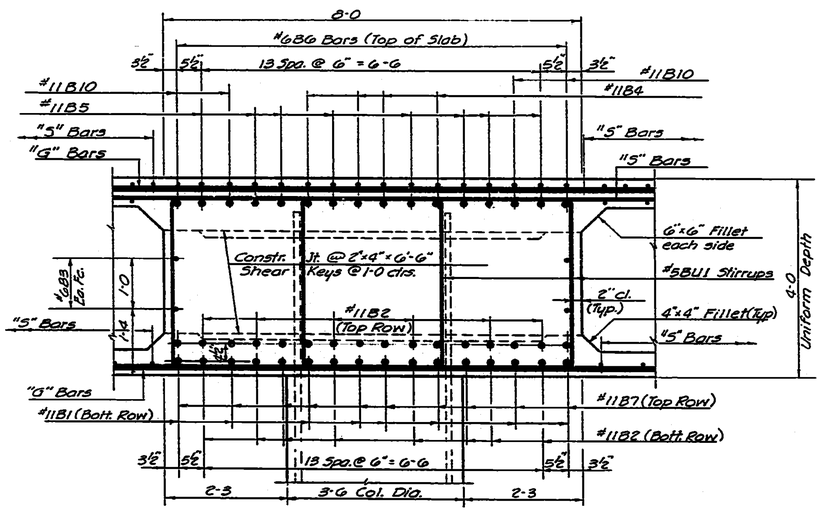
[redacted] 8 0

20X 16X 14.5X 12X 12X 14.5X 16X 20X

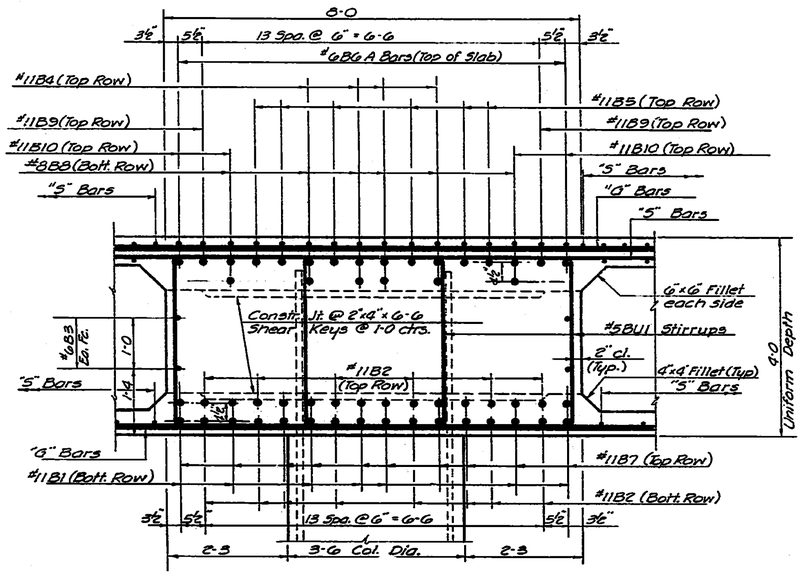
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase III	19	1613A	1737



SUPERSTRUCTURE PIER BEAM
(At Pier 795)



SECTION B1-B1



SECTION B2-B2

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 18 S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 9A of 9	SCALE	APP'D.	
DESIGNED DFG	DETAILED LKD	QUANTITIES JWL	TRACED EES
DESIGN CK. JWH	DETAIL CK. EES	GEN'L CK. DFG	TRACE CK. LKD

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

8 1

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase III	19	1614	2137

#5C4 bars (spa. @ #8 'BC' bars)
'6' bars
#10BC4 bars
3½" 4½" 5½" 4½" 2¾"
#8'BC' bars
#4 BU2 stirrups
#8 'W6' bars
#4 'S' bars
3"
2-4½
#8'BC' bars
Thickened Slab Overhang.
1'-8 Web
Optional Constr. Jt.

SECTION C2-C2
(Exterior Web)

3" Open Joint
Suspended Unit
Cantilevered Unit
Typical 8" Slab overhang @ 4"x4" fillet
1'-9 Thickened Slab overhang.
1'-9 Thickened Slab overhang.
Typical 8" Slab overhang @ 4"x4" Fillet
Transition Fillet
Transition fillet
Anchor Bolts

VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)

#6 'S' bars
#4 C2 bars
#4 C1 bars
#4 'S' bars
#5C4 bars (spa. @ #8 'BC' bars)
'6' bars
'5' bars
#8 'W6' bars
Transition Fillet
#10 BC4 bars
1'-8 Web
#4 'S' bars
#7 U3 Stirrups
Optional Constr. Jt.
1½" cl.
#6 'BC' bars
#4 'S' bars*
'6' bars
#4 BU3 Stirrups

SECTION C1-C1
(Exterior Web)

Readj. Constr. Joint in Webs
3'-1
9"
1'-9
℄ Brg.
'5' bars (See Top Slab Plan)
'6' bars
#8 'BC' bars (Top)
3" 4" 6" 5" 3"
Expansion Device
6" Slab
4" Fillet
#4 'S' bars
#4 BU2 stirrups
#8 'BC' bars (Bott.)
2" cl.
1'-6
4'-0
2'-6
¾"Δ Drip Groove
2½"
4"
1'-9
'5' bars (See Bott. Slab Plan)
4" Fillet
#4 BU3 stirrups
Access Door
#6 'BC' bars (Top & Bott.)
3 Eq. Spa. @ 1'-3
1'-0 2½" 9"
6" Slab
'6' bars
2'-3 3'-0 1'-9

TYPICAL SECTION THRU CELL

SEE REVISED EXPANSION DEVICE

℄ Web
'6' bars
#10BC4 bars
#8'BC' bars
#4 BU2 stirrups
#8 'W6'
1'-0 1'-0
#4 BU2 stirrups
#8'BC' bars
Optional Constr. Jt.
10" 10"
1'-8 Web

SECTION C2-C2
(Interior Web)

'6' bars
1'-8 Web
'5' bars
#8'W6' bars
1" cl. Typ.
#10BC4 bars
#7 U3 Stirrups
#4 'S' bars*
Optional Constr. Jt.
#6'BC' bars
#4 BU3 stirrups
1'-0 1'-0 #4 BU3 stirrups
℄ Web

SECTION C1-C1
(Interior Web)

Readj. Constr. Joint in Webs
3'-1
9"
C1 C2
'5' bars (See Top Slab Plan)
'6' bars
#8 'W6' bars
Constr. Jt.
2" cl. Typ.
9" 4 spa. @ 6" = 2'-0
5" 5"
Expansion Device
#8 'BC' (Top & Bott.)
2" cl.
Corner Plate
#4 'S' bars
#5U1 Stirrups (sets of 4)
#10BC4 bars each web (Typ)
2" cl.
1½" cl.
2" cl. Min.
#7 U3 Stirrups (sets of 4)
#5U1 Stirrups (in pairs) Typ.
#6 'BC' (Top & Bott.)
'5' bars (See Bott. Slab Plan)
1½" cl. Typ.
#4 'S' bars *
Optional Constr. Jt.
'6' bars
C1 C2
See Web Elevation for stirrup spa.
4 Spa. @ 9" = 3'-0
6'-6
℄ Brg.

TYPICAL SECTION THRU WEB

R 4x3⅜x1'-8
6"
1'-6
¾"ø x 2'-0 Anchor bars (welded to angle)
R 3x3⅜x1'-8
4/4
4/4
SECTION

5-¾"ø x 2'-0 Anchor bars
1'-8"
4@6" 4@6" 4@6" 4@6"
1'-8" Typ.
4/4 Typ.
1'-8
ELEVATION

CORNER PLATE DETAILS
Computed weight of one assembly is 22 lbs.

BEARING BEAM DETAILS

* Adjust position of #4 'S' bars to clear construction joint if optional top of fillet location is used.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 18S
S.B. I-35W VIADUCT
BETWEEN MURDOCK AVE & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 5 OF 8	SCALE		APP'D.		
DESIGNED DFG	DETAILED DS		COMPUTED DDW	TRACED DS	
DESIGN CK. RBS	DETAIL CK. RBS		QUAN. CK. LLW	TRACE CK. RBS	

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

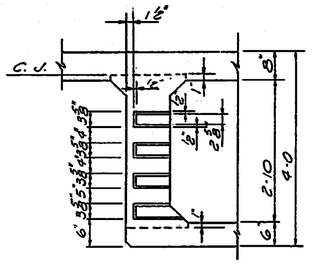
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

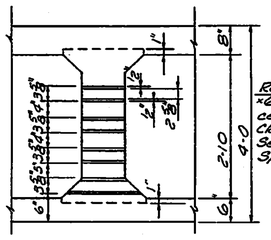
[redacted] 8 2

20X 16X 14.5X 12X 12X 14.5X 16X 20X

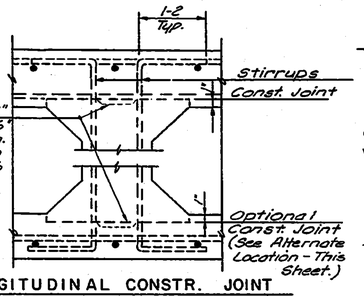
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-15W I-(358)48 Phase III	15	1616	2137



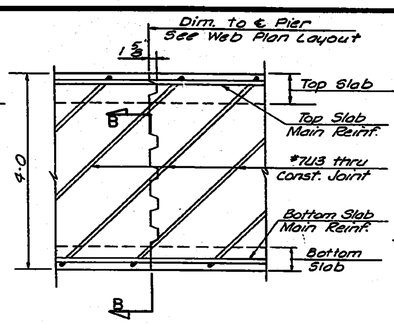
SECTION B-B
(Through Exterior Web)



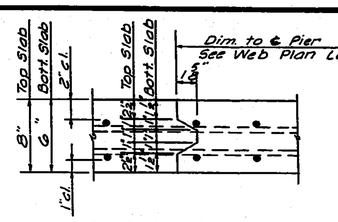
SECTION B-B
(Through Interior Web)



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

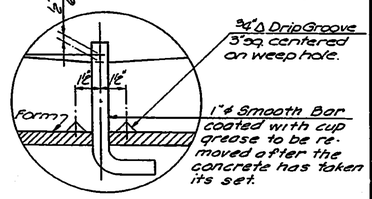


WEB CONSTR. JOINT
(Showing Placement of #7U3 bars.)



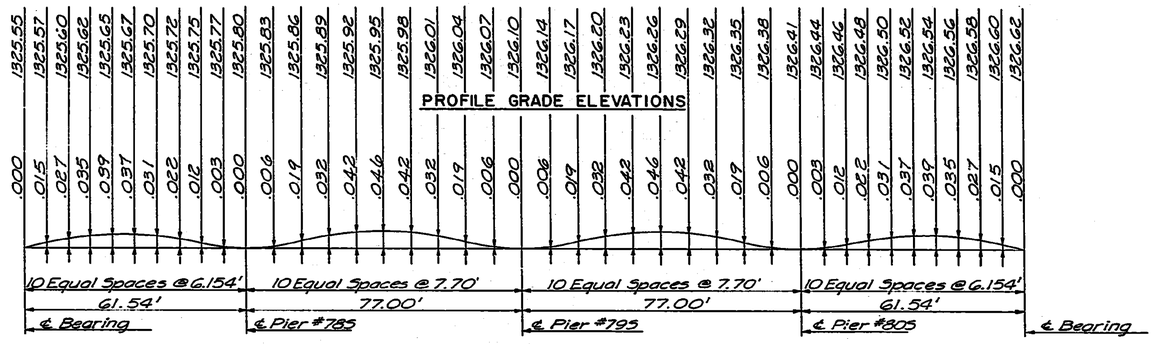
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of weep holes shall be included in the unit price bid for Class AAA Concrete AE.



DETAIL OF WEEP HOLES

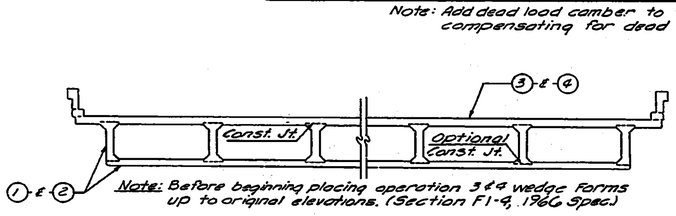
S U P E R S T R U C T U R E C O N S T R U C T I O N J O I N T D E T A I L S



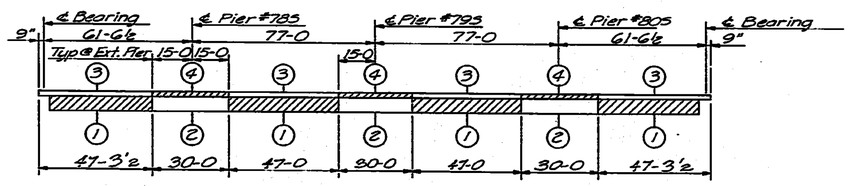
DEAD LOAD CAMBER IN FEET

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS

Note: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections E_c = 1,000,000 p.s.i.

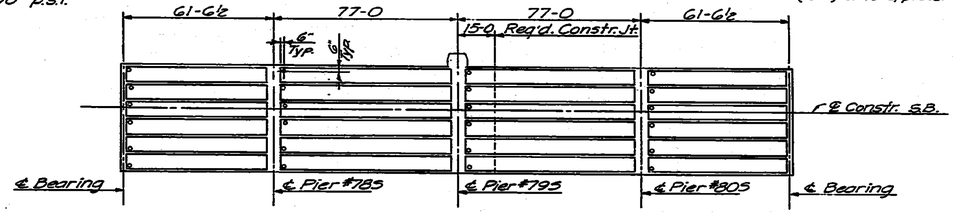


CROSS SECTION OF SUPERSTRUCTURE

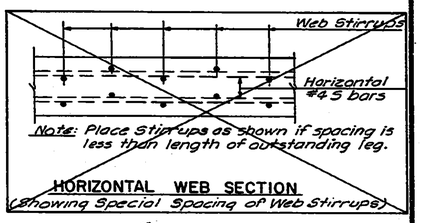


CONCRETE PLACING SEQUENCE

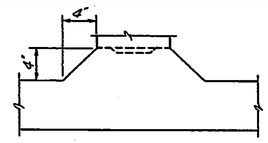
To be used when long-span steel beams are used for falsework



LOCATION OF WEEP HOLES & REQUIRED CONSTRUCTION JOINT



HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)



ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer.)

NOTES:

See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown as optional may be used at the Bridge Contractors option, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 18S
S. B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 6 of 8	SCALE	APP'D.
DESIGNED DFC	DETAILED RAW	CONNECTIONS LKD	TRACED DGT
DESIGN CK. PBS	DETAIL CK. PBS	QUANT. CK. DGT	TRACE CK. PBS

DIST. 5 SEDGWICK CO. ROLL 531

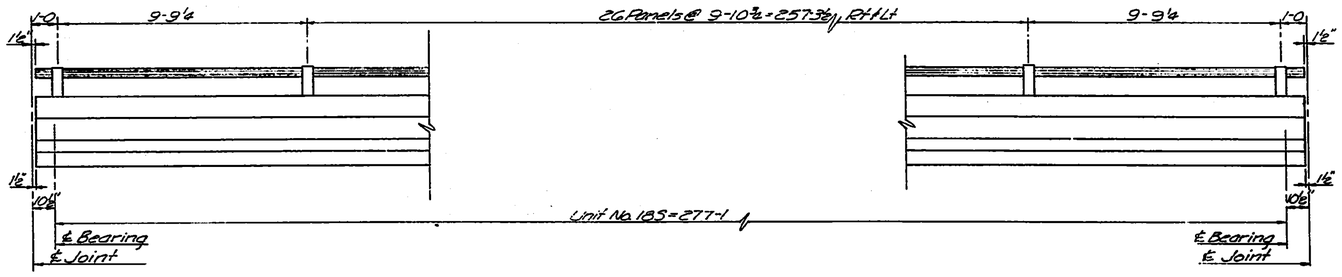
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

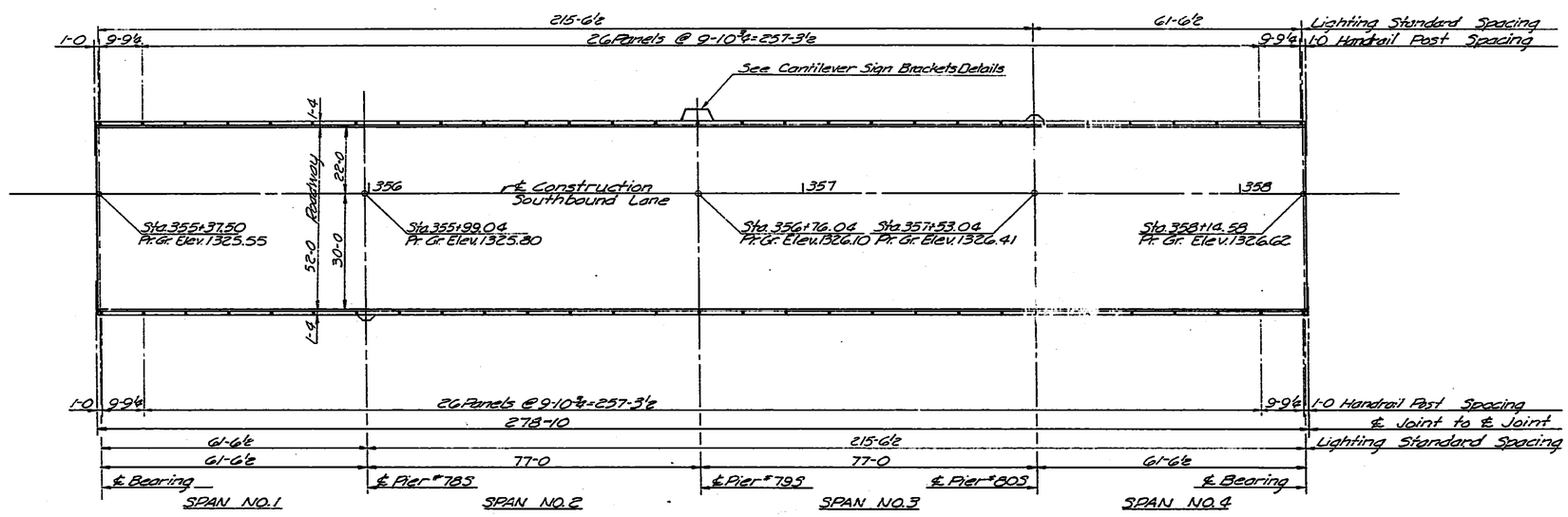
8 3

20X 16X 14.5X 12X 12X 14.5X 16X 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase III	19	1616	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 18S
S.B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 7 of 8	ZONE	APP'D.	
DESIGNED 11/77	DETAILED RBS	CHECKED LKD	TRACED KWK
DESIGN CK. RBS	TOTAL CK. DS	CHIEF CK. DSH	TRACE CK. RBS

69-09

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT
THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

[redacted] 8 4

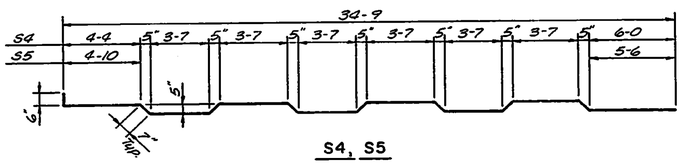
20X 16X 14.5X 12X 12X 14.5X 16X 20X

BENDING DIAGRAMS

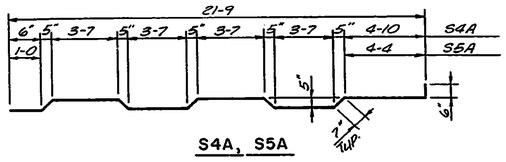
(Bar Dimensions are Out to Out.)

REV. PLANS 11-1-71

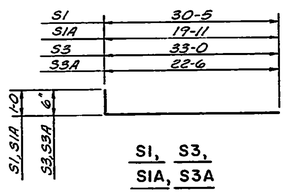
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase III	19	1617	2137



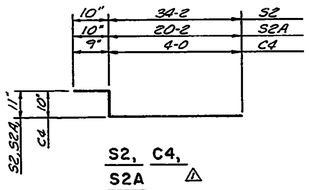
S4, S5



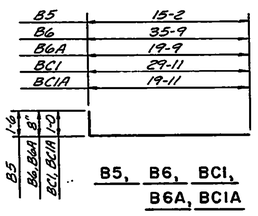
S4A, S5A



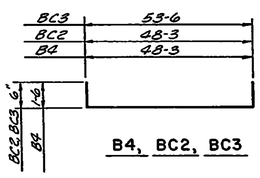
S1, S3, S1A, S3A



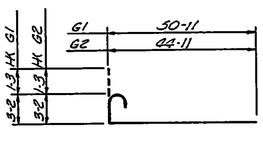
S2, C4, S2A △



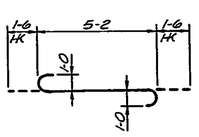
B5, B6, BC1, B6A, BC1A



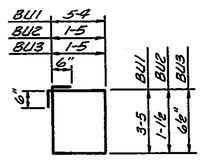
B4, BC2, BC3



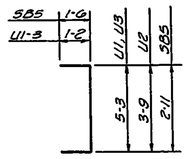
G1, G2



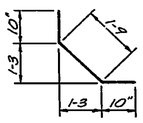
BC4



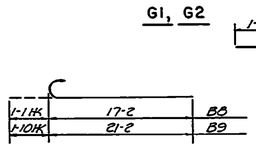
BU1, BU2, BU3



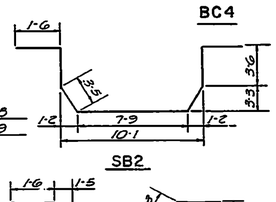
U1, U2, U3, SB5



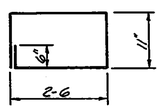
C1



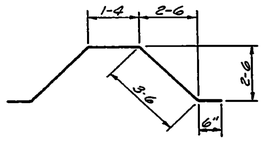
B8, B9



SB2



LB1



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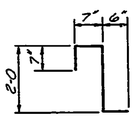

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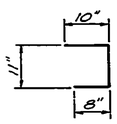

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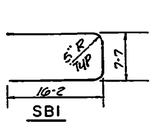

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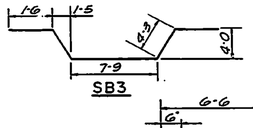

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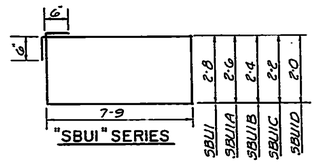
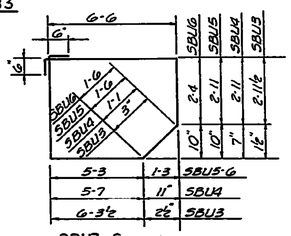
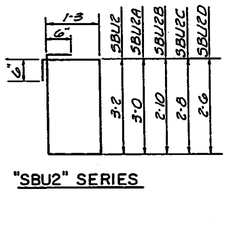


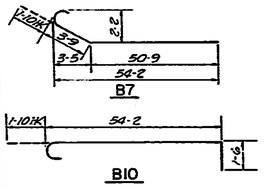
"SBU1" SERIES



SBU3-6



"SBU2" SERIES



B7, B10

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

Note:
All bar marks shall be pre-fixed with the Unit number when fabricated. Example: #961 bars shall be marked 185961.

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	298	5	31-5
				S1A	298	5	20-11
				S2	302	4	35-11
				S2A	302	4	21-11
				S3	302	5	33-6
				S3A	302	5	23-0
S6	506	4	41-1				
S7	170	4	40-0	S4	150	5	36-5
S7A	56	4	41-11	S4A	150	5	23-1
S8	12	4	43-8				
S8A	12	6	43-8	S5	150	5	36-5
S9	30	6	40-0	S5A	150	5	23-1
				G1	14	9	55-4
				G2	24	9	49-4
G3	72	9	30-11				
G3A	12	9	45-7				
G4	96	9	30-0				
G5	24	9	39-7				
G6	147	7	23-0				
G7	98	9	58-0				
G8	48	9	460				
G9	58	5	39-6				
G10	52	5	43-6				
G11	87	10	48-0				
G12	78	11	40-0				
G12A	24	11	19-6	LB1	8	4	7-4
				LB2	6	4	9-4
G13	78	11	28-0	SB1	5	8	33-11
G14	72	11	16-0	SB2	4	5	24-7
G15	58	5	32-0	SB3	1	5	19-3
G16	52	5	40-0	SB5	8	4	5-11
				SBU1	5	6	21-10
				SBU1A	1	6	21-6
SBA	12	4	4-0	SBU1B	1	6	21-2
				SBU1C	1	6	20-10
				SBU1D	1	6	20-6
				SBU2	10	5	9-10
				SBU2A	2	5	9-6
				SBU2B	2	5	9-2
				SBU2C	2	5	8-10
				SBU2D	2	5	8-6

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
B1	24	11	48-3	B4	20	11	51-3
B2	62	11	32-0	B5	46	11	10-8
B3	12	6	48-3	B6	48	6	36-5
				B6A	48	6	20-5
				B7	10	11	56-4
				B8	6	8	18-3
				B9	2	11	23-0
				B10	4	11	57-6
				BU1	336	5	18-6
				BU2	120	4	6-1
				BU3	84	4	4-11
				BC1	16	6	30-11
				BC1A	16	6	20-11
				BC2	8	8	49-3
				BC3	8	8	54-6
				BC4	56	10	8-2
				C1	662	4	3-5
				C2	670	4	3-8
				C3	60	4	2-5
				C4	16	5	5-7
C5	24	4	2-6				
				U1	3192	5	7-7
				U2	894	5	6-1
				U3	588	7	7-7
WG1	70	8	40-0				
WG2	28	8	45-2				
				SBU3	2	5	20-1
				SBU4	2	5	20-7
				SBU5	2	5	20-11
				SBU6	2	5	19-9

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	969.3	Cu.Yds.
Reinforcing Steel	318,910	Lbs.
Cast Iron Scuppers		Lbs.
Wrought Iron Drains & Grates	3,356	Lbs.
8" ϕ Downspouts	180.55	Lin. Ft.
Gutters		Lin. Ft.
Bridge Handrail	353.67	Lin. Ft.
Structural Steel		
Bearing Devices (A36) 14 @ 242 Lbs.	3388	Lbs.
Corner Plates & Cover Plates (A36)	496	Lbs.
Access Doors (A36) 12 @ 130 Lbs.	1560	Lbs.
Anchor Bolt Assembly (A36) Cont. Sign Br.	607	Lbs
Linseed Oil Surface Treatment (Bridges)	1809.5	Sq.Yds.

△ SEE SH. 1933A FOR OPTIONAL PIER REINF.

NO.	DATE	REVISIONS	BY	APP'D
△	6-1-73	Provide Optional Pier Reinf.	VHSS	
△	6-1-73	Sign Bracket Revisions	VHSS	
△	11-1-71	Rev. Exp. Devices	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-1599 STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 18 S
S. B. I-35W VIADUCT
(BETWEEN MURDOCK AVE. & INNER LOOP)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 8 OF 8	SCALE	APP'D
DESIGNED DRC	DETAILED EES	QUANTITIES ODW
DESIGN CK. JWH	DETAIL CK. LRD	QUAN. CK. LLW

TRACED JNL
TRACE CK. LLW

DIST. 5 SEDGWICK CO. ROLL 531

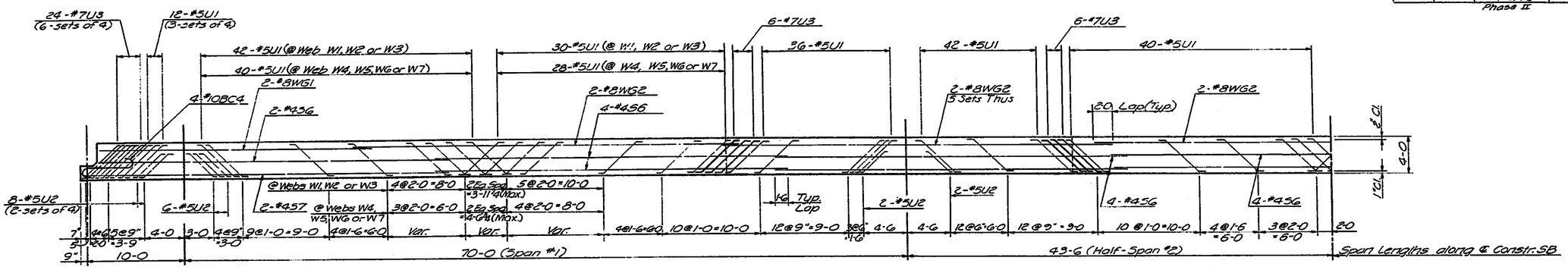
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

[redacted] 8 5

20X 16X 14.5X 12X 12X 14.5X 16X 20X

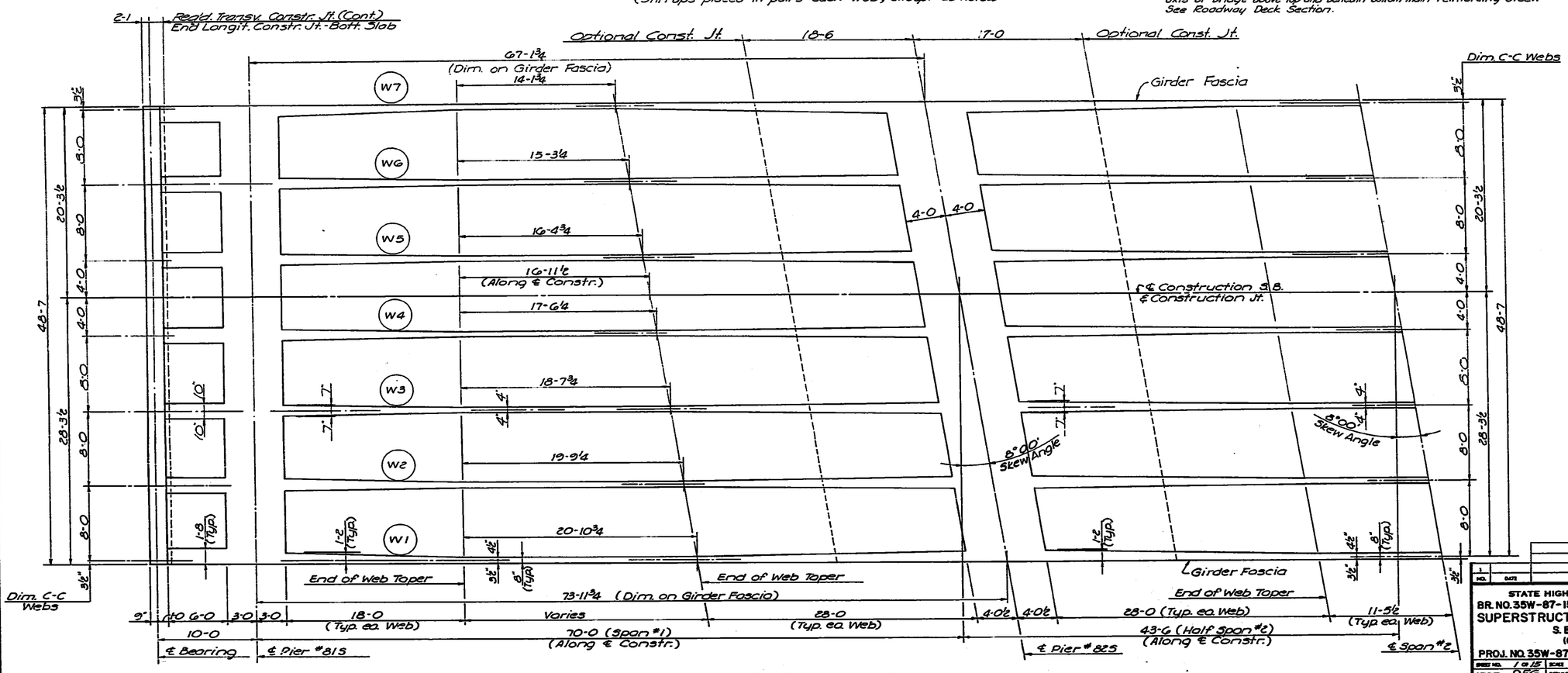
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	1970	1018	2137



WEB ELEVATION SHOWING STIRRUP SPACING *

(Stirrups placed in pairs each web, except as noted)

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top and beneath bottom main reinforcing steel. See Roadway Deck Section.



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+1560
SUPERSTRUCTURE DETAILS - UNIT NO. 19S
S. B. I-35W VIADUCT
(OVER INNER LOOP)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 1 OF 15 SHTS	DESIGNED DFG	DETAILED KWK	CHECKED LKD	TRACED KWK
DESIGN CH. KBS	DETAIL CH. KBS	CONST. CH. DFG	TRACE CH. KBS	

DIST. 5 SEDGWICK CO. ROLL 531

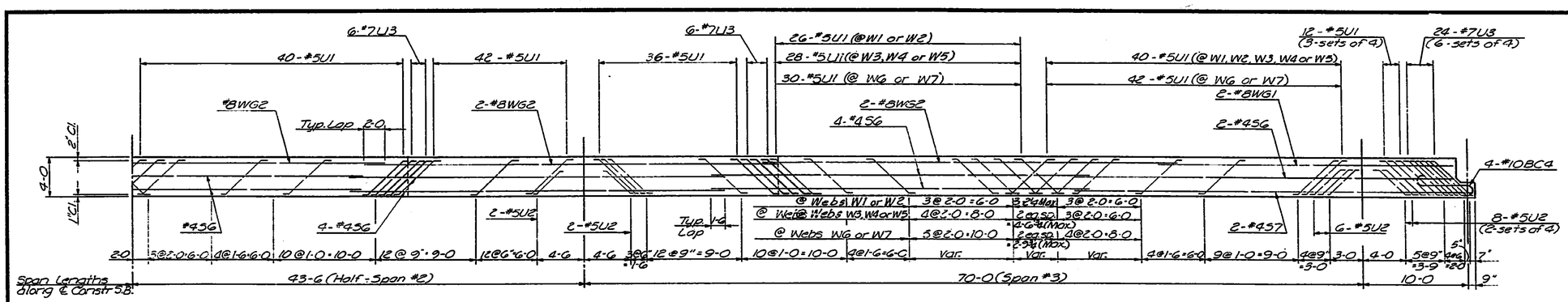
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

[redacted] 8 6

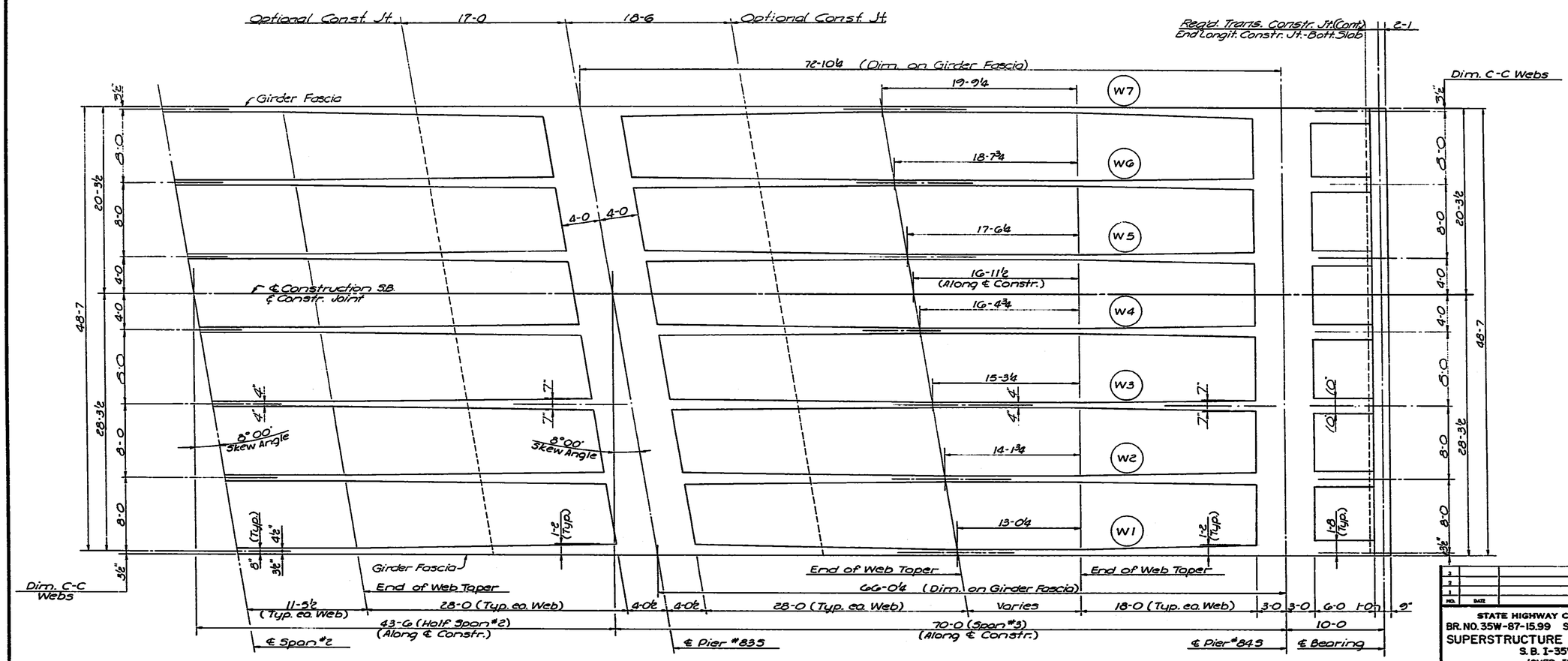
20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD STA. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-(58)48 Phase II	19 70	1019	2137



WEB ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web, except as noted)

* See Note Previous Sheet.



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 19S
S. B. I-35W VIADUCT
(OVER INNER LOOP)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 2 OF 15	SCALE		APP'D.		
DESIGNED DFG	DETAILED KWK	QUANTITIES LKD	TRACED KWK		
DESIGN CK. RBS	DETAIL CK. RBS	ORIGINAL CK. DGT	TRACE CK. RBS		

DIST. 5 SEDGWICK CO. ROLL 531

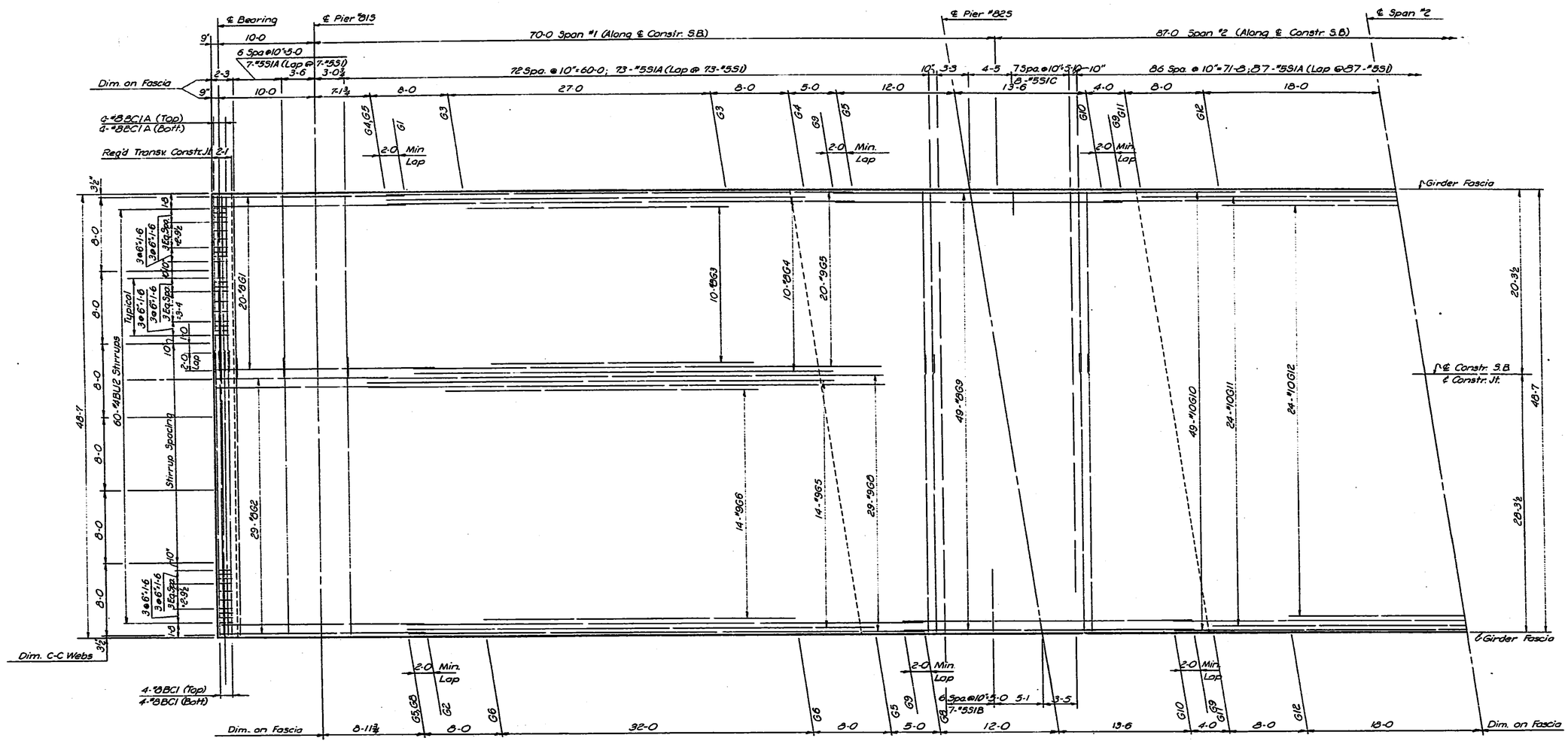
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

[redacted] 8 7

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-I35W I(58)48 FTH088 L	1970	1620	2137



REINFORCING PLAN BOTTOM SLAB

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 19S
S. B. I-35W VIADUCT
(OVER INNER LOOP)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 3 OF 15	SCALE	APP'D.	
DESIGNED LDFG	DETAILED LKD	CHECKED JWH	TRACED LKD
DESIGN OF RBS	DESIGN OF EES	DESIGN OF DFG	TRACE OF EES

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

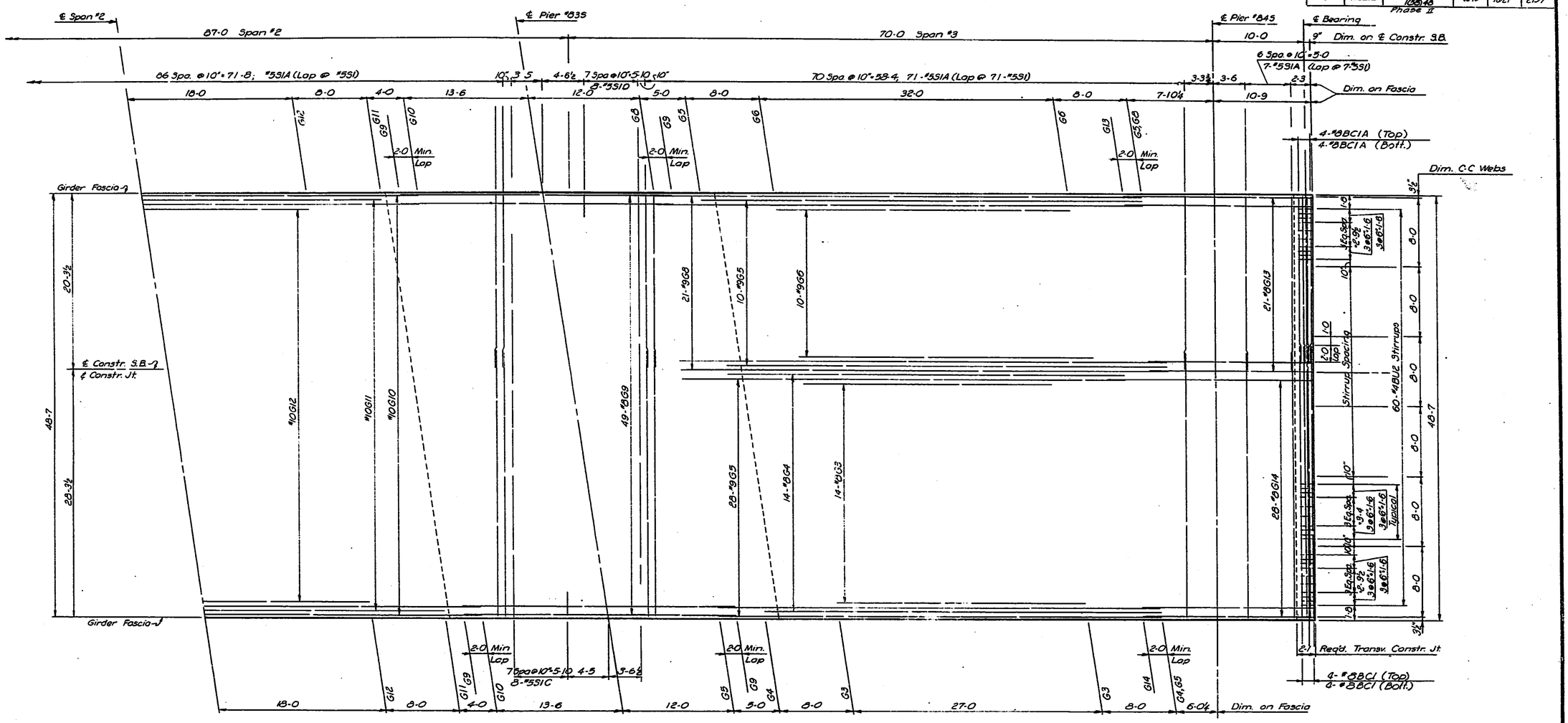
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

[redacted] 8 8

20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (I-35)48 Phase II	1970	1021	2137



REINFORCING PLAN BOTTOM SLAB

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 19S
S.B. I-35W VIADUCT
(OVER INNER LOOP)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 4 OF 15	SCALE		APP'D.	
DESIGNED DFG	DETAILED LKD	CHECKED JWH	TRACED LKD	
DESIGN CK. RBS	DETAIL CK. EES	CHECK CK. DFG	TRACE CK. EES	

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru 1700 INCLUSIVE
ARE NOT AS BUILT

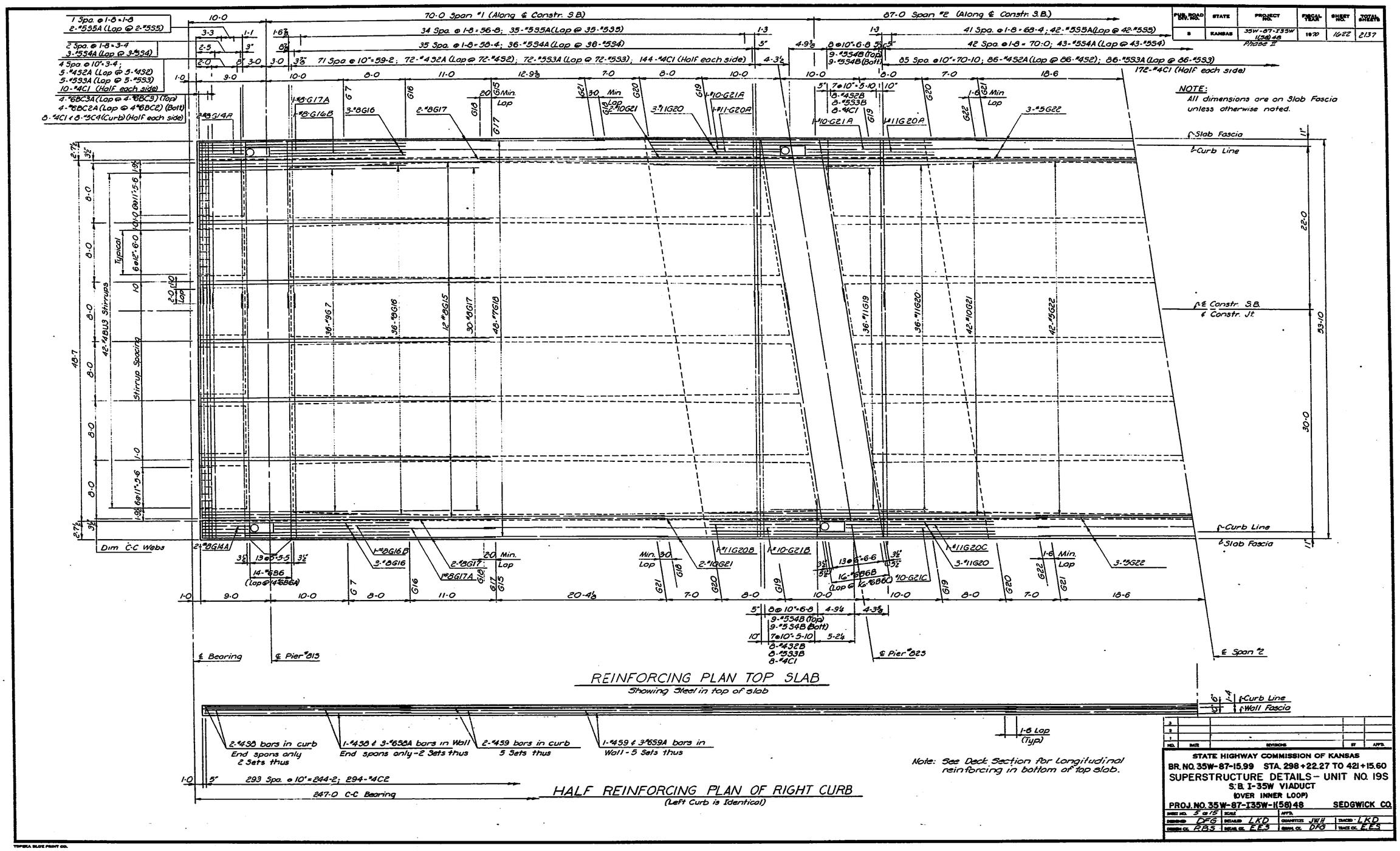
THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

8 9

20X 16X 14.5X 12X

12X 14.5X 16X 20X

FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
S	KANSAS	35W-87-I35W (56)48 Phase II	1970	1622	2137



STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 19S
S.B. I-35W VIADUCT
(OVER INNER LOOP)
PROJ. NO. 35W-87-I35W-1(56)48 SEDGWICK CO.

SHEET NO. 5 of 15	SCALE	APP'D.	
DESIGNED DFG	DETAILED LKD	QUANTITIES JWH	TRACED LKD
DESIGN CK. PBS	DETAIL CK. EES	DESIGN CK. DFG	TRACE CK. EES

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

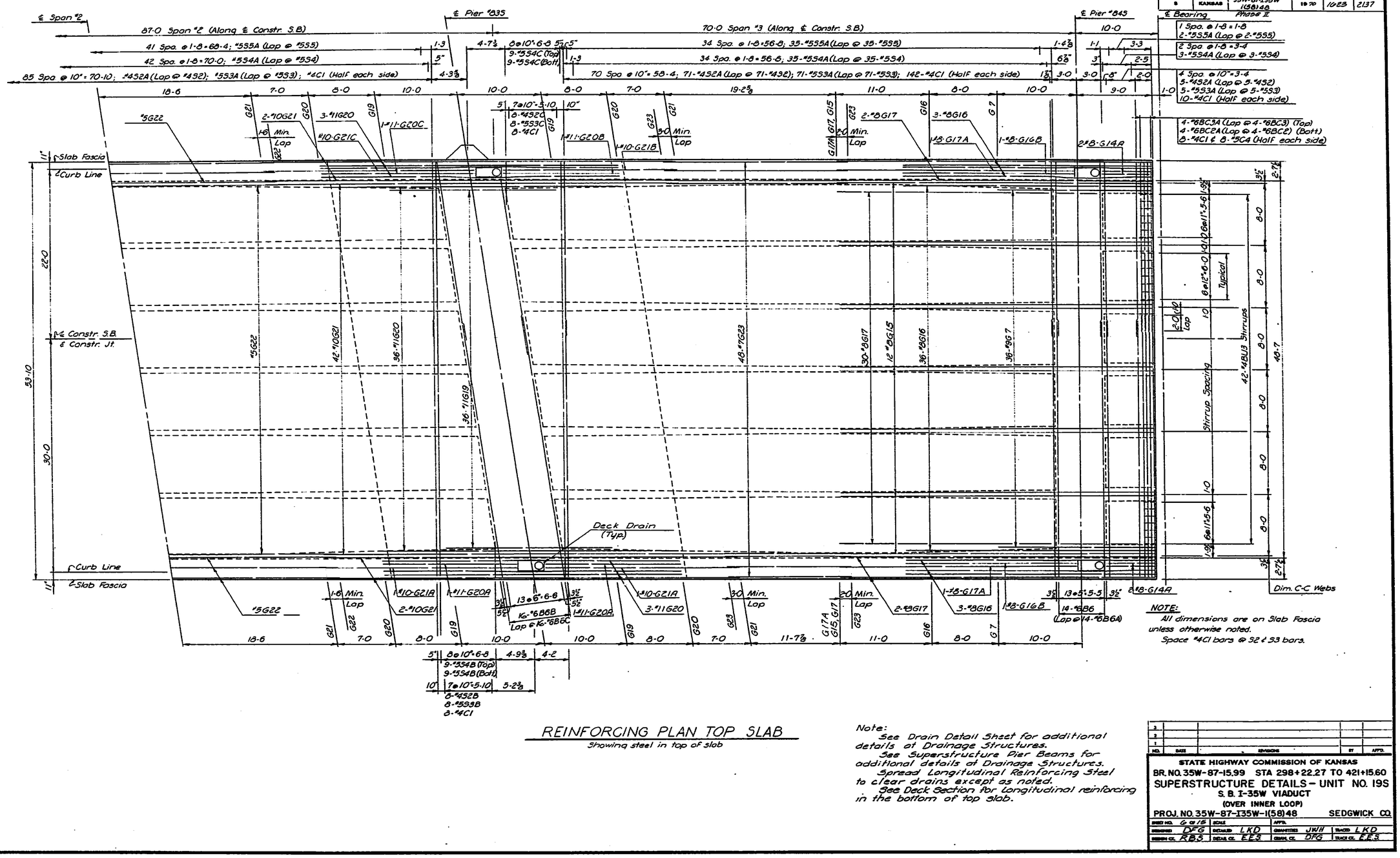
THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

1 9 0

20X | 16X | 14.5X | 12X

12X | 14.5X | 16X | 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W (58)48 Phase II	19 70	1623	2137



REINFORCING PLAN TOP SLAB

Showing steel in top of slab

NOTE:
All dimensions are on Slab Fascia unless otherwise noted.
Space #4C1 bars @ 32 & 33 bars.

Note:
See Drain Detail Sheet for additional details at Drainage Structures.
See Superstructure Pier Beams for additional details at Drainage Structures.
Spread Longitudinal Reinforcing Steel to clear drains except as noted.
See Deck Section for Longitudinal reinforcing in the bottom of top slab.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 19S
S. B. I-35W VIADUCT
(OVER INNER LOOP)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 6 OF 15	SCALE	APP'D.			
DESIGNED DFG	DETAILED LKD	QUANTITIES JWH	TRACED LKD		
DESIGN CK. RBS	DETAIL CK. EES	DESIGN CK. DFG	TRACE CK. EES		

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

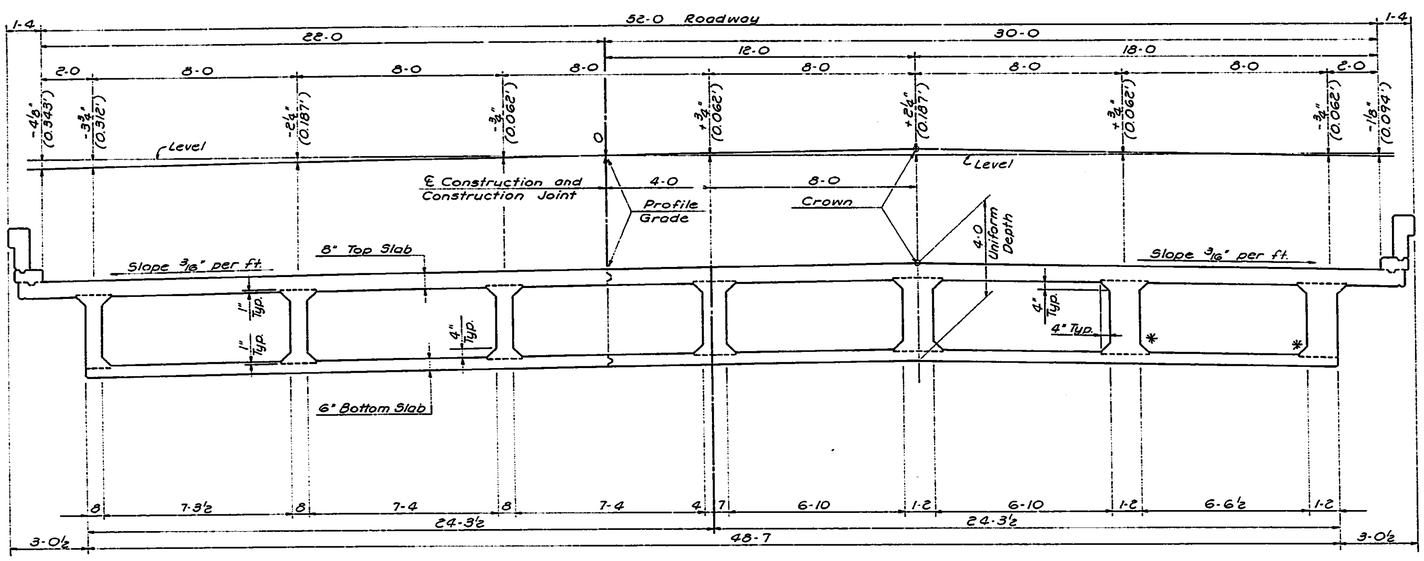
THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

[redacted] 9 1

20X | 16X | 14.5X | 12X

12X | 14.5X | 16X | 20X

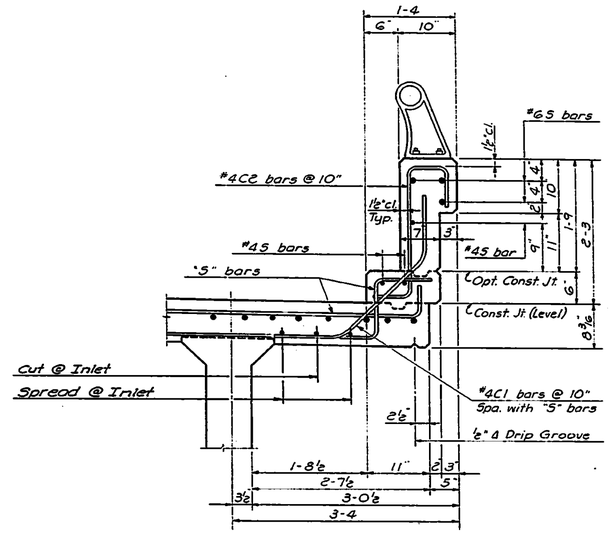
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	KANSAS	35W-87-135W I(28)48 Phase II	1970	1920	2137



NEAR MID-SPAN

NEAR PIER

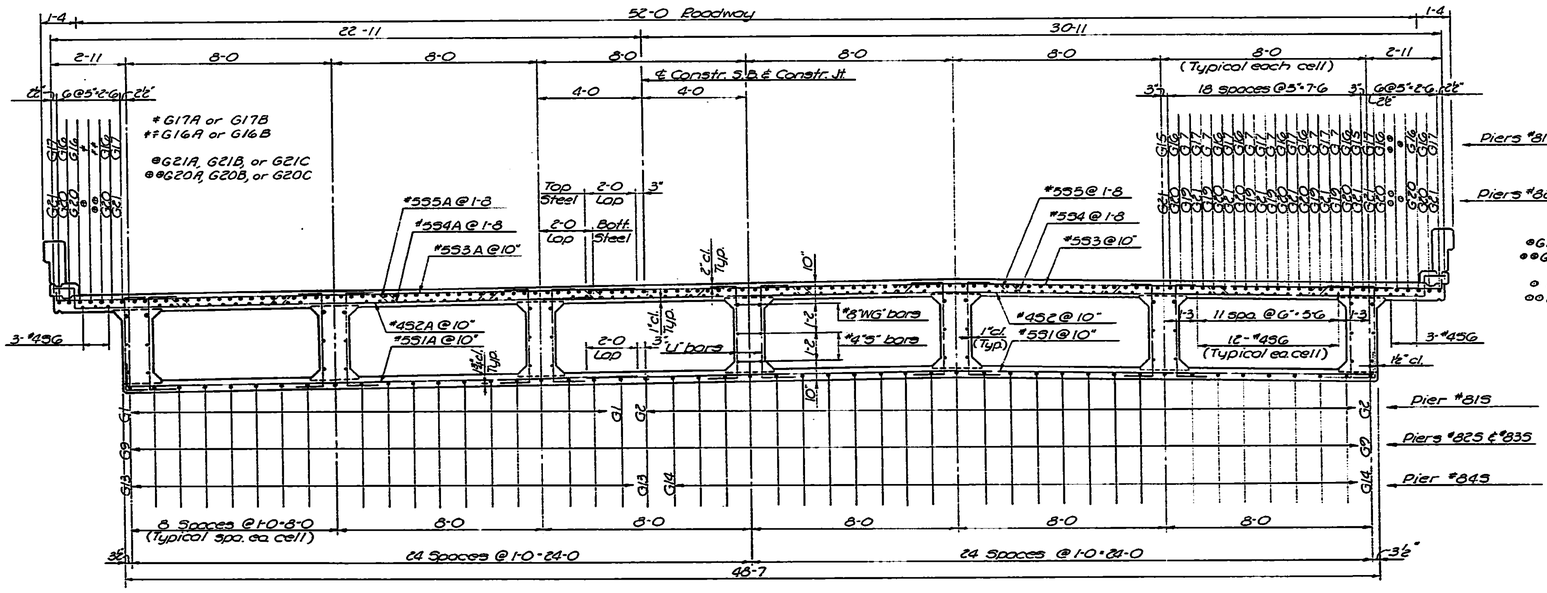
ROADWAY DECK SECTION



TYPICAL CURB SECTION

Note:
See Web Elevation for quantity, size and spacing of "U" bars. There are 7 sets of #4S6 bars end to end of top slab. (Lap 1'-6)

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.



ROADWAY DECK SECTION NEAR PIERS

Note: Typical transvere reinforcing steel is shown in above section. See Reinforcing Plans for transverse reinf. steel at Piers #825 & #835.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 19S
S.B. I-35W VIADUCT
(OVER INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

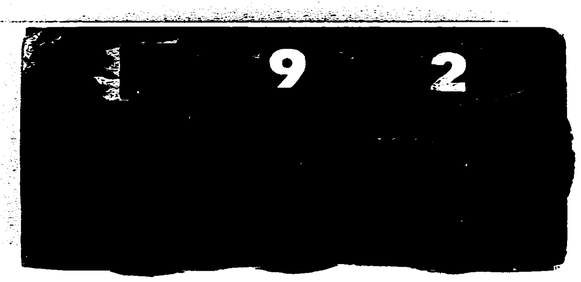
SHEET NO. 7 OF 15	SCALE		APP'D.		
DESIGNED DRS	DETAILED EES		QUANTITIES JWH	TRACED EES	
CHECKED EES	DETAIL CK. LVD		GENL. CK. DRS	TRACE CK. LVD	

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

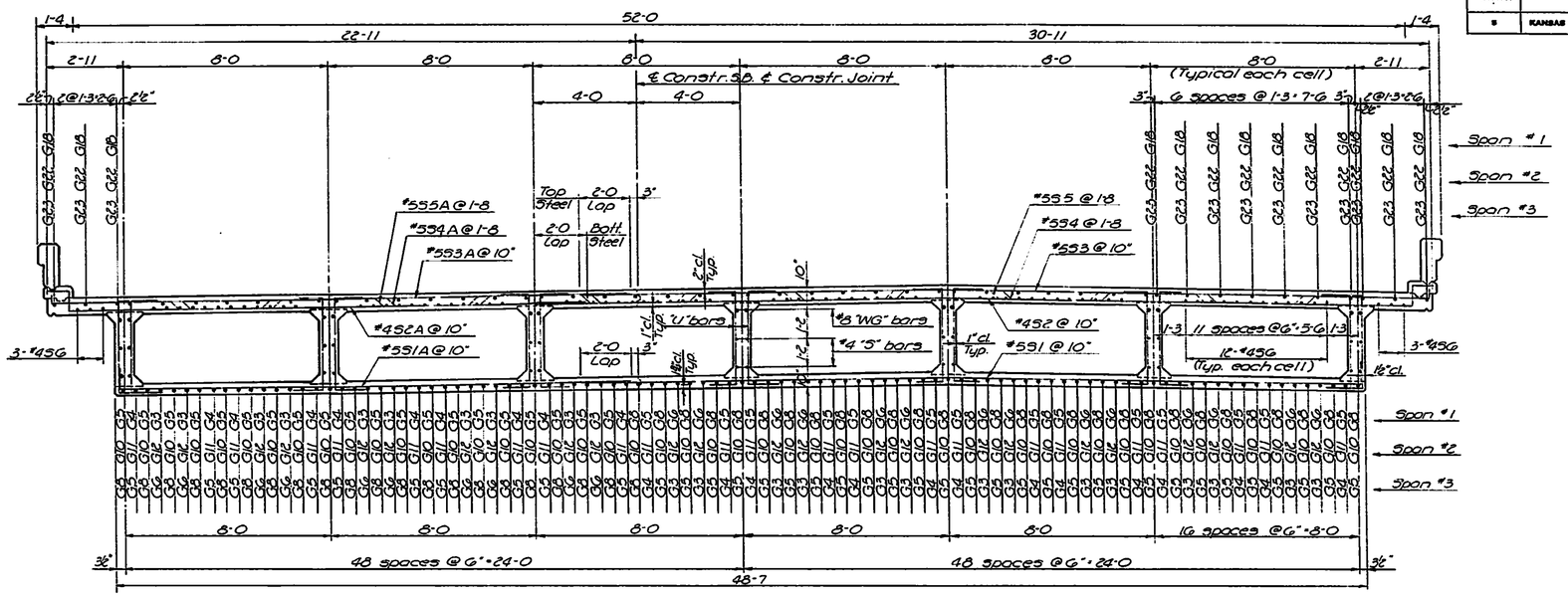
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)



20X 16X 14.5X 12X 12X 14.5X 16X 20X

FUR. ROLD NY. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (I-58)48 PHASE II	1970	1025	2137



ROADWAY DECK SECTION NEAR MID-SPAN.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 19S
S.B. I-35W VIADUCT
(OVER INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 5 of 15	SCALE		APP'D.		
DESIGNED DFG	DETAILED EES		QUANTITIES JWH	TRACED EES	
DESIGN CK. EBS	DETAIL CK. LED		QUANT. CK. DFG	TRACE CK. LED	

A3

DIST. 5 SEDGWICK CO. ROLL 531

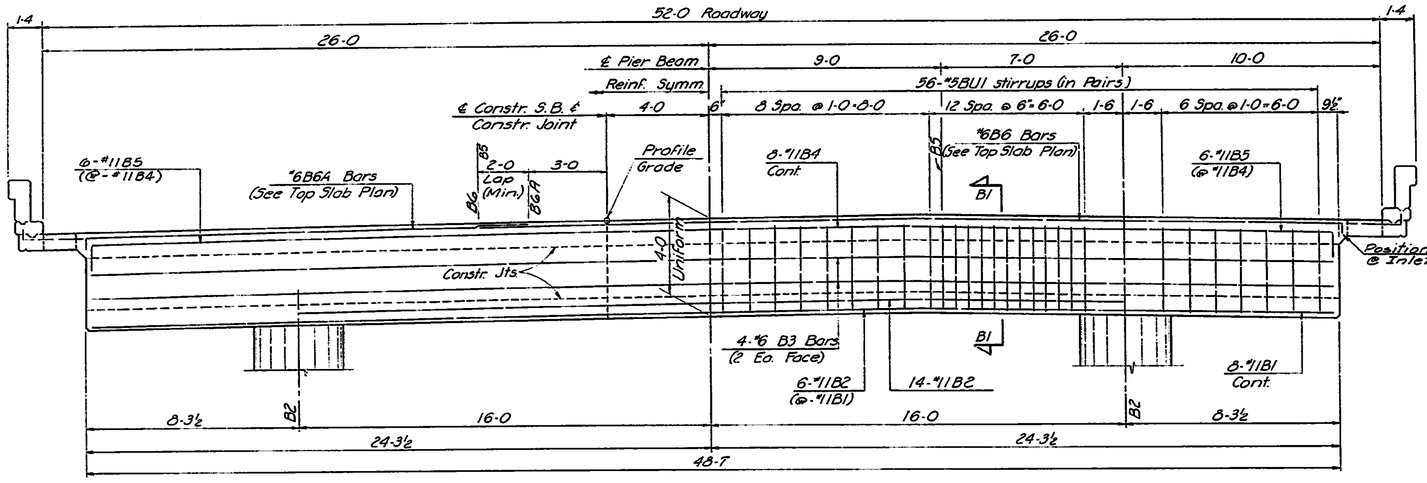
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

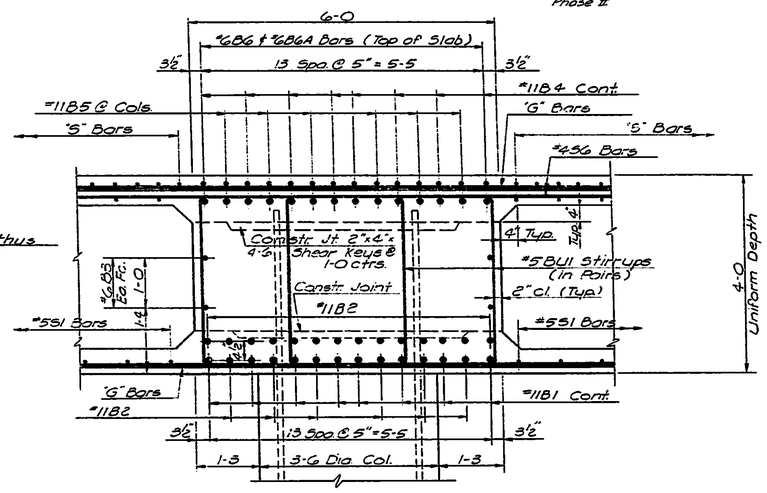
1 9 3

20X 16X 14.5X 12X 12X 14.5X 16X 20X

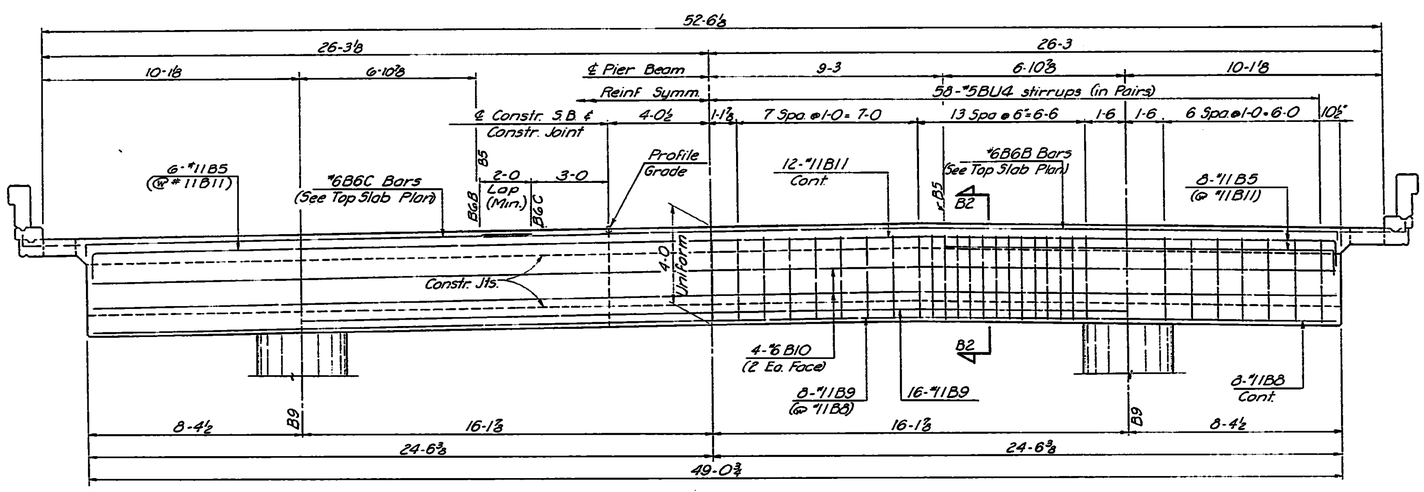
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W -(58)48 Phase II	1970	1626	2137



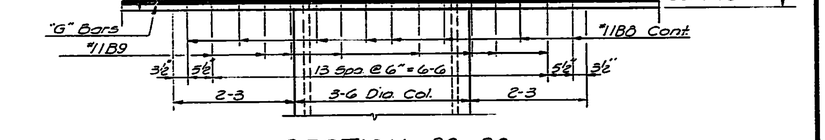
SUPERSTRUCTURE PIER BEAM
(Piers #815 & #845)



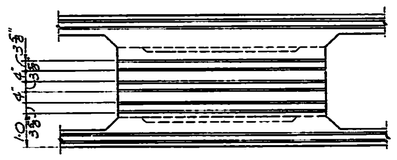
SECTION B1-B1



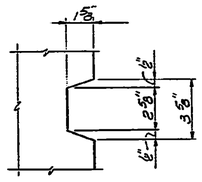
SUPERSTRUCTURE PIER BEAM
(Piers #325 & #335)



SECTION B2-B2



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing Location of Keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 19S
S.B. I-35W VIADUCT
(OVER INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 9 OF 15	SCALE		APP'D.		
DESIGNED PDP	DETAILED LKD		QUANTITIES JWH		TRACED LKD
DESIGN CK. RBS	DETAIL CK. EES		GRAM. CK. DFG		TRACE CK. EES

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

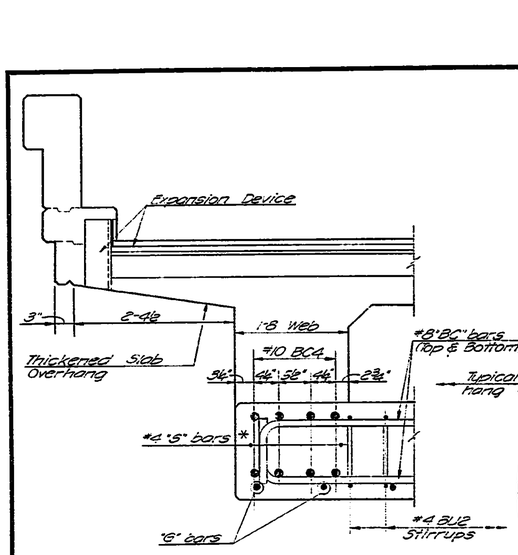
THESE SHEETS #1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

[redacted] 9 4

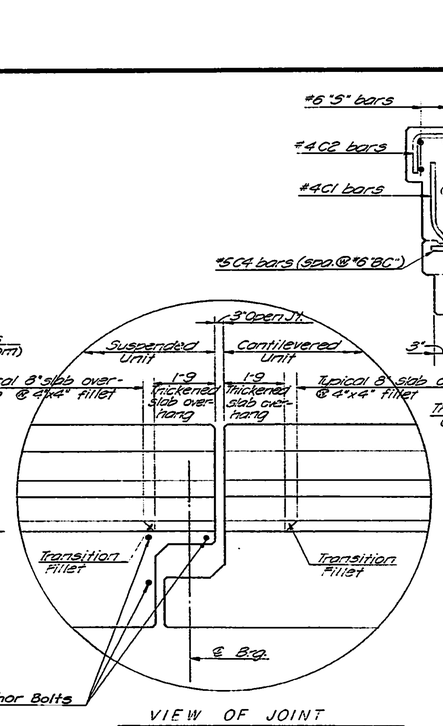
20X 16X 14.5X 12X

12X 14.5X 16X 20X

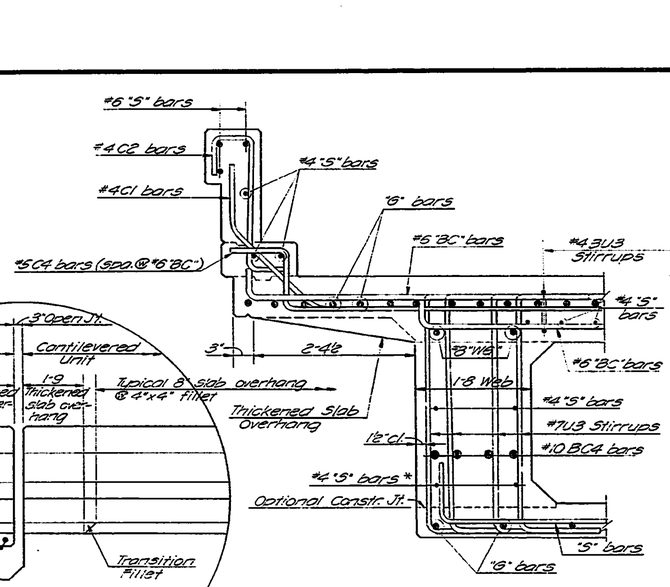
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	1970	1627	2137



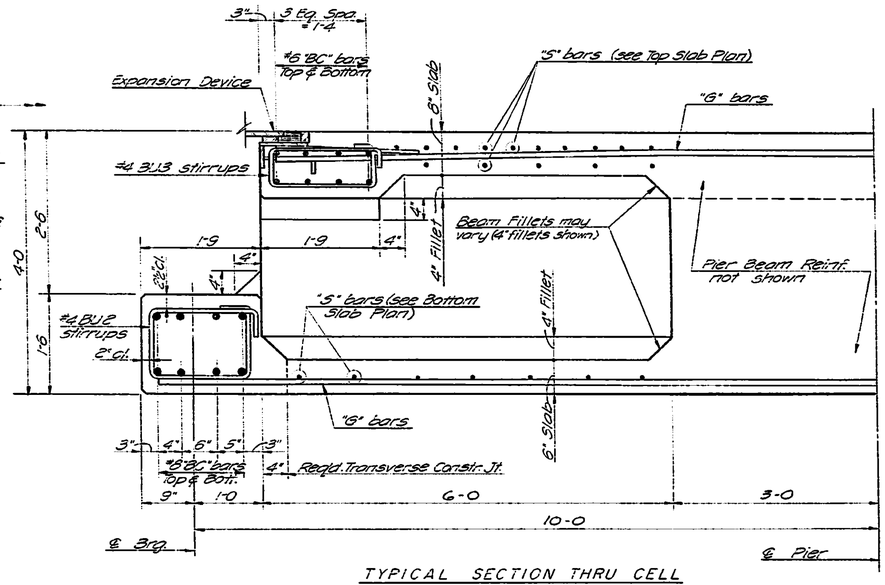
SECTION C3-C3
(Exterior Web)



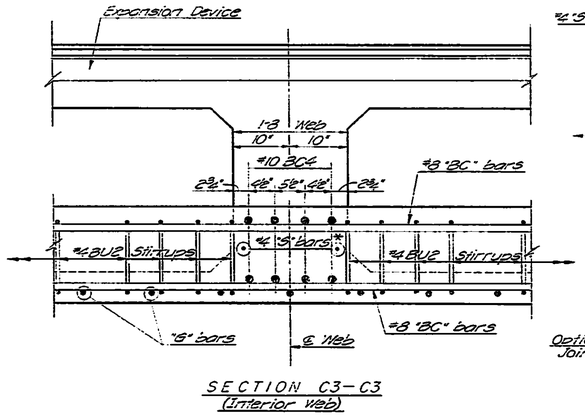
VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)



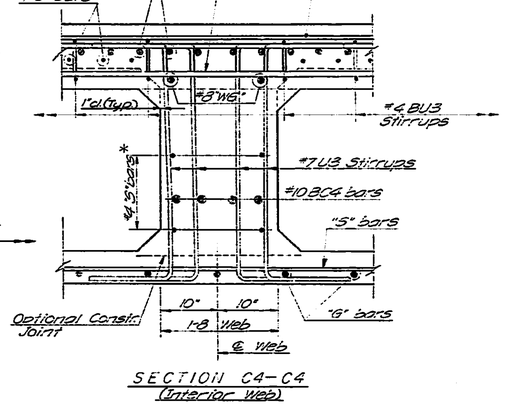
SECTION C4-C4
(Exterior Web)



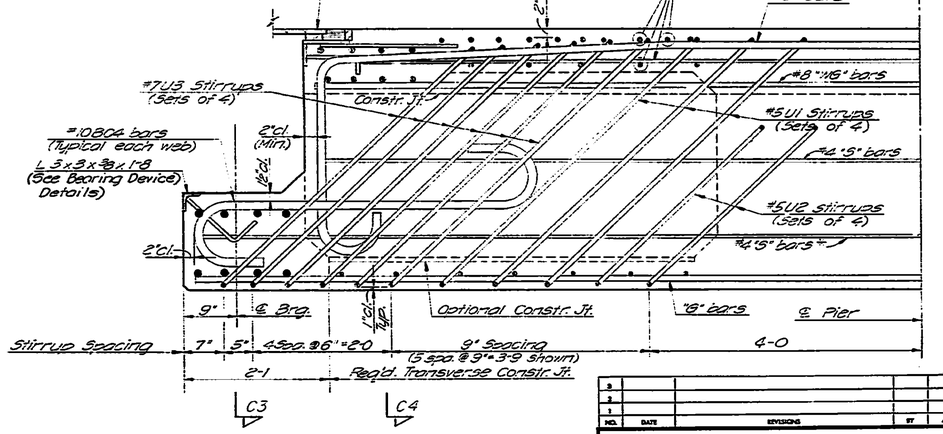
TYPICAL SECTION THRU CELL



SECTION C3-C3
(Interior Web)



SECTION C4-C4
(Interior Web)



TYPICAL SECTION THRU WEB

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

BEARING BEAM DETAILS

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 19S
S.B. I-35W VIADUCT
(OVER INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 10 OF 15	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	QUANTITIES JWH	TRACED DS
DESIGN CK. RBS	DETAIL CK. RBS	GRAM. CK. DFG	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

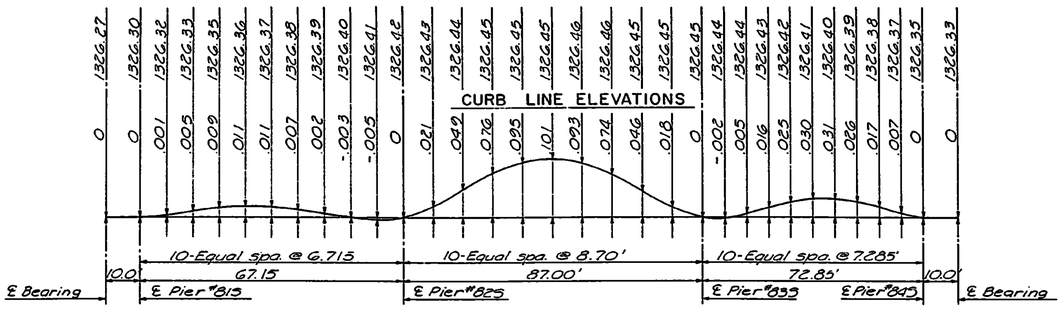
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

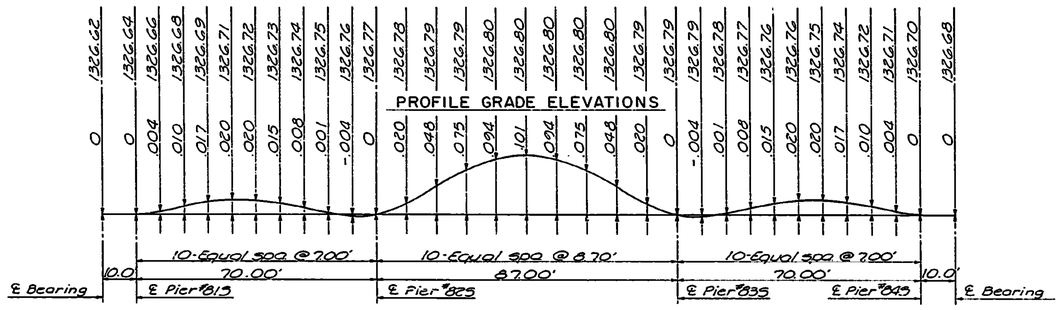
1 9 5

20X 16X 14.5X 12X 12X 14.5X 16X 20X

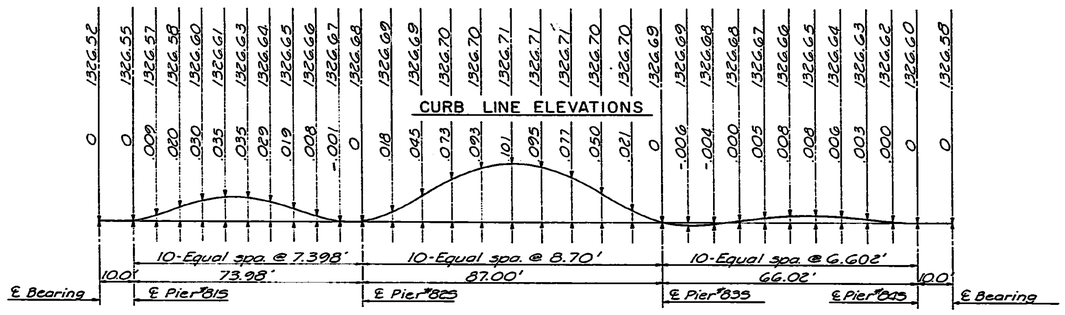
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(58)48 PHASE II	19	1628	2137



DEAD LOAD CAMBER IN FEET
ALONG LEFT GIRDER FASCIA



DEAD LOAD CAMBER IN FEET
ALONG ℄ CONSTRUCTION



DEAD LOAD CAMBER IN FEET
ALONG RIGHT GIRDER FASCIA

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL TOP OF SLAB ELEVATIONS AT TENTH POINTS

NOTE: Add dead load comber to theoretical top of slab elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ psi.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

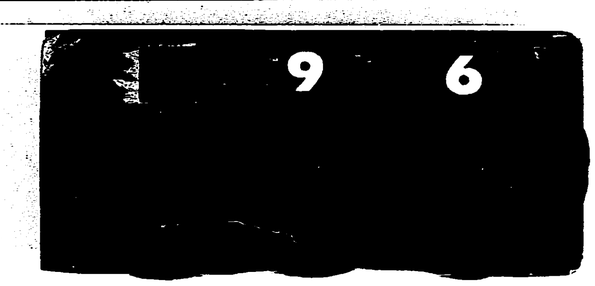
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 19S
S.B. I-35W VIADUCT
(OVER INNER LOOP)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 11 OF 15	SCALE	APP'D.	
DESIGNED DFG	DETAILED RCP	QUANTITIES LKO/	TRACED RCP
DESIGN CK. RBS	DETAIL CK. RBS	ORIGINAL CK. DATE	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

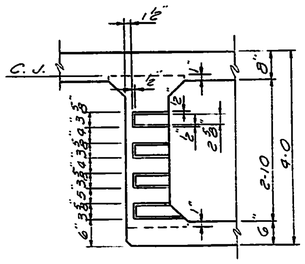
THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)



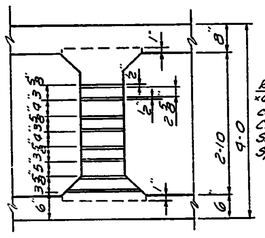
20X 16X 14.5X 12X

12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	1970	1689	2137

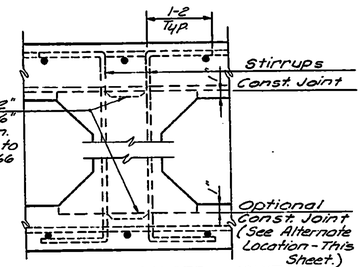


SECTION B-B
(Through Exterior Web)

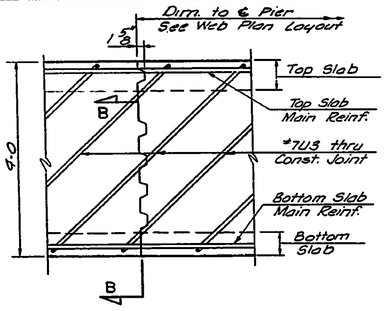


SECTION B-B
(Through Interior Web)

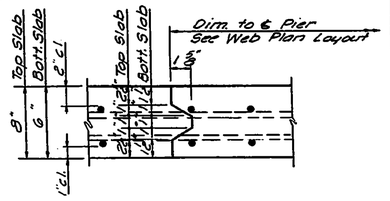
Rake or Form ¾"×2" "G" Shear Keys @ 6" centers as shown. Clean according to Sec. F1-4 (g), 1966 Specs.



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

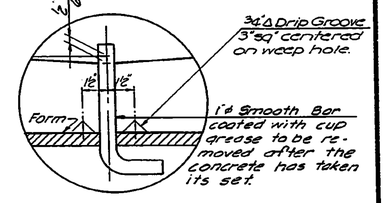


WEB CONSTR. JOINT
(Showing Placement of #7U3 bars)



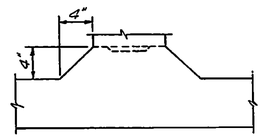
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of weep holes shall be included in the unit price bid for Class AAA Concrete AE.

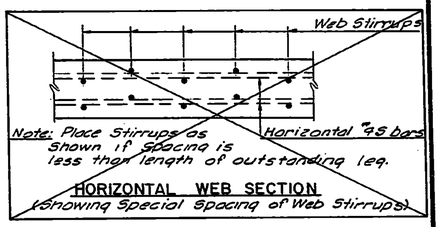


DETAIL OF WEEP HOLES

SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



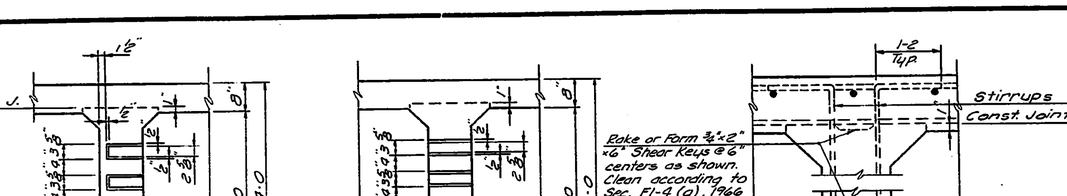
ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer.)



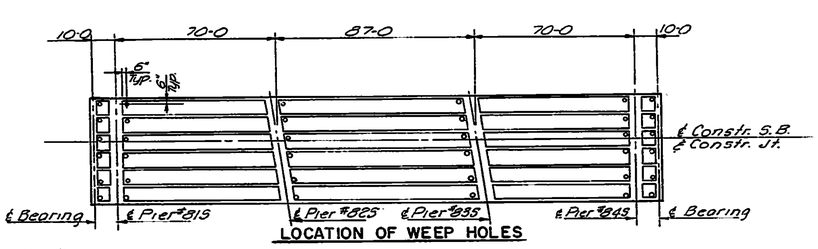
HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)

Note: Before beginning placing operation 3 & 4 wedge forms up to original elevations. (Section F1-4, 1960 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework



LOCATION OF WEEP HOLES

NOTES:

See General Notes:

Curbs and Handrails: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 19S
SB I-35W VIADUCT
(OVER INNER LOOP)
PROJ 35W-87-135W-I(58)48 SEDGWICK CO.

SHEET NO. 12 OF 18	SCALE		APP'D.		
DESIGNED DFG	DETAILED DGT	CHECKED LKD	TRACED DGT		
DESIGN CK. RBS	DETAIL CK. RAW	GRAN. CK. DGT	TRACE CK. RBS		

DIST. 5 SEDGWICK CO. ROLL 531

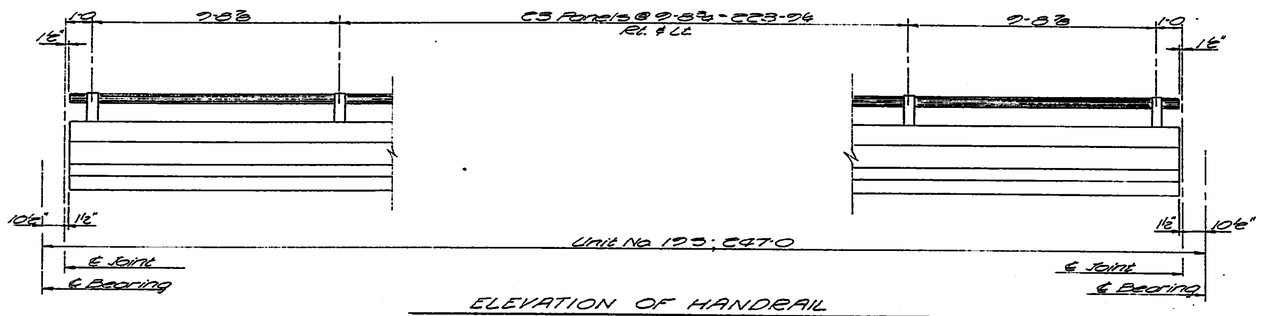
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

[redacted] 9 7

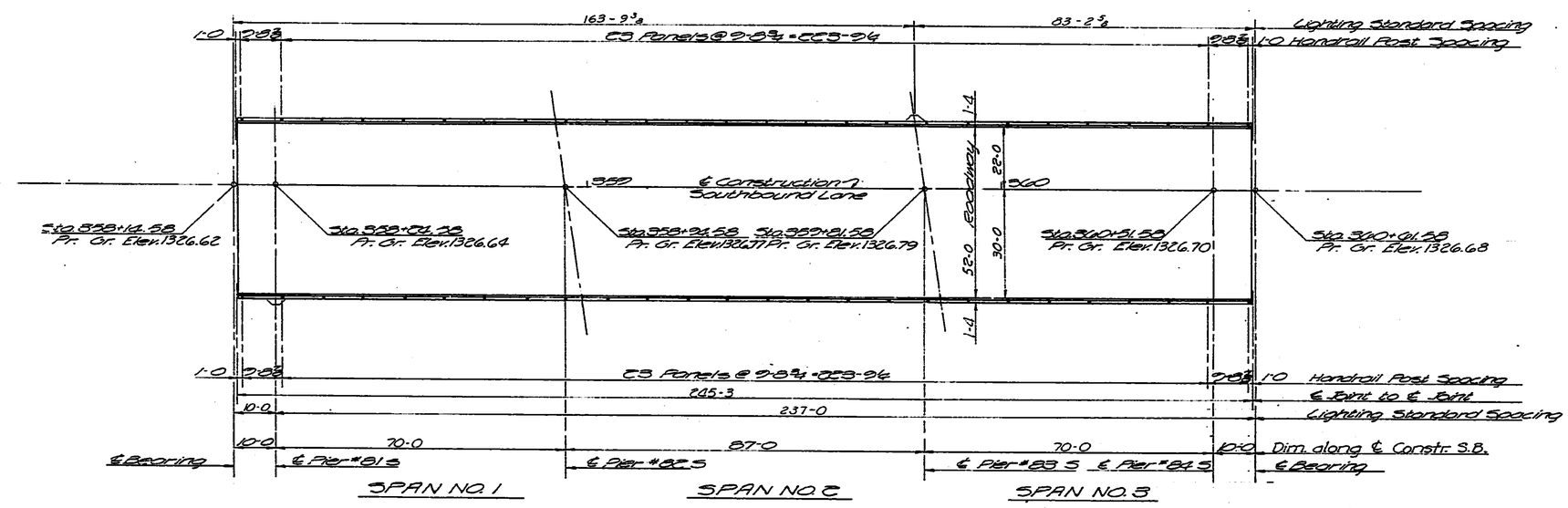
20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	1970	1630	2137



ELEVATION OF HANDRAIL

(See "Bridge Handrail" Standard Detail Sheet)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 19S
S.B. I-35W VIADUCT
(OVER INNER LOOP)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 13 OF 15 SHEETS			APP'D.		
DESIGNED JWH	DETAILED RAS	CHECKED LKM	DATE 6-25		
DESIGN OF RBS	DETAIL OF DS	CHECK OF DSM	TRACE OF RBS		

E

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

19 98

20X | 16X | 14.5X | 12X

12X | 14.5X | 16X | 20X

REV. PLANS 11-1-71

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-13&W I-(50)48	1970	1631	2137

BILL OF REINFORCING STEEL

Phase II

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	241	5	31-3
				S1A	241	5	20-11
				S1B	7	5	*
				S1C	16	5	*
				S1D	8	5	*
				S2	239	4	35-11
				S2A	239	4	21-11
				S2B	24	4	*
				S2C	8	4	*
				S3	239	5	33-6
				S3A	239	5	23-0
				S3B	24	5	*
				S3C	8	5	*
				S4	120	5	36-5
				S4A	120	5	23-1
				S4B	54	5	*
				S4C	18	5	*
				S5	116	5	36-5
				S5A	116	5	23-1
S6	714	4	36-3				
S7	28	4	38-0				
S8	12	4	26-10				
S8A	12	6	26-10				
S9	30	4	40-0				
S9A	30	6	40-0				
G1	20	8	*				
G2	29	8	*				
G3	24	8	27-0				
G4	24	8	43-0				
G5	72	9	48-0				
G6	24	9	32-0				
G7	72	9	18-10				
G8	50	9	53-0				
G9	98	8	29-6				
G10	49	10	60-0				
G11	24	10	52-0				
G12	24	10	36-0				
G13	21	8	*				

* See Bending Diagram

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
G14	28	8	*				
G14A	8	8	6-0				
				G15	20	8	37-11
G16	84	8	26-10				
G16B	4	8	17-6				
G17	68	8	37-10				
G17A	4	8	28-6				
G18	98	7	*				
G19	72	11	20-0				
G20	84	11	36-0				
G20A	4	11	16-9				
G20B	2	11	14-0				
G20C	2	11	18-9				
G21	92	10	50-0				
G21A	4	10	23-6				
G21B	2	10	21-0				
G21C	2	10	26-0				
G22	48	5	40-0				
G23	48	7	*				
				LB1	8	4	7-4
				LB2	6	4	9-4

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
B1	16	11	98-3				
B2	40	11	32-0				
B3	8	6	48-3				
B8	16	11	48-8				
B9	48	11	32-4				
B10	8	6	48-8				
WG1	28	8	28-4				
WG2	70	8	40-0				
				B4	16	11	51-3
				B5	40	11	16-8
				B6	28	6	36-5
				B6A	28	6	20-5
				B6B	32	6	36-8
				B6C	32	6	20-8
				B11	12	11	51-8
				BU1	224	5	15-10
				BU2	120	4	6-1
				BU3	84	4	5-1
				BU4	228	5	18-6
				BC1	16	8	32-8
				BC1A	16	8	20-8
				BC2	8	6	31-11
				BC2A	8	6	19-8
				BC3	8	6	34-6
				BC3A	8	6	22-6
				BC4	56	10	8-2
				C1	574	4	3-5
				C2	588	6	3-8
				C3	72	4	2-5
				C4	16	5	5-7
C5	32	4	2-6				
				U1	2788	5	7-7
				U2	252	5	6-1
				U3	504	7	7-7

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length

Notes: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

All bar marks shall be prefixed with the unit number when fabricated. Example: #8G1 bars shall be marked 1958G1.

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	889.4 Cu.Yds.
Reinforcing Steel	310,770 Lbs.
Cast Iron Scuppers	Lbs.
Wrought Iron Drains & Grates	4,397 Lbs.
8" ø Downspouts	235.63 Lin. Ft.
Gutters	Lin. Ft.
Bridge Handrail	686.50 Lin. Ft.
Structural Steel	
Corner Angles (A36) 14@ 19Lbs.	266 Lbs.
Expansion Devices (A36)	3,805 Lbs.
Linseed Oil Surface Treatment (Bridges)	1,415.55 Sq.Yds.
Elastomeric Exp. Device (13½")	54 Lin.Ft.
Elastomeric Exp. Device (22¾")	54 Lin.Ft.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1	11-1-71	Rev. Exp. Devices	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SCHEDULE OF QUANTITIES – UNIT NO. 19S
S.B. I-35W VIADUCT
(OVER INNER LOOP)
PROJ. 35W-87-1 35W-I(58)48 SEDGWICK CO.

SHEET NO. 12 OF 15	SCALE	APP'D.
DESIGNED DTG	DETAILED LED	CHECKED JWH TRACED BLC
DESIGN CK. RAS	DETAIL CK. EES	QUAN. CK. DTG TRACE CK. JWH

Dec 1969 Jun 195

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

9 9

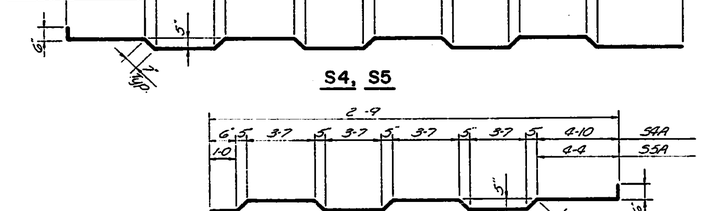
20X 16X 14.5X 12X 12X 14.5X 16X 20X

BENDING DIAGRAMS

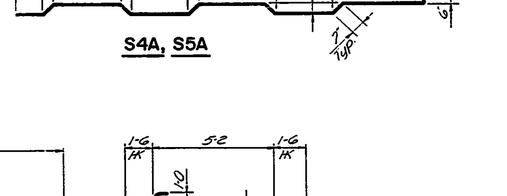
(Bar Dimensions are Out to Out)

REV. PLANS 11-1-71

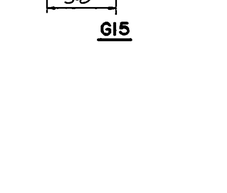
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-1 35W I-(58)48 Phase II	1970	1632	2137



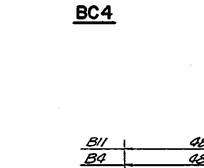
S4, S5



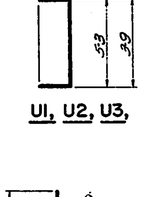
S4A, S5A



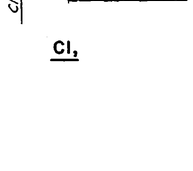
GI5



BC4

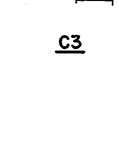


U1, U2, U3,



C1,

C2

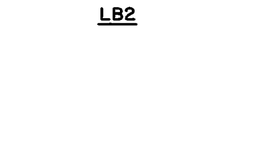


C3

G23	Increase by 2" increment from 16-8 to 24-6	Cut 1 ea. length
G18	Increase by 2" increment from 17-10 to 25-8	Cut 1 ea. length
G14	Increase by 2" increment from 18-7 to 23-1	Cut 1 ea. length
G13	Increase By 2" increment from 17-6 to 20-10	Cut 1 ea. length
G2	Increase by 2" increment from 17-6 to 22-2	Cut 1 ea. length
G1	Increase by 2" increment from 19-9 to 26-11	Cut 1 ea. length

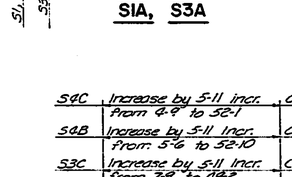
G1, G2, G18, G13, G14, G23

LB1

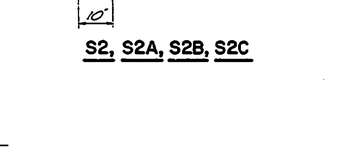


LB2

B4, B11



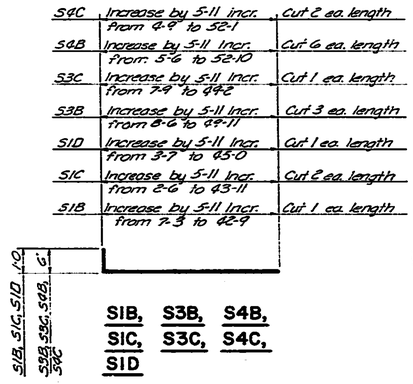
S1, S3, S1A, S3A



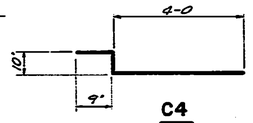
S2C	Incr. by 5-11 Incr. from 7-1 to 48-6	Cut 1 ea. length
S2B	Incr. by 5-11 Incr. from 7-10 to 49-3	Cut 3 ea. length
S2A	20-2	
S2	34-2	

S2, S2A, S2B, S2C

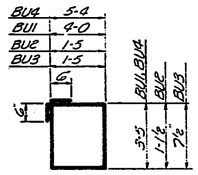
S4C	Increase by 5-11 Incr. from 4-9 to 52-1	Cut 2 ea. length
S4B	Increase by 5-11 Incr. from 5-6 to 52-10	Cut 6 ea. length
S3C	Increase by 5-11 Incr. from 7-9 to 49-2	Cut 1 ea. length
S3B	Increase by 5-11 Incr. from 8-6 to 49-11	Cut 3 ea. length
S1D	Increase by 5-11 Incr. from 3-7 to 45-0	Cut 1 ea. length
S1C	Increase by 5-11 Incr. from 2-6 to 43-11	Cut 2 ea. length
S1B	Increase by 5-11 Incr. from 7-3 to 42-9	Cut 1 ea. length



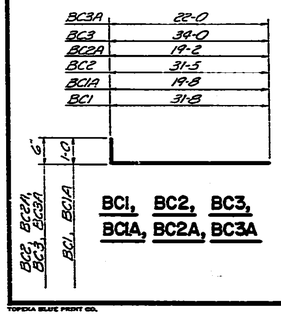
S1B, S3B, S4B, S1C, S3C, S4C, S1D



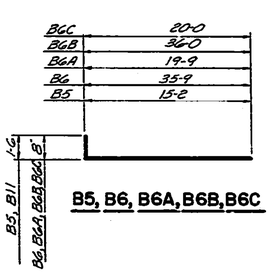
C4 △



BU1, BU2, BU3, BU4



BC1, BC2, BC3, BC1A, BC2A, BC3A



B5, B6, B6A, B6B, B6C

3		
2		
1	11-1-71 Rev. Exp. Devices	VHSS
NO.	DATE REVISIONS	BY APP'D

STATE HIGHWAY COMMISSION OF KANSAS

BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+1560

BENDING DIAGRAMS — UNIT NO. 19S

S. B. I-35W VIADUCT (OVER INNER LOOP)

PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

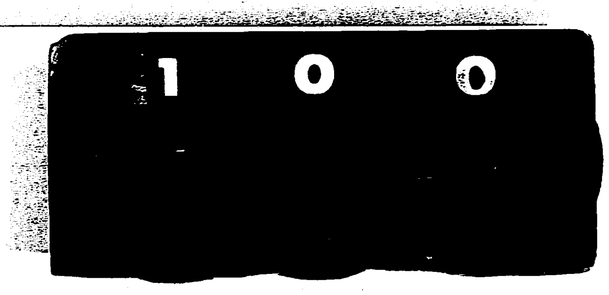
SHEET NO. 18 OF 19	SCALE:		APP'D.		
DESIGNED DFG	DETAILED LED		QUANTITIES JWH	TRACED BLC	
DESIGN CK. JWH	DETAIL CK. DFG		QUANT. CK. DFG	TRACE CK. JWH	

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

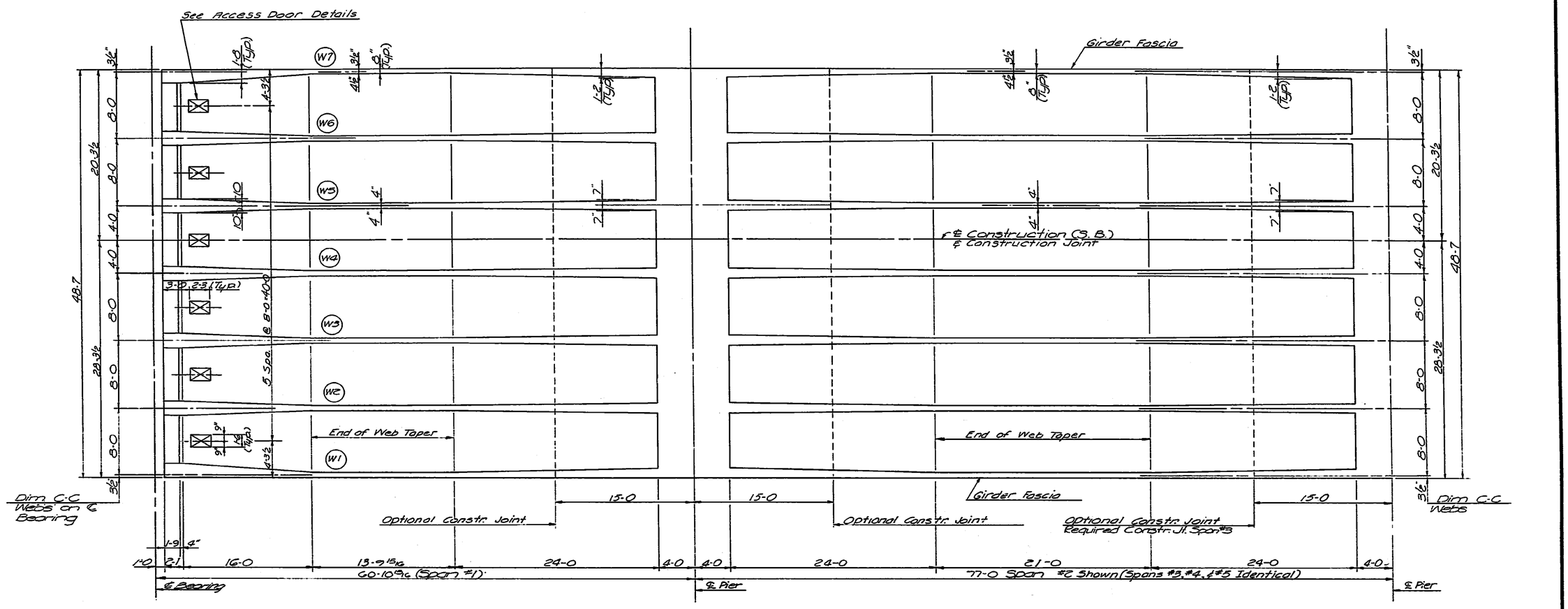
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)



20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-15.99 -1(258)48 Phase II	19	1633	2137



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

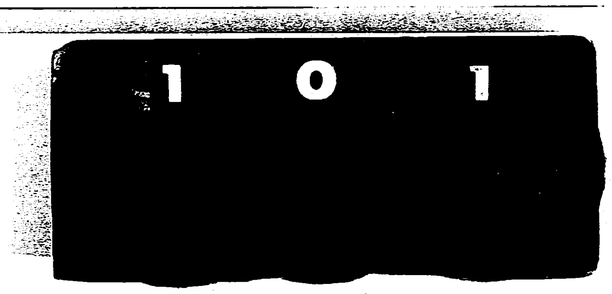
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 20S
S.B.I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 1 OF 16	SCALE	APP'D.	
DESIGNED DFS	DETAILED RAF	COMPUTED DFS	TRACED RAF
CHECKED RBS	DETAIL CK. RBS	QUANT. CK. LKD	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

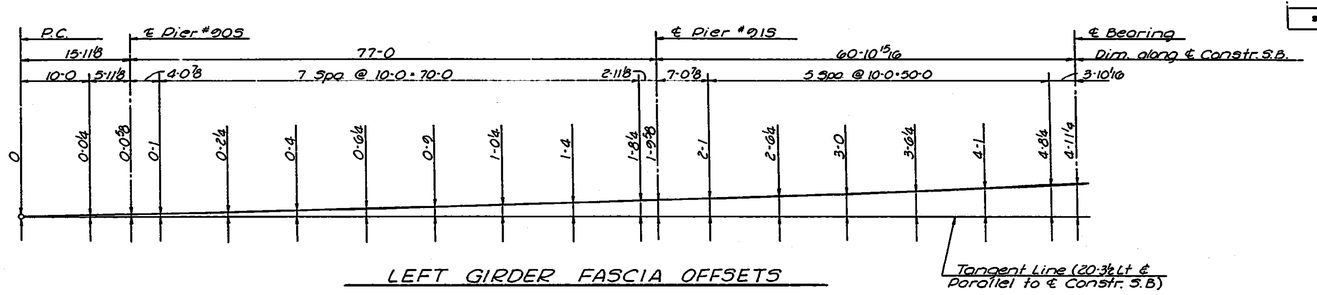
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

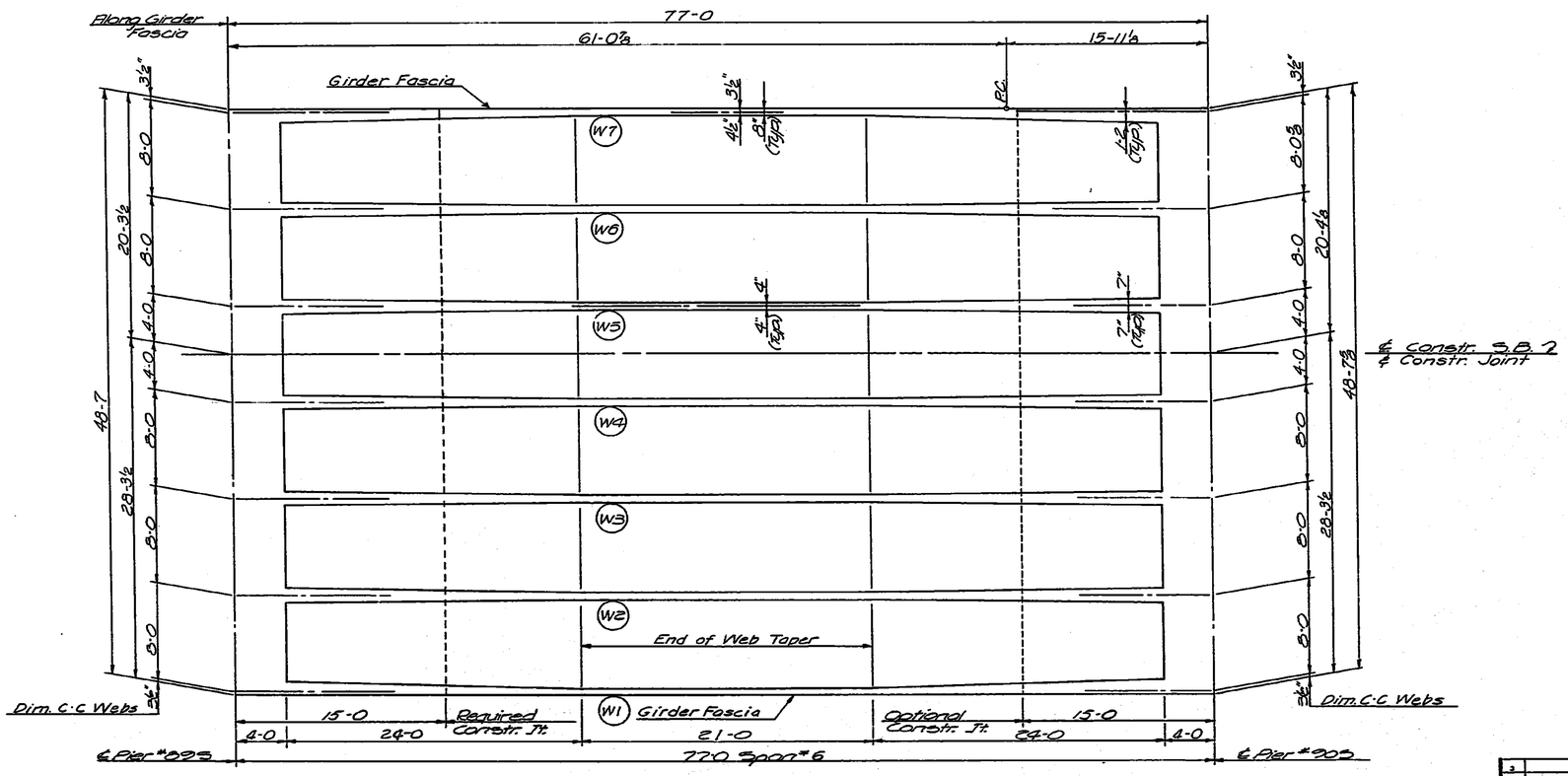


20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-15.99 (58)48 Phase II	19	1634	2137



LEFT GIRDER FASCIA OFFSETS



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 20S
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 2 of 16	ZONE	APP'D.	
DESIGNED DEC	DETAILED PAF	COMPUTED DBH	TRACED PAF
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. LMD	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

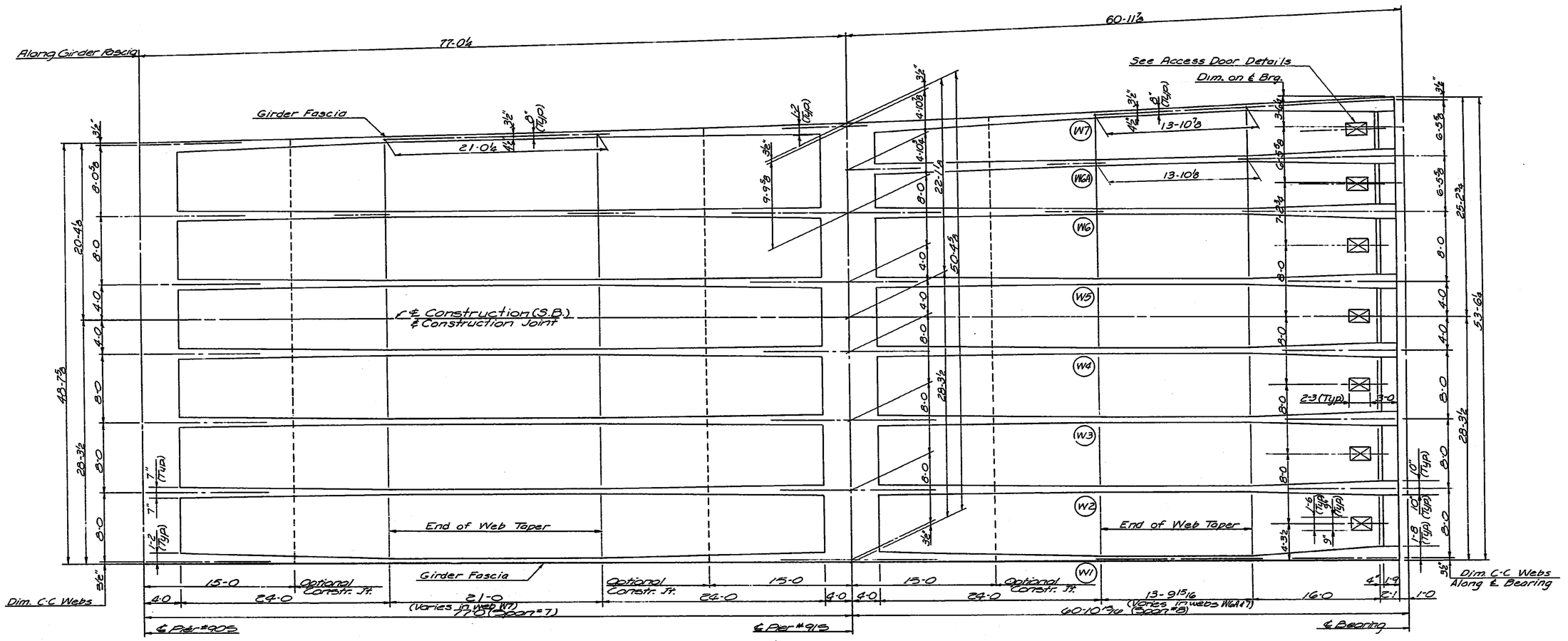
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

[redacted] 1 0 2

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (158)48 Phase II	19	1635	2137



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 20S
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-135W-(158)48 SEDGWICK CO.

SHEET NO. 3016	SCALE	APP'D.	
DESIGNED DFC	DETAILED RAE	QUANTITIES DGT	TRACED RAE
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. LWD	TRACE CK. RBS

64-03

DIST. 5 SEDGWICK CO. ROLL 531

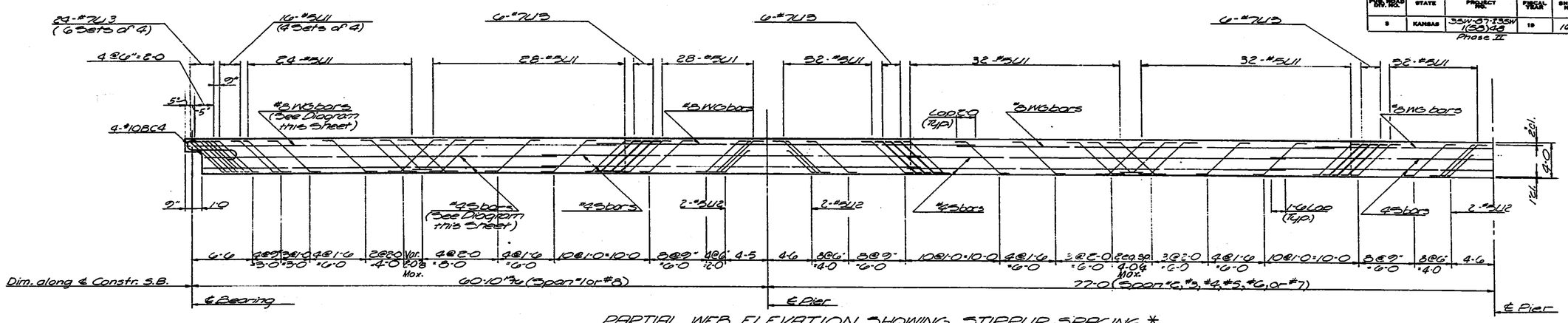
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

103

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1636	2137

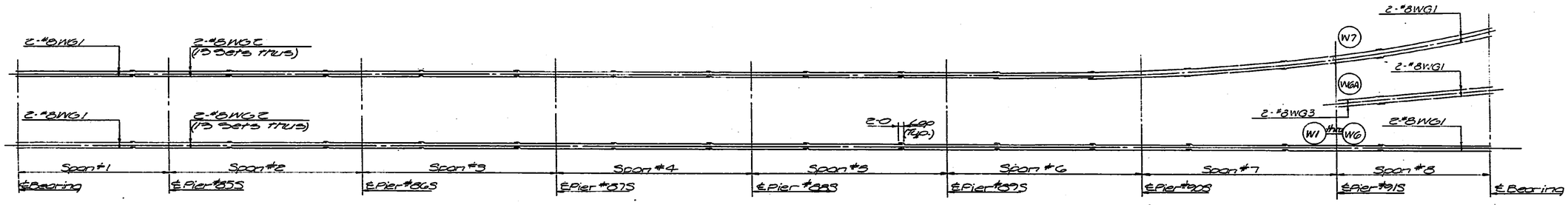


PARTIAL WEB ELEVATION SHOWING STIRRUP SPACING *

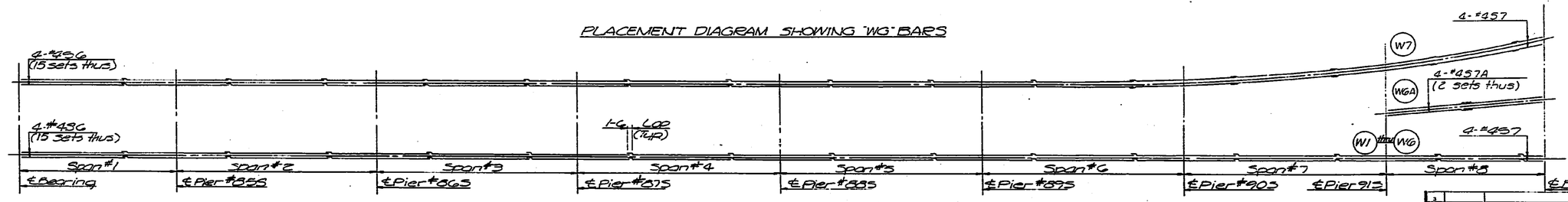
(Stirrups placed in pairs each web except as noted)

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top and beneath bottom main reinforcing steel. See Roadway Deck Section.

Note: See Placement Diagrams below for #8WG and #4S bars.



PLACEMENT DIAGRAM SHOWING "WG" BARS



PLACEMENT DIAGRAM SHOWING "S" BARS IN WEBS

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 20S
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 6 OF 16	SCALE	APP'D.	
DESIGNED DCD	DETAILED DCF	QUANTITIES DCH	TRACED DCF
DESIGN CK. RBS	DETAIL CK. RBS	QUANT. CK. LKO1	TRACE CK. RBS

66-03 B1

DIST. 5 SEDGWICK CO. ROLL 531

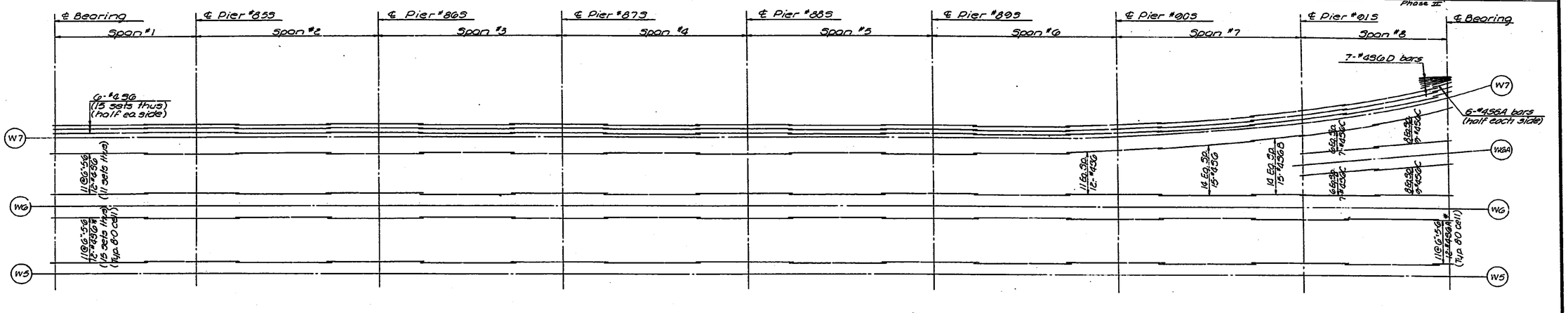
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

104

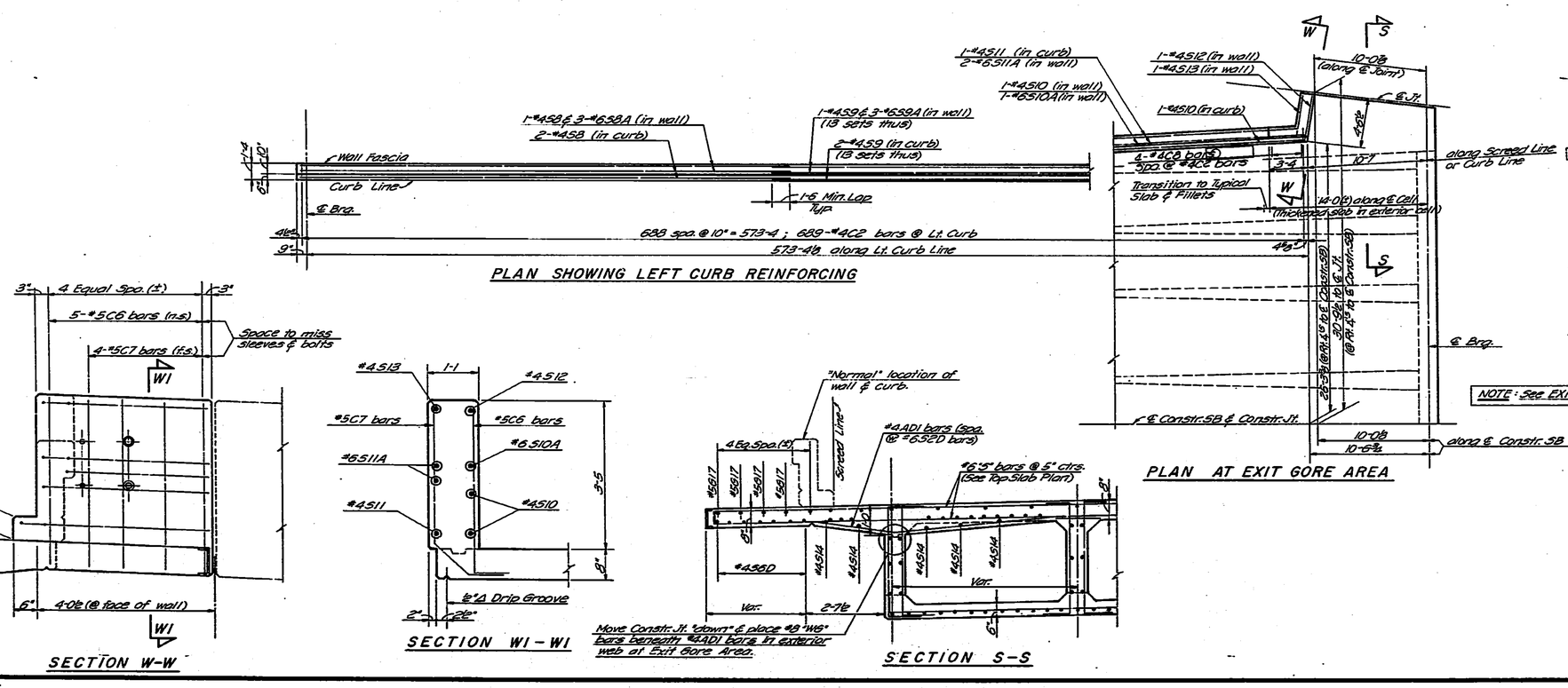
20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-27(33)W I-(38)48 Phase II	19	1637	2137



PLACEMENT DIAGRAM SHOWING "5" BARS

Longitudinal bars in bottom of top slab.
* There are 5 typical 8'0 cells from Web W1 to W6
All bars are #456 unless otherwise shown.



NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 20S
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

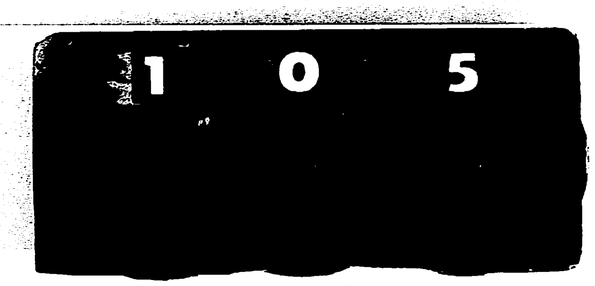
SHEET NO. 5 of 15	SCALE	APP'D.	
DESIGNED DJG	DETAILED EES	CHECKED DDW	TRACED EES
DESIGN CK. JWH	DETAIL CK. LKD	DRAW CK. KSK	TRACE CK. LKD

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

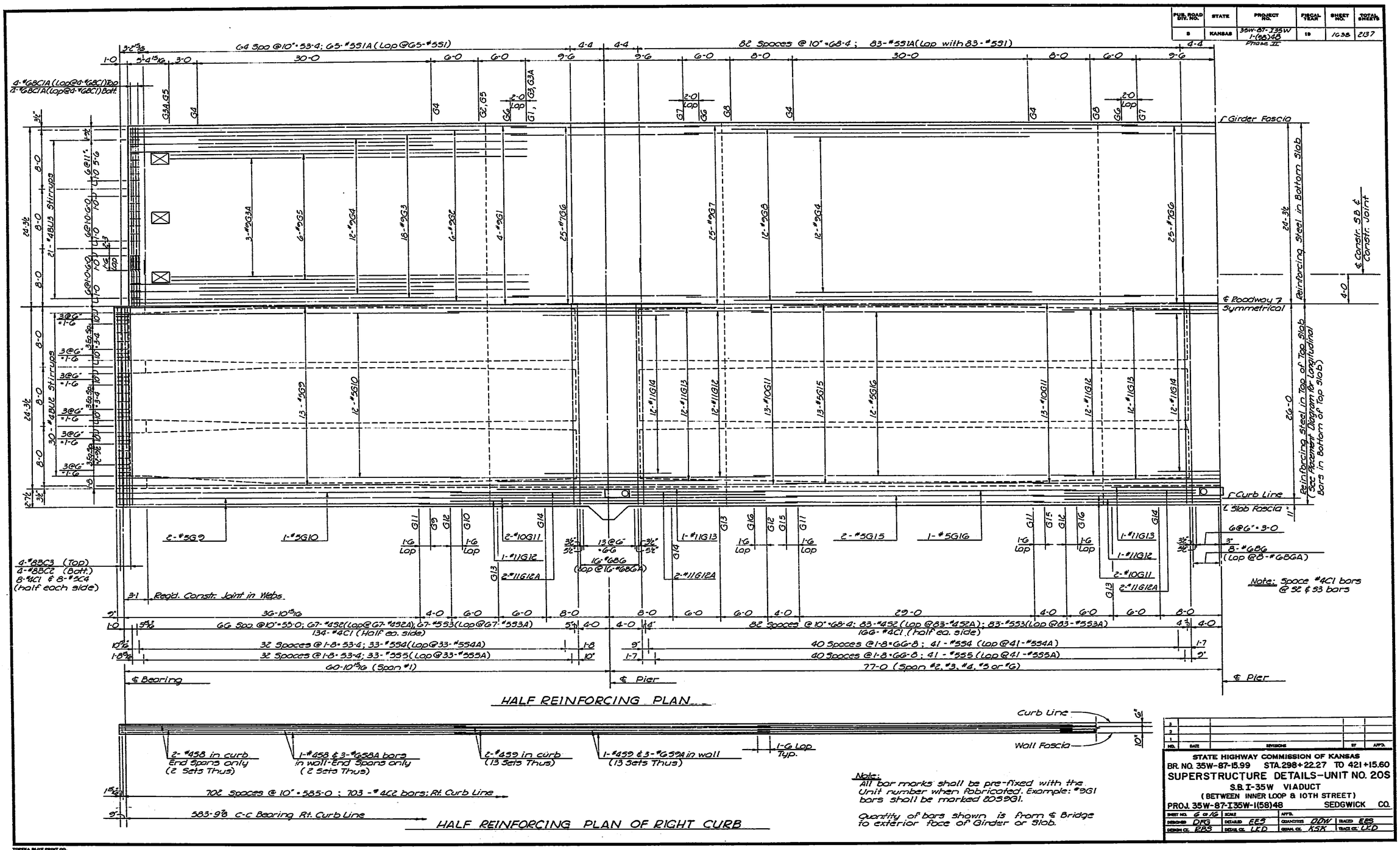
THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)



20X 16X 14.5X 12X

12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1-(58)48 Phase II	19	1638	2137



Note:
All bar marks shall be pre-fixed with the Unit number when fabricated. Example: #9G1 bars shall be marked 2059G1.

Quantity of bars shown is from ℄ Bridge to exterior face of Girder or Slab.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 20S
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 6 of 16	SCALE	APP'D.	
DESIGNED DRG	DETAILED EES	QUANTITIES DDW	TRACED EES
DESIGN CK. EBS	DETAIL CK. LED	GENL. CK. KSK	TRACE CK. LED

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

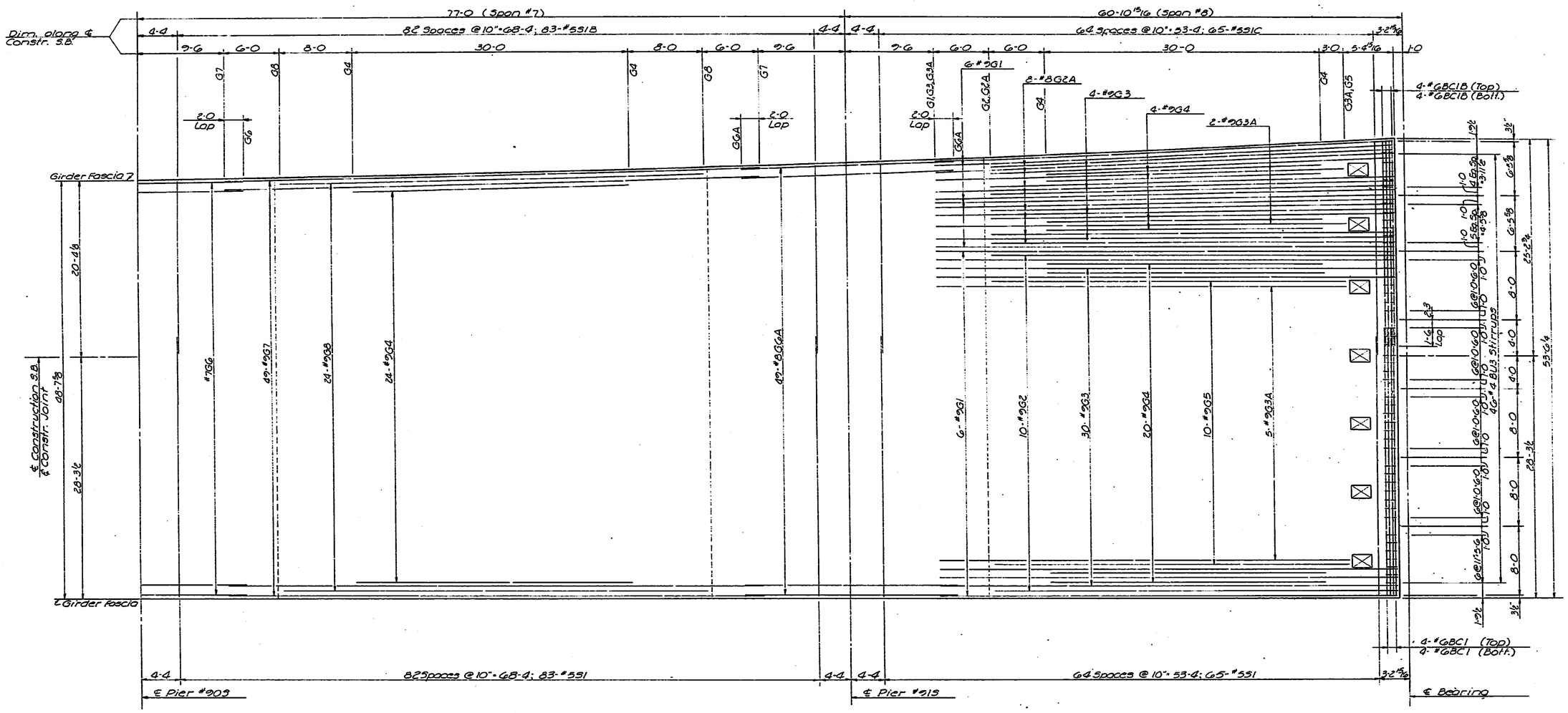
1 Negative 1 Print

53 - 325 / GX-93-3N-35 / 1BR-11SC-2X

1 0 6

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-T35W (58)48 Phase II	19	1639	2137



PARTIAL REINFORCING PLAN
(Showing Reinforcing in Bottom Slab)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 20S
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-T35W-1(58)48 SEDGWICK CO.

SHEET NO. 7 OF 16	SCALE		APP'D.	
DESIGNED DRG	DETAILED EES		QUANTITIES DDW	TRACED EES
DESIGN CK. RBB	DETAIL CK. LKD		QUAN. CK. ASK	TRACE CK. LKD

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

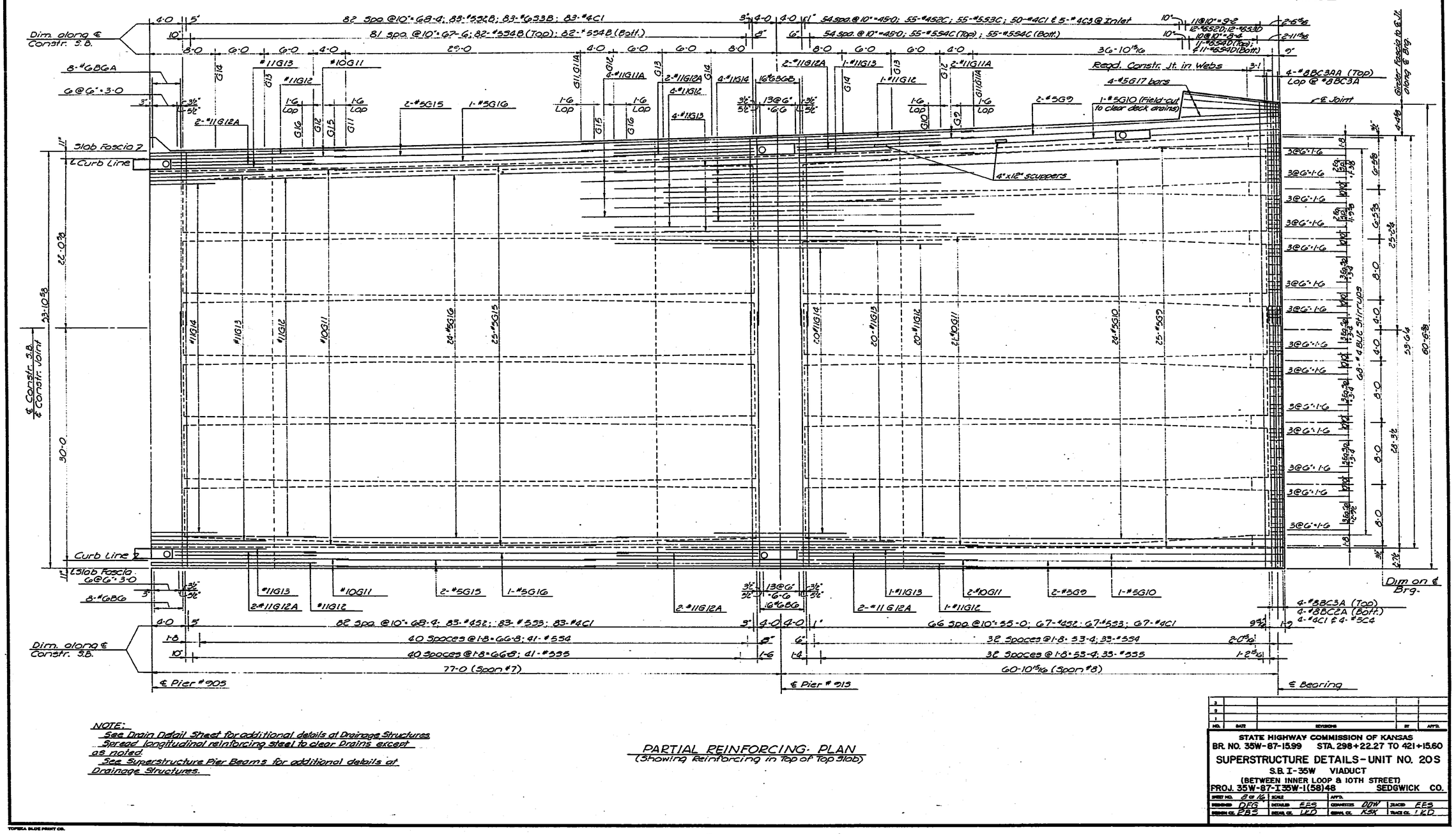
THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

1 0 7

20X | 16X | 14.5X | 12X

12X | 14.5X | 16X | 20X

FED. ROAD STA. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W 1(58)48 Phase II	19	1640	2137



NOTE:
See Drain Detail Sheet for additional details at Drainage Structures
Spread longitudinal reinforcing steel to clear Drains except as noted
See Superstructure Pier Beams for additional details at Drainage Structures.

PARTIAL REINFORCING PLAN
(Showing Reinforcing in Top of Top Slab)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 20S
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 2 of 16	SCALE		APP'D.		
DESIGNED DFG	DETAILED EES		CHECKED DDW	2nd CK. EES	
DESIGN CK. PBS	DETAIL CK. LKD		MAIN CK. KSK	TRACE CK. LKD	

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

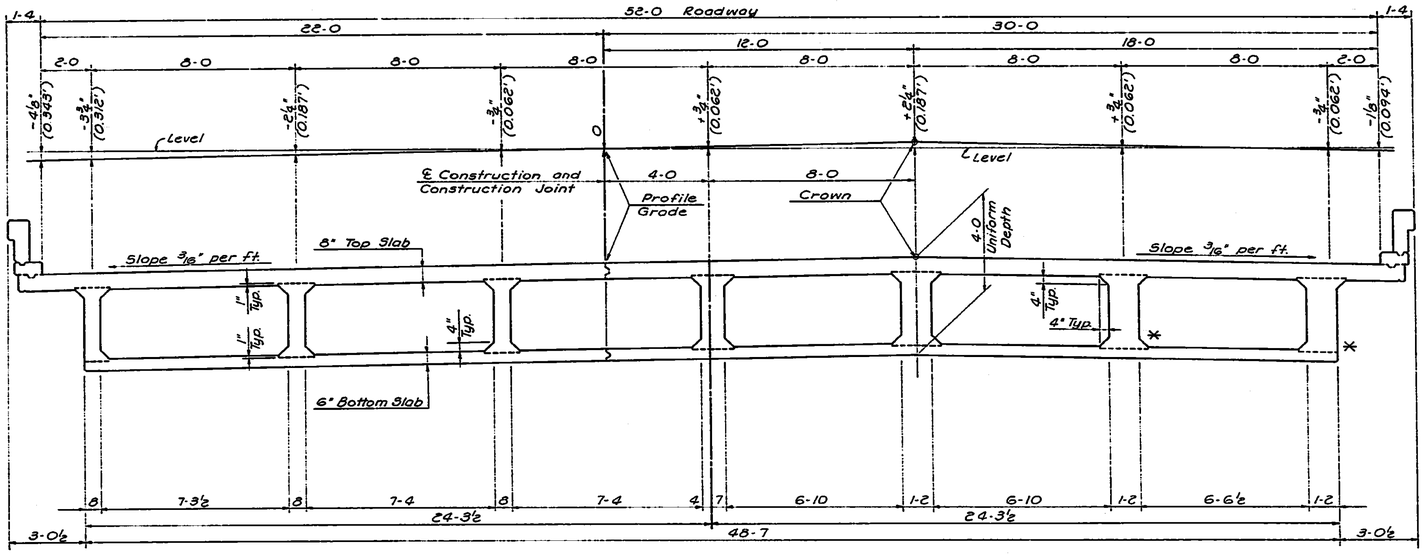
THESE SHEETS #1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

1 0 8

20X | 16X | 14.5X | 12X

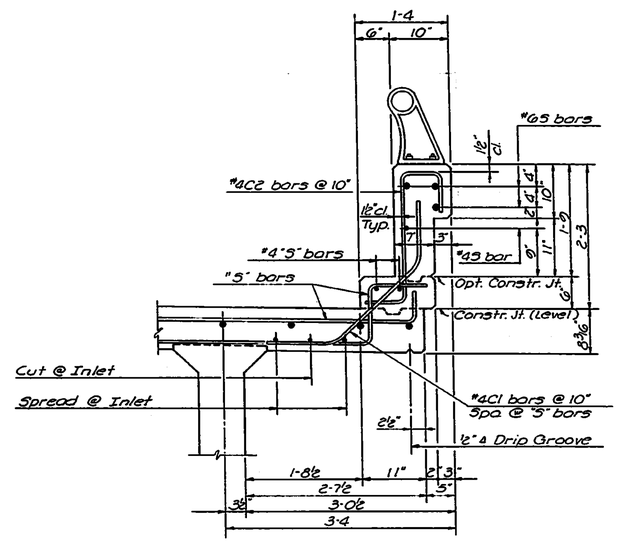
12X | 14.5X | 16X | 20X

FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W 1(58)48 Phase II	19	1641	2137



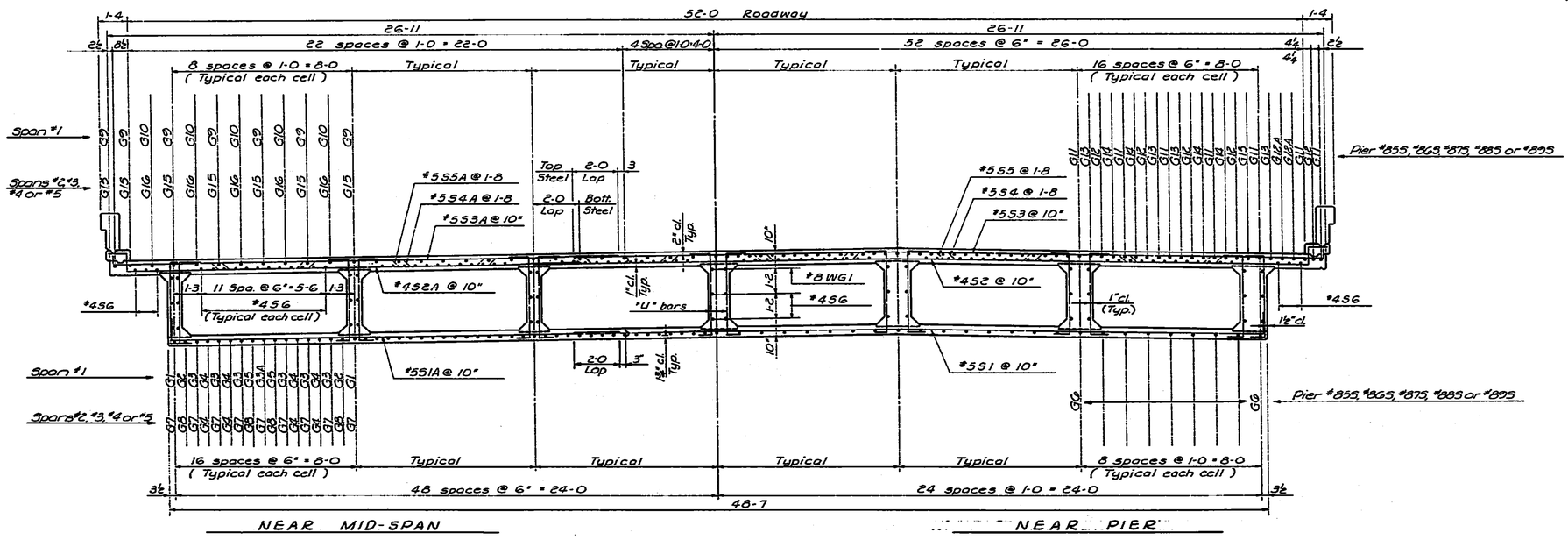
NEAR MID-SPAN NEAR PIER

ROADWAY DECK SECTION



TYPICAL CURB SECTION

* See longitudinal construction joint details for location of optional construction joint at bottom of web.



NEAR MID-SPAN NEAR PIER

ROADWAY DECK SECTION

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 20S
S.B I35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-I 35W-1(58)48 SEDGWICK CO.

SHEET NO. 9 OF 16	SCALE	APP'D.
DESIGNED DFG	DETAILED EES	QUANTITIES DDW	TRACED EES
DESIGN CK. RBS	DETAIL CK. LKD	GENER. CK. KSK	TRACE CK. LKD

TOPEKA BLUE PRINT CO.

53' 2d WM. Southbound

DIST. 5 SEDGWICK CO. ROLL 531

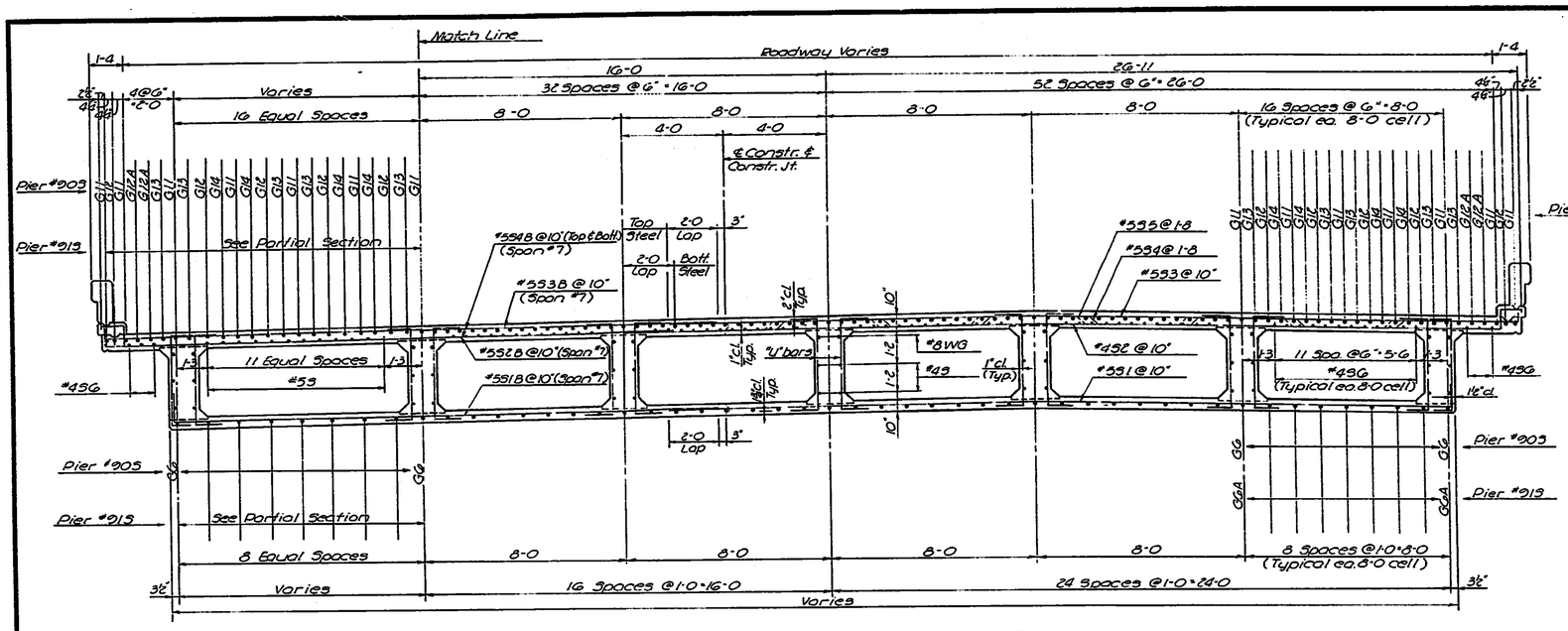
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

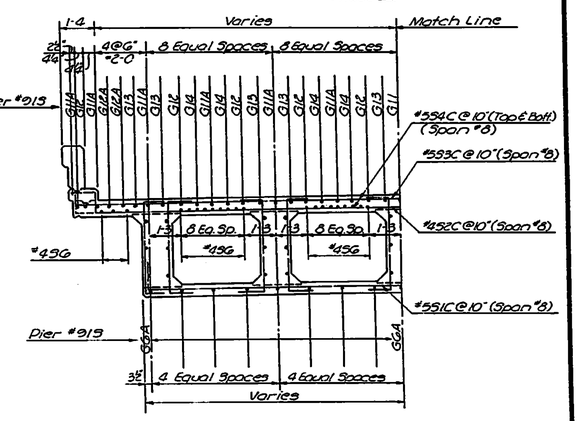
1 0 9

20X 16X 14.5X 12X 12X 14.5X 16X 20X

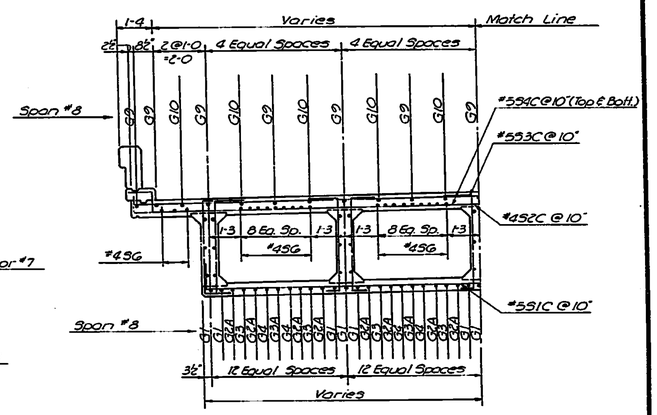
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	19	1642	2137



ROADWAY DECK SECTION NEAR PIER
(Piers #905 & #913)

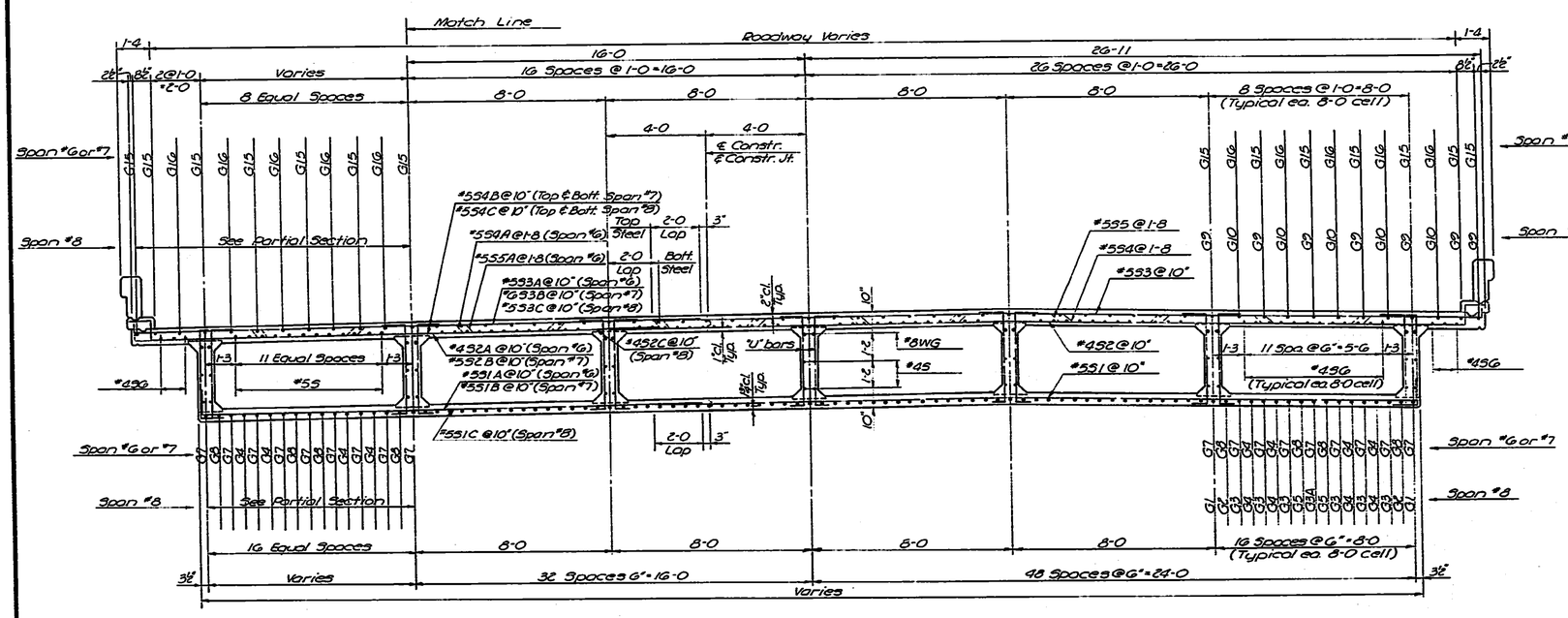


PARTIAL SECTION NEAR PIER #913



PARTIAL SECTION NEAR MID SPAN
(Span #8 Only)

Note: Transverse bars in widened section shall be placed with outside end as shown. Lap varies with widening.



ROADWAY DECK SECTION NEAR MID SPAN
(Spans "6, "7 & "8)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 20S
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 10 OF 16	SCALE		APP'D.		
DESIGNED DFG	DETAILED EES		QUANTITIES DDW	TRACED EES	
DESIGN CK. EBS	DETAIL CK. LKD		QUAN. CK. KSK	TRACE CK. LKD	

DIST. 5 SEDGWICK CO. ROLL 531

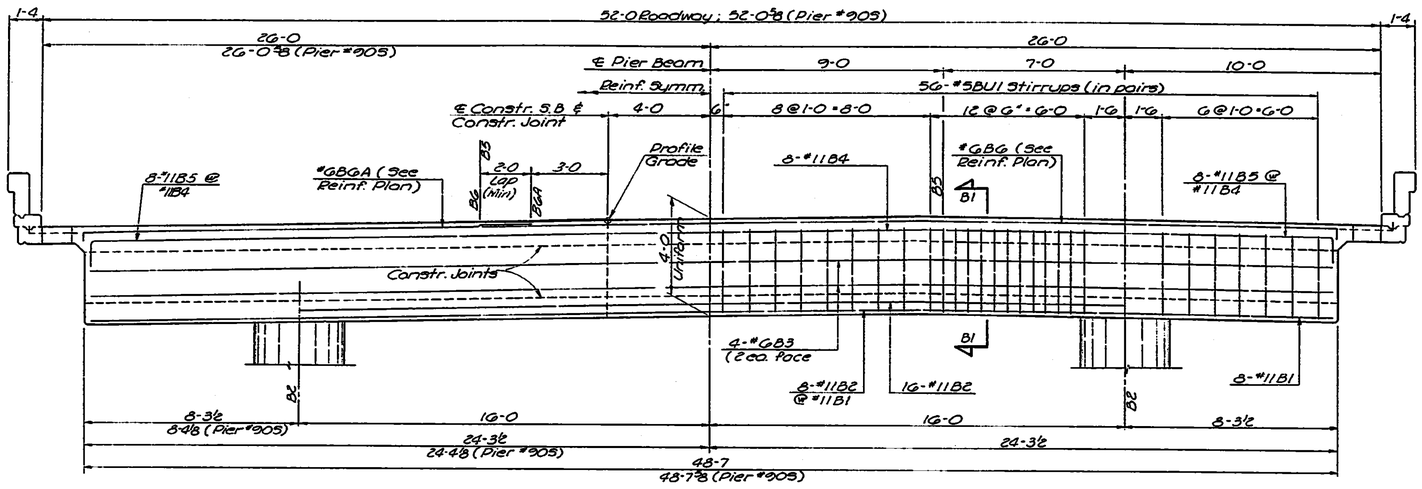
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

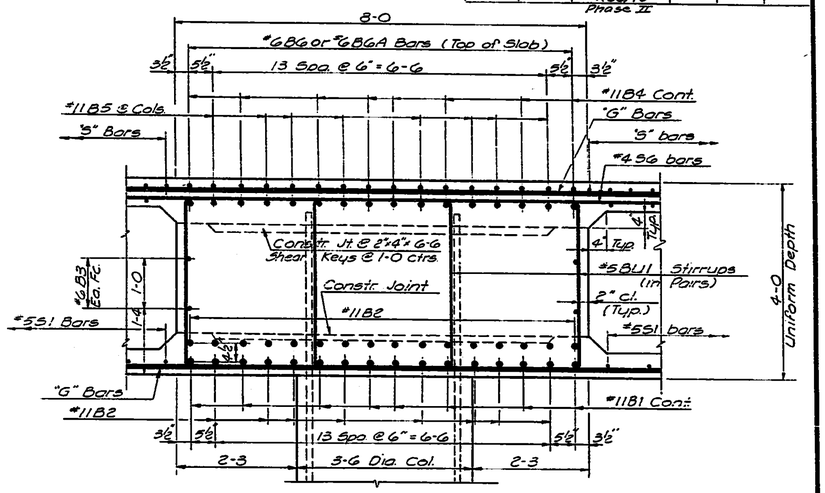
[redacted] 1 1 0

20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

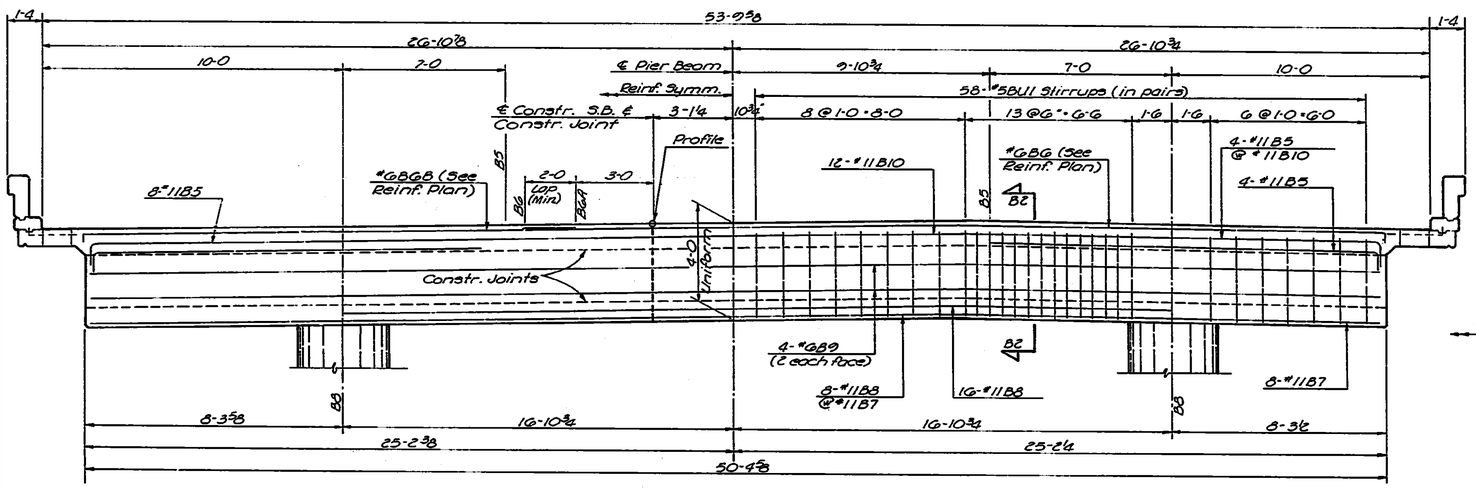
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase II	19	1643	2137



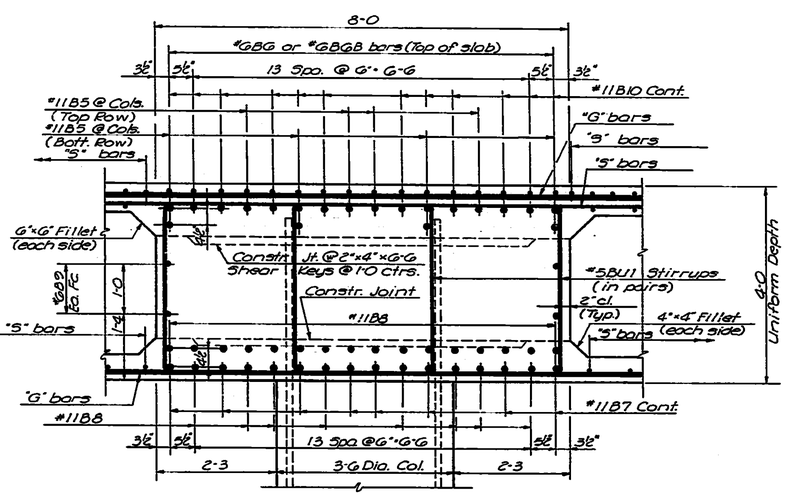
SUPERSTRUCTURE PIER BEAM
Piers #855 thru #895 Typical (Pier #905 Similar)



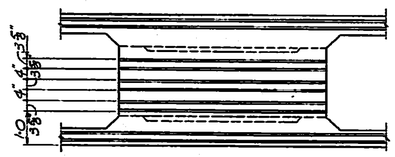
SECTION B1-B1



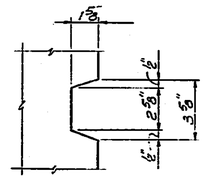
SUPERSTRUCTURE PIER BEAM
(At Pier #915)



SECTION B2-B2



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing Location of Keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 20S
S. B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 11 OF 16	SCALE		APP'D.		
DESIGNED DDP	DETAILED EES		QUANTITIES DDW	TRACED EES	
DESIGN CK. RBS	DETAIL CK. LKD		CHECK CK. KSK	TRACE CK. LKD	

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

[redacted] 1 1 1

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87/35W-1(58)48 PAGE 22	19	1644	2137

#5C4 bars (spa. @ #8 "BC" bars)
#6 "S" bars
#10BC4 bars
3½" 4½" 5⅜" 4½" 4½" x 2¾"
#8 "BC" bars
#4 BU2 stirrups
#8 "WG" bars
#4 "S" bars
3"
2-4½
#8 "BC" bars
Thickened Slab overhang.
1'-8 Web
Optional Constr. Jt.

SECTION C2-C2
(Exterior Web)

#6 "S" bars
#4 C2 bars
#4 C1 bars
#4 "S" bars
#5C4 bars (spa. @ #8 "BC" bars)
#4 "S" bars
#6 "S" bars
#5 "S" bars
#8 "WG" bars
#10 BC4 bars
Transition Fillet
1'-8 Web
#4 "S" bars
#7 U3 Stirrups
Optional Constr. Jt.
1'-6 cl.
#6 "BC" bars
#4 "S" bars*
#4 BU3 stirrups
#6 "S" bars

SECTION C1-C1
(Exterior Web)

2" Open Joint
Suspended Unit
Cantilevered Unit
Typical 8" Slab overhang @ 4"x4" fillet
1'-9 Thickened Slab overhang.
1'-9 Thickened Slab overhang.
Typical 8" Slab overhang @ 4"x4" fillet
Transition Fillet
Transition Fillet
Anchor Bolts

VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)

Reqd. Constr. Joint in Web
3'-1
9"
℄ Brg.
"S" bars (See Top Slab Plan)
"G" bars
#8 "BC" bars (Top)
3" 4" 6" 5" 3"
Expansion Device
8" Slab
4" Fillet
#4 "S" bars
#4 BU2 stirrups
2" cl.
#8 "BC" bars (Bott.)
1'-6
4'-0
2'-6
4"
1'-9
"S" bars (See Bott. Slab Plan)
1'-4"
#4 BU3 stirrups
6" Slab
"G" bars
Access Door
#6 "BC" bars (Top & Bott.)
3 Eq. Spa. @ 1'-3"
1'-0
9"
2'-3
3'-0
1'-9

TYPICAL SECTION THRU CELL

#6 "G" bars
℄ Web
#10BC4 bars
#8 "BC" bars
2¾" 4½" 5⅜" 4½" 4½" x 2¾"
#4 BU2 stirrups
#8 "WG"
1'-0 1'-0
#4 BU2 stirrups
#8 "BC" bars
Optional Constr. Jt.
10" 10"
1'-8 Web

SECTION C2-C2
(Interior Web)

#6 "G" bars
1'-8 Web
#5 "S" bars
#8 "WG" bars
1" cl. (Typ.)
#10BC4 bars
#7 U3 Stirrups
Optional Constr. Jt.
#5 "BC" bars
#4 "S" bars *
#4 BU3 stirrups
1'-0
1'-0
#4 BU3 stirrups
℄ Web

SECTION C1-C1
(Interior Web)

PR REVISED EXPANSION DEVICES

Reqd. Constr. Joint in Web
3'-1
9"
C1
C2
"S" bars (See Top Slab Plan)
#8 "WG" bars
Constr. Jt.
#6 "G" bars
2" cl. Min.
9" 4 spa. @ 6" = 2'-0
5" 5"
Expansion Device
#8 "BC" (Top & Bott.)
2" cl.
Corner Plate
#4 "S" bars
#5U1 Stirrups (sets of 4)
#5U1 Stirrups (in pairs) Typ.
"S" bars (See Bott. Slab Plan)
#10BC4 bars each web (Typ.)
2" cl. Min.
#7 U3 Stirrups (sets of 4)
#6 "BC" (Top & Bott.)
12" cl. Typ.
#4 "S" bars *
Optional Constr. Jt.
"S" bars
C1
C2
See Web Elevation for stirrup spa.
4 Spa. @ 9" = 3'-0
6'-6
℄ Brg.

TYPICAL SECTION THRU WEB

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

BEARING BEAM DETAILS

R 4x3½x1/8
6"
1'-6
4" ϕ x 2'-0 Anchor bars (welded to angle)
R 3x3½x1/8
4" 4"
5½"

SECTION

5-½" ϕ x 2'-0 Anchor bars
1½" Typ.
4½" 4½" 4½" 4½"
1½" Typ.
1½" Typ.
1'-8

ELEVATION

CORNER PLATE DETAILS
Computed weight of one assembly is 22 Lbs.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 20S
S.B.I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 12 OF 16	SCALE	APP'D.	
DESIGNED DFB	DETAILED DS	QUANTITIES DBW	TRACED DS
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. KSK	TRACE CK. RBS

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

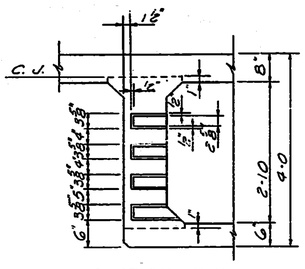
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

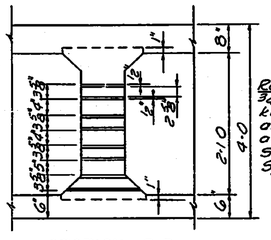
1 1 2

20X 16X 14.5X 12X 12X 14.5X 16X 20X

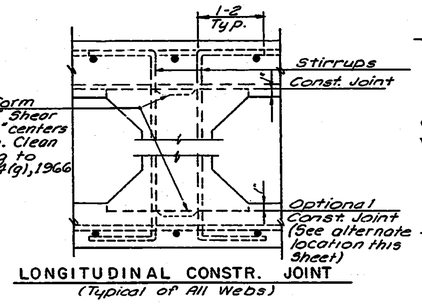
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1645	2137



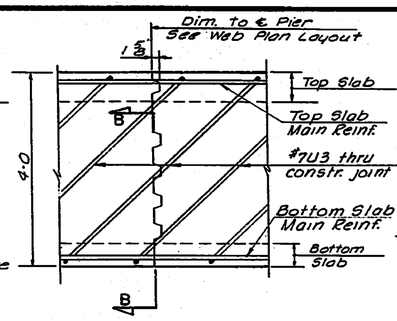
SECTION B-B
(Through Exterior Web)



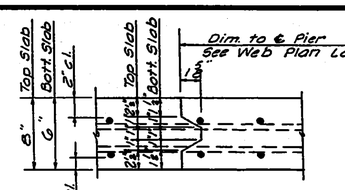
SECTION B-B
(Through Interior Web)



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

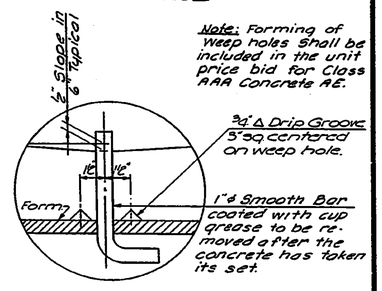


WEB CONSTR. JOINT
(Showing placement of #7U3 bars)



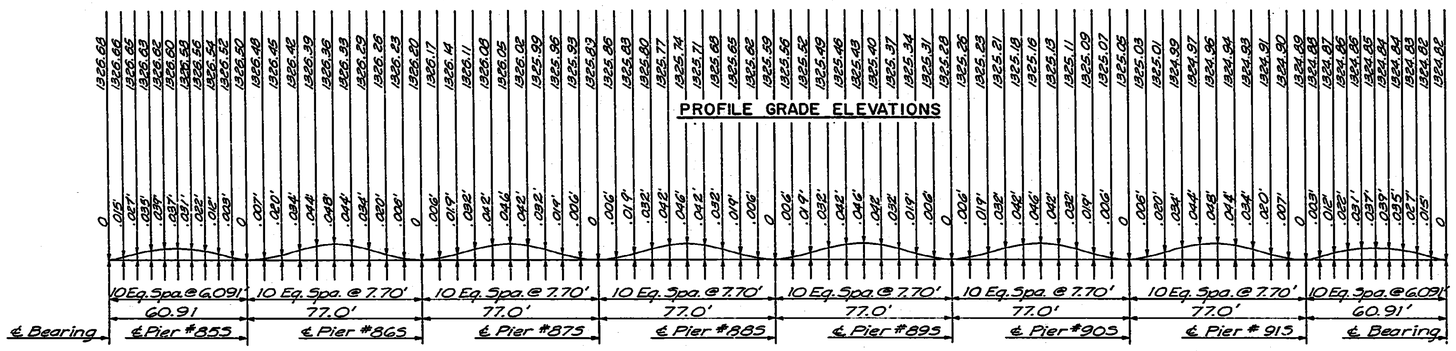
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of Weep holes shall be included in the unit price bid for Class AAA Concrete AE.



DETAIL OF WEEP HOLES

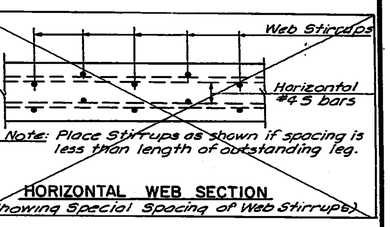
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



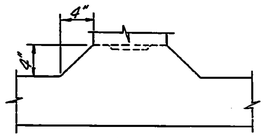
DEAD LOAD CAMBER IN FEET

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS

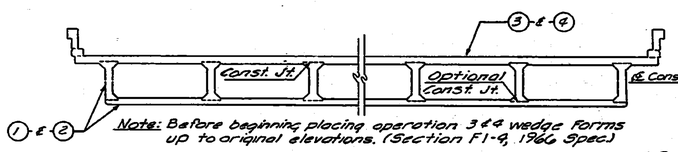
Note: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ p.s.i.



HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)

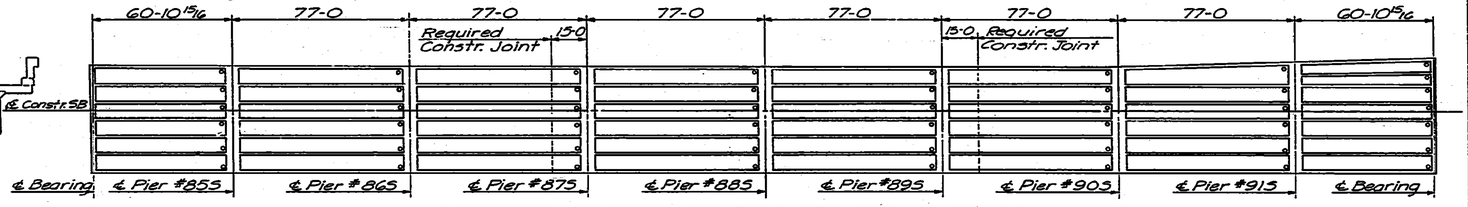


ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(subject to approval of engineer)

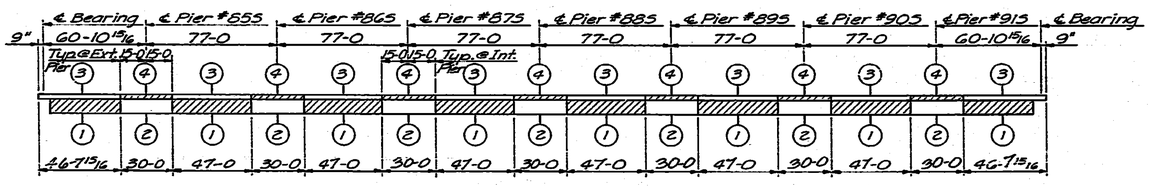


Note: Before beginning placing operation 3 ℄ 4 wedge forms up to original elevations. (Section F1-9, 1966 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



LOCATION OF WEEP HOLES & REQUIRED CONSTRUCTION JOINT



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework

NOTES:
See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown as optional may be used at the Bridge Contractors option, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 20S
S. B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 13 OF 16 SHEETS		APPR.	
DESIGNED DEC	DETAILED PAW	CHECKED DGT	TRACED DGT
DESIGN CK. PBS	DETAIL CK. PBS	CHIEF CK. LVD	TRACE CK. PBS

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE ARE NOT ASBUILT

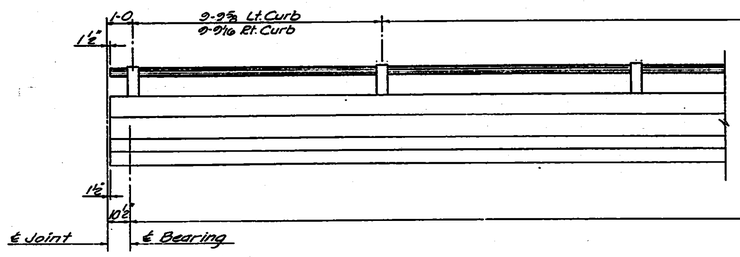
THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

1 1 3

20X | 16X | 14.5X | 12X

12X | 14.5X | 16X | 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)40 Phase II	19	1646	2137

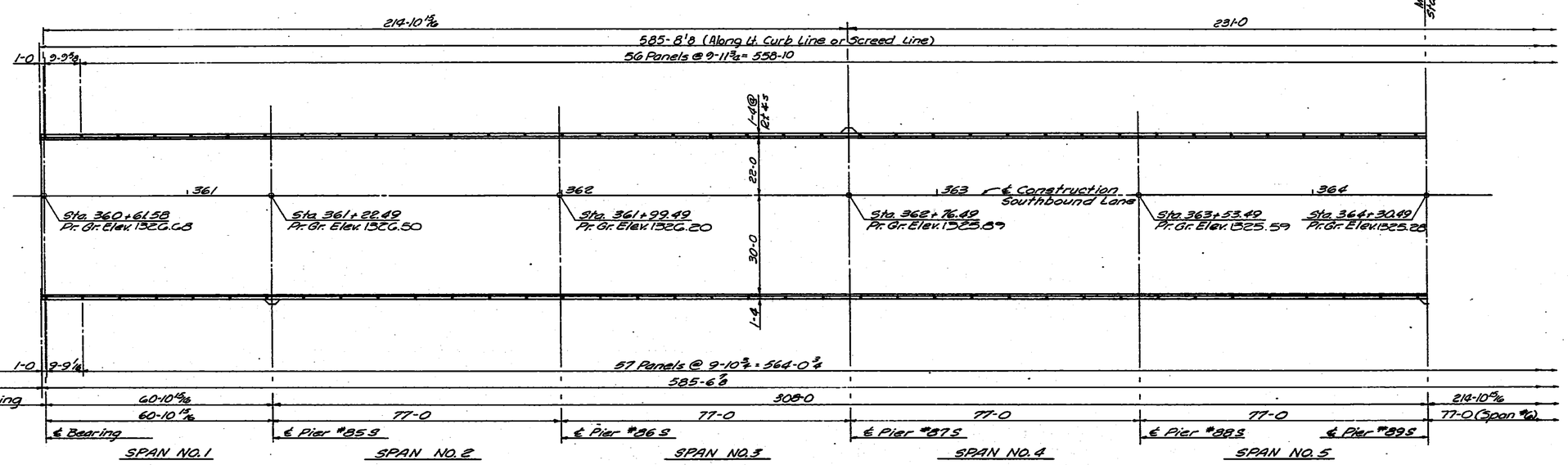


56 Panels @ 9-11⅜ = 558-10 (Lt. Curb)
57 Panels @ 9-10¾ = 564-0¾ (Rt. Curb)

Unit No. 20S = 583-9⅞ Rt. Curb
583-11⅛ Lt. Curb or Screed Line

ELEVATION OF HANDRAIL
See 'Bridge Handrail' Standard Details Sheet)

See Bridge



SUPERSTRUCTURE LAYOUT

NOTE: See 'Standard Lighting Bracket Details' for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.999 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 20S
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 16 OF 16 SHEETS	APP'D.	
DESIGNED JWA	DETAILED RBS	CHECKED DGT / TRACED CRB
DESIGN OF RBS	DRAWN BY DS	CHECK OF LKD / TRACE OF RBS

64-03 205-E

DIST. 5 SEDGWICK CO. ROLL 531

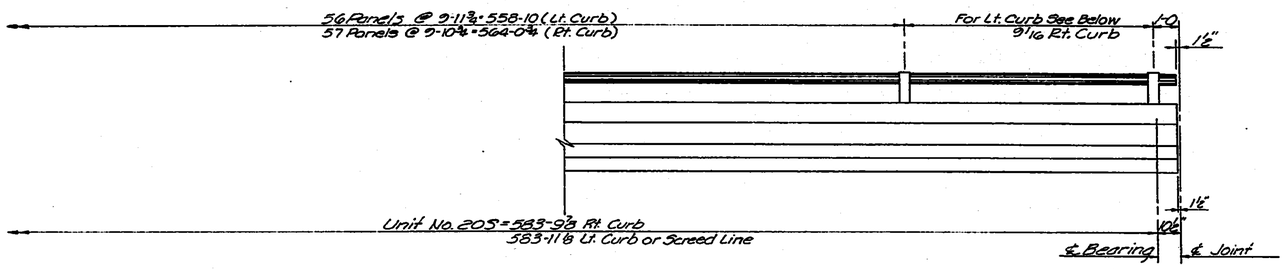
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

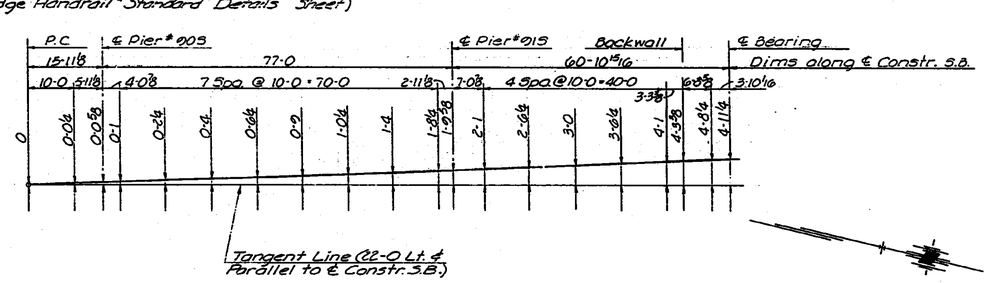
1 1 4

20X 16X 14.5X 12X 12X 14.5X 16X 20X

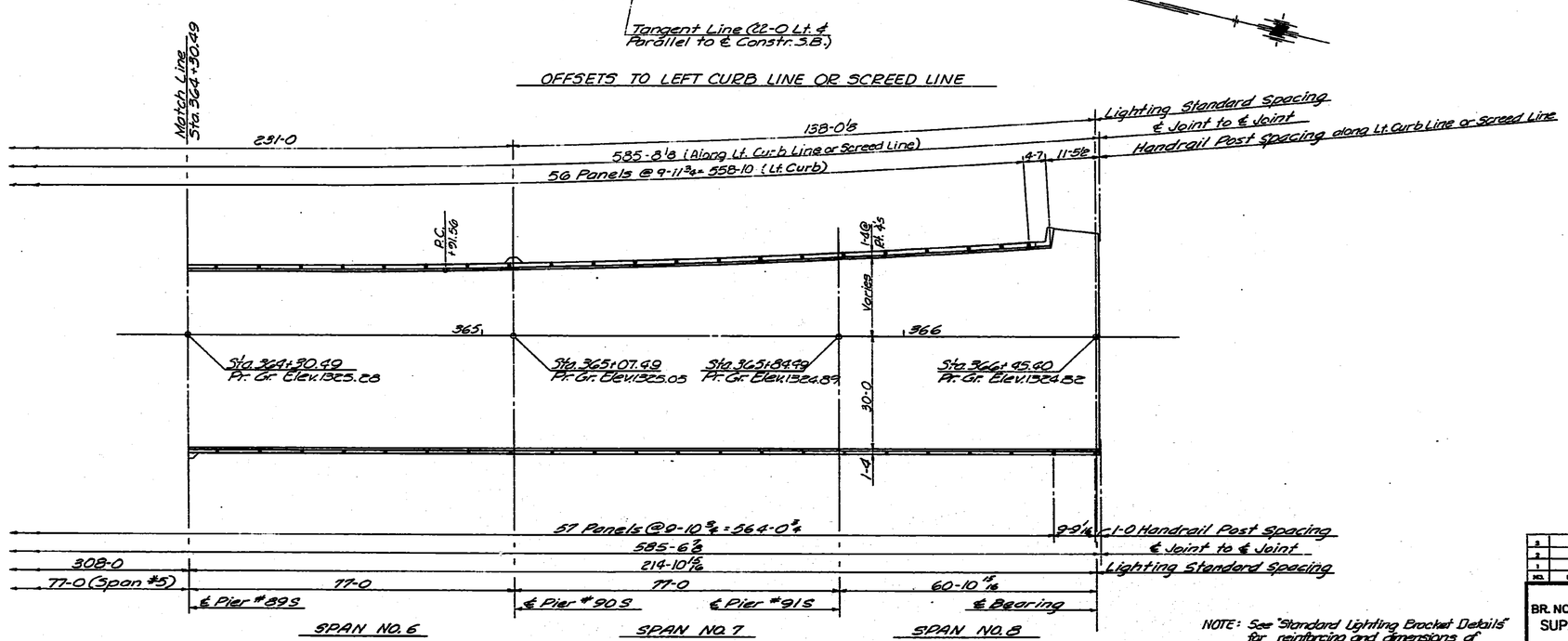
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W (58)48 Phase II	19	1647	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)



OFFSETS TO LEFT CURB LINE OR SCREED LINE



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 20S
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 15 of 16	SCALE	APP'D.	
DESIGNED JWH	DETAILED RBS	QUANTITIES DGH	TRACED CRB
DESIGN CK. RBS	DETAIL CK. DS	CHKD. QT. LKD	TRACE CK. RBS

64-03 20S

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

1 1 5

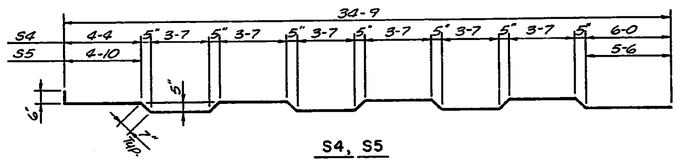
20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

BENDING DIAGRAMS

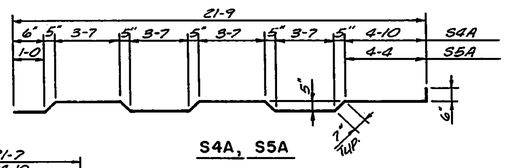
(Bar Dimensions are Out to Out.)

REV. PLANS 11-1-71

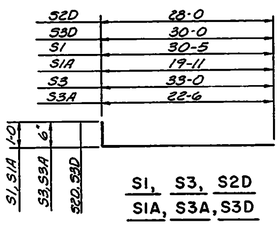
FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase II	19	1648	2137



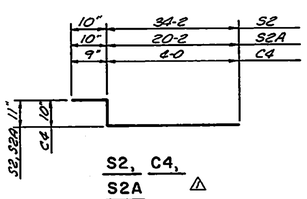
S4, S5



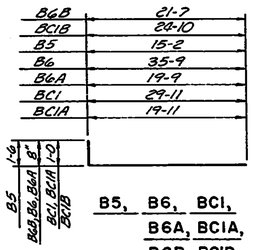
S4A, S5A



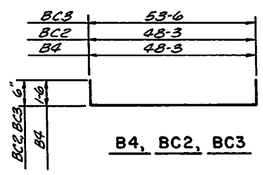
S1, S3, S2D
S1A, S3A, S3D



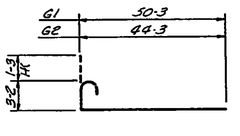
S2, C4, S2A ⚠



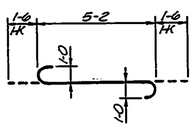
B5, B6, BC1, B6A, BC1A, B6B, BC1B



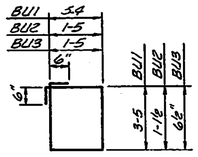
B4, BC2, BC3



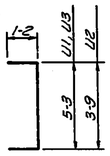
G1, G2



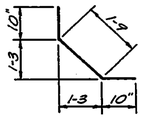
BC4



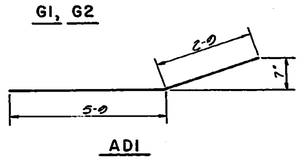
BU1, BU2, BU3



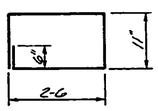
U1, U2, U3



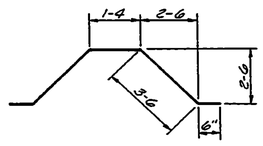
C1



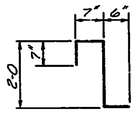
AD1



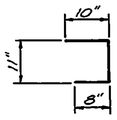
LB1



LB2

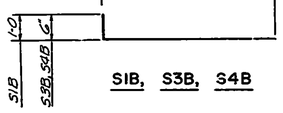


C2

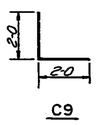


C3

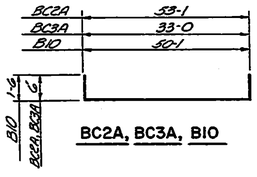
S1B	Increase by 6" Incr. from 20-3 to 21-3	Cut 28 ea. length except cut 27 @ 21-3
S3B	Increase by 6" Incr. from 22-10 to 23-10	Cut 28 ea. length except cut 27 @ 23-10
S4B	Increase by 6" Incr. from 21-7 to 22-7	Cut 35 ea. length except cut 34 @ 22-7



S1B, S3B, S4B

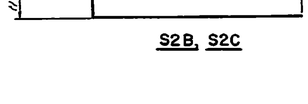


C9



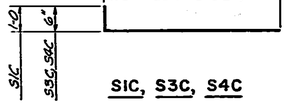
BC2A, BC3A, B10

S2B	10"	Increase by 6" Incr. from 20-6 to 21-6 — Cut 28 ea. length except cut 27 @ 21-6
S2C	10"	Increase by 6" Incr. from 22-0 to 24-0 — Cut 11 ea. length



S2B, S2C

S1C		Increase by 6" Incr. from 21-9 to 24-3 — Cut 11 ea. length except cut 10 @ 24-3
S3C		Increase by 6" Incr. from 24-4 to 26-4 — Cut 11 ea. length
S4C		Increase by 6" Incr. from 23-1 to 25-1 — Cut 22 ea. length



S1C, S3C, S4C

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

S10	S10A	S11	S11A	S12	S13
3-9	3-9	3-9	3-0	3-0	2-4

32-0	S10
32-0	S10A
32-0	S11
32-0	S11A
3-8	S12
3-0	S13

S10, S10A, S11, S11A, S12, S13

BILL OF REINFORCING STEEL

STRAIGHT BARS Mk	No.	Size	Length	BENT BARS Mk	No.	Size	Length
				S1	628	5	31-5
				S1A	480	5	20-11
				S1B	83	5	*
				S1C	65	5	*
				S2	632	4	35-11
				S2A	682	4	21-11
				S2B	93	5	*
				S2C	55	4	*
S4D	22	6	29-0	S3	632	5	33-6
S6	1569	4	40-0	S3A	682	5	23-0
S6A	66	4	7-7	S3B	83	6	*
S6B	15	4	23-9	S3C	55	5	*
S6C	32	4	31-11	S4	312	5	36-5
S7	28	4	4-0	S4A	238	5	23-1
S7A	8	4	30-8	S4B	164	5	*
S8	9	4	29-0	S4C	110	5	*
S8A	0	6	43-0	S5	312	5	36-5
S9	78	4	40-0	S5A	238	5	23-1
S9A	78	6	40-0				
S10	7	4	11-0	G1	19	9	54-9
S14	5	4	15-0	G2	22	9	48-9
G2A	8	8	44-3				
G3	70	9	50-3	S10	2	4	35-9
G3A	13	9	45-0	S10A	1	6	35-9
G4	192	9	30-0	S11	1	4	35-9
G5	22	9	39-0	S11A	2	6	35-0
G6	294	7	23-0	S12	1	4	6-8
G6A	49	8	23-0	S13	1	4	5-4
G7	294	9	38-0				
G8	144	9	46-0				
G9	58	5	39-0				
G10	52	5	43-0				
G11	197	10	48-0	LB1	16	4	7-4
G11A	6	11	48-0	LB2	12	4	9-4
G12	182	11	40-0				
G12A	56	11	19-6				
G13	182	11	28-0				
G14	168	11	16-0	S2D	12	6	28-4
G15	174	5	32-0	S3D	12	6	30-4
G16	156	5	40-0				
G17	4	5	11-6				

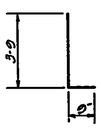
STRAIGHT BARS Mk	No.	Size	Length	BENT BARS Mk	No.	Size	Length
B1	68	11	48-3				
B2	144	11	32-0				
B3	24	6	48-3				
				B4	68	11	51-3
				B5	112	11	16-8
				B6	112	6	36-5
				B6A	96	6	20-5
				B6B	16	6	22-3
B7	8	11	30-0	B10	12	11	53-1
B8	24	11	33-10	BU1	788	5	18-6
B9	4	6	30-0	BU2	128	4	6-1
				BU3	88	4	4-11
				BC1	16	6	30-11
				BC1A	8	6	20-11
				BC1B	8	6	25-10
				BC2	4	8	49-3
				BC2A	4	8	54-2
				BC3	4	8	54-6
BC3AA	4	8	29-0	BC3A	4	8	33-6
				BC4	60	10	8-2
				C1	1353	4	8-5
				C2	1392	4	3-8
				C3	145	4	2-5
				C4	12	5	5-7
				C6	5	5	4-6
C5	60	4	2-6	C7	4	5	4-10
				C8	4	4	4-4
				U1	6816	5	7-7
				U2	198	5	6-1
				U3	954	7	7-7
				C9	4	4	4-0
WG1	30	8	46-6				
WG2	182	8	40-0				
WG3	2	8	16-6				
				AD1	12	4	8-6

*See Bending Diagrams

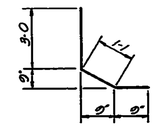
Note:
All bar marks shall be pre-fixed with the unit number when fabricated. Example: #931 bars shall be marked 209931.

SUMMARY OF SUPERSTRUCTURE QUANTITIES

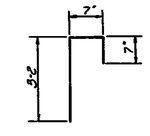
Class AAA Concrete AE	2098.0	Cu. Yds.
Reinforcing Steel	683,400	Lbs.
Cast Iron Scuppers	75	Lbs.
Wrought Iron Drains & Grates	8,628	Lbs.
8" ϕ Downspouts	618.91	Lin. Ft.
Gutters	46.59	Lin. Ft.
Bridge Handrail	1152.21	Lin. Ft.
Structural Steel		
Bearing Devices (A36) 15@242 Lbs.	3630	Lbs.
Corner Plates & Cover Plates (A36)	518	Lbs.
Access Doors (A36) 13@130 Lbs.	1690	Lbs.
Linseed Oil Surface Treatment (Bridges)	3414.7	Sq. Yds.



C6



C7



C8

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
⚠ 1	11-1-71	Rev. Exp. Devices	WKS	

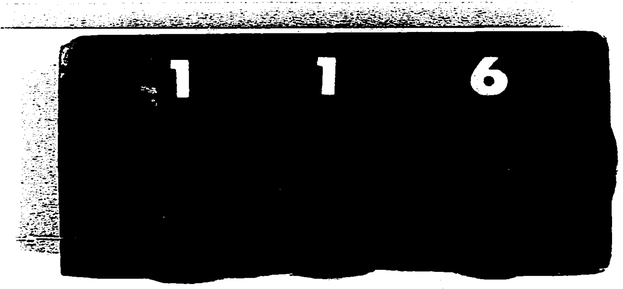
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 20S
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO.	1648 of 1681	SCALE		APP'D			
DESIGNED	DPG	DETAILED	EES	QUANTITIES	DDW	TRACED	EES
DESIGN CK.	JWH	DETAIL CK.	LKD	QUAN. CK.	KSK	TRACE CK.	LKD

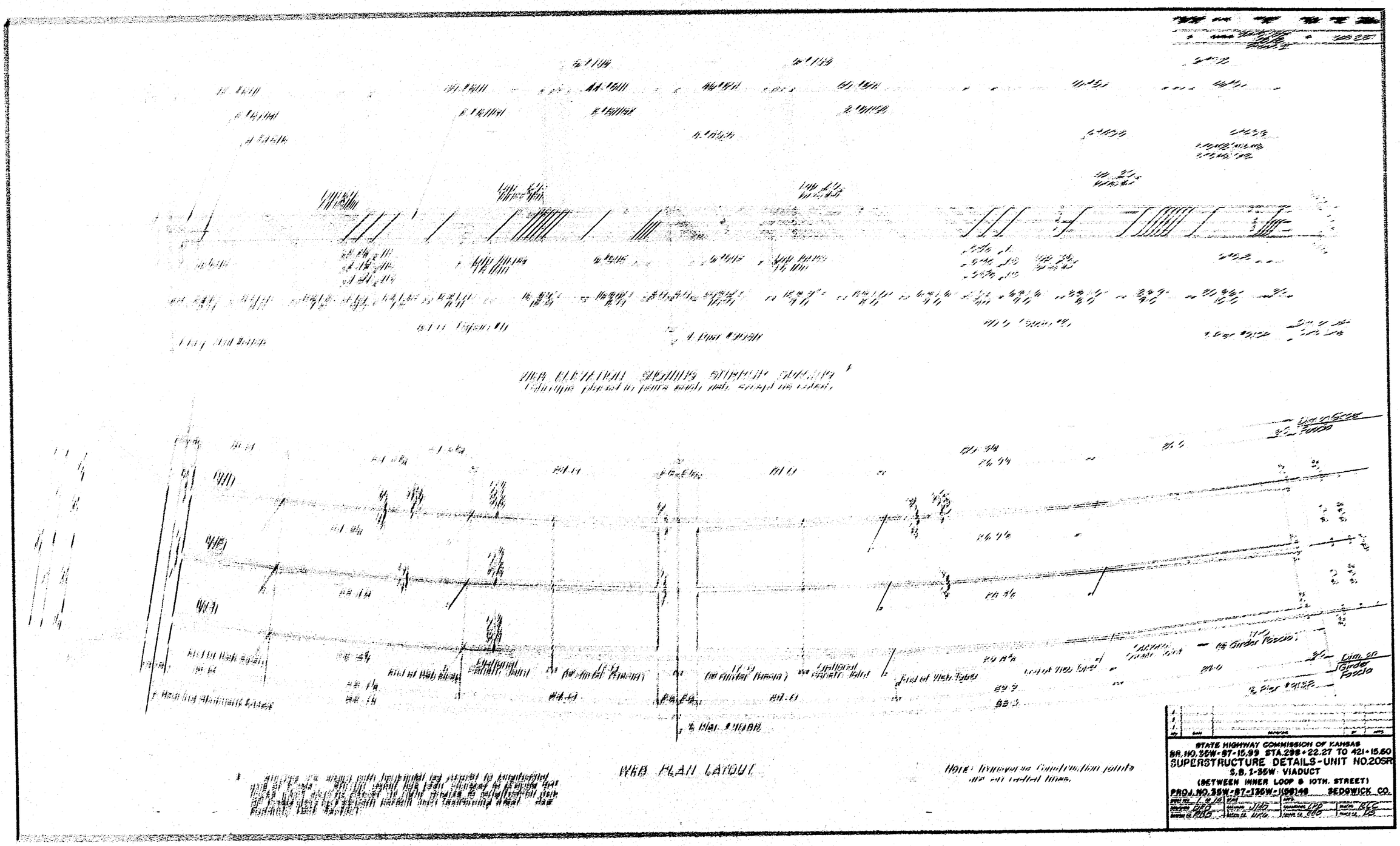
DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)



20X 16X 14.5X 12X 12X 14.5X 16X 20X



DIST. 5 SEDGWICK CO. ROLL 531

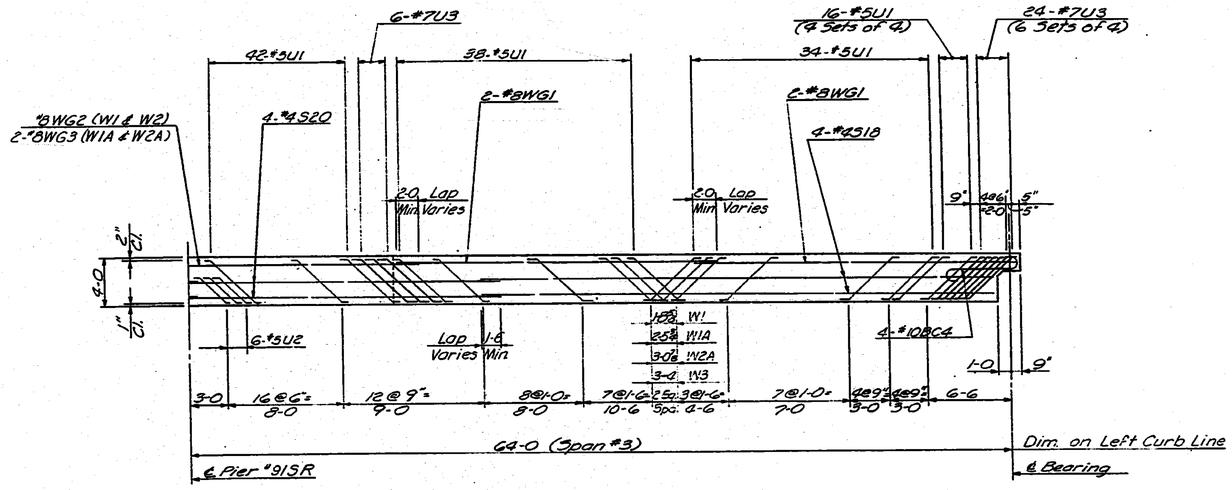
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

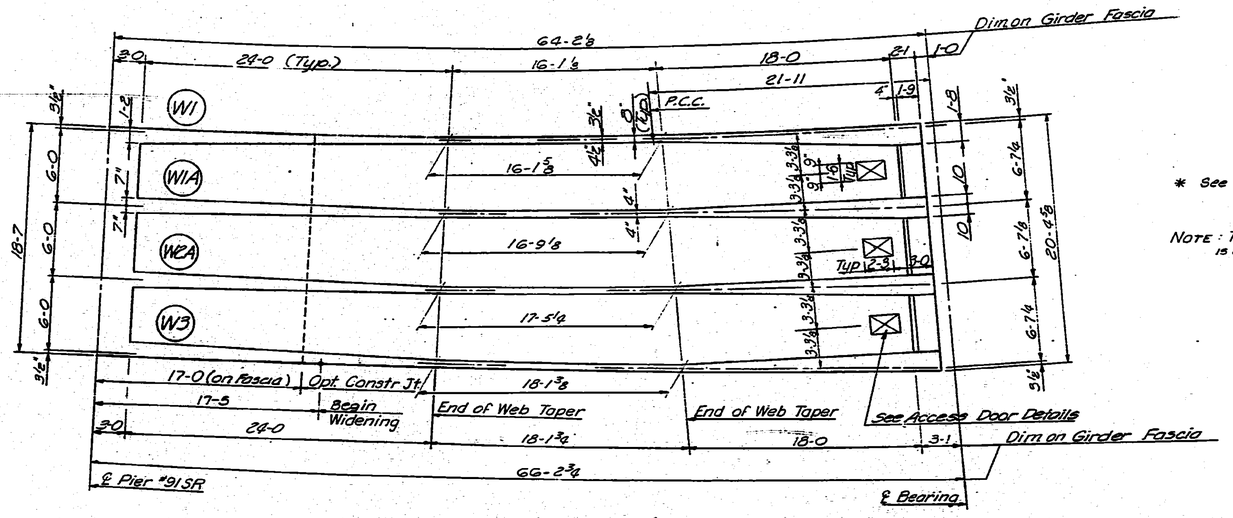
1 1 7

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (56)48 Phase II	19	1650	2137



WEB ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web, except as noted)



WEB PLAN LAYOUT

* See Note on Previous Sheet.

NOTE : Transverse Construction Joint is on radial line.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 20SR
S. B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH. STREET)
PROJ. NO. 35W-87-135W-1(56)48 SEDGWICK CO.

SHEET NO. 2 OF 15	SCALE		APP'D.	
DESIGNED DFG	DETAILED JMB	CHECKED LKD	TRACED RDP	
DESIGN CK. RBS	DETAIL CK. DFG	CHIEF ENGR. EES	TRACE CK. DS	

DIST. 5 SEDGWICK CO. ROLL 531

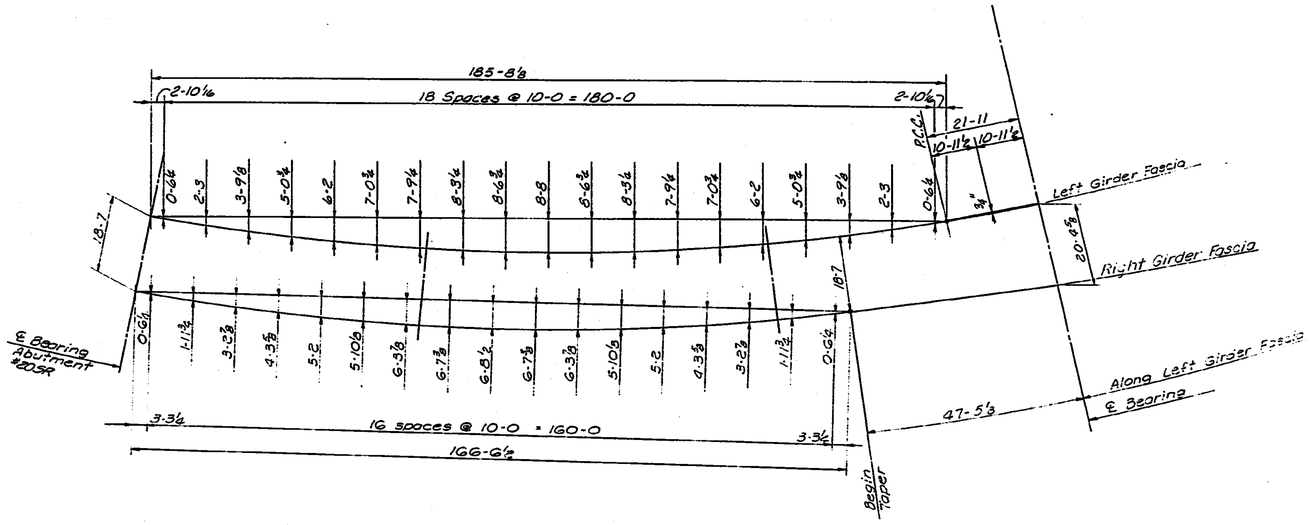
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

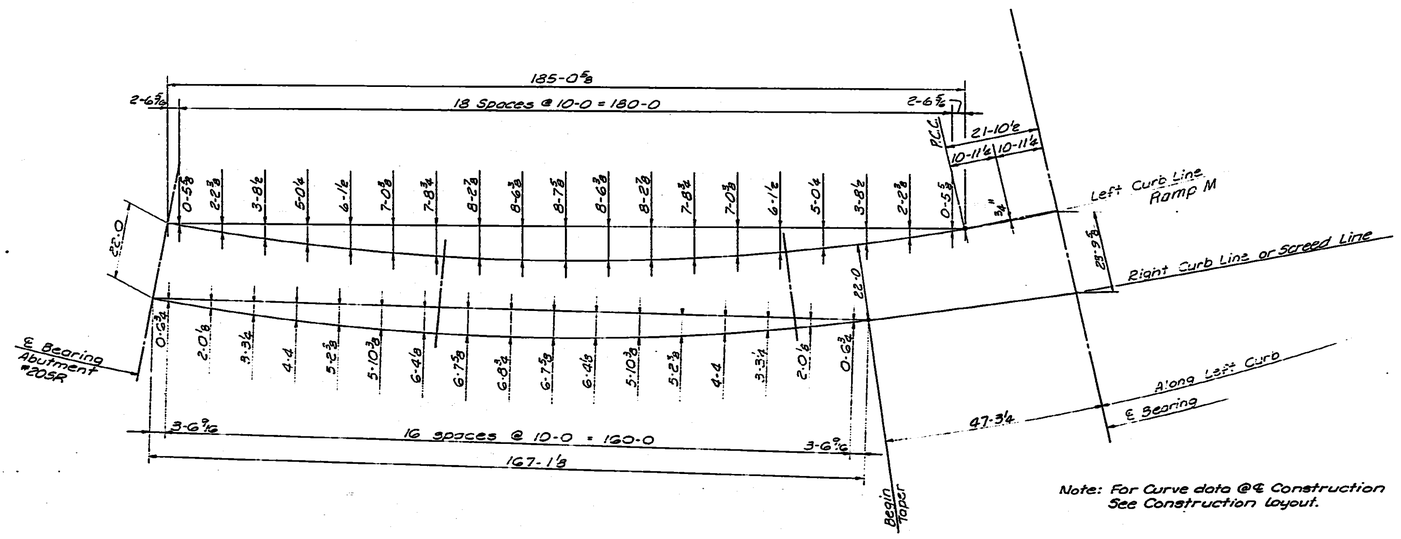
1 1 8

20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-I35W 1(58)48 Phase II	19	1651	2137



OFFSETS TO GIRDER FASCIA



OFFSETS TO CURB LINE

Note: For Curve data @℄ Construction See Construction Layout.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO 20SR.
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH. STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 3 OF 15	SCALE	APP'D.	
DESIGNED DFG	DETAILED JMG	QUANTITIES LKD	TRACED JMG
DESIGN CK. RBS	DETAIL CK. DFG	QUANT. CK. EES	TRACE CK. DB

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

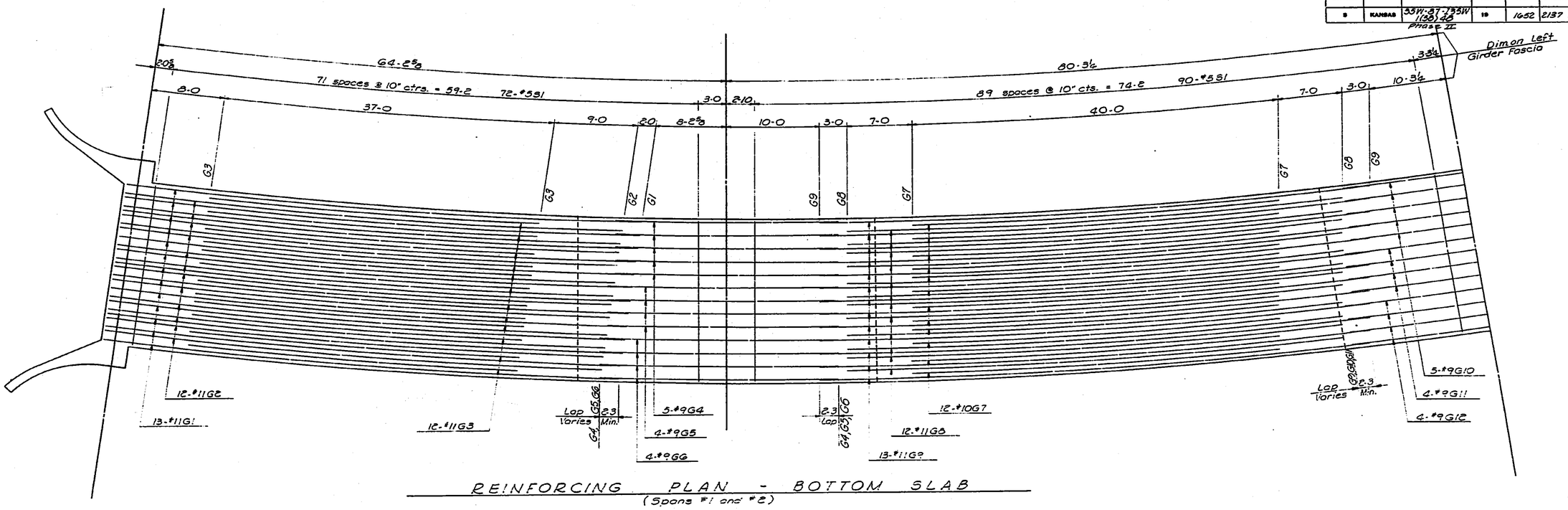
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

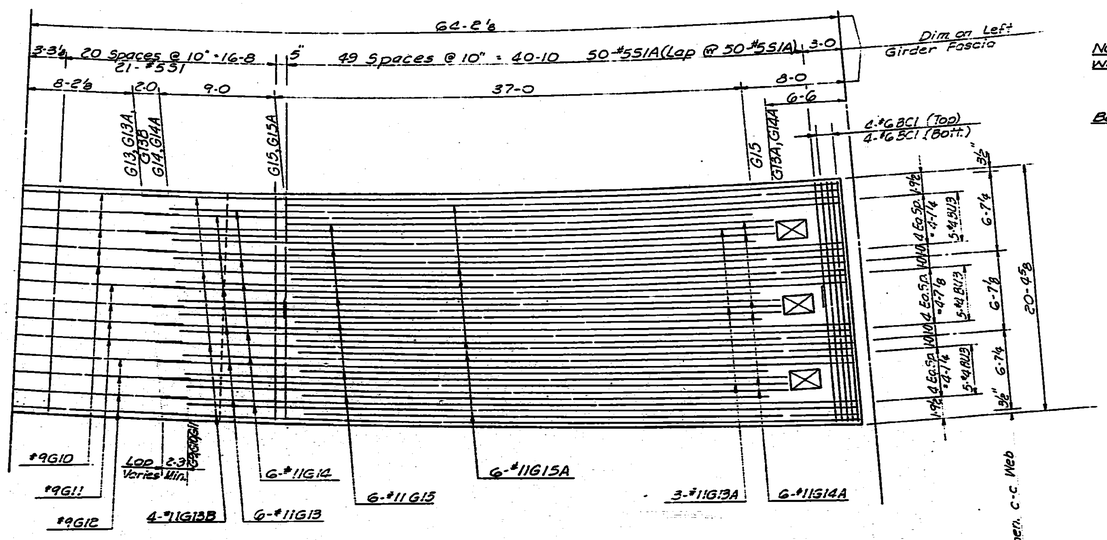
1 1 9

20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (128) 48 Phase II	19	1652	2137



REINFORCING PLAN - BOTTOM SLAB
(Spans #1 and #2)



REINFORCING PLAN - BOTTOM SLAB
(Span #3)

NOTE: All bar marks shall be pre-fixed with the unit number when fabricated. Example: #11G1 bars shall be marked 20SR11G1

Bar Placing Notes:
G7, G8, G9 ---------- Center on Span
G1, G2, G3 ---------- Start from ℄ Bearing Ends
G13, G14, G15
G13A, G14A, G15A
G13B

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 20 SR.
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10 TH. STREET)
PROJ. 35W-87-135W-1(58) 48 SEDGWICK CO.

SHEET NO. 4 of 12	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	CHECKED LKD	TRACED JMG
DESIGN CK. RBS	DETAIL CK. DFG	CHIEF CK. EES	TRACE CK. DS

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

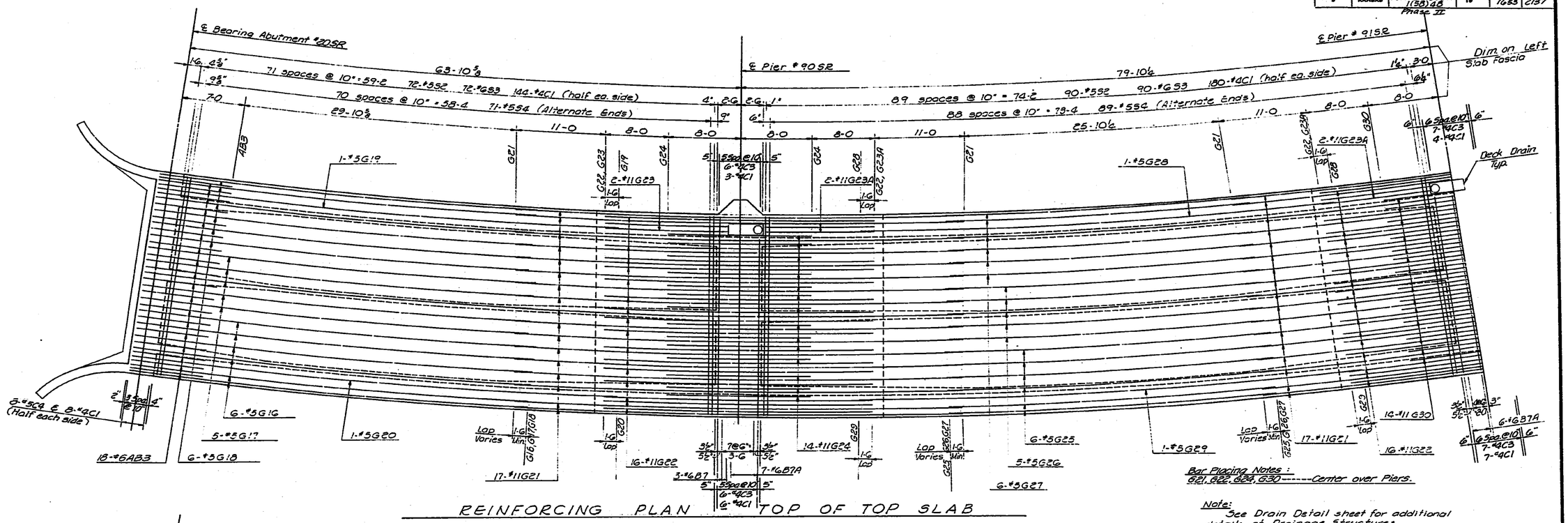
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

1 2 0

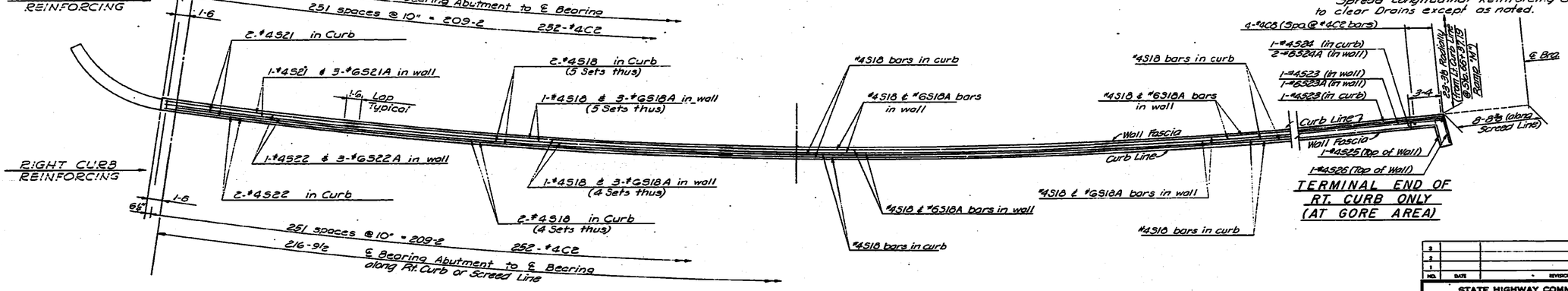
20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87, 135W I(58)48 Phase II	19	1653	2137



REINFORCING PLAN TOP OF TOP SLAB

Note:
See Drain Detail sheet for additional details at Drainage Structures.
See Superstructure Pier Beams for additional details at Drainage Structures.
Spread Longitudinal Reinforcing Steel to clear Drains except as noted.



CURB REINFORCING PLAN
(Left Curb shown; Rt. Curb similar)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 20SR
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10 TH. STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 5 OF 15	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	CHECKED LKD	TRACED JMG
DESIGN CK. RBS	DETAIL CK. DFG	CHIEF CK. EES	TRACE CK. DS

TOPEKA BLUE PRINT CO.

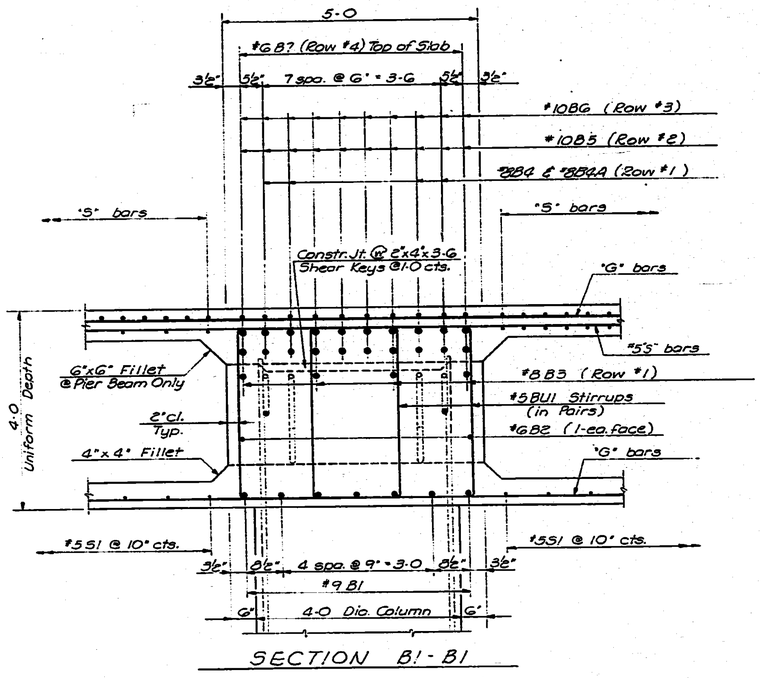
DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

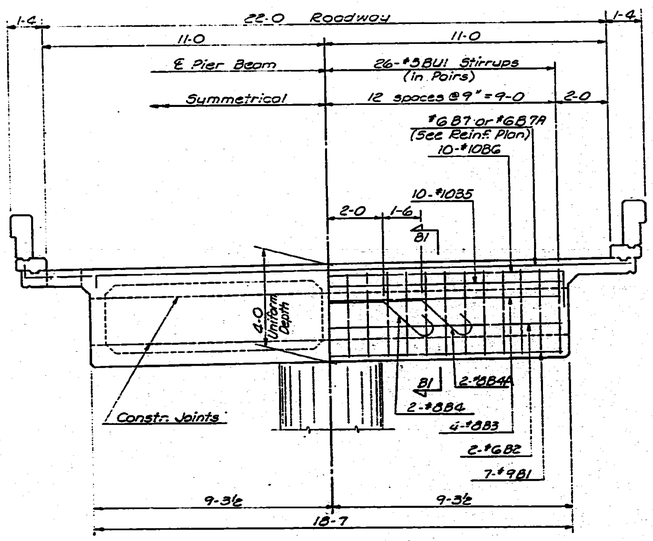
THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

[redacted] 1 2 1

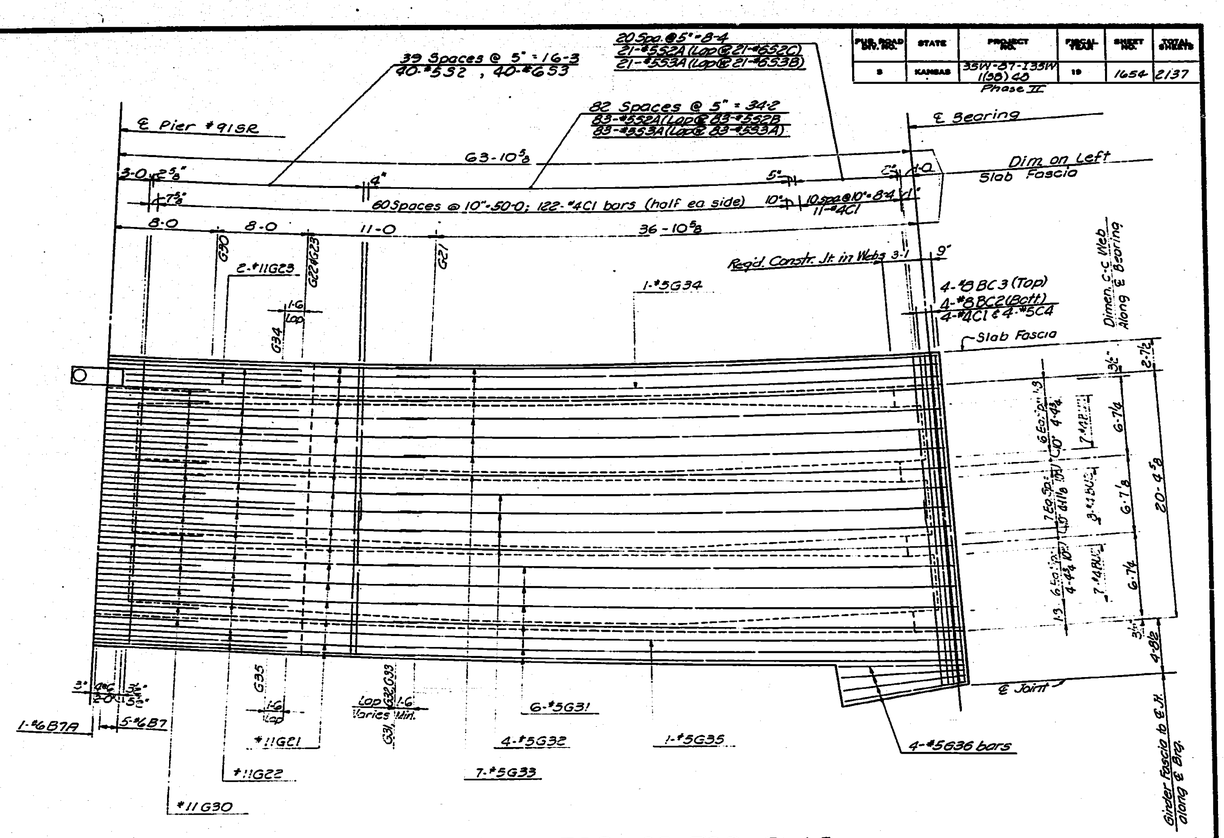
20X 16X 14.5X 12X 12X 14.5X 16X 20X



SECTION B1 - B1



SUPERSTRUCTURE PIER BEAM #90SR



REINFORCING PLAN - TOP OF TOP SLAB

FED. ROAD DIST. NO.	STATE	PROJECT NO.	SHEET NO.	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1654	2137

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 20SR
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10 TH. STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 6 OF 16	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	CHECKED LKD	TRACED JMG
DESIGN CK. RBS	DETAIL CK. DFG	SUPVR. OF E&S	TRACE CK. DS

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

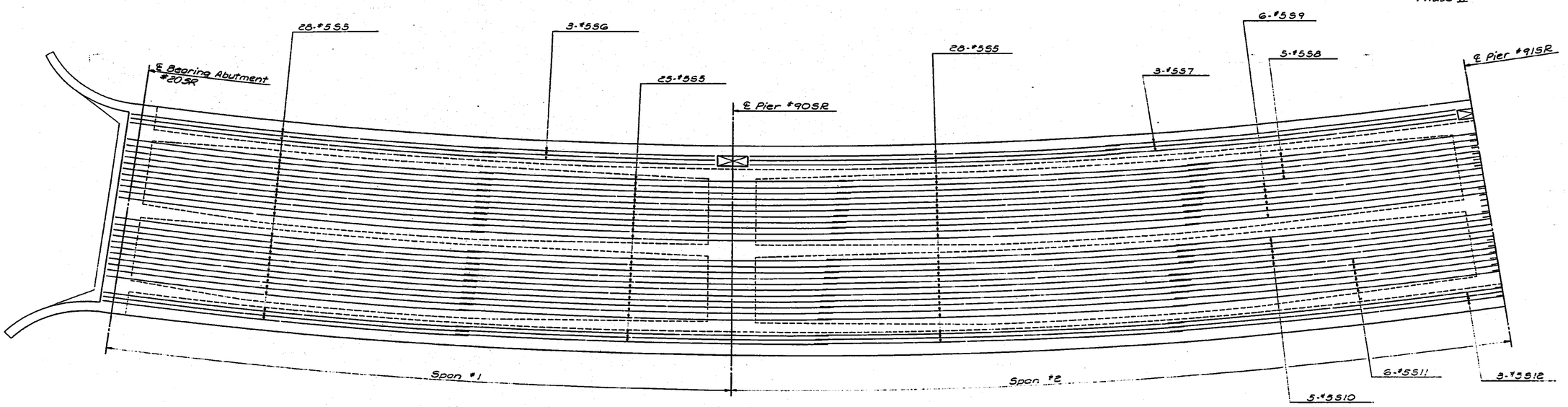
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

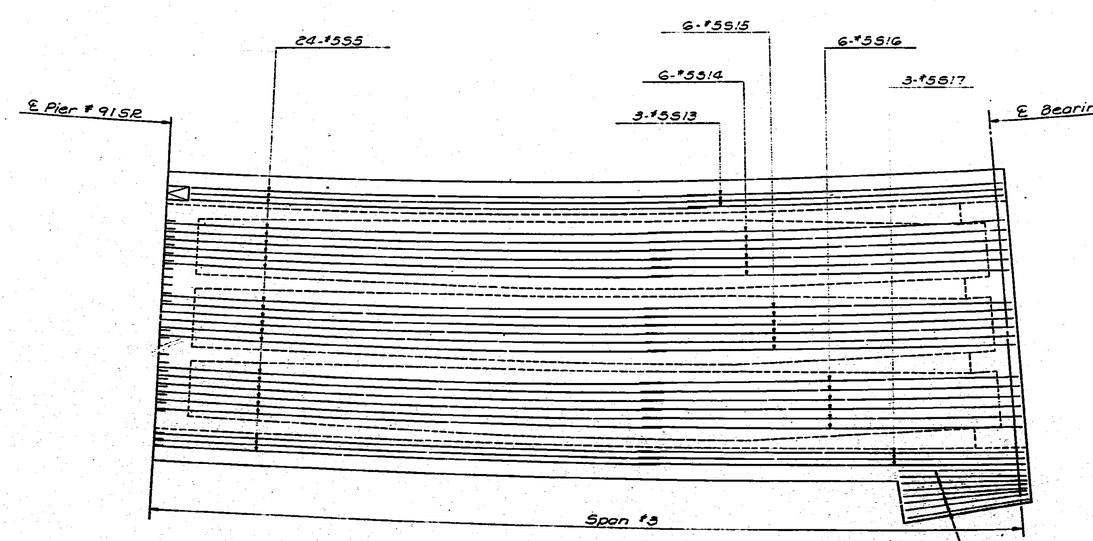
[redacted] 1 2 2

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (168) 48 Phase II	19	1655	2137



REINFORCING PLAN - BOTTOM OF TOP SLAB



REINFORCING PLAN - BOTTOM OF TOP SLAB

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 20SR
S.B.I-35W VIADUCT
(BETWEEN INNER LOOP & 10 TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 7 OF 15	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	COMPUTED LKD	TRACED JMG
DESIGN CK. RBS	DETAIL CK. DFG	CHKD. CK. EES	TRACE CK. DS

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

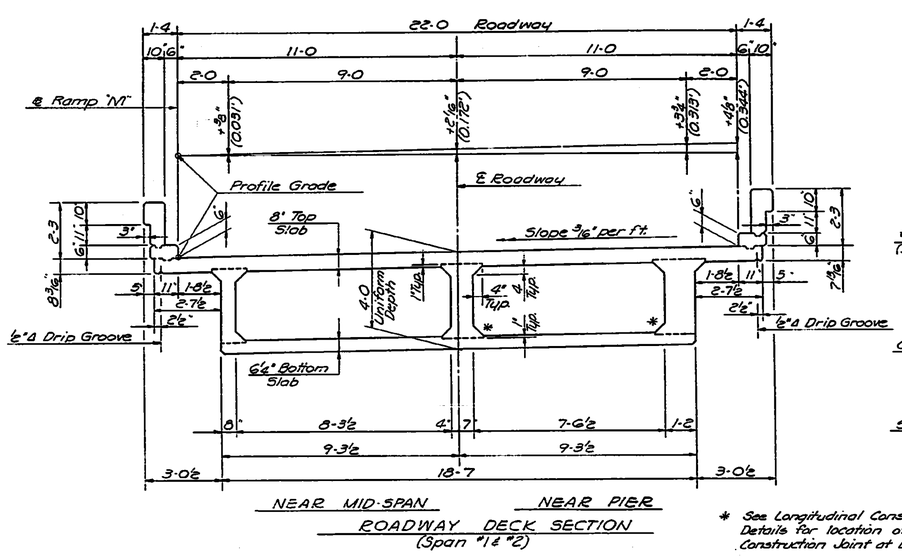
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

1 2 3

20X 16X 14.5X 12X 12X 14.5X 16X 20X

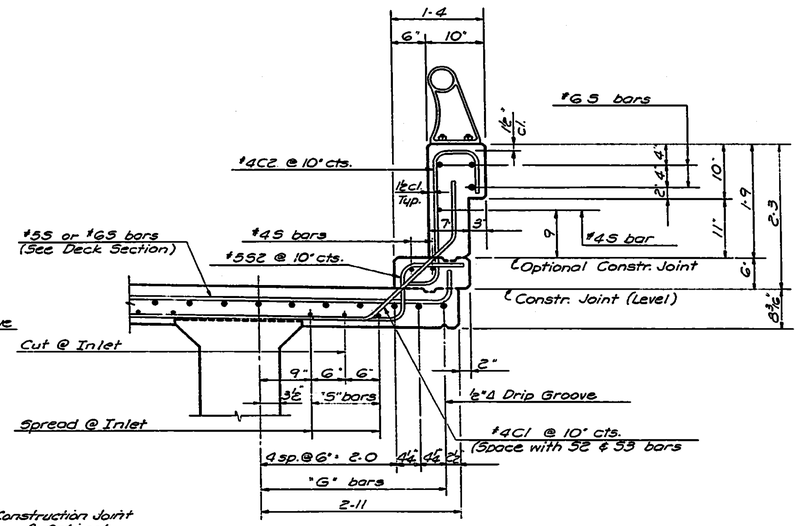
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-1-35W 1-(58)48 Phase II	19	1656	2137



NEAR MID-SPAN NEAR PIER

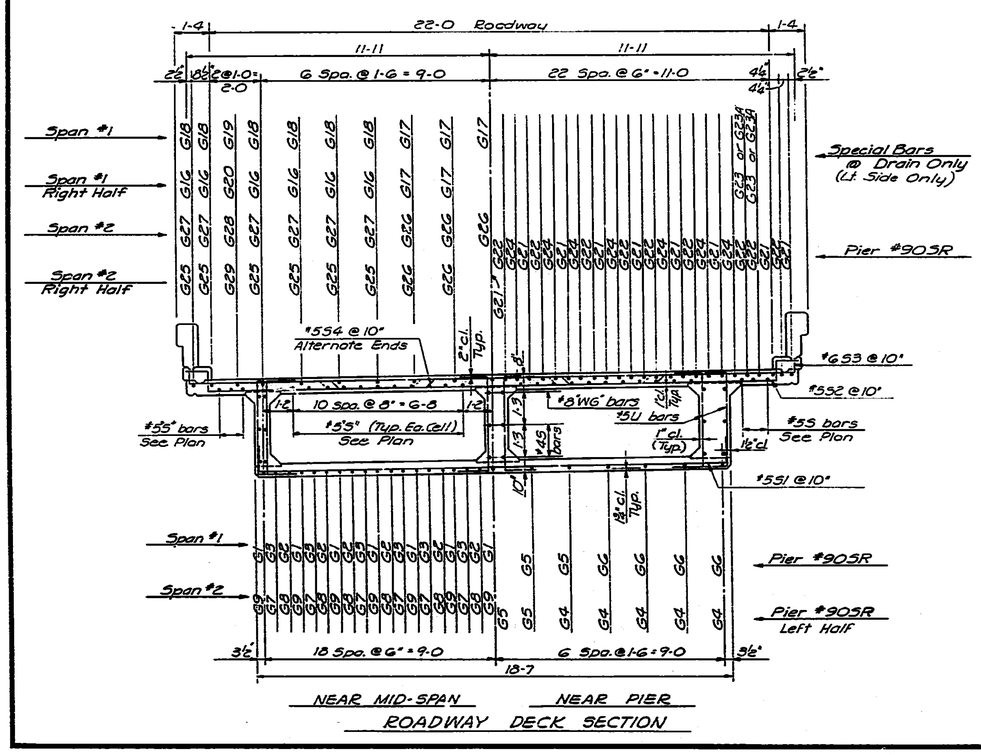
ROADWAY DECK SECTION
(Span #1 & #2)

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.



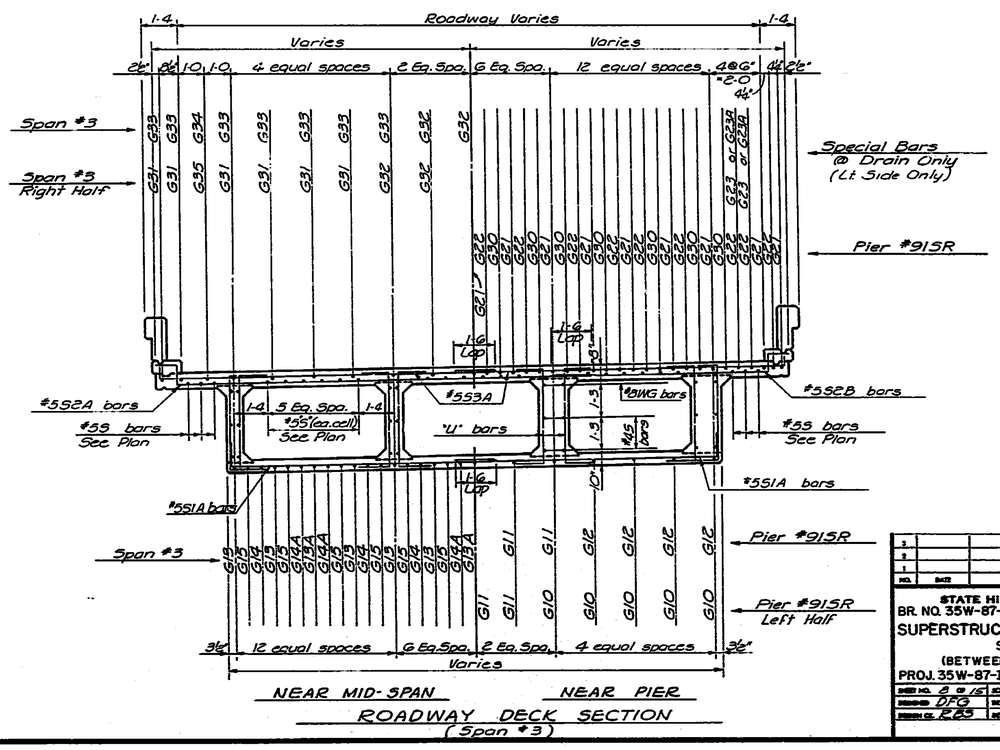
TYPICAL CURB SECTION

Note.
See Web Elevation for quantity, size and spacing of "U" bars, "WG" bars & "S" bars.
See Reinforcing Plan for longitudinal reinforcing in bottom of Top Slab.
Longitudinal bars shall be set on concentric arcs. Transverse bars shall be set on radial lines.
Set minimum lap on long side. Lap increases as bar placing moves to shorter side.



NEAR MID-SPAN NEAR PIER

ROADWAY DECK SECTION



NEAR MID-SPAN NEAR PIER

ROADWAY DECK SECTION
(Span #3)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 20SR.
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH. STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 3 OF 15	ZONE	APP'D.	
DESIGNED DFG	DETAILED JMG	CHECKED LKD	TRACED JMG
DESIGN CK. ERS	DETAIL CK. ERS	QUANT. CK. ERS	TRACE CK. ERS

DIST. 5 SEDGWICK CO. ROLL 531

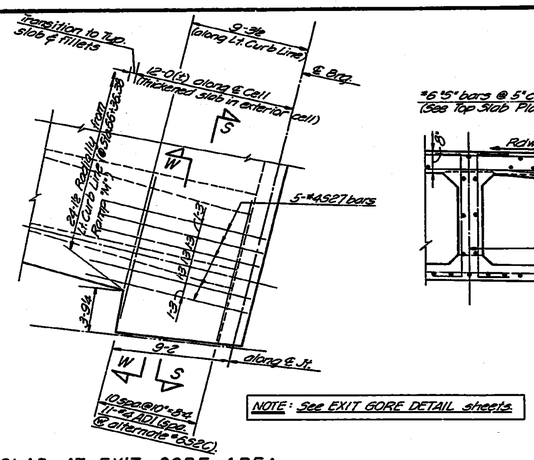
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

1 2 4

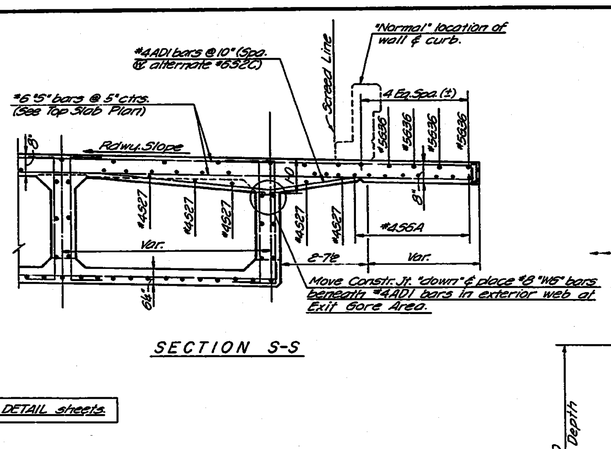
20X 16X 14.5X 12X 12X 14.5X 16X 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35N-87-135W 1(58)48 Phase II	19	1657	2137

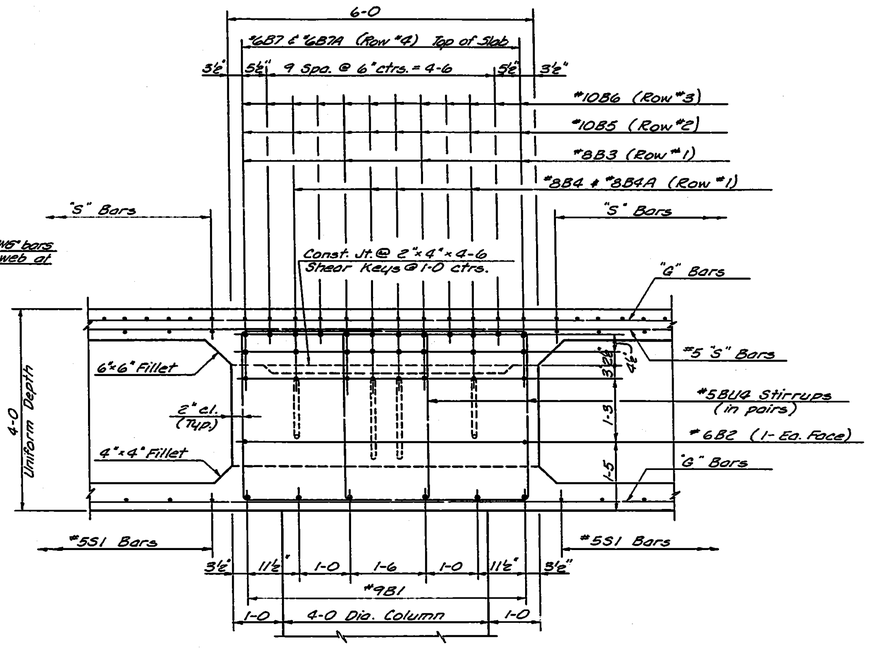


NOTE: See EXIT GORE DETAIL sheets.

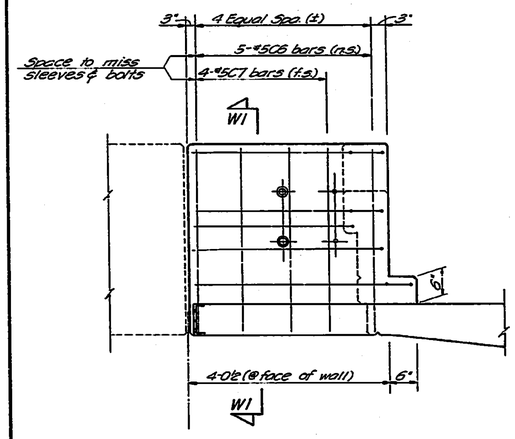
SLAB AT EXIT GORE AREA



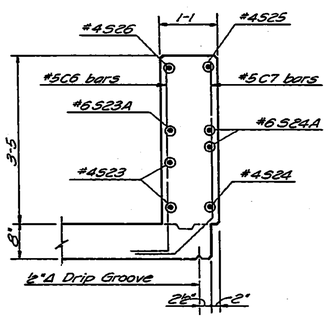
SECTION S-S



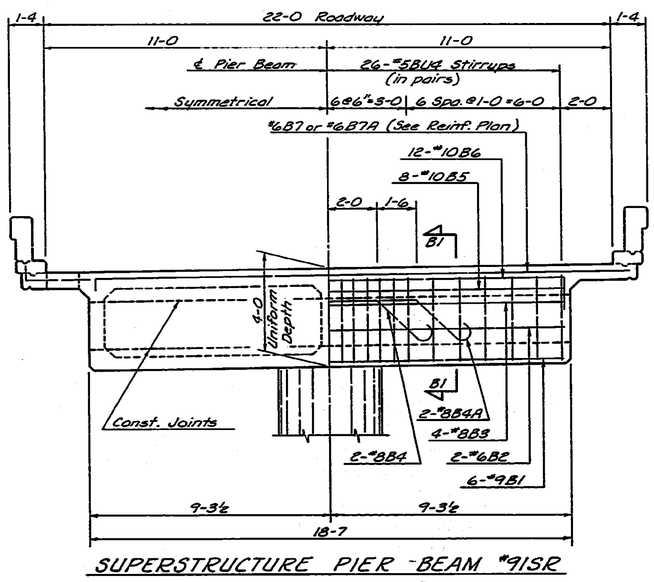
SECTION B1-B1



SECTION W-W



SECTION W1-W1



SUPERSTRUCTURE PIER-BEAM #91SR

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 20SR
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH. STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 7 OF 15 SHEETS		SCALE		APP'D	
DESIGNED PDP	DETAILED RLF	QUANTITIES	TRACED JML		
DESIGN CK. DFG	DETAIL CK. DFG	QUAN. CK.	TRACE CK. RLF		

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

[redacted] 1 2 5

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1658	2137

#5C4 bars (spa. @ #8 "BC" bars)
"6" bars
#10BC4 bars
#8"BC" bars
#4 BU2 stirrups
#8"WG" bars
#4"S" bars
3"
2-4½
Thickened Slab Overhang.
1'-8 Web
#8"BC" bars
Optional Constr. Jt.

SECTION C2-C2
(Exterior Web)

3" Open Joint
Suspended Unit
Cantilevered Unit
Typical 8" Slab overhang @ 4"x4" Fillet
1'-9 Thickened Slab overhang.
1'-9 Thickened Slab overhang
Typical 8" Slab overhang @ 4"x4" Fillet
Transition Fillet
Transition Fillet
Anchor Bolts

VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)

#6"S" bars
#4 C2 bars
#4 C1 bars
#4"S" bars
#5C4 bars (spa.@ #8"BC" bars)
#4"S" bars
"6" bars
"5" bars
#8"WG" bars
#10 BC4 bars
1'-8 Web
#4"S" bars
Optional Constr. Jt.
#7 U3 Stirrups
1'-6 cl.
#6"BC" bars
#4"S" bars*
"6" bars
#4 BU3 stirrups

SECTION C1-C1
(Exterior Web)

Reqd. Constr. Joint in Webs.
3'-1
9"
℄ Brg.
"5" bars (See Top Slab Plan)
"6" bars
#8"BC" bars (Top)
3"
4"
6"
5"
3"
Expansion Device
6" Slab
4" Fillet
#4"S" bars
#4 BU2 stirrups
#8"BC" bars (Bott)
2" cl.
1'-6
4'-0
2'-6
4"
4"
¾"Δ Drip Groove
2½"
4" Fillet
"5" bars (See Bott. Slab Plan)
4"
1'-9
10½"
9½"
#4 BU3 stirrups
6½" Slab
"6" bars
Access Door
#6"BC" bars (Top & Bott)
3 Eq. Spa. @ 1'-3
1'-0
9"
2'-3
3'-0
1'-9

TYPICAL SECTION THRU CELL *

SEE REVISED EXPANSION DEVICES

"6" bars
℄ Web
#10BC4 bars
#8"BC" bars
2½"
4½" 5½" 4½"
#8"WG" bars
#4BU2 stirrups
1'-0 1'-0
#4BU2 stirrups
#8"BC" bars
Optional Constr. Jt.
10" 10"
1'-8 Web

SECTION C2-C2
(Interior Web)

"6" bars
1'-8 Web
"5" bars
#8"WG" bars
1" cl. (Typ)
#10BC4 bars
#7 U3 Stirrups
Optional Constr. Jt.
#6"BC" bars
#4"S" bars*
#4BU3 stirrups
1'-0
1'-0
#4BU3 stirrups
℄ Web

SECTION C1-C1
(Interior Web)

Reqd. Constr. Joint in Webs.
3'-1
9"
C1
C2
"5" bars (See Top Slab Plan)
#8"WG" bars
Constr. Jt.
"6" bars
6" Slab
4" Fillet
Expansion Device
9"
4 Spa. @ 6"=2'-0
3"
3"
#8"BC" (Top & Bott.)
2" cl.
Corner Plate
1½" cl.
#10BC4 bars each web (Typ)
2" cl. Min.
#7 U3 Stirrups (sets of 4)
#6"BC" (Top & Bott)
#4"S" bars
#5U1 Stirrups (sets of 4)
#5U1 Stirrups (in pairs) Typ.
"5" bars (See Bott. Slab Plan)
1'-6 cl. Typ.
#4"S" bars*
Optional Constr. Jt.
"6" bars
C1
C2
See Web Elevation for Stirrup Spa.
4.5 Spa. @ 9" = 3'-0
6'-6
℄ Brg.

TYPICAL SECTION THRU WEB †

R 4x3½x1'-8
6
1'-6
½"ϕ x 2'-0 Anchor bars (welded to angle)
R 3x3½x1'-8
4½
4½
45°
SECTION

5-½"ϕ x 2'-0 Anchor bars
12" 46" 46" 46" 46" 12" Typ.
½" Typ.
1'-8
ELEVATION

CORNER PLATE DETAILS
Computed weight of one assembly is 22#

BEARING BEAM DETAILS

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

† See Web Elevation Sheet for Span #1 at Abutment.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 20SR
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 12 OF 12	SCALE		APP'D.		
DESIGNED DFB	DETAILED DS	CHECKED LKD	TRACED DS		
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. FES	TRACE CK. RBS		

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

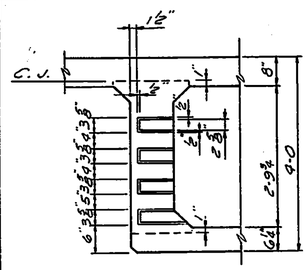
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

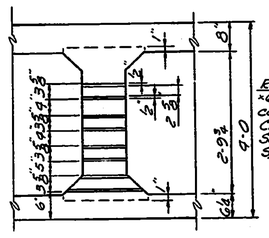
1 2 6

20X 16X 14.5X 12X 12X 14.5X 16X 20X

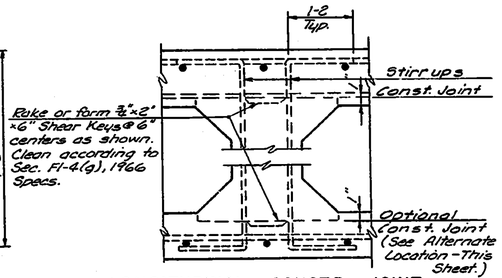
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-(58)48 Phase II	19	1659	2137



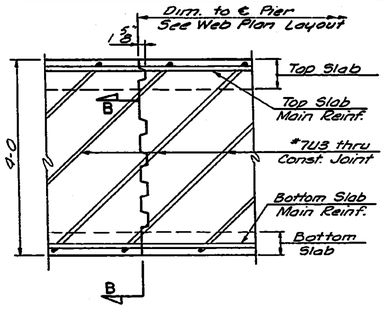
SECTION B-B
(Through Exterior Web)



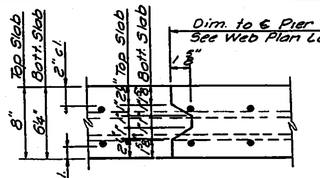
SECTION B-B
(Through Interior Web)



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

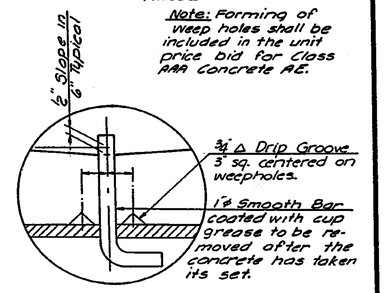


WEB CONSTR. JOINT
(Showing Placement of #7 @ 13 bars.)



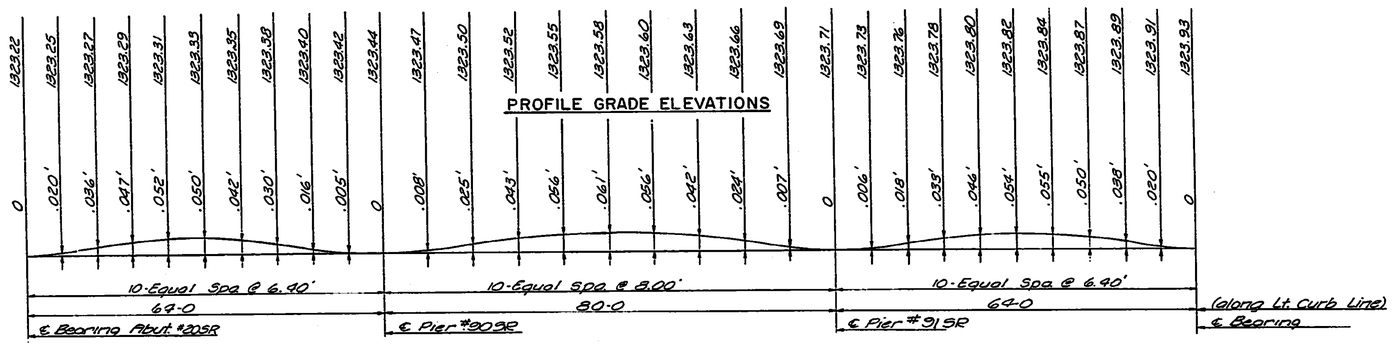
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of weep holes shall be included in the unit price bid for Class AAA Concrete AE.



DETAIL OF WEEP HOLES

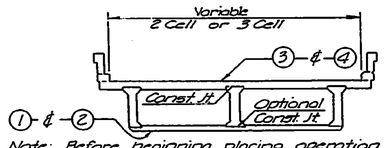
S U P E R S T R U C T U R E C O N S T R U C T I O N J O I N T D E T A I L S



DEAD LOAD CAMBER IN FEET

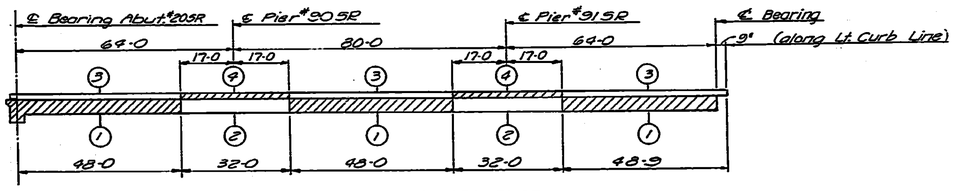
DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS ON CURB LINE

Note: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ p.s.i.



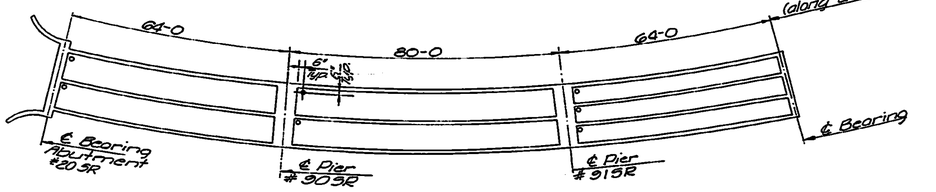
Note: Before beginning placing operation 3 & 4 wedge forms up to original elevations (Section FI-4, 1966 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



CONCRETE PLACING SEQUENCE

To be used when long-span steel beams are used for falsework



LOCATION OF WEEP HOLES

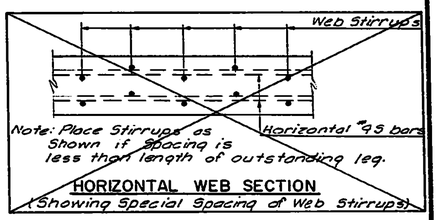
See General Notes:

Curbs and Handrail: Construction Joints in Curbs shall be made only under rail openings. Curbs shall be built after Falsework is struck. Handrails shall be built after Falsework is struck.

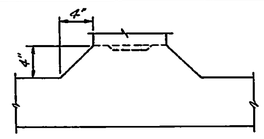
Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-Span Steel beams are used for falsework.



HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)



ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer.)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 20SR.
S.R. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH STREET)
PROJ. 35W-87-135W-(58)48 SEDGWICK CO.

SHEET NO. 11 OF 15	SCALE		APP'D.		
DESIGNED DFG	DETAILED RAW		QUANTITIES LKD	TRACED DGT	
DESIGN CK. RBS	DETAIL CK. RBS		QUANT. CK. RBS	TRACE CK. RBS	

DIST. 5 SEDGWICK CO. ROLL 531

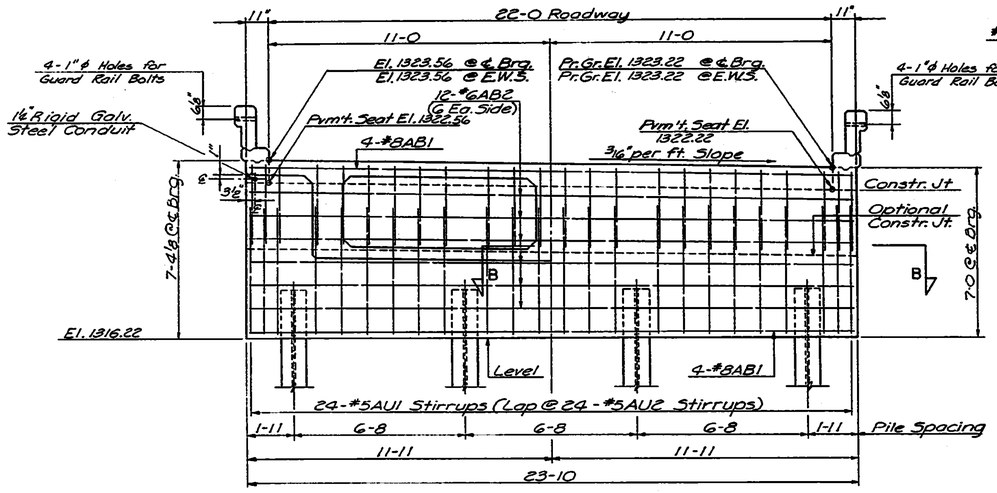
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

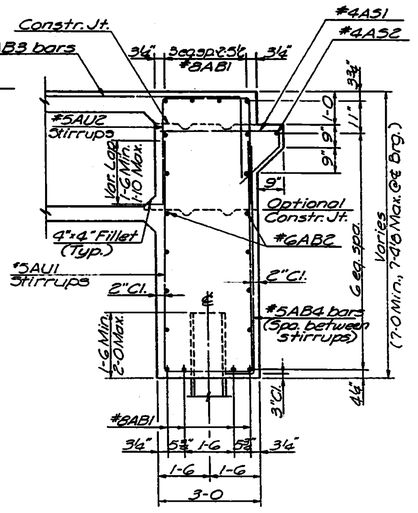
1 2 7

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-15&W-I(58)48 Phase II	19	1660	2137

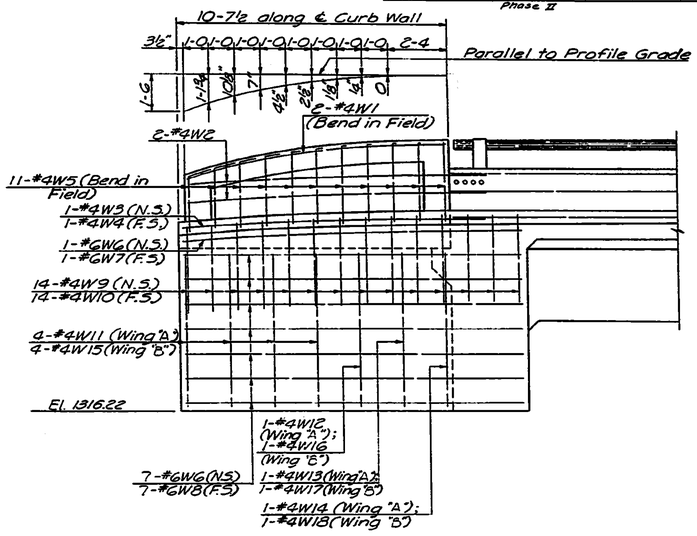


ELEVATION OF ABUTMENT

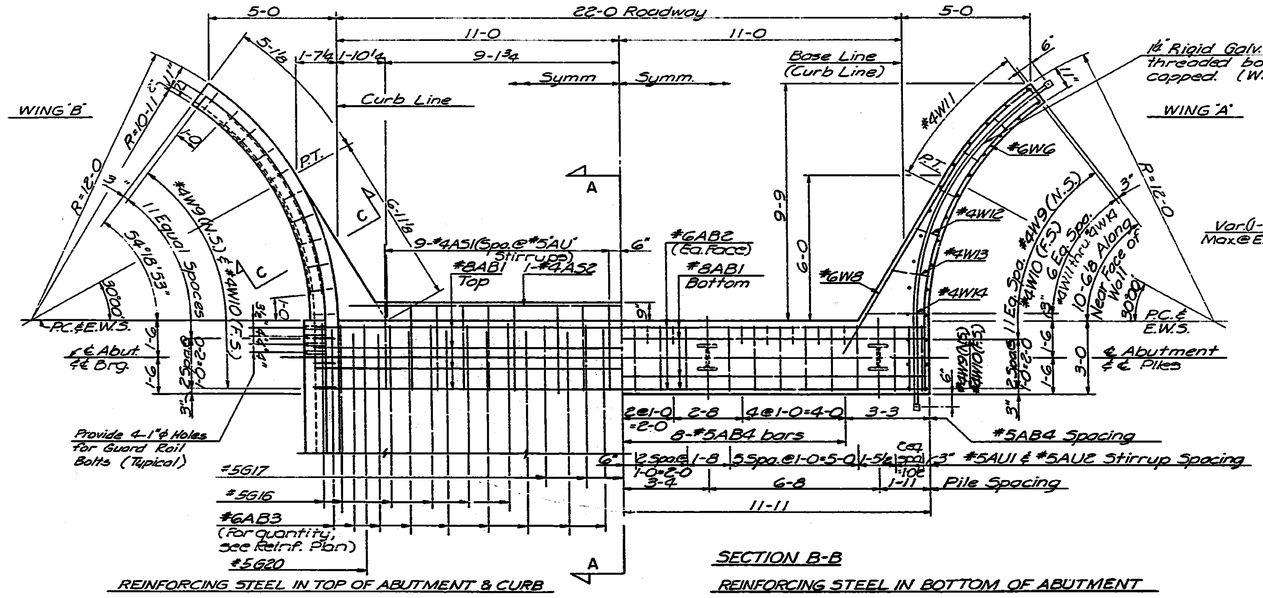


SECTION A-A

Note:
Design Pile Load = 46.8 Tons per Pile
Group I Loading (No Impact)

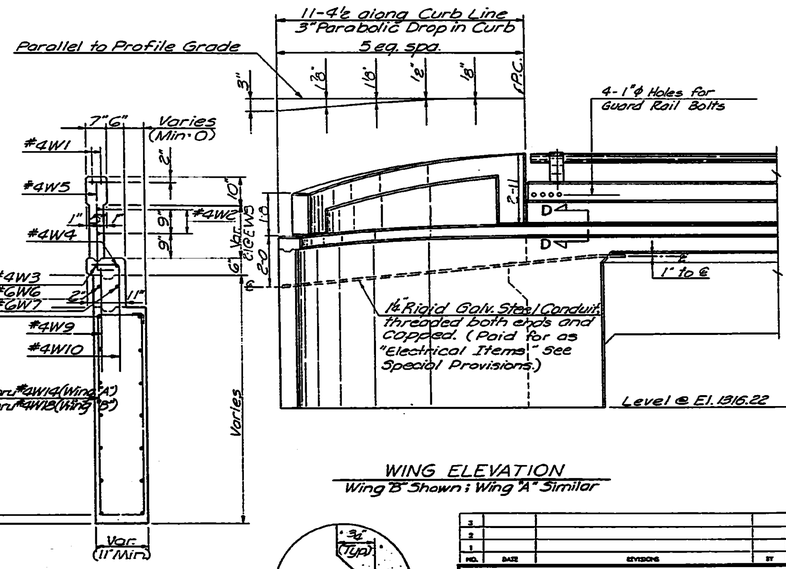


DEVELOPED VIEW OF WING
Wing "B" Shown; Wing "A" Similar

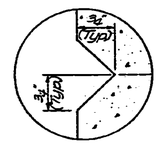


PLAN OF ABUTMENT

Note: All Piles shall be 10BP42 Steel Piles



WING ELEVATION
Wing "B" Shown; Wing "A" Similar



SECTION D-D

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
ABUTMENT DETAILS - UNIT NO. 20SR
I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH. STREET)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 12 OF 15	SCALE	APP'D.	
DESIGNED DFG	DETAILED RCP	QUANTITIES LKD	TRACED RCP
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. LKD	TRACE CK. DB

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

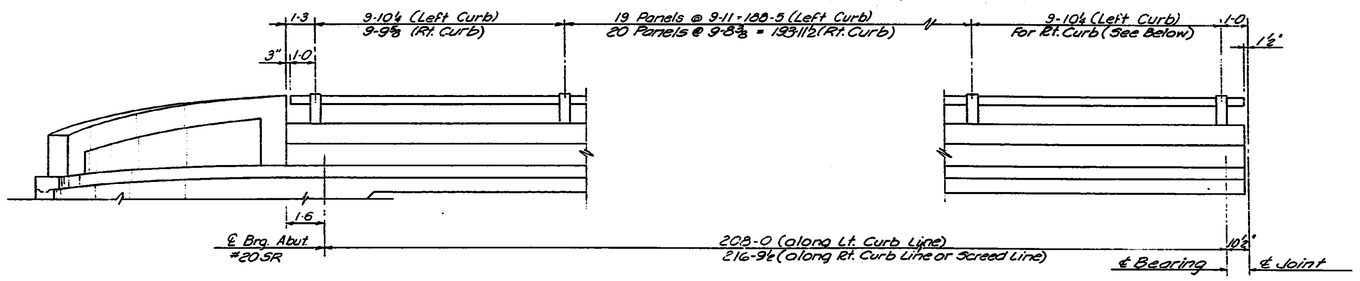
THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

1 2 8

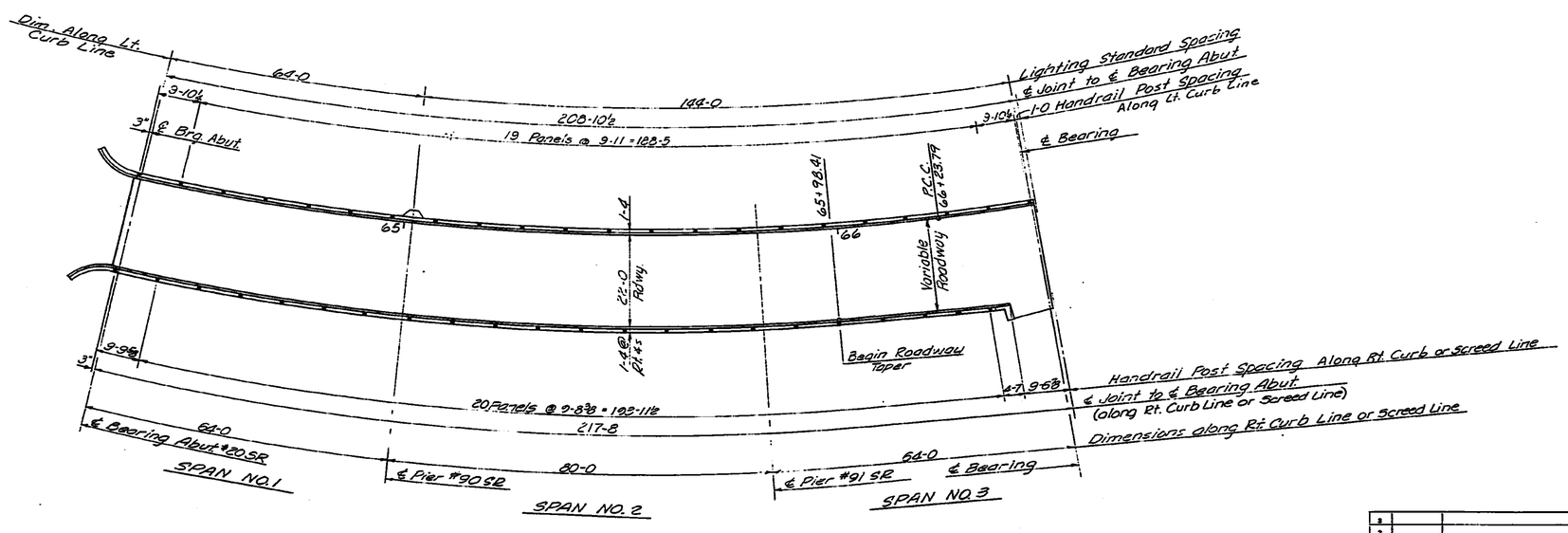
20X | 16X | 14.5X | 12X

12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W -1(58)48 Phase II	19	1661	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)



SUPERSTRUCTURE LAYOUT

Note: See "Standard Lighting Bracket Details" for reinforcing and dimensions of Lighting Standard Brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 20SR
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH. STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 18 OF 19 SHTS.	SCALE	APP'D.	
DESIGNED JWH	DETAILED RBS	QUANTITIES LKD	TRACED CRB
DESIGN CK. RBS	DETAIL CK. DFG	GRAD. CK. ERS	TRACE CK. DS

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

1 2 9

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 DIRECT	19	1662	2137

BILL OF REINFORCING STEEL

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
				S1	183	5	20-3
				S1A	100	5	*
				S2	202	5	25-9
				S2A	104	5	16-9
				S2B	83	5	*
				S2C	21	6	15-4
				S3	202	6	24-6
				S3A	187	5	*
				S3B	21	6	17-1
				S4	160	5	25-2
S5	105	5	40-0				
S6	3	5	25-0				
S7	3	5	37-8				
S8	5	5	32-5				
S9	6	5	33-6				
S10	5	5	35-0				
S6A	8	4	9-6				
S11	6	5	36-2				
S12	3	5	36-9				
S13	3	5	24-11				
S14	6	5	27-9				
S15	6	5	28-6				
S16	6	5	29-4	S23	2	4	33-5
S17	3	5	29-8	S23A	1	6	33-5
S18	10	4	40-0	S24	1	4	33-6
S18A	27	6	40-0	S24A	2	6	32-9
S19	12	4	36-4	S25	1	4	5-4
S20	16	4	29-5	S26	1	4	6-8
S21	3	4	17-4				
S21A	3	6	17-4				
S22	3	4	26-5				
S22A	3	6	26-5				
S27	5	4	13-0				
G1	13	11	57-3				
G2	12	11	55-3				
G3	12	11	37-0				
G4	5	9	23-7				
G5	4	9	24-4				
G6	4	9	25-1				
G7	12	10	40-0				
G8	12	11	54-0				
G9	13	11	60-0				
G10	5	9	24-8				
G11	4	9	26-5				
G12	4	9	28-2				
G13	6	11	54-10				
G13A	3	11	49-6				
				G13B	4	11	59-10

* See Bending Diagrams

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
G14	6	11	52-10				
G14A	6	11	47-6				
G15	6	11	37-0				
				G15A	6	11	48-10
G16	6	5	42-7				
G17	5	5	41-7				
G18	6	5	40-7				
G19	1	5	50-9				
G20	1	5	53-5				
G21	34	11	54-0				
G22	32	11	32-0				
G23	4	11	14-6				
G24	14	11	16-0				
G25	6	5	33-7				
G23A	4	11	13-6				
G26	5	5	32-0				
G27	6	5	30-5				
G28	1	5	51-0				
G29	1	5	54-0				
G30	14	11	16-0				
G31	6	5	41-9				
G32	4	5	40-10				
G33	7	5	40-0				
G34	1	5	50-3				
G35	1	5	52-7	LB1	4	4	7-4
G36	4	5	9-6	LB2	3	4	9-4
B1	13	9	18-3				
B2	4	6	18-3				
B3	8	8	18-3				
				B4	4	8	11-6
B5	18	10	18-0	B4A	4	8	14-6
				B6	22	10	21-3
				B7	8	6	24-6
				B7A	14	6	21-10
				BU1	30	5	14-4
				BU2	22	4	6-1
				BU3	15	4	4-11
				BU4	30	5	15-6
				BC1	8	6	22-2
				BC2	4	8	21-2
				BC3	4	8	27-11
				BC4	16	10	8-2

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
				C1	489	4	3-5
				C2	504	4	3-8
				C3	26	4	2-5
				C4	12	5	5-7
C5	8	4	2-6				
				C6	5	5	4-6
				C7	4	5	4-10
				C8	4	4	4-4
				U1	1414	5	7-7
				U2	96	5	6-1
				U3	170	7	7-7
				AD1	11	4	8-6
WG1	30	8	27-7				
WG2	16	8	40-0				
WG3	4	8	15-6				
AB1	8	8	23-6				
AB2	12	6	23-6				
				AB3	18	6	10-6
				AB4	15	5	7-3
				AS1	18	4	5-6
AS2	1	4	21-0				
				AU1	24	5	12-11
				AU2	24	5	9-1
				W1	4	4	10-2
				W2	4	4	11-11
				W3	2	4	12-3
				W4	2	4	12-10
				W5	22	4	3-7
				W6	16	6	13-3
				W7	2	6	13-9
				W8	14	6	13-0
W9	28	4	3-3				
				W10	28	4	4-0
				W11	4	4	13-6
				W12	1	4	14-0
				W13	1	4	15-0
				W14	1	4	17-0

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
				W15	4	4	14-2
				W16	1	4	14-8
				W17	1	4	15-8
				W18	1	4	17-8

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING, REINF. & QUAN. - UNIT NO. 20SR
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH. STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 14 OF 15	SCALE	APP'D.	
DESIGNED DFG	DETAILED LKD	QUANTITIES LKD	TRACED DS
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. EES	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

1 3 0

20X 16X 14.5X 12X

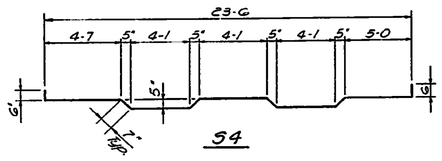
12X 14.5X 16X 20X

BENDING DIAGRAMS

Bar Dimensions are Out to Out

REV. PLANS 11-1-71

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W I(58)48 Phase II	19	1603	2137



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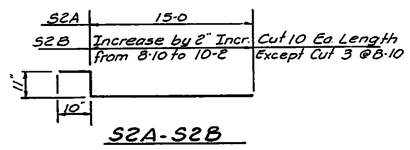
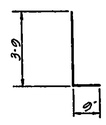


S2A-S2B



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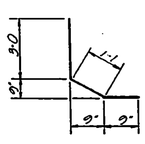

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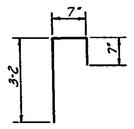

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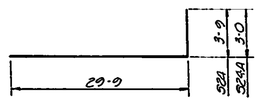

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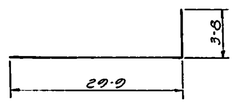

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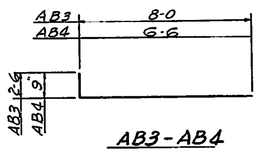
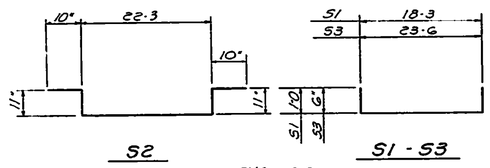
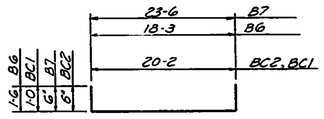


AB3-AB4

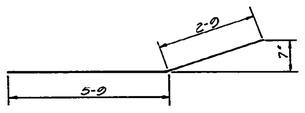


S2

S1-S3



B6-BC1-BC2-B7



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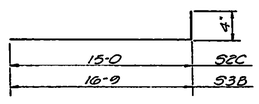
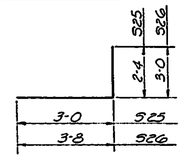


S2C-S3B



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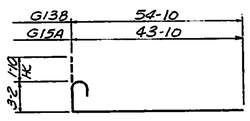
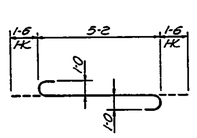


G13B-G15A



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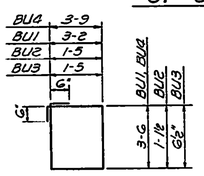
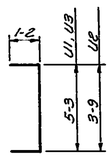
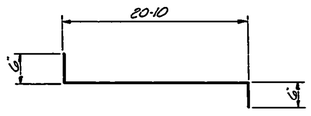


BU1-BU2-BU3-BU4



U1-U2-U3



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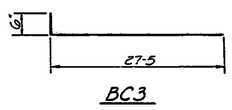

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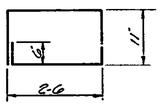

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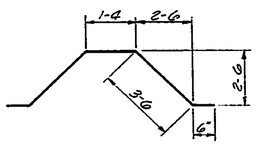

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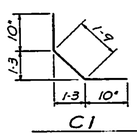
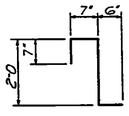


C1



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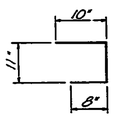

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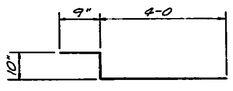

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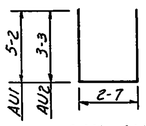
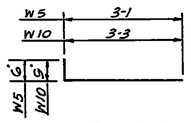
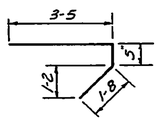


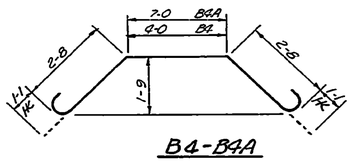
AU1-AU2



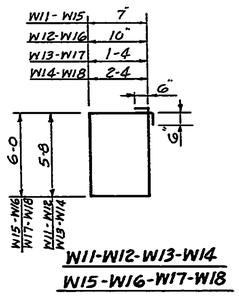
W5-W10



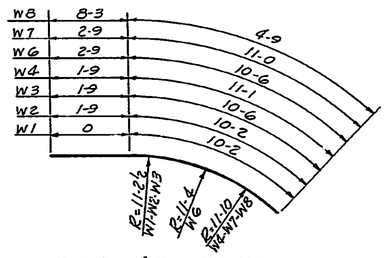
A51



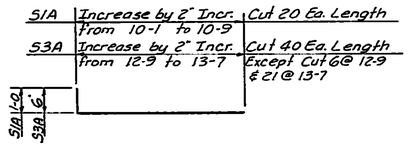
B4-B4A



W11-W12-W13-W14
W15-W16-W17-W18



W1-W2-W3-W4-W6-W7-W8



S1A-S3A

SUMMARY OF QUANTITIES

Class III Excavation	41	Cu. Yds.
Class AAA Concrete AE	353.3	Cu. Yds.
Reinforcing Steel	124,790	Lbs.
Wrought Iron Drains & Grates	1,227	Lbs.
8" ϕ Downspouts	62.53	Lin. Ft.
Bridge Handrail	411.88	Lin. Ft.
Structural Steel		
Bearing Devices (A36) @ 242 Lbs.	968	Lbs.
Corner Plates & Cover Plates (A36)	182	Lbs.
Access Doors (A36) 3@ 130 Lbs	390	Lbs.
10BP42 Steel Piles @ 58'	232	Lin. Ft.
Reinforced Concrete Riprap (4")	279	Sq. Yds.
Linseed Oil Surface Treatment (Bridges)	528.3	Sq. Yds.

Note:
All bar marks shall be pre-fixed with the Unit number when fabricated. Example: #11G1 bars shall be marked 20S211G1

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1	11-1-71	Rev. Exp. Devices	VASS	

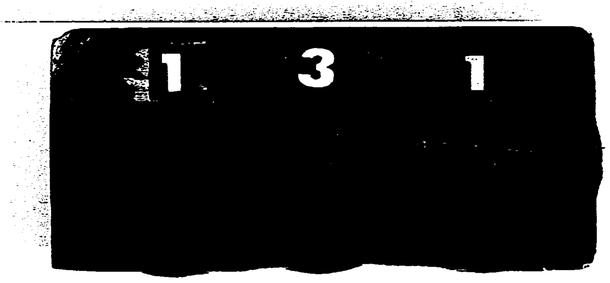
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 20 SR
S.B. I-35W VIADUCT
(BETWEEN INNER LOOP & 10TH. STREET)
PROJ. 35W-87-135W-I(58)48 SEDGWICK CO.

SHEET NO. 13 OF 15	SCALE	APP'D.	
DESIGNED DFG	DETAILED JMG	QUANTITIES LKD	TRACED JMG
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. EES	TRACE CK. RBS

From 17N - Typ. Cont. Unit - 44' Rdwy.

DIST. 5 SEDGWICK CO. ROLL 531

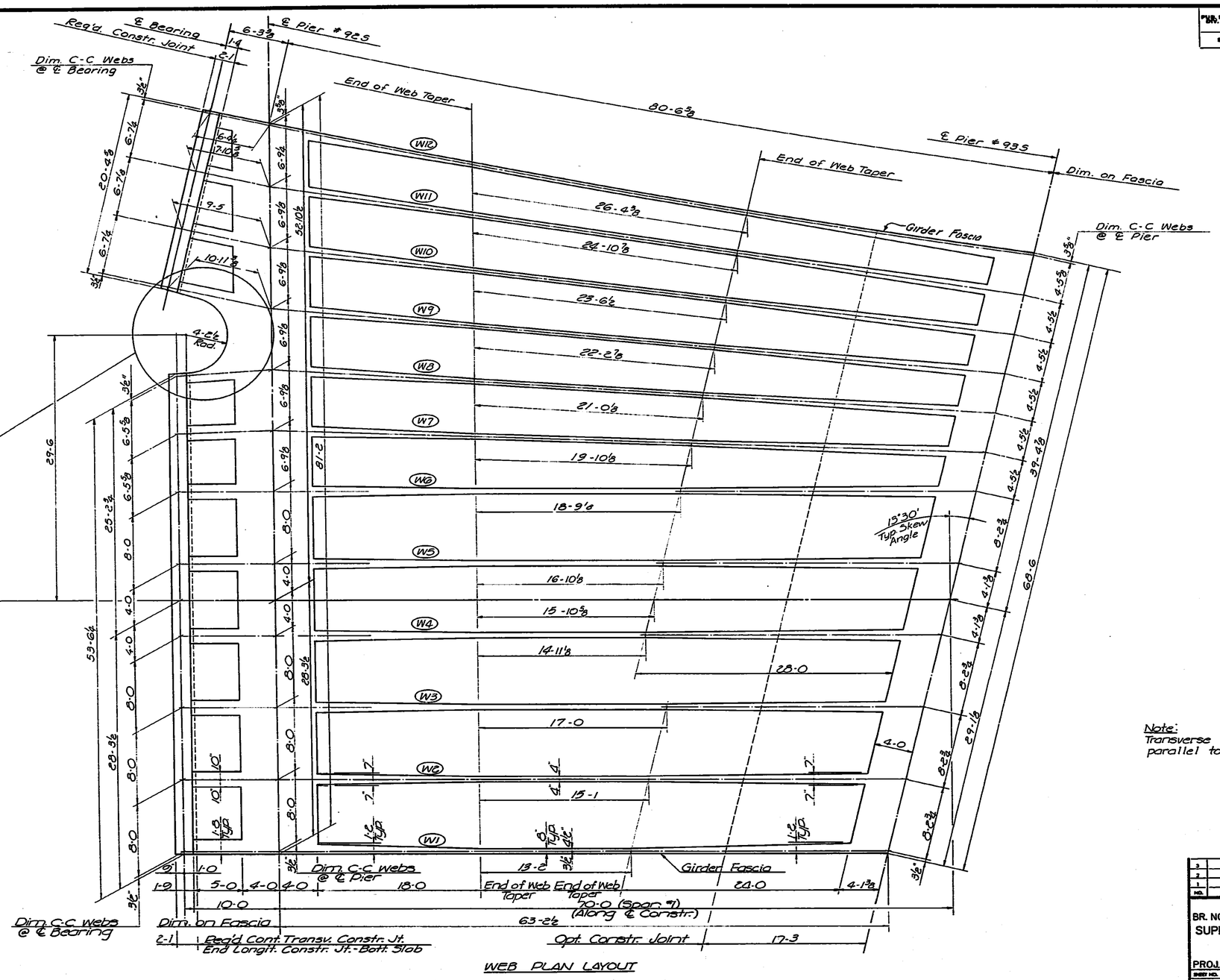
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT
THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)



20X 16X 14.5X 12X

12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(58)48 Phase II	1970	1664	2137



WEB PLAN LAYOUT

Note:
Transverse Construction Joints are parallel to ℄ Piers.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 1 of 50	SCALE		APP'D.		
DESIGNED DPS	DRAWN GAB		CHARTERED LKD	TRACED DRA	
DESIGN CK. RRS	DETAIL CK. DFG		QUANT. CK. EES	TRACE CK. GAB	

GA03 Kit Plan

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

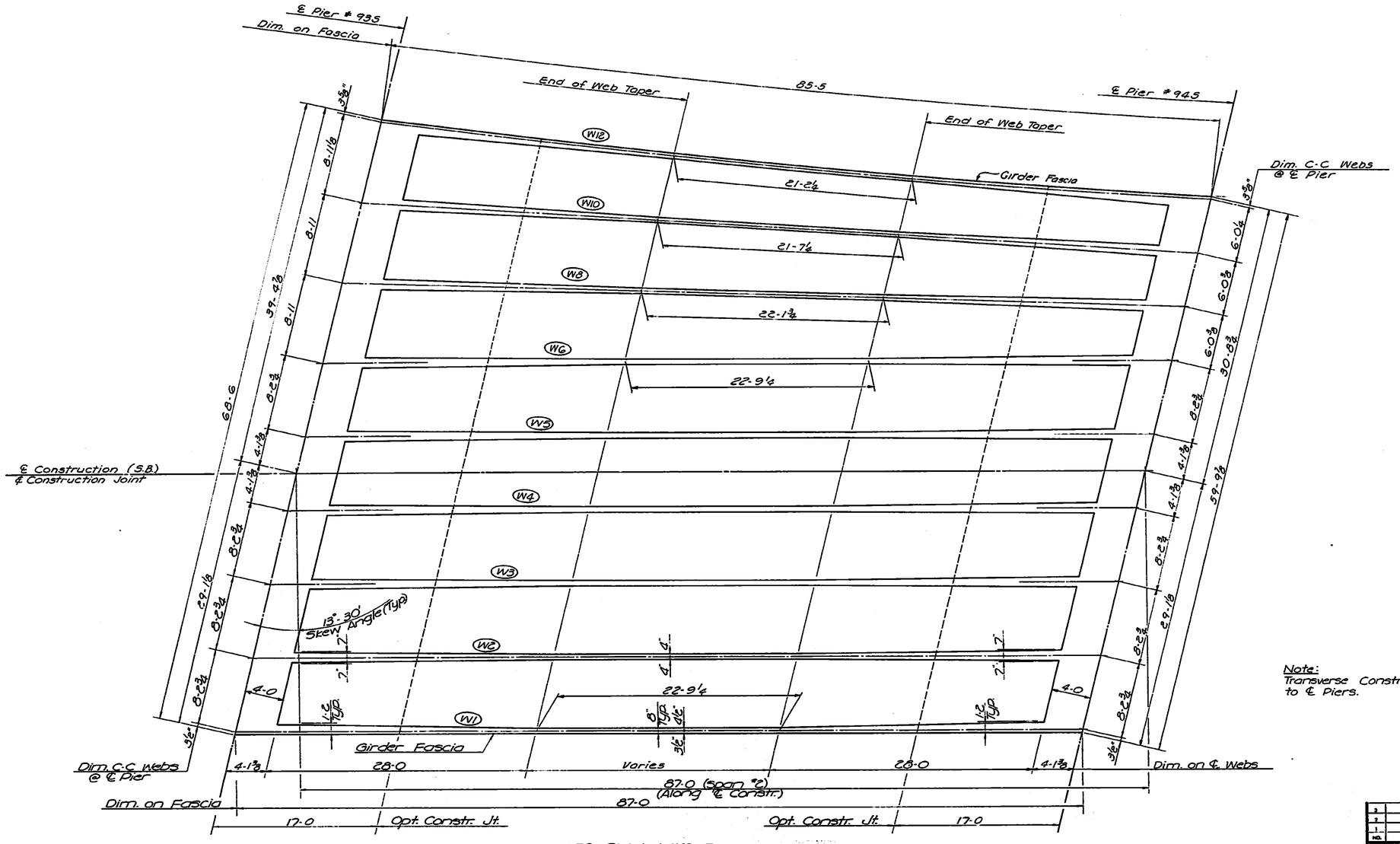
THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

1 3 2

20X 16X 14.5X 12X

12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	1970	1665	2137



WEB PLAN LAYOUT

Note:
Transverse Construction Joints are parallel to ℄ Piers.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 2 OF 30	SCALE	APP'D.	
DESIGNED DFG	DETAILED GAB	QUANTITIES LKD	TRACED DBA
DESIGN CK. DFG	DETAIL CK. DFG	GRAD. CK. [illegible]	TRACE CK. GAB

64-03 (5:3) Web Plan

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

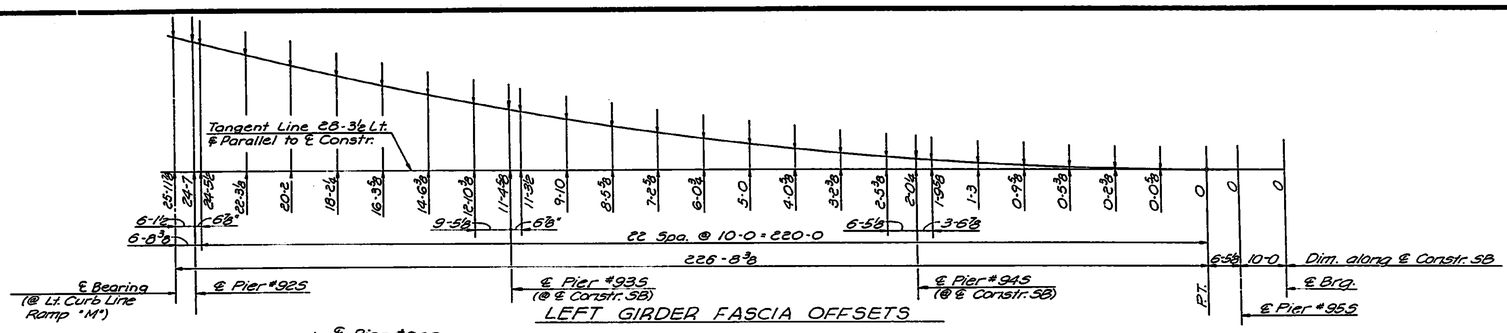
THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

[redacted] 1 3 3

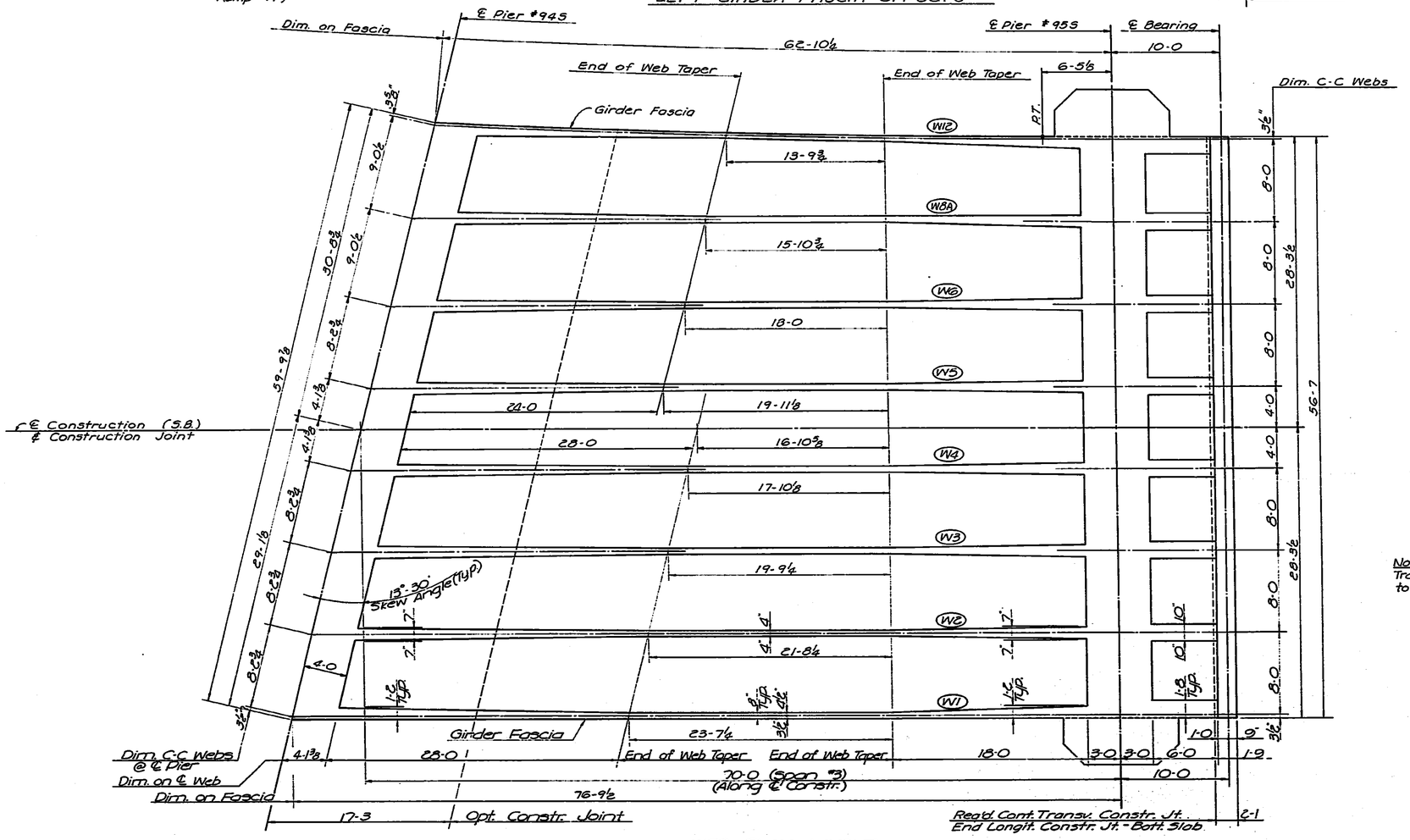
20X | 16X | 14.5X | 12X

12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W I(58)48 Phase II	1970	1666	2137



LEFT GIRDER FASCIA OFFSETS



WEB PLAN LAYOUT

Note:
Transverse Construction Joints are parallel to ℄ Piers.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 3 OF 30	SCALE	APP'D.	
DESIGNED DFS	DETAILED GAB	QUANTITIES LKD/	TRACED DBA
DESIGN CK. JDS	DETAIL CK. DFG	CHAN. CK. EDS/	CHK'D CK. GAB

64-03 (C.J. web 0.37)

DIST. 5 SEDGWICK CO. ROLL 531

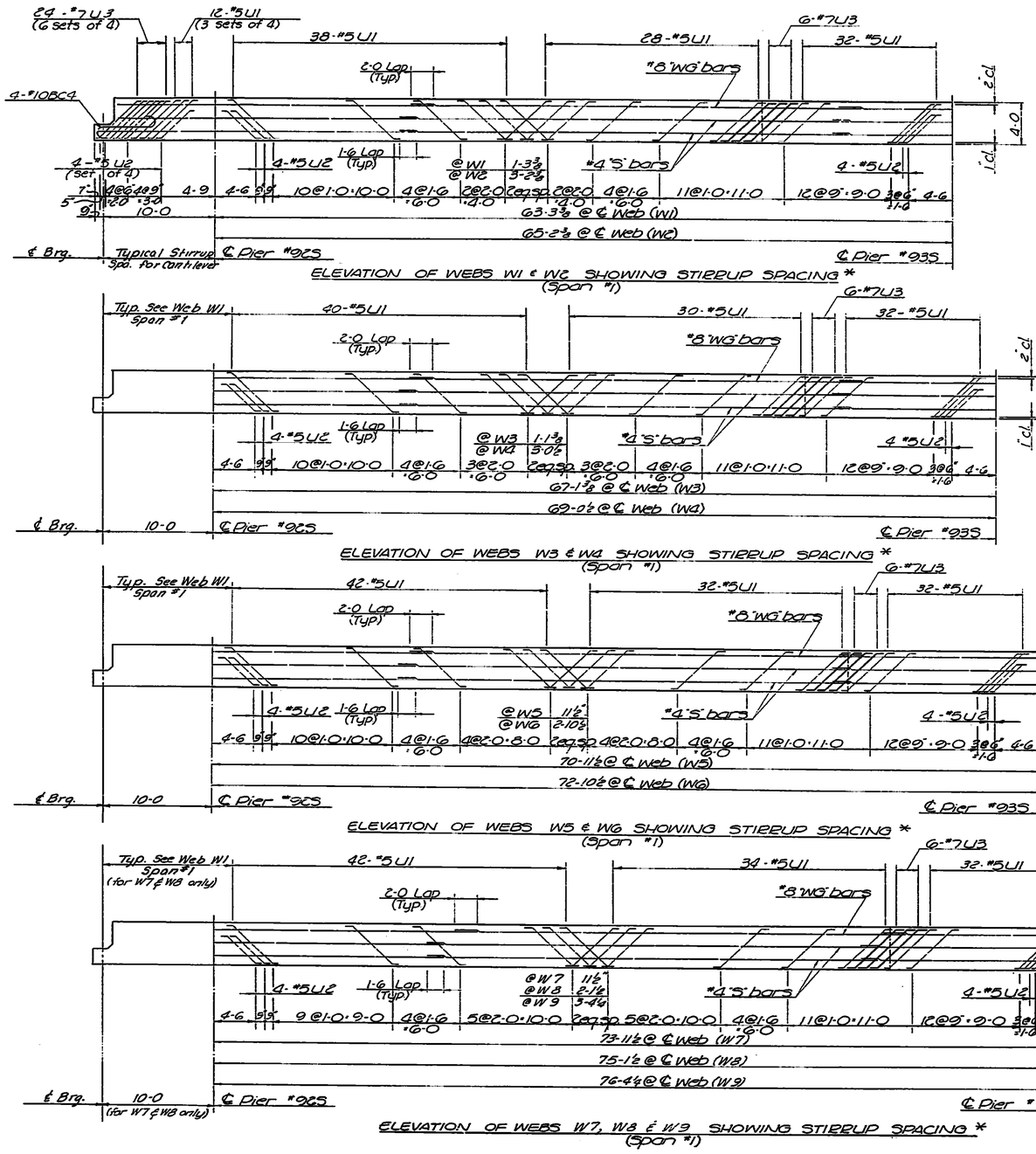
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

1 3 4

20X 16X 14.5X 12X 12X 14.5X 16X 20X

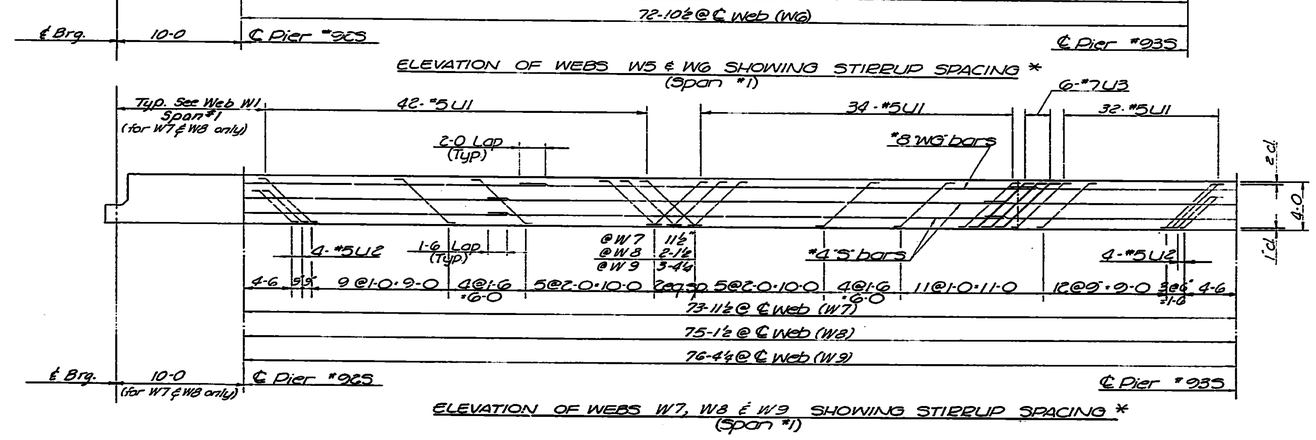
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	1970	1647	2137



ELEVATION OF WEBS W1 & W2 SHOWING STIRRUP SPACING *
(Span #1)

ELEVATION OF WEBS W3 & W4 SHOWING STIRRUP SPACING *
(Span #1)

ELEVATION OF WEBS W5 & W6 SHOWING STIRRUP SPACING *
(Span #1)



ELEVATION OF WEBS W7, W8 & W9 SHOWING STIRRUP SPACING *
(Span #1)

* Stirrups are shown with the horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top and beneath bottom main reinforcing steel. See Roadway Deck Section.

NOTE:
Stirrups placed in pairs each web, except as noted.
See Placement Diagrams for #8 WG & #4S Bars.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 4 OF 30	SCALE	APP'D.	
DESIGNED CFO	DETAILED CAS	QUANTITIES (KD)	TRACED DPA
DESIGN CK. RBS	DETAILS CK. DFG	QUANT. CK. SES	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

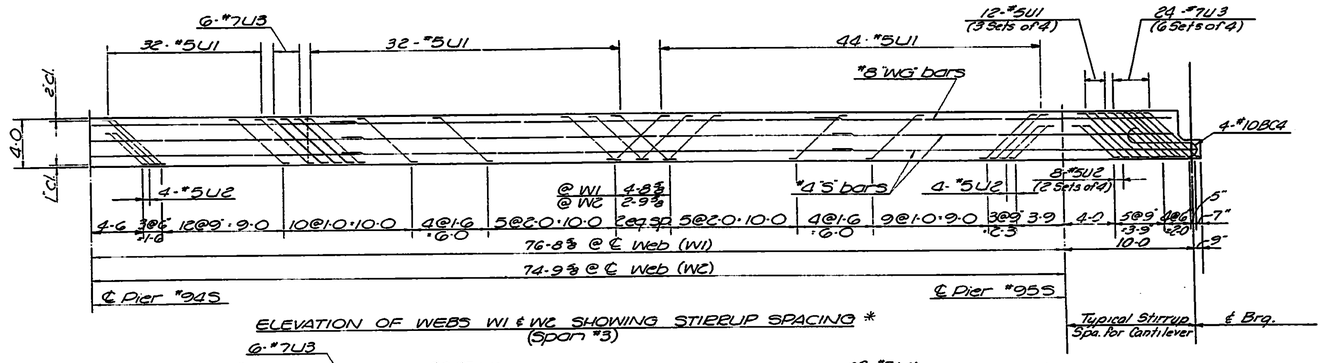
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

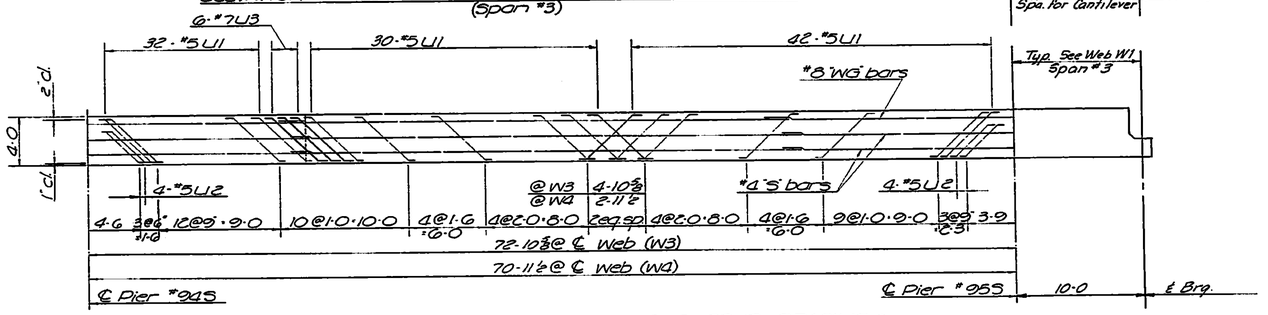
1 3 5

20X 16X 14.5X 12X 12X 14.5X 16X 20X

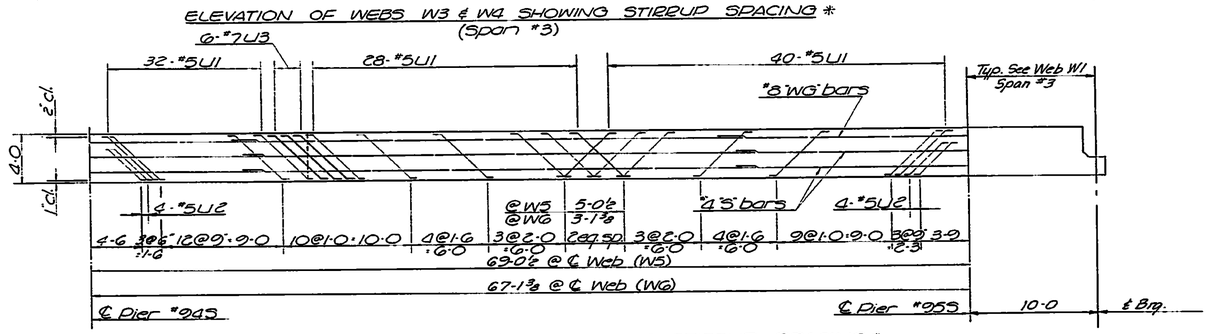
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W 1(58)48 Phase II	1970	1608	2137



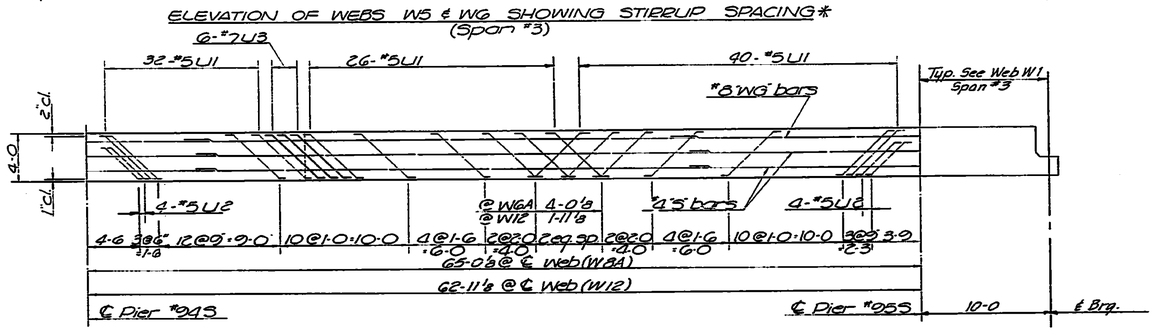
ELEVATION OF WEBS W1 & W2 SHOWING STIRRUP SPACING *
(Span #3)



ELEVATION OF WEBS W3 & W4 SHOWING STIRRUP SPACING *
(Span #3)



ELEVATION OF WEBS W5 & W6 SHOWING STIRRUP SPACING *
(Span #3)



ELEVATION OF WEBS W6A & W12 SHOWING STIRRUP SPACING *
(Span #3)

* See note on previous sheet.

NOTE:
Stirrups placed in pairs each Web, except as noted.
See Placement Diagrams for #8WG & #4S bars.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 5 of 20	SCALE	APP'D.	
DESIGNED D.M.C.	DETAILED C.A.B.	QUANTITIES L.K.N.	TRACED D.R.A.
DESIGN CK. R.B.S.	DETAIL CK. D.M.C.	GENL. CK. E.E.S.	TRACE CK. C.A.B.

DIST. 5 SEDGWICK CO. ROLL 531

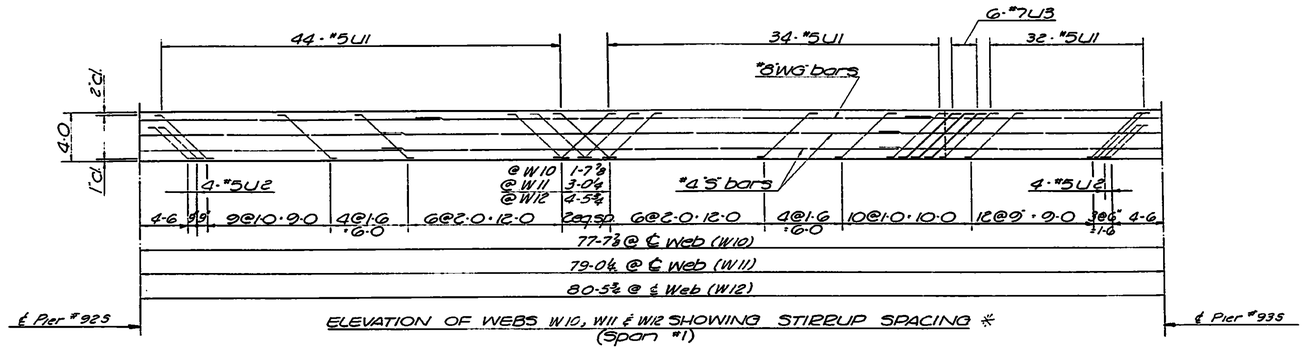
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

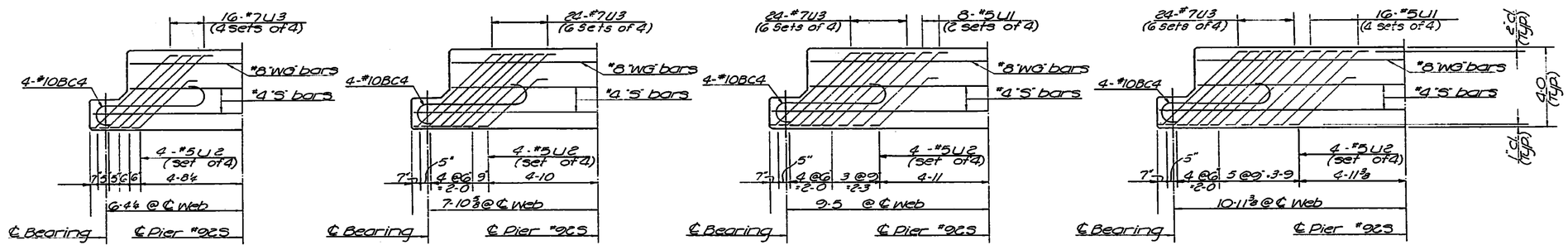
1 3 6

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 PHASE II	1970	1649	2137



ELEVATION OF WEBS W10, W11 & W12 SHOWING STIRRUP SPACING *
(Span #1)



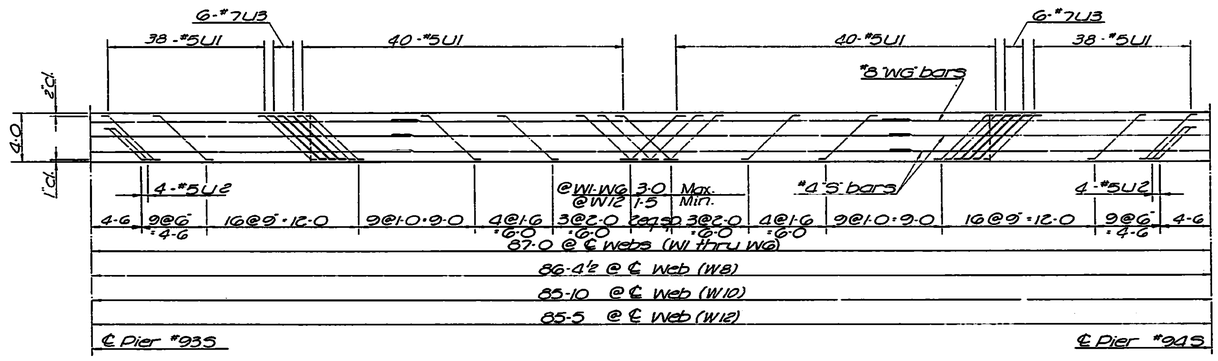
CANTILEVER @ WEB (W12)
(Span #1)

CANTILEVER @ WEB (W11)
(Span #1)

CANTILEVER @ WEB (W10)
(Span #1)

CANTILEVER @ WEB (W9)
(Span #1)

ELEVATIONS OF CANTILEVERS SHOWING STIRRUP SPACING *
(In Ramp "M" Portion of Unit 215)



ELEVATION OF WEBS IN SPAN #2 SHOWING STIRRUP SPACING *

* See Note on previous sheet.

NOTE:
Stirrups placed in pairs each web, except as noted.
See Placement Diagrams for #8WG & #4S bars.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 6 OF 50	SCALE	APP'D.	
DESIGNED DHS	DETAILED GAB	QUANTITIES LKO1	TRACED DBA
DESIGN CK. RSS	DETAIL CK. DFG	QUANT. CK. EES1	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

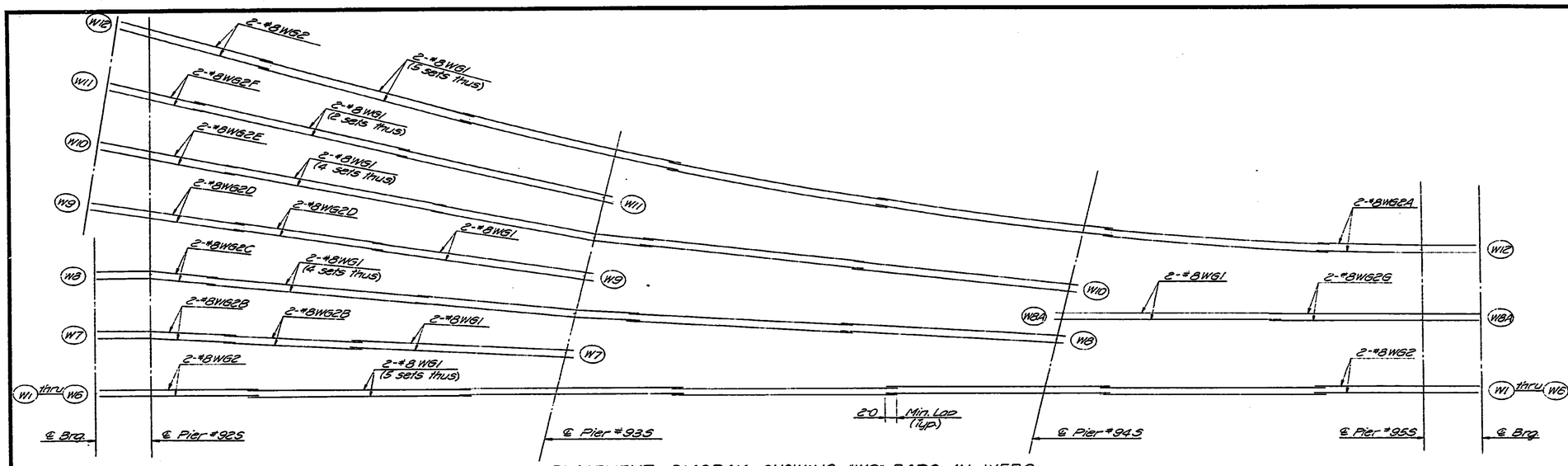
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

1 3 7

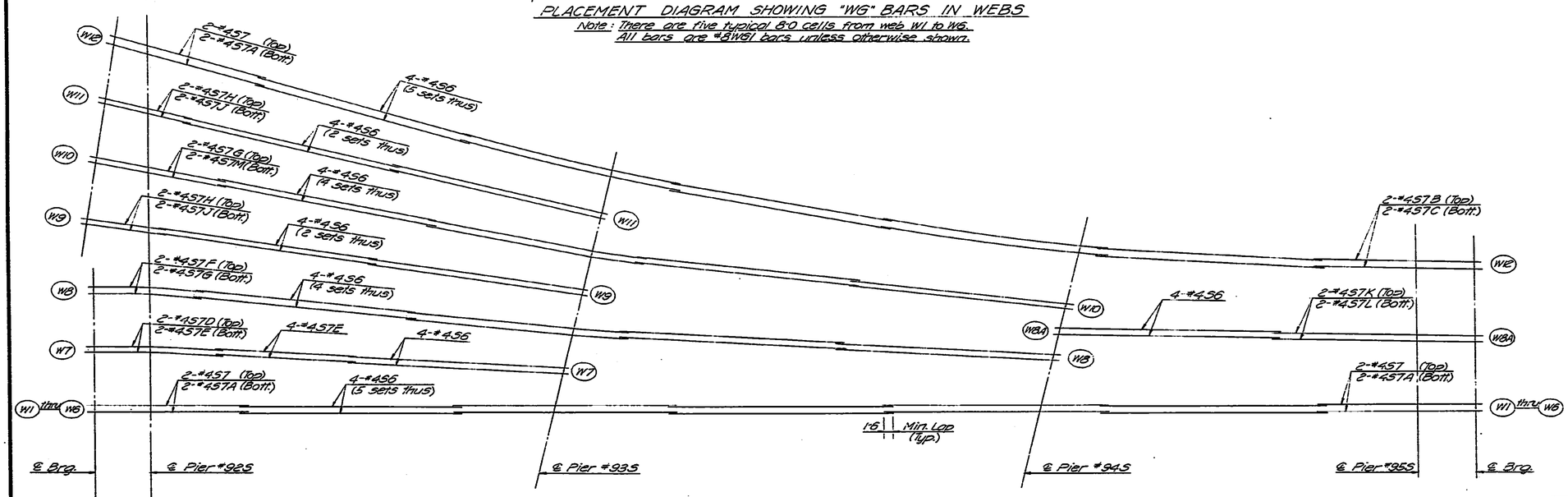
20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 PHASE II	1970	1670	2197



PLACEMENT DIAGRAM SHOWING "WG" BARS IN WEBS

Note: There are five typical 8'0 cells from web W1 to W6.
All bars are #8WG1 bars unless otherwise shown.



PLACEMENT DIAGRAM SHOWING "5" BARS IN WEBS

Note: There are five typical 8'0 cells from web W1 to W6.
All bars are #456 bars unless otherwise shown.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 2IS
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 7 of 50	SCALE		APP'D.		
DESIGNED DFG	DETAILED DS		QUANTITIES LKD	TRACED DS	
DESIGN CK. JWH	DETAIL CK. DFG		QUANT. CK. EES	TRACE CK. RLF	

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

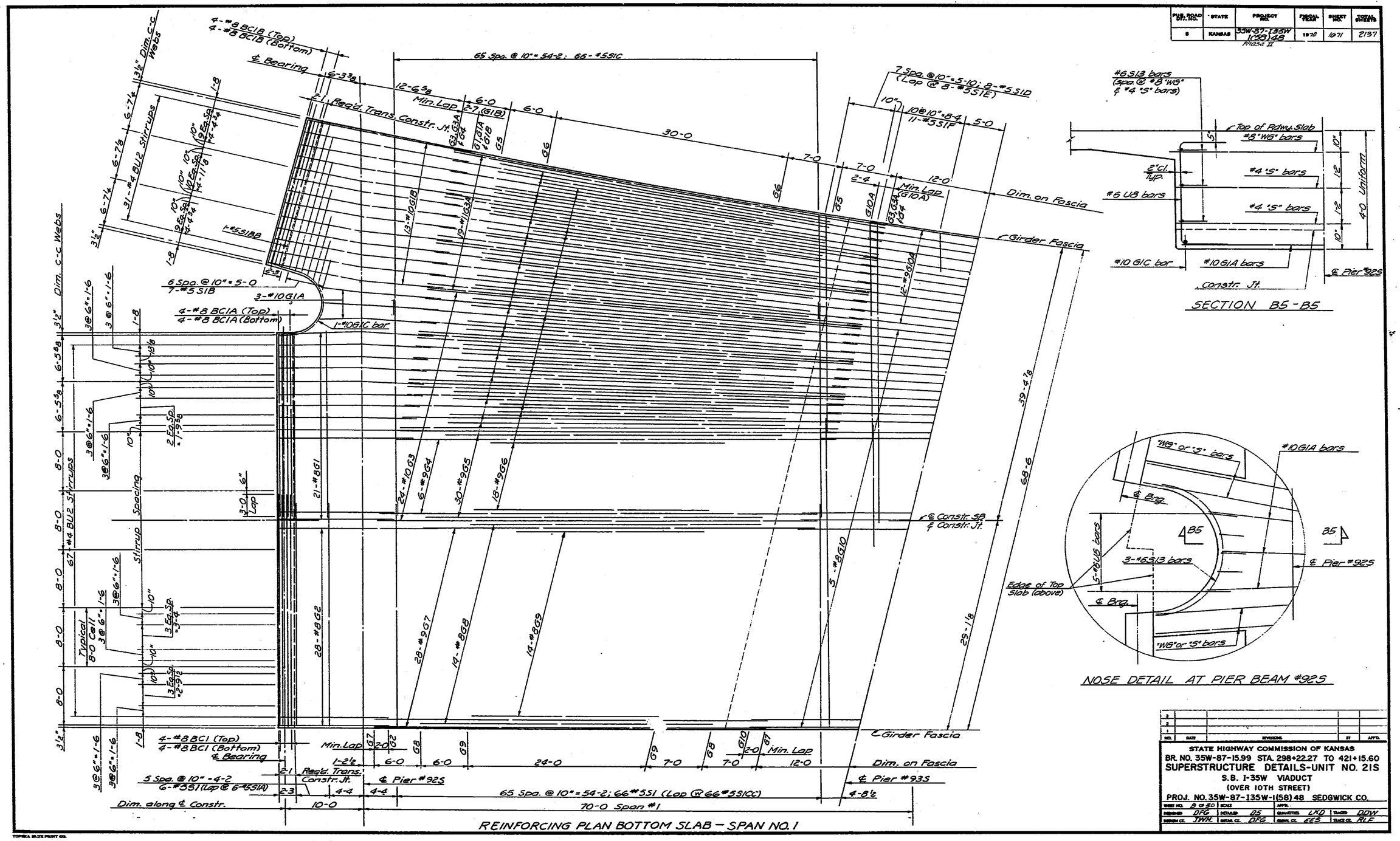
THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

1 3 8

20X | 16X | 14.5X | 12X

12X | 14.5X | 16X | 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (139)48 Phase II	1970	1671	2137



STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

DESIGNED	DFG	DETAILED	DS	CHECKED	LKD	TRACED	DDW
DESIGN CK.	JWH.	DETAIL CK.	DFG	CHIEF CK.	EES	TRACE CK.	RLF

REINFORCING PLAN BOTTOM SLAB — SPAN NO. 1

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

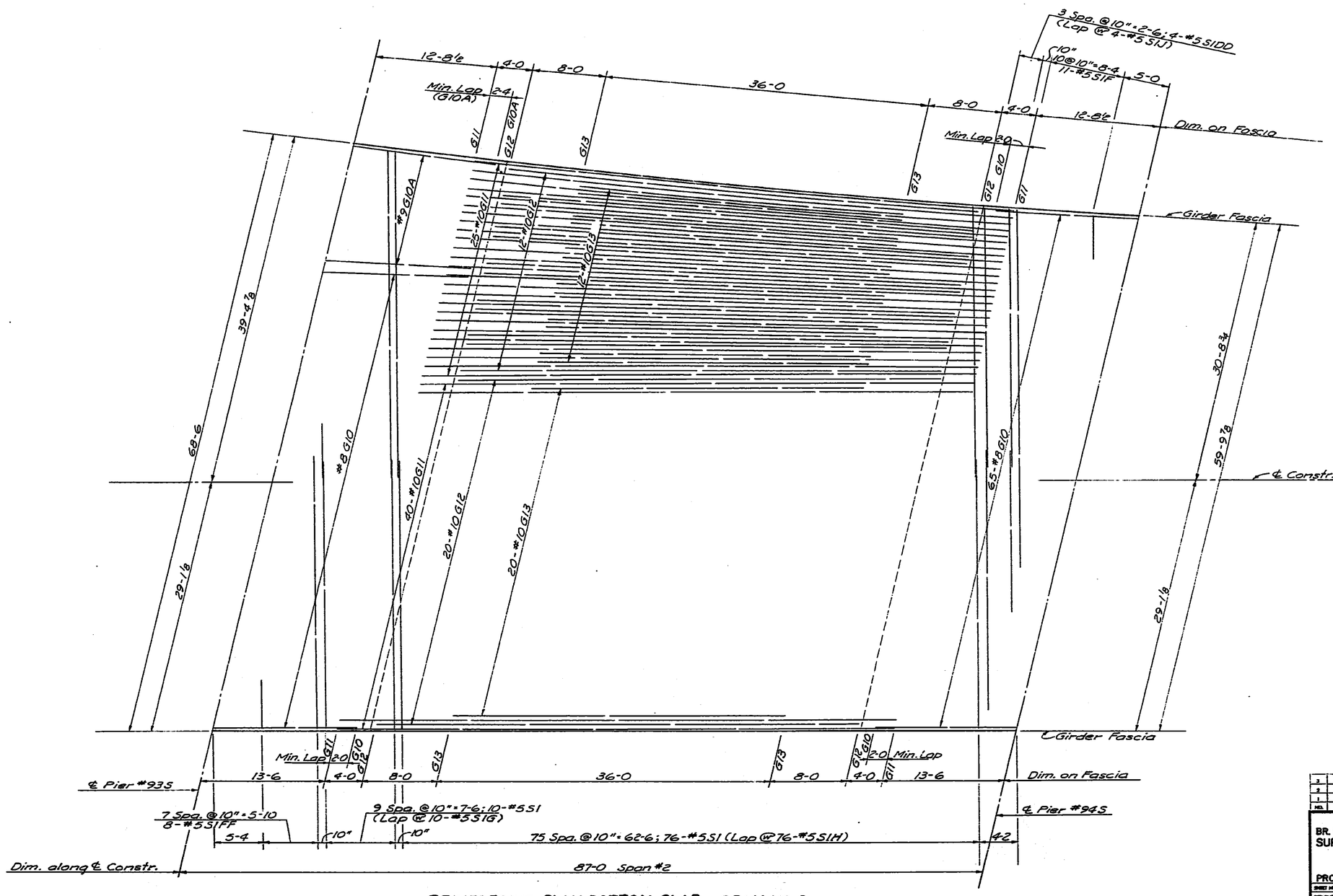
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

1 3 9

20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	19 70	1672	2137



REINFORCING PLAN BOTTOM SLAB — SPAN NO. 2

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 2IS
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 9 of 30	SCALE		APP'D.		
REVISED DFG	DETAILED DS		QUANTITIES LKD	TRACED DDW	
DESIGN CH. JWH	DETAIL CH. DFG		CHKD. CH. EES	TRACE CH. RLF	

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

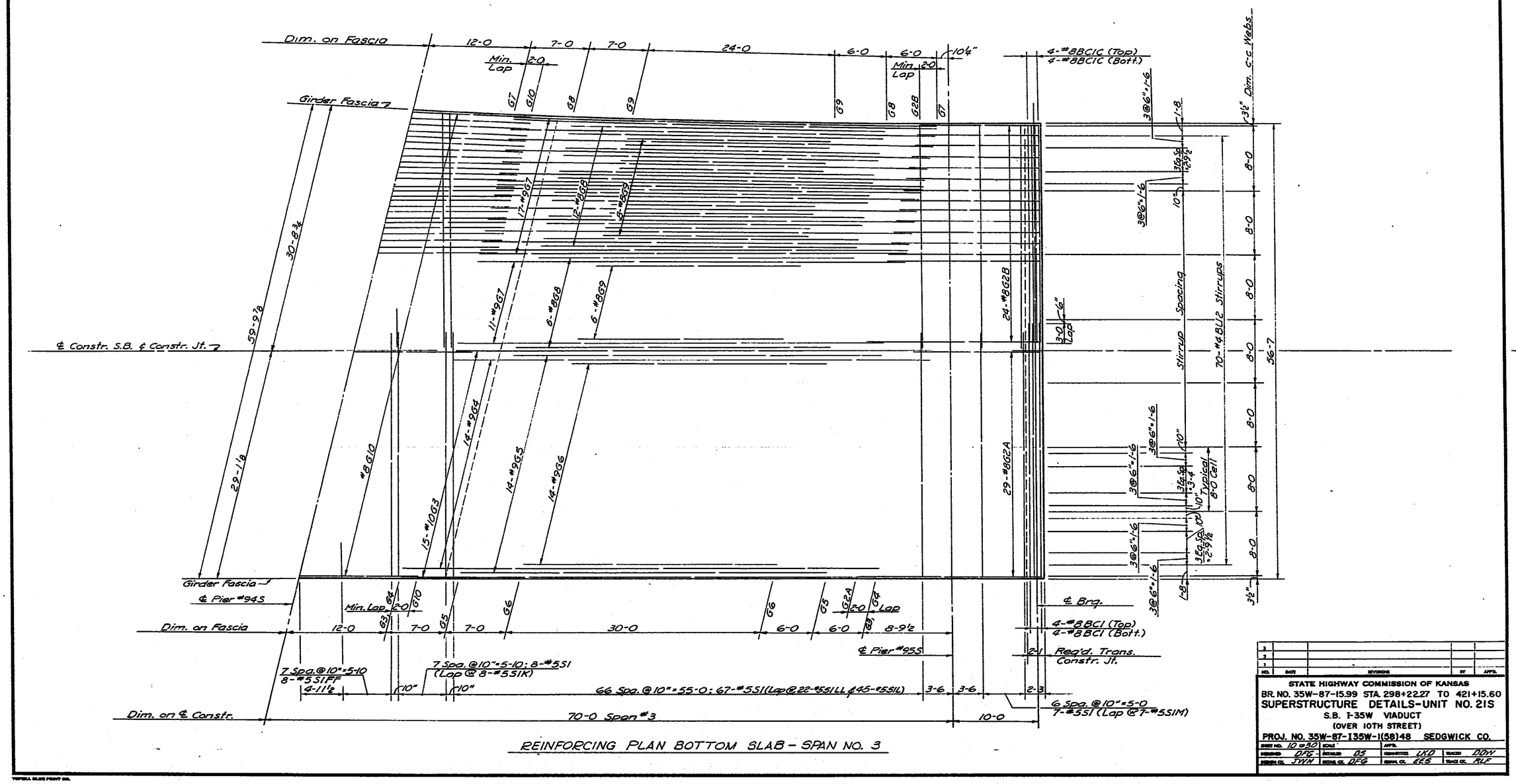
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

1 4 0

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 108128 Phase II	1970	1073	2137



REINFORCING PLAN BOTTOM SLAB - SPAN NO. 3

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 10 of 321	ZONE	APP'D.	
DESIGNED DJG	DETAILED BS	COMPUTED LKD	TRACED DDV
DESIGN OF JWH	DETAIL OF DFG	CHECK OF EES	TRACE OF RLF

DIST. 5 SEDGWICK CO. ROLL 531

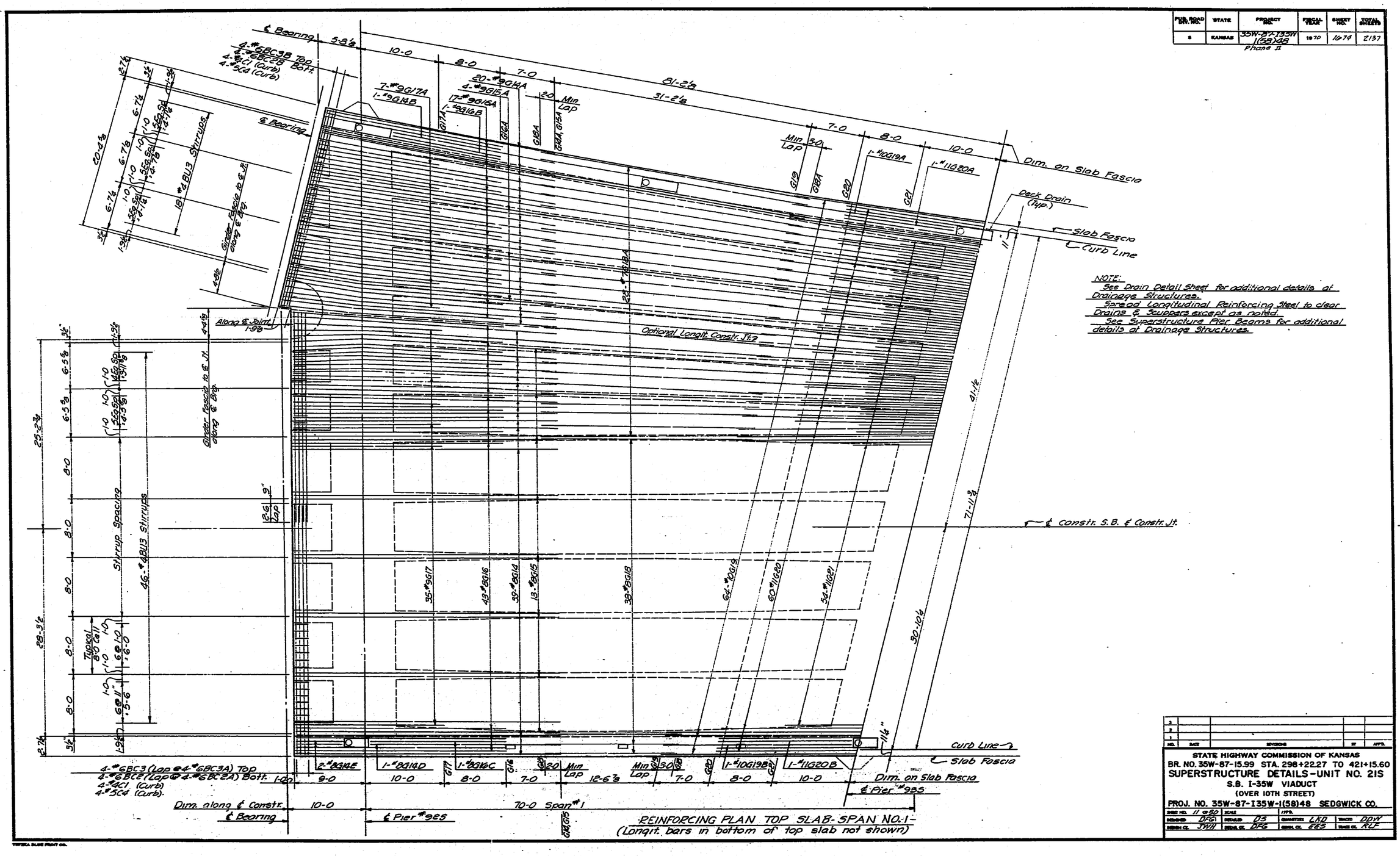
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

[redacted] 1 4 1

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	1970	1674	2137



NO.	DATE	REVISIONS	BY	APP'D

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 11 OF 20	SCALE		APP'D.		
DESIGNED DPG	DETAILED DS		CHECKED LKD	TRACED DDW	
DESIGN CK. JWH	DETAIL CK. DPG		DESIGN CK. EES	TRACE CK. RCF	

DIST. 5 SEDGWICK CO. ROLL 531

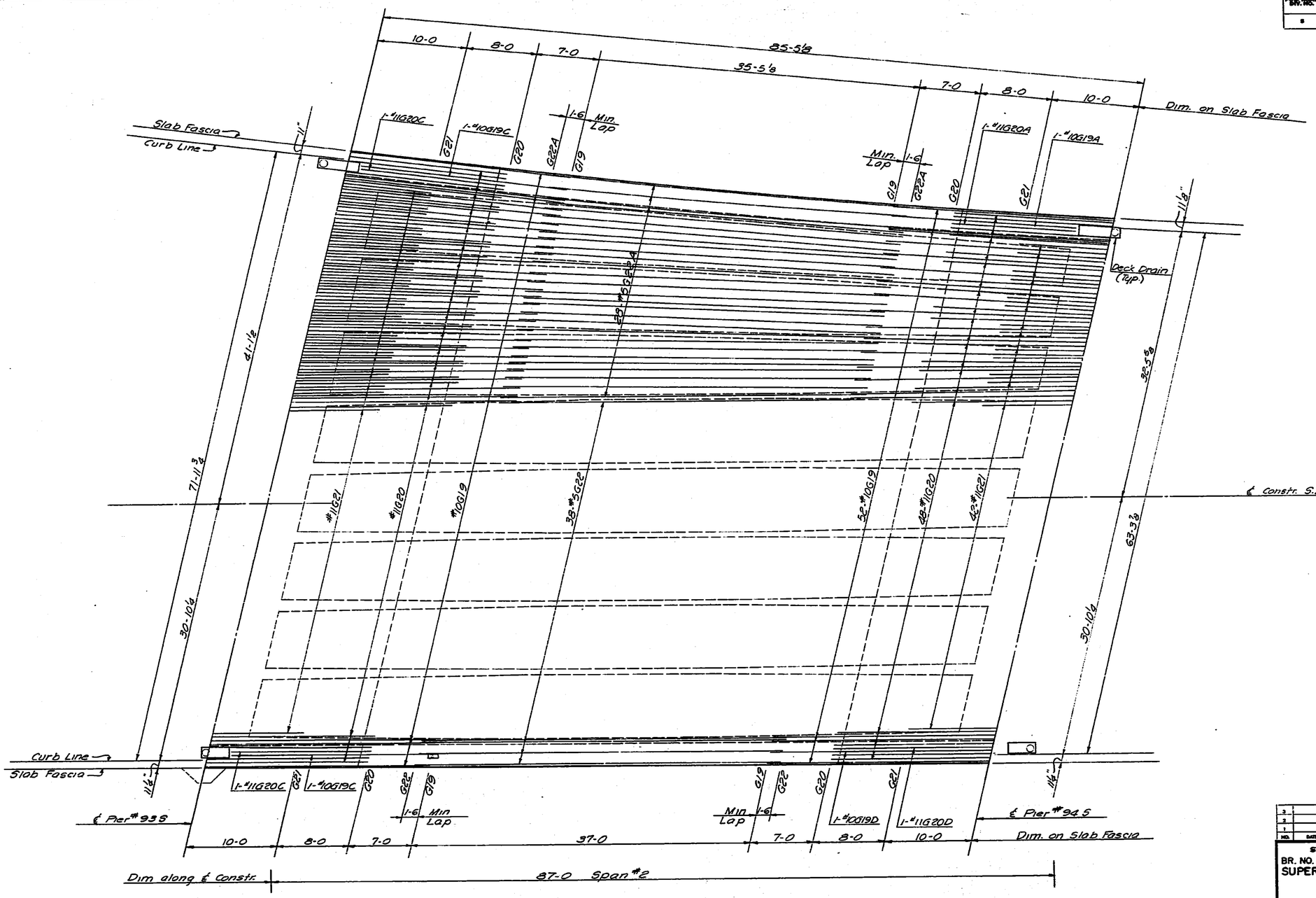
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

[redacted] 1 4 2

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-15.99 (058)48 PHASE II	1970	1075	2137



REINFORCING PLAN TOP SLAB- SPAN NO. 2
(Longitudinal bars in bottom of top slab not shown)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-135W-I(58)48 SEDGWICK CO.

SHEET NO. 12 of 20	ZONE		APP'D.		
DESIGNED DFG	DETAILED DS		QUANTITIES LKD	TRACED DDW	
DESIGN CK. JWH	DETAIL CK. DFG		QUANT. CK. EES	TRACE CK. RLF	

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

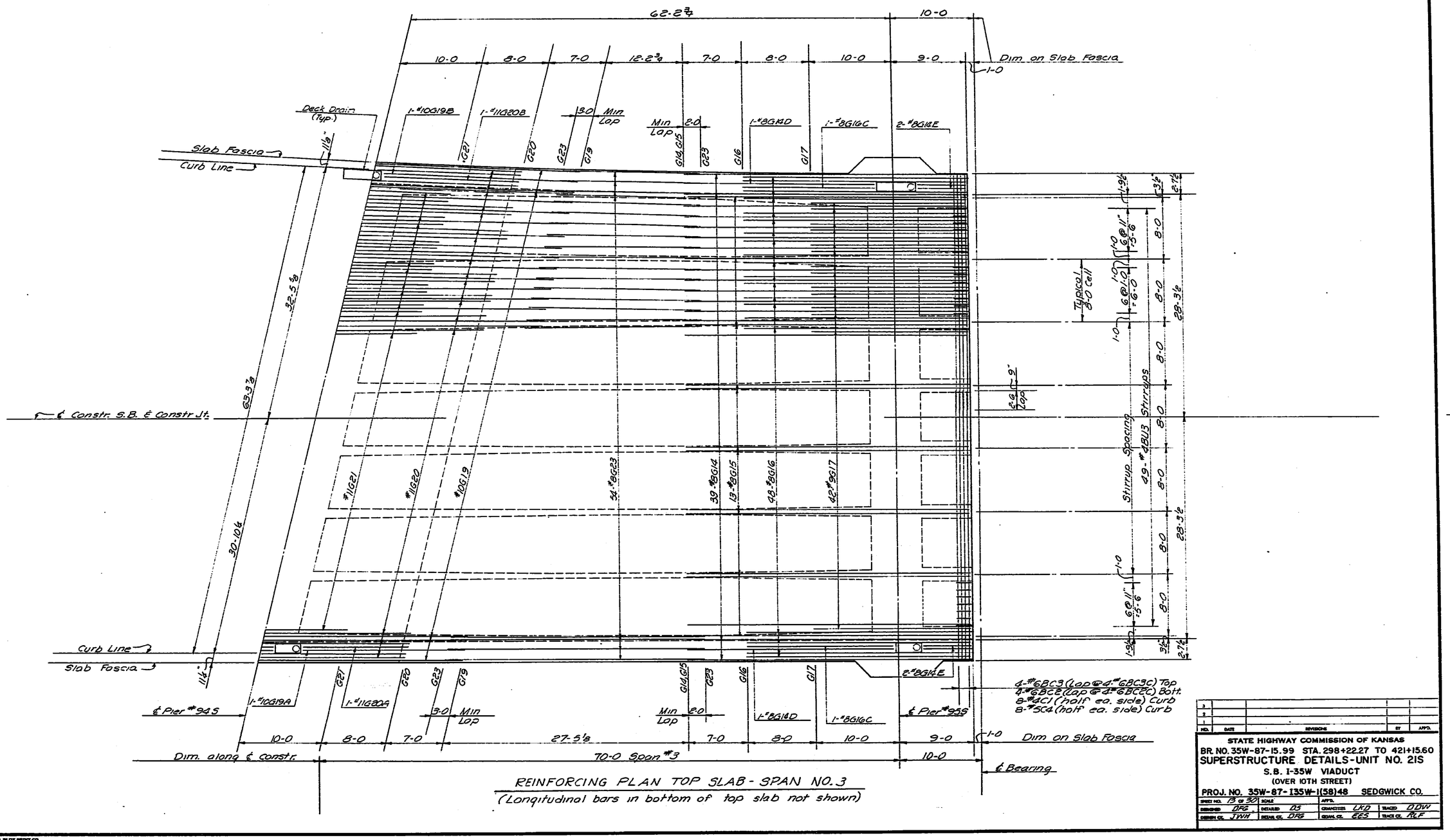
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

1 4 3

20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	1970	1676	2137



REINFORCING PLAN TOP SLAB - SPAN NO. 3
(Longitudinal bars in bottom of top slab not shown)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 2IS
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 73 OF 301	SCALE		APP'D.		
DESIGNED DRG	DETAILED DS		CHECKED LKD	TRACED DDW	
DESIGN CK. JWH	DETAIL CK. DRG		EQUAL CK. EES	TRACE CK. RLF	

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

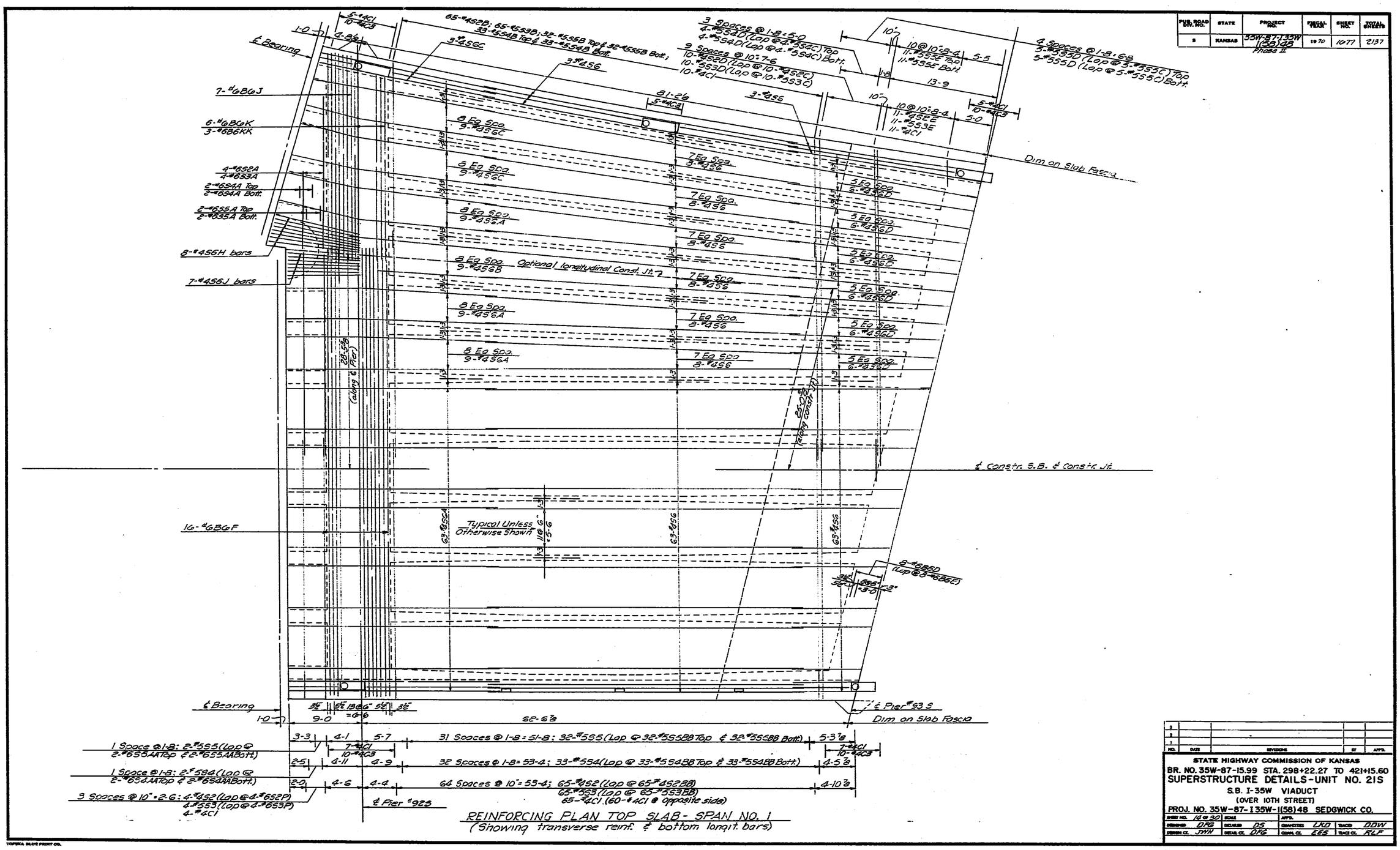
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

1 4 4

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-1(33)W 1(58)48 PHASE II	1970	1077	2137



REINFORCING PLAN TOP SLAB - SPAN NO. 1
(Showing transverse reinf. & bottom longit. bars)

TOPEKA BLUE PRINT CO.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-I 35W-1(58)48 SEDGWICK CO.

SHEET NO. 14 OF 30	SCALE	APP'D.			
DESIGNED DFG	DETAILED DS	QUANTITIES LKD	TRACED DDW		
DESIGN CK. JWH	DETAIL CK. DFG	QUAN. CK. EES	TRACE CK. RLF		

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

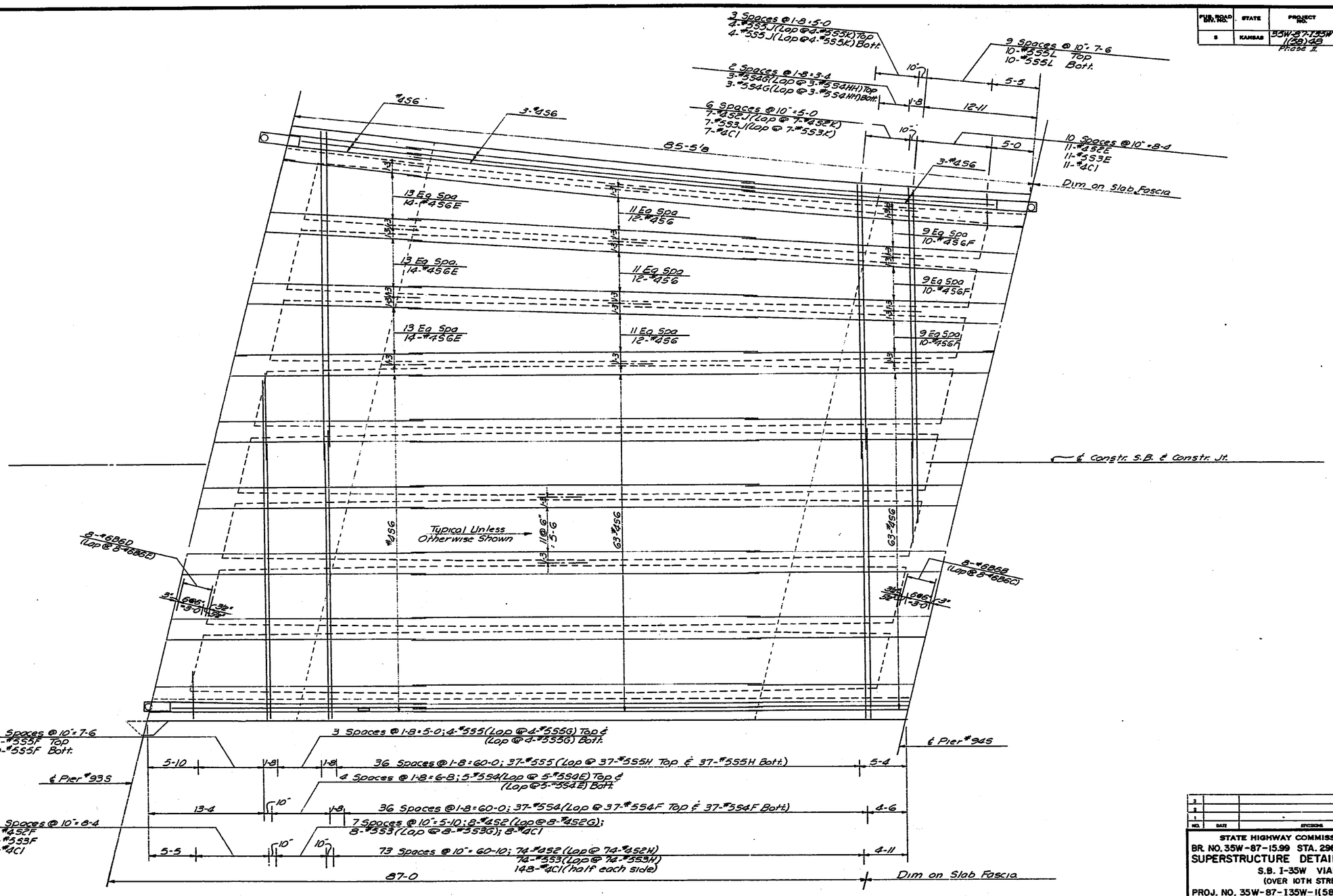
THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

[redacted] 1 4 5

20X 16X 14.5X 12X

12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 PROJ. II	19 70	1678	2137



REINFORCING PLAN TOP SLAB - SPAN NO. 2
(Showing transverse reinf. & bottom longit. bars)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 2IS
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-135W-I(58)48 SEDGWICK CO.

SHEET NO. 15 of 30	SCALE	APP'D.	
DESIGNED DFE	DETAILED GS	QUANTITIES LKD	TRACED DDW
DESIGN CK. JWH	DETAIL CK. DFE	CHECK CK. CES	TRACE CK. RLF

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

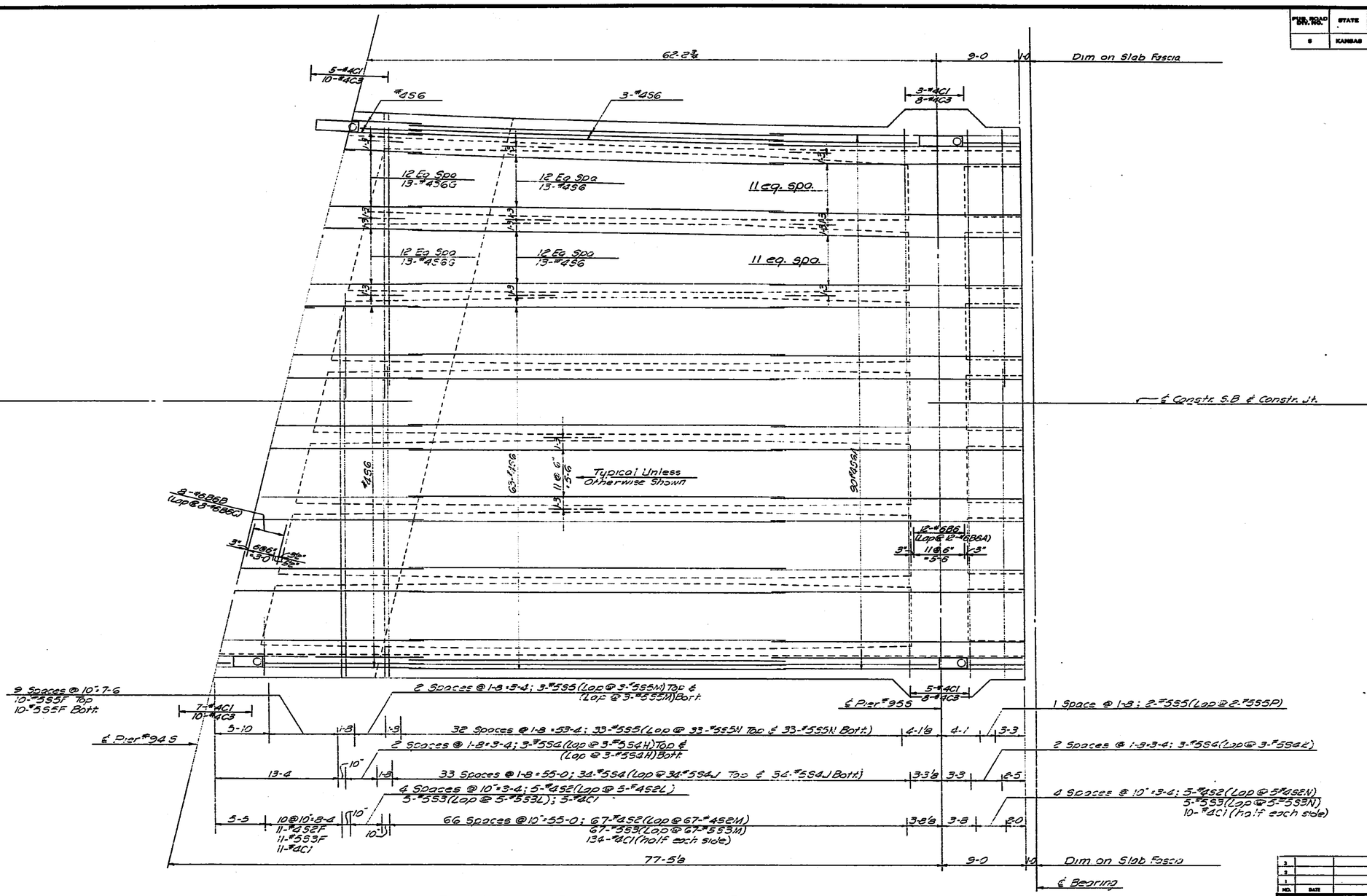
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT
THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

1 4 6

20X 16X 14.5X 12X

12X 14.5X 16X 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-1(135)W 1(58)48 Phase II	1970	1679	2137



REINFORCING PLAN TOP SLAB - SPAN NO. 3
(Showing transverse reinf. & bottom longit bars)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 116 of 2C	SCALE		APP'D.		
DESIGNED DFG	DETAILED DS		QUANTITIES LKD	TRACED DDW	
DESIGN CH. JWH	DETAIL CH. DFG		CHKD. CH. EES	TRACE CH. RLF	

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

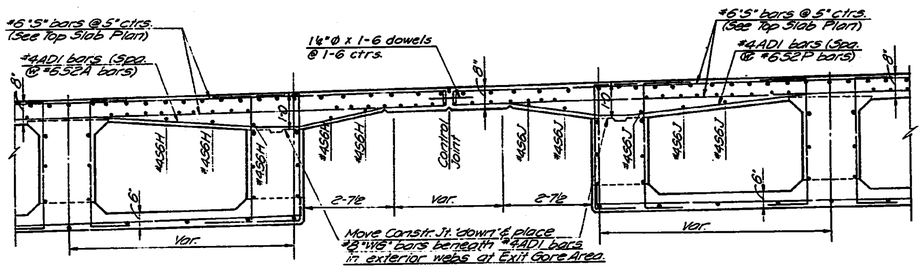
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT
THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

1 4 7

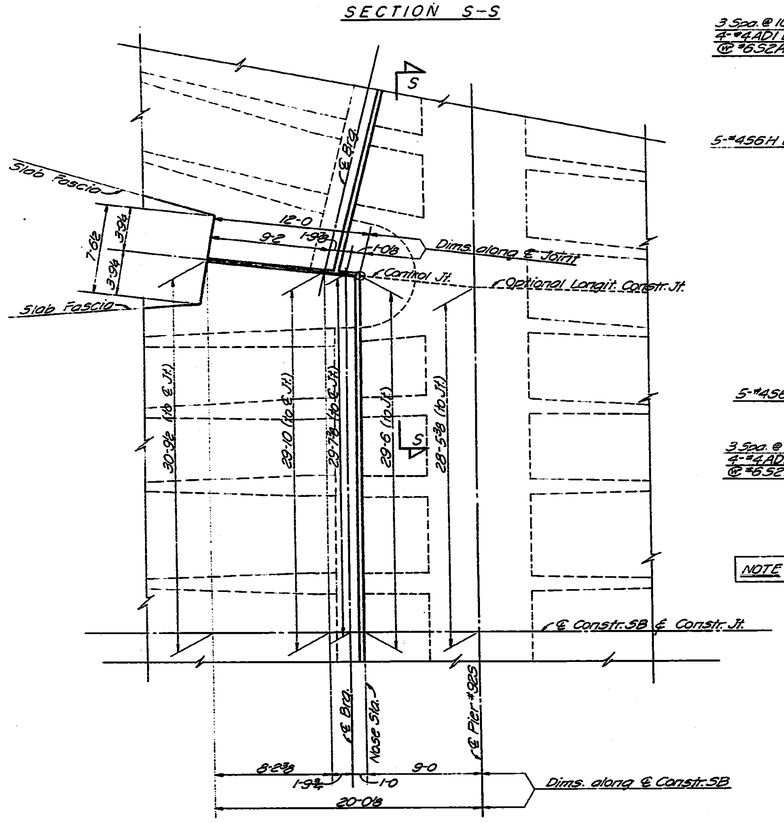
20X | 16X | 14.5X | 12X

12X | 14.5X | 16X | 20X

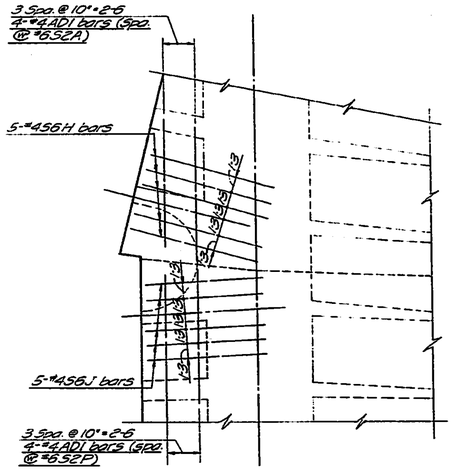
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W (58)48 Phase II	1970	1680	2137



SECTION S-S

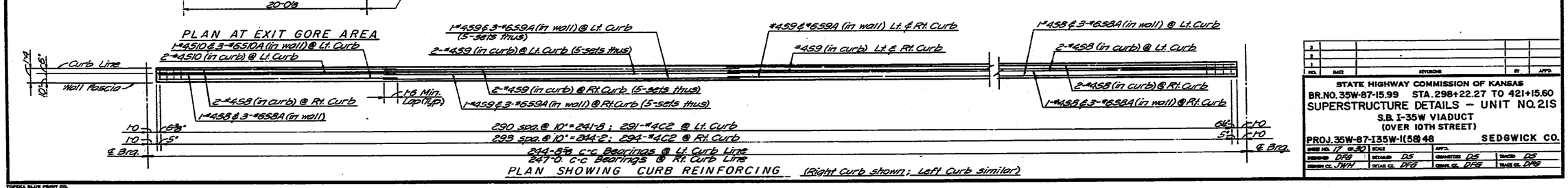


PLAN AT EXIT GORE AREA



SLAB AT EXIT GORE AREA

NOTE : See EXIT GORE DETAIL sheets.



PLAN SHOWING CURB REINFORCING (Right Curb shown; Left Curb similar)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 17 OF 30	SCALE	APP'D.		
DESIGNED DFG	RECKLED DS	QUANTITIES DS	TRACED DS	
DESIGN CK. JWH	DETAIL CK. DFG	QUAN. CK. DFG	TRACE CK. DFG	

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

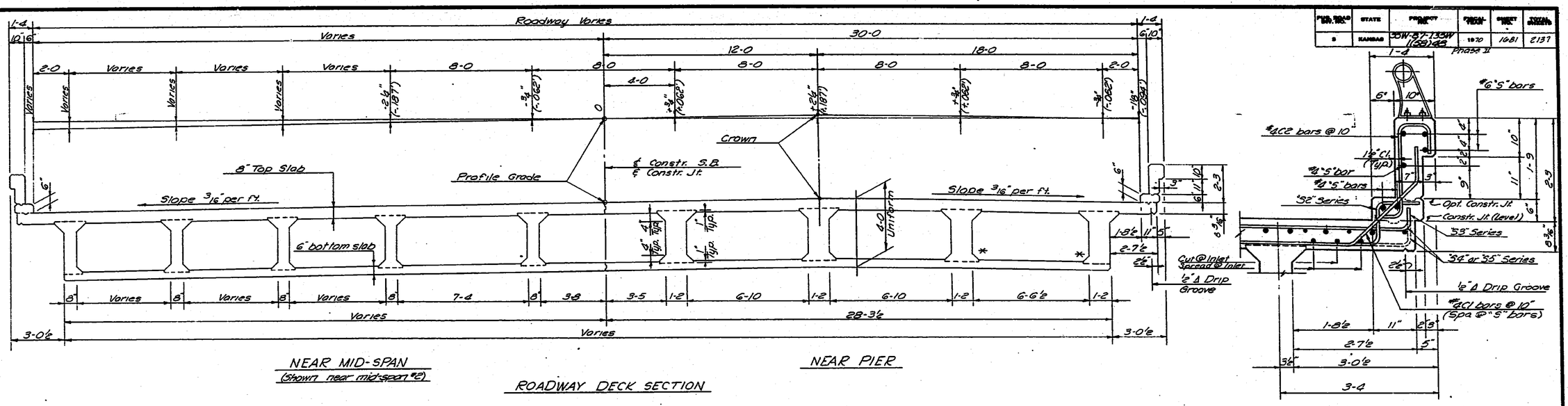
THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

[redacted] 1 4 8

20X | 16X | 14.5X | 12X

12X | 14.5X | 16X | 20X

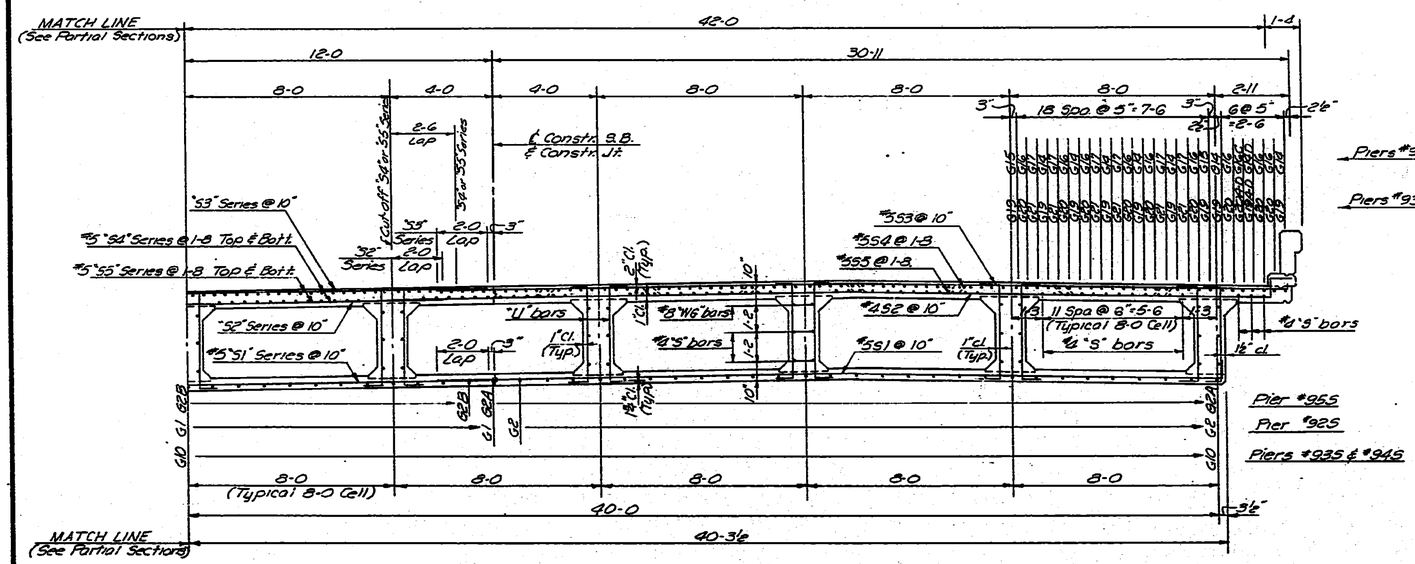
LIN. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48	1970	1681	2137



ROADWAY DECK SECTION

TYPICAL CURB SECTION

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.
See web elevations for quantity, size and spacing of "V" bars.



ROADWAY DECK SECTION AT PIERS

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 296+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO.	18 of 20	DRWN.		APP'D.	
DESIGNED	DPG	CHKD.	DS	CHKD.	LKD
QUANTITIES	JMH	CHKD.	DPG	CHKD.	EES
					DDM
					RLF

DIST. 5 SEDGWICK CO. ROLL 531

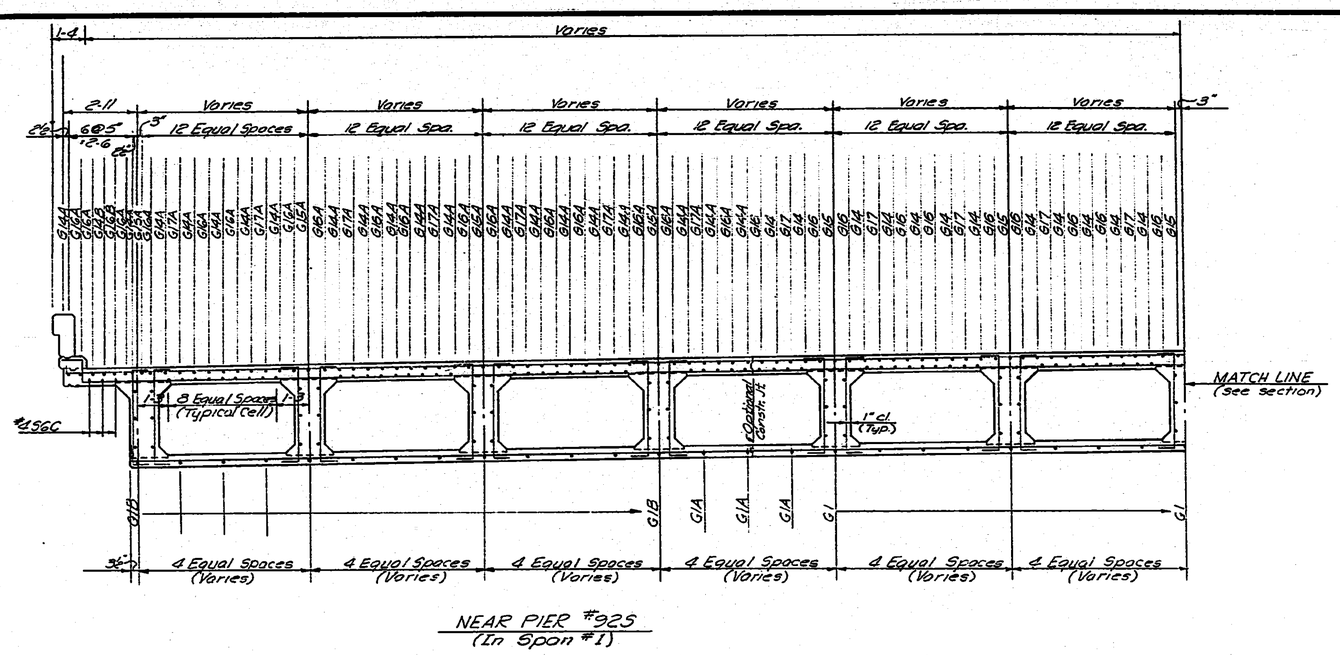
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

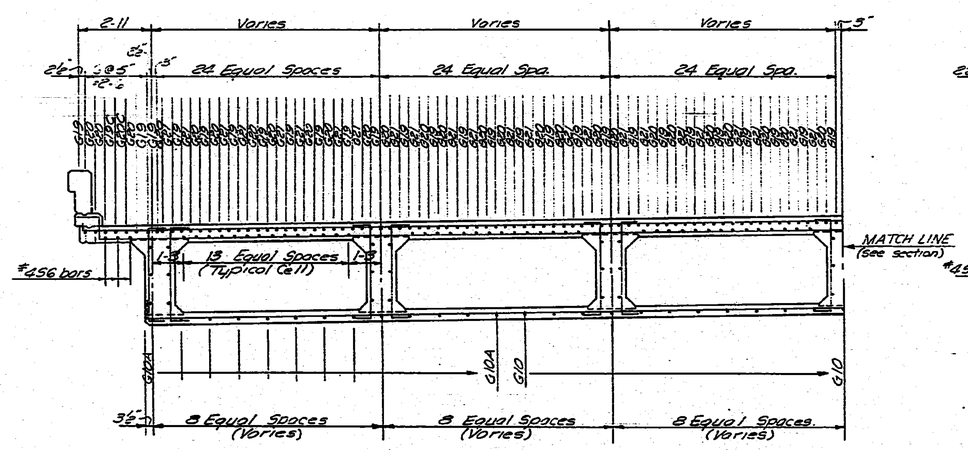
1 4 9

20X 16X 14.5X 12X 12X 14.5X 16X 20X

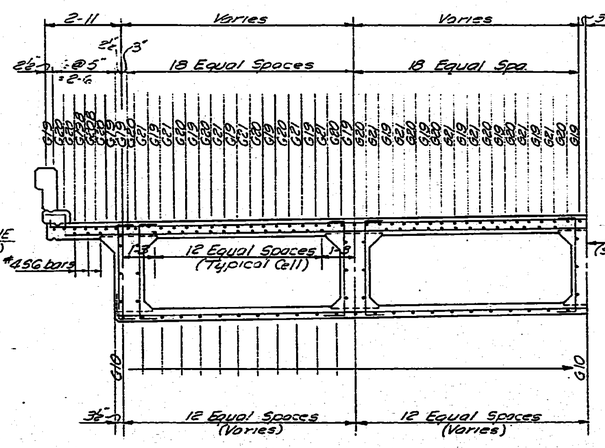
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W (38)48 Phase II	1970	1082	2137



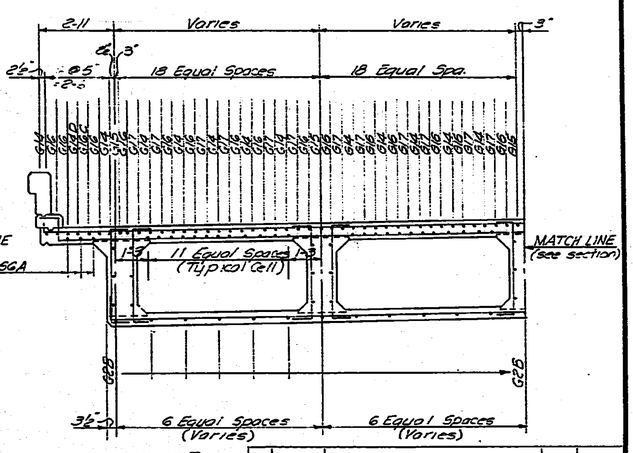
NEAR PIER #925
(In Span #1)



NEAR PIER #935
(in span #2)



NEAR PIER #945
(in span #3)



NEAR PIER #955
(in span #3)

ROADWAY DECK SECTIONS
(Near Piers)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 2IS
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-135W-1(38)48 SEDGWICK CO.

SHEET NO. 19 OF 30 SHTS		APP'D.			
DESIGNED DFG	DETAILED DS	CHECKED LKD	TRACED DDM		
DESIGN CK. JWH	DESIGN CK. DFG	DESIGN CK. ELS	TRACE CK. RLF		

DIST. 5 SEDGWICK CO. ROLL 531

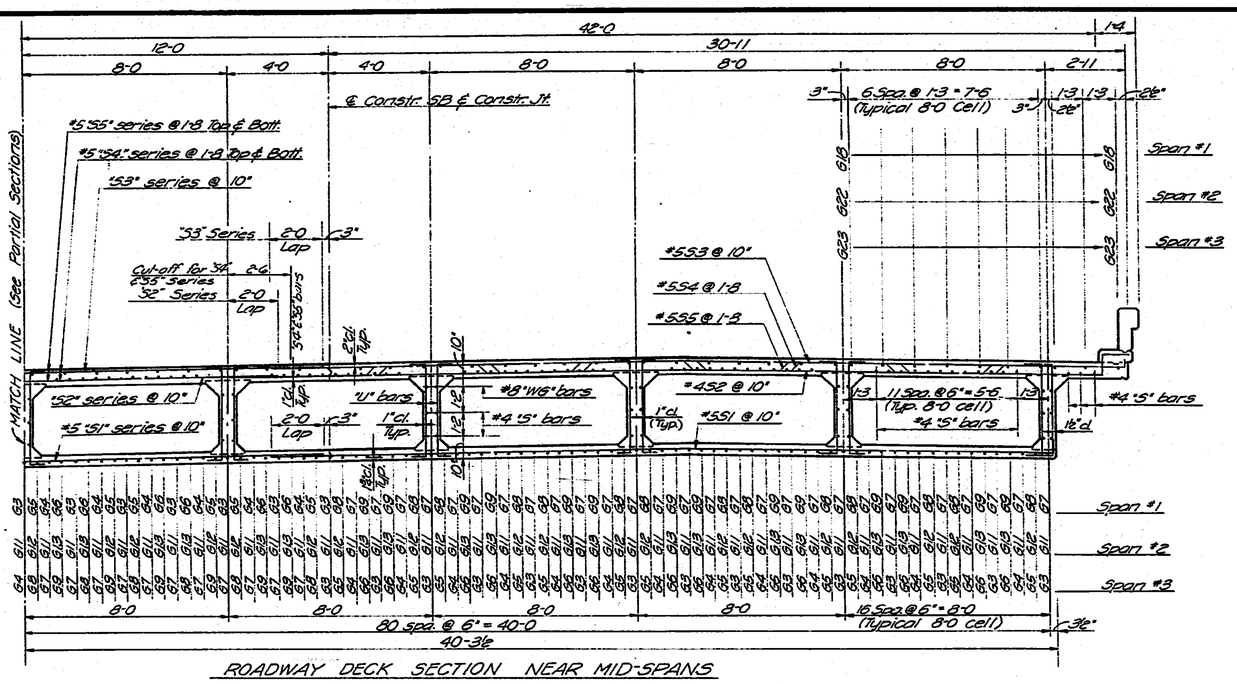
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

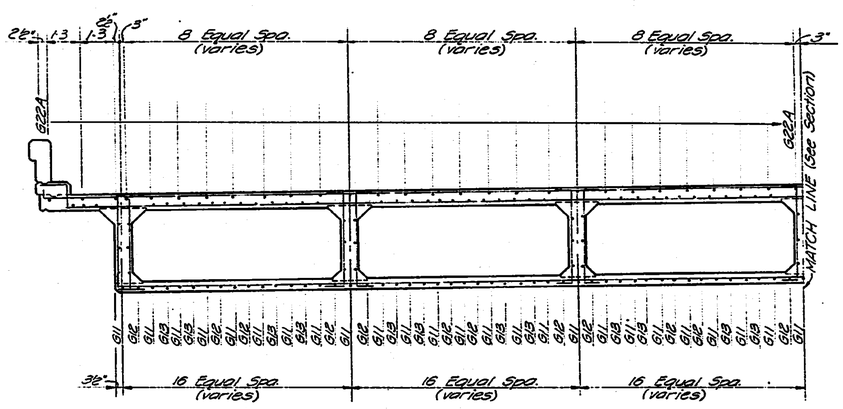
1 5 0

20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

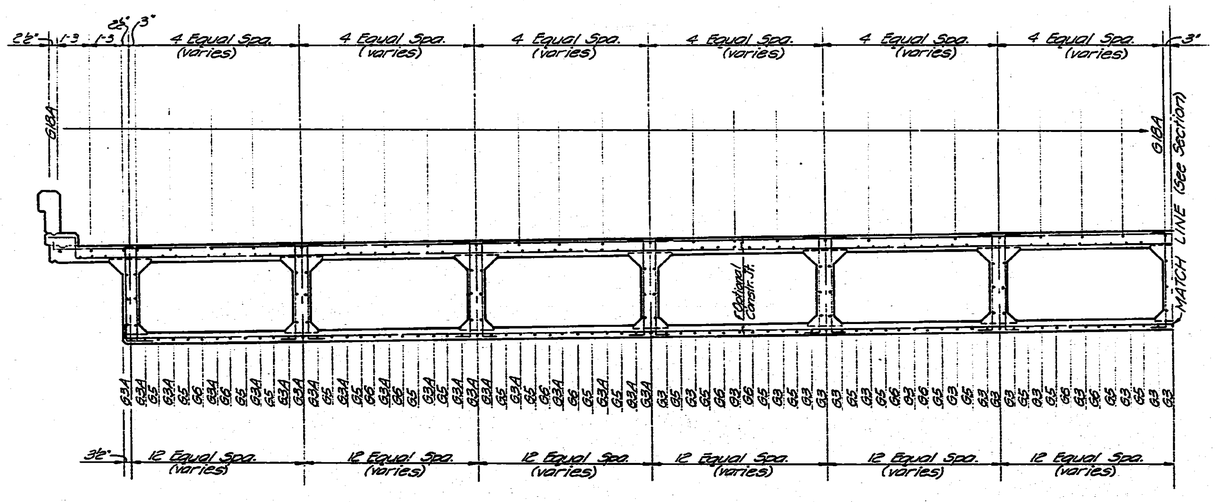
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W I(35)48 Phase II	1970	108-B	2137



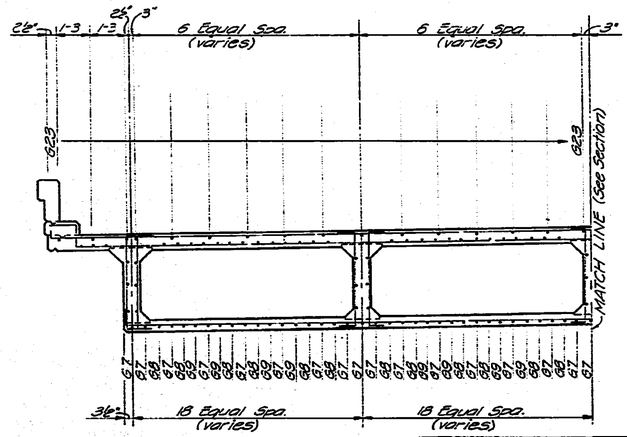
ROADWAY DECK SECTION NEAR MID-SPANS



NEAR MID-SPAN #2



NEAR MID-SPAN #1



NEAR MID-SPAN #3

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 215
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 20 OF 30	SCALE		APP'D.		
DESIGNED DFG	DETAILED DS		CHK'D. LKD	TRACED DDW	
DESIGN CH. JWH	DETAIL CH. DFG		QUANT. CH. EES	TRACE CH. RLF	

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

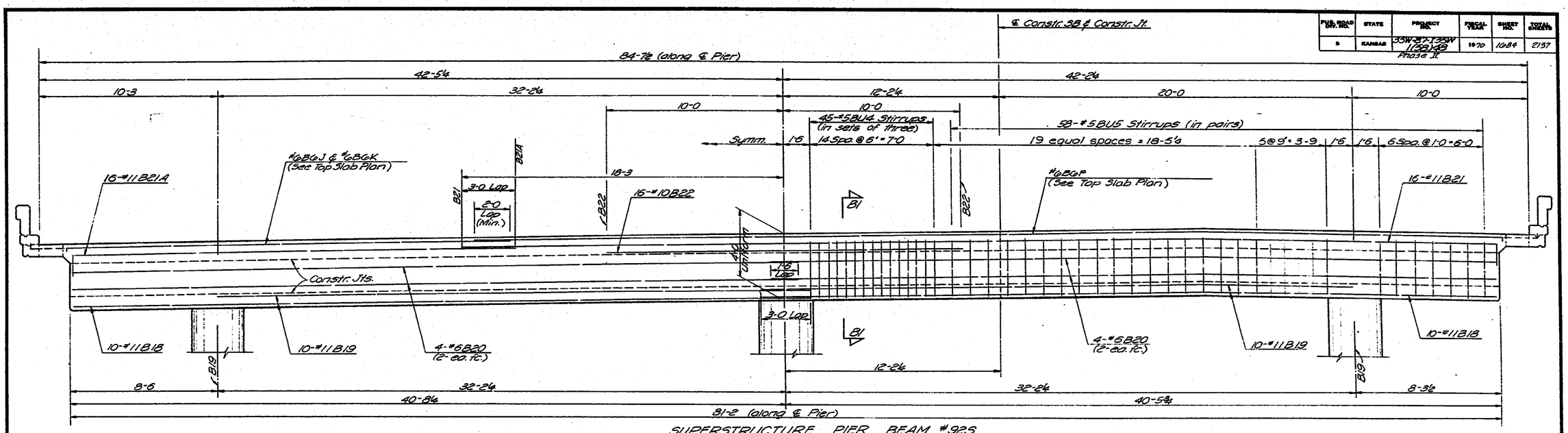
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

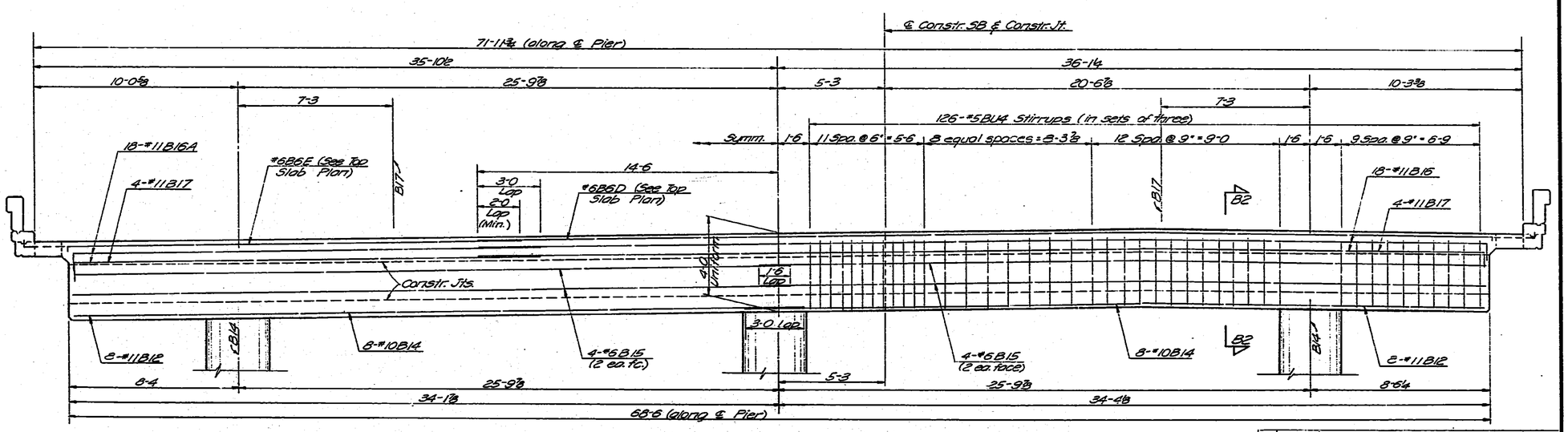
1 5 1

20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	1970	1684	2137



SUPERSTRUCTURE PIER BEAM #925



SUPERSTRUCTURE PIER BEAM #935

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 21 OF 30	SCALE	APP'D.	
DESIGNED DLF	DRAWN DS	CHECKED LKD	TRACED DS
CHECKED JWH	QUAN. CK. DTG	QUAN. CK. ECS	TRACE CK. RLF

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

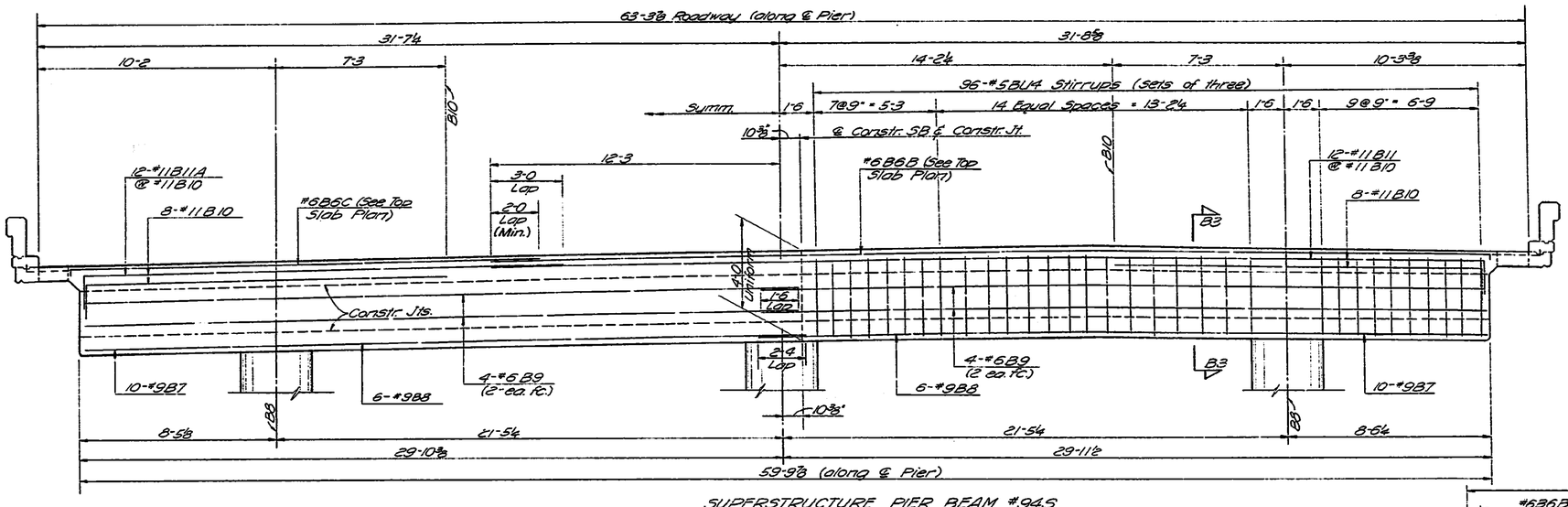
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

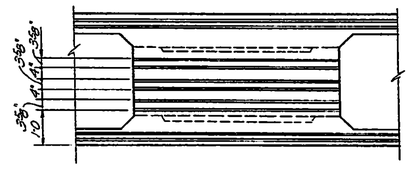
[redacted] 1 5 2

20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

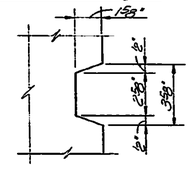
FED. ROAD DIST. NO.	STATE	PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135N (58)48 Phase II	1970	1085	2137



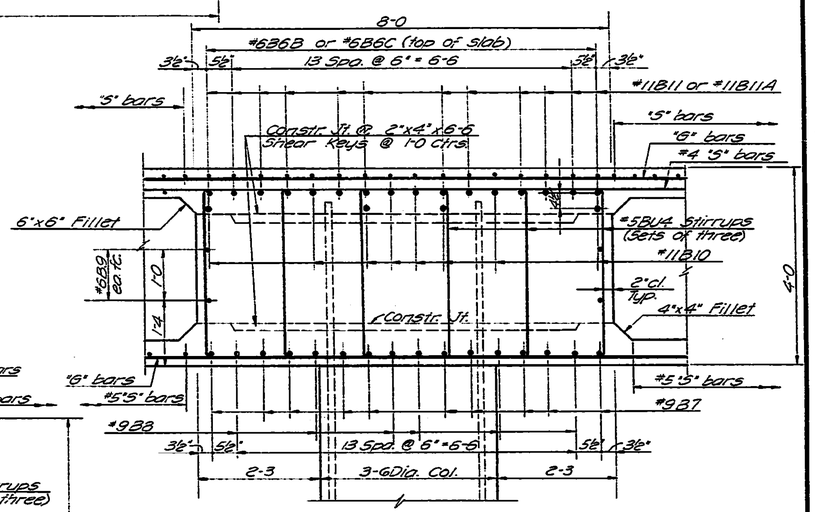
SUPERSTRUCTURE PIER BEAM #94S



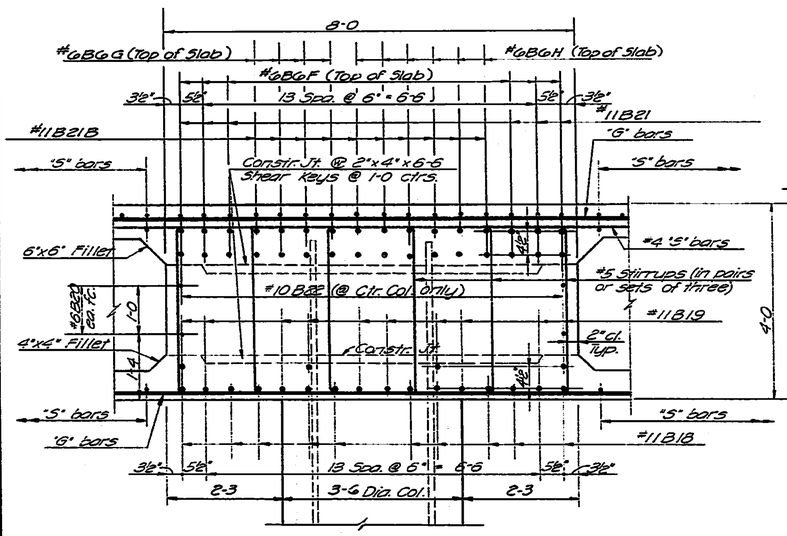
SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing location of keys.)



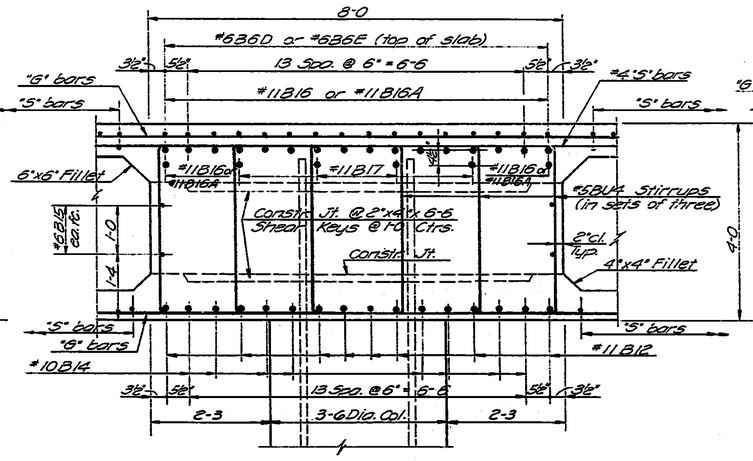
TYPICAL KEY DETAIL



SECTION B3-B3
(At Pier #94S)



SECTION B1-B1
(At Pier #92S)



SECTION B2-B2
(At Pier #93S)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 22 of 30	SCALE		APP'D.		
DESIGNED DFG	DETAILED DS		QUANTITIES LKD	TRACED DS	
DESIGN CK. JWH	DETAIL CK. DFG		QUAN. CK. EES	TRACE CK. RLF	

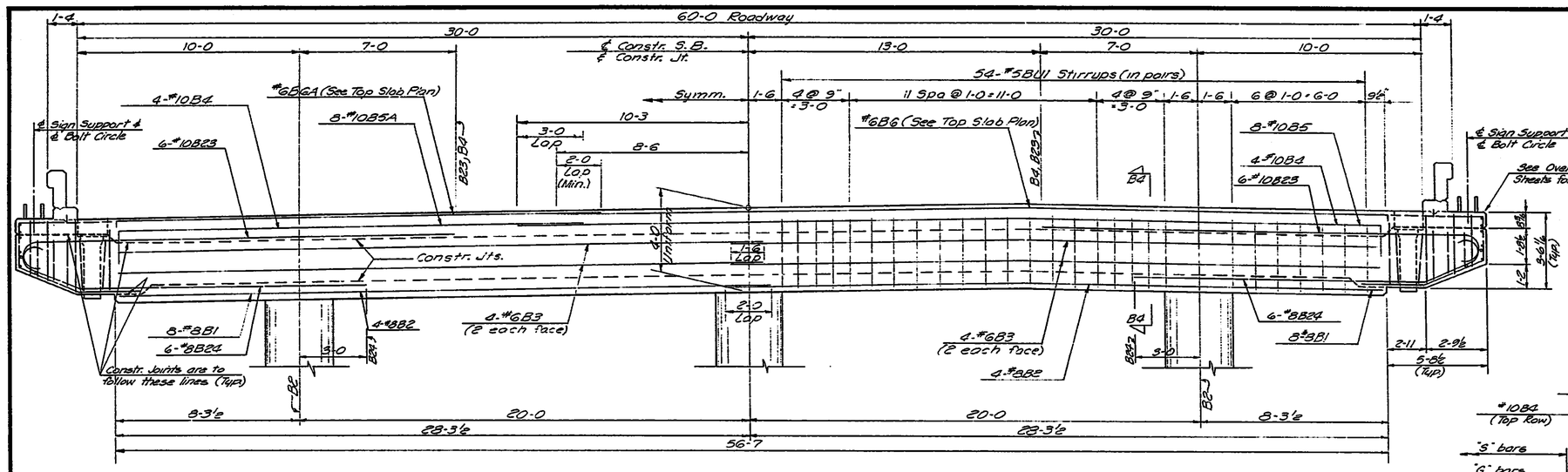
DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

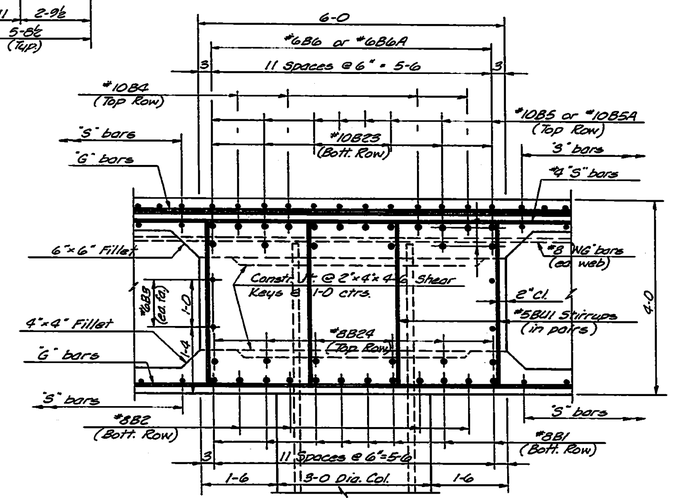
THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

1 5 3

20X 16X 14.5X 12X 12X 14.5X 16X 20X



SUPERSTRUCTURE PIER BEAM
(Pier # 955)



SECTION B4-B4
(At Pier #955)

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W 168(48 Phase II	1970	1686	2137

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 23 OF 30	SCALE		APP'D.		
DESIGNED DFG	DETAILED DS		CHECKED LKD	TRACED DDW	
DESIGN CK. JWH	DETAIL CK. DFG		CHECK CK. EES	TRACE CK. RLE	

DIST. 5 SEDGWICK CO. ROLL 531

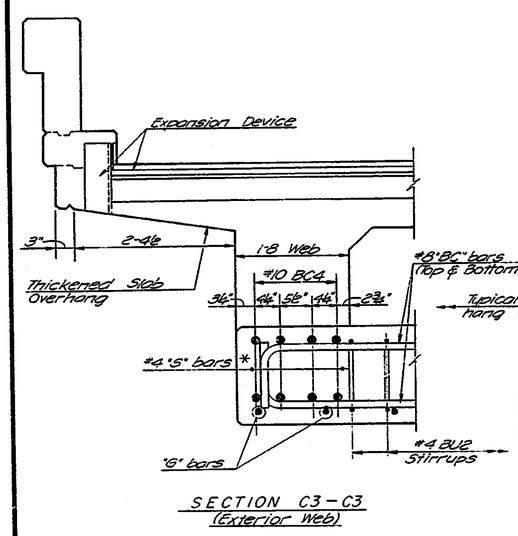
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

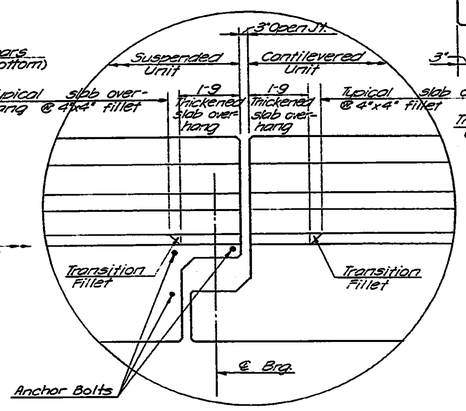
1 5 4

20X 16X 14.5X 12X 12X 14.5X 16X 20X

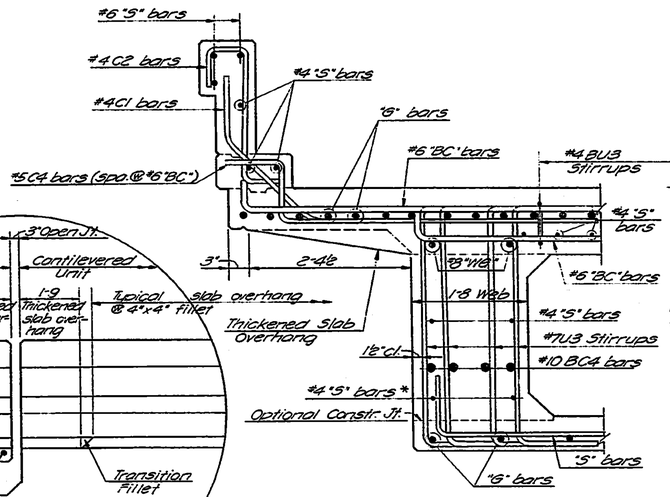
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135K-1(58)48 Phase II	1970	1087	2137



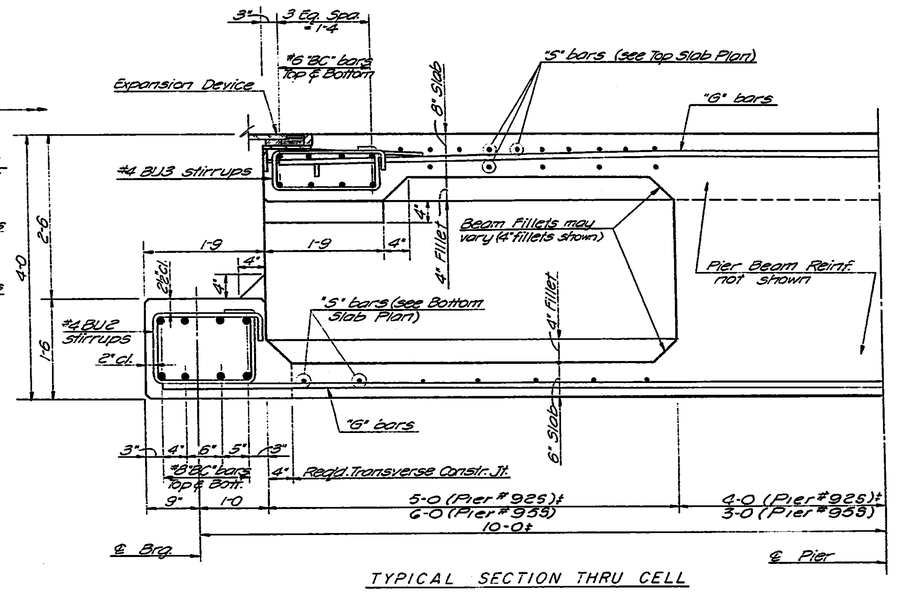
SECTION C3 – C3
(Exterior Web)



VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)

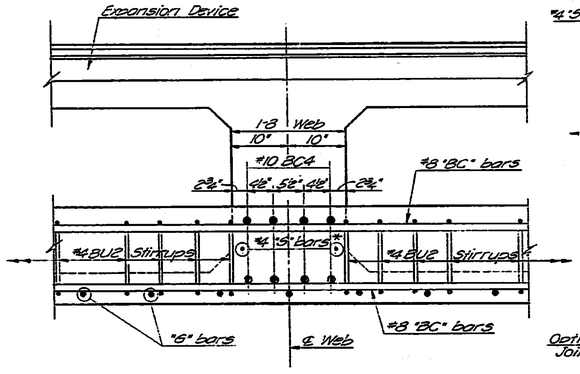


SECTION C4 – C4
(Exterior Web)

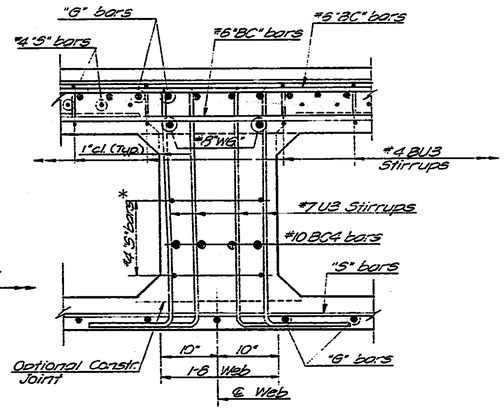


TYPICAL SECTION THRU CELL

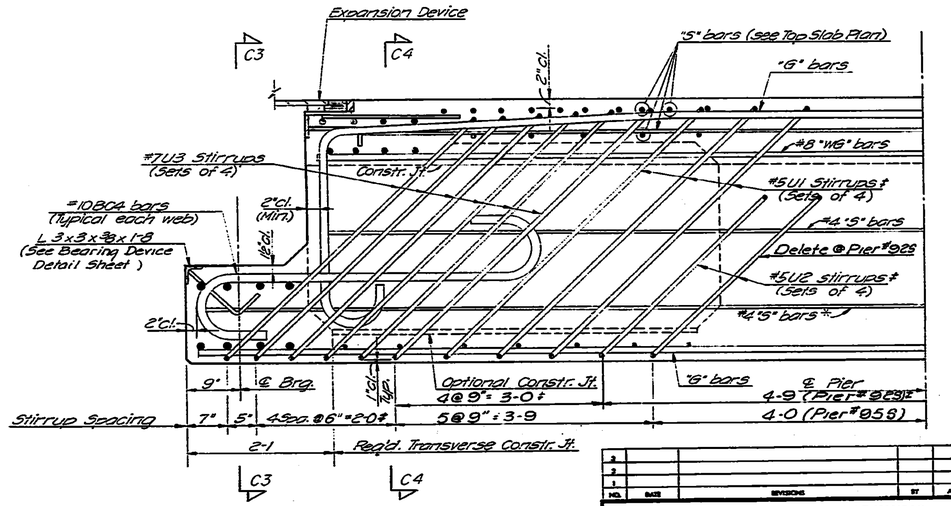
SEE REVISED EXPANSION DEVICES



SECTION C3 – C3
(Interior Web)



SECTION C4 – C4
(Interior Web)



TYPICAL SECTION THRU WEB

BEARING BEAM DETAILS

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

‡ See Web Elevation for Webs W9, W10, W11 & W12 in Span #1

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 2 IS
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 24 OF 30	SCALE		APP'D.	
DESIGNED DPB	DETAILED DS	CHECKED LKD	TRACED DS	
DESIGN CK. RBS	DETAIL CK. RBS	CHECK CK. EES	TRACE CK. RBS	

DIST. 5 SEDGWICK CO. ROLL 531

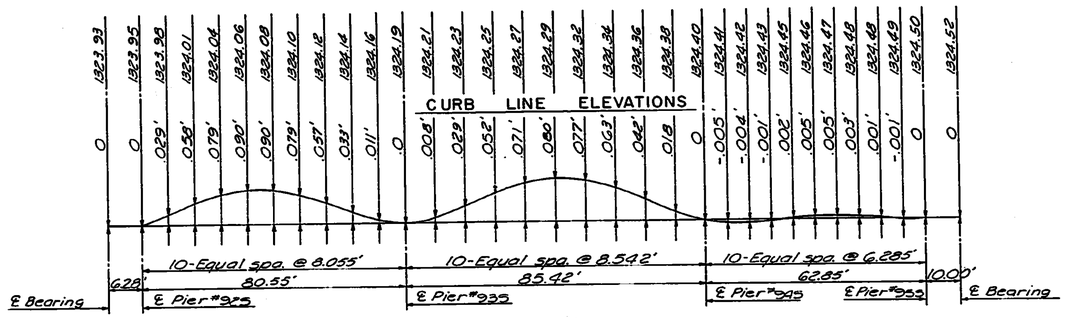
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

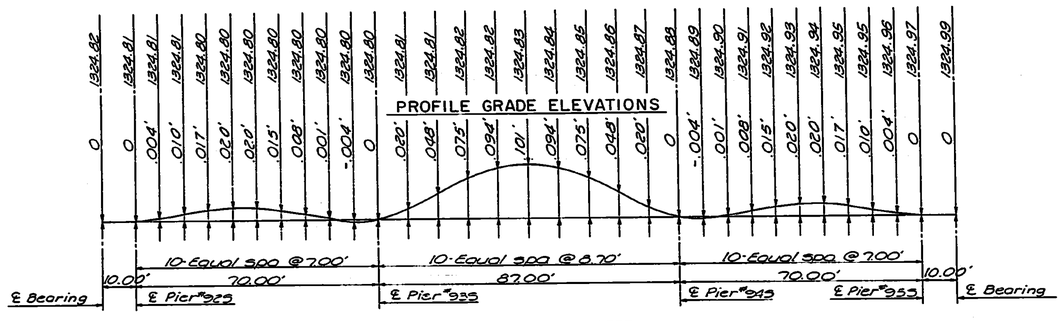
1 5 5

20X 16X 14.5X 12X 12X 14.5X 16X 20X

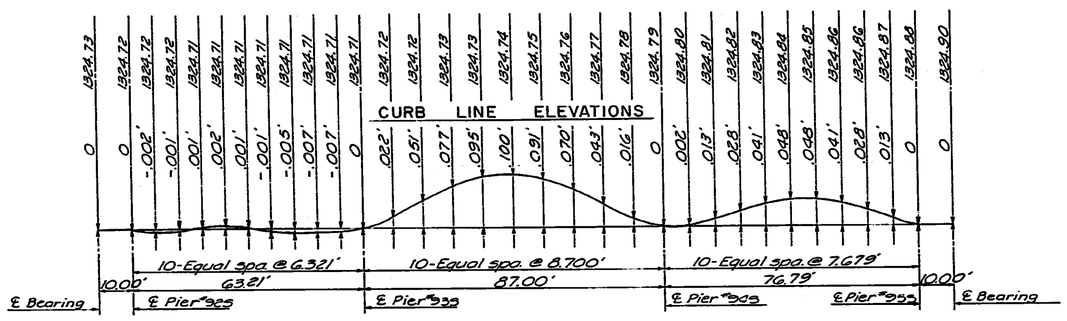
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	1970	1688	2137



DEAD LOAD CAMBER IN FEET
ALONG LEFT GIRDER FASCIA



DEAD LOAD CAMBER IN FEET
ALONG ℄ CONSTRUCTION



DEAD LOAD CAMBER IN FEET
ALONG RIGHT GIRDER FASCIA

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL TOP OF SLAB ELEVATIONS AT TENTH POINTS

NOTE: Add dead load camber to theoretical top of slab elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ psi.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 29 of 30	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	QUANTITIES (KD)	TRACED DS/RCP
DESIGN CK. RBS	DETAIL CK. RBS	GRAL. CK. (EES)	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

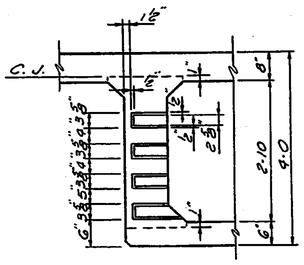
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

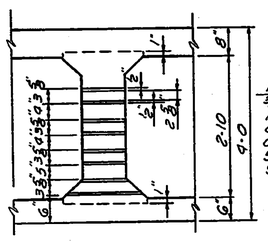
[redacted] 1 5 6

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEARS	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	1970	1689	2137

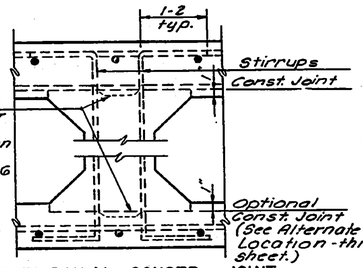


SECTION B-B
(Through Exterior Web)

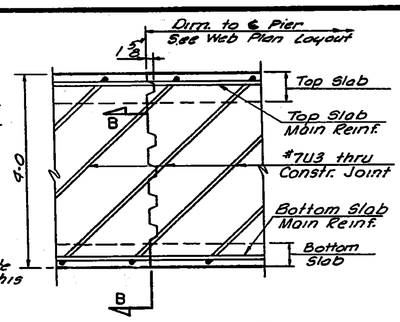


SECTION B-B
(Through Interior Web)

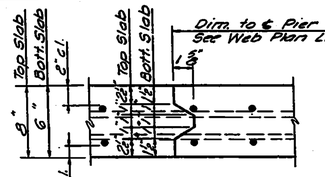
Rake or form 3/4"x12"x6" Shear keys @ 6" ctrs. as shown. Clean according to Sec. FI-4(g), 1966 Specs.



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

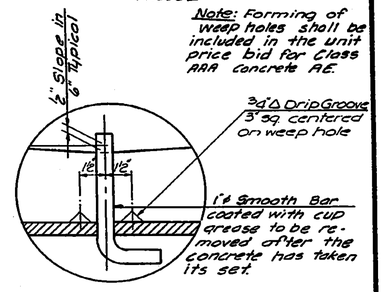


WEB CONSTR. JOINT
(Showing Placement of #7U3 bars)



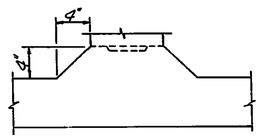
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of weep holes shall be included in the unit price bid for Class AAA Concrete AE.

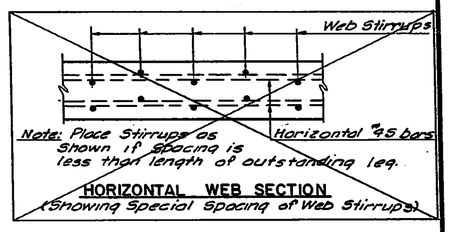


DETAIL OF WEEP HOLES

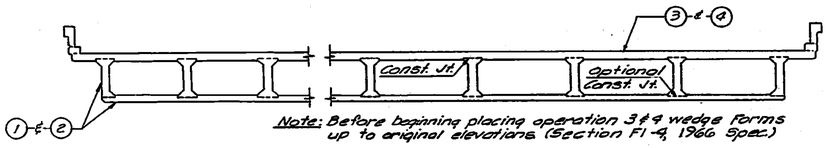
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer)

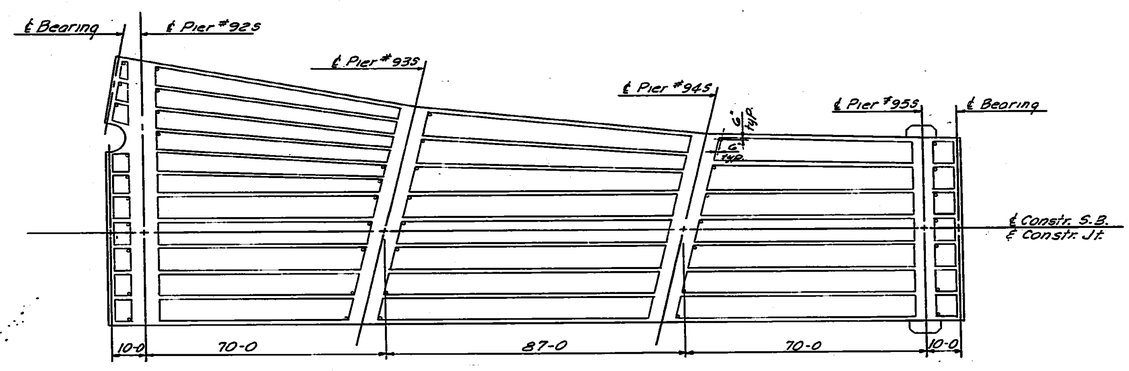


HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)

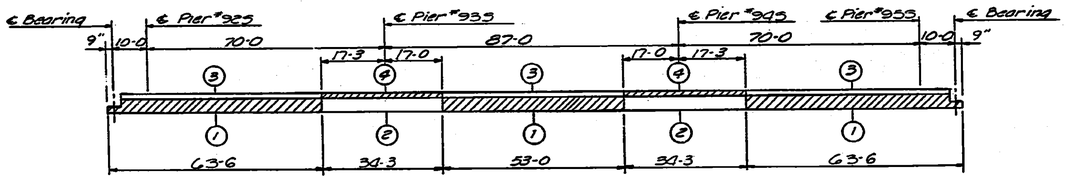


Note: Before beginning placing operation 3 of 9 wedge forms up to original elevations (Section FI-4, 1966 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



LOCATION OF WEEP HOLES



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework

NOTES:

See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 26 OF 30	SCALE	APP'D.	
DESIGNED DFG	DETAILED DGT	QUANTITIES LKD/	TRACED DGT
DESIGN CK. RBS	DETAIL CK. RAW	QUANT. CK. RBS/	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

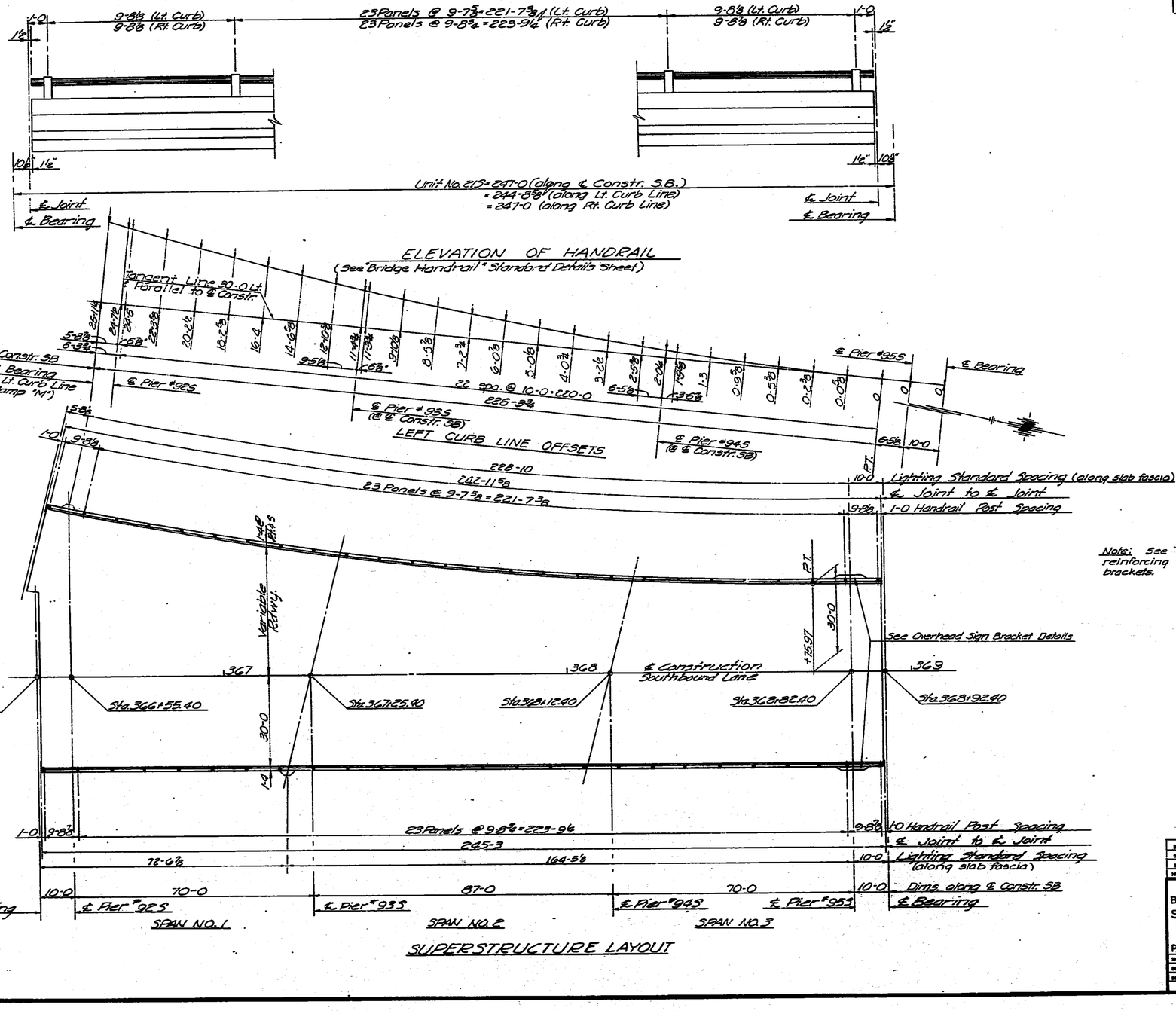
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

1 5 7

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	1970	1690	2137



SUPERSTRUCTURE LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO 21S
S.B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 57 OF 80 SHEETS	APP'D.	
DESIGNED JWH	DETAILED RBS	DIRECTION LHD / TRACED KWK
CHECKED RBS	DETAIL CK. DPC	CHECK CK. RBS / TRACE CK. GAB

64-05 E

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

1 5 8

20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

REV. PLANS 11-1-71

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-13&W I-(58)148	1970	1691	2137

Phase II

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
S1B	7	5	*	S1	240	5	31-5
S1BB	1	5	20-0	S1A	6	5	25-9
S1CC	66	5	*	S1C	66	5	*
S1E	8	5	*	S1D	8	5	29-6
S1G	10	5	*	S1DD	4	5	31-6
				S1F	22	5	*
				S1FF	16	5	*
				S1H	76	5	*
				S1J	4	5	*
				S1K	8	5	*
				S1L	45	5	28-5
				S1LL	22	5	29-2
				S1M	7	5	28-11
				S2	228	4	35-11
				S2A	4	6	*
S2C	10	4	*	S2B	65	4	*
S2BB	65	4	30-0	S2D	10	4	44-0
S2G	8	4	*	S2E	22	4	*
S2K	7	4	*	S2F	22	4	*
				S2H	74	4	*
				S2J	7	4	32-6
				S2L	5	4	*
				S2M	67	4	*
				S2N	5	4	29-11
				S2P	4	6	27-10
				S3	228	5	33-6
				S3A	4	6	*
S3C	10	5	*	S3B	65	5	*
S3BB	65	5	30-0	S3D	10	5	43-0
S3G	8	5	*	S3E	22	5	*
S3K	7	5	*	S3F	22	5	*
				S3H	74	5	*
				S3J	7	5	33-9
				S3L	5	5	*
				S3M	67	5	*
				S3N	5	5	31-0
				S3P	4	6	27-4
S4A	4	6	*	S4	117	5	36-5
S4AA	4	6	28-0	S4B	66	5	*
S4BB	66	5	30-0	S4D	8	5	43-0
S4C	8	5	*	S4F	74	5	*
S4E	10	5	*	S4G	6	5	32-6
S4H	6	5	*	S4J	68	5	*
S4HH	6	5	*	S4K	3	5	21-3
S5A	4	6	*	S5	121	5	36-5
S5AA	4	6	28-0	S5B	64	5	*
S5BB	64	5	30-0	S5C	10	5	*
S5G	8	5	*	S5D	10	5	42-6
S5K	8	5	*	S5E	22	5	*
S5M	6	5	*	S5F	40	5	*
				S5H	74	5	*
				S5J	8	5	32-6
				S5L	20	5	*
				S5N	66	5	*
				S5P	2	5	21-3
S6	636	4	40-0				
S6A	180	4	27-0				
S6B	9	4	24-0				
S6C	21	4	26-0				
S6D	36	4	*				
S6E	42	4	*				
S6F	30	4	*				
S6G	26	4	*				
S6H	13	4	11-6				
S6J	12	4	9-6				

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
S7	26	4	26-10				
S7A	26	4	28-7				
S7B	2	4	25-3				
S7C	2	4	27-0				
S7D	2	4	24-6				
S7E	6	4	26-0				
S7F	2	4	20-6				
S7G	4	4	22-3				
S7H	4	4	13-3				
S7J	4	4	15-0				
S7K	2	4	38-6				
S7L	2	4	40-0				
S7M	2	4	23-9				
G1	21	8	*	S13	3	6	14-10
G2	28	8	*				
G3	39	10	56-0				
G3A	19	11	56-0				
G4	20	9	56-0				
G5	44	9	43-0				
G6	32	9	30-0				
G7	56	9	50-0				
G8	32	8	37-0				
G9	28	8	24-0				
G10	117	8	29-6				
G10A	12	9	29-6				
G11	65	10	60-0				
G12	32	10	52-0				
G13	32	10	36-0				
G14	78	8	33-10				
G14A	20	9	*				
G14B	1	9	21-0				
G14D	3	8	24-6				
G14E	6	8	6-0				
G14F	4	8	5-9				
G16	91	8	26-10	G15	26	8	37-11
G16A	17	9	*	G15A	4	9	*
G16B	1	9	14-0				
G16C	3	8	17-6				
G17	77	9	18-10				
G17A	7	9	*				
G18	38	8	*				
G18A	28	7	*				
G19	116	10	50-0				
G19A	3	10	21-0				
G19B	2	10	24-0				
G19C	2	10	16-6				
G19D	1	10	26-0				
G20	108	11	36-0				
G20A	3	11	14-6				
G20B	2	11	17-6				
G20C	2	11	16-6				
G20D	1	11	20-0				
G21	96	11	20-0				
G22	38	5	40-0				
G22A	28	5	*				
G23	54	8	*				
G1A	3	10	15-6				
G1B	13	10	22-0				
G2A	29	8	*				
G2B	24	8	*				
				G1C	1	10	18-7

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
B1	16	8	29-3	B4	8	10	16-9
B2	8	8	21-0	B5	8	10	40-0
B3	8	6	29-0	B5A	8	10	22-6
				B6	12	6	39-8
				B6A	12	6	24-8
				B6B	16	6	45-6
				B6C	16	6	23-0
				B6D	16	6	51-11
				B6E	16	6	24-8
				B6F	16	6	60-0
B6K	6	6	25-6	B6J	7	6	*
B6KK	3	6	26-6				
B7	20	9	31-0				
B8	12	9	22-6	B10	16	11	17-3
B9	8	6	30-6	B11	12	11	43-6
B12	16	11	35-9	B11A	12	11	22-0
B14	16	10	27-3				
B15	8	6	35-0	B16	18	11	50-3
				B16A	18	11	22-6
B18	20	11	41-9	B17	8	11	17-1
B19	20	11	33-9				
B20	8	6	41-0	B21	16	11	60-0
				B21A	16	11	25-3
B22	16	10	20-0				
				B23	12	10	22-4
				B24	12	8	18-2
				BC1	16	8	32-9
				BC1A	8	8	25-7
				BC1B	8	8	22-0
				BC1C	8	8	29-9
				BC2	8	6	31-11
				BC2A	4	6	25-3
				BC2B	4	6	21-0
				BC2C	4	6	27-11
				BC3	8	6	34-6
BC3A	4	6	29-0				
				BC3B	4	6	27-6
				BC3C	4	6	30-6
				BC4	80	10	8-2
				C1	555	4	3-5
				C2	585	4	3-8
				C3	81	4	2-5
C5	36	4	2-6	C4	16	5	5-7
				U1	3706	5	7-7
				U2	344	5	6-1
				U3	700	7	7-7
				U8	5	6	6-5
W61	96	8	40-0				
W62	26	8	28-4				
W62A	2	8	26-5				
W62B	4	8	25-0				
W62C	2	8	32-0				
W62D	4	8	27-0				
W62E	2	8	24-0				
W62F	2	8	13-6				
W62G	2	8	40-0				

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
S8	9	4	27-0	LB1	8	4	7-4
S8A	9	6	27-0	LB2	6	4	9-4
S9	30	4	40-0				
S9A	30	6	40-0				
S10	3	4	26-0				
S10A	3	6	26-0				
				BU1	108	5	15-4
				BU2	168	4	6-1
				BU3	113	4	5-1
				BU4	534	5	17-6
				BU5	116	5	18-6
				AD1	8	4	8-6
				SB1	4	8	30-9
				SB2	6	6	23-6
				SB3	2	6	20-4
				SB4	16	4	10-0
				SB5	8	4	4-1
SB6	16	4	3-6	SB7	2	4	11-0
				SB7A	2	4	10-1
				SB8	2	4	11-10
				SB9	4	5	18-1
				SBU1	2	6	15-10
				SBU1A	2	6	16-4
				SBU1B	2	6	16-10
				SBU1C	2	6	17-6
				SBU1D	6	6	17-10
				SBU2	8	5	19-2
				SBU3	4	5	18-4

Note:
For additional details see the sheets listed below.
- Column Details
- Drilled Shaft Details
- Drainage Details
- Bearing Device Details
- Expansion Device Details
- Lighting Standard Bracket
- Handrail Details

All bar marks shall be prefixed with the unit number when fabricated. Example: *BG1 bars shall be marked C158G1.

*See Bending Diagrams

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	1201.3	Cu.Yds.
Reinforcing Steel	927,850	Lbs.
Cast Iron Scuppers @ 37.6 Lbs.	150	Lbs.
Wrought Iron Drains & Grates	5,704	Lbs.
8"ø Downspouts	222.73	Lin.Ft.
Gutters	113.36	Lin.Ft.
Bridge Handrail	484.22	Lin.Ft.
Structural Steel		
Corner Angles (A36) 20@19 Lbs	380	Lbs.
Expansion Devices (A36)	6,230	Lbs.
Anchor Bolt Assembly (A36) 4@152 Lbs.	608	Lbs.
Linseed Oil Surface Treatment (Bridges)	1,854.7	Sq.Yds.
Elastomeric Exp. Device (13¾")	90	Lin.Ft.
Elastomeric Exp. Device (22¾")	61	Lin.Ft.

⚠1 ⚠2

NO.	DATE	REVISIONS	BY	APP'D.
⚠2	11-1-71	Anchor Bolt Assembly Revision	VHS	
⚠1	11-1-71	Rev. Exp. Devices	VHS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SCHEDULE OF QUANTITIES — UNIT NO. 21S
S. B. I-35W VIADUCT
(OVER 10TH STREET)
PROJ. 35W-87-1 35W-K(58)148 SEDGWICK CO.

SHEET NO. 22 OF 30	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	CHECKED MEP	TRACED DS
DESIGN CK. ABS	DETAIL CK. DFG	DESIGN CK. DAH	TRACE CK. RAW

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

159

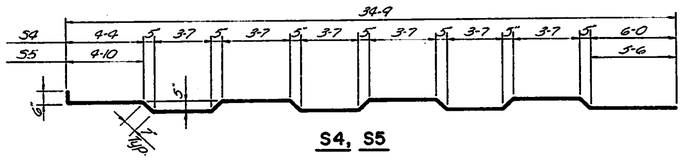
20X 16X 14.5X 12X 12X 14.5X 16X 20X

BENDING DIAGRAMS

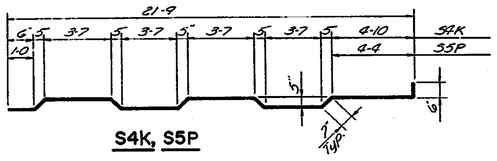
(Bar Dimensions are Out to Out)

REV. PLANS 11-1-71

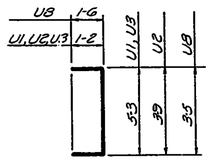
FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	1970	1092	2137



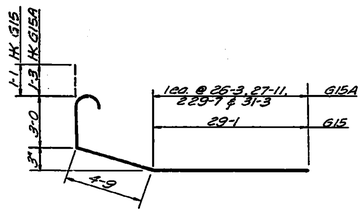
S4, S5



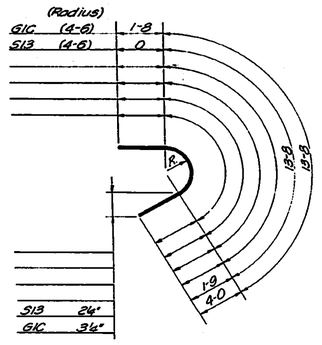
S4K, S5P



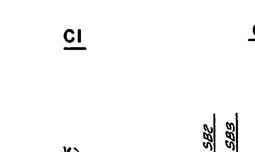
U1, U2, U3, U8



G15, G15A



S13, G1C



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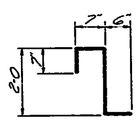

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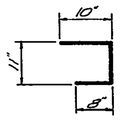

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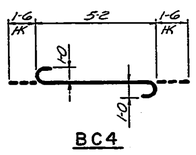

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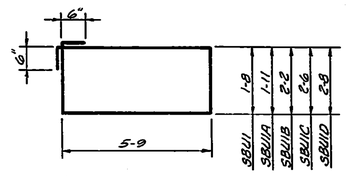
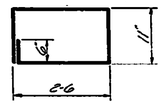


"SBU1" SERIES



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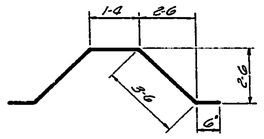
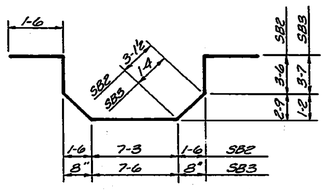
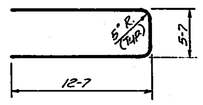


LB2



SB2, SB3



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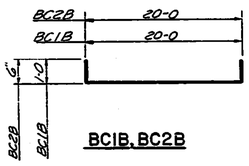
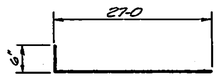


BC1B, BC2B



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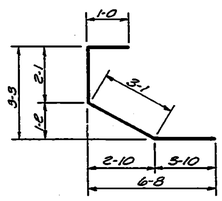

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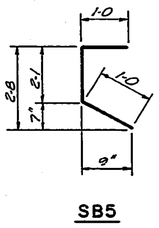

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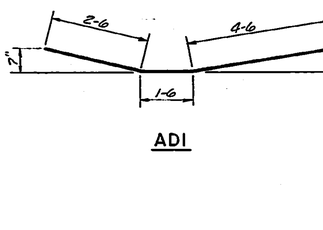
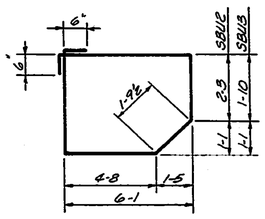
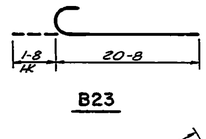


ADI



SBU2, SBU3



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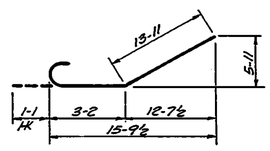
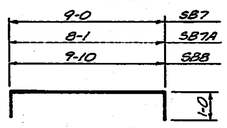
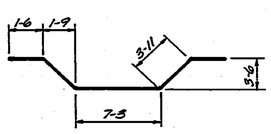


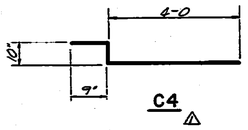
B24



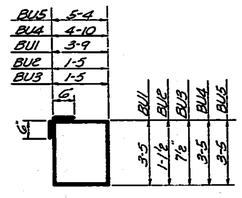
SB7, SB7A, SB8



SB9



C4 ⚠



BU1, BU2, BU3, BU4, BU5

NO.	DATE	REVISIONS	BY	APP'D.
1				
2				
⚠	11-1-71	Rev. Exp. Devices	WKS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING DIAGRAMS — UNIT NO. 21S
S.B. I-35W VIADUCT (OVER 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

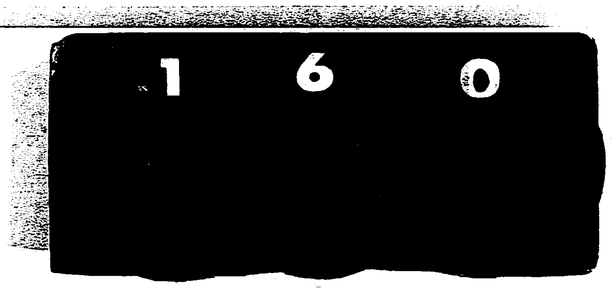
SHEET NO. 29 OF 30	SCALE -	APP'D.	
DESIGNED DFG	DETAILED DS	QUANTITIES MER	TRACED DS
DESIGN CK. JWH	DETAIL CK. DFG	CHKD. CK. RAW	TRACE CK. RAW

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)



20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	1970	1699	2137

MK	LENGTH	CUT
G23	(by 7" incr.) 17-6 to 32-8	2 ea.
G22A	(by 6" incr.) 38-6 to 40-0	7 ea.
G18A	(by 3½" incr.) 28-6 to 36-4	1 ea.
G18	(by 3½" incr.) 17-9 to 28-6	1 ea.
G17A	(by 11" incr.) 16-0 to 21-6	1 ea.
G16A	(by 4" incr.) 22-9 to 28-1	1 ea.
G14A	(by 4" incr.) 30-0 to 36-4	1 ea.
G2B	(by 3" incr.) 14-3 to 20-0	1 ea.
G2A	(by 3" incr.) 15-0 to 22-0	1 ea.
G2	(by 3" incr.) 14-0 to 20-9	1 ea.
G1	(by 3" incr.) 15-0 to 20-0	1 ea.

"G" BARS

MK	LENGTH	CUT
S66	11-6 & 13-0	13 ea.
S6F	(by 2-0 incr.) 29-0 to 33-0	10 ea.
S6E	(by 2-3 incr.) 18-6 to 23-0	14 ea.
S6D	(by 1-3 incr.) 19-3 to 25-6	6 ea.
S5M	(by 7-0 incr.) 13-9 to 27-9	2 ea.
S5K	(by 7-0 incr.) 12-6 to 33-6	2 ea.
S5G	(by 7-0 incr.) 13-9 to 34-9	2 ea.
S5A	15-0 & 22-0	2 ea.
S4HH	(by 7-0 incr.) 16-0 to 30-0	2 ea.
S4H	(by 7-0 incr.) 10-3 to 24-3	2 ea.
S4E	(by 7-0 incr.) 10-3 to 38-3	2 ea.
S4C	(by 7-0 incr.) 6-6 to 27-6	2 ea.
S4A	11-6 & 18-6	2 ea.
S3K	(by 3-6 incr.) 12-3 to 33-3	1 ea.
S3G	(by 3-6 incr.) 13-3 to 37-9	1 ea.
S3C	(by 3-6 incr.) 2-0 to 33-6	1 ea.
S2L	(by 3-6 incr.) 11-6 to 25-6	1 ea.
S2K	(by 3-6 incr.) 14-2 to 35-2	1 ea.
S2G	(by 3-6 incr.) 11-6 to 35-0	1 ea.
S2C	(by 3-6 incr.) 3-9 to 35-3	1 ea.
S1J	(by 3-6 incr.) 17-0 to 27-6	1 ea.
S1G	(by 3-6 incr.) 5-3 to 36-9	1 ea.
S1E	(by 3-7 incr.) 15-11 to 42-0	1 ea.
S1CC	(by 2" incr.) 21-7 to 26-11	2 ea.
S1B	(by 2-8 incr.) 4-0 to 20-0	1 ea.

"S" BARS

MK	LENGTH	CUT
S5N	34@30-9 ; 32@29-6	66
S5L	(by 3-7 incr.) 5-0 to 40-10	2 ea.
S5I	32-0	8
S5H	(by 1-2 incr.) 38-0 to 38-10	12 ea. except 14@38-10
S5F	(by 3-6 incr.) 8-0 to 39-6	2 ea.
S5E	(by 3-7 incr.) 6-8 to 42-6	2 ea.
S5D	42-0	10
S5C	(by 7-0 incr.) 3-0 to 31-0	2 ea.
S5B	(by 1-3 incr.) 16-0 to 24-9	8 ea.
S4J	34@30-9 ; 34@29-6	68
S4G	32-0	6
S4F	(by 1-2 incr.) 33-0 to 38-10	12 ea. (except 14@38-10)
S4D	42-6	8
S4B	(by 1-3 incr.) 16-0 to 24-9	8 ea. (except 10@24-9)
S3N	30-6	5
S3M	34@30-9 ; 33@32-0	67
S3L	(by 3-6 incr.) 13-3 to 27-3	1 ea.
S3J	33-3	7
S3H	(by 7" incr.) 33-9 to 39-1	7 ea. (except 4@34-0)
S3F	(by 3-6 incr.) 6-3 to 41-3	1 ea.
S3D	42-6	10
S3B	(by 8" incr.) 16-3 to 26-3	4 ea. (except 5@26-3)
S3	33-0	228
S3E	(by 3-7 incr.) 4-9 to 40-7	1 ea.
S1M	27-11	7
S1LL	28-8	22
S1L	27-11	45
S1K	(by 3-6 incr.) 5-0 to 29-6	1 ea.
S1H	(by 8" incr.) 30-6 to 37-2	7 ea. (except 6@30-6)
S1FF	(by 3-6 incr.) 6-0 to 30-6	2 ea.
S1F	(by 3-7 incr.) 4-8 to 40-6	2 ea.
S1DD	30-6	4
S1D	28-6	8
S1C	(by 2" incr.) 21-7 to 26-11	2 ea.
S1A	24-9	6
S1	30-5	240

"S" BARS

MK	LENGTH
B21A	25-3
B21	58-6
B17	15-7
B16A	22-6
B16	48-9
B11A	20-6
B11	42-0
B10	15-9
B5A	21-0
B5	38-6
B4	15-3

"B" BARS

MK	LENGTH
BC1C	27-9
BC1A	24-7
BC1	31-9

"BC" BARS

MK	LENGTH
BC3C	30-0
BC3	34-0
BC2C	27-5
BC2A	24-9
BC2	31-5

"BC" BARS

MK	LENGTH
S3A	(by 3-6 incr.) 11-9 to 22-3
S2A	(by 3-6 incr.) 10-0 to 20-6

S2A & S3A

MK	LENGTH
S2P	27-6
S3P	29-0

S2P & S3P

MK	LENGTH
B6J	3@30-0 ; 4@28-3
B6F	59-4
B6E	24-0
B6D	51-3
B6C	22-4
B6B	44-10
B6A	21-0
B6	39-0

"B" BARS

MK	LENGTH	CUT
S2N	28-2	5
S2M	34@28-6 ; 33@29-6	67
S2J	30-9	7
S2H	(by 7" incr.) 31-0 to 36-10	7 ea. (except 4@31-0)
S2F	(by 3-6 incr.) 5-3 to 40-3	1 ea.
S2E	(by 3-7 incr.) 4-0 to 39-10	1 ea.
S2D	42-3	10
S2B	(by 8" incr.) 14-0 to 24-0	4 ea. (except 5@24-0)
S2	34-2	228

"S2" SERIES

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING DIAGRAMS — UNIT NO. 21S
S.B.I-35W VIADUCT
(OVER 10TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 20 OF 20 SHEETS	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	CORRECTED MEB	DATED DS
DRAWN BY JWH	TRACED DFG	CHK'D BY RDW	TRACED RDW

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

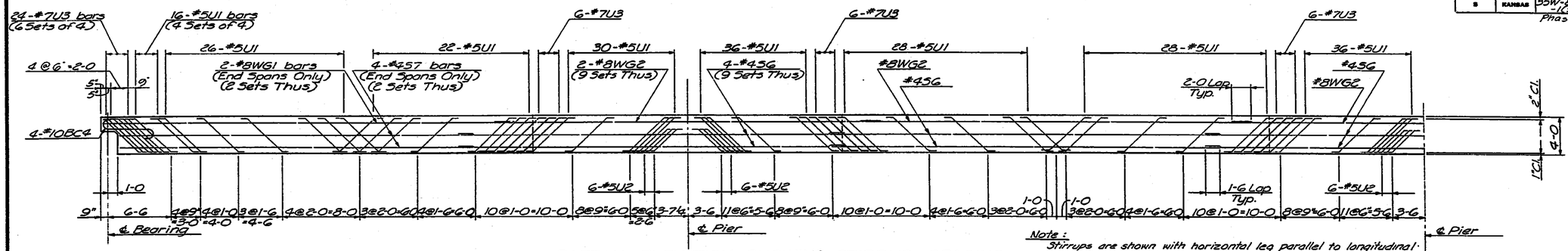
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

1 6 1

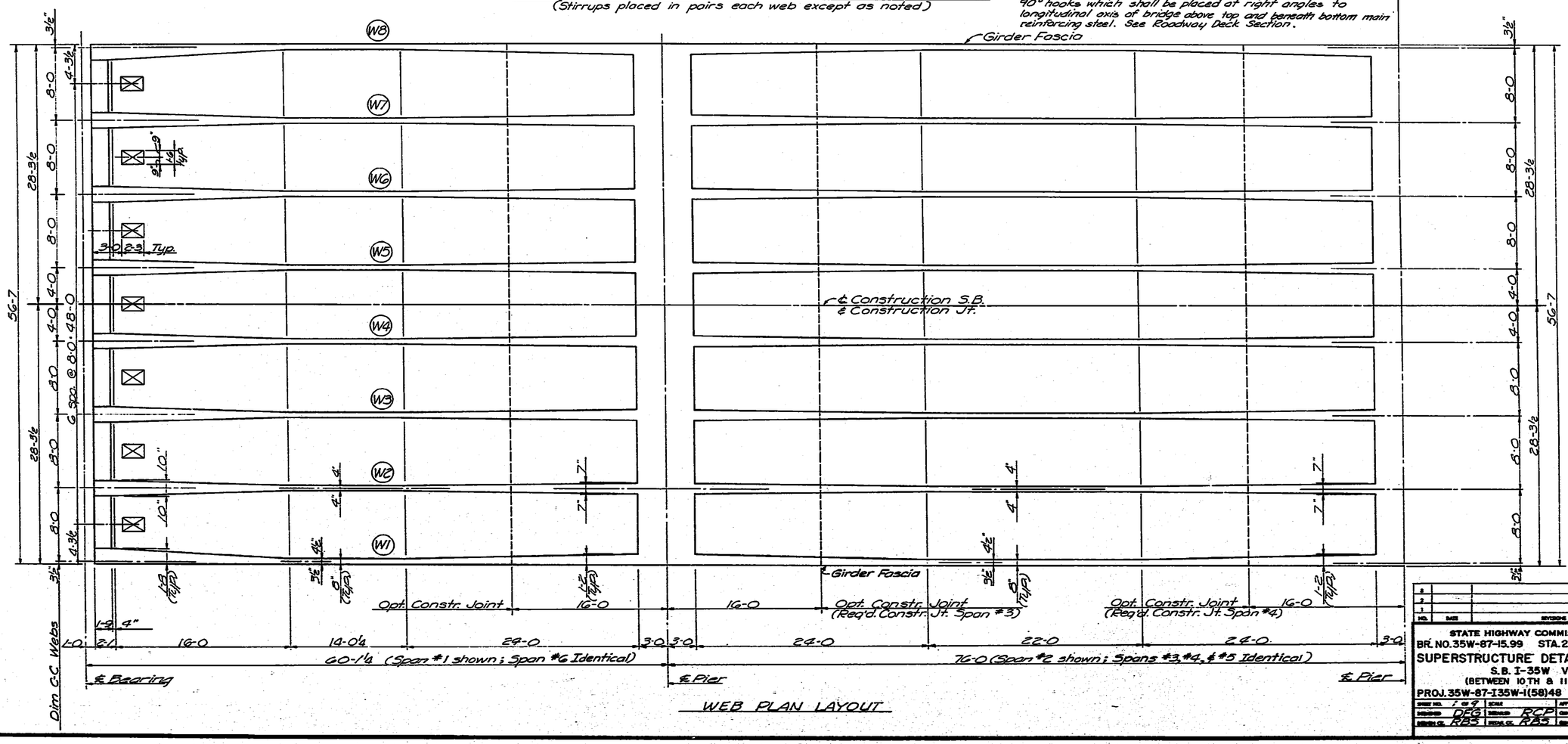
20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-15W-1(58)48 Phase II	19	1694	2137



PARTIAL ELEVATION SHOWING STIRRUP SPACING
(Stirrups placed in pairs each web except as noted)

Note:
Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top and beneath bottom main reinforcing steel. See Roadway Deck Section.



WEB PLAN LAYOUT

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 22S
S.B. I-35W VIADUCT
(BETWEEN 10TH & 11TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 7 OF 9	SCALE	APPR.	
DESIGNED DEG	DRAWN RCP	CHECKED (JGV)	TRACED RCP
DESIGN CK. RBS	DETAIL CK. RBS	DRAWN CK. (DG)	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

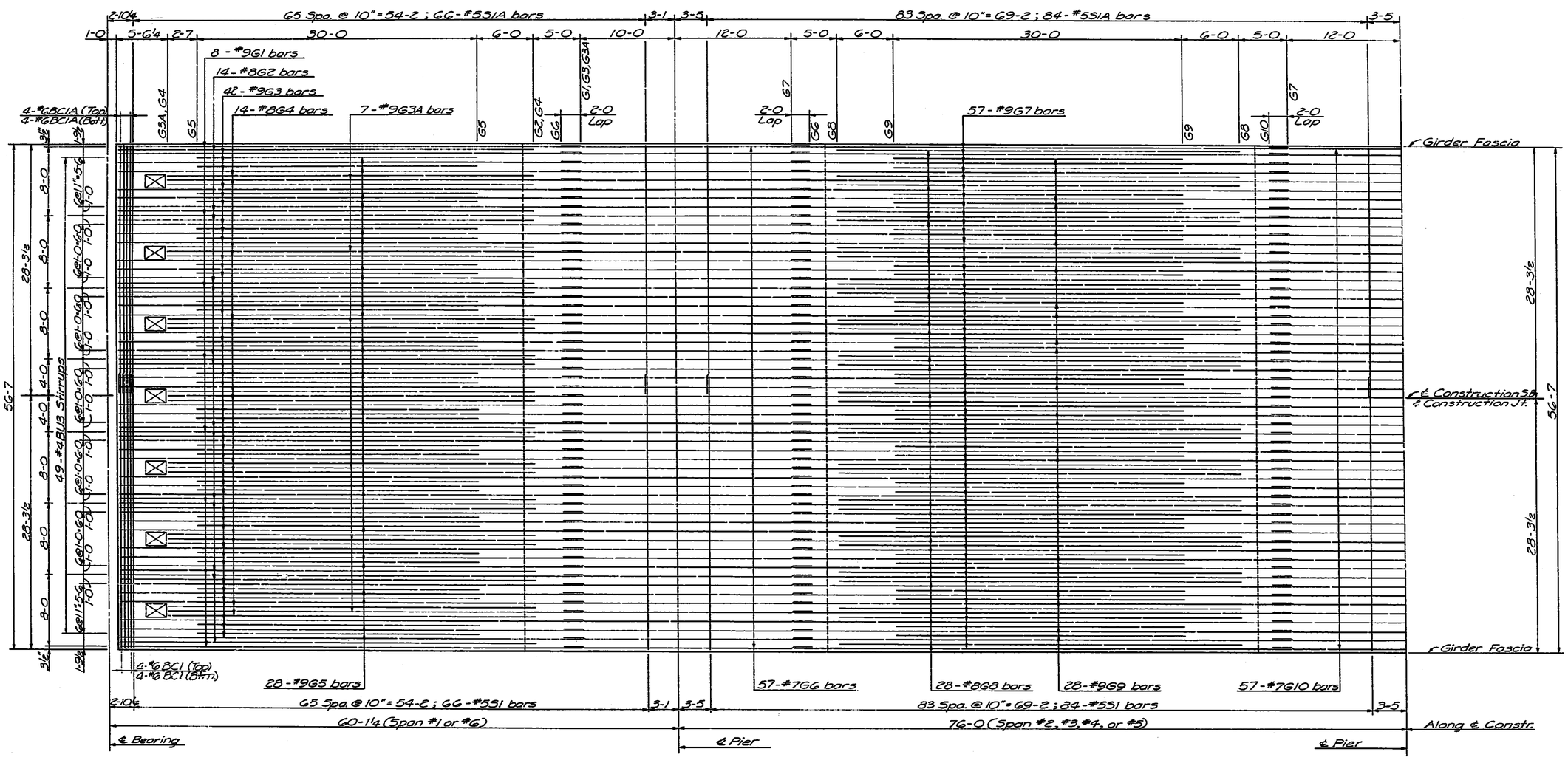
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR #168)

1 6 2

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35H-1(58)48 Phase II	19	1695	2137



PARTIAL REINFORCING PLAN
(Showing Reinforcing in Bottom Slab)

Note: All bar marks shall be prefixed with the Unit Number when fabricated. Example: #1061 shall be marked 225106.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 22S
S.B. I-35W VIADUCT
(BETWEEN 10TH & 11TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 2 OF 2	SCALE		APP'D.		
DESIGNED DFG	DETAILED RCP		QUANTITIES LNH	TRACED RCP	
DESIGN CK. RBS	DETAIL CK. RBS		QUANT. CK. EES	TRACE CK. RBS	

DIST. 5 SEDGWICK CO. ROLL 531

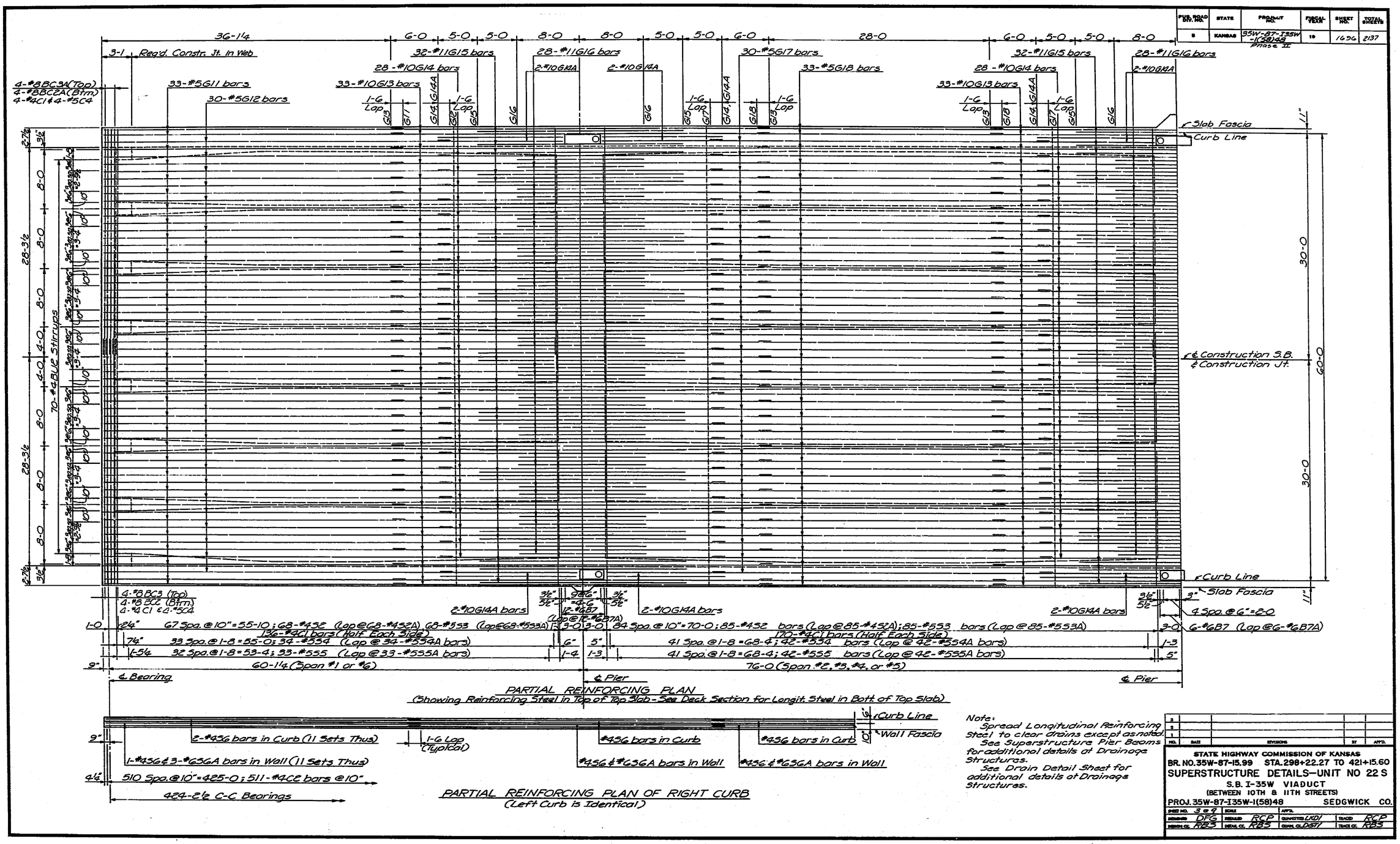
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

1 6 3

20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD STH. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1636	2137



Note:
Spread Longitudinal Reinforcing Steel to clear drains except as noted.
See Superstructure Pier Beams for additional details at Drainage Structures.
See Drain Detail Sheet for additional details at Drainage Structures.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO 22 S
S.B. I-35W VIADUCT
(BETWEEN 10TH & 11TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 3 OF 9	ZONE	APP'D.		
DESIGNED DFG	DETAILED RCP	QUANTITIES LKD/	TRACED RCP	
DESIGN CK. RBS	DETAIL CK. RBS	QUANT. CK. DBT/	TRACE CK. RBS	

DIST. 5 SEDGWICK CO. ROLL 531

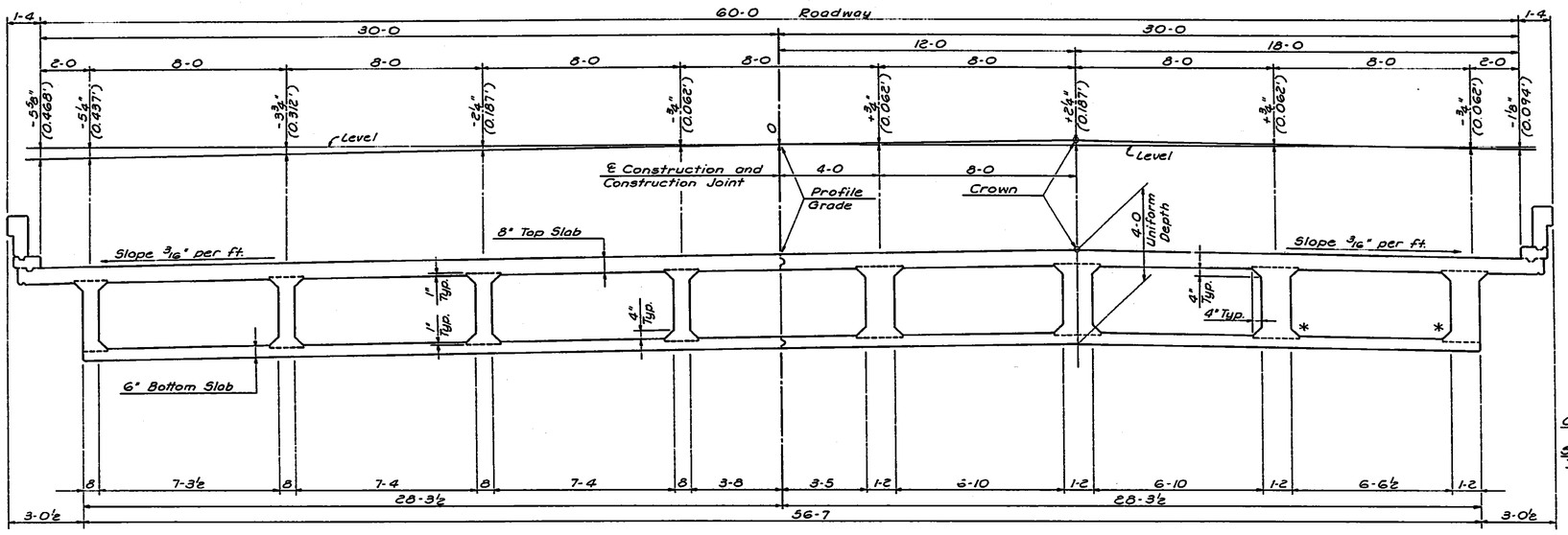
SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR. #168)

1 6 4

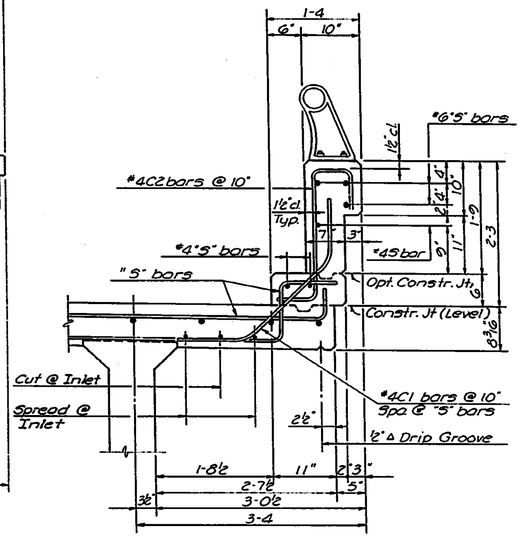
20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I 35W 1(58)48 Phase II	19	1697	2137

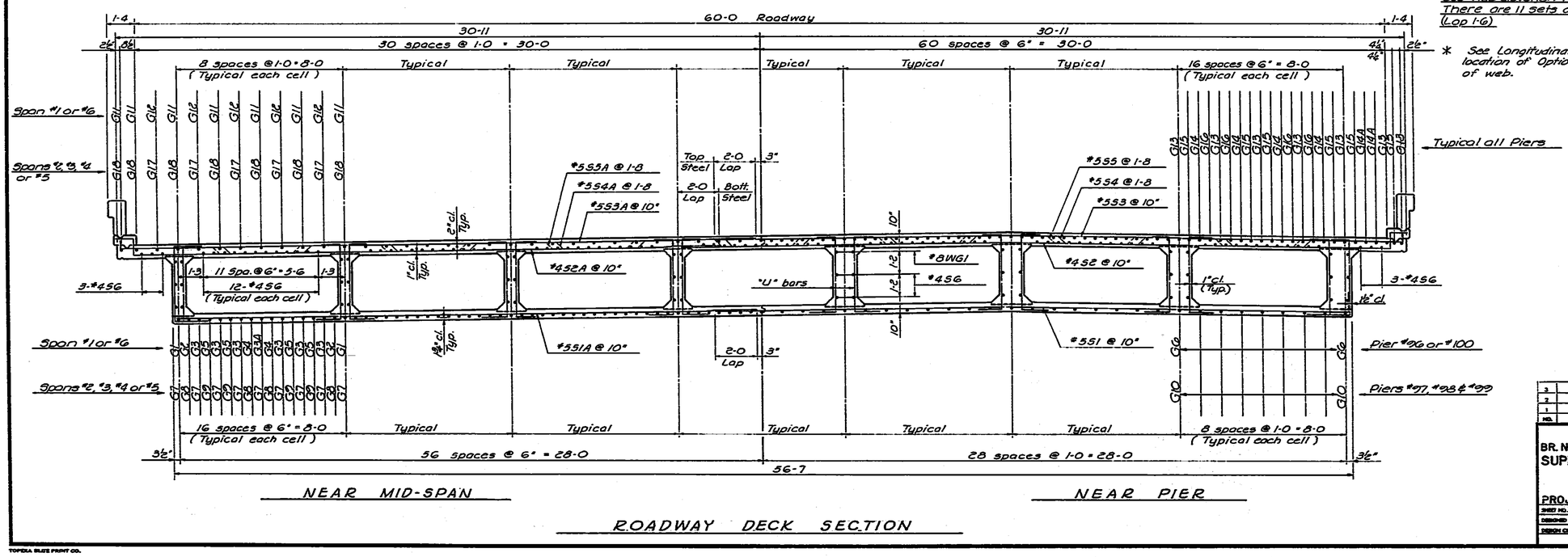


NEAR MID-SPAN NEAR PIER

ROADWAY DECK SECTION



TYPICAL CURB SECTION



NEAR MID-SPAN NEAR PIER

ROADWAY DECK SECTION

Note:
See Web Elevation for quantity, size and spacing of 'U' bars. There are 11 sets of #4 S6 bars in the bottom of the top slab (Log 1-6)

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 22S
S.B. I-35W VIADUCT
(BETWEEN 10TH & 11TH STREETS)
PROJ. 35W-87-I 35W-1(58)48 SEDGWICK CO.

SHEET NO. 2 OF 9	SCALE	APP'D.	
DESIGNED DFG	DETAILED EES	QUANTITIES JML	TRACED EES
DESIGN CK. EBS	DETAIL CK. LKD	GEN'L CK. LLW	TRACE CK. LKD

60' Rdwy. Southbound

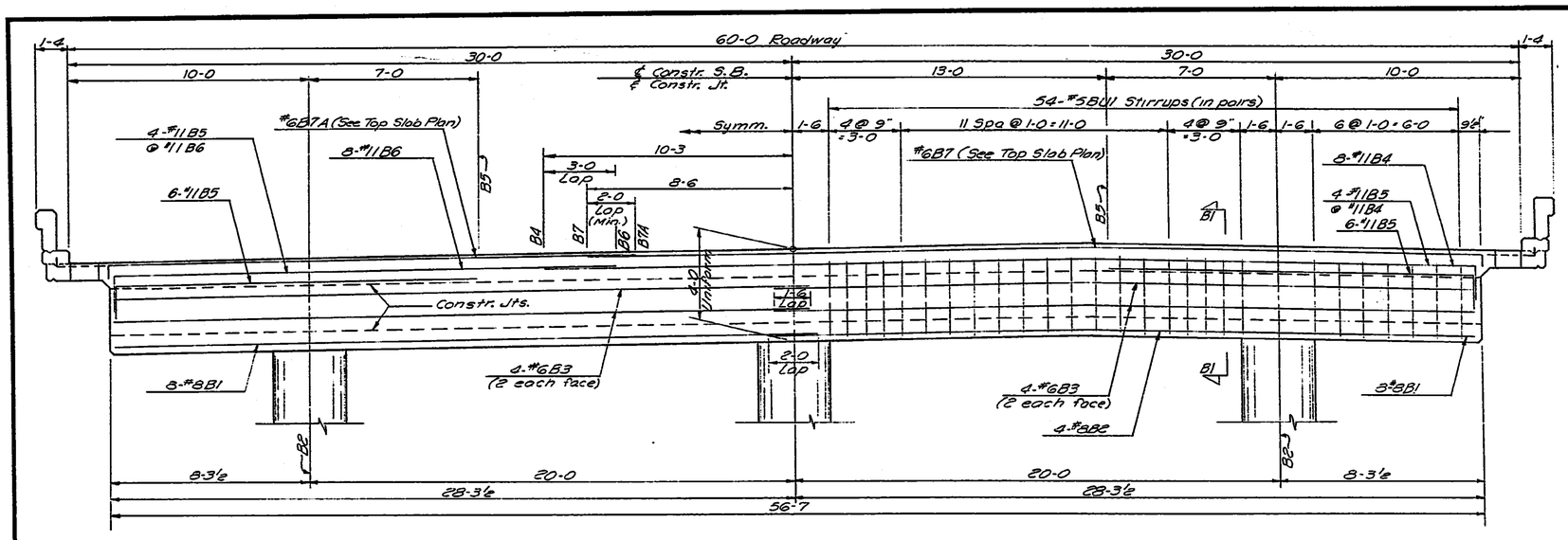
DIST. 5 SEDGWICK CO. ROLL 531

SHEETS #1601 thru #1700 INCLUSIVE
ARE NOT AS BUILT
THESE SHEETS
#1601 thru #1700 INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. #68 thru FR #168)

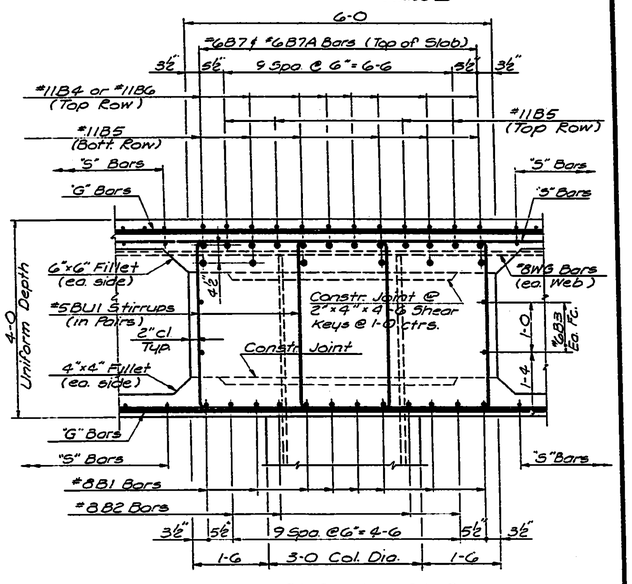
1 6 5

20X 16X 14.5X 12X 12X 14.5X 16X 20X

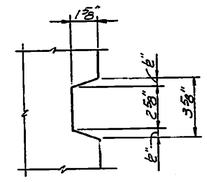
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W -1(58)48 Phase II	19	1698	2187



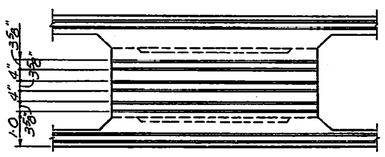
SUPERSTRUCTURE PIER BEAM



SECTION B1-B1



TYPICAL KEY DETAIL



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing location of keys)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO 22S
S. B. I-35W VIADUCT
(BETWEEN 10TH & 11TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 5 of 9	SCALE	APP'D.	
DESIGNED PDP	DETAILED DGT	QUANTITIES JML	TRACED DGT
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. LLW	TRACE CK. RBS

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

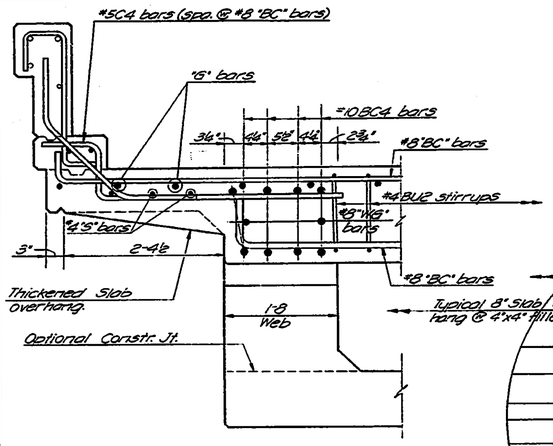
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR. #68 thru FR. #168)

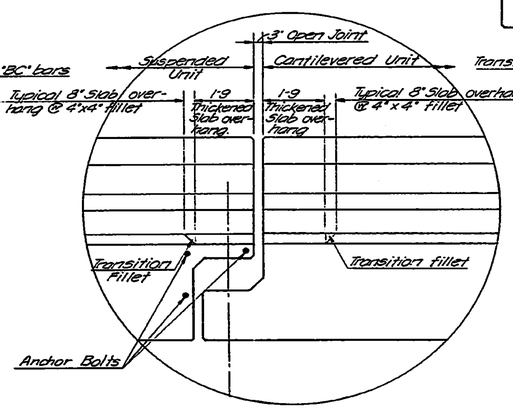
1 6 6

20X 16X 14.5X 12X 12X 14.5X 16X 20X

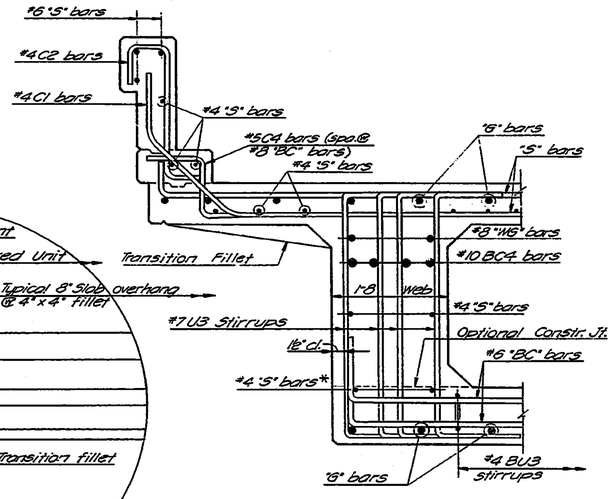
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W I-(58)48 Phase II	19	1699	2137



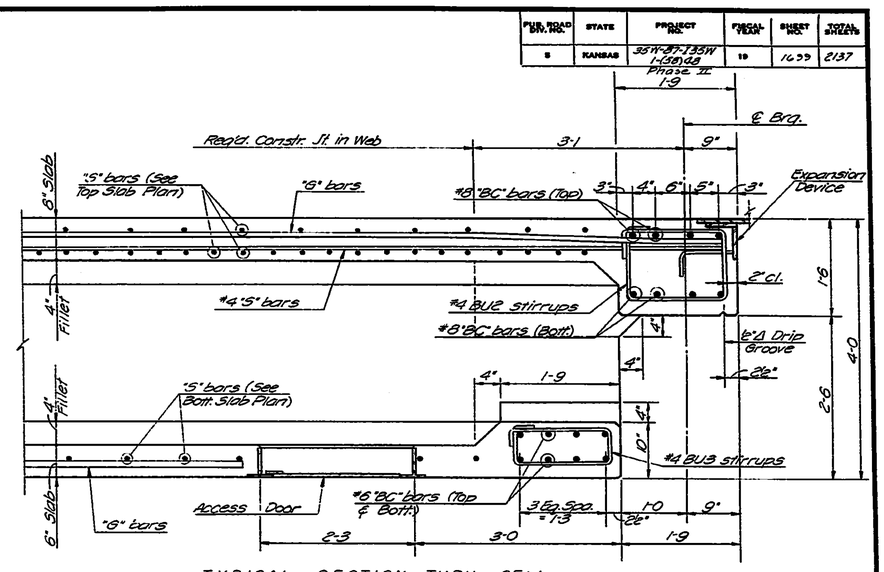
SECTION C2-C2
(Exterior Web)



VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)

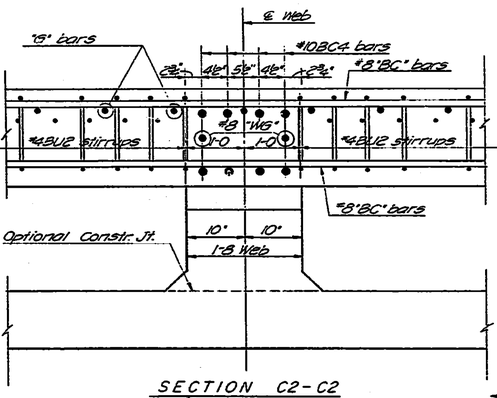


SECTION C1-C1
(Exterior Web)

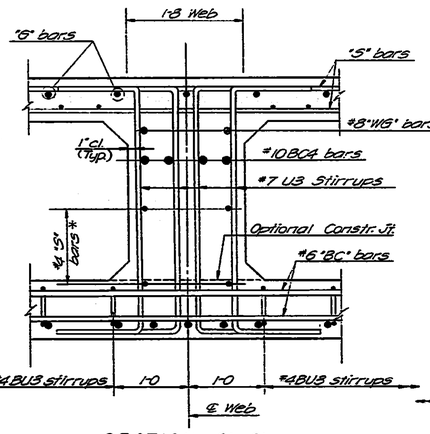


TYPICAL SECTION THRU CELL

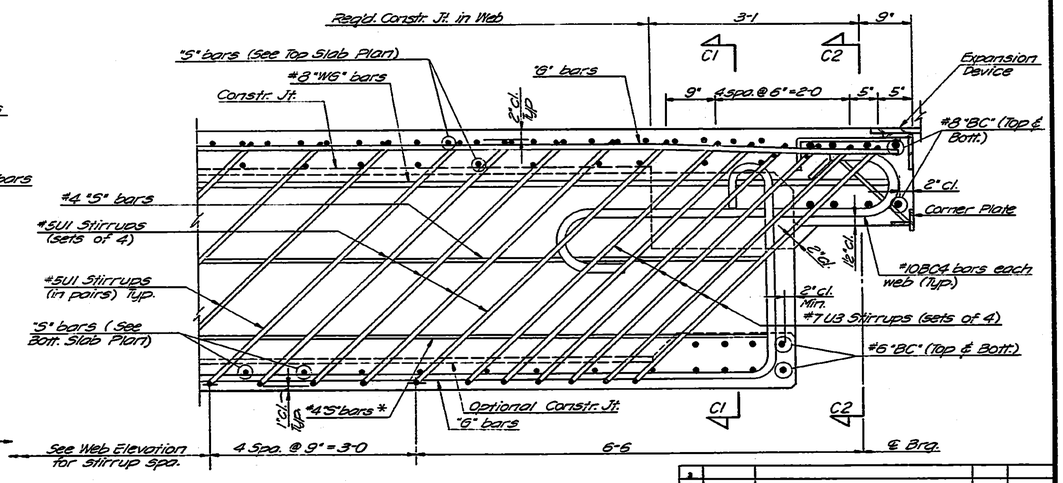
SEE REVISED EXPANSION DEVICES



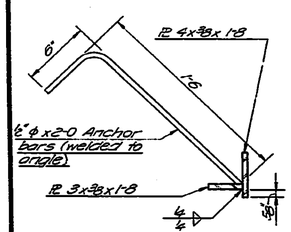
SECTION C2-C2
(Interior Web)



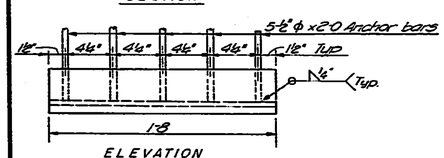
SECTION C1-C1
(Interior Web)



TYPICAL SECTION THRU WEB



SECTION



ELEVATION

CORNER PLATE DETAILS
Computed weight of one assembly is 22 Lbs.

BEARING BEAM DETAILS

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 22S
S.B. I-35W VIADUCT
(BETWEEN 10TH & 11TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 6 of 9	ZONE	APP'D.
DESIGNED DFG	REVISED DS	QUANTITIES JWL
DRAWN CK. RBS	DETAIL CK. RBS	CHKD. CK. LLW
		TRACED DS
		TRACG CK. RBS

TOPEKA BLUE PRINT CO.

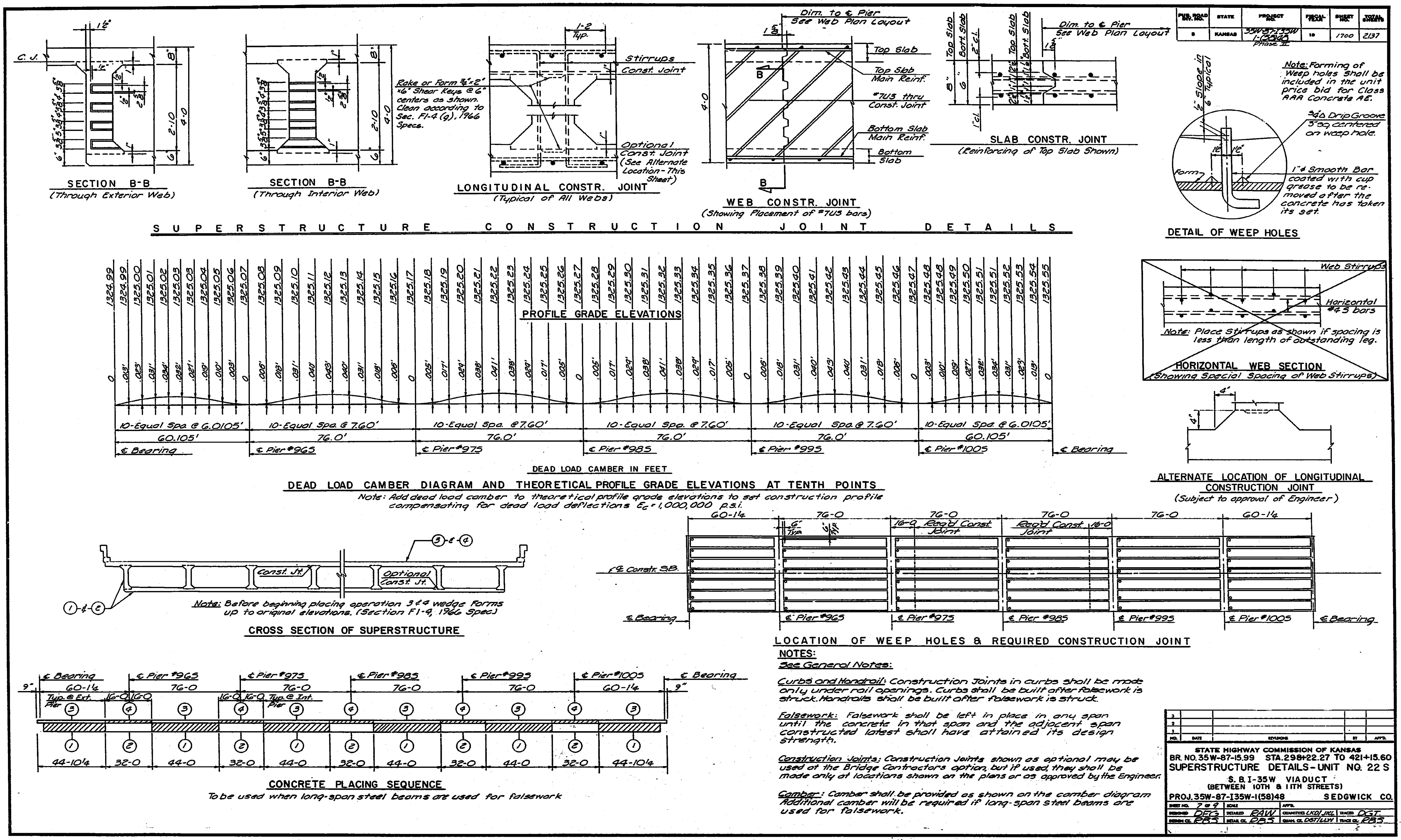
DIST. 5 SEDGWICK CO. ROLL 531

SHEETS # 1601 thru # 1700 INCLUSIVE
ARE NOT AS BUILT

THESE SHEETS
1601 thru # 1700
INCLUSIVE
ARE ORIGINAL TRACINGS
(FR. # 68 thru FR # 168)

1 6 7

20X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X



DIST. 5 SEDGWICK CO. ROLL 531

168

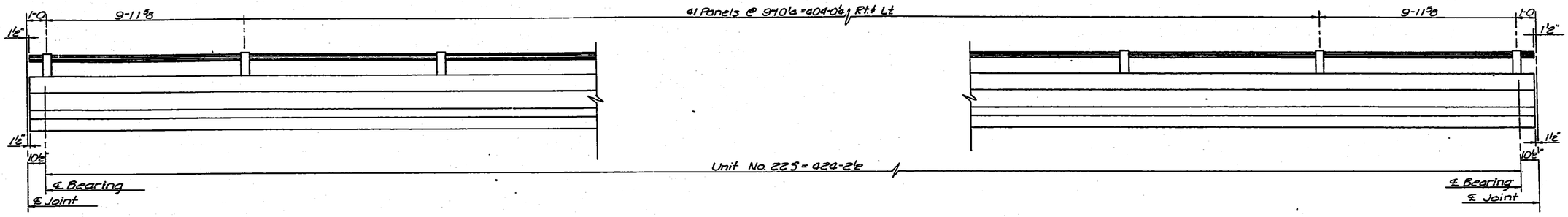
SHEETS #1601 thru #1700 INCLUSIVE ARE NOT AS BUILT

THESE SHEETS #1601 thru #1700 INCLUSIVE ARE ORIGINAL TRACINGS (FR.#68 thru FR.#168)

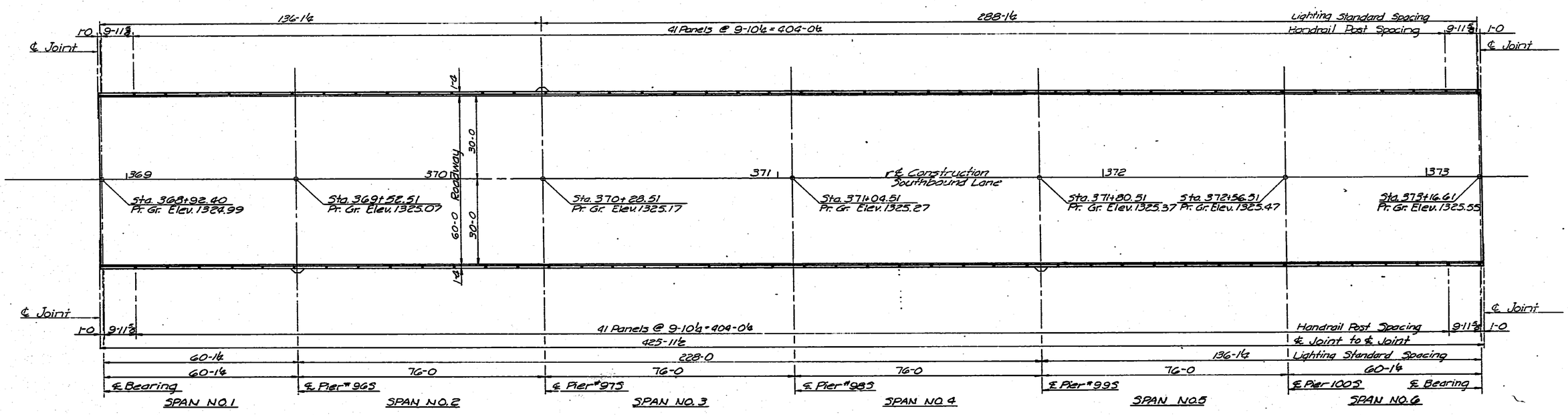
20X 16X 14.5X 12X 12X 14.5X 16X 20X

OFFICE COPY

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1701	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 22S
S.B. I-35W VIADUCT
(BETWEEN 10TH & 11TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 8 OF 9	SCALE	APP'D.	
DESIGNED JWH	DETAILED RBS	QUANTITIES LKG/JWH	TRACED KWK
DESIGN CK. RBS	DETAIL CK. DS	QUANT. CK. DISTILLW	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

1 6 9

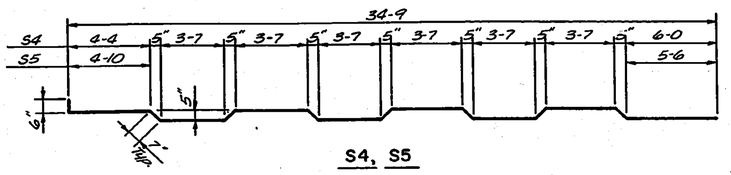
16X 14.5X 12X 12X 14.5X 16X

BENDING DIAGRAMS

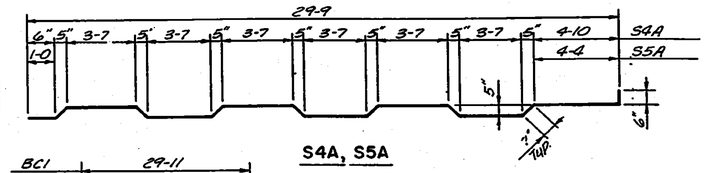
(Bar Dimensions are Out to Out.)

REV. PLANS 11-1-71

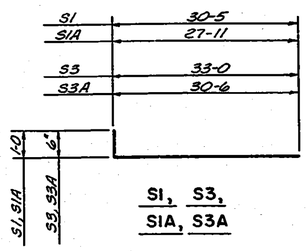
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-I(58)48 Phase II	19	1702	2137



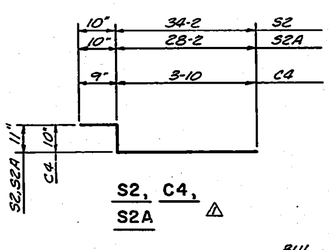
S4, S5



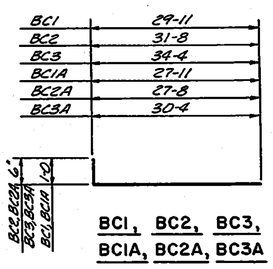
S4A, S5A



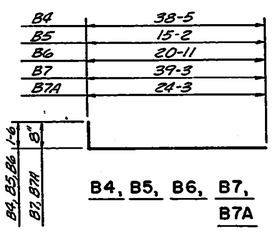
S1, S3, S1A, S3A



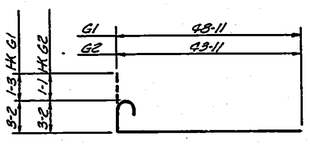
S2, C4, S2A ⚠



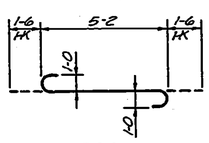
BC1, BC2, BC3, BC1A, BC2A, BC3A



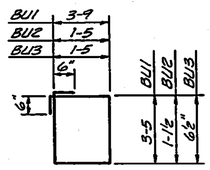
B4, B5, B6, B7, B7A



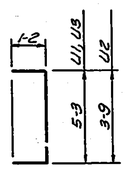
G1, G2



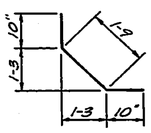
BC4



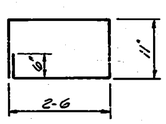
BU1, BU2, BU3



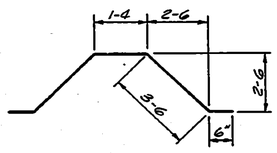
U1, U2, U3



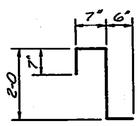
C1



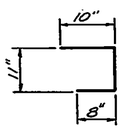
LB1



LB2



C2



C3

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	668	5	31-5
				S1A	668	5	28-11
				S2	476	4	35-11
				S2A	476	4	29-11
				S3	476	5	33-6
				S3A	476	5	31-0
S6	1334	4	40-0				
S6A	66	6	40-0	S4	236	5	36-5
S7	64	4	38-6	S4A	236	5	31-5
				S5	234	5	36-5
				S5A	234	5	31-5
				G1	16	9	53-4
				G2	28	8	48-2
G3	84	9	48-11				
G3A	14	9	43-5				
G4	28	8	38-7				
G5	56	9	30-0				
G6	114	7	26-0				
G7	228	9	52-0				
G8	112	8	42-0				
G9	112	9	30-0				
G10	171	7	28-0				
G11	66	5	37-5				
G12	60	5	43-5				
G13	165	10	45-0				
G14	100	10	36-0				
G14A	90	10	17-6				
G15	160	11	26-0				
G16	130	11	16-0	LB1	12	4	7-4
G17	120	5	43-0	LB2	9	4	9-4
G18	132	5	31-0				

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
B1	80	8	29-2				
B2	20	8	40-0				
B3	40	6	28-11				
				B4	40	11	39-11
				B5	100	11	16-8
				B6	40	11	22-5
				B7	60	6	39-11
				B7A	60	6	22-11
				BU1	540	5	15-4
				BU2	140	4	6-1
				BU3	98	4	4-11
				BC1	16	6	30-11
				BC1A	16	6	28-11
				BC2	8	8	32-2
				BC2A	8	8	28-2
				BC3	8	8	34-10
				BC3A	8	8	30-10
				BC4	64	10	8-2
				C1	1008	4	3-5
				C2	1022	4	3-8
				C3	80	4	2-5
				C4	16	5	5-7
C5	40	4	2-6				
				U1	5600	5	7-7
				U2	480	5	6-1
				U3	864	7	7-7
WG1	32	8	45-0				
WG2	144	8	40-0				

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details
Drainage Details

Note:
All bar marks shall be pre-fixed with the unit number when fabricated. Example: #G1 bars shall be marked 22G1.

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	1498.6	Cu. Yds.
Reinforcing Steel	515,120	Lbs.
Cast Iron Scuppers		Lbs.
Wrought Iron Drains & Grates	6,137	Lbs.
8" ϕ Downspouts	284.22	Lin. Ft.
Gutters		Lin. Ft.
Bridge Handrail 847.83	847.92	Lin. Ft.
Structural Steel		
Bearing Devices (A36) 16@292 lbs.	3972	Lbs.
Corner Plates & Cover Plates (A36)	540	Lbs.
Access Doors (A36) 14@130 lbs.	1820	Lbs.
Linseed Oil Surface Treatment (Bridges)	2838.0	Sq. Yds.

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
⚠	11-1-71	Rev. Exp. Devices	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 22 S
S. B. I-35W VIADUCT
(BETWEEN 10TH & 11TH STREETS)
PROJ. 35W-87-I35W-I(58)48 SEDGWICK CO.

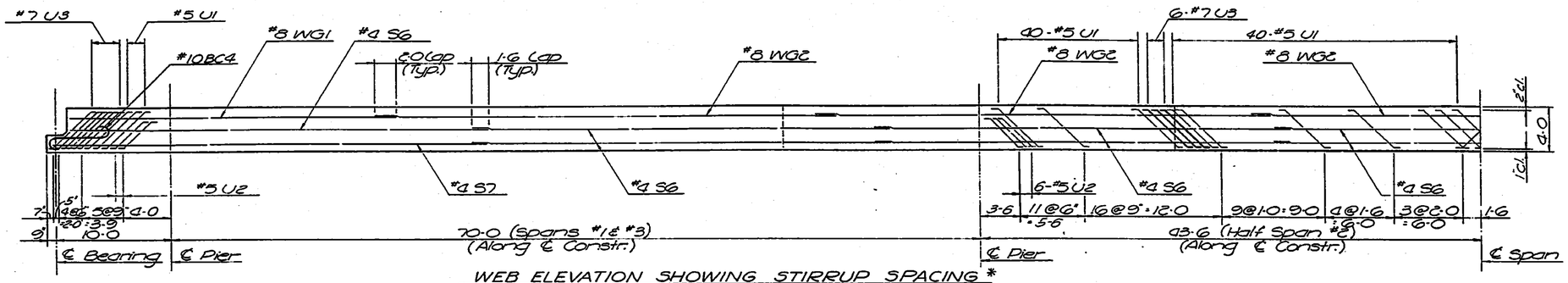
SHEET NO	9 OF 9	SCALE		APP'D			
DESIGNED	DFG	DETAILED	EES	QUANTITIES	JML	TRACED	RLC
DESIGN CK.	JWH	DETAIL CK.	LKD	QUAN. CK.	LLW	TRACE CK.	DFG

DIST. 5 SEDGWICK CO. ROLL 531

1 7 0

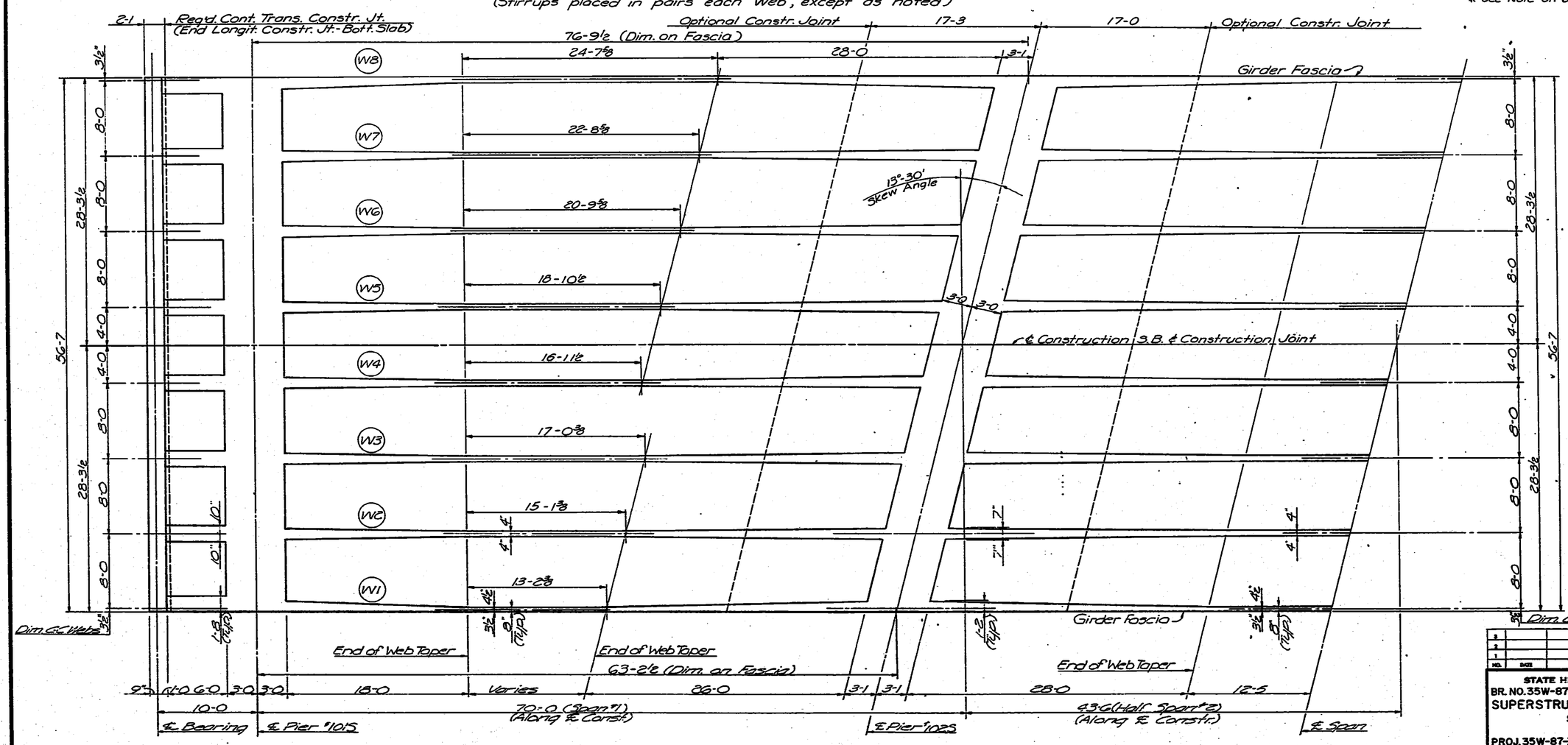
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD STA. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1703	2137



WEB ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each Web, except as noted)

* See Note on Sheet No. 1705.



WEB PLAN LAYOUT

NOTE:
See Web Elevation Sheet for Stirrups in Span #1 & Span #3.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO

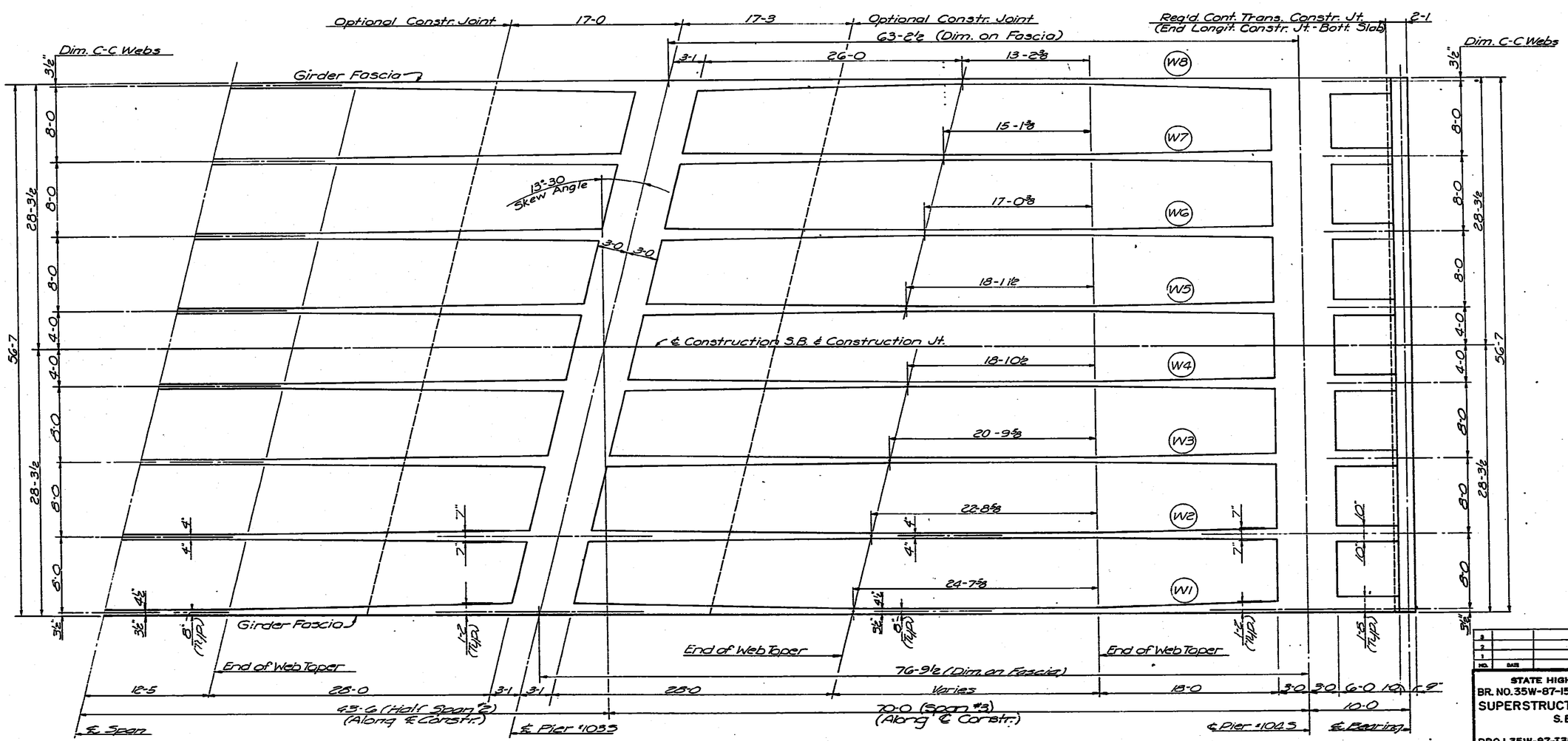
SHEET NO. 1 OF 17	SCALE	APP'D.	
DESIGNED DEG	DETAILED GAB	CHECKED LKO	TRACED DRA
DESIGN CK. EBS	DETAIL CK. RBS	CHECK CK. DST	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

1 7 1

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	170d	2137



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

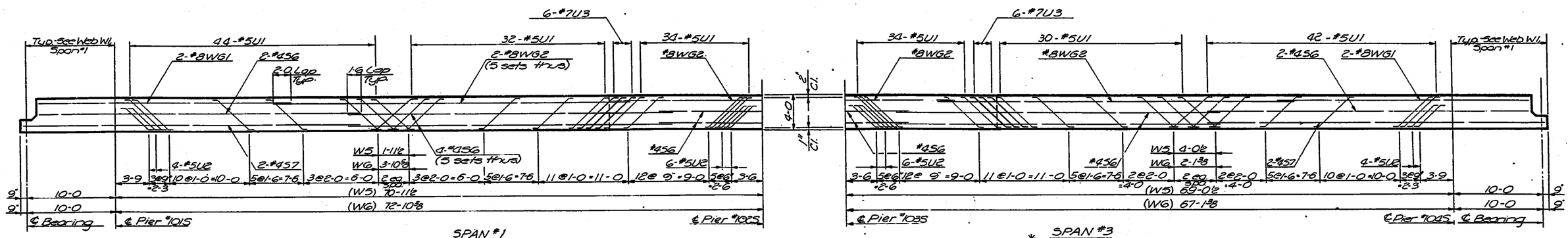
SHEET NO. 2 OF 17	SCALE	APPR.	
DESIGNED DFO	DETAILED GAE	QUANTITIES LKB	TRACED CDA
DESIGN CK. FBS	DETAIL CK. RBS	SHEAR CK. DGT	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

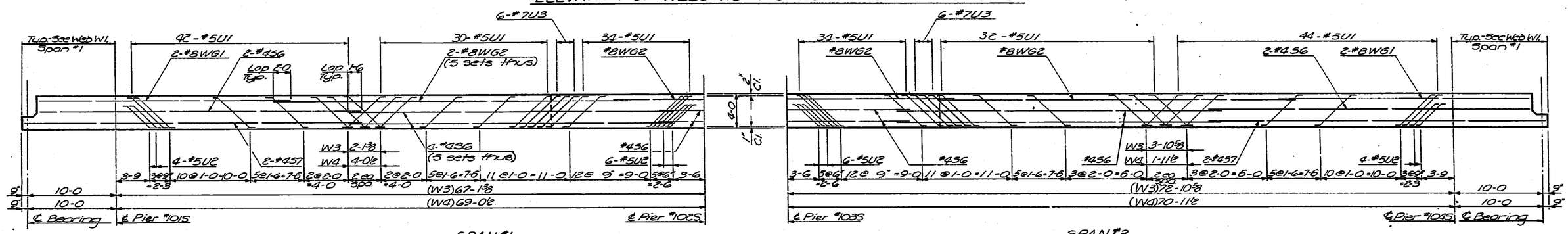
1 7 2

16X 14.5X 12X 12X 14.5X 16X

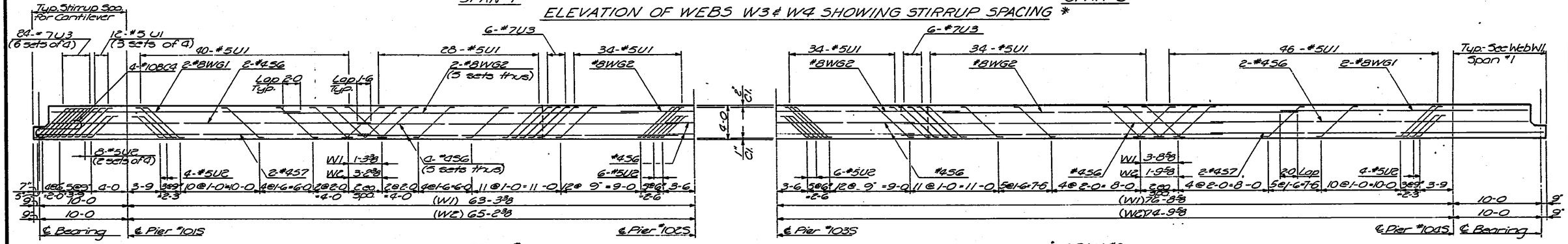
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1705	2137



ELEVATION OF WEBS W5 & WG SHOWING STIRRUP SPACING *



ELEVATION OF WEBS W3 & W4 SHOWING STIRRUP SPACING *



ELEVATION OF WEBS W1 & W2 SHOWING STIRRUP SPACING *

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top & beneath bottom main reinforcing steel. See Roadway Deck Section.

NOTE: See Web Plan Layout sheet for stirrups in Span #2. Stirrups placed in pairs each web, except as noted.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

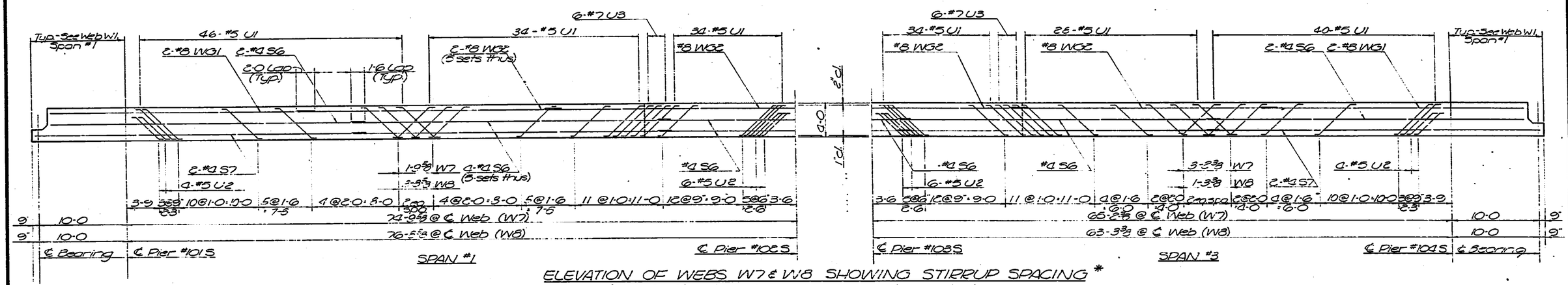
SHEET NO. 3 OF 17	BOXES	APP'D.	
DESIGNED DFG	DETAILED RCP	QUANTITIES (430)	TRACED RCP
DESIGN CK. RBS	DETAIL CK. RBS	CHECK QUANTITY	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

1 7 3

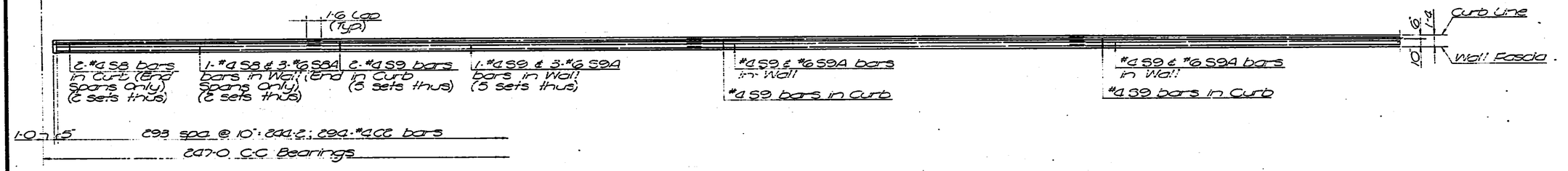
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W 1-(58)48 Phase II	19	1706	2197



ELEVATION OF WEBS W7 & W8 SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web, except as noted)

* See Note on Previous Sheet.



PARTIAL REINFORCING PLAN OF RIGHT CURB
(Left Curb is Identical)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

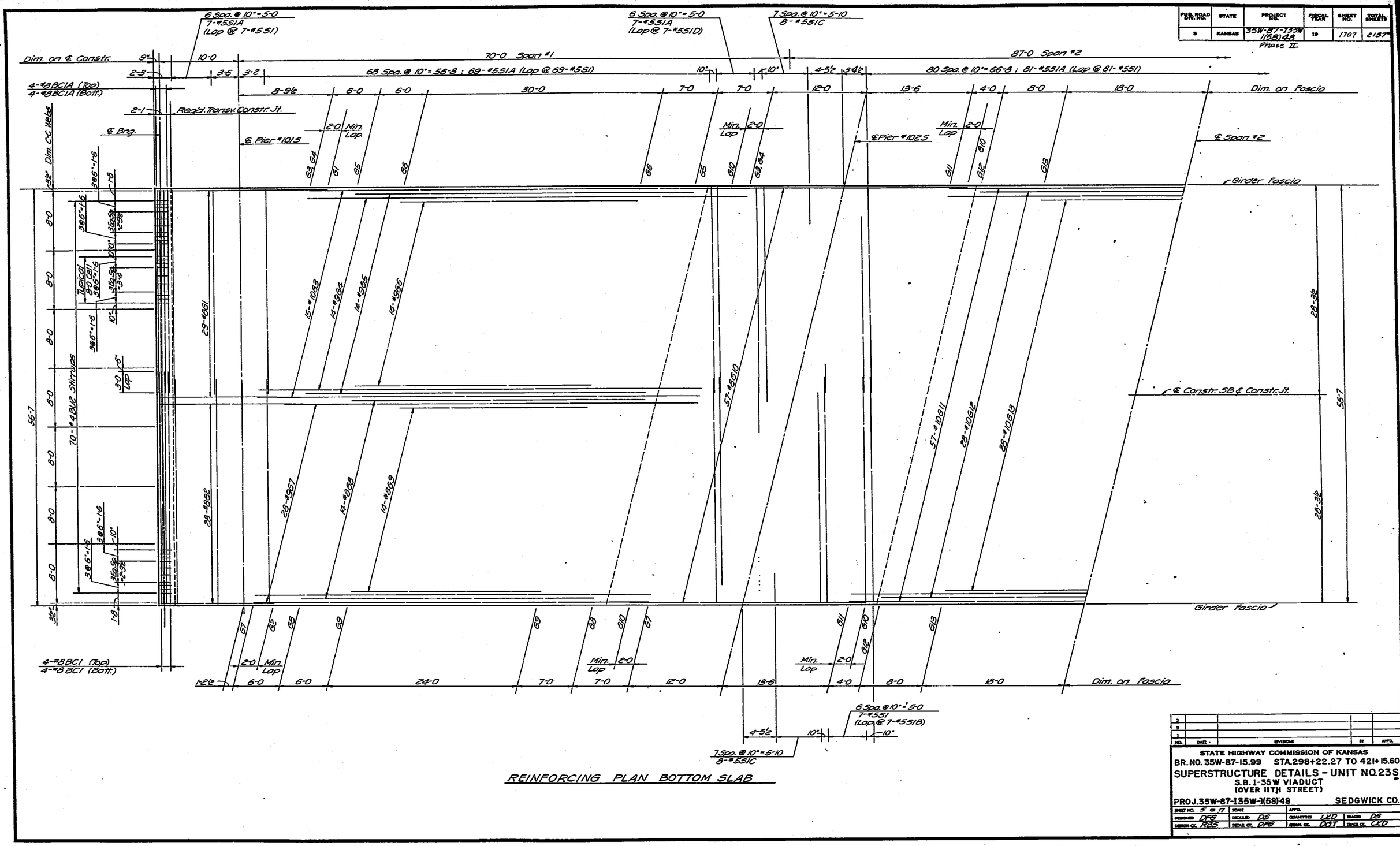
SHEET NO. 2 OF 11	SCALE	APP'D.	
DESIGNED DFG	DETAILED DBA	QUANTITIES DXD	TRACED DBA
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. DBT	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

1 7 4

16X 14.5X 12X 12X 14.5X 16X

FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1707	2137



NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

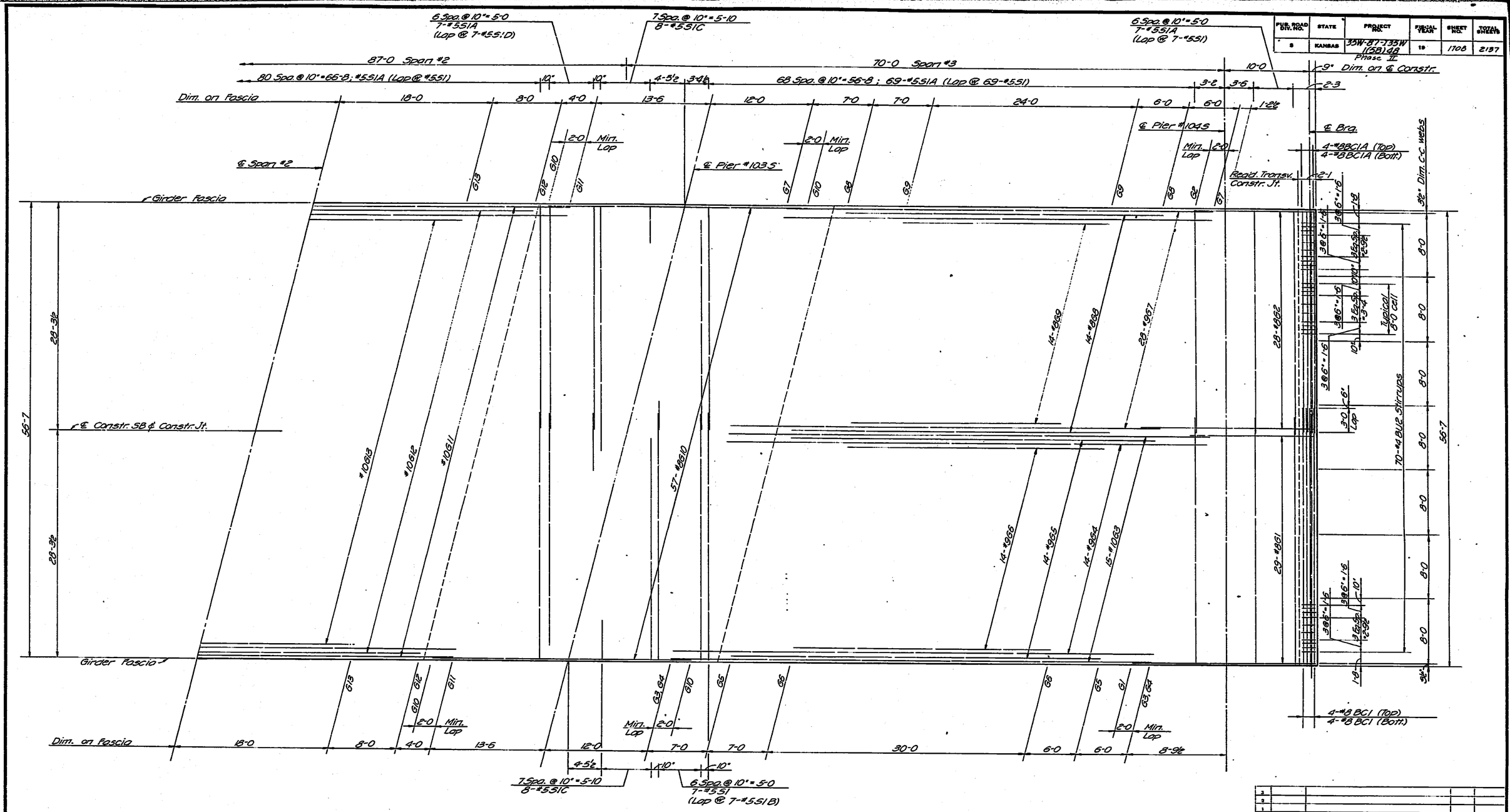
SHEET NO. 5 of 17	SCALE	APP'D.	
DESIGNED DPB	DETAILED DS	QUANTITIES LKD	TRACED DS
DESIGN CK. RBS	DETAIL CK. DPB	CONST. CK. DOT	TRACE CK. LKD

DIST. 5 SEDGWICK CO. ROLL 531

1 7 5

16X 14.5X 12X 12X 14.5X 16X

FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
S	KANSAS	35W-87-135W I(SB)48 Phase II	19	1706	2187



REINFORCING PLAN BOTTOM SLAB

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR.NO.35W-87-15.99 STA.298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO.23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ.35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 6 OF 17	SCALE	APP'D.			
DESIGNED DFS	DETAILED DS	QUANTITIES LKD	TRACED DS		
DESIGN CK. RBS	DETAIL CK. DFS	GRAM. CK. DGT	TRACE CK. LKD		

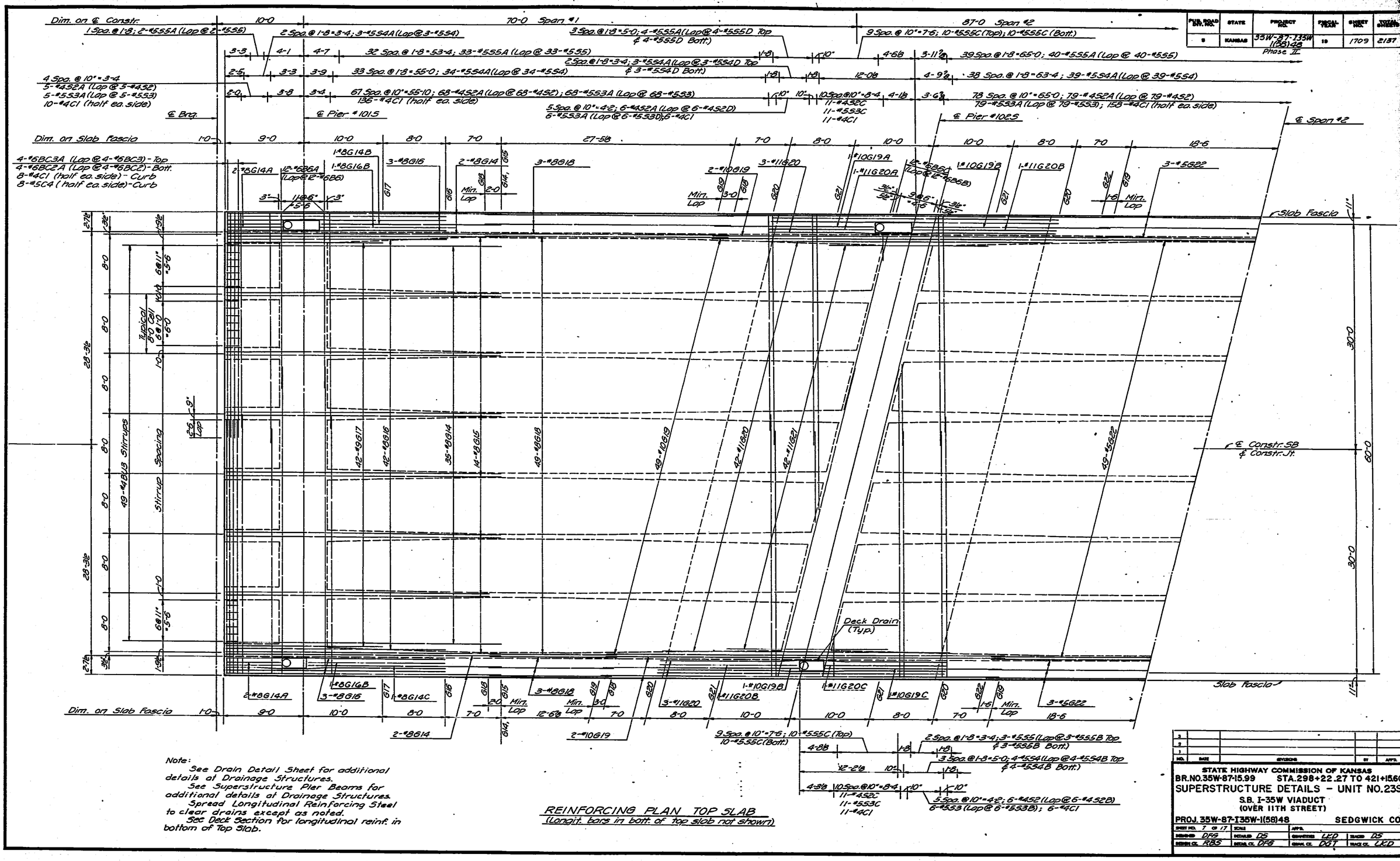
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 1 7 6

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W (58)48 Phase II	1709	2137



Note:
See Drain Detail Sheet for additional details at Drainage Structures.
See Superstructure Pier Beams for additional details at Drainage Structures.
Spread Longitudinal Reinforcing Steel to clear drains except as noted.
See Deck Section for longitudinal reinf. in bottom of Top Slab.

REINFORCING PLAN TOP SLAB
(Longit. bars in bott. of top slab not shown)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

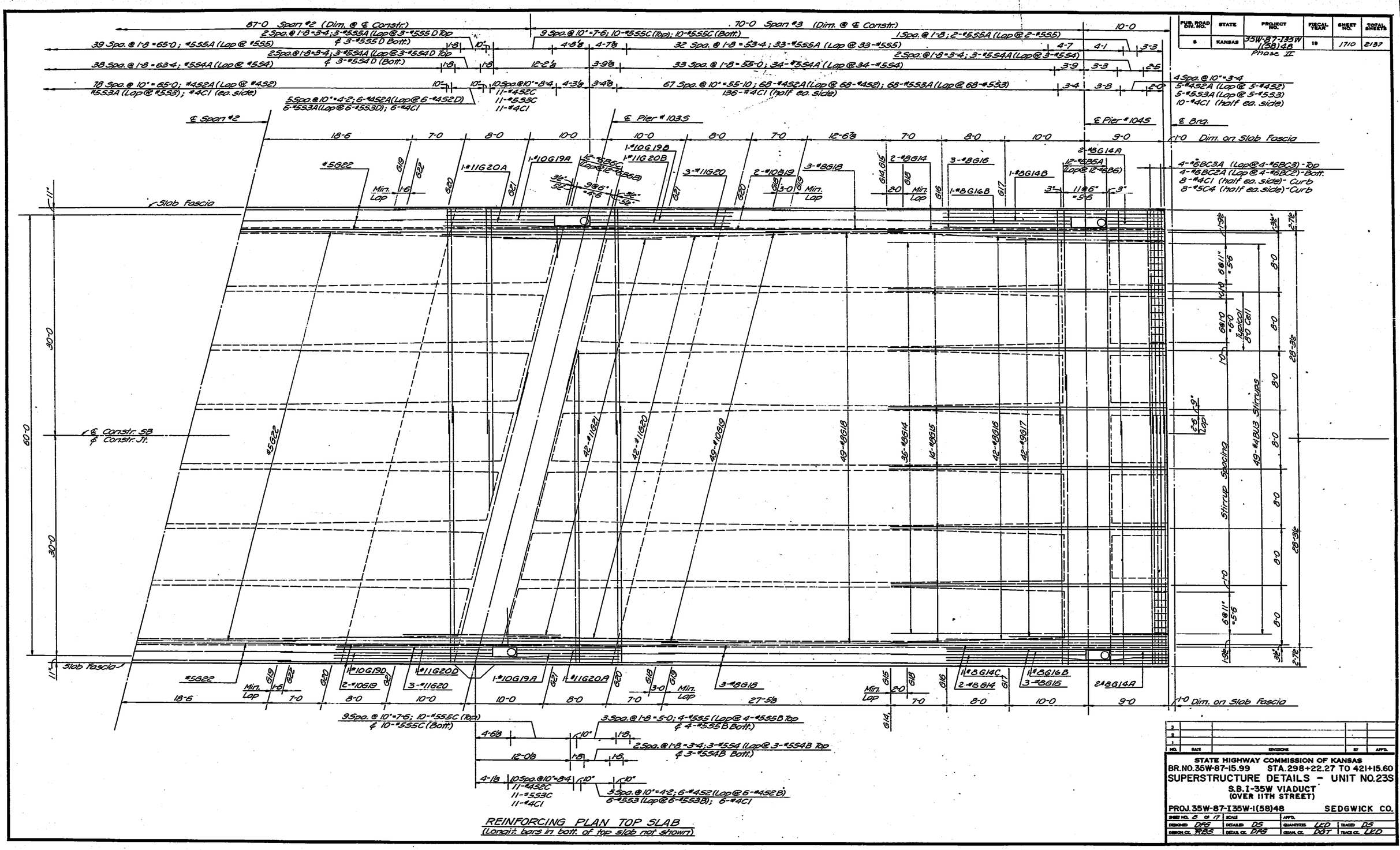
SHEET NO. 7 OF 17	SCALE	APP'D.	
DESIGNED DFS	DETAILED DS	QUANTITIES LED	TRACED DS
DESIGN CK. RBS	DETAIL CK. DFS	GENL. CK. DGT	TRACE CK. LED

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 1 7 7

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD STA. NO.	STATE	PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W (58)48 Phase II	19	1710	2137



REINFORCING PLAN TOP SLAB
(Longit. bars in bott. of top slab not shown)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

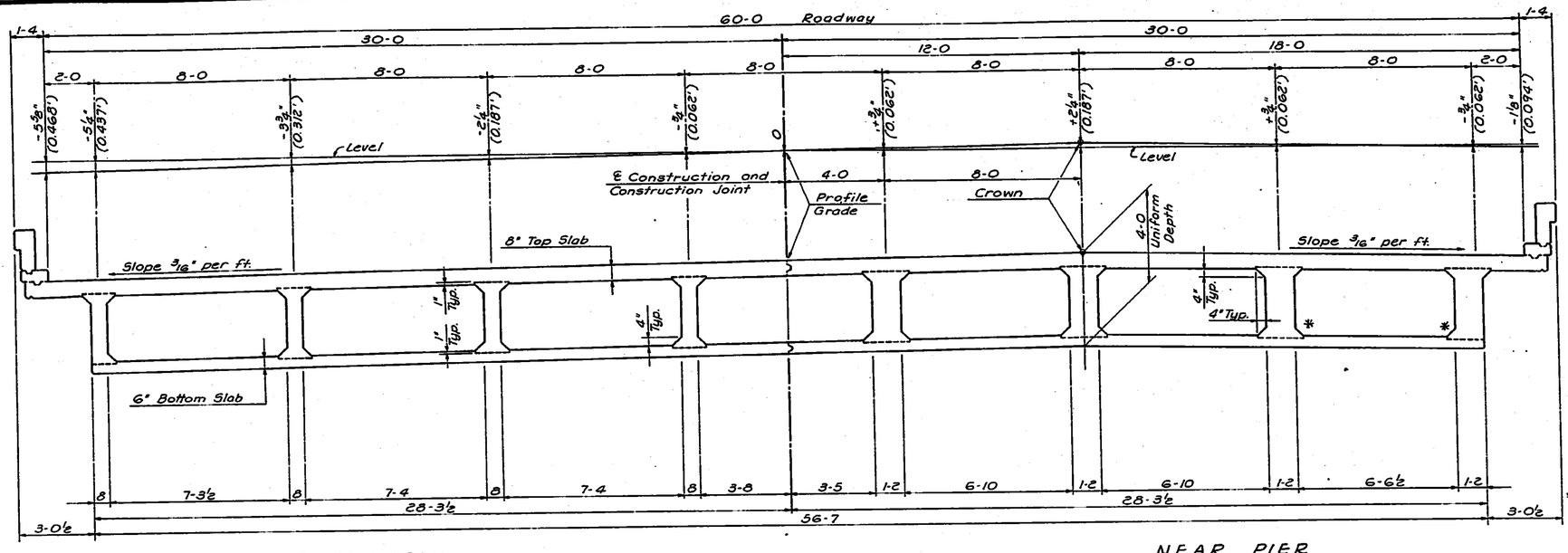
SHEET NO. 5 OF 17	SCALE		APP'D.	
DESIGNED DPS	DETAILED DS		QUANTITIES LED	TRACED DS
DESIGN CK. RBS	DETAIL CK. DPS		GRAM. CK. DJT	TRACE CK. LED

DIST. 5 SEDGWICK CO. ROLL 531

1 7 8

16X 14.5X 12X 12X 14.5X 16X 20

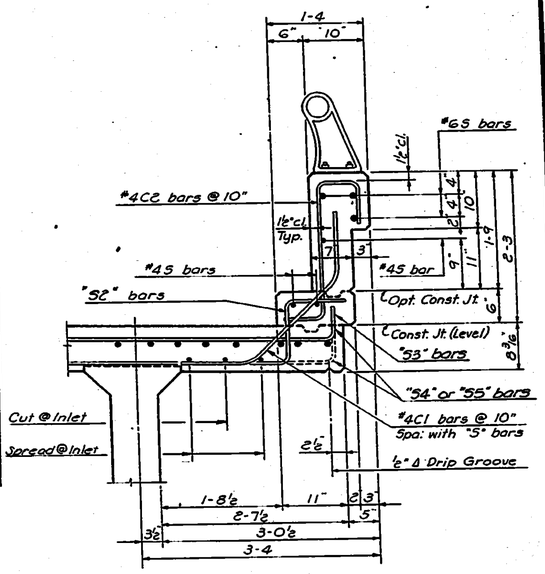
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-1(35W) 1-(58)48 Phase II	19	1711	2137



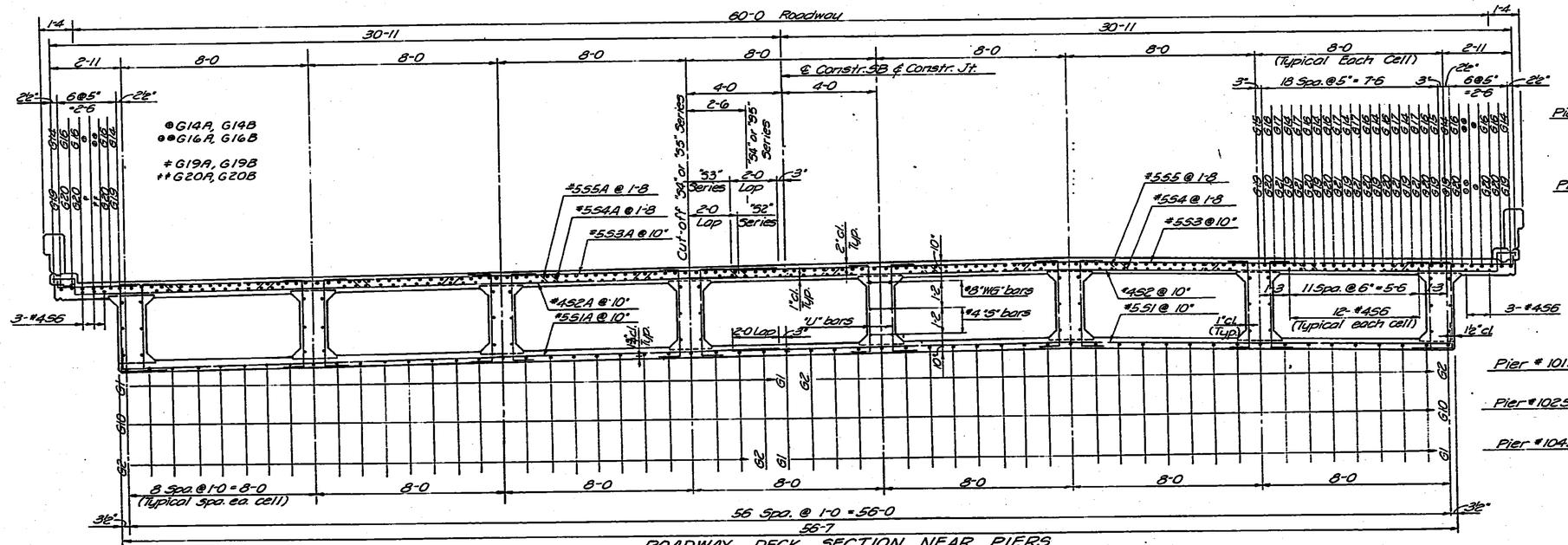
NEAR MID-SPAN

NEAR PIER

ROADWAY DECK SECTION



TYPICAL CURB SECTION



ROADWAY DECK SECTION NEAR PIERS

Note: Typical transverse reinf. steel is shown in above section. See Reinforcing Plans for transverse reinf. steel at Piers #102S & #103S.

Notes:
See Web Elevation for quantities, size & spacing of "U" bars.
There are 7 sets of #4S6 bars, end to end of unit (Lap 1-6).

Pier #101S & #104S
- ● G14A, G14B, G14C
- ●● G14A, G16B

Pier #102S & #103S
- # G19A, G19B, G19C, or G19D
- ## G20A, G20B, G20C, or G20D

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

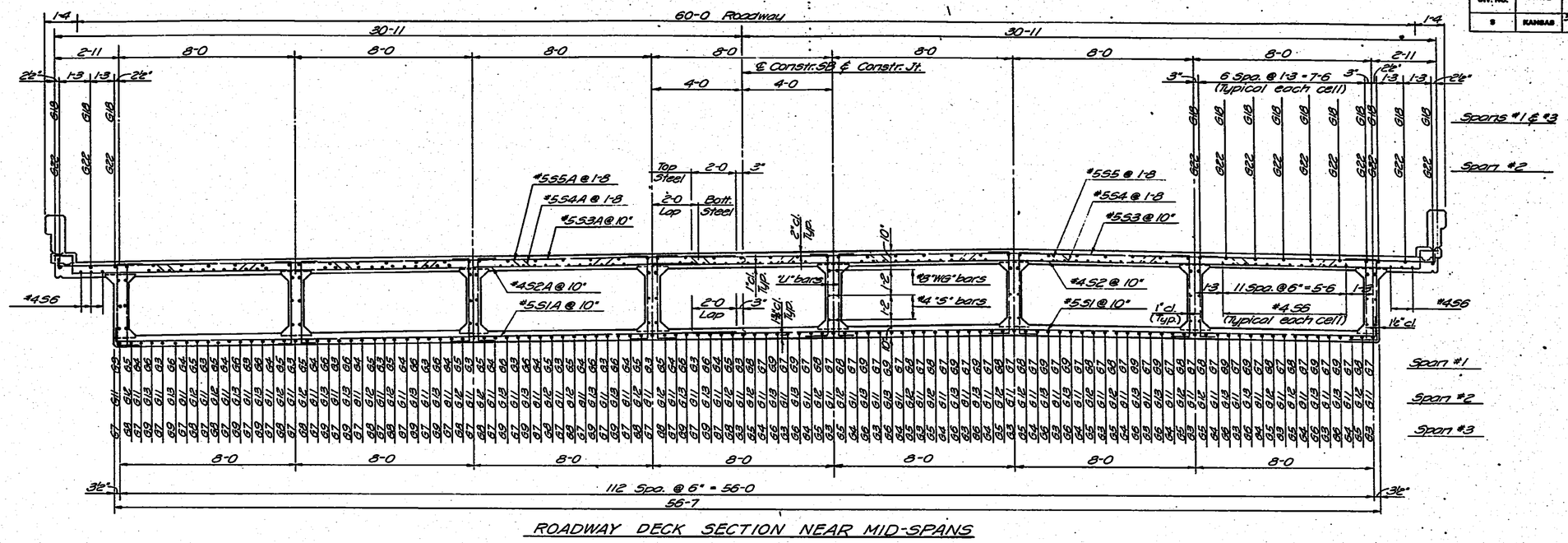
SHEET NO. 9 OF 17	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	QUANTITIES LED	TRACED DS
DESIGN CK. RBS	DETAIL CK. DFG	QUAN. CK. DGT	TRACE CK. LED

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 1 7 9

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-13511 (58)48 Phase II	19	1712	2137



ROADWAY DECK SECTION NEAR MID-SPANS

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

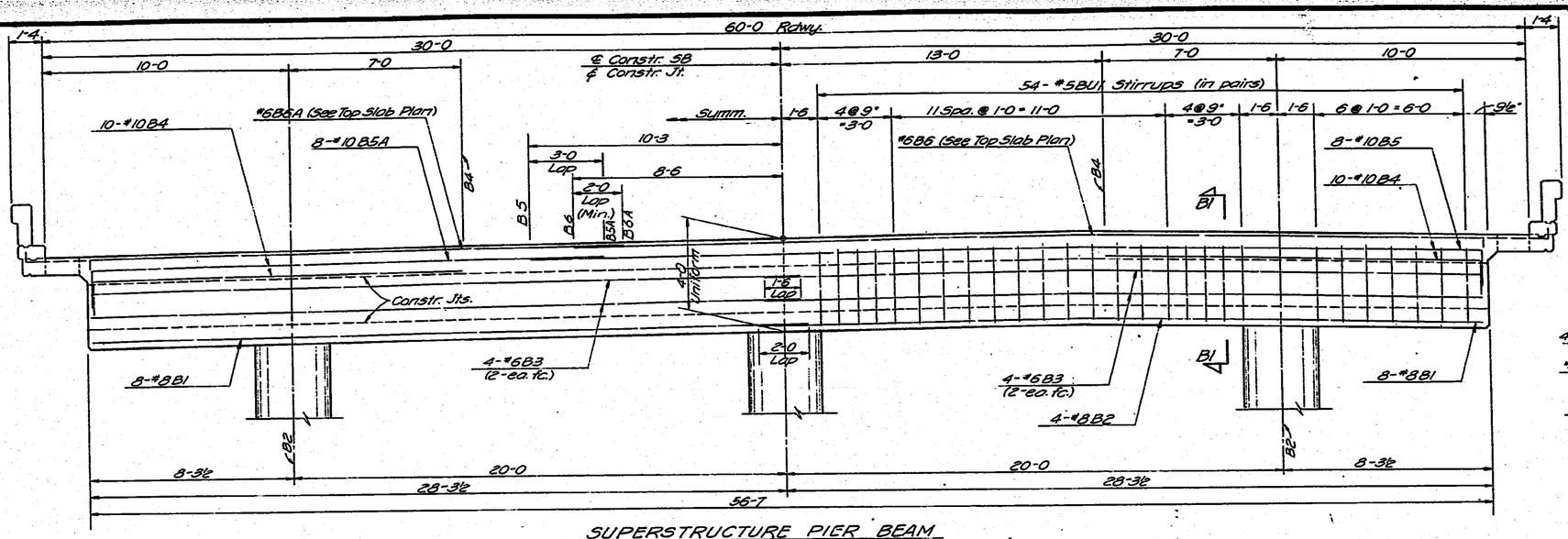
SHEET NO. 10 OF 17	SCALE -		APP'D.		
DESIGNED DPG	DETAILED DS		CHECKED LED	TRACED DS	
DESIGN CK. RBS	DETAIL CK. DPG		QUANT. CK. DGT	TRACE CK. LED	

DIST. 5 SEDGWICK CO. ROLL 531

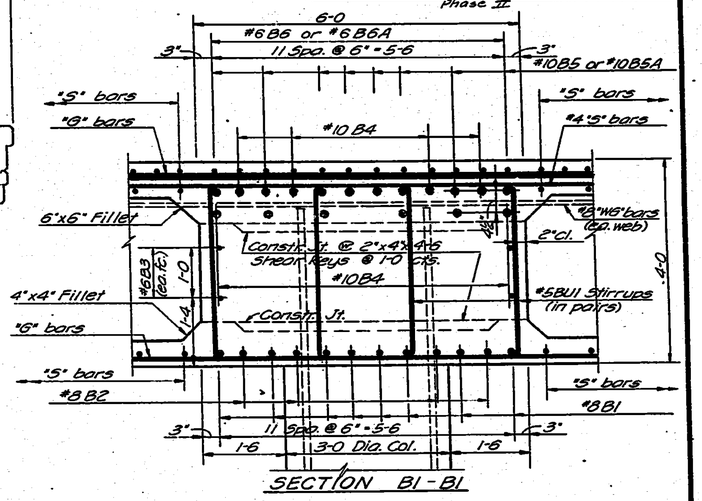
1 8 0

12X 14X 5X 12X 12X 14.5X 16X

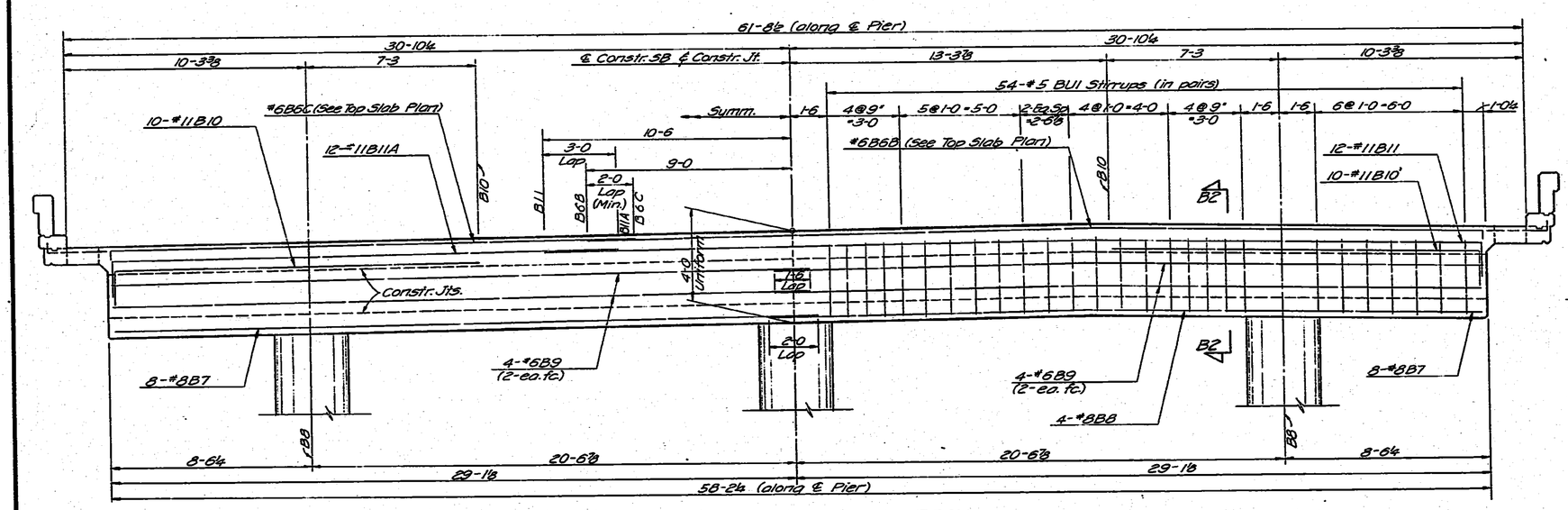
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W (58) 48 Phase II	19	1713	2137



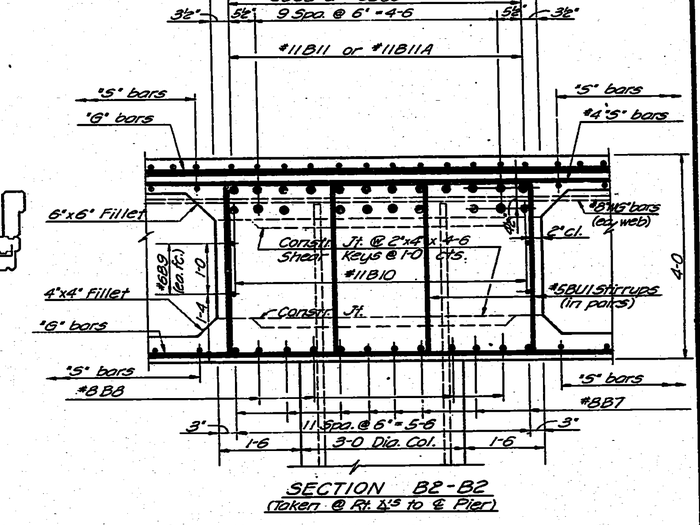
SUPERSTRUCTURE PIER BEAM
(Piers #1015 & #1045)



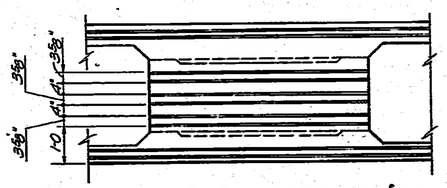
SECTION B1-B1



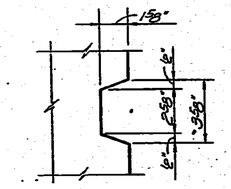
SUPERSTRUCTURE PIER BEAM
(Skewed Piers #1025 & #1035)



SECTION B2-B2
(Taken @ Rt. ∠'s to ℄ Pier)



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing location of keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 11 OF 17	SCALE	APP'D.			
DESIGNED PDP	DETAILED DS	QUANTITIES LED	TRACED DS		
DESIGN CK. DPS	DETAIL CK. PDP	GRADE CK. DGT	TRACE CK. LED		

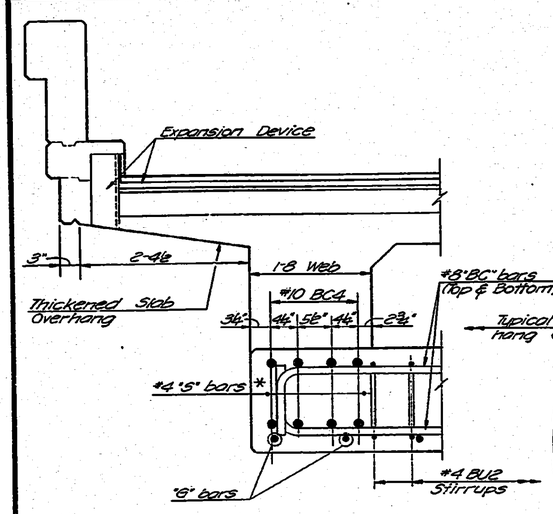
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

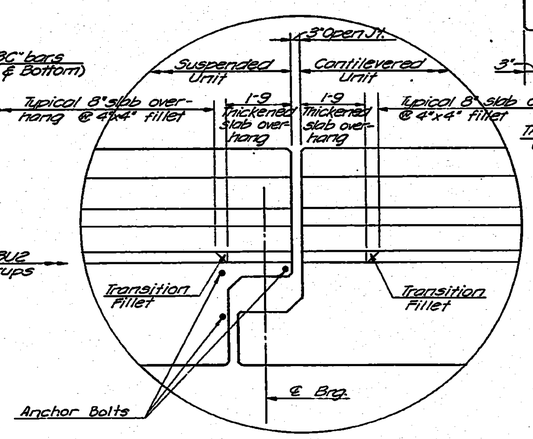
[redacted] 1 8 1

16X 14.5X 12X 12X 14.5X 16X

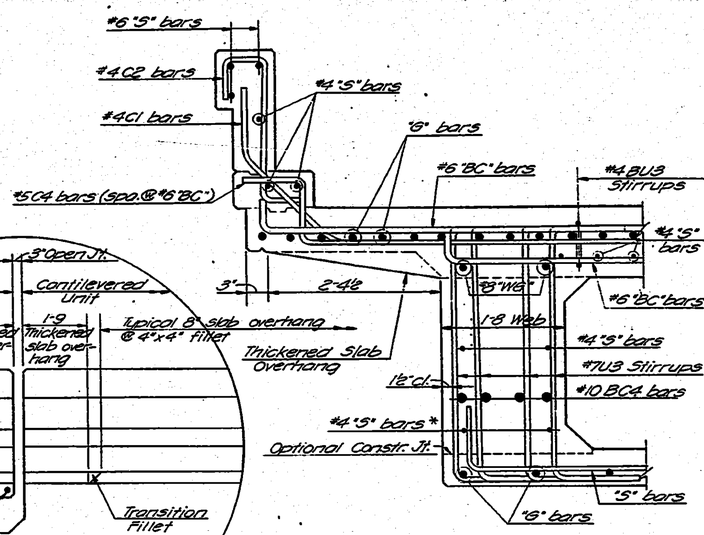
FED. ROAD DIV. NO.	STATE	PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase II	19	1714	2137



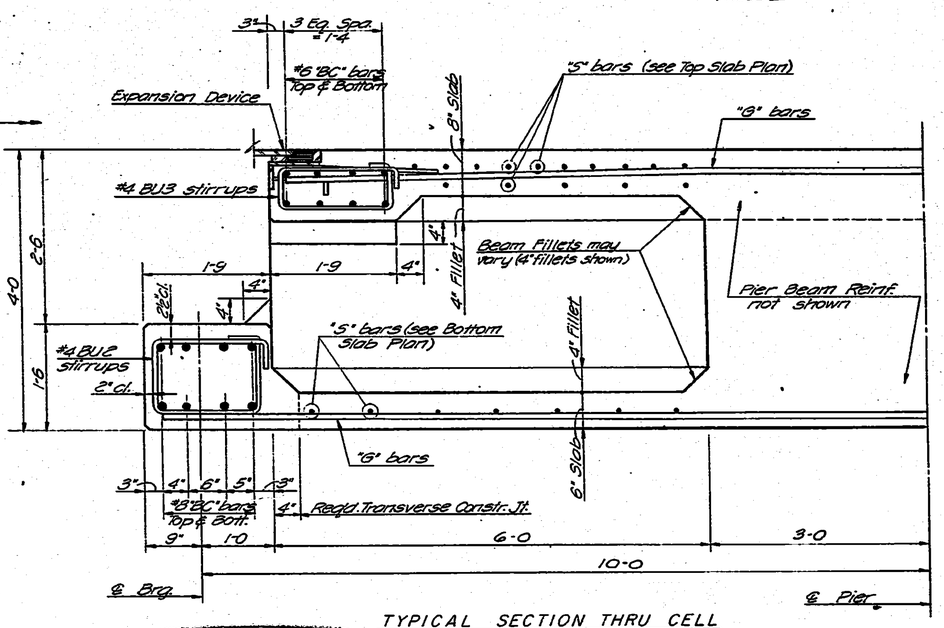
SECTION C3-C3
(Exterior Web)



VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)

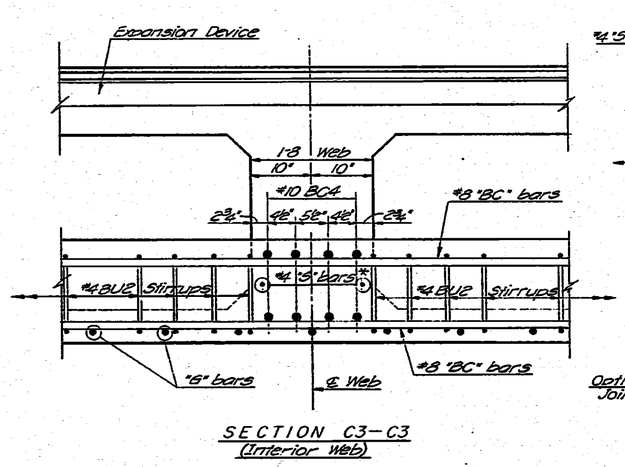


SECTION C4-C4
(Exterior Web)

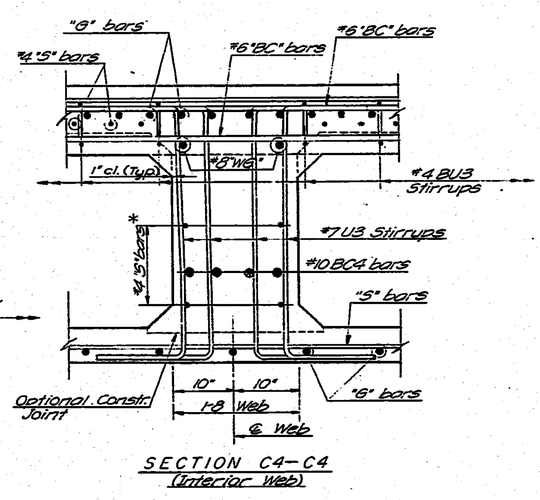


TYPICAL SECTION THRU CELL

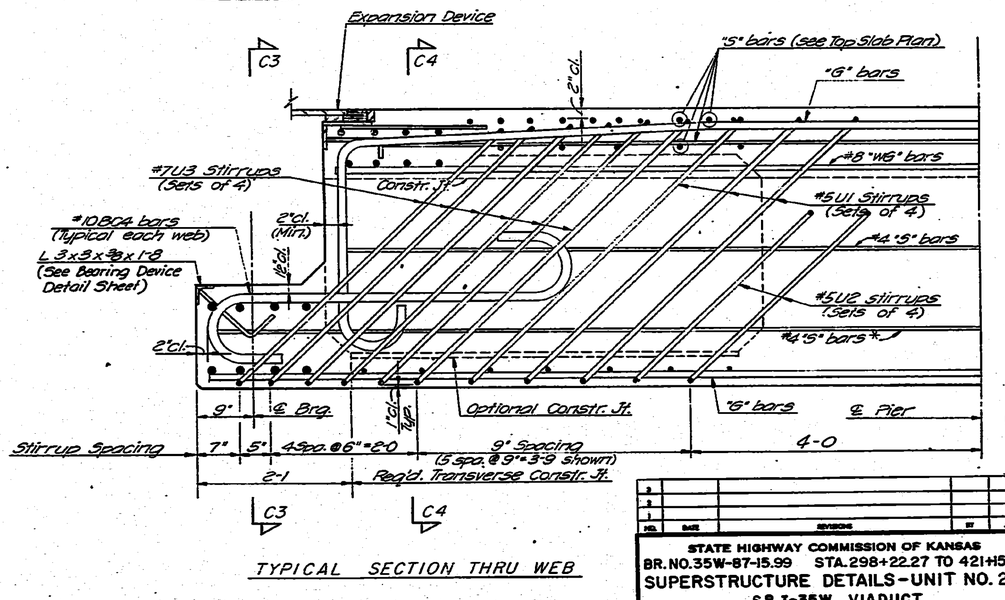
SEE REVISED EXPANSION DEVICES



SECTION C3-C3
(Interior Web)



SECTION C4-C4
(Interior Web)



TYPICAL SECTION THRU WEB

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

BEARING BEAM DETAILS

NO.	DATE	REVISIONS	BY	APP'D.

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

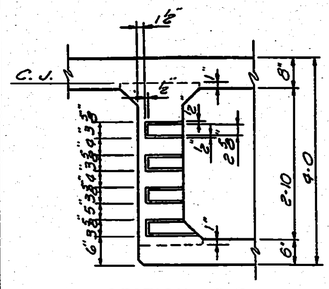
SHEET NO. 12 OF 17	SCALE	APP'D.
DESIGNED DFB	DETAILED DS	QUANTITIES LKD / CHKD DS
DRAWN CC RBS	TRACED CC RBS	DESIGN CC DBT / CHK'D CC RBS

DIST. 5 SEDGWICK CO. ROLL 531

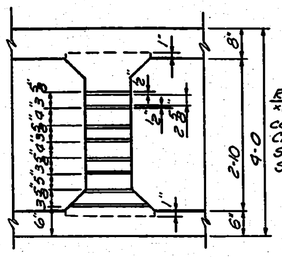
1 8 2

14X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1715	2197

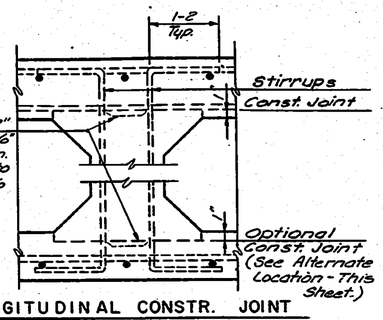


SECTION B-B
(Through Exterior Web)

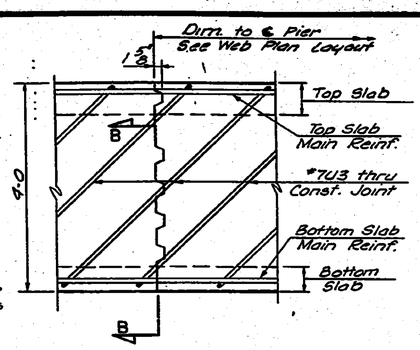


SECTION B-B
(Through Interior Web)

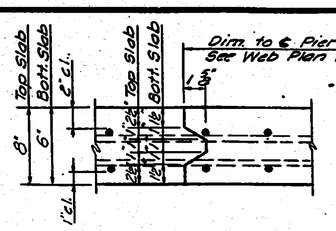
Rake of form 3/4"-2" x 6" Shear Keys @ 6" centers as shown. Clean according to Sec. F1-4 (g), 1966 Specs.



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

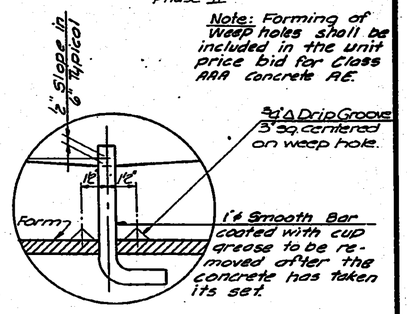


WEB CONSTR. JOINT
(Showing Placement of #7@3 bars.)



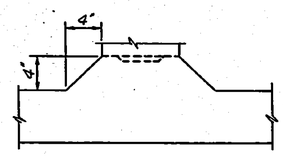
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of Weep holes shall be included in the unit price bid for Class AAA concrete AE.

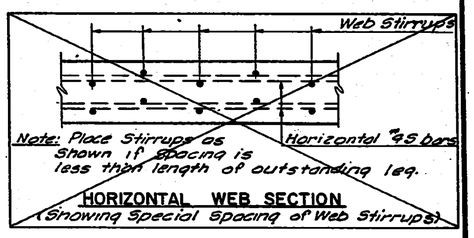


DETAIL OF WEEP HOLES

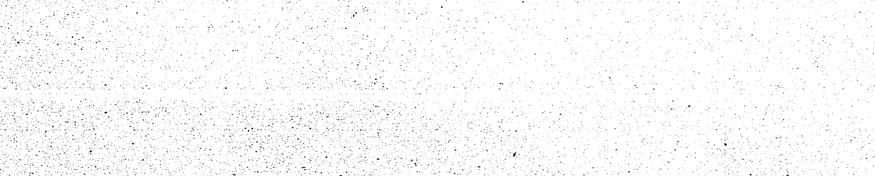
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer.)

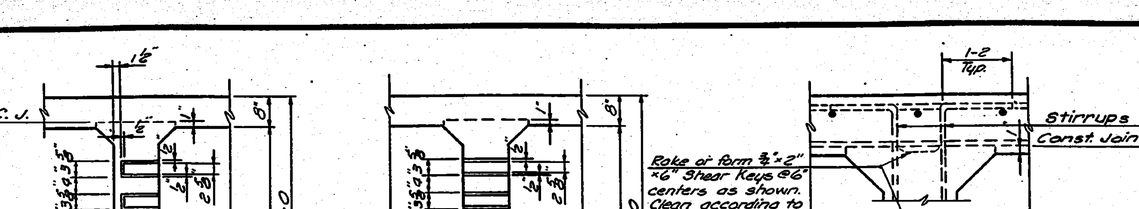


HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)



Note: Before beginning placing operation 3 & 4 wedge forms up to original elevations. (Section F1-4, 1960 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework

LOCATION OF WEEP HOLES

NOTES:

See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained it's design strength.

Construction Joints: Construction Joints shown are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

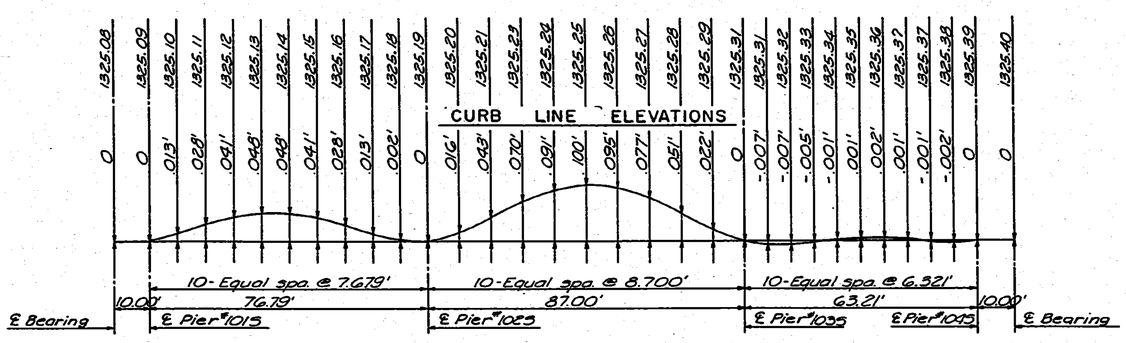
SHEET NO. 13 OF 17	ZONE	APPR.	
DESIGNED DFG	DETAILED DGT	CHECKED LKD	TRACED DGT
DESIGN CK. EDS	DETAIL CK. RAW	DESIGN CK. DGT	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

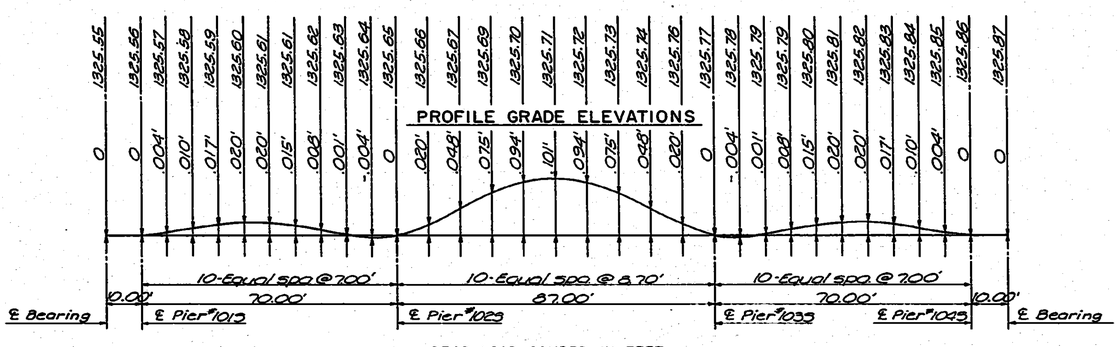
[redacted] 1 8 3

14X 14.5X 12X 12X 14.5X 16X

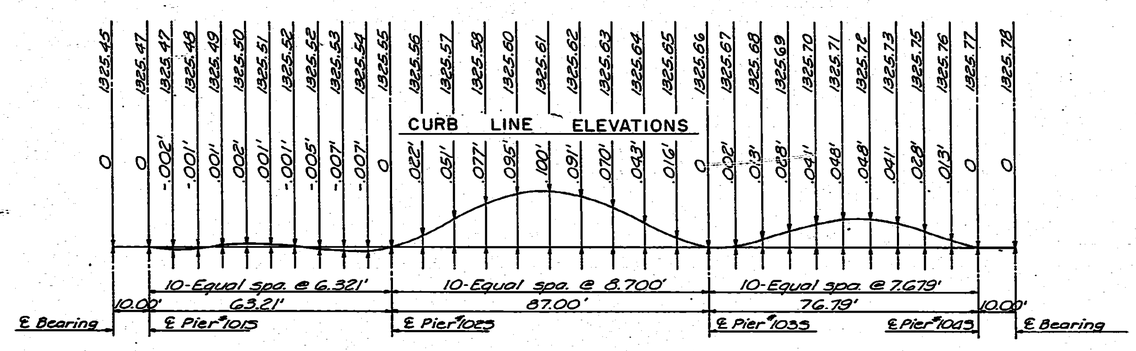
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1716	2137



DEAD LOAD CAMBER IN FEET
ALONG LEFT GIRDER FASCIA



DEAD LOAD CAMBER IN FEET
ALONG ℄ CONSTRUCTION



DEAD LOAD CAMBER IN FEET
ALONG RIGHT GIRDER FASCIA

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL TOP OF SLAB ELEVATIONS AT TENTH POINTS

NOTE: Add dead load camber to theoretical top of slab elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ psi.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

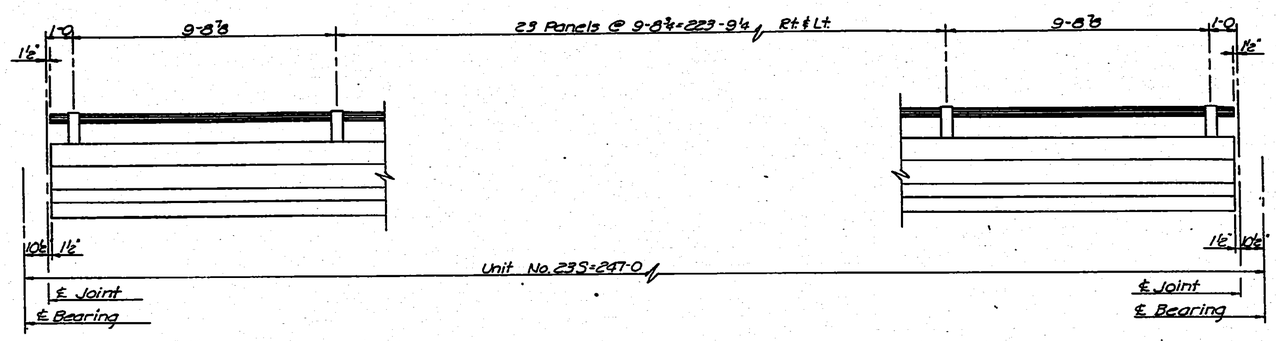
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 16 OF 17	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	CHECKED LKO/	TRACED DS/RCP
DESIGN CK. RBS	DETAIL CK. RBS	CORR. CK. DGT/	TRACE CK. RBS

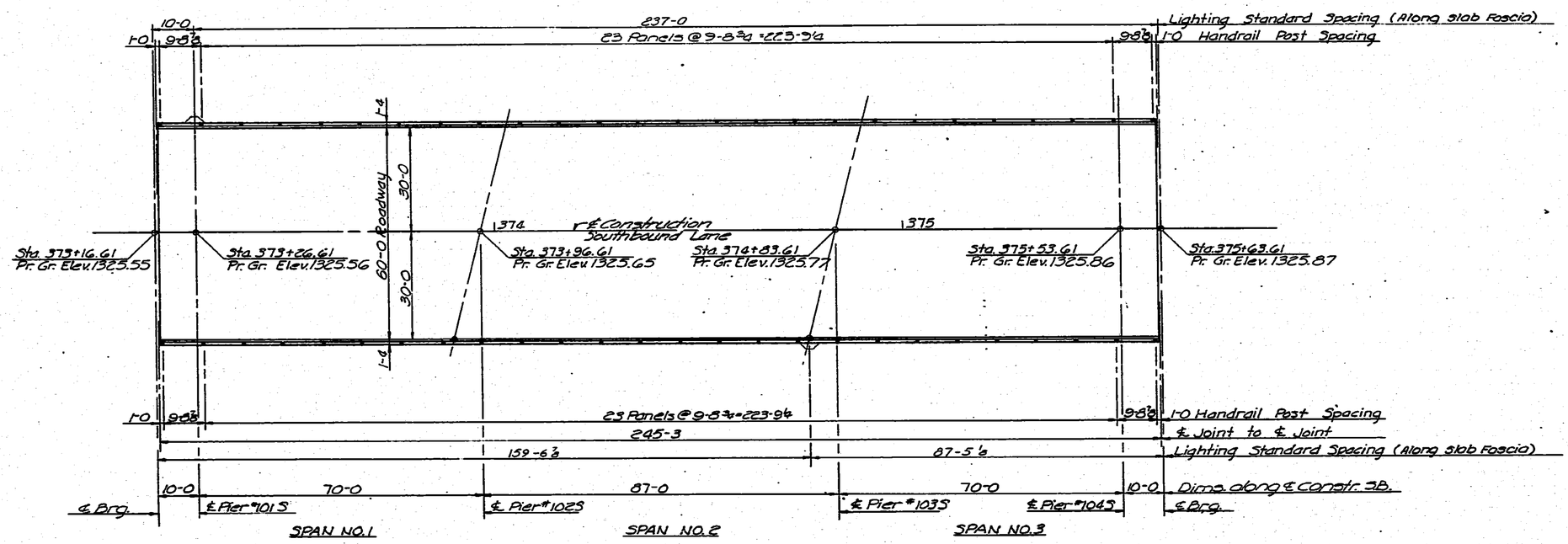
DIST. 5 SEDGWICK CO. ROLL 531 1 8 4

14X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1-(58)48 Phase II	19	17/7	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 12 OF 17	SCALE	APP'D.	
DESIGNED JWH	DETAILED PBS	CHECKED LKD	TRACED KWK
DESIGN CK. RBS	DETAIL CK. DS	CHIEF CK. DSB	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

1 8 5

12X 10.5X 12X 14.5X 16X 12X

REV. PLANS 11-1-71

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1-(58)48 Phase II	19	1710	2137

BILL OF REINFORCING STEEL

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
				S1	247	5	31-5
				S1A	247	5	28-11
S1B	14	5	*				
				S1C	32	5	*
S1D	14	5	*				
				S2	237	4	35-11
				S2A	237	4	29-11
S2B	12	4	*				
				S2C	44	4	*
S2D	12	4	*				
				S3	237	5	33-6
				S3A	237	5	31-0
S3B	12	5	*				
				S3C	44	5	*
S3D	12	5	*				
				S4	120	5	36-5
				S4A	119	5	31-5
S4B	16	5	*				
S4D	12	5	*				
				S5	117	5	36-5
				S5A	117	5	31-5
S5B	12	5	*				
				S5C	80	5	*
S5D	14	5	*				
S6	822	4	36-3				
S7	32	4	38-0				
S8	12	4	26-10				
S8A	12	6	26-10				
S9	30	4	40-0				
S9A	30	6	40-0				
G1	58	8	*				
G2	56	8	*				
G3	30	10	56-0				
G4	28	9	56-0				
G5	28	9	43-0				
G6	28	9	30-0				
G7	56	9	50-0				
G8	28	8	37-0				
G9	28	8	24-0				
G10	114	8	29-6				
G11	57	10	60-0				
G12	28	10	52-0				
G13	28	10	36-0				

* See Bending Diagrams

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
G14	78	8	33-10				
G14A	8	8	6-0				
G14B	2	8	22-10				
G14C	2	8	24-4	G15	28	8	37-11
G16	96	8	26-10				
G16B	4	8	17-4				
G17	84	9	18-10				
G18	110	8	*				
G19	106	10	50-0				
G19A	3	10	20-3				
G19B	3	10	25-6				
G19C	1	10	22-0				
G19D	1	10	27-0				
G20	96	11	36-0				
G20A	3	11	13-3				
G20B	3	11	18-6				
G20C	1	11	15-0				
G20D	1	11	20-0				
G21	84	11	20-0				
G22	55	5	40-0				
				LB1	8	4	7-4
				LB2	6	4	9-4

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
B1	32	8	29-2				
B2	8	8	40-0				
B3	16	6	28-11				
				B4	40	10	16-8
				B5	16	10	39-11
				B5A	16	10	22-5
				B6	24	6	39-11
				B6A	24	6	24-11
				B6B	24	6	41-3
				B6C	24	6	25-3
B7	32	8	29-11				
B8	8	8	41-2				
B9	16	6	29-10				
				B10	40	11	17-1
				B11	24	11	40-11
				B11A	24	11	22-11
				BU1	432	5	15-4
				BU2	140	4	6-1
				BU3	98	4	5-1
				BC1	16	8	32-8
				BC1A	16	8	28-8
				BC2	8	6	31-11
				BC2A	8	6	27-8
				BC3	8	6	34-6
				BC3A	8	6	30-6
				BC4	64	10	8-2
				C1	566	4	3-5
				C2	588	4	3-8
				C3	64	4	2-5
				C4	16	5	5-7
C5	32	4	2-6				
				U1	3200	5	7-7
				U2	384	5	6-1
				U3	576	7	7-7
WG1	32	8	28-4				
WG2	80	8	40-0				

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

All bar marks shall be prefixed with the unit number when fabricated.
Example: #8G1 shall be marked 23S8G1.

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Item	Quantity	Unit
Class AAA Concrete AE	1001.8'	Cu. Yds.
Reinforcing Steel	343,450'	Lbs.
Cast Iron Scuppers		Lbs.
Wrought Iron Drains & Grates	4,909	Lbs.
8" Φ Downspouts	221.31'	Lin. Ft.
Gutters		Lin. Ft.
Bridge Handrail	426.59' ~~486.50~~	Lin. Ft.
Structural Steel		
Corner Angles (A36) 16 @ 19 Lbs.	304	Lbs.
Expansion Devices (A36)	4,422	Lbs.
Elastomeric Exp. Device (13½")	124'	Lin. Ft.
Linseed Oil Surface Treatment (Bridges)	1,633.3'	Sq. Yds.

NO.	DATE	REVISIONS	BY	APPD.
3				
2				
1	11-1-71	Rev. Exp. Devices	WHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SCHEDULE OF QUANTITIES – UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. 35W-87-1 35W-K58)48 SEDGWICK CO.

SHEET NO. 16 OF 17	SCALE		APPD.	
DESIGNED DFG	DETAILED DS	QUANTITIES DDW	TRACED BLC	
DESIGN CK. RBS	DETAIL CK. JWH	QUAN. CK. JWH	TRACE CK. JWH	

DIST. 5 SEDGWICK CO. ROLL 531 1 8 6

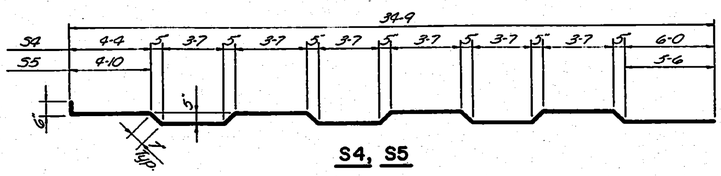
16X 14.5X 12X 12X 14.5X 16X

BENDING DIAGRAMS

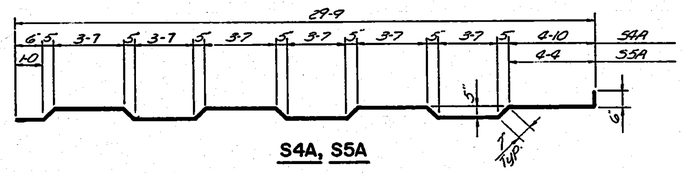
(Bar Dimensions are Out to Out)

REV. PLANS 11-1-71

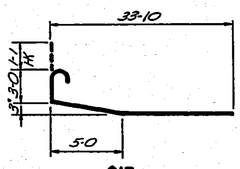
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W (158)48 Phase II	19	1719	2137



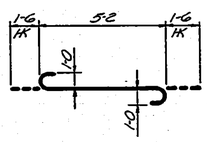
S4, S5



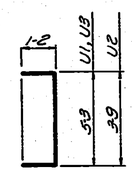
S4A, S5A



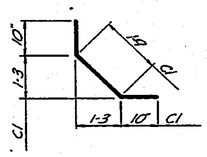
GI5



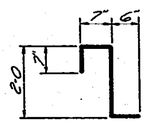
BC4



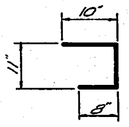
U1, U2, U3,



C1,



C2



C3

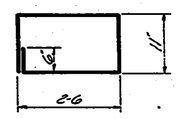
C2	Increase By 3" increment from 13-9 to 20-6	Cut 2 ea. length
G1B	Increase by 3½" increment from 17-10 to 32-5½	Cut 2 ea. length
G1	Increase by 3" increment from 14-9 to 21-9	Cut 2 ea. length

G1, G2, G1B,

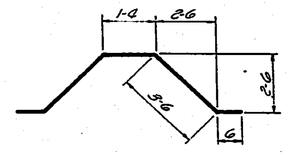
* S5D Cut 4 each @ 14-6, 24-6, 28-6; 2 ea. @ 35-6

S5D	By 7-0 incr. from 14-6 to 35-6	See Note above *
S5B	By 7-0 incr. from 12-6 to 26-6	Cut 4 ea. length
S4D	By 7-0 incr. from 18-0 to 32-0	Cut 4 ea. length
S4B	By 7-0 incr. from 9-0 to 30-0	Cut 4 ea. length
S3D	By 3-6 incr. from 14-6 to 32-0	Cut 2 ea. length
S3B	By 3-6 incr. from 11-9 to 29-3	Cut 2 ea. length
S2D	By 3-6 incr. from 16-3 to 33-9	Cut 2 ea. length
S2B	By 3-6 incr. from 10-0 to 27-6	Cut 2 ea. length
S1D	By 3-6 incr. from 8-0 to 29-0	Cut 2 ea. length
S1B	By 3-6 incr. from 5-3 to 26-3	Cut 2 ea. length

S1B, S2B, S3B, S4B, S5B,
S1D, S2D, S3D, S4D, S5D,

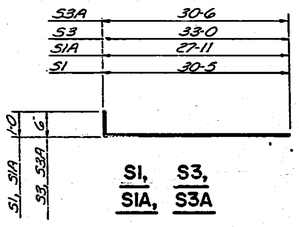


LB1



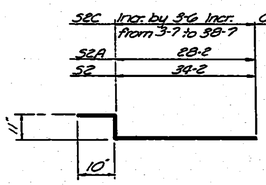
LB2

S3A	30-6
S3	33-0
S1A	27-11
S1	30-5



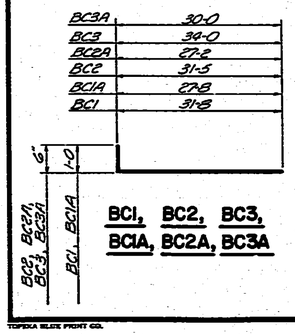
S1, S3,
S1A, S3A

S2C	Incr. by 3-6 Incr. from 3-7 to 38-7	Cut 2 ea. length
S2A	28-2	
S2	34-2	



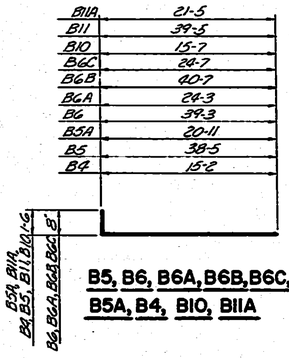
S2, S2A, S2C

BC3A	30-0
BC3	34-0
BC2A	27-2
BC2	31-5
BC1A	27-8
BC1	31-8



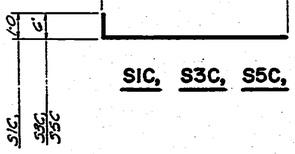
BC1, BC2, BC3,
BC1A, BC2A, BC3A

B11A	21-5
B11	39-5
B10	15-7
B6C	24-7
B6B	40-7
B6A	24-3
B6	39-3
B5A	20-11
B5	38-5
B4	15-2

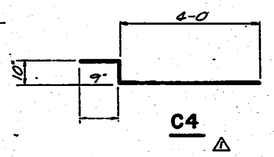


B5, B6, B6A, B6B, B6C, B11
B5A, B4, B10, B11A

S5C	Increase by 3-6 Incr. from 6-0 to 37-6	Cut 8 ea. length
S3C	Increase by 3-6 Incr. from 4-3 to 39-3	Cut 4 ea. length
S1C	Increase by 3-6 Incr. from 5-9 to 30-3	Cut 4 ea. length

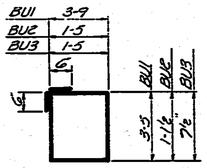


S1C, S3C, S5C,



C4 ⚠

BU1	3-9
BU2	1-5
BU3	1-5



BU1, BU2, BU3

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1	11-1-71	Rev. Exp. Devices	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING DIAGRAMS — UNIT NO. 23S
S.B. I-35W VIADUCT
(OVER 11TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 17 OF 17	SCALE		APP'D.		
DESIGNED DFG	DETAILED DS	CHECKED DDW	TRACED ELC		
DESIGN CK. JWH	DETAIL CK. JWH	GENL. CK. JWH	TRACE CK. JWH		

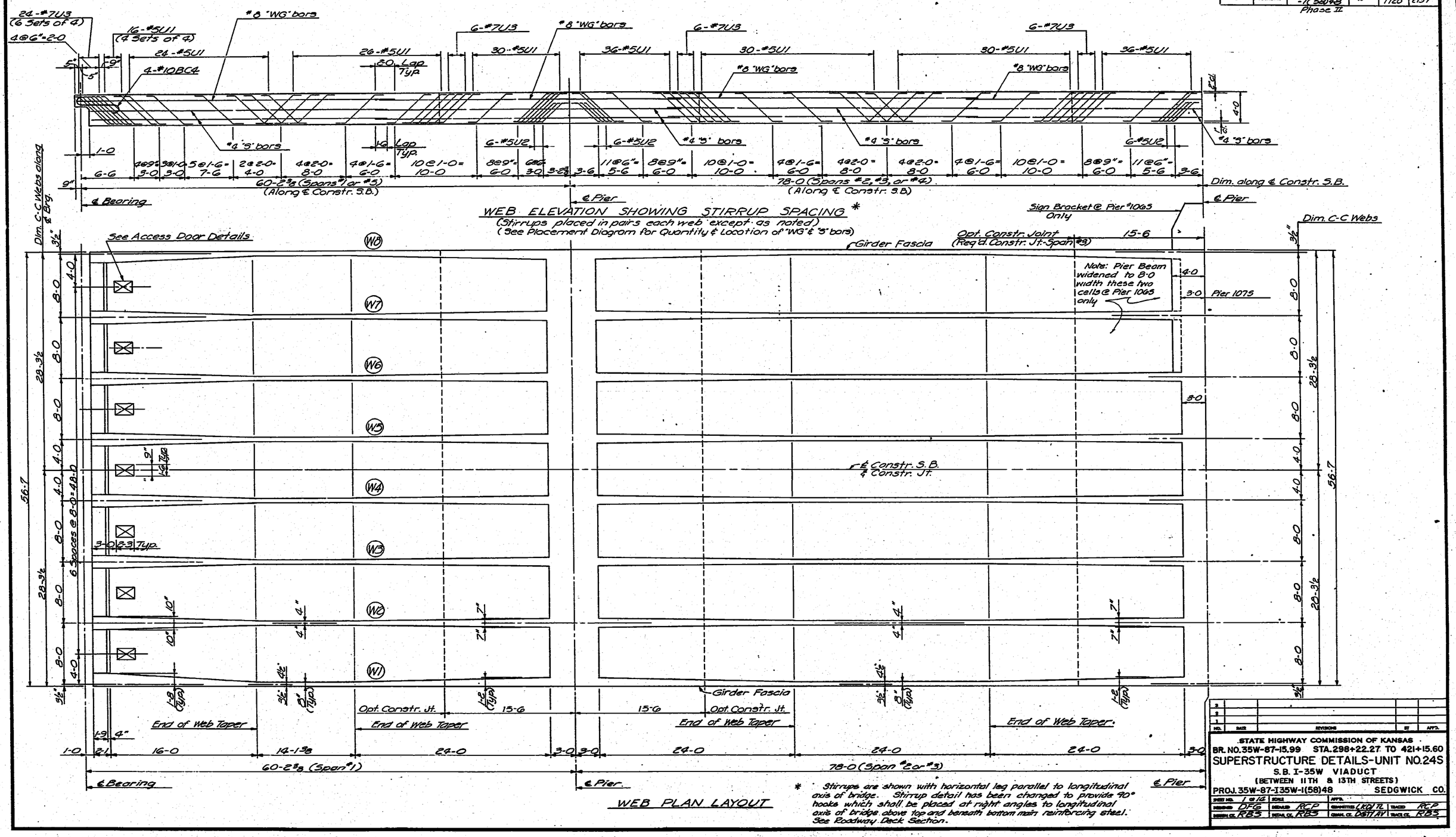
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

1 8 7

M X M 5 X 12 X 12 X M 5 X 16 X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-(58)48 Phase II	19	1720	2137



* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top and beneath bottom main reinforcing steel. See Roadway Deck Section.

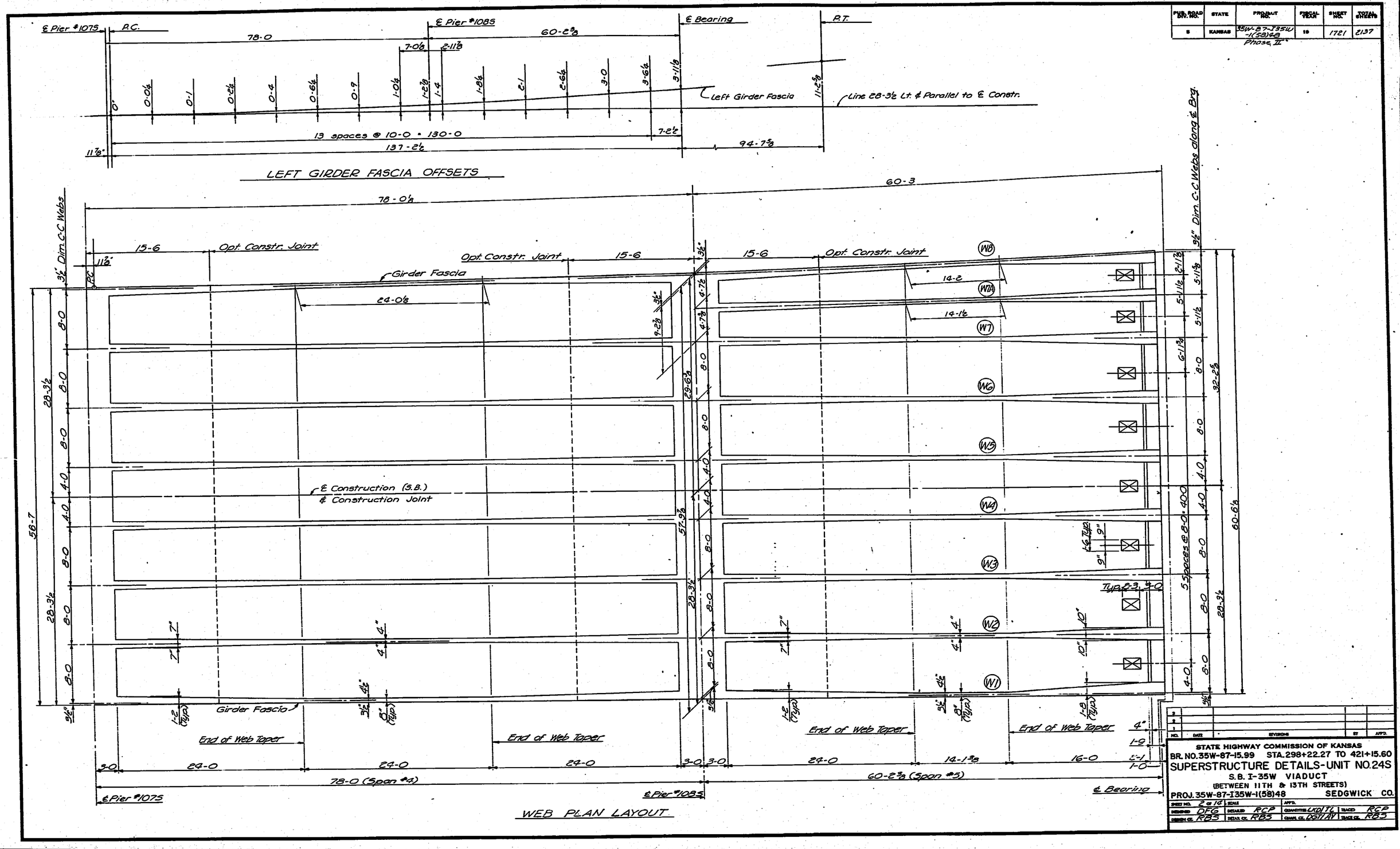
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 24S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO.	1 OF 12	SCALE		APP'D.	
DESIGNED	DFG	DETAILED	RCP	CHECKED LKH/TL	TRACED RCP
DESIGN CK.	RBS	DETAIL CK.	RBS	GRAN. CK. DGT/AV	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

1 8 8

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1721	2137



STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 24S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 2 of 14	SCALE	APP'D.	
DESIGNED DFG	DETAILED RCP	QUANTITIES CKD'D TL	TRACED RCP
DESIGN OF RBS	DETAIL OF RBS	CHKD. OF DOT'D AV	TRACE OF RBS

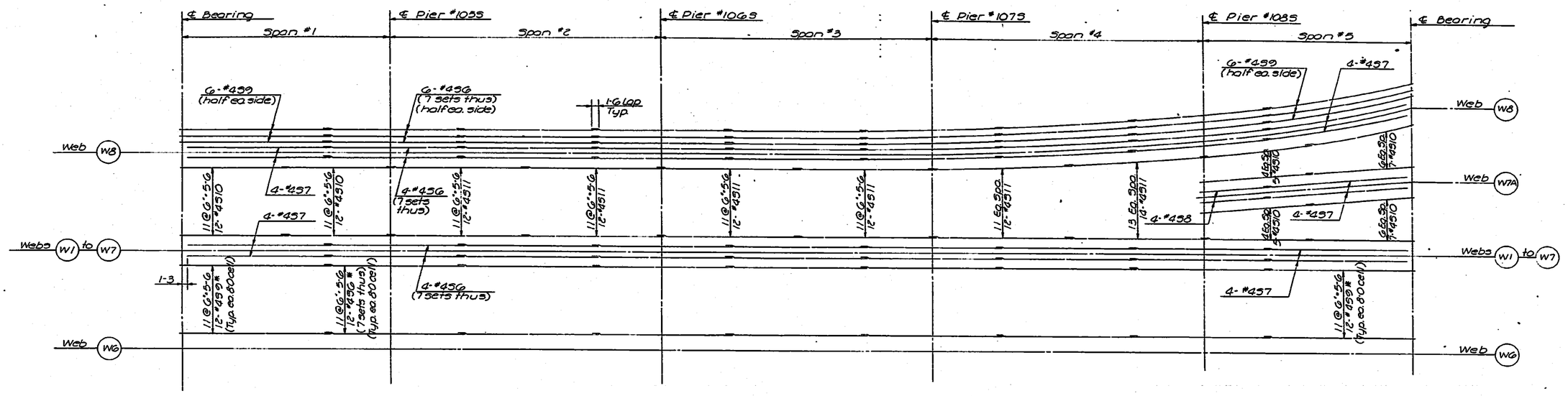
NO.	DATE	REVISIONS	BY	APP'D.

DIST. 5 SEDGWICK CO. ROLL 531

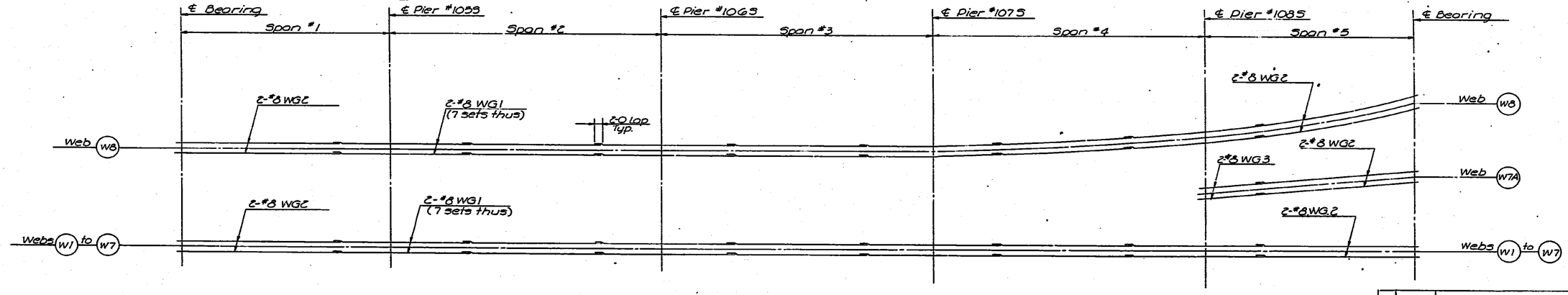
1 8 9

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I 35W (58)48 Phase II	19	1722	2137



PLACEMENT DIAGRAM SHOWING "S" BARS
Longit. bars in Webs and bottom on top slab.
* There are 6 typical 8-0 cells from Web W1 to W7
All bars are #456 unless otherwise shown.



PLACEMENT DIAGRAM SHOWING "WG" BARS
All bars are #8 WG1 unless otherwise shown

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 24S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 5 OF 6	SCALE	APP'D.
DESIGNED DFG	DETAILED EES	QUANTITIES MPITL TRACED EES
DESIGN CK. EBS	DETAIL CK. DFG	CHKD. CK. JA/AV TRACE CK. DFG

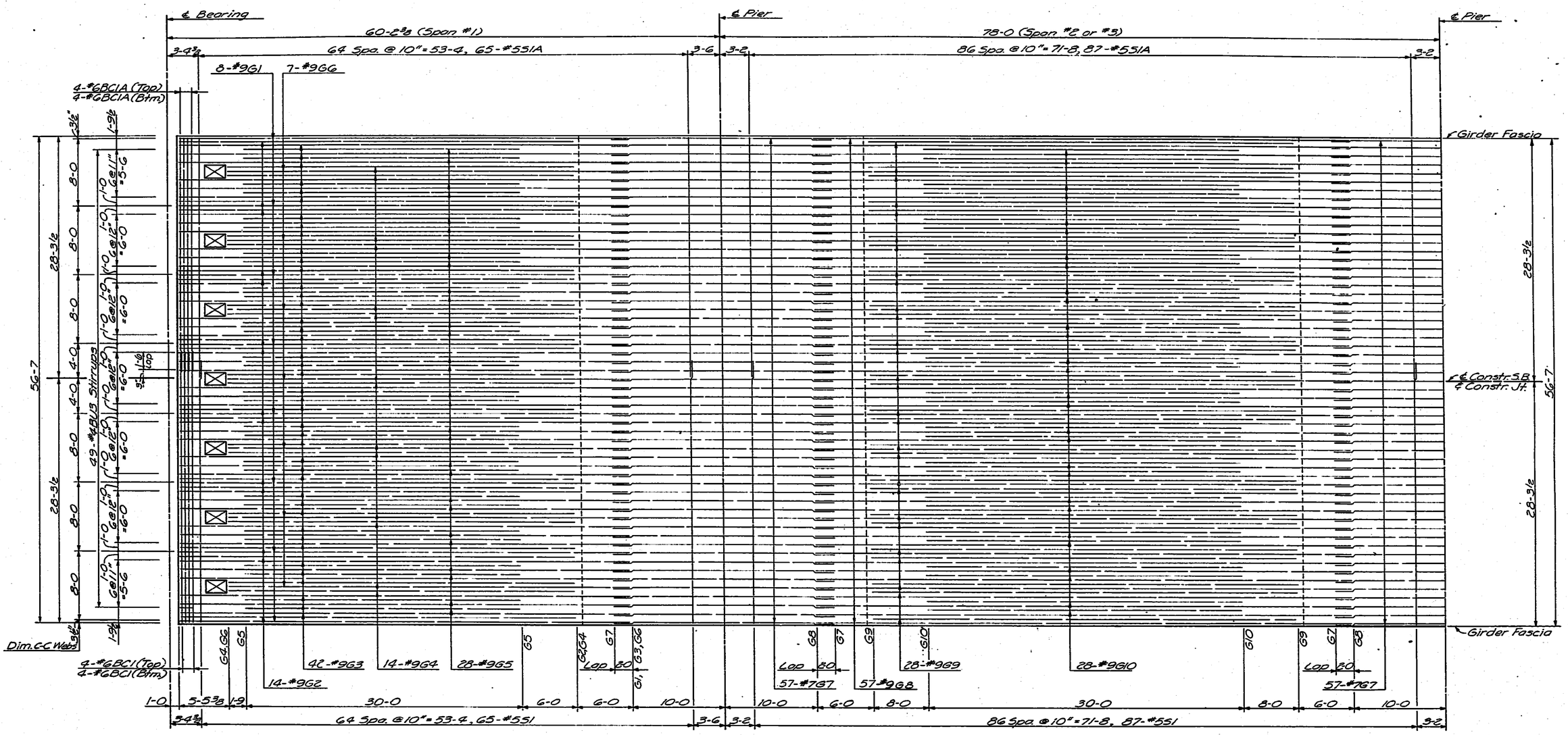
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

1 9 0

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)28 Phase II	19	1723	2137



Note: All bar marks shall be prefixed with the Unit Number when fabricated. Example: #961 bars shall be marked 245961

PARTIAL REINFORCING PLAN
(Reinforcing Steel in Bottom Slab)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 24S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

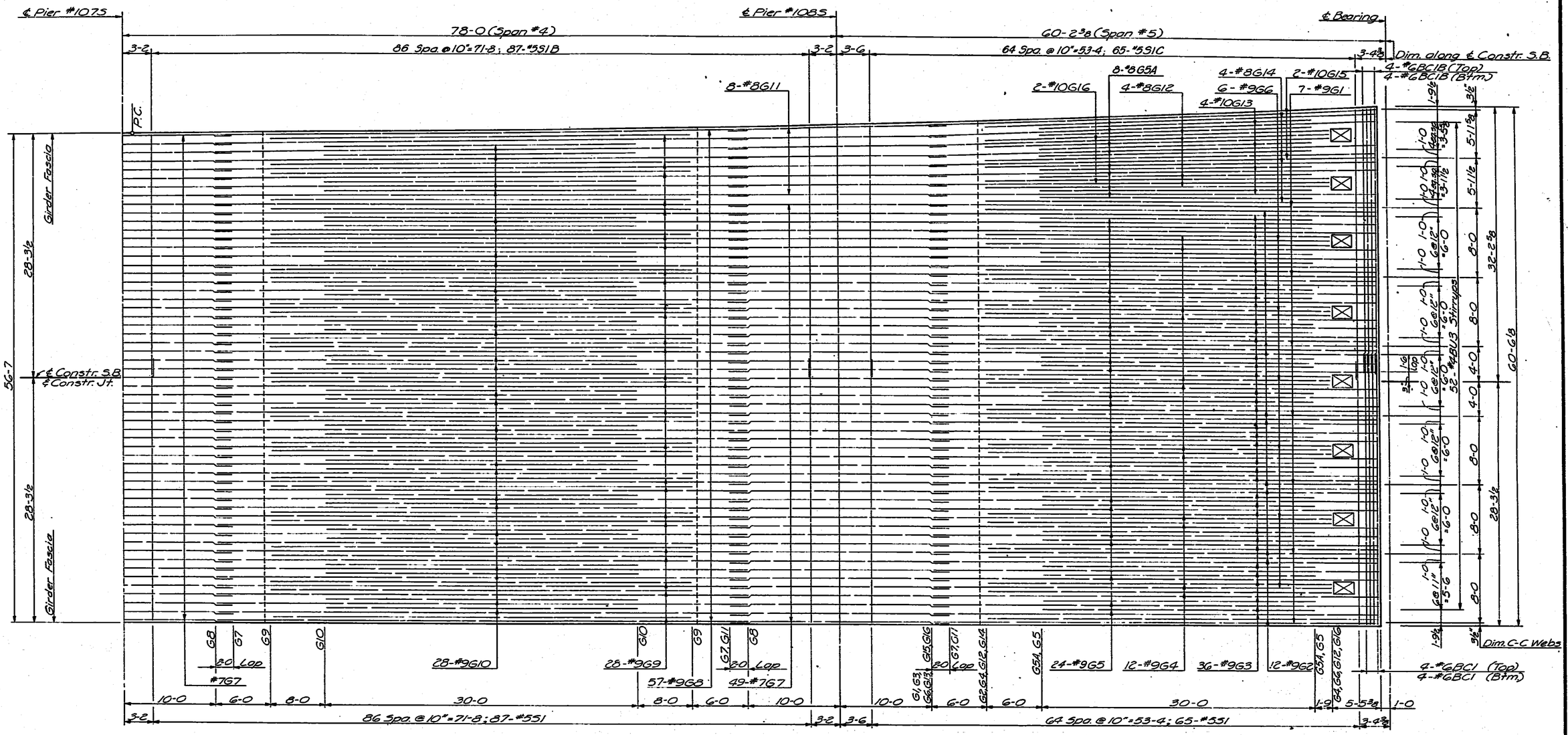
SHEET NO. 4 OF 14	SCALE	APP'D.		
DESIGNED DFG	DETAILED RCP	QUANTITIES LKO/TL	TRACED RCP	
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. DGT/AV	TRACE CK. RBS	

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 1 9 1

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1724	2137



PARTIAL REINFORCING PLAN
(Reinforcing Steel in Bottom Slab)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 24S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

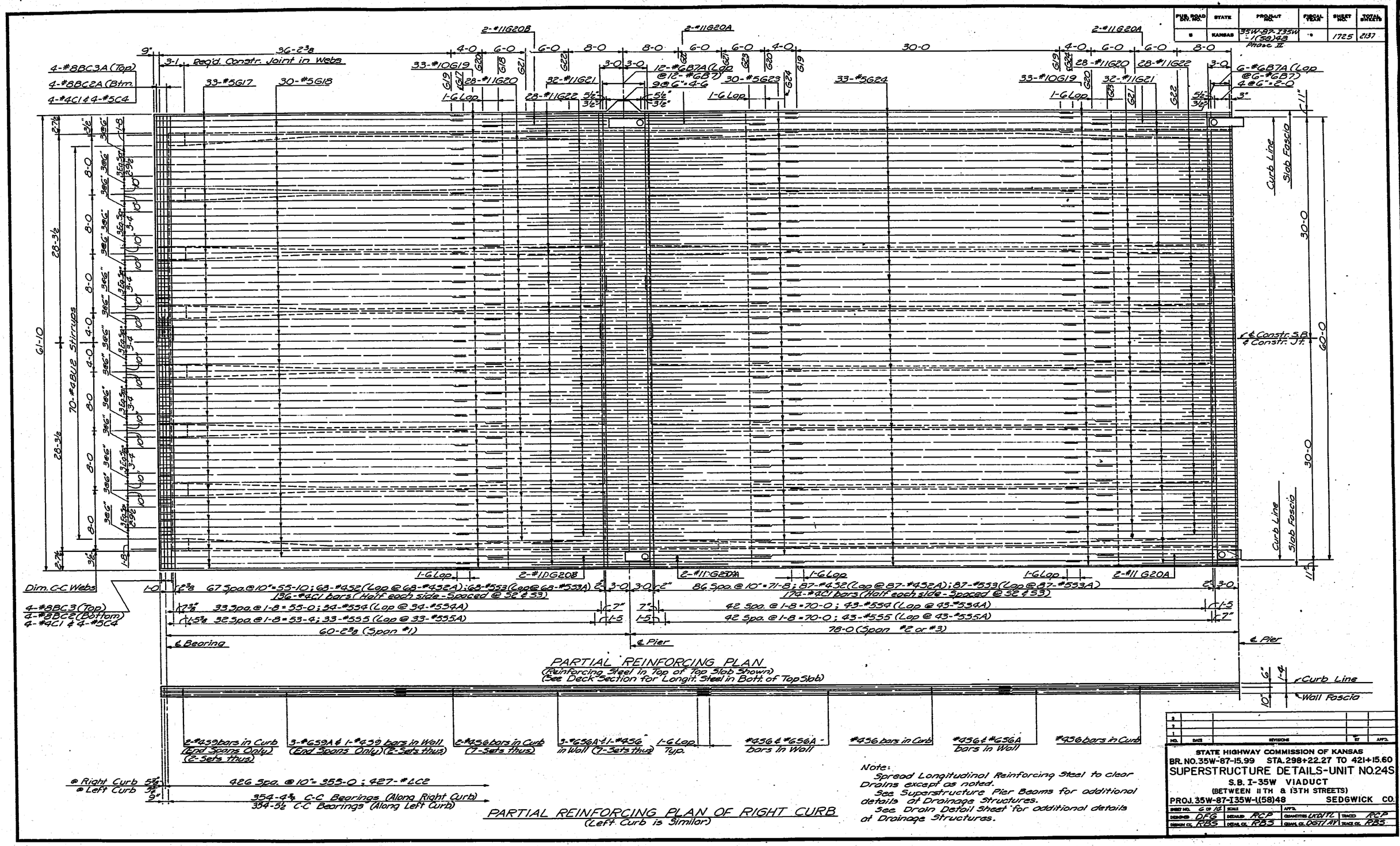
SHEET NO. 5 OF 12	SCALE		APP'D.		
DESIGNED DFG	DETAILED RCP	QUANTITIES LKD/TL	TRACED RCP		
DESIGN CK. RBS	DETAIL CK. RBS	GENRL. CK. DGT/AV	TRACE CK. RBS		

DIST. 5 SEDGWICK CO. ROLL 531

1 9 2

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	'9	1725	2137



PARTIAL REINFORCING PLAN
(Reinforcing Steel in Top of Top Slab Shown)
(See Deck Section for Longit. Steel in Bott. of Top Slab)

2-#439 bars in Curb (End Spans Only) (2-Sets thus)
3-#659A & 1-#439 bars in Wall (End Spans Only) (2-Sets thus)
6-#456 bars in Curb (7-Sets thus)
3-#656A & 1-#456 in Wall (7-Sets thus)
1-6 Lap Typ.
#456 & #656A - bars in Wall
#456 bars in Curb
#456 & #656A bars in Wall
#456 bars in Curb

℄ Right Curb 5 3/4"
℄ Left Curb 3 3/4"
426 Spa. @ 10"=355-0; 427-#LC2
354-4 3/4 C-C Bearings (Along Right Curb)
354-5 1/2 C-C Bearings (Along Left Curb)

PARTIAL REINFORCING PLAN OF RIGHT CURB
(Left Curb is Similar)

Note:
Spread Longitudinal Reinforcing Steel to clear Drains except as noted.
See Superstructure Pier Beams for additional details at Drainage Structures.
See Drain Detail Sheet for additional details at Drainage Structures.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-I5.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 24S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

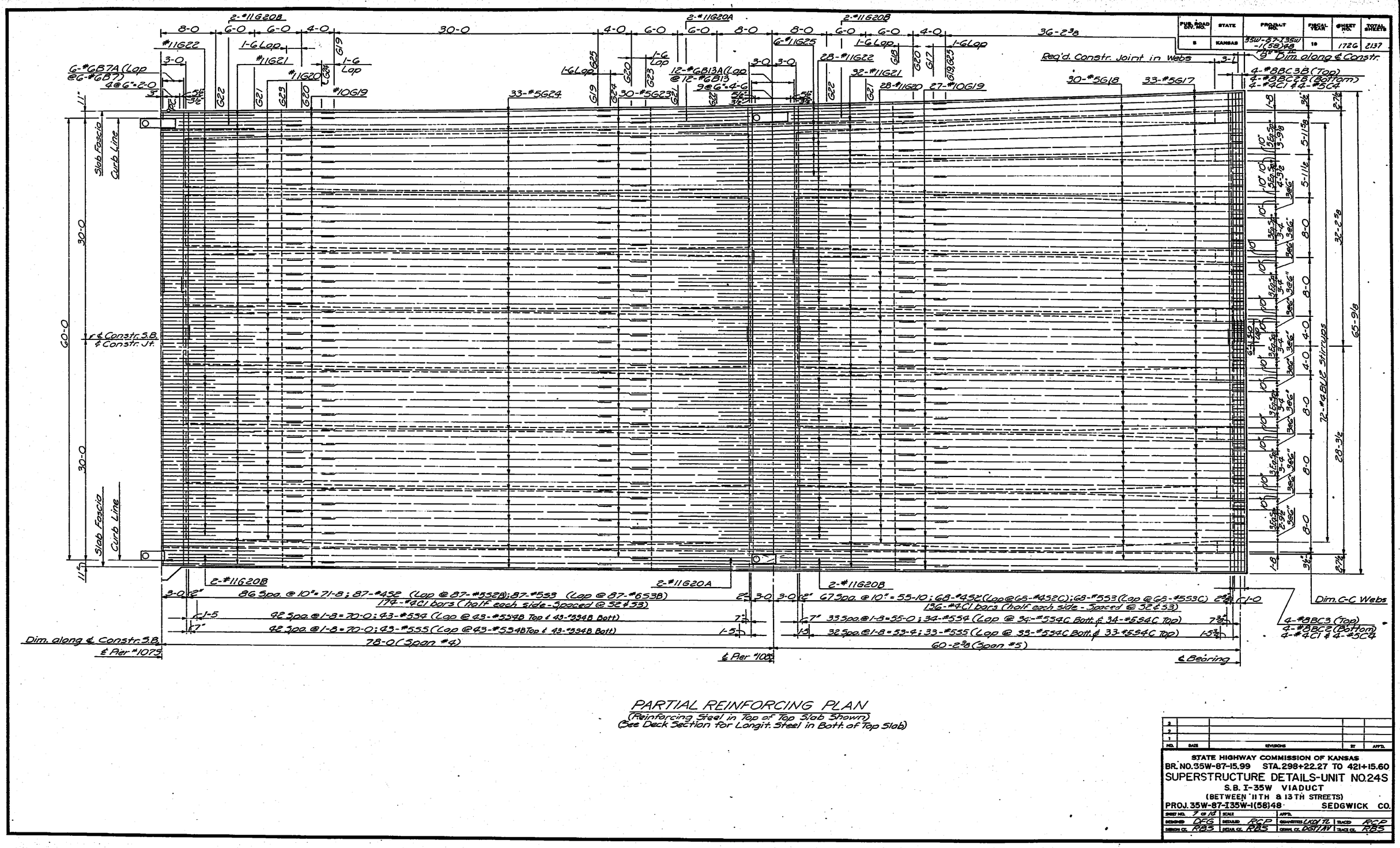
SHEET NO. 6 OF 16	SCALE	APP'D.	
DESIGNED DFG	DETAILED RCP	QUANTITIES LKD/TL	TRACED RCP
DESIGN CK. RBS	DETAIL CK. RBS	GENL. CK. OST/AM	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 1 9 3

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48	19	1726	2137



PARTIAL REINFORCING PLAN
(Reinforcing Steel in Top of Top Slab Shown)
(See Deck Section for Longit. Steel in Bott. of Top Slab)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 24S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

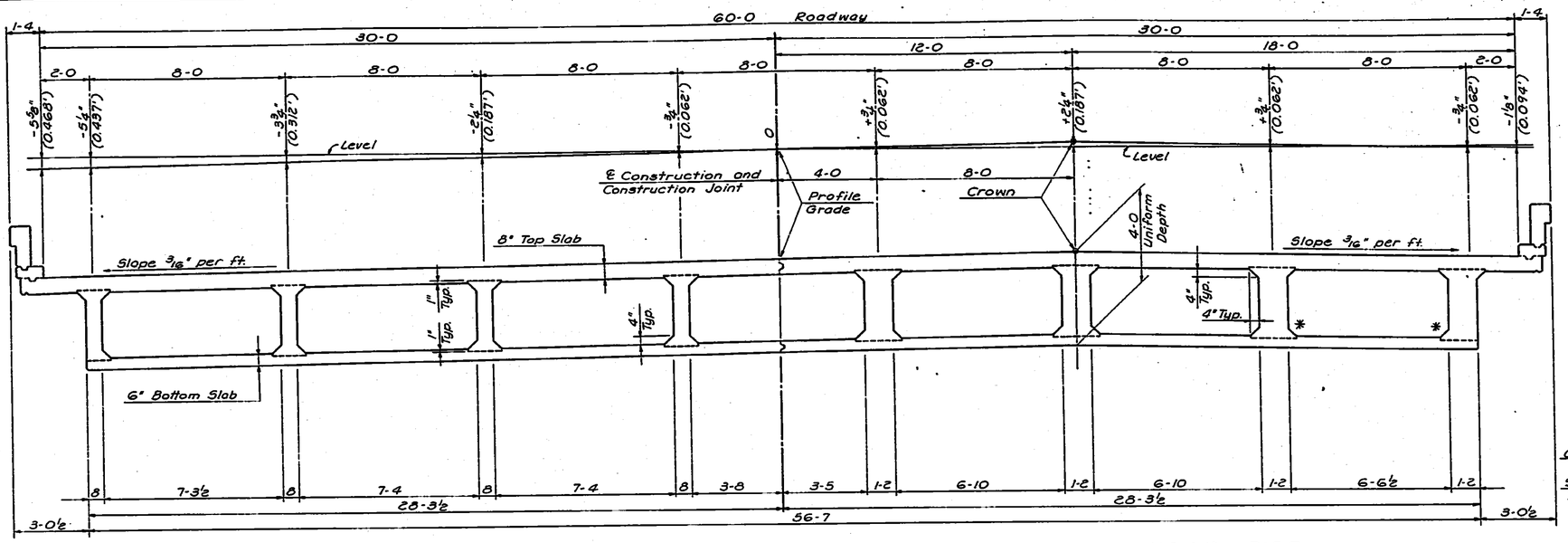
SHEET NO. 7 OF 12	SCALE	APP'D.			
DESIGNED DCG	DETAILED RCP	CHECKED LKG/TL	TRACED RCP		
DESIGN CH. RBS	DETAIL CH. RBS	CHKM CH. DGT/AV	TRACE CH. RBS		

DIST. 5 SEDGWICK CO. ROLL 531

1 9 4

16X 14.5X 12X 12X 14.5X 16X

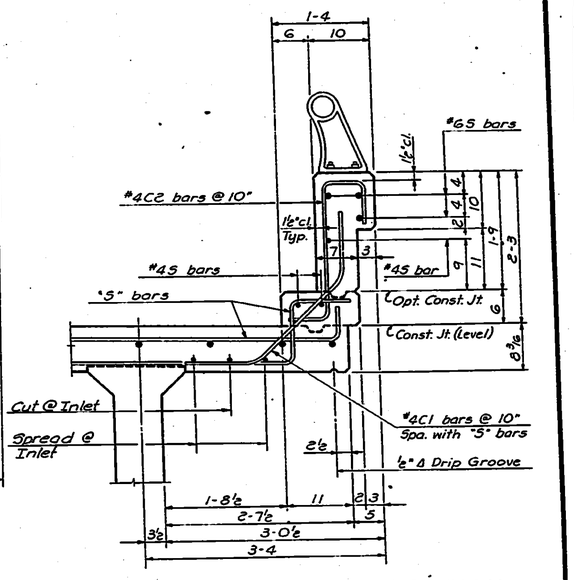
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1727	2137



NEAR MID-SPAN

NEAR PIER

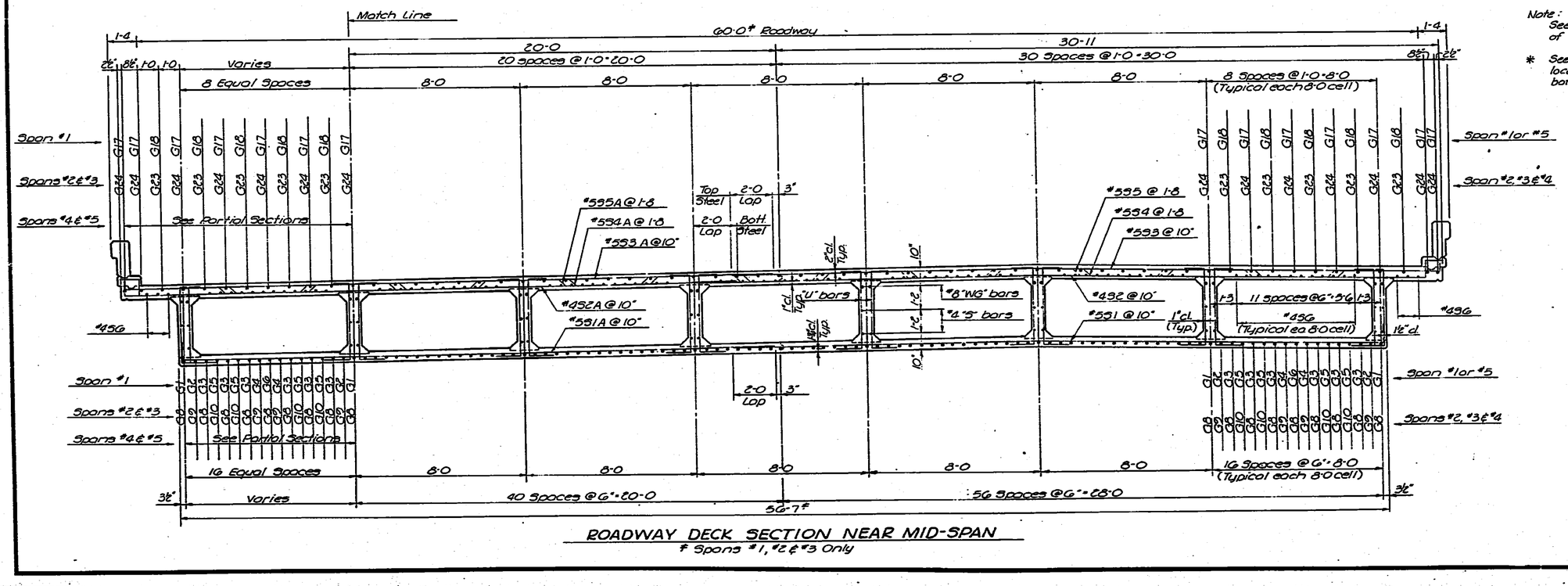
ROADWAY DECK SECTION



TYPICAL CURB SECTION

Note:
See Web Elevation for quantity, size and spacing of "U" bars.

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web:
Transverse bars in widened section shall be placed with the outside end as shown.
Lap varies with widening.



ROADWAY DECK SECTION NEAR MID-SPAN

Spans #1, #2 & #3 Only

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.96 STA. 298 + 22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 24S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

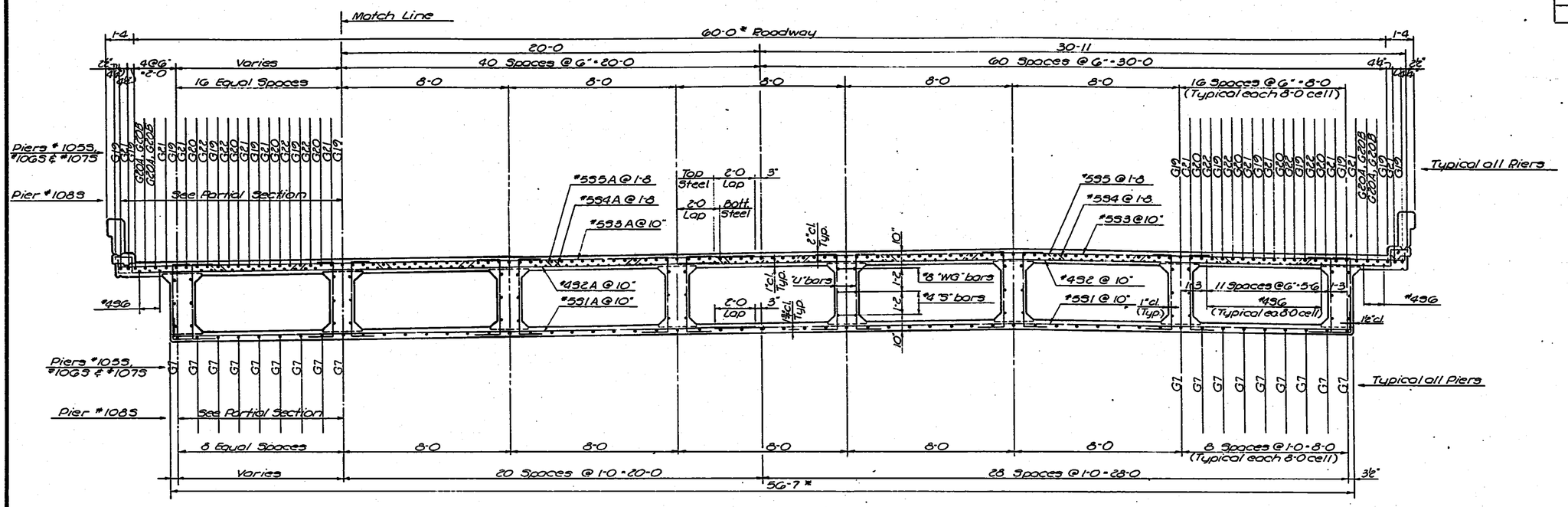
SHEET NO.	8 OF 12	SCALE		APP'D.			
DESIGNED	DFG	DETAILED	EES	QUANTITIES	EES/TE	TRACED	EES
DESIGN CK.	EES	DETAIL CK.	DFG	DESIGN CK.	JAI/AV	TRACE CK.	DFG

DIST. 5 SEDGWICK CO. ROLL 531

[redacted]

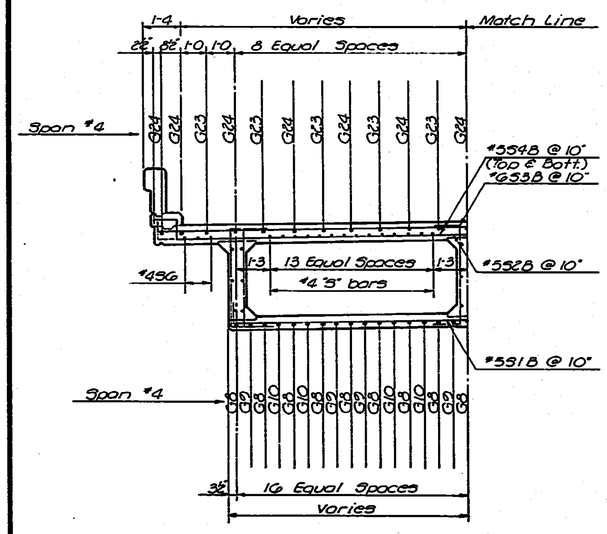
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1728	2137

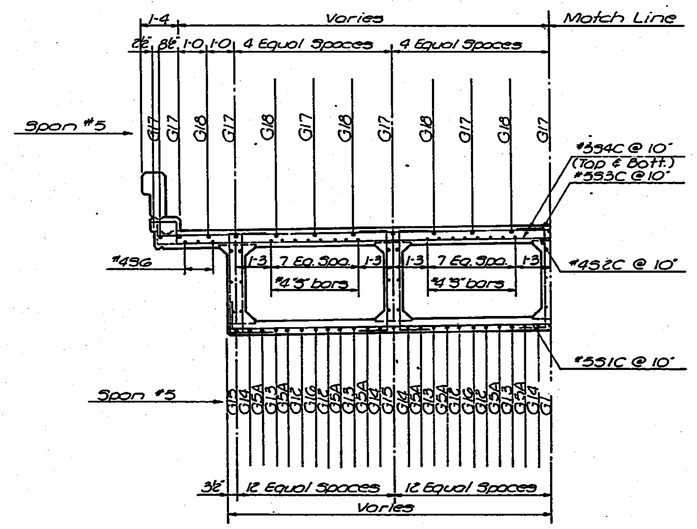


ROADWAY DECK SECTION NEAR PIER

* Piers #1055, #1065 & #1075 Only



PARTIAL SECTION NEAR MID-SPAN NO. 4



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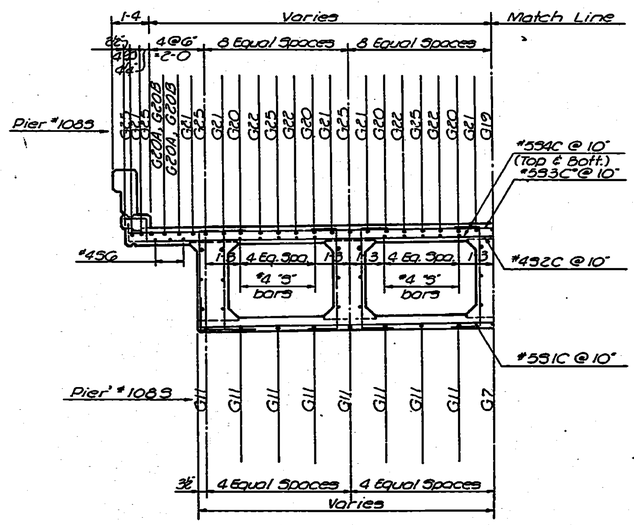


PARTIAL SECTION NEAR PIER #1085
(In Span #5)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.96 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 24S
S. B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

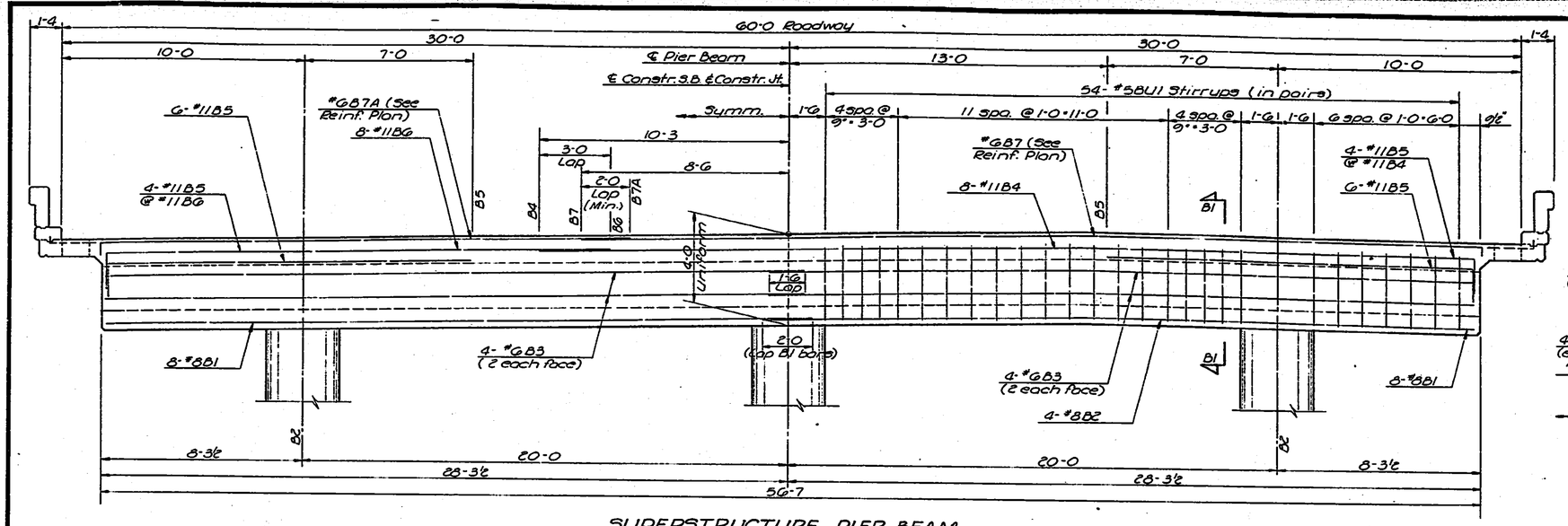
SHEET NO. 9 OF 12	SCALE	APP'D.	
DESIGNED DFG	DETAILED EES	COMPUTED PDP/TL	TRACED EES
DESIGN CK. PBS	DETAIL CK. DFG	CHKD. CK. JA/AV	TRACE CK. DFG

DIST. 5 SEDGWICK CO. ROLL 531

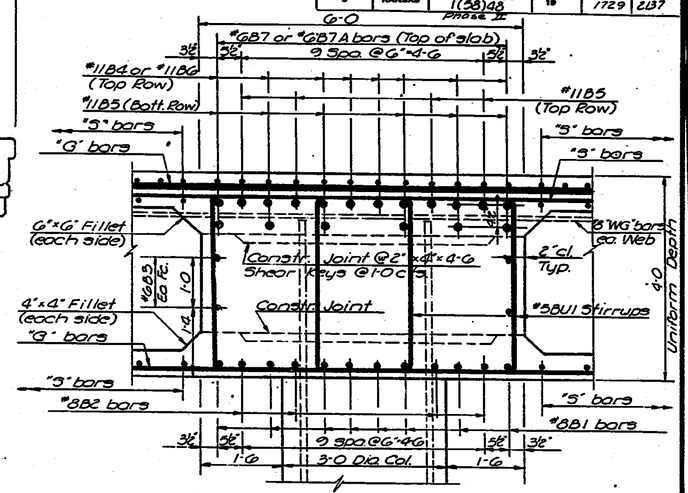
[redacted] 1 9 6

16X | 14.5X | 12X | 12X | 14.5X | 16X

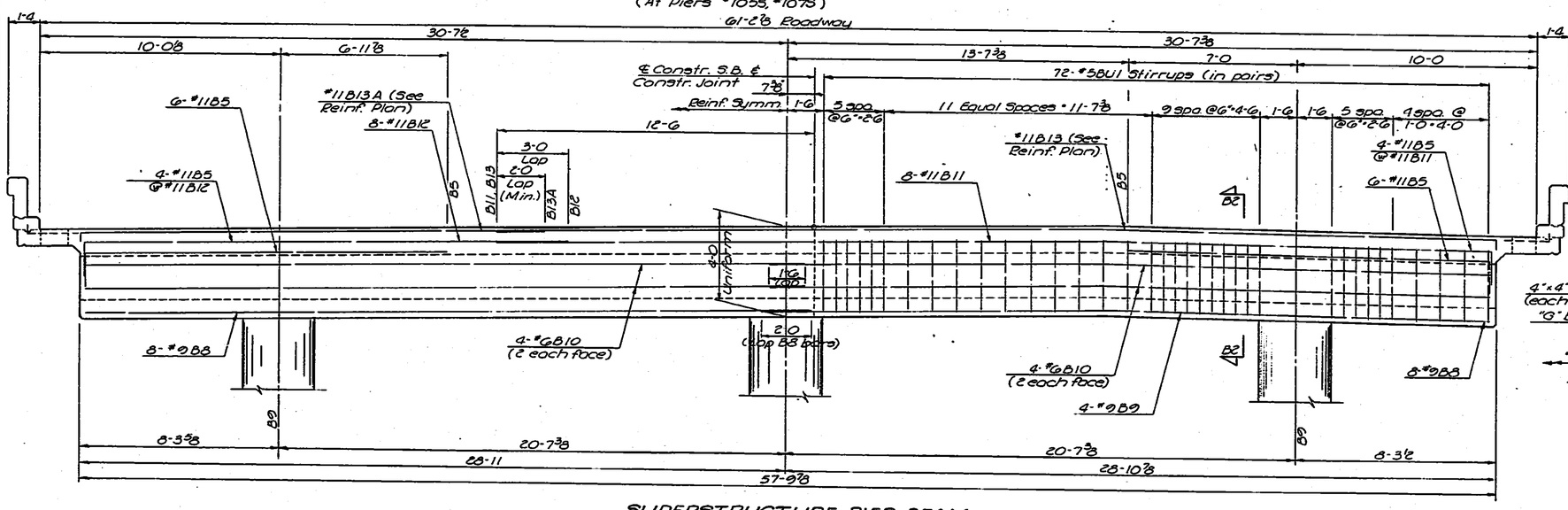
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I 35W 1(58)48 Phase II	19	1729	2137



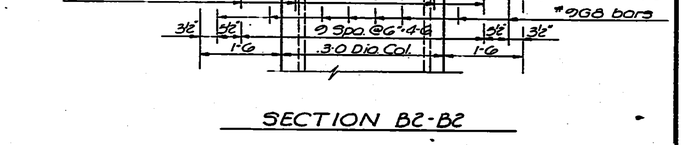
SUPERSTRUCTURE PIER BEAM
(At Piers #105S, #107S)



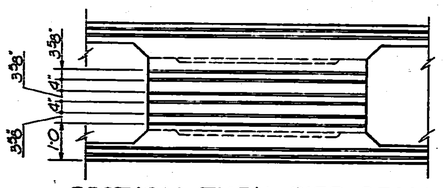
SECTION B1-B1



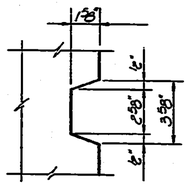
SUPERSTRUCTURE PIER BEAM
(At Pier #108S)



SECTION B2-B2



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing Location of Keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.96 STA 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 24S
S. B. I-35W VIA DUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I 35W-1(58)48 SEDGWICK CO.

SHEET NO. 10 of 12	SCALE	APP'D.	
DESIGNED DFG	DETAILED EES	CHECKED FDP/TL	TRACED EES
DESIGN CK. RDJ	DETAIL CK. DFG	SUPR. O. JA/AV	TRACE CK. DFG

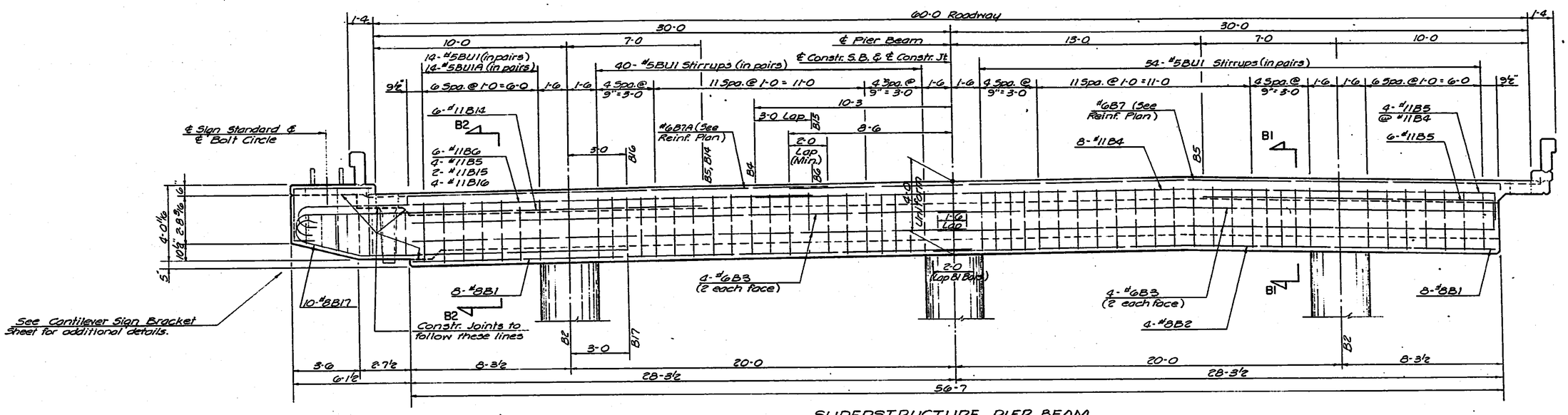
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

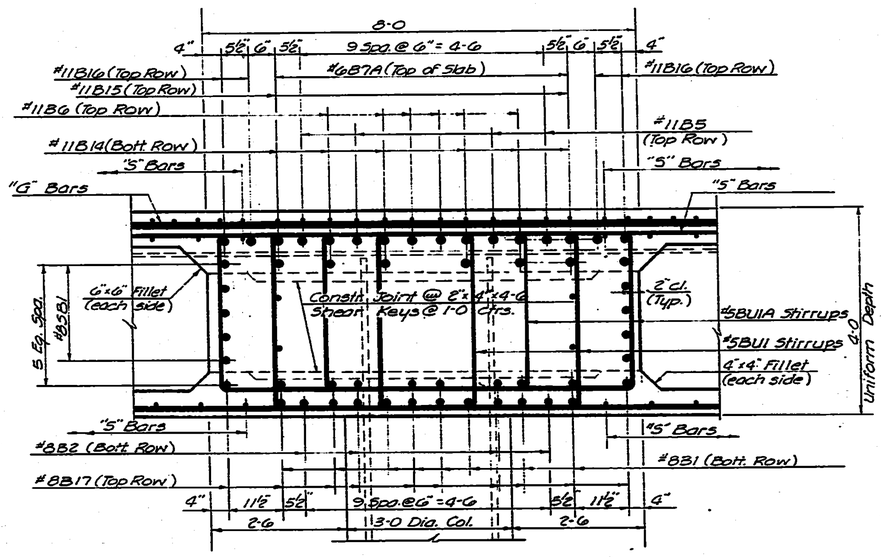
[redacted] 1 9 7

16X 14.5X 12X 12X 14.5X 16X

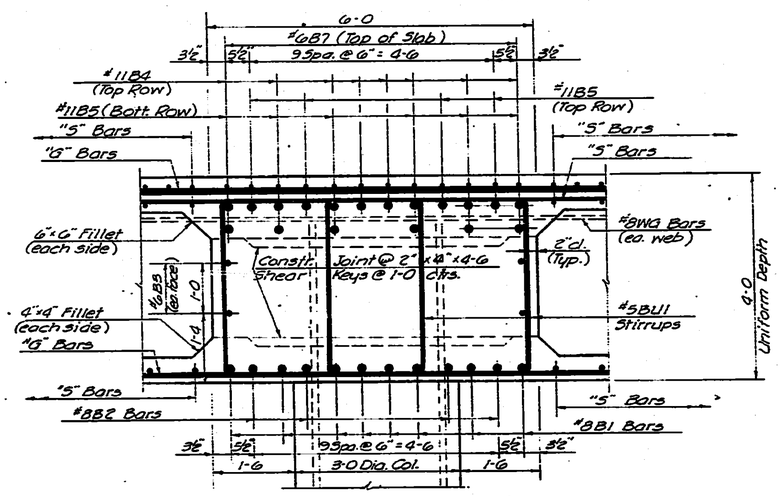
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase II	19	1729A	2137



SUPERSTRUCTURE PIER BEAM
(At Pier # 1065)



SECTION B2-B2



SECTION B1-B1

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.96 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 24S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

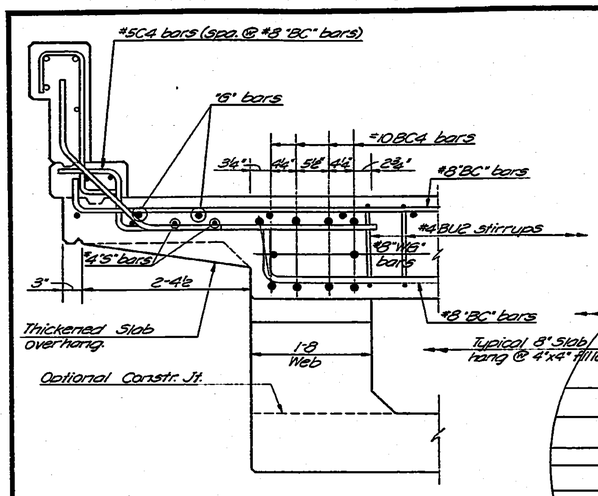
SHEET NO. 10A of 14	SCALE	APP'D.	
DESIGNED DRG	DETAILED RAW	CHECKED	TRACED RAW
DESIGN CK. RBS	DETAIL CK.	CHECK CK.	TRACE CK.

TOPEKA BLUE PRINT CO.

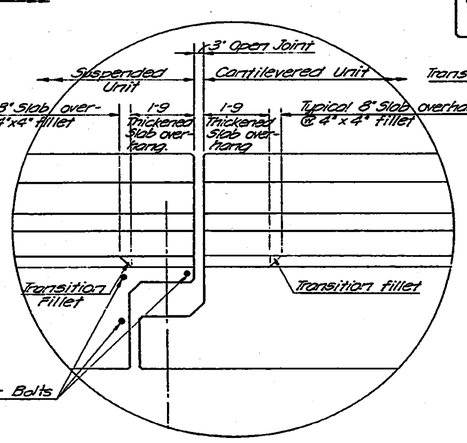
DIST. 5 | SEDGWICK CO. | ROLL 531 | 1 9 8

16X | 14.5X | 12X | 12X | 14.5X | 16X

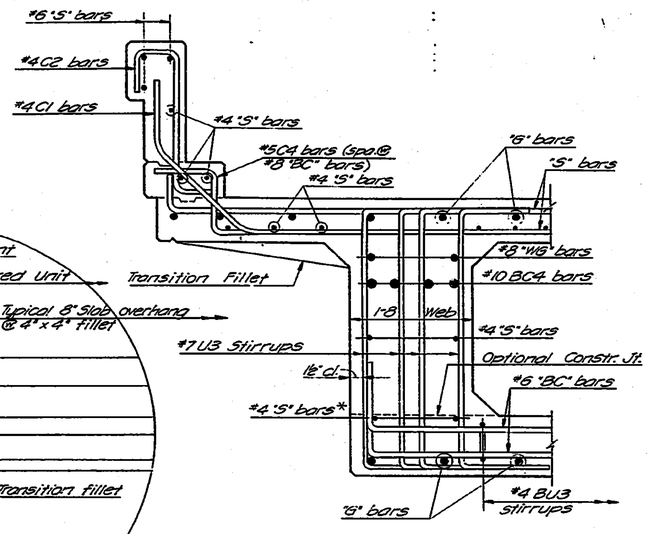
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEARS	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I 35W (58)48 Phase II	19	1730	2137



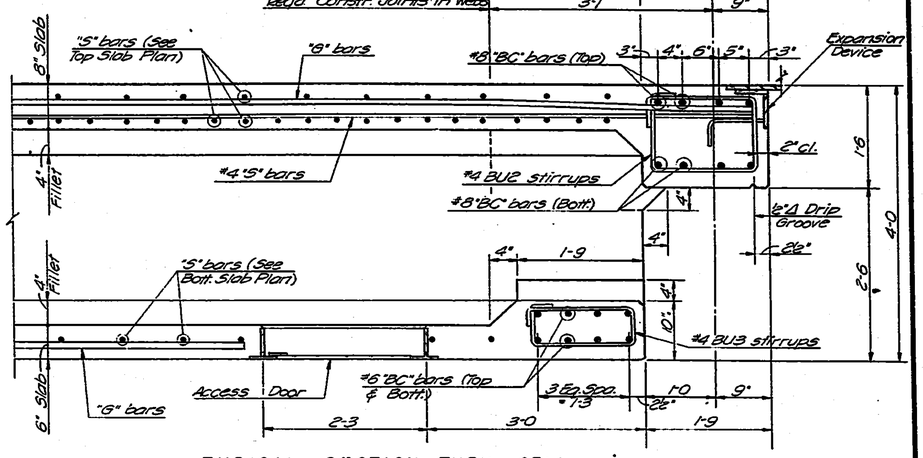
SECTION C2-C2
(Exterior Web)



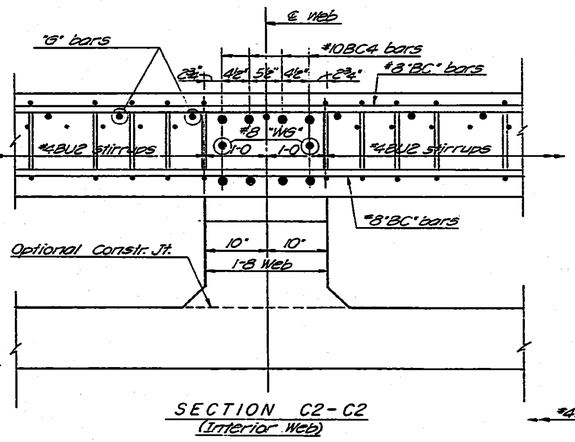
VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)



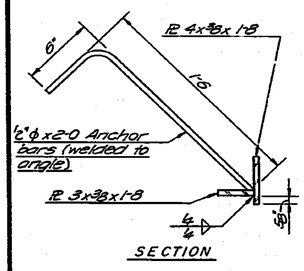
SECTION C1-C1
(Exterior Web)



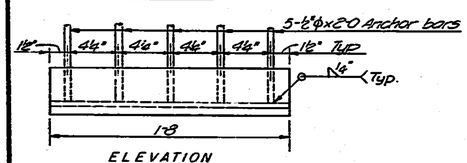
TYPICAL SECTION THRU CELL



SECTION C2-C2
(Interior Web)

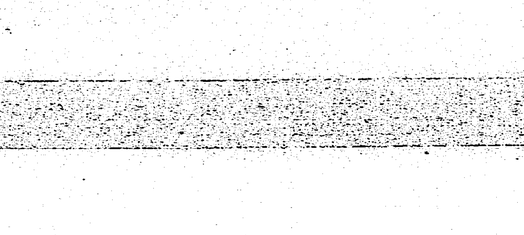


SECTION

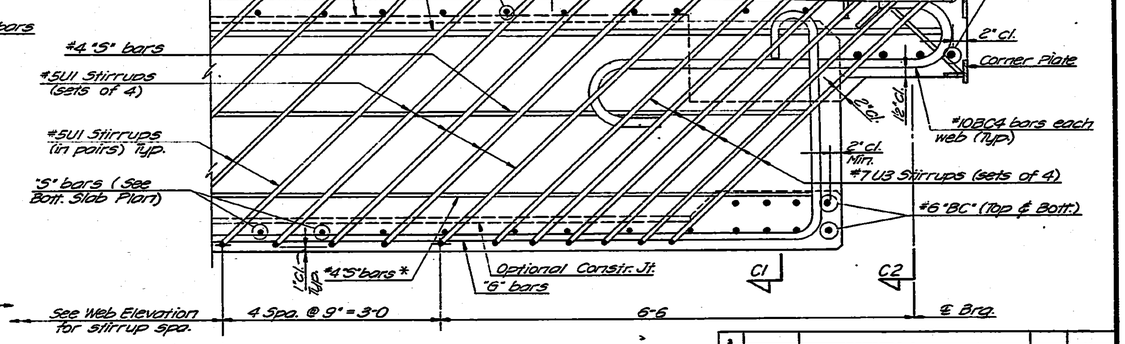


ELEVATION

CORNER PLATE DETAILS
Computed weight of one assembly is 22Lbs



SECTION C1-C1
(Interior Web)



TYPICAL SECTION THRU WEB

BEARING BEAM DETAILS

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 24S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 11 OF 12	SCALE	APP'D.		
DESIGNED DFG	DETAILED DS	QUANTITIES PDP/TL	TRACED DS	
DESIGN CK. RBS	DETAIL CK. RBS	CHECK. CK. JA/AV	TRACE CK. RBS	

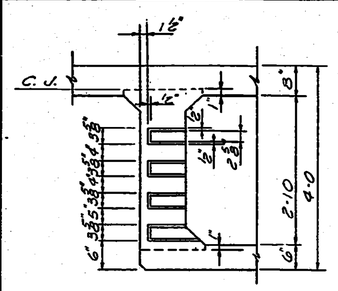
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

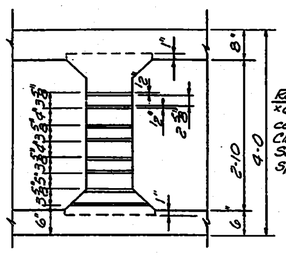
1 9 9

16X 14.5X 12X 12X 14.5X 16X

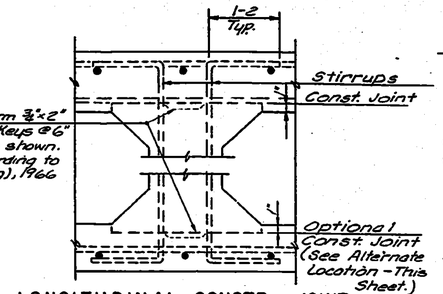
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-15.99W I-135(48) Phase II	19	1731	2137



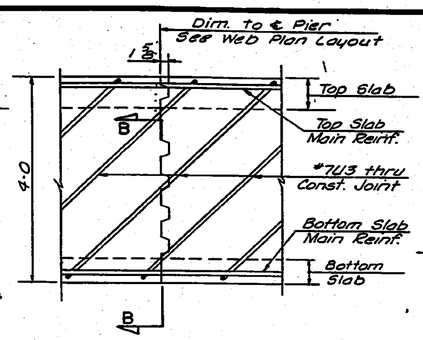
SECTION B-B
(Through Exterior Web)



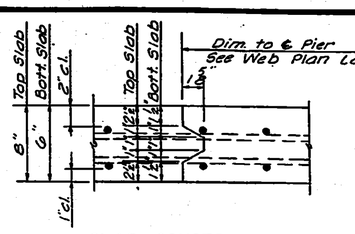
SECTION B-B
(Through Interior Web)



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

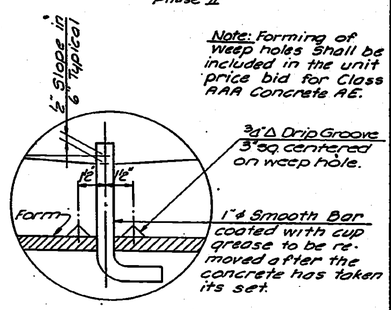


WEB CONSTR. JOINT
(Showing Placement of #7U3 bars.)



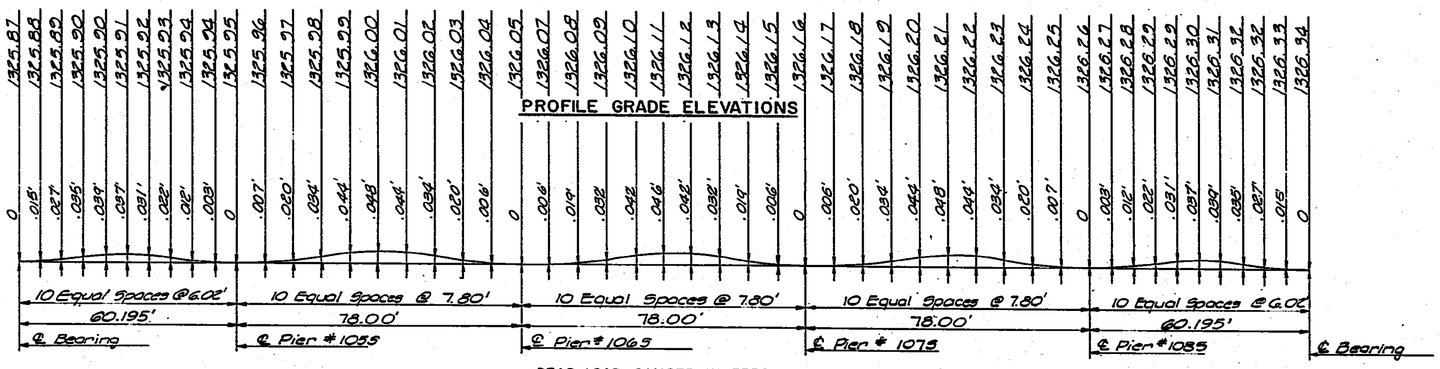
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of weep holes shall be included in the unit price bid for Class AAA Concrete AE.



DETAIL OF WEEP HOLES

SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS

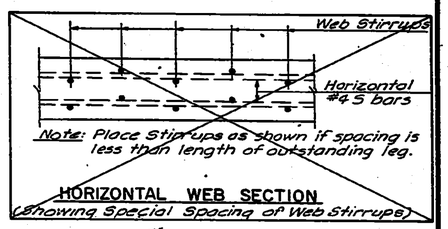


PROFILE GRADE ELEVATIONS

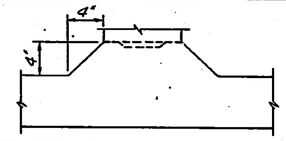
DEAD LOAD CAMBER IN FEET

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS

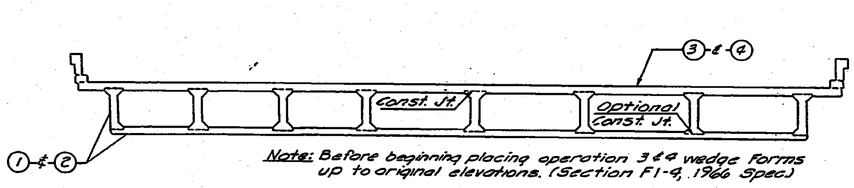
Note: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ p.s.i.



HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)

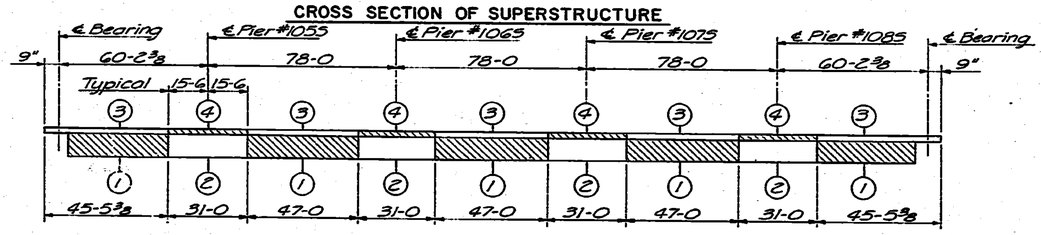


ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer.)

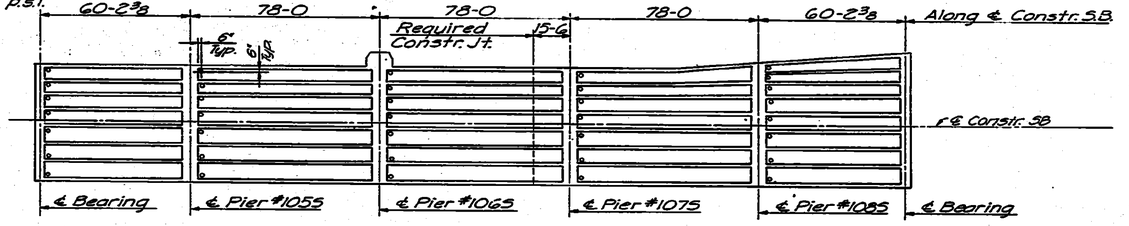


Note: Before beginning placing operation 3 & 4 wedge forms up to original elevations. (Section F1-4, 1966 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework



LOCATION OF WEEP HOLES & REQUIRED CONSTRUCTION JOINT

NOTES:

See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown as optional may be used at the Bridge Contractors option, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

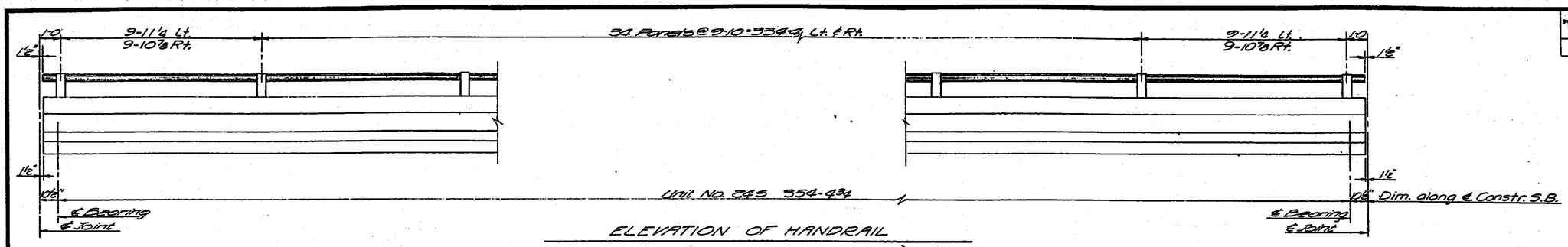
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 24 S
S. B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 12 OF 12	SCALE	APP'D.	
DESIGNED DBF3	DETAILED RAW	CHECKED LKH/TL	TRACED DGT
DESIGN CK. RBS	DETAIL CK. RBS	QUANT. CK. DGT/AV	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531 2000

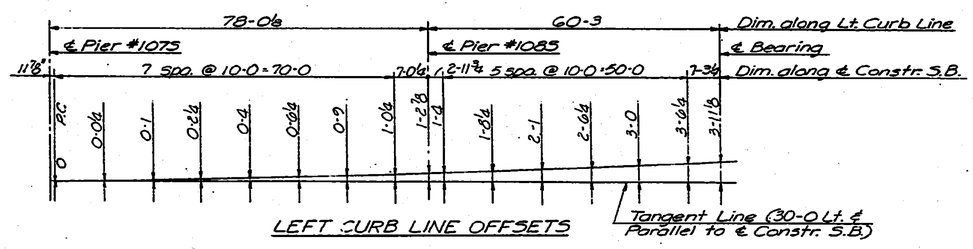
16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-I(58)48 Phase II	19	1732	2137

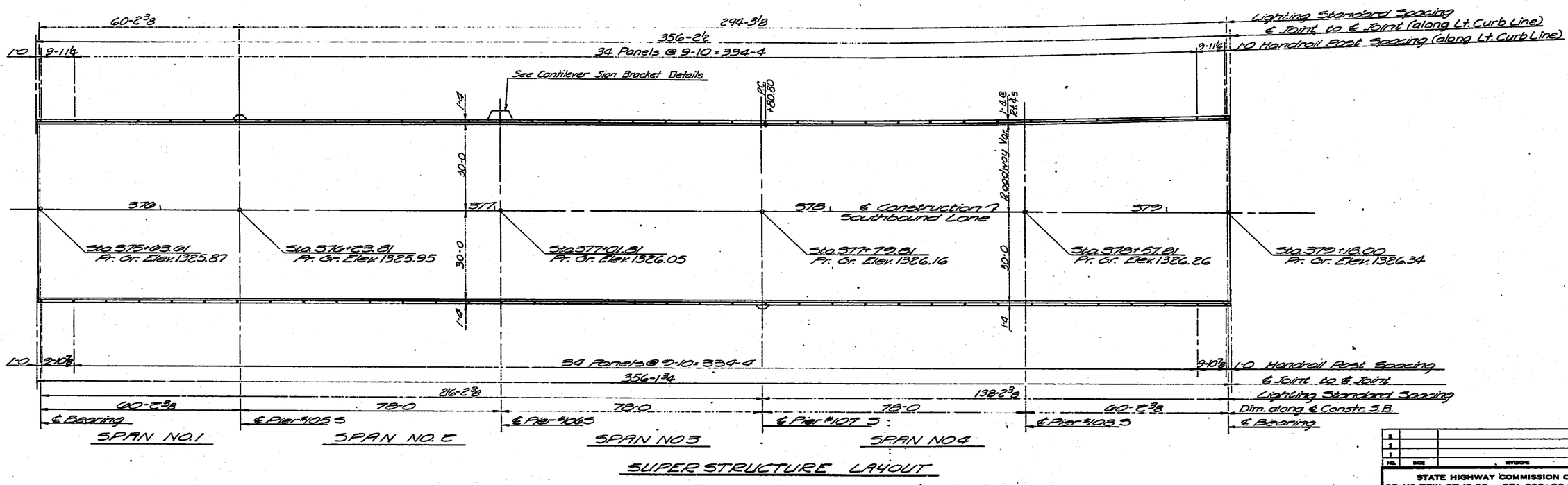


ELEVATION OF HANDRAIL

(See "Bridge Handrail" Standard Detail Sheet)



LEFT CURB LINE OFFSETS



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 24S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-I(58)48 SEDGWICK CO.

SHEET NO. 18 of 21	SCALE	APP'D.
DESIGNED JWH	DETAILED RBS	QUANTITIES LKG/TL TRACED RBS
DESIGN CK. RBS	DETAIL CK. DS	GENL. CK. DSTIAV TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

2 0 1

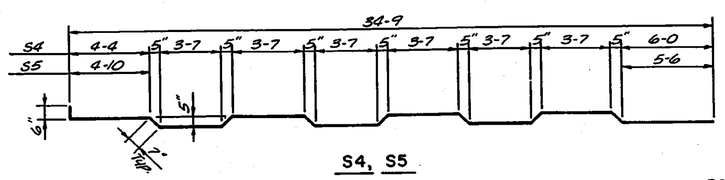
16X 14.5X 12X 12X 14.5X 16X

BENDING DIAGRAMS

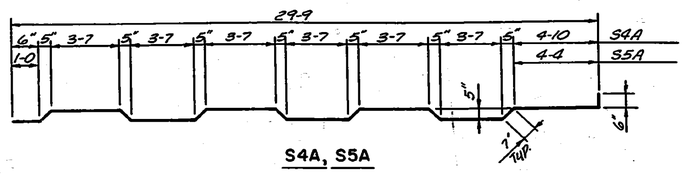
(Bar Dimensions are Out to Out.)

REV. PLANS 11-1-71

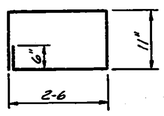
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1733	2137



S4, S5



S4A, S5A



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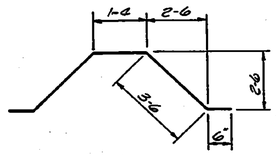


LB2

BC2	31-8
BC2A	27-8
BC2B	31-7
BC3	34-4
BC3A	30-4
BC3B	34-2

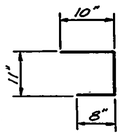
6"

"BC" BARS

BC1	29-11
BC1A	27-11
BC1B	31-10

1-0

"BC" BARS



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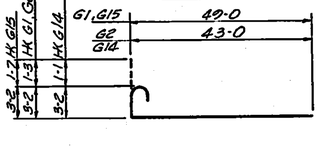
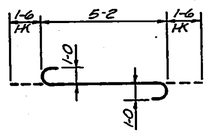
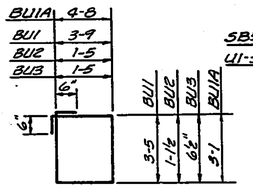


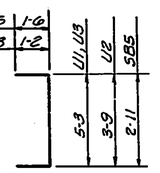
G1, G2, G14



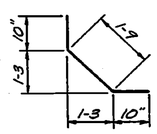
BC4



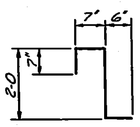
BU1, BU2, BU3



U1, U2, U3, SB5



C1



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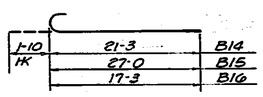
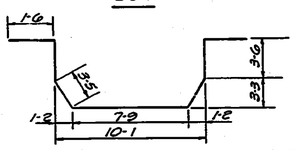
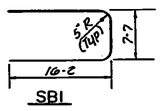


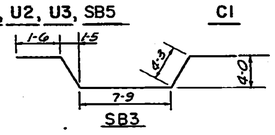
B14, B15, B16



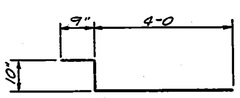
SB2



SB1

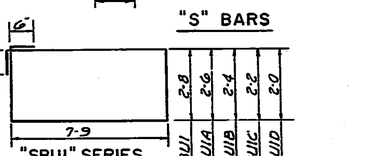


SB3



C4

S2C	(by 6" Incr.) 29-8 to 31-8	14 ea. except 12 @ 29-8
S2B	(by 6" Incr.) 28-3 to 29-3	Cut 29 each Length
S2A	28-2	
S2	34-2	



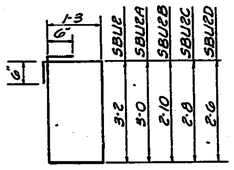
"S" BARS

S4C	(by 6" Incr.) 30-6 to 33-0	22 ea. except 24 @ 30-6
S4B	(by 6" Incr.) 29-3 to 30-3	57 ea. except 58 @ 30-3
S3C	(by 6" Incr.) 32-0 to 34-0	14 ea except 12 @ 32-0
S3B	43 @ 30-9 & 44 @ 31-3	
S3A	30-6	
S3	33-0	
S1C	(by 6" Incr.) 29-4 to 31-4	Cut 13 each Length
S1B	44 @ 28-2 & 43 @ 28-8	
S1A	27-11	
S1	30-5	

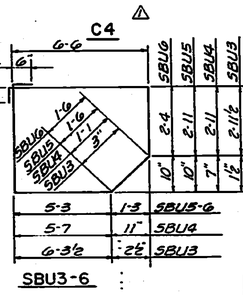
1-0 6" '31' Series '33" & '34" Series

"S" BARS

"SBU1" SERIES



"SBU2" SERIES



SBU3-6

B13A	21-10
B13	43-10
B7A	24-3
B7	30-3

8"

"B" BARS

B12	19-11
B11	40-8
B6	20-11
B5	15-2
B4	38-5

1-6

"B" BARS

* See Bending Diagrams

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	301	5	31-5
				S1A	230	5	28-11
				S1B	87	5	*
				S1C	65	5	*
				S2	397	4	35-11
				S2A	242	4	29-11
				S2B	87	5	*
				S2C	68	4	*
S6	812	4	40-0	S3	397	5	33-6
S6A	42	6	40-0	S3A	242	5	31-0
S7	68	4	42-3	S3B	87	6	*
S8	4	4	18-6	S3C	68	5	*
S9	108	4	43-9	S4	197	5	30-5
S9A	12	6	43-9	S4A	120	5	31-5
S10	48	4	31-9	S4B	172	5	*
S11	74	4	40-6	S4C	134	5	*
				S5	195	5	36-5
				S5A	119	5	31-5
G3	78	9	49-0				
G4	20	9	37-9				
G5	52	9	30-0	G1	15	9	53-5
G5A	8	8	30-0	G2	20	9	47-5
G6	13	9	43-9	G14	4	8	47-3
G7	220	7	24-0				
G8	171	9	58-0	SB1	5	8	39-11
G9	84	9	46-0	SB2	4	5	24-7
G10	84	9	30-0	SB3	1	5	19-3
G11	8	8	24-0				
G12	4	8	37-9	SB5	8	4	5-11
G13	4	10	49-0				
				G15	2	10	53-9
G16	2	10	43-9				
G17	66	5	38-4				
G18	60	5	42-4	LB1	8	4	7-4
G19	126	10	48-0	LB2	6	4	9-4
G20	112	11	40-0				
G20A	16	11	17-6	SBU1	5	6	21-10
G20B	16	11	19-6	SBU1A	1	6	21-6
G21	128	11	28-0	SBU1B	1	6	21-2
G22	112	11	16-0	SBU1C	1	6	20-10
G23	90	5	41-0	SBU1D	1	6	20-6
G24	99	5	33-0	SBU2	10	5	9-10
G25	6	11	48-0	SBU2A	2	5	9-6
				SBU2B	2	5	9-2
SB4	12	4	4-0	SBU2C	2	5	8-10
				SBU2D	2	5	8-6

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				B9	24	11	39-11
B1	48	8	29-2	B5	76	11	16-8
B2	12	8	40-0	B6	22	11	22-5
B3	24	6	28-11	B7	36	6	39-11
				B7A	36	6	24-11
B8	16	9	29-9	B11	8	11	42-2
B9	4	9	41-3	B12	8	11	21-5
B10	8	6	29-6	B13	12	6	44-6
				B13A	12	6	22-6
				B14	6	11	23-1
				B15	2	11	28-10
				B16	4	11	19-1
				B17	10	5	18-7
				BC1	16	6	30-11
				BC1A	8	6	28-11
				BC1B	8	6	32-10
				BC2	8	8	32-2
				BC2A	4	8	28-2
				BC2B	4	8	32-1
				BC3	8	8	34-10
				BC3A	4	8	30-10
				BC3B	4	8	34-8
				BC4	68	10	8-2
				C1	842	4	3-5
				C2	854	4	3-8
				C3	64	4	2-5
				C4	16	5	5-7
				C5	32	4	2-6
				U1	4800	5	7-7
				U2	300	5	6-1
				U3	798	7	7-7
WG1	112	8	40-0				
WG2	34	8	45-10	BU1	468	5	15-4
WG3	2	8	17-0	BU2	142	4	6-1
				BU3	101	4	4-11
				BU1A	14	5	16-6
				SBU3	2	5	20-1
				SBU4	2	5	20-7
				SBU5	2	5	20-11
				SBU6	2	5	19-9

Note:
All bar marks shall be pre-fixed with the unit number when fabricated. Example: #931 bars shall be marked 245931.

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details
Drainage Details

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	1397.9	1395.1	Cu.Yds.
Reinforcing Steel		657,810	Lbs.
Cast Iron Scuppers			Lbs.
Wrought Iron Drains & Grates		4,968	Lbs.
8" ϕ Downspouts	214.27	816.32	Lin.Ft.
Gutters			Lin.Ft.
Bridge Handrail	702.50	708.35	Lin.Ft.
Structural Steel			
Bearing Devices (A36) 17 @ 242 Lbs.		4114	Lbs.
Corner Plates & Cover Plates (A36)		562	Lbs.
Access Doors (A36) 15 @ 130 Lbs.		1950	Lbs.
Anchor Bolt Assembly (A36) Cont. Sign Br.		515	Lbs.
Linseed Oil Surface Treatment (Bridges)		2392.9	Sq.Yds.

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3	11-1-71	Rev. Exp. Devices	WHS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 . STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 24S
S.B.I-35W VIADUCT
(BETWEEN 11TH & 13 TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

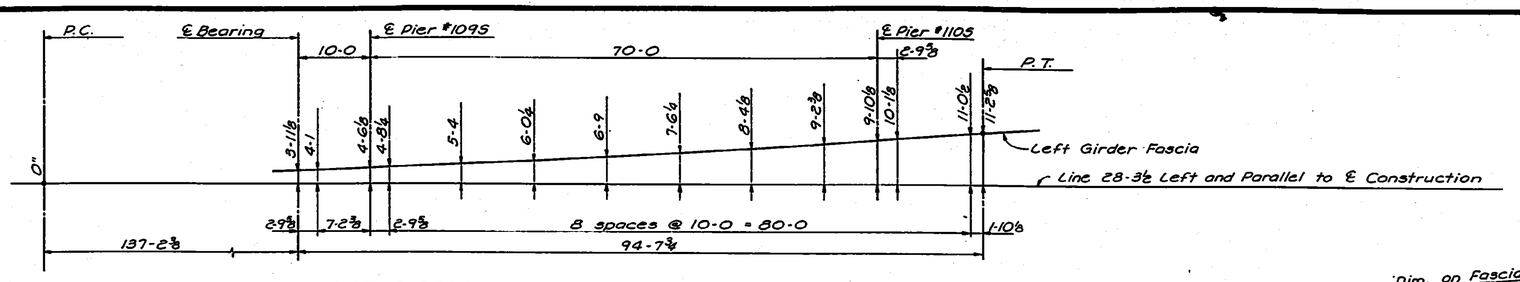
SHEET NO. 16 OF 19	SCALE		APP'D				
DESIGNED DTG	DETAILED JWL		QUANTITIES TL		TRACED EES		
DESIGN CK. JWH	DETAIL CK. LLVY		QUAN CK. AV		TRACE CK. DTG		

DIST. 5 SEDGWICK CO. ROLL 531

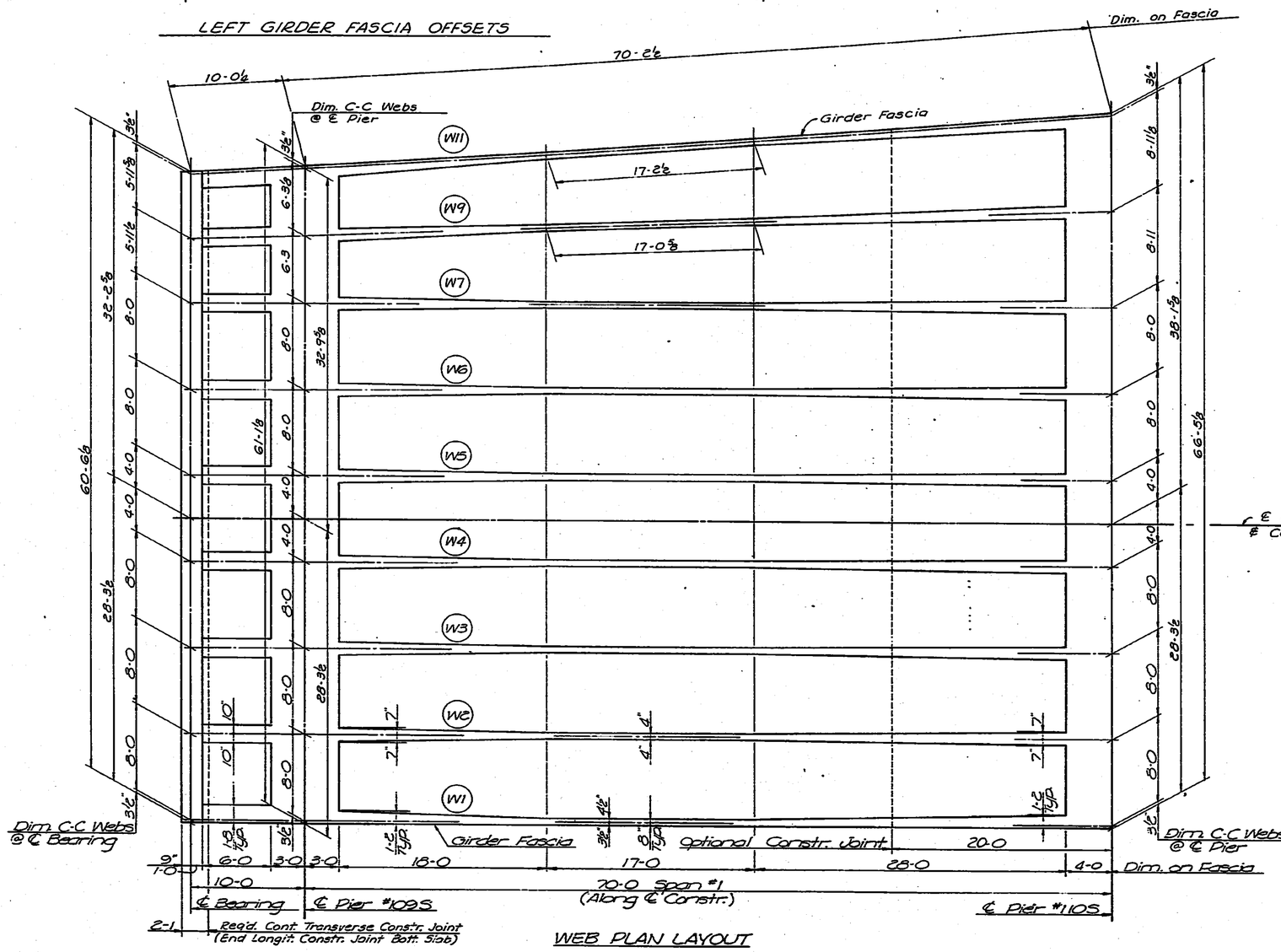
2 0 2

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 PHASE II	1970	1734	2137



LEFT GIRDER FASCIA OFFSETS



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

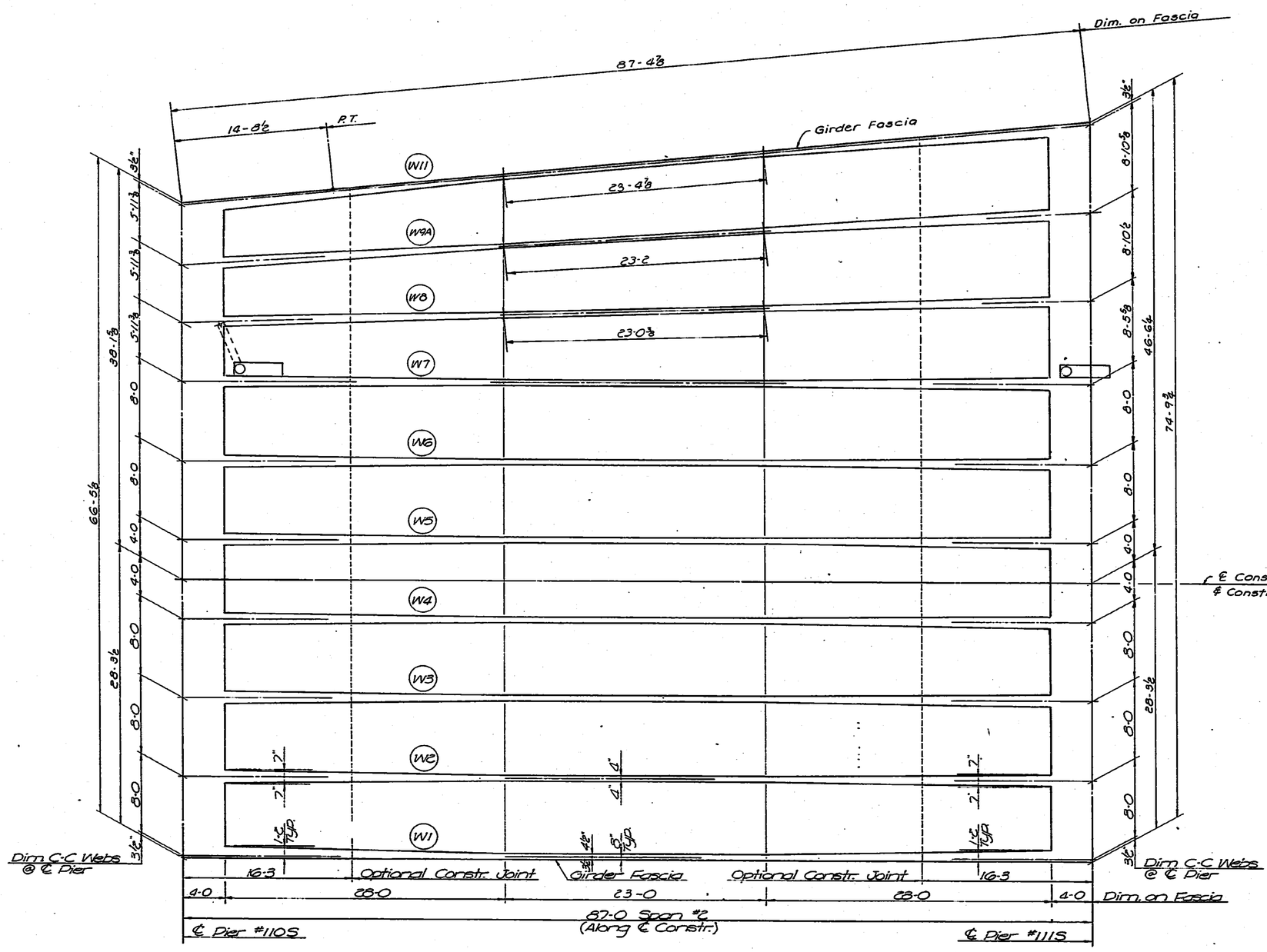
SHEET NO. 1 OF 27	SCALE	APP'D.			
DESIGNED DEG	DETAILED DRA	QUANTITIES LKD	TRACED DRA		
DESIGN CK. RBS	DETAIL CK. DFG	QUAN. CK. DBT	TRACE CK. GAB		

DIST. 5 SEDGWICK CO. ROLL 531

2 0 3

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1-(58)48 Phase II	1970	1735	2137



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

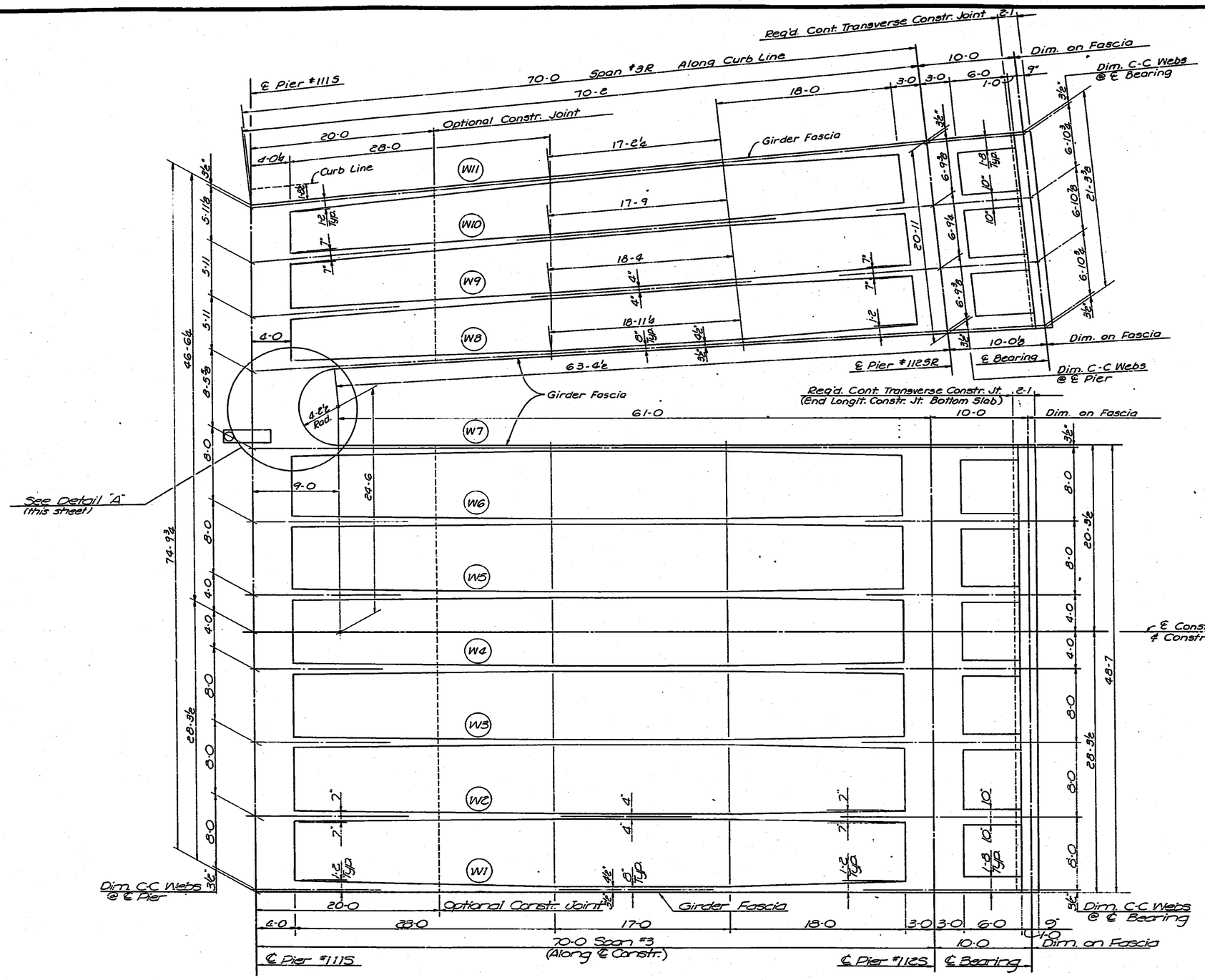
SHEET NO. 2 OF 27	SCALE	APP'D.		
DESIGNED DFG	DETAILED DZA	CHECKED LKD	TRACED DZA	
DESIGN CK. EBS	DETAIL CK. DFG	QUANT. CK. DGT	TRACE CK. GAB	

DIST. 5 SEDGWICK CO. ROLL 531

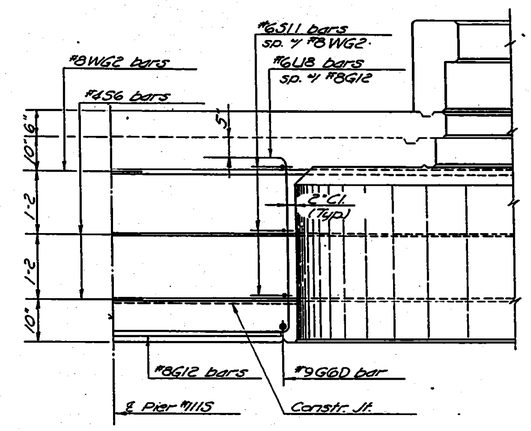
2 0 4

16X 14.5X 12X 12X 14.5X 16X

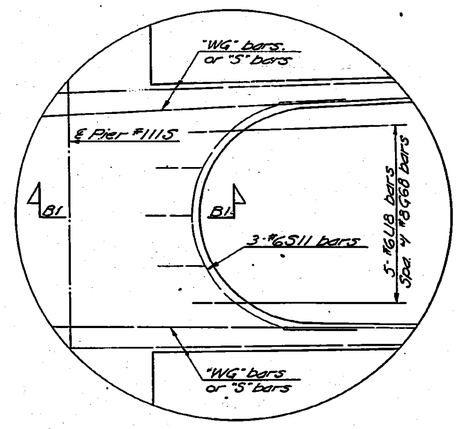
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	1970	1736	2137



WEB PLAN LAYOUT



SECTION B1-B1



DETAIL "A"

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

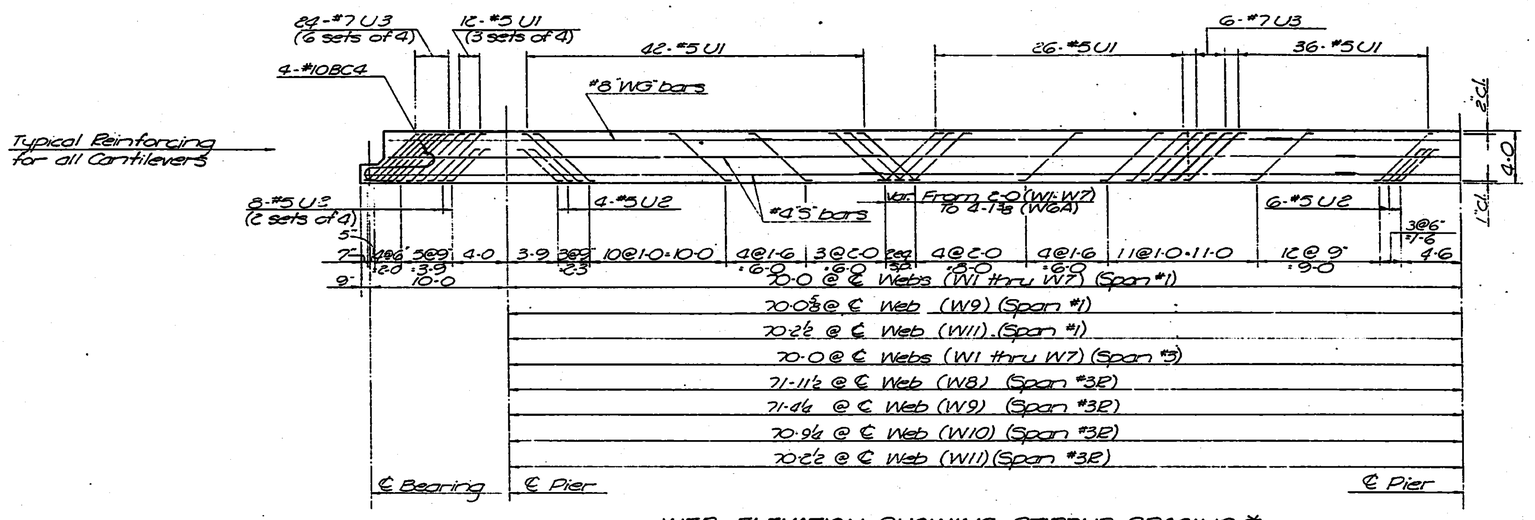
SHEET NO. 5 of 27	SCALE	APP'D.	
DESIGNED DFG	DETAILED DRA	QUANTITIES LKD	TRACED DRA
DESIGN CK. EBS	DETAIL CK. DFG	QUANT. CK. DGT	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

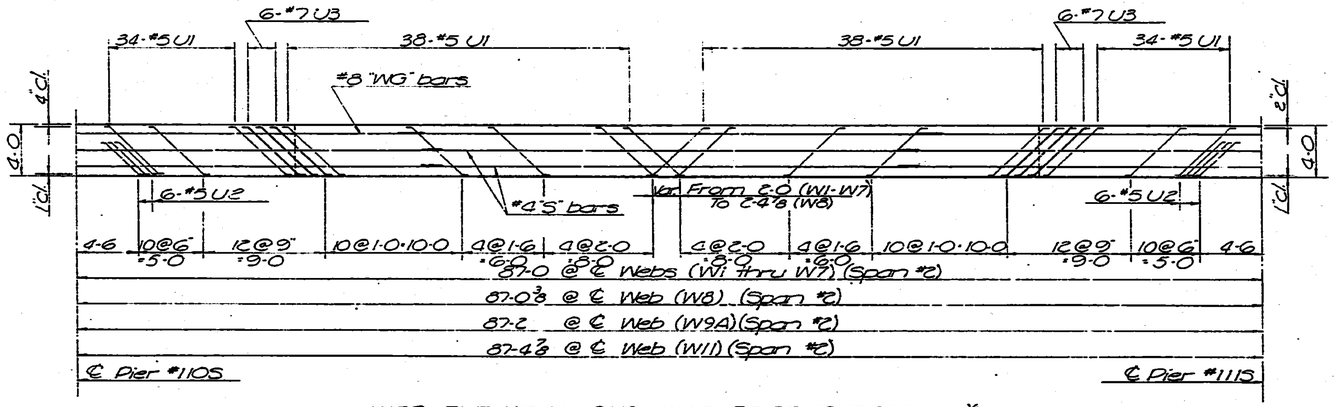
2 0 5

16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	1970	1737	2137



WEB ELEVATION SHOWING STIRRUP SPACING *
(Span #1 shown, Span #3 reversed)



WEB ELEVATION SHOWING STIRRUP SPACING *
(Span #2)

NOTE:
Stirrups placed in pairs each web, except as noted.
See Placement Diagrams for #8WG & #4S bars.

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top and beneath bottom main reinforcing steel. See Roadway Deck Section.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 2S
S.B. I35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-I(58)48 SEDGWICK CO.

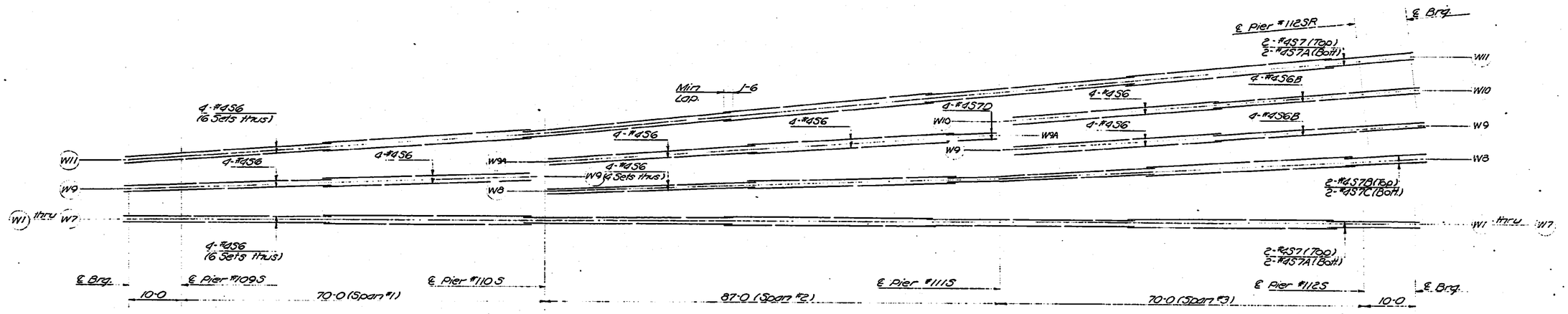
SHEET NO. 4 of 27	SCALE		APP'D.		
DESIGNED DFG	DETAILED DRA		QUANTITIES LKD	TRACED DRA	
DESIGN CK. EBS	DETAIL CK. DFG		QUAN. CK. JGT	TRACE CK. GAB	

DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted] 2 0 6

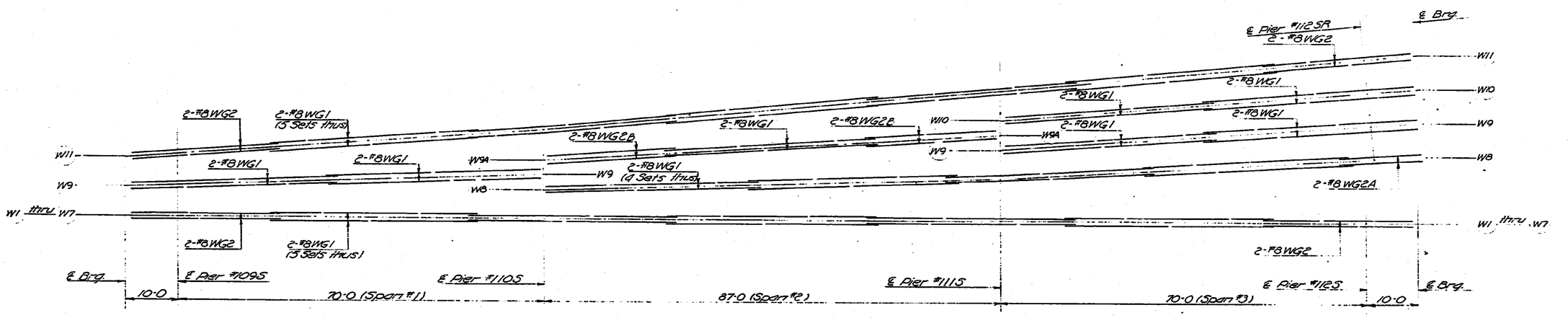
16X 14.5X 12X 12X 14.5X 16X

FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase 2	1970	1738	2137



PLACEMENT DIAGRAM SHOWING "S" BARS IN WEBS

Note: There are five typical 8-0 cells from W1 to W6.
All bars are #456 unless otherwise noted.



PLACEMENT DIAGRAM SHOWING "WG" BARS IN WEBS

Note: There are five typical 8-0 cells from W1 to W6.
All bars are #8WG1 unless otherwise noted.

NOTE: See Deck Sections for position of "WG" & "S" bars in webs.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 2S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 5 of 7	SCALE	APP'D.	
DESIGNED DFG	DETAILED EES	CHECKED DFG	TRACED DDW
DESIGN CK. JWH	DETAIL CK. RLP	CHKD. CK. JML	TRACE CK. EES

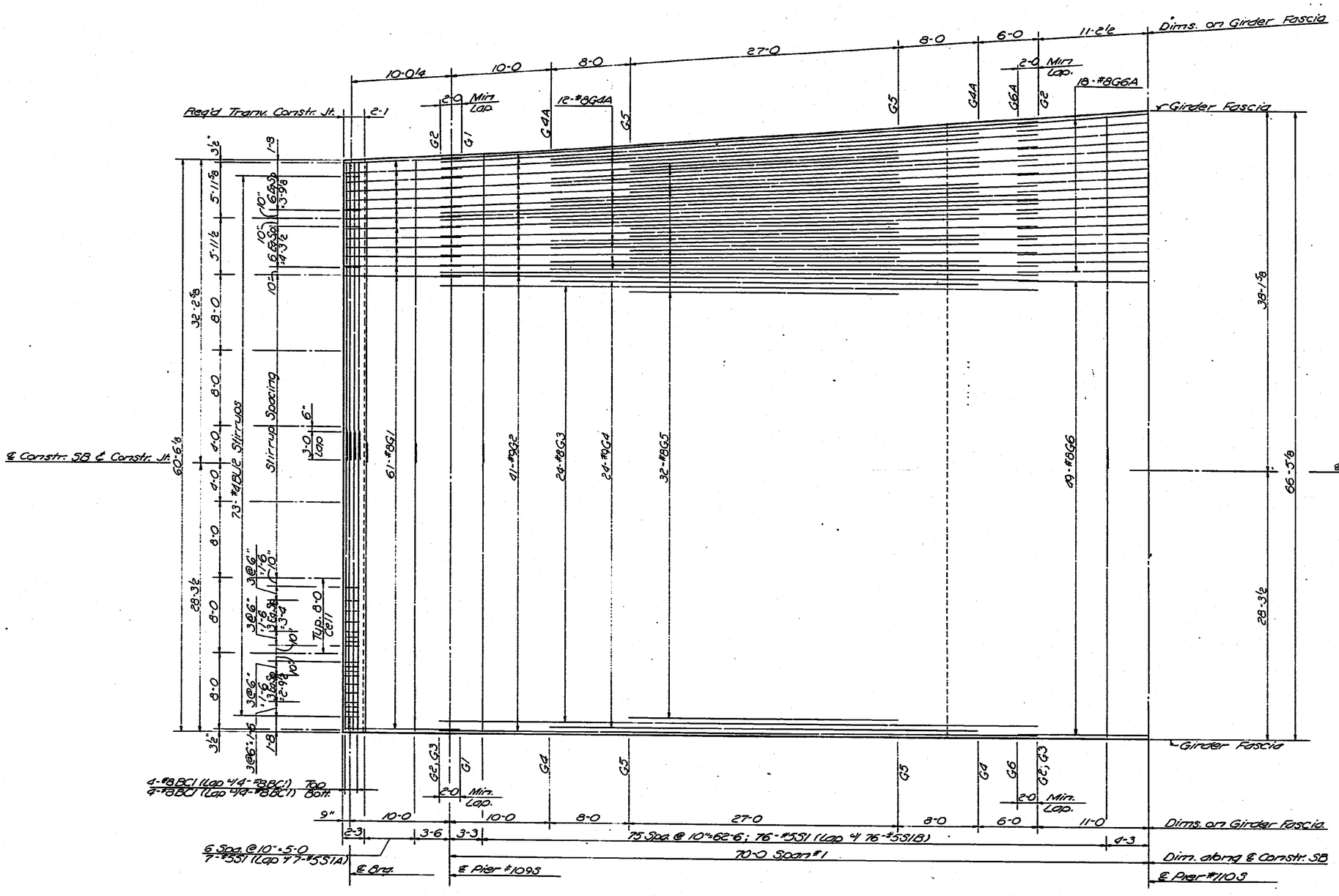
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

2 0 7

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	1970	1739	2137



REINFORCING PLAN BOTTOM SLAB - SPAN NO. 1

NOTE: All bar marks shall be pre-fixed with the Unit number when fabricated. Example: #8G1 bars shall be marked 2-58G1.

All longitudinal dimensions are along ℄ Construction unless otherwise indicated.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 6 OF 27	SCALE		APP'D.		
DESIGNED DFG	DETAILED EES		CHECKED DFG	TRACED DDW	
DESIGN CK. JWH	DETAIL CK. RLF		GEN'L CK. JWL	TRACE CK. EES	

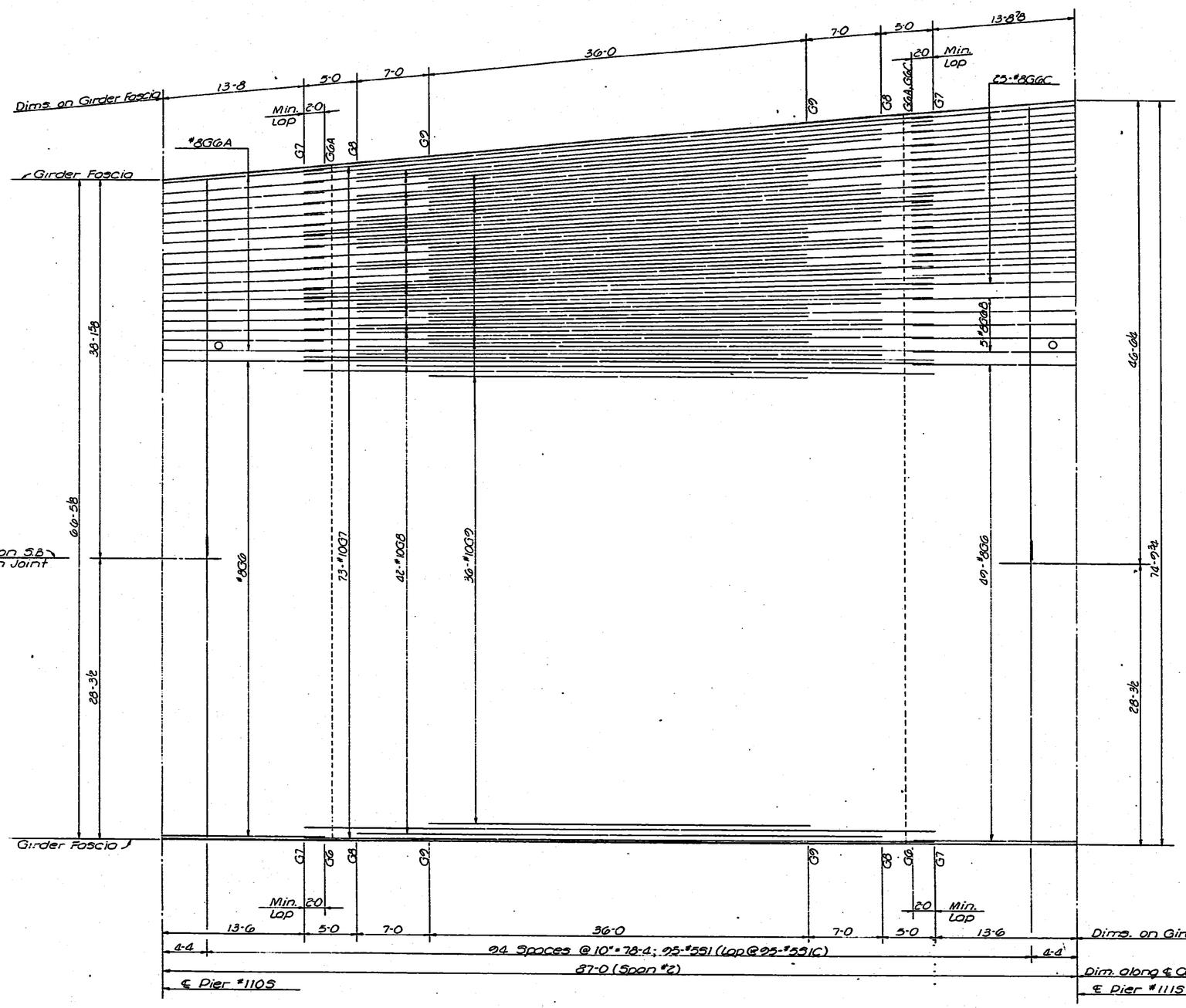
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

2 0 8

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W (58)48 Phase II	1970	1740	2137



REINFORCING BOTTOM SLAB - SPAN NO. 2

NO.	DATE	BY	REVISIONS	BY	APP'D.
3					
2					
1					

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 7 OF 7	SCALE	APP'D.
DESIGNED DFG	DETAILED EES	CHECKED DFG
DESIGN CK. JWH	DETAIL CK. RLF	SUPVR. CK. JML
TRACED DDW	TRACE CK. EES	

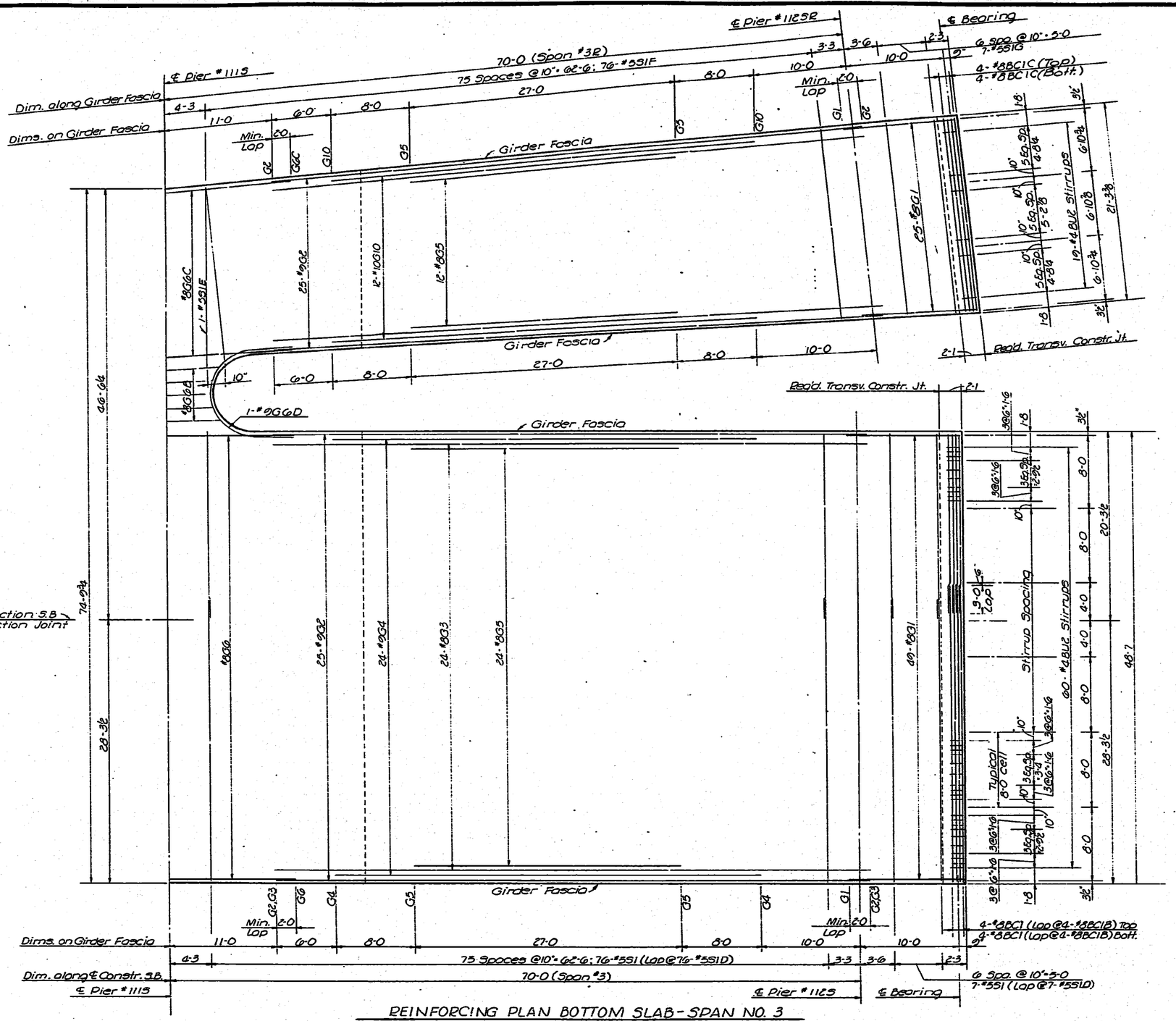
TAPPAN BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

2 0 9

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(56)48 Phase II	1970	1741	2137



REINFORCING PLAN BOTTOM SLAB - SPAN NO. 3

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(56)48 SEDGWICK CO.

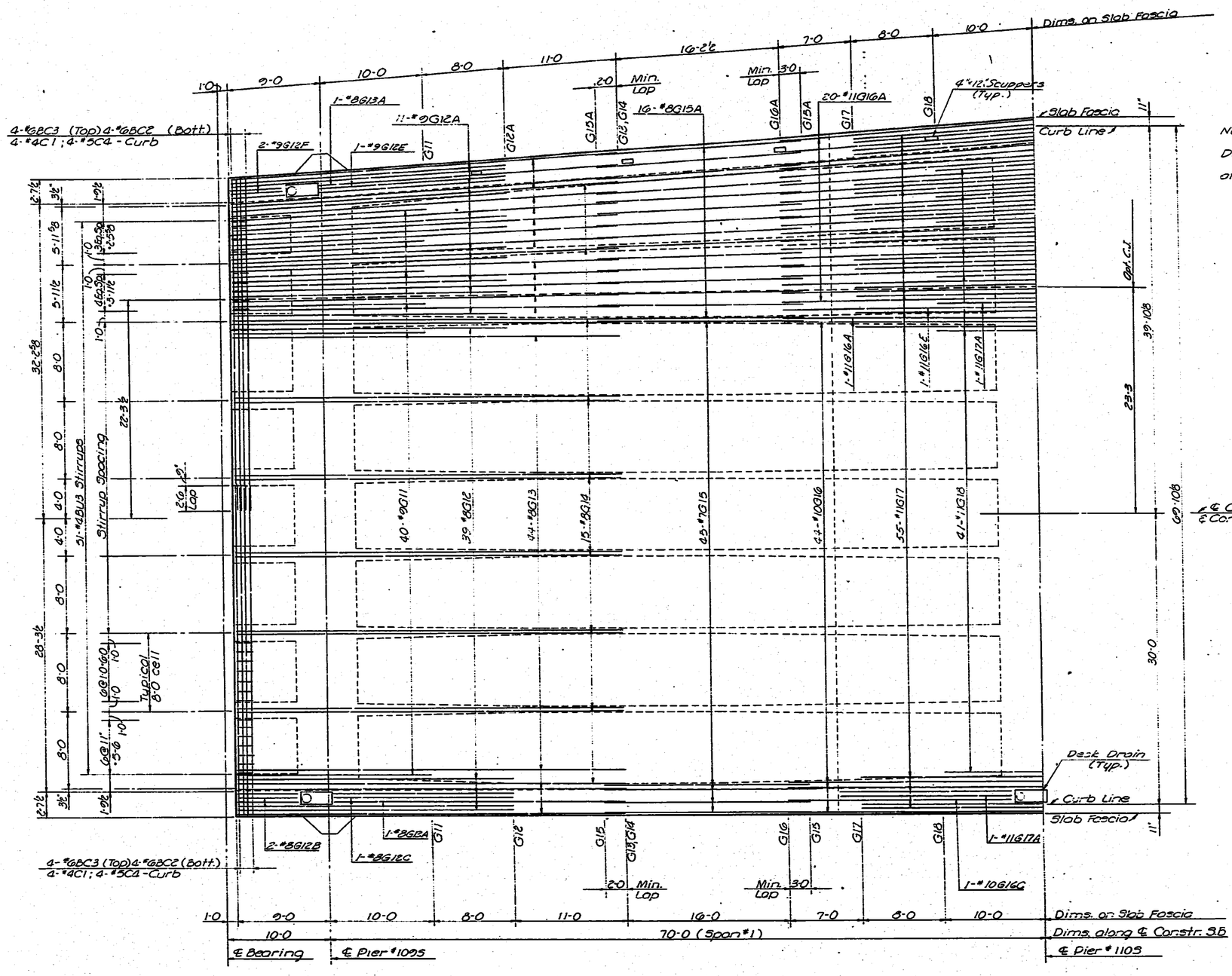
SHEET NO. 2027	ZONE	APP'D.	
DESIGNED DFG	DETAILED EES	CHECKED DFG	TRACED EES
DESIGN CK. JWH	DETAIL CK. RLF	DETAIL CK. JML	TRACE CK. RLF

DIST. 5 SEDGWICK CO. ROLL 531

2 1 0

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-11(58)48 Phase II	1970	1742	2137



REINFORCING PLAN TOP SLAB - SPAN NO. 1

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-11(58)48 SEDGWICK CO.

SHEET NO. 5 OF 27	SCALE	APP'D.	
DESIGNED DFG	DETAILED EES	QUANTITIES DFG	TRACED EES
DESIGN CK. JWH	DETAIL CK. RLF	GEN'L CK. JML	TRACE CK. RLF

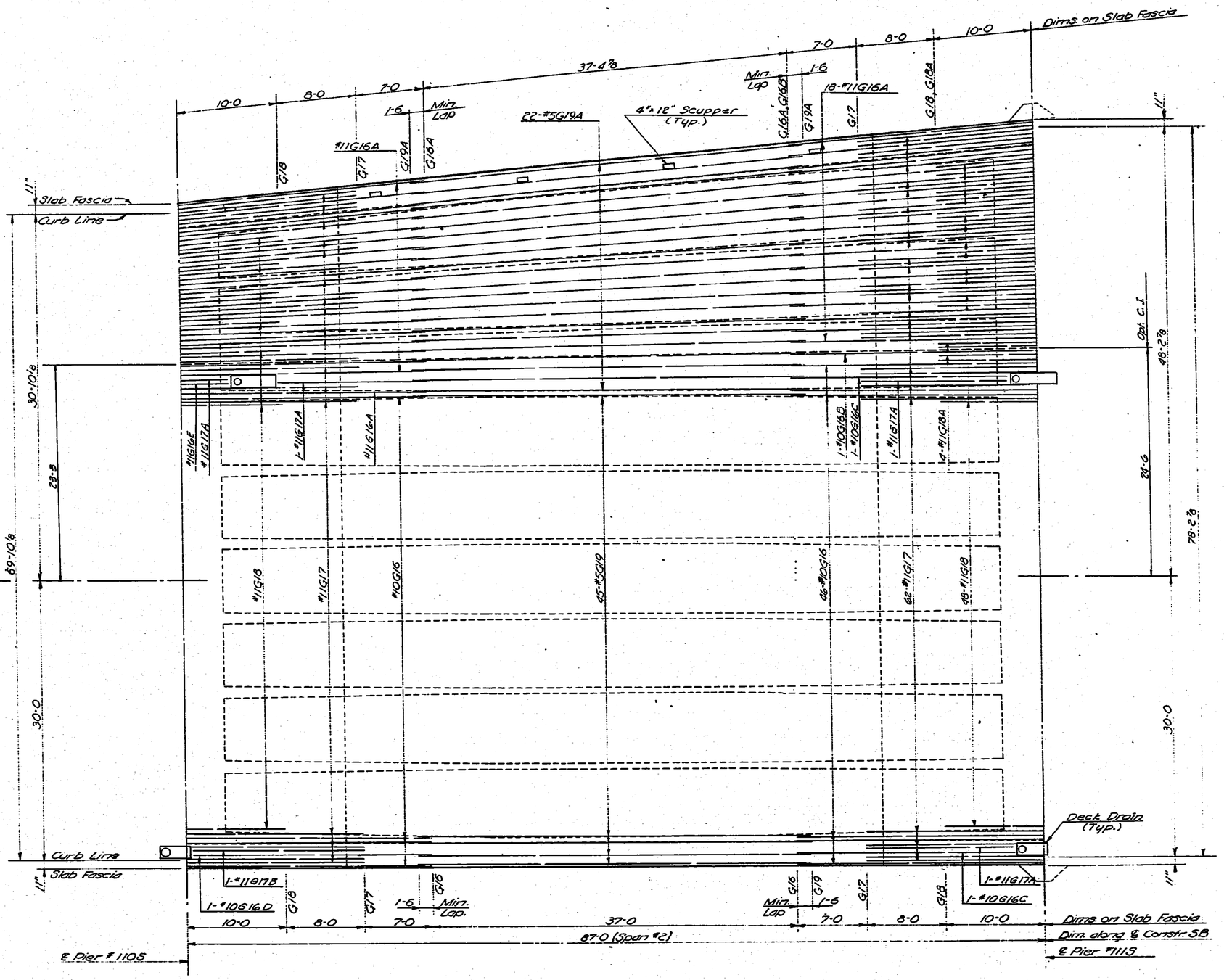
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 1 1

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 PHASE II	1970	1782	2137



REINFORCING PLAN TOP SLAB SPAN NO.2

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298-22.27 TO 421-15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

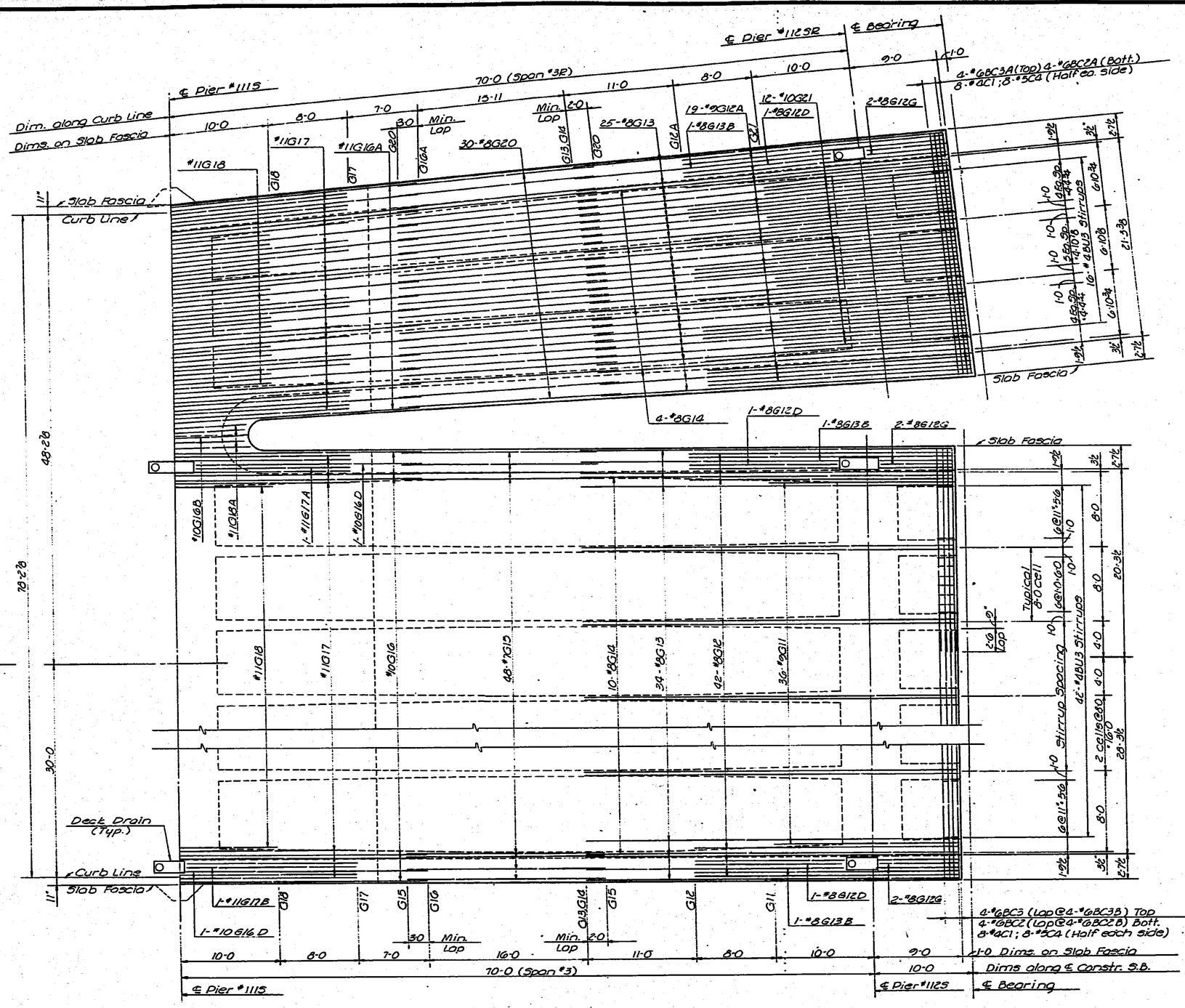
SHEET NO. 10 OF 27	SCALE:		APP'D.		
DESIGNED DFG	DETAILED EES		QUANTITIES DFG	TRACED DDW	
DESIGN CK. JWH	DETAIL CK. RLF		QUANT. CK. JML	TRACE CK. EES	

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 1 2

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-15.5W-1(58)48 Phase II	1970	1744	2137



℄ Construction S.B.
℄ Construction Joint

REINFORCING PLAN TOP SLAB - SPAN NO. 3

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 11 of 27	SCALE	APP'D.	
DESIGNED DFG	DETAILED EFS	CHECKED DFG	TRACED DDW
DESIGN CK. JWH	DETAIL CK. RCF	GEN'L CK. JML	TRACE CK. EFS

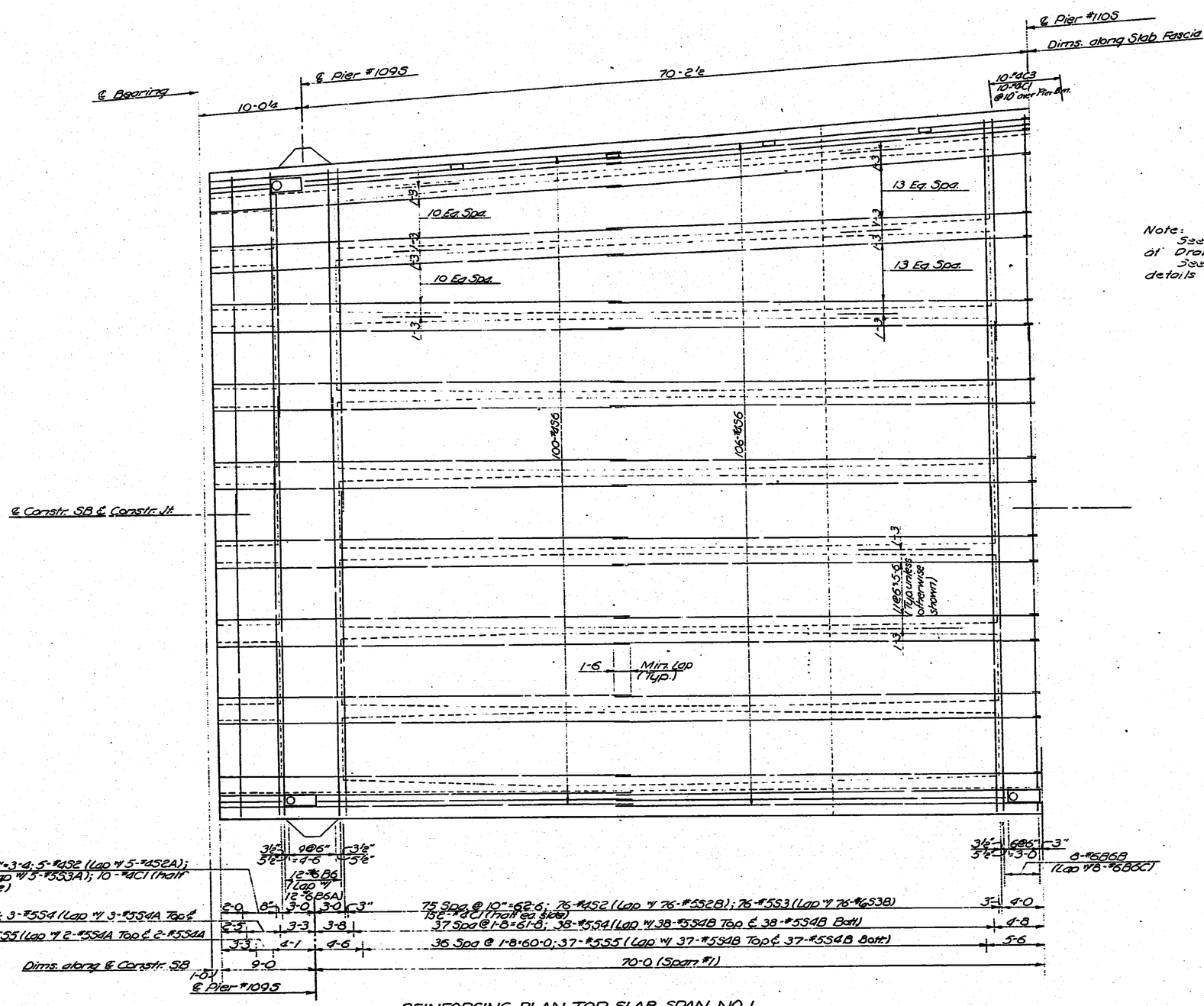
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

2 1 3

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 PHASE II	1970	1785	2137



REINFORCING PLAN TOP SLAB SPAN NO. 1
(Showing Transv. Reinf. & bottom longitudinal bars)

Note:
See Drain Detail sheet for additional details of Drainage Structures.
See Superstructure Pier Beams for additional details of Drainage Structures.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.50
SUPERSTRUCTURE DETAILS – UNIT NO. 2S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 12 OF 27	SCALE		APP'D.		
DESIGNED DFG	DETAILED EES		SUBMITTED DFG	TRACED DDW	
DESIGN CK. JNH	DETAIL CK. RLF		STRUCT. ENGR. JMC	TRACE CK. EES	

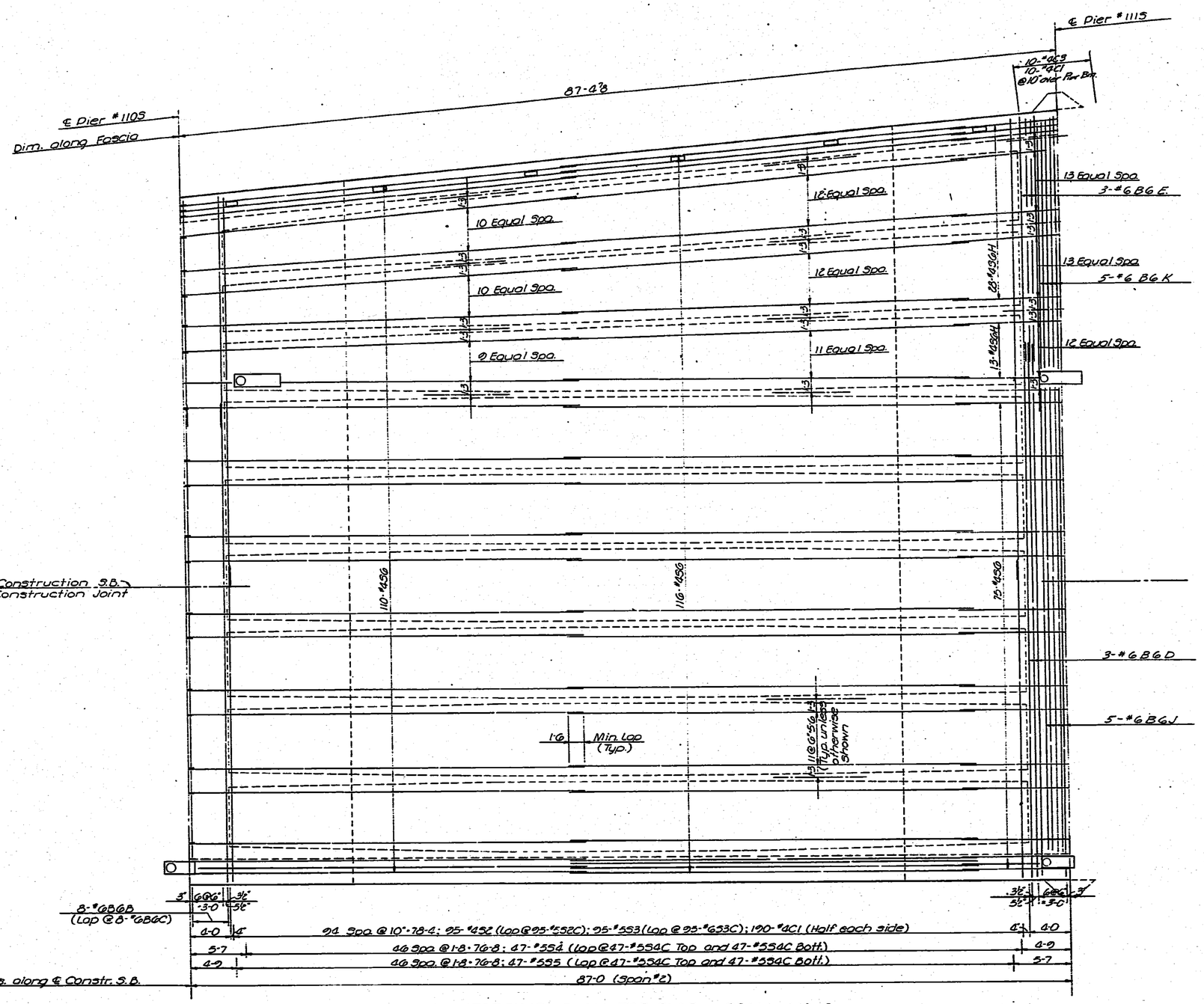
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

2 1 4

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35FN-87-135W-1(56)48 Phase II	1970	1746	2137



REINFORCING PLAN TOP SLAB - SPAN NO. 2
(Showing Transv. Reinf. and bott. Longit. bars.)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 2S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(56)48 SEDGWICK CO.

SHEET NO. 13 of 27	SCALE	APP'D.		
DESIGNED DFG	DETAILED EES	QUANTITIES DFG	TRACED EES	
DESIGN CK. JWH	DETAIL CK. RLF	QUANT. CK. JML	TRACE CK. RLF	

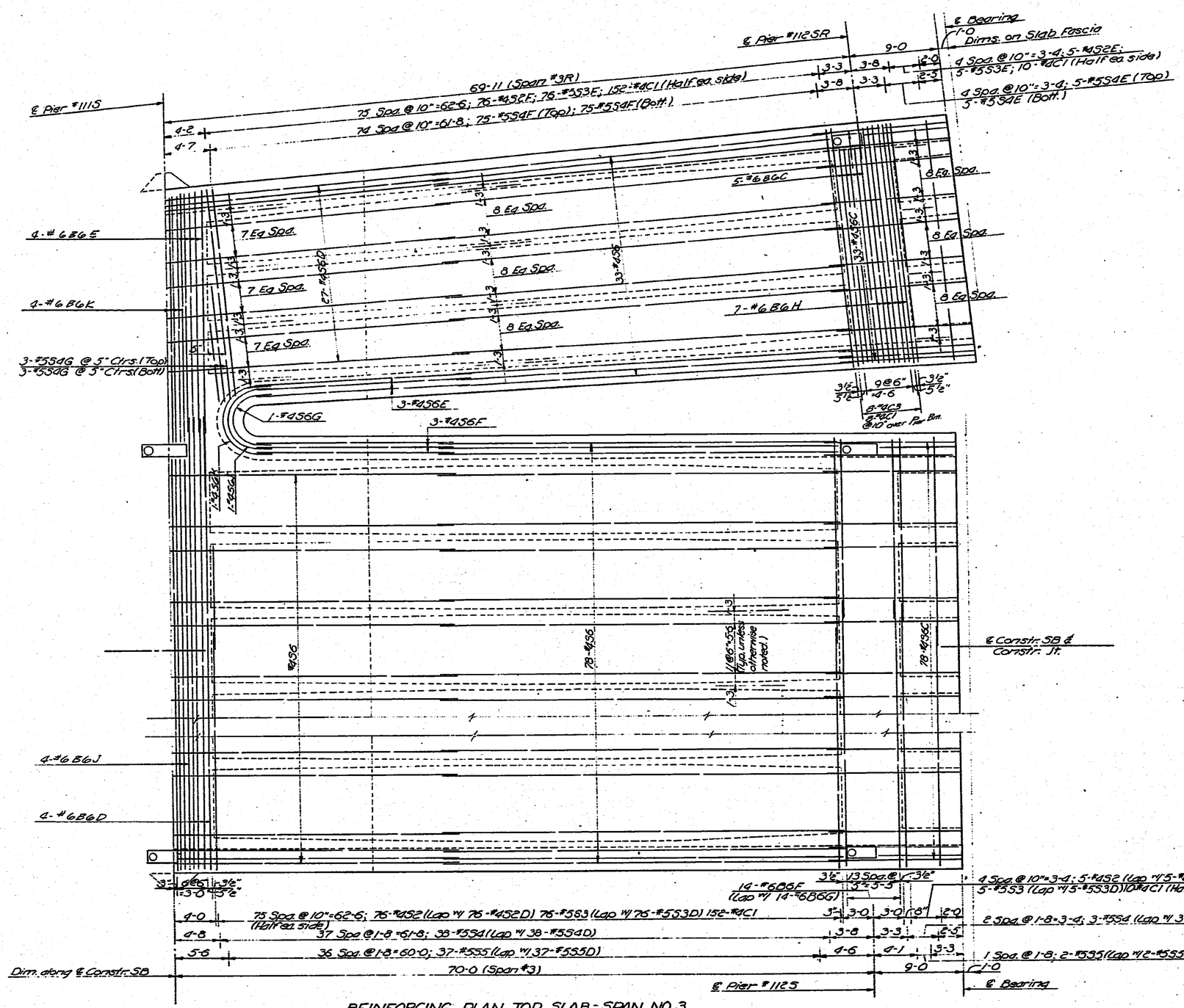
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 1 5

14X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	1970	1707	2/37



REINFORCING PLAN TOP SLAB - SPAN NO. 3
(Showing Transv. Reinf. & Bottom Longitudinal Bars)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO.	14 OF 37	SCALE		APP'D.			
ARRANGED	DFG	DETAILED	EES	QUANTITIES	DFG	TRACED	DDW
DESIGN CK.	JWH	DETAIL CK.	RLF	DESIGN CK.	JML	TRACE CK.	EES

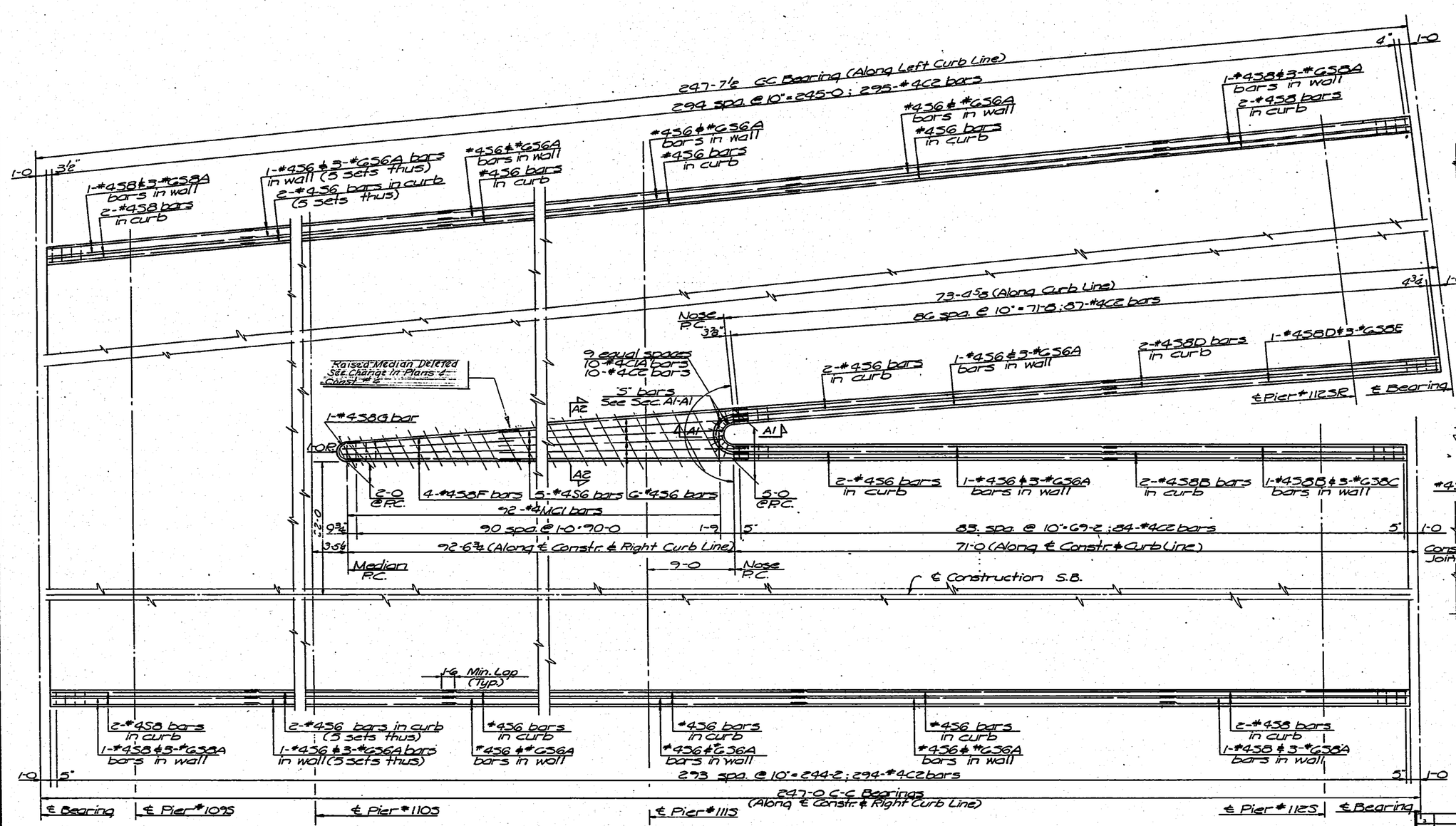
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

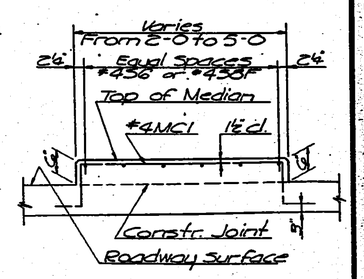
2 1 6

14X 14.5X 12X 12X 14.5X 16X

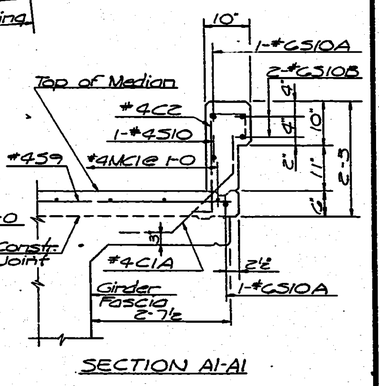
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W-1(58)48 Phase II	1970	1768	2137



PLAN SHOWING CURB & MEDIAN REINFORCING



SECTION A2-A2



SECTION A1-A1

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

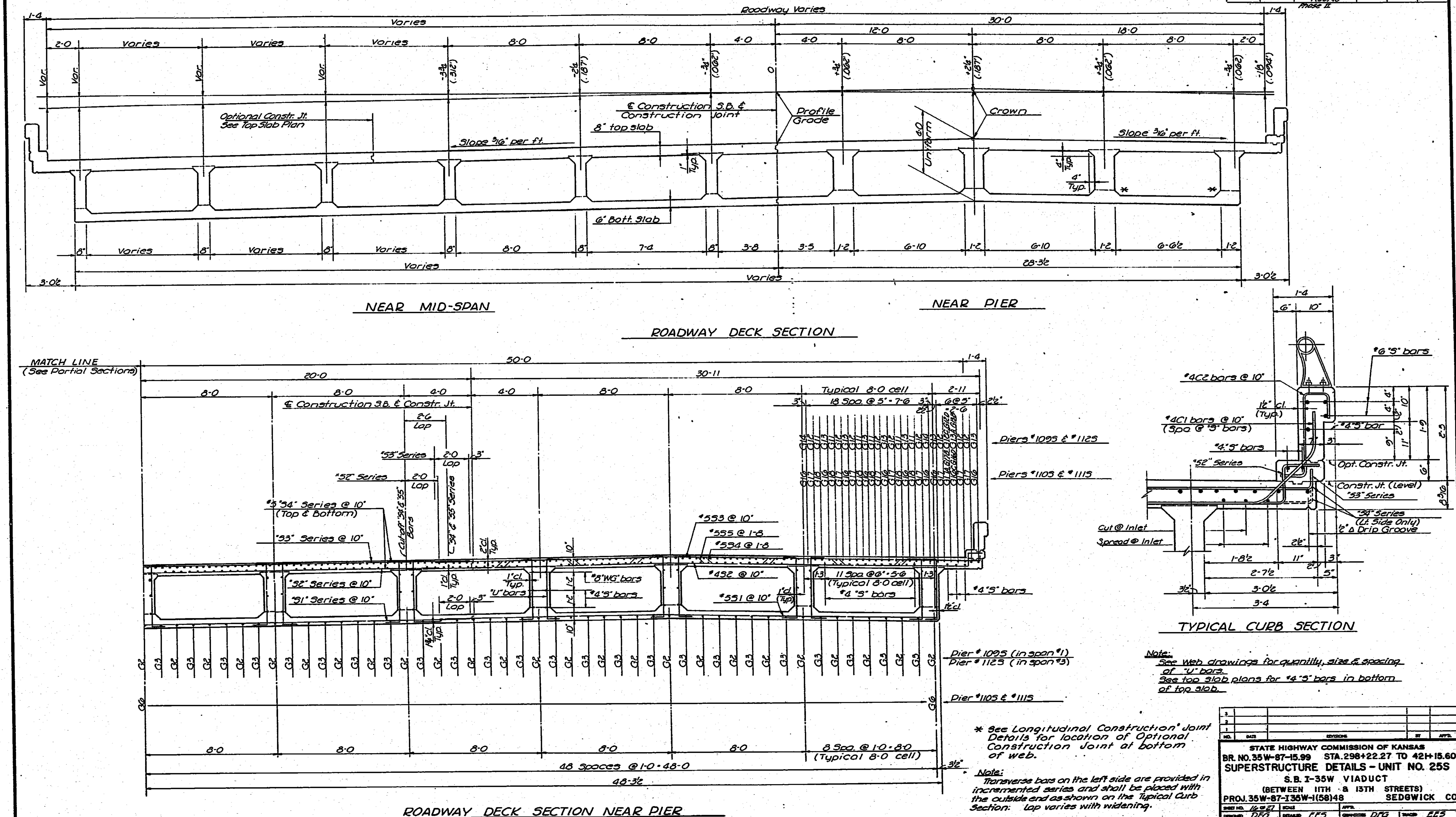
SHEET NO. 15 OF 17	SCALE	APP'D.
DESIGNED DFG	DETAILED GAB	CHECKED LED / TRACED KWK
DESIGN CK. PBS	DETAIL CK. DFG	GENL. CK. DGT / TRACE CK. GAR

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 1 7

16X 19.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase II	1970	1749	2137



Note:
See Web drawings for quantity, size & spacing of "U" bars.
See top slab plans for #4 "S" bars in bottom of top slab.

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.

Note:
Transverse bars on the left side are provided in incremented series and shall be placed with the outside end as shown on the Typical Curb Section: Lap varies with widening.

NO.	DATE	REVISIONS	BY	APPD.
1				
2				
3				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

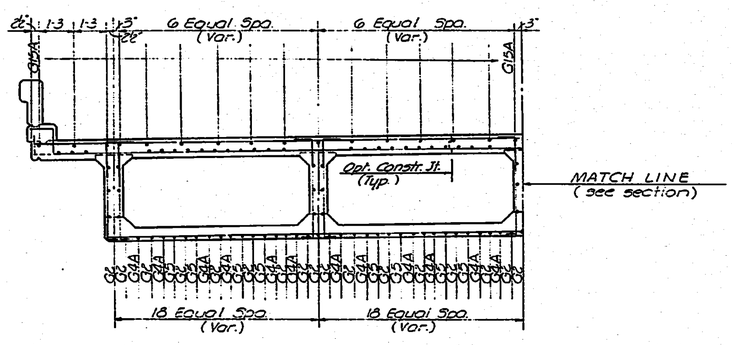
SHEET NO. 16 OF 27	SCALE	APPD.	
DESIGNED DFG	DETAILED EES	QUANTITIES DFG	TRACED EES
DESIGN CK. JWH	DETAIL CK. RLF	QUAN. CK. JML	TRACE CK. RLF

TOPEKA BLUE PRINT CO.

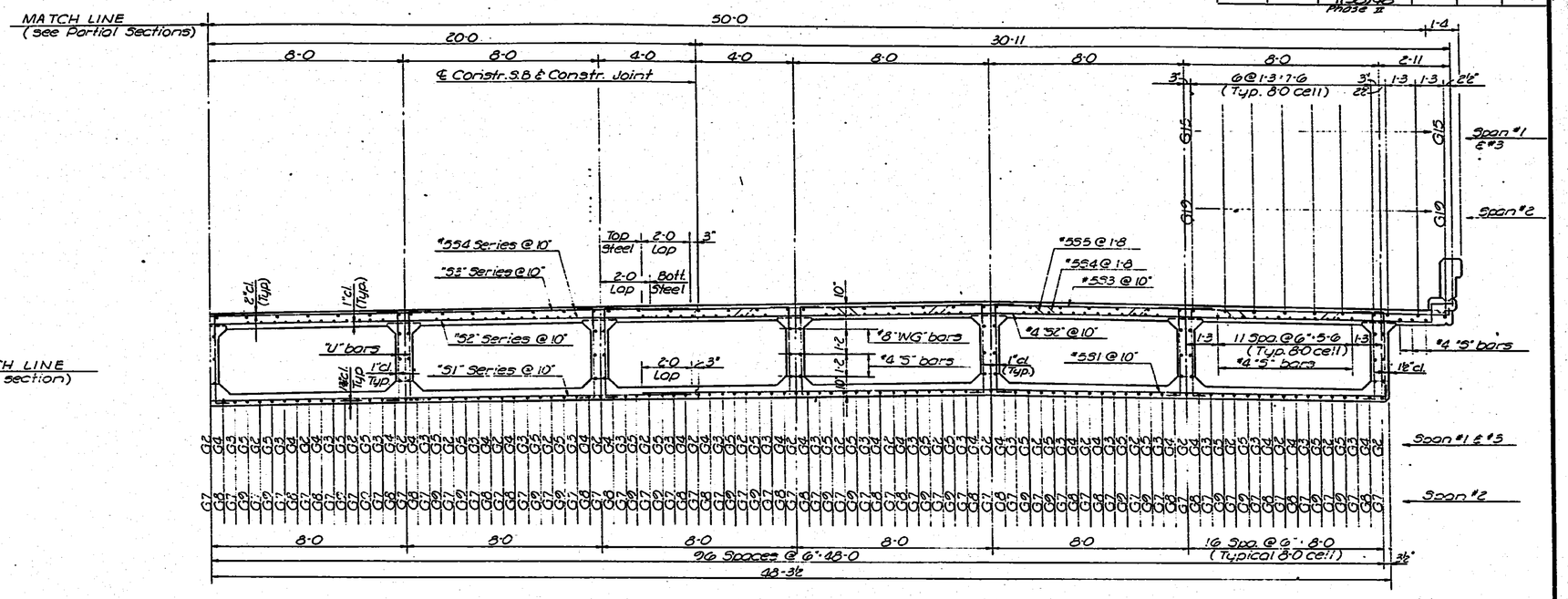
DIST. 5 SEDGWICK CO. ROLL 531 2 1 8

16X 14.5X 12X 12X 14.5X 16X

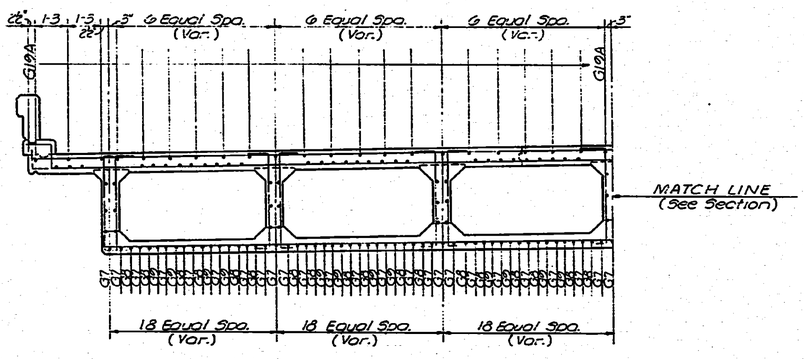
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W (158)48 Phase II	19 70	1750	2137



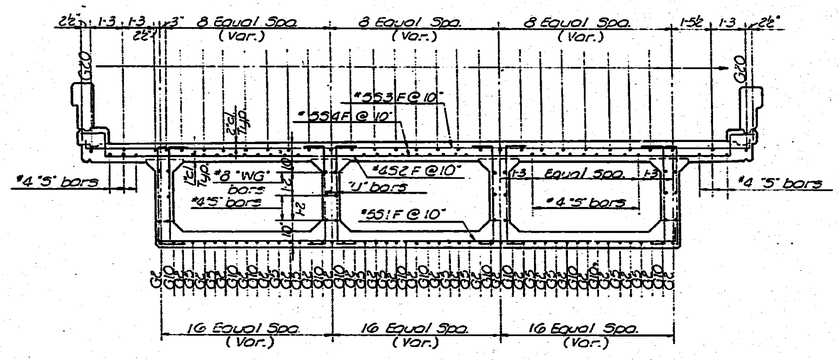
NEAR MID-SPAN NO. 1



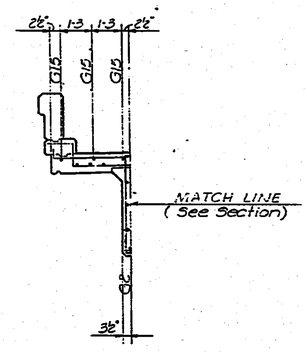
ROADWAY DECK SECTION NEAR MID-SPAN



NEAR MID-SPAN NO. 2



NEAR MID-SPAN NO. 3R



NEAR MID-SPAN NO. 3

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-I(58)48 SEDGWICK CO.

SHEET NO. 17 OF 27	SCALE	APP'D.	
DESIGNED DFG	DETAILED FES	CHECKED DFG	TRACED FES
DESIGN CK. JWH	DETAIL CK. RLF	CHIEF CK. JML	TRACE CK. RLF

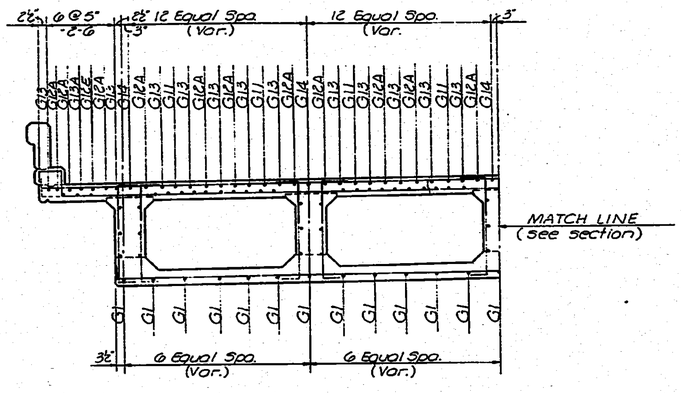
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

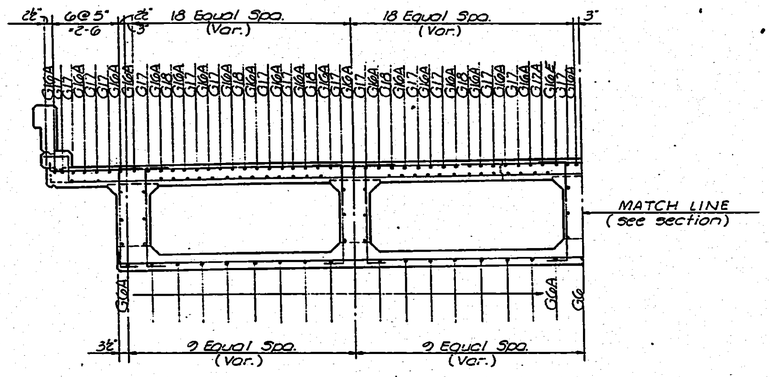
2 1 9

16X 14.5X 12X 12X 14.5X 16X

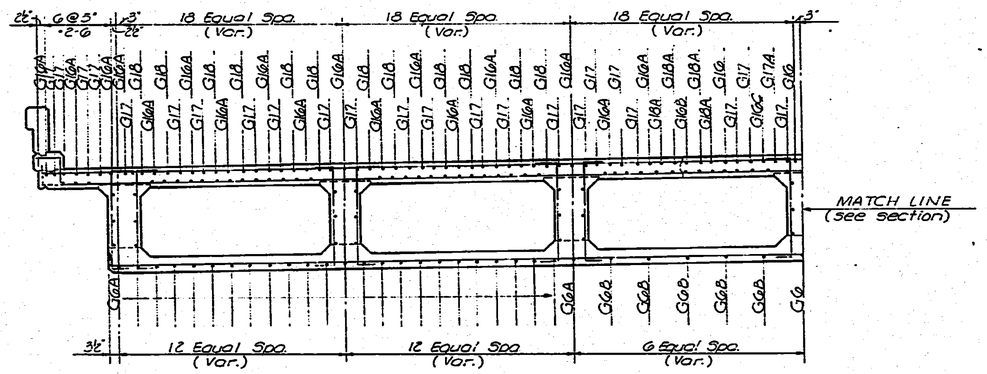
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase I	1970	1751	2137



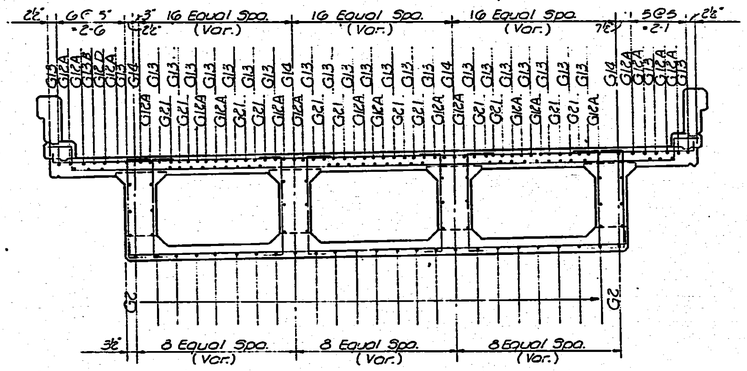
NEAR PIER NO. 1095
(in Cantilever)



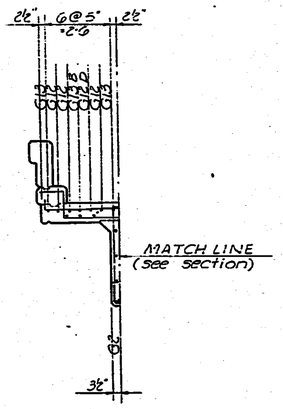
NEAR PIER NO. 1105
(in Span #1)



NEAR PIER NO. 1115
(in Span #2)



NEAR PIER NO. 1125R
(in Span #3R



NEAR PIER NO. 1125
(in Span #3)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298-22.27 TO 421-15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 119 of 217	SCALE	APP'D.	
DESIGNED DFG	DETAILED EFS	COMPUTED DFG	TRACED EFS
DESIGN CH. JWH	DETAIL CH. RLF	COMP. CH. JWL	TRACE CH. RLF

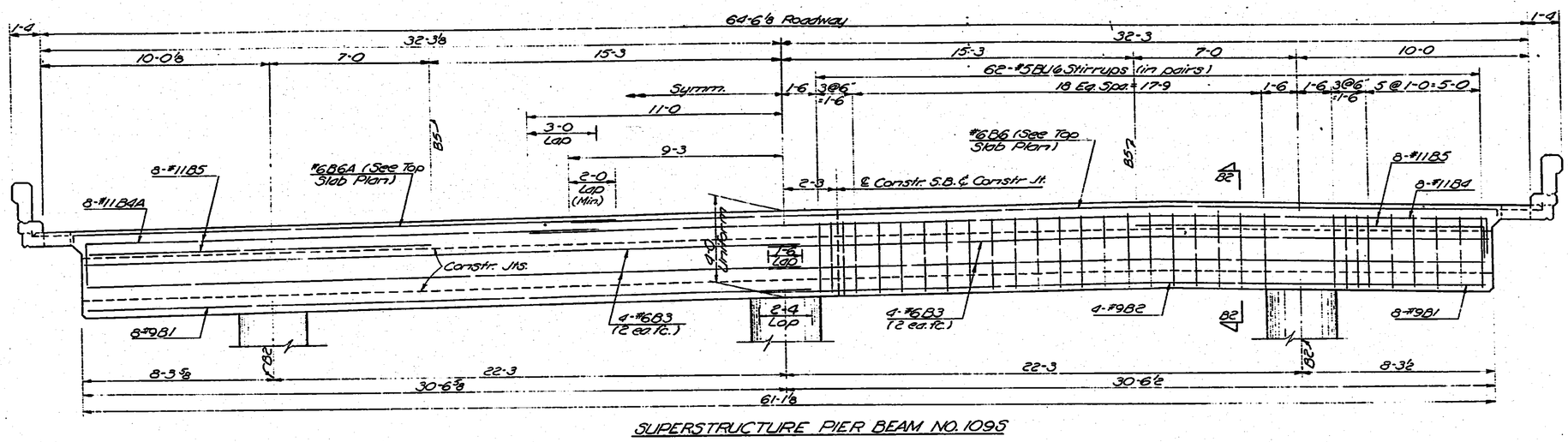
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

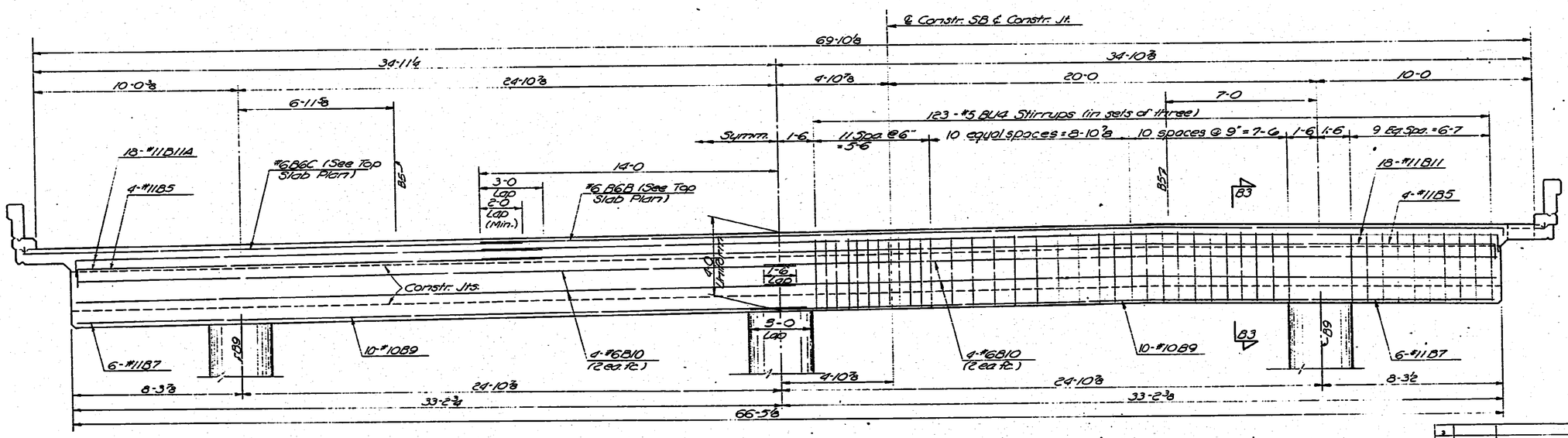
[redacted] 2 2 0

16X 16.5X 12X 12X 16.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135FW -1(58)48 Phase II	1970	1752	2137



SUPERSTRUCTURE PIER BEAM NO. 1095



SUPERSTRUCTURE PIER BEAM NO. 1105

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

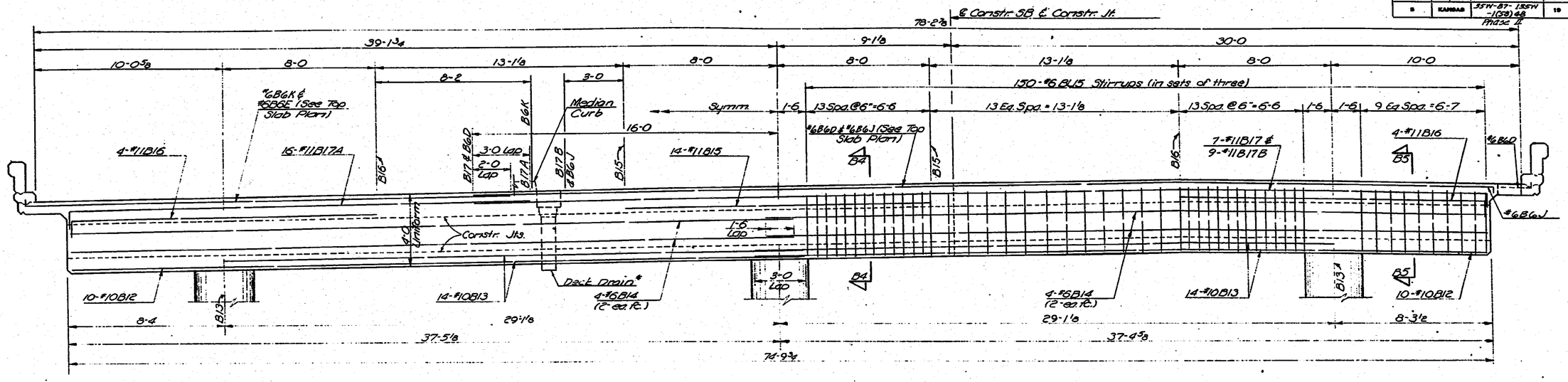
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 19 OF 57	SCALE	APP'D.		
DESIGNED DFG	DETAILED EFS	SUBMITTED DFG	TRACED DDW	
DESIGN CK. JWH	DETAIL CK. RLF	CHKD. CK. JML	TRACE CK. EFS	

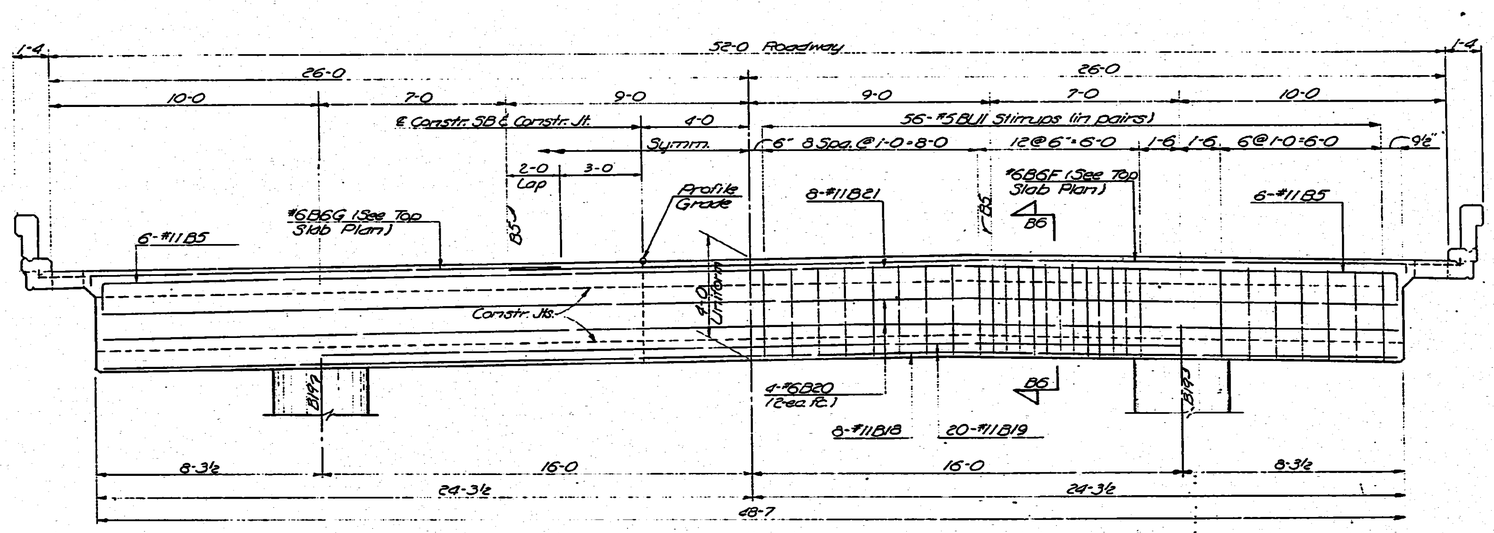
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 2 1

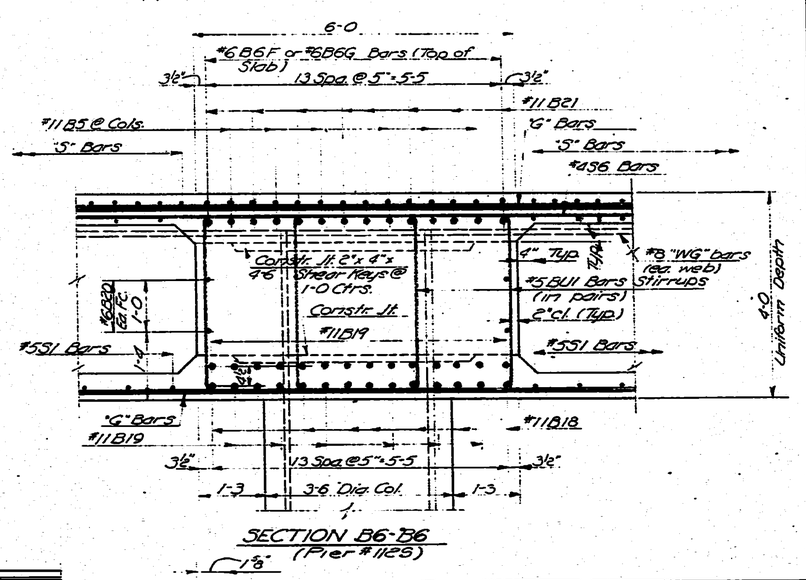
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-15.99 -I(58)46 Phase II	19	1753	2137



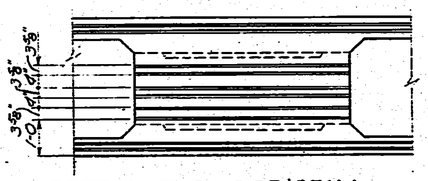
SUPERSTRUCTURE PIER BEAM #1115



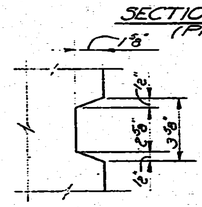
SUPERSTRUCTURE PIER BEAM #1128



SECTION B6-B6
(Pier #1128)



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing Location of Keys)



TYP KEY DETAIL

* See Drainage Details (Sheet No. 1995) for details of 2" depression at drain

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)46 SEDGWICK CO.

SHEET NO. 20 OF 27	SCALE	APP'D.		
DESIGNED DPS	DETAILED FES	CHECKED DPS	TRACED DDW	
DESIGN CK. JNH	DETAIL CK. RLF	CHECK CK. JML	TRACE CK. FES	

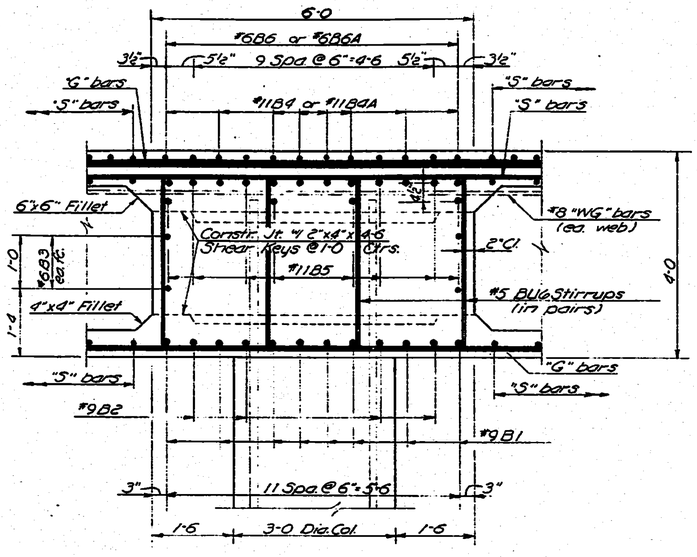
TOPEKA BLUE PRINT CO.

DIST. 5 | SEDGWICK CO. | ROLL 531

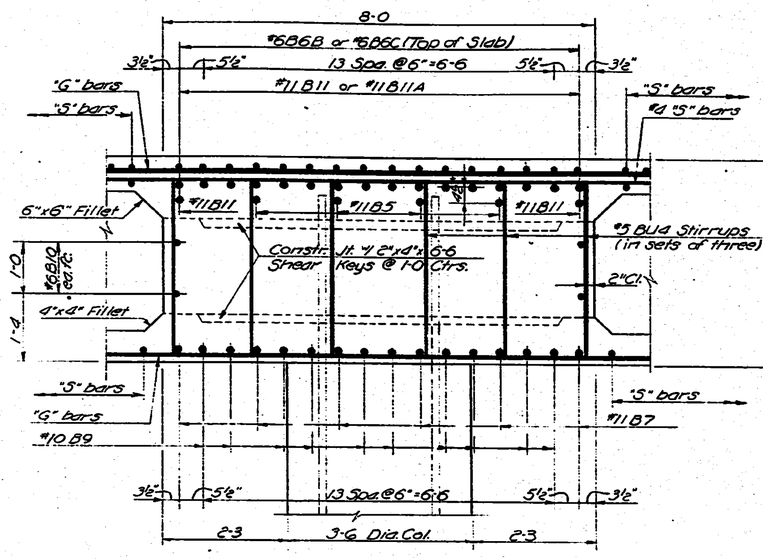
[redacted] 2 2 2

16X | 14.5X | 12X | 12X | 14.5X | 16X

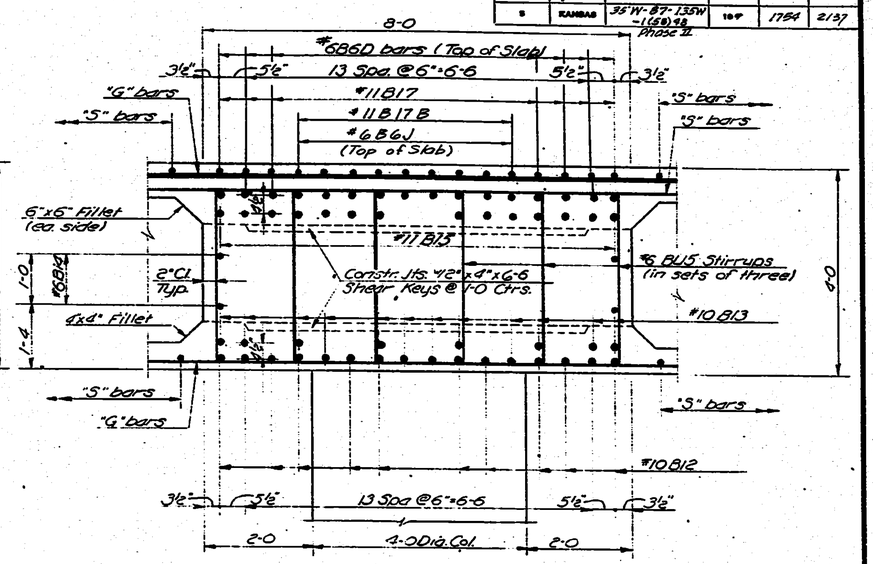
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-13SW-1(58)48 Phase II	19??	1764	2137



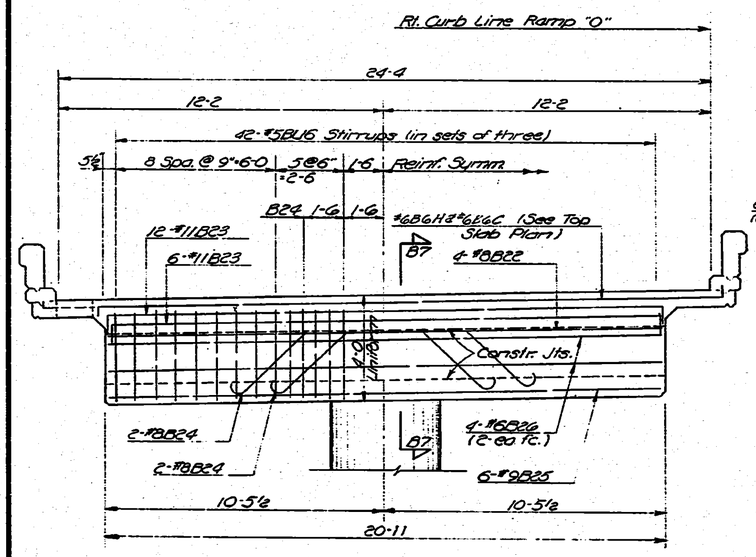
SECTION B2-B2
(at Pier #1095)



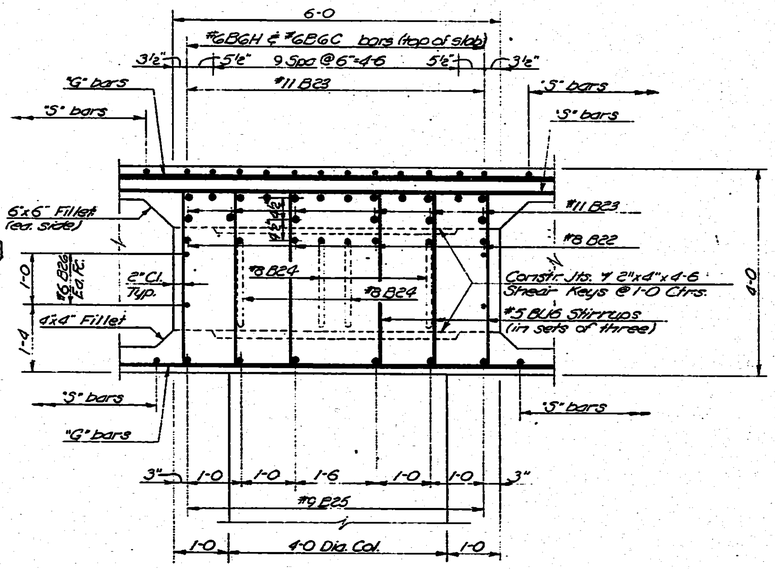
SECTION B3-B3
(at Pier #1105)



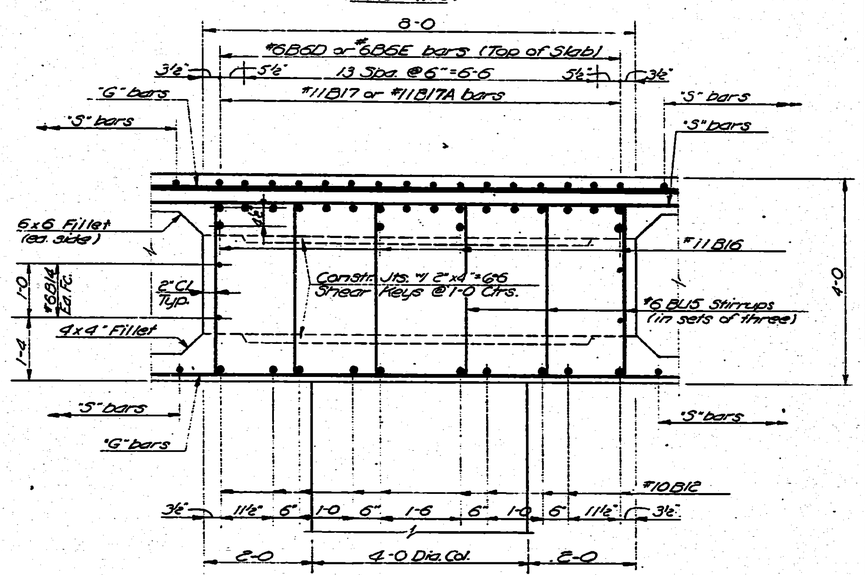
SECTION B4-B4
(at Pier #1115)



SUPERSTRUCTURE PIER BEAM #112 SR



SECTION B7-B7
(at Pier 112 SR)



SECTION B5-B5
(at Pier #1115)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

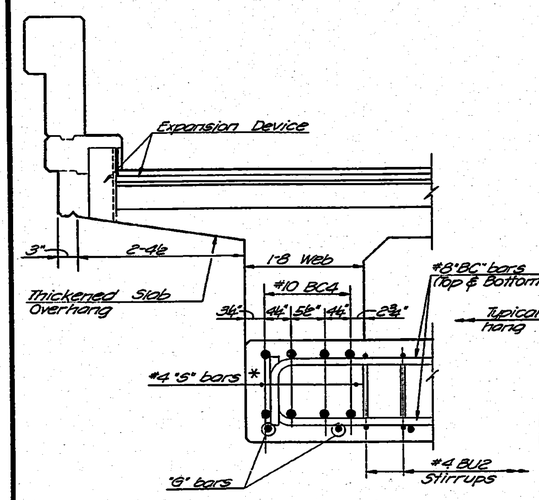
SHEET NO. 21 of 27	SCALE	APP'D.	
DESIGNED DFG	DETAILED LFS	CHECKED DFG	TRACED DDW
DESIGN CK. JWH	DETAIL CK. RLF	QUAN. CK. JML	TRACE CK. LFS

TOPEKA BLUE PRINT CO.

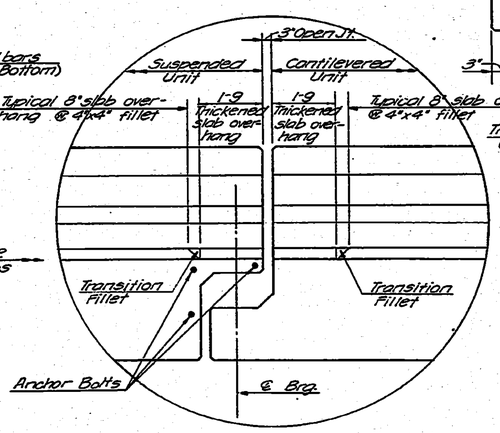
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 2 3

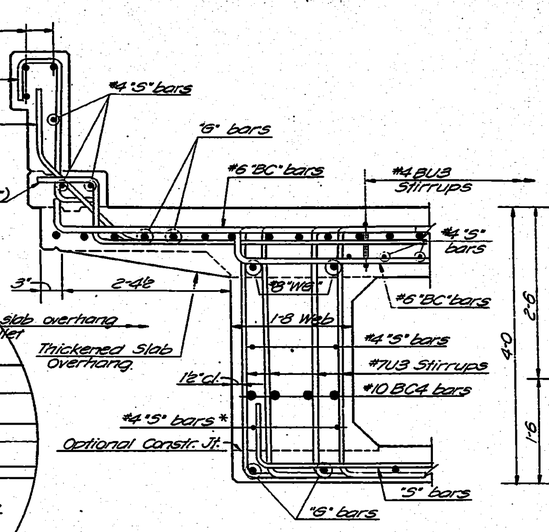
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W (58)48 PHASE II	19	1755	2137



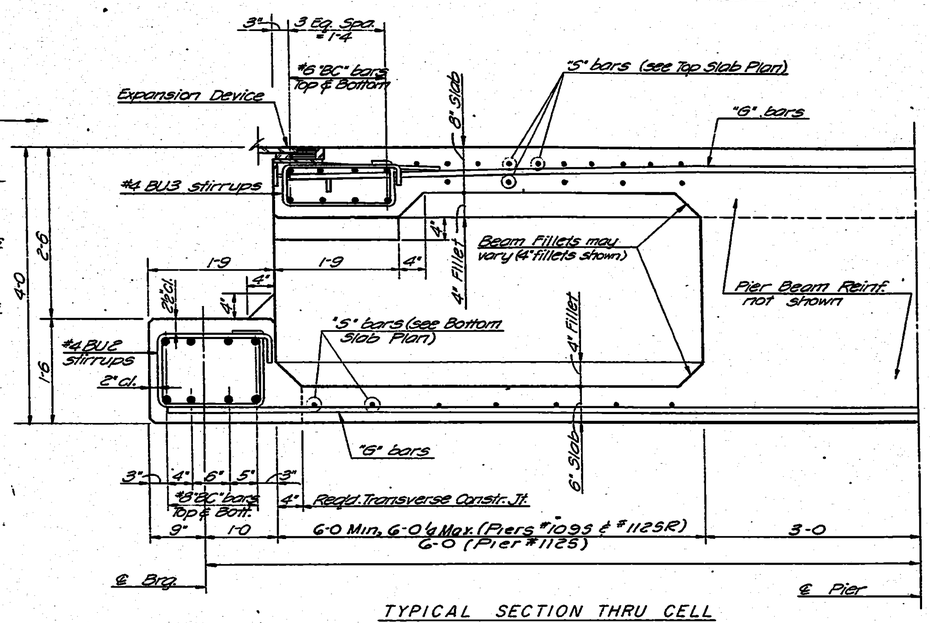
SECTION C3-C3
(Exterior Web)



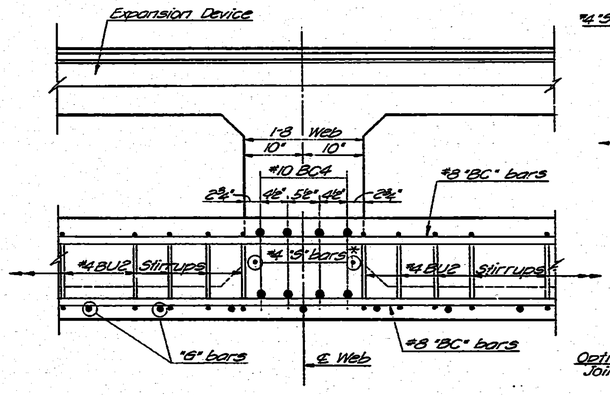
VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)



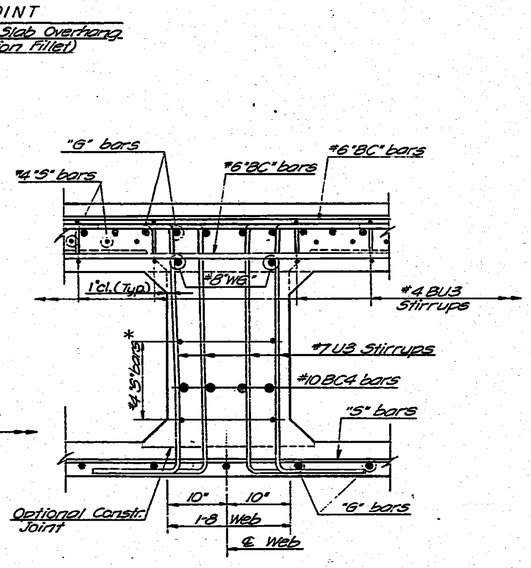
SECTION C4-C4
(Exterior Web)



TYPICAL SECTION THRU CELL



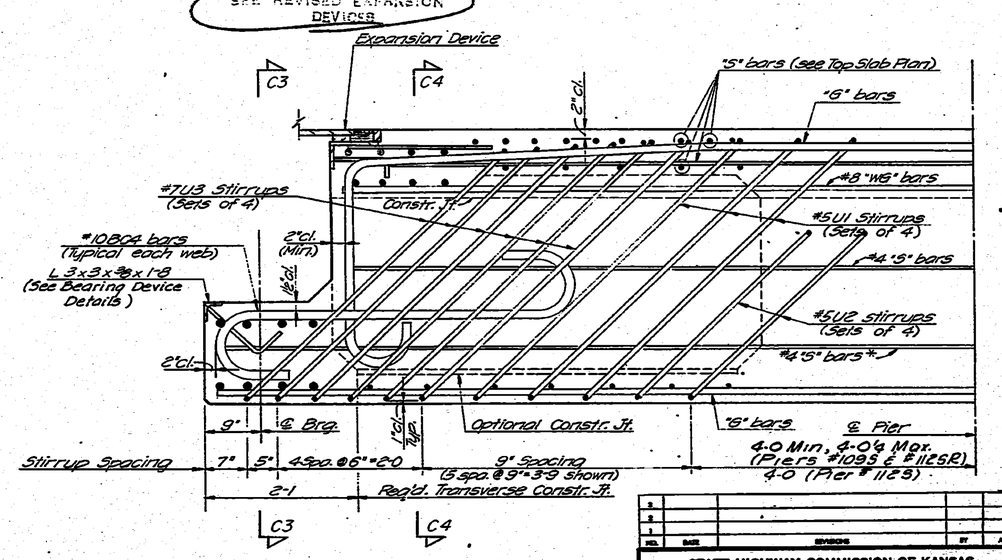
SECTION C3-C3
(Interior Web)



SECTION C4-C4
(Interior Web)

BEARING BEAM DETAILS

SEE REVISED EXPANSION DEVICES



TYPICAL SECTION THRU WEB

* Adjust position of #4 "S" bars to clear construction joint if optional type of fillet location is used.

NO.	DATE	REVISIONS	BY	APP'D.
1				
2				
3				

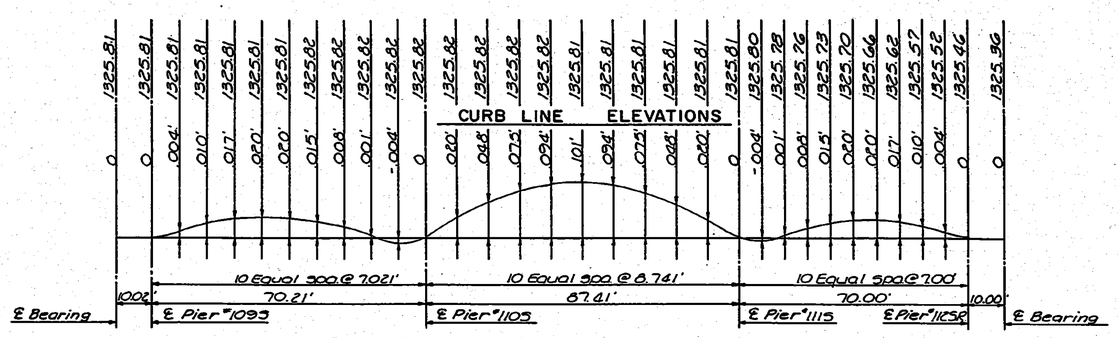
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 22 OF 27	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	CHECKED DFG	TRACED DS
FIELD CK. RBS	DESIGN CK. RBS	DESIGN CK. JML	DETAIL CK. RBS

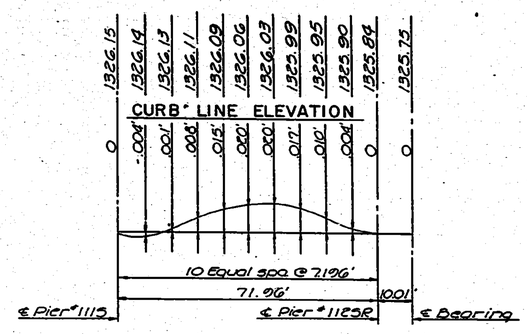
DIST. 5 SEDGWICK CO. ROLL 531

2 2 4

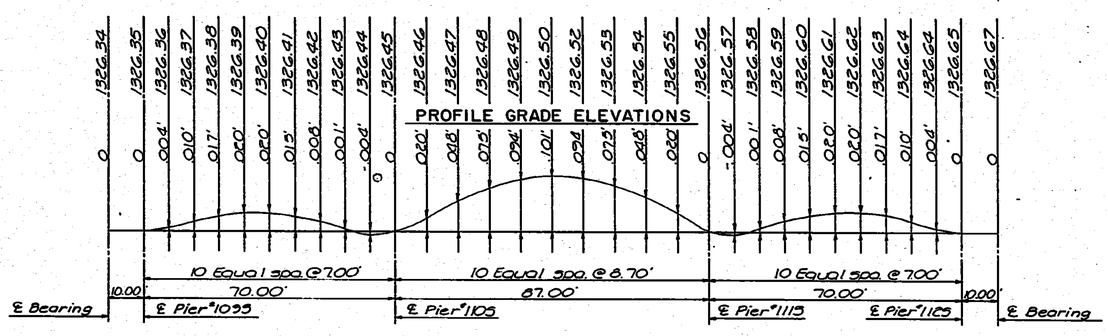
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W I-(58)48 PHASE II	19	1756	2137



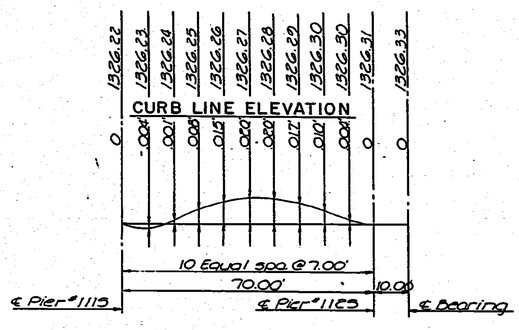
DEAD LOAD CAMBER IN FEET
ALONG LEFT GIRDER FASCIA



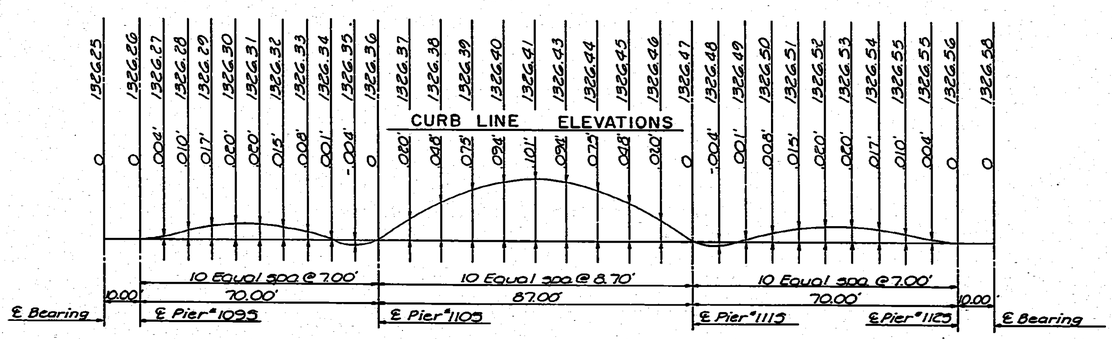
DEAD LOAD CAMBER IN FEET
ALONG RIGHT GIRDER FASCIA-RAMP "O"



DEAD LOAD CAMBER IN FEET
ALONG ℄ CONSTRUCTION



DEAD LOAD CAMBER IN FEET
ALONG LEFT GIRDER FASCIA



DEAD LOAD CAMBER IN FEET
ALONG RIGHT GIRDER FASCIA

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL TOP OF SLAB ELEVATIONS AT TENTH POINTS

NOTE: Add dead load camber to theoretical top of slab elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ psi.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

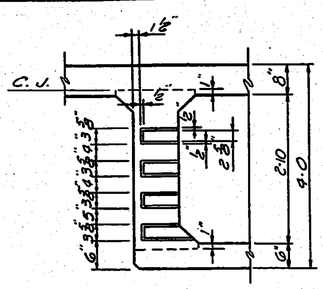
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 2527	SCALE	APP'D.			
DESIGNED DPG	DETAILED DRA	QUANTITIES LKD	TRACED DRA		
DESIGN CK. RBS	DETAIL CK. DPG	SHEAR CK. DOT	TRACE CK. RBS		

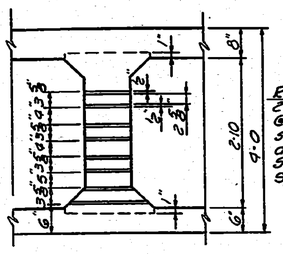
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 2 5

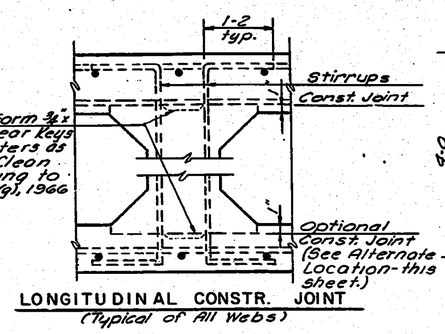
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1757	2137



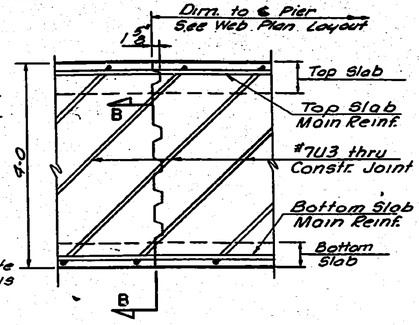
SECTION B-B
(Through Exterior Web)



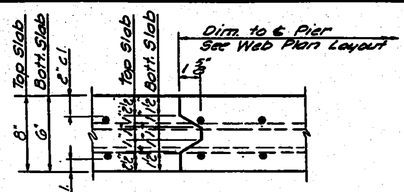
SECTION B-B
(Through Interior Web)



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

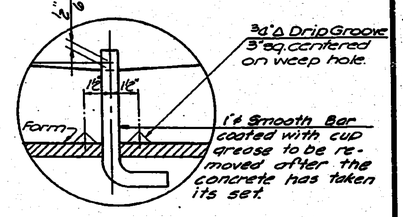


WEB CONSTR. JOINT
(Showing Placement of #7U3 bars)



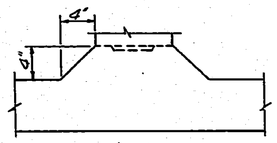
SLAB CONSTR JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of Weep holes shall be included in the unit price bid for Class AAA Concrete AE.

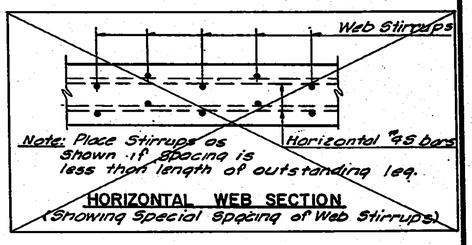


DETAIL OF WEEP HOLES

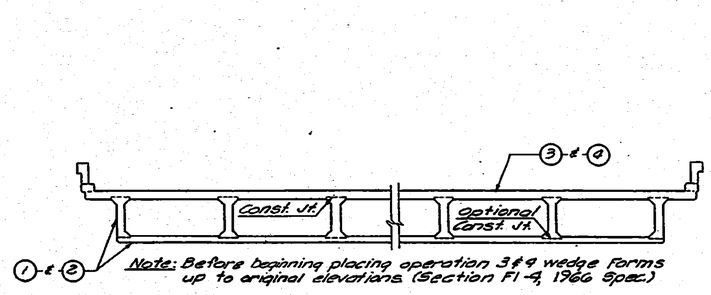
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



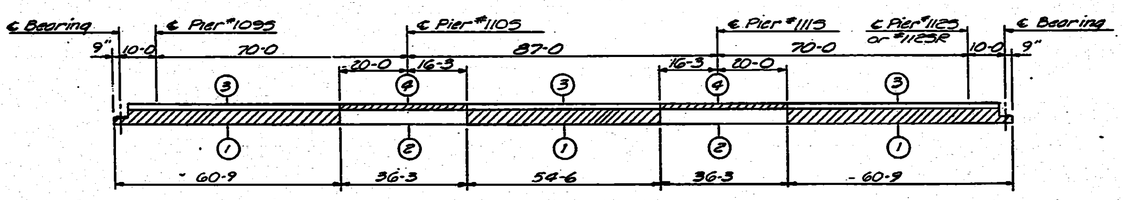
ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer)



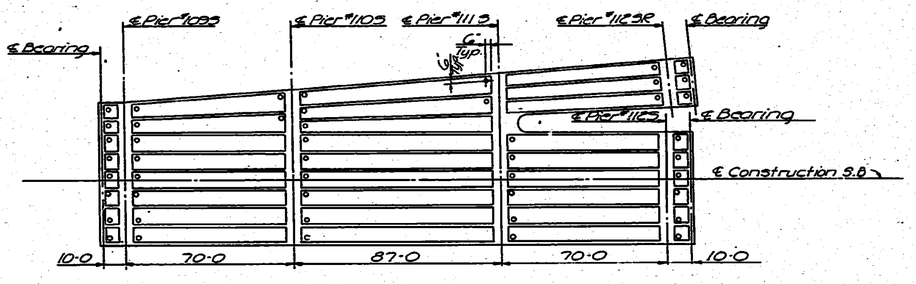
HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)



CROSS SECTION OF SUPERSTRUCTURE



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework



LOCATION OF WEEP HOLES

NOTES:

See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained it's design strength.

Construction Joints: Construction Joints shown are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-Span-Steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-I(58)48 SEDGWICK CO.

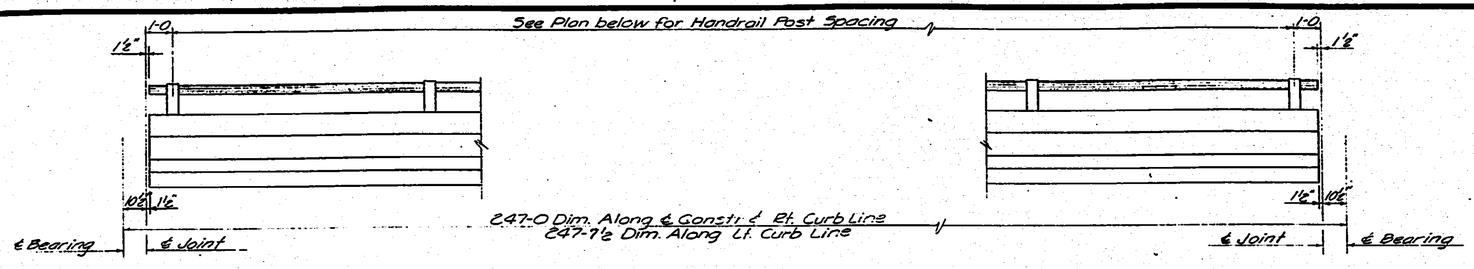
SHEET NO. 24 OF 27	SCALE		APP'D.		
DESIGNED DFG	DETAILED DGT	CHECKED LEO	TRACED DGT		
DESIGN CK. RBS	DETAIL CK. PAW	CHECK CK. DGT	TRACE CK. RBS		

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 2 6

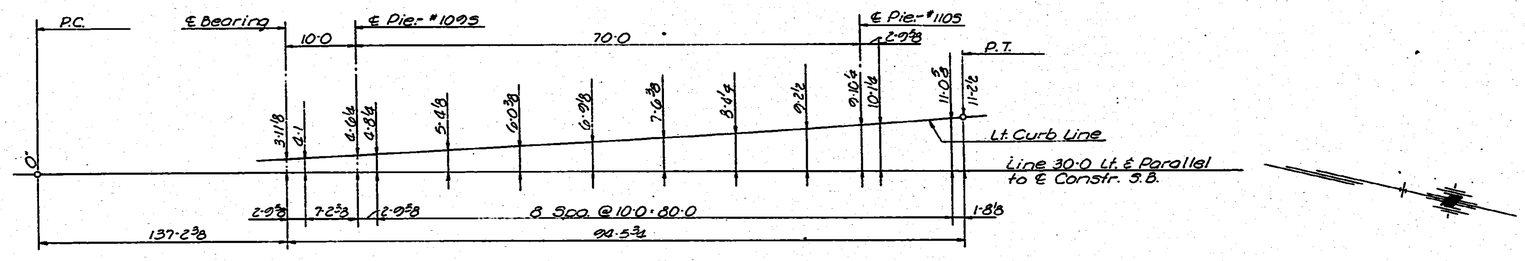
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W 1(58)48 Phase II	19	1758	2137

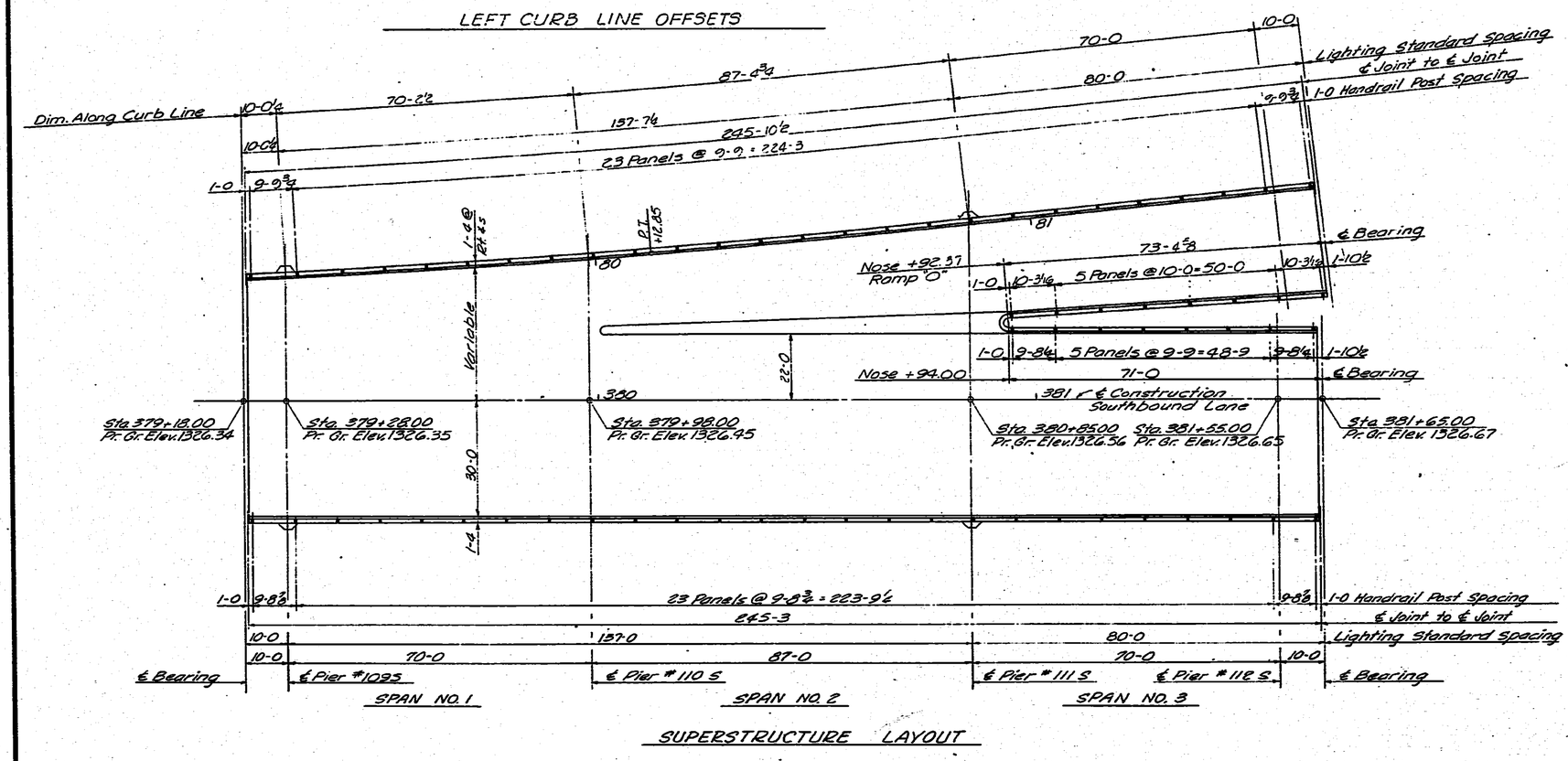


ELEVATION OF HANDRAIL

(See "Bridge Handrail" Standard Details Sheet)



LEFT CURB LINE OFFSETS



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard bracket.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 25 of 27	SCALE	APP'D.	
DESIGNED JWH	DETAILED RBS	QUANTITIES LKD	TRACED CRB
DESIGN CK. RBS	DETAIL CK. DS	QUANT. CK. DGT	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

2 2 7

REV. PLANS 11-1-71

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-1(35W) I-(80)48	19	1759	2137

Phase II

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	261	5	31-5
				S1A	7	5	32-9
				S1B	76	5	*
				S1C	95	5	*
				S1D	83	5	80-11
				S1E	1	5	20-6
				S1F	76	5	*
				S1G	7	5	22-9
				S2	257	4	35-11
				S2A	5	4	34-0
				S2B	76	4	*
				S2C	95	5	*
				S2D	81	4	21-11
				S2E	5	4	28-3
				S2F	76	4	*
				S3	257	5	33-6
				S3A	5	5	35-0
				S3B	76	5	*
				S3C	95	6	*
				S3D	81	5	23-0
				S3E	5	5	27-0
				S3F	76	5	*
				S4	129	5	36-5
				S4A	10	5	34-0
				S4B	150	5	*
				S4C	188	5	*
				S4D	41	5	23-1
				S4E	10	5	27-3
				S4F	150	5	*
S4G	6	5	*				
				S5	125	5	36-5
				S5D	39	5	23-1
** ~~S6~~	~~877~~	~~6~~	~~40-0~~				
S6A	36	6	40-0				
S6B	8	4	43-6				
S6C	111	4	13-6				
S6D	27	4	29-8				
S6E	3	4	22-0				
S6F	3	4	20-0	S6G	1	4	11-8
S6H	41	4	12-6	S6J	1	4	13-3
				S6K	1	4	14-9
S7	16	4	14-6				
S7A	16	4	18-0				
S7B	2	4	14-0				
S7C	2	4	15-6				
S7D	4	4	10-3				
S8	12	4	27-0				
S8A	12	6	27-0				
S8B	3	4	31-4				
S8C	3	6	31-4				
S8D	3	4	33-8				
S8E	3	6	33-8				
** ~~S8F~~	~~4~~	~~4~~	~~17-0~~				
				S8G	1	4	5-6

** Delete

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
G1	195	8	11-6				
G2	91	9	60-0				
G3	98	8	60-0				
G4	98	9	43-0				
G4A	12	8	43-0				
G5	68	8	27-0				
G6	98	8	28-6				
G6A	18	8	89-0				
G6B	5	8	21-0				
G6C	25	8	29-9				
G7	73	10	40-0	G6D	1	9	21-8
G8	42	10	30-0				
G9	36	10	36-0				
G10	12	10	43-0				
G11	76	9	18-10				
G12	81	8	26-10				
G12A	30	9	26-10				
G12B	2	8	6-0				
G12C	1	8	18-0				
G12D	2	8	15-0				
G12E	1	9	18-0				
G12F	2	9	5-0				
G12G	6	8	7-6				
G13	103	8	37-10				
G13A	2	8	29-0				
G13B	3	8	26-0				
G15	93	7	21-0	G14	29	8	41-11
G15A	16	8	21-3				
G16	90	10	50-0				
G16A	39	11	50-0				
G16B	1	10	32-0				
G16C	3	10	28-0				
G16D	3	10	24-6				
G16E	1	11	30-0				
G17	117	11	36-0				
G17A	6	11	16-0				
G17B	2	11	17-6				
G18	89	11	20-0				
G18A	4	11	17-0				
G19	95	5	40-0				
G19A	22	5	40-6				
G20	30	8	*				
G21	12	10	18-10				

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
S10	1	4	8-9				
S10A	2	6	8-9				
S10B	2	6	6-8				
S11	3	6	17-8				
B1	16	9	31-6				
B2	4	9	44-6				
B3	8	6	31-2				
				B4	8	11	42-10
				B4A	8	11	23-10
				B5	36	11	16-8
				B6	12	6	42-11
				B6A	12	6	26-5
				B6B	16	6	30-5
				B6C	21	6	24-5
				B6D	7	6	32-6
				B6E	7	6	26-8
				B6F	14	6	36-5
				B6G	14	6	20-5
				B6H	7	6	27-2
B6J	9	6	48-6				
				B6K	9	6	27-8
B7	12	11	34-6				
B9	20	10	49-10				
B10	8	6	33-9				
				B11	18	11	48-6
				B11A	18	11	23-6
B12	20	10	38-9				
B13	28	10	30-7				
B14	8	6	39-0				
B15	14	11	16-0				
				B16	8	11	17-8
				B17	7	11	34-9
				B17A	16	11	25-9
B17B	9	11	48-6				
B18	8	11	48-3				
B19	20	11	32-0				
B20	4	6	48-3				
				B21	8	11	51-3
B22	4	8	20-7				
				B23	18	11	23-7
				B24	4	8	13-8
B25	6	9	20-7				
B26	4	6	20-7				

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				B41	112	5	15-10
				B41E	152	4	6-1
				B41J	109	4	5-1
				B41K	246	5	17-4
				B41L	300	6	17-4
				B41G	166	5	15-4
				BC1	24	8	32-8
				BC1B	8	8	20-8
				BC1C	8	8	29-0
				BC2	12	6	31-11
				BC2A	4	6	22-0
				BC2B	4	6	20-0
				BC3	12	6	34-6
				BC3A	4	6	17-8
				BC3B	4	6	22-6
				BC4	80	10	8-2
				C1	766	4	35
				C1A	10	4	33
				C2	770	4	38
				C3	88	4	2-5
				C4	24	5	5-6
C5	36	4	2-6	C6	20	4	4-0
				** AAG1	92	4	*
				U1	3760	5	7-7
				U2	480	5	6-1
				U3	720	7	7-7
				U8	5	6	6-5
WG1	102	8	40-0				
WG2	32	8	28-6				
WG2A	2	8	16-6				
WG2B	4	8	25-6				
				LB1	16	4	7-4
				LB2	12	4	9-4

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	1242.7'	~~1848.8~~	Cu. Yds.
Reinforcing Steel	451,930'	~~453,870~~	Lbs.
Cast Iron Scuppers 10@37.6 Lbs.	400	~~376~~	Lbs.
Wrought Iron Drains & Grates	3912	~~5,444~~	Lbs.
8" ϕ Downspouts	232.70'	~~272.61~~	Lin. Ft.
Gutters		136.30'	Lin. Ft.
Bridge Handrail	633.59'	633.76	Lin. Ft.
Structural Steel			
Corner Angles (A36) 20@19 Lbs.		380	Lbs.
Expansion Devices (A36)		5,174	Lbs.
Linseed Oil Surface Treatment (Bridges)		1933.4'	Sq. Yds.
Elastomeric Exp. Device (13½")		93'	Lin. Ft.
Elastomeric Exp. Device (22½")		54'	Lin. Ft.

Note:
All bar marks shall be pre-fixed with the unit number when fabricated. Example:, #8G1 bars shall be marked 2538G1.

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3	11-1-71	Rev. Exp. Devices	WHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-1599 STA. 298+22.27 TO 421+15.60
SCHEDULE OF QUANTITIES — UNIT NO. 25S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-1 35W-(58)48 SEDGWICK CO.

SHEET NO. 26 OF 27 SHEETS	SCALE	APP'D.	
DESIGNED DFG	DETAILED RAW	COMPUTED TL	CHECKED RLC
DRAWN CK. RBS	TRACED CK. DFG	QUANT. CK. AV	TRACED CK. DFG

DIST. 5 SEDGWICK CO. ROLL 531

2 2 8

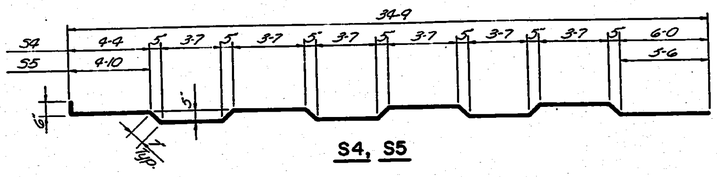
16X 14.5X 12X 12X 14.5X 16X

BENDING DIAGRAMS

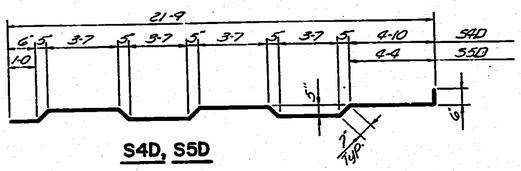
(Bar Dimensions are Out to Out)

REV. PLANS 11-1-71

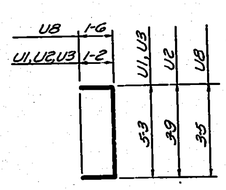
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W I-(58)48 Phase II	19	1760	2137



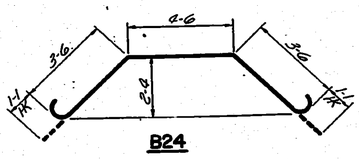
S4, S5



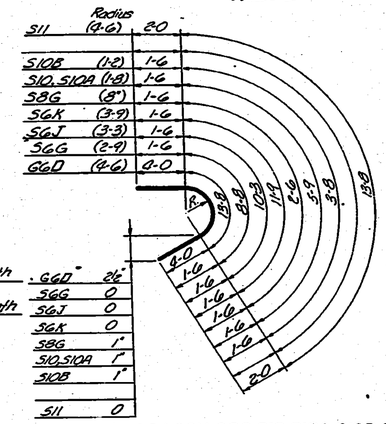
S4D, S5D



U1, U2, U3, U8

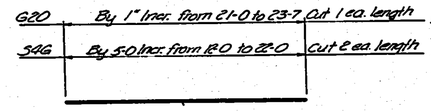


B24

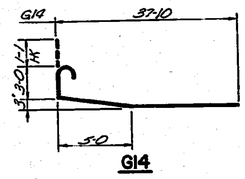


G6D	2"
S6G	0
S6J	0
S6K	0
S8G	1"
S10, S10A	1"
S10B	1"
S11	0

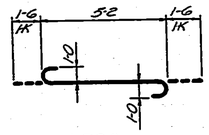
G6D, S6G, S6J, S6K, S8G, S10, S10A, S10B, S11



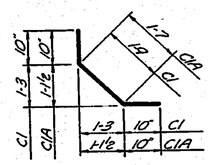
G20, S4G



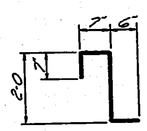
G14



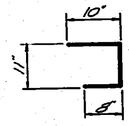
BC4



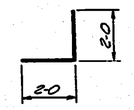
C1, C1A



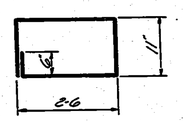
C2



C3



C6



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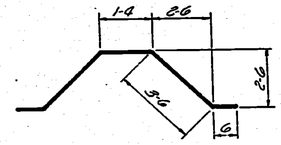
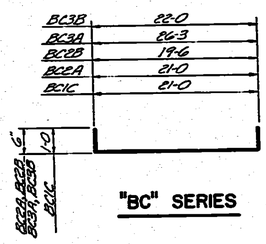
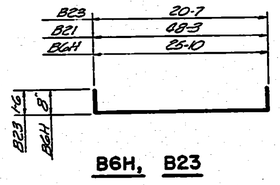


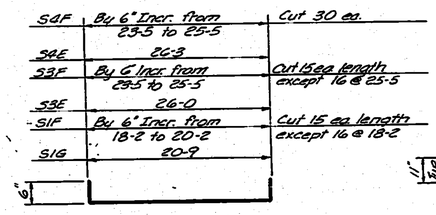
LB2



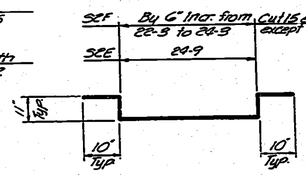
"BC" SERIES



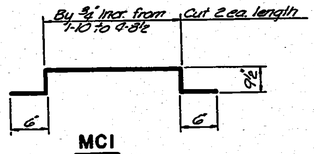
B6H, B23



S1F, S1G, S3E, S3F, S4E, S4F



S2E, S2F

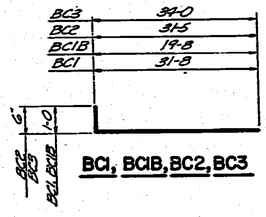


MC1

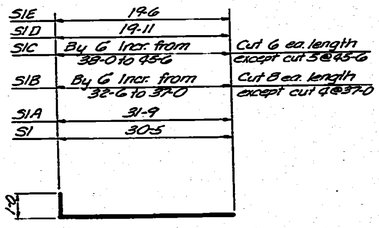
B17A	20-3
B17	59-3
B16	16-2
B11A	22-0
B11	47-0
B6K	27-0
B6G	19-9
B6F	35-9
B6E	26-0
B6D	35-10
B6C	29-9
B6B	49-9
B6A	25-9
B6	42-3
B5	15-2
B4A	22-4
B4	41-4

B Series 1'-6" Bs Series 1'-8"

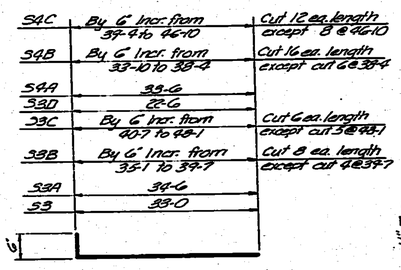
"B" & "B6" SERIES



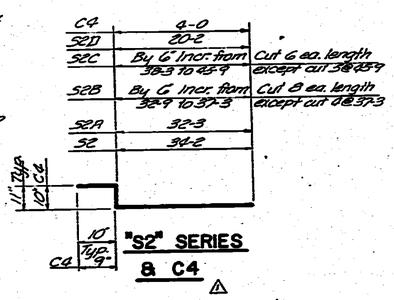
BC1, BC1B, BC2, BC3



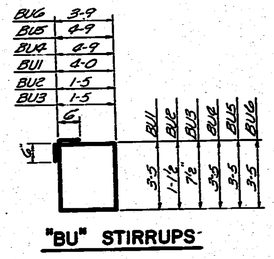
"S1" SERIES



"S3" & "S4" SERIES



"S2" SERIES & C4



"BU" STIRRUPS

NO.	DATE	REVISIONS	BY	APP'D.
1	11-1-71	Rev. Exp. Devices	VARS	

STATE HIGHWAY COMMISSION OF KANSAS

BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60

BENDING DIAGRAMS — UNIT NO. 25S

S.B. I-35W VIADUCT

(BETWEEN 11TH & 15TH STREETS)

PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 27 OF 27	SCALE		APP'D.		
DESIGNED DFG	DETAILED	RAW	QUANTITIES	TL	TRACED RLC
DESIGN CK. JWH	DETAIL CK.	DFG	GEN. CK.	AY	TRACE CK. DFG

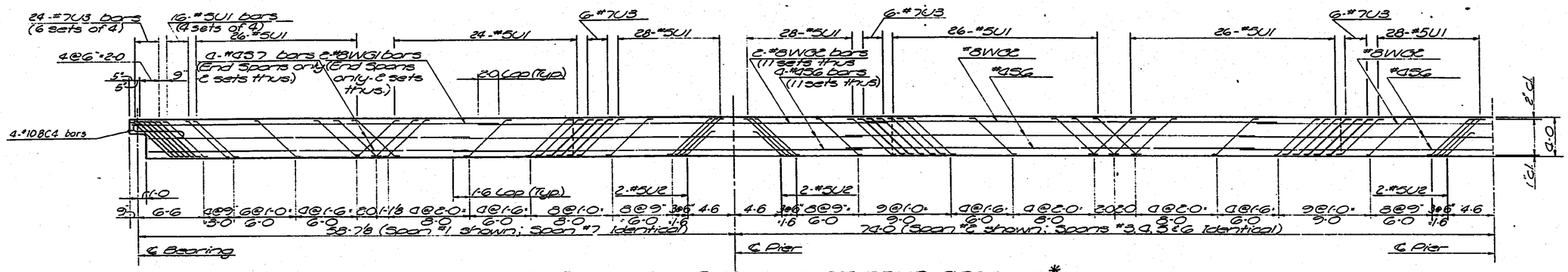
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

2 2 9

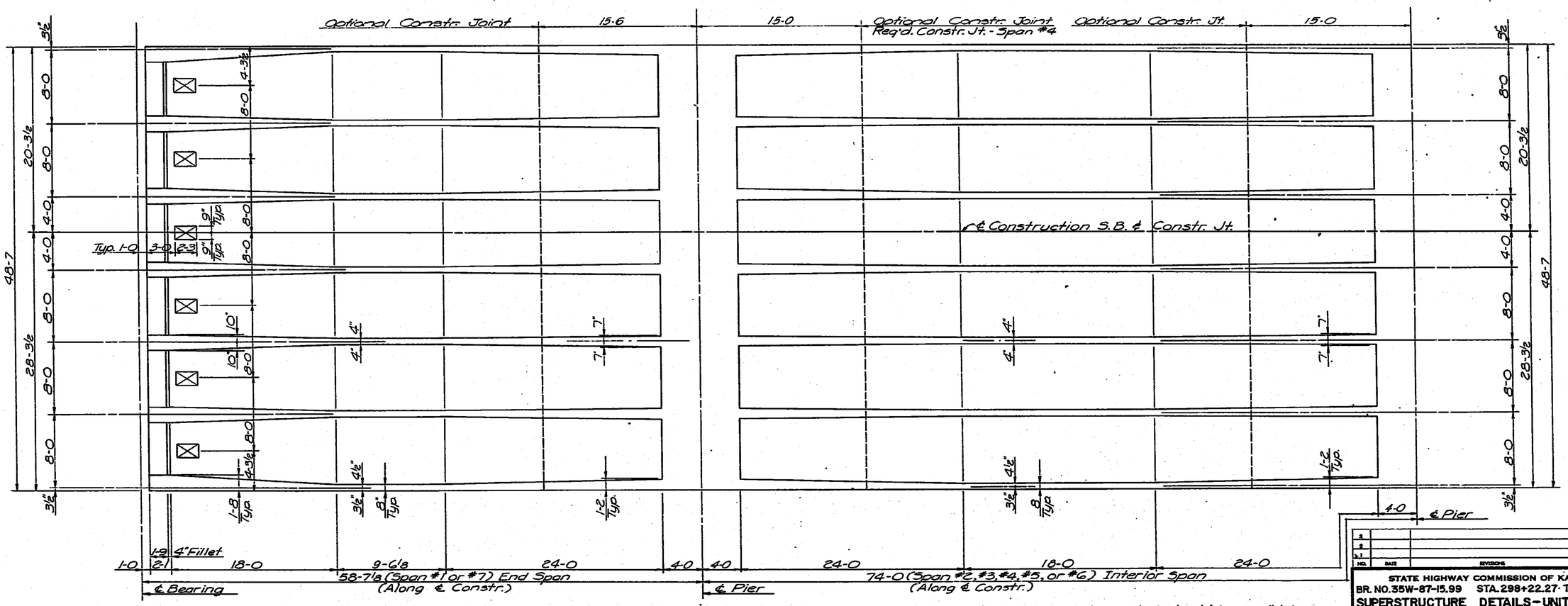
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase II	19	1761	2137



WEB ELEVATION SHOWING STIRRUP SPACING *

(Stirrups placed in pairs each Web, except as noted.)



WEB PLAN LAYOUT

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top ℄ beneath bottom main reinforcing steel. See Roadway Deck Section.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 26S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

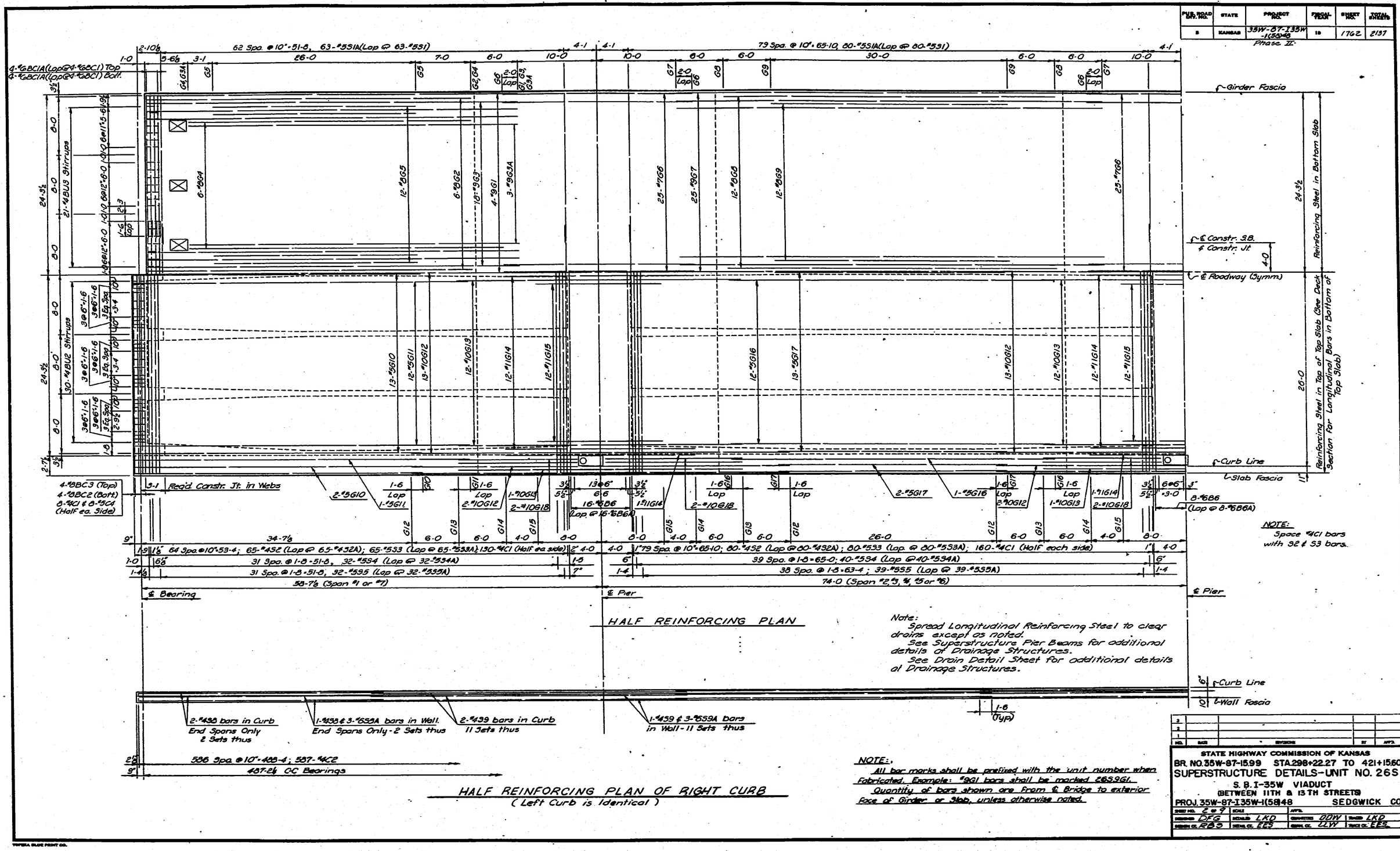
SHEET NO. 4 OF 9	SCALE	APP'D.	
DESIGNED DPS	DETAILED DPA	CHECKED DGT	TRACED DPA
DESIGN CK. RBS	DETAIL CK. JWG	GRAN. CK. LKD	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 3 0

16X 14.5X 12X 16X 12X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1762	2137



NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-1599 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 26S
S. B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

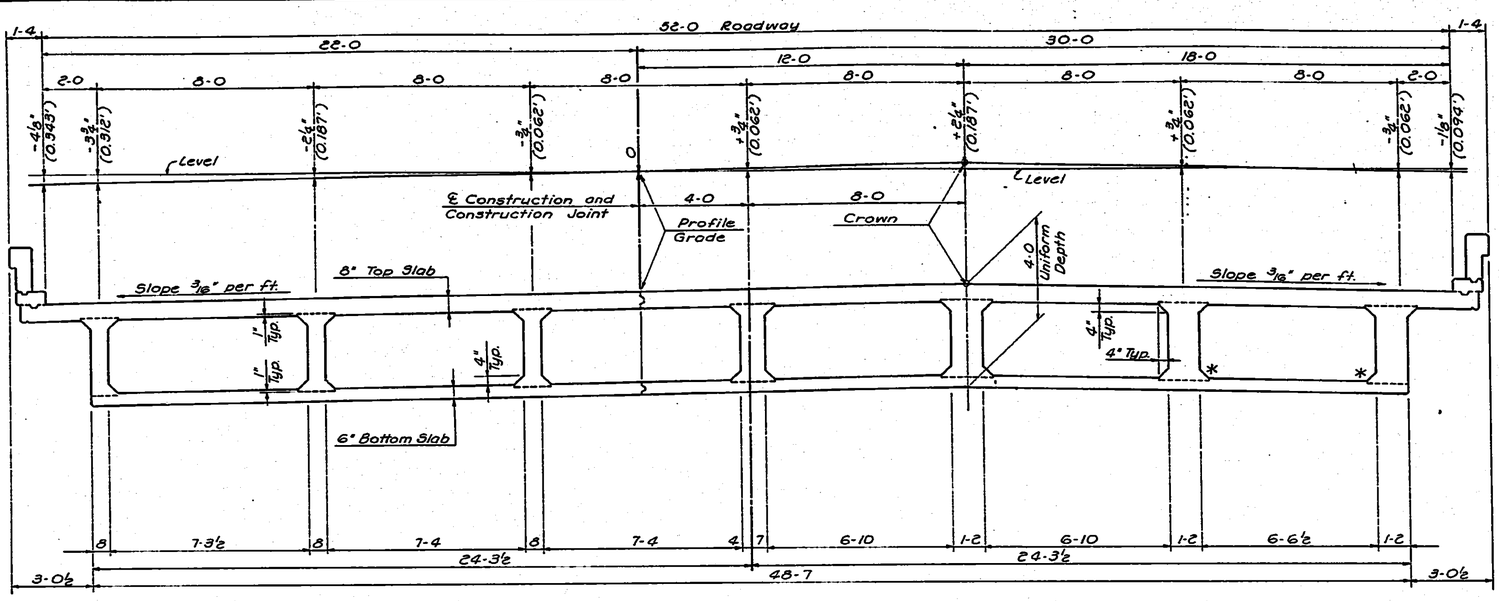
SHEET NO. 2 OF 7	SCALE	APP'D.
DESIGNED DFG	DETAILED LKD	COMPUTED ODW / TRACED LKD
DESIGN CK. RBS	DETAIL CK. EES	SUPV. CK. ULW / TRACE CK. EES

DIST. 5 SEDGWICK CO. ROLL 531

2 3 1

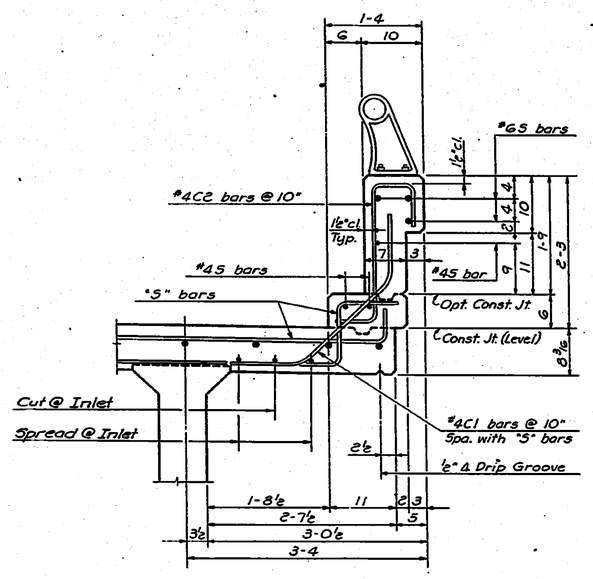
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W I(58)48 Phase II	19	1763	2137



NEAR MID-SPAN — NEAR PIER

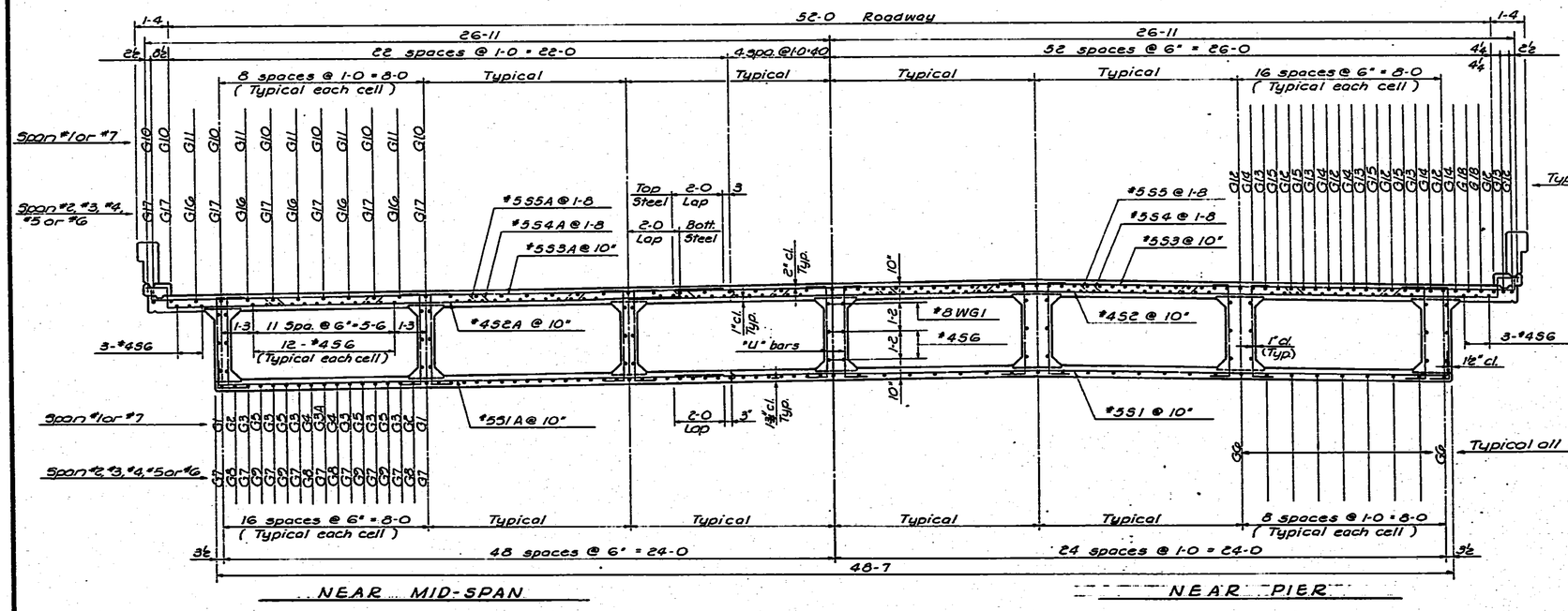
ROADWAY DECK SECTION



TYPICAL CURB SECTION

Note:
See Web Elevation for quantity, size and spacing of "U" bars. There are 13 sets of #4S6 bars in the bottom of the top slab. (Lap 1-6)

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.



NEAR MID-SPAN — NEAR PIER

ROADWAY DECK SECTION

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 26S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 3 OF 9	SCALE	APP'D.	
DESIGNED DPG	DETAILED EES	CHECKED DDW	TRACED EES
DESIGN CK. EES	DETAIL CK. LKD	GRAL. CK. LLW	TRACE CK. LKD

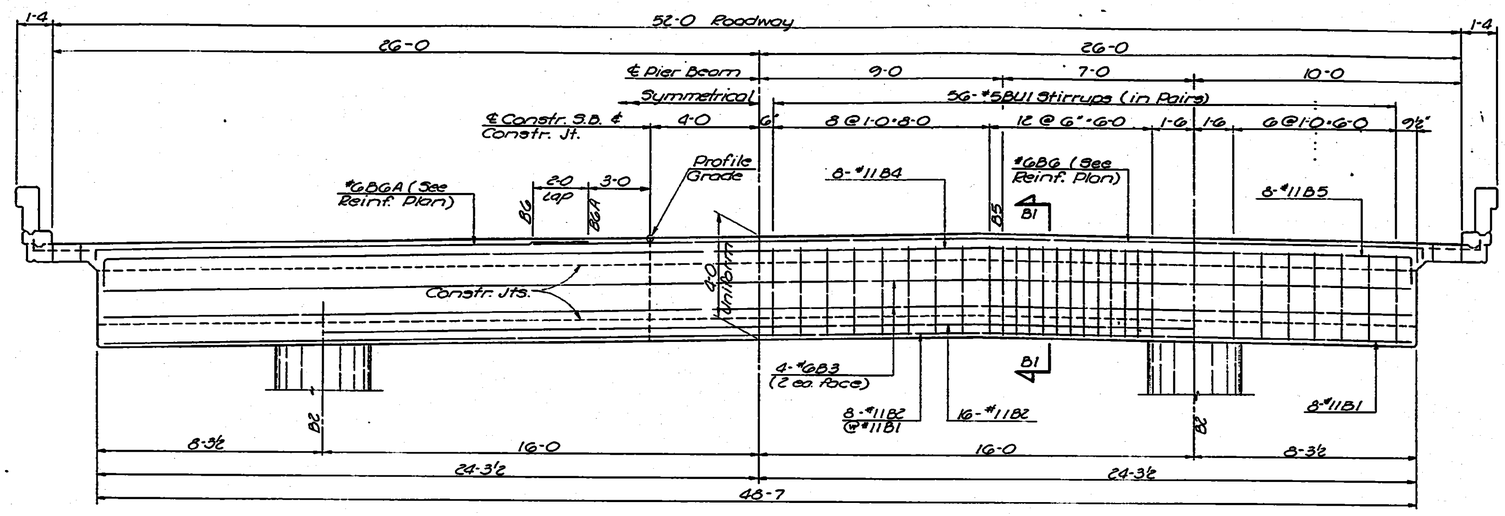
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

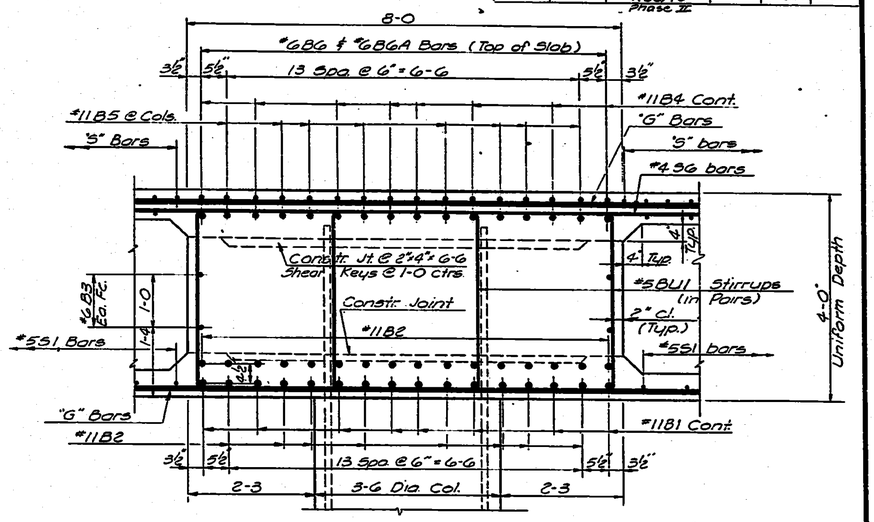
2 3 2

16X 14.5X 12X 12X 14.5X 16X

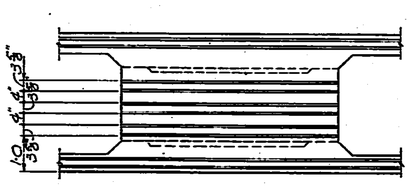
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase II	19	176d	2137



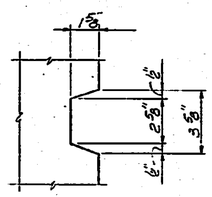
SUPERSTRUCTURE PIER BEAM



SECTION B1 - B1



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION (Showing Location of Keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 26S
S. B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 4 of 9	SCALE	APP'D.	
DESIGNED DPG	DETAILED EES	CHECKED DDW	TRACED EES
DESIGN CH. DBS	DETAIL CH. LKD	CHKD. CH. LLW	TRACE CH. LKD

TOPEKA BLUE PRINT CO.

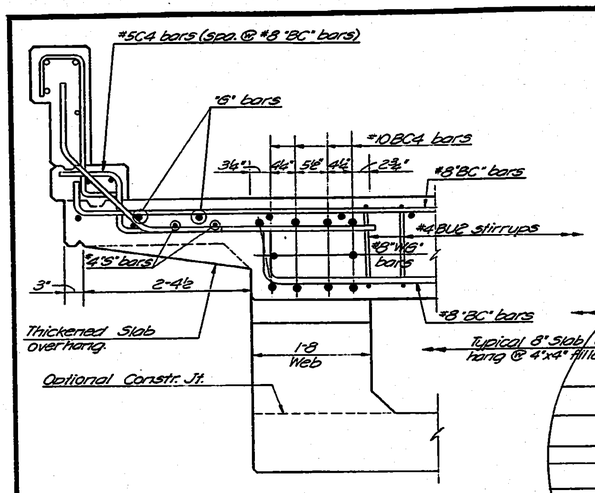
DIST. 5 SEDGWICK CO. ROLL 531

2 3 3

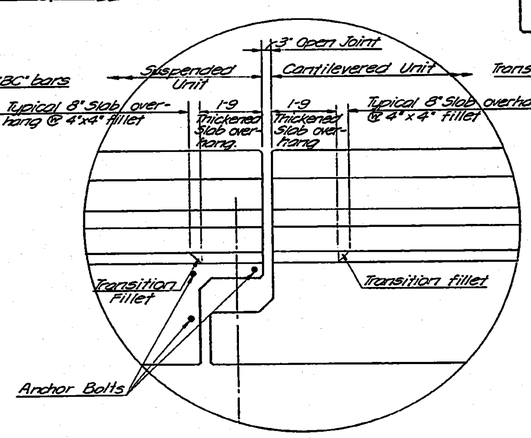
[redacted]

16X 14.5X 12X 12X 14.5X 16X

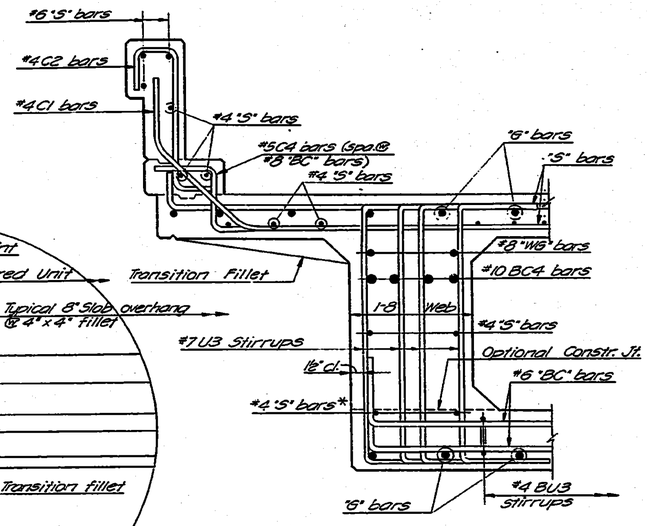
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W I-(58)48 Phase II	19	176.5	2137



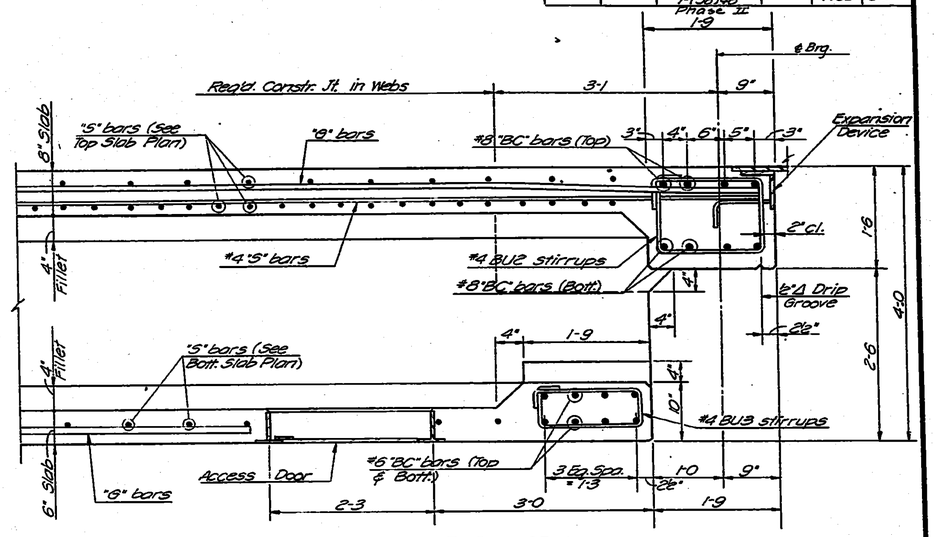
SECTION C2-C2
(Exterior Web)



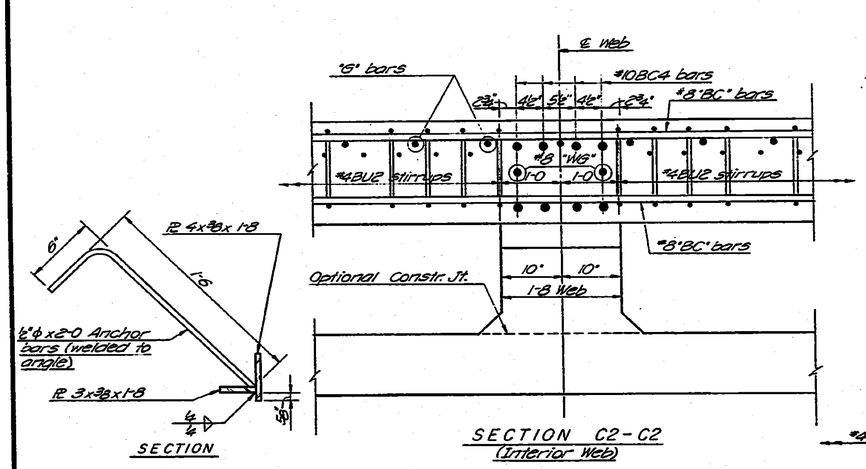
VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)



SECTION C1-C1
(Exterior Web)

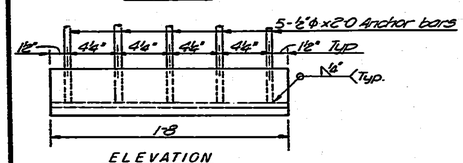


TYPICAL SECTION THRU CELL



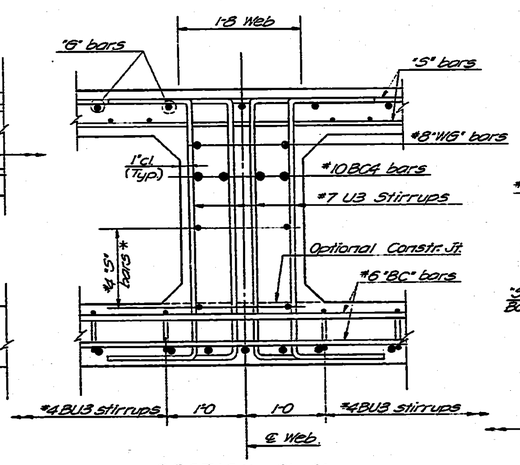
SECTION C2-C2
(Interior Web)

SECTION

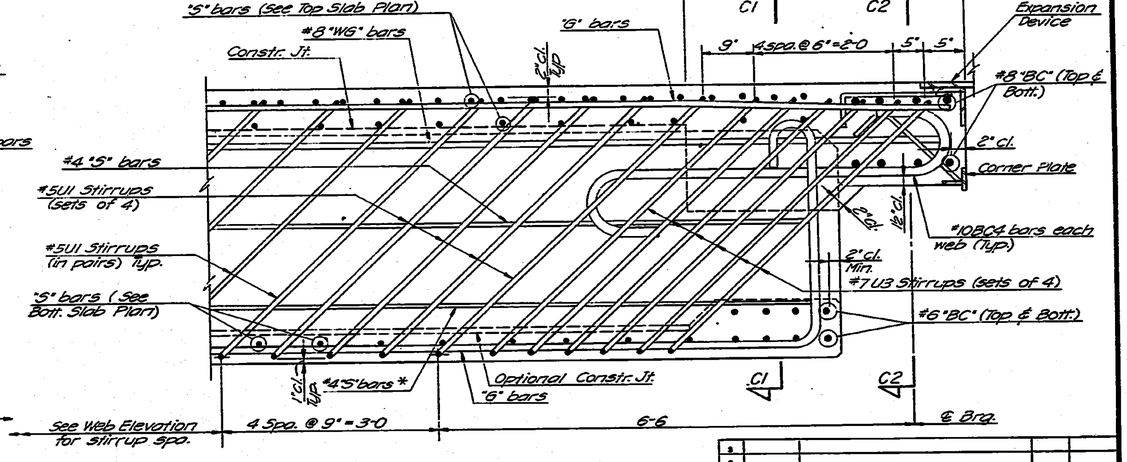


ELEVATION

CORNER PLATE DETAILS
Computed weight of one assembly is 22 lbs.



SECTION C1-C1
(Interior Web)



TYPICAL SECTION THRU WEB

BEARING BEAM DETAILS

* Adjust position of #4"S" bars to clear construction joint if optional top of fillet location is used.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 26S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 5 of 9	SCALE		APP'D.		
DESIGNED DFG	DETAILED	DS	CHECKED	DDW	TRACED DS
DESIGN CK. RBS	DETAIL CK.	RBS	CHECK CK.	LLW	TRACE CK. RBS

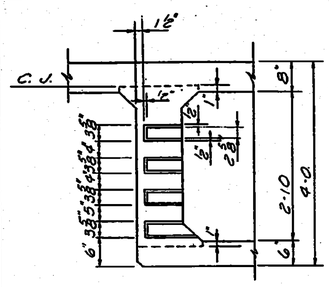
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

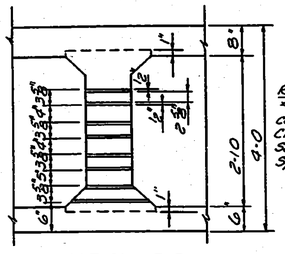
2 3 4

16X 14.5X 12X 12X 14.5X 16X

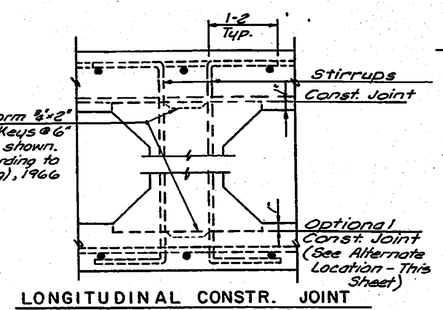
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W I-(58)48 Phase II	19	1766	2137



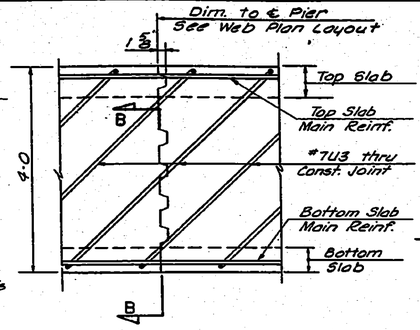
SECTION B-B
(Through Exterior Web)



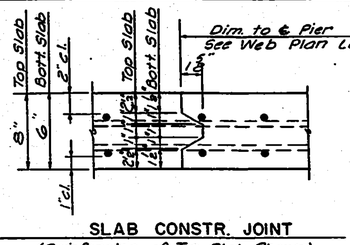
SECTION B-B
(Through Interior Web)



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

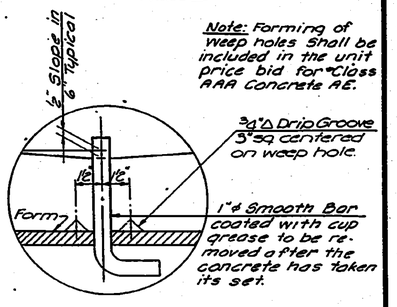


WEB CONSTR. JOINT
(Showing Placement of #7U3 bars)



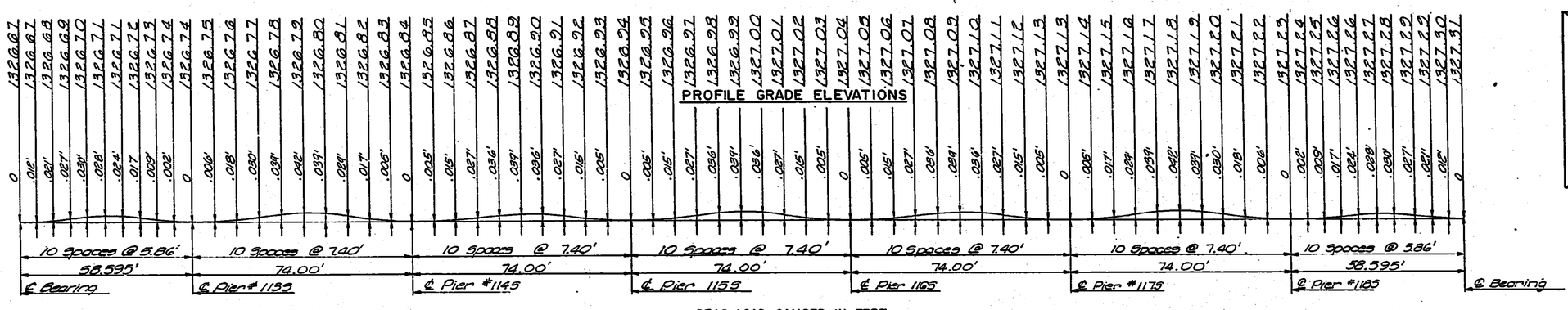
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of weep holes shall be included in the unit price bid for "Class AAA Concrete AE."



DETAIL OF WEEP HOLES

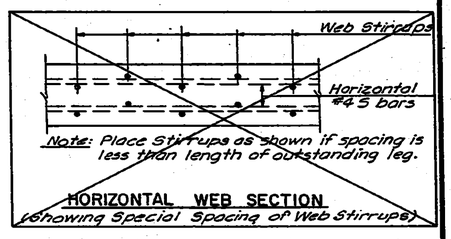
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



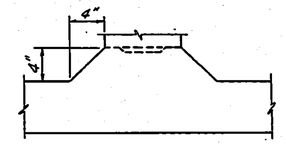
DEAD LOAD CAMBER IN FEET

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS

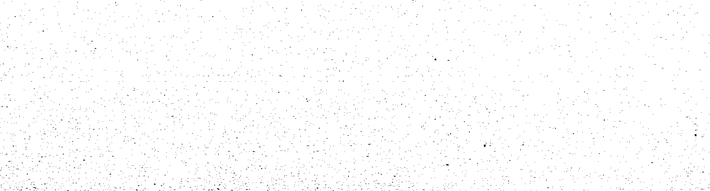
Note: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ p.s.i.



HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)

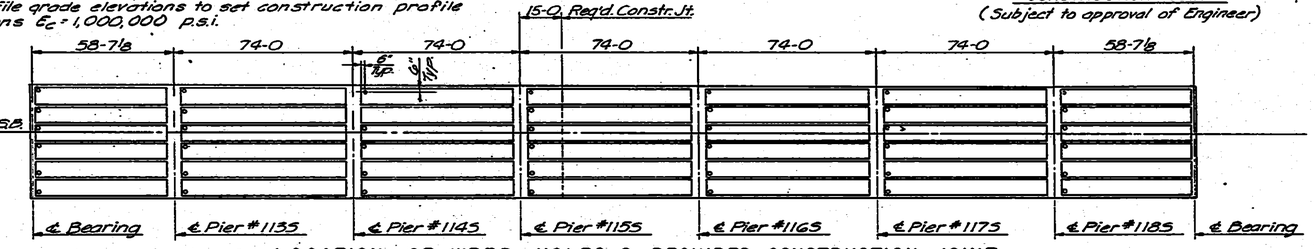


ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer)

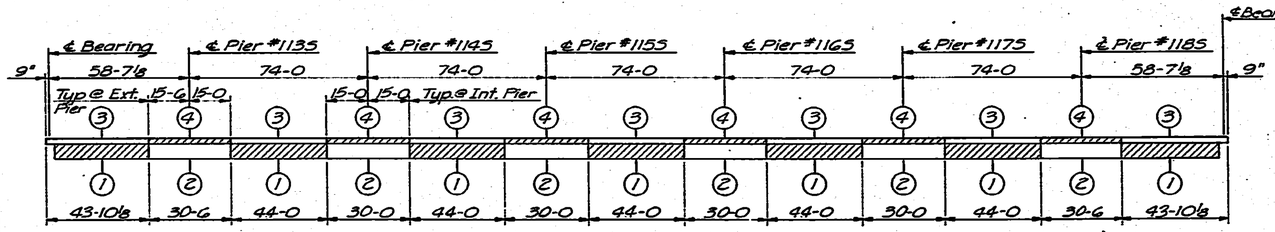


Note: Before beginning placing operation 3 ℄ 4 wedge forms up to original elevations. (Section F1-4, 1966 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



LOCATION OF WEEP HOLES & REQUIRED CONSTRUCTION JOINT



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework

NOTES:
See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown as optional may be used at the Bridge Contractors option, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 2 S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

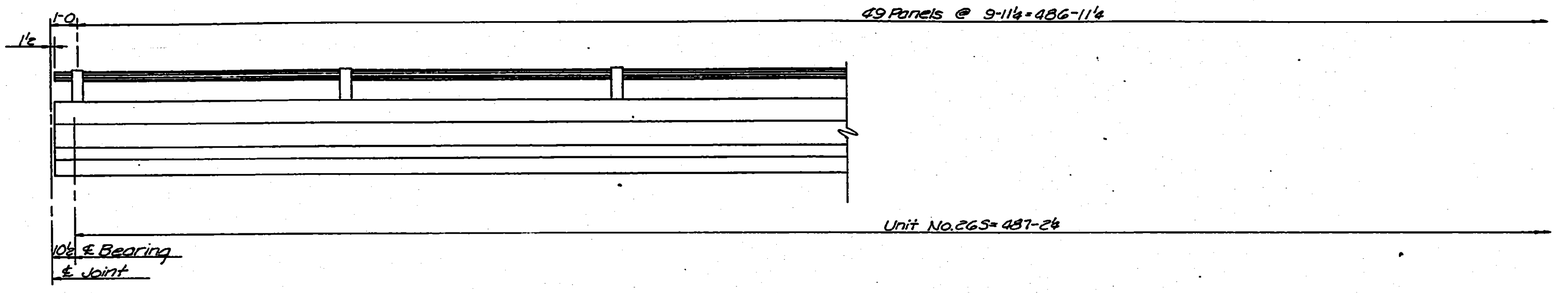
SHEET NO. 6 OF 9	SCALE	APP'D.	
DESIGNED DFG	DETAILED PAW	QUANTITIES DGT	TRACED DGT
DESIGN CK. PBS	DETAIL CK. PBS	GENL. CK. LED	TRACE CK. PBS

DIST. 5 SEDGWICK CO. ROLL 531

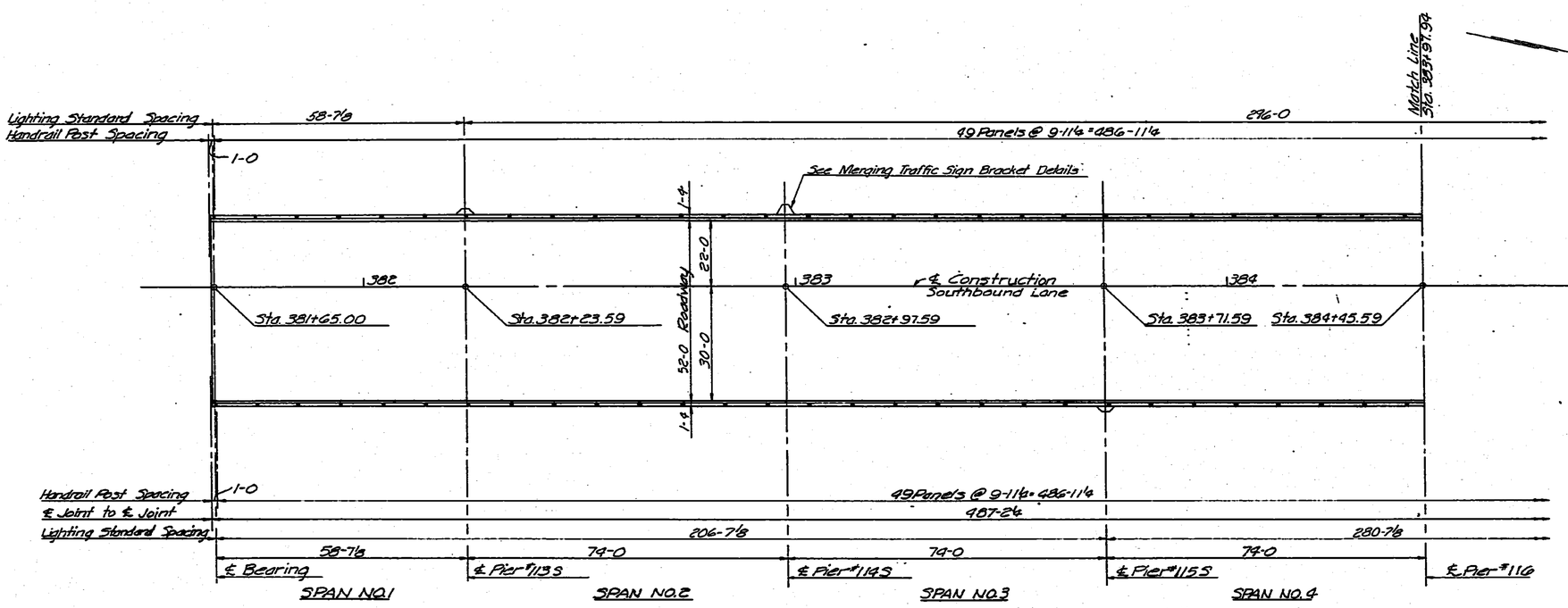
2 3 5

14X 16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1767	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 26S
S.B. I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

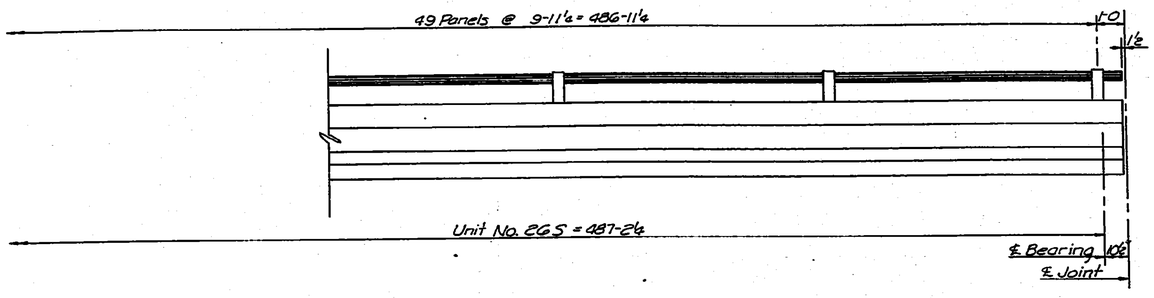
SHEET NO. 7 OF 9	SCALE	APP'D.			
DESIGNED JWH	DETAILED RBS	QUANTITIES DGT	TRACED KWK		
DESIGN CK. RBS	DETAIL CK. JMG	QUANT. CK. LRD	TRACE CK. RBS		

DIST. 5 SEDGWICK CO. ROLL 531

2 3 6

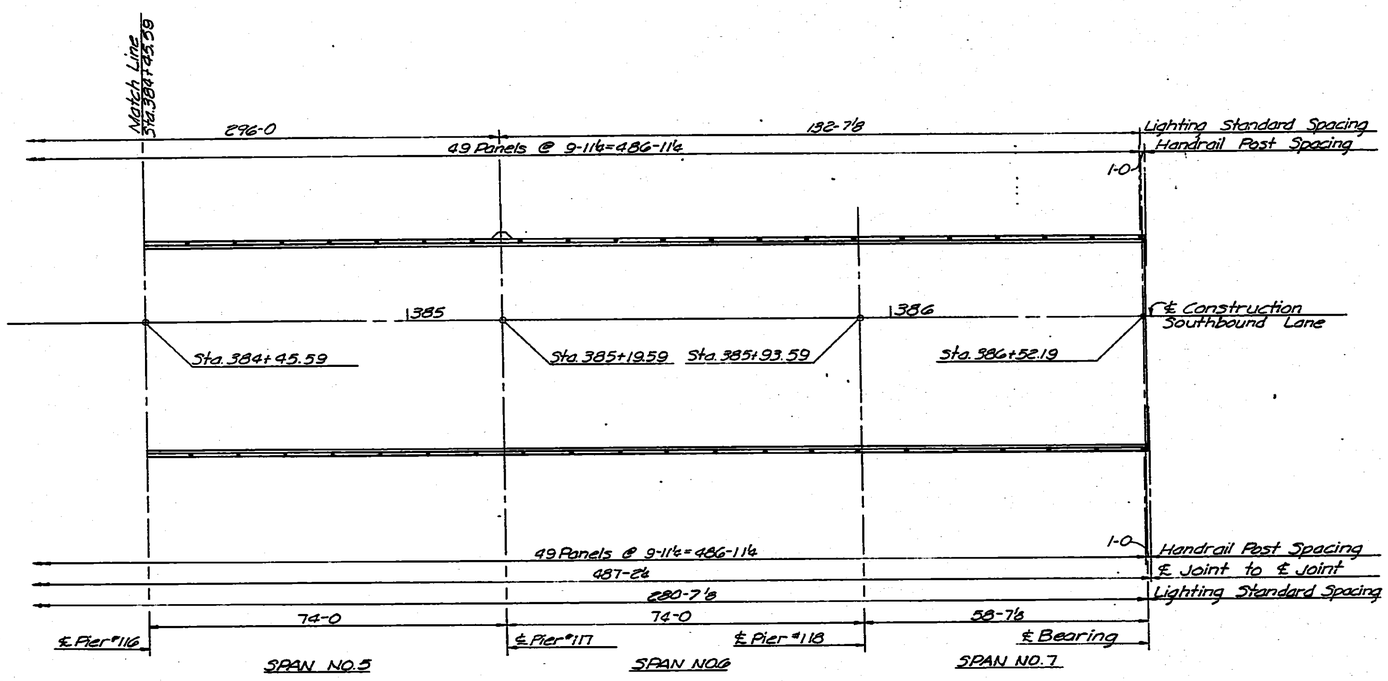
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1768	2137



ELEVATION OF HANDRAIL

(See "Bridge Handrail" Standard Details Sheet)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60

SUPERSTRUCTURE DETAILS — UNIT NO. 26S

S.B. I-35W VIADUCT

(BETWEEN 11TH & 13TH STREETS)

PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 8 OF 9	SCALE	APP'D.			
DESIGNED JWH	DRAWN RBS	QUANTITIES DET	TRACED KWK		
DESIGN CK. RBS	DETAIL CK. JMG	QUAN. CK. LKD	TRACE CK. RBS		

DIST. 5 SEDGWICK CO. ROLL 531

2 3 7

[redacted]

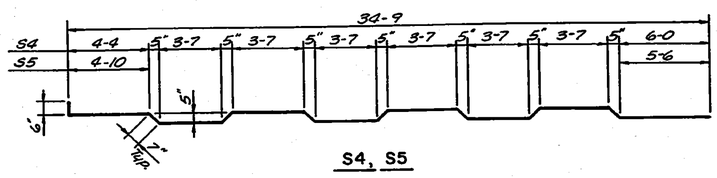
14X 16X 14.5X 12X 12X 14.5X 16X

BENDING DIAGRAMS

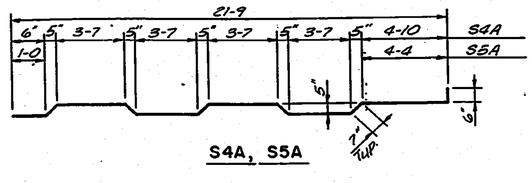
(Bar Dimensions are Out to Out.)

REV. PLANS 11-1-71

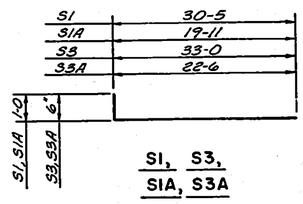
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1769	2137



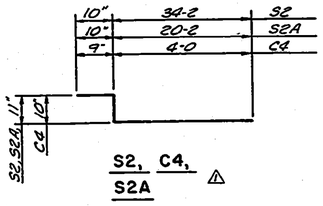
S4, S5



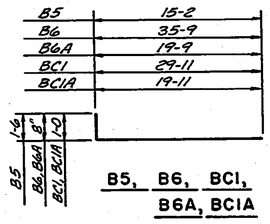
S4A, S5A



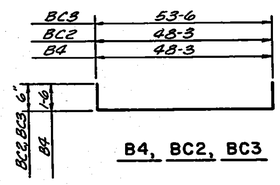
S1, S3, S1A, S3A



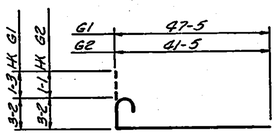
S2, C4, S2A ⚠



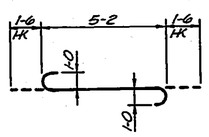
B5, B6, BC1, B6A, BC1A



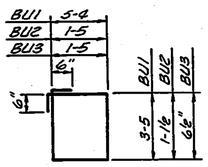
B4, BC2, BC3



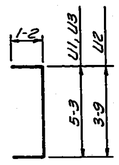
G1, G2



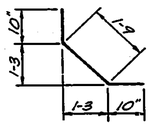
BC4



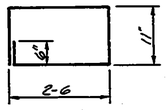
BU1, BU2, BU3



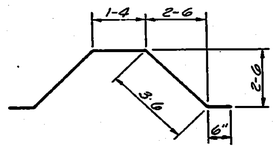
U1, U2, U3



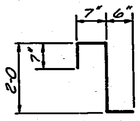
C1



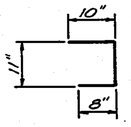
LB1



LB2



C2



C3

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length	STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
								B1 -	48	11	48-3				
				S1	526	5	31-5	B2	144	11	32-0				
				S1A	526	5	20-11	B3	24	6	48-3				
												B4	48	11	51-3
				S2	530	4	35-11					B5	96	11	16-8
				S2A	530	4	21-11					B6	96	6	36-5
												B6A	96	6	20-5
				S3	530	5	33-6								
				S3A	530	5	23-0								
S6	1322	4	39-0									BU1	672	5	18-6
S7	56	4	36-11	S4	264	5	36-5					BU2	120	4	6-1
S8	12	4	33-2	S4A	264	5	23-1					BU3	84	4	4-11
S8A	12	6	33-2												
S9	66	4	40-0	S5	259	5	36-5								
S9A	66	6	40-0	S5A	259	5	23-1					BC1	16	6	30-11
												BC1A	16	6	20-11
												BC2	8	8	49-3
				G1	14	9	51-10								
				G2	24	8	45-8					BC3	8	8	54-6
G3	72	9	47-3												
G3A	12	9	42-1												
G4	24	8	36-1									BC4	56	10	8-2
G5	48	8	26-0												
G6	294	7	24-0									C1	1160	4	3-5
G7	245	9	34-0									C2	1174	4	3-8
G8	120	8	42-0									C3	120	4	2-5
G9	120	8	30-0									C4	16	5	5-7
G10	58	5	36-8					C5	48	4	2-6				
G11	52	5	32-8												
G12	174	10	49-0	LB1	12	4	7-4					U1	5096	5	7-7
G13	156	10	36-0	LB2	9	4	9-9					U2	168	5	6-1
G14	156	11	28-0									U3	990	7	7-7
G15	144	11	16-0					WG1	28	8	36-2				
G16	130	5	61-0					WG2	154	8	40-0				
G17	145	5	29-0												
G18	48	10	17-6												

Note:
All bars shall be pre-fixed with the unit number when fabricated. Example: "G1 bars shall be marked G35G1.

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE		1711.1	Cu. Yds.
Reinforcing Steel	539.5 T	539,450	Lbs.
Cast Iron Scuppers			Lbs.
Wrought Iron Drains & Grates		6,595	Lbs.
8" ϕ Downspouts		341.84	Lin. Ft.
Gutters			Lin. Ft.
Bridge Handrail	974.10	973.88	Lin. Ft.
Structural Steel			
Bearing Devices (A36) 14@ 242 Lbs.		3388	Lbs.
Corner Plates & Cover Plates (A36)		496	Lbs.
Access Doors (A36) 12@ 130 Lbs.		1560	Lbs.
Linseed Oil Surface Treatment (Bridges)		2823.7	Sq. Yds.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
⚠ 1	11-1-71	Rev. Exp. Devices	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-5.99 STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 26S
S. & I-35W VIADUCT
(BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK - CO.

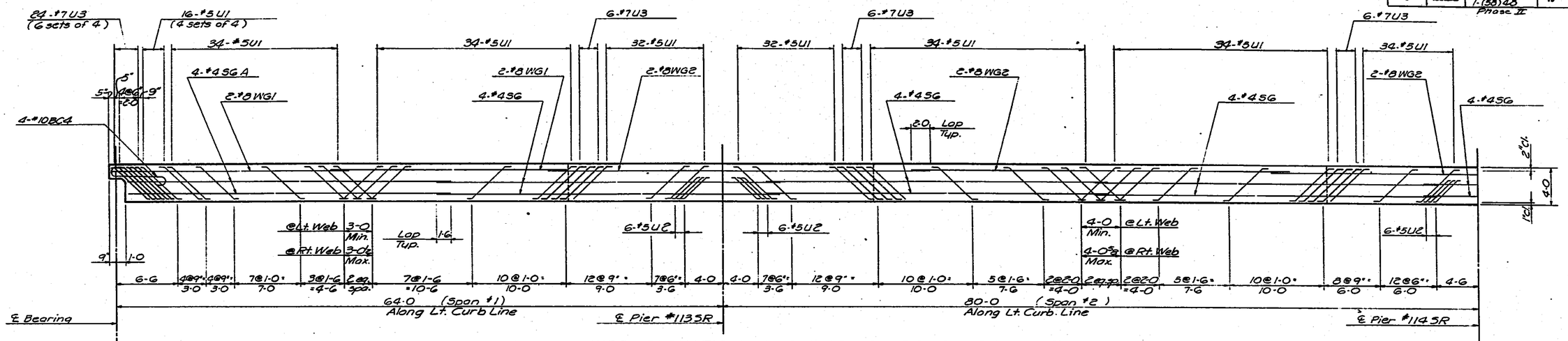
SHEET NO. 9 OF 9	SCALE	APP'D	
DESIGNED DFG	DETAILED LKD	QUANTITIES DDW	TRACED RFC
DESIGN CK. JMH	DETAIL CK. EES	QUAN. CK. CLW	TRACE CK. DFG

DIST. 5 SEDGWICK CO. ROLL 531

2 3 8

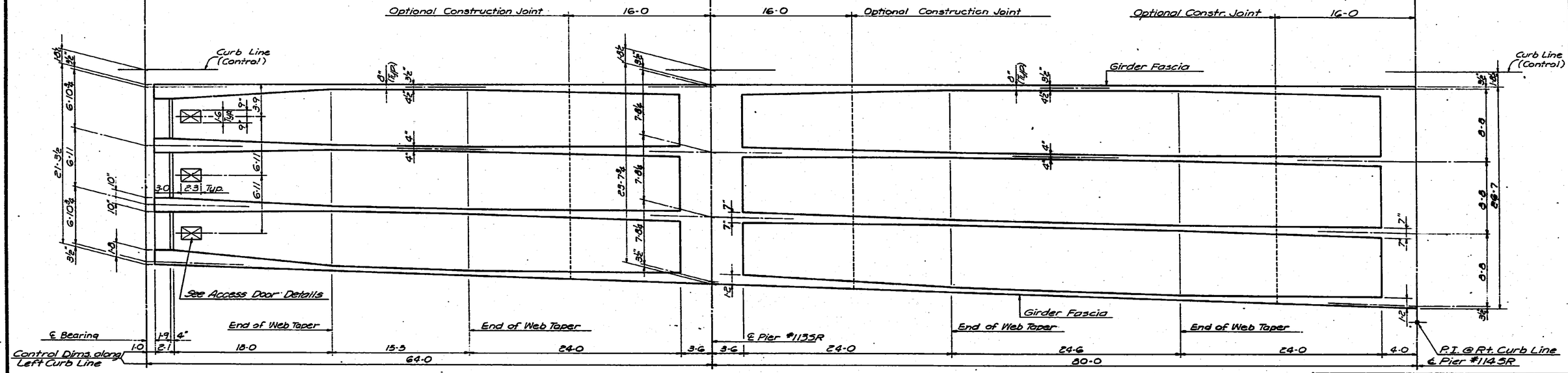
16X 14.5X 12X 16X 14.5X 12X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1-(58)48 Phase II	19	1770	2137



WEB ELEVATION SHOWING STIRRUP SPACING *

Stirrups placed in pairs each web, except as noted



WEB PLAN LAYOUT

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top and beneath bottom main reinforcing steel. See Roadway Deck Section.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 26SR
S.B. I-35W VIADUCT
(RAMP "O" BETWEEN 11TH & 18TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

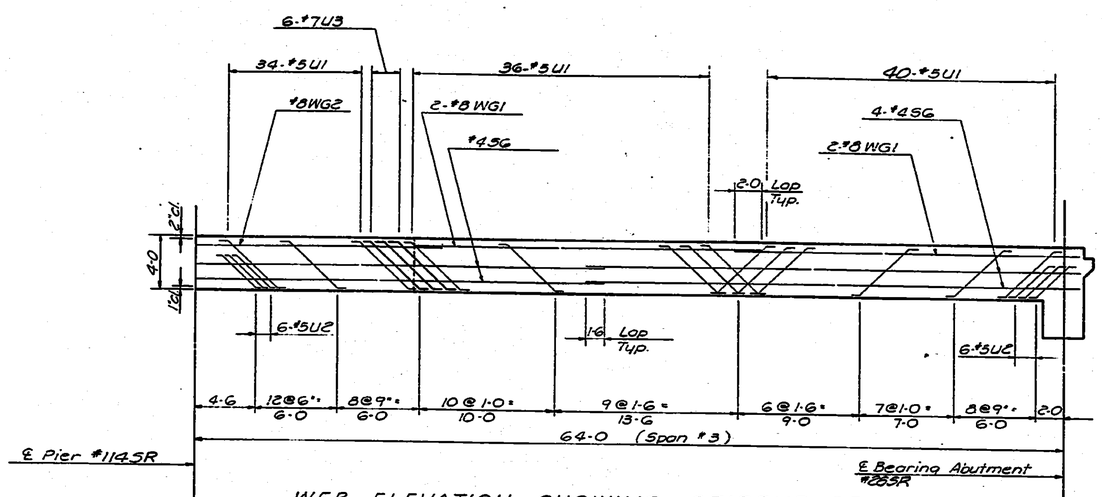
SHEET NO. 1 OF 13	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	QUANTITIES LKD	TRACED JMG
DESIGN CK. RBS	DETAIL CK. RBS	DRAWN CK. RBS	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

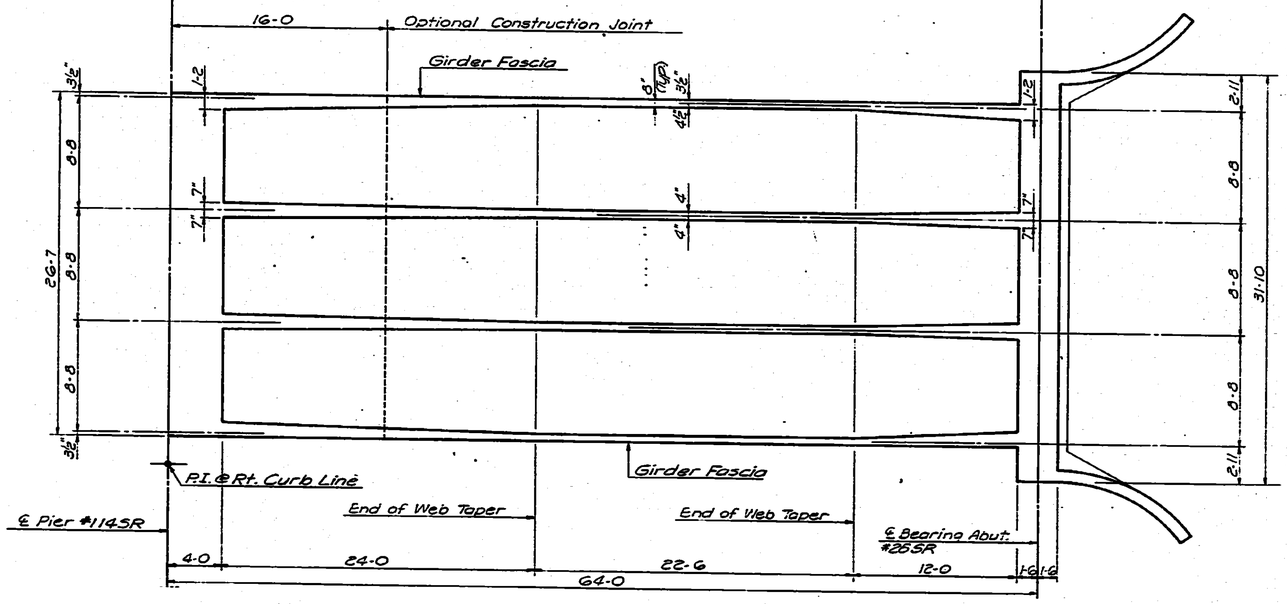
[redacted] 2 3 9

9X 16X 14.5X 12X 14.5X 16X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-T35W 1-(58)48 Phase II.	19	1771	2137



WEB ELEVATION SHOWING STIRRUP SPACING *
Stirrups placed in pairs each web, except as noted



WEB PLAN LAYOUT

* See note on previous sheet

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 26SR
S.B. I-35W VIADUCT
(RAMP "O" BETWEEN 11TH & 18TH STREETS)
PROJ. 35W-87-T35W-1(58)48 SEDGWICK CO.

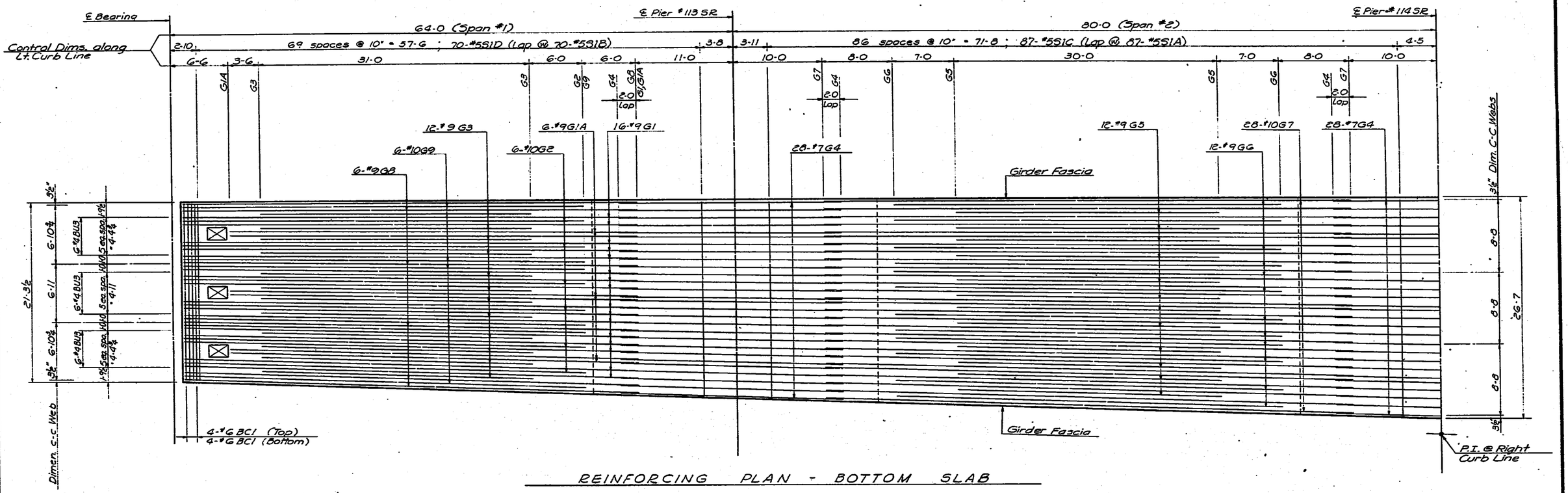
SHEET NO. 2 OF 13	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	QUANTITIES LKD	TRACED JMG
DESIGN CK. EBS	DETAIL CK. EBS	QUANT. CK. EBS	TRACE CK. EBS

DIST. 5 SEDGWICK CO. ROLL 531

2 4 0

9X | 16X | 14.5X | 12X | 12X | 14.5X | 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1-(58)48 Phase II	19	1772	2137



REINFORCING PLAN - BOTTOM SLAB

NOTE:
All bar marks shall be pre-fixed with the unit number when fabricated. Example: #901 bars shall be marked 26SR9G1.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 26SR
S.B. 1-35W VIADUCT
(RAMP "O" BETWEEN 11TH & 18TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 3 OF 13	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	CHECKED LKD	TRACED JMG
DESIGN CK. RBS	DETAIL CK. RBS	GRADE CK. RBS	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 4 1

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(58)48 Phase II	19	1713	2137

1.-#4S7 & 3.-#G57A (in Wall) 2.-#4S7 (in Curb)

1.-#4S7 & 3.-#G57A (in Wall) 2.-#4S7 (in Curb)

1.-#4S8 & 3.-#G58A (in Wall) 2.-#4S8 (in Curb)

1.-#4S8 & 3.-#G58A (in Wall) 2.-#4S8 (in Curb)

1.-#4S8 & 3.-#G58A (in Wall) 2.-#4S8 (in Curb)

1-G Lap Typ.

10" Wall Fascia

6½" ℄ Curb Line

℄ Lt. Curb 6½"
℄ Rt. Curb 7⅞"
9"

251 spaces @ 10" = 209-2 ; 252-#4C2

208-0 ℄ Bearing to ℄ Bearing Abutment (Along Lt. Curb Line)

REINFORCING PLAN OF LEFT CURB

Right Curb Reinforcing is Similar

℄ Bearing — 64-0 — ℄ Pier #113 SR — 80-0 — ℄ Pier #114 SR

Control Dims. along Lt. Curb Line

1-0 | 7" | 70 spaces @ 10" = 58-4 ; 142-#4C1 (Half ea. side)
140 spaces @ 5" = 58-4 ; 141-#6S2D (Lap @ 141-#5S2B) ; 141-#6S3D (Lap @ 141-#6S3B)

7" | 3-6 | 3-6 | 5" | 86 spaces @ 10" = 71-8 ; 174-#4C1 (Half Ea. Side)
172 spaces @ 5" = 71-8 ; 173-#5S2C (Lap @ 173-#5S2A) ; 173-#6S3C (Lap @ 173-#6S3A)

5" | 4-0 | 9"

34-0 | 10-0 | 7-0 | 5-0 | 8-0 | 8-0 | 5-0 | 7-0 | 10-0 | 20-0 | 10-0 | 7-0 | 5-0 | 8-0

G14 G15 G16 G17 G18 G19 G20 G21 G22

2" 8 Spa. @ 10" 2"
9-#4C3
5-#4C1

5-#6B11A | 7-#6B11 | 2-#6B11

20-#5G12 | 14-#5G13 | 20-#11G14 | 13-#10G15 | 2-#10G15A | 16-#10G16 | 13-#10G17 | 2-#10G15B | 14-#5G18 | 20-#5G19 | 20-#11G20 | 13-#11G21 | 2-#11G22 | 16-#11G16 | 13-#10G17

3 Spa. @ 10" 3"
10-#4C3
5-#4C1

3-#6B7
3-#6B7A

4-#8BC3 (Top)
4-#8BC2 (Bott)
8-#4C1 & 8-#5C4
(Half ea. side)

5-1 Reqd Constr. Joint in Webs.

Slab Fascia

Deck Drain (Typ.)

11EQ. 5-6 | 36" 52" | 36" 52" | 32" 52" | 6 @ 6" = 3-0 | 3"

11"

2-7½ | 3½" | 6-10¾ | 6-11 | 6-10¾ | 2-7½

9-#11 BUC2 Sec. 1 Leg. 1-3¾ | 9-#11 BUC2 Sec. 1 Leg. 1-3¾ | 9-#11 BUC2 Sec. 1 Leg. 1-3¾

21-3½

10

Curb Line

30-0

Curb Line

11"

(See Deck Reinf. Steel in Top of Top Slab. (See Section for Longit. bars in Bott. of Top Slab.)

Slab Fascia

2 Spa. @ 10" 2"
9-#4C3
9-#4C1

P.I. @ Rt. Curb Line

5" | 9 Spa. @ 10" | 5"
10-#4C3
10-#4C1

REINFORCING PLAN - TOP SLAB

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 26SR
S.B. I-35W VIADUCT
(RAMP "O" BETWEEN 11TH & 18TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

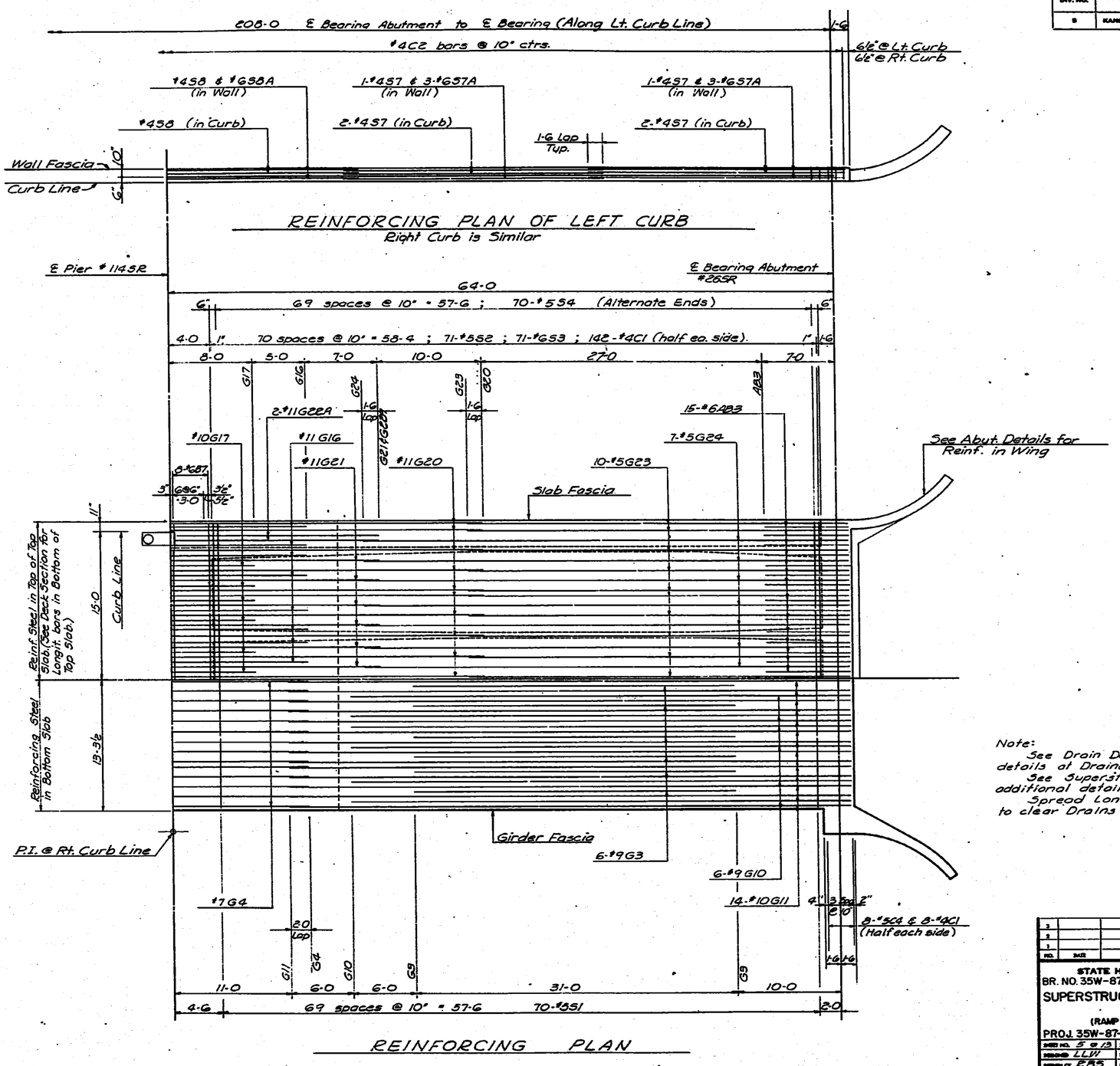
SHEET NO. 2 OF 13	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	CHECKED LKD	TRACED JMG
DESIGN CK. 285	DETAIL CK. 285	CHECK CK. 285	TRACE CK. 285

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 4 2

16X | 14.5X | 12X | 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(58)48 Phase II	19	1774	2137



REINFORCING PLAN

Note:
See Drain Detail sheet for additional details at Drainage Structures.
See Superstructure Pier Beams for additional details at Drainage Structures.
Spread Longitudinal Reinforcing Steel to clear Drains except as noted.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 26SR
S.B. I-35W VIADUCT
(RAMP 'D' BETWEEN 11TH & 18TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 5 OF 13 SHTS.	APP'D.		
DESIGNED LLW	DETAILED JMG	CHECKED LKD	TRACED JMG
DESIGN CK. RBS	DETAIL CK. RBS	COMP. CK. GES	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

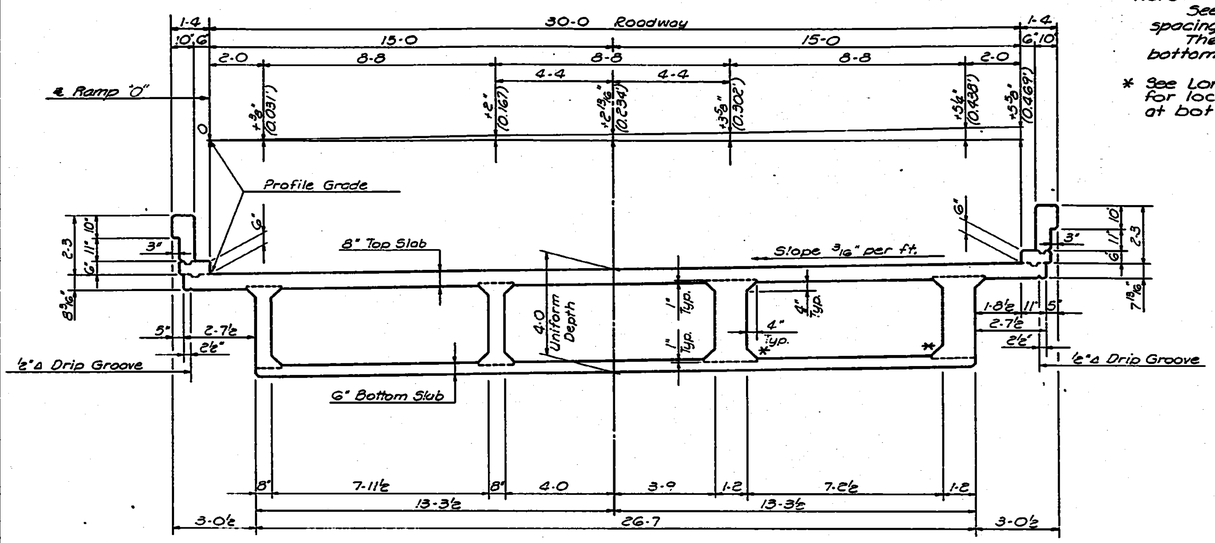
[redacted] 2 4 3

16X | 14.5X | 12X | 12X | 14.5X | 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEARS	SHEET NO.	TOTAL SHEETS
6	KANSAS	35W-87-135W 1-(58)48 Phase II	19	1775	2137

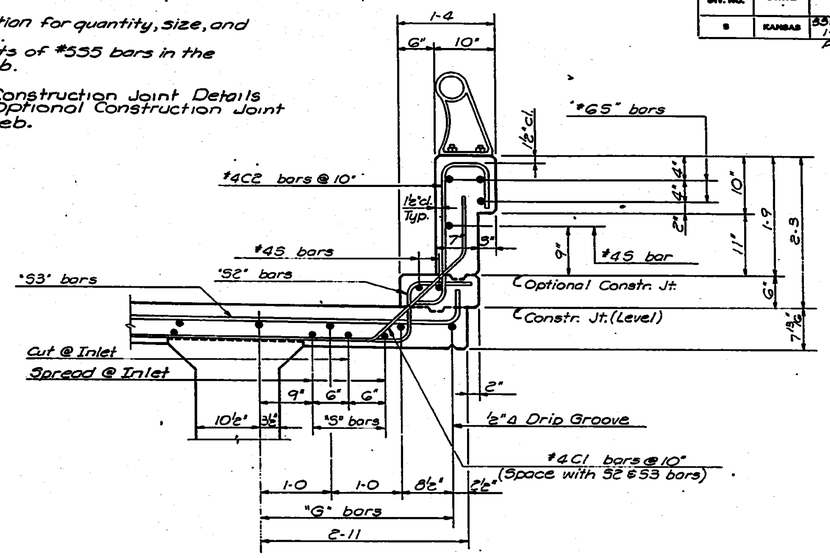
Note:
See Web Elevation for quantity, size, and spacing of "U" bars.
There are 6 sets of #5S5 bars in the bottom of Top Slab.

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.

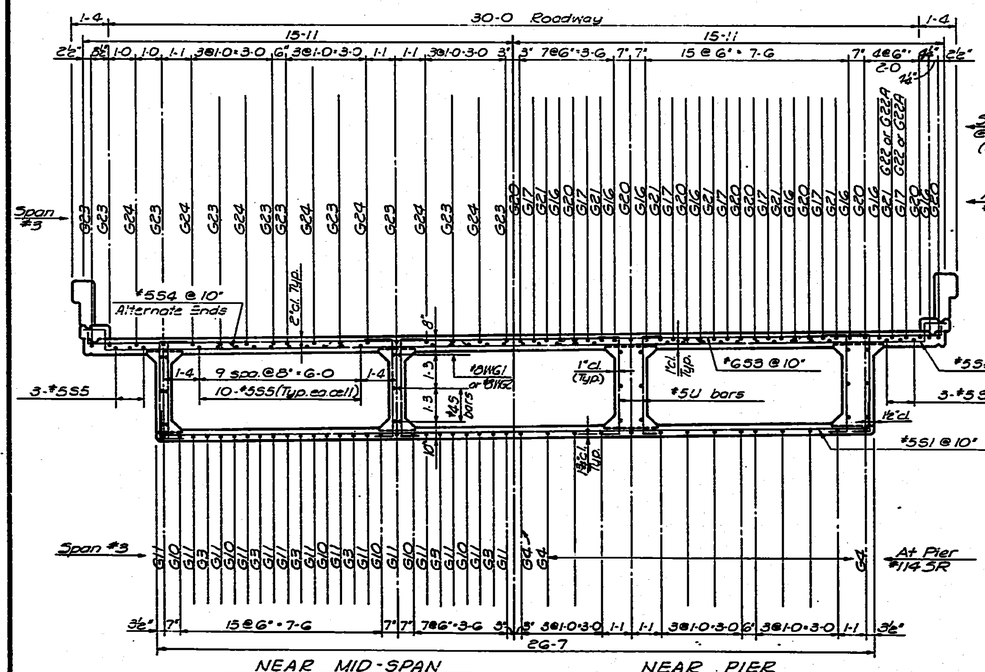


NEAR MID-SPAN NEAR PIER

ROADWAY DECK SECTION

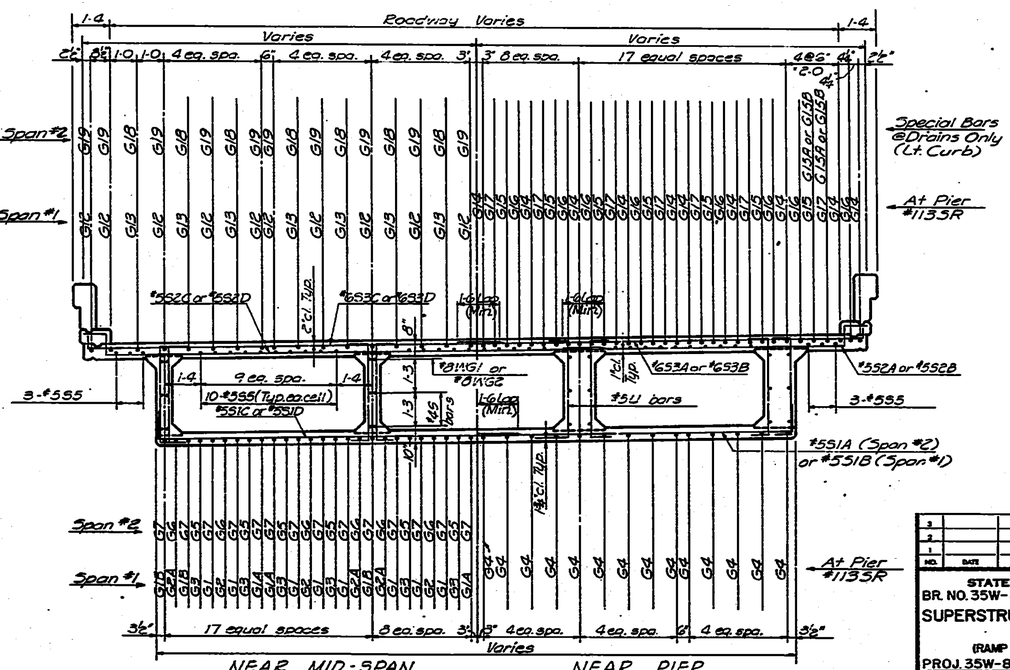


TYPICAL CURB SECTION



NEAR MID-SPAN NEAR PIER

ROADWAY DECK SECTION



NEAR MID-SPAN NEAR PIER

ROADWAY DECK SECTION
(Variable Roadway)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 26SR
S.B. I-35W VIADUCT
(RAMP "O" BETWEEN 11TH & 18TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

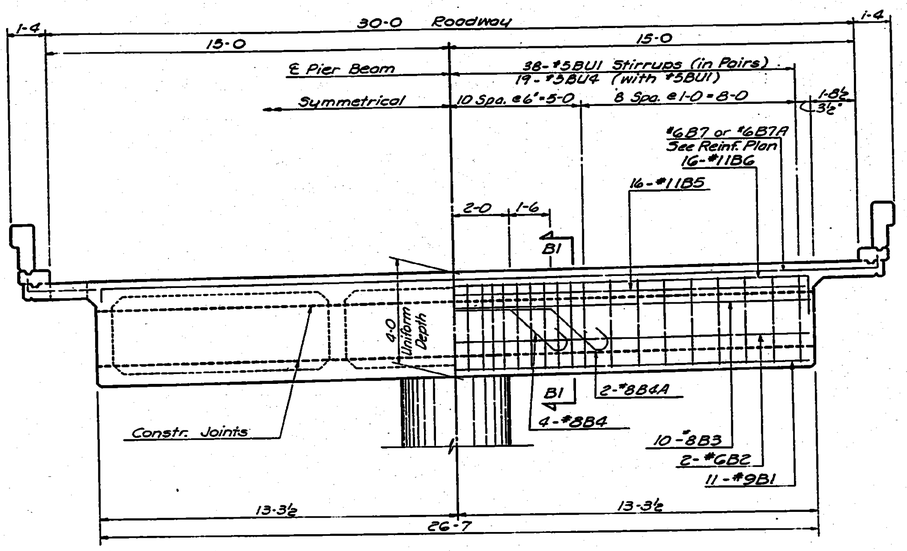
SHEET NO. 6 OF 15	SCALE	APPR.	
DESIGNED LLW	DETAILED JMG	QUANTITIES LKD	TRACED JMG
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. EES	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

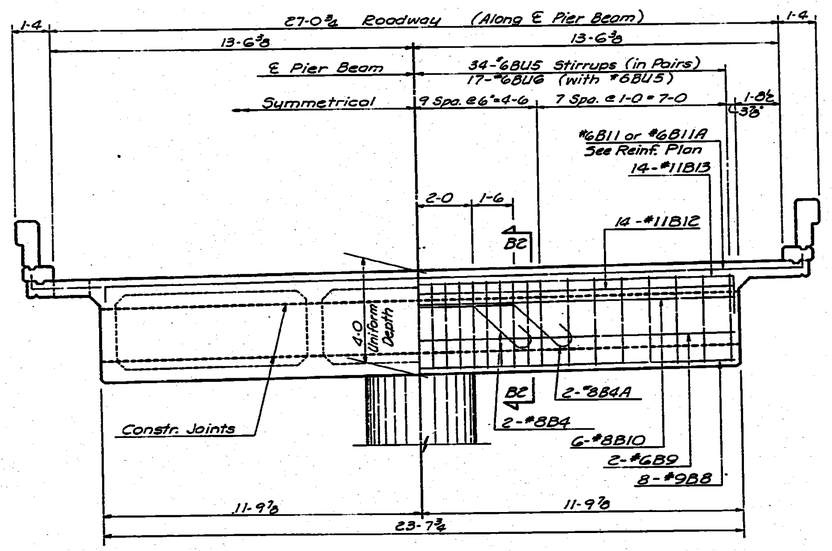
2 4 4

16X 16X 14.5X 12X 12X 14.5X 16X

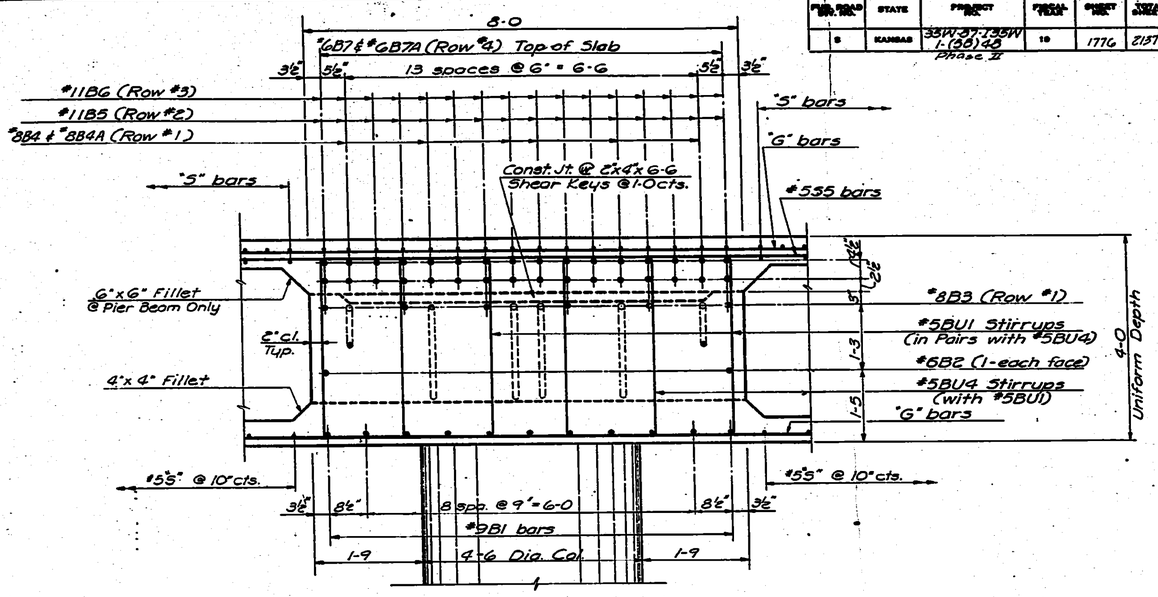
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1776	2187



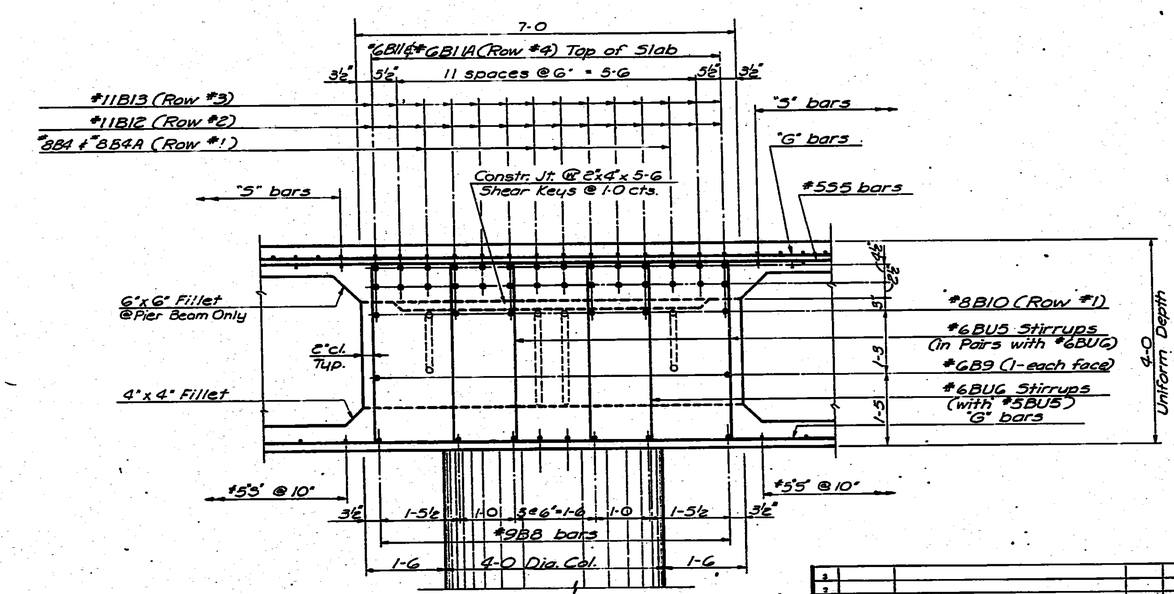
SUPERSTRUCTURE PIER BEAM
(Pier #1145R)



SUPERSTRUCTURE PIER BEAM
(Pier #1135R)



SECTION B1 - B1



SECTION B2 - B2

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 26SR
S.B. I-35W VIADUCT
(RAMP "O" BETWEEN 11TH & 18TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

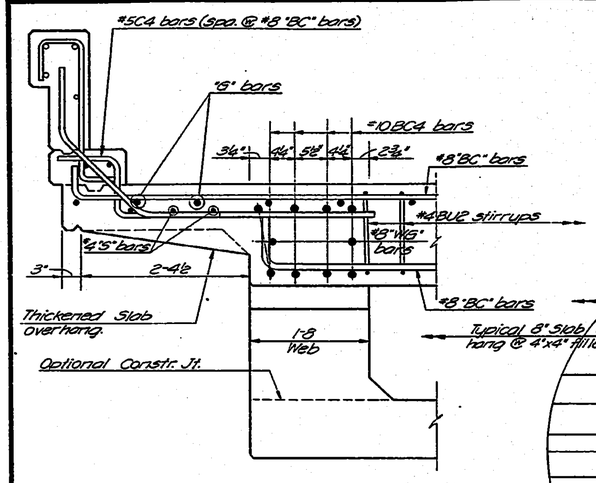
SHEET NO. 7 OF 13	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	CHECKED LKD	TRACED JMG
DESIGN CK. ZBS	DETAIL CK. ZBS	STRUC. CK. ZBS	TRACE CK. ZBS

DIST. 5 SEDGWICK CO. ROLL 531

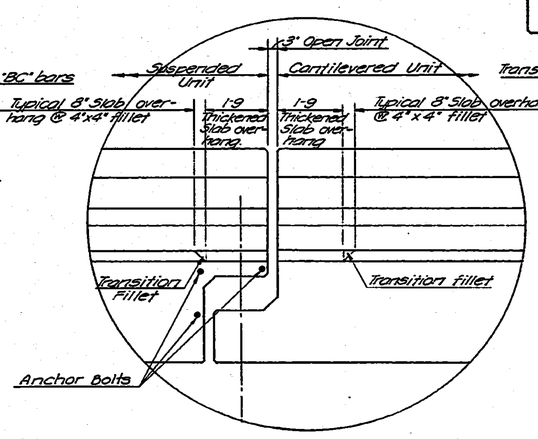
[redacted] 2 4 5

16X 14.5X 12X 12X 14.5X 16X

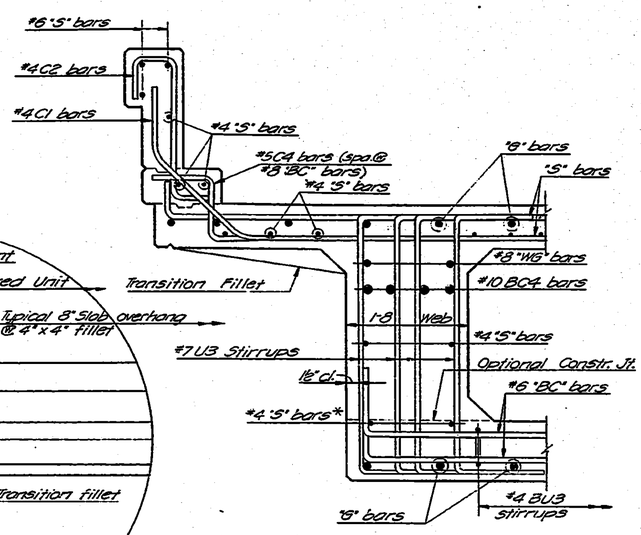
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (I-(58)48 Phase II	19	1777	2157



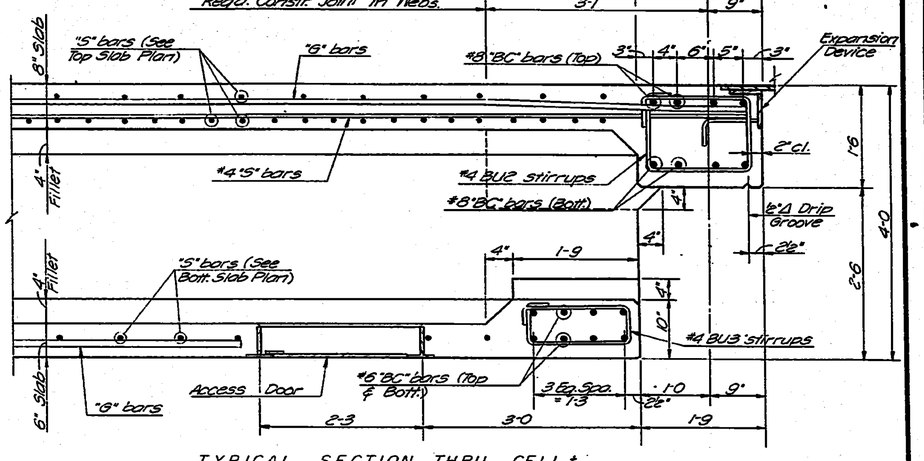
SECTION C2-C2
(Exterior Web)



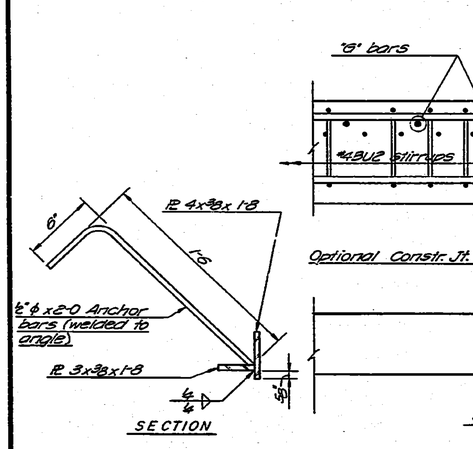
VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)



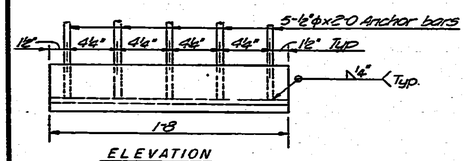
SECTION C1-C1
(Exterior Web)



TYPICAL SECTION THRU CELL *



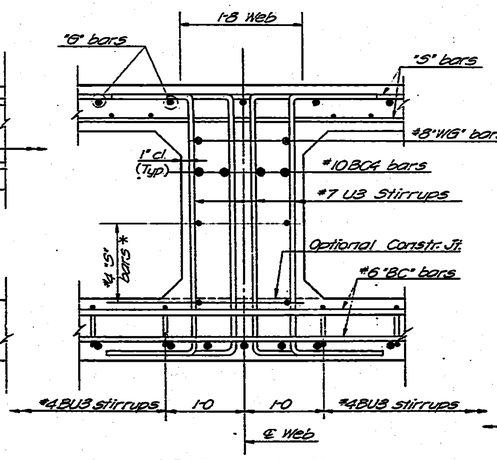
SECTION



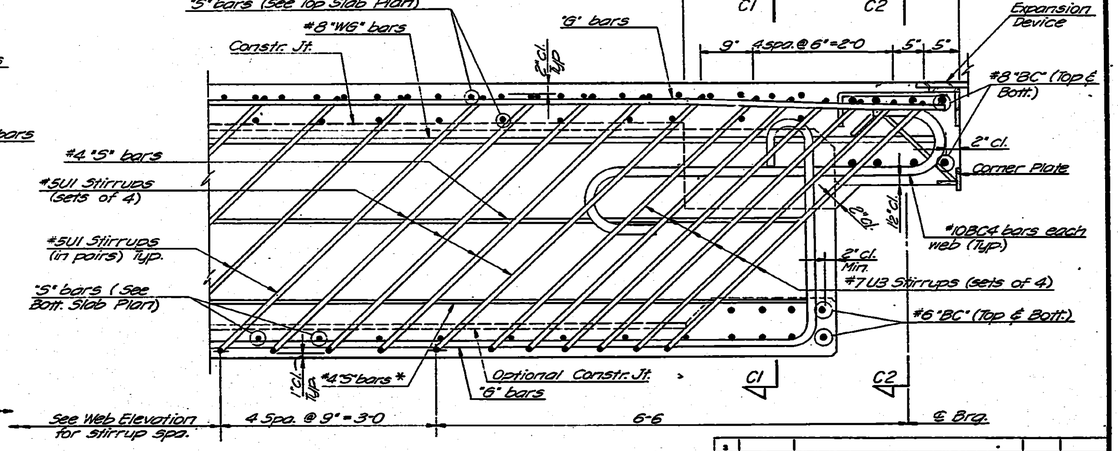
ELEVATION

CORNER PLATE DETAILS
Computed weight of one assembly is 22#

SECTION C2-C2
(Interior Web)



SECTION C1-C1
(Interior Web)



TYPICAL SECTION THRU WEB *

BEARING BEAM DETAILS

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

* See Web Elevation Sheet for Span #3 of Abutment.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 26SR
S.B. I-35W VIADUCT
(RAMP "O" BETWEEN 11TH & 18TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 5 OF 13	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	CHECKED LKD	TRACED DS
DESIGN CK. RBS	DETAIL CK. RBS	GEN. CK. DGT	TRACE CK. RBS

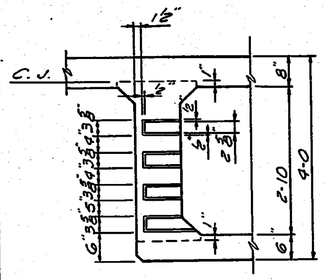
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

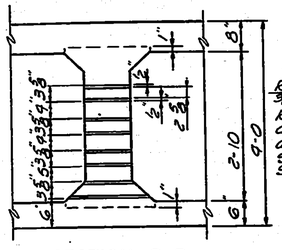
2 4 6

14X 16X 14.5X 12X 12X 14.5X 16X

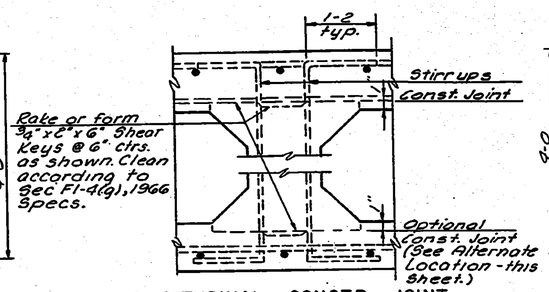
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -(58)48 Phase II	19	1770	2157



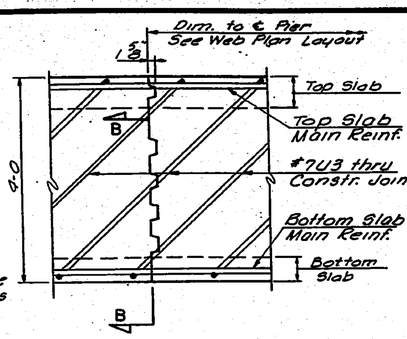
SECTION B-B
(Through Exterior Web)



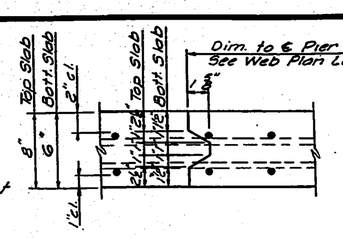
SECTION B-B
(Through Interior Web)



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

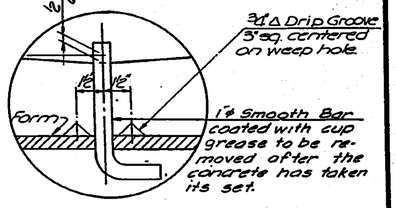


WEB CONSTR. JOINT
(Showing Placement of #7U3 bars)



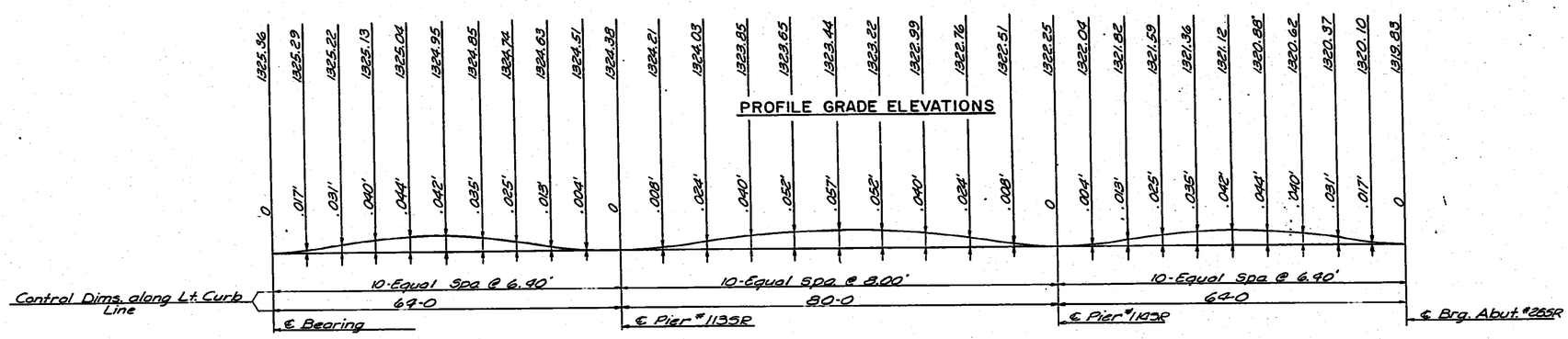
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Weep holes shall be included in the unit price bid for Class AAA Concrete AE.



DETAIL OF WEEP HOLES

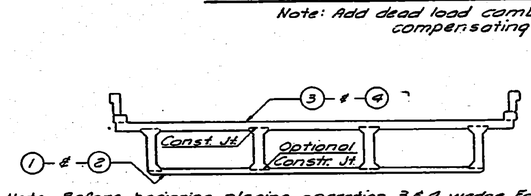
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



DEAD LOAD CAMBER IN FEET

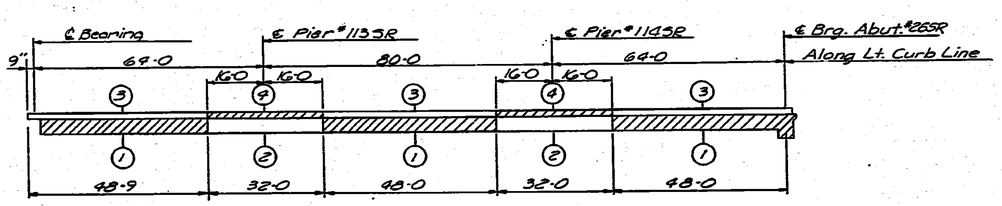
DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS ON CURB LINE

Note: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections E_c = 1,000,000 p.s.i.



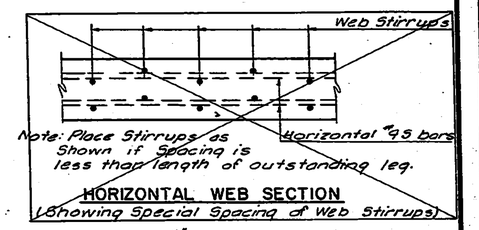
Note: Before beginning placing operation 3 & 4 wedge forms up to original elevations (Section FI-9, 1966 Spec.)

CROSS SECTION OF SUPERSTRUCTURE

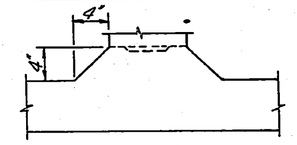


CONCRETE PLACING SEQUENCE

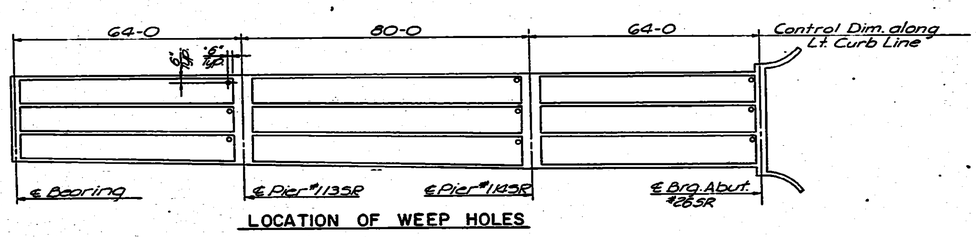
To be used when long-span steel beams are used for falsework



HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)



ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer)



LOCATION OF WEEP HOLES

NOTES:

See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 26 SR.
S. B. I-35W VIADUCT
(RAMP "O" BETWEEN 11TH & 18TH STREETS)
PROJ. 35W-87-135W-(58)48 SEDGWICK CO.

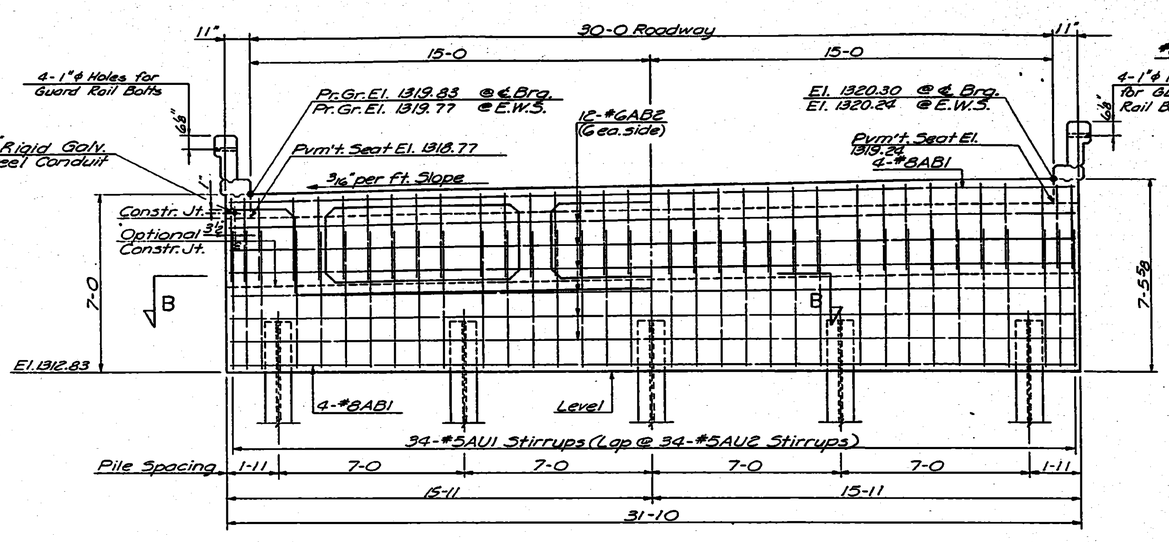
SHEET NO. 7 OF 13	SCALE		APP'D.		
DESIGNED DPG	DETAILED RAW		QUANTITIES LKD	TRACED DGT	
DESIGN CK. RBS	DETAIL CK. RBS		GRAM. CK. EES	TRACE CK. RBS	

DIST. 5 SEDGWICK CO. ROLL 531

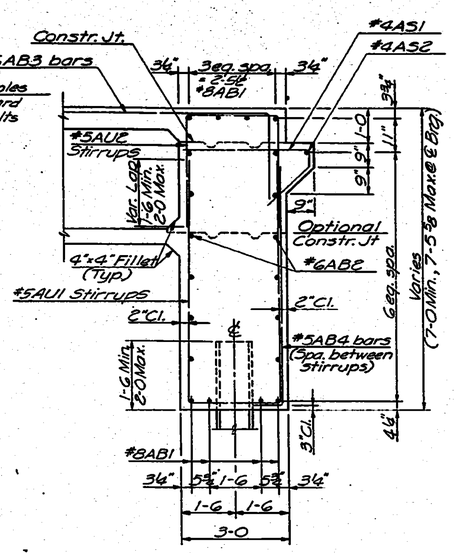
[redacted] 2 4 7

16X 16X 14.5X 12X 12X 14.5X 16X

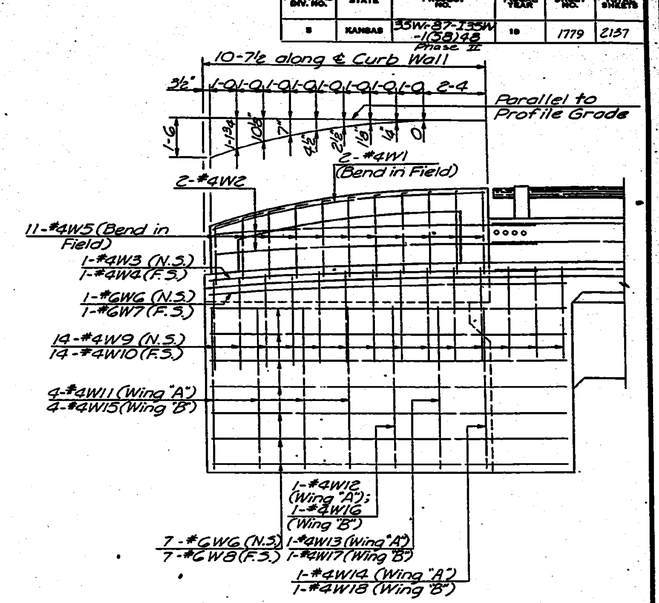
FED. ROAD PROJ. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase 2	19	1779	2137



ELEVATION OF ABUTMENT



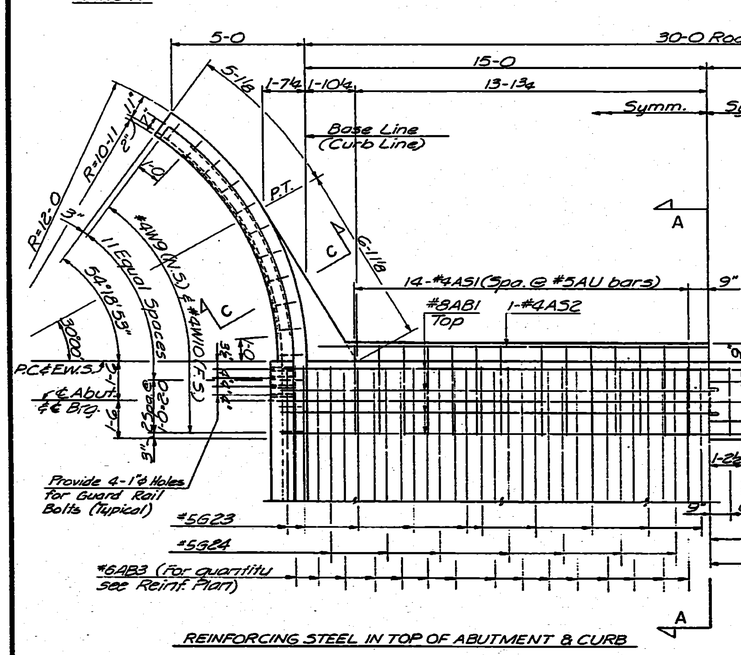
SECTION A-A



DEVELOPED VIEW OF WING
Wing "A" Shown; Wing "B" Similar

Note:
Design Pile Load = 40.9 Tons per Pile
Group I Loading (No Impact)

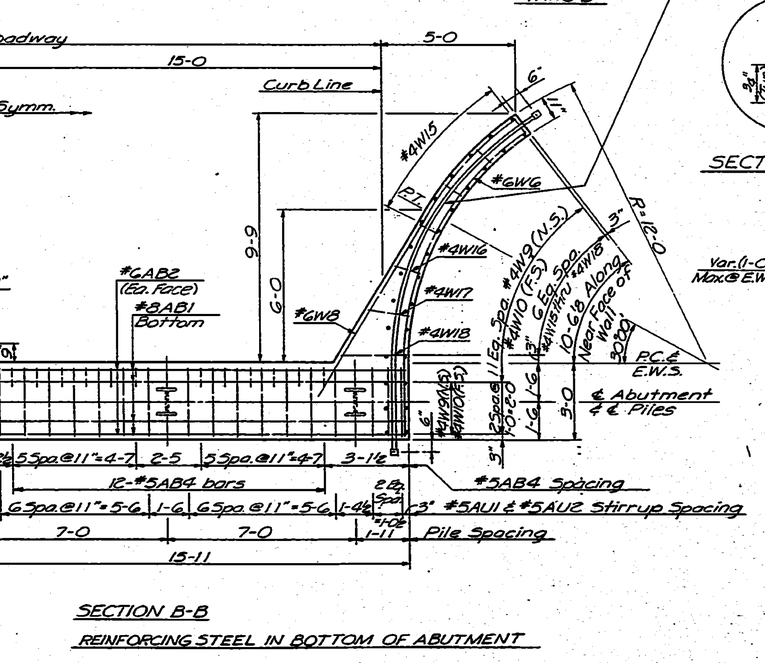
WING "A"



REINFORCING STEEL IN TOP OF ABUTMENT & CURB

SECTION B-B
REINFORCING STEEL IN BOTTOM OF ABUTMENT

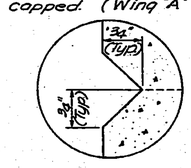
WING "B"



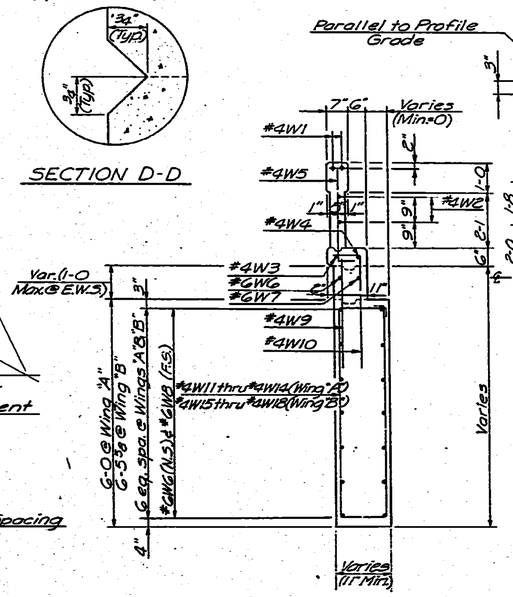
SECTION B-B
REINFORCING STEEL IN BOTTOM OF ABUTMENT

PLAN OF ABUTMENT

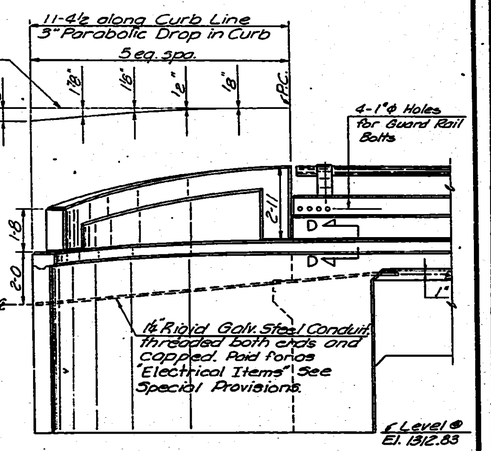
Note: All Piles shall be 10BP42 Steel Piles



SECTION D-D



SECTION C-C
(Wing "A" shown; Wing "B" similar)



WING ELEVATION
Wing "A" Shown; Wing "B" Similar

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
ABUTMENT DETAILS - UNIT NO. 26SR
I-35W VIADUCT
(RAMP "O" BETWEEN 11TH & 18TH STREETS)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 10 OF 18	SCALE		APP'D.		
DESIGNED DFG	DETAILED RCP		QUANTITIES LKD	TRACED RCP	
CHECKED RBS	DETAIL CK. RBS		GRAND CK. EES	TRACE CK. TB	

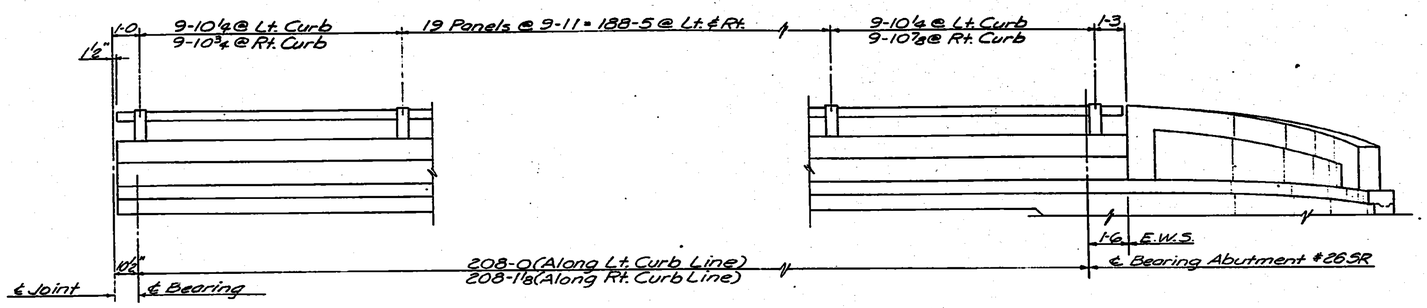
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

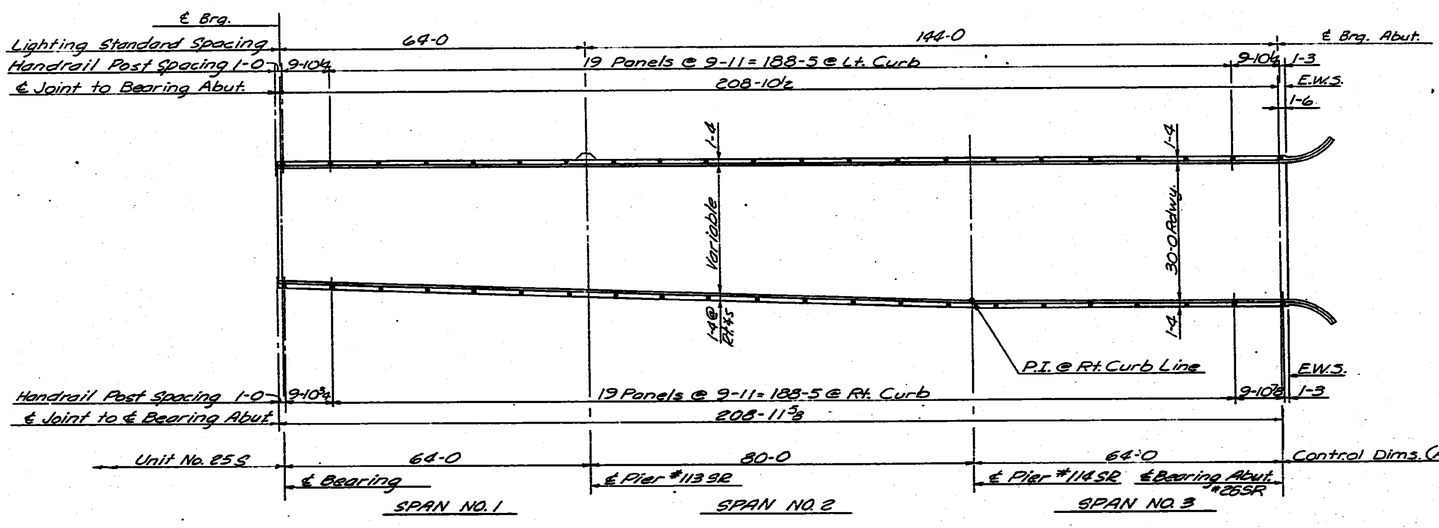
2 4 8

16X 16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase II	19	1780	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 26 SR.
S.B. I-35W VIADUCT
(RAMP "O" BETWEEN 11TH & 18TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 11 OF 13 SHEETS		APP'D.	
DESIGNED JWH	DETAILED RBS	QUANTITIES LKD	TRACED ORB
DESIGN CK. RBS	DETAIL CK. DS	QUAN. CK. RBS	TRACE CK. DS

DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted] 2 4 9

9X | 16X | 14.5X | 12X | 12X | 14.5X | 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W I-(58)48 PROJ. H	19	1781	2137

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	70	5	28-3
				S1A	87	5	*
				S1B	70	5	*
				S1C	87	5	15-0
				S1D	70	5	14-0
				S2	71	5	33-9
				S2A	173	5	*
				S2B	141	5	*
				S2C	173	5	20-9
				S2D	141	5	18-9
				S3	71	6	32-6
				S3A	173	6	*
				S3B	141	6	*
				S3C	173	6	16-6
				S3D	141	5	15-0
				S4	70	6	33-6
S5	216	5	36-3				
S6	80	4	40-0				
S6A	16	4	15-8				
S7	24	4	24-9				
S7A	24	6	24-9				
S8	18	4	40-0				
S8A	18	6	40-0				
G1	16	9	51-10				
G1A	6	9	46-6				
G2	6	10	45-10				
G3	24	9	31-0				
G4	56	7	25-0				
G5	12	9	30-0				
G6	12	9	44-0				
G7	28	10	60-0				
				G8	6	9	56-3
				G9	6	10	50-8
G10	12	9	48-3				
G11	28	10	54-3				
G12	20	5	35-1				
G13	14	5	46-1	LB1	4	4	7-4
G14	20	11	60-0	LB2	3	4	9-4
G15	13	10	40-0				
G15A	2	10	17-0				
G15B	2	10	19-6				
G16	32	11	25-0				
G17	26	10	18-0				
G18	14	5	43-0				
G19	20	5	23-0				
G20	20	11	60-0				

*See Bending Diagrams

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
G21	13	11	40-0				
G22	2	11	17-0				
G23	20	5	36-9				
G24	14	5	48-9				
G22A	2	11	19-6				
B1	11	9	26-3				
B2	2	6	26-3				
B3	10	8	26-3				
				B4	6	8	11-6
B5	16	11	26-0	B4A	4	8	14-6
				B6	16	11	29-3
				B7	11	6	32-6
B8	8	9	23-4	B7A	5	6	29-10
B9	2	6	23-4				
B10	6	8	23-4				
				B11	9	6	29-7
B12	14	11	23-0	B11A	5	6	26-11
				B13	14	11	26-4
				BU1	74	5	14-4
				BU2	27	4	6-1
				BU3	18	4	4-11
				BU4	37	5	17-6
				BU5	66	6	13-4
				BU6	33	6	15-6
				BC1	8	6	23-0
				BC2	4	8	22-0
				BC3	4	8	27-3
				BC4	16	10	8-2
				C1	503	4	3-5
				C2	504	4	3-8
				C3	38	4	2-5
				C4	16	5	5-7
C5	8	4	2-6				
				U1	1440	5	7-7
				U2	120	5	6-1
				U3	192	7	7-7

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
WG1	32	8	25-6				
WG2	24	8	40-0				
AB1	8	8	31-6				
AB2	12	6	31-6				
				AB3	30	6	10-6
				AB4	24	5	7-3
				AS1	28	4	5-6
AS2	1	4	29-0				
				AU1	34	5	13-3
				AU2	34	5	9-1
				W1	4	4	10-2
				W2	4	4	11-11
				W3	2	4	12-3
				W4	2	4	12-10
				W5	22	4	3-7
				W6	16	6	13-3
				W7	2	6	13-9
				W8	14	6	13-0
W9	28	4	3-3				
				W10	28	4	4-0
				W11	4	4	13-6
				W12	1	4	14-0
				W13	1	4	15-0
				W14	1	4	17-0
				W15	4	4	14-6
				W16	1	4	15-0
				W17	1	4	16-0
				W18	1	4	18-0

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length

Note:
All bar marks shall be pre-fixed with the unit number when fabricated. Example: #WG1 bars shall be marked 26SR WG1.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING, REINF. & QUAN.- UNIT NO. 26SR
S.B. I-35W VIADUCT
(RAMP "O" BETWEEN 11TH & 18TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 12 OF 13	SCALE ---	APP'D.	
DESIGNED DFG	DETAILED JMG	QUANTITIES LKD	TRACED DS
DESIGN CK. RBS	DETAIL CK. RBS	GRAL. CK. EES	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 5 0

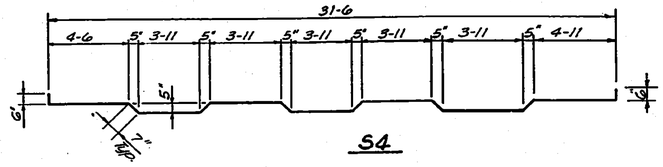
16X 14.5X 12X 12X 14.5X 16X 20X

BENDING DIAGRAMS

Bar Dimensions are Out to Out

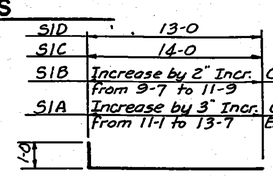
REV. PLANS 11-1-71

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	19	1782	2137

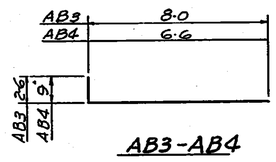


S4

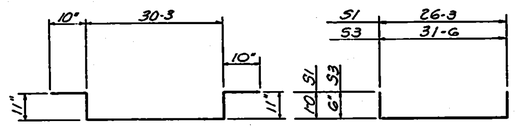
S1D	13-0	
S1C	14-0	
S1B	Increase by 2" Incr. from 9-7 to 11-9	Cut 5 Ea. Length
S1A	Increase by 3" Incr. from 11-1 to 13-7	Cut 8 Ea. Length Except Cut 7 @ 11-1



S1A-S1B-S1C-S1D

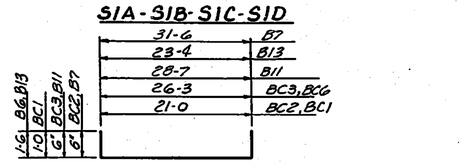


AB3-AB4

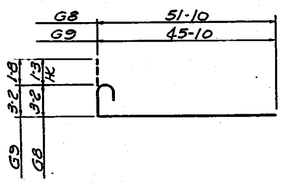


S2

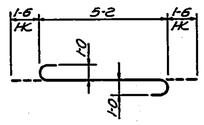
S1 - S3



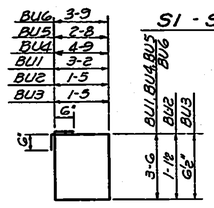
B6-BC1-BC2-BC3-B13
B7-B11



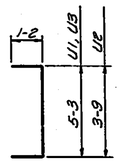
G8-G9



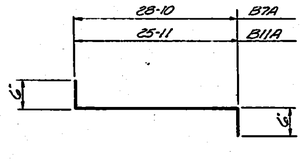
BC4



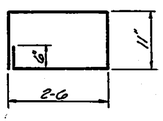
BU1-BU2-BU3
BU4-BU5-BU6



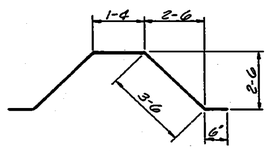
U1 - U2 - U3



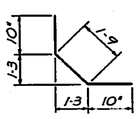
B7A - B11A



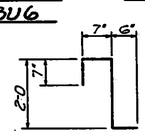
LB1



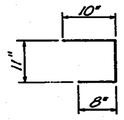
LB2



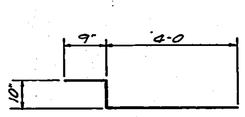
C1



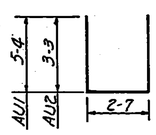
C2



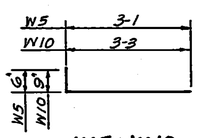
C3



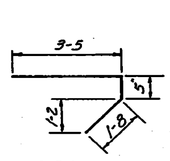
C4 ⚠



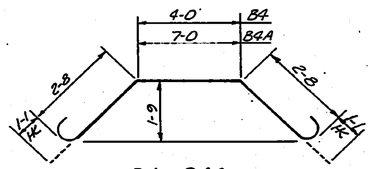
AU1-AU2



W5-W10

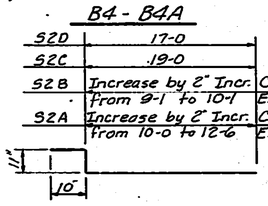


AS1



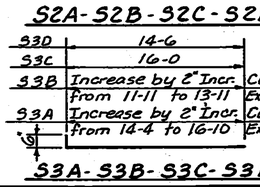
B4 - B4A

S2D	17-0	
S2C	19-0	
S2B	Increase by 2" Incr. from 9-1 to 10-7	Cut 11 Ea. Length. Except Cut 9 @ 9-7
S2A	Increase by 2" Incr. from 10-0 to 12-6	Cut 11 Ea. Length. Except Cut 8 @ 10-0

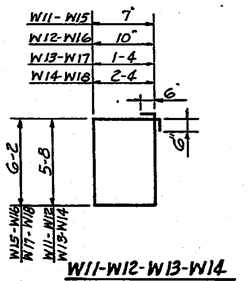


S2A-S2B-S2C-S2D

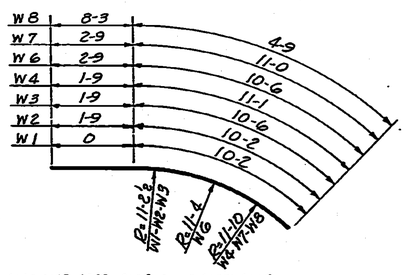
S3D	14-6	
S3C	16-0	
S3B	Increase by 2" Incr. from 11-11 to 13-11	Cut 11 Ea. Length Except Cut 9 @ 11-11
S3A	Increase by 2" Incr. from 14-4 to 16-10	Cut 11 Ea. Length Except Cut 8 @ 14-4



S3A-S3B-S3C-S3D



W11-W12-W13-W14
W15-W16-W17-W18



W1-W2-W3-W4-W6-W7-W8

SUMMARY OF QUANTITIES

Class III Excavation	49.0' -48-	Cu. Yds.
Class AAA Concrete AE	426.7'	Cu. Yds.
Reinforcing Steel	158,200'	Lbs.
Wrought Iron Drains & Grates	4,099	Lbs.
8" ϕ Downspouts	6230'	Lin. Ft.
Bridge Handrail	416.42' -416.34-	Lin. Ft.
Structural Steel		
Bearing Devices (A36) 4@242 Lbs	968	Lbs.
Corner Plates & Cover Plates (A36)	182	Lbs.
Access Doors (A36) 3@130 Lbs	390	Lbs.
10BP42 Steel Piles 5@54'	270'	Lin. Ft.
Reinforced Concrete Riprap (4")	1.5' -495-	Sq. Yds.
Linseed Oil Surface Treatment (Bridges)	658.3'	Sq. Yds.

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

NO.	DATE	REVISIONS	BY	APP'D.
1	11-1-71	Rev. Exp. Devices	VAS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 26SR
S.B. I-35W VIADUCT
(RAMP "D" BETWEEN 11TH & 18TH STREETS)
PROJ. 35W-87-135W-I(58)48 SEDGWICK CO.

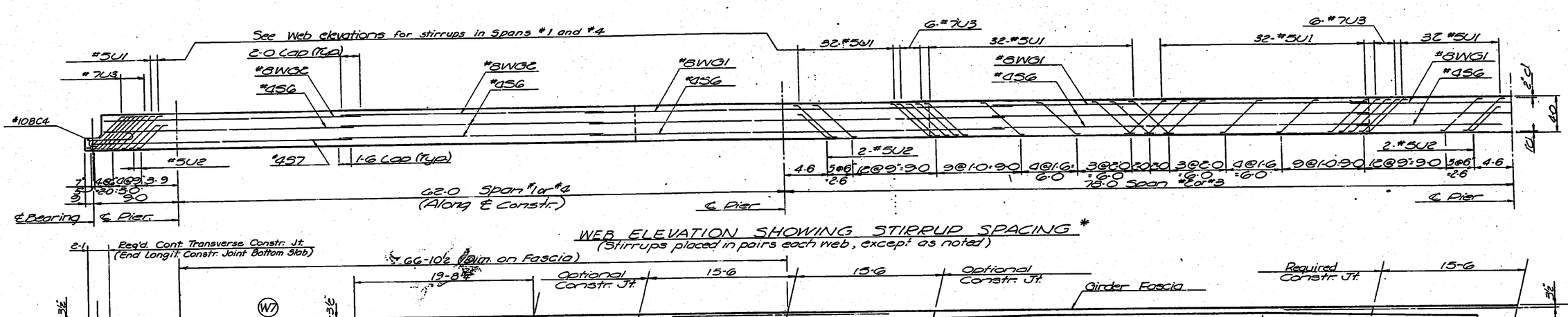
SHEET NO. 13 OF 19	SCALE	APP'D.	
DESIGNED DFS	DRAWN JMG	CHECKED LKD	TRACED JMG
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. EDS	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

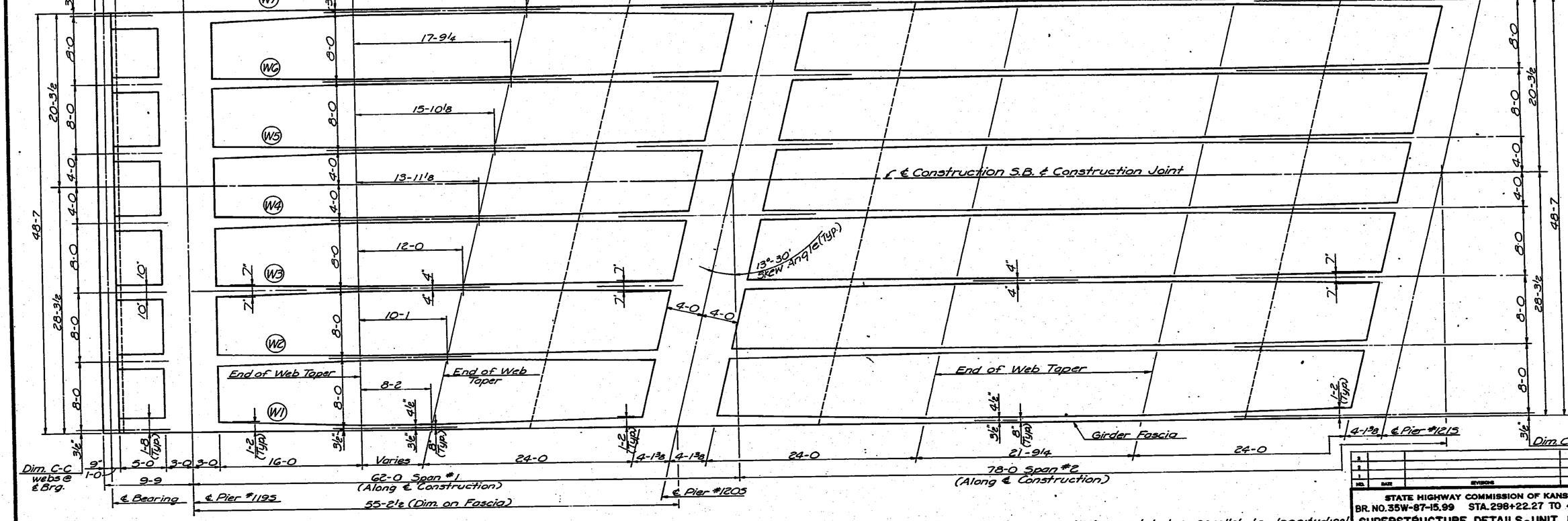
2 5 1

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1783	2137



WEB ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web, except as noted)



WEB PLAN LAYOUT

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top & beneath bottom main reinforcing steel. See Roadway Deck Section.

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 27S
S.B. I-35W VIADUCT
(OVER 13TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

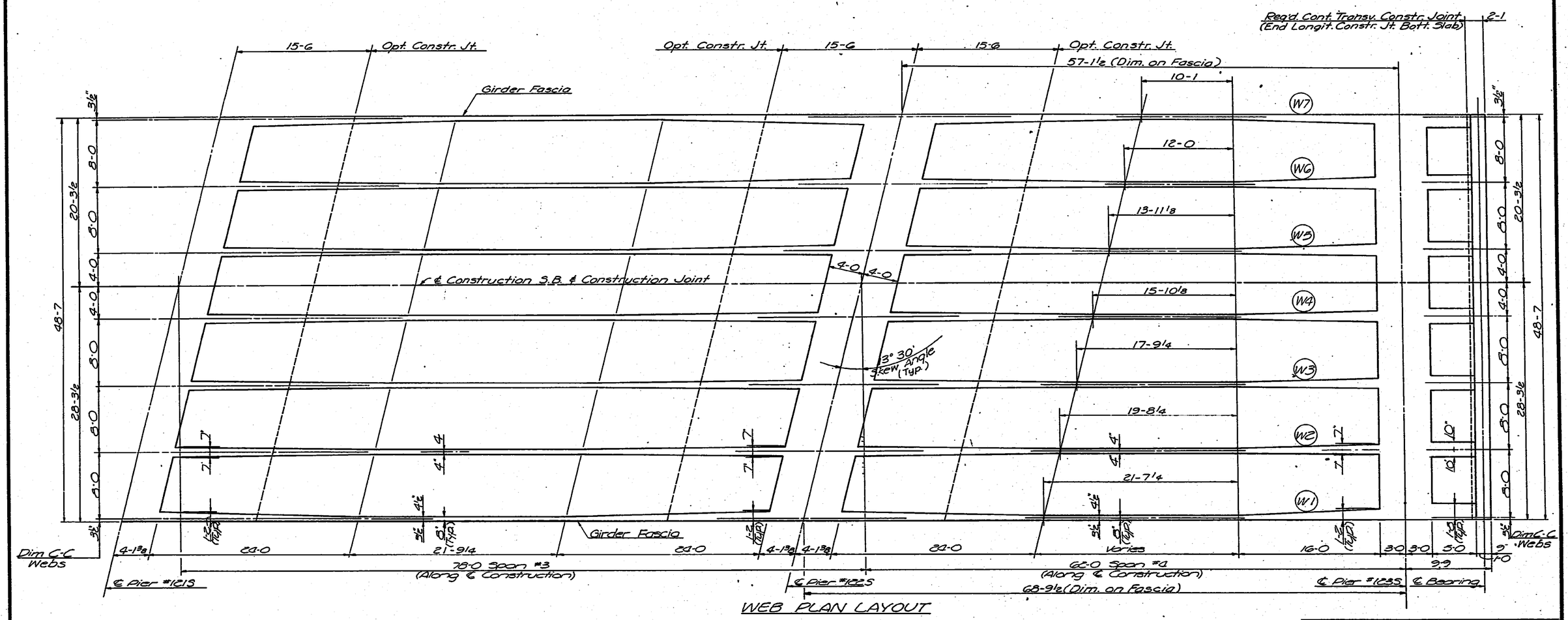
SHEET NO. 1 OF 16	SCALE	APPD.	
DESIGNED DFG	DETAILED GAB	CHECKED LKD	TRACED DBB
DESIGN CK. RBS	DETAIL CK. JMG	CHIEF CK. DBT/RCP	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 5 2

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1 (58) 48 Phase II	19	1784	2137



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 27S
S.B. I-35W VIADUCT
(OVER 13TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

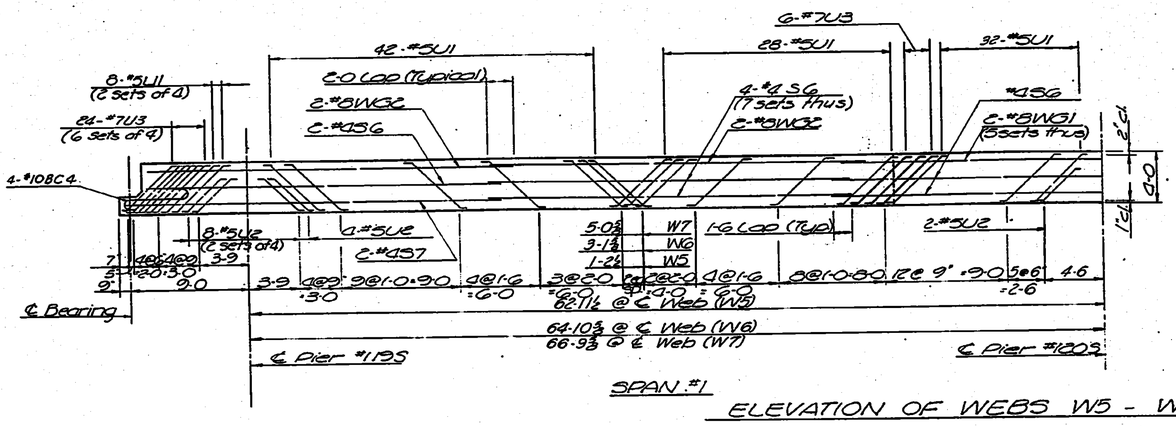
SHEET NO.	SCALE	APP'D.	
DESIGNED OFG	DETAILED GAB	CHECKED LKD	TRACED DRA
DESIGN CK. RAS	DETAIL CK. JMG	QUANT. CK. DST/ECP	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

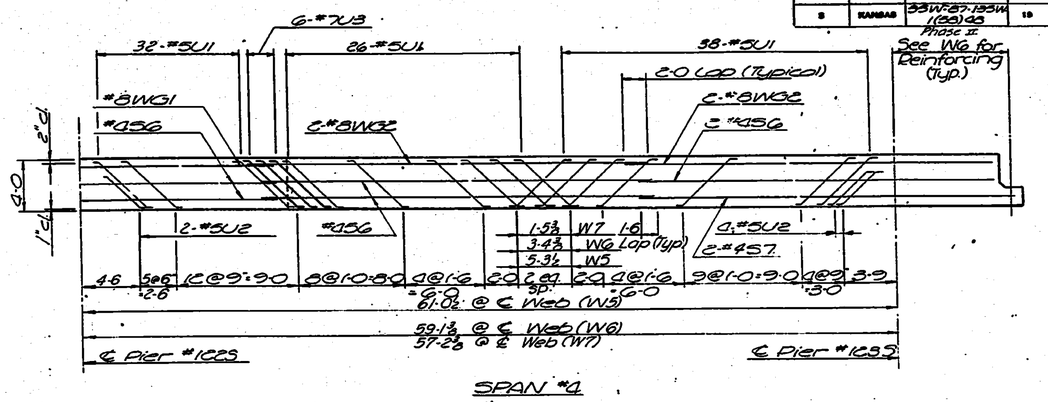
[redacted] 2 5 3

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1765	2137

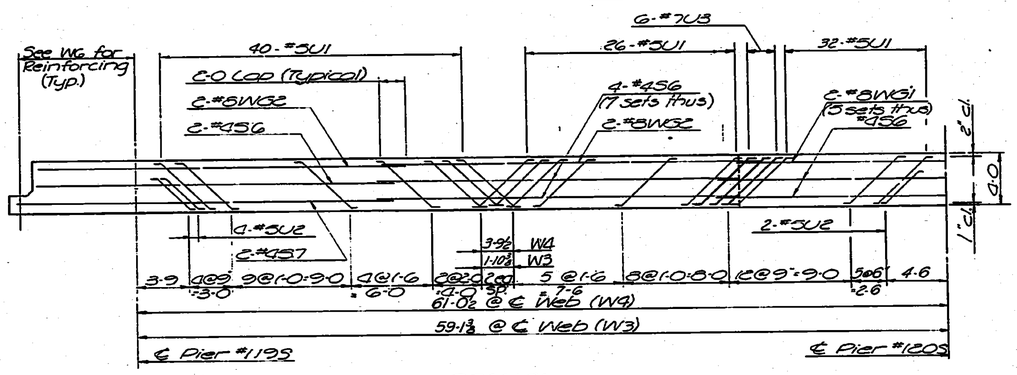


SPAN #1

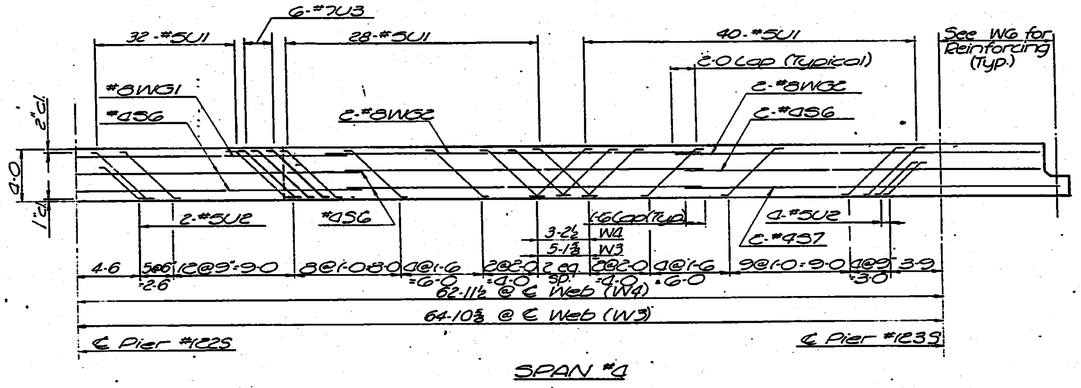


SPAN #4

ELEVATION OF WEBS W5 - W7 SHOWING STIRRUP SPACING *

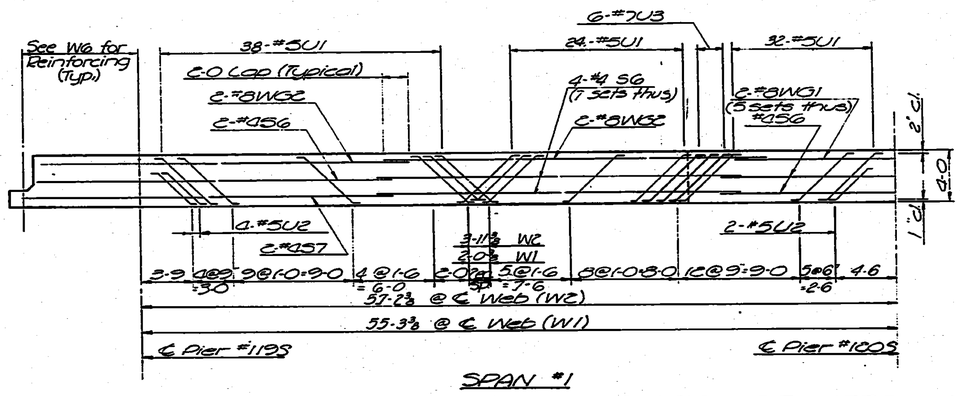


SPAN #1

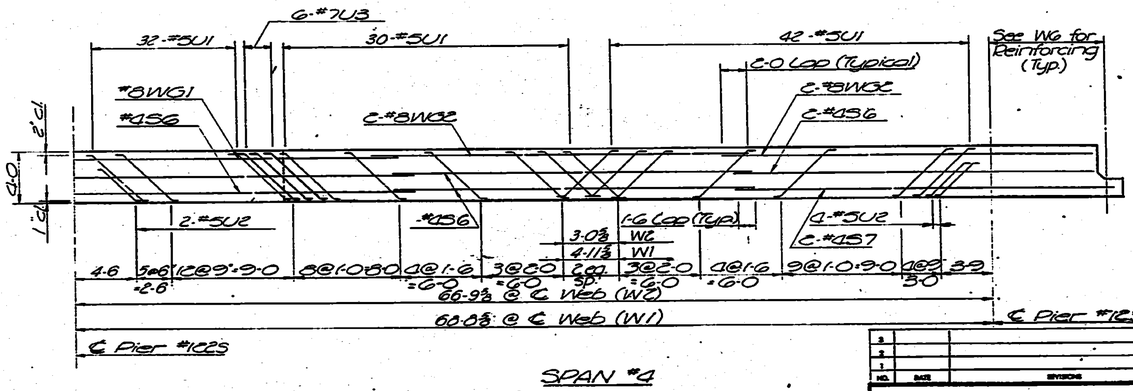


SPAN #4

ELEVATION OF WEBS W3 & W4 SHOWING STIRRUP SPACING *



SPAN #1



SPAN #4

ELEVATION OF WEBS W1 & W2 SHOWING STIRRUP SPACING *

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top & beneath bottom main reinforcing steel. See Roadway Deck Section.

NOTE: Stirrups placed in pairs each web, except as noted.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 27S
S.B. I-35W VIADUCT
(OVER 13TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 5 OF 10	SCALE	APP'D.	
DESIGNED DFG	DETAILED DRA	CHECKED LKD	TRACED DRA
DESIGN CK. RBS	DETAIL CK. JMO	STRUCT. CK. DGT/RCP	TRACE CK. CAB

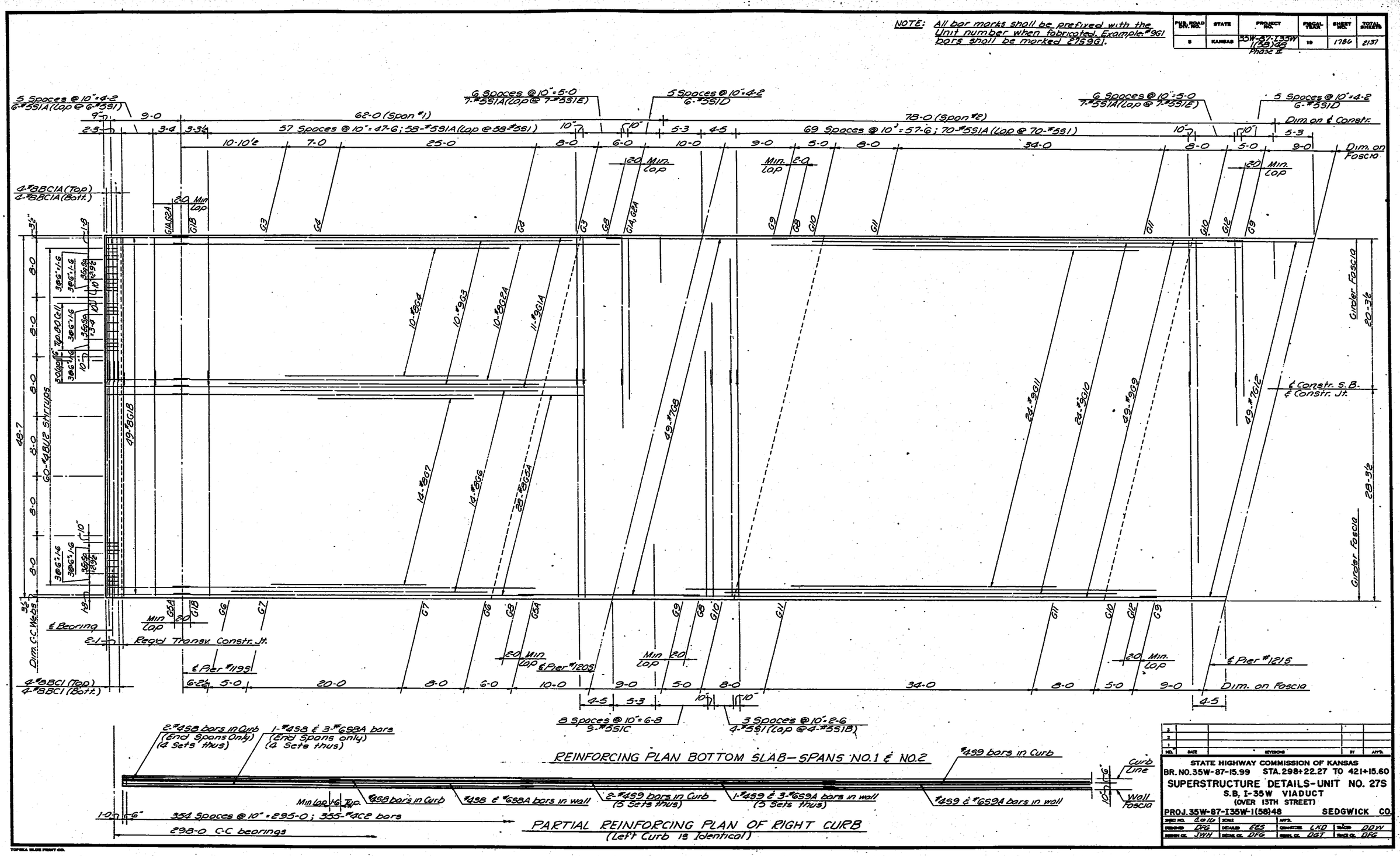
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 5 4

16X 14.5X 12X 12X 14.5X 16X 20X

NOTE: All bar marks shall be prefixed with the Unit number when fabricated. Example #9G1 bars shall be marked 2 1 5 9 G 1.

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1786	2137



REINFORCING PLAN BOTTOM SLAB—SPANS NO.1 & NO.2

PARTIAL REINFORCING PLAN OF RIGHT CURB
(Left Curb is Identical)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 27S
S.B. I-35W VIADUCT
(OVER 13TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 6 OF 16	SCALE	APP'D.	
DESIGNED DFG	DETAILED EES	CHECKED LKD	TRACED DDW
DESIGN CK. JWH	DETAIL CK. DFG	GEN. CK. DGT	TRACE CK. DFG

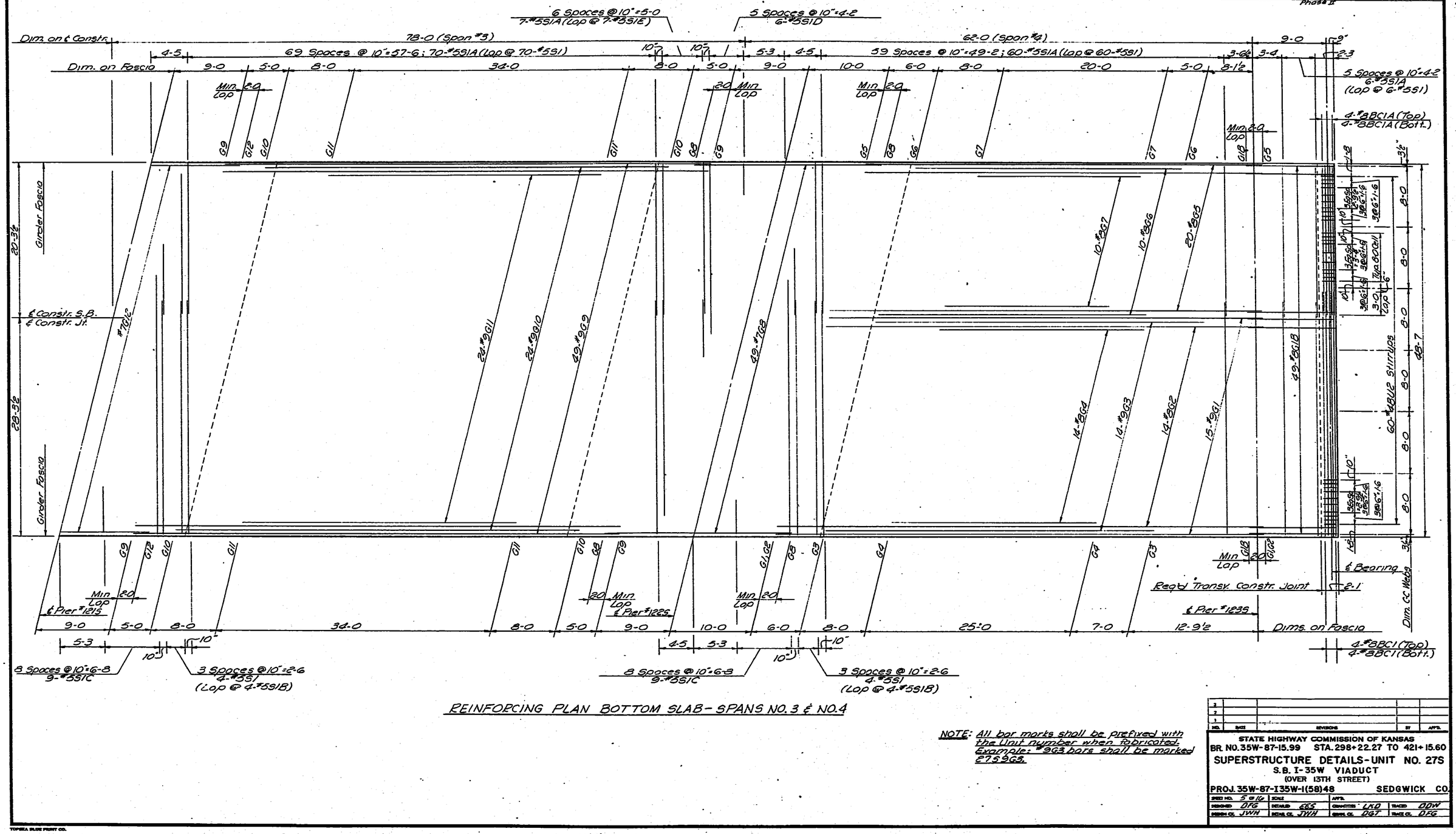
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 5 5

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W (158)48 Phase II	58	1787	2137



REINFORCING PLAN BOTTOM SLAB - SPANS NO. 3 & NO. 4

NOTE: All bar marks shall be prefixed with the Unit number when fabricated. Example: #9G3 bars shall be marked 27S9G3.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 27S
S.B. I-35W VIADUCT
(OVER 13TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 5 OF 16	SCALE	APP'D.			
DESIGNED DFG	DETAILED GES	CHECKED LKD	TRACED ODW		
DESIGN CK. JWH	DETAIL CK. JWH	CHECK CK. DGT	TRACE CK. DFG		

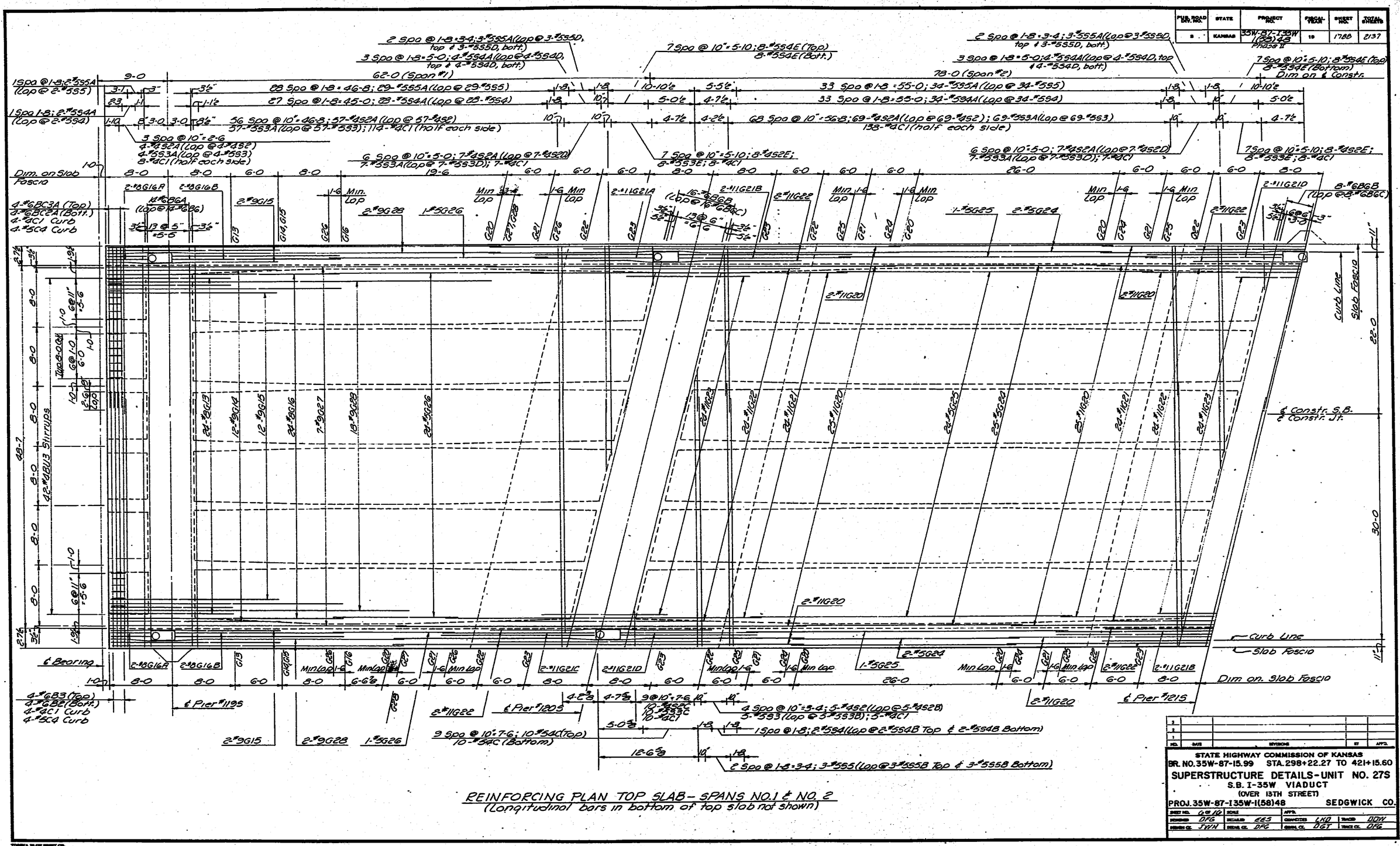
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 5 6

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-I35W (58)48 Phase II	19	178B	2137



REINFORCING PLAN TOP SLAB - SPANS NO. 1 & NO. 2
(Longitudinal bars in bottom of top slab not shown)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 27S
S.B. I-35W VIADUCT
(OVER 13TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO.	6 OF 10	SCALE		APP'D.	
DESIGNED	DFG	DETAILED	EES	CHECKED	LKO
DESIGN CK.	JWH	DETAIL CK.	DFG	TRACED	DGT
				TRACE CK.	DFG

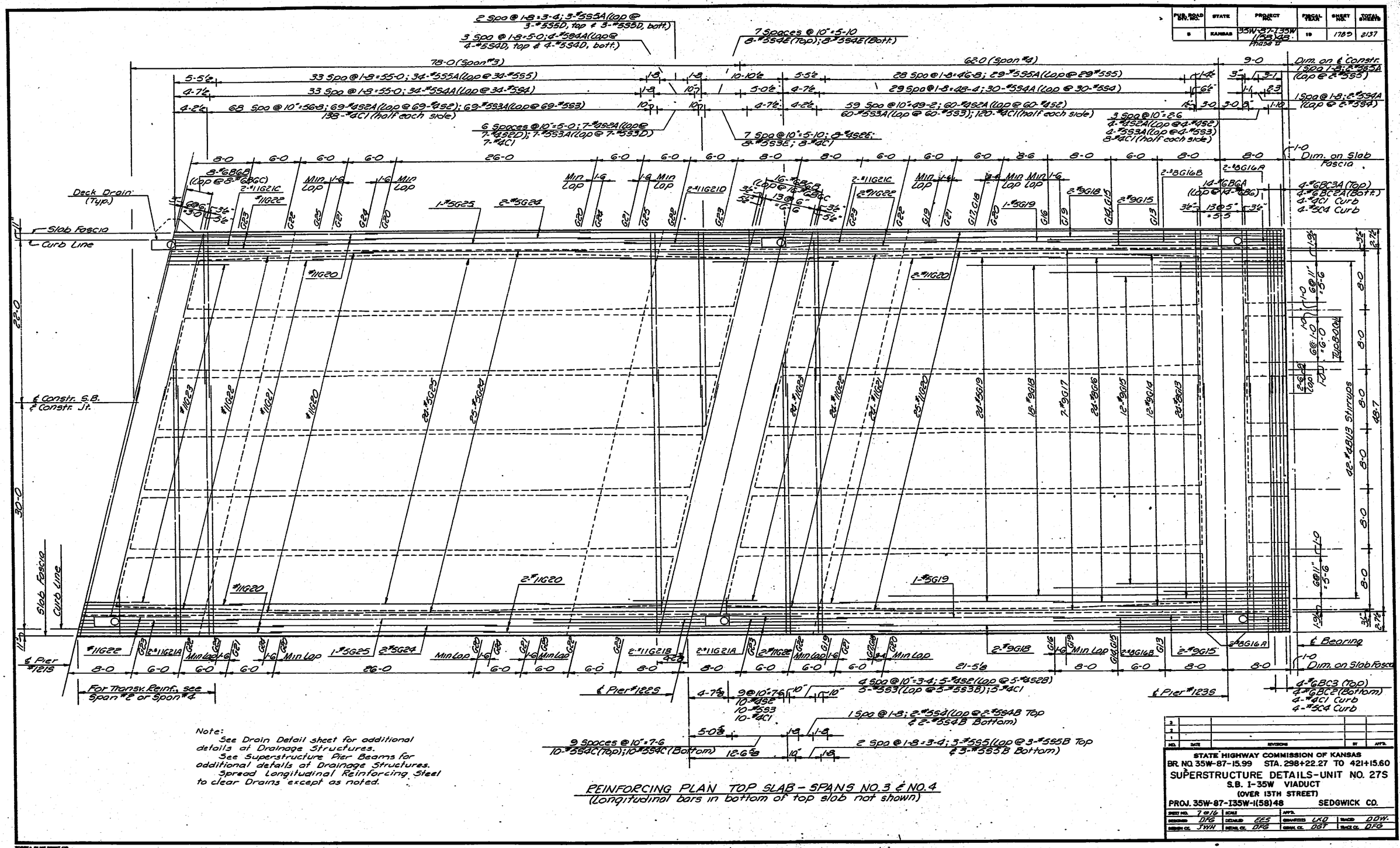
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 5 7

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-1(35W)(58)48 Phase II	19	1789	2137



Note:
See Drain Detail sheet for additional details at Drainage Structures.
See Superstructure Pier Beams for additional details of Drainage Structures.
Spread Longitudinal Reinforcing Steel to clear Drains except as noted.

REINFORCING PLAN TOP SLAB - SPANS NO. 3 & NO. 4
(Longitudinal bars in bottom of top slab not shown)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 27S
S.B. I-35W VIADUCT
(OVER 13TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 7 OF 16	SCALE	APP'D.			
DESIGNED DFG	DETAILED EES	SUBMITTED LKD	TRACED	DDW.
DESIGN CK. JWH	DETAIL CK. DFG	SUBM. CK. DGT	TRACE CK.	DFG

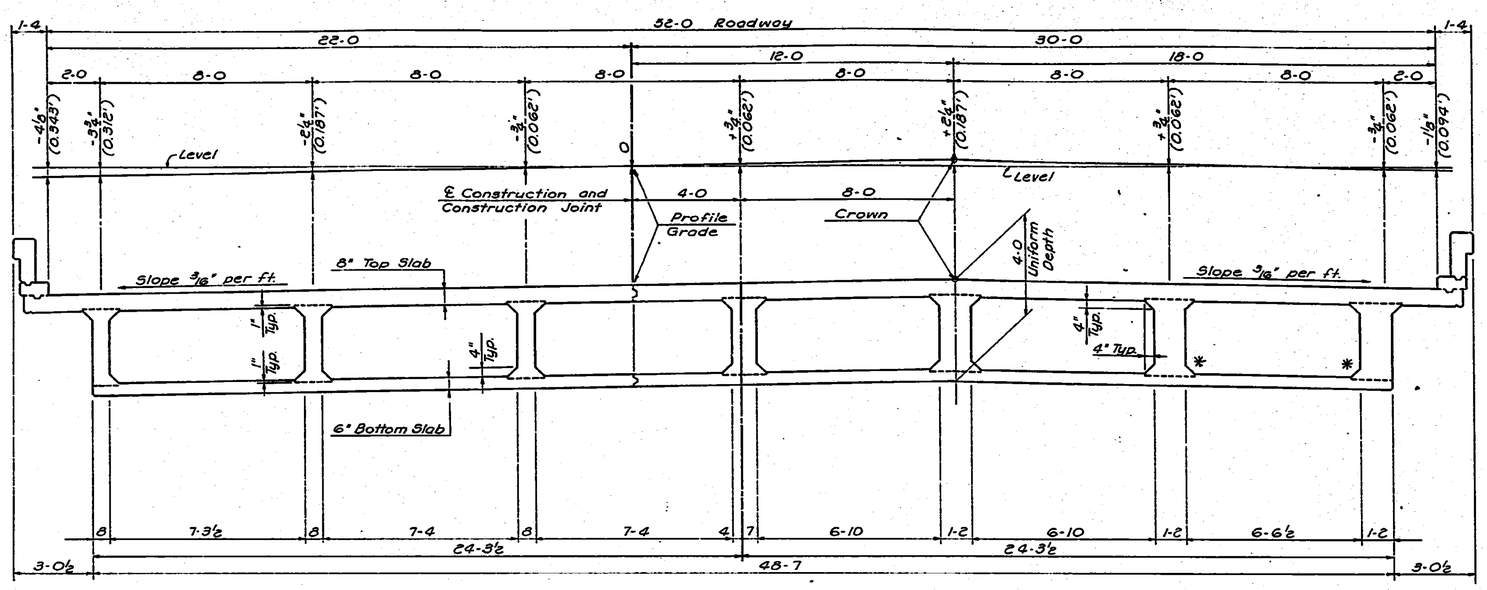
TOPEKA BLUE PRINT CO.

DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted] 2 5 8

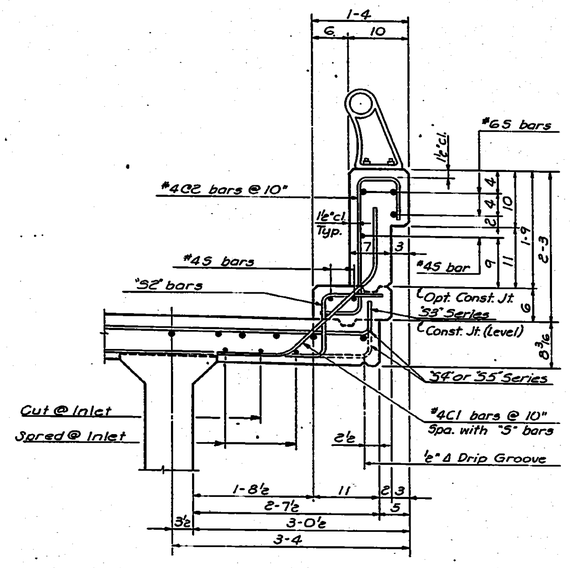
16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1790	2197



NEAR MID-SPAN — NEAR PIER

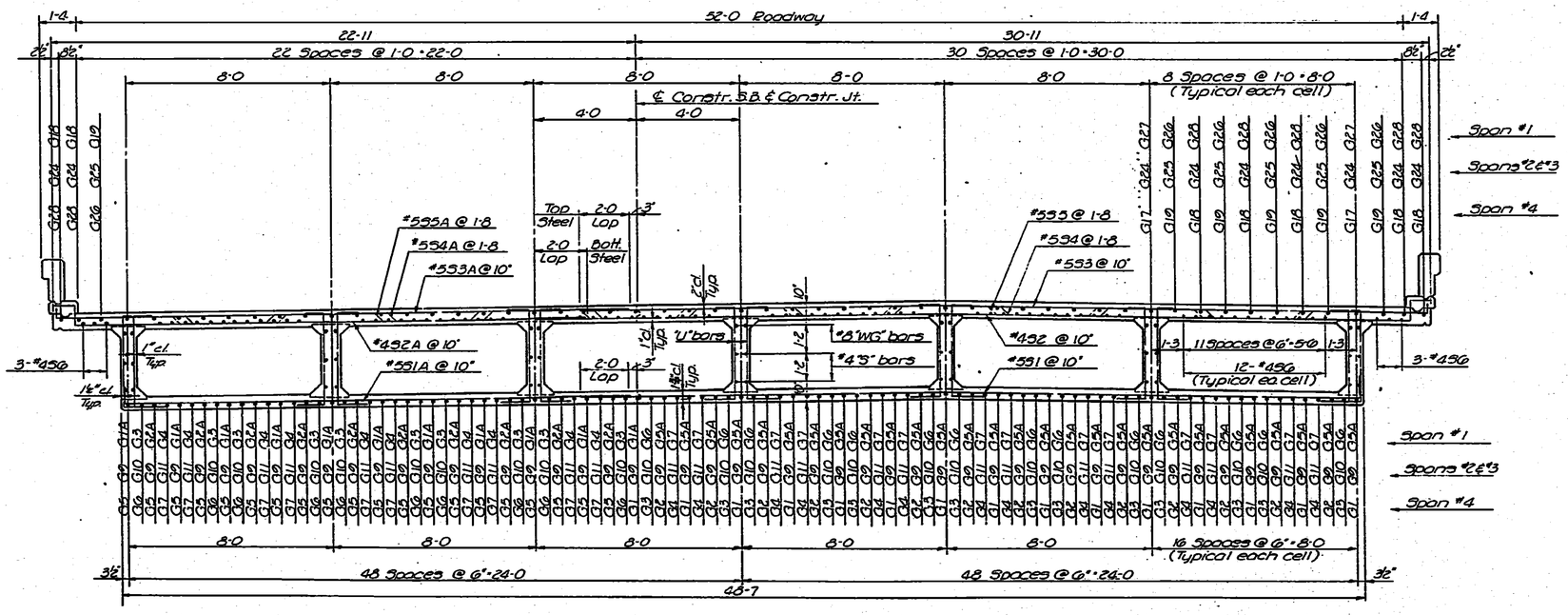
ROADWAY DECK SECTION



TYPICAL CURB SECTION

Notes:
See Web Elevation for quantity, size & spacing of "U" bars. There are 9 sets of #4S6 bars, end to end of unit, in each cell. (Lap 1-6)

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.



ROADWAY DECK SECTION NEAR MID-SPANS

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 27S
S.B. I-35W VIADUCT
(OVER 13TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO.	8 OF 16	SCALE		APP'D.			
DESIGNED	DFG	DETAILED	EES	CHECKED	LKD	TRACED	DDW
DESIGN CK.	JWH	DETAIL CK.	DFG	CHECK CK.	DGT	TRACE CK.	DFG

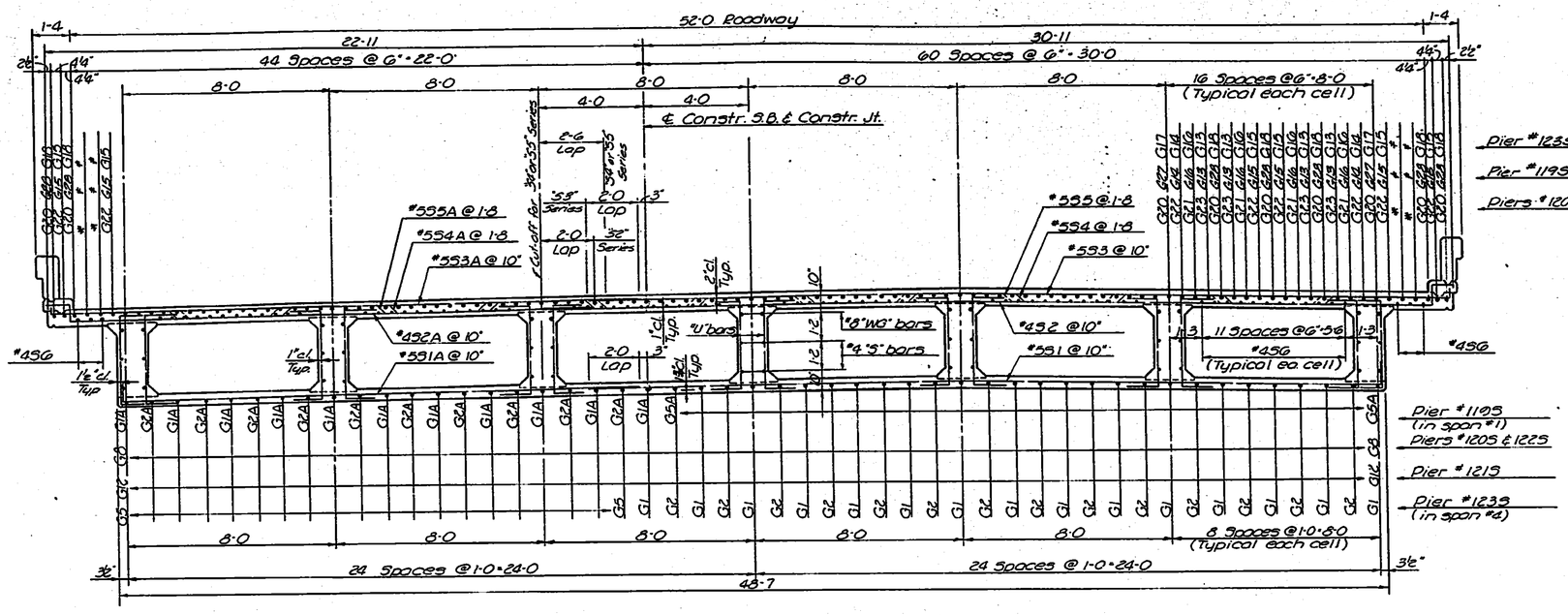
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 5 9

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W 1(58)48 Phase II	19	1791	2137



ROADWAY DECK SECTION NEAR PIERS

Note: Typical transverse reinf. steel is shown in above section. See Reinf. Plans for transv. Reinf. Steel at Piers #1203, #1215 & #1225.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 27S
S. B. I-35W VIADUCT
(OVER 13TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

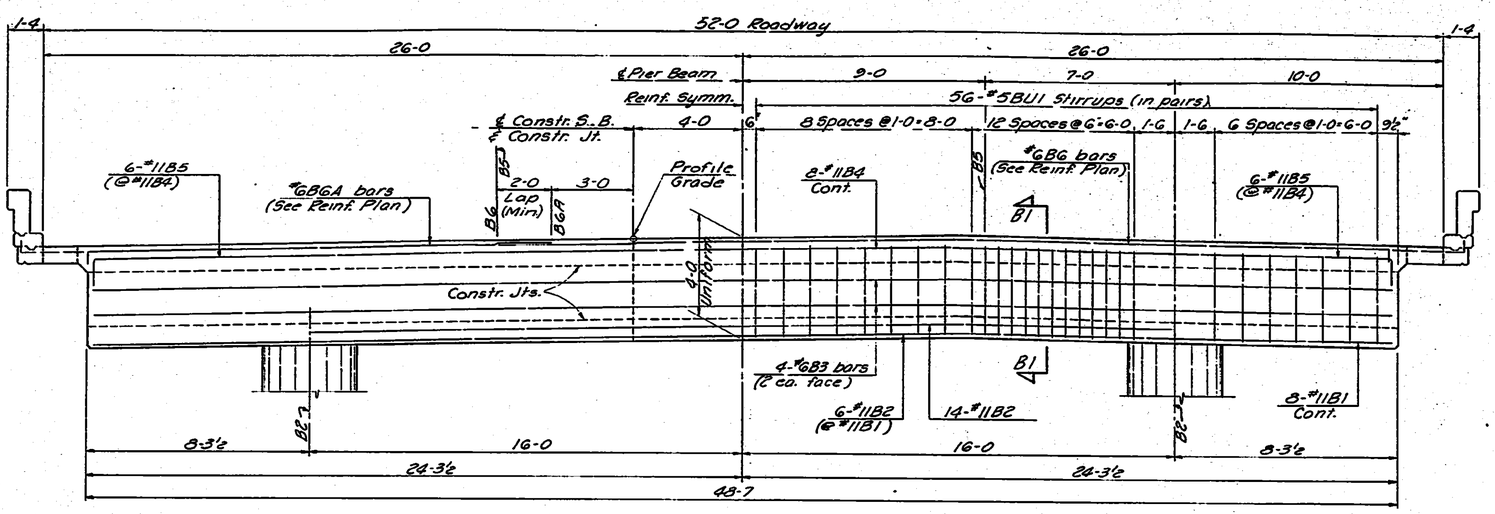
SHEET NO. 9 OF 16	SCALE	APP'D.		
DESIGNED DFG	DETAILED EES	QUANTITIES LKD	TRACED DDW	
DESIGN CK. JWH	DETAIL CK. DFG	QUAN. CK. DGT	TRACE CK. DRG	

DIST. 5 SEDGWICK CO. ROLL 531

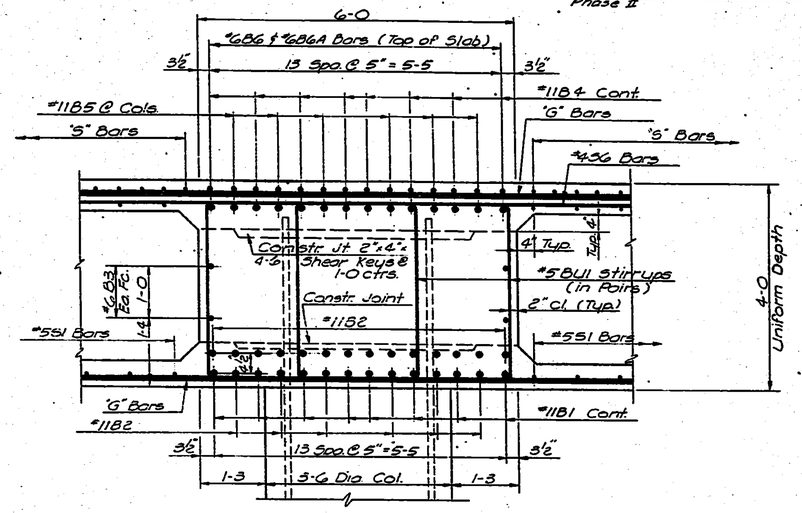
2 6 0

16X 14.5X 12X 12X 14.5X 16X 20X

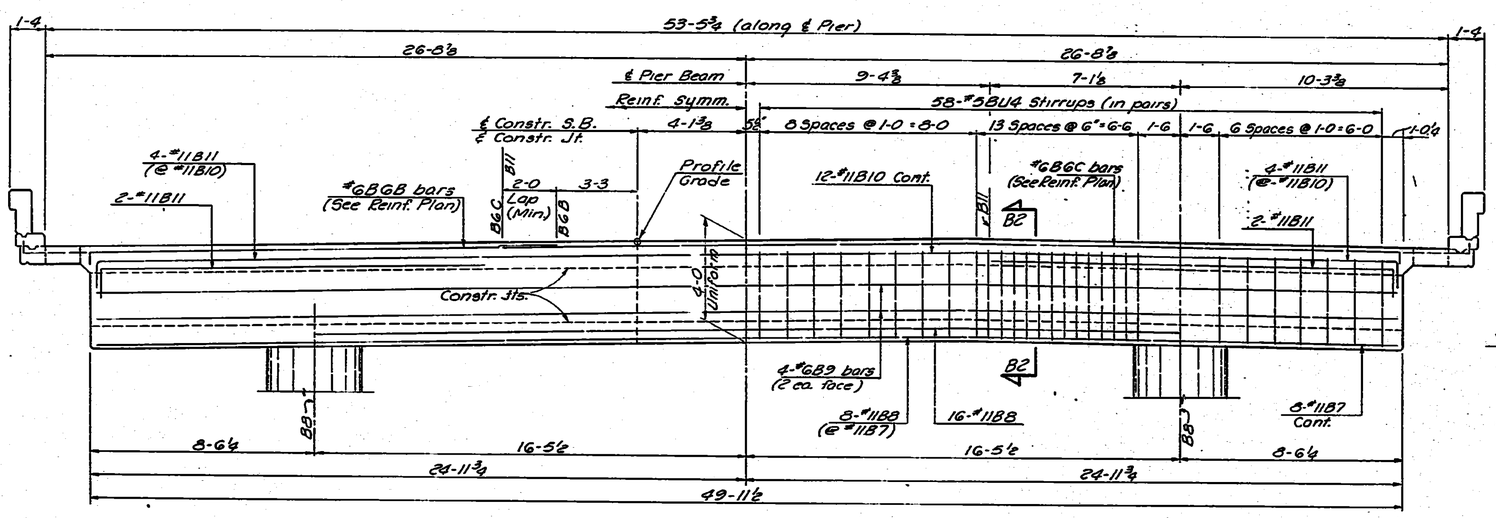
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase II	19	1792	2137



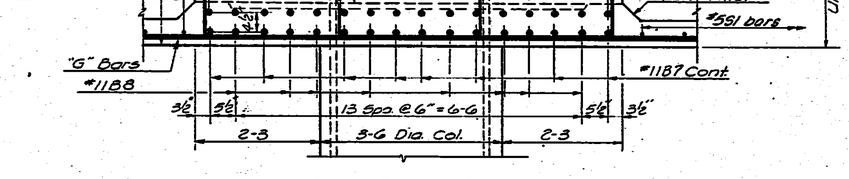
SUPERSTRUCTURE PIER BEAM
(at Piers #1195 ℄ #1238)



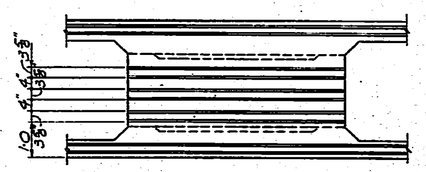
SECTION B1-B1



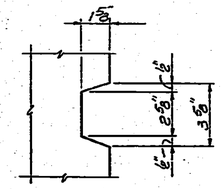
SUPERSTRUCTURE PIER BEAM
(at Piers #1205, #1215 ℄ #1225)



SECTION B2-B2



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing Location of Keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APPD.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 27S
S.B. I-35W VIADUCT
(OVER 13TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 10 OF 16	SCALE		APPD.		
DESIGNED DFG	DETAILED EES		QUANTITIES LKD	TRACED DDW	
DESIGN CK. JMH	DETAIL CK. DFG		GENL. CK. DGT	TRACE CK. DFG	

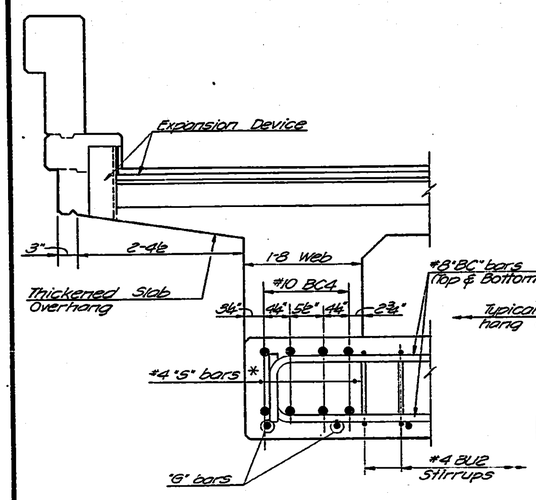
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

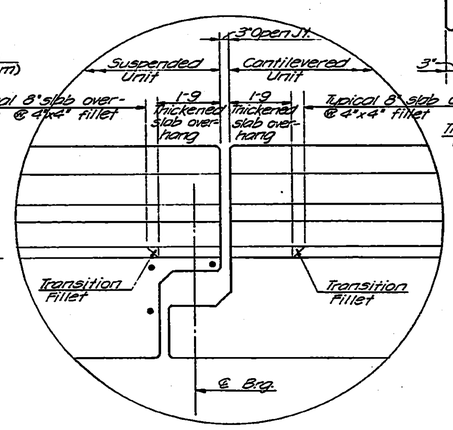
2 6 1

16X 14.5X 12X 12X 14.5X 16X 20X

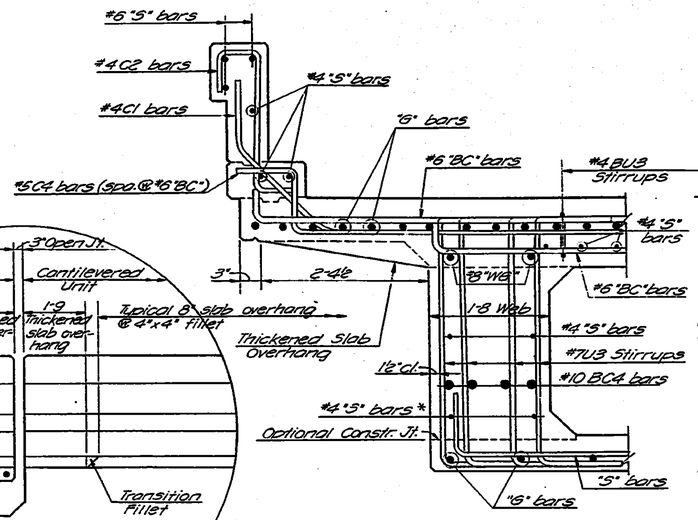
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1793	2137



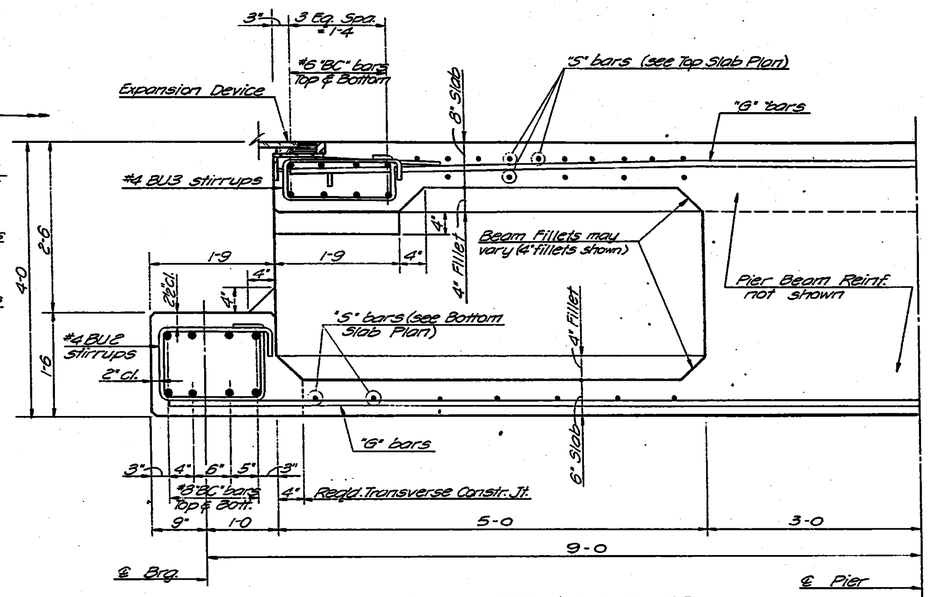
SECTION C3-C3
(Exterior Web)



VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)

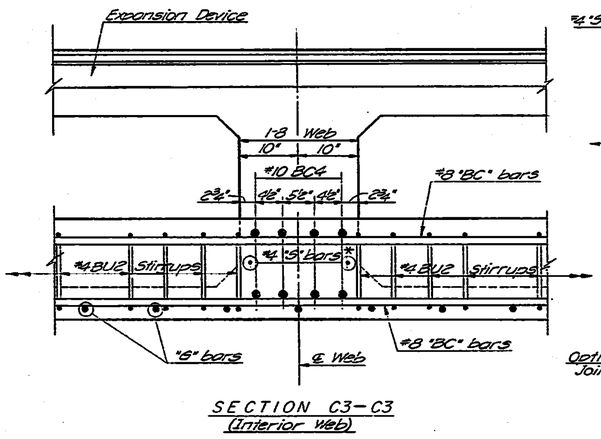


SECTION C4-C4
(Exterior Web)

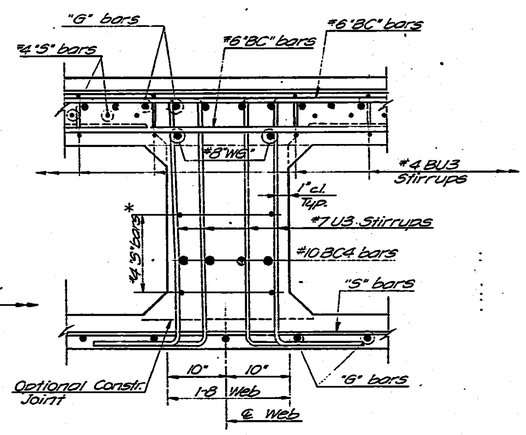


TYPICAL SECTION THRU CELL

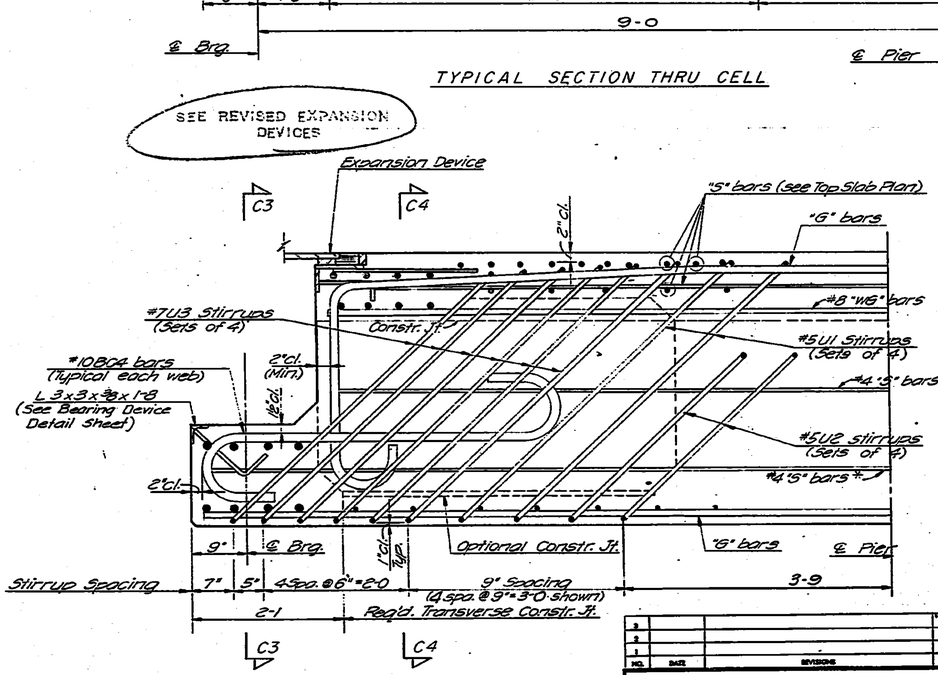
SEE REVISED EXPANSION DEVICES



SECTION C3-C3
(Interior Web)



SECTION C4-C4
(Interior Web)



TYPICAL SECTION THRU WEB

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

BEARING BEAM DETAILS

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 · STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 27S
S.B. I-35W VIADUCT
(OVER 13TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

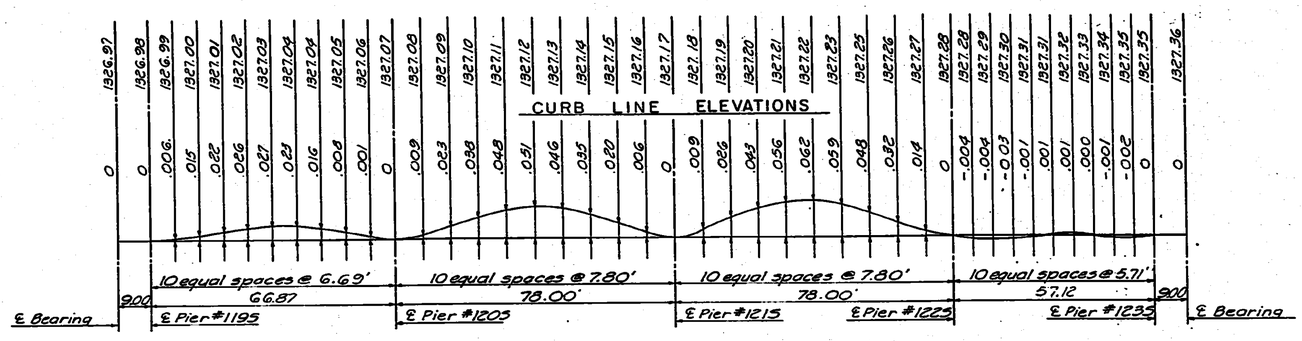
SHEET NO. 11 of 10	SCALE	APP'D.	
DESIGNED DFB	DETAILED DS	QUANTITIES LKD	TRACED DS
DESIGN CK. RBS	DETAIL CK. RBS	QUANT. CK. DGT	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

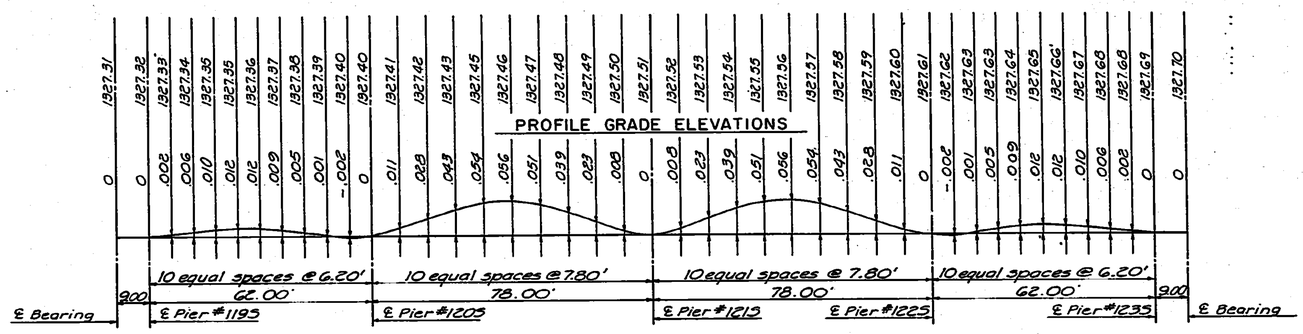
2 6 2

16X 14.5X 12X 12X 14.5X 16X 20X

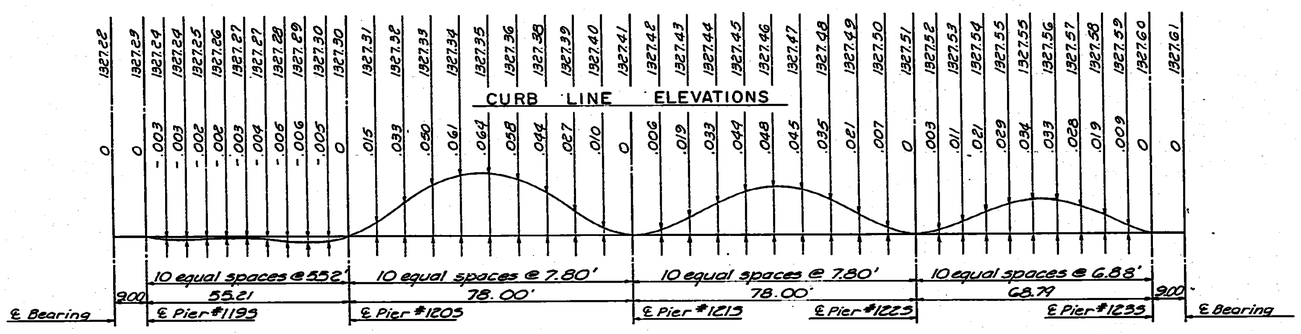
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(58)48 Phase II	19	1794	2137



DEAD LOAD CAMBER IN FEET
ALONG LEFT GIRDER FASCIA



DEAD LOAD CAMBER IN FEET
ALONG ℄ CONSTRUCTION



DEAD LOAD CAMBER IN FEET
ALONG RIGHT GIRDER FASCIA

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL TOP OF SLAB ELEVATIONS AT TENTH POINTS

NOTE: Add dead load camber to theoretical top of slab elevations to set construction profile compensating for dead load deflections E_c = 1,000,000 p.s.i.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

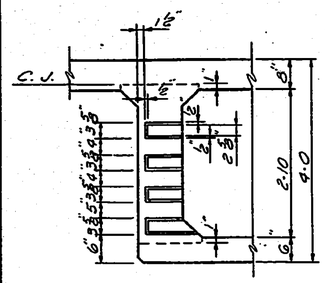
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 27S
S.B. I-35W VIADUCT
(OVER 13TH. STREET)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 12 OF 16	SCALE	APP'D.	
DESIGNED DFG	DETAILED GAB	QUANTITIES LED	TRACED DEA
DESIGN CK. EDS	DETAIL CK. JMG	GENER. CK. DBT/RCP	TRACE CK. GAB

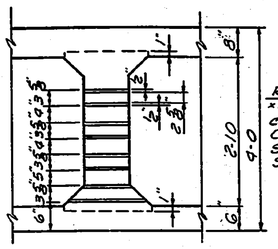
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 6 3

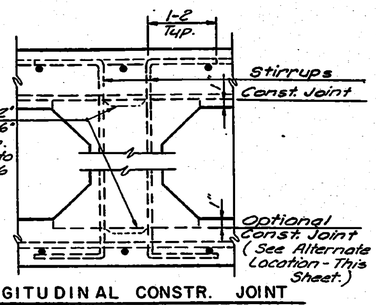
16X 14.5X 12X 12X 14.5X 16X 20X



SECTION B-B
(Through Exterior Web)

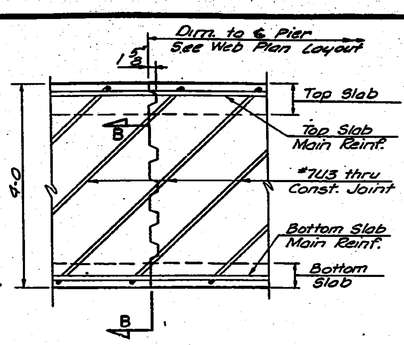


SECTION B-B
(Through Interior Web)

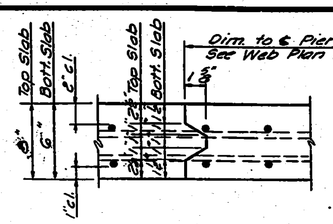


Rake or form ¾"x2" x6" Shear Keys @ 6' centers as shown. Clean according to Sec. F1-4(g), 1966 Specs.

LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

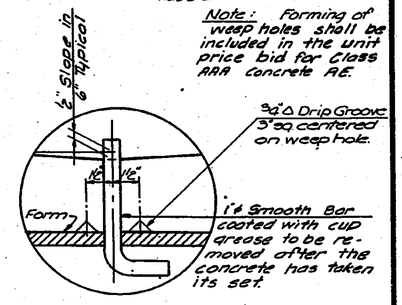


WEB CONSTR. JOINT
(Showing Placement #7U3 bars.)



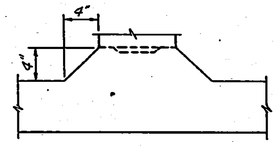
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

PUB. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	KANSAS	35W-87-135W I-(58)148 Phase II	19	1795	2137

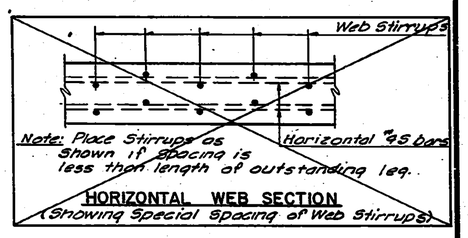


DETAIL OF WEEP HOLES

SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer.)

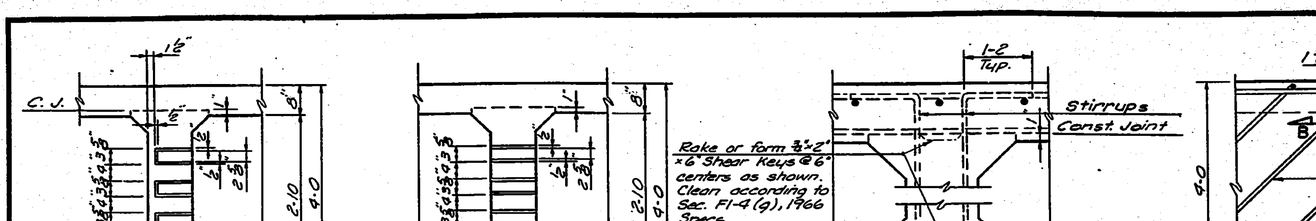


Note: Place Stirrups as shown if spacing is less than length of outstanding leg.

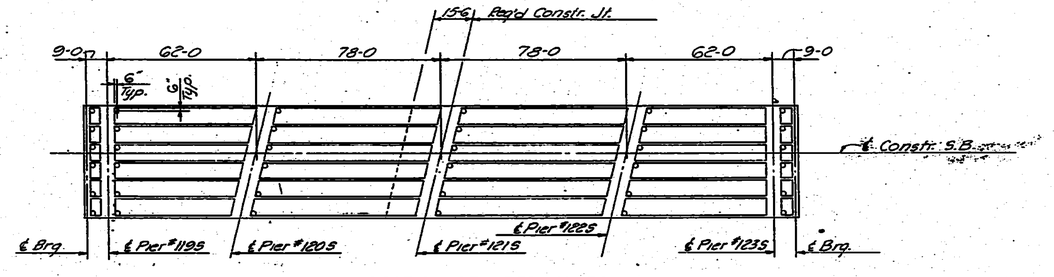
HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)

Note: Before beginning placing operation 3 ℄ 4 wedge forms up to original elevations. (Section F1-4, 1966 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework



LOCATION OF WEEP HOLES

NOTES:

See General Notes:

Curb and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained it's design strength.

Construction Joints: Construction Joints shown are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-Span-Steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 27S
S. & I-35W VIADUCT
(OVER 13TH STREET)
PROJ. 35W-87-135W-1(58)148 SEDGWICK CO.

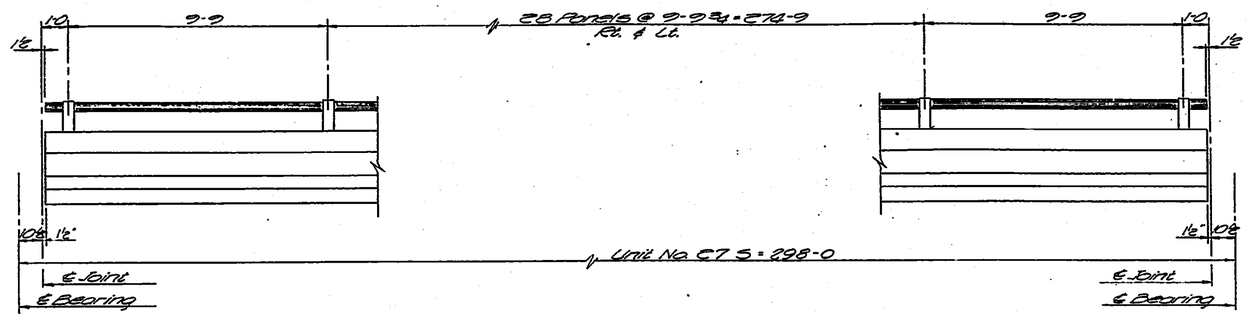
SHEET NO. 13 of 16	SCALE	APP'D.	
DESIGNED DFG	DETAILED DGT	CHECKED LKD	TRACED DGT
DESIGN CK. RBS	SPECIAL CK. JMG	CONST. CK. DGT/BCP	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

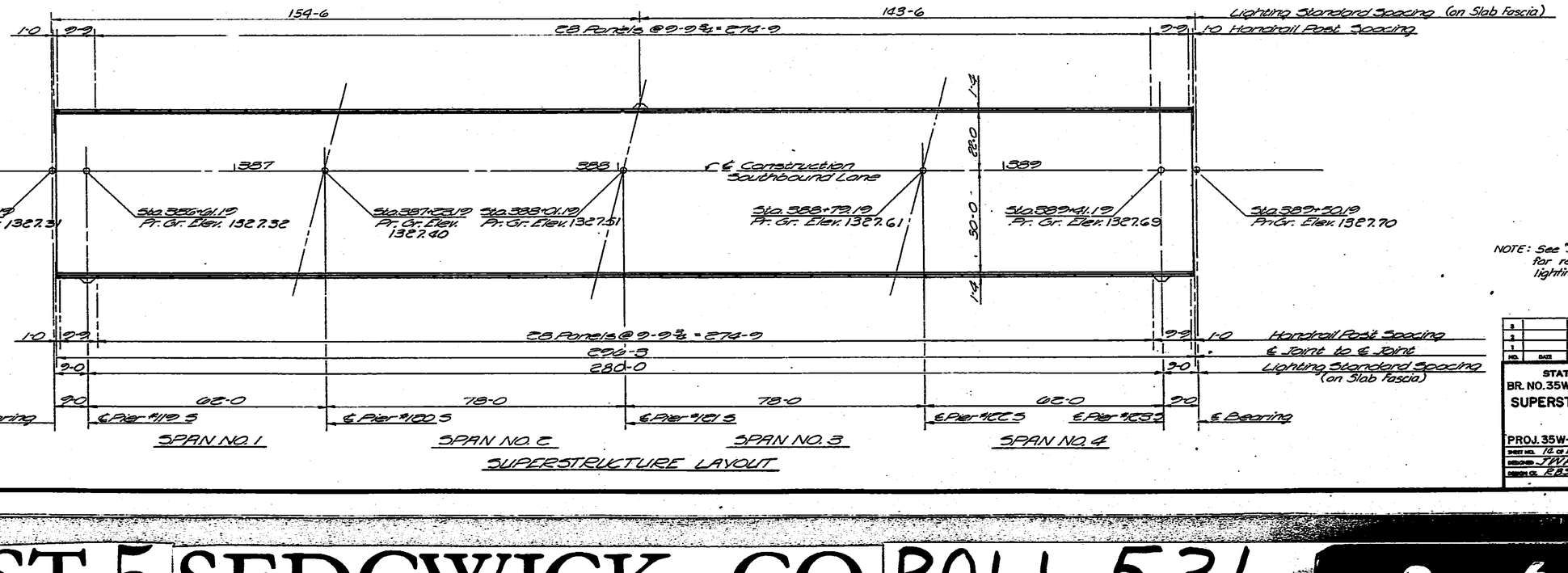
2 6 4

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-13.81W 1(58)48 PHASE II	19	1796	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sh.)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 27S
S.B. I-35W VIADUCT
(OVER 13TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 14 OF 16	SCALE		APP'D.		
DESIGNED JWH	DETAILED EBS		CHECKED LED	TRACED RAF	
DESIGN CK. EBS	DETAIL CK. JMG		QUANT. CK. DST/RCP	TRACE CK. GAB	

DIST. 5 SEDGWICK CO. ROLL 531

2 6 5

16X 14.5X 12X 12X 14.5X 16X 20X

REV. PLANS 11-1-71

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35N-87-135W I-(SB)148	1970	1797	2137

Phase II

BILL OF REINFORCING STEEL

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
				S1	282	5	31-5
				S1A	291	5	20-11
S1B	12	5	*				
				S1C	27	5	*
S1D	18	5	*				
S1E	21	5	*				
				S2	278	4	35-11
				S2A	284	4	21-11
S2B	15	4	*				
				S2C	30	4	*
S2D	21	4	*				
				S2E	24	4	*
				S3	278	5	33-6
				S3A	284	5	23-0
S3B	15	5	*				
				S3C	30	5	*
S3D	21	5	*				
				S3E	24	5	*
				S4	136	5	36-5
				S4A	142	5	23-1
S4B	12	5	*				
S4C	60	5	*				
S4D	24	5	*				
S4E	48	5	*				
				S5	139	5	36-5
				S5A	139	5	23-1
S5B	18	5	*				
S5D	18	5	*				
S6	926	4	34-3				
S7	28	4	36-0				
S8	24	4	26-11				
S8A	24	6	26-11				
S9	30	4	40-0				
S9A	30	6	40-0				

* See Bending Diagrams

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
G1	15	9	*				
G1A	11	9	*				
G1B	98	8	10-7				
G2	14	8	*				
G2A	10	8	*				
G3	24	9	40-0				
G4	24	8	25-0				
G5	20	8	*				
G5A	28	8	*				
G6	24	8	33-0				
G7	24	8	20-0				
G8	98	7	23-0				
G9	98	9	60-0				
G10	48	9	50-0				
G11	48	9	34-0				
G12	49	7	22-0				
G13	48	8	15-10				
				G14	24	9	26-1
G15	32	9	21-10				
G16	48	8	29-10				
G16A	8	8	5-0				
G16B	8	8	21-6				
				G17	7	9	*
G18	22	9	*				
G19	26	5	*				
G20	87	11	52-0				
G21	72	11	40-0				
G21A	6	11	13-0				
G21B	6	11	21-6				
G21C	6	11	19-0				
G21D	6	11	17-6				
G22	84	11	28-0				
G23	72	11	16-0				
G24	58	5	29-0				
G25	52	5	41-0				
G26	26	5	*				
				G27	7	9	*
G28	22	9	*				

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
B1	16	11	48-3				
B2	40	11	32-0				
B3	8	6	48-3				
				B4	16	11	51-3
				B5	24	11	16-8
				B6	28	6	36-5
				B6A	28	6	20-5
				B6B	48	6	20-10
				B6C	48	6	37-6
B7	24	11	49-7				
B8	72	11	32-11				
B9	12	6	49-7				
				B10	36	11	52-7
				B11	36	11	17-0
				BU1	224	5	15-10
				BU2	120	4	6-1
				BU3	84	4	5-1
				BU4	348	5	18-4
				BC1	16	8	32-8
				BC1A	16	8	20-8
				BC2	8	6	31-11
				BC2A	8	6	19-11
				BC3	8	6	34-6
				BC4	56	10	8-2
				BC3A	8	6	22-6
				C1	694	4	3-5
				C2	710	4	3-8
				C3	92	8	2-5
				C4	16	5	5-7
C5	90	4	2-6				
				U1	3290	5	7-7
				U2	252	5	6-1
				U3	588	7	7-7
WG1	70	8	40-0				
WG2	36	8	27-11				
				LB1	12	4	7-4
				LB2	9	4	9-4

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length

All bar marks shall be prefixed with the Unit Number when fabricated. Example: *963 bars shall be marked 275963.

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	10808 Cu. Yds.
Reinforcing Steel	372,800 Lbs.
Cast Iron Scuppers	Lbs.
Wrought Iron Drains & Grates	5,496 Lbs.
8" ϕ Downspouts	280.63 Lin. Ft.
Gutters	Lin. Ft.
Bridge Handrail	588.50 Lin. Ft.
Structural Steel	
Corner Angles (A36) 14 @ 19 Lbs.	266 Lbs.
Expansion Devices (A36)	3,762 Lbs.
Elastomeric Exp. Device (22¾")	108 Lin. Ft.
Linseed Oil Surface Treatment (Bridges)	1710.2 Sq. Yds.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1	11-1-71	Rev. Exp. Devices	VHS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SCHEDULE OF QUANTITIES - UNIT NO. 27S
S.B. I-35W VIADUCT
(OVER 13TH STREET)
RROJ. 35W-87-1 35W-1(58)148 SEDGWICK CO.

SHEET NO. 15 of 16	SCALE	APP'D.	
DESIGNED DFB	DETAILED EES	COMPUTED MER	TRACED RJC
DESIGN CK. RBS	DETAIL CK. DFG	CORR. CK. DFG	TRACE CK. DFG

DIST. 5 SEDGWICK CO. ROLL 531

2 6 6

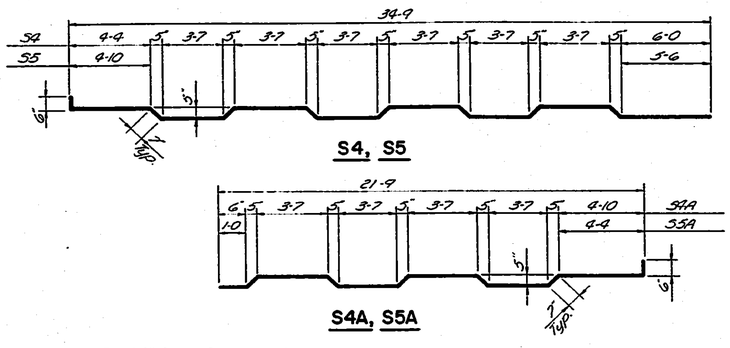
16X 14.5X 12X 12X 14.5X 16X 20X

BENDING DIAGRAMS

(Bar Dimensions are Out to Out.)

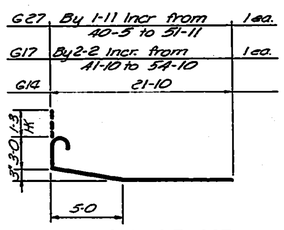
REV. PLANS 11-1-71

FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W-1(58)48 Phase II	'19	1798	2137

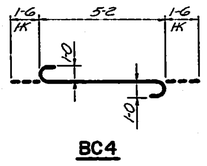


S4, S5

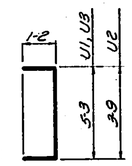
S4A, S5A



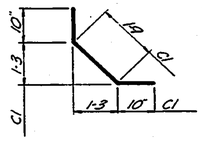
G14, G17, G27



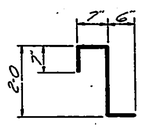
BC4



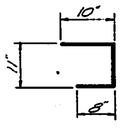
U1, U2, U3,



C1,



C2



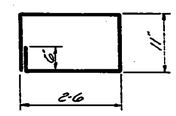
C3

G2A	Increase by 6" Increment from 53-3 to 57-9	Cut 1 ea. length
G1	Increase by 6" Increment from 33-0 to 60-0	Cut 1 ea. length
G2B	Increase by 7½" Increment from 39-9 to 52-10	Cut 1 ea. length
G2G	Increase by 6" Increment from 16-0 to 28-6	Cut 1 ea. length
G19	Increase by 6" Increment from 15-6 to 30-6	Cut 1 ea. length
G18	Increase by 7½" Increment from 41-10 to 55-7	Cut 1 ea. length
G5A	Increase by 3" Increment from 46-3 to 53-0	Cut 1 ea. length
G5	Increase By 3" Increment from 48-3 to 53-0	Cut 1 ea. length
G1A	Increase by 6" Increment from 53-0 to 58-0	Cut 1 ea. length
G2	Increase by 6" Increment from 53-3 to 59-9	Cut 1 ea. length

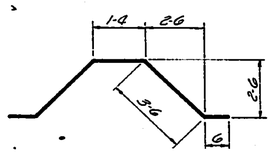
G1, G2, G18, G26, G1A, G2A, G19, G28

S5D	By 7-0 incr. from 16-3 to 30-3	Cut 6 ea. length
S5B	By 7-0 incr. from 7-9 to 21-9	Cut 6 ea. length
S4D	By 6-6 incr. from 13-4 to 31-4	Cut 6 ea. length
S4B	By 6-0 incr. from 11-0 to 17-0	Cut 6 ea. length
S3D	By 3-6 incr. from 9-6 to 30-6	Cut 3 ea. length
S3B	By 3-6 incr. from 6-4 to 20-4	Cut 3 ea. length
S2D	By 3-7 incr. from 11-9 to 32-10	Cut 3 ea. length
S2B	By 3-6 incr. from 4-6 to 18-6	Cut 3 ea. length
S1E	By 3-6 incr. from 8-6 to 29-6	Cut 3 ea. length
S1B	By 3-6 incr. from 8-3 to 18-9	Cut 3 ea. length

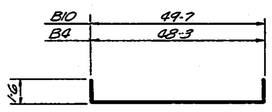
S1B, S2B, S3B, S4B, S5B, S1E, S2D, S3D, S4D, S5D



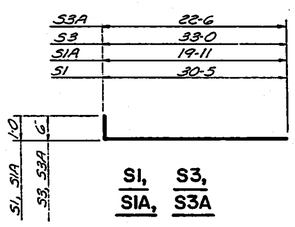
LB1



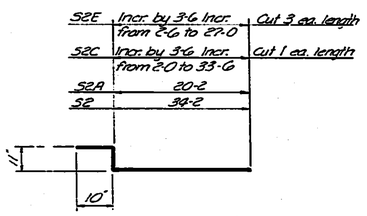
LB2



B4, B10

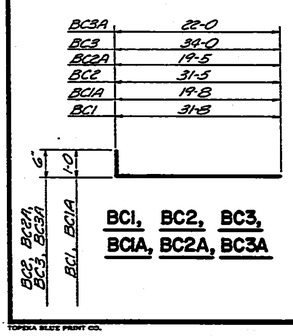


S1, S3, S1A, S3A



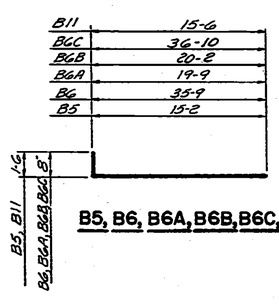
S2, S2A, S2C, S2E, S2B

BC3A	22-0	
BC3	34-0	
BC2A	19-5	
BC2	31-5	
BC1A	19-8	
BC1	31-8	



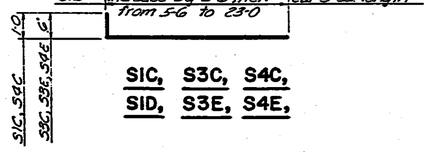
BC1, BC2, BC3, BC1A, BC2A, BC3A

B11	15-6	
B6C	36-10	
B6B	20-8	
B6A	19-9	
B6	35-9	
B5	15-2	

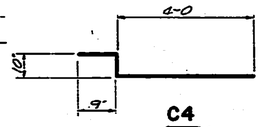


B5, B6, B6A, B6B, B6C, B11

S3E	Increase by 3-6 Incr. from 3-0 to 27-6	Cut 3 ea. length
S3C	Increase by 3-6 Incr. from 2-8 to 34-2	Cut 3 ea. length
S4E	Increase by 3-6 Incr. from 4-0 to 28-6	Cut 6 ea. length
S4C	Increase by 3-6 Incr. from 4-6 to 36-0	Cut 6 ea. length
S1C	Increase by 3-6 Incr. from 5-6 to 33-6	Cut 3 ea. length
S1D	Increase by 3-6 Incr. from 5-6 to 23-0	Cut 3 ea. length

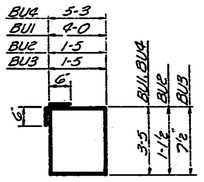


S1C, S3C, S4C, S1D, S3E, S4E,



C4 △

BU4	5-3
BU1	4-0
BU2	1-5
BU3	1-5



BU1, BU2, BU3, BU4

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1	11-1-71	Rev. Exp. Devices	VRAS	

STATE HIGHWAY COMMISSION OF KANSAS

BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60

BENDING DIAGRAMS — UNIT NO. 27S

S.B. I-35W VIADUCT (OVER 13TH STREET)

PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO.	SCALE	APP'D.	
16 of 16			
DESIGNED DFG	DETAILED EES	QUANTITIES MER	TRACED RLC
DESIGN CK. JWH	DETAIL CK. DFG	QUAN. CK. DFG	TRACE CK. DFG

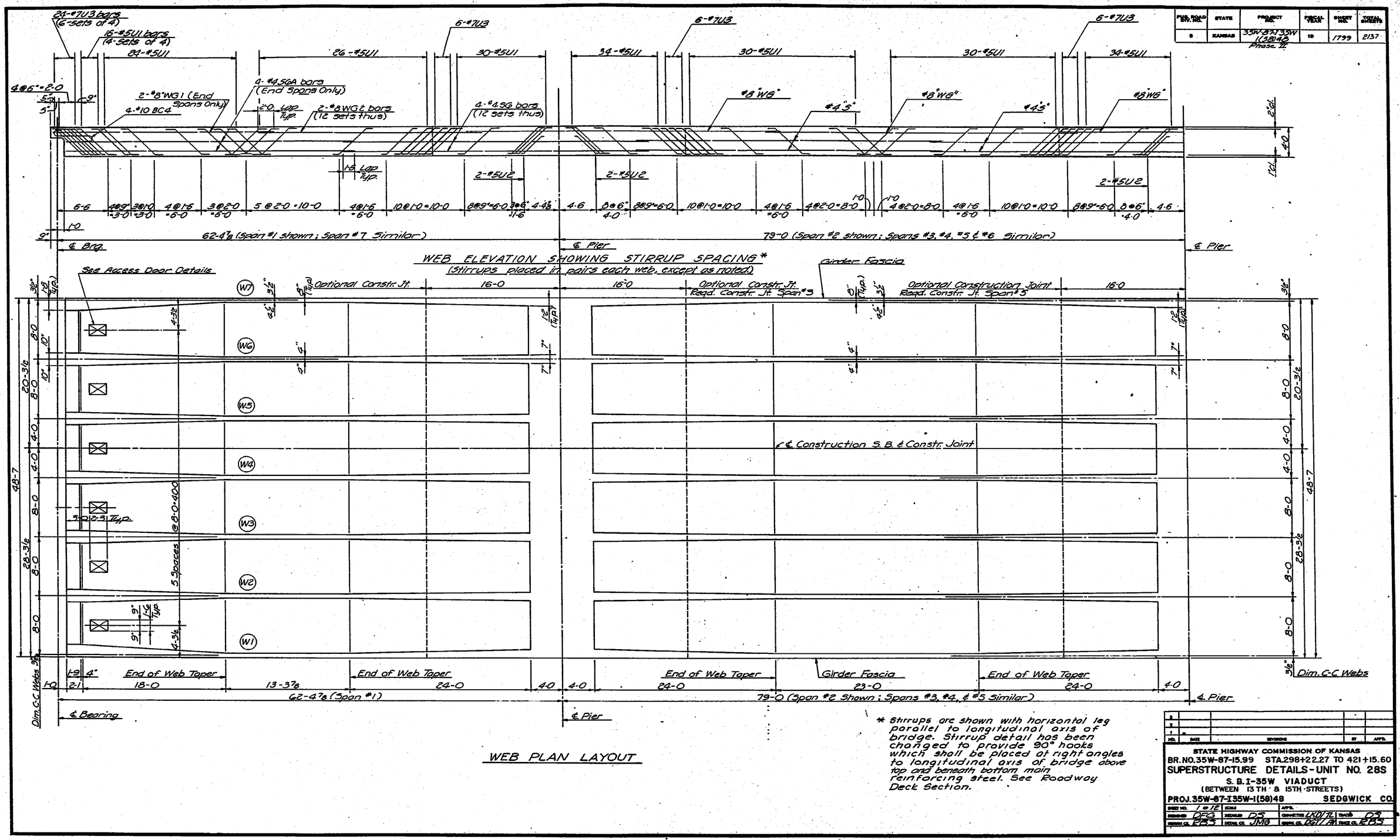
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 6 7

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1799	2137



WEB PLAN LAYOUT

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top and beneath bottom main reinforcing steel. See Roadway Deck Section.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 28S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

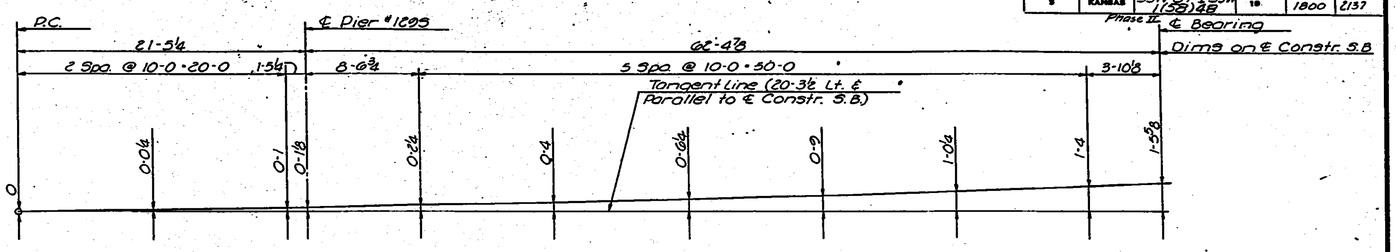
SHEET NO. 1 of 12	SCALE	APP'D.	
DESIGNED DFS	DETAILED DS	CHECKED LKD/TL	TRACED DS
DESIGN CK. RBS	DETAIL CK. JMG	SERVE. CK. DGT/AM	STRUC. CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

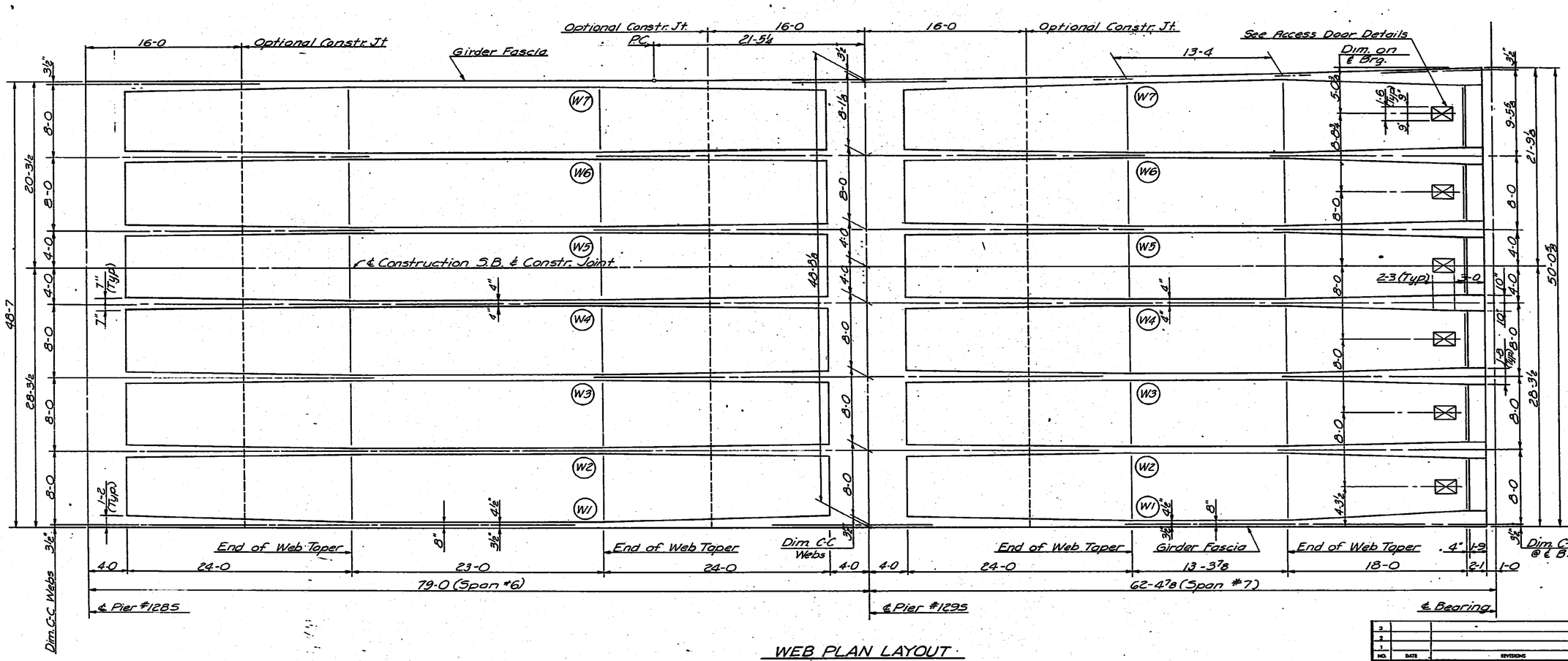
2 6 8

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-13SW I(35)48 Phase II	19	1800	2137



LEFT GIRDER FASCIA OFFSETS



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 28S
S.B. I-35W VIADUCT
(BETWEEN 13 TH. & 15TH STREETS)
PROJ. 35W-87-13SW-1(58)48 SEDGWICK CO.

SHEET NO. 2 OF 12	SCALE	APP'D.	
DESIGNED DFG	DETAILED LWS	QUANTITIES LKD/TL	TRACED LWS
DESIGN CK. RBS	DETAIL CK. JMG	QUAN. CK. DGT/AV	TRACE CK. RBS

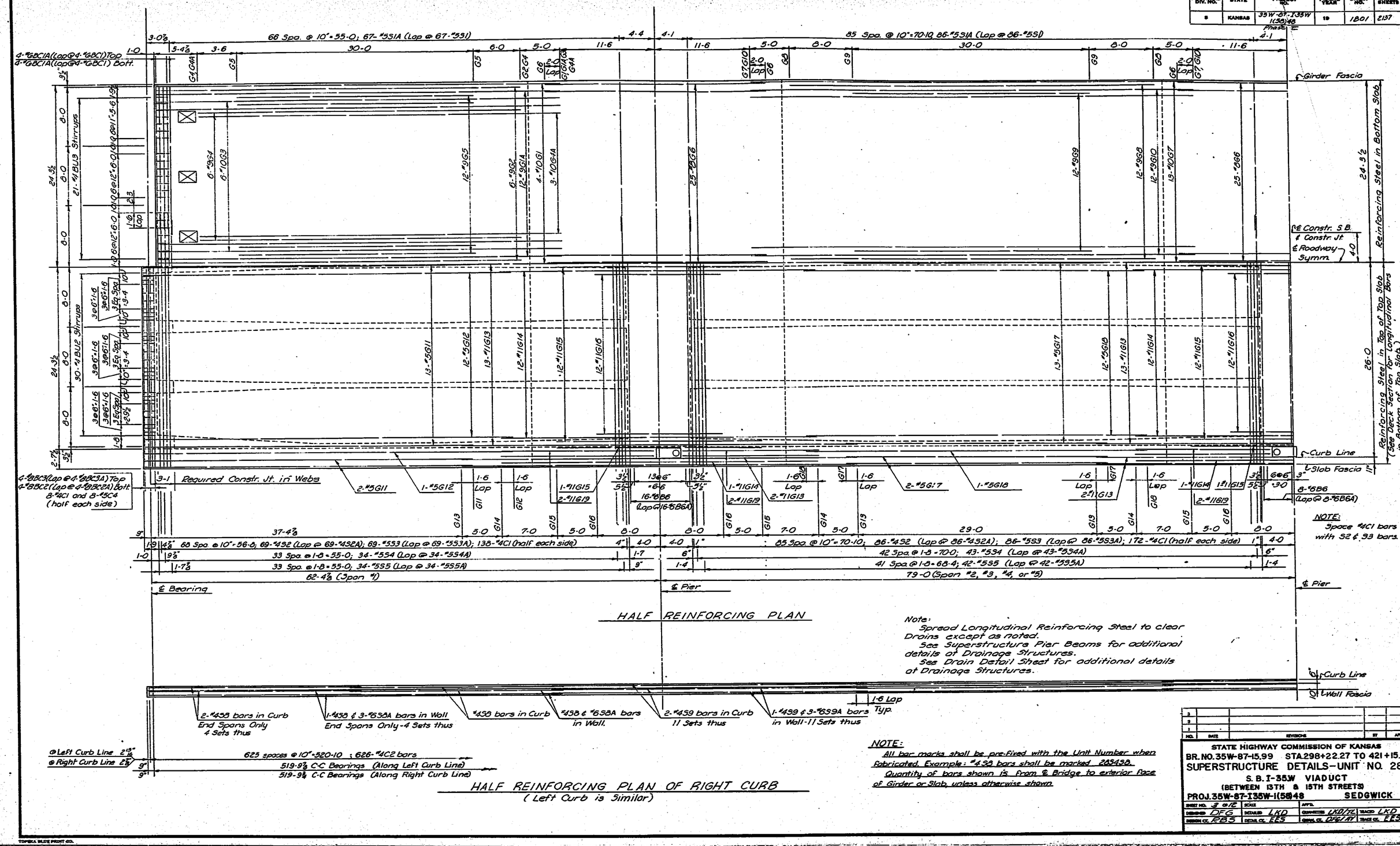
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 6 9

16X 14.5X 12X 12X 14.5X 16X 20X

OFFICE COPY

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase E	19	1801	2137



HALF REINFORCING PLAN

Note:
Spread Longitudinal Reinforcing Steel to clear Drains except as noted.
See Superstructure Pier Beams for additional details of Drainage Structures.
See Drain Detail Sheet for additional details at Drainage Structures.

HALF REINFORCING PLAN OF RIGHT CURB
(Left Curb is Similar)

NOTE:
All bar marks shall be pre-fixed with the Unit Number when fabricated. Example: #4S3 bars shall be marked 28S3.
Quantity of bars shown is from ℄ Bridge to exterior face of Girder or Slab, unless otherwise shown.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 28S
S. B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 3 of 12	SCALE	APP'D.	
DESIGNED DFG	DETAILED LKD	COMPUTED LKD/TL	TRACED LKD
DESIGN CK. PBS	DETAIL CK. EES	GENL. CK. DFG/AV	TRACE CK. EES

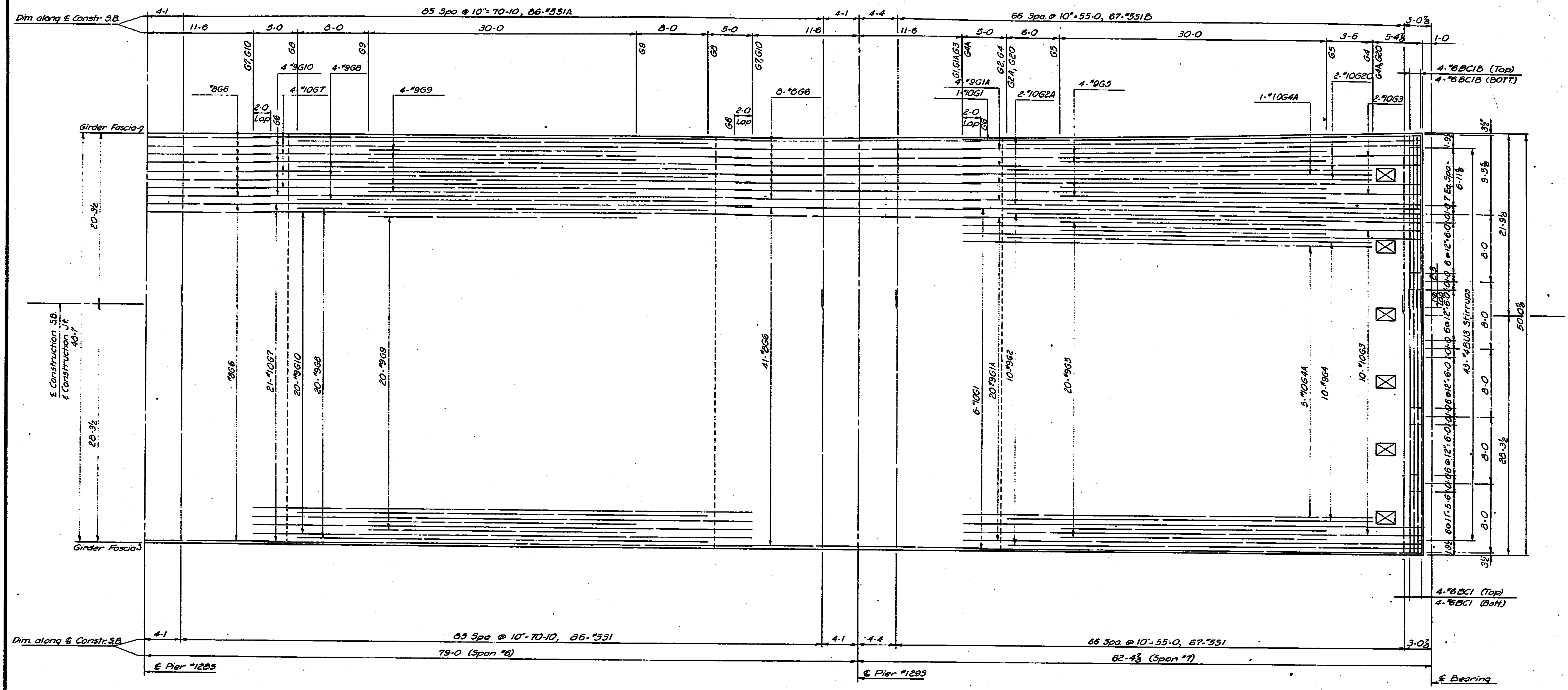
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 7 0

16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W K38A8 Phase II	19	1802	2137



PARTIAL REINFORCING PLAN
(Showing reinforcing in bottom slab)

NO.	DATE	REVISIONS	BY	APPD.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 28 S
S.B. I-35W VIADUCT
(BETWEEN 13 TH & 15TH STREETS)
PROJ. 35 W-87-I35W-1(58)48 SEDGWICK CO.

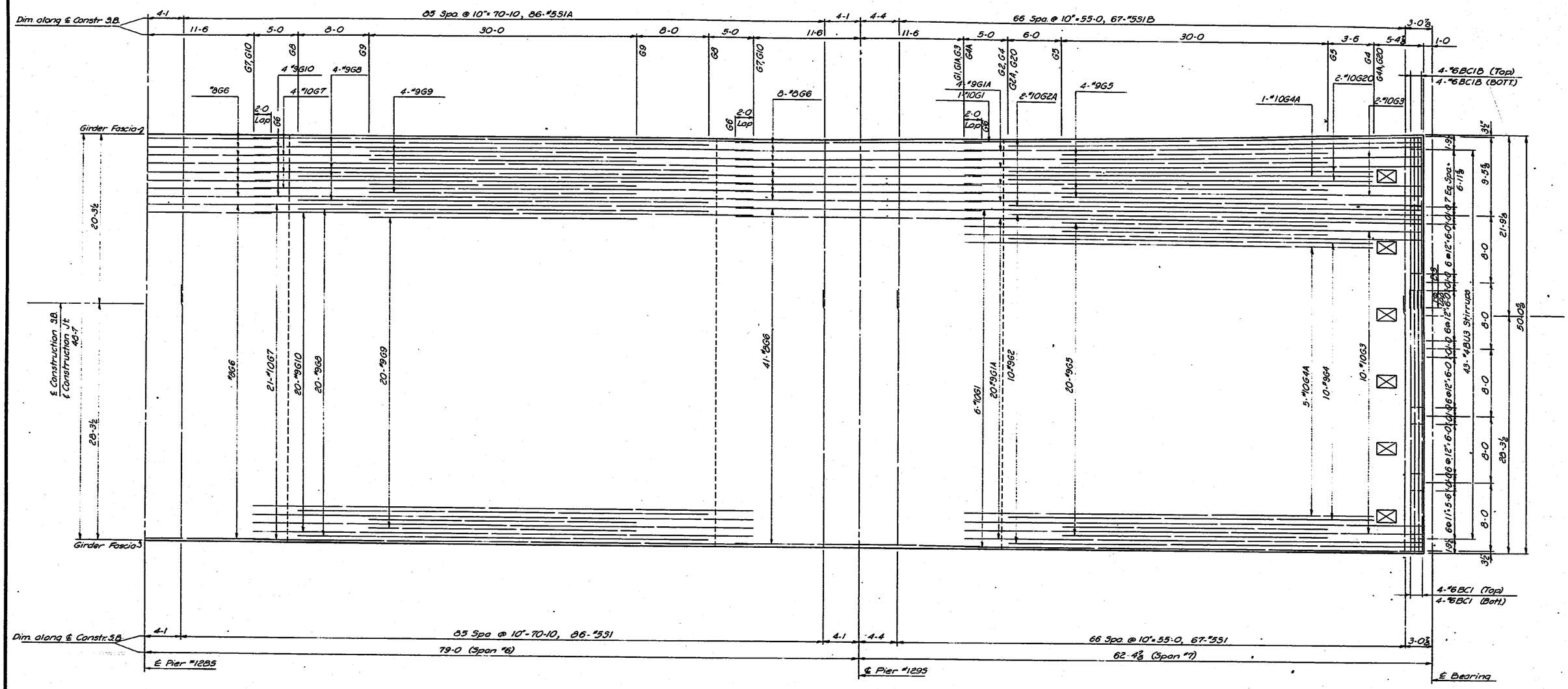
SHEET NO. 4 of 12	SCALE	APPD.	
DESIGNED DFG	DETAILED LKD	QUANTITIES LKD/TL	TRACED LKD
DESIGN CK. RBS	DETAIL CK. EES	QUAN. CK. AV	TRACE CK. EES

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531 2 7 1

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1802	2137



PARTIAL REINFORCING PLAN
(Showing reinforcing in bottom slab)

NO.	DATE	DIVISION	BY	APPD.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 28S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 4 of 12	SCALE	APPD.	
DESIGNED DPG	DETAILED LKD	QUANTITIES LKD/TL	TRACED LKD
DESIGN CK. RBS	DETAIL CK. EES	GENL. CK. AV	TRACE CK. EES

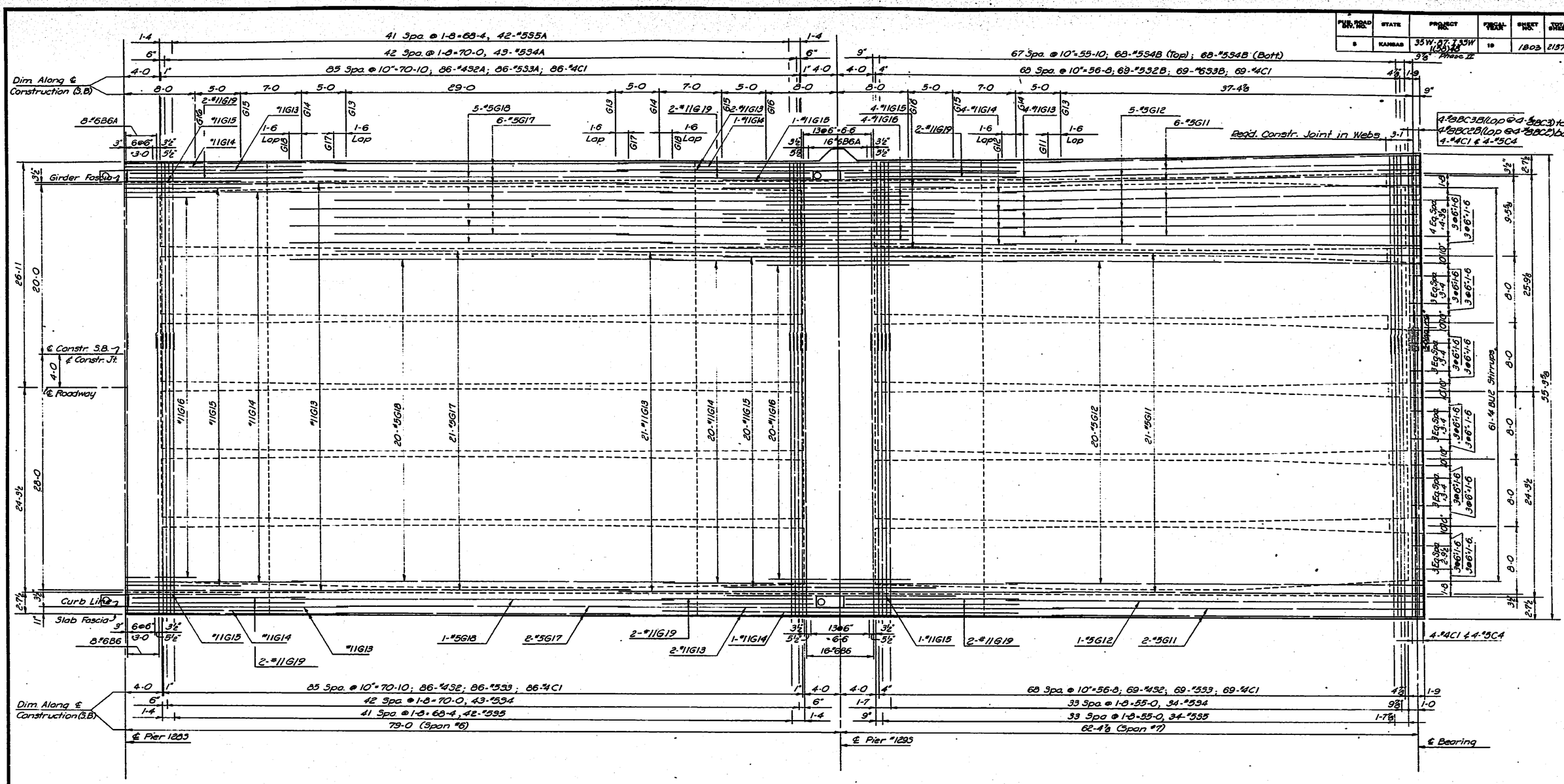
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 7 1

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIST. NO.	STATE	PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I 35W-1(58)48 Phase II	19	1803	2137



PARTIAL REINFORCING PLAN
(Showing Reinforcing in Top of Top Slab)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 28S
S. B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 5 OF 12	SCALE	APP'D.	
DESIGNED DFG	DETAILED LKD	COMPUTED LKD/TE	TRACED LKD
DESIGN CK. 28S	DETAIL CK. EES	GENERAL CK. AV	TRACE CK. EES

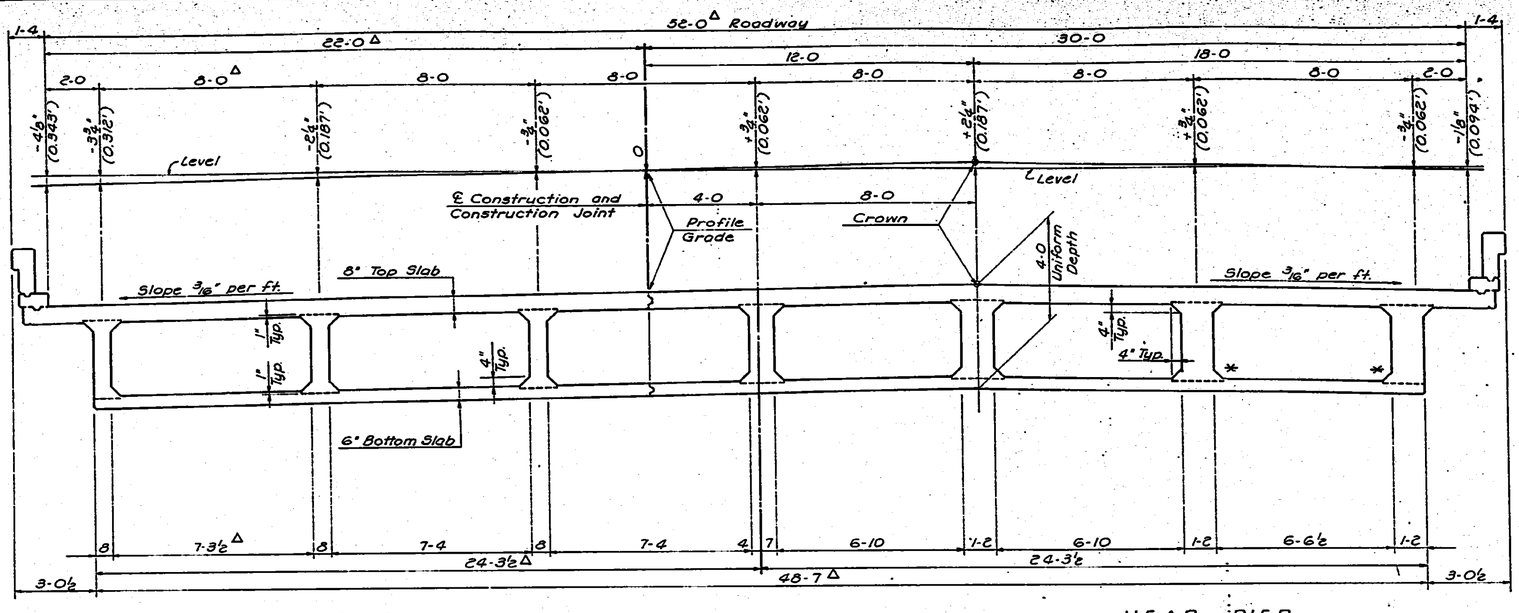
TRUPRINT BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 7 2

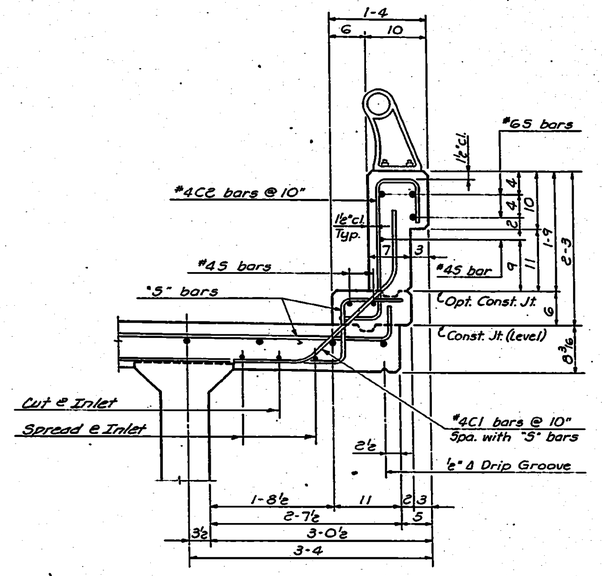
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W I(58)48 Phase II	19	1804	2137



NEAR MID-SPAN — NEAR PIER

ROADWAY DECK SECTION



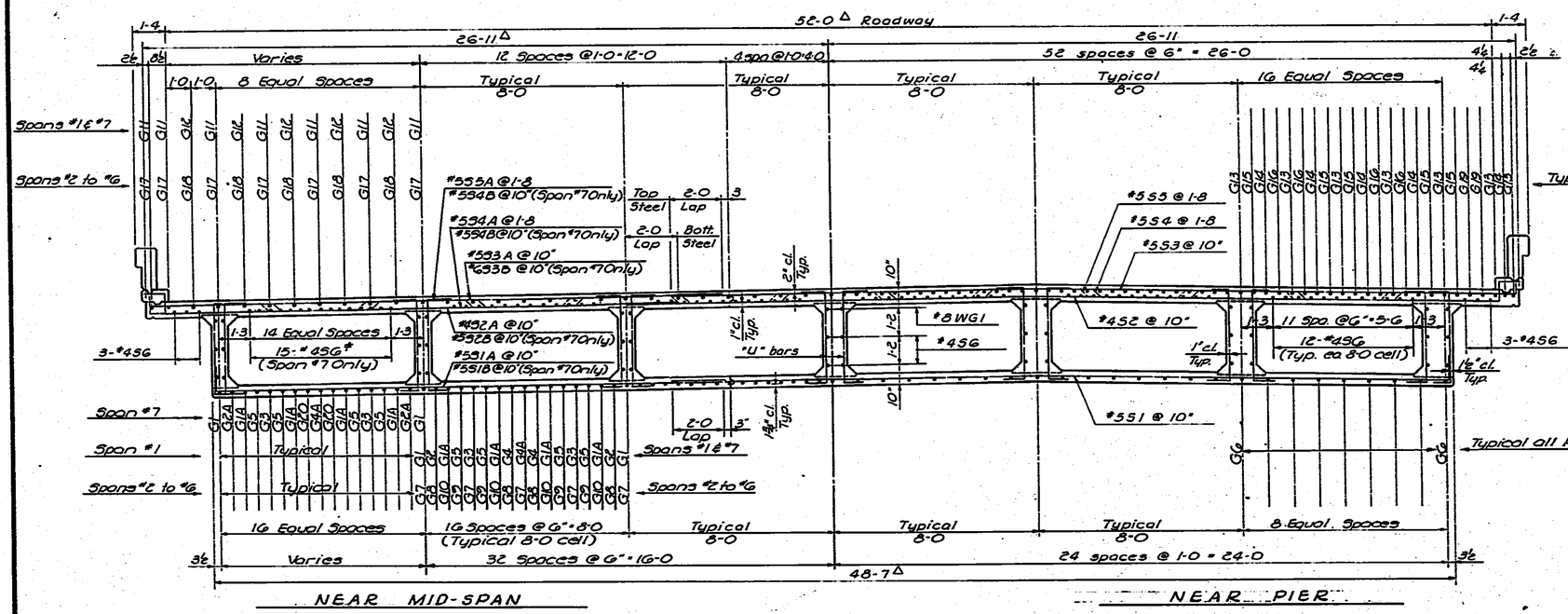
TYPICAL CURB SECTION

Notes:

See Web Elevation for quantity, size and spacing of "U" bars. There 14 sets of 12-#4S6 bars in each typical 8-0 cell end to end of Unit.
There are 12 sets of 12 #4S6 bars in spans #1 to #6. There are 2 sets of 15-#4S6 bars in span #7 this cell. (Lap 1'-6)

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.

Transverse bars in widened section shall be placed with outside end as shown. Lap varies with widening.



NEAR MID-SPAN — NEAR PIER

ROADWAY DECK SECTION

Δ Varies in Span #6 & #7

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 28S
S. B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 6 of 12	SCALE	APP'D.			
DESIGNED DFG	DETAILED LKD	CHECKED LKD/12	TRACED EES		
DESIGN CK. RBJ	DETAIL CK. EES	GEN'L CK. /AV	TRACE CK. LKD		

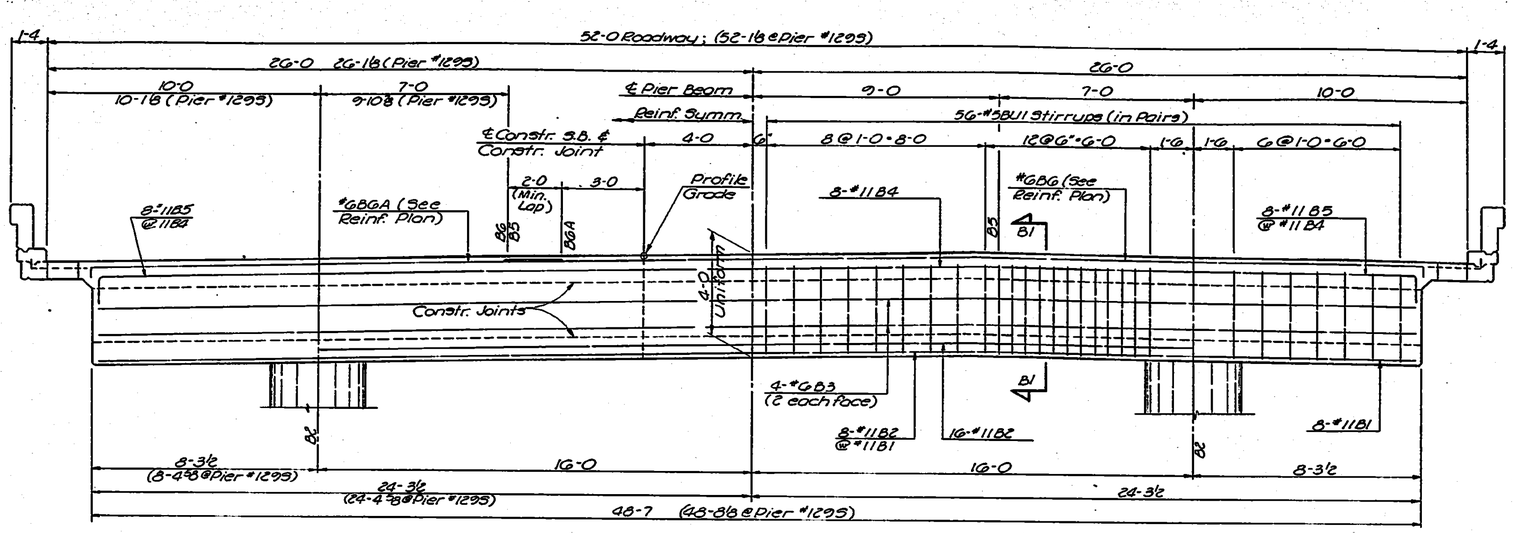
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

2 7 3

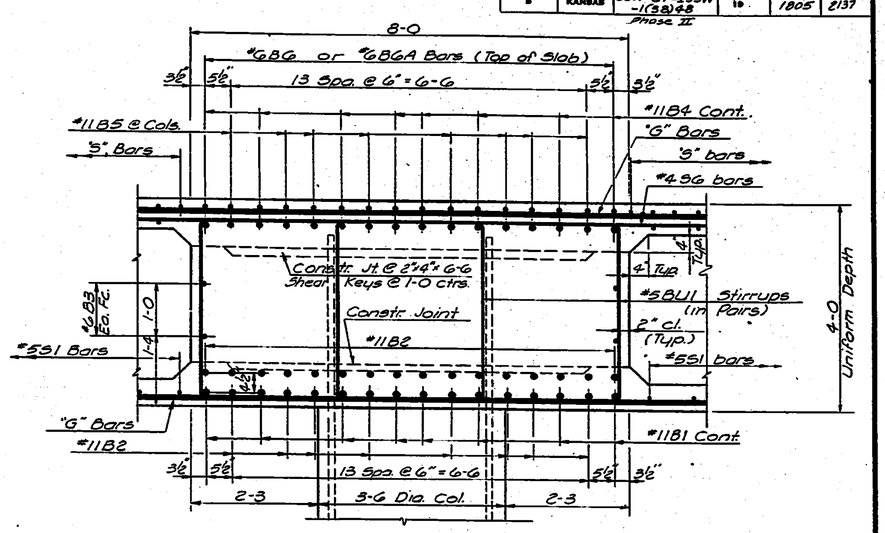
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W-1(58)48 Phase II	19	1805	2137

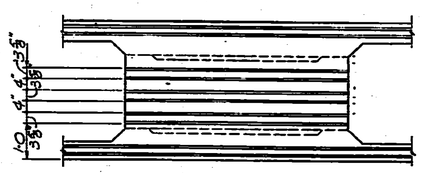


SUPERSTRUCTURE PIER BEAM

Piers #1243 thru #1285 Typical (Pier #1295 Similar)

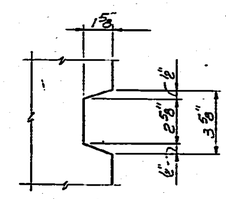


SECTION B1-B1



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION

(Showing Location of Keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60

SUPERSTRUCTURE DETAILS - UNIT NO. 28S

S. B. I-35W VIADUCT

(BETWEEN 13TH & 15TH STREETS)

PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 7 of 12	SCALE		APP'D.		
DESIGNED DFG	DETAILED EES		CHECKED LKD/TL	TRACED EES	
DESIGN CK. KBS	DETAIL CK. LKD/JMR		GRAPH. CK. AV	TRACE CK. LKD	

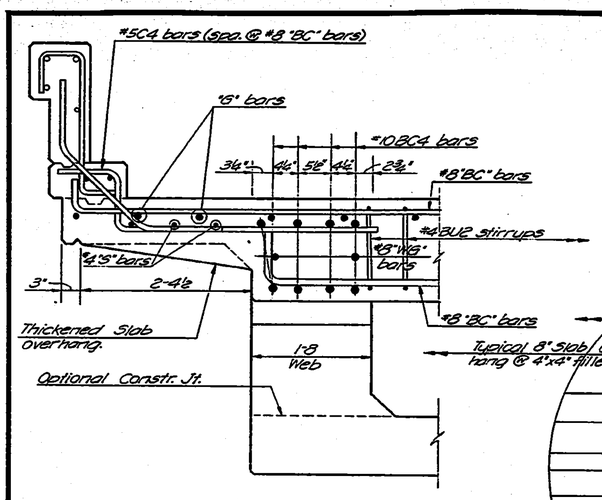
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

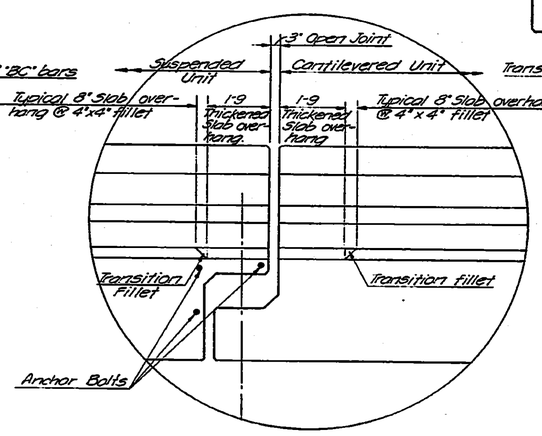
2 7 4

16X 14.5X 12X 12X 14.5X 16X

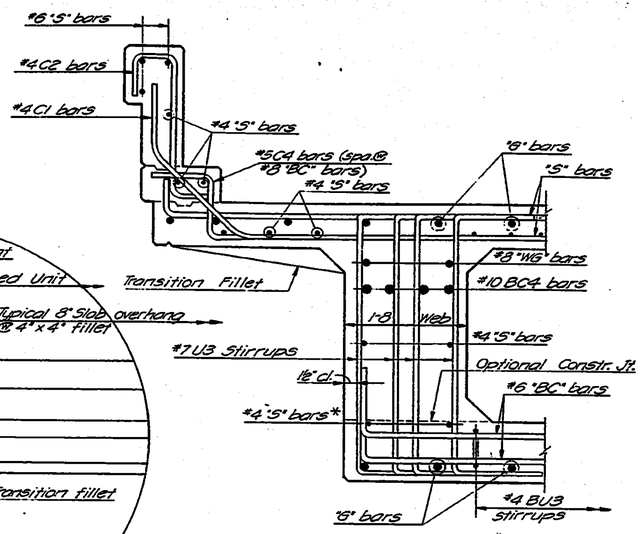
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-I 35W (58)48 Phase II	19	1806	2137



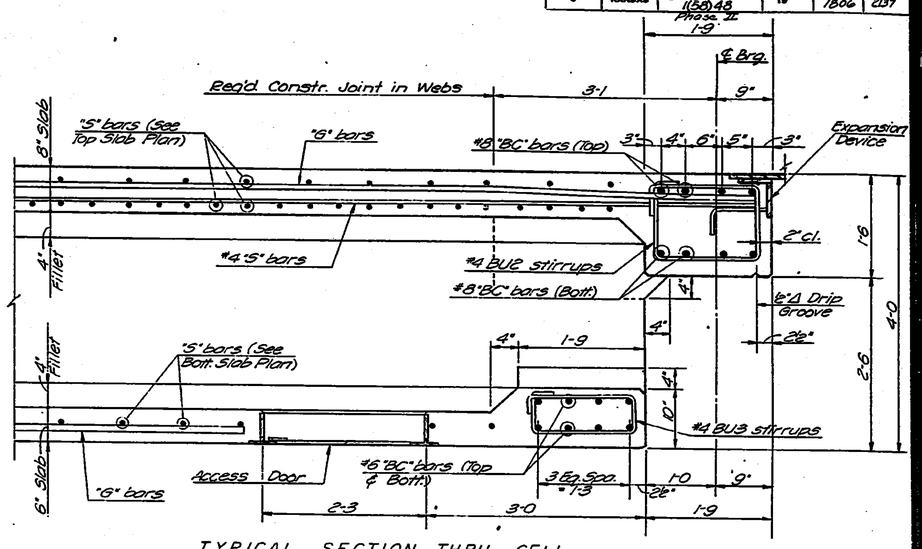
SECTION C2-C2
(Exterior Web)



VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)

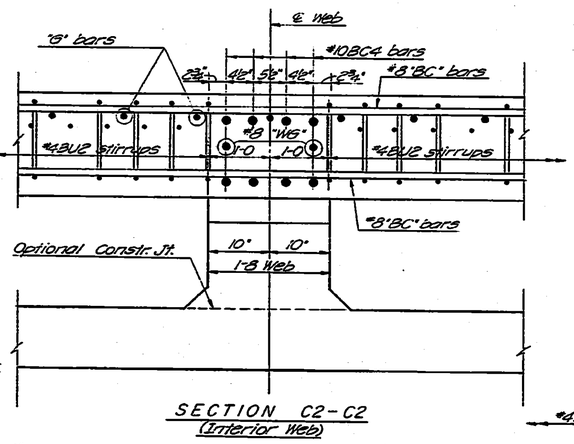


SECTION C1-C1
(Exterior Web)

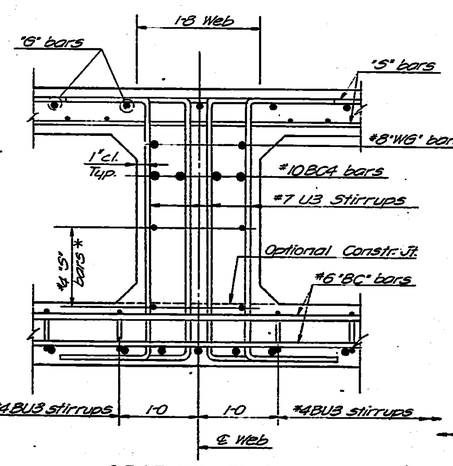


TYPICAL SECTION THRU CELL

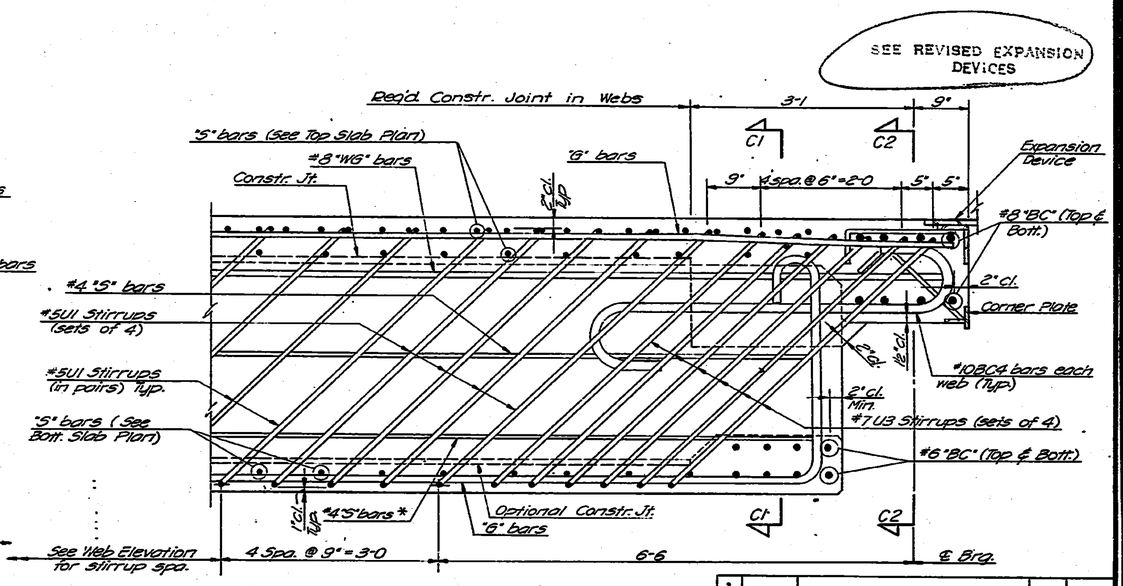
SEE REVISED EXPANSION DEVICES



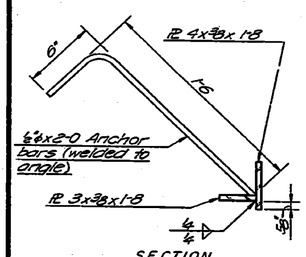
SECTION C2-C2
(Interior Web)



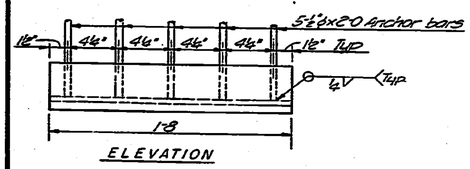
SECTION C1-C1
(Interior Web)



TYPICAL SECTION THRU WEB



SECTION



ELEVATION

CORNER PLATE DETAILS
Computed weight of one assembly is 66 lbs.

BEARING BEAM DETAILS

* Adjust position of #4 'S' bars to clear construction joint if optional top of fillet location is used.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 28S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 8 of 12	SCALE	APP'D.
DESIGNED DFG	DETAILED DS	QUANTITIES LND/TL	TRACED DS
DESIGN CK. RBS	DETAIL CK. RBS	QUANT. CK. DGT/MV	TRACE CK. RBS

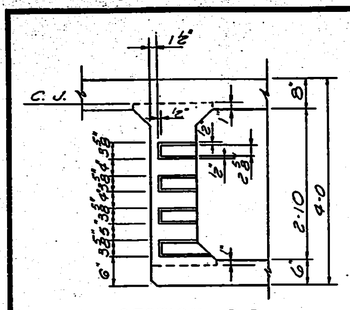
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

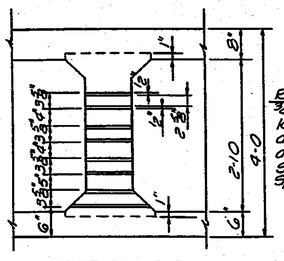
[redacted] 2 7 5

16X 14.5X 12X 12X 14.5X 16X

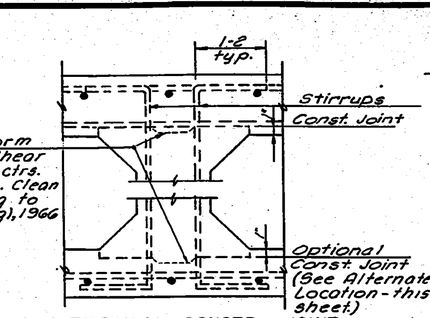
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-0848 Phase II	19	1807	2137



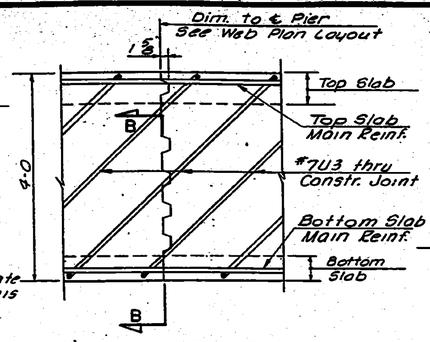
SECTION B-B
(Through Exterior Web)



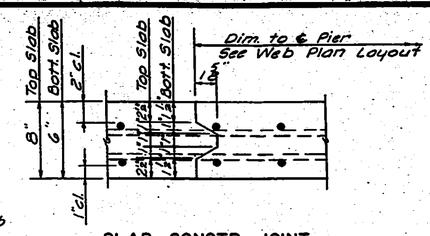
SECTION B-B
(Through Interior Web)



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

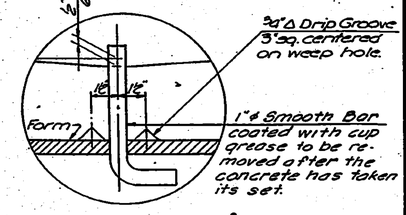


WEB CONSTR. JOINT
(Showing Placement of #7@3 bars)



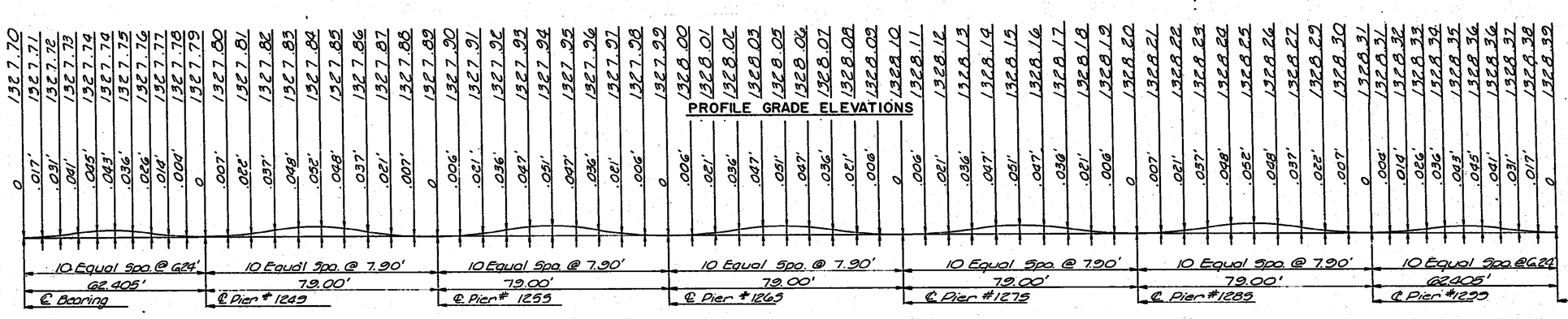
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of weep holes shall be included in the unit price bid for Class AAA Concrete AE.



DETAIL OF WEEP HOLES

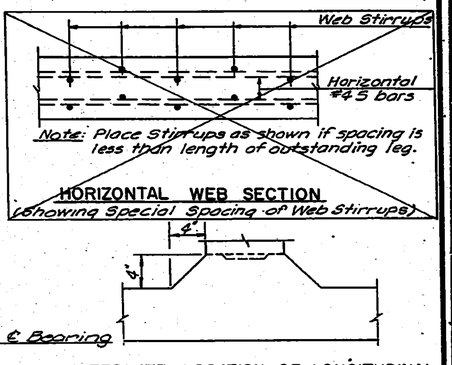
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



DEAD LOAD CAMBER IN FEET

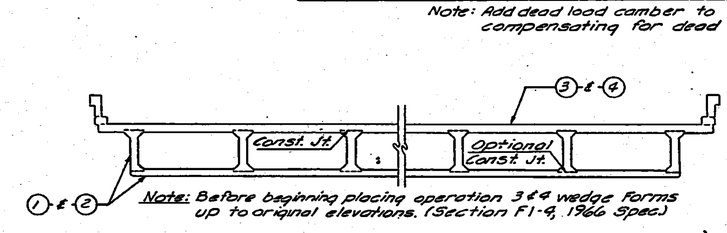
DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS

Note: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ p.s.i.



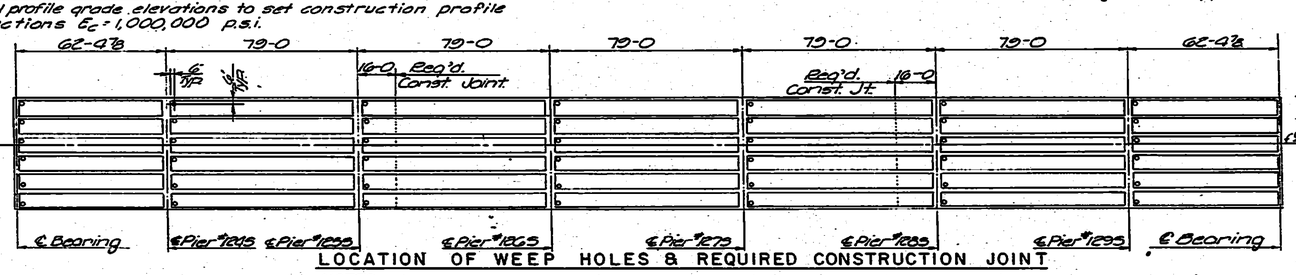
HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)

ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to Approval of Engineer)

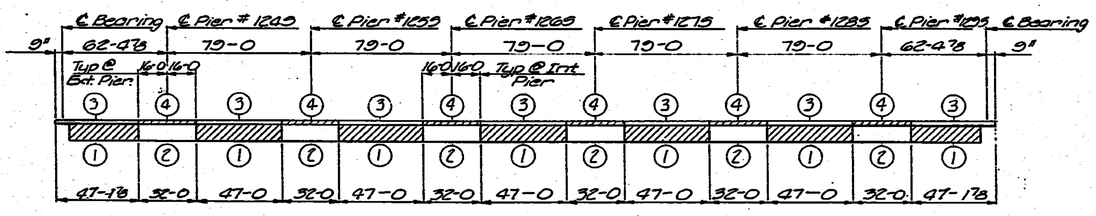


Note: Before beginning placing operation 3 & 4 wedge forms up to original elevations. (Section F1-9, 1966 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



LOCATION OF WEEP HOLES & REQUIRED CONSTRUCTION JOINT



CONCRETE PLACING SEQUENCE

To be used when long-span steel beams are used for falsework

NOTES:
See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown as optional may be used at the Bridge Contractors option, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 28S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

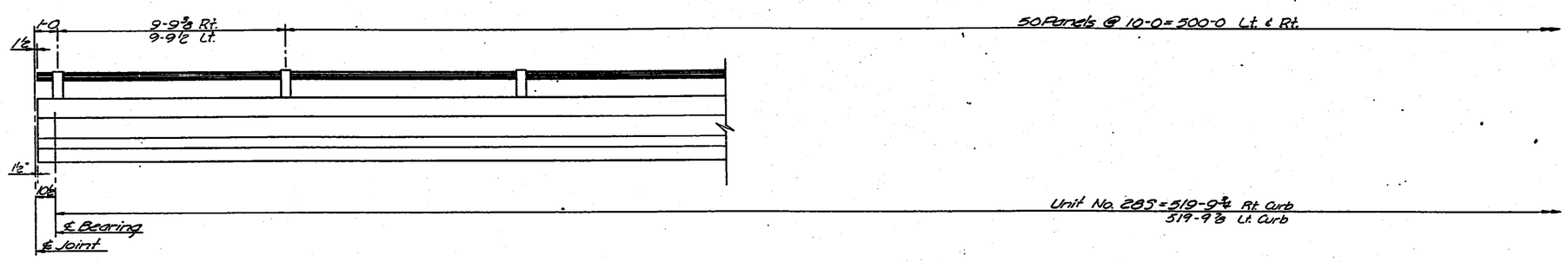
SHEET NO. 9 OF 12	SCALE	APP'D.	
DESIGNED DEG	DETAILED RAW	CHECKED LRD	TRACED DGT
DESIGN CK. DBS	DETAIL CK. DBS	CHECK CK. DGT	TRACE CK. DBS

DIST. 5 SEDGWICK CO. ROLL 531

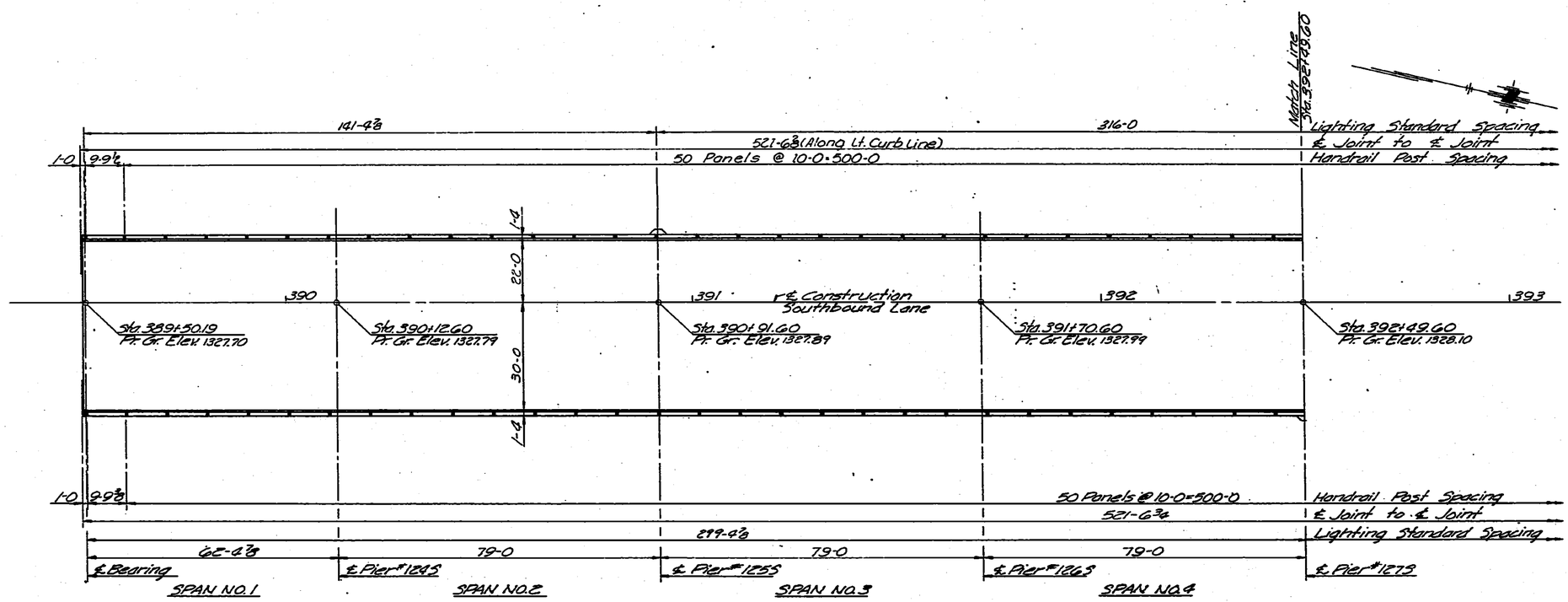
2 7 6

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1808	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+5.60
SUPERSTRUCTURE DETAILS - UNIT NO. 285
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

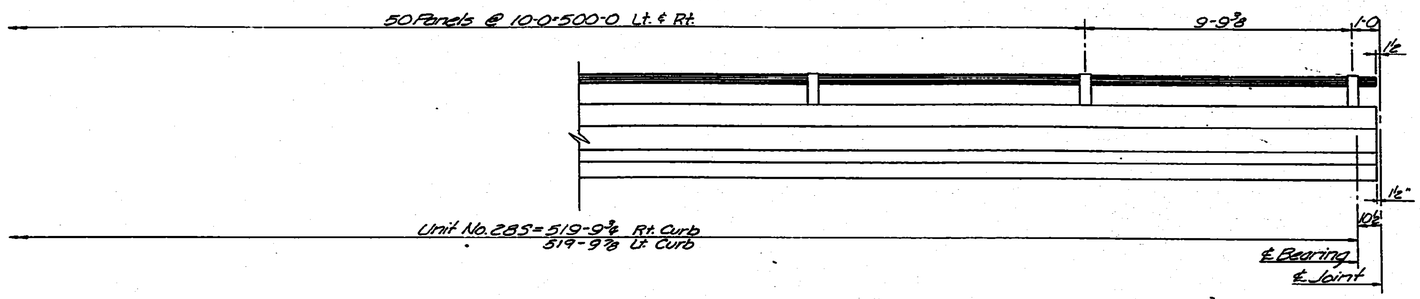
SHEET NO. 10 of 12	STRUC.	APP'D.		
DESIGNED JWP	DETAILED RBS	CHECKED LSO	TRACED KWK	
DESIGN CK. RDS	DETAIL CK. JMG	GENERAL CK. DST	TRACE CK. RDS	

DIST. 5 SEDGWICK CO. ROLL 531

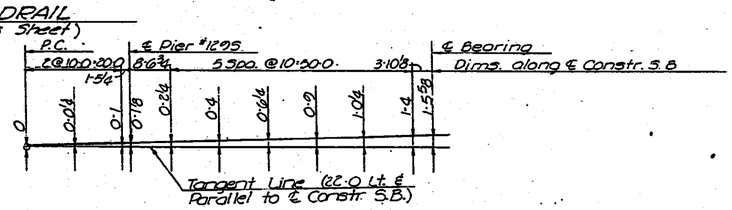
2 7 7

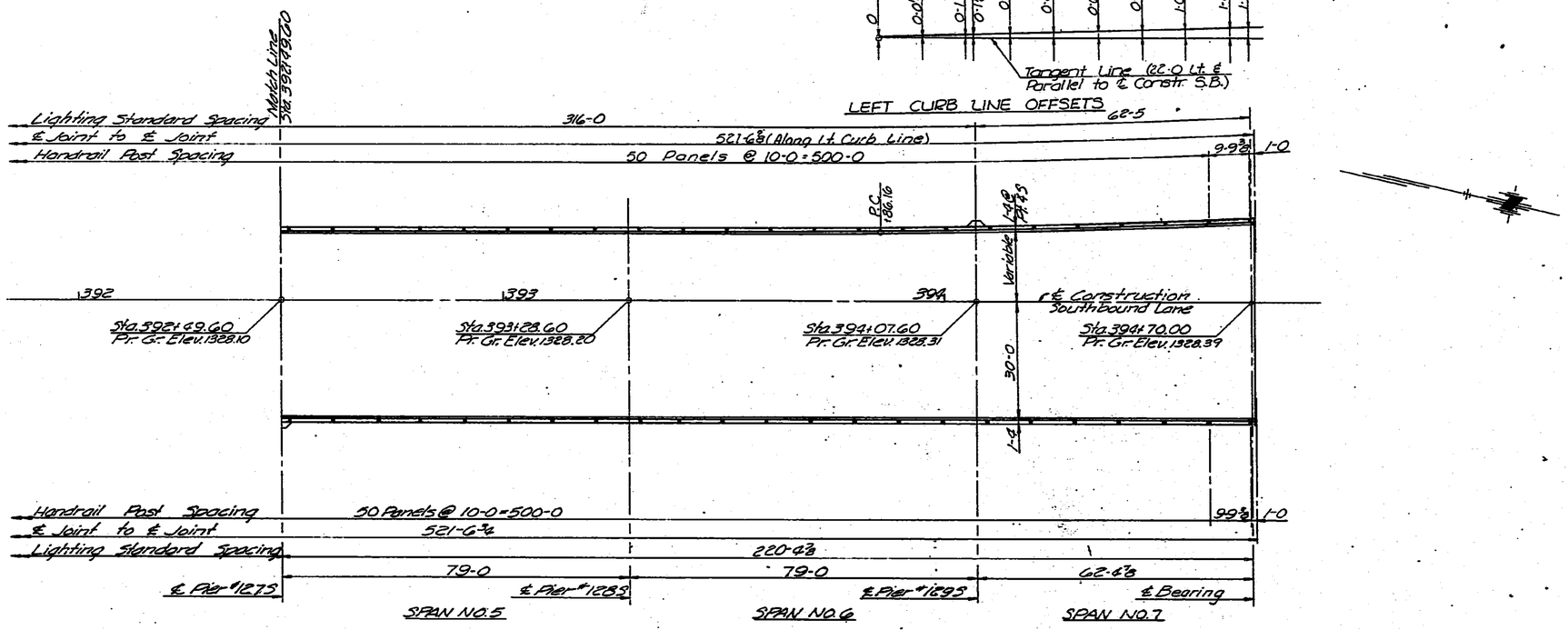
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1809	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)





SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 28S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 110 12	SCALE	APP'D.	
DESIGNED JWH	DRAWN RBS	QUANTITIES LMD	TRACED KWK
DESIGN CK. EBS	DETAIL CK. JMG	GENL. CK. DGT	TRACE CK. EBS

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 7 8

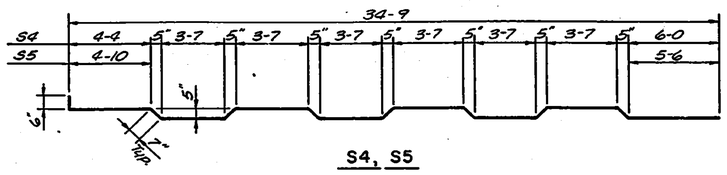
16X 14.5X 12X 12X 14.5X 16X

BENDING DIAGRAMS

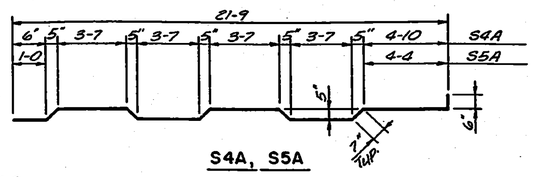
(Bar Dimensions are Out to Out.)

REV. PLANS 11-1-71

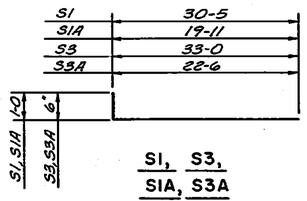
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1810	2137



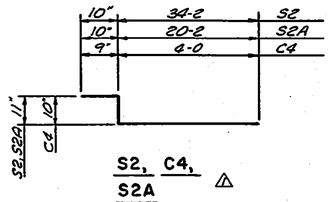
S4, S5



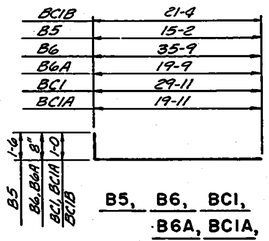
S4A, S5A



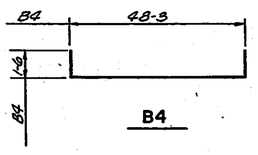
S1, S3, S1A, S3A



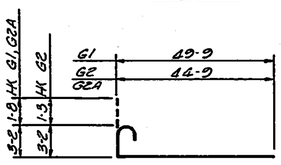
S2, C4, S2A △



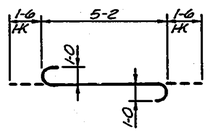
B5, B6, BC1, B6A, BC1A, BC1B



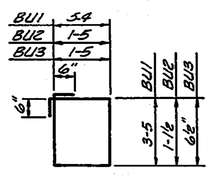
B4



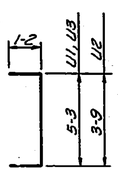
G1, G2, G2A



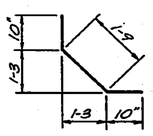
BC4



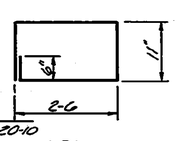
BU1, BU2, BU3



U1, U2, U3

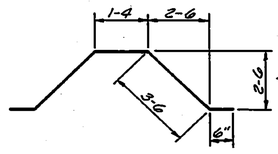


C1

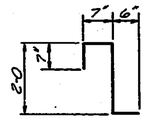


S1B	Increase by 5" Incr. from 20-0 to 20-10	Cut 22 ea. length except cut 23 @ 20-10
S3B	Increase by 5" Incr. from 22-7 to 23-5	Cut 23 ea. length
S4B	Increase by 5" Incr. from 21-4 to 22-2	Cut 4 ea. length except cut 44 @ 21-4

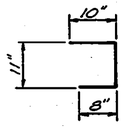
LB1



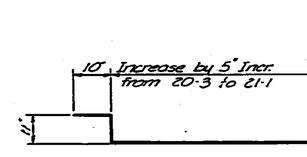
LB2



C2



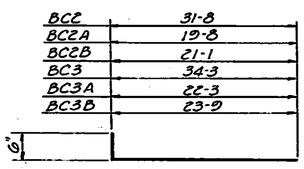
C3



S1B, S3B, S4B

S2B

BC2	31-8
BC2A	19-8
BC2B	21-1
BC3	34-3
BC3A	22-3
BC3B	23-9



BC2, BC3
BC2A, BC3A
BC2B, BC3B

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	504	5	31-5
				S1A	497	5	20-11
				S1B	67	5	*
				S2	568	4	35-11
				S2A	499	4	21-11
				S2B	69	5	*
				S3	508	5	33-6
				S3A	499	5	23-0
S6	1834	4	38-8	S3B	69	6	*
S6A	56	4	36-6	S4	283	5	36-5
				S4A	249	5	23-1
				S4B	136	5	*
S8	24	4	25-6	S5	278	5	36-5
S8A	24	6	25-6	S5A	244	5	23-1
S9	66	4	40-0				
S9A	66	6	40-0				
G1A	48	9	49-9	G1	14	10	54-7
				G2	22	9	49-2
G3	22	10	49-9	G2A	2	10	49-7
G4	22	9	39-6				
G4A	12	10	44-6				
G5	48	9	30-0				
G6	294	8	27-0				
G7	125	10	56-0				
G8	120	9	46-0				
G9	120	9	30-0				
G10	120	9	56-0				
G11	58	5	39-6				
G12	52	5	44-6				
G13	174	11	50-0				
G14	156	11	40-0	LB1	12	4	7-7
G15	156	11	26-0	LB2	9	4	9-7
G16	144	11	16-0				
G17	145	5	32-0				
G18	130	5	42-0				
G19	48	11	19-6				
G20	2	10	30-6				

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
B1	48	11	48-3				
B2	144	11	32-0				
B3	24	6	48-3				
				B4	48	11	51-3
				B5	96	11	16-8
				B6	96	6	36-5
				B6A	96	6	20-5
				BU1	672	5	18-6
				BU2	121	4	6-1
				BU3	85	4	4-11
				BC1	16	6	30-11
				BC1A	8	6	20-11
				BC1B	8	8	22-4
				BC2	8	8	32-2
				BC2A	4	8	20-2
				BC2B	4	8	21-7
				BC3	8	8	34-9
				BC3A	4	8	22-9
				BC3B	4	8	24-3
				BC4	56	10	8-2
				C1	1236	4	3-5
				C2	1252	4	3-8
				C3	120	4	2-5
				C4	16	5	5-7
C5	48	4	2-6				
				U1	5824	5	7-7
				U2	168	5	6-1
				U3	840	7	7-7
WG1	68	8	33-6				
WG2	168	8	40-0				

*See Bending Diagrams

All bar marks shall be prefixed with the Unit Number when fabricated. Example: #1061 bars shall be marked 28S1061.

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	1807.4	Cu. Yds.
Reinforcing Steel	614,010	Lbs.
Cast Iron Scuppers		Lbs.
Wrought Iron Drains & Grates	6,595	Lbs.
8" ϕ Downspouts	356.7'	Lin. Ft.
Gutters		Lin. Ft.
Bridge Handrail	1039.13' ~~1039.14~~	Lin. Ft.
Structural Steel		
Bearing Devices (A36) 14 @ 242 Lbs.	3388	Lbs.
Corner Plates & Cover Plates (A36)	496	Lbs.
Access Doors (A36) 12 @ 130 Lbs.	1560	Lbs.
Linseed Oil Surface Treatment (Bridges)	3016.7	Sq. Yds.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
△ 1	11-1-71	Rev. Exp. Devices	WHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 28S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

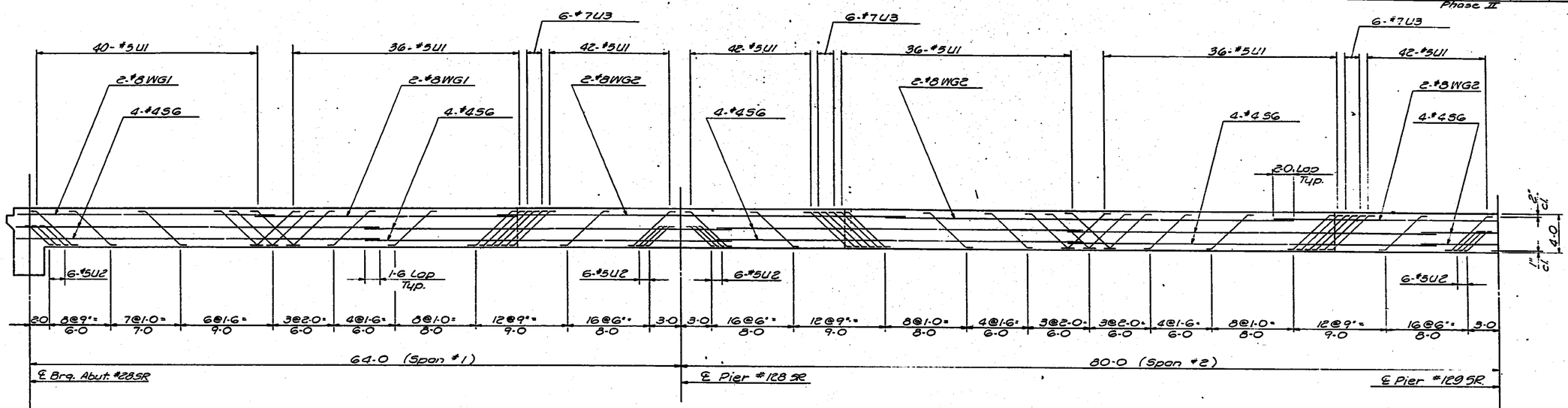
SHEET NO. 12 OF 12	SCALE	APP'D					
DESIGNED DFG	DETAILED JWL	QUANTITIES TL	TRACED GES				
DESIGN CK. RBS	DETAIL CK. RAW	QUAN. CK. AV	TRACE CK. JWL				

DIST. 5 SEDGWICK CO. ROLL 531

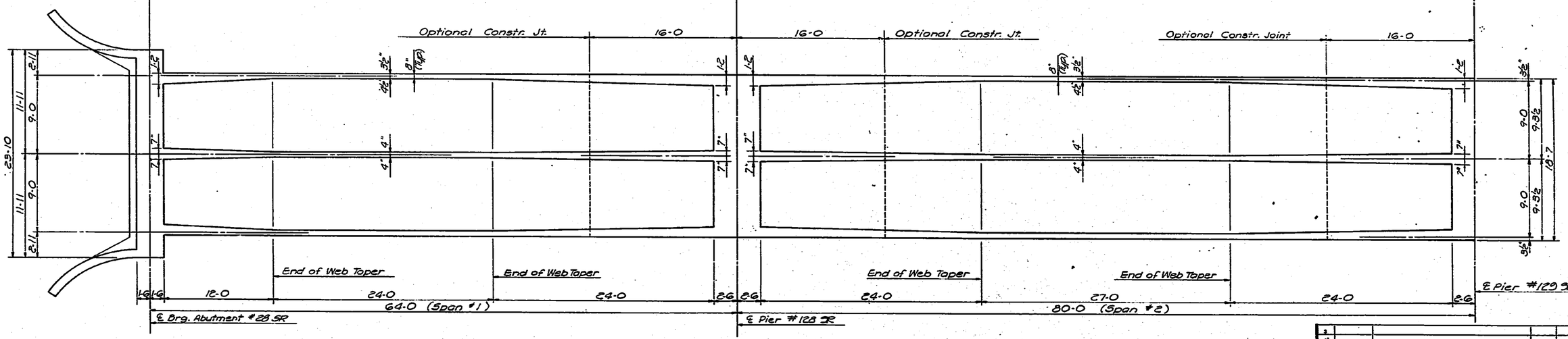
[redacted]

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	19	1811	*2137



WEB ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web, except as noted.)



WEB PLAN LAYOUT

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top and beneath bottom main reinforcing steel. See Roadway Deck Section.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 28SR
S.B. I-35W VIADUCT
(RAMP "Q" BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

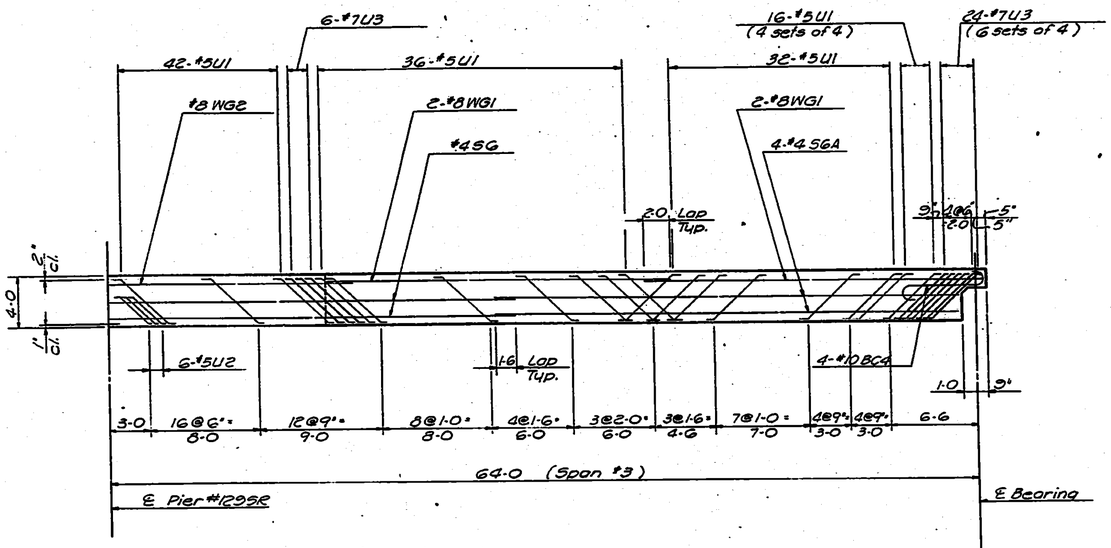
SHEET NO. 1 OF 10	SCALE	APPR.	
DESIGNED LHV	DETAILED JMG	CHECKED LKD	TRACED JMG
DESIGN CK. EBS	DETAIL CK. EDS	CHIEF CK. DBF	TRACE CK. EDS

DIST. 5 SEDGWICK CO. ROLL 531

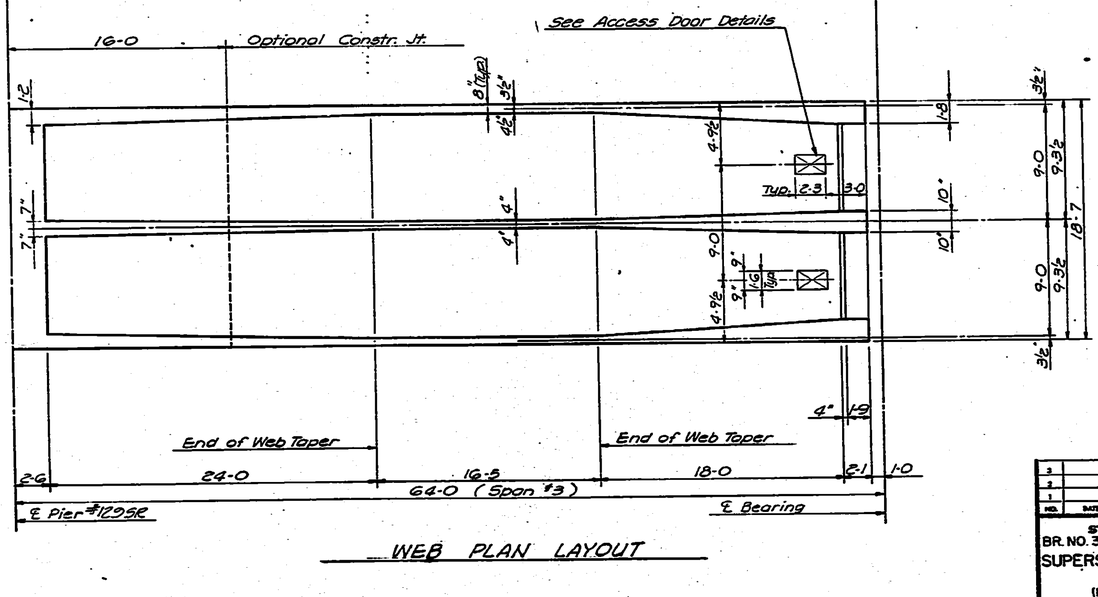
2 8 0

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (128) 82 Phase II	19	1812	2137



WEB ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web, except as noted)



WEB PLAN LAYOUT

* See note on previous sheet.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 28 SR
S.B. I-35W VIADUCT
(RAMP "Q" BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

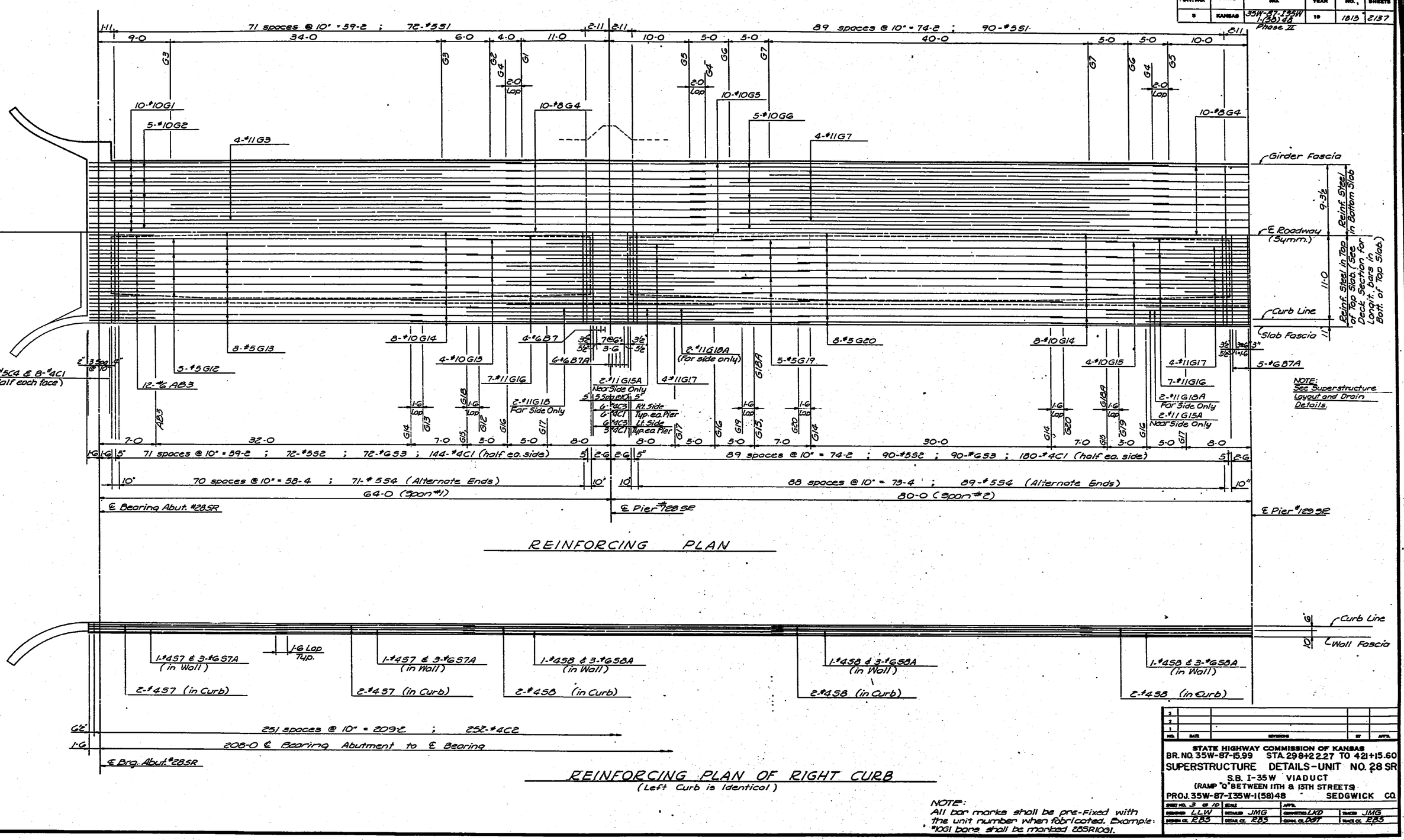
SHEET NO. 2 OF 10	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	CHECKED LKD	TRACED JMG
CHECK'D BY 285	QUANT. CK. 283	CHIEF ENG. DBT	TRACE CK. 285

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 8 1

16X 14.5X 12X 12X 14.5X 16X

FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1-(58)48 Phase II	19	1813	2137



REINFORCING PLAN

REINFORCING PLAN OF RIGHT CURB
(Left Curb is Identical)

NOTE:
All bar marks shall be pre-fixed with the unit number when fabricated. Example: #1051 bars shall be marked 28SR1051.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 28 SR
S.B. I-35W VIADUCT
(RAMP "Q" BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

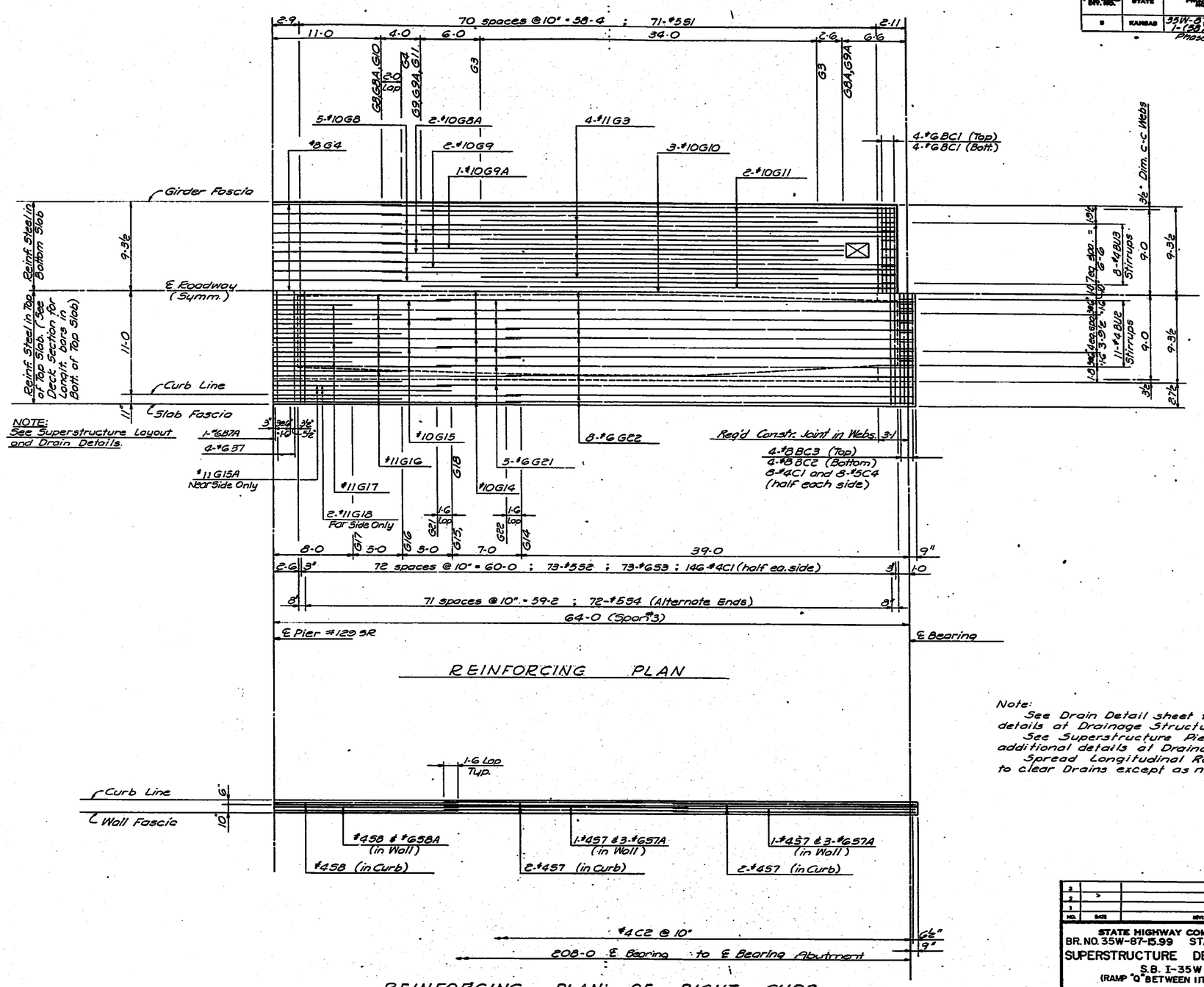
SHEET NO. 3 OF 10	SCALE	APP'D.	
DESIGNED LLW	DETAILED JMG	COMPUTED LKD	TRACED JMG
DESIGN CK. 28S	DETAIL CK. 28S	COMP. CK. 28S	TRACE CK. 28S

DIST. 5 SEDGWICK CO. ROLL 531

2 8 2

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1814	2137



REINFORCING PLAN

REINFORCING PLAN OF RIGHT CURB
(Left Curb is Identical)

Note:
See Drain Detail sheet for additional details at Drainage Structures.
See Superstructure Pier Beams for additional details at Drainage Structures.
Spread Longitudinal Reinforcing Steel to clear Drains except as noted.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 2 SR
S.B. I-35W VIADUCT
(RAMP "Q" BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

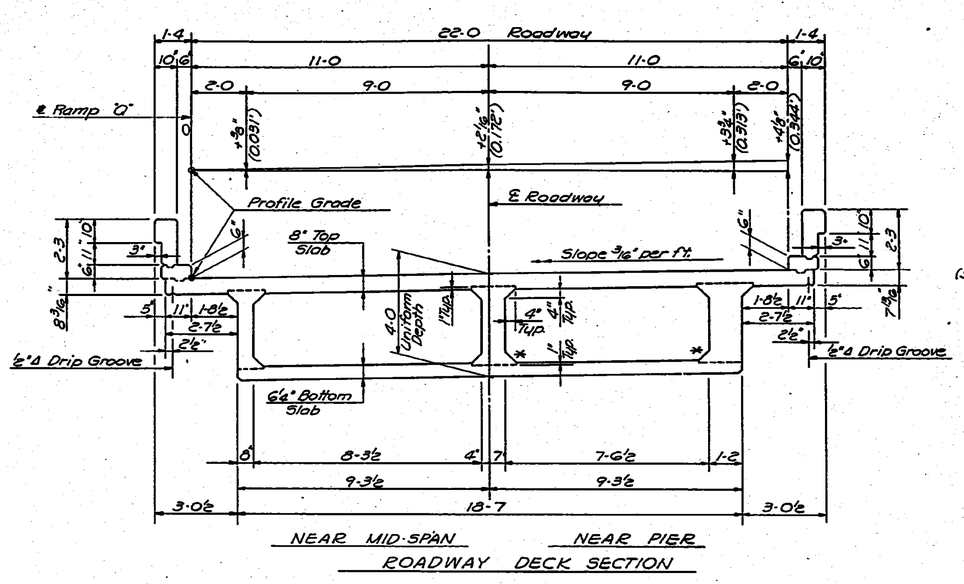
SHEET NO. 2 OF 10	SCALE	APPR.	
DESIGNED LLW	DETAILED JMG	CHECKED LKD	TRACED JMG
DESIGN CK. RBS	DETAIL CK. RBS	CHIEF CK. DGT	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

2 8 3

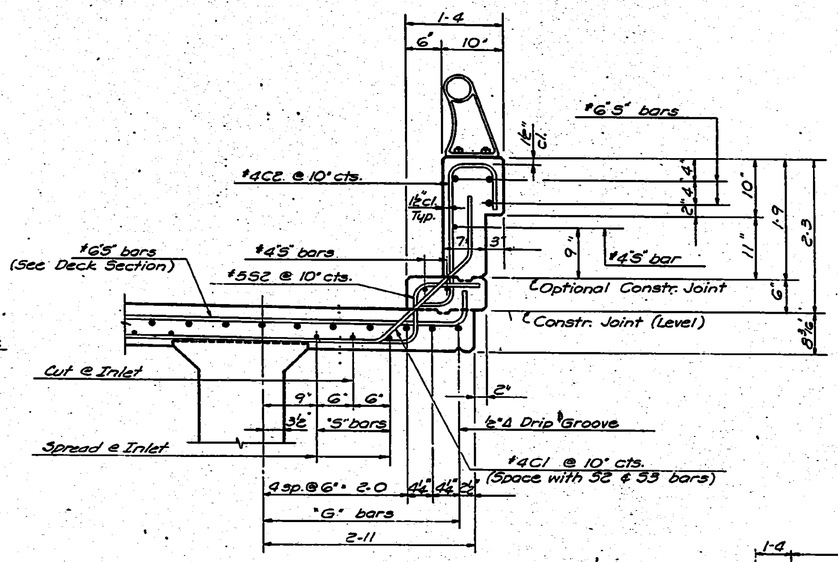
16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	TOTAL SHEETS	SHEET NO.	ADD'L SHEETS
5	KANSAS	35W-87-1-35W 1-(58)48 Phase II	10	1815	2137



NEAR MID-SPAN NEAR PIER

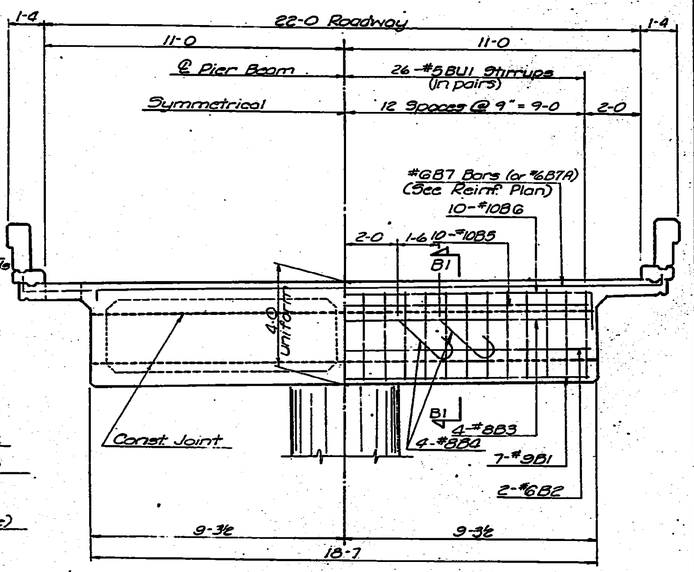
ROADWAY DECK SECTION



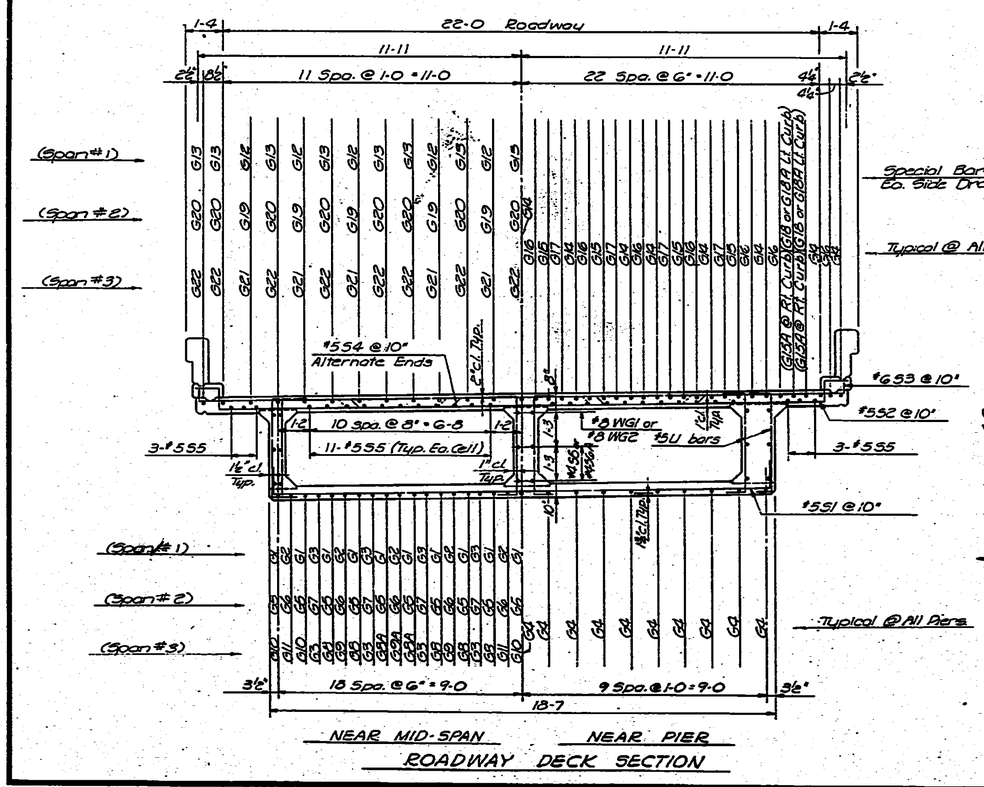
TYPICAL CURB SECTION

Note:
See Web Elevation for quality, size, and spacing of "U" bars.
There are 6 sets of #S5S bars in the bottom of the top slab. (Lap 1-6)

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.

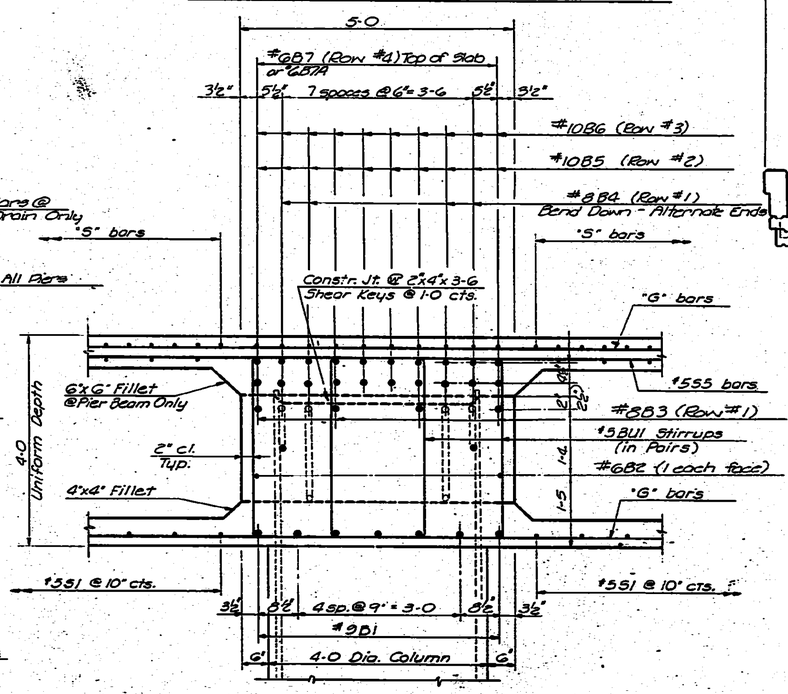


SUPERSTRUCTURE PIER BEAM



NEAR MID-SPAN NEAR PIER

ROADWAY DECK SECTION



SECTION B1 - B1

3			
2			
1			
NO.	DATE	REVISIONS	BY APP'D

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 2 8 SR
S.B. I-35W VIADUCT
(RAMP "Q" BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

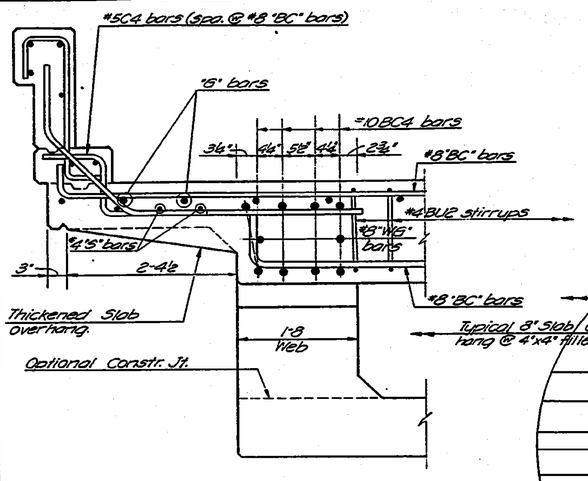
DESIGNED DFG	DETAILED JMG	APP'D.	CHECKED LKD
DRAWN C. P.B.S.	TRACED C. P.B.S.	CHECKED C. DAT	TRACED JMG C. P.B.S.

DIST. 5 SEDGWICK CO. ROLL 531

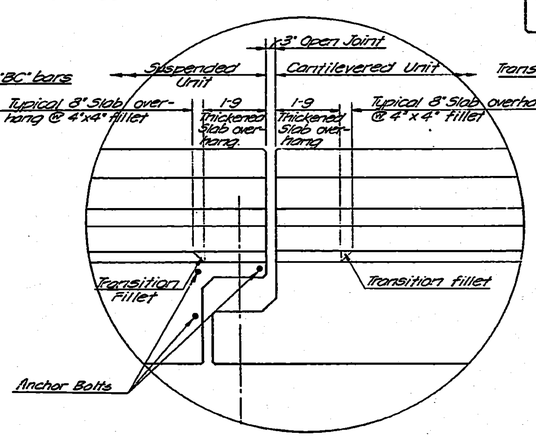
2 8 4

16X 14.5X 12X 12X 14.5X 16X

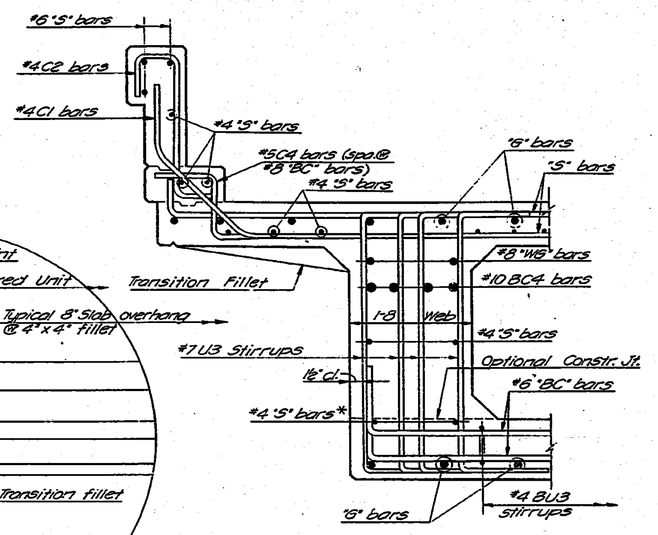
PUB. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W I-(58)48 Phase II	19	1816	2137



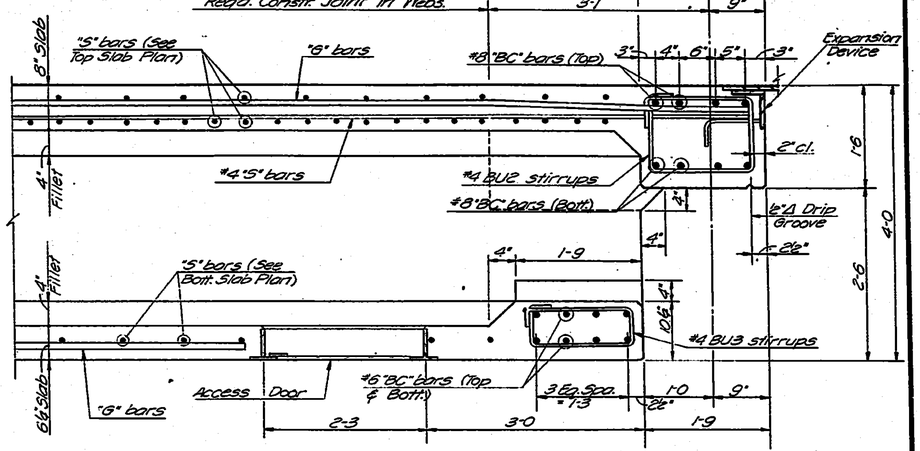
SECTION C2-C2
(Exterior Web)



VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)

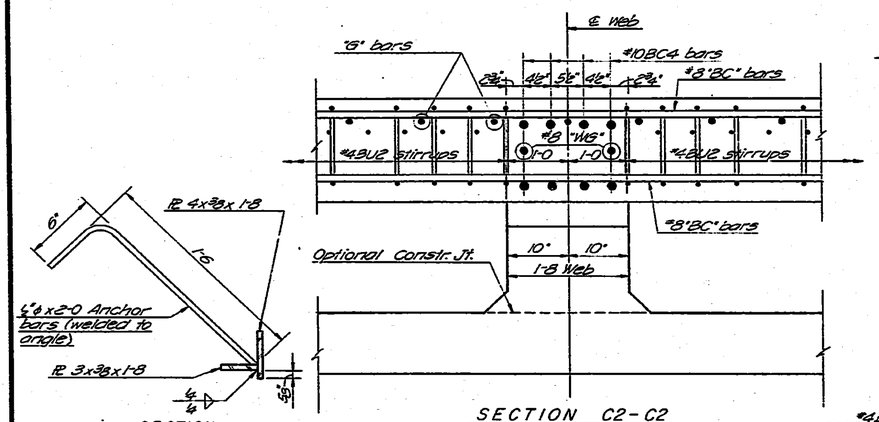


SECTION C1-C1
(Exterior Web)

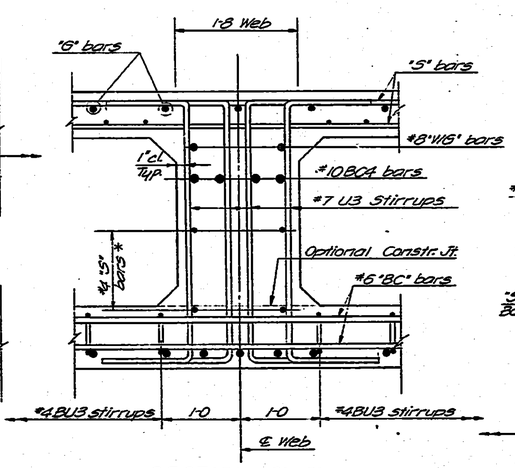


TYPICAL SECTION THRU CELL *

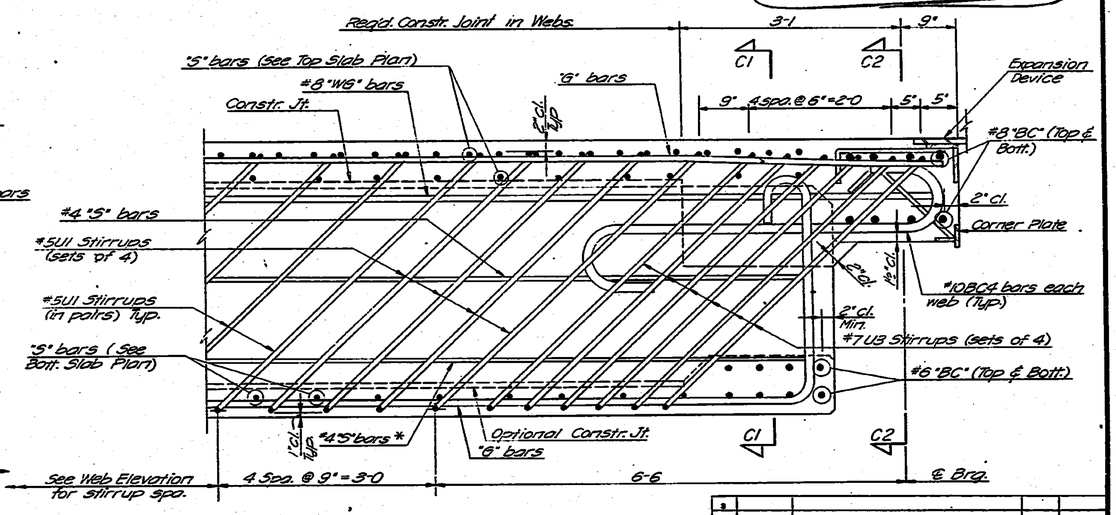
SEE REVISED EXPANSION DEVICES



SECTION C2-C2
(Interior Web)

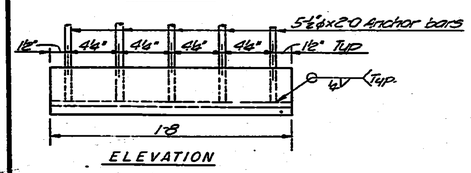


SECTION C1-C1
(Interior Web)



TYPICAL SECTION THRU WEB *

SECTION



ELEVATION

CORNER PLATE DETAILS
Computed weight of one assembly is 22#

BEARING BEAM DETAILS

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

* See Web Elevation on Sheet No. 1811 for Span #1 at Abutment.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 · STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 28SR
S.B. I-35W VIADUCT
(RAMP "Q" BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 6 OF 10	SCALE	APP'D.		
DESIGNED DFG	DETAILED DS	CHECKED LKD	TRACED DS	
DESIGN CK. RBS	DETAIL CK. RBS	GENERAL CK. DGT	TRACE CK. RBS	

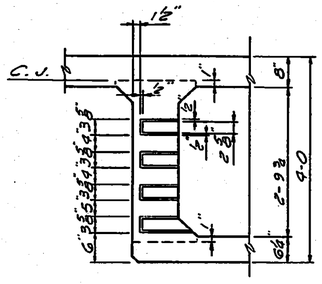
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

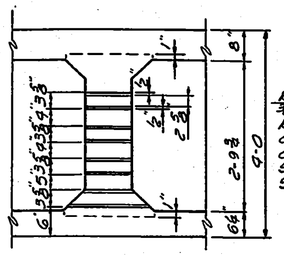
2 8 5

16X 14.5X 12X 12X 14.5X 16X

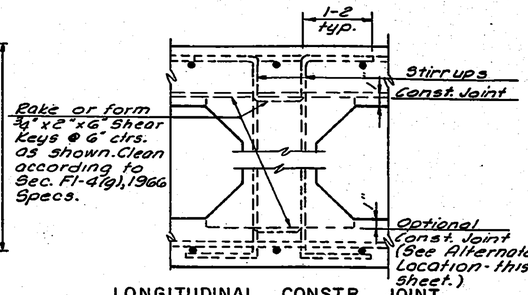
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -(58)48 Phase II	19	16/7	2/37



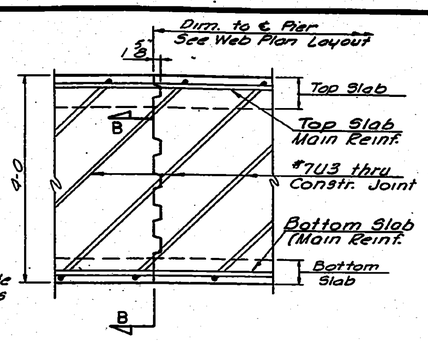
SECTION B-B
(Through Exterior Web)



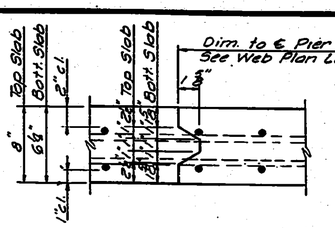
SECTION B-B
(Through Interior Web)



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

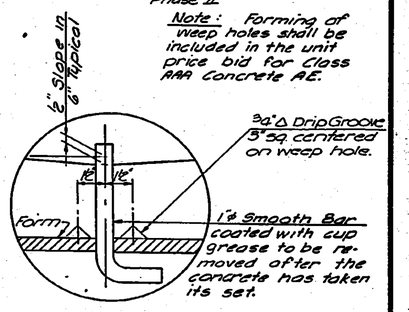


WEB CONSTR. JOINT
(Showing Placement of #7@3 bars)



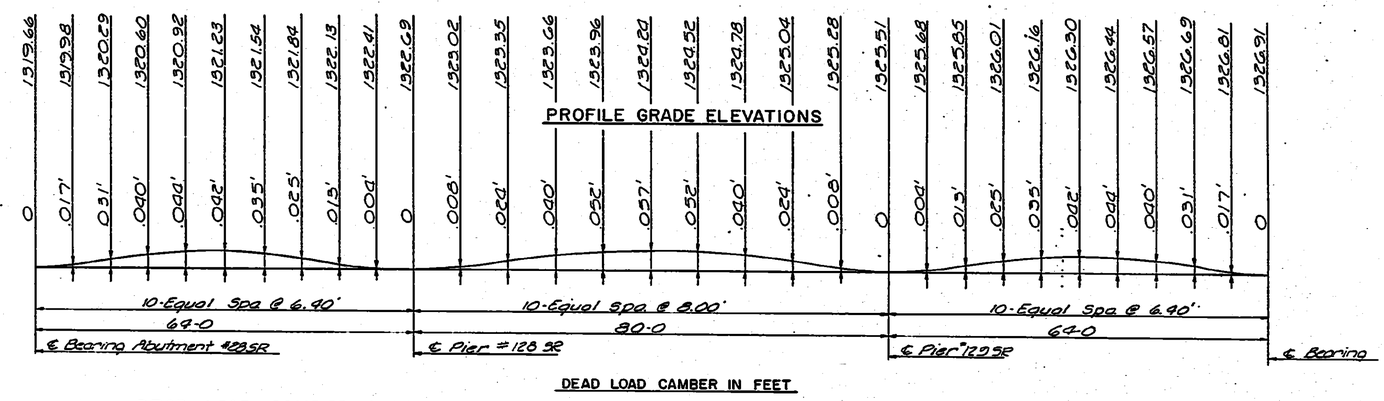
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of weep holes shall be included in the unit price bid for Class AAA Concrete AE.



DETAIL OF WEEP HOLES

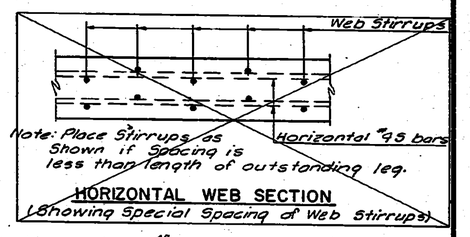
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



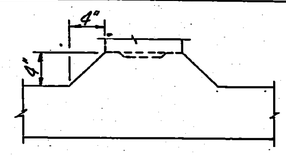
DEAD LOAD CAMBER IN FEET

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS ON CURB LINE

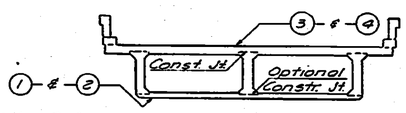
Note: Add dead load camber to theoretical Profile grade elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ p.s.i.



HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)

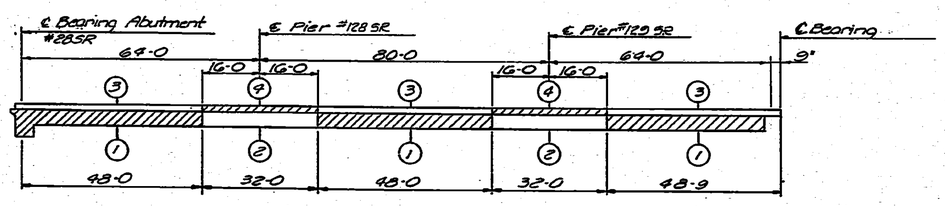


ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer)



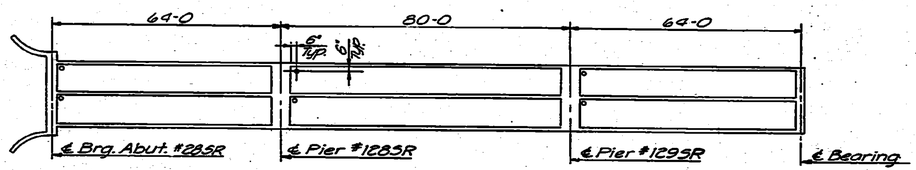
Note: Before beginning placing operation 3 & 4 wedge forms up to original elevations (Section F1-4, 1966 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



CONCRETE PLACING SEQUENCE

To be used when long-span steel beams are used for falsework



LOCATION OF WEEP HOLES

NOTES:

See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.9 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 28SR
S.B. I-35W VIADUCT
(RAMP "Q" BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-K(58)48 SEDGWICK CO.

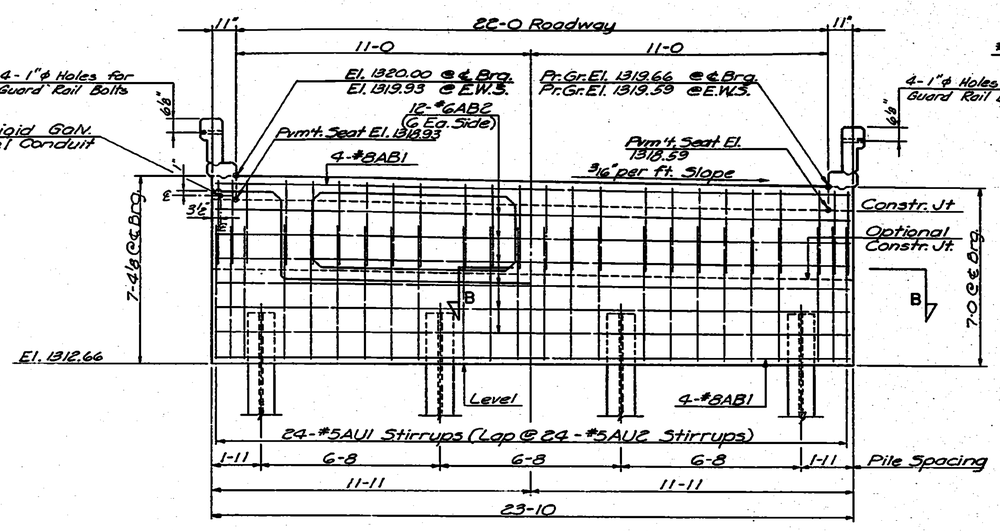
SHEET NO. 7 OF 12	SCALE	APP'D.	
DESIGNED DFG	DETAILED RAW	CHECKED LKD	TRACED DGT
DESIGN CK. RBS	DETAIL CK. RBS	QUANT. CK. DGT	TRACE CK. EBS

DIST. 5 SEDGWICK CO. ROLL 531

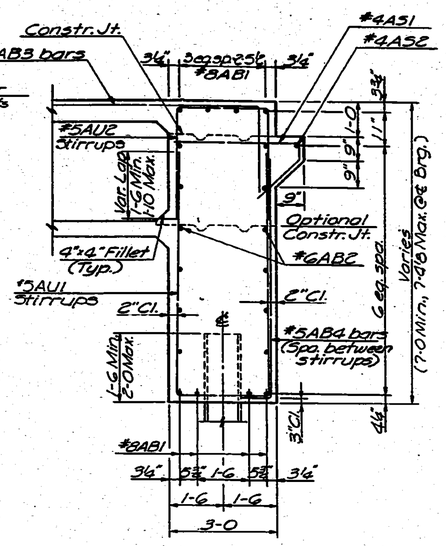
2 8 6

16X 14.5X 12X 12X 14.5X 16X

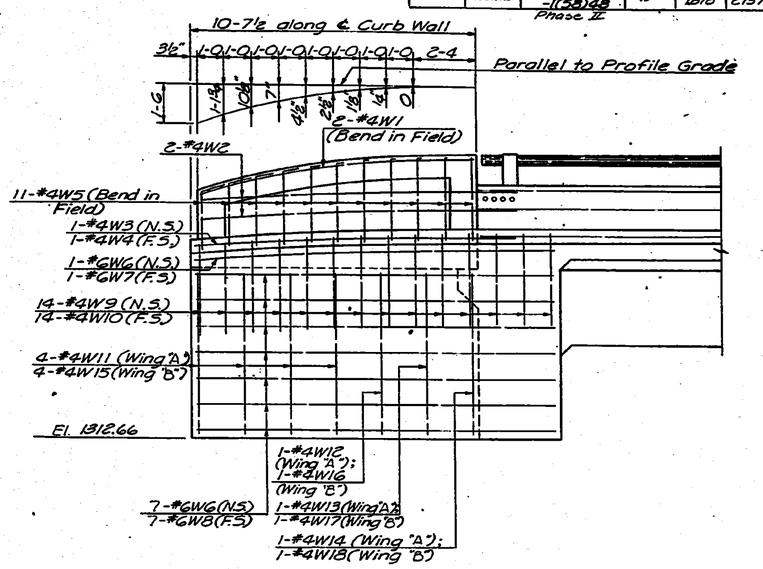
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1818	2137



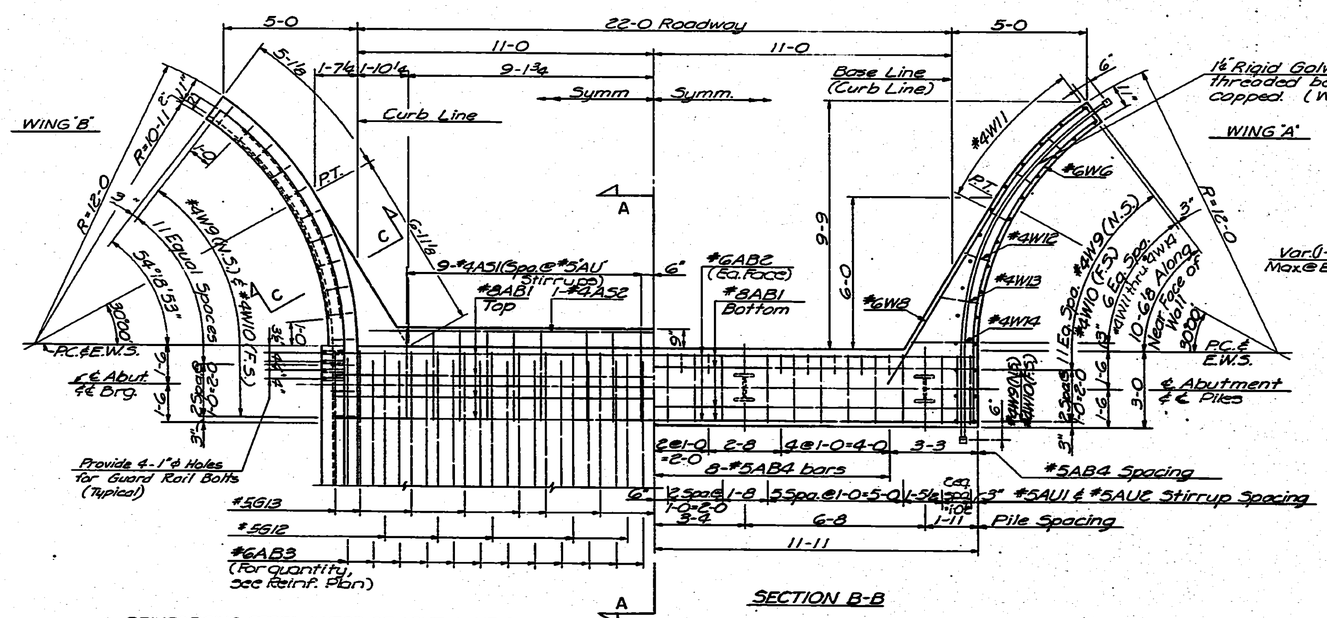
ELEVATION OF ABUTMENT



SECTION A-A



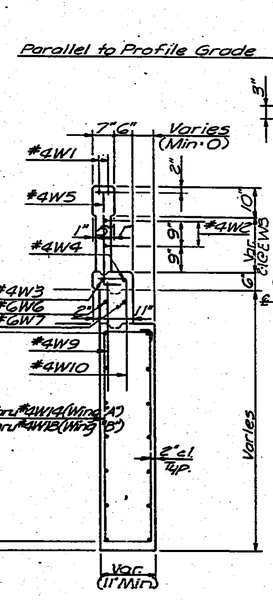
DEVELOPED VIEW OF WING
Wing "B" Shown; Wing "A" Similar



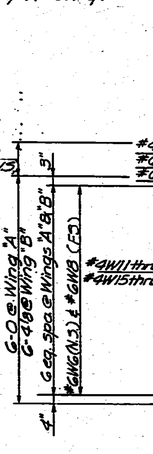
REINFORCING STEEL IN TOP OF ABUTMENT & CURB

SECTION B-B
REINFORCING STEEL IN BOTTOM OF ABUTMENT

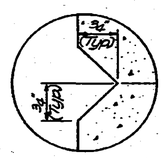
PLAN OF ABUTMENT



WING ELEVATION
Wing "B" Shown; Wing "A" Similar



SECTION C-C
(Wing "B" Shown; Wing "A" Similar)



SECTION D-D

Note: All Piles shall be 10BP42 Steel Piles

NO.	DATE	REVISIONS	BY	APP'D.

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
ABUTMENT DETAILS - UNIT NO. 28SR
I-35W VIADUCT
(RAMP "Q" BETWEEN 11TH & 13TH STREETS)
PROJ. NO. 35W-87-135W-1(58)48 ∴ SEDGWICK CO.

SHEET NO. & NO. OF	SCALE	APPR.	
DESIGNED DFG	DETAILED RCP	QUANTITIES LKD	TRACED RCP
DESIGN CK. RBS	DETAIL CK. RBS	GENL. CK. DBT	TRACE CK. TB

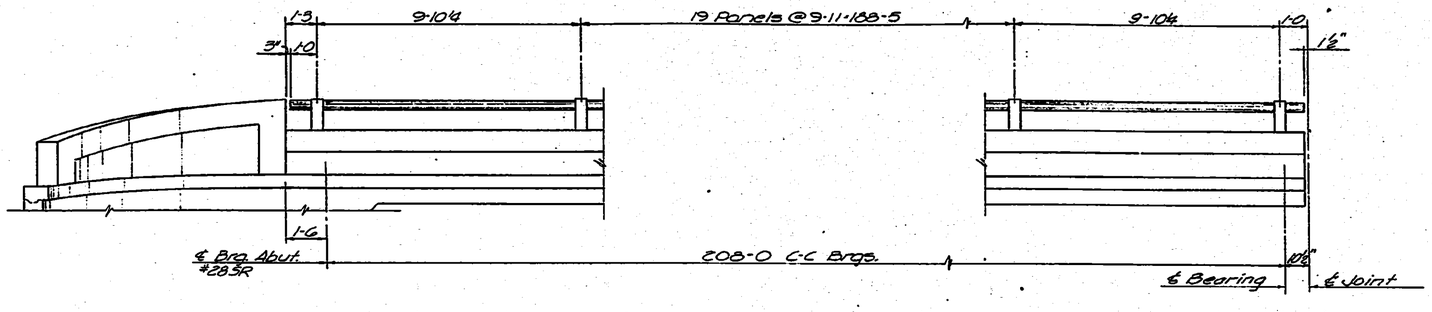
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

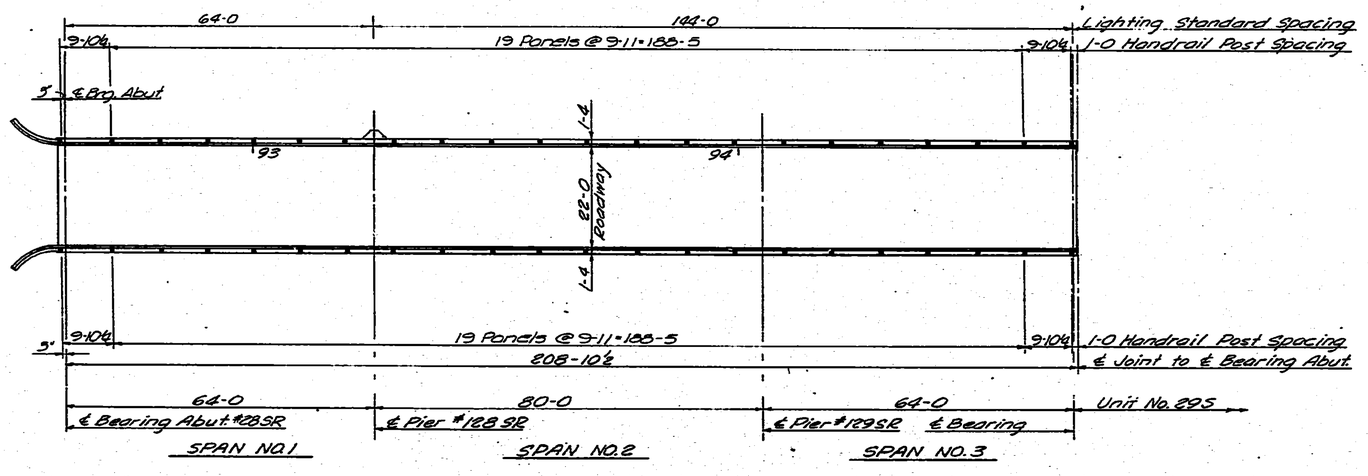
2 8 7

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	19	1819	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)



SUPERSTRUCTURE LAYOUT

Note: See "Standard Lighting Bracket Details" for reinforcing and dimensions of Lighting Standard Brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 28SR.
S.B. I-35W VIADUCT
(RAMP "D" BETWEEN 11TH & 13 TH. STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 2 OF 10	SCALE	APP'D.	
DESIGNED JWN	DETAILED RBS	CHECKED LKD	TRACED CRB
DESIGN CK. RBS	DETAIL CK. LB	CONST. CK. DBT	TRACE CK. DBT

DIST. 5 SEDGWICK CO. ROLL 531

2 8 8

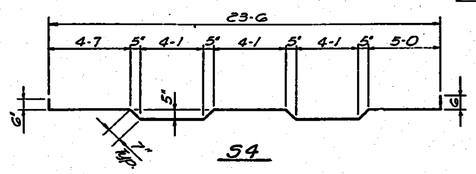
16X 14.5X 12X 12X 14.5X 16X

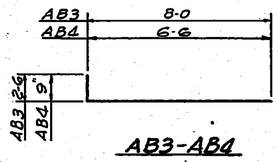
BENDING DIAGRAMS

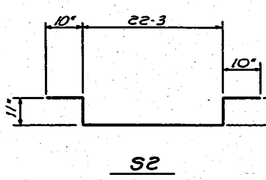
Bar Dimensions are Out to Out

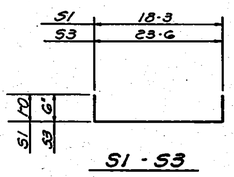
REV. PLANS 11-1-71

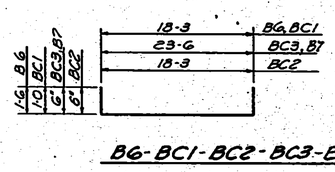
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1820	2137

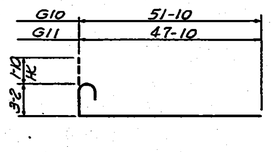


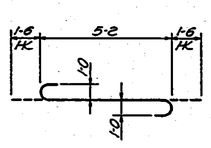


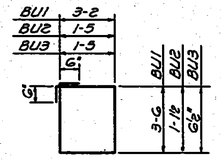


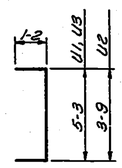


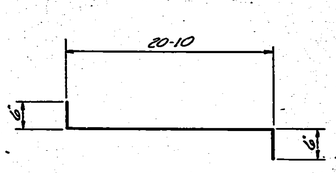


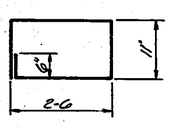


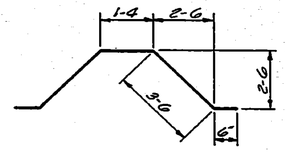


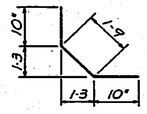


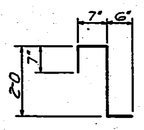


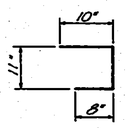


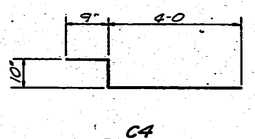


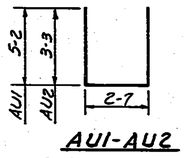


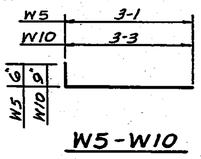


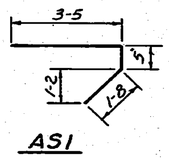


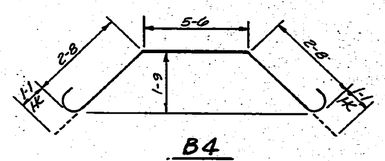


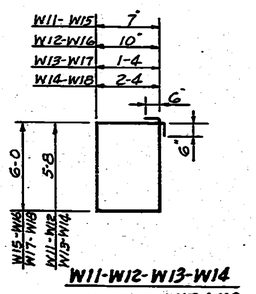


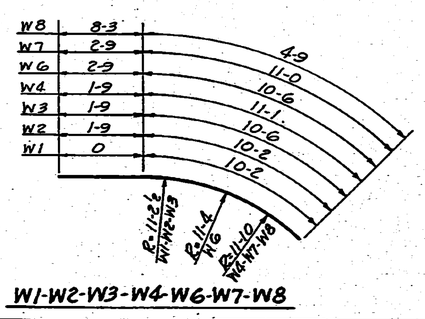












SUMMARY OF QUANTITIES

Class III Excavation	40.4	41 Cu. Yds.
Class AAA Concrete AE	329.7	Cu. Yds.
Reinforcing Steel	113,490	Lbs.
Wrought Iron Drains & Grates	1,099	Lbs.
8" ø Downspouts	58.69	Lin. Ft.
Bridge Handrail	415.51 - 416.25	Lin. Ft.
Structural Steel		
Bearing Devices (A36) 3@240 Lbs.	720	Lbs.
Corner Plates & Cover Plates (A36)	160	Lbs.
Access Doors (A36) 2@130 Lbs.	260	Lbs.
10BP42 Steel Piles 4@32'	1024.7 - 1085	Lin. Ft.
Reinforced Concrete Riprap (6")	172.4 - 180	Sq. Yds.
Linseed Oil Surface Treatment (Bridges)	513.9	Sq. Yds.

BILL OF REINFORCING STEEL

STRAIGHT BARS Mark	No.	Size	Length	BENT BARS Mark	No.	Size	Length	STRAIGHT BARS Mark	No.	Size	Length	BENT BARS Mark	No.	Size	Length
				S1	233	5	20-3					BC1	8	6	20-3
				S2	235	5	25-9					BC2	4	8	19-3
				S3	235	6	24-6					BC3	4	8	24-6
				S4	232	5	25-2					BC4	12	10	8-2
S5	168	5	36-3									C1	504	4	3-5
S6	60	4	40-0									C2	504	4	3-8
S6A	12	4	15-7									C3	24	4	2-5
S7	24	4	24-10									C4	16	5	5-7
								C5	8	4	2-6				
S7A	24	6	24-10												
S8	18	4	40-0									U1	1200	5	7-7
S8A	18	6	40-0									U2	90	5	6-1
												U3	144	7	7-7
G1	19	10	54-3												
G2	10	10	50-3												
G3	16	11	34-0												
G4	38	8	25-0												
G5	19	10	60-0												
								WG1	24	8	25-6				
G6	10	10	50-0					WG2	18	8	40-0				
G7	8	11	40-0												
G8	10	10	51-10												
G8A	4	10	46-6					AB1	8	8	23-6				
G9	4	10	47-10					AB2	12	6	23-6				
G9A	2	10	42-6									AB3	24	6	10-6
												AB4	15	5	7-3
				G10	5	10	56-10								
				G11	4	10	52-10								
												AS1	18	4	5-6
G12	10	5	48-9					AS2	1	4	21-0				
G13	15	5	41-9												
												AU1	24	5	12-11
G14	30	10	50-0									AU2	24	5	9-1
G15	16	10	36-0												
G15A	4	11	36-0												
				LB1	4	2	7-4					W1	4	4	10-2
G16	28	11	26-0	LB2	3	2	9-4					W2	4	4	11-11
G17	16	11	16-0									W3	2	4	12-3
G18	4	11	17-6									W4	2	4	12-10
G19	10	5	47-0												
G19A	4	11	16-3									W5	22	4	3-7
G20	15	5	33-0									W6	16	6	13-3
G21	10	6	48-1									W7	2	6	13-9
G22	15	6	41-1									W8	14	6	13-0
B1	14	9	18-3					W9	28	4	3-3				
B2	4	6	18-3									W10	28	4	4-0
B3	8	8	18-3									W11	4	4	13-6
				B4	8	8	13-0					W12	1	4	14-0
B5	20	10	18-0									W13	1	4	15-0
				B6	20	10	21-3								
				B7	8	6	24-6					W14	1	4	17-0
				B7A	12	6	21-10					W15	4	4	14-2
												W16	1	4	14-8
				BU1	100	5	14-4					W17	1	4	15-8
				BU2	22	4	6-1					W18	1	4	17-8
				BU3	16	4	4-11								

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

All bar marks shall be prefixed with the Unit Number when fabricated. Example: "1061 bars shall be marked 28SR1061.

NO.	DATE	REVISIONS	BY	APP'D.
2				
1	11-1-71	Rev. Exp. Devices	WHSB	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 28 SR
S.B. I-35W VIADUCT
(RAMP "O" BETWEEN 11TH & 13TH STREETS)
PROJ. 35W-87-135W-(58)48 SEDGWICK CO.

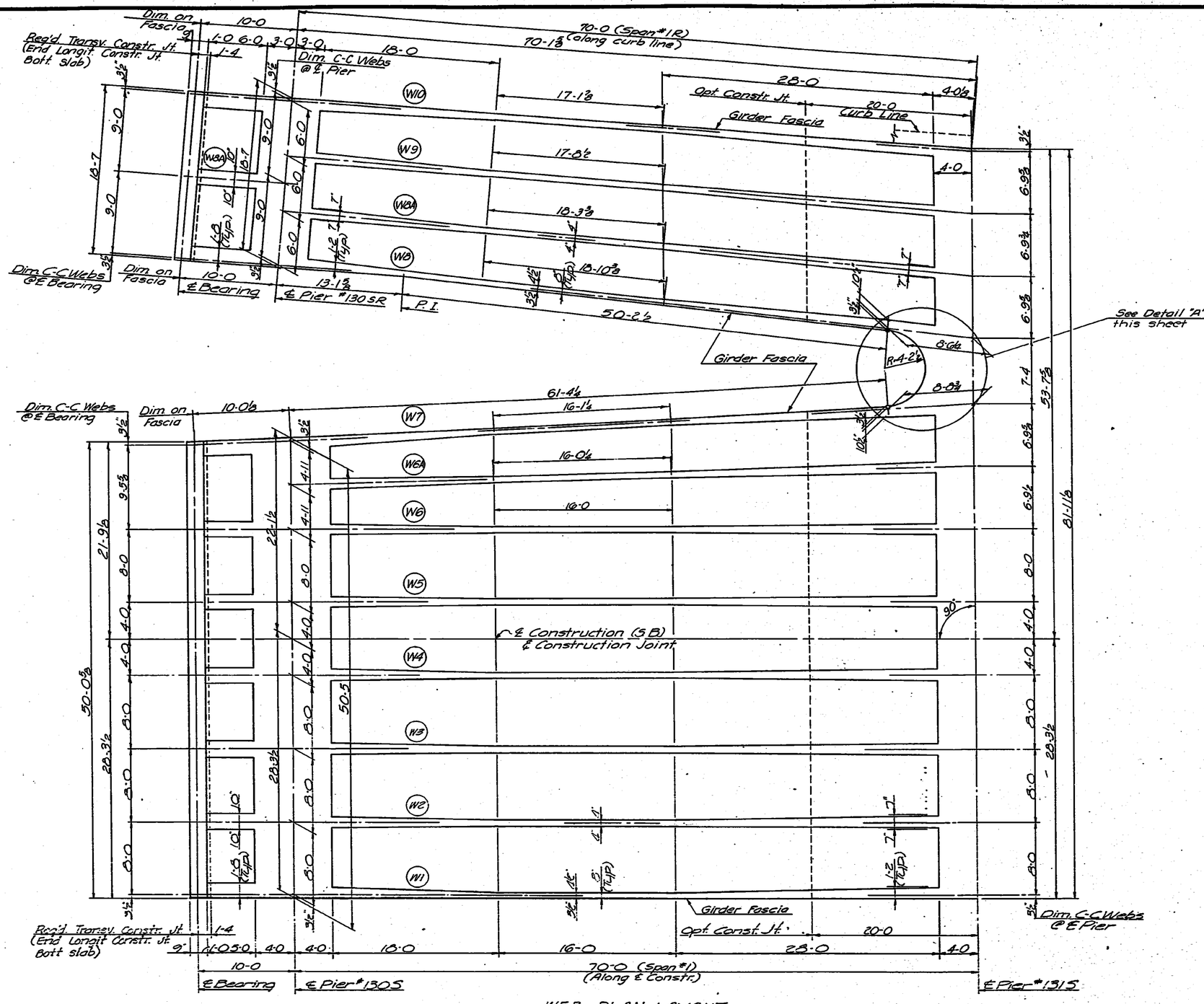
SHEET NO. 10 OF 10	SCALE	APP'D.
DESIGNED DFB	DETAILED JMG	CHECKED LKD / TRACED JMG
DESIGN CK. RBS	DETAIL CK. 285	CHECK CK. 287 / TRACE CK. 285

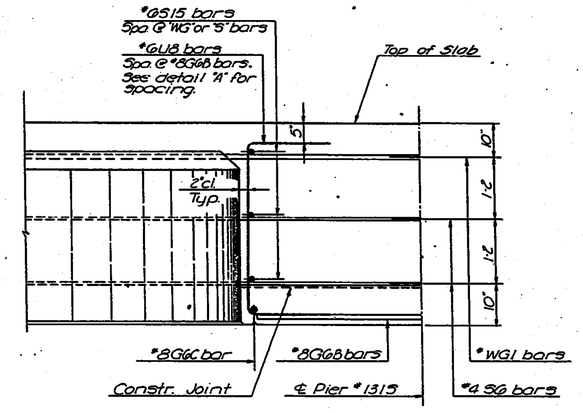
DIST. 5 SEDGWICK CO. ROLL 531

2 8 9

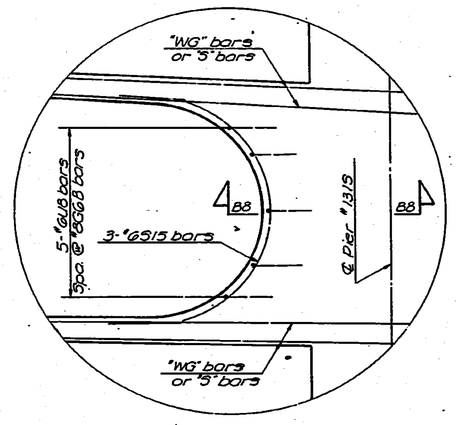
16X 14.5X 12X 12X 14.5X 16X

FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	19	1821	2137





SECTION B8-B8



DETAIL "A"

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

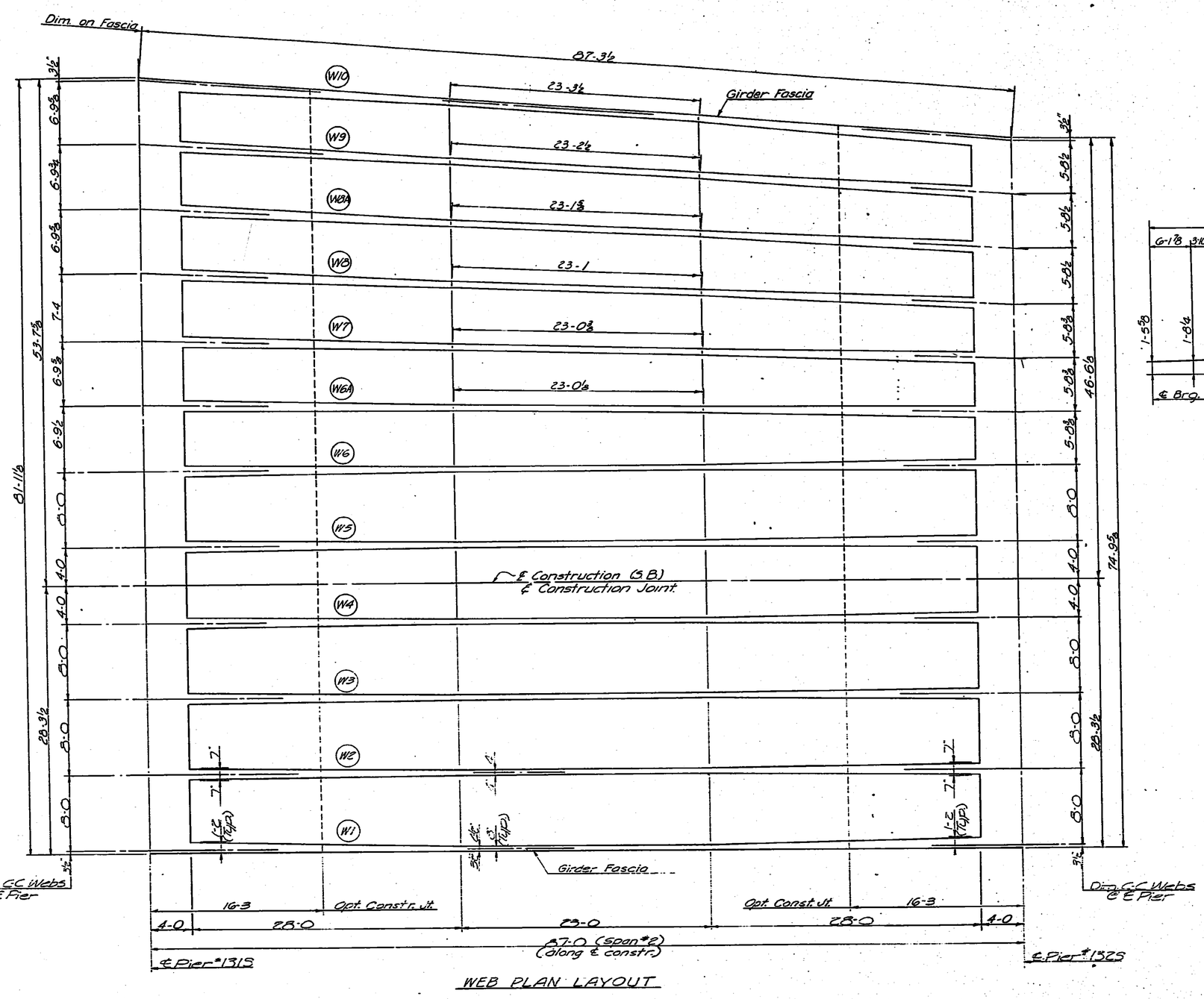
SHEET NO. 1 OF 28	SCALE	APP'D.	
DESIGNED DEG	DETAILED KWK	CHECKED LKD	TRACED KWK
DESIGN CK. RBS	DETAIL CK. GAB	CHAN. CK. EPS	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

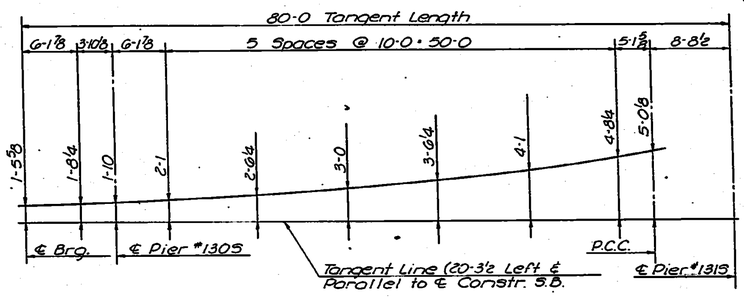
2 9 0

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	19	1822	2137



WEB PLAN LAYOUT



LEFT GIRDER FASCIA OFFSETS
(Span #1)

3					
2					
1					
NO.	DATE	REVISIONS		BY	APP'D.

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+16.60
SUPERSTRUCTURE DETAILS-UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

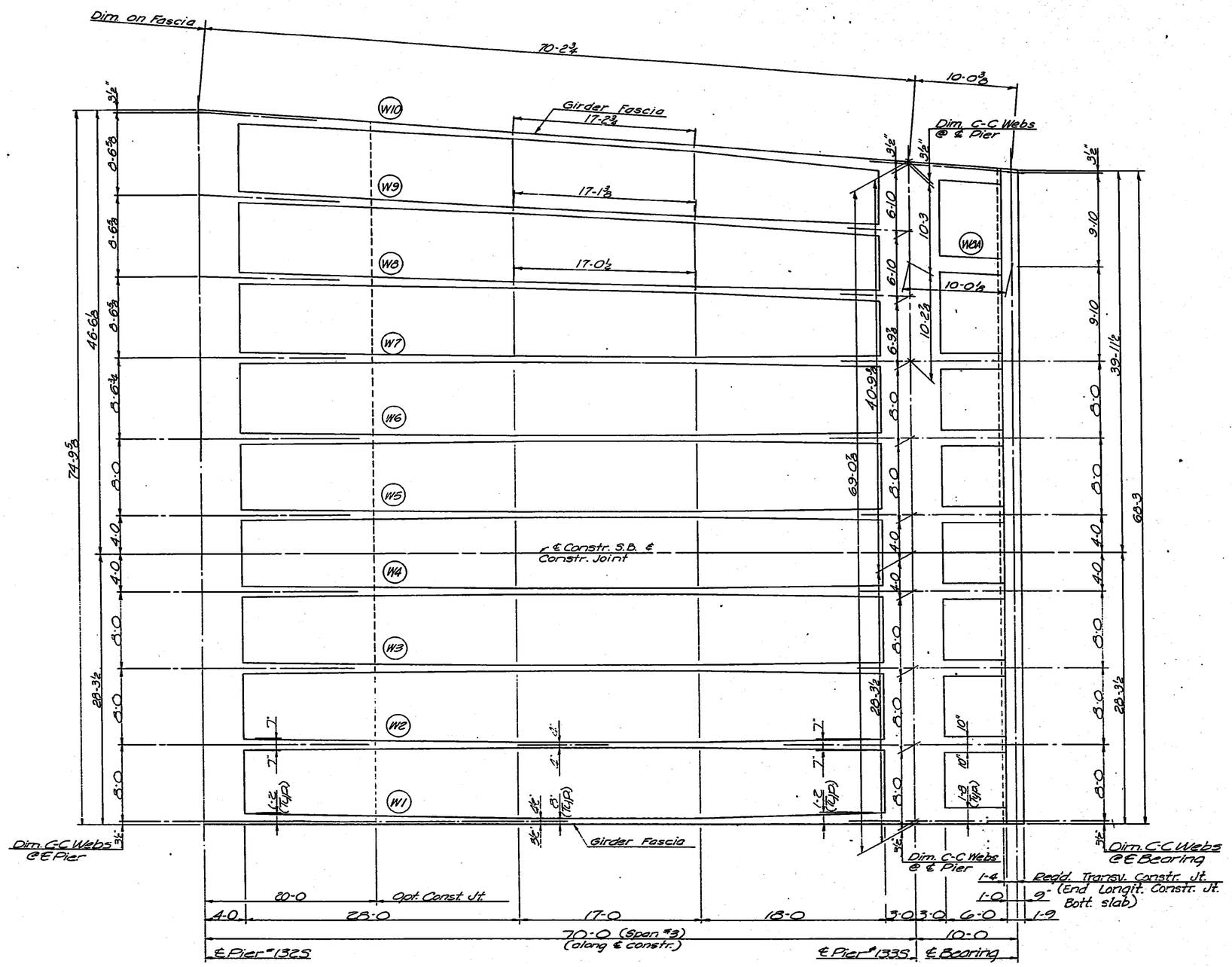
SHEET NO. 2 OF 2 SHTS	SCALE	APP'D.	
DESIGNED DFG	DETAILED KWR	QUANTITIES LKD/JMG	TRACED KWR
DESIGN CK. RBS	DETAIL CK. GAB	GRAPH. CK. FES/DFG	TRACE CK. LKD

DIST. 5 SEDGWICK CO. ROLL 531

2 9 1

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	49	1825	2137



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

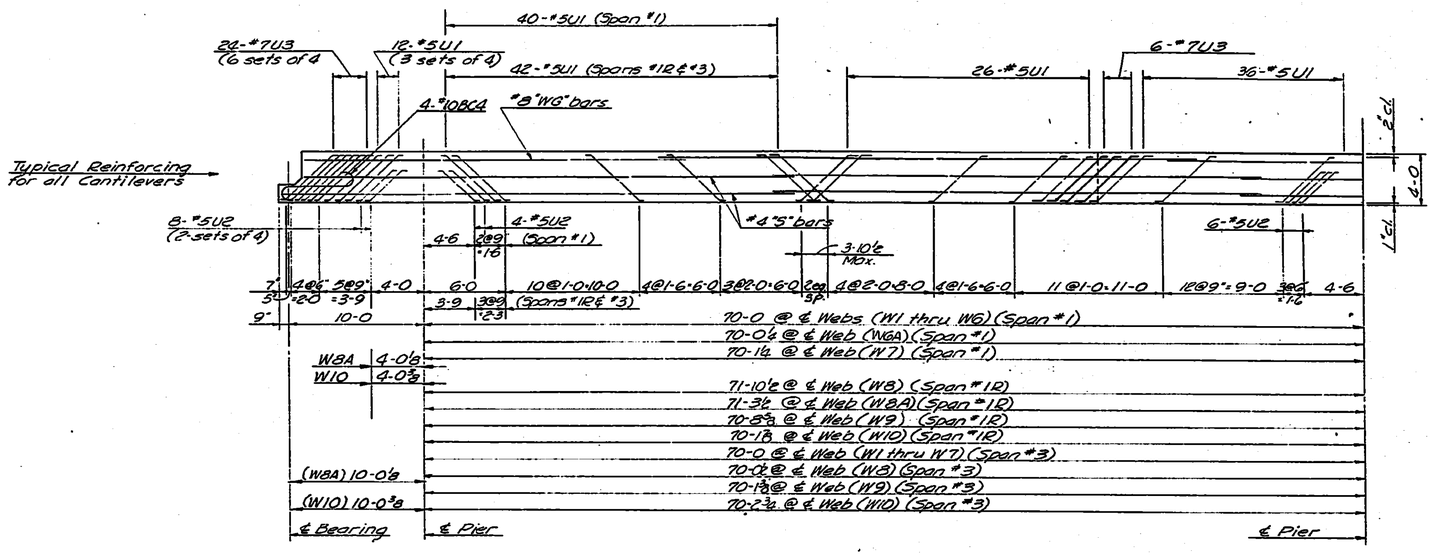
SHEET NO. 3 of 28 | SCALE | APP'D.
DESIGNED DFG | DETAILED KWK | QUANTITIES LRO/JTH | TRACED KWK
DESIGN CK. RBS | DETAIL CK. GAB | ORIGIN. CK. EEA/DFG | TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

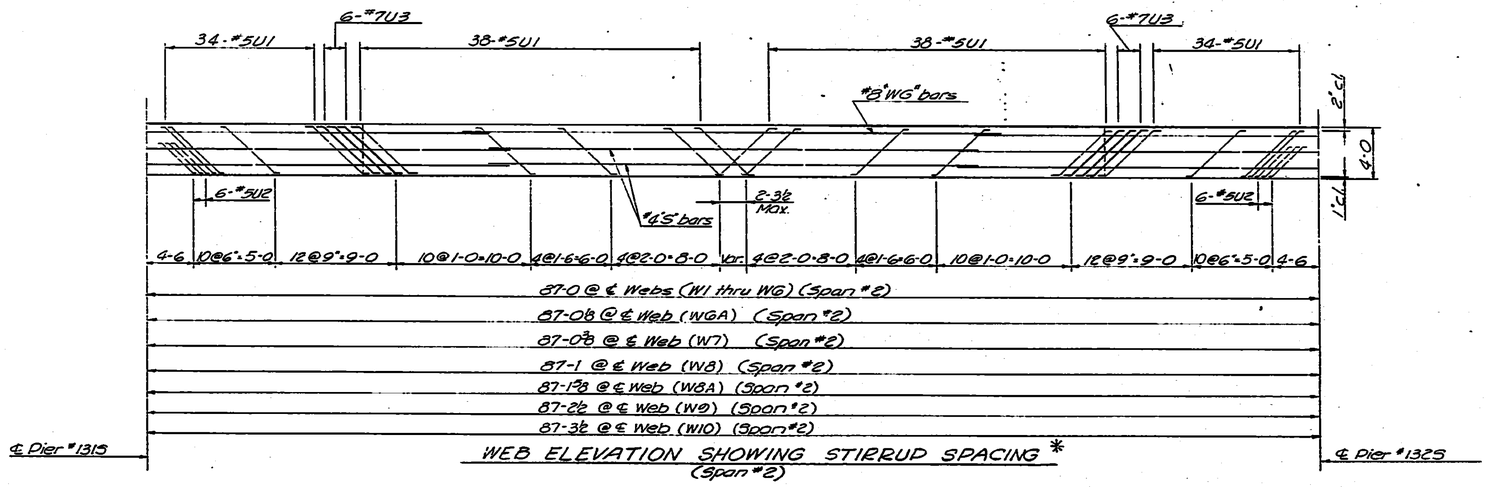
[redacted] 2 9 2

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1804	2137



WEB ELEVATION SHOWING STIRRUP SPACING *
(Showing Span #1, Span #3 Reversed)



WEB ELEVATION SHOWING STIRRUP SPACING *
(Span #2)

NOTE:
Stirrups placed in pairs each web, except as noted.
See Placement Diagrams sheet for #8 WG & #4 S bars.

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top & beneath bottom main reinforcing steel. See Roadway Deck Section.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29 S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

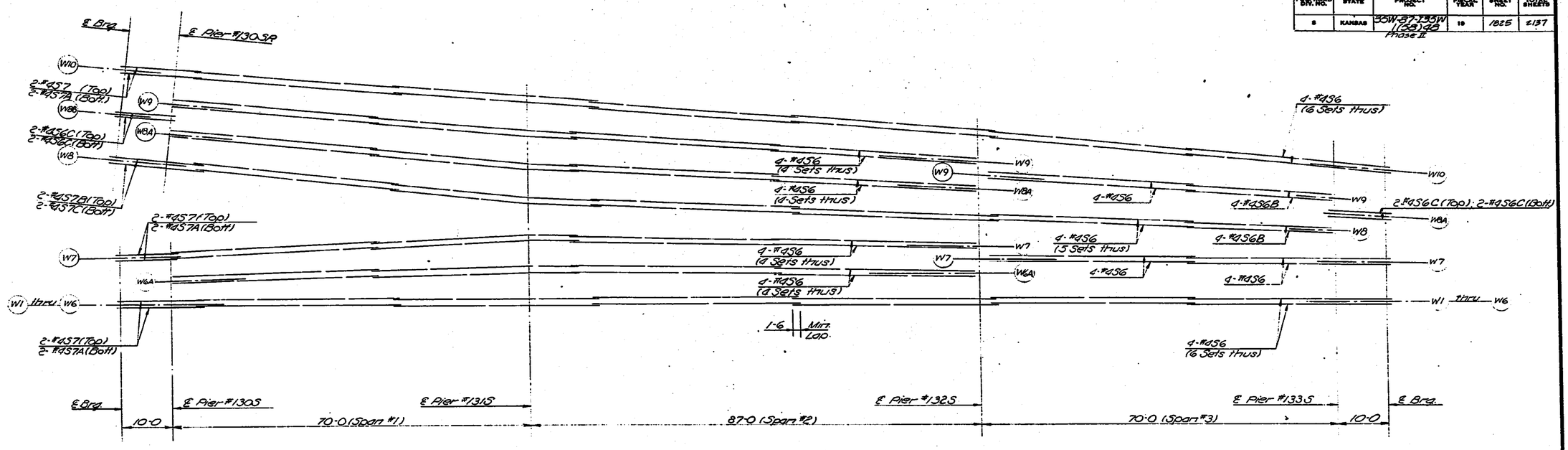
SHEET NO. 4 OF 28	SCALE	APP'D.	
DESIGNED DFG	DETAILED CRB	QUANTITIES LKD	TRACED CRB
DESIGN CK. RBS	DETAIL CK. GAB	QUANT. CK. EES	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

2 9 3

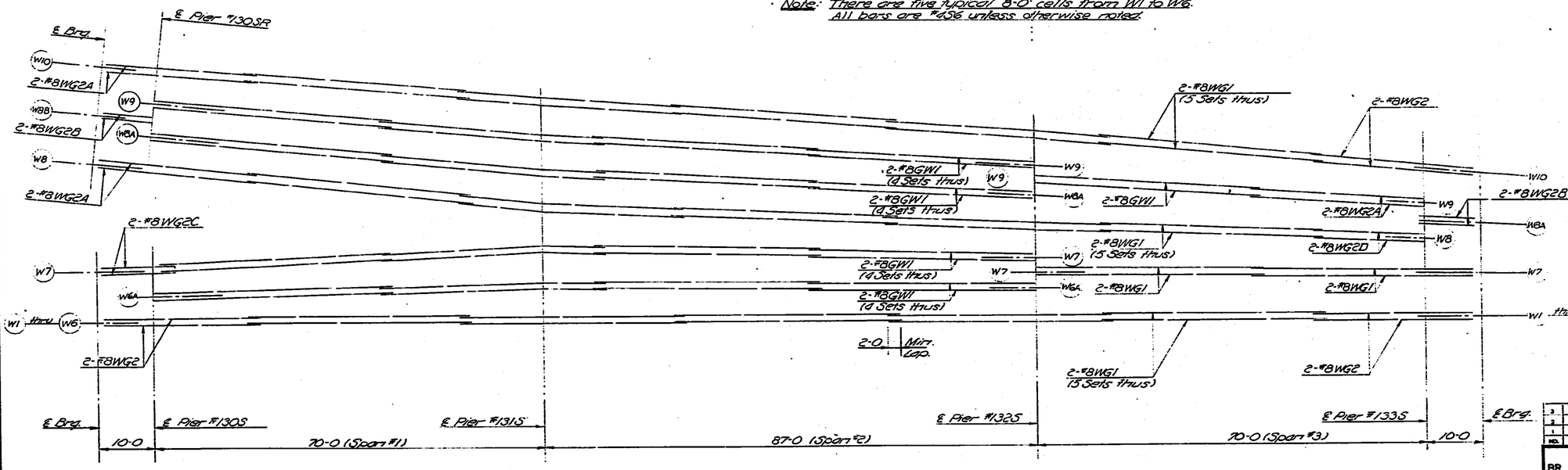
16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (126)48 Phase II	19	1825	2137



PLACEMENT DIAGRAM SHOWING "S" BARS IN WEBS

Note: There are five typical 8-0 cells from W1 to W6.
All bars are #456 unless otherwise noted.



PLACEMENT DIAGRAM SHOWING "WG" BARS IN WEBS

Note: There are five typical 8-0 cells from W1 to W6.
All bars are #8 WG1 unless otherwise noted.

NOTE: See Deck Sections for position of "WG" & "S" bars in webs.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 5 of 23	SCALE	APP'D.	
DESIGNED DPG	DETAILED EES	CHECKED JHL	TRACED DDW
DESIGN CK. JWH	DETAIL CK. LKD	GENL. CK. DPG	TRACE CK. EES

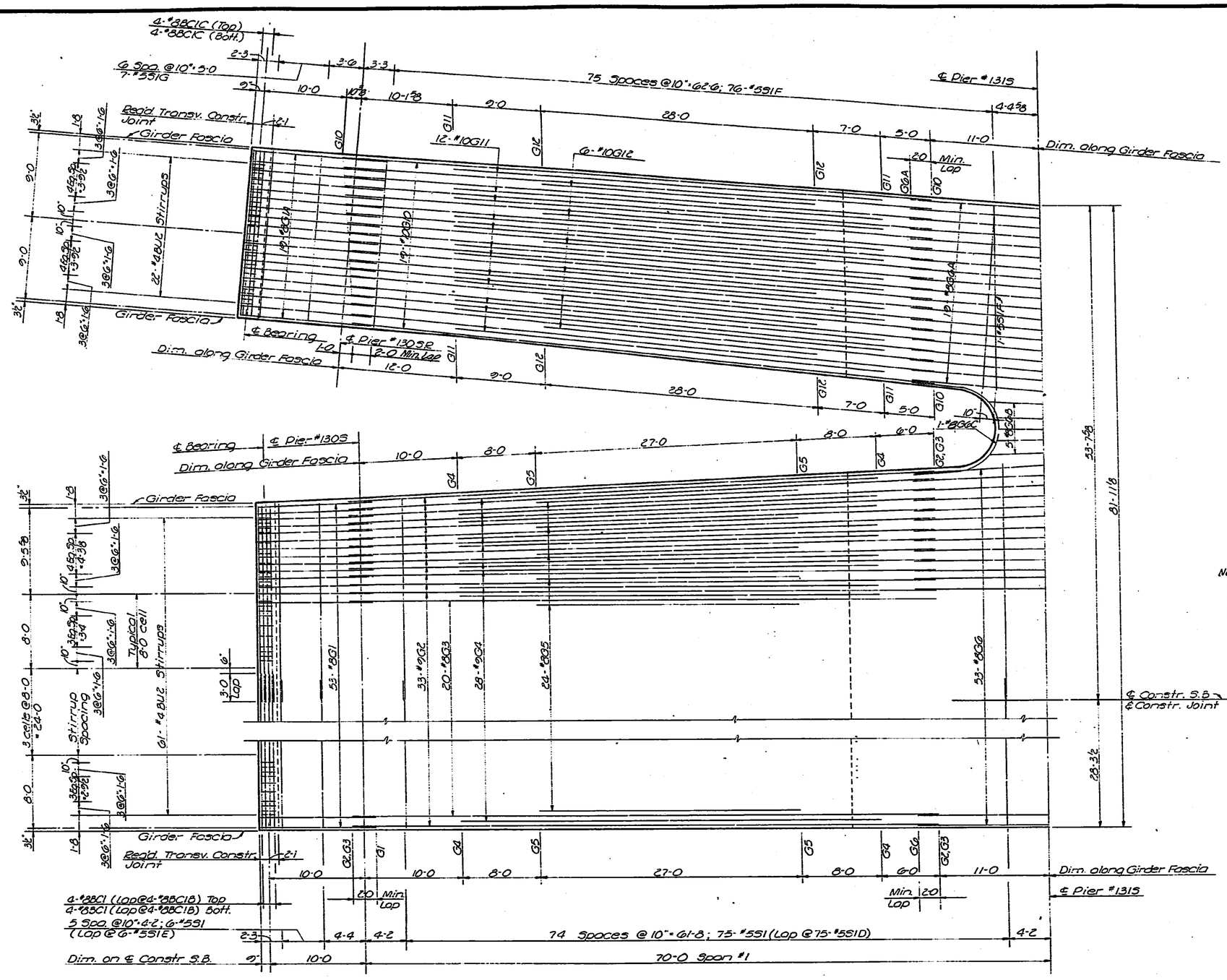
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

294

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W (58)48 Phase II	19	1826	2137



REINFORCING PLAN BOTTOM SLAB - SPAN NO. 1

Note: All bar marks shall be prefixed with the Unit Number when fabricated. Example: #8G1 bars shall be marked 295BG1
All longitudinal dimensions are along ℄ Construction unless otherwise indicated.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 6 of 28	SCALE	APP'D.	
DESIGNED DFG	DETAILED EES	QUANTITIES JML	TRACED EES
DESIGN CK. JWH	DETAIL CK. LKD	GRAN. CK. DFG	TRACE CK. LKD

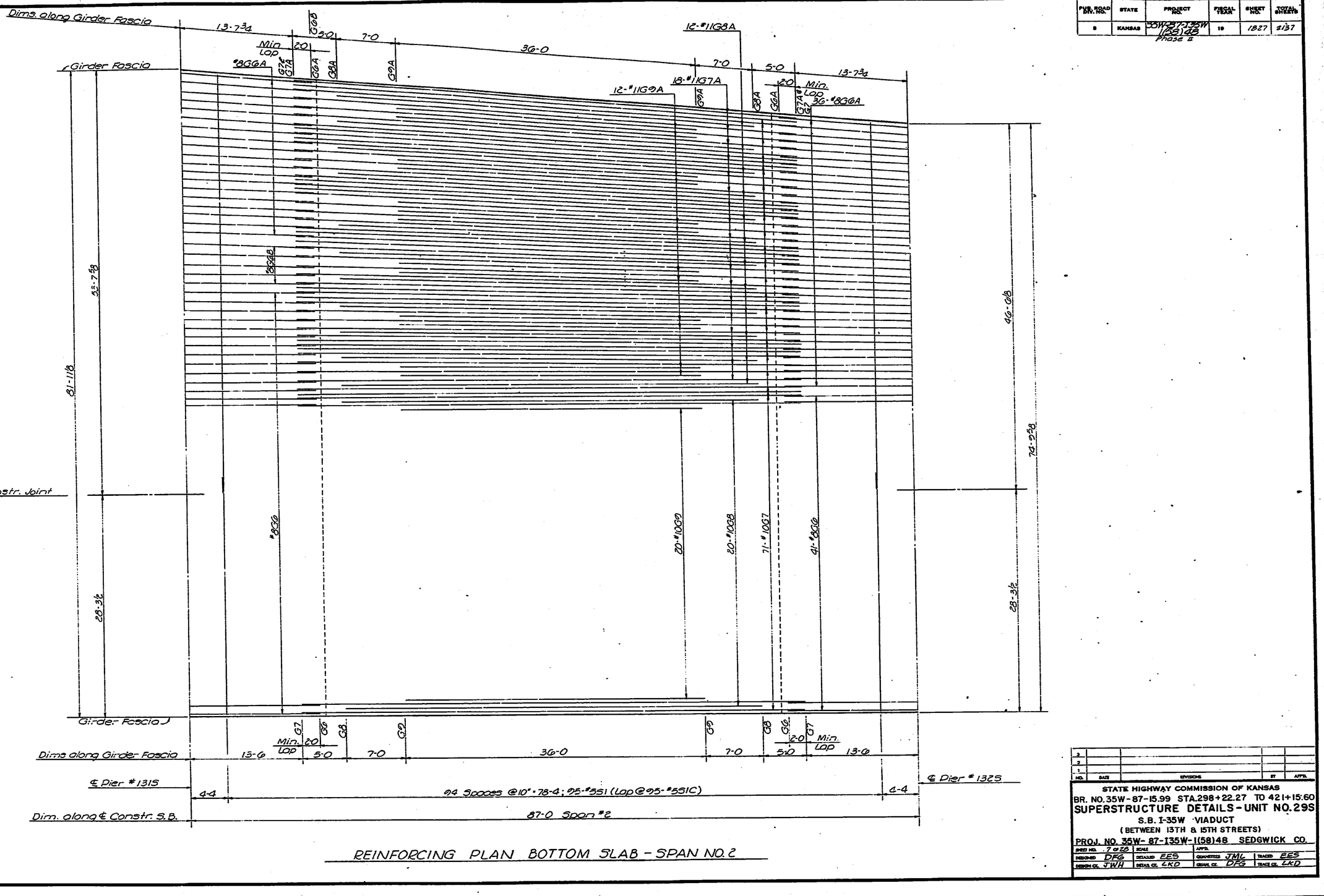
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

295

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1827	2137



REINFORCING PLAN BOTTOM SLAB - SPAN NO. 2

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 7 OF 28	SCALE		APP'D.		
DESIGNED DFG	DETAILED EES		QUANTITIES JML	TRACED EES	
DESIGN CK. JWH	DETAIL CK. LKD		GRADE CK. DFG	TRACE CK. LKD	

TOPEKA BLUE PRINT CO.

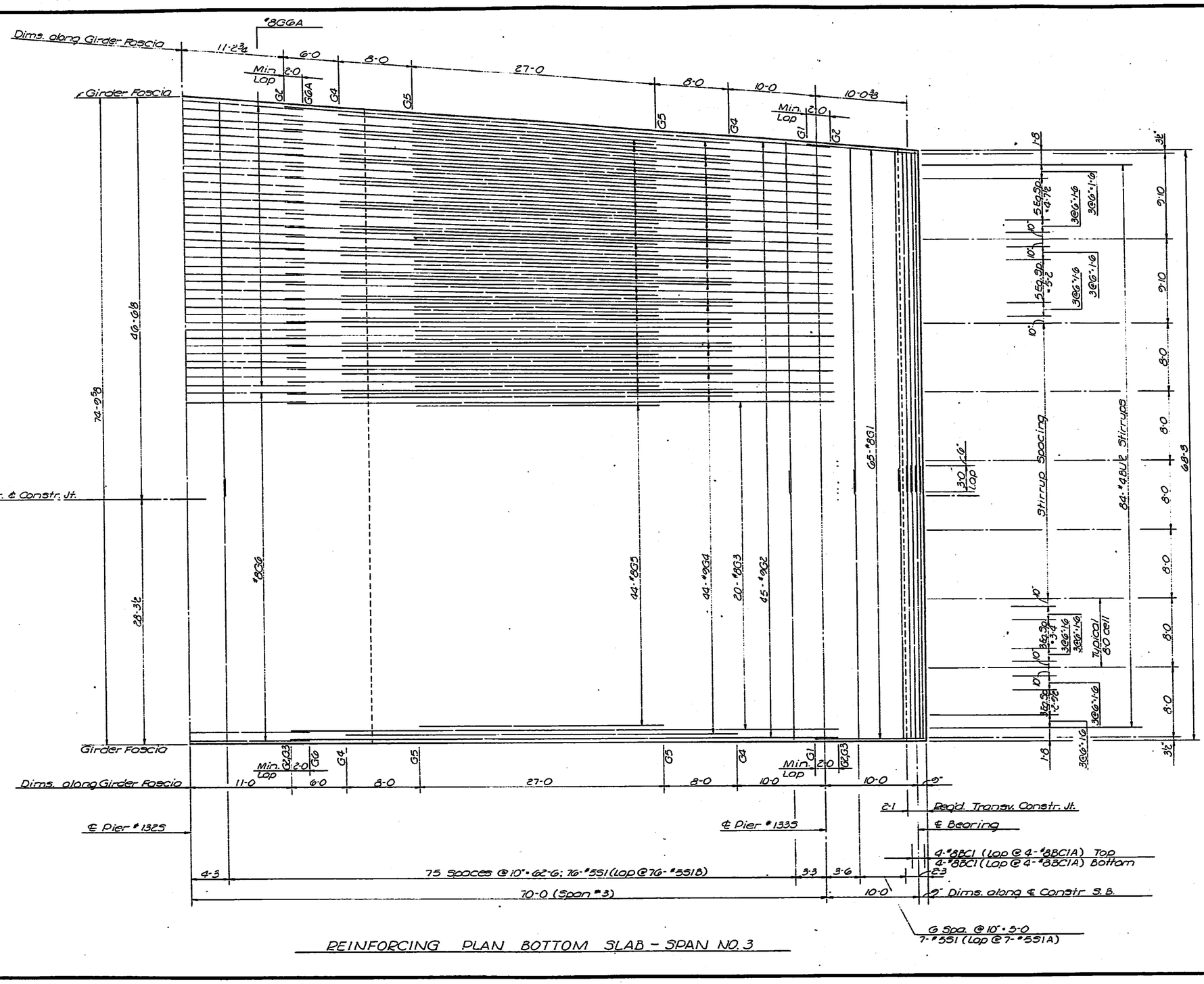
DIST. 5 SEDGWICK CO. ROLL 531

2 9 6

[redacted]

X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1828	2137



REINFORCING PLAN BOTTOM SLAB - SPAN NO. 3

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 8 OF 28	SCALE	APP'D.	
DESIGNED DRG	DETAILED EES	QUANTITIES JML	TRACED EES
DESIGN CK. JWH	DETAIL CK. JWH	GRAL CK. DRG	TRACE CK. CKD

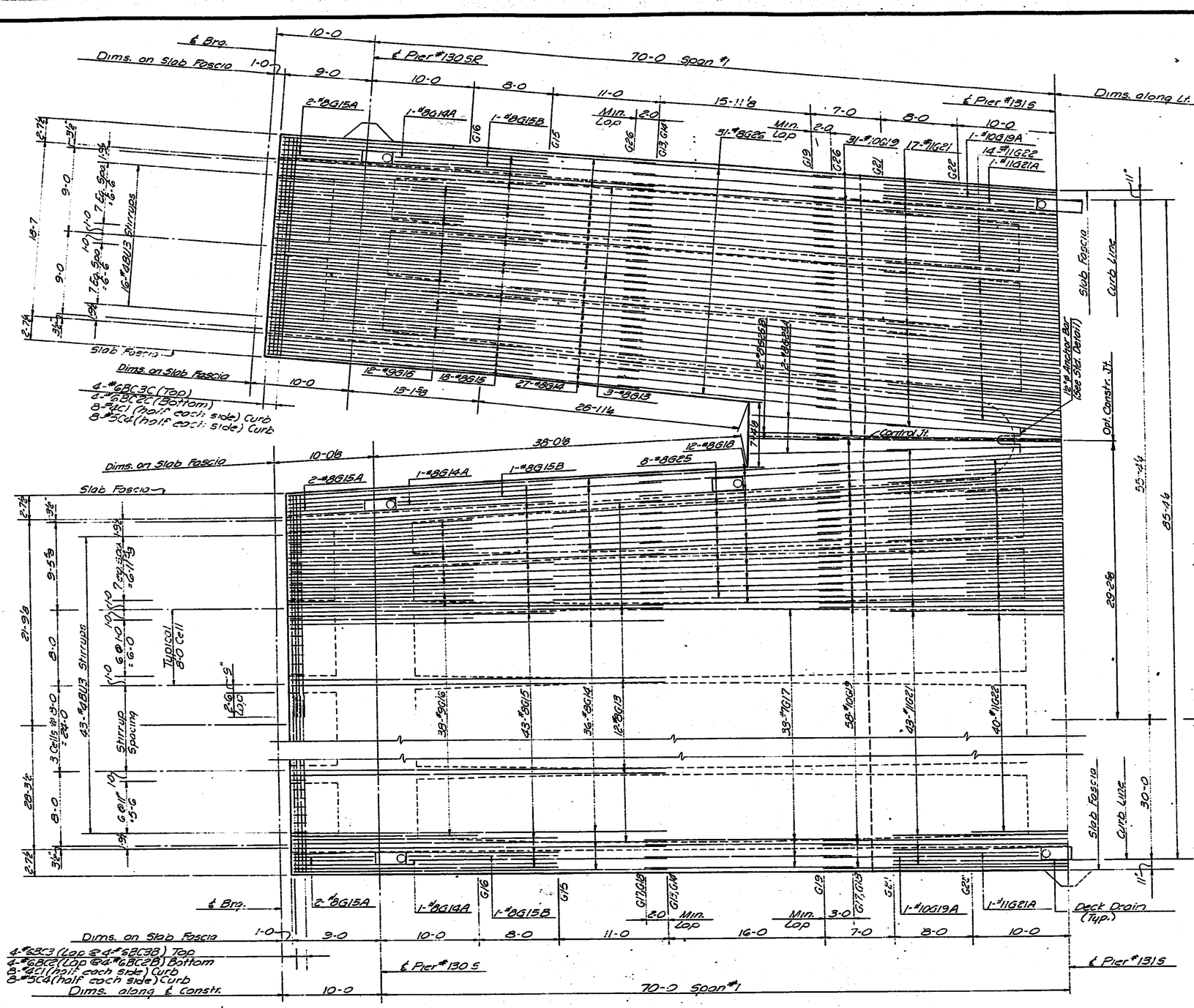
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

2 9 7

X	16X	14.5X	12X	12X	14.5X	16X	20X	

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W (58)48 Phase II	19	1829	2157



NOTE:
See Drain Reinforcing Details Sheet for additional details at drains.
Spread Longitudinal Reinforcing Steel to clear Drainage Structures.
See Superstructure Pier Beams for additional details at Drainage Structures.

REINFORCING PLAN TOP SLAB - SPAN NO. 1
(Showing Longit. Reinf. in Top of Top Slab).

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 2 of 26	SCALE	APP'D.	
DESIGNED DFG	DETAILED EES	QUANTITIES JML	TRACED DDW
DESIGN CK. JWH	DETAIL CK. LKD	QUAN. CK. DFG	TRACE CK. EES

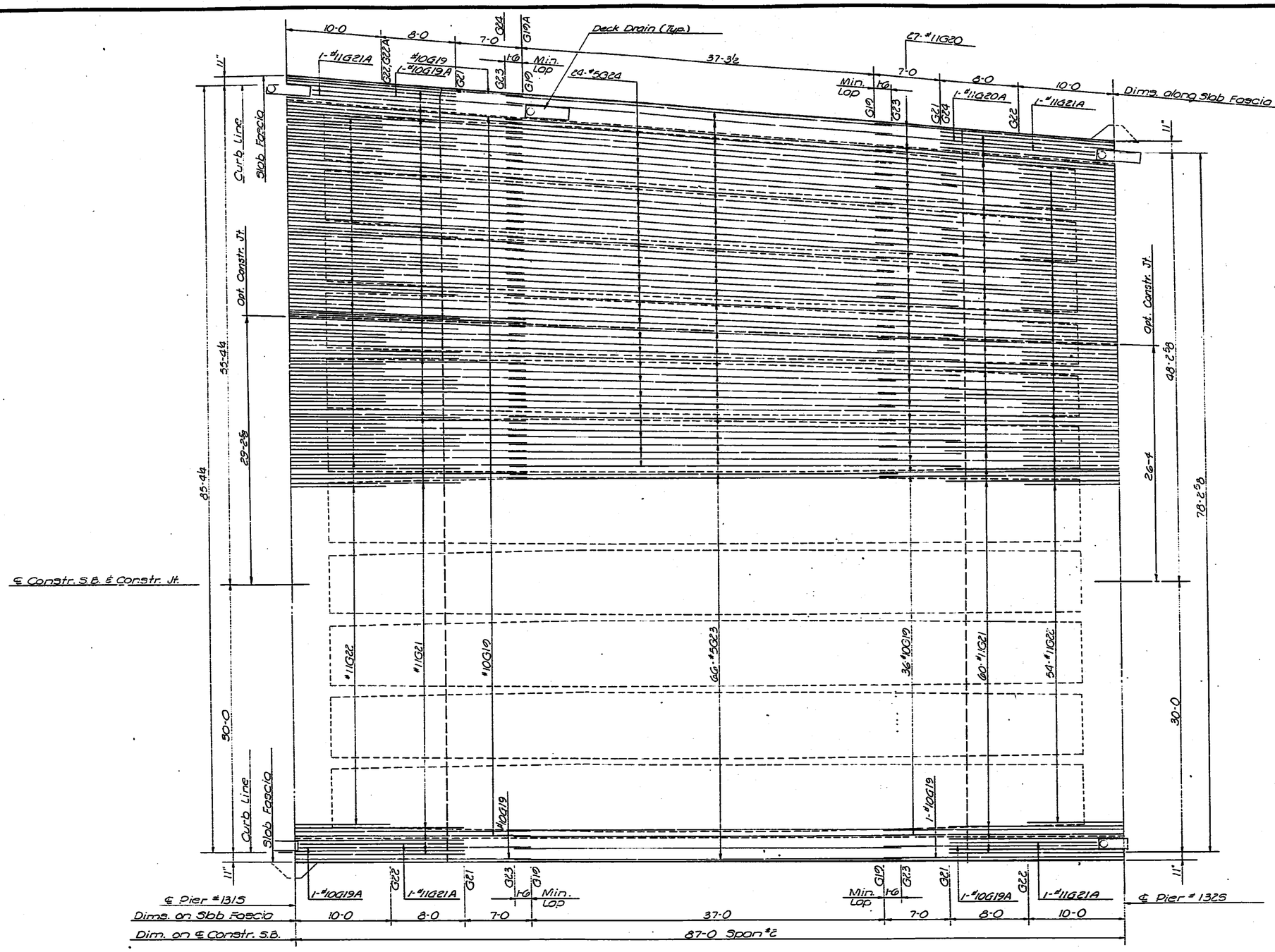
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

2 9 8

16X 14.5X 12X 12X 14.5X 16X 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-13SW (58)48 Phase II	19	1830	2187



REINFORCING PLAN TOP SLAB - SPAN NO. 2
(Showing Longit. Reinf. in Top of Top Slab)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-13SW-1(58)48 SEDGWICK CO.

SHEET NO.	10 of 28	SCALE		APP'D.			
DESIGNED	DPG	DETAILED	EES	QUANTITIES	JML	TRACED	EES
DESIGN CK.	JWH	DETAIL CK.	LKD	GRAN. CK.	DPG	TRACE CK.	LKD

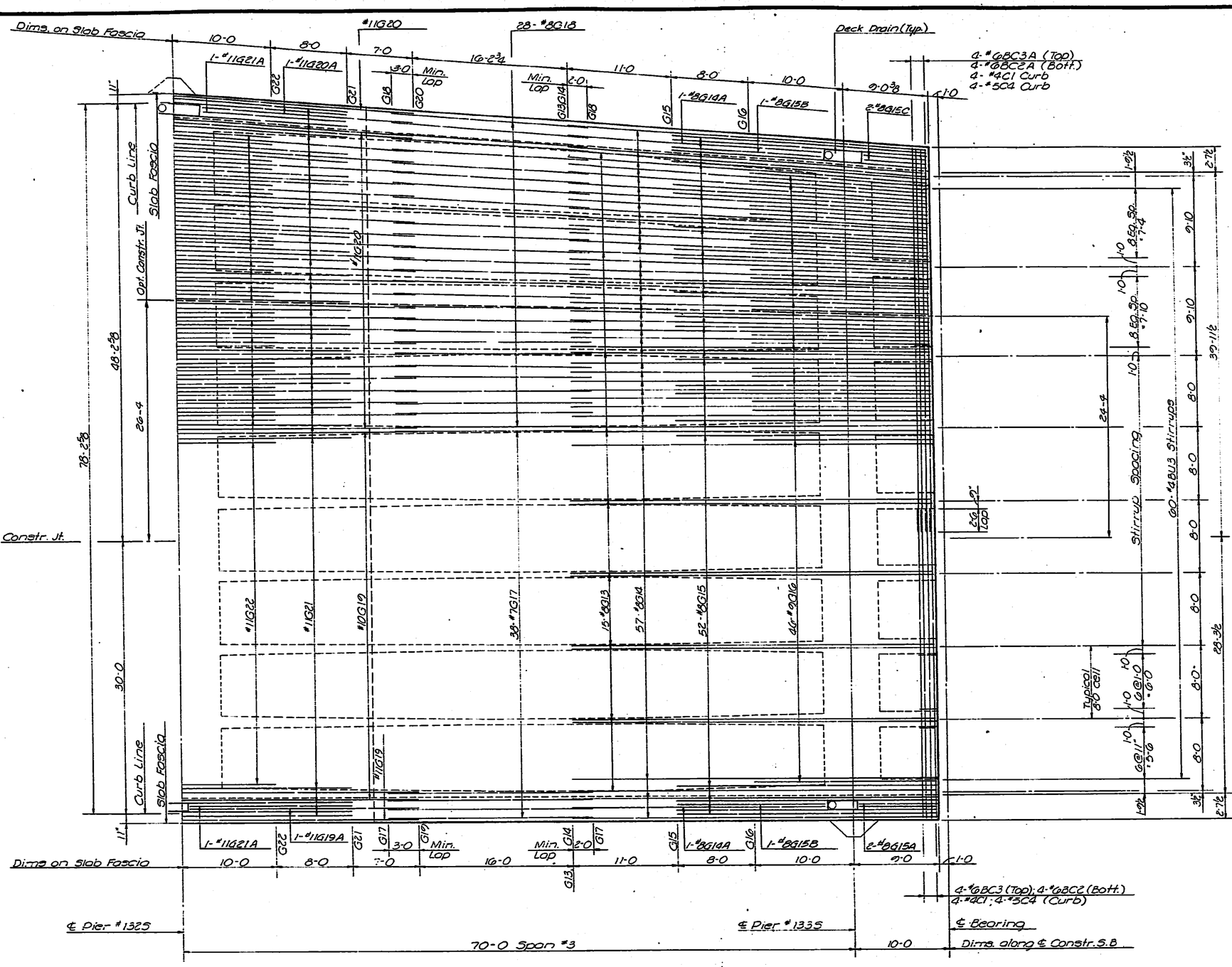
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 2 9 9

16X 14.5X 12X 12X 14.5X 16X 20X

FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W (158)48 Phase II	19	1831	2137



REINFORCING PLAN TOP SLAB - SPAN NO. 3
(Showing Longit. Reinf. in Top of Top Slab)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 11 OF 28	SCALE	APP'D.	
DESIGNED DPG	DETAILED EES	QUANTITIES JML	TRACED EES
DESIGN CK. JWH	DETAIL CK. LKD	GENL. CK. DPG	TRACE CK. LKD

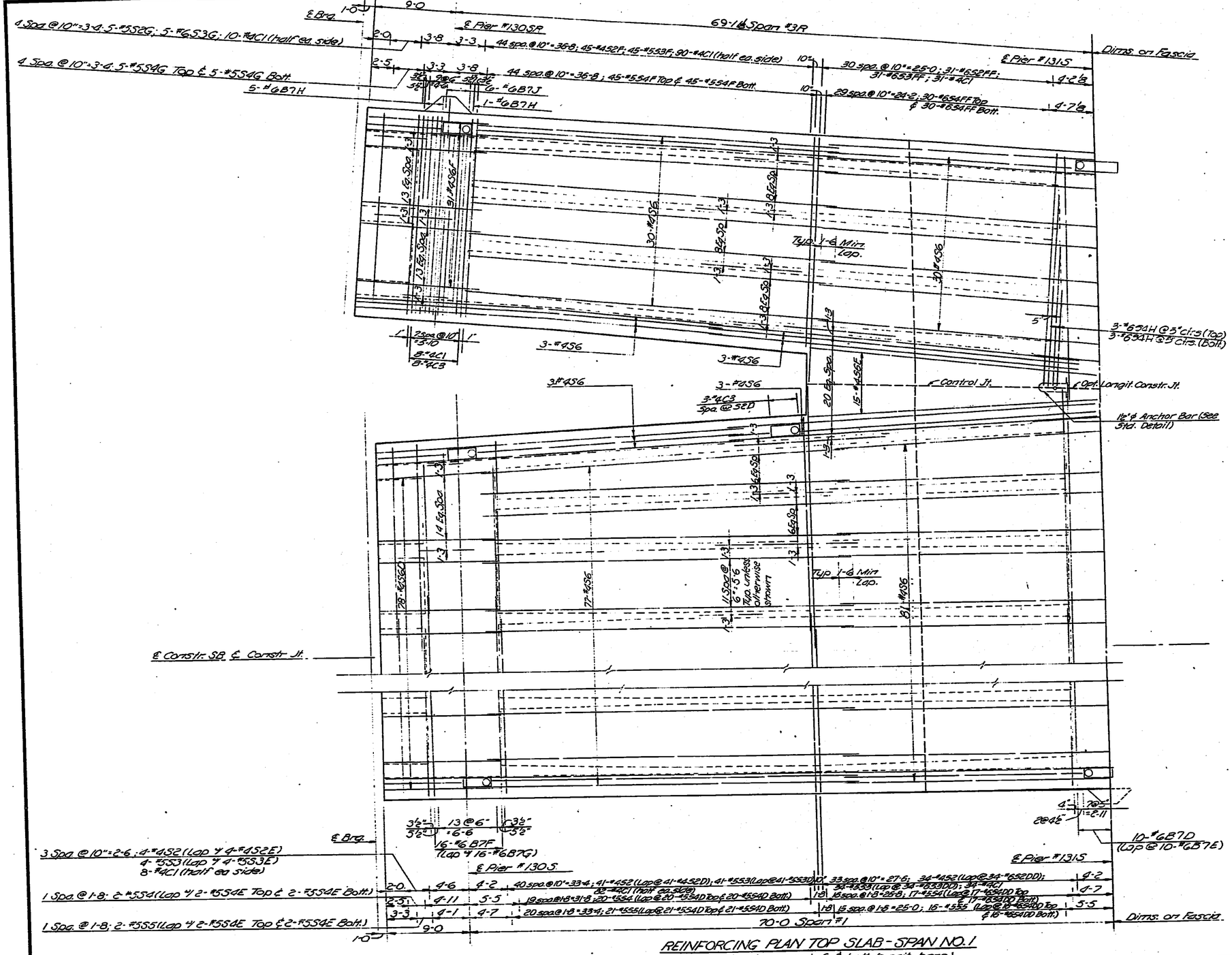
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 0 0

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-1359W 1(58)48 Phase II	19	1832	2137



REINFORCING PLAN TOP SLAB - SPAN NO. 1
(Showing transv. reinf. & bott. longit. bars)

NO.	DATE	REVISION	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

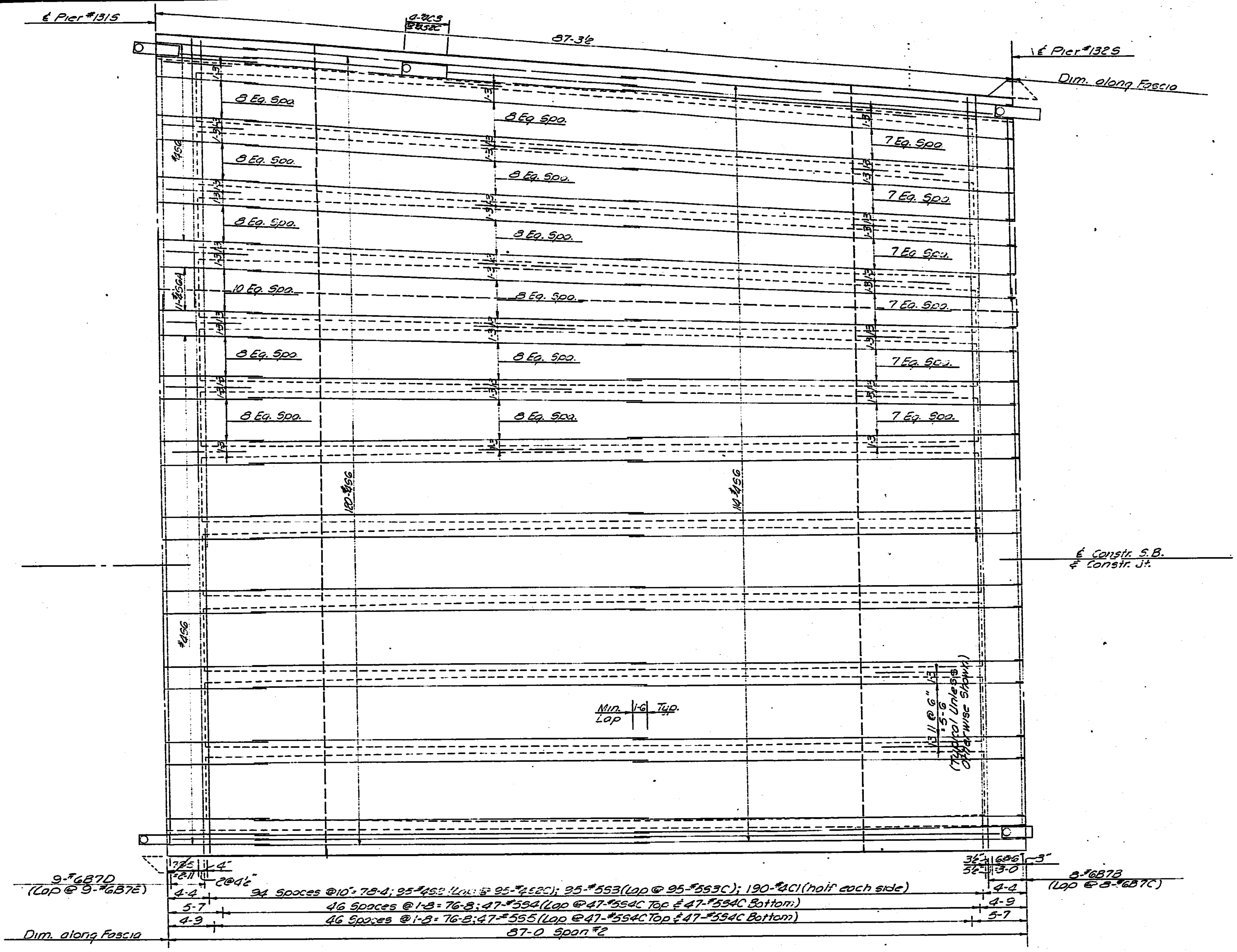
SHEET NO. 12 OF 29	SCALE	APP'D.	
DESIGNED DPG	DETAILED EES	QUANTITIES JML	TRACED DDW
DESIGN CK. JWH	DETAIL CK. LKD	QUAN. CK. DPG	TRACE CK. EES

DIST. 5 SEDGWICK CO. ROLL 531

3 0 1

X	16X	14.5X	12X	12X	14.5X	16X		20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W 1(58)48 Phase II	19	1833	2137



REINFORCING PLAN TOP SLAB-SPAN NO. 2
(Showing transv. reinf. & bottom longit. bars)

NO.	DATE	REVISIONS	BY	APPD.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA.298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

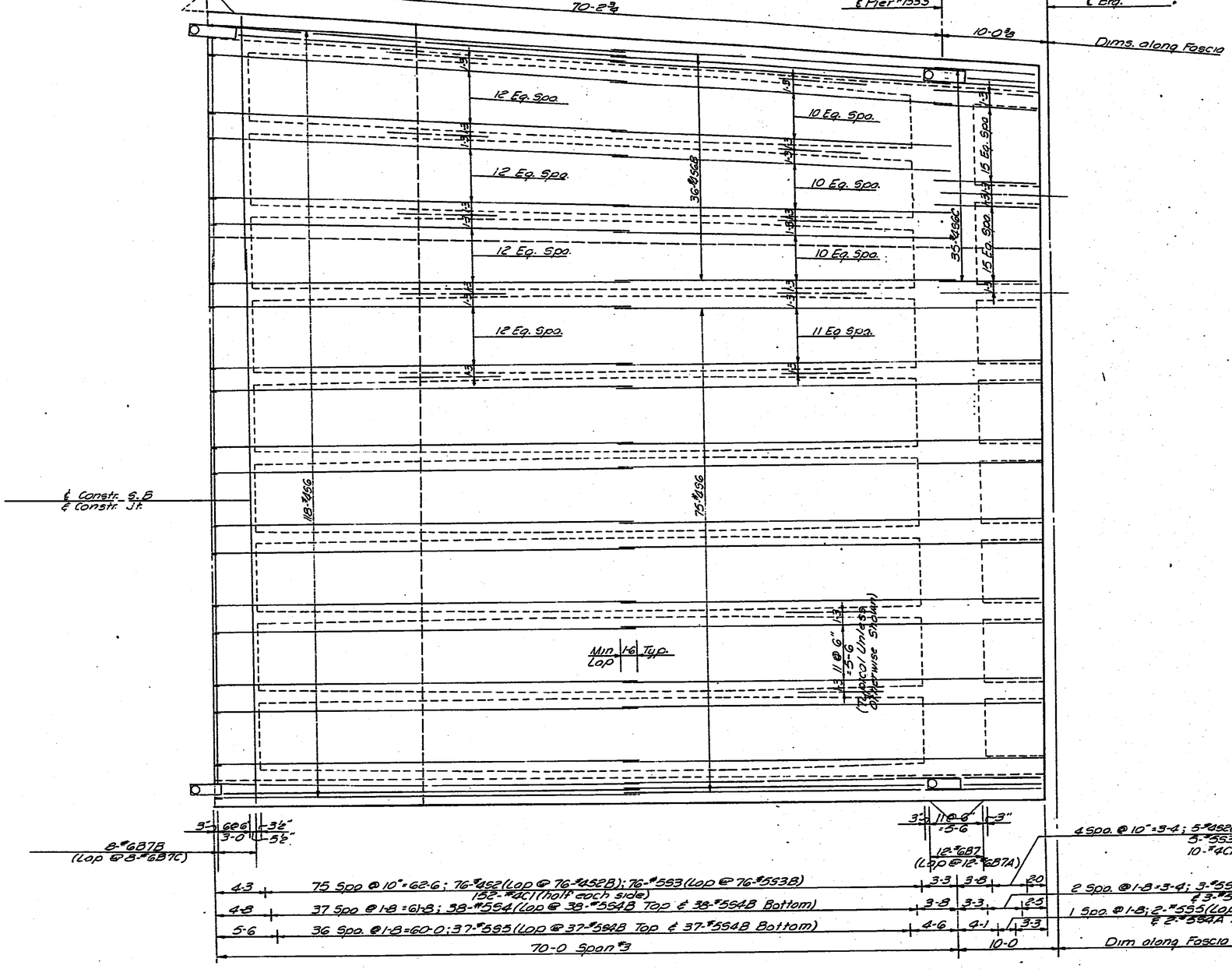
SHEET NO. 13 OF 28	SCALE	APPD.
DESIGNED DFG	DETAILED EES	QUANTITIES JML / TRACED DDW
DESIGN CK. JWH	DETAIL CK. LKD	QUAN. CK. DFG / TRACE CK. EES

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531 3 0 2

X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1834	2157



REINFORCING PLAN TOP SLAB - SPAN NO. 3
(Showing transv. reinf. & bottom longit. bars)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 12 OF 28	SCALE	APP'D.	
DESIGNED DRG	DETAILED EES	QUANTITIES JML	TRACED DDW
DESIGN CK. JWH	DETAIL CK. LKD	SHEET CK. LKD	TRACE CK. EES

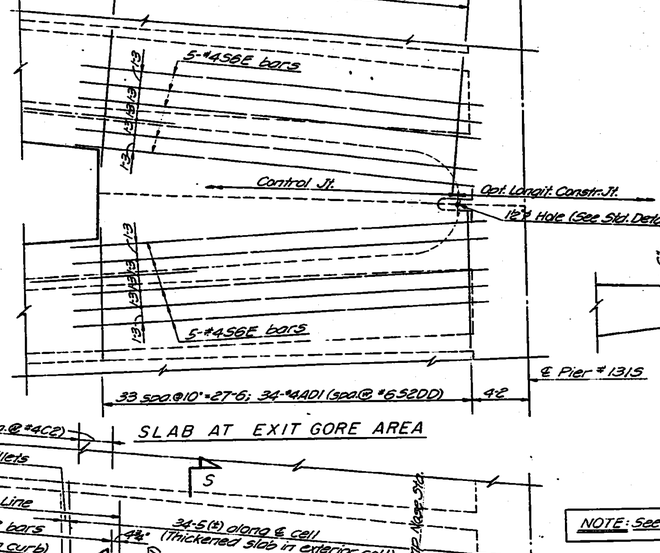
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

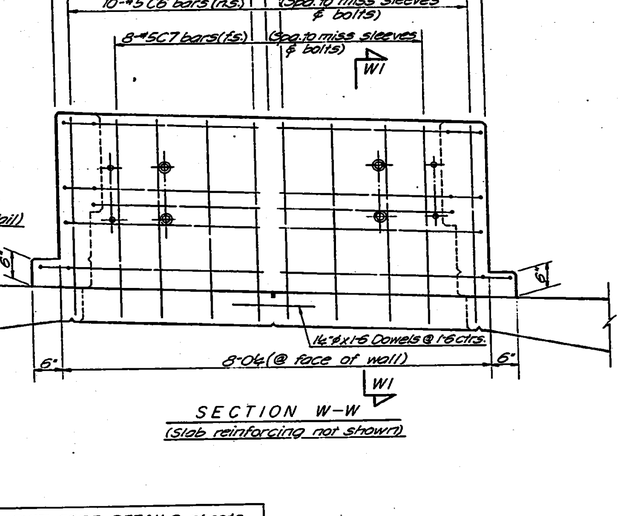
[redacted] 3 0 3

X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

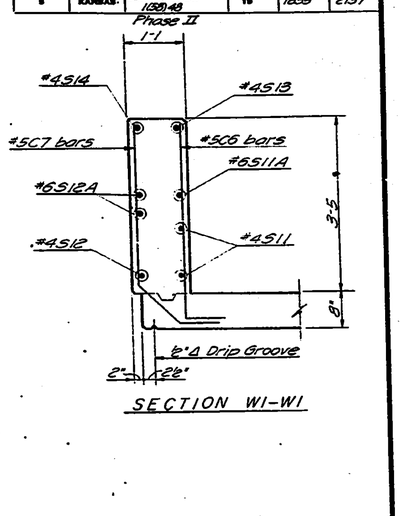
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(58)48	19	1835	2137



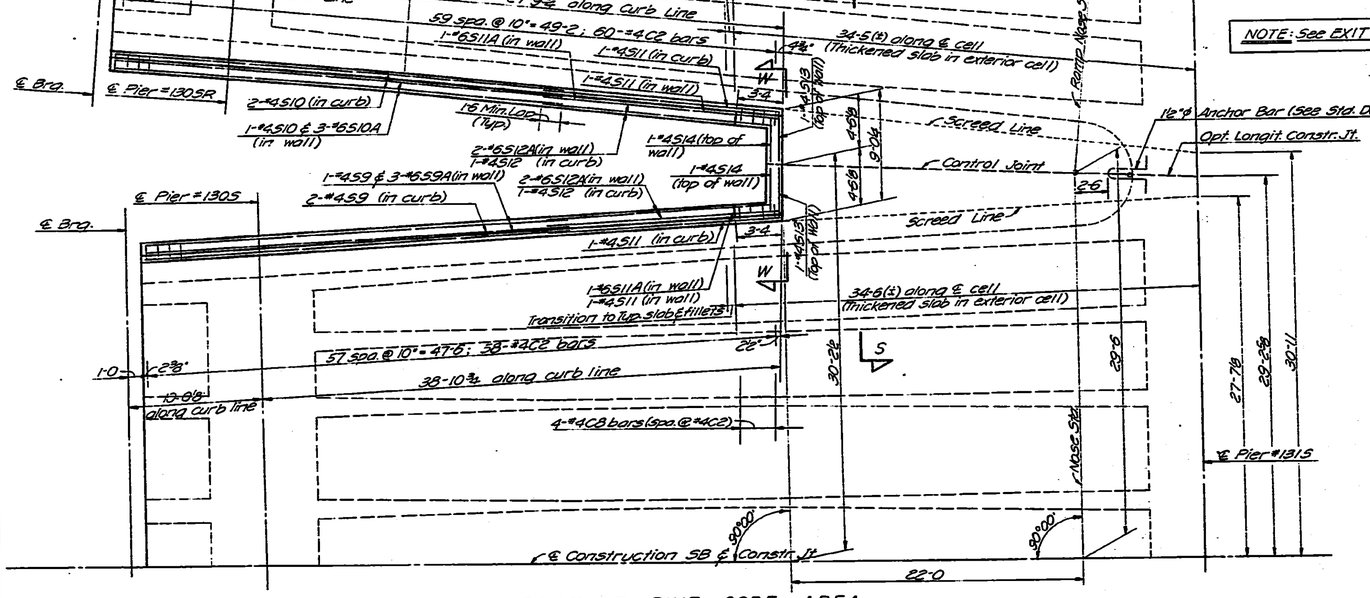
SLAB AT EXIT GORE AREA



SECTION W-W
(Slab reinforcing not shown)

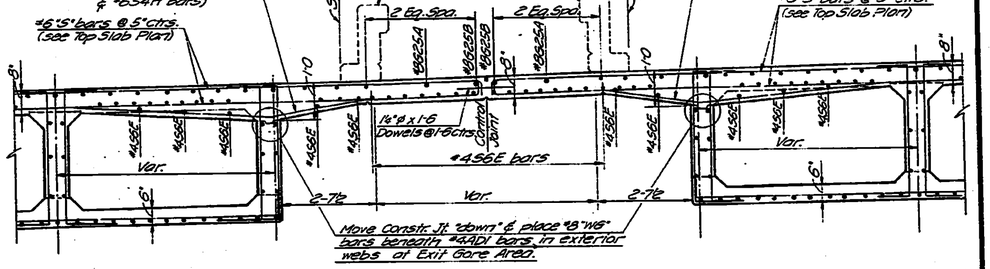


SECTION W1-W1

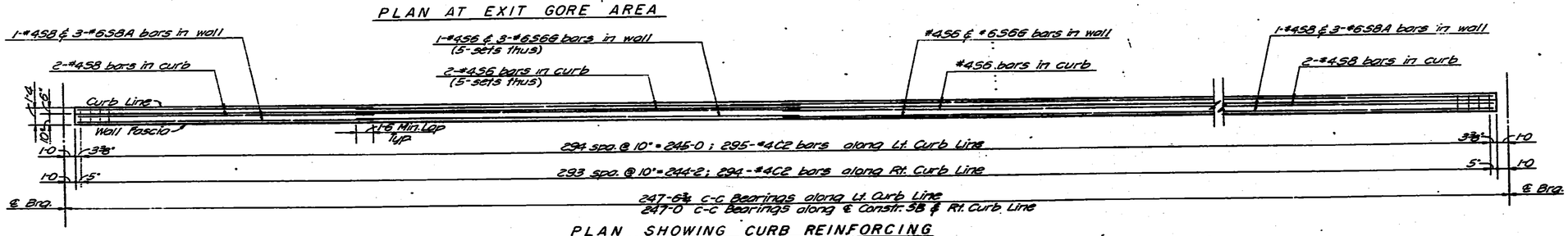


PLAN AT EXIT GORE AREA

NOTE: See EXIT GORE DETAILS sheets.



SECTION S-S



PLAN SHOWING CURB REINFORCING
(Right Curb shown; Left Curb similar)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 15 OF 28	SCALE		APP'D.			
DESIGNED DFG	DETAILED DS		COMPUTED DS		TRACED DS	
DESIGN CK. JWH	DETAIL CK. DFG		QUAN. CK. DFG		TRACE CK. DFG	

Unit #29S

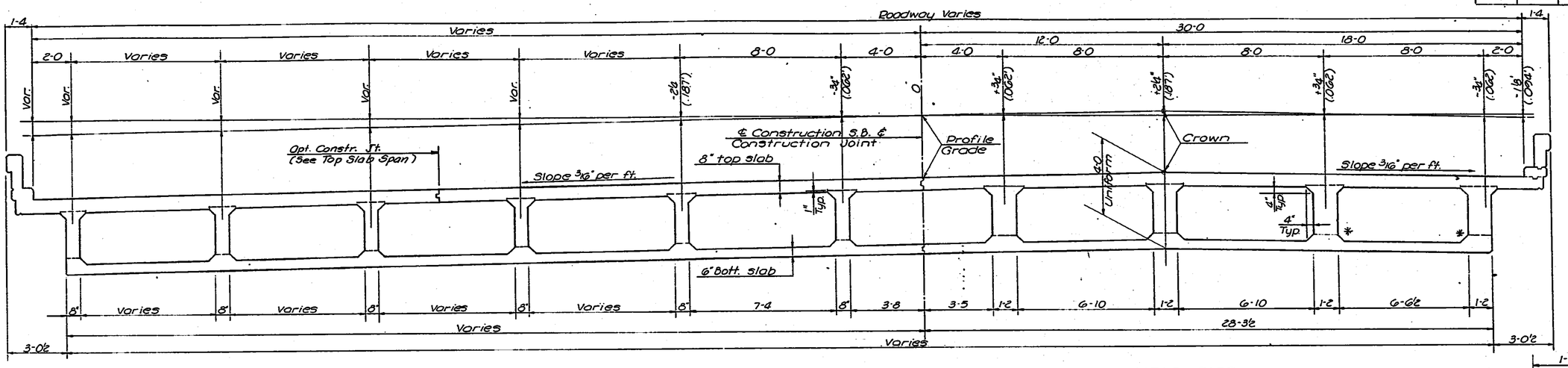
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

3 0 4

X	16X	14.5X	12X	12X	14.5X	16X	20X	

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1856	2137

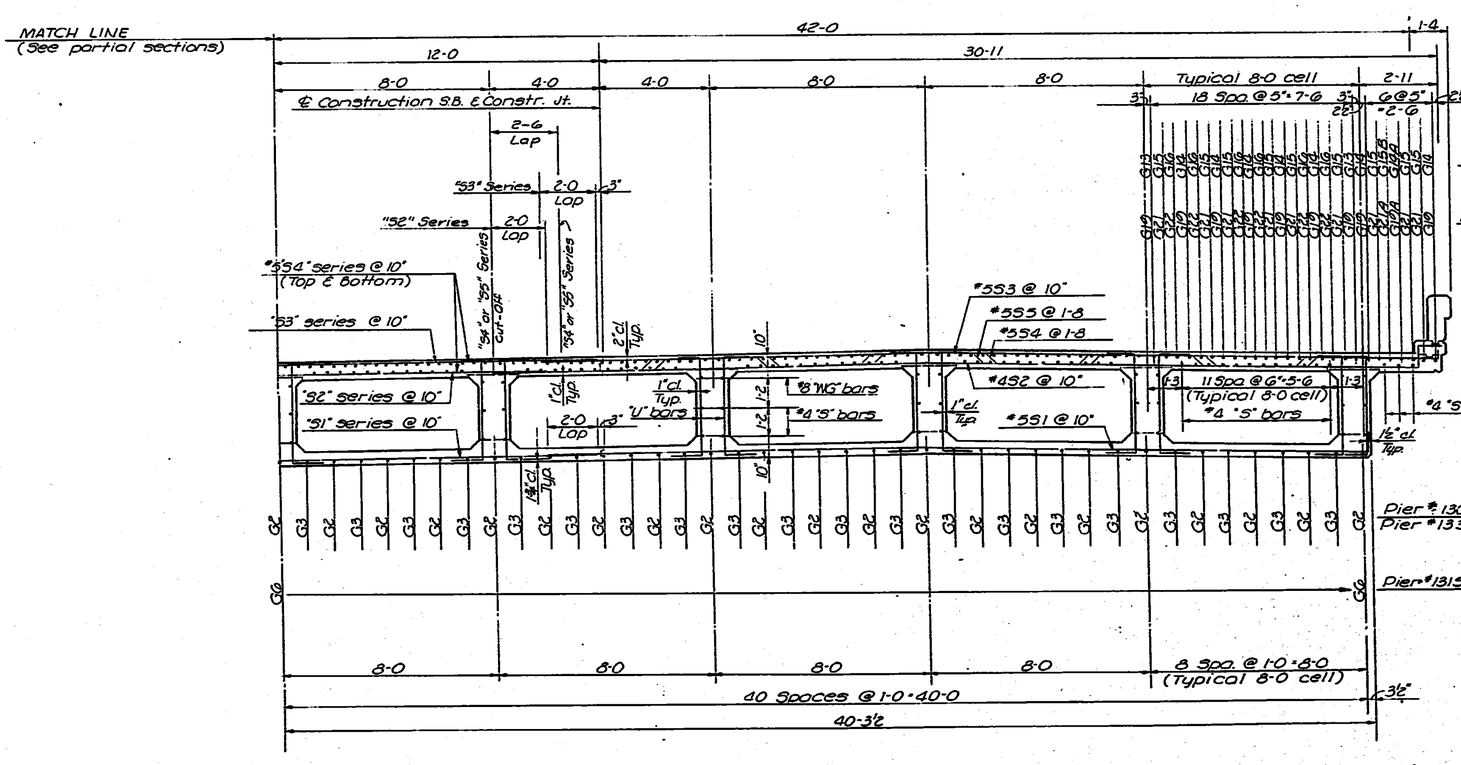


NEAR MID-SPAN
(No. of cells shown for Span #3)

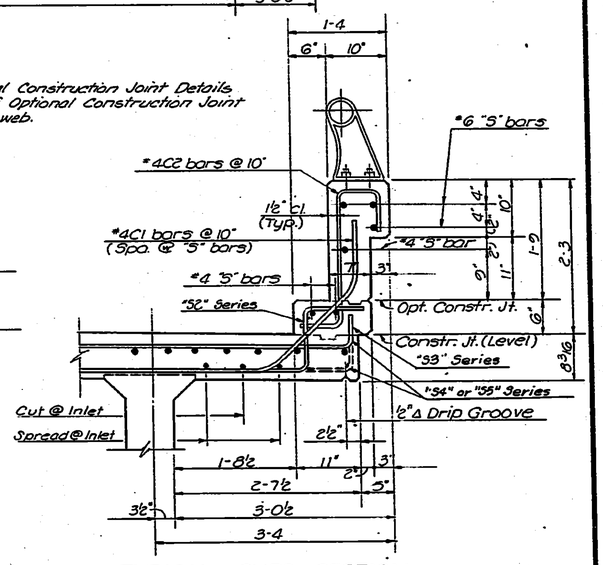
NEAR PIER

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.

ROADWAY DECK SECTION



ROADWAY DECK SECTION NEAR PIERS



TYPICAL CURB SECTION

Note: See Web Elevations for quantity, size and spacing of "U" bars
See top slab plans for "4 "S" bars in bottom of top slab.

Note: See Placement Diagrams for "WG" and "S" bars in webs. Transverse bars on left side are provided in incremented sets and shall be placed with outside end as shown on typical Curb Section. Lap varies with widening.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 19 OF 23	SCALE	APP'D.	
DESIGNED DFS	DETAILED EES	CHECKED JWL	TRACED EES
DESIGN CK. JWH	DETAIL CK. CKD	CHECK CK. DFS	TRACE CK. CKD

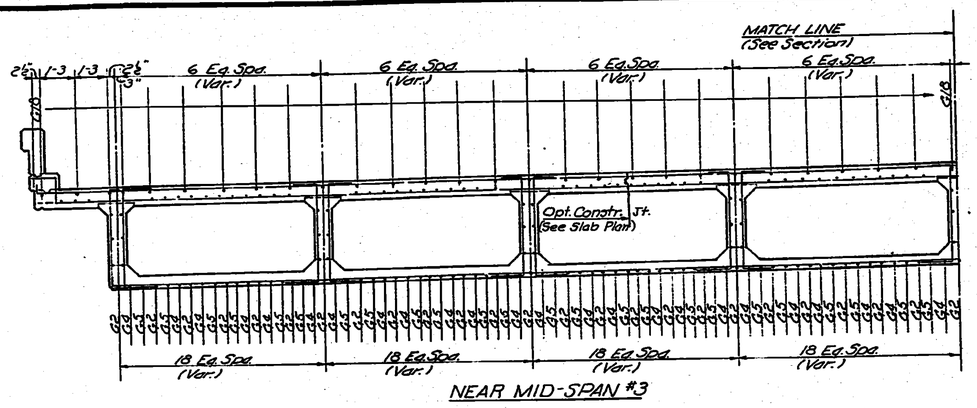
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

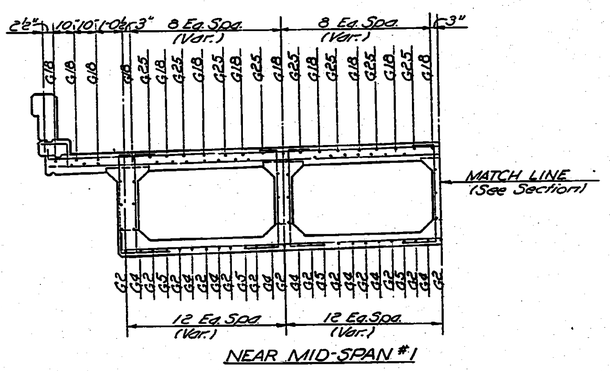
3 0 5

X	16X	14.5X	12X	12X	14.5X	16X	20X	

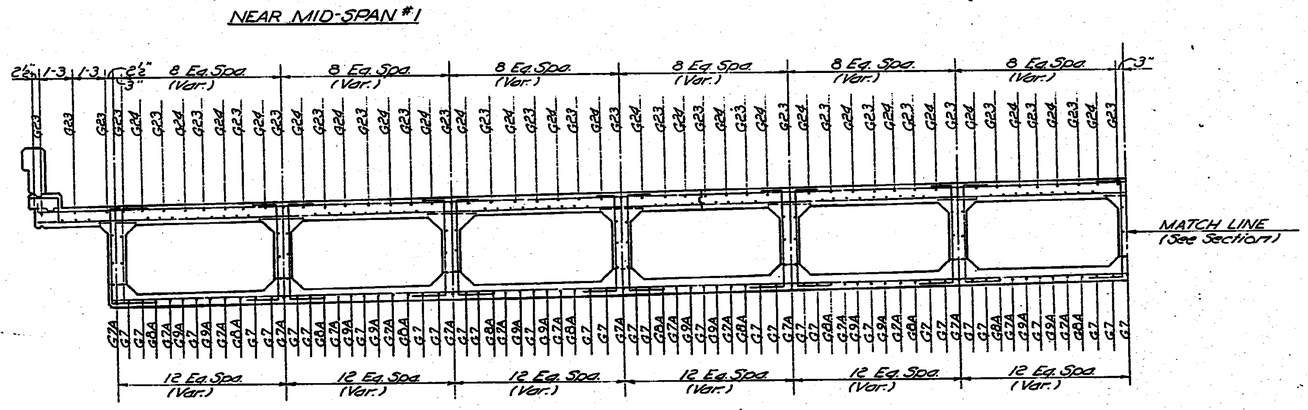
FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1837	2137



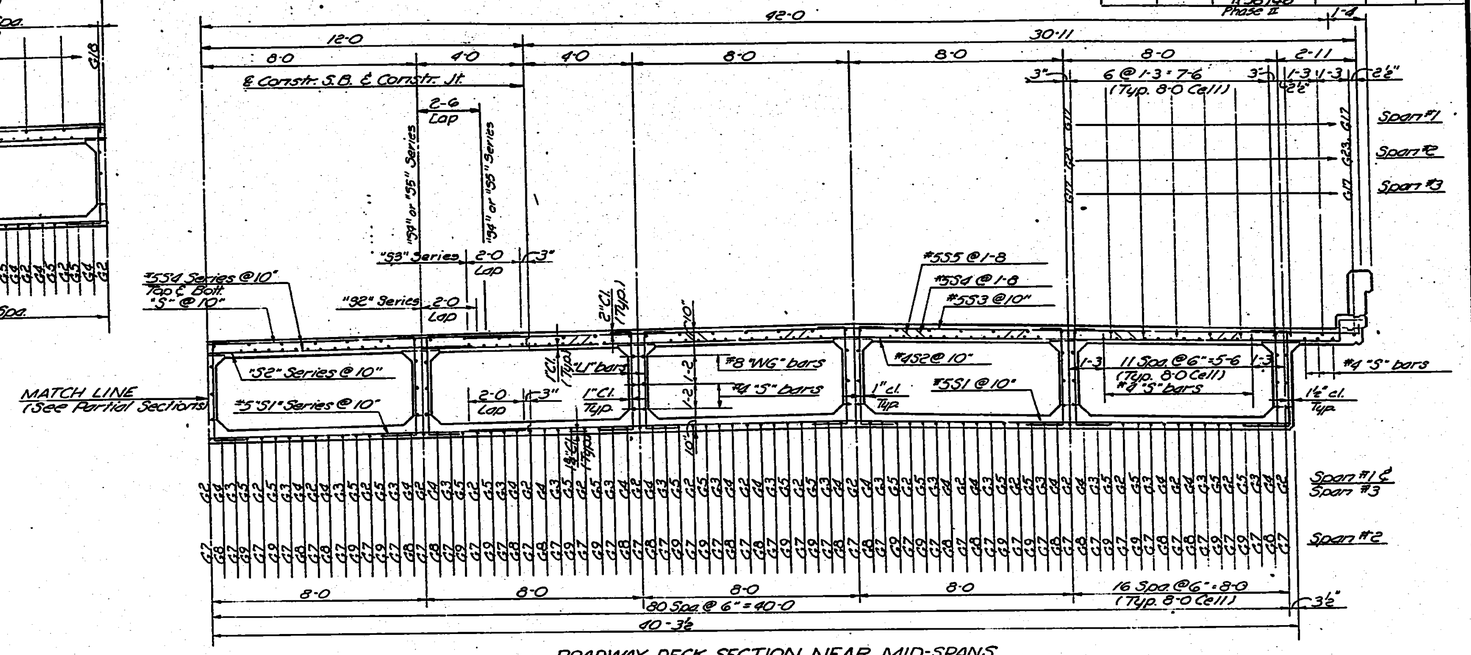
NEAR MID-SPAN #3



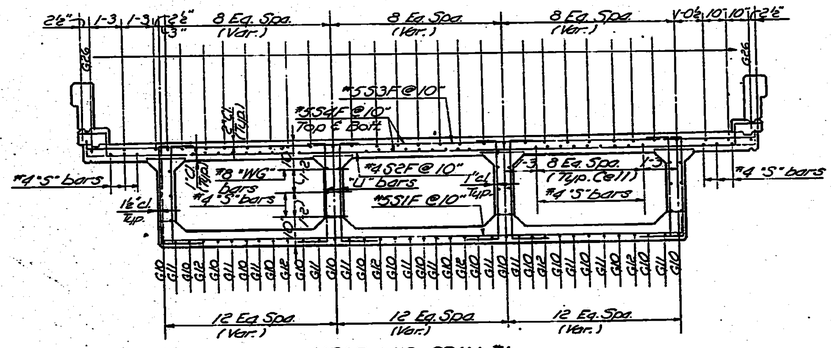
NEAR MID-SPAN #1



NEAR MID-SPAN #2



ROADWAY DECK SECTION NEAR MID-SPANS



NEAR MID-SPAN #1 (In Ramp "Q")

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 17 OF 28	SCALE	APP'D.	
DESIGNED DFS	DETAILED EES	QUANTITIES JML	TRACED DDW
DESIGN CK. JWH	DETAIL CK. LKD	GEN. CK. DFS	TRACE CK. EES

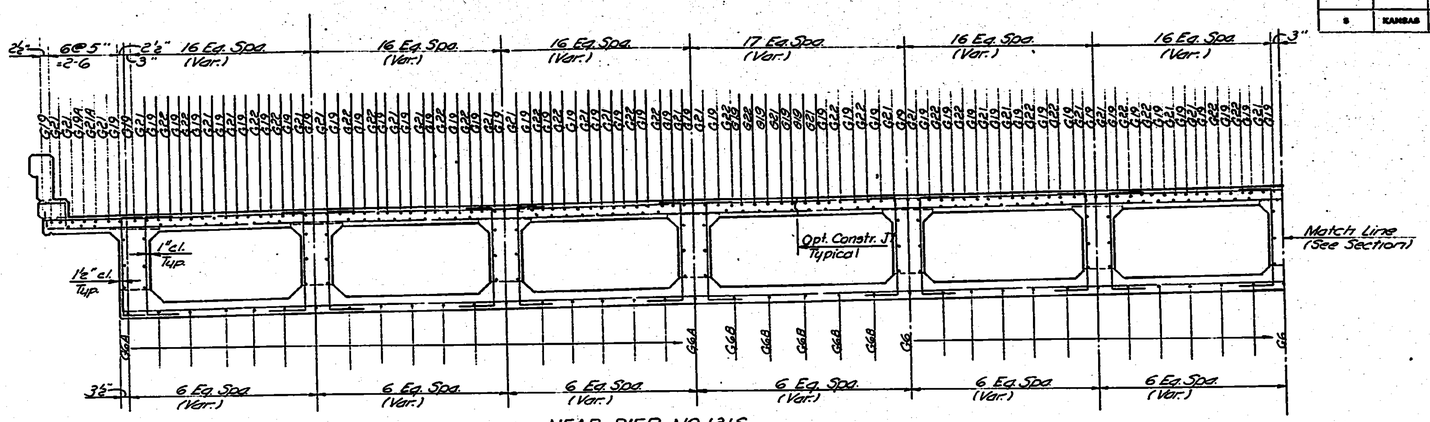
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

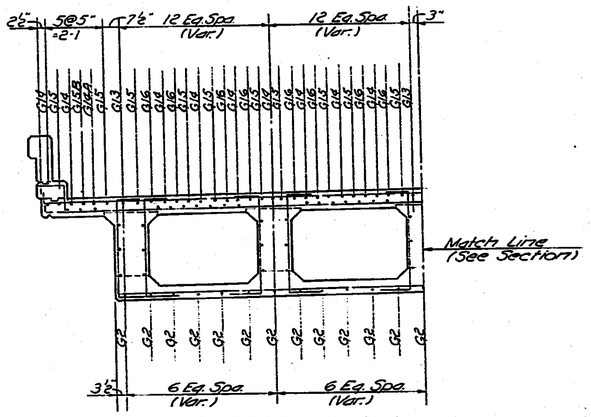
[redacted] 3 0 6

16X 14.5X 12X 12X 14.5X 16X 20X

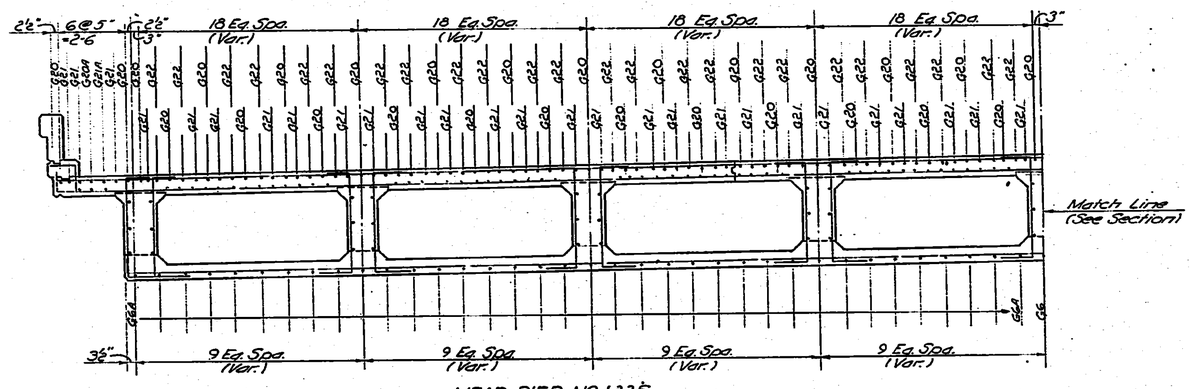
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-15(58)48 Phase II	19	1836	2137



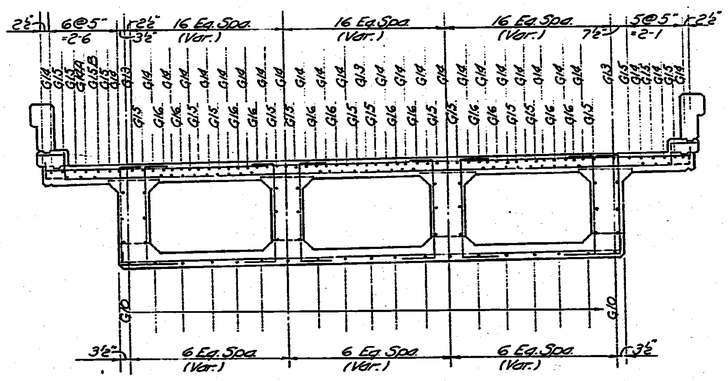
NEAR PIER NO.1315
(In Span #2)



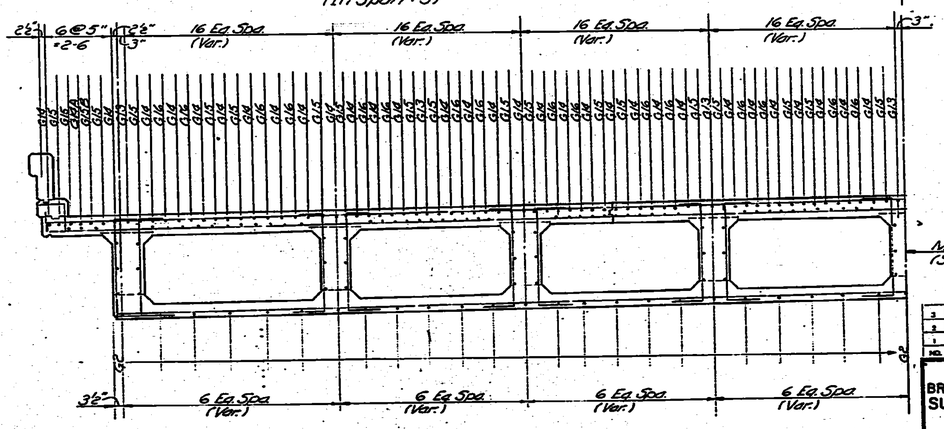
NEAR PIER NO.1305
(In Span #1)



NEAR PIER NO.1325
(In Span #3)



NEAR PIER NO.1305R
(In Span #1)



NEAR PIER NO.1335
(In Span #3)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 18 OF 28	SCALE	APP'D.	
DESIGNED DRG	DETAILED EES	CHECKED JML	TRACED BDW
DESIGN CK. JWH	DETAIL CK. LKD	CHECK CK. DRG	TRACE CK. EES

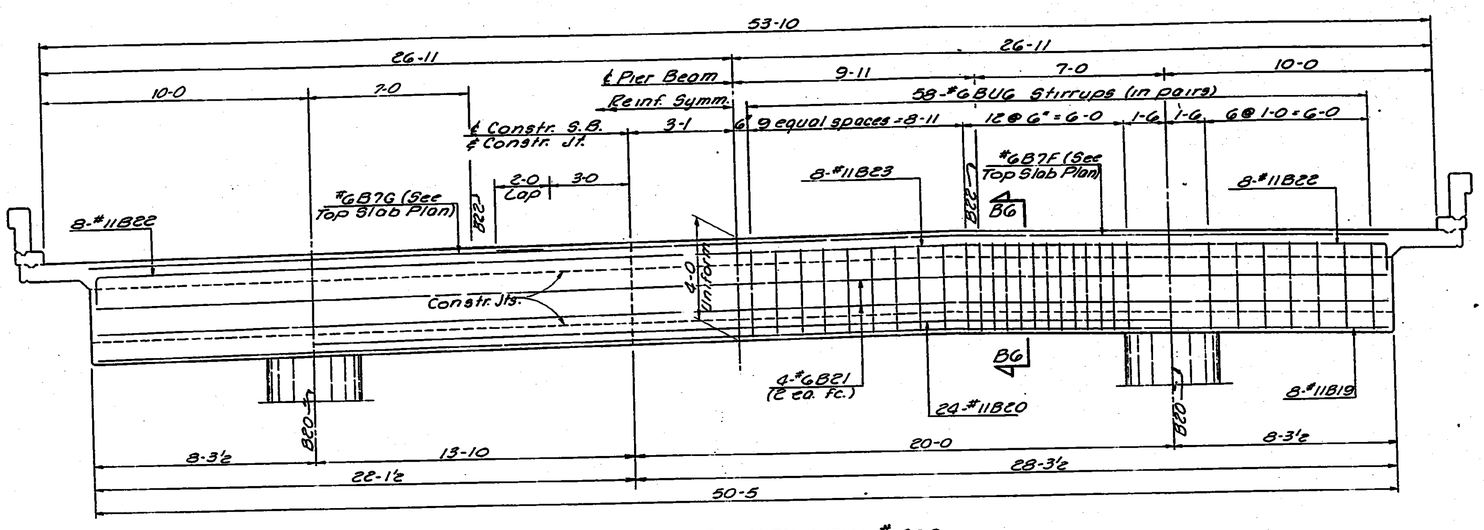
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

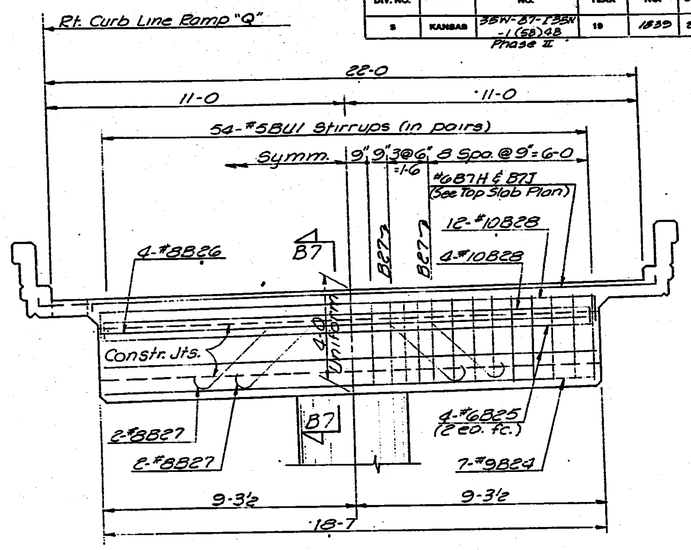
3 0 7

16X 14.5X 12X 12X 14.5X 16X 20X

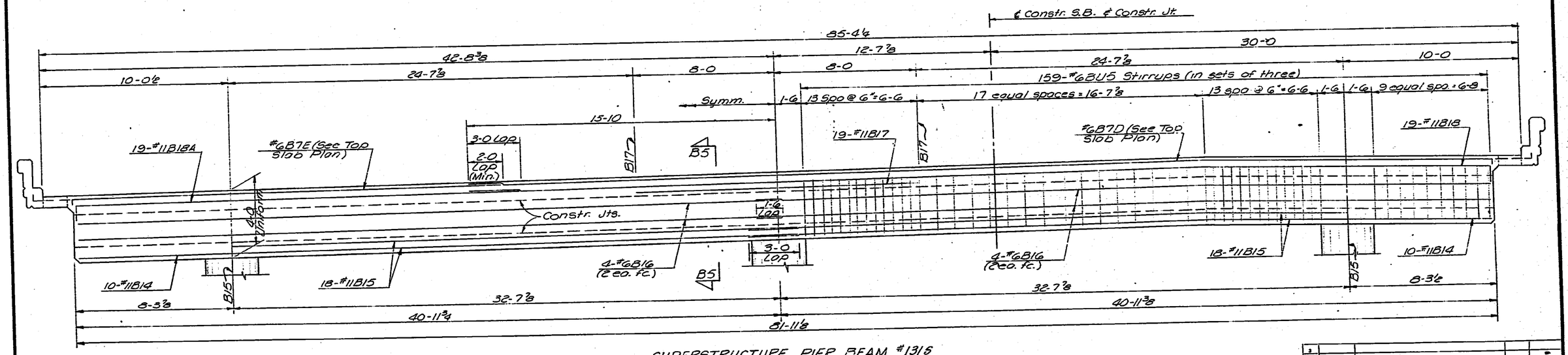
PUB. ROAD SEC. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase II	19	1835	2137



SUPERSTRUCTURE PIER BEAM #130S



SUPERSTRUCTURE PIER BEAM #130SR



SUPERSTRUCTURE PIER BEAM #131S

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-135W-1(58)48. SEDGWICK CO.

SHEET NO. 19 OF 22	SCALE	APP'D.	
DESIGNED DFG	DETAILED EES	QUANTITIES JML	TRACED DDW
DESIGN CK. JWH	DETAIL CK. LKD	GENL. CK. DFG	TRACE CK. EES

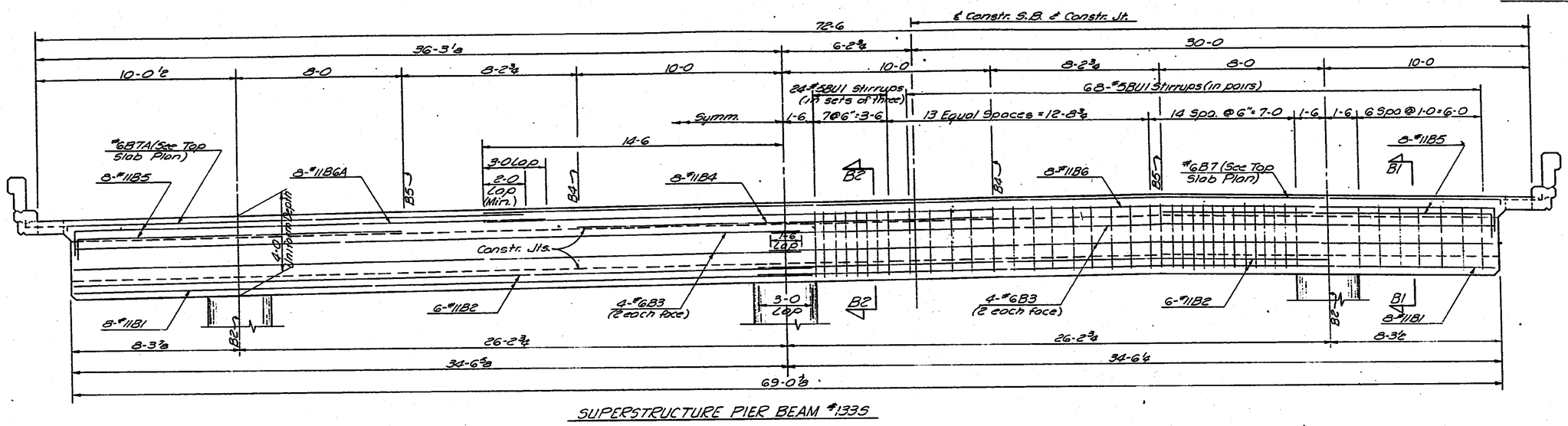
TAMPERA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

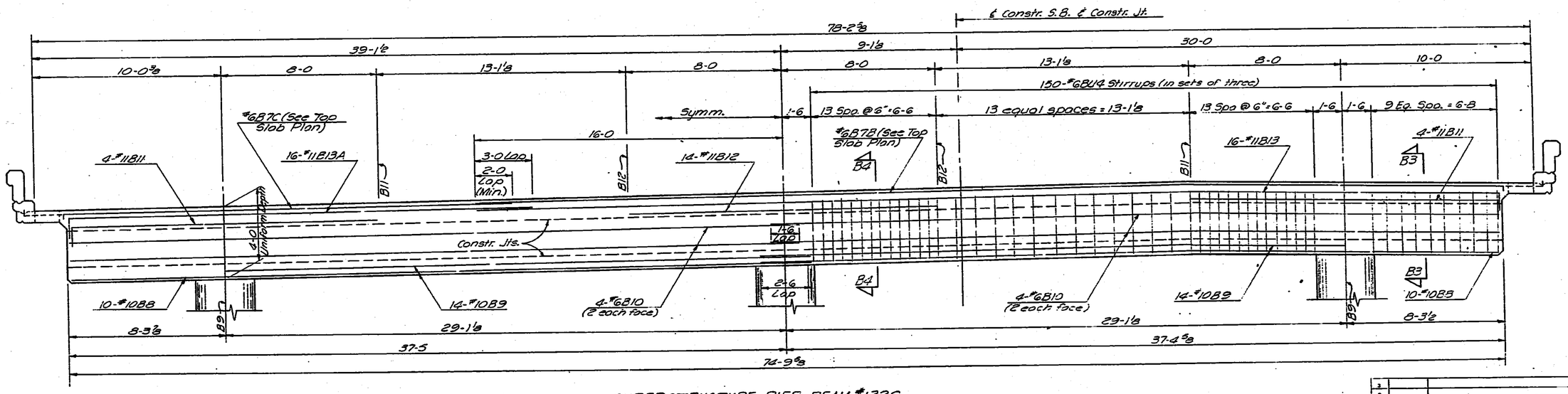
[redacted] 3 0 8

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1840	2137



SUPERSTRUCTURE PIER BEAM #1335



SUPERSTRUCTURE PIER BEAM #1325

NO.	DATE	DIVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 20 OF 28	SCALE	APP'D.			
PLOTTED DFG	DETAILED EES	CHECKED JML	TRACED DDW		
DESIGN CH. JWH	DETAIL CH. LKD	CHKD. CH. DFG	TRACE CH. EES		

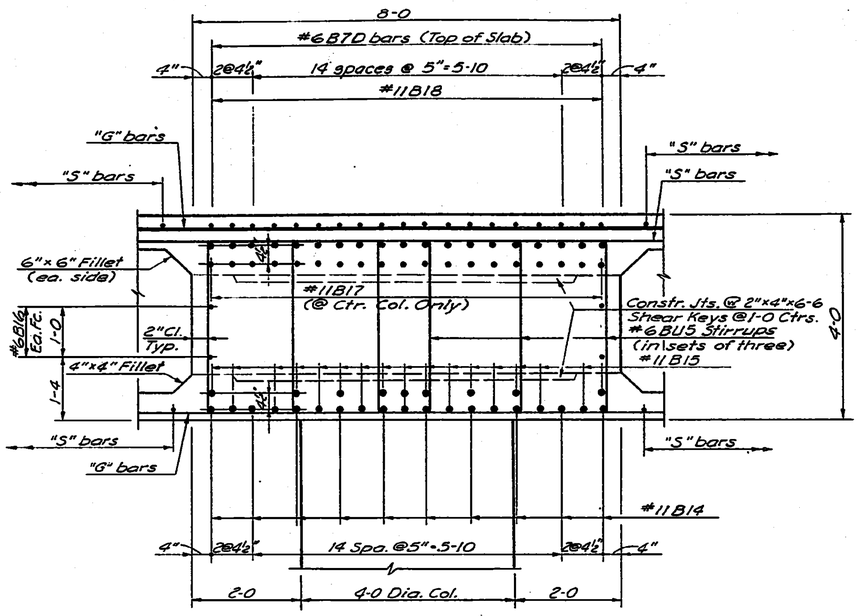
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

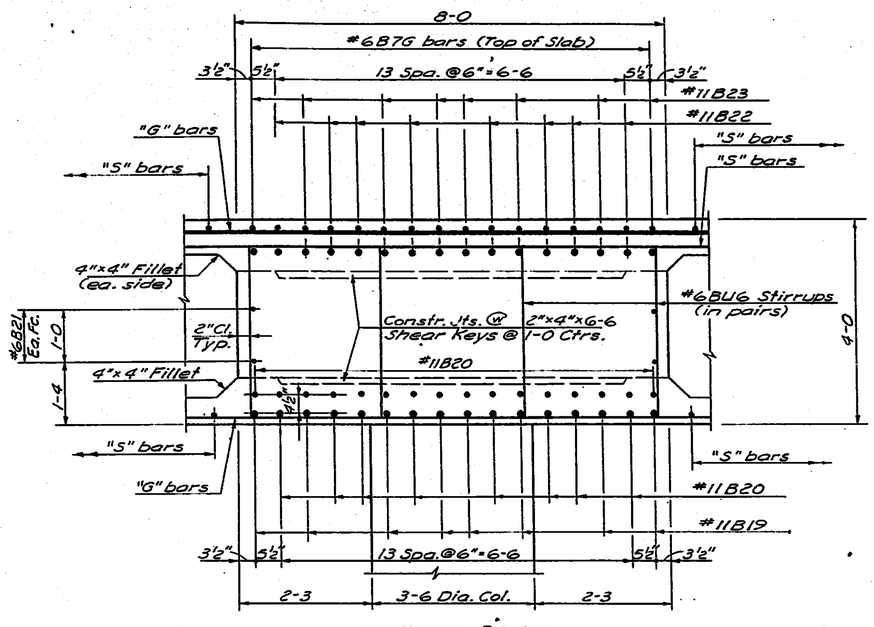
[redacted] 3 0 9

16X 14.5X 12X 12X 14.5X 16X 20X

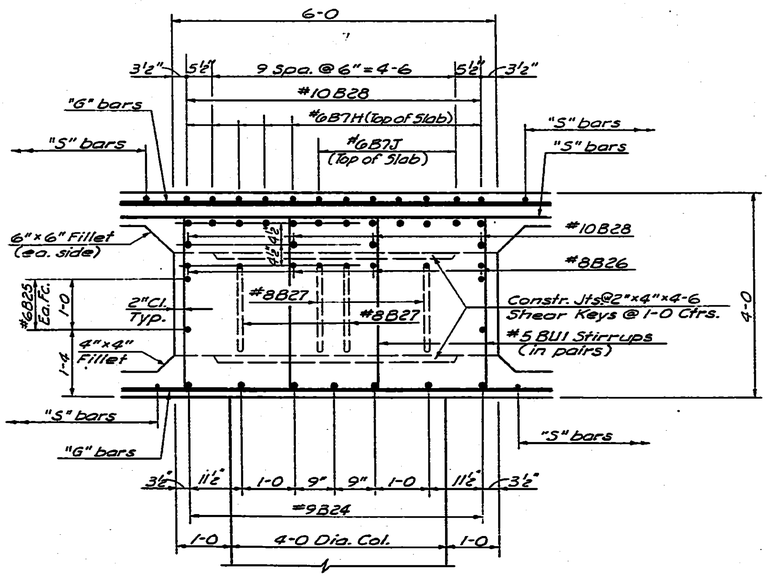
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1841	2137



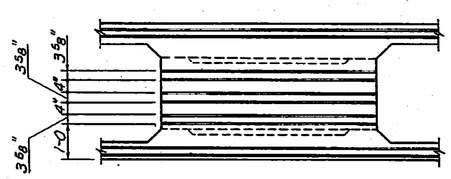
SECTION B5-B5
(at Pier #1315)



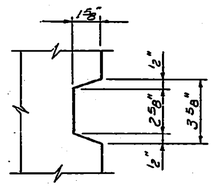
SECTION B6-B6
(at Pier #1305)



SECTION B7-B7
(at Pier #1305R)



SECTION THRU PIER BEAM
AT ℄ CONSTRUCTION
(Showing location of keys)



TYPICAL KEY
DETAIL

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 21 OF 28	SCALE	APP'D.	
DESIGNED DPG	DETAILED EES	QUANTITIES JML	TRACED DDW
DESIGN CK. JWH	DETAIL CK. LKD	GENL. CK. DPG	TRACE CK. EES

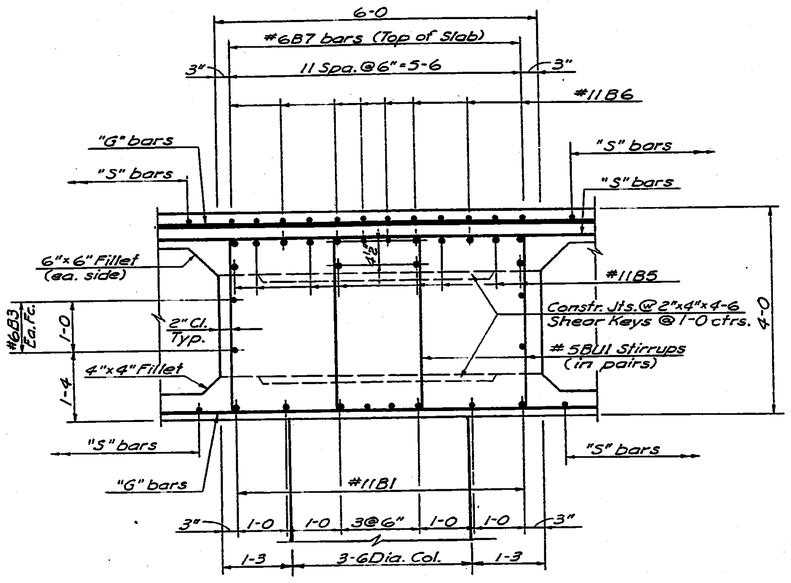
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

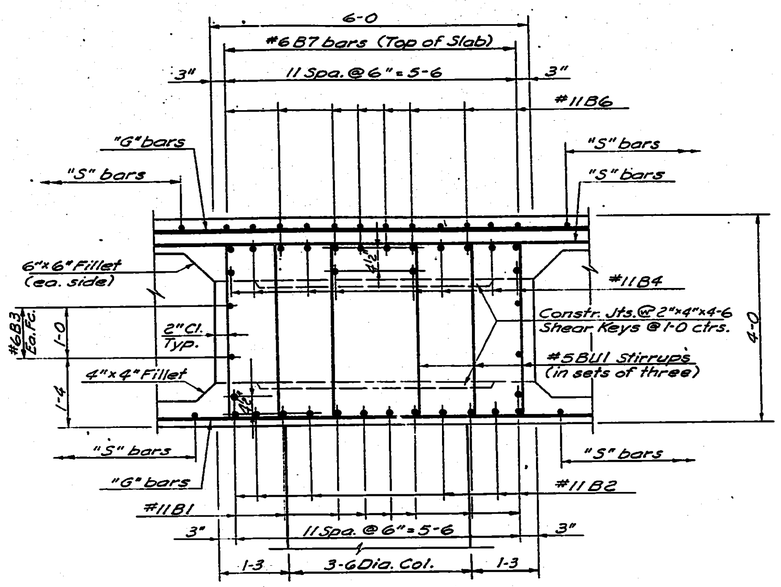
[redacted] 3 0 0

16X 14.5X 12X 12X 14.5X 16X 20X

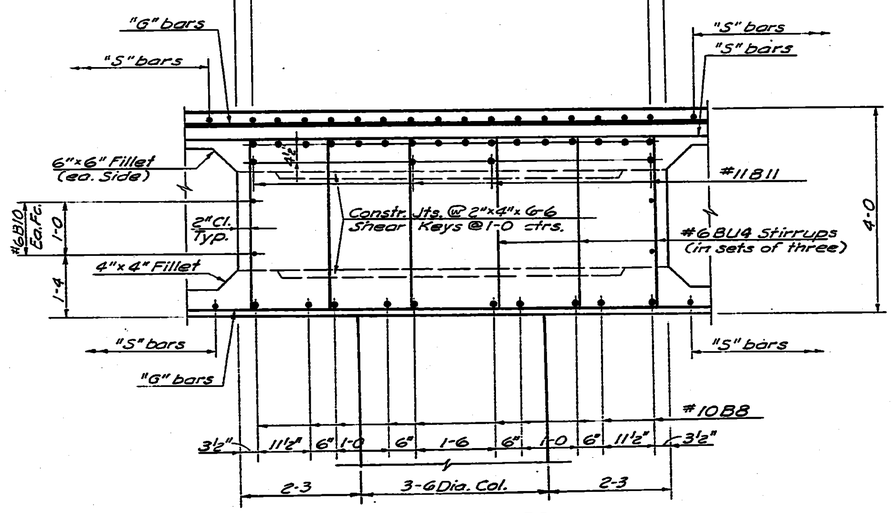
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	19	1842	2137



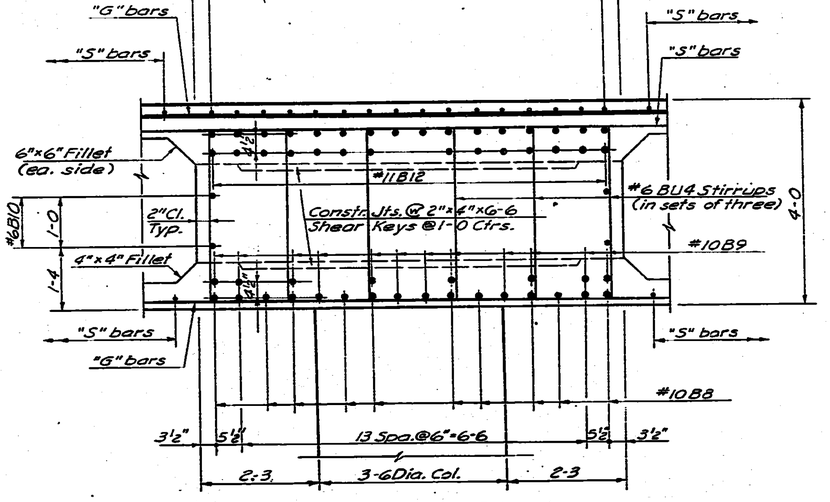
SECTION B1-B1
(at Pier #1335)



SECTION B2-B2
(at Pier #1335)



SECTION B3-B3
(at Pier #1325)



SECTION B4-B4
(at Pier #1325)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA.298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 22 of 22	SCALE	APP'D.	
DESIGNED DPG	DETAILED EES	CHANGES JML	TRACED DDW
DESIGN CK. JWH	DETAIL CK. LKD	CHANG. CK. DPG	TRACE CK. EES

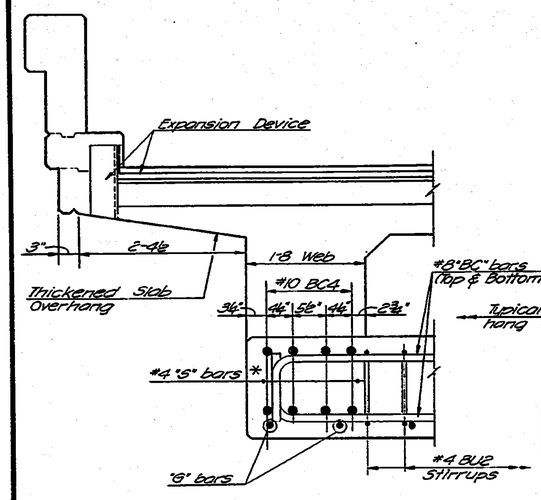
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

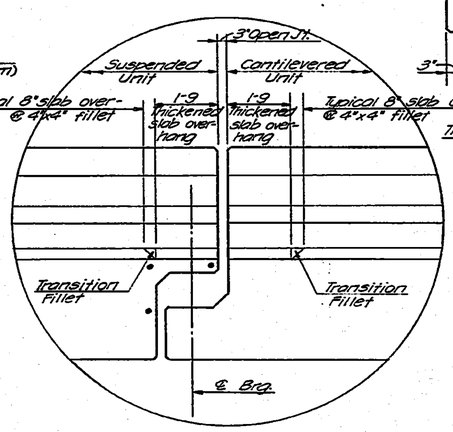
[redacted] 3 0 1

16X 14.5X 12X 12X 14.5X 16X 20X

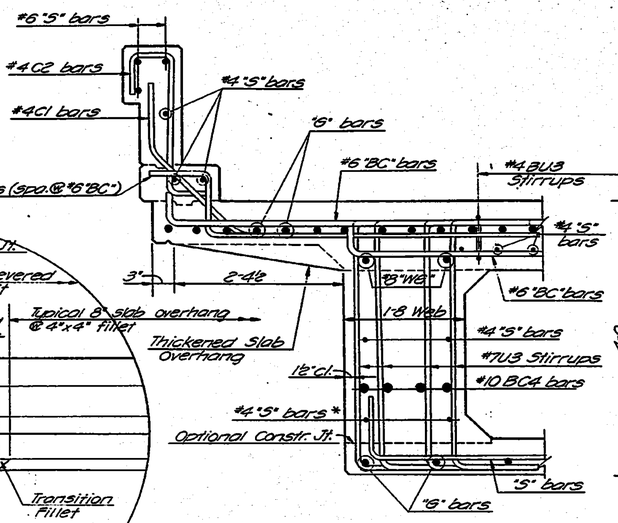
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1843	2157



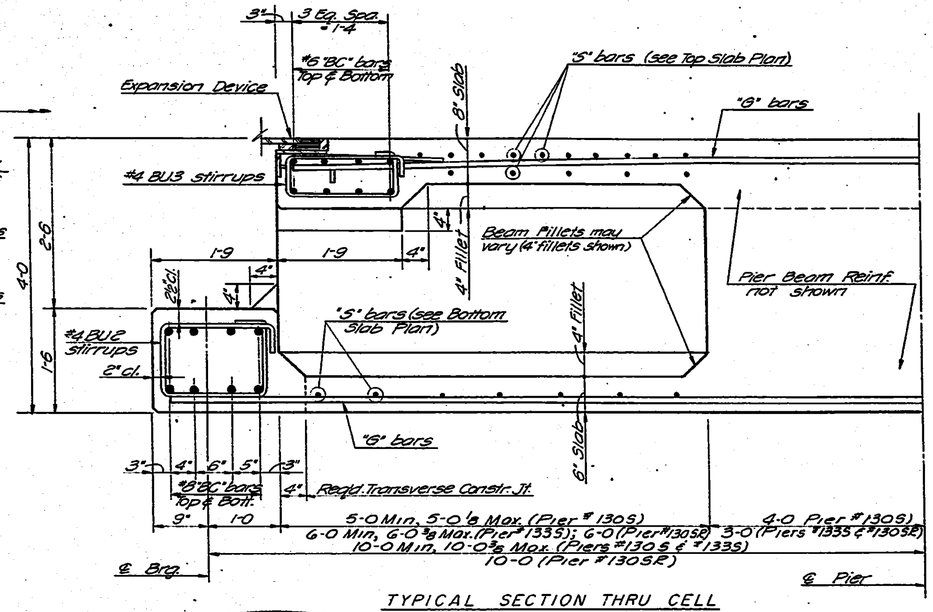
SECTION C3 – C3
(Exterior Web)



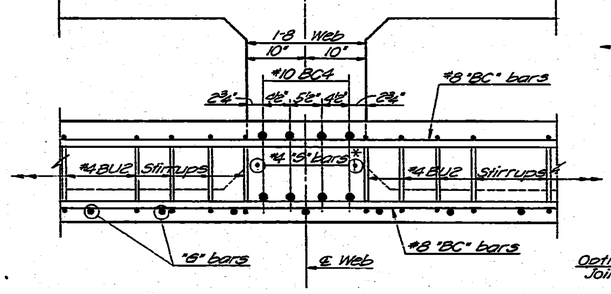
VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)



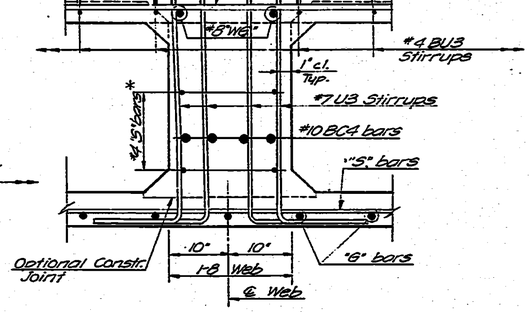
SECTION C4 – C4
(Exterior Web)



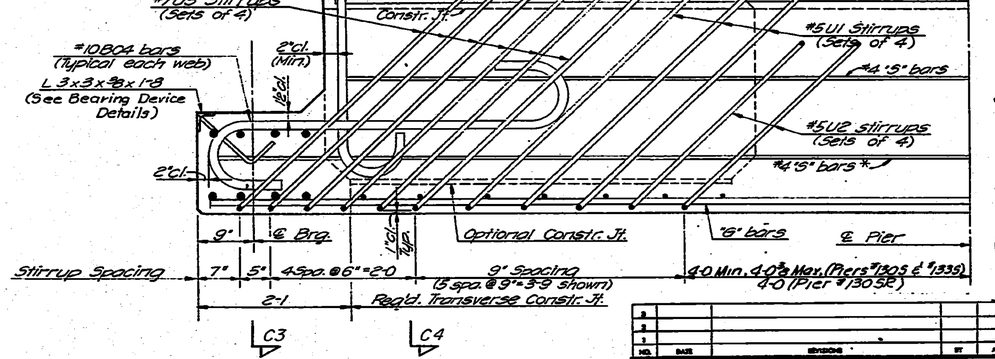
TYPICAL SECTION THRU CELL



SECTION C3 – C3
(Interior Web)



SECTION C4 – C4
(Interior Web)



TYPICAL SECTION THRU WEB

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

BEARING BEAM DETAILS

NO.	DATE	BY	APPD.
3			
2			
1			

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 29S
S.B. I-35W VIADUCT.
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

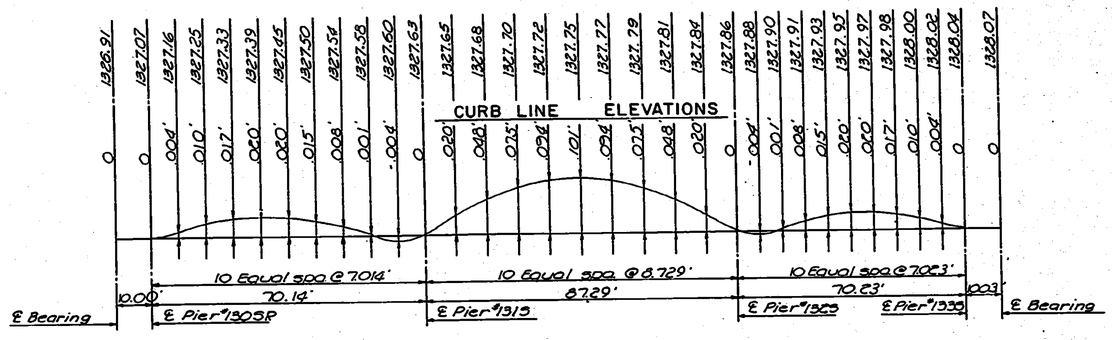
SHEET NO. 25 OF 28	SCALE	APPD.
DESIGNED DFG	DETAILED DS	CHECKED THC
DESIGN CK. RBS	DETAIL CK. RBS	TRACED DS
		CHKD. CK. DFG
		TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

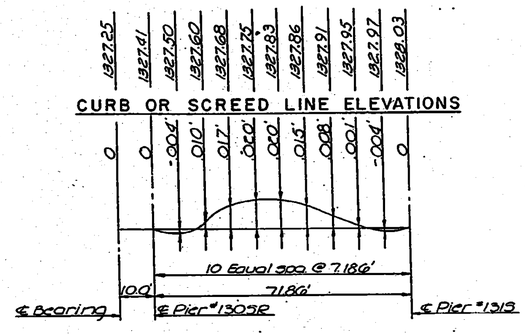
3 0 2

16X 14.5X 12X 12X 14.5X 16X 20X

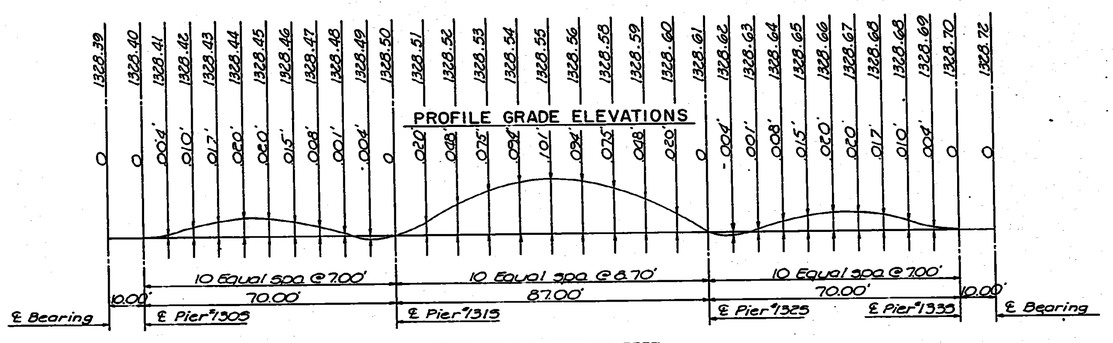
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W I-(58)48 Phase II	19	1904	2137



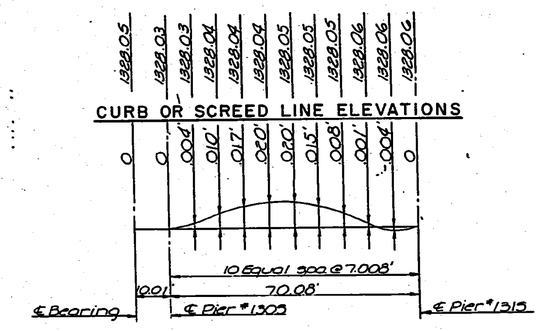
DEAD LOAD CAMBER IN FEET
ALONG LEFT GIRDER FASCIA



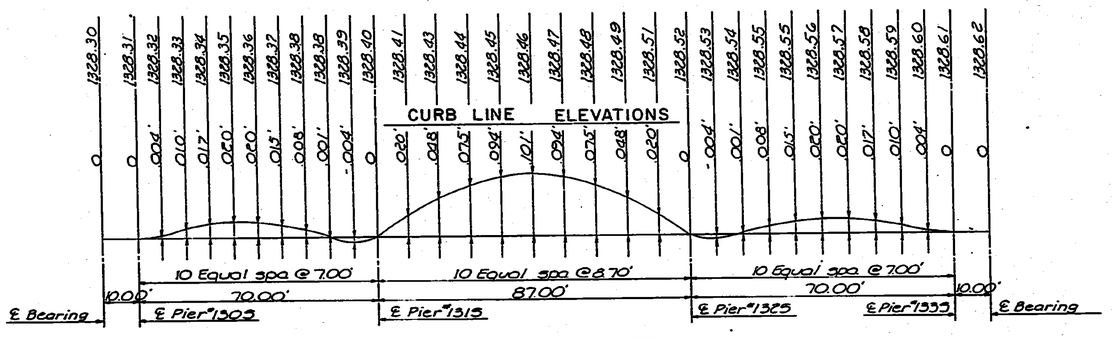
DEAD LOAD CAMBER IN FEET
ALONG RIGHT GIRDER FASCIA-RAMP "Q"



DEAD LOAD CAMBER IN FEET
ALONG ℄ CONSTRUCTION



DEAD LOAD CAMBER IN FEET
ALONG LEFT GIRDER FASCIA



DEAD LOAD CAMBER IN FEET
ALONG RIGHT GIRDER FASCIA

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL TOP OF SLAB ELEVATIONS AT TENTH POINTS

NOTE: Add dead load camber to theoretical top of slab elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ psi.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

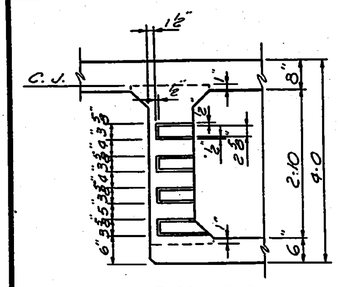
SHEET NO. 24 OF 28	SCALE		APP'D.		
DESIGNED JWH	DETAILED DAS		CHECKED LKO/JML	TRACED	DRA
DESIGN CK. RBS	DETAIL CK. RBS		CHIEF CK. FES/DFG	TRACE CK.	DS

DIST. 5 SEDGWICK CO. ROLL 531

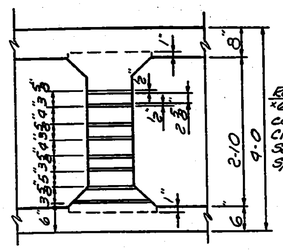
3 0 3

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1845	2137

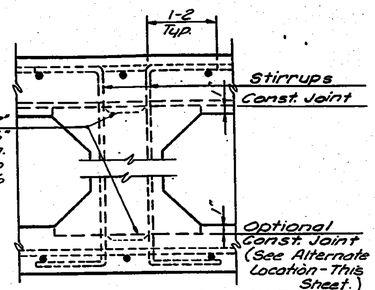


SECTION B-B
(Through Exterior Web)

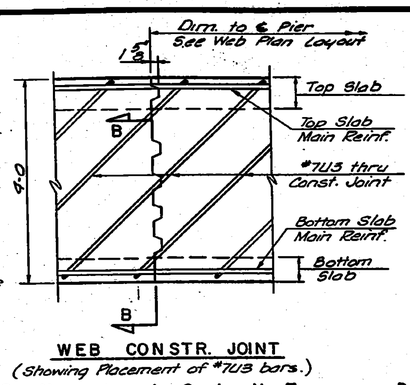


SECTION B-B
(Through Interior Web)

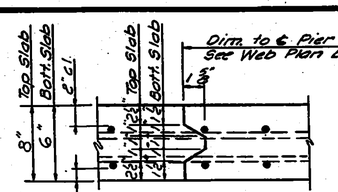
Rake or form 3/4" x 2" "L" Shear Keys @ 6" centers as shown. Clean according to Sec. FI-4(g), 1966 Specs.



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

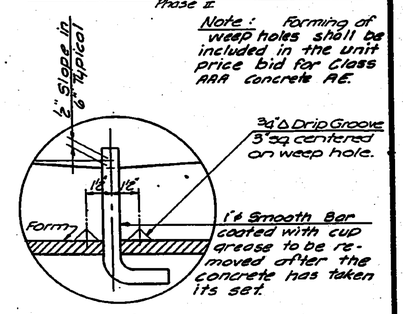


WEB CONSTR. JOINT
(Showing Placement of #7@3 bars.)



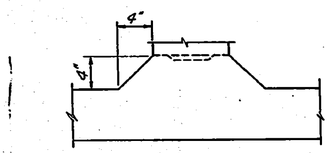
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of weep holes shall be included in the unit price bid for Class AAA Concrete AE.

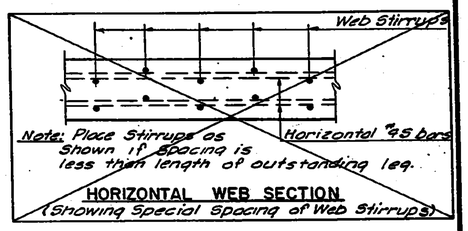


DETAIL OF WEEP HOLES

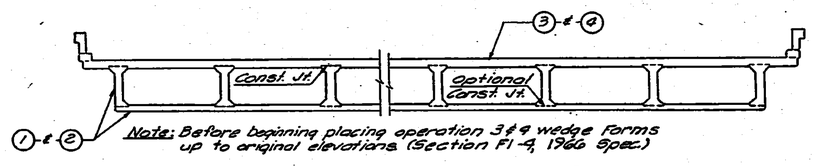
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer)

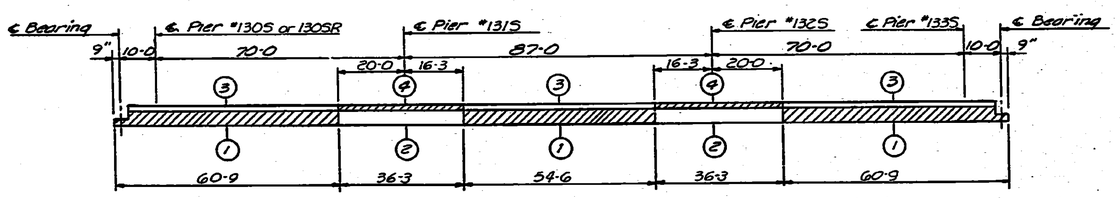


HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)

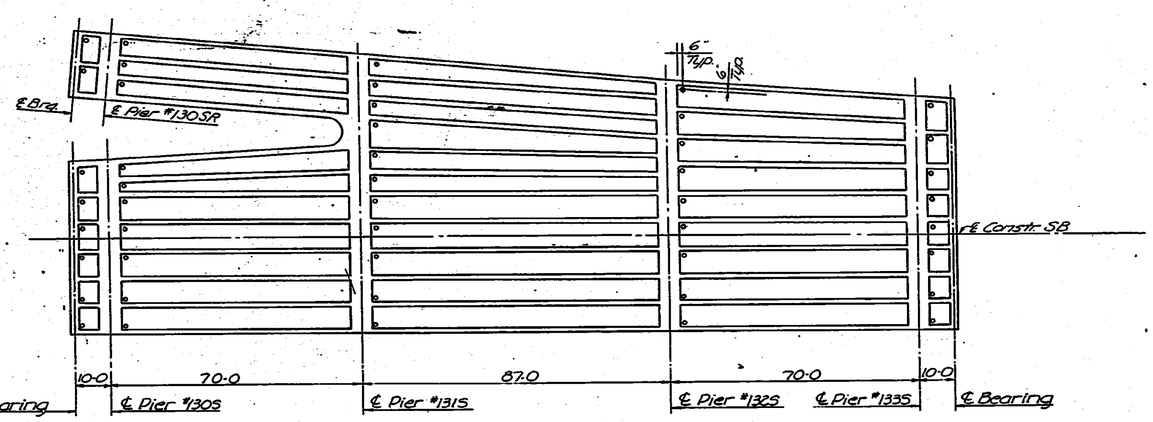


Note: Before beginning placing operation 3 # 4 wedge forms up to original elevations (Section FI-4, 1966 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework



LOCATION OF WEEP HOLES

NOTES:

See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails may be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-Span Steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29 S
S.B.I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-I(58)48 SEDGWICK CO.

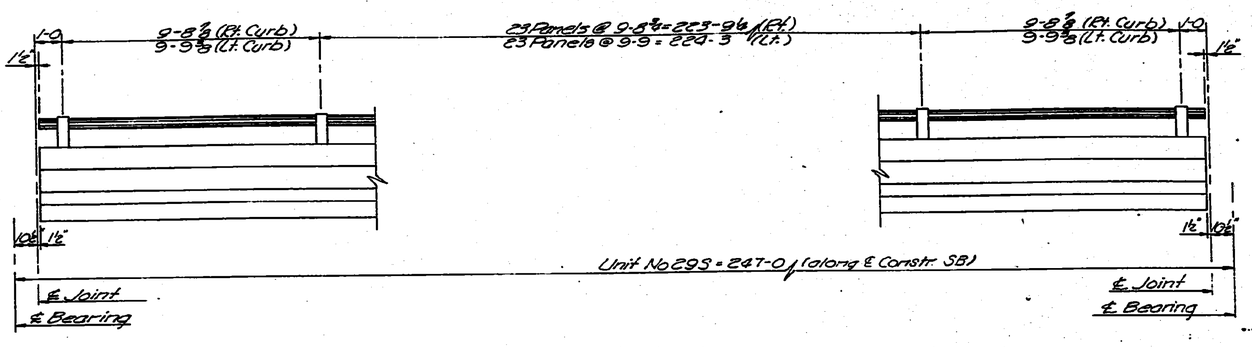
SHEET NO. 55 of 58	SCALE	APP'D.	
DESIGNED DFG	DRAWN DGT	CHECKED LRD/JWL	TRACED DGT
STRESS CK. RBS	DETAIL CK. RAW	QUANT. CK. EES/DFG	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

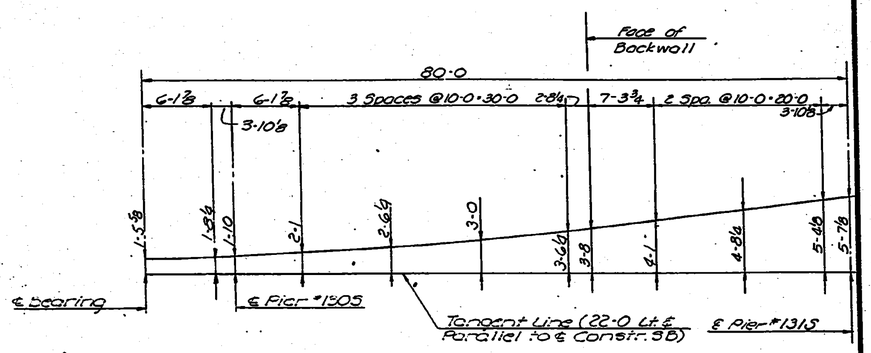
3 0 4

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

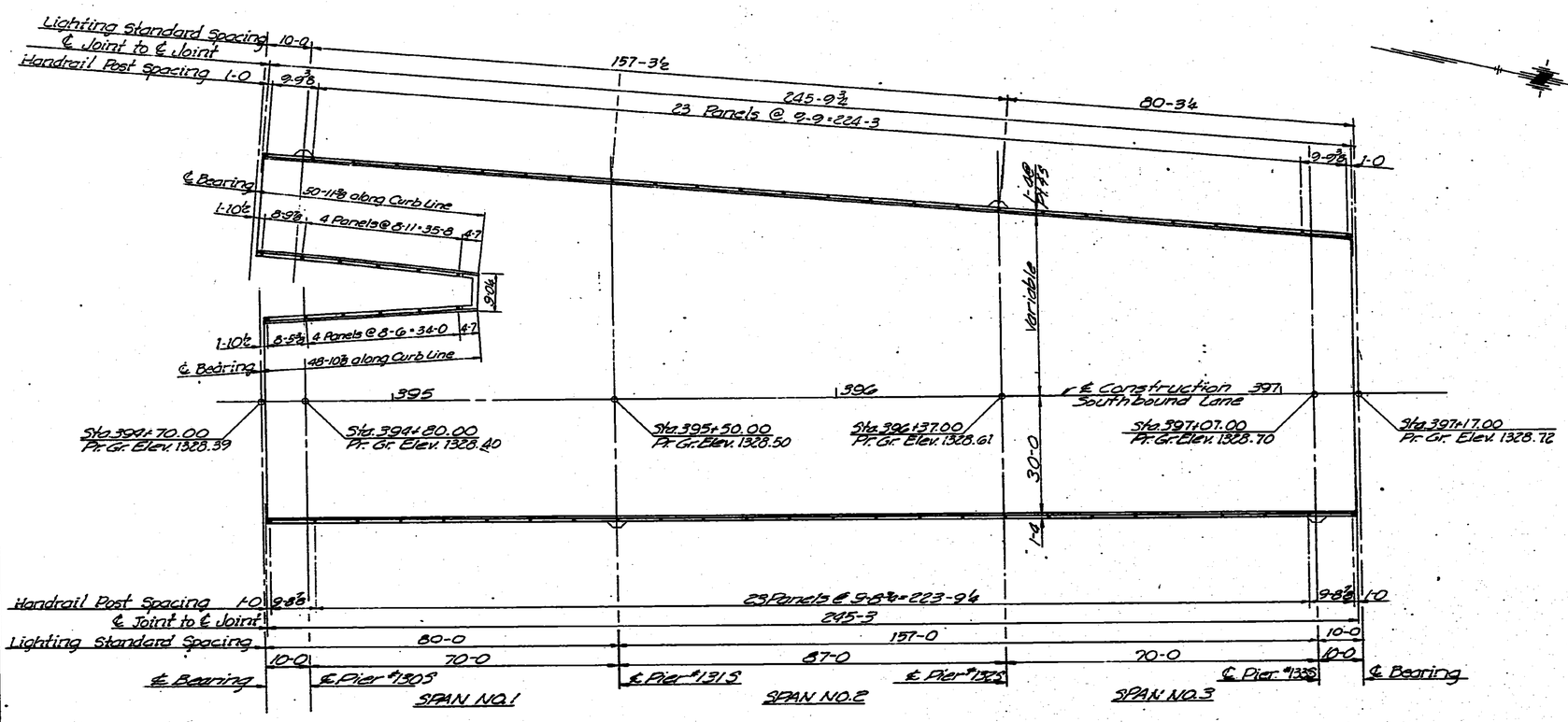
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(58)48 Phase II	19	1846	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)



OFFSETS TO LEFT CURB LINE OR SCREED LINE
(Span #1)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 29S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. Sheet 28	DESIGN	APP'D.	
DESIGNED JWH	DRAWN RBS	COMPUTED CKW	TRACED KWK
DESIGN CK. RDS	DETAIL CK. DS	QUANT. CK. EEV	TRACE CK. LAD

DIST. 5 SEDGWICK CO. ROLL 531

3 0 5

16X 14.5X 12X 14.5X 16X 20X

REV. PLANS 11-1-71

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W I-(58)48	19	1847	2157

BILL OF REINFORCING STEEL

Phase II

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	259	5	31-5
				S1A	7	5	40-10
				S1B	76	5	*
				S1C	95	5	*
				S1D	75	5	*
				S1E	6	5	22-6
				S1F	76	5	*
				S1G	7	5	20-3
				S2	255	4	35-11
				S2A	5	4	92-1
				S2B	76	4	*
				S2C	95	4	*
				S2D	41	4	*
				S2E	4	4	28-6
				S2F	45	4	*
				S2G	5	5	25-10
				S2FF	31	6	*
				S2DD	34	6	*
				S3	255	5	33-6
				S3A	5	5	95-4
				S3B	76	5	*
				S3C	95	5	*
				S3D	41	5	*
				S3E	4	5	24-6
				S3F	45	5	*
				S3G	5	5	28-6
				S3DD	34	6	*
				S3FF	31	6	*
				S4	127	5	36-5
				S4A	10	5	42-0
				S4B	150	5	*
				S4C	188	5	*
				S4D	82	5	*
				S4E	8	5	22-3
				S4F	90	5	*
				S4G	10	5	29-6
S4H	6	6	*				
				S5	125	5	36-5
S4DD	66	6	*				
				S4FF	60	6	*
S6	941	4	40-0				
S6A	11	4	10-6				
S6B	44	4	32-0				
S6C	39	4	9-6				
S6D	81	4	13-6				
S6E	25	4	31-0				
S6F	31	4	16-0				
S6G	30	6	40-0				

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
S7	16	4	14-0				
S7A	16	4	17-6				
S7B	2	4	16-0				
S7C	2	4	17-6				
S8	12	4	26-10				
S8A	12	6	26-10				
S9	3	4	31-6				
S9A	3	6	31-6				
S10	3	4	33-6				
S10A	3	6	33-6				
				S11	4	4	21-3
				S11A	2	6	21-3
				S12	2	4	20-0
				S12A	4	6	20-0
				S13	2	4	6-8
				S14	2	4	5-5
				S15	3	6	17-0
G1	118	8	11-8				
G1A	19	8	13-6				
G2	78	9	60-0				
G3	90	8	60-0				
G4	72	9	43-0				
G4B	5	8	21-0				
G5	68	8	27-0				
G6	94	8	28-6				
G6A	55	8	29-0	G6C	1	8	18-0
G7	71	10	60-0				
G7A	18	11	60-0				
G8	20	10	30-0				
G8A	12	11	30-0				
G9	20	10	36-0				
G9A	12	11	36-0				
G10	19	10	60-0				
G11	12	10	44-0				
G12	6	10	28-0				
G14	120	8	37-10	G13	89	8	41-11
G14A	5	8	27-0				
G15	113	8	26-10				
G15A	8	8	8-0				
G15B	5	8	16-0				
G15C	2	8	6-6				
G16	96	9	18-10				
G17	76	7	21-0				
G18	40	8	21-3				
G19	126	10	50-0				
G19A	6	10	24-0				

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
G20	27	11	50-0				
G20A	2	11	22-0				
G21	120	11	36-0				
G21A	8	11	17-0				
G22	108	11	20-0				
G23	66	5	40-0				
G24	20	5	47-6				
G25	8	8	30-0				
G26	31	8	*				
G25A	2	8	16-0				
G25B	2	8	9-0				
B1	16	11	35-11	ADI	67	4	8-6
B2	12	11	27-9				
B3	8	6	35-2				
B4	8	11	20-0				
B5	16	11	17-8				
B6	8	11	50-5				
B6A	8	11	24-5				
B7	12	6	52-4				
B7A	12	6	25-2				
B7B	16	6	56-6				
B7C	16	6	26-6				
B7D	19	6	60-0				
B7E	19	6	30-3				
B7F	16	6	36-5				
B7G	16	6	22-3				
B7H	6	6	24-10				
B7J	6	6	21-8				
B8	20	10	38-9				
B9	28	10	30-7				
B10	8	6	38-0				
B12	14	11	16-0	B11	8	11	17-8
B14	20	11	42-4	B13	16	11	54-9
B15	36	11	34-2	B13A	16	11	25-9
B16	8	6	41-7				
B17	19	11	16-0				
B19	8	11	50-0	B18	19	11	58-1
B20	24	11	33-10	B18A	19	11	28-6
B21	4	6	50-0				
B24	7	9	13-3	B22	16	11	16-8
B25	4	6	13-3	B23	8	11	53-1
B26	4	8	13-3				
				B27	4	8	13-8
				B28	16	10	21-3

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				BU1	638	5	15-4
				BU2	167	4	6-1
				BU3	119	4	5-1
				BU4	300	6	17-4
				BU5	318	6	16-8
				BU6	116	5	18-4
				BC1	16	8	32-8
				BC1A	8	8	40-8
				BC1B	8	8	22-0
				BC1C	8	8	20-4
				BC2	8	6	31-11
				BC2A	4	6	39-11
				BC2B	4	6	21-4
				BC2C	4	6	19-4
				BC3	8	6	39-6
				BC3A	4	6	92-6
				BC3B	4	6	23-11
				BC3C	4	6	28-6
				BC4	76	10	8-2
				C1	699	4	3-5
				C2	707	4	3-8
				C3	92	4	2-5
				C4	24	5	5-6
C5	44	4	2-6				
				C6	10	5	4-6
				C7	8	5	4-10
				C8	8	4	4-4
				U1	4228	5	7-7
				U2	516	5	6-1
				U3	732	7	7-7
				U8	5	6	6-5
WG1	118	8	40-0				
WG2	24	8	28-3				
WG2A	6	8	30-0				
WG2B	4	8	9-0				
WG2C	2	8	19-0				
WG2D	2	8	20-0	LB1	16	4	7-4
				LB2	12	4	9-4

*See Bending Diagrams

Note: For additional details see the sheets listed below.

Column Details
Drilled shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	1567.6	Cu.Yds.
Reinforcing Steel	508,710	Lbs.
Cast Iron Scuppers		Lbs.
Wrought Iron Drains & Grates	6,430	Lbs.
8" ϕ Downspouts	277.07	Lin. Ft.
Gutters	66.18	Lin. Ft.
Bridge Handrail	~~574.00~~	Lin. Ft.
Structural Steel		
Corner Angles (A36) 19 @ 19 lbs.	361	Lbs.
Expansion Devices (A36)	5,412	Lbs.
Linseed Oil Surface Treatment (Bridges)	2158.4	Sq.Yds.
Elastomeric Exp. Device (13½")	98	Lin. Ft.
Elastomeric Exp. Device (22½")	56	Lin. Ft.

All bar marks shall be prefixed with the Unit Number when fabricated. Example: #8G1 bars shall be marked 29S8G1.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1	11-1-71	Rev. Exp. Devices	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SCHEDULE OF QUANTITIES- UNIT NO. 29S
S. B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-I(58)48 SEDGWICK CO.

SHEET NO. E10of22	SCALE	APP'D.	
DESIGNED DEG	DETAILED LKD	QUANTITIES CKD/TC	TRACED DGT
DESIGN OF RBS	DETAIL OF DGT	CHECK OF DGT/AV	TRACE OF LKD

DIST. 5 SEDGWICK CO. ROLL 531

3 0 6

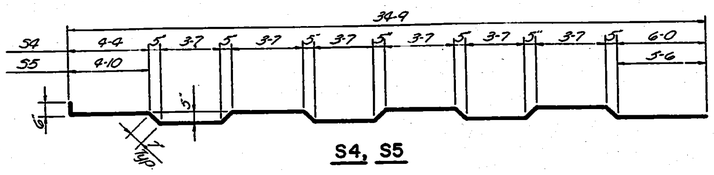
16X 14.5X 12X 12X 14.5X 16X 20X

BENDING DIAGRAMS

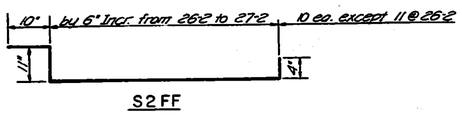
(Bar Dimensions are Out to Out)

REV. PLANS 11-1-71

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-135(48) Phase 'L'	19	1848	2137



S4, S5



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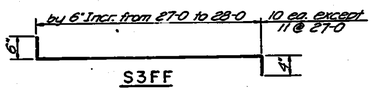
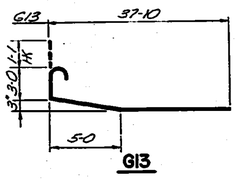
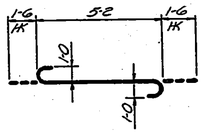


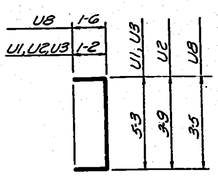
S3FF



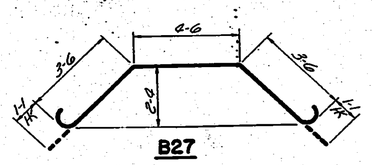
G13



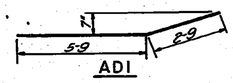
BC4



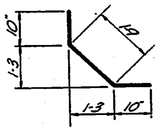
U1, U2, U3, U3



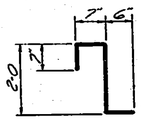
B27



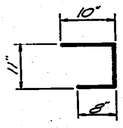
A01



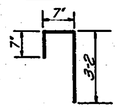
C1



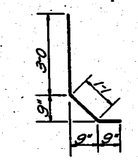
C2



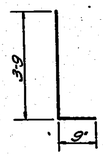
C3



C8



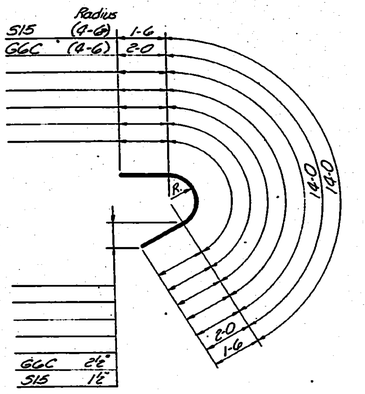
C7



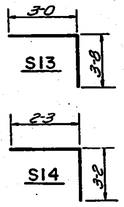
C6

S4DD	by 6" Incr. from 27-8 to 28-8	22 ea.
S4H	by 5-6 Incr. from 11-0 to 22-0	2 ea.
G26	By 6" Incr. from 20-0 to 22-0	6 ea. except 7 @ 22-0

G26, S4DD, S4H

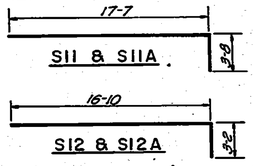


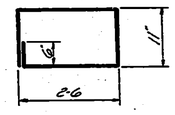
S15, G6C



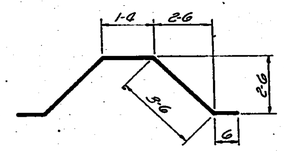
S13

S14

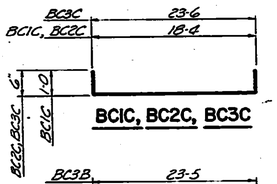




LB1

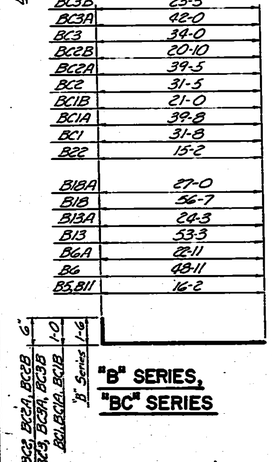


LB2

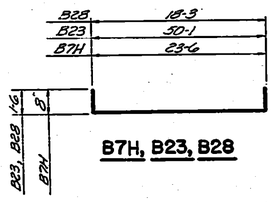


BC1C, BC2C, BC3C

BC3B	23-5
BC3A	42-0
BC3	34-0
BC2B	20-10
BC2A	39-5
BC2	31-5
BC1B	21-0
BC1A	39-8
BC1	31-8
B22	15-2
B18A	27-0
B18	56-7
B13A	24-3
B13	53-3
B6A	22-11
B6	48-11
B5, B11	16-2

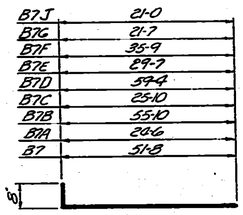


"B" SERIES, "BC" SERIES

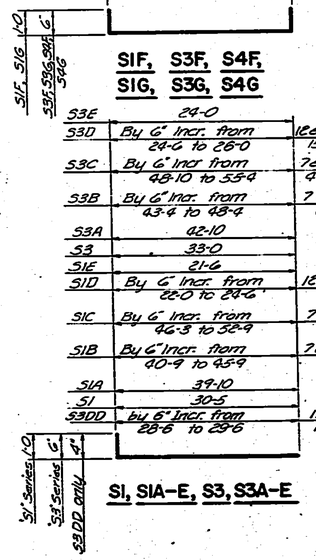


B7H, B23, B28

B7J	21-0
B7G	21-7
B7F	35-9
B7E	29-7
B7D	59-4
B7C	25-10
B7B	55-10
B7A	20-6
B7	51-8



"B7" SERIES

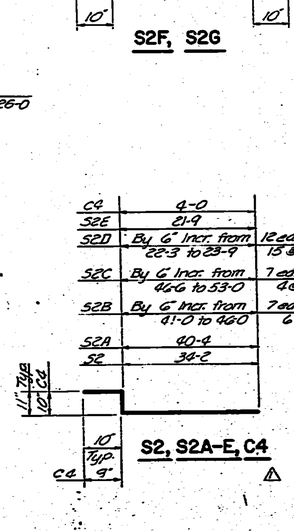


S4F	by 2" Incr. from 23-6 to 24-6	10 ea. except 3 @ 23-6
S3G, S4G	23-6	
S3F	By 2" Incr. from 23-6 to 24-6	5 ea. except 1 @ 23-6 & 4 @ 24-6
S1G	18-3	
S1F	By 2" Incr. from 18-4 to 20-4	5 ea. except 1 @ 18-4

S1F, S3F, S4F, S1G, S3G, S4G

S3E	24-0	
S3D	By 6" Incr. from 24-6 to 26-0	12 ea. except 1 @ 24-6 & 2 @ 26-0
S3C	By 6" Incr. from 48-10 to 55-4	7 ea. except 4 @ 55-4
S3B	By 6" Incr. from 43-4 to 48-4	7 ea. except 6 @ 48-4
S3A	42-10	
S3	33-0	
S1E	21-6	
S1D	By 6" Incr. from 22-0 to 24-6	12 ea. except 1 @ 22-0
S1C	By 6" Incr. from 46-3 to 52-9	7 ea. except 6 @ 52-9
S1B	By 6" Incr. from 40-9 to 45-9	7 ea. except 6 @ 45-9
S1A	39-10	
S1	30-5	
S3DD	by 6" Incr. from 28-6 to 29-6	11 ea. except 1 @ 28-6

S1, S1A-E, S3, S3A-E

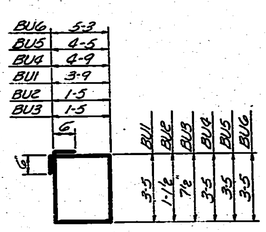


S2F, S2G

C4	4-0	
S2E	21-9	
S2D	By 6" Incr. from 22-3 to 23-9	12 ea. except 1 @ 22-3 & 2 @ 23-9
S2C	By 6" Incr. from 46-6 to 53-0	7 ea. except 6 @ 53-0
S2B	By 6" Incr. from 41-0 to 46-0	7 ea. except 6 @ 46-0
S2A	40-4	
S2	34-2	

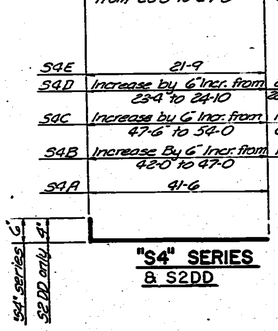
S2, S2A-E, C4

BU6	5-3
BU5	4-5
BU4	4-9
BU1	3-9
BU2	1-5
BU3	1-5



"BU" STIRRUPS

S4FF	Increase by 6" Incr. from 27-0 to 28-0	20 ea.
S2DD	Increase by 6" Incr. from 26-3 to 27-3	11 ea. except 12 @ 26-3
S4E	21-9	
S4D	Increase by 6" Incr. from 23-4 to 24-10	84 ea. except 28 @ 23-4, 28 @ 24-10
S4C	Increase by 6" Incr. from 47-6 to 52-0	14 ea. except 6 @ 34-0
S4B	Increase By 6" Incr. from 42-0 to 47-0	14 ea. except 10 @ 47-0
S4A	41-6	



"S4" SERIES & S2DD

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1	11-1-71	Rev. Exp. Devices	VHS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING DIAGRAMS — UNIT NO. 29S
S. B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-I(58)48 SEDGWICK CO.

SHEET NO. 28 OF 28	SCALE		APP'D.		
DESIGNED DFG	DETAILED DFG		CHECKED TL	TRACED RLC	
DESIGN CK. JWH	DETAIL CK. PDP		CHECK CK. AV	TRACE CK. DFG	

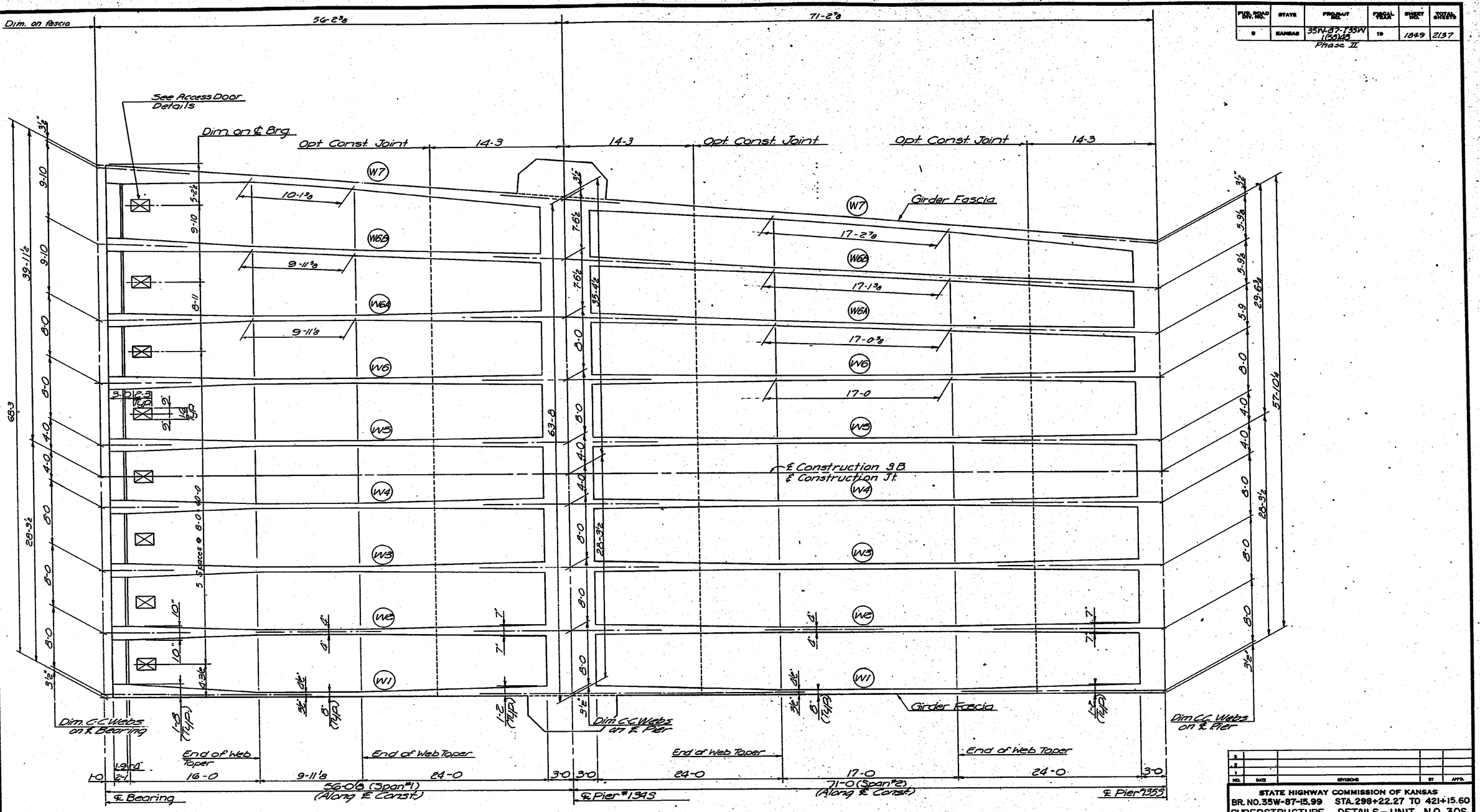
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

3 0 7

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(58)48 Phase II	19	1849	2137



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

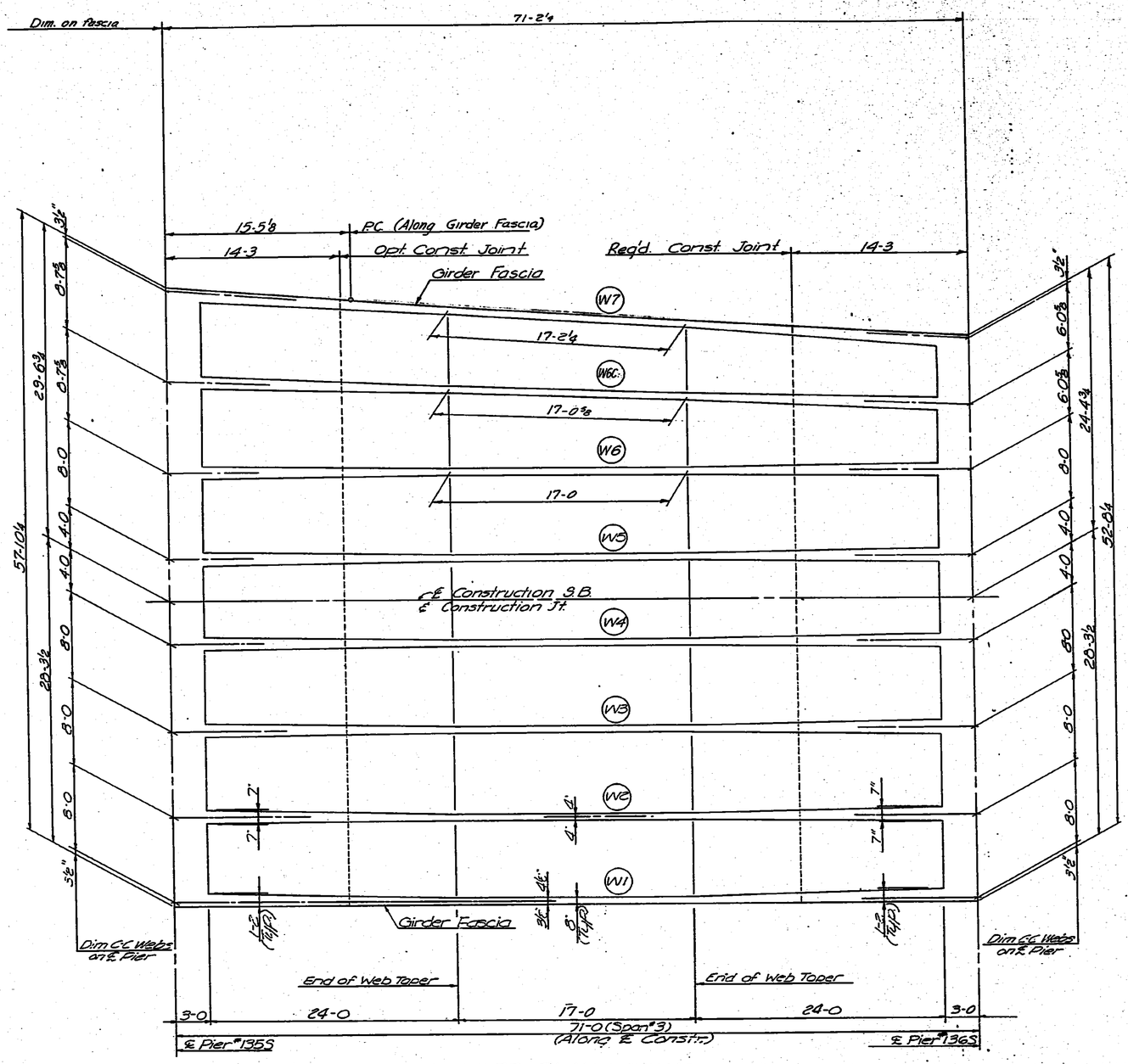
SHEET NO. 1 OF 21 SHTS.	APP'D.		
ADDED DFG	DETAILED GAB	CHECKED LKG/PDP	TRACED DRA
DESIGN CK. RBS	DETAIL CK. DS	CHKD. CK. DSTT/A	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 0 8

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(58)48 Phase II	19	1850	2187



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

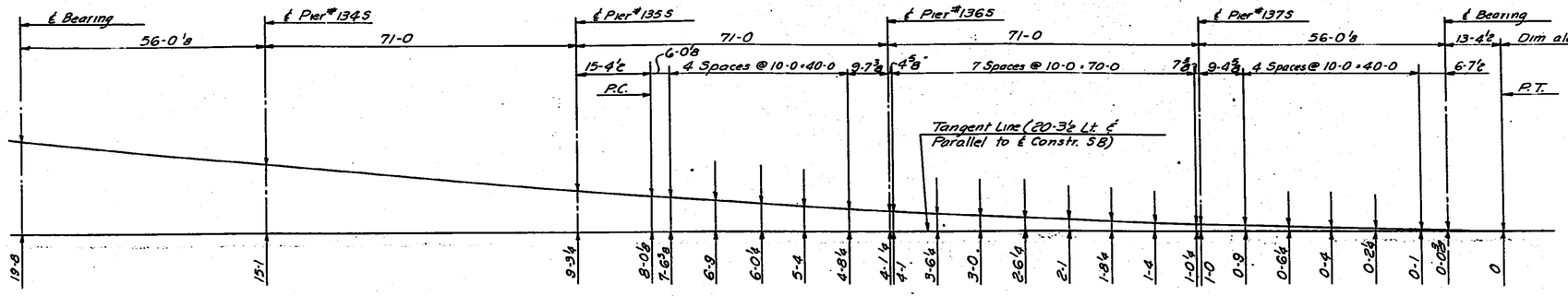
SHEET NO. 2 OF 21	SCALE	APP'D.	
DESIGNED DCS	DETAILED GAB	CHECKED LKO/MA	TRACED DEL
DESIGN CK. RBS	DETAIL CK. DS	CONST. CK. DST/JA	TRACE CK. GED

DIST. 5 SEDGWICK CO. ROLL 531

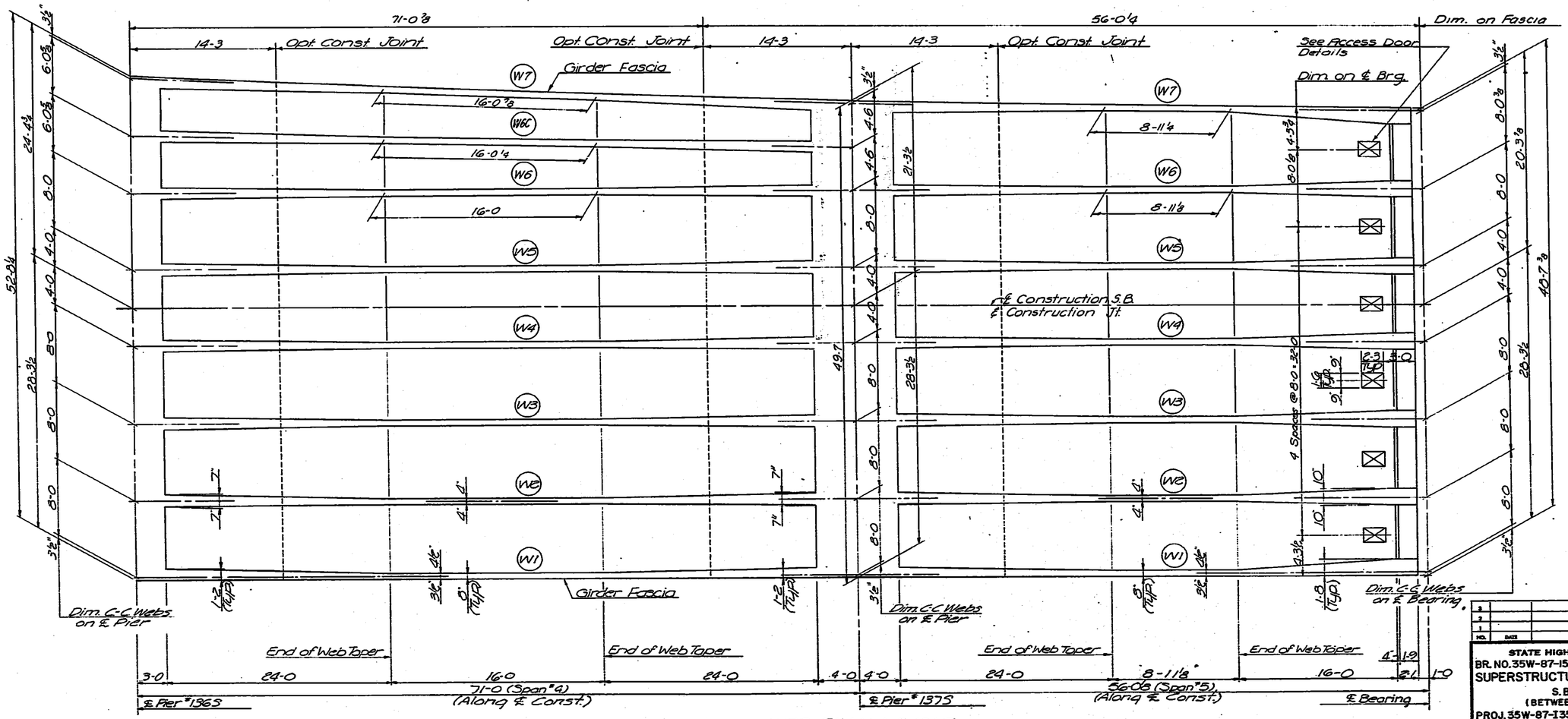
[redacted] 3 0 9

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(58)48 Phase II	19	1851	2137



LEFT GIRDER FASCIA OFFSETS



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

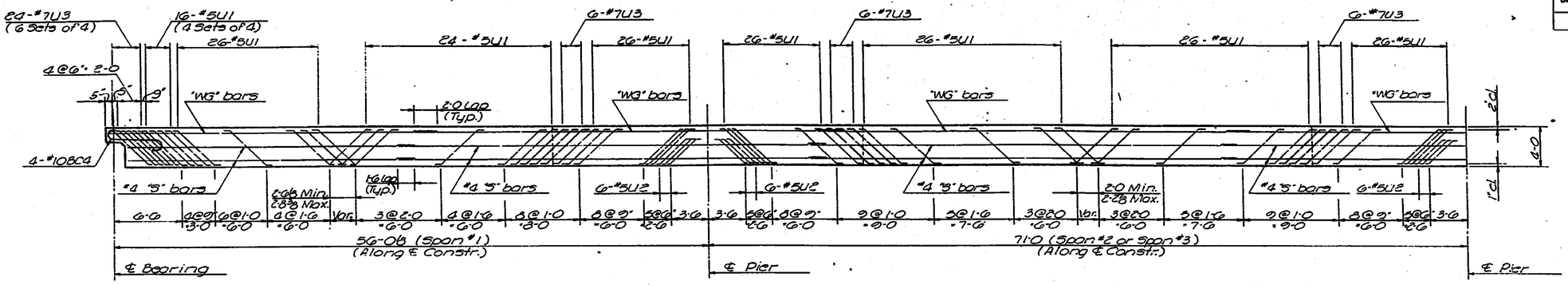
SHEET NO. 8 OF 21	SCALE	APP'D.	
DESIGNED DWB	DETAILED GAB	COMPUTED LKA/DDP	TRACED DRA
DESIGN CK. RAS	DETAIL CK. DD	GRADE CK. DGT/JA	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

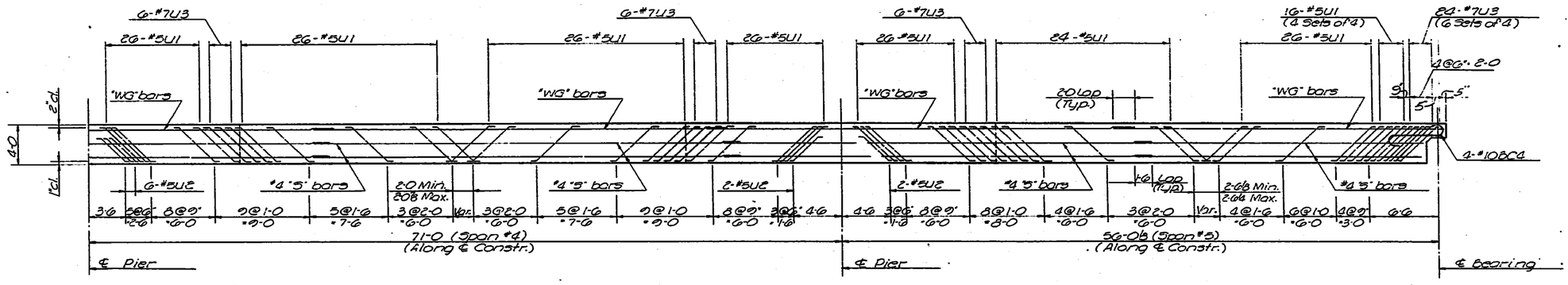
[redacted] 3 1 0

16X 14.5X 12X 12X 14.5X 16X 20X

FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1852	2137

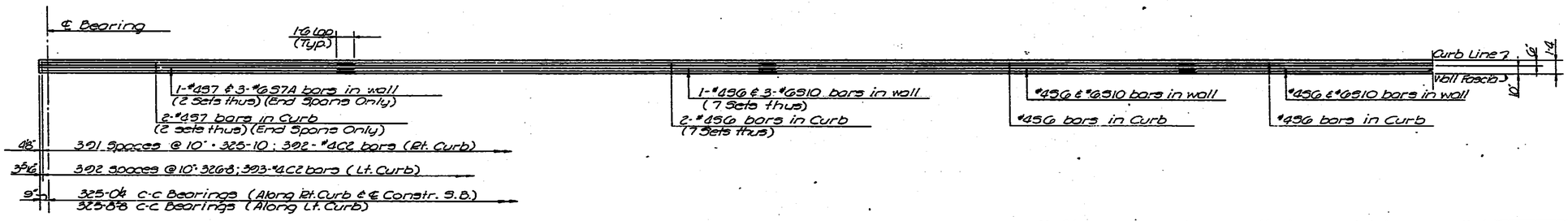


PARTIAL ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web except as noted)



PARTIAL ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web except as noted)

NOTE:
See Placement Diagram for Quantity and Location of "WG" & "S" bars.



PARTIAL REINFORCING PLAN OF RIGHT CURB
(Left Curb Similar)

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top and beneath bottom main reinforcing steel. See Roadway Deck Section.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

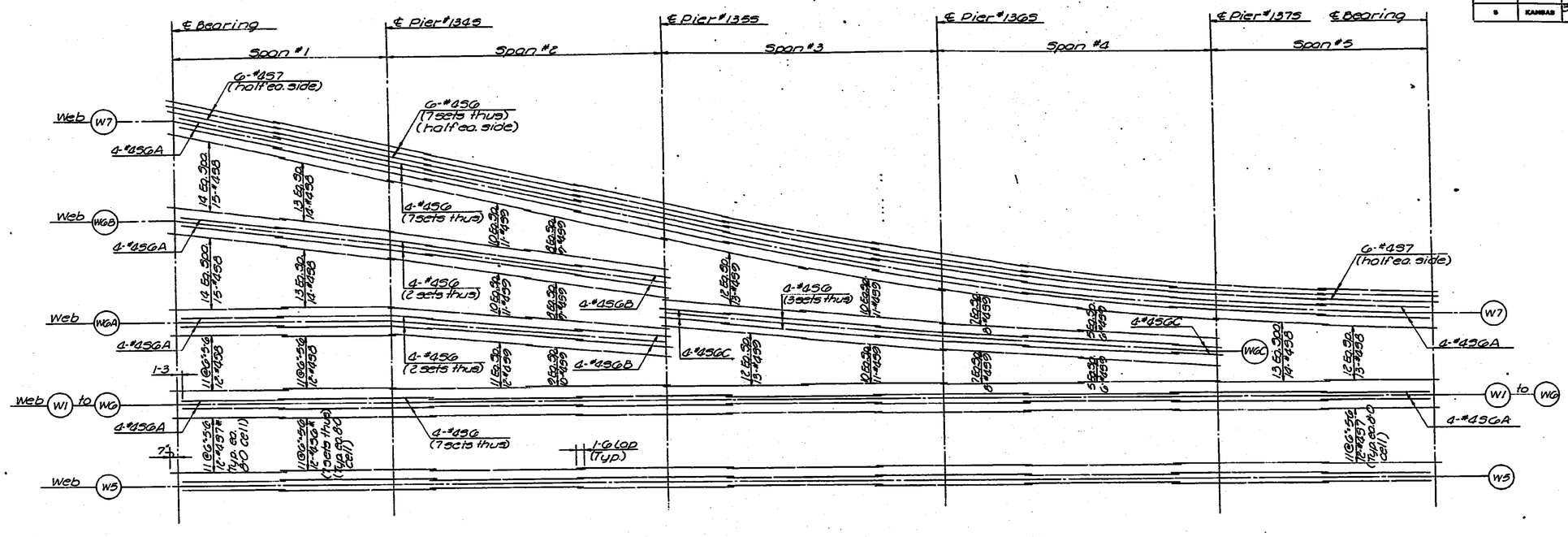
SHEET NO. 2 OF 21	SCALE	APP'D.	
DESIGNED DFG	DETAILED EES	CHECKED PDP	TRACED EES
DESIGN CK. JWH	DETAIL CK. LKD	CHECK CK. JA	TRACE CK. LKD

DIST. 5 SEDGWICK CO. ROLL 531

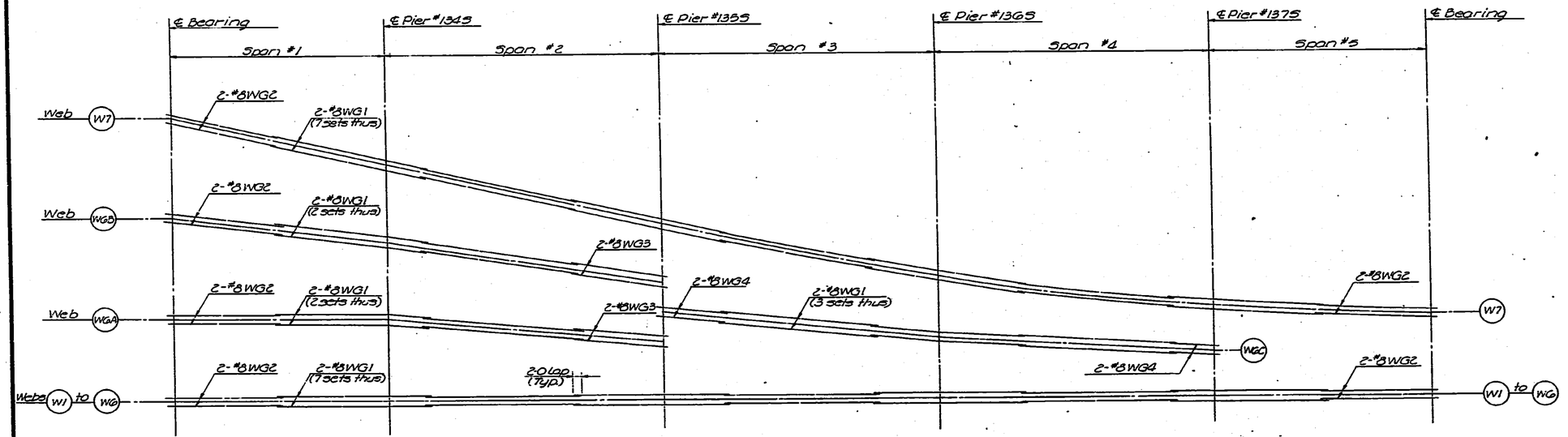
[redacted] 3 1 1

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(58)48 Phase II	19	1853	2137



PLACEMENT DIAGRAM SHOWING "S" BARS
(Longit. bars in Webs & bottom of top slab)
*There are 5 typical 8'-0 cells from Web W1 to WG
All bars are #456 unless otherwise shown



PLACEMENT DIAGRAM SHOWING "WG" BARS
All bars are #8WG1 unless otherwise shown

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 5 of 21	SCALE:	APP'D.	
DESIGNED DFG	DETAILED EES	CHECKED PDP	TRACED EES
DESIGN CK. JWH	DETAIL CK. LKD	CHECK CK. JA	TRACE CK. LKD

TOPEKA BLUE PRINT CO.

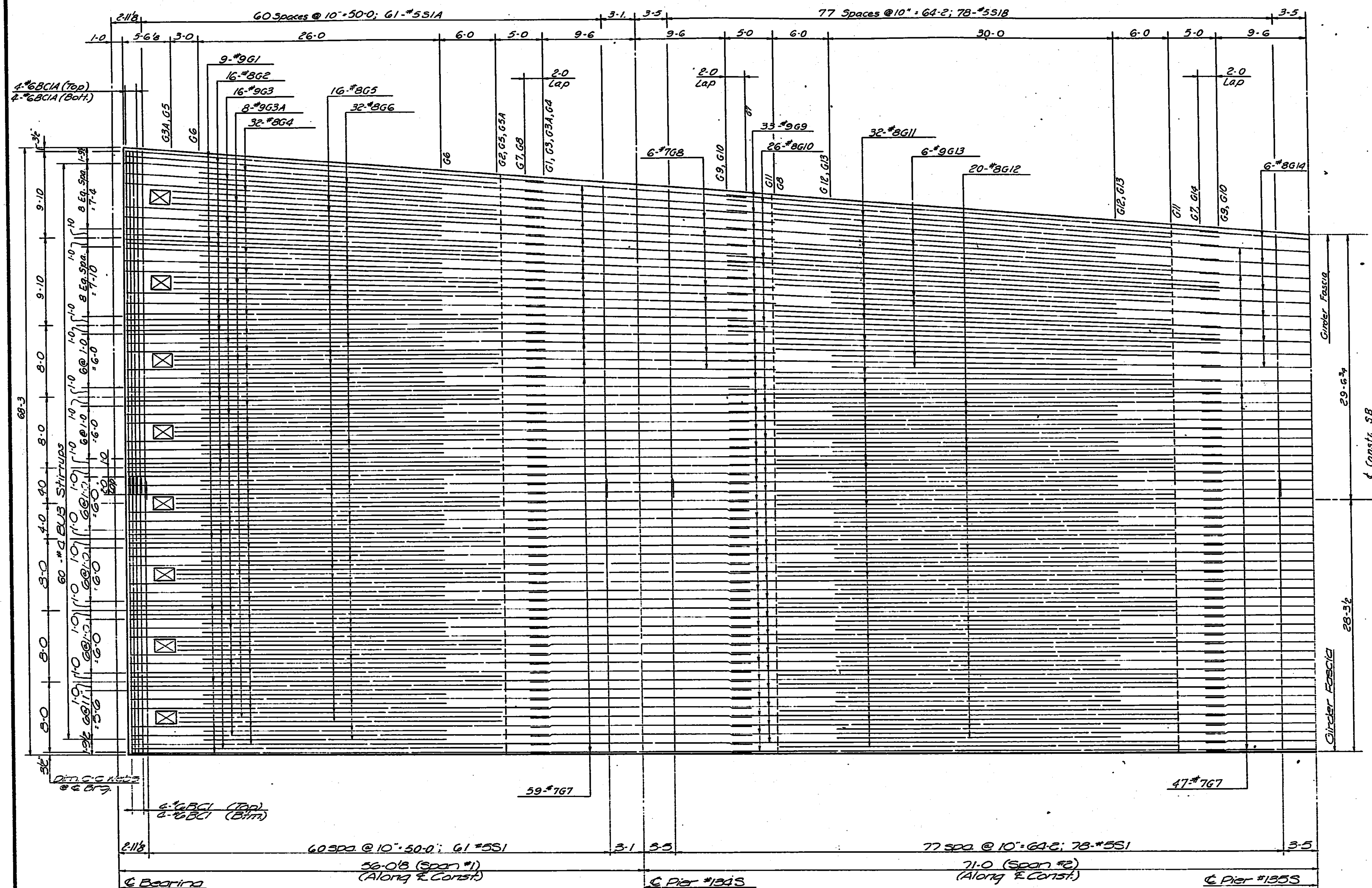
DIST. 5 SEDGWICK CO. ROLL 531

3 1 2

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W 1(58)48	19	1854	2137

Phase II



PARTIAL REINFORCING PLAN
(Showing Reinforcing in Bottom Slab)

Note:
All bar marks shall be prefixed with the Unit Number when fabricated. Example: #9G1 shall be marked 30S9G1.
All longitudinal dimensions are along the ℄ of Construction except as otherwise indicated.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

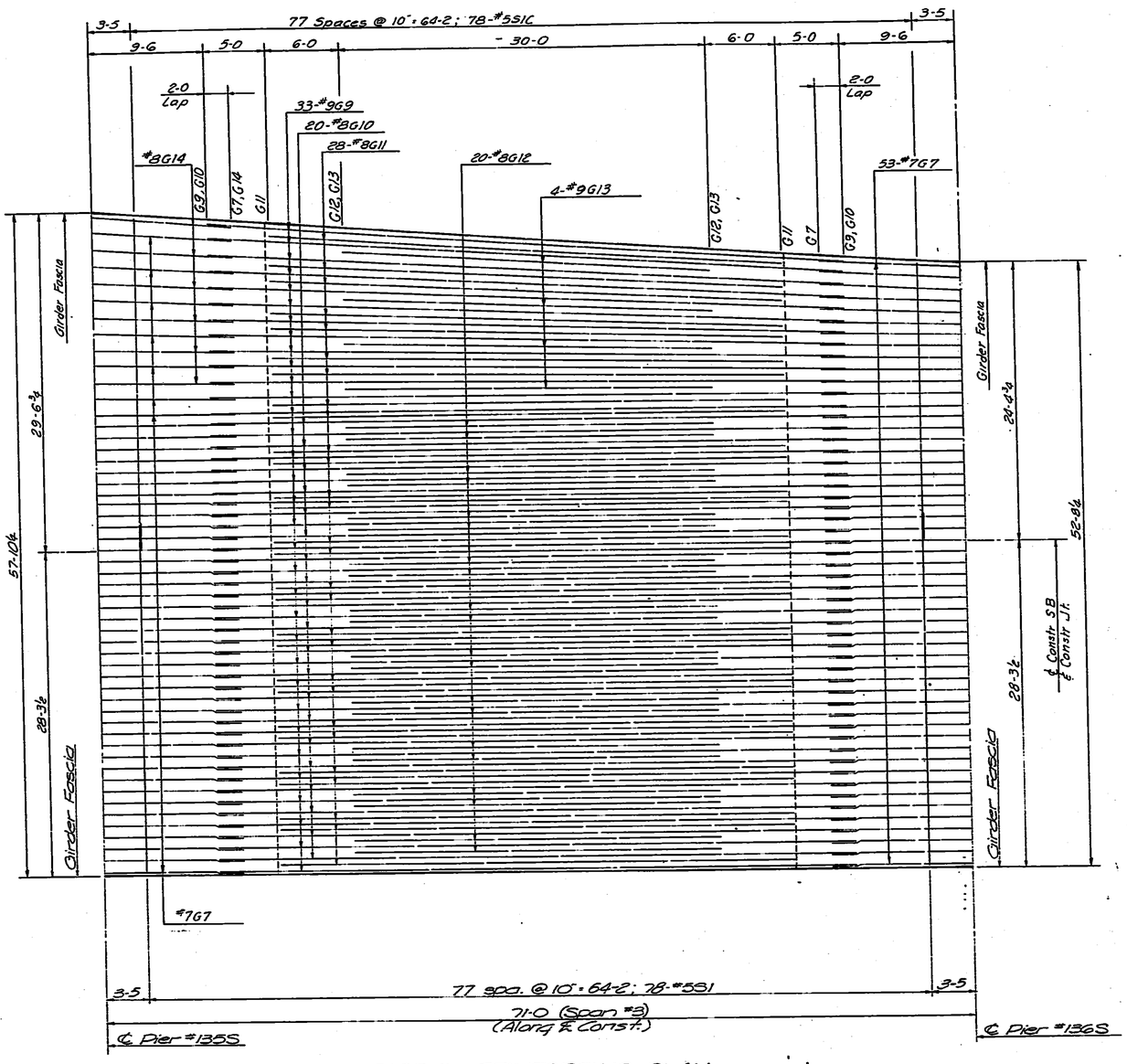
SHEET NO. 6 OF 21	SCALE	APP'D.
DESIGNED DFG	DETAILED GAB	QUANTITIES LKD/PDP · TRACED DRA
DESIGN CK. RBS	DETAIL CK. DS	QUAN. CK. DGT/JA · TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

3 1 3

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35-87-135W (58)48 Phase II	19	1855	2137



PARTIAL REINFORCING PLAN
(showing reinforcing in Bottom Slab)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

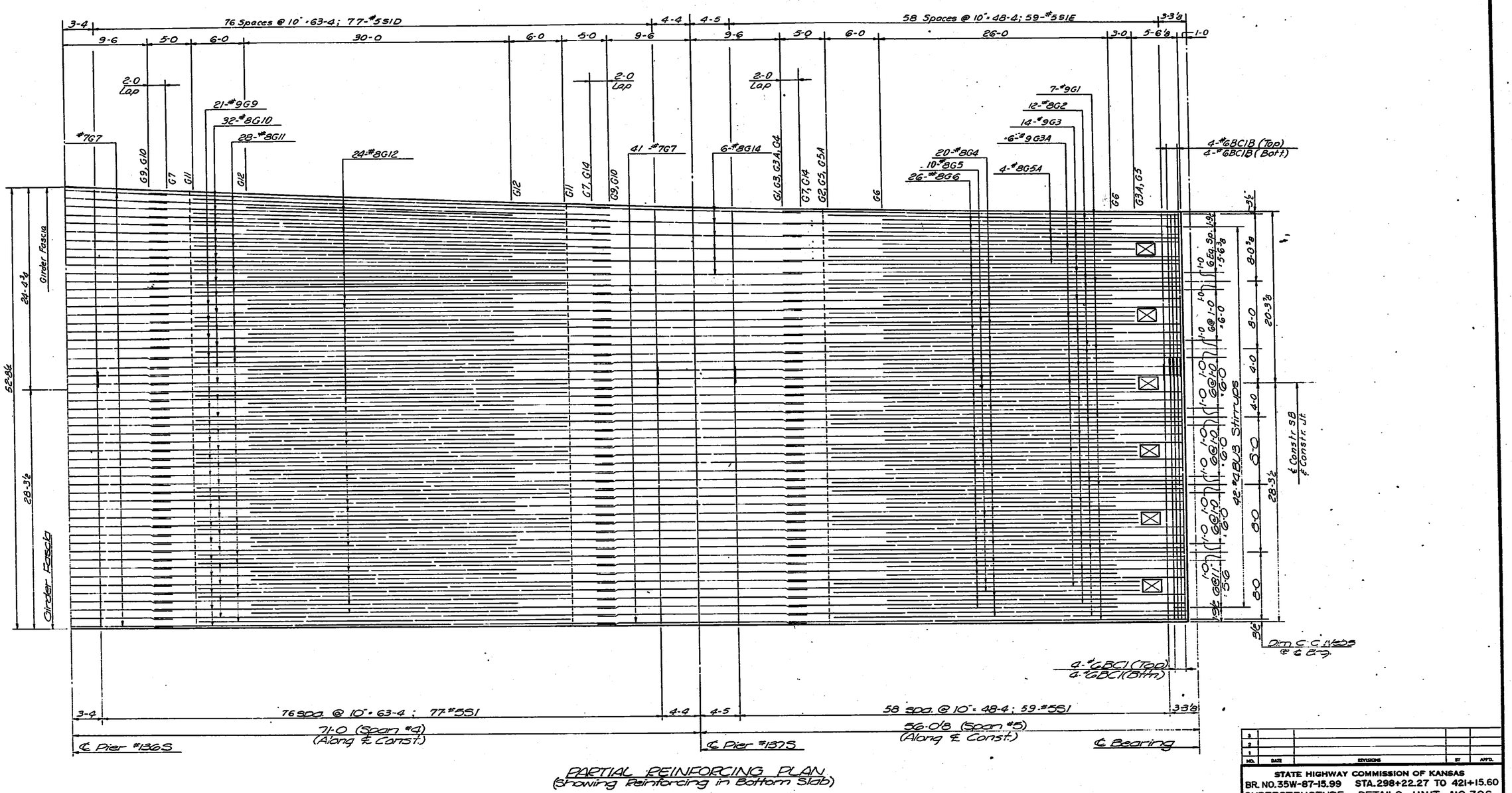
SHEET NO. 7 OF 21	SCALE	APP'D.	
DESIGNED DFG	DETAILED GAB	QUANTITIES LKO/DFG	TRACED DFG
VERIFIED BY RBS	DETAIL CK. DS	CHAIN CK. DGT/TA	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

3 1 4

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35-87-135W 1(58)48 Phase II	19	1856	2137



PARTIAL REINFORCING PLAN
(Showing Reinforcing in Bottom Slab)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

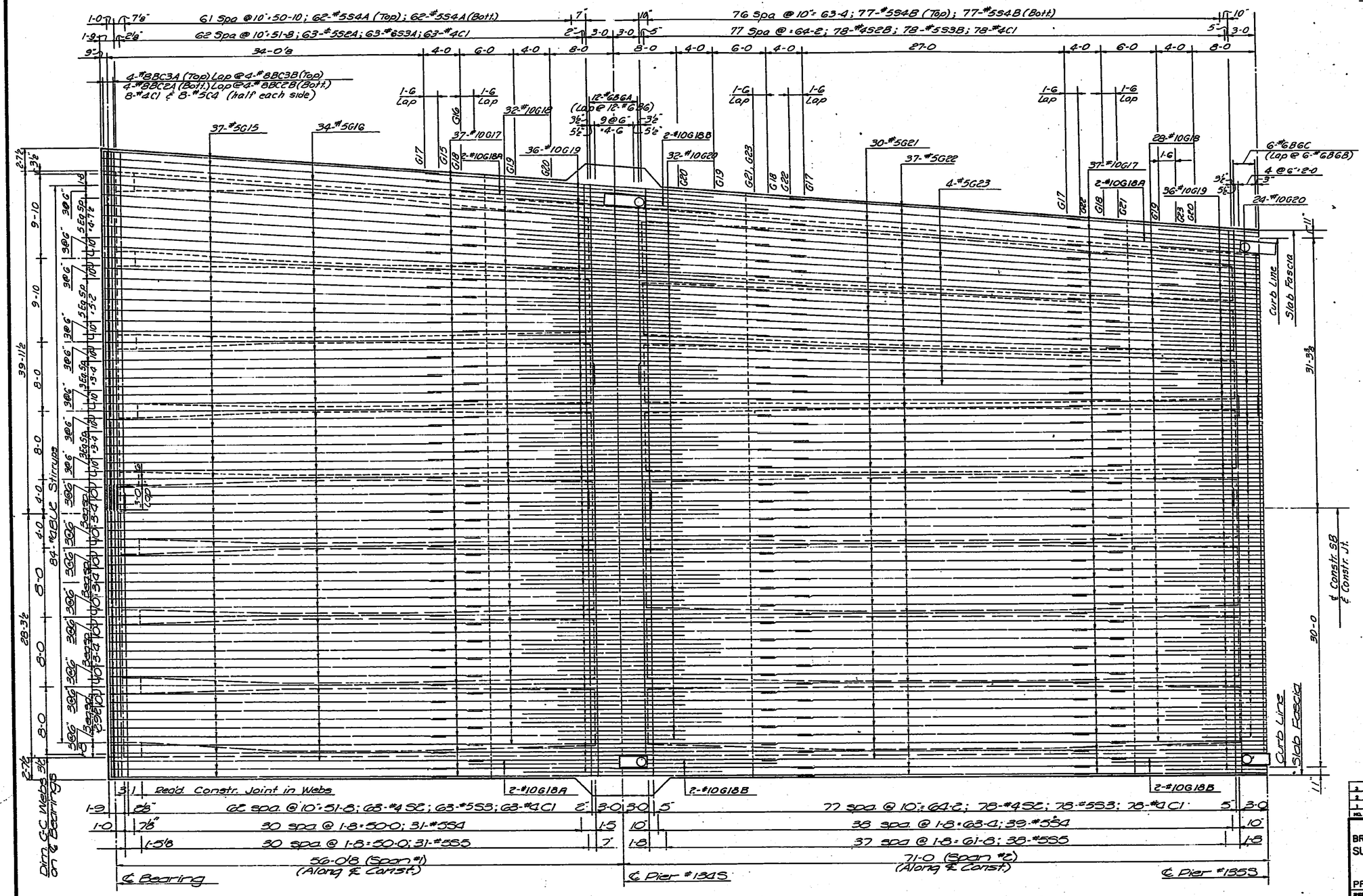
SHEET NO. 8 OF 21	SCALE	APP'D.	
DESIGNED DEG	DETAILED GAB	QUANTITIES LKD/PDA	TRACED DRA
DESIGN CK. RBS	DETAIL CK. DS	QUANT. CK. DST/TA	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 1 5

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W I(58)48 Phase II	19	1857	2137



PARTIAL REINFORCING PLAN
(Showing Reinforcing in Top of Top Slab)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-I(58)48 SEDGWICK CO.

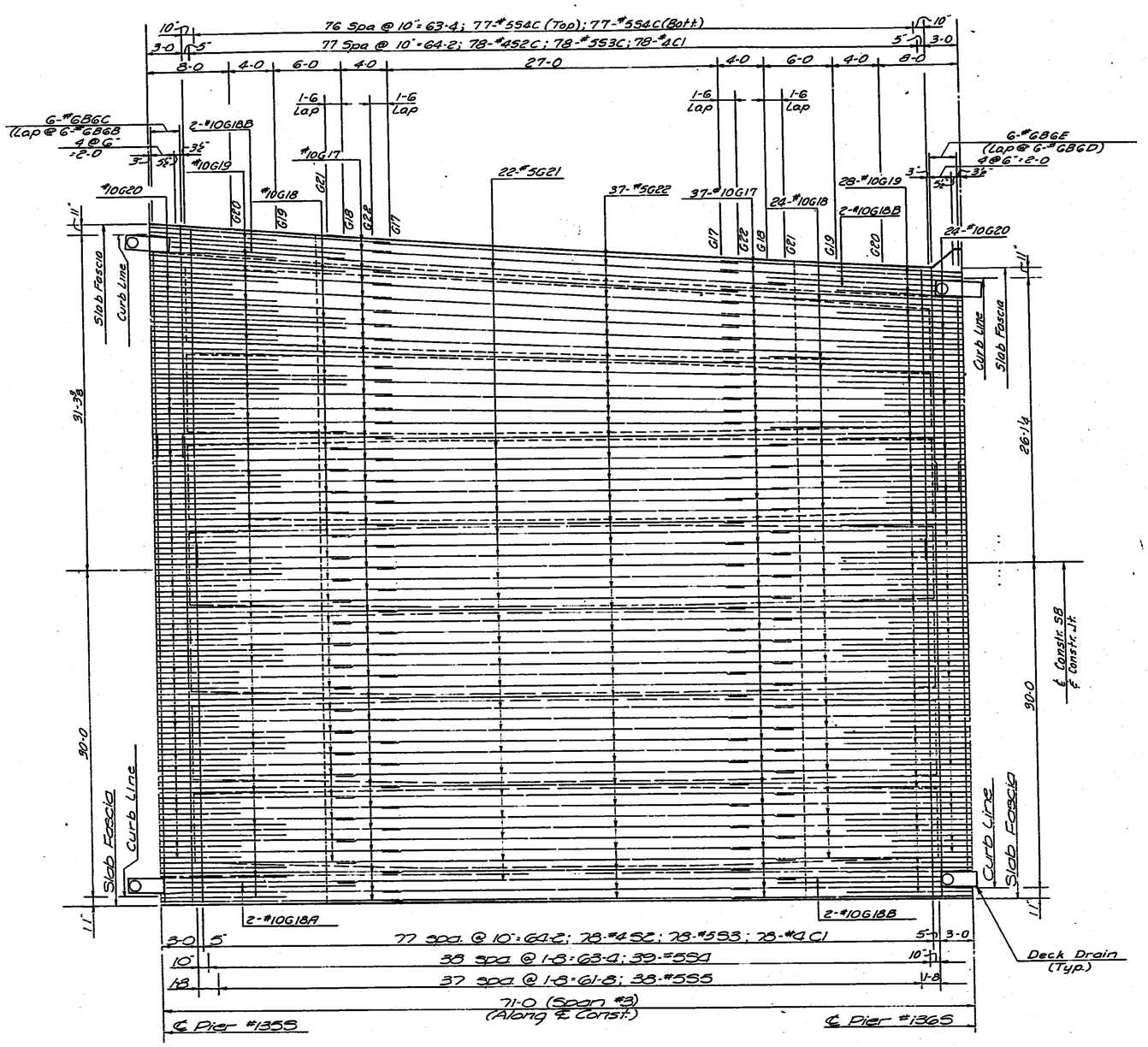
SHEET NO. 9 OF 21	SCALE:	APP'D.	
DESIGNED DFG	DETAILED GAB	QUANTITIES LKD/MP	TRACED DRA
DESIGN CK. RBS	DETAIL CK. DS	QUANT. CK. DGT/JA	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

3 1 6

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (058)48 Phase II	19	1858	2137



PARTIAL REINFORCING PLAN
(Showing Reinforcing in Top of Top Slab)

Note: See Drain Detail sheet for additional details at Drainage Structures.
See Superstructure Pier Beams for additional details at Drainage Structures.
Spread Longitudinal Reinforcing Steel to clear Drains except as noted.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

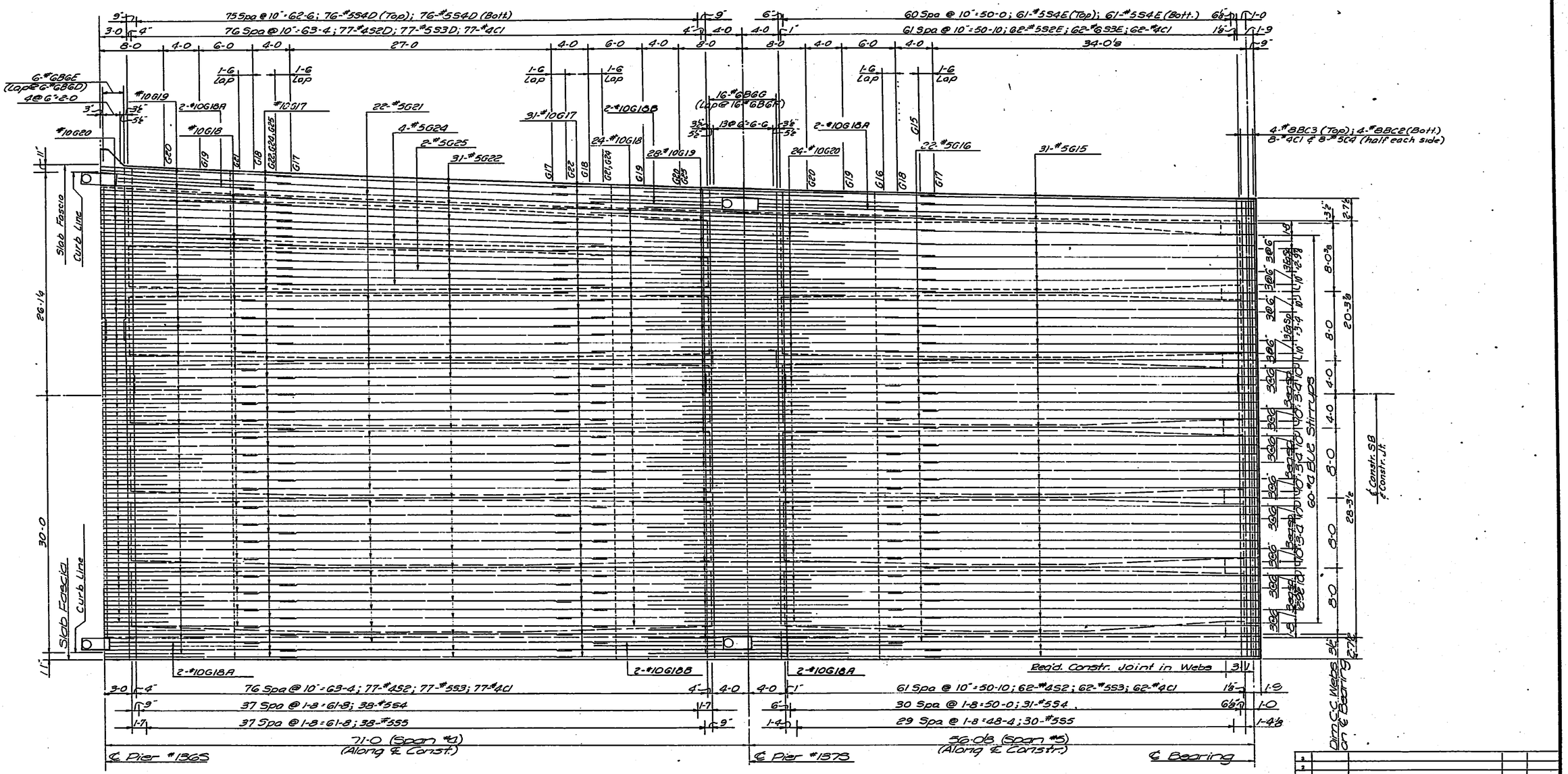
SHEET NO. 10 OF 21	SCALE:	APP'D.	
DESIGNED DPG	DETAILED GAB	QUANTITIES LVD/POP	TRACED DPA
DESIGN CK. RBS	DETAIL CK. DS	GRAN. CK. DGT/JA	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

3 1 7

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	19	1059	2137



PARTIAL REINFORCING PLAN
(Showing Reinforcing in Top of Top Slab)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

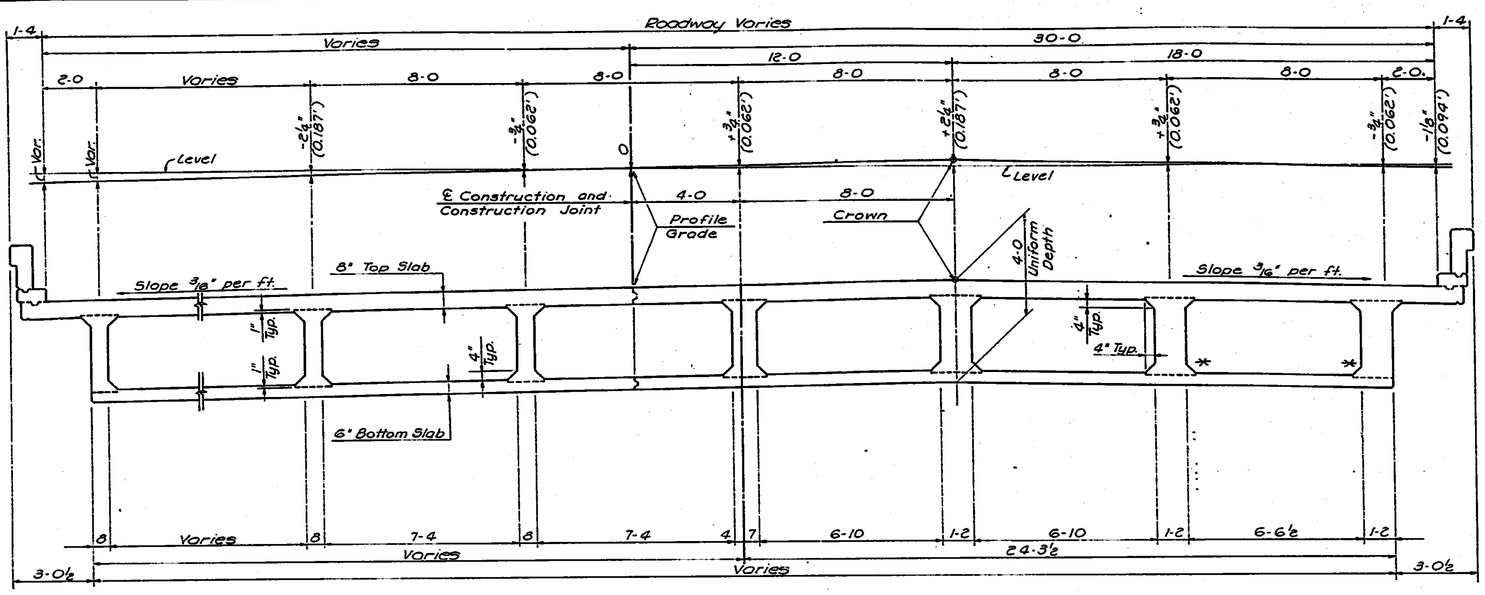
SHEET NO. 11 OF 21	SCALE	APP'D.	
DESIGNED DFG	DETAILED GAB	QUANTITIES LKH/MA	TRACED DPA
DESIGN CK. RBS	DETAIL CK. DS	QUANT. CK. DGT/JA	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

3 1 8

16X 14.5X 12X 12X 14.5X 16X 20X

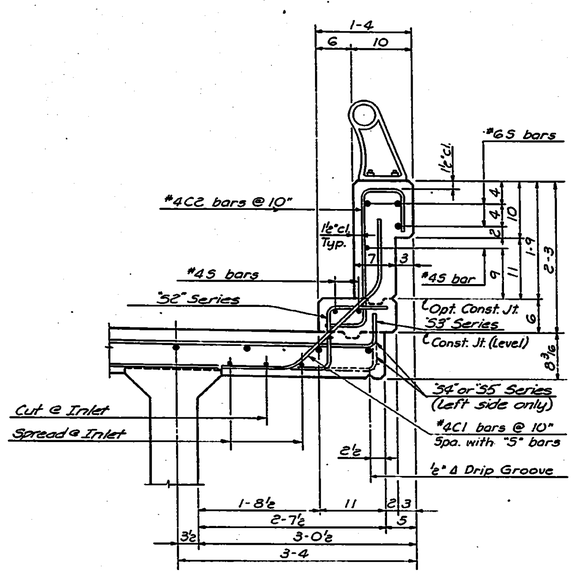
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(58)48 Phase II	19	1860	2137



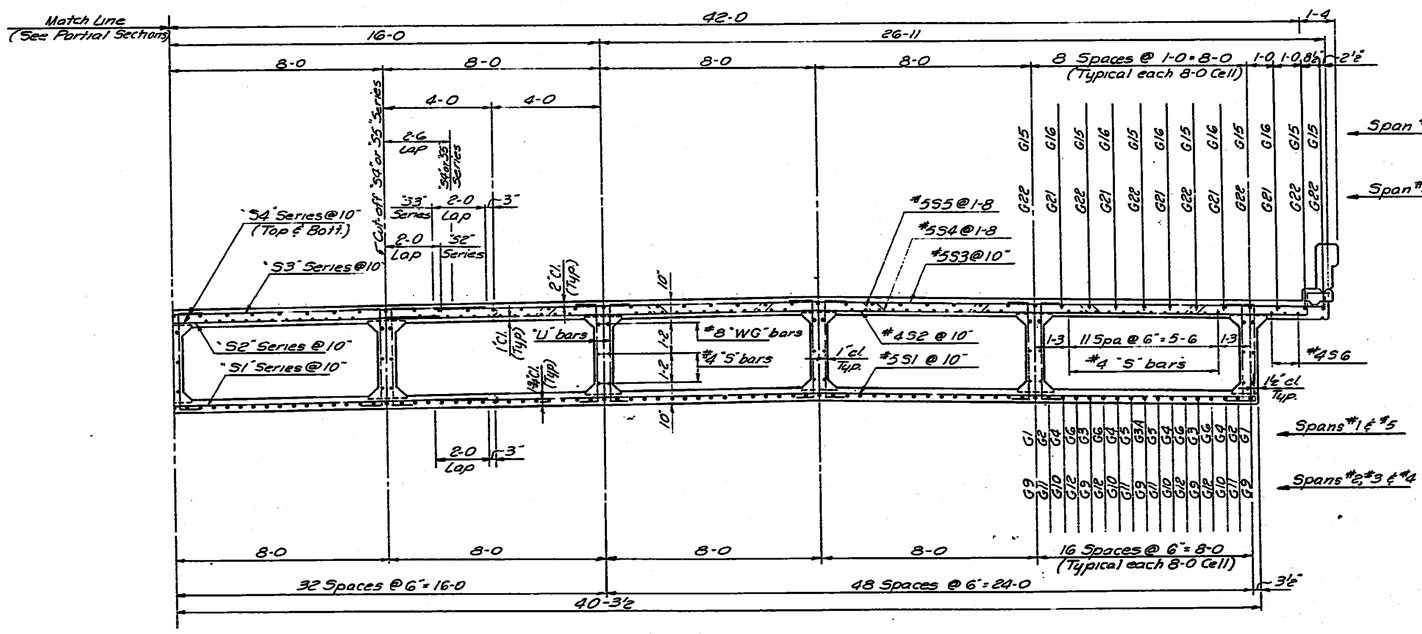
NEAR MID-SPAN

NEAR PIER

ROADWAY DECK SECTION



TYPICAL CURB SECTION



ROADWAY DECK SECTION NEAR MID-SPAN
(See Reinforcing Plans for Specific Transv. Reinf. Steel)

NOTE:

See web drawings for quantity, size and spacing of "U" bars, "WG" bars and "S" bars.
See placement diagram for #4 "S" bars in Bottom of Top Slab.

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.

Transverse bars on left side are provided in incremented series and shall be placed with outside end as shown on Typical Curb Section. Lap varies with widening.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 12 OF 21	SCALE	APP'D.	
DESIGNED DFG	DETAILED EES	CHECKED POP	TRACED DDW
DESIGN CK. JWH	DETAIL CK. LKD	GRAM. CK. JA	TRACE CK. LKD

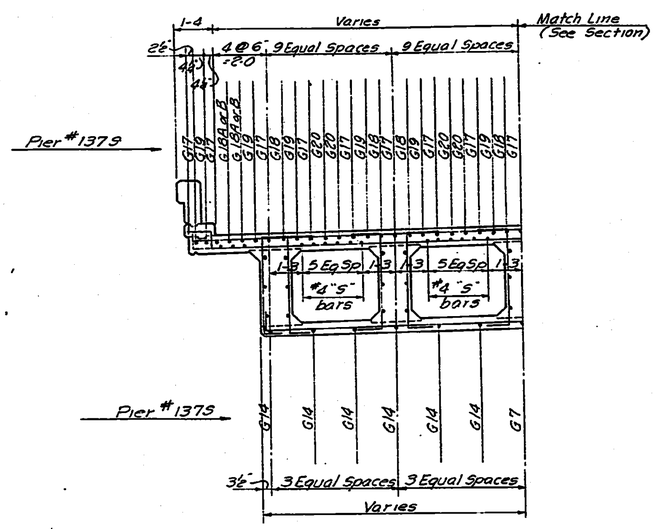
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

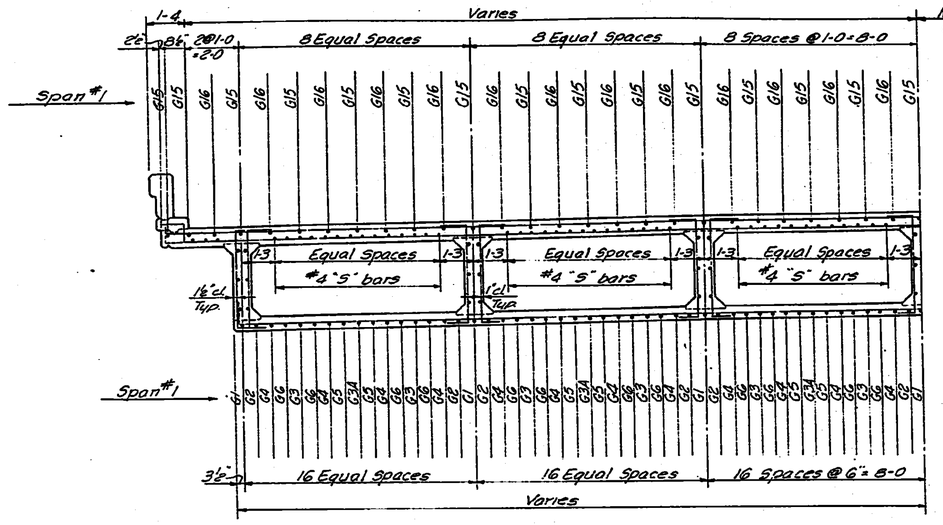
3 1 9

16X 14.5X 12X 12X 14.5X 16X 20X

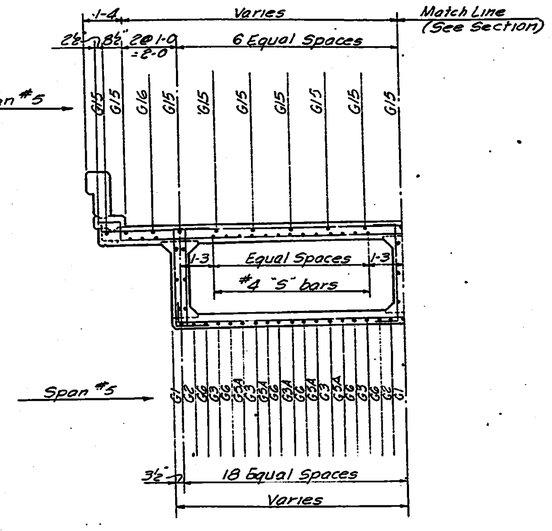
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	19	1861	2137



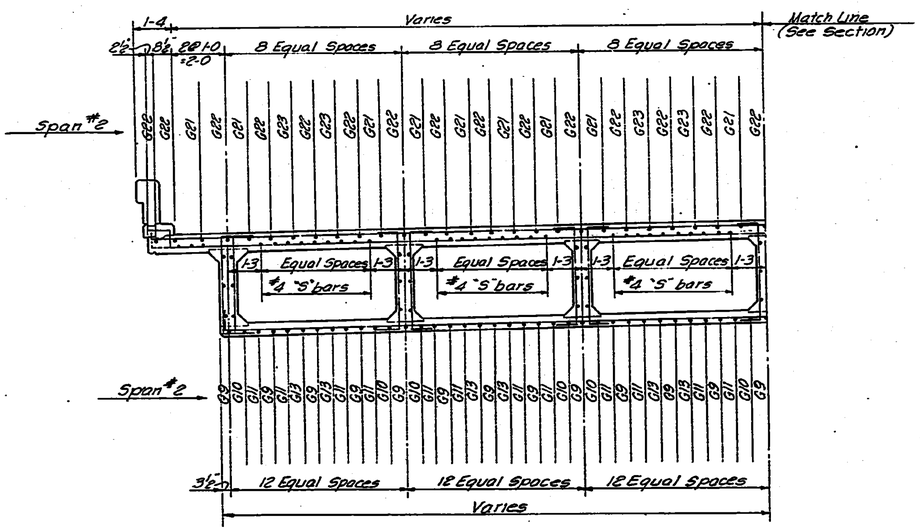
PARTIAL SECTION NEAR PIER #1375
(Taken in Span #4)



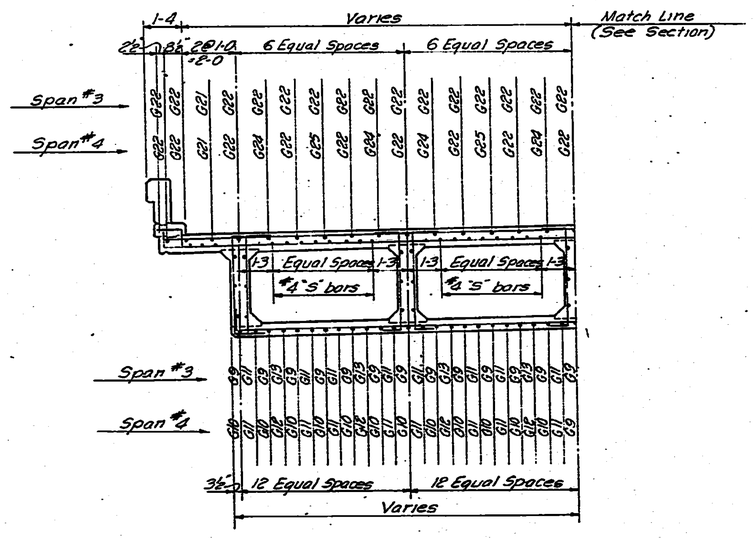
PARTIAL SECTION NEAR MID-SPAN #1



PARTIAL SECTION NEAR MID-SPAN #5



PARTIAL SECTION NEAR MID-SPAN #2



PARTIAL SECTION NEAR MID-SPANS #3 & #4

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-I(58)48 SEDGWICK CO.

SHEET NO. 13 OF 21	SCALE		APP'D.		
DESIGNED DAG	DETAILED LES		COMPUTED PDP	TRACED DDW	
DESIGN CK. JWH	DETAIL CK. LKD		GRAN. CK. JA	TRACE CK. LKD	

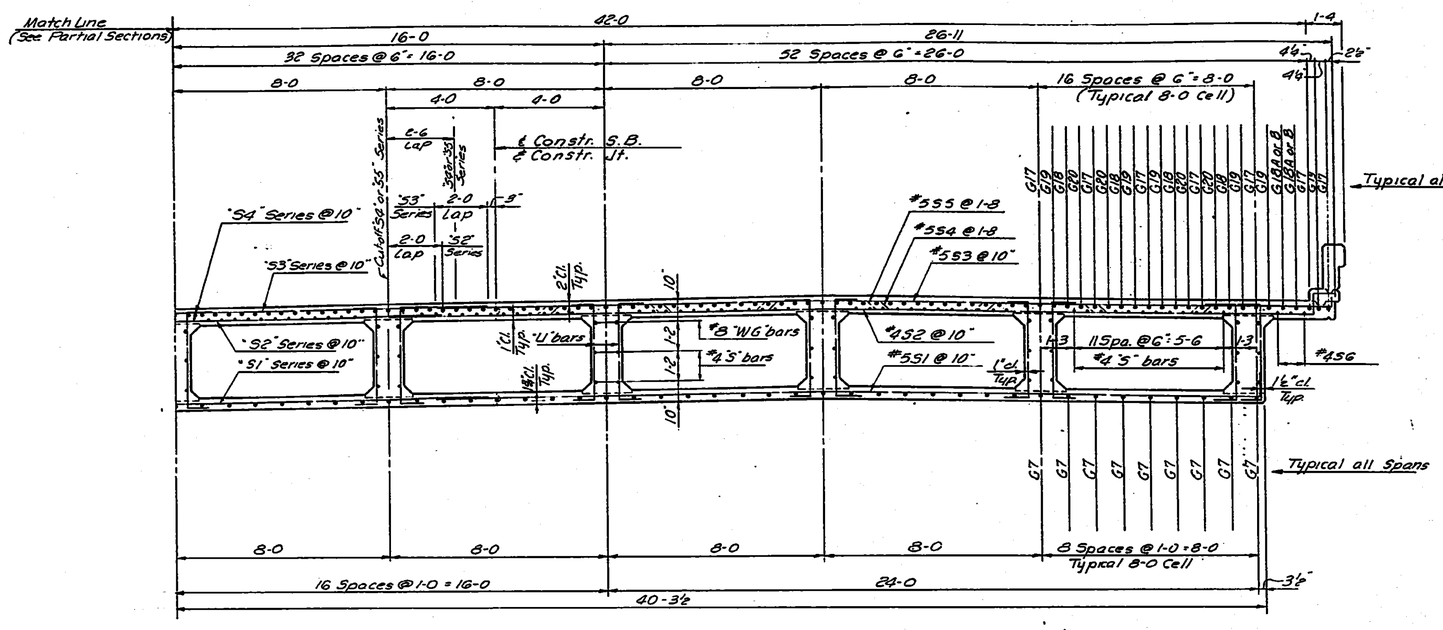
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

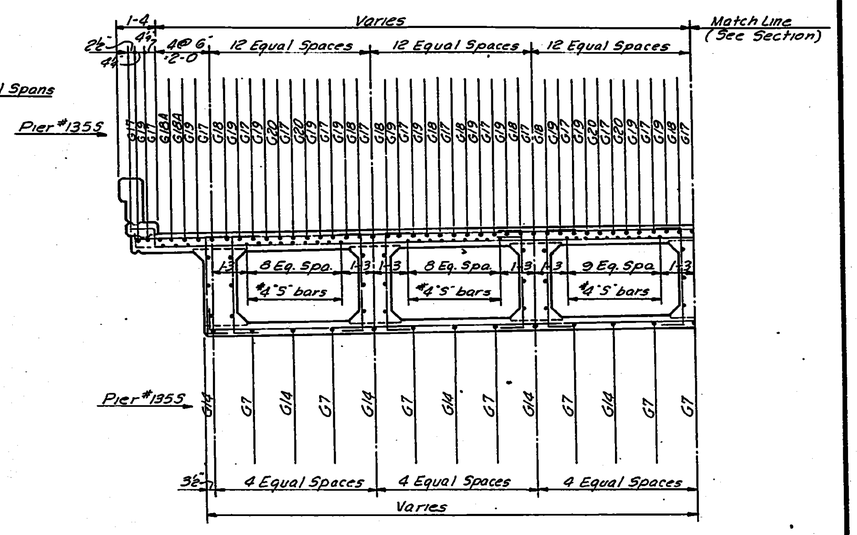
[redacted] 3 2 0

1X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

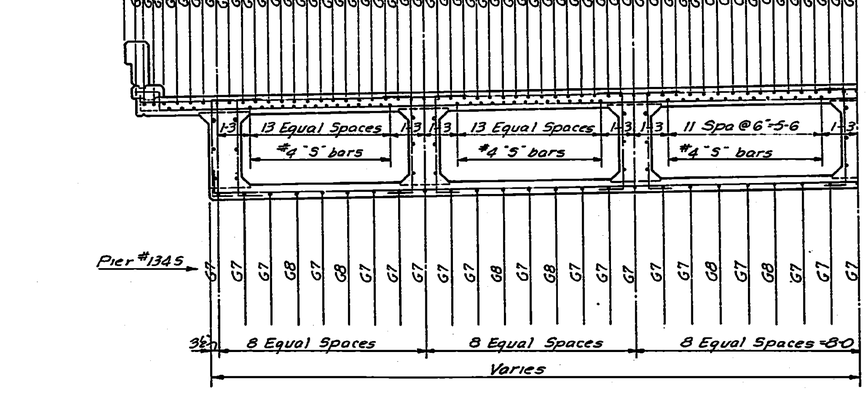
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1862	2157



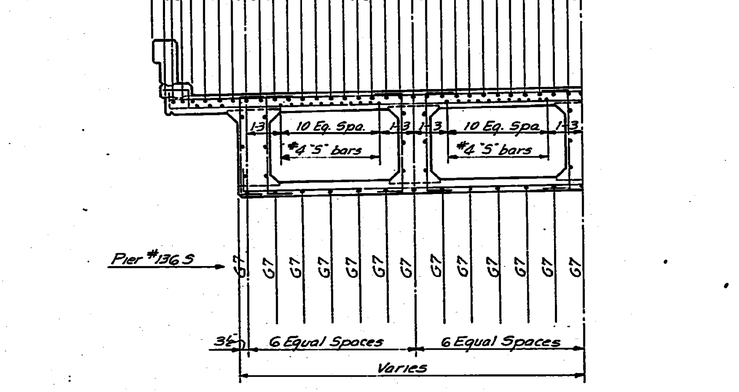
ROADWAY DECK SECTION NEAR PIER
(See Reinforcing Plans for Specific Transv. Reinf. Steel)



PARTIAL SECTION NEAR PIER #1355
(Taken in Span #2)



PARTIAL SECTION NEAR PIER #1345
(Taken in Span #1)



PARTIAL SECTION NEAR PIER #1365
(Taken in Span #3)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 30S
S. B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

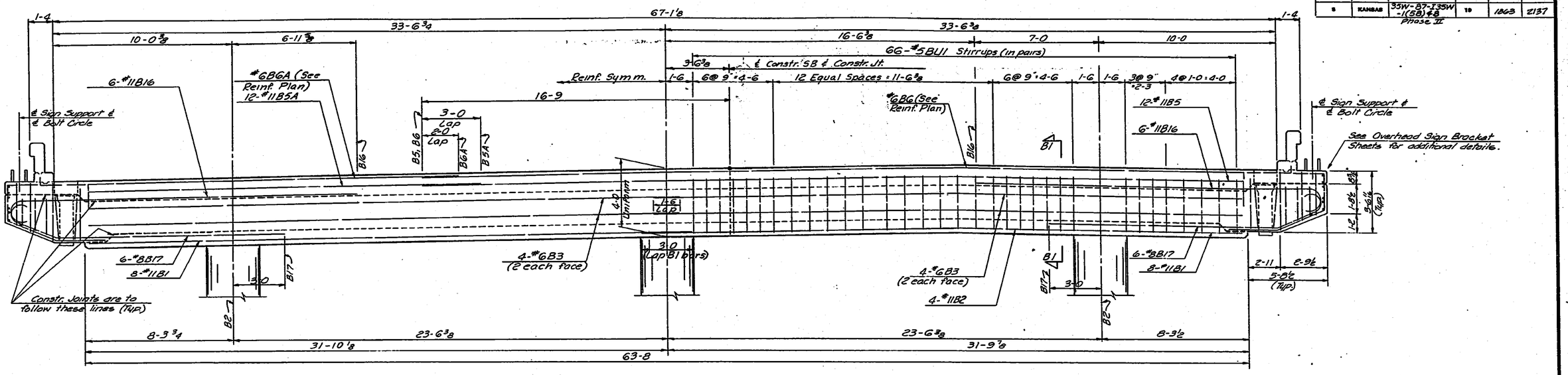
SHEET NO. 1C of 21	SCALE	APP'D.			
DESIGNED DFG	DETAILED EES	QUANTITIES PMP	TRACED DDW		
DESIGN CK. JWH	DETAIL CK. LKD	QUANT. CK. JA	TRACE CK. LKD		

DIST. 5 SEDGWICK CO. ROLL 531

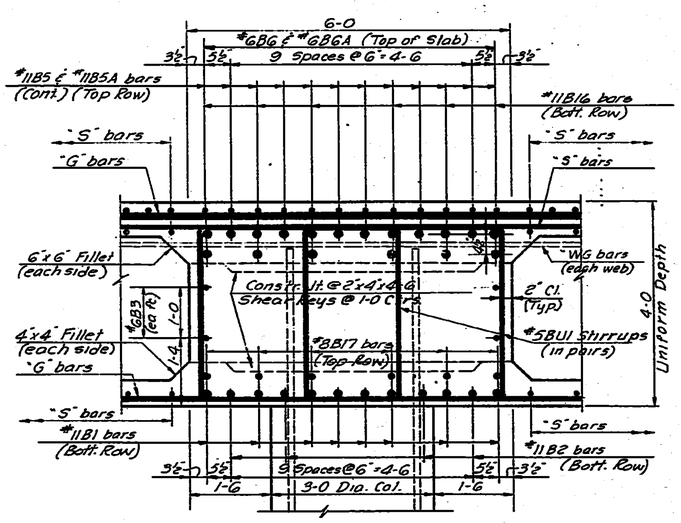
3 2 1

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD STA. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1263	2137



SUPERSTRUCTURE PIER BEAM #1345



SECTION B1-B1

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 30S
S. B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

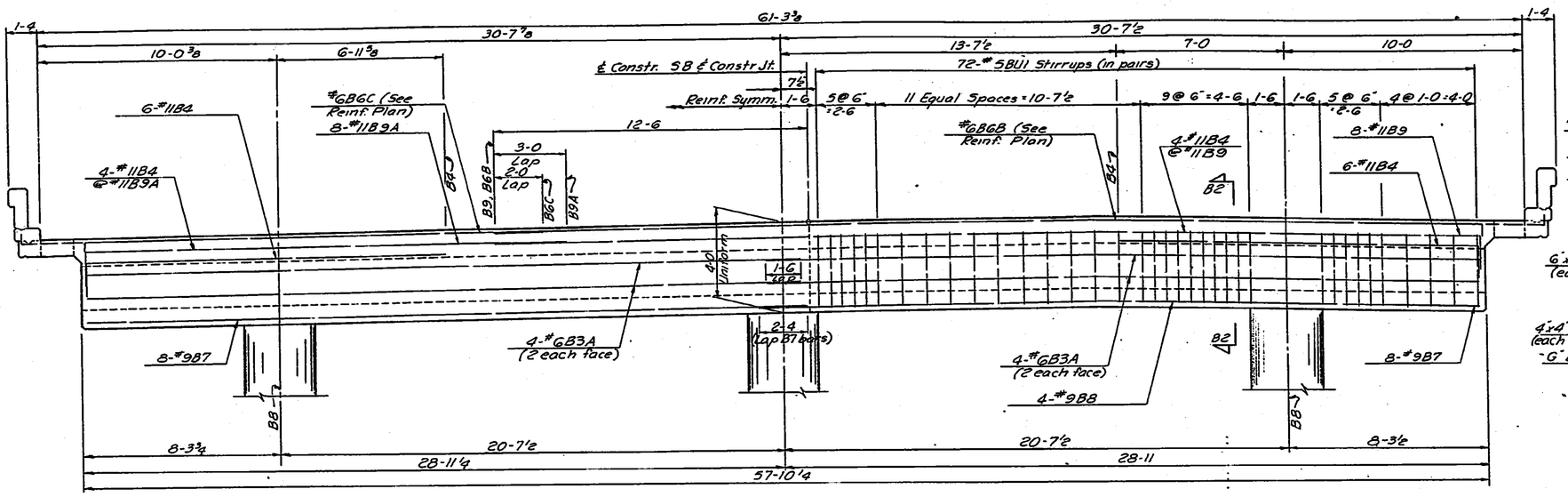
SHEET NO. 13 OF 21	SCALE	APP'D.			
DESIGNED PDP	DETAILED DGT	QUANTITIES PDP	TRACED DGT		
DESIGN CK. RBS	DETAIL CK. RBS	CHKD. CK. JR	TRACE CK. RBS		

DIST. 5 SEDGWICK CO. ROLL 531

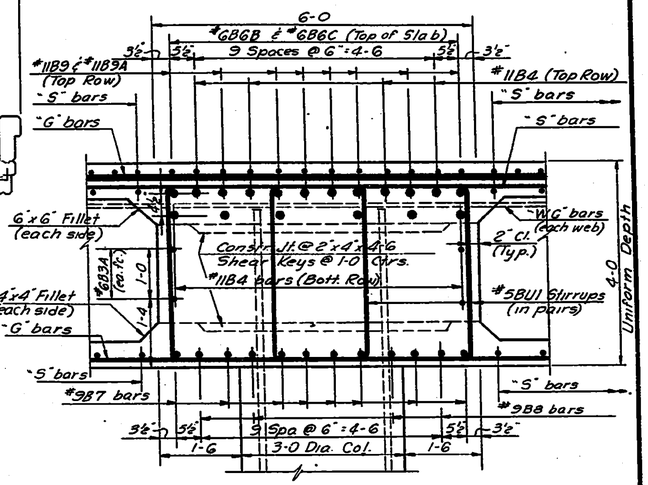
[redacted] 3 2 2

16X 14.5X 12X 12X 14.5X 16X 20X

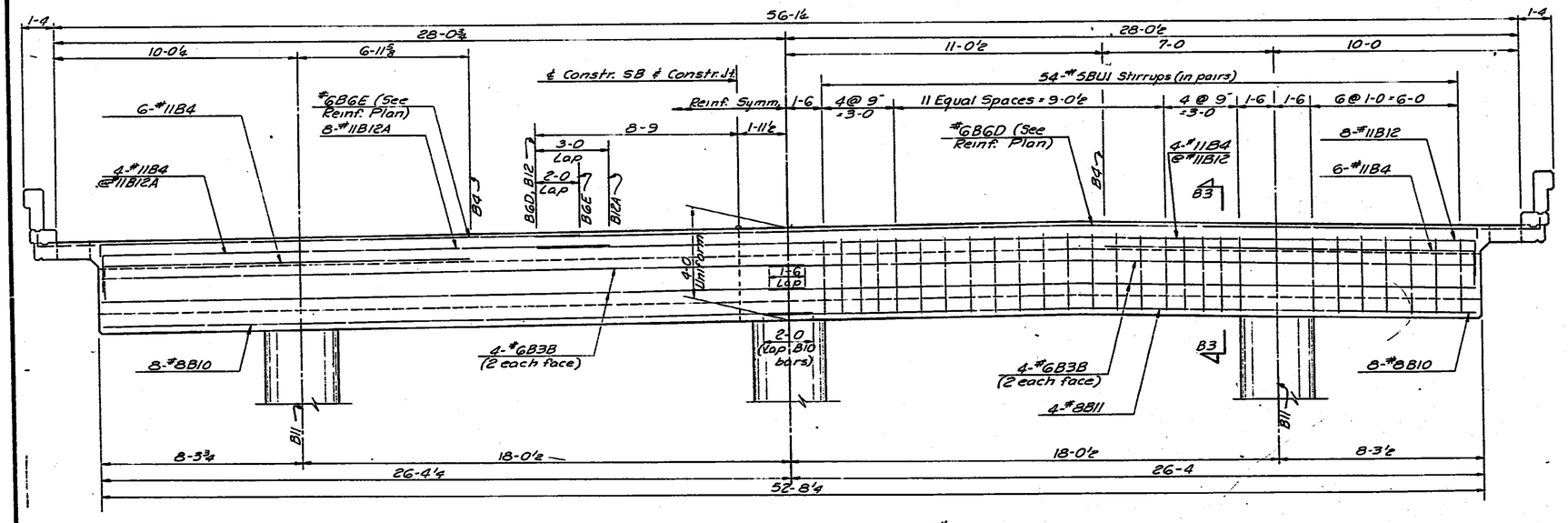
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W (58)48 Phase II	19	1864	2187



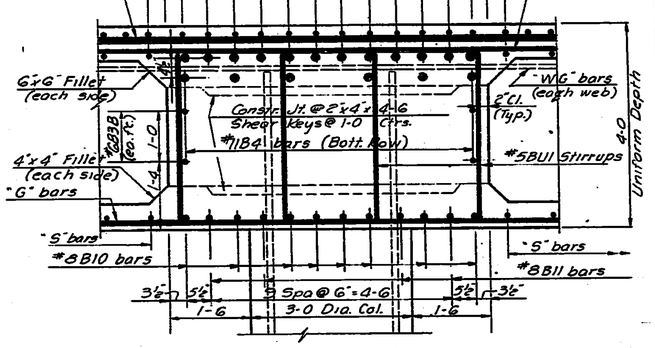
SUPERSTRUCTURE PIER BEAM #1355



SECTION B2-B2



SUPERSTRUCTURE PIER BEAM #1365



SECTION B3-B3

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 30S
S. B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

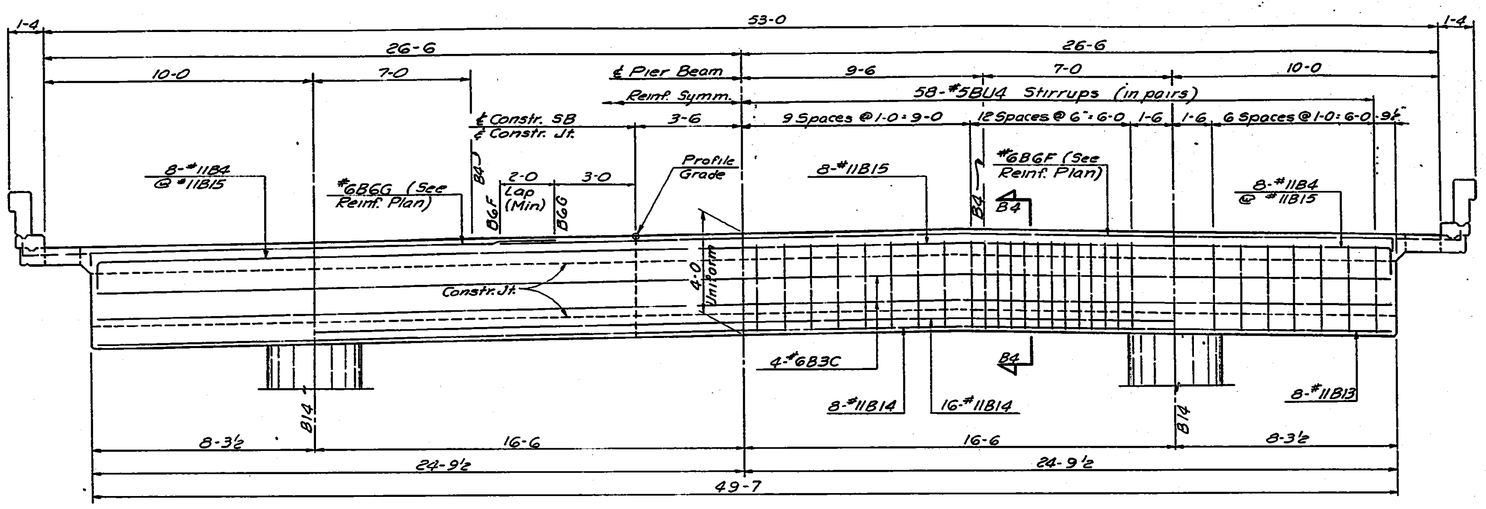
SHEET NO. 16 OF 21	SCALE		APP'D.		
DESIGNED DFG	DETAILED EES		QUANTITIES PDP	TRACED EES	
DESIGN CK. JWH	DETAIL CK. LRD		GENL. CK. JA	TRACE CK. LRD	

DIST. 5 SEDGWICK CO. ROLL 531

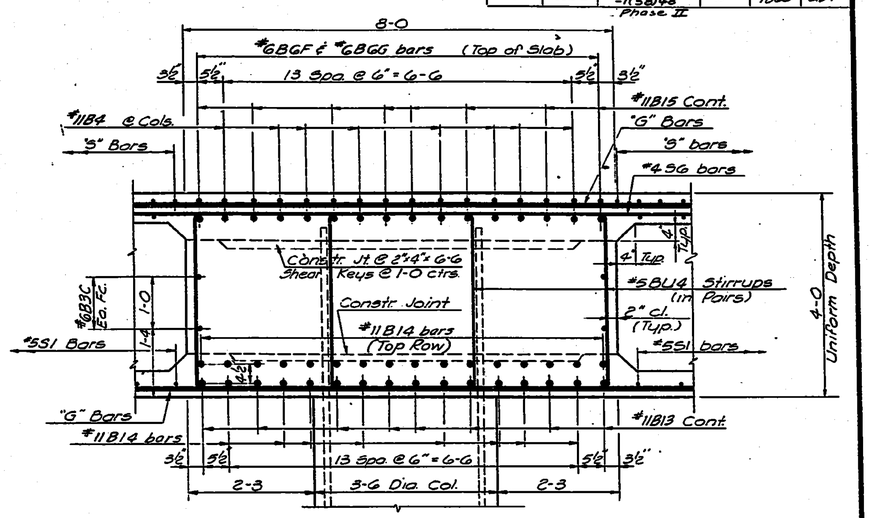
3 2 3

16X 14.5X 12X 12X 14.5X 16X 20X

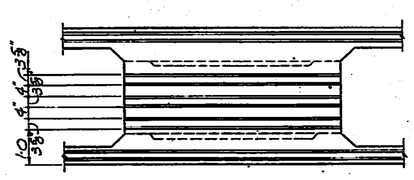
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase II	19	1865	2137



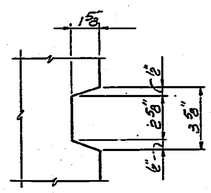
SUPERSTRUCTURE PIER BEAM #1375



SECTION B4 - B4



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION (Showing Location of Keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 30S
S. B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 17 OF 21	SCALE		APP'D.		
DESIGNED DFG	DETAILED EES		QUANTITIES PDP	TRACED EES	
DESIGN CK. JWH	DETAIL CK. LKD		GENL. CK. JA	TRACE CK. LKD	

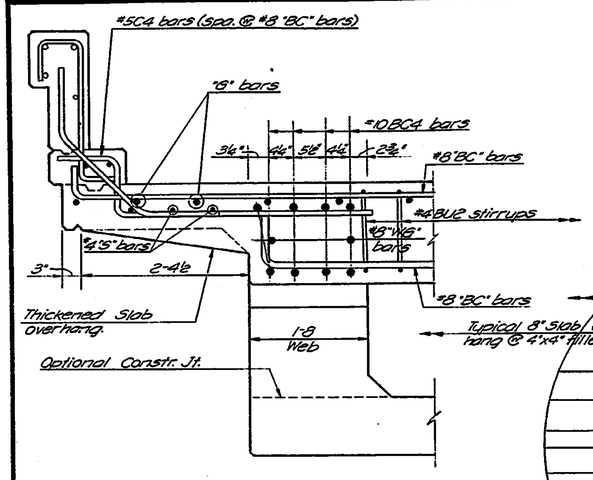
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

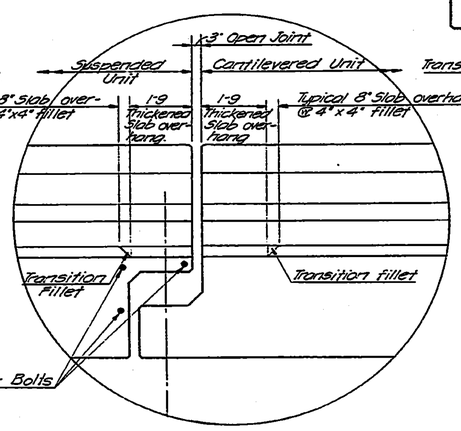
3 2 4

16X 14.5X 12X 12X 14.5X 16X 20X

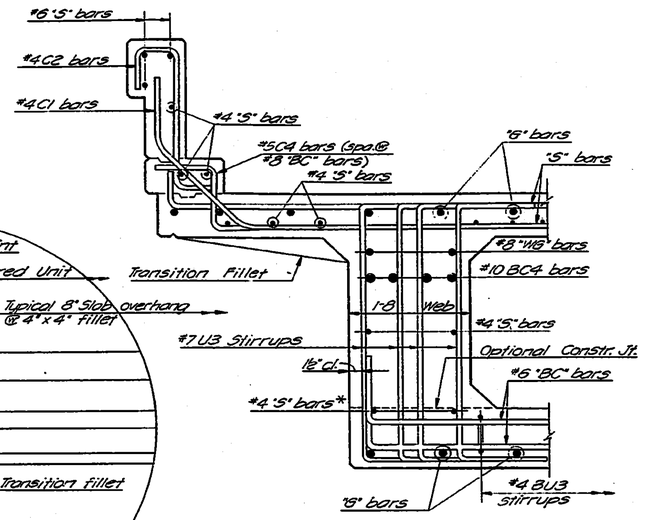
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-I35W (58)48 PHASE II	19	186C	2137



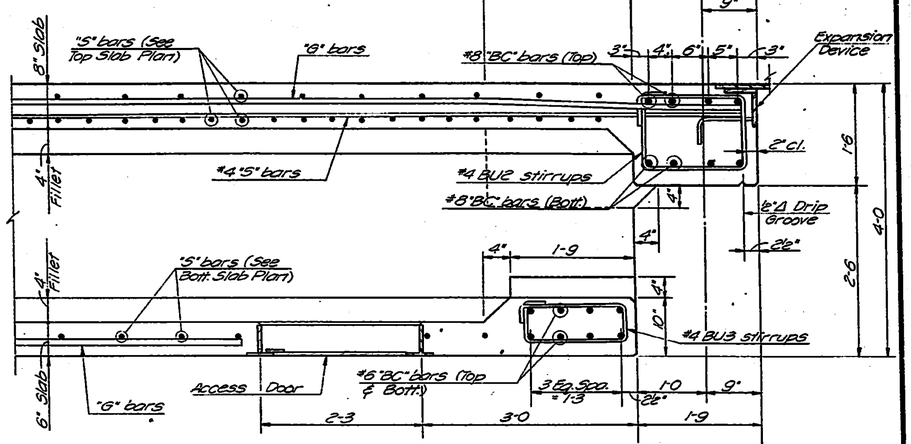
SECTION C2-C2
(Exterior Web)



VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)

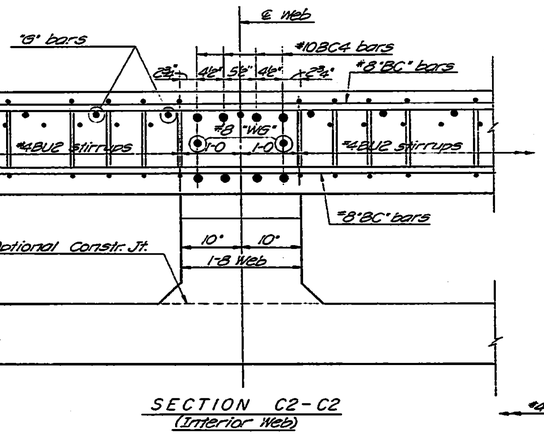


SECTION C1-C1
(Exterior Web)

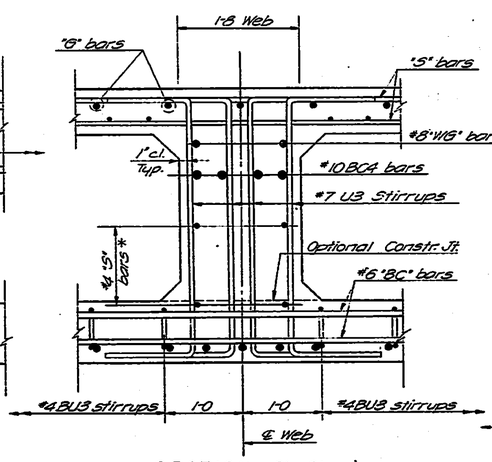


TYPICAL SECTION THRU CELL

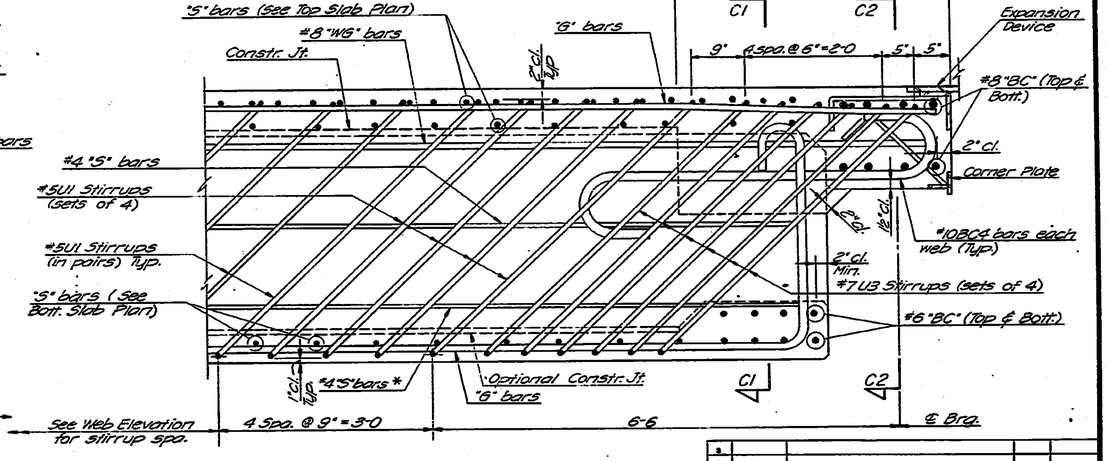
SEE REVISED EXPANSION DEVICES



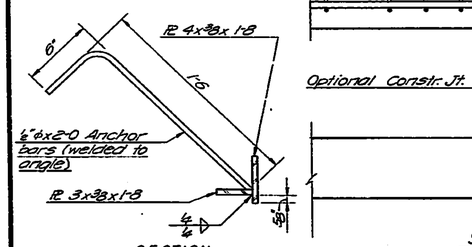
SECTION C2-C2
(Interior Web)



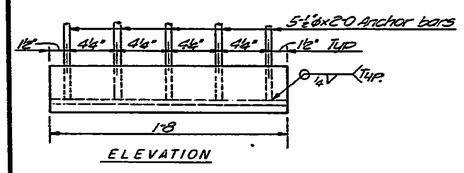
SECTION C1-C1
(Interior Web)



TYPICAL SECTION THRU WEB



SECTION



ELEVATION

CORNER PLATE DETAILS
Computed weight of one assembly is 22 Lbs.

BEARING BEAM DETAILS

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 18 OF 21	SCALE	APP'D.		
DESIGNED DFG	DETAILED DS	QUANTITIES PDP	TRACED DS	
DESIGN OF RBS	MEAS. OF RBS	QUAN. OF JA	TRACE OF RBS	

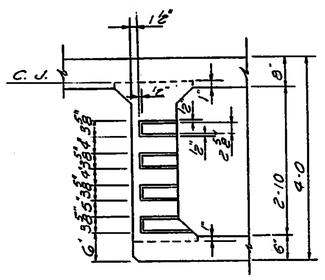
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

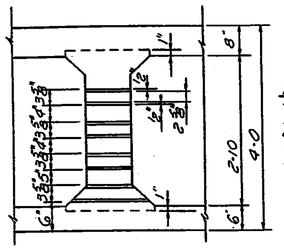
3 2 5

16X	14.5X	12X	12X	14.5X	16X	20X		

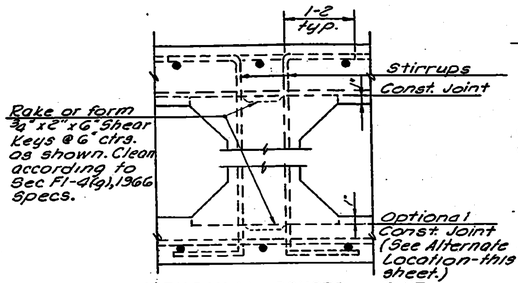
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W 1-(058)48 Phase II	19	1867	2137



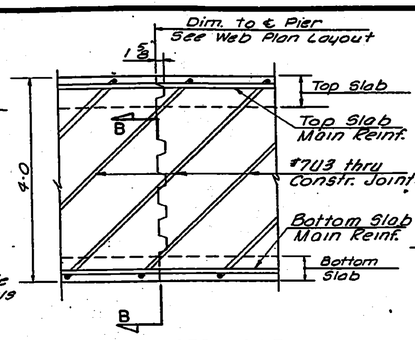
SECTION B-B
(Through Exterior Web)



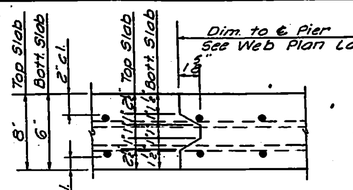
SECTION B-B
(Through Interior Web)



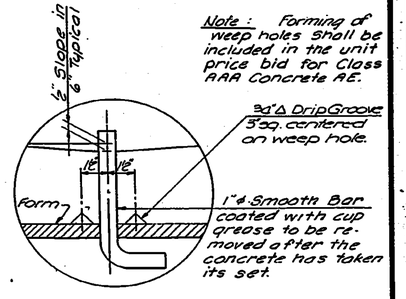
LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)



WEB CONSTR. JOINT
(Showing Placement of #7@3 bars)



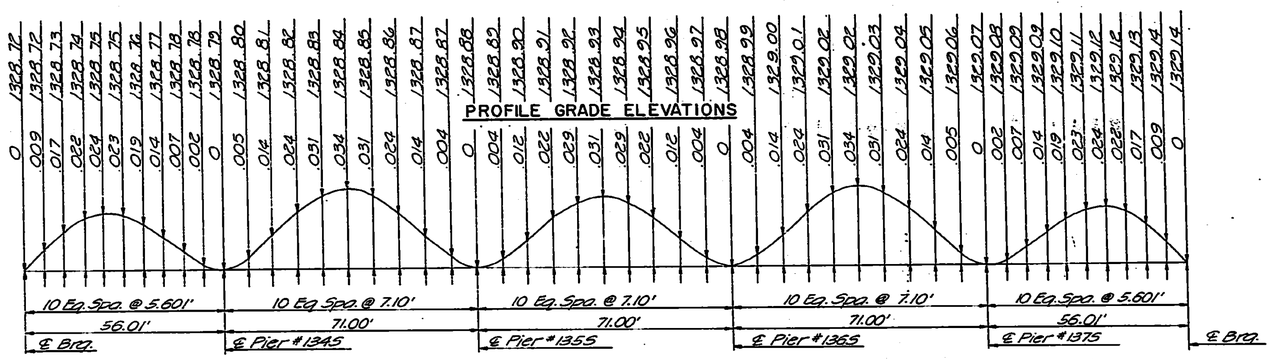
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)



Note: Forming of weep holes shall be included in the unit price bid for Class AAA Concrete AE.

DETAIL OF WEEP HOLES

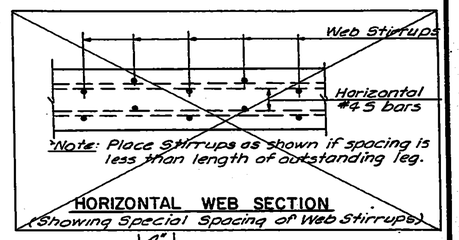
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



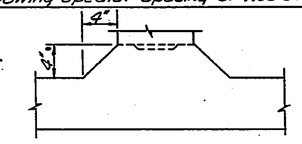
DEAD LOAD CAMBER IN FEET

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS

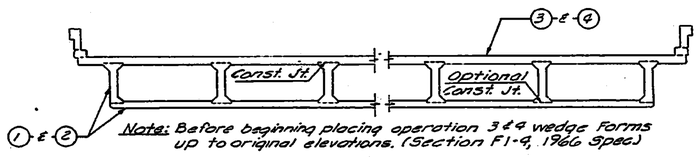
Note: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ p.s.i.



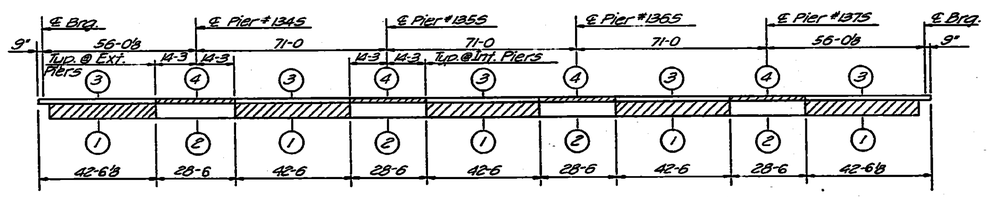
HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)



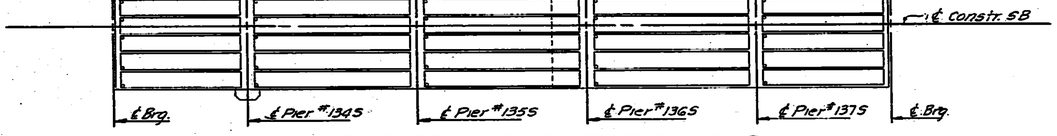
ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer)



CROSS SECTION OF SUPERSTRUCTURE



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework



LOCATION OF WEEP HOLES & REQUIRED CONSTRUCTION JOINT

NOTES:

See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown as optional may be used at the Bridge Contractors option, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 30 S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 19 OF 21	SCALE	APP'D.
DESIGNED DEG	DETAILED RAW	QUANTITIES LKO/PDP
DESIGN CK. RBS	DETAIL CK. RBS	QUAN. CK. DST/TA

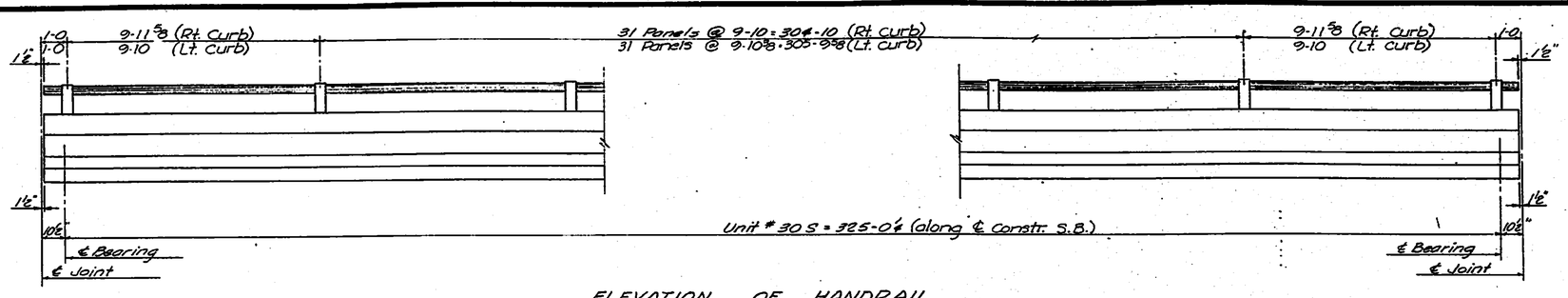
TRACED DGT
TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

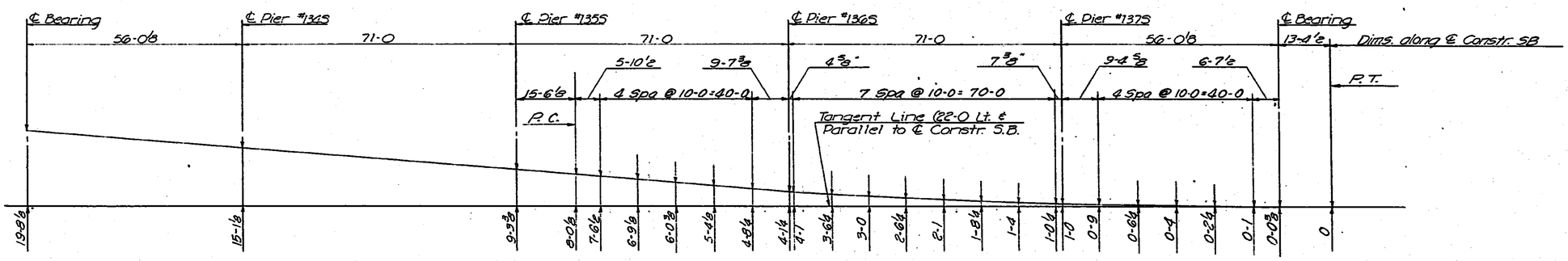
3 2 6

16X 14.5X 12X 12X 14.5X 16X 20X

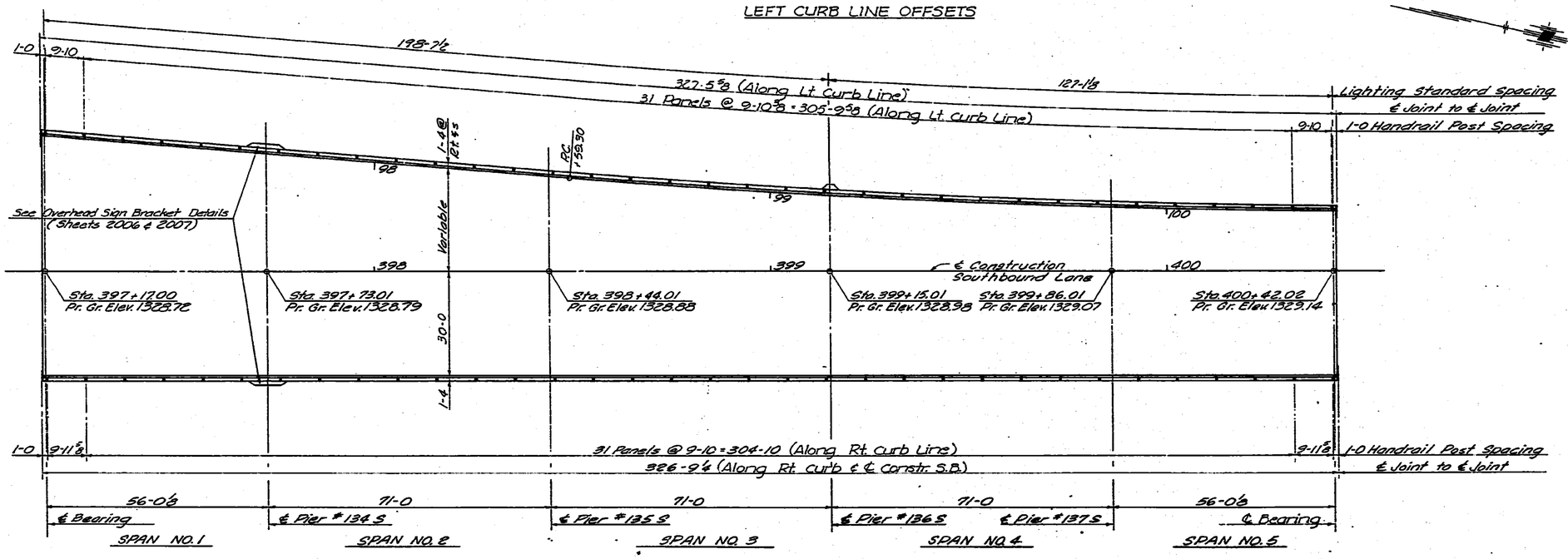
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W 1(58)48 PHASE II	19	1868	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)



LEFT CURB LINE OFFSETS



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH. STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

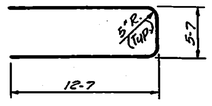
SHEET NO. 20 OF 21 SHEETS	SCALE	APP'D.	
DESIGNED JWH	DETAILED RBS	QUANTITIES LKD/PPP	TRACED CRB
DESIGN CK. RBS	DETAIL CK. DS	CKD. CK. DGT/JA	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

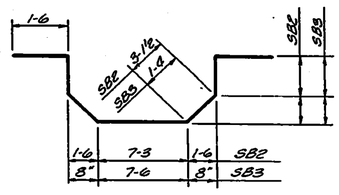
3 2 7

16X 14.5X 12X 12X 14.5X 16X 20X

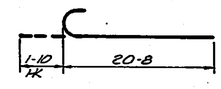
FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1968A	2157



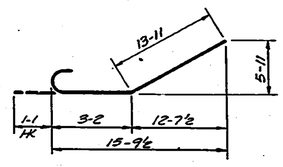
SB1



SB2, SB3



B16



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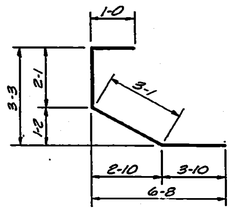
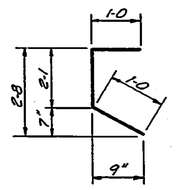
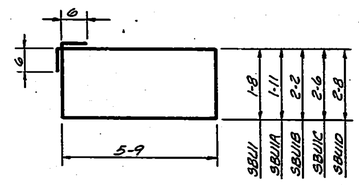


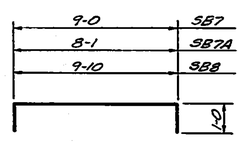
SB4



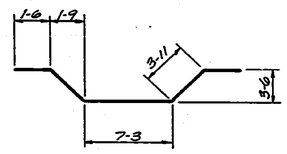
SB5



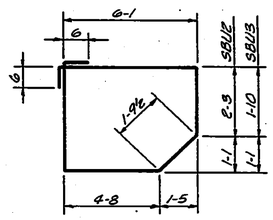
"SBU1" SERIES



SB7, SB7A, SB8



SB9



SBU2, SBU3

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING DIAGRAMS - UNIT NO. 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 22A OF 27	SCALE		APP'D				
DESIGNED DRG	DETAILED RAW		QUANTITIES TL		TRACED JWL		
DESIGN CK. JWH	DETAIL CK. DRG		QUAN. CK. AV		TRACE CK. RAW		

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 2 8

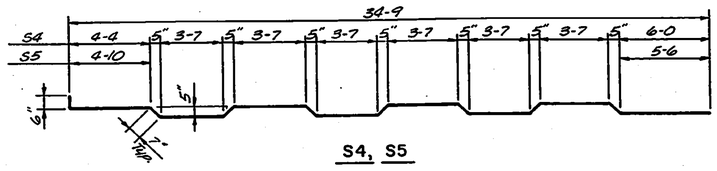
16X 14.5X 12X 12X 14.5X 16X 20X

BENDING DIAGRAMS

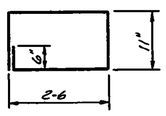
(Bar Dimensions are Out to Out)

REV. PLANS 11-1-71

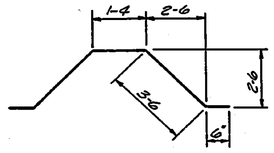
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1869	2137



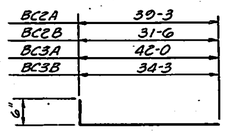
S4, S5



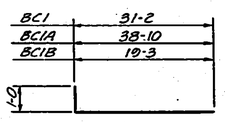
LB1



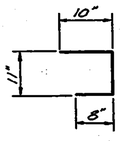
LB2



"BC" BARS



"BC" BARS



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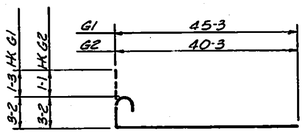
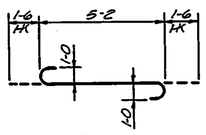
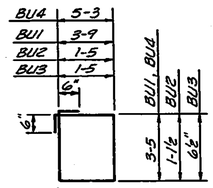


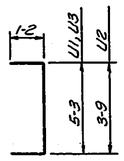
G1, G2



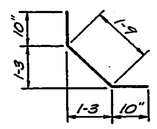
BC4



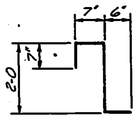
BU1, BU2, BU3, BU4



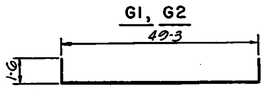
U1, U2, U3



C1

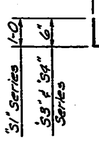


C2



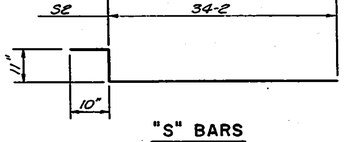
B15

S4E	6£ @ 21-£ & 60 @ 21-8	
S4D	(by 7" Incr.) 22-3 to 25-£	Cut 26 ea. (except 22@ 25-£)
S4C	(by 7" Incr.) 25-4 to 30-7	Cut 16 ea. (except 10 @ 30-7)
S4B	(by 7" Incr.) 30-10 to 36-1	Cut 16 ea. (except 10@ 36-1)
S4A	(by 7" Incr.) 36-8 to 40-9	Cut 16 ea. (except 12 @ 40-9)
S3E	32 @ 22-6 & 30 @ 23-0	
S3D	(by 7" Incr.) 23-6 to 26-5	Cut 13 ea. (except 12@ 26-5)
S3C	(by 7" Incr.) 26-7 to 31-10	Cut 8 ea. (except 6 @ 31-10)
S3B	(by 7" Incr.) 32-0 to 37-3	Cut 8 ea. (except 6 @ 37-3)
S3A	(by 7" Incr.) 37-10 to 41-11	Cut 8 ea. (except 7 @ 41-11)
S3	33-0	
S1E	30 @ 20-0 & 20 @ 20-6	
S1D	(by 7" Incr.) 20-10 to 23-9	Cut 13 ea. (except 12 @ 23-9)
S1C	(by 7" Incr.) 24-0 to 29-3	Cut 8 ea. (except 6 @ 29-3)
S1B	(by 7" Incr.) 29-5 to 34-8	Cut 8 ea. (except 6 @ 34-8)
S1A	(by 7" Incr.) 35-3 to 39-4	Cut 8 ea. (except 5 @ 39-4)
S1	30-5	

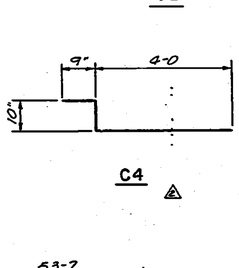


"S" BARS

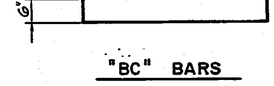
S2E	32 @ 20-2 & 30 @ 20-8	
S2D	(by 7" Incr.) 21-1 to 24-0	Cut 13 ea. (except 12 @ 24-0)
S2C	(by 7" Incr.) 24-3 to 29-6	Cut 8 ea. (except 6 @ 29-6)
S2B	(by 7" Incr.) 29-9 to 35-0	Cut 8 ea. (except 6 @ 35-0)
S2A	(by 7" Incr.) 35-7 to 39-8	Cut 8 ea. (except 7 @ 39-8)
S2	34-2	



"S" BARS



C4 ⚠



"BC" BARS

BGG	21-0
BGF	36-0
BGE	00-3
BGD	39-8
BGC	21-8
BGB	43-3
BGA	23-4
BG	47-8

8"

"B" BARS

B12A	18-6
B12	36-11
B9A	20-0
B9	40-9
B5A	21-6
B5	44-10
B4	15-2

1'-0

"B" BARS

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	353	5	31-5
				S1A	61	5	*
				S1B	78	5	*
				S1C	78	5	*
				S1D	77	5	*
				S1E	59	5	*
				S2	358	4	35-11
S6	728	4	40-0	S2A	63	5	*
S6A	64	4	27-9	S2B	78	4	*
S6B	8	4	23-6	S2C	78	4	*
S6C	8	4	14-9	S2D	77	4	*
S7	144	4	29-9	S2E	62	5	*
S7A	12	6	29-9				
S8	109	4	29-6	S3	358	5	33-6
S9	138	4	37-3	S3A	63	6	*
S10	42	6	40-0	S3B	78	5	*
				S3C	78	5	*
				S3D	77	5	*
				S3E	62	6	*
G3	30	9	45-3				
G3A	14	9	40-0	S4	178	5	36-5
G4	52	8	45-3	S4A	124	5	*
G5	26	8	35-0	S4B	154	5	*
G5A	4	8	40-3	S4C	154	5	*
G6	58	8	26-0	S4D	152	5	*
G7	200	7	23-0	S4E	122	5	*
G8	6	7	26-0				
G9	87	9	52-0	S5	175	5	36-5
G10	78	8	52-0				
G11	88	8	42-0	G1	16	9	49-8
G12	64	8	30-0				
G13	10	9	30-0	G2	28	8	44-6
G14	12	8	23-0				
G15	68	5	36-3	SB1	4	8	30-9
G16	56	5	40-3	SB2	6	6	23-6
G17	182	10	44-0	SB3	2	6	20-4
G18	108	10	36-0	SB4	16	4	10-0
G18A	16	10	16-6	SB5	8	4	4-1
G18B	16	10	14-0	SB7	2	4	11-0
G19	128	10	24-0	SB7A	2	4	10-1
G20	104	10	16-0	SB8	2	4	11-10
G21	74	5	38-0	SB9	4	5	18-1
G22	105	5	30-0	SBU1	2	6	15-10
G23	4	5	44-0	SBU1A	2	6	16-4
G24	4	5	34-0	SBU1B	2	6	16-10
G25	2	5	42-6	SBU1C	2	6	17-6
				SBU1D	6	6	17-10
SB6	16	4		SBU2	8	5	19-2
				SBU3	4	5	18-4

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				B4	56	11	16-8
B1	16	11	33-3	B5	12	11	40-4
B2	4	11	47-1	B5A	12	11	23-0
B3	8	6	32-6	B6	12	6	48-4
B3A	8	6	29-6	B6A	12	6	24-0
B3B	8	6	27-0	B6B	12	6	43-11
B3C	4	6	49-3	B6C	12	6	22-4
				B6D	12	6	40-4
B7	16	9	30-0	B6E	12	6	20-11
B8	4	9	41-3	B6F	16	6	36-8
				B6G	16	6	21-8
B10	16	8	27-3	B9	8	11	42-3
B11	4	8	36-1	B9A	8	11	21-6
				B12	8	11	38-5
B13	8	11	49-4	B12A	8	11	20-0
B14	24	11	33-0	B15	8	11	52-3
				BC1	16	6	32-2
				BC1A	8	6	39-10
				BC1B	8	6	20-3
				BC2	4	8	48-9
				BC2A	4	8	39-9
				BC2B	4	8	32-0
				BC3	4	8	54-1
				BC3A	4	8	42-6
				BC3B	4	8	34-9
				BC4	64	10	8-2
				B16	12	11	22-6
				B17	12	8	18-2
				C1	772	4	5-5
				C2	785	4	3-8
				C3	68	4	2-5
				C4	16	5	5-7
C5	32	4	2-6				
				U1	4072	5	7-7
				U2	336	5	6-1
				U3	780	7	7-7
WG1	112	8	40-0				
WG2	32	8	31-6	BU1	384	5	15-4
WG3	4	8	23-3	BU2	144	4	6-1
WG4	4	8	16-0	BU3	102	4	4-11
				BU4	116	5	18-4
				LB1	4	4	7-4
				LB2	3	4	9-4

* See Bending Diagrams

All bar marks shall be prefixed with the Unit Number when fabricated. Example: #761 bars shall be marked 308761.

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details
Drainage Details

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	1295.9	Cu. Yds.
Reinforcing Steel	410,210	Lbs.
Cast Iron Scuppers		Lbs.
Wrought Iron Drains & Grates	4,834	Lbs.
8" ϕ Downspouts	285.15	Lin. Ft.
Gutters		Lin. Ft.
Bridge Handrail	650.24	Lin. Ft.
Structural Steel		
Bearing Devices (A36) 16 @ 242 Lbs.	3872	Lbs.
Corner Plates & Cover Plates (A36)	500	Lbs.
Access Doors (A36) 10 @ 130 Lbs.	1820	Lbs.
Anchor Bolt Assembly (A36) 42 152 Lbs.	608	Lbs. ⚠
Linseed Oil Surface Treatment (Bridges)	2165.8	Sq. Yds.

NO.	DATE	REVISIONS	BY	APP'D
3				
⚠	11-1-71	Rev. Exp. Devices	VHSS	
⚠	11-1-71	Anchor Bolt Assembly Revision	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 30S
S.B. I-35W VIADUCT
(BETWEEN 13TH & 15TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

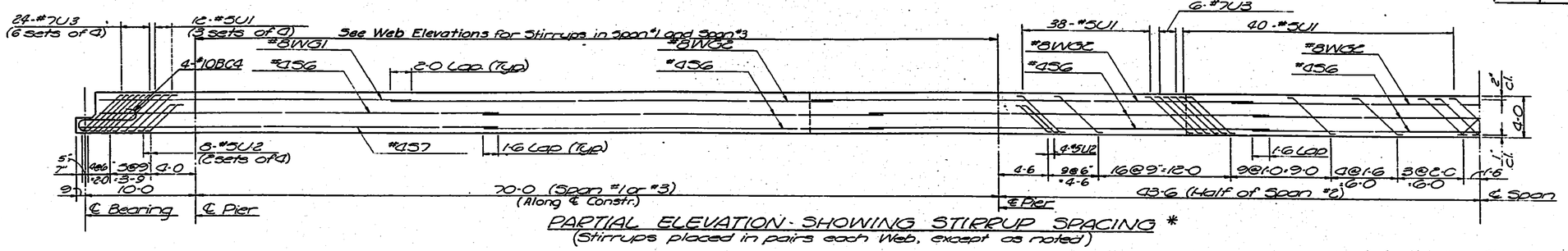
SHEET NO. 21 OF 21	SCALE		APP'D				
DESIGNED DPG	DETAILED RAW		QUANTITIES TL		TRACED EGS		
DESIGN CK. JWH	DETAIL CK. DPG		QUAN. CK. AV		TRACE CK. DPG		

DIST. 5 SEDGWICK CO. ROLL 531

3 2 9

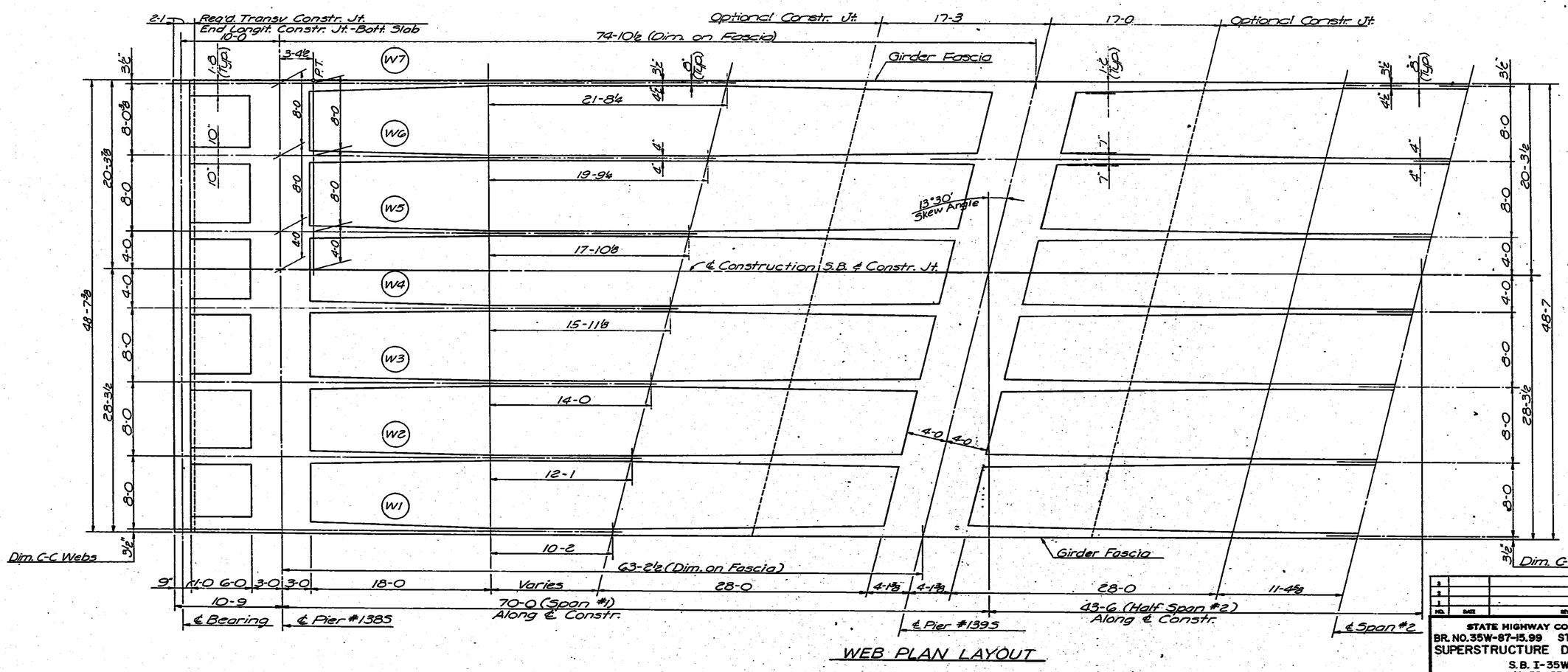
16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I-35W I-(58)48 Phase II	19 4	1870	2,137



PARTIAL ELEVATION - SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each Web, except as noted)

* See Note * on Sheet No. 1872.



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 31S
S.B. I-35W VIADUCT
(OVER 15TH. STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

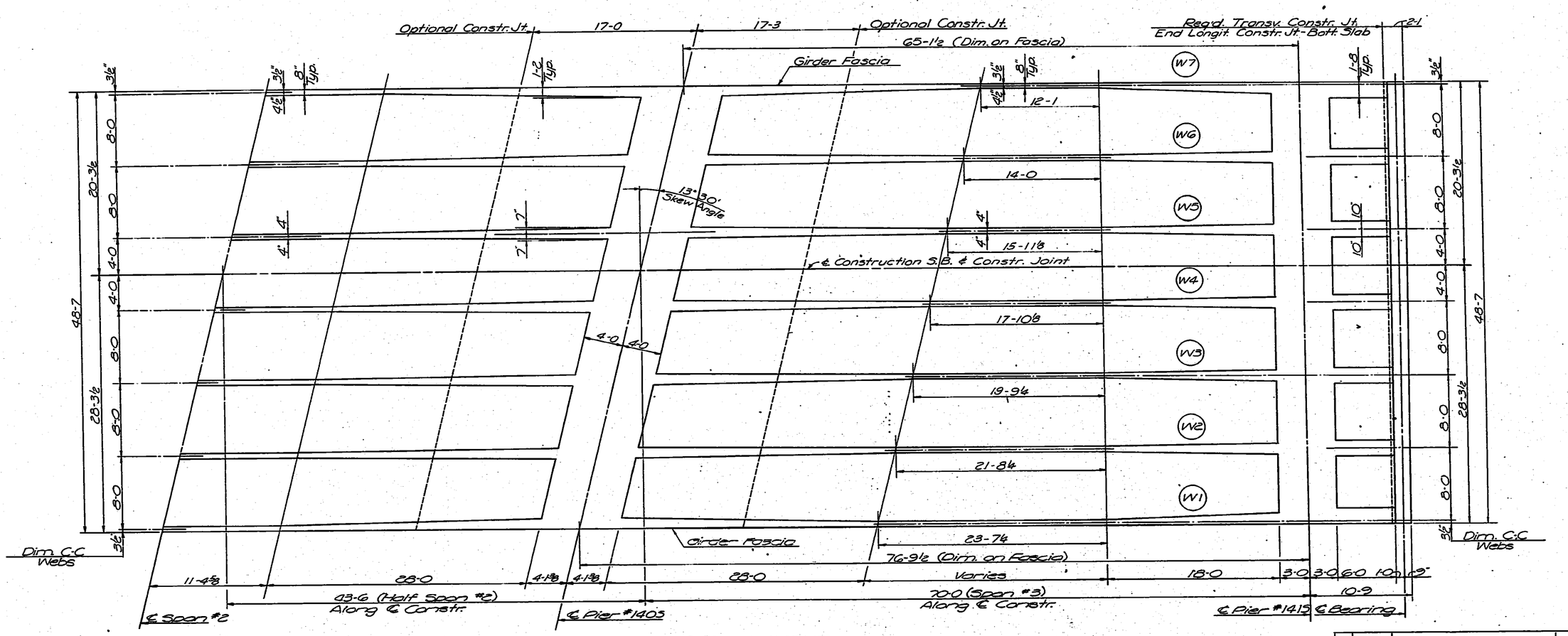
SHEET NO. 1 OF 16	SCALE	APP'D.	
DESIGNED DFG	DETAILED GAB	COMPUTED (KX)	TRACED DFA
DESIGN CK. PBS	DETAIL CK. JMG	QUANT. CK. DGT	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 3 0

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (158)48 Phase II	19	1871	2137



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 31S
S.B. I-35W VIADUCT
(OVER 15TH. STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

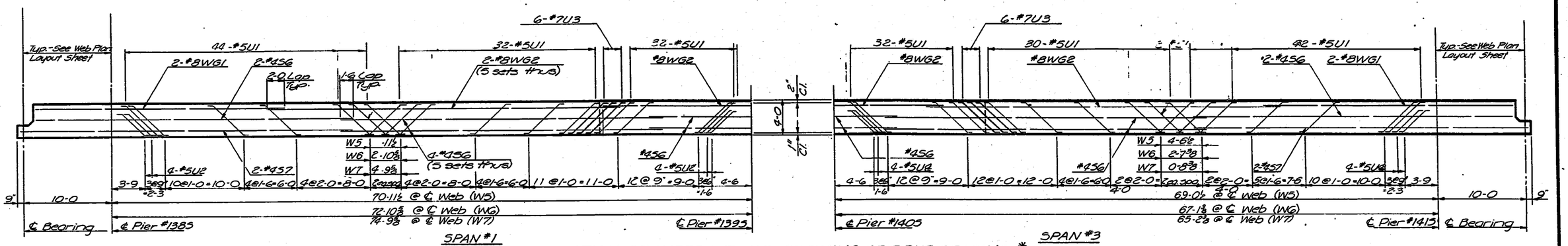
SHEET NO. 5 OF 16 SHEETS	APP'D.		
DESIGNED DFG	DETAILED GAB	CHECKED LKO	TRACED DRA
DESIGN CK. FBS	DETAIL CK. JMC	QUAN. CK. DSTT	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

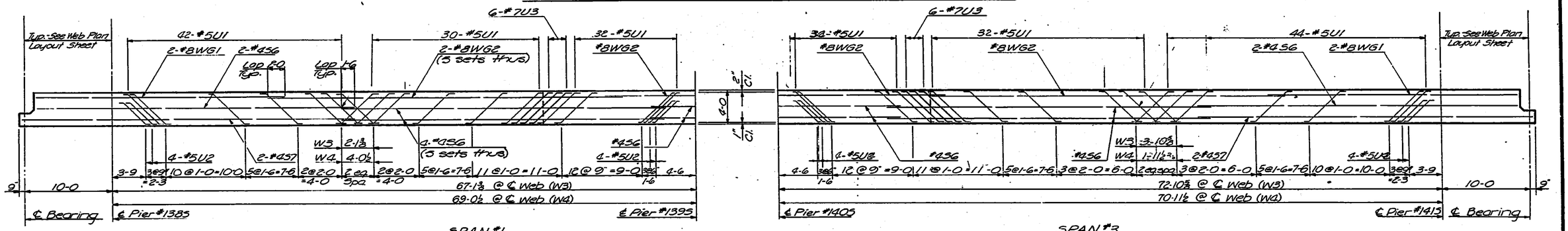
3 3 1

16X 14.5X 12X 12X 14.5X 16X 20X

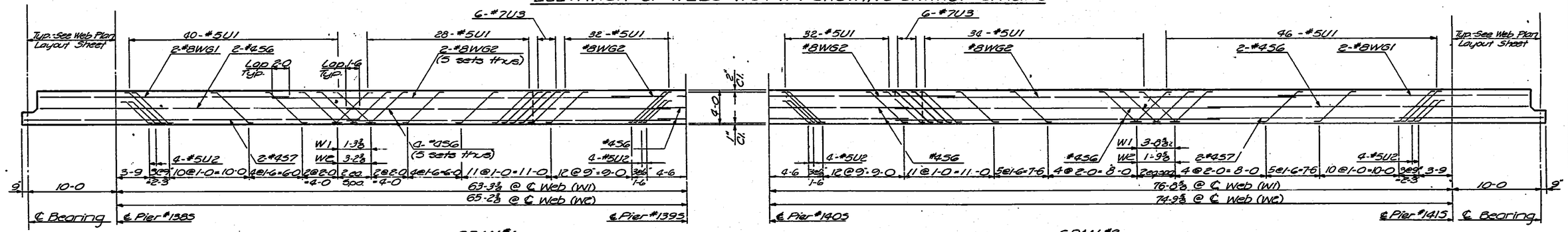
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1872	2137



ELEVATION OF WEBS W5 - W7 SHOWING STIRRUP SPACING *



ELEVATION OF WEBS W3 & W4 SHOWING STIRRUP SPACING *



ELEVATION OF WEBS W1 & W2 SHOWING STIRRUP SPACING *

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top & beneath bottom main reinforcing steel. See Roadway Deck Section.

NOTE:
See Web Layout Sheet (Span #1 & #3) for stirrups in cantilevers and span #2.
Stirrups placed in pairs each web, except as noted.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 3IS
S.B. I-35W VIADUCT
(OVER 15TH. STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

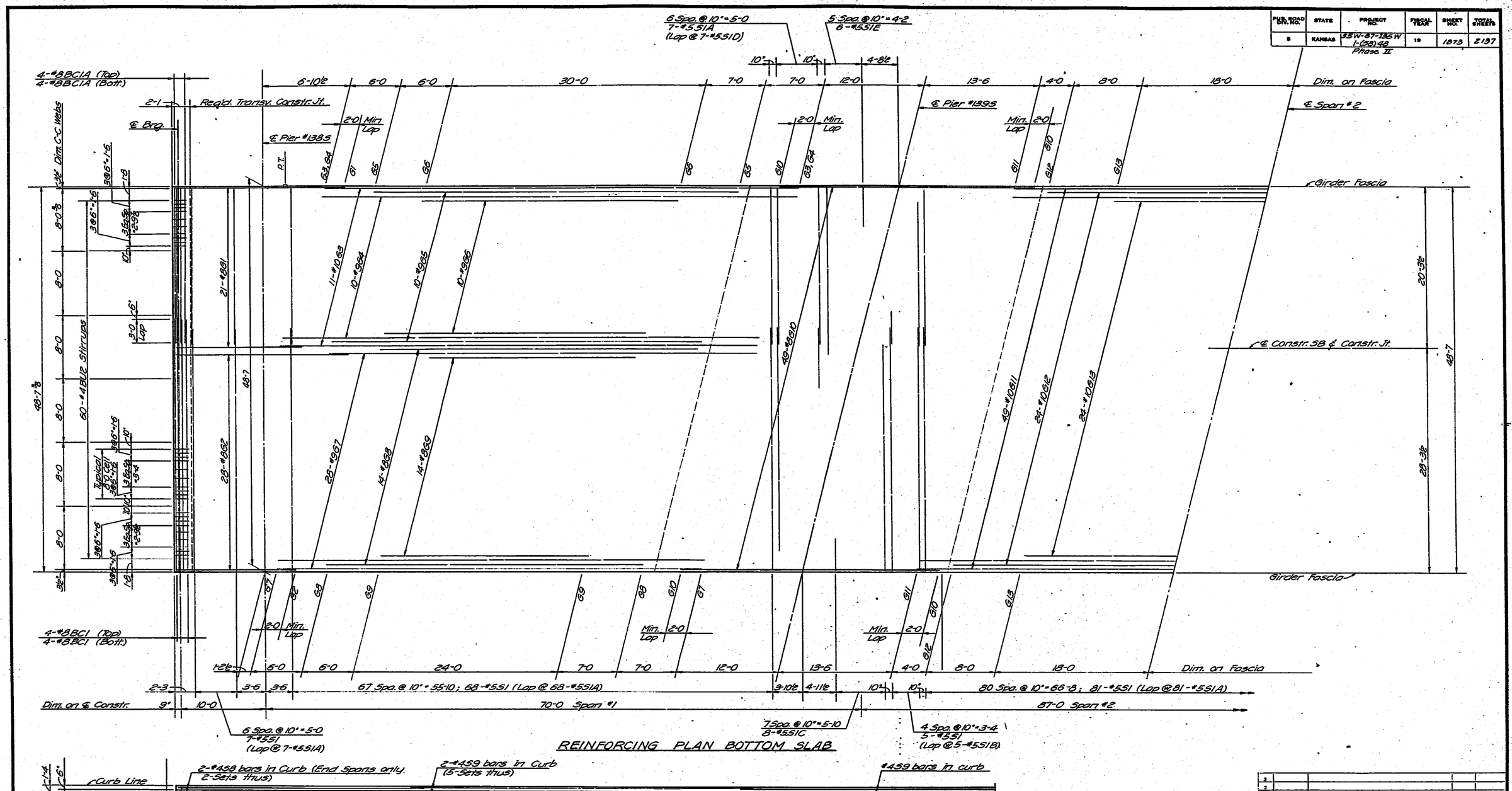
SHEET NO. 3 OF 16	SCALE	APP'D.	
DESIGNED DFG	DETAILED RCP	COMPUTED LKH	TRACED RCP
DESIGN CK. EBS	DETAIL CK. JNG	CHK. CK. DSTI	TRACE CK. GAB

DIST. 5 SEDGWICK CO. ROLL 531

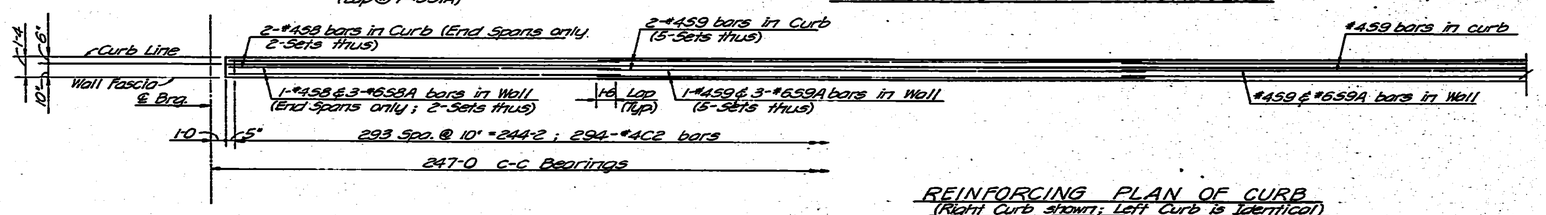
[redacted] 3 3 2

9X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-136 W I-(58)48 Phase II	19	1873	2137



REINFORCING PLAN BOTTOM SLAB



REINFORCING PLAN OF CURB
(Right Curb shown; Left Curb is Identical)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-5.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 31S
S.B. I-35W VIADUCT
(OVER 15TH STREET)
PROJECT 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 4 OF 16	SCALE	APP'D.	
DESIGNED DFS	DETAILED DS	QUANTITIES LKD	TRACED DS
DESIGN CK. RBS	DETAIL CK. DFS	SHOP CK. DBT	TRACE CK. DFS

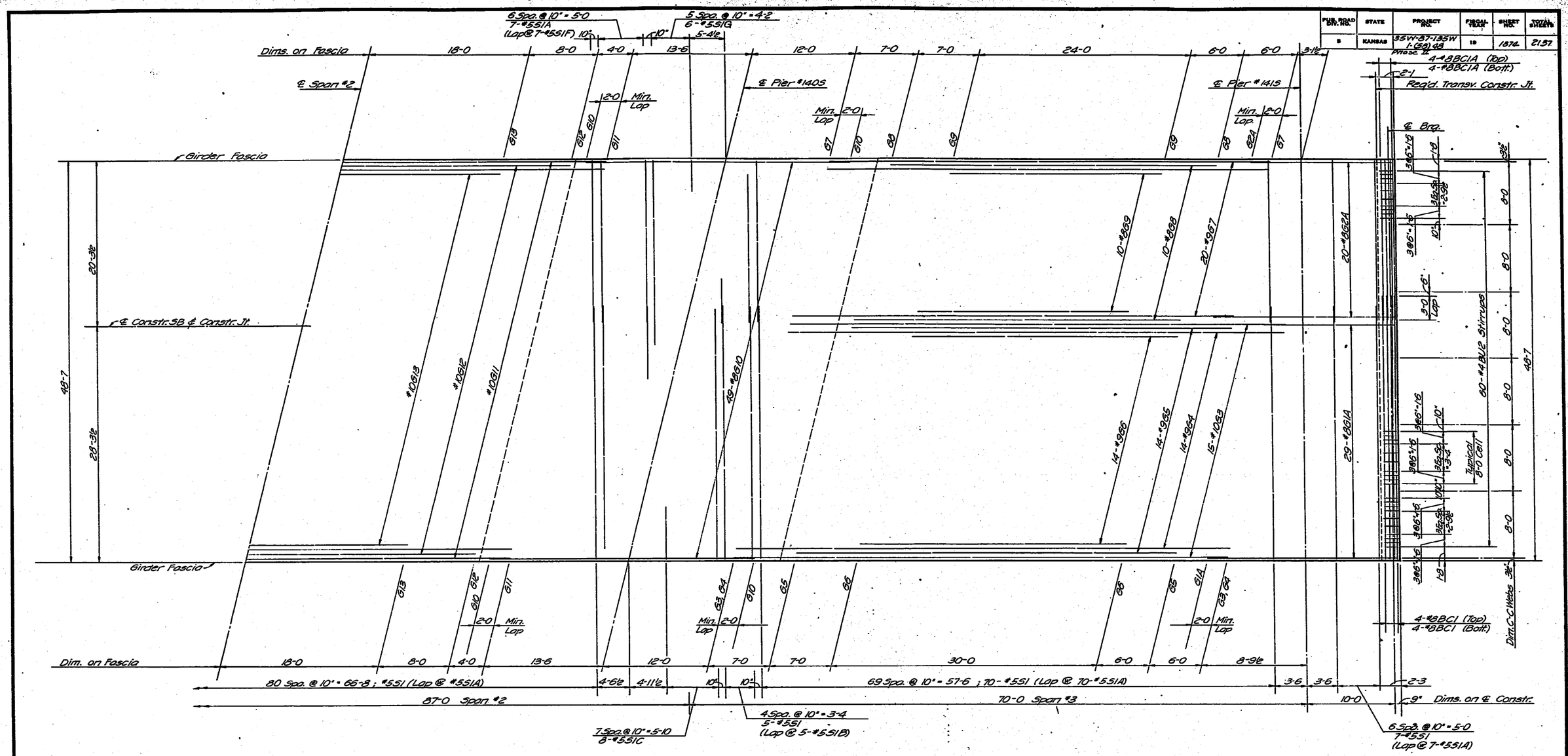
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

3 3 3

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1876	2157



REINFORCING PLAN BOTTOM SLAB

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR.NO.35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 31S
S.B. I-35W VIADUCT
(OVER 15TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

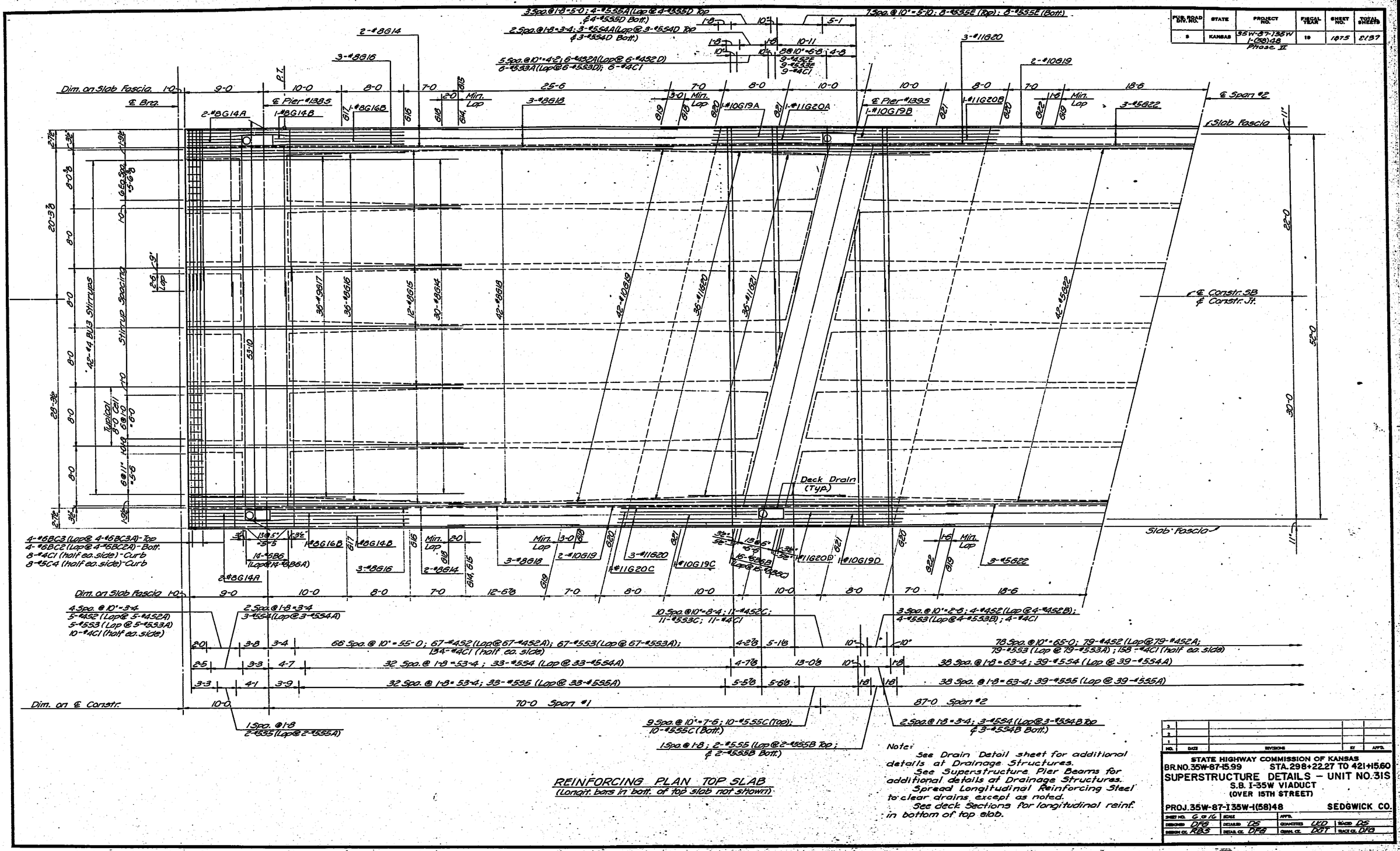
SHEET NO. 5 OF 16	SCALE	APP'D.	
DESIGNED DFB	DETAILED DS	CHECKED LKD	TRACED DS
DESIGN CK. RBS	DETAIL CK. DFB	QUAN. CK. DGT	TRACE CK. DFB

DIST. 5 SEDGWICK CO. ROLL 531

3 3 4

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W I-(58)48 Phase II	19	1075	2137



REINFORCING PLAN TOP SLAB
(Longit. bars in bott. of top slab not shown)

Note:
See Drain Detail sheet for additional details at Drainage Structures.
See Superstructure Pier Beams for additional details at Drainage Structures.
Spread Longitudinal Reinforcing Steel to clear drains except as noted.
See deck Sections for longitudinal reinf. in bottom of top slab.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 31S
S.B. I-35W VIADUCT
(OVER 15TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

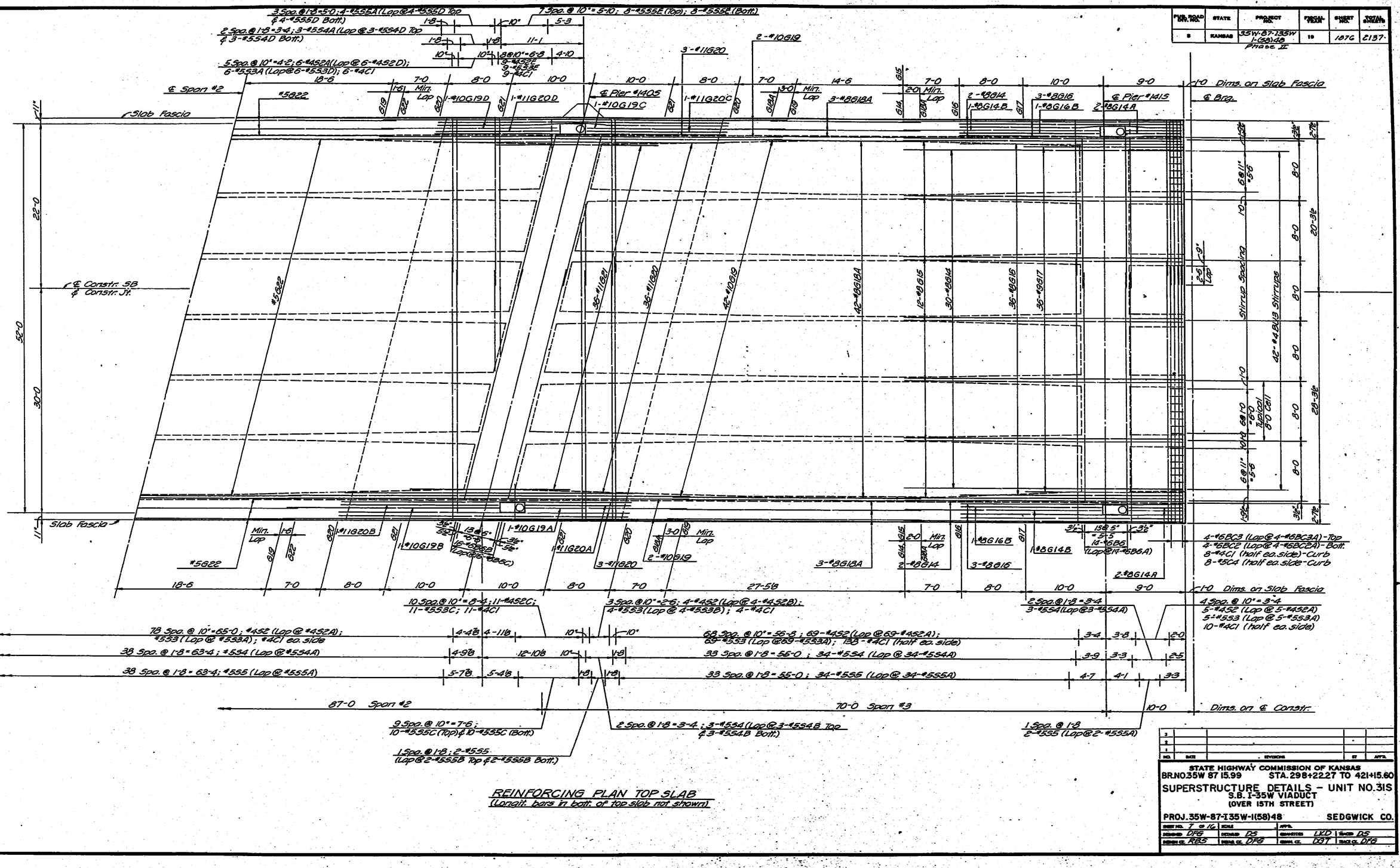
SHEET NO. 6 of 16	SCALE	APP'D.	
DESIGNED DFB	DETAILED DS	CHECKED LED	TRACED DS
DESIGN CK. RBS	DETAIL CK. DFB	CHECK CK. DGT	TRACE CK. DFB

DIST. 5 | SEDGWICK CO. | ROLL 531

3 3 5

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	107G	2137



REINFORCING PLAN TOP SLAB
(Longit. bars in bott. of top slab not shown)

STATE HIGHWAY COMMISSION OF KANSAS
BRN.035W 87 15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 31S
S.B. I-35W VIADUCT
(OVER 15TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

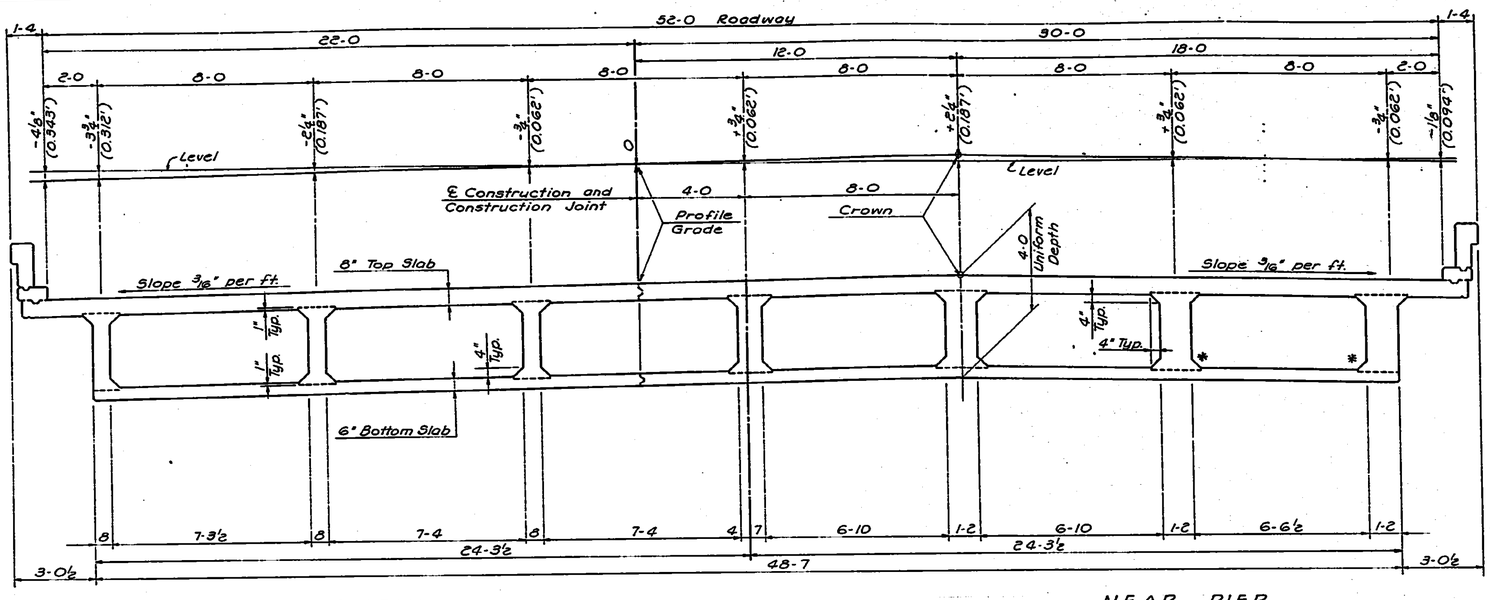
SHEET NO. 7 OF 16	SCALE	APPR.	
DESIGNED DPG	DETAILED DS	QUANTITIES LVD	TRACED DS
DESIGN CK. RBS	DETAIL CK. DPG	QUAN. CK. DST	TRACE CK. DPG

DIST. 5 SEDGWICK CO. ROLL 531

3 3 6

16X 14.5X 12X 12X 14.5X 16X 20X

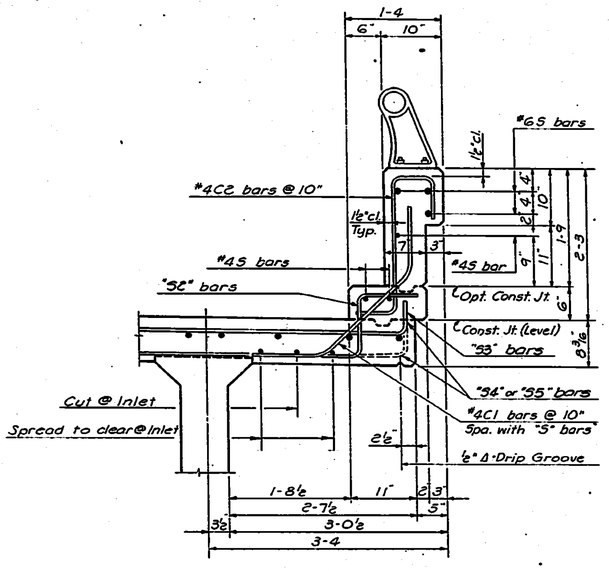
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W I-(58)48 Phase II	19	1877	2137



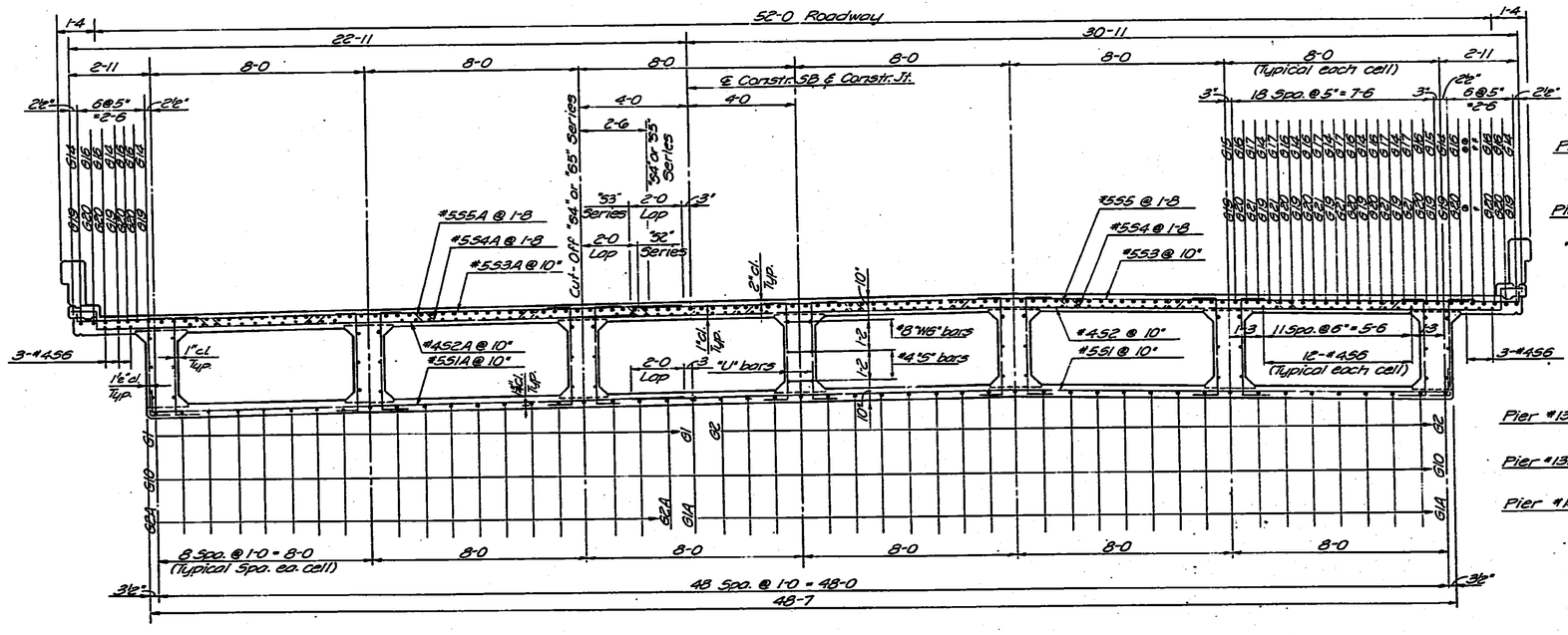
NEAR MID-SPAN

NEAR PIER

ROADWAY DECK SECTION



TYPICAL CURB SECTION



Piers #1385 & #1415

Piers #1395 & #1405

*G19A, G19B, G19C, G19D
**G14A, G14B
*G20A, G20B, G20C, G20D
**G14A, G16B

Pier #1385

Pier #1395 & #1405

Pier #1415

ROADWAY DECK SECTION NEAR PIERS

Note: Typical transverse reinforcing steel is shown in above section. See Reinforcing Plans for transverse reinf. steel at Piers #1395 & #1405.

Notes:
See Web Elevation for quantities, size & spacing of "U" bars.
There are 7 sets of #4S6 bars, end to end of unit. (16 Min Lap)

* See Longitudinal Construction Joint Details for Location of Optional Construction Joint at bottom of webs.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 31S
S.B. I-35W VIADUCT
(OVER 15TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 8 OF 16	SCALE:	APP'D.		
DESIGNED DFG	DETAILED DS	QUANTITIES LKD	TRACED DS	
DESIGN CK. RBS	DETAIL CK. DFG	GRADE CK. DGT	TRACE CK. DFG	

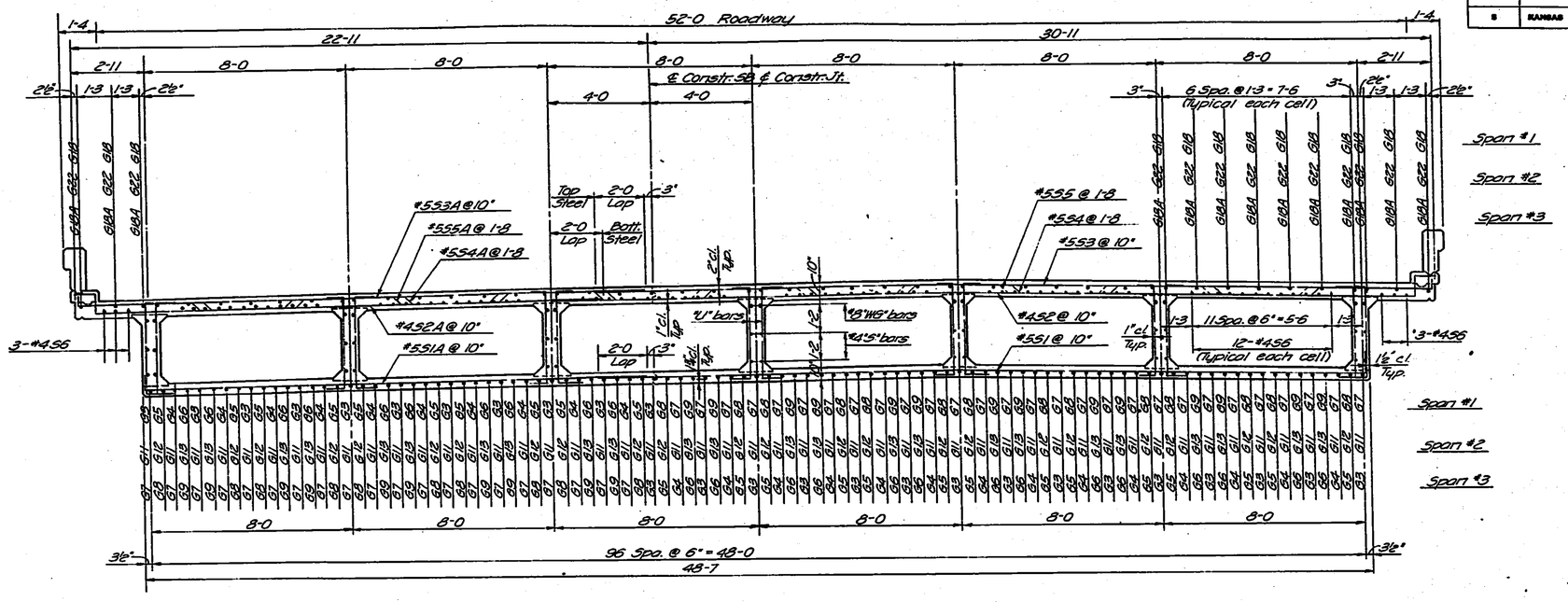
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

3 3 7

9X 16X 14.5X 12X 12X 14.5X 16X 20X

FHWA ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-15&W I-(58)48 Phase II	19	1378	2137



ROADWAY DECK SECTION NEAR MID-SPANS

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 31S
S.B. I-35W VIADUCT
(OVER 15TH STREET)
PROJ. 35W-87-I35W-1(58)48 - SEDGWICK CO.

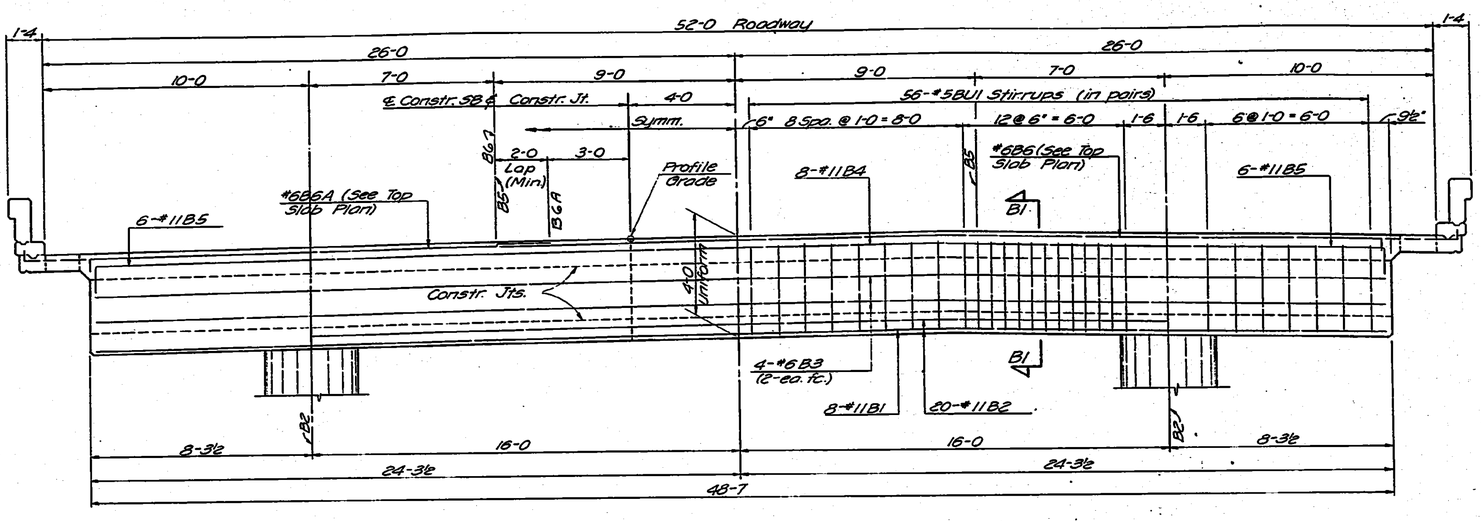
SHEET NO. 9 OF 14	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	QUANTITIES LKD.	TRACED DS
DESIGN CK. RAS	DETAIL CK. DFG	QUAN. CK. DGT	TRACE CK. DFG

DIST. 5 SEDGWICK CO. ROLL 531

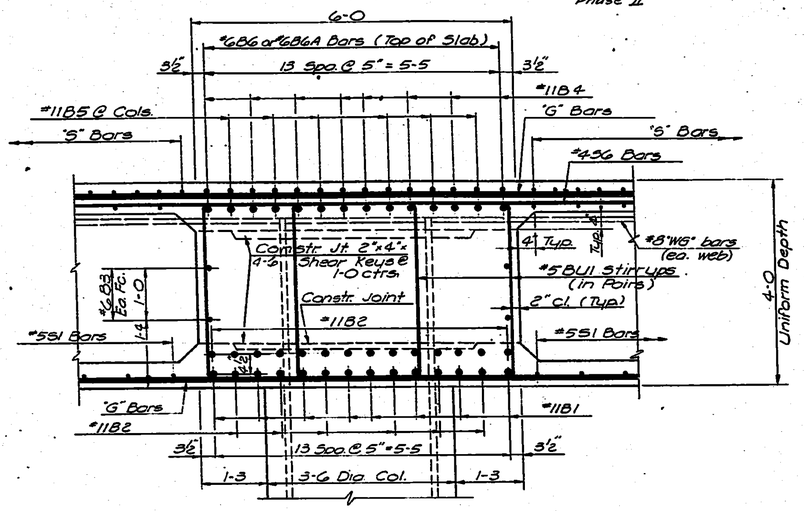
3 3 8

16X 14.5X 12X 12X 14.5X 16X 20X

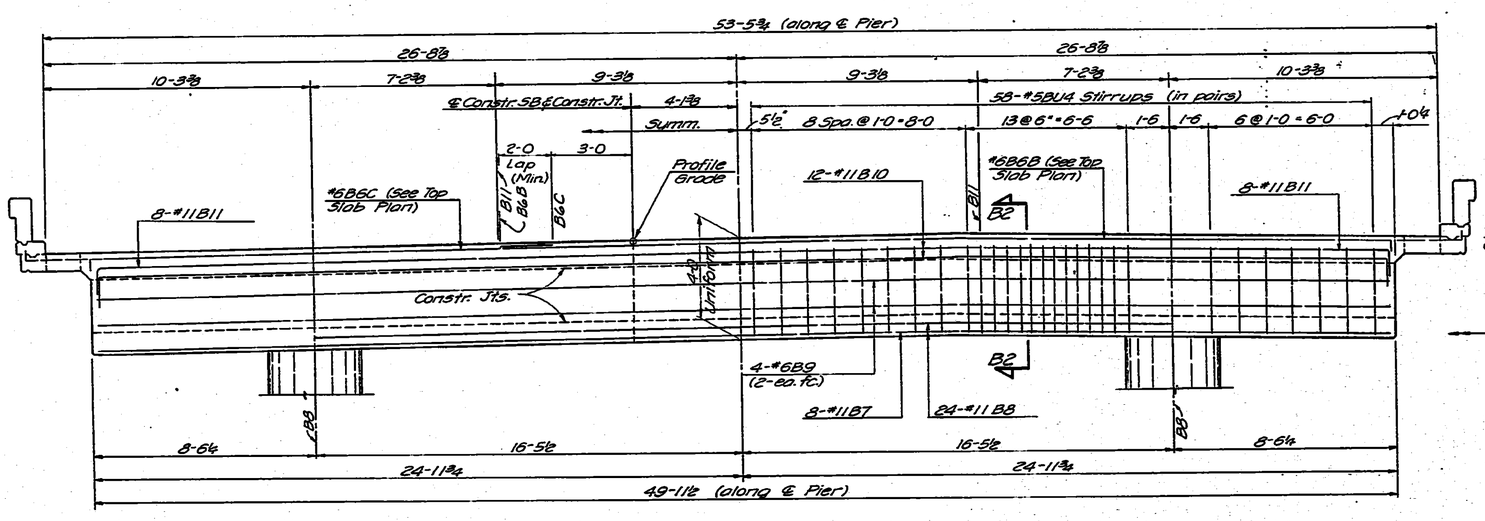
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W -1(58)48 Phase II	19	1879	2137



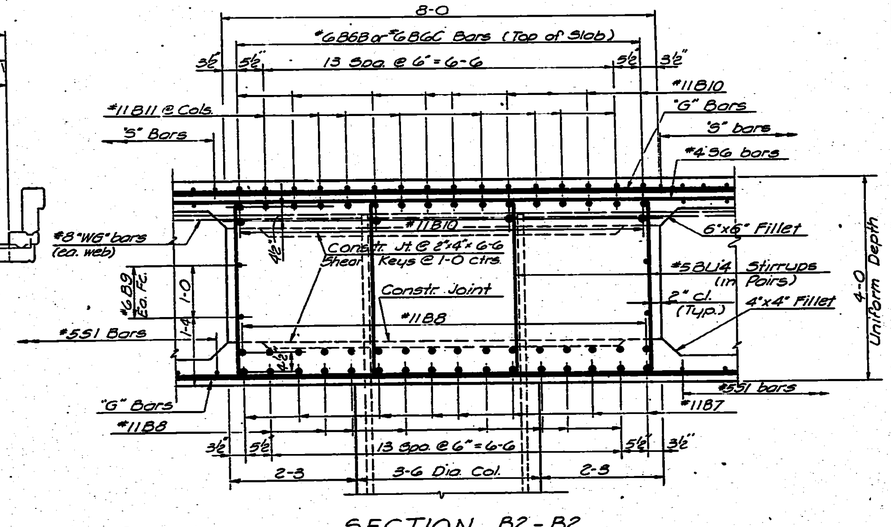
SUPERSTRUCTURE PIER BEAM
(Piers #1385 & #1415)



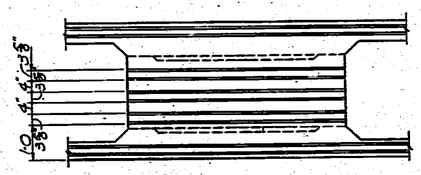
SECTION B1-B1



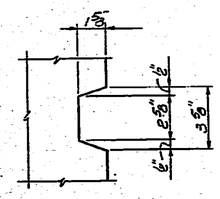
SUPERSTRUCTURE PIER BEAM
(Skewed Piers #1395 & #1405)



SECTION B2-B2



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing Location of Keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 31S
S.B. I-35W VIADUCT
(OVER 15TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 10 OF 16	SCALE	APP'D.			
DESIGNED PDP	DETAILED DS	QUANTITIES LKD	TRACED DS		
DESIGN CK. DFB	DETAIL CK. PDP	GRADE CK. DOT	TRACE CK. DFB		

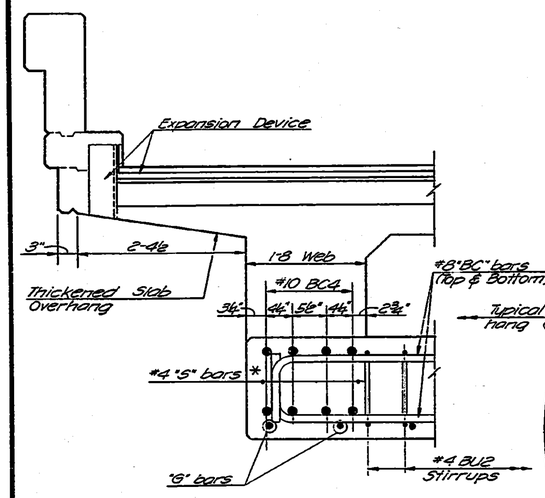
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

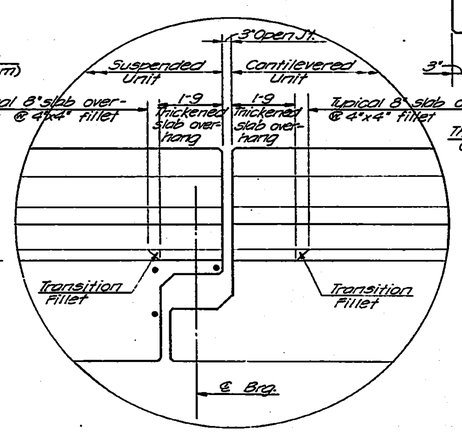
3 3 9

16X 14.5X 12X 12X 14.5X 16X 20X

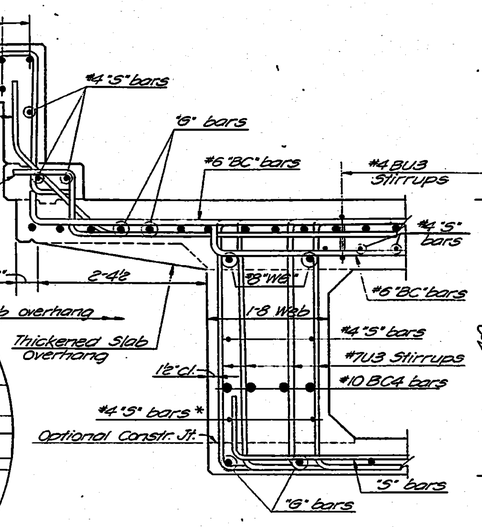
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1880	2137



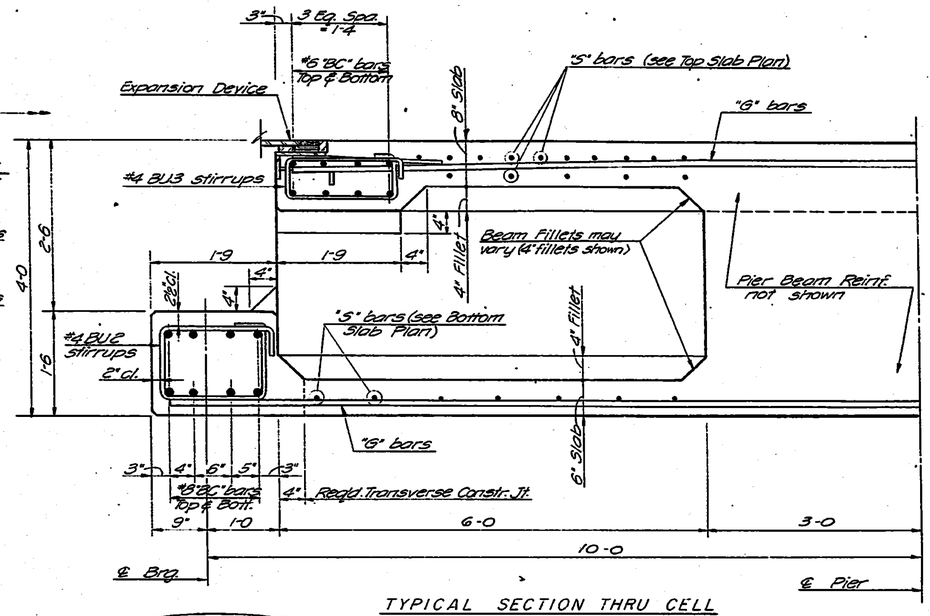
SECTION C3 – C3
(Exterior Web)



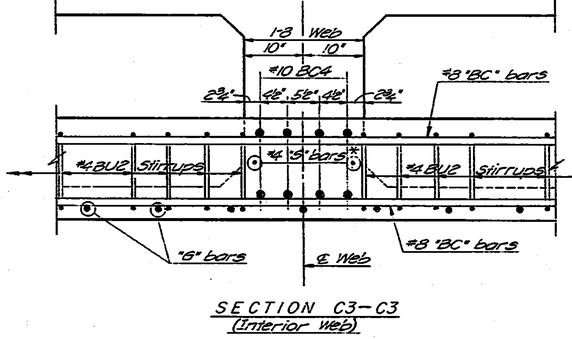
VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)



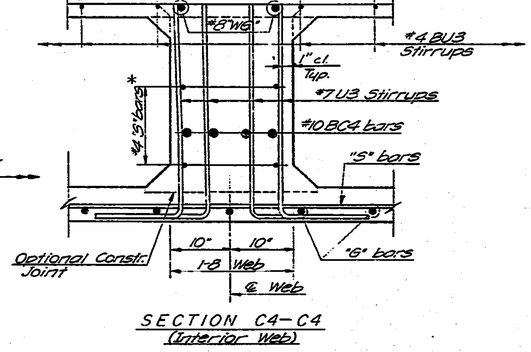
SECTION C4 – C4
(Exterior Web)



TYPICAL SECTION THRU CELL

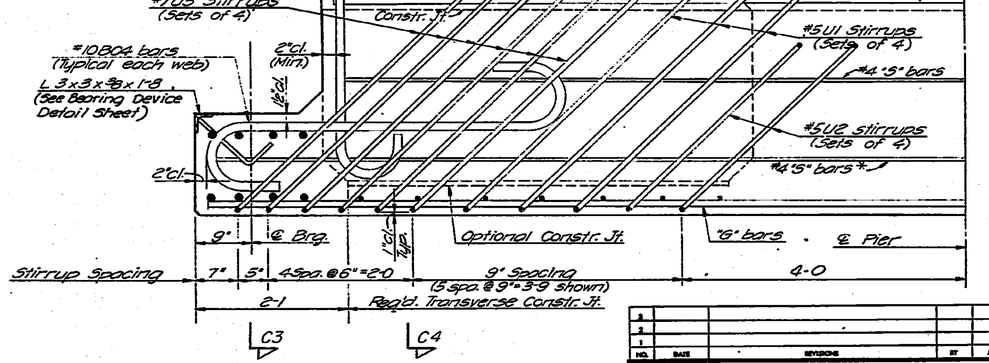


SECTION C3 – C3
(Interior Web)



SECTION C4 – C4
(Interior Web)

SEE REVISED EXPANSION DEVICES



TYPICAL SECTION THRU WEB

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

BEARING BEAM DETAILS

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

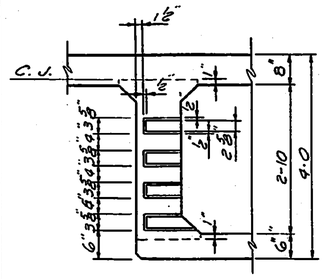
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 31S
S.B. I-35W VIADUCT
(OVER 15TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 11 OF 16	SCALE		APP'D.			
DESIGNED DFB	DETAILED DS		QUANTITIES LKD	TRACED DS		
CHECKED RBS	DETAIL CK. RBS		QUANT. CK. DGT	TRACE CK. RBS		

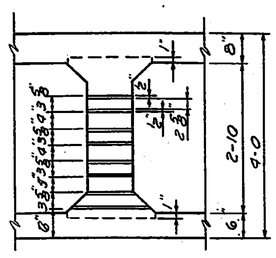
DIST. 5 SEDGWICK CO. ROLL 531

3 4 0

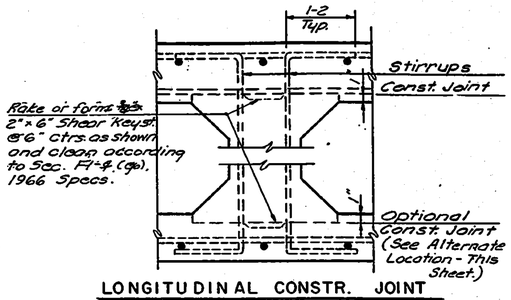
16X 14.5X 12X 12X 14.5X 16X 20X



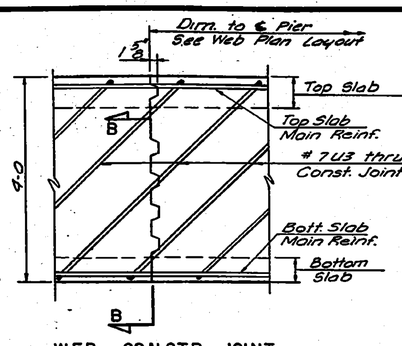
SECTION B-B
(Through Exterior Web)



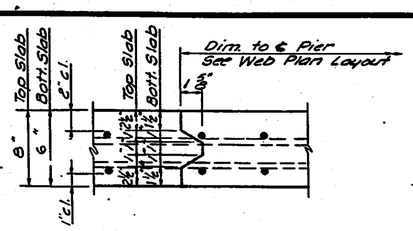
SECTION B-B
(Through Interior Web)



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)



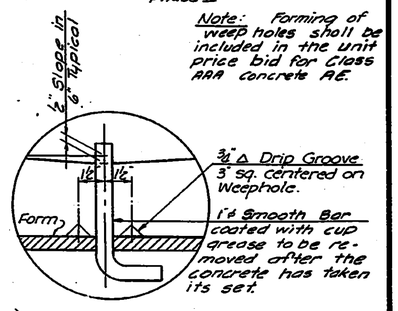
WEB CONSTR. JOINT
(Showing Placement of #7U3 bars)



SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

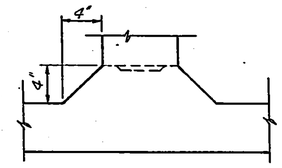
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1881	2137

Note: Forming of weep holes shall be included in the unit price bid for Class AAA concrete AE.

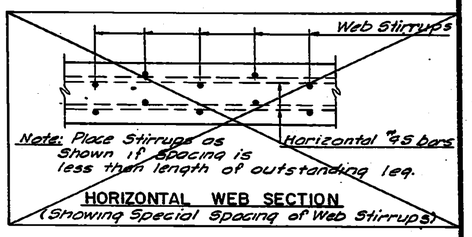


DETAIL OF WEEP HOLES

SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



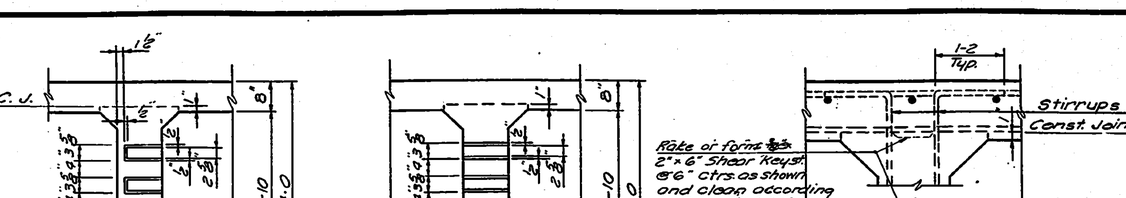
ALTERNATE LOCATION of LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer)



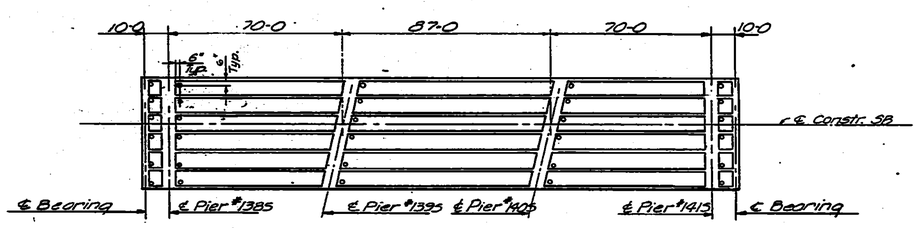
HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)

Note: Before beginning placing operation 3#9 wedge forms up to original elevations (Section F1-4, 1966 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework



LOCATION OF WEEP HOLES

See General Notes:

Curbs and Handrail: Construction Joints in Curbs shall be made only under rail openings. Curbs shall be built after Falsework is struck. Handrails shall be built after Falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 31 S
S.B. I-35W VIADUCT
(OVER 15 TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

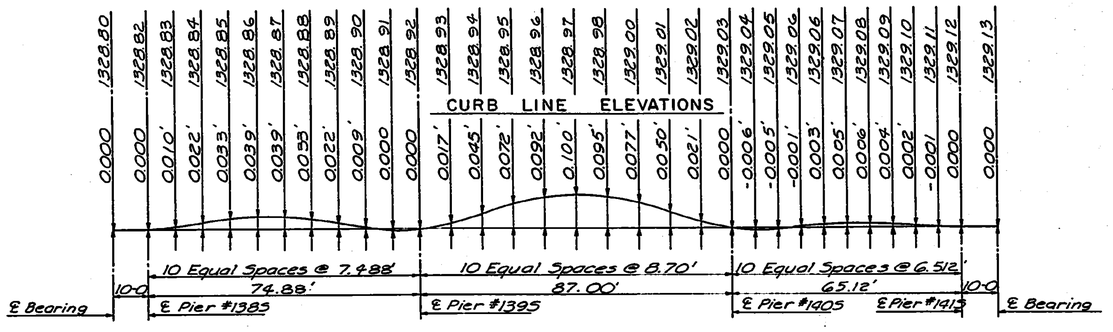
SHEET NO. 12 OF 16	BOARD	APP'D.	
DESIGNED DFG	DETAILED DGT	QUANTITIES (KDI)	TRACED DGT
CHECKED BY RBS	DETAILS BY RAW	CHKD. BY DGT	TRACED BY KBS

DIST. 5 SEDGWICK CO. ROLL 531

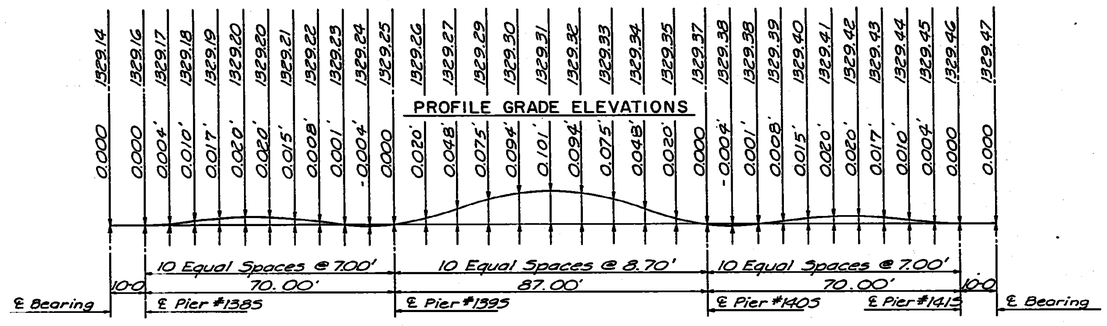
3 4 1

16X 14.5X 12X 12X 14.5X 16X 20X

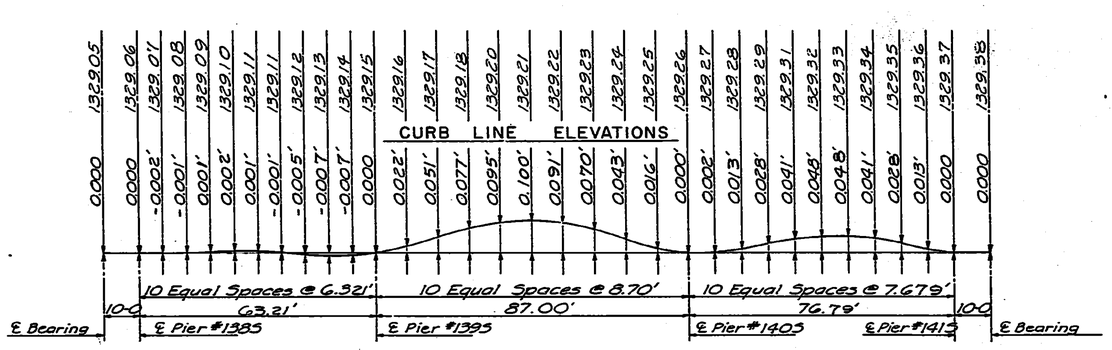
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1882	2137



DEAD LOAD CAMBER IN FEET
ALONG LEFT GIRDER FASCIA



DEAD LOAD CAMBER IN FEET
ALONG ℄ CONSTRUCTION



DEAD LOAD CAMBER IN FEET
ALONG RIGHT GIRDER FASCIA

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL TOP OF SLAB ELEVATIONS AT TENTH POINTS

NOTE: Add dead load camber to theoretical top of slab elevations to set construction profile compensating for dead load deflections $E_c = 1,000,000$ psi.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 31S
S.B. I-35W VIADUCT
(OVER 15TH. STREET)
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

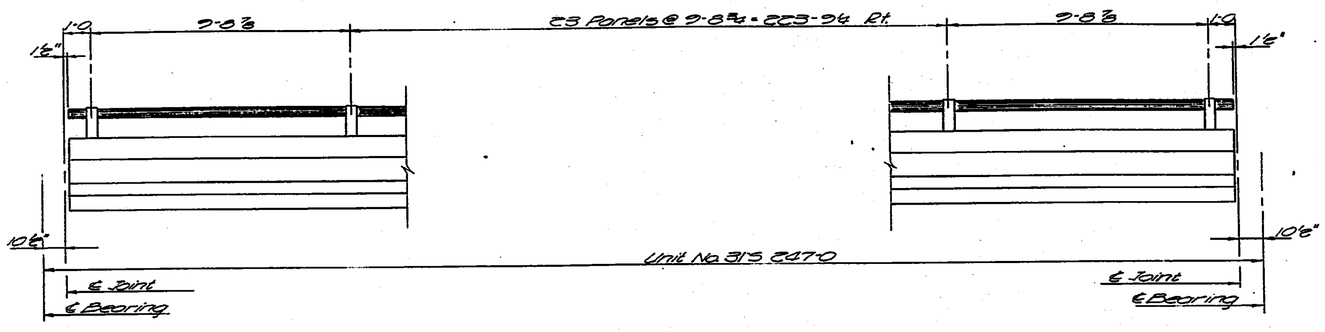
SHEET NO. 13 OF 16	SCALE	APP'D.	
DESIGNED DFG	DETAILED RCP	QUANTITIES LKO	TRACED RCP
DESIGN CK. RBS	DETAIL CK. RBS	QUANT. CK. DGT	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

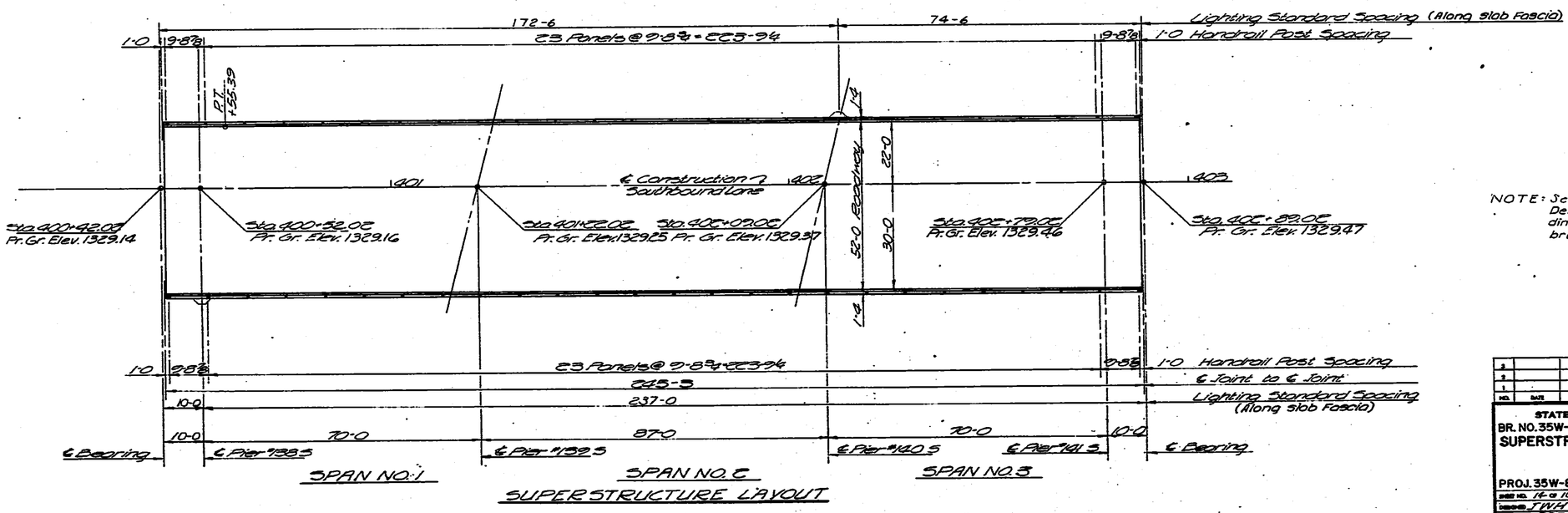
[redacted] 3 4 2

5X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-(58)48 Phase II	19	1883	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Detail Sheet)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 31 S
S.B. I-35W VIADUCT
(OVER 15 TH STREET)
PROJ. 35W-87-I35W-I(58)48 SEDGWICK CO.

SHEET NO. 16 OF 16 SHTS.		APP'D.			
COMPUTED JWW	RECHKD. RBS	QUANTITIES CKD.	TRACED BAF		
DESIGNED RBS	DETAILED CS	CHKD. DBM	TRACE CK. CKD		

DIST. 5 SEDGWICK CO. ROLL 531

3 4 3

16X 14.5X 12X 12X 14.5X 16X 20X

REV. PLANS 11-1-71

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W I-(58)48 Urban 7E	19	1884	2137

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	243	5	31-5
				S1A	247	5	20-11
S1B	10	5	*				
				S1C	16	5	*
S1D	7	5	*				
				S1E	6	5	*
S1F	7	5	*				
				S1G	6	5	*
				S2	233	4	35-11
				S2A	237	4	21-11
S2B	8	4	*				
				S2C	22	4	*
S2D	12	4	*				
				S2E	18	4	*
				S3	233	5	33-6
				S3A	237	5	23-0
S3B	8	5	*				
				S3C	22	5	*
S3D	12	5	*				
				S3E	18	5	*
				S4	118	5	36-5
				S4A	118	5	23-1
S4B	12	5	*				
S4D	12	5	*				
				S5	114	5	36-5
				S5A	118	5	23-1
S5B	8	5	*				
				S5C	90	5	*
S5D	16	5	*				
				S5E	32	5	*
S6	714	4	36-3				
S7	28	4	38-0				
S8	12	4	26-10				
S8A	12	6	26-10				
S9	30	4	40-0				
S9A	30	6	40-0				
G1	21	8	*				
G1A	29	8	*				
G2	28	8	*				
G2A	20	8	*				
G3	26	10	56-0				
G4	29	9	56-0				
G5	24	9	43-0				
G6	24	9	30-0				
G7	48	9	50-0				
G8	24	8	37-0				
G9	24	8	24-0				
G10	98	8	29-6				
G11	99	10	60-0				
G12	24	10	52-0				
G13	24	10	36-0				

* See Bending Diagrams

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
G14	68	8	33-10				
G14A	8	8	6-0				
G14B	4	8	24-6				
				G15	20	8	37-11
G16	84	8	26-10				
G16B	4	8	17-6				
G17	72	9	18-10				
G18	98	8	*				
G18A	48	8	*				
G19	92	10	50-0				
G19A	2	10	19-9				
G19B	2	10	26-6				
G19C	2	10	25-0				
G19D	2	10	22-0				
G20	84	11	36-0				
G20A	2	11	12-9				
G20B	2	11	19-6				
G20C	2	11	18-0				
G20D	2	11	15-0				
G21	72	11	20-0				
G22	48	5	40-0				
				LB1	8	4	7-4
				LB2	6	4	9-4

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
B1	16	11	98-3				
B2	40	11	32-0				
B3	8	6	98-3				
				B4	16	11	51-3
				B5	24	11	16-8
				B6	28	6	36-5
				B6A	28	6	20-5
				B6B	32	6	37-3
				B6C	32	6	21-1
B7	16	11	69-7				
B8	98	11	32-11				
B9	8	6	69-7				
				B10	24	11	52-7
				B11	32	11	17-0
				BU1	229	5	15-10
				BU2	120	4	6-1
				BU3	84	4	5-1
				BU4	232	5	18-6
				BC1	16	8	32-8
				BC1A	16	8	20-9
				BC2	8	6	31-11
				BC2A	8	6	19-8
				BC3	8	6	39-6
				BC3A	8	6	22-6
				BC4	56	10	8-2
				C1	570	4	3-5
				C2	588	4	3-8
				C3	72	4	2-5
				C4	16	5	5-7
C5	32	4	2-6				
				U1	2744	5	7-7
				U2	280	5	6-1
				U3	504	7	7-7
WG1	28	8	28-4				
WG2	70	8	40-0				

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length

Note: For additional details see the sheets listed below.

Column Details :
Drilled Shaft Details :
Drainage Details :
Bearing Device Details :
Expansion Device Details :
Lighting Standard Bracket :
Handrail Details :

All bar marks shall be prefixed with the unit number when fabricated. Example: #861 bars shall be marked 31586I.

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	890.8	Cu.Yds.
Reinforcing Steel	318,160	Lbs.
Cast Iron Scuppers		Lbs.
Wrought Iron Drains & Grates	4,525	Lbs.
8" ø Downspouts	241.68	Lin. Ft.
Gutters		Lin. Ft.
Bridge Handrail	486.50	Lin. Ft.
Structural Steel		
Corner Angles (A36) 14@19 lbs.	266	Lbs.
Expansion Devices (A36)	3,849	Lbs.
Elastomeric Exp. Device (13⅛")	108	Lin. Ft.
Linseed Oil Surface Treatment (Bridges)	1,415.5	Sq.Yds.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1	11-1-71	Rev. Exp. Devices	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SCHEDULE OF QUANTITIES – UNIT NO. 31S
S.B. I-35W VIADUCT
(OVER 15TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 15 OF 16	SCALE:	APP'D.			
DESIGNED DFG	DETAILED ELF	QUANTITIES LKD	TRACED DDW		
DESIGN CK. RBS	DETAIL CK. DFG	GRAN. CK. DGT	TRACE CK. DFG		

DIST. 5 SEDGWICK CO. ROLL 531

3 4 4

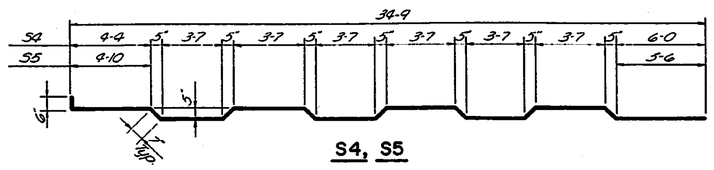
16X 14.5X 12X 12X 14.5X 16X 20X

BENDING DIAGRAMS

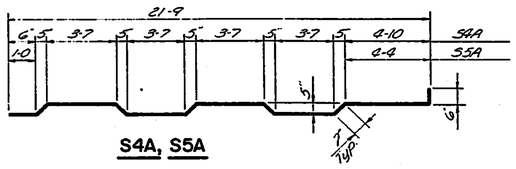
(Bar Dimensions are Out to Out)

REV. PLANS 11-1-71

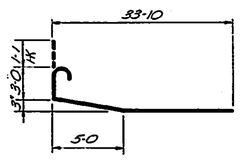
FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1885	2137



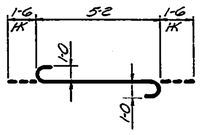
S4, S5



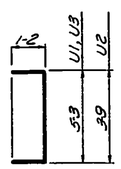
S4A, S5A



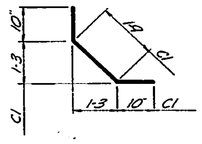
GI5



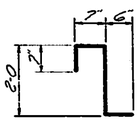
BC4



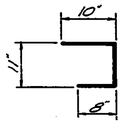
U1, U2, U3,



C1,



C2



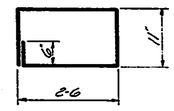
C3

G18A	Increase by 3'6" increment from 19-3½ to 38-5	Cut 1 ea. length
G1B	Increase by 3'6" increment from 17-9½ to 30-6	Cut 1 ea. length
G2A	Increase by 3' increment from 15-9 to 20-6	Cut 1 ea. length
G2	Increase By 3' increment from 15-9 to 20-6	Cut 1 ea. length
G1A	Increase by 3' increment from 14-9 to 21-9	Cut 1 ea. length
G1	Increase by 3' increment from 14-9 to 19-9	Cut 1 ea. length

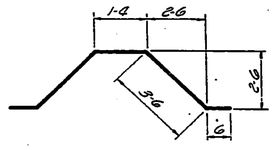
G1, G2, G1B, G1A, G2A, G18A

S5D	By 7-0 incr. from 14-6 to 35-6	Cut 4 ea. length
S5B	By 7-0 incr. from 12-0 to 19-0	Cut 4 ea. length
S4D	By 7-0 incr. from 18-0 to 32-0	Cut 4 ea. length
S4B	By 7-0 incr. from 8-6 to 22-6	Cut 4 ea. length
S3D	By 3-6 incr. from 14-6 to 32-0	Cut 2 ea. length
S3B	By 3-6 incr. from 11-9 to 21-10	Cut 2 ea. length
S2D	By 3-6 incr. from 16-3 to 33-9	Cut 2 ea. length
S2B	By 3-6 incr. from 9-6 to 20-0	Cut 2 ea. length
S1F	By 3-6 incr. from 8-6 to 29-6	Cut 1 ea. length
S1D	By 3-6 incr. from 5-10 to 26-10	Cut 1 ea. length
S1B	By 3-6 incr. from 3-6 to 17-6	Cut 2 ea. length

S1B, S2B, S3B, S4B, S5B, S1D, S2D, S3D, S4D, S5D, S1F



LB1



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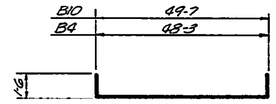
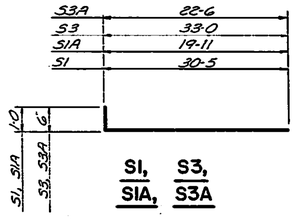
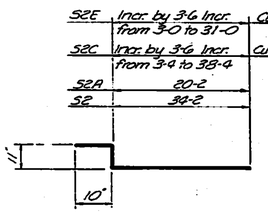


B4, B10

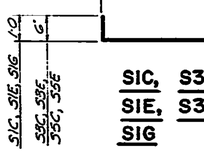


S1, S3, S1A, S3A

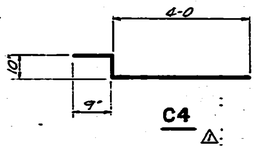


S2, S2A, S2C, S2E

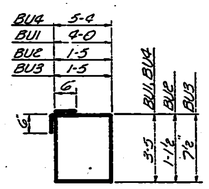
S5E	Increase by 3-6 incr. from 5-6 to 30-0	Cut 4 ea. length
S5C	Increase by 3-6 incr. from 5-9 to 37-3	Cut 4 ea. length
S3E	Increase by 3-6 incr. from 3-6 to 31-6	Cut 2 ea. length
S3C	Increase by 3-6 incr. from 4-0 to 39-0	Cut 2 ea. length
S1G	Increase by 3-6 incr. from 5-11 to 23-5	Cut 1 ea. length
S1E	Increase by 3-6 incr. from 3-0 to 20-6	Cut 1 ea. length
S1C	Increase by 3-6 incr. from 4-0 to 28-6	Cut 2 ea. length



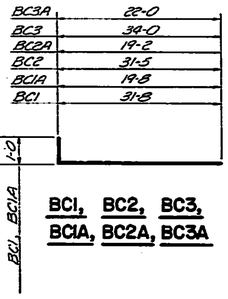
S1C, S3C, S5C, S1E, S3E, S5E, S1G



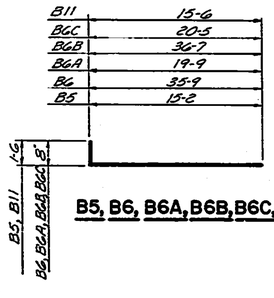
C4 ⚠



BU1, BU2, BU3, BU4



BC1, BC2, BC3, BC1A, BC2A, BC3A



B5, B6, B6A, B6B, B6C, B11

3		
2		
1 ⚠	11-1-71 Rev. Exp. Devices	VHSS
NO.	DATE REVISIONS	BY APP'D.

STATE HIGHWAY COMMISSION OF KANSAS

BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60

BENDING DIAGRAMS — UNIT NO. 31S

SB 1-35W VIADUCT (OVER 13TH STREET)

PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 16 OF 16	SCALE		APP'D.				
DESIGNED DFG	DETAILED P.L.F.		QUANTITIES LKD		TRACED DDW		
DESIGN CK. JWH	DETAIL CK. DFG		QUAN. CK. DGT		TRACE CK. DFG		

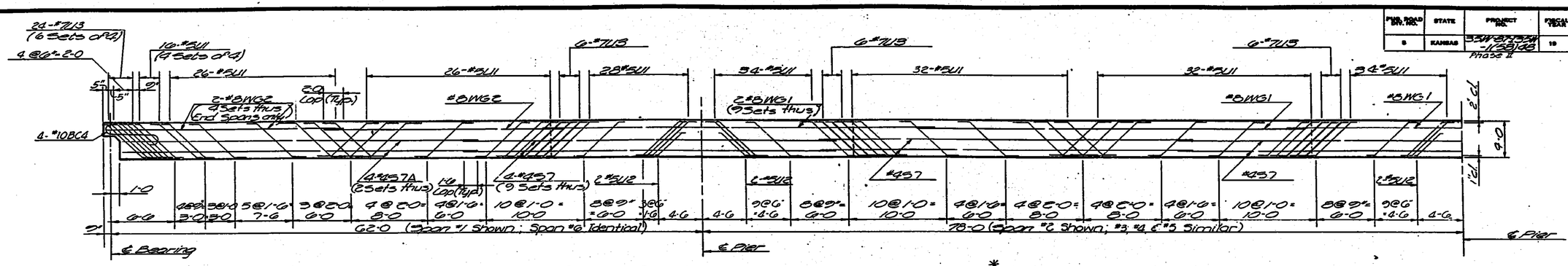
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

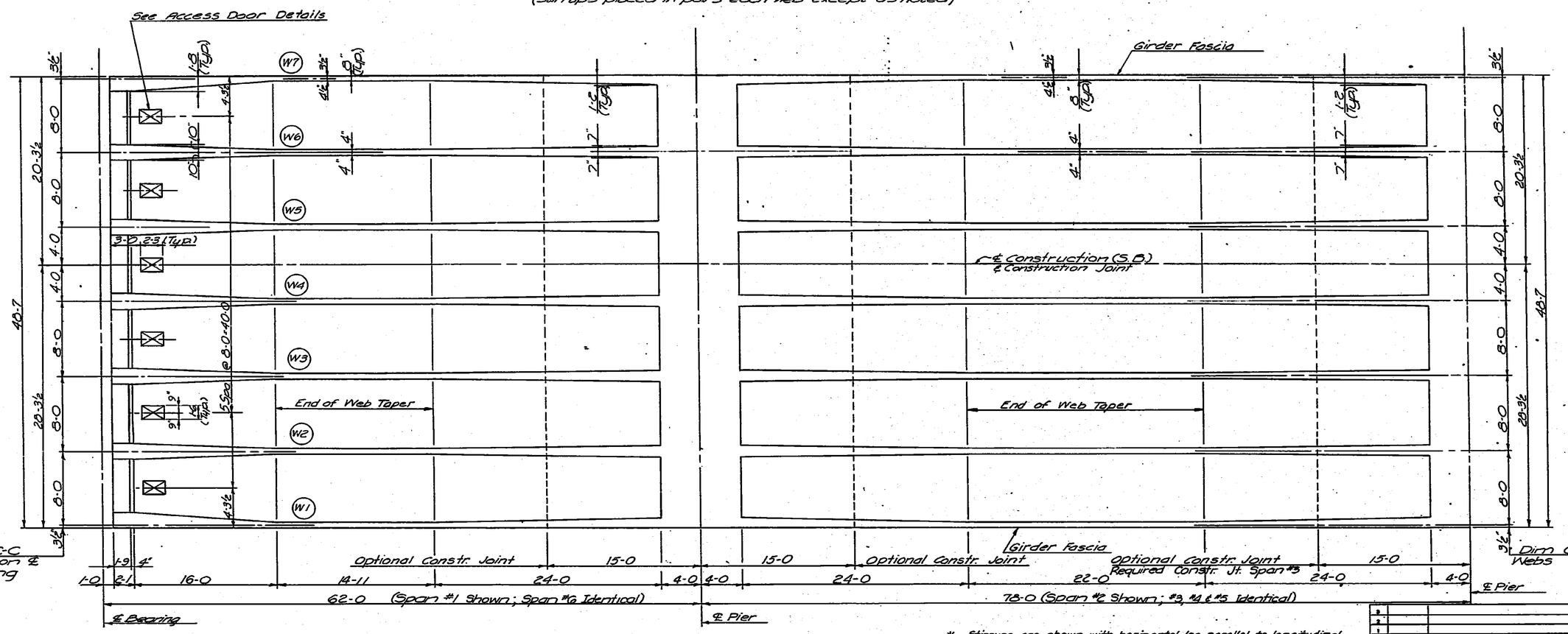
3 4 5

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1086	2137



WEB ELEVATION SHOWING STIRRUP SPACING*
(Stirrups placed in pairs each web except as noted)



* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top & beneath bottom main reinforcing steel. See Roadway Deck Section.

WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 32S
S.B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-135W-1(58)48 · SEDGWICK CO.

SHEET NO. 1 OF 8	SCALE	APP'D.	
DESIGNED DRB	DETAILED RAF	CHECKED LMW	TRACED RAF
QUANTITIES DRB	CHKD. QTY. ELB	CHKD. DET. RLH	TRACED LKD

DIST. 5 SEDGWICK CO. ROLL 531

3 4 6

0X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W 1-(58)48 Phase II	19	1887	2137

Note:
See Drain Detail Sheet for additional details at Drainage Structures.
See Superstructure Pier Beams for additional details at Drainage Structures.
Spread Longitudinal Reinforcing Steel to clear Drains except as noted.

HALF REINFORCING PLAN

HALF REINFORCING PLAN OF RIGHT CURB.
(Left Curb is Identical.)

Note:
All bar marks shall be pre-fixed with the Unit number when fabricated. Example: #9G1 bars shall be marked 3259G1.

Quantity of bars shown are from ℄ Bridge to exterior face of Girder or Slab.

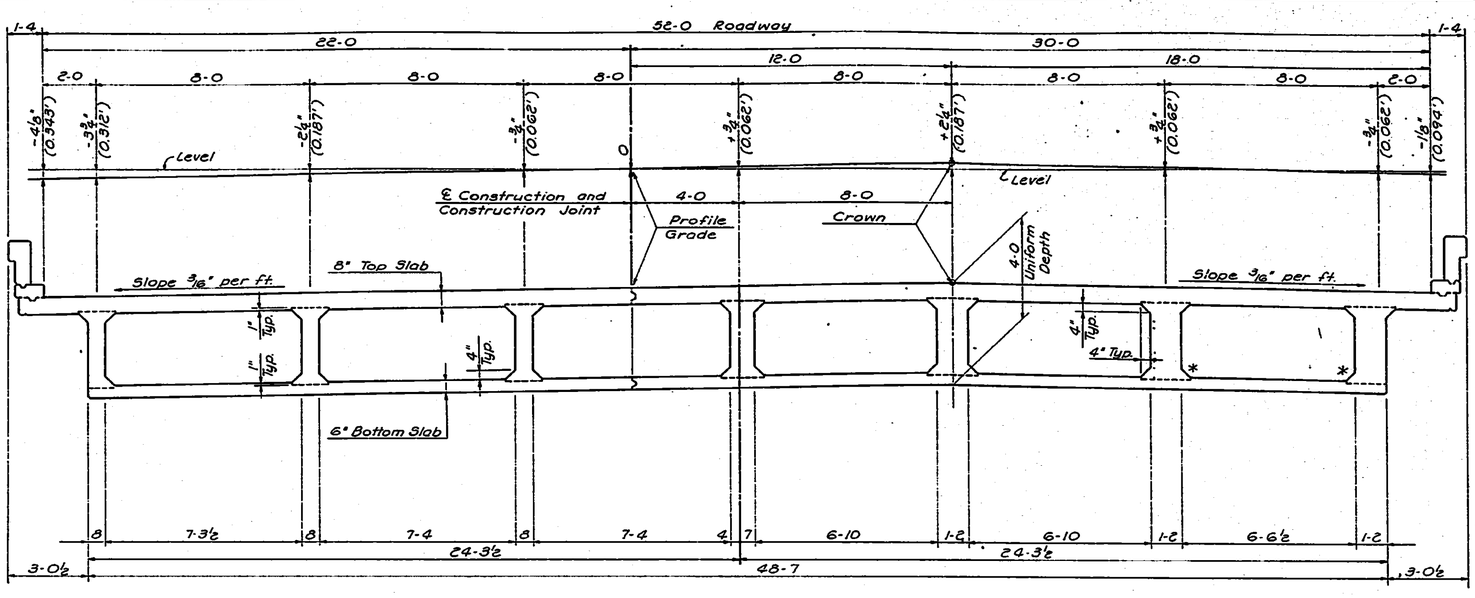
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 32S
S.B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS),
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

DIST. 5 SEDGWICK CO. ROLL 531

3 4 7

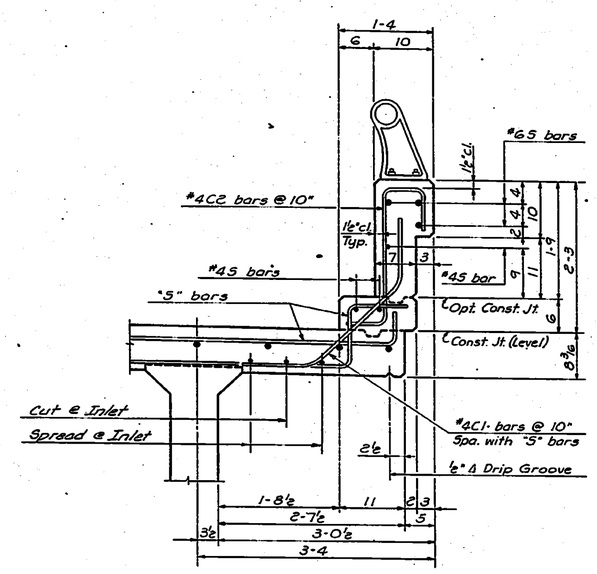
12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	19	1888	2137



NEAR MID-SPAN — NEAR PIER

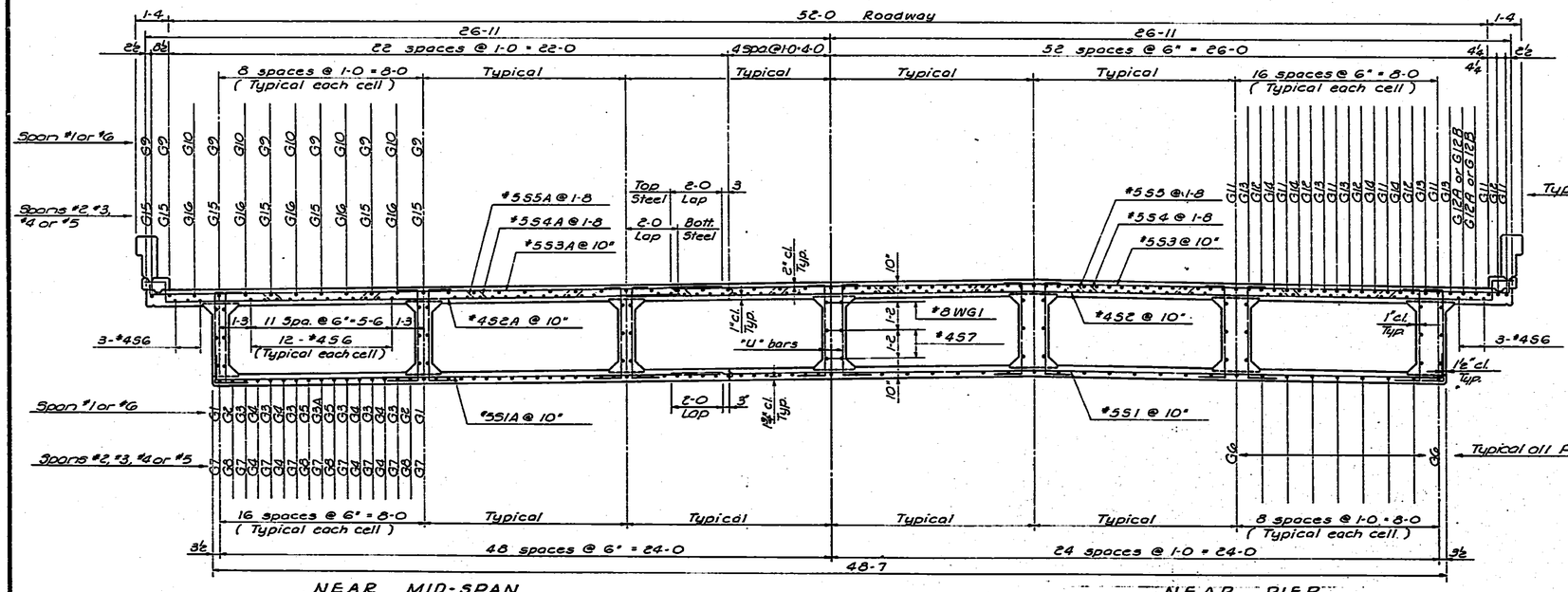
ROADWAY DECK SECTION



TYPICAL CURB SECTION

Note: See Web Elevation for quantity, size and spacing of "U" bars. There are 12 sets of #4S6 bars in the bottom of the top slab (Lap 1-6).

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.



NEAR MID-SPAN — NEAR PIER

ROADWAY DECK SECTION

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 32S
S.B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 3 of 8	SCALE	APP'D.	
DESIGNED DRG	DETAILED EES	QUANTITIES DDW	TRACED EES
DESIGN CK. RBS	DETAIL CK. LKD	QUANT. CK. KSK	TRACE CK. LKD

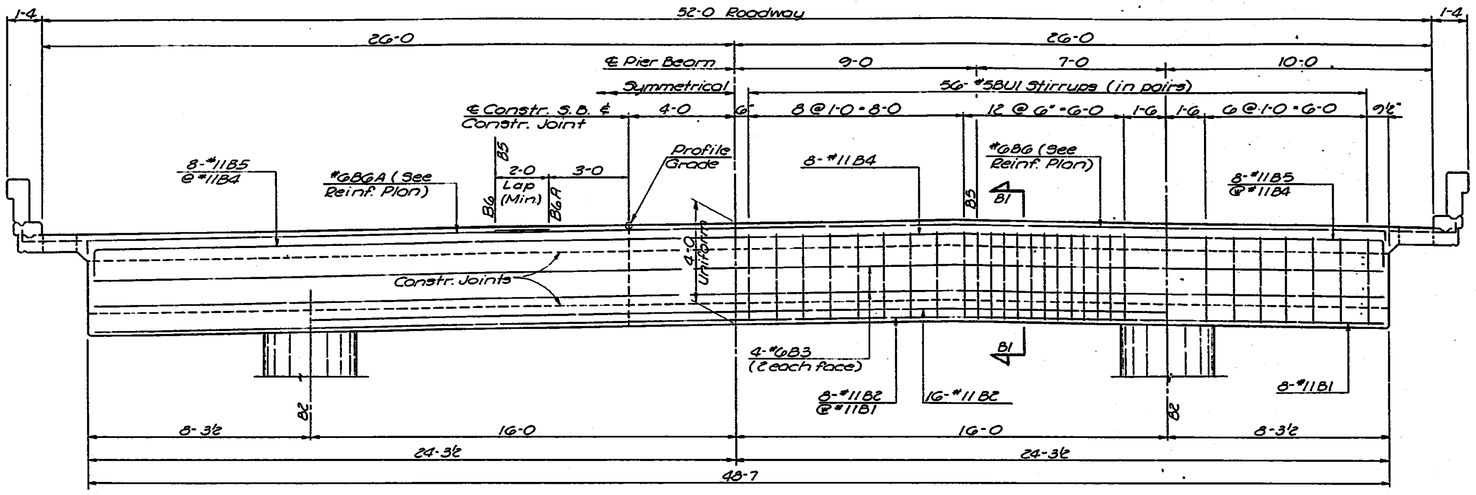
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

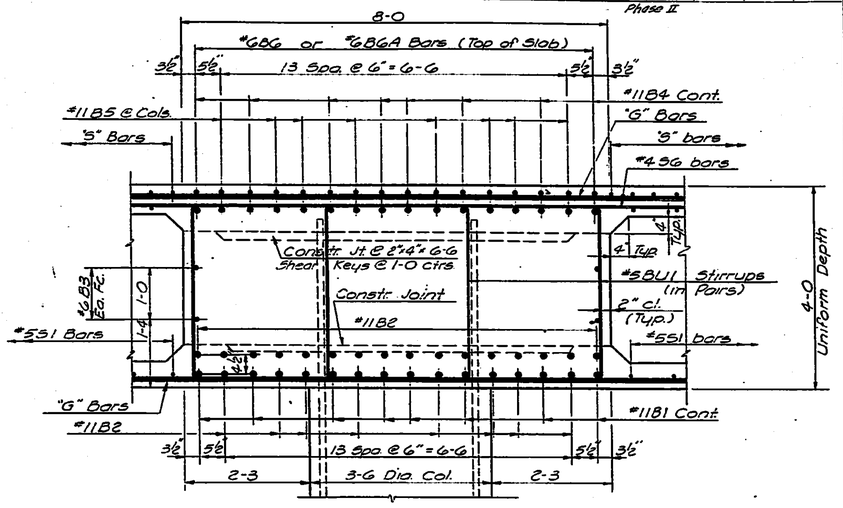
3 4 8

20X 16X 14.5X 12X 12X 14.5X 16X 20X

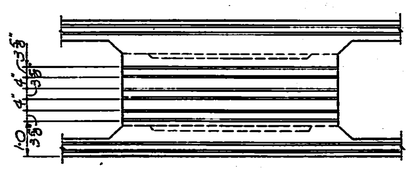
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1859	2137



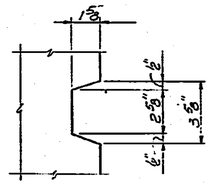
SUPERSTRUCTURE PIER BEAM
(Typical all Piers)



SECTION B1 - B1



SECTION THRU PIER BEAM
AT ℄ CONSTRUCTION
(Showing Location of Keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 32S
S. B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 4 OF 8	SCALE		APP'D.		
DESIGNED DFG	DETAILED EES		QUANTITIES DDW	TRACED EES	
DESIGN CK. JWH	DETAILS CK. LKD		QUAN. CK. KSK	TRACE CK. LKD	

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

3 4 9

0X 16X 14.5X 12X 12X 14.5X 16X 20X

FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	KANSAS	35W-87-135W I-(58)48 Phase II	19	1890	2137

#5C4 bars (spa. @ #8 "BC" bars)
"5" bars
#10BC4 bars
3½" 4½" 5⅛" 4½" 2¾"
#8"BC" bars
#4 BU2 stirrups
#8"WG" bars
#4"5" bars
3"
2-4½
#8"BC" bars
Thickened Slab overhang
1-8 Web
Optional Constr. Jt.

SECTION C2-C2
(Exterior Web)

3" Open Joint
Suspended Unit
Cantilevered Unit
1-9
Thickened Slab overhang
Typical 8" Slab overhang @ 4"x4" fillet
Transition Fillet
Transition fillet
Anchor Bolts

VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)

#6"5" bars
#4C2 bars
#4C1 bars
#4"5" bars
#5C4 bars (spa. @ #8"BC" bars)
#4"5" bars
"6" bars
"5" bars
#8"WG" bars
#10BC4 bars
1-8 Web
#4"5" bars
Optional Constr. Jt.
#6"BC" bars
#7U3 Stirrups
½" cl.
#4"5" bars*
#4BU3 stirrups
"6" bars

SECTION C1-C1
(Exterior Web)

Reqd. Constr. Joint in Webs
3-1
1-9
9"
℄ Brg.
"5" bars (See Top Slab Plan)
"6" bars
#8"BC" bars (Top)
3"
4"
6"
5"
3"
Expansion Device
8" Slab
4" Fillet
#4"5" bars
#4 BU2 stirrups
#8"BC" bars (Bott)
2" cl.
¾"Δ Drip Groove
4"
22"
9'-1"
4'-0"
2'-6"
4"
1-9
"5" bars (See Bott. Slab Plan)
4" Fillet
10"
#4 BU3 stirrups
6" Slab
"6" bars
Access Door
#6"BC" bars (Top & Bott.)
3 Eq. Spa. @ 1'-3" = 3'-9"
1'-0"
9"
2'-3"
3'-0"
1'-9"

TYPICAL SECTION THRU CELL

SEE REVISED EXPANSION DEVICES

Reqd. Constr. Joint in Webs
3-1
9"
C1
C2
"5" bars (See Top Slab Plan)
#8"WG" bars
Constr. Jt.
"6" bars
9" 4 Spa. @ 6" = 2'-0"
5"
5"
Expansion Device
#8"BC" (Top & Bott.)
2" cl.
Corner Plate
#4"5" bars
#5U1 Stirrups (sets of 4)
#5U1 Stirrups (in pairs) Typ.
"5" bars (See Bott. Slab Plan)
#10BC4 bars each web (Typ.)
2" cl. Min.
#7 U3 Stirrups (sets of 4)
#6"BC" (Top & Bott.)
#4"5" bars*
Optional Constr. Jt.
"6" bars
C1
C2
℄ Brg.
See Web Elevation for stirrup spa.
4 Spa. @ 9" = 3'-0"
6'-6"

TYPICAL SECTION THRU WEB

* Adjust position of #4"5" bars to clear construction joint if optional top of fillet location is used.

BEARING BEAM DETAILS

℄ Web
"6" bars
#10BC4 bars
#8"BC" bars
2¾" 4½" 5⅛" 4½" 2¾"
#4BU2 stirrups
#8"WG" bars
1'-0" 1'-0"
#4BU2 stirrups
#8"BC" bars
Optional Constr. Jt.
10" 10"
1-8 Web

SECTION C2-C2
(Interior Web)

1-8 Web
"6" bars
"5" bars
#8"WG" bars
#10BC4 bars
#7 U3 Stirrups
Optional Constr. Jt.
#6"BC" bars
1" cl. Typ.
#4"5" bars*
#4BU3 stirrups
1'-0"
1'-0"
#4BU3 stirrups
℄ Web

SECTION C1-C1
(Interior Web)

6"
R 4x3⅜x1'-8"
1'-6"
¾"ϕx2'-0" Anchor bars (welded to angle)
R 3x3⅜x1'-8"
4
4
SECTION
5½"

5½"ϕx2'-0" Anchor bars
12"
4½" 4½" 4½" 4½"
12" Typ.
6" Typ.
1'-8"
ELEVATION

CORNER PLATE DETAILS
Computed weight of one assembly is 22 lbs.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 32S
S.B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-I35W-I(58)48 SEDGWICK CO.

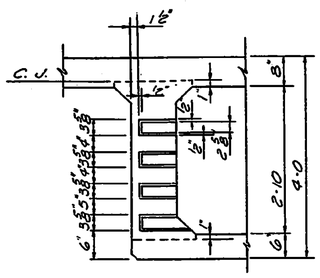
SHEET NO. 5 OF 8 SHEETS		APP'D.	
DESIGNED DFB	DETAILED DS	QUANTITIES DDW	TRACED DS
DESIGN CK. RBS	DETAIL CK. RBS	ORIGINAL CK. KSK	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

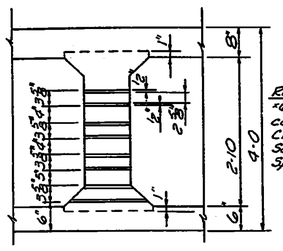
3 5 0

0X 16X 14.5X 12X 12X 14.5X 16X 20X

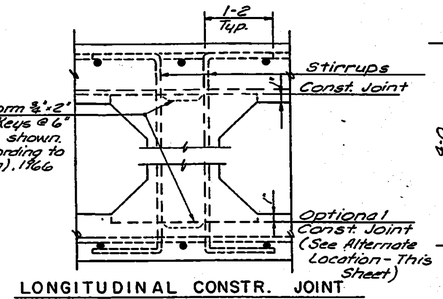
FED. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-15.99W I-(58)48 Phase II	19	1891	2137



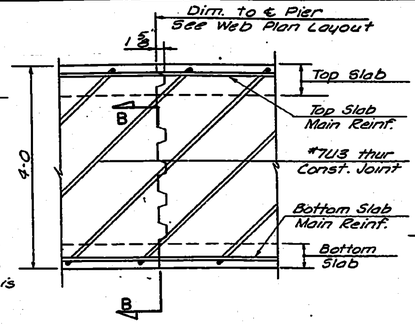
SECTION B-B
(Through Exterior Web)



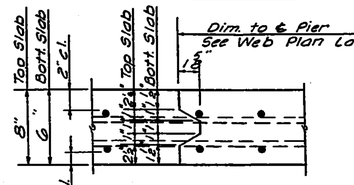
SECTION B-B
(Through Interior Web)



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

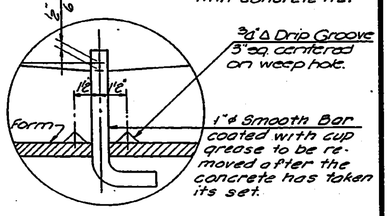


WEB CONSTR. JOINT
(Showing Placement of #7U3 bars)



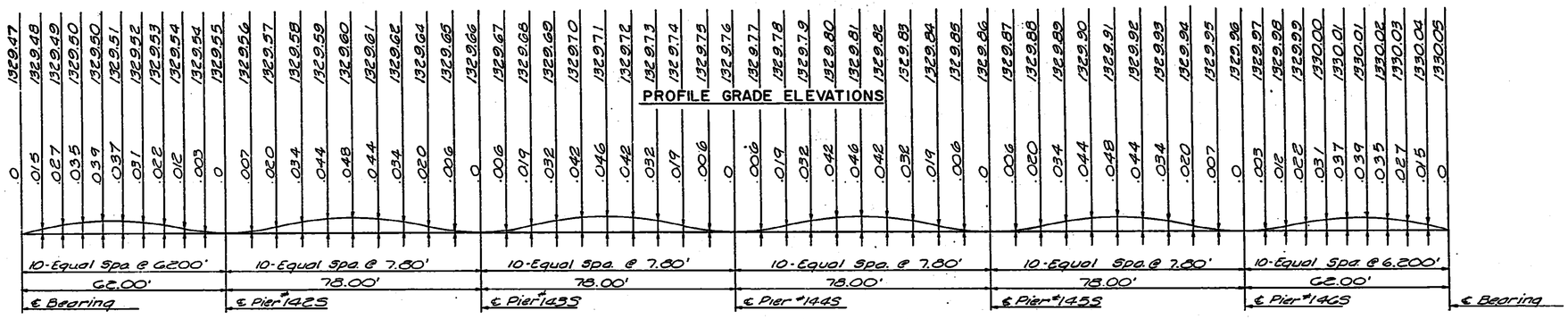
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of weep holes shall be included in the unit price bid for Class AAA Concrete AE.



DETAIL OF WEEP HOLES

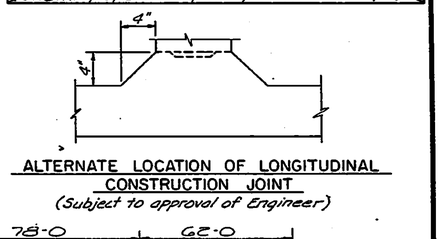
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS.



DEAD LOAD CAMBER IN FEET

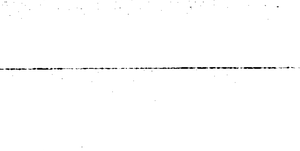
DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS

Note: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections E_c = 1,000,000 p.s.i.

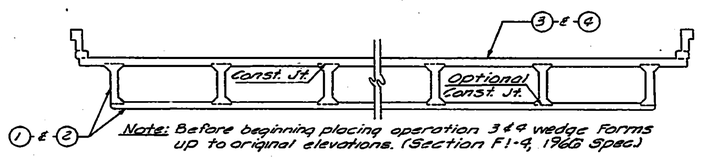


Note: Place stirrups as shown if spacing is less than length of outstanding leg.

HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)

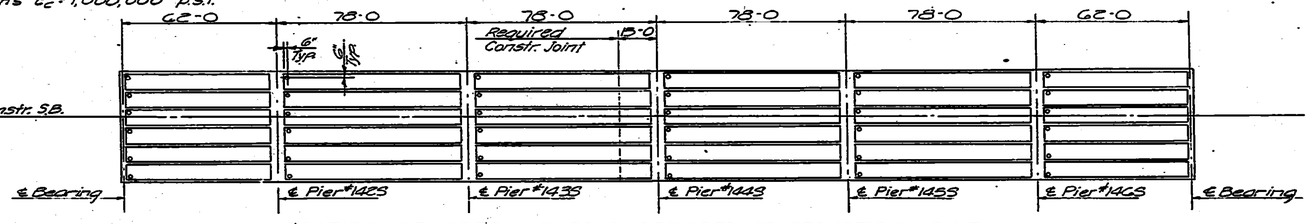


ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer)

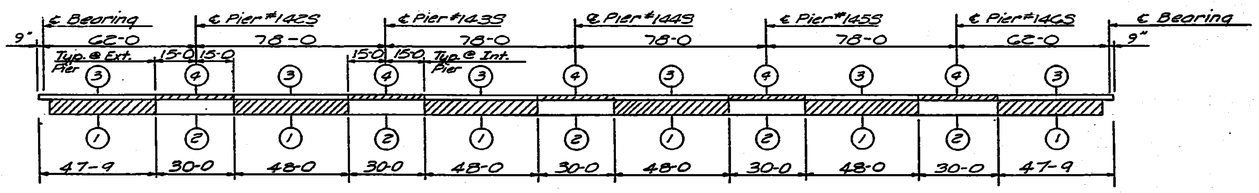


Note: Before beginning placing operation 3 ℄ 4 wedge forms up to original elevations. (Section F1-4, 1960 Specs.)

CROSS SECTION OF SUPERSTRUCTURE



LOCATION OF WEEP HOLES & REQUIRED CONSTRUCTION JOINT



CONCRETE PLACING SEQUENCE

To be used when long-span steel beams are used for falsework

NOTES:

See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown as optional may be used, at the Bridge Contractors option, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 32S
S. & I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

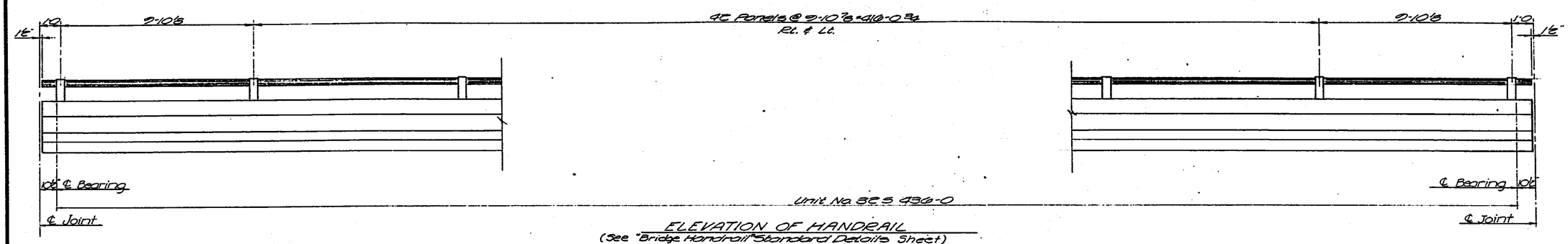
SHEET NO. 6 OF 8	SCALE	APP'D.	
DESIGNED DEG	DETAILED PAW	QUANTITIES LKV	TRACED DGT
DESIGN CK. PBS	DETAIL CK. PBS	QUAN. CK. MLF	TRACE CK. PBS

DIST. 5 SEDGWICK CO. ROLL 531

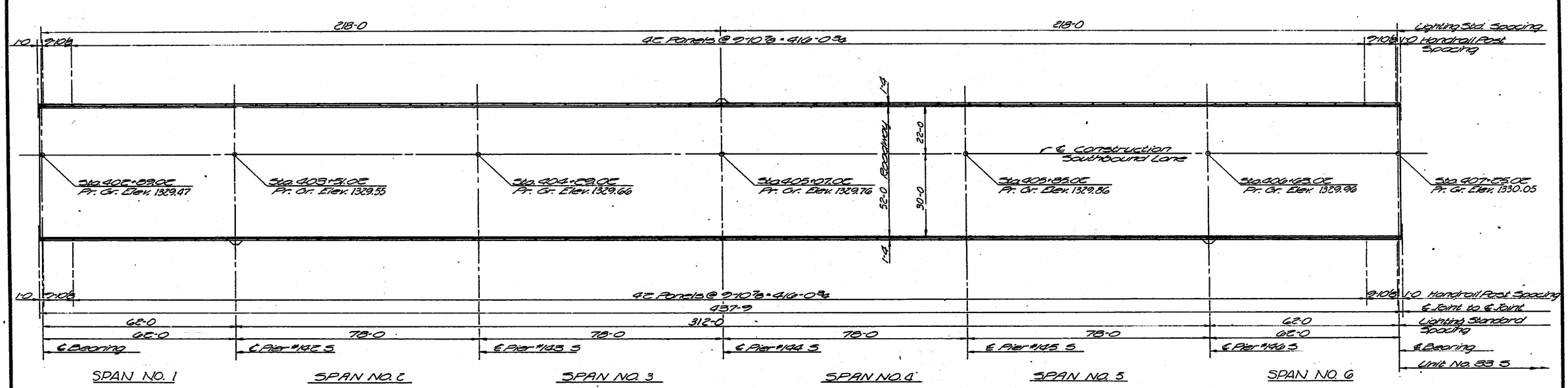
3 5 1

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48 Phase II	19	1892	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 32S
S.B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 7 OF 8	SCALE	APP'D.	
DESIGNED JWH	DRAWN RBS	QUANTITIES LKD	TRACED RAF
DESIGN CK. RBS	DETAIL CK. DS	GRAD. CK. RLH	TRACE CK. LKD

DIST. 5 SEDGWICK CO. ROLL 531

3 5 2

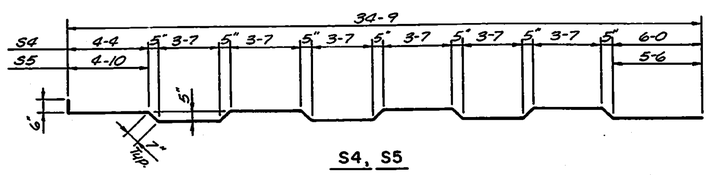
0X	16X	14.5X	12X	12X	14.5X	16X	20X

BENDING DIAGRAMS

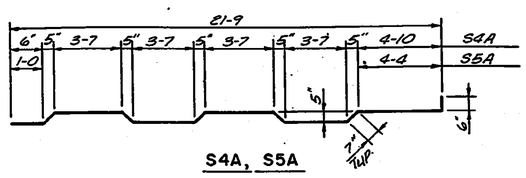
(Bar Dimensions are Out to Out.)

REV. PLANS 11-1-71

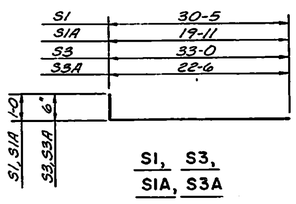
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1893	2137



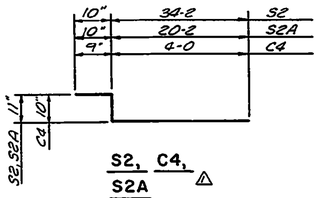
S4, S5



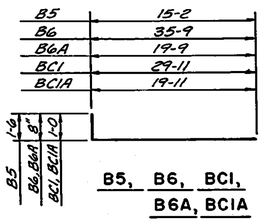
S4A, S5A



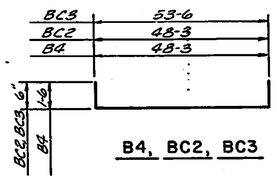
S1, S3, S1A, S3A



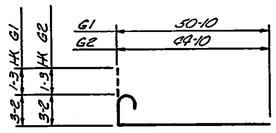
S2, C4, S2A ⚠



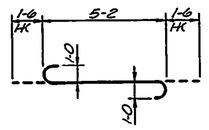
B5, B6, BC1, B6A, BC1A



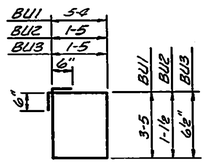
B4, BC2, BC3



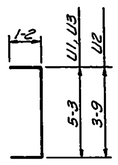
G1, G2



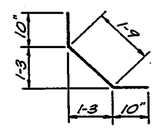
BC4



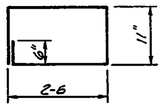
BU1, BU2, BU3



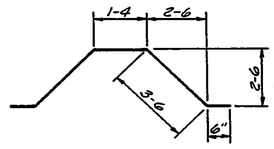
U1, U2, U3



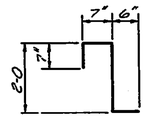
C1



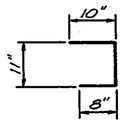
LB1



LB2



C2



C3

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	470	5	31-5
				S1A	470	5	20-11
				S2	474	4	35-11
				S2A	474	4	21-11
				S3	474	5	33-6
				S3A	474	5	23-0
S6	936	4	37-10				
S7	110	4	90-0	S4	232	5	36-5
S7A	56	4	44-4	S4A	232	5	23-1
S8	12	4	46-1				
S8A	12	6	46-1	S5	236	5	36-5
S9	34	6	90-0	S5A	236	5	23-1
				G1	12	9	55-3
				G2	24	9	99-3
G3	72	9	30-10				
G3A	12	9	45-6				
G4	199	9	30-0				
G5	82	9	39-6				
G6	295	7	24-0				
G7	196	9	58-0				
G8	96	9	96-0				
G9	58	5	90-1				
G10	52	5	99-1				
G11	145	10	98-0				
G12	130	11	90-0	LB1	12	4	7-4
G12A	20	11	19-6	LB2	9	4	9-4
G12B	20	11	17-0				
G13	130	11	28-0				
G14	120	11	16-0				
G15	116	5	33-0				
G16	102	5	41-0				

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
B1	40	11	48-3				
B2	120	11	32-0				
B3	20	6	48-3				
				B4	40	11	51-3
				B5	80	11	16-8
				B6	80	6	36-5
				B6A	80	6	20-5
				BU1	560	5	18-6
				BU2	120	4	6-1
				BU3	84	4	4-11
				BC1	16	6	30-11
				BC1A	16	6	20-11
				BC2	8	8	49-3
				BC3	8	8	54-6
				BC4	56	10	8-2
				C1	1034	4	3-5
				C2	1050	4	3-8
				C3	100	4	2-5
				C4	16	5	5-7
C5	40	4	2-6				
				U1	3080	5	7-7
				U2	140	5	6-1
				U3	756	7	7-7
WG1	126	8	40-0				
WG2	56	8	25-3				

All bar marks shall be prefixed with the Unit Number when fabricated. Example: #961 bars shall be marked 32S961.

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE		1515.1	Cu. Yds.
Reinforcing Steel	295,450	491,419	Lbs.
Cast Iron Scuppers			Lbs.
Wrought Iron Drains & Grates		5,496	Lbs.
8" ϕ Downspouts	2933'	896.37	Lin. Ft.
Gutters			Lin. Ft.
Bridge Handrail	871.33'	871.50	Lin. Ft.
Structural Steel			
Bearing Devices (A36)	12 @ 282 Lbs.	3388	Lbs.
Corner Plates & Cover Plates		496	Lbs.
Access Doors (A36)	12 @ 130 Lbs.	1560	Lbs.
Linseed Oil Surface Treatment (Bridges)		2527.7	Sq. Yds.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
⚠	11-1-71	Rev. Exp. Devices	WHS	
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 32 S
S.B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

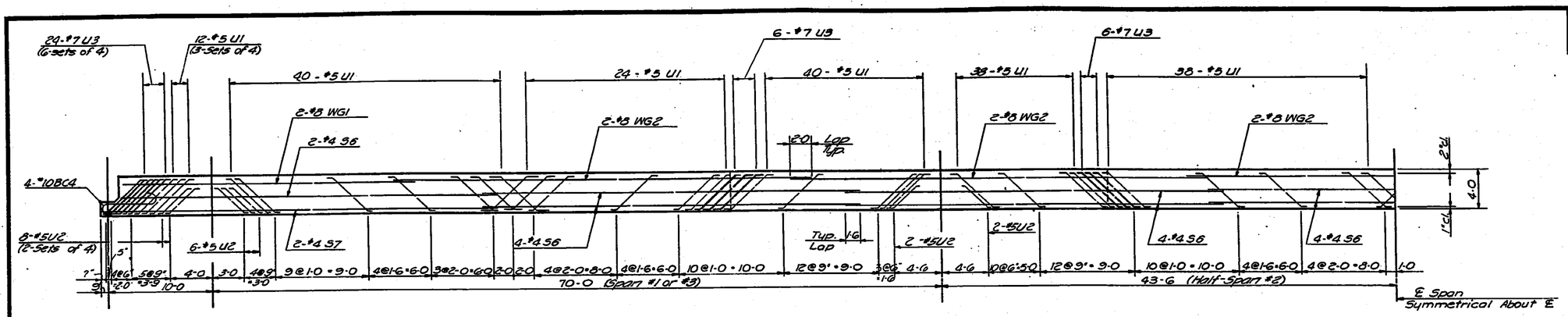
SHEET NO.	8 OF 8	SCALE		APP'D			
DESIGNED	DFG	DETAILED	EES	QUANTITIES	DDY	TRACED	RLC
DESIGN CK.	JWH	DETAIL CK.	LKD	QUAN CK.	KSK	TRACE CK.	DFG

DIST. 5 SEDGWICK CO. ROLL 531

3 5 3

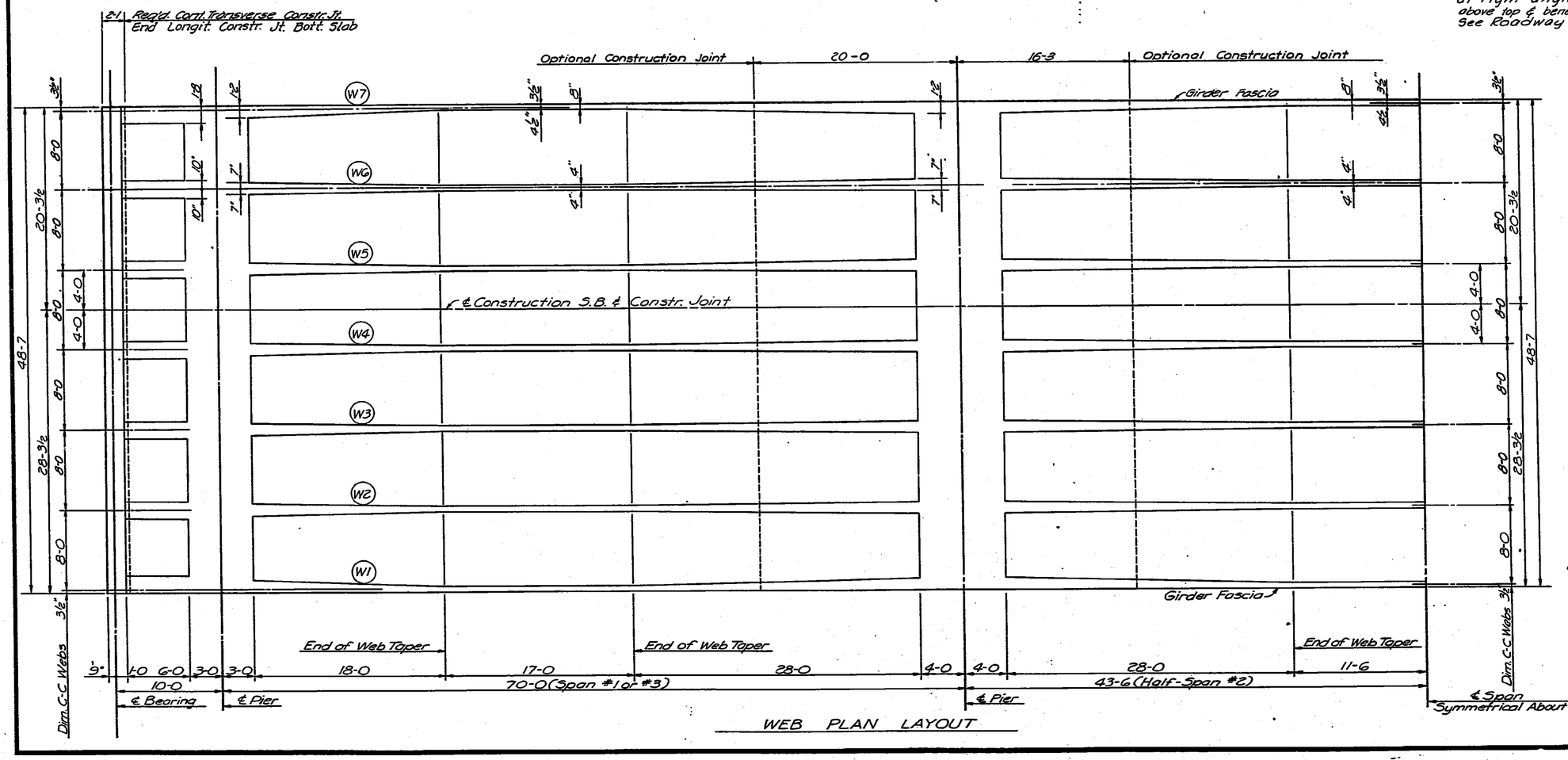
0X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W I-(58)48 Phase II	1965	1894	2137



WEB ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web, except as noted)

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top & beneath bottom main reinforcing steel. See Roadway Deck Section.



WEB PLAN LAYOUT

NOTE:
See Pier Drawing for Sign Bracket Details at Pier "1493.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 33S
S.B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 1 OF 8	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	CHECKED LRH	TRACED DS
DESIGN OF RBS	DETAIL OF RBS	CHKD. OF LRH	TRACE OF RBS

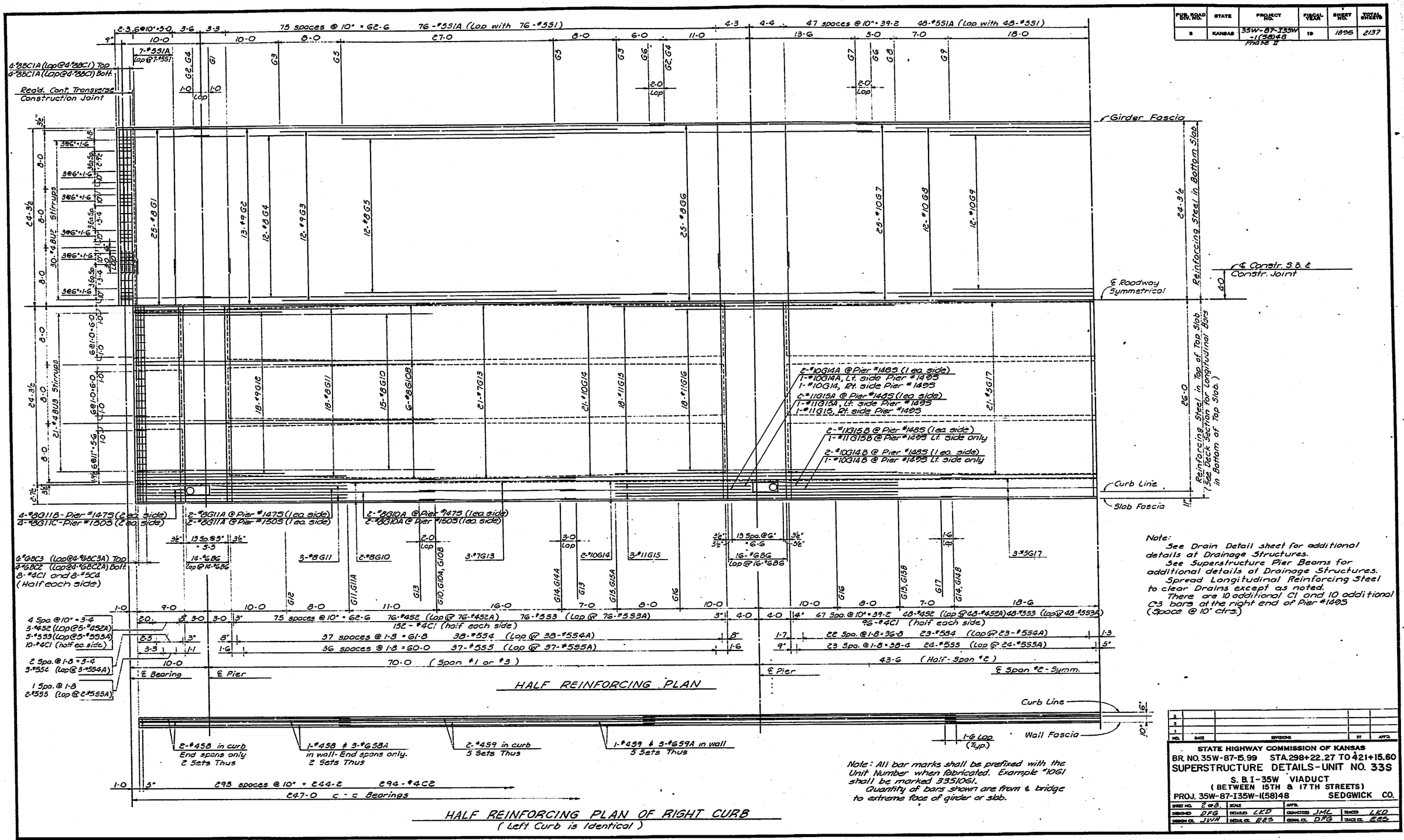
DIST. 5 SEDGWICK CO. ROLL 531

3 5 4

[redacted]

0X 16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1895	2137



Note:
See Drain Detail sheet for additional details at Drainage Structures.
See Superstructure Pier Beams for additional details of Drainage Structures.
Spread Longitudinal Reinforcing Steel to clear Drains except as noted.
There are 10 additional C1 and 10 additional C3 bars at the right end of Pier #1495 (Space @ 10" ctrs.)

Note: All bar marks shall be prefixed with the Unit Number when fabricated. Example #10G1 shall be marked 335|10G1.
Quantity of bars shown are from ℄ bridge to extreme face of girder or slab.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 33S
S. B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 208	SCALE	APP'D.			
DESIGNED DFG	DETAILED LKD	QUANTITIES JML	TRACED LKD		
DESIGN CK. JWH	DETAIL CK. EES	QUAN. CK. DFG	TRACE CK. EES		

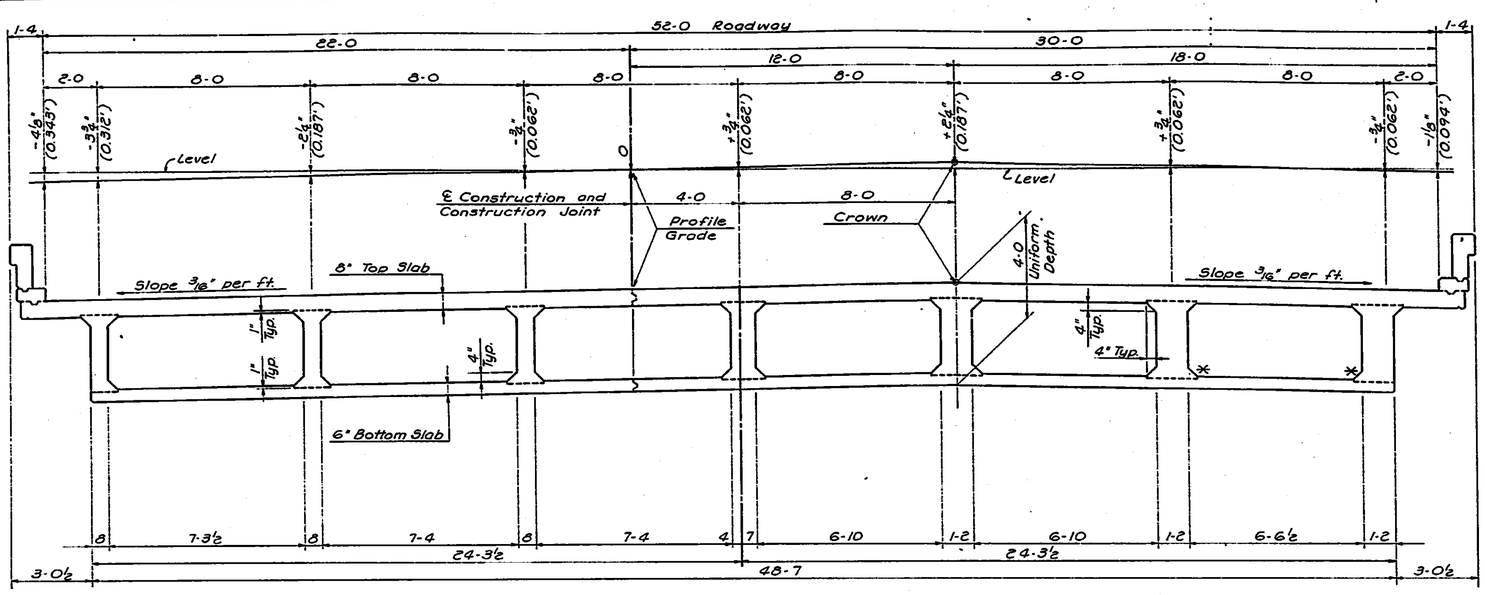
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

3 5 5

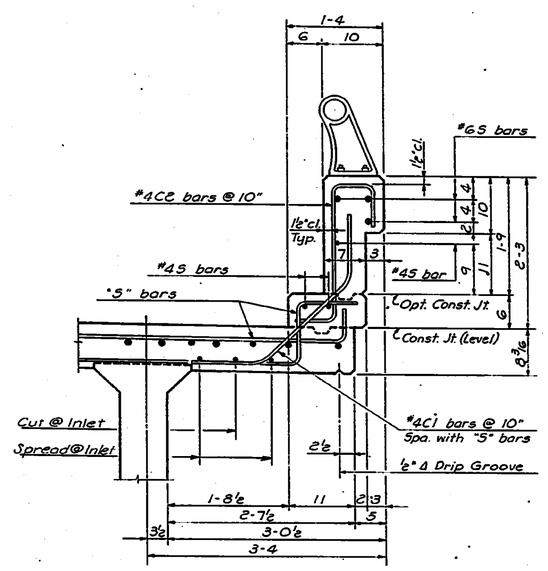
16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(38)48 Phase II	19	1896	2137

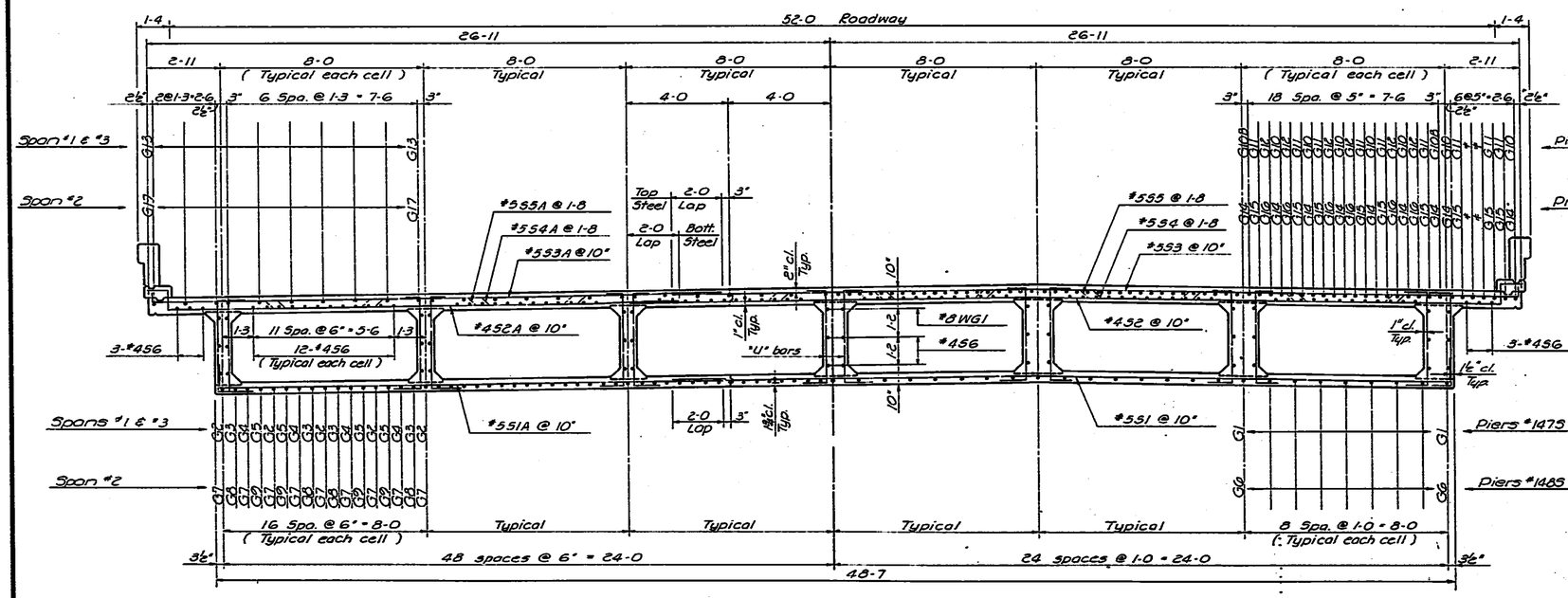


NEAR MID-SPAN — NEAR PIER

ROADWAY DECK SECTION



TYPICAL CURB SECTION



NEAR MID-SPAN — NEAR PIER

ROADWAY DECK SECTION

Notes:
See Web Elevation for quantity, size and spacing of "U" bars. There are 7 sets of #456 bars in the bottom of the top slab. (Lap 1-6)

* See longitudinal construction joint details for location of optional construction joint at bottom of web.
# See Slab plan for quantity & mark of these bars.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 33S
S. B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 5 of 5	SCALE	APP'D.	
DESIGNED DPG	DETAILED LKD	QUANTITIES JML	TRACED EES
DESIGN CK. JWH	DETAIL CK. EES	GENL. CK. DPG	TRACE CK. LED

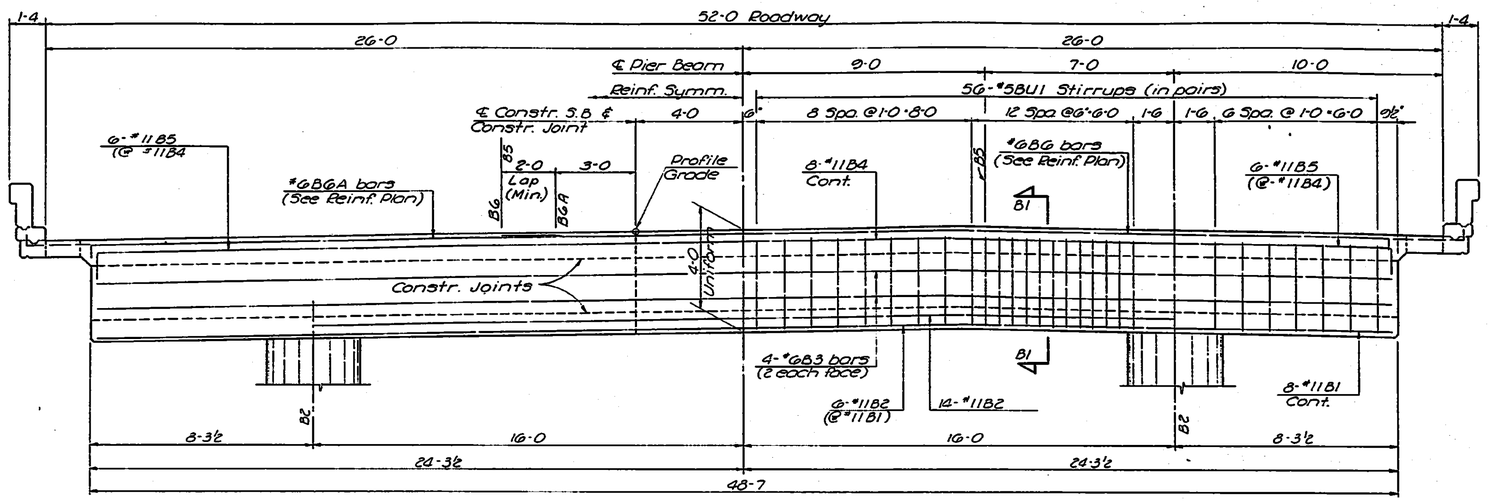
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

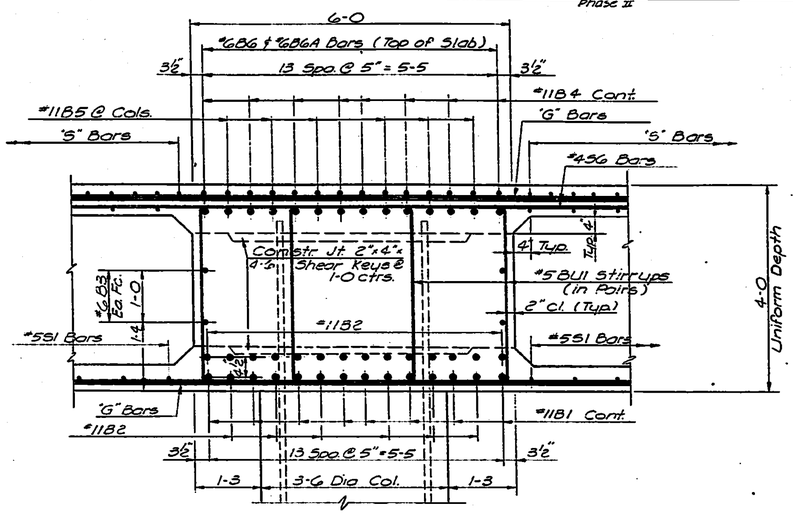
3 5 6

16X 14.5X 12X 12X 14.5X 16X 20X

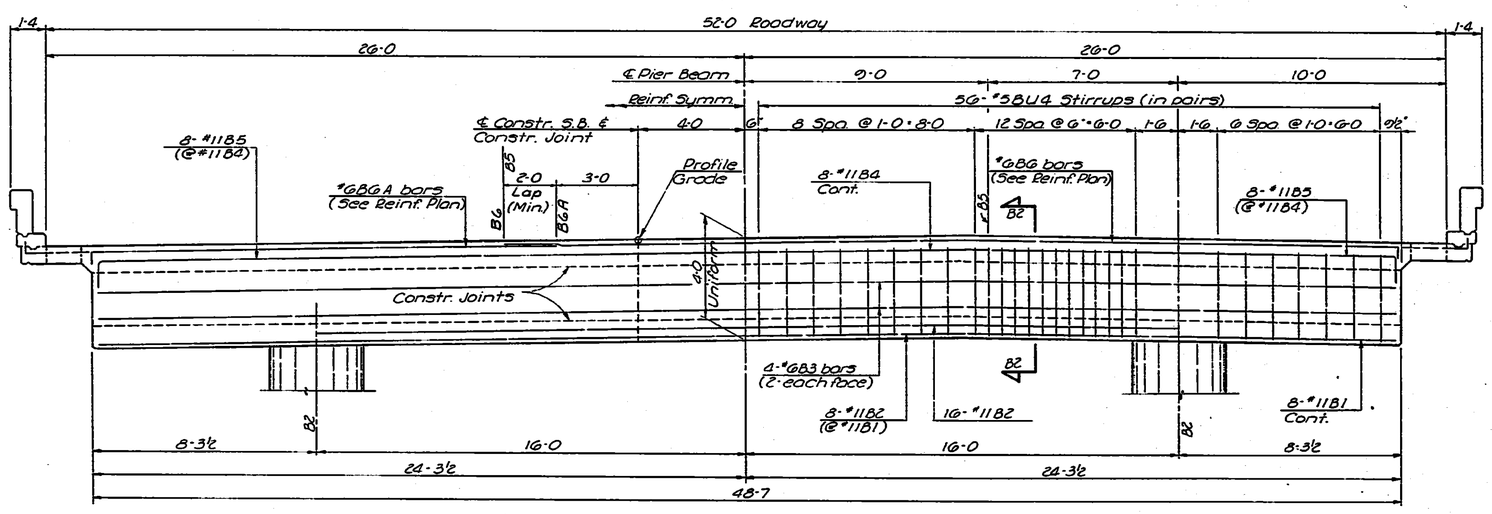
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase II	19	1897	2137



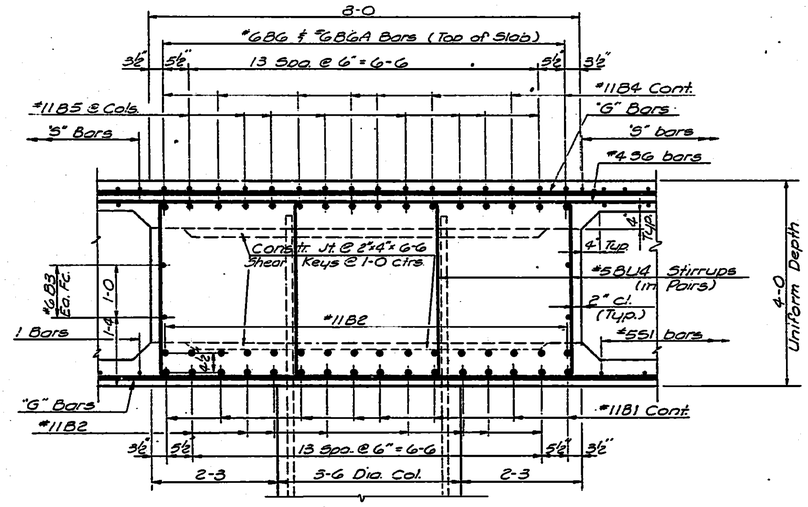
SUPERSTRUCTURE PIER BEAM
(At Piers #1475 & #1505)



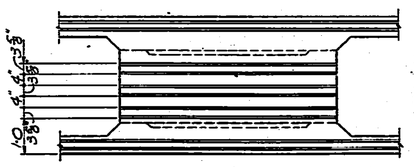
SECTION B1-B1



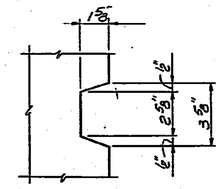
SUPERSTRUCTURE PIER BEAM
(At Piers #1485)



SECTION B2-B2



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing Location of Keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE - DETAILS - UNIT NO. 33S
S.B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 6 OF 8	SCALE	APP'D.	
DRAWN DFG	DETAILED LKD	CHECKED JML	TRACED EES
DESIGN CK. JWH	DETAIL CK. EES	QUANT. CK. DFG	TRACE CK. LKD

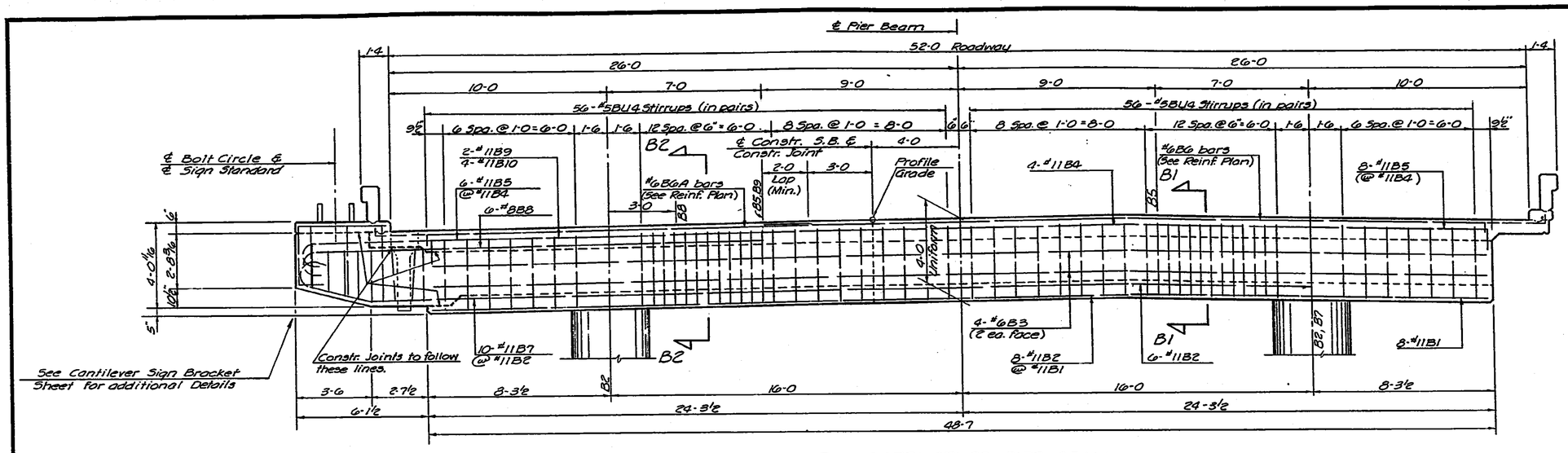
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

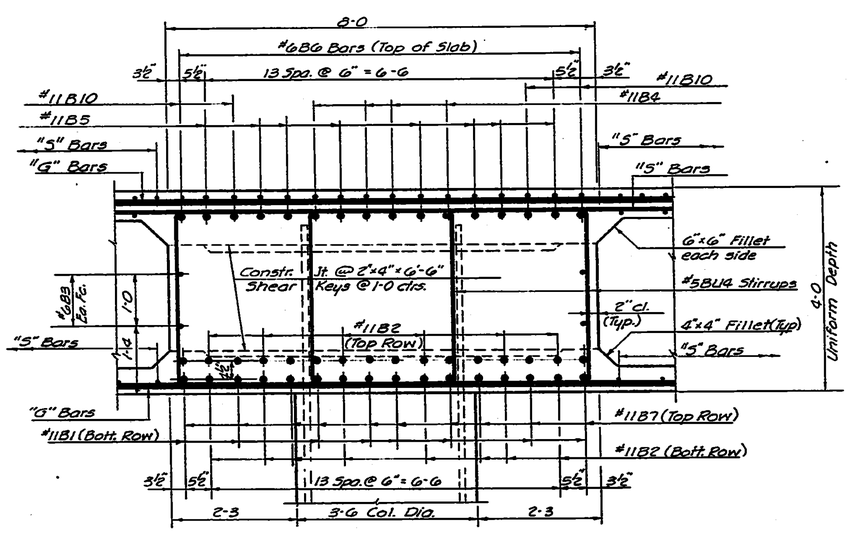
3 5 7

0X 16X 14.5X 12X 12X 14.5X 16X 20X

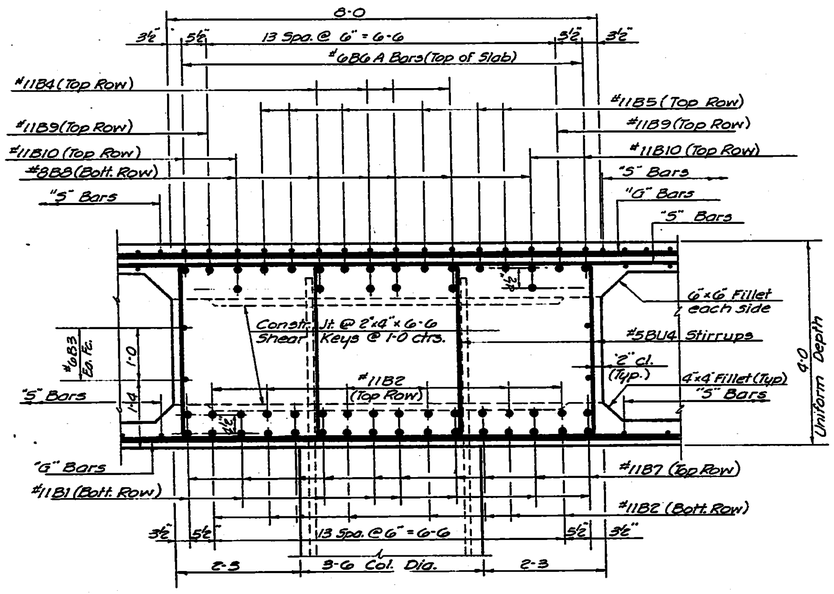
FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W-1(58)48 Phase II	19	1097A	2187



SUPERSTRUCTURE PIER BEAM
(At Pier #1495)



SECTION B1-B1



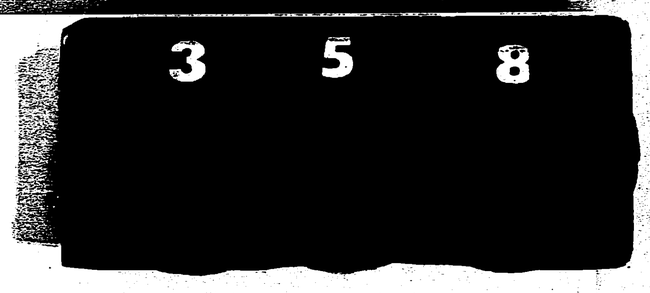
SECTION B2-B2

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 33S
S.B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

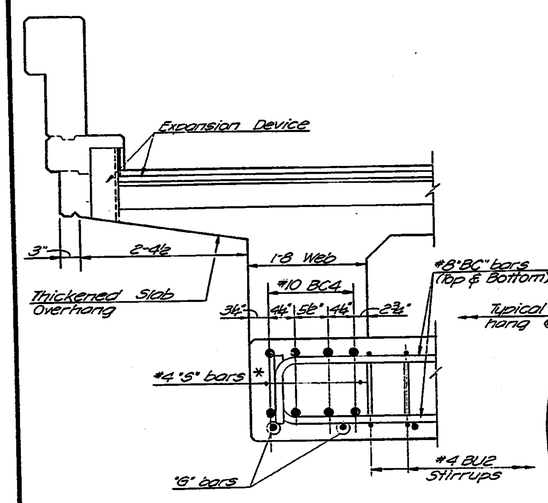
SHEET NO. 9A OF 8	SCALE		APP'D.		
DESIGNED DFG	DETAILED LKD	CHECKED JWL	TRACED EES		
DESIGN CK. JWH	DETAIL CK. EES	CHECK CK. DFG	TRACE CK. LKD		

DIST. 5 SEDGWICK CO. ROLL 531

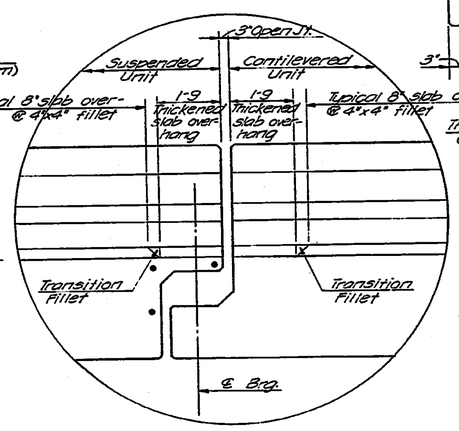


0X 16X 14.5X 12X 12X 14.5X 16X 20X

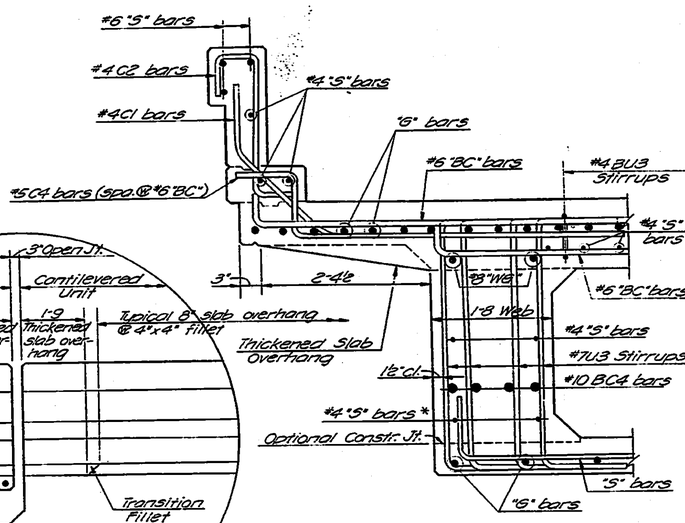
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-13514 -I(SB)48 Phase II	19	189B	2137



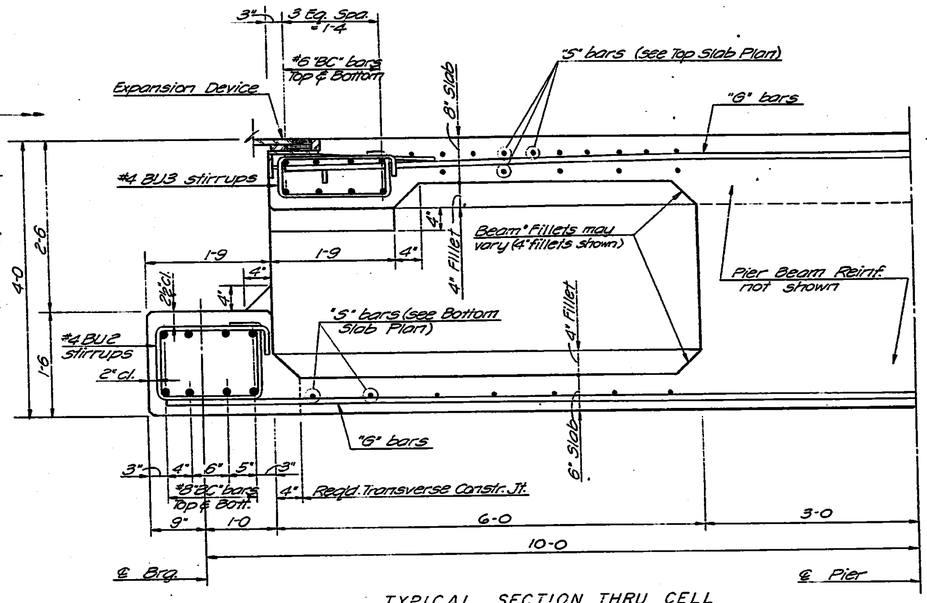
SECTION C3 – C3
(Exterior Web)



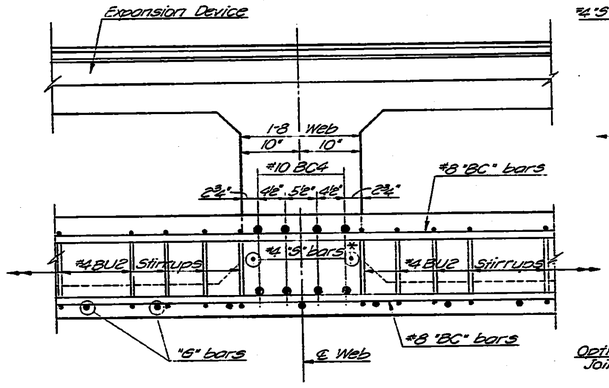
VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)



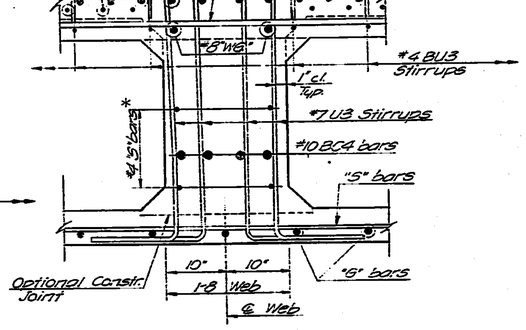
SECTION C4 – C4
(Exterior Web)



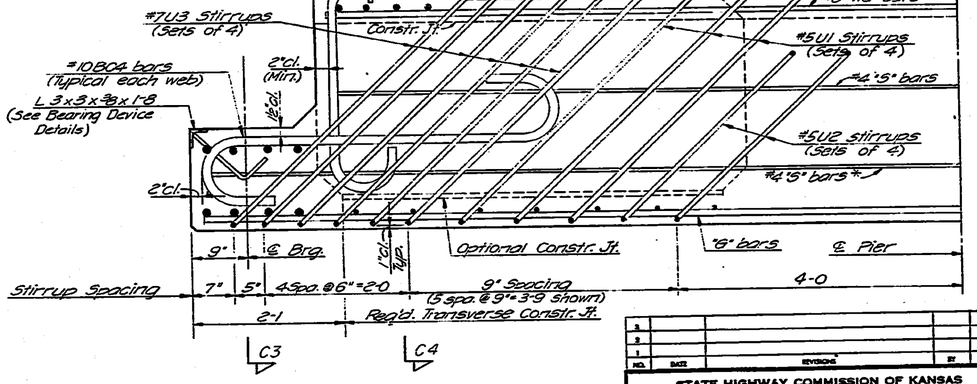
TYPICAL SECTION THRU CELL



SECTION C3 – C3
(Interior Web)



SECTION C4 – C4
(Interior Web)



TYPICAL SECTION THRU WEB

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

BEARING BEAM DETAILS

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 33S
S.B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

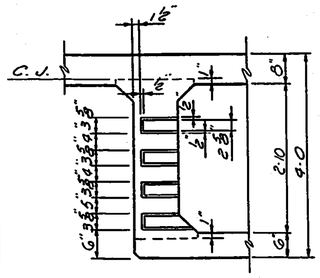
SHEET NO. 5 OF 5	SCALE	APP'D.	
DESIGNED DFG	DETAILED DS	COMPUTED JWH	TRACED DS
DESIGN CK. RBS	DETAIL CK. RBS	QUANT. CK. DFG	TRACE CK. RBS

DIST. 5 SEDGWICK CO. ROLL 531

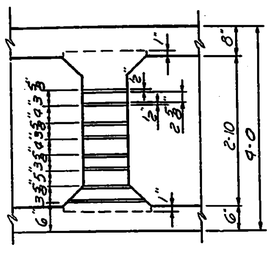
3 5 9

0X 16X 14.5X 12X 12X 14.5X 16X 20X

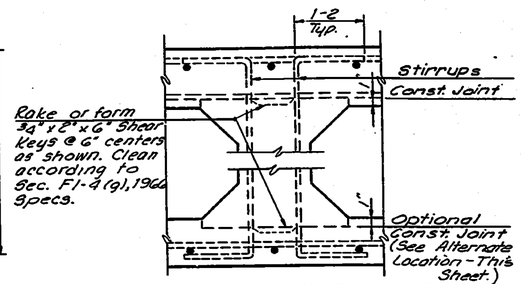
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1-(58)148 Phase II	19??	1899	2137



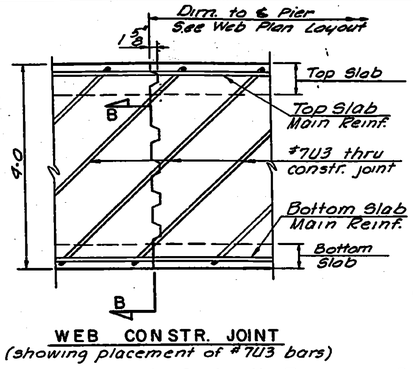
SECTION B-B
(Through Exterior Web)



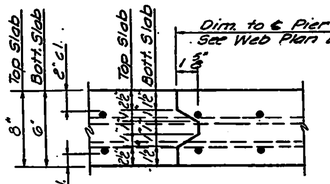
SECTION B-B
(Through Interior Web)



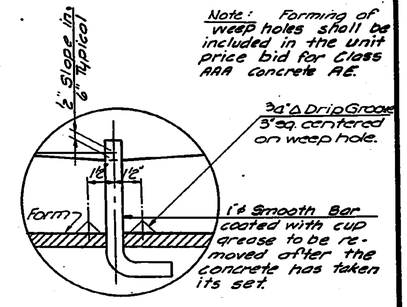
LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)



WEB CONSTR. JOINT
(showing placement of #7@3 bars)



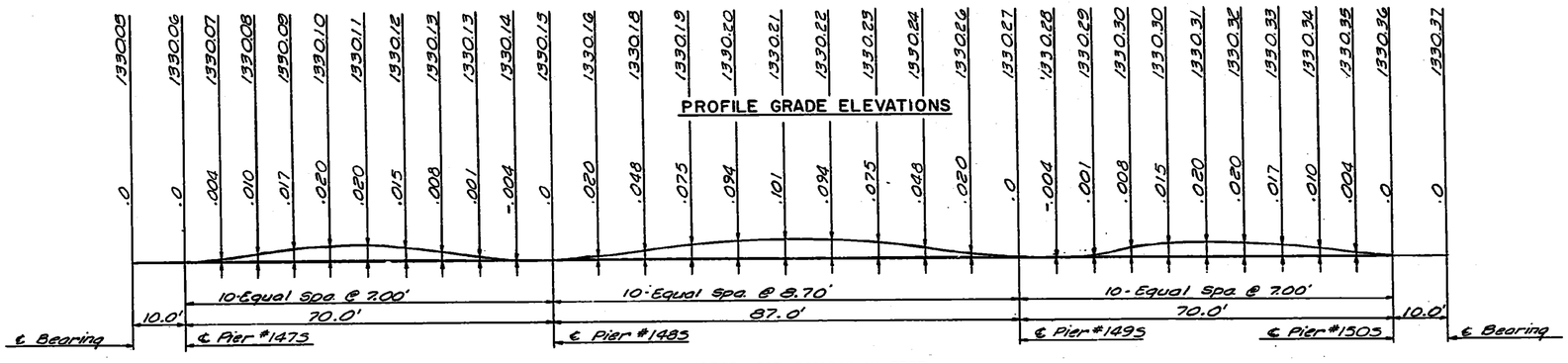
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)



Note: Forming of weep holes shall be included in the unit price bid for Class AAA concrete AE.

DETAIL OF WEEP HOLES

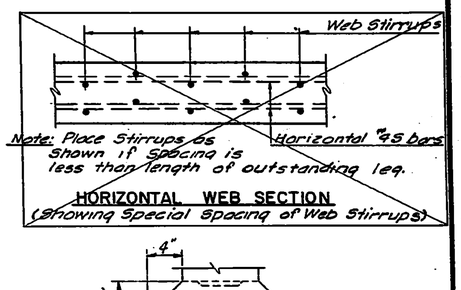
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



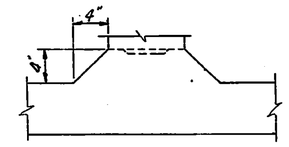
DEAD LOAD CAMBER IN FEET

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS

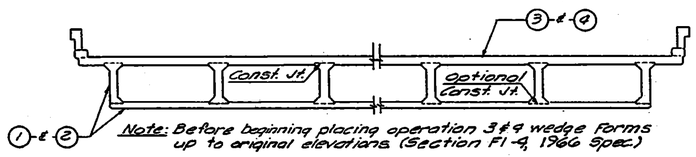
Note: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ p.s.i.



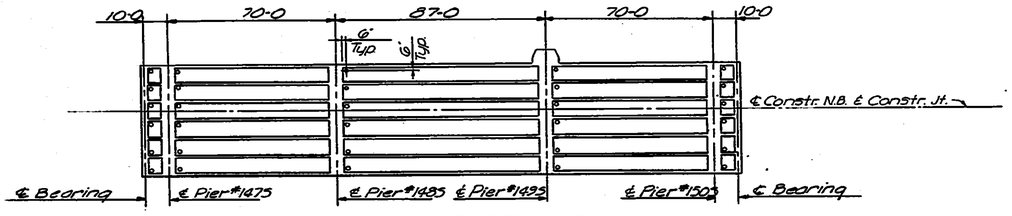
HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)



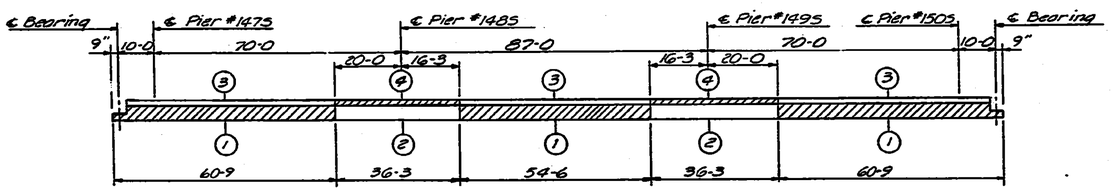
ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer)



CROSS SECTION OF SUPERSTRUCTURE



LOCATION OF WEEP HOLES



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework

NOTES:

See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curb shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained it's design strength.

Construction Joints: Construction Joints shown are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 33 S
S. B I-35W VIADUCT
(BETWEEN 15TH & 17 TH STREETS)
PROJ 35W-87-135W-1(58)148 SEDGWICK CO.

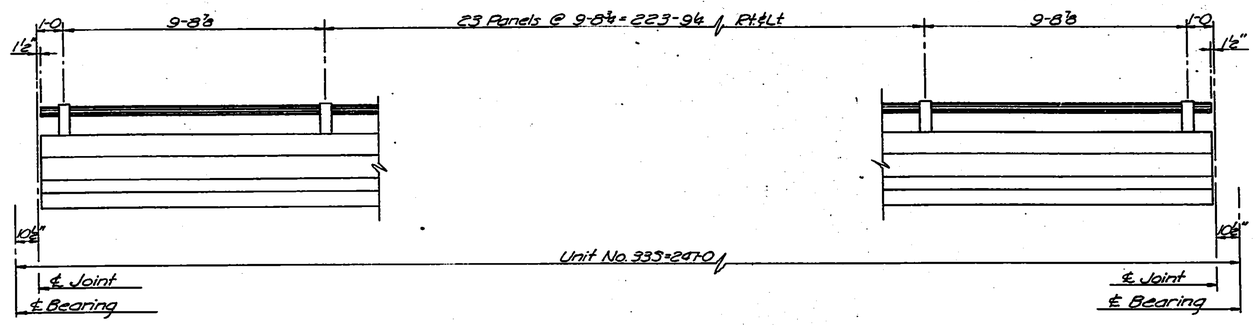
SHEET NO. 6 of 8	SCALE	APP'D.			
DESIGNED DFG	DETAILED DGT	QUANTITIES CKY		TRACED DGT	
DESIGN CK. EBS	DETAIL CK. EAW	QUANT. CK. DSV		TRACE CK. RBS	

DIST. 5 SEDGWICK CO. ROLL 531

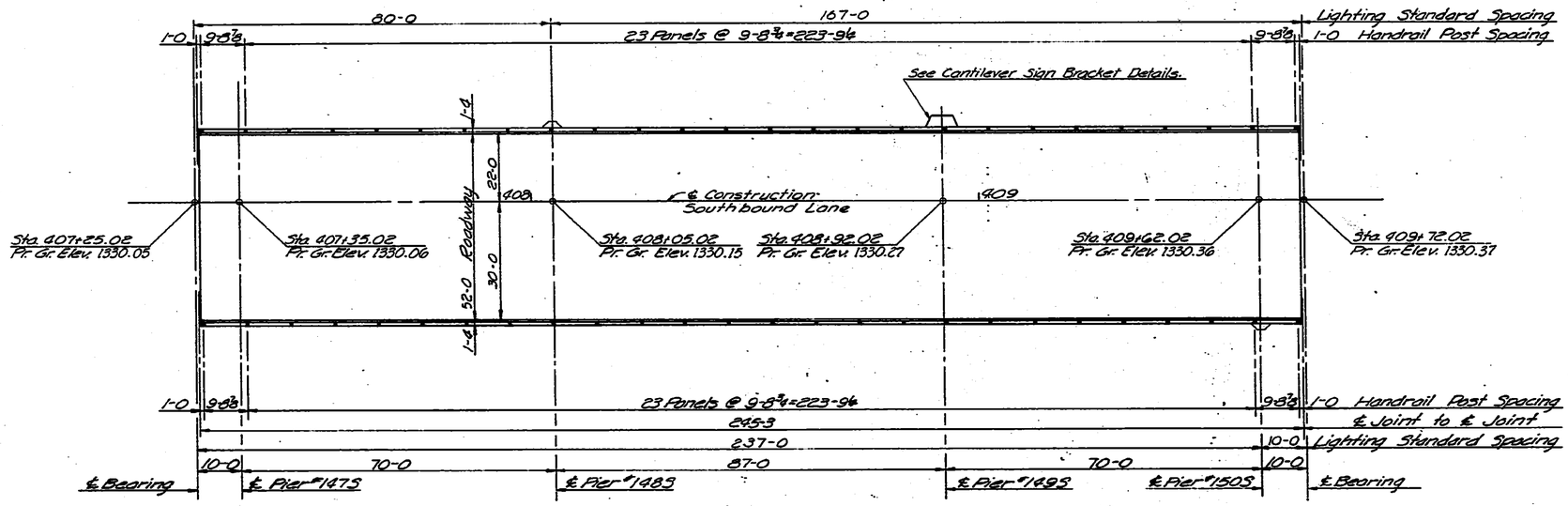
3 6 0

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1900	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Details Sheet.)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO 33S
S.B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 7 OF 8	SCALE	APP'D.			
DESIGNED JWH	DETAILED RBS	QUANTITIES LKD	TRACED KWR		
DESIGN CK. ABS	DETAIL CK. DS	QUANT. CK. LKD	TRACE CK. LKD		

DIST. 5 SEDGWICK CO. ROLL 531

3 6 1

[redacted]

0X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

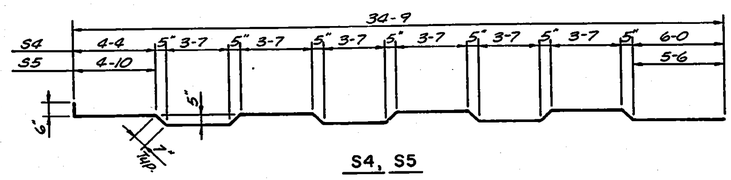
OFFICE COPY

BENDING DIAGRAMS

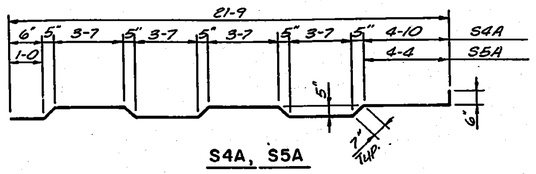
(Bar Dimensions are Out to Out.)

REV. PLANS 11-1-71

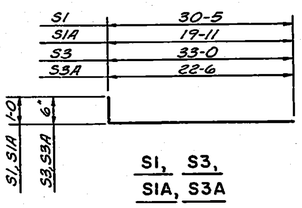
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-(58)48 PHASE II	1970	1901	2137



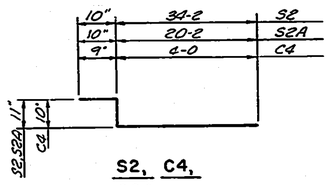
S4, S5



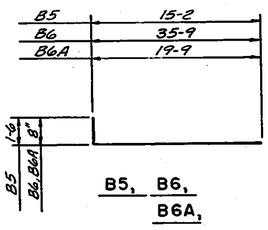
S4A, S5A



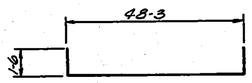
S1, S3, S1A, S3A



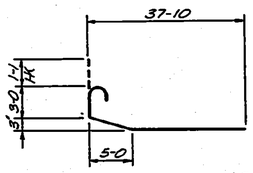
S2, C4, S2A



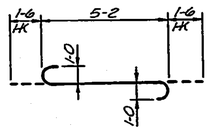
B5, B6, B6A,



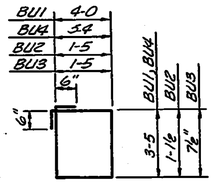
B4,



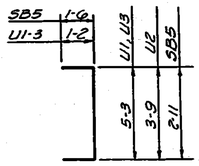
G10B



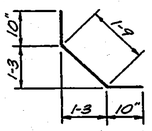
BC4



BU1, BU2, BU3, BU4



U1, U2, U3



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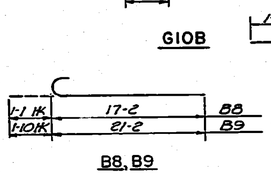
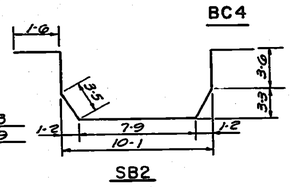
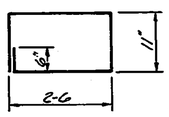


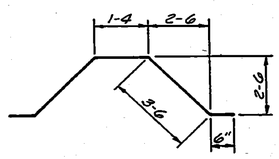
B8, B9



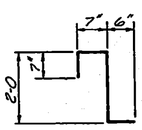
SB2



LB1



LB2



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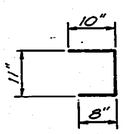

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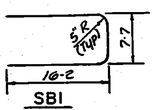

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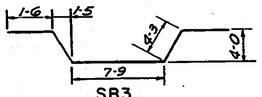

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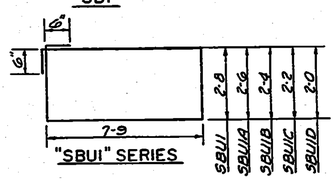
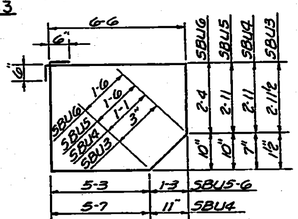
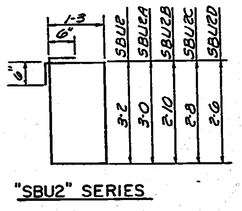


"SBU1" SERIES



SBU3-6



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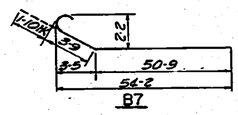
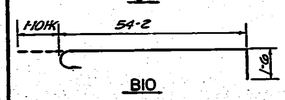
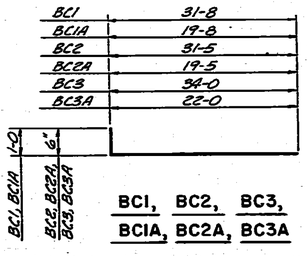


B7



B10

BC1	31-8
BC1A	19-8
BC2	31-5
BC2A	19-5
BC3	34-0
BC3A	22-0



BC1, BC2, BC3, BC1A, BC2A, BC3A

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	262	5	31-5
				S1A	262	5	20-11
				S2	258	4	35-11
				S2A	258	4	21-11
				S3	258	5	33-6
				S3A	258	5	23-0
S6	714	4	36-3				
S7	28	4	38-0	S4	129	5	36-5
S8	12	4	26-10	S4A	129	5	23-1
S8A	12	6	26-10				
S9	30	4	40-0	S5	125	5	36-5
S9A	30	6	40-0	S5A	125	5	23-1
G1	98	8	11-7				
G2	50	9	60-0,				
G3	48	9	43-0				
G4	48	8	60-0				
G5	48	8	27-0				
G6	98	8	28-6				
G7	49	10	60-0				
G8	24	10	50-0				
G9	24	10	36-0				
G10	68	8	37-10				
G10A	4	8	29-0				
G11	84	8	26-10	G10B	24	8	41-11
G11A	4	8	17-6				
G11B	4	8	6-0				
G11C	4	8	8-6	LB1	8	4	7-4
G12	72	9	18-10	LB2	6	4	9-4
G13	96	7	21-0				
GM	93	10	50-0	5B1	5	8	39-11
GMA	3	10	25-0	5B2	4	5	24-7
GMB	3	10	22-0	5B3	1	5	19-3
G15	85	11	36-0	5B5	8	4	5-11
G15A	8	11	15-3	5BU1	5	6	21-10
G15B	8	11	18-0	5BU1A	1	6	21-6
G16	72	11	20-0	5BU1B	1	6	21-2
G17	48	5	40-0	5BU1C	1	6	20-10
				5BU1D	1	6	20-6
				5BU2	10	5	9-10
5B4	12	4	4-0	5BU2A	2	5	9-6
				5BU2B	2	5	9-2
				5BU2C	2	5	8-10
				5BU2D	2	5	8-6

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
B1	32	11	48-3	B4	28	11	51-3
B2	78	11	32-0	B5	54	11	16-8
B3	16	6	48-3	B6	60	6	36-5
				B6A	60	6	20-5
				B7	10	11	56-4
				B8	6	8	18-3
				B9	2	11	23-0
				B10	4	11	37-6
				BU1	224	5	15-10
				BU2	120	4	6-1
				BU3	84	4	5-1
				BU4	224	5	18-6
				BC1	16	8	32-8
				BC1A	16	8	20-8
				BC2	8	6	31-11
				BC2A	8	6	19-11
				BC3	8	6	34-6
				BC3A	8	6	22-6
				BC4	56	10	8-2
				C1	583	4	3-5
				C2	588	4	3-8
				C3	72	4	2-5
				C4	16	5	5-7
C5	28	4	2-6				
				U1	2688	5	7-7
				U2	252	5	6-1
				U3	504	7	7-7
WG1	28	8	28-4				
WG2	70	8	40-0				
				5BU3	2	5	20-1
				5BU4	2	5	20-7
				5BU5	2	5	20-11
				5BU6	2	5	19-9

All bar marks shall be prefixed with the Unit Number when fabricated. Example: "8G1 bars shall be marked 33S8G1.

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	895.4	Cu.Yds.
Reinforcing Steel	313,800	Lbs.
Cast Iron Scuppers		Lbs.
Wrought Iron Drains & Grates	3,906	Lbs.
8" ϕ Downspouts	215.98	Lin. Ft.
Gutters		Lin. Ft.
Bridge Handrail	~~486.58~~	Lin. Ft.
Structural Steel		
Corner Angles (A36) 14@19 Lbs.	266	Lbs.
Expansion Devices (A36)	3,848	Lbs.
Anchor Bolt Assembly (A36) Cont. Sign Br.	515	Lbs.
Linseed Oil Surface Treatment (Bridges)	1415.5	Sq.Yds.
Elastomeric Exp. Device. (13½")	108	Lin. Ft.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1	11-1-71	Rev. Exp. Devices	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 33S
N.B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

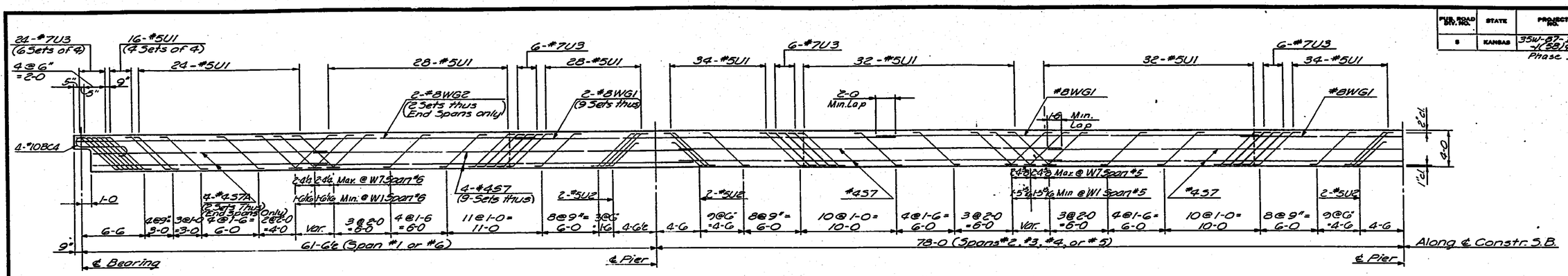
SHEET NO. 6 OF 8	SCALE	APP'D	
DESIGNED DFG	DETAILED LRD	QUANTITIES JHC	TRACED JHC
DESIGN CK. JWH	DETAIL CK. EES	QUAN CK. DFG	TRACE CK. DFG

DIST. 5 SEDGWICK CO. ROLL 531

3 6 2

16X 14.5X 12X 12X 14.5X 16X

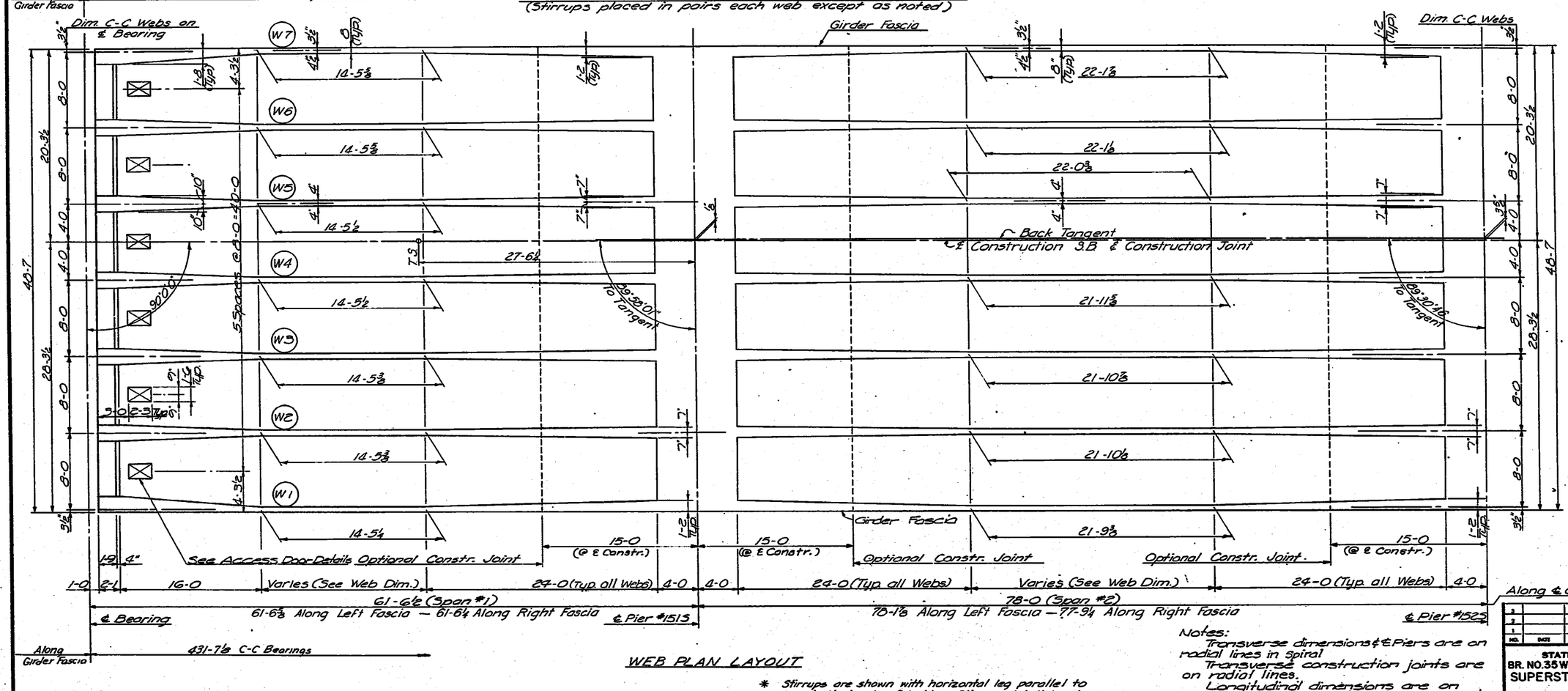
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1902	2137



Along Girder Fascia — 437-7 C-C Bearings

WEB ELEVATION SHOWING STIRRUP SPACING *

(Stirrups placed in pairs each web except as noted)



WEB PLAN LAYOUT

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top & beneath bottom main reinforcing steel. See Roadway Deck Section.

Notes:
Transverse dimensions ℄ ℄ Piers are on radial lines in spiral
Transverse construction joints are on radial lines.
Longitudinal dimensions are on concentric arcs except as otherwise indicated.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 34S
S.B. I-35W VIADUCT
(BETWEEN 15TH. & 17TH. STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

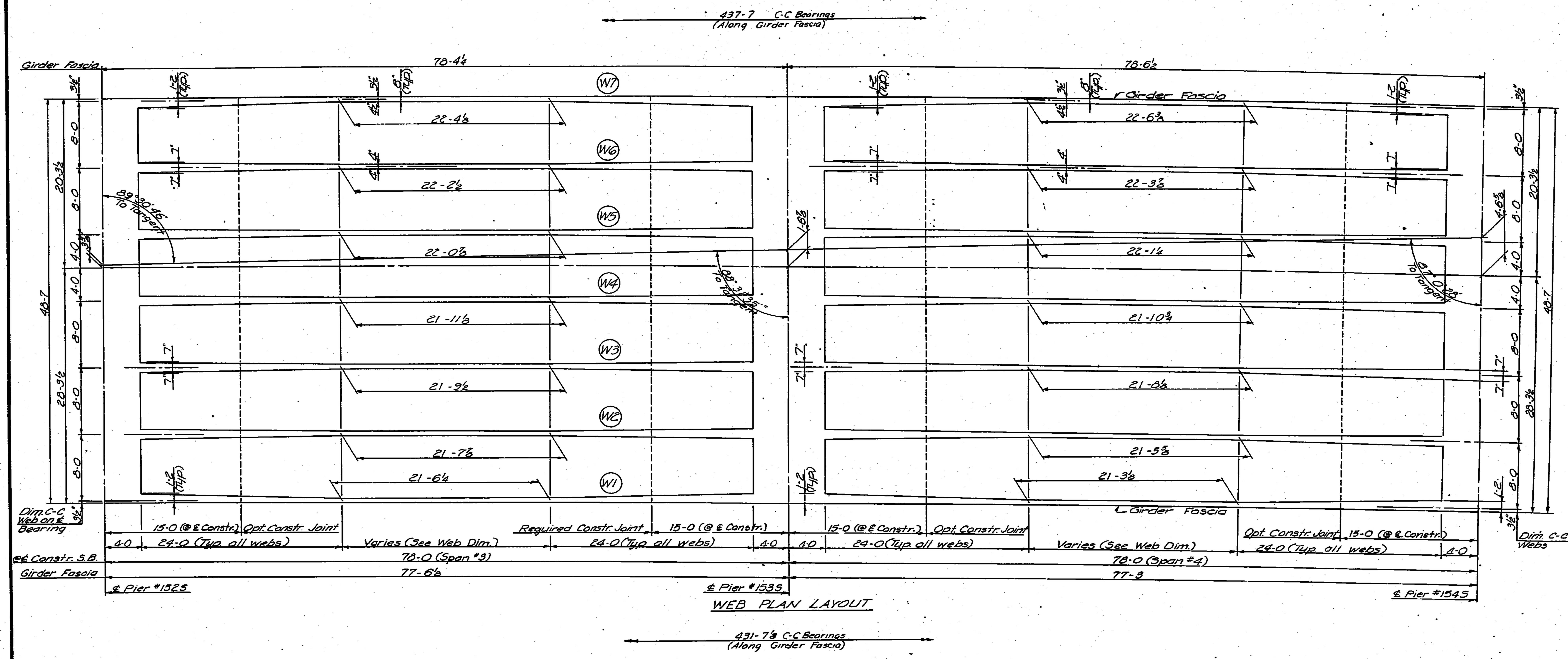
SHEET NO. 1 OF 11	SCALE	APP'D.		
DESIGNED DEC	DETAILED RCP	QUANTITIES LKD	TRACED RCP	
DESIGN CK. RBS	DETAIL CK. DS	QUANT. CK. RLF	TRACE CK. LKD	

DIST. 5 SEDGWICK CO. ROLL 531

3 6 3

16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W -1(58)48 Phase II	19	1903	2137



NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
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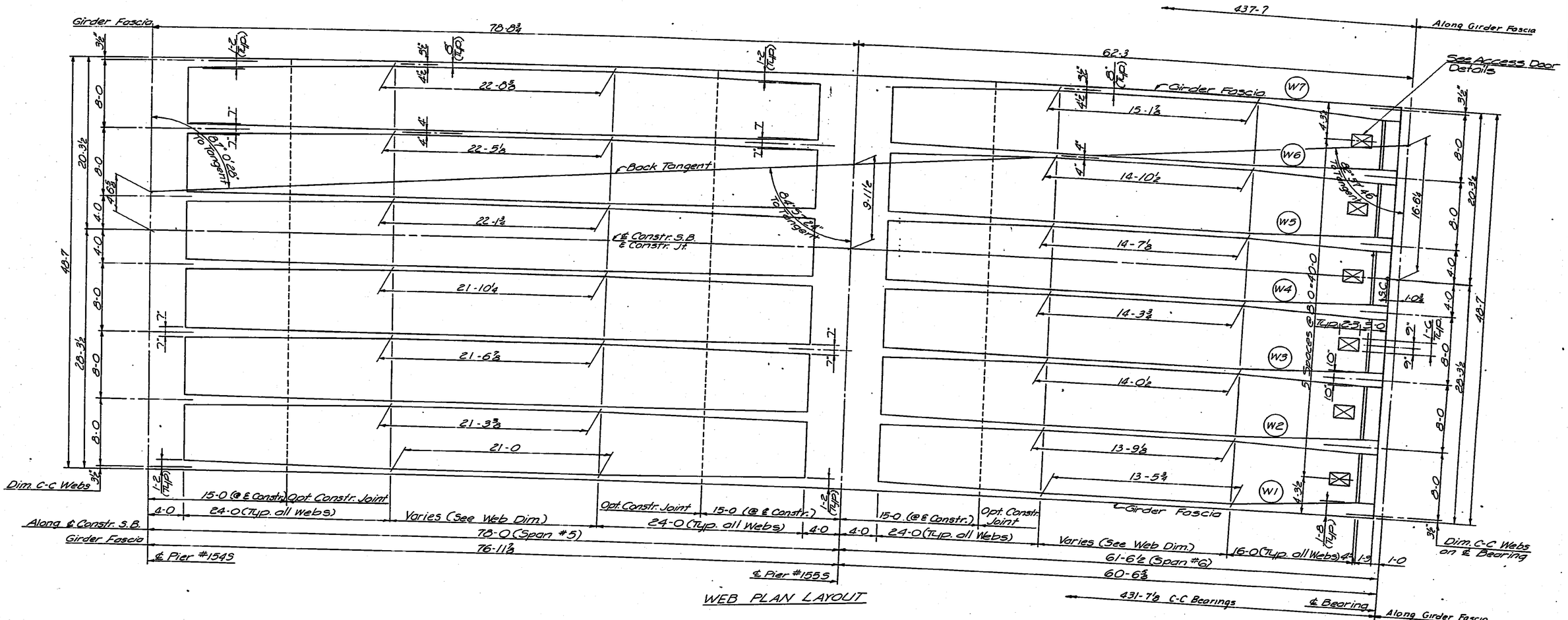
STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 34S
S.B. I-35W VIADUCT
(BETWEEN 15TH. & 17TH. STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 2 OF 11	SCALE	APP'D.	
DESIGNED DFG	DETAILED RCP	QUANTITIES LKD	TRACED RCP
DESIGN CK. RBS	DETAIL CK. DS	QUAN. CK. RLH	TRACE CK. LKD

DIST. 5 SEDGWICK CO. ROLL 531 364

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)28 Phase II	19	1904	2137



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 34S
S.B. I-35W VIADUCT
(BETWEEN 15TH. & 17TH. STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

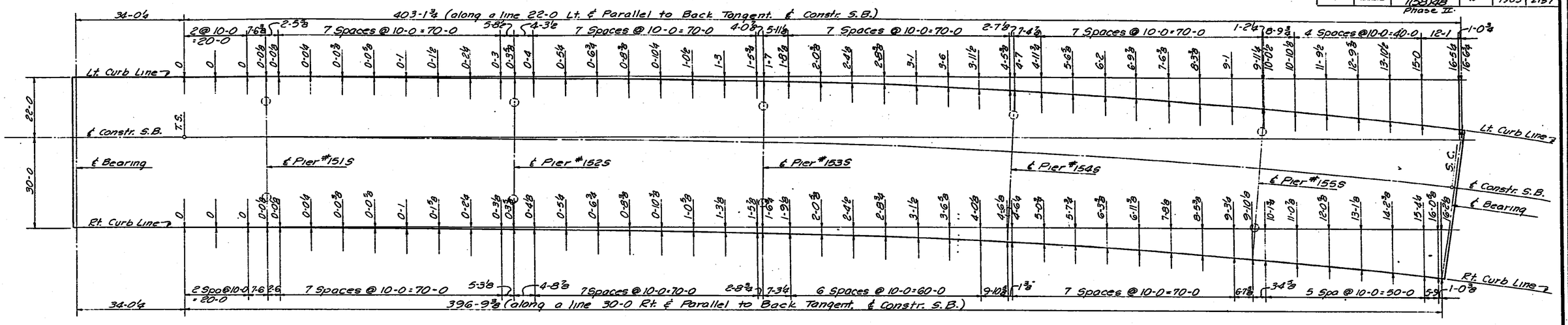
SHEET NO. 3 of 11	SCALE		APP'D.		
DESIGNED DFG	DETAILED RCP		QUANTITIES LAW	TRACED RCP	
DESIGN CK. RBS	DETAIL CK. DS		CHAN. CK. RLH	TRACE CK. LRD	

DIST. 5 SEDGWICK CO. ROLL 531

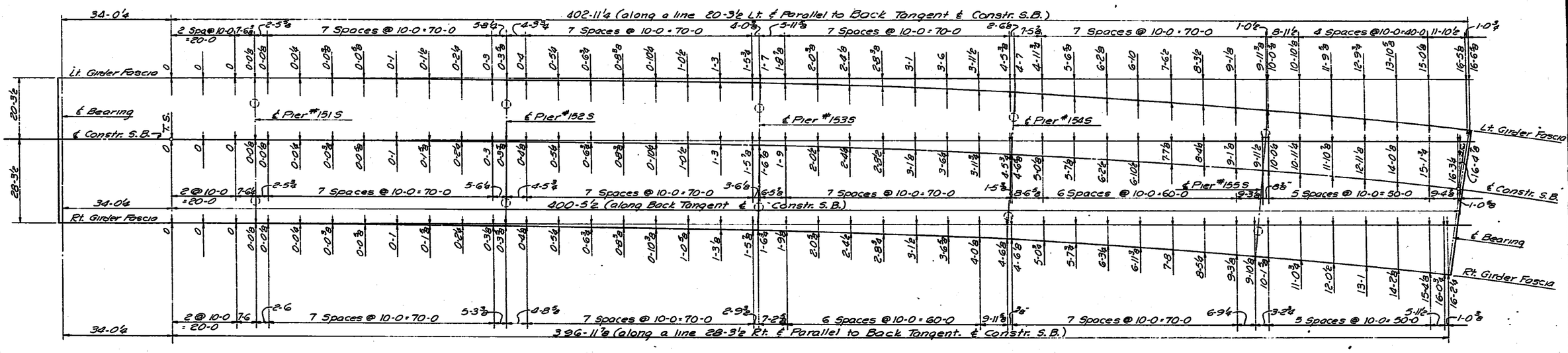
3 6 5

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (150)48 Phase II	19	1905	2137



CURB LINE OFFSETS



℄ CONSTRUCTION S.B. ℄ GIRDER FASCIA OFFSETS

Note: For Curve data @ ℄ Construction See Construction Layout.

NO.	DATE	REVISIONS	BY	APPR.
3				
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1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 34S
S.B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 6 OF 11	SCALE		APPR.			
DESIGNED DFG	DETAILED EES		CHECKED DDW	TRACED DDW		
DESIGN CK. JWH	DESIGN CK. RLF		CHECK CK. KSK	TRACE CK. RLF		

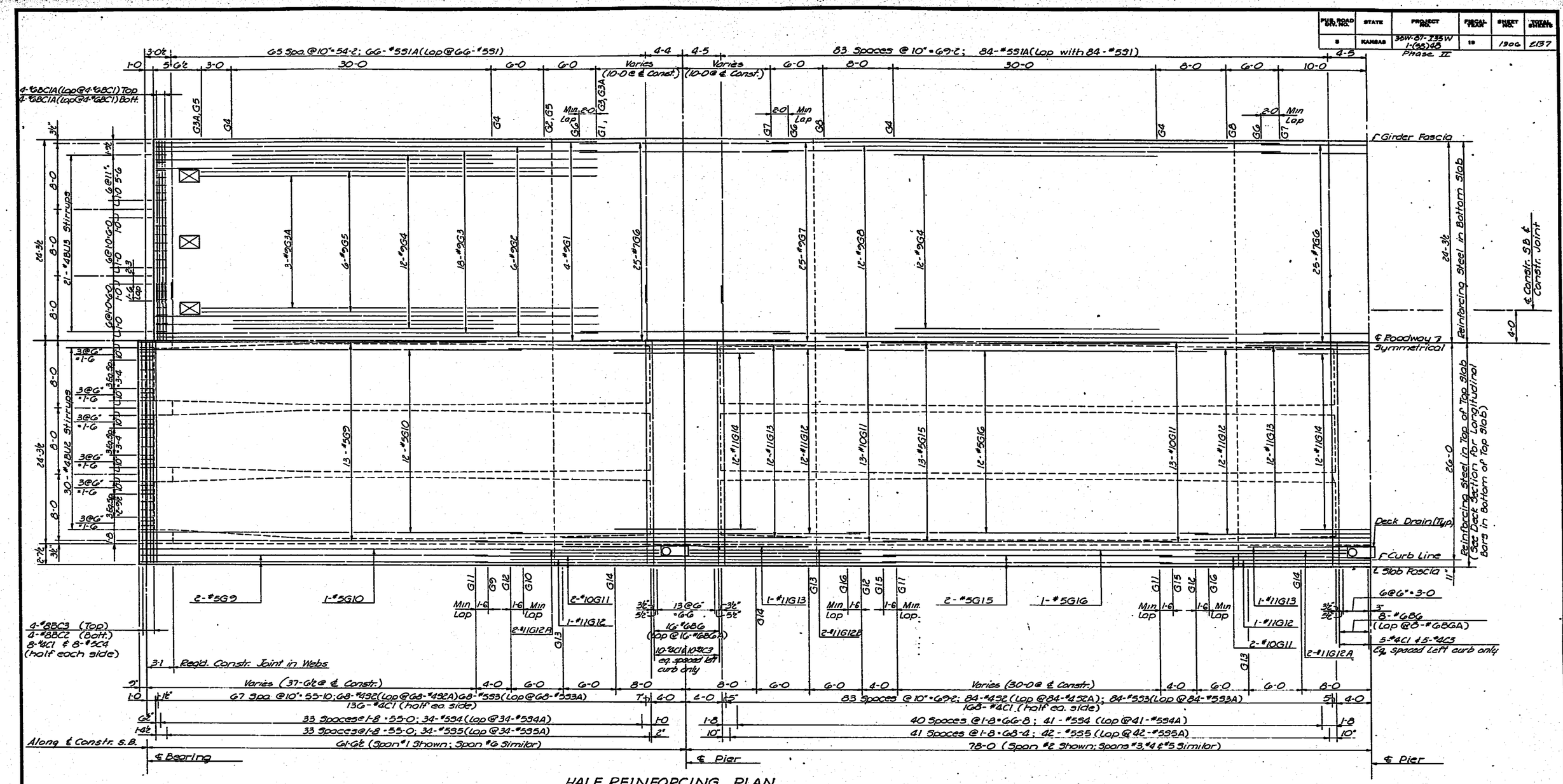
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 6 6

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-735W 1-(58)48 Phase II	19	1906	2137



HALF REINFORCING PLAN

G-Bar Placing Notes:
1. GG, G11 thru G14 - Center over ℄ Piers
2. G4, G7, G8, G15 & G16 - Center on the span
3. G1 thru G5, G9 & G10 - Start with bearing ends

Notes:
All bar marks shall be prefixed with the unit number when fabricated. Example: #9G1 shall be marked 3459G1
Quantity of bars shown are from ℄ Bridge to Exterior face of Girder or slab.
Horizontal Curvature not shown.
All Longitudinal dimensions are along ℄ Constr. S.B., except as otherwise indicated.
All Transverse dimensions are on radial lines, except as otherwise indicated.
Transverse bars are placed on radial lines and longitudinal bars on concentric arcs, except as otherwise indicated.
Longitudinal reinforcing splices shall be lapped with Min. Lap for long side and lap increases as arc length decreases.
See Drain Detail sheet for additional details at Drainage Structures.
See Superstructure Pier Beams for additional details of Drainage Structures.
Spread Longitudinal Reinforcing Steel to clear Drains except as noted.

NO.	DATE	REVISIONS	BY	APP'D.
3				
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STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 34S
S.B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 5 OF 11	SCALE	APP'D.	
DESIGNED DPG	DETAILED EES	CHECKED ODW	TRACED EES
DESIGN CK. PBS	DETAIL CK. LKD	CHIEF CK. KSK	TRACE CK. LKD

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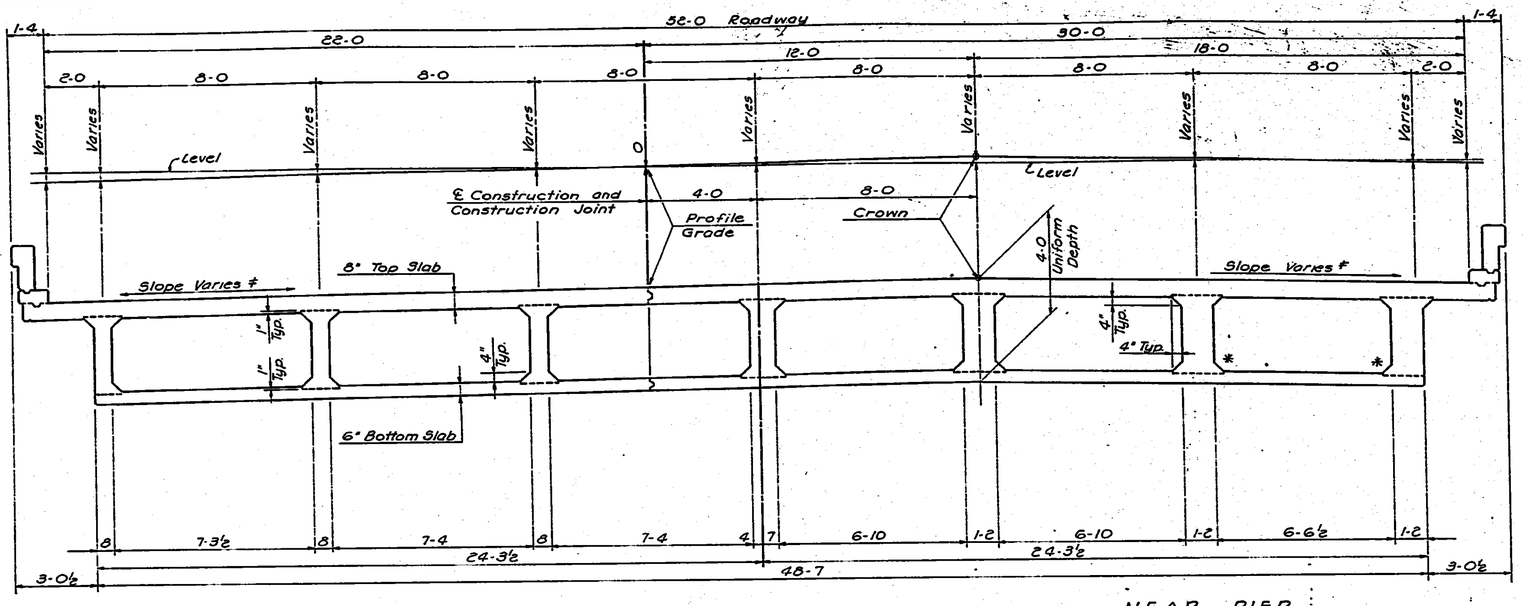
DIST. 5 SEDGWICK CO. ROLL 531

3 6 7

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W I(58)48 Phase II	19	1907	2137



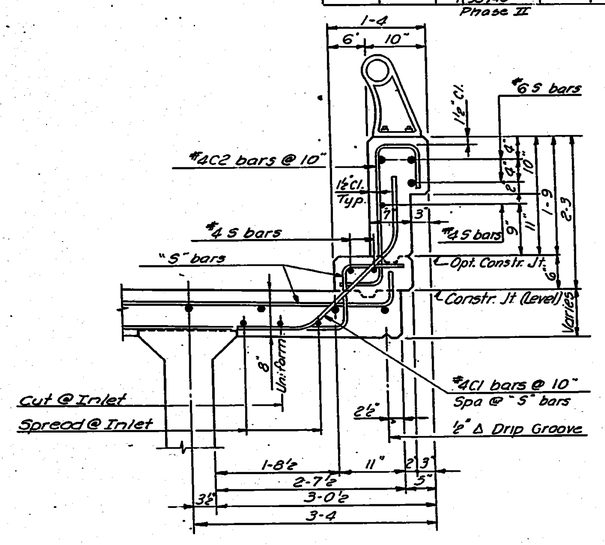
NEAR MID-SPAN

NEAR PIER

ROADWAY DECK SECTION

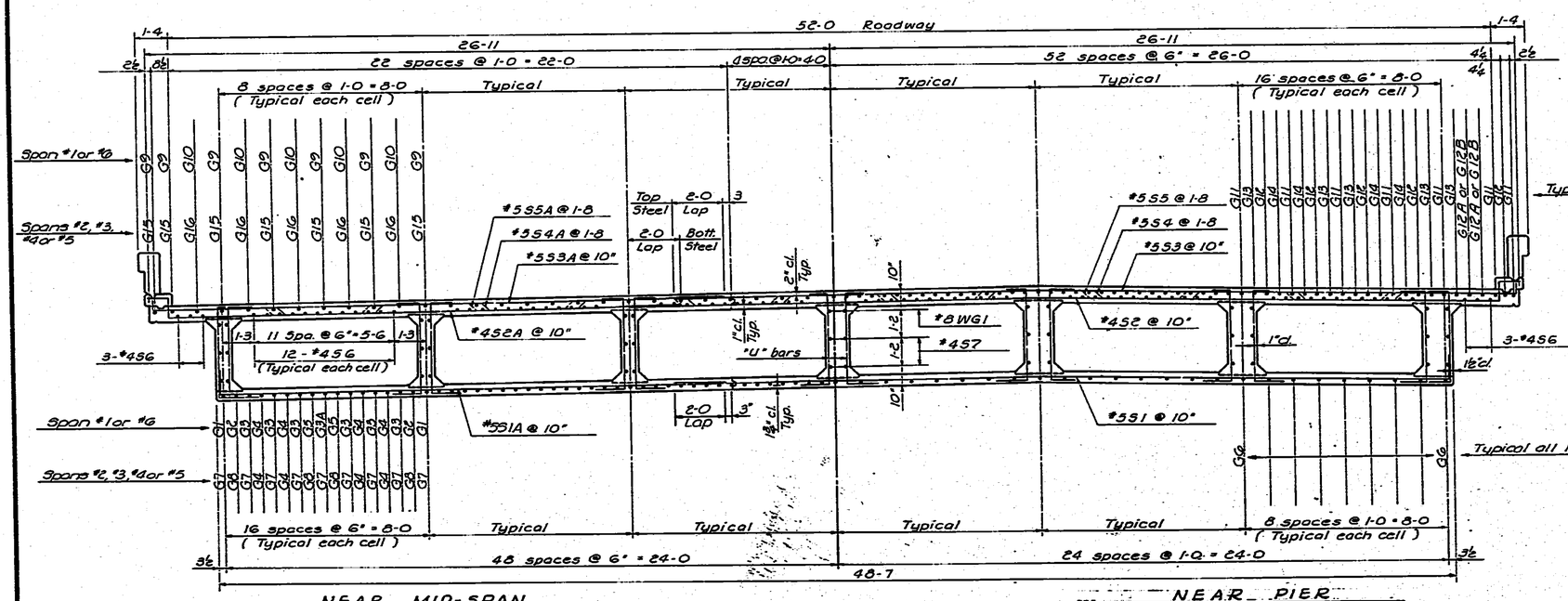
≠ (See Transition Detail on Superelevation Diagram)

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.



TYPICAL CURB SECTION *

Note: See web elevation for quantity, size and spacing of "U" bars. There are 12 sets of #4 S6 bars in the bottom of the top slab with 1-6 min. lap @ left curb.



NEAR MID-SPAN

NEAR PIER

ROADWAY DECK SECTION

(Superelevation not Shown)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60

SUPERSTRUCTURE DETAILS - UNIT NO. 34S

S.B. I-35W VIADUCT

(BETWEEN 15TH & 17TH STREETS)

PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO.	6 of 11	SCALE		APP'D.			
DESIGNED	DFG	DETAILED	EES	QUANTITIES	ODW	TRACED	EES
DESIGN CK.	RBS	DETAIL CK.	ALF	GENL. CK.	NSK	TRACE CK.	ALF

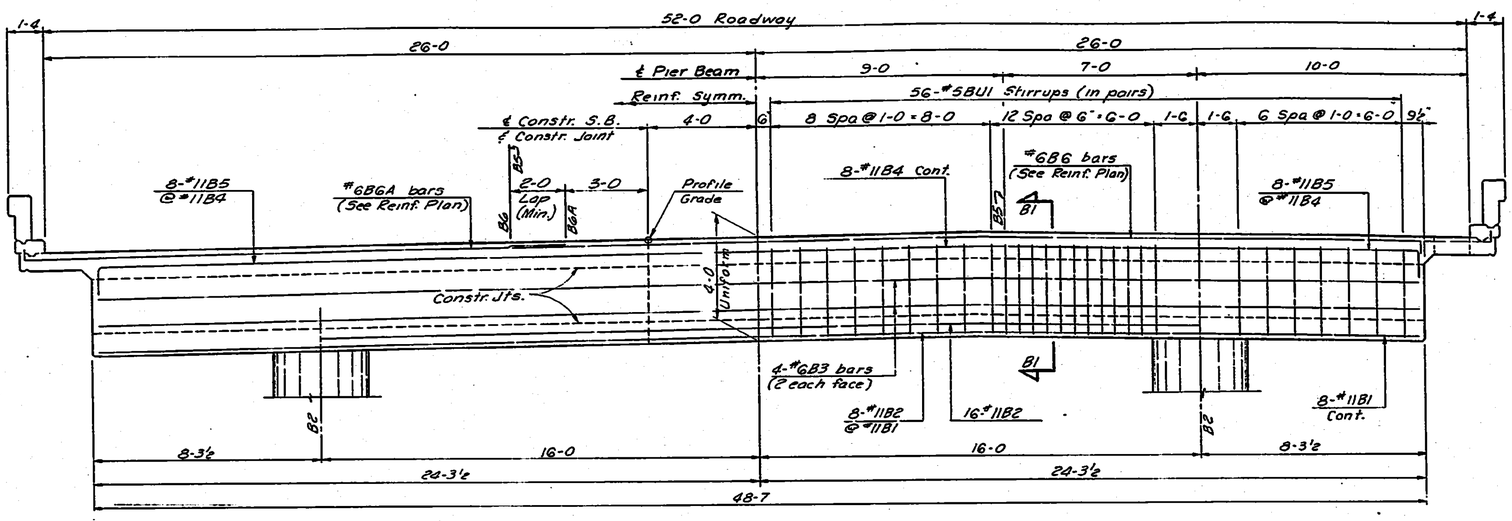
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

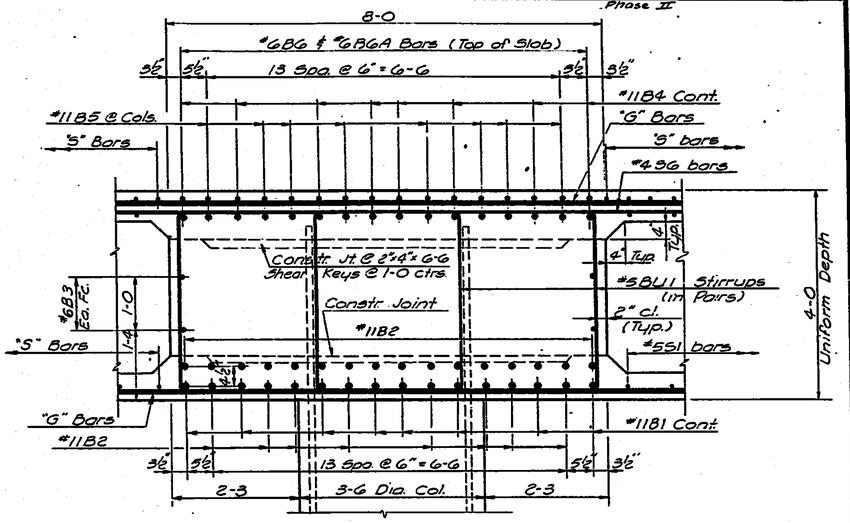
[redacted] 3 6 8

16X 14.5X 12X 12X 14.5X 16X

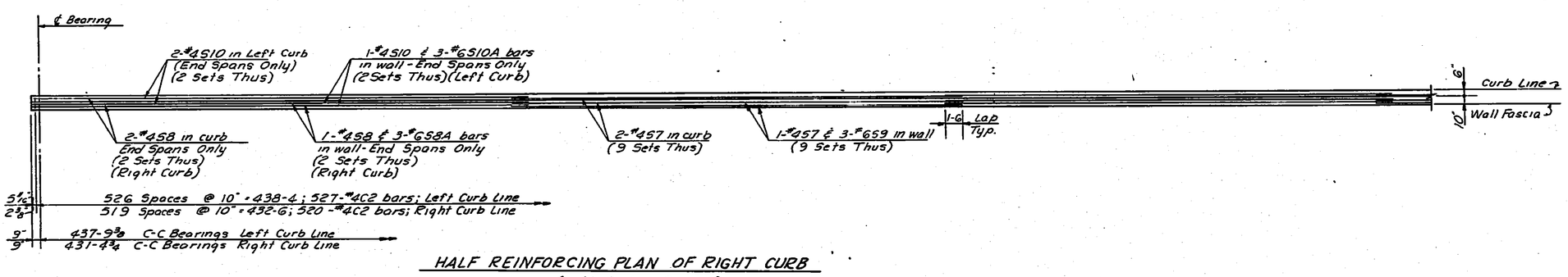
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1908	2137



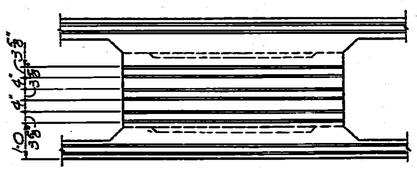
TYPICAL SUPERSTRUCTURE PIER BEAM
(Superelevation not Shown)



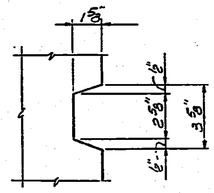
SECTION B1 - B1



HALF REINFORCING PLAN OF RIGHT CURB
(Left Curb is Similar)



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing Location of Keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 34S
S. B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO.	7 of 11	SCALE		APP'D.			
DESIGNED	PDP	DETAILED	EES	CHECKED	DDW	TRACED	DDW
DESIGN CH.	DPG	DETAIL CH.	RLF	CHECK CH.	KSK	TRACE CH.	RLF

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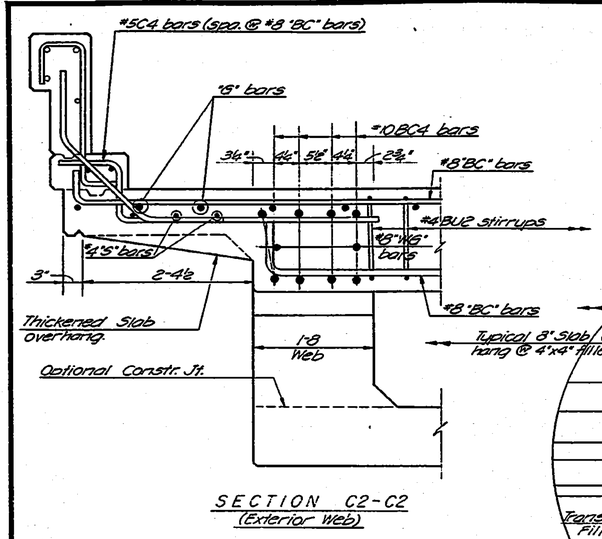
DIST. 5 SEDGWICK CO. ROLL 531

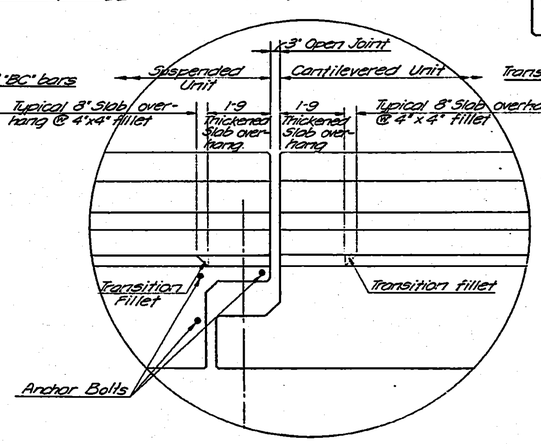
3 6 9

16X 14.5X 12X 12X 14.5X 16X

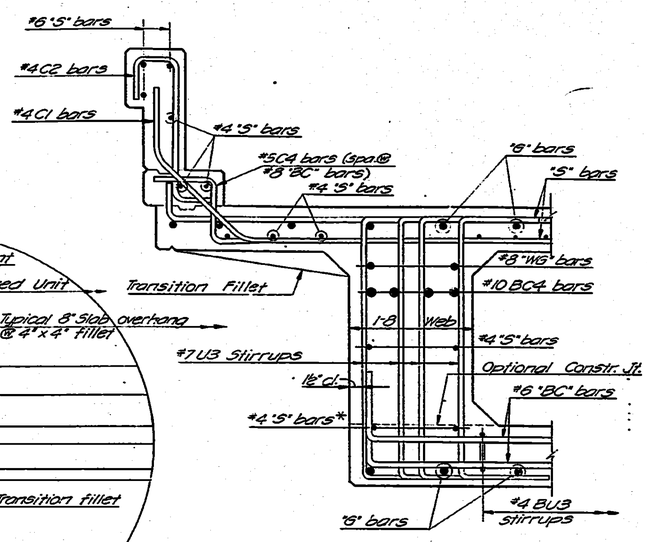
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1909	2137



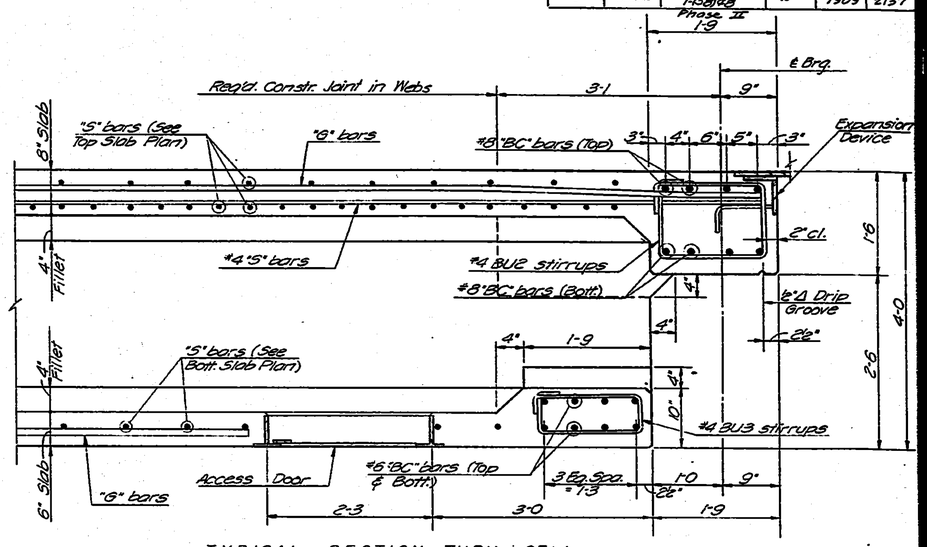
SECTION C2-C2
(Exterior Web)



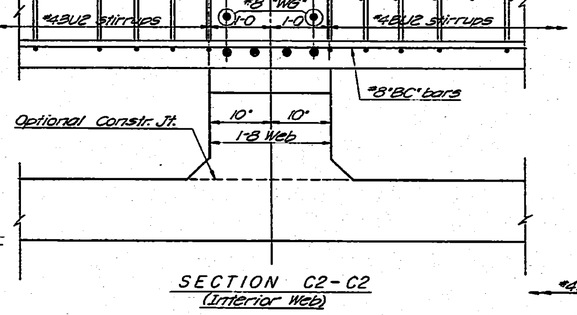
VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)



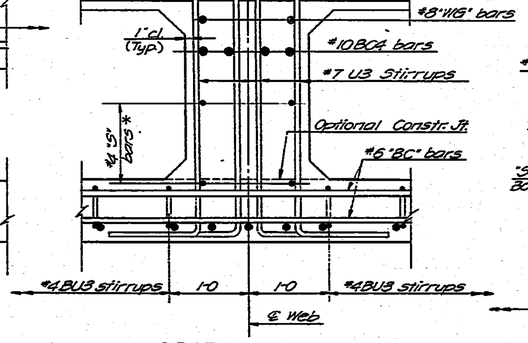
SECTION C1-C1
(Exterior Web)



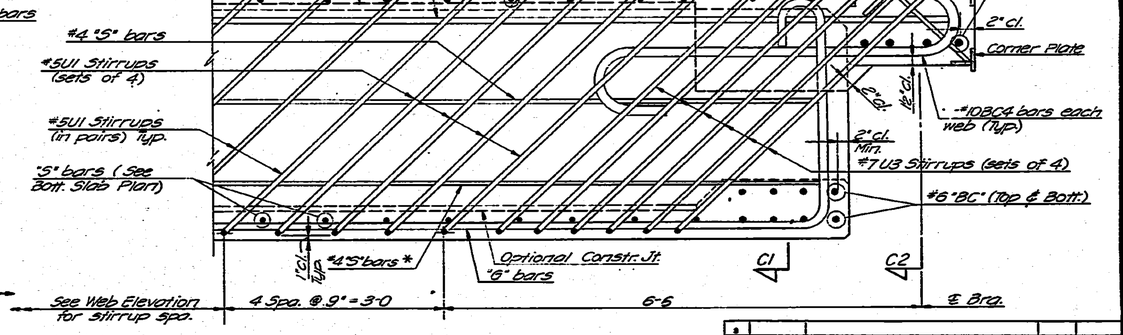
TYPICAL SECTION THRU CELL



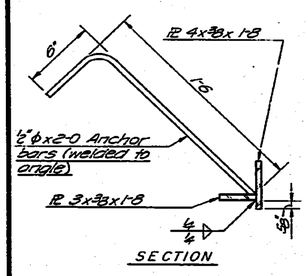
SECTION C2-C2
(Interior Web)

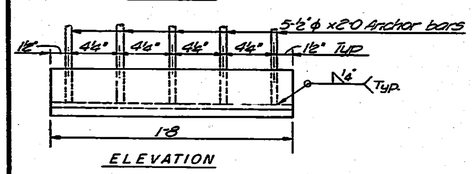


SECTION C1-C1
(Interior Web)



TYPICAL SECTION THRU WEB





CORNER PLATE DETAILS
Computed weight of one assembly is 22 lbs.

BEARING BEAM DETAILS

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

NO.	DATE	REVISIONS	BY	APP'D.
3				
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1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 34 S
S.B. I-35W VIADUCT
(BETWEEN 15TH & 17TH STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 8 of 11	SCALE	APP'D.		
DESIGNED DFG	DETAILED DS	QUANTITIES DDW	TRACED DS	
CHECKED BY RBS	DETAIL CK. RBS	CHECK QTS. KSK	TRACE CK. RBS	

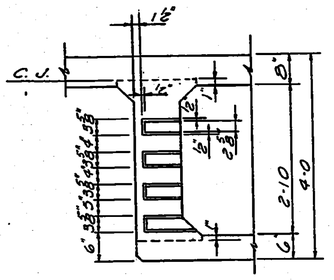
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

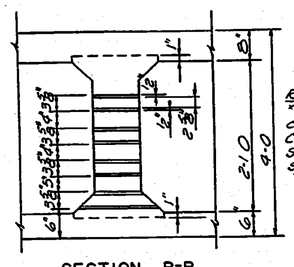
[redacted] 3 7 0

	16X	14.5X	12X		12X	14.5X	16X	

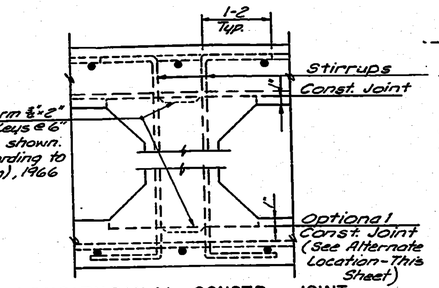
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II	19	1910	2137



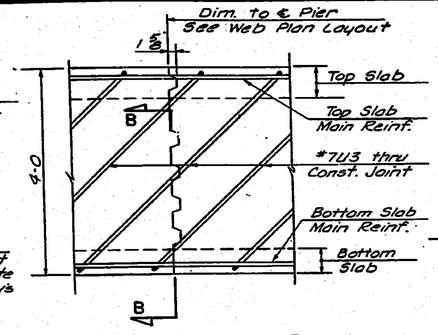
SECTION B-B
(Through Exterior Web)



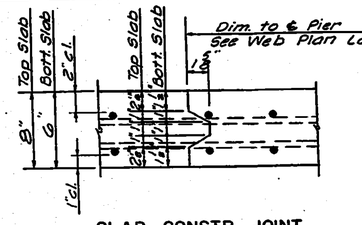
SECTION B-B
(Through Interior Web)



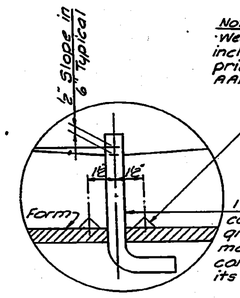
LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)



WEB CONSTR. JOINT
(Showing Placement of #7U3 bars)



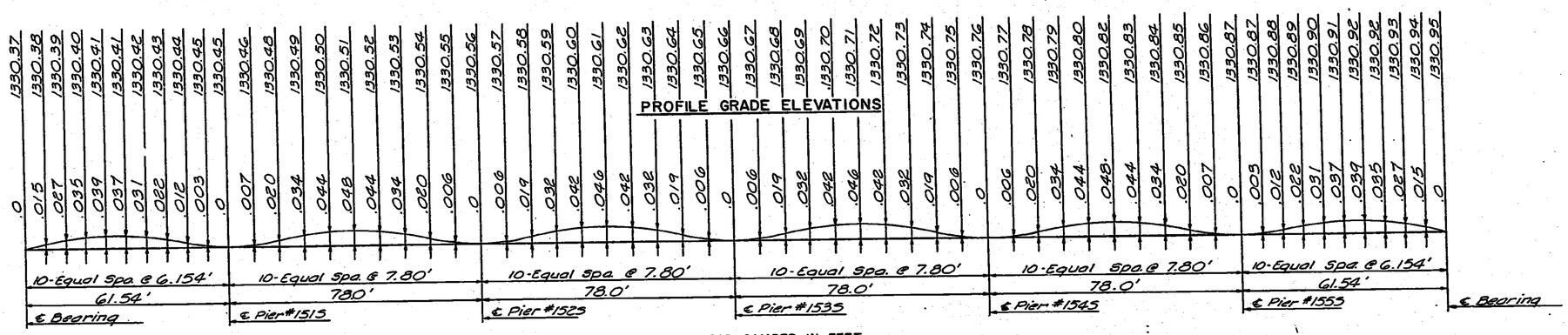
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)



Note: Forming of weep holes shall be included in the unit price bid for Class AAA Concrete AE.

DETAIL OF WEEP HOLES

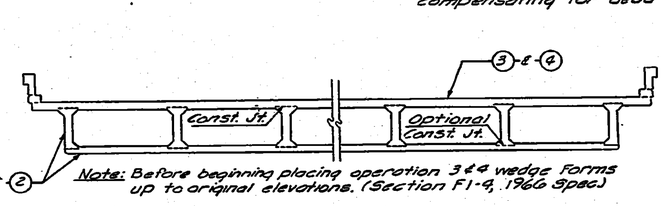
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



DEAD LOAD CAMBER IN FEET

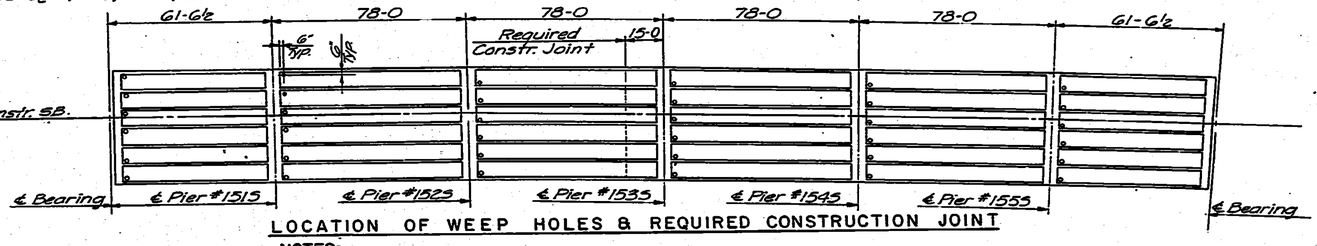
DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS

Note: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ p.s.i.

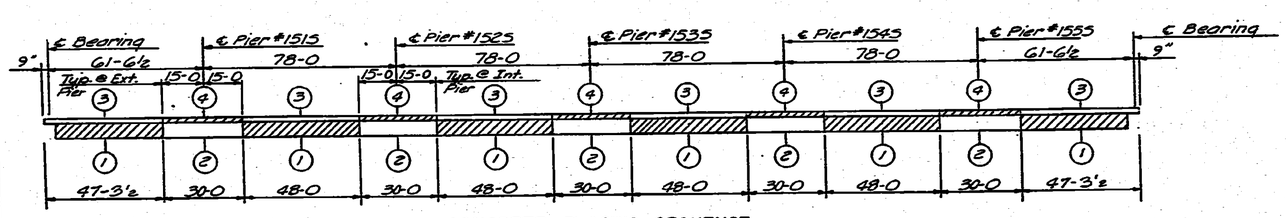


Note: Before beginning placing operation 3 & 4 wedge forms up to original elevations. (Section F1-4, 1966 Spec)

CROSS SECTION OF SUPERSTRUCTURE

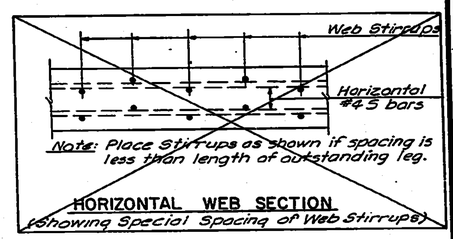


LOCATION OF WEEP HOLES & REQUIRED CONSTRUCTION JOINT



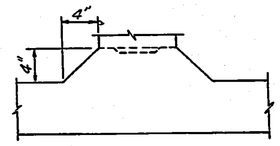
CONCRETE PLACING SEQUENCE

To be used when long-span steel beams are used for falsework
Dimensions shown are along ℄ Constr. S.B.



Note: Place stirrups as shown if spacing is less than length of outstanding leg.

HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)



ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer)

NOTES:
See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained it's design strength.

Construction Joints: Construction Joints shown as optional may be used at the Bridge Contractors option, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 34 S
S. B. I-35W VIADUCT
(BETWEEN 15TH. & 17TH. STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

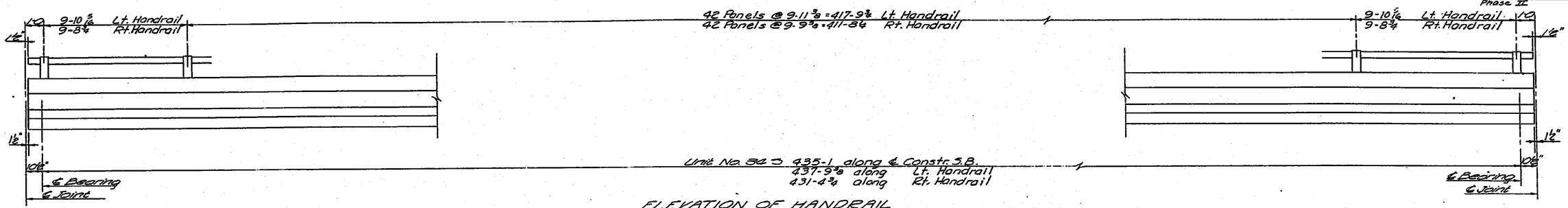
SHEET NO. 9 of 11	SCALE	APP'D.	
DESIGNED DFG	DETAILED PAW	COMPUTED CKW	TRACED DGT
DESIGN CK. PBS	DETAIL CK. PBS	CHKD. CK. RLH	TRACE CK. PBS

DIST. 5 SEDGWICK CO. ROLL 531

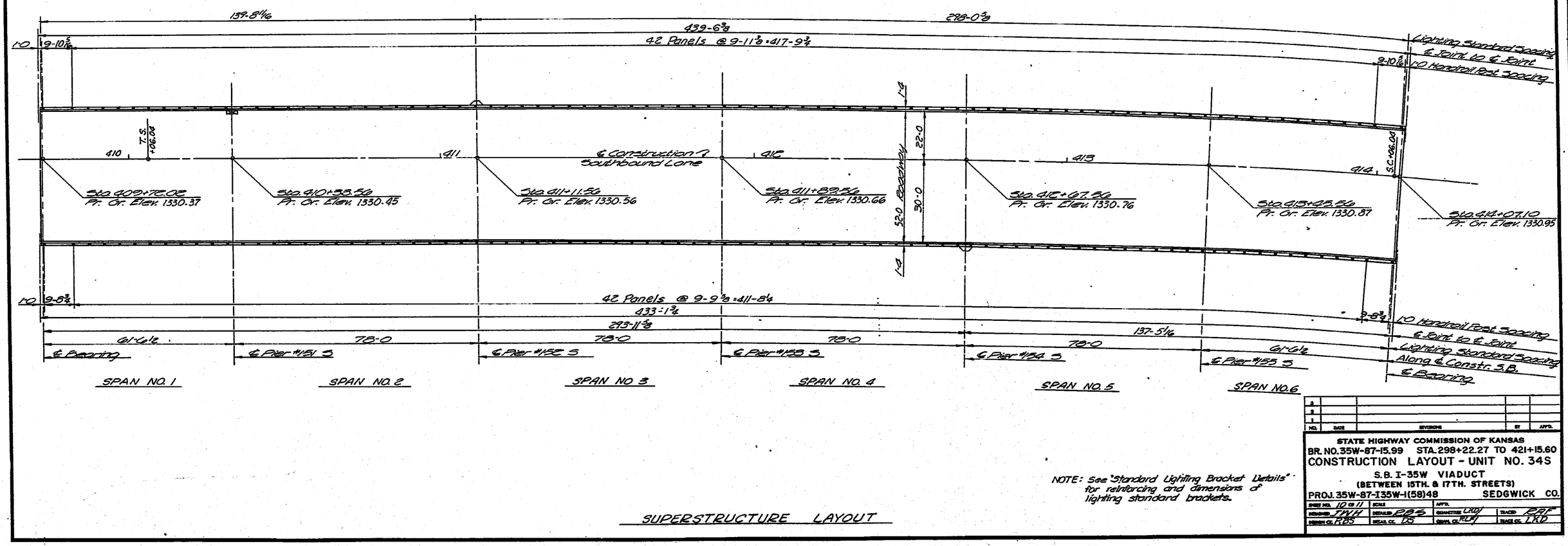
3 7 1

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1911	2137



ELEVATION OF HANDRAIL
(See "Bridge Handrail" Standard Detail Sheet)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
CONSTRUCTION LAYOUT - UNIT NO. 34S
S.B. I-35W VIADUCT
(BETWEEN 15TH. & 17TH. STREETS)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 10 OF 11	SCALE	APP'D.	
DESIGNED JNH	DETAILED RBS	QUANTITIES LMD	TRACED RAF
MEMBER CK. RBS	DETAIL CK. DB	GRADE CK. RLM	TRACE CK. LKD

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 7 2

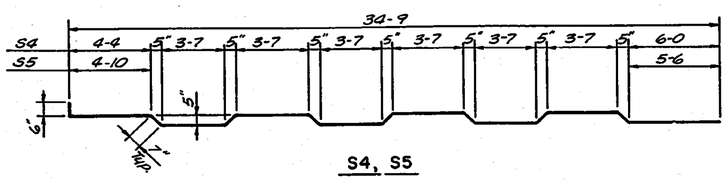
16X 14.5X 12X 12X 14.5X 16X

BENDING DIAGRAMS

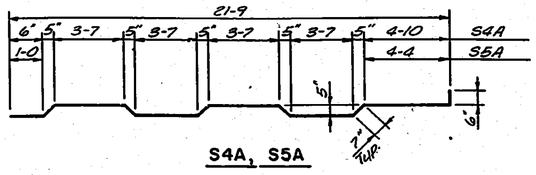
(Bar Dimensions are Out to Out.)

REV. PLANS 11-1-71

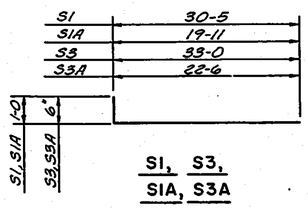
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	19/2	2137



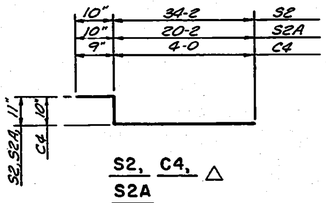
S4, S5



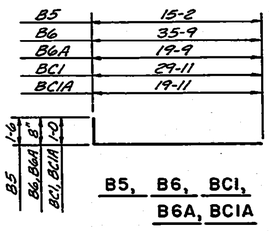
S4A, S5A



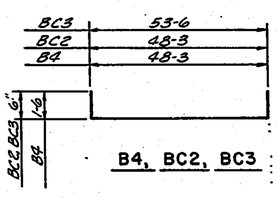
S1, S3, S1A, S3A



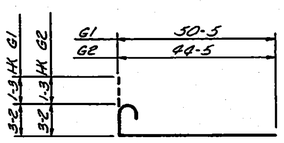
S2, C4, △ S2A



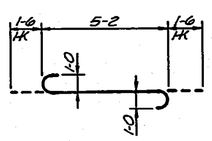
B5, B6, BC1, B6A, BC1A



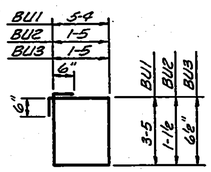
B4, BC2, BC3



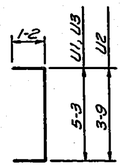
G1, G2



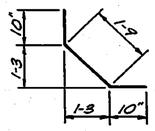
BC4



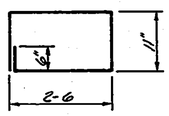
BU1, BU2, BU3



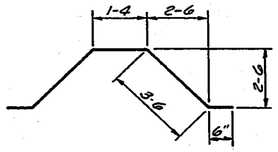
U1, U2, U3



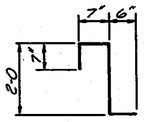
C1



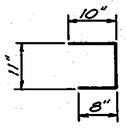
LB1



LB2



C2



C3

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
				S1	468	5	31-5
				S1A	468	5	20-11
				S2	472	4	35-11
				S2A	472	4	21-11
				S3	472	5	33-6
				S3A	472	5	23-0
S6	936	4	38-0				
S7	306	6	40-0	S4	232	5	36-5
S7A	56	4	45-2	S4A	232	5	23-1
S8	6	4	43-9				
S8A	6	6	43-9	S5	236	5	36-5
S9	58	6	40-0	S5A	236	5	23-1
S10	6	4	47-0				
S10A	6	6	47-0				
				G1	14	9	34-10
				G2	24	9	45-10
G3	72	9	30-5				
G3A	12	9	45-0				
G4	144	9	30-0				
G5	24	9	38-0				
G6	245	7	25-2				
G7	196	9	38-0				
G8	96	9	46-0				
G9	58	5	39-8				
G10	52	5	43-8				
G11	165	10	48-0				
G12	130	11	40-0	LB1	8	4	7-4
G12A	20	11	17-0	LB2	6	4	9-8
G12B	20	11	19-6				
G13	130	11	28-0				
G14	120	11	16-0				
G15	116	5	33-9				
G16	104	5	41-9				

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
B1	40	11	48-3				
B2	120	11	32-0				
B3	20	6	48-3				
				B4	40	11	51-3
				B5	80	11	16-8
				B6	80	6	36-5
				B6A	80	6	20-5
				BU1	360	5	18-6
				BU2	120	4	6-1
				BU3	84	4	4-11
				BC1	16	6	30-11
				BC1A	16	6	20-11
				BC2	8	8	49-3
				BC3	8	8	54-6
				BC4	56	10	8-2
				C1	1045	4	3-5
				C2	1047	4	3-8
				C3	100	4	2-5
				C4	16	5	5-7
C5	20	4	2-6				
				U1	5040	5	7-7
				U2	120	5	6-1
				U3	756	7	7-7
WG1	126	8	40-0				
WG2	28	8	49-3				

Note:
All bar marks shall be prefixed with the unit number when fabricated. Example: #9G1 bars shall be marked 3459G1.

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	1510.7	Cu.Yds.
Reinforcing Steel	496,700	Lbs.
Cast Iron Scuppers		Lbs.
Wrought Iron Drains & Grates	2,748	Lbs.
8" ϕ Downspouts	155.0	Lin. Ft.
Gutters		Lin. Ft.
Bridge Handrail	~~868.68~~ 868.5	Lin. Ft.
Structural Steel		
Bearing Devices (A36) 12E 2A2 Lbs.	3388	Lbs.
Corner Plates & Cover Plates (A36)	496	Lbs.
Access Doors (A36) .12 @ 130 Lbs.	1560	Lbs.
Linseed Oil Surface Treatment (Bridges)	2519.6	Sq.Yds.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1	11-1-71	Rev. Exp. Devices	VASS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 34S
S.B. I-35W VIADUCT
(BETWEEN 15TH. & 17TH. STREETS)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

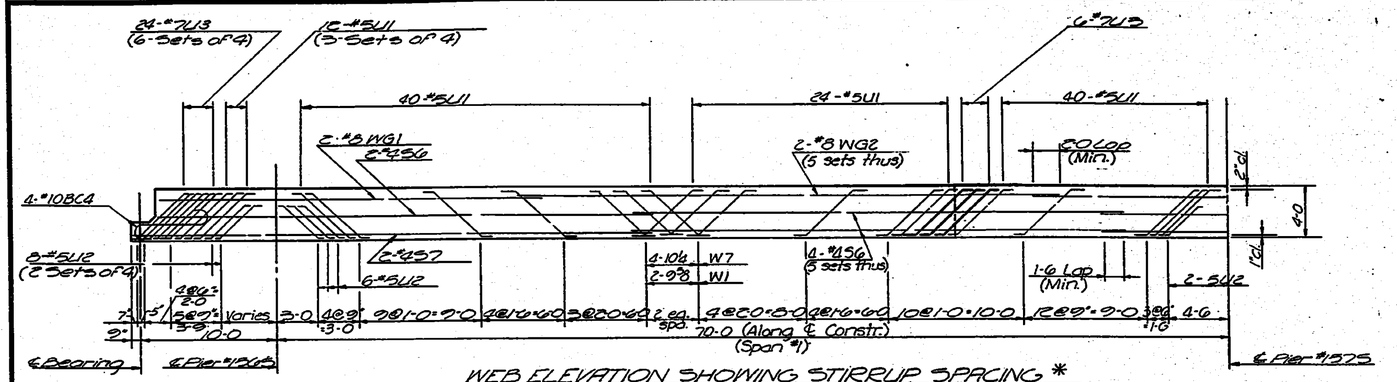
SHEET NO. 11 OF 11	SCALE	APP'D	
DESIGNED DPG	DETAILED EES	QUANTITIES DDW	TRACED RLC
DESIGN CK. JWH	DETAIL CK. RLF	QUAN. CK. ASK	TRACE CK. ASK

DIST. 5 SEDGWICK CO. ROLL 531

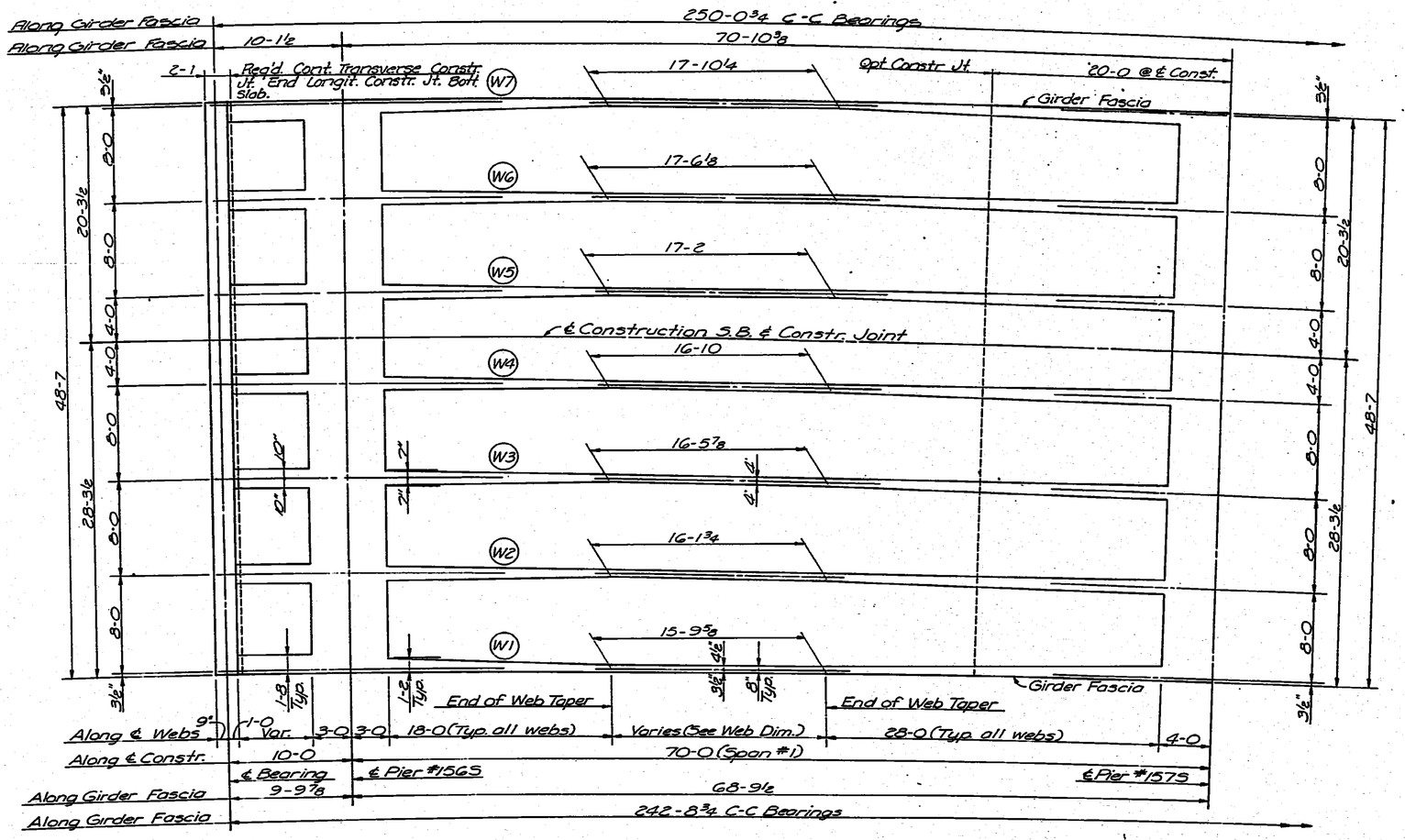
3 7 3

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W -1(58)48 PHASE II	19	1918	2137



WEB ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web, except as noted)



WEB PLAN LAYOUT

Notes:
Centerlines of all Piers shall be radial lines.
Transverse Construction Joints are on radial lines.
Longitudinal Dimensions are on concentric arcs unless otherwise indicated.

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top & beneath bottom main reinforcing steel. See Roadway Deck Section.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 35S
S.B. I-35W VIADUCT
(OVER 17TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

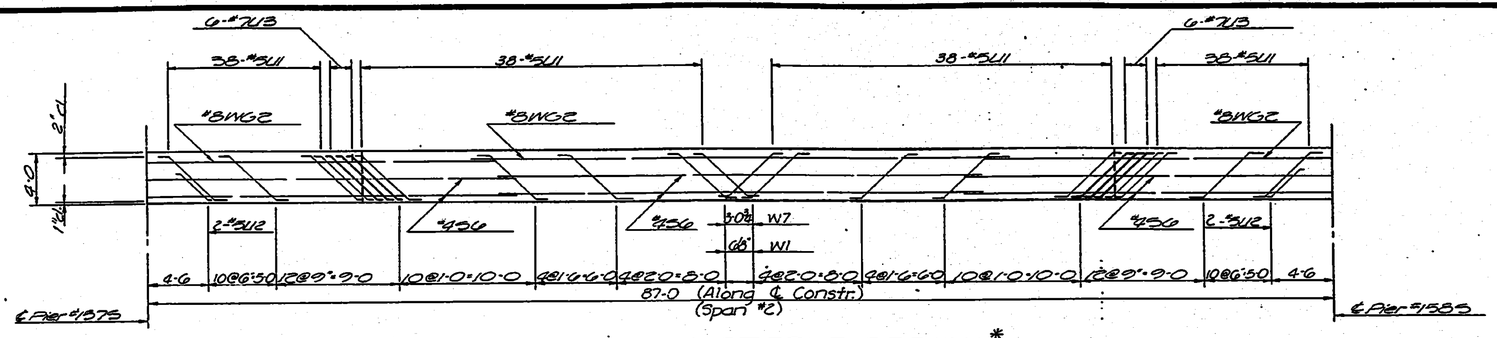
SHEET NO. 1 OF 12	SCALE	APP'D.	
DESIGNED DFG	DETAILED PDF	QUANTITIES LKD	TRACED PDF
DESIGN CK. RBS	DETAIL CK. DFG	QUAN. CK. LKD	TRACE CK. LKD

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 7 4

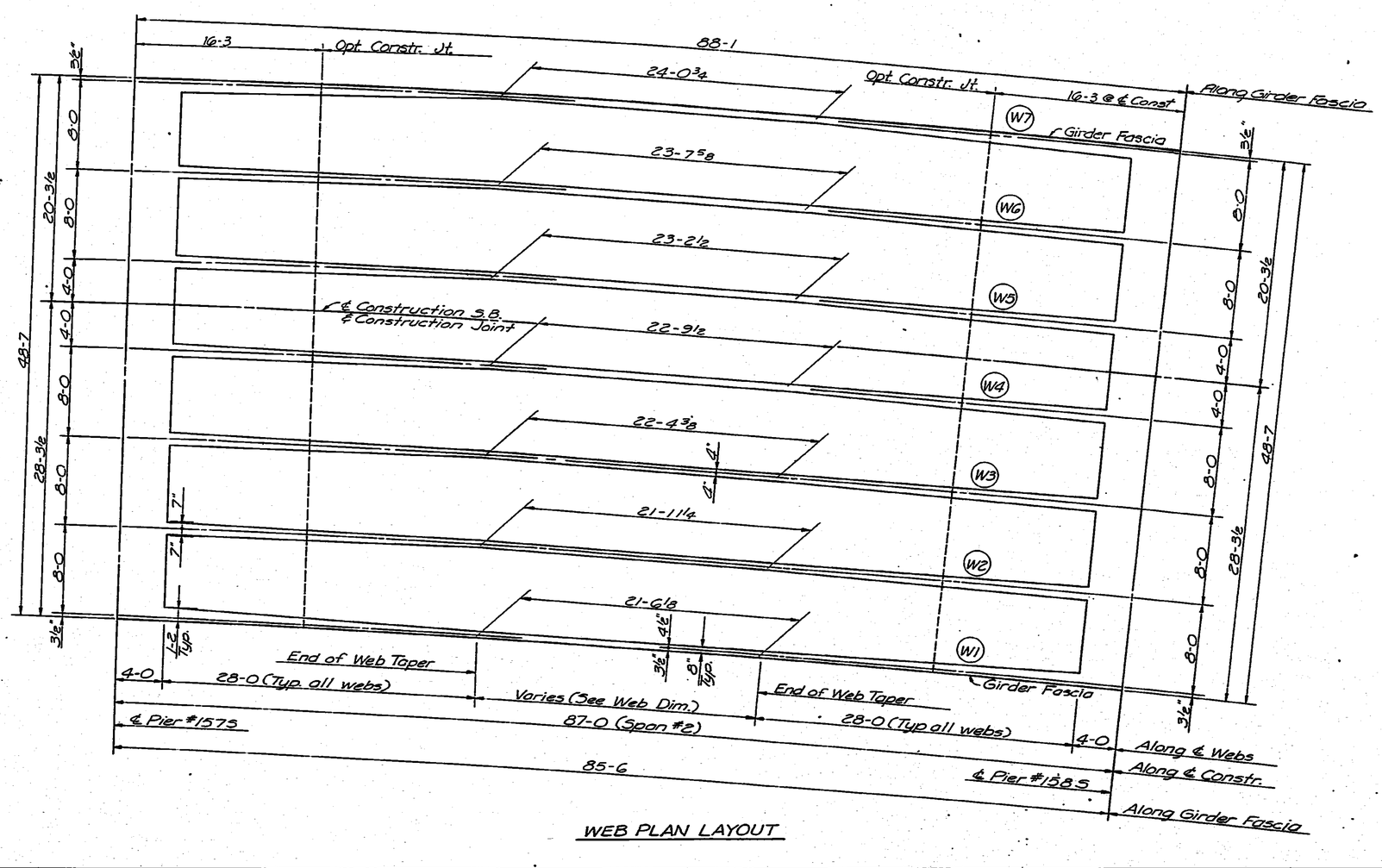
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1914	2137



WEB ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web)

* See Note Span #1.



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 35S
S.B. I-35W VIADUCT
(OVER 17TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

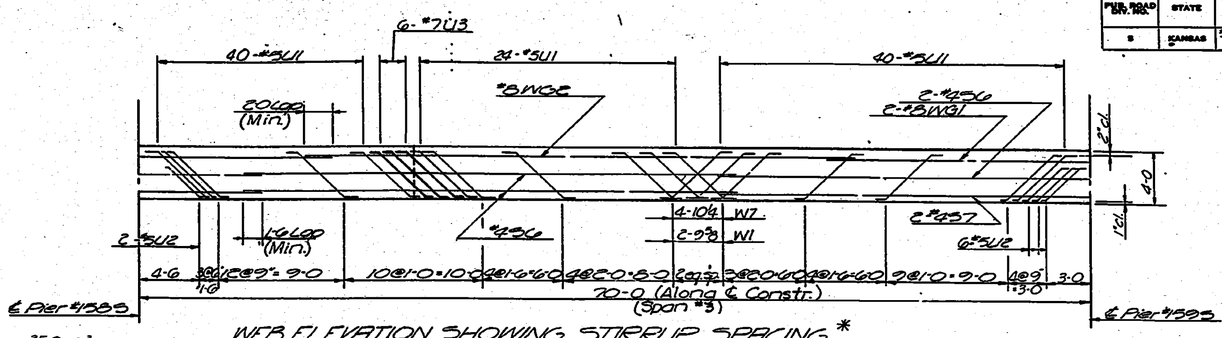
SHEET NO. 2 OF 12	SCALE	APP'D.	
DESIGNED DF-3	DETAILED RAF	QUANTITIES LKD	TRACED RAF
DESIGN CK. RBS	DETAIL CK. DFG	QUANT. CK. FEB	TRACE CK. LKD

DIST. 5 SEDGWICK CO. ROLL 531

3 7 5

16X 14.5X 12X 12X 14.5X 16X

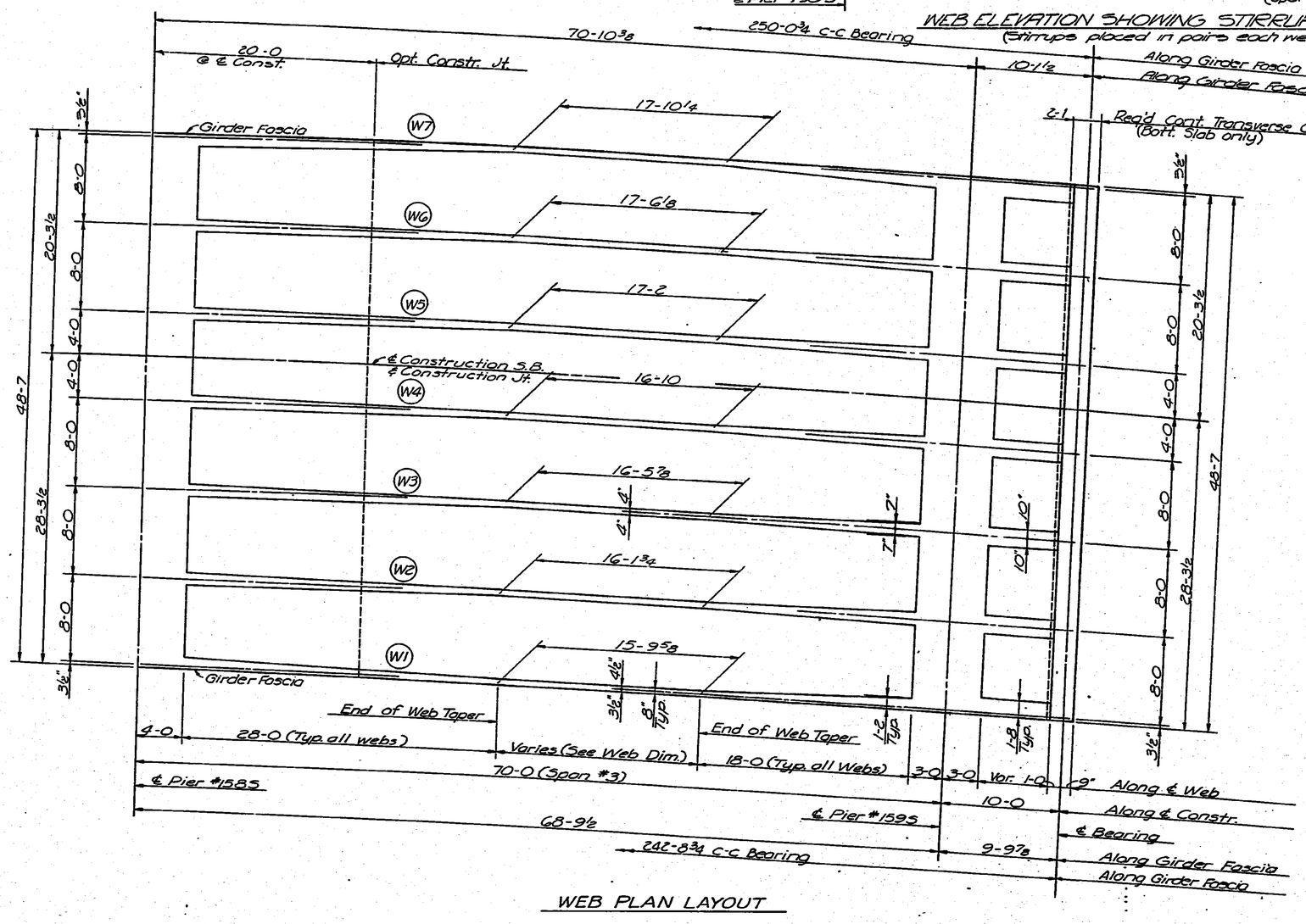
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase 2	19	1915	2137



WEB ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web)

* See Note Span #1.

NOTE:
See Span NO. 1 For Stirrup Spacing in Cantilever.



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR.NO.35W-87-15.99 STA.298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 35S
S.B. I-35W VIADUCT
" (OVER 17TH STREET)
PROJ.35W-87-135W-1(58)48 SEDGWICK CO.

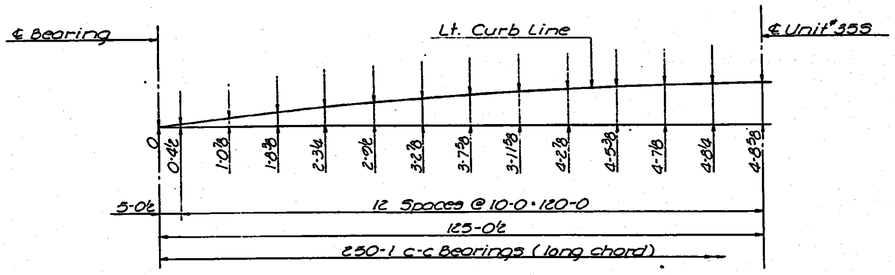
SHEET NO. 5 OF 12	SCALE	APP'D.	
DESIGNED DFC	DETAILED RAF	CHECKED LKD	TRACED RAF
DESIGN CK. RBS	DETAIL CK. DFC	CHKD. CK. EFS	TRACE CK. LKD

DIST. 5 SEDGWICK CO. ROLL 531

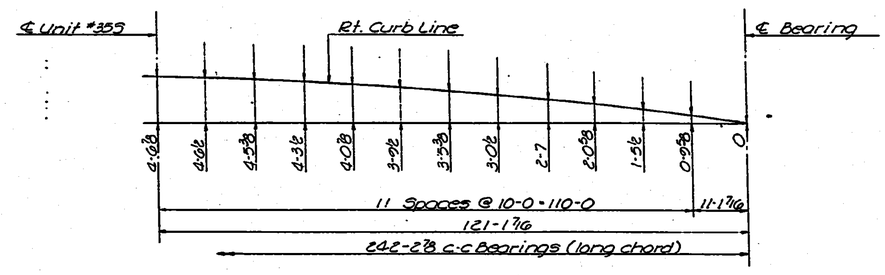
3 7 6

16X 14.5X 12X 12X 14.5X 16X

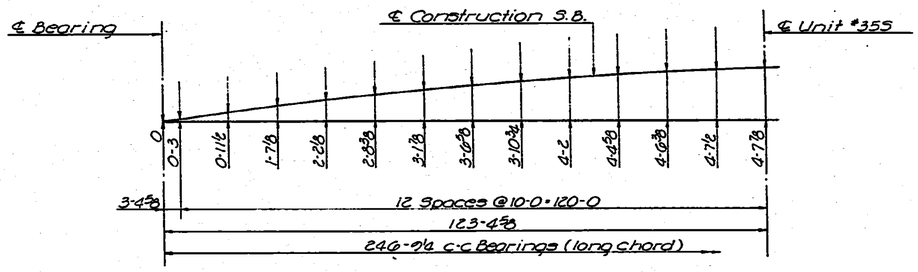
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1916	2137



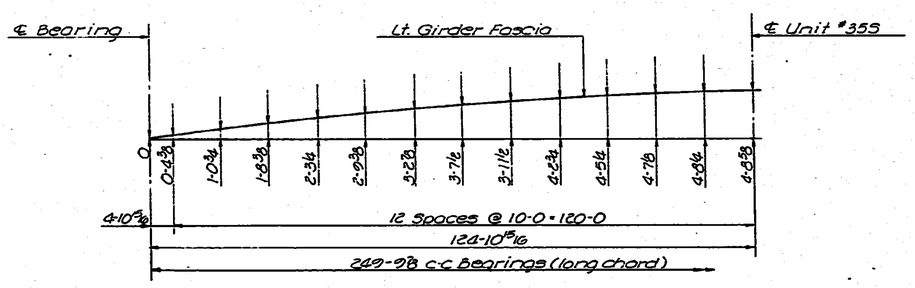
LT. CURB LINE OFFSETS
(Half unit shown; Symm. about ℄)



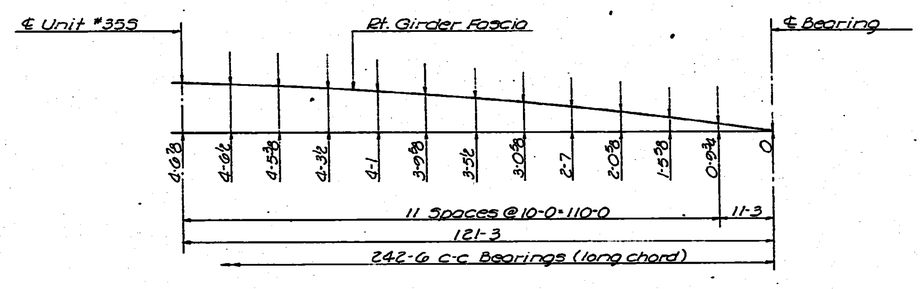
RT. CURB LINE OFFSETS
(Half unit shown; Symm. about ℄)



℄ CONSTRUCTION S.B. OFFSETS
(Half unit shown; Symm. about ℄)



LT. GIRDER FASCIA OFFSETS
(Half unit shown; Symm. about ℄)



RT. GIRDER FASCIA OFFSETS
(Half unit shown; Symm. about ℄)

Note: For Curve data @ ℄ Construction
See Construction Layout.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 35S
S.B. I-35W VIADUCT
(OVER 17TH. STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 6 of 12	SCALE	APP'D.	
DESIGNED DFG	DETAILED EES	QUANTITIES JML	TRACED EES
CHECKED JNH	DETAIL CK. LKD	QUAN. CK. DFG	TRACE CK. LKD

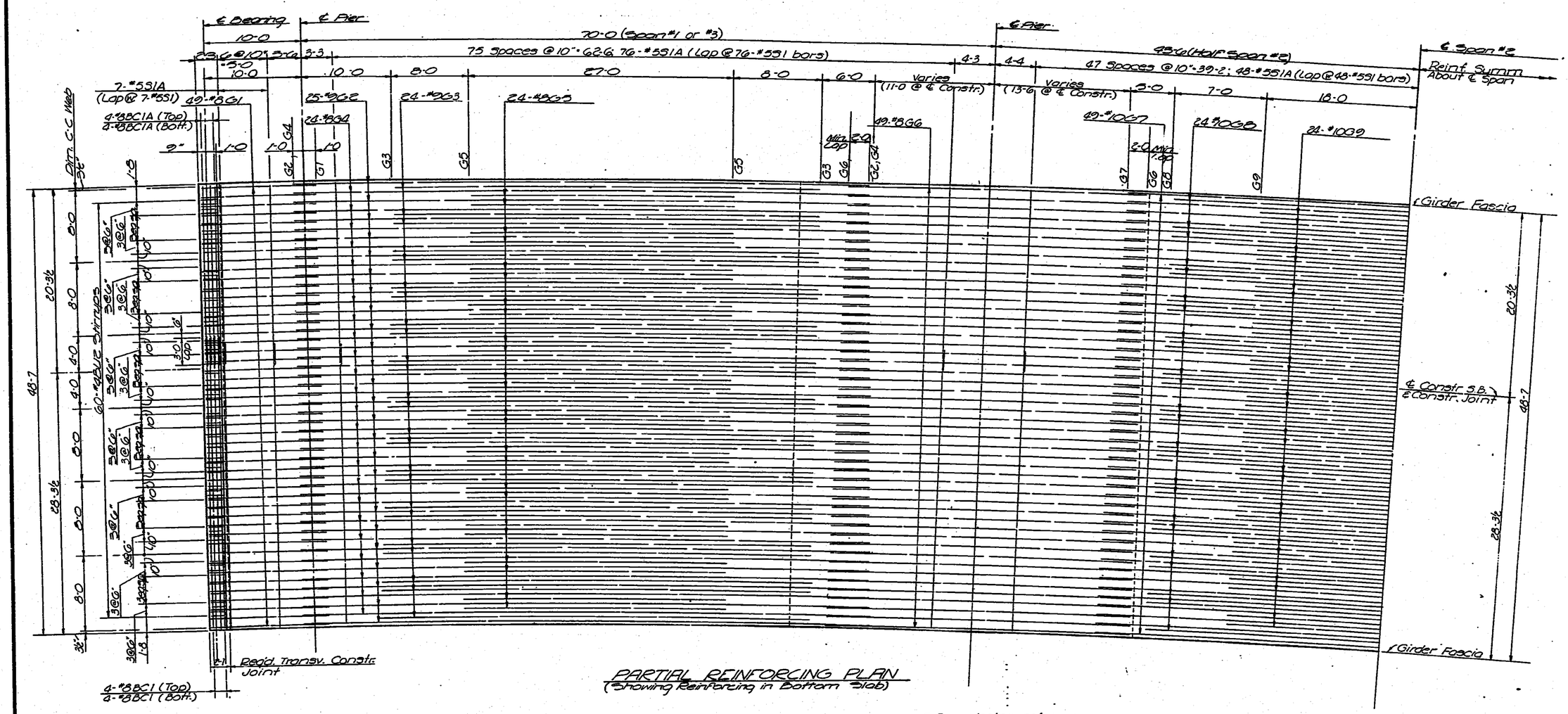
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

3 7 7

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	19	1917	2137



PARTIAL REINFORCING PLAN
(Showing Reinforcing in Bottom Slab)

Note:
All longitudinal dimensions are along the ℄ Constr. S.B., except as otherwise indicated.
All transverse dimensions are on radial lines, except as otherwise indicated.
Transverse bars are placed on radial lines and longitudinal bars on concentric arcs, except as otherwise indicated.
Longitudinal reinforcing splices shall be lapped as shown with Min. Lap on long side. Lap increases as arc length decreases.
All bar marks shall be prefixed with the unit number when fabricated. Example: #8G1 shall be marked 35S8G1.

G Bar placing note:
(1) G1 starts at bearing ends.
(2) G7, G8 & G9; G18 center on span #2.
(3) G15, G16 & G17 Center over ℄ of piers.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 35S
S.B. I-35W VIADUCT (OVER 17TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

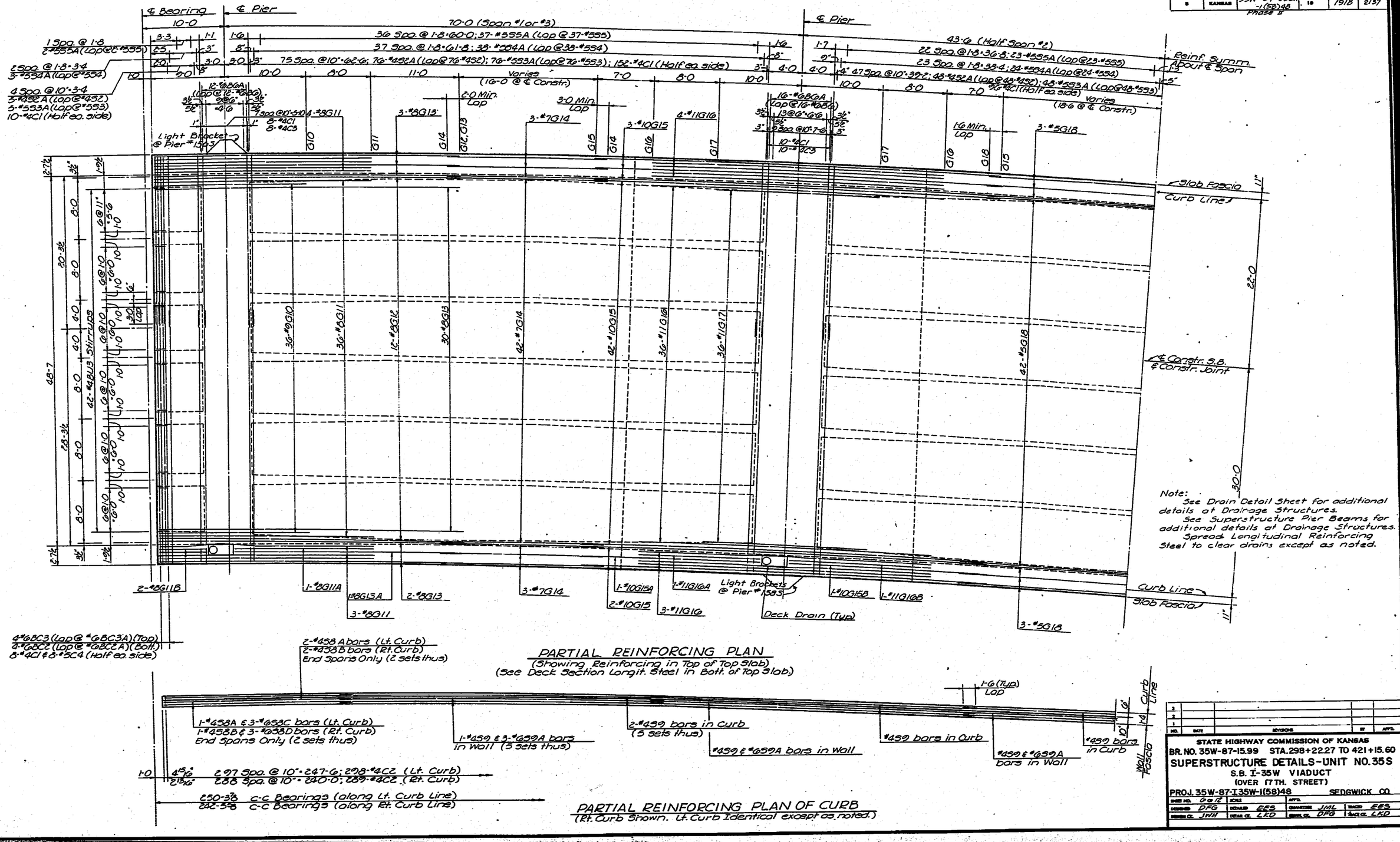
SHEET NO. 5 OF 12	SCALE	APP'D.	
DESIGNED DFG	DETAILED RAF	QUANTITIES LKD	TRACED RAF
DESIGN CK. RBS	DETAIL CK. DFG	CHKD. CK. EEF	TRACE CK. LKD

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 7 8

16X 14.5X 12X 12X 14.5X 16X

PIER, ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1918	2137



PARTIAL REINFORCING PLAN
(Showing Reinforcing in Top of Top Slab)
(See Deck Section Longit. Steel in Bott. of Top Slab)

PARTIAL REINFORCING PLAN OF CURB
(Rt. Curb Shown. Lt. Curb Identical except as noted.)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 35S
S.B. I-35W VIADUCT
(OVER 17TH. STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

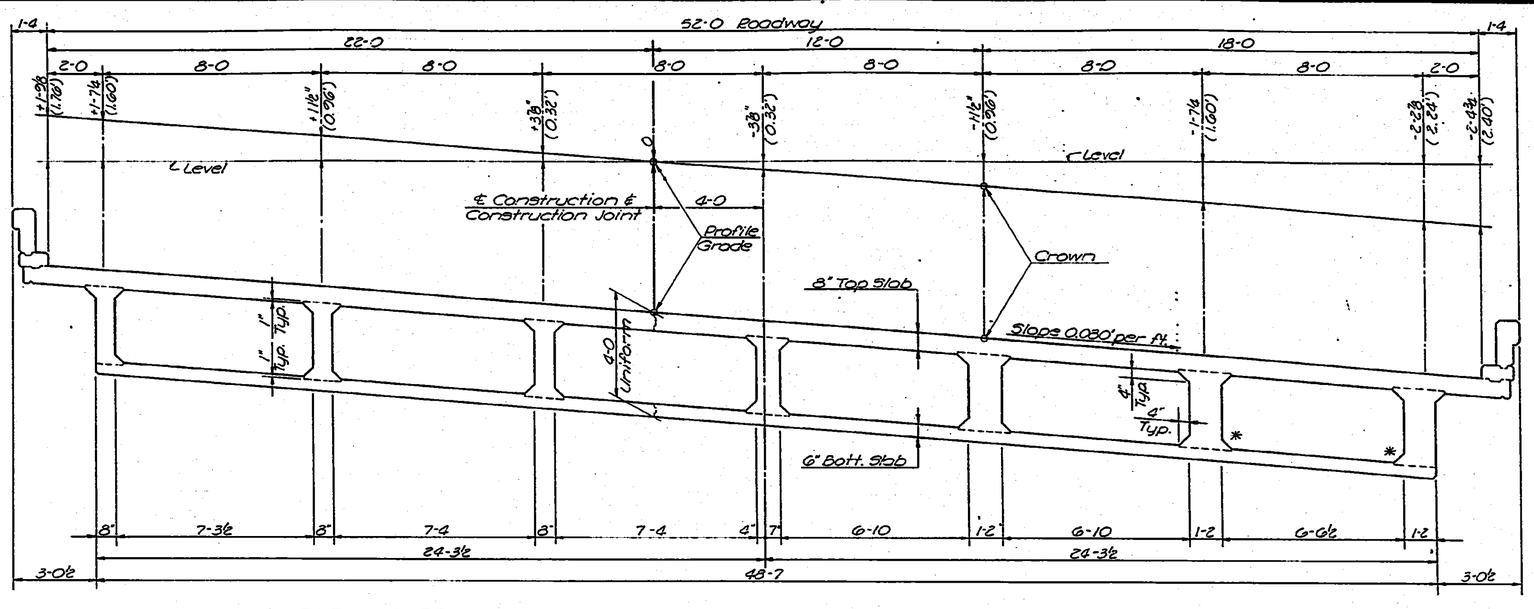
SHEET NO. 0 of 12	SCALE		APP'D.		
DESIGNED DFG	DETAILED EES		QUANTITIES JML	TRACED EES	
DESIGN CK. JNH	DETAIL CK. LKD		QUANT. CK. DFG	LAYOUT CK. LKD	

DIST. 5 SEDGWICK CO. ROLL 531

3 7 9

16X 14.5X 12X 12X 14.5X 16X

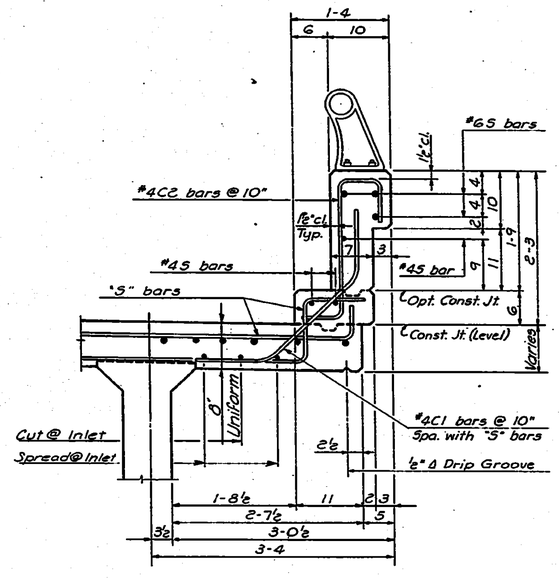
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1919	2137



NEAR MID-SPAN

NEAR PIER

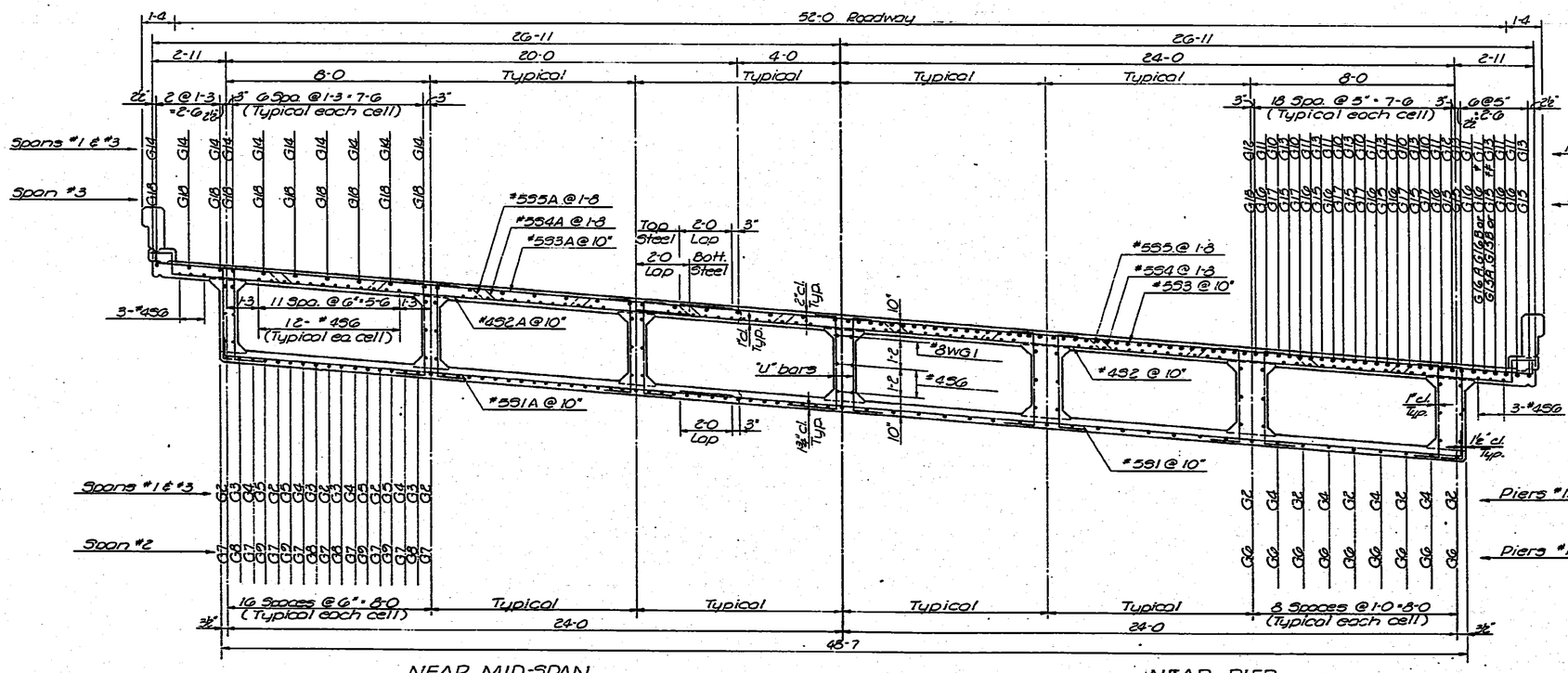
ROADWAY DECK SECTION



TYPICAL CURB SECTION

Note:
See Web Elevation for quantity, size and spacing of "U" bars. There are 7 sets of #4S6 bars in the bottom of the top slab. Lap 1'-6 long side. Lap increases as arc length decreases.

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.



NEAR MID-SPAN

ROADWAY DECK SECTION

NEAR PIER

NO.	DATE	DIVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 35S
S.B. I-35W VIADUCT
(OVER 17TH. STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 7 OF 12	SCALE	APP'D.	
DESIGNED DPG	DETAILED EES	CHECKED JML	TRACED EES
DESIGN CK. JNH	DETAIL CK. LKD	CHECK CK. DPG	TRACE CK. LKD

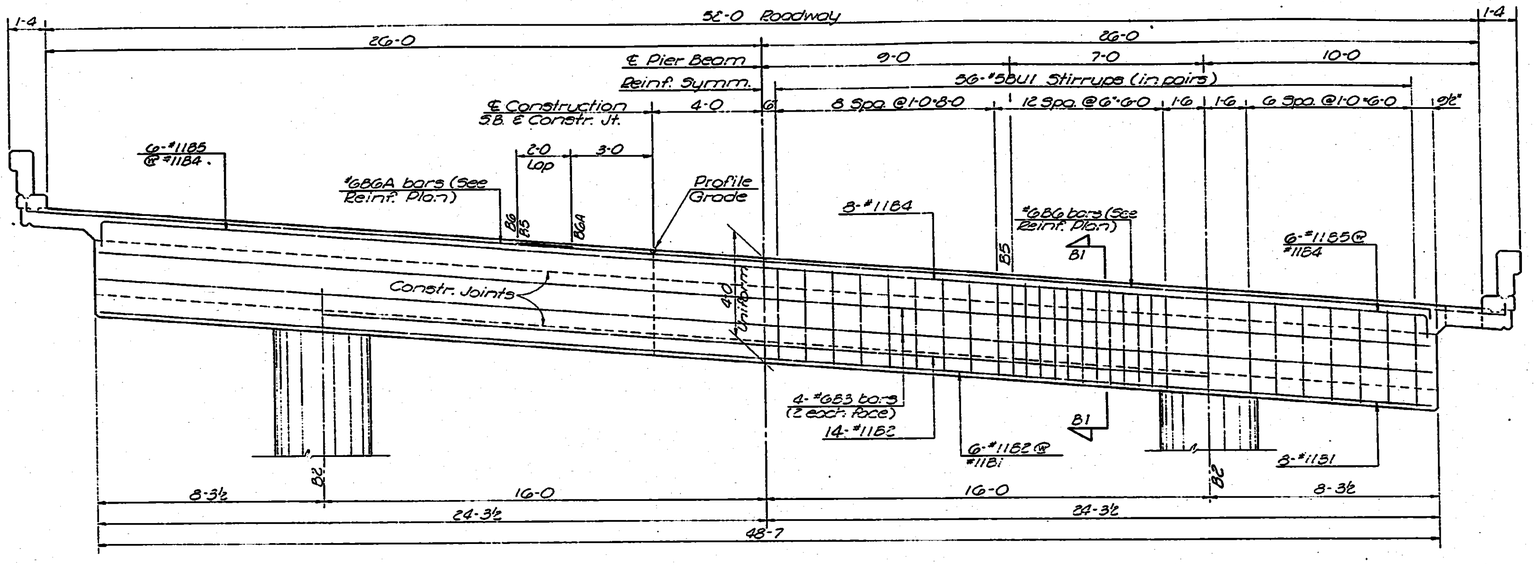
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

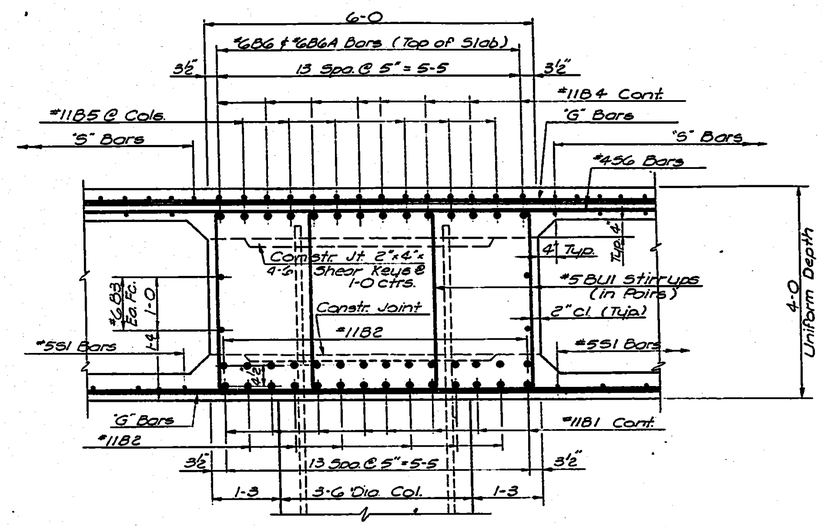
[redacted] 3 8 0

16X 14.5X 12X 12X 14.5X 16X

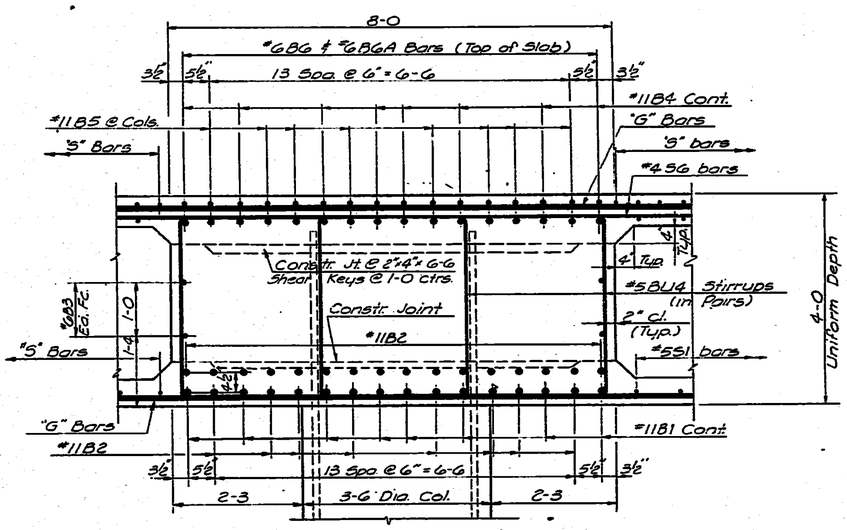
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-1 I35EN-1(58)48 Phase II	19	1920	2137



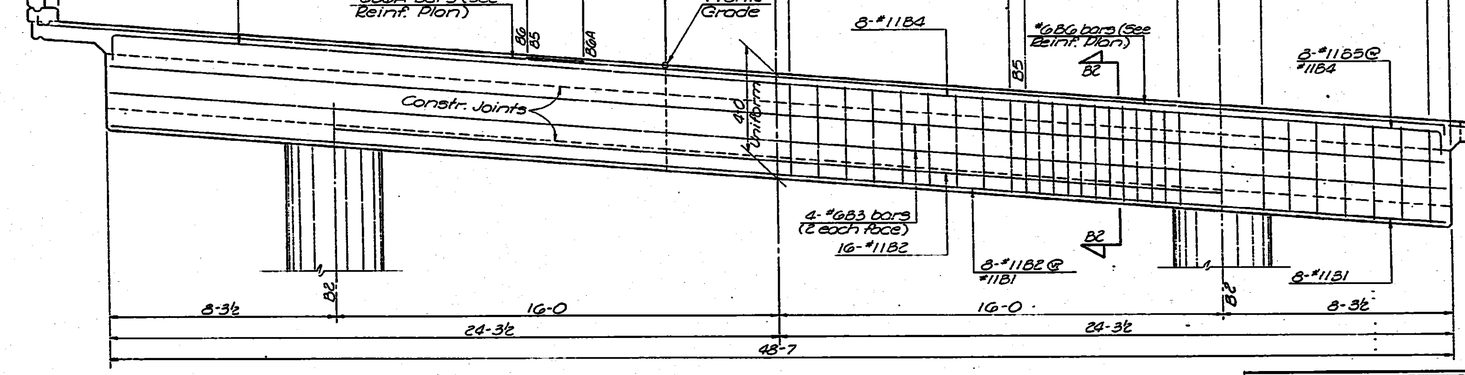
SUPERSTRUCTURE PIER BEAM
(At Piers #1565 & #1595)



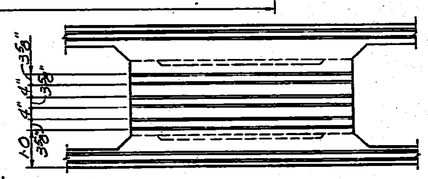
SECTION B1-B1



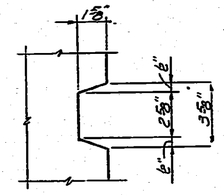
SECTION B2-B2



SUPERSTRUCTURE PIER BEAM
(At Piers #1575 & #1585)



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing location of keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D.

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 35S
S.B.I-35W VIADUCT
(OVER 17TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 8 OF 12	SCALE	APP'D.	
DESIGNED DFG	DETAILED EES	CONNECTED JML	TRACED EES
DESIGN CK. JMH	DETAIL CK. LKD	CONN. CK. DFG	TRACE CK. LKD

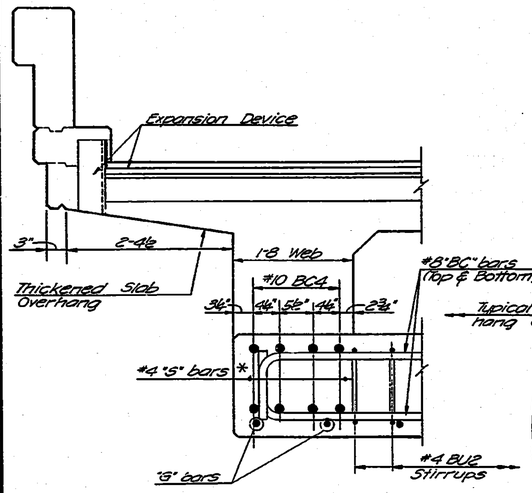
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

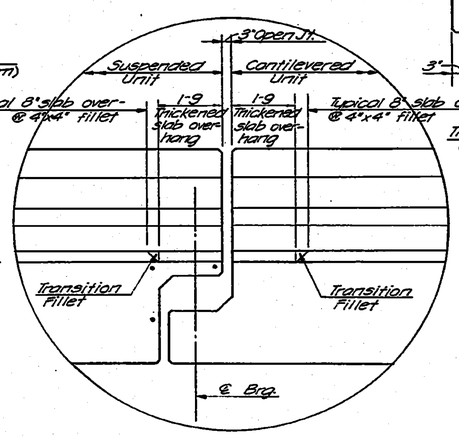
[redacted] 3 8 1

16X 14.5X 12X 12X 14.5X 16X

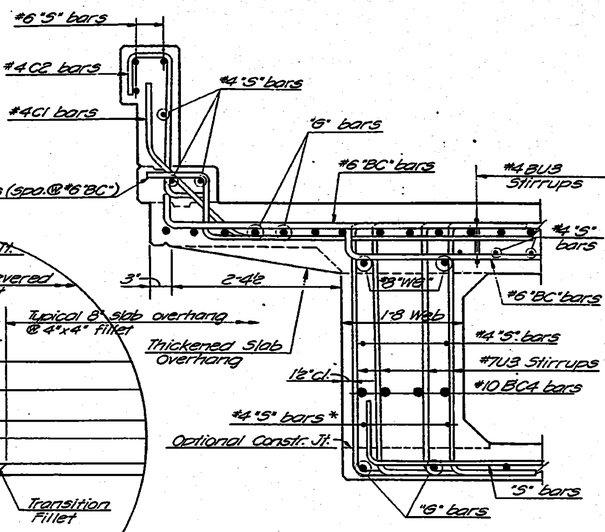
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W-1(58)48 Phase II	19	1921	2137



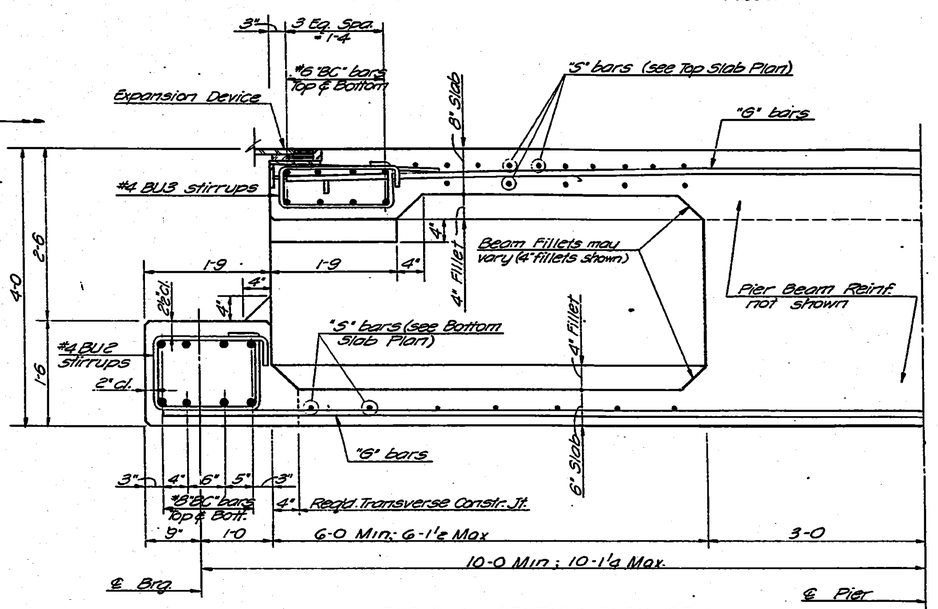
SECTION C3 – C3
(Exterior Web)



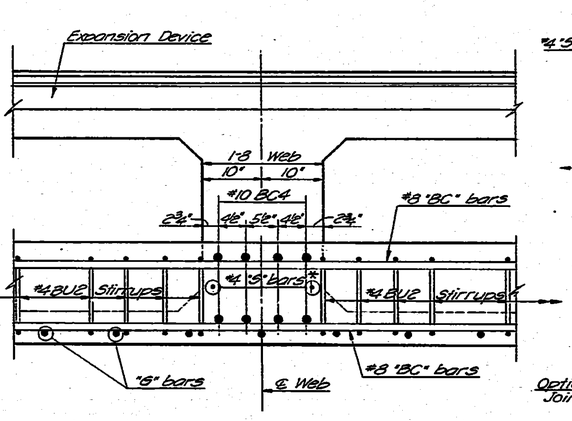
VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)



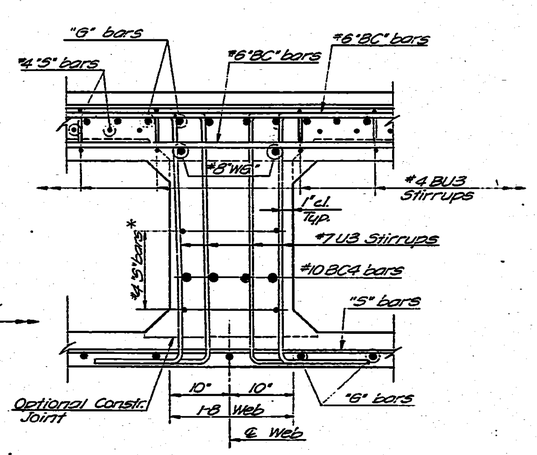
SECTION C4 – C4
(Exterior Web)



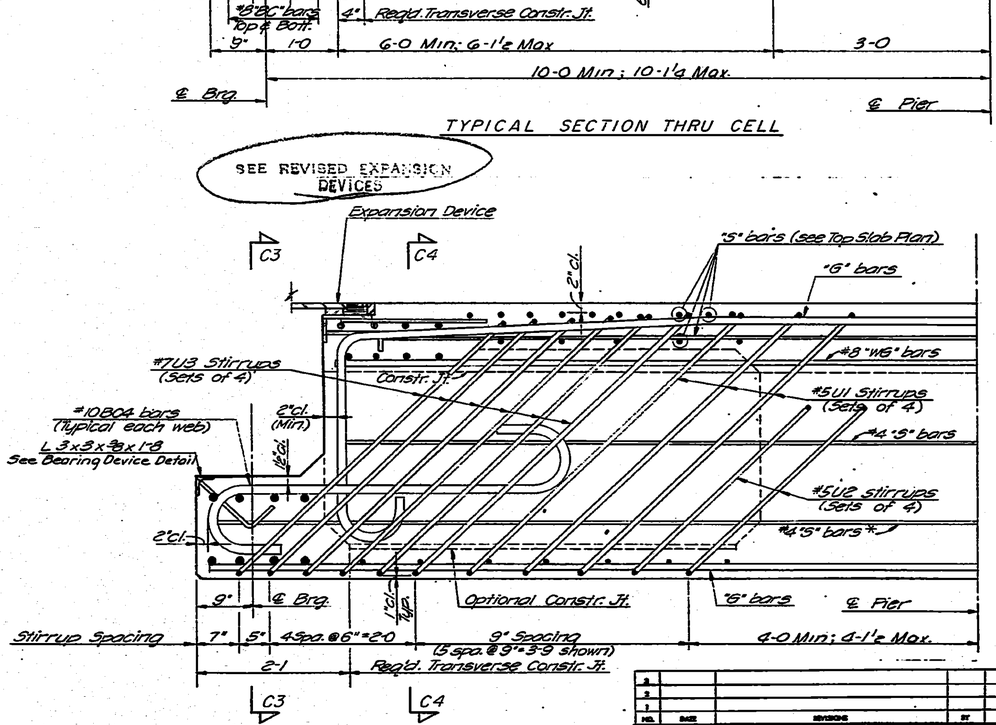
TYPICAL SECTION THRU CELL



SECTION C3 – C3
(Interior Web)



SECTION C4 – C4
(Interior Web)



TYPICAL SECTION THRU WEB

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

BEARING BEAM DETAILS

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS – UNIT NO. 35S
S.B. I-35W VIADUCT
(OVER 17TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

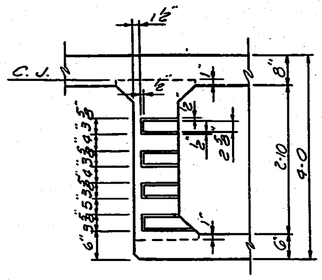
SHEET NO. 9 OF 12	SCALE	APP'D.		
DESIGNED DFG	DETAILED DS	CHECKED JML	TRACED DS	
QUANTITIES CK. RBS	DETAIL CK. RBS	SUPER. CK. DFG	TRANS. CK. RBS	

DIST. 5 SEDGWICK CO. ROLL 531

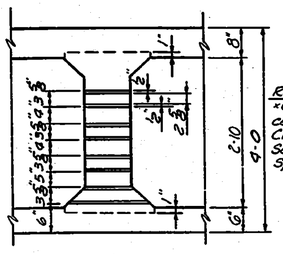
3 8 2

16X 14.5X 12X 12X 14.5X 16X

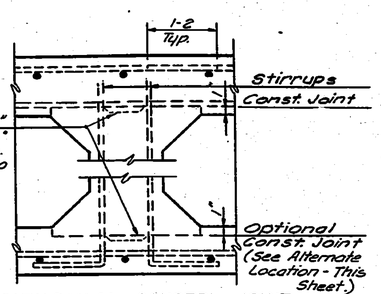
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-15.99 I-(58)48 Phase II	19	1922	2137



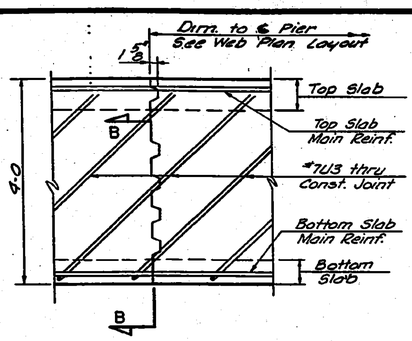
SECTION B-B
(Through Exterior Web)



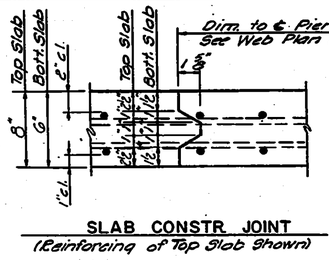
SECTION B-B
(Through Interior Web)



LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)

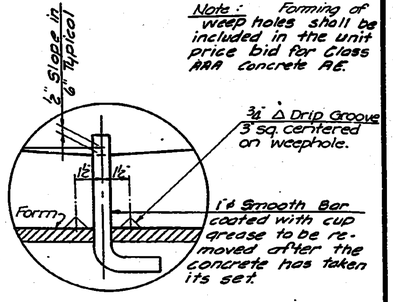


WEB CONSTR. JOINT
(Showing Placement of #7U3 bars.)



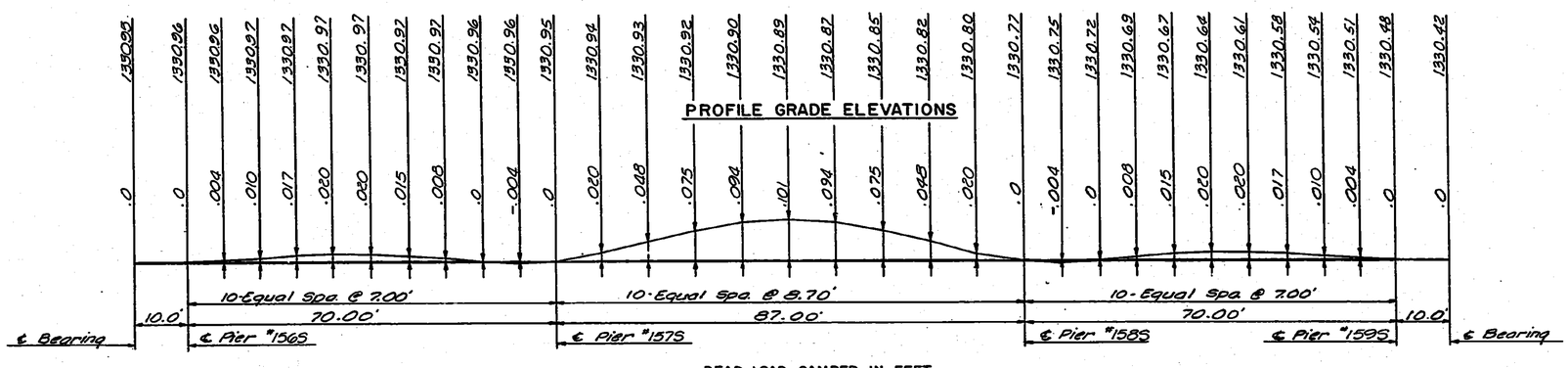
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)

Note: Forming of weep holes shall be included in the unit price bid for Class AAA concrete AE.



DETAIL OF WEEP HOLES

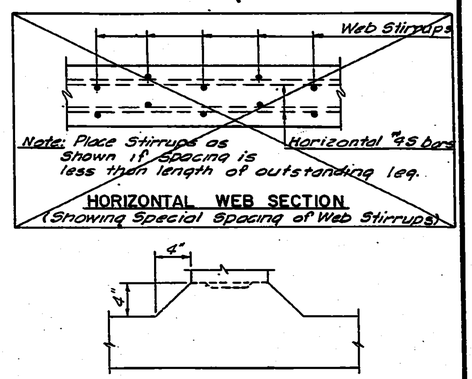
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



DEAD LOAD CAMBER IN FEET

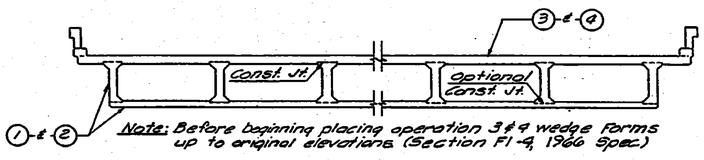
DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS

Note: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ p.s.i.



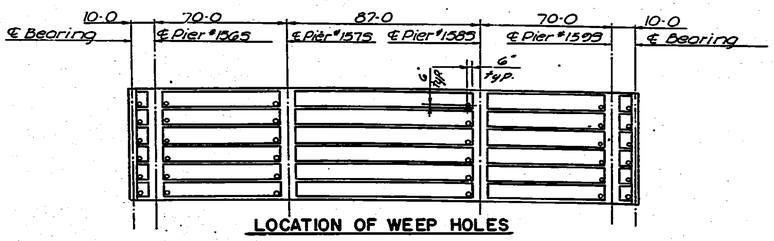
HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)

ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer)

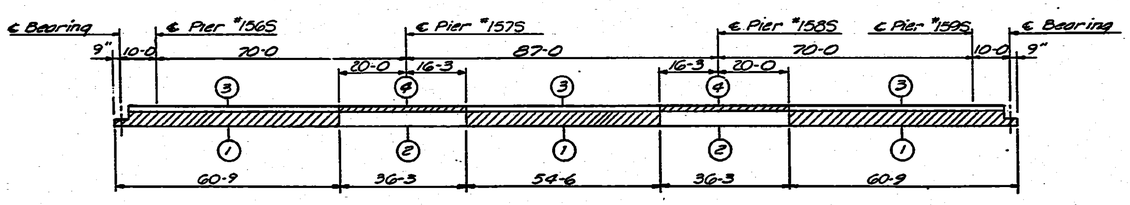


Note: Before beginning placing operation 3 #9 wedge forms up to original elevations (Section F1-9, 1966 Spec.)

CROSS SECTION OF SUPERSTRUCTURE



LOCATION OF WEEP HOLES



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework

See General Notes:

Curbs and Handrail: Construction Joints in Curbs shall be made only under rail openings. Curbs shall be built after Falsework is struck. Handrails shall be built after Falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained it's design strength.

Construction Joints: Construction Joints shown are optional with the Bridge Contractor, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 35S
S.B. I-35W VIADUCT
(OVER 17TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

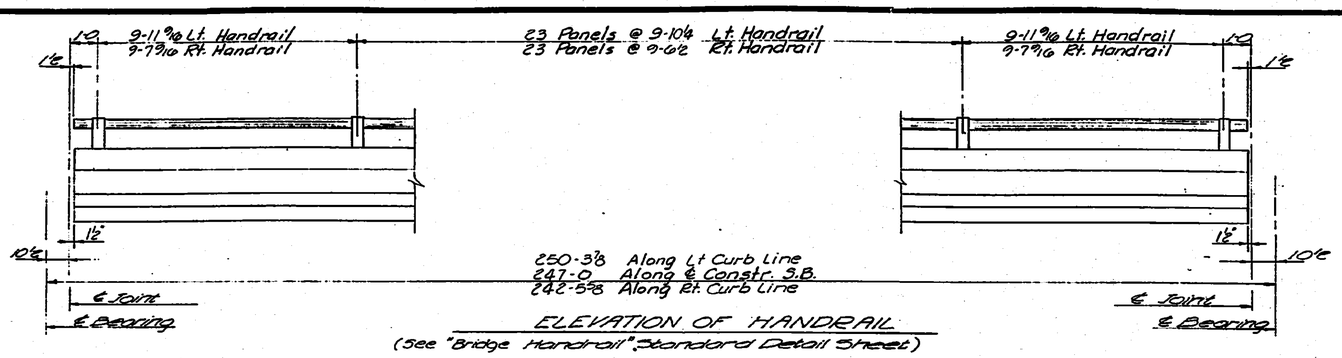
SHEET NO. 10 of 12	ZONE	APP'D.			
DESIGNED DFG	DETAILED DGT	CHECKED DAV	TRACED DGT		
DESIGN CK. RDS	DETAIL CK. RAW	QUAN. CK. EEA	TRACE CK. RDS		

DIST. 5 SEDGWICK CO. ROLL 531

3 8 3

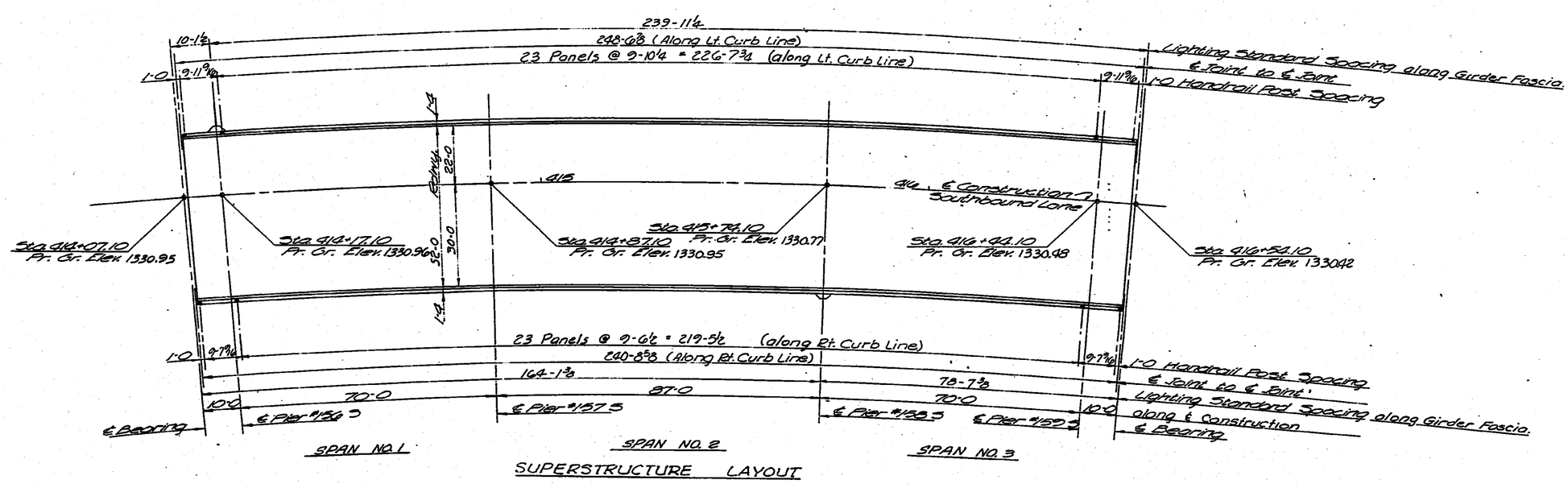
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II	19	1923	2137



ELEVATION OF HANDRAIL

(See "Bridge Handrail" Standard Detail Sheet)



SUPERSTRUCTURE LAYOUT

NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets

NO.	DATE	DIVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 35S
S.B. I-35W VIADUCT
(OVER 17 TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 11 of 12	SCALE	APP'D.	
DESIGNED JWH	DETAILED RPS	QUANTITIES LWD	TRACED EAC
DESIGN CK. DBS	DETAIL CK. DPG	CHECK. CK. DBS	TRACE CK. DBS

DIST. 5 | SEDGWICK CO. | ROLL 531

3 8 4

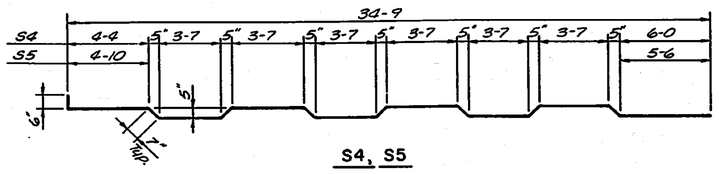
16X | 14.5X | 12X | 12X | 14.5X | 16X

BENDING DIAGRAMS

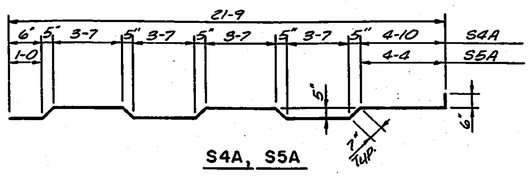
(Bar Dimensions are Out to Out.)

REV. PLANS 11-1-71

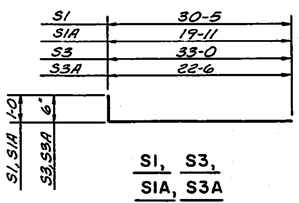
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	1970	1924	2137



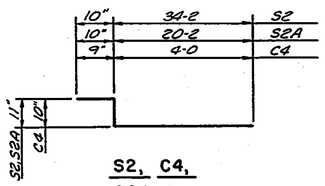
S4, S5



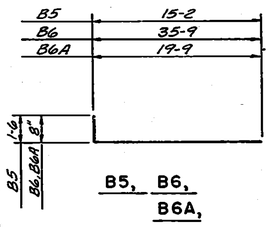
S4A, S5A



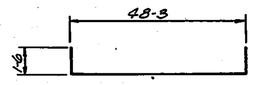
S1, S3, S1A, S3A



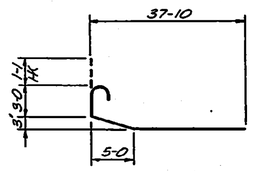
S2, C4, S2A



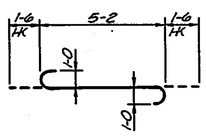
B5, B6, B6A,



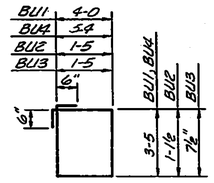
B4,



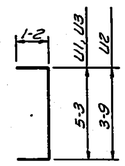
G12



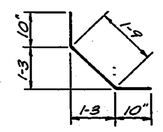
BC4



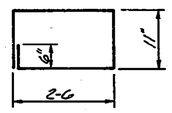
BU1, BU2, BU3, BU4



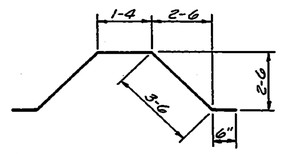
U1, U2, U3



C1



LB1



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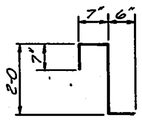
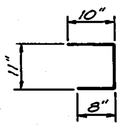


C2



C3

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Drainage Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details

BILL OF REINFORCING STEEL

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
				S1	262	5	31-5
				S1A	262	5	20-11
				S2	258	4	35-11
				S2A	258	4	21-11
				S3	258	5	33-6
				S3A	258	5	23-0
S6	714	4	36-10				
S7	28	4	38-8	S4	189	5	36-5
S8	12	4	26-10	S4A	189	5	23-1
S8A	12	6	26-10				
S9	30	4	40-0	S5	125	5	36-5
S9A	30	6	40-0	S5A	125	5	23-1
G1	98	8	11-7				
G2	50	9	60-0				
G3	48	9	43-0				
G4	48	8	60-0				
G5	48	8	27-0				
G6	98	8	30-0				
G7	49	10	60-0				
G8	24	10	50-0				
G9	24	10	36-0				
G10	72	9	18-10				
				G12	24	8	41-11
G11	86	8	26-10				
G11A	2	8	17-9				
G11B	4	8	6-0	LB1	8	4	7-4
G13	70	8	37-10	LB2	6	4	9-4
G13A	2	8	28-9				
G14	96	7	22-0				
G15	94	10	50-0				
G15A	2	10	22-0				
G15B	2	10	24-6				
G16	86	11	36-0				
G16A	2	11	15-0				
G16B	2	11	17-6				
G17	72	11	20-0				
G18	48	5	41-1				

STRAIGHT BARS				BENT BARS			
MK	No.	Size	Length	MK	No.	Size	Length
B1	32	11	48-3				
B2	88	11	32-0				
B3	16	6	48-3				
				B4	32	11	51-3
				B5	56	11	16-8
				B6	60	6	36-5
				B6A	60	6	20-5
				BU1	224	5	15-10
				BU2	120	4	6-1
				BU3	84	4	5-1
				BU4	224	5	18-6
				BC1	16	8	32-8
				BC1A	16	8	20-8
				BC2	8	6	31-11
				BC2A	8	6	19-11
				BC3	8	6	34-6
				BC3A	8	6	22-6
				BC4	56	10	8-2
				C1	592	4	3-5
				C2	587	4	3-8
				C3	72	4	2-5
				C4	16	5	5-7
C5	16	4	2-6				
				U1	2688	5	7-7
				U2	252	5	6-1
				U3	504	7	7-7
WG1	28	8	30-0				
WG2	70	8	40-0				

All bar marks shall be prefixed with the Unit Number when fabricated. Example: "8G1 bars shall be marked "35S8G1.

	1-0	6"
BC1	31-8	
BC1A	19-8	
BC2	31-5	
BC2A	19-5	
BC3	34-0	
BC3A	22-0	

BC1, BC1A, BC2, BC2A, BC3, BC3A

BC1, BC2, BC3, BC1A, BC2A, BC3A

SUMMARY OF SUPERSTRUCTURE QUANTITIES

Class AAA Concrete AE	886.5	Cu. Yds.
Reinforcing Steel	310,850	Lbs.
Cast Iron Scuppers		Lbs.
Wrought Iron Drains & Grates	2198	Lbs.
8" ϕ Downspouts	112.88	Lin. Ft.
Gutters		Lin. Ft.
Bridge Handrail	~~485.00~~ 485.28	Lin. Ft.
Structural Steel		
Corner Angles (A36) 14@19 Lbs.	266	Lbs.
Expansion Devices (A36)	3,848	Lbs.
Elastomeric Exp. Device (13½")	108	Lin. Ft.
Linseed Oil Surface Treatment (Bridges)	1412.0	Sq. Yds.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1	11-1-71	Rev. Exp. Devices	VHS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 35S
N.B. I-35W VIADUCT
(OVER 17TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

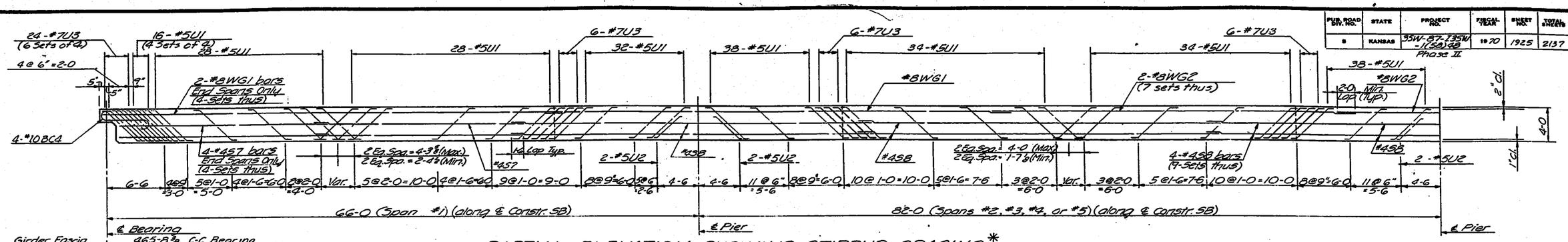
SHEET NO. 12 OF 12	SCALE		APP'D		
DESIGNED DAG	DETAILED EES		QUANTITIES JHC	TRACED EES	
DESIGN CK. JHH	DETAIL CK. ZKD		QUAN. CK. DFG	TRACE CK. DFG	

DIST. 5 SEDGWICK CO. ROLL 531

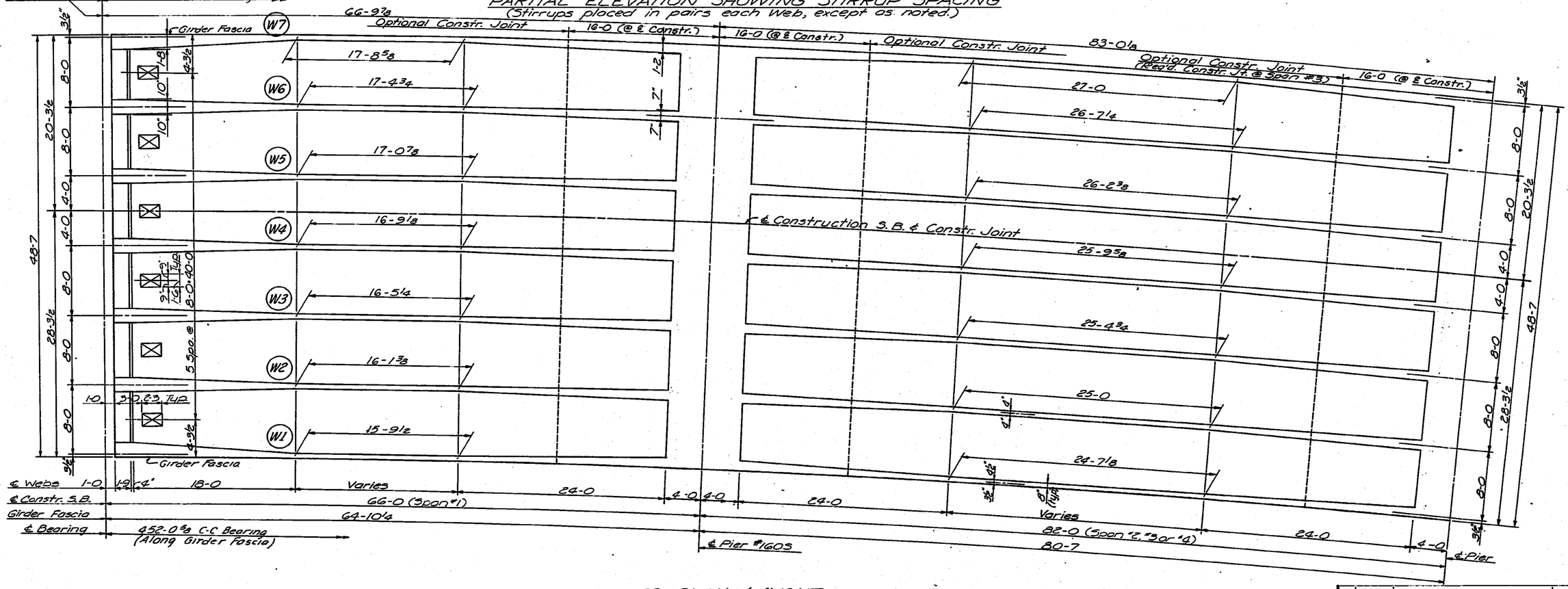
3 8 5

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-T35W-1(58)48 Phase II	1970	1925	2137



PARTIAL ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each Web, except as noted.)



WEB PLAN LAYOUT

Note: Optional Transverse Constr. Jts. are on radial lines.

* Stirrups are shown with horizontal leg parallel to longitudinal axis of bridge. Stirrup detail has been changed to provide 90° hooks which shall be placed at right angles to longitudinal axis of bridge above top & beneath bottom main reinforcing steel. See Roadway Deck Section.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO 35W-87-1599 STA: 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS—UNIT NO. 36S
SB I-35W VIADUCT
(NORTH OF 17 TH STREET)
PROJ 35W-87-T35W-1(58)48 SEDGWICK CO.

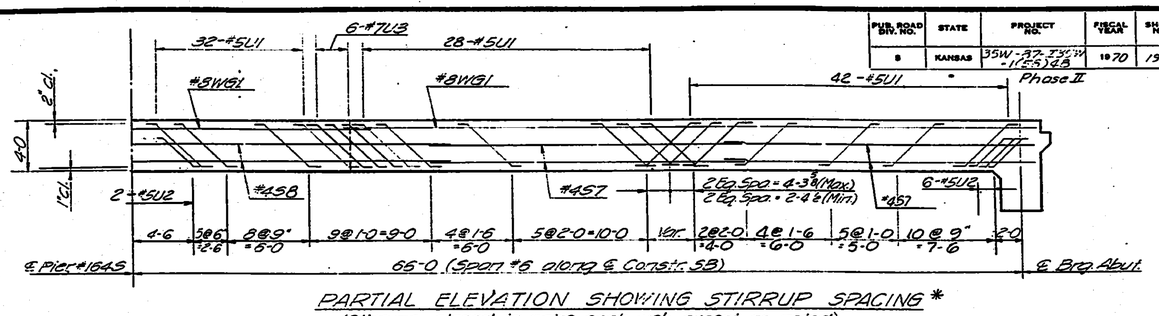
SHEET NO. 1 OF 14	SCALE	APP'D.	
DESIGNED DFG	DETAILED RCP	QUANTITIES LKD/TL	TRACED RCP
DESIGN CK. RBS	DETAIL CK. DFG	QUAN. CK. EES/BV	TRACE CK. LKD

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 8 6

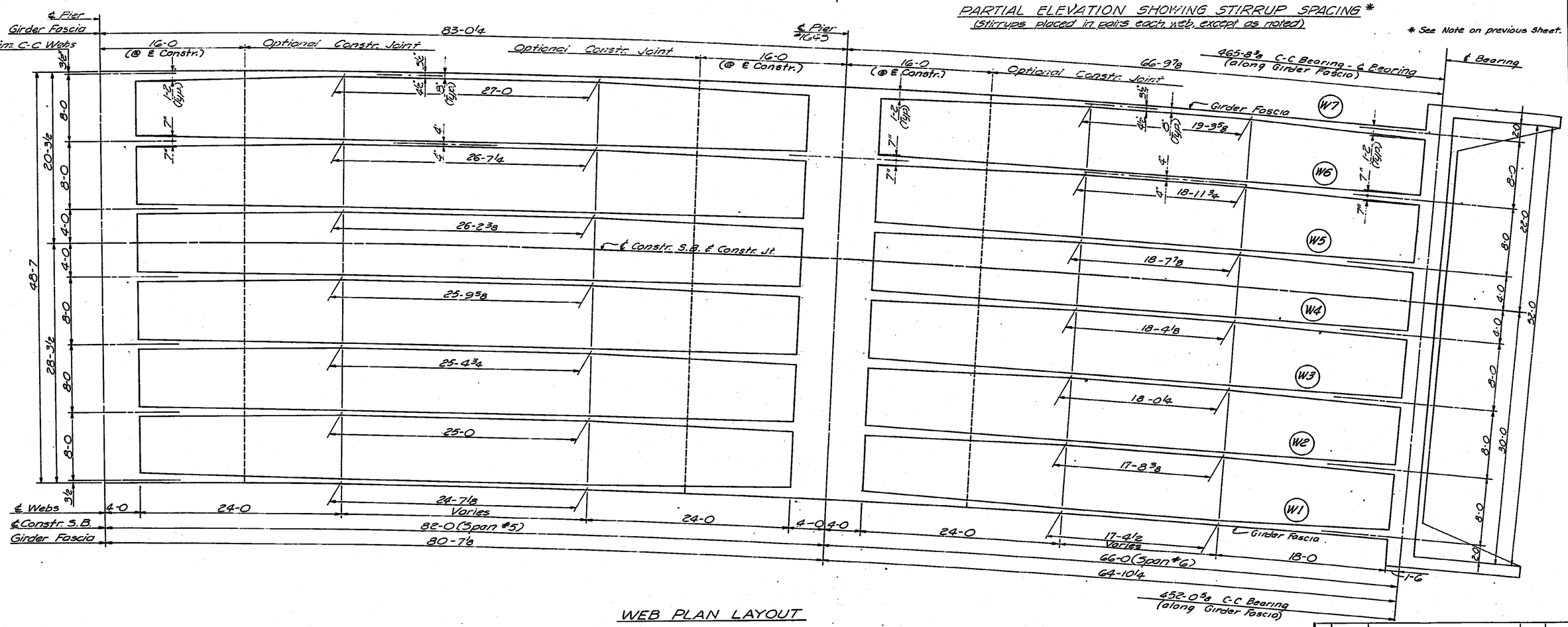
16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-1(58)48	1970	1926	2137



PARTIAL ELEVATION SHOWING STIRRUP SPACING *
(Stirrups placed in pairs each web, except as noted)

* See Note on previous Sheet.



WEB PLAN LAYOUT

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-1599 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 36S
S.B. I-35W VIADUCT
NORTH OF 17 TH STREET
PROJ. 35W-87-I 35W-1(58)48 SEDGWICK CO.

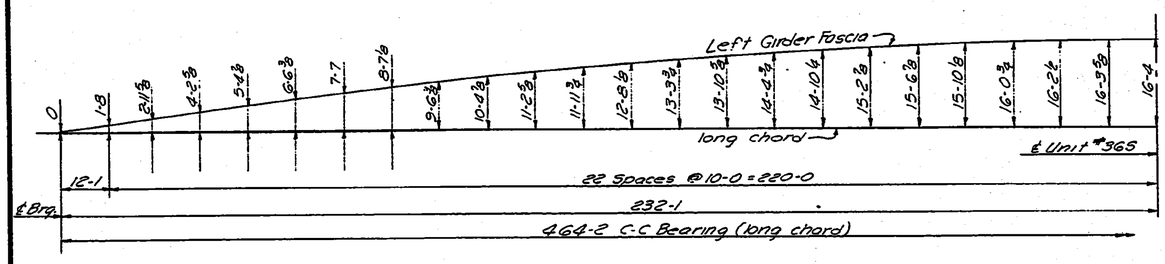
SHEET NO. 2 OF 12	SCALE		APP'D.		
DESIGNED FG	DETAILED RCP		QUANTITIES LKD 7/71	TRACED PCP	
DESIGN CK. RBS	DETAIL CK. DPA		QUANT. CK. EEE 7/71	TRACE CK. LKD	

DIST. 5 SEDGWICK CO. ROLL 531

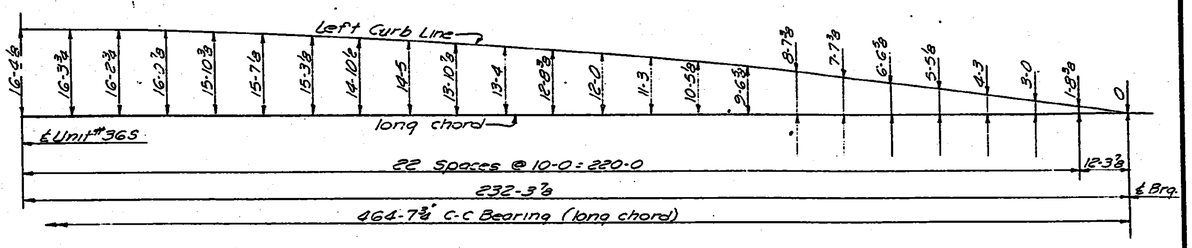
3 8 7

16X 14.5X 12X 12X 14.5X 16X

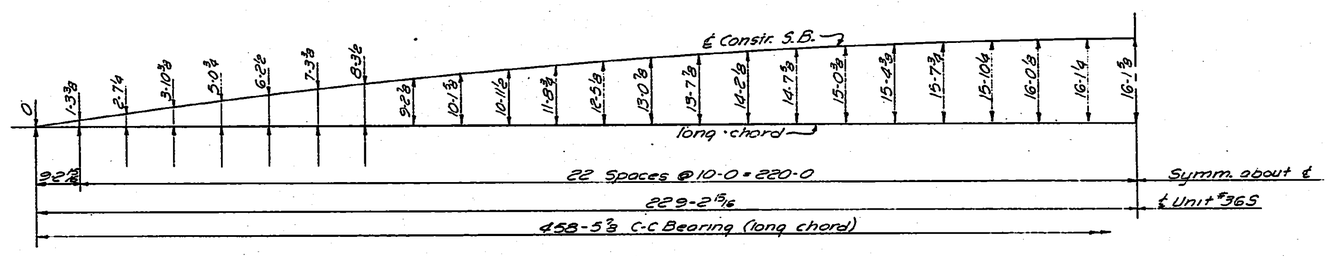
FHWA ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II	1970	1927	2137



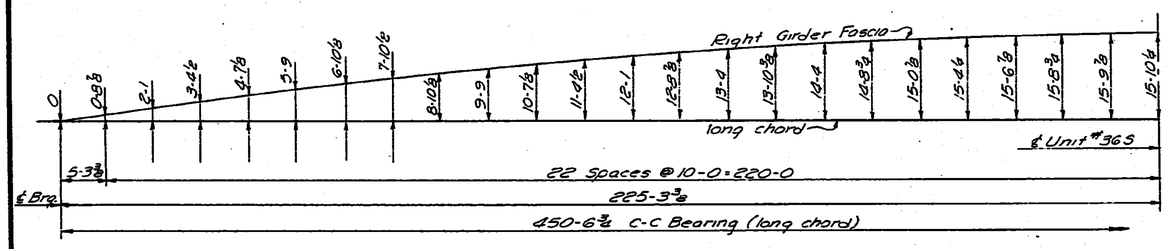
LEFT GIRDER FASCIA OFFSETS
(half unit shown; symm about ℄)



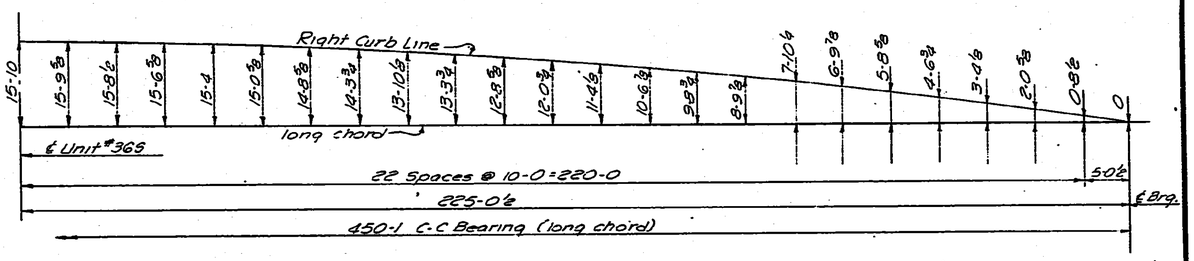
LEFT CURB LINE OFFSETS
(half unit shown; symm about ℄)



℄ CONSTRUCTION S.B. OFFSETS
(half unit shown; symm about ℄)



RIGHT GIRDER FASCIA OFFSETS
(half unit shown; symm. about ℄)



RIGHT CURB LINE OFFSETS
(half unit shown; symm about ℄)

Note: For Curve data @ ℄ Construction
See Construction Layout.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 36S
S.B. I-35W VIADUCT
(NORTH OF 17TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 3 OF 12	SCALE		APP'D.		
DESIGNED DFC	DETAILED EES		CHECKED TL	TRACED DDW	
DESIGN CK. JWH	DETAIL CK. LKD		STRUC. CK. AV	TRACE CK. LKD	

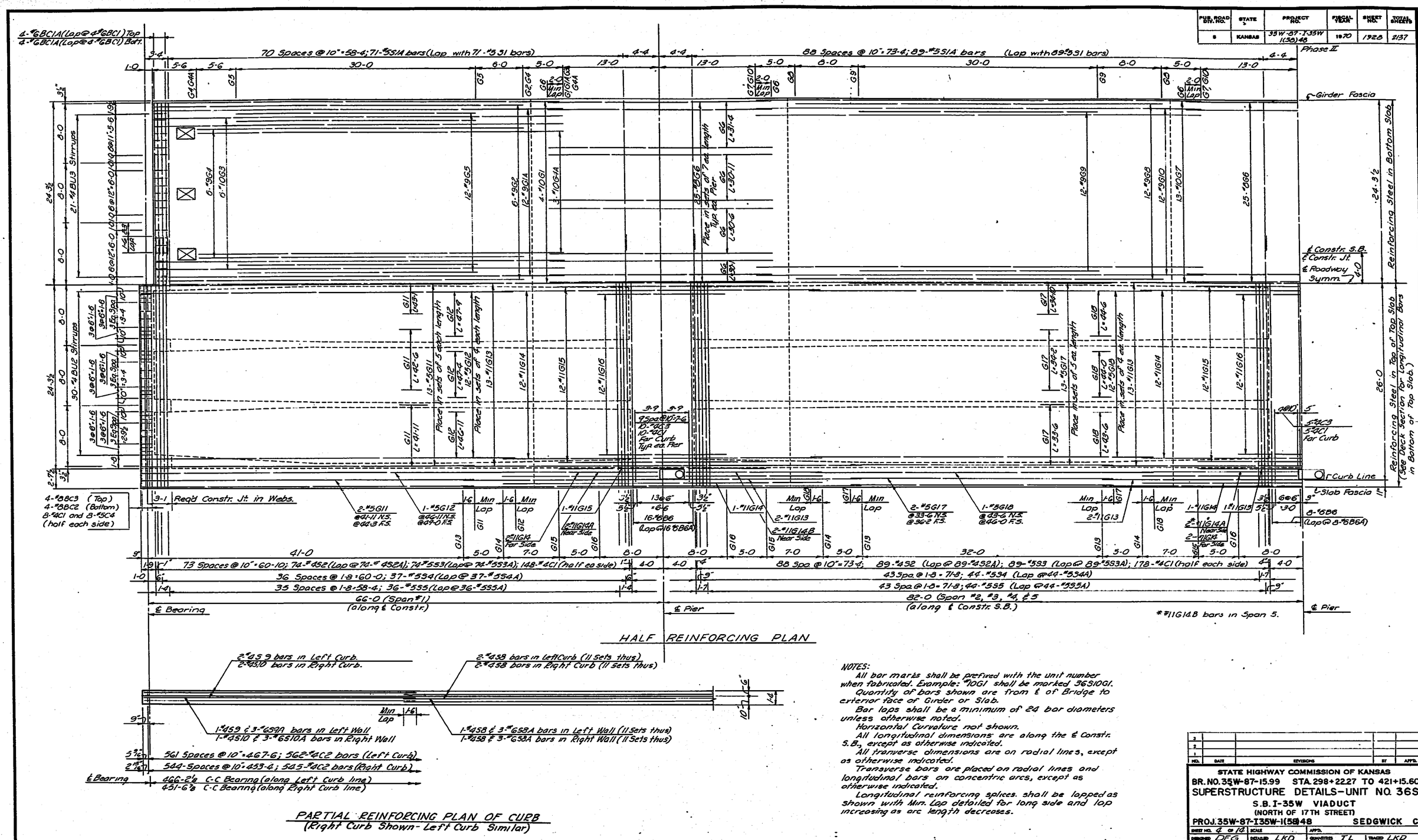
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

3 8 8

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	KANSAS	35W-87-I-35W 1(58)48	1970	1928	2137



HALF REINFORCING PLAN

PARTIAL REINFORCING PLAN OF CURB
(Right Curb Shown - Left Curb Similar)

NOTES:

All bar marks shall be prefixed with the unit number when fabricated. Example: #10G1 shall be marked 36S10G1.

Quantity of bars shown are from ℄ of Bridge to exterior face of Girder or Slab.

Bar laps shall be a minimum of 24 bar diameters unless otherwise noted.

Horizontal Curvature not shown.

All longitudinal dimensions are along the ℄ Constr. S.B., except as otherwise indicated.

All tranverse dimensions are on radial lines, except as otherwise indicated.

Transverse bars are placed on radial lines and longitudinal bars on concentric arcs, except as otherwise indicated.

Longitudinal reinforcing splices shall be lapped as shown with Min. Lap detailed for long side and lap increasing as arc length decreases.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS-UNIT NO. 36S
S.B. I-35W VIADUCT
(NORTH OF 17TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 4 OF 12	SCALE	APP'D.	
DESIGNED DFG	DETAILED LKD	QUANTITIES TL	TRACED LKD
DESIGN CK. RBS	DETAIL CK. EES	QUAN. CK. AV	TRACE CK. EES

TOPEKA BLUE PRINT CO.

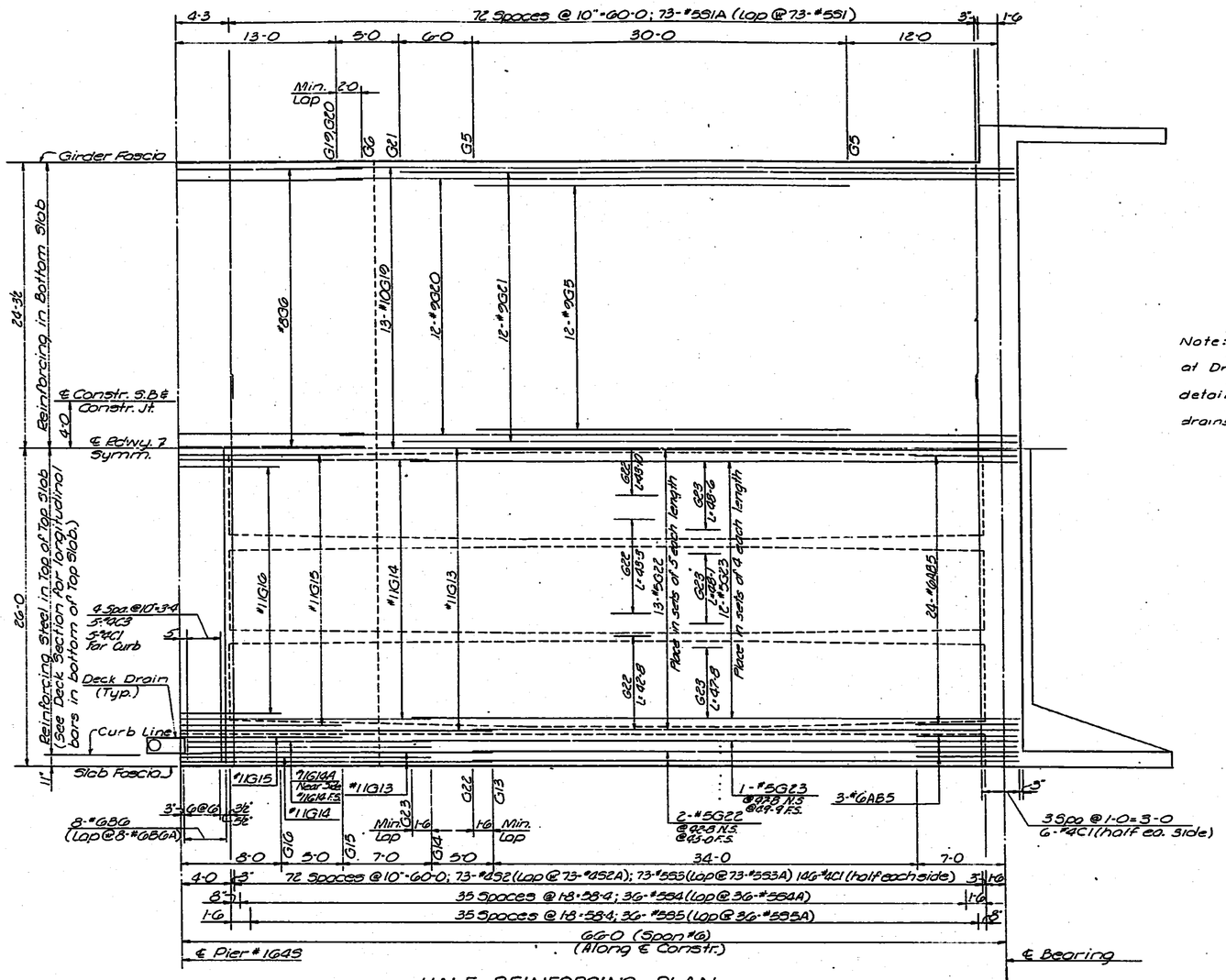
DIST. 5 SEDGWICK CO. ROLL 531

3 8 9

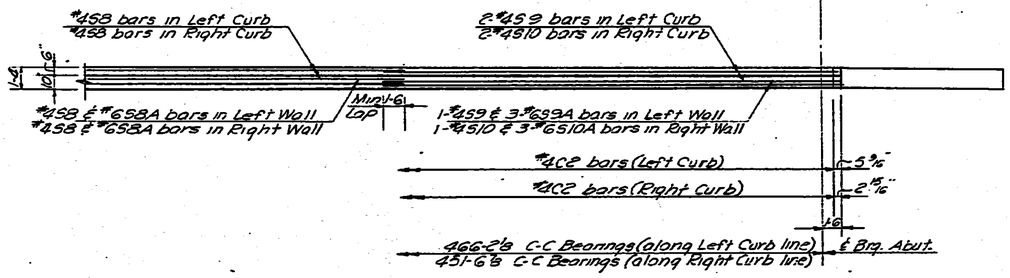
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35N-87-I35W -1(58)48	1970	1929	2187

Phase II



HALF REINFORCING PLAN



PARTIAL REINFORCING PLAN OF CURB
(Right Curb Shown-Left Curb Similar)

Note:
See Drain Detail Sheet for additional details at Drainage Structures.
See Superstructure Pier Beams for additional details at Drainage Structures.
Spread longitudinal Reinforcing Steel to clear drains except as noted.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 36S
S.B. I-35W VIADUCT
(NORTH OF 17TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 5 OF 12	SCALE	APP'D.			
DESIGNED DFG	DETAILED LKD	QUANTITIES TL	TRACED LKD		
CHECKED CO. JWH	DESIGN CO. EES	CHECK CO. AV	TRACE CO. EES		

TOPEKA BLUE PRINT CO.

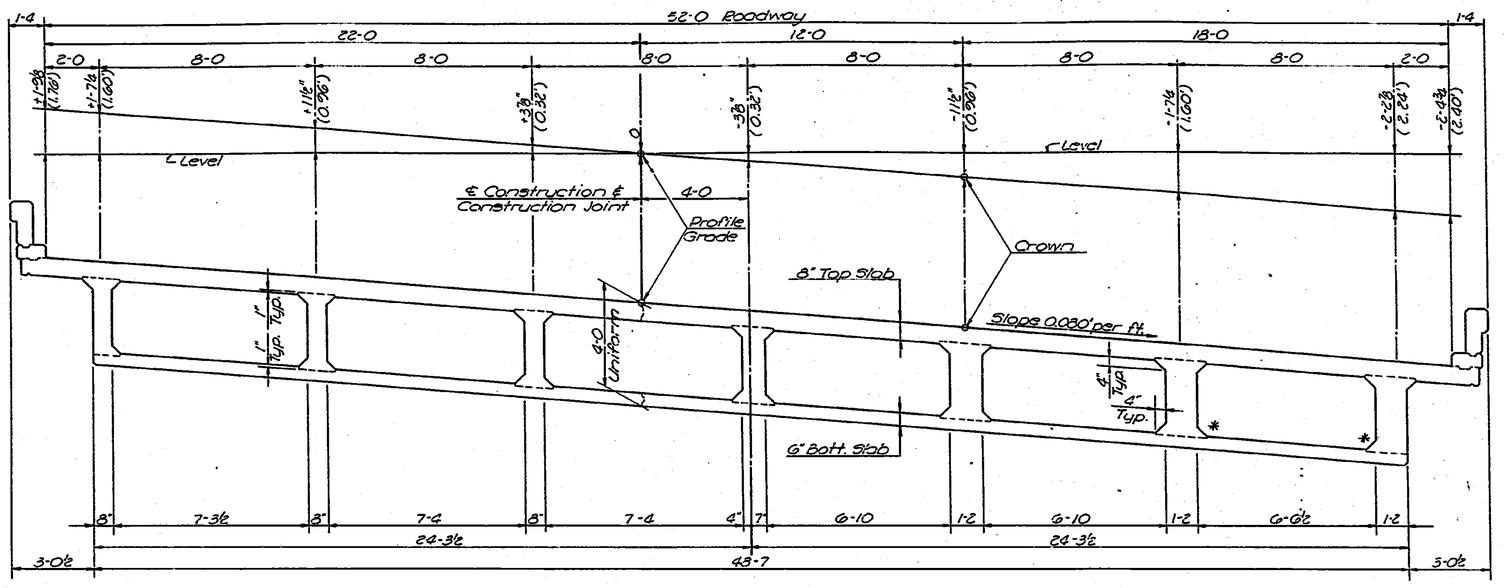
DIST. 5 SEDGWICK CO. ROLL 531

3 9 0

16X | 14.5X | 12X | 12X | 14.5X | 16X

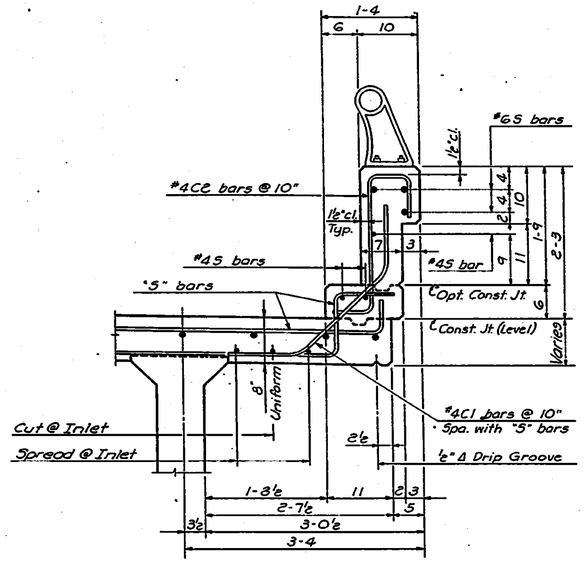
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -(58)48	1970	1930	2137

Phase II



NEAR MID-SPAN — NEAR PIER

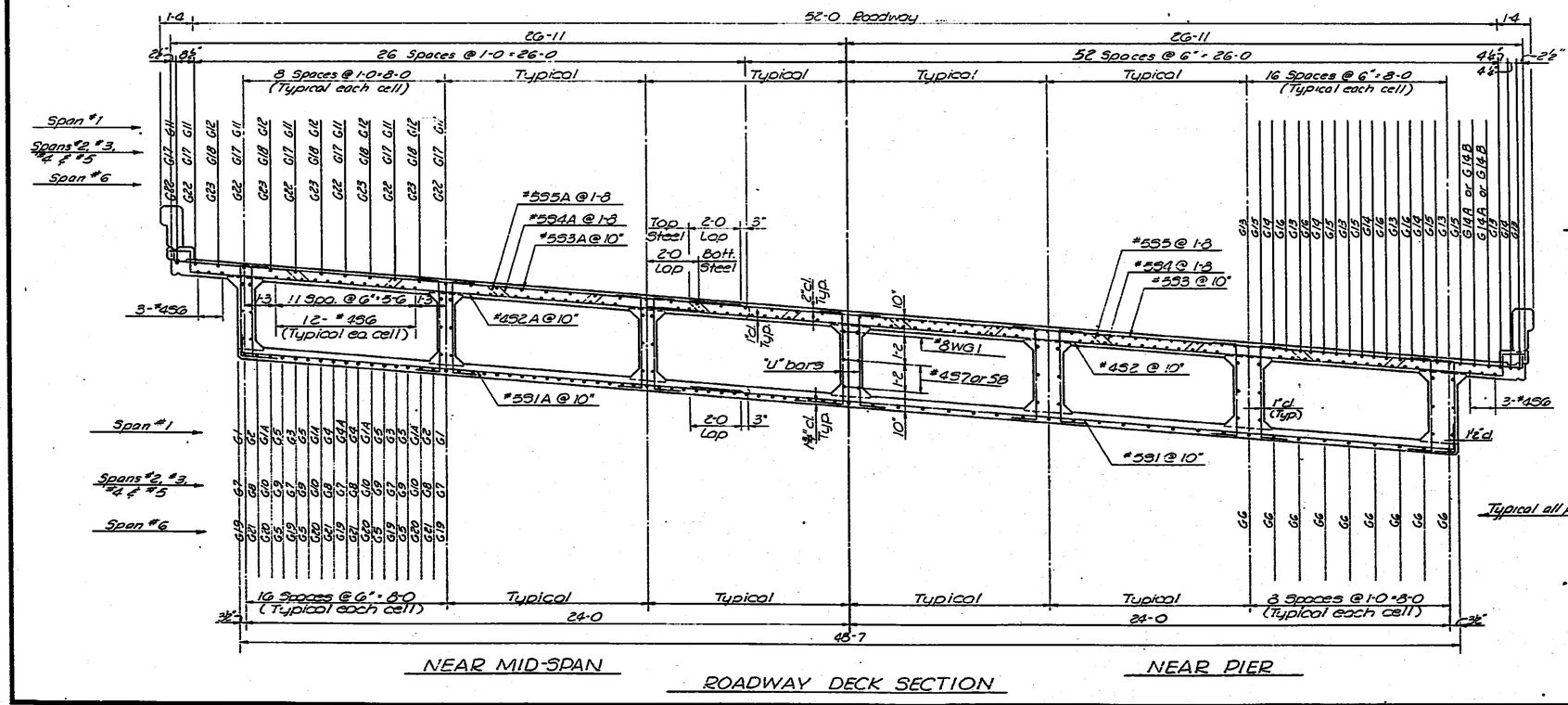
ROADWAY DECK SECTION



TYPICAL CURB SECTION

NOTE:
See web elevations for quantity, size and spacing of "U" bars. There are 13 sets of #4S6 bars in the bottom of the top slab. Lap varies from 1'-6 @ Lt. Curb to 2'-1 @ Rt. Curb

* See Longitudinal Construction Joint Details for location of Optional Construction Joint at bottom of web.



NEAR MID-SPAN — NEAR PIER

ROADWAY DECK SECTION

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 36S
S.B. I-35W VIADUCT
(NORTH OF 17TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 6 OF 18	SCALE		APP'D.			
DESIGNED DFG	DETAILED LKD		QUANTITIES TL	TRACED DDW		
DESIGN CK. JWH	DETAIL CK. EES		GENL. CK. AV	TRACE CK. EES		

TOPEKA BLUE PRINT CO.

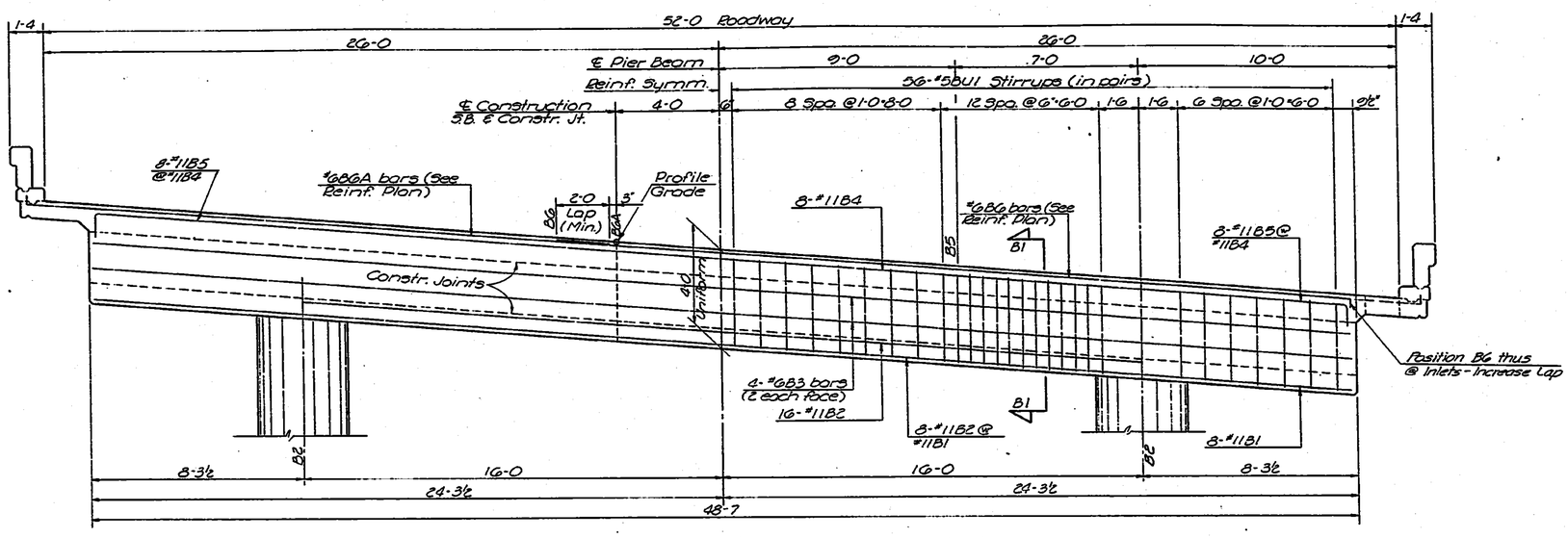
DIST. 5 SEDGWICK CO. ROLL 531

3 9 1

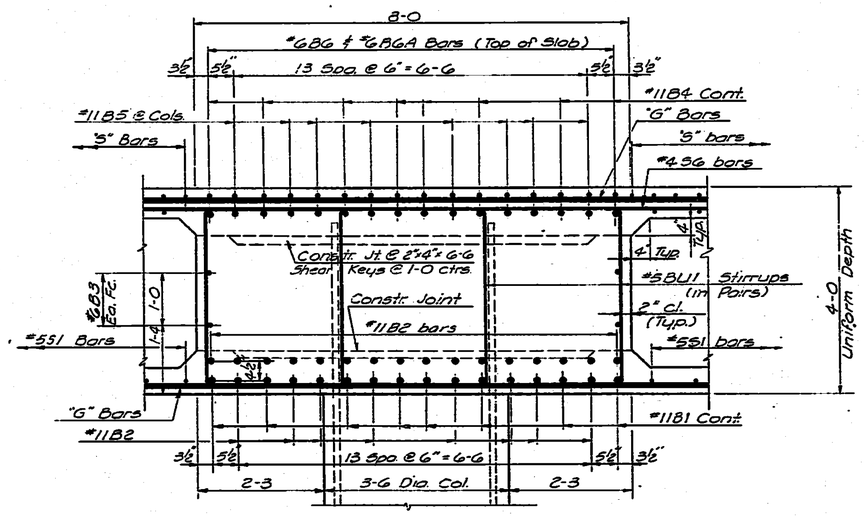
16X 14.5X 12X 12X 14.5X 16X

FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48	1970	193/	2137

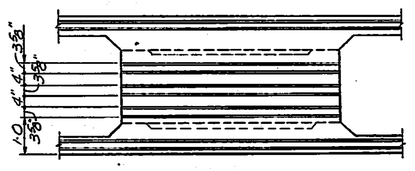
Phase II



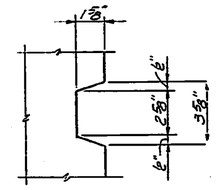
SUPERSTRUCTURE PIER BEAM
(Typical all piers)



SECTION B1-B1



SECTION THRU PIER BEAM AT ℄ CONSTRUCTION
(Showing location of keys)



TYPICAL KEY DETAIL

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 36S
S.B.I.-35W VIADUCT
(NORTH OF 17TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 7 OF 12	SCALE		APP'D.				
DESIGNED PDP	DETAILED EES		QUANTITIES TL		TRACED EES		
DESIGN CK. DFG	DETAIL CK. LKD		GEN'L CK. AV		TRACE CK. LKD		

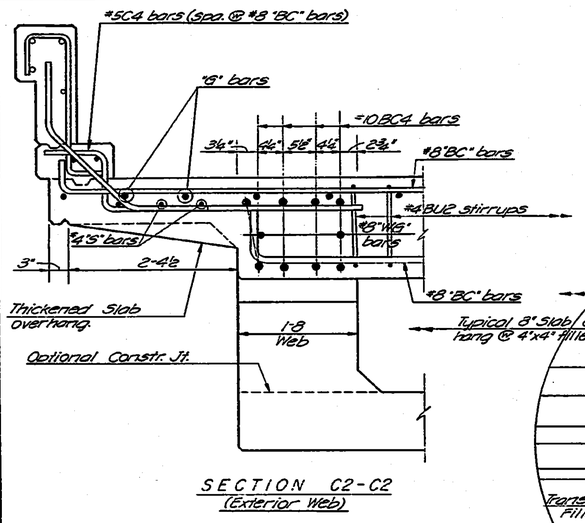
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

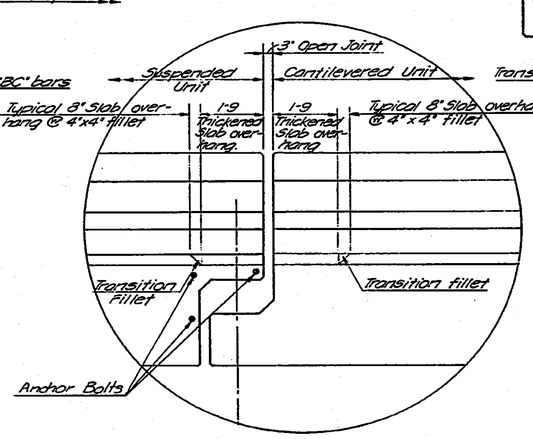
[redacted]

16X 14.5X 12X 12X 14.5X 16X

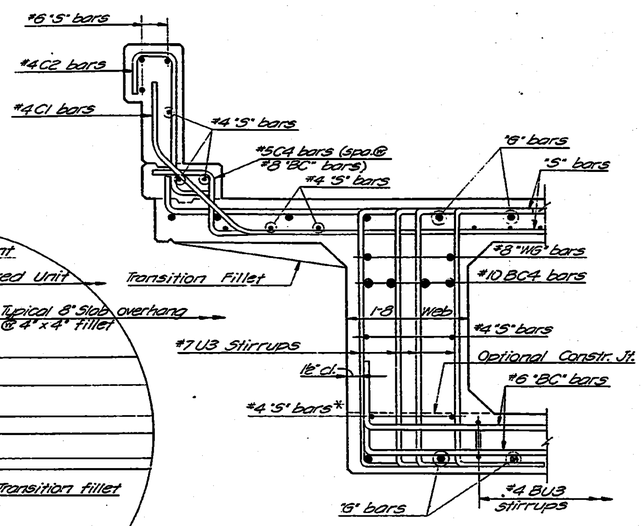
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48	1970	1932	2137



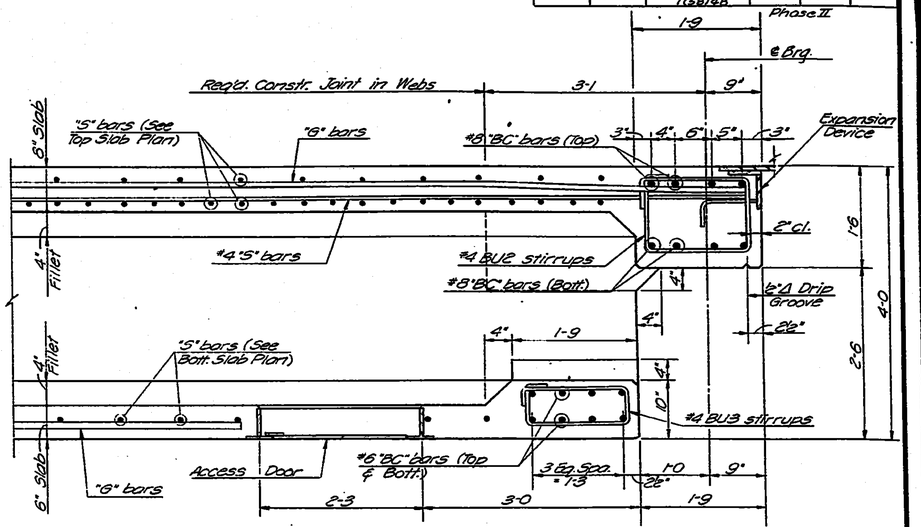
SECTION C2-C2
(Exterior Web)



VIEW OF JOINT
(Showing Thickened Slab Overhang and Transition Fillet)

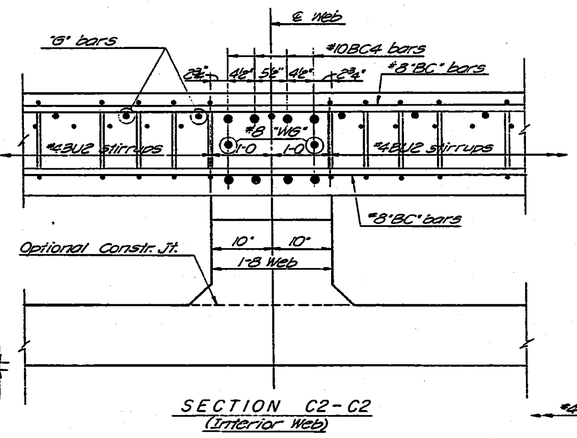


SECTION C1-C1
(Exterior Web)

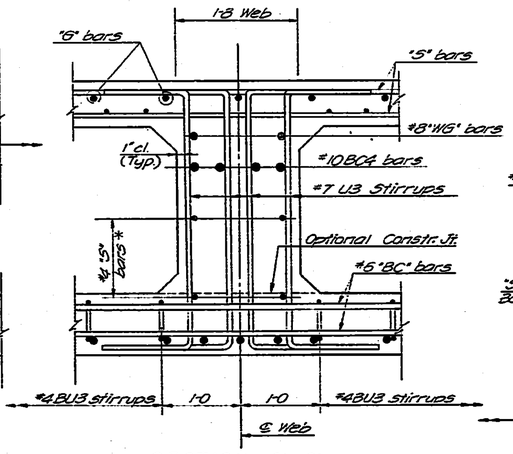


TYPICAL SECTION THRU CELL *

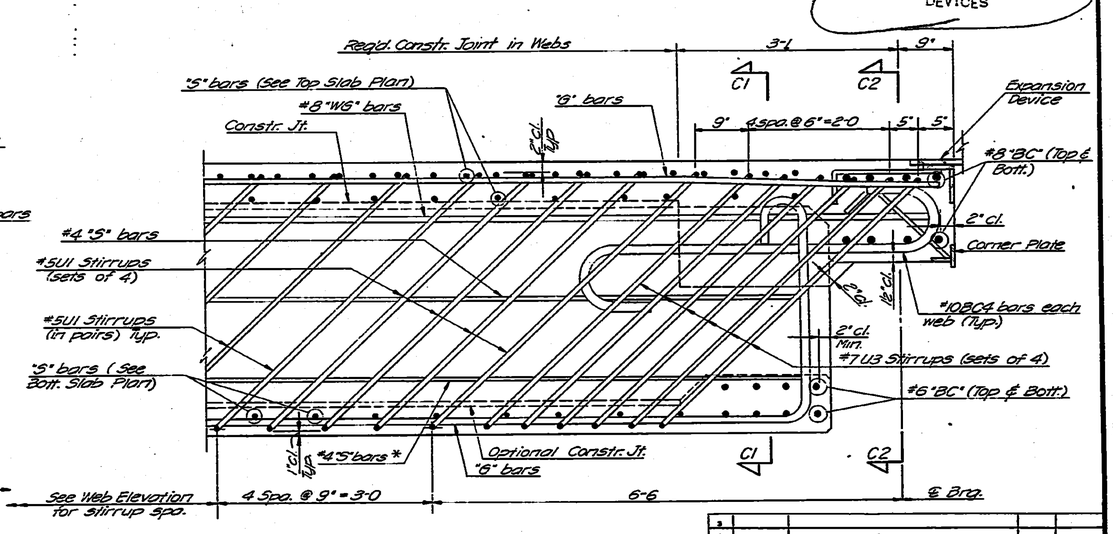
SEE REVISED EXPANSION DEVICES



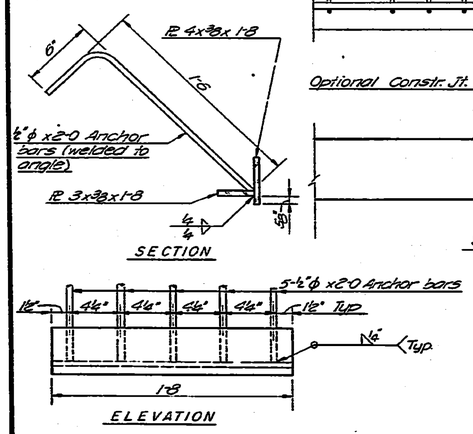
SECTION C2-C2
(Interior Web)



SECTION C1-C1
(Interior Web)



TYPICAL SECTION THRU WEB #



CORNER PLATE DETAILS
Computed weight of one assembly is 22 lbs.

BEARING BEAM DETAILS

* Adjust position of #4 "S" bars to clear construction joint if optional top of fillet location is used.

See Web Elevation Sheet for Span #6 of Abutment

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO. 36S
S.B.I-35W VIADUCT
(NORTH OF 17TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 8 OF 12	SCALE	APP'D.	
DESIGNED DFS	DETAILED DS	COMPUTED TL	TRACED DS
DESIGN CK. RBS	DETAIL CK. RBS	COMP. CK. AV	TRACE CK. RBS

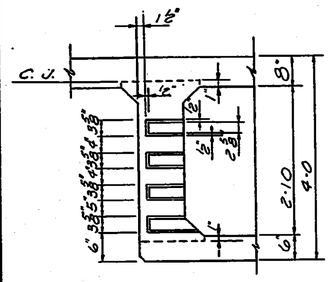
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

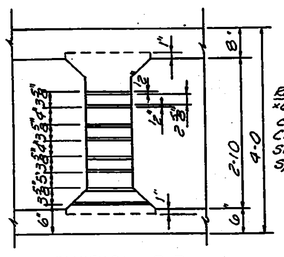
[redacted] 3 9 3

16X 14.5X 12X 12X 14.5X 16X

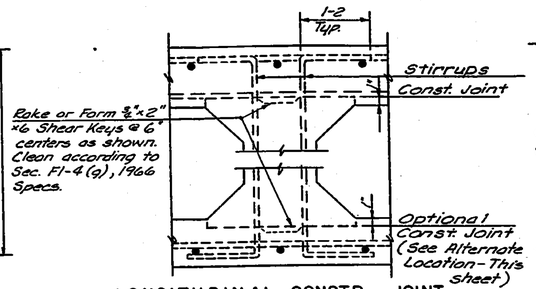
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I-35W 1-(58)48 Phase II	1970	1933	2137



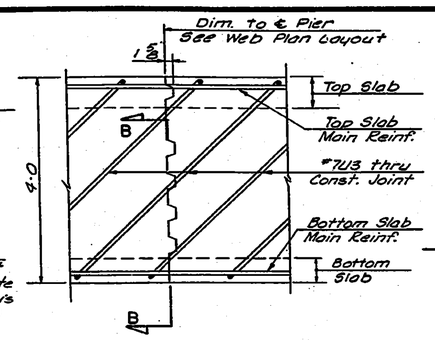
SECTION B-B
(Through Exterior Web)



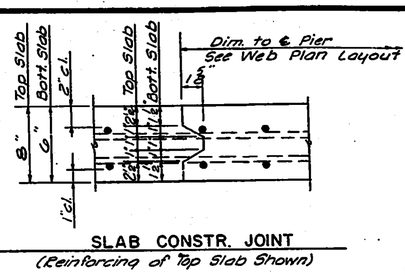
SECTION B-B
(Through Interior Web)



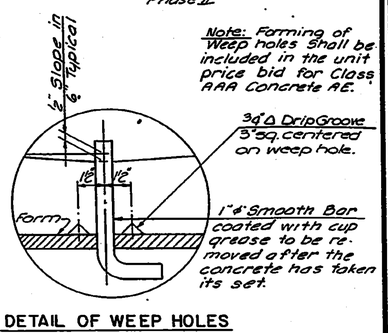
LONGITUDINAL CONSTR. JOINT
(Typical of All Webs)



WEB CONSTR. JOINT
(Showing Placement of #7@3 bars)



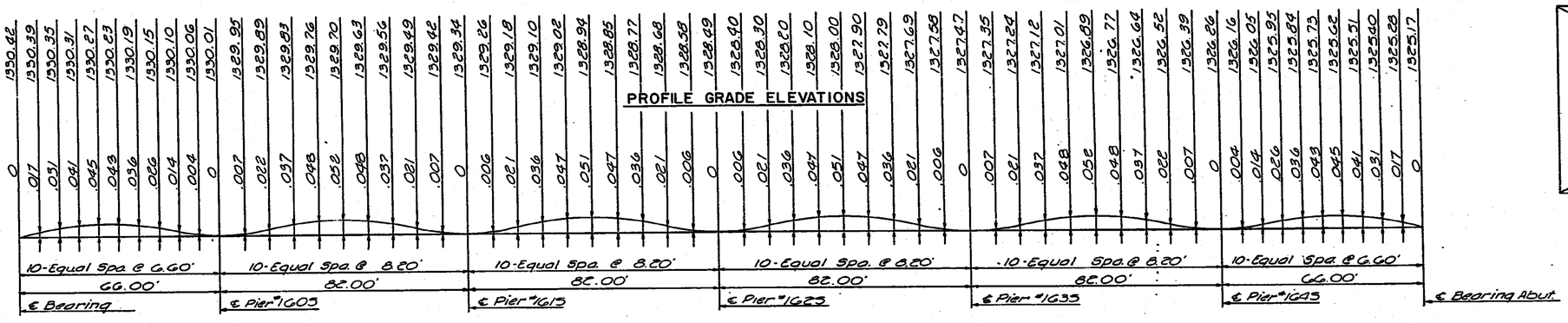
SLAB CONSTR. JOINT
(Reinforcing of Top Slab Shown)



Note: Forming of Weep holes shall be included in the unit price bid for Class AAA Concrete AE.

DETAIL OF WEEP HOLES

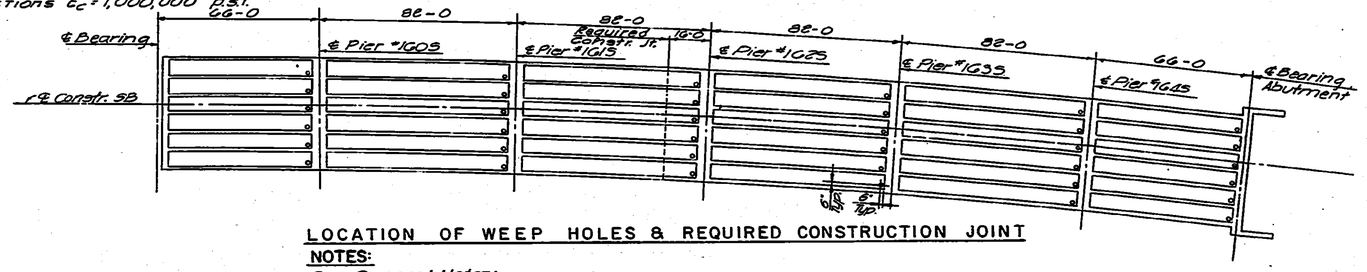
SUPERSTRUCTURE CONSTRUCTION JOINT DETAILS



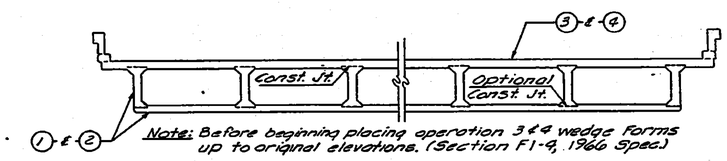
DEAD LOAD CAMBER IN FEET

DEAD LOAD CAMBER DIAGRAM AND THEORETICAL PROFILE GRADE ELEVATIONS AT TENTH POINTS

Note: Add dead load camber to theoretical profile grade elevations to set construction profile compensating for dead load deflections $E_c = 1{,}000{,}000$ p.s.i.

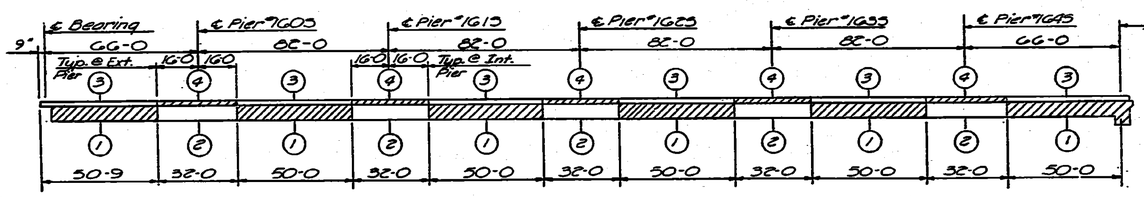


LOCATION OF WEEP HOLES & REQUIRED CONSTRUCTION JOINT

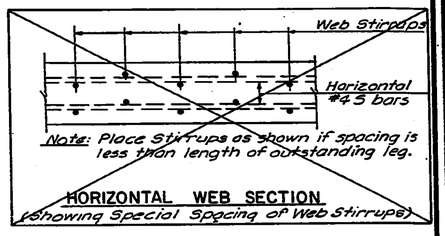


Note: Before beginning placing operation 3 ℄ ④ wedge forms up to original elevations. (Section F1-9, 1966 Spec.)

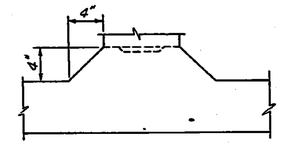
CROSS SECTION OF SUPERSTRUCTURE



CONCRETE PLACING SEQUENCE
To be used when long-span steel beams are used for falsework



HORIZONTAL WEB SECTION
(Showing Special Spacing of Web Stirrups)



ALTERNATE LOCATION OF LONGITUDINAL CONSTRUCTION JOINT
(Subject to approval of Engineer)

NOTES:
See General Notes:

Curbs and Handrail: Construction Joints in curbs shall be made only under rail openings. Curbs shall be built after falsework is struck. Handrails shall be built after falsework is struck.

Falsework: Falsework shall be left in place in any span until the concrete in that span and the adjacent span constructed latest shall have attained its design strength.

Construction Joints: Construction Joints shown as optional may be used at the Bridge Contractors option, but if used, they shall be made only at locations shown on the plans or as approved by the Engineer.

Camber: Camber shall be provided as shown on the camber diagram. Additional camber will be required if long-span steel beams are used for falsework.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS - UNIT NO. 36S
S.B. I-35W VIADUCT
(NORTH OF 17TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

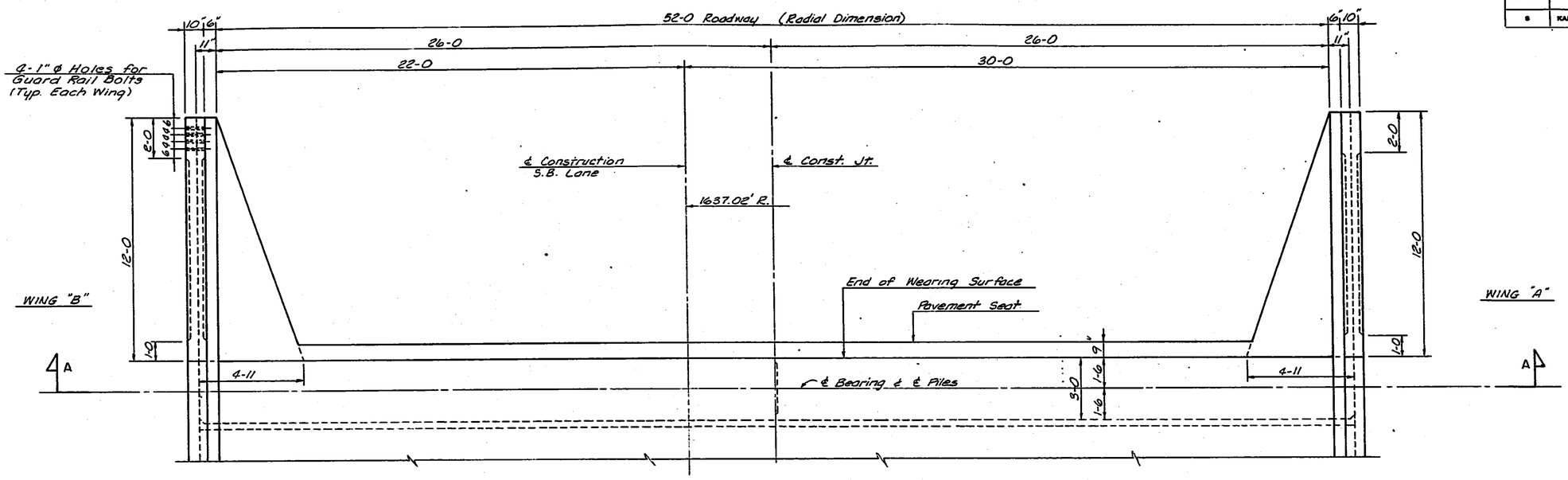
SHEET NO. 9 OF 12	SCALE	APPR.			
DESIGNED DFT3	DETAILED PAW	CORRECTED LKD/TL		TRACED DGT	
DESIGN CK. PBS	DETAIL CK. PBS	QUANT. CK. EPS/AV		TRACE CK. PBS	

DIST. 5 SEDGWICK CO. ROLL 531

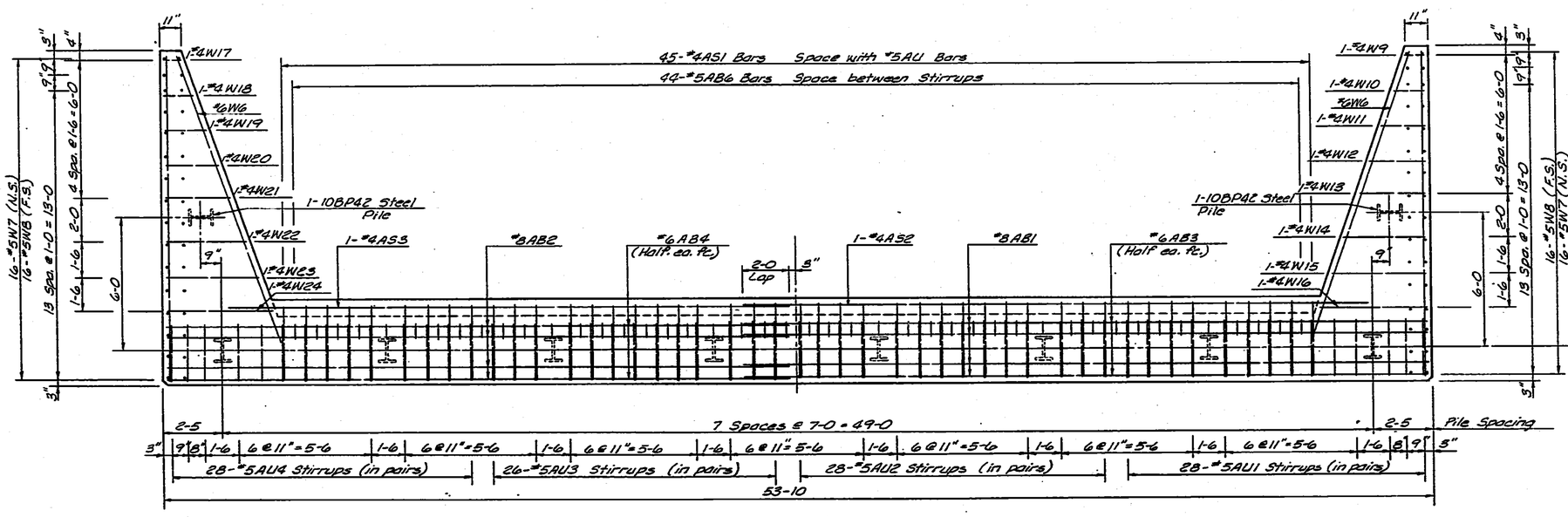
3 9 4

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase II	1970	1934-	2137



PLAN OF ABUTMENT



SECTION F-F

NOTE: All piles shall be 10BP42 Steel Piles

Design Pile Load = 16.8 Tons / Pile Group I Loading (No Impact)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60

ABUTMENT DETAILS-UNIT NO. 36S

S.B. I-35W VIADUCT (NORTH OF 17TH STREET)

PROJ. 35W-87-I 35W-1(58)48 SEDGWICK CO.

SHEET NO. 10 OF 14	SCALE	APP'D.		
DESIGNED DFG	DETAILED EES	QUANTITIES TL	TRACED JML	
DESIGN CH. JWH	DETAIL CH. LKD	GENL. CH. AY	TRACE CH. LKD	

TOPEKA BLUE PRINT CO.

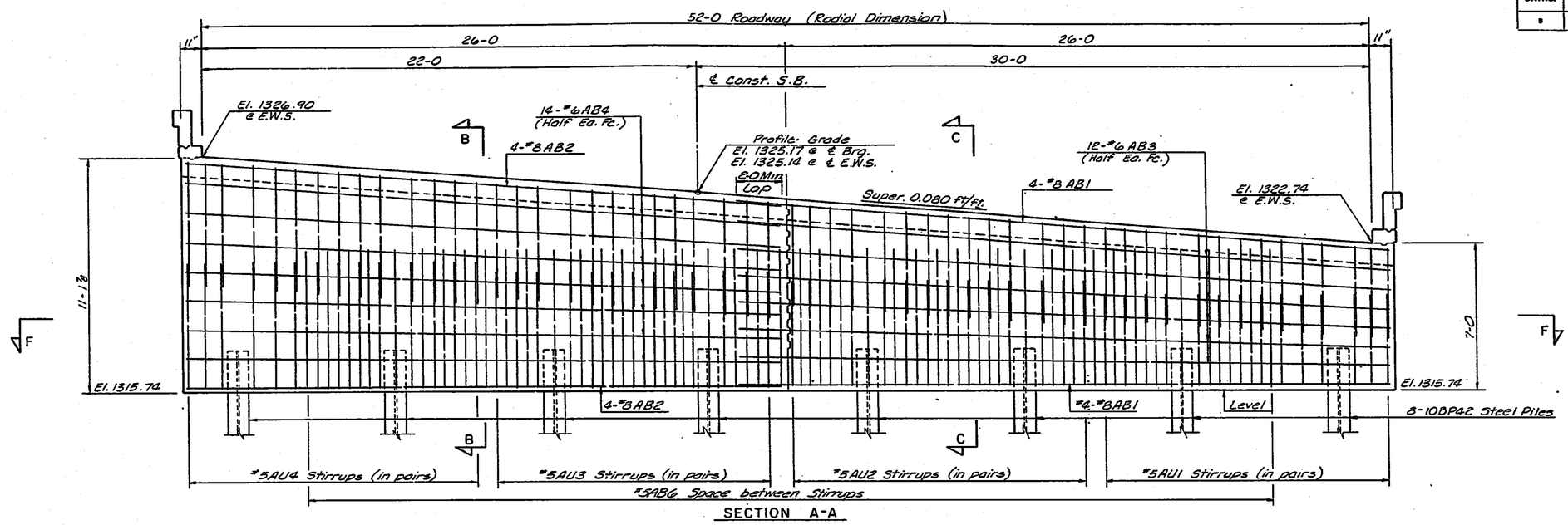
DIST. 5 SEDGWICK CO. ROLL 531

3 9 5

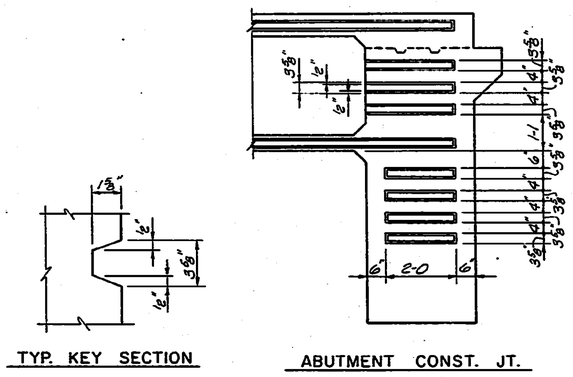
16X 14.5X 12X 12X 14.5X 16X

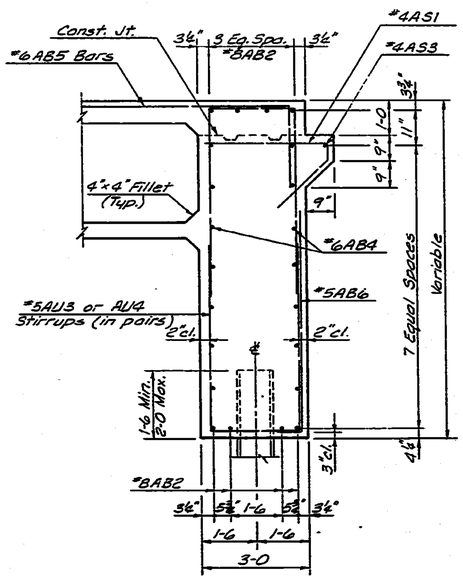
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48	1970	1935	2137

Phase II

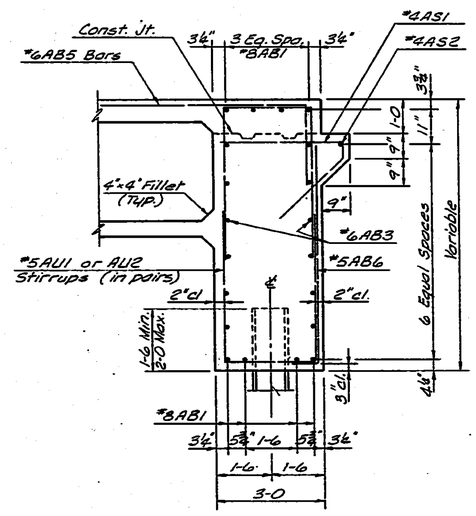


SECTION A-A





SECTION B-B



SECTION C-C

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
ABUTMENT DETAILS-UNIT NO. 36S
S.B. I-35W VIADUCT
(NORTH OF 17TH STREET)
PROJ. 35W-87-I 35W-1(58)48 SEDGWICK CO.

SHEET NO. 11 OF 12	SCALE	APP'D.		
DESIGNED DFG	DETAILED EES	QUANTITIES TL	TRACED JML	
DESIGN CK. JWH	DETAIL CK. LKD	QUAN. CK. AV	TRACE CK. LKD	

TOPEKA BLUE PRINT CO.

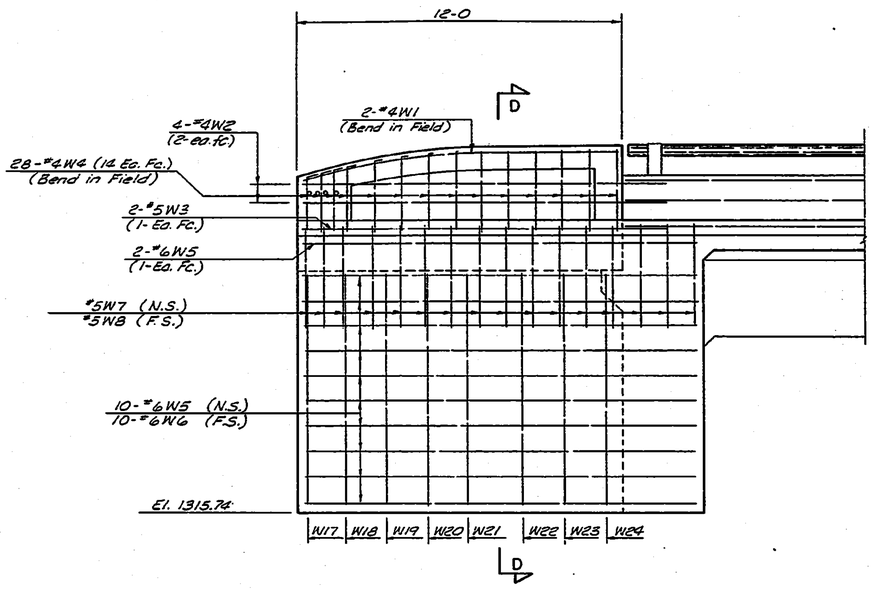
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 9 6

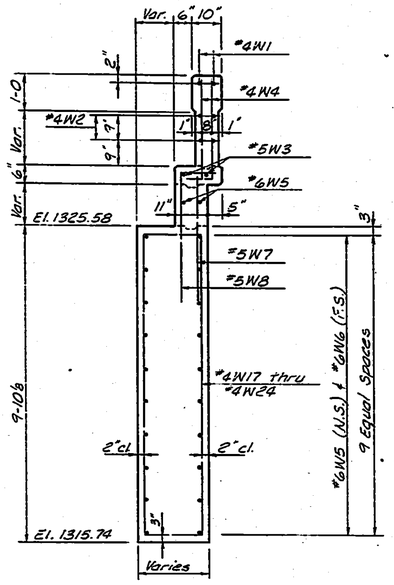
16X 14.5X 12X 12X 14.5X 16X

FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48	1970	193G	2137

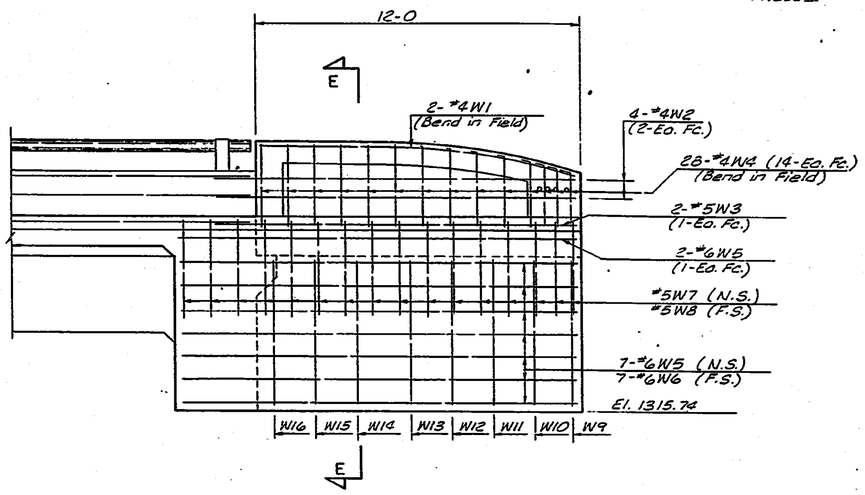
Phase II



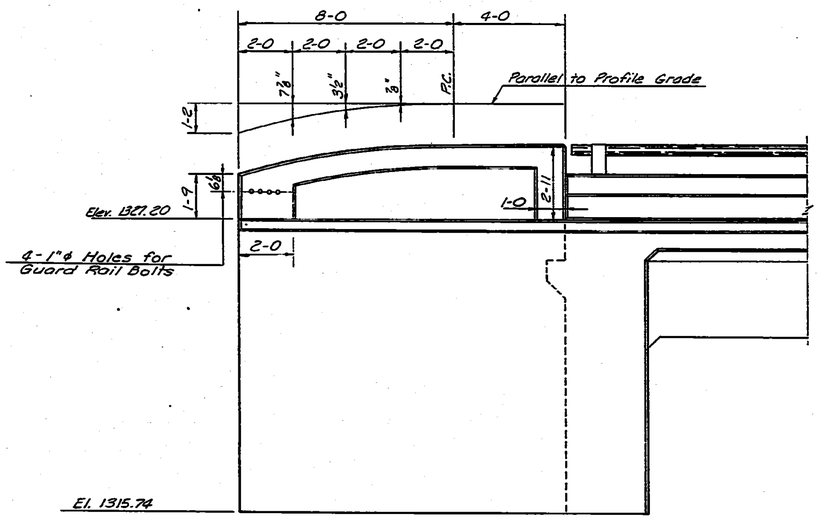
DEVELOPED VIEW OF WING "B"



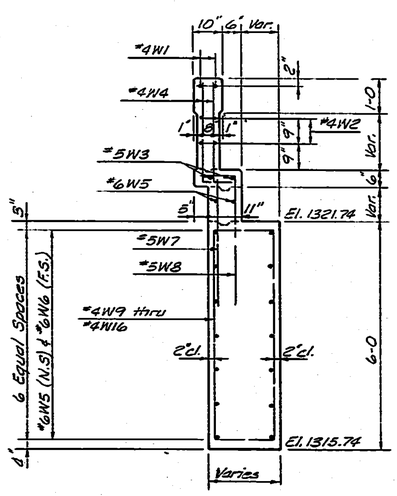
SECTION D-D



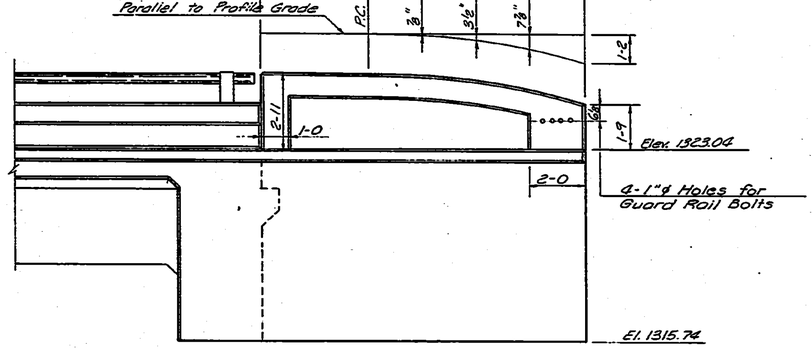
DEVELOPED VIEW OF WING "A"



ELEVATION WING "B"



SECTION E-E



ELEVATION WING "A"

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

BR. NO. 35W-87-1599 . STA. 298+22.27 TO 421+15.60

ABUTMENT DETAILS-UNIT NO. 36S

S.B. I-35W VIADUCT
(NORTH OF 17TH ST)

PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 12 OF 14	SCALE		APP'D.		
DESIGNED DFG	DETAILED EES		QUANTITIES TZ	TRACED JML	
DESIGN CK. JWH	DETAIL CK. LKD		QUANT. CK. AV	TRACE CK. LKD	

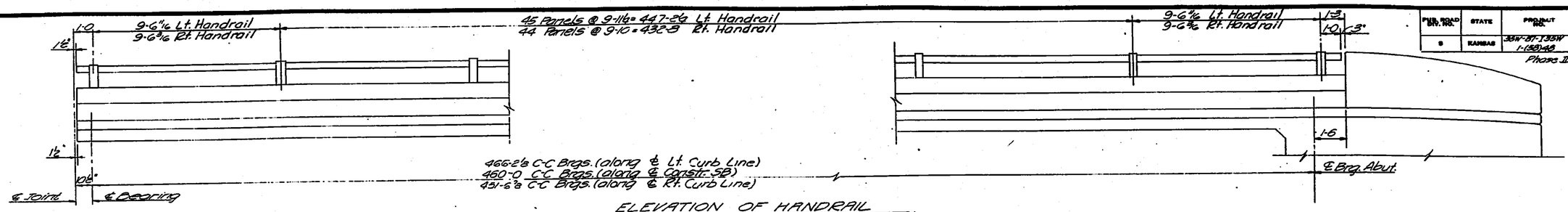
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 3 9 7

16X 14.5X 12X 12X 14.5X 16X

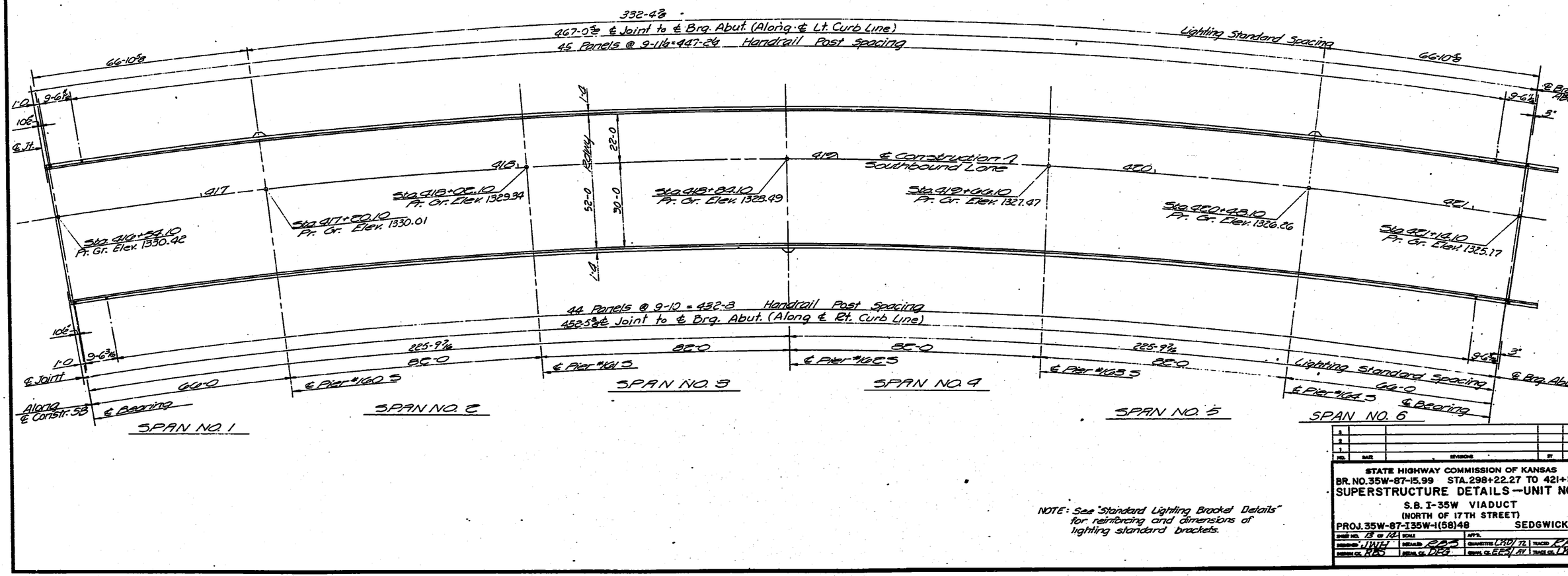
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1-(58)48	1970	1937	2137

Phase II



ELEVATION OF HANDRAIL

(See "Bridge Handrail" Standard Details Sheet)



NOTE: See "Standard Lighting Bracket Details" for reinforcing and dimensions of lighting standard brackets.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERSTRUCTURE DETAILS — UNIT NO 36S
S.B. I-35W VIADUCT
(NORTH OF 17TH STREET)
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 13 OF 14	SCALE	APP'D.			
DESIGNED JWE	DETAILED BBS	QUANTITIES LKD 72	TRACED RAE		
DESIGN CK. RJS	DETAIL CK. DEB	DESIGN CK. EEF AY	TRACE CK. LKD		

DIST. 5 SEDGWICK CO. ROLL 531

3 9 8

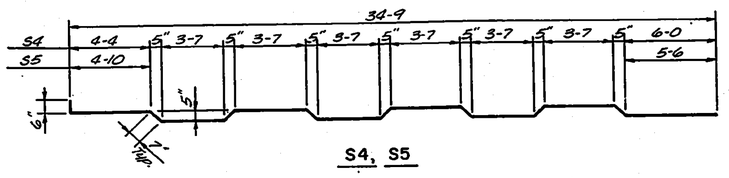
16X 14.5X 12X 12X 14.5X 16X

BENDING DIAGRAMS

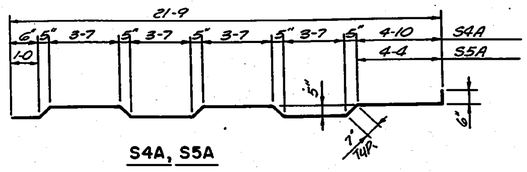
(Bar Dimensions are Out to Out)

REV. PLANS 11-1-71

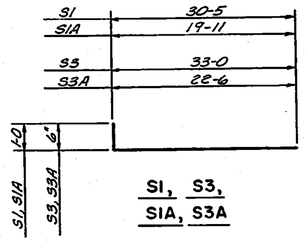
FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(68)48 Phase II	1970	1938	2137



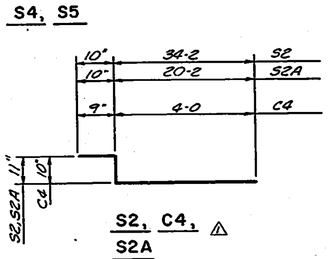
S4, S5



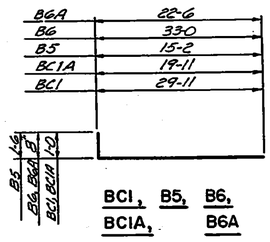
S4A, S5A



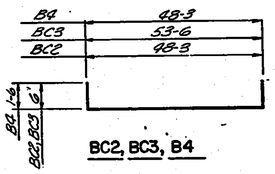
S1, S3, S1A, S3A



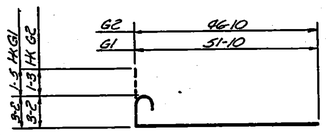
S2, C4, △ S2A



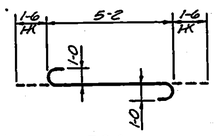
BC1, B5, B6, BC1A, B6A



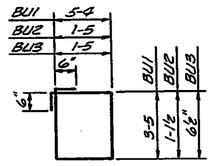
BC2, BC3, B4



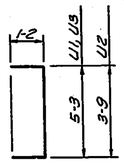
G1, G2



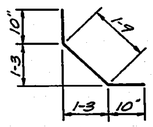
BC4



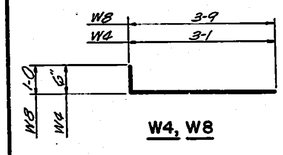
BU1, BU2, BU3



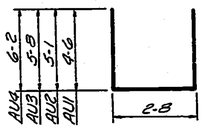
U1, U2, U3



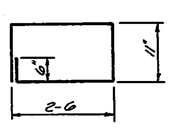
C1



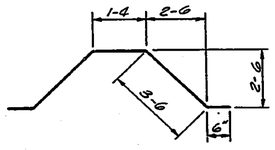
W4, W8



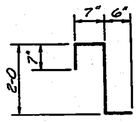
AU1, AU2, AU3, AU4



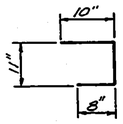
LB1



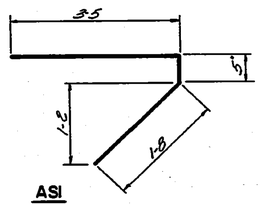
LB2



C2

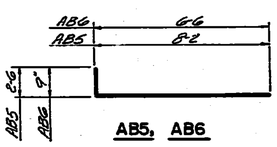


C3



A51

W9 — W24



AB5, AB6

G23 bars cut 4 ea. except 5 @ 47-3 & 5 @ 49-9
G22 bars cut 5 ea. except 7 @ 42-3 & 7 @ 45-0
G18 bars cut 16 ea. except 20 @ 43-6 & 20 @ 46-0
G17 bars cut 20 ea. except 28 @ 33-6 & 28 @ 35-2
G12 bars cut 4 ea. except 5 @ 46-11 & 5 @ 49-0
G11 bars cut 5 ea. except 7 @ 41-11 & 7 @ 44-3

G23	By 5" incr. from 47-3 to 49-9	See Note above
G22	By 7" incr. from 42-3 to 45-0	See Note Above
G18	By 6" incr. from 43-6 to 46-0	See Note above
G17	By 8" incr. from 33-6 to 36-2	See Note above
G12	By 5" incr. from 46-11 to 49-0	See Note above
G11	By 7" incr. from 41-11 to 44-3	See Note above
G6	By 5" incr. from 28-10 to 31-4	Cut 35 ea. length
S7	By 7" incr. from 27-6 to 31-0	Cut 16 ea. length
W9I	By 7" incr. from 48-6 to 52-0	Cut 8 ea. length

WGI, S7, G6, G11, G12, G17, G18, G22, G23

Note: For additional details see the sheets listed below.

Column Details
Drilled Shaft Details
Bearing Device Details
Expansion Device Details
Lighting Standard Bracket
Handrail Details
Drainage Details

BILL OF REINFORCING STEEL

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
S6	1014	4	37-5	S1	500	5	31-5
S7	112	4	*	S1A	500	5	20-11
S8	318	4	40-0	S2	503	4	35-11
S8A	66	6	40-0	S2A	503	4	21-11
S9	6	4	23-0	S3	503	5	33-6
S9A	6	6	23-0	S3A	503	5	23-0
S10	6	4	15-9	S4	249	5	36-5
S10A	6	6	15-9	S4A	249	5	23-1
				S5	248	5	36-5
				S5A	248	5	23-1
				G1	7	10	56-5
G1A	24	9	51-10	G2	12	9	51-3
G3	12	10	51-10				
G4	12	9	41-6				
G4A	6	10	46-6				
G5	48	9	30-0				
G6	245	8	*				
G7	100	10	56-0				
G8	96	9	46-0				
G9	96	9	30-0				
G10	96	9	36-0				
G11	29	5	*				
G12	26	5	*				
G13	195	11	50-0				
G14	140	11	40-0	W6	56	6	3-7
G14A	10	11	19-6	W8	32	5	4-9
G14B	10	11	17-3	W9	1	4	13-8
G15	130	11	26-0	W10	1	4	14-8
G16	120	11	16-0	W11	1	4	15-8
G17	116	5	*	W12	1	4	16-8
G18	104	5	*	W13	1	4	17-8
G19	25	10	50-6	W14	1	4	19-0
G20	24	9	50-4	W15	1	4	20-0
G21	24	9	49-4	W16	1	4	21-0
G22	29	5	*	W17	1	4	21-4
G23	26	5	*	W18	1	4	22-4
W1	4	4	11-8	W19	1	4	23-4
W2	8	4	13-6	W20	1	4	24-4
W3	4	5	13-6	W21	1	4	25-4
W5	21	6	14-8	W22*	1	4	26-8
W6	17	6	14-0	W23	1	4	27-8
W7	32	5	3-9	W24	1	4	28-8

* See Bending Diagrams

STRAIGHT BARS MK	No.	Size	Length	BENT BARS MK	No.	Size	Length
B1	40	11	48-3				
B2	120	11	32-0				
B3	20	6	48-3				
				B4	40	11	51-3
				B5	80	11	16-8
				B6	80	6	33-8
				B6A	80	6	23-2
				BU1	560	5	18-6
				BU2	60	4	6-1
				BU3	42	4	4-11
				BC1	8	6	30-11
				BC1A	8	6	20-11
				BC2	4	8	49-3
				BC3	4	8	54-6
				BC4	28	10	8-2
				LB1	12	4	7-4
				LB2	9	4	9-4
				C1	1105	4	3-5
				C2	1107	4	3-8
				C3	100	4	2-5
				C4	8	5	5-7
C5	20	4	2-6				
				U1	5474	5	7-7
				U2	182	5	6-1
				U3	588	7	7-7
WG1	56	8	*	AU1	28	5	11-8
WG2	98	8	40-0	AU2	28	5	12-10
				AU3	26	5	14-0
AB1	8	8	29-0	AU4	28	5	15-0
AB2	8	8	26-6				
AB3	12	6	29-0	AB5	54	6	10-8
AB4	14	6	26-6	AB6	44	5	7-5
A52	1	4	26-6	A51	45	4	5-6
A53	1	4	24-0				

Note:
All bar marks shall be pre-fixed with the unit number when fabricated. Example: #10G1 bars shall be marked 36S10G1.

SUMMARY OF QUANTITIES

Class III Excavation	108.7 -96	Cu.Yds.
Class AAA Concrete AE	1649.3	Cu.Yds.
Reinforcing Steel	534,880	Lbs.
Cast Iron Scuppers		Lbs.
Wrought Iron Drains & Grates	2,748	Lbs.
8" ϕ Downspouts	127.82	Lin.Ft.
Gutters		Lin.Ft.
Bridge Handrail	917.75 -918.00	Lin.Ft.
Structural Steel		
Bearing Devices (A36) 7 @ 242 lbs.	1694	Lbs.
Corner Plates & Cover Plates (A36)	248	Lbs.
Access Doors (A36) 6 @ 130 lbs.	780	Lbs.
Linseed Oil Surface Treatment (Bridges)	2670.8	Sq.Yds.
ICBP42 Steel Piles 10 @ 58'	642.3 -580	Lin.Ft.
Reinforced Concrete Riprap (4")	632.7 -535	Sq.Yds.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1	11-1-71	Rev. Exp. Devices	WHS	

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-1599 STA. 298+22.27 TO 421+15.60
BENDING - REINF. & QUAN. - UNIT NO. 36S
S.B. I-35W VIADUCT
(NORTH OF 17TH STREET)
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

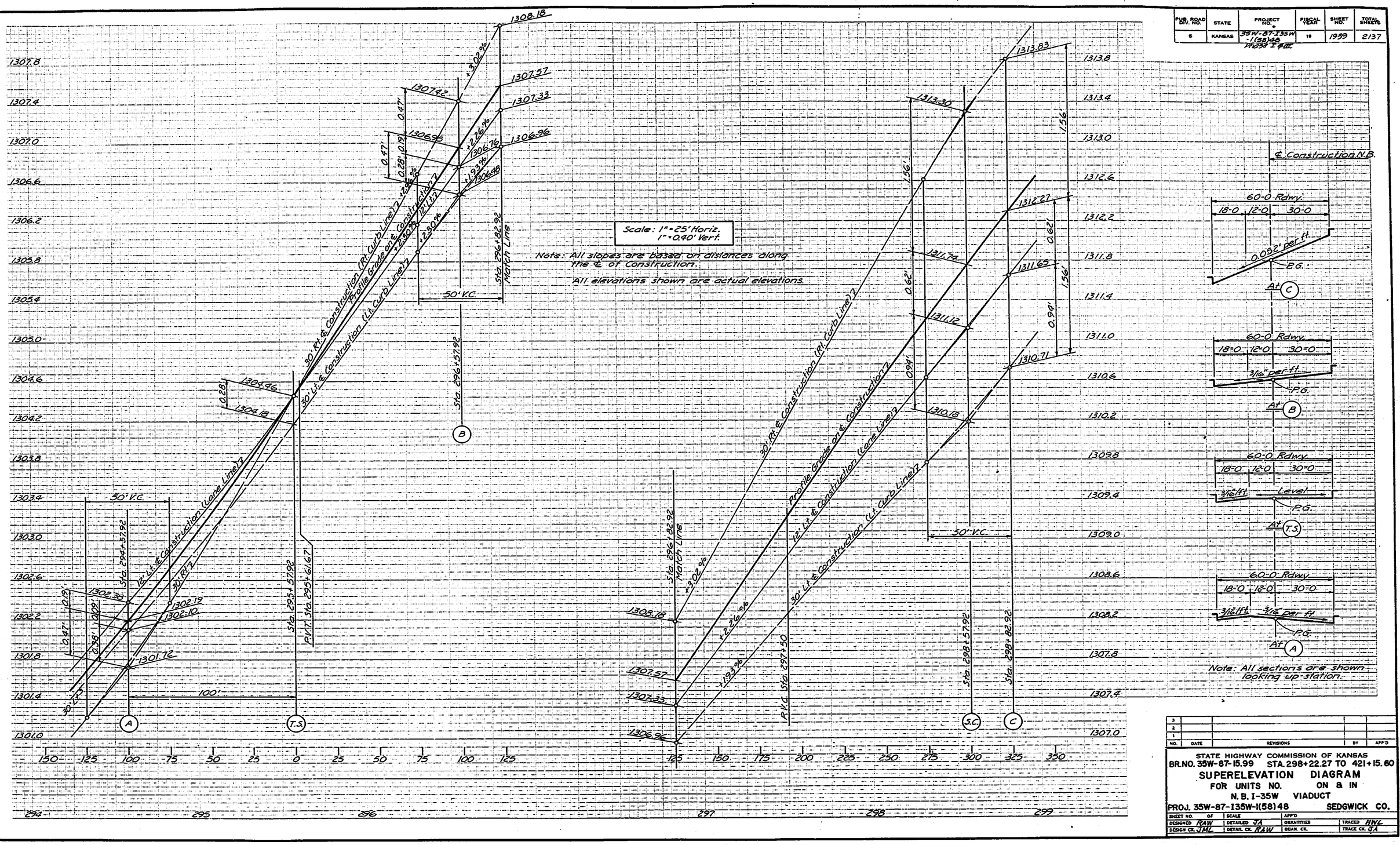
SHEET NO. 12 OF 12	SCALE "	APP'D			
DESIGNED DTS	DETAILED JWH	QUANTITIES TL	TRACED MLC		
DESIGN CK. JWH	DETAIL CK. DS	QUAN. CK. AV	TRACE CK. DS		

DIST. 5 SEDGWICK CO. ROLL 531

3 9 9

16X 14.5X 12X 12X 14.5X 16X

FHR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 PROJ. 1 of III	19	1939	2137



NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERELEVATION DIAGRAM
FOR UNITS NO. ON & IN
N. B. I-35W VIADUCT
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

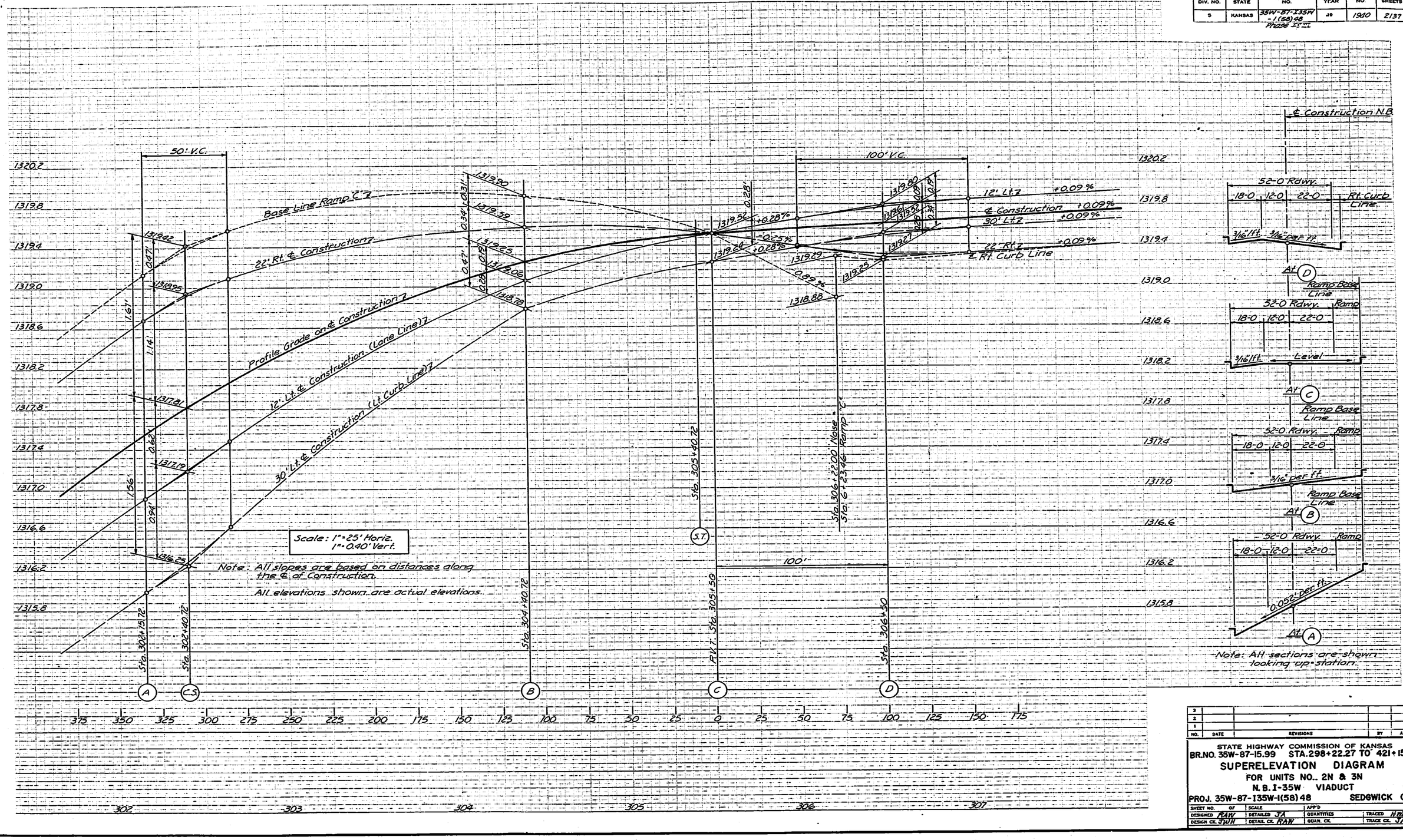
SHEET NO.	OF	SCALE	APP'D		
DESIGNED RAW		DETAILED JA	QUANTITIES	TRACED HWL	
DESIGN CK. JML		DETAIL CK. RAW	QUAN. CK.	TRACE CK. JA	

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 0 0

16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II-N	39	1940	2137



NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR.NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERELEVATION DIAGRAM
FOR UNITS NO.. 2N & 3N
N.B. I-35W VIADUCT
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

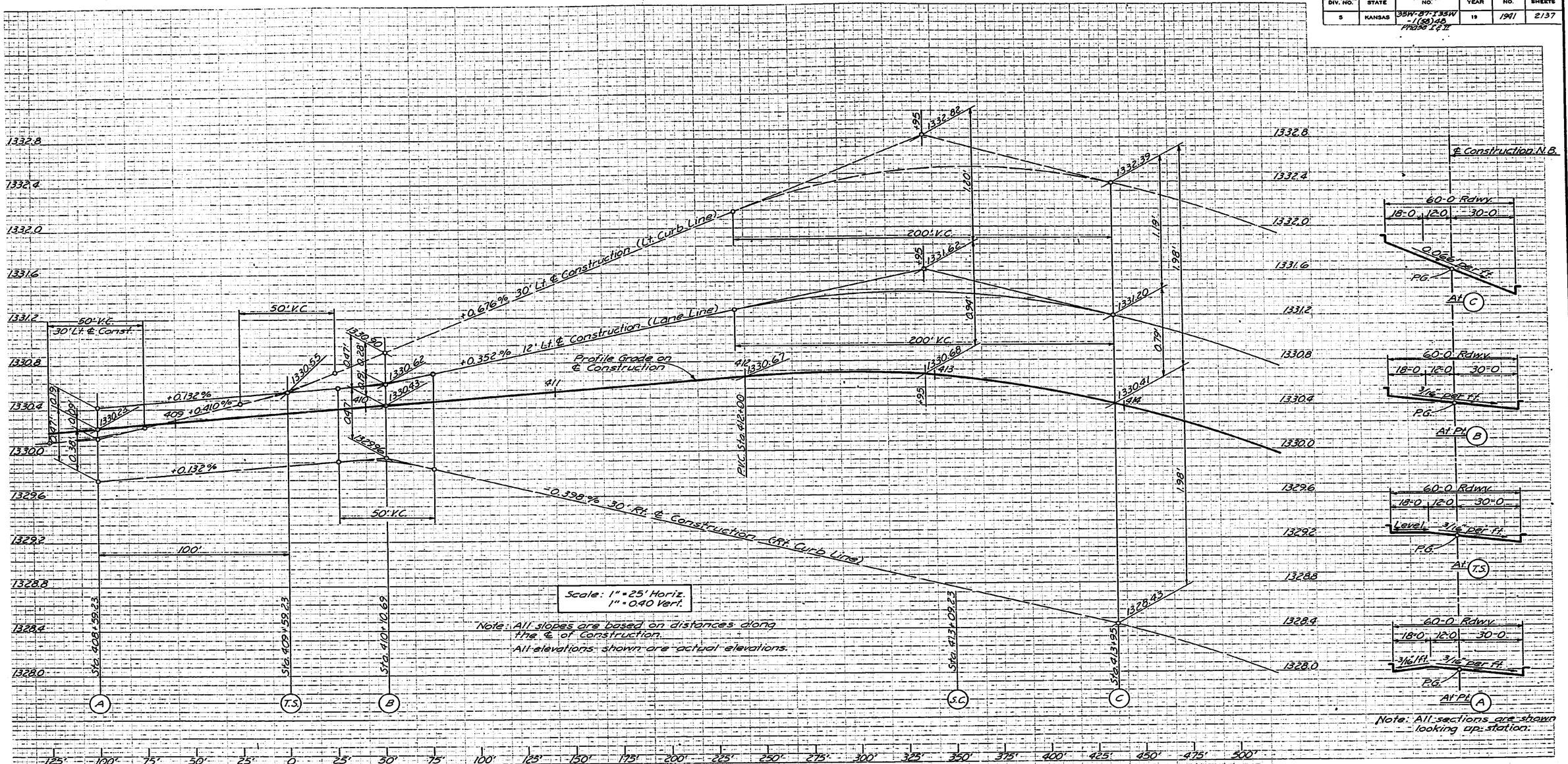
SHEET NO. OF	SCALE	APP'D	
DESIGNED RAN	DETAILED JA	QUANTITIES	TRACED HW
DESIGN CK. JWH	DETAIL CK. RAN	QUAN. CK.	TRACE CK. JA

DIST. 5 SEDGWICK CO. ROLL 531

4 0 1

16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 PROJ 1 & 2	19	1941	2137



Scale: 1" = 25' Horiz.
1" = 0.40 Vert.

Note: All slopes are based on distances along the ℄ of Construction.
All elevations shown are actual elevations.

Note: All sections are shown looking up station.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.96 STA. 297+78.27 TO 416+85.38
SUPERELEVATION DIAGRAM
FOR UNITS NO. 33N, 34N & 35N
N.B. I-35W VIADUCT
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

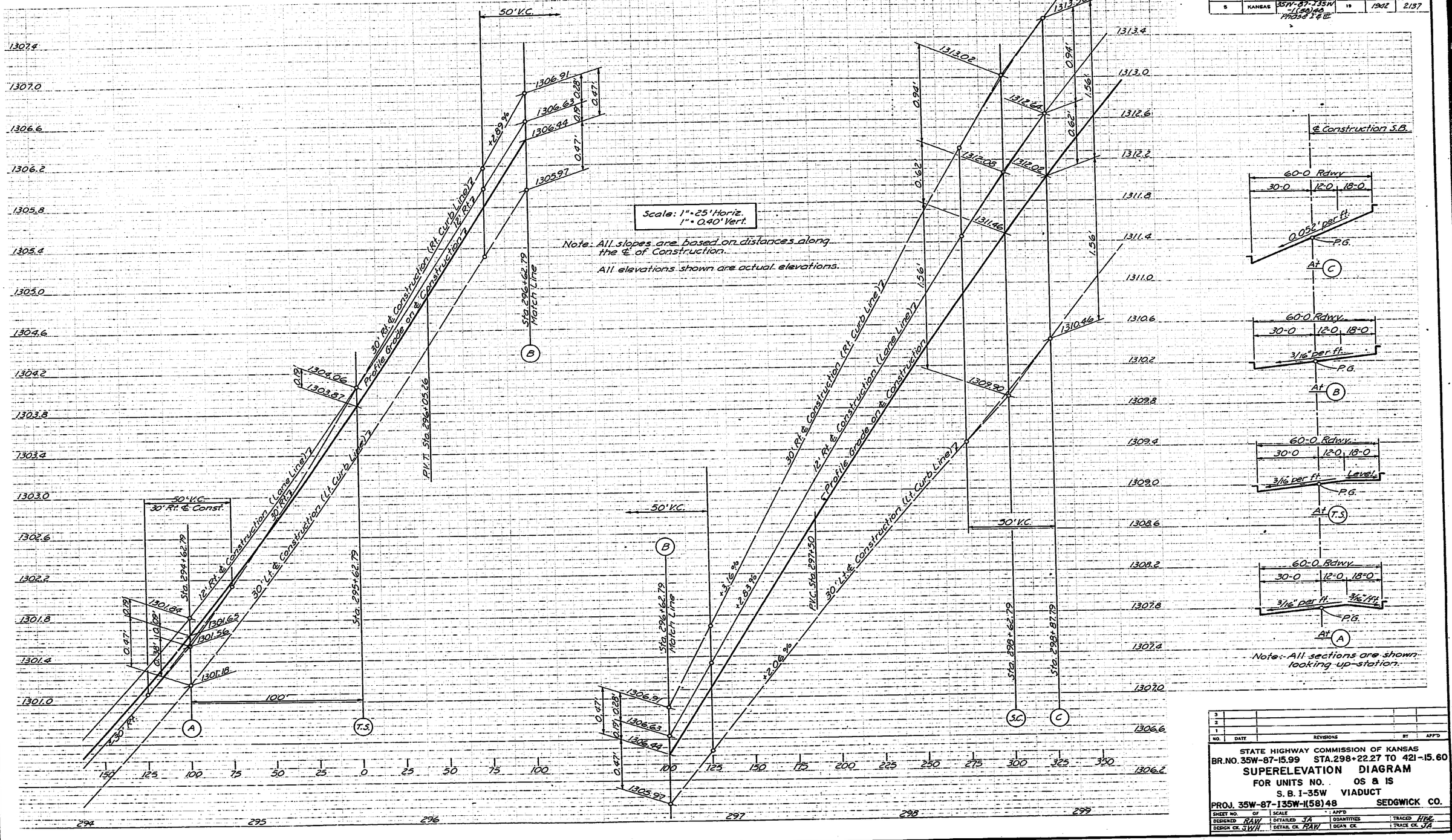
SHEET NO.	OF	SCALE		APP'D	
DESIGNED	RAW	DETAILED	JA	QUANTITIES	TRACED HWL
DESIGN CK.	JWH	DETAIL CK.	RAW	QUAN CK.	TRACE CK. JA

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 0 2

16X 14.5X 12X 12X 14.5X 16X 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 PROJ 2 & III	19	1902	2137



Note:- All sections are shown looking up-station.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421-15.60
SUPERELEVATION DIAGRAM
FOR UNITS NO. OS & IS
S. B. I-35W VIADUCT
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

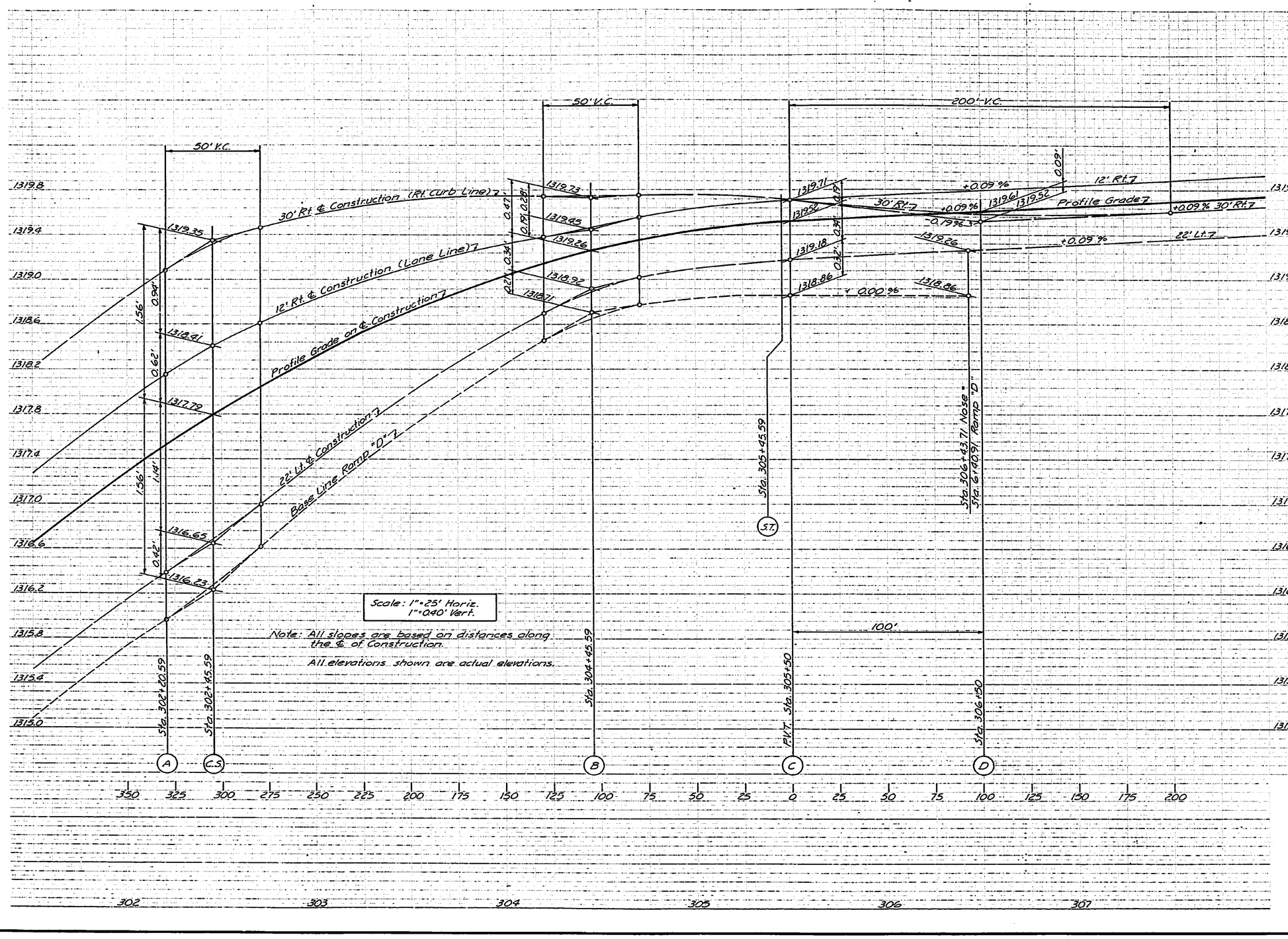
SHEET NO.	OF	SCALE	APP'D	
DESIGNED	RAW	DETAILED JA	QUANTITIES	TRACED HHL
DESIGN CK.	JWH	DETAIL CK. RAW	QUAN. CK.	TRACE CK. JA

DIST. 5 SEDGWICK CO. ROLL 531

4 0 3

16X 14.5X 12X 12X 14.5X 16X 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase I & III	19	1995	2137



NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERELEVATION DIAGRAM
FOR UNITS NO. 2S & 3S
S. B. I-35W VIADUCT
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

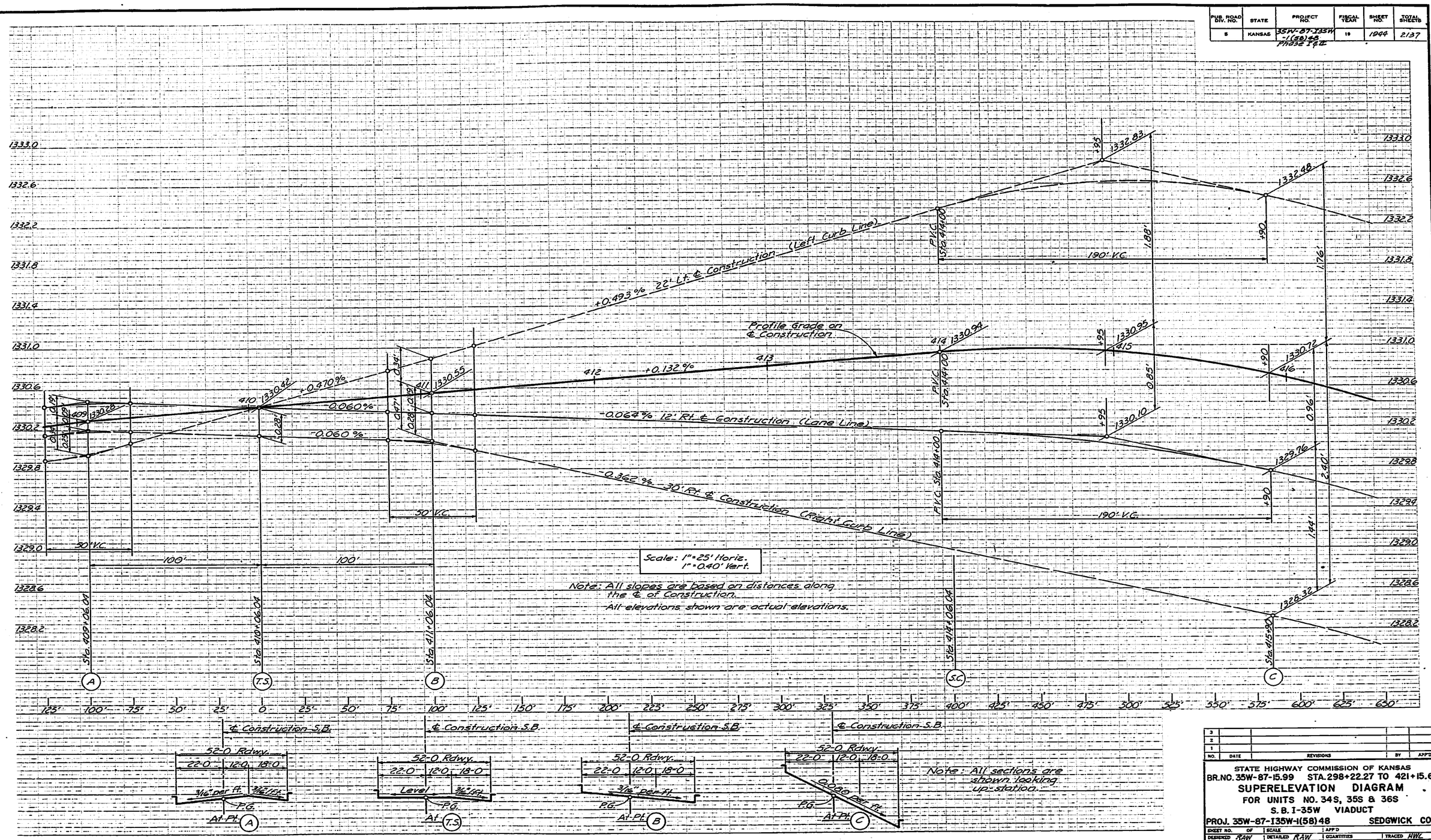
SHEET NO.	OF	SCALE	APP'D
DESIGNED RAW		DETAILED RAW	QUANTITIES
DESIGN CK. JWH		DETAIL CK. JWH	QUAN CK.
			TRACED HWL
			TRACE CK. RAW

DIST. 5 SEDGWICK CO. ROLL 531

4 0 4

16X 14.5X 12X 12X 14.5X 16X 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -(58)48 PHASE I & II	19	1944	2137



Scale: 1" = 25' Horiz.
1" = 0.40' Vert.

Note: All slopes are based on distances along the ℄ of Construction.
All elevations shown are actual elevations.

Note: All sections are shown looking up-station.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
SUPERELEVATION DIAGRAM
FOR UNITS NO. 34S, 35S & 36S
S. B. I-35W VIADUCT
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

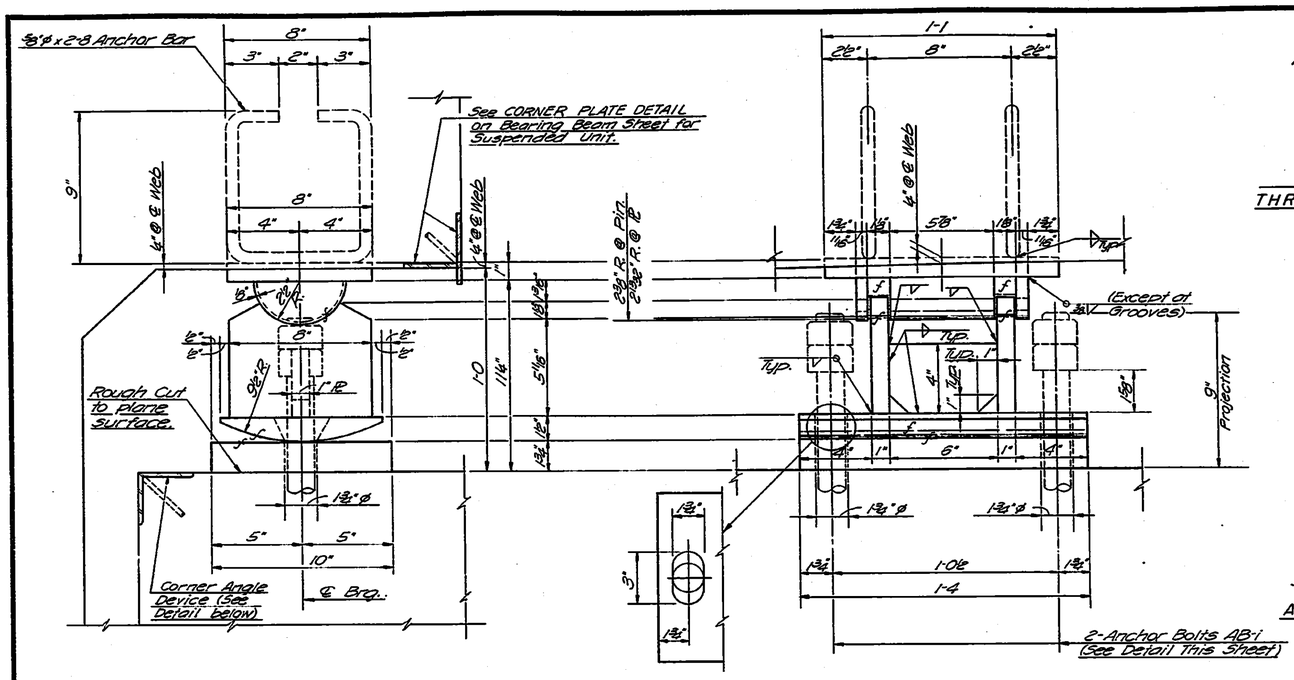
SHEET NO.	OF	SCALE	APP'D
DESIGNED RAW		DETAILED RAW	QUANTITIES
DESIGN CK. JWH		DETAIL CK. JWH	QUAN. CK.
			TRACED HWL
			TRACE CK. RAW

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 0 5

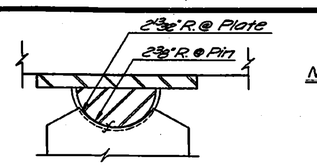
16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II & III		1945	2137

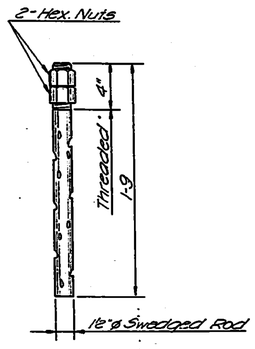


TYPICAL RI ROCKER

Computed Weight of One (1) Type RI Rocker Assembly (Including Anchor Bolts) = 242 Lbs.



TYPICAL SECTION THRU ROCKER BEARING



ANCHOR BOLT AB-1

NOTES

All fillet welds are 5/16", unless otherwise noted.

All parts of Bearing Devices shall be Structural Steel (A-36).

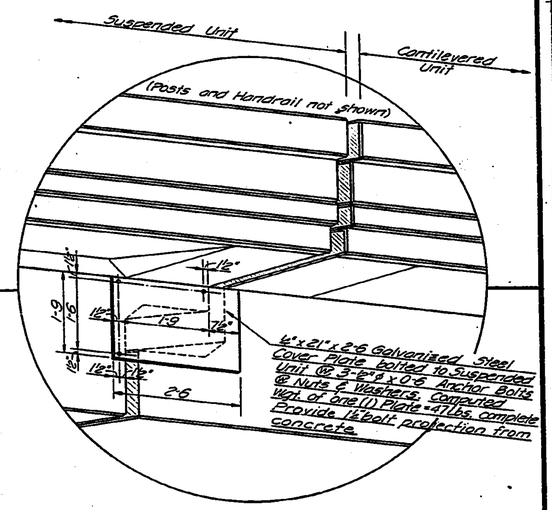
Allowable tolerance for thickness of Bearing Plates shall be 1/16".

All Anchor Bars, Anchor Bolts, Nuts, etc. are included in the computed weight of Assembly.

Rockers shall shall be sufficiently true to form that they will fit machined grooves of pin without binding.

No machining or grinding of Rockers shall be permitted that will reduce the bearing surfaces on the pin to less than those indicated.

Shop and Field Paint shall conform to Basic Lead Silico Chromate System. All finished surfaces shall be painted with one coat of white lead and tallow.

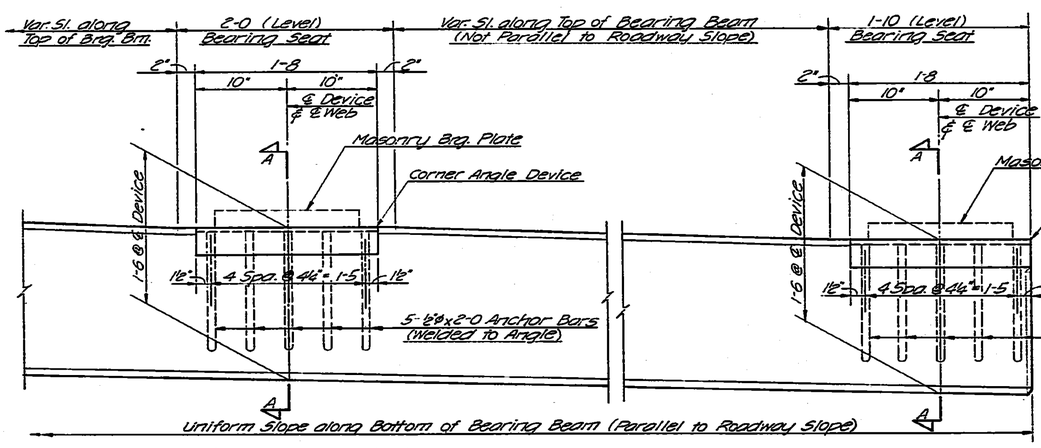


COVER PLATE DETAIL

(No Scale)

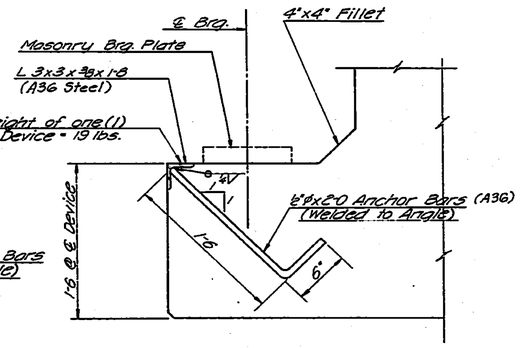
NOTE: Cover Plate shall be galvanized to meet the requirements of A.S.T.M. A153 Class B.

Anchor Bolts, Nuts and Washers shall be galvanized to meet the requirements of A.S.T.M. A-153 Class C. Furnish additional galvanized washers to shim Plate ¾" clear to adjacent unit.



ELEVATION AT INTERIOR WEB

ELEVATION AT EXTERIOR WEB



SECTION A-A

BEARING SEAT DETAILS

(See Schedule Sheet for Bearing Seat Elevations)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

BRIDGE NOS. 35W-87-15.96 & 15.99

BEARING SEAT & BEARING DEVICE DETAILS

I-35W VIADUCT

ENGLISH ST. TO EIGHTEENTH ST.

PROJ. NO. 35W-87-I35W-I(58)48 SEDGWICK CO.

SHEET NO. OF	SCALE	APP'D.	
DESIGNED RBS	DETAILED DJ	QUANTITIES	TRACED DC
DESIGN CK. JWH	DETAIL CK. DPG	QUANT. CK.	TRACE CK. DPG

TOPEKA BLUE PRINT CO.

DIST. 5 | SEDGWICK CO. | ROLL 531

4 0 6

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II & III	19	1946	2137

BEARING SEAT ELEVATIONS AT WEBS INDICATED BELOW

UNIT	STATION	PROFILE GRADE ELEVATION	TYPICAL WEBS W1	W2	W3	W4	W5	W6	OTHER WEBS WEB	ELEV.	WEB	ELEV.	WEB	ELEV.	WEB	ELEV.
1N	297+78.27	1310.16	1306.61	1306.91	1307.21	1307.51	1307.81	1308.11	W7	1308.41	W8	1300.00	--	------	--	------
1N	300+25.27	1314.93	1310.97	1311.39	1311.81	1312.22	1312.64	1313.05	W7	1313.47	W8	1313.89	--	------	--	------
3N	303+83.27	1318.95	1315.71	1315.93	1316.14	1316.35	1316.55	1316.76	W6A	1316.96	W7A	1317.16	W8	1317.37	--	------
3N	306+83.27	1319.64	1317.08	1317.20	1317.33	1317.20	1317.08	1316.95	W6E	1316.80	--	------	--	------	--	------
3N	6+74.13	1318.10	------	------	------	------	------	------	W6C	1315.91	W6G	1315.77	W8	1315.63	--	------
5N	311+43.03	1320.06	1317.50	1317.61	1317.75	1317.61	1317.50	1317.36	W7	1317.25	--	------	--	------	--	------
5N	313+90.03	1320.28	1317.71	1317.83	1317.96	1317.83	1317.71	1317.58	W7	1317.47	--	------	--	------	--	------
7N	318+23.04	1320.67	1318.11	1318.22	1318.36	1318.22	1318.11	1317.97	W7	1317.86	--	------	--	------	--	------
7N	320+70.04	1320.89	1318.33	1318.44	1318.58	1318.44	1318.33	1318.19	W7	1318.08	--	------	--	------	--	------
9N	325+ 5.81	1321.29	1318.72	1318.84	1318.97	1318.84	1318.72	1318.59	W7	1318.46	--	------	--	------	--	------
9N	327+52.81	1321.51	1318.94	1319.06	1319.19	1319.06	1318.94	1318.81	W7	1318.70	W8A	1321.11	W10	1321.01	--	------
9N	24+93.33	1319.75	------	------	------	------	------	------	W8	1317.56	W9	1317.42	W10	1317.28	--	------
11N	331+60.23	1322.04	1319.47	1319.59	1319.72	1319.59	1319.47	1319.34	W7	1319.23	W8	1319.10	--	------	--	------
11N	334+58.23	1323.52	1320.95	1321.07	1321.20	1321.07	1320.95	1320.82	W8	1320.71	--	------	--	------	--	------
13N	340+35.18	1328.17	1325.61	1325.73	1325.86	1325.73	1325.61	1325.48	W7	1325.36	--	------	--	------	--	------
13N	342+80.18	1329.13	1326.57	1326.69	1326.82	1326.69	1326.57	1326.44	W7	1326.32	W8	1326.22	W9	1326.13	--	------
13N	40+34.48	1326.98	------	------	------	------	------	------	W7A	1324.83	W7B	1324.73	W8A	1324.62	W9	1324.51
15N	347+12.20	1328.54	1325.98	1326.10	1326.23	1326.10	1325.98	1325.85	W7	1325.73	W8	1325.60	--	------	--	------
15N	349+59.20	1326.97	1324.41	1324.53	1324.66	1324.53	1324.41	1324.28	W6A	1324.18	W6B	1324.08	--	------	--	------
15N	49+64.87	1326.02	------	------	------	------	------	------	W6C	1323.86	W7A	1323.76	W7B	1323.65	W8	1323.55
17N	352+70.56	1325.20	1322.64	1322.76	1322.89	1322.76	1322.64	1322.51	W7	1322.39	--	------	--	------	--	------
17N	355+17.56	1325.47	1322.91	1323.03	1323.16	1323.03	1322.91	1322.78	W7	1322.66	--	------	--	------	--	------
19N	358+28.92	1326.65	1324.09	1324.20	1324.34	1324.20	1324.09	1323.95	W7	1323.84	--	------	--	------	--	------
19N	360+75.92	1326.64	1324.08	1324.19	1324.33	1324.19	1324.08	1323.94	W7	1323.83	--	------	--	------	--	------
21N	366+ 0.24	1324.87	1322.31	1322.42	1322.56	1322.42	1322.31	1322.17	W7	1322.06	--	------	--	------	--	------
21N	368+47.24	1324.93	1322.37	1322.48	1322.62	1322.48	1322.37	1322.23	W7	1322.12	W10	1321.98	--	------	--	------
21N	65+97.78	1324.07	------	------	------	------	------	------	W8	1321.88	W9A	1321.79	W9B	1321.69	W10	1321.60
23N	372+71.26	1325.49	1322.93	1323.05	1323.18	1323.05	1322.93	1322.80	W7	1322.68	W8	1322.55	--	------	--	------
23N	375+18.26	1325.81	1323.25	1323.36	1323.50	1323.36	1323.25	1323.11	W7	1323.00	W8	1322.87	--	------	--	------
25N	378+67.00	1326.27	1323.70	1323.82	1323.95	1323.82	1323.70	1323.57	W7A	1323.46	W9	1323.35	W10A	1323.25	W12	1323.15
25N	381+14.00	1326.60	1324.04	1324.15	1324.29	1324.15	1324.04	1323.90	W8	1323.76	--	------	--	------	--	------
25N	81+14.93	1325.27	------	------	------	------	------	------	W9	1323.08	W10B	1322.94	W12	1322.80	--	------
27N	386+ 6.87	1327.25	1324.69	1324.81	1324.94	1324.81	1324.69	1324.56	W7	1324.44	--	------	--	------	--	------
27N	389+ 4.87	1327.64	1325.08	1325.19	1325.33	1325.19	1325.08	1324.94	W7	1324.83	--	------	--	------	--	------
29N	393+54.00	1328.24	1325.68	1325.80	1325.93	1325.80	1325.68	1325.55	W7	1325.43	--	------	--	------	--	------
29N	396+ 1.00	1328.56	1326.00	1326.11	1326.25	1326.11	1326.00	1325.86	W7	1325.75	W8	1325.64	W9	1325.53	W10	1326.42
29N	93+53.32	1326.79	------	------	------	------	------	------	W8	1324.73	W8A	1324.59	W9A	1324.46	W10	1324.32
31N	399+96.74	1329.09	1326.53	1326.64	1326.78	1326.64	1326.53	1326.39	W6A	1326.29	W7A	1326.19	W8	1326.08	--	------
31N	402+43.74	1329.41	1326.85	1326.96	1327.10	1326.96	1326.85	1326.71	W7	1326.60	W8	1326.47	--	------	--	------
33N	406+79.74	1329.99	1327.43	1327.55	1327.68	1327.55	1327.43	1327.30	W7	1327.18	W8	1327.05	--	------	--	------
33N	409+26.74	1330.31	1327.92	1327.96	1328.00	1327.87	1327.75	1327.62	W7	1327.50	W8	1327.37	--	------	--	------
35N	413+59.88	1330.53	1329.87	1329.34	1328.82	1328.29	1327.77	1327.25	W7	1326.72	W8	1326.20	--	------	--	------

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.96
BEARING SEAT ELEVATIONS
I-35W VIADUCT

PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE		APP'D	
DESIGNED DFG		DETAILED DS		QUANTITIES	TRACED
DESIGN CK. JWH		DETAIL CK. JA		QUAN CK.	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

4 0 7

16X 14.5X 12X 12X 14.5X 16X 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(58)48 Phase II & III	19	1947	2137

BEARING SEAT ELEVATIONS AT WEBS INDICATED BELOW

UNIT	STATION	PROFILE GRADE ELEVATION	TYPICAL WEBS W1	W2	W3	W4	W5	W6	OTHER WEBS WEB	ELEV.	WEB	ELEV.	WEB	ELEV.	WEB	ELEV.
1S	298+22.27	1310.52	1309.27	1308.90	1308.54	1308.19	1307.84	1307.47	W7	1307.11	W8	1306.74	--	-----	--	-----
1S	300+69.27	1315.45	1314.41	1313.99	1313.57	1313.16	1312.74	1312.33	W7	1311.91	W8	1311.49	--	-----	--	-----
3S	304+27.27	1319.17	1319.19	1319.04	1316.89	1316.74	1316.59	1316.44	W7	1316.29	W7A	1316.17	W8	1316.05	--	-----
3S	307+27.27	1319.68	1317.12	1317.24	1317.37	1317.24	1317.12	1316.99	W7	1316.87	--	-----	--	-----	--	-----
3S	7+37.93	1318.25	-----	-----	-----	-----	-----	-----	W7B	1316.06	W7C	1315.92	W8	1315.78	--	-----
5S	311+87.05	1320.10	1317.54	1317.65	1317.79	1317.65	1317.54	1317.40	W7	1317.29	--	-----	--	-----	--	-----
5S	314+34.05	1320.32	1317.76	1317.87	1318.01	1317.87	1317.76	1317.62	W7	1317.51	--	-----	--	-----	--	-----
7S	318+67.03	1320.71	1318.15	1318.27	1318.40	1318.27	1318.15	1318.02	W7	1317.90	--	-----	--	-----	--	-----
7S	321+14.03	1320.93	1318.37	1318.48	1318.62	1318.48	1318.37	1318.23	W7	1318.12	--	-----	--	-----	--	-----
9S	325+49.56	1321.32	1318.76	1318.87	1319.01	1318.87	1318.76	1318.62	W8	1318.49	--	-----	--	-----	--	-----
9S	327+96.56	1321.55	1318.98	1319.10	1319.23	1319.10	1318.98	1318.85	W7A	1318.74	W9	1319.63	W10A	1318.53	W12	1318.42
9S	25+61.49	1319.59	-----	-----	-----	-----	-----	-----	W9	1317.40	W10B	1317.26	W12	1317.12	--	-----
11S	332+ 3.98	1322.19	1319.63	1319.75	1319.88	1319.75	1319.63	1319.50	W7	1319.38	--	-----	--	-----	--	-----
11S	335+ 1.98	1323.83	1321.27	1321.38	1321.52	1321.38	1321.27	1321.13	W7	1321.02	--	-----	--	-----	--	-----
13S	340+80.84	1328.42	1325.86	1325.97	1326.11	1325.97	1325.86	1325.72	W7A	1325.58	--	-----	--	-----	--	-----
13S	343+25.84	1329.21	1326.65	1326.77	1326.90	1326.77	1326.65	1326.52	W7	1325.00	W8	1326.58	W9	1326.19	W10	1325.62
13S	40+79.91	1327.01	-----	-----	-----	-----	-----	-----	W8	1324.82	W8B	1324.68	W10	1324.54	--	-----
15S	347+55.91	1328.31	1325.75	1325.86	1326.00	1325.86	1325.75	1325.61	W7	1325.50	W8	1325.37	--	-----	--	-----
15S	350+ 2.91	1326.66	1324.10	1324.21	1324.35	1324.21	1324.10	1323.96	W7	1323.85	W7B	1323.78	W7C	1323.72	W8	1323.65
16S	51+64.48	1324.48	-----	-----	-----	-----	-----	-----	W8	1322.30	W8A	1322.21	W9A	1322.11	W10	1322.01
17S	352+90.50	1325.16	1322.60	1322.71	1322.85	1322.71	1322.60	1322.46	W7	1322.35	--	-----	--	-----	--	-----
17S	355+37.50	1325.55	1322.98	1323.10	1323.23	1323.10	1322.98	1322.85	W7	1322.74	--	-----	--	-----	--	-----
19S	358+14.58	1326.62	1324.06	1324.17	1324.31	1324.17	1324.06	1323.92	W7	1323.81	--	-----	--	-----	--	-----
19S	360+61.58	1326.68	1324.12	1324.23	1324.37	1324.23	1324.12	1323.98	W7	1323.87	--	-----	--	-----	--	-----
21S	366+45.40	1324.82	1322.26	1322.37	1322.51	1322.37	1322.26	1322.12	W7	1322.03	W8	1321.93	--	-----	--	-----
21S	368+92.40	1324.99	1322.43	1322.55	1322.68	1322.55	1322.43	1322.30	W8A	1322.18	W12	1322.05	--	-----	--	-----
21S	66+15.67	1323.93	-----	-----	-----	-----	-----	-----	W9	1321.77	W10	1321.67	W11	1321.56	W12	1321.46
23S	373+16.61	1325.55	1322.98	1323.10	1323.23	1323.10	1322.98	1322.85	W7	1322.74	W8	1322.61	--	-----	--	-----
23S	375+63.61	1325.87	1323.31	1323.42	1323.56	1323.42	1323.31	1323.17	W7	1323.06	W8	1322.93	--	-----	--	-----
25S	379+18.00	1326.34	1323.78	1323.89	1324.03	1323.89	1323.78	1323.64	W7	1323.53	W9	1323.43	W11	1323.34	--	-----
25S	381+65.00	1326.67	1324.11	1324.22	1324.36	1324.22	1324.11	1323.97	W7	1323.86	--	-----	--	-----	--	-----
25S	81+65.70	1325.36	-----	-----	-----	-----	-----	-----	W8	1323.21	W9	1323.11	W10	1323.00	W11	1322.89
27S	386+52.19	1327.31	1324.75	1324.86	1325.00	1324.86	1324.75	1324.61	W7	1324.50	--	-----	--	-----	--	-----
27S	389+50.19	1327.70	1325.14	1325.26	1325.39	1325.26	1325.14	1325.01	W7	1324.89	--	-----	--	-----	--	-----
29S	394+70.00	1328.39	1325.83	1325.94	1326.08	1325.94	1325.83	1325.69	W7	1325.55	--	-----	--	-----	--	-----
29S	397+17.00	1328.72	1326.16	1326.28	1326.41	1326.28	1326.16	1326.03	W7	1325.91	W8A	1325.75	W10	1325.60	--	-----
29S	94+68.75	1326.91	-----	-----	-----	-----	-----	-----	W8	1324.72	W8A	1324.58	W10	1324.44	--	-----
31S	400+42.02	1329.14	1326.58	1326.69	1326.83	1326.69	1326.58	1326.44	W7	1326.33	--	-----	--	-----	--	-----
31S	402+89.02	1329.47	1326.91	1327.03	1327.16	1327.03	1326.91	1326.78	W7	1326.66	--	-----	--	-----	--	-----
33S	407+25.02	1330.05	1327.48	1327.60	1327.73	1327.60	1327.48	1327.35	W7	1327.24	--	-----	--	-----	--	-----
33S	409+72.02	1330.37	1327.68	1327.81	1327.93	1327.89	1327.85	1327.80	W7	1327.76	--	-----	--	-----	--	-----
35S	414+ 7.10	1330.95	1326.61	1327.13	1327.65	1328.18	1328.71	1329.24	W7	1329.76	--	-----	--	-----	--	-----
35S	416+54.10	1330.42	1325.68	1326.32	1326.96	1327.60	1328.24	1328.88	W7	1329.52	--	-----	--	-----	--	-----

NO.	DATE	REVISIONS	BY	APP'D
3				
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STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.99
BEARING SEAT ELEVATIONS
I-35W VIADUCT

PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

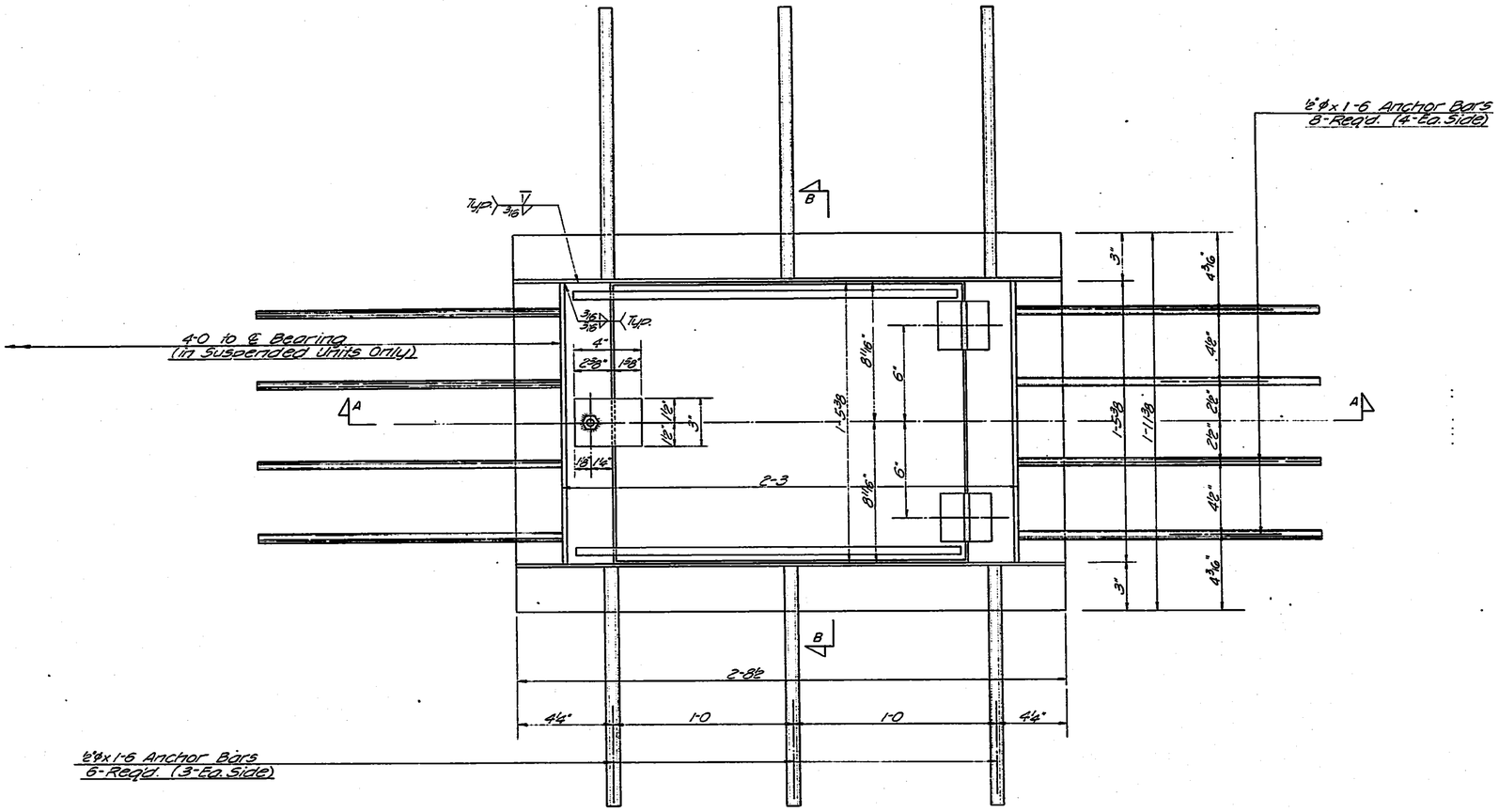
SHEET NO. OF	SCALE	APP'D
DESIGNED DPE	DETAILED DS	QUANTITIES
DESIGN CK. JWH	DETAIL CK. JA	QUAN. CK.
		TRACED
		TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

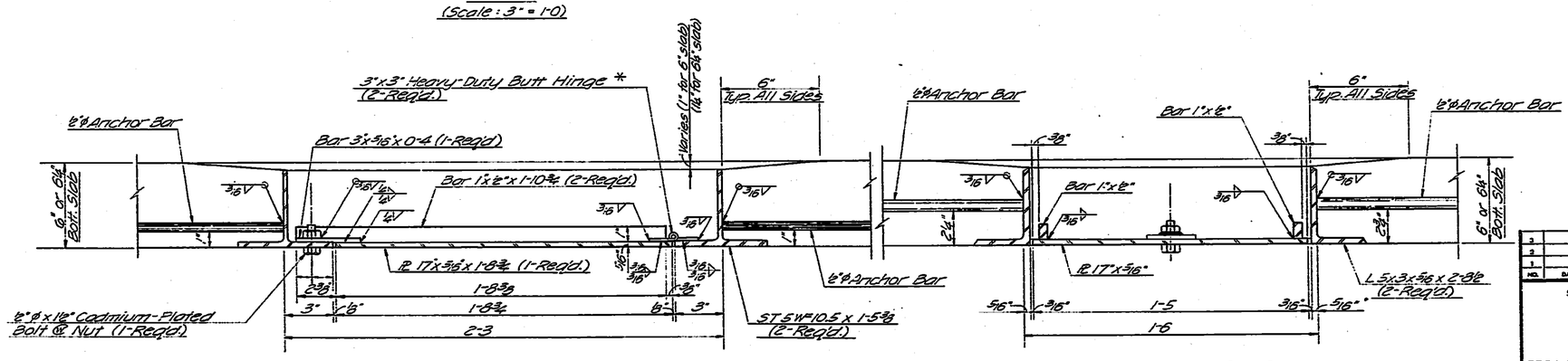
[redacted] 4 0 8

16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase II & III		1948	2137



PLAN
(Scale: 3" = 1'-0)



* Note:
Use unfinished, blank, cold-rolled steel not swaged. (Reference Lawrence Catalog #8540 or other approved).

SECTION A — A
(Scale: 3" = 1'-0)

SECTION B — B
(Scale: 3" = 1'-0)

ACCESS DOOR DETAILS

Notes: Shop and Final Coats shall conform to basic Lead Silico Chromate System - See Special Provisions.
Computed weight of one assembly (including bolt and nut) is 130 Lbs.
All steel shall be A36, except as noted

NO.	DATE	REVISIONS	BY	APP'D.
3				
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STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
ACCESS DOOR DETAILS
I-35W VIADUCT
ENGLISH ST. TO EIGHTEENTH ST.
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE		APP'D.			
DESIGNED	RBS	DETAILED	RBS	QUANTITIES	DS	TRACED	DS
DESIGN CK.	JWH	DETAIL CK.	DFG	QUAN. CK.	DFG	TRACE CK.	JWH

DIST. 5 | SEDGWICK CO. | ROLL 531

4 0 9

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

REVISED SHEET 11-1-71

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phases II & III	1970	1949 R	2137

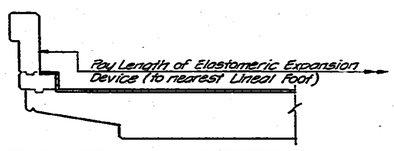
NORTHBOUND EXPANSION DEVICE SCHEDULE

	LOCATION	ROADWAY WIDTH	ELASTOMERIC EXP. DEVICE PAY LENGTH (LIN. FT.) 13½"	ELASTOMERIC EXP. DEVICE PAY LENGTH (LIN. FT.) 22¾"	STRUCTURAL STEEL (A36) ANGLES (LIN. FT.) 5"x3"x⅝"	ANGLES (LIN. FT.) 3"x2½"x⅜"	ANGLES (LIN. FT.) 3½"x2½"x⅜"	ANGLES (LIN. FT.) 3"x3"x⅜"	ANCHOR BARS 1⅜"x1'-6" (EACH)	TOTAL WEIGHT (LBS.)	CROWN ELEVATION CONTROL (SEE DIAGRAM) A	B	C	D		REMARKS
	Longitudinal Expansion Device	@ 16N-16NR								940						Wgt. incl. in Unit 15N
	0N-1N	60'-0	62'		124'	124'			240	2211	-1'-1⅝"	-5½"	+1'-1⅝"			
	1N-2N	60'-0	62'		124'	124'			240	2211	-1'-6¾"	-7½"	+1'-6¾"			
	2N-3N	67'-11⅜	70'		139.89'	139.89'			272	2496	-9⅜"	-3⅜"	+11⅜"			93°42'12" @ Rt. Curb
	3N-4N	53'-10¼		56'			111.71'	111.71'	216	1947	-1⅛"	+2¼"	-4½"			87°44'41" @ Rt. Curb
	3N-4NR	22'-0	24'		48'	48'			88	848				+4⅛"		
	4N-5N	52'-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	5N-6N	52'-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	6N-7N	52'-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	7N-8N	52'-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	8N-9N	52'-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	8NR-9N	22'-0	24'		48'	48'			88	848				+4⅛"		
	9N-10N	63'-9¼	66'		131.54'	131.54'			256	2347	-1⅛"	+2¼"	-6⅝"			86°47'14" @ Rt. Curb
	10N-11N	60'-0	62'		124'	124'			240	2211	-1⅛"	+2¼"	-5⅜"			
	11N-12N	52'-0		54'			108'	108'	208	1881	-1⅛"	+2¼"	-4⅛"			
	12N-13N	52'-0		54'			108'	108'	208	1881	-1⅛"	+2¼"	-4⅛"			
	12NR-13N	24'-8	27'		53.33'	53.33'			96	939				+4⅝"		92°05'28" @ Lt. Curb (Ramp)
	13N-14N	64'-0⅝	66'		132.10'	132.10'			256	2356	-1⅛"	+2¼"	-6⅜"			85°40'16" @ Rt. Curb
	14N-15N	60'-0	62'		124'	124'			240	2211	-1⅛"	+2¼"	-5⅜"			
	15N-16N	59'-6⅛ *	61'		121.25'	121.25'			236	2164	-1⅛"	+2¼"	-5½"			
	15N-16NR	26'-8¾ *	28'		55.25'	55.25'			104	980				+5"		
	16N-17N	52'-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	17N-18N	52'-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	Phase III Total (Northbound)		992'	164'	1981.36'	1981.36'	327.71'	327.71'	4444	41,939						
	18N-19N	52'-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	19N-20N	52'-0		54'			108'	108'	208	1881	-1⅛"	+2¼"	-4⅛"			
	20N-21N	52'-0		54'			108'	108'	208	1881	-1⅛"	+2¼"	-4⅛"			
	20NR-21N	22'-0	24'		48'	48'			88	848				+4⅛"		
	21N-22N	60'-8⅜	62'		125.39'	125.39'			240	2231	-1⅛"	+2¼"	-5⅜"			88°37'11" @ Rt. Curb
	22N-23N	60'-0	62'		124'	124'			240	2211	-1⅛"	+2¼"	-5⅜"			
	23N-24N	60'-0	62'		124'	124'			240	2211	-1⅛"	+2¼"	-5⅜"			
	24N-25N	71'-9⅜	74'		147.56'	147.56'			288	2634	-1⅛"	+2¼"	-7⅝"			94°40'09" @ Rt. Curb
	25N-26N	53'-6		56'			111.00'	111.00'	212	1930	-1⅛"	+2¼"	-4⅜"			87°53'38" @ Rt. Curb
	25N-26NR	22'-0	24'		48'	48'			88	848				+4⅛"		
	26N-27N	52'-0		54'			108'	108'	208	1881	-1⅛"	+2¼"	-4⅛"			
	27N-28N	52'-0		54'			108'	108'	208	1881	-1⅛"	+2¼"	-4⅛"			
	28N-29N	52'-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	28NR-29N	30'-0	32'		64'	64'			120	1135				+5⅜"		
	29N-30N	73'-3⅜	75'		150.52'	150.52'			292	2685	-1⅛"	+2¼"	-8⅜"			87°31'01" @ Rt. Curb
	30N-31N	64'-8⅝	67'		133.44'	133.44'			256	2375	-1⅛"	+2¼"	-6½"			88°51'15" @ Rt. Curb
	31N-32N	60'-0	62'		124'	124'			240	2211	-1⅛"	+2¼"	-5⅜"			
	32N-33N	60'-0	62'		124'	124'			240	2211	-1⅛"	+2¼"	-5⅜"			
	33N-34N	60'-0	62'		124'	124'			240	2211	-1⅛"	+2¼"	-5⅜"			
	34N-35N	60'-0		62'			124'	124'	240	2161	+1'-11⅜"	+9½"	-1'-11⅜"			
	Phase II Total (Northbound)		777'	334'	1552.91'	1552.91'	667.00'	667.00'	4272	39,274						
	Northbound Total		1769'	498'	3534.27'	3534.27'	994.71'	994.71'	8716	81,213						

PHASE III

PHASE II

* Dimension : Curb to ℄ Longitudinal Expansion Joint.



NO.	DATE	REVISIONS	BY	APP'D.
3				
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STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.96 STA. 297+78.27 TO 416+85.38

ELASTOMERIC EXPANSION DEVICE SCHEDULE (NB)
N.B. I-35W VIADUCT

PROJ. 35W-87-I 35W-1(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE		APP'D.			
DESIGNED	JWH	DETAILED	DS	QUANTITIES	DS	TRACED	DS
DESIGN CK.	RLF	DETAIL CK.	RLF	QUAN. CK.	RLF	TRACE CK.	RLF

DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted] 4 1 0

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

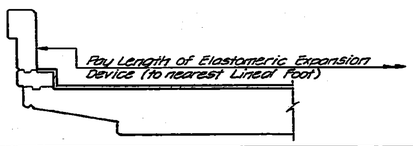
REVISED SHEET 11-1-71

FED. ROAD DIST. NO.	STATE	PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phases II & III	1970	1950R	2137

SOUTHBOUND EXPANSION DEVICE SCHEDULE

	LOCATION	ROADWAY WIDTH	ELASTOMERIC EXP. DEVICE PAY LENGTH (LIN. FT.) 13½"	ELASTOMERIC EXP. DEVICE PAY LENGTH (LIN. FT.) 22¾"	STRUCTURAL STEEL (A36) ANGLES (LIN. FT.) 5"x 3"x 5/16"	ANGLES (LIN. FT.) 3"x 2½"x 3/8"	ANGLES (LIN. FT.) 3½"x 2½"x 3/8"	ANGLES (LIN. FT.) 3"x 3"x 3/8"	ANCHOR BARS 5/8"ø x 1'-6" (EACH)	TOTAL WEIGHT (LBS.)	CROWN ELEVATION CONTROL (SEE DIAGRAM) A	B	C	D		REMARKS
PHASE III	0S-1S	60-0	62'	-	124'	124'			240	2211	+1'-4¼"	+6½"	-1'-4¼"			
	1S-2S	60-0	62'		124'	124'			240	2211	+1'-6¾"	+7½"	-1'-6¾"			
	2S-3S	64-3	66'		132.50'	132.50'			256	2362	+6⅞"	+2¾"	-7⅜"			92°57'47" @ Lt. Curb
	3S-4S	52-0		54'			108'	108'	208	1881	-1⅛"	+2¼"	-4⅛"			
	3S-4SR	22-0	24'		48'	48'			88	848				+4⅛"		
	4S-5S	52-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	5S-6S	52-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	6S-7S	52-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	7S-8S	52-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	8S-9S	53-3½	55'		110.58'	110.58'			212	1968	-1⅛"	+2¼"	-4⅜"			91°52'55" @ Lt. Curb
	8SR-9S	22-0	24'		48'	48'			88	848				+4⅛"		
	9S-10S	72-4⅝	74'		148.77'	148.77'			288	2652	-1⅛"	+2¼"	-7 13/16"			85°22'18" @ Lt. Curb
	10S-11S	52-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	11S-12S	52-0		54'			108'	108'	208	1881	-1⅛"	+2¼"	-4⅛"			
	12S-13S	53-6		56'			112'	112'	212	1944	-1⅛"	+2¼"	-4⅜"			92°01'22" @ Lt. Curb
	12SR-13S	22-0	24'		48'	48'			88	848				+4⅛"		
	13S-14S	71-10⅛	74'		148.69'	148.69'			288	2651	-1⅛"	+2¼"	-7 13/16"			85°17'41" @ Lt. Curb
	14S-15S	60-0	62'		124'	124'			240	2211	-1⅛"	+2¼"	-5⅜"			
	15S-16S	64-6⅛	67'		133.02'	133.02'			256	2369	-1⅛"	+2¼"	-6 1/16"			95°06'32" @ Lt. Curb
	16S-16SR	22-8	25'		49.33'	49.33'			88	868				+4⅜"		91°32'28" @ Lt. Curb
	16S-17S	52-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	17S-18S	52-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	Phase III Total (Southbound)		997'	164'	1994.89'	1994.89'	328'	328'	4456	41,221						
	Longitudinal Expansion Device @ 20S-20SR									923						Wgt. incl. in Unit 21S
PHASE II	18S-19S	52-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	19S-20S	52-0		54'			108'	108'	208	1881	-1⅛"	+2¼"	-4⅛"			
	20S-21S	59-6⅛ *		61'			121.25'	121.25'	236	2116	-1⅛"	+2¼"	-5½"			
	20SR-21S	26-8⅝ *	28'		55.25'	55.25'			104	980				+5⅜"		
	21S-22S	60-0	62'		124'	124'			240	2211	-1⅛"	+2¼"	-5⅜"			
	22S-23S	60-0	62'		124'	124'			240	2211	-1⅛"	+2¼"	-5⅜"			
	23S-24S	60-0	62'		124'	124'			240	2211	-1⅛"	+2¼"	-5⅜"			
	24S-25S	63-11¾	65'		131.96'	131.96'			256	2354	-1⅛"	+2¼"	-6⅜"			93°17'53" @ Lt. Curb
	25S-26SR	24-8	27'		53.33'	53.33'			96	939				+4⅝"		92°06'29" @ Rt. Curb (Ramp)
	25S-26S	52-0		54'			108'	108'	208	1881	-1⅛"	+2¼"	-4⅛"			
	26S-27S	52-0		54'			108'	108'	208	1881	-1⅛"	+2¼"	-4⅛"			
	27S-28S	52-0		54'			108'	108'	208	1881	-1⅛"	+2¼"	-4⅛"			
	28S-29S	53-6		56'			111.00'	111.00'	212	1930	-1⅛"	+2¼"	-4⅜"			92°01'22" @ Lt. Curb
	28SR-29S	22-0	24'		48'	48'			88	848				+4⅛"		
	29S-30S	71-9	74'		147.50'	147.50			288	2634	-1⅛"	+2¼"	-7 1/16"			85°19'07" @ Lt. Curb
	30S-31S	52-0⅝	54'		108.06'	108.06'			208	1924	-1⅛"	+2¼"	-4⅛"			89°42'06" @ Lt. Curb
	31S-32S	52-0	54'		108'	108'			208	1925	-1⅛"	+2¼"	-4⅛"			
	32S-33S	52-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	33S-34S	52-0	54'		108'	108'			208	1924	-1⅛"	+2¼"	-4⅛"			
	34S-35S	52-0	54'		108'	108'			208	1924	-1'-1⅜"	-9⅛"	+1'-5⅜"			
	35S-36S	52-0	54'		108'	108'			208	1924	-2'-4 13/16"	-1 1/2"	+1'-9⅛"			
	Phase II Total (Southbound)		783'	333'	1564.10'	1564.10'	664.25'	664.25'	4288	40,350						
	Southbound Total		1780'	497'	3558.99'	3558.99'	992.25'	992.25'	8744	81,571						

*Dimension: Curb to ℄ Longitudinal Expansion Joint.



TOPEKA BLUE PRINT CO.

NO.	DATE	REVISIONS	BY	APP'D.
3				
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1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 35W-87-15.99 STA. 298+22.27 TO 421+15.60
ELASTOMERIC EXPANSION DEVICE SCHEDULE (SB)
S.B. I-35W VIADUCT
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE		APP'D.	
DESIGNED	JWH	DETAILED	DS	QUANTITIES	DS
DESIGN CK.	RLF	DETAIL CK.	RLF	QUAN. CK.	RLF
				TRACED	DS
				TRACE CK.	RLF

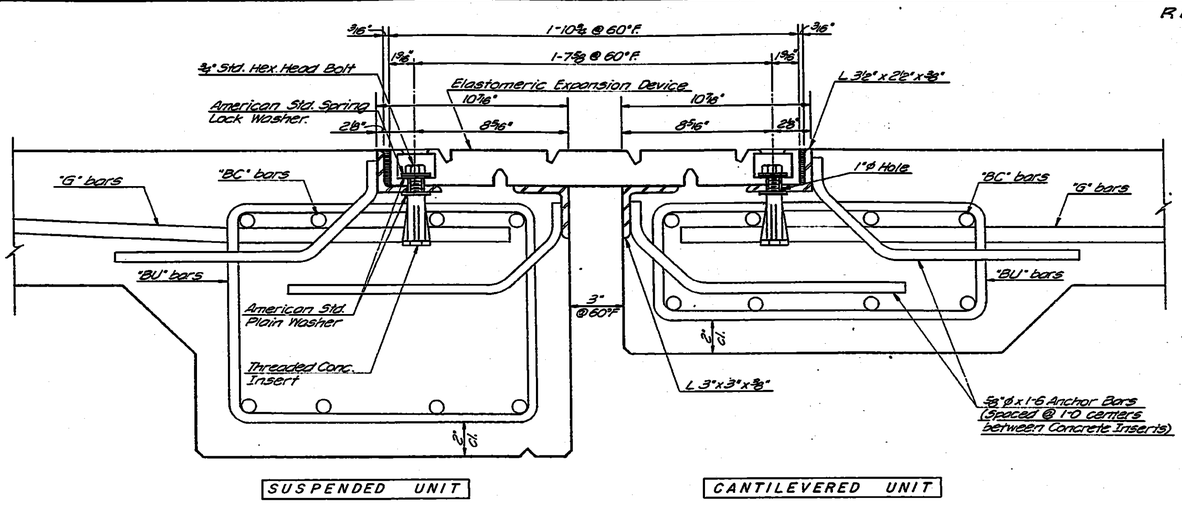
DIST. 5 SEDGWICK CO. ROLL 531

4 1 1

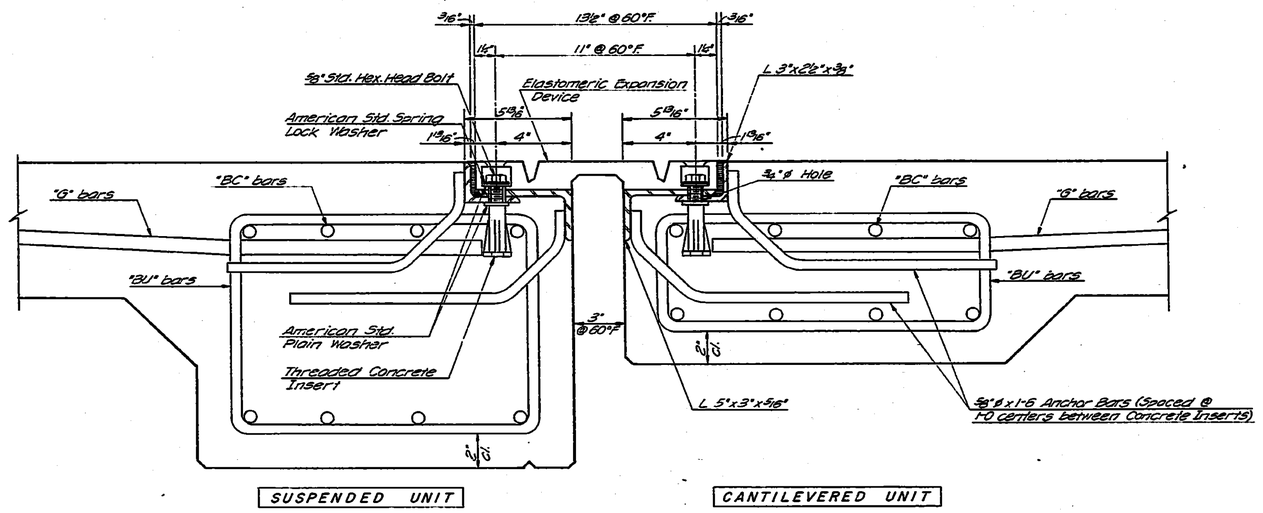
16X 14.5X 12X 12X 14.5X 16X 20X

REVISED SHEET 11-1-71

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phases II & III	1970	1951 R	2137



INSTALLATION DETAIL
(22 3/4" DEVICE)



INSTALLATION DETAIL
(13 1/2" DEVICE)

NOTE:
Elastomeric Expansion Device (22 3/4") shall be Transflex Model 400A or other approved.

Elastomeric Expansion Device (13 1/2") shall be Transflex Model 250 or other approved.

Threaded Concrete Inserts shall be Star P.C. Concrete Insert (P-56-T); Ankorlite Threaded "I" Insert or other approved.

Space top "BC" bars to clear threaded inserts and anchor bars.

Bolts, washers and threaded inserts shall not be paid for directly, but shall be included in the Unit Price bid for Structural Steel.

NO.	DATE	DIVISIONS	BY	APP'D.
3				
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STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
ELASTOMERIC EXPANSION DEVICE DETAILS
I-35W VIADUCT ENGLISH ST. TO 18TH ST.
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE		APP'D.	
DESIGNED	RLF	DETAILED	RLF	QUANTITIES	DS
DESIGN CK.	JWH	DETAIL CK.	JWH	GRADE CK.	RLF
				TRACED	DS
				TRACE CK.	RLF

TOPEKA BLUE PRINT CO.

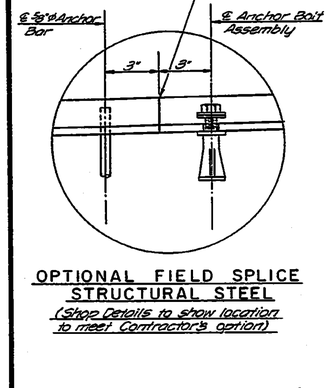
DIST. 5 SEDGWICK CO. ROLL 531

4 1 2

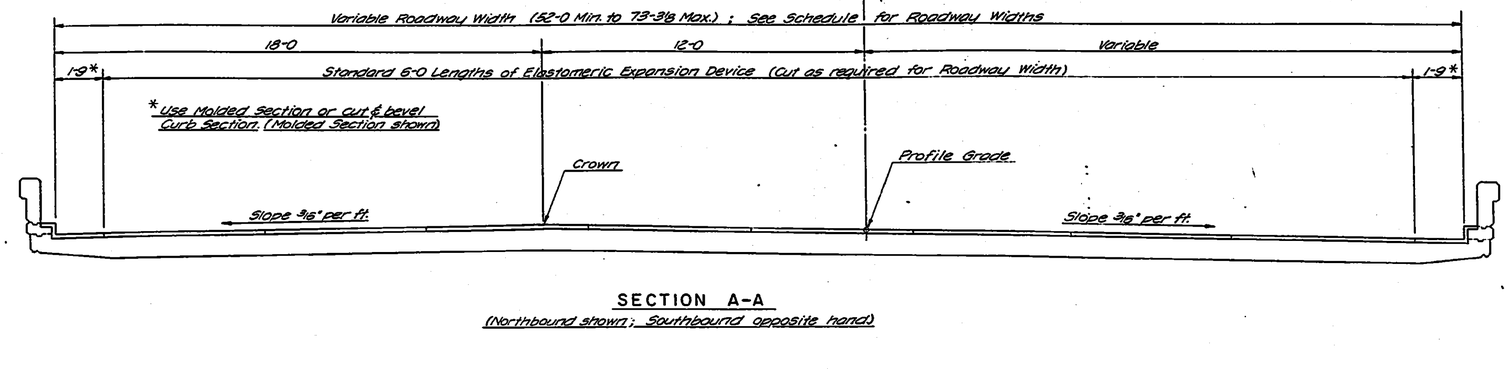
16X 14.5X 12X 12X 14.5X 16X 20X

REVISED SHEET 11-1-71

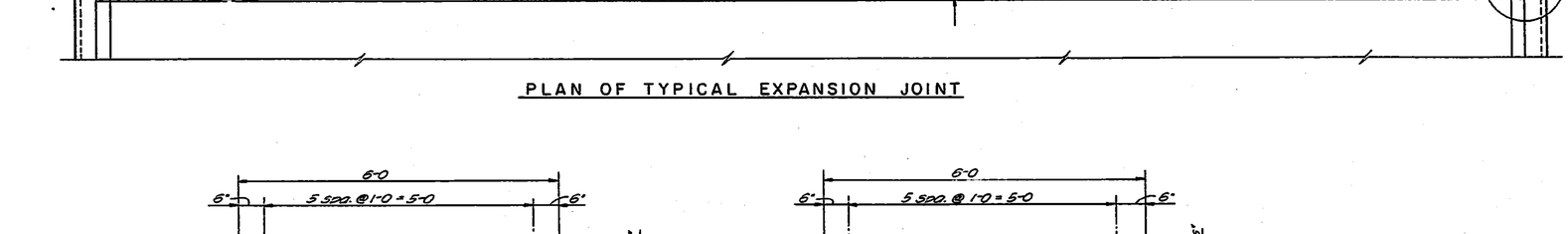
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phases II & III	1970	1052 R	2137



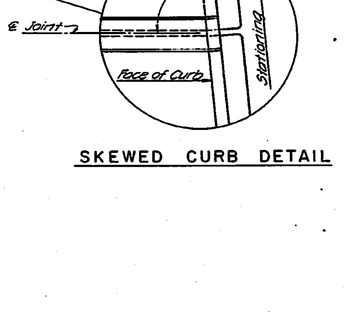
OPTIONAL FIELD SPLICE
STRUCTURAL STEEL
(Shop Details to show location to meet Contractor's option)



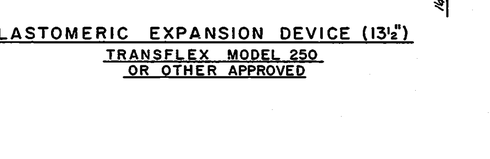
SECTION A-A
(Northbound shown; Southbound opposite hand)



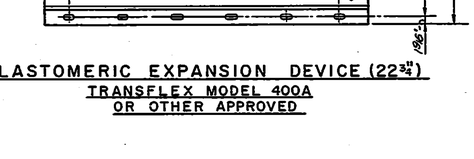
PLAN OF TYPICAL EXPANSION JOINT



SKEWED CURB DETAIL



ELASTOMERIC EXPANSION DEVICE (13½")
TRANSFLEX MODEL 250
OR OTHER APPROVED



ELASTOMERIC EXPANSION DEVICE (22¾")
TRANSFLEX MODEL 400A
OR OTHER APPROVED

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
ELASTOMERIC EXPANSION DEVICE DETAILS
I-35W VIADUCT ENGLISH ST. TO 18TH ST.
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 13	SCALE >	APP'D.	
DESIGNED RLF	DETAILED RLF	QUANTITIES DS	TRACED DS
DESIGN CK. JWH	DETAIL CK. JWH	QUAN. CK. RLF	TRACE CK. RLF

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

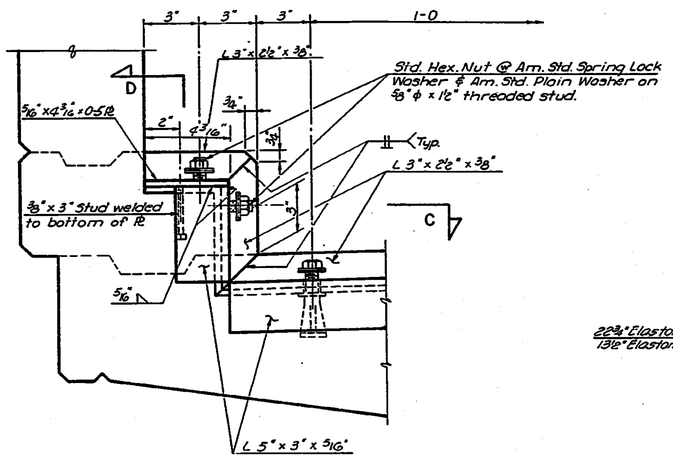
[redacted] 4 1 3

16X 14.5X 12X 12X 14.5X 16X 20X

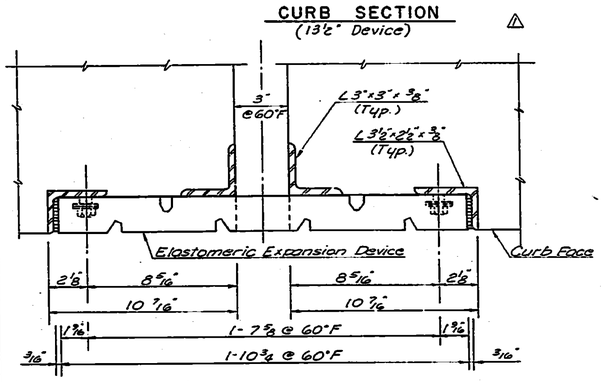
REVISED SHEET 11-1-71
REVISED PLANS 11-29-71

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48	1970	1953 R	2137

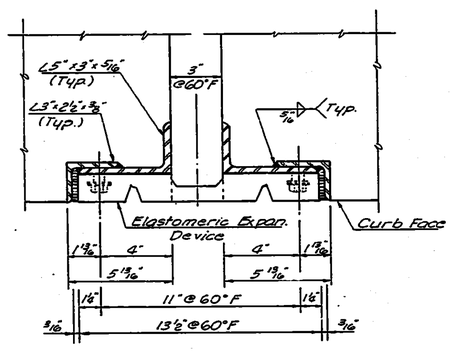
Phases II & III



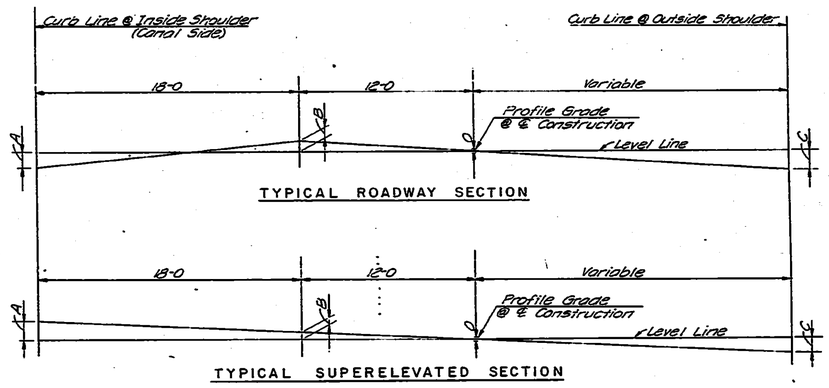
CURB SECTION
(13'-2" Device) △

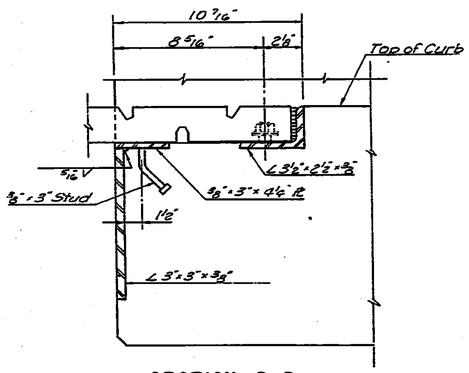


SECTION A-A
(22 3/4" Device)

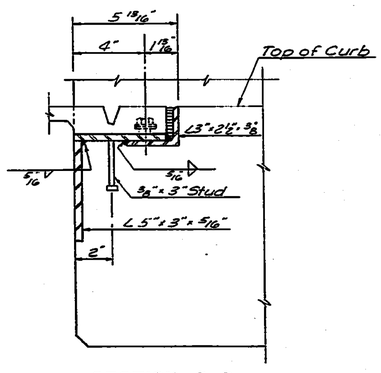


SECTION C-C
(13'-2" Device)

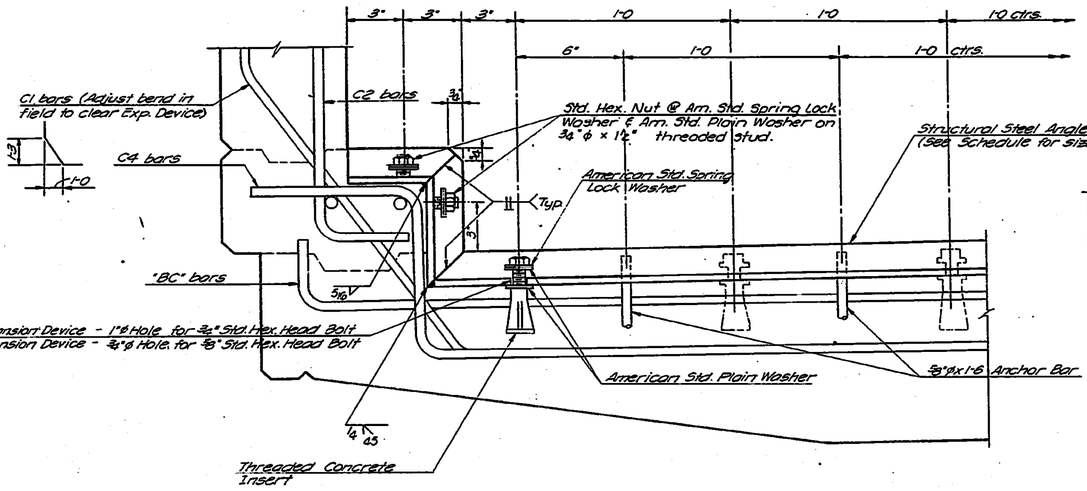




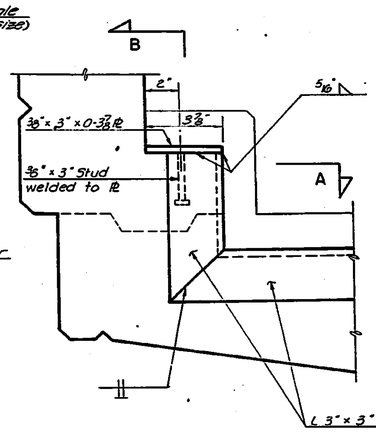
SECTION B-B
(22 3/4" Device)



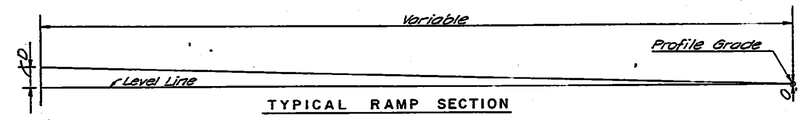
SECTION D-D
(13½" Device)



TYPICAL CURB SECTION △
(22 3/4" Device shown)



CURB SECTION
(22 3/4" Device) △



TYPICAL RAMP SECTION

CROWN ELEVATION CONTROL
(See Schedule for Dimensions)
Northbound shown, Southbound opposite hand.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1	11-29-71	Revised Curb Section	WBS	

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96, & 15.99
ELASTOMERIC EXPANSION DEVICE DETAILS
I-35W VIADUCT ENGLISH ST. TO 18TH ST.
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE		APP'D.	
DESIGNED	RLF	DETAILED	RLF	QUANTITIES	DS
DESIGN CK.	JWH	DETAIL CK.	JWH	QUAN. CK.	RLF
				TRACED	DS
				TRACE CK.	RLF

TOPEKA BLUE PRINT CO.

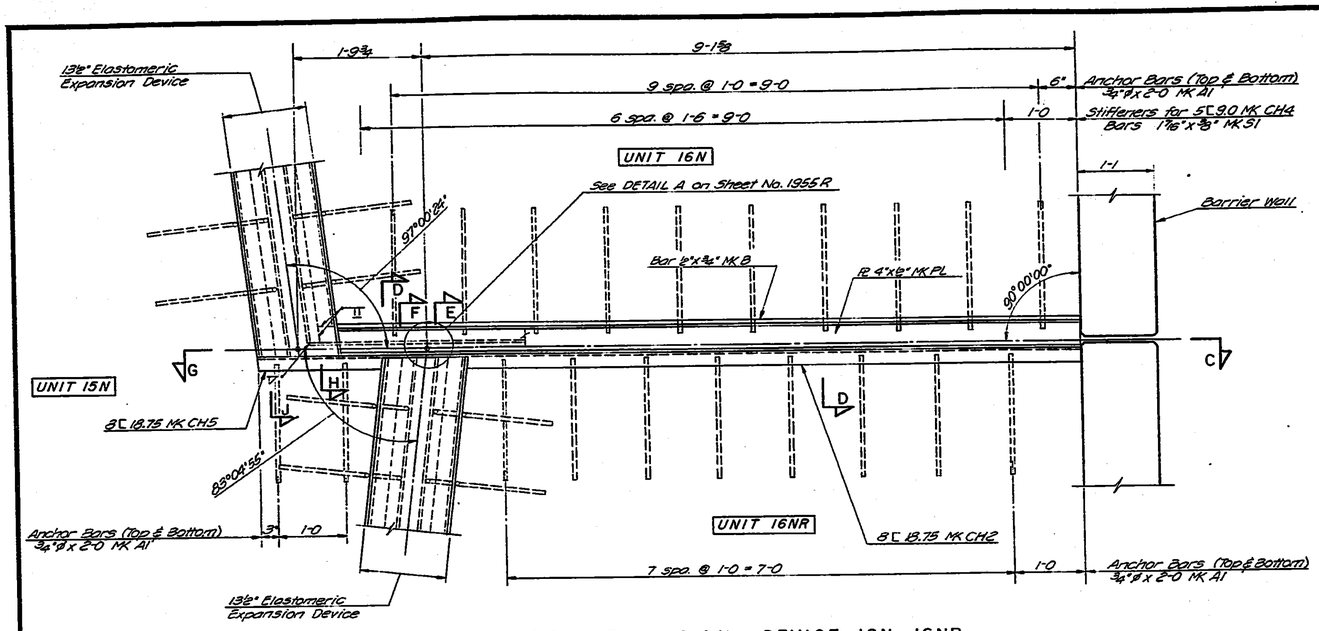
DIST. 5 SEDGWICK CO. ROLL 531

4 1 4

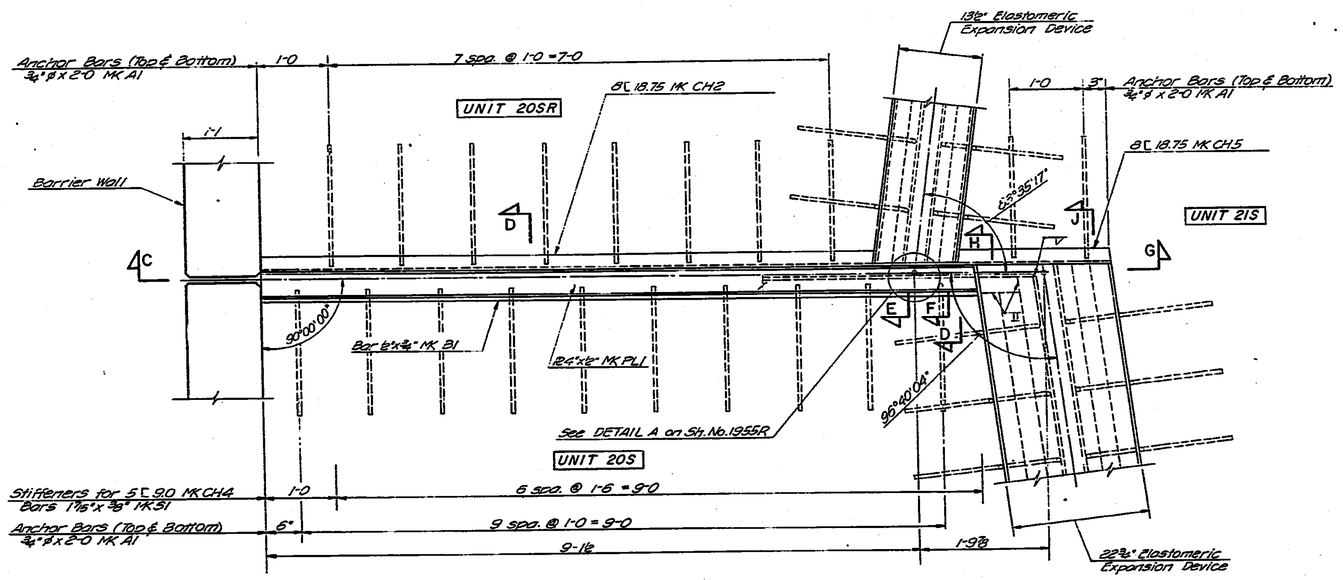
16X 14.5X 12X 12X 14.5X 16X 20X

REVISED SHEET 11-1-71

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phases II & III	1970	1954 R	2137



LONGITUDINAL EXPANSION DEVICE 16N–16NR



LONGITUDINAL EXPANSION DEVICE 20S–20SR

BILL OF MATERIAL FOR DEVICE AT 16N–16NR

Mark	No. Reqd.	Description
CH1	1	6 C 13.0 x 11-3
CH2	1	8 C 18.75 x 9-4½
CH3	1	6 C 13.0 x 9-0
CH4	1	5 C 9.0 x 11-1
CH5	1	8 C 18.75 x 2-7
CH6	1	6 C 13.0 x 1-7
B1	1	Bar ¾" x 1'-2" x 10-5
B2	1	Bar 2¼" x 1'-2" x 10-5
PL1	1	PL 4" x 1'-2" x 10-5
PL2	1	PL 2'-2" x ⅜" x 0-7½
S1	7	Bar 1⅞" x ⅜" x 0-4⅜
CB1	1	Bar 2" x ⅜" x 0-8
A1	40	Bar ¾"ø x 2-0
Total Wgt. of this Exp. Device		940 Lbs.

BILL OF MATERIAL FOR DEVICE AT 20S–20SR

Mark	No. Reqd.	Description
CH1	1	6 C 13.0 x 10-10
CH2	1	8 C 18.75 x 9-4½
CH3	1	6 C 13.0 x 9-0
CH4	1	5 C 9.0 x 10-8
CH5	1	8 C 18.75 x 2-7
CH6	1	6 C 13.0 x 1-7
B1	1	Bar ¾" x 1'-2" x 10-0
B2	1	Bar 2¼" x 1'-2" x 10-0
PL1	1	PL 4" x 1'-2" x 10-0
PL2	1	PL 2'-2" x ⅜" x 0-7½
S1	7	Bar 1⅞" x ⅜" x 0-4⅜
CB1	1	Bar 2" x ⅜" x 0-8
A1	40	Bar ¾"ø x 2-0
Total Wgt. of this Exp. Device		923 Lbs.

NOTES:
1. All fillet welds shall be 5/16", unless otherwise noted.
2. Lengths listed in BILL OF MATERIAL are minimum piece length required of structural shapes or plates.
3. Hot-Poured Rubberized Asphaltic Joint Sealer shall not be paid for directly, but shall be included in the Unit Price bid for "Structural Steel." See Special Provisions.
4. The Longitudinal Expansion Device shall be fabricated in the shop and matched to adjacent Expansion Devices prior to being sent to the Bridge Site.
5. For Sections see Sheet No. 1955R.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
ELASTOMERIC EXPANSION DEVICE DETAILS
I-35W VIADUCT ENGLISH ST. TO 18TH ST.
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE	APP'D.	
DESIGNED RAW		DETAILED RAW	QUANTITIES RAW	TRACED DS
DESIGN CK. JWH		DETAIL CK. JWH	QUAN. CK. RLF	TRACE CK. RAW

TOPEKA BLUE PRINT CO.

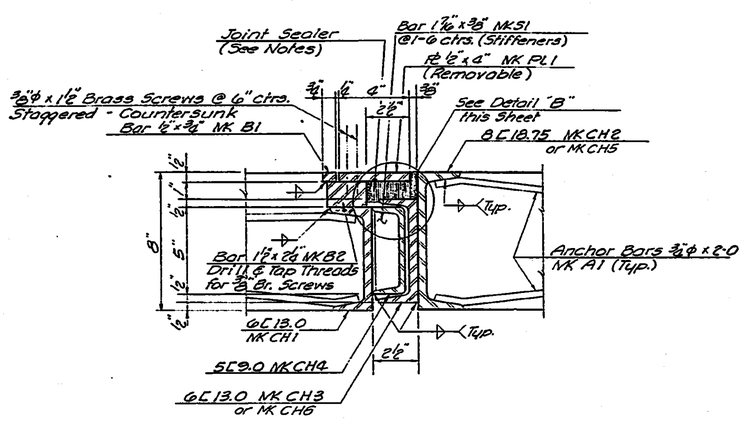
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 1 5

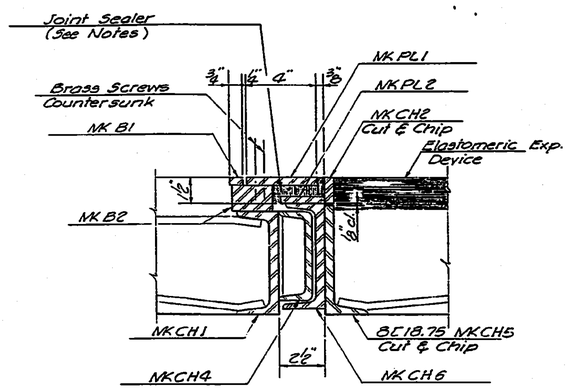
16X 14.5X 12X 12X 14.5X 16X 20X

REVISED SHEET 11-1-71

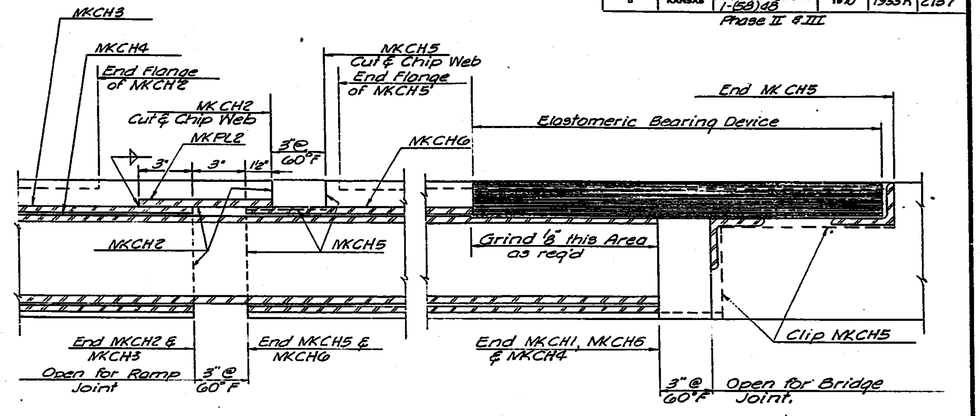
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-13BW I-(58)48 Phase II & III	1970	1955R	2187



SECTION D
Scale 3"=1'-0

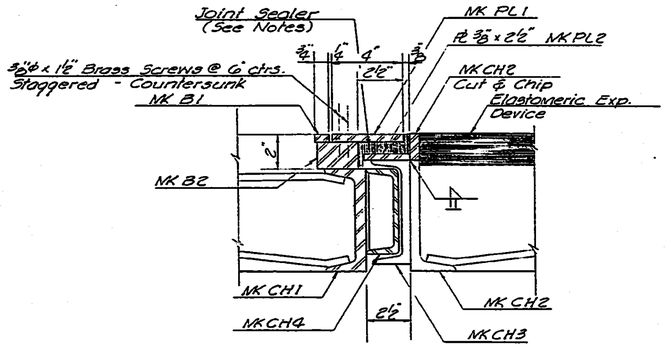


SECTION F
Scale 3"=1'-0

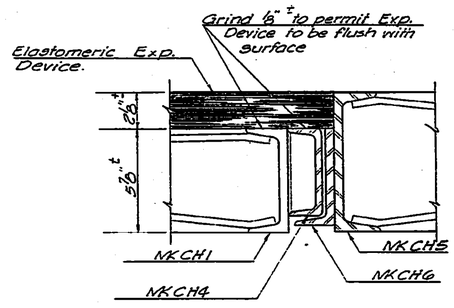


SECTION G
Scale 3"=1'-0

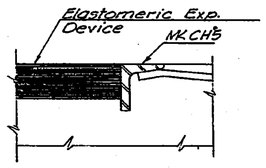
Note: See Plan of Expansion Device on previous sheet for Section Locations, Notes and Bill of Materials.



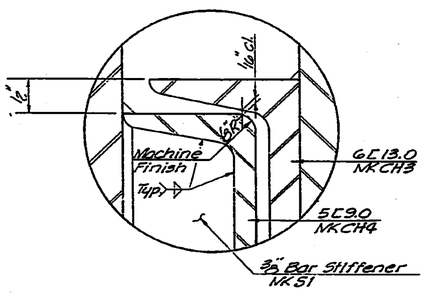
SECTION E
Scale 3"=1'-0



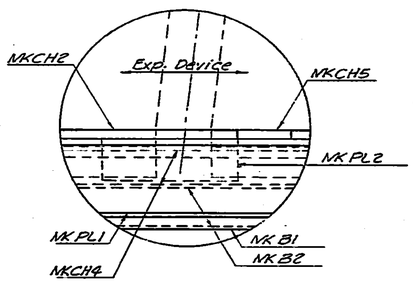
SECTION H
Scale 3"=1'-0



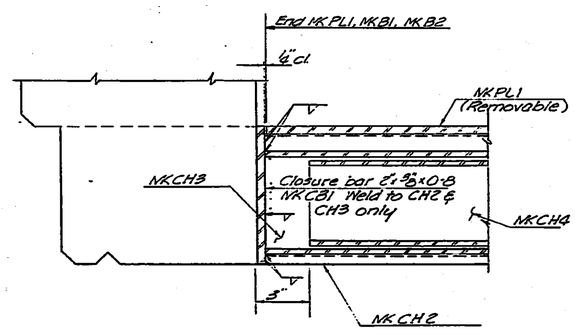
SECTION J
Scale 3"=1'-0



DETAIL B
Scale = Full Size



DETAIL A
Scale 3"=1'-0



SECTION C
Scale 3"=1'-0

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
ELASTOMERIC EXPANSION DEVICE DETAILS
I-35W VIADUCT ENGLISH ST. TO 18TH ST.
PROJ. 35W-87-I35W-1(58) 48 SEDGWICK CO.

SHEET NO. 17	SCALE	APP'D.	
DESIGNED RAW	DETAILED RAW	CHECKED RAW	TRACED RAW
DESIGN CK. JWH	DETAIL CK. JWH	SHEET CK. RLF	TRACE CK. JWH

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

4 1 6

16X 14.5X 12X 12X 14.5X 16X 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (58)48	19	1989	2137

Phase II & III

UNIT NO.	STATION	DECK DRAINS WROUGHT IRON DRAINS TYPE	LENGTH FT.IN.	WEIGHT LBS.	CAST IRON DRAINS SIZE IN.	WEIGHT LBS.
0N	295+80.30,LT.	1A	4-3	677.7		
0N	296+40.26,LT.	1B	4-3	677.7		
0N	297+18.26,LT.	1B	3-6	613.6		
1N	297+90.26,LT.	1B	3-6	613.6		
1N	298+56.02,LT.	1A	2-9	549.6		
1N	299+43.02,LT.	1A	2-9	549.6		
1N	300+13.27,LT.	1A	2-9	549.6		
2N	300+85.27,LT.	1A	2-9	549.6		
2N	301+63.27,LT.	1A	4-3	677.7		
2N	302+41.27,LT.	1A	4-3	677.7		
2N	303+19.02,LT.	1A	4-3	677.7		
3N	303+93.02,LT.	5A	4-3	761.0		
3N	304+82.53,LT.	1A	4-3	677.7		
3N	305+93.56,LT.	1B	2-9	549.6		
3N	305+78.58,RT.	1A	3-6	613.6		
3N	306+52.00,RT.	1A	4-3	677.7		
3N	306+73.51,LT.	1B	2-9	549.6		
3N	306+73.51,RT.	1A	3-6	613.6		
3N	6+64.62,RT.	1A	3-6	613.6		
4N	307+51.39,LT.	1B	2-9	549.6		
4N	307+51.39,RT.	1A	3-6	613.6		
4N	308+28.90,LT.	1A	2-9	549.6		
4N	308+28.90,RT.	1B	3-6	613.6		
4N	309+10.90,LT.	1A	2-9	549.6		
4N	309+10.90,RT.	1B	3-6	613.6		
4N	309+92.90,LT.	1A	2-9	549.6		
4N	309+92.90,RT.	1B	3-6	613.6		
4N	310+74.90,LT.	1A	2-9	549.6		
4N	310+74.90,RT.	1B	3-6	613.6		
4NR	7+41.16,RT.	1A	3-6	613.6		
4NR	8+21.16,RT.	1A	3-6	613.6		
5N	311+50.78,LT.	1A	2-9	549.6		
5N	311+50.78,RT.	1B	3-6	613.6		
5N	312+25.58,LT.	1A	2-9	549.6		
5N	312+17.90,RT.	1B	3-6	613.6		
5N	313+17.07,LT.	1B	2-9	549.6		
5N	313+ 9.39,RT.	1A	3-6	613.6		
5N	313+82.27,LT.	1B	2-9	549.6		
5N	313+82.27,RT.	1A	3-6	613.6		
6N	314+52.78,LT.	1B	2-9	549.6		
6N	314+52.78,RT.	1A	3-6	613.6		
6N	315+30.78,LT.	1B	2-9	549.6		
6N	315+30.78,RT.	1A	3-6	613.6		
6N	316+ 4.29,LT.	1A	2-9	549.6		
6N	316+ 4.29,RT.	1B	3-6	613.6		
6N	316+82.29,LT.	1A	2-9	549.6		
6N	316+82.29,RT.	1B	3-6	613.6		
6N	317+60.29,LT.	1A	2-9	549.6		
6N	317+60.29,RT.	1B	3-6	613.6		
7N	318+30.79,LT.	1A	2-9	549.6		
7N	318+30.79,RT.	1B	3-6	613.6		
7N	319+ 5.59,LT.	1A	2-9	549.6		
7N	318+97.91,RT.	1B	3-6	613.6		
7N	319+97.08,LT.	1B	2-9	549.6		
7N	319+89.40,RT.	1A	3-6	613.6		
7N	320+62.28,LT.	1B	2-9	549.6		
7N	320+62.28,RT.	1A	3-6	613.6		
8N	321+34.17,LT.	1B	2-9	549.6		
8N	321+34.17,RT.	1A	3-6	613.6		
8N	322+ 7.68,LT.	1A	2-9	549.6		
8N	322+ 7.68,RT.	1B	3-6	613.6		
8N	322+90.17,LT.	1B	2-9	549.6		
8N	322+90.17,RT.	1A	3-6	613.6		
8N	323+63.68,LT.	1A	2-9	549.6		
8N	323+63.68,RT.	1B	3-6	613.6		
8N	324+41.68,LT.	1A	2-9	549.6		
8N	324+41.68,RT.	1B	3-6	613.6		
8NR	23+46.83,RT.	1B	2-9	549.6		
8NR	24+26.83,RT.	1B	2-9	549.6		
9N	325+13.56,LT.	1A	2-9	549.6		
9N	325+13.56,RT.	1B	3-6	613.6		
9N	25+ 0.83,RT.	1B	2-9	549.6		
9N	325+88.11,LT.	1A	2-9	549.6		
9N	325+81.07,RT.	2C	3-6	702.3		
9N	325+74.03,RT.	1A	3-6	613.6		
9N	326+79.85,LT.	1B	2-9	549.6		
9N	326+67.81,RT.	1A	4-3	677.7		
9N	327+10.00,RT.	1B	4-3	677.7		
9N	327+45.05,LT.	1B	2-9	549.6		
9N	327+45.05,RT.	1A	4-3	677.7		
10N	328+12.51,LT.	1B	2-9	549.6		
10N	328+12.51,RT.	1A	4-3	677.7		
10N	328+81.52,LT.	1A	2-9	549.6		
10N	328+81.52,RT.	1B	4-3	677.7		
10N	329+54.52,LT.	1A	2-9	549.6		
10N	329+54.52,RT.	1B	4-3	677.7		
10N	330+27.52,LT.	1A	2-9	549.6		
10N	330+27.52,RT.	1B	4-3	677.7		
10N	331+ 0.52,LT.	1A	2-9	549.6		
10N	331+ 0.52,RT.	1B	4-3	677.7		
11N	331+67.23,LT.	1A	2-9	549.6		
11N	331+67.23,RT.	1B	4-3	677.7		
11N	332+34.03,LT.	1A	4-3	677.7		
11N	332+24.76,RT.	1A	4-3	677.7		
11N	333+ 3.44,RT.	1A	4-3	677.7		
11N	333+94.02,LT.	1B	2-9	549.6		
11N	333+86.12,RT.	1A	3-6	613.6		
11N	334+51.47,LT.	1B	2-9	549.6		
11N	334+51.47,RT.	1A	3-6	613.6		
12N	335+20.95,LT.	1B	2-9	549.6		
12N	335+20.95,RT.	4A	3-6	672.3		
12N	335+92.46,LT.	1A	2-9	549.6		
12N	335+92.46,RT.	1B	3-6	613.6		
12N	336+68.46,LT.	1A	2-9	549.6		
12N	336+68.46,RT.	1B	3-6	613.6		
12N	337+44.46,LT.	1A	2-9	549.6		
12N	337+44.46,RT.	1B	3-6	613.6		
12N	338+20.46,LT.	1A	2-9	549.6		
12N	338+20.46,RT.	1B	3-6	613.6		
12N	338+96.46,LT.	1A	2-9	549.6		
12N	338+96.46,RT.	1B	3-6	613.6		
12N	339+72.46,LT.	1A	2-9	549.6		
12N	339+72.46,RT.	1B	3-6	613.6		
12NR	37+33.22,RT.	1A	3-6	613.6		
12NR	38+13.22,RT.	1A	3-6	613.6		
12NR	38+87.73,RT.	1B	3-6	613.6		
12NR	39+67.73,RT.	1B	3-6	613.6		
13N	340+42.93,LT.	1A	2-9	549.6		
13N	340+42.93,RT.	1B	3-6	613.6		
13N	40+41.98,RT.	1B	3-6	613.6		
13N	341+12.68,LT.	1A	2-9	549.6		
13N	341+12.68,RT.	2D	3-6	702.3		
13N	341+17.46,RT.	1A	4-3	677.7		
13N	341+99.93,LT.	1A	2-9	549.6		
13N	341+99.93,RT.	1B	4-3	677.7		
13N	342+70.18,LT.	1A	2-9	549.6		
13N	342+70.18,RT.	1B	4-3	677.7		
14N	343+28.17,LT.	1B	2-9	549.6		
14N	343+28.17,RT.	1A	3-6	613.6		
14N	343+79.19,LT.	1A	2-9	549.6		
14N	343+79.19,RT.	1B	2-9	549.6		
14N	344+48.19,LT.	1A	2-9	549.6		
14N	344+48.19,RT.	1B	3-6	613.6		
14N	345+17.19,LT.	1A	2-9	549.6		
14N	345+17.19,RT.	1B	4-3	677.7		
14N	345+86.19,LT.	1A	2-9	549.6		
14N	345+86.19,RT.	1B	4-3	677.7		
14N	346+55.19,LT.	1A	2-9	549.6		
14N	346+55.19,RT.	1B	4-3	677.7		
15N	347+20.20,LT.	4A	2-9	608.3		
15N	347+20.20,RT.	4B	4-3	736.3		
15N	347+94.75,LT.	1A	2-9	549.6		
15N	347+84.88,RT.	1B	4-3	677.7		
15N	348+86.24,LT.	1B	2-9	549.6		
15N	348+74.36,RT.	1A	4-3	677.7		
15N	349+10.00,RT.	1A	4-3	677.7		
15N	349+51.44,LT.	1B	2-9	549.6		
15N	349+50.00,RT.	1A	4-3	677.7		
16N	350+30.12,LT.	1B	2-9	549.6		
16N	350+30.12,RT.	1A	4-3	677.7		
16N	351+12.63,LT.	1A	2-9	549.6		
16N	351+12.63,RT.	1B	4-3	677.7		
16N	351+99.63,LT.	1A	2-9	549.6		
16N	351+99.63,RT.	1B	4-3	677.7		
16NR	50+26.37,RT.	1B	3-6	613.6		
16NR	51+ 6.37,RT.	1B	3-6	613.6		
17N	352+78.31,LT.	1A	2-9	549.6		
17N	352+78.31,RT.	1B	4-3	677.7		
17N	353+32.00,LT.				4X12	37.6
17N	353+32.00,RT.				4X12	37.6
17N	353+48.31,LT.	1A	2-9	549.6		
17N	353+48.31,RT.	1B	4-3	677.7		
17N	353+68.00,LT.				4X12	37.6
17N	353+68.00,RT.				4X12	37.6
17N	354+35.31,LT.	1A	2-9	549.6		
17N	354+35.31,RT.	1B	4-3	677.7		
17N	355+ 9.80,LT.	1B	2-9	549.6		
17N	355+ 9.80,RT.	1A	4-3	677.7		
18N	355+83.99,LT.	1A	2-9	549.6		
18N	355+83.99,RT.	1B	2-9	549.6		
18N	356+70.99,LT.	1A	2-9	549.6		
18N	356+70.99,RT.	1B	2-9	549.6		
18N	357+57.99,LT.	1A	2-9	549.6		
18N	357+57.99,RT.	1B	2-9	549.6		
19N	358+36.67,LT.	1A	2-9	549.6		
19N	358+36.67,RT.	1B	2-9	549.6		
19N	359+ 6.67,LT.	1A	2-9	549.6		
19N	359+ 6.67,RT.	1B	2-9	549.6		
19N	359+98.16,LT.	1B	2-9	549.6		
19N	359+98.16,RT.	1A	2-9	549.6		
19N	360+68.16,LT.	1B	2-9	549.6		
19N	360+68.16,RT.	1A	2-9	549.6		
20N	361+40.32,LT.	1B	2-9	549.6		
20N	361+40.32,RT.	4A	2-9	608.3		
20N	362+15.83,LT.	1A	2-9	549.6		
20N	362+15.83,RT.	1B	2-9	549.6		
20N	362+95.83,LT.	1A	2-9	549.6		
20N	362+95.83,RT.	1B	2-9	549.6		
20N	363+75.83,LT.	1A	2-9	549.6		
20N	363+75.83,RT.	1B	2-9	549.6		
20N	364+55.83,LT.	1A	2-9	549.6		
20N	364+55.83,RT.	1B	2-9	549.6		
20N	365+35.83,LT.	1A	2-9	549.6		
20N	365+35.83,RT.	1B	4-3	677.7		
20NR	64+51.28,RT.	1B	3-6	613.6		
20NR	65+31.28,RT.	1B	3-6	613.6		
21N	366+ 7.99,LT.	1A	2-9	549.6		
21N	366+ 7.99,RT.	2D	4-3	766.4		
21N	366+ 7.99,RT.	1B	3-6	613.6		
21N	366+43.00,RT.	2D	4-3	766.4		
21N	366+65.00,LT.				4X12	37.6
21N	366+70.51,RT.	1A	3-6	613.6		
21N	366+76.65,RT.	2D	4-3	766.4		
21N	366+82.79,LT.	1A	2-9	549.6		
21N	367+ 2.00,RT.	1B	3-6	613.6		
21N	367+10.00,LT.				4X12	37.6
21N	367+31.00,LT.				4X12	37.6
21N	367+31.00,RT.	1B	3-6	613.6		
21N	367+55.00,LT.				4X12	37.6
21N	367+74.28,LT.	1B	2-9	549.6		
21N	367+63.66,RT.	1A	3-6	613.6		
21N	368+ 0.00,RT.	1B	3-6	613.6		
21N	368+39.23,LT.	1B	2-9	549.6		
21N	368+39.23,RT.	1A	4-3	677.7		
22N	369+ 9.24,LT.	1B	2-9	549.6		
22N	369+ 9.24,RT.	1A	4-3	677.7		
22N	369+85.24,LT.	1B	2-9	549.6		
22N	369+85.24,RT.	1A	4-3	677.7		
22N	370+57.25,LT.	1A	2-9	549.6		
22N	370+57.25,RT.	1B	4-3	677.7		
22N	371+33.25,LT.	1A	2-9	549.6		
22N	371+33.25,RT.	1B	4-3	677.7		
22N	372+ 9.25,LT.	1A	2-9	549.6		
22N	372+ 9.25,RT.	1B	4-3	677.7		
23N	372+79.26,LT.	1A	2-9	549.6		
23N	372+79.26,RT.	1B	4-3	677.7		
23N	373+44.46,RT.	1B	4-3	677.7		
23N	373+54.06,LT.	1A	2-9	549.6		
23N	374+35.45,RT.	1A	4-3	677.7		
23N	374+45.05,LT.	1B	2-9	549.6		
23N	375+10.25,LT.	1B	2-9	549.6		
23N	375+10.25,RT.	1A	4-3	677.7		

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.96
DECK DRAIN SCHEDULE
I-35W VIADUCT

PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE	APP'D
DESIGNED JJ		DETAILED JJ	QUANTITIES
DESIGN CK. JJH		DETAIL CK. DJS	QUAN. CK.

TRACED
TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 1 7

16X 14.5X 12X 12X 14.5X 16X 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W (158) 48	19	1990	2137

Phase II

DECK DRAINS						
UNIT NO.	STATION	WROUGHT IRON DRAINS			CAST IRON DRAINS	
		TYPE	LENGTH FT.IN.	WEIGHT LBS.	SIZE IN.	WEIGHT LBS.
24N	375+80.62 LT.	1B	2-9	549.6		
24N	375+80.62 RT.	1A	4-3	677.7		
24N	376+52.63 LT.	1A	2-9	549.6		
24N	376+52.63 RT.	1B	4-3	677.7		
24N	377+28.63 LT.	1A	2-9	549.6		
24N	377+28.63 RT.	1B	4-3	677.7		
24N	378+ 4.63 LT.	4A	2-9	608.3		
24N	378+ 4.63 RT.	4B	2-9	608.3		
24N	378+25.00 RT.				4X12	37.6
24N	378+42.00 RT.				4X12	37.6
24N	378+60.00 RT.				4X12	37.6
25N	378+74.75 LT.	1A	2-9	549.6		
25N	378+74.75 RT.	1B	2-9	549.6		
25N	378+95.00 RT.				4X12	37.6
25N	379+13.00 RT.				4X12	37.6
25N	379+30.00 RT.				4X12	37.6
25N	379+44.75 LT.	1A	2-9	549.6		
25N	379+44.75 RT.	1B	2-9	549.6		
25N	379+65.00 RT.				4X12	37.6
25N	379+82.00 RT.				4X12	37.6
25N	379+98.00 RT.				4X12	37.6
25N	380+15.00 RT.				4X12	37.6
25N	380+31.50 LT.	1A	2-9	549.6		
25N	380+31.50 RT.	1B	2-9	549.6		
25N	381+ 1.75 LT.	1A	2-9	549.6		
25N	381+ 1.75 RT.	1B	4-3	677.7		
25N	81+ 2.43 RT.	1B	2-9	549.6		
26N	381+70.69 LT.	1A	2-9	549.6		
26N	381+70.69 RT.	1B	4-3	677.7		
26N	382+45.69 LT.	1A	2-9	549.6		
26N	382+45.69 RT.	1B	3-6	613.6		
26N	383+20.69 RT.	1B	2-9	549.6		
26N	383+20.69 LT.	1A	2-9	549.6		
26N	383+95.69 LT.	1A	2-9	549.6		
26N	383+95.69 RT.	1B	2-9	549.6		
26N	384+75.18 LT.	1B	2-9	549.6		
26N	384+75.18 RT.	1A	2-9	549.6		
26N	385+45.69 LT.	1A	2-9	549.6		
26N	385+45.69 RT.	1B	2-9	549.6		
26NR	81+76.43 RT.	1B	2-9	549.6		
26NR	82+56.43 RT.	1B	2-9	549.6		
27N	386+13.62 LT.	1A	2-9	549.6		
27N	386+13.62 RT.	1B	2-9	549.6		
27N	386+80.42 LT.	1A	2-9	549.6		
27N	386+72.74 RT.	1B	2-9	549.6		
27N	387+58.42 LT.	1A	2-9	549.6		
27N	387+50.74 RT.	1B	2-9	549.6		
27N	388+40.91 LT.	1B	2-9	549.6		
27N	388+33.23 RT.	1A	2-9	549.6		
27N	388+93.62 LT.	1A	2-9	549.6		
27N	388+93.62 RT.	1B	2-9	549.6		
28N	389+71.68 LT.	1B	2-9	549.6		
28N	389+71.68 RT.	1A	2-9	549.6		
28N	390+47.19 LT.	1A	2-9	549.6		
28N	390+47.19 RT.	1B	2-9	549.6		
28N	391+27.19 LT.	1A	2-9	549.6		
28N	391+27.19 RT.	1B	2-9	549.6		
28N	392+ 7.19 LT.	1A	2-9	549.6		
28N	392+ 7.19 RT.	1B	2-9	549.6		
28N	392+87.19 LT.	1A	2-9	549.6		
28N	392+87.19 RT.	1B	2-9	549.6		
28NR	92+ 6.57 RT.	1B	2-9	549.6		
28NR	92+86.57 RT.	1B	2-9	549.6		

DECK DRAINS						
UNIT NO.	STATION	WROUGHT IRON DRAINS			CAST IRON DRAINS	
		TYPE	LENGTH FT.IN.	WEIGHT LBS.	SIZE IN.	WEIGHT LBS.
29N	393+61.75 LT.	1A	2-9	549.6		
29N	393+61.75 RT.	1B	2-9	549.6		
29N	93+60.57 RT.	1B	2-9	549.6		
29N	394+31.50 LT.	1A	2-9	549.6		
29N	394+31.50 RT.	2D	2-9	638.4		
29N	394+31.50 RT.	1B	4-3	677.7		
29N	395+18.50 LT.	1A	2-9	549.6		
29N	395+18.50 RT.	1B	4-3	677.7		
29N	395+88.75 LT.	1A	2-9	549.6		
29N	395+88.75 RT.	1B	4-3	677.7		
30N	396+54.87 LT.	1A	2-9	549.6		
30N	396+54.87 RT.	1B	4-3	677.7		
30N	397+25.87 LT.	1A	2-9	549.6		
30N	397+25.87 RT.	1B	4-3	677.7		
30N	397+96.87 LT.	1A	2-9	549.6		
30N	397+96.87 RT.	1B	4-3	677.7		
30N	398+67.87 LT.	1A	2-9	549.6		
30N	398+67.87 RT.	1B	4-3	677.7		
30N	399+38.87 LT.	1A	2-9	549.6		
30N	399+38.87 RT.	1B	4-3	677.7		
31N	400+ 4.74 LT.	1A	2-9	549.6		
31N	400+ 4.74 RT.	1B	4-3	677.7		
31N	400+79.29 LT.	1A	2-9	549.6		
31N	400+68.91 RT.	1B	4-3	677.7		
31N	401+70.78 LT.	1B	2-9	549.6		
31N	401+60.82 RT.	1A	4-3	677.7		
31N	402+35.73 LT.	1B	2-9	549.6		
31N	402+35.73 RT.	1A	4-3	677.7		
32N	403+ 7.73 LT.	1B	2-9	549.6		
32N	403+ 7.73 RT.	1A	4-3	677.7		
32N	403+81.74 LT.	1A	2-9	549.6		
32N	403+81.74 RT.	1B	4-3	677.7		
32N	404+59.74 LT.	1A	2-9	549.6		
32N	404+59.74 RT.	1B	4-3	677.7		
32N	405+37.74 LT.	1A	2-9	549.6		
32N	405+37.74 RT.	4B	4-3	736.3		
32N	406+15.74 LT.	1A	2-9	549.6		
32N	406+15.74 RT.	1B	4-3	677.7		
33N	406+87.74 LT.	1A	2-9	549.6		
33N	406+87.74 RT.	1B	4-3	677.7		
33N	407+57.49 LT.	1A	2-9	549.6		
33N	407+57.49 RT.	1B	4-3	677.7		
33N	408+44.49 LT.	1A	2-9	549.6		
33N	408+44.49 RT.	1B	4-3	677.7		
33N	409+14.74 RT.	1B	4-3	677.7		
34N	410+63.31 RT.	1B	2-9	549.6		
34N	411+41.31 RT.	1B	2-9	549.6		
34N	412+19.31 RT.	1B	2-9	549.6		
34N	412+97.31 RT.	1B	2-9	549.6		
35N	413+67.88 RT.	1B	2-9	549.6		
35N	414+37.63 RT.	1B	2-9	549.6		
35N	415+29.12 RT.	1A	2-9	549.6		
35N	416+11.63 RT.	1B	2-9	549.6		

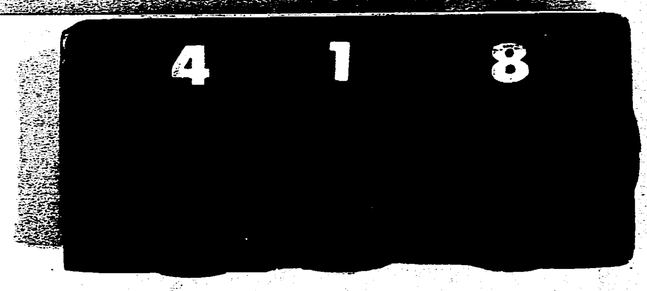
NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.96
DECK DRAIN SCHEDULE
I-35W VIADUCT

PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE	APP'D	
DESIGNED JA		DETAILED JA	QUANTITIES	TRACED
DESIGN CK. JWH		DETAIL CK. DPG	CLAIM CK.	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531



16X 14.5X 12X 12X 14.5X 16X 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W 1(58)48	19	1991	2137

Phase II & III

DECK DRAINS						
UNIT NO.	STATION	WROUGHT IRON DRAINS			CAST IRON DRAINS	
		TYPE	LENGTH FT.IN.	WEIGHT LBS.	SIZE IN.	WEIGHT LBS.
0S	296+24.30,LT.	1A	4-3	677.7		
0S	296+84.26,LT.	1B	3-6	613.6		
0S	297+62.26,LT.	1B	3-6	613.6		
1S	298+34.26,LT.	1B	2-9	549.6		
1S	299+ 0.02,LT.	1A	2-9	549.6		
1S	299+87.02,LT.	1A	2-9	549.6		
1S	300+61.26,LT.	1B	2-9	549.6		
2S	301+29.27,LT.	1A	2-9	549.6		
2S	302+ 7.27,LT.	1A	4-3	677.7		
2S	302+85.27,LT.	1A	4-3	677.7		
2S	303+63.27,LT.	1A	4-3	677.7		
3S	304+37.02,LT.	1A	4-3	677.7		
3S	305+29.52,LT.	3D	3-6	727.1		
3S	305+29.51,LT.	1A	2-9	549.6		
3S	305+60.00,LT.				4X12	37.6
3S	306+ 0.70,LT.				4X12	37.6
3S	306+27.96,RT.	1A	2-9	549.6		
3S	306+35.01,LT.	3C	3-6	727.1		
3S	306+42.06,LT.				4X12	37.6
3S	306+86.00,RT.	1A	2-9	549.6		
3S	307+17.51,RT.	1A	2-9	549.6		
3S	307+17.51,LT.	1B	3-6	613.6		
3S	7+28.42,LT.	1B	3-6	613.6		
4S	307+95.40,RT.	1A	2-9	549.6		
4S	307+95.40,LT.	1B	3-6	613.6		
4S	308+72.91,RT.	1B	2-9	549.6		
4S	308+72.91,LT.	1A	3-6	613.6		
4S	309+54.91,RT.	1B	2-9	549.6		
4S	309+54.91,LT.	1A	3-6	613.6		
4S	310+36.91,RT.	1B	2-9	549.6		
4S	310+36.91,LT.	1A	3-6	613.6		
4S	311+18.91,RT.	1B	2-9	549.6		
4S	311+18.91,LT.	1A	3-6	613.6		
4SR	8+ 4.42,LT.	1B	3-6	613.6		
4SR	8+79.43,LT.	1A	3-6	613.6		
5S	311+94.80,RT.	1B	2-9	549.6		
5S	311+94.80,LT.	1A	3-6	613.6		
5S	312+60.00,RT.	1B	2-9	549.6		
5S	312+67.68,LT.	1A	3-6	613.6		
5S	313+51.49,RT.	1A	2-9	549.6		
5S	313+59.17,LT.	1B	3-6	613.6		
5S	314+26.29,RT.	1A	2-9	549.6		
5S	314+26.29,LT.	1B	3-6	613.6		
6S	314+96.78,RT.	1A	2-9	549.6		
6S	314+96.78,LT.	1B	3-6	613.6		
6S	315+70.29,RT.	1B	2-9	549.6		
6S	315+70.29,LT.	1A	3-6	613.6		
6S	316+48.29,RT.	1B	2-9	549.6		
6S	316+48.29,LT.	1A	3-6	613.6		
6S	317+30.78,RT.	1A	2-9	549.6		
6S	317+30.78,LT.	1B	3-6	613.6		
6S	318+ 4.29,RT.	1B	2-9	549.6		
6S	318+ 4.29,LT.	4A	3-6	672.3		

DECK DRAINS						
UNIT NO.	STATION	WROUGHT IRON DRAINS			CAST IRON DRAINS	
		TYPE	LENGTH FT.IN.	WEIGHT LBS.	SIZE IN.	WEIGHT LBS.
7S	318+74.78,RT.	1B	2-9	549.6		
7S	318+74.78,LT.	1A	3-6	613.6		
7S	319+40.08,RT.	1B	2-9	549.6		
7S	319+47.66,LT.	1A	3-6	613.6		
7S	320+31.47,RT.	1A	2-9	549.6		
7S	320+39.15,LT.	1B	3-6	613.6		
7S	321+ 6.27,RT.	1A	2-9	549.6		
7S	321+ 6.27,LT.	1B	3-6	613.6		
8S	321+78.04,RT.	1A	2-9	549.6		
8S	321+78.04,LT.	1B	3-6	613.6		
8S	322+51.55,RT.	1B	2-9	549.6		
8S	322+51.55,LT.	1A	3-6	613.6		
8S	323+29.55,RT.	1B	2-9	549.6		
8S	322+29.55,LT.	1A	3-6	613.6		
8S	324+ 7.55,RT.	1B	2-9	549.6		
8S	324+ 7.55,LT.	1A	3-6	613.6		
8S	324+85.55,RT.	1B	2-9	549.6		
8S	324+85.55,LT.	1A	3-6	613.6		
8SR	24+14.99,LT.	1A	2-9	549.6		
8SR	24+94.99,LT.	1A	2-9	549.6		
8S	325+ 5.56,LT.				4X12	37.6
8S	325+25.56,LT.				4X12	37.6
8S	325+45.56,LT.				4X12	37.6
9S	325+57.31,RT.	1B	2-9	549.6		
9S	325+57.31,LT.	1A	2-9	549.6		
9S	325+77.32,LT.				4X12	37.6
9S	325+97.32,LT.				4X12	37.6
9S	25+68.99,LT.	1A	2-9	549.6		
9S	326+22.26,RT.	1B	2-9	549.6		
9S	326+37.85,LT.	1A	3-6	613.6		
9S	326+67.00,LT.	1A	3-6	613.6		
9S	326+97.00,LT.	1A	3-6	613.6		
9S	327+14.00,RT.	1A	2-9	549.6		
9S	327+27.93,LT.	1B	3-6	613.6		
9S	327+58.00,LT.	1A	3-6	613.6		
9S	327+88.80,RT.	1A	2-9	549.6		
9S	327+88.80,LT.	1B	4-3	677.7		
10S	328+56.26,RT.	4A	2-9	608.3		
10S	328+56.26,LT.	4B	4-3	736.3		
10S	329+25.27,RT.	1B	2-9	549.6		
10S	329+25.27,LT.	1A	3-6	613.6		
10S	329+98.27,RT.	1B	2-9	549.6		
10S	329+98.27,LT.	1A	3-6	613.6		
10S	330+71.02,RT.	1B	2-9	549.6		
10S	330+71.02,LT.	1A	3-6	613.6		
10S	331+44.02,RT.	1B	2-9	549.6		
10S	331+44.02,LT.	1A	3-6	613.6		
11S	332+10.73,RT.	1B	2-9	549.6		
11S	332+10.73,LT.	1A	3-6	613.6		
11S	332+67.93,RT.	1B	4-3	677.7		
11S	332+75.61,LT.	1A	3-6	613.6		
11S	333+58.10,LT.	1B	3-6	613.6		
11S	334+28.42,RT.	1A	2-9	549.6		
11S	334+36.10,LT.	1B	3-6	613.6		
11S	334+95.22,RT.	1A	2-9	549.6		
11S	334+95.22,LT.	1B	3-6	613.6		

DECK DRAINS						
UNIT NO.	STATION	WROUGHT IRON DRAINS			CAST IRON DRAINS	
		TYPE	LENGTH FT.IN.	WEIGHT LBS.	SIZE IN.	WEIGHT LBS.
12S	335+65.65,RT.	1A	2-9	549.6		
12S	335+65.65,LT.	1B	3-6	613.6		
12S	336+37.16,RT.	1B	2-9	549.6		
12S	336+37.16,LT.	1A	3-6	613.6		
12S	337+13.16,RT.	1B	2-9	549.6		
12S	337+13.16,LT.	1A	3-6	613.6		
12S	337+89.16,RT.	1B	2-9	549.6		
12S	337+89.16,LT.	1A	3-6	613.6		
12S	338+65.16,RT.	1B	2-9	549.6		
12S	338+65.16,LT.	1A	3-6	613.6		
12S	339+41.16,RT.	1B	2-9	549.6		
12S	339+41.16,LT.	1A	3-6	613.6		
12S	340+17.16,RT.	1B	2-9	549.6		
12S	340+17.16,LT.	1A	3-6	613.6		
12SR	38+53.41,LT.	1A	2-9	549.6		
12SR	39+33.41,LT.	1A	2-9	549.6		
12SR	40+13.41,LT.	1A	2-9	549.6		
13S	340+88.59,RT.	1B	2-9	549.6		
13S	340+88.59,LT.	1A	3-6	613.6		
13S	40+87.41,LT.	1A	2-9	549.6		
13S	341+58.34,RT.	1B	2-9	549.6		
13S	341+58.34,LT.	1A	4-3	677.7		
13S	342+ 6.33,LT.	1A	4-3	677.7		
13S	342+45.59,RT.	1B	2-9	549.6		
13S	342+45.59,LT.	1A	4-3	677.7		
13S	343+15.84,RT.	1B	2-9	549.6		
13S	343+15.84, LT.	1A	4-3	677.7		
14S	343+73.83,RT.	4A	2-9	608.3		
14S	343+73.83,LT.	4B	2-9	608.3		
14S	344+23.88,RT.	1B	2-9	549.6		
14S	344+23.88,LT.	1A	2-9	549.6		
14S	344+92.88,RT.	1B	2-9	549.6		
14S	344+92.88,LT.	1A	4-3	677.7		
14S	345+61.88,RT.	1B	2-9	549.6		
14S	345+61.88,LT.	1A	4-3	677.7		
14S	346+30.88,RT.	1B	2-9	549.6		
14S	346+30.88,LT.	1A	4-3	677.7		
14S	346+99.88,RT.	1B	2-9	549.6		
14S	346+99.88,LT.	1A	4-3	677.7		
15S	347+63.91,RT.	1B	2-9	549.6		
15S	347+63.91,LT.	1A	4-3	677.7		
15S	348+28.86,RT.	1B	2-9	549.6		
15S	348+38.46,LT.	1A	4-3	677.7		
15S	349+20.35,RT.	1A	2-9	549.6		
15S	349+30.03,LT.	1B	4-3	677.7		
15S	349+94.90,RT.	1A	2-9	549.6		
15S	349+94.90,LT.	1B	4-3	677.7		
16S	350+68.94,RT.	1A	2-9	549.6		
16S	350+68.94,LT.	1B	4-3	677.7		
16S	351+44.45,RT.	1B	2-9	549.6		
16S	351+44.45,LT.	1A	4-3	677.7		
16S	51+49.98,LT.	1A	4-3	677.7		
16S	352+24.45,RT.	1B	2-9	549.6		
16S	352+24.45,LT.	1A	4-3	677.7		
16SR	52+30.97,LT.	1B	3-6	613.6		
16SR	53+ 5.73,LT.	1A	3-6	613.6		

DECK DRAINS						
UNIT NO.	STATION	WROUGHT IRON DRAINS			CAST IRON DRAINS	
		TYPE	LENGTH FT.IN.	WEIGHT LBS.	SIZE IN.	WEIGHT LBS.
17S	352+98.25,RT.	1B	2-9	549.6		
17S	352+98.25,LT.	1A	4-3	677.7		
17S	353+32.26,RT.				4X12	37.6
17S	353+32.26,LT.				4X12	37.6
17S	353+50.26,RT.				4X12	37.6
17S	353+50.26,LT.				4X12	37.6
17S	353+68.25,RT.	1B	2-9	549.6		
17S	353+68.25,LT.	1A	4-3	677.7		
17S	354+55.25,RT.	1B	2-9	549.6		
17S	354+55.25,LT.	1A	4-3	677.7		
17S	355+25.25,RT.	1B	2-9	549.6		
17S	355+25.25,LT.	1A	2-9	549.6		
18S	355+96.79,RT.	1B	2-9	549.6		
18S	355+96.79,LT.	1A	2-9	549.6		
18S	356+73.79,RT.	1B	2-9	549.6		
18S	356+73.79,LT.	4A	2-9	608.3		
18S	357+50.79,RT.	1B	2-9	549.6		
18S	357+50.79,LT.	1A	2-9	549.6		
19S	358+22.33,RT.	1B	2-9	549.6		
19S	358+22.33,LT.	1A	2-9	549.6		
19S	358+95.14,RT.	1B	2-9	549.6		
19S	358+90.64,LT.	1A	2-9	549.6		
19S	359+86.63,RT.	1A	2-9	549.6		
19S	359+82.13,LT.	1B	2-9	549.6		
19S	360+53.82,RT.	1A	2-9	549.6		
19S	360+53.82,LT.	1B	2-9	549.6		
20S	361+24.73,RT.	1A	2-9	549.6		
20S	361+24.73,LT.	1B	2-9	549.6		
20S	361+97.24,RT.	1B	2-9	549.6		
20S	361+97.24,LT.	1A	2-9	549.6		
20S	362+74.24,RT.	1B	2-9	549.6		
20S	362+74.24,LT.	1A	2-9	549.6		
20S	363+51.24,RT.	1B	2-9	549.6		
20S	363+51.24,LT.	1A	2-9	549.6		
20S	364+28.24,RT.	1B	2-9	549.6		
20S	364+28.24,LT.	1A	2-9	549.6		
20S	365+ 9.73,RT.	1A	2-9	549.6		
20S	365+ 9.73,LT.	1B	4-3	677.7		
20S	365+82.24,RT.	1B	2-9	549.6		
20S	365+82.24,LT.	1A	4-3	677.7		
20SR	65+ 4.16,LT.	1B	3-6	613.6		
20SR	65+79.17,LT.	1A	3-6	613.6		
20S	366+ 0.00,LT.				4X12	37.6
20S	366+14.00,LT.				4X12	37.6
20S	366+27.00,LT.	1A	4-3	677.7		
21S	366+53.15 ,RT.	1B	2-9	549.6		
21S	66+51.00,LT.	1A	4-3	677.7		
21S	366+73.16 ,RT.				4X12	37.6
21S	366+88.16,RT.				4X12	37.6
21S	366+94.00,LT.	1A	4-3	677.7		
21S	367+ 3.16,RT.				4X12	37.6
21S	367+18.35,RT.	1B	2-9	549.6		
21S	367+30.41,LT.	1A	4-3	677.7		
21S	367+43.35,RT.				4X12	37.6
21S	368+ 9.84,RT.	1A	2-9	549.6		
21S	368+19.85,LT.	1B	4-3	677.7		
21S	368+84.39,RT.	4A	2-9	608.3		
21S	368+84.39,LT.	4B	4-3	736.3		

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.99

DECK DRAIN SCHEDULE
I-35W VIADUCT

PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. OF | SCALE | APP'D
DESIGNED JA | DETAILED JA | QUANTITIES | TRACED
DESIGN CK. JWH | DETAIL CK. DFG | QUAN. CK. | TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531 4 1 9

12X 16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1191-10 Phase III	19	1992	2137

UNIT NO.	STATION	DECK DRAINS WROUGHT IRON DRAINS TYPE	LENGTH FT.IN.	WEIGHT LBS.	CAST IRON DRAINS SIZE IN.	WEIGHT LBS.
22S	369+54.50 RT.	1A	2-9	549.6		
22S	369+54.50 LT.	1B	4-3	677.7		
22S	370+26.51 RT.	1B	2-9	549.6		
22S	370+26.51 LT.	1A	4-3	677.7		
22S	371+ 2.51 RT.	1B	2-9	549.6		
22S	371+ 2.51 LT.	1A	4-3	677.7		
22S	371+78.51 RT.	1B	2-9	549.6		
22S	371+78.51 LT.	1A	4-3	677.7		
22S	372+54.51 RT.	1B	2-9	549.6		
22S	372+54.51 LT.	1A	4-3	677.7		
23S	373+24.61 RT.	1B	2-9	549.6		
23S	373+24.61 LT.	1A	4-3	677.7		
23S	373+89.81 RT.	1B	2-9	549.6		
23S	373+99.41 LT.	1A	4-3	677.7		
23S	374+80.80 RT.	1A	2-9	549.6		
23S	374+90.40 LT.	1B	4-3	677.7		
23S	375+55.60 RT.	1A	2-9	549.6		
23S	375+55.60 LT.	1B	4-3	677.7		
24S	376+25.80 RT.	1A	2-9	549.6		
24S	376+25.80 LT.	1B	4-3	677.7		
24S	376+99.81 RT.	1B	2-9	549.6		
24S	376+99.81 LT.	4A	4-3	736.3		
24S	377+77.81 RT.	1B	2-9	549.6		
24S	377+77.81 LT.	1A	4-3	677.7		
24S	378+55.81 RT.	1B	2-9	549.6		
24S	378+55.81 LT.	1A	4-3	677.7		
25S	379+26.00 RT.	1B	2-9	549.6		
25S	379+26.00 LT.	1A	2-9	549.6		
25S	379+40.24 LT.				4X12	37.6
25S	379+55.24 LT.				4X12	37.6
25S	379+70.24 LT.				4X12	37.6
25S	379+85.24 LT.				4X12	37.6
25S	379+95.75 RT.	1B	2-9	549.6		
25S	380+ 0.24 LT.				4X12	37.6
25S	380+ 5.00 LT.	2C	4-3	766.4		
25S	380+15.24 LT.				4X12	37.6
25S	380+30.24 LT.				4X12	37.6
25S	380+45.24 LT.				4X12	37.6
25S	380+60.24 LT.				4X12	37.6
25S	380+75.24 LT.				4X12	37.6
25S	380+82.50 RT.	1B	2-9	549.6		
25S	380+82.50 LT.	2C	4-3	766.4		
25S	381+52.75 RT.	1B	2-9	549.6		
25S	381+52.75 LT.	1A	3-6	613.6		
25S	81+53.20 LT.	1A	2-9	549.6		
26S	382+21.34 RT.	1B	2-9	549.6		
26S	382+21.34 LT.	1A	2-9	549.6		
26S	382+95.34 RT.	1B	2-9	549.6		
26S	382+95.34 LT.	1A	2-9	549.6		
26S	383+69.34 RT.	1B	2-9	549.6		
26S	383+69.34 LT.	1A	2-9	549.6		
26S	384+47.83 RT.	1A	2-9	549.6		
26S	384+47.83 LT.	1B	2-9	549.6		
26S	385+21.83 RT.	1A	2-9	549.6		
26S	385+21.83 LT.	1B	2-9	549.6		
26S	385+91.34 RT.	1B	2-9	549.6		
26S	385+91.34 LT.	1A	2-9	549.6		
26SR	82+27.20 LT.	1A	2-9	549.6		
26SR	83+ 6.95 LT.	1A	2-9	549.6		
27S	386+58.94 RT.	1B	2-9	549.6		
27S	386+58.94 LT.	1A	2-9	549.6		
27S	387+16.14 RT.	1B	2-9	549.6		
27S	387+23.82 LT.	1A	2-9	549.6		
27S	387+98.63 RT.	1A	2-9	549.6		
27S	388+ 6.31 LT.	1B	2-9	549.6		
27S	388+76.63 RT.	1A	2-9	549.6		
27S	388+84.31 LT.	1B	2-9	549.6		
27S	389+43.43 RT.	1A	2-9	549.6		
27S	389+43.43 LT.	1B	2-9	549.6		
28S	390+14.84 RT.	1A	2-9	549.6		
28S	390+14.84 LT.	1B	2-9	549.6		
28S	390+89.35 RT.	1B	2-9	549.6		
28S	390+89.35 LT.	1A	2-9	549.6		
28S	391+68.35 RT.	1B	2-9	549.6		
28S	391+68.35 LT.	1A	2-9	549.6		
28S	392+51.84 RT.	1A	2-9	549.6		
28S	392+51.84 LT.	1B	2-9	549.6		
28S	393+26.35 RT.	1B	2-9	549.6		
28S	393+26.35 LT.	1A	2-9	549.6		
28S	394+ 5.35 RT.	1B	2-9	549.6		
28S	394+ 5.35 LT.	1A	2-9	549.6		
28SR	93+27.24 LT.	1B	2-9	549.6		
28SR	94+ 2.25 LT.	1A	2-9	549.6		
29S	394+82.24 RT.	1A	2-9	549.6		
29S	394+82.24 LT.	1B	2-9	549.6		
29S	94+81.24 LT.	1B	2-9	549.6		
29S	395+14.75 LT.	1B	2-9	549.6		
29S	395+47.50 RT.	1B	2-9	549.6		
29S	395+47.50 LT.	1A	2-9	549.6		
29S	395+77.51 LT.	1A	4-3	677.7		
29S	396+34.75 RT.	1B	2-9	549.6		
29S	396+34.75 LT.	1A	4-3	677.7		
29S	397+ 4.75 RT.	1B	2-9	549.6		
29S	397+ 4.75 LT.	1A	4-3	677.7		
30S	397+75.00 RT.	4A	2-9	608.3		
30S	397+75.00 LT.	4B	4-3	736.3		
30S	398+42.01 RT.	1B	2-9	549.6		
30S	398+42.01 LT.	1A	3-6	613.6		
30S	399+13.01 RT.	1B	2-9	549.6		
30S	399+13.01 LT.	1A	3-6	613.6		
30S	399+83.76 RT.	1B	2-9	549.6		
30S	399+83.76 LT.	1A	3-6	613.6		
31S	400+49.77 RT.	1B	2-9	549.6		
31S	400+49.77 LT.	1A	3-6	613.6		
31S	401+14.97 RT.	1B	2-9	549.6		
31S	401+22.65 LT.	1A	2-9	549.6		
31S	402+ 6.46 RT.	1A	3-6	613.6		
31S	402+14.14 LT.	1B	2-9	549.6		
31S	402+81.26 RT.	1A	2-9	549.6		
31S	402+81.26 LT.	1B	2-9	549.6		
32S	403+53.26 RT.	1A	2-9	549.6		
32S	403+53.26 LT.	1B	2-9	549.6		
32S	404+26.77 RT.	1B	2-9	549.6		
32S	404+26.77 LT.	1A	2-9	549.6		
32S	405+ 4.77 RT.	1B	2-9	549.6		
32S	405+ 4.77 LT.	1A	2-9	549.6		
32S	405+82.77 RT.	1B	2-9	549.6		
32S	405+82.77 LT.	1A	2-9	549.6		
32S	406+60.77 RT.	1B	2-9	549.6		
32S	406+60.77 LT.	1A	2-9	549.6		
33S	407+32.77 RT.	1B	2-9	549.6		
33S	407+32.77 LT.	1A	2-9	549.6		
33S	408+ 7.26 RT.	1A	2-9	549.6		
33S	408+ 7.26 LT.	1B	2-9	549.6		
33S	408+89.77 LT.	4A	2-9	608.3		
33S	409+59.77 RT.	1B	2-9	549.6		
33S	409+59.77 LT.	1A	2-9	549.6		
34S	410+31.31 RT.	1B	2-9	549.6		
34S	411+ 9.31 RT.	1B	2-9	549.6		
34S	411+87.31 RT.	1B	2-9	549.6		
34S	412+65.31 RT.	1B	2-9	549.6		
34S	413+43.31 RT.	1B	2-9	549.6		
35S	414+14.85 RT.	1B	2-9	549.6		
35S	414+84.85 RT.	1B	2-9	549.6		
35S	415+76.34 RT.	1A	2-9	549.6		
35S	416+46.34 RT.	1A	2-9	549.6		
36S	417+22.35 RT.	1A	2-9	549.6		
36S	418+ 4.35 RT.	1A	2-9	549.6		
36S	418+86.35 RT.	1A	2-9	549.6		
36S	419+68.35 RT.	1A	2-9	549.6		
36S	420+45.85 RT.	1B	2-9	549.6		

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.99
DECK DRAIN SCHEDULE
I-35W VIADUCT

PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

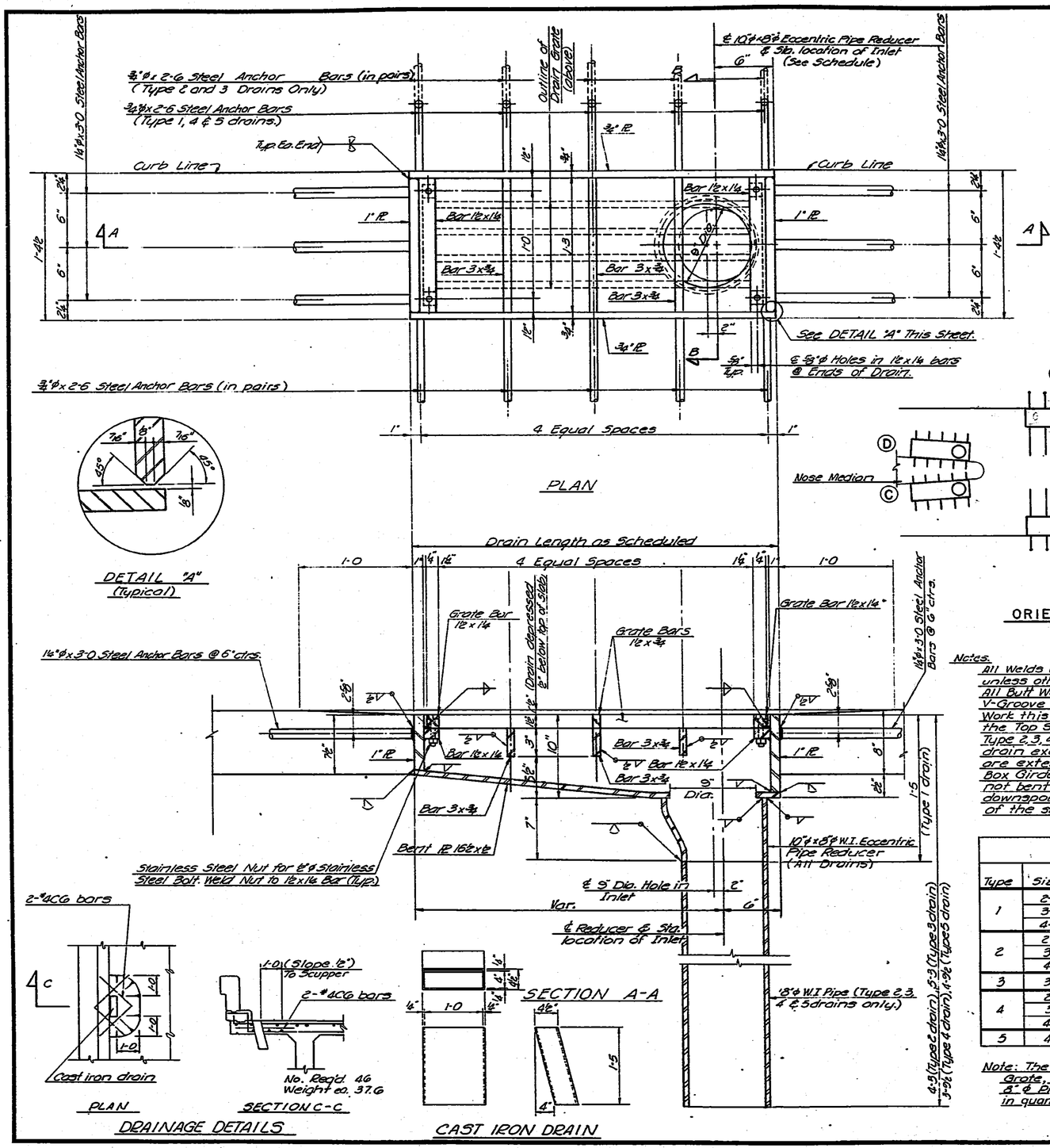
SHEET NO.	OF	SCALE	APP'D	
DESIGNED JA		DETAILED JA	QUANTITIES	TRACED
DESIGN CK. JWH		DETAIL CK. DFG	QUAN. CK.	TRACE CK.

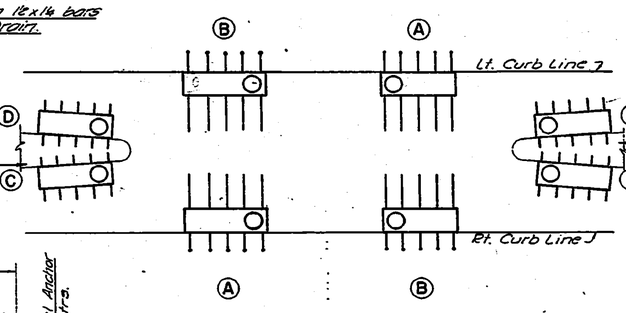
DIST. 5 SEDGWICK CO. ROLL 531

4 2 0

16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
S	KANSAS	35W-87-135W I-(58)48 Phase II & III	19	1993	2137





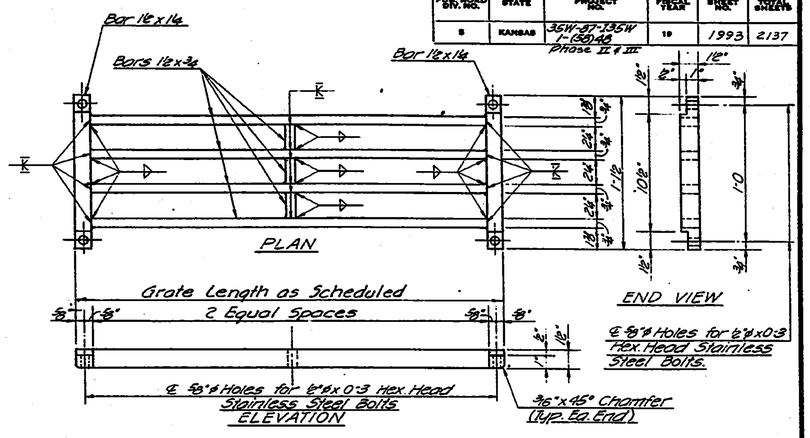
ORIENTATION OF DECK DRAINS
(See Schedule Below)

Notes.
All Welds on Inlets shall be 3/8" Fillet Welds unless otherwise shown.
All Butt Welds between pipe fittings are single V-Groove Welds.
Work this sheet with the Reinforcing Plans of the Top Slab for each Unit.
Type 2, 3, 4 & 5 drains are Identical to Type 1 drain except the Type 2 and 3 drain downspout are extended to clear the Bottom Slab of the Box Girder and the 3/4"ø Steel Anchor Bars are not bent (See Plan), and Type 4 and 5 drain downspouts are extended to clear the bottom of the sign Bracket.

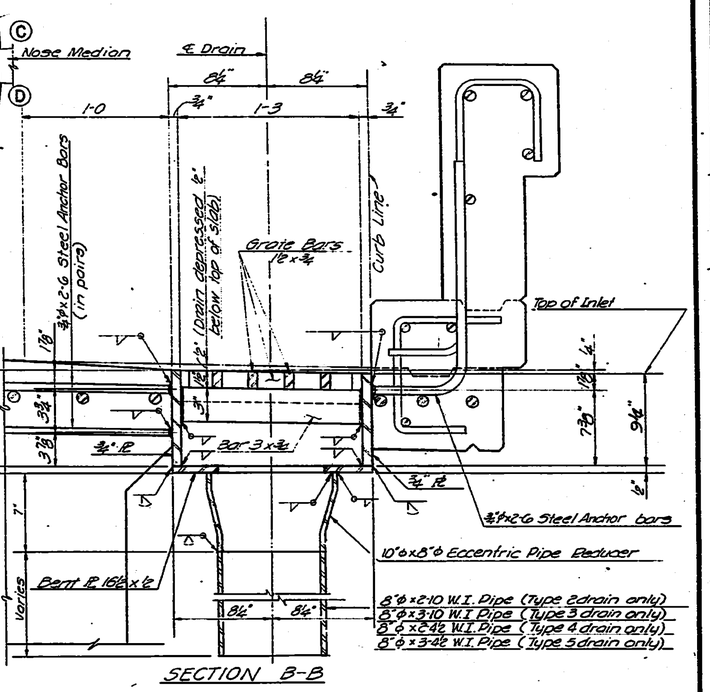
QUANTITIES

Type	Size	Grate Length	Drain Length	Weight	No. Req'd. A	B	C	D
1	2-9	2'-11½"	3'-2	549.6	196	201	—	—
	3-6	3'-8½"	3'-11	613.6	62	57	—	—
	4-3	4'-5½"	4'-8	677.7	64	56	—	—
2	2-9	2'-11½"	3'-2	638.4	—	—	—	1
	3-6	3'-8½"	3'-11	702.3	—	—	1	1
	4-3	4'-5½"	4'-8	766.4	—	—	2	3
3	3-6	3'-8½"	3'-11	727.1	—	—	1	1
4	2-9	2'-11½"	3'-2	608.3	9	8	—	—
	3-6	3'-8½"	3'-11	672.3	2	—	—	—
	4-3	4'-5½"	4'-8	736.3	1	5	—	—
5	4-3	4'-5½"	4'-8	761.0	1	—	—	—

Note: The weight of the Deck Drain includes the Drain, Grate, Bolts & Nuts, 10"ø x 8"ø reducer and the 8"ø Pipe used. Weight of Anchor Bars (A36) is included in quantity shown for Deck Drain



GRATE DETAILS
All Fillet Welds shall be 3/8"



NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
DECK DRAIN DETAILS
I-35W VIADUCT
WATERMAN TO EIGHTEENTH ST.
PROJ. NO. 35W-87-I35W-1(58)48 · SEDGWICK CO.

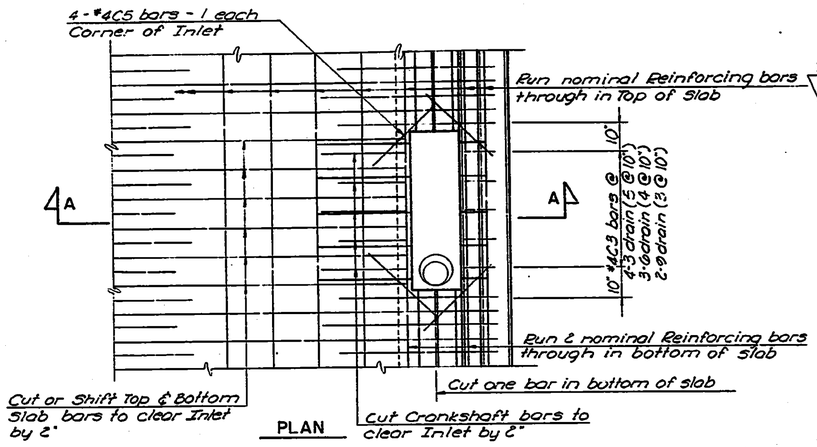
SHEET NO.	OF	SCALE		APP'D.	
DESIGNED	JWH	DETAILED	RBS	QUANTITIES	TRACED DS
DESIGN CK.	RAW	DETAIL CK.	RAW	QUANT. CK.	TRACE CK. RAW

DIST. 5 SEDGWICK CO. ROLL 531

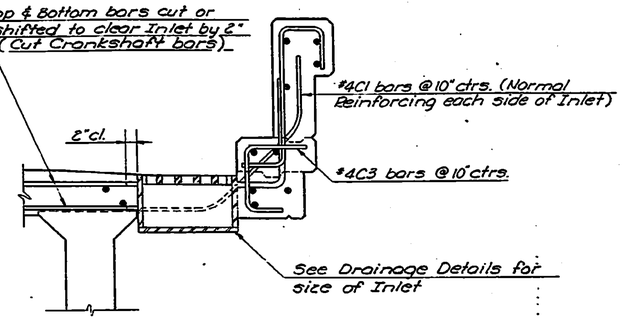
4 2 1

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W (158)48 Phase II & III	19	1994	2137

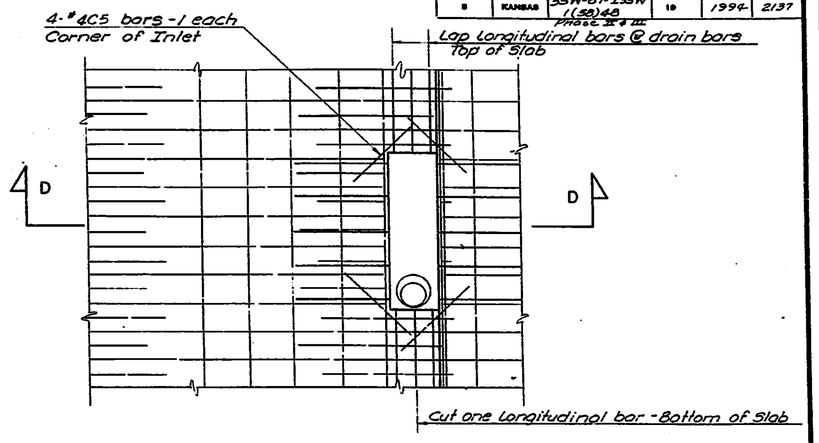


PLAN

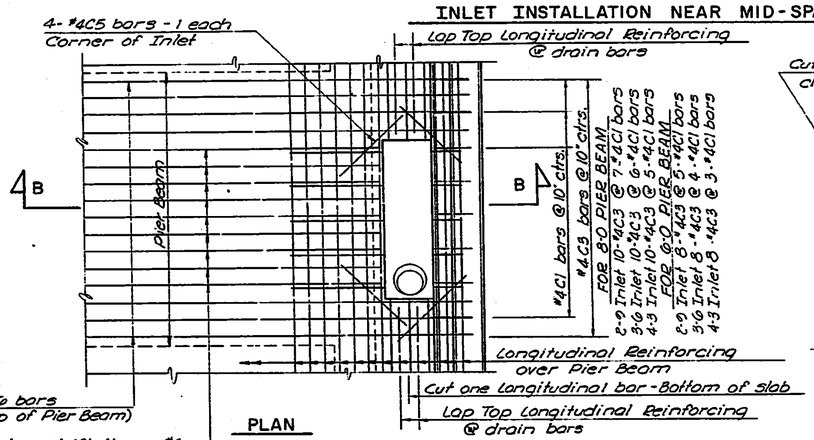


SECTION A-A

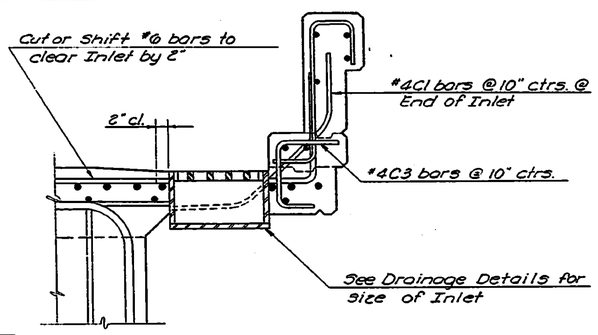
INLET INSTALLATION NEAR MID-SPAN



PLAN

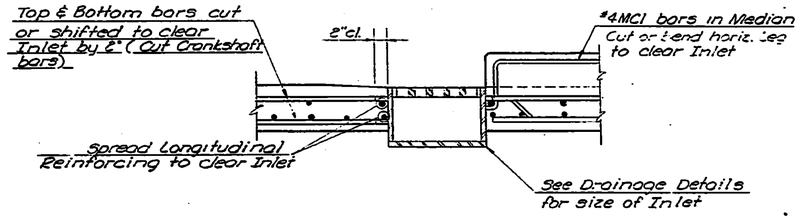


PLAN



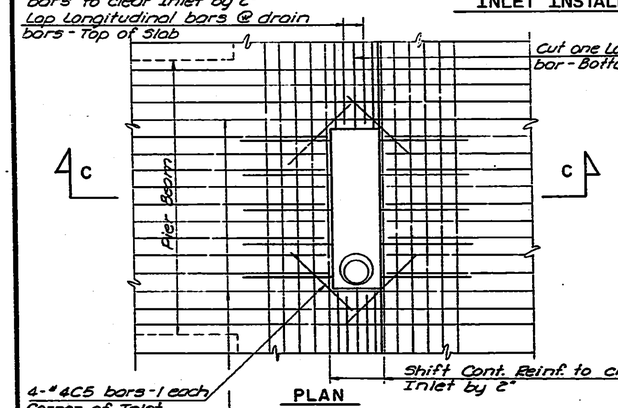
SECTION B-B

INLET INSTALLATION AT PIER BEAM

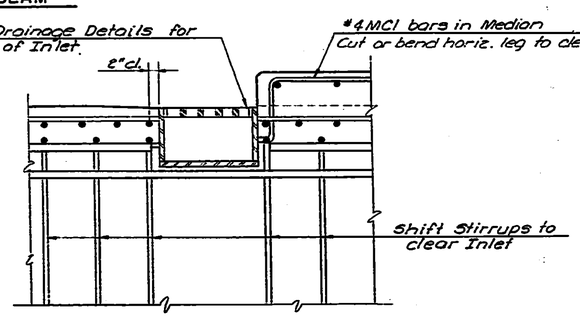


SECTION D-D

INLET INSTALLATION AT SLAB MEDIAN



PLAN



SECTION C-C

INLET INSTALLATION AT PIER BEAM MEDIAN

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
REINFORCING DETAILS
AT DECK DRAINS
I-35W VIADUCT
PROJ. NO. 35W-87-I35W-1(58) 48 SEDGWICK CO.

SHEET NO. OF	SCALE	APP'D.	
DESIGNED RAW	DETAILED EES	QUANTITIES	TRACED EES
DESIGN CK. DFS	DETAIL CK. RAW	SIGNAL CK.	TRACE CK. RAW

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

4 2 2

0X 16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase III	19	1995	2137

DOWNSPOUTS

UNIT NO.	PIER NO.	COL NO.	STATION	ELEV. A	DIMENSIONS A FT. IN.	DIMENSIONS B FT. IN.	DIMENSIONS C FT. IN.	8IN. PIPE L.F.	SUPPORT BRACKETS TYPE A NO.	SUPPORT BRACKETS TYPE B NO.	SUPPORT BRACKETS TYPE C NO.
0N	—	—	295+80.30	—	—	—	5-8	5.67	—	2	
0N	00N	A	296+40.26	—	—	—	6- 3	6.25	—	2	
0N	0N	A	297+18.26	1299.77	1- 0 7/8	9- 7 3/4	3- 0	16.66	1	1	
							SUBTOTAL 0N	28.58	1	5	
1N	1N	A	297+90.26	1299.07	2- 6 7/8	9- 7 3/4	3- 6 3/4	18.71	1	1	
1N	2N	A	298+56.02	1299.17	3- 8 3/4	9- 7 3/4	3- 6 3/4	19.87	1	1	
1N	3N	A	299+43.02	1296.17	8- 5 1/2	9- 7 3/4	3- 6 3/4	24.60	2	1	
1N	4N	A	300+13.27	1294.17	11- 8 1/2	9- 7 3/4	3- 6 3/4	27.85	2	1	
							SUBTOTAL 1N	91.03	6	4	
2N	5N	A	300+85.27	1293.77	13- 3	9- 7 3/4	3- 6 3/4	29.39	2	1	
2N	6N	A	301+63.27	1293.57	14- 6 1/8	9- 7 3/4	3- 6 3/4	30.65	3	1	
2N	7N	A	302+41.27	1293.77	15- 2 3/4	9- 7 3/4	3- 6 3/4	31.37	3	1	
2N	8N	A	303+19.02	1294.37	15- 8 1/4	9- 7 3/4	3- 6 3/4	31.83	3	1	
							SUBTOTAL 2N	123.24	11	4	
3N	9N	A	303+93.02	1295.97	13-11 3/4	9- 7 3/4	1- 4	28.89	2	—	1
3N	10N	A	304+82.53	1298.37	12- 3 1/2	9- 7 3/4	4- 6 3/4	29.44	2	1	
3N	11N	A	305+93.56	1298.57	12- 5 3/8	9- 7 3/4	4- 6 3/4	29.59	2	1	
3N	11N	C	305+78.58	1299.09	11-10 1/4	9-10 1/2	4- 6 3/4	29.23	2	1	
3N	12N	A	306+73.51	1298.47	12- 8 5/8	9- 7 3/4	4- 6 3/4	29.86	2	1	
3N	12N	B	306+73.51	1298.57	12- 4 3/8	9- 6 3/4	3- 7 3/4	28.51	2	1	
3N	12NR		6+64.62	1297.37	12- 2 7/8	10-10 7/8	4- 6 3/4	30.65	2	1	
							SUBTOTAL 3N	206.17	14	6	1
4N	13N	A	307+51.39	1298.97	13- 3 3/8	9- 7 3/4	3- 6 3/4	29.43	2	1	
4N	13N	B	307+51.39	1299.07	12-11 1/4	9- 7 3/4	3- 6 3/4	29.08	2	1	
4N	14N	A	308+28.90	1298.97	13- 4 3/8	9- 7 3/4	3- 6 3/4	29.51	2	1	
4N	14N	B	308+28.90	1299.37	12- 8 5/8	9- 7 3/4	3- 6 3/4	28.86	2	1	
4N	15N	A	309+10.90	1298.97	13- 5 1/4	9- 7 3/4	3- 6 3/4	29.58	2	1	
4N	15N	B	309+10.90	1299.27	12-10 3/4	9- 7 3/4	3- 6 3/4	29.04	2	1	
4N	16N	A	309+92.90	1299.17	13- 3 3/4	9- 7 3/4	3- 6 3/4	29.46	2	1	
4N	16N	B	309+92.90	1298.67	13- 6 3/4	9- 7 3/4	3- 6 3/4	29.71	2	1	
4N	17N	A	310+74.90	1299.57	12-11 7/8	9- 7 3/4	3- 6 3/4	29.13	2	1	
4N	17N	B	310+74.90	1298.37	13-11 1/4	9- 7 3/4	3- 6 3/4	30.08	2	1	
4NR	13NR		7+41.16	1299.67	11- 3 7/8	10- 8 1/8	3- 6 3/4	28.50	2	1	
4NR	14NR		8+21.16	1299.97	6- 5 1/2	10- 8 1/8	3- 6 3/4	23.64	2	1	
							SUBTOTAL 4N	293.88	20	10	
							SUBTOTAL 4NR	52.14	4	2	
5N	18N	A	311+50.78	1299.97	12- 7 7/8	9- 7 3/4	3- 6 3/4	28.80	2	1	
5N	18N	B	311+50.78	1299.37	13- 0 1/8	9- 7 3/4	3- 6 3/4	29.15	2	1	
5N	19N	A	312+25.58	1300.77	11-11 1/8	9- 7 3/4	3- 6 3/4	28.07	2	1	
5N	19N	B	312+17.90	1300.47	11-11 5/8	9- 7 3/4	3- 6 3/4	28.11	2	1	
5N	20N	A	313+17.07	1300.37	12- 4 7/8	9- 7 3/4	3- 6 3/4	28.55	2	1	
5N	20N	B	313+ 9.39	1300.17	12- 4 1/8	9- 7 3/4	3- 6 3/4	28.49	2	1	
5N	21N	A	313+82.27	1300.37	12- 5 1/2	9- 7 3/4	3- 6 3/4	28.60	2	1	
5N	21N	B	313+82.27	1299.97	12- 7 3/8	9- 7 3/4	3- 6 3/4	28.76	2	1	
							SUBTOTAL 5N	228.53	16	8	
6N	22N	A	314+52.78	1300.97	11-11 1/8	9- 7 3/4	3- 6 3/4	28.07	2	1	
6N	22N	B	314+52.78	1300.57	12- 0 7/8	9- 7 3/4	3- 6 3/4	28.22	2	1	
6N	23N	A	315+30.78	1301.07	11-10 3/4	9- 7 3/4	3- 6 3/4	28.04	2	1	
6N	23N	B	315+30.78	1300.87	11-10 1/8	9- 7 3/4	3- 6 3/4	27.99	2	1	
6N	24N	A	316+ 4.29	1301.47	11- 6 3/4	9- 7 3/4	3- 6 3/4	27.71	2	1	
6N	24N	B	316+ 4.29	1301.17	11- 7 3/8	9- 7 3/4	3- 6 3/4	27.76	2	1	
6N	25N	A	316+82.29	1300.37	12- 8 7/8	9- 7 3/4	3- 6 3/4	28.88	2	1	
6N	25N	B	316+82.29	1301.27	11- 7	9- 7 3/4	3- 6 3/4	27.73	2	1	
6N	26N	A	317+60.29	1301.87	11- 3 5/8	9- 7 3/4	3- 6 3/4	27.45	2	1	
6N	26N	B	317+60.29	1301.57	11- 4 1/4	9- 7 3/4	3- 6 3/4	27.50	2	1	
							SUBTOTAL 6N	279.35	20	10	
7N	27N	A	318+30.79	1302.07	11- 2	9- 7 3/4	3- 6 3/4	27.31	2	1	
7N	27N	B	318+30.79	1301.87	11- 1 3/8	9- 7 3/4	3- 6 3/4	27.26	2	1	
7N	28N	A	319+ 5.59	1301.97	11- 4	9- 7 3/4	3- 6 3/4	27.48	2	1	
7N	28N	B	318+97.91	1302.03	11- 0 1/4	9- 7 3/4	3- 6 3/4	27.16	2	1	
7N	29N	A	319+97.08	1301.84	11- 6 1/2	9- 7 3/4	3- 6 3/4	27.69	2	1	
7N	29N	B	319+89.40	1299.77	13- 4 1/4	9- 7 3/4	3- 6 3/4	29.50	2	1	
7N	30N	A	320+62.28	1301.77	11- 8 1/8	9- 7 3/4	3- 6 3/4	27.82	2	1	
7N	30N	B	320+62.28	1300.87	12- 3 7/8	9- 7 3/4	3- 6 3/4	28.47	2	1	
							SUBTOTAL 7N	222.69	16	8	
8N	31N	A	321+34.17	1301.27	12- 2 7/8	9- 7 3/4	3- 6 3/4	28.38	2	1	
8N	31N	B	321+34.17	1301.47	11- 9 3/8	9- 7 3/4	3- 6 3/4	27.93	2	1	
8N	32N	A	322+ 7.68	1300.27	13- 3 5/8	9- 7 3/4	3- 6 3/4	29.45	2	1	
8N	32N	B	322+ 7.68	1301.57	11- 9 1/8	9- 7 3/4	3- 6 3/4	27.90	2	1	
8N	33N	A	322+90.17	1301.97	11- 8 1/8	9- 7 3/4	3- 6 3/4	27.82	2	1	
8N	33N	B	322+90.17	1301.77	11- 7 1/2	9- 7 3/4	3- 6 3/4	27.77	2	1	
8N	34N	A	323+63.68	1302.17	11- 6 1/2	9- 7 3/4	3- 6 3/4	27.69	2	1	
8N	34N	B	323+63.68	1301.76	11- 8 1/2	9- 7 3/4	3- 6 3/4	27.85	2	1	
8N	35N	A	324+41.68	1302.17	11- 7 3/8	9- 7 3/4	3- 6 3/4	27.76	2	1	
8N	35N	B	324+41.68	1301.27	12- 3 1/4	9- 7 3/4	3- 6 3/4	28.41	2	1	
8NR	34NR		23+46.83	1300.77	6-11 3/4	10- 8 1/8	3- 6 3/4	24.16	2	1	
8NR	35NR		24+26.83	1300.77	9-10 1/2	10- 8 1/8	3- 6 3/4	27.05	2	1	
							SUBTOTAL 8N	280.96	20	10	
							SUBTOTAL 8NR	51.21	4	2	

DOWNSPOUTS

UNIT NO.	PIER NO.	COL NO.	STATION	ELEV. A	DIMENSIONS A FT. IN.	DIMENSIONS B FT. IN.	DIMENSIONS C FT. IN.	8IN. PIPE L.F.	SUPPORT BRACKETS TYPE A NO.	SUPPORT BRACKETS TYPE B NO.	SUPPORT BRACKETS TYPE C NO.
9N	36N	A	325+13.56	1302.17	11- 8 1/8	9- 7 3/4	3- 6 3/4	27.82	2	1	
9N	36N	B	325+13.56	1301.27	12- 4 1/8	9- 7 3/4	3- 6 3/4	28.49	2	1	
9N	36NR		25+ 0.83	1300.77	11- 6 3/8	10- 8 1/8	3- 6 3/4	28.71	2	1	
9N	37N	A	325+88.11	1296.47	17- 5 3/8	9- 7 3/4	3- 6 3/4	33.59	3	1	
9N	37N	B	325+81.07	1296.72	15- 7	12- 4 3/4	1- 4	32.25	3	—	1
9N	37N	C	325+74.03	1296.97	16- 3 1/4	9-11 1/4	3- 6 3/4	32.71	3	1	
9N	38N	A	326+79.85	1302.57	11- 5 1/8	9- 7 3/4	3- 6 3/4	27.57	2	1	
9N	38N	C	326+67.81	1301.87	11- 7	9- 5 3/4	2- 7 3/4	26.64	2	1	
9N	39N	A	327+45.05	1302.77	11- 3 3/8	9- 7 3/4	3- 6 3/4	27.43	2	1	
9N	39N	C	327+45.05	1300.97	12- 7 3/4	9- 6 1/4	3- 6 3/4	28.67	2	1	
							SUBTOTAL 9N	293.88	23	9	1
10N	40N	A	328+12.51	1302.97	11- 1 3/4	9- 7 3/4	3- 6 3/4	27.29	2	1	
10N	40N	C	328+12.51	1300.27	13- 5 1/2	9- 7	3- 6 3/4	29.54	2	1	
10N	41N	A	328+81.52	1303.07	11- 1 3/8	9- 7 3/4	3- 6 3/4	27.26	2	1	
10N	41N	C	328+81.52	1301.57	12- 2 7/8	9- 7 3/4	3- 6 3/4	28.38	2	1	
10N	42N	A	329+54.52	1303.37	10-10 1/2	9- 7 3/4	3- 6 3/4	27.02	2	1	
10N	42N	C	329+54.52	1301.97	11-10 7/8	9- 7 3/4	3- 6 3/4	28.05	2	1	
10N	43N	A	330+27.52	1303.58	10- 9	9- 7 3/4	3- 6 3/4	26.89	2	1	
10N	43N	C	330+27.52	1302.07	11-10 1/2	9- 7 3/4	3- 6 3/4	28.02	2	1	
10N	44N	A	331+ 0.52	1303.58	10-10 3/8	9- 7 3/4	3- 6 3/4	27.01	2	1	
10N	44N	C	331+ 0.52	1303.58	10- 6	9- 7 3/4	3- 6 3/4	26.64	2	1	
							SUBTOTAL 10N	276.10	20	10	
11N	45N	A	331+67.23	1302.63	12- 0	9- 7 3/4	3- 6 3/4	28.14	2	1	
11N	45N	C	331+67.23	1301.67	12- 7	9- 7 3/4	3- 6 3/4	28.73	2	1	
11N	46N	A	332+34.03	1301.77	13- 1 1/8	9- 7 3/4	3- 6 3/4	29.24	2	1	
11N	46N	C	332+24.76	1301.47	13- 0 1/8	9- 8 3/4	3- 6 3/4	29.23	2	1	
11N	47N	C	333+ 3.44	1305.09	9- 9 1/4	9- 8 3/4	3- 6 3/4	26.00	2	1	
11N	48N	A	333+94.02	1302.77	12-10 1/2	9- 7 3/4	3- 6 3/4	29.02	2	1	
11N	48N	C	333+86.12	1301.97	13- 4 3/8	9- 6 3/4	3- 6 3/4	29.43	2	1	
11N	49N	A	334+51.47	1302.87	13- 1 3/4	9- 7 3/4	3- 6 3/4	29.29	2	1	
11N	49N	B	334+51.47	1302.37	13- 4 3/4	9- 7 3/4	3- 6 3/4	29.54	2	1	
12N	50N	A	335+20.95	1303.27	13- 3	9- 7 3/4	3- 6 3/4	29.39	2	1	
12N	50N	B	335+20.95	1302.87	13- 4 3/4	9- 7 3/4	1- 4	27.31	2	—	1
12N	51N	A	335+92.46	1303.77	13- 4 3/8	9- 7 3/4	3- 6 3/4	29.51	2	1	
12N	51N	B	335+92.46	1302.37	14- 6 1/4	9- 7 3/4	3- 6 3/4	30.67	3	1	
12N	52N	A	336+68.46	1304.86	12-11 3/8	9- 7 3/4	3- 6 3/4	29.09	2	1	
12N	52N	B	336+68.46	1303.17	14- 4 5/8	9- 7 3/4	3- 6 3/4	30.53	3	1	
12N	53N	A	337+44.46	1304.57	13-10 7/8	9- 7 3/4	3- 6 3/4	30.05	2	1	
12N	53N	B	337+44.46	1303.91	14- 3 3/4	9- 7 3/4	3- 6 3/4	30.46	3	1	
12N	54N	A	338+20.46	1304.47	14- 8	9- 7 3/4	3- 6 3/4	30.81	3	1	
12N	54N	B	338+20.46	1304.81	14- 0 7/8	9- 7 3/4	3- 6 3/4	30.22	3	1	
12N	55N	A	338+96.46	1304.47	15- 3 3/4	9- 7 3/4	3- 6 3/4	31.46	3	1	
12N	55N	B	338+96.46	1304.81	14- 8 3/4	9- 7 3/4	3- 6 3/4	30.87	3	1	
12N	56N	A	339+72.46	1305.27	15- 0 7/8	9- 7 3/4	3- 6 3/4	31.22	3	1	
12N	56N	B	339+72.46	1305.59	14- 6 1/8	9- 7 3/4	3- 6 3/4	30.65	3	1	
12NR	53NR		37+33.22	1300.97	7- 3 7/8	14- 9 7/8	3- 6 3/4	28.64	2	1	
12NR	54NR		38+13.22	1300.27	11- 1 1/4	14- 9 7/8	3- 6 3/4	32.43	2	1	
12NR	55NR		38+87.73	1300.37	14- 5 7/8	14- 9 7/8	3- 6 3/4	35.81	3	1	
12NR	56NR		39+67.73	1300.57	16-10 3/4	13- 3 5/8	3- 6 3/4	36.69	3	1	
							SUBTOTAL 11N	259.62	18	9	
							SUBTOTAL 12N	225.24	17	8	1
							SUBTOTAL 12NR	133.57	10	4	
13N	57N	A	340+42.93	1305.97	14- 9 3/4	9- 7 3/4	3- 6 3/4	30.96	3	1	
13N	57N	B	340+42.93	1305.81	14- 8 3/4	9- 7 3/4	3- 6 3/4	30.87	3	1	
13N	57NR		40+41.98	1302.47	16- 8 7/8	11-10 3/8	3- 6 3/4	35.10	3	1	
13N	58N	A	341+12.68	1306.17	14-11 3/4	9- 7 3/4	3- 6 3/4	31.12	3	1	
13N	58N	B	341+12.68	1304.66	14-10	12- 7 3/4	1- 4	31.75	3		1
13N	58N	C	341+17.67	1304.17	16- 3 3/4	9- 5 1/4	3- 6 3/4	32.25	3	1	
13N	59N	A	341+99.93	1305.27	16- 2 5/8	9- 7 3/4	3- 6 3/4	32.36	3	1	
13N	59N	C	341+99.93	1304.17	16- 9 1/2	9-10 3/4	3- 6 3/4	33.19	3	1	
13N	60N	A	342+70.18	1303.47	18- 2 1/2	9- 7 3/4	3- 6 3/4	34.35	3	1	
13N	60N	C	342+70.18	1303.47	17- 9 1/8	9- 9 1/2	3- 6 3/4	34.05	3	1	
							SUBTOTAL 13N	326.00	30	9	1
14N	61N	A	343+28.17	1300.97	20- 9 1/2	9- 7 3/4	3- 6 3/4	36.94	3	1	
14N	61N	C	343+28.17	1298.97	22- 4 3/4	9- 6 3/4	3- 6 3/4	38.46	3	1	
14N	62N	A	343+79.19	1303.47	18- 4 1/8	9- 7 3/4	3- 6 3/4	34.49	3	1	
14N	62N	C	343+79.19	1305.47	15-11 5/8	9- 7 3/4	3- 6 3/4	32.11	3	1	
14N	63N	A	344+48.19	1305.47	16- 4	9- 7 3/4	3- 6 3/4	32.48	3	1	
14N	63N	C	344+48.19	1305.57	15-10 3/8	9- 7 3/4	3- 6 3/4	32.01	3	1	
14N	64N	A	345+17.19	1305.97	15- 9 1/8	9- 7 3/4	3- 6 3/4	31.90	3	1	
14N	64N	C	345+17.19	1306.67	14- 8 1/8	9- 7 3/4	3- 6 3/4	30.82	3	1	
14N	65N	A	345+86.19	1305.97	15- 7 1/8	9- 7 3/4	3- 6 3/4	31.74	3	1	
14N	65N	C	345+86.19	1305.47	15- 8 3/4	9- 7 3/4	3- 6 3/4	31.87	3	1	
14N	66N	A	346+55.19	1305.67	15- 8	9- 7 3/4	3- 6 3/4	31.81	3	1	
14N	66N	C	346+55.19	1305.07	15-10 5/8	9- 7 3/4	3- 6 3/4	32.03	3	1	
							SUBTOTAL 14N	396.66	36	12	
15N	67N	A	347+20.20	1304.97	16- 0 7/8	9- 7 3/4	1- 4	29.99	3	—	1
15N	67N	C	347+20.20	1304.77	15-10 3/4	9- 7 3/4	1- 4	29.81	3	—	1
15N	68N	A	347+94.75	1304.37	16- 3 1/8	9- 7 3/4	3- 6 3/4	32.40	3	1	
15N	68N	C	347+84.88	1304.39	15-10 7/8	9- 6 1/2	3- 6 3/4	31.95	3	1	
15N	69N	A	348+86.24	1303.74	16- 3 5/8	9- 7 3/4	3- 6 3/4	32.45	3	1	
15N	69N	C	348+74.36	1302.17	17- 4	10- 1 1/4	3- 6 3/4	33.94	3	1	
15N	70N	A	349+51.44	1303.47	16- 1 1/2	9- 7 3/4	3- 6 3/4	32.27	3	1	
15N	70N	C	349+51.44	1301.97	16- 9 3/8	9- 9	2- 7 3/4	32.10	3	1	
							SUBTOTAL 15N	254.91	24	6	2

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.96
DOWNSPOUT SCHEDULE
I-35W VIADUCT

PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. OF	SCALE	APP'D	
DESIGNED JA	DETAILED EES	QUANTITIES	TRACED MM
DESIGN CK. JWH	DETAIL CK. JA	QUAN. CK.	TRACE CK. JA

DIST. 5 SEDGWICK CO. ROLL 531

4 2 3

0X 16X 14.5X 12X 12X 14.5X 16X 2

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase II & III	19	1996	2/37

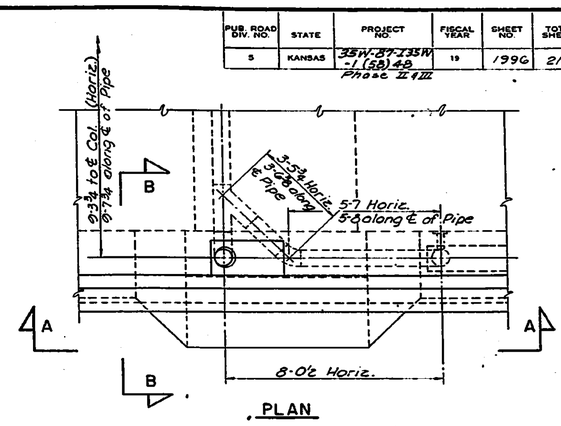
DOWNSPOUTS

UNIT NO.	PIER NO.	COL NO.	STATION	ELEV. A	DIMENSIONS A FT.	A IN.	B FT.	B IN.	C FT.	C IN.	8IN. PIPE L.F.	SUPPORT BRACKETS TYPE A NO.	TYPE B NO.	TYPE C NO.
16N	71N	A	350+30.12	1303.57	15-	5 3/4	9-	7 3/4	3-	6 3/4	31.62	3	1	
16N	71N	B	350+30.12	1303.67	15-	1 1/4	9-	6 3/4	3-	6 3/4	31.17	3	1	
16N	72N	A	351+12.63	1304.37	14-	0 7/8	9-	7 3/4	3-	6 3/4	30.22	3	1	
16N	72N	B	351+12.63	1303.73	14-	5 5/8	9-	7 3/4	3-	6 3/4	30.61	3	1	
16N	73N	A	351+99.63	1305.17	12-	9 3/4	9-	7 3/4	3-	6 3/4	28.96	2	1	
16N	73N	B	351+99.63	1304.87	12-10	3/8	9-	7 3/4	3-	6 3/4	29.01	2	1	
16NR	71NR		50+26.37	1301.77	15-	5 7/8	10-	8 1/8	3-	6 3/4	32.67	3	1	
16NR	72NR		51+ 6.37	1301.67	13-10	1/2	10-	8 1/8	3-	6 3/4	31.05	2	1	
									SUBTOTAL 16N		181.59	16	6	
									SUBTOTAL 16NR		63.72	5	2	
17N	74N	A	352+78.31	1305.67	12-	0 3/4	9-	7 3/4	3-	6 3/4	28.21	2	1	
17N	74N	B	352+78.31	1304.97	12-	6 1/4	9-	7 3/4	3-	6 3/4	28.66	2	1	
17N	75N	A	353+48.31	1305.87	11-	9 1/2	9-	7 3/4	2-	7 3/4	27.02	2	1	
17N	75N	B	353+48.31	1305.17	12-	4	9-	7 3/4	2-	7 3/4	27.56	2	1	
17N	76N	A	354+35.31	1305.97	11-	9 1/2	9-	7 3/4	3-	6 3/4	27.94	2	1	
17N	76N	B	354+35.31	1305.27	12-	3	9-	7 3/4	3-	6 3/4	28.39	2	1	
17N	77N	A	355+ 9.80	1305.97	12-	0 1/4	9-	7 3/4	3-	6 3/4	28.16	2	1	
17N	77N	B	355+ 9.80	1305.47	12-	3 1/4	9-	7 3/4	3-	6 3/4	28.41	2	1	
									SUBTOTAL 17N		224.35	16	8	
18N	78N	A	355+83.99	1305.97	12-	4	9-	7 3/4	3-	6 3/4	28.48	2	1	
18N	78N	B	355+83.99	1304.47	13-	7	9-	7 3/4	3-	6 3/4	29.73	2	1	
18N	79N	A	356+70.99	1306.37	12-	3 3/8	9-	7 3/4	3-	6 3/4	28.43	2	1	
18N	79N	B	356+70.99	1305.17	13-	2 7/8	9-	7 3/4	3-	6 3/4	29.38	2	1	
18N	80N	A	357+57.99	1306.07	12-11	1/8	9-	7 3/4	3-	6 3/4	29.07	2	1	
18N	80N	B	357+57.99	1305.67	13-	0 7/8	9-	7 3/4	3-	6 3/4	29.22	2	1	
									SUBTOTAL 18N		174.31	12	6	
19N	81N	A	358+36.67	1306.97	12-	3 1/4	9-	7 3/4	3-	6 3/4	28.41	2	1	
19N	81N	B	358+36.67	1305.97	13-	0 1/4	9-	7 3/4	3-	6 3/4	29.16	2	1	
19N	82N	A	359+ 6.67	1306.06	13-	3 3/8	9-	7 3/4	3-	6 3/4	29.43	2	1	
19N	82N	B	359+ 6.67	1305.97	13-	1 1/2	9-	7 3/4	3-	6 3/4	29.27	2	1	
19N	83N	A	359+98.16	1308.47	10-10	3/8	9-	7 3/4	3-	6 3/4	27.01	2	1	
19N	83N	B	359+98.16	1308.47	10-	7 3/8	9-	7 3/4	3-	6 3/4	26.76	2	1	
19N	84N	A	360+68.16	1304.07	15-	1 7/8	9-	7 3/4	3-	6 3/4	31.30	3	1	
19N	84N	B	360+68.16	1304.67	14-	3 5/8	9-	7 3/4	3-	6 3/4	30.45	3	1	
									SUBTOTAL 19N		231.79	18	8	
20N	85N	A	361+40.32	1304.57	14-	5 1/4	9-	7 3/4	3-	6 3/4	30.58	3	1	
20N	85N	B	361+40.32	1305.17	13-	7	9-	7 3/4	1-	4	27.50	2	—	1
20N	86N	A	362+15.83	1303.97	14-	8 5/8	9-	7 3/4	3-	6 3/4	30.86	3	1	
20N	86N	B	362+15.83	1304.87	13-	6 3/4	9-	7 3/4	3-	6 3/4	29.71	2	1	
20N	87N	A	362+95.83	1304.17	14-	2 3/8	9-	7 3/4	3-	6 3/4	30.34	3	1	
20N	87N	B	362+95.83	1304.37	13-	9	9-	7 3/4	3-	6 3/4	29.89	2	1	
20N	88N	A	363+75.83	1304.97	13-	0 7/8	9-	7 3/4	3-	6 3/4	29.22	2	1	
20N	88N	B	363+75.83	1304.57	13-	2 3/4	9-	7 3/4	3-	6 3/4	29.37	2	1	
20N	89N	A	364+55.83	1304.97	12-	9 1/4	9-	7 3/4	3-	6 3/4	28.92	2	1	
20N	89N	B	364+55.83	1304.97	12-	6 1/4	9-	7 3/4	3-	6 3/4	28.67	2	1	
20N	90N	A	365+35.83	1304.37	13-	2	9-	7 3/4	3-	6 3/4	29.31	2	1	
20N	90N	B	365+35.83	1305.07	12-	2 5/8	9-	7 3/4	3-	6 3/4	28.36	2	1	
20NR	89NR		64+51.28	1302.77	12-	0 3/4	11-	7 3/4	3-	6 3/4	30.20	2	1	
20NR	90NR		65+31.28	1303.77	12-	3 1/2	10-	9 3/4	3-	6 3/4	29.61	2	1	
									SUBTOTAL 20N		352.73	27	11	1
									SUBTOTAL 20NR		59.81	4	2	
21N	91N	A	366+ 7.99	1304.67	12-	9	9-	7 3/4	3-	6 3/4	28.89	2	1	
21N	91N	B	366+ 7.99	1304.77	10-	0 1/4	12-	9	1-	4	27.04	2	—	1
21N	91N	C	366+ 7.99	1303.67	13-	0 3/4	10-	0	3-	6 3/4	29.56	2	1	
21N	92N	A	366+82.79	1305.47	11-10	5/8	9-	7 3/4	2-	7 3/8	27.08	2	1	
21N	92N	B	366+76.65	1304.87	9-11	3/4	16-	3 3/4	1-	4	30.56	2	—	1
21N	92N	C	366+70.51	1304.47	12-	4 1/8	9-	11	2-	7 3/4	27.84	2	1	
21N	93N	A	367+74.28	1305.87	11-	6 1/4	9-	7 3/4	2-	6 3/4	26.66	2	1	
21N	93N	C	367+63.66	1304.67	12-	3 3/8	9-	6 1/4	2-	7 3/4	27.38	2	1	
21N	94N	A	368+39.23	1305.87	11-	7 1/4	9-	7 3/4	3-	6 3/4	27.75	2	1	
21N	94N	C	368+39.23	1304.87	12-	2 5/8	9-	7	3-	6 3/4	28.30	2	1	
									SUBTOTAL 21N		281.06	20	8	2
22N	95N	A	369+ 9.24	1304.67	12-10	3/4	9-	7 3/4	3-	6 3/4	29.04	2	1	
22N	95N	C	369+ 9.24	1304.47	12-	8 5/8	9-	7 3/4	3-	6 3/4	28.86	2	1	
22N	96N	A	369+85.24	1305.07	12-	7 1/8	9-	7 3/4	3-	6 3/4	28.74	2	1	
22N	96N	C	369+85.24	1303.97	13-	3 3/4	9-	7 3/4	3-	6 3/4	29.46	2	1	
22N	97N	A	370+57.25	1305.47	12-	3 1/2	9-	7 3/4	3-	6 3/4	28.44	2	1	
22N	97N	C	370+57.25	1304.07	13-	3 3/4	9-	7 3/4	3-	6 3/4	29.46	2	1	
22N	98N	A	371+33.25	1305.67	12-	2 3/8	9-	7 3/4	3-	6 3/4	28.34	2	1	
22N	98N	C	371+33.25	1304.37	13-	1 3/8	9-	7 3/4	3-	6 3/4	29.26	2	1	
22N	99N	A	372+ 9.25	1305.87	12-	1 1/8	9-	7 3/4	3-	6 3/4	28.24	2	1	
22N	99N	C	372+ 9.25	1305.87	11-	8 3/4	9-	7 3/4	3-	6 3/4	27.87	2	1	
									SUBTOTAL 22N		287.71	20	10	
23N	100N	A	372+79.26	1306.07	11-11	7/8	9-	7 3/4	3-	6 3/4	28.13	2	1	
23N	100N	C	372+79.26	1305.67	12-	0 1/4	9-	7 3/4	3-	6 3/4	28.16	2	1	
23N	101N	A	373+54.06	1305.97	12-	2 1/4	9-	7 3/4	3-	6 3/4	28.33	2	1	
23N	101N	C	373+44.46	1305.65	12-	1 3/8	9-	7 3/4	3-	6 3/4	28.26	2	1	
23N	102N	A	374+45.05	1306.47	11-	9 5/8	9-	7 3/4	3-	6 3/4	27.95	2	1	
23N	102N	C	374+35.45	1305.95	11-11	1/4	9-	7 3/4	3-	6 3/4	28.08	2	1	
23N	103N	A	375+10.25	1306.77	11-	7	9-	7 3/4	3-	6 3/4	27.73	2	1	
23N	103N	C	375+10.25	1305.87	12-	1 3/8	9-	7 3/4	3-	6 3/4	28.26	2	1	
									SUBTOTAL 23N		224.90	16	8	

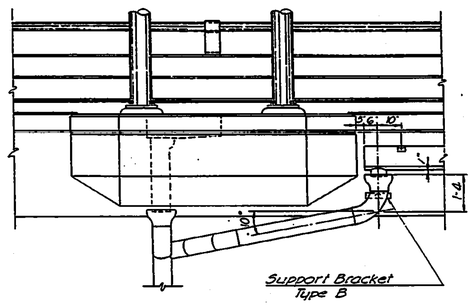
DOWNSPOUTS

UNIT NO.	PIER NO.	COL NO.	STATION	ELEV. A	DIMENSIONS A FT.	A IN.	B FT.	B IN.	C FT.	C IN.	8IN. PIPE L.F.	SUPPORT BRACKETS TYPE A NO.	TYPE B NO.	TYPE C NO.
24N	104N	A	375+80.62	1306.87	11-	6 7/8	9-	7 3/4	3-	6 3/4	27.72	2	1	
24N	104N	C	375+80.62	1306.67	11-	4 7/8	9-	7 3/4	3-	6 3/4	27.55	2	1	
24N	105N	A	376+52.63	1307.07	11-	5 7/8	9-	7 3/4	3-	6 3/4	27.63	2	1	
24N	105N	C	376+52.63	1306.77	11-	4 7/8	9-	7 3/4	3-	6 3/4	27.55	2	1	
24N	106N	A	377+28.63	1307.47	11-	2 1/4	9-	7 3/4	3-	6 3/4	27.33	2	1	
24N	106N	C	377+28.63	1306.67	11-	6 7/8	9-	6 3/4	3-	6 3/4	27.64	2	1	
24N	107N	A	378+ 4.63	1307.47	11-	3 3/8	9-	7 3/4	1-	4	25.20	2	—	1
24N *	107N	C	378+ 4.63	1306.77	11-	4 1/2	9-	6 1/8	1-	4	35.69	2	1	1
									SUBTOTAL 24N		227.39	16	7	2
25N	108N	A	378+74.75	1307.37	11-	5 3/4	9-	7 3/4	3-	6 3/4	27.62	2	1	
25N	108N	C	378+74.75	1305.47	12-	9 1/2	9-	5 3/4	3-	6 3/4	28.77	2	1	
25N	109N	A	379+44.75	1307.17	11-	9 1/4	9-	7 3/4	3-	6 3/4	27.91	2	1	
25N	109N	C	379+44.75	1305.27	13-	0	9-	5 3/4	2-	7 3/4	28.06	2	1	
25N	110N	A	380+31.50	1307.17	11-10	5/8	9-	7 3/4	3-	6 3/4	28.03	2	1	
25N	110N	C	380+31.50	1303.77	14-	6	9-	5 1/2	2-	7 3/4	29.54	3	1	
25N	111N	A	381+ 1.75	1307.17	11-11	3/4	9-	7 3/4	3-	6 3/4	28.12	2	1	
25N	111N	B	381+ 1.75	1306.67	12-	2 3/8	9-	8 7/8	3-	6 3/4	28.43	2	1	
25N	111NR		81+ 2.43	1304.97	12-	9 3/8	10-	8 1/8	3-	6 3/4	29.96	2	1	
									SUBTOTAL 25N		256.44	19	9	
26N	112N	A	381+70.69	1307.17	12-	0 3/4	9-	7 3/4	3-	6 3/4	28.21	2	1	
26N	112N	B	381+70.69	1306.77	12-	2 5/8	9-	7 3/4	3-	6 3/4	28.36	2	1	
26N	113N	A	382+45.69	1307.27	12-	0 3/4	9-	7 3/4	3-	6 3/4	28.21	2	1	
26N	113N	B	382+45.69	1307.57	9-	6 1/4	9-	7 3/4	3-	6 3/4	25.66	2	1	
26N	114N	A	383+20.70	1306.67	12-	9 1/4	9-	7 3/4	3-	6 3/4	28.91	2	1	
26N	114N	B	383+20.70	1306.87	12-	3 3/4	9-	7 3/4	3-	6 3/4	28.46	2	1	
26N	115N	A	383+95.69	1306.37	13-	2	9-	7 3/4	3-	6 3/4	29.31	2	1	
26N	115N	B	383+95.69	1306.97	12-	3 3/4	9-	7 3/4	3-	6 3/4	28.46	2	1	
26N	116N	A	384+75.18	1307.47	12-	2	9-	7 3/4	3-	6 3/4	28.31	2	1	
26N	116N	B	384+75.18	1307.07	12-	3 3/4	9-	7 3/4	3-	6 3/4	28.46	2	1	
26N	117N	A	385+45.69	1307.47	12-	3 1/8	9-	7 3/4	3-	6 3/4	28.40	2	1	
26N	117N	B	385+45.69	1307.67	11-	9 3/4	9-	7 3/4	3-	6 3/4	27.96	2	1	
26NR	112NR		81+76.43	1305.57	11-	0 1/2	10-	8 1/8	3-	6 3/4	28.22	2	1	
26NR	113NR		82+56.43	1305.97	8-	4 5/8	10-	8 1/8	3-	6 3/4	25.56	2	1	
									SUBTOTAL 26N		338.71	24	12	
									SUBTOTAL 26NR		53.78	4	2	
27N	118N	A	386+13.62	1307.47	12-	4 1/8	9-	7 3/4	3-	6 3/4	28.49	2	1	
27N	118N	B	386+13.62	1307.47	12-	1 1/4	9-	7 3/4	3-	6 3/4	28.25	2	1	
27N	119N	A	386+80.42	1308.37	11-	6 3/8	9-	7 3/4	3-	6 3/4	27.68	2	1	
27N	119N	B	386+72.74	1308.37	11-	3 1/4	9-	7 3/4	3-	6 3/4	27.42	2	1	
27N	120N	A	387+58.42	1310.87	9-	1 3/4	9-	7 3/4	3-	6 3/4	25.29	2	1	
27N	120N	B	387+50.74	1310.41	9-	4 1/8	9-	7 3/4	3-	6 3/4	25.49	2	1	
27N	121N	A	388+40.91	1309.62	13-	3	9-	7 3/4	3-	6 3/4	29.39	2	1	
27N	121N	B	388+33.23	1309.57	13-	0 3/8	9-	7 3/4	3-	6 3/4	29.18	2	1	
27N	122N	A	388+93.62	1308.47	11-	8 5/8	9-	7 3/4	3-	6 3/4	27.86	3	1	
27N	122N	B	388+93.62	1308.47	11-	5 5/8	9-	7 3/4	3-	6 3/4	27.67	3	1	
									SUBTOTAL 27N		276.66	22	10	
28N	123N	A	389+71.68	1307.57	12-	8 5/8	9-	7 3/4	3-	6 3/4	28.86	2	1	
28N	123N	B	389+71.68	1308.67	11-	4 3/8	9-	7 3/4	3-	6 3/4	27.51	2	1	
28N	124N	A	390+47.19	1307.67	12-	8 3/4	9-	7 3/4	3-	6 3/4	28.87	2	1	
28N	124N	B	390+47.19	1308.47	11-	8 1/8	9-	7 3/4	3-	6 3/4	27.82	2	1	
28N	125N	A	391+27.19	1307.87	12-	7 1/2	9-	7 3/4	3-	6 3/4	28.77	2	1	
28N	125N	B	391+27.19	1308.47	11-	9 1/4	9-	7 3/4	3-	6 3/4	27.92	2	1	
28N	126N	A	392+ 7.19	1307.77	12-10		9-	7 3/4	3-	6 3/4	28.98	2	1	
28N	126N	B	392+ 7.19	1307.67	12-	8 1/4	9-	7 3/4	3-	6 3/4	28.83	2	1	
28N	127N	A	392+87.19	1307.67	13-	0 3/8	9-	7 3/4	3-	6 3/4	29.18	2	1	
28N	127N	B	392+87.19	1307.97	12-	5 7/8	9-	7 3/4	3-	6 3/4	28.63	2	1	
28NR	126NR		92+ 6.57	1306.77	7-	7 3/4	14-	9 7/8	3-	6 3/4	28.97	2	1	
28NR	127NR		92+86.57	1306.77	10-	1	14-	9 7/8	3-	6 3/4	31.41	2	1	
									SUBTOTAL 28N		285.37	20	10	
									SUBTOTAL 28NR		60.38	4	2	
29N	128N	A	393+61.75	1307.87	12-11	1/4	9-	7 3/4	3-	6 3/4	29.08	2	1	
29N	128N	B	393+61.75	1308.17	12-	4 5/8	9-	7 3/4	3-	6 3/4	28.53	2	1	
29N	128NR		93+60.57	1307.67	10-	6 7/8	14-	9 7/8	3-	6 3/4	31.89	2	1	
29N	129N	A	394+31.50	1307.67	13-	2 3/4	9-	7 3/4	3-	6 3/4	29.37	2	1	
29N	129N	B	394+31.50	1308.27	12-	0 3/8	8-	6	1-	4	24.80	3	—	1
29N	129N	C	394+31.50	1307.67	12-	5 1/8	9-	10 3/8	3-	6 3/4	28.79	3	1	
29N	130N	A	395+18.50	1305.77	15-	3	9-	7 3/4	3-	6 3/4	31.39	3	1	
29N	130N	C	395+18.50	1307.97	12-	4 1/2	9-	9 5/8	3-	6 3/4	28.67	2	1	
29N	131N	A	395+88.75	1307.17	13-11	1/4	9-	7 3/4	3-	6 3/4	30.08	2	1	
29N	131N	C	395+88.75	1307.97	12-	6 1/2	9-	8 1/2	3-	6 3/4	28.75	2	1	
									SUBTOTAL 29N		291.35	23	9	1
30N	132N	A	396+54.87	1307.27	13-11	1/8	9-	7 3/4	3-	6 3/4	30.07	2	1	
30N	132N	C	396+54.87	1308.47	12-	2	9-	7 3/4	3-	6 3/4	28.31	2	1	
30N	133N	A	397+25.87	1307.07	14-	2 5/8	9-	7 3/4	3-	6 3/4	30.36	3	1	
30N	133N	C	397+25.87	1308.97	11-	9 3/8	9-	7 3/4	3-	6 3/4	27.93	2	1	
30N	134N	A	397+96.87	1307.77	13-	7 3/8	9-	7 3/4	3-	6 3/4	29.76	2	1	
30N	134N	C	397+96.87	1308.97	11-10	7/8	9-	7 3/4	3-	6 3/4	28.05	2	1	
30N	135N	A	398+67.87	1307.67	13-	9 5/8	9-	7 3/4	3-	6 3/4	29.95	2	1	
30N	135N	C	398+67.87	1308.97	12-	0 1/4	9-	7 3/4	3-	6 3/4	28.16	2	1	
30N	136N	A	399+38.87	1307.77	13-	9 1/2	9-	7 3/4	3-	6 3/4	29.94	2	1	
30N	136N	C	399+38.87	1308.67	12-	5 1/4	9-	7 3/4	3-	6 3/4	28.58	2	1	
									SUBTOTAL 30N		291.11	21	10	

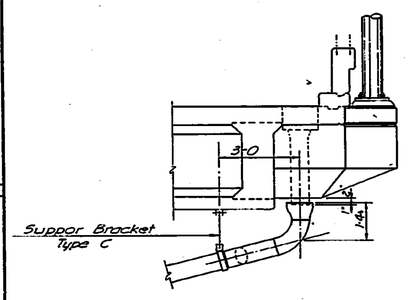
* SEE SPECIAL DETAIL



PLAN



VIEW A-A



SECTION B-B

DOWNSPOUT DETAIL
UNIT 24N PIER 107N RT

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.96
DOWNSPOUT SCHEDULE
I-35W VIADUCT

PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. OF	SCALE	APP'D
DESIGNED JA	DETAILED EES	QUANTITIES TRACED EES
DESIGN CK. JWH	DETAIL CK. JA	QUAN. CK. TRACE CK. JA

DIST. 5 SEDGWICK CO. ROLL 531

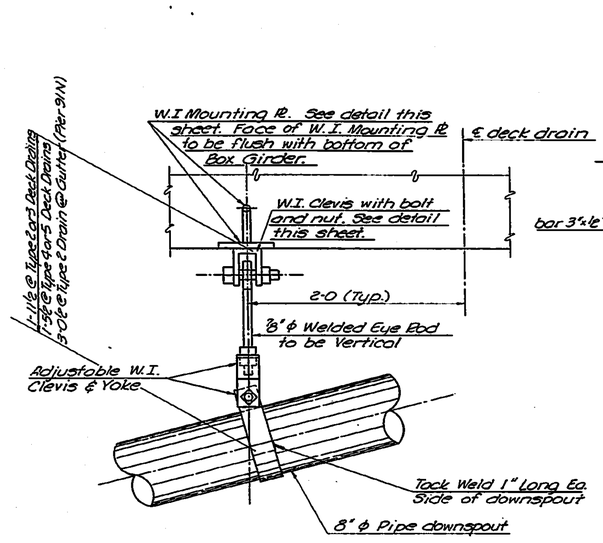
4 2 4

10X 16X 14.5X 12X 12X 14.5X 16X

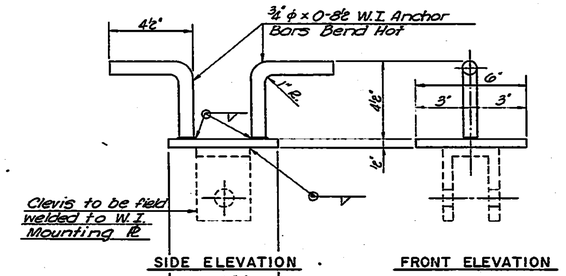
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W -1(58)48 Phase II & III	19	1997	2137

DOWNSPOUTS

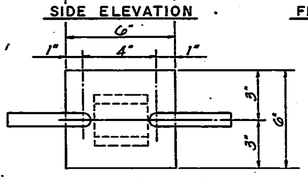
UNIT NO.	PIER NO.	COL NO.	STATION	ELEV. A	DIMENSIONS A FT.	A IN.	B FT.	B IN.	C FT.	C IN.	8IN. PIPE L.F.	SUPPORT BRACKETS TYPE A NO.	TYPE B NO.	TYPE C NO.
31N	137N	A	400+ 4.74	1307.87	13-	9 3/8	9-	7 3/4	3-	6 3/4	29.93	2	1	
31N	137N	C	400+ 4.74	1308.27	12-11	3/8	9-	7 3/4	3-	6 3/4	29.09	2	1	
31N	138N	A	400+79.29	1309.27	12-	5 7/8	9-	7 3/4	3-	6 3/4	28.63	2	1	
31N	138N	C	400+68.91	1308.47	12-10	1/8	9-	7 3/4	3-	6 3/4	28.99	2	1	
31N	139N	A	401+70.78	1309.47	12-	4 3/4	9-	7 3/4	3-	6 3/4	28.54	2	1	
31N	139N	C	401+60.82	1309.37	12-	1	9-	7 3/4	3-	6 3/4	28.23	2	1	
31N	140N	A	402+35.73	1308.47	13-	5 7/8	9-	7 3/4	3-	6 3/4	29.63	2	1	
31N	140N	C	402+35.73	1308.17	13-	5	9-	6 1/4	3-	6 3/4	29.44	2	1	
									SUBTOTAL 31N		232.48	16	8	
32N	141N	A	403+ 7.73	1308.97	13-	1	9-	7 3/4	3-	6 3/4	29.23	2	1	
32N	141N	C	403+ 7.73	1308.67	13-	0 1/8	9-	7 3/4	3-	6 3/4	29.15	2	1	
32N	142N	A	403+81.74	1308.97	13-	2 1/4	9-	7 3/4	3-	6 3/4	29.33	2	1	
32N	142N	C	403+81.74	1308.67	13-	1 1/4	9-	7 3/4	3-	6 3/4	29.25	2	1	
32N	143N	A	404+59.74	1308.57	13-	8 1/4	9-	7 3/4	3-	6 3/4	29.83	2	1	
32N	143N	C	404+59.74	1309.07	12-	9 3/4	9-	7 3/4	3-	6 3/4	28.96	2	1	
32N	144N	A	405+37.74	1308.37	13-11	7/8	9-	7 3/4	3-	6 3/4	30.13	2	1	
32N	144N	C	405+37.74	1309.27	12-	8 5/8	9-	7 3/4	1-	4	26.63	2	—	1
32N	145N	A	406+15.74	1308.27	14-	2 3/8	9-	7 3/4	3-	6 3/4	30.34	3	1	
32N	145N	C	406+15.74	1308.97	13-	1 3/8	9-	7 3/4	3-	6 3/4	29.26	2	1	
									SUBTOTAL 32N		292.11	21	9	1
33N	146N	A	406+87.74	1307.17	15-	4 5/8	9-	7 3/4	3-	6 3/4	31.53	3	1	
33N	146N	C	406+87.74	1308.97	13-	2 5/8	9-	7 3/4	3-	6 3/4	29.36	2	1	
33N	147N	A	407+57.49	1307.47	15-	2 1/4	9-	7 3/4	3-	6 3/4	31.33	3	1	
33N	147N	C	407+57.49	1308.87	13-	4 7/8	9-	7 3/4	3-	6 3/4	29.55	2	1	
33N	148N	A	408+44.49	1307.67	15-	1 1/8	9-	7 3/4	3-	6 3/4	31.24	3	1	
33N	148N	C	408+44.49	1308.97	13-	5 1/8	9-	7 3/4	3-	6 3/4	29.57	2	1	
33N	149N	C	409+14.74	1309.57	12-11		9-	7 3/4	3-	6 3/4	29.06	2	1	
									SUBTOTAL 33N		211.64	17	7	
34N	151N	C	410+63.31	1310.17	12-	2 3/4	9-	7 3/4	3-	6 3/4	28.37	2	1	
34N	152N	C	411+41.31	1309.97	12-	1 5/8	9-	7 3/4	3-	6 3/4	28.27	2	1	
34N	153N	C	412+19.31	1309.87	11-11	1/4	9-	7 3/4	3-	6 3/4	28.08	2	1	
34N	154N	C	412+97.31	1309.37	12-	1 1/2	9-	7 3/4	3-	6 3/4	28.26	2	1	
									SUBTOTAL 34N		112.98	8	4	
35N	155N	C	413+67.88	1309.37	11-10	1/8	9-	7 3/4	3-	6 3/4	27.99	2	1	
35N	156N	C	414+37.63	1309.97	11-	1 5/8	9-	7 3/4	3-	6 3/4	27.28	2	1	
35N	157N	C	415+29.13	1308.11	12-	2 7/8	9-	7 3/4	3-	6 3/4	28.38	2	1	
35N	158N	C	416+11.63	1307.97	11-	7 1/4	9-	7 3/4	3-	6 3/4	27.75	2	1	
									SUBTOTAL 35N		111.40	8	4	



SUPPORT BRACKET INSTALLATION

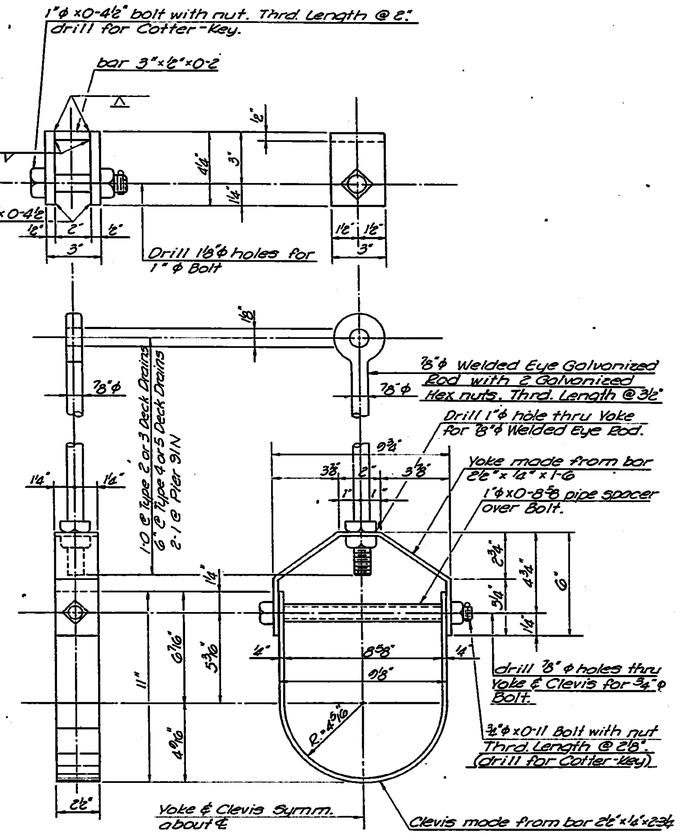


SIDE ELEVATION FRONT ELEVATION



PLAN

WROUGHT IRON MOUNTING PLATE DETAIL



SUPPORT BRACKET ASSEMBLY

SUPPORT BRACKET TYPE "C"

Notes: Work this sheet with downspout details.
Support Bracket Type C will not be paid for directly, but shall be included in the Unit Price bid for 8" round downspouts.
All Fillet Welds are ¼".
Steel nuts, bolts, pipe spacer and eye rod shall be Galvanized.
All parts of Bracket are Wrought Iron except bolts, nuts, pipe spacer & eye Rod.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.96
DOWNSPOUT SCHEDULE
I-35W VIADUCT

PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. OF	SCALE	APP'D	
DESIGNED JA	DETAILED EES	QUANTITIES	TRACED EES
DESIGN CK. JWH	DETAIL CK. JA	QUAN. CK.	TRACE CK. JA

DIST. 5 SEDGWICK CO. ROLL 531

4 2 5

16X 14.5X 12X 12X 14.5X 16X

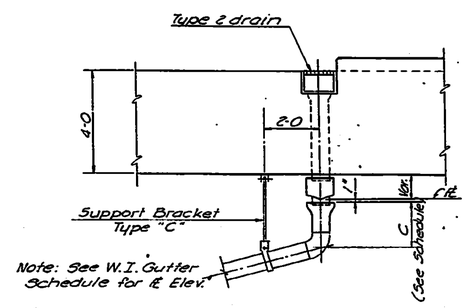
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W -1(58)48 Phase II & III	19	1998	2137

DOWNSPOUTS

UNIT NO.	PIER NO.	COL NO.	STATION	ELEV. A	DIMENSIONS A FT. IN.	DIMENSIONS B FT. IN.	DIMENSIONS C FT. IN.	8IN. PIPE L.F.	SUPPORT BRACKETS TYPE A NO.	SUPPORT BRACKETS TYPE B NO.	SUPPORT BRACKETS TYPE C NO.
0S			296+24.30	—	—	—	5- 6	5.50	—	2	
0S	00S	C	296+84.26	—	—	—	8- I	8.08	—	2	
0S	0S	C	297+62.26	1299.37	1- 3 1/4	9- 7 3/4	3- 6 3/4	17.41	1	1	
							SUBTOTAL 0S	30.99	1	5	
1S	1S	C	298+34.26	1299.37	2- 8	9- 7 3/4	3- 6 3/4	18.81	1	1	
1S	2S	C	299+ 0.02	1298.47	4-11 3/4	9- 7 3/4	3- 6 3/4	21.12	2	1	
1S	3S	C	299+87.02	1299.67	5- 6 1/8	9- 7 3/4	3- 6 3/4	21.65	2	1	
1S	4S	C	300+61.26	1299.87	6- 6 3/8	9- 7 3/4	3- 6 3/4	22.67	2	1	
							SUBTOTAL 1S	84.25	7	4	
2S	5S	C	301+29.27	1299.97	7- 6 3/8	9- 7 3/4	3- 6 3/4	23.67	2	1	
2S	6S	C	302+ 7.27	1299.77	8- 8 3/4	9- 7 3/4	3- 6 3/4	24.87	2	1	
2S	7S	C	302+85.27	1299.37	10- 1 1/4	9- 7 3/4	3- 6 3/4	26.25	2	1	
2S	8S	C	303+63.27	1298.97	11- 6 5/8	9- 7 3/4	3- 6 3/4	27.69	2	1	
							SUBTOTAL 2S	102.48	8	4	
3S	9S	C	304+37.02	1299.27	11- 0	9- 7 3/4	4- 6 3/4	28.14	2	1	
3S	10S	C	305+29.51	1298.17	11-10 7/8	—	—	39.69	2	1	1
3S	11S	A	306+27.96	1299.37	11-10 1/2	9- 7 3/4	4- 6 3/4	29.02	2	1	
3S	11S	B	306+35.01	1298.97	9- 9 3/4	15- 4 1/2	1- 4	29.46	2	—	1
3S	11S	C	306+42.06	1299.47	11- 0 3/4	9-10 1/4	3- 6 3/4	27.42	2	1	
3S	12S	A	307+17.51	1299.27	12- 0	9- 7 3/4	3- 7	28.17	2	1	
3S	12S	B	307+17.51	1299.37	11- 7 1/4	9- 7 3/4	4- 6 3/4	28.75	2	1	
3S	12SR		7+28.42	1299.17	10- 7 1/4	10- 8 1/8	4- 6 3/4	28.78	2	1	
							SUBTOTAL 3S	239.43	16	7	2
4S	13S	A	307+95.40	1298.77	13- 6 3/8	9- 7 3/4	3- 6 3/4	29.68	2	1	
4S	13S	B	307+95.40	1298.67	13- 1	9- 7 3/4	3- 6 3/4	29.23	2	1	
4S	14S	A	308+72.91	1297.97	14- 4 7/8	9- 7 3/4	3- 6 3/4	30.55	3	1	
4S	14S	B	308+72.91	1298.57	13- 6 5/8	9- 7 3/4	3- 6 3/4	29.70	2	1	
4S	15S	A	309+54.91	1298.27	14- 2 1/8	9- 7 3/4	3- 6 3/4	30.32	3	1	
4S	15S	B	309+54.91	1304.27	7-11 1/8	9- 7 3/4	3- 6 3/4	24.07	2	1	
4S	16S	A	310+36.91	1297.97	14- 6 5/8	9- 7 3/4	3- 6 3/4	30.70	3	1	
4S	16S	B	310+36.91	1301.37	10-10 7/8	9- 7 3/4	3- 6 3/4	27.05	2	1	
4S	17S	A	311+18.91	1297.97	14- 7 1/2	9- 7 3/4	3- 6 3/4	30.77	3	1	
4S	17S	B	311+18.91	1299.37	12-11 3/4	9- 7 3/4	3- 6 3/4	29.12	2	1	
4SR	13SR		8+ 4.42	1299.67	9- 8 3/8	10- 8 1/8	3- 6 3/4	26.88	2	1	
4SR	14SR		8+79.43	1299.67	9- 8 3/8	10- 8 1/8	3- 6 3/4	26.88	2	1	
							SUBTOTAL 4S	291.19	24	10	
							SUBTOTAL 4SR	53.76	4	2	
5S	18S	A	311+94.80	1300.47	12- 2 3/8	9- 7 3/4	3- 6 3/4	28.34	2	1	
5S	18S	B	311+94.80	1300.07	12- 4 1/8	9- 7 3/4	3- 6 3/4	28.49	2	1	
5S	19S	A	312+60.00	1300.47	12- 3 1/8	9- 7 3/4	3- 6 3/4	28.40	2	1	
5S	19S	B	312+67.68	1299.97	12- 6 1/4	9- 7 3/4	3- 6 3/4	28.66	2	1	
5S	20S	A	313+51.49	1300.47	12- 4	9- 7 3/4	3- 6 3/4	28.48	2	1	
5S	20S	B	313+59.17	1300.31	12- 3	9- 7 3/4	3- 6 3/4	28.39	3	1	
5S	21S	A	314+26.29	1300.57	12- 3 1/2	9- 7 3/4	3- 6 3/4	28.44	2	1	
5S	21S	B	314+26.29	1300.58	12- 0 3/8	9- 7 3/4	3- 6 3/4	28.18	2	1	
							SUBTOTAL 5S	227.38	17	8	
6S	22S	A	314+96.78	1300.17	12- 9 1/4	9- 7 3/4	3- 6 3/4	28.91	2	1	
6S	22S	B	314+96.78	1299.17	13- 6 1/4	9- 7 3/4	3- 6 3/4	29.66	2	1	
6S	23S	A	315+70.29	1299.97	13- 0 3/8	9- 7 3/4	3- 6 3/4	29.18	2	1	
6S	23S	B	315+70.29	1298.97	13- 9 3/8	9- 7 3/4	3- 6 3/4	29.93	2	1	
6S	24S	A	316+48.29	1300.47	12- 7 1/4	9- 7 3/4	3- 6 3/4	28.75	2	1	
6S	24S	B	316+48.29	1299.07	13- 9 1/8	9- 7 3/4	3- 6 3/4	29.90	2	1	
6S	25S	A	317+30.78	1300.47	12- 8 1/8	9- 7 3/4	3- 6 3/4	28.82	2	1	
6S	25S	B	317+30.78	1299.08	13- 9 3/4	9- 7 3/4	3- 6 3/4	29.96	2	1	
6S	26S	A	318+ 4.29	1300.97	12- 3	9- 7 3/4	3- 6 3/4	28.39	2	1	
6S	26S	B	318+ 4.29	1299.47	13- 6	9- 7 3/4	1- 4	27.41	2	—	1
							SUBTOTAL 6S	290.91	20	9	1
7S	27S	A	318+74.78	1300.97	12- 3 3/4	9- 7 3/4	3- 6 3/4	28.45	2	1	
7S	27S	B	318+74.78	1299.97	13- 0 5/8	9- 7 3/4	3- 6 3/4	29.20	2	1	
7S	28S	A	319+40.08	1300.97	12- 4 3/8	9- 7 3/4	3- 6 3/4	28.51	2	1	
7S	28S	B	319+47.66	1301.47	11- 7 1/2	9- 7 3/4	3- 6 3/4	27.77	2	1	
7S	29S	A	320+31.47	1301.17	12- 3	9- 7 3/4	3- 6 3/4	28.39	2	1	
7S	29S	B	320+39.15	1300.83	12- 4 1/8	9- 7 3/4	3- 6 3/4	28.49	2	1	
7S	30S	A	321+ 6.27	1301.77	11- 8 5/8	9- 7 3/4	3- 6 3/4	27.86	2	1	
7S	30S	B	321+ 6.27	1301.97	11- 3 1/4	9- 7 3/4	3- 6 3/4	27.41	2	1	
							SUBTOTAL 7S	226.08	16	8	
8S	31S	A	321+78.04	1301.97	11- 6 7/8	9- 7 3/4	3- 6 3/4	27.72	2	1	
8S	31S	B	321+78.04	1301.97	11- 3 7/8	9- 7 3/4	3- 6 3/4	27.47	2	1	
8S	32S	A	322+51.55	1301.97	11- 7 3/4	9- 7 3/4	3- 6 3/4	27.79	2	1	
8S	32S	B	322+51.55	1301.67	11- 8 3/8	9- 7 3/4	3- 6 3/4	27.84	2	1	
8S	33S	A	323+29.55	1301.77	11-11	9- 7 3/4	3- 6 3/4	28.06	2	1	
8S	33S	B	322+29.55	1301.57	11-10 3/8	9- 7 3/4	3- 6 3/4	28.01	2	1	
8S	34S	A	324+ 7.55	1301.67	12- 1	9- 7 3/4	3- 6 3/4	28.23	2	1	
8S	34S	B	324+ 7.55	1301.35	12- 1 7/8	9- 7 3/4	3- 6 3/4	28.30	2	1	
8S	35S	A	324+85.55	1301.77	12- 0 5/8	9- 7 3/4	3- 6 3/4	28.20	2	1	
8S	35S	B	324+85.55	1301.27	12- 3 3/4	9- 7 3/4	2- 7 3/4	27.54	2	1	
8SR	34SR		24+14.99	1300.34	6-10 1/4	10- 8 1/8	3- 6 3/4	24.03	2	1	
8SR	35SR		24+94.99	1300.67	9- 7 5/8	10- 8 1/8	3- 6 3/4	26.81	2	1	
							SUBTOTAL 8S	279.16	20	10	
							SUBTOTAL 8SR	50.84	4	2	

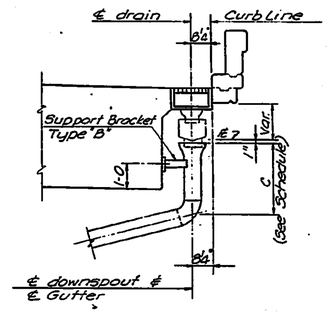
DOWNSPOUTS

UNIT NO.	PIER NO.	COL NO.	STATION	ELEV. A	DIMENSIONS A FT. IN.	DIMENSIONS B FT. IN.	DIMENSIONS C FT. IN.	8IN. PIPE L.F.	SUPPORT BRACKETS TYPE A NO.	SUPPORT BRACKETS TYPE B NO.	SUPPORT BRACKETS TYPE C NO.
9S	36S	A	325+57.31	1301.77	12- 1 1/2	9- 7 3/4	3- 6 3/4	28.27	2	1	
9S	36S	B	325+57.31	1301.47	12- 2 1/2	9- 6 3/4	2- 7	27.30	2	1	
9S	36SR		25+68.99	1300.67	11- 5 1/8	10- 8 1/8	3- 6 3/4	28.61	2	1	
9S	37S	A	326+22.26	1301.92	12- 0 9/8	9- 7 3/4	3- 6 3/4	28.18	2	1	
9S	37S	C	326+37.85	1300.97	12- 2 7/8	9-10 3/4	2- 7 3/4	27.72	2	1	
9S	38S	A	327+14.00	1302.11	11-11	9- 7 3/4	3- 6 3/4	28.06	2	1	
9S	38S	C	327+27.93	1301.87	11- 6 1/4	9- 5 3/4	2- 7 3/4	26.58	2	1	
9S	39S	A	327+88.80	1302.17	11-11 1/8	9- 7 3/4	3- 6 3/4	28.07	2	1	
9S	39S	C	327+88.80	1301.17	12- 4 1/8	9- 5 3/4	3- 6 3/4	28.32	2	1	
							SUBTOTAL 9S	251.11	18	9	
10S	40S	A	328+56.26	1302.07	12- 1	9- 7 3/4	1- 4	26.00	2	—	1
10S	40S	C	328+56.26	1301.27	12- 4 3/4	9- 6 1/4	1- 4	26.19	2	—	1
10S	41S	A	329+25.27	1301.77	12- 5 1/2	9- 7 3/4	3- 6 3/4	28.60	2	1	
10S	41S	C	329+25.27	1301.07	12- 9 1/8	9-10	3- 6 3/4	29.11	2	1	
10S	42S	A	329+98.27	1301.47	12- 9 7/8	9- 7 3/4	3- 6 3/4	28.96	2	1	
10S	42S	C	329+98.27	1301.77	12- 2 1/2	9- 9 3/8	3- 6 3/4	28.49	2	1	
10S	43S	A	330+71.02	1301.97	12- 5	9- 7 3/4	3- 6 3/4	28.56	2	1	
10S	43S	B	330+71.02	1301.57	12- 6 5/8	9- 8 3/4	3- 6 3/4	28.78	2	1	
10S	44S	A	331+44.02	1299.57	14-11 7/8	9- 7 3/4	3- 6 3/4	31.13	3	1	
10S	44S	B	331+44.02	1301.67	12- 7 5/8	9- 7 3/4	3- 6 3/4	28.78	2	1	
							SUBTOTAL 10S	284.60	21	8	2
11S	45S	A	332+10.73	1302.17	12- 7 1/4	9- 7 3/4	3- 6 3/4	28.75	2	1	
11S	45S	B	332+10.73	1301.87	12- 7 7/8	9- 7 3/4	3- 6 3/4	28.80	2	1	
11S	46S	A	332+67.93	1304.47	10- 6 3/8	9- 7 3/4	3- 6 3/4	26.68	2	1	
11S	46S	B	332+75.61	1304.27	10- 6 1/4	9- 7 3/4	3- 6 3/4	26.67	2	1	
11S	47S	B	333+58.10	1305.37	9- 9 3/4	9- 7 3/4	3- 6 3/4	25.96	2	1	
11S	48S	A	334+28.42	1303.23	12- 7 5/8	9- 7 3/4	3- 6 3/4	28.78	2	1	
11S	48S	B	334+36.10	1303.67	12- 0	9- 7 3/4	3- 6 3/4	28.14	2	1	
11S	49S	A	334+95.22	1303.57	12- 9 1/8	9- 7 3/4	3- 6 3/4	28.90	2	1	
11S	49S	B	334+95.22	1303.77	12- 3 5/8	9- 7 3/4	3- 6 3/4	28.45	2	1	
							SUBTOTAL 11S	251.13	18	9	
12S	50S	A	335+65.65	1303.27	13- 7 1/4	9- 7 3/4	3- 6 3/4	29.75	2	1	
12S	50S	B	335+65.65	1303.17	13- 5 1/2	9- 7 3/4	3- 6 3/4	29.60	2	1	
12S	51S	A	336+37.16	1302.77	14- 9 1/4	9- 7 3/4	3- 6 3/4	30.91	3	1	
12S	51S	B	336+37.16	1301.47	15- 9 3/4	9- 7 3/4	3- 6 3/4	31.96	3	1	
12S	52S	A	337+13.16	1302.77	15- 5 1/8	9- 7 3/4	3- 6 3/4	31.57	3	1	
12S	52S	B	337+13.16	1301.37	16- 6 7/8	9- 7 3/4	3- 6 3/4	32.72	3	1	
12S	53S	A	337+89.16	1302.57	16- 3 1/2	9- 7 3/4	3- 6 3/4	32.44	3	1	
12S	53S	B	337+89.16	1300.97	17- 7 3/4	9- 7 3/4	3- 6 3/4	33.79	3	1	
12S	54S	A	338+65.16	1302.97	16- 6 5/8	9- 7 3/4	3- 6 3/4	32.70	3	1	
12S	54S	B	338+65.16	1303.06	16- 2 5/8	9- 7 3/4	3- 6 3/4	32.36	3	1	
12S	55S	A	339+41.16	1302.97	17- 1 7/8	9- 7 3/4	3- 6 3/4	33.30	3	1	
12S	55S	B	339+41.16	1302.81	17- 0 3/4	9- 7 3/4	3- 6 3/4	33.21	3	1	
12S	56S	A	340+17.16	1302.97	17- 8	9- 7 3/4	3- 6 3/4	33.81	3	1	
12S	56S	B	340+17.16	1302.37	18- 0 1/4	9- 7 3/4	3- 6 3/4	34.16	3	1	
12SR	54SR		38+53.41	1303.37	7-10 3/8	10- 8 1/8	3- 6 3/4	25.04	2	1	
12SR	55SR		39+33.41	1302.57	12- 5 3/8	10- 8 1/8	3- 6 3/4	29.63	2	1	
12SR	56SR		40+13.41	1301.17	16- 8 5/8	10- 8 1/8	3- 6 3/4	33.90	3	1	
							SUBTOTAL 12S	452.28	40	14	
							SUBTOTAL 12SR	88.57	7	3	
13S	57S	A	340+88.59	1302.97	18- 0 3/4	9- 7 3/4	3- 6 3/4	34.21	3	1	
13S	57S	B	340+88.59	1302.56	18- 2 3/8	9- 6 3/4	3- 6 3/4	34.26	3	1	
13S	57SR		40+87.41	1301.37	18- 2 1/4	10- 8 1/8	3- 6 3/4	35.37	3	1	
13S	58S	A	341+58.34	1303.17	18- 2 1/8	9- 7 3/4	3- 6 3/4	34.32	3	1	
13S	58S	C	341+58.34	1301.57	19- 0 1/8	9-10 3/4	2- 7 3/4	34.49	3	1	
13S	59S	A	342+45.59	1303.27	18- 4 1/8	9- 7 3/4	3- 6 3/4	34.49	3	1	
13S	59S	C	342+45.59	1301.97	19- 0	9-10 1/2	3- 6 3/4	35.37	3	1	
13S	60S	A	343+15.84	1303.97	17- 9 3/8	9- 7 3/4	3- 6 3/4	33.93	3	1	
13S	60S	C	343+15.84	1303.77	17- 5	9-10	3- 6 3/4	33.75	3	1	
							SUBTOTAL 13S	310.19	27	9	
14S	61S	A	343+73.83	1302.87	18-11 1/4	9- 7 3/4	1- 4	32.85	3	—	1
14S	61S	C	343+73.83	1300.27	21- 0 1/2	9- 6 1/4	1- 4	34.84	3	—	1
14S	62S	A	344+23.88	1302.17	19- 7 3/4	9- 7 3/4	3- 6 3/4	35.79	3	1	
14S	62S	C	344+23.88	1302.87	18- 6 1/8	9- 9 1/2	3- 6 3/4	34.79	3	1	
14S	63S	A	344+92.88	1304.97	16- 9 3/8	9- 7 3/4	3- 6 3/4	32.93	3	1	
14S	63S	C	344+92.88	1305.37	16- 0	9- 8 1/2	3- 6 3/4	32.20	3	1	
14S	64S	A	345+61.88	1304.77	16-10 1/4	9- 7 3/4	3- 6 3/4	33.00	3	1	
14S	64S	C	345+61.88	1304.97	16- 3 3/8	9- 7 3/4	3- 6 3/4	32.43	3	1	
14S	65S	A	346+30.88	1304.77	16- 7 7/8	9- 7 3/4	3- 6 3/4	32.80	3	1	
14S	65S	C	346+30.88	1304.97	16- 0 7/8	9- 7 3/4	3- 6 3/4	32.22	3	1	
14S	66S	A	346+99.88	1305.37	15- 9 1/4	9- 7 3/4	3- 6 3/4	31.92	3	1	
14S	66S	C	346+99.88	1305.47	15- 3 1/2	9- 7 3/4	3- 6 3/4	31.44	3	1	
							SUBTOTAL 14S	397.21	36	10	2
15S	67S	A	347+63.91	1304.97	15-10 1/8	9- 7 3/4	3- 6 3/4	31.99	3	1	
15S	67S	C	347+63.91	1304.67	15- 9 1/4	9- 7 3/4	3- 6 3/4	31.91	3	1	
15S	68S	A	348+28.86	1304.57	15-10 1/8	9- 7 3/4	3- 6 3/4	31.99	3	1	
15S	68S	C	348+38.46	1304.00	15-11 3/4	9- 7 3/4	3- 6 3/4	32.12	3	1	
15S	69S	A	349+20.35	1303.97	15-10 1/8	9- 7 3/4	3- 6 3/4	31.99	3	1	
15S	69S	C	349+30.03	1303.88	15- 5 7/8	9- 7 3/4	3- 6 3/4	31.63	3	1	
15S	70S	A	349+94.90	1304.07	15- 2 3/4	9- 7 3/4	3- 6 3/4	31.37	3	1	
15S	70S	C	349+94.90	1301.97	16-10 5/8	9- 9 3/4	3- 6 3/4	33.20	3	1	
							SUBTOTAL 15S	256.23	24	8	

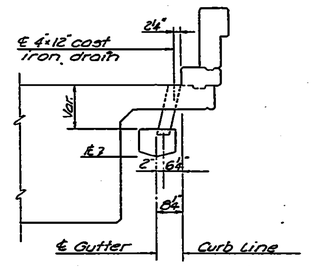


Note: See W.I. Gutter Schedule for ℄ Elev.

DETAIL OF GUTTER AND DOWNSPOUT
UNIT 21N, PIER 9IN
Scale: 3/8"=1-0



DETAIL OF GUTTER WITH DOWNSPOUT
Scale: 3/8"=1-0



DETAIL OF GUTTER AT 4" x 12" CAST IRON DRAIN
Scale: 1/2"=1-0

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.99
DOWNSPOUT SCHEDULE
I-35W VIADUCT

PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE	APP'D	
DESIGNED JA		DETAILED EES	QUANTITIES	TRACED EES
DESIGN CK. JWH		DETAIL CK. JA	QUAN. CK.	TRACE CK. JA

DIST. 5 SEDGWICK CO. ROLL 531

4 2 6

0X 16X 14.5X 12X 12X 14.5X 16X 2

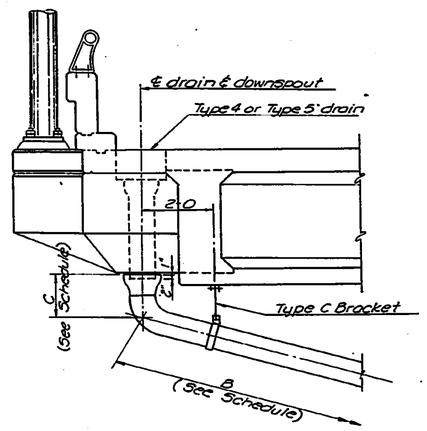
FHWA ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II & III	19	1999	2/37

DOWNSPOUTS

UNIT NO.	PIER NO.	COL NO.	STATION	ELEV. A	DIMENSIONS A FT.	DIMENSIONS A IN.	DIMENSIONS B FT.	DIMENSIONS B IN.	DIMENSIONS C FT.	DIMENSIONS C IN.	8IN. PIPE L.F.	SUPPORT BRACKETS TYPE A NO.	SUPPORT BRACKETS TYPE B NO.	SUPPORT BRACKETS TYPE C NO.
16S	71S	A	350+68.94	1304.27	14	6 1/8	9	7 3/4	3	6 3/4	30.65	3	1	
16S	71S	C	350+68.94	1301.77	16	4	10	1	3	6 3/4	32.92	3	1	
16S	72S	A	351+44.45	1304.27	13	11 7/8	9	7 3/4	3	6 3/4	30.13	2	1	
16S	72S	B	351+44.45	1301.57	16	5 1/4	9	7 3/4	3	6 3/4	32.58	3	1	
16S	72SR		51+49.98	1301.97	15	0 1/8	10	10 5/8	3	6 3/4	32.39	3	1	
16S	73S	A	352+24.45	1304.07	13	9 3/4	9	7 3/4	3	6 3/4	29.96	2	1	
16S	73S	B	352+24.45	1301.47	16	2	9	7 3/4	3	6 3/4	32.31	3	1	
16SR	73SR		52+30.97	1302.17	13	3 1/4	12	6 1/8	3	6 3/4	32.28	2	1	
16SR	74SR		53+ 5.73	1302.47	10	1 3/4	15	11 1/2	3	6 3/4	32.61	2	1	
									SUBTOTAL 16S		220.94	19	7	
									SUBTOTAL 16SR		64.89	4	2	
17S	74S	A	352+98.25	1303.67	14	0 3/8	9	7 3/4	3	6 3/4	30.18	3	1	
17S	74S	B	352+98.25	1302.97	13	11 7/8	9	7 3/4	3	6 3/4	30.18	2	1	
17S	75S	A	353+68.25	1304.07	13	7 3/4	9	7 3/4	2	7 3/4	28.87	2	1	
17S	75S	B	353+68.25	1302.37	15	1	9	7 3/4	2	7 1/4	30.27	3	1	
17S	76S	A	354+55.25	1304.47	13	4 1/8	9	7 3/4	3	6 3/4	29.49	2	1	
17S	76S	B	354+55.25	1302.67	14	10 3/4	9	7 3/4	3	6 3/4	31.04	3	1	
17S	77S	A	355+25.25	1304.37	13	8 3/8	9	7 3/4	3	6 3/4	29.84	2	1	
17S	77S	B	355+25.25	1303.27	14	6 1/2	9	7 3/4	3	6 3/4	30.69	3	1	
									SUBTOTAL 17S		240.52	20	8	
18S	78S	A	355+96.79	1304.27	14	1	9	7 3/4	3	6 3/4	30.23	3	1	
18S	78S	B	355+96.79	1303.67	14	5 1/4	9	7 3/4	3	6 3/4	30.58	3	1	
18S	79S	A	356+73.79	1304.67	14	0	9	7 3/4	3	6 3/4	30.14	2	1	
18S	79S	B	356+73.79	1303.87	14	6 1/2	9	7 3/4	1	4	28.46	3	—	1
18S	80S	A	357+50.79	1304.77	14	2 1/2	9	7 3/4	3	6 3/4	30.35	3	1	
18S	80S	B	357+50.79	1304.07	14	7 3/4	9	7 3/4	3	6 3/4	30.79	3	1	
									SUBTOTAL 18S		180.55	17	5	1
19S	81S	A	358+22.33	1304.87	14	3 7/8	9	7 3/4	3	6 3/4	30.47	3	1	
19S	81S	B	358+22.33	1304.27	14	8 1/8	9	7 3/4	3	6 3/4	30.82	3	1	
19S	82S	A	358+95.14	1305.67	13	7 7/8	9	7 3/4	3	6 3/4	29.80	2	1	
19S	82S	B	358+90.64	1305.48	13	7 1/8	9	7 3/4	3	6 3/4	29.74	2	1	
19S	83S	A	359+86.63	1307.97	11	4 1/2	9	7 3/4	3	6 3/4	27.52	2	1	
19S	83S	B	359+82.13	1309.77	9	3 7/8	9	7 3/4	3	6 3/4	25.47	2	1	
19S	84S	A	360+53.82	1304.77	14	5 7/8	9	7 3/4	3	6 3/4	30.63	3	1	
19S	84S	B	360+53.82	1303.97	15	0 3/8	9	7 3/4	3	6 3/4	31.18	3	1	
									SUBTOTAL 19S		235.63	20	8	
20S	85S	A	361+24.73	1304.87	14	2 1/4	9	7 3/4	3	6 3/4	30.33	3	1	
20S	85S	B	361+24.73	1303.77	15	0 3/8	9	7 3/4	3	6 3/4	31.18	3	1	
20S	86S	A	361+97.24	1304.77	13	11 7/8	9	7 3/4	3	6 3/4	30.13	2	1	
20S	86S	B	361+97.24	1303.37	15	1 5/8	9	7 3/4	3	6 3/4	31.28	3	1	
20S	87S	A	362+74.24	1304.37	14	1	9	7 3/4	3	6 3/4	30.23	3	1	
20S	87S	B	362+74.24	1303.07	15	1 5/8	9	7 3/4	3	6 3/4	31.28	3	1	
20S	88S	A	363+51.24	1304.67	13	5 3/4	9	7 3/4	3	6 3/4	29.62	2	1	
20S	88S	B	363+51.24	1302.87	15	0 1/4	9	7 3/4	3	6 3/4	31.17	3	1	
20S	89S	A	364+28.24	1304.97	12	10 1/2	9	7 3/4	3	6 3/4	29.02	2	1	
20S	89S	B	364+28.24	1303.07	14	6 1/4	9	7 3/4	3	6 3/4	30.67	3	1	
20S	90S	A	365+ 9.73	1304.87	12	8 7/8	9	7 3/4	3	6 3/4	28.88	2	1	
20S	90S	B	365+ 9.73	1303.97	13	4 5/8	9	7 3/4	3	6 3/4	29.53	2	1	
20S	91S	A	365+82.24	1305.57	11	10 1/2	9	7 3/4	3	6 3/4	28.02	2	1	
20S	91S	B	365+82.24	1304.77	12	5 1/8	9	6 3/4	2	7 3/4	27.57	2	1	
20SR	90SR		65+ 4.16	1302.87	12	11 3/8	10	8 1/8	3	6 3/4	30.13	2	1	
20SR	91SR		65+79.17	1300.87	15	2 5/8	10	8 1/8	3	6 3/4	32.40	3	1	
									SUBTOTAL 20S		418.91	35	14	
									SUBTOTAL 20SR		62.53	5	2	
21S	92S	A	366+53.15	1305.77	11	7 1/8	9	7 3/4	3	6 3/4	27.74	2	1	
21S	92S	C	66+49.31	1303.27	13	4 1/8	9	8 3/4	2	7 3/4	28.65	2	1	
21S	93S	A	367+18.35	1305.67	11	7 1/4	9	7 3/4	2	7 3/4	26.83	2	1	
21S	93S	C	367+30.41	1302.97	13	9	10	1	3	6 3/4	30.42	2	1	
21S	94S	A	368+ 9.84	1305.37	12	0 3/4	9	7 3/4	3	6 3/4	28.21	2	1	
21S	94S	C	368+19.85	1304.37	12	8 1/8	9	6 1/4	3	6 3/4	28.70	2	1	
21S	95S	A	368+84.39	1305.17	12	4 3/8	9	7 3/4	1	4	26.28	2	—	1
21S	95S	C	368+84.39	1305.17	11	11 7/8	9	7 3/4	1	4	25.90	2	—	1
									SUBTOTAL 21S		222.73	16	6	2
22S	96S	A	369+54.50	1304.97	12	7 7/8	9	7 3/4	3	6 3/4	28.80	2	1	
22S	96S	C	369+54.50	1304.57	12	8 1/8	9	7 3/4	3	6 3/4	28.82	2	1	
22S	97S	A	370+26.51	1304.87	12	10 1/4	9	7 3/4	3	6 3/4	29.00	2	1	
22S	97S	C	370+26.51	1304.77	12	6 7/8	9	7 3/4	3	6 3/4	28.72	2	1	
22S	98S	A	371+ 2.51	1305.07	12	9 1/8	9	7 3/4	3	6 3/4	28.90	2	1	
22S	98S	C	371+ 2.51	1306.17	11	3 1/4	9	7 3/4	3	6 3/4	27.42	2	1	
22S	99S	A	371+78.51	1305.67	12	3 1/8	9	7 3/4	3	6 3/4	28.40	2	1	
22S	99S	C	371+78.51	1305.57	11	11 7/8	9	7 3/4	3	6 3/4	28.13	2	1	
22S	100S	A	372+54.51	1305.97	12	0 5/8	9	7 3/4	3	6 3/4	28.20	2	1	
22S	100S	C	372+54.51	1305.97	11	8 1/4	9	7 3/4	3	6 3/4	27.83	2	1	
									SUBTOTAL 22S		284.22	20	10	
23S	101S	A	373+24.61	1306.07	12	0 1/2	9	7 3/4	3	6 3/4	28.19	2	1	
23S	101S	C	373+24.61	1306.17	11	6 7/8	9	7 3/4	3	6 3/4	27.72	2	1	
23S	102S	A	373+89.81	1307.20	11	0 1/8	9	7 3/4	3	6 3/4	27.15	2	1	
23S	102S	C	373+99.41	1306.27	11	6 7/8	9	7 3/4	3	6 3/4	27.72	2	1	
23S	103S	A	374+80.80	1306.97	11	4 1/8	9	7 3/4	3	6 3/4	27.49	2	1	
23S	103S	C	374+90.40	1305.97	11	11 7/8	9	7 3/4	3	6 3/4	28.13	2	1	
23S	104S	A	375+55.60	1307.37	11	0 1/2	9	7 3/4	3	6 3/4	27.19	2	1	
23S	104S	C	375+55.60	1306.47	11	6 7/8	9	7 3/4	3	6 3/4	27.72	2	1	
									SUBTOTAL 23S		221.31	16	8	

DOWNSPOUTS

UNIT NO.	PIER NO.	COL NO.	STATION	ELEV. A	DIMENSIONS A FT.	DIMENSIONS A IN.	DIMENSIONS B FT.	DIMENSIONS B IN.	DIMENSIONS C FT.	DIMENSIONS C IN.	8IN. PIPE L.F.	SUPPORT BRACKETS TYPE A NO.	SUPPORT BRACKETS TYPE B NO.	SUPPORT BRACKETS TYPE C NO.
24S	105S	A	376+25.80	1307.47	11	0 3/8	9	7 3/4	3	6 3/4	27.18	2	1	
24S	105S	C	376+25.80	1307.17	10	11 5/8	9	7 3/4	3	6 3/4	27.11	2	1	
24S	106S	A	376+99.81	1307.27	11	4 1/8	9	7 3/4	3	6 3/4	27.49	2	1	
24S	106S	C	376+99.81	1307.77	10	5 5/8	9	7 3/4	1	4	24.38	2	—	1
24S	107S	A	377+77.81	1307.27	11	5 3/8	9	7 3/4	3	6 3/4	27.59	2	1	
24S	107S	C	377+77.81	1307.47	10	10 1/2	9	7 3/4	3	6 3/4	27.02	2	1	
24S	108S	A	378+55.81	1307.47	11	4 1/8	9	7 3/4	3	6 3/4	27.49	2	1	
24S	108S	C	378+55.81	1306.47	11	11 1/2	9	7	3	6 3/4	28.04	2	1	
									SUBTOTAL 24S		216.52	16	7	1
25S	109S	A	379+26.00	1307.57	11	4 1/8	9	7 3/4	3	6 3/4	27.49	2	1	
25S	109S	C	379+26.00	1305.57	12	10 3/4	9	6 1/2	3	6 3/4	28.94	2	1	
25S	110S	A	379+95.75	1307.47	11	6 3/8	9	7 3/4	3	6 3/4	27.68	2	1	
25S	110S	C	380+ 0.24	1304.97	13	2 5/8	SEE DETAILS		—		40.53	2	1	1
25S	111S	A	380+82.50	1306.07	13	0 1/2	9	7 3/4	3	6 3/4	29.19	2	1	
25S	111S	B	380+82.50	1305.87	11	7	12	7 3/4	1	4	28.50	2	—	1
25S	112S	A	381+52.75	1305.97	13	3	9	7 3/4	3	6 3/4	29.39	2	1	
25S	112S	B	381+52.75	1305.67	13	3 1/2	9	7 3/4	3	6 3/4	29.44	2	1	
25S	112SR		81+53.20	1304.47	13	0 3/4	11	10 5/8	3	6 3/4	31.45	2	1	
									SUBTOTAL 25S		272.61	18	8	2
26S	113S	A	382+21.34	1306.07	13	2 7/8	9	7 3/4	3	6 3/4	29.38	2	1	
26S	113S	B	382+21.34	1305.87	13	2 1/4	9	7 3/4	3	6 3/4	29.33	2	1	
26S	114S	A	382+95.34	1306.37	13	0 1/4	9	7 3/4	3	6 3/4	29.17	2	1	
26S	114S	B	382+95.34	1305.57	13	6 7/8	9	7 3/4	3	6 3/4	29.72	2	1	
26S	115S	A	383+69.34	1306.57	12	11 1/8	9	7 3/4	3	6 3/4	29.07	2	1	
26S	115S	B	383+69.34	1309.97	9	3 1/4	9	7 3/4	3	6 3/4	25.42	2	1	
26S	116S	A	384+47.83	1306.87	12	8 3/4	9	7 3/4	3	6 3/4	28.87	2	1	
26S	116S	B	384+47.83	1310.17	9	2 1/8	9	7 3/4	3	6 3/4	25.32	2	1	
26S	117S	A	385+21.83	1307.27	12	5 1/8	9	7 3/4	3	6 3/4	28.57	2	1	
26S	117S	B	385+21.83	1305.87	13	6 7/8	9	7 3/4	3	6 3/4	29.72	2	1	
26S	118S	A	385+91.34	1307.67	12	1 3/8	9	7 3/4	3	6 3/4	28.26	2	1	
26S	118S	B	385+91.34	1306.67	12	10 3/8	9	7 3/4	3	6 3/4	29.01	2	1	
26SR	113SR		82+27.20	1303.77	12	3 7/8	13	3 5/8	3	6 3/4	32.12	2	1	
26SR	114SR		83+ 6.95	1304.51	9	0 3/4	14	9 7/8	3	6 3/4	30.38	2	1	
									SUBTOTAL 26S		341.84	24	12	
									SUBTOTAL 26SR		62.50	4	2	
27S	119S	A	386+58.94	1307.87	12	4 7/8	9	7 3/4	3	6 3/4	28.55	2	1	
27S	119S	B	386+58.94	1307.47	11	9 1/8	9	7 3/4	3	6 3/4	27.90	2	1	
27S	120S	A	387+16.14	1307.37	12	7	9	7 3/4	3	6 3/4	28.73	2	1	
27S	120S	B	387+23.82	1307.37	12	4 1/8	9	7 3/4	3	6 3/4	28.49	2	1	
27S	121S	A	387+98.63	1310.43	9	7 1/2	9	7 3/4	3	6 3/4	25.77	2	1	
27S	121S	B	388+ 6.31	1310.20	9	7 3/8	9	7 3/4	3	6 3/4	25.76	2	1	
27S	122S	A	388+76.63	1307.97	12	2 3/8	9	7 3/4	3	6 3/4	28.34	2	1	
27S	122S	B	388+84.31	1306.97	12	11 1/2	9	7 3/4	3	6 3/4	29.10	2	1	
27S	123S	A	389+43.43	1307.57	12	8 1/8	9	7 3/4	3	6 3/4	28.82	2	1	
27S	123S	B	389+43.43	1306.97	13	0 1/4	9	7 3/4	3	6 3/4	29.17	2	1	
									SUBTOTAL 27S		280.63	20	10	
28S	124S	A	390+14.84	1307.37	12	11 3/4	9	7 3/4	3	6 3/4	29.12	2	1	
28S	124S	B	390+14.84	1306.87	13	2 3/4	9	7 3/4	3	6 3/4	29.37	2	1	
28S	125S	A	390+89.35	1307.67	12	9 1/4	9	7 3/4	3	6 3/4	28.92	2	1	
28S	125S	B	390+89.35	1306.57	13	7 1/2	9	7 3/4	3	6 3/4	29.77	2	1	
28S	126S	A	391+68.35	1308.17	12	4 5/8	9	7 3/4	3	6 3/4	28.53	2	1	
28S	126S	B	391+68.35	1308.17	12	1 5/8	9	7 3/4	3	6 3/4	28.28	2	1	
28S	127S	A	392+51.84	1306.27	14	4 5/8	9	7 3/4	3	6 3/4	30.53	3	1	
28S	127S	B	392+51.84	1305.67	14	8 7/8	9	7 3/4	3	6 3/4	30.88	3	1	
28S	128S	A	393+26.35	1306.97	13	9 3/8	9	7 3/4	3	6 3/4	29.93	2	1	
28S	128S	B	393+26.35	1305.77	14	8 7/8	9	7 3/4	3	6 3/4	30.88	3	1	
28S	129S	A	394+ 5.35	1307.47	13	4 3/4	9	7 3/4	3	6 3/4	29.54	2	1	
28S	129S	B	394+ 5.35	1305.77	14	10 1/8	9	7 3/4	3	6 3/4	30.99	3	1	
28SR	128SR		93+27.24	1304.97	10	1 1/4	10	8 1/8	3	6 3/4	27.28	2	1	
28SR	129SR		94+ 2.25	1303.67	14	2 3/4	10	8 1/8	3	6 3/4	31.41	3	1	
									SUBTOTAL 28S		356.74	28	12	
									SUBTOTAL 28SR		58.69	5	2	
29S	130S	A	394+82.24	1307.87	13	1 1/8	9	7 3/4	3	6 3/4	29.24	2	1	
29S	130S	B	394+82.24	1305.77	14	11	9	8 3/4	2	7 3/4	30.23	3	1	
29S	130SR		94+81.24	1303.97	15	5 3/4	10	8 1/8	3	6 3/4	32.66	3	1	
29S	131S	A	395+47.50	1307.87	13	2 1/4	9	7 3/4	3	6 3/4	29.33	2	1	
29S	131S	C	395+47.50	1304.77	15	6 1/4	9	9 3/4	2	7 3/4	30.92	3	1	
29S	132S	A	396+34.75	1307.67	13	6	9	7 3/4	3	6 3/4	29.64	2	1	
29S	132S	C	396+34.75	1304.47	16	0 3/8	9	9 3/4	3	6 3/4	32.35	3	1	
29S	133S	A	397+ 4.75	1307.24	14	0 1/4	9	7 3/4	3	6 3/4	30.16	3	1	
29S	133S	C	397+ 4.75	1304.47	16	2 3/4	9	9 3/4	3	6 3/4	32.54	3	1	
									SUBTOTAL 29S		277.07	24	9	
30S	134S	A	397+75.00	1306.97	14	4 1/2	9	7 3/4	1	4	28.29	3	—	1
30S	134S	C	397+75.00	1304.47	16	4 3/4	9	6 1/4	1	4	30.19	3	—	1
30S	135S	A	398+42.01	1307.97	13	5 3/4	9	7 3/4	3	6 3/4	29.62	2	1	
30S	135S	C	398+42.01	1304.67	16	4 1/2	9	9 1/2	3	6 3/4	32.66	3	1	
30S	136S	A	399+13.01	1307.97	13	6 3/4	9	7 3/4	3	6 3/4	29.71	2	1	
30S	136S	C	399+13.01	1305.17	16	0 5/8	9	9 1/2	3	6 3/4	32.34	3	1	
30S	137S	A	399+83.76	1307.97	13	7 7/8	9	7 3/4	3	6 3/4	29.80	2	1	
30S	137S	B	399+83.76	1304.97	16	4 3/4	9	7 3/4	3	6 3/4	32.54	3	1	
									SUBTOTAL 30S		245.15	21	6	2



DOWNSPOUT DETAIL AT CANTILEVER AND OVERHEAD SIGN BRACKET

At Piers 9N, 50N, 67N, 85N, 144N, 265, 405, 615, 705, 955 1065, 1345 and 1495

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.99
DOWNSPOUT SCHEDULE
I-35W VIADUCT

PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE	APP'D	
DESIGNED JA		DETAILED EES	QUANTITIES	TRACED EES
DESIGN CK. JWH		DETAIL CK. JA	QUAN. CK.	TRACE CK. JA

DIST. 5 SEDGWICK CO. ROLL 531

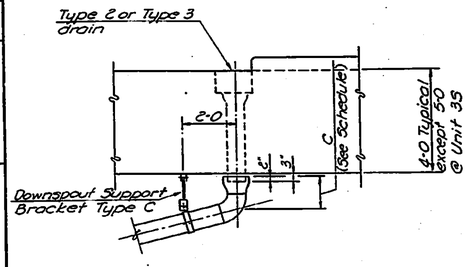
4 2 7

0X 16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W -1(58)SD Phase II & III	19	2000	2137

DOWNSPOUTS

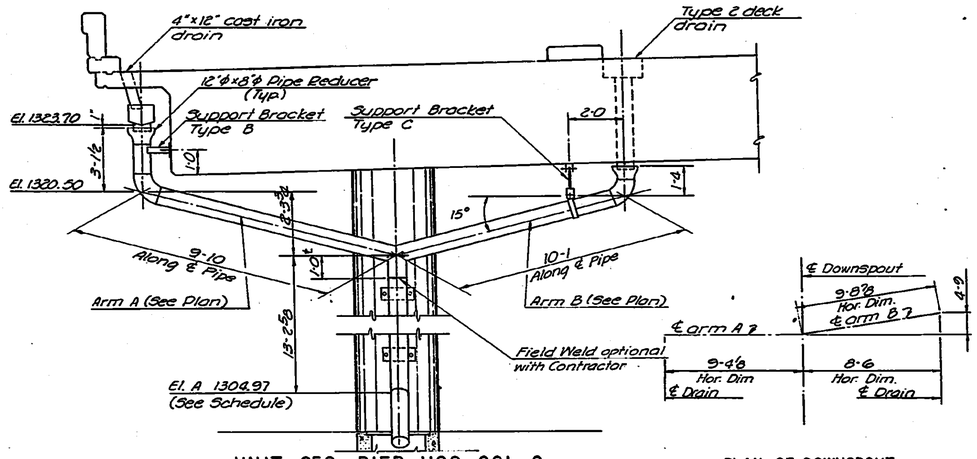
UNIT NO.	PIER NO.	COL NO.	STATION	ELEV. A	DIMENSIONS A FT. IN.	DIMENSIONS B FT. IN.	DIMENSIONS C FT. IN.	BIN. PIPE L.F.	SUPPORT BRACKETS TYPE A NO.	SUPPORT BRACKETS TYPE B NO.	SUPPORT BRACKETS TYPE C NO.
31S	138S	A	400+49.77	1308.27	13- 5 3/8	9- 7 3/4	3- 6 3/4	29.59	2	1	
31S	138S	B	400+49.77	1305.57	15-10 3/4	9- 7 3/4	3- 6 3/4	32.04	3	1	
31S	139S	A	401+14.97	1308.47	13- 4	9- 7 3/4	3- 6 3/4	29.48	2	1	
31S	139S	B	401+22.65	1306.97	14- 7 1/8	9- 7 3/4	3- 6 3/4	30.74	3	1	
31S	140S	A	402+ 6.46	1308.67	13- 3	9- 7 3/4	3- 6 3/4	29.39	2	1	
31S	140S	B	402+14.14	1307.97	13- 8 1/2	9- 7 3/4	3- 6 3/4	29.85	2	1	
31S	141S	A	402+81.26	1307.97	14- 0 1/2	9- 7 3/4	3- 6 3/4	30.19	3	1	
31S	141S	B	402+81.26	1307.57	14- 2 3/8	9- 7 3/4	3- 6 3/4	30.34	3	1	
							SUBTOTAL 31S	241.62	20	8	
32S	142S	A	403+53.26	1309.17	12-11 3/8	9- 7 3/4	3- 6 3/4	29.09	2	1	
32S	142S	B	403+53.26	1309.07	12- 9 1/2	9- 7 3/4	3- 6 3/4	28.94	2	1	
32S	143S	A	404+26.77	1309.97	12- 3	9- 7 3/4	3- 6 3/4	28.39	2	1	
32S	143S	B	404+26.77	1310.47	11- 6	9- 7 3/4	3- 6 3/4	27.64	2	1	
32S	144S	A	405+ 4.77	1308.37	13-11 3/8	9- 7 3/4	3- 6 3/4	30.09	2	1	
32S	144S	B	405+ 4.77	1308.27	13- 9 1/2	9- 7 3/4	3- 6 3/4	29.94	2	1	
32S	145S	A	405+82.77	1308.37	14- 0 1/2	9- 7 3/4	3- 6 3/4	30.19	3	1	
32S	145S	B	405+82.77	1307.97	14- 2 3/8	9- 7 3/4	3- 6 3/4	30.34	3	1	
32S	146S	A	406+60.77	1308.37	14- 1 7/8	9- 7 3/4	3- 6 3/4	30.30	3	1	
32S	146S	B	406+60.77	1307.97	14- 3 5/8	9- 7 3/4	3- 6 3/4	30.45	3	1	
							SUBTOTAL 32S	295.37	24	10	
33S	147S	A	407+32.77	1308.37	14- 3	9- 7 3/4	3- 6 3/4	30.39	3	1	
33S	147S	B	407+32.77	1307.87	14- 6	9- 7 3/4	3- 6 3/4	30.64	3	1	
33S	148S	A	408+ 7.26	1308.17	14- 6 3/8	9- 7 3/4	3- 6 3/4	30.68	3	1	
33S	148S	B	408+ 7.26	1307.47	14-11 7/8	9- 7 3/4	3- 6 3/4	31.13	3	1	
33S	149S	B	408+89.77	1307.07	15- 6 1/8	9- 7 3/4	1- 4	29.42	3	—	1
33S	150S	A	409+59.77	1306.97	15-10 1/8	9- 7 3/4	3- 6 3/4	31.99	3	1	
33S	150S	B	409+59.77	1307.27	15- 7	9- 7 3/4	3- 6 3/4	31.73	3	1	
							SUBTOTAL 33S	215.98	21	6	1
34S	151S	A	410+31.31	1306.97	15- 9 5/8	9- 7 3/4	3- 6 3/4	31.95	3	1	
34S	152S	A	411+ 9.31	1306.97	15- 8 3/4	9- 7 3/4	3- 6 3/4	31.87	3	1	
34S	153S	A	411+87.31	1307.27	15- 2 1/8	9- 7 3/4	3- 6 3/4	31.31	3	1	
34S	154S	A	412+65.31	1307.97	14- 2 3/8	9- 7 3/4	3- 6 3/4	30.34	3	1	
34S	155S	A	413+43.31	1308.47	13- 5 1/8	9- 7 3/4	3- 6 3/4	29.57	2	1	
							SUBTOTAL 34S	155.04	14	5	
35S	156S	A	414+14.85	1309.27	12- 4 1/2	9- 7 3/4	3- 6 3/4	28.52	2	1	
35S	157S	A	414+84.85	1310.37	11- 0 1/4	9- 7 3/4	3- 6 3/4	27.16	2	1	
35S	158S	A	415+76.34	1308.47	12- 7 1/4	9- 7 3/4	3- 6 3/4	28.75	2	1	
35S	159S	A	416+46.34	1308.47	12- 3 5/8	9- 7 3/4	3- 6 3/4	28.45	2	1	
							SUBTOTAL 35S	112.88	8	4	
36S	160S	A	417+22.34	1308.47	11-10	9- 7 3/4	3- 6 3/4	27.98	2	1	
36S	161S	A	418+04.34	1308.47	11- 2	9- 7 3/4	3- 6 3/4	27.31	2	1	
36S	162S	A	418+86.34	1308.47	10- 3 3/4	9- 7 3/4	3- 6 3/4	26.46	2	1	
36S	163S	A	419+68.34	1310.17	7- 7 1/8	9- 7 3/4	3- 6 3/4	23.74	2	1	
36S	164S	A	420+45.85	1310.37	6- 2 1/4	9- 7 3/4	3- 6 3/4	22.33	2	1	
							SUBTOTAL 36S	127.82	10	5	



DOWNSPOUT DETAILS AT TYPE 2 AND TYPE 3 DRAINS

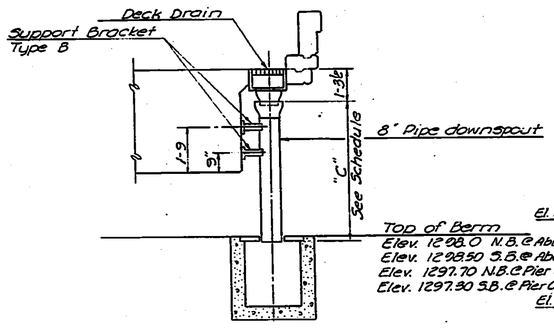
Type 2 (Piers 111S, 37N, 58N, 92N, 129N)

Type 3 (Pier 115)



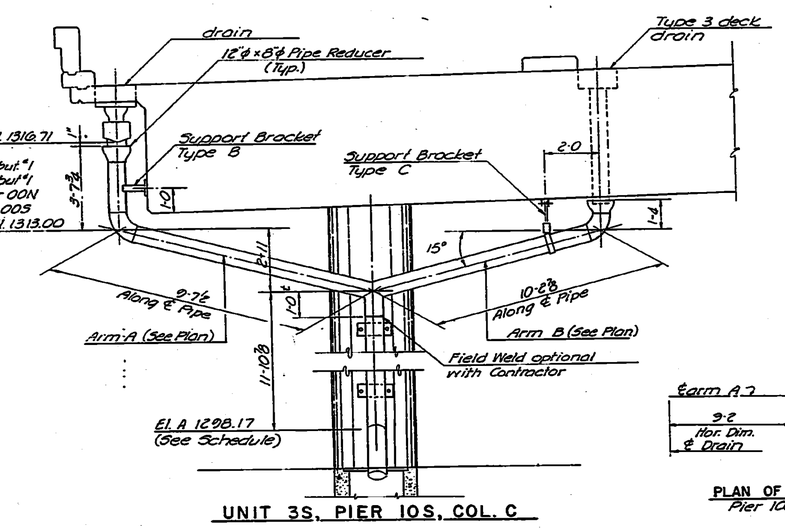
UNIT 2S, PIER 110S, COL. C

PLAN OF DOWNSPOUT
Pier 110S Col. C

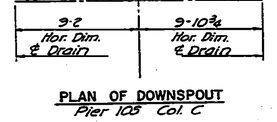


DETAIL OF DOWNSPOUTS NEAR ABUTS. 0S & 0N

Sta. 295+80.30 Lt. ℄ Constr. N.B.
Sta. 296+24.30 Lt. ℄ Constr. S.B.
Sta. 296+40.26 Lt. ℄ Constr. N.B.
Sta. 296+84.26 Lt. ℄ Constr. S.B.



UNIT 3S, PIER 10S, COL. C



PLAN OF DOWNSPOUT
Pier 10S Col. C

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.99
DOWNSPOUT SCHEDULE
I-35W VIADUCT

PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE	APP'D	
DESIGNED JA		DETAILED EES	QUANTITIES	TRACED EES
DESIGN CK. JWH		DETAIL CK. JA	QUAN. CK.	TRACE CK. JA

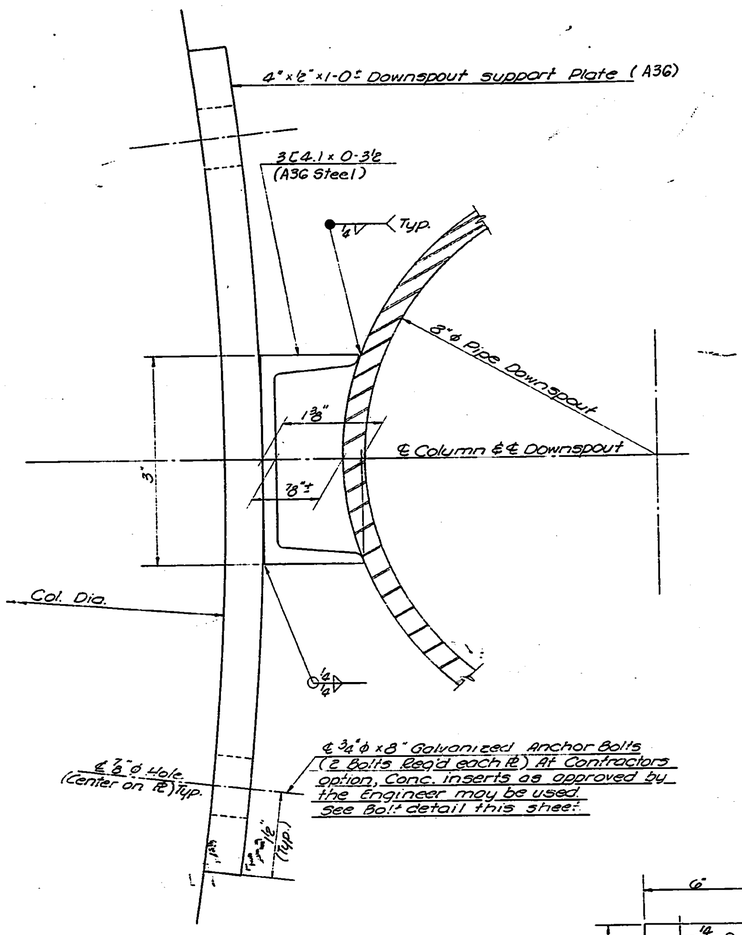
DIST. 5 SEDGWICK CO. ROLL 531

4 2 8

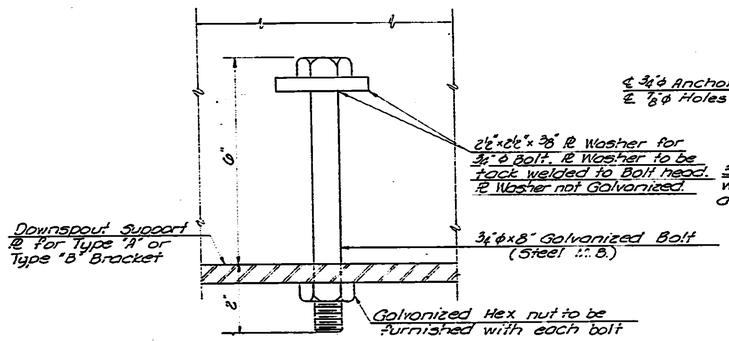
0X 16X 14.5X 12X 12X 14.5X 16X

OFFICE COPY

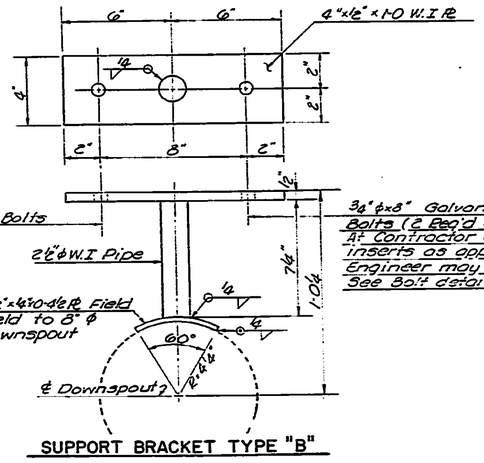
FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35-87-I 35W 1(58)48 Phase II & III	19	2001	2137



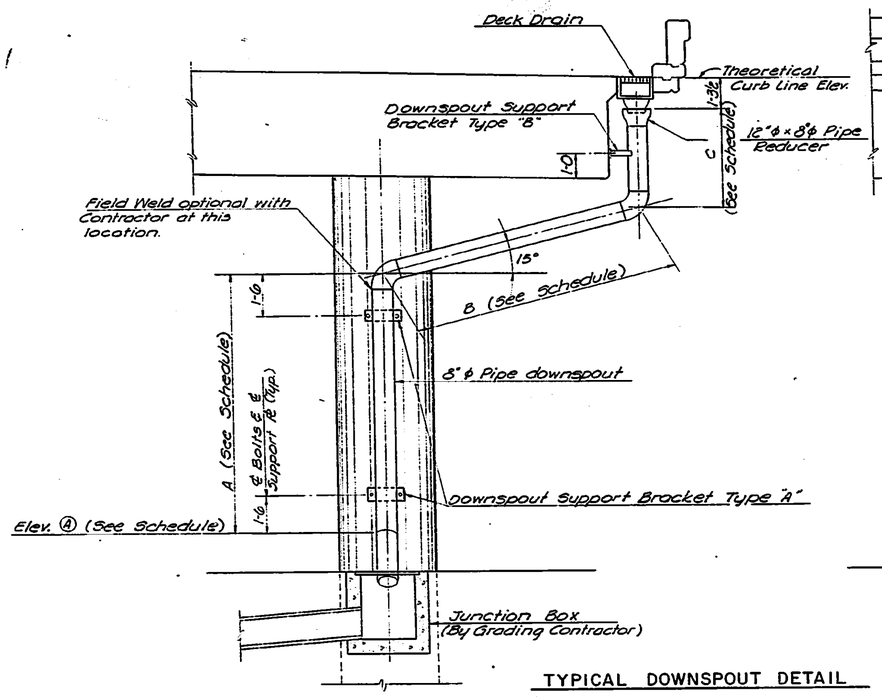
SUPPORT BRACKET TYPE "A"



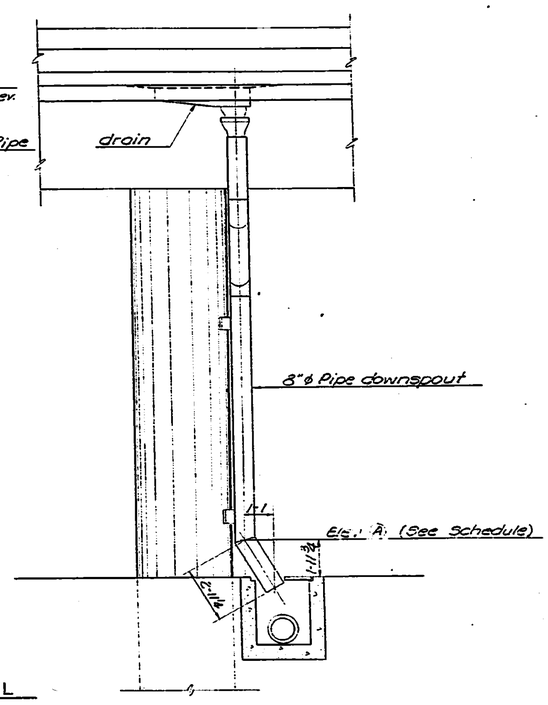
ANCHOR BOLT

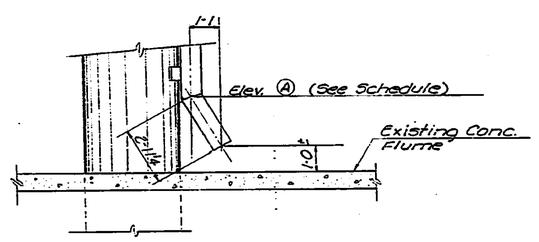


SUPPORT BRACKET TYPE "B"

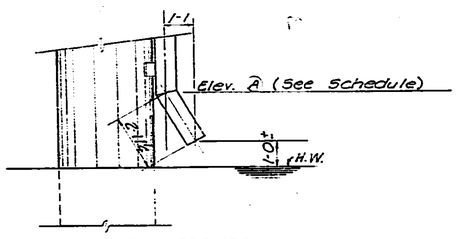


TYPICAL DOWNSPOUT DETAIL





PIER NO. 37N
COL. A, B & C



PIERS NO. 158S, 159S, 160S, 161S & 162S

DOWNSPOUT DETAILS

Note: Downspout support brackets and all appurtenances will not be paid for directly, but shall be included in the unit Price bid for 8" Pipe Downspout. All Butt Welds between piped fittings are single 75° V-Groove Welds. The reducer at the top of the Downspout shall be placed concentric with the outlet from the Deck Drain.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
DOWNSPOUT DETAILS
I-35W VIADUCT
WATERMAN TO EIGHTEENTH ST.
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE	APP'D	
DESIGNED		DETAILED EEE	QUANTITIES	TRACED EEE
DESIGN CK.		DETAIL CK.	QUANL CK.	TRACE CK.

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

4 2 9

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase II & III	19	2002	2137

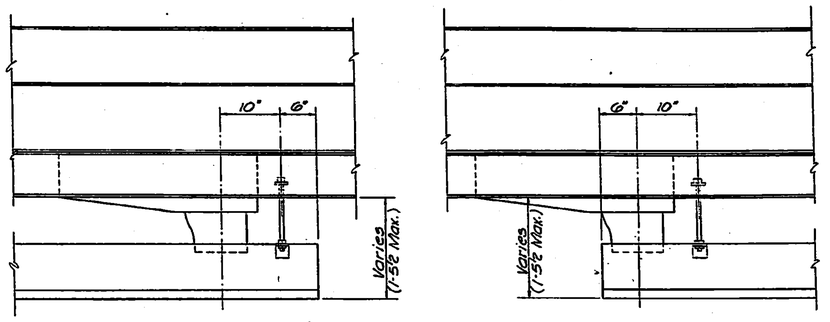
WROUGHT IRON GUTTER SCHEDULE

SOUTHBOUND

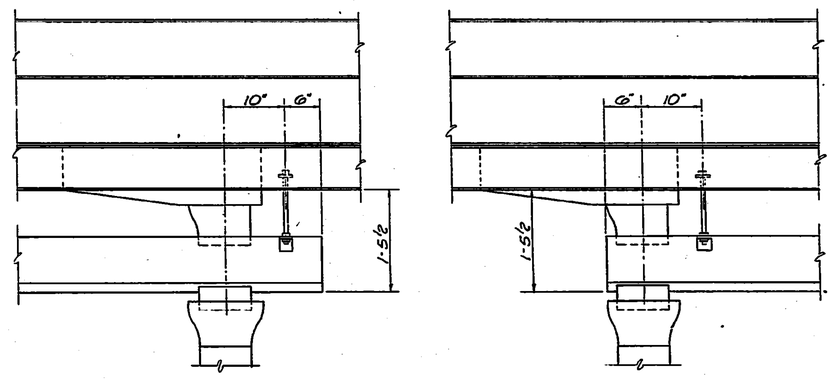
UNIT	LOCATION	ELEVATION AND SLOPE A	SL.(%)	B	SL.(%)	C	LIN. FT. GUTTER
3S	305+29.51 to 305+60.00 Lt.	1316.76	0.10	1316.73			32.49
	306+00.70 to 306+42.06 Lt.	1316.77	0.10	1316.73			42.70
	306+06.00 to 307+17.51 Rt.	1317.49	0.10	1317.46			33.34
					Sub	Total 3S	108.53
8S	324+85.56 to 325+45.56 Lt.	1318.86	0.10	1318.80			62.00
					Sub	Total 8S	62.00
9S	325+57.31 to 325+97.32 Lt.	1318.57	-0.10	1318.83			42.00
	326+37.65 to 326+97.00 Lt.	1318.56	-0.27	1318.41			60.98
	327+27.93 to 327+58.00 Lt.	1318.69	0.24	1318.61			31.07
					Sub	Total 9S	134.05
13S	341+58.34 to 342+06.33 Lt.	1326.01	0.62	1325.71			40.83
					Sub	Total 13S	40.83
17S	353+32.26 to 353+68.25 Rt.	1322.55	0.10	1322.51			37.16
	353+32.26 to 353+68.25 Lt.	1322.65	0.10	1322.61			37.16
					Sub	Total 17S	74.32
20S	365+82.24 to 366+27.00 Lt.	1322.35	0.10	1322.31			46.59
					Sub	Total 20S	46.59
21S	66+51.00 Ramp "N" 366+94.00 Lt.	1321.96	0.34	1321.81			41.83
	366+73.16 to 367+43.35 Rt.	1322.63	0.10	1322.58	-0.20	1322.63	71.53
					Sub	Total 21S	113.36
C5S	379+40.27 to 380+75.24 Lt.	1323.78	0.13	1323.70	0.10	1323.78	136.30
					Sub	Total C5S	136.30
29S	394+82.24 to 395+14.75 Lt.	1325.92	0.10	1325.88			34.34
	395+47.50 to 395+77.51 Lt.	1325.59	0.31	1325.50			31.84
					Sub	Total 29S	66.18

NORTHBOUND

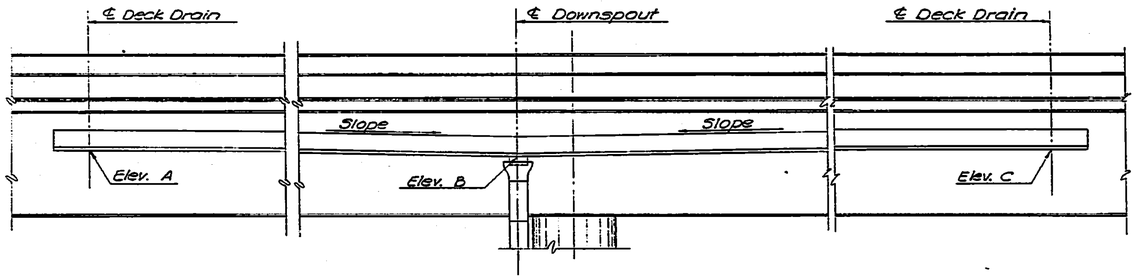
UNIT	LOCATION	ELEVATION AND SLOPE A	SL.(%)	B	SL.(%)	C	LIN. FT. GUTTER
0N	326+67.80 to 327+10.00 Rt.	1318.77	-0.25	1318.66			43.20
					Sub	Total 0N	43.20
15N	349+10.00 to 349+50.00 Rt.	1324.44	1.18	1323.97			41.83
					Sub	Total 15N	41.83
17N	353+32.00 to 353+68.00 Rt.	1322.65	0.12	1322.62	+0.10	1322.64	37.33
	353+32.00 to 353+68.00 Lt.	1322.90	0.12	1322.87	+0.10	1322.89	37.33
					Sub	Total 17N	74.66
21N	366+07.99 to 366+43.00 Rt.	1319.54	0.10	1319.50			36.00
	366+65.00 to 367+10.00 Lt.	1322.59	0.27	1322.55	0.10	1322.58	46.34
	366+70.51 to 367+31.00 Rt.	1322.16	0.21	1322.03			61.49
	367+31.00 to 367+74.23 Lt.	1322.65	0.10	1322.61			45.28
	367+63.66 to 368+00.00 Rt.	1322.25	0.23	1322.17			37.34
					Sub	Total 21N	226.45
24N	378+12.67 to 378+60.00 Rt.	1323.54	0.10	1323.49			40.33
					Sub	Total 24N	40.33
25N	378+95.00 to 379+44.75 Rt.	1323.54	0.10	1323.49			50.92
	379+65.00 to 380+31.50 Rt.	1323.57	0.10	1323.50			67.67
					Sub	Total 25N	118.59
3N	306+52.00 to 306+73.51 Rt.	1317.11	0.10	1317.13			23.34
					Sub	Total 3N	23.34



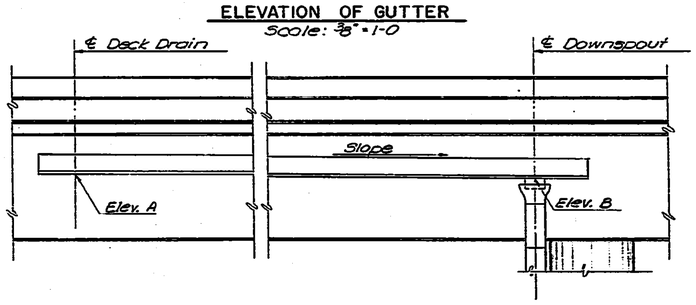
ELEVATION AT BEGINNING OF GUTTER
Scale: 1"=1-0



ELEVATION AT END OF GUTTER
Scale: 1"=1-0



ELEVATION OF GUTTER
Scale: 3/8"=1-0



ELEVATION OF GUTTER
Scale: 3/8"=1-0

Note: Gutter ℄ Elev. is at center line of deck drain and center line of downspout. See Schedule for Elev. A, B, C and Slope.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
GUTTER DETAILS
I-35W VIADUCT
WATERMAN TO EIGHTEENTH ST.
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. OF	SCALE	APP'D.	
DESIGNED JA	DETAILED EES	CHECKED	TRACED EES
DESIGN CK. JWH	DETAIL CK. JA	CHIEF CK.	TRACE CK. JA

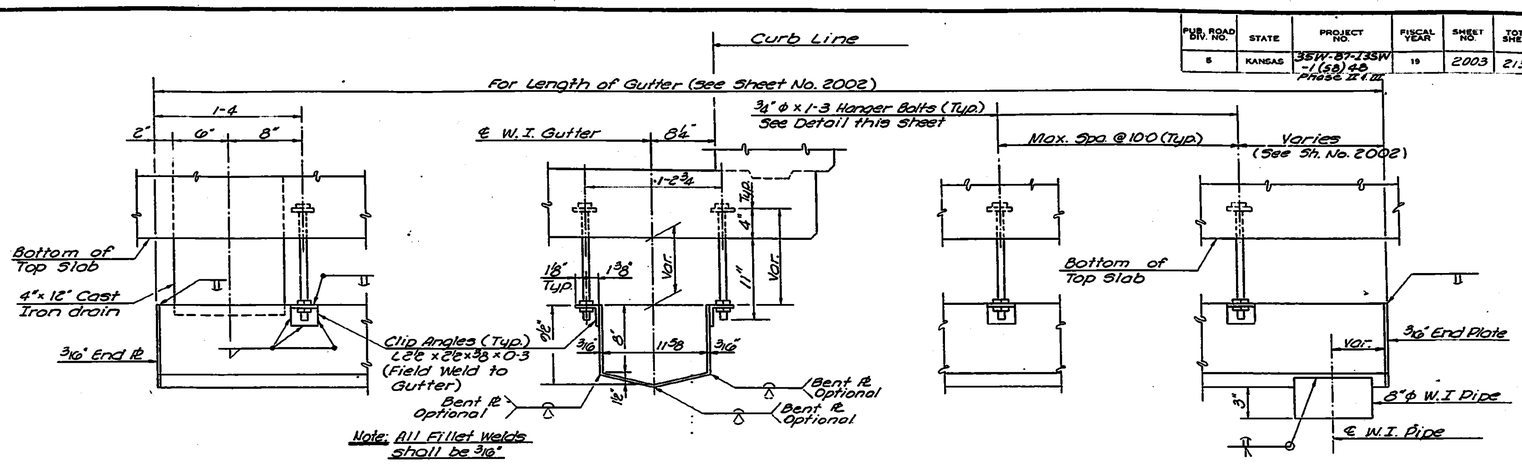
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

4 3 0

16X 14.5X 12X 12X 14.5X 16X

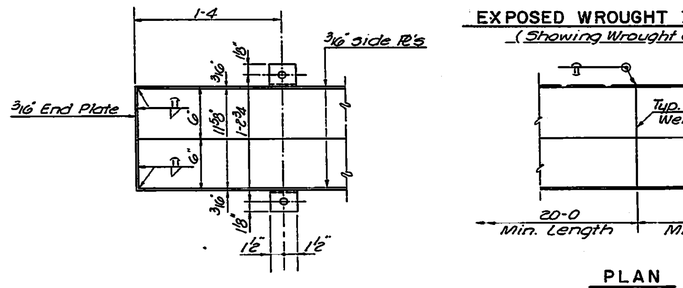
FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1(58)48 Phase II & III	19	2003	2137



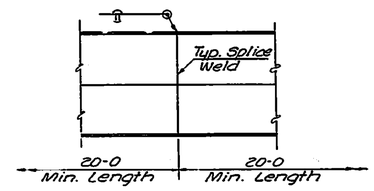
ELEVATION AT BEGINNING OF GUTTER WITH CAST IRON DRAIN

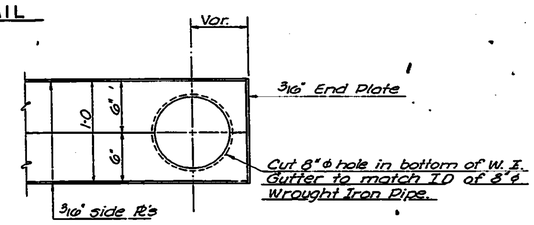
SECTION

ELEVATION AT END OF GUTTER WITH DOWNSPOUT

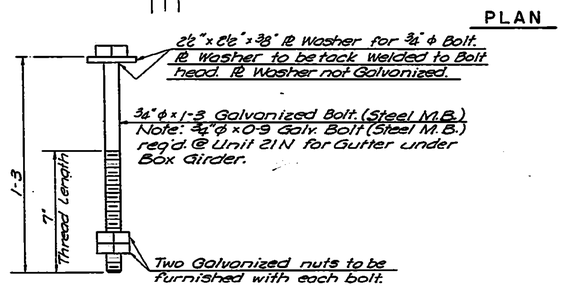


EXPOSED WROUGHT IRON GUTTER DETAIL
(Showing Wrought Gutter and Outlet)





PLAN



HANGER BOLT DETAIL

Note: Hanger bolts, nuts, Washers & clip Angles shall not be paid for directly, but shall be included in the unit price bid for "Wrought Iron Gutters."

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.96
GUTTER DETAILS
I-35W VIADUCT

PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

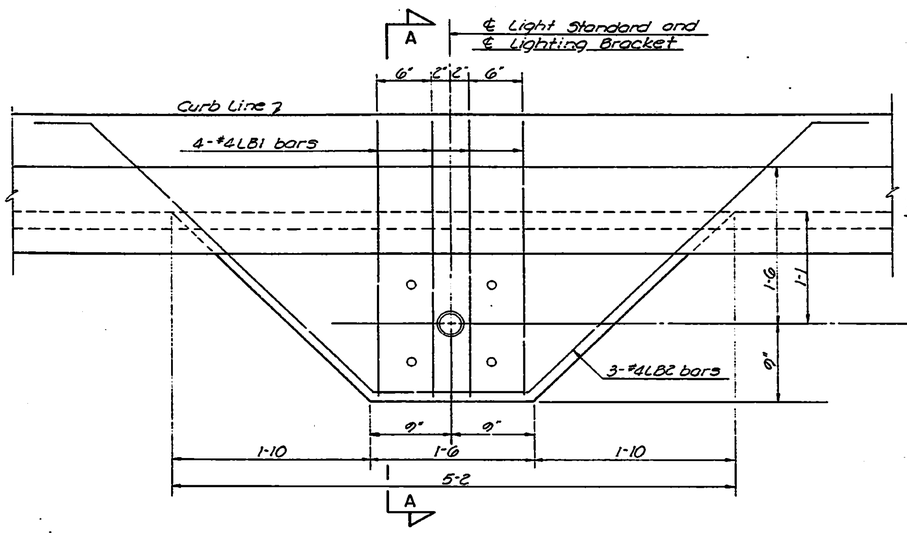
SHEET NO.	OF	SCALE	APP'D		
DESIGNED JA		DETAILED EES	QUANTITIES	TRACED EES	
DESIGN CK. JWH		DETAIL CK. JA	QUAN. CK.	TRACE CK. JA	

DIST. 5 SEDGWICK CO. ROLL 531

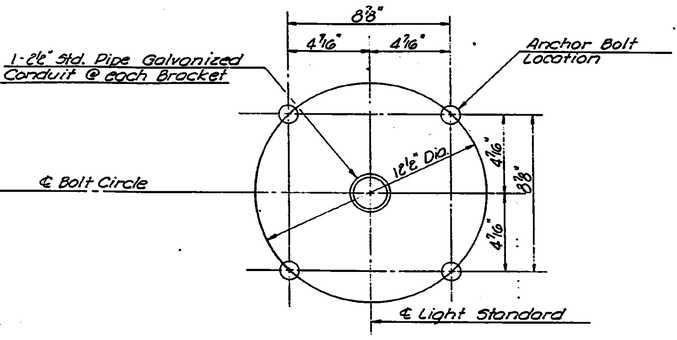
4 3 1

16X 14.5X 12X 12X 14.5X 16X

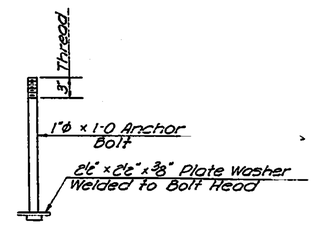
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58) 48 PHASE II, III	19	2004	2137



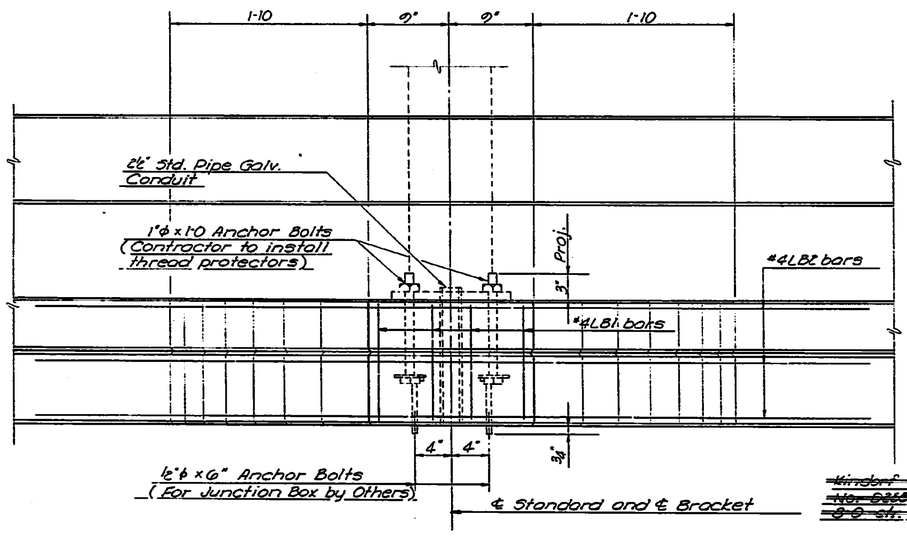
PLAN AT LIGHT STANDARD



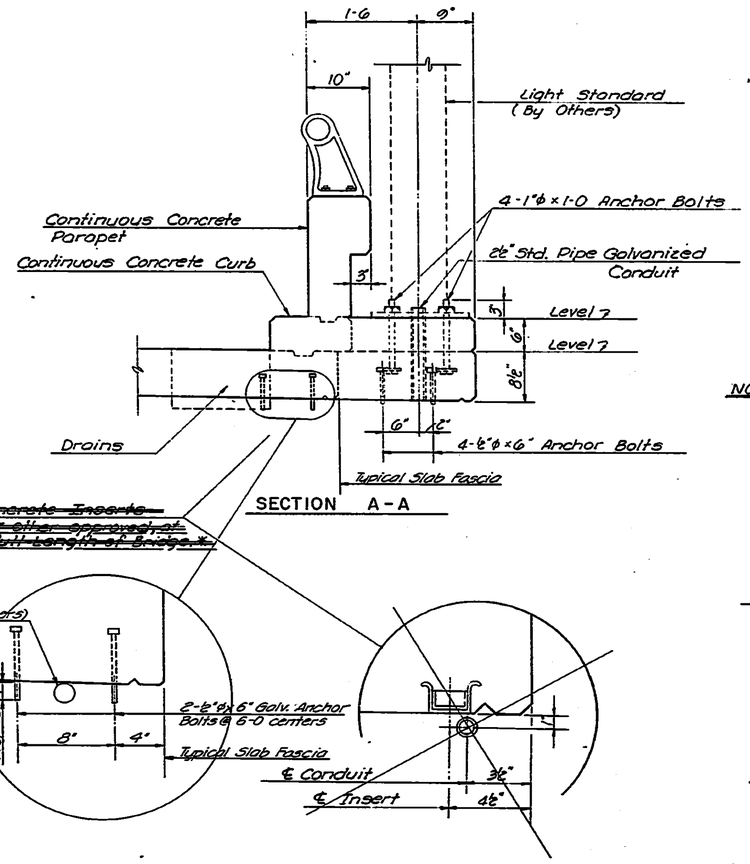
ANCHOR BOLT SETTING DETAIL
(4 Anchor Bolts Req'd. each Standard)



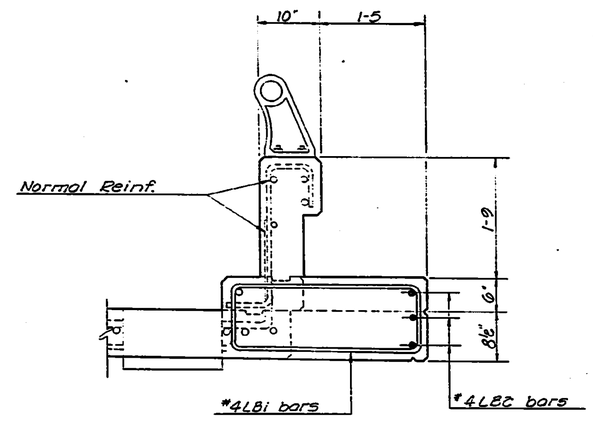
ANCHOR BOLT
(Galv. after Threading)



ELEVATION
(See Superstructure Layouts for Location)



SECTION A-A



SECTION SHOWING REINF. STEEL

NOTE:
The Bridge Contractor shall furnish and install the lighting Standard Anchor Bolts, conduit through the bracket and bolts as shown. All other electrical work, standards, lamps, wiring, etc., is not a part of the Bridge Contract.

Run all Typical reinforcing through and add the additional reinforcing as shown. (Included in Bill of Materials for Each Unit)

The Anchor Bolts, Conduit through the bracket and Bolts furnished and installed by the Bridge Contractor shall be paid for at the Contract lump sum price bid for "Electrical Items." See Special Provisions.

Bolts for hanging future Conduit are to be provided at 6-0 ctrs. both left and right sides for the full length of Bridge, Northbound and Southbound.

The installation of 1" Rigid Galv. Steel Conduit in the abutment wing of each Ramp Unit shall also be included in the bid item "Electrical Items."

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
STANDARD LIGHTING BRACKET DETAILS
I-35W VIADUCT
PROJ. NO. 35W-87-I35W-1(58) 48 SEDGWICK CO.

SHEET NO.	OF	SCALE		APP'D.	
DESIGNED	DFG	DETAILED	EES	QUANTITIES	TRACED EES
DESIGN CK.	JWH	DETAIL CK.	DFG	QUAN. CK.	TRACE CK. DFG

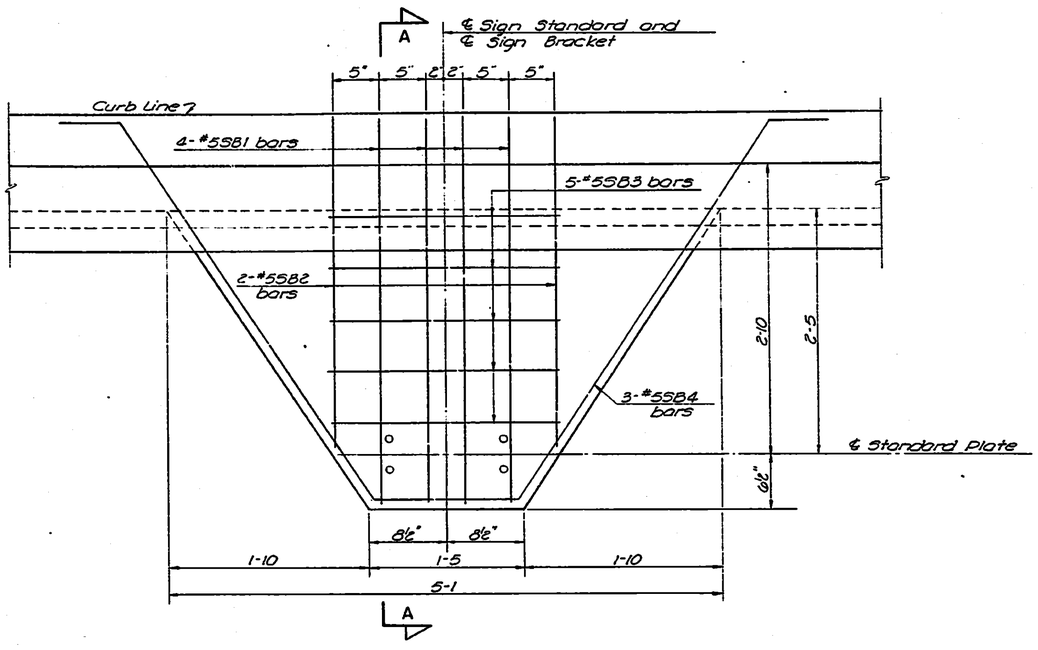
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

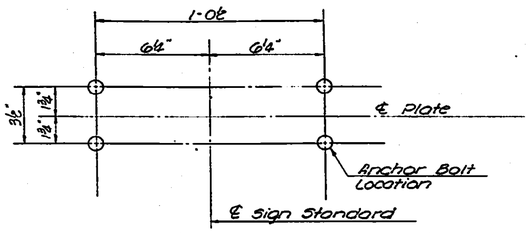
4 3 2

16X 14.5X 12X 12X 14.5X 16X

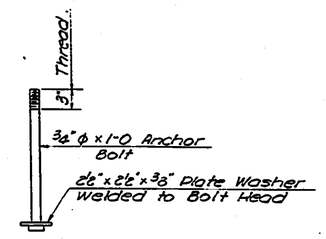
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W I(58)48 Phase II, III	19	2005	2187



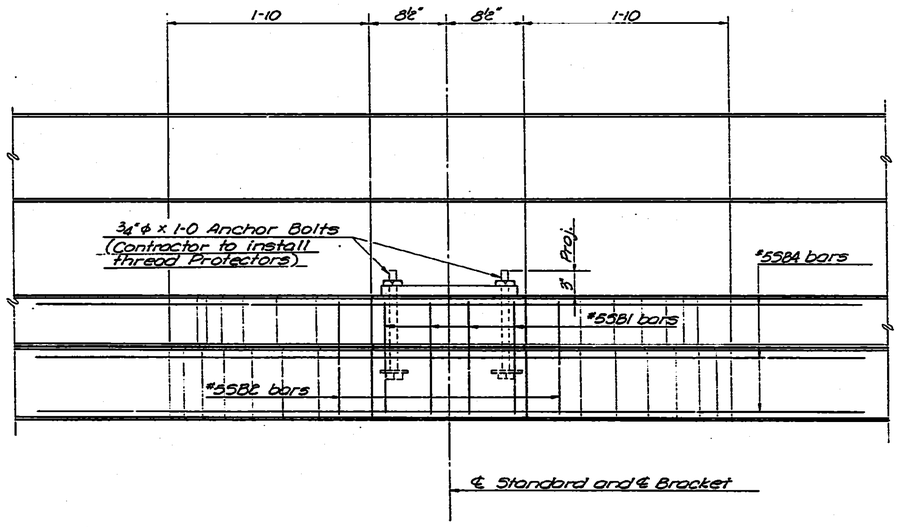
PLAN



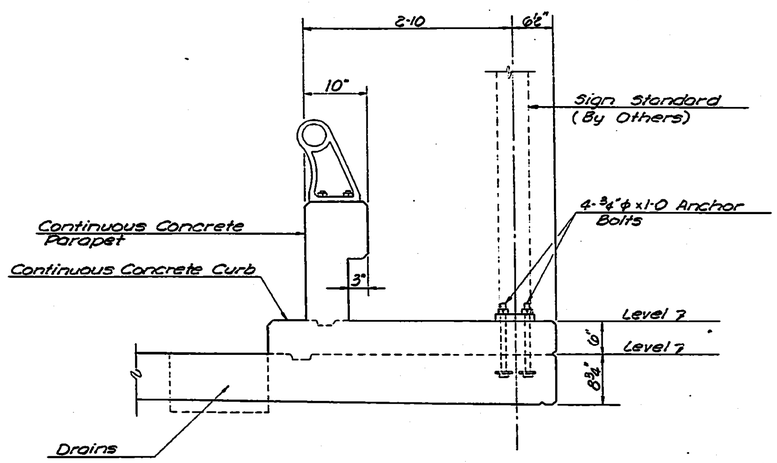
ANCHOR BOLT SETTING DETAIL
(4 Anchor Bolts Req'd. each Standard)



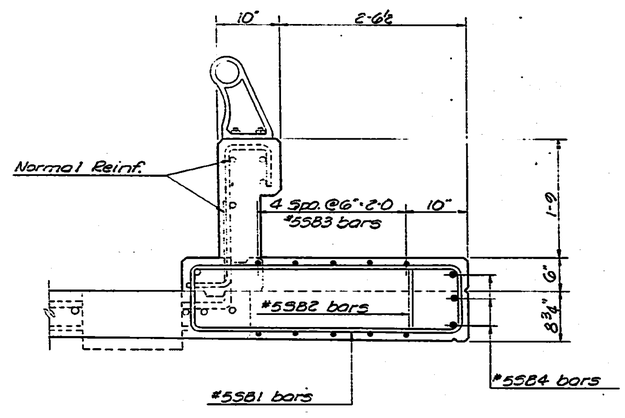
ANCHOR BOLT
(Galvanize after Threading)



ELEVATION
(See: Superstructure Layouts for Location)



SECTION A-A



SECTION SHOWING REINF. STEEL

NOTE:
Run all Typical reinforcing through and add the additional reinforcing as shown. (Included in Bill of Materials for Each Unit).
The Anchor Bolts furnished and installed by the Bridge Contractor are subsidiary and payment for same shall be included in the Unit Price Bid for Cu. Yds. of Class AAA Conc. (AE).

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
MERGING TRAFFIC SIGN BRACKET
I-35W VIADUCT
PROJ. NO. 35W-87-I35W-I(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE -	APP'D.	
DESIGNED	K.S.K.	DETAILED EES	QUANTITIES	CHKD EES
DESIGN CK.	DPG	DETAIL CK. K.S.K.	ORIGIN. CK.	TRACE CK. K.S.K.

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

4 3 3

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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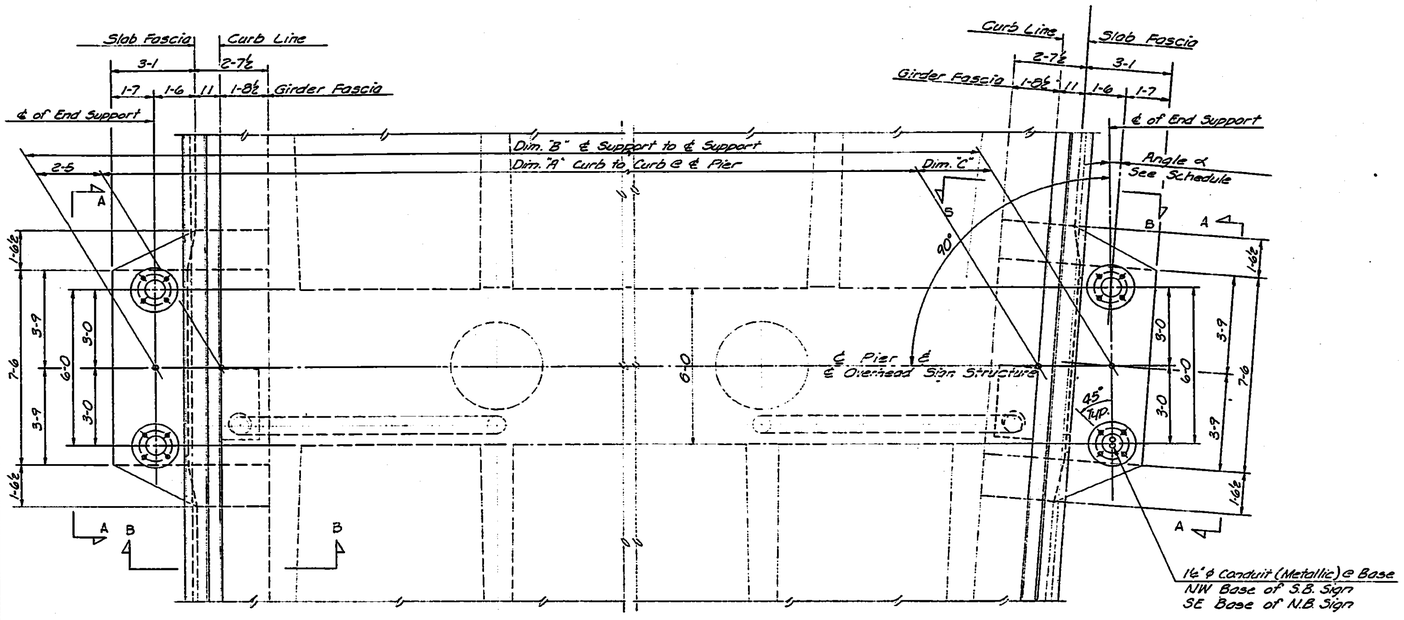
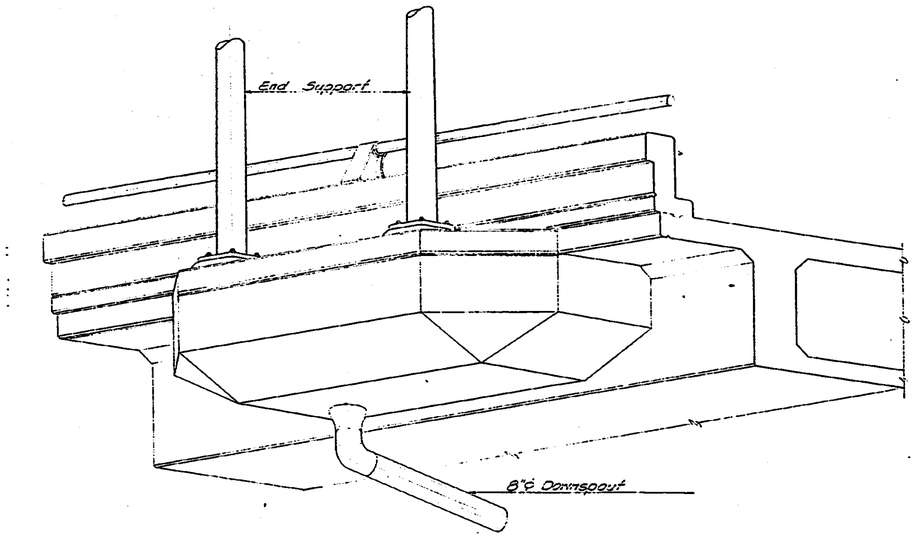
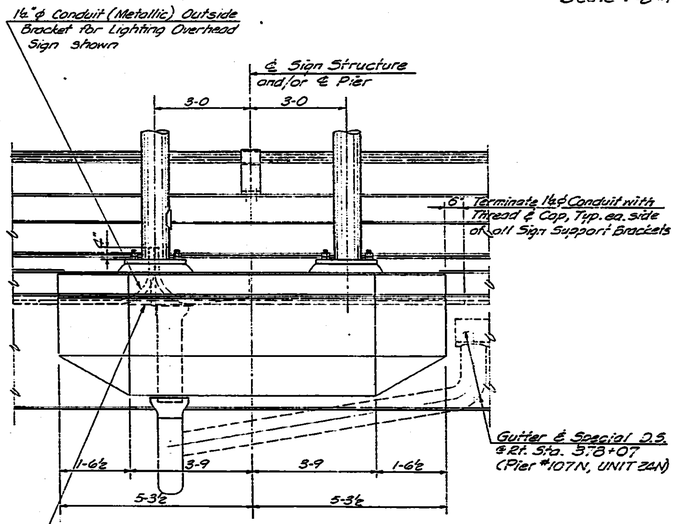


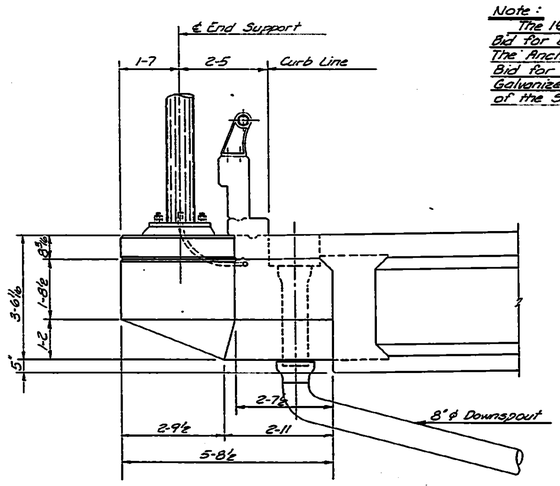
PART PLAN AT PIER WITH OVERHEAD SIGN
Scale : ⅜"=1'-0



VIEW OF OVERHEAD SIGN SUPPORT BRACKET



VIEW A-A



SECTION B-B

OVERHEAD SIGN SUPPORT BRACKET
Scale : ½"=1'-0

Note :
The 1½"ø Conduit (Metallic) shall be included in the Lump Sum Bid for Electrical Items.
The Anchor Bolt Assembly shall be included in the Unit Price Bid for Structural Steel (A36). (included in Misc. Items)
Galvanize Anchor Bolts after assembly. See Section 1113 of the Standard Specification.

CONTROL DIMENSIONS

Unit No.	Pier No.	Dim. "A"	Dim. "B"	Dim. "C"	Angle ∝
3N	9N	68-8¼	73-8⅝	2.622	3°49'28"
10S	40S	67-7⅞	72-8⅝	2.6646	4°37'31"
14S	61S	67-11½	73-0⅜	2.6748	4°40'42"
15N	67N	60-0	64-10	2.4167	0
21S	95S	60-0	64-10	2.4167	0
24N	107N	66-9⅞	71-10⅝	2.654	4°19'35"
30S	139S	67-1⅛	72-2¼	2.6748	4°40'50"

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
OVERHEAD SIGN BRACKET
I-35W VIADUCT ENGLISH ST. TO 18TH. ST.
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. OF	SCALE	APP'D.	
DESIGNED KSK	DETAILED KSK	QUANTITIES	TRACED KSK
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACE CK.

TOPEKA BLUE PRINT CO.

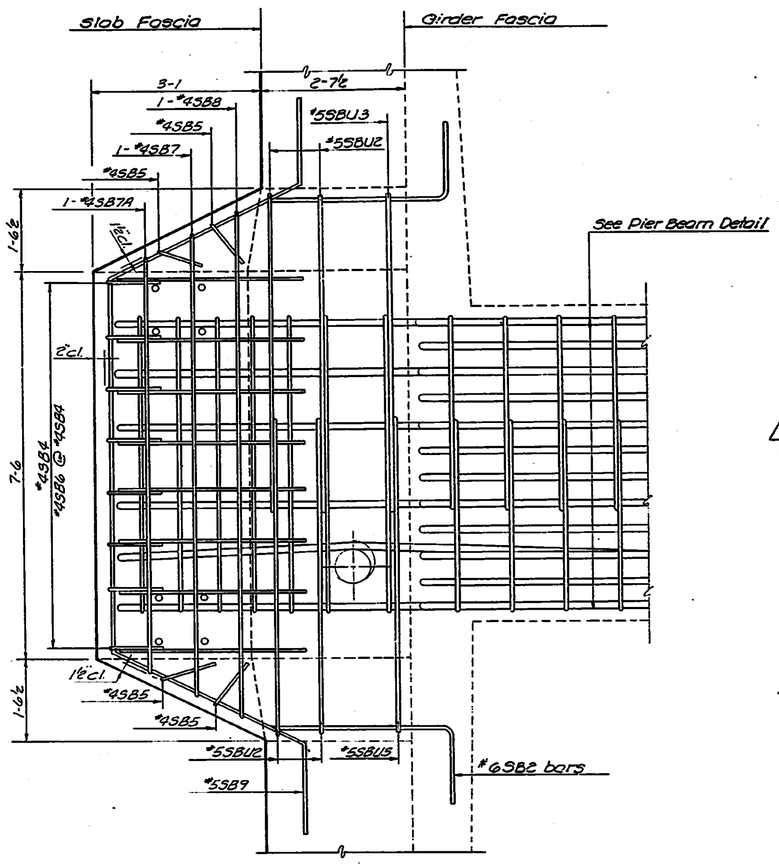
DIST. 5 SEDGWICK CO. ROLL 531

4 3 4

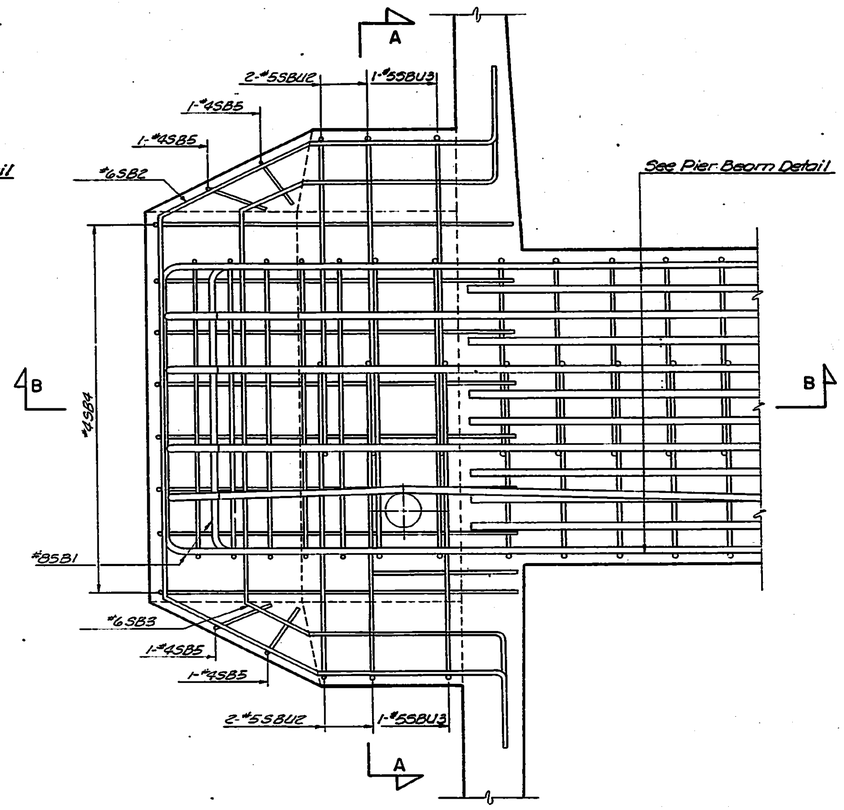
16X 14.5X 12X 12X 14.5X 16X

REV. PLANS 10-23-71

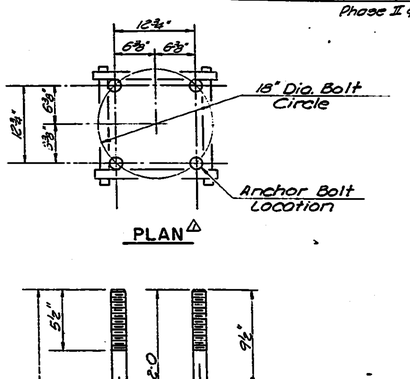
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W (58)48 Phase II & III	19	2007	2137



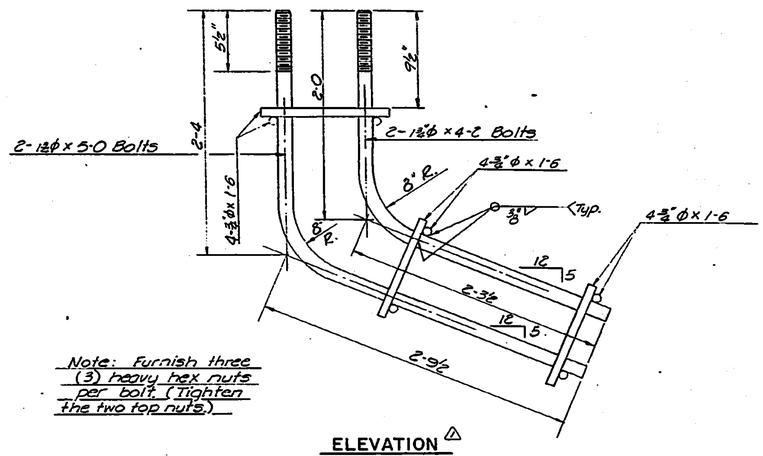
PLAN OF TOP REINFORCING STEEL



PLAN OF BOTTOM REINFORCING STEEL



PLAN △

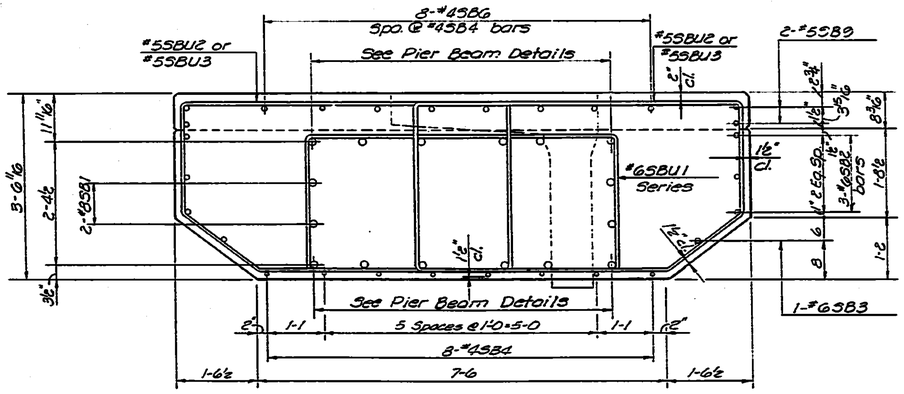


Note: Furnish three (3) heavy hex nuts per bolt (Tighten the two top nuts.)

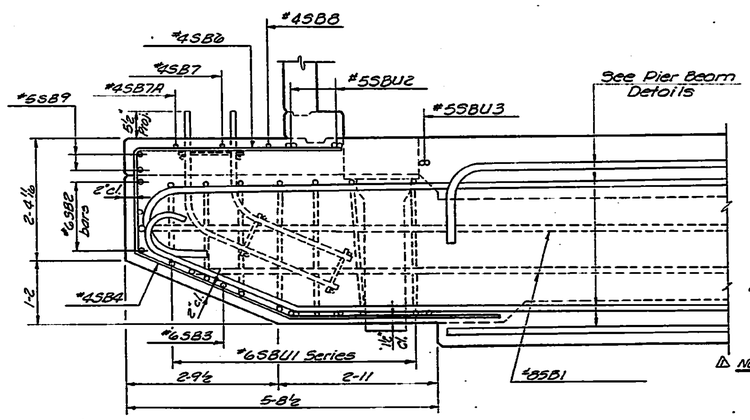
ELEVATION △

ANCHOR BOLT ASSEMBLY DETAILS △

28 Anchor Bolt assemblies Reqd.
4 assemblies at each of the following Piers
Northbound 2N, 6.7N & 10.7N
Southbound 4.0S, 6.1S, 9.2S & 13.4S
Weight of one (1) Anchor Bolt Assembly 152 LBS.



SECTION A-A



SECTION B-B

△ NOTE: The 1¼"ϕ Anchor Bolts shall be Type III. The ¾"ϕ x 1-6 bars shall be A36 Steel.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
△	11-1-71	Anchor Bolt Assembly Revision	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
OVERHEAD SIGN BRACKET
I-35W VIADUCT ENGLISH ST. TO 18TH ST.
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. OF	SCALE "	APP'D.	
DESIGNED	DETAILED	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUANT. CK.	TRACE CK.

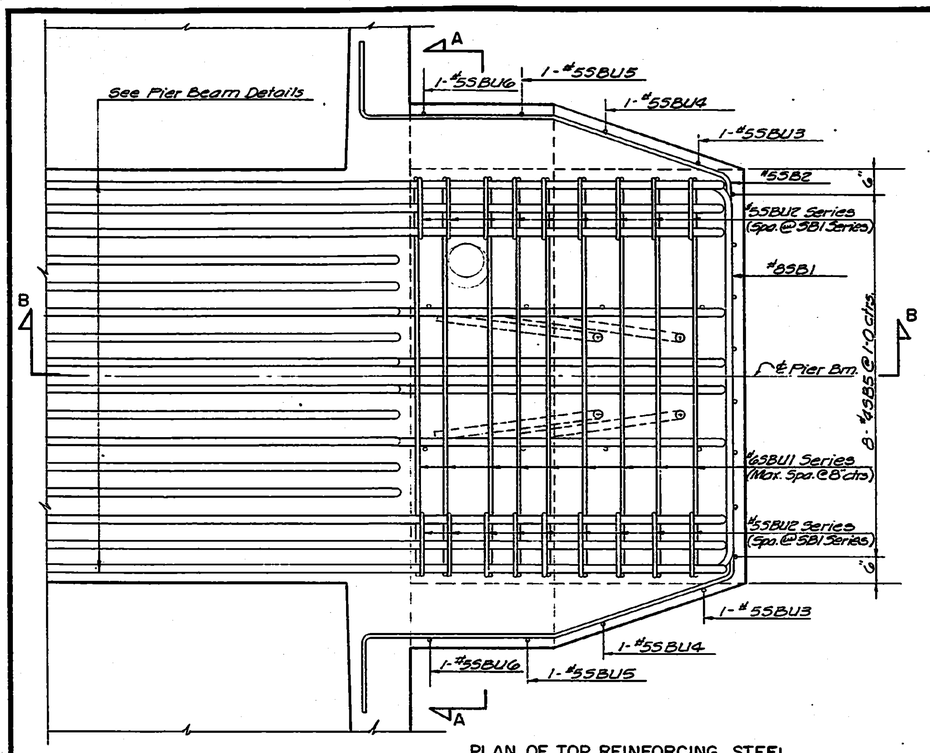
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

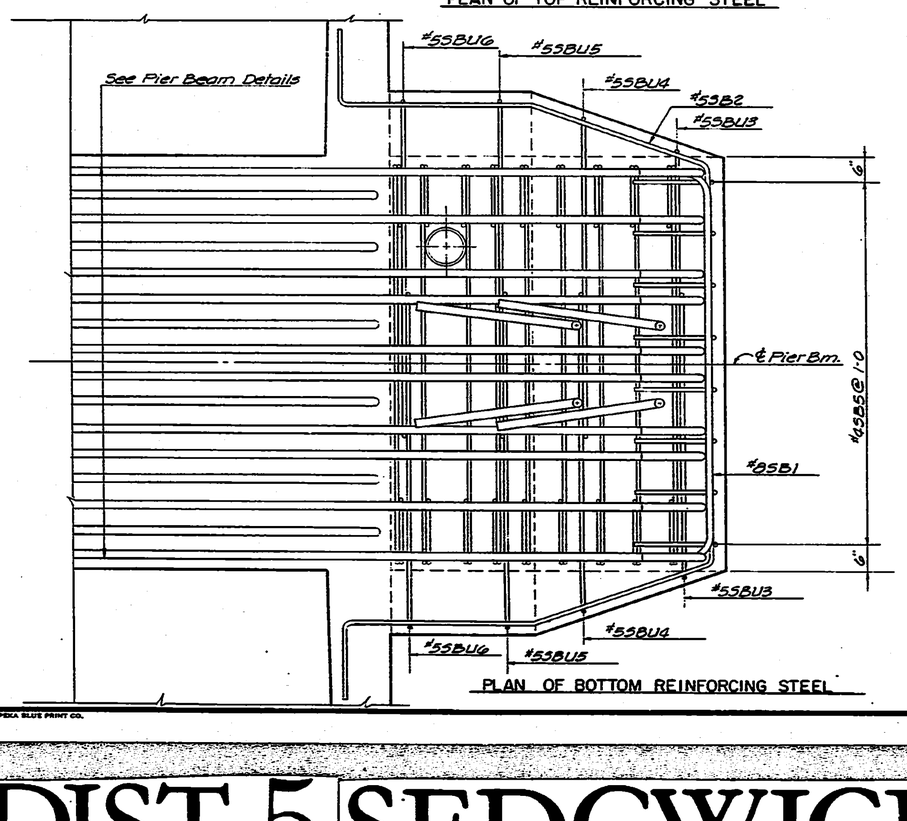
[redacted] 4 3 5

16X 14.5X 12X 12X 14.5X 16X

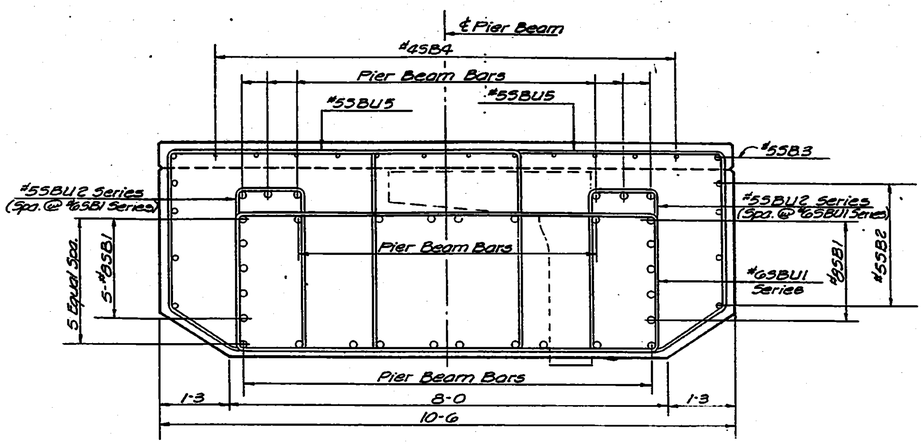
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W -1(58)48 Phase II & III	19	2008	2137



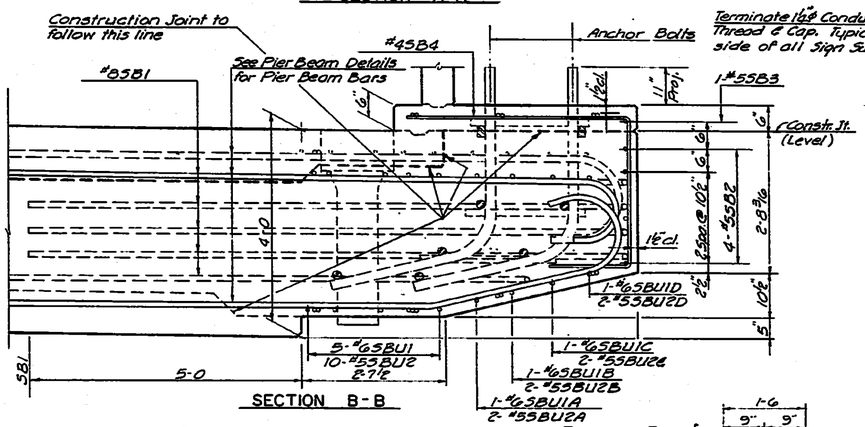
PLAN OF TOP REINFORCING STEEL



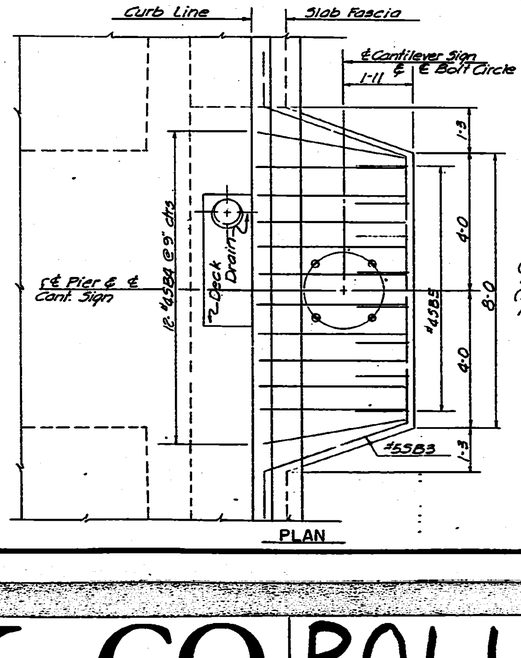
PLAN OF BOTTOM REINFORCING STEEL



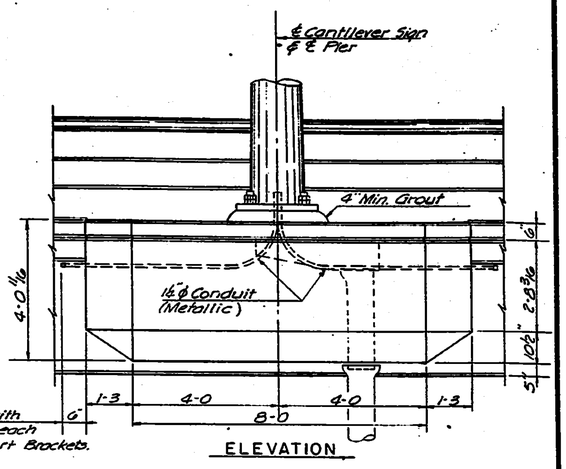
SECTION A-A



SECTION B-B

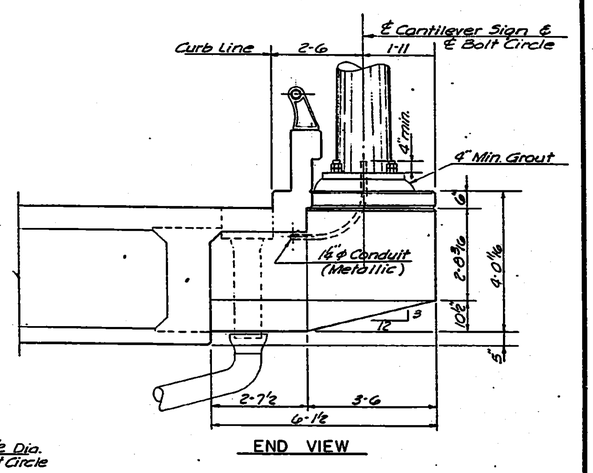


PLAN

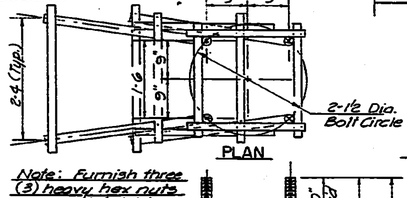


ELEVATION

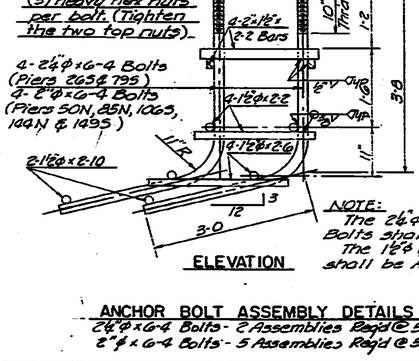
Terminate 1½ϕ Conduit with Thread & Cap. Typical each side of all Sign Support Brackets.



END VIEW



PLAN



ELEVATION

ANCHOR BOLT ASSEMBLY DETAILS
2¼"ϕx6'-4 Bolts - 2 Assemblies Reqd @ 590 lbs. ea.
2"ϕx6'-4 Bolts - 5 Assemblies Reqd @ 515 lbs. ea.

NOTE:
The Anchor Bolt Assembly shall be included in the Unit Price Bid for Structural Steel (A36) (included in Misc. Items)

Galvanize the Anchor Bolts after assembly. See Section 1113 of the Standard Specifications.

The 1¼"ϕ Conduit (Metallic) shall be included in the Lump Sum Bid for Electrical Items.

NOTE:
The 2¼"ϕ & 2"ϕ Anchor Bolts shall be Type II. The 1½"ϕ & 2"x1½" bars shall be A36 steel.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
CANTILEVER SIGN BRACKET
I-35W VIADUCT ENGLISH ST. TO 18TH ST.
PROJ. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. OF	SCALE	APPR.
DESIGNED	DETAILED	CHECKED
DESIGN CK.	DETAIL CK.	QUANT. CK.

TRACED | TRACE CK.

TOPEKA BLUE PRINT CO.

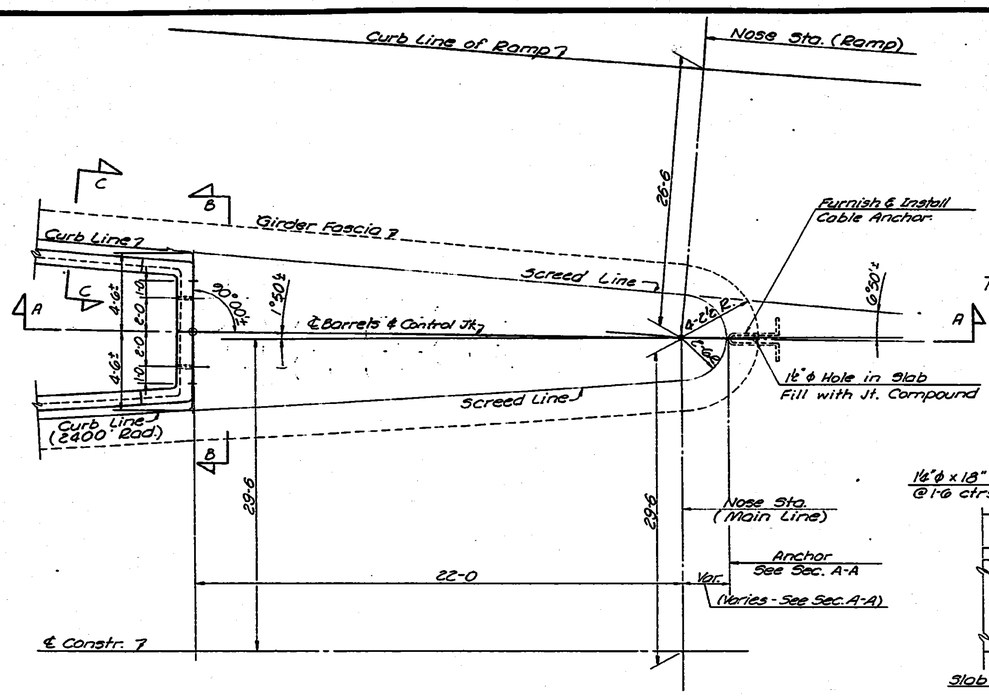
DIST. 5 SEDGWICK CO. ROLL 531

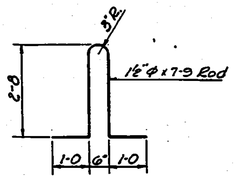
4 3 6

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W 1(58)48	19	2008A	2137

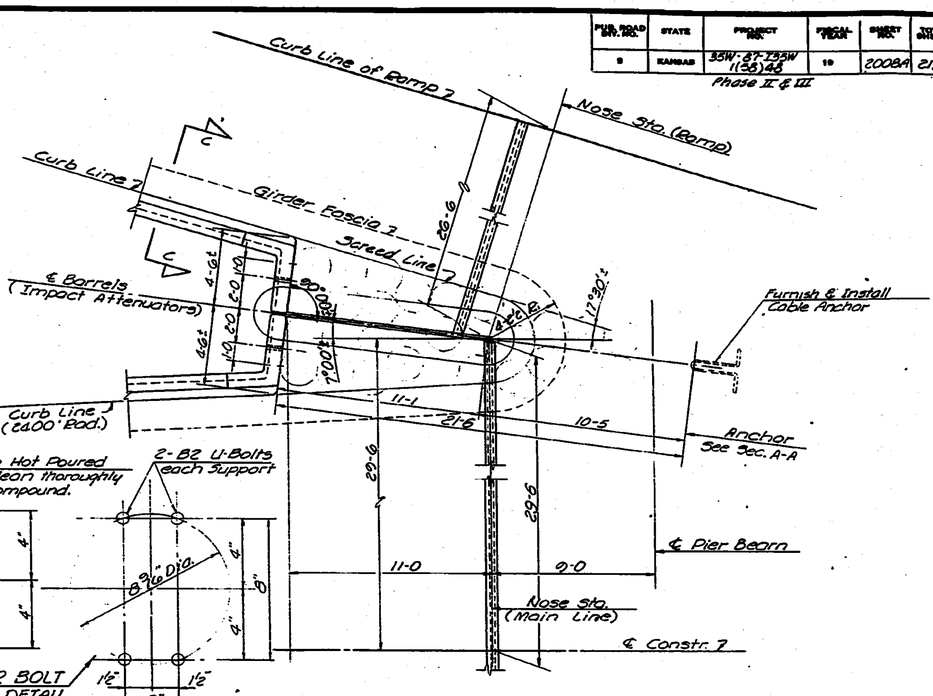
Phase II & III

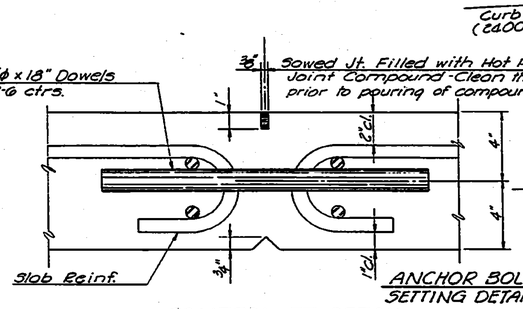




CABLE ANCHOR DETAIL

Note: Cable Anchors, Anchor Bolts B1 & B2, Control Joint Dowels, Saw Cuts & Hot Poured Joint Compound shall not be paid for directly but shall be included in the Unit Price Bid for Concrete Class AAA-AE.

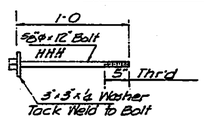




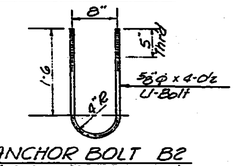
CONTROL JT. DETAIL
(Ramps C, F, H, N & Q)

ANCHOR BOLT SETTING DETAIL

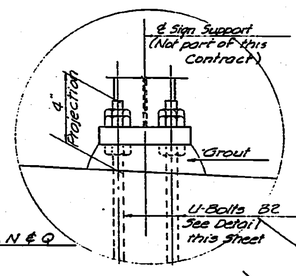
PLAN @ RAMPS "C", "F", "H", "N" & "Q"

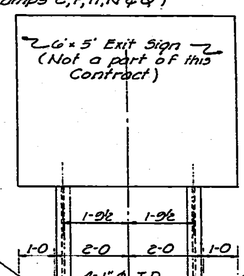


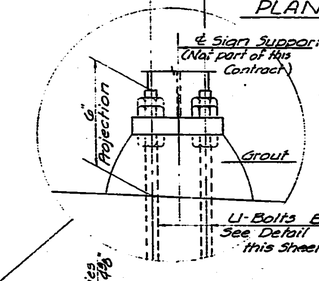
ANCHOR BOLT B1
(Galv. after assembly)

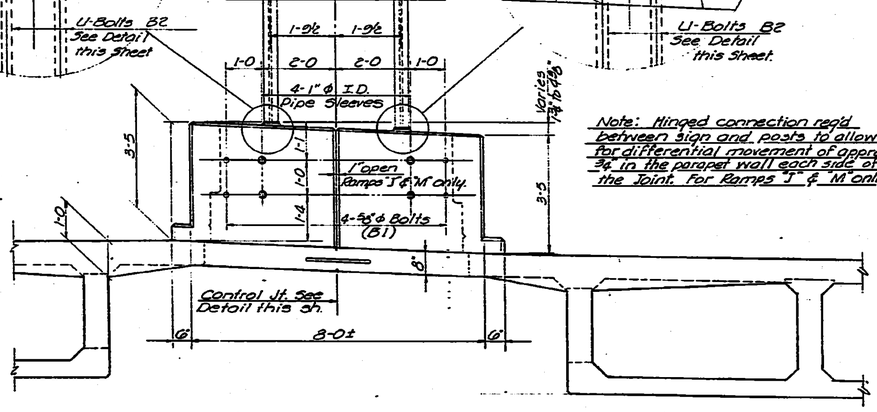


ANCHOR BOLT B2
(Galv. after threading)





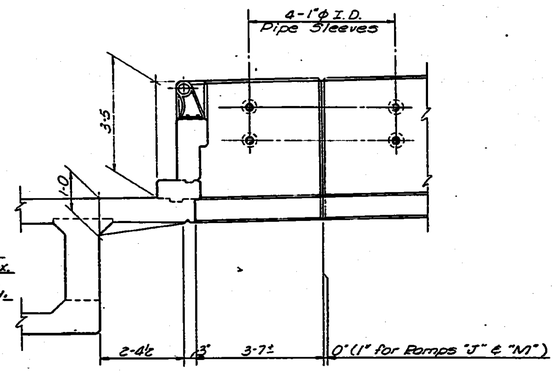




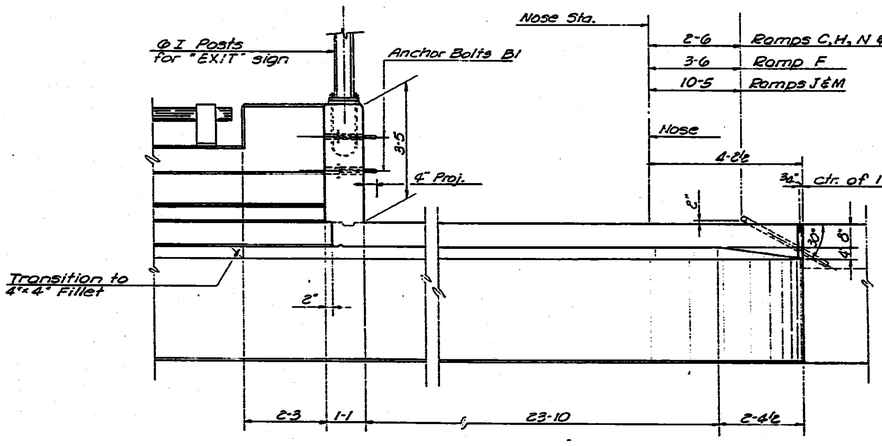
Note: Hinged connection req'd between sign and posts to allow for differential movement of approx. ¾ in the parapet wall each side of the joint. For Ramps "J" & "M" only.

PLAN @ RAMPS "J" & "M"

Note: For details of joint along ℄ Barrels, see Expansion Device Details Sheets 1957, 1957A, 1963, 1965, 1965A & 1972.



SECTION C-C



SECTION A-A

SECTION B-B

	NO.	DATE	REVISIONS	BY	APP'D.
	3				
	2				
	1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
EXIT GORE DETAILS
WITH IMPACT ATTENUATION DEVICE
I-35W VIADUCT
WATERMAN TO EIGHTEENTH ST.
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. OF	SCALE	APP'D.	
DESIGNED ESK	DETAILED ESK	CHECKED	TRACED EES
DESIGN CH.	DETAIL CH.	CHECK CH.	TRACE CH.

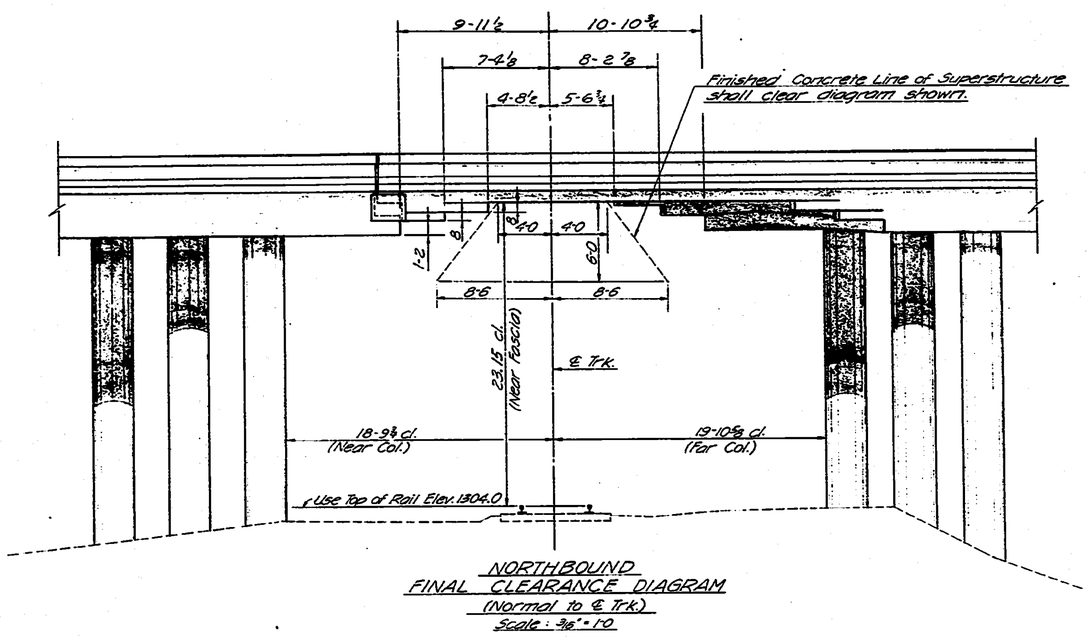
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

4 3 7

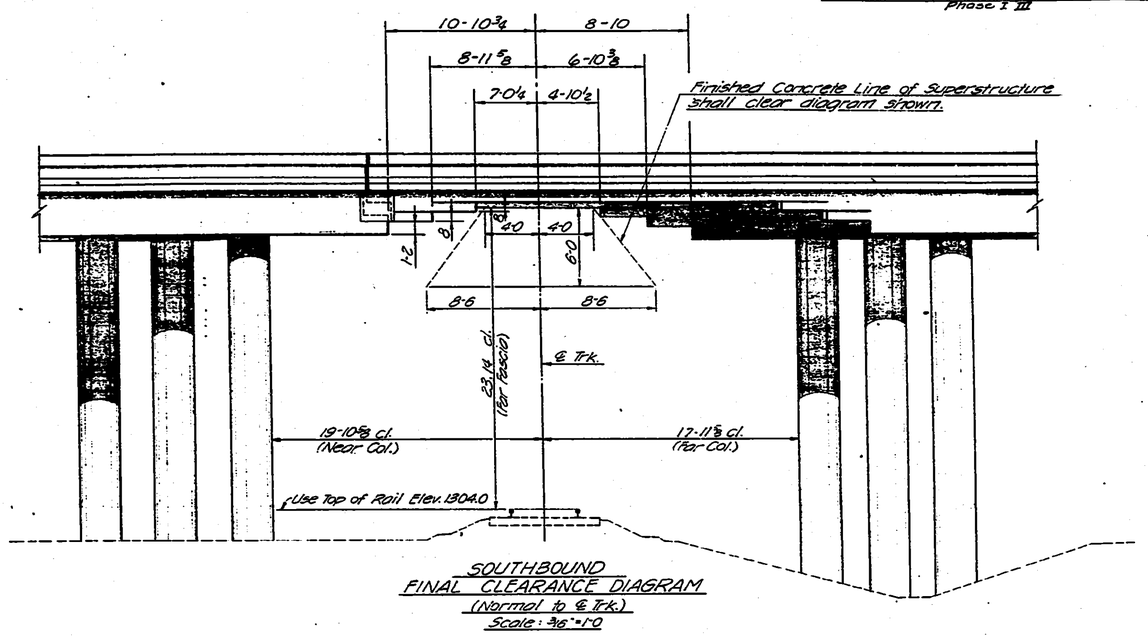
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I-(58)48 Phase I III	10	2009	2137



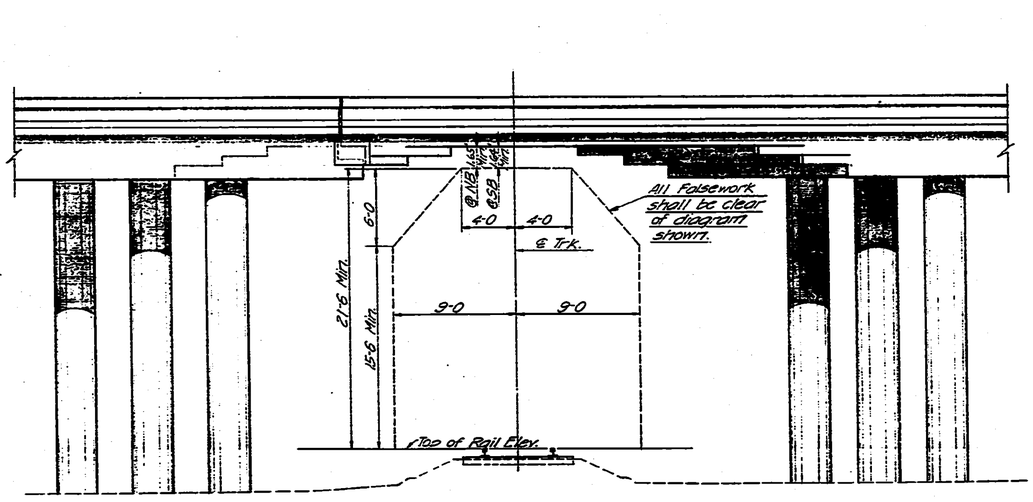
NORTHBOUND
FINAL CLEARANCE DIAGRAM
(Normal to ℄ Trk.)
Scale: 3/16" = 1'-0

SECTION A-A

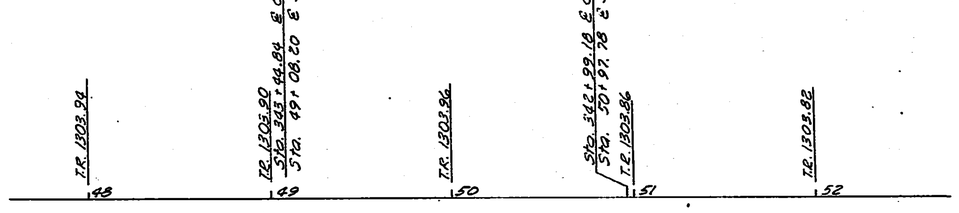


SOUTHBOUND
FINAL CLEARANCE DIAGRAM
(Normal to ℄ Trk.)
Scale: 3/16" = 1'-0

SECTION B-B



CONSTRUCTION CLEARANCE DIAGRAM
(Normal to ℄ Trk.)
Scale: 3/16" = 1'-0



EXISTING TOP OF RAIL PROFILE

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
CLEARANCE DIAGRAMS FOR
SLAB SPAN AT S.L. & S.F. R.R.
I-35W VIADUCT
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

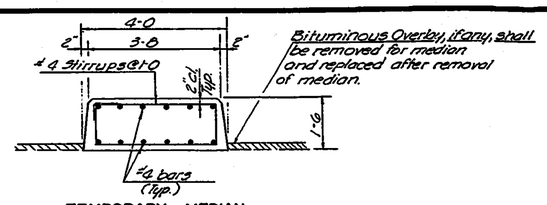
SHEET NO.	OF	SCALE		APP'D.		
DESIGNED	JWH	DETAILED	RBS	QUANTITIES	TRACED	DS
DESIGN CK.	RBS	DETAIL CK.	JWH	QUAN. CK.	TRACE CK.	RBS

DIST. 5 SEDGWICK CO. ROLL 531

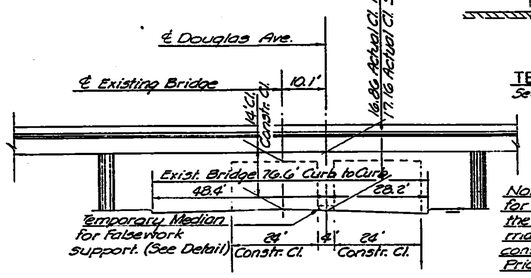
[redacted] 4 3 8

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD STH. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-135W-1(58)48 Phase II & III	19	2009A	2137

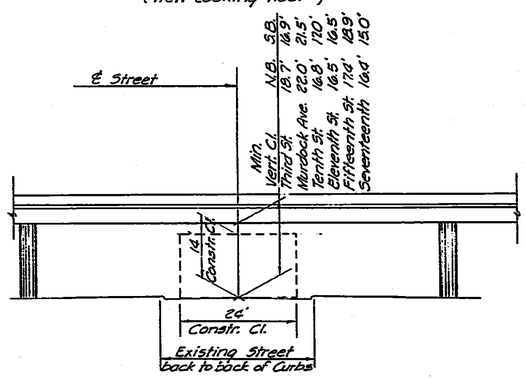


TEMPORARY MEDIAN
See Sh. Nos. 309, 354 (Douglas Ave)
311, 357 (First St.)
313, 359 (Second St.)



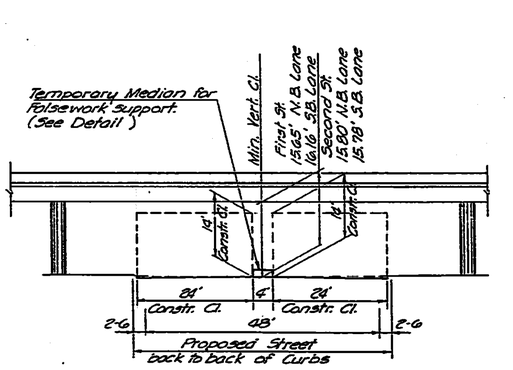
Note: The construction of the Temporary Median for falsework support and its removal, including the removal and replacement of the bituminous mat, will not be paid for directly but shall be considered as falsework and included in the Unit Price bid for Class AAA Concrete AE.

DOUGLAS AVENUE
(View Looking West)

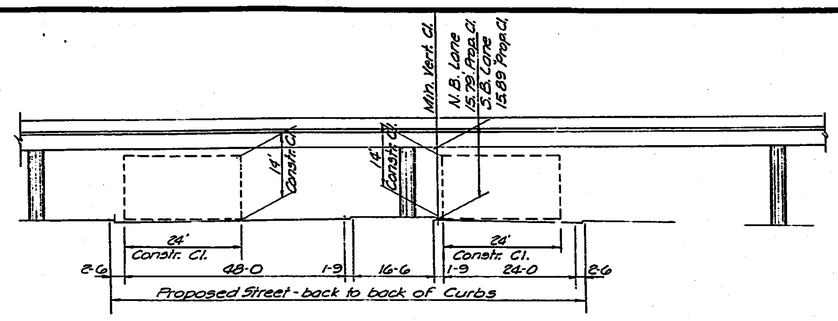


THIRD ST.	ELEVENTH ST.
MURDOCK AVE.	FIFTEENTH ST.
TENTH ST.	SEVENTEENTH ST.

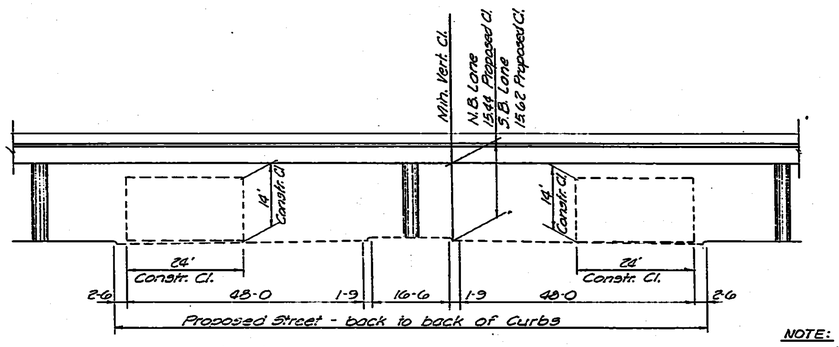
(View Looking West)



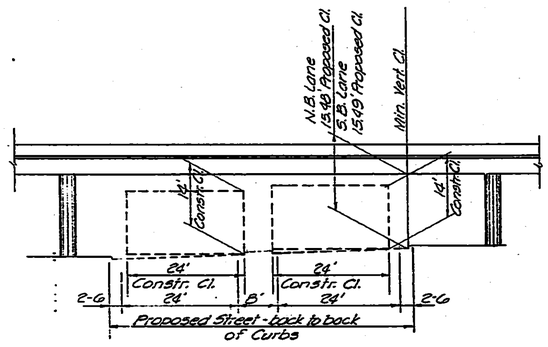
FIRST ST.
SECOND ST.
(View Looking West)



CENTRAL AVENUE
(View Looking West)



THIRTEENTH STREET
(View Looking West)



INNER LOOP
(View Looking West)

NOTE: Clearance Diagram locations relative to street widths as shown are based on Phase II and Phase III construction of I35W units after completion of Phase I Grading and Paving of Cross Streets. In the event Phase II or Phase III bridge units are constructed prior to completion of Phase I Cross Street construction, location of 14' x 24' clearance diagrams may be adjusted by the Engineer to facilitate traffic movement through construction

Traffic Control shall be provided for all cross street traffic carried through the project. See Sheet No 2033 and Special Provisions.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
CLEARANCE DIAGRAMS FOR CROSS STREETS
I-35W VIADUCT
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. OF	SCALE	APP'D.	
DESIGNED	DETAILED	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACE CK.

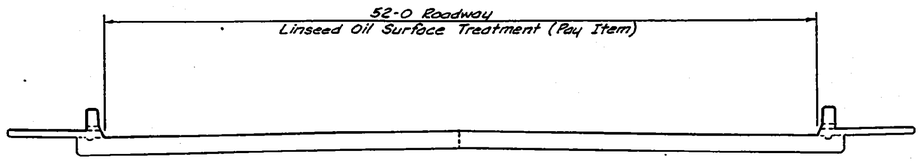
TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

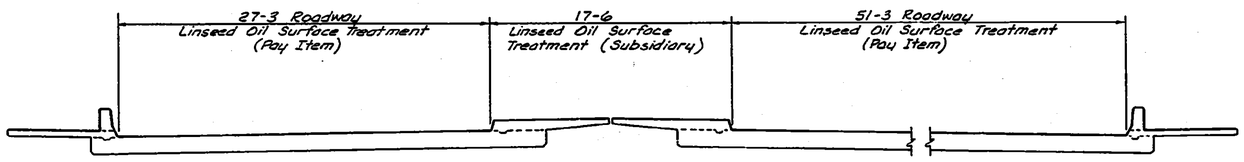
4 3 9

16X 14.5X 12X 12X 14.5X 16X

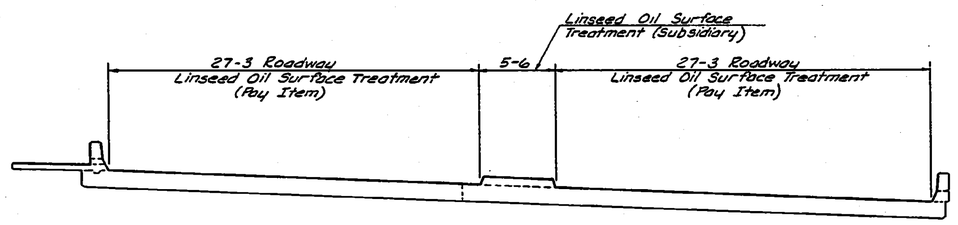
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-I35W-1(58)48 Phase 2	1970	2010	2137



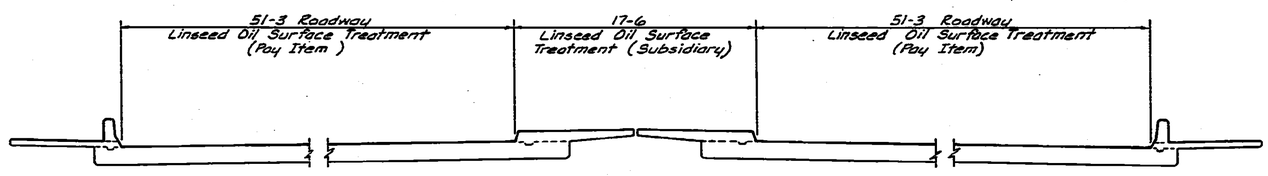
FIRST & SECOND STREET BRIDGE DECK SECTION



CENTRAL AVE. BRIDGE DECK SECTION

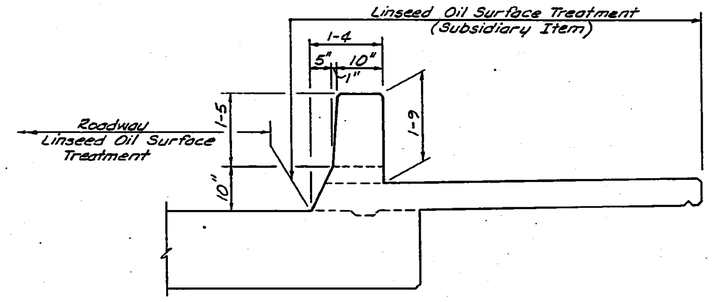


INNER LOOP BRIDGE DECK SECTION

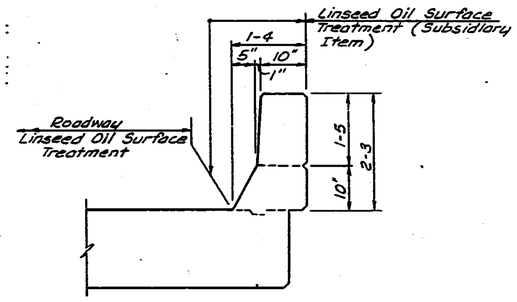


13 TH STREET BRIDGE DECK SECTION

TABLE OF BRIDGES					
BRIDGE NUMBER	STATION	STREET	LENGTH	WIDTH	LINSEED OIL SURFACE TREAT. SQ. YDS.
35W-87-15.12	312+88.54	First	123-1	52-0	711
35W-87-15.20	319+68.53	Second	123-1	52-0	711
35W-87-15.50	333+31.11	Central (Rt.Br.)	123-1	51-3	701
35W-87-15.51	333+31.11	Central (Lt.Br.)	123-1	27-3	373
35W-87-16.00	359+57.32	Inner Loop	123-0⅛	54-6	745
35W-87-16.53	387+78.53	13th (Rt. Br.)	123-1	51-3	701
35W-87-16.54	387+78.53	13th (Lt. Br.)	123-1	51-3	701



TYPICAL SECTION THRU CURB



TYPICAL SECTION THRU CURB
(Right Curb of Inner Loop Bridge only)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

LINSEED OIL SURFACE TREATMENT
CANAL BRIDGES

PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE		APP'D.			
DESIGNED	RAW	DETAILED	RAW	QUANTITIES	RLF	TRACED	JML
DESIGN CK.	RLF	DETAIL CK.	RLF	CHECK CK.	JML	TRACE CK.	RLF

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

4 4 0

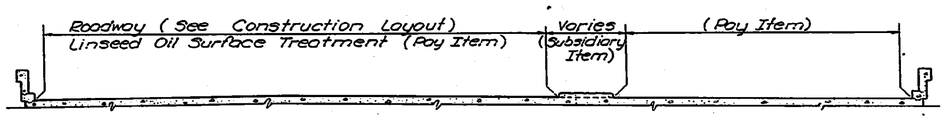
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W -1(58)48 Phase II & III	19	2011	2137

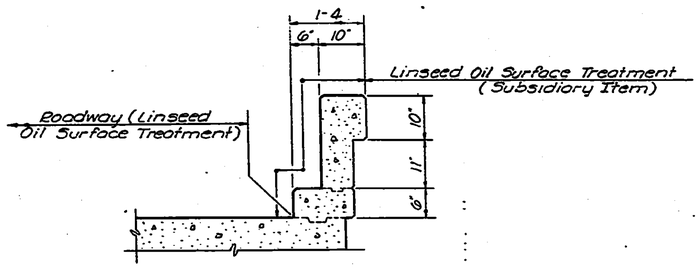
NORTHBOUND UNITS			
UNIT NUMBER	LENGTH	WIDTH	LINSEED OIL SURFACE TREAT. SQ. YDS.
0N	204.25	60.00	1361.7
1N	245.00	60.00	1633.3
2N	409.50	Var.	2458.3
3N	298.00	Var.	2540.9
4N	481.26	Var.	2671.3
4NR	210.25	22.00	513.9
5N	245.00	52.00	1415.5
6N	434.51	52.00	2510.5
7N	245.00	52.00	1415.5
8N	437.27	52.00	2526.4
8NR	210.25	22.00	513.9
9N	245.00	Var.	1945.6
10N	409.22	Var.	2744.8
11N	296.00	Var.	1832.8
12N	478.35	52.00	3342.1
12NR	370.25	Var.	1191.6
13N	243.00	Var.	1917.2
14N	433.52	Var.	2597.3
15N	245.00	Var.	1842.0
16N	312.86	Var.	1841.2
16NR	210.25	Var.	528.3
17N	245.00	52.00	1415.5
18N	312.86	52.00	1807.6
19N	245.00	52.00	1415.5
20N	525.82	52.00	3038.0
20NR	210.25	Var.	552.0
21N	245.00	Var.	1809.8
22N	425.52	60.00	2838.2
23N	245.00	60.00	1633.3
24N	250.24	Var.	2443.6
25N	245.00	Var.	2159.2
26N	494.37	Var.	2851.0
26NR	210.25	22.00	513.9
27N	296.00	52.00	1710.2
28N	450.63	52.00	2603.6
28NR	210.25	30.00	700.8
29N	245.00	Var.	2156.6
30N	307.24	Var.	3033.2
31N	245.00	Var.	1695.4
32N	437.50	60.00	2916.6
33N	245.00	60.00	1633.3
34N	434.64	60.00	2897.5
35N	324.50	60.00	2163.3

SOUTHBOUND UNITS			
UNIT NUMBER	LENGTH	WIDTH	LINSEED OIL SURFACE TREAT. SQ. YDS.
0S	204.25	60.00	1361.7
1S	245.00	60.00	1633.3
2S	356.00	Var.	2422.9
3S	298.00	Var.	2368.5
4S	455.28	52.00	2665.1
4SR	210.25	22.00	513.9
5S	245.00	52.00	1415.5
6S	434.28	52.00	2510.3
7S	245.00	52.00	1415.5
8S	437.03	Var.	2528.8
8SR	210.25	22.00	513.9
9S	245.00	Var.	2130.2
10S	408.92	Var.	2661.5
11S	296.00	52.00	1710.2
12S	580.36	Var.	3357.8
12SR	290.25	22.00	709.5
13S	243.00	Var.	2141.5
14S	431.57	Var.	2638.1
15S	245.00	Var.	1650.2
16S	289.09	Var.	1094.0
16SR	210.25	Var.	692.5
17S	245.00	52.00	1415.5
18S	278.58	52.00	1609.5
19S	245.00	52.00	1415.5
20S	585.32	Var.	3414.7
20SR	210.25	Var.	528.3
21S	245.00	Var.	1854.7
22S	425.71	60.00	2838.0
23S	245.00	60.00	1633.3
24S	424.70	Var.	2392.9
25S	245.00	Var.	1933.4
26S	488.69	52.00	2823.7
26SR	210.25	Var.	658.3
27S	296.00	52.00	1710.2
28S	521.30	Var.	3016.7
28SR	210.25	22.00	513.9
29S	245.00	Var.	2158.4
30S	326.52	Var.	2165.8
31S	245.00	52.00	1415.5
32S	437.50	52.00	2527.7
33S	245.00	52.00	1415.5
34S	436.08	52.00	2519.6
35S	245.00	52.00	1412.0
36S	462.25	52.00	2670.8

BRIDGE DECK SECTION
Showing Linseed Oil Surface Treatment
See Typical Section Thru Curb



BRIDGE DECK SECTION AT NOSE MEDIAN
Showing Linseed Oil Surface Treatment
See Typical Section Thru Curb



TYPICAL SECTION THRU CURB

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
LINSEED OIL SURFACE TREATMENT
I-35W VIADUCT
PROJ. NO. 35W-87-I35W-1(58) 48 SEDGWICK CO.

SHEET NO.	OF	SCALE	APP'D.	
DESIGNED DRS		DETAILED EES	CHECKED JA	TRACED EES
DESIGN CK. JHH		DETAIL CK. DRS	GENL. CK. DRS	TRACE CK. DRS

TOPEKA BLUE PRINT CO.

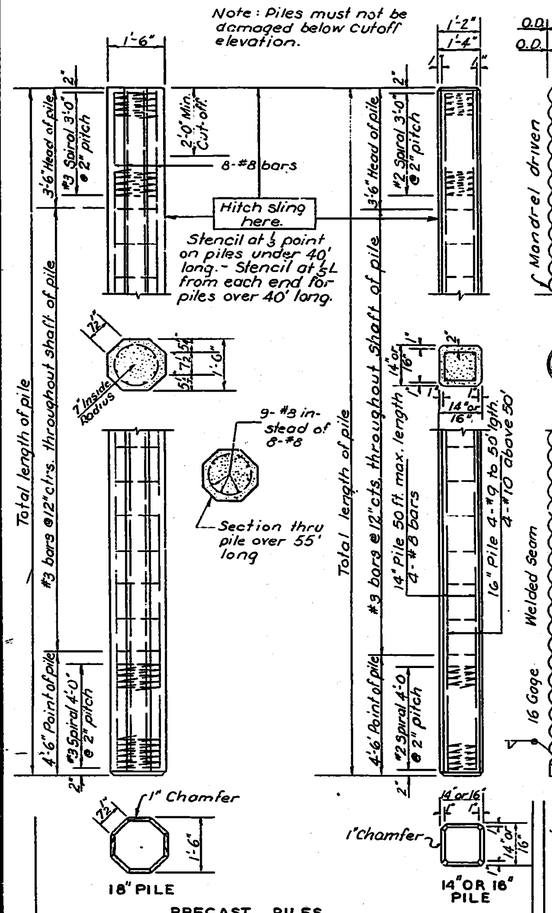
DIST. 5 SEDGWICK CO. ROLL 531

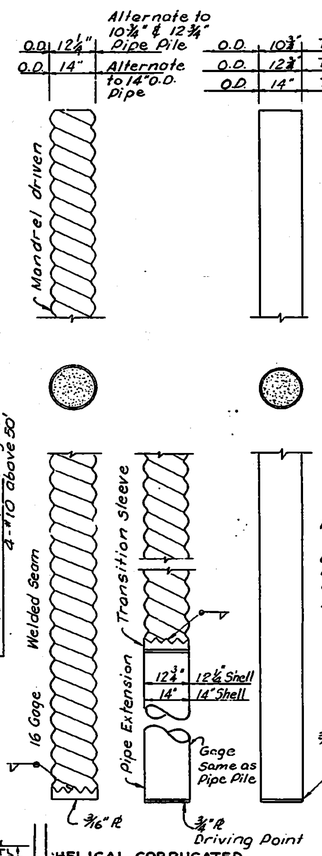
[redacted] 4 4 1

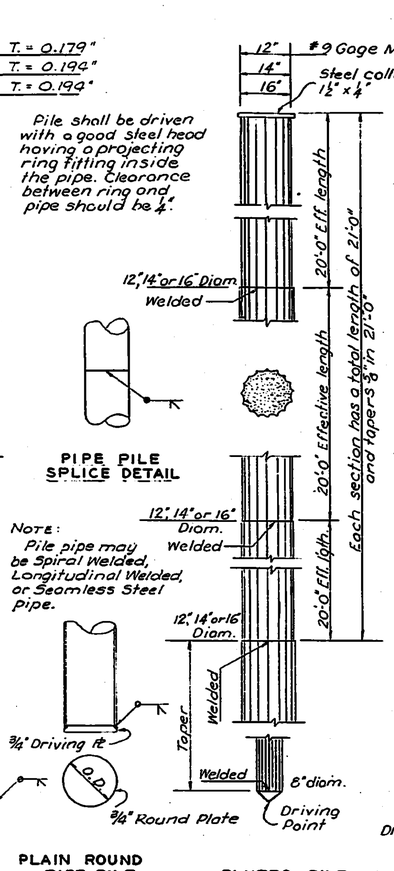
16X 14.5X 12X 12X 14.5X 16X

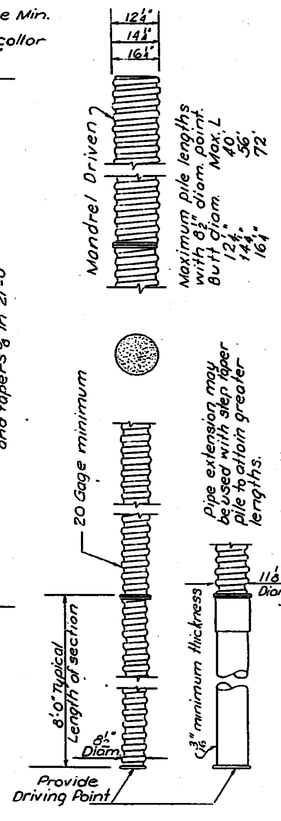
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	BRM-67-1328N-(158)08 Phase I, II & III	195	2012	2137

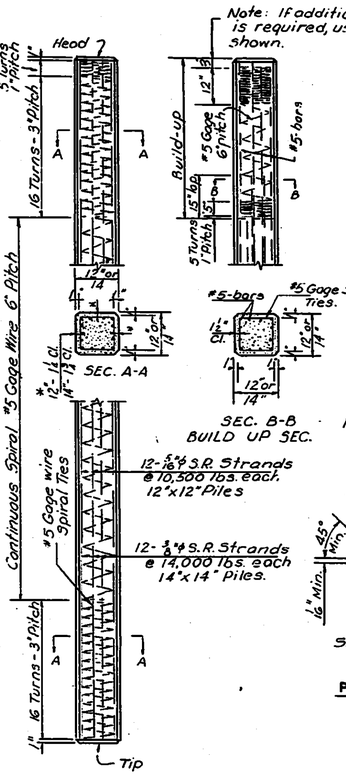
Note: Piles must not be damaged below cutoff elevation.



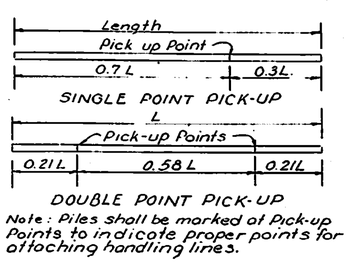








Note: If additional driving is required, use 1" pitch as shown.

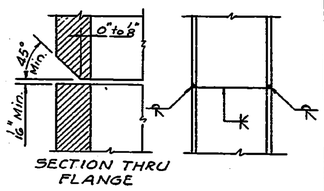


Note: Piles shall be marked at Pick-up Points to indicate proper points for attaching handling lines.

12" x 12" Piles
Max. length - 50' Single Point Pick-up.
Max. length - 75' Double Point Pick-up.

14" x 14" Piles
Max. length - 60' Single Point Pick-up.
Max. length - 85' Double Point Pick-up.

Note. All corners to be Chamfered 1".



PILE SPLICE DETAIL

PILES						
STEEL PILES	EQUIVALENT CONCRETE PILES					
	PRECAST	PIPE	FLUTED	STEP TAPER	PRE-STRESSED	PIPE & PRESTRESSED *
10BP42	14"	10¾"	12"	12½"	12"	12¼"
12BP53	16"	12¾"	14"	14½"	14"	12½"
14BP73	18"	14"	16"	16½"		14"

* Helical Corrugated Pipe shell.

CONCRETE PILES						
PIPE PILE	EQUIVALENT CONCRETE PILES					
	PRECAST	FLUTED	STEP TAPER	PRE-STRESSED	*	
10¾"	14"	12"	12½"	12"	12¼"	
12¾"	16"	14"	14½"	14"	12½"	
14"	18"	16"	16½"		14	

GENERAL NOTES

1. Specifications.
Standard Specifications for State Road and Bridge Construction as currently used by the State Highway Commission of Kansas. (Ed. 1964).

2. Choice of Piles.
Where Piles are specified, the Contractor may elect to use either the Steel Pile specified on the footing plans or the equivalent precast concrete, cast-in-place concrete or prestressed concrete pile shown in the table on this sheet.
Where Concrete Piles are specified the Contractor may elect to use either the size and type concrete pile specified on the footing plans or the equivalent precast concrete, cast-in-place concrete or pre-stressed concrete pile shown in the table on this sheet.
Other types of concrete piles not shown here are subject to the approval of the Engineer. Prestressed Concrete piles, Helical Corrugated Pipe shell or Step Taper piles shall not be used for abutments without expansion joints on bridges more than 150 ft. long.

3 Concrete.
All concrete for Precast and Cast-in-place shall be Class A Concrete. fc' = 3,000 p.s.i.. See Article G1-7(a) Standard Spec's.
Concrete for Prestressed Concrete piles shall be Class AAA Concrete. fc' = 4,000 p.s.i.. See Article G1-7(b) Standard Spec's.

4. Reinforcement
Reinforcing bars shall be new billet steel of intermediate grade without exception. Hoops and spirals may be either plain or deformed bars.

5. Precast Piles.
Precast piles shall conform to the requirements of Article G1-7(a). Standard Specifications.

6. Cast-in-Place Shells.
Steel Shells for Cast-in-place Concrete Piles shall conform to the requirements of Section U-7. Standard Specifications.
All piles driven without mandrel use gages or thicknesses shown above, except fluted pile use No. 9 gage minimum. Piles driven with mandrel shall be of sufficient strength and thickness to withstand driving without injury and to resist harmful distortion and/or buckling due to soil pressure after the mandrel is removed.
Improperly driven, broken or otherwise defective shells shall be removed and replaced or otherwise corrected to the satisfaction of the Engineer by removal and replacement, or the driving of an additional pile at no extra cost.
The Contractor shall maintain on the job at all times prior to and during the filling of the shells, a light suitable for visual inspection of the pile.

7. Steel Pile
Steel Pile shall conform to requirements of Subsection U5-8 Standard Specifications.

8. Pile Points
Pile points shall conform to the dimensions shown and requirements of Article U7-2(c) Standard Specifications. Pile points shall be mill welded to pile.

9. Welding
All field welding shall meet the requirements of Subsection G1-6 Standard Specifications.

10 Paint
All paint shall comply with Subsection Q3-8 Standard Specifications. Or as specified on the plans.

11. Test Piles.
Test Piles shall be driven where called for on the Bridge plans. All test piles shall be located so that they will become part of the Bridge Pile system.

12. Splices.
Splices for Steel Piles and Shell Piling shall be in accordance with details shown on this sheet and shall comply with Subsection G1-6 Std. Spec's.
Precast Concrete Pile splices shall comply with Subarticle G1-7(d)(1). Std. Specifications.
Prestressed Concrete Pile splices shall be made in accordance with the manufacturers recommendations, subject to the approval of the Engineer.

13. Driving Formula.
Driving Formula shall conform to Subarticle G1-4(d)(3).

14. Mill Test Reports
Steel Piles test reports shall comply with Art. U5-8(c) Standard Specifications.
Steel Shells test reports for cast-in-place piles shall comply with Subsection U7-4 Std. Spec's.

15. Payment
Payment for all piles shall comply with Subsec. G1-9. Std. Specifications.

NO.	DATE	REVISIONS	BY	APP'D
6	8-26-64	Revise Entire Gen. Note	J.C.L.	E.E.W.
4	4-8-64	Add Longitudinal Welded Pipe pile	J.C.L.	T.W.O.
3	9-2-63	Revise Choice 2: Pile note, Sh. 15.	J.C.L.	T.W.O.
2	3-27-61	Revise Pipe Pile General Note	J.C.L.	T.W.O.
1	11-28-61	Remove note in Prestressed Conc. Pile	J.C.L.	T.W.O.

STATE HIGHWAY COMMISSION OF KANSAS

STANDARD PILE DETAILS

STD. NO. 102

SHEET NO	OF	SCALE		APP'D	
DESIGNED		DETAILED		QUANTITIES	TRACED
DESIGN CK		DETAIL CK		QUAN CK	TRACE CK

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 4 2

16X 16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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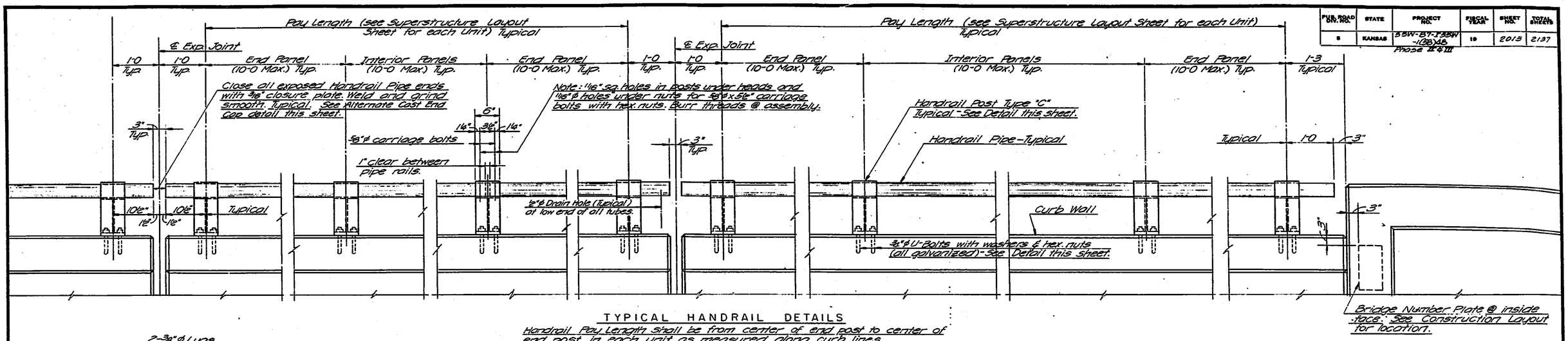
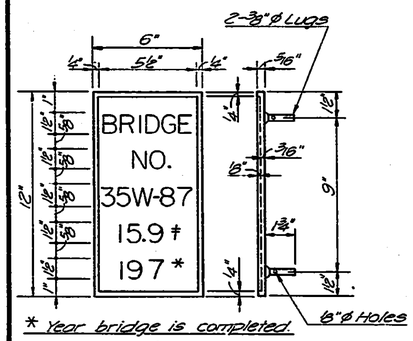


TYPICAL HANDRAIL DETAILS

Handrail Pay Length shall be from center of end post to center of end post in each unit as measured along curb lines.

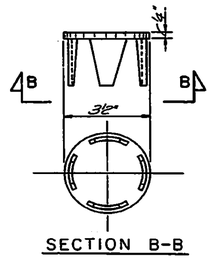


* Year bridge is completed.

BRIDGE NUMBER PLATE

(One required per bridge)

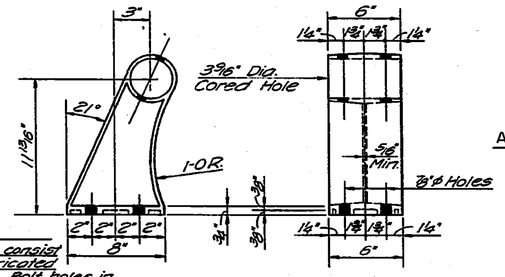
ǂ 15.96 for Bridge Number Plate located on Unit ON.
15.99 for Bridge Number Plate located on Unit 36S.



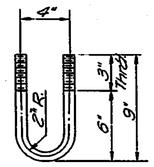
ALTERNATE CAST END CAP

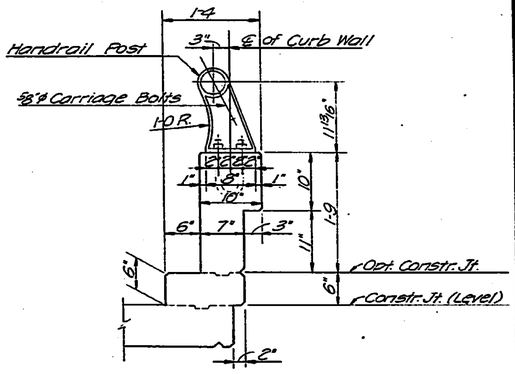
(Driving Fit)

Note: Minimum thickness of flanges and webs shall be 5/16" with 3° draft.

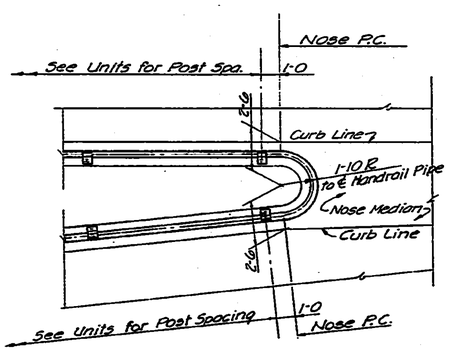


HANDRAIL POST FOR TYPE "C" RAIL





HANDRAIL POST & CURB DETAIL



HANDRAIL AT ENTRANCE RAMPS

BRIDGE HANDRAIL (STEEL)

The horizontal members of the rail shall consist of standard 3 inch pipe and shall be fabricated in lengths to include two or three spaces. Bolt holes in pipe rail may be drilled in the field and shall be 1 1/16" in diameter.

Handrail pipe shall be secured to handrail posts by 5/8"ø x 5 1/2" steel carriage bolts.

Shims may be used between concrete and base of posts.

Handrail pipe, shims and carriage bolts & nuts shall be galvanized.

CAST STEEL OPTION:

Material in cast steel posts shall conform to A.S.T.M. Specifications A27. Posts shall be cast to receive a C70 finish or better followed by a 60 grit belt finish. Posts shall be galvanized.

WELDED STEEL OPTION:

Welded steel posts of a design to be approved by the Engineer may be substituted for the cast posts shown and shall conform to dimensions for Type "A", Type "B", or Type "C" posts.

Material for plates shall conform to A.S.T.M. Specifications A378.

Posts are to be sand blasted to remove scale and oxidation and then shall be galvanized.

Material for rail sleeves shall conform to A.S.T.M. Specification A53.

All welds shall be 3/8" continuous welds with full penetration welds between the front flange and base plate and between the web and base plates.

BRIDGE HANDRAIL (ALUMINUM)

The horizontal members of the rail shall consist of round tubing of 3½ inch diameter and a wall thickness of 3/16 inch and shall be fabricated in lengths to include two or three spaces. Bolt holes in tubing shall be 1 1/16 inch diameter.

Tubing shall be secured to handrail posts by 5/8"ø x 5½" aluminum carriage bolts.

Aluminum shims may be used between concrete and post base. The space below the posts shall be thoroughly caulked with Alumilastic Compound or approved material.

Outside surfaces of handrail posts shall receive a 60 grit finish.

See Kansas Highway Commission Specifications for materials. Posts shall be cast from Aluminum Alloy SG 70A-T6 (ASTM B108 or B26)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
BRIDGE HANDRAIL - STANDARD DETAILS
I-35W VIADUCT
ENGLISH ST. TO EIGHTEENTH ST.
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO.	OF	SCALE		APP'D.	
DESIGNED RBS		DETAILED DS		CHECKED	TRACED DS
DESIGN CK. JNH		DETAIL CK. RBS		CHECK CK.	TRACE CK. RAW

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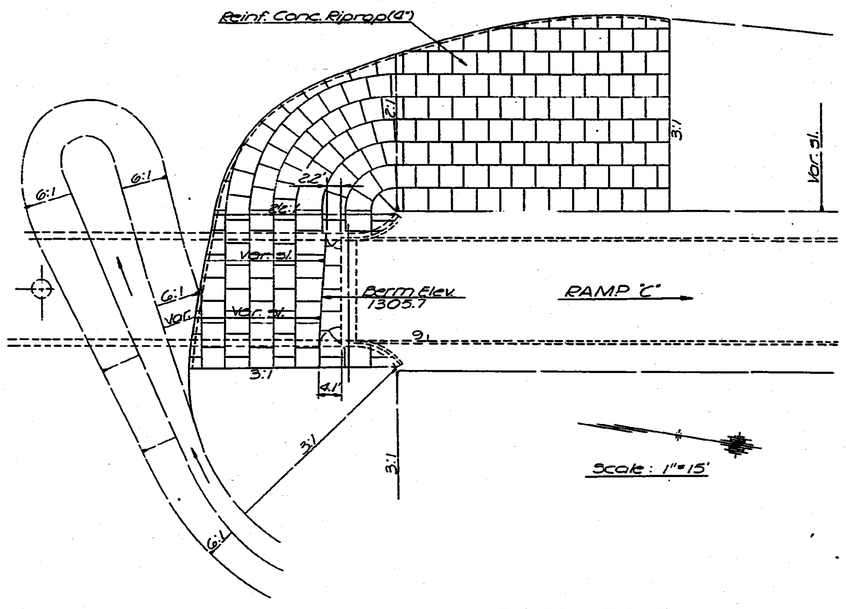
DIST. 5 SEDGWICK CO. ROLL 531

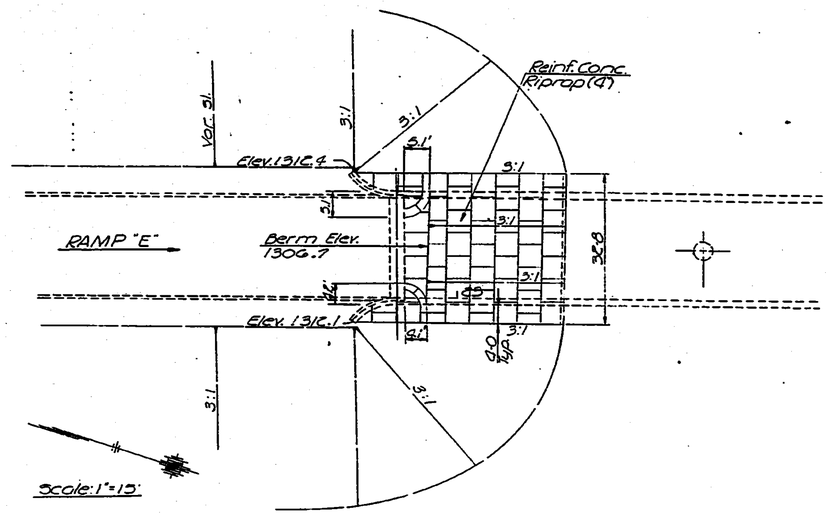
4 4 3

16X 14.5X 12X 12X 14.5X 16X

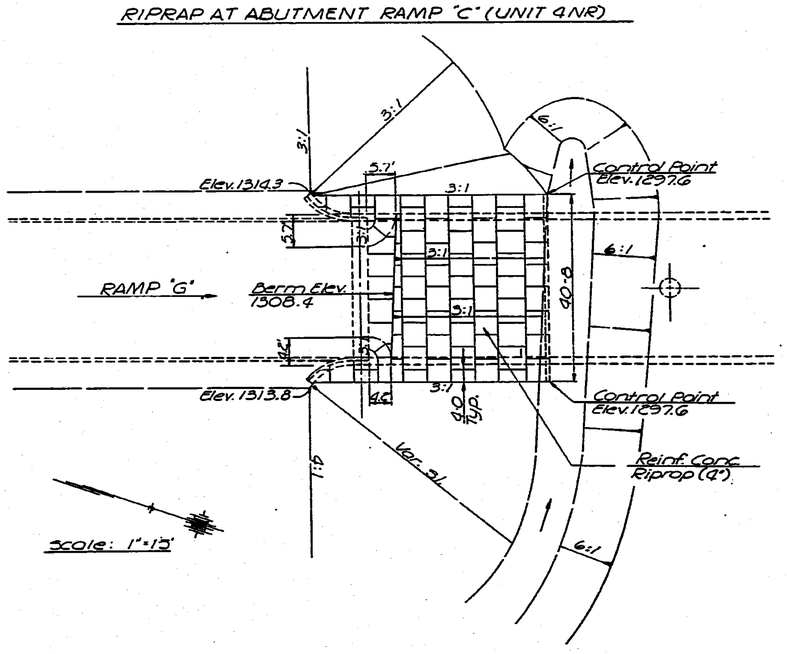
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-I35W (138)48 Phase III	1970	2014	2137



RIPRAP AT ABUTMENT RAMP "C" (UNIT 4NR)



RIPRAP AT ABUTMENT RAMP "E" (UNIT 8NR)



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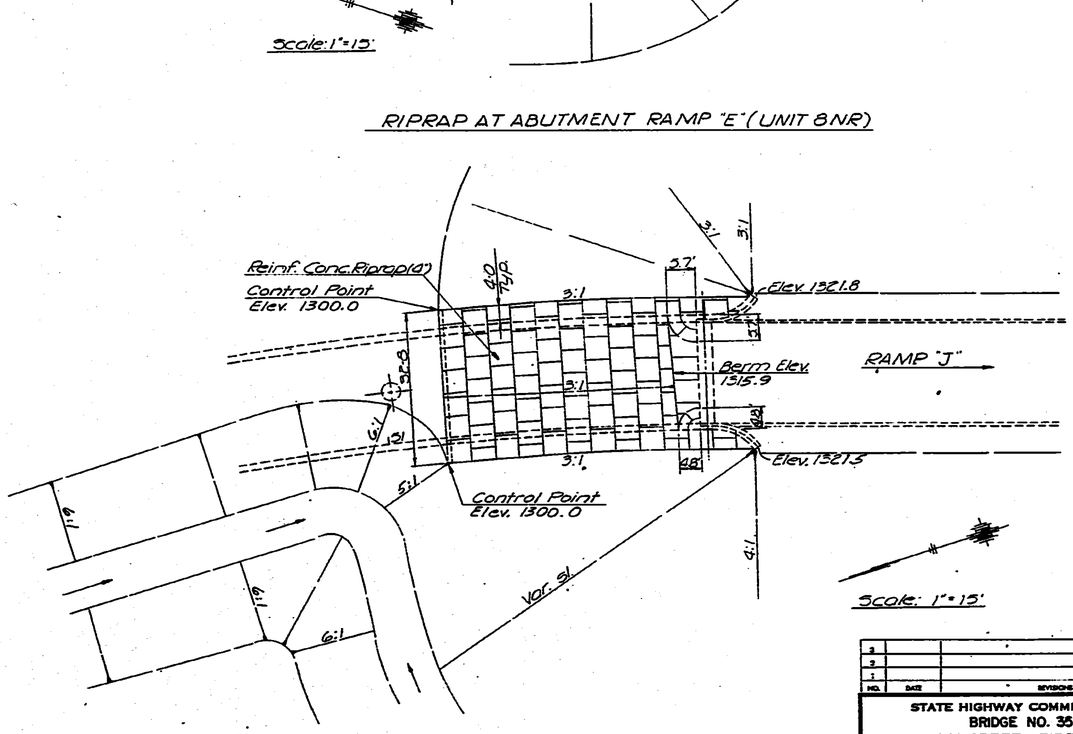

RIPRAP AT ABUTMENT RAMP "J" (UNIT 16 NR)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.96
CONCRETE RIPRAP LAYOUTS
I-35W VIADUCT
ENGLISH ST. TO EIGHTEENTH ST.
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 1 OF 6	SCALE		APP'D.		
DESIGNED DFG	DETAILED RLF		QUANTITIES	TRACED	JML
DESIGN CK. JWH	DETAIL CK. RAW		GENERAL CK.	TRACE CK.	RLF

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DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 4 4

16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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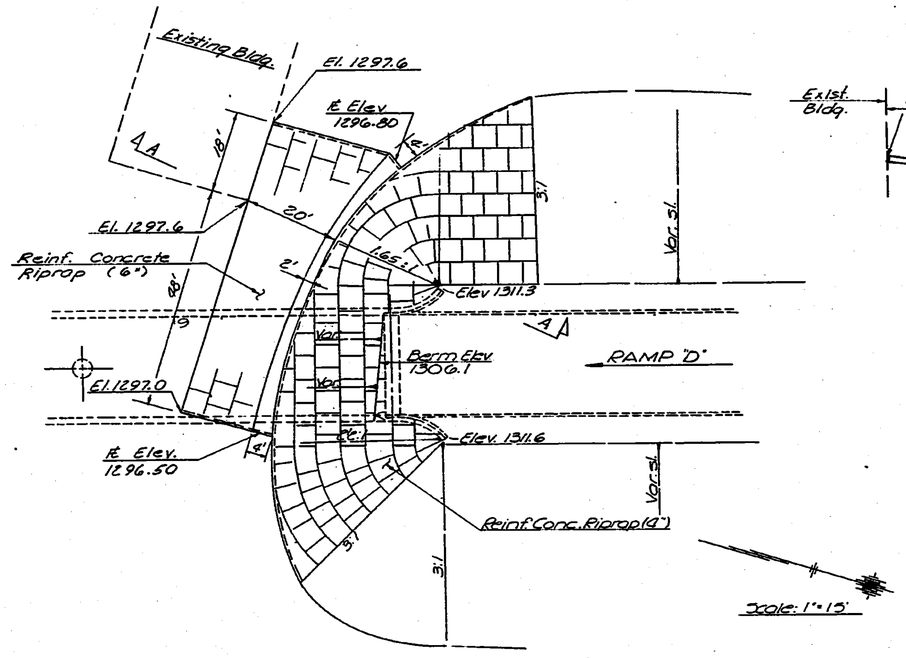
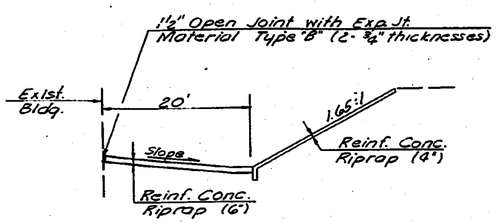
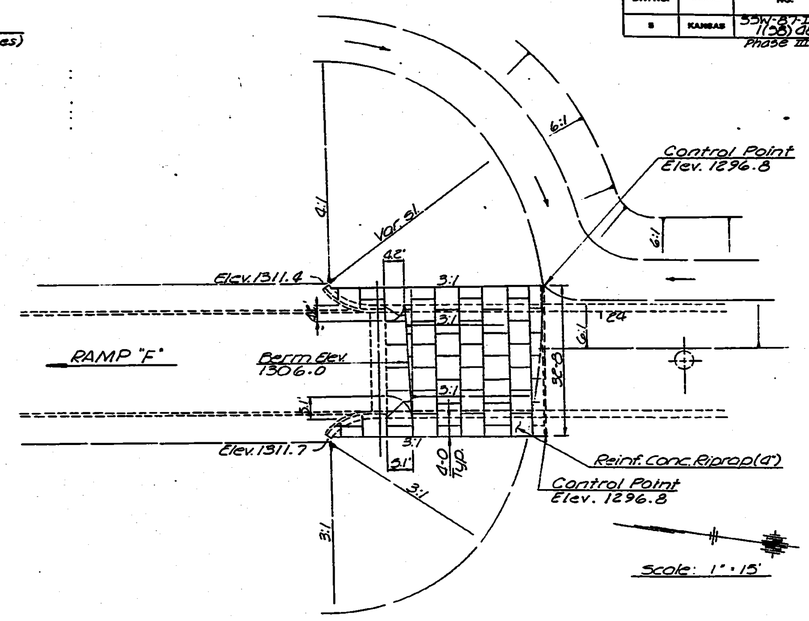


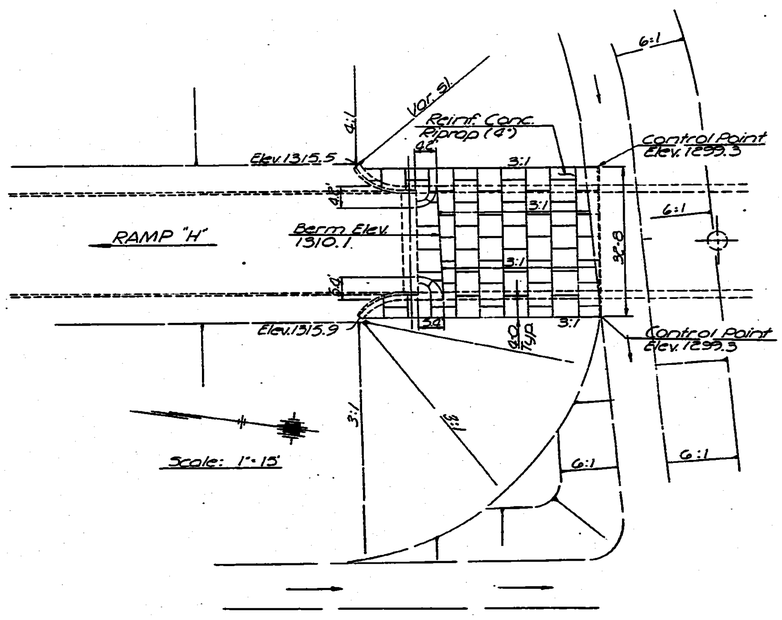


SECTION A-A

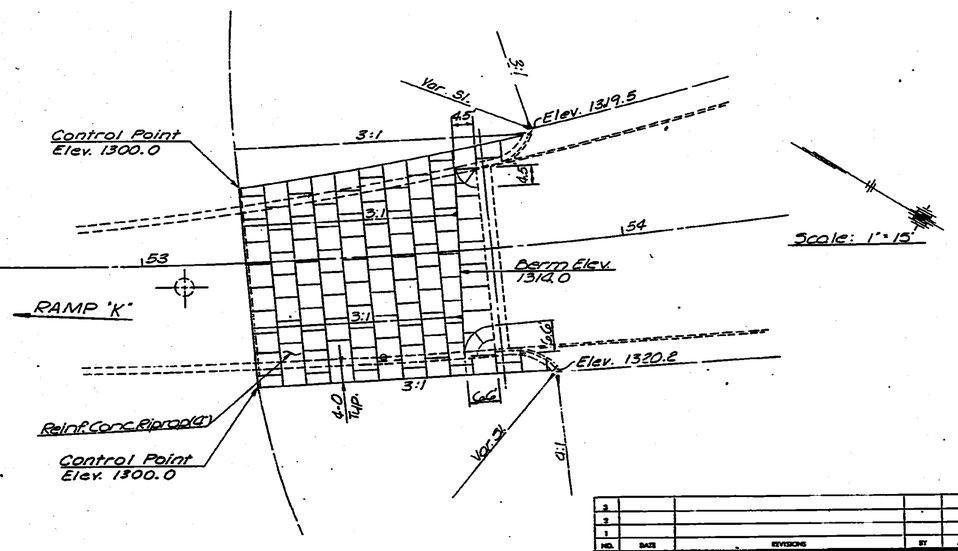
RIPRAP AT ABUTMENT RAMP "D" (UNIT 4 SR)



RIPRAP AT ABUTMENT RAMP "F" (UNIT 8 SR)



RIPRAP AT ABUTMENT RAMP "H" (UNIT 12 SR)



RIPRAP AT ABUTMENT RAMP "K" (UNIT 16 SR)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.99
CONCRETE RIPRAP LAYOUTS
I-35W VIADUCT
ENGLISH ST. TO EIGHTEENTH ST.
PROJ. NO. 35W-87-135W-(158)48 SEDGWICK CO.

SHEET NO. 2 OF 6	SCALE		APP'D.		
DESIGNED DFG	DETAILED RLF		QUANTITIES	TRACED JML	
DESIGN CK. JWH	DETAIL CK. RAW		GEN. CK.	TRACE CK. RLF	

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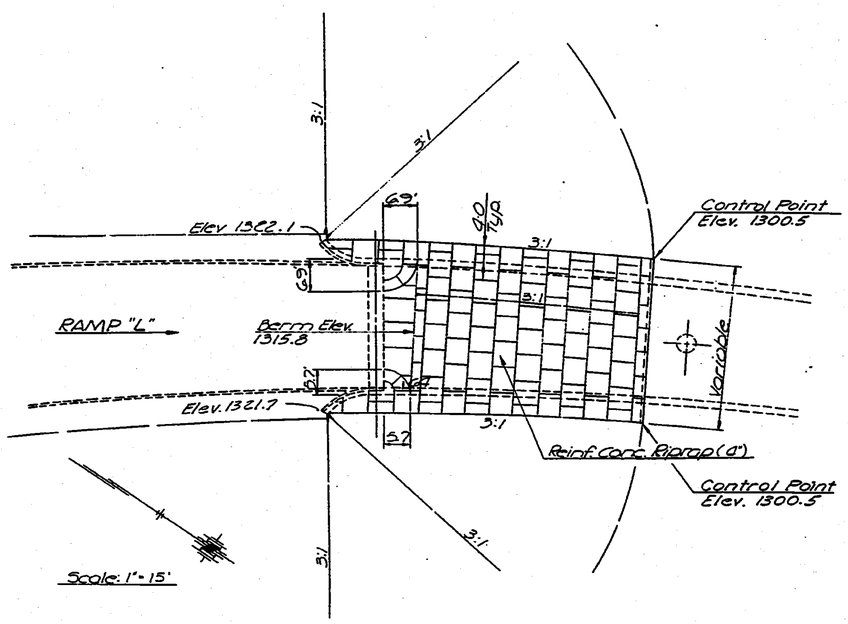
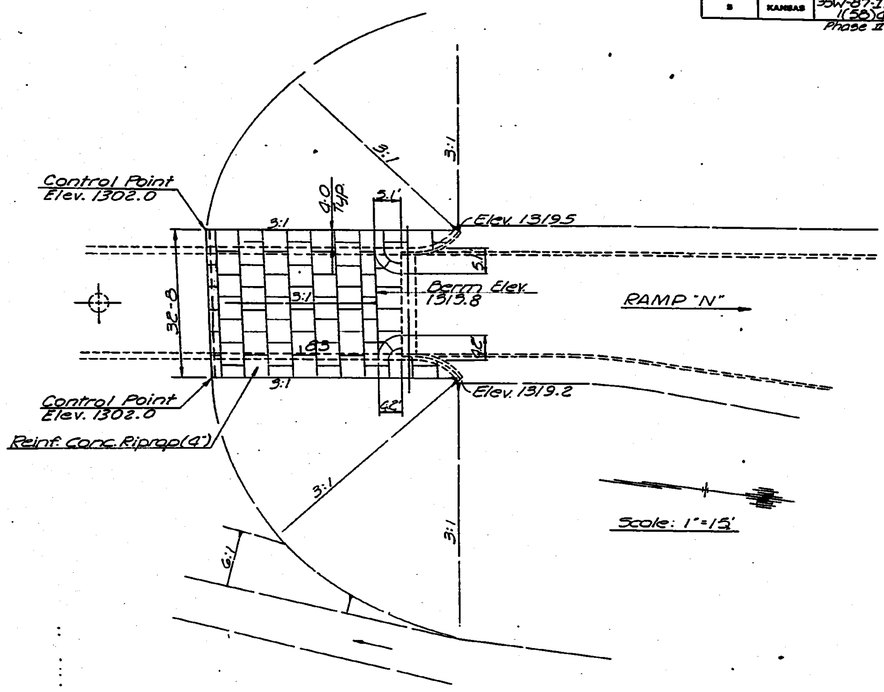
16X | 14.5X | 12X | 12X | 14.5X | 16X

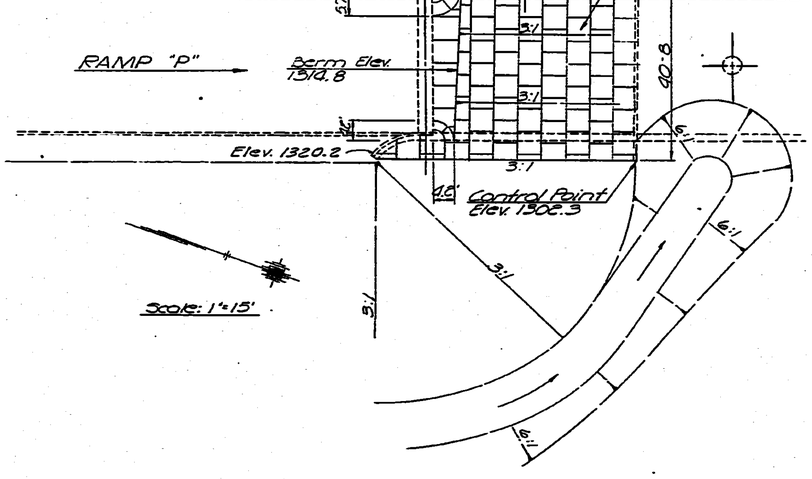
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	1970	201G	2137



RIPRAP AT ABUTMENT RAMP "L" (UNIT CONR)



RIPRAP AT ABUTMENT RAMP "N" (UNIT 2G NR)



RIPRAP AT ABUTMENT RAMP "P" (UNIT CONR)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.96
CONCRETE RIPRAP LAYOUTS
I-35W VIADUCT
ENGLISH ST. TO EIGHTEENTH ST.
PROJ. NO. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 3 OF 6	SCALE	APP'D.	
DESIGNED DFG	DETAILED RLF	QUANTITIES	TRACED JMJ
BRIDGE ENGR. JWH	DETAIL ENGR. RAW	CHIEF ENGR.	TRACE CK. RLF

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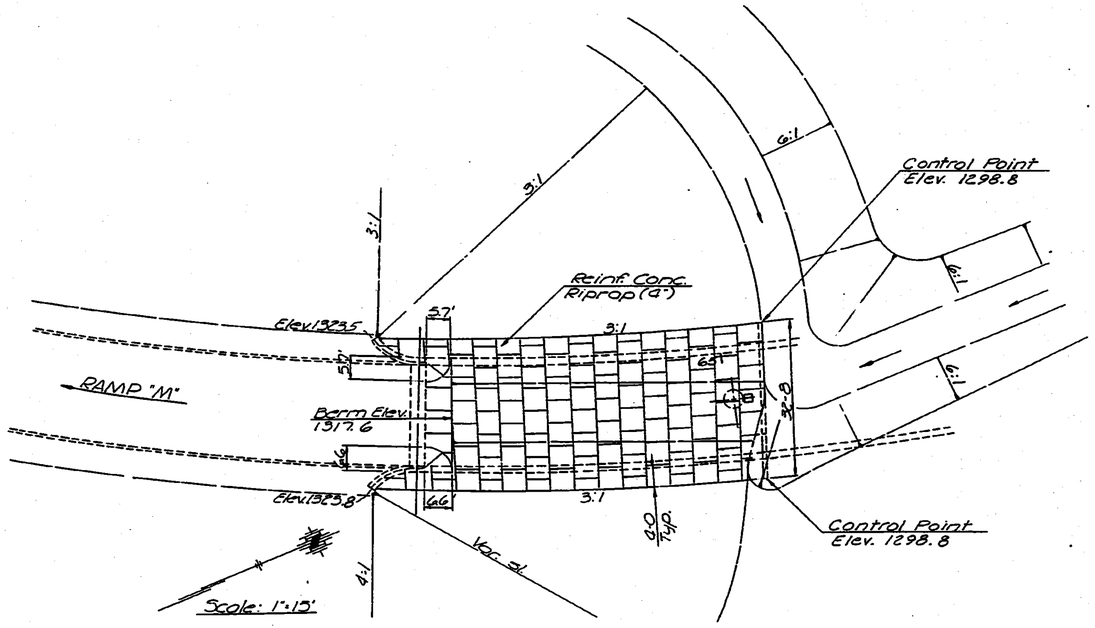
DIST. 5 SEDGWICK CO. ROLL 531

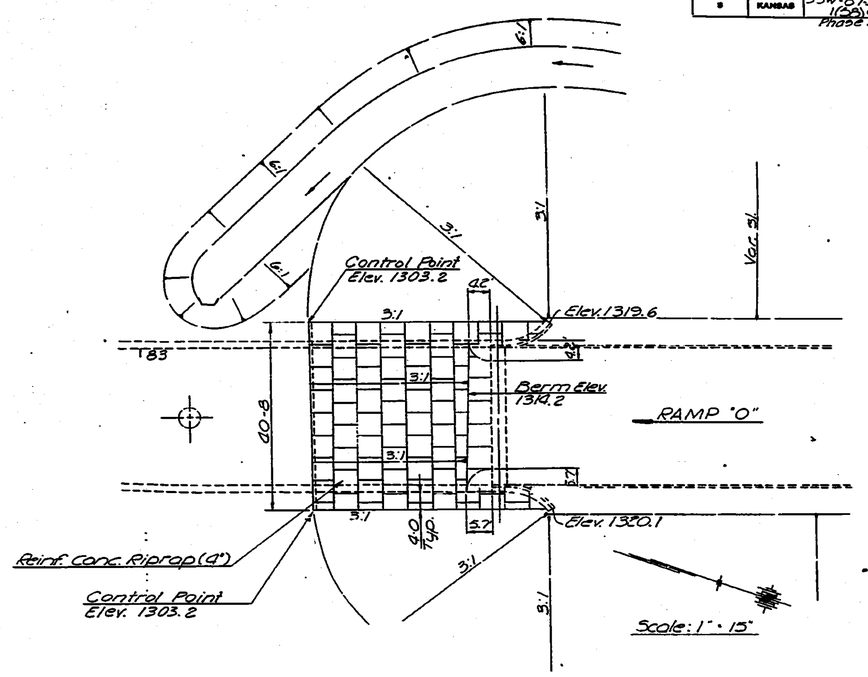
4 4 6

16X 14.5X 12X 12X 14.5X 16X

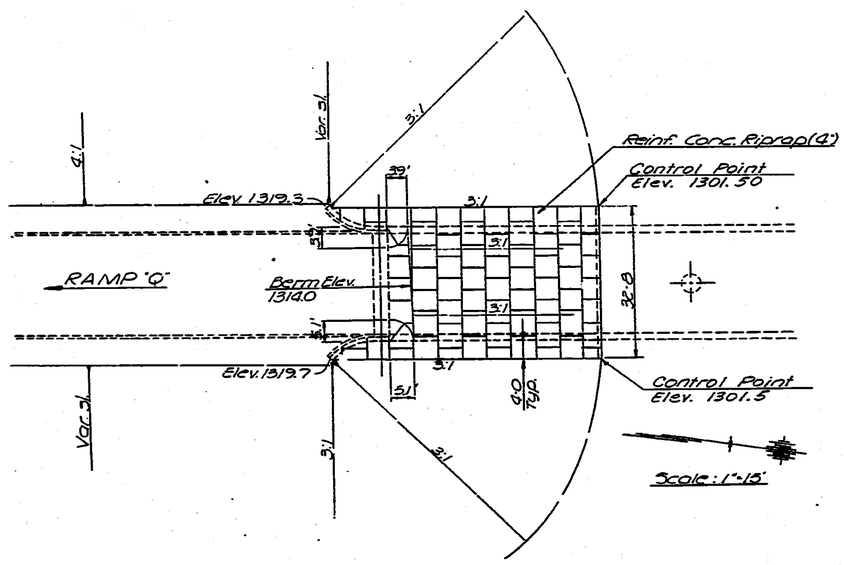
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	1970	2017	2137



RIPRAP AT ABUTMENT RAMP "M" (UNIT 20 3R)



RIPRAP AT ABUTMENT RAMP "O" (UNIT 26 3R)



RIPRAP AT ABUTMENT RAMP "Q" (UNIT 28 3R)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 35W-87-15.99
CONCRETE RIPRAP LAYOUTS
I-35W VIADUCT
ENGLISH ST TO EIGHTEENTH ST.
PROJ. NO. 35W-87-135W-I(58)48 SEDGWICK CO.

SHEET NO. 4 OF 6	SCALE	APP'D.	
DESIGNED DFG	DETAILED RLF	QUANTITIES	TRACED JMI
DESIGN CK. JWH	DETAIL CK. RAW	QUAN. CK.	TRACE CK. RLF

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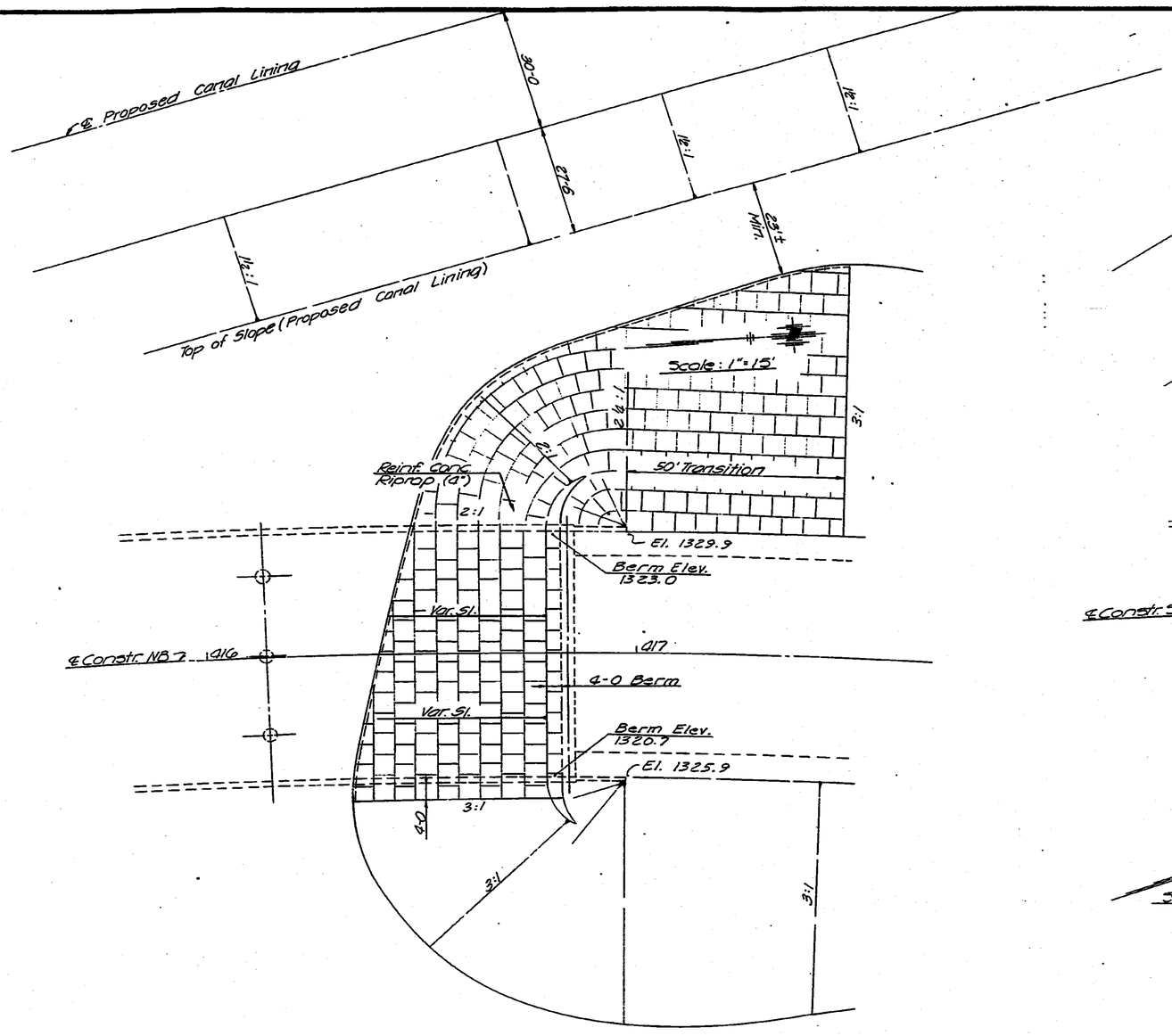
DIST. 5 SEDGWICK CO. ROLL 531

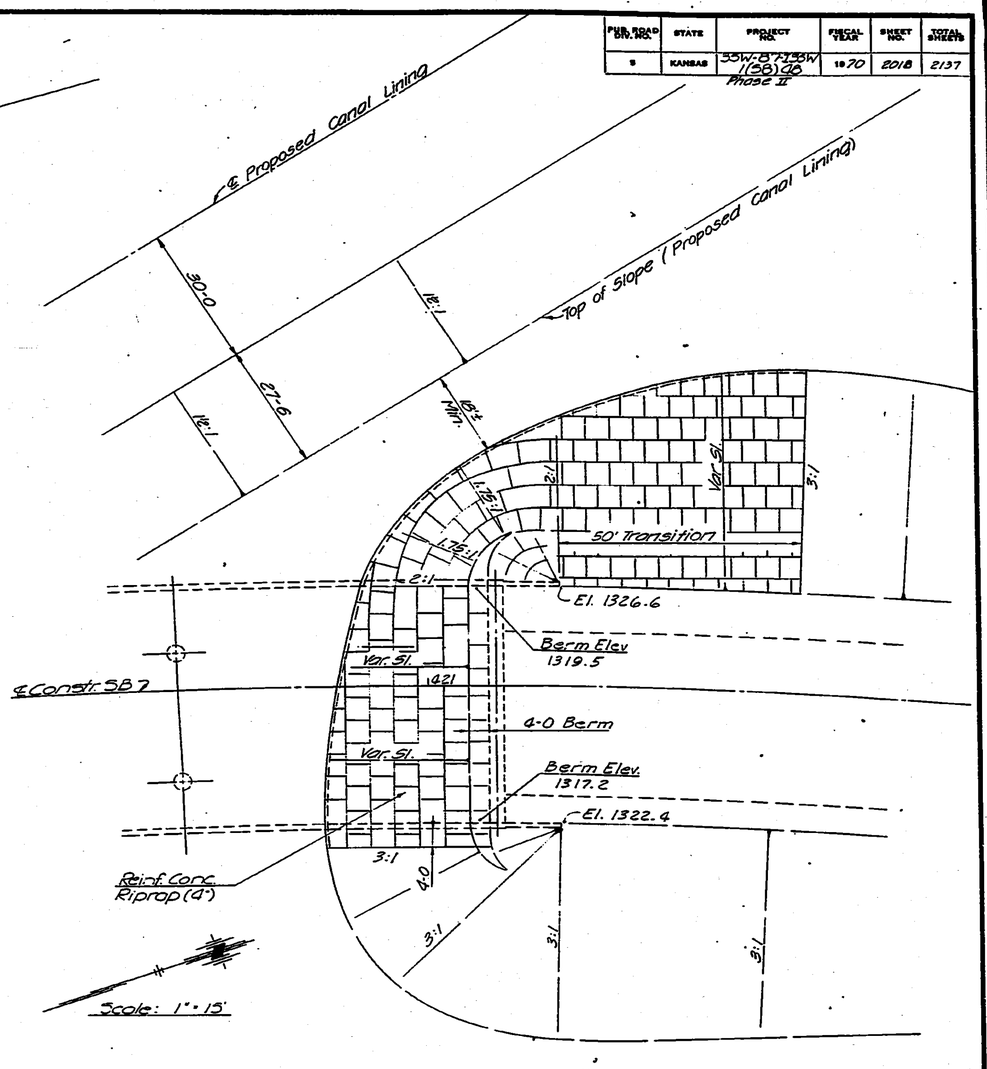
4 4 7

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W I(58)48 Phase II	1970	2018	2137



RIPRAP AT ABUTMENT (UNIT 35N)



RIPRAP AT ABUTMENT (UNIT 36S)

NO.	DATE	REVISIONS	BY	APP'D.
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NOS. 35W-87-15.96 & 15.99
CONCRETE RIPRAP LAYOUTS
I-35W VIADUCT
ENGLISH ST. TO EIGHTEENTH ST.
PROJ. NO. 35W-87-135W-1(58)48 SEDGWICK CO.

SHEET NO. 5 OF 6	SCALE	APP'D.	
DESIGNED DFS	DETAILED RLF	QUANTITIES	TRACED JML
DESIGN CK. JWH	DETAIL CK. RAW	QUAN. CK.	TRACE CK. RLF

TOPEKA BLUE PRINT CO.

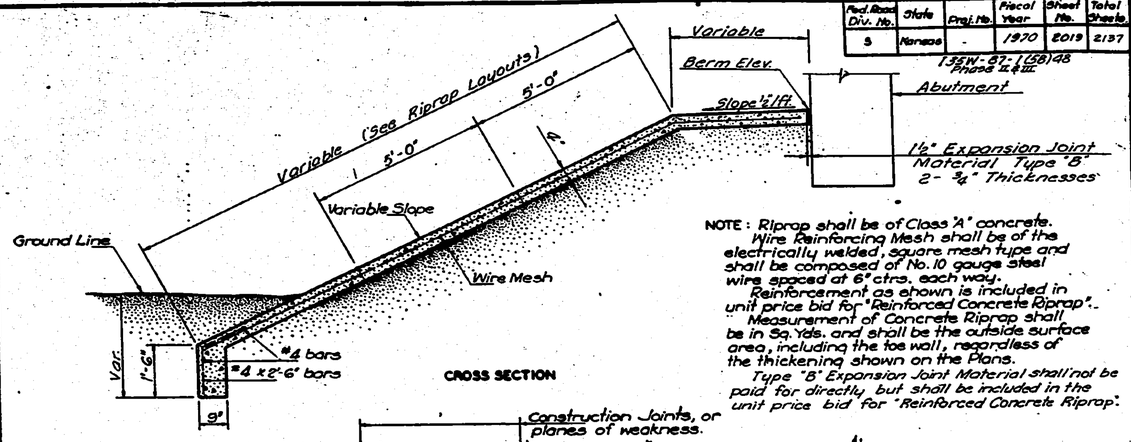
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 4 8

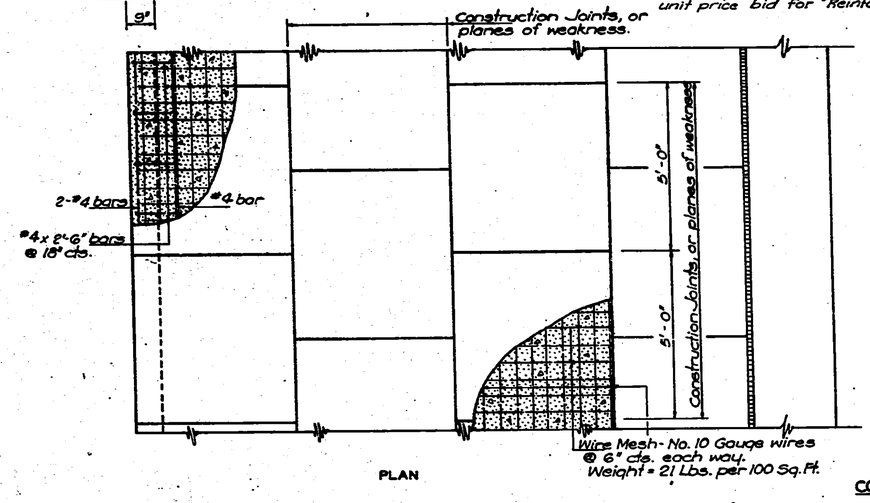
16X 14.5X 12X 12X 14.5X 16X

Fed. Road Div. No.	State	Proj. No.	Fiscal Year	Sheet No.	Total Sheets
5	Kansas	-	1970	2019	2137

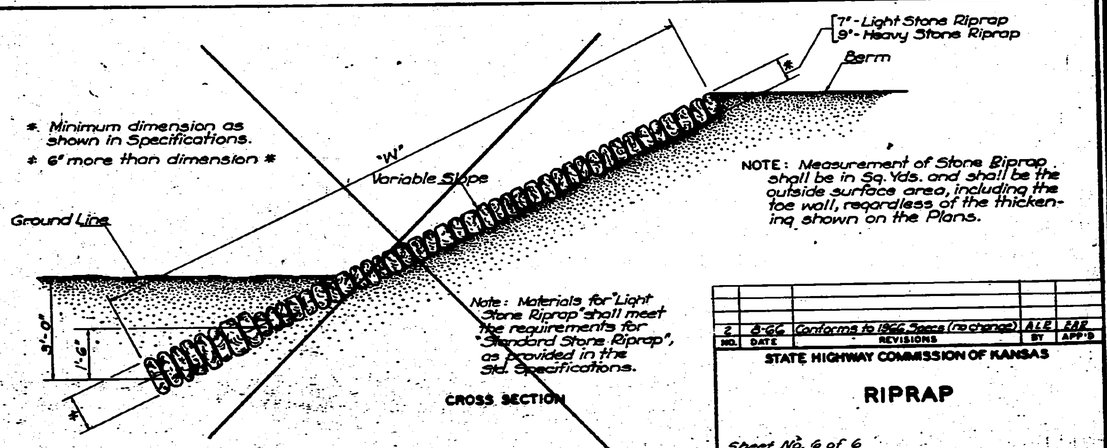
(35W-37-1(58)48 Phase II & III



NOTE : Riprap shall be of Class 'A' concrete.
Wire Reinforcing Mesh shall be of the electrically welded, square mesh type and shall be composed of No. 10 gauge steel wire spaced at 6" ctrs. each way.
Reinforcement as shown is included in unit price bid for "Reinforced Concrete Riprap".
Measurement of Concrete Riprap shall be in Sq. Yds. and shall be the outside surface area, including the toe wall, regardless of the thickening shown on the Plans.
Type "B" Expansion Joint Material shall not be paid for directly but shall be included in the unit price bid for "Reinforced Concrete Riprap".



CONCRETE RIPRAP



NOTE : Measurement of Stone Riprap shall be in Sq. Yds. and shall be the outside surface area, including the toe wall, regardless of the thickening shown on the Plans.

NO.	DATE	REVISIONS	BY	APP'D
2	8-66	Conforms to 1966 Specs (no change)	ALE	FBR

STATE HIGHWAY COMMISSION OF KANSAS

RIPRAP

Sheet No. 6 of 6
STD. NO. 500.1 SCALE No Scale
DESIGNED BY F.A.R. DATE ____ DETAILED BY W.A.B. TRACED BY W.A.B.
CHECKED BY A.L.E. APPROVED BY [signature] DATE 2-22-66

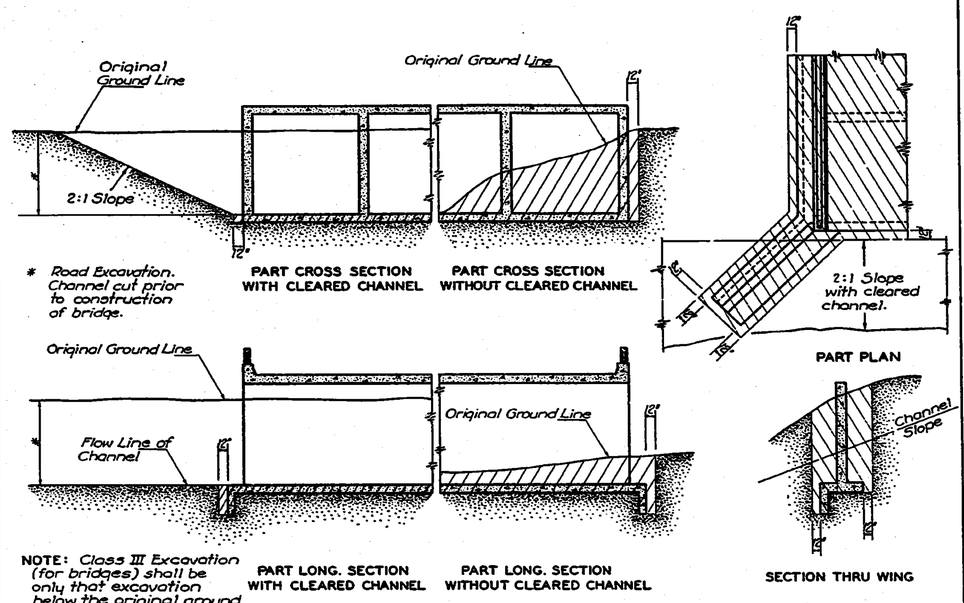
STONE RIPRAP

DIST. 5 SEDGWICK CO. ROLL 531

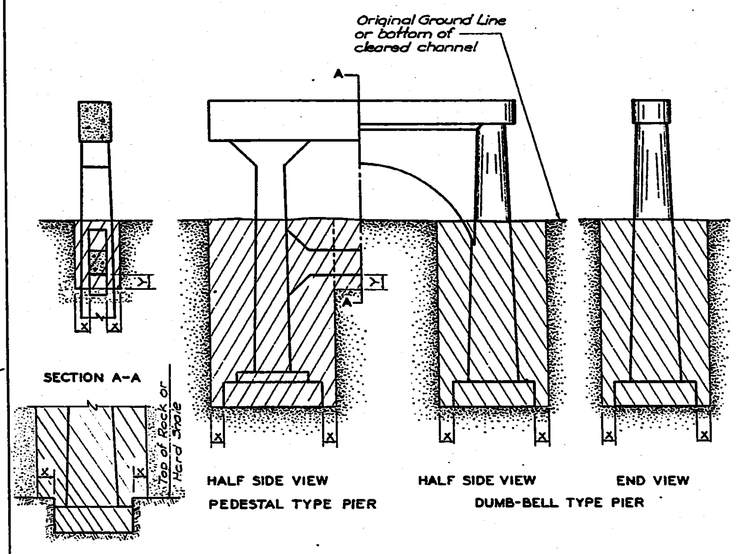
4 4 9

16X 14.5X 12X 12X 14.5X 16X 20X

Pub. Road Div. No.	State	Proj. No.	Fiscal Year	Sheet No.	Total Sheets
5	Kansas	50M-67 (Con'r-150) US Phase I, II & III		2020	2137
				Section	

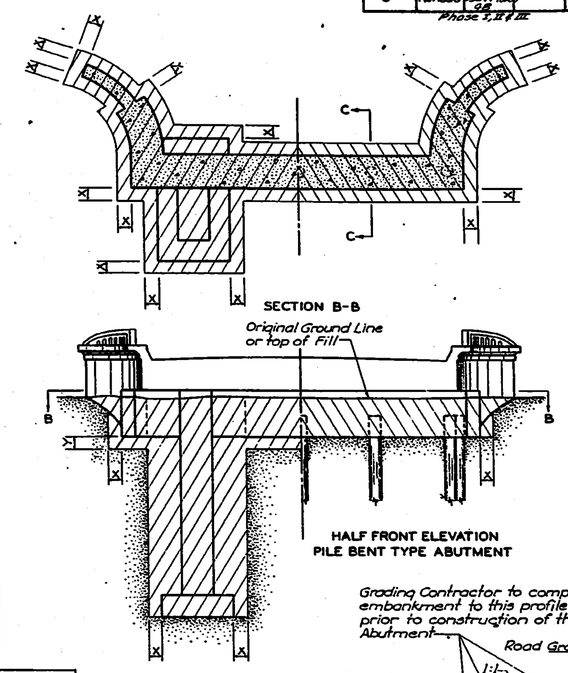


EXCAVATION DETAILS FOR TYPICAL MULTIPLE BOX



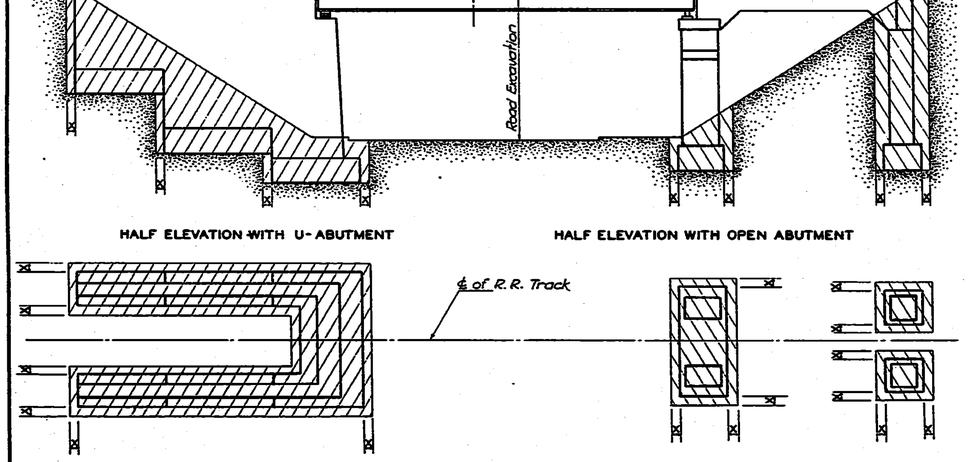
NOTE: When Rock or Hard Shale is encountered all excavation below top of this material shall be to neat lines.

EXCAVATION DETAILS FOR TYPICAL PIERS

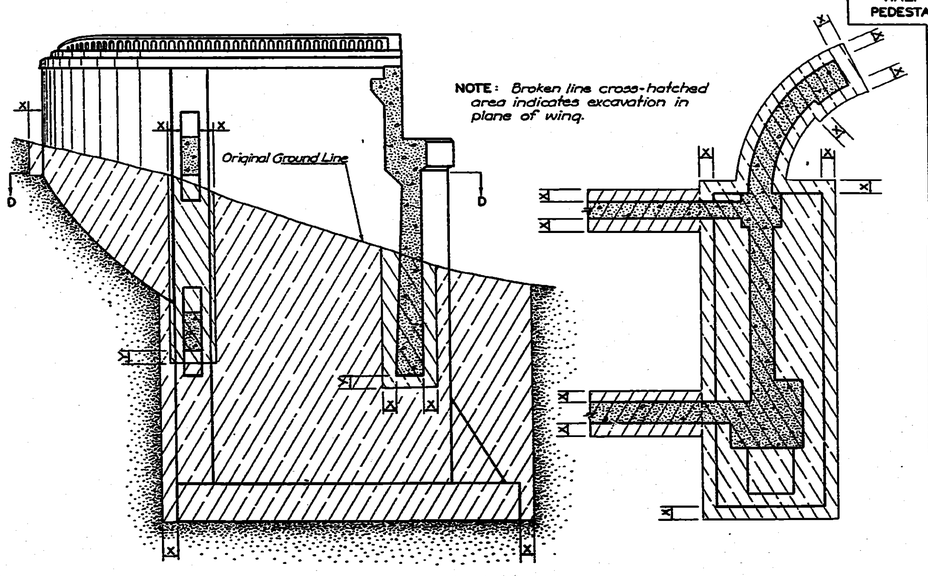


NOTE: Bridge Contractor shall finish the embankment and berms after the construction of the Abutment and dispose of any excess material as directed by the Engineer.

EXCAVATION DETAILS FOR TYPICAL ABUTMENTS



EXCAVATION DETAILS FOR TYPICAL SUBWAYS



EXCAVATION DETAILS FOR TYPICAL U-ABUTMENTS

NOTE: All bridge excavation shall be computed on the basis of the cross-hatched areas and boundary lines indicated on this sheet.
Dimension 'X' shall be 1'-6" unless indicated otherwise on the general plans.
Dimension 'Y' shall be 1'-6" unless indicated otherwise on the general plans.
See Sheets 508A & 509 for limits of Class III Excavation for Drilled Shafts and attendant foundation beams.

NO.	DATE	REVISIONS	BY	APP'D
7	8-66	Conform to 1966 Specs (no change)	ALR	CAR
6	10-60	To conform to 1960 Specs.	WB	KGL

STATE HIGHWAY COMMISSION OF KANSAS

BRIDGE EXCAVATION

STD. NO. 100 SCALE 1/8" = 1' (For 22" x 36" sheet)
DESIGNED BY F.A.R. DATE 6-45 DETAILED BY W.A.B. TRACED BY W.A.B.
CHECKED BY C.J. APPROVED BY H.H. Vincent DATE 6-17-44

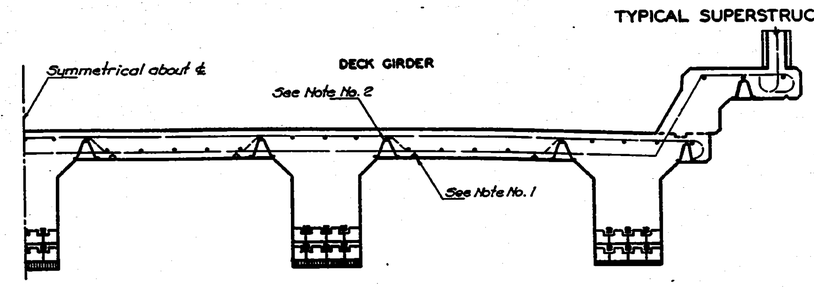
DIST. 5 SEDGWICK CO. ROLL 531

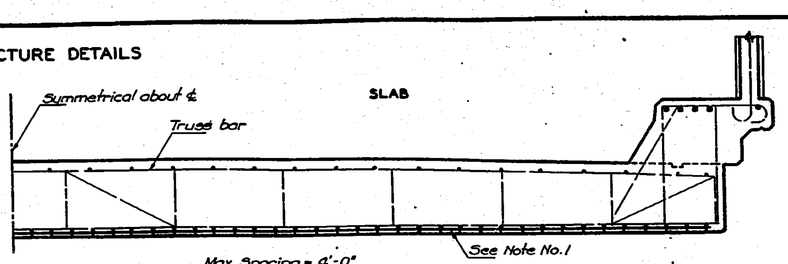
[redacted]

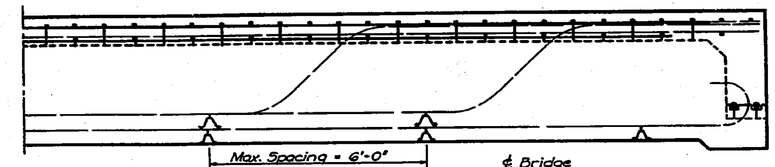
16X 14.5X 12X 12X 14.5X 16X

Pub. Road Div. No.	State	Proj. No.	Fiscal Year	Sheet No.	Total Sheets
5	Kansas	36K-87 (36N-120) 68 Phase I, II & III	2021	2137	
				Section	

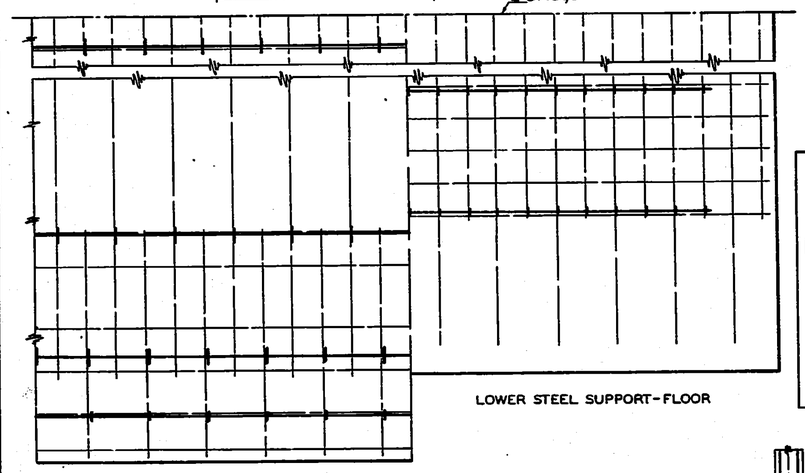
TYPICAL SUPERSTRUCTURE DETAILS



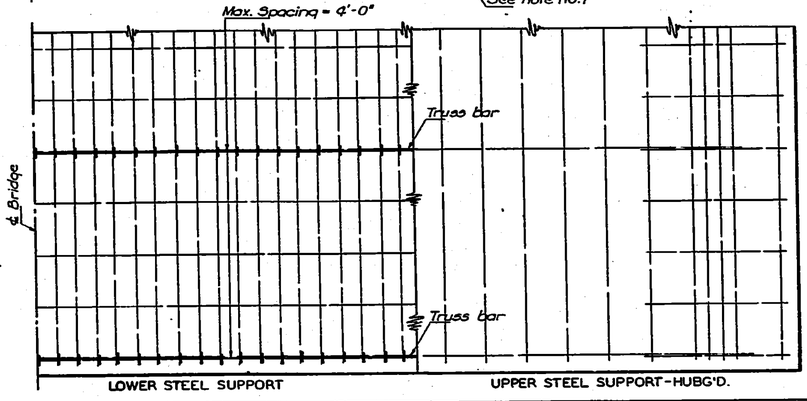




UPPER STEEL SUPPORT-FLOOR-HUBG'D

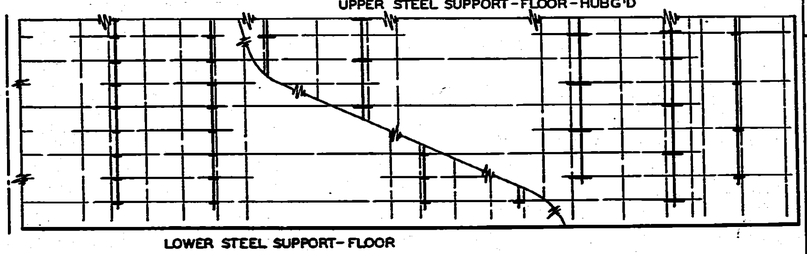


LOWER STEEL SUPPORT-FLOOR



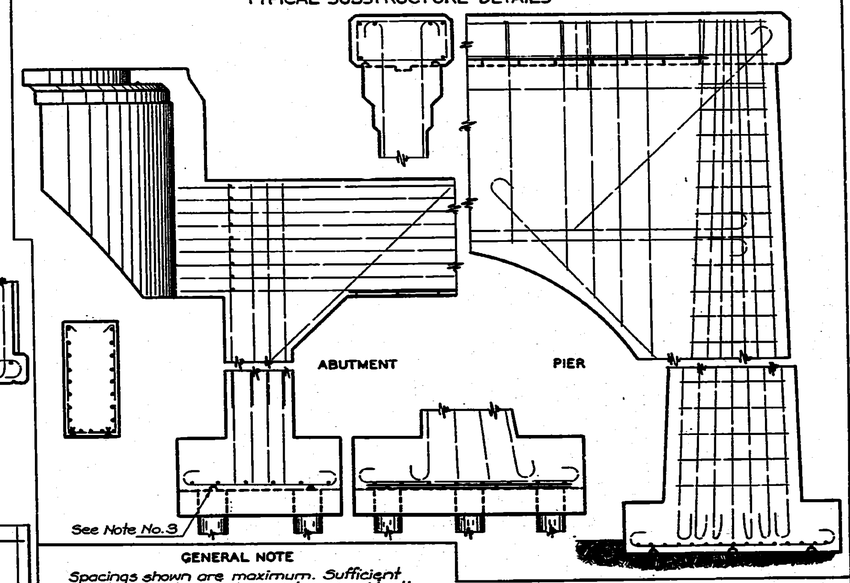
LOWER STEEL SUPPORT — UPPER STEEL SUPPORT-HUBG'D.

UPPER STEEL SUPPORT-FLOOR-HUBG'D



LOWER STEEL SUPPORT-FLOOR

TYPICAL SUBSTRUCTURE DETAILS



GENERAL NOTE

Spacings shown are maximum. Sufficient supports shall be used, as determined by the Engineer, to retain the reinf. steel in position.

Approved designs and arrangements of Supports or Spacers other than as shown on this sheet, may be used with the permission of the Engineer. Component parts of Supports and Spacers shall be securely welded at all contact points. Legs shall be so constructed that only the ends bear upon the forms.

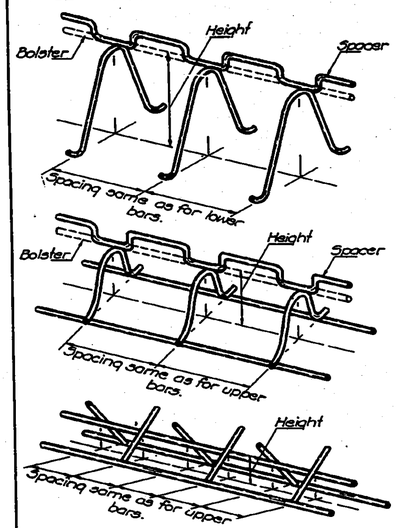
Wire used for Supports and Spacers shall be of sufficient size to insure stability of Reinforcing Steel at the position shown on the Plans, within the limits indicated by Notes 1 & 2. Wire supports shall be supplemented with form ties or other approved devices where necessary.

NOTE 1: The lower side of Reinforcing Steel in these locations shall be not less than one inch (1") from the surface of the concrete.

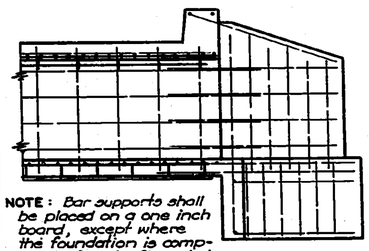
NOTE 2: The upper side of Reinforcing Steel in these locations shall be within the limits shown on the Plans.

NOTE 3: The use of Wire Supports for Reinforcing Steel in these locations is optional. Where they are not used the Steel shall be supported from the forms by means of wire ties or saddles.

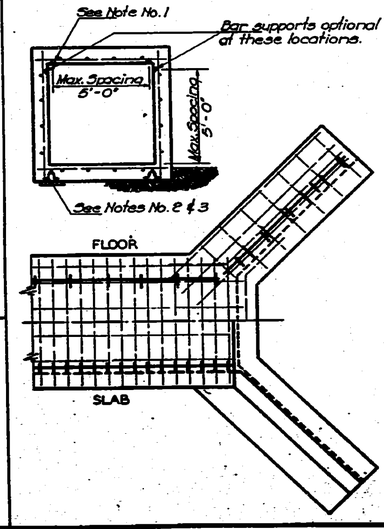
BEAM BAR SPACERS & BOLSTERS



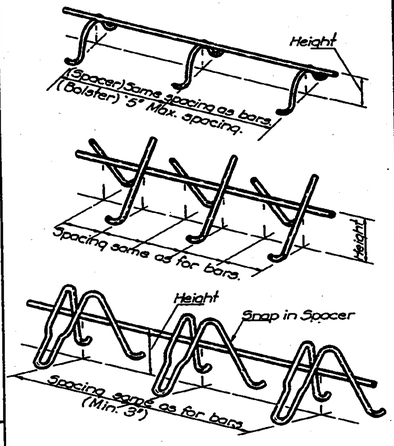
TYPICAL CULVERT DETAILS



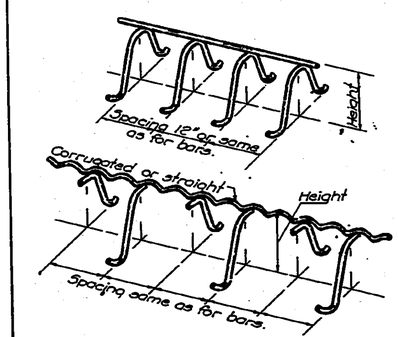
NOTE: Bar supports shall be placed on a one inch board, except where the foundation is composed of rock, firm shale or a seal course. See Note No. 3.



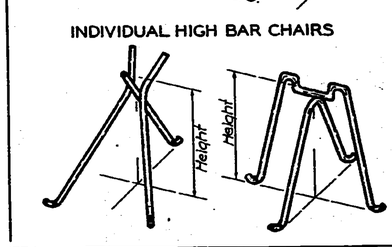
LOW SLAB BAR SPACERS & BOLSTERS



HIGH SLAB BAR SPACERS & BOLSTERS



INDIVIDUAL HIGH BAR CHAIRS



NO.	DATE	REVISIONS	BY	APP'D
5	8-46	Conform to 1946 Specifications	L.R.E.	A.R.
4	10-40	To conform to 1940 Specs.	W.R.	K.A.L.

STATE HIGHWAY COMMISSION OF KANSAS

SUPPORTS AND SPACERS FOR REINFORCING STEEL

STD. NO. 610 SCALE No Scale

DESIGNED BY F.J.R. DATE 7-43 DETAILED BY W.A.D. TRACED BY W.A.D.

CHECKED BY C.T. APPROVED BY L.H. Linscott DATE 4-17-44

DIST. 5 SEDGWICK CO. ROLL 531

4 5 1

16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-1354 (32)43 Phase I	1970	2022	2137

Revised Sheet Added 2/26/73 BY MW

"REVISED PLANS" MAY 11, 1972
REVISED PLANS JULY 7, 1972
▲ REVISED PLANS 7-18-72
● Revised Plans 10-26-72
⬢ Revised Plans 11-10-72

CONCRETE SIDEWALK (4")

STA TO STA		SIDE	SQ. YDS.	WIDTH	LOCATION
					Lt 301+80 to 305+00
Minnesota Ave. (Lt. & Sta. to Sta.)					
52+87	53+92	Lt	2	4	
53+06	53+98	Lt	18	4	
53+61	54+00	Lt	17	4	
54+13	54+47	Lt	16	4	
54+74	56+18	Lt	68	4	
First Street					
46+10	46+37.3	Rt	12	4	
46+35	48+07.4	Rt	68	4	
46+83.2	48+06.8	Lt	64	4	
48+54	48+63.55	Rt	8	Var.	
48+59.8	48+80.36	Lt	10	Var.	
48+63.55	49+57.49	Rt	71	6.83	
48+80.36	49+43.85	Lt	68	6.83	
50+66.93	51+23.88	Lt	43	6.83	
50+80.37	51+82.52	Rt	77	6.83	
51+23.88	51+56	Lt	27	6.83	
51+82.58	51+92.2	Rt	5	Var.	
52+08.7	53+23	Lt	52	4	
52+37	52+92	Lt	12	4	
~~53+16~~	~~53+38.6~~	Rt	~~23~~	4	
52+94	—		53		
53+69.2	54+59.8	Rt	90	4	
55+12	~~56+00~~	Rt	~~32~~	4	75 ●
55+17	~~56+00~~	Lt	~~26~~	4	28 ●
Ash Street					
56+30	56+69	Lt	9	4	
56+30	56+74	Rt	11	4	
57+25	57+50	Rt	18	4	
Road "B"					
10+90	16+50	Lt	273	4	
					Rt 312-85 to 317+00
Minnesota Avenue (Lt & Sta to Sta)					
111+20	112+17	Rt	43	4	
112+33	112+79	Rt	20	4	
112+96	113+26	Rt	13	4	
113+45	113+69	Rt	11	4	
	97+81 Second Street				
45+72.5	~~49+39.5~~	Lt	~~#~~	4	94
48+31.3	49+41.91	Lt	67	4	
50+07	51+82	Lt	90	6.83	
50+12.79	51+76	Rt	79	6.83	
	+31.61				
52+27.2	53+~~#~~	Lt	~~#~~	4	45 ●
52+28.3	52+97.3	Rt	31	4	
53+21.4	53+37.1	Rt	#	4	9 ●
Road "E" & Alley To South					
—	—	—	12	4	From End St. to Cul-de-Sac
11+28	13+70	Lt	105	4	From Outside Str. to Rd. E
7+00	8+10	Lt	49	4	Road "E"
8+30	9+69.5	Lt	60	4	Road "E"
—	—	Lt	23	4	Around radius on Rd E
—	—	West	10	4	on Rd 1st Ave.
Kansas Avenue					
98+79	99+41	Lt	32	4	@ Central Ave.
98+79	98+97	Rt	8	4	@ Central Ave.
Central Avenue					
~~42+~~			107		
44+~~#~~	46+20	Rt	~~#~~ 22	Var.	
46+05.5	47+27	Lt	54	4	
46+39.8	46+70.8	Rt	22	Var.	
46+70.8	49+39	Rt	119	4	
98+11	49+34.77	Lt	92	6.83	
49+39	49+59.82	Rt	16	6.83	
50+37.82	51+73.9	Lt	28	6.83	
50+82.72	50+95.3	Rt	10	6.83	
50+95.5	53+27	Rt	134	4	
52+34.8	53+59	Lt	35	4	
53+59	54+31.63	Lt	50	Var.	
53+97	62+53	—	17	Var.	Sta. 62-53 on Minn. Ave.
54+47	54+70	Rt	10	4	
Pennsylvania Ave. Cul-de-Sac					
50+60	51+24.82	Lt	29	4	Sta. 54+01 Lt. 13 to 52

CONCRETE SIDEWALK (4")

STA TO STA		SIDE	SQ. YDS.	WIDTH	LOCATION
Mathewson Ave.					
~~[illegible]~~					
~~[illegible]~~					
41+59	41+66.5	Lt & Rt	8	5	53
37+72.37	*Inner Loop West*				Cleveland Ave. Sta.
~~[illegible]~~	~~[illegible]~~	Lt	~~[illegible]~~	4	*Mathewson Ave. Sta.
~~[illegible]~~	44+31.9	Lt	~~[illegible]~~	4	221
44+30.5	43+28	Lt	197	4	
43+28	43+32.5	Lt	8	6.83	
Inner Loop East					
50+61	50+70	Lt	7	6.83	
50+70	57+67.2	Lt	177	4	
55+14	57+90	Lt	123	4	
Road "D"					
54+07	57+82	Lt	152	4	(335'-13'+19')÷36
9th St	New York Ave				
43+53	46+20	—	129	4	
Cleveland Avenue					
78+17.94	78+43.5	Lt	11	4	
79+17.93	79+28.7	Rt	5	4	
13th St.	Cleveland St.				
44+03	79+43.5	—	5	Var.	
Cleveland Ave	13th St.				
79+28.7	98+78	—	8	Var.	
New York Avenue					
50+78	54+85	Rt	180	4	North of 13th St.
Thirteenth Street					
41+12	46+41.3	Lt	230	4	
41+21	41+91	Rt	32	4	
42+03	42+69	Rt	27	4	
42+74	44+05	Rt	57	4	
44+72	47+81	Rt	137	4	
47+88.1	48+93	Lt	47	4	
48+35	49+18.4	Rt	37	4	
48+93	99+00	Lt	4	Var.	
49+00	49+11.83	Lt	9	6.83	
49+18	99+25	Rt	4	Var.	
99+25	99+43.69	Rt	19	6.83	
30+34.91	50+30	Lt	10	6.83	
50+66.77	51+00	Rt	25	6.83	
51+00	51+79.3	Rt	35	4	
50+50	51+47.8	Lt	43	4	
32+13.2	36+00	Lt	174	4	
52+42.5	54+91.8	Rt	111	4	
55+50	56+48	Rt	44	4	
56+00	56+48	Lt	21	4	
Douglas Avenue					
50+65	51+60	Lt	95	8	
50+88	51+50	Rt	92	8	
Total			~~5,266~~ 5,257		

CONCRETE · SIDEWALK (6") REINFORCED

STA TO STA		SIDE	SQ. YDS	WIDTH	WATERPROOFING *
Second Street					
46+52	48+14.3	Rt	139	7	430 sq. ft.
Totals			139		430 Sq. Ft.

* Bldg. Sta. 46+59 to Sta. 48+02

CONCRETE STEPS

℄ PROJ. STA.	SIDE	NO.	R	T	CLASS A CONC. (Misc.) CU. YDS.	REINF. STEEL LBS.
47+68	Rt	4	6"	12"	0.86	0
Total					0.86	0

ELECTRICAL CONDUIT (METALLIC)

STATION	2½" LIN.FT.	3½" LIN.FT.	REMARKS
48+70	70	-	First Street
48+05		72	First Street
52+25	-	92	First Street
52+37	82		First Street
97+62	62	-	Second Street
48+26		74	Second St.
52+30		72	Second St.
51+60	70		Second St.
21+08		30	Ramp "F"
93+20	55		Inner-Loop
19+66	32		Ramp "E"
19+70		27	Ramp "E"
19+80		27	Ramp "E"
44+17	105		Inner-Loop
45+50		89	Inner-Loop
54+00		114	Inner-Loop
55+52	184		Inner-Loop
58+20	98		Ramp "L"
62+86		34	Ramp "L"
59+59		38	Ramp "L"
94 17	85		Inner-Loop
97+33	143		Thirteenth St.
47+40		190	Thirteenth St.
52+60		132	Thirteenth St.
52+23	145		Thirteenth St.
88+95	30		Ramp "O"
89+00		30	Ramp "O"
89+29 Lt		32	Ramp "Q"
89+35 Lt	65		Ramp "Q"
87+40		30	Ramp "O"
87+47	46		Ramp "O"
86+17		43	Ramp "N"
86+18		43	Ramp "N"
86+98	60		Ramp "N"
10+43	55		Road "A"
10+70		43	Road "A"
16+25		43	Road "A"
16+41	22		Road "A"
10+90	90		Road "B"
10+30		43	Road "B"
15+00		43	Road "B"
16+30	65		Road "B"
2+00	~~#~~		Ramp "C"
11+30		31	Ramp "C"
12+60		25	Ramp "D"
12+85	31		Ramp "D"
2+75	~~#~~		Ramp "E"
56+30		33	Ash Ave.
37+32		33	Ash Ave.
34+35	74		Ramp "H"
34+80		46	Ramp "H"
96+30		82	Central Ave.
97+40	104		Central Ave.
98+27	38		Central Ave.
32+23	109		Central Ave.
33+30		80	Central Ave.
33+73	75		Central Ave.
33+28	50		Ramp "G"
33+60		38	Ramp "G"
58+70		90	Ramp "K"
58+94 ▲68			Ramp "K"
57+30	65		Ramp "M"
57+65		42	Ramp "M"
58+80		30	Ramp "J"
59+15	45		Ramp "J"
70+23		43	Clev. Ave.
85+05	62		Ramp "P"
85+18		47	Ramp "P"
49+30		36	Penn. Ave.
TOTALS	1,951	1,917	
		2879 ▲	

DRAINAGE STRUCTURES

STATION	SIDE	SIZE	TYPE	CONC. CLASS 'A' CU. YDS.	REINF. STEEL LBS.	C.R.P. 15" CMP	C.R.P. 24" RCP	C.R.P. 30" RCP	END SECTION 15"	END SECTION 24"	END SECTION 30"
Ramp J											
38+90		24"	C.R.P.(RCP)				54			2	
Ramp K											
57+50		30"	C.R.P.(RCP)					98			2
9th Street											
Detour											
36+77		15"	C.R.P.(CMP)			50					
Total						50	54	98		2	2

LARGE TREES

STA. TO STA.		SIZE 40"	50"	60"	70"	80"	90"	100"	110"	120"	130"	140"	150"	160"	170"	180"	190"	200"	210"	220"	TOTAL
295+00	297+78.27	2		1	1		1														5
297+78.27	303+00	2	1	4	2																9
303+00	313+00	4	3	10	3	3	3	2													30
313+00	323+00	11	14	12	11	5	8		2												63
323+00	333+00	5	8	4	5	1	5		1	1	1										31
333+00	344+00	7	6	3	2	1	1		1												21
344+00	354+00	46	22	15	12	4	3														102
354+00	365+00	36	19	16	13	4	2	3	1	1											95
365+00	375+00	12	3	1	7	1	1	2	2	1	1						1				32
375+00	385+00	13	0	4	7	1	1	1													37
385+00	396+00	13	19	12	10	5	1	1							1						64
396+00	406+00	12	12	4		1	1	1													32
406+00	416+00	2	1	3	6	4	4	2													22
First Street		7	~~1~~ 2	~~4~~ 2																	19 ● 14 ●
Ramp "M"		6	2	8	1	5	6	2	1												31
Inner-Loop East		6	4	7	9	14	5	3		5	1				1						55
Inner-Loop West		~~32~~ 30	~~22~~ 22	~~14~~ 13	~~10~~ 8	~~4~~ 5	~~7~~ 5	~~3~~ 2	1									1			~~85~~ 92
Thirteenth Street		6	1		1	6															10
Total		~~224~~ 144 ● 145	~~144~~ 120 ● 120	~~135~~ 102 ● 102	~~122~~ 102 ● 102	~~65~~ 57	~~49~~ 49	~~20~~ 20	9	8	3			1	1		1			1	~~728~~ 760 ● 745

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF QUANTITIES

PHASE I

SHEET NO.	OF	SCALE	APP'D
DESIGNED		DETAILED	QUANTITIES
DESIGN CK.		DETAIL CK.	QUAN CK.

TRACED
TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

4 5 2

16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135H (38)48 Phase I	1970	2028	2197

CONCRETE SIDEWALK (4")

STA TO STA		SIDE	SQ. YDS.	WIDTH	LOCATION
					Lt 301+80 to 302+65
Minnesota Ave. (Lt. & Sta. to Sta.)					
52+87	52+92	Lt	5	4	
53+06	53+98	Lt	18	4	
53+61	54+00	Lt	17	4	
54+13	54+97	Lt	16	4	
54+74	56+12	Lt	68	4	
First Street					
46+10	46+37.3	Rt	12	4	
46+55	48+07.4	Rt	68	4	
46+63.2	48+06.8	Lt	64	4	
48+54	48+63.55	Rt	6	Var	
48+59.8	48+80.36	Lt	10	Var.	
48+63.55	49+57.99	Rt	71	6.83	
48+80.36	49+43.85	Lt	48	6.83	
50+66.93	51+23.88	Lt	43	6.83	
50+80.57	51+32.39	Rt	77	6.83	
51+23.88	51+56	Lt	27	6.83	
51+82.58	51+92.2	Rt	5	Var	
52+09.7	53+25	Lt	52	4	
52+37	52+42	Lt	12	5	
52+64.6	53+58.6	Rt	92	4	
53+69.2	54+59.8	Rt	90	4	
53+14	56+00	Rt	98	4	
55+17	56+00	Lt	96	4	
Ash Street					
56+50	56+69	Lt	9	4	
56+50	58+79	Rt	11	4	
57+25	57+50	Rt	18	4	
Road "B"					
10+40	16+50	Lt	278	4	
					Rt 318+85 to 317+00
Minnesota Avenue (Lt & Sta to Sta)					
111+20	112+17	Rt	43	4	
112+33	112+79	Rt	20	4	
112+96	113+26	Rt	13	4	
113+43	113+69	Rt	11	4	
Second Street					
45+72.5	47+58.5	Lt	83	4	
48+31.3	49+41.41	Lt	67	4	
50+60	51+82	Lt	90	6.83	
50+78.79	51+76	Rt	78	6.83	
52+27.2	53+44	Lt	52	4	
52+28.5	52+97.5	Rt	31	4	
53+21.4	53+37.1	Rt	11	4	
Road "E" & Alley to South					
—	—	—	12	4	From 2nd St. th Cul-de-Sac
11+28	13+70	Lt	105	4	From Cul-de-Sac to Rd. E
7+00	8+10	Lt	49	4	Road "E"
8+30	9+69.5	Lt	60	4	Road "E"
—	—	Lt	23	4	Around radius on Rd E
—	—	West	10	4	on Platt Ave.
Kansas Avenue					
48+79	49+41	Lt	32	4	@ Central Ave.
48+79	48+97	Rt	8	4	@ Central Ave.
Central Avenue					
44+80.5	46+20	Rt	62	Var.	
45+03.5	47+27	Lt.	54	4	
46+39.8	46+70.8	Rt	22	Var.	
46+70.8	49+39	Rt	119	4	
48+11	49+39.77	Lt	92	6.83	
49+39	49+59.52	Rt	16	6.83	
50+37.84	51+73.9	Lt	88	6.83	
50+22.72	50+95.3	Rt	10	6.83	
50+95.5	53+97	Rt	134	4	
52+34.8	53+59	Lt	55	4	
53+39	54+31.63	Lt	50	Var	
53+97	62+33	—	17	Var	Sta. 62+33 on Minn. Ave
54+87	54+70	Rt	10	4	
Pennsylvania Ave. Cul-de-Sac					
50+60	51+24.82	Lt.	29	4	Sta. 54+01 Lt. 13th St

CONCRETE SIDEWALK (4")

STA TO STA		SIDE	SQ. YDS.	WIDTH	LOCATION
Nathenson Ave.					
43+52	43+57	Lt	4	5	
43+50	43+57.5	Rt	8	5	
Inner Loop West					
435+67.62	41+30.35	Lt	36	4	*Nathenson Ave Sta.
41+30.35	44+31.9	Lt	194	4	
44+84.5	49+28	Lt	197	4	
49+28	43+32.5	Lt	8	6.83	
Inner Loop East					
50+61	50+70	Lt	7	6.83	
50+70	34+67.2	Lt	177	4	
56+14	57+90	Lt	123	4	
Road "D"					
54+07	57+42	Lt	152	4	(835'-13'+19') = 341'
9th St	New York Ave				
43+53	46+80	—	129	4	
Cleveland Avenue					
79+17.94	79+43.5	Lt	11	4	
79+17.94	79+28.7	Rt	5	4	
13th St.	Cleveland St.				
44+05	79+43.5	—	5	Var	
Cleveland Ave	13th St.				
79+28.7	44+72	—	8	Var	
New York Avenue					
50+78	54+85	Rt	184	4	North of 13th St.
Thirteenth Street					
41+12	46+81.3	Lt	236	4	
41+21	41+91	Rt	32	4	
42+03	42+60	Rt	27	4	
42+74	44+05	Rt	57	4	
44+72	47+81	Rt	137	4	
47+88.1	48+93	Lt	47	4	
48+35	49+18.4	Rt	37	4	
48+93	49+00	Lt	4	Var	
49+00	49+11.83	Lt	9	6.83	
49+18	49+23.69	Rt	4	Var	
49+23	49+33.69	Rt	18	6.83	
50+34.91	50+50	Lt	10	6.83	
50+66.77	51+00	Rt	25	6.83	
51+00	51+78.3	Rt	35	4	
50+50	51+47.8	Lt	43	4	
52+15.2	56+00	Lt	174	4	
52+42.5	54+91.8	Rt	111	4	
55+50	56+98	Rt	44	4	
56+00	56+98	Lt	21	4	
Douglas Avenue					
50+65	51+60	Lt	95	8	
50+88	51+80	Rt	92	8	
Total			5061		

VOID SEE REVISED SHEET

CONCRETE SIDEWALK (6") REINFORCED

STA TO STA		SIDE	SQ. YDS	WIDTH	WATERPROOFING *
Second Street					
46+52	48+14.5	Rt	139	7	430 Sq. ft.
Totals			139		430 Sq. ft.

* Bldg. Sta. 46+59 to Sta. 48+02

CONCRETE STEPS

℄ PROJ. STA.	SIDE	NO.	R	T	CLASS 'A' CONC. (Misc.) CU. YDS.	REINF. STEEL LBS.
47+68	Rt	4	6"	12"	0.86	0
Total					0.86	0

ELECTRICAL CONDUIT (METALLIC)

STATION	2½" LIN.FT.	3½" LIN.FT.	REMARKS
48+70	70		First Street
48+05		72	First Street
52+25		92	First Street
52+37	82		First Street
47+68	62		Second Street
48+86		74'	Second St.
52+30		78'	Second St.
51+60	70		Second St.
21+08		30	Ramp "F"
19+66	32		Ramp "E"
19+79		27	Ramp "E"
19+80		27	Ramp "E"
44+17	105		Inner-Loop
43+50		89	Inner-Loop
39+00		114	Inner-Loop
55+52	124		Inner-Loop
58+50	98		Ramp "L"
62+86		34	Ramp "L"
59+58		38	Ramp "L"
47+58	193		Thirteenth St.
47+40		140	Thirteenth St.
52+80		132	Thirteenth St.
52+23	145		Thirteenth St.
88+95	30		Ramp "O"
89+00		30	Ramp "O"
89+22 Lt		32	Ramp "O"
89+95 Lt	65		Ramp "O"
87+90		50	Ramp "O"
87+97	60		Ramp "O"
86+17		43	Ramp "N"
86+19		43	Ramp "N"
86+98	60		Ramp "N
10+43	55		Road "A"
10+70		43	Road "A"
16+25		43	Road "A"
16+41	52		Road "A"
10+90	30		Road "B"
10+50		43	Road "B"
16+00		43	Road "B"
16+50	65		Road "B"
11+30		31	Ramp "C"
12+60		65	Ramp "D"
18+85	31		Ramp "D"
56+50		33	Ash Ave.
57+84		33	Ash Ave.
54+35	74		Ramp "H"
54+80		46	Ramp "H"
46+50		82	Central Ave.
47+40	104		Central Ave.
48+27	98		Central Ave.
52+23	109		Central Ave.
53+50		80	Central Ave.
33+28	50		Ramp "G"
33+60		38	Ramp "G"
58+70		90	Ramp "K"
58+94	55		Ramp "K"
37+30	65		Ramp "M"
37+65		82	Ramp "M"
58+80		90	Ramp "J"
59+15	45		Ramp "J"
79+23		43	Clev. Ave.
88+05	62		Ramp "P"
88+18		97	Ramp "P"
89+40		36	Penn. Ave.
TOTALS	1951	1917	

VOID SEE REVISED SHEET

DRAINAGE STRUCTURES

STATION	SIDE	SIZE	TYPE	CONC. CLASS 'A' CU. YDS.	REINF. STEEL LBS.	C.R.P. 15" CMP	C.R.P. 24" RCP	C.R.P. 30" RCP	END SECTION 15"	END SECTION 24"	END SECTION 30"
Ramp J											
58+90		24"	CRP(RCP)				54			2	
Ramp K											
57+50		30"	CRP(RCP)					98			2
9th Street											
Detour											
56+77		15"	CRP(CMP)			50					
Total						50	54	98		2	2

VOID SEE REVISED SHEET

VOID SEE REVISED SHEET

LARGE TREES

STA. TO STA.		SIZE 40"	50"	60"	70"	80"	90"	100"	110"	120"	130"	140"	150"	160"	170"	180"	190"	200"	210"	220"	TOTAL
295+00	297+78.27	2		1	1		1														5
297+78.27	303+00	2	1	4	2																9
303+00	313+00	4	3	10	3	5	3	2													30
313+00	323+00	11	14	12	11	5	8		2												63
323+00	333+00	3	8	4	5	1	5		1	1	1										31
333+00	344+00	7	6	3	2	1	1		1												21
344+00	354+00	46	22	15	12	4	3														102
354+00	365+00	36	19	16	13	4	2	3	1	1											95
365+00	375+00	12	3	1	7	1	1	2	2	1	1						1				32
375+00	385+00	15	6	4	7	1	1	1													37
385+00	396+00	15	19	12	10	5	1	1							1						64
396+00	406+00	12	12	4	1	1	1	1													32
406+00	416+00		2	1	3	6	4	4	2												22
First Street			7	1	7	4															19
Ramp "M"			6	2	8	1	5	6	2	1											31
Inner-Loop East			6	4	7	9	14	5	3		5	1				1					55
Inner-Loop West			27	20	15	8	3	5	2	1									1		80
Thirteenth Street			6	1		2															10
Total			221	144	124	103	56	47	19	9	8	3			1	1		1		1	739

VOID SEE REVISED SHEET

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF QUANTITIES

PHASE I

SHEET NO.	OF	SCALE	APP'D
DESIGNED		DETAILED	QUANTITIES
DESIGN CK.		DETAIL CK.	QUAN. CK.

TRACED

TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 5 3

16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	33W-87-235V (CSAH 48) Phase I	1972	2023	2137

"REVISED PLANS" MAY 11, 1972

SIDEWALK REMOVAL

LOCATION	CU. YDS.	REMARKS
Ash Street		
	2	
First Street		
	60	
Second Street		
	48	
Central Avenue		
	58	
Ninth Street		
	118	
Thirteenth Street		
	82	
Minnesota Avenue		
between English Street & Douglas Avenue	37	
between Douglas Avenue & First Street	35	
between First Street & Second Street	47	
between Second Street & Third Street	50	
Minneapolis Avenue		
between Douglas Avenue & First Street	9	
between First Street & Second Street	18	
between Ninth Street & Tenth Street	5	
Kansas Avenue		
between Third Street & Central Avenue	8	
between Central Avenue & Murdock Avenue	7	Station 35+
New York Avenue		
between Ninth Street & Tenth Street	21	
between Thirteenth Street & Fourteenth Street	23	
Mathewson Avenue		
@ Inner Loop West	2	61
between Twelfth Street & Thirteenth Street	1	
Pennsylvania		
between Thirteenth Street & Fourteenth Street	7	
between Fifteenth Street & Seventeenth Street	30	Station 405+

Note:
Removal of Sidwalk is included in earthwork. Tabulation is for information only.

4" GRANULAR SUBBASE

STA TO STA		SQ. YDS.	REMARKS
ROAD "A"			
10+25	16+54.74	3263	
ROAD "B"			
10+25	16+59.96	3299	
RAMP "C"			
9+68.1	12+23	1036	
RAMP "D"			
10+31.9	13+10	870	
Ramp "E"			
19+41.07	21+99.3	821	
Ramp "F"			
20+36.48	22+67.5	971	
Ramp "G"			
33+10	35+80.5	1161	
Ramp "H"			
34+12	37+05.9	1607	
Ramp "J"			
52+38.9	59+41	2341	
Ramp "K"			
59+78.5	59+10.5	1787	
Ramp "L"			
38+30	63+05.8	1964	
Ramp "M"			
57+20	63+51.7	2434	
Ramp "N"			
84+08.9	86+72	1404	
Ramp "O"			
84+59.7	87+74	1335	
Ramp "P"			
87+82.2	90+59.3	1203	
Ramp "Q"			
88+84	91+74.7	1608	
First Street			
45+90	49+30.67	1978	
50+73.75	56+69	3395	
Second Street			
45+00	49+00.86	2022	
50+11.64	53+27.06	1607	
Central Avenue			
44+64.57	49+49.60	4250	
50+65.14	54+31.63	3236	
[illegible]		[illegible]	
[illegible]		[illegible]	
36+37.37	Inner Loop		
[illegible]	49+36.06	[illegible]	12,284
50+58	60+45.18	8120	
Thirteenth Street			
41+02.8	49+36.5	7779	
50+98.38	55+67.82	5925	
TOTAL		[illegible]	77,188

1½" EDGE CURB

STA TO STA	SIDE	LIN. FT.	REMARKS
New York Avenue @ Ninth Street			
(2 Entrances)		35	Cul-de-Soc
Ninth Street			
(Entrance)		20	Cul-de-Soc
Hydraulic Avenue @ Ninth Avenue			
(Entrance)		18	Cul-de-Soc
New York North of Thirteenth Street			
(2 Entrances)		35	Cul-de-Soc
TOTAL		108	

TREATED TIMBER PILE

STATION	SIDE	NUMBER PILE REQ'D	PILE LENGTH	TOTAL LIN. FT.	REMARKS
297+95	NB	4	16'	64	
299+80	SB	4	16'	64	
312+13	NB	4	18'	72	
312+25	SB	4	16'	64	
318+28	SB	4	18'	72	
320+30	NB	4	18'	72	
332+13	NB	4	18'	72	
332+52	SB	4	18'	72	
337+07	NB	4	20'	80	
338+37	SB	4	20'	80	
344+00	SB	4	22'	88	
351+50	NB	4	24'	96	
352+55	SB	4	22'	88	
353+75	NB	4	20'	80	
360+10	SB	4	20'	80	
363+90	NB	4	24'	96	
370+45	NB	4	26'	104	
371+00	SB	4	22'	88	
379+10	NB	4	24'	96	
380+40	SB	4	22'	88	
386+70	NB	4	22'	88	
386+90	SB	4	22'	88	
393+50	SB	4	22'	88	
394+75	NB	4	22'	88	
399+75	SB	4	22'	88	
408+25	SB	4	20'	80	
409+00	NB	4	22'	88	
414+30	NB	4	24'	96	
414+63	SB	4	24'	96	
415+25	NB	4	24'	96	
Total				2,512	Lin. Ft.

EARTHWORK

STA. TO STA.		EXCAVATION (COMMON) CU. YDS. CANAL	ROADWAY	COMPACTION CONTR. FURNISHED	TYPE AA MR 0	TYPE B MR 5	CANAL
Southbound			4,390				
296+18.77	343+44.84	8,158	5,118	24,138	4,856	23,527	1548
343+44.84	381+18	4,023	[illegible]	[illegible]	[illegible]	67,432	460
381+18	E.O.P.	21,656	6,076	7,923	4,311	22,973	1290
				88 61			
Northbound							
295+79.77	342+99.16	13,736	7,898	15,882	4,189	23,737	1987
342+99.16	380+72	3,346	14,489	53,859	6,156	55,568	931
380+72	E.O.P.	1563	3,806	23,705	3,855	20436	368
Excavation to gain Access to lower 6" in cuts not Subgraded			10,920				
Compaction in Cuts Type AA (MR)					17,130		
TOTAL		32,482	[illegible] 981	[illegible]	[illegible]	213,373	6,234
			62,197	211,035	49,358		

HEAVY STONE RIP RAP*

STA. TO STA.		TONS	REMARKS
297+82	298+08	122	Rt. of ℄ Canal
299+47	299+73	128	Lt. of ℄ Canal
311+07	314+72	2458	Rt. of ℄ Canal
312+05	313+98	1397	Lt. of ℄ Canal
317+60	321+02	2407	Rt. of ℄ Canal
318+35	320+65	1660	Lt. of ℄ Canal
330+86	334+75	2270	Rt of ℄ Canal
331+47	334+53	1759	Lt. of ℄ Canal
336+91	337+20	123	Rt of ℄ Canal
338+24	338+50	160	Lt. of ℄ Canal
343+75	344+25	215	Lt of ℄ Canal
351+37	351+63	82	Rt of ℄ Canal
352+33	352+77	178	Lt of ℄ Canal
357+98	361+40	2023	Lt. of ℄ Canal
358+58	361+25	1673	Rt. of ℄ Canal
363+27	363+53	131	Rt. of ℄ Canal
370+32	370+58	121	Rt of ℄ Canal
370+87	371+13	152	Lt. of ℄ Canal
378+94	379+26	155	Rt. of ℄ Canal
380+27	380+53	134	Lt. of ℄ Canal
385+64	389+96	2370	Lt. of ℄ Canal
386+33	389+95	2210	Rt. of ℄ Canal
393+37	393+63	115	Lt. of ℄ Canal
394+61	396+89	137	Rt. of ℄ Canal
399+62	399+88	150	Lt of ℄ Canal
408+02	408+48	232	Lt of ℄ Canal
408+78	409+26	375	Rt of ℄ Canal
TOTAL		22,946	TONS

*Estimated @140 lbs/cu.ft.

6" EDGE CURB

STA TO STA		SIDE	LIN. FT	REMARKS
Cul-de-Sac Minnesota			166.0	South of Douglas
Cul-de-Sac Minnesota			217.0	South of Second Excluding Inlet
Cul-de-Sac New York			131.0	@ Ninth Street Excluding Inlets
Cul-de-Soc Ninth			136.0	Excluding Inlet
Cul-de-Sac Hydraulic			158.0	@ Ninth Street
Cul-de-Sac Pennsylvania			159.0	@ Thirteenth Street Excluding Inlet
New York Ave. North			167.0	of Thirteenth St. Cul-de-Soc Excluding Inlet
Cul-de-Soc Mathewson			170.0	@ Thirteenth Street
Cul-de-Soc	Mathewson		201.5	@ Sta. 91+de.8
Cul-de-Soc	Mathewson		211.2	@ sta. 96+96.8
Total			1716.6 [illegible]0	Lin. Ft.

PIPE UNDERDRAIN (6")

STA TO STA		TYPE A,G,K,M LIN. FT.	AGG. BLKT UNDER-DRAIN TONS	REMARKS
Second Street (Rt)				
46+67	48+05	138	49	
Total		138	49 Tons	

Revised Sheet
Added 2/26/73
BY NWM

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF QUANTITIES

PHASE I

SHEET NO.	OF	SCALE		APP'D	
DESIGNED		DETAILED		QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN CK.	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 5 4

16X 14.5X 12X 12X 14.5X 16X

FUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35U-87-1350-1(58)48 Phase I	1970	2023	2137

SIDEWALK REMOVAL

LOCATION	CU. YDS.	REMARKS
Ash Street		
	2	
First Street		
	60	
Second Street		
	48	
Central Avenue		
	38	
Ninth Street		
	118	
Thirteenth Street		
	82	
Minnesota Avenue		
between English Street & Douglas Avenue	37	
between Douglas Avenue & First Street	35	
between First Street & Second Street	97	
between Second Street & Third Street	50	
Minneapolis Avenue		
between Douglas Avenue & First Street	9	
between First Street & Second Street	18	
between Ninth Street & Tenth Street	5	
Kansas Avenue		
between Third Street & Central Avenue	8	
between Central Avenue & Murdock Avenue	7	Station 35+
New York Avenue		
between Ninth Street & Tenth Street	21	
between Thirteenth Street & Fourteenth Street	23	
Mathewson Avenue		
@ Inner-Loop West	8	
between Twelfth Street & Thirteenth Street	1	
Pennsylvania		
between Thirteenth Street & Fourteenth Street	7	
between Fifteenth Street & Seventeenth Street	30	Station 405+

Note: Removal of Sidwalk is included in earthwork. Tabulation is for information only.

VOID SEE REVISED SHEET

4" GRANULAR SUBBASE

STA TO STA		SQ. YDS.	REMARKS
ROAD "A"			
10+25	16+54.74	3263	
ROAD "B"			
10+25	16+59.96	3299	
RAMP "C"			
9+68.1	12+23	1036	
RAMP "D"			
10+31.9	13+10	870	
Ramp "E"			
19+41.07	21+99.3	821	
Ramp "F"			
20+36.98	22+67.5	971	
Ramp "G"			
33+10	35+80.5	1161	
Ramp "H"			
34+12	37+05.9	1607	
Ramp "J"			
52+38.9	59+41	2341	
Ramp "K"			
59+78.5	59+10.5	1787	
Ramp "L"			
58+30	63+05.8	1964	
Ramp "N"			
57+20	63+51.7	2434	
Ramp "N"			
84+08.5	86+72	1404	
Ramp "O"			
84+59.7	87+72	1335	
Ramp "P"			
87+32.2	90+59.3	1203	
Ramp "Q"			
88+84	91+74.7	1608	
First Street			
45+90	49+30.67	1978	
50+73.75	56+64	3545	
Second Street			
45+00	49+00.86	3022	
50+71.64	53+27.06	1607	
Central Avenue			
44+64.57	49+49.60	4276	
50+65.14	54+31.63	3236	
Northenson Avenue			
93+49.71	95+67.62	788	
Inner Loop			
90+93	98+36.06	8226	
50+58	60+95.18	8120	
Thirteenth Street			
91+02.9	99+36.2	7779	
50+98.38	55+97.82	5925	
TOTAL		74,556	

VOID SEE REVISED SHEET

TREATED TIMBER PILE

STATION	SIDE	NUMBER PILE REQ'D	PILE LENGTH	TOTAL LIN. FT.	REMARKS
297+95	NB	4	16'	64	
299+60	SB	4	16'	64	
312+13	NB	4	18'	72	
312+25	SB	4	16'	64	
310+28	SB	4	18'	72	
320+30	NB	4	18'	72	
332+13	NB	4	18'	72	
332+52	SB	4	18'	72	
337+07	NB	4	20'	80	
338+37	SB	4	20'	80	
349+00	SB	4	22'	88	
351+50	NB	4	24'	96	
352+55	SB	4	22'	88	
353+75	NB	4	20'	80	
360+10	SB	4	20'	80	
363+40	NB	4	24'	96	
370+45	NB	4	26'	104	
371+00	SB	4	22'	88	
379+10	NB	4	24'	96	
380+40	SB	4	22'	88	
386+70	NB	4	22'	88	
386+90	SB	4	22'	88	
393+50	SB	4	22'	88	
394+75	NB	4	22'	88	
399+75	SB	4	22'	88	
408+25	SB	4	20'	80	
409+00	NB	4	22'	88	
414+30	NB	4	24'	96	
414+63	SB	4	24'	96	
415+25	NB	4	24'	96	
Total				8,512 Lin.Ft.	

VOID SEE REVISED SHEET

EARTHWORK

STA. TO STA.		EXCAVATION (COMMON) CU. YDS. CANAL	EXCAVATION (COMMON) CU. YDS. ROADWAY	COMPACTION CONTR. FURNISHED	COMPACTION TYPE AA MR 0	COMPACTION TYPE B MR 5	COMPACTION CANAL
Southbound							
296+18.77	343+44.84	3,158	3,118	24,138	9,856	23,527	1,548
343+44.84	381+18	4,023	3,174	32,366	5,718	67,932	960
381+18	E.O.P.	21,656	6,076	7,923	4,311	22,973	1,290
Northbound							
295+18.77	342+99.18	13,736	7,398	15,882	4,189	23,737	1,987
342+99.18	380+72	3,396	13,489	39,859	6,156	55,568	931
380+72	E.O.P.	159.9	3,806	25,705	3,855	20,436	368
Excavation to goin Access to lower 6" in cuts not Subgraded			10,920				
Compaction in Cuts Type AA (MR)					16,380		
TOTAL		38,482	56,981	216,073	48,465	213,373	6,237

VOID SEE REVISED SHEET

HEAVY STONE RIP RAP*

STA. TO STA.		TONS	REMARKS
297+82	298+08	122	Rt. of ℄ Canal
299+47	299+73	128	Lt. of ℄ Canal
311+07	314+72	2454	Rt. of ℄ Canal
312+05	313+98	1397	Lt. of ℄ Canal
317+60	321+02	2407	Rt. of ℄ Canal
318+35	320+65	1660	Lt. of ℄ Canal
330+86	334+75	2278	Rt of ℄ Canal
331+47	334+55	1758	Lt. of ℄ Canal
336+98	337+20	125	Rt of ℄ Canal
338+24	338+30	160	Lt. of ℄ Canal
343+75	344+25	215	Lt of ℄ Canal
351+37	351+63	82	Rt of ℄ Canal
352+93	352+77	178	Lt of ℄ Canal
357+98	361+40	2023	Lt. of ℄ Canal
358+58	361+25	1673	Rt. of ℄ Canal
363+27	363+53	131	Rt. of ℄ Canal
370+32	370+58	121	Rt of ℄ Canal
370+87	371+13	152	Lt. of ℄ Canal
378+94	379+26	155	Rt. of ℄ Canal
380+27	380+53	134	Lt. of ℄ Canal
385+64	389+96	2370	Lt. of ℄ Canal
386+33	389+95	2270	Rt. of ℄ Canal
393+37	393+63	115	Lt. of ℄ Canal
394+61	394+89	137	Rt. of ℄ Canal
399+62	399+88	150	Lt of ℄ Canal
408+02	408+48	232	Lt. of ℄ Canal
408+74	409+26	375	Rt of ℄ Canal
TOTAL 22,946 TONS			

*Estimated @ 140 lbs/cu.ft.

6" EDGE CURB

STA TO STA	SIDE	LIN. FT	REMARKS
Cul-de-Sac Minnesota		1640	South of Douglas
Cul-de-Sac Minnesota		2170	South of Second Excluding Inlet
Cul-de-Sac New York		1510	@ Ninth Street Excluding Inlets
Cul-de-Sac Ninth		1350	Excluding Inlet
Cul-de-Sac Hydraulic		1580	@ Ninth Street
Cul-de-Sac Pennsylvania		1590	@ Thirteenth Street Excluding Inlet
New York Ave. North		1670	of Thirteenth St. Cul-de-Sac Excluding Inlet
Cul-de-Sac Mathewson		1700	@ Thirteenth Street
Total		1,3040 Lin. Ft.	

PIPE UNDERDRAIN (6")

STA TO STA		TYPE A,G,K,M LIN. FT.	AGG. BLKT. UNDER-DRAIN TONS	REMARKS
Second Street (Rt)				
46+67	48+05	138	49	
Total		138	49 Tons	

VOID SEE REVISED SHEET

1½" EDGE CURB

STA TO STA	SIDE	LIN. FT.	REMARKS
New York Avenue @ Ninth Street			
(2 Entrances)		35	Cul-de-Sac
Ninth Street			
(Entrance)		20	Cul-de-Sac
Hydraulic Avenue @ Ninth Avenue			
(Entrance)		18	Cul-de-Sac
New York North of Thirteenth Street			
(2 Entrances)		35	Cul-de-Sac
TOTAL		108	

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF QUANTITIES

PHASE I

SHEET NO.	OF	SCALE	APP'D
DESIGNED		DETAILED	QUANTITIES TRACED
DESIGN CK.		DETAIL CK.	QUAN. CK. TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 5 5

16X 14.5X 12X 12X 14.5X 16X

CURB & GUTTER (TYPE I)

STA TO STA		SIDE	LIN. FT.	REMARKS
Minnesota Avenue				
		Rt.	1604	South of English St.
		Rt.	600	@ English St.
32+20.87	35+02.89	Rt.	2220	Cul-de-Sac S of Douglas
32+20.87	32+32.27	Lt.	118	
32+50.47	32+85.77	Lt.	355	
33+03.97	33+39.37	Lt.	354	
33+57.57	33+96	Lt.	390	
34+14	34+38	Lt.	330	
34+87	35+00	Lt.	130	
First Street				
45+90	46+38	Rt.	480	
46+58.5	47+81.78	Rt.	1233	
45+90	46+38	Lt.	480	
46+65.5	47+97.98	Lt.	1325	
48+63.55	49+56.41	Rt.	89.9	Excluding Inlet
48+82.86	49+44.93	Lt.	621	
50+79.75	51+76	Rt.	966	
50+67.75	51+29.88	Lt.	361	
52+91.24	53+52	Rt.	608	Excluding Inlet
53+76	54+51.75	Rt.	698	Excluding Inlet
54+51.75	56+46.41	Rt/Lt	490	56+46.41 on Ash St.
52+17.92	53+19.5	Lt.	956	Excluding Inlet
33+60.5	34+04.5	Lt.	380	Excluding Inlet
34+45.5	57+59.41	Lt.	490	57+59.41 on Ash St.
36+46.41	35+~~26.32~~ +32.75	Rt.	~~330~~ 430	36+46.41 on Ash St.
37+39.41	35+~~28.32~~ +33.39	Rt/Lt	~~330~~ 599	37+59.41 on Ash St. Excluding Inlet.
Ramp "C"				
9+68.1	51+81.6	Lt.	2835	51+81.6 on First St.
9+68.1	32+91.24	Rt/Lt	2790	32+91.24 on First St. Excluding Inlet
Ramp "D"				
10+31.9	48+63.55	Rt	2710	48+63.55 on First St.
10+31.9	47+85.78	Lt/Rt	3020	47+03.78 on First St.
Road "A"				
First St.	Second St.			
32+17.92	32+39.25	Lt/Rt	530.0	Excluding Inlets
51+23.88	51+55.76	Lt/Rt	664.0	Excluding Inlets
Road "B"				
First St.	Second St.			
48+79.96	49+00.88	Lt/Rt	6580	Excluding Inlets
47+97.98	48+05.01	Lt/Rt	6430	Excluding Inlets
Minnesota Avenue South of Second Street				
110+76	114+61.49	Lt.	3855	
111+89.77	112+16.77	Rt.	870	
112+34.97	112+78.97	Rt.	440	
112+97.12	113+26.12	Rt.	290	
113+44.32	113+83.32	Rt.	390	
114+01.52	114+61.49	Rt.	600	
154+75	154+91	Lt.	160	
155+30	155+45	Lt.	150	
Second Street				
45+00	47+32.37	Lt.	2239	Excluding Inlets
Around Radius Kas Ave		Rt.	180	@ Second Street
46+62.25	48+05.1	Rt.	1397	Excluding Inlet
48+39.30	49+42.50	Lt.	1002	Excluding Inlet
49+00.86	49+54.50	Rt.	536	
50+65.58	51+72.70	Lt.	1041	Excluding Inlet
50+77.70	51+55.76	Rt.	721	
52+38.25	52+89.91	Rt.	457	
	+31.61		807	
Around Radius Minn Ave		Rt.	280	@ Second Street
52+53.87	53+~~41~~	Lt.	~~330~~	~~Excluding Inlets~~
Around Radius Minn Ave		Rt.	330	@ Second Street
53+26	53+~~45.26~~ +31.61	Rt.	~~840~~ 806	Excluding Inlets
Ramp "E"				
32+53.87	21+99.5	Rt.	2850	32+53.87 on Second St.
				Excluding Inlet
51+72.70	21+99.5	Lt.	2550	51+72.70 on Second St.

Continued.

STA TO STA		SIDE	LIN. FT.	REMARKS
Ramp "F"				
48+39.30	22+67.5	Rt	2400	48+39.30 on Second St.
47+32.37	22+67.5	Lt.	2683.0	47+32.37 on Second Excluding Inlets
Road "E"				
6+00	8+07.5	Rt.	2380	
8+32.5	53+69.5	Rt.	1620	53+69.5 on Platt Ave.
6+00	6+11.5	Lt.	11.5	
6+30.5	8+07.5	Lt.	162.0	
0+32.5	53+96.5	Lt.	162.0	53+96.5 on Platt Ave.
Central Avenue				
46+92	49+38.83	Rt.	313.0	Excluding Inlet
50+81.49	62+53.35	Rt/Lt	961.0	62+53.35 on Minn. Ave. Excluding Inlets
62+53.35	39+39.41	Rt.	490.0	62+53.35 on Minn Ave
401+~~88.78~~ +81.78	45+33.5	Lt.	~~514~~ 37.5	40+~~88.78~~ on Hydraulic -81.78
45+68.5	45+78.5	Lt.	4.0	Excluding Inlet
46+07.5	47+00	Lt.	925	
48+20.39	49+35.58	Lt.	112.8	Excluding Inlet
50+58.66	51+69.61	Lt	104.9	Excluding Inlet
52+58.00	54+20.00	Lt.	162.0	
35+69.31	46+21	Rt.	161.3	39+68.31 on Hydraulic
Ramp "G"				
52+58.00	35+80.5	Rt	2310	52+58 on Central Excluding Inlet
51+69.61	35+80.5	Lt	2660	51+69.61 on Central
Ramp "H"				
48+20.39	37+05.9	Rt	310.7	48+20.39 on Central
47+00.00	37+05.9	Lt.	3196	47+12.62 on Central Excluding Inlet
Murdock Avenue				
48+02	48+52	Lt.	520	@ Hydraulic Ave.
Inner-Loop East			465.2	
30+57.97	34+85.37	Rt	4154	Excluding Inlets
55+79.43	60+~~27.10~~	Rt	~~4715~~	Excluding Inlets
~~Around Corner @ 9th~~		~~Rt~~	~~550~~	
30+00.07	34+39.41	Lt.	3993	
	62.58		516.2	
55+31.42	60+~~45.19~~	Lt.	~~4858~~	Excluding Inlets
48+01	48+23	Lt.	220	Minnesota Ave.
Mathewson Avenue				
~~45+35.57~~	~~47+63.57~~	~~Lt.~~	~~235.0~~	~~Cul-de Sac~~
~~47+35.57~~	~~47+63.57~~	~~Rt.~~	~~235.0~~	~~Cul-de Sac~~
			867.10	
62+01.72	Inner-Loop West		62+01.72	Cleveland
~~44+94.15~~	44+18.22	Rt.	~~1820~~	~~Junction Mathewson~~ on
7+07.7				Excluding Inlets
~~44+36.72~~	43+99.85	Lt.	3993	~~Junction~~ on Mathewson Cleveland
~~44+36.72~~		~~44+~~	36.72	Excluding Inlets
45+11.5			1146	
~~44+94.15~~	49+31.36	Rt.	~~684~~	Excluding Inlets
44+94.15	49+38.46	Lt.	1413	Excluding Inlet
Ramp "K"				
34+78.5	44+12.22	Lt.	1020	44+12.22 on Inner-Loop Excluding Inlet
54+78.5	~~44+96.22~~ 55+31.5	Rt.	~~1017~~ 1695	~~44+96.22~~ on Inner-Loop 55+31.5
Ramp "L"				
53+53.90	63+03.38	Rt.	1020	55+31.42 on Inner-Loop Excluding Inlet
54+59.41	63+03.38	Lt.	1493.7	54+59.41 on Inner-Loop Excluding Inlet
Ramp "J"				
32+58.9	35+79.43	Rt	1050	35+79.33 on Inner-Loop Excluding Inlet
32+58.9	34+85.37	Lt.	685.0	34+85.37 on Inner-Loop Excluding Inlet

Continued

STA TO STA		SIDE	LIN. FT.	REMARKS
Ramp "M"				
44+94.15	63+51.70	Lt/Rt	1825.0	44+94.15 on Inner-Loop Excluding Inlet
43+99.85	63+51.70	Lt.	6500	43+99.85 on Inner-Loop Excluding Inlet
New York Avenue Cul-de-Sac				
47+26.62	47+40.00	Rt.	134	@ Ninth Street
Road "D"				
53+64.24	30+~~03.5~~ +43.0	Rt.	~~7150~~ 1120	30+43.0 on Minn. Ave. Excluding Inlets
53+64.24	53+76.24	Lt.	10.0	
54+06.00	53+47.00	Lt.	1300	Excluding Inlet
35+68.00	51+19.26	Lt.	1930	51+19.26 on Minneapolis Excluding Inlet
51+19.26	51+19.50	Lt.	511.0	51+19.26 on Minneapolis 51+19.5 on Minnesota Excluding Inlets
Left of Road "D" on Kansas Ave. off Road D		Lt.	2750	Parking Lot
			38.0	
Thirteenth Street				
49+39.8	41+88	Rt.	1783	49+39.8 on Indiana
42+06	42+161	Rt.	550	
42+79	79+17.94	Rt/Lt	1630	79+17.94 on Clev. Ave. Excluding Inlets
79+17.94	47+42.34	Rt	303.5	79+17.94 on Clev. Ave.
48+43.90	49+42.05	Rt.	98.2	Excluding Inlet
41+15	45+74	Lt.	459.0	Excluding Inlet
47+98.32	49+13.48	Lt.	112.2	Excluding Inlet
50+65.13	51+69.12	Rt.	101.0	Excluding Inlet
52+71.56	49+31.08	Rt.	257.0	49+21.08 on Penn Ave. Excluding Inlet
49+35.16	36+42.25	Rt.	121.50	49+35.16 on Penn Ave. Excluding Inlet
30+36.56	31+39.02	Lt.	99.5	Excluding Inlet
32+38.30	55+88	Lt.	362.9	Excluding Inlet
56+09	56+42.25	Lt.	32.2	
Mathewson Avenue South of Thirteenth Street				
45+46.32	48+45.37	Rt.	299.1	Cul-de Sac
45+72.96	43+80.96	Lt.	8.0	@ Thirteenth Street
45+98.96	46+26	Lt.	28.0	
46+44	47+05	Lt.	61.0	
47+23	48+45.37	Lt.	122.6	Excluding Inlet
44+65	44+86	Rt.	21.0	
Ramp "O"				
34+59.7	48+43.90	Rt/Lt	983.7	48+43.90 on Thirteenth
34+59.7	47+42.34	Lt/Rt	1339.9	47+56.69 on Thirteenth Excluding Inlet
Ramp "N"				
34+08.9	32+71.56	Rt.	265.0	32+71.56 on Thirteenth Excluding Inlet
34+08.9	31+69.12	Lt/Rt	213.0	31+69.12 on 13th St.
Ramp "Q"				
47+98.32	91+74.7	Rt/Lt	2980	47+98.32 on Thirteenth
45+71	91+74.7	Lt.	3700	45+71 on Thirteenth Excluding Inlet
~~Island to Thirteenth~~			3300	~~Excluding Inlet~~
Ramp "P"				
32+32.3	90+59.3	Rt.	301.3	32+28.19 on Thirteenth Excluding Inlet
51+39.02	90+59.3	Lt.	2672	51+39.02 on Thirteenth
New York Avenue				
53+78	53+96	Rt	18.0	between 10th & 11th

Continued

CURB & GUTTER (TYPE II)

STA TO STA		SIDE	LIN FT.	REMARKS
Minnesota Ave. South of Douglas Ave.				
32+32.27	32+50.47	Lt.	180	
32+85.77	33+03.97	Lt.	180	
33+39.37	33+57.57	Lt.	180	
53+96.00	54+16.00	Lt.	180	
First Street				
46+38	46+58.5	Rt	210	
46+38	46+65.5	Lt	280	
53+32	53+76	Rt	240	
53+19.5	53+60.5	Lt	410	
53+04.5	53+45.5	Lt	410	
Minnesota Ave. South of Second Street				
112+16.77	112+39.97	Rt.	180	
112+78.97	112+97.12	Rt.	180	
113+26.12	113+44.32	Rt.	180	
113+83.32	114+01.52	Rt.	180	
Road "E"				
6+11.3	6+30.5	Lt.	180	
8+07.5	8+32.5	Lt.	250	
8+07.5	8+32.5	Rt.	250	
51+22	5+~~55~~	Lt.	510	Island on 1st Street
Central Avenue				
46+21	46+42	Rt.	210	
45+33.5	45+68.5	Lt.	350	
45+78.5	46+01.5	Lt.	220	
45+~~28~~ +32	48+73	Rt.	93.0	Island on 2nd St.
Mathewson Avenue				
~~[illegible]~~	~~[illegible]~~	~~Rt.~~	~~180~~	
~~[illegible]~~	~~[illegible]~~	~~Rt.~~	~~180~~	
~~[illegible]~~	~~[illegible]~~	~~Rt.~~	~~180~~	
+7+04.5	47+~~9.5~~	Rt.	15.0	
Thirteenth Street				
41+88	42+06	Rt.	180	
42+161	42+79	Rt.	180	
41+10	41+15	Lt.	50	
55+88	56+09	Lt.	210	
Mathewson Ave. South of Thirteenth St.				
47+07	47+25	Lt.	180	Cul-de-Sac
45+80.96	45+98.96	Lt.	180	
46+26	46+44	Lt.	180	
Island to Thirteenth			630.0	Excluding Inlet
Road "D"				
53+74	54+06	Lt.	270	
55+47	55+68	Lt.	31.3	
51+11.5	51+19.5	Lt.	8.0	Minnesota Ave.
51+14.26	51+19.26	Rt.	5.0	Minneapolis Ave.
Pennsylvania Ave. South of 13th St.				
48+94.5	49+35.16	Rt	40.0	
Total			~~3240~~ 812.0	1802.0

CURB & GUTTER (TYPE I)

STA TO STA		SIDE	LIN. FT.	REMARKS
Minneapolis Ave.				
48+89	47+09	Rt.	200	
47+96	48+60	Rt.	600	Excluding Inlet
48+90	48+60	Lt.	16.3	Excluding Inlet
49+00		Rt/Lt	32.0	
Third Street				
48+33	48+50	Lt.	17.0	
48+66	48+82	Lt.	16.0	
51+31	51+48	Lt.	17.0	
Douglas Avenue				
47+97	48+32	Rt.	57.0	
48+18	48+40	Lt.	22.0	
50+65	51+60	Lt.	95.0	
@ Minnesota Ave			60.0	
50+88	51+82	Rt	94.0	
52+05	52+96	Rt	91.0	
Eleventh St.				
48+15	48+70	Lt	55.0	
Seventeenth St.				
50+89	51+16	Rt.	27.0	
Total			~~2748.5~~ 2732.6	2845.5 27,847.7

28,178.6

CURB & GUTTER (TYPE III SPEC)

STA TO STA		SIDE	LIN. FT.	REMARKS
~~Douglas Ave. Southbound~~				
~~[illegible]~~	~~[illegible]~~	~~Rt.~~	~~[illegible]~~	~~[illegible]~~
			151.0	

CURB & GUTTER (TYPE I) 8"

STA. TO STA.		SIDE	LIN. FT.	REMARKS
35+45	First Street			4.5
35+~~28.32~~ +33.39	35+~~39~~ 35+37.57	Rt.	~~330~~ 4.2	Excluding Inlet
35+~~28.32~~ +33.39	35+~~39~~ 35+37.57	Lt.	~~330~~ 4.2	
Total			~~8.4~~ 8.5	

CURB & GUTTER (TYPE III)

STA TO STA		SIDE	LIN. FT.	REMARKS
				36+37.97
Central Avenue				
46+37.8	47+96.7		3450	Island
51+23.15	53+72		9080	Island
48+25.84	49+46.82		2530	Island
50+65.14	51+51.55		1780	Island
36+37	Inner-Loop West		641.8	
~~45+20~~ +5.29	44+59		~~3960~~ 3960	Island
~~45+20.86~~	49+30.86		~~4010~~ 4010	Island Island Islands
Inner-Loop East				
30+59.97	34+92.19		1080	Excluding Inl/Island
55+20.03	58+42.03		1730	Island
Thirteenth Street				
43+46.97	47+77.34		999.3	Island
48+65.34	49+30		191.8	Island
50+48.38	51+17.94		151.5	Island
52+02	54+85.72		1061	Island
Total			~~6457~~ 7056.7	

36+66.67	-	Rt.	24.8	Island	
36+73.15	-	Lt.	21.6	Island	

8" EDGE CURB

STA TO STA		SIDE	LIN. FT.	REMARKS
Kansas Avenue				
Turn Around			215.0	South of Central Ave
Total			215.0	

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	33W-87-135V (159) 48	1970	2024	2137

Phase I
REVISED PLANS 7/13/71
REVISED PLANS 5/11/72
REVISED PLANS 7/1/72
REVISED PLANS 7/19/72

LIME TREATED SUBGRADE TABULATION*

STA TO STA		LOCATION	SQ. YDS	REMARKS
416+85.38	417+80.10	N.B. Lane	759	
421+15.60	422+10.32	S.B. Lane	670	
45+90	49+30.67	First St.	1978	West
50+73.75	56+64	First St	3595	East
9+68.1	12+22	Ramp C	1,036	
10+31.9	13+09	Ramp D	870	
10+25	16+54	Road A	3,263	
10+25	16+60	Road B	3,299	
45+00	49+00.86	Second St.	2,022	West
50+71.64	53+27.06	Second St.	1,607	East
19+91	21+99.3	Ramp E	821	
20+37	22+67.5	Ramp F	971	
49+49.57	49+49.60	Central Ave	4276	West
50+65.19	53+31.63	Central Ave.	3236	East
33+10	35+80.5	Ramp G	4,161	
34+12	37+05.9	Ramp H	1,222	
52+58.9	58+50.73	Ramp J	2341	
54+78.5	59+10	Ramp K	1,787	
~~45+00~~	~~49+00.86~~	~~Second St.~~	~~3984~~	~~West~~
~~49+00.86~~	~~49+36.96~~	~~Inner Loop~~	~~1330~~	~~West~~
50+58	60+48.18	Inner Loop	8,120	East
58+27	63+03.8	Ramp L	1,964	
57+21	63+51.7	Ramp M	2,434	
84+08.9	86+70	Ramp N	1,404	
82+58.7	87+67	Ramp O	1,335	
41+02.8	49+36.5	Thirteenth	7,779	West
50+48.38	55+67.82	Thirteenth	5,925	East
87+82	90+53.3	Ramp P	1,203	
88+04.99	91+74.7	Ramp Q	1,608	
Total			~~77,520~~	
			77,520	

* Note: The use of lime treated subgrade will be largely dependent upon the quality of the soils in the top of the completed subgrade. Based upon final soil tests, the engineer may underrun any or all of the lime treated subgrade.

● Revised Plans 10-26-72
●● Revised Plans 11-10-72

Revised Sheet
Added 2/26/73
BY

SUMMARY OF QUANTITIES

ITEM	TOTAL	UNIT
* Hydrated Lime (Slurry)	939	Tons
‡ Water (Lime Treated Subgrade)	1152	M. Gals.
Manipulation (Lime Treated Subgrade)	~~77,520~~ 77,520	Sq. Yds.

* 5.0 per cent of top 6" under the granular subbase based on soil weight of 110 lbs. per cu. Ft.

‡ 25.0 per cent of weight of Lime Treated Subgrade (110 lbs. per cu. ft.)

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF QUANTITIES
PHASE I

SHEET NO.	OF	SCALE	APP'D
DESIGNED		DETAILED	QUANTITIES
DESIGN CK.		DETAIL CK.	QUAN CK.

TRACED
TRACE CK.

NOTE

DIST. 5 SEDGWICK CO. ROLL 531

4 5 6

16X 14.5X 12X 12X 14.5X 16X 20X

VOID SEE REVISED SHEET

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-1.35V (539)48 Phase I	1970	2084	2197

REVISED PLANS 7/13/71

CURB & GUTTER (TYPE I)

STA TO STA		SIDE	LIN. FT.	REMARKS
Minnesota Avenue				
		Rt.	1600	South of English St.
		Rt.	880	@ English St.
32+20.87	33+02.89	Rt.	282.0	Cul-de-Sac S of Douglas
32+20.87	32+32.27	Lt.	114	
32+50.47	32+85.77	Lt.	35.3	
33+03.97	33+39.37	Lt.	35.4	
33+37.57	33+96	Lt.	39.0	
34+14	34+52	Lt.	38.0	
34+87	35+00	Lt.	13.0	
First Street				
45+90	46+38	Rt.	48.0	
46+58.5	47+81.78	Rt.	123.3	
45+90	46+38	Lt.	48.0	
46+65.5	47+97.98	Lt.	132.5	
48+63.55	49+56.41	Rt.	89.9	Excluding Inlet
48+82.86	49+44.93	Lt.	62.1	
50+79.75	51+76	Rt.	96.6	
50+67.75	51+23.88	Lt.	56.1	
32+91.26	33+52	Rt.	60.8	Excluding Inlet
33+76	34+51.75	Rt.	69.8	Excluding Inlet
34+51.75	36+46.41	Rt/Lt.	490	36+46.41 on Ash St.
32+17.92	33+19.5	Lt.	95.6	Excluding Inlet
33+60.5	34+04.5	Lt.	44.0	Excluding Inlet
34+45.5	37+59.41	Lt.	490	37+59.41 on Ash St.
36+46.41	35+26.99	Rt.	370	36+46.41 on Ash St.
37+39.41	35+87.33	Rt/Lt.	350	37+39.41 on Ash St. Excluding Inlet.
Ramp "C"				
9+63.1	51+81.6	Lt.	2850	51+81.6 on First St.
9+68.1	52+91.24	Rt/Lt.	2790	52+91.24 on First St. Excluding Inlet
Ramp "D"				
10+31.9	48+63.55	Rt.	2710	48+63.55 on First St.
10+31.9	47+35.78	Lt/Lt.	3020	47+35.78 on First St.
Road "A"				
First St.	Second St.			
32+17.92	32+38.25	Lt/Lt.	538.0	Excluding Inlets
31+23.83	31+55.76	Lt/Lt.	664.0	Excluding Inlets
Road "B"				
First St.	Second St.			
48+79.36	49+00.88	Lt/Lt.	6580	Excluding Inlets
47+97.98	48+05.01	Lt/Lt.	6430	Excluding Inlets
Minnesota Avenue South of Second Street				
110+76	114+61.69	Lt.	385.5	
111+29.77	112+16.77	Rt.	87.0	
112+34.97	112+78.97	Rt.	44.0	
112+97.12	113+26.12	Rt.	29.0	
113+44.32	113+83.32	Rt.	39.0	
114+01.32	114+61.49	Rt.	60.0	
154+75	154+91	Lt.	16.0	
155+30	155+45	Lt.	15.0	
Second Street				
45+00	47+32.37	Lt.	223.6	Excluding Inlets
Around Radius	Kas Ave	Rt.	18.0	@ Second Street
46+62.25	48+05.1	Rt.	139.7	Excluding Inlet
48+39.30	49+42.50	Lt.	100.2	Excluding Inlet
49+00.86	49+54.50	Rt.	53.6	
50+65.58	51+72.70	Lt.	104.1	Excluding Inlet
50+77.70	51+55.76	Rt.	78.1	
52+38.25	52+85.91	Rt.	45.7	
Around Radius	Minn Ave	Rt.	28.0	@ Second Street
52+53.87	53+41	Lt	78.1	Excluding Inlets
Around Radius	Minn Ave.	Rt.	35.0	@ Second Street
53+26	53+41	Rt.	9.0	Excluding Inlets
Ramp "E"				
52+53.87	21+99.3	Rt.	285.0	52+53.87 on Second St. Excluding Inlet
51+72.70	21+99.3	Lt.	255.0	51+72.70 on Second St.

Continued.

STA TO STA		SIDE	LIN. FT.	REMARKS
Ramp "F"				
48+39.30	22+67.5	Rt.	2490	48+39.30 on Second St.
47+32.37	22+67.5	Lt.	2463.0	47+32.37 on Second St. Excluding Inlets
Road "E"				
6+00	8+07.5	Rt.	2340	
8+32.5	33+69.5	Rt.	1620	33+69.5 on Platt Ave.
6+00	6+11.5	Lt.	11.5	
6+30.5	8+07.5	Lt.	162.0	
8+38.5	33+96.5	Lt.	1620	33+96.5 on Platt Ave.
Central Avenue				
46+92	49+58.33	Rt.	313.0	Excluding Inlet
50+81.49	62+53.35	Rt/Lt.	3910	62+53.35 on Minn. Ave. Excluding Inlets
62+53.35	54+39.41	Rt.	890	62+53.35 on Minn. Ave.
40+88.72	45+33.5	Lt.	674	40+88.72 on Hydraulic
45+68.5	45+78.5	Lt.	4.0	Excluding Inlet
46+07.5	47+00	Lt.	92.5	
48+20.39	49+35.58	Lt.	112.2	Excluding Inlet
50+58.66	51+69.61	Lt.	104.9	Excluding Inlet
32+58.00	34+20.00	Lt.	162.0	
Ramp "G"				
32+58.00	35+80.5	Rt.	291.0	32+58 on Central Excluding Inlet
51+69.61	35+80.5	Lt.	266.0	51+69.61 on Central
Ramp "H"				
48+20.39	37+05.9	Rt.	310.7	48+20.39 on Central
47+00.00	37+05.9	Lt.	319.6	47+12.62 on Central Excluding Inlet
Murdock Avenue				
48+02	48+52	Lt.	50.0	@ Hydraulic Ave.
Inner-Loop East			62.58	465.2
30+57.97	34+85.37	Rt.	428.4	Excluding Inlets
33+79.43	60+~~23.15~~	Rt.	~~4223~~	Excluding Inlets
~~Around Radius~~	~~62.58~~	~~Rt.~~	~~56.0~~	
30+60.07	34+39.41	Lt.	399.3	
			516.2	
35+31.42	60+~~45.15~~	Lt.	~~4585~~	Excluding Inlets
48+01	48+23	Lt.	22.0	Minnesota Ave.
Mathewson Avenue				
45+49.71	45+67.62	Lt.	217.9	
Inner-Loop West				
43+49.71	44+12.22	Rt.	62.50	43+49.71 on Mathewson Excluding Inlets
45+67.62	43+99.85	Lt.	399.5	45+67.62 on Mathewson Excluding Inlets
44+96.27	49+31.36	Rt.	426.1	Excluding Inlets
44+94.15	49+38.96	Lt.	443.8	Excluding Inlet
Ramp "K"				
54+78.5	44+12.22	Lt.	440.0	44+12.22 on Inner-Loop Excluding Inlet
54+78.5	44+96.27	Rt.	434.0	44+96.27 on Inner-Loop
Ramp "L"				
55+53.90	63+03.8	Rt.	502.0	55+31.42 on Inner-Loop Excluding Inlet
54+59.41	63+03.8	Lt.	494.7	54+59.41 on Inner-Loop Excluding Inlet
Ramp "J"				
32+58.9	55+79.43	Rt.	1030	33+79.33 on Inner-Loop Excluding Inlet
32+58.9	34+85.37	Lt.	685.0	34+85.37 on Inner-Loop Excluding Inlet

Continued

STA TO STA		SIDE	LIN. FT.	REMARKS
Ramp "M"				
44+94.15	63+51.70	Lt/Rt	625.0	44+94.15 on Inner-Loop Excluding Inlet
43+99.85	63+51.70	Lt.	650.0	43+99.85 on Inner-Loop Excluding Inlet
New York Avenue Cul-de-Sac				
47+26.62	47+40.00	Rt.	13.4	@ Ninth Street
Road "D"				
53+64.24	50+~~23.5~~ +45.0	Rt/Lt.	~~7160~~ 7120	50+40.5 on Minn. Ave. Excluding Inlets
53+64.24	53+74.24	Lt.	10.0	
54+06.00	55+47.00	Lt.	130.0	Excluding Inlet
35+68.00	51+19.26	Lt.	193.0	51+19.26 on Minneapolis Excluding Inlet
51+19.26	51+19.50	Lt.	31.1.0	51+19.26 on Minneapolis SW85 on Minnesota Excluding Inlets
Left of Road "D" on Kansas Ave. off Road "D"		Lt.	27.5.0	Parking Lot
		Lt.	38.0	
Thirteenth Street				
49+59.8	41+88	Rt.	78.3	49+59.8 on Indiana
42+06	42+61	Rt.	55.0	
42+79	79+17.94	Rt/Lt.	1650	79+17.94 on Clev. Ave. Excluding Inlets
79+17.94	97+42.34	Rt.	303.5	79+17.94 on Clev Ave.
98+43.90	99+42.05	Rt.	98.2	Excluding Inlet
41+15	43+74	Lt.	459.0	Excluding Inlet
47+98.32	49+13.98	Lt.	118.2	Excluding Inlet
30+65.13	31+69.12	Rt.	101.0	Excluding Inlet
32+71.56	49+31.08	Rt.	2573.0	49+21.03 on Penn. Ave. Excluding Inlet
49+35.16	56+92.25	Rt.	127.90	49+35.16 on Penn Ave. Excluding Inlet
30+36.36	31+39.02	Lt.	99.5	Excluding Inlet
32+38.30	35+88	Lt.	362.9	Excluding Inlet
36+09	36+42.25	Lt.	32.2	
Mathewson Avenue South of Thirteenth Street				
45+96.32	48+45.37	Rt.	299.1	Cul-de Sac
45+72.96	45+80.96	Lt.	8.0	@ Thirteenth Street
45+98.96	46+26	Lt.	29.0	
46+44	47+05	Rt.	61.0	
47+23	48+45.37	Lt.	122.4	Excluding Inlet
44+65	44+86	Rt.	21.0	
Ramp "O"				
34+89.7	48+43.90	Rt/Lt.	308.7	48+43.90 on Thirteenth
34+39.7	47+42.34	Lt/Lt.	339.9	47+35.69 on Thirteenth Excluding Inlet
Ramp "N"				
84+08.9	52+71.56	Rt.	265.0	52+71.56 on Thirteenth Excluding Inlet
81+08.9	51+69.12	Lt/Lt.	273.0	51+69.12 on 13th St.
Ramp "O"				
47+98.32	91+74.7	Rt/Lt.	298.0	47+98.32 on Thirteenth
45+74	91+74.7	Lt.	370.0	45+74 on Thirteenth Excluding Inlet
Island to Thirteenth			330.0	Excluding Inlet
Ramp "P"				
32+38.3	90+59.3	Rt.	301.3	32+26.14 on Thirteenth Excluding Inlet
51+39.02	90+59.3	Lt.	252.2	51+39.02 on Thirteenth
New York Avenue				
33+78	33+96	Rt	18.0	between 10th & 11th

Continued

CURB & GUTTER (TYPE II)

STA TO STA		SIDE	LIN FT.	REMARKS
Minnesota Ave. South of Douglas Ave.				
32+32.27	32+50.47	Lt.	18.0	
32+85.77	33+03.97	Lt.	18.0	
33+39.37	33+57.37	Lt.	18.0	
53+96.00	54+16.00	Lt.	18.0	
First Street				
46+38	46+58.5	Rt	21.0	
46+89	46+65.5	Lt	22.0	
53+52	53+76	Rt	24.0	
53+19.5	53+60.5	Lt	41.0	
53+04.5	53+45.5	Lt	41.0	
Minnesota Ave. South of Second Street				
112+16.77	112+34.97	Rt	18.0	
112+78.97	112+97.12	Rt	18.0	
113+26.12	113+44.32	Rt	18.0	
113+83.32	114+01.52	Rt	18.0	
Road "E"				
6+11.5	6+30.5	Lt.	19.0	
8+07.5	8+32.5	Lt.	25.0	
8+07.5	8+32.5	Rt	25.0	
Central Avenue				
46+21	46+42	Rt	21.0	
45+33.5	45+68.5	Lt.	35.0	
45+78.5	46+01.5	Lt.	29.0	
Mathewson Avenue				
43+84	44+02	Lt.	18.0	
44+36	44+54	Lt	18.0	
45+12	45+30	Lt.	18.0	
Thirteenth Street				
41+88	42+06	Rt.	18.0	
42+61	42+79	Rt	18.0	
41+10	41+15	Lt.	5.0	
35+88	36+09	Lt.	21.0	
Mathewson Ave. South of Thirteenth St.				
47+07	47+25	Lt.	18.0	Cul-de-Sac
45+80.96	45+98.96	Lt.	18.0	
46+26	46+44	Lt.	18.0	
Road "D"				
53+76	54+06	Lt.	27.0	
55+47	55+68	Lt.	21.3	
51+11.5	51+19.5	Lt.	8.0	Minnesota Ave.
51+14.26	51+19.26	Rt.	5.0	Minneapolis Ave.
Pennsylvania Ave. South of 13th St.				
49+24.3	49+35.16	Rt	10.9	
Total			734.0	

CURB & GUTTER (TYPE I)

STA TO STA		SIDE	LIN. FT.	REMARKS
Minneapolis Ave.				
46+89	47+09	Rt.	20.0	
47+96	48+60	Rt.	60.4	Excluding Inlet
48+40	48+60	Lt.	16.0	Excluding Inlet
49+00		Rt/Lt.	32.0	
Third Street				
48+33	48+50	Lt	17.0	
48+66	48+82	Lt.	16.0	
51+31	51+48	Lt.	17.0	
Douglas Avenue				
47+93	48+32	Rt.	37.0	
48+18	48+40	Lt.	22.0	
50+65	51+60	Lt.	95.0	
@ Minnesota Ave			60.0	
50+88	51+82	Rt	94.0	
52+05	52+96	Rt	91.0	
Eleventh St.				
98+15	98+70	Lt	55.0	
Seventeenth St.				
30+89	31+16	Rt.	27.0	
Total			~~27,460~~ 27,394.8	

CURB & GUTTER (TYPE III SPEC)

STA TO STA		SIDE	LIN. FT.	REMARKS
Central Avenue				
39+85.5	46+21	Rt	151.0	39+85.5 on Hydraulic Excluding Inlet
Total			151.0	

VOID SEE REVISED SHEET

CURB & GUTTER (TYPE I) 8"

STA. TO STA.		SIDE	LIN. FT.	REMARKS
First Street				
55+26.99	56+64	Rt.	137.0	Excluding Inlet
55+27.39	56+64	Lt.	136.8	
Total			267.8	

VOID SEE REVISED SHEET

CURB & GUTTER (TYPE III)

STA TO STA		SIDE	LIN. FT.	REMARKS
Central Avenue				
46+37.8	47+96.7		345.0	Island
51+89.15	53+72		403.0	Island
48+25.84	49+46.82		253.0	Island
50+65.14	51+51.55		178.0	Island
Inner-Loop West				
40+50	44+59		888.1	Island
43+39	49+36.96		1880	Island Jobbie Inlets
Inner-Loop East				
30+59.47	34+02.19		783.0	Excluding Int/Island
55+20.08	58+42.03		732.0	Island
Thirteenth Street				
43+46.97	47+77.34		993.3	Island
48+65.34	49+30		191.0	Island
50+48.38	51+17.94		151.5	Island
52+00	58+85.72		1206.1	Island
Total			6,162.4	

VOID SEE REVISED SHEET

LIME TREATED SUBGRADE TABULATION*

STA TO STA		LOCATION	SQ. YDS	REMARKS
416+85.38	417+80.10	N.B. Lane	758	
421+15.60	422+10.32	S.B. Lane	670	
45+90	49+50.67	First St.	1,978	West
50+73.75	56+64	First St.	3,595	East
9+68.1	12+22	Ramp C	1,036	
10+31.9	13+09	Ramp D	870	
10+26	16+39	Road A	3,263	
10+25	16+60	Road B	3,299	
45+00	49+00.86	Second St.	2,022	West
50+71.64	53+27.06	Second St.	1,607	East
1.19+91	21+99.3	Ramp E	821	
20+37	22+67.5	Ramp F	971	
49+49.37	49+49.60	Central Ave	4276	West
50+65.14	54+31.63	Central Ave	3,236	East
33+10	35+80.5	Ramp G	1,161	
39+12	37+05.9	Ramp H	1,222	
52+52.9	58+80.23	Ramp J	2,391	
54+78.5	59+10	Ramp K	1,787	
43+49.71	45+67.62	Mathewson	738	
40+99	99+36.96	Inner Loop	8,226	West
50+58	60+25.18	Inner Loop	8,120	East
58+27	63+03.8	Ramp L	1,964	
57+21	63+51.7	Ramp M	2,439	
87+08.9	86+78	Ramp N	4,904	
82+59.7	87+67	Ramp O	1,335	
41+02.8	49+36.5	Thirteenth	7,779	West
50+48.38	55+67.82	Thirteenth	5,925	East
87+82	90+59.3	Ramp P	1,203	
89+04.99	91+74.7	Ramp Q	1,608	
Total			75,600	

* Note: The use of lime treated subgrade will be largely dependent upon the quality of the soils in the top of the completed subgrade. Based upon final soil tests, the engineer may underrun any or all of the lime treated subgrade.

VOID SEE REVISED SHEET

8" EDGE CURB

STA TO STA		SIDE	LIN. FT.	REMARKS
Kansas Avenue				
Turn Around			27.0	South of Central Ave
Total			84.0	

VOID SEE REVISED SHEET

* SUMMARY OF QUANTITIES

ITEM	TOTAL	UNIT
* Hydrated Lime (Slurry)	109	Tons
‡ Water (Lime Treated Subgrade)	135	M. Gals.
Manipulation (Lime Treated Subgrade)	75,600	Sq. Yds.

* 5.0 per cent of top 6" under the granular subbase based on soil weight of 110 lbs. per cu. ft.

‡ 25.0 per cent of weight of Lime Treated Subgrade (110 lbs. per cu. ft.)

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF QUANTITIES

PHASE I

SHEET NO.	OF	SCALE		APP'D	
DESIGNED		DETAILED		QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 5 7

16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-97-1354 (58)48 Phase I	1970	2025	2137

REVISED PLANS" MAY 11, 1972
REVISED PLANS 7/7/72
**Revised Plans 11-10-72

CONCRETE PAVEMENT (9")

STA. TO STA.		SQ. YDS.	REMARKS
Road "E"			
6+00	9+27	1045	
Minnesota Ave. S. of Douglas			
52+20.87	55+32.9	1099	Cul-de-Sac
Ramp "D"			
10+31.9	13+10	624	
Ramp "C"			
9+68.1	12+23	1099	
First Street			
46+50	49+50.67	1604	
50+78.75	55+27.3	~~2693~~ 2567	includes Ash St.
Minnesota Ave. S. of 2nd St.			
110+50	114+61.49	1363	Cul-de-Sac
Road "A"			
10+25	16+54.74	2603	
Road "B"			
10+25	18+33.96	2639	
Second Street			
46+28.29	49+48.53	1632 → 1509	
50+71.64	53+41 + 31.61	~~1405~~ → 1458	**
Ramp "E"			
21+99.3	19+41.7	333	
Ramp "F"			
22+67.5	20+36.43	719	
Central Ave.			
44+64.57	49+46.82	~~3543~~ 3437	
50+65.14	54+31.63	2667	
Ramp "H"			
34+12	37+05.9	1272	
Ramp "G"			
33+10	35+80.3	875	
Ramp "J"			
52+58.9	59+41	1574	
Ramp "L"			
58+30	63+03.8	1418	
Ramp "K"			
54+76.5	59+10.5	~~3915~~ 1904	
Inner Loop East			
50+39.47	60+25.18	0446	
		~~8327~~	
36+37.97	*Inner Loop West*		
~~39+86.5~~	49+36.46	~~7603~~	Includes Mathewson Ave
41+86.3		450	Mathewson Cul-de-Sac
36+86.8		508	Mathewson Cul-de-Sac
Ramp "N"			
57+20	63+51.7	1762	
Road "D"			
55+69.24	60+88.88	2153	Includes Minneapolis Ave
Mathewson Ave. Cul-de-Soc S. of 13th St.			
45+46.32	49+09	1074	
Ramp "N"			
84+02.9	86+71	1069	
Ramp "O"			
84+39.7	87+74	1008	
Thirteenth St. East			
50+48.38	56+42.25	5102	Includes Penn. Ave. Sq.
Thirteenth Street West			
41+06.8	49+25.3	6445	Includes Cleveland Sq.

CONCRETE PAVEMENT (9")

STA. TO STA.		SQ. YDS.	REMARKS
Ramp "P"			
87+82.2	90+59.3	904	
Ramp "Q"			
88+84	91+74.7	1219	
Pennsylvania Ave. N. of Thirteenth Street			
—	—	519	Cul-de-Soc
New York Ave. N. of Thirteenth Street			
54+74	55+51.37	386	Cul-de-Sac
New York Ave. N. of Ninth St.			
46+50	47+26.62	341	Cul-de Sac
Ninth Street			
42+99.6	43+62	334	Cul-de-Sac
Kansas Ave.			
—	—	894	Turn Around
Hydraulic Ave. N. of Ninth St.			
54+76	55+59.31	350	Cul-de-Sac
Total		~~69,931~~ 70,316 → 70,369	

4" CONCRETE PAVING (ISLANDS)

STA TO STA.		SQ. YDS.	REMARKS
Central Ave			
46+37.8	47+96.7	291	
48+25.84	49+46.82	284	
50+69.9	51+51.53	137	
51+88.13	53+12.38	473	
Inner Loop East			
50+59.47	54+42.19	661	
55+07.84	58+41.5	1067	
36+57	*Inner Loop West*		
~~43+90~~	44+59	~~185~~ 611	
~~43+90~~	49+36.46	~~185~~	
45+59		278	
13th Street West			
44+82.77	47+77.34	1509	
48+65.34	49+25.3	112	
13th Street East			
50+48.38	51+22.94	119	
52+02	54+01.53	891	
Ramp "Q"			
88+84	89+60.8	397	
FIRST STREET			
51+52	51+95	42	
SECOND STREET			
42+35	42+72	37	
Total		~~5312~~ 5110	

SURFACING MATERIAL (SA 1,3 OR X)

LOCATION	Rate - Cu Yds/ Sq Yds	Quantity Sq. Yds.	Remarks
Alley Cul-de-Soc @Sta. 10+90 2nd St.	0.112	3550	90' Lt. of Sta. 52+25 2nd St.
Pennsylvania Ave. Cul-de-Soc South of Eleventh Street	0.112	2857	
Alley Cul-de-Soc @Sta 48+08 2nd St.	0.112	6320	260' Lt.
Alley Cul-de-Soc Lt. Sta. 52+76 13th St.	0.112	3593	
Total		16,320	

CONCRETE PAVEMENT (6")

STATION	SQ. YDS.	X	Y	REMARKS
First Street				
48+48 Lt.	10	20	8	
46+48 Rt.	9	10	8	
53+40 Lt.	80	30	8	
53+64 Rt.	11	13	8	
54+25 Lt	80	30	8	
Central Avenue				
45+31.0 Lt	~~31~~ 24	30	~~9~~ 8	
45+93.0 Lt	~~25~~ 24	24	~~8~~ 8	
46+30 Rt	15	16	7	
Thirteenth Street				
41+10 Lt	5	3	5	
41+97 Rt	14	13	8	
42+70 Rt	14	13	8	
55+88 Lt.	27	16	8	
Minnesota Ave. Cul-de-Soc S. of Douglas				
52+42 Lt	17	13	5	
52+93 Lt	17	13	5	
53+48 Lt	17	13	5	
54+05 Lt.	17	13	5	
Road "E"				
6+27 Lt	14	13	5	
8+20 Lt	21	20	5	
8+20 Rt	14	20	5	
Minnesota Ave. Cul-de-Soc S. of 2nd St.				
112+29 Rt.	22	13	5	
112+91 Rt.	12	13	5	
113+35 Rt.	10	13	5	
113+93 Rt.	13	13	5	
Road "D"				
53+90 Lt	30	21	5	
55+65.2 Lt	23	13	5	
51+19.28 Rt	4	3	5	on Mpls. Ave.
51+19.5 Lt	4	4	5	on Minn. Ave.
Ninth Street Cul-de-Soc				
43+41.23 Lt	40	15	5	
New York Avenue N. of Ninth Street				
46+26 Lt	67	13	5	Cul-de-Soc
46+82 Lt	14	13	5	
Hydraulic Avenue N. of Ninth Street				
55+07 Rt	32	13	5	Cul-de-Soc
Mathewson Ave. S. of Thirteenth St.				
45+02 Lt	9	13	5	Cul-de-Soc
46+37 Lt	11	13	5	
47+13 Lt	19	13	5	
47+12 Lt.	10	10	7.5	Cul-de-Soc (& Inner Loop)
New York Avenue N. of Thirteenth St.				
54+36.5 Rt	92	13	5	Cul-de-Soc
54+01.5 Rt	27	13	5	
Pennsylvania Ave. S. of Thirteenth St.				
49+14.6	53	30	8	
Total	941	730		

PAVEMENT REMOVAL

LOCATION	CU. YDS.	REMARKS
Ash Street	48	
First Street	857	
Second Street	604	
Central Avenue	222	
Ninth Street	279	
Thirteenth Street	1503	
Minnesota Avenue		
between Beginning of Job & English Street	40	
between English Street & Douglas Avenue	444	
between Douglas Avenue & First Street	561	
between First Street & Second Street	498	
between Second Street & Third Street	325	
Minneapolis Avenue		
between Douglas Ave. & First Street	131	
between First Street & Second Street	520	
between Ninth Street & Tenth Street	87	
Kansas Avenue		
between Third Street & Central Avenue	77	
between Ninth Street & Tenth Street	185	
between Central Avenue & Murdock Avenue		
Station 35+	18	
Station 36+	90	
Hydraulic Avenue		
between Murdock Avenue & Ninth Street	1002	
between Ninth Street & Tenth Street	482	
Road "D"		
between Ninth Street & Tenth Street	383	
New York Avenue		
between Ninth Street & Tenth Street	329	
between Thirteenth Street & Fourteenth Street	486	
Mathewson Avenue		
@ Inner Loop West	~~385~~ 390	
between Twelfth Street & Thirteenth Street	389	
Pennsylvania Avenue		
between Twelfth Street & Thirteenth Street	72	
between Thirteenth Street & Fourteenth Street	92	
Ninth Street Detour	147	
Eleventh St.		
48+15 to 48+88	52	Left
Douglas Ave.		
50+88 to 52+46	342	Right
Total *	~~4,000~~ 3,733	(Rock Excavation)

Revised Sheet
Added 2/26/73
BY MJM

* This material to be used for rip rap. Included as rock excavation on the Recapitulation of Quantities.

CONCRETE LUG ANCHORS

STATION	LIN. FT.	LOCATION
9+93.1	18	Ramp "C"
10+08.1	19	Ramp "C"
10+56.9	18	Ramp "D"
10+71.9	18	Ramp "D"
21+59.3	18	Ramp "E"
21+74.3	18	Ramp "E"
22+27.5	21	Ramp "F"
22+42.5	20	Ramp "F"
35+40.5	26	Ramp "G"
35+55.5	26	Ramp "G"
36+65.9	23	Ramp "H"
36+80.9	21	Ramp "H"
52+83.9	18	Ramp "J"
52+98.9	18	Ramp "J"
54+83.5	26	Ramp "K"
54+98.5	26	Ramp "K"
62+63.8	26	Ramp "L"
62+78.8	26	Ramp "L"
63+11.7	18	Ramp "M"
63+26.7	18	Ramp "M"
84+33.9	36	Ramp "N"
84+48.9	36	Ramp "N"
88+84.7	26	Ramp "O"
88+99.7	26	Ramp "O"
90+19.3	26	Ramp "P"
90+34.3	26	Ramp "P"
91+34.6	19	Ramp "Q"
91+49.6	18	Ramp "Q"
TOTAL	635	

ADJUST MANHOLES

LOCATION	SIDE	NEW COVER ELEV.	EXIST. COVER ELEV.	REMARKS
First Street				
Sta. 53+15	℄	1298.25	1298.42	
Second Street				
Sta. 48+11	Rt.	1299.35	1297.10	
Sta. 50+93	Lt.	1300.75	1299.51	
Central Avenue				
Sta. 50+90	Lt.	1302.71	1299.65	
Ninth Street				
Sta. 50+82	Rt.	1304.50	1303.06	
Thirteenth Street				
Sta. 50+92	Lt.	1301.66	1304.58	
Sta. 54+98	Rt.	1302.20	1302.75	
Southbound Lane				
Sta. 352+13	Rt.	1300.34	1299.51	
Sta. 352+35	Lt.	1302.91	1299.88	
Sta. 391+75	Rt.	1303.78	1304.52	
Northbound Lane				
Sta. 370+66	Lt.	1303.00	1304.12	
TOTAL	11			

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF QUANTITIES
PHASE I

SHEET NO.	OF	SCALE	APP'D
DESIGNED		DETAILED	QUANTITIES
DESIGN CK.		DETAIL CK.	QUAN CK.
			TRACED
			TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

4 5 8

16X 14.5X 12X 12X 14.5X 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35V-37-1354 (52)98 Phase I	1970	2025	2137

CONCRETE PAVEMENT (9")

STA. TO STA.		SQ. YDS.	REMARKS
Road "E"			
6+00	9+87	1085	
Minnesota Ave. S. of Douglas			
32+20.87	33+32.9	1099	Cul-de-Sac
Ramp "D"			
10+31.9	13+10	624	
Ramp "C"			
9+68.1	12+23	1099	
First Street			
46+50	49+50.67	1604	
30+13.75	33+27.3	2643	includes Ash St.
Minnesota Ave. S. of 2nd St.			
110+50	114-61.49	1363	Cul-de-Sac
Road "A"			
10+25	16+54.74	2603	
Road "B"			
10+25	18+39.98	2638	
Second Street			
46+29.25	49+48.58	1622	
50+71.64	53+41	1405	
Ramp "E"			
21+99.3	19+41.7	353	
Ramp "F"			
22+67.5	20+36.48	719	
Central Ave.			
44+64.57	49+46.82	3513	
50+65.14	54+31.63	2667	
Ramp "H"			
34+12	37+05.9	1272	
Ramp "G"			
33+10	35+80.5	875	
Ramp "J"			
52+58.9	59+41	1574	
Ramp "L"			
58+30	63+03.8	1478	
Ramp "K"			
54+78.5	59+10.5	1346	
Inner Loop East			
30+50.67	60+45.18	6446	
Inner Loop West			
39+98.5	49+36.46	7203	Includes Mathewson Ave
Ramp "N"			
57+20	63+51.7	1762	
Road "D"			
53+69.24	60+88.88	2153	Includes Minneapolis Ave.
Mathewson Ave. Cul-de-Sac S. of 13th St.			
45+16.32	49+09	1074	
Ramp "N"			
84+02.9	86+74	1069	
Ramp "O"			
84+39.7	87+74	1008	
Thirteenth St. East			
30+48.39	36+42.25	5102	Includes Penn. Ave. So.
Thirteenth Street West			
41+02.6	49+25.3	6645	Includes Cleveland So.

VOID SEE REVISED SHEET

CONCRETE PAVEMENT (9")

STA. TO STA.		SQ. YDS.	REMARKS
Ramp "P"			
57+82.2	90+59.3	904	
Ramp "Q"			
85+84	91+74.7	1219	
Pennsylvania Ave. N. of Thirteenth Street			
—	—	319	Cul-de-Sac
New York Ave. N. of Thirteenth Street			
54+74	55+51.37	386	Cul-de-Sac
New York Ave. N. of Ninth St.			
96-52	97+26.62	341	Cul-de-Sac
Ninth Street			
42+99.6	43+85	334	Cul-de-Sac
Kansas Ave.			
—	—	294	Turn Around
Hydraulic Ave. N. of Ninth St.			
54+76	55+54.31	350	Cul-de-Sac
Total		68,351	

4" CONCRETE PAVING (ISLANDS)

STA TO STA.		SQ. YDS.	REMARKS
Central Ave			
46+37.8	47+96.7	291	
48+25.84	49+46.82	284	
50+69.9	51+51.53	137	
51+88.15	53+72.58	473	
Inner Loop East			
50+59.47	54+02.19	661	
55+07.84	58+41.5	1067	
Inner Loop West			
40+50	44+39	1086	
45+39	49+36.46	185	
13th Street West			
44+82.77	47+77.34	1509	
48+65.34	49+88.3	112	
13th Street East			
50+48.38	51+22.94	119	
52+02	54+01.53	891	
Ramp "Q"			
88+84	89+60.8	397	
Total		7,212	

SURFACING MATERIAL (SA 1,3 OR X)

LOCATION	Rate - cu Yds/ Sq Yds	Quantity Sq. Yds.	Remarks
Alley Cul-de-Sac @ Sta 101+90 End St.	0.112	3550	90' Lt. of Sta. 52+85 End St.
Pennsylvania Ave. Culde-Sac South of Eleventh Street	0.112	2857	
Alley Cul-de-Sac @ Sta 98+08 2nd St.	0.112	6320	260' Lt.
Alley Cul-de-Sac Lt. Sta. 52+76 13th St.	0.112	3593	
Total		16,320	

CONCRETE PAVEMENT (6")

STATION	SQ. YDS.	X	Y	REMARKS
First Street				
46+48 Lt.	10	20	8	
46+48 Rt.	9	10	8	
53+40 Lt.	80	30	8	
53+64 Rt.	11	13	8	
54+25 Lt	80	30	8	
Central Avenue				
43+51.0 Lt	24	30	7	
43+93.0 Lt	21	24	6	
46+30 Rt	15	16	7	
Thirteenth Street				
41+10 Lt	5	3	5	
41+97 Rt	14	13	8	
42+70 Rt	14	13	8	
55+88 Lt.	27	16	8	
Minnesota Ave. Cul-de-Sac S. of Douglas				
52+42 Lt	17	13	5	
52+95 Lt	17	13	5	
53+48 Rt	17	13	5	
54+05 Lt	17	13	5	
Road "E"				
6+27 Lt	14	13	5	
8+20 Lt	21	20	5	
8+20 Rt	14	20	5	
Minnesota Ave. Cul-de-Sac S. of 2nd St.				
112+29 Rt.	22	13	5	
112+91 Rt.	12	13	5	
113+35 Rt.	10	13	5	
113+93 Rt.	13	13	5	
Road "D"				
53+90 Lt	30	21	5	
53+65.2 Lt	25	13	5	
51+19.26 Rt	4	13	5	on Mpls. Ave.
51+19.5 Lt	4	4	5	on Minn. Ave.
Ninth Street Cul-de-Sac				
43+41.28 Lt	40	15	5	
New York Avenue N. of Ninth Street				
96+26 Lt	67	13	5	Cul-de-Sac
96+82 Lt	14	13	5	
Hydraulic Avenue N. of Ninth Street				
55+07 Rt	32	13	5	Cul-de-Sac
Mathewson Ave. S. of Thirteenth St.				
45+92 Lt	9	13	5	Cul-de-Sac
46+37 Lt	11	13	5	
47+15 Lt	19	13	5	
New York Avenue N. of Thirteenth St				
54+36.5 Rt	92	13	5	Cul-de-Sac
54+91.5 Rt	27	13	5	
Pennsylvania Ave. S. of Thirteenth St.				
49+19.6	53	30	8	
Total	911			

VOID SEE REVISED SHEET

PAVEMENT REMOVAL

LOCATION	CU. YDS.	REMARKS
Ash Street		
	48	
First Street		
	857	
Second Street		
	684	
Central Avenue		
	222	
Ninth Street		
	279	
Thirteenth Street		
	1503	
Minnesota Avenue		
between Beginning of Job & English Street	40	
between English Street & Douglas Avenue	444	
between Douglas Avenue & First Street	561	
between First Street & Second Street	498	
between Second Street & Third Street	325	
Minneapolis Avenue		
between Douglas Ave. & First Street	131	
between First Street & Second Street	520	
between Ninth Street & Tenth Street	87	
Kansas Avenue		
between Third Street & Central Avenue	77	
between Ninth Street & Tenth Street	185	
between Central Avenue & Murdock Avenue		
Station 35+	18	
Station 36+	90	
Hydraulic Avenue		
between Murdock Avenue & Ninth Street	1002	
between Ninth Street & Tenth Street	482	
Road "D"		
between Ninth Street & Tenth Street	383	
New York Avenue		
between Ninth Street & Tenth Street	329	
between Thirteenth Street & Fourteenth Street	486	
Mathewson Avenue		
@ Inner-Loop West between Twelfth Street & Thirteenth Street	195	
	389	
Pennsylvania Avenue		
between Twelfth Street & Thirteenth Street	72	
between Thirteenth Street & Fourteenth Street	92	
Ninth Street Detour	147	
Eleventh St.		
48+15 to 48+88	52	Left
Douglas Ave.		
50+88 to 52+46	342	Right
Total *	10,540	(Rock Excavation)

VOID SEE REVISED SHEET

VOID SEE REVISED SHEET

CONCRETE LUG ANCHORS

STATION	LIN. FT.	LOCATION
9+93.1	18	Ramp "C"
10+08.1	19	Ramp "C"
10+56.9	18	Ramp "D"
10+71.9	18	Ramp "D"
21+39.3	18	Ramp "E"
21+74.3	18	Ramp "E"
22+27.5	21	Ramp "F"
22+42.5	20	Ramp "F"
35+40.5	26	Ramp "G"
35+55.5	26	Ramp "G"
36+65.9	23	Ramp "H"
36+80.9	21	Ramp "H"
52+83.9	18	Ramp "J"
52+98.9	18	Ramp "J"
54+83.5	26	Ramp "K"
54+98.5	26	Ramp "K"
62+63.8	26	Ramp "L"
62+78.8	26	Ramp "L"
63+11.7	18	Ramp "M"
63+26.7	18	Ramp "M"
84+33.9	36	Ramp "N"
84+48.9	36	Ramp "N"
84+84.7	26	Ramp "O"
84+99.7	26	Ramp "O"
90+19.3	26	Ramp "P"
90+34.3	26	Ramp "P"
91+38.6	19	Ramp "Q"
91+49.6	18	Ramp "Q"
TOTAL	635	

ADJUST MANHOLES

LOCATION	SIDE	NEW COVER ELEV.	EXIST. COVER ELEV.	REMARKS
First Street				
Sta. 53+15	℄	1298.24	1298.44	
Second Street				
Sta. 93+11	Rt.	1299.55	1297.74	
Sta. 50+93	Lt.	1300.73	1299.51	
Central Avenue				
Sta. 50+90	Lt.	1302.11	1299.63	
Ninth Street				
Sta. 50+82	Rt.	1304.52	1303.06	
Thirteenth Street				
Sta. 50+92	Lt.	1307.66	1304.58	
Sta. 54+98	Rt.	1302.20	1302.75	
Southbound Lane				
Sta. 352+13	Rt.	1302.34	1299.51	
Sta. 352+35	Lt.	1302.91	1299.88	
Sta. 391+75	Rt.	1303.75	1304.58	
Northbound Lane				
Sta. 370+66	Lt.	1303.01	1304.12	
TOTAL	11			

VOID SEE REVISED SHEET

* This material to be used for rip rap. Included as rock excavation on the Recapitulation of Quantities.

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF QUANTITIES
PHASE I

SHEET NO.	OF	SCALE	APP'D
DESIGNED		DETAILED	QUANTITIES
DESIGN CK.		DETAIL CK.	QUAN. CK.

TRACED
TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

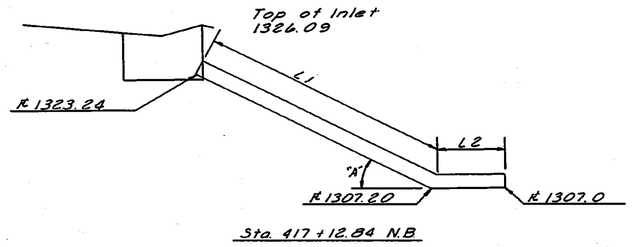
4 5 9

16X 14.5X 12X 12X 14.5X 16X

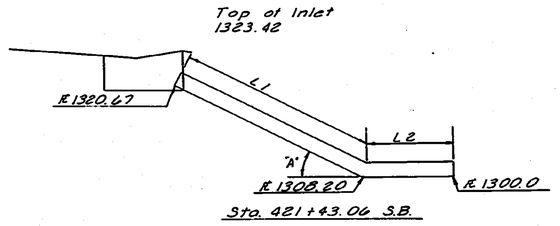
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	32H-87-35W 11590-18 Phase II	1970	2026	2137

SCHEDULE OF GUTTER INLETS AND CROSSROAD PIPE

GUTTER INLETS									12" METAL END SECTIONS TYPE I	12" CONC. END SECTIONS TYPE I									12"	15"	15" METAL END SECTIONS TYPE I	18"	
STATION	SIDE	INLET FL. ELEV.	INVERT FL. ELEV.	"H"	CONC. C.Y.	REINF. STEEL	STRUCT. STEEL	CLASS III EXCAV.			L1 LENGTH	L1 FL. ELEV.	L2 LENGTH	L2 FL. ELEV.	L3 LENGTH	L3 FL. ELEV.	ANGLE "A"	ANGLE "B"	CRP (BCCMP) L.F.	CRP (RCP) L.F.	CRP(BCCMP) L.F.	CRP(RCP) L.F.	REMARKS
417+12.84	Rt	1326.09	1323.84	3'-3"	0.85	72	230	3	1		52'	1307.20	6'	1307.0			17°58'		50'				27.5' Rt, N.B.
421+43.06	Rt	1323.42	1320.67	3'-3"	0.85	72	230	3	1		41'	1308.20	6'	1300.0			17°48'		32.40				27.5' Rt, S.B.
TOTAL					1.70	144	460	6	2										785.98				



Sta. 417 + 12.84 N.B



Sta. 421 + 43.06 S.B.

CONCRETE PAVEMENT (9")

STA	TO STA	SQ. YDS.	REMARKS
Ramp "L"			
63+03.8	63+88.28	232	
Ramp "M"			
63+51.7	64+36.17	169	
Ramp "N"			
83+24.43	84+08.9	240	
Ramp "O"			
83+75.2	84+59.7	244	
Ramp "P"			
90+59.3	91+43.82	249	
Ramp "Q"			
91+74.7	92+59.25	169	
416+85.38	417+80.10	518	N.B.
421+15.60	422+10.32	392	S.B.
Total		2208	

4" GRANULAR SUBBASE

STA	TO STA	SQ. YDS.	REMARKS
421+15.60	422+10.32	626	S.B.
416+85.38	417+80.10	752	N.B.
63+03.8	63+88.28	324	Ramp "L"
63+51.7	64+36.17	253	Ramp "M"
83+24.43	84+08.9	294	Ramp "N"
83+75.2	84+59.7	329	Ramp "O"
90+59.3	91+43.82	329	Ramp "P"
91+74.7	92+59.25	254	Ramp "Q"
TOTAL		3161	

STEEL PLATE GUARD FENCE

STA	TO STA	SIDE	LIN FT	REMARKS
62+37.84	63+87.84	Lt	1500	Ramp "L"
62+37.84	63+87.84	Rt	1500	Ramp "L"
83+75.64	85+25.64	Lt	1500	Ramp "O"
83+75.64	85+25.64	Rt	1500	Ramp "O"
89+93.38	91+43.38	Lt	1500	Ramp "P"
89+93.38	91+43.38	Rt	1500	Ramp "P"
421+27.83	422+77.83	Lt	1500	South Bound Lane
421+27.83	423+00	Rt	1750	South Bound Lane
Total			1225.0	

GUTTER (2'-10")(AE)

STA	TO STA	SIDE	LIN. FT.	REMARKS
421+15.60	421+48.82	Rt	29.36	S.B.
416+85.38	417+18.60	Rt	29.34	N.B.
TOTAL			58.70	

CURB & GUTTER (TYPE I)

STA.	TO STA.	SIDE	LIN. FT.	REMARKS
Ramp "L"				
63+88.28	63+03.8	Rt.	84.5	
63+88.28	63+03.8	Lt.	84.5	
Ramp "M"				
63+51.7	64+36.17	Rt.	84.5	
63+51.7	64+36.17	Lt.	84.5	
Ramp "N"				
83+24.43	84+08.9	Rt.	84.5	
83+24.43	84+08.9	Lt.	84.5	
Ramp "O"				
83+75.2	84+59.7	Rt.	84.5	
83+75.2	84+59.7	Lt.	84.5	
Ramp "P"				
90+59.3	91+43.82	Rt.	84.5	
90+59.3	91+43.82	Lt.	84.5	
Ramp "Q"				
91+74.7	92+59.25	Rt.	84.6	
91+74.7	92+59.25	Lt.	84.6	
Total			1014.2	

✳ Note: The use of lime treated subgrade will be largely dependent upon the quality of the soils in the top of the completed subgrade. Based upon final soil tests, the engineer may underrun any or all of the lime treated subgrade.

LIME TREATED SUBGRADE TABULATION

STA	TO STA	LOCATION	SQ. YDS.	REMARKS
63+03.8	63+88.28	Ramp L	315	
63+51.7	64+36.17	Ramp M	253	
83+24.43	84+08.9	Ramp N	313	
83+75.20	84+59.7	Ramp O	329	
90+59.3	91+43.82	Ramp P	329	
91+74.7	92+59.25	Ramp Q	254	
TOTAL (PHASE II)			1793	

✳ SUMMARY OF QUANTITIES

ITEM	TOTAL	UNIT
* Hydrated Lime (Slurry)	22	Tons
‡ Water (Lime Treated Subgrade)	42.1	M Gals.
Manipulation (Lime Treated Subgrade)	1793	Sq. Yds.

* 5.0 per cent of top 6" under the granular subbase based on soil weight at 110 lbs. per cu. ft.

‡ 25.0 per cent of weight of Lime Treated Subgrade (110 lbs. per cu. ft.)

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF QUANTITIES
PHASE II

SHEET NO.	OF	SCALE	APP'D	
DESIGNED		DETAILED	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.	QUAN. CK.	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

4 6 0

16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35 W-87-1354 (138)48 Phase III	1970	2027	2137

UNDERDRAIN COLLECTION MANHOLES

STATION	SIDE	CLASS III EXCAVATION CU. YDS.	CLASS A CONCRETE (Misc) CU. YDS.	REINFORCING STEEL LBS.	CAST IRON LBS.	NUMBER OF 12" FLAP GATES	REMARKS
413+11.97	Rt	15	6.38	376	977	2	
413+11.97	Lt	15	6.38	376	977	2	
417+10.97	Rt	15	6.38	376	977	2	
417+10.97	Lt	15	6.38	376	977	2	
Total		60 Cu. Yds.	26.32 Cu. Yds.	1,504 lbs.	3908 lbs	8	

PIPE UNDERDRAIN (12")

STA TO STA		TYPE H OR B LIN. FT.	AGG. For BLKT UNDERDRAIN TONS	REMARKS
413+14.97	417+07.97	393	243	Rt.
413+14.97	417+07.97	393	243	Lt.
417+13.97	421+57.93	444	275	Rt.
417+13.97	421+57.93	444	275	Lt.
413+11.97		46	89	23' Rt & Lt.
417+10.97		46	89	23' Rt & Lt.
Total		1766	1214	

MP 116 SHEET PILE

STATION		LIN. FT.	REMARKS
413+08.8		960	
Total		960	

FILTER BLANKET (6") *

STA TO STA		TONS	REMARKS
413+08.3	421+57.93	2439	Under Concrete Lining
TOTAL		2439	

*Estimated @ 120 lbs/cu.ft.

CONCRETE CANAL LINING (10")

STA TO STA		SQ. YDS.	REMARKS
413+08.3	421+57.43	6231	
Total		6231	

CONCRETE CANAL LINING (6")

STA TO STA		SQ. YDS.	REMARKS
413+08.3	421+57.93	4437	
413+08.3	421+57.03	1133	Variable 6"-10"
Total		5570	

HEAVY STONE RIP RAP *

STA TO STA		TONS	REMARKS
412+08.3	413+08.3	1616	Rt & Lt & Canal
Total		1616	

* Estimated @ 190 lbs/cu.ft.

CANAL EXCAVATION *

STA TO STA		CU. YDS.	REMARKS
420+58	421+58	522	
Total		522	

* Removal of Heavy Stone Riprap to be used for rip rap. Incl. in canal excavation on Recapitulation of Quantities

CONCRETE PAVEMENT (9")

STA TO STA		SQ. YDS.	REMARKS
Ramp "C"			
8+83.63	9+68.1	169	
Ramp "D"			
9+47.43	10+31.9	169	
Ramp "E"			
21+99.3	22+83.83	169	
Ramp "F"			
23+51.99	22+67.5	169	
Ramp "G"			
35+80.5	36+64.98	244	
Ramp "H"			
37+05.9	37+90.41	171	
Ramp "J"			
51+74.37	52+58.9	169	
Ramp "K"			
53+73.98	54+78.5	515	
Total		1775	

PROTECTION CURB (AE) SPECIAL

STA TO STA		SIDE	LIN. FT.	REMARKS
Ramp "K"				
53+73.98	54+68.5	Lt.	94.52	4' wide reinforced
Total			94.52	

AREA GRADING

STA. TO STA.	LANE	ACRES
beginning of Job to	S.B.	3.550
Douglas Avenue	N.B.	2.528
Douglas Avenue to	S.B.	1.645
First Street	N.B.	2.378
First Street to	S.B.	1.127
Second Street	N.B.	1.432
Second Street to	S.B.	2.313
Third Street	N.B.	1.742
Third Street to	S.B.	0.981
Central Avenue	N.B.	1.304
Central Avenue to	S.B.	3.163
Rail Road Tracks	N.B.	3.177
Rail Road Tracks to	S.B.	0.937
Murdock Avenue	N.B.	1.039
Murdock Avenue to	S.B.	3.741
Inner-Loop	N.B.	2.971
Inner-Loop to	S.B.	4.926
Tenth Street	N.B.	4.194
Tenth Street to	S.B.	1.258
Eleventh Street	N.B.	1.067
Eleventh Street to	S.B.	3.883
Thirteenth Street	N.B.	3.328
Thirteenth Street to	S.B.	4.135
Fifteenth Street	N.B.	3.272
Fifteenth Street to	S.B.	2.313
Seventeenth Street	N.B.	1.999
Seventeenth Street to	S.B.	0.762
End of Job	N.B.	0.936
Total in Acres		74.84

* Note: The use of lime treated subgrade will be largely dependent upon the quality of the soils in the top of the completed subgrade. Based upon final tests, the engineer may underrun any or all of the lime treated subgrade.

CURB & GUTTER (TYPE I)

STA TO STA		SIDE	LIN. FT.	REMARKS
Ramp "C"				
8+83.63	9+68.1	Rt	84.5	
8+83.63	9+68.1	Lt.	84.5	
Ramp "D"				
9+47.43	10+31.9	Rt.	84.5	
9+47.43	10+31.9	Lt.	84.5	
Ramp "E"				
21+99.3	22+83.83	Rt.	84.5	
21+99.3	22+83.83	Lt.	84.5	
Ramp "F"				
22+67.5	23+51.99	Rt.	84.5	
22+67.5	23+51.99	Lt.	84.5	
Ramp "G"				
35+80.5	36+64.98	Rt.	84.5	
35+80.5	36+64.98	Lt.	84.5	
Ramp "H"				
37+05.9	37+90.41	Rt.	84.5	
37+05.9	37+90.41	Lt.	84.5	
Ramp "J"				
51+74.37	52+58.9	Rt.	84.5	
51+74.37	52+58.9	Lt.	84.5	
Ramp "K"				
53+73.98	54+78.5	Rt.	104.5	
53+73.98	54+78.5	Lt.	104.5	
Total			1392.0	

STEEL PLATE GUARD FENCE

STA. TO STA.		SIDE	LIN. FT.	REMARKS
9+47.87	10+97.87	Lt.	1500	Ramp 'D'
9+47.87	10+97.87	Rt.	1500	Ramp 'D'
21+33.39	22+83.39	Lt.	1500	Ramp 'E'
21+33.39	22+83.39	Rt.	1500	Ramp 'E'
35+14.54	36+64.54	Lt.	1500	Ramp 'G'
35+14.54	36+64.54	Rt.	1500	Ramp 'G'
53+74.42	54+74.42	Rt.	1000	Ramp 'K'
53+69.50	54+57.00	Rt.	87.5	Ramp 'K'
53+69.50	54+57.00	Lt.	87.5	Ramp 'K'
Total			11750	

LIME TREATED SUBGRADE TABULATION *

STA TO STA		LOCATION	SQ. YDS.	REMARKS
8+84.17	9+68.1	Ramp C	252	
9+47.93	10+31.9	Ramp D	253	
21+99.3	22+83.83	Ramp E	254	
22+67.5	23+51.99	Ramp F	253	
35+80.5	36+64.98	Ramp G	329	
37+05.9	37+90.41	Ramp H	260	
51+74.37	52+58.9	Ramp J	254	
53+73.98	54+78.5	Ramp K	628	
Total			2483	

SUMMARY OF QUANTITIES *

ITEM	TOTAL	UNIT
* Hydrated Lime (Slurry)	3	Tons
‡ Water (Lime Treated Subgrade)	4	M. Gals.
Manipulation (Lime Treated Subgrade)	2,983	Sq. Yds.

* 5.0 per cent of top 6" under the granular subbase based on soil weight of 110 lbs. per cu. ft.

‡ 25.0 per cent of weight of Lime Treated Subgrade (110 lbs per cu. ft.)

CHAIN LINK FENCE (4')

STA. TO STA.		LIN. FT.	END POST	CORNER POST	PULL POST	GATE
South Bound Lane						
294+73	305+18	1200	4	3	1	1
309+57	313+00	455	2	2		
313+74	319+87	612	2	1	1	
320+74	326+40	794	2	4	1	
327+07	332+80	794	4	6		1
339+54	342+91	1040	2	5	1	
343+93	348+43	655	4	4		1
349+11	356+00	1662	6	16		1
352+75	367+38	1650	4	15		
367+38	374+08	617	4	4	1	1
374+70	387+53	1546	4	11	1	1
North Bound Lane						
305+93	311+70	704	2	6	1	
312+92	318+70	583	2	1	1	
319+55	325+55	726	2	5		
326+62	332+90	878	4	7		1
333+26	342+05	1059	2	4	1	
343+70	348+00	635	4	3		1
348+70	356+00	1732	6	6	1	1
357+40	366+90	1880	6	12		1
367+52	373+42	845	4	7		1
374+25	386+35	1350	4	4	2	1
388+00	400+90	1398	4	5	2	1
401+50	414+48	1465	4	1	3	1
Totals		24,535	82	132	17	14

CHAIN LINK FENCE (6')

STA. TO STA.		LIN. FT.	END POST	CORNER POST	PULL POST	GATE
South Bound Lane						
389+65	401+35	1214	4	3	2	1
401+93	414+95	1595	4	1	4	1
North Bound Lane						
293+50	304+30	1245	4	5	1	1
Total		4254	12	11	7	3

4" GRANULAR SUBBASE

STA TO STA		SQ. YDS.	REMARKS
8+83.63	9+68.1	254	Ramp "C"
9+47.93	10+31.9	253	Ramp "D"
21+99.3	22+83.383	254	Ramp "E"
23+51.99	22+67.5	253	Ramp "F"
35+80.5	36+64.98	329	Ramp "G"
37+05.9	37+90.41	258	Ramp "H"
51+74.37	52+58.9	252	Ramp "J"
53+73.98	54+78.5	607	Ramp "K"
TOTAL		2,462	

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF QUANTITIES

PHASE III

SHEET NO. OF	SCALE	APP'D	
DESIGNED	DETAILED	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

4 6 1

16X 14.5X 12X 12X 14.5X 16X

Revised Sheet
Added 2/26/73
BY

⊙ REVISED PLANS 7-18-72
⊙ REVISED PLANS 9-6-72
* REVISED PLANS 10-26-72
⊙ REVISED PLANS 10-26-72
Revised Plans 11-10-72

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-73SW-1-02045	1970	2027A	2137

Phase I-II-III REVISED PLANS 3/13/73
REVISED PLANS 3/11/72, REVISED PLANS 7/13/73
REVISED PLANS 6/8/72, REVISED PLANS 11-10-72
REVISED PLANS 7-7-72

RECAPITULATION OF ROAD QUANTITIES

ITEM	PHASE I (PARTICIPATING)	PHASE I (NON-PARTICIPATING)	PHASE II	PHASE III	UNIT	TOTAL
Large Trees	~~738~~ ~~759~~ 745 ⊙				Each	~~738~~ ~~759~~ 745 ⊙
Common Excavation (Contractor Furnished)	~~211,035~~ 211,035				Cu. Yds.	~~211,035~~ 211,035
Common Excavation (Roadway)	~~56,981~~ 62,197				Cu. Yds.	~~56,981~~ 62,197
Common Excavation (Canal)	52,482			522	Cu. Yds.	53,004
Removal of Existing Structures	Lump Sum				Lump Sum	Lump Sum
Class III Excavation ## 8,925 ⊙ 8933 → ~~8932~~	8,911 ~~8916~~		5.6	60	Cu. Yds.	8,977 ~~8976~~
Rock Excavation	~~10,540~~ 10,725				Cu. Yds.	~~10,540~~ 10,725
Compaction of Earthwork (Type AA) (MR-0)	~~49,385~~ 49,358				Cu. Yds.	~~49,385~~ 49,358
Compaction of Earthwork (Type B) (MR-5)	213,373				Cu. Yds.	213,373
Water	1				M. Gals.	1
Granular Subbase (4")	76,556 ~~77,188~~		3,161	2,462	Sq. Yds.	~~80,389~~ 82,211
Embankment (Canal)	6,234				Cu. Yds.	6,234
Surface Material (SA-1, 3 or X)	215	~~70,346~~ ~~70,584~~	## 70,369		Cu. Yds.	## 74,350 ~~74,588~~ 74,800
Concrete Pavement (9" Uniform) (AE)	68,351	~~70,559~~	2,208	1,775	Sq. Yds.	~~72,334~~ ~~74,341~~
Concrete Pavement (6" Uniform) (AE) (Plain)	911 ~~930~~				Sq. Yds.	~~913~~ 930
Concrete Pavement (9" Uniform) (AE) (Plain)	7,242 ~~8,419~~				Sq. Yds.	7,242 ~~8,419~~
Concrete Lug Anchors	635				Lin. Ft.	635
Linseed Oil Surface Treatment (Curbs & Gutters)	~~36,092.1~~	36,092.1	1072.9	1486.5	Lin. Ft.	~~38,651.5~~
Class "A" Concrete ## 2130.0 ⊙ 2131.5 → ~~2131.3~~ ~~2126.6~~	121.3				Cu. Yds.	~~121.3~~ 121.3
Class "A" Concrete (Miscellaneous)	~~216.7~~ ~~219.6~~		1.7	26.3	Cu. Yds.	~~218.4~~ 219.4
Structural Steel ## 274,614 → ~~275,613~~	~~275,893~~ ~~275,750~~		460	## 74,135	Lbs.	~~276,353~~ 276,165
Cast Iron	## ~~70,250~~ ~~71,123~~			3,908	Lbs.	~~74,158~~ 73,880
Reinforcing Steel ## 229,718 → ⊙ ~~229,877~~ ~~229,856~~ ~~229,837~~ ~~229,179~~ ⊙	~~228,660~~ ~~228,841~~		144	1,504	Lbs.	~~230,164~~ 230,308
15" Cross Road Pipe (CMP)	50				Lin. Ft.	~~50~~ 50 ⊙
12" Cross Road Pipe (CMP)			98 ~~95~~	## 291,366	Lin. Ft.	105
24" Cross Road Pipe (RCP)	54				Lin. Ft.	54
30" Cross Road Pipe (RCP)	98				Lin. Ft.	98
12" End Section	1				Each	1
12" End Section (CM)	1		2		Each	3
15" End Section	4				Each	4
15" End Section (CM)	2				Each	2
18" End Section	3				Each	3
24" End Section (RC)	2				Each	2
30" End Section (RC)	2				Each	2
Treated Timber Piles	2,512				Lin. Ft.	2,512
Steel Sheet Piles				960	Lin. Ft.	960
Plain Waterproofing	430				Sq. Ft.	430
Steel Plate Guard Fence (Galvanized)			1,225	1,175	Lin. Ft.	2,400
12" Storm Sewer	14,986				Lin. Ft.	14,986
15" Storm Sewer	13,165				Lin. Ft.	13,165
18" Storm Sewer *4047 →	~~3,706~~				Lin. Ft.	~~3,706~~ *4047
24" Storm Sewer	2577				Lin. Ft.	8,577
30" Storm Sewer	945				Lin. Ft.	945
36" Storm Sewer	629				Lin. Ft.	629
42" Storm Sewer	296				Lin. Ft.	296
48" Storm Sewer	341				Lin. Ft.	341
54" Storm Sewer	105				Lin. Ft.	105
18" Sanitary Sewer	774				Lin. Ft.	774
12" Storm Sewer (RCP)	225		~~1095~~ 1772 ##		Lin. Ft.	225 ~~1772~~
15" Storm Sewer (RCP)	~~1295~~ ~~1257~~				Lin. Ft.	~~1295~~ ~~1257~~ ~~1197~~
18" Storm Sewer (RCP)	~~993~~ ~~1015~~ 1014 ⊙ 1022 ##				Lin. Ft.	⊙ 914 ~~993~~ ~~1015~~
24" Storm Sewer (RCP)	~~851~~ ~~936~~ 914 ##				Lin. Ft.	1022 ## ~~851~~ ~~936~~ 914 ##
30" Storm Sewer (RCP)	~~165~~ 247 ##				Lin. Ft.	~~165~~ 247 ##
36" Storm Sewer (RCP)	1,361				Lin. Ft.	1,361
42" Storm Sewer (RCP)	257				Lin. Ft.	257
48" Storm Sewer (RCP)	627				Lin. Ft.	627
54" Storm Sewer (RCP)	731				Lin. Ft.	731
60" Storm Sewer (RCP)	~~447~~ 451 ⊙				Lin. Ft.	~~447~~ 451 ⊙
5'0" Storm Sewer (RCPHE)	93				Lin. Ft.	93
7'0" Storm Sewer (RCPHE)	145				Lin. Ft.	145
10'0" Storm Sewer (RCPHE)	521				Lin. Ft.	521
12" Storm Sewer (CMP)	34				Lin. Ft.	34
15" Storm Sewer (CMP)	161				Lin. Ft.	161
8" Sanitory Sewer (CIP)	*32933 12				Lin. Ft.	12
Sewer Excavation (Common)	~~30,198~~ ~~31,150~~ ~~32,411~~	~~32,221~~			Cu. Yds.	~~32,221~~
8" Sanitory Sewer	1290 ~~1267~~ ~~1246~~				Lin. Ft.	~~1267~~ 1290
36" Sanitory Sewer (CIP)			220		Lin. Ft.	220
Concrete Arch Encasement	357				Cu. Yds.	357
Excavation (Sewer Encasement)	1,685	576			Cu. Yds.	2,261
Reinforced Concrete Encasement	0.3	114			Cu. Yds.	114.3

33,009 ⊙ ~~33,006~~

33,009 ⊙ ~~33,006~~

ITEM	PHASE I (PARTICIPATING)	PHASE I (NON-PARTICIPATING)	PHASE II	PHASE III	UNIT	TOTAL
Standard Manhole (Type A)	## 15				Each	## 15
Standard Manhole (Type B)		8			Each	8
Plastic Lining	1,767				Sq. Ft.	1,767
6" Pipe Underdrain (Type A, G, K or M)	138				Lin. Ft.	138
12" Pipe Underdrain (Type B or H)				1,766	Lin. Ft.	1,766
Aggregate for Blanket Underdrains	49			1,214	Tons	1,263
1½" Edge Curb (AE)	108		## 27,847.7 ⊙		Lin. Ft.	108
6" Edge Curb (AE)	~~1304~~ 1,717 ⊙		~~4032.6~~ ~~27,845.5~~		Lin. Ft.	~~1304~~ 1,717
8" Edge Curb (AE)	215.0	~~199.6~~			Lin. Ft.	215.0
Combined Curb & Gutter (Type I) (AE)	~~27,420.0~~ ~~27,294~~	8	1014.2	1392.0	Lin. Ft.	~~2798.2~~ 2801.0
Combined Curb & Gutter (Type I) (Special) (AE)	~~367.8~~ 5.5 ⊙				Lin. Ft.	⊙ 85 → ~~2678~~ ~~2678~~
Combined Curb & Gutter (Type II) (AE)	~~732.0~~ ~~695~~ ~~696~~	1202.0			Lin. Ft.	1202.0 ~~3345~~ ~~3345~~
Combined Curb & Gutter (Type III) (AE)	6,162.4 ~~7,117.0~~	9,056.7			Lin. Ft.	6,162.4 ~~7,117.0~~
~~Combined Curb & Gutter (Type III (Special) (AE)~~	~~3,744~~					~~3,744~~
Protection Curb (AE) Special			94.52		Lin. Ft.	94.52
Gutters (AE)			58.7		Lin. Ft.	58.7
Adjustment of Manholes	11				Each	## 30,253.7 ⊙
Sidewalk Construction (AE) (4")	5,067 ~~5,266~~	5,266 ⊙	5,257 ##		Sq. Yds.	5,067 ~~5,266~~
Sidewalk Construction (AE) (6") (Reinforced)	139				Sq. Yds.	139
Heavy Stone Riprap	22,946			1616	Tons	24,562
Concrete Canal Lining (AE) (6")				5,570	Sq. Yds.	5,570
Concrete Canal Lining (AE) (10")				6,231	Sq. Yds.	42.31
Aggregate for Filter Blanket (6")				2,434	Tons	8,434
Field Office & Laboratory (Type A)	1		1	1	Each	.1
Chain Link Fence (4')				24,535	Lin. Ft.	24,535
Chain Link Fence (6')				4,254	Lin. Ft.	4,254
Gates (10')				14	Each	14
Gates (10')				3	Each	3
Corner Posts (4' Chain Link)				132	Each	132
Corner Posts (6' Chain Link)				11	Each	11
End Posts (4' Chain Link)				82	Each	82
End Posts (6' Chain Link)				12	Each	12
Pull Posts (4' Chain Link)				17	Each	17
Pull Posts (6' Chain Link)				7	Each	7
Area Grading				74.8	Acres	74.8
12" Flapgates				8	Each	8
24" Flapgates	11				Each	11
30" Flapgates	1				Each	1
36" Flapgates	5				Each	5
42" Flapgates	4				Each	4
48" Flapgates	5				Each	5
4'×4' Flapgates	1				Each	1
5'×5' Flapgates	1				Each	1
6'×6' Flapgates	1				Each	1
60" Flapgates	1				Each	1
2½" Electrical Conduit (Metallic)	~~2646~~ ~~4951~~	8,279 ⊙			Lin. Ft.	⊙ 2,279 → ~~2646~~ ~~4951~~
3½" Electrical Conduit (Metallic)	1,917				Lin. Ft.	1,917
Temporary Surfacing Material	1		X 3111.5 1		Cu. Yd.	1
Traffic Control	Lump Sum		~~Lump Sum~~	Lump Sum		Lump Sum
Mobilization	Lump Sum		~~Lump Sum~~	Lump Sum		Lump Sum
Trainees (Highway Const.)	4				Each	4

For Seeding Quantities See Sh. No. 2028, 2029 & 2030
For Asphaltic Concrete Surfacing Quantities See Sh. No. 2026
For Asphaltic Concrete Shoulder Quantities See Sh. No. 2032
For Lime Treated Subgrade Quantities See Sh. No. 2024, 2026 & 2027.
For RCB Storm Sewer Summary See Sh. No. 158.
For Schedule of Inlets and Manholes See Sh. No. 191.
For Sanitory Sewer M.H. Relocation Summary See Sh. No. 196.
For Sanitory Sewer Schedule See Sh. No. 198.

STATE HIGHWAY COMMISSION OF KANSAS

RECAPITULATION OF ROAD QUANTITIES
PHASE I, II & III

SHEET NO.	OF	SCALE		APP'D	
DESIGNED		DETAILED		QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted] 4 6 2

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

VOID SEE REVISED SHEET

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35HR-87-1357H-1-80W8	1970	2027A	2137

Phase I-II-III REVISED PLANS 5/13/71
▲ REVISED PLANS 7/13/71
REVISED PLANS 11-10-71

RECAPITULATION OF ROAD QUANTITIES

ITEM	PHASE I (PARTICIPATING)	PHASE I (NON-PARTICIPATING)	PHASE II	PHASE III	UNIT	TOTAL
Large Trees	738				Each	738
Common Excavation (Contractor Furnished)	216,073				Cu. Yds.	216,073
Common Excavation (Roadway)	56,981				Cu. Yds.	56,981
Common Excavation (Canal)	52,482			522	Cu. Yds.	53,004
Removal of Existing Structures	Lump Sum				Lump Sum	Lump Sum
Class III Excavation	~~8317~~ 3[illegible]5		6	60	Cu. Yds.	8,317 5974
Rock Excavation	10,540				Cu. Yds.	10,540
Compaction of Earthwork (Type AA) (MR-0)	48,465				Cu. Yds.	48,465
Compaction of Earthwork (Type B) (MR-5)	213,373				Cu. Yds.	213,373
Water	1				M. Gals.	1
Granular Subbase (4")	74,556		3,161	2,462	Sq. Yds.	80,179
Embankment (Canal)	6,234				Cu Yds.	6,234
Surface Material (SA-1, 3 or X)	215				Cu. Yds.	215
Concrete Pavement (9" Uniform) (AE)	68,351		2,208	1,775	Sq. Yds.	72,334
Concrete Pavement (6" Uniform) (AE) (Plain)	911				Sq. Yds.	911
Concrete Pavement (4" Uniform) (AE) (Plain)	7,212				Sq. Yds.	7,212
Concrete Lug Anchors	635				Lin. Ft.	635
Linseed Oil Surface Treatment (Curbs & Gutters)	36,362.2		1,072.9	1486.5	Lin. Ft.	38,921.6
Class "A" Concrete	121.3				Cu. Yds.	121.3
Class "A" Concrete (Miscellaneous)	~~2186.7~~ 2126.2		1.7	26.3	Cu. Yds.	~~2154.7~~ 2154.2
Structural Steel	~~275,856~~ 275,700		460		Lbs.	~~276,356~~ 276,160
Cast Iron	~~69,922~~ 69,742			3,908	Lbs.	~~73,830~~ 73,650
Reinforcing Steel	~~229,000~~ 229,194		144	1,504	Lbs.	~~230,808~~ 230,842
15" Cross Road Pipe (CMP)	50				Lin. Ft.	50
12" Cross Road Pipe (CMP)			105		Lin. Ft.	105
24" Cross Road Pipe (RCP)	54				Lin. Ft.	54
30" Cross Road Pipe (RCP)	98				Lin. Ft.	98
12" End Section	1				Each	1
12" End Section (CM)	1		2		Each	3
15" End Section	4				Each	4
15" End Section (CM)	2				Each	2
18" End Section	3				Each	3
24" End Section (RC)	2				Each	2
30" End Section (RC)	2				Each	2
Treated Timber Piles	2,512				Lin. Ft.	2,512
Steel Sheet Piles				960	Lin. Ft.	960
Plain Waterproofing	430				Sq. Ft.	430
Steel Plate Guard Fence (Galvanized)			1,225	1,175	Lin. Ft.	2,400
12" Storm Sewer	14,486				Lin. Ft.	14,486
15" Storm Sewer	13,165				Lin. Ft.	13,165
18" Storm Sewer	3,706				Lin. Ft.	3,706
24" Storm Sewer	2,577				Lin. Ft.	2,577
30" Storm Sewer	945				Lin. Ft.	945
36" Storm Sewer	629				Lin. Ft.	629
42" Storm Sewer	296				Lin. Ft.	296
48" Storm Sewer	341				Lin. Ft.	341
54" Storm Sewer	105				Lin. Ft.	105
18" Sanitary Sewer	774				Lin. Ft.	774
12" Storm Sewer (RCP)	~~865~~				Lin. Ft.	225
15" Storm Sewer (RCP)	~~1795~~ 1789				Lin. Ft.	~~1799~~ 1789
18" Storm Sewer (RCP)	991				Lin. Ft.	991
24" Storm Sewer (RCP)	~~833~~ 986				Lin. Ft.	~~833~~ 986
30" Storm Sewer (RCP)	165				Lin. Ft.	165
36" Storm Sewer (RCP)	1,361				Lin. Ft.	1,361
42" Storm Sewer (RCP)	257				Lin. Ft.	257
48" Storm Sewer (RCP)	627				Lin. Ft.	627
54" Storm Sewer (RCP)	731				Lin. Ft.	731
60" Storm Sewer (RCP)	447				Lin. Ft.	447
5'0" Storm Sewer (RCPHE)	93				Lin. Ft.	93
7'0" Storm Sewer (RCPHE)	145				Lin. Ft.	145
10'0" Storm Sewer (RCPHE)	521				Lin. Ft.	521
12" Storm Sewer (CMP)	34				Lin. Ft.	34
15" Storm Sewer (CMP)	161				Lin. Ft.	161
8" Sanitary Sewer (CIP)	12				Lin. Ft.	12
Sewer Excavation (Common)	32,335 ~~32,221~~				Cu. Yds.	~~32,221~~ 32335
8" Sanitary Sewer	767 ~~[illegible]~~				Lin. Ft.	~~[illegible]~~ 767
36" Sanitary Sewer (CIP)		220			Lin. Ft.	220
Concrete Arch Encasement	357				Cu. Yds.	357
Excavation (Sewer Encasement)	1,685	576			Cu. Yds.	2,261
Reinforced Concrete Encasement	0.3	114			Cu. Yds.	114.3

ITEM	PHASE I (PARTICIPATING)	PHASE I (NON-PARTICIPATING)	PHASE II	PHASE III	UNIT	TOTAL
Standard Manhole (Type A)	12				Each	12
Standard Manhole (Type B)		8			Each	8
Plastic Lining	1,767				Sq. Ft.	1,767
6" Pipe Underdrain (Type A, G, K or M)	138				Lin. Ft.	138
12" Pipe Underdrain (Type B or H)				1,766	Lin. Ft.	1,766
Aggregate for Blanket Underdrains	49			1,214	Tons	1,263
1½" Edge Curb (AE)	108				Lin. Ft.	108
6" Edge Curb (AE)	1,304				Lin. Ft.	1,304
8" Edge Curb (AE)	215.0				Lin. Ft.	215.0
Combined Curb & Gutter (Type I) (AE)	~~27,420.6~~ 27394.8		1014.2	1392.0	Lin. Ft.	~~29826.2~~ 29801.0
Combined Curb & Gutter (Type I) (Special) (AE)	267.8				Lin. Ft.	267.8
Combined Curb & Gutter (Type II) (AE)	734.0				Lin. Ft.	734.0
Combined Curb & Gutter (Type III) (AE)	6,162.4				Lin. Ft.	6,162.4
Combined Curb & Gutter (Type III, Special) (AE)	151.0				Lin. Ft.	151.0
Protection Curb (AE) Special				94.52	Lin. Ft.	94.52
Gutters (AE)			58.7		Lin. Ft.	58.7
Adjustment of Manholes	11				Each	11
Sidewalk Construction (AE) (4")	5,067				Sq. Yds.	5,067
Sidewalk Construction (AE) (6") (Reinforced)	139				Sq. Yds.	139
Heavy Stone Riprap	22,946			1616	Tons	24,562
Concrete Canal Lining (AE) (6")				5,570	Sq Yds.	5,570
Concrete Canal Lining (AE) (10")				6,231	Sq. Yds.	6231
Aggregate for Filter Blanket (6")				2,434	Tons	2,434
Field Office & Laboratory (Type A)	1		1	1	Each	1
Chain Link Fence (4')				24,535	Lin. Ft.	24,535
Chain Link Fence (6')				4,254	Lin. Ft.	4,254
Gates (10')				14	Each	14
Gates (10')				3	Each	3
Corner Posts (4' Chain Link)				132	Each	132
Corner Posts (6' Chain Link)				11	Each	11
End Posts (4' Chain Link)				82	Each	82
End Posts (6' Chain Link)				12	Each	12
Pull Posts (4' Chain Link)				17	Each	17
Pull Posts (6' Chain Link)				7	Each	7
Area Grading				74.8	Acres	74.8
12" Flapgates				8	Each	8
24" Flapgates	11				Each	11
30" Flapgates	1				Each	1
36" Flapgates	5				Each	5
42" Flapgates	4				Each	4
48" Flapgates	5				Each	5
4'×4' Flapgates	1				Each	1
5'×5' Flapgates	1				Each	1
6'×6' Flapgates	1				Each	1
60" Flapgates	1				Each	1
2½" Electrical Conduit (Metallic)	1,951				Lin. Ft.	1,951
3½" Electrical Conduit (Metallic)	1,917				Lin. Ft.	1,917
Temporary Surfacing Material	1		1	1	Cu. Yd.	1
Traffic Control	Lump Sum		~~Lump Sum~~	Lump Sum		Lump Sum
Mobilization	Lump Sum		~~Lump Sum~~	Lump Sum		Lump Sum
Trainees (Highway Const.)	4				Each	4

VOID SEE REVISED SHEET

For Seeding Quantities See Sh. No. 2028, 2029 & 2030
For Asphaltic Concrete Surfacing Quantities See Sh. No. 2026
For Asphaltic Concrete Shoulder Quantities See Sh. No. 2032
For Lime Treated Subgrade Quantities See Sh. No. 2024, 2026 & 2027.

For RCB Storm Sewer Summary See Sh. No. 158.
For Schedule of Inlets and Manholes See Sh. No. 191.
For Sanitary Sewer M.H. Relocation Summary See Sh. No. 196.
For Sanitary Sewer Schedule See Sh. No. 198.

STATE HIGHWAY COMMISSION OF KANSAS

RECAPITULATION OF ROAD QUANTITIES
PHASE I, II & III

SHEET NO.	OF	SCALE	APP'D	
DESIGNED		DETAILED	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.	QUAN. CK.	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

4 6 3

16X 14.5X 12X 12X 14.5X 16X

REVISED PLANS 8-31-71
REVISED PLANS 11-1-71
REVISED PLANS 7-13-72

PUB. ROAD SYSTEM NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-87-735W (126) 48	1970	2027B	2137

Phase I, II & III

RECAPITULATION OF BRIDGE QUANTITIES

BRIDGE NO.		PHASE I										PHASE II			PHASE III		
STATION		87-15.12	87-15.24	87-15.50	87-15.51	87-16.00	87-16.53	87-16.54	87-15.96	87-15.99		87-15.96 UNITS 19N TO 35N	87-15.99 UNITS 19S TO 36S		87-15.96 UNITS 0N TO 18N	87-15.99 UNITS 0S TO 18S	
		312+88.54	319+68.53	333+31.11		359+57.32	387+78.53		295+74.77 TO 416+85.38	296+18.77 TO 421+15.60		358+28.92 TO 416+85.38	358+14.58 TO 421+15.60		295+74.77 TO 358+28.92	296+18.77 TO 358+14.58	
ITEM	UNIT											△	△		△	△	
Class I Excavation	Cu. Yds.	195	195	180	130	200	185	185									
Class II Excavation	Cu. Yds.	340	350	390	240	400	390	390									
Class III Excavation	Cu. Yds.								6,758	7,188 △		250 ~~242~~	225.6 ~~256~~		302	332	
Drilled Shaft (36")	Lin. Ft.								6,327	4,424							
Drilled Shaft (42")	Lin. Ft.								12,470	18,183							
Drilled Shaft (48")	Lin. Ft.								3,140	3,239							
Drilled Shaft (54")	Lin. Ft.								1,442	1,447							
Class AAA Concrete	Cu. Yds.	174.7	174.8	180.8	105.2	199.5	179.0	178.9	3,398.3	3,630.2 △							
Class AAA Concrete (AE)	Cu. Yds.	493.9	489.2	502.5	328.8	549.0	505.6	505.1	10,208.7	9,997.9	24,832.0	~~24,839.5~~	~~25,153.3~~	25,144.2	26,426.6	26,201.9	
Reinforcing Steel	lbs.	196,750	196,750	199,730	121,090	215,140	200,180	200,180	3,012,710	3,032,600 △	8,362,950	~~8,352,790~~	~~8,393,420~~	8,508,070	8,805,920	8,845,420	
Structural Steel	lbs.										64,053	~~63,950~~	~~63,602~~	△ 65,789	68,687	68,816	△
Bearing Devices	lbs.										33,258	~~33,396~~	~~33,396~~	33,258	38,236	38,720	
Cast Iron	lbs	772	772	386	386	772	386	386			560	~~556~~	~~691~~	640	150	451	
Wrought Iron Drains & Grates	lbs.										90990	~~94,836~~	~~95,183~~	93,314	102,129	101,539	
Wrought Iron Gutters	Lin. Ft.										358.37	~~394.37~~	362.43		183.03	428.73	
8" Round Downspouts	Lin. Ft.										4,401.88	~~4,429.80~~	~~4,705.59~~	4,671.0	△ 4,864.09	4,874.69	
Aluminum Handrail	Lin. Ft.	280	280	140	140	*	140	140									
Steel Piles (10")	Lin. Ft.	1,800	1,872	1,803	1,180	2,252	2,002	2,002			1,473.2	~~1,476~~	1,690	1,367.5	1,355	1,506	
Steel Sheet Piles	Lin. Ft.														930	930	
Bridge Handrail	Lin. Ft.										13,129.65	~~13,195.08~~	~~13,986.15~~	13,983.76	14,763.30	14,618.55	
Linseed Oil Surface Treatment (Bridges)	Sq. Yds.	711	711	701	373	745	701	701				40,775.0	41,018.9		42,567.2	42,059.9	
Reinforced Concrete Riprap (4")	Sq. Yds.										1,447.5	~~1,691~~	~~1,888~~	1307.6	1,075	932	
Reinforced Concrete Riprap (6")	Sq. Yds.															162	
Furnish and Install 12" ϕ Steel Pipe Sleeves	Lump Sum	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.									
Install Utility Furnished Hardware K.G. & E. Co.	Lump Sum	L.S.	L.S.	L.S.	L.S.		L.S.	L.S.									
Install Utility Furnished Hardware City of Wichita Water Dept.	Lump Sum	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.									
Install Utility Furnished Hardware Ark. & La. Gas Co.	Lump Sum		L.S.	L.S.	L.S.												
Install Utility Furnished Hardware Gas Service Co.	Lump Sum			L.S.	L.S.												
Electrical Items	Lump Sum											L.S.	L.S.		L.S.	L.S.	
Field Office and Lab. (Type C)	Each	1	1	1	1	1	1	1									
Field Office and Lab. (Type A)	Each								1	1		1	1		1	1	
Mobilization	Lump Sum	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.		L.S.	L.S.		L.S.	L.S.	
Traffic Control	Lump Sum	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.		L.S.	L.S.		L.S.	L.S.	
Trainees (Highway Const.)	Each	1	1	1	1	1	1	1	4	4	5.4815	~~5~~	~~5~~	9.7065	5	5	
Elastomeric Expansion Device (8")	Lin. Ft.											777	783	△	992	997	△
Elastomeric Expansion Device (22½")	Lin. Ft.											334	333	△	164	164	△

* Includes 140.00 Lin. Ft. Type I and 126.42 Lin. Ft. Type II

NO.	DATE	REVISIONS	BY	APP'D.
△	7-13-72	Downspout @ Col. A' - Pier 6SN - Unit 15N	VHSS	
△	11-1-71	Anchor Bolt Assembly Revision	VHSS	
△	10-1-71	Revised Exp. Devices	VHSS	
△	8-31-71	Revised Footing Pier 34S	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS
RECAPITULATION OF BRIDGE QUANTITIES
PHASE I, II & III
PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 1 OF 1	SCALE	APP'D.	
DESIGNED R.L.F.	DETAILED R.L.F.	QUANTITIES R.L.F.	TRACED R.L.F.
DESIGN CK. J.W.H.	DETAIL CK. J.W.H.	GENL. CK. J.W.H.	TRACE CK. J.W.H.

TOPEKA BLUE PRINT CO.

DIST. 5 SEDGWICK CO. ROLL 531

4 6 4

16X 14.5X 12X 12X 14.5X 16X

REVISED PLANS 8-31-71
REVISED PLANS 11-1-71

VOID SEE REVISED SHEET

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W 1(58)48 Phase I, II & III	1970	2027 B	2137

RECAPITULATION OF BRIDGE QUANTITIES

		PHASE I									PHASE II			PHASE III		
BRIDGE NO.		87-15.12	87-15.24	87-15.50	87-15.51	87-16.00	87-16.53	87-16.54	87-15.96	87-15.99	87-15.96 UNITS I9N TO 35N	87-15.99 UNITS I9S TO 36S		87-15.96 UNITS ON TO I8N	87-15.99 UNITS OS TO I8S	
STATION		312+88.54	319+68.53	333+31.11		359+57.32	387+78.53		295+74.77 TO 416+85.38	296+18.77 TO 421+15.60	358+28.92 TO 416+85.38	358+14.58 TO 421+15.60		295+74.77 TO 358+28.92	296+18.77 TO 358+14.58	
ITEM	UNIT										△	△		△	△	
Class I Excavation	Cu. Yds.	195	195	180	130	200	185	185								
Class II Excavation	Cu. Yds.	340	350	390	240	400	390	390								
Class III Excavation	Cu. Yds.								6,758	7,188 △	242	226		302	332	
Drilled Shaft (36")	Lin. Ft.								6,327	4,424						
Drilled Shaft (42")	Lin. Ft.								17,470	18,183						
Drilled Shaft (48")	Lin. Ft.								3,140	3,239						
Drilled Shaft (54")	Lin. Ft.								1,442	1,447						
Class AAA Concrete	Cu. Yds.	174.7	176.8	180.8	105.2	199.5	179.0	178.9	3,398.3	3,630.2 △						
Class AAA Concrete (AE)	Cu. Yds.	493.9	489.2	502.5	328.8	549.0	505.6	505.1	10,208.7	9,997.9						
Reinforcing Steel	lbs.	196,750	196,750	199,730	121,090	215,140	200,180	200,180	3,012,710	3,032,600 △	24,839.5	25,153.3		26,426.6	26,201.9	
Structural Steel	lbs.										8,352,770	8,499,760		8,805,940	8,845,420	
Bearing Devices	lbs.										63,959	65,607	△ △	68,687	68,846	△ △
Cast Iron	lbs	772	772	386	386	772	386	386			33,396	33,396		38,236	38,720	
Wrought Iron Drains & Grates	lbs.										586	601		150	451	
Wrought Iron Gutters	Lin. Ft.										94,226	95,183		102,129	101,539	
8" Round Downspouts	Lin. Ft.										394.37	362.43		183.03	428.73	
Aluminum Handrail	Lin. Ft.	280	280	140	140	*	140	140			4,479.80	4,705.59		4,863.73	4,874.69	
Steel Piles (10")	Lin. Ft.	1,800	1,872	1,803	1,180	2,252	2,002	2,002			1,475	1,290		1,355	1,506	
Steel Sheet Piles	Lin. Ft.													930	930	
Bridge Handrail	Lin. Ft.										13,135.08	13,986.15		14,763.30	14,618.55	
Linseed Oil Surface Treatment (Bridges)	Sq. Yds.	711	711	701	373	745	701	701			40,775.0	41,018.9		42,567.2	42,059.9	
Reinforced Concrete Riprap (4")	Sq. Yds.										1,691	1,288		1,075	932	
Reinforced Concrete Riprap (6")	Sq. Yds.														162	
Furnish and Install 12" ϕ Steel Pipe Sleeves	Lump Sum	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.								
Install Utility Furnished Hardware K.G.& E. Co.	Lump Sum	L.S.	L.S.	L.S.	L.S.		L.S.	L.S.								
Install Utility Furnished Hardware City of Wichita Water Dept.	Lump Sum	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.								
Install Utility Furnished Hardware Ark. & La. Gas Co.	Lump Sum		L.S.	L.S.	L.S.											
Install Utility Furnished Hardware Gas Service Co.	Lump Sum			L.S.	L.S.											
Electrical Items	Lump Sum										L.S.	L.S.		L.S.	L.S.	
Field Office and Lab.(Type C)	Each	1	1	1	1	1	1	1			1	1		1	1	
Field Office and Lab.(Type A)	Each								1	1	L.S.	L.S.		L.S.	L.S.	
Mobilization	Lump Sum	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.		L.S.	L.S.	
Traffic Control	Lump Sum	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	5	5		5	5	
Trainees (Highway Const.)	Each	1	1	1	1	1	1	1	4	4	778	783	△	992	997	△
Elastomeric Expansion Device(B2)	Lin. Ft.										334	333	△	164	164	△
Elastomeric Expansion Device(22¾)	Lin. Ft.															

* Includes 140.00 Lin. Ft. Type I and 126.42 Lin. Ft. Type II

VOID SEE REVISED SHEET

VOID SEE REVISED SHEET

VOID SEE REVISED SHEET

VOID SEE REVISED SHEET

NO.	DATE	REVISIONS	BY	APP'D.
△	11-1-71	Anchor Bolt Assembly Revision	VHSS	
△	11-1-71	Revised Exp. Devices	VHSS	
△	8-31-71	Revised Footing Pier 345	VHSS	

STATE HIGHWAY COMMISSION OF KANSAS

RECAPITULATION OF BRIDGE QUANTITIES PHASE I, II & III

PROJ. 35W-87-I35W-1(58)48 SEDGWICK CO.

SHEET NO. 1 of 1	SCALE	APP'D.
DESIGNED RLF	DETAILED RLF	QUANTITIES RLF	TRACED RLF
DESIGN CK. JWH	DETAIL CK. JWH	QUANT. CK. JWH	TRACE CK. JWH

TOPEKA BLUE PRINT CO.

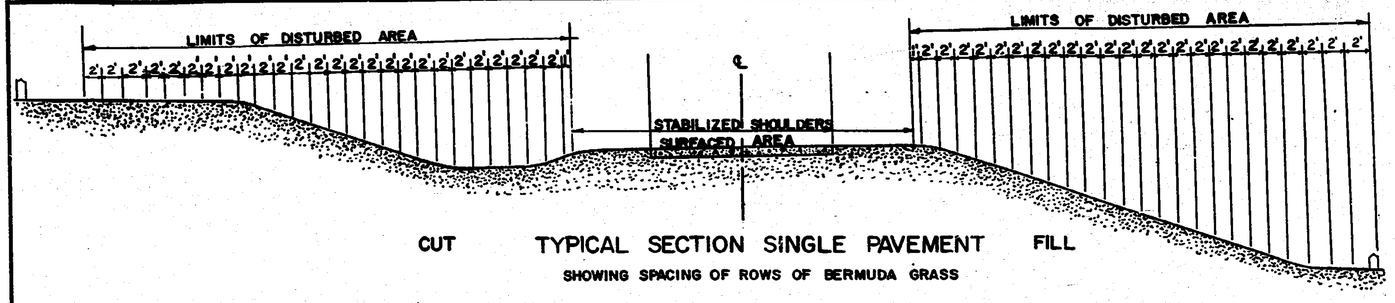
DIST. 5 SEDGWICK CO. ROLL 531

4 6 5

16X 14.5X 12X 12X 14.5X 16X

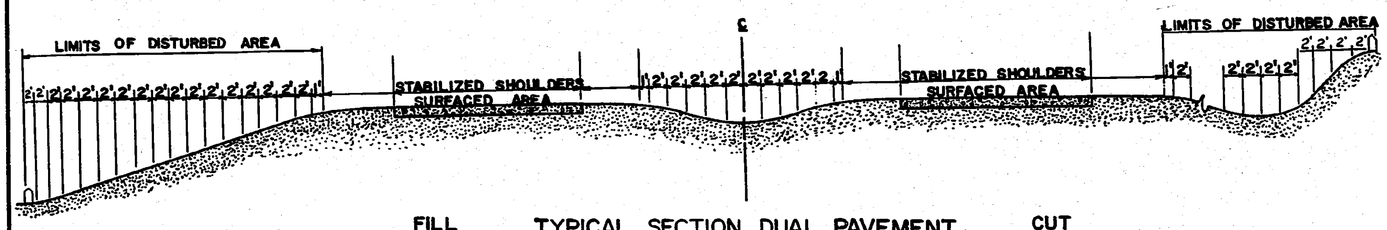
FWY. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-877-35W-167-04	70	2028	2137

Phase III



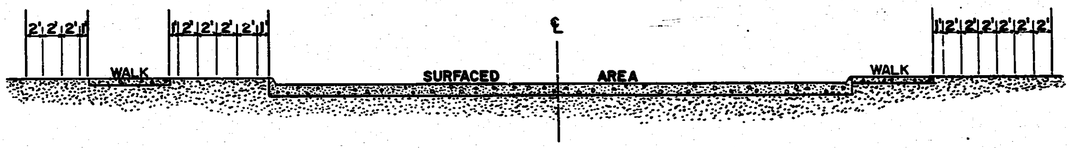
CUT TYPICAL SECTION SINGLE PAVEMENT FILL

SHOWING SPACING OF ROWS OF BERMUDA GRASS



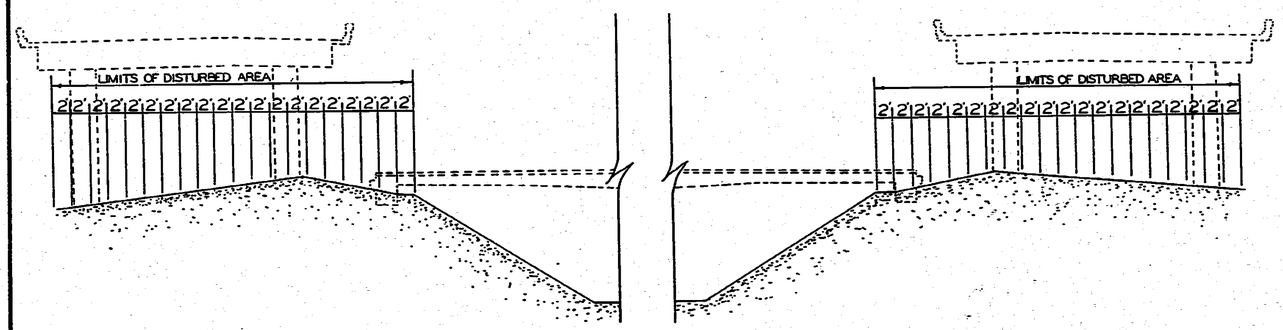
FILL TYPICAL SECTION DUAL PAVEMENT CUT

SHOWING SPACING OF ROWS OF BERMUDA



TYPICAL SECTION CURB & GUTTER

SHOWING SPACING OF ROWS OF BERMUDA



TYPICAL SECTION OF CANAL BETWEEN BRIDGES

SHOWING SPACING OF ROWS OF BERMUDA

THE ENTIRE RIGHT OF WAY, EXCEPTING THE PAVED OR SURFACED AREAS, STEEP ROCKY SLOPES AND AREAS OF UNDISTURBED NATIVE SOD OR OTHER DESIRABLE VEGETATION, SHALL BE FERTILIZED (LIMED WHEN REQUIRED), AND SODDED OR SEEDED. SOIL PREPARATION SHALL CONFORM TO THE STANDARD SPECIFICATIONS.

BERMUDA GRASS SOD SHALL BE PAID FOR BY THE NUMBER OF SQUARE YARDS OF AREA PLANTED. ~~THE BERMUDA GRASS SOD PLUGS MINIMUM SIZE SHALL BE TWO INCH BY TWO INCH SQUARE PLUGS OR TWO INCH DIAMETER PLUGS.~~

~~BERMUDA GRASS SOD PLUGS SHALL BE PLANTED ONE FOOT APART IN THE ROW.~~

AREAS TO BE PLANTED SHALL BE CULTIVATED AND WATERED AS DESCRIBED IN (SECTION H 3-4). STANDARD SPECIFICATIONS. THE BERMUDA GRASS SHALL BE ALIVE AND GROWING AT THE TIME OF ACCEPTANCE.

A LIGHT COVERING OF MULCH SHALL BE PLACED OVER THE BERMUDA GRASS SOD AREAS. THIS MULCH SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE SUBSIDIARY TO THE PLANTING OF BERMUDA GRASS SOD.

FERTILIZER SHALL BE APPLIED OVER THE AREAS TO BE SODDED AND SEEDED AT THE RATES SHOWN IN THE SUMMARY OF QUANTITIES.

SUMMARY OF SEEDING AND SODDING QUANTITIES

SODDING PERIOD: BERMUDA GRASS ~~SOD~~ ROOTS - APRIL 15 - JUNE 15

RATE	ACRES	ITEM	QUANTITIES	UNIT
400	93	FERTILIZER (12-24-12)	37,200	LBS.
		BERMUDA GRASS SOD ROOTS	450,453	SQ. YDS.

BERMUDA GRASS SOD ROOTS REQUIRED

SIDE	STATION	TO	STATION	SQ. YDS.
RT.	294+00		297+60	2,880
RT.	297+60		303+00	2,400
RT.	303+00		304+80	1,100
RT.	306+00		312+30	5,600
RT.	312+30		313+25	2,111
RT.	313+25		319+00	5,367
RT.	319+00		319+90	750
RT.	319+90		323+00	3,548
RT.	323+00		325+60	2,687
RT.	326+50		332+30	4,124
RT.	332+30		333+60	2,167
RT.	333+60		337+50	5,113
RT.	337+50		342+30	1,440
RT.	343+40		348+00	2,044
RT.	348+50		350+20	944
RT.	350+20		354+00	11,696
RT.	354+00		358+00	18,489
RT.	358+00		360+50	11,722
RT.	360+50		363+00	16,667
RT.	363+00		364+60	5,511
RT.	364+60		370+00	1,380
RT.	370+00		373+60	1,000
RT.	374+00		376+00	444
RT.	376+00		379+00	667
RT.	379+00		385+00	7,133
RT.	385+00		386+00	1,389
RT.	386+00		388+50	7,639
RT.	388+50		392+20	6,167
RT.	392+20		396+00	1,351
RT.	396+00		401+00	1,389
RT.	401+25		407+00	1,086
RT.	407+00		411+60	1,689
RT.	415+10		417+00	2,744
RT.	419+00		421+00	2,222

SIDE	STATION	TO	STATION	SQ. YDS.
LT.	295+00		299+25	5,714
LT.	299+25		303+50	3,733
LT.	303+50		305+75	3,000
LT.	306+25		309+00	886
LT.	309+00		312+60	4,000
LT.	312+60		313+50	1,250
LT.	313+50		319+55	5,378
LT.	319+55		320+40	1,181
LT.	320+40		323+80	6,573
LT.	323+80		326+50	3,000
LT.	327+00		332+50	1,589
LT.	332+50		334+10	3,111
LT.	334+10		338+80	7,372
LT.	338+80		343+00	1,913
LT.	344+00		345+00	300
LT.	345+00		348+60	880
LT.	349+00		353+50	6,350
LT.	353+50		356+75	12,386
LT.	356+75		358+00	6,431
LT.	358+00		361+00	20,000
LT.	361+00		366+00	20,167
LT.	366+00		371+00	1,500
LT.	371+00		374+10	1,653

SIDE	STATION	TO	STATION	SQ. YDS.
LT.	374+60		378+25	1,176
LT.	378+25		378+90	448
LT.	378+90		382+90	2,222
LT.	382+90		386+00	4,064
LT.	386+00		387+50	2,167
LT.	387+50		389+50	7,778
LT.	389+50		394+00	7,100
LT.	394+00		396+00	667
LT.	396+00		401+50	1,222
LT.	401+85		403+70	308
LT.	403+70		406+50	1,524
LT.	406+50		411+00	700
LT.	411+00		415+00	1,333
LT.	415+50		419+00	2,256
LT.	419+00		421+00	1,333

AREA UNDER SOUTHBOUND BRIDGE

295+00 421+00 78,400

AREA UNDER NORTHBOUND BRIDGE

294+00 417+00 76,533

BERMUDA GRASS SOD ROOTS TOTAL 450,453

NO	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

SPACING OF BERMUDA GRASS PLUGS AND SOD ROOTS

SUMMARY OF SEEDING AND SODDING QUANTITIES

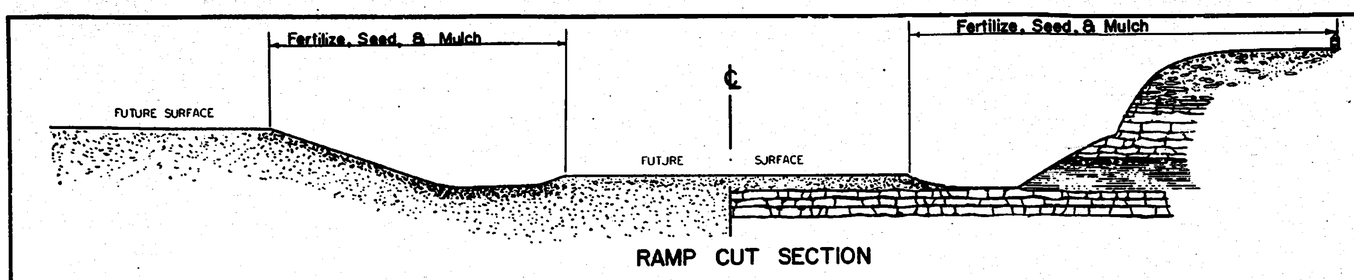
STD. NO. 853.

SHEET NO. OF	SCALE	APP'D
DESIGNED F.T.R.	DETAILED G.H.M.	QUANTITIES TRACED G.H.M.
DESIGN CK. F.T.R.	DETAIL CK. L.F.P.	QUAN. CK. TRACE CK. L.F.P.

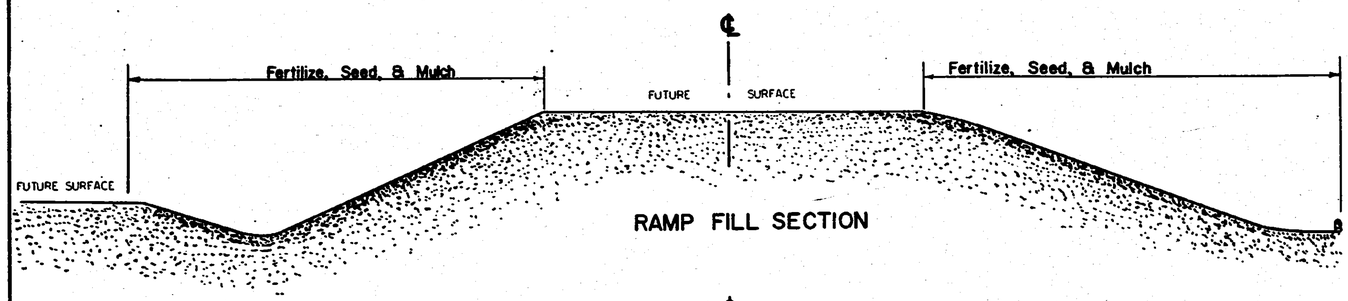
DIST. 5 SEDGWICK CO. ROLL 531

4 6 6

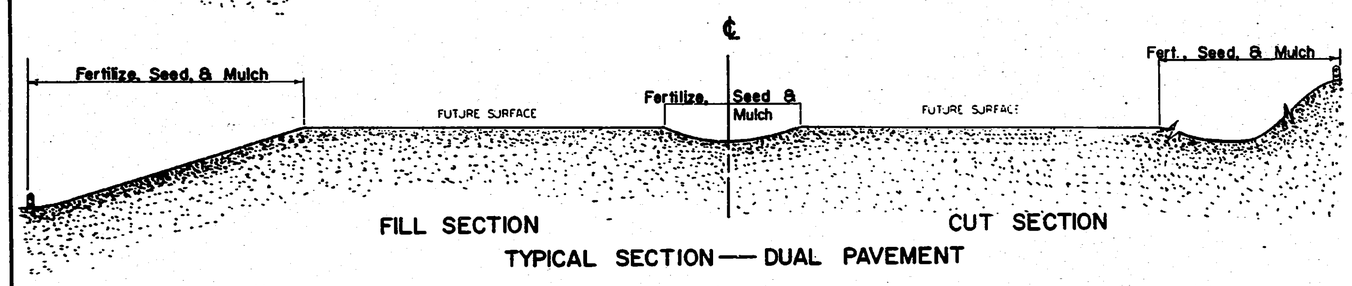
FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	BSW-81(C-350)-(150)48	1970	2029	2137
		Phase I			SECTION



RAMP CUT SECTION

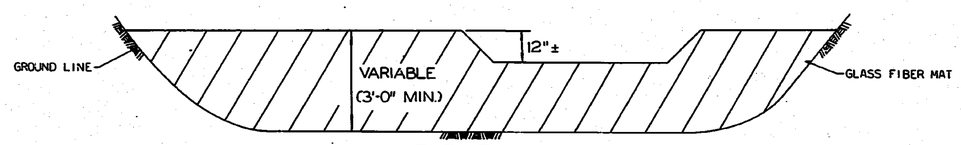


RAMP FILL SECTION

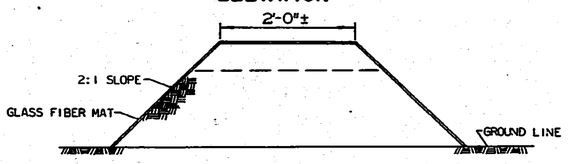


FILL SECTION — CUT SECTION

TYPICAL SECTION — DUAL PAVEMENT



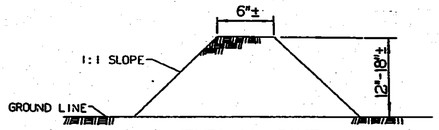
ELEVATION



CROSS SECTION

COVER DIKE WITH GLASS FIBER MAT AND TREAT SIMILAR TO GLASS FIBER MAT DITCH LINING (TYPE I). THE DIKE AND BASIN SHALL BE OF SUFFICIENT SIZE TO HANDLE THE ANTICIPATED SILT LOAD. THE BASIN SHALL BE UTILIZED AT LOCATIONS OF EXPECTED HEAVY SILT CARRYING RUNOFF FROM SLOPES, TERRACES OR OTHER SIMILAR AREAS.

TYPICAL DIKE FOR SILTING BASIN



TYPICAL DIKE

THIS DIKE MAY BE USED AT ANY LOCATION:, SLOPES DITCHES. EDGES OF SHOULDERS, ETC... THAT MAY BE DEEMED NECESSARY. THE DIKE MAY DRAIN INTO A SILTING AREA, OR MAY BE DRAINED DOWN A FLUME CONSTRUCTED SIMILAR TO GLASS FIBER DITCH LINING (TYPE I).

NOTE:- Rounding or softening toe of slope and top of slope on dikes, etc. shall be required.

ALL DISTURBED AREAS WITHIN THE RIGHT OF WAY EXCEPTING STEEP ROCKY SLOPES AND AREAS OF UNDISTURBED NATIVE SOD OR OTHER DESIRABLE VEGETATION SHALL BE FERTILIZED, SEEDED, AND MULCHED. SOIL PREPARATION SHALL CONFORM TO THE STANDARD SPECIFICATIONS.

TEMPORARY SEEDING SHALL BE DONE DURING ANY TIME OF THE YEAR THAT THE SOIL CAN BE CULTIVATED. AFTER THE TEMPORARY SEEDING HAS BEEN COMPLETED ON THE ENTIRE PROJECT, A PERMANENT SEEDING SHALL BE DONE BY ANOTHER PROJECT DURING THE NORMAL SEEDING SEASON.

THE AMOUNT OF MULCH IN THE BID QUANTITIES IS ESTIMATED. THE TOTAL MULCH REQUIRED SHALL BE DETERMINED IN THE FIELD. MULCH SHALL BE SPREAD UNIFORMLY OVER ALL DISTURBED AREAS AND PUNCHED INTO THE SOIL, UNLESS OTHERWISE NOTED ON THE PLANS.

SEED, FERTILIZER, AND MULCH SHALL BE SPREAD UNIFORMLY OVER ALL DISTURBED AREAS WHEN APPLIED BY HYDRAULIC SLURRY METHODS.

THE CONTRACTOR WILL BE REQUIRED TO FINISH AREAS OF EXCAVATION, BORROW AND EMBANKMENT IN ACCORDANCE WITH THE SPECIFICATIONS.

AREAS THAT REQUIRE INSTALLATION OR CONSTRUCTION OF TEMPORARY PROJECT WATER POLLUTION CONTROL (SOIL EROSION) ITEMS OR WATER POLLUTION CONTROL (SOIL EROSION) (LUMP SUM) WILL BE FINISHED IN REASONABLY CLOSE CONFORMITY TO THE ALIGNMENT, GRADE AND CROSS SECTION SHOWN ON THE PLANS OR AS ESTABLISHED BY THE ENGINEER.

NOTE: ++ WOOD FIBER MULCH SHALL BE CONWED BY CONWED CORP., SILVA-FIBER BY WEYERHAEUSER COMPANY OR OTHER APPROVED. WOOD FIBER MULCH SHALL BE APPLIED AT RATES OF 1,200 POUNDS PER ACRE.

DRAINAGE CANAL NOTE: ALL DISTURBED BACK SLOPE AREAS SURROUNDING RIPRAP SHALL BE FERTILIZED, SEEDED, AND EROSION CONTROL PLACED.

SUMMARY OF QUANTITIES

RATE	ACRES	ITEM	BID QUANTITIES	UNIT
300	93	FERTILIZER (12-24-12)	27,900	LBS.
30	93	ITALIAN RYEGRASS SEED	2,790	LBS.
		EROSION CONTROL	1,108	SQ. YDS
		WATER POLLUTION CONTROL (SOIL EROSION)	LUMP SUM	L.S.
		++ WOOD FIBER MULCH	93	ACRES

EROSION CONTROL

SIDE SLOPE	STATION	TO STATION	SQ. YDS.	SIDE SLOPE	STATION	TO STATION.	SQ. YDS.
RT. B.S.	310+90	311+00	44	LT. B.S.	389+95	390+05	44
RT. B.S.	314+72	314+82	44	RT. B.S.	386+23	386+33	56
LT. B.S.	311+95	312+05	33	RT. B.S.	389+95	390+05	56
LT. B.S.	313+95	314+05	33	LT. B.S.	407+90	408+00	28
LT. B.S.	315+25	315+35	33	LT. B.S.	408+50	403+60	28
LT. B.S.	320+65	320+75	33	LT. B.S.	408+65	408+75	33
RT. B.S.	317+50	317+60	44	LT. B.S.	409+25	409+35	33
RT. B.S.	321+00	321+10	44				
RT. B.S.	330+76	330+86	33	EROSION CONTROL TOTAL			1,108
RT. B.S.	334+75	334+85	33				
LT. B.S.	331+37	331+47	33				
LT. B.S.	334+50	334+60	33				
LT. B.S.	343+60	343+70	28				
LT. B.S.	344+25	344+35	28				
LT. B.S.	352+30	352+40	28				
LT. B.S.	352+75	352+85	28				
LT. B.S.	357+90	358+00	39				
LT. B.S.	361+40	361+50	39				
RT. B.S.	356+48	356+58	39				
RT. B.S.	361+25	361+35	39				
LT. B.S.	385+54	385+64	39				
LT. B.S.	396+00	396+10	39				
LT. B.S.	386+23	386+33	44				

NO	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

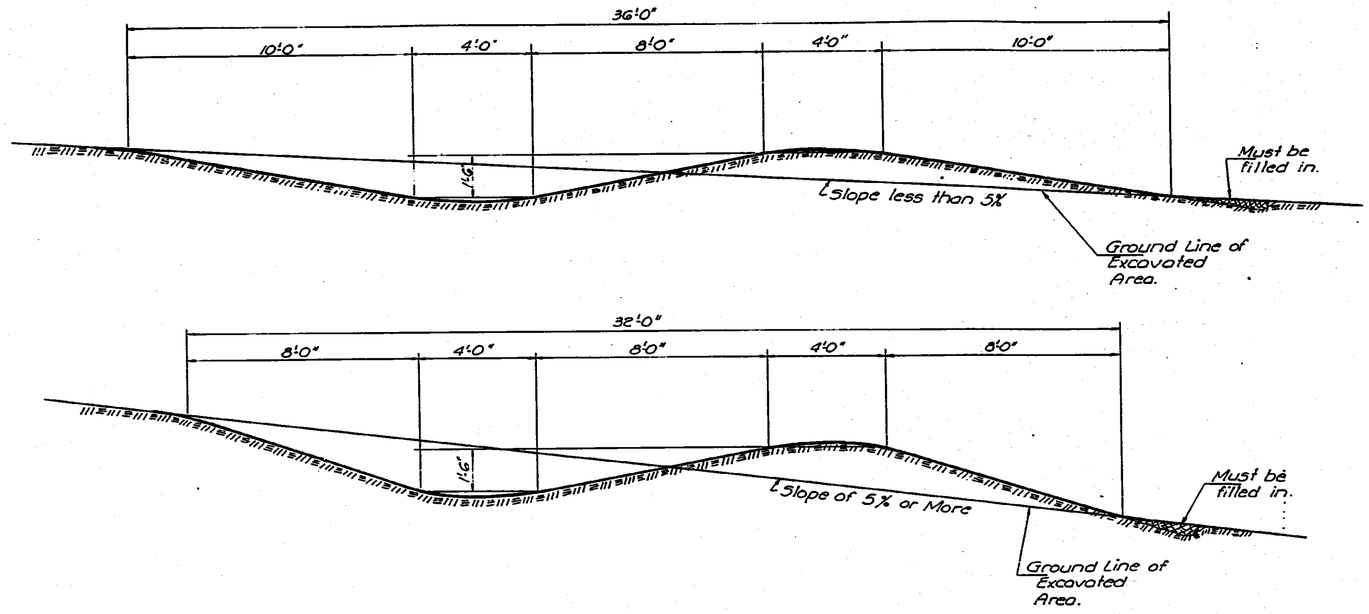
TEMPORARY PROJECT WATER POLLUTION CONTROL (SOIL EROSION)

SHEET NO. OF	SCALE No Scale	APP'D 6-23-70	
DESIGNED F.F.R.	DETAILED E.G.R.	QUANTITIES A.F.K.	TRACED H.L.M.
RECMD BY F.F.R.	DETAIL CK L.M.C.	DRAW CK C.L.M.	TRACE CK F.F.R.

DIST. 5 SEDGWICK CO. ROLL 531

4 6 7

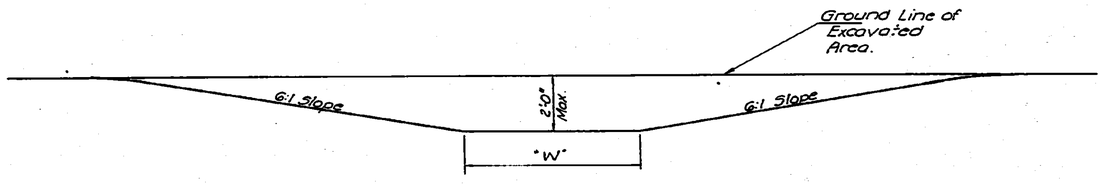
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-8(7-32W-1(69) Phase 1	1970	2029A	2137



TYPICAL SECTIONS OF GRADIENT TERRACES

TERRACE SPACING TABLE		
Slope %	Vertical Interval Feet	Horizontal Spacing Feet
1	2.65	265
2	3.30	165
3	3.95	132
4	4.60	115
5	5.25	105
6	5.90	98
7	6.55	94
8	7.20	90

GENERAL NOTE:
Terraces generally will not be required where the slope of the area is less than 3%. They shall be constructed on areas or portions of areas as designated by the engineer.
Terraces shall be made as nearly parallel as practicable. Gradients for terraces shall vary from 0.1% at upper end to 0.4% at lower end or a uniform grade may be used.
Outlet ditches shall be constructed at locations best suited to empty into a natural stream bed, or if this is not possible, into a road ditch or channel where erosion can be minimized.



TYPICAL SECTION OF OUTLET DITCH

NOTE:
This work shall be paid for under "Water Pollution Control (Soil Erosion) Lump Sump."

TABLE FOR VALUE OF "W" FOR OUTLET DITCH						
Drainage Area above Dit-Acres	Value of "W" for various % of Ditch Grades					
	3%	4%	5%	6%	7%	8%
2-5	8'	8'	8'	8'	12'	14'
5-8	8'	8'	8'	10'	12'	16'
8-11	8'	8'	8'	10'	12'	16'
11-14	8'	8'	8'	10'	14'	18'
14-17	8'	8'	8'	12'	14'	20'
17-20	8'	8'	8'	12'	14'	24'

NOTE: All dimensions are approximate.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

TEMPORARY PROJECT WATER POLLUTION CONTROL (SOIL EROSION)

SHEET NO. OF	SCALE	APP'D
DESIGNED CK.	DETAILED	SUBMITTED
DRAWN CK.	DETAIL CK.	CHKD. CK.

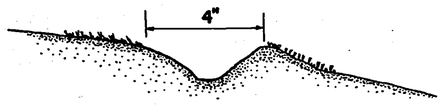
DIST. 5 SEDGWICK CO. ROLL 531

4 6 8

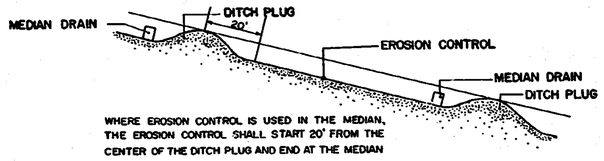
16X 14.5X 12X 12X 14.5X 16X

FUR ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	35W-8TI35W-189	19 TO	2030	2137

Phase I

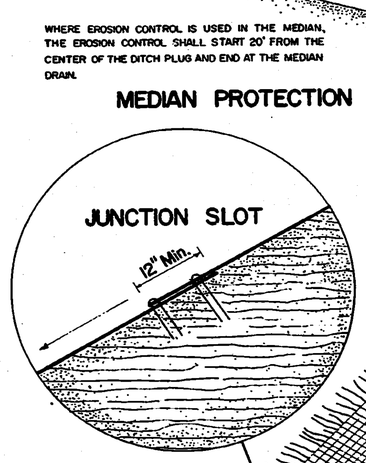


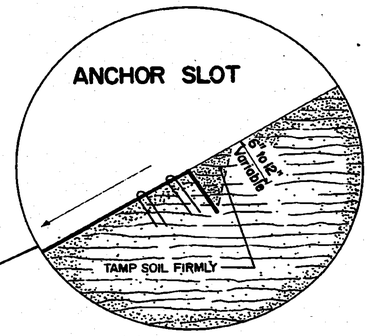
INTERCEPTING DITCH

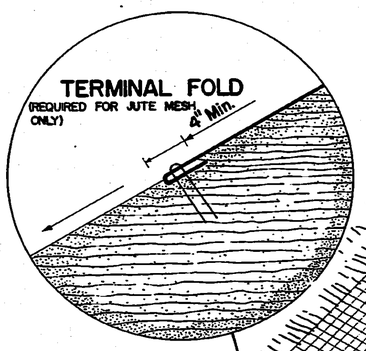


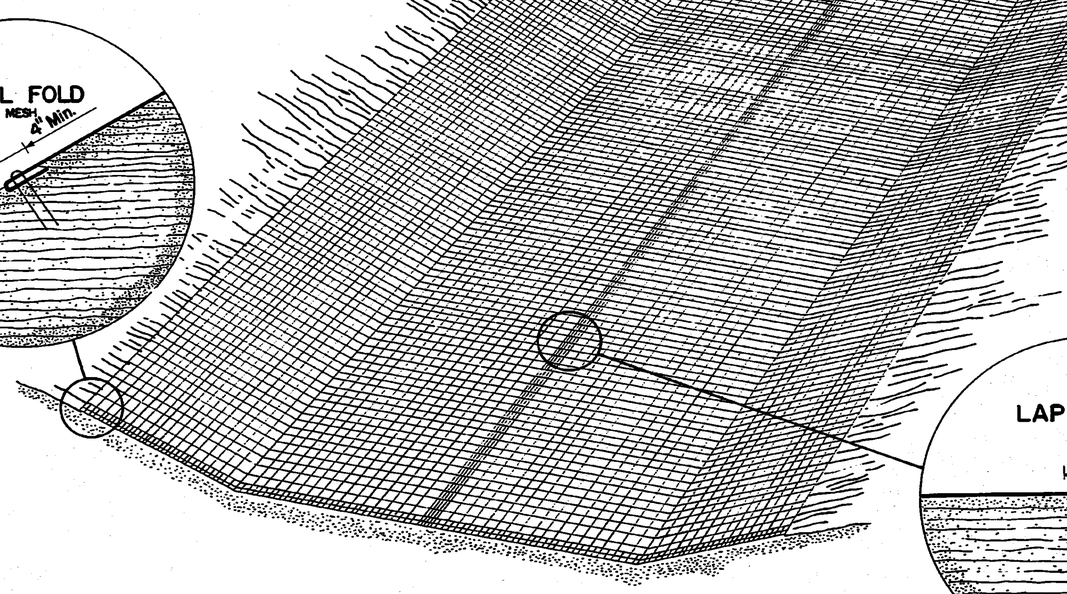
WHERE EROSION CONTROL IS USED IN THE MEDIAN, THE EROSION CONTROL SHALL START 20' FROM THE CENTER OF THE DITCH PLUG AND END AT THE MEDIAN DRAIN.

MEDIAN PROTECTION

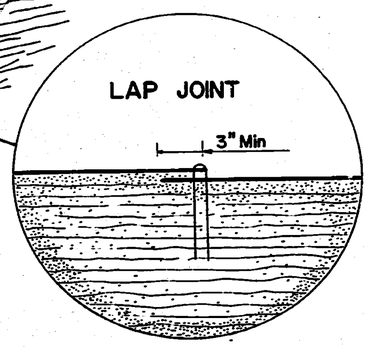




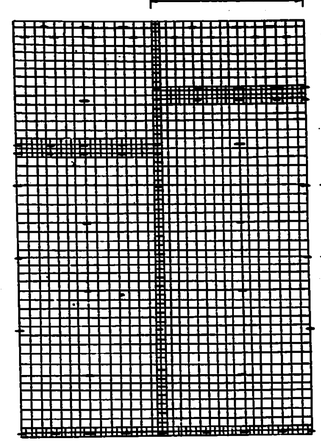




PERSPECTIVE VIEW



+ SOIL RETENTION BLANKET 3 or 4 STRIP
+ JUTE MESH 4 STRIP



WIRE STAPLES (ALTERNATELY PLACED IN ROWS APPROXIMATELY 2' APART)

PLAN VIEW-STAPLING DIAGRAM

TWO STRIPS SHOWN

APPROXIMATELY 175 STAPLES REQUIRED PER 4'x225' ROLL OF JUTE MESH. 125 STAPLES REQUIRED PER 3' x 150' ROLL OF SOIL RETENTION BLANKET. STAGGER JUNCTION SLOTS.

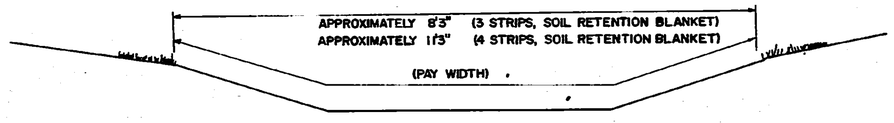
IN ORDER FOR JUTE MESH TO BE IN CONTACT WITH THE SOIL, THE THE JUTE SHALL BE LAID LOOSELY AND STRETCHING SHALL BE AVOIDED.

DETAILS IN THE PERSPECTIVE VIEW SHALL APPLY WHEN EROSION CONTROL IS USED FOR THE INTERCEPTING DITCH AND SLOPE PROTECTION.

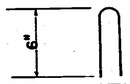
THE TOTAL BID QUANTITIES FOR EROSION CONTROL SHOWN ON THE PLANS DOES NOT INCLUDE MATERIAL REQUIRED FOR "JUNCTION SLOTS, ANCHOR SLOTS, AND LAP JOINTS. THE CONTRACTOR SHALL ESTIMATE THE ADDITIONAL QUANTITY OF EROSION CONTROL NEEDED FOR THESE ITEMS. THIS ADDITIONAL MATERIAL IS NOT MEASURED OR PAID FOR DIRECTLY, BUT IS SUBSIDIARY TO FURNISHING AND PLACING EROSION CONTROL.

APPROXIMATELY 11'6" (3 STRIPS, JUTE MESH)
APPROXIMATELY 15'3" (4 STRIPS, JUTE MESH)

APPROXIMATELY 8'3" (3 STRIPS, SOIL RETENTION BLANKET)
APPROXIMATELY 11'3" (4 STRIPS, SOIL RETENTION BLANKET)



TYPICAL DITCH CROSS SECTION



STAPLE DETAILS

STAPLES SHALL BE OF A LENGTH TO INSURE 6" PENNETRATION INTO SOIL.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

INSTALLATION DETAIL
EROSION CONTROL

STD. NO. 855.1

SHEET NO. OF	SCALE None	APP'D 7-17-69	
DESIGNED LMC	DETAILED LMC	QUANTITIES LMC	TRACED PCK
DESIGN CK. LFP	DETAIL CK. LFP	QUAN. CK. LFP	TRACE CK. LFP

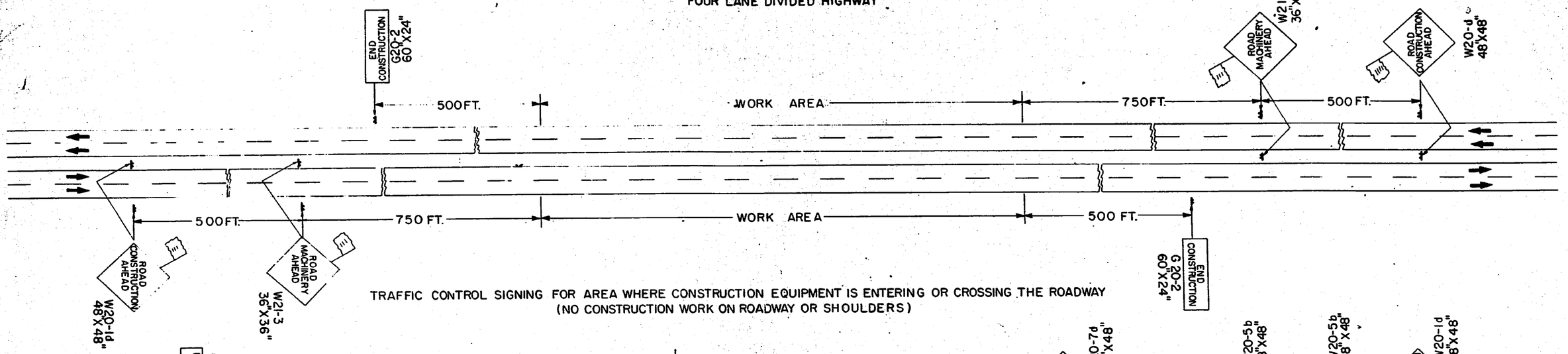
DIST. 5 SEDGWICK CO. ROLL 531

4 6 9

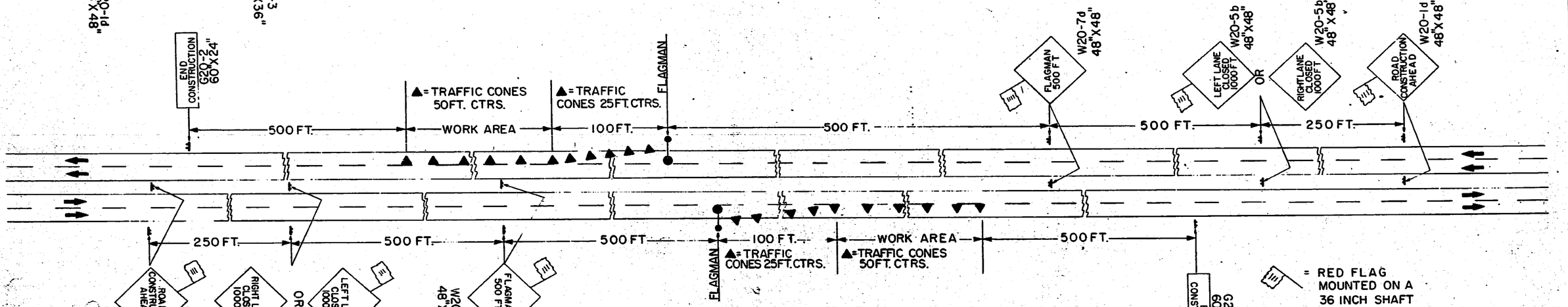
16X 14.5X 12X 12X 14.5X 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35-81(F)30-1(58) Phase I & III	1970	2031	2197

TRAFFIC CONTROL DEVICES
FOR CONSTRUCTION WORK ADJACENT TO ROADWAY ON A FOUR LANE DIVIDED HIGHWAY

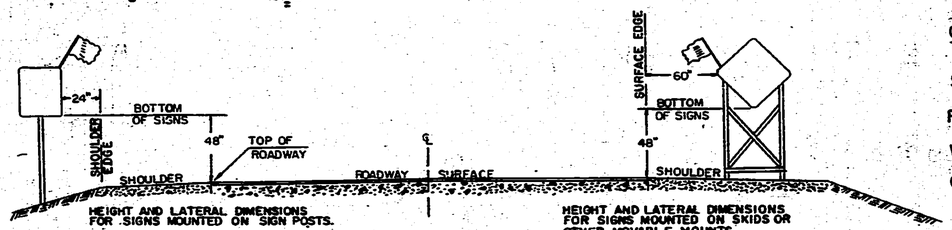


TRAFFIC CONTROL SIGNING FOR AREA WHERE CONSTRUCTION EQUIPMENT IS ENTERING OR CROSSING THE ROADWAY
(NO CONSTRUCTION WORK ON ROADWAY OR SHOULDERS)



= RED FLAG MOUNTED ON A 36 INCH SHAFT

TRAFFIC CONTROL SIGNING FOR AREA WHERE CONSTRUCTION WORK IS ADJACENT TO THE SHOULDER AND EQUIPMENT USED EXTENDS ONTO ONE-HALF OF ROADWAY.
(NO CONSTRUCTION WORK ON ROADWAY OR SHOULDER)



NOTE: WHEN NO WORK IS IN PROGRESS ALL EQUIPMENT SHALL BE REMOVED FROM THE RECOVERY AREA AND PLACED OR PARKED AT THE EXTREME LIMITS OF THE RIGHT OF WAY OR AT SITES APPROVED BY THE ENGINEER.

ALL TRAFFIC CONTROL DEVICES AND FLAGMANS EQUIPMENT SHALL COMPLY TO SECTION A-7 OF THE STANDARD SPECIFICATIONS, EDITION OF 1966, AND TO ANY SUPPLEMENTAL SPECIFICATION TO THIS SECTION.

ALL SIGNS SHALL CONFORM TO THE CURRENT MANUAL ON UNIFORM TRAFFIC DEVICES FOR STREETS AND HIGHWAYS IN KANSAS.

ALL TRAFFIC CONES SHALL HAVE A MINIMUM HEIGHT OF 12 INCHES AND BE RED OR ORANGE-RED IN COLOR.

TEMPORARY TRAFFIC CONTROL SIGNS WHEN NOT IN USE MAY BE COVERED WITH AN OPAQUE WEATHERPROOF MATERIAL OR REMOVED FROM RECOVERY AREA AS APPROVED BY THE ENGINEER.

ALL TRAFFIC CONTROL DEVICES SHALL BE SECURELY ERECTED AND MAINTAINED IN A GOOD CONDITION AT ALL TIMES.

ALL SIGNS SHALL BE REFLECTORIZED.

DUE TO EXISTING CONDITIONS THE ENGINEER MAY REQUIRE THE SPACING BETWEEN BARRICADES AND OR SIGNS DECREASED.

NO.	DATE	REVISIONS	BY	APP'D
6	8-16-70	Recovery area note change	GM	AFT
4	6-27-69	Recovery area covering of sign note	BM	AFT
3	3-26-69	Add barricade spacing note	RV	AFT
2	12-68	Add reflectorization note	S.A.M.	AFT
1	8-66	To conform to 1966 Specs	ALR	EAR

STATE HIGHWAY COMMISSION OF KANSAS

TRAFFIC CONTROL DEVICES FOR ROADSIDE IMPROVEMENT, SIGNING & DELINEATION, ELECTRIC LIGHTS, BRIDGE PAINT, AND SEEDING, 6-28-66, STD. NO. 742

SHEET NO. OF	SCALE NONE	APP'D [illegible]
DESIGNED J.F.B.	DETAILED J.F.B.	QUANTITIES	TRACED R.V.
REVISED CK.	DETAIL CK.	ORIG. CK.	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

4 7 0

16X 14.5X 12X 12X 14.5X 16X 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35N-87-113 W-1(53)93 Phase I & II	19	2032	2137

STABILIZED SHOULDERS

STA TO STA	SIDE	10' LOW SIDE LIN. FT.	10' HIGH SIDE LIN. FT.	6' LOW SIDE LIN. FT.	6' HIGH SIDE LIN. FT.	VOL. CU. FT.
North Bound						
416+35.38 417+80.10	Lt				94.72	
417+18.60 417+80.10	Rt			61.50		
South Bound						
421+15.60 422+10.32	Lt		94.72			
421+28.82 422+10.32	Rt			61.50		
TOTAL			94.72	123.00	94.72	

SUMMARY OF PLANT MIX-PHASE II

BITUMINOUS MIXTURE COMMERCIAL GRADE SHOULDERS

ITEM	QUANTITY (TONS)
Stabilized Shoulders	143

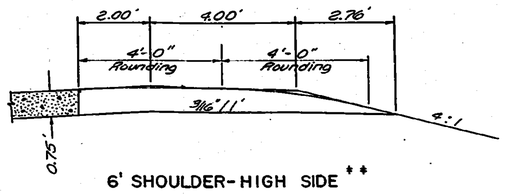
RATES OF APPLICATION (PER 100')

ITEM	STABILIZED SHOULDER 6'	STABILIZED ++ SHOULDER 6'	STABILIZED + SHOULDER 10'	UNIT
Asphaltic Concrete @ 140 #/ cu. ft.	33.38	36.28	51.18	Tons

SUMMARY OF PLANT MIX PHASE I

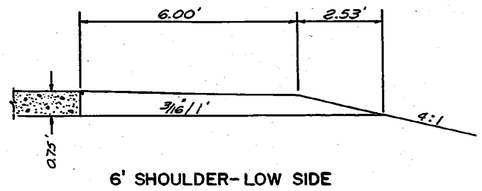
BITUMINOUS MIXTURE COMMERCIAL GRADE

LOCATION STATION TO STATION	QUANTITY (TONS)
First Street	
43+90 46+50	39
55+27.3 56+64	51
Second Street	
43+00 46+29.25	56
Thirteenth Street	
41+02.8 41+33.22	86
Ninth Street Detour	459
Total	691

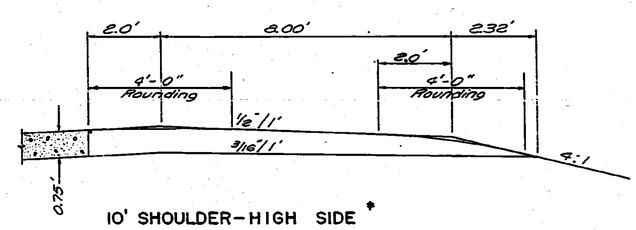


6' SHOULDER-HIGH SIDE **

** VARIABLE SLOPE. TRANSITION THE 6' STABILIZED SHOULDER FROM THE ROUNDED SECTION @ STA. 417 + 80.10 N. B. TO SUPERELEVATION AT E. W. S. STA. 416 + 85.38 N. B.



6' SHOULDER-LOW SIDE



10' SHOULDER-HIGH SIDE +

+ VARIABLE SLOPE. TRANSITION THE 10' STABILIZED SHOULDER FROM 1/2"/FT. @ STATION 422 + 10.32 S.B. TO SUPERELEVATION AT E.W.S.; STA. 421 + 15.60 S.B.

NOTE: A CUT IS TO BE MADE AT THE EDGES COMMON TO BOTH CONCRETE PAVEMENT AND SHOULDERS, ALL LOCATIONS INCLUDING RAMPS. TO BE ACCOMPLISHED TO A DEPTH OF 3/4" AND A WIDTH OF 3/4" AND THE JOINT IS TO BE FILLED WITH HOT POURED JOINT SEALING COMPOUND.

IMMEDIATELY PRIOR TO APPLICATION OF THE HOT POURED JOINT SEALING COMPOUND, THE JOINT SHALL BE SANDBLASTED AND AIR CLEANED TO REMOVE ALL FOREIGN MATERIAL.

THE JOINT FILLING WILL BE SUBSIDIARY ITEMS.

THE JOINT IS TO BE SAWED, ROLLED OR ACCOMPLISHED BY OTHER APPROVED MEANS.

PLANT MIX BITUMINOUS MIXTURE-COMMERCIAL GRADE

1.0 DESCRIPTION: THIS WORK SHALL CONSIST OF AGGREGATE AND BITUMINOUS MATERIAL MIXED IN A CENTRAL PLANT AND SPREAD AND COMPACTED IN ACCORDANCE WITH THIS SPECIFICATION AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADES, THICKNESS AND TYPICAL CROSS SECTION SHOWN ON THE PLANS OR ESTABLISHED BY THE ENGINEER.

BID ITEM - PLANT MIX BITUMINOUS MIXTURE-COMMERCIAL GRADE

2.0 MATERIALS: THE BITUMINOUS MIXTURE SHALL BE APPROVED BY THE ENGINEER. THIS APPROVAL WILL IN GENERAL BE BASED UPON THE FOLLOWING CONDITIONS:

(A) ALL MATERIALS SHALL BE FURNISHED BY RECOGNIZED PRODUCERS.
(B) THE HOT MIX PLANT SHALL BE OF A RECOGNIZED TYPE.
(C) THE MIXTURE PRODUCED SHALL BE A COMMERCIAL MIXTURE IN GENERAL USE IN THIS AREA THAT HAS SATISFACTORY SERVICE RECORD.
(D) THIS MIXTURE SHALL BE WORKABLE AND CAPABLE OF BEING SPREAD WITHOUT TEARING OR FLUSHING.
(E) ASPHALT FOR TACK MAY BE ANY ASPHALT APPROVED BY THE ENGINEER.

3.0 EQUIPMENT: LAYDOWN, COMPACTING, HAULING AND TRUCK WEIGHING EQUIPMENT SHALL CONFORM TO THE APPLICABLE REQUIREMENTS SPECIFIED IN PART 8 OF THE STANDARD SPECIFICATIONS, EXCEPT THAT APPROVAL BY THE WEIGHTS AND MEASURES DIVISION OF THE KANSAS BOARD OF AGRICULTURE WILL SATISFY ALL ACCURACY AND TESTING REQUIREMENTS OF TRUCK WEIGHING EQUIPMENT.

4.0 CONSTRUCTION REQUIREMENTS: ROLLING OF THE MIXTURE, IF REQUIRED, SHALL BE ACCOMPLISHED USING A MINIMUM OF TWO ROLLERS. THE ENGINEER MAY WAIVE THE THE MINIMUM ROLLER REQUIREMENTS IF CONDITIONS WARRANT. ALL COMPACTION WILL BE PERFORMED USING STANDARD AND RECOGNIZED TECHNIQUES. EXCEPT FOR VARIATIONS APPROVED BY THE ENGINEER, INITIAL ROLLING OF THE MIXTURE SHALL BE ESSENTIALLY COMPLETED WHILE THE TEMPERATURE OF THE MIXTURE IS APPROXIMATELY 230° F. OR ABOVE, AND FINAL ROLLING SHALL BE COMPLETED WHILE THE TEMPERATURE OF THE MIXTURE IS APPROXIMATELY 140° F. OR ABOVE. TACKING BETWEEN LIFTS SHALL BE AS DIRECTED BY ENGINEER.

5.0 WEATHER LIMITATIONS: HOT ASPHALTIC MIXTURE SHALL PLACED ONLY WHEN THE AIR TEMPERATURE IS 40° F. OR ABOVE, AND WHEN THE WEATHER IS NOT FOGGY OR RAINY AND WHEN THE SURFACE IS FREE FROM MOISTURE.

8.0 METHOD OF MEASUREMENT: PLANT MIX BITUMINOUS MIXTURE-COMMERCIAL GRADE SHALL BE MEASURED IN TONS OF MATERIAL AT THE TIME OF DELIVERY TO THE ROAD AND NO DEDUCTION SHALL BE MADE FOR THE ASPHALT IN THE MIXTURE.

9.0 BASIS OF PAYMENT: THE AMOUNT OF COMPLETED WORK MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT CONTRACT UNIT PRICE BID FOR PLANT MIX BITUMINOUS MIXTURE-COMMERCIAL GRADE, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS, FOR ALL LABOR, EQUIPMENT, TOOLS, SUPPLIES AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

NOTE: AN ADDITIONAL TACK COAT SHALL BE PROVIDED BETWEEN EACH LIFT WHEN SO ORDERED BY THE ENGINEER AND OF THE RATE DESIGNATED BY HIM.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

ASPHALTIC QUANTITIES

PHASE I & PHASE II

SHEET NO. OF	SCALE	APP'D
DESIGNED	DETAILED	QUANTITIES TRACED
DESIGN CK.	DETAIL CK.	QUAN. CK. TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 7 1

16X 14.5X 12X 14.5X 16X 20X

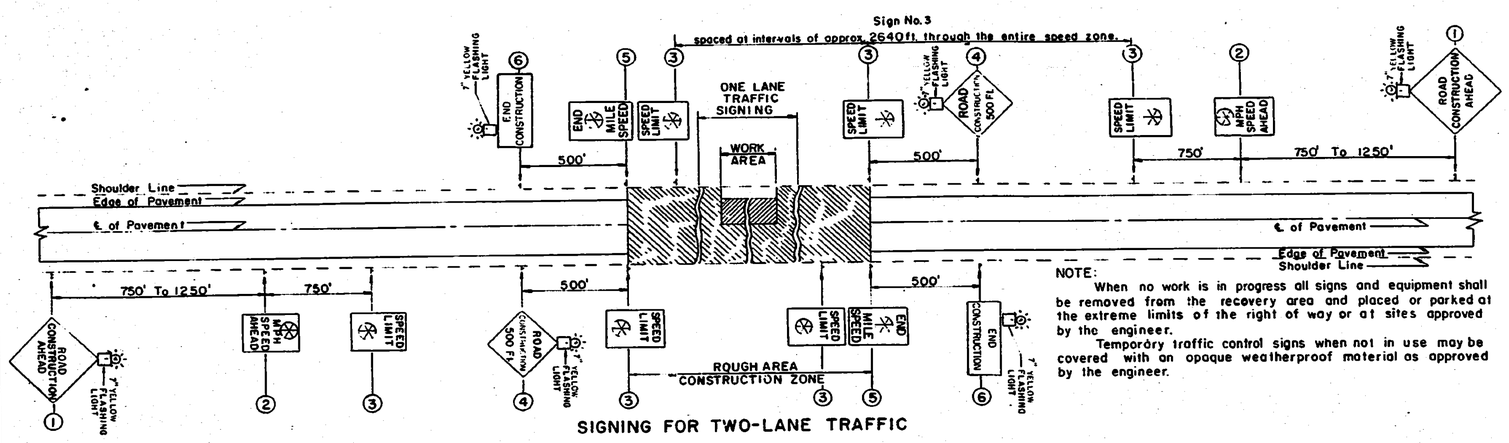
TRAFFIC CONTROL SIGNING
FOR TRAFFIC MOVEMENT THROUGH CONSTRUCTION

FUR ROAD NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	KANSAS	95 U-67-13SW 1(58)48 Phase I - II only	1970	2033	2137

Revised Sheet Added 2/26/73 BY

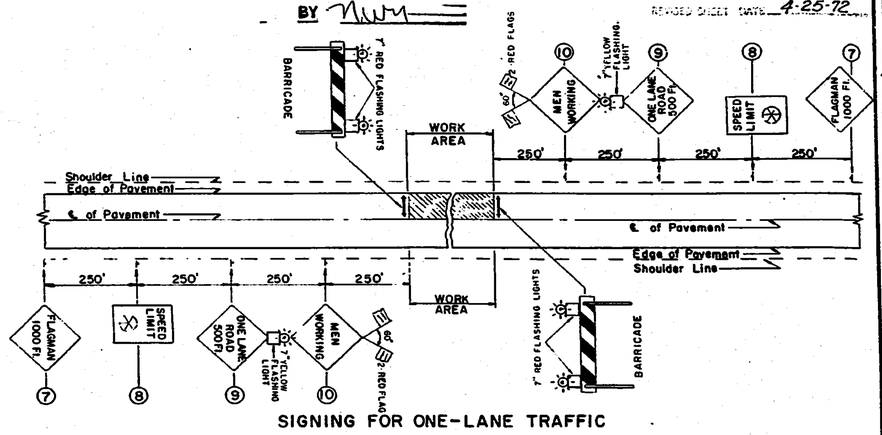
4 Phase I only

REVISED SHEET DATE 4-25-72



SIGNING FOR TWO-LANE TRAFFIC

NOTE:
When no work is in progress all signs and equipment shall be removed from the recovery area and placed or parked at the extreme limits of the right of way or at sites approved by the engineer.
Temporary traffic control signs when not in use may be covered with an opaque weatherproof material as approved by the engineer.



SIGNING FOR ONE-LANE TRAFFIC

NOTE: ON PORTIONS OF THE PROJECT WHERE NO WORK HAS STARTED OR WHERE WORK IS COMPLETED, NO SPECIAL SIGNING (OTHER THAN NORMALLY USED) IS NEEDED.

(All signs shall conform to the MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS IN KANSAS. Dated June 1, 1962)

GENERAL NOTES

All signs shall be reflectorized

SIGNING FOR TWO-LANE TRAFFIC is to be used to protect traffic in that part of the project under construction.

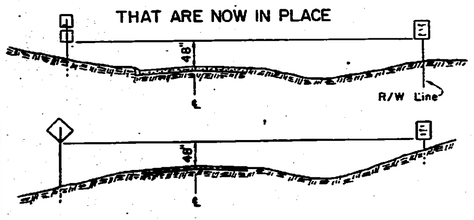
SIGNING FOR ONE-LANE TRAFFIC is to be used in addition to "Signing for Two-Lane Traffic" at locations where traffic is limited to one lane (concrete patching, finishing machines, etc.). If the only work in progress on the project limits traffic to one lane, Signs No. 1, 2, and 6 shall be used in addition to signs for one-lane traffic. FLAGMEN SHALL BE USED at one-lane traffic locations.

SIGNS NO. 1, 4, & 9 shall have a reflectorized "Highway" Yellow Background with opaque black legend and border.
SIGNS NO. 7 & 10 shall have a plain painted "Highway" Yellow or Orange-Red Day-Glo Background with opaque black legend and border.
SIGNS NO. 2, 3, 5, 6, 8 shall have a reflectorized White Background with opaque black legend and border

SIGNING DETAILS (FOR TWO-LANE TRAFFIC)
Sign No. 1, W20-1d 48"X48" reflectorized sign, legend " ROAD CONSTRUCTION AHEAD" is to be erected 1,500 feet to 2,000 feet in advance of each end of construction work, depending on the terrain, and is to be moved ahead as work progresses. A yellow flashing warning light shall be maintained on top of this sign at night.
Sign No. 2, R2-1I 24"X 36" reflectorized sign, legend "⚠ MPH SPEED AHEAD" is to be erected 750 feet in advance of the beginning of the speed zone, and is to be moved ahead as work progresses.
Sign No. 3, R2-1, 24"X30" reflectorized sign, legend "SPEED LIMIT ⚠" is to be erected at the beginning of the speed zone and at intervals of approximately 2,640 feet through the entire speed zone, and is to be moved or removed as work progresses. Higher or lower speed limits should be used as conditions warrant.
Sign No. 4, W20-1c, 48"X48" reflectorized sign, legend "ROAD CONSTRUCTION 500 feet" is to be erected 500 feet in advance of the beginning of all rough areas, and is to be moved or removed when rough areas change locations or conditions. A yellow flashing warning light shall be maintained on top of this sign at night.
Sign No. 5, R2-6, 24"X30" reflectorized sign, legend "END ⚠ MILE SPEED" is to be erected at the end of the construction zone, and is to be moved as work progresses.
Sign No. 6, G20-2, 60"X 24" reflectorized sign, legend "END CONSTUCTION " is to be erected past each end of construction zone, and is to be moved as work progresses. A yellow flashing warning light shall be maintained on top of this sign at night.

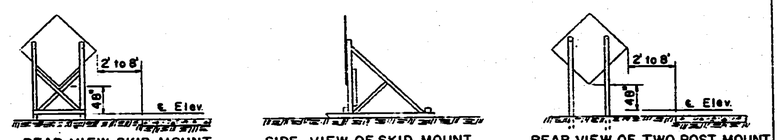
SIGNING DETAILS (For One-Lane Traffic)
Signs No. 7, 8, 9, 10 shall be removed or advanced when work in area is open to two-lane traffic.
Sign No. 7, W20-7b, 48"X 48" plain painted sign, legend "FLAGMAN 1000 feet " is to be erected 1000 feet in advance of the beginning of the work area whenever flagmen are used.
Sign No. 8, R2-1, 24"X30" reflectorized sign, legend "SPEED LIMIT ⚠ is to be erected 750 ft. in advance of the beginning of the work area. ⚠ Posted speed limit to be determined by Division Engineer.
Sign No. 9, W20-4c, 48"X48" reflectorized sign, legend "ONE LANE ROAD 500 ft." is to be erected 500 ft. in advance of the beginning of the work area. A yellow flashing light shall be maintained on top of this sign at night.
Sign No. 10, W21-1, 30"X30" , plain painted sign, legend "MEN WORKING" is to be erected 250 ft. in advance of the beginning of the work area with red flags mounted on top of this sign. This sign shall be used only when men are working on foot in the work area and shall be removed when equipment only is working, and at all times when work is not in progress.
Signs No. 7 and 10, shall be reflectorized when used at night.
ALL FLASHING WARNING LIGHTS used on top of signs shall have a yellow lens minimum dia. 7". All flashing warning lights used on barricades placed in the traveled way shall have a red lens minimum dia. 7". All flashing warning lights placed on barricades over an open trench or windrow adjacent to the traveled way shall have two yellow lenses minimum dia. 7", so flashing light can be seen in two directions. They shall be erected so flasher light is a minimum of 36" above top of surface edge and at 100 to 500 ft. intervals as instructed by Resident Engineer. All flasher lights shall be battery operated and regulated to flash 50 to 55 times per minute. The length of dwell shall not be less than 25% on time.

ALTERNATE LATERAL LOCATIONS FOR SIGNS & ROUTE MARKERS THAT ARE NOW IN PLACE



NOTES:
Signs and Markers may be erected on a portable mount, or post, at alternate locations whenever the work being performed will not permit placing the Sign or Marker at normal locations. The alternate locations for Signs and Markers shall be used only while work is in progress on the shoulder. All Signs and Markers shall be erected at their normal locations immediately after the shoulder work has been completed or when work is to be discontinued for two days or more. Due to existing conditions the engineer may require the spacing between barricades and or signs decreased

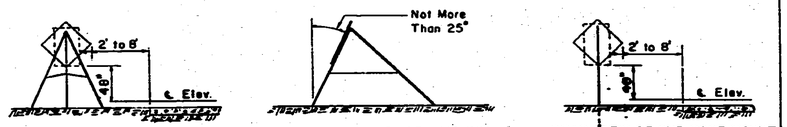
HEIGHT & LATERAL LOCATIONS FOR SIGN NO. 1,4,7, & 9.



REAR VIEW SKID MOUNT — SIDE VIEW OF SKID MOUNT — REAR VIEW OF TWO POST MOUNT

NOTE: Sign No. 1 and 1-A may be mounted on portable skid or two post mount.

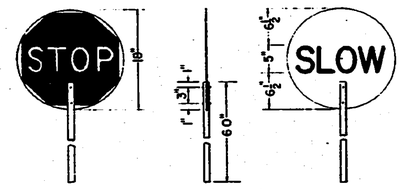
HEIGHT & LATERAL LOCATIONS FOR SIGNS NO. 2,3,5,6,8, & 10.



REAR VIEW OF EASEL MOUNT — SIDE VIEW OF EASEL MOUNT — REAR VIEW OF ONE POST MOUNT

NOTE: Signs No. 2 to 10 inc. may be mounted on portable easel or one post mount.

HAND SIGNALING SIGN



FRONT FACE OF SIGN — SIDE VIEW . — BACK FACE OF SIGN

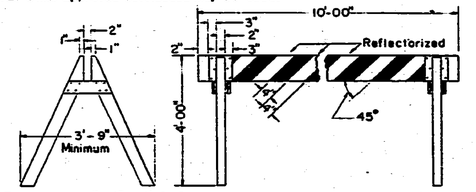
The hand signaling sign shall be made of ¼ inch tempered masonite 18 inches in diameter, smooth on both faces, or of aluminum (alloy 6061-T6) 0.063 inch (14 gage) thick, 18 inches in diameter. The handle shall be 60 inches long.

The color on the octagon face of the STOP side of the sign shall be Standard Signal Red, pure white letters and border. The color of the SLOW face of the sign shall be Highway Yellow, black letters. The letters shall be 5" series "D" Standard Alphabet for highway signs, with a 25/32" width stroke.

This sign to be reflectorized when used at night.

DETAILS FOR CONSTRUCTION OF PORTABLE BARRICADE

NOTE: Other approved barricades may be used.



The beam is 2"X 8"X 10' S4S lumber and shall have alternate white and black 45° diagonal stripes on both sides. The white stripes on all barricades shall be reflectorized white and black stripes shall be painted black. The standards are 2"X4" rough lumber, plain painted white.

NO	DATE	REVISIONS	BY	APP'D
2	3-25-69	Add barricade spacing note	RV	APT
1	12-16-68	Add reflectorization note	S.A.H.	A.F.T.

4-25-72 by [illegible] ⚠ Sheet revised PHK. RLA. to apply to only Phase I

STATE HIGHWAY COMMISSION OF KANSAS
CONSTRUCTION
TRAFFIC CONTROL
DEVICES & LOCATION

STD. NO. 745.2 REVISED MAY 3 1965

SHEET NO	OK	SCALE	NONE	APP'D	[illegible]
DESIGNED	J.F.B.	DETAILED	J.F.B.	QUANTITIES	J.F.B.	TRACED	R.W.V.
DESIGN CK	J.F.B.	DETAIL CK	J.F.B.	QUAN CK	J.F.B.	TRACE CK	J.F.B.

ORIGINAL (ECS)

DIST. 5 SEDGWICK CO. ROLL 531

4 7 2

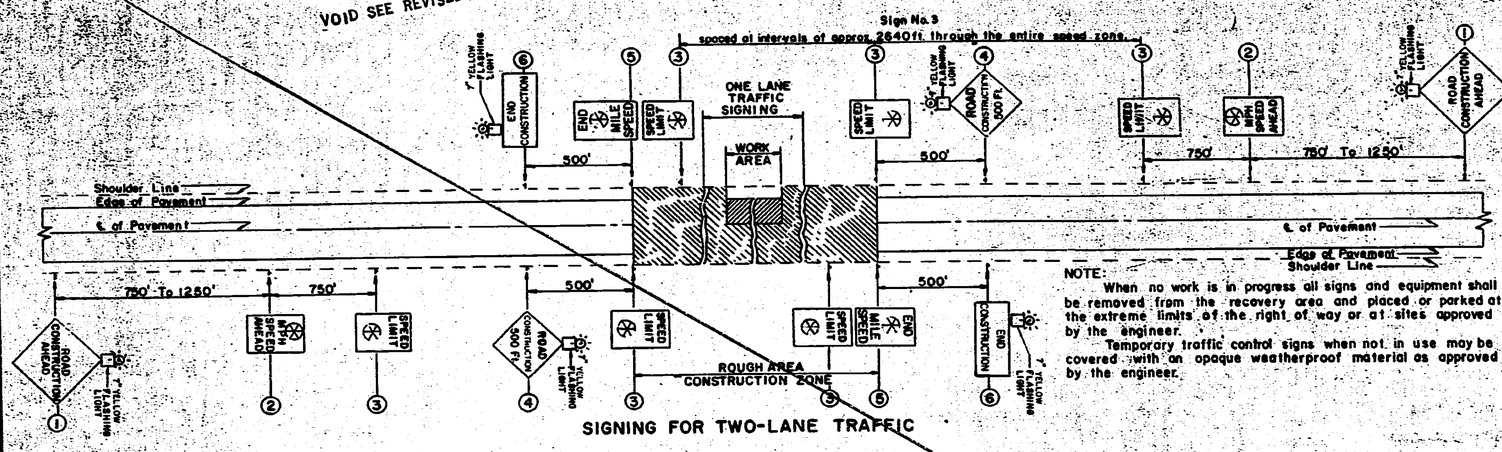
16X 14.5X 12X 14.5X 16X 20X

FED. ROAD DIST. NO.	STATE	PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	56 W-57-1464 (68)68 Phase I, II & III	1970	2039	2137

VOID SEE REVISED SHEET

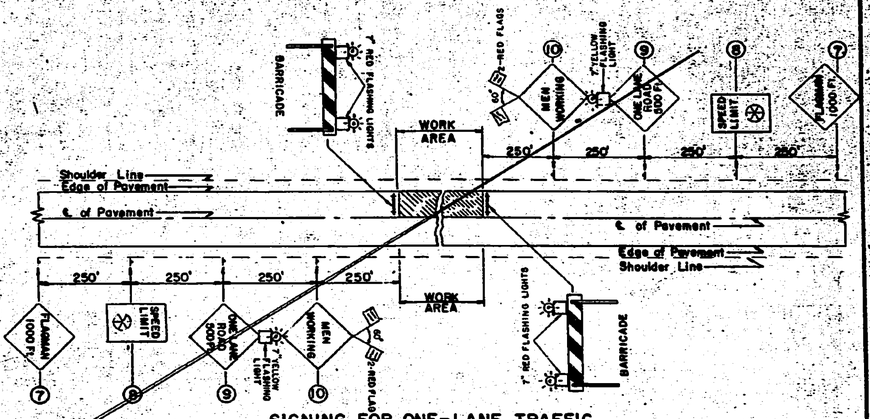
TRAFFIC CONTROL SIGNING
FOR TRAFFIC MOVEMENT THROUGH CONSTRUCTION

VOID SEE REVISED SHEET



SIGNING FOR TWO-LANE TRAFFIC

NOTE:
When no work is in progress all signs and equipment shall be removed from the recovery area and placed or parked at the extreme limits of the right of way or at sites approved by the engineer.
Temporary traffic control signs when not in use may be covered with an opaque weatherproof material as approved by the engineer.



SIGNING FOR ONE-LANE TRAFFIC

NOTE: ON PORTIONS OF THE PROJECT WHERE NO WORK HAS STARTED OR WHERE WORK IS COMPLETED, NO SPECIAL SIGNING (OTHER THAN NORMALLY USED) IS NEEDED.
(All signs shall conform to the MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS IN KANSAS. Dated June 1, 1962.)

GENERAL NOTES

SIGNING FOR TWO-LANE TRAFFIC is to be used to protect traffic in that part of the project under construction.

SIGNING FOR ONE-LANE TRAFFIC is to be used in addition to "Signing for Two-Lane Traffic" at locations where traffic is limited to one lane (concrete patching, finishing machines, etc.). If the only work in progress on the project limits traffic to one lane, Signs No. 1, 2, and 6 shall be used in addition to signs for one-lane traffic.

FLAGMEN SHALL BE USED at one-lane traffic locations.

SIGNS NO. 1, 4, & 9 shall have a reflectorized "Highway" Yellow Background with opaque black legend and border.

SIGNS NO. 7 & 10 shall have a plain painted "Highway" Yellow or Orange-Red Day-Glo Background with opaque black legend and border.

SIGNS NO. 2, 3, 5, 6, 8 shall have a reflectorized White Background with opaque black legend and border

SIGNING DETAILS (FOR TWO-LANE TRAFFIC)

Sign No. 1, W20-1d 48"X48" reflectorized sign, legend " ROAD CONSTRUCTION AHEAD" is to be erected 1,500 feet to 2,000 feet in advance of each end of construction work, depending on the terrain, and is to be moved ahead as work progresses. A yellow flashing warning light shall be maintained on top of this sign at night.

Sign No. 2, R2-1I 24"X 36" reflectorized sign, legend "℅ MPH SPEED AHEAD" is to be erected 750 feet in advance of the beginning of the speed zone, and is to be moved ahead as work progresses.

Sign No. 3, R2-1, 24"X 30" reflectorized sign, legend "SPEED LIMIT ℅" is to be erected at the beginning of the speed zone and at intervals of approximately 2,640 feet through the entire speed zone, and is to be moved or removed as work progresses. Higher or lower speed limits should be used as conditions warrant.

Sign No. 4, W20-1c, 48"X48" reflectorized sign, legend "ROAD CONSTRUCTION 500 feet" is to be erected 500 feet in advance of the beginning of all rough areas, and is to be moved or removed when rough areas change locations or conditions. A yellow flashing warning light shall be maintained on top of this sign at night.

Sign No. 5, R2-6, 24"X30" reflectorized sign, legend "END ℅ MILE SPEED" is to be erected at the end of the construction zone, and is to be moved as work progresses.

Sign No. 6, G20-2, 60"X24" reflectorized sign, legend "END CONSTUCTION" is to be erected past each end of construction zone, and is to be moved as work progresses. A yellow flashing warning light shall be maintained on top of this sign at night.

SIGNING DETAILS (For One-Lane Traffic)

Signs No. 7, 8, 9, 10 shall be removed or advanced when work in area is open to two-lane traffic.

Sign No. 7, W20-7b, 48"X 48" plain painted sign, legend "FLAGMAN 1000 feet" is to be erected 1000 feet in advance of the beginning of the work area whenever flagmen are used.

Sign No. 8, R2-1, 24"X30" reflectorized sign, legend "SPEED LIMIT ℅" is to be erected 750 ft. in advance of the beginning of the work area.
℅ Posted speed limit to be determined by Division Engineer.

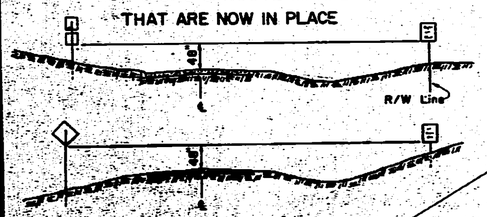
Sign No. 9, W20-4c, 48"X48" reflectorized sign, legend "ONE LANE ROAD 500 ft." is to be erected 500 ft. in advance of the beginning of the work area. A yellow flashing light shall be maintained on top of this sign at night.

Sign No. 10, W21-1, 30"X30", plain painted sign, legend "MEN WORKING" is to be erected 250 ft. in advance of the beginning of the work area with red flags mounted on top of this sign. This sign shall be used only when men are working on foot in the work area and shall be removed when equipment only is working, and at all times when work is not in progress.

Signs No. 7 and 10, shall be reflectorized when used at night.

ALL FLASHING WARNING LIGHTS used on top of signs shall have a yellow lens minimum dia. 7". All flashing warning lights used on barricades placed in the traveled way shall have a red lens minimum dia. 7". All flashing warning lights placed on barricades over an open trench or windrow adjacent to the traveled way shall have two yellow lenses minimum dia. 7", so flashing light can be seen in two directions. They shall be erected so flasher light is a minimum of 36" above top of surface edge and at 100 to 500 ft. intervals as instructed by Resident Engineer. All flasher lights shall be battery operated and regulated to flash 50 to 55 times per minute. The length of dwell shall not be less than 25% on time.

ALTERNATE LATERAL LOCATIONS FOR SIGNS & ROUTE MARKERS THAT ARE NOW IN PLACE



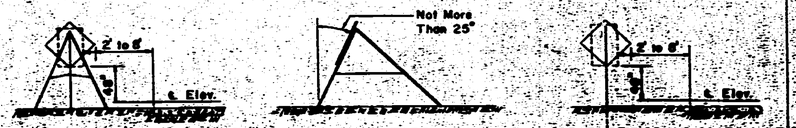
NOTES:
Signs and Markers may be erected on a portable mount, or post, at alternate locations whenever the work being performed will not permit placing the Sign or Marker at normal locations. The alternate locations for Signs and Markers shall be used only while work is in progress on the shoulder. All Signs and Markers shall be erected at their normal locations immediately after the shoulder work has been completed or when work is to be discontinued for two days or more. Due to existing conditions the engineer may require the spacing between barricades and or signs to be varied.

HEIGHT & LATERAL LOCATIONS FOR SIGN NO. 1, 4, 7, & 9.

REAR VIEW SKID MOUNT — SIDE VIEW OF SKID MOUNT — REAR VIEW OF TWO POST MOUNT

NOTE: Sign No. 1 and 1-A may be mounted on portable skid or two post mount.

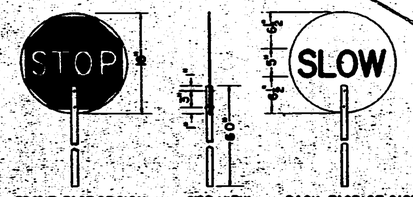
HEIGHT & LATERAL LOCATIONS FOR SIGNS NO. 2, 3, 5, 6, 8, & 10.



REAR VIEW OF EASEL MOUNT — SIDE VIEW OF EASEL MOUNT — REAR VIEW OF ONE POST MOUNT

NOTE: Signs No. 2 to 10 inc. may be mounted on portable easel or one post mount.

HAND SIGNALING SIGN



FRONT FACE OF SIGN — SIDE VIEW — BACK FACE OF SIGN

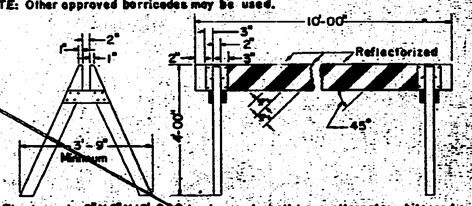
The hand signaling sign shall be made of ¼ inch tempered masonite 16 inches in diameter, smooth, on both faces, or of aluminum (alloy 6061-T6) 0.063 inch (14 gage) thick, 18 inches in diameter. The handle shall be 60 inches long.

The color on the octagon face of the STOP side of the sign shall be Standard Signal Red, pure white letters and border. The color of the SLOW face of the sign shall be Highway Yellow, black letters. The letters shall be 5" series "D" Standard Alphabet for Highway Signs, with a ¾" width stroke.

This sign to be reflectorized when used at night.

DETAILS FOR CONSTRUCTION OF PORTABLE BARRICADE

NOTE: Other approved barricades may be used.



The beam is 2"X 6"X 10' S4S lumber and shall have alternate white and black 45° diagonal stripes on both sides. The white stripes on all barricades shall be reflectorized white and black stripes shall be painted black. The standards are 2"X4" rough lumber, plain painted white.

NO.	DESCRIPTION	BY	APP'D
2	5-27-70 Add barricade signing note	PV	AFT
1	8-16-68 Add reflectorization note	S.J.M.	A.F.T.

VOID SEE REVISED SHEET

STATE HIGHWAY COMMISSION OF KANSAS
CONSTRUCTION
TRAFFIC CONTROL DEVICES & LOCATION
STD. NO. 745.2 REVISED MAY 3 1965

ORIGINAL

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 7 3

16X 14.5X 12X 12X 14.5X 16X

FHWA REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-135W-1(58)48	1972	2033A	2/37

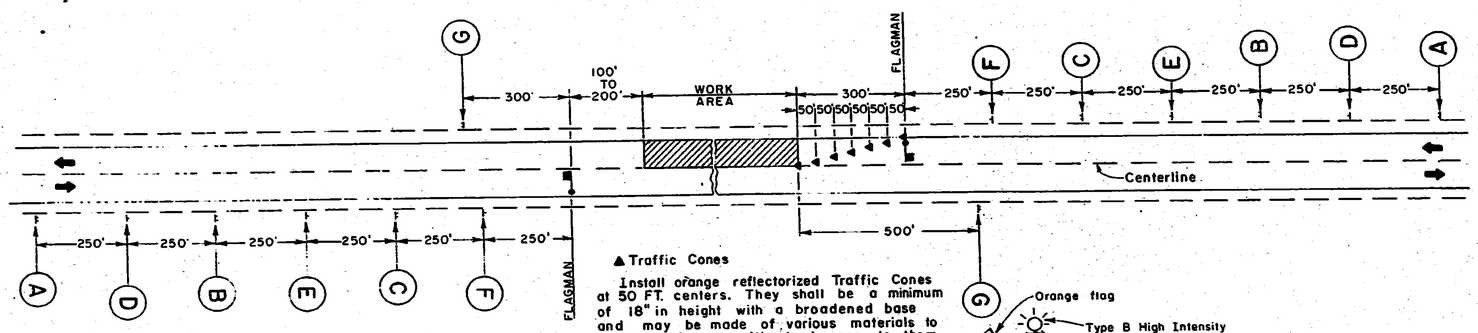
Phase II & III

TRAFFIC CONTROL SIGNING
FOR ONE-LANE TRAFFIC MOVEMENT THROUGH WORK AREA

NEW SHEET - DATE 4-25-72
USE PREVIOUS ISSUE

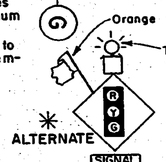
Revised Sheet
Added 2/26/73
BY

ONE – LANE TRAFFIC SIGNING (Resurfacing)



▲Traffic Cones

Install orange reflectorized Traffic Cones at 50 FT. centers. They shall be a minimum of 18" in height with a broadened base and may be made of various materials to withstand impact without damage to themselves or to vehicles.



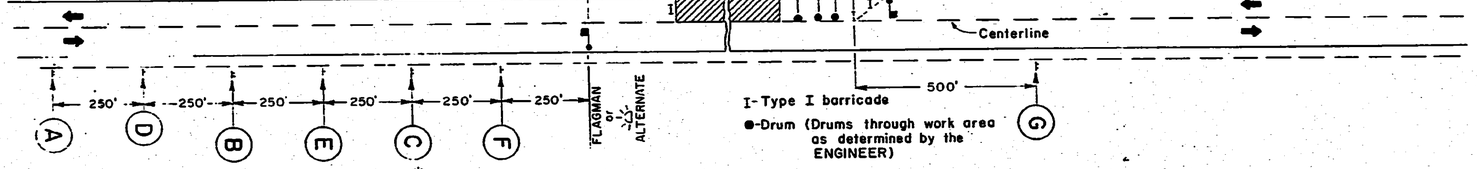
W3-3 shall have a reflectorized orange background with the legend and inset border opaque black ink. The circles within the sign legend shall be red, yellow and green, in that sequence, from top to bottom. When used, this sign is to be erected in place of Sign No. C.

The alternate three color traffic control signals shall comply with Part IV of the 1970 Manual on Uniform Traffic Control Devices for Streets and Highways.

Two (2) three color traffic signal units shall be erected facing each direction of traffic. Post mounted signals shall be erected 8' to 15' above pavement centerline grade. Signals suspended over the roadway shall be erected 15' to 19' above pavement centerline grade.

Flagman and sign (W20-7) shall be used if a malfunction of the traffic signal occurs. Timing of traffic signals shall be determined by the ENGINEER.

ONE-LANE TRAFFIC SIGNING (Repair and Surface Overlay)



I-Type I barricade

●-Drum (Drums through work area as determined by the ENGINEER)

NOTE:

All traffic control devices shall comply to (1) Section A7 of the 1966 Edition of the Standard Specification and to any Supplemental Specification to this section and (2) the Manual on Uniform Traffic Control Devices For Streets and Highways dated November 13, 1970.

Install Type I reflectorized barricades at 50 FT. centers and at right angles to the center of the roadway. Each barricade shall have one yellow steady burning warning light on top of each barricade at night. One orange flag shall be in place on top of each barricade day and night. The first barricade on the approach is to be placed on the shoulder with the end of the barricade in line with the edge of roadway. The third barricade on the approach is to be placed in the closed lane with the end of the barricade out 24" from the centerline of the roadway. The end of the intermediate barricade is to be placed on a transition line between the above designated points as shown.

The yellow flashing lights placed on advance warning signs shall be Type B High Intensity. Yellow lights placed on Type I barricades and drums shall be Type C Steady Burn with two lens. The lens for all lighting devices shall be 7" minimum diameter. The flashing lights are to be regulated to flash 55 to 75 times per minute. The flash duration shall not be less than 8% of time.

Yellow lights and orange flags mounted on barricades and drums are to be placed on the side nearest the roadway centerline.

Temporary traffic control signs when not in use shall be either covered with an opaque weatherproof material or removed from the recovery area as approved by the ENGINEER.

Due to existing conditions the ENGINEER may require a decrease in the spacing between barricades, drums and or signs.

Signs and Markers may be erected on portable supports as a temporary measure. All such installations should be so constructed to yield upon impact.

The hand signaling device used by flagmen shall be a STOP/SLOW sign paddle with a minimum diameter of 24".

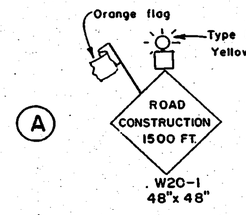
All signs, barricades and drums used to control traffic shall be reflectorized.

The alternate orange and white or black and white stripes shall not be intermixed within the same project.

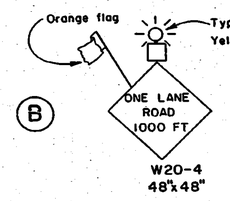
All signs, barricades, drums; lights and orange flags shall be securely erected and maintained in good condition at all times.

When no work is in progress all equipment shall be removed from the recovery area and placed or parked at the extreme limits of the right of way or at sites approved by the ENGINEER.

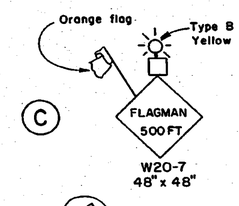
All existing permanent speed limit signs are to be covered with an opaque waterproof material or removed as directed by the ENGINEER.



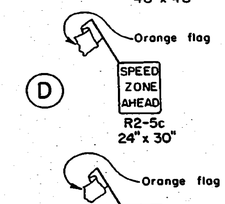
(A) W20-1 shall have a reflectorized orange background with the legend and inset border opaque black ink. The legend shall be 7" high series 'C' alphabet. The sign is to be erected 1500 FT. in advance of the Flagman's station.



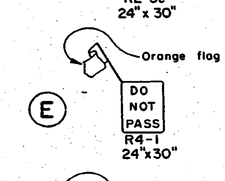
(B) W20-4 shall have a reflectorized orange background with the legend and inset border opaque black ink. The legend shall be 7" high series 'C' alphabet. The sign is to be erected 1000 FT. in advance of the Flagman's station.



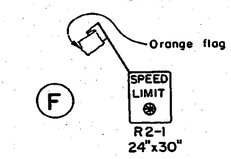
(C) W20-7 shall have a reflectorized orange background with the legend and inset border opaque black ink. The legend shall be 7" high series 'C' alphabet. The sign is to be erected 500 FT. in advance of the Flagman's station.



(D) R2-5c shall have a reflectorized silver background with the legend and inset border opaque black ink. The legend shall be 6" high series 'C' alphabet. The sign is to be erected 1250 FT. in advance of the Flagman's station.



(E) R4-1 shall have a reflectorized silver background with the legend and inset border opaque black ink. The legend shall be 6" high series 'D' alphabet. The signs are to be erected as shown on this sheet.

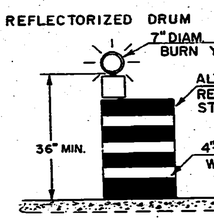


(F) R2-1 shall have a reflectorized silver background with the legend and inset border opaque black ink. The legend shall be series 'E' with SPEED LIMIT 4" high and numerals 10". The signs are to be erected as shown on this sheet. Additional signs are to be erected along the Work Area at intervals not to exceed one-half mile.

⊛ Posted speed limit to be determined by the ENGINEER.

(G) G20-2 shall have a reflectorized orange background with the legend and inset border opaque black ink. The legend shall be 6" high series 'C' alphabet. The sign is to be erected 500 FT. beyond the end of construction.

REFLECTORIZED DRUM



NO	DATE	REVISIONS	BY	APP'D
8				
9				

STATE HIGHWAY COMMISSION OF KANSAS

CONSTRUCTION TRAFFIC CONTROL DEVICES AND LOCATIONS FOR TWO-LANE HIGHWAY ONE-LANE CLOSED

STD. 743.1 Sheet 1 of 2

SHEET NO.		SCALE		APP'D	
DESIGNED	GM	DETAILED	GM	QUANTITIES	GM
DESIGN CK.	AFT	DETAIL CK.	AFT	QUAN. CK.	AFT

DIST. 5 SEDGWICK CO. ROLL 531

4 7 4

16X 14.5X 12X 12X 14.5X 16X 20X

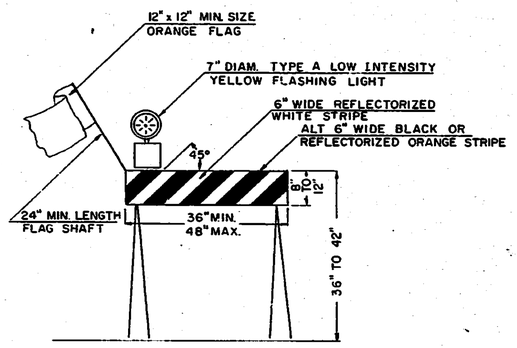
FHWA REG. NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-136W-1(68)48	1972	2033 B	2137

Phase II & III

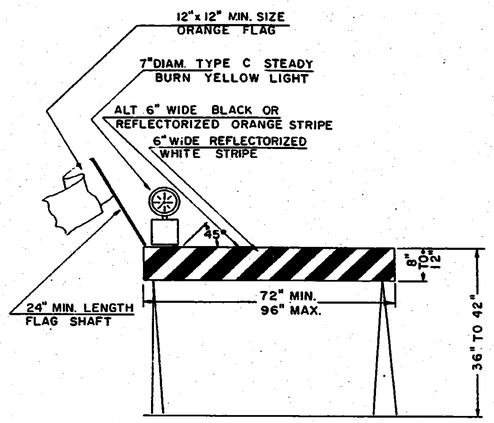
NEW SHEET - DATE 4-25-72

Revised Sheet
Added 2/26/73
BY

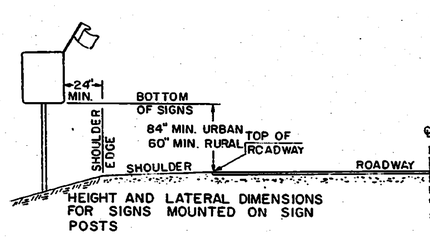
TRAFFIC CONTROL DEVICES
FOR TRAFFIC MOVEMENT THROUGH CONSTRUCTION FOR A TWO- LANE HIGHWAY



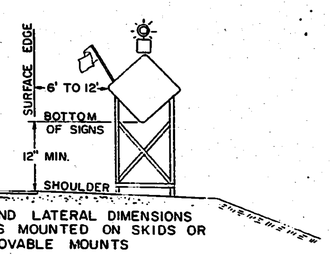
TYPE II BARRICADE WITH YELLOW FLASHING LIGHT AND ORANGE FLAG



TYPE I BARRICADE WITH ONE YELLOW STEADY BURN LIGHT AND ONE ORANGE FLAG



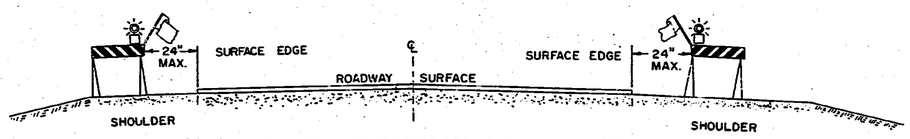
HEIGHT AND LATERAL DIMENSIONS FOR SIGNS MOUNTED ON SIGN POSTS



HEIGHT AND LATERAL DIMENSIONS FOR SIGNS MOUNTED ON SKIDS OR OTHER MOVABLE MOUNTS

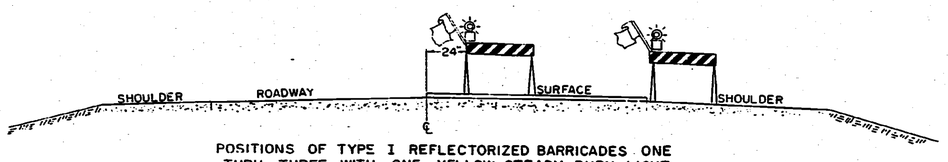
NOTE:

The alternate orange and white or black and white stripes shall not be intermixed within the same project.



POSITION OF TYPE II REFLECTORIZED BARRICADES WITH ONE YELLOW FLASHING LIGHT AND ONE ORANGE FLAG USED ON SHOULDERS ADJACENT TO SURFACE EDGES SPACED AT 750 FT.

TO BE USED IN AREAS WHERE WORK IS COMPLETED EXCEPT SHOULDER CONSTRUCTION



POSITIONS OF TYPE I REFLECTORIZED BARRICADES ONE THRU THREE WITH ONE YELLOW STEADY BURN LIGHT AND ONE ORANGE FLAG USED TO CLOSE ONE LANE OF THE ROADWAY TO TRAFFIC

NOTE.

All traffic control devices and flagman's equipment shall comply to (1) Section A7 of the 1966 Edition of the Standard Specification and to any Supplemental Specification to this section and (2) the Manual on Uniform Traffic Control Devices For Streets and Highways dated November 13, 1970.

Barricades used to control traffic at night shall be reflectorized.

The yellow barricade lights shall have a 7" minimum diameter lens. The flashing light shall be Type 'A' Low Intensity regulated to flash 55 to 75 times per minute with a flash duration not less than 10% of time. The steady burn lights shall be Type 'C'.

All signs, barricades, flashing lights and orange flags shall be securely erected and maintained in good condition at all times.

All signs shall be reflectorized.

When no work is in progress all equipment shall be removed from the recovery area and placed or parked at the extreme limits of the right of way or at sites approved by the ENGINEER.

Temporary traffic control signs when not in use shall be either covered with an opaque weatherproof material or removed from the recovery area as approved by the ENGINEER.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1	2-1-72	Revise Height Dimensions	GM	AFT

STATE HIGHWAY COMMISSION OF KANSAS
CONSTRUCTION TRAFFIC CONTROL DEVICES AND LOCATIONS FOR A TWO—LANE HIGHWAY

STD. 743.1A 1-17-72 Sheet 2 of 2

SHEET NO. 2	SCALE	APP'D	
DESIGNED AFT	DETAILED GM	QUANTITIES	CHK'D GM
DESIGN CK GM	DETAIL CK AFT	QUAN. CK	TRACED AFT

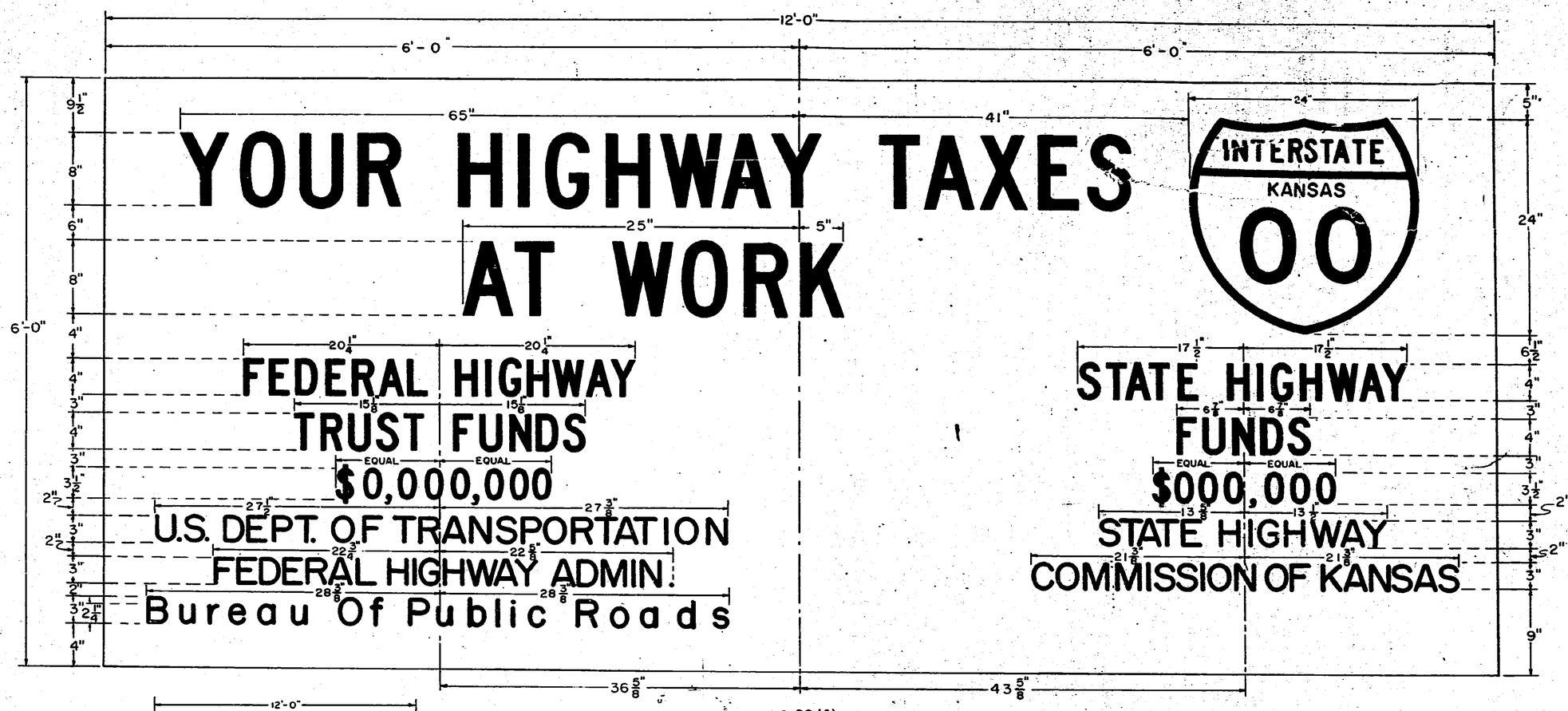
DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 7 5

16X 14.5X 12X 12X 14.5X 16X 20X

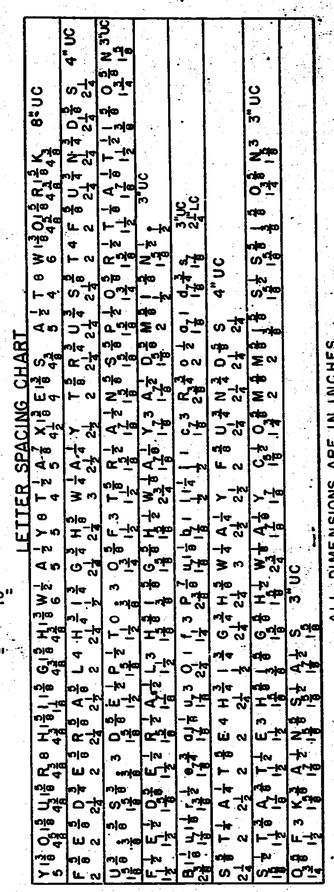
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35 W-67-13(5) Interstate 135	20 54	2137	

Phase I, II & III

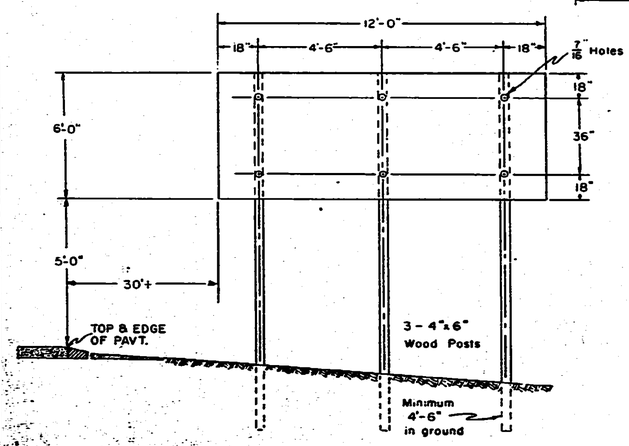


I-22 (I)

LETTER SPACING CHART



ALL DIMENSIONS ARE IN INCHES



GENERAL NOTES:

MATERIALS:

The sign shall be manufactured from backing material composed of metal (10 gage steel or 0.156" thick flat sheet aluminum) or 3/4" thick exterior type fir plywood.

The sign posts shall be 4"x 6", commercial grade treated or untreated wood sign posts.

COLOR:

The front, back and all edges of the sign shall be painted one coat of white prime followed with two coats of semi-gloss white enamel.

The legend on the sign face shall be black semi-gloss enamel. All enamels shall be opaque and of a good exterior quality.

INTERSTATE SHIELD:

The Interstate Shield showing the correct Interstate Route Number shall be furnished by the RESIDENT ENGINEER. The Interstate Shield shall be mounted in the proper location on the sign face by the CONTRACTOR with two 5/16" carriage bolts.

LEGEND AND INTERLINE SPACING:

All legend except 'Bureau of Public Road' shall be series 'C' alphabet as specified in The Standard Alphabets for Highway Signs. The legend 'Bureau of Public Roads' shall be modified series 'E' upper and lower case as specified in The Manual for Signing and Pavement Marking of the National System of Interstate and Defense Highways (1961 Edition). Interline spacing shall be as specified on the above layout.

VARIABLE DIMENSIONS ON SIGN LAYOUT:

The center of the line showing the amount of money rounded to the nearest $1,000 shall coincide with the center of the line directly above.

FASTENERS

All bolts, nuts and washers shall be electroplated with zinc or cadmium. Bolts to fasten sign to sign post shall be 3/8" in diameter and of sufficient length to fasten sign to sign posts. Bolts to fasten Interstate Shield to sign face shall be carriage bolts 5/16" in diameter and of sufficient length to fasten shield to sign.

LOCATION OF SIGNS:

The signs shall be erected within the highway right of way at locations designated on this sheet or as directed by the Engineer. The sign shall face approaching traffic and be located so as not to obsure or detract from the effectiveness of other official highway signs and markers.

SIGNS BY Grading CONTRACTOR

	Number Required
Furnish & Install new signs	2
Revise Existing in place signs	
Remove, Revise & Reset in place signs	
Revise & Install signs furnished by State	

Right or Left of Centerline	LOCATION (Station No.)
Rt.	294+
Lt.	417+

NO	DATE	REVISIONS	BY	APP'D
4	11-27-67	CHG. LATERAL DISTANCE OF SIGNS	E.V.	J.F.B.
3	9-1-67	ADD "FEDERAL HIGHWAY ADMIN." INCREASE HEIGHT OF SIGN ONE FOOT	E.V.	J.F.B.
2	4-19-67	CHANGE "COMMERCE" TO "TRANSPORTATION"	E.V.	J.F.B.
1	4-30-64	REVISED DIMENSIONS ON COPY LENGTH AND ADDED WORD "WHITE" TO COLOR NOTE	JGR	JFB

STATE HIGHWAY COMMISSION OF KANSAS

CONSTRUCTION IDENTIFICATION SIGNS FOR INTERSTATE HIGHWAY PROJECTS

STD. NO. 746.1 (1) 2-6-64

SHEET NO.	OF	SCALE	APP'D	
DESIGNED JGR		DETAILED JGR	QUANTITIES	TRACED CJF
DESIGN CK JFB		DETAIL CK JFB	DRAW. CK.	TRACE CK JGR

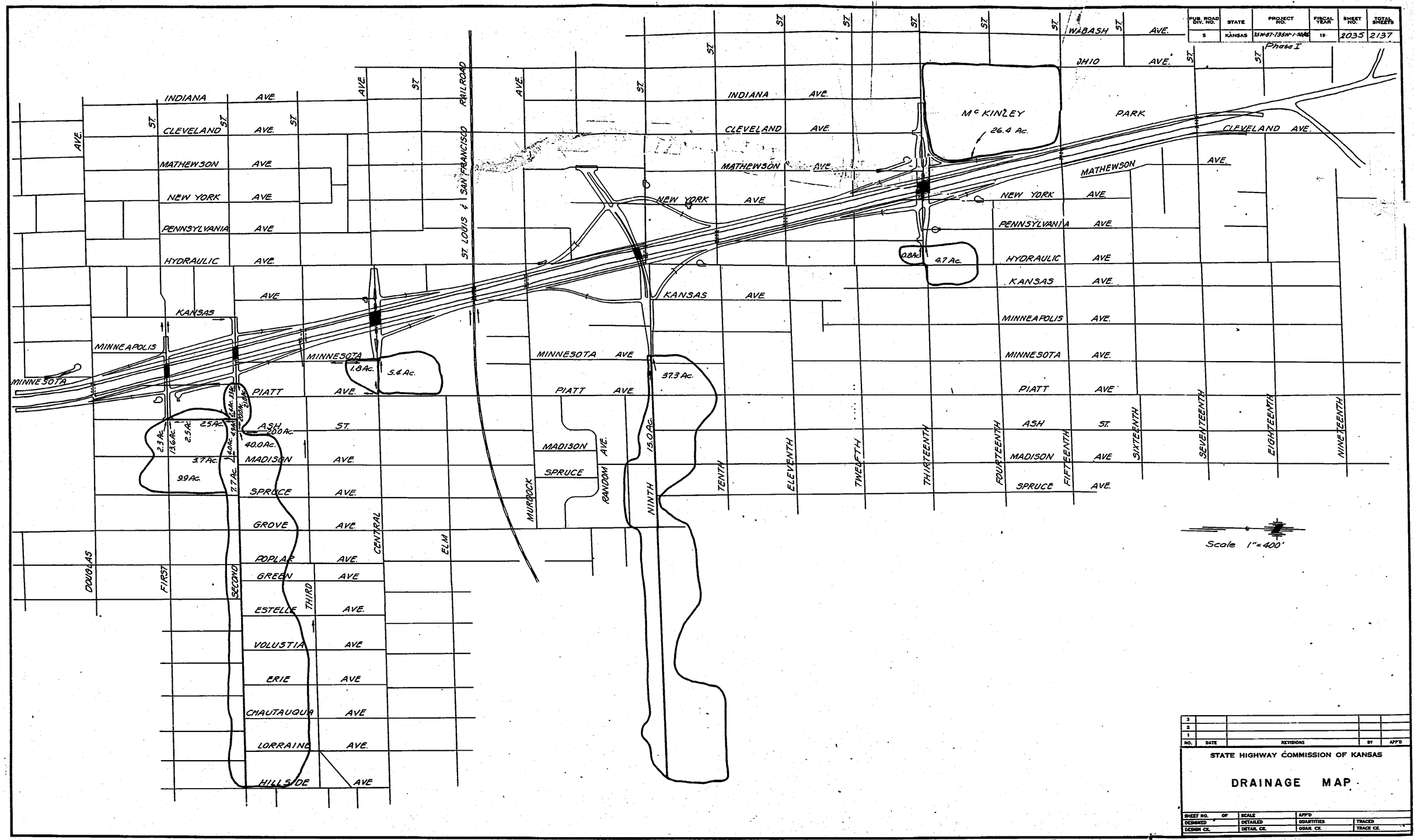
DIST. 5 SEDGWICK CO. ROLL 531

4 7 6

16X 14.5X 12X 12X 14.5X 16X 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35W-87-135W-1-22	19	2035	2137

Phase I



NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

DRAINAGE MAP

SHEET NO. OF	SCALE	APP'D	
DESIGNED	DETAILED	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 7 7

16X 14.5X 12X 12X 14.5X 16X 20X

MICROFILMED PLAN RECORD

Supplement No. 13 Date 9-4-79 District 5 Card 15

County SEDGWICK Rte. & Co. 87 Project No. T 4004 (3)

Tracing Dr. No. ---- Approx. Length 0.484 Mi. or Ft. Year 2/76

Location PAWNEE & SENECA INTERSECTION IN WICHITA

Type of Construction GRADING, SURFACING, SEEDING AND SODDING

Remarks AS BUILT PLANS — 70
OFFICIAL SHEETS — 1

MICROFILM RECORD

First Frame No. 478 Last Frame No. _____ Roll No. ROLL 531

STATE OF KANSAS

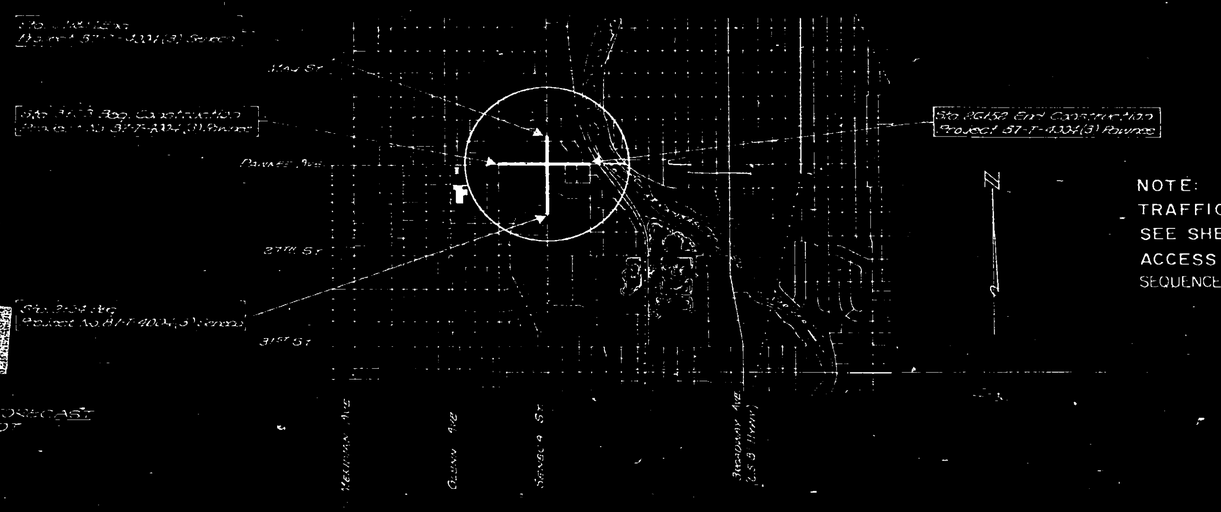
STATE HIGHWAY COMMISSION

FUR ROAD CLASS NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
X	KANSAS	87-4004(3)	1974	1	77

PLAN OF PROPOSED STREET IMPROVEMENTS
PAWNEE AND SENECA INTERSECTION

FEDERAL AID PROJECT-TOPICS
87-T-4004(3)
SEDGWICK COUNTY

GRADING
SURFACING
SEEDING & SODDING



NOTE:
TRAFFIC TO BE CARRIED THROUGH CONSTRUCTION.
SEE SHEET NO. 61 FOR REQUIREMENTS CONCERNING ACCESS TO COMMERCIAL PROPERTIES AND CONSTRUCTION SEQUENCE

TRAFFIC FORECAST
19 2 4 5

GROSS LENGTH OF PROJECT 2555.4 FT. 0.484 MILES
EXCEPTIONS None
NET LENGTH 2555.4 FT. 0.484 MILES

PLANS PREPARED BY
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
CITY OF WICHITA, KANSAS
R. L. FINN, CITY ENGINEER

RECOM. FOR APPROVAL DATE
W. H. Dyer
ENGINEER OF DESIGN
STATE HIGHWAY COMMISSION OF KANSAS

RECOM. FOR APPROVAL DATE
ENGINEER
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

APPROVED DATE APR 26 1974
John D. McNeal
STATE HIGHWAY ENGINEER
STATE HIGHWAY COMMISSION OF KANSAS

APPROVED DATE
DIVISION ENGINEER
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

DIST. 5 SEDGWICK CO. ROLL 531

478

16X 14.5X 12X 12X 14.5X 16X

[redacted]

MICROFILMED PLAN RECORD
Subdivision 13 Date 9-4-79 Drawer 5 Case 15
County SEDGWICK Rte. & Co. 87 Project No. T-4004(3)
Approx. Length 0.484 Mi. Scale 1" = 276'
Name PAWNEE & SENECA INTERSECTION IN WICHITA
Description GRADING, SURFACING, SEEDING AND SODDING
AS BUILT PLANS - 70
OFFICIAL SHEETS - 1
MICROFILM RECORD
4 C 3 ROLL 531

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1974	1	79

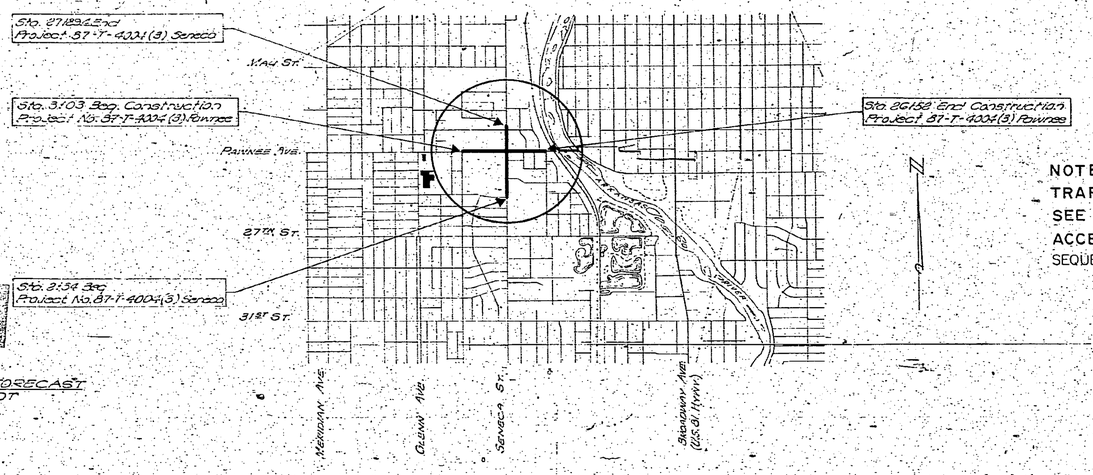
STATE OF KANSAS

STATE HIGHWAY COMMISSION

GRADING
SURFACING
SEEDING & SODDING

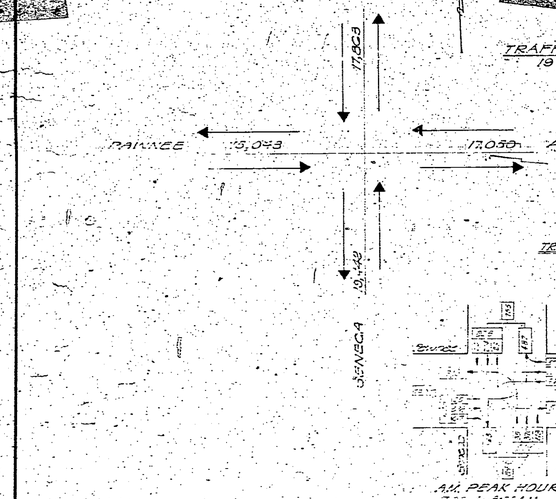
PLAN OF PROPOSED STREET IMPROVEMENTS
PAWNEE AND SENECA INTERSECTION

FEDERAL AID PROJECT-TOPICS
87-T-4004(3)
SEDGWICK COUNTY

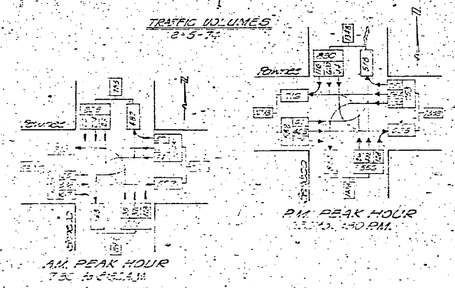


NOTE:
TRAFFIC TO BE CARRIED THROUGH CONSTRUCTION. SEE SHEET NO. 61 FOR REQUIREMENTS CONCERNING ACCESS TO COMMERCIAL PROPERTIES AND CONSTRUCTION SEQUENCE.

TRAFFIC FORECAST
1972 ADT



TRAFFIC VOLUMES
2-3-72



GROSS LENGTH OF PROJECT ——— 2555.4 FT
EXCEPTIONS ——— None
ADDITIONS ——— None

NET LENGTH OF PROJECT	2555.4 FT.	0.484 MILES
NET LENGTH OF BRIDGES	0.0 FT.	0.000 MILES
NET LENGTH OF ROAD	2555.4 FT.	0.484 MILES

PLANS PREPARED BY
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
CITY OF WICHITA, KANSAS
R. W. LINN, CITY ENGINEER

RECOM. FOR APPROVAL DATE
W. H. Ogan
ENGINEER OF DESIGN
STATE HIGHWAY COMMISSION OF KANSAS

APPROVED DATE APR 25 1974
Wm. D. McNeal
STATE HIGHWAY ENGINEER
STATE HIGHWAY COMMISSION OF KANSAS

RECOM. FOR APPROVAL DATE
ENGINEER
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

APPROVED DATE
DIVISION ENGINEER
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

[redacted]

DIST. 5 SEDGWICK CO. ROLL 531

4 7 8

INDEX OF SHEETS

SHEET NO.

1 —— TITLE SHEET
2 —— TYPICAL CROSS-SECTIONS
3-7 —— RIGHT OF WAY PLANS (SENECA AVE.)
8-12 —— PLAN DETAILS (SENECA AVE.)
13-17 —— PAVING DETAILS (SENECA AVE.)
17 —— CONCRETE RETAINING WALL DETAILS
18-22 —— RIGHT OF WAY PLANS (PAWNEE AVE.)
23-27 —— PLAN DETAILS (PAWNEE AVE.)
28-32 —— PAVING DETAILS (PAWNEE AVE.)
33-35 —— STORM SEWER PLANS
36-40 —— TRAFFIC LANE MARKINGS (SENECA AVE.) BY OTHERS
41-45 —— TRAFFIC LANE MARKINGS (PAWNEE AVE.) BY OTHERS
46 —— TRAFFIC LANE TYPICALS (PAWNEE & SENECA) BY OTHERS
47 —— CONCRETE PAVEMENT DETAILS (2) LANE WIDTH
48 —— CONCRETE PAVEMENT AUXILIARY DETAILS - I
49 —— CONCRETE PAVEMENT AUXILIARY DETAILS - II
50 —— CONTRACTION & EXPANSION JOINT DOWEL ASSEMBLIES (ASPHALTIC TYPE)
51 —— TRANSVERSE PAVEMENT JOINTS - CONTRACTION JOINT DOWEL & EXPANSION JOINT DOWEL ASSEMBLIES (LACLEDE TYPE)
52 —— CONCRETE ALLEY & ENTRANCE PAVEMENTS - SIDEWALK & STEPS
53 —— CONCRETE DRIVE APPROACHES & ALLEY RETURN DETAILS - CONCRETE BASE TRANSITION ABUTTING EXISTING PAVEMENT
54 —— CURB, GUTTER AND COMBINED CURB & GUTTER DETAILS
55 —— SCHEDULE INLETS AND MANHOLES
56 —— SPECIAL TYPE "A" CURB INLET
57-61 —— SUMMARY OF QUANTITIES & RECAPITULATION OF ROAD QUANTITIES
62 —— CEMENT TREATED SUB-GRADE-ASPHALTIC CONCRETE
63 —— EROSION CONTROL SEEDING, SODDING SUMMARY OF SEEDING QUANTITIES
64 —— SPACING OF BERMUDA GRASS PLUGS & SOD ROOTS
65 —— SIGNAL INSTALLATION - PAWNEE & SENECA INTERSECTION - BY OTHERS
66 —— TYPICAL INSTALLATION DETAIL SHEET (SIGNALIZATION) - BY OTHERS
67 —— TRAFFIC CONTROL DEVICES FOR CONSTRUCTION WORK ADJACENT TO ROADWAY AND MINOR SURFACING WORK (2) & (4) LANE HIGHWAY
68 —— CONSTRUCTION TRAFFIC CONTROL DEVICES & LOCATIONS FOR A (4) LANE DIVIDED HIGHWAY - ONE ROADWAY CLOSED
69 —— CONSTRUCTION TRAFFIC CONTROL DEVICES & LOCATIONS: SIGNS, BARRICADES, PORTABLE FLASHER SUPPORTS & DRUMS
70-74 —— CROSS-SECTIONS FOR SENECA AVENUE
75-79 —— CROSS-SECTIONS FOR PAWNEE AVENUE

STATE OF KANSAS

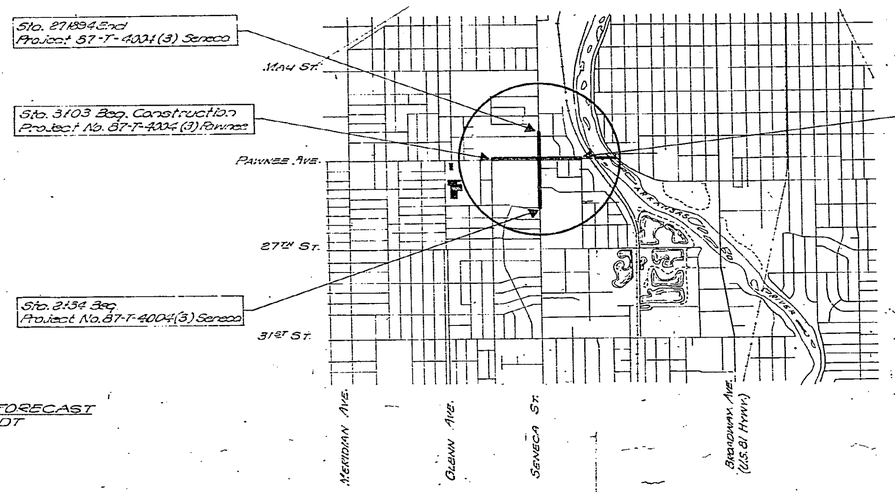
STATE HIGHWAY COMMISSION

Completed Construction Plans
87T4004(3) As Constructed
Prepared By [signature] 2-4-77
Field Engineering Administrator

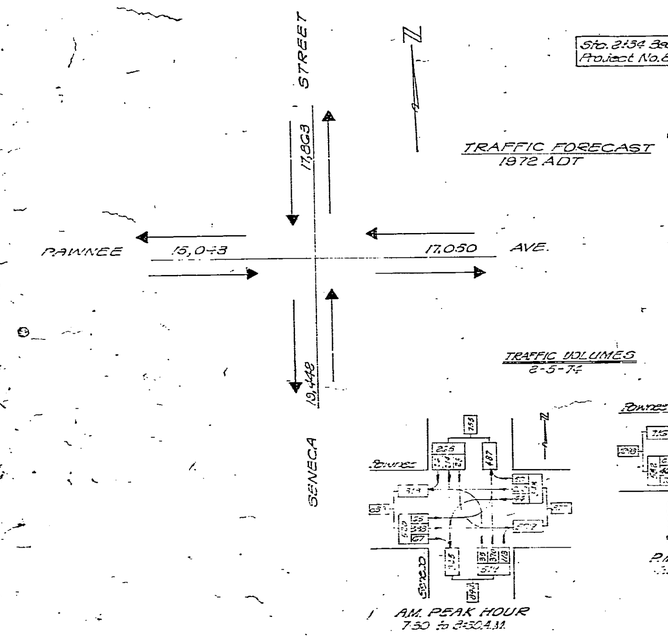
GRADING
SURFACING
SEEDING & SODDING

PLAN OF PROPOSED STREET IMPROVEMENTS
PAWNEE AND SENECA INTERSECTION

FEDERAL AID PROJECT-TOPICS
87-T-4004(3)
SEDGWICK COUNTY



NOTE:
TRAFFIC TO BE CARRIED THROUGH CONSTRUCTION. SEE SHEET NO. 61 FOR REQUIREMENTS CONCERNING ACCESS TO COMMERCIAL PROPERTIES AND CONSTRUCTION SEQUENCE.



GROSS LENGTH OF PROJECT	2555.4 FT.	
EXCEPTIONS	None	
ADDITIONS	None	
NET LENGTH OF PROJECT	2555.4 FT.	0.484 MILES
NET LENGTH OF BRIDGES	0.0 FT.	0.000 MILES
NET LENGTH OF ROAD	2555.4 FT.	0.484 MILES

35MM - MICROFILMED
YR. 79
ROLL #531 FR: 478

PLANS PREPARED BY
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
CITY OF WICHITA, KANSAS
R. W. LINK, CITY ENGINEER

RECOM. FOR APPROVAL DATE [redacted]
ENGINEER OF DESIGN
STATE HIGHWAY COMMISSION OF KANSAS

APPROVED DATE [redacted]
STATE HIGHWAY ENGINEER
STATE HIGHWAY COMMISSION OF KANSAS

RECOM. FOR APPROVAL DATE [redacted]
ENGINEER OF [redacted]
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF [redacted]

APPROVED DATE [redacted]

DIST. 5 SEDGWICK CO. ROLL 531

4 7 9

16X 14.5X 12X 12X 14.5X 16X 20X

87 T 4004 (3)
Sedgwick County

BENCH MARKS

B.M. No.	Adjusted Elevation	Description
1	103.50	Seneca Street Sta. 2 + 85, 52' Rt. NW Corner of "Sound Circus" sign base
2	101.44	Sta. 9 + 25, 55' Rt. NW Corner of conc. sign base - FINA
3	100.20	Sta. 9 + 35, 40' Rt., "B" in Globe, S. Cb. Savannah @ Seneca
4	104.20	Sta. 14 + 26, 52' Rt. Top of NW Gas meter guard post.
5	103.60	Sta. 16 + 92, 65' Rt. South end of North pump island
6	103.73	Sta. 18 + 52, 50' Rt. SW Corner of conc. sign base - Phillips "66"
7	104.18	Sta. 18 + 93, 65' Lt. North end of pump island - Texaco Service Station
8	104.28	Sta. 21 + 25, 50' Lt. Top of SE bolt in conc. sign base
9	105.22	Sta. 24 + 25, 54' Rt. SW Corner of sign base - West Church of the Nazarene
10	105.40	Sta. 28 + 55, 51' Rt. Top of gas meter, 2230 S. Seneca
11	102.06	Sta. 1 + 02, 65' Rt. NE Corner of bottom conc. step house 1503 Pawnee
12	101.85	Sta. 1 + 65, 55' Rt. N. bolt on fire hydrant - Elizabeth & Pawnee
13	101.65	Sta. 4 + 64, 39' Rt. N. bolt on fire hydrant - West Westway entrance
14	101.08	Sta. 8 + 08, 55' Lt. SW corner of conc. base gas meter - Red Carpet
15	102.92	Sta. 12 + 25, 50' Lt. SW Corner of conc. sign post - Shakey's Pizza
16	102.74	Sta. 18 + 91, 50' Lt. SW Corner of conc. light base
17	102.92	Sta. 19 + 09, 45' Rt. N. Bolt on fire hydrant - Walnut & Pawnee
18	102.04	Sta. 23 + 01, 45' Rt. N. Bolt on fire hydrant - Handley & Pawnee
19	99.43	Sta. 26 + 17, 45' Rt. N. bolt on fire hydrant - Osage & Pawnee

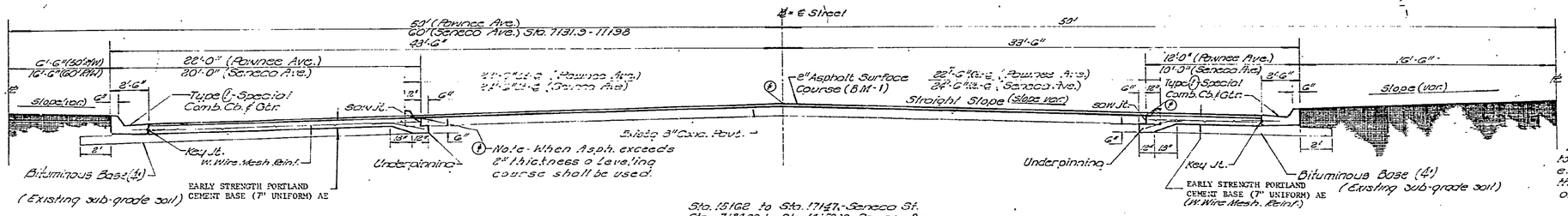
DIST. 5 SEDGWICK CO. ROLL 531

4 8 0

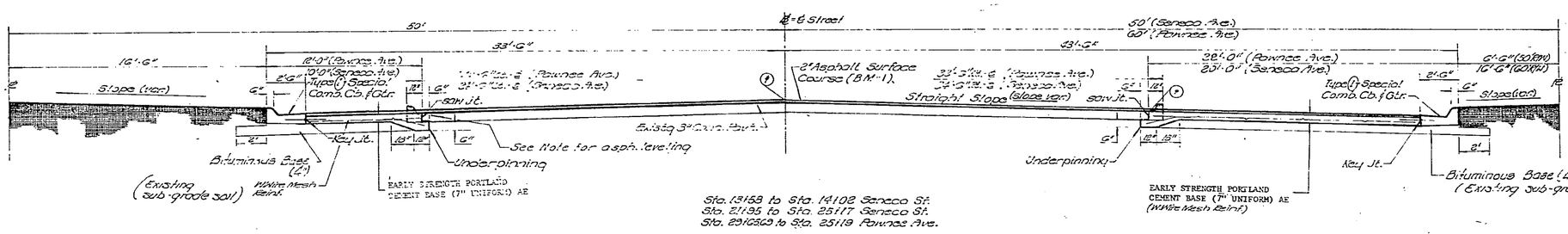
16X 14.5X 12X 12X 14.5X 16X 20X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1974	2	79

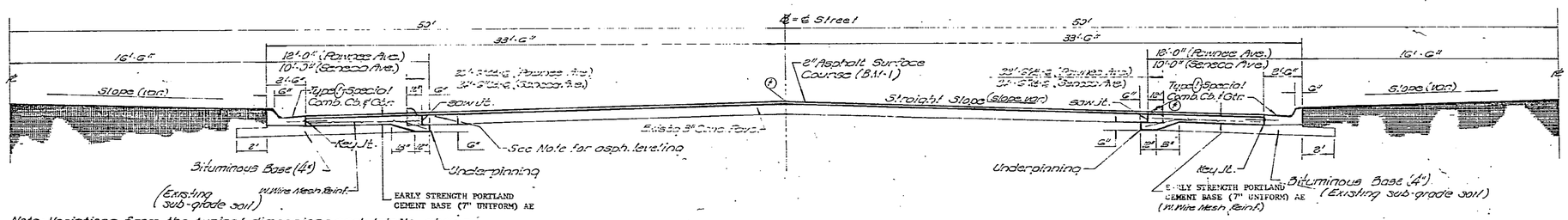
Sta. 7131.9 to Sta. 11198 - Seneca St.
Sta. 18153 to Sta. 20150 - Seneca St.
Sta. 15161.9 to Sta. 18+28.69 - Pawnee Ave.



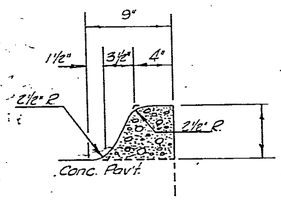
Sta. 15162 to Sta. 17+87 - Seneca St.
Sta. 7132.69 to Sta. 14+32.09 - Pawnee Ave.



Sta. 13+58 to Sta. 14+02 Seneca St.
Sta. 21+95 to Sta. 25+17 Seneca St.
Sta. 29+03.69 to Sta. 25+19 Pawnee Ave.



Note - Variations from the typical dimensions and details shown here are indicated on the plan sheets.



VARIABLE EDGE CURB (Special) (AE) DETAIL

Note - The Turf Shoulders shall be compacted full depth (Type B) - (11.2-5), except when ordered by the Engineer. The top (3") shall be left uncompacted for seeding. Bituminous Base (4") to be stabilized in place.

(*) Varies from (6") @ juncture of comb curb and gutter to (0") at Right of Way line for alleys and to (0") at front edge walk section in driveways.

PAWNEE AND SENECA

NOTE: WIRE MESH REINFORCEMENT FOR CONCRETE BASE SHALL CONFORM TO THE SAME REQUIREMENTS AS SPECIFIED FOR CONCRETE PAVEMENT. WIRE MESH TO BE PLACED 2½" BELOW THE TOP OF THE CONCRETE BASE. CONTRACTION JOINTS SHALL BE CONSTRUCTED IN THE CONCRETE BASE BY SAWING A 3/8" X 1 1/2" JOINT PERPENDICULAR TO THE CENTERLINE. CONTRACTION JOINTS IN THE CONCRETE BASE ARE TO BE CONSTRUCTED ADJACENT TO AND ON LINE WITH JOINTS IN EXISTING CONCRETE PAVEMENT. WIRE MESH SHALL EXTEND THROUGH THE SAWED CONTRACTION JOINTS. LOAD TRANSFER BARS WILL NOT BE REQUIRED IN CONTRACTION JOINTS IN THE CONCRETE BASE. EXPANSION JOINTS ARE NOT TO BE CONSTRUCTED IN THE CONCRETE BASE. THE CONSTRUCTION OF ALL JOINTS IN THE CONCRETE BASE SHALL BE CONSIDERED AS SUBSIDIARY WORK. ALL SAWED JOINTS SHALL BE FILLED WITH ASPHALTIC MATERIAL IDENTICAL TO THAT WHICH IS TO BE USED FOR THE ASPHALTIC OVERLAY.

◆ GENERAL NOTE ◆

Encroachments such as fences, buildings, telephone, telegraph and power lines, hedges, shrubs, flower beds, etc. shall be removed by owner. In the interest of public safety all gas, gasoline, & oil lines shall be moved beyond the limits of the roadbed unless special provision for their retention has been made.

Special care shall be taken at all locations where pipe lines fall within the limits of construction.

All water lines less than (3') below the surfaces of the proposed grade, or lines not constructed of lead, copper, cast iron or wrought iron, or pipes not in good condition shall be lowered, replaced, or moved beyond the limits of the roadbed by the owner.

All underground utilities shall be placed in good condition and adjusted to fit the new construction by the owners unless otherwise noted on plans.

Utility poles may be set at the permanent locations prior to construction as approved by the Engineer, provided a minimum vertical clearance of (19') is obtained. The contractor will be required to work around these poles to completed the work.

All trees and stumps to be grubbed and marked thus (X) spare all trees not marked.

All unsuitable common excavation and rock excavation shall be wasted on sites provided by the contractor. These sites shall be approved by the Engineer as to suitability, appearance, and location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved.

All borrow material to be obtained from areas provided by the Contractor shall be approved by the Engineer, both as to suitability of materials and site location. Locations that in the opinion of the Engineer will leave an unsightly appearance on this project will not be approved.

The extent of work necessary to adjust roof or yard drains to match new construction shall be as determined by the Engineer. All new pipe & fittings furnished by the Contractor for connection of drains shall be cast iron, thickness class 22, pressure class 50 psi, w/ rubber gaskets & mechanical joints. Pipes installed through curbs to be (4") dia., all other drains on street R/W that are not cast iron or that otherwise are not in good condition shall be removed and replaced w/ new cast iron pipe and fittings. The adjustment, removal & installation of all roof or yard drains to match new construction, including cost of all materials, shall be considered subsidiary work.

The removal of sewer pipes, inlets, Manholes, plugging existing leads shall be paid for at the lump sum price bid for "Removal of Existing Structures."

All lines of removal that do not terminate at a joint shall be sawed to neat lines. Sawing of existing pavement to facilitate removal shall be considered as subsidiary work. Sidewalks shall be removed to the nearest joint where possible.

All utilities will be adjusted during construction.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

TYPICAL CROSS-SECTIONS

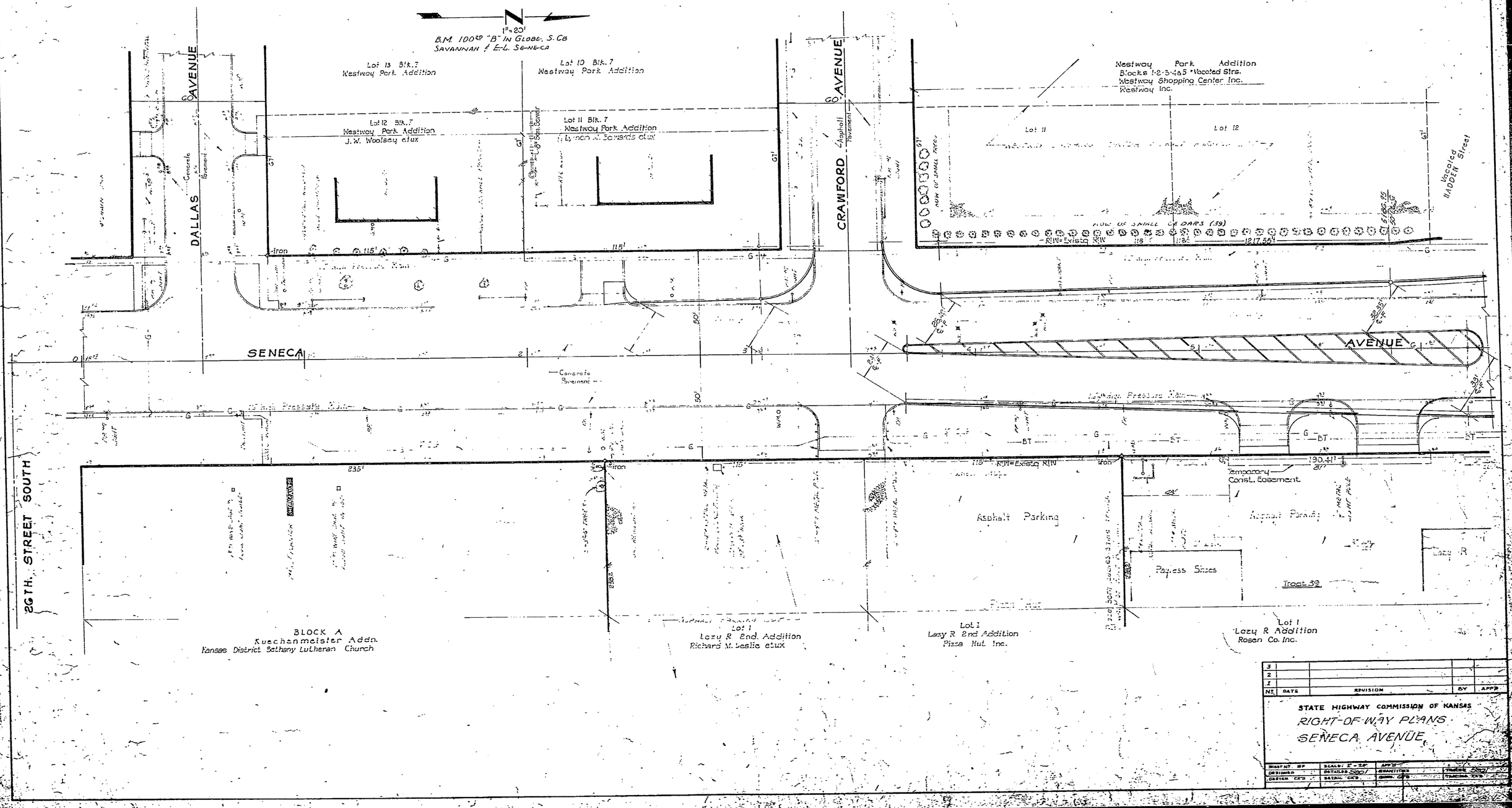
SHEET NO. OF	SCALE .1000	APP'D	
DESIGNED SDO	DETAILED SDO	QUANTITIES	TRACED - SDO
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACE CK.

DIST. 5 | SEDGWICK CO. | ROLL 531

4 8 1

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	SHEETS
5	KANSAS	87-T-4004(3)	1974	3	79



DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 8 2

16X 14.5X 12X 12X 14.5X 16X 20X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	97-T-4004(3)	1974	4	79

N

1"=20'

B.M. 100± "B" IN GLOBE, S.Co.
SAVANNAH @ E.L. SENECA

Westway Park Addition
Blocks 1, 4 and 5
also Vacated Strs.

Westway Shopping Center Inc. +
Westway Inc.

Tract 16

Lot 10 Blk. 5 Vac. Westway Park Addition

Vacated HADDEN STREET 60'

Lot 11 Blk. 4 Vac. Westway Park Addition

Lot 12 Blk. 4 Westway Park Addition (Vac.)

Vacated SAVANNAH STREET

Lot 25 - Blk. 1 Westway Park Addition (Vac.)

Vacated Alley R/W

SENECA AVENUE

SAVANNAH AVE.

Temporary Const. Easement

R/W = Existg R/W

SMALL CEDAR BUSHES (TYP.)

Tract 39

Tract 38

Tract 37

Tract 36

Tract 35

Tract 34

Lot 1
Lazy R Addition
Rosen Co. Inc.

Ted G. Scheer et ux

Reserve A
Scheer's Addition

American Petrofina Co. of Texas

Reserve B
Scheer's Addition

James W. Thompson et ux and
Carl R. Hines

Lot 4, Blk. 1
Leonard Powell Addition

Eugene Cumley
% Chett Posey 2460 So. Seneca

Lot 3, Blk. 1
Leonard Powell Addition

G.C. Hammer
2434 So. Seneca

NO.	DATE	REVISION	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
RIGHT-OF-WAY PLANS
SENECA AVENUE

SHEET NO. OF	SCALE: 1"=20'	APP'D
DESIGNED	DETAILED SCD	REVISED
DRAWN CKD	CHK'D CKD	CHK'D CKD

TRACED SCD
TRACING CKD

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 8 3

16X 14.5X 12X 12X 14.5X 16X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	BT-T-4004(9)	1974	5	79

Revised
10-25-74

RECEIVED
JAN 16 1975
RIGHT OF WAY DEPT.
KANSAS HIGHWAY COMMISSION

N
1"=20'

B.M. 103rd Std. @ N.E. Cor.
Seneca & Pawnee

Westway Park Addition
Blks. 1-2-3-4 & 5
+ Vacated Streets

Westway Shopping Center Inc
and Westway Inc.

Tract 16

Garlock Addition
Blk. A

J. Ernest Talley

Tract 17

W. Carter Goodpasture, Tr.
for Ann Carter Hewitt, dcsd.

Granted
Temporary
Const. Easement

Temporary
Const. Easement

Row of Cedar Trees

1217.55'

SENECA

AVE.

ST.

16" High Pressure Main

6" ILP

Planter

Iron

R/W-Existg R/W

Temporary
Const. Easement

Modern
Light Pole

30" x 8" Metal
Sign Post

2 Sign Post
1 Arrow Sign

Asphalt
parking

Tract 34

Lot 5 Blk. 1
Leonard Powell Addition
G.C. Hammer etux
2434 So. Seneca

Tract 35

Lot 2
Leonard Powell Addition
G.C. Hammer etux
2434 So. Seneca

Vacated 20' Alley

Part of Lot 1
Leonard Powell
2nd Addition

Tract 33

4th. Natl. Bank & Tr. Co.
% Ivan Dizzell
216 E. Ontario
Chicago, Ill.

Tract 32

Lot 1
Sandlian 6th. Addition
Richard M. Leslie

Tract 31

Ruby J. Smith etvir
R.E. Ray & Grace Hall Ray
% J.O. Smith
200 W. Douglas

MacDonald's
- Hamburgers

Leonard Powell 2nd Addition
Lot 1

Tract 13

John F. Reardon
% Sun Ray Oil Co.
Box 2039
Tulsa, Okla.

Overhead
Canopy

Concrete
Drive

Underground Tanks

Temporary
Const. Easement

R/W-Existg R/W

PAWNEE

Iron in
Thimble

3	Plans	Construction Easement	
2			
1			
No.	DATE	REVISIONS	BY

STATE HIGHWAY COMMISSION OF KANSAS
RIGHT-OF-WAY PLANS
SENECA AVENUE

DIST. 5 SEDGWICK CO. ROLL 531

4 8 4

16X 14.5X 12X 12X 14.5X 16X 20X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1974	6	79

N
1"=20'

B.M. 103.69 STANDARD @ N.E. COR. SENECA & PAWNEE

AVENUE

50'

Asphalt parking

C/L R/W=existg R/W

W. H. Rax
Elcanado, Ks.

Tract 7

Kerr-McGee Oil Industries Addition
Blk. A
Oklahoma Stations Inc.

Tract 18

Hank Kuykendall
Kerr-McGee Corp.
Kerr-McGee Bldg.
Okla. City, Okla.

Meyers Garden's Addition
Lot 4
Lester M. James etux

Tract 19

Meyers Garden's Addition
Lot 3

Tract 20

Meyers Garden's Addition
Lot 2

Tract 21

Meyers Garden's Addition
Lot 1
Mark Y. Blum Jr. - M. M. Hammer
Laurance R. Davis - Melvin L. Davis
Keith David Stevens

Tract 22

Temporary Const. Easement

R/W=Existg R/W

4' Walk

SENECA AVENUE

60-21-30

18 iron in thimble

PAWNEE

Temporary Const. Easement

Schollmo Addition
Lot 6, Blk. A
Elmer E. McKay

Tract 8

Tract 30

M and B Addition
Blk. 1
M and B Investment Inc.

Tract 29

Part of Govt. Lot 3
West Side Church Of The Nazerene

20' ALLEY

Midland Villa Addition
Lot 3 Lot 2 Lot 1
West Side Church of the Nazerene

Nazarene Church

PHILLIPS 66 Service Station

Pump Island

concrete walk

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
RIGHT-OF-WAY PLANS
SENECA AVENUE

SHEET NO.	SCALE 1" = 20'	APP'D	
DRAWING	DATUM: MSL	SURVEYING	TRAFFIC COUNT
BASED ON	VERTICAL CNTL	GRAV. CNTL	SURFACING CNTL

DIST. 5 SEDGWICK CO. ROLL 531

4 8 5

16X 14.5X 12X 12X 14.5X 16X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1974	7	79

B.M. 1034.5 Standard @ N.E. Cor Seneca & Pawnee

HASKELL AVE.

Hugh Spencer's Addition Lot 1

Renolle 7th Addition Lot 1

Bedburn Addition Lot 1

Hugh S. Stevens etux

Taco Grande Inc.

A.L. Bedburn

Mayoroff Meyer's Garden's Lot 1

Mark V. Blum Jr. M.M. Hammer
Lawerence R. Davis
Melvin L. Davis
Keith Davis Stevens

Tract 22

Tract 23

Tract 24

Tract 25

Temporary Const. Easement

RIW

4' Chain Link

Overhead Elec.

SENECA

AVENUE

4" I.L.P.

Tract 29

Tract 27

Tract 26

Midland Villa Addition Lot 1

West Side Church of the Nazarene

Lloyd E. Nichol's Addition Lot 5 - Blk. B

B.F. McAlaster etux

Both cables within freeway fence 7' West of East R/W line

Unplatted

Richard Dean Venatta etux

Lloyd E. Nichol's Addition Lot 3 - Blk. B

Lloyd E. Nichols etux

GO'

NO	DATE	REVISIONS	BY	APP'D
4				
3				
2				
1				

STATE HIGHWAY COMMISION OF KANSAS

RIGHT-OF-WAY PLANS

SENECA AVENUE

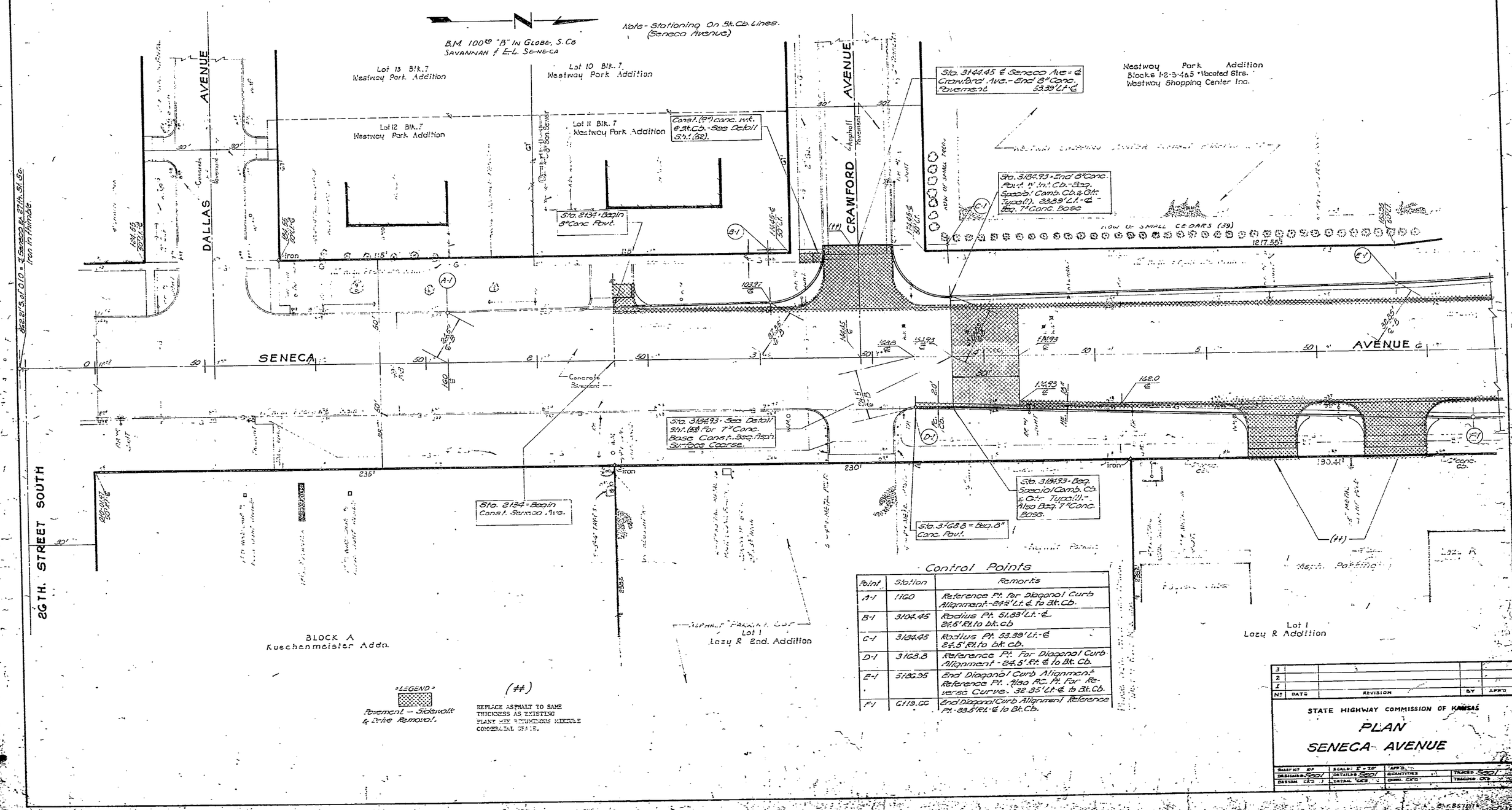
SHEET NO. OF	SCALE: 1"=20'	APP'D	
DESIGNED	DETAILED	QUANTITIES	TRACED
DRAWN CKD	DETAIL CKD	CHKD CKD	TRACING CK'D

DIST. 5 SEDGWICK CO. ROLL 531

4 8 6

16X 14.5X 12X 12X 14.5X 16X

FHWA No.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1974	8	79



Control Points

Point	Station	Remarks
A-1	1160	Reference Pt. for Diagonal Curb Alignment - 84.5' Lt. ℄ to Bk. Cb.
B-1	3102.45	Radius Pt. 51.83' Lt. ℄ 24.5' Rt. to bk. cb
C-1	3134.95	Radius Pt. 53.39' Lt. ℄ 24.5' Rt. to bk. cb.
D-1	3168.8	Reference Pt. For Diagonal Curb Alignment - 24.5' Rt. ℄ to Bk. Cb.
E-1	5186.95	End Diagonal Curb Alignment Reference Pt. Also P.C. Pt. For Reverse Curve. 32.85' Lt. ℄ to Bk. Cb.
F-1	6119.66	End Diagonal Curb Alignment Reference Pt. 39.5' Rt. ℄ to Bk. Cb.

No.	DATE	REVISION	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

PLAN

SENECA AVENUE

SHEET NO. 8 OF	SCALE: 1" = 20'	APP'D	
DESIGN R. Seal	DETAILS Seal	QUANTITIES	TRACED Seal
DESIGN CK'D	SERIAL CK'D	COMM. CK'D	TRACING CK'D

DIST. 5 SEDGWICK CO. ROLL 531

4 8 7

16X 14.5X 12X 12X 14.5X 16X 20X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4009(3)	1976	9	79

N

B.M. 100Ω "B" In Globe, S. Co.
Savannah @ E.L. Seneca

Westway Park Addition
Blocks 1, 4 and 5
also Vacated Strs.

"Reverse Curve"

Sta. 5186.95'	Sta. 6153.88
Δ = 6°45'50"	Δ = 7°53'03"
R = 569.10'	R = 569.10'
T = 33.63'	T = 39.22'
L = 67.18'	L = 78.32'
L.C. = 67.14'	L.C. = 78.26'

Sta. 9151.76-℄=℄ Of Major Shopping Center Approach. 60' L.A.-℄-Shopping Center to Const.: Cb. & Medial Behind Wes.: R'W. See Detail Sh.: (69).

SMALL CEDAR BUSHES (TYP.)

SENECA AVENUE

SAVANNAH AVE.

Sta. 6132-Adjust existg drain to match new Flo. Line of gutter.

Lot 1
Lazy R Addition

Reserve A
Scheer's Addition

Reserve B
Scheer's Addition

Lot 4, Blk. 1
Leonard Powell Addition

Lot 3, Blk. 1
Leonard Powell Addition

Sta. 9151.76-℄=℄ Savannah Ave.
End Remov.: 53' Rt.-℄
Construct Street Return W/ 7" Concrete
Match Existg Pvmt.

Control Points

Point	Station	Remarks
E-1	5186.95	End Diagonal Curb Alignment Reference Pt. -1.50' Rt. Pt. Reverse Curve. 22.51' L.-℄
F-1	5195.36	End Diagonal Curb Alignment Reference Pt. -33.5' Lt.-℄ to Bk. Cb.
G-1	6153.88	P.R.C. Reference Pt. -38.12' Lt.-℄ to Bk. Cb.
H-1	7131.95	P.T. Reference Pt. -Reverse Curve 43.5' Lt.-℄ to Bk. Cb.
I-1	9116.76	Radius Pt.-56.0' Lt.-℄-12.5' to Bk. Cb.
J-1	9119.76	Radius Pt.-50.0' Rt.-℄-16.5' to Bk. Cb.
K-1	9186.76	Radius Pt.-56.0' Lt.-℄-12.5' to Bk. Cb.
L-1	9189.76	Radius Pt.-50.0' Rt.-℄-16.5' to Bk. Cb.
M-1	11193.0	P.C. -Reference Pt. -Reverse Curve 43.5' Lt.-℄ to Bk. Cb.

(##) REPLACE ASPHALT TO SAME THICKNESS AS EXISTING
PLANT MIX BITUMINOUS MIXTURE COMMERCIAL GRADE

LEGEND
Pavement-Sidewalk & Drive Removal

NO.	DATE	REVISION	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

PLAN
SENECA AVENUE

SHEET NO. OF | SCALE: 1" = 20' | APP'D
DESIGNED [illegible] | DETAILED [illegible] | QUANTITIES | TRACED [illegible]
DRAWN CCD | DETAIL CCD | QUAN. CCD | TRACING CCD

DIST. 5 SEDGWICK CO. ROLL 531

4 8 8

16X 14.5X 12X 12X 14.5X 16X 20X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1974	10	79

N

B.M. 1034 Std. @ N.E. Cor. Seneca & Pawnee

"Reverse Curve"
Δ = 7°09'11"
R = 642.50'
T = 40.16'
L = 80.21'
LC = 80.16'

Westway Park Addition
Blks. 1-2-3-4 & 5
+ Vacated Streets

Garlock Addition
Blk. A

AVE.

SENECA

ST.

PAWNEE

Construction in Intersection of Pawnee & Broad Included in Pawnee Ave. Const. Plans

Note: Remove & Replace thimble to match top of new asph.

Sta. 10+00 Seneca Ave. = Sta. 81+05.69 Pawnee Ave.

Sta. 10+00 - Reinforced Pump Island. 12.00° SW. to WE. on Const. Ref. Ln. 11. 36.01° SE. to WE. on Const. Ref. Ln. 11. 37.79° WE. to SW. on Phillips 66 Bldg. 32.85° NW. to SW. on 15th Const. Base of Depot St.

Sta. 10+00 = WE. on Const. Ref. Ln. 11 at 6.98 RPP. Ties to Const. - 12.00° SW. to WE. on Const. Ref. Ln. 11. 36.01° SE. to WE. on Const. Ref. Ln. 11. 37.79° WE. to SW. on Phillips 66 Bldg. 32.85° NW. to SW. on 15th Const. Base of Depot St.

Conc. (F) Conc. Alt. - See Detail Sht. (82).

Sta. 10+10 = Const. Conc. Ref. Wall. See Detail Sht. (77).

Overhead Canopy

Drive

Drive

asphalt parking

Lot 3 Blk. 1 Leonard Powell Addition

Lot 2 Leonard Powell Addition

2nd Sign Post "Known" Sign

Vacated 20' Alley

Part of Leonard Powell 2nd Addition Lot 1

4th. Nat'l. Bank & Tr. Co.

Lot 1 Sandifer 6th. Addition

Leonard Powell 2nd Addition Lot (1)

"Reverse Curve"
Δ = 7° 09'11"
R = 642.50'
T = 40.16'
L = 80.21'
LC = 80.16'

Control Points

Point	Station	Remarks
A'-1	111+93.0	P.C. - Reference Pt. to Reverse Curve 43.5' Lt.-℄ to Bk. Cb.
N-1	12176.0	P.R.C. - Reference Pt. to Reverse Curve 38.5' Lt.-℄ to Bk. Cb.
O-1	13158.0	P.T. - Reference Pt. to Reverse Curve 33.5' Lt.-℄ to Bk. Cb.
P-1	12400.0	P.C. - Reference Pt. to Reverse Curve 33.5' Rt.-℄ to Bk. Cb.
Q-1	14180.0	P.R.C. - Reference Pt. to Reverse Curve 33.5' Rt.-℄ to Bk. Cb.
R-1	15160.0	P.T. - Reference Pt. to Reverse Curve 43.5' Rt.-℄ to St. Cb.
S-1	17+31.0	Radius Pt. - 53.0' Lt.-℄ - 19.5' to Bk. Cb.
T-1	17+47.0	Radius Pt. - 63.0' Rt.-℄ - 19.5' to Bk. Cb.

"LEGEND"
Pavement - Sidewalk & Drive Removal

(FF) REPLACE ASPHALT TO SAME THICKNESS AS EXISTING
Plant Mix Bituminous Mixture Commercial Grade

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

PLAN
SENECA AVENUE

SHEET NO. OF	SCALE 1"=20'	APP'D	
DESIGNED SGD	DETAILED SGD	QUANTITIES	TRACED SGD
DESIGN CKD	DETAIL CKD	QUANTITY CKD	TRACING CKD

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 4 8 9

16X 14.5X 12X 12X 14.5X 16X 20X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-7-4004(3)	1974	11	79

N

B.M. 1038 Standard @ N.E. Cor. Seneca & Pawnee

Const. Conc. Ret. Wall - See Sht. 11 for Detail.

5' Conc. Cb. to be Rem. & Repl. Subsidiary Item to Ret. Wall Bid.

Kerr-McGee Oil Industries Addition Blk. A

"Reverse Curve"
Δ = 7°33'26"
R = 528.12'
T = 35.42'
L = 72.73'
LC = 72.67'

Meyers Garden's Addition Lot 4

Meyers Garden's Addition Lot 3

Meyers Garden's Addition Lot 2

Meyers Garden's Addition Lot 1

(H) Replace (6") Conc. Cb. & 9" Conc. Ret. Wall - See Sht. 11 for Details.

Sta. 18100 @ Seneca Ave.
Sta. 15+06.63 @ Pawnee Ave.
9.50 NE cor. of NE¼ S-28S-1W
Cap in Thimble

AVENUE

SENECA

AVENUE

PAWNEE

Pump Island

Concrete Walk

PHILLIPS 66 Service Station

M and B Addition Blk. 1

2' Conc. Wk.

SIDMAN'S

Asphalt Parking

M and B Addition Blk. 1

20' ALLEY

131.0 30°21'-G

Rem. & Repl. Fence as necessary, Subsid. to bid Items

Sta. 211+71.8 = 6 20' Alley Rt. and 7" Conc. (69.5' Rt.)

Note - Do not Replace Dr. Entrance to Nazarene Church.

Lot 3

Midland Villa Addition Lot 2

Control Points

Point	Station	Remarks
U-1	18153.0	Radius Pt. - 63.0' Lt.-℄ 19.5' to Bk. Cb.
V-1	18163.0	Radius Pt. - 53.0' Rt.-℄ 19.5' to Bk. Cb.
W-1	20150.0	P.C. Reference Pt. to Reverse Curve 43.5' Lt.-℄ to Bk. Cb.
X-1	21122.5	P.R.C. Reference Pt. to Reverse Curve 38.5' Lt.-℄ to Bk. Cb.
Y-1	21195.0	P.T. Reference Pt. to Reverse Curve 33.5' Lt.-℄ to Bk. Cb.

Fc. House

(H) REPLACE ASPHALT TO SAME THICKNESS AS EXISTING. Plant Mix Bituminous Mixture Commercial Grade.

"LEGEND"
Pavement - Sidewalk & Drive Removal

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

PLAN
SENECA AVENUE

SHEET NO. 49	SCALE 1"=20'	APP'D	
CHECKED BY	DETAILED BY	SUBMITTED	TRACED BY
DESIGN CK'D	DETAIL CK'D	QUAN. CK'D	TRACING CK'D

DIST. 5 SEDGWICK CO. ROLL 531

4 9 0

16X 14.5X 12X 12X 14.5X 16X 20X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-F-4004(9)	1971	18	79

N

B.M. - 103.45 Standard @ N.E. Cor. Seneca & Pawnee

Sta. 31+60 ℄ Haskell Ave. (West) End Const. 50.0' Lt. - ℄ Const. Inters. Return 7" (7") Conc. Base & (2") Asph. Surface. Match Existg Pavt.

Haycraft Meyer's Garden's Lot 1

Adjust MH. to match top new asph. surface

Hugh Spencer's Addition Lot 1

Renolle 7th Addition Lot 1

Repl (4') Conc. Walk

Sta. 27+38.35 ℄ End Special Type (1) Comb. Cb. & Gtr. 7" Conc. Base 24.5' Rt. - ℄

Const. (9") Conc. Walk - See Detail Sht. (32).

SENECA

AVENUE

Sta. 27+59.2 ℄ - Rem. existg. Dr. 1.30' wide. Repl. 7" Conc. Base. See Detail Sht. (29).

Sta. 27+89.4 (E) End Asphalt Surface Course.

Sta. 27+89.55 ℄ End Type (1) Comb. Cb. & Gtr. 7" (7") Conc. Base 24.5' Rt. - ℄

Rem. & Relay Conc. Dr. to Fit 6" Curb & Gtr.

Grade Existg. Seneca Dr. to match new Const. & re-lay to Fit 6" Curb & Gtr.

Remove Existg. Conc. Dr. to Gtr. Flg. & ℄ - Replace 7" 6" Conc. Dr.

Haskell Ave.

Sta. 24+35.85 ℄ ℄ Haskell Ave. (East) End Const. 50' Rt. - ℄ - Const. Inters. Return 7" 7" Conc. Base & (2") Asph. Surface. Match Existg Pavt.

Midland Villa Addition Lot 1

Nichol's Addition Lot 5 - Blk. B

Nichol's Addition Lot 3 - Blk. B

Place both cables 7' West of East R/W

Both cables 7' West of East R/W

Pawnee Ave. & Seneca Ave. Thimble

31+06.1'

Control Points

Point	Station	Remarks
Z-1	24+32.2	Radius Pt. - 50.0' Lt. - ℄ 16.5' to Bk. Cb.
A-2	24+54.9	Radius Pt. - 50.0' Rt. - ℄ 16.5' to Bk. Cb.
B-2	24+96.3	Radius Pt. - 50.0' Lt. - ℄ 16.5' to Bk. Cb.
C-2	25+18.3	Reference Pt. - Begin Diagonal Alignment for Cb. - 33.5' Lt. to Bk. Cb.
D-2	25+18.9	Radius Pt. - 50.0' Rt. - ℄ 16.5' to Bk. Cb.
E-2	27+89.4	Reference Pt. - End Diagonal - Alignment for Cb. - 22.5' Lt. to Bk. Cb.
F-2	27+89.4	Reference Pt. - End Diagonal Alignment for Cb. - 24.5' Rt. to Bk. Cb.

LEGEND

Pavement - Sidewalk & Drive Removal.

(##) REPLACE ASPHALT TO SAME THICKNESS AS EXISTING Plant Mix Bituminous Mixture Commercial Grade.

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3				

STATE HIGHWAY COMMISSION OF KANSAS

PLAN

SENECA AVENUE

DIST. 5 SEDGWICK CO. ROLL 531

4 9 1

16X 14.5X 12X 12X 14.5X 16X 20X

FHWA No.	State	Project No.	Year	Sheet No.	Total Sheets
5	Kansas	BT-T-4004(3)	1974	13	77

B.M. 100.29 "B" IN GLOBE, S.CB
SAVANNAH & E-L. SE-NE-CA

DALLAS AVENUE

CRAWFORD AVENUE

SENECA AVENUE

26TH. STREET SOUTH

Lot 13 Blk. 7 Westway Park Addition

Lot 12 Blk. 7 Westway Park Addition

Lot 10 Blk. 7 Westway Park Addition

Lot 11 Blk. 7 Westway Park Addition

Westway Park Addition
Blocks 1-2-3-4&5 + Vacated Strs.
Westway Shopping Center Inc.

BLOCK A
Kuechenmeister Addn.

Lot 1
Lazy R 2nd. Addition

Lot 1
Lazy R Addition

Paulas Shoes

"LEGEND"
(H) = Match Existing Elevation
L.J. = Longitudinal Joint (Sawed)
L.J.(F) = Longitudinal Joint (Formed)
E.J. = Expansion Joint
C.J.(F) = Construction Joint W/ underpinning
C.S. = Contraction Joint (Sawed) W/ continuous Reinf.
H.P. = High Point in grade elevation
A.C. = Top of New Asphalt Surface
Note- These symbols are used thru-out this project.

No	DATE	REVISION	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
PAVING DETAILS
SENECA AVENUE

DIST. 5 SEDGWICK CO. ROLL 531

4 9 2

16X	14.5X	12X			12X	14.5X	16X	20X

FHWA No.	State	Project No.	Year	Sheet No.	Total Sheets
5	Kansas	BT-T-400A(3)	1974	14	79

B.M. 100.20 "B" IN GLOBE, S.Co.
SAVANNAH @ E.L. SE-NE-CA

Westway Park Addition
Blocks 1, 4 and 5
also Vacated Strs.

P.I. No V.C. 99.93

+0.111%

+0.152%

SENECA 50' AVENUE

SAVANNAH AVE.

-0.137%

-0.138%

Lot 1 Lazy R Addition

Reserve A Scheer's Addition

Reserve B Scheer's Addition

Lot 4, Blk. 1 Leonard Powell Addition

Lot 3, Blk. 1 Leonard Powell Addition

LEGEND

(*) = Match Existing Elevation
L.J.= Longitudinal Joint (Sawed)
L.J.(F)= Longitudinal Joint (Formed)
E.J.= Expansion Joint
C.J.(P)= Construction Joint W/underpinning
C.S.= Construction Joint (Sawed) W/continuous reinf.
H.P.= High Point in grade elevation
A.C.= Top of New Asphalt Surface Coarse

NO	DATE	REVISION	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

PAVING DETAILS

SENECA AVENUE

SHEET NO. 9F | SCALE: 1" = 20' | APP'D

DESIGNED | DETAILED | QUANTITIES | TRACED

DESIGN CK'D | DETAIL CK'D | QUAN. CK'D | TRACING CK'D

DIST. 5 SEDGWICK CO. ROLL 531

4 9 3

16X 14.5X 12X 12X 14.5X 16X 20X

FHWA No.	State	Project No.	Year	Sheet No.	Total Sheets
5	Kansas	81-T-400(6)	1974	15	78

N

B.M. 105.42 Std. @ N.E. Cor. Seneca & Pawnee

Westway Park Addition
Blks. 1-2-3-4 & 5
+ Vacated Streets

Garlock Addition
Blk. A

SENECA AVENUE

PAWNEE AVE.

asphalt parking

Overhead Canopy

Concrete Drive

Lot 3 Blk. 1
Leonard Powell Addition

Lot 2
Leonard Powell Addition

Part of Leonard Powell 2nd Addition Lot 1

Lot 1
Sandlian 6th. Addition

Leonard Powell 2nd Addition
Lot 1

LEGEND

(*) = Match Existing Elevation
L.J.= Longitudinal Joint (Sawed)
L.J.(F)= Longitudinal Joint (Formed)
E.J.= Expansion Joint
C.J.(P)= Construction Joint W/underpinning
C.S.= Construction Joint (Sawed) W/continuous reinf.
H.P.= High Point in grade elevation.
A.C.= Top of New Asphalt Surface Course

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

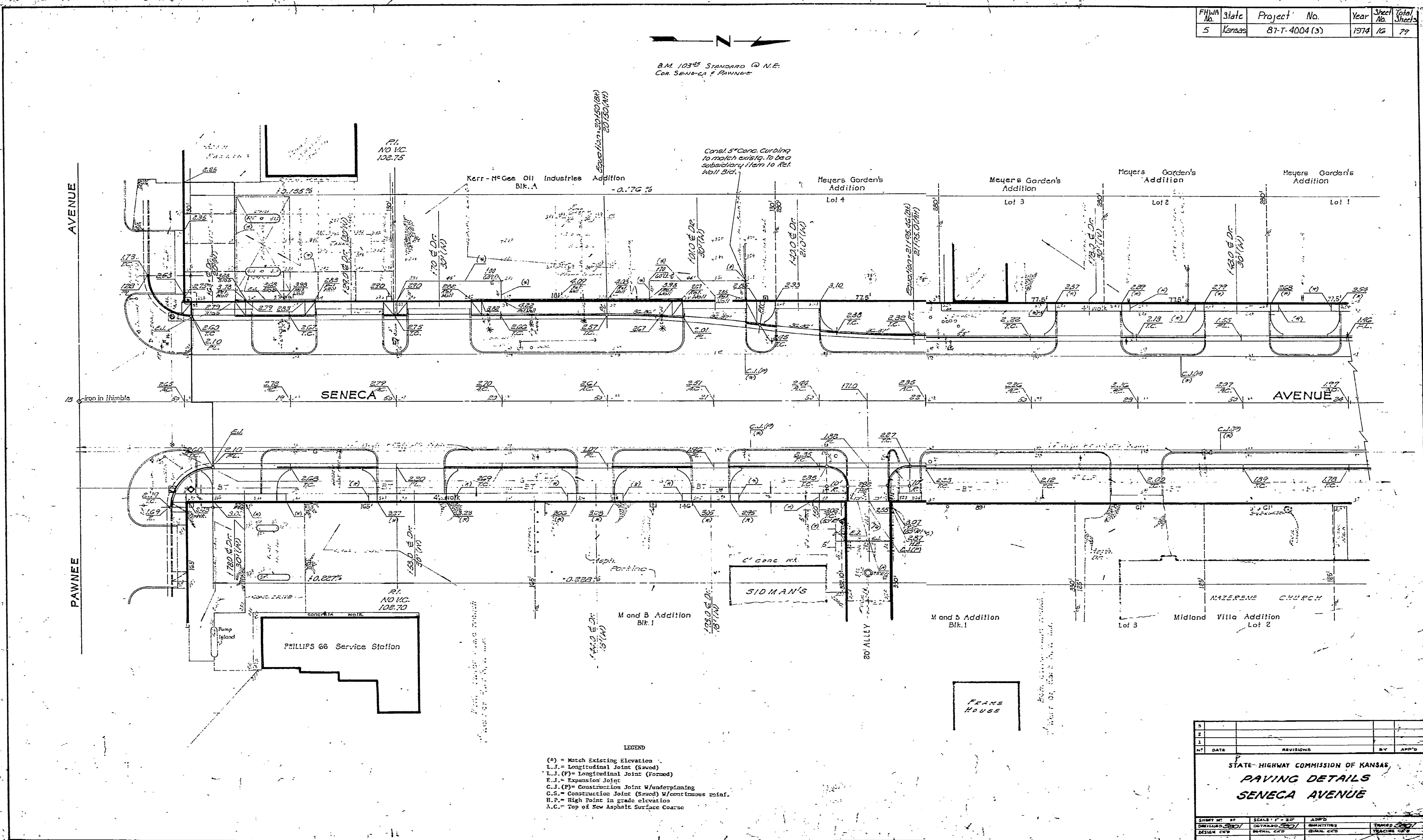
STATE HIGHWAY COMMISSION OF KANSAS
PAVING DETAILS
SENECA AVENUE

SHEET NO. OF	SCALE 1"=20'	APP'D	
DESIGNED SGD	DETAILED SGD	QUANTITIES	TRACED SGD
DRAWN CKD	DETAIL CKD	QUANTITY CKD	TRACING CKD

DIST. 5 SEDGWICK CO. ROLL 531

4 9 4

16X 14.5X 12X 12X 14.5X 16X 20X

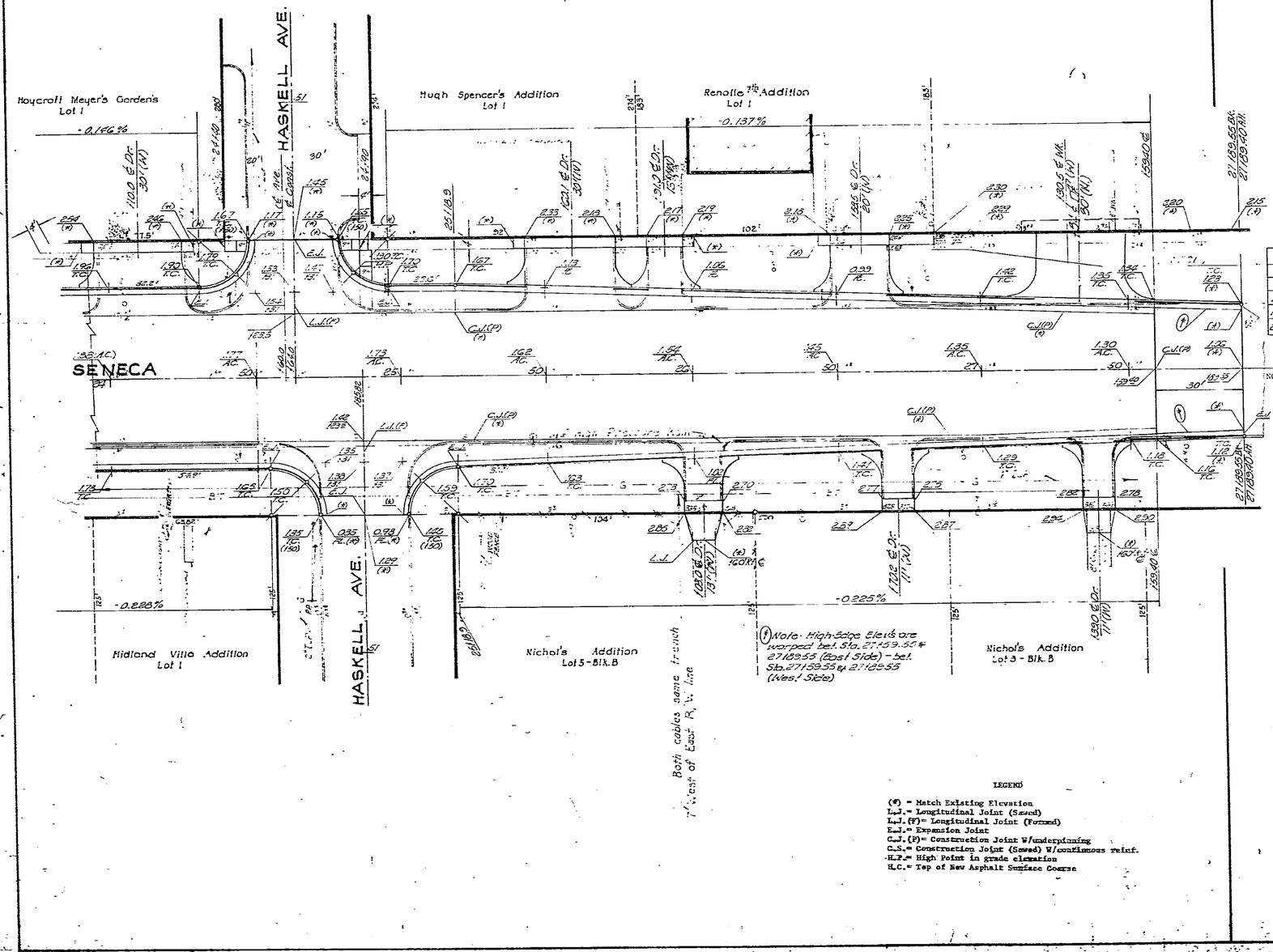


DIST. 5 SEDGWICK CO. ROLL 531 4 9 5

16X 14.5X 12X 12X 14.5X 16X

FHWA No.	State	Project No.	Year	Sheet No.	Total Sheets
5	Kansas	BT-T-4004(3)	1974	17	79

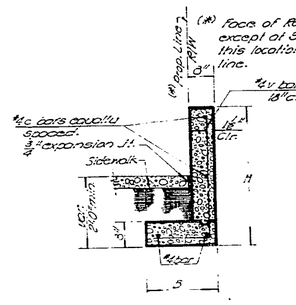
REINF. STEEL SCHEDULE (L) TYPE RET. WALLS							
h	bar	Size	Cutting Length	spacing	d	F	Remarks
3'3"	V	#4	4'-0"	18"	2'11"	1'8"	(L) slope straight
	C	#4	Horiz. bars continuous				
3'6"	V	#5	4'-9"	18"	3'2"	1'8"	
	C	#4					
3'9"	V	#5	5'-0"	18"	3'5"	1'8"	
	C	#4					
4'0"	V	#5	5'-3"	18"	3'8"	1'8"	
	c	#4					



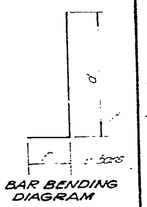
LEGEND

(*) = Match Existing Elevation
L.J.= Longitudinal Joint (Sawed)
L.J.(F)= Longitudinal Joint (Formed)
E.J.= Expansion Joint
C.J.(P)= Construction Joint W/underpinning
C.S.= Construction Joint (Sawed) W/continuous reinf.
H.P.= High Point in grade elevation
H.C.= Top of New Asphalt Surface Course

RETAINING WALL DETAILS



DIMENSIONS	
H	S
3'-3"	1'-6"
3'-6"	2'-0"
3'-9"	2'-0"
4'-0"	2'-0"

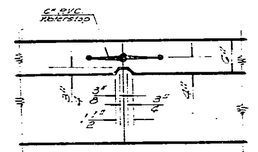


Summary of Quantities

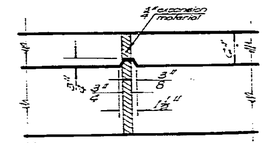
Station		Station	Ht.	Side	Location	Lbs. Reinf. Steel	C.Y. Class (A) Conc.	C.Y. Class III Excavation	C.Y. Compacted Backfill
16160	to	17114.5	5'-6"	Rt.	Seneca Ave.	210.70	5.89	18.26	13.97
18173	to	19114	5'-3"	Lt.	Seneca Ave.	154.80	3.50	13.93	8.03
19185	to	20136	5'-3"	Lt.	Seneca Ave.	445.92	11.27	41.60	27.37
15191	to	16181	4'-0"	Lt.	Pawnee Ave.	329.92	8.71	47.41	20.25
24115	to	24146	3'-3"	Rt.	Pawnee Ave.	33.56	2.01	6.43	5.36
					Totals	1222.55	30.78	129.63	75.56

NOTE: USE CLASS (A) CONCRETE.
CLASS (A) CONCRETE (AE) MAY BE SUBSTITUTED AT CONTRACTOR'S OPTION WITH NO ADJUSTMENT IN PRICE. BEVEL ALL EXPOSED EDGES USING 3/4" TRI-ANGULAR MOULDING. TAPER ENDS OF WALLS FROM WALK OR DRIVEWAYS AS INDICATED ON DETAILED PAVING PLAN. ALL EXPANSION JOINT MATERIAL SHALL BE PRE-MOLDED (NON-EXTRUDING) TYPE (B). THE 6" P.V.C. WATER STOP AND EXPANSION JOINT MATERIAL SHALL BE CONSIDERED AS SUBSIDIARY TO THE VARIOUS PAY ITEMS. THE 6" P.V.C. WATERSTOP IS TO BE (6") DURA-JOINT, TYPE (5), OR ANY OTHER APPROVED. EXPANSION JOINTS ARE TO BE CONSTRUCTED AT ALL ANGLE JOINTS AND SUCH THAT THE MAXIMUM SPACING WILL BE 120' IN STRAIGHT RUNS. CONTRACTION JOINTS SHALL BE CONSTRUCTED SUCH THAT THE MAXIMUM SPACING WILL BE (30'). SEE SUMMARY OF QUANTITIES FOR LOCATION OF RETAINING WALL.

INSTALL 6" P.V.C. WATERSTOP BETWEEN TOP OF FOOTING AND TOP OF WALL. REINFORCING STEEL TO CONTINUE THROUGH CONTRACTION JOINT.

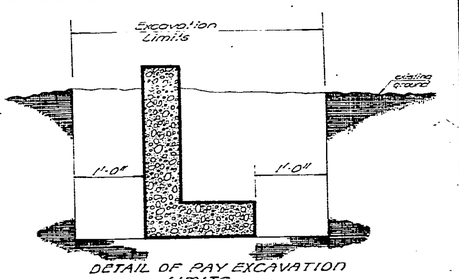


CONTRACTION JOINT DETAIL



EXPANSION JOINT DETAIL

REINFORCING STEEL IS NOT TO EXTEND THROUGH EXPANSION JOINT.



DETAIL OF PAY EXCAVATION LIMITS

NO	DATE	REVISIONS	BY	APP'D
1				
2				
3				

STATE HIGHWAY COMMISSION OF KANSAS

PAVING DETAILS

SENECA AVENUE

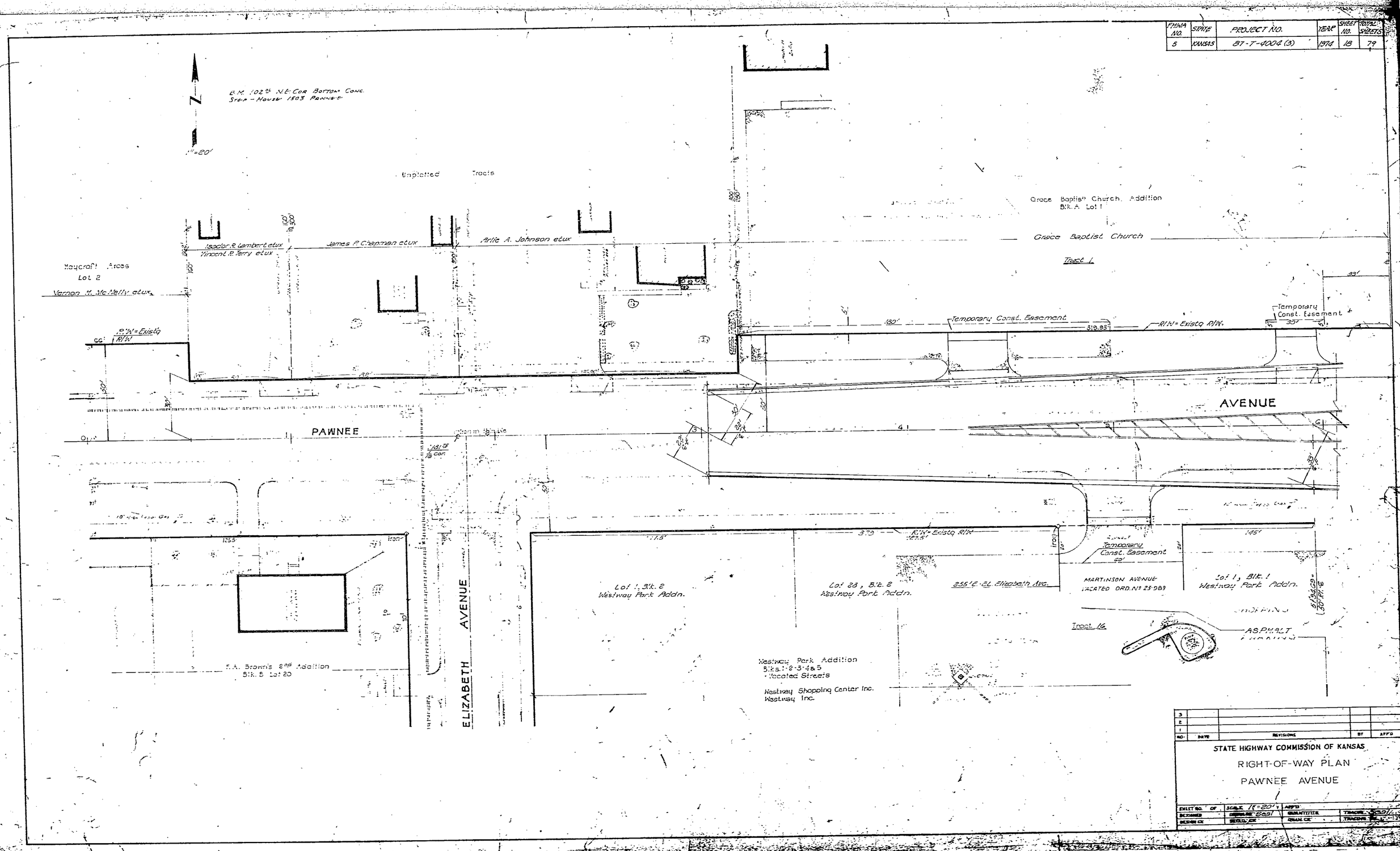
SHEET NO. 09	SCALE: 1" = 20'	APP'D	
DESIGNED SGJ	DETAILED SGJ	QUANTITIES	TRACED SGJ
DRAWN CKD	DETAIL CKD	QUAN. CKD	TRACING CK'D

DIST. 5 | SEDGWICK CO. | ROLL 531

4 9 6

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1974	18	79



DIST. 5 | SEDGWICK CO. | ROLL 531

4 9 7

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KA1535	87-T-4004(3)	1974	19	79

1"=20'

BM 1019 "D" S W Cor Conc Base Gas Meter Red Carpet Car Wash

Found K. Hartley

Grace Baptist Church Addition Blk. A - Lot 1

Coleman-Sellmer Addition Lot 1 Found K. Hartley Tract 2

De Will 3rd Addition Lot 1 Cessna Enterprises, Inc. Tract 3

Hartley Addition Blk. 1 Lot 1 Tract 4

Riley Sloan Rainwater Jr. Tract 5

De Will 3rd. Addition Lot 1

Wells Enterprises, Inc. Tract 6

De Will Addition Lot 1

Temporary Const. Easement

R/W = Existg R/W

PAWNEE AVENUE

Lot 1, Blk. 1 Westway Park Addn.

Voc. 20' Alley Ord. # 23-989

Lot 26, Blk. 1 Westway Park Addn.

Tract 16

Westway Park Addition Blk. 1-2-3-4 & 5 Vacated Streets

Westway Shopping Center Inc. and Westway Inc.

STATE HIGHWAY COMMISSION OF KANSAS

RIGHT OF WAY PLAN

PAWNEE AVENUE

DIST. 5 SEDGWICK CO. ROLL 531

4 9 8

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-7-4004(3)	1974	20	79

1"=80'

LM 1038 City Standard N.E. Cor. Seneca & Pawnee

De Witt Addition Lot 1

Wells Enterprises Inc. Tract 6

W. H. Rex El Dorado, Ks. Tract 1

Temporary Const. Easement

R/W = Existg R/W

PAWNEE

AVENUE

STREET

SENECA

Schollmo Addition Lot 8-Blk A

M and B Addition

Elmer E. McKay Tract 8

M and B Investment Inc. Tract 30

Asphalt Parking

concrete walk

NE cor. NE¼ Sec. 6-28S-1E.T.E.

Iron in Thimble

Westway Park Addition Blk 1-2-3-4 & 5 + Vacated Streets

Westway Shopping Center Inc. Westway Inc. Tract 16

Gorlock Addition Lot A

W. Carter Goodpasture Tr. for Ann Carter Hewitt Decd.

Temporary Const. Easem't

Overhead Canopy

John J. Dearden Roman Catholic Archbishop of Detroit % Sunray Oil Co. Tract 15

Leonard Powell 2nd Addition Blk. 1

Ruth J. Smith & James O. & R. E. Ray & Grace Hall Ray

Tract 31

Car Wash

STATE HIGHWAY COMMISSION OF KANSAS

RIGHT OF WAY PLAN

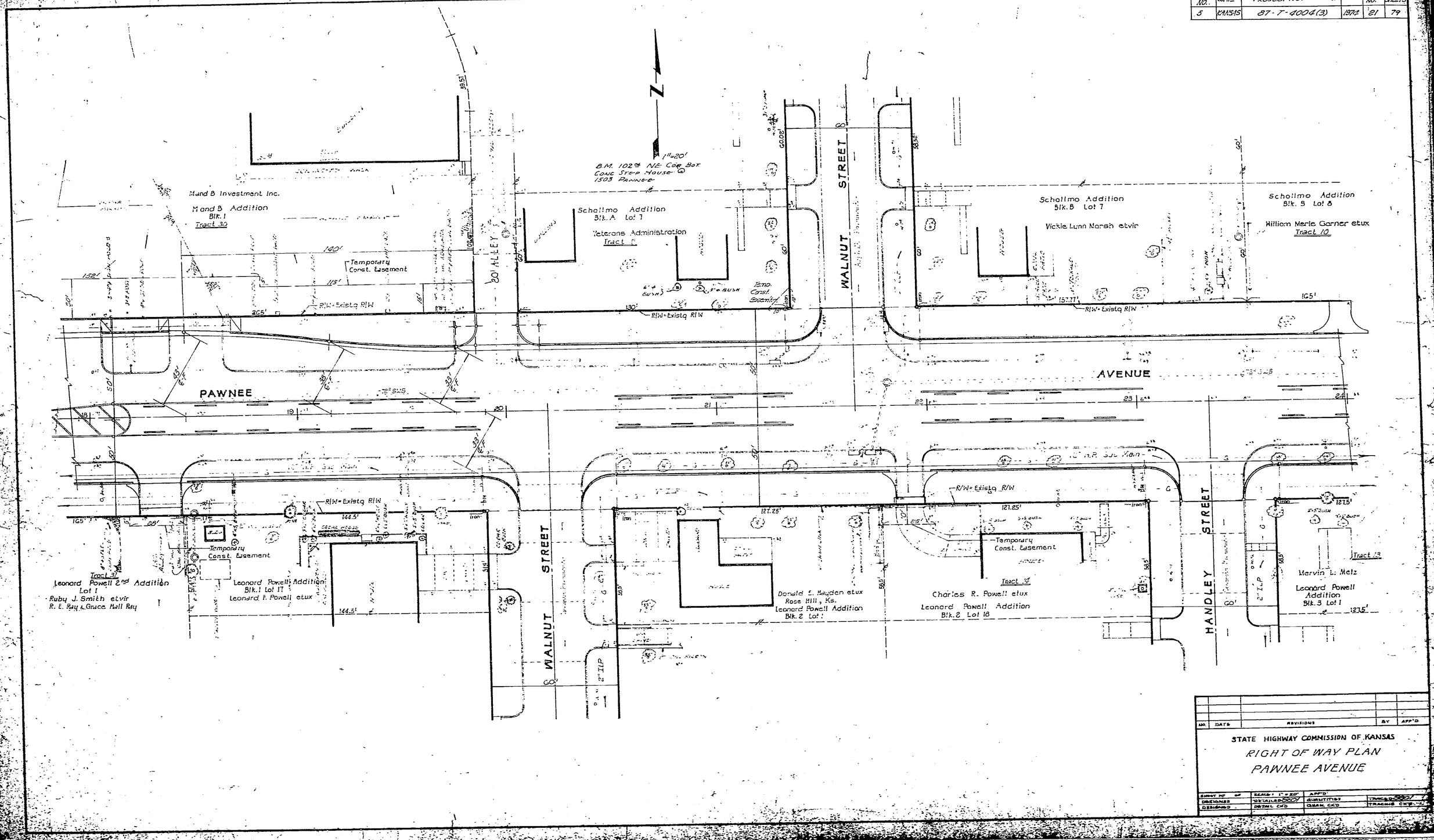
PAWNEE AVENUE

DIST. 5 SEDGWICK CO. ROLL 531

4 9 9

16X 14.5X 12X 12X 14.5X 16X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1972	21	79



NO.	DATE	REVISIONS	BY	APP'D

STATE HIGHWAY COMMISSION OF KANSAS

RIGHT OF WAY PLAN

PAWNEE AVENUE

SHEET NO. OF	SCALE: 1"=20'	APP'D:
DESIGNED	DETAILED	SUBMITTED
DESIGNED	DETAIL CKD	DRAWN CKD

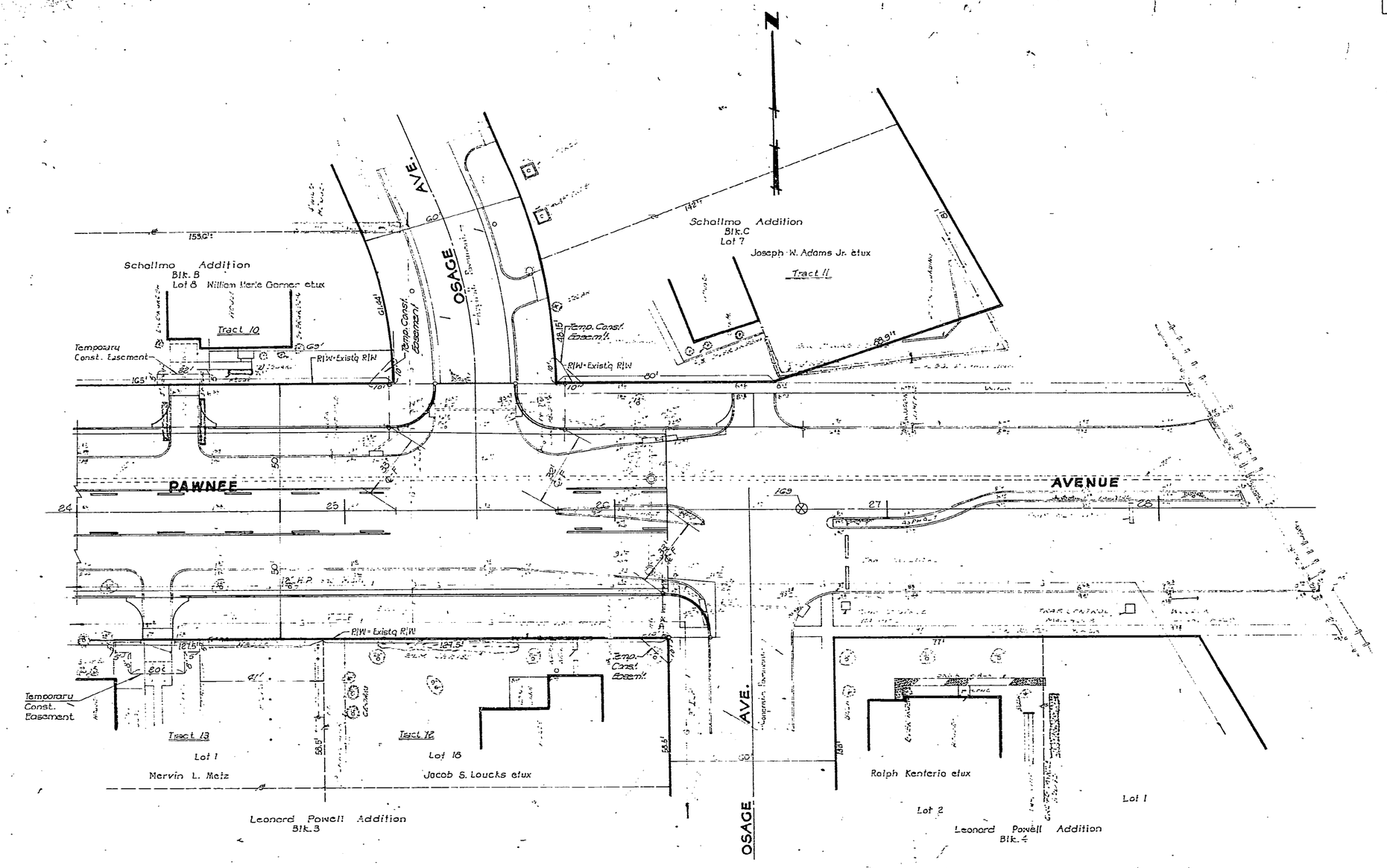
TRACED
TRACING CKD

DIST. 5 SEDGWICK CO. ROLL 531

5 0 0

X	16X	14.5X	12X	12X	14.5X	16X		20X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	S 87-1-4004(3)	1974	22	79



NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
RIGHT-OF-WAY PLAN
PAWNEE AVENUE

SHEET NO. OF	SCALE 1" = 20'	APPRD.	FILE
DESIGNED	DETAILED Seal	QUANTITIES	TRACED Seal
CHECKED C&D	DETAIL C&D	BURNS C&D	TRACING C&D

DIST. 5 SEDGWICK CO. ROLL 531

5 0 1

16X 14.5X 12X 12X 14.5X 16X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004-(3)	1974	23	79

B.M. 102.26 N.E. Cor. Bottom Conc. Step - House 1503 Pawnee

Asph. Parking

Rem. Asph. Mat'l to 50'Lt.-℄

PAWNEE

AVENUE

ELIZABETH AVENUE

Sta. 3103 = Beg. Construction - Pawnee Ave.

Sta. 3103.0 ℄ = See Detail Sht. (a) for ___ Conc. Base Const. - Beg. Asph. Surf. Course.

Sta. 3131.75 ℄ = ½ cor. (Iron in Trimble) -
Ties to Iron -
1. 36.30 S.W. to ℄ Iron
2. 36.11 S.E. to 18" Elm. Rad. S.E. Cor. Elizabeth & Pawnee.
3. 21.39 S.W. to 12" Elm. Rad. S.W. Cor. Elizabeth & Pawnee
4. 87.04 S.S.E. to Lt. in Washer in PP

Sta. 3133.0 ℄ = Beg. Section of Type (1) Comb. Cb. at Gtr. W. Conc. Base Widening. 22.5' Lt. ℄ to Bk. Cb.

Control Points

Point	Station	Remarks
H-2	3[illegible]	Reference Pt. to Diagonal Alignment for Cb. - 22.5' Lt. - ℄ to Bk. Cb.
I-2	3133.0	Reference Pt. to Diagonal Alignment for Cb. - 22.5' Rt. - ℄ to Bk. Cb.
J-2	5194.09	Reference Pt. - End Diagonal Alignment for Cb. - 33.5' Lt. - ℄ to Bk. Cb.
K-2	5194.09	Reference Pt. - End Diagonal Alignment for Cb. - 33.5' Rt. - ℄ to Bk. Cb.

LEGEND:
Pavement - Sidewalk & Drive Removal.

REPLACE AREA TO SAME THICKNESS AND TYPE EXISTING PLANT MIX STRUCTURE EXCEPT COMMERCIAL GRADE.

STATE HIGHWAY COMMISSION OF KANSAS
PLAN
PAWNEE AVENUE

DIST. 5 SEDGWICK CO. ROLL 531

5 0 2

16X 14.5X 12X 12X 14.5X 16X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004-(3).	1974	24	79

N

B.M. 101.4' "D" S.W. Cor. Conc. Base Gas Meter Red Carpet Car Wash

Asph. Parking

Asph. Parking

De Witt 3rd Addition Lot 1

Coleman-Detwiler Addition Lot 1

Grace Baptist Church Addition Blk. A - Lot 1

Hartley Addition Blk. 1 Lot 1

De Witt 3rd. Addition Lot 1

De Witt Addition Lot 1

Sta. 91+06 = Const. (3') Conc. Box (5'x 5') Wide Inter. Storm Water Sewer.

Adjust Existg. Manhole to top new asph. surface course.

319.93'

137.23'

128'

205.5'

(1-2) (1-2)

(M)

(#1)

(#)

(#)

(#)

(#)

72" Storm Water Sewer

PAWNEE AVENUE

50' 7 50' 8 50' 9 50' 10 50' 11 50' 12

33.5' Rt.

1372' ℄

(1+25) ℄

60'

90'

90'

6" I.P.

6" I.P.

6" I.P.

6" I.P.

Old 4" Steel Pressure Gas Main

(R-2)

(M-2)

(L-2)

(N-2)

(O-2)

19469 50 Aht. ℄

19469 Const. ℄

13763.49 Const. ℄

Sta. 81+70.0 ℄ = ℄ Major Shopping Center Approach-60.81'-2-Shopping Center 4 cons'l. 13 ft. Medial behind South R/W. See Detail Sht. (2).

17' B-B

23' B-B

Sta. 5194.69 ℄ = P.C.
Δ = 5°07'49"
T = 29.02'
R = 647.87'
L = 58.01'
LC = 57.99'

Sta. 21+80.49 ℄ = P.C.
Δ = 7° 17' 21"
T = 41.27'
R = 647.87'
L = 82.46'
LC = 82.37'

"Reverse Curve"

Westway Park Addition Blk. 1-2-3-4 & 5 Vacated Streets

(#)

REPLACE ASPHALT TO SAME THICKNESS AS EXISTING Plant Mix Bituminous Mixture Commercial Grade

"LEGEND"

Pavement-Sidewalk Drive Removal.

Control Points

Point	Station	Remarks
L-2	G152.5	Reference Pt.-End Diagonal Alignment for Cb.-33.5' Lt.-℄ to Bk. Cb.
R-2	519469	Reference Pt.-End Diagonal Alignment for Cb.-P.C.-Ref. Pt.-Reverse Curve-33.5' Rt.-℄ to Bk. Cb.
L-2	G152.49	P.R.C.-Reference Pt.-33.22 Rt.-℄ to Bk. Cb.
M-2	7134.69	P.T.-Reference Pt.-33.3' Rt.-℄ to Bk. Cb.
N-2	81350	Rad. Pt.-32.01' Rt.-℄-12.5' to Bk. Cb.
O-2	91350	Rad. Pt.-32.01' Rt.-℄-12.5' to Bk. Cb.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

PLAN

PAWNEE AVENUE

SCALE 1"=20' | DATE 8-30-73 | DRAWN [illegible] | TRACED [illegible]

DES. [illegible] | CHKD. [illegible] | QUANT. [illegible] | CHKD. [illegible]

DIST. 5 SEDGWICK CO. ROLL 531

5 0 3

16X 14.5X 12X 12X 14.5X 16X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-7-4004-(3)	1974	25	79

Sta. 15+00.69 = Iron in Thimble
NE. cor. of NE¼, Sec. 6, TW. 28S-R.1E. of 6th P.M.
Ties to Iron -
1.50 ft. S.W. to ¾" on N.End Pump Island.
1.50 Ft. S.E. to NE. cor. Conc. Ret. Wall
137.94 ft. N.E. to S.W. cor. Phillips "66" Bldg.
182.85 ft. N.W. to S.W. Cor. 1.5 ft. Conc. Base Light Std.

Note - Remove & Replace Thimble to match top of new asph.

Sta. 15+05.69 = Pawnee Ave. ℄
Sta. 18+00.6 Seneca Ave. ℄

(*) Grading of gravel Lot to be incidental to project.

BM. 103.48 City Standard N.E. Cor Seneca & Pawnee

De Witt Addition Lot 1

M & B Addition Blk. 1

Const. Conc. Ret. Wall See Detail Sht. (17).

Construct. Asph. On (##)

(*) Grade Gravel Lot to match new asph.

Remove Asph. Mat'l From R/W.

Pump Island

Canopy

STREET

concrete walk

Asphalt Parking

205.5'

Const. 6" Curb See Sht. (32)

Replace existing 4' wk. 1'-2" Wk. (2 to Str. Cb.)

PAWNEE AVENUE

SENECA

Grade To Match

Garlock Addition Lot A

Westway Park Addition Blk 1-2-3-4 & 5 Vacated Streets

Leonard Powell 2nd Addition Blk. 1

Overhead Canopy

Car Wash

Control Points

Point	Station	Remarks
S-1	14+52.69	Recd. Pt. - 23.0' Rt.-E - 19.5' to St. Cb.
T-1	15+18.69	Recd. Pt. - 53.0' Rt.-E - 19.5' to St. Cb.
U-1	14+42.69	Recd. Pt. - 33.0' Lt.-E - 19.5' to St. Cb.
V-1	15+58.69	Recd. Pt. - 03.0' Lt.-E - 19.5' to St. Cb.

•LEGEND•
Pavement - Sidewalk & Drive Removal.

(##) REPLACE ASPHALT TO SAME THICKNESS AS EXISTING
Plant Mix Bituminous Mixture Commercial Grade.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
PLAN
PAWNEE AVENUE

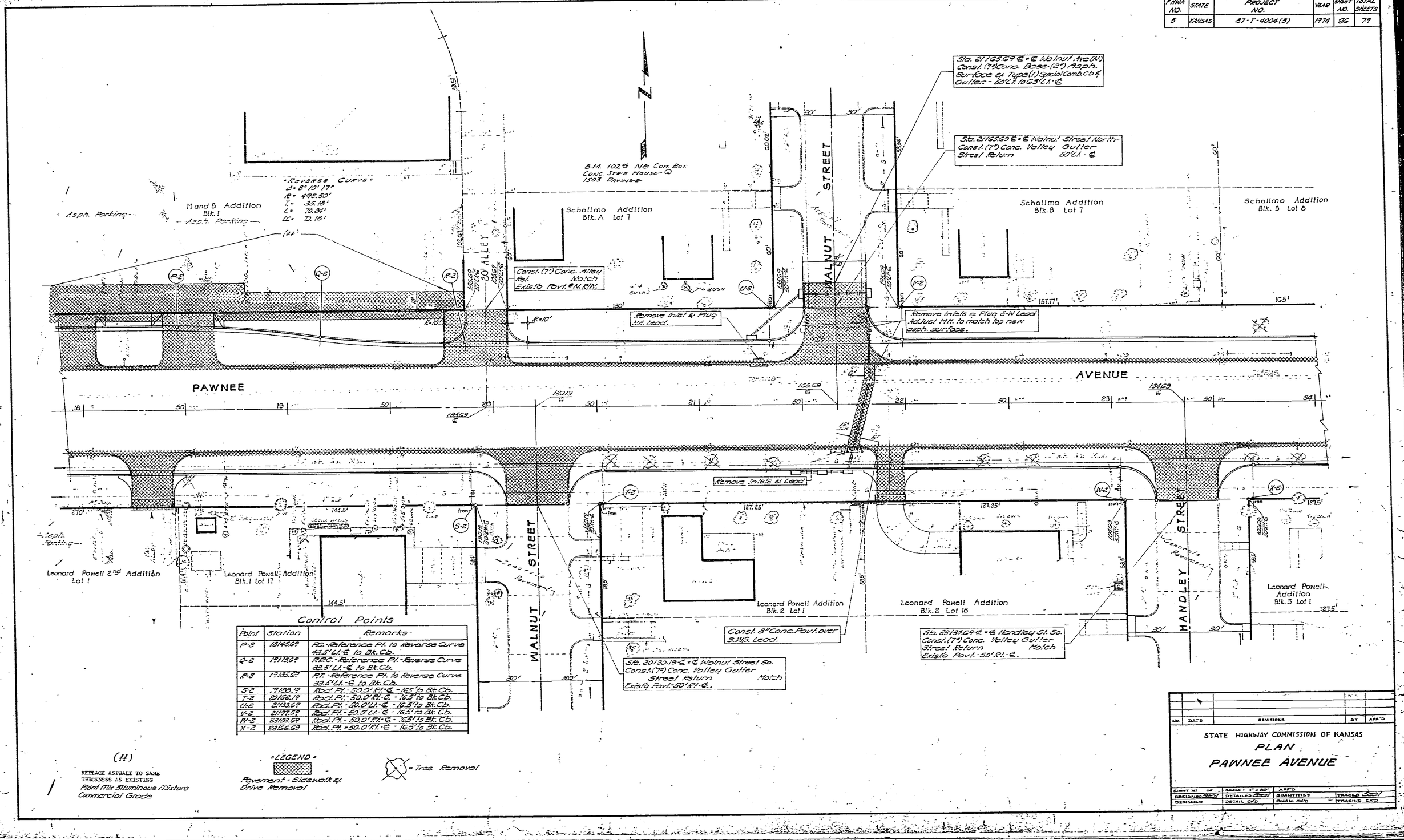
SHEET NO. OF	SCALE 1"=20'	APP'D	
DESIGNED SBD	DETAILED SBD	QUANTITIES	TRACED SBD
DRAWN CFS	DETAIL CKD	QUAN. CKD	TRACING CKD

DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted] 5 0 4

16X | 14.5X | 12X | 12X | 14.5X | 16X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1974	26	79



Control Points

Point	Station	Remarks
P-2	18+65.69	P.C. - Reference Pt. to Reverse Curve 43.5' L.T. ℄ to Bk. Cb.
Q-2	19+15.69	P.R.C. - Reference Pt. - Reverse Curve 33.5' L.T. ℄ to Bk. Cb.
R-2	19+85.69	P.T. - Reference Pt. to Reverse Curve 33.5' L.T. ℄ to Bk. Cb.
S-2	21+88.19	Rad. Pt. - 50.0' R.T. ℄ - 16.5' to Bk. Cb.
T-2	21+52.19	Rad. Pt. - 50.0' R.T. ℄ - 16.5' to Bk. Cb.
U-2	21+33.69	Rad. Pt. - 50.0' L.T. ℄ - 16.5' to Bk. Cb.
V-2	21+97.69	Rad. Pt. - 50.0' L.T. ℄ - 16.5' to Bk. Cb.
W-2	23+02.69	Rad. Pt. - 50.0' R.T. ℄ - 16.5' to Bk. Cb.
X-2	23+26.69	Rad. Pt. - 50.0' R.T. ℄ - 16.5' to Bk. Cb.

(#)
REPLACE ASPHALT TO SAME THICKNESS AS EXISTING
Plant Mix Bituminous Mixture Commercial Grade

"LEGEND"
Pavement - Sidewalk & Drive Removal
= Tree Removal

NO.	DATE	REVISIONS	BY	APP'D

STATE HIGHWAY COMMISSION OF KANSAS
PLAN
PAWNEE AVENUE

SHEET NO. OF	SCALE 1" = 20'	APP'D
DESIGNED	DETAILED	QUANTITIES — TRACED
DESIGNED	DETAIL CK'D	QUAN. CK'D — TRACING CK'D

DIST. 5 SEDGWICK CO. ROLL 531

5 0 5

16X 14.5X 12X 12X 14.5X 16X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-7-4004(3)	1974	27	79

Sta. 25+48.46-℄ = ℄ Osage Ave. No.
Const. (7") Conc. Valley Gutter
Street Return 50.0' Lt.-℄

Sta. 25+48.46-℄ = ℄ Osage Ave. No.
Const. (7") Conc. Base - (2") Asph. Surface & Type (1) Special Comb. C.& G.
Gutter - 50' Lt. To G3' Lt. -℄

N

OSAGE AVE.

Schallmo Addition
Blk. C
Lot 7

Joseph W. Adams Jr. etux

Schallmo Addition
Blk. B
Lot 8

Ted G. Scheer etux

Remove Inlets & Plug Leads.

Remove Inlets & Plug Leads
Adjust Manhole to match new Asph. Surface.

Sta. 26+19.69-℄ = End (7") Conc. Base - Special Type (1) Comb. C.& G. Gtr. - Beg. 8' Conc. Pavt.

Sta. 26+52 ℄ = End Const. Pawnee Ave.

Sta. 26+69.0-℄ (+) On ℄ Pawnee Ave.

PAWNEE AVENUE

Remove Exist'g. Median As Shown.

Const. (8") Conc. Pavt.

Sta. 26+69.69-℄ Const. (7") Conc. Base. See Detail Sht. 53' End Asph. Surface Const. ℄ Sta. 26+19.69

Special Drive Appr. 7" Conc. Rel. Wall. See Detail Sht. (69).

Remove Inlet-Plug Lead. Adjust Manhole to match top of new asph. surface.

OSAGE AVE.

Lot 1
Mervin L. Metz

Lot 18
Jacob S. Loucks etux

Leonard Powell Addition
Blk. 3

Ralph Kenferia etux

Lot 2

Lot 1

Leonard Powell Addition
Blk. 4

Control Points

Point	Station	Remarks
Y-2	25+16.66	Rad. Pt. - 50.0' Lt.-℄ - 12.5' to Bk. Cb.
Z-2	25+18.46	Rad. Pt. - 50.0' Lt.-℄ - 17.5' to Bk. Cb.
A-3	26+17.69	Rad. Pt. - 50.0' Rt.-℄ - 16.5' to Bk. Cb.
B-3	26+69.0	Reference Pt. - Bk. Cb. Alignment 38° Lt.-℄

LEGEND
Pavement - Sidewalk & Drive Removal
= Tree Removal

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
PLAN
PAWNEE AVENUE

SHEET NO. OF	SCALE: 1" = 20'	APP'D.	
DESIGNED GDJ	DETAILED GDJ	QUANTITIES	TRACED SDJ
DESIGN C&D	DETAIL C&D	QUAN. C&D	TRACING CO.

DIST. 5 SEDGWICK CO. ROLL 531

5 0 6

16X 14.5X 12X 12X 14.5X 16X

FHWA No.	State	Project No.		
5	Kansas	BT-11-1004(15)		

B.M. 102.46 N.E. Cor. Bottom Conc. Step - House 1803 Pawnee

Unplatted Tracts

Haycraft Acres

Grace Baptist Church Addition Blk. A Lot 1

+0.129%

PAWNEE AVENUE

ELIZABETH AVENUE

MARTINSON AVENUE
VACATED ORD. No. 25-989

+0.170%

F.A. Brown's 2nd Addition
Blk. 5 Lot 20

Westway Park Addition
Blks. 1-2-3-4 & 5
+ Vacated Streets

LEGEND

(*) = Match Existing Elevation
L.J.= Longitudinal Joint (Sawed)
L.J.(F)= Longitudinal Joint (Formed)
E.J.= Expansion Joint
C.J.(F)= Construction Joint W/underpinning
C.S.= Construction Joint (Sawed) W/continuous reinf.
H.P.= High Point in grade elevation
T.C.= Top of New Asphalt Surface Course

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

PAVING DETAILS
PAWNEE AVENUE

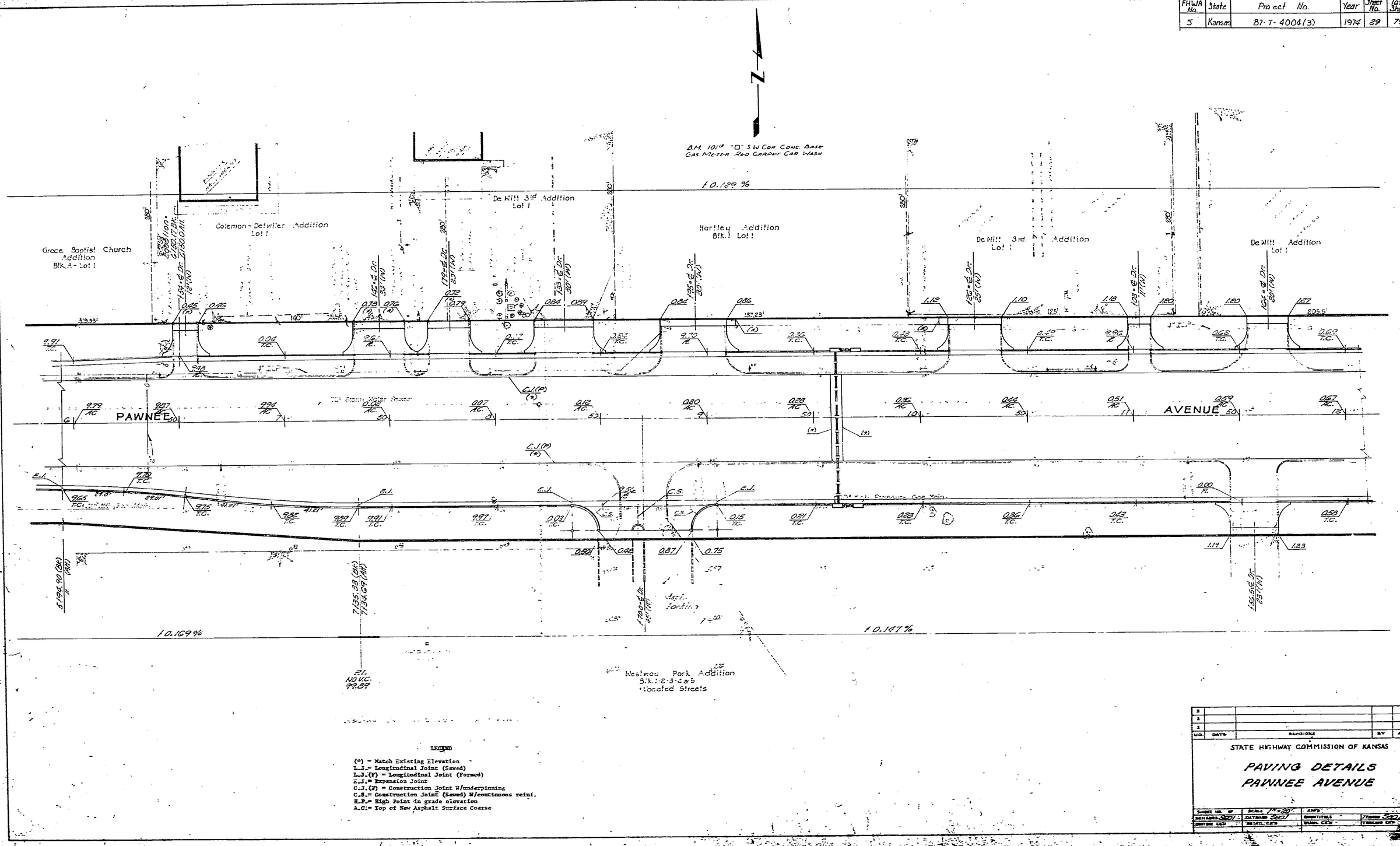
SHEET NO. OF SHEETS | SCALE 1"=20' | APP'D
COMPUTED | CHECKED | SUBMITTED | TRACED
DESIGN OK | DETAIL OK | CHIEF ENGR. | TRACING NO.

DIST. 5 SEDGWICK CO. ROLL 531

5 0 7

16X 14.5X 12X 12X 14.5X 16X

FHWA No.	State	Project No.	Year	Sheet No.	Total Sheets
5	Kansas	87-T-4004(3)	1974	29	79



LEGEND

(*) = Match Existing Elevation
L.J.= Longitudinal Joint (Sawed)
L.J.(F) = Longitudinal Joint (Formed)
E.J.= Expansion Joint
C.J.(P) = Construction Joint W/underpinning
C.S.= Construction Joint (Sawed) W/continuous reinf.
H.P.= High Point in grade elevation
A.C.= Top of New Asphalt Surface Coarse

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

PAVING DETAILS
PAWNEE AVENUE

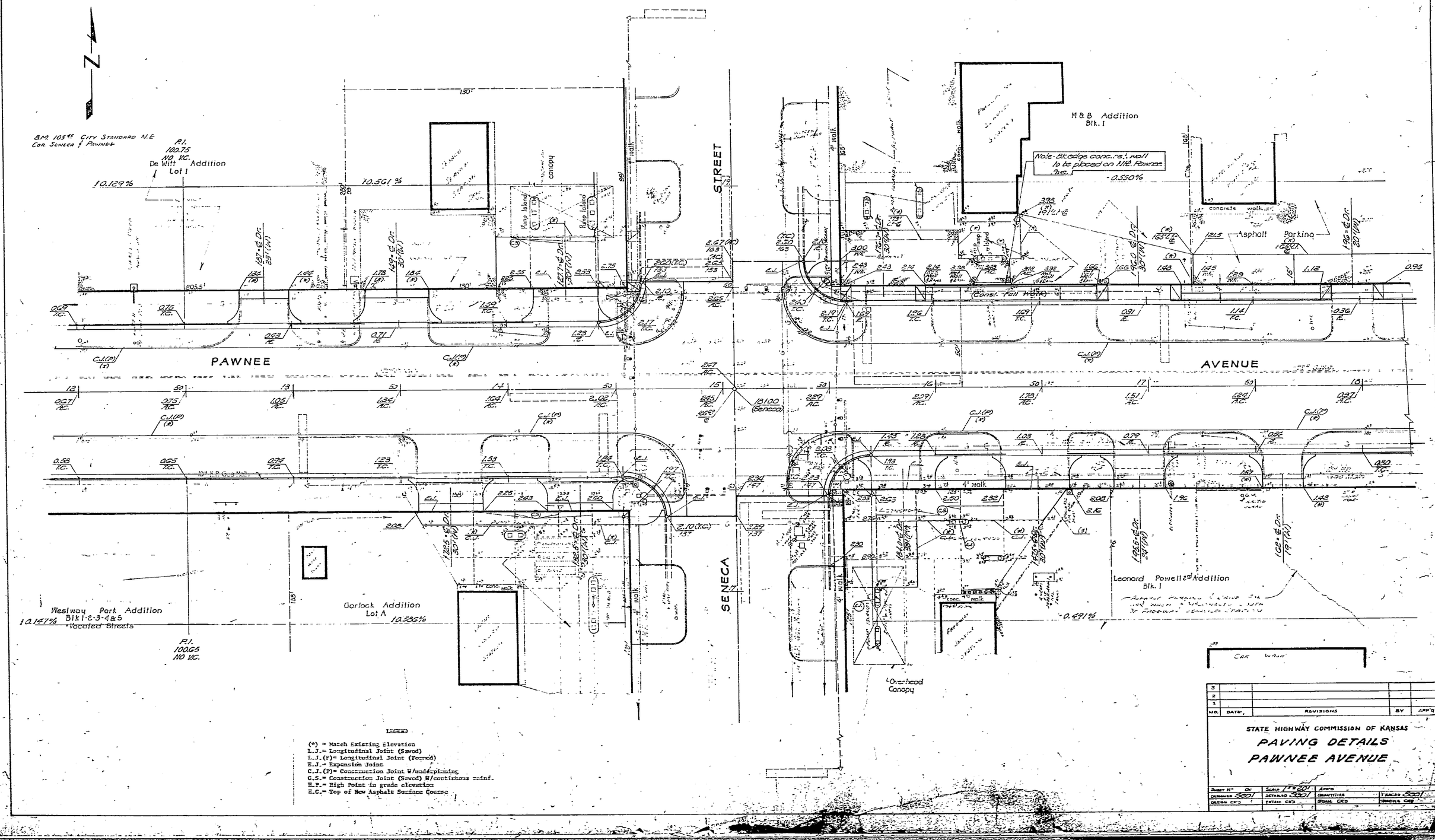
SHEET NO. OF	SCALE 1"=30'	APP'D	
DESIGNED SDD	DETAILED SDD	QUANTITIES	TRACED SDD
CHECKED CED	RECHK. CED	WORK. CED	TABULATED CED

DIST. 5 SEDGWICK CO. ROLL 531

5 0 8

16X 14.5X 12X 12X 14.5X 16X

FHWA No.	State	Project No.	Year	Sheet No.	Total Sheets
5	Kansas	81-T-4004(3)	1974	30	79



LEGEND

(*) = Match Existing Elevation
L.J.= Longitudinal Joint (Sawed)
L.J.(F)= Longitudinal Joint (Formed)
E.J.= Expansion Joint
C.J.(P)= Construction Joint W/underpinning
C.S.= Construction Joint (Sawed) W/continuous reinf.
H.P.= High Point in grade elevation
E.C.= Top of New Asphalt Surface Course

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

PAVING DETAILS PAWNEE AVENUE

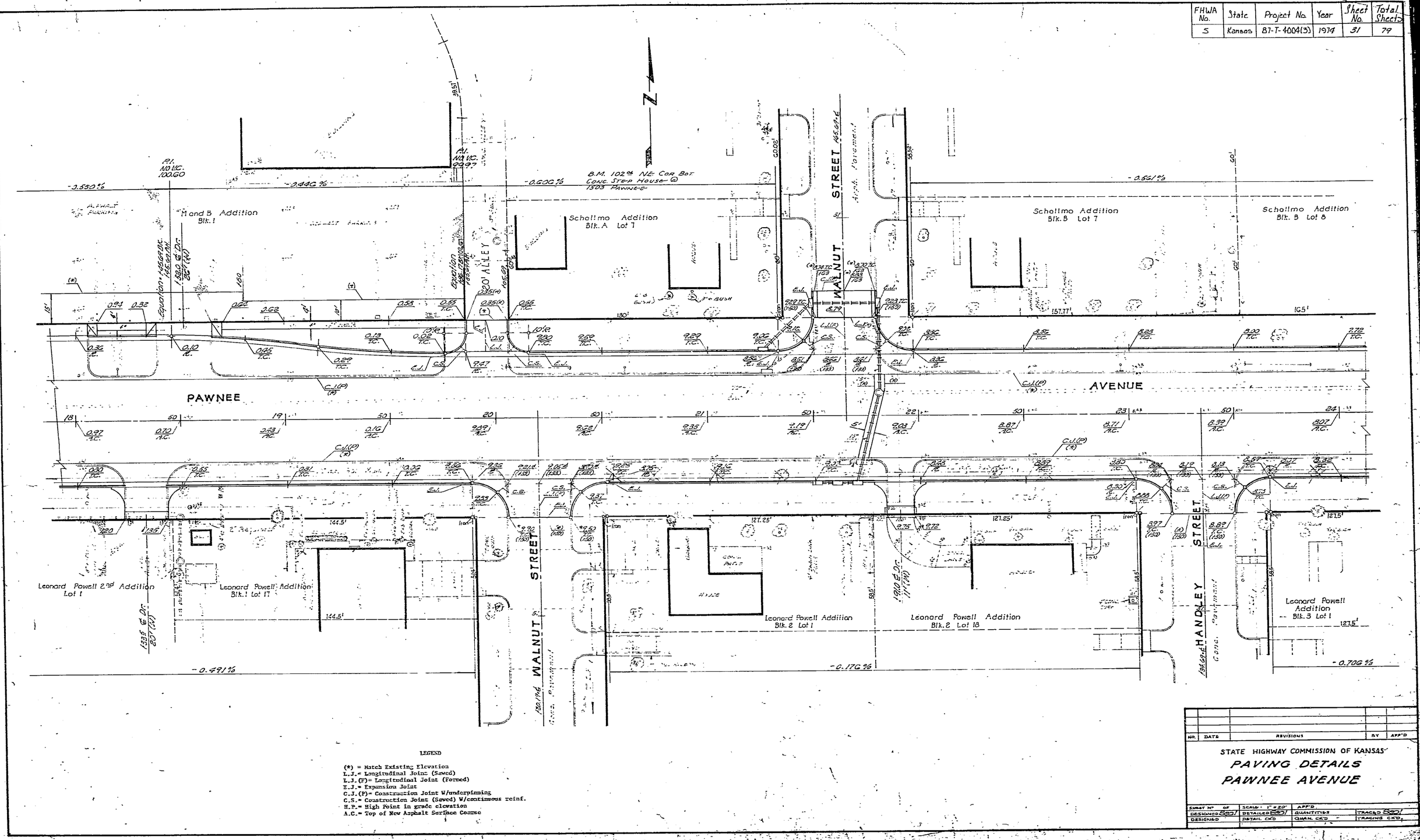
SHEET NO. OF	SCALE 1"=20'	APP'D	
DESIGNED 5201	DETAILED 5201	QUANTITIES	TRACED 5201
DESIGN CK'D	DETAIL CK'D	QUANT. CK'D	DRAWING CK'D

DIST. 5 SEDGWICK CO. ROLL 531

5 0 9

16X 14.5X 12X 12X 14.5X 16X

FHWA No.	State	Project No.	Year	Sheet No.	Total Sheets
S	Kansas	87-T-4004(3)	1974	31	79



LEGEND

(*) = Match Existing Elevation
L.J.= Longitudinal Joint (Sawed)
L.J.(F)= Longitudinal Joint (Formed)
E.J.= Expansion Joint
C.J.(P)= Construction Joint W/underpinning
C.S.= Construction Joint (Sawed) W/continuous reinf.
H.P.= High Point in grade elevation
A.C.= Top of New Asphalt Surface Course

NO.	DATE	REVISIONS	BY	APP'D

STATE HIGHWAY COMMISSION OF KANSAS

PAVING DETAILS

PAWNEE AVENUE

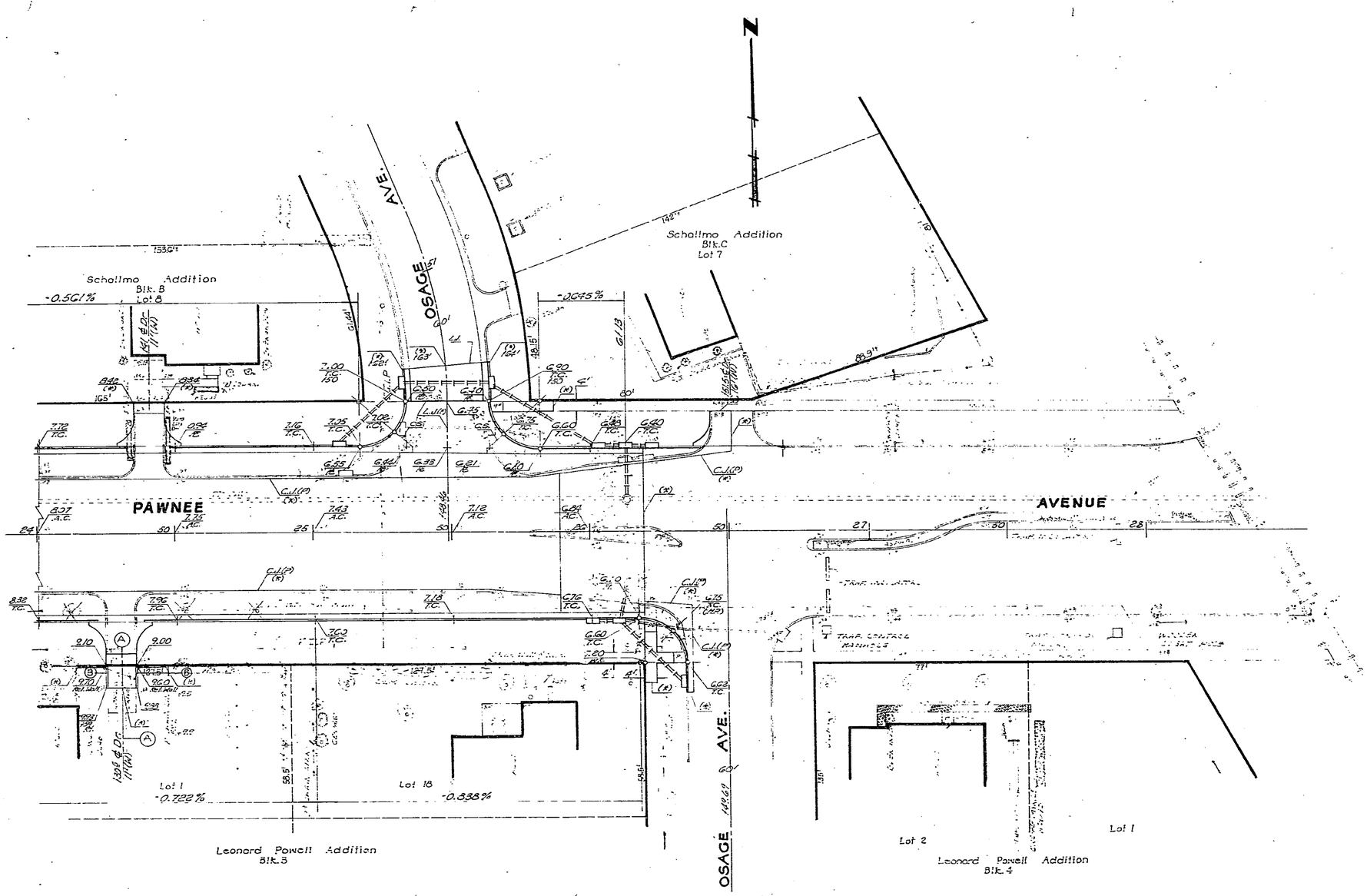
SHEET NO. OF	SCALE: 1" = 20'	APP'D	
DESIGNED BCJ	DETAILED BCJ	QUANTITIES	TRACED BCJ
DESIGNED	DETAIL CK'D	QUAN. CK'D	TRACING CK'D

DIST. 5 SEDGWICK CO. ROLL 531

5 1 0

16X 14.5X 12X = 12X 14.5X 16X

FHWA No.	State	Project No.	Year	Sheet No.	Total Sheets
5	Kansas	87-T-4004(3)	1974	32	79



LEGEND

(*) = March Existing Elevation
L.J.= Longitudinal Joint (Sawed)
L.J.(F)= Longitudinal Joint (Formed)
E.J.= Expansion Joint
C.J.(P)= Construction Joint W/underpinning
C.S.= Construction Joint (Sawed) W/continuous reinf.
H.P.= High Point in grade elevation
A.C.= Top of New Asphalt Surface Coarse

No.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

PAVING DETAILS

PAWNEE AVENUE

SHEET NO. 04	SCALE: 1"=20'	APP'D.	
DESIGNED 3001	DETAILED 3001	QUANTITIES	TRACED 3001
DESIGN ENG.	DETAIL C.E.	DUPL. CK'D.	TRACING CO.

DIST. 5 SEDGWICK CO. ROLL 531

5 1 1

16X 14.5X 12X 12X 14.5X 16X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	NO. SHEETS
5	Kansas	877-4004(3)	1974	33	79

N

B.M. 1011' "□" S.W Cor. Conc. Base
Gas Meter Red Carpet Car Wash

Grace Baptist Church Addition Blk. A - Lot 1

Coleman - Detwiler Addition Lot 1

De Witt 3rd Addition Lot 1

Hartley Addition Blk. 1 Lot 1

De Witt 3rd. Addition Lot 1

De Witt Addition Lot 1

Sta. 9+60 = Const. Curb Inlet (Type A5) 33.5' Lt.-& Ins. to 11 27'x.18" R.C.P.

Sta. 9+74 = Const. Curb Inlet (Type A5) 33.5' Lt.-& Ins. to 11 8'x.15" R.C.P.

PAWNEE

AVENUE

Sta. 9+60 - Stub 18" R.C.P. into exist'g 72" R.C.P. by cutting hole into R.C.P. & grading around new lead. Encase 18" joint of pipe out of exist'g S.W.S. in 6" Class (A) Conc.

Sta. 9+60 = Const. Curb Inlet (Type A5) 33.5' Lt.-& - Ins. to 11 32'x.18" R.C.P.

Sta. 9+74 = Const. Curb Inlet (Type A5) 33.5' Lt.-& Ins. to 11 8'x.15" R.C.P.

STORM WATER SEWER CONSTRUCTION
Encasement of R.C.P. Incidental to Project.
Plugging existing leads Incidental to Project.

Westway Park Addition
Blk. 1-2-3-4 & 5
Vacated Streets

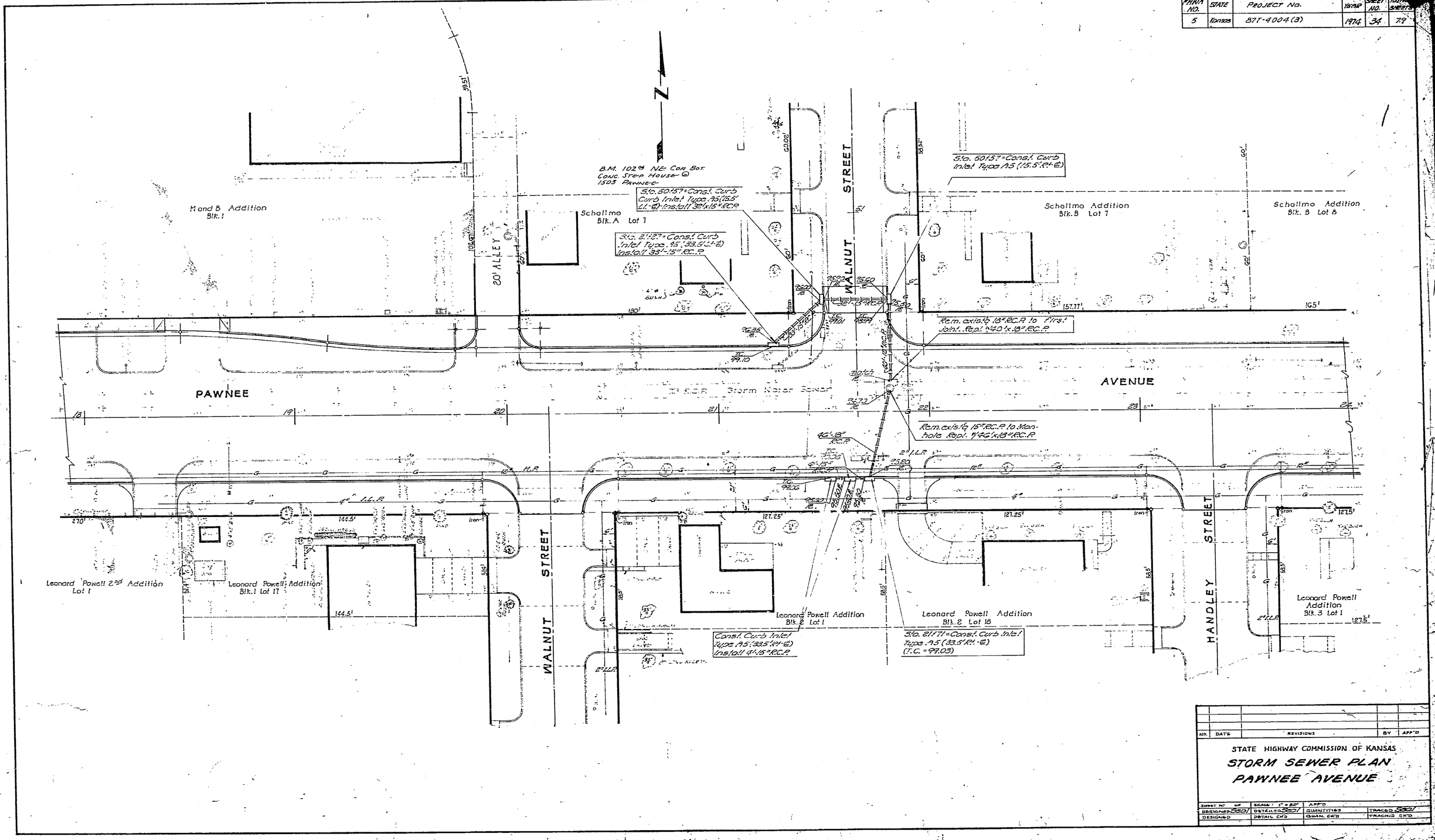
STATE HIGHWAY COMMISSION OF KANSAS
STORM SEWER PLAN
PAWNEE AVENUE

DIST. 5 SEDGWICK CO. ROLL 531

5 1 2

16X 14.5X 12X 12X 14.5X 16X

FHWA NO.	STATE	PROJECT No.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	BTT-4004(3)	1974	34	79



NO.	DATE	REVISIONS	BY	APP'D

STATE HIGHWAY COMMISSION OF KANSAS

STORM SEWER PLAN

PAWNEE AVENUE

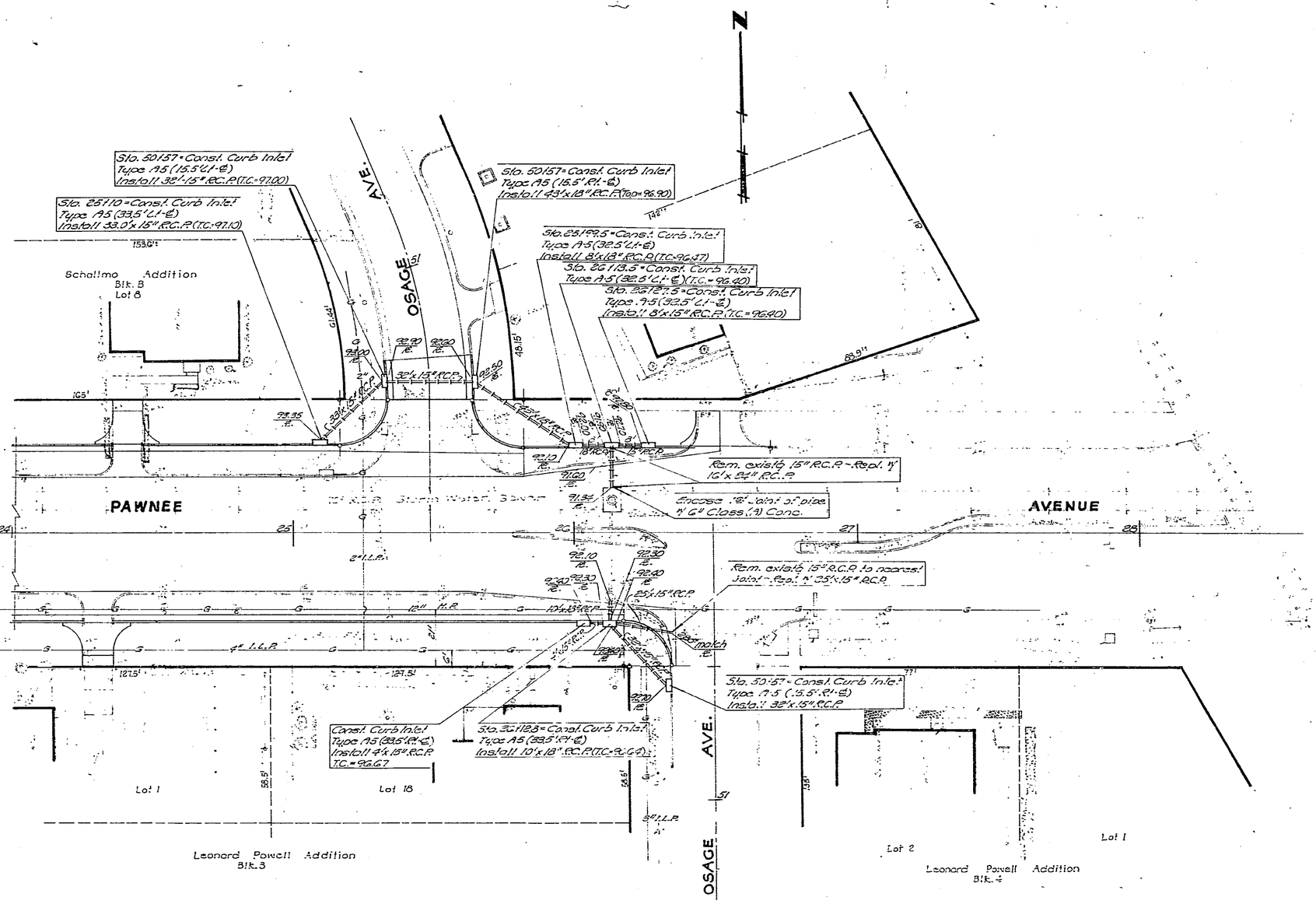
SHEET NO. OF	SCALE: 1" = 20'	APP'D	
DESIGNED	DETAILED	QUANTITIES	TRACED
DESIGNED	DETAIL CK'D	QUAN. CK'D	TRACING CK'D

DIST. 5 SEDGWICK CO. ROLL 531

5 1 3

16X 14.5X 12X 12X 14.5X 16X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	NO. SHEETS
5	Kansas	877-4004 (3)	1974	35	79



NO	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

STORM SEWER PLAN
PAWNEE AVENUE

SHEET NO. OF	SCALE: 1" = 20'	APPRD.	
DESIGNED 3001	DETAILED 3001	QUANTITIES	TRACED 3001
DESIGN C.O.	DETAIL C.O.	QUAN. C.O.	TRACING C.O.

DIST. 5 SEDGWICK CO. ROLL 531

5 1 4

16X 14.5X 12X 12X 14.5X 16X

FHWA NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-400A(3)	1974	36 79

1"=20'

B.M. 100th "B" IN GLOBE, S.CO SAVANNAH & E-L. SE-NE-CA

DALLAS AVENUE

CRAWFORD AVENUE

SENECA

26TH. STREET SOUTH

Lot 13 Blk. 7 Westway Park Addition

Lot 12 Blk. 7 Westway Park Addition J.W. Woolsey etux

Lot 10 Blk. 7 Westway Park Addition

Lot 11 Blk. 7 Nestway Park Addition Lyman W. Edwards etux

Westway Park Addition Blocks 1-2-3-4&5 *Vacated Strs. Westway Shopping Center Inc. Westway Inc.

WESTWAY SHOPPING CENTER ASPHALT PARKING LOT

ROW OF SMALL CEDARS (39)

12" High Pressure Main

16" High Pressure Main

6" ILP

2" ILP

2" Gas

White Stripes

Yellow Stripes

Reflectors

Concrete Pavement

Asphalt Parking

Wheel Stops

6' Walk

Payless Shoes

Tract 39

Lazy R

Pizza Hut

Asphalt Parking Lot

Place both cables same trench 7' West of East R/W line

BLOCK A Kuechenmeister Addn. Kansas District Bethany Lutheran Church

Lot 1 Lazy R 2nd. Addition Richard M. Leslie etux

Lot 1 Lazy R 2nd Addition Pizza Hut Inc.

Lot 1 Lazy R Addition Rosen Co Inc.

Control Points

Point	Station	Remarks
1	3+89.5	PC Pt. for 1° Rad. - 49°11'-E
2	3+89.0	PCC Pt. for 150'R - 11°11'-E
3	4+00	PT Pt. for 50.0'R - 1.12'Pt-E
4	6+20.06	PC Pt. for 80.0'R - 33°11'-E
5	6+20.52	PT Pt. for 80.0'R - 33°11'-E

NOTE - TRAFFIC LANE MARKINGS ARE TO BE COMPLETED BY OTHERS. TRAFFIC LANE MARKING SHEETS INCLUDED ARE FOR INFORMATION ONLY.

STATE HIGHWAY COMMISSION OF KANSAS

MEDIAL LAYOUT SENECA AVENUE (K-MLO)

DIST. 5 SEDGWICK CO. ROLL 531

5 1 5

16X 14.5X 12X 12X 14.5X 16X

FHWA NO.	STATE	PROJECT NO.	YEAR	NO.	SHEET NO.
5	KANSAS	87-7-4004(3)	1974	37	79

1"=20'

B.M. 100± "B" IN GLOBE, S. Co. SAVANNAH @ E. L. SENECA

Westway Park Addition
Blocks 1, 4 and 5
also Vacated Strs.

WESTWAY SHOPPING CENTER ASPHALT PARKING LOT

Tract 16

Temporary Const. Easement

1017.05' S. & 715.95' E. of the NW. Cor. Sec. 6-28S-R2E.

8755.5' S. & 1110.6' E. of the NW. Cor. Sec. 6-28S-R2E.

6015' N. & 1110.6' E. of the SW. Cor. Sec. 6-28S-R2E.

R/W = Existg R/W

SMALL CEDAR BUSHES (TYP.)

12" High Pressure Main

W.V.

SENECA AVENUE

Asphalt Parking

Tract 38

Lot 1
Lazy R Addition

Tract 38

Reserve A
Scheer's Addition

Sta. 7+73 = Overhead Mastarm w/R3-9a Signs 38.0'Lt-℄

Tract 37

Place both cables same trench 7' West of, Joint R/W line

SAVANNAH AVE.

Tract 36

E.F. Goodrich

Tract 35

Taco Tico
For Taco-Tico Sign
Overhead Canopy

Tract 34

Reserve B
Scheer's Addition

Lot 4, Blk. 1
Leonard Powell Addition

Lot 3, Blk. 1
Leonard Powell Addition

Control Points

Point	Station	Remarks
4	6+20.66	P.C. Pt. For 8.0'Lt. - 8.0'Lt.-℄
5	6+20.52	P.T. Pt. For 8.0'Rt. - 8.0'Rt.-℄

NO.	DATE	REVISION	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

MEDIAL LAYOUT
SENECA AVENUE

DIST. 5 SEDGWICK CO. ROLL 531

5 1 6

16X 14.5X 12X 12X 14.5X 16X 20X

5	[illegible]	[illegible]	[illegible]

1" = 20'

B.M. 103⁶ Stp. @ N.E. Cor. Seneca & Pawnee

Westroy Park Addition
Blks. 1-2-3-4 & 5
+ Vacated Streets

Gerlock Addition
Blk. A

Tract 16

Tract 17

Tract 32

Tract 33

Tract 34

Lot 3 Blk. 1
Leopard Powell Addition

Lot 2
Leonard Powell Addition

Lot 1
Sandlian 6th. Addition

Leonard Powell 2nd Addition
Lot 1

Vacated 20' Alley

Temporary Conc. Easement

Temporary Const. Easement

R/W-Existg R/W

12" High Pressure Main

10" High Pressure Main

SENECA

PAWNEE AVE.

ST.

Yellow Stripes

White Stripes

24" wide white Stop Bar

Δ=5°55'54"
R= 385.0'
T= 20.01'
C= 39.82'
LC= 39.79'

Control Points

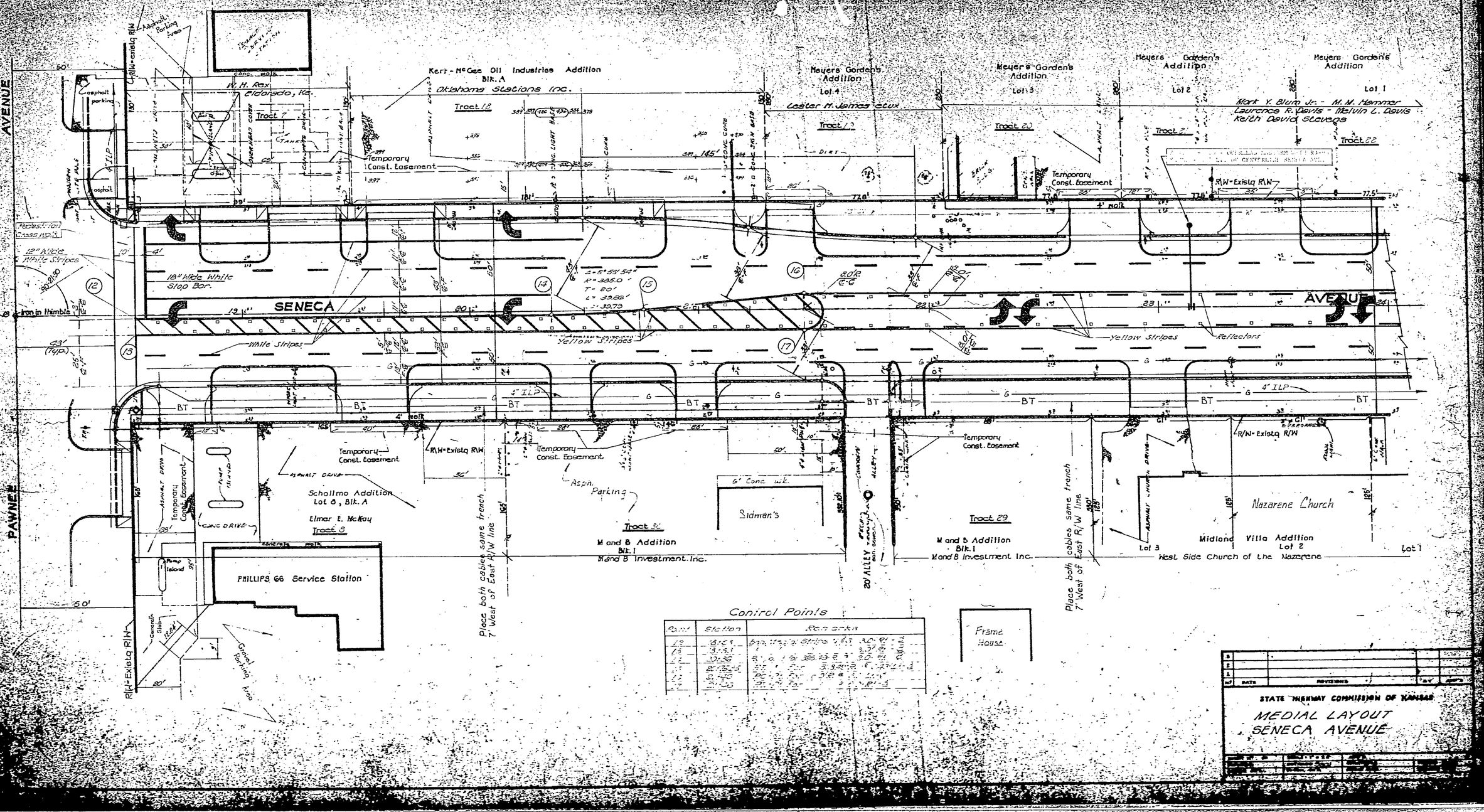
Point	Station	Remarks
6	4+25	PC-Pt. for 8.0°R-8.0°LL-6
7	4+65	PT-Pt. " " " " " "
8	5+06.24	PC-Pt. for 385'R-0°27'LT-6
9	5+46	PT-Pt. " " 2-8.0°LL-6
10	7+47	End Medial Strips 11 & 9, 8.0°LL-6
11	7+47	" " " " 20'LL-6

MEDIAL LAYOUT
SENECA AVENUE

DIST. 5 SEDGWICK CO. ROLL 531

5 1 7

16X 14.5X 12X 12X 14.5X 16X 20X

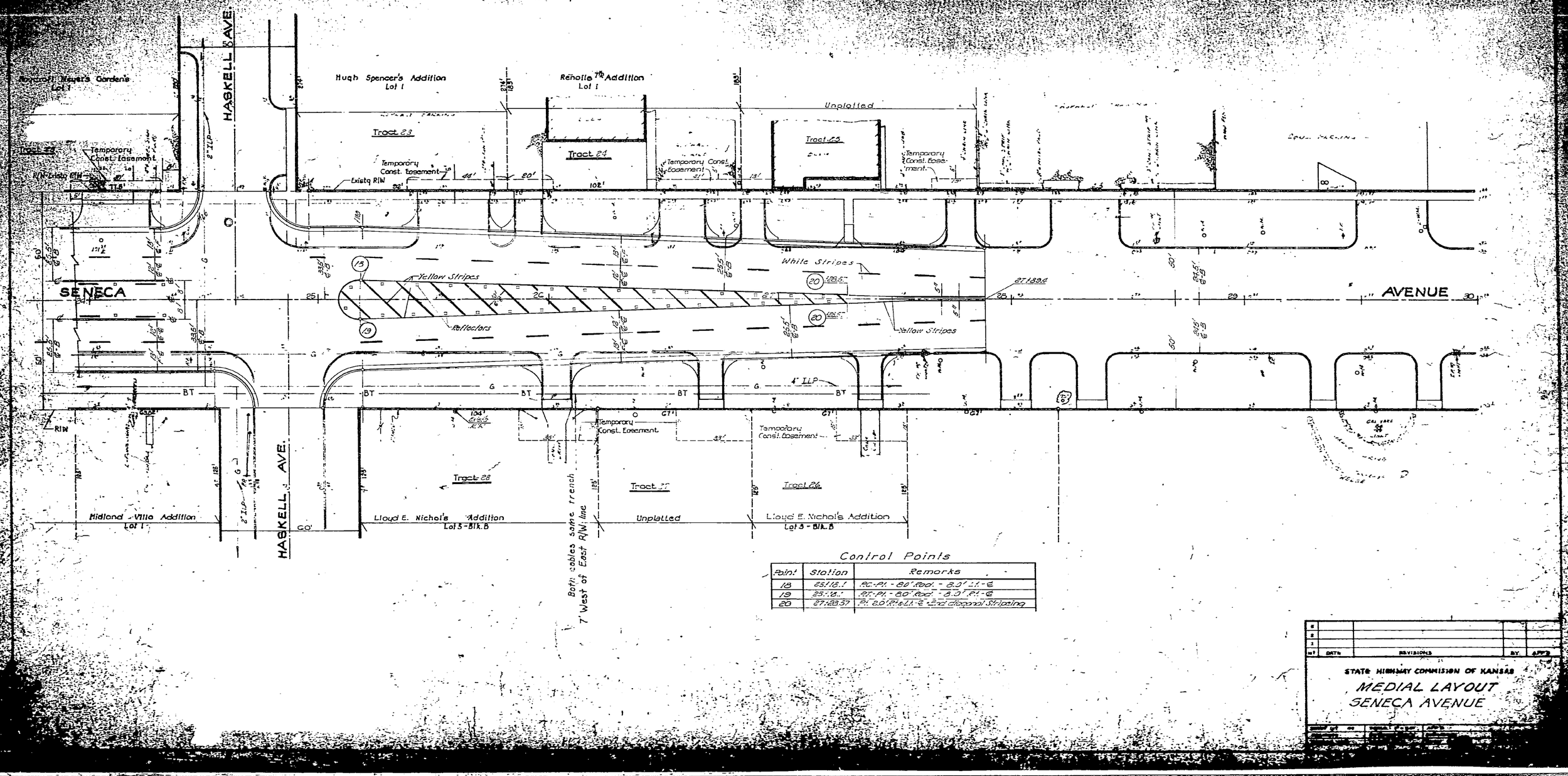


DIST. 5 SEDGWICK CO. ROLL 531

5 1 8

16X 14.5X 12X

12X 14.5X 16X 20X



Control Points

Point	Station	Remarks
18	25.18.1	PC-P1 - 80' Rad. - 8.3' P1-C
19	25.18.1	PT-P1 - 80' Rad. - 8.3' P1-C
20	27.1857	P1 20' R1 & L1-2 - End diagonal Striping

#	DATE	REVISIONS	BY	APP'D
4				
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

MEDIAL LAYOUT

SENECA AVENUE

DIST. 5 SEDGWICK CO. ROLL 531

5 1 9

16X 14.5X 12X 12X 14.5X 16X

TRANS NO.	STATE	PROJECT NO.			
5	KANSAS	87-7-4004 (3)	574	11	79

B.M. 102.25 N.E. Cor. Bottom Conc. Step – House 1503 Pawnee

1"=20'

Unplatted Tracts

Haycraft Acres
Lot 2
Vernon H. McMelly etux

Isador R. Lambert etux
Vincent R. Terry etux

James P. Chapman etux

Arlie A. Johnson etux

Grace Baptist Church Addition
Blk. A Lot 1

Grace Baptist Church

Tract 1

R/W = Existg R/W

180' Temporary Const. Easement

519.93'

R/W = Existg R/W

Temporary Const. Easement

4" I.P.

PAWNEE AVENUE

White Stripes

Yellow Stripes

Yellow Stripes

Reflectors

Clean in Thimble

1181.15 Conc.

10" High Press. Gas

1255'

Iron

F.A. Brown's 2nd Addition
Blk. B Lot 20

ELIZABETH AVENUE

VACANT LOT

379'

R/W = Existg R/W

Iron

Temporary Const. Easement

255' E. of Elizabeth Ave.

MARTINSON AVENUE
VACATED ORD. No. 25-989

WESTWAY SHOPPING CENTER

Tract 16

SHOPPING ASPHALT PARKING

Westway Park Addition
Blks. 1-2-3-4 & 5
+ Vacated Streets

Westway Shopping Center Inc.
Westway Inc.

NOTE - TRAFFIC LANE-MARKINGS ARE TO BE COMPLETED BY OTHERS. TRAFFIC LANE MARKING SHEETS INCLUDED ARE FOR INFORMATION ONLY.

Control Points

Point	Station	Remarks
1	3129.2	P.I. - 4.0° Rad. - 1.30' Ll.-C.
2	4129.0	P.I. - " - " - 2.70' P.I.-C.
3	5195.6	P.I. P.I. - 8.0° P.I.-C.

STATE HIGHWAY COMMISSION OF KANSAS

MEDIAL LAYOUT

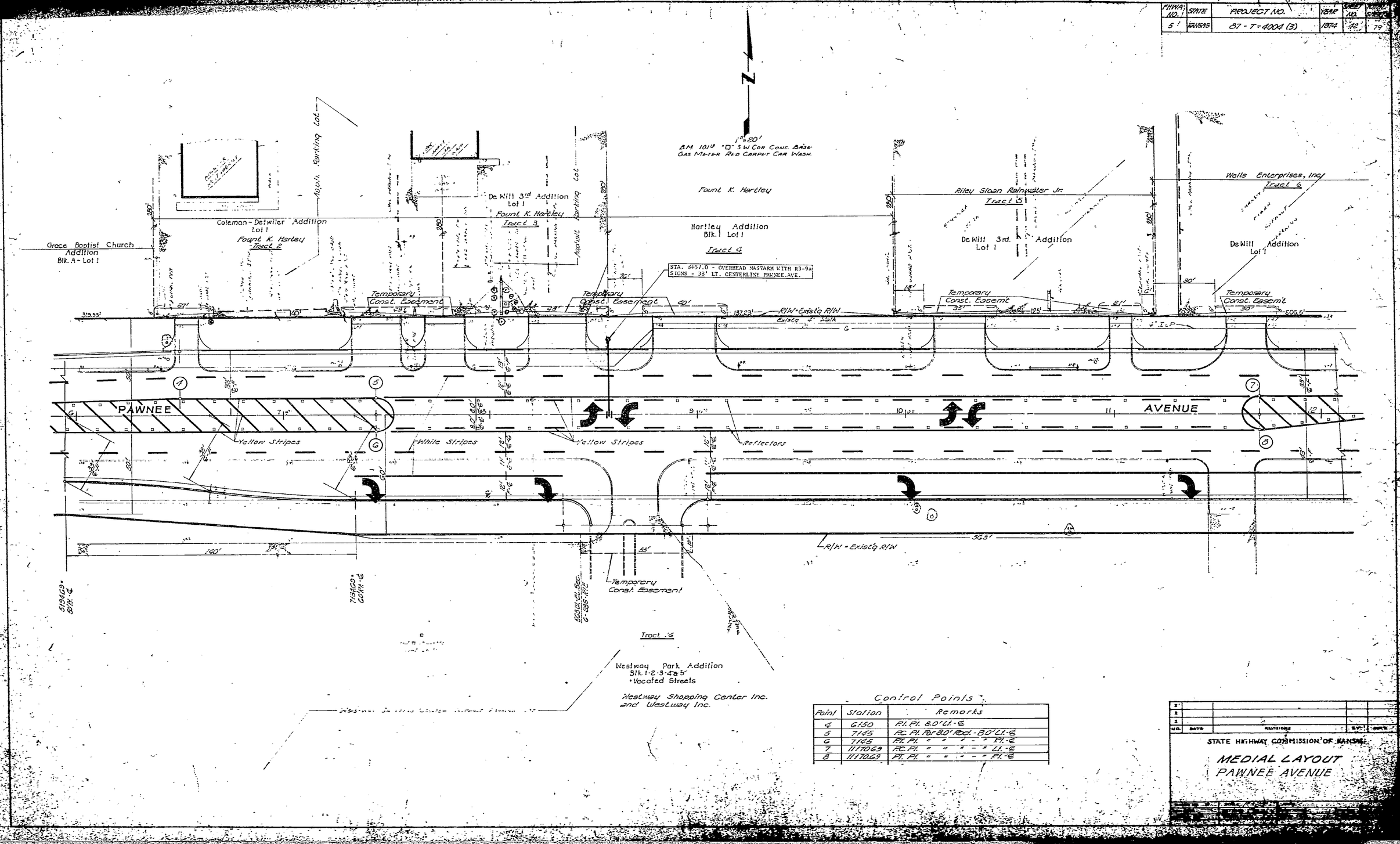
PAWNEE AVENUE
(Wichita)

DIST. 5 SEDGWICK CO. ROLL 531

5 2 0

16X 14.5X 12X 12X 14.5X 16X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1974	18	79



Control Points

Point	Station	Remarks
4	6+50	PI. Pt. 8.0' Lt.-℄
5	7+45	P.C. Pt. for 80' Rad. - 30' Lt.-℄
6	7+65	P.T. Pt. " " " - " P.T.-℄
7	11+70.69	P.C. Pt. " " " - " Lt.-℄
8	11+70.69	P.T. Pt. " " " - " P.T.-℄

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

MEDIAL LAYOUT
PAWNEE AVENUE

DIST. 5 SEDGWICK CO. ROLL 531

5 2 1

9X 16X 14.5X 12X 12X 14.5X 16X 20X

FHWA NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	43	71

N

Z

Mid 1937 City Standard M.E.
Top Changed to Asphalt

De Witt Addition Lot 1

Tract 6

Tract 7

Tract 8

Tract 30

Tract 31

Tract 16

Tract 15

Schollmo Addition Lot 8-Blk A

M and B Addition

Leonard Powell Addition Blk 1

Gorlock Addition Lot A

Pawnee Park Addition Blk 1 & 2 & 5 Vacated Streets

PAWNEE AVENUE

STREET

SENECA

Temporary Const. Easement

R/W = Existg R/W

4" ILP

18" Wide White Stop Bar

12" White Stripes

Pedestrian Cross walk

Reflectors

Yellow Stripes

White Stripes

NE Corner of Sec. 6-26S-R1E

Iron in Thimble

43.01 (Tup)

10" H.P. Gas Main

16" High Pressure Main

Asphalt Parking

Car Wash

Concrete

Asphalt Paving

Control Points

Point	Station	Remarks
9	1212783	P.C. Pt. for 2843' Rad. 0.9° Rt.-E
10	1216763	Pt. Pt. " " " 3.0° Lt.-E
11	1415263	End Medial Stripe East and West 200'-E
12	1415263	" " " " " 30'-E
13	1515863	Beg. " " " " " 30'-E
14	1518363	" " " " " 830'-E
15	1716363	P.C. Pt. " 2293' " - 3.5° Rt.-E
16	1716349	Pt. Pt. " " " - 3.5° Lt.-E

STATE HIGHWAY COMMISSION OF KANSAS

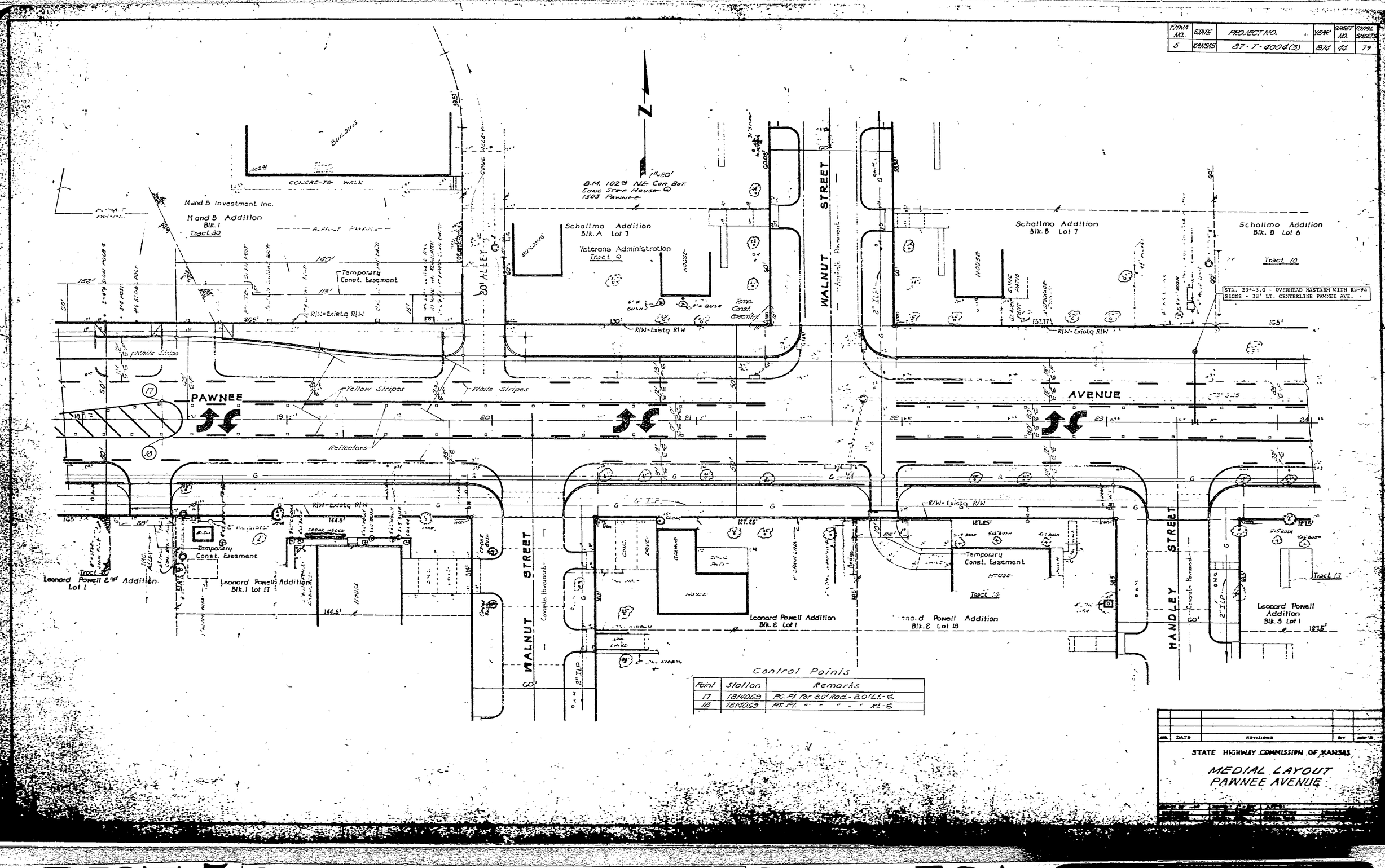
MEDIAL LAYOUT
PAWNEE AVENUE

DIST. 5 SEDGWICK CO. ROLL 531

5 2 2

6X 16X 14.5X 12X 12X 14.5X 16X 20X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1974	44	79

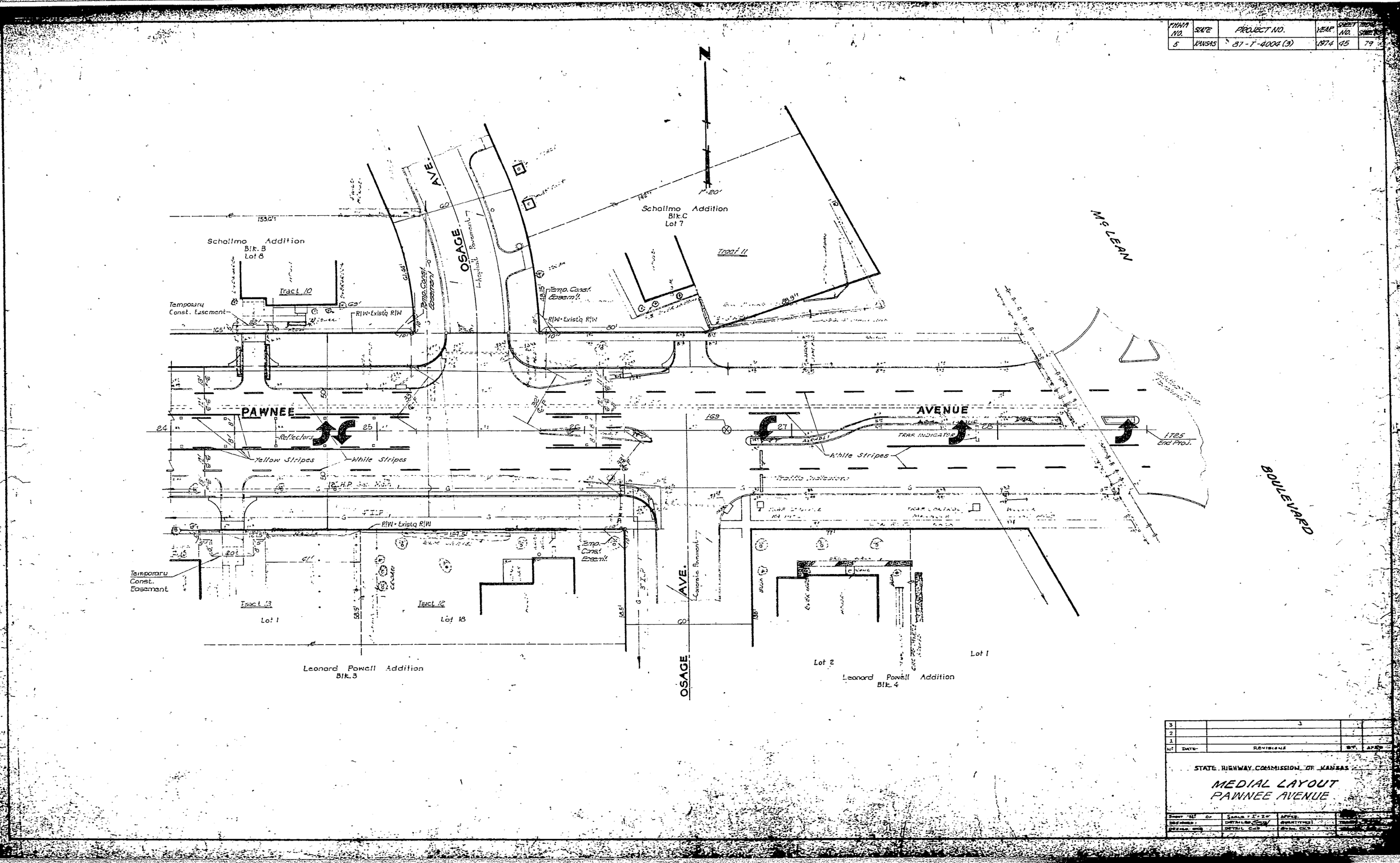


DIST. 5 SEDGWICK CO. ROLL 531

5 2 3

0X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1974	45	79



STATE HIGHWAY COMMISSION OF KANSAS

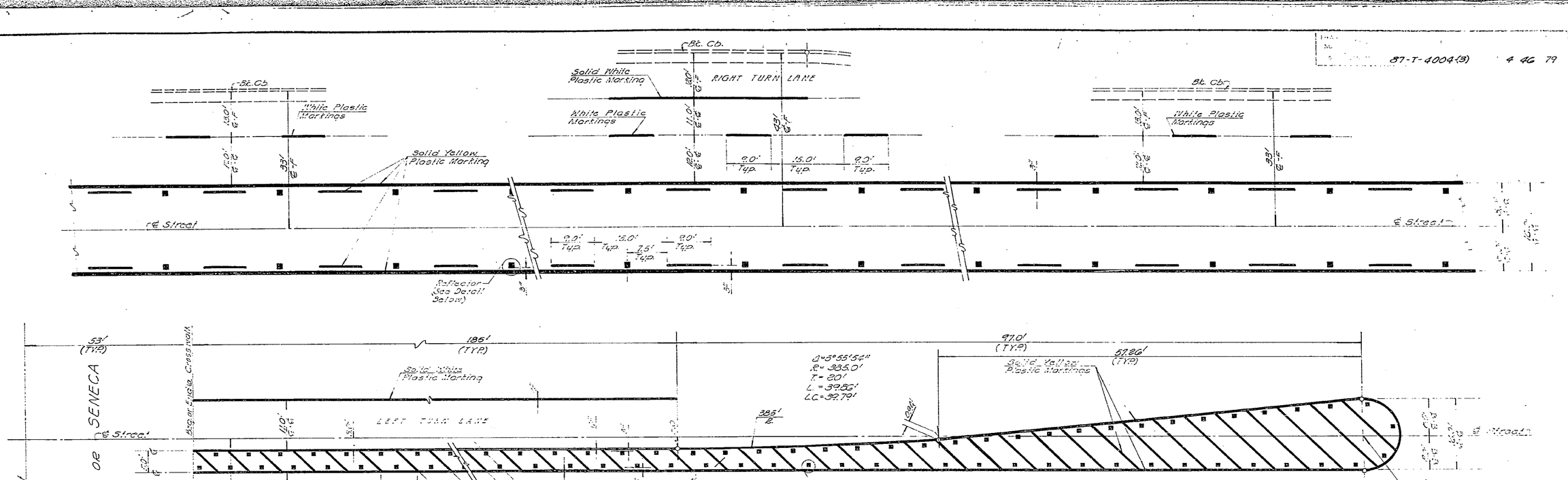
MEDIAL LAYOUT
PAWNEE AVENUE

DIST. 5 SEDGWICK CO. ROLL 531

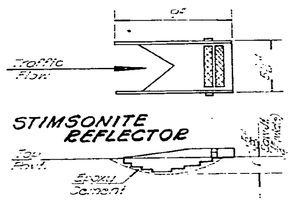
5 2 4

16X 14.5X 12X 12X 14.5X 16X 20X

87-T-4004(3) 4 46 79



TYPICAL MEDIAN DETAIL
@ PAWNEE AND SENECA INTERS.



STIMSONITE ®99 REFLECTOR (OR EQUAL)
To be installed by Traffic Engineering Division City of Wichita, Kansas.
Reflectors to be installed parallel to Cl. Line of Street thru out project.

R3-9a
Colors: Legend - Black (Non-Ref.l.) Background - White (Ref.l.)
Size: 30" x 36"

38' MASTARMS WITH BACK TO BACK R3-9a SIGNS TO BE INSTALLED BY THE TRAFFIC ENGINEERING DIVISION AT THE FOLLOWING LOCATIONS:

1. STA 8+57.0 - 38.0' Lt. Of CENTERLINE - PAWNEE AVE.
2. STA 23+43.0 - 38.0' Lt. OF CENTERLINE - PAWNEE AVE.
3. STA 7+73.0 - 38.0' Rt. OF CENTERLINE - SENECA AVE.
4. STA 23+14.0 - 38.0' Lt. OF CENTERLINE - SENECA AVE.

NOTE - TRAFFIC LANE MARKINGS ARE TO BE COMPLETED BY OTHERS. TRAFFIC LANE MARKING SHEETS INCLUDED ARE FOR INFORMATION ONLY.

TRAFFIC LANE MARKING & TRAFFIC MEDIAN DETAILS
REFLECTOR DETAIL
PAWNEE AND SENECA INTERSECTION
Seal

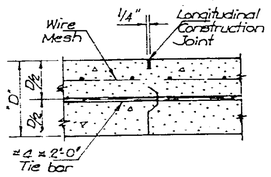
DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted] 5 2 5

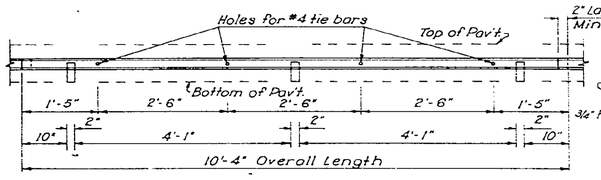
16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FHWA REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	(37-7-400413)	1974	47	79

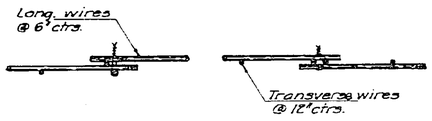
Note: At Longitudinal Construction Joints a saw cut 1" deep and 1/4" wide shall be made and poured with hot poured Joint Compound.



LONGITUDINAL CONSTRUCTION JOINT DETAIL
TRANSVERSE SECTION



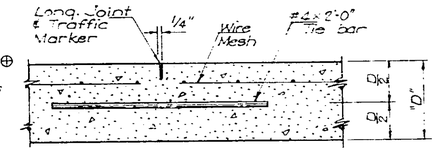
METAL STRIP FOR
LONGITUDINAL CONSTRUCTION JOINT
To be used only against forms
Shall not extend through contraction or expansion joints.



DETAIL OF LAP FOR WIRE MESH

NOTE: The lap shall extend beyond the first transverse wire of each sheet. The sheet shall be wired securely at the edges and at intervals not to exceed 2'-6" for the full width of the sheet. Approx. wt. of wire mesh = 61 lbs. per 100 sq. ft. Other methods for fastening the sheets of wire mesh at the laps may be used with the approval of the Engineer.

⊕ Snap-in leg or other approved designs may be used in lieu of welded leg.

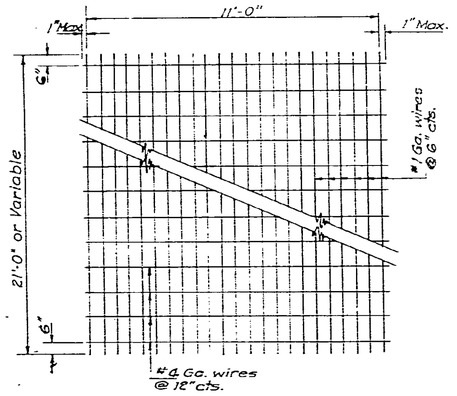


LONGITUDINAL JOINT DETAIL
TRANSVERSE SECTION

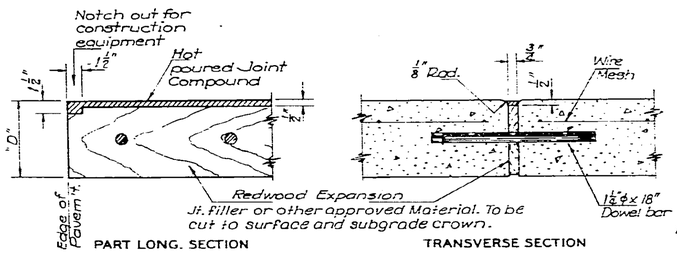
*2 1/2" Min. (:"D"-0")

Note: A longitudinal joint formed by sawing * deep and 1/4" wide and poured with hot poured joint compound shall be used. In lieu of sawing and pouring of hot poured joint compound, the contractor may insert a Lineal Polyethylene (semi rigid) 3/16" (Nominal) .012" (Min.) strip vertically into the surface of fresh concrete pavement by approved methods. The strip should also be inserted flush with the finished surface of the slab. Other approved planes of weakness may be installed.

Note: See Sht. No. (48) for Contraction Joint Details.



TYPICAL SHEET OF WELDED WIRE MESH



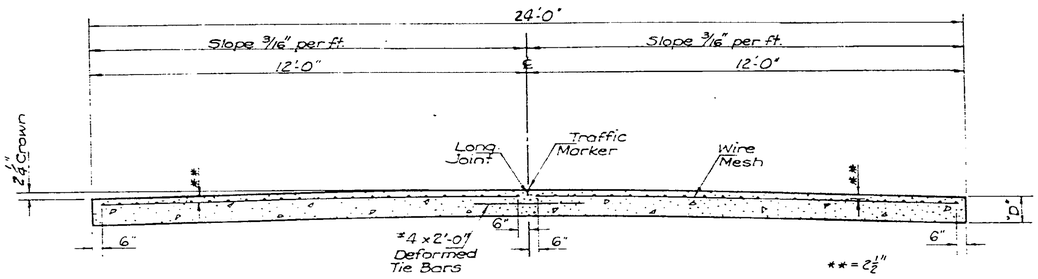
PART LONG. SECTION TRANSVERSE SECTION

EXPANSION JOINT DETAIL

NOTE: An expansion joint (without load transfer devices), shall be placed at the ends of the pavement slab where the new pavement abuts the ends of bridges or other rigid structures.

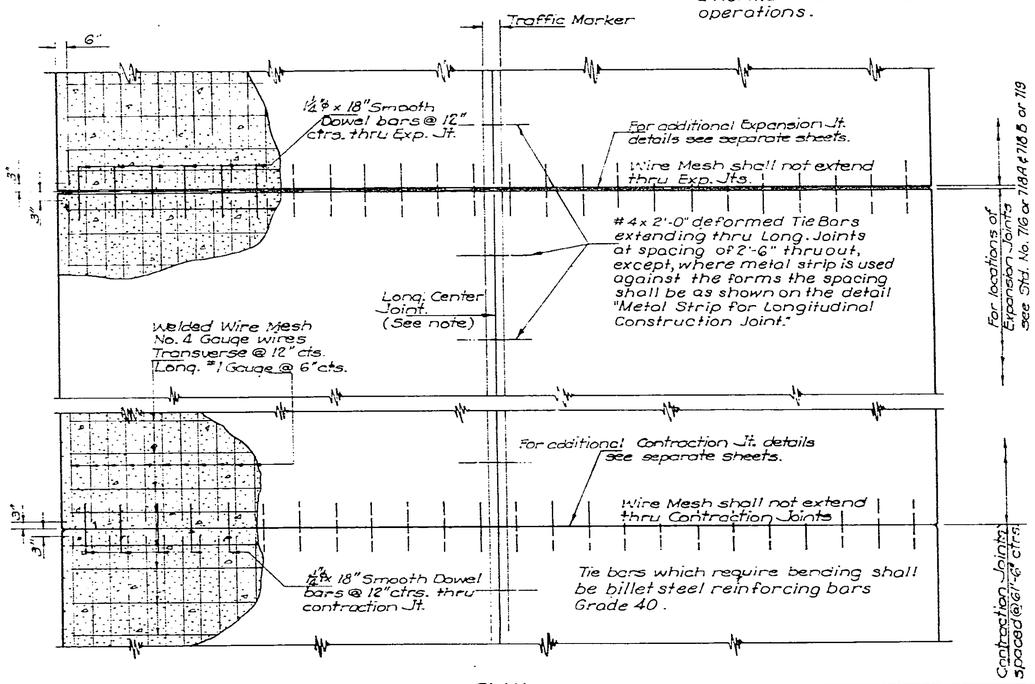
Unless otherwise noted, load transfer devices as shown in detail on other standard sheets in the plans, shall be used at all expansion & contraction joints.

NOTE: Traffic Marker to be painted by the C/M



TRANSVERSE SECTION

**Note: The 2 1/2" as shown on standard sheet is a nominal dimension and may be subject to a normal unevenness due to placement operations.



PLAN

Note: At the beginning and end of the pavement on any given project, a construction joint as specified below shall be used unless the pavement abuts a rigid surface. The header shall be removed and the tie bars bent into the groove at right angles to the centerline of the pavement.

Transverse Construction Joints shall be sawed 3/16" wide x 2 1/4" deep and filled as specified for contraction joints.

There may be a tolerance of 10 feet in setting the basket at the end of the pour; that is, the contraction joint may be not less than 51'-6" or more than 71'-6" at the end of the pour.

D= 7" ℄ 8"

QUANTITIES	Thickness "D"	End Area Sq. Ft.	Cu. Yds. per Sta.
22' WIDTH	8"	14.67	54.32
	9"	16.50	61.11
	10"	18.33	67.90
24' WIDTH	8"	16.00	59.26
	9"	18.00	66.67
	10"	20.00	74.07

NO	DATE	REVISIONS	BY	APP'D
23	9-4-73	Changed Dimension on Polyethylene Longitudinal Strip	W.L.H.	K.G.L.
22	3-4-71	Added Snap-in Form Leg	W.L.H.	T.R.G.
		Long. Jt. Mesh, billet steel		
21	1-29-71	Alternate Material for Redwood removed Contraction Jt. Detail	W.L.H.	K.G.L.
20	6-27-68	Rev. Metal Long. Strip used against forms	T.E.R.	K.G.L.

STATE HIGHWAY COMMISSION OF KANSAS

CONCRETE PAVEMENT

TWO LANE ____ WIDTH

~~STD. NO. 707.1~~

SHEET NO. ____ OF ____ SCALE: No Scale Apprd. [illegible]

DESIGNED ____ DETAILED W.A.B. QUANTITIES W.A.B. TRACED W.A.B.

DESIGN CK. ____ DETAIL CK. E.A.R. QUAN. CK. ____ TRACE CK. ____

01

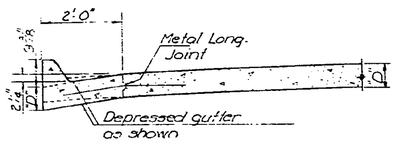
DIST. 5 SEDGWICK CO. ROLL 531

5 2 6

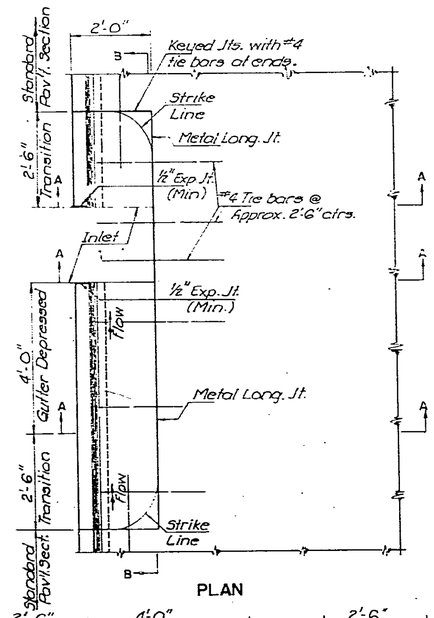
2X 16X 14.5X 12X 12X 14.5X 16X 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-7-4002(3)	1974	49	78

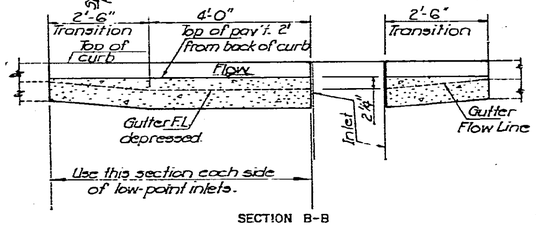
Note: If depressed gutter is constructed monolithic with the pavement the metal Longitudinal Jt and tie bars may be omitted.



SECTION A-A

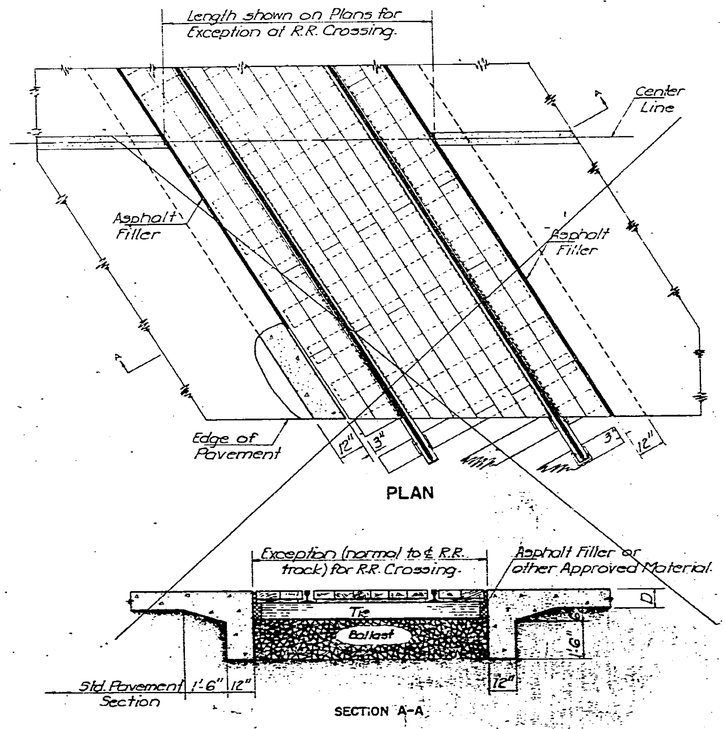


PLAN



SECTION B-B

DEPRESSED GUTTER AT INLETS (TYPE "A")

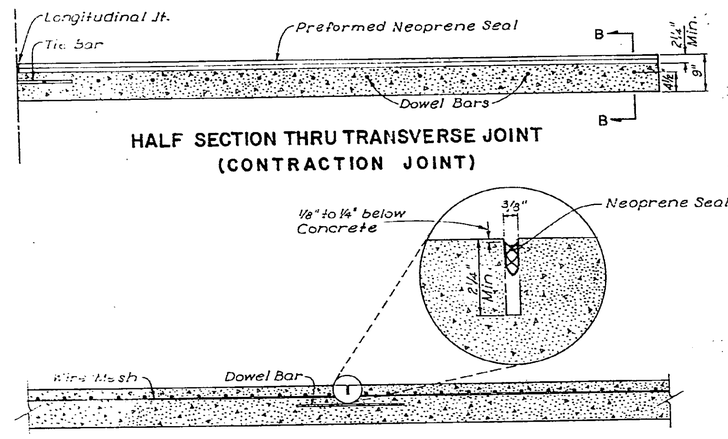


PLAN

SECTION A-A

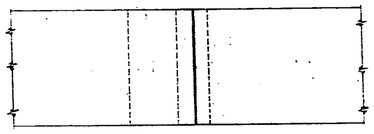
Note: Header to be paid for as additional area of concrete pavement, to be computed by adding two (2) feet times the width parallel to R.R. track for each header.

CONCRETE HEADER AT RAILROAD CROSSINGS

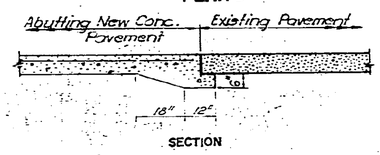


HALF SECTION THRU TRANSVERSE JOINT
(CONTRACTION JOINT)

SECTION B-B
&
DETAIL OF SAW CUT
CONTRACTION JOINT



PLAN



SECTION

Note: Wherever a new concrete pavement abuts an existing pavement, the joint shall be underpinned as shown for the full width of the pavement.
This underpinning shall be considered as a subsidiary item.

UNDERPINNING
(FOR CONCRETE PAVEMENT)

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1	1-29-71	Added Contraction Jt. Details	W.L.H.	K.G.L.

STATE HIGHWAY COMMISSION OF KANSAS

CONCRETE PAVEMENT

AUXILIARY DETAILS-I

~~STD. NO. 720-I~~ 3-25-70

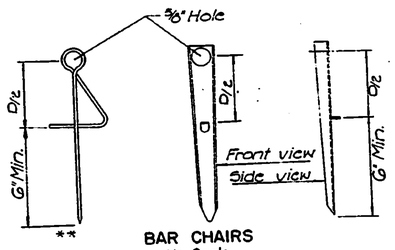
SHEET NO.	OF	SCALE		APP'D	K. G. Kaufman
DESIGNED		DETAILED	G.G.	QUANTITIES	
DESIGN CK		DETAIL CK.	W.L.H.	QUAN. CK.	

DIST. 5 SEDGWICK CO. ROLL 531

5 2 7

16X 14.5X 12X 12X 14.5X 16X 20X

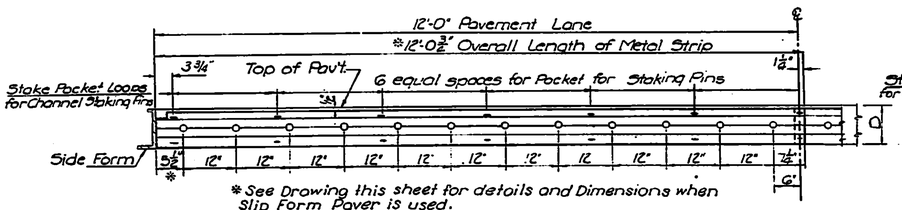
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-7-4004(3)	1974	49	79



BAR CHAIRS
No Scale

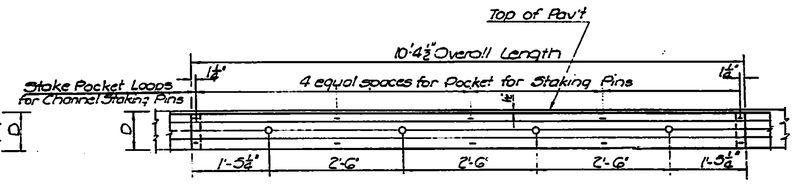
NOTE: Bar chairs shall be used to support transverse tie bars connecting adjoining sections of the slab. Two chairs shall be used to support each transverse tie bar. Other similar types may be used with the approval of the Engineer. The diameter on all wire bar chairs shall not be smaller than No. 5 gauge and shall conform to A.S.T.M. Serial Designation A82. The gauge on all steel bar chairs shall be No. 16 gauge and shall conform to the U.S. std. gauge for sheet steel.

** This type will not be approved for use with stone subbases.



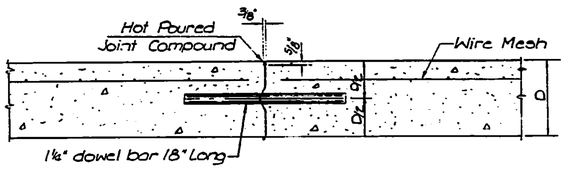
*See Drawing this sheet for details and Dimensions when Slip Form Paver is used.

ELEVATION OF METAL STRIP FOR CONTRACTION JOINT (24' PAVEMENT)
Scale: 3/4" = 1'-0"

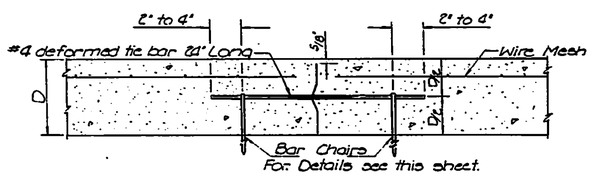


ELEVATION OF METAL STRIP FOR LONGITUDINAL JOINT
Scale: 3/4" = 1'-0"

TOP VIEW OF STAKE POCKET LOOP FOR CHANNEL STAKING PIN



SECTION THRU CONTRACTION JOINT SHOWING METAL STRIP
Scale: 1/8" = 1"



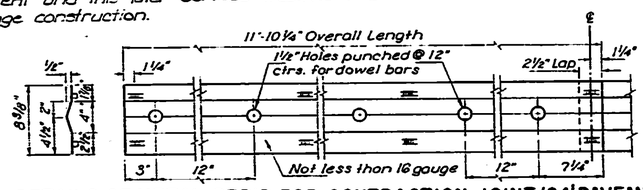
SECTION THRU LONGITUDINAL JOINT SHOWING METAL STRIP
Scale: 1/8" = 1"

NOTE: All contraction joints to be sawed 5/8" deep and 3/8" wide. Sawed joint to be cleaned by sand blasting prior to pouring of the sealing compound.

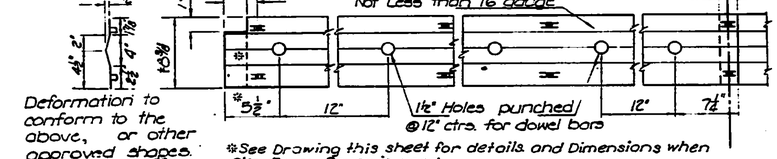
NOTE:
SUBGRADE PAPER
When Subgrade paper is required by the Specifications, or special provisions, it shall be placed on the entire subgrade. The edges of longitudinal strips of subgrade paper shall be lapped a minimum of 3 inches. The ends of longitudinal strips shall be lapped a minimum of 6 inches. The furnishing and placing of Subgrade Paper will not be paid for directly, but will be subsidiary to the pay item "Concrete Pavement".

LINSEED OIL TREATMENT: The entire top surface of the concrete pavement shall be treated after the curing period and prior to opening to traffic. The mixture is to be applied in two applications. The first application shall be at the rate of .025 gallons per square yard, and the second at the rate of .015 gallons per square yard. Payment will be per square yard for "Linseed Oil Surface Treatment".

Under a separate contract another surface treatment will be applied to the top surface of the pavement approximately twelve months after the first treatment. The initial surface treatment and this later surface treatment are to be considered as stage construction.



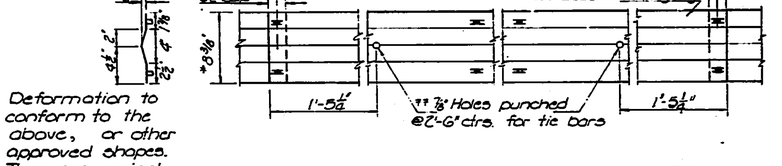
DETAILS OF METAL STRIP FOR CONTRACTION JOINT (24' PAVEMENT)
(When Slip Form Paver is Used)
Scale: 1/8" = 1"



Deformation to conform to the above, or other approved shapes. These are nominal dimensions.

*See Drawing this sheet for details and Dimensions when Slip Form Paver is used.

DETAILS OF METAL STRIP FOR CONTRACTION JOINT (24' PAVEMENT)
Scale: 1/8" = 1"

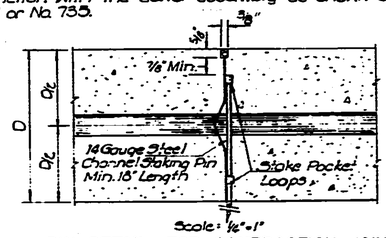


Deformation to conform to the above, or other approved shapes. These are nominal dimensions.

Metal Strip shall not extend thru expansion or contraction joints.
*Dimension when D=9"
**Holes to be 1" for plates used with #6 bars on bridge approach slabs.

DETAILS OF METAL STRIP FOR LONGITUDINAL JOINTS
Scale: 1/8" = 1"

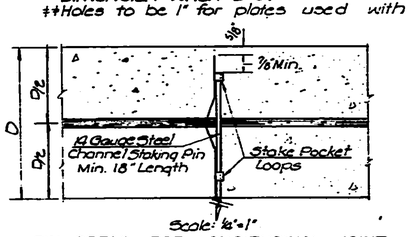
#Dimension when D=9"
NOTE: Metal Strip shown for contraction joint to be used in conjunction with the dowel assembly as shown on Std. Sheet No. 734 or No. 735.



Scale: 1/2" = 1"

PIN DETAIL FOR CONTRACTION JOINT

D=9"



Scale: 1/2" = 1"

PIN DETAIL FOR LONGITUDINAL JOINT

5	3-25-69	Rev. Mat'l. strip & Added slip form detail & Rev. Note Subgrade Paper	W.L.H.	K.G.L.
4	2-27-68	Rev. metal stripe & Staking Pins	A.L.B.	K.G.L.
3	1-26-68	Rev.: Shape & length metal strip; Rev. staking pins; chm. metal clip	P.G.F.	T.R.G.
No.	DATE	REVISIONS	BY	APP'D

STATE HIGHWAY COMMISSION OF KANSAS
CONCRETE PAVEMENT
AUXILIARY DETAILS-III
STD. NO. 723
1-26-68

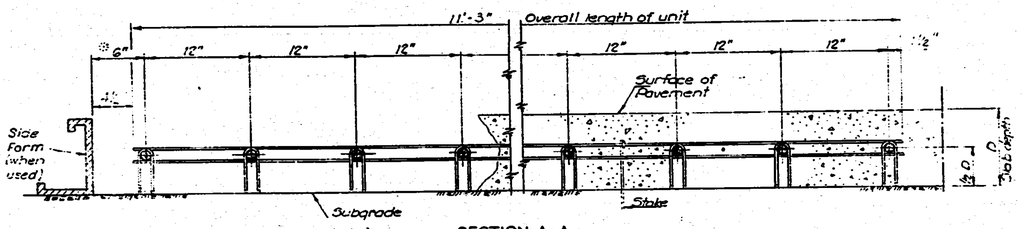
SHEET NO.	OF	SCALE As Shown	APP'D [illegible]
DESIGNED		DETAILED P.G.F.	QUANTITIES
DESIGN CK.		DETAIL CK.	CONST. CK.
			TRACED P.G.F.
			TRACE CK.

DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted] 5 2 8

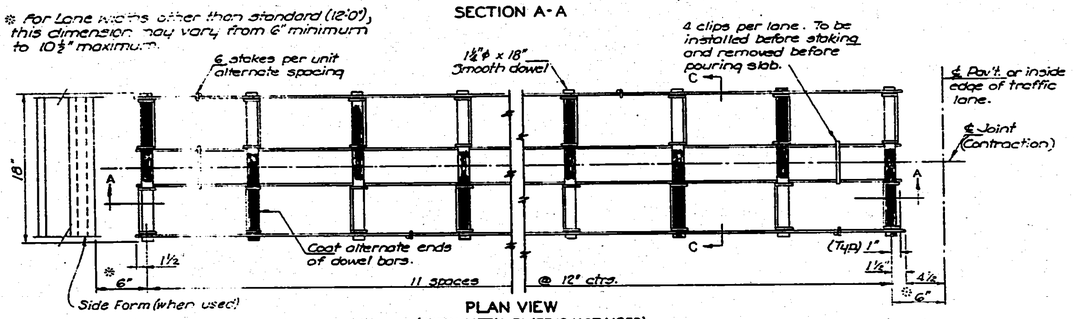
16X 14.5X 12X 12X 14.5X 16X 20X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	19'4	50	79

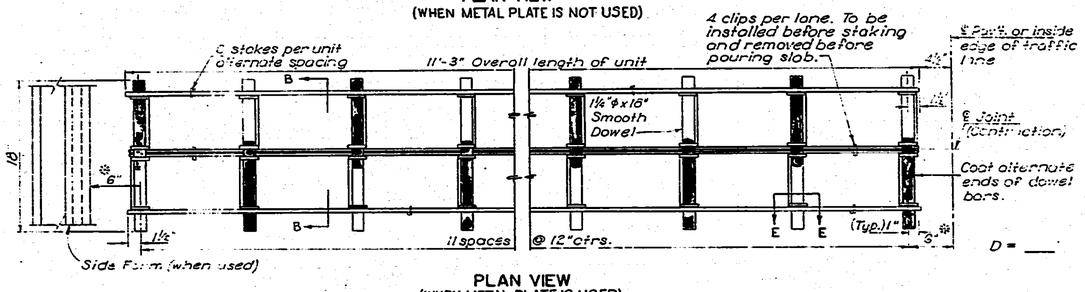


SECTION A-A

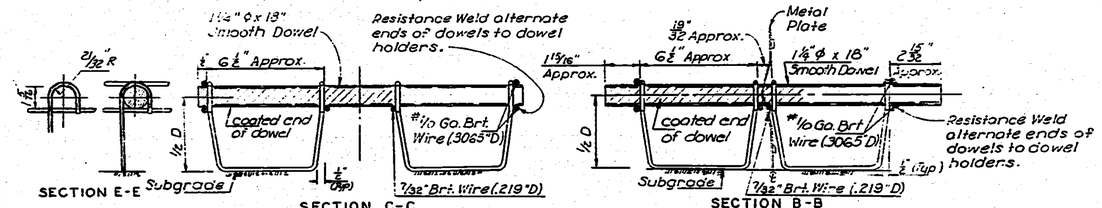
* For Lane widths other than standard (12'0"), this dimension may vary from 6" minimum to 10½" maximum.

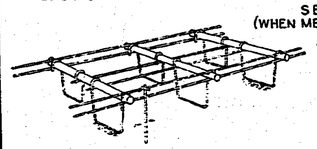


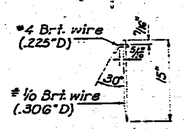
PLAN VIEW
(WHEN METAL PLATE IS NOT USED)



PLAN VIEW
(WHEN METAL PLATE IS USED)





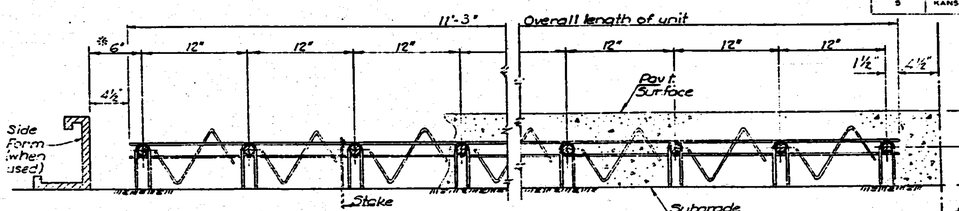


STAKE DETAIL
Other approved designs may be used in lieu of the type shown.

Note: A string line shall be stretched between the pavement forms along the center line of the joint. The position of the joint shall be carefully marked so that the saw cut will coincide with the center line of the joint.
Approximately 3/5 of the length of the dowels (floating end) shall be painted with one (1) coat of Zinc Chromated Iron Oxide ready mix paint, AASHO, M 42 ⊖ and then coated with hard grease prior to installation. Other approved coatings may be used.
The cutting to length of the Dowels shall be done in a manner resulting in no appreciable deformation of the ends.
The entire joint assembly shall then be carefully leveled so that the dowels are parallel to the slab surface and free to slide in the dowel holders. Any coating scraped off the dowels in assembling the joint shall be replaced.
After the complete contraction joint is assembled, it shall be checked to be certain that the vertical plane of the joint will be perpendicular to the finished surface of the slab and at a right angle with the center line of the slab unless shown otherwise on the plans.
The dowels shall be checked to be certain that they are level and will remain in a position parallel with the finished surface of the slab.
Concrete shall then be placed over and adjacent to the joint in accordance with the requirements of the specifications.
Other approved designs may be used in lieu of the type shown.

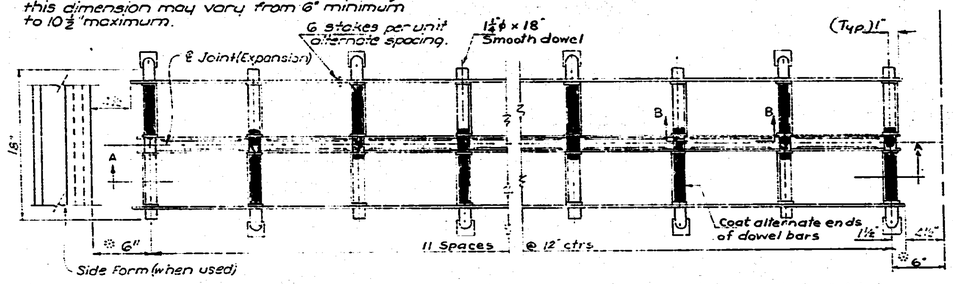
CONTRACTION JOINT

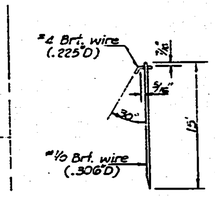
⊖ Red Oxide-Zinc Chromate-Federal Standard TT-P-664B may be used as an alternate paint.



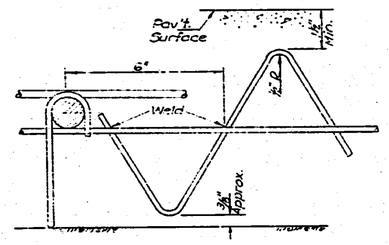
SECTION A-A

* For Lane widths other than standard (12'0"), this dimension may vary from 6" minimum to 10½" maximum.



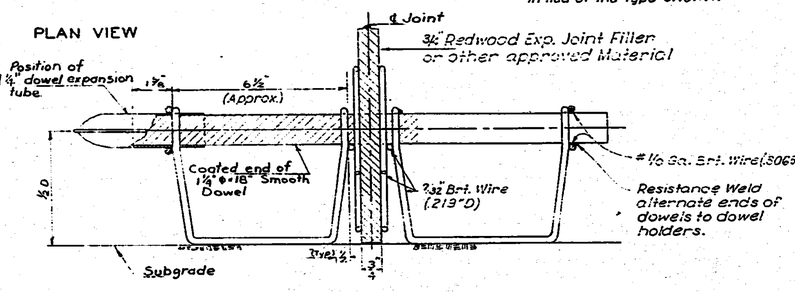


STAKE DETAIL
Other approved designs may be used in lieu of the type shown.

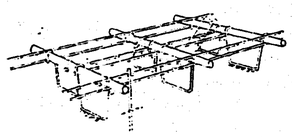


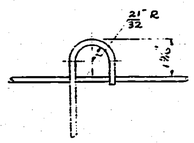
SECTION B-B

PLAN VIEW



END VIEW OF UNIT





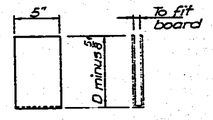
DETAIL OF HOOK

Note:
One length of Redwood board, or other approved material, cut to fit crown and subgrade shall be used for each lane of pavement as expansion joint filler.
A string line shall be stretched between the pavement forms along the center line of the joint.
One half (9") of the length of each dowel bar shall be painted with one (1) coat of Zinc Chromated Iron Oxide ready mix paint AASHO, M 122 ⊖ and then heavily coated with hard grease. Each coat of paint shall be thoroughly dry before making further applications.
The entire joint assembly shall then be carefully leveled up so that the dowels are parallel to the slab surface and free to slide in the dowel holders. Any grease scraped off the dowels in assembling the joint shall be replaced. Any excess grease on the dowel holders shall be removed.
After the complete expansion joint is assembled, it shall be checked to be certain that the vertical plane of the joint will be perpendicular to the finished surface of the slab and at a right angle with the center line of the slab. The dowels shall be checked to be certain that they are level and will remain in a position parallel with the finished surface of the slab.
Concrete shall then be placed over and adjacent to the joint in accordance with the requirements of the Specifications.
To finish the joint after completion of machine finishing, floating and straight edging of the surface, the concrete over the filler shall be carefully removed and the joint edged with an edger of the proper size.
Expansion Joint material is to be installed in the field.
Other approved designs may be use in lieu of the type shown.

⊖ Red Oxide-Zinc Chromate-Federal Standard TT-P-664B may be used as an alternate paint.

EXPANSION JOINT

D = ___



JOINT FILLER SPLICE •
24 Gauge Black Steel
(1 Req'd per splice)

NO	DATE	REVISIONS	BY	APP'D
10	1-29-71	Alternate For Redwood Board	W.L.H.	K.G.L.
9	2-7-69	Rev. Weld, note 6 7/32" Brt. Wire	W.L.H.	K.G.L.
8	3-1-68	Rev. Details when metal Strip is used. Removed Sand Plates. Rev. Point	W.L.H.	K.G.L.

STATE HIGHWAY COMMISSION OF KANSAS

CONTRACTION & EXPANSION JT. DOWEL ASSEMBLIES (ANKORTITE TYPE)

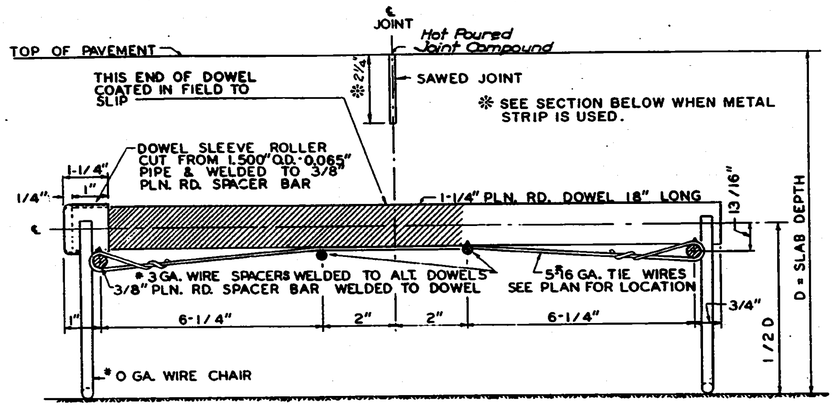
STD. NO. 735

SHEET NO. OF	SCALE None	APP'D [signature] 7-17-68
DESIGNED Ankortite	DETAILED W.A.B.	QUANTITIES	TRACED W.A.B.
DESIGN CK.	DETAIL CK.	SCALE CK.	TRACE CK.

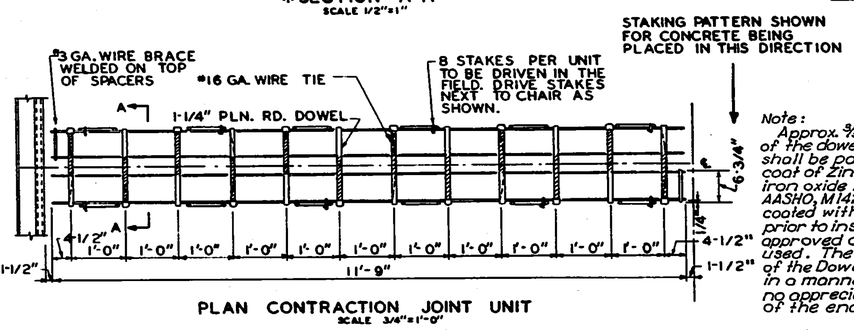
DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted] 5 2 9

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4002(3)	1974	51	79



*SECTION A-A
SCALE 1/2"=1"



PLAN CONTRACTION JOINT UNIT
SCALE 3/4"=1'-0"

Note:
Approx. 3/5 of the length of the dowels (floating end) shall be painted with one coat of Zinc Chromated iron oxide ready mix paint, AASHO, M142 ⊛ and then coated with hard grease prior to installation. Other approved coatings may be used. The cutting to length of the Dowels shall be done in a manner resulting in no appreciable deformation of the ends.

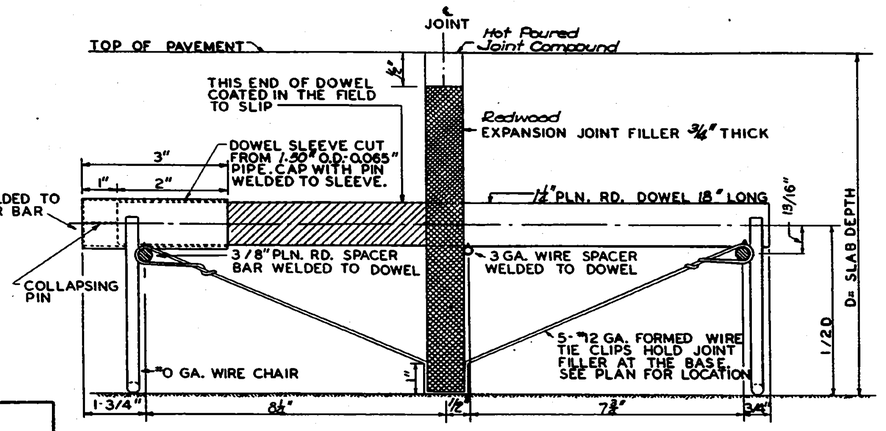
A string line shall be stretched between the pavement forms along the center line of the joint. The position of the joint shall be carefully marked so that the saw cut will coincide with the center line of the joint.

The entire joint assembly shall then be carefully leveled up so that the dowels are parallel to the slab surface and free to slide in the dowel holders. Any grease scraped off the dowels in assembling the joint shall be replaced.

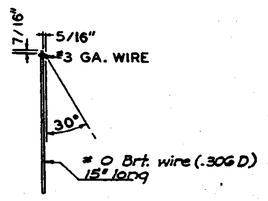
After the complete contraction joint is assembled, it shall be checked to be certain that the vertical plane of the joint will be perpendicular to the finished surface of the slab and at right angles with the centerline of the slab, unless shown otherwise on the plans. The dowels shall be checked to be certain that they are level and will remain in a position parallel with the finished surface of the slab.

Concrete shall then be placed over and adjacent to the joint in accordance with the requirements of the Specifications.

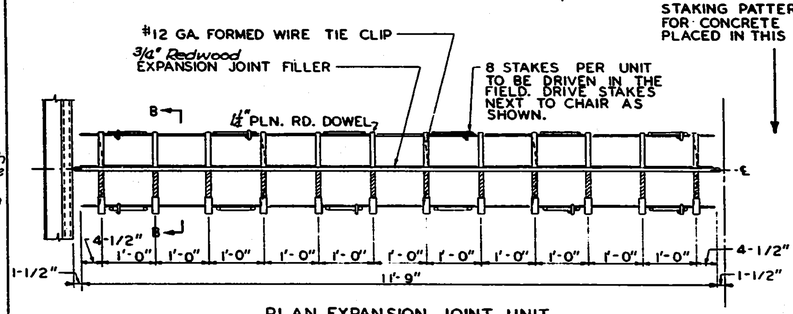
Other approved designs may be used in lieu of the type shown.



SECTION B-B
SCALE 1/2"=1"



STAKE
SCALE 1-1/2"=1'-0"
Other approved designs may be used in lieu of the type shown.



PLAN EXPANSION JOINT UNIT
SCALE 3/4"=1'-0"

Note:
One length of Redwood board, cut to fit crown and subgrade, shall be used for each lane of pavement as expansion joint filler.

A string line shall be stretched between the pavement forms along the center line of the joint.

One half (9") of the length of each dowel bar bar shall be painted with one (1) coat of Zinc Chromated iron oxide ready mix paint AASHO, M142 ⊛ and then heavily coated with hard grease. Each coat of paint shall be thoroughly dry before making further applications.

The entire joint assembly shall then be carefully leveled up so that the dowels are parallel to the slab surface and free to slide in the dowel holders. Any grease scraped off the dowels in assembling the joint shall be replaced. Any excess grease on the dowel holders shall be removed.

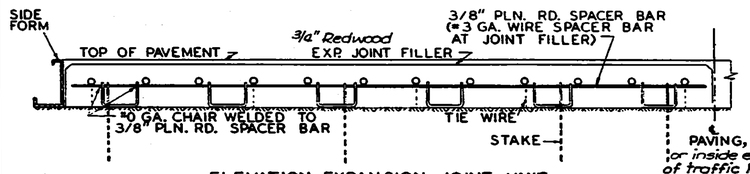
After the complete expansion joint is assembled, it shall be checked to be certain that the vertical plane of the joint will be perpendicular to the finished surface of the slab and at right angles with the center line of the slab. The dowels shall be checked to be certain that they are level and will remain in a position parallel with the finished surface of the slab.

Concrete shall then be placed over and adjacent to the joint in accordance with the requirements of the Specifications.

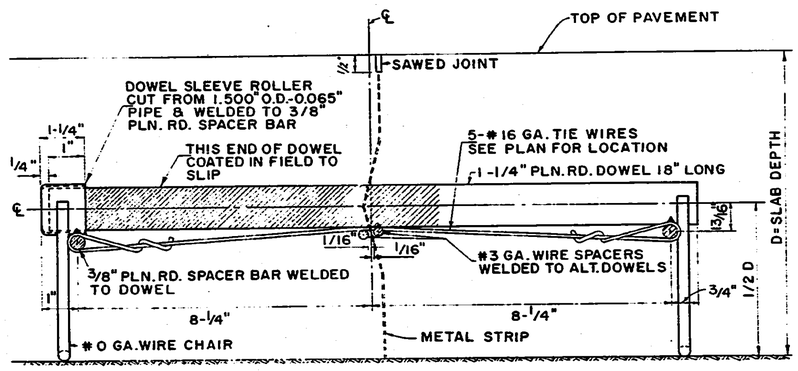
To finish the joint after completion of machine finishing, floating and straight edging of the surface, the concrete over the filler shall be carefully removed and the joint edged with an edger of the proper size.

Other approved designs may be used in lieu of the type shown.

Expansion Joint material is to be installed in the field.

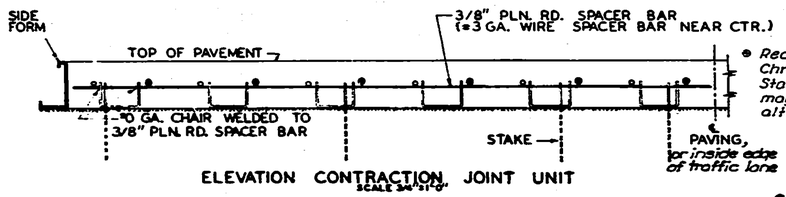


ELEVATION EXPANSION JOINT UNIT
SCALE 3/4"=1'-0"



*SECTION A A WHEN METAL STRIP IS USED
SCALE 1/2"=1"

D = ____

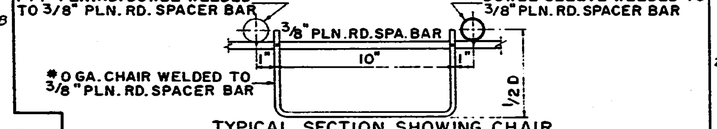


ELEVATION CONTRACTION JOINT UNIT
SCALE 3/4"=1'-0"

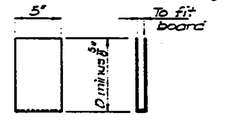
⊛ Red Oxide-Zinc Chromate-Federal Standard TT-P-664B may be used as an alternate paint.

CONTRACTION JOINT

D = ____



TYPICAL SECTION SHOWING CHAIR
SCALE 1/4"=1'-0"



EXPANSION JOINT

⊛ Red Oxide-Zinc Chromate-Federal Standard TT-P-664B may be used as an alternate paint.

NO.	DATE	REVISIONS	BY	APP'D
11	3-1-69	Rev. Details when metal strip is used & Remd. Sand Plates, Rev. Paint	W.L.H	K.G.L.
10	8-68	Added Note for alternate staking pin	W.L.H.	K.G.L.
9	8-66	Conforms to 1966 Specs (no change)	A.L.R	E.A.R.

STATE HIGHWAY COMMISSION OF KANSAS

TRANSVERSE PAVEMENT JOINTS CONTRACTION JOINT DOWEL AND EXPANSION JOINT DOWEL ASSEMBLIES

STD. NO. 734 (LACLEDE TYPE)

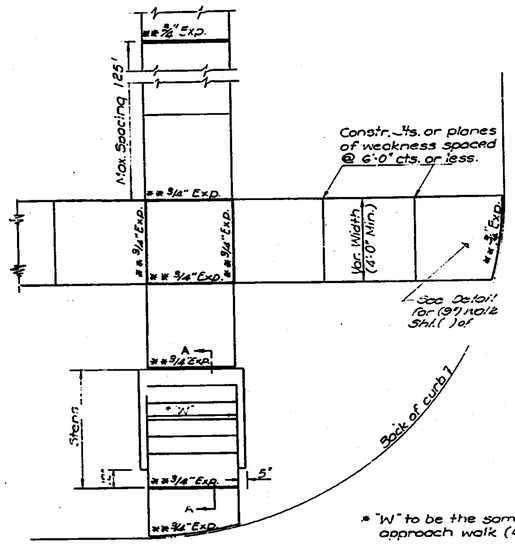
SHEET NO.	OF	SCALE	Noted	APP'D	Mike Sedgwick
DESIGNED	Laclede	DETAILED	Laclede	QUANTITIES	TRACED Laclede
DESIGN CK.		DETAIL CK.	WAB	QUANT. CK.	TRACE CK.

DIST. 5 | SEDGWICK CO. | ROLL 531

5 3 0

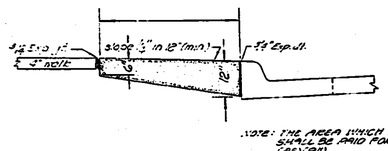
14X | 14.5X | 12X | 12X | 14.5X | 16X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	BRF-4004(39)	'72	52	79



TYPICAL PLAN

Standard 9" walk



NOTE: THE AREA WHICH TAPERS FROM (6") TO (12") SHALL BE PAID FOR AS 6" SIDEWALK CONST. (AE) (9").

SECTION A-A

Note: Expansion Joints shall be placed in sidewalks as follows: In long runs, expansion joints shall be 3/4" redwood boards flush with the surface, at a maximum spacing of 125'. This same joint shall be used at sidewalk junctions as shown in Typical Plan.

Where the end of the sidewalk abuts a curb, a 3/4" redwood board flush with the surface shall be used.

Where the sidewalk is parallel and adjacent to a rigid structure, a 1/2" premoulded joint filler (Nonextruding, Type B) shall be used.

Sidewalk shall slope toward the street at the rate of 1/4" per foot, and where necessary, may be depressed or sloped to fit alleys and entrances as shown on the plans or as directed by the Engineer.

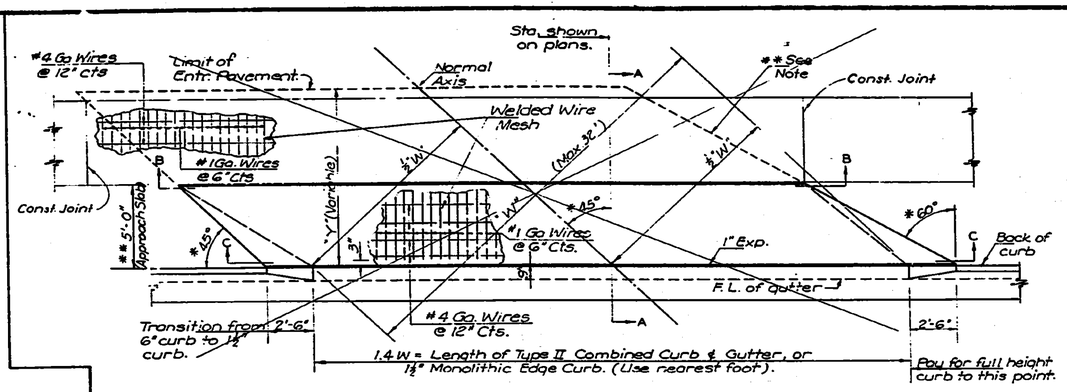
Where sidewalk is shown to be constructed back of an entrance, it shall be 6" thick with welded wire mesh of the same gauge and spacing of wires as shown on this sheet for entrance pavement. Bid item will be "Concrete Pavement (6") Uniform" either with or without air entrainment.

Where the plans do not require air entrainment for sidewalk, at the contractor's option Class A Concrete (AE) may be used throughout, but payment will be made as square yds. of Sidewalk Construction.

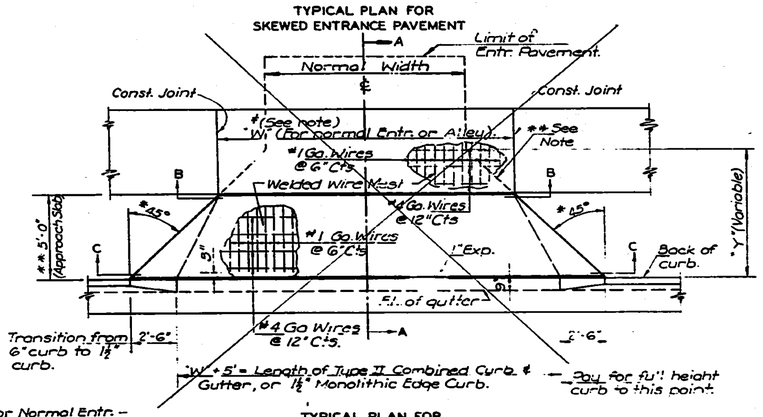
At the contractor's option Class A Concrete (AE) may be used throughout for construction of steps, but payment will be made as Class A Concrete.

The Standard (9") Walk Section shall be measured and paid for as Sidewalk Construction (12)(9").

CONCRETE SIDEWALK & STEPS



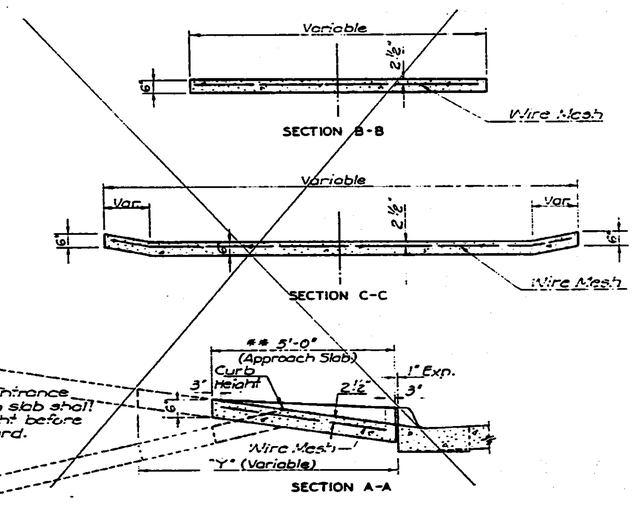
TYPICAL PLAN FOR SKEWED ENTRANCE PAVEMENT



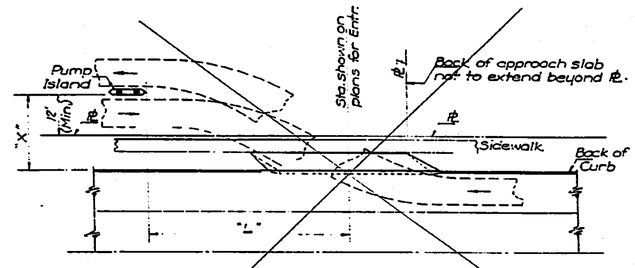
#Note:- Value of "W" for Normal Entr. - Use 13' Min. for Private Entr. Use 16' Min. for Alley

Use 40' Max.

TYPICAL PLAN FOR NORMAL ENTRANCE PAVEMENT



Note: On down entrance grades, approach slab shall attain curb height before sloping downward.



TYPICAL LOCATION SKETCH FOR SKEWED ENTRANCES

Where "X" = 20', then "L" = 55'.
Where "X" = 25', then "L" = 60'.
Where "X" = 30', then "L" = 65'.
Where "X" = 35', then "L" = 68'.
Where "X" = 40', then "L" = 70'.

Note:
* The angles may be varied to fit Special Conditions.

** Entrance pavement, where required to extend beyond the 5' approach slab, shall follow the extension of the lines shown to the limit of dimension "Y". Beyond this limit the pavement shall follow the normal alley or entrance driveway width. The 5' approach slab of concrete entrance pavement is to be shaped as shown, regardless of sidewalk location.

Alley and entrance pavement shall be 6" uniform thickness with welded wire mesh.
Approx. weight of Welded Wire Mesh = 6 Lbs. per 100 sq. ft.
Expansion joints shall be 5" of premoulded Exp. Joint Filler (Nonextruding, Type B) and 1" of hot or Cold poured Joint Sealing Compound.

** Entrance approach slab shall be constructed unless otherwise designated.

CONCRETE ALLEY & ENTRANCE PAVEMENT

NO.	DATE	REVISIONS	BY	APP'D
11	2-17-70	Redrew Exp. Joint with Flexible Joint.	W.H.	K.L.
10	4-23-68	Entrance Approach Slab Detail A.E. from "Concrete Construction in S.W. Kansas"	A.L.K.	K.L.
9	8-68	Entrance Approach Slab Detail A.E. from "Concrete Construction in S.W. Kansas"	A.L.K.	E.A.R.

STATE HIGHWAY COMMISSION OF KANSAS
CONCRETE
ALLEY & ENTRANCE PAVEMENT
SIDEWALK & STEPS
~~STD. NO. 728~~

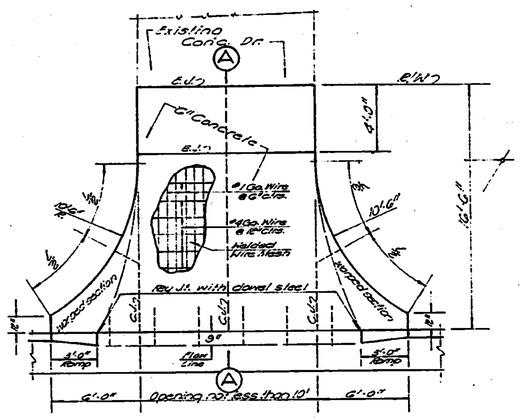
SHEET NO.	OF	SCALE	None	APP'D. [illegible]
DESIGNED	G.O.M.	DETAILED	W.A.B.	QUANTITIES
DESIGN CK	E.A.R.	DETAIL CK		QUAN. CK

DIST. 5 SEDGWICK CO. ROLL 531

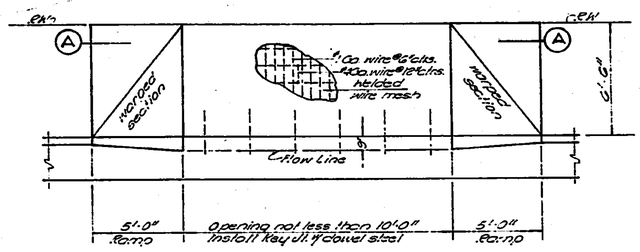
5 3 1

16X 14.5X 12X 12X 14.5X 16X

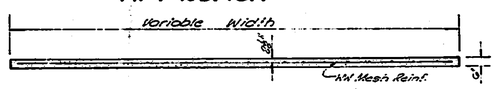
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	BTT-4004(8)	19??	53	79



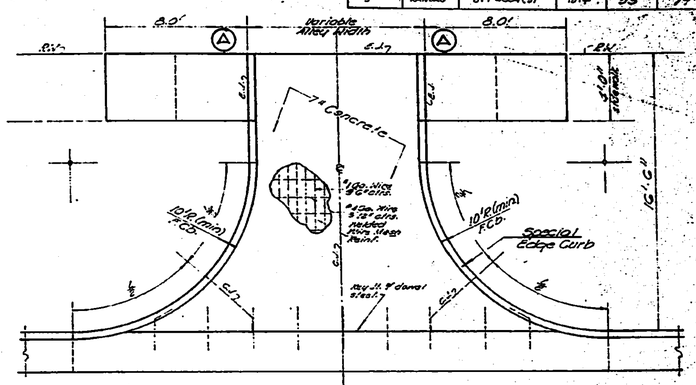
TYPICAL DRIVE APPROACH



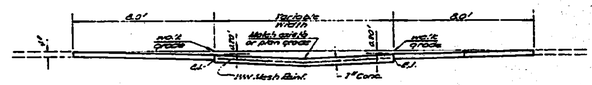
TYPICAL RAMP-TYPE DRIVE APPROACH



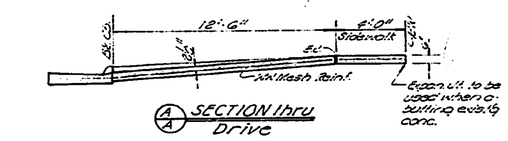
A/A SECTION thru Drive



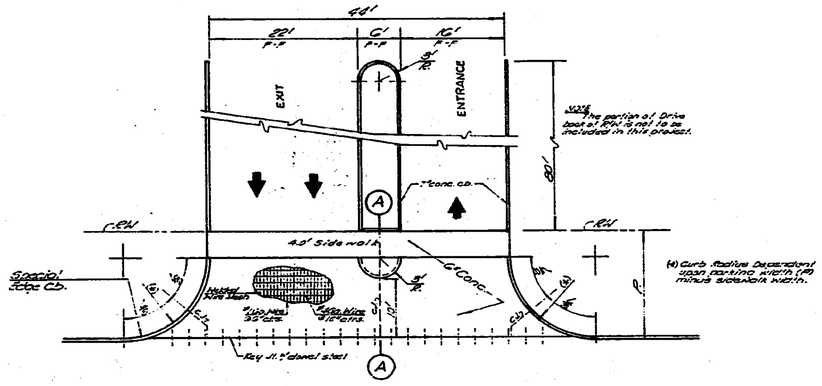
TYPICAL ALLEY DETAIL
S/o. 21171.61-E · Seneca
" 19195.69 U-E · Pawnee



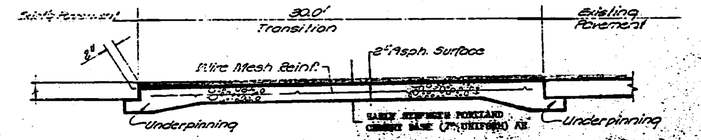
A/A SECTION thru Alley



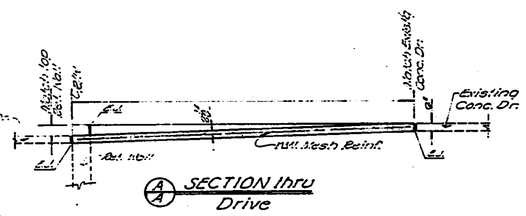
A/A SECTION thru Drive



TYPICAL MAJOR APPROACH
S/o. 9151.76 Lt-E Seneca Ave.
" 8170.0 Rt-E Pawnee Ave.

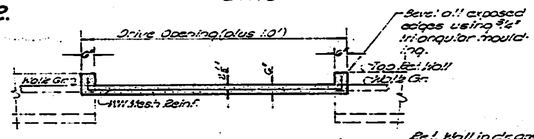


TYPICAL PROFILE SECTION SHOWING TRANSITION TO MATCH EXISTING PAVEMENT.



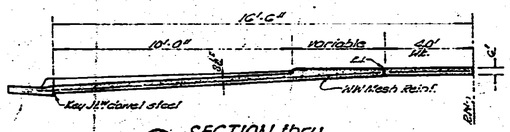
A/A SECTION thru Drive

DETAIL of SPECIAL DR. APPROACH
S/o. 21305 Rt-E-Pawnee Ave.



A/B SECTION thru Drive

Ref. Wall in dr. area to be paid as surface area of 3½ Conc. Pav't. (6") Uniform (16).



A/A SECTION thru Approach

STATE HIGHWAY COMMISSION OF KANSAS

CONCRETE · DRIVE APPROACHES AND ALLEY RETURN DETAILS

SHEET NO. OF	SCALE NONE	APPD.	
DESIGNED Dept	DETAILED Dept	QUANTITIES	
DESIGN CK.	DETAIL CK.	DRAW. CK.	

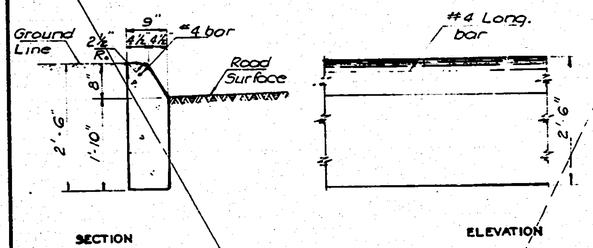
DIST. 5 | SEDGWICK CO. | ROLL 531

5 3 2

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

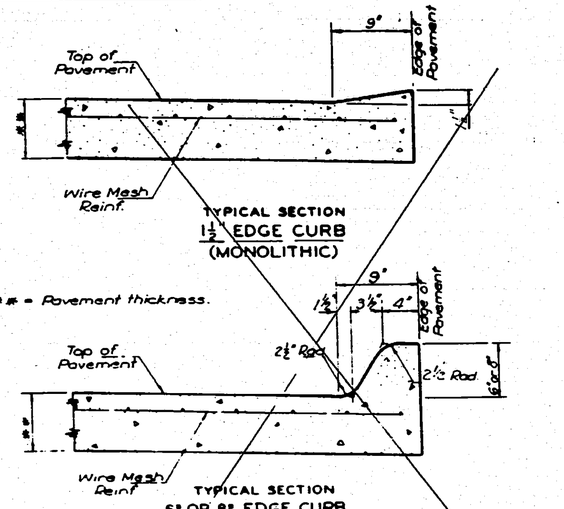
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	BR-T-4004(8)	1974	54	79

Note: Use Class A Concrete-AE thruout.
Bevel all exposed edges with a ¾" triangular moulding.
Place a 1" premoulded Expansion Joint Filler (Nonextruding, Type B) at a spacing of not to exceed 250'.



SECTION ELEVATION

PROTECTION CURB 8"



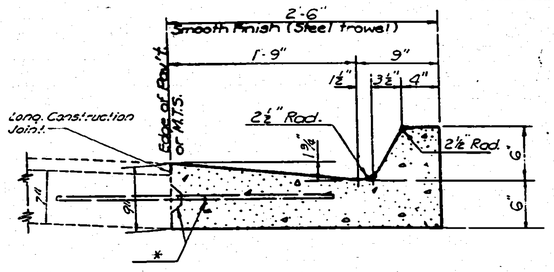
TYPICAL SECTION
1½" EDGE CURB
(MONOLITHIC)

** = Pavement thickness.

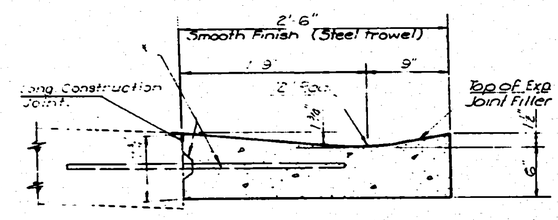
TYPICAL SECTION
6" OR 8" EDGE CURB
(MONOLITHIC)

Note: Planes of weakness are to be constructed in the curbing directly opposite the contraction joints in the concrete pavement.
A ½" premoulded Expansion Joint Filler (Nonextruding, Type B) is to be placed at the junction of the curb and gutter with the expansion joints in the concrete pavement.

EDGE CURB

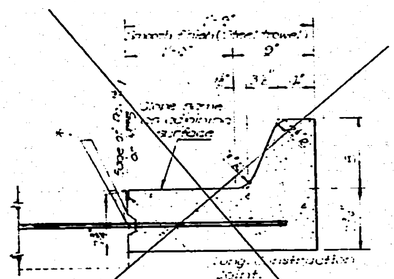


TYPICAL SECTION
COMBINED CURB & GUTTER - TYPE I
SPECIAL

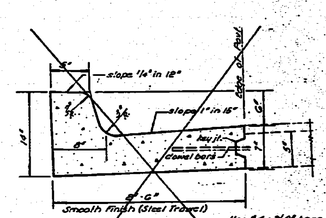


TYPICAL SECTION
COMBINED CURB & GUTTER - TYPE II
(2'-6" WIDTH)

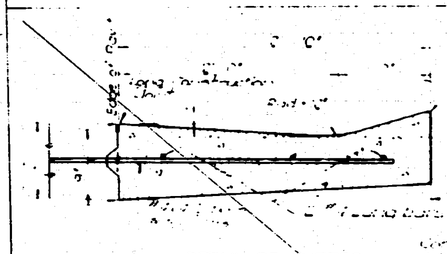
* Longitudinal construction joint and #4 x 3'-0" bars @ 2'-6" ctrs., where concrete pavement is constructed. Where Combined Curb and Gutter (Type I, II & III) does not abut concrete pavement or concrete base course, omit tie bars and longitudinal construction joint.



TYPICAL SECTION
COMBINED CURB & GUTTER - TYPE III
(1'-9" WIDTH)



COMBINED CURB & GUTTER
TYPE-IV
(2'-6" Width)

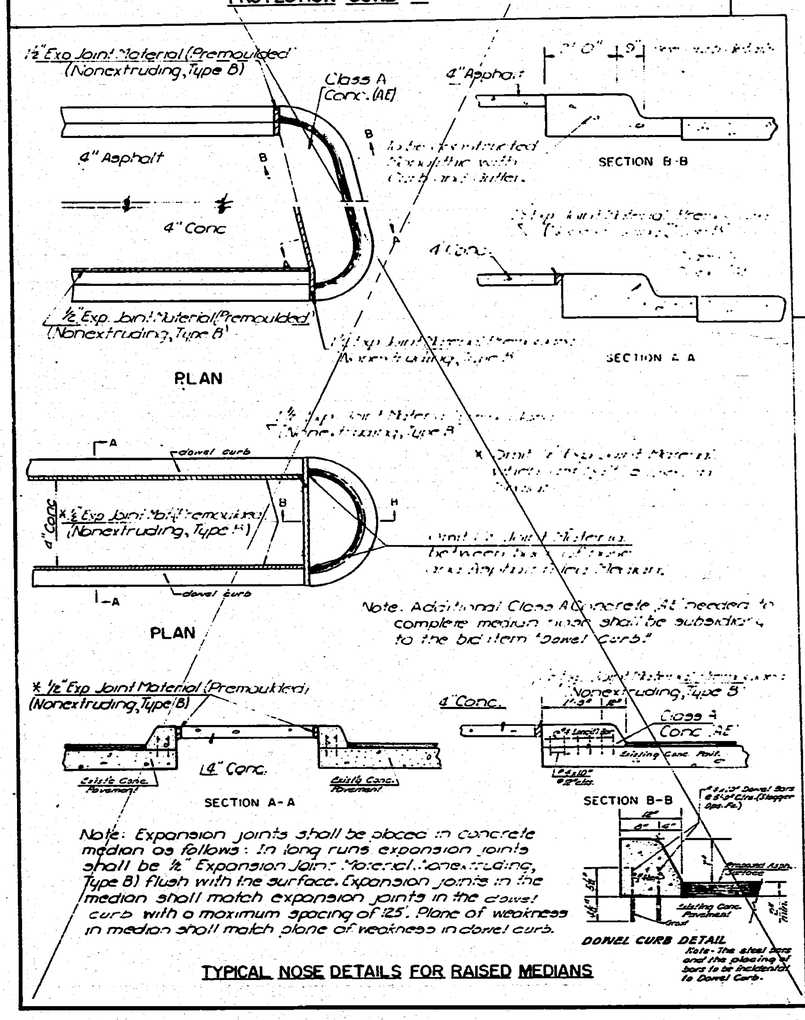


DETAIL OF GUTTER
(Typical Section)

TAPERED GUTTER

Note: In curbs where gutter abuts concrete pavement, the planes of weakness are to be constructed opposite contraction joints in the concrete pavement. Expansion joints in the gutter are to be placed opposite expansion joints in the concrete pavement.
Where gutter abuts curb with a ½" premoulded Expansion Joint Filler (Nonextruding, Type B) is to be placed between the gutter and the curb wing.
Where gutter does not abut concrete pavement or concrete base course, omit tie bars and longitudinal construction joint and place a ½" premoulded Expansion Joint Filler (Nonextruding, Type B cut to the dimensions of the 2'-0" gutter, at a spacing of not to exceed 250' and at the ends of curb returns.
Planes of weakness in gutter to be at intervals not to exceed 10'-3" inter. as
A 2' length of transition from curb gutter to the 2'-0" gutter section shall be used at the ends of curb returns and where the gutter abuts a curb, such as at the ends of bridge curbs, shall be located so as not to fall within the transition section.
Use Class A Concrete (AE) thruout.
For details of longitudinal Construction Joint see standard No. 707.1 or 708.1.

GUTTER



Note: Expansion joints shall be placed in concrete median as follows: In long runs expansion joints shall be ½" Expansion Joint Material, (Nonextruding, Type B) flush with the surface. Expansion joints in the median shall match expansion joints in the dowel curb with a maximum spacing of 125'. Plane of weakness in median shall match plane of weakness in dowel curb.

TYPICAL NOSE DETAILS FOR RAISED MEDIANS

STATE HIGHWAY COMMISSION OF KANSAS
CURB, GUTTER AND COMBINED CURB & GUTTER
STD. NO. 636.1

DIST. 5 SEDGWICK CO. ROLL 531

5 3 3

SCHEDULE OF INLETS AND MANHOLES

Station	Side	Type: Manholes	Type: Curb Inlets	Type: Gutter Inlets	Type: Ditch Inlets	Type: Rod	Sewer Data: Inflow Pipes Size	Inflow FL Elev	Inflow Size	Inflow FL Elev	Inflow Size	Inflow FL Elev	Outflow Pipes Size	Outflow FL Elev	Outflow Grade	Elev Top	Elev Floor	Remarks	Dimensions H	Dimensions N	Dimensions L	No Steps	Cast Iron Lbs	Class A Conc. Cu Yds	Reinf. Steel Lbs.	Struc. Steel Lbs.	Class 'A' Excava Cu Yds	Storm Sewer Lin. Ft 15"	18"	21"	24"	30"	36"
9+60	Lt		A-5				15"	96.40					18"	96.15	20%	100.37	95.94		4'11"	2'6"	6'0"		258	1.5	50.3	196	4.6		27				
9+60	Rt		A-5				15"	96.45					18"	96.25	10%	100.22	96.04		4'8"	2'6"	6'0"		258	1.4	48.5	196	4.2		52				
9+74	Lt		A-5										15"	96.50	10%	100.37	96.31		4'7"	2'6"	6'0"		258	1.4	48.1	196	4.1	8					
9+74	Rt		A-5										15"	96.55	10%	100.25	96.38		4'5"	2'6"	6'0"		258	1.4	46.7	196	5.9	8					
21+27	Lt		A-5										15"	96.35	1.1%	99.10	96.16		3'5"	2'6"	6'0"		258	1.1	39.7	196	4.6	33					
21+50±	Lt		A-5				15"	96.00					15"	95.90	3.1%	99.01	95.73		3'10"	2'6"	6'0"		258	1.2	42.7	196	5.1	32					
21+53	Rt		A-5										15"	95.60	2.5%	98.06	95.43		4'2"	2'6"	6'0"		258	1.3	45.1	196	5.6	4					
21+62	Rt		A-5				15"	95.50					15"	95.40	2.5%	98.05	95.23		4'6"	2'6"	6'0"		258	1.3	46.1	196	5.8	4					
21+71	Rt		A-5				15"	95.30					18"	95.20	1.1%	98.03	94.99		4'7"	2'6"	6'0"		258	1.4	48.1	196	6.1		46				
21+82±	Lt		A-5				15"	95.40					18"	95.50	1.5%	98.99	95.31		4'2"	2'6"	6'0"		258	1.3	45.1	196	5.6		40				
25+10	Lt		A-5										15"	93.35	1.1%	97.10	93.18		4'5"	2'6"	6'0"		258	1.4	46.7	196	5.9	33					
25+33±	Lt		A-5				15"	93.00					15"	92.90	0.9%	97.00	92.73		4'9"	2'6"	6'0"		258	1.5	49.1	196	6.3	32					
25+65±	Lt		A-5				15"	92.60					18"	92.50	1.0%	96.90	92.29		5'2"	2'6"	6'0"		258	1.6	52.0	196	6.9		43				
25+99.5	Lt		A-5				18"	92.10					18"	92.00	1.2%	96.47	91.79		5'2"	2'6"	6'0"		258	1.6	52.0	196	6.9		8				
26+04.8	Rt		A-5										15"	92.40	2.5%	96.67	92.23		4'11"	2'6"	6'0"		258	1.5	50.3	196	6.6	4					
26+12.8	Rt		A-5				15"	92.30	15"	92.40	15"	92.40	18"	92.30	2.0%	96.64	92.09		5'1"	2'6"	6'0"		258	1.6	51.7	196	6.8		10				
26+13.5	Lt		A-5				18"	91.90	15"	92.70			24"	91.60	1.6%	96.40	91.35		5'7"	2'6"	6'0"		258	1.7	54.9	196	7.4				16		
26+27.5	Lt		A-5										15"	92.80	1.2%	96.40	92.63		4'3"	2'6"	6'0"		258	1.3	45.5	196	5.7	8					
26+45±	Rt		A-5										15"	92.70	1.0%	96.62	92.53		4'7"	2'6"	6'0"		258	1.4	48.1	196	6.1	32					
26+45±	Rt		(Connect to Existing RCP)										15"	92.80±	1.2%	–	–											25					
																							4902	26.9	910.7	3724	116.2	223	226		16		

End Sections 15"	18"	21"	24"	Sewer Exc (Cu. Yds.) Com.	Rock	Ht Fill Ft.	Conc AASHO Class No.	Pipe Gauge Steel/Alum.
				11.1				
				22.5				
				3.1				
				2.9				
				12.2				
				10.3				
				1.4				
				1.4				
				12.5				
				15.4				
				12.2				
				12.7				
				20.4				
				3.8				
				1.4				
				4.7				
				9.9				
				2.8				
				13.2				
				9.5				
				189.8				

No.	Date	Revisions	By	Appr.

STATE HIGHWAY COMMISSION OF KANSAS

SCHEDULE
INLETS AND MANHOLES

PAWNEE AVENUE

Sheet No. 55 of 79 Sheets
Div. No. 5 Date Designed By B.K. Traced By
Dist. No. 5 County No. 335 Approved Checked By Date

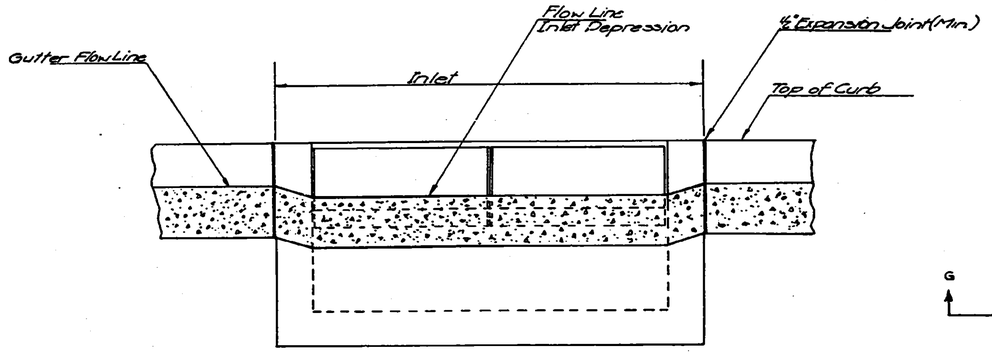
Fed. Road Dist. No.	State	Project No.	Fiscal Year	Sheet No.	Total Sheets
	Kansas	(87-T-4004(13))	1974	55	79

DIST. 5 SEDGWICK CO. ROLL 531

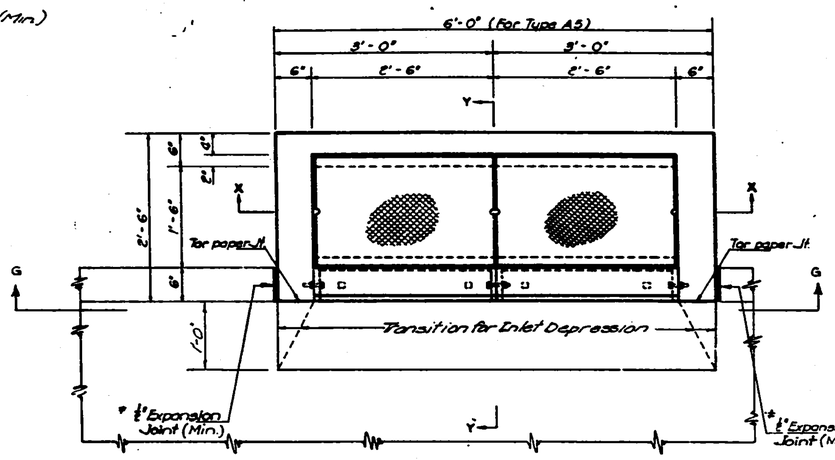
5 3 4

12X 14.5X 16X

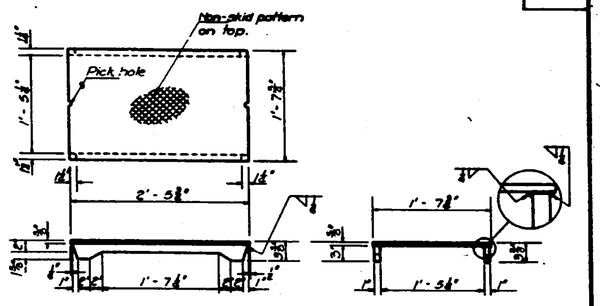
Fed. Road Dist. No.	State	Proj. No.	Fiscal Year	Sheet No.	Total Sheets
5	Kansas	0701-4004(G)	1974	56	79
				Section	



SECTION G-G

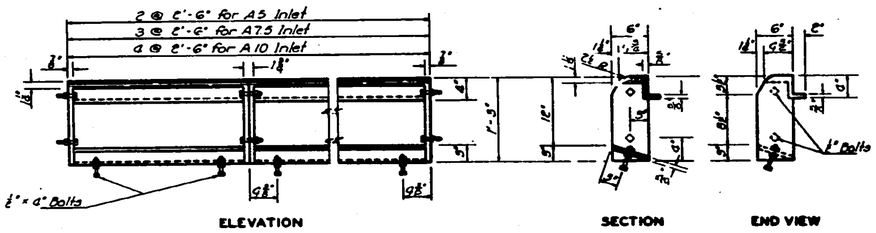


PLAN



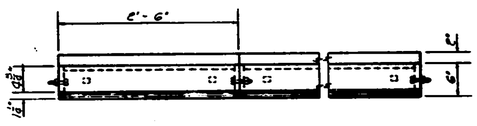
* STRUCTURAL STEEL COVER PLATE
Weight 98 Lbs. Each

* Non-skid steel floor plate (Commercial grade), welded to steel (ASTM A-7, A-36, A-242 or A-441) bars



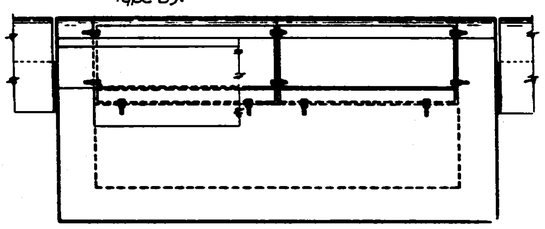
ELEVATION
TYPES A5-1, A7.5-1 & A10-1

SECTION END VIEW
TYPES A5-1 A7.5-1 & A10-1



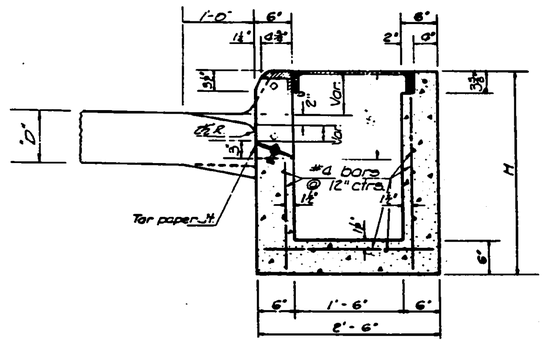
PLAN

NOTE: All bolts and nuts shall be galvanized and meet the requirements of sub-section U15-2 of the 1966 Specifications.

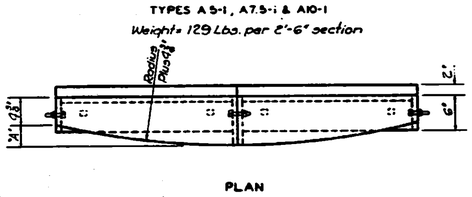


* Hot or cold poured joint sealing compound, or Premoulded Exp. Jt. Filler (Non-extruding, Type B).

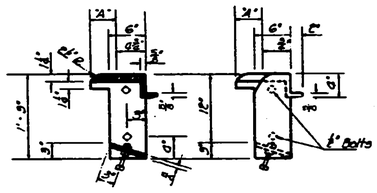
FRONT ELEVATION



SECTION Y-Y



PLAN
TYPE A5-2 SHOWN
Weight - See Tables below



SECTION AT CENTER END VIEW
TYPES A5-2, A7.5-2 & A10-2

Note: All castings shall be gray iron and shall comply with ASTM A-48 Class 25S.

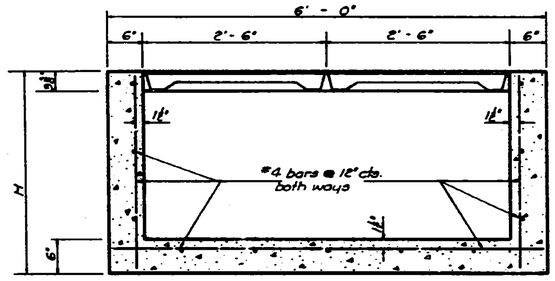
DETAILS OF CURB CASTING (IRON)

FOR TYPE A5-2 CASTINGS			
Radius	20'	25'	30'
"A"	1⅞"	1½"	1⅛"
Weight-Lbs	285	278	274

FOR TYPE A7.5-2 CASTINGS			
Radius	20'	25'	30'
"A"	4¼"	3⅜"	2⅝"
Weight-Lbs	470	455	445

FOR TYPE A10-2 CASTINGS			
Radius	20'	25'	30'
"A"	7½"	6"	5"
Weight-Lbs	721	680	653

NOTE: Weights given in tables above are total weights for Curb Castings only.
All weights of castings are calculated weights with no allowance for fillets, overruns, anchor bars and bolts.



SECTION X-X

NOTE: See this sheet for shaping of depression at inlet. This work shall be paid for as "Concrete Pavement".
Floor of Inlet shall be shaped as shown in various "EXAMPLES" on Reinforced Concrete Manhole Standard No. 633.
Concrete used for shaping shall be unreinforced Class "A" concrete.
No addition in concrete quantities shall be made for shaping floor of Inlets.

Note - Use Class A Concrete throughout.
Bevel all exposed edges with a ¾" triangular moulding.
Reinforcing bars shall be bent around pipe.
No deductions in concrete quantities shall be made for pipe openings.

At the contractor's option Class A Concrete (AE) may be used throughout, but payment shall be made as Cu.Yds of Class A Concrete miscellaneous.
A small opening may be required in the back of the inlet to drain a low area, if ordered by the Engineer. Reinforcing bars will extend through the opening. No deduction in concrete quantities will be made for this opening.
When so ordered by the Engineer the top of the inlet shall be sloped slightly to approximately fit the ground line or other conditions.
Structural steel cover plate and all exposed cast iron surfaces shall be painted either in the shop or in the field with one coat of a zinc dust paint, followed by two field coats of aluminum paint.
No substitutions of design will be permitted on casting.

21	3-26-70	Class "A" miscellaneous.	W.L.H.	K.G.L.
20	5-9-69	Added Note on shaping of Floor	W.L.H.	K.G.L.
19	5-67	Add paint castings & Optional opening etc.	A.L.R.	K.S.L.
18	8-66	To conform to 1966 Specs	A.L.R.	E.A.R.
No.	DATE	REVISIONS	BY	APP'D

STATE HIGHWAY COMMISSION OF KANSAS

SPECIAL

TYPE "A" CURB INLET

SCALE 1 Inch = 1 Foot (Or 25"-26" Actual)....
DESIGNED BY E.A.E. DATE 5-43 DETAILED BY W.A.B. TRACED BY W.A.B.
CHECKED BY A.L.R. APPROVED BY [illegible] DATE 6-23-66

DIST. 5 SEDGWICK CO. ROLL 531

5 3 5

16X 14.5X 12X 12X 14.5X 16X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(8)	1974	57	79

COMBINED CURB & GUTTER (TYPE I) SPECIAL (AE)

SENECA

STA.	TO	STA.	SIDE	LINEAL FEET
3+84.93	"	5+14.1	Rt.	129.17
5+42.1	"	5+66.5	Rt.	24.4
6+00.5	"	6+19.82	Rt.	19.32
6+19.66	"	6+58.3	Rt.	38.64
6+77.3	"	7+06.9	Rt.	29.6
7+42.9	"	7+93.1	Rt.	50.2
8+31.1	"	8+79.1	Rt.	48.0
9+15.1	"	9+19.76	Rt.	4.66
3+84.93	"	5+87.03	Lt.	202.1
5+87.03	"	7+32.53	Lt.	145.5
7+31.95	"	9+16.76	Lt.	184.81
9+86.76	"	11+65.2	Lt.	178.44
11+94.2	"	11+98.0	Lt.	3.8
11+98.0	"	13+58.42	Lt.	160.42
13+58.0	"	13+92.4	Lt.	34.4
14+21.4	"	15+90.0	Lt.	168.6
16+16.0	"	16+41.0	Lt.	25.0
16+77.0	"	17+04.5	Lt.	27.5
17+36.5	"	17+37.0	Lt.	0.5
9+83.76	"	9+93.8	Rt.	10.04
10+20.8	"	10+48.9	Rt.	28.1
10+79.9	"	11+16.9	Rt.	37.0
11+47.9	"	11+66.7	Rt.	18.8
11+85.7	"	12+33.9	Rt.	48.2
12+58.9	"	13+02.7	Rt.	43.8
13+35.7	"	13+87.5	Rt.	51.8
14+56.5	"	15+10.5	Rt.	54.0
15+35.5	"	15+60.42	Rt.	24.92
15+60.0	"	15+80.9	Rt.	20.9
16+05.9	"	16+30.0	Rt.	24.1
16+60.0	"	17+17.0	Rt.	57.0
17+42.0	"	17+47.0	Rt.	5.0
18+96.0	"	19+40.0	Rt.	44.0
19+76.0	"	20+32.0	Rt.	56.0
20+56.0	"	20+86.0	Rt.	30.0
21+10.0	"	21+61.0	Rt.	51.0
21+91.0	"	24+54.9	Rt.	263.9
24+54.9	"	24+71.9	Rt.	26.7
25+18.9	"	25+01.9	Rt.	26.7
25+18.9	"	25+93.5	Rt.	74.6
26+12.5	"	26+61.7	Rt.	49.2
26+78.7	"	27+30.5	Rt.	51.8
27+47.5	"	27+89.55	Rt.	42.05
18+73.0	"	19+14.0	Lt.	41.0
19+44.0	"	19+55.0	Lt.	11.0
19+85.0	"	20+86.0	Lt.	101.0
21+16.0	"	21+29.5	Lt.	13.5
21+50.5	"	21+95.46	Lt.	44.96
21+95.0	"	22+60.0	Lt.	65.0
22+96.0	"	23+30.0	Lt.	34.0
23+66.0	"	23+92.0	Lt.	26.0
24+28.0	"	24+32.2	Lt.	4.2
24+32.2	"	24+49.2	Lt.	26.7
24+96.3	to	24+79.3	Lt.	24.7
24+96.3	to	25+18.9	Lt.	22.6
25+18.9	to	25+52.1	Lt.	33.2
25+78.1	to	25+81.5	Lt.	3.4
26+00.5	to	26+45.5	Lt.	45.0
26+71.5	to	26+81.5	Lt.	10.0
26+93.5	to	27+49.5	Lt.	71.0
27+83.5	to	27+89.55	Lt.	1.02

PAWNEE -

3+03.0	to	4+16	Lt.	113.0
4+51.0	to	5+75	Lt.	124.0
6+01.0	to	6+44.67	Lt.	43.67
6+33.5	to	7+31.0	Lt.	97.5
7+01.0	to	7+06.0	Lt.	5.0
7+92.0	to	8+15.0	Lt.	23.0
8+91.0	to	9+77.0	Lt.	86.0
9+13.0	to	10+10.5	Lt.	97.5
10+41.6	to	10+94.5	Lt.	52.9
11+11.5	to	11+51.0	Lt.	39.5
11+77	to	12+72.5	Lt.	95.5
13+01.5	to	13+31.23	Lt.	29.5
13+37.0	to	14+09.7	Lt.	72.7
14+42.69	to	14+62.69	Lt.	20.0
15+3...9	to	15+51.0	Lt.	31.4
15+...9	to	15+51.0	Lt.	2.31
15+91.0	to	16+81.0	Lt.	90.0
17+11.0	to	17+86.0	Lt.	75.0
18+06.0	to	18+39.0	Lt.	33.0
18+65.0	to	19+76.67	Lt.	11.67
20+15.19	to	21+33.69	Lt.	118.5
21+50.69			Lt.	13.0
21+30.69			Lt.	13.0
21+97.69	to	24+32.5	Lt.	234.81
24+49.5	to	25+16.46	Lt.	66.96
25+33.5			Lt.	12.0
25+65.46			Lt.	14.0
25+81.46	to	26+19.69	Lt.	38.23
3+03	to	5+82.7	Rt.	179.7
5+18.7	to	5+94.9	Rt.	76.2
5+94.90	to	7+35.33	Rt.	140.43
7+3...69	to	8+35.0	Rt.	100.31
9+05.0	to	11+52	Rt.	257.0
11+71.0	to	13+54.5	Rt.	153.5
13+90.5	to	14+14.5	Rt.	24.0
14+50.5	to	14+52.69	Rt.	2.19
14+52.69	to	14+72.69	Rt.	31.5
15+68.69	to	15+68.69	Rt.	26.4
16+02.0	to	16+29.5	Rt.	27.5
16+65.5	to	16+80.0	Rt.	14.5
17+11.0	to	17+49.5	Rt.	38.5
17+76.5	to	18+20.5'	Rt.	76.2
18+26.5	to	19+88.19	Rt.	141.69
20+52.19	to	21+82.5	Rt.	130.31
21+99.5	to	23+02.69	Rt.	103.19
23+66.69	to	24+22	Rt.	55.31
24+39.0	to	26+17.69	Rt.	178.69

COMBINED CURB & GUTTER (TYPE I) SPECIAL (AE) 6466.03 FEET

COMBINED CURB & GUTTER (TYPE II) (AE)

PAWNEE

STA.(CENTER LINE DR.)	SIDE	LINEAL FEET
4+33.5	Lt.	35.0
5+00.7	Rt.	36.0
5+88.0	Lt.	26.0
6+54.0	Lt.	18.0
7+46.0	Lt.	30.0
7+79.0	Lt.	26.0
8+33.0	Lt.	36.0
8+70.6	Rt.	70.0
9+95.0	Lt.	36.0
10+26.0	Lt.	31.0
11+03.0	Lt.	17.0
11+56.5	Rt.	29.0
11+64.0	Lt.	26.0
12+87.0	Lt.	29.0
12+49.0	Lt.	36.0
13+72.5	Rt.	36.0
14+27.7	Lt.	36.0
14+32.5	Rt.	36.0
15+76.0	Lt.	30.0
15+84.0	Rt.	36.0
16+47.5	Rt.	36.0
16+95.5	Rt.	30.0
16+96.0	Lt.	30.0
17+62.0	Rt.	25.0
17+96.0	Lt.	20.0
18+33.5	Rt.	26.0
18+52.0	Lt.	26.0
21+91.0	Rt.	17.0
24+30.5	Rt.	17.0
24+41.0	Lt.	17.0

SENECA

5+28.1	Rt.	28.0
5+83.5	Rt.	34.0
6+67.8	Rt.	19.0
7+07.2	Lt.	29.0
7+24.9	Rt.	36.0
8+12.1	Rt.	36.0
8+97.1	Rt.	36.0
8+51.76	Lt.	70.0
10+07.3	Rt.	27.0
10+64.4	Rt.	31.0
11+32.4	Rt.	31.0
11+76.2	Rt.	19.0
11+79.7	Lt.	29.0
12+46.4	Rt.	23.0
13+19.2	Rt.	33.0
14+05.5	Rt.	36.0
14+06.9	Lt.	29.0
14+41.0	Rt.	31.0
15+23.0	Rt.	23.0
15+93.4	Rt.	25.0
16+03.0	Lt.	26.0
16+45.0	Rt.	30.0
16+59.0	Lt.	36.0
17+20.5	Lt.	32.0
17+29.5	Rt.	31.0
18+63.0	Rt.	20.0
18+78.0	Rt.	36.0
19+29.0	Lt.	36.0
19+58.0	Rt.	36.0
20+44.0	Rt.	26.0
20+98.0	Rt.	24.0
21+01.0	Lt.	36.0
21+40.0	Lt.	27.0
22+78.0	Lt.	36.0
23+48.0	Lt.	36.0
24+10.0	Lt.	36.0
25+60.1	Lt.	36.0
25+91.0	Lt.	19.0
26+03.0	Rt.	19.0
26+58.5	Lt.	26.0
26+70.2	Rt.	17.0
26+90.0	Lt.	17.0
27+39.0	Rt.	17.0
27+79.0	Lt.	19.0

COMBINED CURB & GUTTER (TYPE II)(AE) = 2,200.0 LINEAL FT.

(6") EDGE CURB

PAWNEE

STA.	TO	STA.	SIDE	LINEAL FEET
19+38.19	"	20+05.19	Rt.	26.7
20+52.19	"	20+35.19	Rt.	26.7
21+33.69	"	20+50.69	Lt.	26.7
21+97.69	"	20+80.69	Lt.	26.7
23+02.69	"	23+19.69	Rt.	26.7
23+66.69	"	23+49.69	Rt.	26.7
25+16.46	"	25+33.46	Lt.	26.7
25+81.46	"	25+66.46	Lt.	27.5
26+19.69	"	26+40.5	Lt.	20.81
26+17.69	"	26+34.69	Rt.	37.7

SENECA

2+46.5	"	3+03.97	Lt.	57.47
3+03.97	"	3+28.97	Lt.	40.3
3+59.93	"	3+84.93	Lt.	39.7
3+68.8	"	3+84.93	Rt.	16.13
9+19.76	"	9+36.76	Rt.	26.7
9+66.76	"	9+83.76	Rt.	26.7

(6")EDGE CURB TOTAL = 479.41 FEET

SPECIAL EDGE CURB

SENECA

STA.	TO	STA.	SIDE	LINEAL FEET
9+16.76	"	9+29.96	Lt.	20.42
9+73.76	"	9+86.76	Lt.	20.42
21+51.0	"	21+61.0	Rt.	22.70
21+81.0	"	21+91.0	Rt.	22.70

PAWNEE

8+35.0	"	8+48.0	Rt.	20.42
8+92.0	"	9+05.0	Rt.	20.42
19+76.19	"	19+86.19	Lt.	19.71
20+05.69	"	20+15.19	Lt.	19.71

SPECIAL EDGE CURB TOTAL = 166.50 FEET

CONCRETE PAVEMENT (7") (AE)

PAWNEE

STA.	TO	STA.	SIDE	AVG. LENGTH	AVG. WIDTH	SQ. YDS.
19+76.19	"	20+15.19	Lt.	39.0	9.46	40.99
19+88.19	"	20+52.19	Rt.	64.0	12.32	87.67
21+33.69	"	21+97.69	Lt.	64.0	12.32	87.67
23+02.69	"	23+66.69	Rt.	64.0	12.32	87.67
25+16.46	"	25+80.46	Lt.	64.0	12.43	88.39

SENECA

9+19.76	"	9+83.76	Rt.	64.0	12.32	87.67
21+51.5	"	21+90.5	Rt.	39.0	9.46	40.99
21+61.0	"	21+81.0	Rt.	19.5	20.0	43.33

CONCRETE PAVEMENT (7")(AE) TOTAL = 564.14 S.Y.

EARLY STRENGTH PORTLAND CEMENT BASE (7") (REINF.) (AE)

PAWNEE

STA.	TO	STA.	SIDE	AVG. LENGTH	AVG. WIDTH	SQ. YDS.
3+03.0	"	3+33.0	Rt.& Lt.	30.0	41.04	136.80
3+33.0	"	4+06.0	Lt.	73.0	1.5	12.17
4+06.0	"	6+50.0	Lt.	244.0	5.5	149.11
6+50.0	"	14+42.69	Lt.	792.69	9.5	836.73
14+42.69	"	14+83.19	Lt.	39.5	18.20	79.88
14+19.19	"	13+58.69	Lt.	39.5	18.20	79.88
15+58.69	"	18+45.69	Lt.	227.0	19.5	621.83
18+45.69	"	19+85.69	Lt	140.0	14.5	225.56
19+85.69	"	25+16.46	Lt.	530.77	9.5	560.26
21+52.69	"	21+78.69	Lt	13.0	26.7	37.56
25+16.46	"	25+78.46	Lt.	62.0	8.75	60.28
25+35.46	"	25+61.46	Lt.	13.0	26.0	37.56
25+78.46	"	25+89.69	Lt.	11.23	5.75	7.17
3+33.0	"	3+95.0	Rt.	62.0	1.5	10.33
3+95.0	"	5+94.69	Rt.	199.69	5.5	122.03
5+94.69	"	734.69	Rt.	140.0	15.38	239.34
7+34.69	"	14+52.69	Rt.	718.0	19.5	1555.67
14+52.69	"	14+92.19	Rt.	39.5	18.20	79.88
15+29.19	"	15+68.69	Rt.	39.5	18.20	79.88
15+68.69	"	25+65.59	Rt.	997.0	9.5	1052.39
25+65.59	"	26+19.69	Rt.	54.1	6.75	40.58

SENECA

3+84.93	"	5+86.95	Lt.	202.02	6.37	142.99
5+86.95	"	7+31.95	Lt.	145.0	10.83	174.48
7+31.95	"	11+98.0	Lt.	466.05	17.5	906.21
11+98.0	"	13+38.0	Lt.	160.0	12.5	222.22
13+38.0	"	17+37.0	Lt.	379.0	7.5	315.83
18+53.0	"	20+50.0	Lt.	197.0	17.5	383.06
20+50.0	"	21+95.0	Lt.	145.0	12.5	201.39
21+95.0	"	25+18.9	Lt.	323.9	7.5	269.92
24+32.2	"	24+96.3	Lt.	64.1	10.40	74.07
25+18.9	"	26+79.4	Lt.	160.5	4.75	84.71
26+79.4	"	27+59.4	Lt.	80.0	2.0	17.78
27+59.4	"	27+89.4	Lt.& Rt.	30.0	44.83	149.43
4+14.93	"	4+62.0	Rt.	47.07	1.5	7.85
4+62.0	"	6+19.56	Rt.	157.66	4.5	78.83
6+19.56	"	14+00.0	Rt.	780.34	7.5	650.28
9+19.76	"	9+83.76	Rt.	64.0	10.41	74.03
14+00.0	"	15+60.0	Rt.	160.0	12.5	222.22
15+60.0	"	17+47.0	Rt.	87.0	17.5	169.17
18+63.0	"	25+18.9	Rt.	655.9	7.5	546.58
24+56.9	"	25+18.9	Rt.	64.0	10.41	74.03
25+18.9	"	26+79.4	Rt.	160.5	4.75	84.71
26+79.4	"	27+59.4	Rt.	80.0	2.0	17.78

EARLY STRENGTH PORTLAND CEMENT BASE (7")(AE) (REINF.)
TOTAL = 10,892.36 S.Y.

CONCRETE PAVEMENT (8") (AE)

PAWNEE

STA.	TO	STA.	SIDE	AVG. LENGTH	AVG. WIDTH	SQ. YDS.
26+19.69	"	26+51.50	Lt.	31.81	4.25	15.02
26+19.69	"	26+36.19	Rt.	16.5	13.19	24.18

SENECA

2+34.0	"	3+03.97	Lt.	69.97	2.42	18.81
3+03.97	"	3+84.93	Lt.	80.96	19.42	174.69
3+68.8	"	3+84.93	Rt.	16.13	2.09	3.38

CONCRETE PAVEMENT (8")(AE) TOTAL = 236.26 S.Y.

CONCRETE PAVEMENT (8") (AE) EARLY STRENGTH

PAWNEE

STA.	TO	STA.	SIDE	AVG. LENGTH	AVG. WIDTH	SQ. YDS.
9+57.5	"	9+62.5	Lt. & Rt.	5.0	43.0	23.89
21+75.5	"	21+80.5	Lt. & Rt.	5.0	44.0	24.44

CONCRETE PAVEMENT (8")(AE) EARLY STRENGTH TOTAL = 48.33 S.Y.

(EARLY STRENGTH) CONCRETE PAVEMENT (6") UNIFORM (AE)

PAWNEE

STA.	TO	STA.	SIDE	LENGTH	WIDTH	SQ.YDS.
4+33.5			Lt.	23.37	29.0	80.24
5+00.7			Rt.	20.04	30.0	71.73
5+88			Lt.	18.47	20.0	65.98
6+54			Lt.	16.50	12.0	26.93
7+46			Lt.	16.50	24.0	48.93
7+79			Lt.	16.50	20.0	41.60
8+33			Lt.	16.50	30.0	59.93
8+70			Rt.	16.50	45.0	89.95
8+95			Lt.	16.50	30.0	59.93
10+26			Lt.	16.50	25.0	50.77
11+03			Lt.	16.50	11.0	25.14
11+56.5			Rt.	16.50	23.0	47.10
11+64			Lt.	16.50	20.0	41.60
12+87			Lt.	16.50	23.0	47.10
13+49			Lt.	16.50	30.0	59.93
13+72.5			Rt.	16.50	30.0	59.93
14+27.7			Lt.	16.50	30.0	59.93
14+32.5			Rt.	16.50	30.0	59.93
13+95.69	"	14+55.69	Lt.	60.0	25.0	166.67
13+55.69	"	14+55.69	Rt.	100.0	7.0	75.83
15+55.69	"	16+60.69	Rt.	105.0	16.0	176.89
15+76			Lt.	6.5	30.0	28.89
15+84			Rt.	16.5	30.0	59.93
16+47.5			Rt.	16.5	30.0	59.93
16+95.5			Rt.	16.5	24.0	48.93
16+96.0			Lt.	6.5	30.0	28.89
17+62.0			Rt.	16.5	19.0	39.77
17+96			Lt.	6.5	20.0	21.67
18+33.5			Rt.	16.5	20.0	41.60
18+52.0			Lt.	7.25	26.0	29.00

SENECA

5+28.1			Rt.	19.78	22.0	53.28
5+83.5			Rt.	17.80	28.0	60.31
6+67.8			Rt.	16.5	13.0	28.77
7+07.2			Lt.	15.6	23.0	44.80
7+24.9			Rt.	16.5	30.0	59.93
8+12.1			Rt.	16.5	30.0	59.93
8+97.1			Rt.	16.5	30.0	59.93
9+51.76			Lt.	16.5	45.0	89.95
10+07.3			Rt.	16.5	21.0	43.43
10+64.4			Rt.	16.5	25.0	50.77
11+32.4			Rt.	16.5	25.0	50.77
11+76.2			Rt.	16.5	13.0	28.77
11+79.7			Lt.	16.5	23.0	48.02
12+46.4			Rt.	16.5	19.0	39.77
13+19.2			Rt.	16.5	27.0	54.43
14+05.5			Rt.	16.5	30.0	59.93
14+06.9			Lt.	16.5	23.0	48.02
14+41.0			Rt.	15.2	25.0	47.16
15-23.0			Rt.	8.2	25.0	31.89
15-93.4			Rt.	6.5	25.0	25.28
16+03.0			Lt.	16.5	20.0	41.60
16+45.0			Rt.	6.5	30.0	28.89
16-59.0			Lt.	16.5	30.0	59.93
17+20.5			Lt.	16.5	26.0	53.52
17+29.5			Rt.	6.5	25.0	25.28
16 25.0	"	16+74.0	Rt.	28.5	49.0	142.50
16 76.0	"	17+01.0	Rt.	13.0	27.0	39.00
17+01.0	"	17+33.0	Rt.	34.0	32.0	120.89
18+63.0			Lt.	6.5	20.0	21.67
18+75.0	"	19+49.0	Lt.	15.0	74.0	119.67
19+29.0			Lt.	6.5	30.0	28.89
19+58.0			Rt.	16.5	30.0	59.93
19+70.0			Lt.	6.5	30.0	28.89
20+44.0			Rt.	16.5	18.0	37.93
20+98.0			Rt.	16.5	18.0	37.93
21+01.0			Lt.	9.0	30.0	40.00
21+40.0			Lt.	13.8	21.0	37.13
22+78.0			Lt.	16.5	30.0	59.93
23+48.0			Lt.	16.5	30.0	59.93
24+10.0			Lt.	16.5	30.0	59.93
25+60.1			Lt.	17.87	30.0	64.50
25+91.0			Lt.	18.9	13.0	32.23
26+58.5			Rt.	25.14	20.0	60.80
26+90.0			Lt.	22.19	11.0	32.05
27+79.0			Lt.	25.15	13.0	41.26

CONCRETE PAVEMENT (6") UNIFORM (AE) TOTAL = 4,074.05 SQ.YDS.

NOTE: SQ. YDS. OF CONCRETE (6") IN FLARED PORTIONS OF RADIUS RAMPS HAVE BEEN INCLUDED IN TOTAL SQ. YDS. PER STATION.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF QUANTITIES

PAWNEE & SENECA INTERSECTION

SHEET NO.	OF	SCALE	APP'D	
DESIGNED		DETAILED	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.	QUAN. CK.	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

5 3 6

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-7-4004 (3)	1974	58	79

CONCRETE PAVEMENT (6") UNIFORM (AE)

	STA.	TO	STA.	SIDE	AVG. LENGTH	AVG. WIDTH	SQ. YARDS
PAWNEE	21+91.0			Rt.	16.5	11.0	25.10
	24+30.5			Rt.	16.5	11.0	25.10
	24+25.0	"	24+36.0	Rt.	9.0	12.33	11.66
	24+41.0			Lt.	16.5	11.0	25.10
	26+51.5			Lt.	13.0	8.0	14.02
SENECA	2+34.0			Lt.	10.3	9.5	13.34
	26+03.0			Rt.	19.3	13.0	32.81
	25+96.5	"	26+09.5	Rt.	10.0	10.5	11.67
	25+70.2			Rt.	21.53	11.0	31.25
	27+39.0			Rt.	23.82	11.0	34.05
	27+33.5	"	27+44.5	Rt.	10.0	9.5	10.56

CONCRETE PAVEMENT (6") UNIFORM (AE) TOTAL = 234.66 SQ.YDS.

NOTE: SQ. YDS. OF CONCRETE (6") IN FLARED PORTIONS OF RADIUS RAMPS HAVE BEEN INCLUDED IN TOTAL OF SQ.YDS. PER STATION.

TREE REMOVE

	STA.	SIDE	SIZE	PAY QUANTITY
PAWNEE	6+54.0	Lt.	18"	0
	20+55.1	Lt.	45"	1
	20+74.0	Lt.	36"	0
	21+04.0	Rt.	42"	1
	21+18.0	Rt.	54"	1
	22+35.7	Rt.	36"	0
	22+59.4	Rt.	39"	0
	22+65.9	Rt.	36"	0
	22+88.5	Rt.	33"	0
	24+12.4	Rt.	39"	0
	24+54.9	Rt.	36"	0
	24+79.7	Rt.	36"	0
SENECA	9+29.0	Lt.	12"	0

TREE REMOVAL TOTAL = 3

SIDEWALK CONSTRUCTION (4")(AE)

	STA.	TO	STA.	SIDE	LENGTH	WIDTH	SQ. YDS.
PAWNEE	9+10.0	"	9+14.0	Lt.	4.0	4.0	1.78
	10+09.4	"	10+13.4	Lt.	4.0	4.0	1.78
	15+55.69	"	15+69.0	Rt.	13.31	4.0	5.92
	15+99.0	"	16+32.5	Rt.	33.5	4.0	14.89
	16+62.5	"	16+80.5	Rt.	18.0	4.0	8.00
	16+96.0	"	15+76.0	Lt.	80.0	5.83	51.82
	17+16.0	"	17+81.0	Lt.	65.0	4.0	28.89
	18+11.0	"	18+34.0	Lt.	23.0	4.0	10.22
	18+70.0	"	19+85.69	Lt.	115.69	4.0	51.42
	25+67.96	"	25+85.96	Lt.	18.0	4.0	8.00
	25+19.69	"	26+23.69	Rt.	20.0	4.0	8.89
	25+23.69	"	26+30.19	Rt.	6.5	4.0	2.89
SENECA	3+18.45	"	3+24.95	Lt.	6.5	4.0	2.89
	7+93.10	"	7+97.10	Rt.	4.0	4.0	1.78
	8+27.10	"	8+31.10	Rt.	4.0	4.0	1.78
	8+78.10	"	8+82.10	Rt.	4.0	4.0	1.78
	16+65.0	"	17+12.0	Rt.	47.0	6.5	33.94
	18+50.0	"	18+63.0	Rt.	13.0	4.0	5.78
	18+93.0	"	18+97.0	Rt.	4.0	4.0	1.78
	19+39.0	"	19+43.0	Rt.	4.0	4.0	1.78
	19+73.0	"	19+77.0	Rt.	4.0	4.0	1.78
	20+31.0	"	20+35.0	Rt.	4.0	4.0	1.78
	20+53.0	"	20+57.0	Rt.	4.0	4.0	1.78
	20+85.0	"	20+89.0	Rt.	4.0	4.0	1.78
	21+07.0	"	21+11.0	Rt.	4.0	4.0	1.78
	21+50.0	"	21+61.0	Rt.	11.0	4.0	4.89
	22+59.0	"	22+63.0	Lt.	4.0	4.0	1.78
	22+93.0	"	22+97.0	Lt.	4.0	4.0	1.78
	23+29.0	"	23+33.0	Lt.	4.0	4.0	1.78
	23+63.0	"	23+67.0	Lt.	4.0	4.0	1.78
	23+91.0	"	23+95.0	Lt.	4.0	4.0	1.78
	24+25.0	"	24+29.0	Lt.	4.0	4.0	1.78
	24+40.0	"	24+44.5	Lt.	4.5	4.0	2.00
	24+83.5	"	24+86.0	Lt.	2.5	4.0	1.11
	24+86.0	"	24+90.0	Lt.	4.0	6.0	2.67
	25+41.1	"	25+45.1	Lt.	4.0	4.0	1.78
	25+75.1	"	25+54.5	Lt.	9.4	4.0	4.18
	25+97.5	"	26+01.5	Lt.	4.0	4.0	1.78
	26+44.5	"	26+48.5	Lt.	4.0	4.0	1.78
	26+68.5	"	26+84.5	Lt.	16.0	4.0	7.11
	26+95.5	"	26+99.5	Lt.	4.0	4.0	1.78
	27+30.5	"		Lt.	4.0	4.0	1.78
	27+68.5	"	27+72.5	Lt.	4.0	4.0	1.78
	27+85.5	"	27+89.5	Lt.	4.0	4.0	1.78

SIDEWALK CONSTRUCTION (4"((AE) TOTAL = 300.01 SQ. YDS.

SIDEWALK CONSTRUCTION (9")(AE)

	STA.	TO	STA.	SIDE	LENGTH	WIDTH	SQ. YDS.
PAWNEE	15+31.69	"	15+55.69	Lt.	6.0	4.0	2.67
	15+50.39	"	15+55.69	Rt.	5.3	4.0	2.36
	25+63.96	"	25+67.96	Lt.	4.0	4.0	1.78
	26+19.69	"	26+23.69	Rt.	4.0	4.0	1.78
	26+30.19	"	26+34.19	Rt.	4.0	4.0	1.78
SENECA	3+24.95	"	3+28.95	Lt.	4.0	4.0	1.78
	24+44.5	"	24+48.5	Lt.	4.0	4.0	1.78
	24+79.5	"	24+83.5	Lt.	4.0	4.0	1.78
	24+86.0	"	24+90.0	Lt.	4.0	4.0	1.78
	27+30.5			Lt.	4.0	4.0	1.78

SIDEWALK CONSTRUCTION (9")(AE) TOTAL = 19.27 S.YDS.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF QUANTITIES

PAWNEE & SENECA INTERSECTION

SHEET NO. 07	SCALE	APP'D		
DESIGNED	DETAILED	QUANTITIES Seal	TRACED	
DESIGN CK.	DETAIL CK.	SURV. CK.	TRACE CK.	

DIST. 5 SEDGWICK CO. ROLL 531

5 3 7

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1974	59	79

COMMON EXCAVATION

STATION			SIDE	Average Length feet	Average width feet	Cubic Yards
Sidewalk Removal (for information only) • Average Thickness • 6" •						
SENECA AVENUE						
3+19.45	to	3+29.95	LT	10.5	4.0	0.17
7+92.6	to	7+96.6	RT	4.0	4.0	0.20
6+27.6	to	6+31.6	RT	4.0	4.0	0.20
6+77.6	to	6+81.6	RT	4.0	4.0	0.20
9+12.6	to	9+16.6	RT	4.0	4.0	0.20
16+65	to	17+10	RT	45.0	4.0	2.22
17+52	to	17+56	RT	25.5	4.0	1.50
18+50	to	18+54	RT	4.0	4.0	0.20
18+86	to	18+89	RT	3.0	4.0	0.15
19+38	to	19+42	RT	4.0	4.0	0.20
19+74	to	19+78	RT	4.0	4.0	0.20
20+33.5	to	20+37.5	RT	4.0	4.0	0.20
20+50.5	to	20+54.5	RT	4.0	4.0	0.20
20+85	to	20+89	RT	4.0	4.0	0.20
21+07	to	21+11	RT	4.0	4.0	0.20
21+46	to	21+61	RT	15.0	4.0	0.74
22+58	to	22+62	LT	4.0	4.0	0.20
22+94	to	22+98	LT	4.0	4.0	0.20
23+28	to	23+32	LT	4.0	4.0	0.20
23+64	to	23+68	LT	4.0	4.0	0.20
23+92	to	23+96	LT	4.0	4.0	0.20
26+40	to	26+47.5	LT	7.5	4.0	0.37
26+78.5	to	26+86	LT	7.5	4.0	0.37
26+86	to	27+00	LT	15.0	4.0	0.98
25+40	to	25+44	LT	4.0	4.0	0.20
25+76	to	25+87	LT	11.0	4.0	0.54
25+97	to	26+02	LT	5.0	4.0	0.25
26+45	to	26+49	LT	4.0	4.0	0.20
26+69	to	26+84.5	LT	15.5	4.0	0.76
26+95.5	to	26+99.5	LT	4.0	4.0	0.20
27+28	to	27+32	LT	4.0	6.0	0.59
Common Excavation (Sidewalk Removal) TOTAL						13.99
ASPHALT MAT REMOVAL (for information only)						
SENECA AVENUE • Average Thickness • 9" •						
5+26.1			RT	2.0	28.0	0.59
5+85.5			RT	2.0	30.0	0.74
6+62.8			RT	2.0	14.0	0.35
7+07.2			LT	10.0	28.0	2.96
7+24.9			RT	2.0	31.0	0.76
8+12.1			RT	2.0	31.0	0.76
8+97.1			RT	2.0	35.0	0.86
9+51.76			LT	17.0	23.0	5.29
10+07.3			RT	2.0	29.0	0.59
10+64.4			RT	2.0	27.0	0.67
11+32.4			RT	2.0	24.0	0.59
11+76.2			RT	2.0	15.0	0.37
11+79.7			LT	13.0	26.0	4.17
12+96.4			RT	2.0	22.0	0.54
13+19.2			RT	2.0	27.0	0.67
14+06.9			LT	4.0	23.5	1.13
14+26			RT	2.0	60.0	1.48
15+60			RT	10.0	140.0	17.27
16+62			RT	55.0	22.0	16.32
19+58			RT	2.0	55.0	1.36
19+70			LT	9.0	44.0	4.88
20+64			RT	2.0	30.0	0.74
20+96			LT	9.0	45.0	5.00
20+98			RT	2.0	30.0	0.74
21+56			RT	7.5	18.0	1.67
22+76			LT	2.0	40.0	0.99
23+68			LT	2.0	40.0	0.99
24+12			LT	2.0	3.0	0.74
25+67			LT	2.0	60.0	1.48
26+59			LT	2.0	25.0	0.62
Common Excavation (Asphalt Mat Removal) TOTAL						73.89

ROCK EXCAVATION

STATION			SIDE	Average Length feet	Average width feet	Cubic Yards
CONCRETE BASE PAVEMENT REMOVAL (Average Thickness • 8")						
SENECA AVENUE						
3+14.45	to	3+64.95	LT	29.9	36.0	25.97
3+64.95	to	4+14.95	LT & RT	30.0	49.0	36.48
9+16.93	to	10+00	RT	26.5	34.4	22.62
10+00	to	21+61	RT	51.5	20.0	25.56
21+61	to	27+59.4	LT & RT	26.5	68.8	45.24
27+59.4	to	27+89.4	LT & RT	30.0	49.0	36.98
					Sub Total	192.35
DRIVEWAY REMOVAL (Average Thickness • 6")						
2+54			LT	12.0	10.1	2.24
5+28.1			RT	25.6	25.3	11.95
5+83.5			RT	"	25.3	11.95
6+02.8			RT	"	13.5	6.38
7+07.2			LT	"	26.6	12.51
7+24.9			RT	"	31.5	14.85
8+12.1			RT	"	33.2	15.68
8+97.1			RT	"	32.8	15.49
9+51.76			LT	"	26.5	12.51
10+07.3			RT	"	25.6	12.09
10+64.4			RT	"	28.2	13.31
11+32.4			RT	"	28.2	13.31
11+76.2			RT	"	14.5	6.85
11+79.7			LT	"	28.5	13.46
12+96.4			RT	"	24.5	11.57
13+19.2			RT	"	30.9	14.59
14+06.9			LT	"	26.5	12.51
14+26			RT	"	59.9	28.29
15+23			RT	"	26.5	12.51
15+93.4			RT	"	26.5	12.51
16+03			LT	"	21.5	10.15
16+50			RT	"	31.5	14.88
16+89			LT	25.5	31.5	14.88
16+91			RT	120.0	29.4	65.33
17+28			RT	25.5	32.5	15.35
17+29			LT	25.5	32.5	15.35
17+41			LT	35.0	17.0	11.02
18+08			LT	25.5	28.5	13.46
18+70			RT	25.5	32.5	15.35
19+00			LT	25.2	98.0	45.73
19+29			LT	25.5	32.5	15.35
19+38			RT	25.5	32.5	15.35
19+70			LT	25.5	31.5	14.88
20+44			RT	25.5	18.5	8.74
20+98			RT	-	18.5	6.74
21+01			LT	-	30.5	11.40
21+40			LT	-	22.0	10.39
21+97			RT	-	11.5	5.43
22+78			LT	-	31.5	14.88
23+00			RT	-	25.5	12.04
23+68			LT	-	32.0	15.11
24+12			LT	-	31.5	14.88
25+60.1			LT	-	31.5	14.88
25+31			LT	25.5	12.5	5.90
26+03			RT	32.5	13.9	8.06
26+59			LT	25.5	21.0	9.92
26+70.2			RT	25.5	11.5	5.43
26+90			LT	25.5	11.5	5.43
27+90			RT	35.5	10.6	6.97
27+78			LT	25.5	13.5	6.37
					Sub Total	689.19
CURB and BASE SECTION REMOVAL						
SENECA AVENUE						
2+54	to	27+89.4	LT & RT			
379.4 L.F. Curb Section				@ .01237	cu yds/ Lin ft	4.69
1397.5 L.F. Separate Base Section				@ .02467	- - - -	34.93
3,088.1 L.F. Curb & Base Section				@ .03726	- - - -	115.06
162.5 L.F. Curb & Base Section				@ .06192	cu yds/ Lin ft	10.05
					Sub Total	164.28
ROCK EXCAVATION TOTAL						1,045.82

EARTHWORK

STATION		Common Excavation Cubic Yards	Compaction (Type B) (MR-5)	Type AA (MR-0) Compaction
SENECA AVENUE				
2+54	to 27+89.4	3,262.1	427.7	1624.02 CU. YDS.
Sidewalk	Removal	13.4		
Asphalt	Mat Removal	73.9		
	TOTAL	3,349.4	427.7	

NOTE: 2,856.2 cubic yards common excavation is to be wasted C= 20%

**NOTE ** 3,301.22 cu yds combined estimated total for SENECA and PAWNEE AVE. COMPACTION TYPE AA (MR-0).

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF EARTHWORK QUANTITIES

SENECA AVENUE

SHEET NO. OF	SCALE	APP'D	
DESIGNED	DETAILED	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

5 3 8

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	57-T-4004(3)	1974	60	79

COMMON EXCAVATION

STATION			SIDE	Average Length feet	Average Width feet	cubic yards
SIDEWALK Removal (for information only) • Average Thickness • 4" •						
PAWNEE AVENUE						
9+10.	to	9+15	LT	5.0	3.0	0.25
10+08.5	to	10+13.5	LT	5.0	-	0.25
15+55.69	to	15+59.69	RT	4.0	-	0.20
15+92.5	to	16+30	RT	37.5	-	1.85
15+99	to	16+95	LT	96.0	-	2.27
16+02	to	16+23	RT	21.0	-	1.04
17+81	to	17+86.5	LT	65.5	-	3.23
18+07	to	18+39.5	LT	32.5	-	1.60
18+06	to	19+17	LT	111.0	-	5.48
25+04	to	25+90	LT	86.0	-	1.53
26+19.69	to	26+23.69	RT	27.0	-	1.36
26+23.69	to	26+36.19	RT	10.5	4.0	0.77
Common Excavation (Sidewalk Removal) TOTAL						20.05
ASPHALT MAT REMOVAL (for information only)						
PAWNEE AVENUE • Average Thickness • 9" •						
6+13			LT	175.0	16.2	30.65
5+00			RT	31.0	19.6	6.35
6+70			RT	30.0	14.0	5.18
11+64			LT	20.0	2.0	0.49
12+87			LT	23.0	2.0	0.57
13+66			LT	19.4	19.4	4.04
14+07			LT	28.0	22.6	6.69
14+53			LT	22.0	5.0	1.36
16+16			LT	16.2	122.0	27.36
16+86			RT	3.0	67.0	1.76
17+62			RT	2.0	20.0	0.49
18+00.5			LT	15.0	159.0	29.42
18+38.5			RT	2.0	22.0	0.52
19+37.5			LT	10.0	107.0	13.20
Common Excavation (Asphalt Mat Removal) TOTAL						128.7

ROCK EXCAVATION

STATION			SIDE	Average Length feet	Average Width feet	cubic yards
CONCRETE BASE PAVEMENT REMOVAL • Average Thickness • 8" •						
PAWNEE AVENUE						
3+03	to	3+33	LT & RT	30.0	45.0	33.50
3+33	to	3+82.5	LT & RT	5.0	45.0	5.58
3+82.5	to	20+50.19	RT	27.5	34.3	23.41
20+50.19	to	21+95.69	LT	40.5	33.2	35.37
21+75	to	21+85	LT & RT	45.0	5.0	5.56
21+95.69	to	23+64.69	RT	27.5	34.3	23.41
23+64.69	to	25+89.69	LT	40.5	33.2	35.37
25+89.69	to	26+19.69	LT & RT	30.0	33.0	39.46
26+19.69	to	26+36.19	RT	16.5	6.3	2.60
					sub total	200.28
DRIVEWAY REMOVAL (Average Thickness • 6")						
4+33.5			LT	8.5	29.0	9.56
5+00.7			RT	27.5	34.3	17.97
5+03.0			LT	7.5	30.0	2.78
6+54.0			LT	27.5	12.5	6.37
7+96.0			LT	"	25.5	12.39
7+79.0			LT	"	20.5	10.44
8+37.0			LT	"	28.9	14.72
8+70.0			RT	"	26.3	13.39
8+95.0			LT	"	32.9	16.50
10+26.0			LT	"	26.3	13.44
11+03.0			LT	"	12.5	6.37
11+56.0			RT	"	28.5	11.97
11+69.0			LT	"	24.1	12.27
12+67.0			LT	"	27.1	13.80
13+99.0			LT	"	33.0	16.81
13+72.5			RT	27.5	32.0	16.30
14+05.0			RT	17.5	101.0	32.73
14+25.0			LT	26.0	62.0	29.85
14+27.7			LT	27.5	32.5	16.55
14+32.5			RT	"	32.5	16.55
15+76.0			RT	"	32.9	16.75
15+83.0			LT	"	33.4	17.01
16+47.0			RT	"	32.9	16.75
16+62.0			LT	"	32.4	16.50
19+95.5			RT	"	25.4	12.93
17+62.0			RT	"	22.3	11.36
18+02.0			LT	"	20.5	10.44
18+33.5			RT	"	22.1	11.25
18+52.0			LT	"	26.5	13.50
19+30.0			LT	"	31.5	16.04
21+91.0			RT	"	11.5	5.86
24+33.5			RT	"	11.5	5.86
24+41.0			LT	27.5	11.5	5.86
25+69			LT	19.5	9.4	2.52
					sub Total	448.49
CURB and BASE SECTION REMOVAL						
PAWNEE AVENUE						
3+03	to	26+52	LT & RT			
962.8 L.F. curb Section				@ .01837	Cu yds/Lin ft	5.91
767.0 L.F. Separate Base Section				@ .02607	Cu yds/Lin ft	11.92
3,970.1 L.F. curb & Base Section				@ .03726	cu yds/Lin ft	125.30
					sub total	147.13
ROCK EXCAVATION TOTAL						795.90

EARTHWORK

STATION			COMMON EXCAVATION CUBIC YARDS	COMPACTION (TYPE B) (MR-5)
PAWNEE AVENUE				
3+03	to	26+52	4,135.9	950.6
Sidewalk Removal			20.1	
Asphalt Mat Removal			128.7	
TOTALS			4,284.7	950.6 cu yds.

NOTE: 3,744 cubic yards Common Excavation is to be wasted C • 20%

TYPE AA (MR-0) COMPACTION

1677.20 CU. YDS.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF EARTHWORK QUANTITIES

PAWNEE AVENUE

SHEET NO. OF	SCALE	APP'D	
DESIGNED	DETAILED MCS.	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

5 3 9

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1974	61	79

ACCESS REQUIREMENTS FOR COMMERCIAL PROPERTIES

ALL CONSTRUCTION AND UTILITY ADJUSTMENTS ON THIS PROJECT SHALL BE COMPLETED IN SUCH A SEQUENCE THAT ALL COMMERCIAL PROPERTIES AT CORNER LOCATIONS OF PAWNEE AND SENECA AVENUE SHALL BE PROVIDED WITH ACCESS ALTERNATELY TO ONE STREET OR THE OTHER AT ALL TIMES. ALL COMMERCIAL PROPERTIES HAVING MULTIPLE ACCESS TO PAWNEE OR SENECA AVENUE WITHIN THE PROJECT LIMITS SHALL BE PROVIDED (1) ACCESS AT ALL TIMES EXCEPT WHEN ASPHALT LEVELING AND SURFACE COURSE IS BEING APPLIED, AND AS FURTHER DETERMINED BY THE ENGINEER. ALL COMMERCIAL PROPERTIES HAVING (1) ACCESS ONLY TO PAWNEE OR SENECA WITHIN THE PROJECT LIMITS SHALL BE PROVIDED TEMPORARY ACCESS WHEN THE VARIOUS PHASES OF CONSTRUCTION PERMITS AND AS FURTHER DETERMINED BY THE ENGINEER. THE CONTRACTOR SHALL BE REQUIRED TO NOTIFY ALL INVOLVED COMMERCIAL PROPERTIES AT LEAST THREE BUSINESS DAYS IN ADVANCE WITH REGARD TO ACCESS LOCATIONS AND CHANGES IN SUCH ACCESS LOCATIONS; THE TIME AND DATES OF ACCESS AT SUCH LOCATIONS; AND THE TIME AND DATES WHEN ACCESS CANNOT BE PROVIDED TO THOSE COMMERCIAL PROPERTIES HAVING ACCESS ONLY TO PAWNEE & SENECA AVENUE WITHIN THE LIMITS OF THE PROJECT.

THE ENGINEER SHALL HAVE AUTHORITY TO DELAY ANY CONSTRUCTION SEQUENCE WHEN THE CONTRACTOR OR HIS SUB-CONTRACTORS FAIL TO GIVE THE MINIMUM ADVANCE NOTIFICATION TO THE INVOLVED COMMERCIAL PROPERTIES. ALL SUCH DELAYS DUE TO FAILURE TO NOTIFY SUFFICIENTLY IN ADVANCE WITH REGARDS TO TIMES AND LOCATIONS OF ACCESS POINTS SHALL NOT BE EXCUSABLE DELAYS AND SUCH PERIODS OF DELAY SHALL BE COUNTED AS WORKING DAYS WHEN WORK COULD NORMALLY BE OTHERWISE ACCOMPLISHED.

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A CONSTRUCTION SEQUENCE WHICH INSURES ACCESS TO COMMERCIAL PROPERTIES AND PROVIDES AN ACCEPTABLE LEVEL OF TRAFFIC FLOW THROUGH THE CONSTRUCTION AREA.

RECAPITULATION OF ROAD QUANTITIES
SENECA AND PAWNEE INTERSECTION
87-T-4004 (3)

ITEM	UNIT	TOTAL
LARGE TREES	EACH	3
ROCK EXCAVATION	CU. YDS.	1842
COMMON EXCAVATION	CU. YDS.	7654
SEWER EXCAVATION (COMMON)	CU. YDS.	190
CLASS III EXCAVATION	CU. YDS.	245.6
COMPACTION OF EARTHWORK (TYPE AA) (HR-6)	CU. YDS.	3301.
COMPACTION OF EARTHWORK (TYPE B) (HR-5)	CU. YDS.	378
WATER	M-GALS	1
EARLY STRENGTH PORTLAND CEMENT BASE (7" UNIFORM) AE	SQ. YDS.	10892.6
EARLY STRENGTH CONCRETE PAVEMENT (8" UNIFORM) AE	SQ. YDS.	48.3
EARLY STRENGTH CONCRETE PAVEMENT (7" UNIFORM) AE	SQ. YDS.	4074.1
CONCRETE PAVEMENT (6" UNIFORM) AE	SQ. YDS.	234.7
CONCRETE PAVEMENT (7" UNIFORM) AE	SQ. YDS.	564.1
CONCRETE PAVEMENT (8" UNIFORM) AE	SQ. YDS.	236.3
CLASS (A) CONCRETE (MISC.)	CU. YDS.	57.7
REINFORCING STEEL	LBS.	2160
CAST IRON	LBS.	6902
15" STORM SEWER (R.C.P.)	LIN. FT.	223
18" STORM SEWER (R.C.P.)	LIN. FT.	226
24" STORM SEWER (R.C.P.)	LIN. FT.	15
6" EDGE CURB (AE)	LIN. FT.	479.6
VARIABLE EDGE CURB (SPECIAL)(AE)	LIN. FT.	106.5
COMBINED CURB & GUTTER (TYPE I) SPECIAL (AE)	LIN. FT.	6466.1
COMBINED CURB & GUTTER (TYPE II) (AE)	LIN. FT.	2200.0
SIDEWALK CONSTRUCTION (AE) (4")	SQ. YDS.	300.0
SIDEWALK CONSTRUCTION (AE) (9")	SQ. YDS.	19.3
PLANT MIX BITUMINOUS MIXTURE - COMMERCIAL GRADE	TONS	701
EMULSIFIED ASPHALT (CM-4 OR EAS-300)	TONS	157
BITUMINOUS BASE (4")	SQ.YDS.	16,133
WATER (BASE)	M.GALS.	1
LINSEED OIL SURFACE TREATMENT (C&C)	LIN. FT.	8666.1
ITALIAN RYEGRASS SEED	LBS.	233
REMOVAL OF EXISTING STRUCTURES	LUMP SUM	LUMP SUM
PRAIRIE HAY MULCHING	ACRES	7.8
FERTILIZER (12-24-12)	LBS.	2325
WATER POLLUTION CONTROL (SOIL EROSION)	LUMP SUM	LUMP SUM
TEMPORARY SURFACING MATERIAL	CU. YDS.	1
FIELD OFFICE & LABORATORY (TYPE A)	EACH	1
FIELD OFFICE & LABORATORY (TYPE C)	EACH	1
TRAFFIC CONTROL	LUMP SUM	LUMP SUM
MOBILLIZATION	LUMP SUM	LUMP SUM
STRUCTURAL STEEL	LBS.	3724

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

RECAPITULATION OF ROAD QUANTITIES

PAWNEE & SENECA INTERSECTION

SHEET NO.	OF	SCALE	APP'D	
DESIGNED		DETAILED	QUANTITIES Saal	TRACED
DESIGN CK.		DETAIL CK.	QUAN. CK.	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

5 4 0

16X 14.5X 12X 12X 14.5X 16X

GENERAL NOTE

All valves, meter boxes, hydrants, manholes, etc. shall be moved or adjusted to the new construction by their owners unless otherwise noted on the plans.

Existing asphalt surfacing, patches, seal course material and asphalt material, previously used for filling cracks, which is loose, soft or unsatisfactory shall be removed at the locations and to the extent designated by the Engineer. Cracks and joints as noted above shall be caulked with BM(1) Material prior to resurfacing.

All material removed shall be wasted on sites to be provided by the Contractor and approved by the Engineer as to suitability, appearance and site location. Locations which, in the opinion of the Engineer, will leave an unsightly appearance will not be approved. Payment for this work will be considered a subsidiary item.

Where indicated on the Plans or where directed by the Engineer, areas of local depression shall be leveled with Surface Course material prior to placing the Surface Course. The quantities of Surface Course materials include 201.60 tons to allow for this work.

All side streets shall be surfaced to the ends of the returns, the property line or the change in surface as directed by the Engineer.

Any necessary curb repairs shall be done by the City prior to surfacing.

Thicknesses indicated for all construction, which is paid for on a weight or volume basis, are approximate and may vary to correct for unevenness in the foundations or for other normal unevenness encountered in placement operations.

*SEE SPECIAL PROVISION TO STANDARD SPECIFICATIONS NO. TBP-17

SUMMARY OF QUANTITIES

ITEM			TOTAL	UNIT
Emulsified Asphalt (SS-1H) for Tack			15	Tons
Aggregate for Surface Course (B.M-1)			5090	Tons
Asphalt Cement (AC-5)			401	Tons
*Plant Mix Bituminous Mixture-Commerical Grade			401	Tons

PLANT MIX BITUMINOUS MIXTURE COMMERCIAL GRADE

STA. TO STA.	SIDE	AVERAGE LENGTH	AVERAGE WIDTH	TONS
SENECA -				
3+31.45 to 3+57.45	Lt.	26.0	2.0	1.57
5+28.1 (CENTERLINE DR.)	Rt.	22.0	2.0	1.33
5+83.5 "	Rt.	28.0	2.0	1.69
6+67.8 "	Rt.	13.0	2.0	0.79
7+7.2 "	Lt.	23.0	2.0	1.39
7+24.9 "	Rt.	30.0	2.0	1.81
8+12.1 "	Rt.	38.0	2.0	2.30
8+97.1 "	Rt.	38.0	2.0	2.30
9+51.76 "	Lt.	45.0	5.0	6.80
10+07.3 "	Rt.	21.0	2.0	1.27
10+64.4 "	Rt.	25.0	2.0	1.51
11+32.4 "	Rt.	25.0	2.0	1.51
11+76.2 "	Rt.	13.0	2.0	0.79
11+79.7 "	Lt.	23.0	2.0	1.39
12+46.4 "	Rt.	19.0	2.0	1.15
13+19.2 "	Rt.	27.0	2.0	1.63
14+05.5 "	Rt.	30.0	2.0	1.81
14+06.9 "	Lt.	23.0	2.0	1.39
14+41.0 "	Rt.	25.0	2.0	1.51
14+90.0 to 16+30	Rt.	140.0	10.0	42.30
16+03.0 (CENTERLINE DR.)	Lt.	20.0	2.0	1.21
19+58.0 "	Rt.	38.0	2.0	2.30
19+70.0 "	Lt.	45.0	10.0	13.60
20+44.0 "	Rt.	26.0	2.0	1.57
20+98.0 "	Rt.	26.0	2.0	1.57
21+01.0 "	Lt.	44.0	10.0	13.29
21+41.0 to 21+61.0	Rt.	20.0	5.0	3.02
21+56.0 to 21+61.0	Rt.	14.5	5.0	2.19
22+78.0 (CENTERLINE DR.)	Lt.	38.0	2.0	2.30
23+48.0 "	Lt.	38.0	2.0	2.30
24+10.0 "	Lt.	38.0	2.0	2.30
25+41.0 to 26+01.5	Lt.	60.5	2.0	3.66
26+46.5 to 26+81.5	Lt.	35.0	2.0	2.12
PAWNEE -				
4+33.5 (CENTERLINE DR.)	Lt.	29.0	2.0	1.75
5+00.7 "	Rt.	36.02	15.0	16.33
6+54.0 "	Lt.	12.0	2.0	0.73
7+46.0 "	Lt.	24.0	2.0	1.45
7+79.0 "	Lt.	20.0	2.0	1.21
8+33.0 "	Lt.	30.0	2.0	1.81
8+70.0 "	Rt.	45.0	3.0	6.80
8+95.0 "	Lt.	30.0	2.0	1.81
10+26.0 "	Lt.	25.0	2.0	1.51
11+03.0 - "	Lt.	11.0	2.0	0.66
11+56.5 "	Rt.	23.0	2.0	1.39
11+64.0 "	Lt.	20.0	2.0	1.21
12+87.0 "	Lt.	23.0	2.0	1.39
13+49.0 "	Lt.	30.0	2.0	1.81
13+64.0 to 13+95.0	Lt.	31.0	5.0	4.68
13+80.0 to 13+90.0	Lt.	10.0	5.0	1.51
13+90.0 to 13+95.0	Lt.	20.0	5.0	3.02
15+55.69 to 15+60.69	Lt.	5.0	5.0	0.76
15+55.69 to 16+11.69	Lt.	56.0	23.0	38.92
16+11.69 to 16+40.69	Lt.	29.0	13.0	11.39
16+40.69 to 16+21.5	Lt.	80.81	25.5	62.26
16+60.5 to 17+10.5	Rt.	50.0	3.0	4.53
17+21.5 to 18+80.0	Lt.	158.5	15.0	71.84
18+33.5 (CENTERLINE DR.)	Rt.	20.0	2.0	1.21
18+80.0 to 19+85.69	Lt.	105.69	10.0	31.93
PLANT MIX BITUMINOUS MIXTURE COMMERCIAL GRADE - TOTAL				400.73 TONS
NOTE - THE ABOVE QUANTITIES ARE BASED ON (5") THICKNESS AT (0.630215) TONS PER SQ. FT.				
17+62.0	Rt.	19.0	2.0	1.15

Asphaltic Concrete Quantities are based on the following amounts :

Aggregate for Surface Course (BM-1).....140 Lbs. per Cu.Ft. in place
Asphalt Cement (AC-3) for Surface Course.....Percent by weight (6.5)
Emulsified Asphalt (SS-1H) for Tack.....0.10 Gal. per Sq.Yd.
~~Cement Treated Subgrade are based on the following amounts:~~
~~Cement (6%) of the weight of the soil~~
~~Soil Weight assumed to be 140 Lbs per cu.ft.~~
~~Emulsified Asphalt (SS-1H) (per per Sq.Yd.~~

NO.	DATE	REVISIONS
10	8-66	To conform to 1968 Specs

STATE HIGHWAY COMMISSION OF
ASPHALTIC CONC
PAWNEE & SENECA

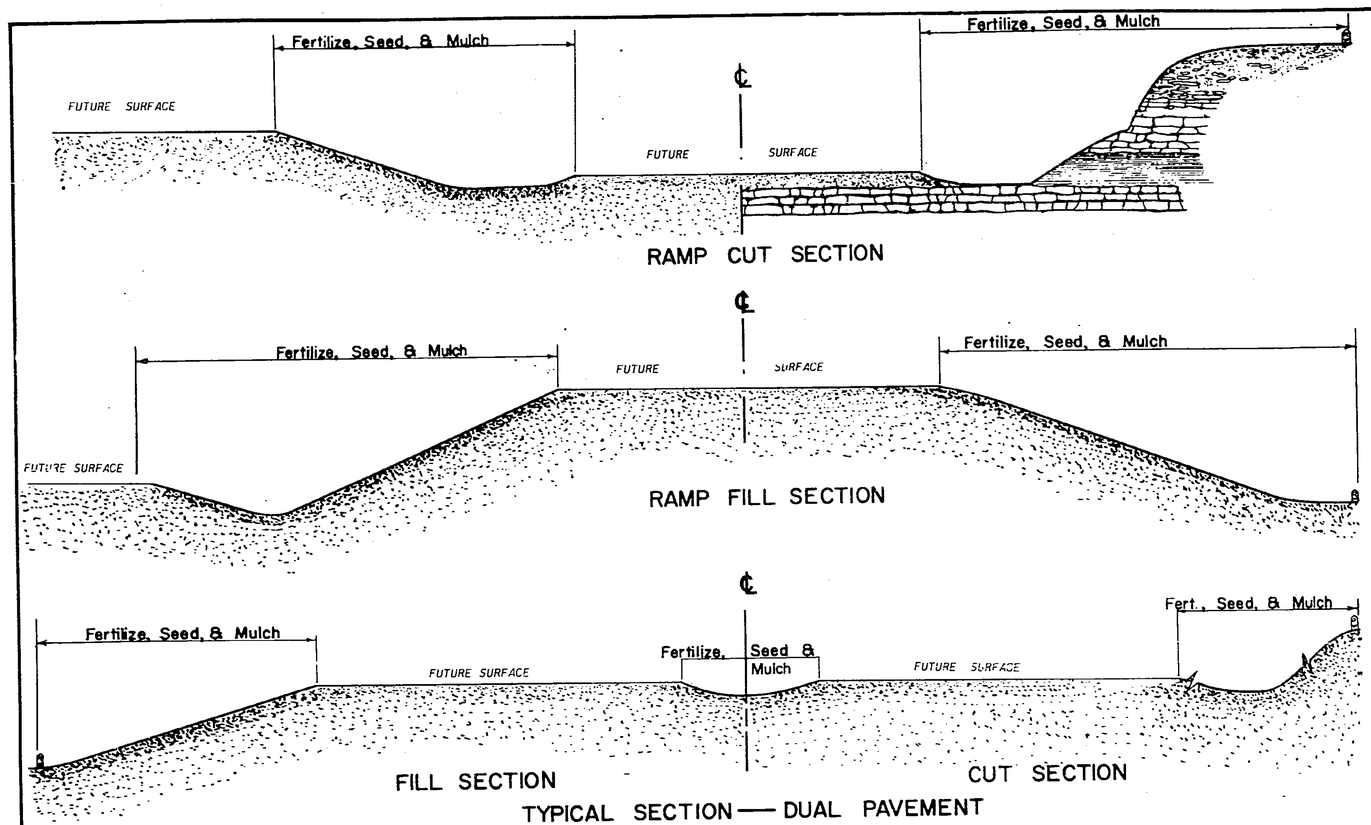
SHEET NO.	OF	SCALE:	
DESIGNED		DETAILED	
DESIGN CK.		DETAIL CK.	

DIST. 5 SEDGWICK CO. ROLL 531

5 4 1

10X 16X 14.5X 12X 12X 14.5X 16X 20X

FHWA REG. NO.	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
7	KANSAS	87-T-4004(3)	1974	68	79
					SECTION



TYPICAL SECTION — DUAL PAVEMENT

All disturbed areas within the Right of Way excepting steep rocky slopes and areas of undisturbed native sod or other desirable vegetation shall be fertilized, seeded, and mulched. Soil preparation shall conform to the Standard Specifications.

Temporary seeding shall be done during any time of the year that the soil can be cultivated. After the temporary seeding has been completed on the entire project, a permanent seeding shall be done by another project during the normal seeding season.

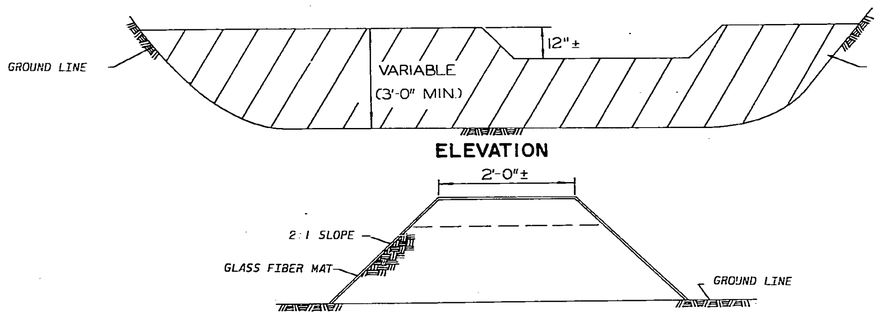
The amount of mulch in the bid quanities is estimated. The total mulch required shall be determined in the field. Mulch shall be spread uniformly over all disturbed areas and punched into the soil, unless otherwise noted on the plans.

The contractor will be required to finish areas of excavation, borrow and embankment in accordance with the specifications. Areas that require installation or construction of temporary project water pollution (Soil Erosion) items or water pollution control (Soil Erosion) (Lump Sum) will be finished in reasonably close conformity to the alignment, grade and cross section shown on the plans or as established by the engineer.

Fertilizer Note; * A ratio and application rate that equals or exceeds the required minimum rate per acre of N - P_2O_5 - K_2O listed in Summary of Quantities will be acceptable.

SUMMARY OF QUANTITIES

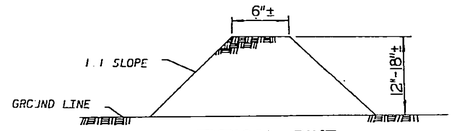
RATE	ACRES	ITEM		
		PAWNEE & SENECA INTERSECTION 87-T-4004(3)		
300 lbs/A	7.75	Fertilizer * (12-24-12)	2325	Lbs.
30 lbs/A	7.75	Italian Rye grass Seed	233	Lbs.
		Prairie Hay Mulching	7.8	Acres
		Water Pollution Control (Soil Erosion)	Lump Sum	L.S.



CROSS SECTION

Cover dike with glass fiber mat and treat similar to glass fiber mat ditch lining (Type I). The dike and basin shall be of sufficient size to handle the anticipated silt load. The basin shall be utilized at locations of expected heavy silt carrying runoff from slopes, terraces or other similar areas.

TYPICAL DIKE FOR SILTING BASIN



TYPICAL DIKE

This dike may be used at any location, slopes, ditches, edges of shoulders, etc...that may be deemed neccessary. The dike may drain into a silting area or may be drained down a flume constructed similar to glass fiber ditch lining (Type I).

NOTE: Rounding or softening toe of slope and top of slope on dikes, etc.. shall be required.

	Avg. Sta.	to	Avg. Sta.	Side L.T.&R.	Sq. Ft.
PAWNEE	3+05.0		14+89.19	" "	66463.75
	15+24.19	"	26+43.5	" "	72488.46
SENECA	3+01.4	"	17+46.0	" "	118812.01
	18+50.0	"	27+89.4	" "	63807.94
				TOTAL =	337572.16 S.F
				or	7.75 Acres

NO	DATE	REVISIONS	BY	APP'D
3				
2	8-8-73	Deleted Hydraulic Seeding Note	L.F.P.	C.L.M.
1	10-8-71	Added Fertilizer Note	L.F.P.	L.M.C.

STATE HIGHWAY COMMISSION OF KANSAS

TEMPORARY PROJECT WATER POLLUTION CONTROL (SOIL EROSION)

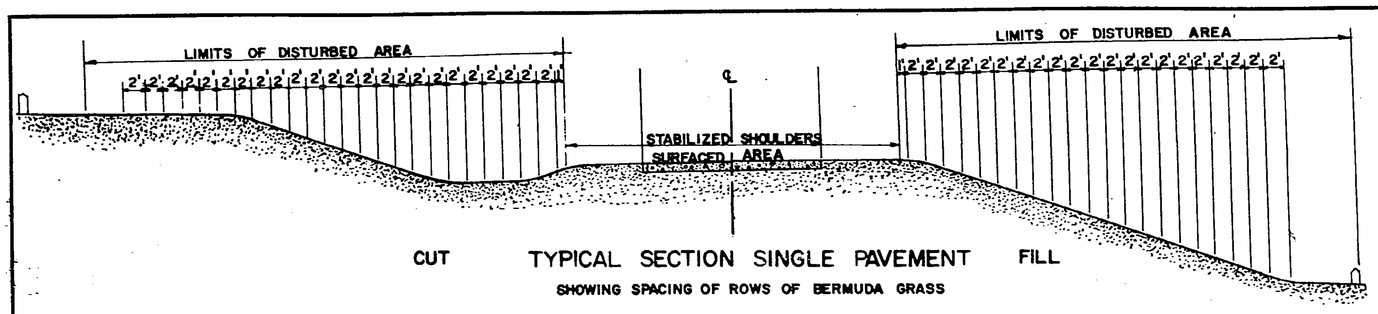
SHEET NO OF	SCALE No Scale	APP'D	
DESIGNED F.T.R.	DETAILED E.G.M.	QUANTITIES	TRACED H.L.H.
DESIGN CK F.T.R.	DETAIL CK L.M.C.	QUAN CK	TRACE CK F.T.R.

DIST. 5 SEDGWICK CO. ROLL 531

5 4 2

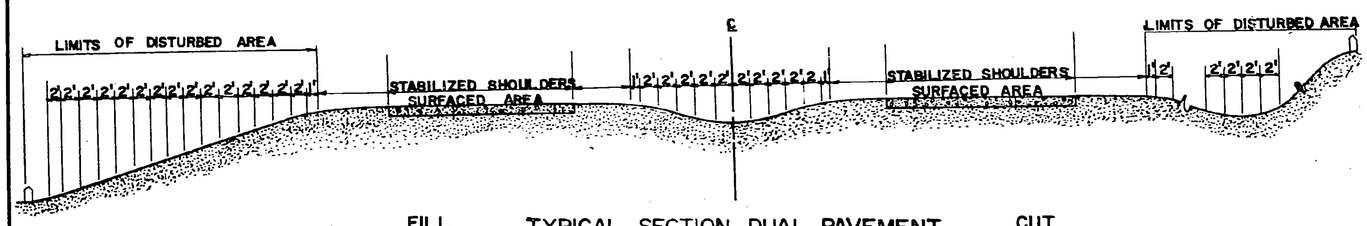
16X 14.5X 12X 12X 14.5X 16X 20X

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-7-4004(3)	1979	C4	79



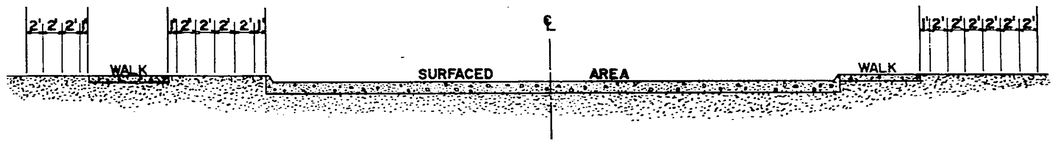
CUT TYPICAL SECTION SINGLE PAVEMENT FILL

SHOWING SPACING OF ROWS OF BERMUDA GRASS



FILL TYPICAL SECTION DUAL PAVEMENT CUT

SHOWING SPACING OF ROWS OF BERMUDA



TYPICAL SECTION CURB & GUTTER

SHOWING SPACING OF ROWS OF BERMUDA

THE ENTIRE RIGHT OF WAY, EXCEPTING THE PAVED OR SURFACED AREAS, STEEP ROCKY SLOPES AND AREAS OF UNDISTURBED NATIVE SOD OR OTHER DESIRABLE VEGETATION, SHALL BE FERTILIZED (LIMED WHEN REQUIRED), AND SODDED OR SEEDED. SOIL PREPARATION SHALL CONFORM TO THE STANDARD SPECIFICATIONS.

BERMUDA GRASS SOD SHALL BE PAID FOR BY THE NUMBER OF SQUARE YARDS OF AREA PLANTED. THE BERMUDA GRASS SOD PLUGS MINIMUM SIZE, SHALL BE TWO INCH BY TWO INCH SQUARE PLUGS OR TWO INCH DIAMETER PLUGS.

BERMUDA GRASS SOD PLUGS SHALL BE PLANTED ONE FOOT APART IN THE ROW.

AREAS TO BE PLANTED SHALL BE CULTIVATED AND WATERED AS DESCRIBED IN (SECTION H 3-4), STANDARD SPECIFICATIONS. THE BERMUDA GRASS SHALL BE ALIVE AND GROWING AT THE TIME OF ACCEPTANCE.

A LIGHT COVERING OF MULCH SHALL BE PLACED OVER THE BERMUDA GRASS SOD AREAS. THIS MULCH SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE SUBSIDIARY TO THE PLANTING OF BERMUDA GRASS SOD.

FERTILIZER SHALL BE APPLIED OVER THE AREAS TO BE SODDED AND SEEDED AT THE RATES SHOWN IN THE SUMMARY OF QUANTITIES.

SUMMARY OF SEEDING AND SODDING QUANTITIES

SEEDING PERIOD: FEB. 15 TO APRIL 20 AND AUG. 15 TO SEPT. 30 SODDING PERIOD: BERMUDA GRASS SOD PLUGS-APRIL 1 TO AUGUST 15

RATE	ACRES	ITEM PAWNEE & SENECA INTERSECTION 87T-4004(3)	BID QUANTITIES	UNIT
400 Lbs/A	7.75	Fertilizer (12-24-12)	3100	Lbs.
		Midway Bermuda Grass Sod Pools	37508.02	S.Y.

	Avg. Sta.	to	Avg. Sta.	Side	Sq. Ft.
PAWNEE	3+03.0	"	14+87.19	L.T.&L.	88463.75
	15+24.19	"	20+83.5	" "	72488.66
SENECA	3+01.4	"	17+95.0	" "	118512.01
	18+30.0	"	27+99.4	" "	63907.94

Total = 337572.16 S.F. = 37508.02 S.Y.
or 7.75 Acres

NO	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

SPACING OF BERMUDA GRASS PLUGS AND SOD ROOTS

SUMMARY OF SEEDING AND SODDING QUANTITIES

STD. NO. 853

SHEET NO.	OF	SCALE		APP'D	
DESIGNED F.T.R.		DETAILED G.H.M.		QUANTITIES	TRACED G.M.
DESIGN CK. F.T.R.		DETAIL CK. L.F.D.		QUAN. CK.	TRACE CK. L.F.D.

DIST. 5 SEDGWICK CO. ROLL 531

5 4 3

20X 16X 14.5X 12X 12X 14.5X 16X 20X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	197	65	79

PHASE DIAGRAM

NOTE: THE CONTROLLER SHALL BE CAPABLE OF SKIPPING ANY PHASE.

NOTE: Power supply to be determined after K.G.+E. relocates utility poles.

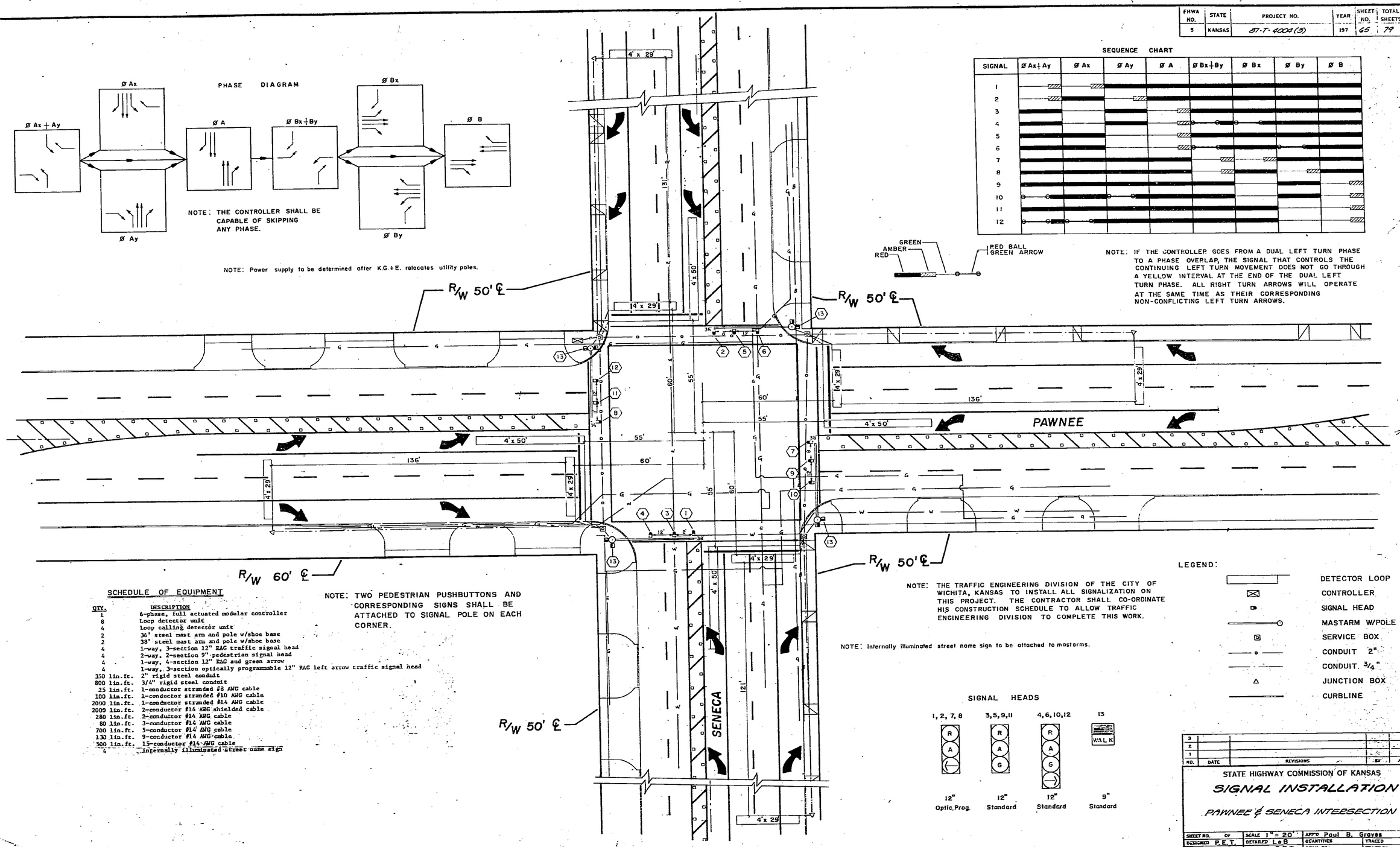
SEQUENCE CHART

SIGNAL	ø Ax + Ay	ø Ax	ø Ay	ø A	ø Bx + By	ø Bx	ø By	ø B
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

GREEN
AMBER
RED

RED BALL
GREEN ARROW

NOTE: IF THE CONTROLLER GOES FROM A DUAL LEFT TURN PHASE TO A PHASE OVERLAP, THE SIGNAL THAT CONTROLS THE CONTINUING LEFT TURN MOVEMENT DOES NOT GO THROUGH A YELLOW INTERVAL AT THE END OF THE DUAL LEFT TURN PHASE. ALL RIGHT TURN ARROWS WILL OPERATE AT THE SAME TIME AS THEIR CORRESPONDING NON-CONFLICTING LEFT TURN ARROWS.



SCHEDULE OF EQUIPMENT

QTY.	DESCRIPTION
1	6-phase, full actuated modular controller
8	Loop detector unit
4	Loop calling detector unit
2	36' steel mast arm and pole w/shoe base
2	38' steel mast arm and pole w/shoe base
4	1-way, 3-section 12" RAG traffic signal head
4	2-way, 2-section 9" pedestrian signal head
4	1-way, 4-section 12" RAG and green arrow
4	1-way, 3-section optically programmable 12" RAG left arrow traffic signal head
350 lin.ft.	2" rigid steel conduit
800 lin.ft.	3/4" rigid steel conduit
25 lin.ft.	1-conductor stranded #8 AWG cable
100 lin.ft.	1-conductor stranded #10 AWG cable
2000 lin.ft.	1-conductor stranded #14 AWG cable
2000 lin.ft.	2-conductor #14 AWG shielded cable
280 lin.ft.	2-conductor #14 AWG cable
80 lin.ft.	3-conductor #14 AWG cable
700 lin.ft.	5-conductor #14 AWG cable
130 lin.ft.	9-conductor #14 AWG cable
500 lin.ft.	15-conductor #14 AWG cable
4	Internally illuminated street name sign

NOTE: TWO PEDESTRIAN PUSHBUTTONS AND CORRESPONDING SIGNS SHALL BE ATTACHED TO SIGNAL POLE ON EACH CORNER.

NOTE: THE TRAFFIC ENGINEERING DIVISION OF THE CITY OF WICHITA, KANSAS TO INSTALL ALL SIGNALIZATION ON THIS PROJECT. THE CONTRACTOR SHALL CO-ORDINATE HIS CONSTRUCTION SCHEDULE TO ALLOW TRAFFIC ENGINEERING DIVISION TO COMPLETE THIS WORK.

NOTE: Internally illuminated street name sign to be attached to mastarms.

SIGNAL HEADS

1, 2, 7, 8	3, 5, 9, 11	4, 6, 10, 12	13
R A ←	R A G	R A G	WALK
12" Optic Prog.	12" Standard	12" Standard	9" Standard

LEGEND:

- DETECTOR LOOP
- CONTROLLER
- SIGNAL HEAD
- MASTARM W/POLE
- SERVICE BOX
- CONDUIT 2"
- CONDUIT 3/4"
- JUNCTION BOX
- CURBLINE

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

SIGNAL INSTALLATION

PAWNEE & SENECA INTERSECTION

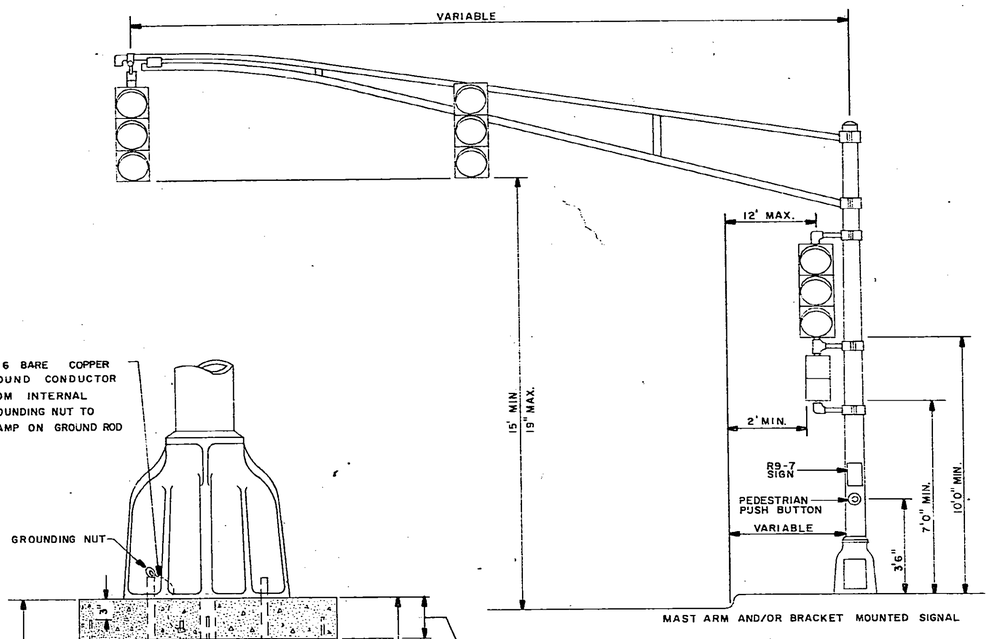
SHEET NO. OF	SCALE 1" = 20'	APP'D Paul B. Graves	
DESIGNED P.E.T.	DETAILED L.E.B.	QUANTITIES	TRACED
DESIGN CK. M.T.	DETAIL CK. P.E.T.	QUAN. CK.	TRACE CK.

DIST. 5 SEDGWICK CO. ROLL 531

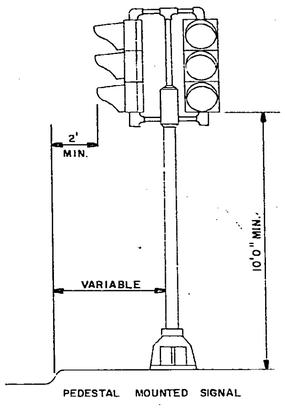
5 4 4

16X 14.5X 12X 12X 14.5X 16X 20X

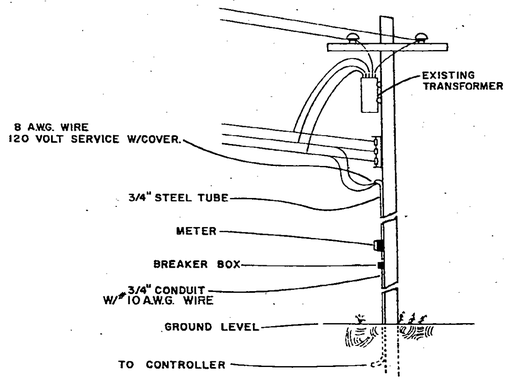
FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1974	66	79



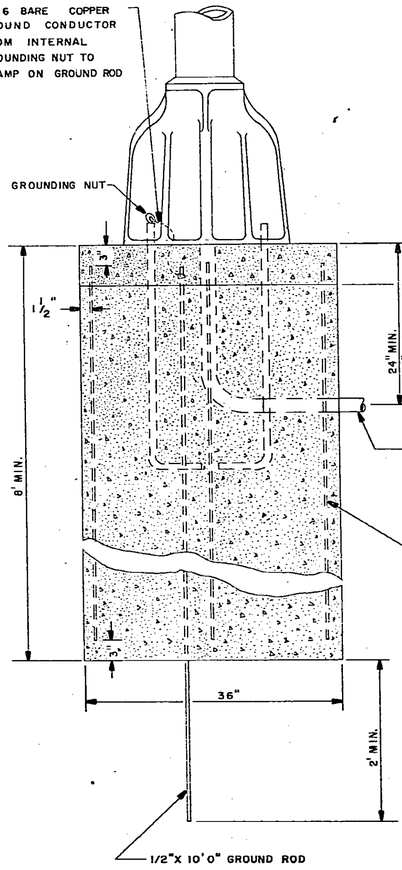
MAST ARM INSTALLATION



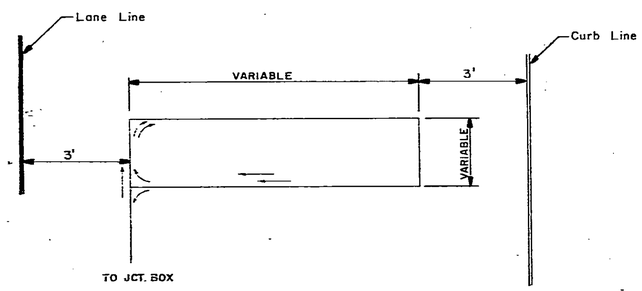
PEDESTAL INSTALLATION



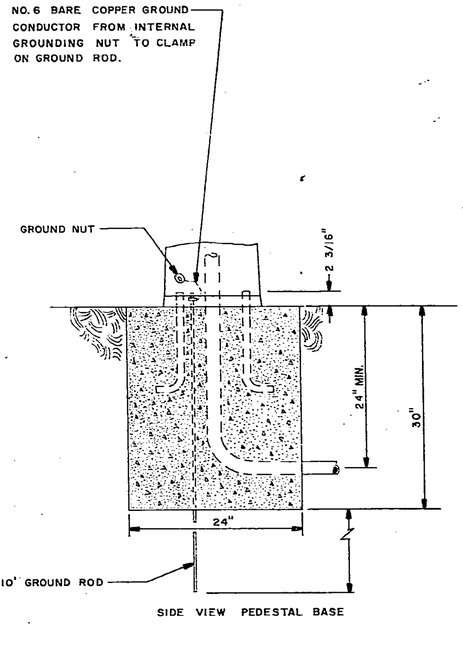
POWER POLE HOOK-UP



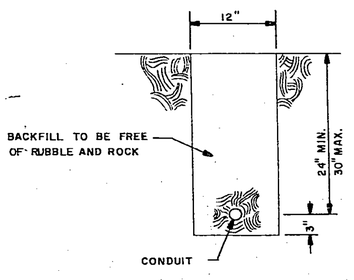
SIDE VIEW OF BASE



LOOP DETECTOR DETAIL

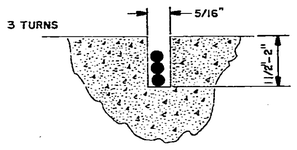


SIDE VIEW PEDESTAL BASE



TRENCH DETAIL

NOTE: CONDUIT TO BE PITCHED TO DRAIN



LOOP CONSTRUCTION

SLOT IN PAVEMENT FOR LOOPS TO BE CUT 5/16" WIDE; 1 1/2" TO 2" DEEP. FILL SLOTS WITH TYPE SS-1H EMULSIFIED ASPHALT AND MASONARY SAND. LOOP WIRE IN SLOT TO BE COVERED WITH 1/8" OF SAND. THE SAND SHALL BE COVERED WITH EMULSIFIED ASPHALT AND LET SET 15 MIN. THE SLOT SHALL THEN BE COMPLETELY FILLED WITH EMULSIFIED ASPHALT AND COVERED WITH 1/4" OF SAND.

NO.	DATE	REVISIONS	BY
3			
2			
1			

STATE HIGHWAY COMMISSION OF KANSAS

SIGNAL INSTALLATION DETAILS FOR THE INTERSECTION OF PAWNEE & SENECA

SHEET NO. 66	SCALE —	APP'D Paul B. Graves	
DESIGNED P.E.T.	DETAILED L & B	QUANTITIES	TRACED
DESIGN CK. M.T.	DETAIL CK P.E.T.	CURR. CY. —	DATE CK

DIST. 5 SEDGWICK CO. ROLL 531

5 4 5

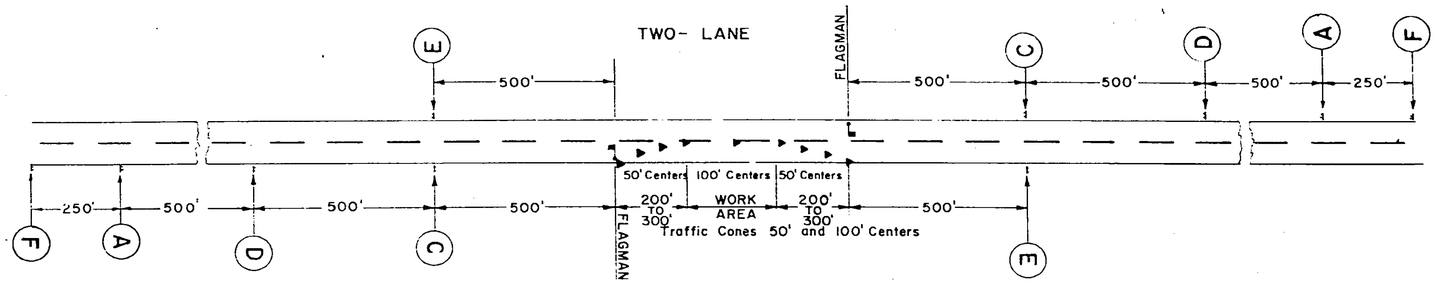
20X 16X 14.5X 12X 12X 14.5X 16X 20X

FHWA REG	STATE	PROJECT NO	YEAR	SHEET NO	TOTAL SHEETS
5	KANSAS	87-T-4004(3)	1974	67	79

TRAFFIC CONTROL DEVICES

FOR CONSTRUCTION WORK ADJACENT TO ROADWAY AND MINOR SURFACING WORK ON A TWO AND FOUR LANE HIGHWAY

TWO- LANE

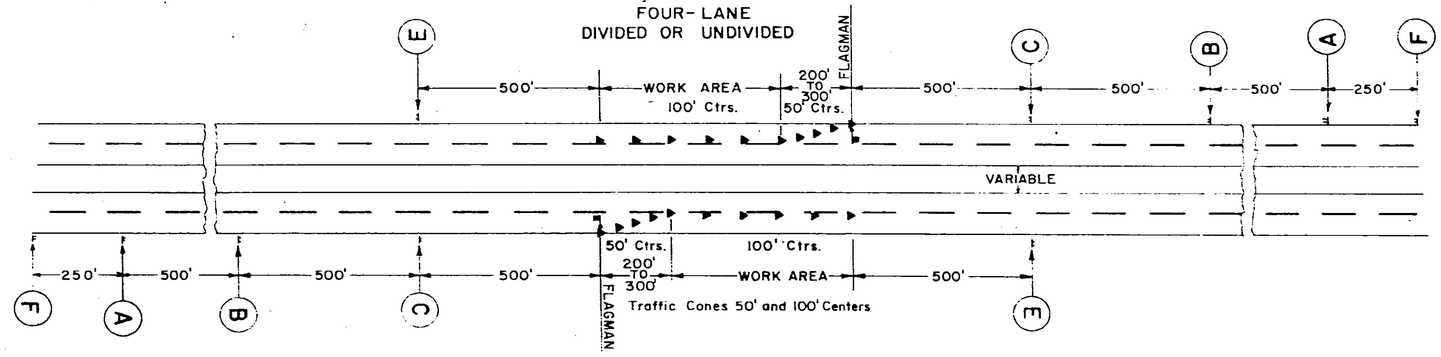


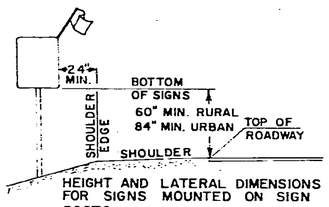
NOTE:

Signs (A),(C),(E) and flagman are required when construction equipment is entering or crossing the roadway.

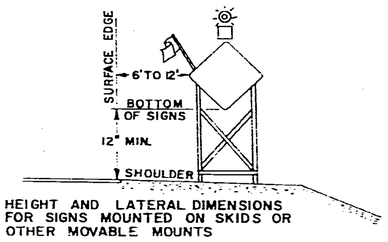
Signs (A) and (E) are required when construction work does not interfere with traffic movement.

FOUR- LANE DIVIDED OR UNDIVIDED





HEIGHT AND LATERAL DIMENSIONS FOR SIGNS MOUNTED ON SIGN POSTS



HEIGHT AND LATERAL DIMENSIONS FOR SIGNS MOUNTED ON SKIDS OR OTHER MOVABLE MOUNTS

NOTE:

All traffic control devices shall comply to (1) Section 107 of the 1973 Edition of the Standard Specification and to any Supplemental Specification to this section and (2) the Manual on Uniform Traffic Control Devices For Streets and Highways dated November 13, 1970.

Lights placed on advance warning signs shall be Type B High Intensity with a 7" minimum diameter lens, regulated to flash 55 to 75 times per minute. The flash duration shall not be less than 8% of time.

Install orange reflectorized Traffic Cones as shown. They shall be a minimum of 18" in height with a broadened base and may be made of various materials to withstand impact without damage to themselves or to vehicles.

Due to existing conditions the ENGINEER may require a decrease in the spacing between cones and or signs.

Temporary traffic control signs when not in use shall be either covered with an opaque weather-proof material or removed from the recovery area as approved by the ENGINEER.

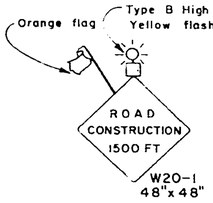
The hand signaling device used by flagman shall be a STOP/SLOW sign paddle with a minimum diameter of 24".

All signs, cones, lights and orange flags shall be securely erected and maintained in good condition at all times.

When no work is in progress all equipment shall be removed from the recovery area and placed or parked at the extreme limits of the right of way or at sites approved by the ENGINEER.

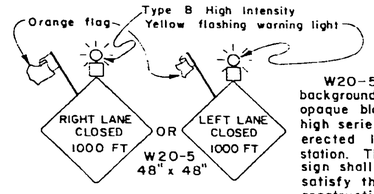
The traffic control signing to be modified by the ENGINEER as conditions warrant.

(A)



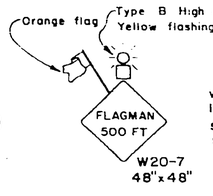
W20-1 shall have a reflectorized orange background with the legend and inset border opaque black ink. The legend shall be 7" high series 'C' alphabet. The sign shall be erected 1500 FT. in advance of the flagman's station or work area.

(B)



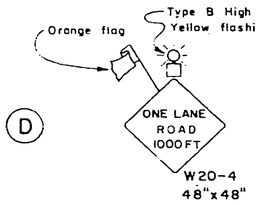
W20-5 shall have a reflectorized orange background with the legend and inset border opaque black ink. The legend shall be 6" high series 'C' alphabet. The sign is to be erected 1000 FT. in advance of the flagman's station. The use of the right or left lane sign shall be determined in the field to satisfy the existing conditions during construction.

(C)



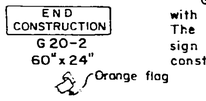
W20-7 shall have a reflectorized orange background with the legend and inset border opaque black ink. The legend shall be 7" high series 'C' alphabet. When used the sign is to be erected 500 FT. in advance of the flagman's station.

(D)



W20-4 shall have a reflectorized orange background with the legend and inset border opaque black ink. The legend shall be 7" high series 'C' alphabet. The sign is to be erected 1000 FT. in advance of the flagman's station.

(E)



G20-2 shall have a reflectorized orange background with the legend and inset border opaque black ink. The legend shall be 6" high series 'C' alphabet. The sign is to be erected 500 FT. beyond the end of construction.

Orange flag

(F)

G20-1 shall have a reflectorized orange background with the legend & inset border opaque black ink. The legend shall be 6" high series 'C' alphabet. The sign is to be erected 250 Ft. before the beginning of construction when the construction zone exceeds two (2) miles in length. The * (mileage) shall be shown to the nearest whole mile.

STATE HIGHWAY COMMISSION OF KANSAS

TRAFFIC CONTROL DEVICES FOR CONSTRUCTION WORK ADJACENT TO ROADWAY AND MINOR SURFACING WORK TWO AND FOUR LANE HIGHWAY

DESIGNED AFT	TRACED GM	QUANTITIES	CHECKED GM
DETAILED GM	CHECKED AFT	QUAN. CK.	TRACED AFT

DIST. 5 SEDGWICK CO. ROLL 531

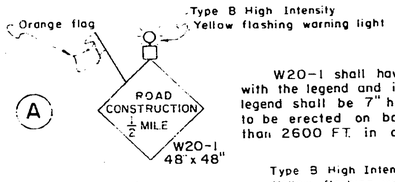
5 4 6

16X 14.5X 12X 12X 14.5X 16X 20X

FHWA NO.	STATE	PROJECT NO.	YEAR	SHEET NO	TOTAL SHEETS
5	KANSAS	87-7-400G(3)	1974	68	79

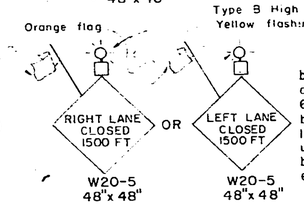
TRAFFIC CONTROL DEVICES
FOR TRAFFIC MOVEMENT THROUGH CONSTRUCTION
ON FOUR-LANE DIVIDED HIGHWAY
ONE ROADWAY CLOSED

(A)



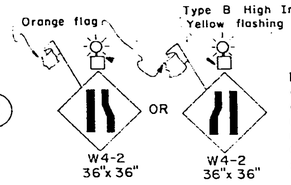
W20-1 shall have a reflectorized orange background with the legend and inset border opaque black ink. The legend shall be 7" high series 'C' alphabet. The sign is to be erected on both sides of the roadway not less than 2600 FT. in advance of the first barricade.

(B)



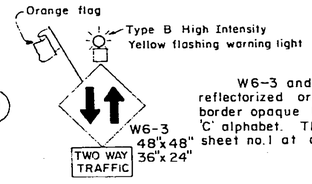
W20-5 shall have a reflectorized orange background with the legend and inset border opaque black ink. The legend shall be 6" high series 'C' alphabet. The signs are to be erected on both sides of the roadway 1500 FT. in advance of the first barricade. The use of the right or left lane sign shall be determined in the field to satisfy the existing conditions during construction.

(C)



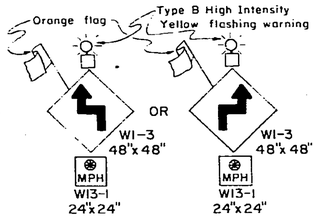
W4-2 shall have a reflectorized orange background with the legend and inset border opaque black ink. The signs are to be erected on both sides of the roadway 500 FT. in advance of the first barricade. The use of the right or left lane transition sign shall be determined in the field to satisfy the existing conditions during construction.

(D)



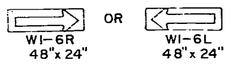
W6-3 and word message plaque sign shall have a reflectorized orange background with the legend and inset border opaque black ink. The legend shall be 6" high series 'C' alphabet. The signs are to be erected as shown on sheet no.1 at one-half mile intervals.

(E)



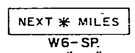
W1-3 and W13-1 shall have a reflectorized orange background with the legend and inset border opaque black ink. The legend M.P.H. shall be 4" high series 'E' and the speed limit 10" high series 'C.' The speed limit shall be determined by the ENGINEER. The sign is to be erected 750 FT. in advance of the turning action. The use of the right or left arrow sign shall be determined in the field to satisfy the existing conditions during construction.

(N)



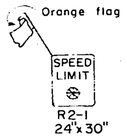
W1-6 shall have a reflectorized orange background with the arrow and inset border opaque black ink. Two signs are to be erected on the Type III barricade with arrows pointing toward the direction of the traveled way.

(DI)



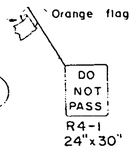
W6-SP shall have a reflectorized orange background with the legend and inset border opaque black ink. The legend NEXT—MILES shall be 4" high series 'C' and the mileage shall be 6" high series 'C' alphabet. The sign shall be erected beneath the 36"x24" W6-3 sign at one (1) mile intervals throughout the two-way traffic area. The * (mileage) is to become decreasingly smaller by increments of 1 mile. (Example 4-3-2-1 etc.)

(F)



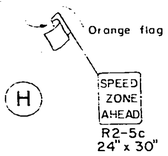
R2-1 shall a reflectorized silver background with the legend and inset border opaque black ink. The legend shall be series 'E' with SPEED LIMIT 4" high and numerals 10" high. Posted speed limit to be determined by the ENGINEER. The signs are to be erected as shown on sheet no. 1. Additional signs are to be erected on both sides of the roadway along the two-lane two-way roadway section at intervals not to exceed one-half mile.

(G)



R4-1 shall have a reflectorized silver background with the legend and inset border opaque black ink. The legend shall be 6" high series 'D' alphabet. The signs are to be erected as shown on sheet no. 1. Additional signs are to be erected on both sides of the roadway along the two-lane two-way roadway section at intervals not to exceed one-half mile.

(H)



R2-5c shall have a reflectorized silver background with the legend and inset border opaque black ink. The legend shall be 6" high series 'C' alphabet. The sign is to be erected 500 FT. in advance of the W20-5 sign.

(J)

R4-7 and the word message plaque shall have a reflectorized silver background with the legend and inset border opaque black ink. The legend shall be 5" high series 'D' alphabet. The sign is to be erected in the center of the roadway where traffic divides at the beginning and ending of the two-way traffic area.

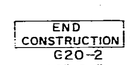
(K)

R5-1 shall have a transparent red ink background with the legend and outer area reflectorized silver. The sign is to be erected on the left hand side of the roadway so as to prohibit traffic from entering that lane from the wrong direction.

(L)

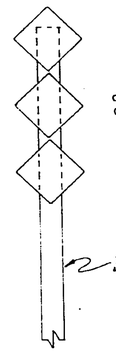
R11-2 shall have a reflectorized silver background with the legend and inset border opaque black ink. The legend shall be 8" high series 'D' alphabet. The sign shall be erected on or above the top rail of a Type III barricade.

(M)



G20-2 shall have a reflectorized orange background with the legend and inset border opaque black ink. The legend shall be 6" high series 'C' alphabet. The sign is to be erected 500 FT. beyond the end of construction.

The traffic control signing to be modified by the ENGINEER as conditions warrant.



These markers are to be used to delineate the ends of bridges at the curb line.

2 Lb. Per. Ft. "U" Post

3-5" X 5" Yellow Reflectorized Markers

NOTE:

All traffic control devices shall comply to (1) Section 107 of the 1973 Edition of the Standard Specification and to any Supplemental Specification to this section and (2) the Manual on Traffic Control Devices For Streets and Highways dated November 13, 1970.

The red flashing lights used on Type III barricades shall have a 7 inch. minimum diameter lens and shall be Type A Low Intensity regulated to flash 55 to 75 times per minute. The flash duration shall not be less than 10% of time.

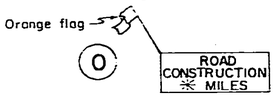
The yellow flashing lights placed on advance warning signs shall be Type B High Intensity. Yellow lights placed on type I or II Barricades, shall be Type C Steady Burn. The size of all lens shall be 7 inch. minimum diameter. The flashing lights are to be regulated to flash 55 to 75 times per minute. The flash duration shall not be less than 8% of time.

All signs and barricades used to control traffic shall be reflectorized.

All signs, barricades, lights and orange flags shall be securely erected and maintained in good condition at all times.

G20-1 shall have a reflectorized orange background with the legend & inset border opaque black ink. The legend shall be 6" high series 'C' alphabet. The sign is to be erected 250Ft. before the beginning of construction when the construction zone exceeds two(2) miles in length. The *(mileage) shall be shown to the nearest whole mile.

(O)



NO.	DATE	REVISIONS:	BY	APP'D
a	6-20-73	1973 Std. Spec. note	AFT	AFT
a	1-31-73	G20-1 Barricades Sign Panel	AFT	
1	7-10-72	To 1 Barr. to left of Median	AFT	AFT

STATE HIGHWAY COMMISSION OF KANSAS

CONSTRUCTION TRAFFIC CONTROL DEVICES AND LOCATIONS FOR A FOUR-LANE DIVIDED HIGHWAY ONE ROADWAY CLOSED

1-3-72

Sheet 2 of 2

SHEET NO.	OF	DESIGNED	AFT	SCALE	DRAWN	GM	APP'D	TRACED	GM
DETAILED		CHECKED	GM		CHECKED	AFT		CHECKED	AFT

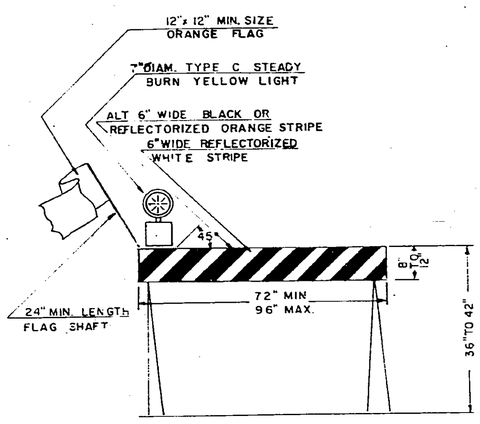
DIST. 5 SEDGWICK CO. ROLL 531

5 4 7

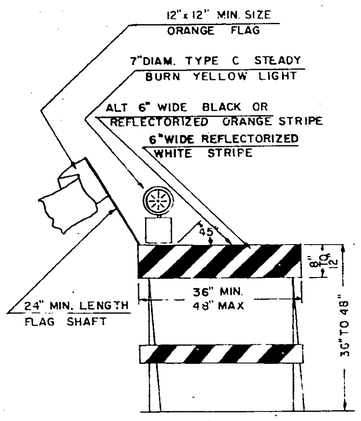
16X 14.5X 12X 12X 14.5X 16X

FHWA PROJECT NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHTS.
5	KANSAS	87-7-4004(3)	1974	69	79

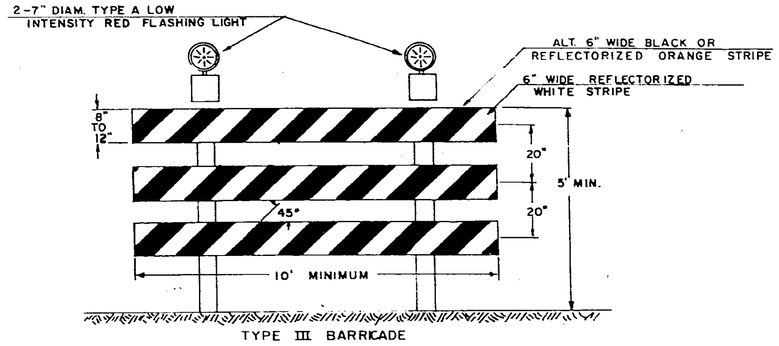
TRAFFIC CONTROL DEVICES
FOR TRAFFIC MOVEMENT THROUGH CONSTRUCTION



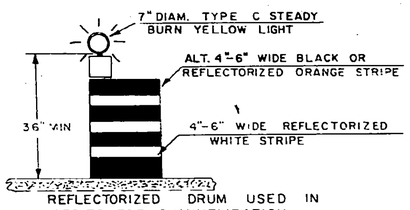
TYPE I BARRICADE WITH ONE YELLOW STEADY BURN LIGHT AND ONE ORANGE FLAG



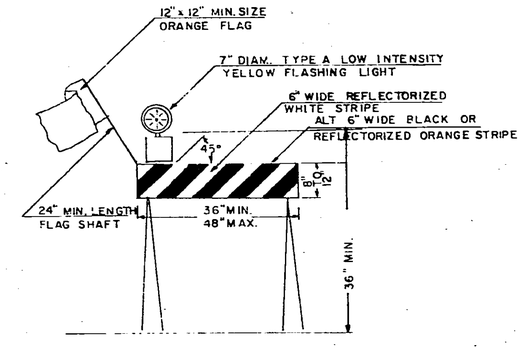
TYPE II BARRICADE WITH ONE YELLOW STEADY BURN LIGHT AND ONE ORANGE FLAG



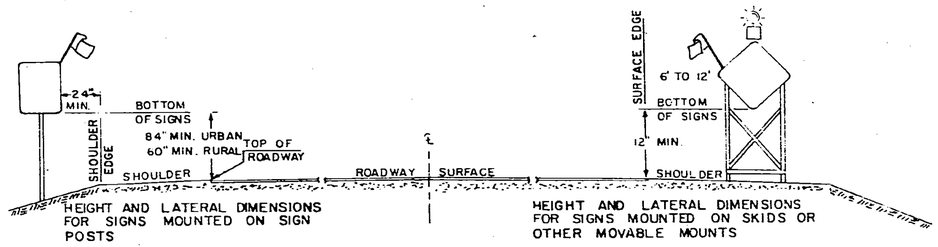
TYPE III BARRICADE



REFLECTORIZED DRUM USED IN SERIES FOR CHANNELIZATION

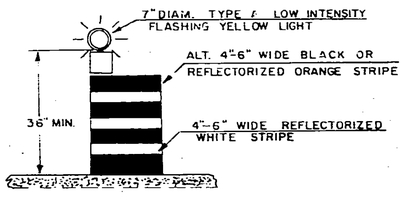


PORTABLE FLASHER SUPPORT WITH YELLOW FLASHING LIGHT AND ORANGE FLAG

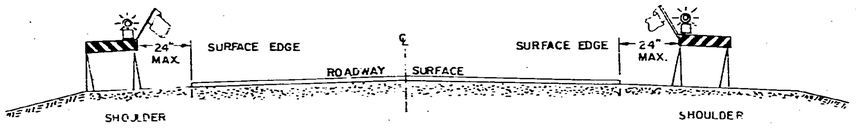


HEIGHT AND LATERAL DIMENSIONS FOR SIGNS MOUNTED ON SIGN POSTS

HEIGHT AND LATERAL DIMENSIONS FOR SIGNS MOUNTED ON SKIDS OR OTHER MOVABLE MOUNTS



REFLECTORIZED DRUM USED SINGLY



POSITION OF PORTABLE FLASHER SUPPORTS WITH ONE YELLOW FLASHING LIGHT AND ONE ORANGE FLAG USED ON SHOULDERS ADJACENT TO SURFACE EDGES SPACED AT 750 FT.

TO BE USED IN AREAS WHERE WORK IS COMPLETED EXCEPT SHOULDER CONSTRUCTION

NOTE:

All traffic control devices and flagman's equipment shall comply to (1) Section 107 of the 1973 Edition of the Standard Specification and to any Supplemental Specification to this section and (2) the Manual on Uniform Traffic Control Devices For Streets and Highways dated November 13, 1970.

Barricades, drums, and portable flasher support used to control traffic at night shall be reflectorized.

The yellow barricade, drum, and portable flasher support lights shall have a 7" minimum diameter lens. The flashing light shall be Type 'A' Low Intensity regulated to flash 55 to 75 times per minute with a flash duration not less than 10% of time. The steady burn lights shall be Type 'C'. The alternate orange and white or black and white stripes on barricades and drums shall not be intermixed within the same project.

All signs, barricades, drums, portable flasher supports, flashing lights, and orange flags shall be securely erected and maintained in good condition at all times.

All signs shall be reflectorized.

When no work is in progress all equipment shall be removed from the recovery area and placed or parked at the extreme limits of the right of way or at sites approved by the ENGINEER.

Temporary traffic control signs when not in use shall be either covered with an opaque weatherproof material or removed from the recovery area as approved by the ENGINEER.

The traffic control signing to be modified by the ENGINEER as conditions warrant.

NO.	DATE	REVISION	BY	APP'D
3				
2				
1	6-20-73	1973 Std. Spec. note	AFT	LFT

STATE HIGHWAY COMMISSION OF KANSAS

CONSTRUCTION TRAFFIC CONTROL DEVICES AND LOCATIONS: SIGNS, BARRICADES, PORTABLE FLASHER SUPPORTS, & DRUMS

SHEET NO. 4	DRAWN LT	APP'D Luten J 12-18-73
DESIGNED AFT	CHECKED LT	QUANTITIES
DETAILED	CHECKED AFT	DATE 12-18-73

DIST. 5 SEDGWICK CO. ROLL 531

5 4 8

16X 14.5X 12X 12X 14.5X 16X

MICROFILMED PLAN RECORD
Supplement No. 13 Date 9-4-79 District 5 Card 16

County RICE Rte. & Co. 80 Project No. RS 542(7)

Tracing Dr. No. ---- Approx. Length 2999 Mi. or Ft. Year

Location FROM 3 MI. WEST OF LYONS, NORTH

Type of Construction GRADING AND SUBGRADE MODIFICATION

Remarks AS BUILT PLANS — 20
OFFICIAL SHEETS — 1

MICROFILM RECORD
First Frame No. 549 Last Frame No. ROLL 531 Roll No.

STA 464 + 14 55 BEGIN
Sig sec 80 RS 542
Sig sec 080 108
Sig sec

STATE OF KANSAS
SECONDARY ROAD SYSTEM
RICE COUNTY

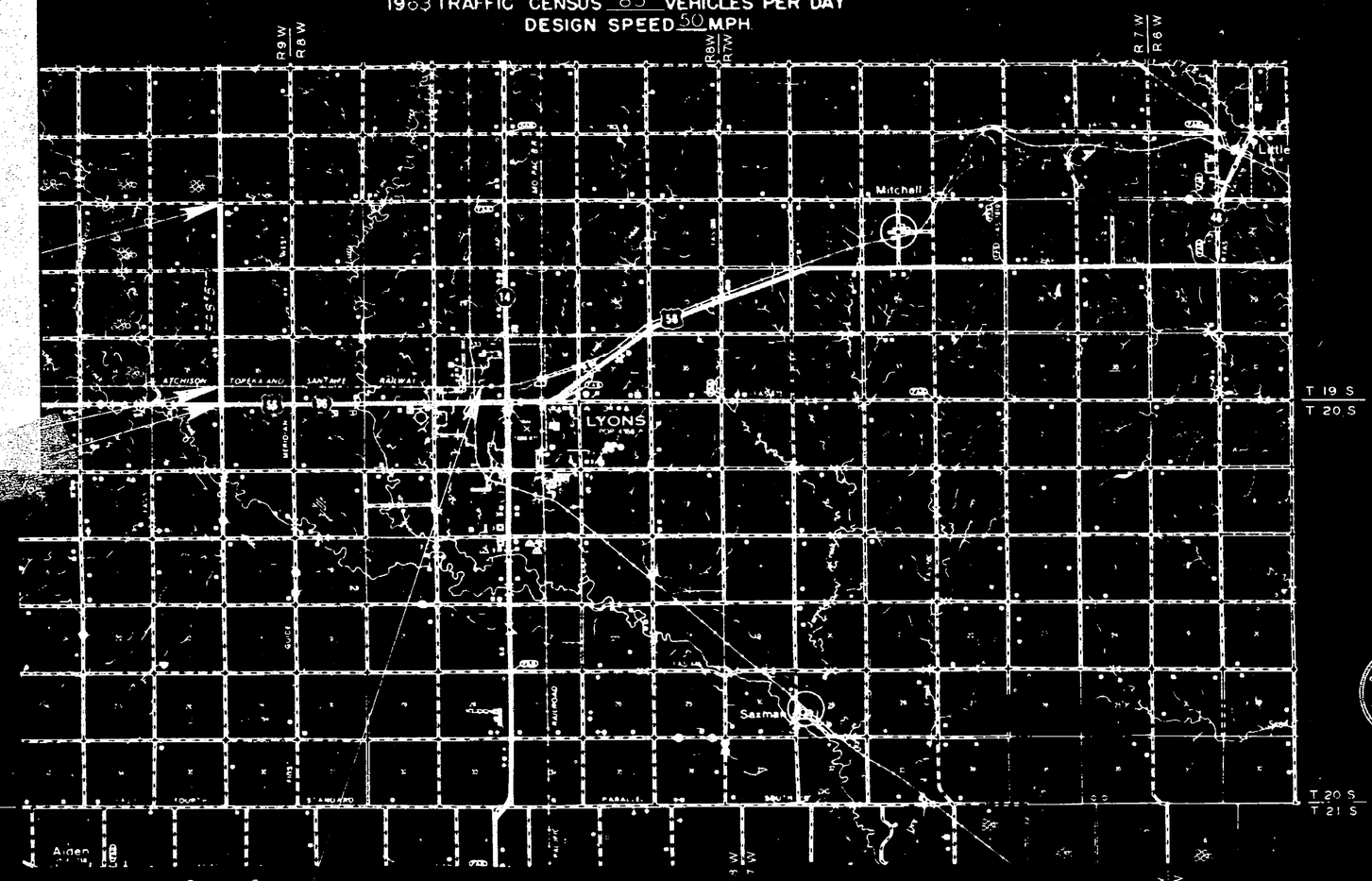
PROJECT NUMBER	SHEET No.	TOTAL SHEETS
80 RS 542(7)		08

GRADING
AGGREGATE FOR SUBGRADE MODIFICATION

Note All sheets carrying proj no 80 S 542(7) are funded under Proj No 80 RS 542(7)

KANSAS FEDERAL AID SECONDARY PROJECT 80-RS-542 (7)

1963 TRAFFIC CENSUS 85 VEHICLES PER DAY
DESIGN SPEED 50 MPH



Scale

CONVENTIONAL SIGNS

GUARD FENCE		BASE OR SURVEY LINE	
UNFENCED PROPERTY		LEVEE	
COUNTY LINE		CULVERTS	
CITY, VILLAGE OR BOROUGH		DROP INLETS	
STATE OR NATIONAL LINE		PIPE LINES	
TOWNSHIP, GRANT, OR SECTION LINE		POWER LINES	
FENCE LINE		TELEPHONE	
RIGHT OF WAY LINE		TELEGRAPH LINES	
TRAVELLED WAY		HEDGE	
RAILROADS		TREES	
RETAINING WALL		GRADE ELEVATION	
CONSTRUCTION LIMITS		ROCK	

GROSS LENGTH OF PROJECT	FT	
ADDITIONS	FT	
EXCEPTIONS	FT	
NET LENGTH OF PROJECT	FT	MILES
NET LENGTH OF BRIDGES	FT	MILES
NET LENGTH OF ROAD	FT	MILES

RUSSELL A. JONES 2248 REGISTERED KANSAS PROFESSIONAL ENGINEER

PLANS PREPARED BY
GREAT PLAINS
ENGINEERS & SURVEYORS

APPROVED
COUNTY ENGINEER ADMINISTRATOR
DATE 197_

STATE HIGHWAY COMMISSION OF KANS.
RECOMMENDED FOR APPROVAL
ENGINEER OF SECONDARY ROADS
APPROVED DATE
John D McNeal
STATE HIGHWAY ENGINEER

DIST. 5 | RICE CO. | ROLL 531

549

PROJECT NUMBER	SHEET No.	TOTAL SHEETS
80-RS-542(7)	1	23

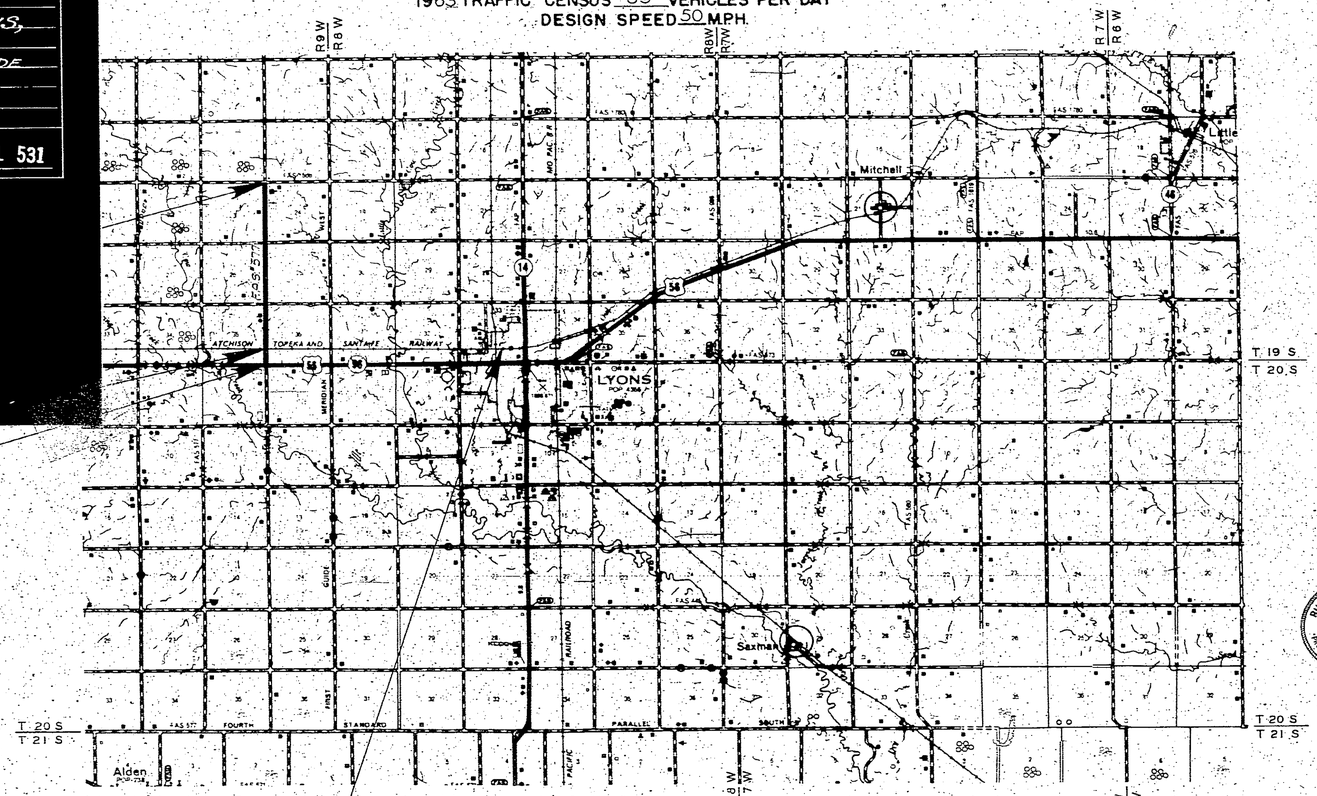
STATE OF KANSAS
SECONDARY ROAD SYSTEM
RICE COUNTY

GRADING
AGGREGATE FOR SUBGRADE MODIFICATION

Note: All sheets carrying proj. no. 80 S542(7) are funded under Proj. No. 80 RS 542(7).

KANSAS FEDERAL AID SECONDARY PROJECT 80-RS-542 (7)

1963 TRAFFIC CENSUS 85 VEHICLES PER DAY
DESIGN SPEED 50 M.P.H.



Scale: 1 Mile

RUSSELL A. JONES 2248 LICENSED KANSAS PROFESSIONAL ENGINEER

PLANS PREPARED BY:
GREAT PLAINS ENGINEERS & SURVEYORS

APPROVED:
Glenn Snell
COUNTY HWY. ADMINISTRATOR
DATE 1972

STATE HIGHWAY COMMISSION OF KANS.
RECOMMENDED FOR APPROVAL
ENGINEER OF SECONDARY ROADS
APPROVED: DATE:
STATE HIGHWAY ENGINEER

CONVENTIONAL SIGNS

GUARD FENCE	BASE OR SURVEY LINE
UNFENCED PROPERTY	LEVEE
COUNTY LINE	CULVERTS
CITY, VILLAGE, OR BOROUGH	DROP INLETS
STATE OR NATIONAL LINE	PIPE LINES
TOWNSHIP, GRANT, OR SECTION LINE	POWER LINES
FENCE LINE	TELEPHONE LINES
RIGHT OF WAY LINE	TELEGRAPH
TRAVELLED WAY	HEDGE
RAILROADS	TREES
RETAINING WALL	GRADE ELEVATION
CONSTRUCTION LIMITS	ROCK

GROSS LENGTH OF PROJECT	5,844.45	FT.	
ADDITIONS		FT.	
EXCEPTIONS	8.50	FT.	
NET LENGTH OF PROJECT	5,835.95	FT.	2.999 MILES
NET LENGTH OF BRIDGES		FT.	MILES
NET LENGTH OF ROAD	5835.95	FT.	2.999 MILES

STA. 464 + 14.55 BEGIN
Proj. 80-RS-542
Sta. 635+08
Proj. ext.

MICROFILMED PLAN RECORD
Supplement No. 13 Date 9-4-79 District 5 Card 16
County RICE Rte. & Co. 80 Project No. RS 542(7)
Tracing Dr. No. ---- Approx. Length 2.999 Mi. or Ft. Year
Location FROM 3 MI. WEST OF LYONS, NORTH
Type of Construction GRADING AND SUBGRADE MODIFICATION
Remarks AS BUILT PLANS - 20 OFFICIAL SHEETS - 1
MICROFILM RECORD
First Frame No. 549 Last Frame No. Roll No. ROLL 531

DIST. 5 RICE CO. ROLL 531

5 4 9

PROJECT NUMBER	SHEET No.	TOTAL SHEETS
80-RS-542(7)	1	43

STATE OF KANSAS

SECONDARY ROAD SYSTEM

RICE COUNTY

KANSAS FEDERAL AID SECONDARY PROJECT 80-RS-542 (7)

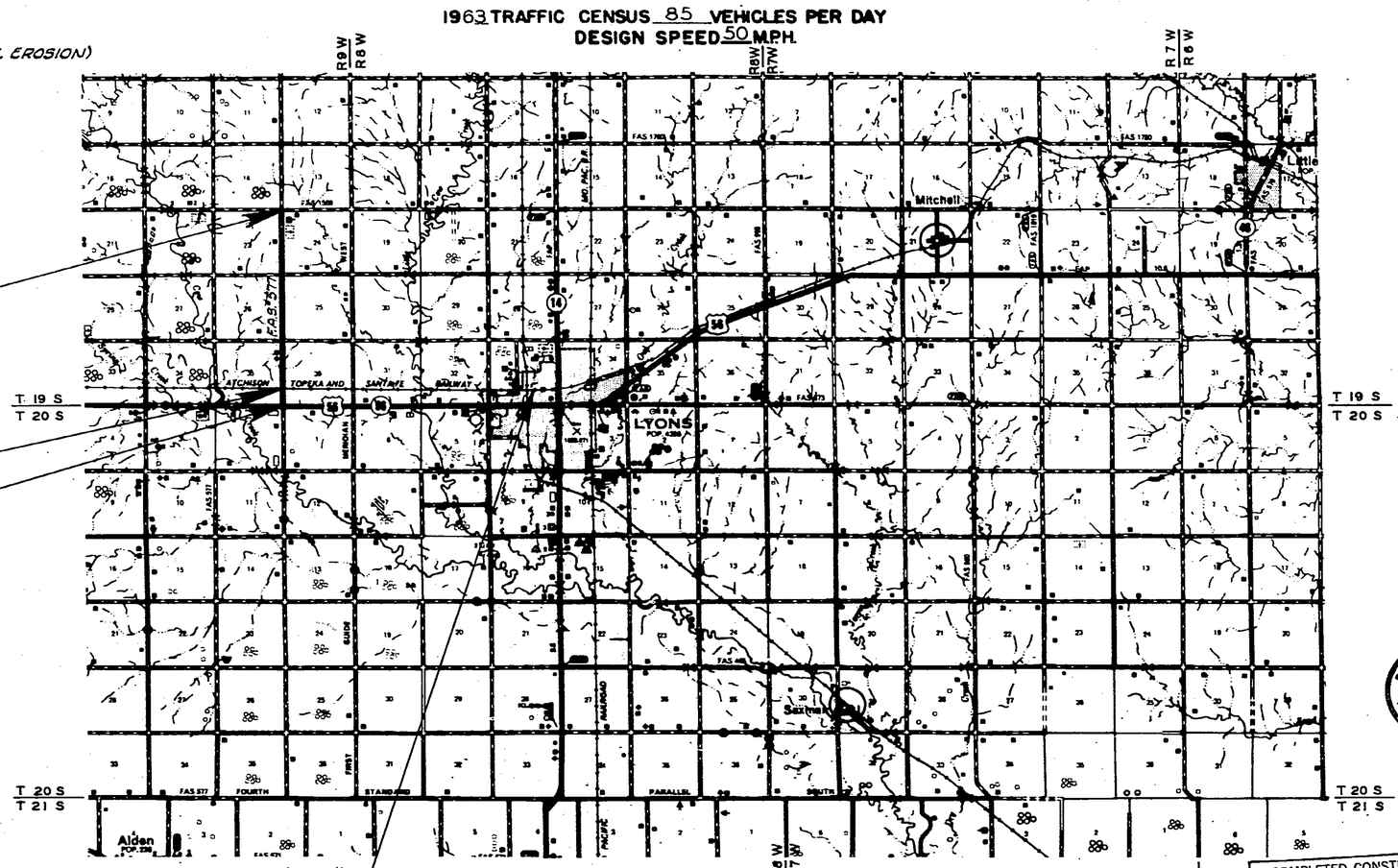
1963 TRAFFIC CENSUS 85 VEHICLES PER DAY
DESIGN SPEED 50 M.P.H.

GRADING
AGGREGATE FOR SUBGRADE MODIFICATION

Note: All sheets carrying proj. no. 80 S542(7) are funded under Proj. No. 80 RS542(7).

INDEX OF SHEETS

1. TITLE SHEET
2. TYPICAL SECTION
3. AGGREGATE FOR SBGRD. MOD.
4-9. PLAN & PROFILE
10-10A. REFLECTORIZED RAILROAD CROSSING SIGNS
11. METAL END SECTIONS
12. CONCRETE END SECTIONS
13. CONCRETE END SECTIONS (H.E.)
14-15 CULVERTS
16. CULVERT EXTENSIONS
17. BR. EXC. - BAR SUPPORTS & SPACERS
18. QUANTITY SHEET
19. SEEDING - WATER POLLUTION CONTROL (SOIL EROSION)
~~20. CONSTRUCTION IDENTIFICATION SIGNS~~
21-43 CROSS SECTIONS



Scale: 1" = 1 Mile

STA. 622 + 59.0 END
Project 80S-542(7) =
Sta. 158 + 40.00 ON
Project 80-RS-542 (5)

EXCEPTION FOR R.R.
Sta. 477 + 33.62 to
Sta. 477 + 42.12 = 8.50'

STA. 464 + 14.55 BEGIN
Project 80-RS-542(7) =
Sta. 638 + 08 ON
Project

CONVENTIONAL SIGNS

GUARD FENCE	BASE OR SURVEY LINE
UNFENCED PROPERTY	LEVEE
COUNTY LINE	CULVERTS
CITY, VILLAGE, OR BOROUGH	DROP INLETS
STATE OR NATIONAL LINE	PIPE LINES
TOWNSHIP, GRANT, OR SECTION LINE	POWER LINES
FENCE LINE	TELEPHONE LINES
RIGHT OF WAY LINE	TELEGRAPH
TRAVELLED WAY	HEDGE
RAILROADS	TREES
RETAINING WALL	GRADE ELEVATION
CONSTRUCTION LIMITS	ROCK

GROSS LENGTH OF PROJECT	15,844.45	FT.	
ADDITIONS	-	FT.	
EXCEPTIONS	8.50	FT.	
NET LENGTH OF PROJECT	15,835.95	FT.	2.999 MILES
NET LENGTH OF BRIDGES	-	FT.	- MILES
NET LENGTH OF ROAD	15,835.95	FT.	2.999 MILES

COMPLETED-CONSTRUCTION PLANS
80-RS-542(7) PROJECT AS CONSTRUCTED
PREPARED BY Wayne O Stutz RESIDENT ENGINEER
DATE 2-7-1976

COMPLETED CONSTRUCTION PLANS HAVE BEEN MICROFILMED. FOR ANY CHANGES MADE 1979 ON CONSTRUCTION SEE ROLL ____, FRAME ____

RUSSELL A. JONES LICENSED 2248 KANSAS PROFESSIONAL ENGINEER

PLANS PREPARED BY:
GREAT PLAINS
ENGINEERS & SURVEYORS

APPROVED:
Glenn Snell
COUNTY HWY. ADMINISTRATOR
DATE 1972

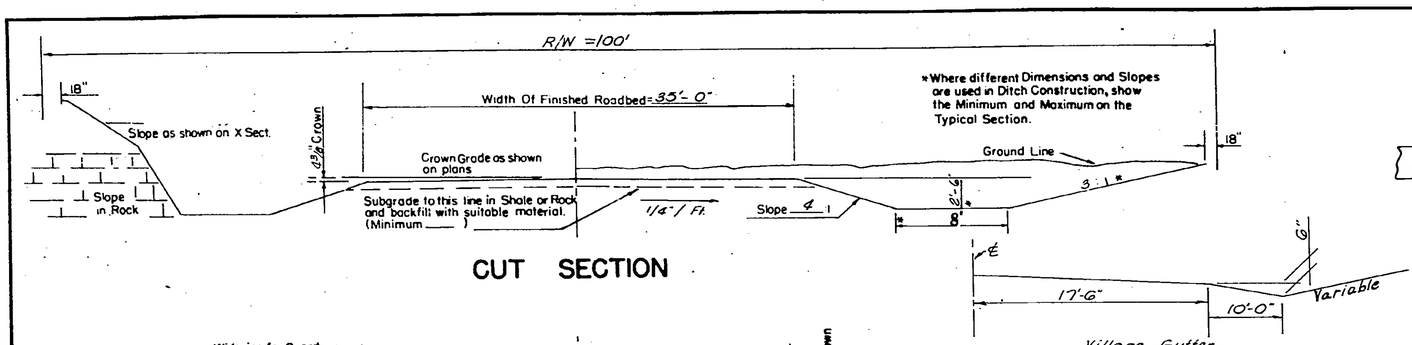
STATE HIGHWAY COMMISSION OF KANS.
RECOMMENDED FOR APPROVAL
ENGINEER OF SECONDARY ROADS
APPROVED: DATE: [redacted]
STATE HIGHWAY ENGINEER

DIST. 5 | RICE CO. | ROLL 531

[redacted] 5 5 0

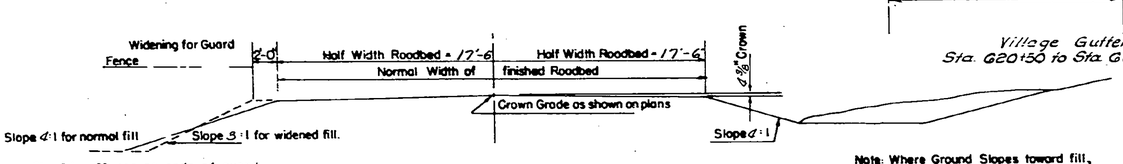
16X | 14.5X | 12X | 12X | 14.5X | 16X

F.H.W.A. Region	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
7	KANSAS	809-542(7)	1973	2	43



CUT SECTION

Village Gutter
Sta. 620+50 to Sta. 622+40 Rt. Side

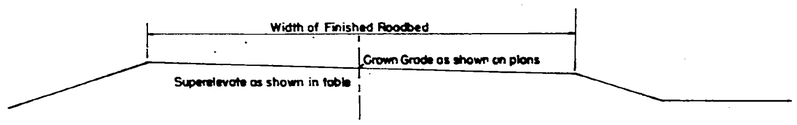


Shoulder Slopes at ends of guard fence shall be no steeper than 3:1

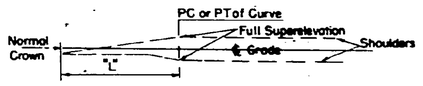
When fill exceeds 6' Shoulder Slopes may be steepened.

FILL SECTION

Note: Where Ground Slopes toward fill, cut ditch at toe of Slope.



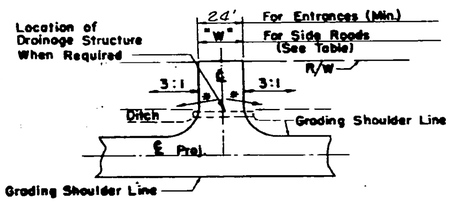
SUPERELEVATED SECTION



PROFILE SHOWING METHOD OF ATTAINING SUPERELEVATION

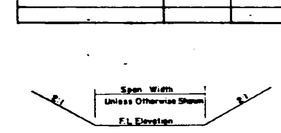
SUPERELEVATION DATA

Station P.I. of Curve	Degree Curve	Design Speed	Super. Per Ft.	Transition Length Lin. Ft.

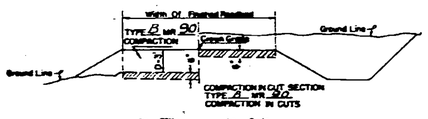


TYPICAL SIDE ROAD OR ENTRANCE DETAIL

** On Side Roads and Entrances which slope toward the Highway, a low point approx. 6" deep shall be constructed to divert surface drainage into the Highway Ditch.*



TYPICAL INLET & OUTLET CHANNEL EXCAVATION SECTION FOR BOX BRIDGES, BOX CULVERTS & PIPE CULVERTS.



ALL EMBANKMENT SHALL BE COMPACTED EXCEPT DITCH PLUGS, WASTE BERMS

FOUNDATION TREATMENT AND COMPACTION OF EARTHWORK

GENERAL NOTES

All essential signs not otherwise shown on the plans, such as Stop, Yield, Curve, Curve Advisory Speed and other signs as are needed for special situations will be furnished and installed by the county with own forces and funds in conformance with the Manual of Uniform Traffic Control Devices

All easement, channel change, borrow pit locations, and additional right of way to be furnished by the County.

All encroachments such as fences, buildings, telephone, telegraph, and power lines, shall be moved beyond limits of construction by the owners or by the County, unless otherwise noted on the plans.

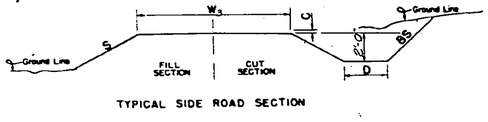
In the interest of Public Safety, all gas, gasoline, oil, and water lines shall be moved beyond the limits of the Roadbed by owners, unless provision for their retention has been made. Operational devices for any and all lines which are permitted to remain in place shall be adjusted to conform with lines and grades of the proposed improvement.

The stations shown for all drainage structures are to be considered as only approximate and it shall be the respossibility of the project Engineer to place all structures in locations that fit the natural drainage conditions and meet the grade requirements.

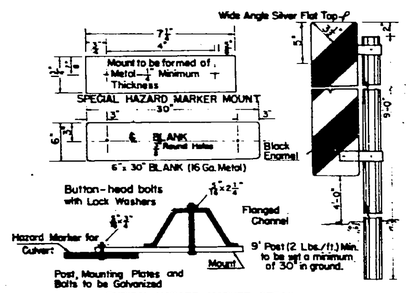
Channels shall be cut at all Culverts & Box Bridges (except where otherwise noted) to flowline elevations and to a width of 1 foot outside of each outside wall and with slopes 2:1 prior to installation or construction of Culvert or Box Bridge.

Quantities are included in Balance Quantities or are subsidiary to Linear Grading. All Culverts to be removed shall be removed by the Grading Contractor.

All Large Pay Trees to be Grubbed are marked thus ⊛.



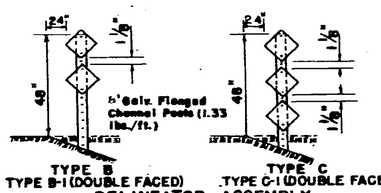
TYPICAL SIDE ROAD SECTION



TYPICAL HAZARD MARKER DETAIL

All Hazard Markers are to be installed so the inside edge of the marker will be in line with inside clearance lines of Culverts or Bridges.
A Hazard Marker with both sides reflectorized shall be installed on the side of the Culvert of approaching traffic. 2 Required
A Hazard Marker with one side reflectorized shall be installed on both right and left sides of each end of a bridge, 4 required

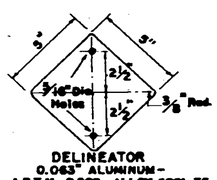
Hazard Markers shall not be paid for directly, but shall be considered as subsidiary items to be furnished and erected by the Grading Contractor.



DELINEATOR ASSEMBLY

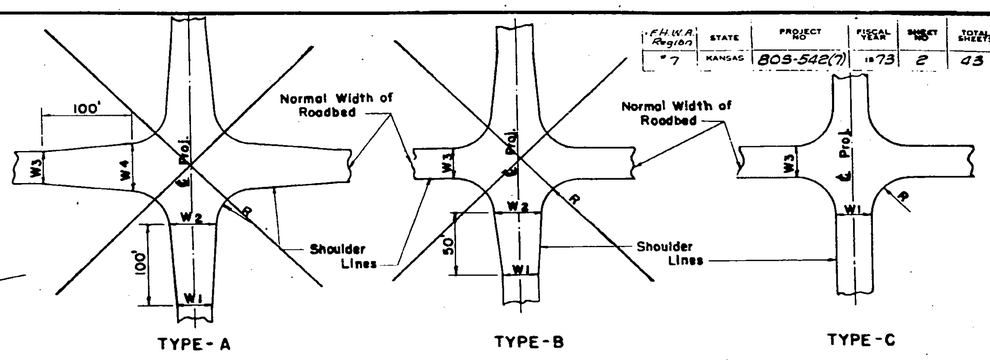
Type "B Delineators may be used on superelevated curves, high fill areas or near ends of guard fence runs. Type "B" or "C" delineators or hazard markers shall be used at all Box Culverts and Bridges. Other locations may be designated by the Engineer.

Delineator plates shall be covered with yellow reflective sheeting. Bolts shall be 1/4" Aluminum A.S.T.M. No. 5211, alloy 2024-T4 or 6061-T6 or Cadmium plated steel.



DELINEATOR
0.063" ALUMINUM -
A.S.T.M. B 209, ALLOY 6061-T6

TYPICAL INTERSECTION DETAILS



SUMMARY OF INTERSECTIONS AND SIDE ROADS

STATION	SIDE OR QUADRANT	TYPE	W	W1	W2	W3	W4	R	C	S	D	BS
464+03.65	NW. & NE.	C	-	35'	-	40'	-	50'	6"	3:1	8	2:1
516+47.20	Lt. & Rt.	C	-	35'	-	28'	-	50'	6"	3:1	8	2:1
569+62.52	Lt. & Rt.	C	-	35'	-	28'	-	50'	6"	3:1	8	2:1
622+59	SE. & SW.	C	-	35'	-	28'	-	50	6"	3:1	8	2:1

SUMMARY OF HAZARD MARKERS AND DELINEATORS

STA. TO STA.	STRUCTURE	ROADWAY	HAZARD MARKER	DELINEATOR ONE SIDE OF POST	DELINEATOR BOTH SIDES OF POST	REMARKS
491+80	6'×4'	37'-0"			(2) B-1	
503+73	7'×3'	35'-0"			(2) B-1	
*537+76	4'×3'	45'-0"			(2) B-1	
*547+54	4'×3'	35'-0"			(2) B-1	
*554+89	4'×3'	39'-0"			(2) B-1	
569+62.5	4'×3'	91'-0"			(2) B-1	
617+55	6'×4'	35'-0"			(2) B-1	
TOTAL					(114) B-1	

**Extension*

NO	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
THE DEPARTMENT OF SECONDARY ROADS

TYPICAL GRADING SECTIONS

STANDARD NO. S-907.1

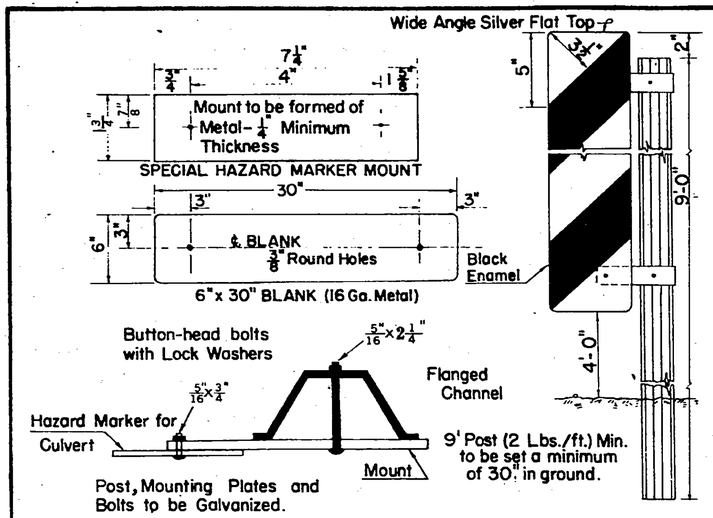
SHEET NO.	OF	SCALE		APP'D	4/11/73
DESIGNED W.H.		DETAILED W.H.		QUANTITIES	TRACED W.H.
DESIGN CK. G.M.		DETAIL CK. G.M.		QUAN. CK.	TRACE CK. G.M.

DIST. 5 | RICE CO. | ROLL 531

5 5 1

16X 14.5X 12X 12X 14.5X 16X 20X

F.H.W.A. Region No.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	805-542(7)	1973	3	43



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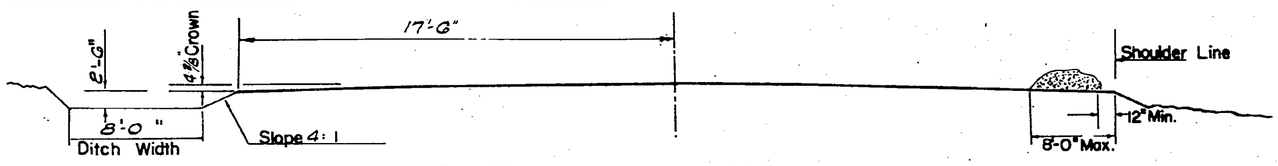
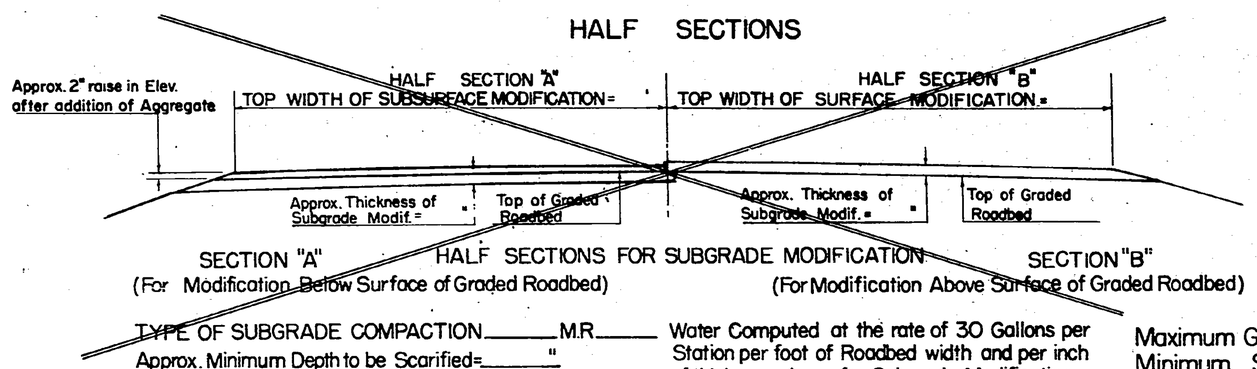


APPROVED ROADWAY LOCATION OF WINDROW

HALF SECTIONS



SECTION "A" (For Modification Below Surface of Graded Roadbed)

HALF SECTIONS FOR SUBGRADE MODIFICATION

SECTION "B" (For Modification Above Surface of Graded Roadbed)

TYPE OF SUBGRADE COMPACTION _____ M.R. _____
Approx. Minimum Depth to be Scarified= _____"
Material for Subgrade Modification Based on the ratio: Aggregate _____%, Binder _____%.

Water Computed at the rate of 30 Gallons per Station per foot of Roadbed width and per inch of thickness shown for Subgrade Modification.

Maximum Grade 1.04 % Sta. 574+00 to Sta. 581+00
Minimum Stopping Sight Distance 1000 Ft.
Station.

HORIZONTAL CURVES

P.I. STATION	RADIUS	SUPEREL. (Inches/Ft.)	HORIZONTAL SIGHT DIST.

SUMMARY OF REFLECTORIZED HAZARD MARKERS AND SIGNS

STATION	STRUCTURE	ROADWAY	HAZARD MARKER	NARROW BRIDGE SIGNS	ONE LANE BRIDGE SIGNS

SIGNS TO BE INSTALLED BY COUNTY WITH OWN FORCES AND FUNDS

MATERIAL AND RATES OF APPLICATION

TYPE OF AGGREGATE	DESIGNATION	QUANTITY	C.Y. or Tons	RATE PER. STA.
Sand - Gravel	SS-9	3604	C.Y.	22.73

APPROACH ROAD AND ENTRANCE SURFACING

STATION	SIDE	LENGTH TO BE SURFACED	TONS OR CUBIC YARDS
569+62.52	Lt.	282.5'	51
569+62.52	Rt.	82.5	15

Surfacing for Approach Roads and entrances to be applied at 18.18 C.Y. per Sta.

RECAPITULATION OF QUANTITIES

ITEM	TOTAL	UNITS
Aggregate for Subgrade Modification (SS-9)	3670	C.Y.
Field Office & Laboratory (Type C)	1	Each

Includes GG for Approach Roads and Entrances (Surfacing Only)

MANIPULATION BY COUNTY WITH OWN FORCES AND FUNDS.

NO	DATE	REVISIONS	BY	APP'D
4				
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
AGGREGATE FOR SUBGRADE MODIFICATION
~~STANDARD~~ ~~S-906-1~~
SHEET NO. OF | SCALE | APP'D 7-6-65
DESIGNED | DETAILED Jaquays | QUANTITIES | TRACED Jaquays
DESIGN'D BY | DETAIL CK | QUANT. CK | TRAC. CK

ORIGINAL

DIST. 5 | RICE CO. | ROLL 531

5 5 2

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FHWA REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	BOS-542(7)	1973	4	43

Pl. Sta. 464+00
1. X-Cut in Conc. Pav't.
2. ℄ Conc. Pav't. 3.55 N.
3. Dble. Spk in Pow. Pole 78.93 S.W.
4. Ctr. top of Conc. R/W Mkr. 72.57 S.E.
5. Spk. & Wshr. ctr. Jt. Conc. Pav't. 240.95 E.

P.O.T. Sta. 464+50
1. ⅝" Iron Bar @ P.O.T.
2. Ctr. top Conc. R/W Mkr. 39.10 N.W.
3. " " " " " 33.70 N.E.
4. Spk. & Wshr. base Stop Sign Post 22.10 W.S.W.

P.O.T. ℄ & R.R. Sta. 477+37.87
N.E. ∠ = 90°-44'
1. Spk. & Wshr. @ P.O.T.
2. " " " Top Fc. Post 70.60 S.W.
3. " " " " " 78.10 S.E.
4. " " " " " 69.20 N.W.

Sta. 464+12.55 BEGIN
Project BOS-542(7) = 11' Lt
Sta. 638+08 ON
Project 50N-80F-062-2(G)

Sta. 465+00 Install
2.5#x38' C.R.P.
with End Sections

Sta. 472+90 Install
2.5#x32' Ent. Pipe Lt.
with end sections

Hallie Etta Merry
SE¼, Sec. 35, T19S, R9W

Sta. 477+28
Remove
18"x32' C.M.P.

Sta. 477+48
Remove
18"x32' C.M.P.

Cult.

484+86
Sta. ~~483+00~~ Install
25#x32' E.P. Lt.
with End Sections

Cult.

PUBLIC UTILITIES

Sta.	to Sta.	Loc. or Side	Type of Line	Owner	Address
464+72		X's ℄	Pow.	K.P.&L.	Lyons
477+04		X's ℄	Tel. Graph	A.T. & S.F.	Lyons
500+76	622+59	Rt.	Pow.	Ark Valley	Hutchinson
506+16	516+77	Lt.	Tel.	S.W. Bell	Hutchinson
516+77		X's ℄	Tel.	S.W. Bell	Hutchinson
516+13		X's ℄	Pow.	Ark Valley	Hutchinson
543+62		X's ℄	Gas	Skelly	Lyons
598+00	622+59	Lt.	Tel.	S.W. Bell	Hutchinson

+73.55 R/W=50' ℄

+68.55 R/W=50' ℄

Sta. 464+03.55 =
X-Rd. Sta. 50+00
Const. Type 'C' Inter.
on NW & NE Quadrants
See Sh. # 2

Sta. 470+60 Install
2.5#x32' Ent. Pipe Rt.
with End Sections

Cult.

S.W. Cor. Sec. 36-T19S-R9W
1. X-Cut in Conc. Pav't @ Cor.
2. ℄ Conc. Pav't. 3.55' N.
3. Dble. Spk. in Pow. Pole 78.93' S.W.
4. Ctr. top of Conc. R/W Mkr. 72.57' S.E.
5. Spk. & Wshr. ctr. Jt. Conc. Pav't. 240.95' E.

EXCEPTION for R.R.
Sta. 477+33.62 to
Sta. 477+42.12 = 8.50'

Note:
Sta. 477+37.87 Install
2 Reflectorized R.R.
crossing signs, & 2
reflectorized advance
warning signs.
See Sh. # 10

Isal L. Lowery
S.W.¼ Sec. 36, T19S, R9W

Sta. 480+00 Install
2.5#x32' E.P. Rt.
with End Sections

Hedge to be grubbed
Sta. 466+04 to 485+00

Rt. Sta. 466+04 to 470+52	= 448
Rt. Sta. 470+74 to 473+16	= 242
Rt. Sta. 473+68 to 474+00	= 32
Rt. Sta. 474+64 to 475+91	= 127
Rt. Sta. 477+89 to 478+31	= 42
Rt. Sta. 483+67 to 484+50	= 83
Rt. Sta. 484+72 to 485+00	= 28
Total	= 1002

Cult.

~~Hedge~~ to be grubbed
~~Sta. 465+00 to Sta. 485+00~~

Rt.	Sta. 465+94 to 473+16	= 722'
Rt.	Sta. 473+60 to 474+30	= 70'
Rt.	Sta. 474+60 to 475+88	= 128'
Rt.	Sta. 477+90 to 478+30	= 40'
~~Rt.~~	Sta. 483+67 to 484+98	= 131'
Total		= 1091

Large pay trees to be grubbed. Sta. 465+46 to Sta. 486+21 Lt. 3-40"; 1-48"; 1-52"
1-66"; 1-52"; 1-42" Total = 8
All large pay trees to be grubbed are marked thus: ⊗

BM #1 R.R. Spike in Pow. Pole
239' Lt. Sta. 464+72 El. = 1711.66

BM #1A Steel Fc. Post
50' Rt. Sta. 471+02 El. = 1710.72

BM #2 ⅝" Iron Bar in E.W. Fc. Line
92' Lt. Sta. 476+89 El. = 1711.78

BM #2A Steel Fc. Post
50' Lt. Sta. 484+02 El. = 1710.28

*709 Cu. Yds. Com. Exc. (-45%)
1026 Cu. Yds. Emb.

*Includes 5604 Cu. Yds. Com. Exc. to be hauled to Bal. Sta. 484+00 to Sta. 500+76

Proposed ℄ Crown Grade
Existing ℄ Profile
℄ Profile of U.S.-56 & K-96 Junc.
+0.07%
-0.17%
Profile Top of S. Rail 7
400 V.C.
8'x2.5' Dt. Lt.
8'x2.5' Dt. Rt.
437.87 ℄ R.R. Top of S. Rail 1711.62
El. = 1711.40

PLATE 1 PLAN-PROFILE 2 P R STANDARD
ENGINEERING CO., CHICAGO-NEW YORK

Rice Co.
22-18

DIST. 5 | RICE CO. | ROLL 531

5 5 3

16X 14.5X 12X 12X 14.5X 16X 20X

FHWA REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	803-542(7)	1973	5	43

P.O.T. Sta. 490+21.44
1. ⅝" Iron Bar @ P.O.T.
2. Spk. & Washr. top Hedge Post stump 36.7' N.W.
3. " " " in " (25') tree (5'up) 55.0' E.
4. " " " " (20') " (4'up) 45.9' N.E.
5. In line with Hedge Row East & West

P.O.T. Sta. 503+14.47
1. ⅝" Iron Bar @ P.O.T.
2. Spk. & Washr. in 40" Hedge 27.8' E.
3. " " " 40" " 34.2' S.E.
4. " " " 20" " 48.4' S.S.E.

Josephine K. Clayton
N.E. ¼, Sec. 35, T19S, R9W

Cult.

Sta. 491+80 Const.
6'x4'x37' R.C.B.
D.A.=88 Ac. Q=120 c.f.s.
L.F.=0.7 H.W.=3.8'
See Sheet No. 14
Remove 24"x24' R.C.P.

Sta. 495+50 Install
2.5"x32 E.P. Lt.
with End Sections

Sta. 504+68 Install
2.5"x32' E.P. Lt.
with End Sections
Remove 24"x24' C.M.P.

Note: Sewer pipes that drain into ditch are to be removed by Owner.

Cult.

R/W = 50'¢

Ex. 8" R/W

Sta. 495+50 Install
2.5"x32 E.P. Rt.
with End Sections

Sta. 503+40 Const.
Ditch Plug Rt.

Sta. 503+73 Const.
7'x3'x35' R.C.B.
D.A.=82 Ac. Q=115 c.f.s.
L.F.=0.7 H.W.=3.4'
See Sheet No. 14
Remove 24"x36' R.C.P.

Sta. 509+23 Install
6.0"x32' E.P. Rt.
with End Sections
D.A.=12 Ac. Q=32 c.f.s.
L.F.=0.7 H.W.=2.5'
See Sh. No. 11
Remove 24"x24' C.M.P.

Cult.

Alma Dinsmore Daenyer
S½ NW¼, Sec. 36, T19S, R9W

Cult.

90 Ent.

137 Crop Line

123 Ent.

136 Crop Line

Large Pay Trees to be grubbed
Sta. 506+25 to 506+45
1-43"; 1-45"; 1-47"
Total = 3

W. D. Markle et al
N.½ N.W. ¼, Sec. 36, T19S, R9W

Hedge to be grubbed
Rt: Sta. 486+96 to Sta. 488+83 = 187'
Rt: Sta. 489+64 to Sta. 492+80 = 336'
Lt: Sta. 491+41 to Sta. 496+39 = 498'
Lt: Sta. 497+10 to Sta. 500+22 = 312'
Rt: Sta. 495+88 to Sta. 497+29 = 141'
Rt: Sta. 497+60 to Sta. 497+90 = 30'
Rt: Sta. 498+16 to Sta. 498+57 = 41'
Rt: Sta. 500+22 to Sta. 501+31 = 109'
Lt: Sta. 501+05 to Sta. 501+22 = 17'
Rt: Sta. 501+59 to Sta. 503+26 = 167'
Total = ~~1096~~ 1830

Rt. Sta. 494+03 to 494+12 = 9

Large pay trees to be grubbed Sta. 485+00 to Sta. 515+00: 2-40"; 2-50"; 1-60"; 1-70"
76-01 = 6

All large pay trees to be grubbed are marked thus: ⊗

B.M. #3 ⅝" Iron Bar in Hedge Row
92' Lt. Sta. 490+22 El. = 1708.10

BM #3A Steel Fc. Post 50' Lt
Sta. 493+02 El. = 1707.485

BM #3B Steel Fc. Post 50' Lt
Sta. 502+02 El. = 1706.635

B.M. #4 R.R. Spike in Pow. Pole
80' Lt. Sta. 504+53 El. = 1710.715

BM #4A Steel Fc. Post 50' Lt
Sta. 510+02 El. = 1716.675

3904 Cu. Yds. Com. Exc. (- 45%)
6536 Cu. Yds. Emb.

* An additional 3604 Cu. Yds. Com. Exc. hauled from Bal. Sta. 464+00 to Sta. 484+00

1956 Cu. Yds. Com. Exc. (- 45%)
1350 Cu. Yds. Emb.

See Sheet No. 6

100 B.P. 180 S.B. 123.58 B.P. 100 B.P.

1720 1710 1700

400' V.C. 400' V.C.

-0.17% +0.18% +0.68%

Cr. Gr. = 1709.19
Lt. = 1702.75
Rt. = 1703.50

Cr. Gr. = 1712.03
Lt. = 1707.1
Rt. = 1707.4

V.C. Sta. 504+23
Elev. 1710.9

Cr. Gr. = 1715.5
Lt. = 1712.1
Rt. = 1712.0

8"x2.5' Dr. Lt. No Dr. Lt. 8"x2.5' Dr. Lt.

8"x2.5' Dr. Rt.

1710.38 1710.21 1710.04 1709.87 1709.70 1709.53 1709.36 1.00 P.C. 1709.35 1709.32 1709.20 1.00 P.I. 21°-40'-09.02" 1709.34 1709.22 1709.10 1.00 P.T. 1709.08 1709.26 1709.44 1709.62 1709.80 1.00 P.C. 1709.98 1710.16 1710.34 1710.52 1710.70 1710.88 1.00 P.I. 1711.07 E1. = 1710.32 1711.26 1711.44 1.00 P.T. 1712.18 1712.36 1712.54 1713.54 1714.22 1714.90 1715.58 1716.26 1716.94 1717.62 1718.30 1718.98 1719.66 1720.34

4 485 6 7 8 9 490 1 2 3 4 495 6 7 8 9 500 1 2 3 4 505 6 7 8 9 510 1 2 3 4 515 6

PLATE 1 PLAN-PROFILE B P R STANDARD
KEUFFEL & ESSER CO. CHICAGO - NEW YORK

Rice Co. 22-18

PLAN: SURVEYED, PLOTTED, DRAWN CHECKED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, NOTE BOOK, No., BY, DATE

PROFILE: SURVEYED, PLOTTED, DRAWN CHECKED, ALIGNMENT CHECKED, STRUCTURE EQUATIONS CHECKED, NOTE BOOK, No., BY, DATE

DIST. 5 | RICE CO. | ROLL 531

5 5 4

X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FHWA REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	808-542(7)	1973	6	43

P.I. Sta. 516+47.20 (Δ=0°-10' Rt.)
1. 5/8" Iron Bar @ P.I.
2. Spk. & Washr. top Cor. Fc. Post 46.6' N.W.
3. " - " in Tel. Pole 53.9' S.W.
4. " - " - Pow. Pole 46.3' S.E.

P.O.T. Sta. 530+50.53
1. 5/8" Iron Bar @ P.O.T.
2. Spk. & Washr. in top Fc. Post 43.6' N.W.
3. " " " " " 42.3' S.W.
4. " " " " Pow. Pole 30.4' E.

P.O.T. Sta. 543+15.16
1. 5/8" Iron Bar @ P.O.T.
2. Spk. & Washr. in top Fc. Post 41.9' N.W.
3. " " " " " 36.6' S.W.
4. " " " " Post 32.1' E.

+00 R/W = 30'€ — Cult. — +77.20 R/W = 50'€ — +17.20 R/W = 50'€ — +00 R/W = 30'€

Sta. 516+47.20 = Cross Rd. Sta. 50+00 Const. Type "C" Intersection See Sheet # 2

Sta. 516+47.20 Install 6.0"x36' C.R.P. 70° Rt. with End Sections D.A.= 11 Ac. Q.= 31 c.f.s. L.F.= 0.7 H.W.= 2.5' See Sheet No. 11 Remove 24"x30' R.C.P.

Cross Rd. Sta. 516+47.20

Helen G. Mathews SE¼, Sec. 26, T19S, R9W

Sta. 537+76 Extend 4'x3'x30' R.C.B. 100' Lt & 5.0' Rt. with Soil Saver D.A.= 28 Ac. Q.= 57 c.f.s. L.F.= 0.7 H.W.= 3.2' See Sheet No. 15

Sta. 523+32 Install 2.5"x32' E.P. Rt. with End Sections

Sta. 528+73 Install 2.5"x32' E.P. Rt. with End Sections

Sta. 534+56 Install 2.5"x32' E.P. Rt. with End Sections

Sta. 543+35 Install 2.5"x32' E.P. Rt. with End Sections

Walter Keesling S½ SW¼, Sec 25, T19S, R9W

Albert W. Reynolds W½ SW¼, Sec. 25, T19S, R9W

S.E. Corner Sec. 26-T19S-R9W
1. 5/8" Iron Bar @ Cor.
2. Spk. & Washr. top Cor. Fc. Post 43.3' N.W.
3. " " " in Tel. Pole 53.9' S.W.
4. " " " Pow. Pole 43.3' S.E.

Large Poy Trees to be grubbed Sta. 524+23 - 1@ 127° Total = 1

Large poy trees to be grubbed Sta. 515+00 to Sta. 545+60 1-160° Total = 1 All large poy trees to be grubbed are marked thus: ⊗

B.M.#5 5/8" Iron Bar at S.W. Cor. Bell Tel. Service Shed. 310' Lt. Sta. 516+77 El.=1718.01

B.M.#5A Steel Fc. Post 50' Lt. Sta. 517+19 El.= 1719.99

B.M.#5B-Steel Fc. Post 50' Lt. Sta. 524+02 Elev. 1724.745

B.M.#6 R.R. Spike in Pow. Pole 30' Rt. Sta. 527+05 El.=1724.92

B.M.#6A Steel Fc. Post 50' Lt. Sta. 527+01 Elev. 1723.06

B.M.#6B Steel Fc. Post 50' Rt. Sta. 533+02 Elev. 1724.225

B.M.#6C Steel Fc. Post 50' Lt. Sta. 539+02 El. 1721.125

B.M.#7A-Steel Fc. Post 50' Rt. Sta. 544+01 Elev. 1726.41

*5880 Cu. Yds. Com. Exc. (~37%)
4200 Cu. Yds. Emb.
* Includes 4236 Cu. Yds. Com. Exc. to be hauled to Bal. Sta. 525+00 to Sta. 541+00

*2024 Cu. Yds. Com. Exc. (~37%)
4563 Cu. Yds. Emb.
* An additional 4236 Cu. Yds. Com. Exc. to be hauled from Bal. Sta. 510+00 to Sta. 525+00

See Sheet No. 7

+10.68% — -0.06% — 10.125%

800' V.C. SSD = 300'

No Grade change

C. Gr. = 1720.60 Lt. = 1716.90 Rt. = 1716.80

C. Gr. = 1726.39 Lt. = 1717.70 Rt. = 1718.80 Top of Soil Saver = 1720.38

Top of M.P. Sta. 542+17.5 El. 1723.11

8'x2.5' Dt. Lt.
8'x2.5' Dt. Rt.

1718.98 1719.66 1720.34 1721.02 1721.70 1722.38 1723.01 1723.55 1724.00 1724.36 1724.62 1724.79 1724.87 1724.96 1725.00 1724.80 1724.74 1724.68 1724.62 1724.56 1724.50 1724.44 1724.39 1724.37 1724.36 1724.38 1724.43 1724.50 1724.59 1724.70 1724.83 1724.93 1725.00 1725.20

PLATE 1 PLAN-PROFILE 8 P R STANDARD
EDWIN DIETZGEN CO. CHICAGO - NEW YORK

Rice Co. '72-18

DIST. 5 | RICE CO. | ROLL 531

5 5 5

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FHWA REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	805-542(7)	1973	7	43

P.O.T. Sta. 558+28.55
1. 3/8" Iron Bar @ P.O.T.
2. Spk. & Washr. top Fc. Post 35.3' S.W.
3. " " " " 40.5' N.W.
4. " " " in Pow. Pole 30.6' E.

P.I. Sta. 569+62.52 (Δ=0°-03' Lt.)
1. 1/2" Iron Bar @ P.I.
2. Spk. & Washr. in top Fc. Post 49.53' S.W.
3. " " " " Post 52.31' S.E.
4. " " " " Pow. Pole 43.23' N.E.

Cult.

120' Ent.

Sta. 554+89 Extend 4'x3'x30' R.C.B. 3°-2' Lt. & 5°-10' Rt. with Soil Saver D.A.= 45 Ac. Q.= 67 c.f.s. L.F.= 0.6 H.W.= 3.3' See Sheet No. 15

John S. Mathews NE¼ Sec. 26, T19S, R9W

Sta. 551+20 Install 2.5'x32' E.P. Lt. with End Sections

Cult.

Note: Sta 562+50 to Sta. 565+50 Const. Dike @ Backslope, See Cross Section

Sta. 565+ Const. Ditch Plug Lt.

Sta. 569+62.52 = Cross Rd. Sta. 50+00 Const. Type 'C' Inter. See sheet # 2

+62.52' ℄ Cross Road

+00 R/W=30'E

+92.52 R/W=50'E

Sta. 569+62.5 Const. 4'x3'x91' R.C.B. (Rotate 45° Lt) with Soil Saver Rt. D.A.= 23 Ac. Q.= 50 c.f.s. L.F.= 0.7 H.W.= 2.8' See Sheet No. 15

+32.52 R/W=50'E

R/W=50'E

Sta. 547+10 Const. Ditch Plug Rt.

Sta. 547+54 Extend 4'x3'x30' R.C.B. 1°-4' Lt. & 3°-8' Rt. with Soil Saver D.A.= 31 Ac. Q.= 61 c.f.s. L.F.= 0.7 H.W.= 3.4' See Sheet No. 15

Sta. 554+50 Const. Mound Ent. Rt.

Orville Colberg NW¼, Sec. 25, T19S, R9W

Sta. 564+57 Install 2.5'x32' E.P. Rt. with End Sections

Remove 18"x26' R.C.B.

Remove 18"x44' C.M.P.

+60 Ent.

Shelter Belt

Small Trees

Remove 24"x44' C.M.P.

Cult.

Hedge to be grubbed Rt.- Sta. 537+00 to Sta. 542+63 Total = 537 563 L.F.

37' Ent.

N.W. Cor. Section 25-T19S-R9W
1. ½" Iron Bar @ Cor.
2. Spk. & Washr. in top Fc. Post 49.53' S.W.
3. " " " " Post 52.31' S.E.
4. " " " " Pow. Pole 43.23' N.E.

BM#9B Steel Fc. Post 50' Lt. Sta. 570+01 Elev. 1733.685

B.M.=7 5/8" Iron Bar 5' South of Pow. Pole 30' Rt. Sta. 544+39 El.= 1727.27

BM#7B Steel Fc. Post 50' Rt. Sta. 551+01 Elev. 1727.27

BM#8A- Steel Fc. Post 50' Rt. Sta. 558+29 El.= 1726.85

B.M.=8 RR Spike in Pow. Pole 30' Rt. Sta. 558+28 El.= 1727.48

BM#8B- Steel Fc. Post 50' Rt. Sta. 563+01 El.= 1727.935

BM#9A- Steel Fc. Post 50' Rt. Sta. 568+92 El. 1728.55

B.M.=9 5/8" Iron Bar 1' East of Pow. Pole 272' Lt. Sta. 569+44 El.= 1723.56

See Sheet No.

* 9936 Cu. Yds. Com. Exc. (- 32%)
865 Cu. Yds. Emb.
* Includes 2795 Cu. Yds. Com. Exc. to be hauled to Bal. Sta. 555+00 to Sta. 569+62.52

* 2173 Cu. Yds. Com. Exc. (+ 36%)
† 3650 Cu. Yds. Emb.
* An additional 2795 Cu. Yds. Com. Exc. to be hauled from Bal. Sta. 541+00 to Sta. 555+00
† Includes 528 Cu. Yds. Emb. for Cross Road Sta. 569+62.52
* Includes 125 Cu. Yds. Exc. for Cross Road Sta. 569+62.52

800' V.C.

+0.125%

+0.20%

+1.04%

-0.31%

-0.30%

+1.46%

Cr. Gr.= 1725.39
℄ Lt.= 1720.9
℄ Rt.= 1721.0
Top of Soil Saver=1722.38

Cr. Gr.= 1726.45
℄ Lt.= 1720.5
℄ Rt.= 1721.5
Top of Soil Saver=1723.08

Cr. Gr.= 1730.02
℄ Lt.= 1723.80
℄ Rt.= 1724.62
Top of Soil Saver=1726.20

8'x2.5' Dt. Lt.
8'x2.5' Dt. Rt.

Cross Road Sta. 569+62.52 Lt. & Rt.
12'x2.5' Dt. Lt.
12'x2.5' Dt. Rt.

PLATE 1 PLAN-PROFILE B P R STANDARD
EDGAR BRITTAIN CO., CHICAGO - NEW YORK

Rice Co.
72-18

DIST. 5 | RICE CO. | ROLL 531

5 5 6

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FHWA REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	BOS-542(7)	1973	8	43

P.O.T. Sta. 582+86.20
1. 5/8" Iron Bar @ P.O.T.
2. Spk. & Washr. in top Fc. Post 30.5' E.S.E.
3. " " " " " " 43.3' N.E.
4. " " " " " " 30.3' W.

P.O.T. Sta. 596+11.65
1. Sandstone, Pin & Spk.
2. Spk. in top Fc. Post 31.2' E.
3. Dble. Spk. in 60" Elm 67.0' W.
4. " " " " 59.5' W.N.W.
5. " " 30" Hedge 37.1' N.E.

Ralph Barker
S½ SE¼, Sec. 23, T19S, R9W

Cult.

86 Crop Line

Francis Reiss
W½ SE¼, Sec. 23, T19S, R9W

Cult.

Sta. 597+09 Install
2.5"x32' E.P. Lt.
with End Sections

Note: Sewage lines draining into road ditch shall be removed by Owner.

59 Ent.

Clara Schoonover Blakely
S½ NE¼, Sec. 23, T19S, R9W

Cult.

Sta. 595+59 Install
2.5"x32' E.P. Lt.
with End Sections
Remove 24"x24' C.M.P.

Sta. 598+33 Install
2.5"x32' E.P. Lt.
with End Sections
Remove 18"x24' C.M.P.

1.5% Fr. Rise

133 E Drive

109 E Drive

Trench Silo

R/W = 50'€

575 6 7 8 9 580 1 2 3 4 585 6 7 8 9 590 1 2 3 4 595 6 7 8 9 600 1 2 3 4 605 6

Sta. 586+24 Const.
Mound Ent. Rt.

24 Ent.

Leora Hoyt
SW¼, Sec. 24, T19S, R9W

Cult.

Sta. 595+59 Install
2.5"x32' E.P. Rt.
with End Sections

Remove
24"x24' C.M.P.

117 Ent.

Sta. 603+69 Install
2.5"x32' E.P. Rt.
with End Sections

Cult.

Leora Hoyt
NW¼ Sec. 24, T19S, R9W

109 Ent.

Large Pay trees to be grubbed: Sta. ~~595+00~~ to 597+69 (-~~50'~~)
Total = 1 70"

All pay trees to be grubbed are marked thus: ⊗

BM#11A - Steel Fc. Post 50' Rt
Sta. 600+01 Elev. 1739.21

~~Hedge to be grubbed:~~
~~Rt. Sta. 595+00 to Sta. 596+32~~
~~Total = 132 L.F.~~

B.M.#11 78" Iron Bar in Shelter Belt
66' Lt. Sta. 596+20 El.= 1742.785

BM#10A Steel Fc. Post 50' Rt
Sta. 585+01 El.= 1742.82

B.M.=10 ~~R.R. Spike in Pow. Pole~~
~~30' Rt. Sta. 585+83~~ El.= 1744.02

BM#10B-Steel Fc. Post 50' Rt
Sta. 591+01 Elev.= 1742.495

BM#11B-Steel Fc. Post 66' Lt.
Sta. 605+31. El.= 1739.005

2800 Cu. Yds. Com. Exc. (~36%)
3528 Cu. Yds. Emb.

100 B.P.

* 4449 Cu. Yds. Com. Exc. (~33%)
3852 Cu. Yds. Emb.

* An additional 639 Cu. Yds. Com. Exc. to be hauled from Bal. Sta. 604+00 to Sta. 622+40

100 B.P.

1750
1740
1730

+1.04%

-0.36%

1000' V.C.
S.S.D. = 1000'

12'x2.5' Dr. Lt.

12'x2.5' Dr. Rt.

1.85-2" Spirea
Dia. 12' Ht.
± 38' C.

100 P.T.
1733.56

1734.60
1735.64
1736.68
1737.72
1738.76
1739.80

100 P.C.
1740.84

1741.81
1742.64
1743.33
1743.88

100 P.I.
Elev. 1744.09
Sta. 600.09

1744.56
1744.69
1744.68
1744.53

100 P.T.
1744.24

1743.88
1743.52
1743.16
1742.80
1742.44
1742.08
1741.72
1741.36
1741.00
1740.64
1740.28
1739.92
1739.56
1739.20
1738.84

4 575 6 7 8 9 580 1 2 3 4 585 6 7 8 9 590 1 2 3 4 595 6 7 8 9 600 1 2 3 4 605 6

PLATE 1 PLAN-PROFILE B P R STANDARD
EUGENE DIETZGEN CO., CHICAGO - NEW YORK

Rice Co.
22-18

PLAN
DRAFTED
CHECKED
NOTE BOOK
No.
ALIGNMENT CHECKED
RT. OF WAY CHECKED
DATE
BY

PROFILE
QUANTITIES
NOTES
NOTE BOOK
No.
ALIGNMENT CHECKED
R.W.L. TESTED
PROFILE GRADE CHECKED
DATE
BY

DIST. 5 | RICE CO. | ROLL 531

5 5 7

X | 16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FHWA REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	805-542(7)	1973	9	43

P.O.T. Sta. G07+97.65
1. ⅝" Iron Bar @ P.O.T.
2. Spk. & Wshr. in Tel. Pole 35.9' N.W.
3. " - " - Pow. " 31.6' E.
4. - - " - top Fc. Post 58.9' N.E.

P.I. Sta. G22+59.00
1. Limestone, Pin & Spike @ P.I.
2. Spk in Pow Pole 67.0' N.W.
3. - - - - - 58.3' N.E.
4. X-Cut in Conc. Sidewalk 100.0' E.S.E.
5. - - - - - 100.0' S.S.E.
6. N.W. Cor. Church Foundation 106.4' S.E.

Twilla N. Swick
N½ NE¼ Sec. 23, T19S, R9W

Cult.

+00
R/W=20'E

+89.0
R/W=30'E

Sta. G22+59.0 END
Project 805-542(7) =
Sta. 158+40.00 ON
Project 805-542(5)

38
Sta. G09+[illegible] Install
2.5"x32' E.P. Lt.
with End Sections
Remove 18"x24' CM.P.

183 Ent.

R/W=50'E

Ex. Lt. R/W

38
Sta. G09+[illegible] Install
2.5"x32' E.P. Rt.
with End Sections

Sta. G17+55 Const.
6'x4'x35' R.C.B.
with Soil Saver
D.A.=87 Ac. Q=119 cfs.
L.F.=0.7 H.W.=3.9'
See Sheet No. 15
Remove 5'x2'x30' R.C.B.

Cemetery

+19.0
R/W=50'E

Ebenezer Church
3 Ac. in NW¼, Sec. 24, T19S, R9W

Leora Hoyt
NW¼, Sec. 24, T19S, R9W

178 Ent.

Cult.

Hedge to be grubbed:
Rt.- Sta. G05+18 to Sta. G05+76 = 66'
Rt.- Sta. G05+88 to Sta. G07+84 = 186'
Rt.- Sta. G11+43 to Sta. G14+09 = 266'
Rt.- Sta. G14+44 to Sta. G14+91 = 47'
Rt.- Sta. G16+00 to Sta. G17+46 = 146'
Total hedge to be grubbed
Sta. G05+00 to Sta. G22+59 = 711 L.F.

Large pay trees to be grubbed Sta. G03+69 to Sta. G22+69: 1-40" 3-60", 4-70", 1-80", 1-90"
Total = ~~41~~ 11
All large pay trees to be grubbed are marked thus: ⊗.

BM#12A-Steel Fc. Post 50' Rt
Sta. G11+01 Elev. 1736.31

B.M.#12 ~~R.R. Spike in Tel. Pole~~
25' Lt Sta. G10+92 El.=1737.67

BM#12B-Steel Fc. Post 50' Lt
Sta. 617+01 Elev. 1733.63

BM#12C-Steel Fc. Post
50' Lt Sta. 621+90 Elev.=1736.125

B.M.#13 ⅝" Iron Bar at Base Pow. Pole
174' Rt. Sta. G22+95 El.=1734.72

*5150 Cu Yds. Com. Exc. (- 33%)
3380 Cu Yds Emb.

*Includes 657 Cu Yds. Com. Exc. to be hauled to Bor. Sta. 587+00 to Sta. 605+00

B.P. 100

C.P. 158

155.58

800' V.C.

-0.36%

+0.32%

1740

1730

Ex. Gr.=1738.22
Lt.=1729.9
Rt.=1729.2
Top of Soil Saver=1731.88

12"x2.5' Dl. Lt.
12"x2.5' Dl. Rt.

Village Gutter

	4	G05	6	7	8	9	G10	1	2	3	4	G15	6	7	8	9	G20	1	2
Elev.	1739.56	1739.20	1738.86	1738.45	1738.12	1737.76	1737.40	1737.04	1736.68	1736.32	1736.96 +00 P.C.	1736.64	1736.41	1736.26	1736.20 +00 P.I. El.=1734.52	1735.22	1735.28	1735.52	1735.80 +00 P.T.

PLATE 1 PLAN-PROFILE 8 P R STANDARD
EUGENE DIETZGEN CO. CHICAGO - NEW YORK

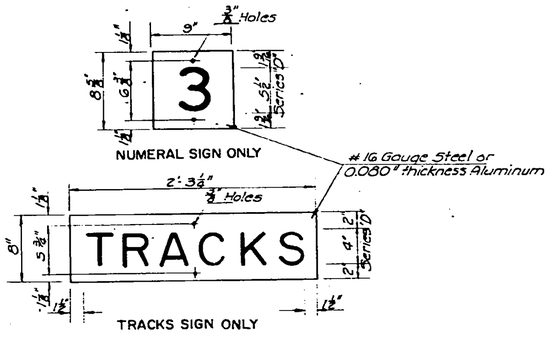
Rice Co.
22-1A

DIST. 5 | RICE CO. | ROLL 531

5 5 8

16X 14.5X 12X 12X 14.5X 16X

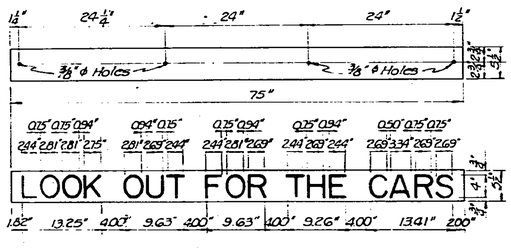
F.H.W.A. Region No.	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
7	KANSAS	BOS-542(7)	1973	10	43



REFLECTORIZED
MULTIPLE TRACKS SIGNS

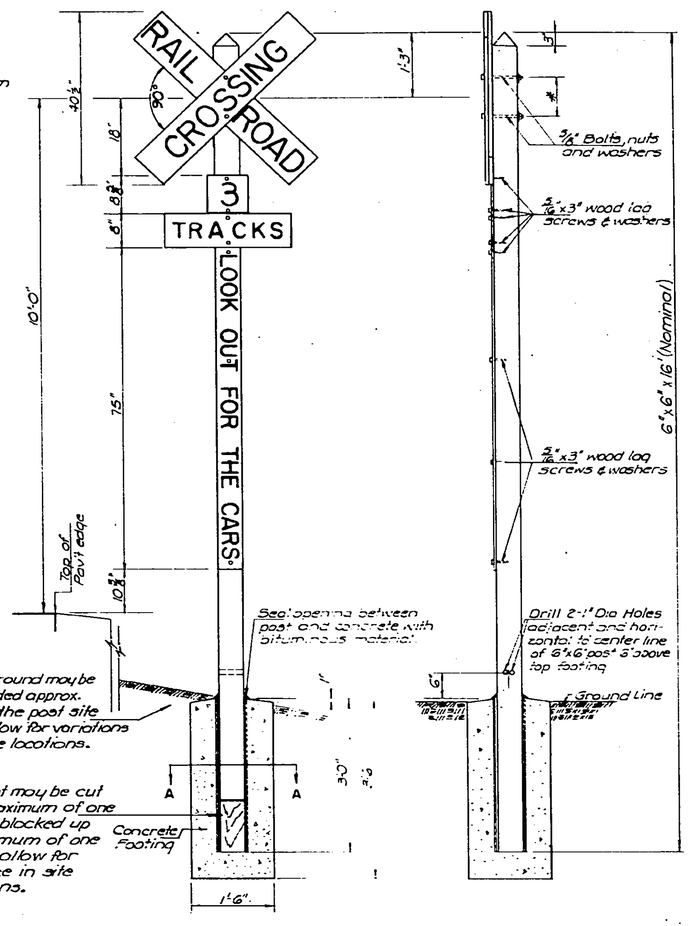
Reflectorized sign indicating the number of tracks, shall be used where more than one track is crossed. The number displayed on the sign shall be the total number of tracks crossed, including sidings.

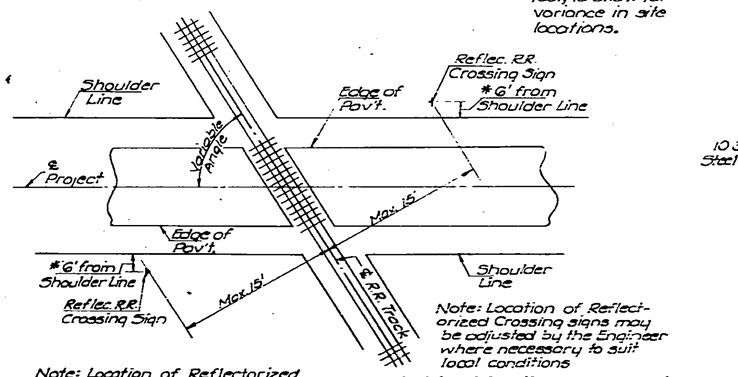
Reflective surface for the multiple tracks sign shall be of the same color and type as that used on the cross bucks. Letters and numerals to be black, process ink on the reflective surface.



LOOK OUT FOR THE CARS SIGN

The sign blank shall be made from #16 Gauge Steel or 0.080" thickness Aluminum.
4" High Series "D" Letters. Black legend on reflectorized white background.



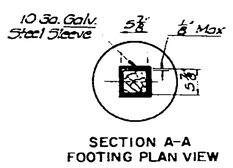


Note: Location of Reflectorized Crossing Signs to be checked with R.R. Co. prior to installation.

Note: Location of Reflectorized Crossing signs may be adjusted by the Engineer where necessary to suit local conditions

* Note: At locations where combined curb and gutter is used the Reflectorized Crossing signs shall be placed 4 feet back of curb.

LOCATION SKETCH



SECTION A-A
FOOTING PLAN VIEW

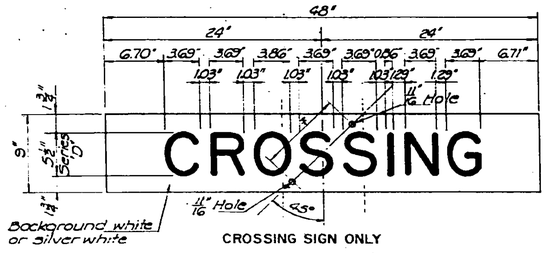
Note: Use Class A Concrete in the footing. Concrete to be poured in footing against undisturbed earth. Forming to be required only when earth in excavated footing wall is unstable.

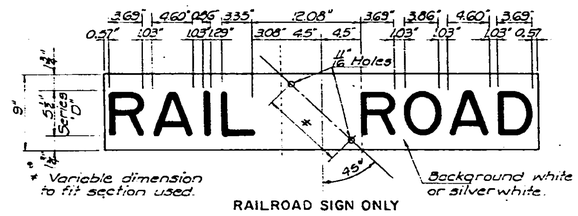
All wood posts, except redwood, shall be given a preservative treatment of penta solution as provided in the Specifications.

5/8" Bolts, nuts and washers for crossbuck sign shall be Hot-Dipped Galvanized or Aluminum.

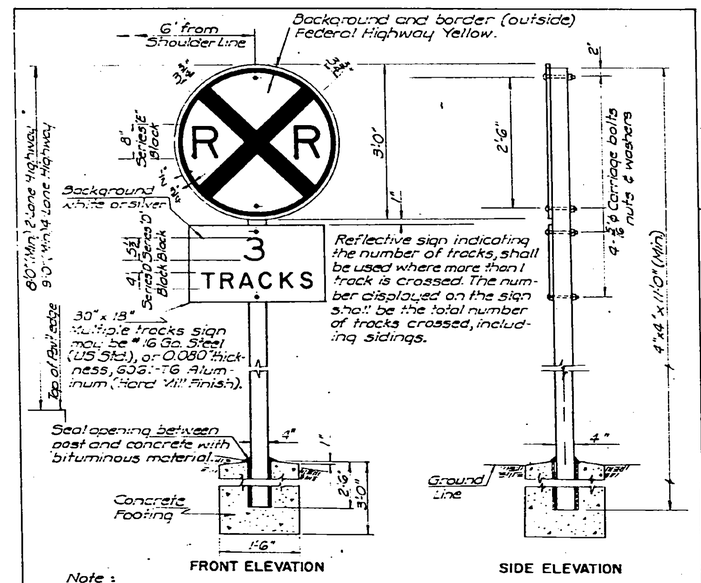
5/16" Wood lag screws and washers shall be zinc or cadmium plated.

RAILROAD CROSSING SIGN





RAILROAD SIGN ONLY



Note:

Location of Advance Warning Signs shall conform to Sect. 1C:31 of the "Manual for Uniform Traffic Control Devices for Streets and Highways in Kansas (1962)". Details not shown shall conform to the above "Manual".

Alternate "A" - The Sign blank shall be of #16 Ga. Steel, (U.S.Std.). Both faces of the sign to receive one coat of prime, and one coat of Highway yellow enamel. The entire face of the sign shall be covered with yellow reflective material. The border, "X" and the letters "RR" to be black, process ink over the reflective surface.

Alternate "B" - The sign may be made from 0.080" thickness, 6061-T6 aluminum with a hard milled finish surface. The face and back surfaces of the sign shall not be enameled. The entire face of the sign shall be covered with yellow reflective material. The border, "X" and the letters "RR" to be black, process ink over the reflective surface.

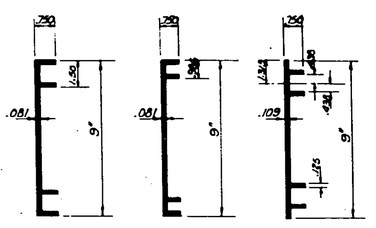
The layout for the series and size of letters indicated shall be as shown in the manual of "Standard Alphabets for Highway Signs".

Fabrication of signs using reflective material shall be in strict accordance with the manufacturer's recommendations.

Wood posts shall be given a preservative treatment of penta solution as provided in the Specifications.

At locations where combined curb and gutter is used the Advance Warning Signs shall be placed 4 feet back of curb.

ADVANCE WARNING SIGN



TYPICAL SECTIONS

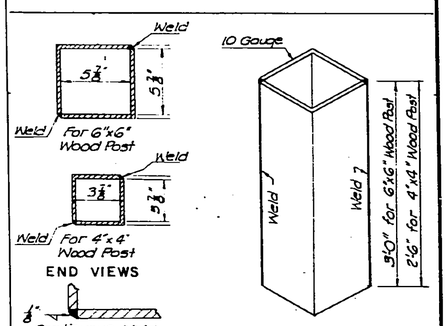
Note:

Crossbucks shall be aluminum extrusions in accordance with one of the above designs. Alloy 6063-T6.

All signs shall be flat and straight. Sheared edges shall be free from burrs. Mounting holes shall be of the diameter and location shown and shall be punched or drilled so that burrs are eliminated and the surrounding area is flat and smooth.

The entire face of the "Railroad" and "Crossing" signs shall be covered with reflective material, applied in strict accordance with the manufacturer's recommendations.

Black letters shall then be applied over the reflective surface in the series and size shown.



Galvanized Steel Sleeves shall be made from 10 Gauge commercial grade sheet steel.

All Steel sleeves shall be galvanized after fabrication to comply with the requirements ASTM A 123 except that the minimum coating shall be 1/2 oz. per sq. ft. of actual surface. As an alternate the sleeves may be fabricated from pre-galvanized steel sheets having a minimum coating of 1/2 oz. per sq. ft. of actual surface with one coat of commercial grade zinc dust paint applied to the seams after fabrication.

At the contractor's option a cover may be welded to the bottom of sleeve to prevent concrete from extending up into the sleeve.

NO.	DATE	REVISIONS	BY	APP'D
1	7-30-70	Post length, Mound Note, Cut off and Block up Note.	W.L.H.	K.G.L.

STATE HIGHWAY COMMISSION OF KANSAS

R. R. CROSSING SIGN
ADVANCE WARNING SIGN
(REFLECTORIZED)

STD. NO. 802.1 4-10-68

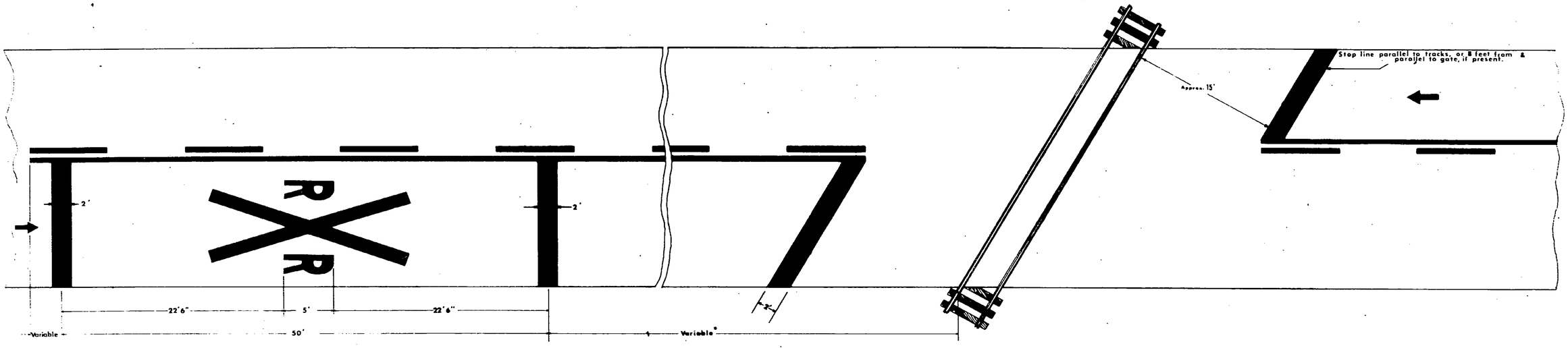
SHEET NO. 10 OF 43 SHEETS	SCALE No Scale	APP'D L. Hammil/Bradley	
DESIGNED	DETAILED A.L.R.	QUANTITIES	TRACED R.L.R.
DESIGN CK.	DETAIL CK. J.P.D.	GEN'L CK.	TRACE CK.

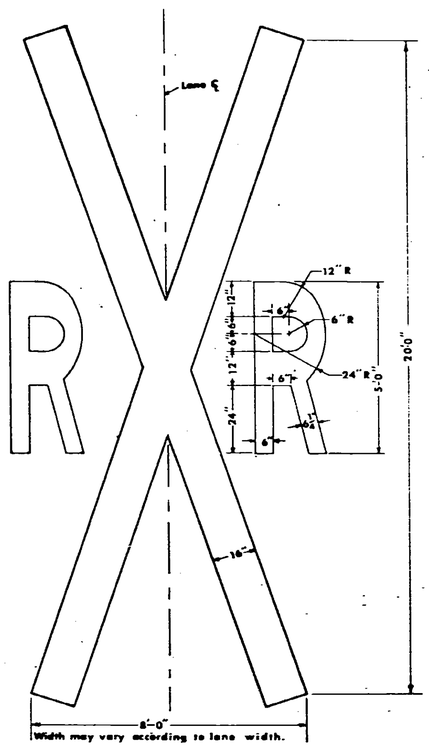
DIST. 5 | RICE CO. | ROLL 531

5 5 9

16X 14.5X 12X 12X 14.5X 16X

FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	80 RS 542 (7)	1973	10A	43





General Notes

THE DISTANCE FROM THE RAILROAD CROSSING MARKING TO THE NEAREST TRACK WILL VARY ACCORDING TO THE APPROACH SPEED AND THE SIGHT DISTANCE OF THE VEHICULAR TRAFFIC APPROACHING, BUT PROBABLY SHOULD BE NOT LESS THAN 50 FEET. A DESIRABLE MINIMUM IN RURAL AREAS IS 350' FOR A 50 MPH DESIGN SPEED BUT THIS DISTANCE MAY BE ADJUSTED TO MEET EXISTING CONDITIONS.

A THREE-LANE ROADWAY SHOULD BE MARKED WITH A CENTERLINE FOR TWO-LANE APPROACH OPERATION ON THE APPROACH TO A CROSSING.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

PAVEMENT MARKINGS IN ADVANCE OF A RAILROAD CROSSING SHALL CONSIST OF AN X; THE LETTERS, RR; AND CERTAIN TRANSVERSE LINES IN REFLECTORIZED WHITE PAINT WITH DIMENSIONS AS SHOWN ON THIS SHEET. THE DASHED LONGITUDINAL CENTERLINE AND PARALLEL NO-PASSING LINE WILL BE REFLECTORIZED YELLOW PAINT AND SHALL BEGIN AT LEAST 100' IN ADVANCE OF THE LETTERS R.R.

THE PAVEMENT MARKINGS WILL BE DONE BY:

~~THE SURFACING CONTRACTOR AND PAYMENT WILL BE SUBSIDIARY TO THE CONTRACT ITEM OF _____~~

OR

THE COUNTY WITH OWN FORCES AND FUNDS.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

RAILROAD CROSSING

PAVEMENT MARKING

STANDARD NO. S-800

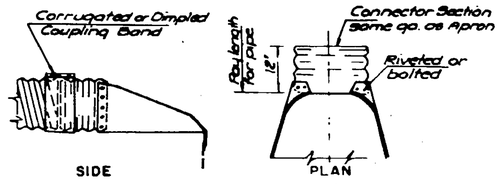
DIRECT WK. OF	SCALE 1"=1'	APP'D	
DESIGNED RDM	DETAILED JLS	QUANTITIES	TRACED JLS
DESIGN CK. RLB	DETAIL CK. EDP	QUAN. CK.	TRACE CK. EDP

DIST. 5 | RICE CO. | ROLL 531

5 6 0

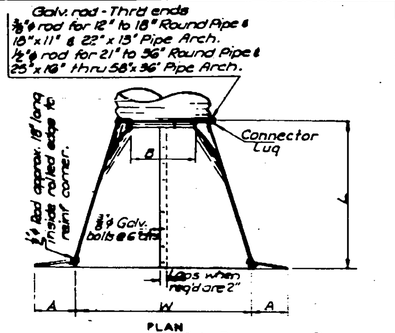
16X | 14.5X | 12X | 12X | 14.5X | 16X

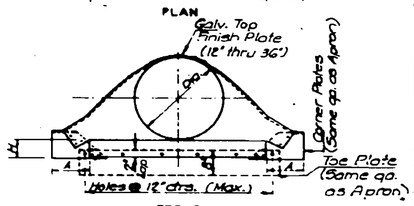
Pipe Dia. (In)	Min. Ga. Pipe	Min. Ga. Ends	Dimensions in Inches A 1" Tol.	B Max.	H 1" Tol.	L ½" Tol.	W 2" Tol.	No. Apron Panels
12	16	16	4¾	6	6	21	24	1
15	16	16	6	8	6	26	30	1
18	16	16	7	9	6	31	36	1
21	16	16	8¼	11	6	36	42	1
24	16	16	9½	12	6	42	48	1
30	14	14	12	15	7½	52½	60	2
36	14	14	14	18	9	63	72	2
42	12	12	16	21	10½	73½	84	2
48	12	12	18	27	12	84	90	2or3

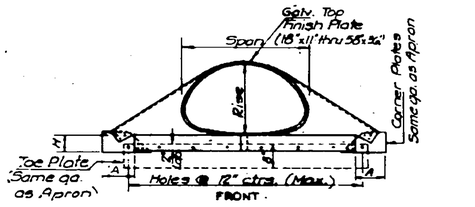


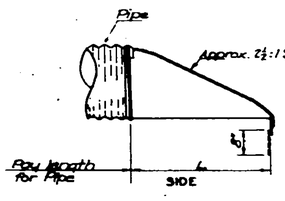
Connection for 42"ø 48" pipes & for 65"x40" & 72"x42" pipe arches.

NOTE: The riveted or bolted connection with coupling band may be furnished for the smaller sizes of pipe and pipe arches.









Toe plate where specified to be punched to match holes in apron lip. ⅜"ø galvanized bolts to be furnished. The length of toe plate to be as follows: W+10" for 12" to 30" diameter pipes inclusive.
W+20" for 36" to 54" diameter pipes inclusive.
W+10" for pipe arches with rise of 11" to 27" inclusive.
W+20" for pipe arches with rise of 31" to 44" inclusive.

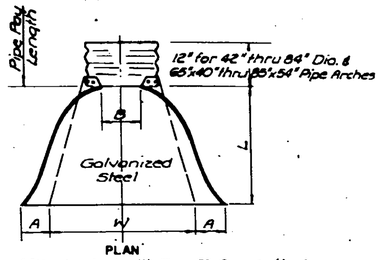
Apron section for 12" to 24" diameter pipes inclusive, and pipe arches with rise of 11" to 18" inclusive to be made in one sheet. Apron section for 30" to 42" diameter pipes inclusive, and pipe arches with rise of 22" to 31" inclusive, may be made in two sheets joined by riveting or bolting on the center line. Apron section for 48" diameter pipes may be made in two or three sheets, joined by riveting or bolting at equal distances from the center line. Apron section for pipe arches with rise of 36" to 44" inclusive, may be made in three sheets, joined by riveting or bolting at equal distances from center line.

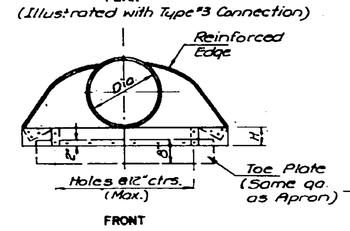
All sheets shall be galvanized in accordance with the specifications.

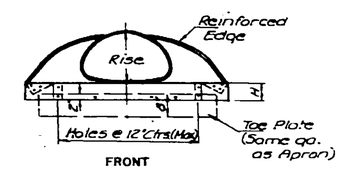
Other approved designs may be used in lieu of type shown.

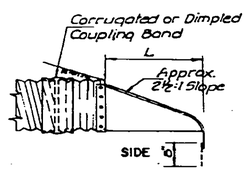
Bid Designation Sq. Ft.	Nom. W.W. Area Sq. Ft.	Pipe Arch Span (In)	Pipe Arch Rise (In)	Min. Ga. Pipe	Min. Ga. End	Dimensions in Inches A 1" Tol.	B Max.	H 1" Tol.	L ½" Tol.	W 2" Tol.	No Apron Panels
1.0	1.1	17	13	16	16	4½	9	6	19	30	1
1.5	1.6	21	15	16	16	5½	10	6	23	36	1
2.0	2.2	24	18	16	16	6½	11½	6	28	42	1
2.5	2.8	28	20	16*	16	7	14	6	31½	48	1
3.0 or 4.0	4.4	35	24	14	14	8½	16	6	39½	60	2
5.0 or 6.0	6.4	42	29	14*	14	10½	17½	7½	47	75	2
7.0 or 8.5	8.7	49	33	12	12	12½	20	9½	54	85	2
10.0 or 11.0	11.4	57	38	12	12	14	26	10½	63	96	2or3
12.5 or 14.0	14.3	64	43	12	12	15½	27	10½	70	112	2or3
16.5	17.6	71	47	10	12	17½	28	12½	77	128	2or3

* For Aluminum pipe the 28" shall be 14 Gauge and the 64" shall be 12 Gauge.

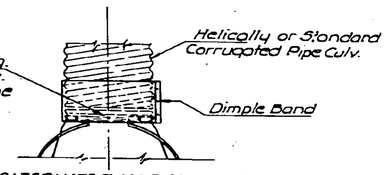






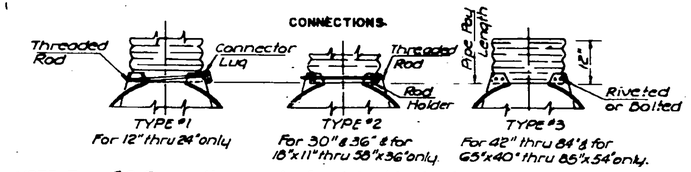


Galvanized Sizing Ring. Same Gauge as end sec. To be shop bolted to the end section with three bolts.



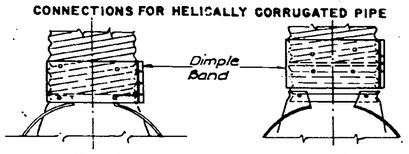
ALTERNATE TYPE D CONNECTION with Sizing Ring For 12" thru 36" and for 18"x11" thru 58"x36" only.

CONNECTIONS



NOTE: Type #3 Connection may be furnished instead of Types #1 & 2 for smaller sizes of pipe and pipe arches.

CONNECTIONS FOR HELICALLY CORRUGATED PIPE



Pipe Dia. (In)	Min. Ga. Pipe	Min. Ga. Ends	Dimensions in Inches A 1" Tol.	B Max.	H 1" Tol.	L ½" Tol.	W 2" Tol.	No. Apron Panels
12"	16	16	6	6	6	21	24	1
15"	16	16	7	8	6	26	30	1
18"	16	16	8	10	6	31	36	1
21"	16	16	9	12	6	36	42	1
24"	16	16	10	13	6	41	48	1
30"	14	14	12	16	8	51	60	1
36"	14	14	14	19	9	60	72	2
42"	12	12	16	22	11	69	84	2
48"	12	12	18	27	12	78	90	2
54"	12	12	18	30	12	84	102	2
60"	10	12&10	18	33	12	87	114	3
66"	10	12&10	18	36	12	87	120	3
72"	10	12&10	18	39	12	87	126	3
84"	8	12&10	18	45	12	87	138	3

Toe plate where specified to be punched to match holes in apron lip. ⅜"ø galvanized bolts to be furnished. The length of toe plate to be as follows: W+10" for 12" to 30" diameter pipes inclusive.
W+20" for 36" to 84" diameter pipes inclusive.
W+10" for pipes arches with rise of 11" to 27" inclusive.
W+20" for pipes arches with rise of 31" to 54" inclusive.

Apron section for 12" to 24" diameter pipe inclusive, and pipe arches with rise of 11" to 22" inclusive to be made in one sheet. Apron section for 30" to 54" diameter pipes inclusive, and pipes arches with rise of 27" to 36" inclusive, may be made in two sheets joined by riveting or bolting on the center line. Apron section for 60" to 84" diameter pipes inclusive and pipe arches with rise of 40" to 54" inclusive, may be made in three sheets, joined by riveting or bolting at equal distances from center line.

Connector section, corner plate and toe plate to be same gauge as apron and each to be galvanized in accordance with the specifications.

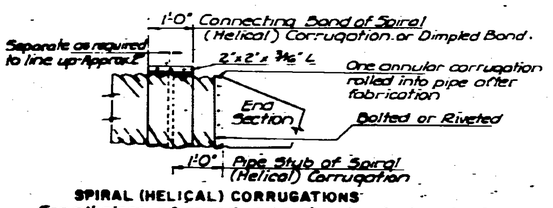
Other approved designs may be used in lieu of type shown.

Bid Designation Sq. Ft.	Nom. W.W. Area Sq. Ft.	Pipe Arch Span (In)	Pipe Arch Rise (In)	Min. Ga. Pipe	Min. Ga. Ends	Dimensions in Inches A 1" Tol.	B Max.	H 1" Tol.	L ½" Tol.	W 2" Tol.	No Apron Panels
1.0	1.1	17	13	16	16	7	9	6	19	30	1
1.5	1.6	21	15	16	16	7	10	6	23	36	1
2.0	2.2	24	18	16	16	8	12	6	28	42	1
2.5	2.8	28	20	16*	16	9	14	6	32	48	1
3.0 or 4.0	4.4	35	24	14	14	10	16	6	39	60	1
5.0 or 6.0	6.4	42	29	14*	14	12	18	8	46	75	2
7.0 or 8.5	8.7	49	33	12	12	13	21	9	53	85	2
10.0 or 11.0	11.4	57	38	12	12	18	26	12	63	90	2
12.5 or 14.0	14.3	64	43	12	12	18	30	12	70	102	2
16.5	17.6	71	47	10	12&10	18	33	12	77	114	3
21.0	21.3	77	52	10	12&10	18	36	12	77	126	3
25.0	25.5	83	57	10	12&10	18	39	12	77	138	3

* For Aluminum pipe the 28" shall be 14 Gauge and the 64" shall be 12 Gauge.

PIPE CULVERT SUMMARY

Station	Location	Type	Size or Bid Designation Sq. Ft.	Crown Grade Elev.	Flow Line Lt.	Flow Line Rt.	Horizontal Roadway Lt.	Horizontal Roadway Rt.	Degree of Rotation	Length of Pipe Lt.	Length of Pipe Rt.	Lin. Ft. of Pipe	No. of End Sects.
509+23	Rt.	E.P.	6.0**	1715.48	1712.1	1711.9	16'-0"	16'-0"	-	16'-0"	16'-0"	32'-0"	2
516+41.2	70' Rt.	C.R.P.	6.0**	1720.8	1716.9	1716.8	17'-0"	17'-0"	-	17'-0"	17'-0"	36'-0"	2
*		E.P.	2.5**							16'-0"	16'-0"	32'-0"	40
	* See Summary of Quantities												



SPIRAL (HELICAL) CORRUGATIONS

For all sizes of round and arch culvert pipes having Spiral (Helical) Corrugations, the End Sections and connecting bands shall be as shown above.

NOTE: The culverts listed on this sheet may or may not indicate that the culvert installed will be steel, aluminum or reinforced concrete.

** For gauge above minimum requirements see Summary of Culverts.

Connection of end sections by welding will not be permitted.

All 3 piece apron sections shall have 12 gauge sides and 10 gauge center panels. Multiple panel apron sections shall have lap seams which are to be tightly jointed by galvanized rivets or bolts at equal distances from center line.

For 60" to 84" diameter pipe apron sections, reinforced edges to be supplemented with hot dipped galvanized stiffener angles. The angles to be attached by galvanized nuts and bolts.

For 79"x49" and 85"x54" pipe arch apron sections, reinforced edges to be supplemented by hot dipped galvanized angles. The angles to be attached by galvanized bolts and nuts.

Angle reinforcement shall be placed under the center panel seams on 79"x49" and 85"x54" pipe arch apron sections.

All references to galvanized metal refer to steel only.

FHWA REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	808-342(7)	1973	11	43

NO	DATE	REVISIONS	BY	APP'D
1	10-71	Removed top Finish Plate on type I & 2	WLH	KGL
2	11-67	Added Alt. Type D Connection	ALR	KGL

STATE HIGHWAY COMMISSION OF KANSAS

METAL END SECTION FOR ROUND & ARCH METAL CULVERTS TYPE I

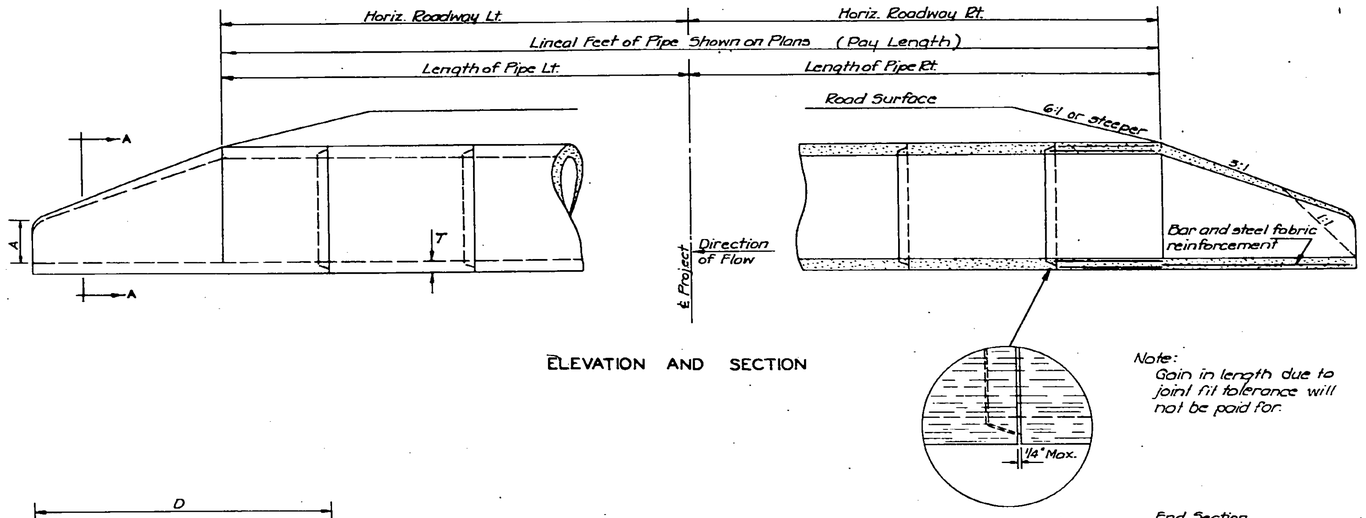
STD. NO. 301.2 1-15-67

SHEET NO	OF	SCALE None	APP'D		
DESIGNED		DETA. CK. ALR	CHIEF ENG.	TRACED ALR	
DESIGN CK		DETA. CK. WHS	CLAN CK	TRACE CK WHS	

DIST. 5 | RICE CO. | ROLL 531

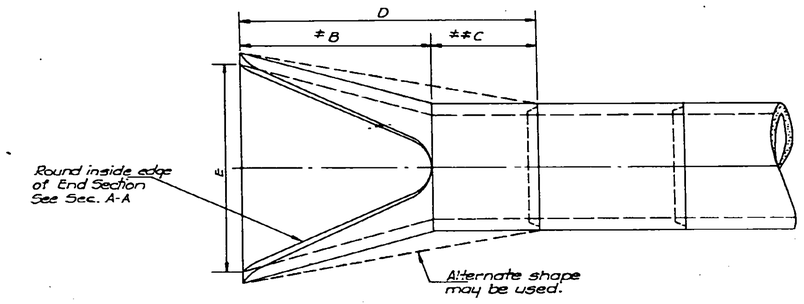
[redacted] 5 6 1

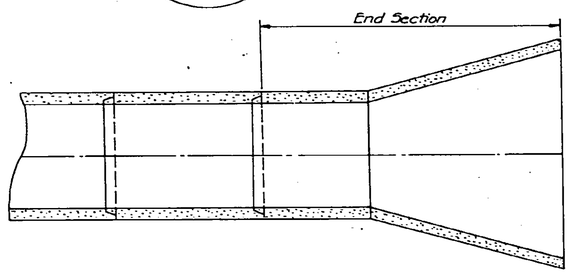
FHWA REGION NO.	STATE	PROJECT NO	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	803-542(7)	1973	12	43



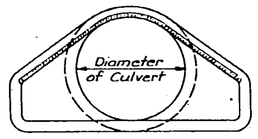
ELEVATION AND SECTION

Note:
Gain in length due to joint fit tolerance will not be paid for.

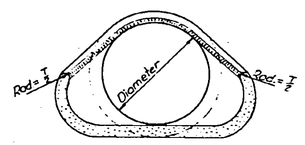




PLAN AND SECTION



END ELEVATION



SEC. A-A

Showing rounding of inside edge of end section.

NOTE : The culverts listed on this sheet may or may not indicate that the culvert installed will be reinforced concrete, steel, or aluminum.

DIAM.	* WT./Sec. POUNDS	SLOPE	A	*B	**C	D	E	T
12"	530	3 To 1	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	2"
15"	740	3 To 1	6"	2'-3"	3'-10"	6'-1"	2'-6"	2½"
18	990	3 To 1	9"	2'-3"	3'-10"	6'-1"	3'-0"	2½"
24"	1520	3 To 1	9½"	3'-7½"	2'-6"	6'-1½"	4'-0"	3"
30"	2130	3 To 1	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3½"
36"	4100	3 To 1	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	4"
42"	5380	3 To 1	1'-9"	5'-3"	2'-11	8'-2"	6'-6"	4½"
48"	6550	3 To 1	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	5"
54"	8240	2 & To 1	2'-3"	5'-5"	2'-9½"	8'-2½"	7'-6"	5½"
60"	8730	2 To 1	2'-11"	5'-0"	3'-3"	8'-3"	8'-0"	6"

* Weight may vary slightly for alternate shape.

≠ Paid for as separate item of "End Sections".

≠≠ Included in pay length of pipe.

PIPE CULVERT SUMMARY

Station	Location	Type	Size	Crown Grade Elev.	Flow Line Lt.	Flow Line Rt.	Horizontal Roadway Lt.	Horizontal Roadway Rt.	Degree of Rotation	Length of Pipe Lt.	Length of Pipe Rt.	Lin. Ft. of Pipe	No. of End Sects.
			See Sheet #11										

NO	DATE	REVISIONS	BY	APP'D
13	3-8-71	Added 54" ℄ 90" sizes	W.L.H.	K.G.L.
12	6-3-70	Spread joint fit tolerance note	R.W.H.	K.G.L.
11	10-66	Conforms to 1966 Specs (no change)	ALR	EAR

STATE HIGHWAY COMMISSION OF KANSAS

CONCRETE END SECTIONS FOR CONCRETE PIPES

STD. NO. 302 TYPE I

SHEET NO. — OF — | SCALE 1/2" = 1'-0" | TYP'D E.A. Rundstrom 7/72

DESIGNED R.W.C. | DETAILED R.W.C. | QUANTITIES | TRACED Nelzel

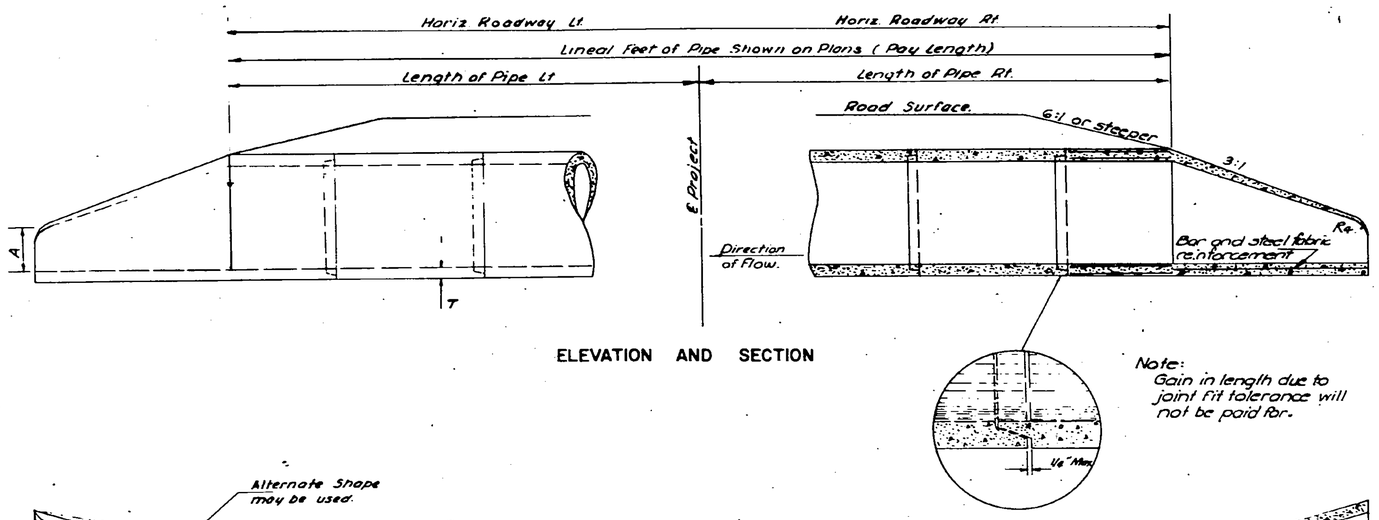
DESIGN CK. | DETAIL CK. | QUAN. CK. | TRACE CK.

DIST. 5 | RICE CO. | ROLL 531

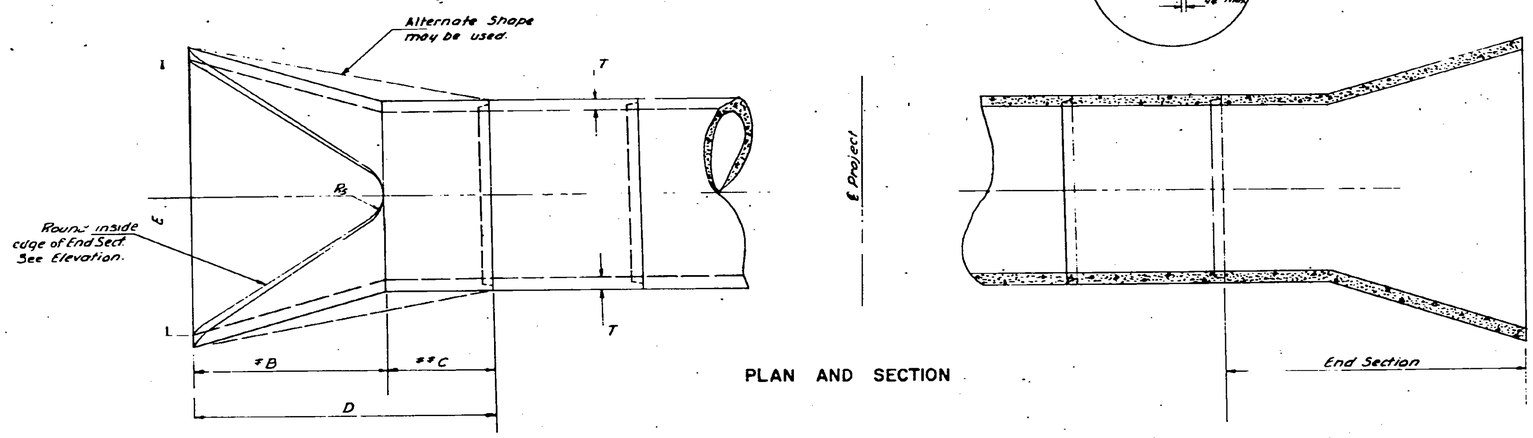
5 6 2

16X | 14.5X | 12X | 12X | 14.5X | 16X

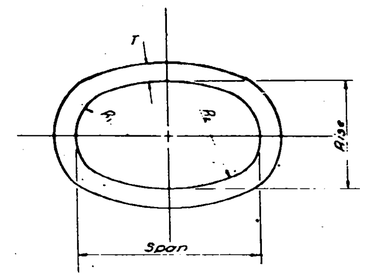
FHWA REGION NO.	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
7	KANSAS	BOS-542(7)	1973	13	43



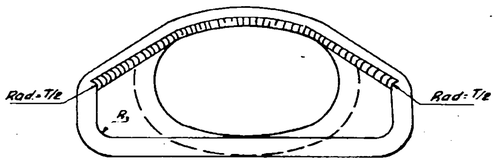
ELEVATION AND SECTION



PLAN AND SECTION



END ELEVATION



FLARED END SECTION

ELEVATION

Note: Design of end section shall conform to standard reinforced concrete horizontal elliptical pipe.

Bid Designation Sq. Ft.	Min. W.W. Area Sq. Ft.	Nominal Dimensions: Span	Rise	R_1	R_2	R_3	R_4	R_5	T	A	**C	*B	D	E
1.0 or 1.5	1.8	23"	14"	6"	20"	3"	3"	6"	2 3/16"	8"	3'-9"	2'-3"	6'-0"	3'-0"
2.0 or 2.5 or 3.0	3.3	30"	19"	8 5/8"	26 1/4"	3"	3"	7"	3 1/4"	8 1/4"	2'-9"	3'-3"	6'-0"	4'-0"
5.0	5.1	38"	24"	10 1/4"	32 3/4"	3"	3"	9"	3 3/16"	9 1/2"	1'-6"	4'-6"	6'-0"	5'-0"
7.0	7.4	45"	29"	12 1/4"	39 1/8"	3"	3"	12"	4 1/2"	11 1/4"	3'-0"	5'-0"	8'-0"	6'-0"
10.0	10.2	53"	34"	14 3/4"	46"	6"	6"	13"	5"	15 3/8"	3'-0"	5'-0"	8'-0"	6'-6"
11.0 or 12.5	12.3	60"	38"	16 1/2"	51 3/8"	6"	6"	14"	5 1/4"	21"	3'-0"	5'-0"	8'-0"	7'-0"
14.0 or 16.5	16.6	68"	43"	18 5/16"	58 3/8"	6"	6"	16"	6"	25 1/2"	3'-0"	5'-0"	8'-0"	7'-6"
4.0	4.1	34"	22"	9 1/16"	29 1/16"	3"	3"	8"	3 1/16"	9"	2'-2"	3'-0"	6'-0"	4'-6"
6.0	6.3	42"	27"	11 7/16"	36 3/16"	3"	3"	10 1/16"	3 3/4"	10 5/16"	1'-3"	4'-9"	6'-0"	5'-6"
8.5	8.8	49"	32"	13 9/16"	42 1/16"	3"	3"	12 1/16"	4 3/16"	12"	3'-0"	5'-0"	8'-0"	6'-3"

* Paid for as separate item of "End Sections"
** Included in pay length of pipe.

PIPE CULVERT SUMMARY

Station	Location	Type	Bid Designation Sq. Ft.	Crown Grade Elev.	Flow Line Lt.	Flow Line Rt.	Horizontal Roadway Lt.	Horizontal Roadway Rt.	Degree of Deflection	Length of Pipe Lt.	Length of Pipe Rt.	Lin. Ft. of Pipe	No. of End Sects.
				See Sheet #11									

NOTE: The culverts listed on this sheet may or may not indicate that the culvert installed will be reinforced concrete, steel, or aluminum.

NO	DATE	REVISIONS	BY	APP'D
4	6-3-70	Added joint fit tolerance note	W.L.H.	K.G.L.
3	8-66	Conforms to 1966 Specs (no change)	A.L.P.	E.A.R.

STATE HIGHWAY COMMISSION OF KANSAS

CONCRETE END SECTION FOR REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE TYPE I

STD. NO. 305.1

SHEET NO. ... OF ... SCALE None APP'D [signature] 5-60

DESIGNED K.C.P.A. DETAILED K.C.P.A. QUANTITIES ... TRACED ...

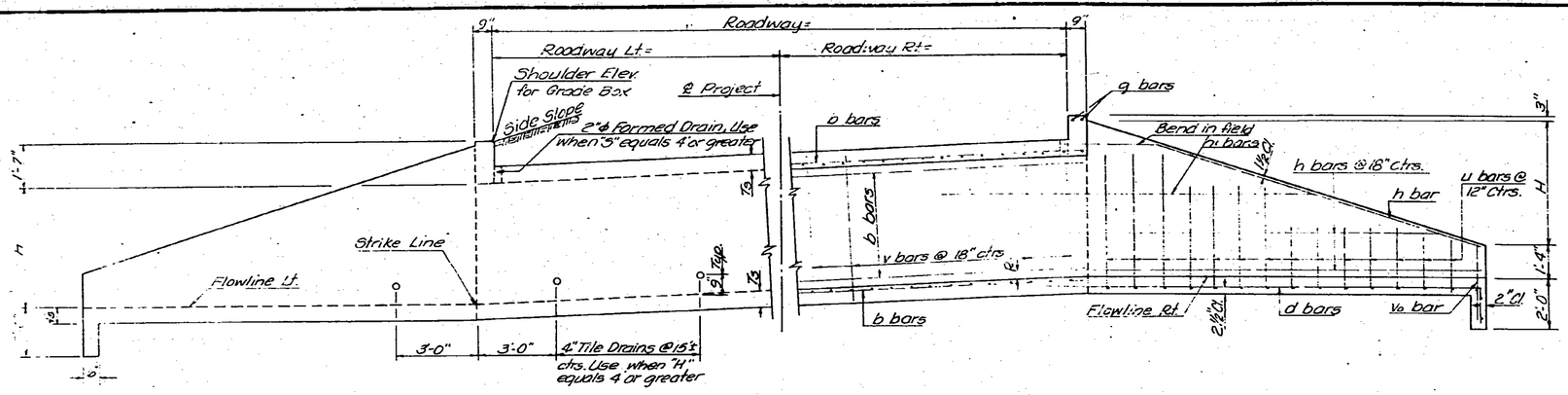
DESIGN CK. T.O. DETAIL CK. T.O. QUAN. CK. ... TRACE CK. ...

DIST. 5 | RICE CO. | ROLL 531

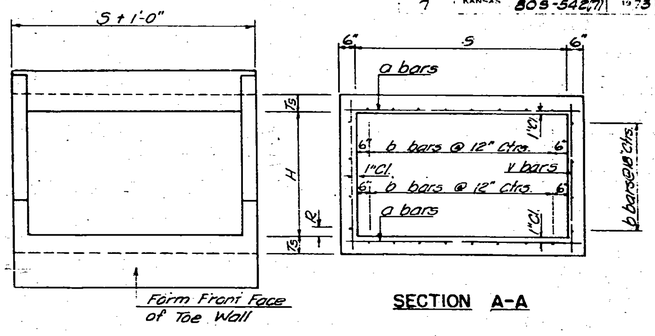
5 6 3

16X | 14.5X | 12X | 12X | 14.5X | 16X

F.H.W.A. Reg. No.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	809-542(7)	1973	14	43

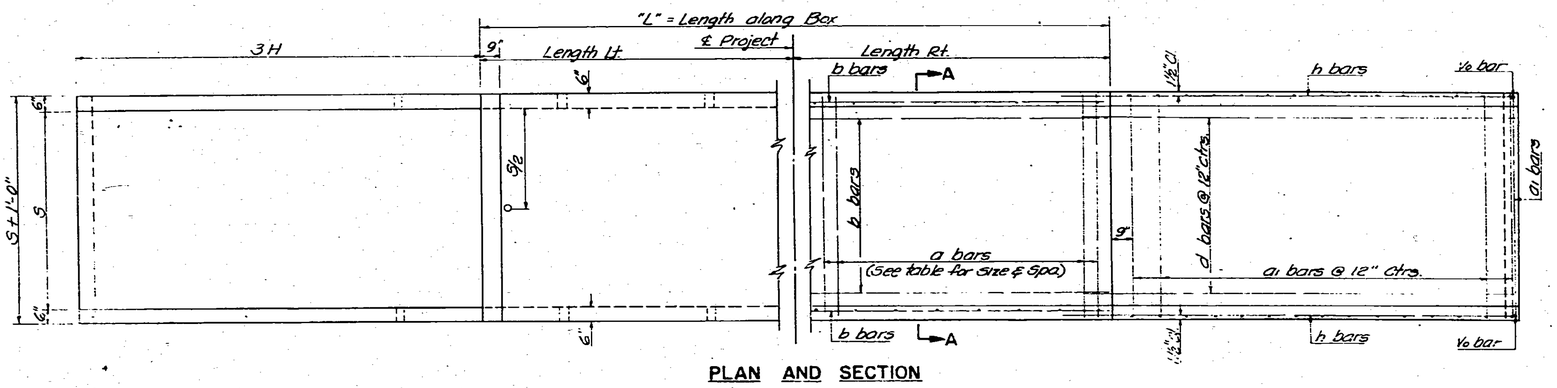


SIDE ELEVATION AND SECTION



END ELEVATION

SECTION A-A



PLAN AND SECTION

LISTS OF BARS FOR WINGWALLS

H=2'				R=12"
Bar	h	U	U1	Vo
No.	8	8	12	4
Length	6'-9"	3'-9"	2'-6"	3'-0"

H=3'					R=9"
Bar	h	U	U1	U2	Vo
No.	12	8	16	8	4
Length	9'-9"	4'-9"	3'-6"	2'-6"	3'-0"

H=4'						R=6"
Bar	h	h1	U	U1	U2	Vo
No.	12	4	8	16	20	4
Length	13'-0"	6'-0"	5'-9"	4'-6"	2'-9"	3'-0"

H=5'							R=3"
Bar	h	h1	U	U1	U2	U3	Vo
No.	12	4	12	16	20	8	4
Length	16'-3"	10'-0"	10'-6"	5'-3"	3'-6"	2'-5"	3'-0"

-NUMBER OF "b" BARS-
2(S+H-1) = No. of "b" bars when "L" is <40 ft.
4(S+H-1) = No. of "b" bars when "L" is >40 ft. < 75 ft.
6(S+H-1) = No. of "b" bars when "L" is >75 ft < 115 ft.

-LENGTH OF "b" BARS-
(L-3") = Length of "b" bars when "L" is ≤ 40 ft.
(½+6") = Length of "b" bars when "L" is >40 ft. ≤ 75 ft.
(½+4') = Length of "b" bars when "L" is >75 ft. ≤ 115 ft.

-"V" BARS-
Length of "v" bars = H+2Ts-2"
Number of "v" bars = L x 1.35 (to the nearest even number)

CONCRETE AND STEEL QUANTITIES

Span "S"	Height "H"	Concrete - Cu. Yds. Per Ft. of Barrel	Apron Floor & Toewall (One End)	Wingwalls & Hubguard (One End)	Total Wing Hbgd & Toewall Concrete (Both Ends)	Total Wing Steel - Lbs. (includes All except Barrel Steel)
2	2	0.1852	0.417	0.609	2.05	144
3	2	0.2222	0.536	0.629	2.39	168
4	2	0.2593	0.694	0.669	2.73	193
5	2	0.3148	0.884	0.692	3.15	218
6	2	0.3766	1.091	0.713	3.61	242
7	2	0.4444	1.315	0.732	4.09	267
3	3	0.2593	0.778	1.065	3.69	274
4	3	0.2963	0.972	1.095	4.13	306
5	3	0.3519	1.245	1.118	4.73	331
6	3	0.4136	1.565	1.139	5.37	372
7	3	0.4815	1.870	1.157	6.05	404
8	3	0.5556	2.222	1.174	6.79	457
4	4	0.3333	1.250	1.632	5.76	423
5	4	0.3889	1.607	1.655	6.52	464
6	4	0.4506	1.995	1.676	7.35	504
7	4	0.5185	2.426	1.694	8.24	545
8	4	0.5926	2.849	1.711	9.20	586
5	5	0.4259	1.968	2.303	8.54	598
6	5	0.4877	2.432	2.324	9.56	646
7	5	0.5556	2.982	2.343	10.65	695
8	5	0.6296	3.556	2.359	11.83	744

NOTE: BARREL LENGTH IS OUTSIDE TO OUTSIDE OF HUBGUARD.

BARS FOR APRON & TOEWALL

"a" bars Required (Both Ends)		"d" bars Required (Both Ends)		"g" bars Required (Both Ends)	
No.	Length	No.	Length	No.	Length
16	2'-9"	4	8'-6"	4	2'-9"
16	3'-9"	6	8'-6"	4	3'-9"
16	4'-9"	8	8'-6"	4	4'-9"
16	5'-9"	10	8'-6"	4	5'-9"
16	6'-9"	12	8'-6"	4	6'-9"
16	7'-9"	14	8'-6"	4	7'-9"
22	3'-9"	6	11'-6"	4	3'-9"
22	4'-9"	8	11'-6"	4	4'-9"
22	5'-9"	10	11'-6"	4	5'-9"
22	6'-9"	12	11'-6"	4	6'-9"
22	7'-9"	14	11'-6"	4	7'-9"
22	8'-9"	16	11'-6"	4	8'-9"
28	4'-9"	8	14'-6"	4	4'-9"
28	5'-9"	10	14'-6"	4	5'-9"
28	6'-9"	12	14'-6"	4	6'-9"
28	7'-9"	14	14'-6"	4	7'-9"
28	8'-9"	16	14'-6"	4	8'-9"
34	5'-9"	10	17'-6"	4	5'-9"
34	6'-9"	12	17'-6"	4	6'-9"
34	7'-9"	14	17'-6"	4	7'-9"
34	8'-9"	16	17'-6"	4	8'-9"

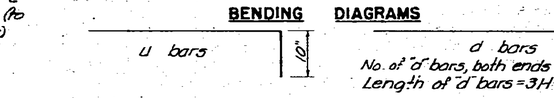
Slab Thickness and "a" bars Size and Spacing				
Span	Ts	Size	Space	Maximum Design Fill
2'	6"	#4	9"	20'
3'	6"	#4	9"	16'
4'	6"	#4	5½"	14'
5'	6½"	#5	7½"	11'
6'	7"	#5	6"	10'
7'	7½"	#5	5½"	9'
8'	8"	#6	6½"	8'

NOTE: "a" bar Length = S+0'-9"

GENERAL NOTE

LOADING: H 20-44 AASHO Specifications 1961 Edition.
UNIT STRESSES: fc = 1,200 p.s.i.; fs = 20,000 p.s.i.
CONCRETE: Class A Concrete shall be used throughout. Bevel all exposed edges with a ¾" triangular moulding, unless otherwise noted.
REINFORCING STEEL: All dimensions relative to reinforcing steel are to center line of bar unless otherwise noted.
SEAL COURSE: A seal course consisting of 3" of Class A Concrete shall be constructed only where specified on the plans or by the Engineer. No reinforcing shall be placed until the seal course has gained sufficient strength to permit working upon it without injury. Payment for additional quantities, resulting from including seal course as a change in the original plans, shall be made at the unit price bid for the various items involved.
WEEPHOLES: Coarse aggregate shall be deposited behind each weephole to occupy a space extending 15" in all directions above the weephole flowline. This work shall not be paid for directly but shall be considered a part of the excavation.
BARREL DESIGN: Barrel design is based on tables prepared by the Design Department-Kansas Highway Commission.

BENDING DIAGRAMS



No. of "d" bars, both ends = 2 x S
Length of "d" bars = 3H + 2'-6"

CULVERT SUMMARY

Station	Size S x H	Crown Grade Elev.	Flowline Lt.	Flowline Rt.	Length (L) Along Box Lt.	Length (L) Along Box Rt.	Length (L) Along Box Total	Ts	Concrete (Nearest ½ yd.) Cu. Yds.	Re-Steel (Nearest 10) Lbs.	Reinforcing Bars for Barrel "a" bars No.	"a" bars Size	"a" bars Length	"a" bars Space	"b" bars No.	"b" bars Length	"v" bars No	"v" bars Length	Max. Design Fill-Ft.
491+80	6'x6'	1709.19	1702.75	1703.50	20'-9"	18'-3"	38'-6"	7"	24.7	2220	154	#5	6'-9"	6"	18	38'-3"	52	5'-0"	10'
503+73	7'x3'	1712.03	1707.10	1707.60	18'-3"	18'-3"	36'-6"	7½"	23.6	2270	160	#5	7'-9"	5½"	18	36'-3"	50	4'-1"	9"

NOTE: All dimensions are out to out of bars. All Reinforcing Steel shall be #4 bars except "a" bars.

12-1-66	Revised h bars Elev. View		DMS	GLM

STATE HIGHWAY COMMISSION OF KANSAS

CONCRETE BOX CULVERT
2 TO 8 FOOT SPANS
MAX. H = 5'-0"

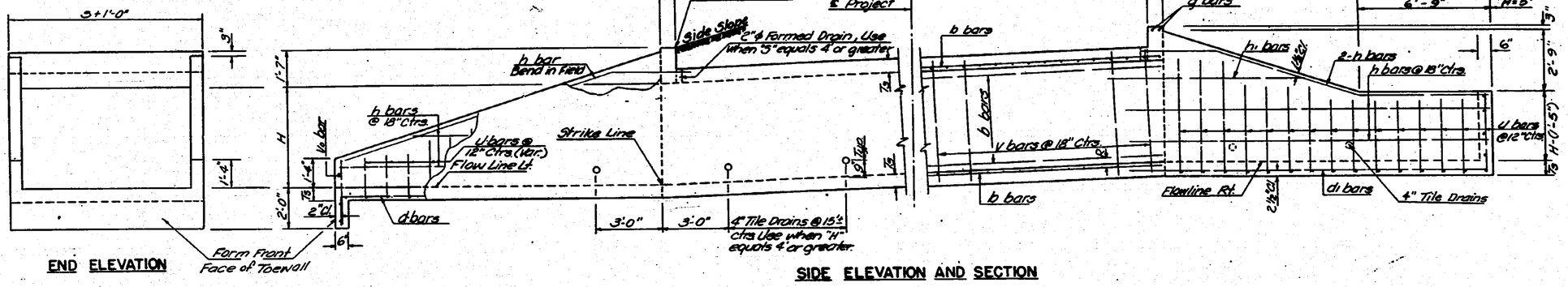
STD. NO. S-310.2

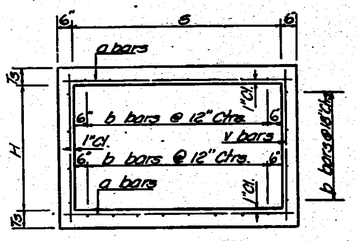
	None			
	S.M.S.	S.M.S.		W.H.
	F.L.W.	F.L.W.		E.M.C.

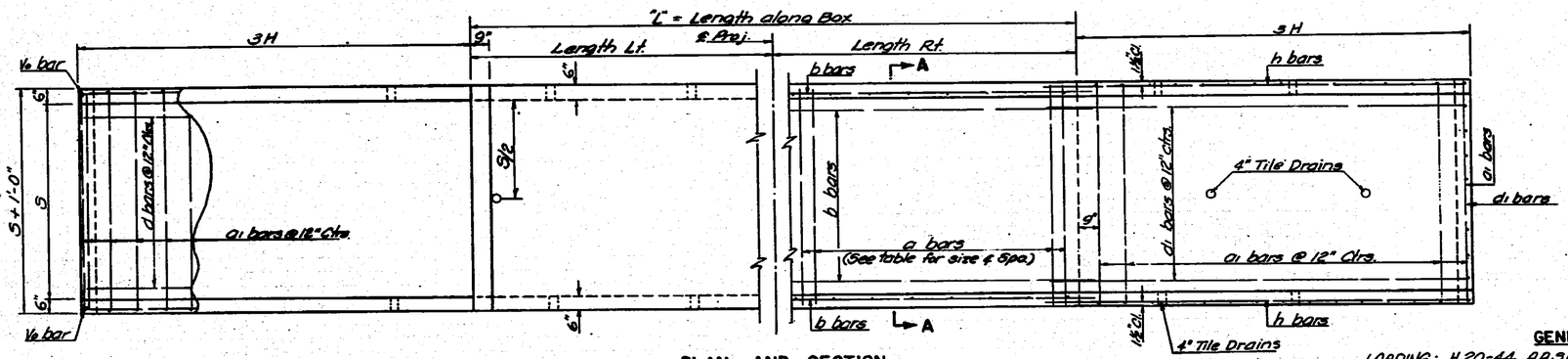
DIST. 5 | RICE CO. | ROLL 531

5 6 4

F.H.W.A. Region No.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	BOS-542(7)	1973	15	45

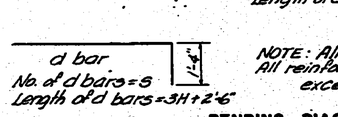


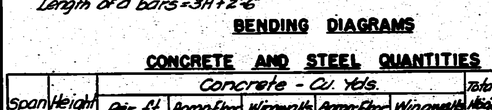




Slab Thickness and "a" bars Size and Spacing				
Span "S"	Ts	Size	Space	Maximum Design Fill
3'	6"	#4	9"	16'
4'	6"	#4	5½"	14'
5'	6½"	#5	7⅛"	11'
6'	7"	#5	6"	10'
7'	7½"	#5	5⅛"	9'
8'	8"	#6	6⅛"	8'

NOTE: "a" bar Length = S+0'-9"





NOTE: All dimensions are out to out of bars. All reinforcing steel shall be #4 bars except "a" bars.

BENDING DIAGRAMS

LIST OF BARS FOR WINGWALLS

H=3'					R=9"
Bar	h	U	U1	U2	V6
No.	14	8	16	10	2
Length	10'-9"	4'-9"	3'-6"	2'-6"	5'-0"

H=4'							R=6"
Bar	h	h1	U	U1	*U2	*U3	V6
No.	14	4	8	16	10	12	2
Length	13'-9"	6'-0"	5'-9"	4'-6"	2'-9"	3'-9"	5'-0"

H=5'								R=3"
Bar	h	h1	U	U1	*U2	*U3	*U4	V6
No.	14	4	12	16	10	4	16	2
Length	V6:9	10'-0"	6'-6"	5'-5"	3'-6"	2'-9"	4'-9"	5'-0"

* Downstream Wings.
* Upstream Wings.

-NUMBER OF "b" BARS-
2(S+H-1) = No. of "b" bars when "L" is ≤ 40 ft.
4(S+H-1) = No. of "b" bars when "L" is > 40 ft. ≤ 75 ft.
6(S+H-1) = No. of "b" bars when "L" is > 75 ft. ≤ 115 ft.

-LENGTH OF "b" BARS-
(L-3") = Length of "b" bars when "L" is ≤ 40 ft.
(½+6") = Length of "b" bars when "L" is > 40 ft. ≤ 75 ft.
(½+4) = Length of "b" bars when "L" is > 75 ft. ≤ 115 ft.

-"V" BARS-
Length of "V" bars = H+2Ts-2"
Number of "V" bars = L x 1.35 (to the nearest even number)

CONCRETE AND STEEL QUANTITIES

Span "S"	Height "H"	Concrete - Cu. Yds. Per Ft. of Barrel	Apron floor & Toewall (Culvert End)	Wingwalls & Hdgd. (Culvert End)	Apron floor (Soil Saver End)	Wingwalls Hdgd. & Soil Saver	Total - Wing, Hdgd. & Toewall Concrete (both Ends)	Total - Wing Steel - Lbs. (Inc. All Except Barrel)
3	3	0.2593	0.778	1.065	0.667	1.156	3.67	302
4	3	0.2963	0.972	1.095	0.833	1.216	4.12	337
5	3	0.3519	1.246	1.118	1.093	1.268	4.71	371
6	3	0.4136	1.545	1.139	1.361	1.318	5.36	406
7	3	0.4818	1.870	1.157	1.660	1.366	6.06	441
8	3	0.5556	2.222	1.174	2.000	1.411	6.81	476
4	4	0.3333	1.250	1.492	1.111	1.910	5.90	466
5	4	0.3889	1.607	1.633	1.485	1.981	6.69	510
6	4	0.4506	1.998	1.676	1.815	2.052	7.54	553
7	4	0.5185	2.426	1.694	2.222	2.116	8.46	597
8	4	0.5926	2.889	1.711	2.667	2.180	9.45	640
5	5	0.4259	1.968	2.309	1.806	2.916	8.99	657
6	5	0.4877	2.452	2.326	2.268	3.003	10.05	709
7	5	0.5556	2.982	2.343	2.778	3.088	11.19	762
8	5	0.6296	3.596	2.359	3.334	3.171	12.42	816

NOTE: BARREL LENGTH IS OUTSIDE TO OUTSIDE OF HUBBLARD.

BARS FOR APRON & TOEWALL

Span "S"	Height "H"	"a1" bars Required (Both Ends) No.	"a1" bars Required (Both Ends) Length	"d" bars Required No.	"d" bars Required Length	"d1" bars Required No.	"d1" bars Required Length	"g" bars Required (Both Ends) No.	"g" bars Required (Both Ends) Length
3	3	24	3'-9"	3	11'-6"	3	12'-6"	4	3'-9"
4	3	26	4'-0"	4	11'-6"	4	12'-6"	4	4'-9"
5	3	28	5'-9"	5	11'-6"	5	12'-6"	4	5'-9"
6	3	28	6'-9"	6	11'-6"	6	12'-6"	4	6'-9"
7	3	24	7'-9"	7	11'-6"	7	12'-6"	4	7'-9"
8	3	24	8'-9"	8	11'-6"	8	12'-6"	4	8'-9"
4	4	30	4'-9"	4	16'-6"	4	16'-6"	4	4'-9"
5	4	30	5'-9"	5	16'-6"	5	16'-6"	4	5'-9"
6	4	30	6'-9"	6	16'-6"	6	16'-6"	4	6'-9"
7	4	30	7'-9"	7	16'-6"	7	16'-6"	4	7'-9"
8	4	30	8'-9"	8	16'-6"	8	16'-6"	4	8'-9"
5	5	34	5'-9"	5	17'-6"	5	20'-5"	4	5'-9"
6	5	34	6'-9"	6	17'-6"	6	20'-5"	4	6'-9"
7	5	34	7'-9"	7	17'-6"	7	20'-6"	4	7'-9"
8	5	34	8'-9"	8	17'-6"	8	20'-6"	4	8'-9"

* Extension

CULVERT SUMMARY

Station	Size S x H	Crown Grade Elev.	Flowline Lt.	Flowline Rt.	Length ("L") Along Box Lt.	Length ("L") Along Box Rt.	Length ("L") Along Box Total	Ts	Concrete (Nearest ½) Cu. Yd.	Re Steel (Nearest ½) Lbs.	Reinforcing Bars for Barrel "a" bars No.	"a" bars Size	"a" bars Length	"a" bars Spacing	"b" bars No.	"b" bars Length	"V" bars No.	"V" bars Length	Max. Design Fill Ft.
337+70	4'x3'	1724.87	1717.70		11'-6"		18'-0"	6"	9.5	810	44 53	4	4'-9"	5½"	14 12	11'-5"	16	3'-10"	14'
"	"	"	"	1718.80		6'-6"		"			31	"	"	"	12	6'-5"	10	"	"
347+64	4'x3'	1725.39	1720.90		2'-10"		5'-0"	6"	6.5	570	17	#4	4'-9"	5½"	12	2'-7"	4	3'-10"	14'
"	"	"	"	1721.0		5'-2"		"			27	"	"	"	12	6'-11"	8	"	"
354+89	4'x3'	1726.45	1720.5		4'-8"		12'-0"	6"	7.5	670	25	4	4'-9"	5½"	12	4'-5"	8	3'-10"	14'
"	"	"	"	1721.5		7'-4"		"			37	"	"	"	12	7'-1"	10	"	"
509+25	4'x3'	1730.02	1723.8	1724.62	46'-8"	45'-10"	92'-6"	6"	31.5	2690	404	#4	4'-9"	5½"	36	31'-8"	124	3'-10"	14'
617+55	6'x4'	1735.22	1729.4	1729.2	18'-3"	18'-3"	36'-6"	7"	24.0	2180	146	#5	6'-9"	6"	18	36'-3"	50	5'-0"	10'

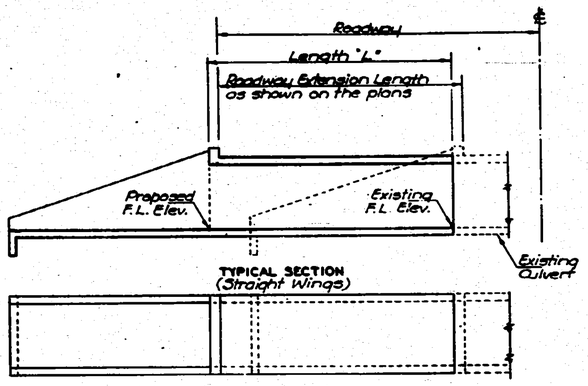
NO.	DATE	REVISIONS	BY	APP'D
3	10-11-71	Correct Const. Quan. S.S. End	DWS	GLH
2	10-6-67	Designated "i" bars	DWS	GLH
1	1-9-67	Cor. Spac. on U-bars & Formula for Wing Hdg.	WR	GLH

STATE HIGHWAY COMMISSION OF KANSAS
CONCRETE BOX CULVERT
WITH SOIL SAVER
3 TO 8 FOOT SPANS—MAX. H=5'-0"
STD. NO. S 310.2-A

SHEET NO. 6F	SCALE None	APP'D	
RECORDED	DETAILED W.M.	QUANTITIES W.M.	TRACED W.M.
DESIGN CK.	DETAIL CK. D.S.	DESIGN CK. D.S.S.	TRACE CK. G.L.H.

DIST. 5 | RICE CO. | ROLL 531

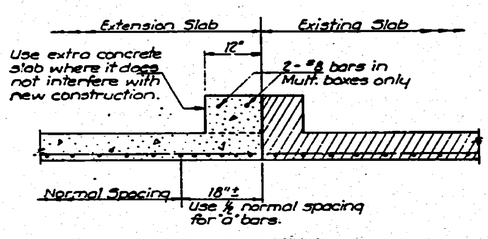
5 6 5



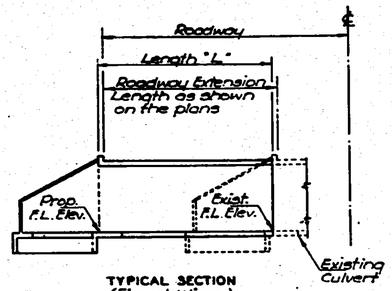
TYPICAL SECTION
(Straight Wings)

TYPICAL PLAN
(Straight Wings)

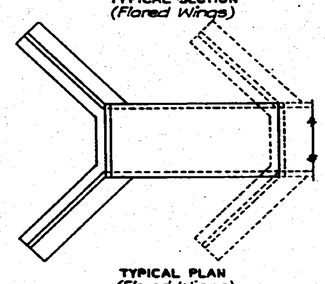
Note:
For extensions that butt against existing culverts. Remove existing wings and wing aprons. Remove top of hubguard, if necessary to clear new construction. Butt extension against existing culvert.
A minimum of 24" length of the existing wing steel shall be left intact and shall be cleaned and straightened to bond into the new concrete.



TYPICAL PART SECTION



TYPICAL SECTION
(Flared Wings)

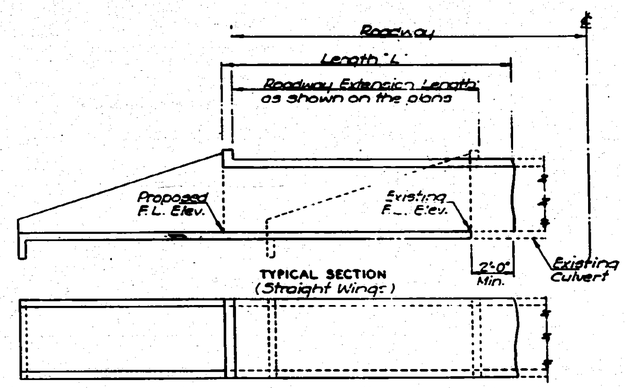


TYPICAL PLAN
(Flared Wings)

Station	Size	Roadway		Roadway Extension Length		Length "L"		Remarks
		Lt.	Rt.	Lt.	Rt.	Lt.	Rt.	

PREFERRED METHOD FOR CULVERTS OVER 6' SPAN & MULTIPLE BOXES

General Note:
Dimensions of existing structures shall be checked in the field prior to starting the new construction. Interior walls of multiple box extensions need not be the same thickness as the existing walls.
The removal of portions of existing culverts shall not be paid for directly, but shall be considered subsidiary to the bid item "Class A Concrete".
All existing concrete surfaces adjacent to new concrete shall be thoroughly cleaned by brushing, and soaked with water immediately prior to placing the new concrete.
Floor steel which abuts the existing floor shall be shortened, as necessary, in the field.



TYPICAL SECTION
(Straight Wings)

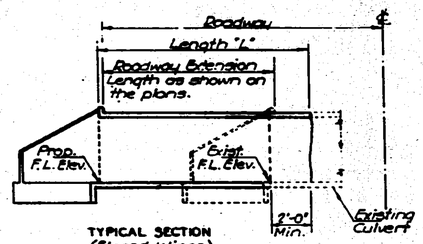
TYPICAL PLAN
(Straight Wings)

Note:
For extensions that require 2 feet of the existing slab and walls to be removed.
Remove existing wings, wing aprons, hubguards and 2 feet of the existing walls and slab. The new floor shall butt against the existing floor and the walls shall rest on the existing floor.
The existing slab and wall steel which protrudes shall be left intact and shall be cleaned and straightened to bond into the new concrete.

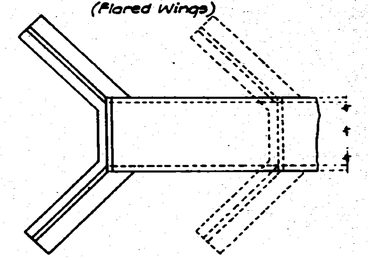
Station	Size	Roadway		Roadway Extension Length		Length "L"		Remarks
		Lt.	Rt.	Lt.	Rt.	Lt.	Rt.	
537+76	4-3'	24'-6"	20'-6"	0'-0"	5'-0"	11'-6"	6'-6"	Exist. Rdwy. 6'-0" ± to 15'-0" Rt. w/ 15° hdwl.
547+54	4-3'	17'-6	17'-6"	1'-6"	3'-6"	2'-0"	5'-2"	Exist. Rdwy. 10'-2" ± to 13'-0" Rt. w/ 5° hdwl.
554+89	4-3'	21'-6"	17'-6"	3'-2"	5'-0"	4'-8"	7'-2"	Exist. Rdwy. 18'-2" ± to 11'-8" Rt. w/ 15° hdwl.

PREFERRED METHOD FOR CULVERTS 6'-SPAN OR LESS

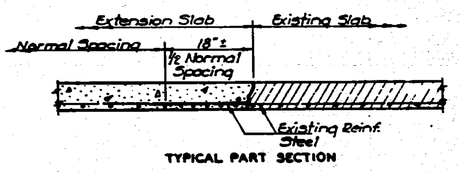
FHWA REGION NO. 7 | STATE KANSAS | PROJECT NO. 809-542(7) | 16 | 43



TYPICAL SECTION
(Flared Wings)



TYPICAL PLAN
(Flared Wings)



TYPICAL PART SECTION

3-61 Spec. for a bars WB KGL

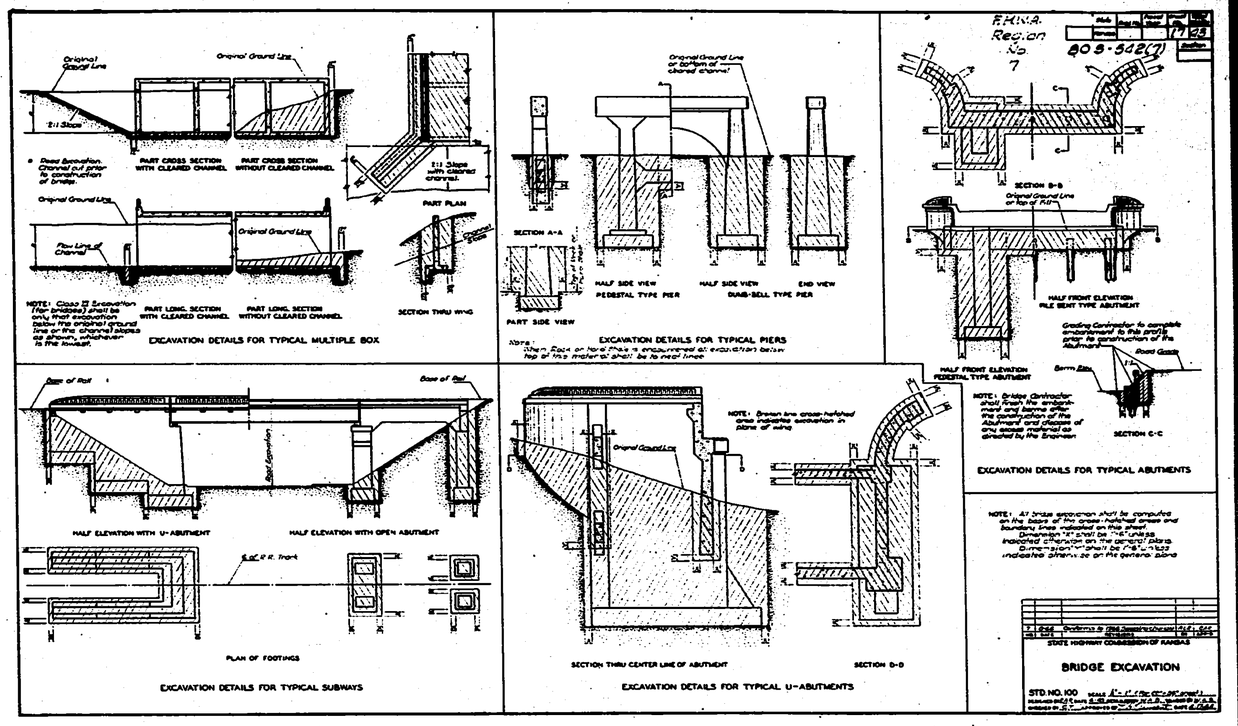
STATE HIGHWAY COMMISSION OF KANSAS

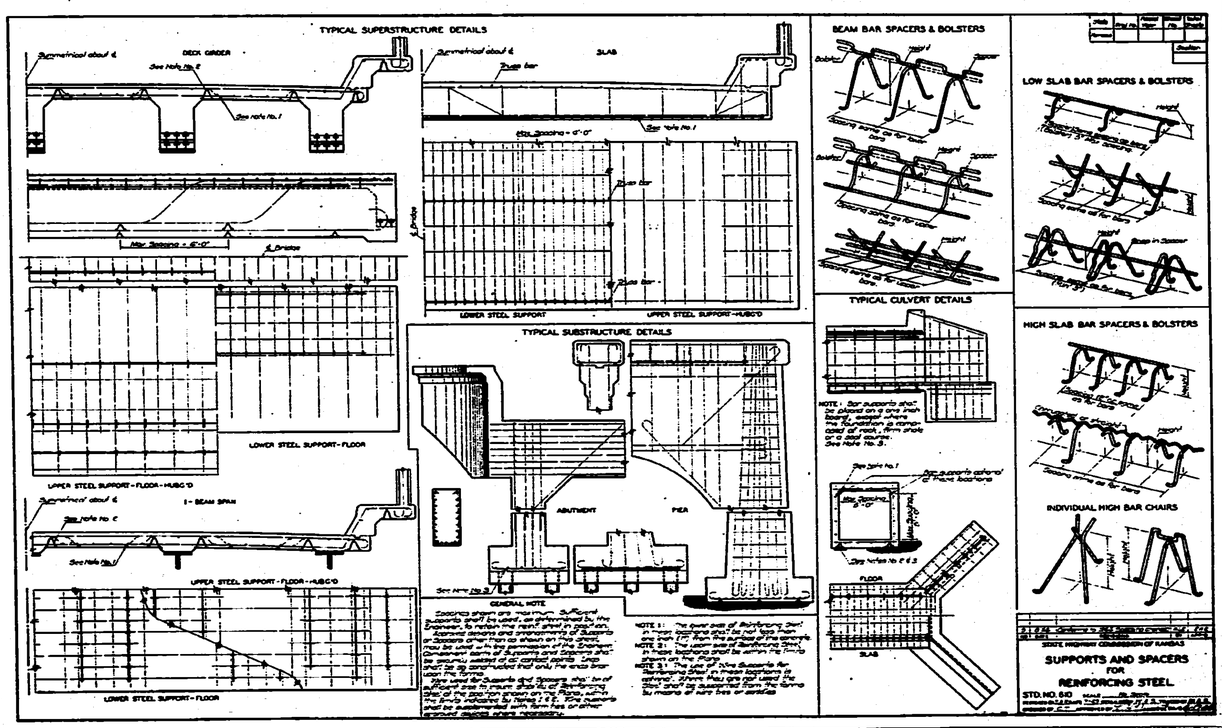
TYPICAL CULVERT EXTENSIONS

STD. NO. 101 | Plans [illegible] | Typed [illegible] 7-12-6

DIST. 5 | RICE CO. | ROLL 531

5 6 6





DIST. 5 | RICE CO. | ROLL 531

5 6 7

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

Pub. Road Div. No	State	Project No.	Fiscal Year	Sheet No.	Total Sheets
5	Kansas	609-542(7)	1973	18	43

EARTHWORK

Sta. to Sta.		Excavation Cu. Yds. Rock	Excavation Cu. Yds. Common	Compaction Cu. Yds. Type B M.R.90
464+50	484+00		7091	10226
484+00	503+73		3900	6536
503+73	509+00		1956	1350
509+00	525+00		5880	1200
525+00	541+00		2024	4563
541+00	555+00		3936	865
555+00	569+63		2173	3650
569+63	587+00		4800	3523 *
587+00	604+00		4449	3852 *
604+00	622+59		5150	3380 *
Compaction in Cuts not Subgraded				2080
TOTAL			41363	32925

DRAINAGE STRUCTURES

Station	Side	Size	Type	Conc. Cl. "A" Cu. Yds.	Reinf. Steel Lbs.	Entrance Pipes 25"	Entrance Pipes 60"	Cross Road Pipes 25"	Cross Road Pipes 60"	End Sect. No.	Ht. Fill	Conc. Box Culv. Class No.	Pipe Gauge Steel	Pipe Gauge Alum.
470+60	Rt.	25"x32	E.P.			32				2				
472+90	Lt.	25"x32	E.P.			32				2				
480+00	Rt.	25"x32	E.P.			32				2				
484+68	Lt.	25"x32	E.P.			32				2				
491+80	℄	6'x4'x37	R.C.B.	24.7	2220									
495+40	Rt.	25"x32	E.P.			32				2				
495+50	Lt.	25"x32	E.P.			32				2				
503+73	℄	7'x3'x35	R.C.B.	23.6	2270									
504+23	Lt.	25"x32	E.P.			32				2				
509+23	Rt.	60"x32	E.P.				32			2				
521+47.20	70 Rt.	60"x34	C.R.P.						36	2				
523+32	Rt.	25"x32	E.P.			32				2				
528+73	Rt.	25"x32	E.P.			32				2				
534+50	Rt.	25"x32	E.P.			32				2				
537+70	℄	4'x3'x15	R.C.B.	9.3	810									
543+35	Rt.	25"x32	E.P.			32				2				
547+34	℄	4'x3'x5	R.C.B.	6.3	570									
551+20	Lt.	25"x32	E.P.			32				2				
554+89	℄	4'x3'x9	R.C.B.	7.5	670									
564+37	Rt.	25"x32	E.P.			32				2				
569+625	℄	4'x3'x91	R.C.B.	31.5	2690									
555+59	Rt.	25"x32	E.P.			32				2				
585+50	Lt.	25"x32	E.P.			32				2				
587+09	Lt.	25"x32	E.P.			32				2				
598+33	Lt.	25"x32	E.P.			32				2				
603+69	Rt.	25"x32	E.P.			32				2				
609+58	Lt.	25"x32	E.P.			32				2				
609+68	Rt.	25"x32	E.P.			32				2				
617+53	℄	6'x4'x35	R.C.B.	24.0	2180									
465+00	℄	25"x38	C.R.P.					38		2				
TOTAL				126.9	11410	640	32	38	36	46/44				

* Extension

RECAPITULATION OF BRIDGE QUANTITIES

Bridge No. Station

Item	Unit	
Class I Excavation	Cu. Yds.	
Class II Excavation	Cu. Yds.	
Excavation	Cu. Yds.	
Water	M. Gals.	
Class Concrete	Cu. Yds.	
Class Concrete	Cu. Yds.	
Reinforcing Steel	Lbs.	
Structural Steel	Lbs.	
Bearing Devices	Lbs.	
Cast Iron	Lbs.	
Untreated Timber Piles	Lin. Ft.	
Treated Timber Piles	Lin. Ft.	
Steel Piles	Lin. Ft.	
Untr. Timber Test Piles	Lin. Ft.	
Steel Test Piles	Lin. Ft.	
Metal Pile Points	Each	
Removal of Exist. Struct.	L.S.	

RECAPITULATION OF ROAD QUANTITIES

ITEM	QUANTITIES	UNIT
Large Trees	14 ~~25~~	Each
Grubbing Hedge	4106 ~~3853~~	Lin. Ft.
Common Excavation	41363	Cu. Yds.
Compaction of Earthwork (Type B) (M.R.90)	32925	Cu. Yds.
Water	835.7 ±	M. Gal.
Class A Concrete	126.9	Cu. Yds.
Reinforcing Steel	11410	Lbs.
25" Entrance Pipe	640	Lin. Ft.
60" Entrance Pipe	32	Lin. Ft.
60" Cross Road Pipe	36	Lin. Ft.
25" End Sections (Type I)	42 ~~40~~	Each
60" End Sections (Type I)	4	Each
Removal of Existing Structures	Lump	Sum
Temporary Surfacing Material	0 ±	Cu. Yd.
Type B-1 Delineators (8'-0" Post)	14	Each
Mobilization	Lump	Sum
Reflectorized Railroad Crossing Signs	2	Each
Reflectorized Advance Warning Signs	2	Each
Field Office & Lab. (Type C)	1	Each

For Aggregate for Subgrade Modification See Sh. #3
For Seeding Quantities See Sh. #19

GRUBBING HEDGE

Station	Station	Side	Lin. Ft.
466+04	470+52	Rt.	448
470+74	473+16	Rt.	242
473+68	474+00	Rt.	32
474+64	475+91	Rt.	127
477+89	478+31	Rt.	42
483+67	484+50	Rt.	83
484+72	485+00	Rt.	28
486+96	488+83	Rt.	187
489+44	492+80	Rt.	336
491+41	496+39	Lt.	498
495+88	497+29	Rt.	141
497+10	500+22	Lt.	312
497+60	497+90	Rt.	30
498+16	498+57	Rt.	41
499+03	499+12	Rt.	9
500+22	501+31	Rt.	109
501+58	503+26	Rt.	167
521+00	526+63	Rt.	563
605+10	605+76	Rt.	66
605+98	607+84	Rt.	186
611+34	614+09	Rt.	266
614+44	618+91	Rt.	447
616+00	617+46	Rt.	146
		Total	4106

GRUBBING HEDGE

Station	Station	Side	Lin. Ft.
463+84	473+16	Rt.	732
473+60	474+13	Rt.	110
474+00	475+88	Rt.	188
477+90	478+30	Rt.	40
483+67	484+98	Rt.	131
486+96	488+84	Rt.	188
489+28	492+67	Rt.	339
491+01	491+35	Lt.	34
495+40	495+64	Lt.	24
496+00	497+85	Rt.	185
497+66	497+90	Rt.	24
498+16	498+57	Rt.	41
500+29	501+83	Rt.	154
501+03	501+20	Lt.	17
501+67	503+27	Rt.	160
571+03	575+00	Rt.	397
575+00	576+62	Rt.	162
605+12	606+74	Rt.	162
606+00	607+84	Rt.	184
611+43	614+09	Rt.	266
614+43	614+91	Rt.	48
616+00	617+47	Rt.	147
TOTAL			3453'

LARGE TREES

Station to Station		40	50	60	70	80	90	100	Total
463+00	485+00	6	1						7
483+00	513+00	2	2	1	1				6
513+00	545+00					1			1
575+00	605+00				1				1
605+00	622+59	1		3	4	1	1		10
TOTAL		9	3	4	5	2	1	1	25

LARGE TREES

Station	Side	Size	No.
465+96	Rt.	40"	1
474+28	Rt.	40"	1
474+56	Rt.	40"	1
476+19	Rt.	48"	1
476+28	Rt.	52"	1
478+91	Rt.	66"	1
481+06	Rt.	52"	1
494+21	Rt.	42"	1
506+24	Lt.	60"	1
506+31	Lt.	56"	1
506+47	Lt.	61"	1
528+23	Lt.	127"	1
597+66	Lt.	70"	1
617+59	Rt.	40"	1
Total			14

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF QUANTITIES

STD. NO. 50.2

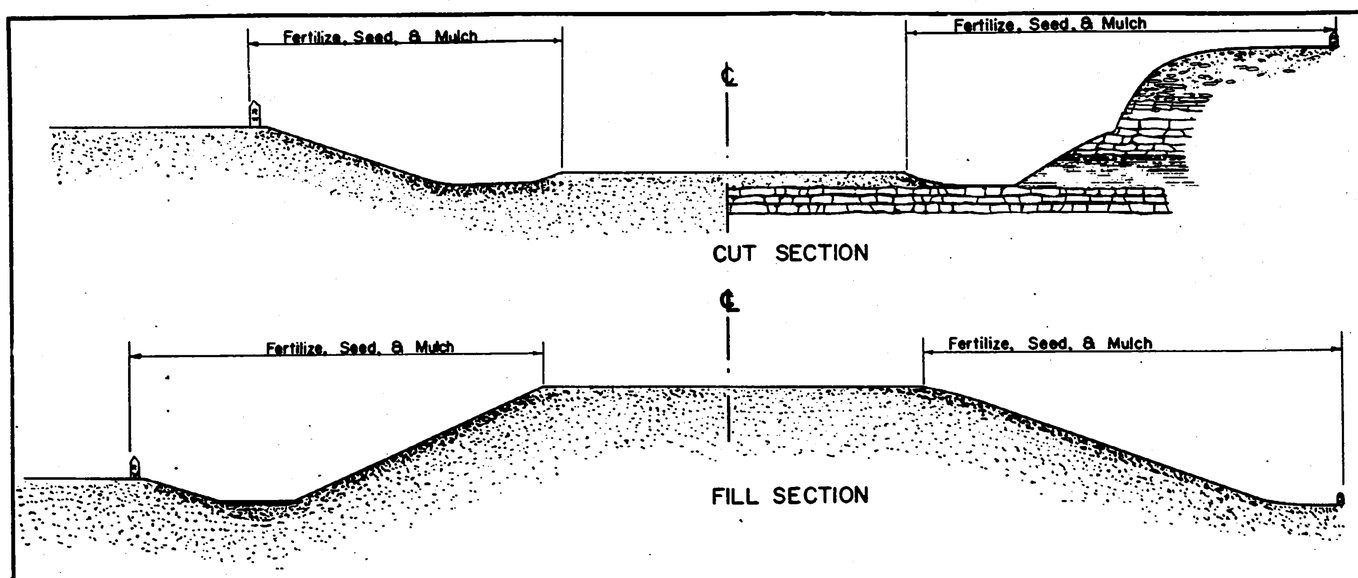
DETAILED & TRACED [illegible] APPROVED [illegible] DATE 9/13/67

SUMMARIES TABULATED ..... CHKD. ..... INKED .....

DIST. 5 | RICE CO. | ROLL 531

5 6 8

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X



F.H.W.A. Reg. No.	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
7	KANSAS	BOS-542(7)	1973	19	43
					SECTION

The contractor will be required to finish areas of excavation, borrow and embankment in accordance with the specifications.

Areas that require installation or construction of Temporary Project Water Pollution Control (Soil erosion) items or Water Pollution Control (Soil erosion) (Lump Sum) will be finished to conform with the alignment, grade and cross section shown on the plans or as established by the Engineer.

Fertilizer Note: A ratio and application rate that equals or exceeds the required minimum rate per acre of N-P2O5-K2O listed in Summary of Quantities will be acceptable.

SUMMARY OF QUANTITIES

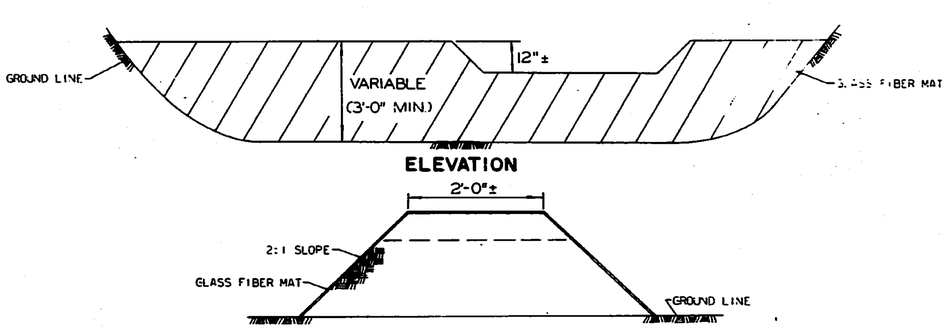
RATE	ACRES	ITEM	BID QUANTITIES	UNIT
350	23.6	Fertilizer (16-20-0)	8260	Lbs.
2	"	Switchgrass, Seed (Blackwell)	47	Lbs.
1	"	Sand Love Grass Seed	24	Lbs.
2	"	Italian Ryegrass Seed	47	Lbs.
6	"	Western Wheatgrass Seed	142	Lbs.
12	"	Sandy Bluestem Grass Seed (Garden)	283	Lbs.
1	"	Blue Gramma Grass Seed (Lexington)	24	Lbs.
2	"	Little Bluestem Grass Seed (Aldous)	47	Lbs.
6	"	Side Oats Grama Grass Seed (El Reno)	142	Lbs.
		~~Water Pollution Control (Soil Erosion)~~	~~Lump Sum~~	~~L.S.~~
		Prairie Hay Mulching	22.7 ~~23.6~~	Acres

All disturbed areas ~~within the right-of-way~~ except Steep rocky slopes and areas of undisturbed native sod or other desirable vegetation shall be fertilized, seeded and mulched except as noted on plans. Soil preparation shall conform to the standard specifications.

~~Temporary~~ Seeding shall be done during any time of the year that the soil can be cultivated.

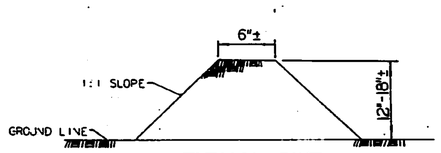
The amount of mulch in the bid item is estimated. The total mulch required shall be determined in the field. Mulch shall be spread uniformly over all disturbed areas and punched into the soil, unless otherwise noted on the plans.

Seed, fertilizer and mulch shall be spread uniformly over all disturbed areas, ~~when applied by hydraulic slurry methods~~.



COVER DIKE WITH GLASS FIBER MAT AND TREAT SIMILAR TO GLASS FIBER MAT DITCH LINING (TYPE I). THE DIKE AND BASIN SHALL BE OF SUFFICIENT SIZE TO HANDLE THE ANTICIPATED SILT LOAD. THE BASIN SHALL BE UTILIZED AT LOCATIONS OF EXPECTED HEAVY SILT CARRYING RUNOFF FROM SLOPES, TERRACES OR OTHER SIMILAR AREAS.

TYPICAL DIKE FOR SILTING BASIN



TYPICAL DIKE

THIS DIKE MAY BE USED AT ANY LOCATION. SLOPES DITCHES EDGES OF SHOULDERS, ETC... THAT MAY BE DEEMED NECESSARY. THE DIKE MAY DRAIN INTO A SILTING AREA, OR MAY BE DRAINED DOWN A FLUME CONSTRUCTED SIMILAR TO GLASS FIBER DITCH LINING (TYPE I).

NOTE: ROUNDING OR SOFTENING TOE OF SLOPE AND TOP OF SLOPE ON DIKES, ETC. SHALL BE REQUIRED.

NO	DATE	REVISIONS	BY	APP'D
3				
2				
1	10-13-71	Added Fertilizer Note	DMS	G.D.P.

STATE HIGHWAY COMMISSION OF KANSAS

TEMPORARY PROJECT WATER POLLUTION CONTROL (SOIL EROSION)

S-111

SHEET NO OF	SCALE No Scale	APP'D [illegible] 12-13-71	
DESIGNED A.D.M.	DETAILED B.L.P.	QUANTITIES	TRACED B.L.P.
DESIGN CK G.L.M.	DETAIL CK G.M.	QUAN. CK	TRACE CK G.L.M.

DIST. 5 | RICE CO. | ROLL 531

5 6 9

16X 14.5X 12X 12X 14.5X 16X 20X

MICROFILMED PLAN RECORD
Supplement No. 13 Date 9-6-79 District 5 Card 17
County SEDGWICK Rte. & Co. 235-87 Project No. 5904 (2)
Tracing Dr. No. 636 Approx. Length 0.132 Mi. or Ft. Year 2/75
Location LITTLE ARKANSAS RIVER BRIDGE IN NORTHWEST WICHITA
Type of Construction BRIDGE REPAIR
Remarks AS BUILT PLANS — 6
OFFICIAL SHEETS — 2
MICROFILM RECORD ROLL 531
First Frame No. 570 Last Frame No. Roll No.

STATE OF KANSAS

STATE HIGHWAY COMMISSION

PROJ NO. 235-87 5904(2)
BRIDGE REPAIR

PLAN AND PROFILE OF PROPOSED

STATE HIGHWAY

MAINTENACE PROJECT
SEDGWICK CO.
I 235

BR NO 235-87-15.00(N.B.)
49'-9@66'-49' SPANS R.C.D.G
2" THIN BONDED CONCRETE OVERLAY,
REPAIR EXPANSION DEVICES

TRAFFIC TO BE CARRIED THRU CONSTRUCTION

DESIGN DESIGNATION
ADT(1972) 12,700

CONVENTIONAL SIGNS

GROSS LENGTH OF PROJECT
EXCEPTIONS

JAN 16 1974
FEB 1 1974

DIST. 5 | SEDGWICK CO. | ROLL 531 | 5 7 0

MICROFILMED PLAN RECORD
Supplement No. 13 Date 9-4-79 District 5 Card 17
County SEDGWICK Rte & Co 235-87 Project No 5904 (2)
Tracing Dr No 636 Approx. Length 0.132 Mi. or Ft. Year 2/75
Location LITTLE ARKANSAS RIVER BRIDGE IN NORTHWEST WICHITA
Type of Construction BRIDGE REPAIR
Remarks AS BUILT PLANS -- 6
OFFICIAL SHEETS -- 2
MICROFILM RECORD
First Frame No. 570 Last Frame No ____ Roll No. ROLL 531

12-28-73
1-11-74
G.M.C.

STATE OF KANSAS

STATE HIGHWAY COMMISSION

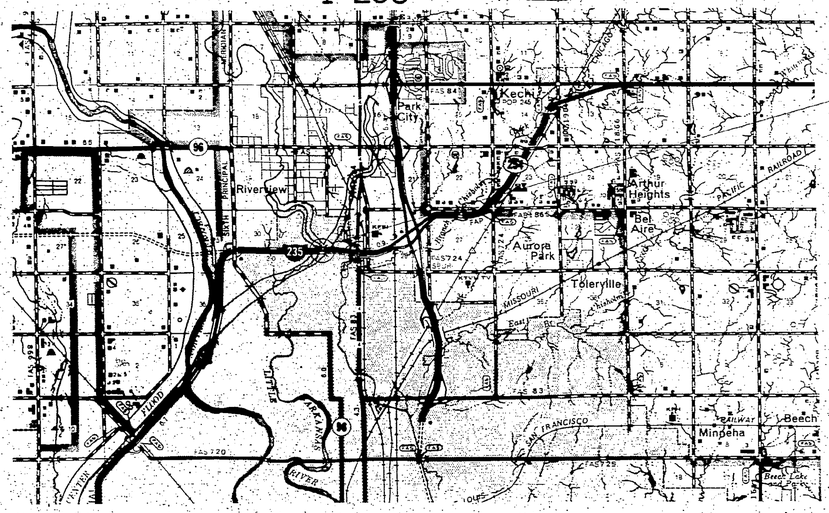
235-87 5904(2) 74 1 6

PROJ. NO. 235-87 -5904(2)
BRIDGE REPAIR

PLAN AND PROFILE OF PROPOSED

STATE HIGHWAY

MAINTENACE PROJECT
SEDGWICK CO.
I 235



BR. NO. 235-87-15.00(N.B.)
49'-9@66'-49' SPANS R.C.D.G.
2" THIN BONDED CONCRETE OVERLAY,
REPAIR EXPANSION DEVICES

TRAFFIC TO BE CARRIED THRU CONSTRUCTION

DESIGN DESIGNATION
ADT(1972) 12,700

CONVENTIONAL SIGNS

COUNTY LINE	RETAINING WALL
CORPORATE LIMITS	CENTER LINE OF PROJECT
STATE OR NATIONAL LINE	LEVEE
TOWNSHIP LINE	CULVERTS
SECTION LINE	DROP INLETS
GRANT LINE	ACCESS CONTROL
FENCE LINE	POWER LINE
GUARD FENCE	TELEPHONE OR TELEGRAPH LINE
UNFENCED PROPERTY	MARSH
RIGHT OF WAY LINE	HEDGE
TRAVELED WAY	TREES
RAILROADS	GRADE ELEVATION

GROSS LENGTH OF PROJECT 2945 FT.
EXCEPTIONS none
ADDITIONS none

NET LENGTH OF PROJECT	2945	FT. 0.132	MILES
NET LENGTH OF BRIDGES	2945	FT. 0.132	MILES
NET LENGTH OF ROAD	0.0	FT. 0.0	MILES

RECOM. FOR APPROVAL DATE JAN 16 1974
ENGINEER OF DESIGN
STATE HIGHWAY COMMISSION OF KANSAS

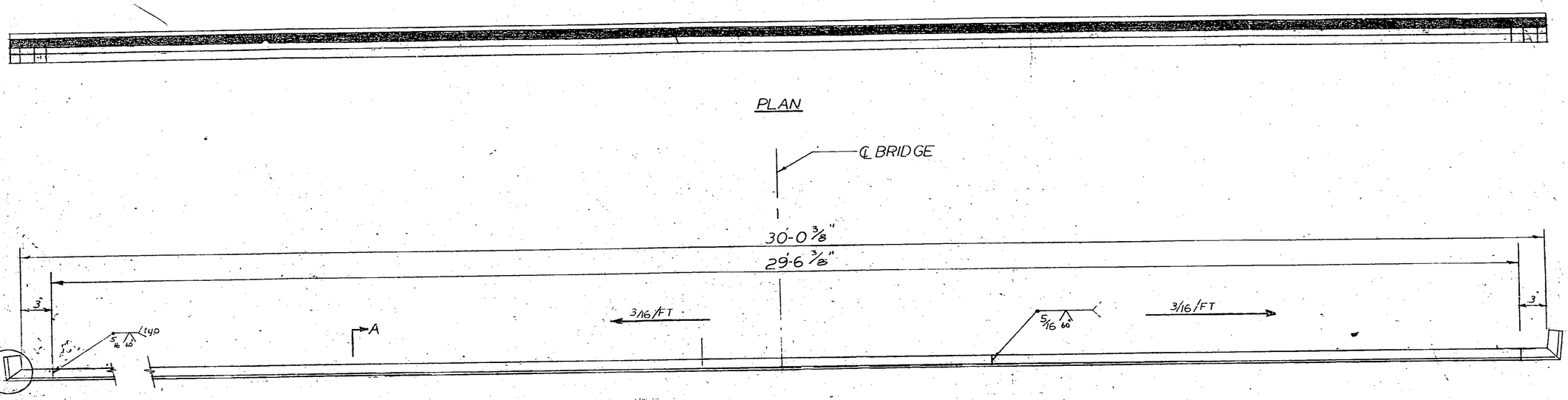
RECOM. FOR APPROVAL DATE
ENGINEER
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

APPROVED DATE FEB 1 1974
STATE HIGHWAY ENGINEER
STATE HIGHWAY COMMISSION OF KANSAS

APPROVED DATE
DIVISION ENGINEER
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

DIST. 5 SEDGWICK CO. ROLL 531

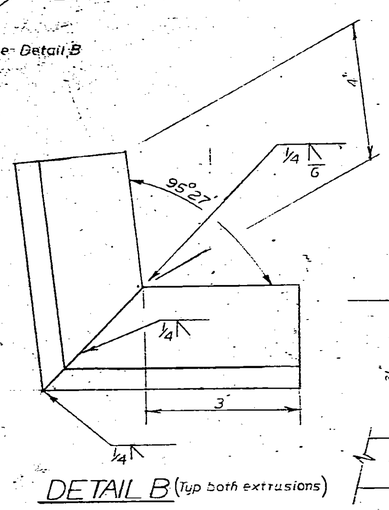
570



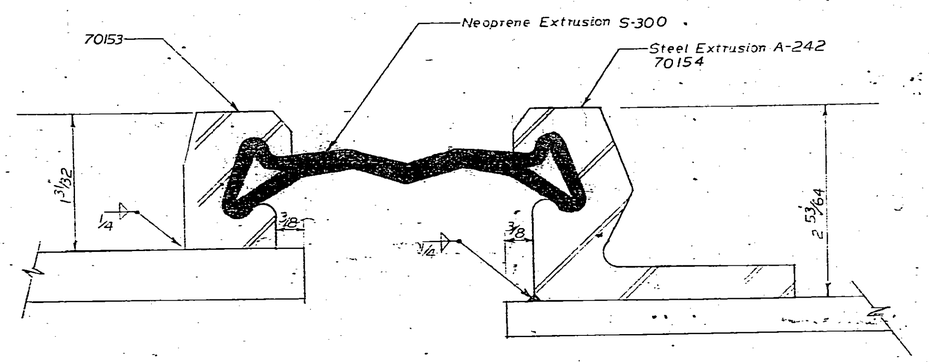
PLAN

ELEVATION
Scale: 1"=1'-0"

A



DETAIL B (Typ both extrusions)
Scale: Half



SECTION A-A
Scale: Full

DUE TO LENGTH OF STEEL EXTRUSIONS, Field SPLICES WILL BE PERMITTED. NO WELD SHALL BE PERMITTED IN INTERNAL SECTION OF EXTRUSION WHERE NEOPRENE STRIP IS LOCATED.

NOTE:

1. Neoprene Extrusion Shall Be Bonded To Steel Extrusion With Bon Lastic Adhesive

Jointing System Shall Be Sand Blasted In The Field Prior To Installation Of Neoprene Strip And Painting

watson bowman engineers inc. 1230 Main St. Suite 1400	
SCALE: Noted	APPROVED BY: DRAWN BY WJW
DATE: 4-25-74	REVISED
SEDGWICK COUNTY KANSAS 235-87-5904 2	
	DRAWING NUMBER A-1175

DIST. 5 | SEDGWICK CO. | ROLL 531

5 7 1

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FHWA REGION NO.	STATE	PROJECT NO	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	235-87-5904(2)	1974	1	6

PROJ. NO. 235-87-5904(2)
BRIDGE REPAIR

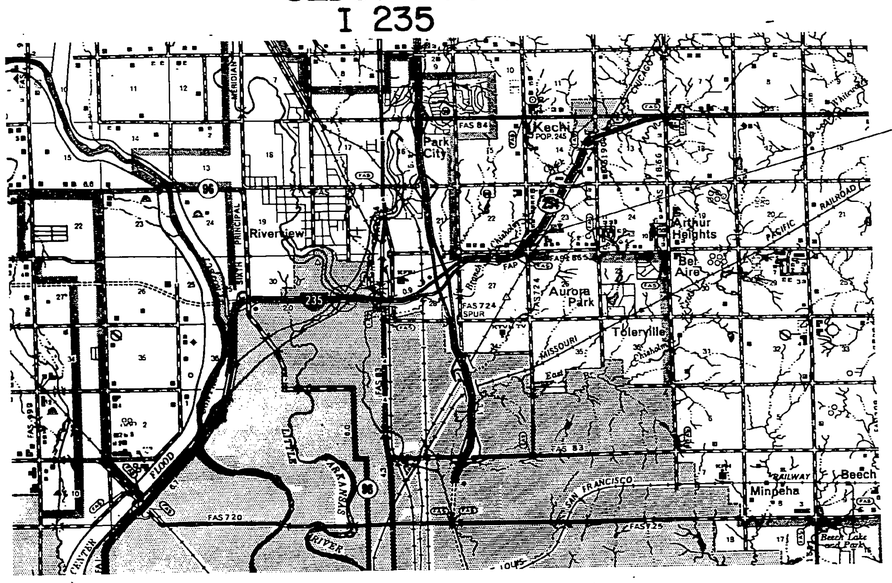
STATE OF KANSAS

STATE HIGHWAY COMMISSION

PLAN AND PROFILE OF PROPOSED

STATE HIGHWAY

MAINTENACE PROJECT
SEDGWICK CO.
I 235



Scale 1" = 1 mile

BR. NO. 235-87-15.00(N.B.)
49'-9@66'-49' SPANS R.C.D.G.
2" THIN BONDED CONCRETE OVERLAY,
REPAIR EXPANSION DEVICES

TRAFFIC TO BE CARRIED THRU CONSTRUCTION

	BY	DATE
DESIGNED	G.M.C.	12-28-73
DETAILED		
TRACED		
CHECKED	Hurst	1-11-74

DESIGN DESIGNATION

ADT(1972) 12,700

CONVENTIONAL SIGNS

COUNTY LINE		RETAINING WALL	
CORPORATE LIMITS		CENTER LINE OF PROJECT	
STATE OR NATIONAL LINE		LEVEE	
TOWNSHIP LINE		CULVERTS	
SECTION LINE		DROP INLETS	
GRANT LINE		ACCESS CONTROL	
FENCE LINE		POWER LINE	
GUARD FENCE		TELEPHONE OR TELEGRAPH LINE	
UNFENCED PROPERTY		MARSH	
RIGHT OF WAY LINE		HEDGE	
TRAVELLED WAY		TREES	
RAILROADS		GRADE ELEVATION	

GROSS LENGTH OF PROJECT	694.5	FT.	
EXCEPTIONS	None		
ADDITIONS	None		
NET LENGTH OF PROJECT	694.5	FT. 0.132	MILES
NET LENGTH OF BRIDGES	694.5	FT. 0.132	MILES
NET LENGTH OF ROAD	0.0	FT. 0.0	MILES

COMPLETED CONSTRUCTION PLANS
235-87-5904(2) Project as constructed
Prepared by Fred L. Thomas FEA
Date 11/21/77

COMPLETED CONSTRUCTION PLANS
HAVE BEEN MICROFILMED.
FOR ANY CHANGES MADE 1979
ON CONSTRUCTION SEE
ROLL 531, FRAME 570

RECOM. FOR APPROVAL DATE [redacted]
ENGINEER OF DESIGN
STATE HIGHWAY COMMISSION OF KANSAS

RECOM. FOR APPROVAL DATE [redacted]
ENGINEER
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

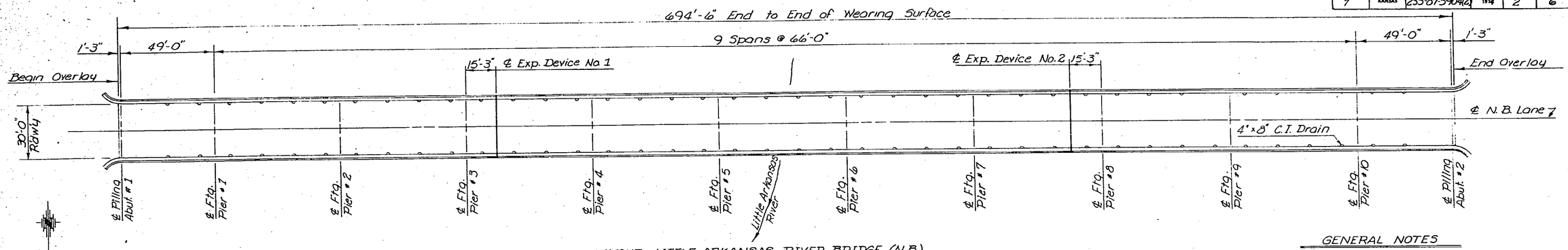
APPROVED DATE [redacted]
STATE HIGHWAY ENGINEER
STATE HIGHWAY COMMISSION OF KANSAS

APPROVED DATE [redacted]
DIVISION ENGINEER
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

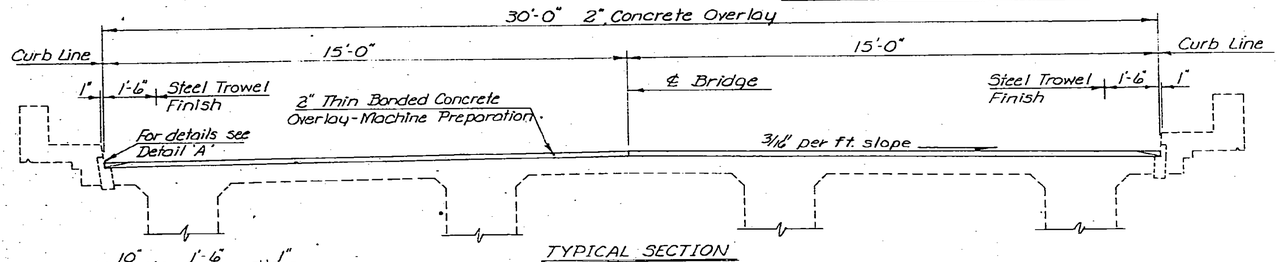
DIST. 5 | SEDGWICK CO. | ROLL 531 | 5 7 2 [redacted]

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

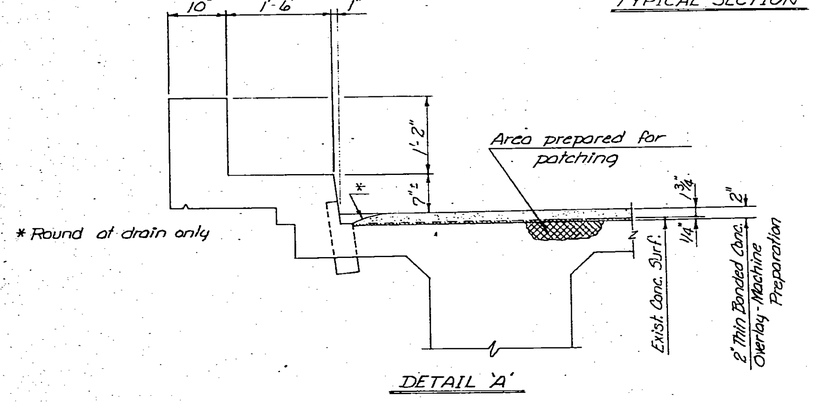
FHWA REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	235-87-5904(2)	1974	2	6



LAYOUT LITTLE ARKANSAS RIVER BRIDGE (N.B.)



TYPICAL SECTION



DETAIL 'A'

GENERAL NOTES

THIN BONDED CONCRETE OVERLAY-MACHINE PREPARATION: This item consists of all roadway area between the EWS of abutment #1 and abutment #2. The existing top 1/4" of concrete surface shall be removed in this area. See Special Provisions.

AREA PREPARED FOR PATCHING: This item consists of areas designated by the Engineer which are on the roadway between the EWS of abutments. The unsound concrete in these areas may be removed by air driven chipping tools not exceeding 32 pounds in weight. See Special Provisions.

DIMENSIONS. All dimensions shown for the existing structure are taken from the original plans and shall be checked by the contractor prior to construction.

CONCRETE OVERLAY PLACING SEQUENCE: The contractor shall pour half the roadway at a time, begining and ending each pour at an expansion joint.

PAINTING: Field paint the steel extrusions of the Neoprene Expansion Device Assembly excluding the grips of the extrusions. After installation of the steel extrusions and W3.0 wire and previous to inserting the Neoprene Seal in the grips, field paint all accessible parts excluding the grips. Field coats shall conform to the basic lead silico chromate system. This work shall not be paid for directly but shall be subsidiary to the bid item, "Neoprene Expansion Device Assembly."

SUMMARY OF QUANTITIES		
Thin Bonded Concrete Overlay-Mach. Prep.	2315	Sq. Yds.
Area Prepared for Patching	695	Sq. Yds.
Neoprene Expansion Device Assembly	613	Lin. Ft.
Mobilization		Lump Sum
Field Office and Lab (Type C)	1	Each
Traffic Control		Lump Sum

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 235-87-15.00 (N.B.)
THIN BONDED CONCRETE OVERLAY
PROJ. NO. 235-87-5904(2) SEDGWICK CO.

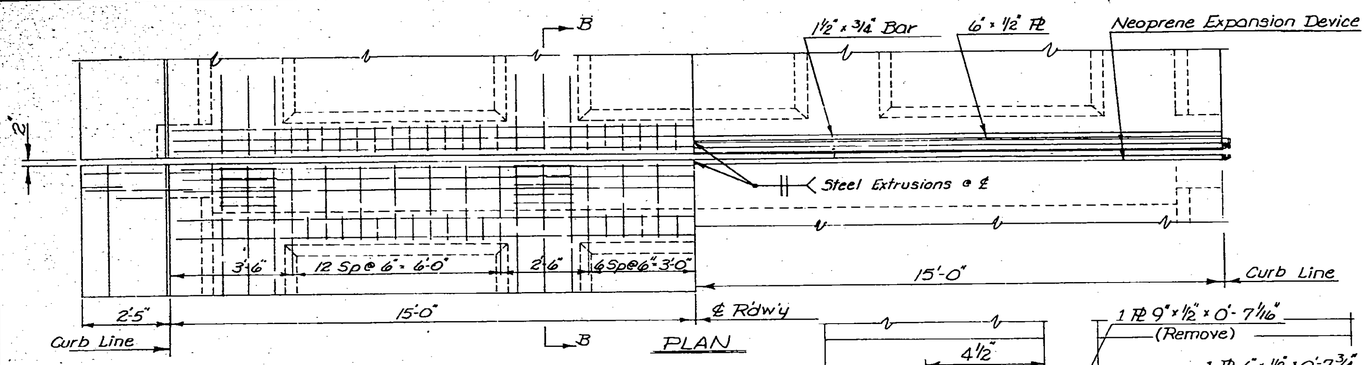
SHEET NO. 2 OF 6	SCALE	APP'D
DESIGNED	DETAILED GMC	QUANTITIES GMC
DESIGN CK.	DETAIL CK. JKF	DRAWN CK. JKF

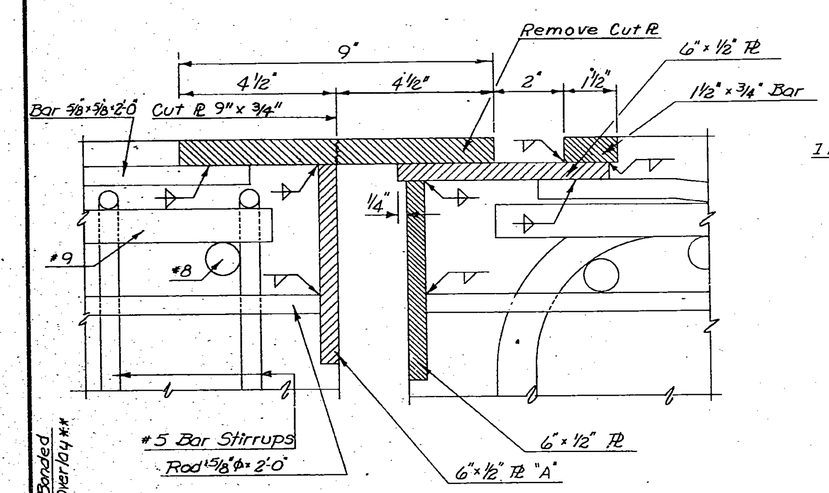
DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted] 5 7 3

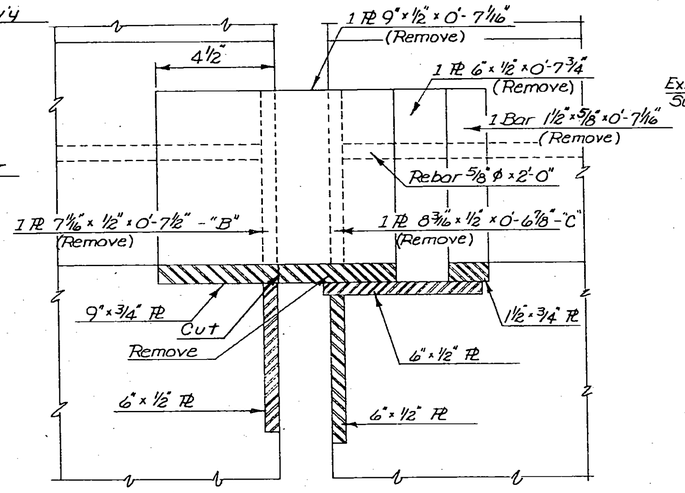
16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	235-87-5904(2)	19	3	6

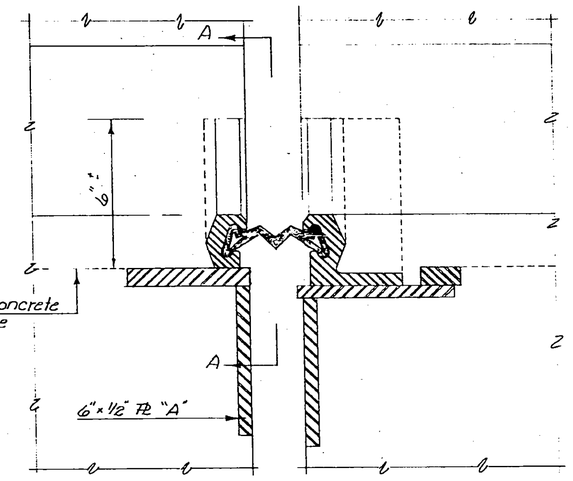




PARTIAL SECTION B-B OF EXISTING STRUCTURE



SLIDING Pl EXPANSION JOINT
CURB SECTION



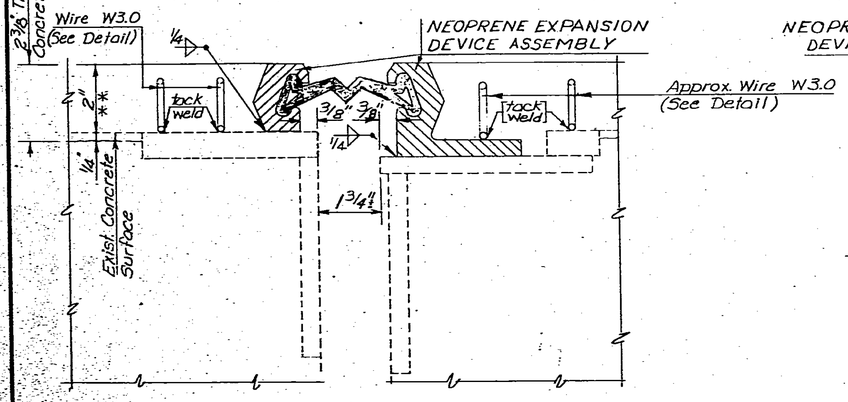
CURB SECTION EXPANSION JOINT
NEW CONSTRUCTION

GENERAL NOTES

REMOVAL OF EXISTING CURB PLATES: Remove all plates of the existing expansion device in the curb with the option of only partial removal of plates "B" and "C" as indicated in the details. After the Neoprene Expansion Device Assembly has been installed, patch the curb to existing lines. This work shall not be paid for directly but shall be subsidiary to the bid item, "Thin Bonded Concrete Overlay - Machine Preparation".

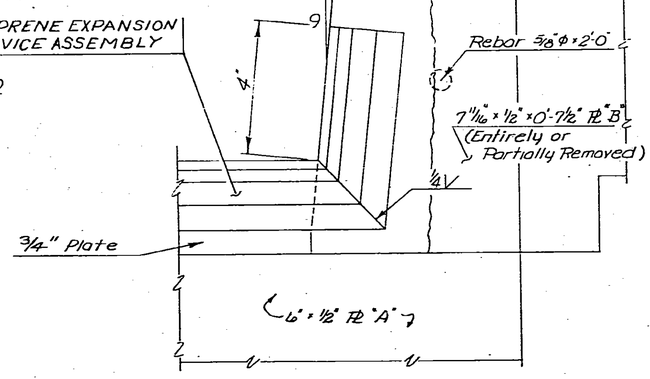
NEOPRENE EXPANSION DEVICE ASSEMBLY: The Neoprene Expansion Device Assembly shall consist of a Wabo-Maurer Strip Seal Expansion Joint, Model No. 5A-300 combined with Model No. 5B-300 as shown in the details or other approved device. The assembly shall be placed from curb to curb with a 4" bend-up into the curb as shown. Measurement shall be along centerline of expansion joint along the roadway deck and curbs. The Assembly and all installation shall be paid for under the bid item, "Neoprene Expansion Device Assembly".

EXISTING REINFORCING STEEL: Existing reinforcing steel exposed by concrete removal shall be carefully preserved and thoroughly cleaned. This work shall be paid for under the bid item, "Thin Bonded Concrete Overlay - Machine Preparation".

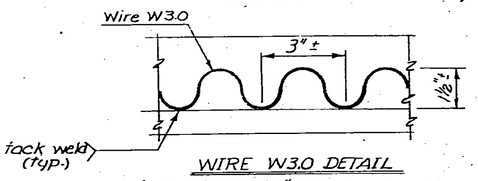


PARTIAL SECTION B-B OF NEW CONSTRUCTION

** Taper to Normal Section in 20± feet.



SECTION A-A



WIRE W3.0 DETAIL
(Subsidiary to "Neoprene Expansion Device Assembly")

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 235-87-15.00 (N.B.)
EXPANSION DEVICE NO. 1 REPAIR
PROJ. NO. 235-87-5904(2) SEDGWICK CO.

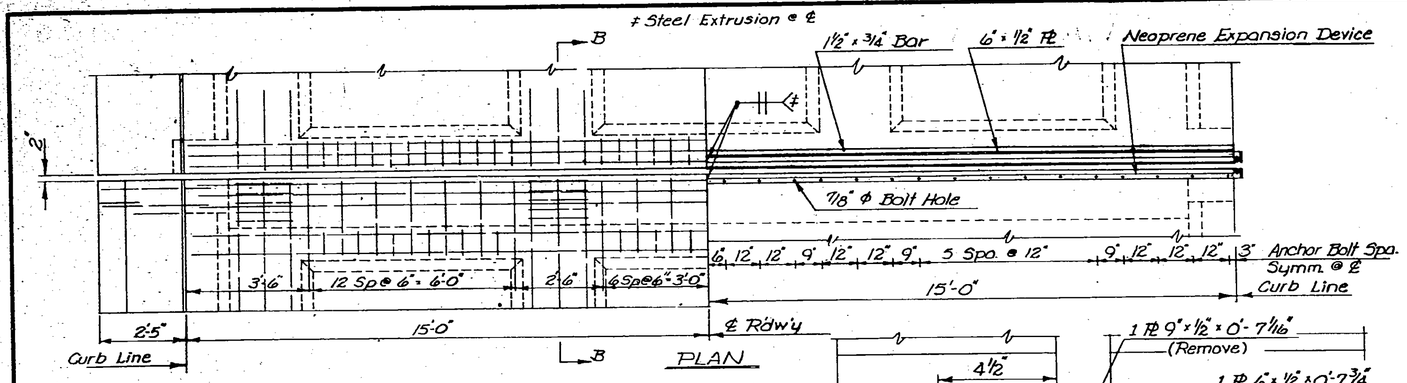
SHEET NO. 3 OF 6	SCALE	APP'D	
CHECKED	DETAILED GMC	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK. JRF	QUAN. CK.	TRACE CK.

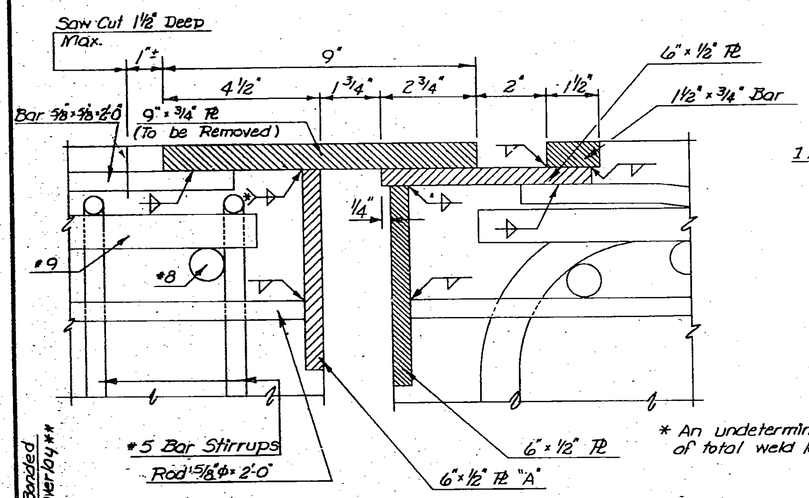
DIST. 5 SEDGWICK CO. ROLL 531

5 7 4

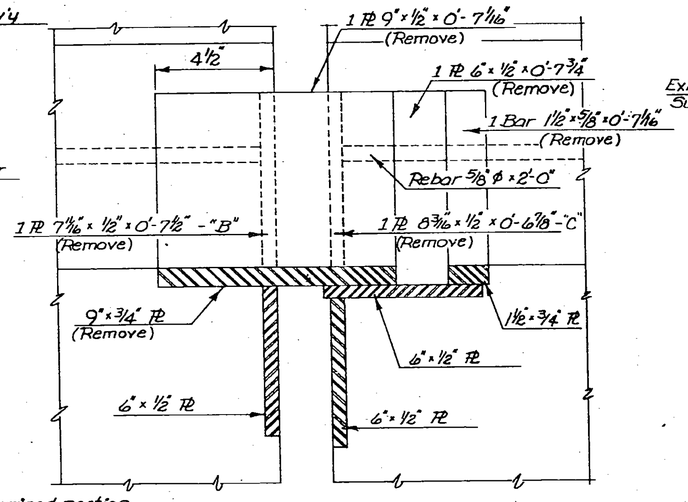
16X 14.5X 12X 12X 14.5X 16X 20X

FEDERAL AID PROJECT NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	235-87-5904(2)	1974	4	6



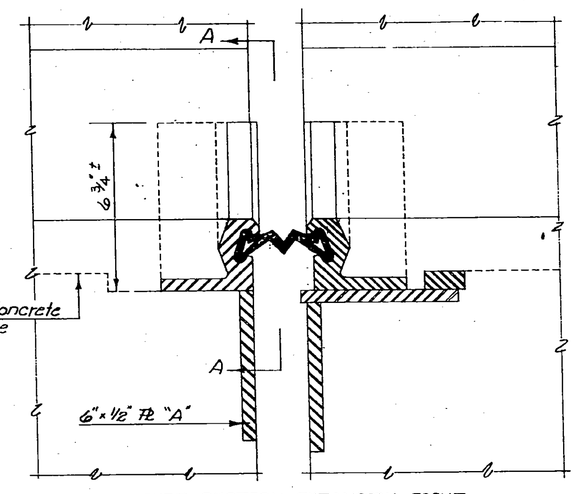


PARTIAL SECTION B-B OF EXISTING STRUCTURE



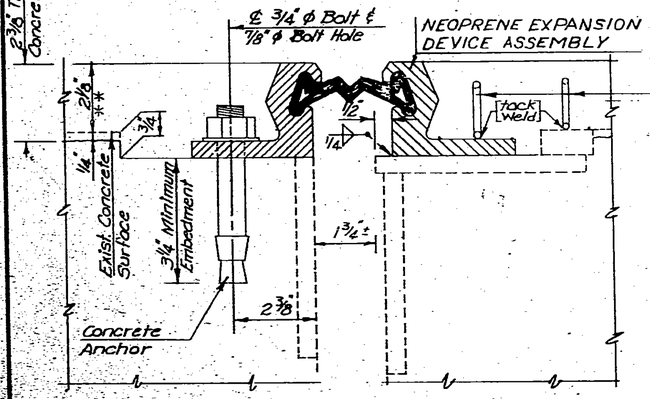
* An undetermined portion of total weld length is broken.

SLIDING Pl EXPANSION JOINT CURB SECTION



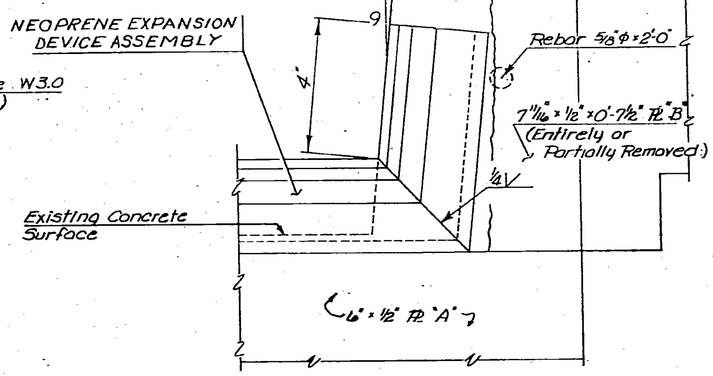
CURB SECTION EXPANSION JOINT NEW CONSTRUCTION

2⅜" Thin Bonded Concrete Overlay **

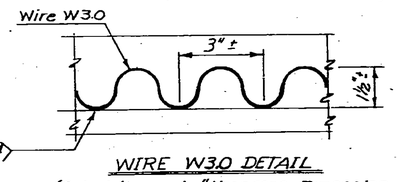


PARTIAL SECTION B-B OF NEW CONSTRUCTION

** Taper to Normal Section in 20± feet.



SECTION A-A



WIRE W3.0 DETAIL
(Subsidiary to "Neoprene Expansion Device Assembly")

GENERAL NOTES

PARTIAL REMOVAL OF EXISTING EXPANSION DEVICE: Cut the ⅝" x ⅝" x 2'-0" Anchor bars to sliding plate approximately 1" from edge of sliding plate as shown. The existing reinforcing steel is not to be damaged during this proceedure. Remove the 9" x ¾" Sliding plate as directed by the Engineer.

Inspect existing plate "A" to determine if it is firmly anchored. If the plate is loose, remove it and patch deck to proper elevation. This work shall not be paid for directly but shall be subsidiary to the bid item, "Thin Bonded Concrete Overlay - Machine Preparation".

REMOVAL OF EXISTING CURB PLATES: Remove all plates of the existing expansion device in the curb with the option of only partial removal of plates "B" and "C" as indicated in the details. After the Neoprene Expansion Device Assembly has been installed, patch the curb to existing lines. This work shall not be paid for directly but shall be subsidiary to the bid item, "Thin Bonded Concrete Overlay - Machine Preparation"

NEOPRENE EXPANSION DEVICE ASSEMBLY: The Neoprene Expansion Device Assembly shall consist of a Wabo-Maurer Strip Seal Expansion Joint, Model No. 5B-300, or other approved. Approved ¾" diameter positive type concrete anchors with minimum 3¼" embedment shall be used as indicated in details. The assembly shall be placed from curb to curb with a 4" bend-up into the curb as shown. Measurement shall be along centerline of expansion joint on the roadway deck and curb lines. The Assembly, anchor bolts and all installation shall be paid for under the bid item, "Neoprene Expansion Device Assembly".

EXISTING REINFORCING STEEL: Existing reinforcing steel exposed by concrete removal shall be carefully preserved and thoroughly cleaned. This work shall be paid for under the bid item, "Thin Bonded Concrete Overlay - Machine Preparation."

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
BR. NO. 235-87-15.00 (N.B.)
EXPANSION DEVICE NO. 2 REPAIR
PROJ. NO. 235-87-5904(2) SEDGWICK CO.

SHEET NO. 4 OF 6	SCALE	APP'D
DESIGNED	DETAILED GMC	CHECKED
DESIGN OF.	DETAIL OF SRF	QUAN. OF.

DIST. 5 SEDGWICK CO. ROLL 531

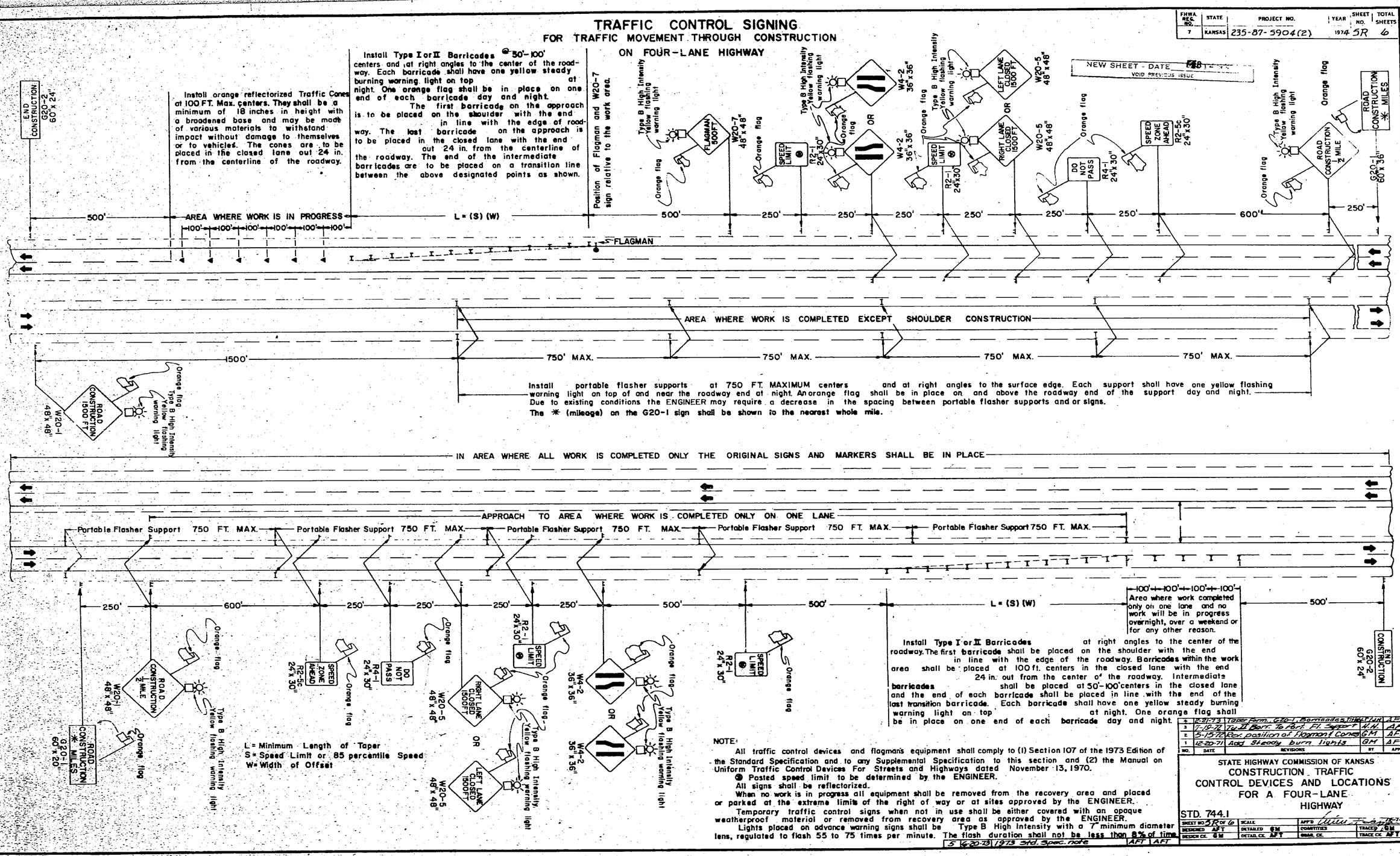
[redacted] 5 7 5

16X 14.5X 12X 12X 14.5X 16X 20X

TRAFFIC CONTROL SIGNING
FOR TRAFFIC MOVEMENT THROUGH CONSTRUCTION
ON FOUR-LANE HIGHWAY

FHWA REG. NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	235-87-5904(2)	1974	5R	6

NEW SHEET - DATE 7-8-71
VOID PREVIOUS ISSUE



NOTE:

All traffic control devices and flagmans equipment shall comply to (1) Section 107 of the 1973 Edition of the Standard Specification and to any Supplemental Specification to this section and (2) the Manual on Uniform Traffic Control Devices For Streets and Highways dated November 13, 1970.

Ⓢ Posted speed limit to be determined by the ENGINEER.

All signs shall be reflectorized.

When no work is in progress all equipment shall be removed from the recovery area and placed or parked at the extreme limits of the right of way or at sites approved by the ENGINEER.

Temporary traffic control signs when not in use shall be either covered with an opaque weatherproof materiol or removed from recovery area as approved by the ENGINEER.

Lights placed on advance warning signs shall be Type B High Intensity with a 7" minimum diameter lens, regulated to flash 55 to 75 times per minute. The flash duration shall not be less than 8% of time.

5 6-20-73 1973 Std. Spec. note AFT AFT

NO.	DATE	REVISIONS	BY	APP'D
4	2-21-73	Taper Form. G20-1, Barricades, Title	HH	AFT
3	7-19-72	Ty II Barr. To Port. Fl. Support	H.H.	AFT
2	5-15-72	Rev. position of Flagman Cones	GM	AFT
1	12-20-71	Add Steady burn lights	GM	AFT

STATE HIGHWAY COMMISSION OF KANSAS
CONSTRUCTION TRAFFIC CONTROL DEVICES AND LOCATIONS FOR A FOUR-LANE HIGHWAY

STD. 744.1

SHEET NO.	SCALE	APP'D	DATE
5R OF 6			7-8-71
DESIGNED AFT	DETAILED GM	COMPUTED	TRACED GM
DESIGN CK. GM	DETAIL CK. AFT	QUAN. CK.	TRACE CK. AFT

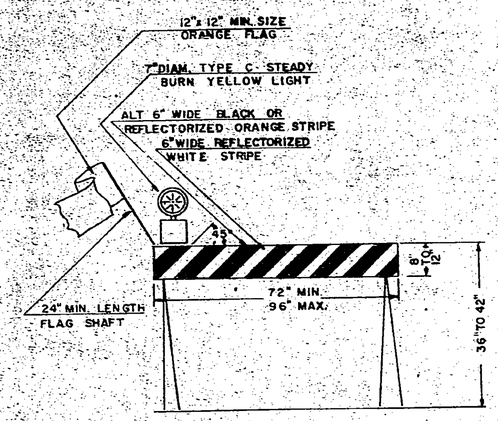
DIST. 5 | SEDGWICK CO. | ROLL 531

5 7 6

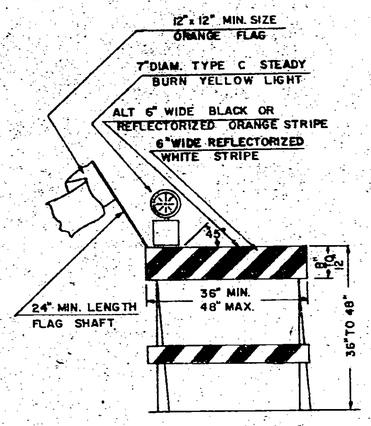
16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FHWA REGION NO	STATE	PROJECT NO	YEAR	SHEET NO	TOTAL SHEETS
7	KANSAS	235-87-5904(2)	'74	6	6

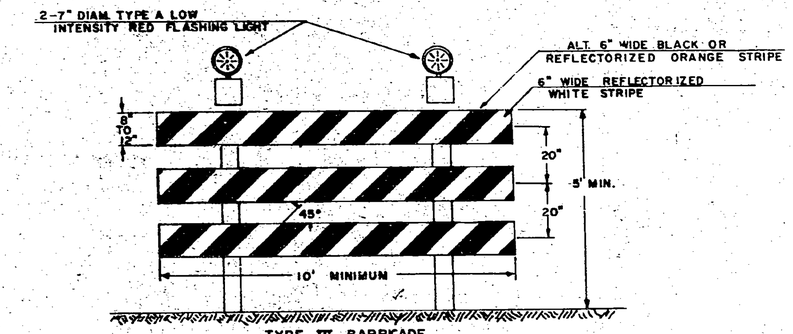
TRAFFIC CONTROL DEVICES
FOR TRAFFIC MOVEMENT THROUGH CONSTRUCTION



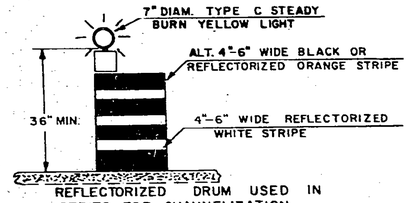
TYPE I BARRICADE WITH ONE YELLOW STEADY BURN LIGHT AND ONE ORANGE FLAG



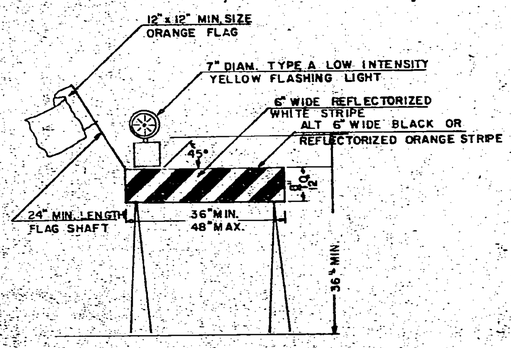
TYPE II BARRICADE WITH ONE YELLOW STEADY BURN LIGHT AND ONE ORANGE FLAG



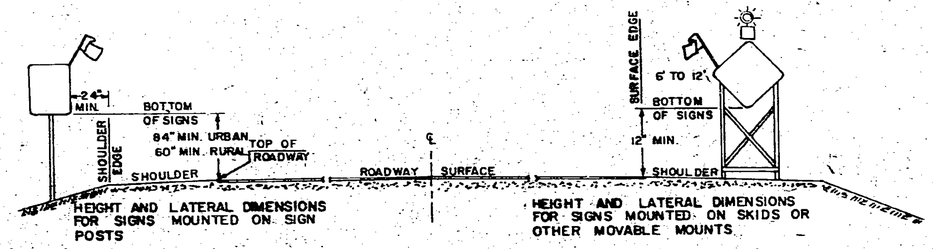
TYPE III BARRICADE



REFLECTORIZED DRUM USED IN SERIES FOR CHANNELIZATION

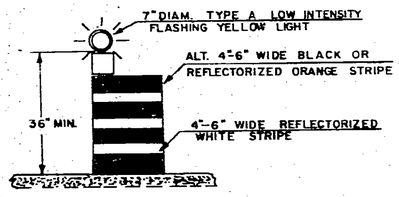


PORTABLE FLASHER SUPPORT WITH YELLOW FLASHING LIGHT AND ORANGE FLAG

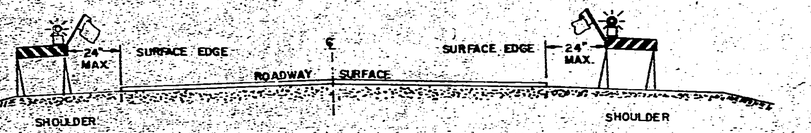


HEIGHT AND LATERAL DIMENSIONS FOR SIGNS MOUNTED ON SIGN POSTS

HEIGHT AND LATERAL DIMENSIONS FOR SIGNS MOUNTED ON SKIDS OR OTHER MOVABLE MOUNTS



REFLECTORIZED DRUM USED SINGLY



POSITION OF PORTABLE FLASHER SUPPORTS WITH ONE YELLOW FLASHING LIGHT AND ONE ORANGE FLAG USED ON SHOULDERS ADJACENT TO SURFACE EDGES SPACED AT 750 FT.

TO BE USED IN AREAS WHERE WORK IS COMPLETED EXCEPT SHOULDER CONSTRUCTION

NOTE:

All traffic control devices and flagmans equipment shall comply to (1) Section 107 of the 1973 Edition of the Standard Specification and to any Supplemental Specification to this section and (2) the Manual on Uniform Traffic Control Devices For Streets and Highways dated November 13, 1970.

Barricades, drums, and portable flasher support used to control traffic at night shall be reflectorized.

The yellow barricade, drum, and portable flasher support lights shall have a 7" minimum diameter lens. The flashing light shall be Type A Low Intensity regulated to flash 55 to 75 times per minute with a flash duration not less than 10% of time. The steady burn lights shall be Type 'C'. The alternate orange and white or black and white stripes on barricades and drums shall not be intermixed within the same project.

All signs, barricades, drums, portable flasher supports, flashing lights, and orange flags shall be securely erected and maintained in good condition at all times.

All signs shall be reflectorized.

When no work is in progress all equipment shall be removed from the recovery area and placed or parked at the extreme limits of the right of way or at sites approved by the ENGINEER.

Temporary traffic control signs when not in use shall be either covered with an opaque weatherproof material or removed from the recovery area as approved by the ENGINEER.

NO	DATE	REVISIONS	INT	APP'D
3				
2				
1	6-20-73	1973 Std. Spec. note	AFT	AFT

STATE HIGHWAY COMMISSION OF KANSAS

CONSTRUCTION TRAFFIC CONTROL DEVICES AND LOCATIONS: SIGNS, BARRICADES, PORTABLE FLASHER SUPPORTS, & DRUMS

STD. 752

SHEET NO. 6 OF 6	SCALE	APP'D	12-16-73
DESIGNED AFT	DETAILED LT	QUANTITIES	TRACED FLT
DIVISION CE	DETAIL CK. AFT	OTHER CK.	TRACE CK.

DIST. 5 | SEDGWICK CO. | ROLL 531

5 7 7

16X 14.5X 12X 12X 14.5X 16X 20X

MICROFILMED PLAN RECORD
Supplement No. 13 Date 9-4-79 District 5 Card 18
County SEDGWICK Rte. & Co. 35W-87 Project No. 5922 (2)
Tracing Dr. No. 404 Approx. Length 0.175 Mi. or Ft. Year 2/77
Location PAVEMENT REPAIR ONE MILE NORTH OF K-164
Type of Construction GRADING, PAVEMENT AND SHOULDERS
Remarks AS BUILT PLANS — 11
OFFICIAL SHEETS — 1
MICROFILM RECORD ROLL 531
First Frame No. 578 Last Frame No. _____ Roll No. _____

STATE OF KANSAS

DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED

STATE HIGHWAY

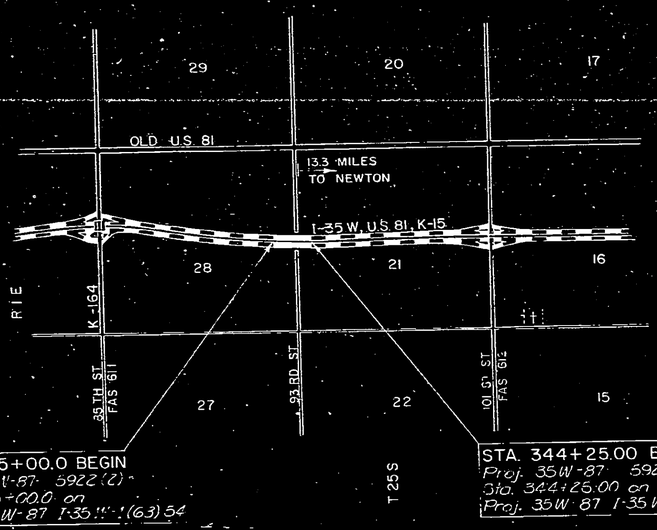
MAINTENANCE PROJECT

SEDGWICK COUNTY

I-35 W

PROJ. 35W-87- 5922 (2)
GRADING
CONCRETE PAVEMENT
STABILIZED SHOULDERS

SCALE: 1" = 2000'



STA 335+00.0 BEGIN
Proj. 35W-87 5922(2) =
Sta. 335+00.0 on
Proj. 35W-87 I-35W-1(63)54

STA. 344+25.00 END
Proj. 35W-87 5922 (2) =
Sta. 344+25.00 on
Proj. 35W-87 I-35W-1(63)54

NOTE: TRAFFIC TO BE CARRIED THROUGH CONSTRUCTION

DESIGN DESIGNATION
ADT (1974) - 9500

CONVENTIONAL SIGNS

COUNTY LINE	RETAINING WALL
CORPORATE LIMITS	CENTER LINE OF PROJECT
STATE OR NATIONAL LINE	LEVEE
TOWNSHIP LINE	CULVERTS
SECTION LINE	DROP INLETS
GRANT LINE	ACCESS CONTROL
FENCE LINE	POWER LINE
GUARD FENCE	TELEPHONE OR TELEGRAPH LINE
UNFENCED PROPERTY	MARSH
RIGHT OF WAY LINE	HEDGE
TRAVELLED WAY	TREES
RAILROADS	GRADE ELEVATION

GROSS LENGTH OF PROJECT	925.00	FT.	
EXCEPTIONS	None		
ADDITIONS			
NET LENGTH OF PROJECT	925.00	FT. = 0.175	MILES
NET LENGTH OF BRIDGES	0.00	FT. 0.000	MILES
NET LENGTH OF ROAD	925.00	FT. 0.175	MILES

RECOM. FOR APPROVAL — DATE MAY 18 1976
ENGINEER OF DESIGN
KANSAS DEPARTMENT OF TRANSPORTATION

APPROVED — DATE MAY 28 1976
STATE TRANSPORTATION ENGINEER
KANSAS DEPARTMENT OF TRANSPORTATION

RECOM. FOR APPROVAL — DATE
OFFICE COPY
ENGINEER
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

APPROVED — DATE
DIVISION ADMINISTRATOR
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

C.W. Thompson
D.R. Anderson-E.J. Brady May, 1976
C.W. Thompson April, 1976
J.F. Swaffney

DIST. 5 | SEDGWICK CO. | ROLL 531

5 7 8

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

[redacted]

MICROFILMED PLAN RECORD
13 9-4-79 5 #18
SEDGWICK 35W-87 5922 (2)
404 075 277
PAVEMENT REPAIR ONE MILE
NORTH OF K-164
GRADING, PAVEMENT AND
SHOULDERS
AS BUILT PLANS — 11
OFFICIAL SHEETS — 1
MICROFILM RECORD
578
ROLL 531

FHWA REGION NO	STATE	PROJECT NO	YEAR	SHEET NO	TOTAL SHEETS
7	KANSAS	35W-87- 5922 (2)	1976	1	11

PROJ. 35W-87- 5922 (2)
GRADING
CONCRETE PAVEMENT
STABILIZED SHOULDERS

STATE OF KANSAS

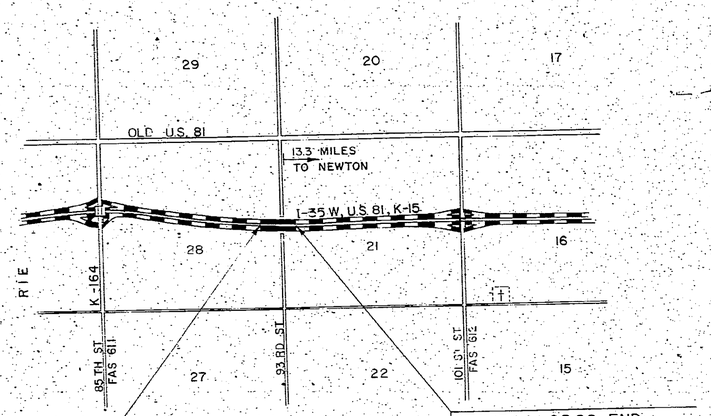
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED

STATE HIGHWAY

MAINTENANCE PROJECT
SEDGWICK COUNTY
I-35W

SCALE: 1" = 2000'



STA. 335+00.0 BEGIN
Proj. 35W-87- 5922 (2)
Sta. 335+00.0 on
Proj. 35W-87 I-35W-1(63)54

STA. 344+25.00 END
Proj. 35W-87- 5922 (2)
Sta. 344+25.00 on
Proj. 35W-87 I-35W-1(63)54

NOTE: TRAFFIC TO BE CARRIED THROUGH CONSTRUCTION

DESIGN DESIGNATION
ADT (1974) - 9500

CONVENTIONAL SIGNS

COUNTY LINE	RETAINING WALL
CORPORATE LIMITS	CENTER LINE OF PROJECT
STATE OR NATIONAL LINE	LEVEE
TOWNSHIP LINE	CULVERTS
SECTION LINE	DROP INLETS
GRANT LINE	ACCESS CONTROL
FENCE LINE	POWER LINE
GUARD FENCE	TELEPHONE OR TELEGRAPH LINE
UNFENCED PROPERTY	MARSH
RIGHT OF WAY LINE	HEDGE
TRAVELLED WAY	TREES
RAILROADS	GRADE ELEVATION

GROSS LENGTH OF PROJECT	925.00	FT.	
EXCEPTIONS	None		
ADDITIONS			
NET LENGTH OF PROJECT	925.00	FT. 0.175	MILES
NET LENGTH OF BRIDGES	0.00	FT. 0.000	MILES
NET LENGTH OF ROAD	925.00	FT. 0.175	MILES

RECOM. FOR APPROVAL — DATE MAY 1 1976
ENGINEER OF DESIGN
KANSAS DEPARTMENT OF TRANSPORTATION

APPROVED — DATE
STATE TRANSPORTATION ENGINEER
KANSAS DEPARTMENT OF TRANSPORTATION

RECOM. FOR APPROVAL — DATE
OFFICE COPY
ENGINEER
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

APPROVED — DATE
DIVISION ADMINISTRATOR
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

A.J. Vliet Feb., 1976
C.W. Thompson Mar., 1976
D.K. Andrisson E.J. Brody May, 1976
C.W. Thompson Apr., 1976
J.F. Gwaltney 1976

[redacted]

DIST. 5 | SEDGWICK CO. | ROLL 531

5 7 8

16X | 14.5X | 12X | 12X | 14.5X | 16X

FHWA REGION NO.	STATE	PROJECT NO	YEAR	SHEET NO	TOTAL SHEETS
7	KANSAS	35W-87- 5922 (2)	1976	1	11

PROJ. 35W-87- 5922 (2)

GRADING

CONCRETE PAVEMENT

STABILIZED SHOULDERS

INDEX OF SHEETS

Sh. No. 1 Title Sheet
" " 2 Typical Section
" " 3 Plan & Profile
" " 4-7 Concrete Pavmt Details
" " 8 Ditch Inlet
" " 9 Summary of Quantities
" " 10-11 Traffic Control

STATE OF KANSAS

DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED

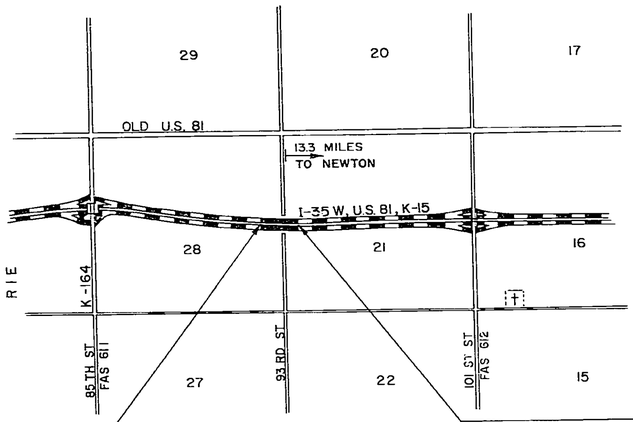
STATE HIGHWAY

MAINTENANCE PROJECT

SEDGWICK COUNTY

I-35 W

SCALE: 1"= 2000'



STA 335+00.0 BEGIN
Proj. 35W-87- 5922 (2) =
Sta. 335+00.0 on
Proj. 35W-87 I-35W-1(63) 54

STA. 344+25.00 END
Proj. 35W-87- 5922 (2) =
Sta. 344+25.00 on
Proj. 35W-87 I-35W-1(63) 54

COMPLETED CONSTRUCTION PLANS
_____ Project as Constructed
Prepared by: Frank L. Thomas F.E.A.
Date Aug. 12, 1977

DESIGN DESIGNATION

ADT (1974) - 9500

A.J. Gisi Feb., 1976
C.W. Thompson Mar., 1976
D.K. Anderson-L.J. Brady May., 1976
C.W. Thompson Apr., 1976
J.F. Gualtney

CONVENTIONAL SIGNS

COUNTY LINE		RETAINING WALL	
CORPORATE LIMITS		CENTER LINE OF PROJECT	
STATE OR NATIONAL LINE		LEVEE	
TOWNSHIP LINE		CULVERTS	
SECTION LINE		DROP INLETS	
GRANT LINE		ACCESS CONTROL	
FENCE LINE		POWER LINE	
GUARD FENCE		TELEPHONE OR TELEGRAPH LINE	
UNFENCED PROPERTY		MARSH	
RIGHT OF WAY LINE		HEDGE	
TRAVELLED WAY		TREES	
RAILROADS		GRADE ELEVATION	

GROSS LENGTH OF PROJECT	925.00	FT.	
EXCEPTIONS	None		
ADDITIONS			
NET LENGTH OF PROJECT	925.00	FT. 0.175	MILES
NET LENGTH OF BRIDGES	0.00	FT. 0.000	MILES
NET LENGTH OF ROAD	925.00	FT. 0.175	MILES

COMPLETED CONSTRUCTION PLANS
HAVE BEEN MICROFILMED.
FOR ANY CHANGES MADE 1979
OF CONSTRUCTION SEE
ROLL # 531, FRAME 578

NOTE: TRAFFIC TO BE CARRIED THROUGH CONSTRUCTION

RECOM. FOR APPROVAL — DATE [redacted]

ENGINEER OF DESIGN
KANSAS DEPARTMENT OF TRANSPORTATION

RECOM. FOR APPROVAL — DATE [redacted]

ENGINEER
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

APPROVED — DATE [redacted]

STATE TRANSPORTATION ENGINEER
KANSAS DEPARTMENT OF TRANSPORTATION

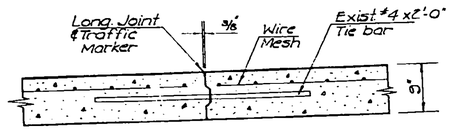
APPROVED — DATE [redacted]

DIVISION ADMINISTRATOR
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

DIST. 5 | SEDGWICK CO. | ROLL 531 | 5 7 9

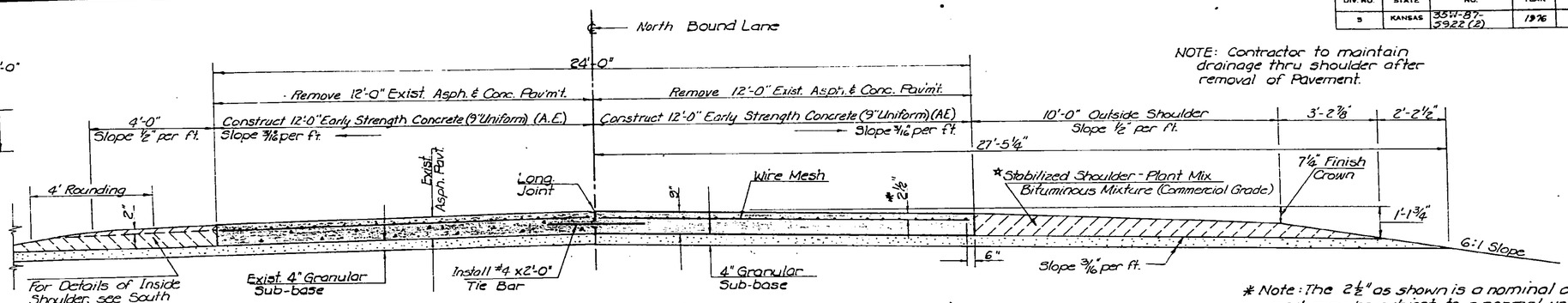
16X 14.5X 12X 12X 14.5X 16X 20X

FUR ROAD DIV. NO	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	35U-87-3922(2)	1996	2	11



LONGITUDINAL JOINT DETAIL TRANSVERSE SECTION

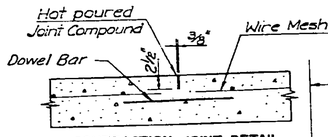
NOTE: A longitudinal joint formed by sawing 2½" deep and ⅜" wide and poured as specified for contraction joints shall be used.



NORTH BOUND TYPICAL SECTION (Sta. 340+54 to Sta. 341+07; See Note)

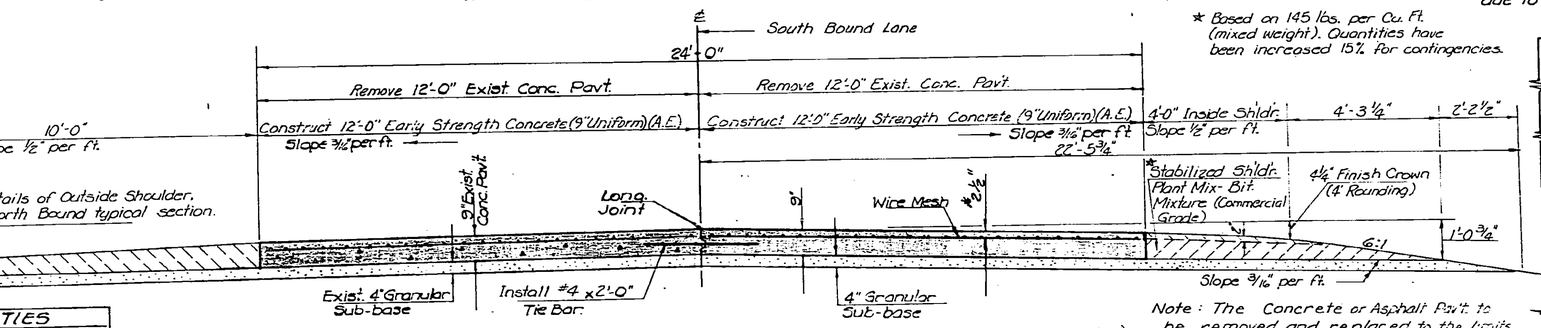
NOTE: Contractor to maintain drainage thru shoulder after removal of Pavement.

* Note: The 2½" as shown is a nominal dimension and may be subject to a normal unevenness due to placement operations.



CONTRACTION JOINT DETAIL

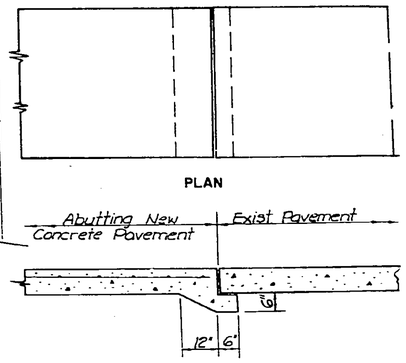
NOTE: All contraction joints to be sawed.



SOUTH BOUND TYPICAL SECTION (Sta. 340+46 to Sta. 341+34; See Note)

* Based on 145 lbs. per Cu. Ft. (mixed weight). Quantities have been increased 15% for contingencies.

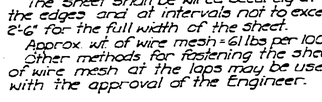
Note: The Concrete or Asphalt Pavt. to be removed and replaced to the limits specified by the Engineer at the time of Reconstruction. Pavement is to be Replaced one Lane at a time. (See Sh. No. 3 for Construction Sequence)



NOTE: Wherever a new concrete pavement abuts an existing pavement, the joint shall be underpinned as shown for the full width of the pavement.
This underpinning shall be considered as a subsidiary item.
Where there are existing tie bars underpinning will not be required.

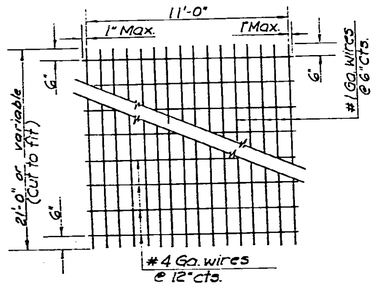
UNDERPINNING (FOR CONCRETE PAVEMENT)

QUANTITIES			
Width	Thick ness	End Area Sq. Ft.	Cu. Yds per Sta.
12'	9"	9.00	33.33



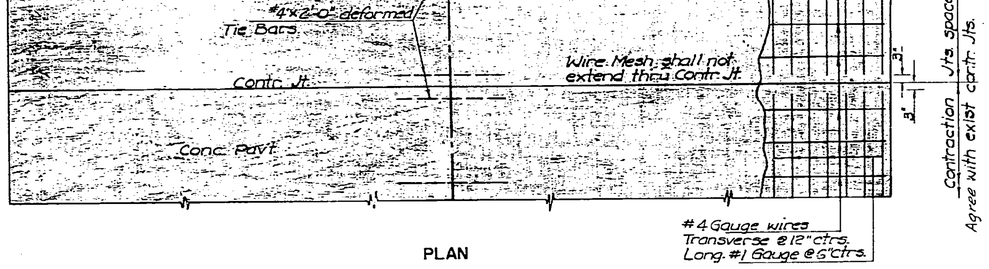
DETAIL OF LAP FOR WIRE MESH

NOTE: The lap shall extend beyond the first transverse wire of each sheet. The sheet shall be wired securely at the edges and at intervals not to exceed 2'-6" for the full width of the sheet.
Approx. wt. of wire mesh = 61 lbs. per 100 sq. ft.
Other methods for fastening the sheets of wire mesh at the laps may be used with the approval of the Engineer.

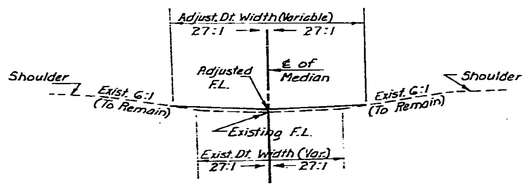


TYPICAL SHEET OF WELDED WIRE MESH

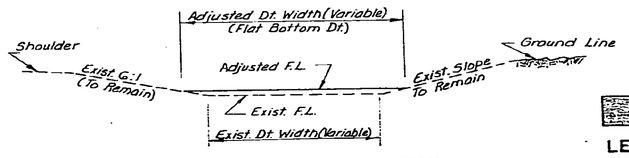
Approved Hinged Welded Wire Fabric Mat reinforcement may be used in lieu of the Flat Welded Wire Mesh shown.



PLAN



TYPICAL MEDIAN DITCH SECTION



TYPICAL OUTSIDE DITCH SECTION

LEGEND — Remove & Replace Exist. Conc. Pavement or Asphaltic Material, one lane at a time.

NOTES:
At all locations where the new concrete pavement abuts the existing concrete pavement, a joint shall be sawed prior to breaking out the existing concrete pavement.

~~When removing existing concrete pavement the existing 3'-0" tie bars extending into longitudinal joints spaced at 2'-6" ctrs shall be left in place and shall be cleaned, straightened and bonded into new pavement.~~

Construct Keyway along ℄ with new Tie Bars as Shown.
The Granular Sub-base lost or disturbed during pavt. & Shldr. removal shall be replaced with suitable granular material as approved by the Engineer and brought to correct line and grade and recompacted, this item being subsidiary to the bid item "Early Strength Concrete Pavement (9" Uniform) (AE)
The thickness indicated for Granular Sub-base is a nominal dimension and may vary to correct for normal unevenness in the foundations or for other normal unevenness encountered in placement operations.
For paving details, see Sh. No. 4 through 7 inclusive.

KANSAS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION STABILIZED SHOULDERS CONCRETE PAVEMENT DETAILS

SHEET NO.	OF	SCALE	APP'D
DESIGNED		DETAILED	QUANTITIES	TRACED
DESIGN CK.		DETAIL CK.	QUAN. CK.	TRACE CK.

DIST. 5 | SEDGWICK CO. | ROLL 531

5 8 0

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87- 5922 (2)	1974	3	11

GENERAL NOTE

ENCROACHMENTS SUCH AS FENCES, BUILDINGS, TELEPHONE, TELEGRAPH AND POWER LINES SHALL BE MOVED BY THE OWNERS.

IN THE INTEREST OF PUBLIC SAFETY, ALL GAS, GASOLINE AND OIL LINES SHALL BE MOVED BEYOND THE LIMITS OF THE ROADBED BY THE OWNER UNLESS SPECIAL PROVISION FOR THEIR RETENTION HAS BEEN MADE.

ALL WATER LINES LESS THAN THREE FEET BELOW THE SURFACE OF THE PROPOSED GRADE, OR LINES NOT CONSTRUCTED OF LEAD, COPPER, CAST IRON OR WROUGHT IRON, OR LINES NOT IN GOOD CONDITION SHALL BE LOWERED, REPLACED OR MOVED BEYOND THE LIMITS OF THE ROADBED BY THE OWNERS.

ALL OTHER UNDERGROUND UTILITIES SHALL BE PLACED IN GOOD CONDITION AND ADJUSTED TO FIT THE NEW CONSTRUCTION BY THE OWNERS.

ALL VALVES, METER BOXES, HYDRANTS, MANHOLES, ETC., SHALL BE MOVED OR ADJUSTED TO THE NEW CONSTRUCTION BY THE OWNERS UNLESS NOTED OTHERWISE ON THE PLANS.

AT BORROW AREA LOCATIONS ADJACENT TO THE RIGHT-OF-WAY, UTILITY POLES MAY BE SET AT THE PERMANENT LOCATIONS PRIOR TO CONSTRUCTION AS APPROVED BY THE ENGINEER, PROVIDED A MINIMUM VERTICAL CLEARANCE OF 14 FEET IS OBTAINED. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND THESE POLES TO COMPLETE THE WORK.

THE GEOLOGICAL INFORMATION SHOWN ON THESE PLANS IS FROM STUDIES MADE IN THE FIELD AND REPRESENTS THE BEST INFORMATION AVAILABLE TO THE KANSAS HIGHWAY COMMISSION.

CHANNELS SHALL BE CUT AT ALL CULVERTS (UNLESS OTHERWISE NOTED) TO FLOW LINE ELEVATION AND TO A WIDTH OF ONE FOOT OUTSIDE OF EACH OUTSIDE WALL AND WITH SLOPES 2 TO 1 PRIOR TO CONSTRUCTION OF THE CULVERT. QUANTITIES INCLUDED IN EXCAVATION TOTALS.

ALL TREES TO BE GRUBBED ARE MARKED THUS X. SPARE ALL TREES NOT MARKED. EXCEPTIONALLY GOOD TREES SHALL BE SPARED BY ADJUSTING THE BACKSLOPE LINES DURING CONSTRUCTION, AS DIRECTED BY THE ENGINEER.

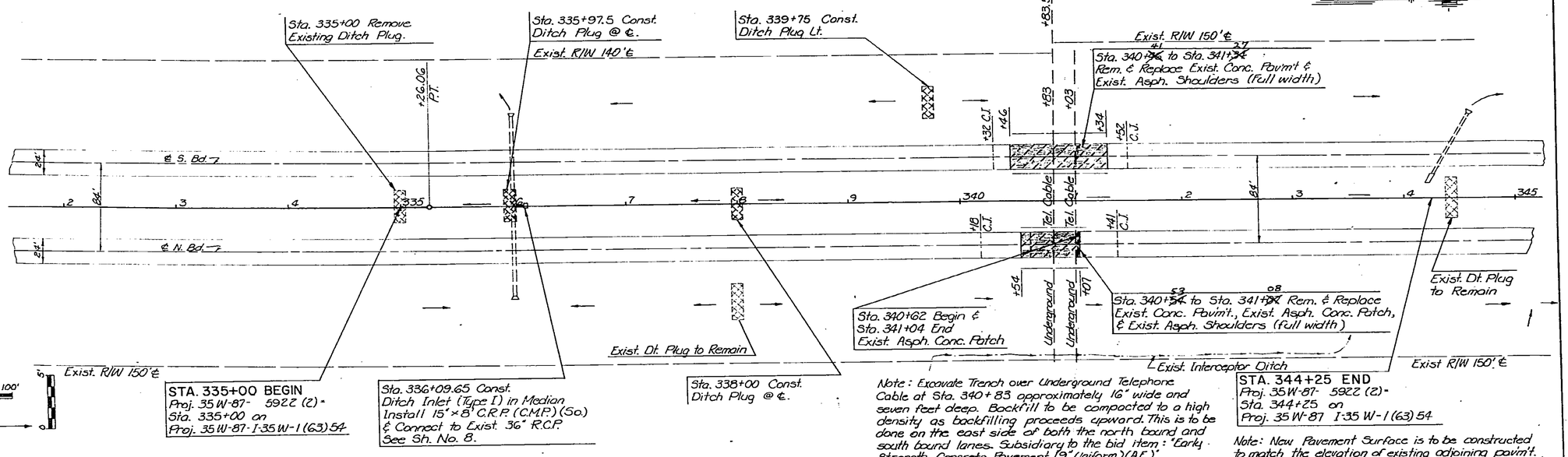
ALL ADDITIONAL RIGHT-OF-WAY SHALL BE FURNISHED BY THE STATE (UNLESS OTHERWISE NOTED).

ALL BORROW TO BE OBTAINED FROM AREAS PROVIDED BY THE CONTRACTOR SHALL BE APPROVED BY THE ENGINEER, BOTH AS TO SUITABILITY OF MATERIAL AND SITE LOCATION. LOCATIONS WHICH, IN THE OPINION OF THE ENGINEER, CONTAIN UNSUITABLE MATERIAL OR WILL LEAVE AN UNSIGHTLY APPEARANCE ON THE PROJECT WILL NOT BE APPROVED.

WHERE EXCAVATION IS SHOWN TO BE WASTED ON SITES PROVIDED BY THE CONTRACTOR, THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED.

WHERE EASEMENTS ON RAILROAD RIGHT-OF-WAY ARE SHOWN, THE CONTRACTOR SHALL BE REQUIRED TO WORK AROUND AND NOT DISTURB THE RAILROAD COMMUNICATION OR SIGNAL POLES OR LINES.

PLAN — SURVEYED, PLOTTED, NOTE BOOK, ALIGNMENT CHECKED, R/T. OF WAY CHECKED, NO., DATE, BY



SCALE
PLAN: Lat. & Long. 50' 0 50' 100'
PROFILE: Horiz. same as above
Vert.

STA. 335+00 BEGIN
Proj. 35W-87- 5922 (2)-
Sta. 335+00 on
Proj. 35W-87-I-35W-1(63)54

Sta. 336+09.65 Const. Ditch Inlet (Type I) in Median Install 15'×8' C.R.P. (C.M.P.) (Sa.) & Connect to Exist. 36" R.C.P. See Sh. No. 8.

Sta. 338+00 Const. Ditch Plug @ ℄.

Note: Excavate Trench over Underground Telephone Cable at Sta. 340+83 approximately 16" wide and seven feet deep. Backfill to be compacted to a high density as backfilling proceeds upward. This is to be done on the east side of both the north bound and south bound lanes. Subsidiary to the bid item: "Early Strength Concrete Pavement (9" Uniform) (A.E.)"

STA. 344+25 END
Proj. 35W-87- 5922 (2)-
Sta. 344+25 on
Proj. 35W-87 I-35W-1(63)54

Note: New Pavement Surface is to be constructed to match the elevation of existing adjoining pavm't.

CONSTRUCTION SEQUENCE

Inside lanes and shoulders to be constructed first with inside shoulders constructed 2" low. These lanes will then carry traffic while the outside lanes & outside shoulders are being constructed. The final 2" of surfacing on the inside shoulders may then be completed.

** 157 Cu. Yds. Rock Excavation
* 859 Cu. Yds. Common Excavation
815 Cu. Yds. Emb.

** Incls. 50 Cu. Yds. Rock Excavation (Exist. Pavm't. from Sa. Bd. Lane) to be wasted. See General Note.
** Incls. 20 Cu. Yds. Rock Excavation (Exist. Asphaltic Concrete Pavm't. from No. Bd. Lane) to be wasted. See Gen. Note.
** Incls. 7 Cu. Yds. Rock Excavation (Exist. Conc. Pavm't from No. Bd. Lane) to be wasted. See General Note.
** Incls. 63 Cu. Yds. Rock Excavation (Removal of existing asphalt shoulders).
* Incls. 944 Cu. Yds. of Common Excavation to be obtained from Rt. Ditch, Sta. 336+00 to Sta. 345+00 & from Cleaning Interceptor Ditch Rt. Sta. 340+00 to Sta. 343+00.

PROFILE — SURVEYED, PLOTTED, NOTE BOOK, GRADES CHECKED, S. I. & NOTE NOTATING CHK'D., DESIGNED, NO., DATE, BY

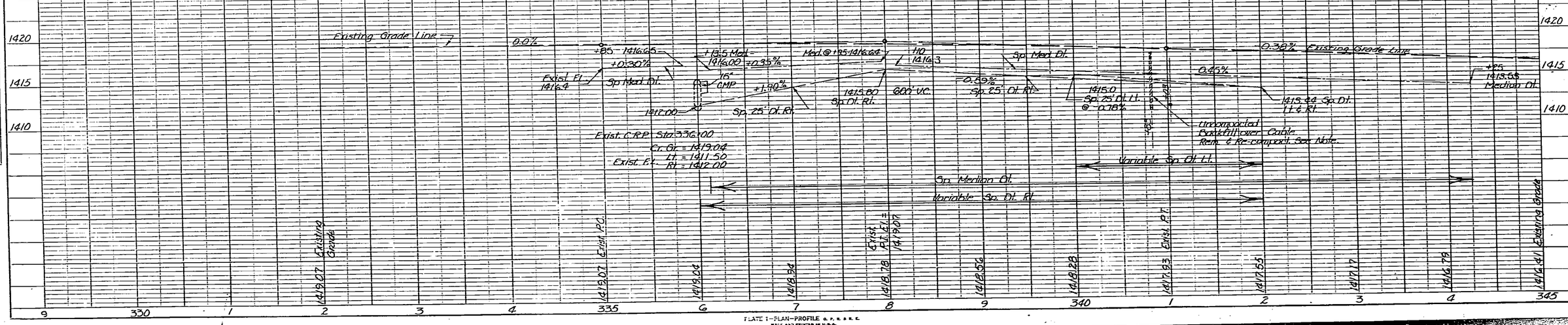


PLATE 1—PLAN—PROFILE B. P. R. & B. C.
WILL BE PRINTED ON D.R.A.
SHEET TO FOLLOW EDITION
DATE

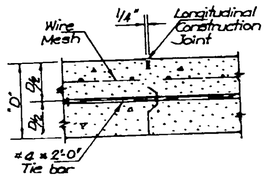
DIST. 5 | SEDGWICK CO. | ROLL 531

5 8 1

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

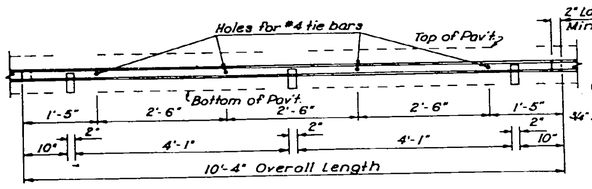
FHWA REG. NO.	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
7	KANSAS	35W-81-5922(2)	1976	4	11

Note: At Longitudinal Construction Joints a saw cut 1" deep and 1/4" wide shall be made and poured with hot poured Joint Compound.

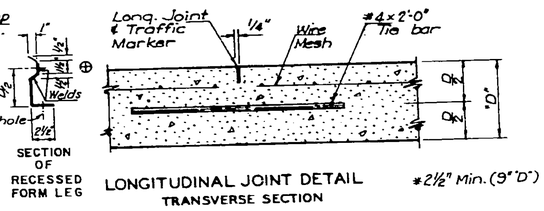


LONGITUDINAL CONSTRUCTION JOINT DETAIL
TRANSVERSE SECTION

⊕ Snap-in leg or other approved designs may be used in lieu of welded leg.



METAL STRIP FOR
LONGITUDINAL CONSTRUCTION JOINT
To be used only against forms.
Shall not extend through contraction or expansion joints.



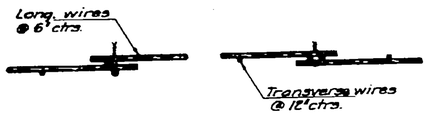
SECTION OF RECESSED FORM LEG

LONGITUDINAL JOINT DETAIL
TRANSVERSE SECTION

*2 1/2" Min. (9" "D")

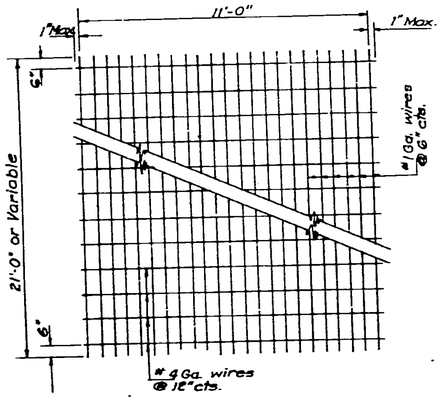
Note: A longitudinal joint formed by sawing * deep and 1/4" wide and poured with hot poured joint compound shall be used.

Note: See Std. Numbers 723, 734 & 735 for Contraction Joint details.

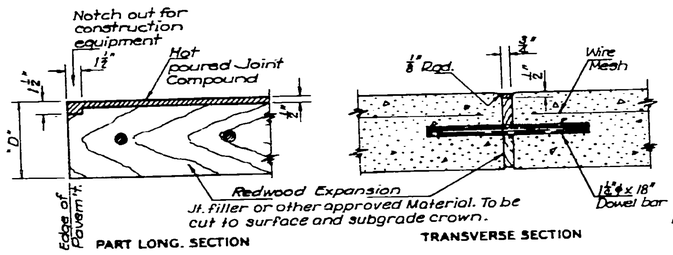


DETAIL OF LAP FOR WIRE MESH

NOTE: The lap shall extend beyond the first transverse wire of each sheet. The sheet shall be wired securely at the edges and at intervals not to exceed 2'-6" for the full width of the sheet. Approx. wt. of wire mesh = 61 lbs. per 100 sq. ft. Other methods for fastening the sheets of wire mesh at the laps may be used with the approval of the Engineer.



TYPICAL SHEET OF WELDED WIRE MESH



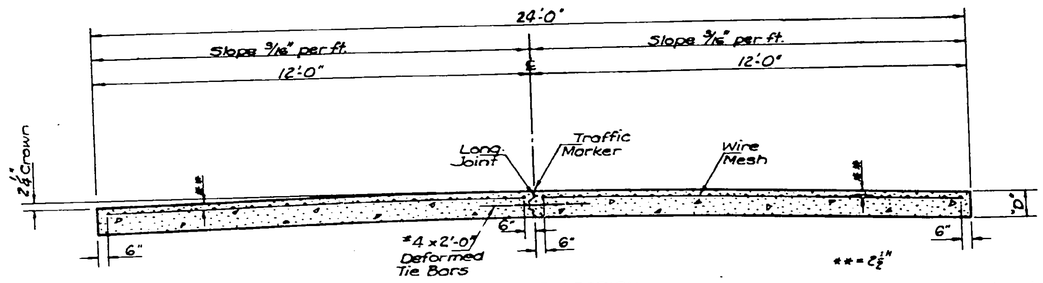
PART LONG. SECTION
TRANSVERSE SECTION

EXPANSION JOINT DETAIL

Note: Pressure Relief joints (without load transfer devices), shall be placed at the ends of the pavement slab where the new pavement abuts the ends of bridges or other rigid structures. For details of Pressure Relief Joint at bridge ends, see Std. No. 716, 718A, 718B or 719.

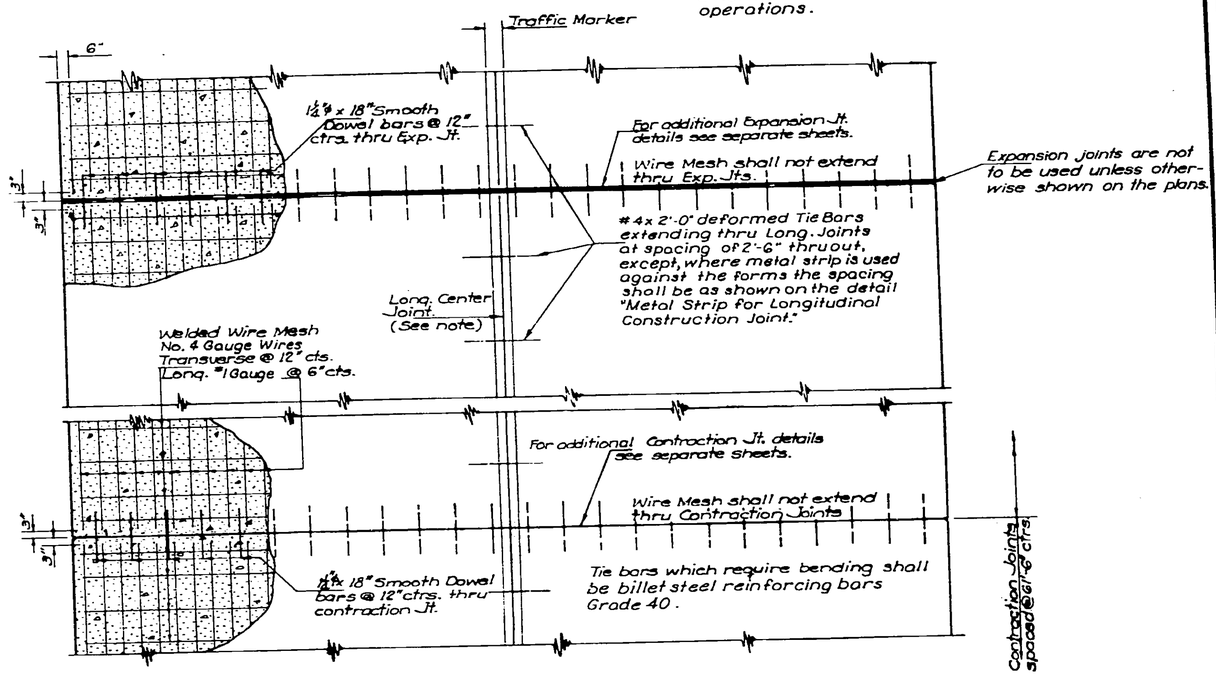
Unless otherwise noted, load transfer devices as shown in detail on other standard sheets in the plans, shall be used at all expansion & contraction joints.

NOTE: Traffic Marker to be painted by the State.



TRANSVERSE SECTION

**Note: The 2 1/2" as shown on standard sheet is a nominal dimension and may be subject to a normal unevenness due to placement operations.



PLAN
D = 9"

Note: At the beginning and end of the pavement on any given project, a construction joint as specified below shall be used unless the pavement abuts a rigid surface. The header shall be removed and the tie bars bent into the groove at right angles to the centerline of the pavement.

Transverse Construction Joints shall be sawed 3/8" wide x 2 1/4" deep and filled as specified for contraction joints.

There may be a tolerance of 10 feet in setting the basket at the end of the pour; that is, the contraction joint may be not less than 51'-6" or more than 71'-6" at the end of the pour.

QUANTITIES

	Thickness "D"	End Area Sq. Ft.	Cu. Yds. per Sta.
22' WIDTH	8"	14.67	54.32
	9"	16.50	61.11
	10"	18.33	67.90
24' WIDTH	8"	16.00	59.26
	9"	18.00	66.67
	10"	20.00	74.07

NO.	DATE	REVISIONS	BY	APP'D.
25	11-18-74	Deleted Polyethylene Alternate for Longitudinal Joint	W.L.H.	K.G.L.
24	9-10-74	Notes on Pressure Relief Joint	W.L.H.	K.G.L.
23	9-4-73	Changed dimension on Polyethylene Longitudinal Strip	W.L.H.	K.G.L.

KANSAS DEPARTMENT OF TRANSPORTATION

CONCRETE PAVEMENT
TWO LANE 12' WIDTH
STD. NO. 707.1

SHEET NO. OF	SCALE No Scale	Approved
DESIGNED	DETAILED WAB	CHECKED WAB
DESIGN CK.	DETAIL CK. RAP	Asst. Dir.

TRACED WAB
TRACE CK.

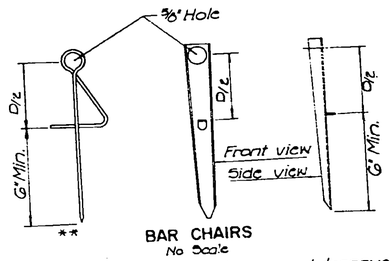
Original

DIST. 5 | SEDGWICK CO. | ROLL 531

5 8 2

16X 14.5X 12X 12X 14.5X 16X 20X

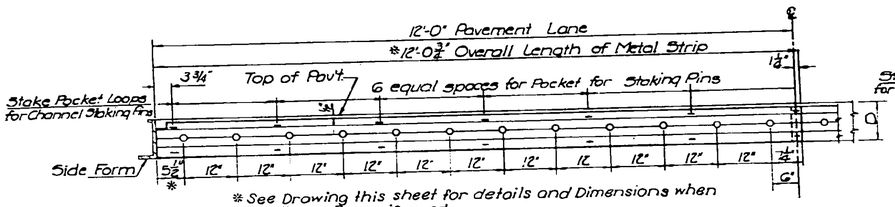
FHWA REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87-5922(2)	1976	5	11



BAR CHAIRS
No Scale

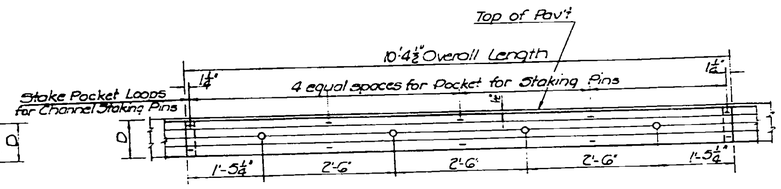
NOTE: Bar chairs shall be used to support transverse tie bars connecting adjoining sections of the slab. Two chairs shall be used to support each transverse tie bar. Other similar types may be used with the approval of the Engineer. The diameter on all wire bar chairs shall not be smaller than No. 5 gauge and shall conform to A.S.T.M. Serial Designation A82. The gauge on all steel bar chairs shall be No. 16 gauge and shall conform to the U.S. std. gauge for sheet steel.

** This type will not be approved for use with stone subbases.



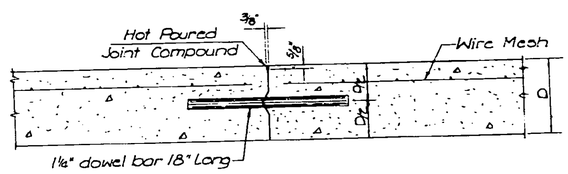
* See Drawing this sheet for details and Dimensions when Slip Form Paver is used.

ELEVATION OF METAL STRIP FOR CONTRACTION JOINT (24' PAVEMENT)
Scale: 3/4" = 1'-0"



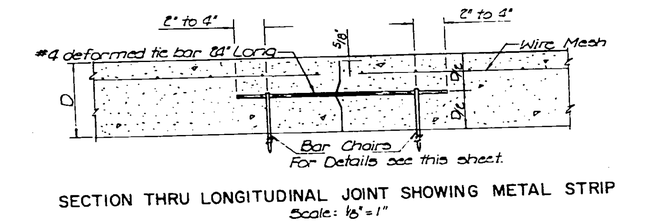
ELEVATION OF METAL STRIP FOR LONGITUDINAL JOINT
Scale: 3/4" = 1'-0"

TOP VIEW OF STAKE POCKET LOOP FOR CHANNEL STAKING PIN



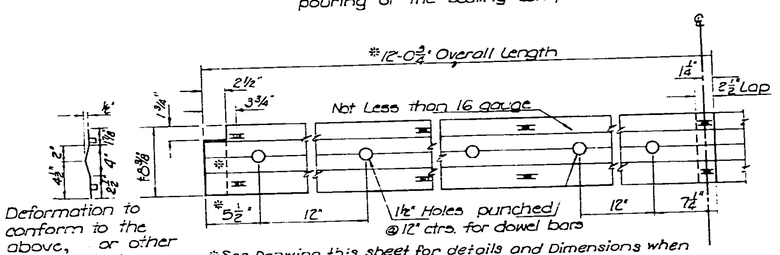
SECTION THRU CONTRACTION JOINT SHOWING METAL STRIP
Scale: 1/8" = 1"

NOTE: All contraction joints to be sawed 5/8" deep and 5/8" wide. Sawed joint to be cleaned by sand blasting prior to pouring of the sealing compound.



SECTION THRU LONGITUDINAL JOINT SHOWING METAL STRIP
Scale: 1/8" = 1"

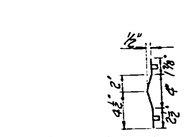
NOTE:
SUBGRADE PAPER
When Subgrade paper is required by the Specifications, or special provisions, it shall be placed on the entire subgrade. The edges of longitudinal strips of subgrade paper shall be lapped a minimum of 3 inches. The ends of longitudinal strips shall be lapped a minimum of 6 inches. The furnishing and placing of Subgrade Paper will not be paid for directly, but will be subsidiary to the pay item "Concrete Pavement".



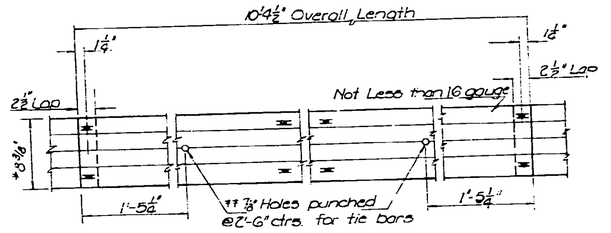
Deformation to conform to the above, or other approved shapes. These are nominal dimensions.

* See Drawing this sheet for details and Dimensions when Slip Form Paver is used.

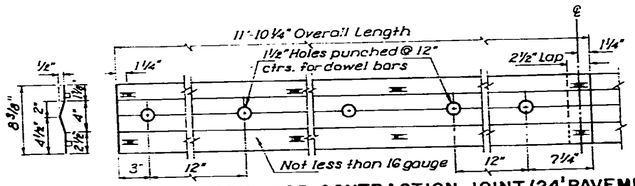
DETAILS OF METAL STRIP FOR CONTRACTION JOINT (24' PAVEMENT)
Scale: 1/8" = 1"



Deformation to conform to the above, or other approved shapes. These are nominal dimensions.

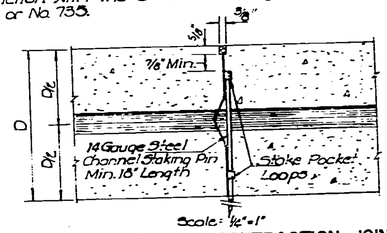


DETAILS OF METAL STRIP FOR LONGITUDINAL JOINTS
Scale: 1/8" = 1"



DETAILS OF METAL STRIP FOR CONTRACTION JOINT (24' PAVEMENT)
(When Slip Form Paver is Used)
Scale: 1/8" = 1"

Dimension when D=9"
NOTE: Metal strip shown for contraction joint to be used in conjunction with the dowel assembly as shown on Std. Sheet No. 734 or No. 735.

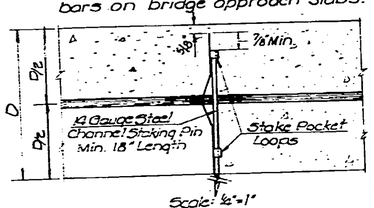


Scale: 1/2" = 1"

PIN DETAIL FOR CONTRACTION JOINT

D=9"

Metal Strip shall not extend thru expansion or contraction joints.
*Dimension when D=9"
**Holes to be 1" for plates used with #6 bars on bridge approach slabs.



Scale: 1/2" = 1"

PIN DETAIL FOR LONGITUDINAL JOINT

NO.	DATE	REVISIONS	BY	APP'D
6	1-29-71	Removed Linseed Oil Treatment	W.L.H.	K.G.L.
5	3-25-69	Rev. Mat. strip & Added slip form detail & Rev. Note Subgrade Paper	W.L.H.	K.G.L.
4	2-27-68	Rev. metal strips & Staking Pins	A.L.B.	K.G.L.
3	1-26-68	Rev. shape & length metal strips, staking pins; elim. metal clip.	P.G.F.	T.R.G.

KANSAS DEPARTMENT OF TRANSPORTATION
CONCRETE PAVEMENT
AUXILIARY DETAILS-III
STD. NO. 723 1-26-68

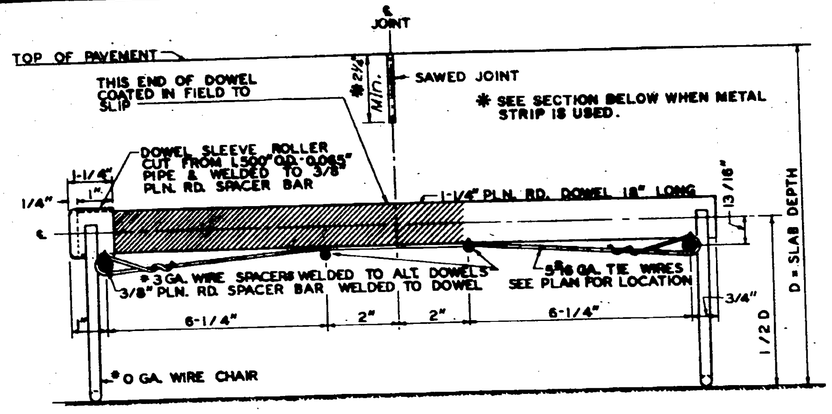
SHEET NO.	OF	SCALES	As Shown	APP'D	C.E. Kenyon
DESIGNED		DETAILED	P.G.F.	QUANTITIES	TRACED P.G.F.
DESIGN CK.		DETAIL CK.		QUAN. CK.	TRACE CK.

DIST. 5 | SEDGWICK CO. | ROLL 531

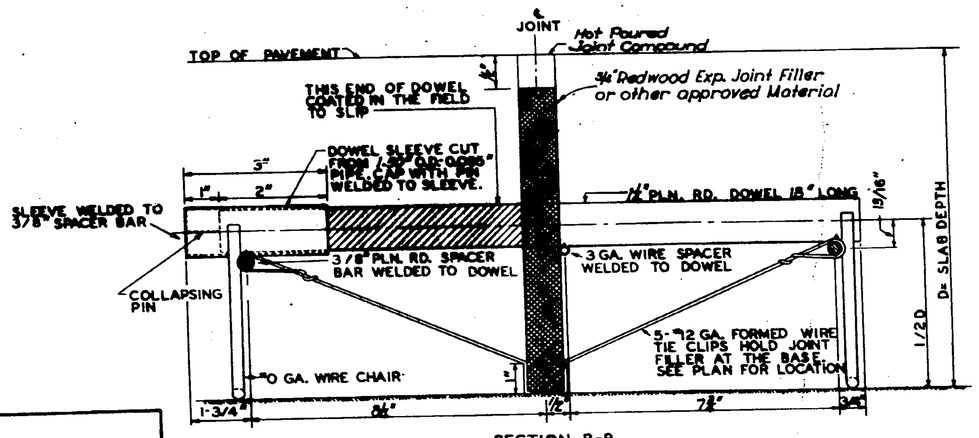
5 8 3

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

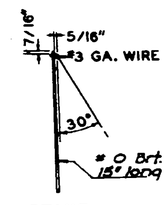
ENGR. REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	KANSAS	35W-87-5922 (2)	1976	6	11



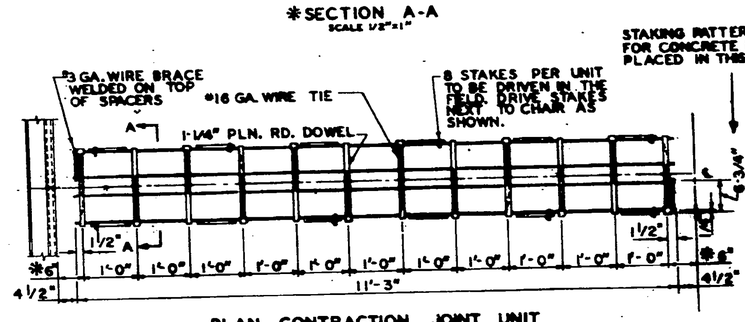
* SECTION A-A
SCALE 1/2"=1"



SECTION B-B
SCALE 1/2"=1"



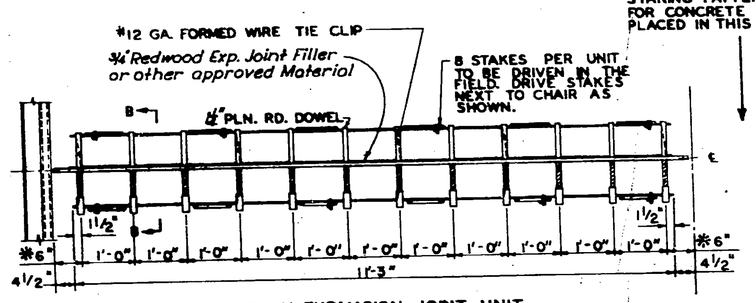
STAKE
SCALE 1-1/2"= 1'-0"
Other approved designs may be used in lieu of the type shown.



PLAN CONTRACTION JOINT UNIT
SCALE 3/4"= 1'-0"

Note:
Approx. ⅓ of the length of the dowels (floating end) shall be painted with one coat of Zinc Chromated iron oxide ready mix paint, AASHO, M142 ● and then coated with hard grease prior to installation. Other approved coatings may be used. The cutting to length of the Dowels shall be done in a manner resulting in no appreciable deformation of the ends.

A string line shall be stretched between the pavement forms along the center line of the joint. The position of the joint shall be carefully marked so that the saw cut will coincide with the center line of the joint.
The entire joint assembly shall then be carefully leveled up so that the dowels are parallel to the slab surface and free to slide in the dowel holders. Any grease scraped off the dowels in assembling the joint shall be replaced.
After the complete contraction joint is assembled, it shall be checked to be certain that the vertical plane of the joint will be perpendicular to the finished surface of the slab and at right angles with the centerline of the slab, unless shown otherwise on the plans. The dowels shall be checked to be certain that they are level and will remain in a position parallel with the finished surface of the slab.
Concrete shall then be placed over and adjacent to the joint in accordance with the requirements of the Specifications.
Other approved designs may be used in lieu of the type shown.

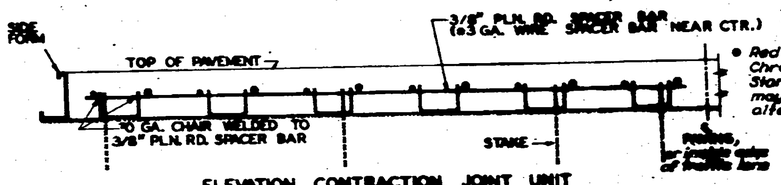


PLAN EXPANSION JOINT UNIT
SCALE 3/4"= 1'-0"

Note:
One length of Redwood board, or other approved material, cut to fit crown and subgrade, shall be used for each lane of pavement as expansion joint filler.
A string line shall be stretched between the pavement forms along the center line of the joint.
One half (8") of the length of each dowel bar shall be painted with one (1) coat of Zinc Chromated iron oxide ready mix paint AASHO, M142 ● and then heavily coated with hard grease. Each coat of paint shall be thoroughly dry before making further applications.
The entire joint assembly shall then be carefully leveled up so that the dowels are parallel to the slab surface and free to slide in the dowel holders. Any grease scraped off the dowels in assembling the joint shall be replaced. Any excess grease on the dowel holders shall be removed.
After the complete expansion joint is assembled, it shall be checked to be certain that the vertical plane of the joint will be perpendicular to the finished surface of the slab and at right angles with the center line of the slab. The dowels shall be checked to be certain that they are level and will remain in a position parallel with the finished surface of the slab.
Concrete shall then be placed over and adjacent to the joint in accordance with the requirements of the Specifications.
To finish the joint, after completion of machine finishing, floating and straight edging of the surface, the concrete over the filler shall be carefully removed and the joint edged with an edger of the proper size.
Other approved designs may be used in lieu of the type shown.
Expansion Joint material is to be installed in the field.

● Red Oxide-Zinc Chromate-Federal Standard TT-P-664B may be used as an alternate paint.

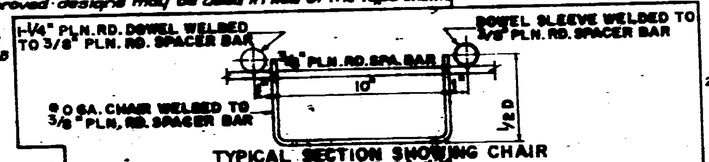
ELEVATION EXPANSION JOINT UNIT
SCALE 3/4"= 1'-0"



ELEVATION CONTRACTION JOINT UNIT
SCALE 3/4"= 1'-0"

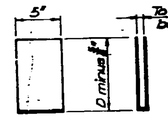
● Red Oxide-Zinc Chromate-Federal Standard TT-P-664B may be used as an alternate paint.

D = 9"



TYPICAL SECTION SHOWING CHAIR
SCALE 1/2"= 1'-0"

D = 9"



JOINT FILLER SPLICE
24 Gauge Black Steel (1 Req'd per splice)

EXPANSION JOINT

CONTRACTION JOINT

12	1-23-71	Alternate for Redwood Board	W.L.H. K.G.L.
11	5-1-69	Rev. Details when metal strip is used & Remvd. Sand Plates, Rev. Paint	W.L.H. K.G.L.
10	8-68	Added Note for alternate staking pin	W.L.H. K.G.L.

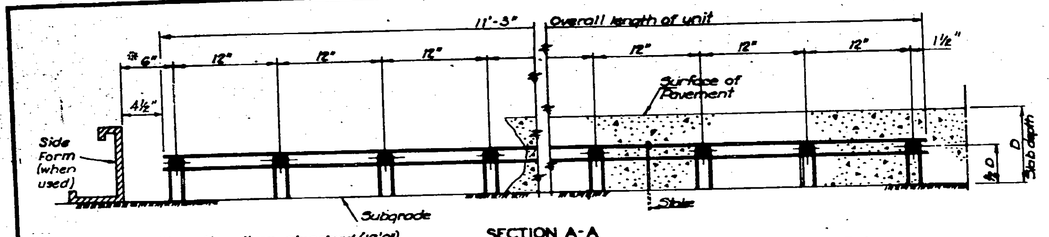
KANSAS DEPARTMENT OF TRANSPORTATION
TRANSVERSE PAVEMENT JOINTS
CONTRACTION JOINT DOWEL AND EXPANSION JOINT DOWEL ASSEMBLIES
(LACLEDE TYPE)
STD. NO. 734

DIST. 5 SEDGWICK CO. ROLL 531

5 8 4

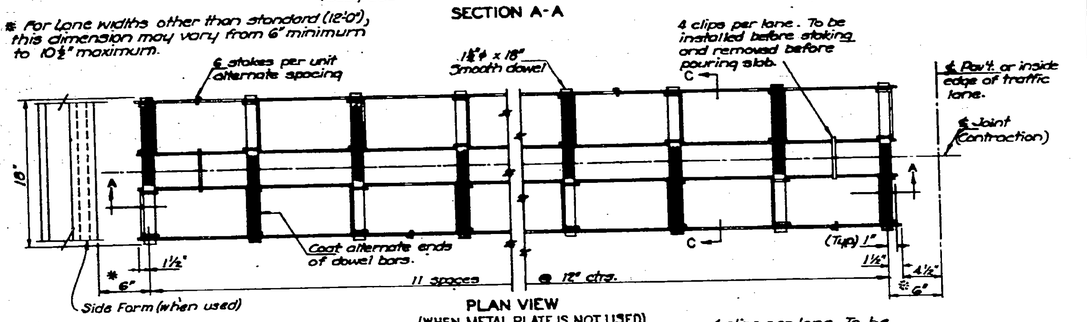
16X 14.5X 12X 12X 14.5X 16X 20X

CFMA PROJ. NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35N-87-49.72 (2)	1970	7	11

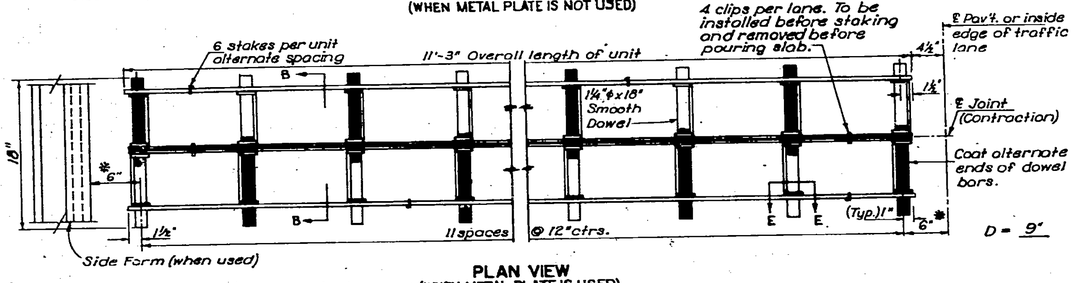


SECTION A-A

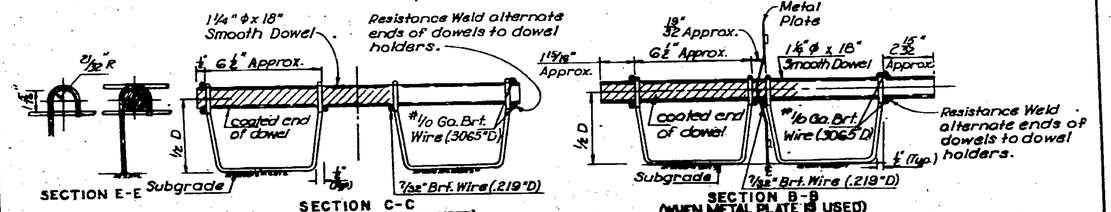
* For Lane widths other than standard (12'-0"), this dimension may vary from 6" minimum to 10½" maximum.



PLAN VIEW
(WHEN METAL PLATE IS NOT USED)

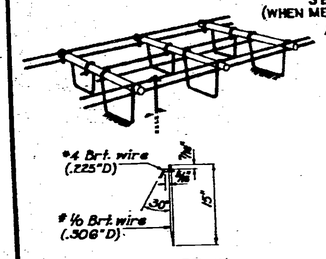


PLAN VIEW
(WHEN METAL PLATE IS USED)



SECTION C-C
(WHEN METAL PLATE IS NOT USED)

SECTION B-B
(WHEN METAL PLATE IS USED)



STAKE DETAIL
Other approved designs may be used in lieu of the type shown.

Note: A string line shall be stretched between the pavement forms along the center line of the joint. The position of the joint shall be carefully marked so that the saw cut will coincide with the center line of the joint.

Approximately ⅜ of the length of the dowels (floating end) shall be painted with one (1) coat of Zinc Chromated Iron Oxide ready mix paint, AASHO, M 42 ● and then coated with hard grease prior to installation. Other approved coatings may be used. The cutting to length of the Dowels shall be done in a manner resulting in no appreciable deformation of the ends.

The entire joint assembly shall then be carefully leveled so that the dowels are parallel to the slab surface and free to slide in the dowel holders. Any coating scraped off the dowels in assembling the joint shall be replaced.

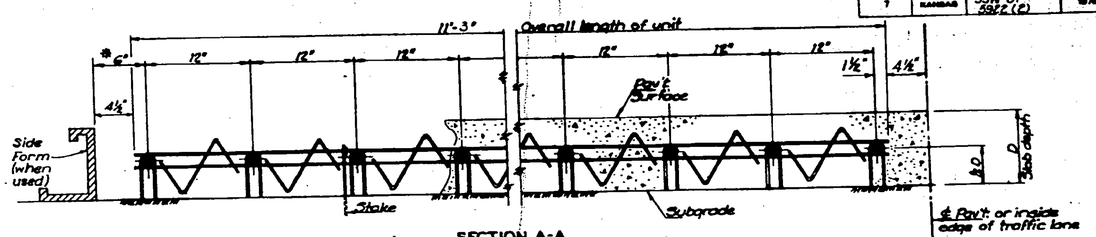
After the complete contraction joint is assembled, it shall be checked to be certain that the vertical plane of the joint will be perpendicular to the finished surface of the slab and at a right angle with the center line of the slab unless shown otherwise on the plans. The dowels shall be checked to be certain that they are level and will remain in a position parallel with the finished surface of the slab.

Concrete shall then be placed over and adjacent to the joint in accordance with the requirements of the specifications.

Other approved designs may be used in lieu of the type shown.

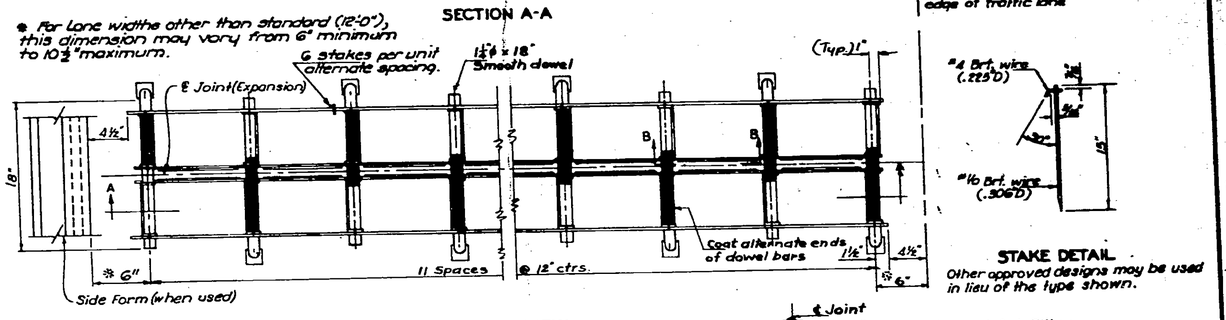
CONTRACTION JOINT

● Red Oxide-Zinc Chromate-Federal Standard TT-P-664B may be used as an alternate paint.

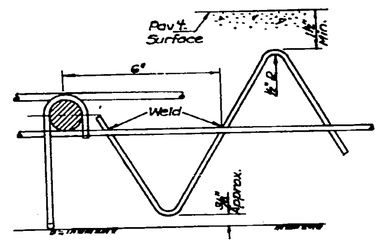


SECTION A-A

* For Lane widthe other than standard (12'-0"), this dimension may vary from 6" minimum to 10½" maximum.

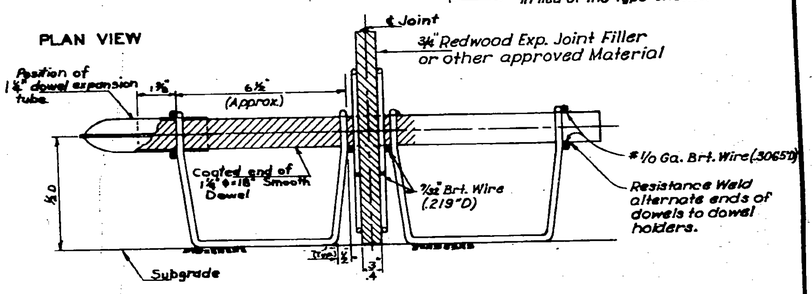


STAKE DETAIL
Other approved designs may be used in lieu of the type shown.

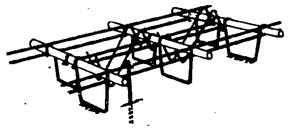


SECTION B-B

PLAN VIEW



END VIEW OF UNIT



DETAIL OF HOOK

Note:
One length of Redwood board, or other approved material; cut to fit crown and subgrade shall be used for each lane of pavement as expansion joint filler.

A string line shall be stretched between the pavement forms along the center line of the joint.

One half (9") of the length of each dowel bar shall be painted with one (1) coat of Zinc Chromated Iron Oxide ready mix paint AASHO, M 42 ● and then heavily coated with hard grease. Each coat of paint shall be thoroughly dry before making further applications.

The entire joint assembly shall then be carefully leveled up so that the dowels are parallel to the slab surface and free to slide in the dowel holders. Any grease scraped off the dowels in assembling the joint shall be replaced. Any excess grease on the dowel holders shall be removed.

After the complete expansion joint is assembled, it shall be checked to be certain that the vertical plane of the joint will be perpendicular to the finished surface of the slab and at a right angle with the center line of the slab. The dowels shall be checked to be certain that they are level and will remain in a position parallel with the finished surface of the slab.

Concrete shall then be placed over and adjacent to the joint in accordance with the requirements of the Specifications.

To finish the joint after completion of machine finishing, floating and straight edging of the surface, the concrete over the filler shall be carefully removed and the joint edged with an edger of the proper size.

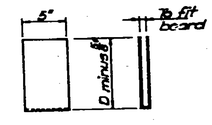
Expansion Joint material is to be installed in the field.

Other approved designs may be use in lieu of the type shown.

● Red Oxide-Zinc Chromate-Federal Standard TT-P-664B may be used as an alternate paint.

EXPANSION JOINT

D = 9"



JOINT FILLER SPLICE
24 Gauge Black Steel
(1 Req'd per splice)

NO.	DATE	REVISIONS	BY	APP'D
10	1-25-71	Alternate for Redwood Board	W.L.H.	K.G.L.
9	4-7-69	Rev. Weld, note & 7/32" Brt. Wire	W.L.H.	K.G.L.
8	5-1-69	Rev. Details when metal Strip is used. Removed Sand Plates, Rev. Paint	W.L.H.	K.G.L.

KANSAS DEPARTMENT OF TRANSPORTATION
CONTRACTION & EXPANSION JT.
DOWEL ASSEMBLIES
(ANNORTITE TYPE)
STD. NO. 736

DIRECT ENG.	SCALE	Alternate	APPROVED
RECOMMENDED Anderson	DETAILED	CHECKED	TRACED
ENGINEER OF	DETAIL CK.	DRAW. CK.	TRACE CK.

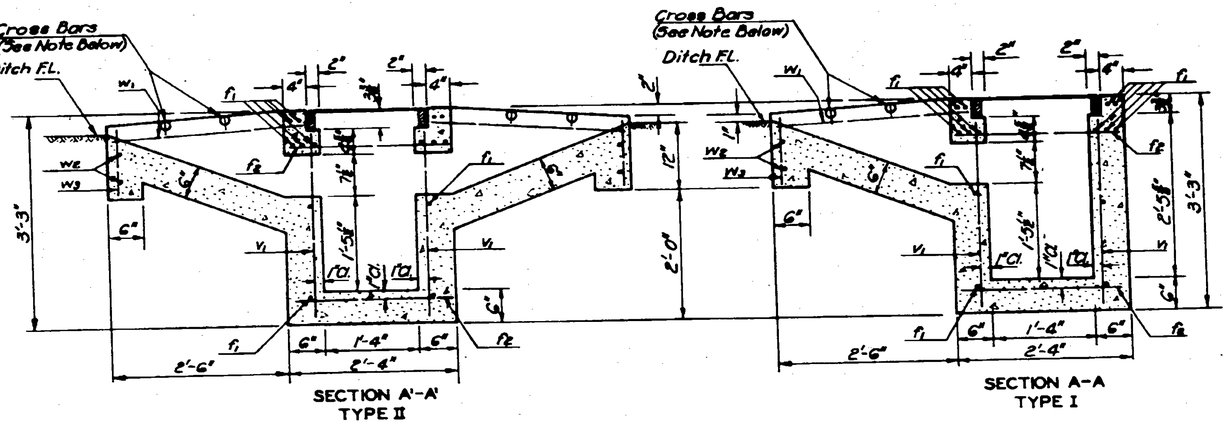
ORIGINAL

DIST. 5 SEDGWICK CO. ROLL 531

5 8 5

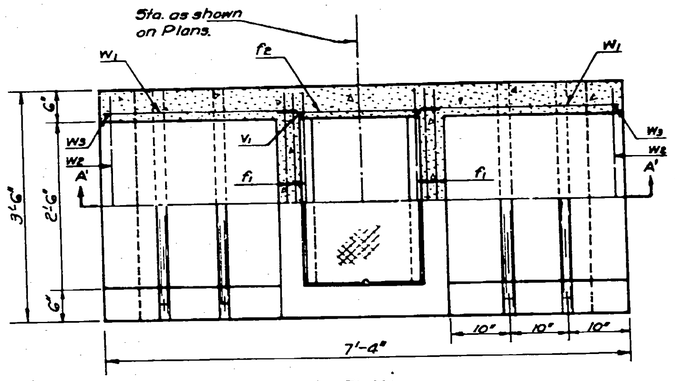
16X 14.5X 12X 12X 14.5X 16X 20X

FHWA REG. NO.	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
7	KANSAS	35W-81-5922(2)	1976	8	11

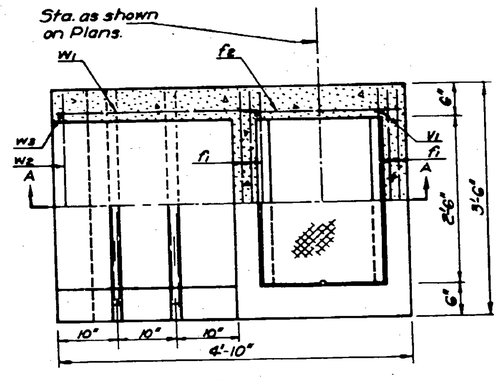


SECTION A'-A'
TYPE II

SECTION A-A
TYPE I



PLAN
TYPE II

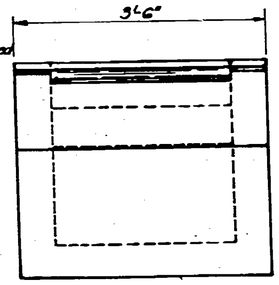


PLAN
TYPE I

NOTE: Cross bars shall be standard weight 2" galvanized pipe and shall be furnished in place as a subsidiary item.

All cross bars shall be cut flush with outside of wing walls.

Cross bars shall be fastened securely to the concrete wings by bolts or other suitable means.



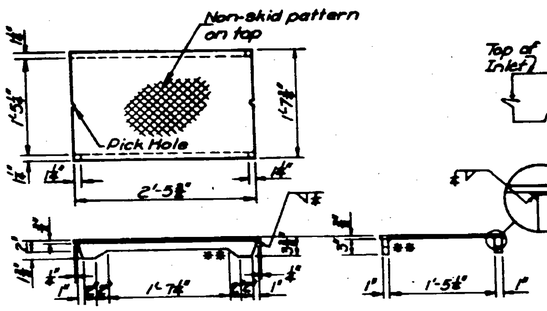
FRONT ELEVATION
TYPE I & TYPE II

BILL OF MATERIAL

TYPE II			TYPE I		
Bar	No.	Length	Bar	No.	Length
f_1	14	3'-3"	f_1	14	3'-3"
f_2	4	2'-1"	f_2	4	2'-1"
V_1	4	3'-0"	V_1	4	3'-0"
W_1	4	3'-0"	W_1	2	3'-0"
W_2	4	3'-3"	W_2	2	3'-3"
W_3	4	0'-10"	W_3	2	0'-10"
Class "A" Conc.		1.1 Cu.Yd.	Class "A" Conc.		0.9 Cu.Yd.
Reinf. Steel		60 Lbs.	Reinf. Steel		50 Lbs.
Struct. Steel		98 Lbs.	Struct. Steel		98 Lbs.
Class III Excav.		4 Cu.Yds.	Class III Excav.		3 Cu.Yds.

NOTE: ALL REINFORCING BARS ARE SIZE #4.

INLET
TYPE I & TYPE II

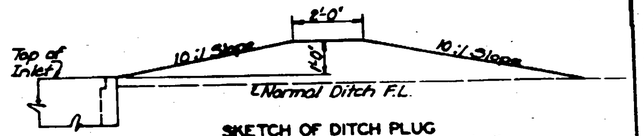


*** STRUCTURAL STEEL COVER PLATE**
Weight = 98 Lbs. each

Cover plate shall be painted either in the shop or in the field with one coat of zinc dust paint, followed by two field coats of aluminum paint.

* Nonskid floor plate (Commercial Grade) welded to steel (ASTM A-7, A-36, A-242 or A-441) bars.

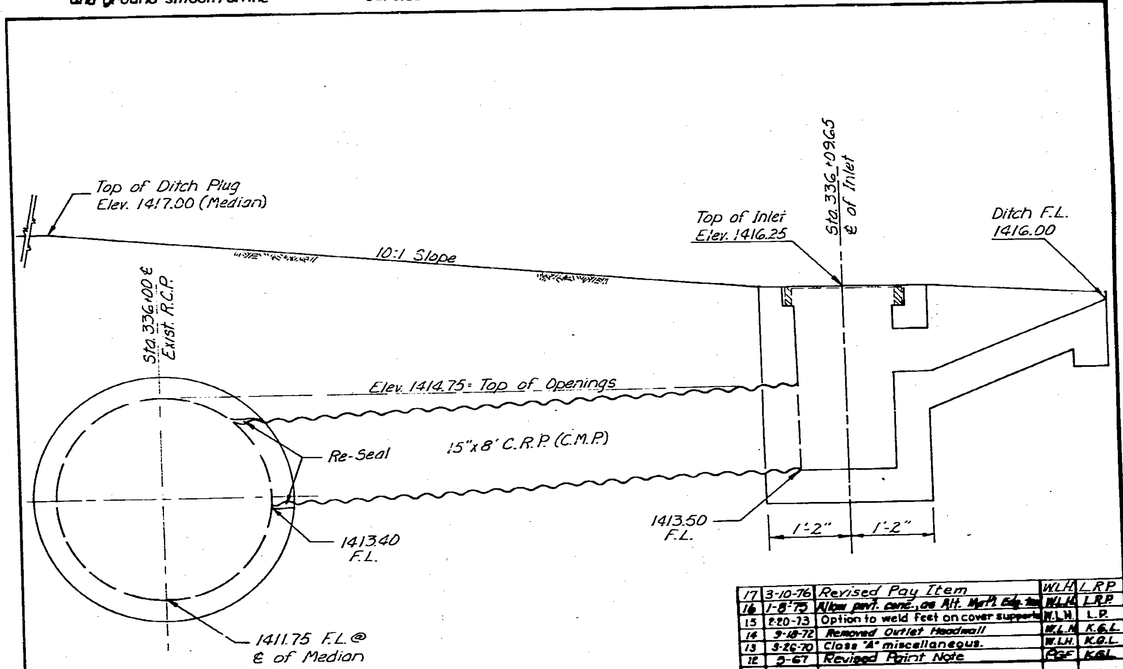
** At the contractor's option, the supports on the cover plate may be made of 2" Stock with the "feet" portions welded to the 2" steel bars. The weld shall be ⅜" full length, each side and ground smooth on the outside.



SKETCH OF DITCH PLUG

An earth dike, as shown above, shall be constructed across the ditch downstream from each type I inlet where no other plug is used.

NOTE: Use Class "A" concrete thruout in both Inlets and Outlet.
All exposed edges shall be finished with an edging tool.
Reinforcing bars shall be bent around pipes.
No deductions in Concrete quantities shall be made for pipe openings in either Inlets or Outlets.
At the contractors option Class A Concrete (AE) or Mix used in Conc. Pvt. may be used throughout. ~~but payment shall be made as Cu. Yds. Class A Concrete Miscellaneous.~~



ELEVATION OF PIPE & INLET

NO.	DATE	REVISIONS	BY	APP'D
17	3-10-76	Revised Pay Item	W.L.H.	L.R.P.
16	1-8-75	Allow cont. conc. as Alt. to Cl. "A"	W.L.H.	L.R.P.
15	8-20-73	Option to weld feet on cover supports	W.L.H.	L.P.
14	3-18-72	Removed Outlet Headwall	W.L.H.	K.G.L.
13	3-26-70	Class "A" miscellaneous.	W.L.H.	K.G.L.
12	9-67	Revised Paint Note	RGF	K.G.L.

KANSAS DEPARTMENT OF TRANSPORTATION

CONCRETE
DITCH INLETS, TYPES I & II

STD. NO. 6B14 SCALE 1" = 1' (For RP's ≤ 96" shaft)

DESIGNED BY ____ DATE ____ DETAILED BY ____ TRACED BY ____
CHECKED BY ____ APPROVED BY ____ DATE ____

DIST. 5 | SEDGWICK CO. | ROLL 531 | [redacted] 5 8 6

Pub. Road Div. No	State	Project No.	Fiscal Year	Sheet No.	Total Sheets
5	Kansas	35W-87-5922 (2)	1976	9	11

CONC. PAVEMENT (9" UNIFORM) (A.E.)

Sta. to Sta.		Side	Sq. Yds.	Remarks
340+46	341+34	Lt (S. Bd)	239.67	
340+54	341+07	Rt (N. Bd)	141.33	
			376.00	

EARTHWORK

Sta. to Sta.		Excavation Cu. Yds. Rock	Excavation Cu. Yds. Common	Compaction Cu. Yds. (Type B) (MR-5)
335+00	344+25	157	959	815
Totals		157	959	815

DRAINAGE STRUCTURES

Station	Side	Size	Type	Conc. Cl. "A" Cu. Yds.	Reinf. Steel Lbs.	CRP, CMP, Lin. Ft. 15"
336+10.365	℄	15"x8'	CRP(CMP)			8
Total						8

RECAPITULATION OF BRIDGE QUANTITIES

Bridge No.
Station

Item	Unit
Class 1 Excavation	Cu. Yds.
Class 11 Excavation	Cu. Yds.
Excavation	Cu. Yds.
Water	M. Gals.
Class Concrete	Cu. Yds.
Class Concrete	Cu. Yds.
Reinforcing Steel	Lbs.
Structural Steel	Lbs.
Bearing Devices	Lbs.
Cast Iron	Lbs.
Untreated Timber Piles	Lin. Ft.
Treated Timber Piles	Lin. Ft.
Steel Piles	Lin. Ft.
Untr. Timber Test Piles	Lin. Ft.
Steel Test Piles	Lin. Ft.
Metal Pile Points	Each
Removal of Exist. Struct.	L. S.

RECAPITULATION OF ROAD QUANTITIES

ITEM	QUANTITY	UNIT
Common Excavation	959	Cu. Yds.
Rock Excavation	157	Cu. Yds.
Compaction of Earthwork (Type B) (MR-5)	815	Cu. Yds.
Water	1	M. Gal.
Early Strength Concrete Pavement (9" Uniform) (A.E.)	376	Sq. Yds.
Inlet (Type I-Ditch)	1	Each.
15" Cross Road Pipe (C.M.P.)	8	Lin. Ft.
Plant Mix-Bituminous Mixture (Commercial Grade	143	Tons
Mobilization	Lump Sum	L. S.
Traffic Control	Lump Sum	L. S.

PLANT MIX – BITUMINOUS MIXTURE (COMMERCIAL GRADE)

Sta. to Sta.		Lin. Ft. Shldr.	Tons 4' Shldr.	Tons 10' Shldr.	Tons Total
SOUTH - BOUND LANES					
340+46	341+34	88	26.61	50.95	77.56
NORTH - BOUND LANES					
340+54	341+07	53	16.02	30.69	46.71
Total					* 124.27

* Quantities have been increased 15% for contingencies as shown in "Recapitulation of Road Quantities"

Note: Seeding to be accomplished by the Department of Transportation Maintenance Forces.

KANSAS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

STD. NO. 50.2

DETAILED & TRACED CAB APPROVED [illegible] DATE 3/15/77

SUMMARIES TABULATED ____ CHKD. ____ INKED ____

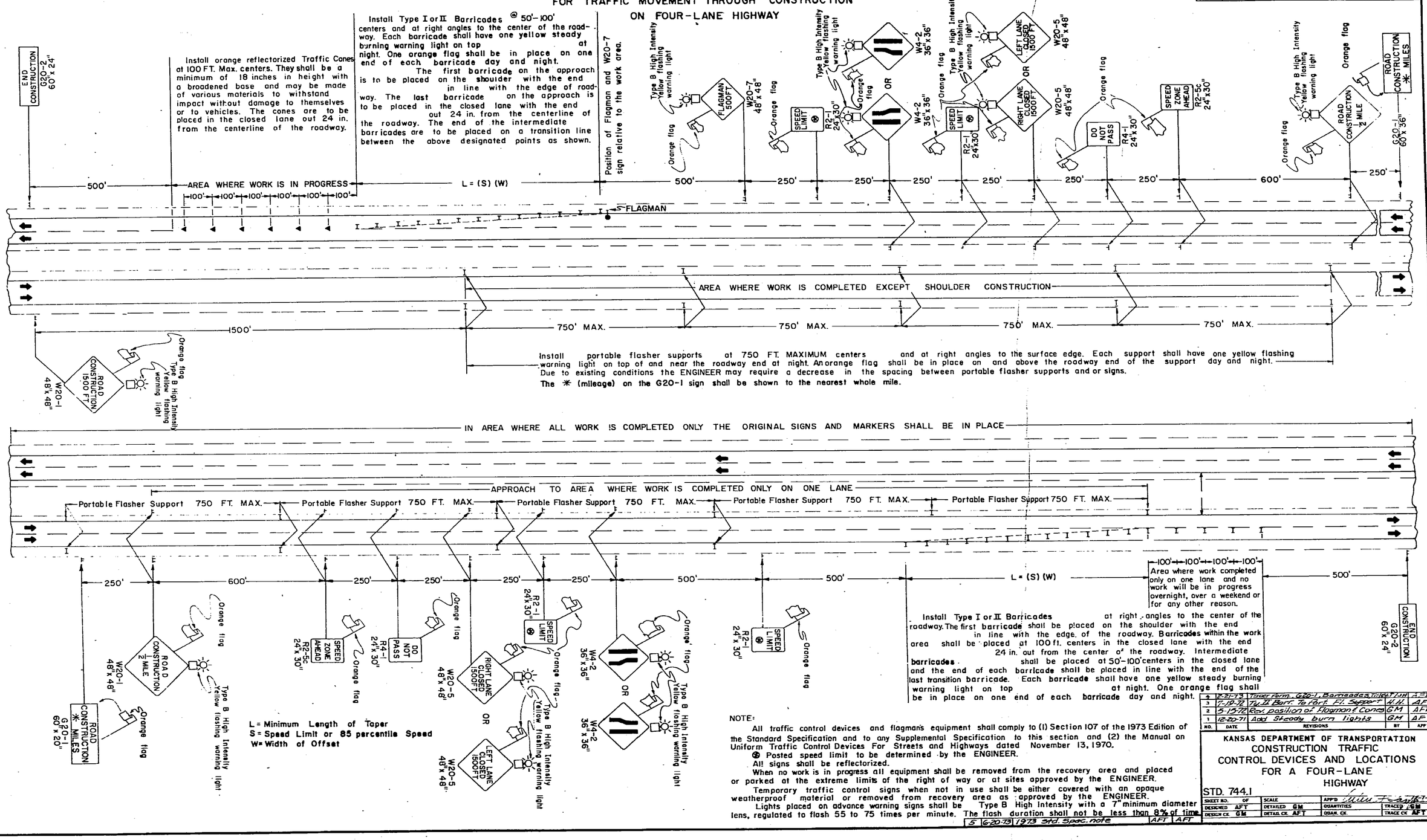
DIST. 5 | SEDGWICK CO. | ROLL 531

5 8 7

16X | 14.5X | 12X | 14.5X | 16X | 12X

FHWA REG. NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-81- 5922 (2)	1976	10	11

TRAFFIC CONTROL SIGNING
FOR TRAFFIC MOVEMENT THROUGH CONSTRUCTION ON FOUR-LANE HIGHWAY



Install portable flasher supports at 750 FT. MAXIMUM centers and at right angles to the surface edge. Each support shall have one yellow flashing warning light on top of and near the roadway end at night. An orange flag shall be in place on and above the roadway end of the support day and night. Due to existing conditions the ENGINEER may require a decrease in the spacing between portable flasher supports and or signs.
The * (mileage) on the G20-1 sign shall be shown to the nearest whole mile.

Install Type I or II Barricades at right angles to the center of the roadway. The first barricade shall be placed on the shoulder with the end in line with the edge of the roadway. Barricades within the work area shall be placed at 100 ft. centers in the closed lane with the end 24 in. out from the center of the roadway. Intermediate barricades shall be placed at 50'-100' centers in the closed lane and the end of each barricade shall be placed in line with the end of the last transition barricade. Each barricade shall have one yellow steady burning warning light on top at night. One orange flag shall be in place on one end of each barricade day and night.

NOTE:
All traffic control devices and flagmans equipment shall comply to (1) Section 107 of the 1973 Edition of the Standard Specification and to any Supplemental Specification to this section and (2) the Manual on Uniform Traffic Control Devices For Streets and Highways dated November 13, 1970.
Ⓢ Posted speed limit to be determined by the ENGINEER.
All signs shall be reflectorized.
When no work is in progress all equipment shall be removed from the recovery area and placed or parked at the extreme limits of the right of way or at sites approved by the ENGINEER.
Temporary traffic control signs when not in use shall be either covered with an opaque weatherproof material or removed from recovery area as approved by the ENGINEER.
Lights placed on advance warning signs shall be Type B High Intensity with a 7" minimum diameter lens, regulated to flash 55 to 75 times per minute. The flash duration shall not be less than 8% of time.

NO.	DATE	REVISIONS	BY	APP'D
5	6-20-73	1973 Std. Spec. note	AFT	AFT
4	2-21-73	Taper Form, G20-1, Barricades, Tie-In	AFT	AFT
3	7-10-72	Fig. II Part To Part Ft. Support	GM	AFT
2	5-15-72	Revision of Flagman's Comments	GM	AFT
1	12-20-71	Add Steady burn lights	GM	AFT

KANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION TRAFFIC CONTROL DEVICES AND LOCATIONS FOR A FOUR-LANE HIGHWAY

STD. 744.1

SHEET NO.	OF	SCALE		APP'D		7-1-71
DESIGNED	AFT	DETAILED	GM	QUANTITIES		TRACED GM
DESIGN CK	GM	DETAIL CK	AFT	DRAW. CK		TRACE CK AFT

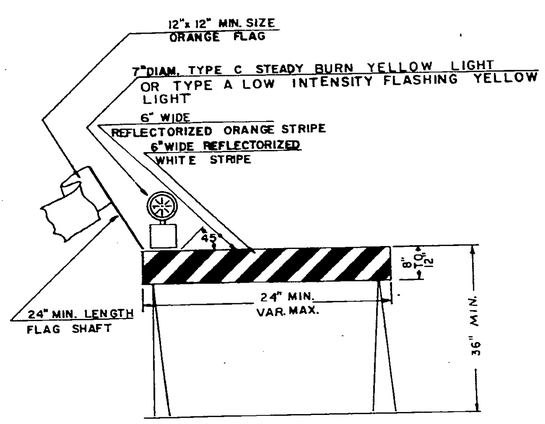
DIST. 5 SEDGWICK CO. ROLL 531

5 8 8

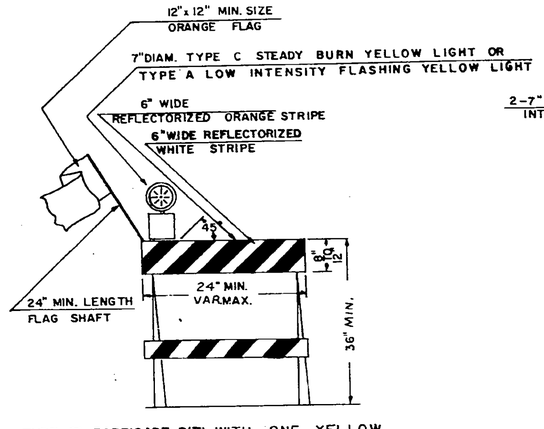
16X 14.5X 12X 12X 14.5X 16X

FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	35W-87- 5922 (2)	1976	11	11

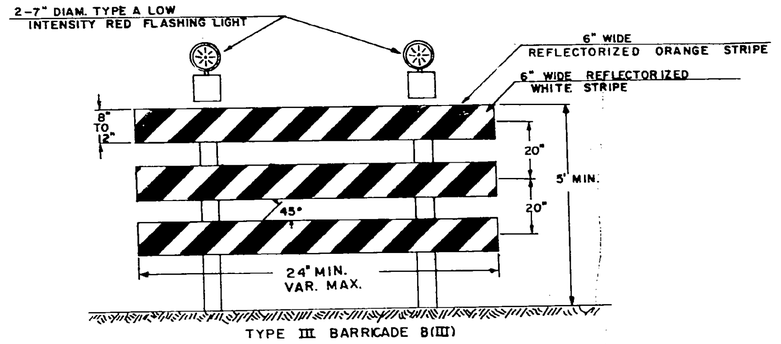
TRAFFIC CONTROL DEVICES
FOR TRAFFIC MOVEMENT THROUGH CONSTRUCTION



TYPE I BARRICADE B(I) WITH ONE YELLOW STEADY BURN OR FLASHING LIGHT AND ONE ORANGE FLAG



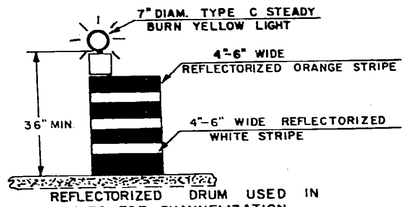
TYPE II BARRICADE B(II) WITH ONE YELLOW STEADY BURN LIGHT AND ONE ORANGE FLAG



TYPE III BARRICADE B(III)

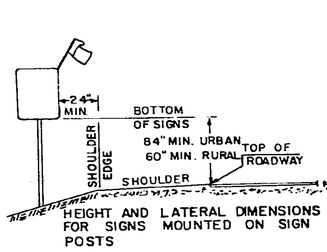
△2

NOTICE:
The Manual on Uniform Traffic Control Devices For Streets and Highways dated November 13,1970, requires that after January 1,1976, all markings for barricade rails and reflectorized drums shall be alternate orange and white stripes. The length of rails for all types of barricades are to be two (2') feet minimum to variable maximum. For rails less than 36 inches long, a 4 inch wide stripe may be used.

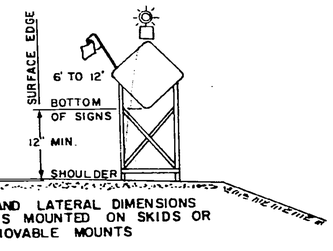


REFLECTORIZED DRUM USED IN SERIES FOR CHANNELIZATION

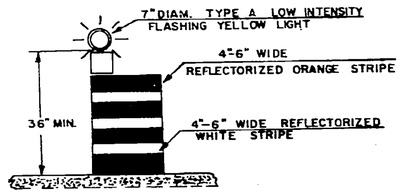
Barricade Note
For wooden barricades, nominal lumber dimensions will be satisfactory. For rails less than 3 ft. long, 4" wide stripes may be used. The number of reflectorized rail faces for the (3) types of barricades are to be as follows:
Type I-2 (one each direction)
Type II-4 (two each direction)
Type III-3 if facing traffic in one direction; 6 if facing traffic in two directions



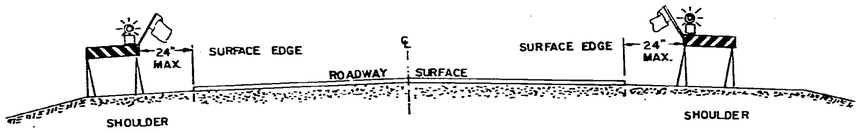
HEIGHT AND LATERAL DIMENSIONS FOR SIGNS MOUNTED ON SIGN POSTS



HEIGHT AND LATERAL DIMENSIONS FOR SIGNS MOUNTED ON SKIDS OR OTHER MOVABLE MOUNTS



REFLECTORIZED DRUM USED SINGLY



POSITION OF TYPE I OR II BARRICADES WITH ONE YELLOW FLASHING LIGHT AND ONE ORANGE FLAG USED ON SHOULDERS ADJACENT TO SURFACE EDGES SPACED AT 750 FT.

TO BE USED IN AREAS WHERE WORK IS COMPLETED EXCEPT SHOULDER CONSTRUCTION

NOTE:
All traffic control devices and flagman's equipment shall comply to (1) Section 107 of the 1973 Edition of the Standard Specification and to any Supplemental Specification to this section and (2) the Manual on Uniform Traffic Control Devices For Streets and Highways dated November 13, 1970.
Barricades and drums used to control traffic at night shall be reflectorized.
The yellow barricade and drum lights shall have a 7" minimum diameter lens.
The flashing light shall be Type 'A' Low Intensity regulated to flash 55 to 75 times per minute with a flash duration not less than 10% of time. The steady burn lights shall be Type 'C'.
All signs, barricades, drums flashing lights and orange flags shall be securely erected and maintained in good condition at all times.
All signs shall be reflectorized.
When no work is in progress all equipment shall be removed from the recovery area and placed or parked at the extreme limits of the right of way or at sites approved by the ENGINEER.
Temporary traffic control signs when not in use shall be either covered with an opaque weatherproof material or removed from the recovery area as approved by the ENGINEER.

NO.	DATE	REVISIONS	BY	APP'D
3	7-7-75	Delete Part. Fl. Sgt., Blkstrpe, Brdm	JTG	AFT
2	11-1-74	NOTICE	AFT	AFT
1	6-20-73	1973 Std. Spec. note	AFT	AFT

KANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION TRAFFIC CONTROL DEVICES AND LOCATIONS: SIGNS, BARRICADES & DRUMS
STD. 752
12-16-73

SHEET NO. OF	SCALE	APP'D	QUANTITIES	TRACED
DESIGNED AFT	DETAILED LT		QUANTITIES	LT
DESIGN CK	DETAIL CK AFT		QUAN. CK	TRACE CK

DIST. 5 | SEDGWICK CO. | ROLL 531 | 5 8 9

16X | 14.5X | 12X | 12X | 14.5X | 16X | 20X

MICROFILMED PLAN RECORD

Supplement No. 13 Date 9-4-79 District 5 Card 19

County SEDGWICK Rte. & Co. 87 Project No. T 4004 (2)

Tracing Dr. No. --- Approx. Length 0.289 Mi. or Ft. Year 8/73

Location INTERSECTION OF HARRY AND OLIVER STREETS IN WICHITA

Type of Construction GRADING, BRIDGE WIDENING, SURFACING

Remarks AS BUILT PLANS — 36 OFFICIAL SHEETS — 2

MICROFILM RECORD ROLL 531

First Frame No. 590 Last Frame No. _____ Roll No. _____

STATE OF KANSAS

STATE HIGHWAY COMMISSION

PLAN OF PROPOSED INTERSECTION IMPROVEMENTS

HARRY STREET & OLIVER STREET

FEDERAL AID PROJECT — TOPICS

87-T-4004 (2)

FED. ROAD DIST. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
5	KANSAS			

REVISED APRIL 5, 1971

GRADING, SURFACING, AND BRIDGE WIDENING

GENERAL NOTES

SEE THE WICHITA MAINTENANCE DEPARTMENT TO APPLY ASPHALT OIL TREATMENT TO NEW CONSTRUCTED BRIDGE HANDRAILS & CURB AREAS

CONTRACTOR TO REMOVE MANHOLES, INLETS, PIPES & OTHER SMALL STRUCTURES AS SHOWN ON PLANS OR AS DIRECTED TO DO BY RESIDENT ENGINEER SUBSIDIARY TO THE COST OF THE PROJECT

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ALL CROSS-HATCHED AREAS INDICATE REMOVAL

ALL PROPOSED GRADES SHOWN ON PLANS ARE TOP OF CURB ELEVATIONS

MATCH EXISTING GRADES AT PROPERTY LINE EXCEPT AT HARRY & OLIVER ST INTERSECTION WHERE GRADES 5" BEHIND BACK OF CURB ADDITIONAL GRADING SHALL BE COMPLETED AROUND NEW DRIVE & WALK CONSTRUCTION TO MATCH DRIVE & WALK CONSTRUCTION

(A) CONTROL POINT LOCATIONS ON MEDIAN CURB

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ALL SECTION IRONS & PROPERTY IRON TO BE TIED DOWN OR REPLACED IF DESTROYED

PROJECT NO 87-T-4004(2)

PROJECT NO 87-T-4004(2)

1529.02 0.289
653.36

GROSS LENGTH OF PROJECT 1529 FT
EXCEPTIONS NONE
ADDITIONS NONE

NOTE: TRAFFIC SHALL BE CARRIED THROUGH CONSTRUCTION ON HARRY & OLIVER ONLY.

RECOM FOR APPROVAL DATE	RECOM FOR APPROVAL DATE
ENGINEER OF URBAN HIGHWAYS STATE HIGHWAY COMMISSION OF KANSAS	ENGINEER FEDERAL HIGHWAY ADMINISTRATION DEPARTMENT OF TRANSPORTATION
APPROVED DATE	APPROVED DATE
STATE HIGHWAY ENGINEER STATE HIGHWAY COMMISSION OF KANSAS	DIVISION ENGINEER FEDERAL HIGHWAY ADMINISTRATION DEPARTMENT OF TRANSPORTATION

DIST. 5 SEDGWICK CO. ROLL 531

590

16X 14.5X 12X 12X 14.5X 16X

MICROFILMED PLAN RECORD
13 9-4-79 5 19
SEDGWICK 87 T-4004 (2)
0289 8.73
INTERSECTION OF HARRY AND
OLIVER STREETS IN WICHITA
GRADING, BRIDGE WIDEN
ING, SURFACING
AS BUILT PLANS -36
OFFICE SHEETS - 2
MICROFILMED BY
ROLL 531
590

STATE OF KANSAS

STATE HIGHWAY COMMISSION

PUB ROAD DIV NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	KANSAS	87-T-4004(2)	1970	1	36

REVISED APRIL 5, 1971
GRADING, SURFACING, AND BRIDGE WIDENING

PLAN OF PROPOSED INTERSECTION IMPROVEMENTS

HARRY STREET & OLIVER STREET

FEDERAL AID PROJECT — TOPICS

87-T-4004 (2)

GENERAL NOTES

CITY OF WICHITA MAINTENANCE DEPARTMENT TO APPLY LINSEED OIL TREATMENT TO NEW CONSTRUCTED BRIDGE HANDRAILS & RUBGUARDS.

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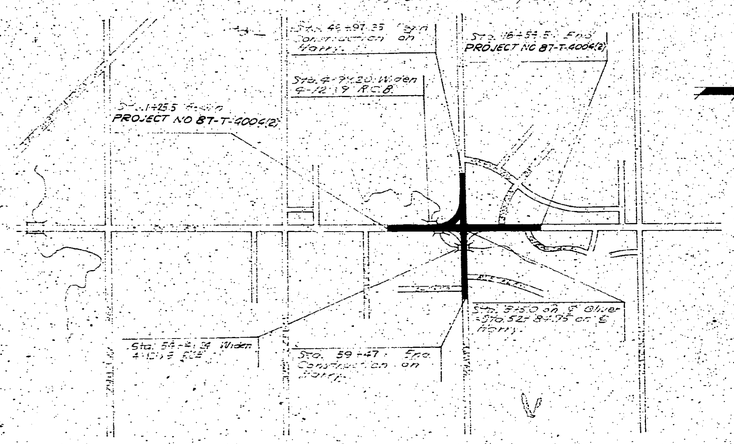
ALL SECTION IRONS & PROPERTY IRON TO BE TIED DOWN OR REPLACED IF DESTROYED.

1970 T-400A Counts Indicate (ADT) 19,000 for N.S. on Harry 13,000 Vehicles per day on Oliver



NOTE: TRAFFIC SHALL BE CARRIED THROUGH CONSTRUCTION ON HARRY & OLIVER ONLY.

Net Length of Project	1529.00	Ft. = 0.289 Miles
Net Length of Bridge	75.66 Ft	= 0.014 Miles
Net Length of Road	1453.34	Ft. = 0.275 Miles

GROSS LENGTH OF PROJECT 1529 Ft.
Exceptions None
Additions None

RECOM. FOR APPROVAL DATE	RECOM. FOR APPROVAL DATE
ENGINEER OF URBAN HIGHWAYS, STATE HIGHWAY COMMISSION OF KANSAS	ENGINEER, FEDERAL HIGHWAY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION
APPROVED DATE	APPROVED DATE
STATE HIGHWAY ENGINEER, STATE HIGHWAY COMMISSION OF KANSAS	DIVISION ENGINEER, FEDERAL HIGHWAY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

DIST. 5 SEDGWICK CO. ROLL 531
590
16X 14.5X 12X
12X 14.5X 16X

PUB ROAD DIV NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	KANSAS	[redacted]	1970	1	36

STATE OF KANSAS

STATE HIGHWAY COMMISSION

GRADING, SURFACING, AND BRIDGE WIDENING

PLAN OF PROPOSED INTERSECTION IMPROVEMENTS

HARRY STREET & OLIVER STREET

FEDERAL AID PROJECT — TOPICS

87-T-4004 (2)

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6-8	PLAN SHEETS HARRY ST.
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12-15	R.C.B. EXTENSION HARRY ST. & DRY CREEK
16	CONCRETE PAVEMENT AUXILARY DETAILS III
17	" " " IV
18	TRANSVERSE PAVEMENT JOINTS, CONTRACTION JOINT, DOWEL & EXP. JOINT DOWEL ASSEMBLIES (LACLEDE)
19	SUPPORTS & SPACERS FOR REINFORCING STEEL
20	COMBINATION MANHOLE INLET 3-4 Lt. ℄ Sta 4+075 OLIVER ST. DETAILS
21	CONCRETE PAVEMENT DETAILS
22	INLET DETAILS
23	ALLEY, ENTRANCE PAVEMENT, SIDEWALK, & STEPS DETAILS
24	REINF. CONC. MANHOLE DETAILS
25	CONSTR. TRAFFIC CONTROL DEVICES & LOCATION
26	SCHEDULE OF INLETS & MANHOLES
27	ASPH. CONC. OVERLAY, LIME TREATED SUBGRADE, & COMB. MATERIAL (AB-2) QUANTITIES
28	SUMMARY OF QUANTITIES ON HARRY
29	SUMMARY OF QUANTITIES ON OLIVER & RECAPITULATION OF ROAD & BRIDGE QUANTITIES
30-36	CROSS-SECTIONS

1970 Traffic Census 14,770 Vehicles per day on Harry
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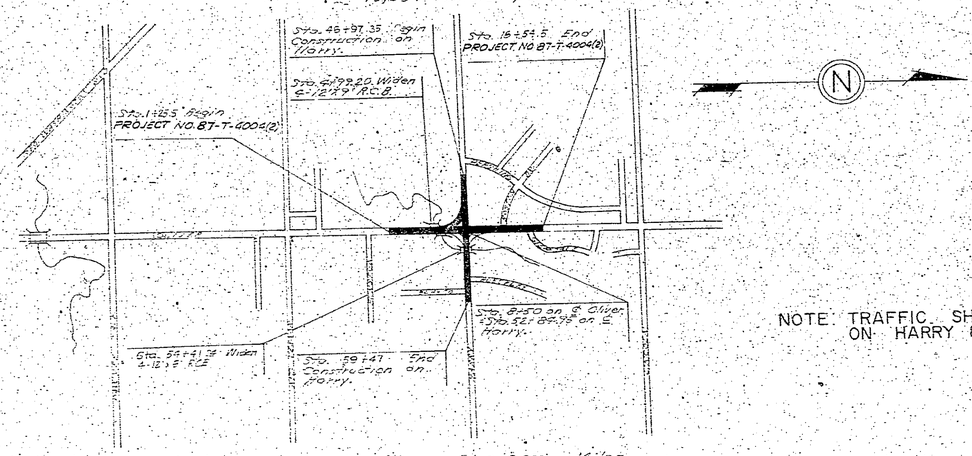

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Net Length of Bridge = 75.66 Ft. = 0.014 Miles
Net Length of Road = 1453.34 Ft. = 0.275 Miles

GROSS LENGTH OF PROJECT 1,529 Ft.
Exceptions None
Additions None

GENERAL NOTES

CITY OF WICHITA MAINTENANCE DEPARTMENT TO APPLY LINSEED OIL TREATMENT TO NEW CONSTRUCTED BRIDGE HANDRAILS & RUBGUARDS.

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RECOM. FOR APPROVAL DATE	RECOM. FOR APPROVAL DATE
ENGINEER OF URBAN HIGHWAYS, STATE HIGHWAY COMMISSION OF KANSAS	ENGINEER, FEDERAL HIGHWAY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION
APPROVED DATE	APPROVED DATE
STATE HIGHWAY ENGINEER, STATE HIGHWAY COMMISSION OF KANSAS	DIVISION ENGINEER, FEDERAL HIGHWAY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

DIST. 5 SEDGWICK CO. ROLL 531

[redacted]

Survey Proj # Sheet BB DLK 55
Plan 836
Exc J156.200
Checked

PUB ROAD DIV NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	KANSAS	87-T-4004(2)	1970	1	36

REVISED APRIL 5, 1971

STATE OF KANSAS

STATE HIGHWAY COMMISSION

GRADING, SURFACING, AND BRIDGE WIDENING

PLAN OF PROPOSED INTERSECTION IMPROVEMENTS

HARRY STREET & OLIVER STREET

FEDERAL AID PROJECT — TOPICS

87-T-4004 (2)

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	30-36A	CROSS-SECTIONS
	24A	RETAINING WALL DETAILS

COMPLETED CONSTRUCTION PLANS

87-T-4004 (2) PROJECT AS CONSTRUCTED

PREPARED BY Ogle E. Rhoten RESIDENT ENGINEER

DATE: 5-22-73

1970 Traffic Census 14,770 Vehicles per day on Harry
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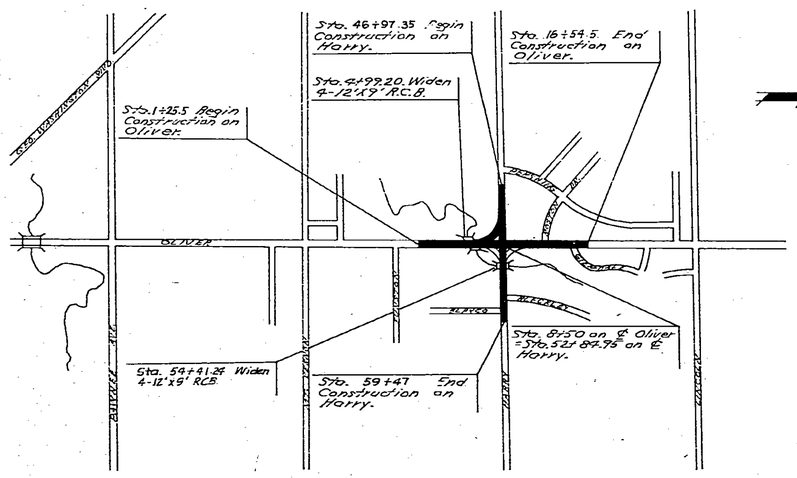

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Net Length of Project = 1,529.00 Ft. = 0.289 Miles
Net Length of Bridges = 75.66 Ft. = 0.014 Miles
Net Length of Road = 1,453.34 Ft. = 0.275 Miles

Gross Length Of Project 1,529 Ft.
Exceptions None
Additions None

THESE PLANS (35MM) MICROFILMED IN 1979, ROLL #531 FR 590

RECOM. FOR APPROVAL DATE	RECOM. FOR APPROVAL DATE
ENGINEER OF URBAN HIGHWAYS STATE HIGHWAY COMMISSION OF KANSAS	ENGINEER FEDERAL HIGHWAY ADMINISTRATION DEPARTMENT OF TRANSPORTATION
APPROVED DATE	APPROVED DATE
STATE HIGHWAY ENGINEER STATE HIGHWAY COMMISSION OF KANSAS	DIVISION ENGINEER FEDERAL HIGHWAY ADMINISTRATION DEPARTMENT OF TRANSPORTATION

DIST. 5 | SEDGWICK CO. | ROLL 531 | 5 9 2

16X | 14.5X | 12X | 12X | 14.5X | 16X

FUS ROAD DIV NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
8	KANSAS	87-T-4004(2)	1970	1	36

STATE OF KANSAS

STATE HIGHWAY COMMISSION

GRADING, SURFACING, AND BRIDGE WIDENING

PLAN OF PROPOSED INTERSECTION IMPROVEMENTS

HARRY STREET & OLIVER STREET

FEDERAL AID PROJECT — TOPICS

87-T-4004 (2)

VOID

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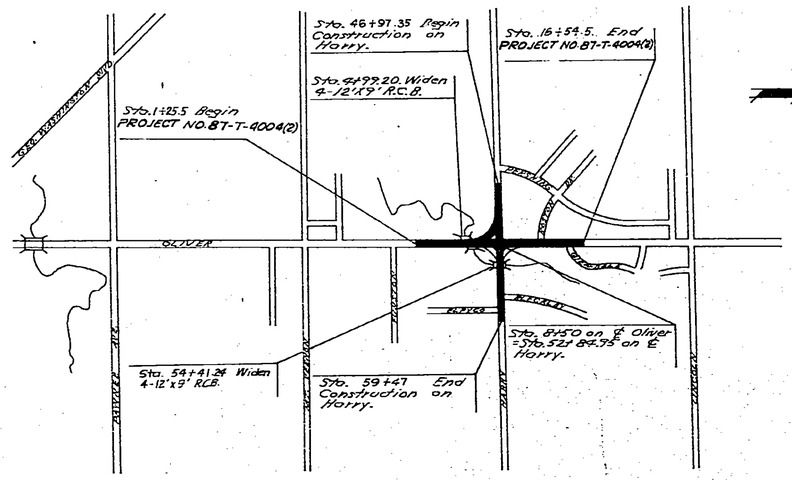
25	CONSTR. TRAFFIC CONTROL DEVICES & LOCATION
26	SCHEDULE OF INLETS & MANHOLES
27	ASPH. CONC. OVERLAY, LIME TREATED SUBGRADE, & COMB. MATERIAL (AB-2) QUANTITIES
28	SUMMARY OF QUANTITIES ON HARRY
29	SUMMARY OF QUANTITIES ON OLIVER & RECAPITULATION OF ROAD & BRIDGE QUANTITIES
30-36	CROSS-SECTIONS

1970 Traffic Census 14,770 Vehicles per day on Harry
15,037 Vehicles per day on Oliver



Net Length of Project = 1529.00 Ft. = 0.289 Miles
Net Length of Bridges = 75.66 Ft. = 0.014 Miles
Net Length of Road = 1,453.34 Ft. = 0.275 Miles

GROSS LENGTH OF PROJECT 1,529 Ft.
Exceptions None
Additions None

GENERAL NOTES

CITY OF WICHITA MAINTENANCE DEPARTMENT TO APPLY LINSEED OIL TREATMENT TO NEW CONSTRUCTED BRIDGE HANDRAILS & HUBGUARDS.

CONTRACTOR TO REMOVE MANHOLES, INLETS, PIPES & OTHER SMALL STRUCTURES AS SHOWN ON PLAN OR AS INSTRUCTED TO DO BY RESIDENT ENGINEER. SUBSIDIARY TO THE COST OF THE PROJECT.

SAW JOINT FOR REMOVAL TO BE (1)FOOT FROM BACK OF CURB UNLESS OTHERWISE NOTED ON PLANS.

ALL CROSS-HACHURED AREAS INDICATE REMOVAL.

ALL PROPOSED GRADES SHOWN ON PLANS ARE TOP OF CURB ELEVATIONS.

MATCH EXISTING GRADES AT PROPERTY LINE EXCEPT AT HARRY & OLIVER ST. INTERSECTION. MATCH GRADES 5' BEHIND BACK OF CURB ADDITIONAL GRADING SHALL BE COMPLETED AROUND NEW DRIVE & WALK CONSTRUCTION TO MATCH DRIVE & WALK CONSTRUCTION.

Ⓐ CONTROL POINT LOCATIONS ON MEDIAN CURB.

CONTRACTOR TO COORDINATE CONSTRUCTION WITH TRAFFIC ENGR. DIVISION, CITY OF WICHITA, FOR INSTALLATION OF CONDUITS, SIGNAL CONSTRUCTION, TRAFFIC MARKING & OTHER SUCH ITEMS.

CONTRACTOR TO COORDINATE ALL CONSTRUCTION WITH ALL UTILITIES CONCERNED.

CONTRACTOR TO ADJUST TO PROPOSED PAVEMENT GRADE ALL EXISITING STORM & SANITARY SEWER MANHOLES ON THE PROJECT. PRIVATE UTILITIES SHALL BE ADJUSTED TO PROPOSED PAVEMENT GRADES BY THEIR OWNERS. CONTRACTOR TO REMOVE EXISITING PAVEMENT TO LIMITS DETERMINED BY THE ENGINEER AT ALL LOCATIONS WHERE MANHOLES ARE TO BE ADJUSTED TO GRADE. CONTRACTOR TO REPLACE PAVEMENT WITH 7" CONC. BASE AFTER MANHOLES HAVE BEEN ADJUSTED.

ALL LINES OF REMOVAL THAT DO NOT TERMINATE AT A JOINT SHALL BE SAWED TO NEAT LINES. THE SAWING OF EXISTING CONSTRUCTION TO FACILITATE REMOVAL SHALL BE CONSIDERED AS SUBSIDIARY TO THE COST OF PROJECT.

CONTRACTOR TO UNDERPIN ALL SECTIONS WHERE NEW CONCRETE BASE CONSTRUCTION ADJOINS EXISTING PAVEMENT. ALL UNDERPINNING SHALL BE CONSIDERED AS INCIDENTAL TO THE COST OF PROJECT.

THE CITY OF WICHITA STANDARD BENCHMARK ON S.E. CORNER OF OLIVER & HARRY ST. INTERSECTION TO BE RELOCATED TO CLEAR NEW CONSTRUCTION. THE CITY OF WICHITA DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIV., WILL FURNISH NEW STANDARD BENCHMARK.

ALL SECTION IRONS & PROPERTY IRON TO BE TIED DOWN OR REPLACED IF DESTROYED.

VOID

NOTE: TRAFFIC SHALL BE CARRIED THROUGH CONSTRUCTION ON HARRY & OLIVER ONLY.

RECOM. FOR APPROVAL DATE	
ENGINEER OF URBAN HIGHWAYS STATE HIGHWAY COMMISSION OF KANSAS	
APPROVED DATE	
STATE HIGHWAY ENGINEER STATE HIGHWAY COMMISSION OF KANSAS	

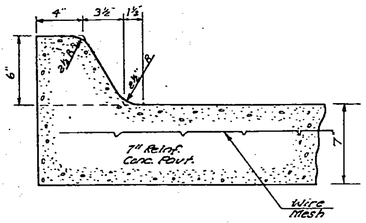
RECOM. FOR APPROVAL DATE	
ENGINEER FEDERAL HIGHWAY ADMINISTRATION DEPARTMENT OF TRANSPORTATION	
APPROVED DATE	
DIVISION ENGINEER FEDERAL HIGHWAY ADMINISTRATION DEPARTMENT OF TRANSPORTATION	

R. W. LINN 3604 REGISTERED KANSAS PROFESSIONAL ENGINEER

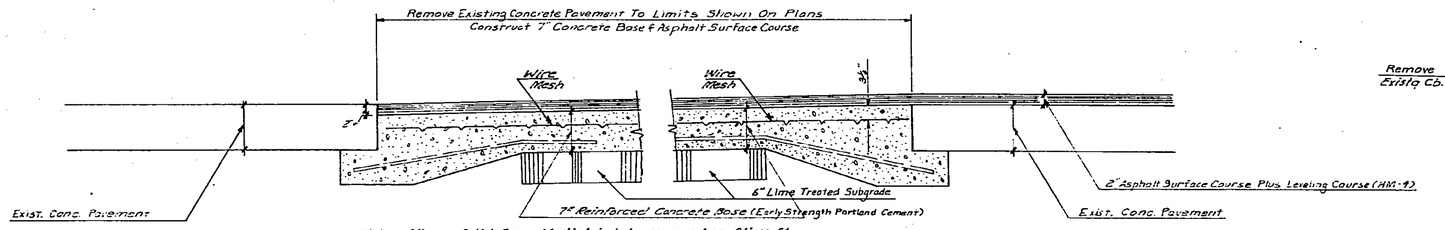
DIST. 5 SEDGWICK CO. ROLL 531

5 9 3

16X 14.5X 12X 12X 14.5X 16X

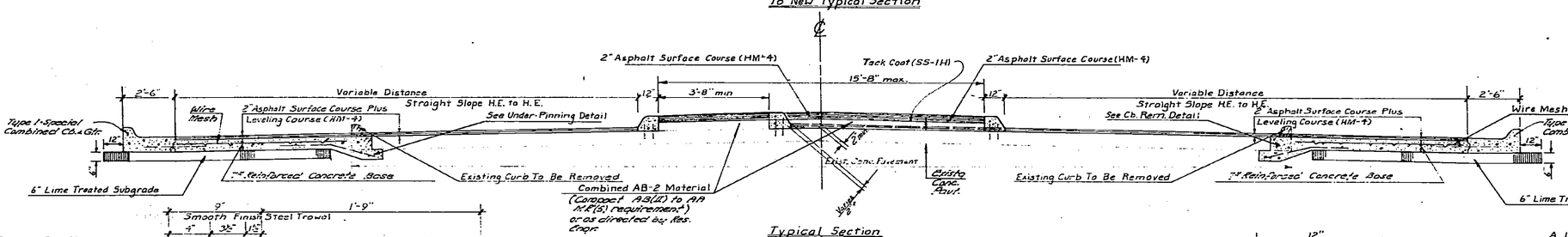


6" Edge Curb



Note - Where Solid Conc. Median is to be removed on Oliver St. & is to be replaced w/ 7" Reinf Conc. Base - 2" asph. surface, 7" Reinf. Conc. Pavt. (Underpinning) (Early Strength Portland Cement Not Req'd.)

Typical Profile Section Showing Transition From Existing Concrete Pavement To New Typical Section



Typical Section

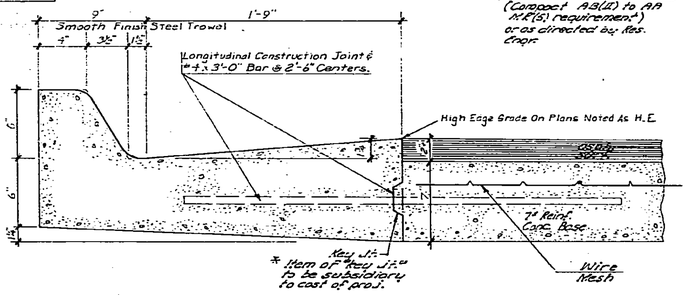
A 1" Premoulded Expansion Joint Filler (Non-Extruding Type B) Cut To The Dimensions of The Type I Special Curb & Gutter Section Shall Be Used @ A Spacing of Not To Exceed 250' & At The Ends of Curb Returns. Plane of Weakness In Curb & Gutter Sections To Be Constructed @ Not To Exceed 10'-3" Intervals. Use Class A Concrete (AE) Throughout.

Plane of Weakness In Type II Special Curb & Gutter Sections To Be Constructed @ Not To Exceed 10'-3" Intervals. Use Class A Concrete (AE) Throughout.

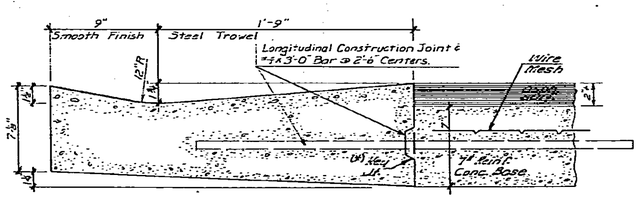
A 1" Premoulded Expansion Joint Filler (Non-Extruding Type B) Cut To The Dimensions of The Doweled Curb Section Shall Be Used @ A Spacing of Not To Exceed 120' And At All Radius Points And All P.C.'s, P.R.C.'s, & P.T.'s on Horizontal Curves. Use Class A Concrete (AE) Throughout.

Under-Pinning Shall Be Constructed At All Joints Where New Concrete Base Adjoins Existing Concrete Pavement.

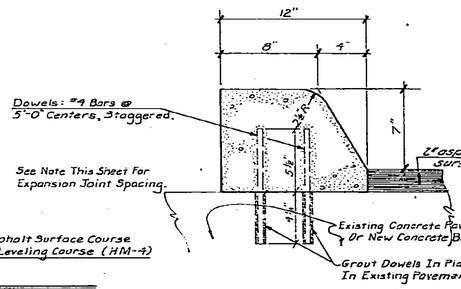
A 1" Premoulded Expansion Joint Filler (Non-Extruding Type B) Cut To The Dimensions of The 6" Edge Curb Shall Be Installed At All Radius Points. Plane of Weakness In 6" Edge Curb Sections To Be Constructed @ Not To Exceed 10'-3" Intervals.



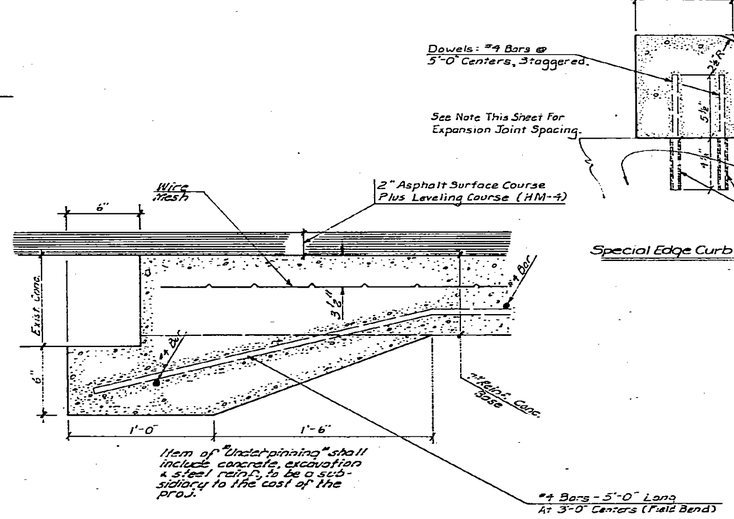
Combined Curb & Gutter - Type I Special



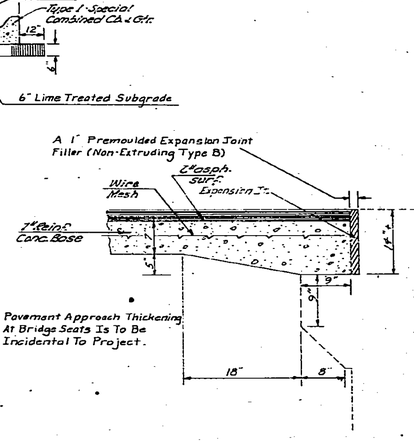
Combined Curb & Gutter - Type II Special



Special Edge Curb (Doweled) Detail

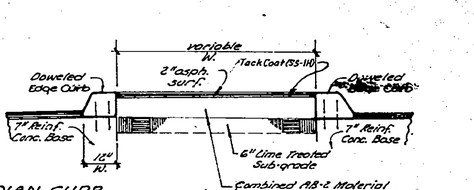


Under-Pinning Detail



Pavement Approach Thickening At Bridge Seats Is To Be Incidental To Project.

Special Pavement At Bridge Approach



Curb Removal Detail

◦ MEDIAN CURB DETAIL ◦

(For pts. ① thru ⑨ in Oliver & Harry Sts. Intersection)

STATE HIGHWAY COMMISSION OF KANSAS

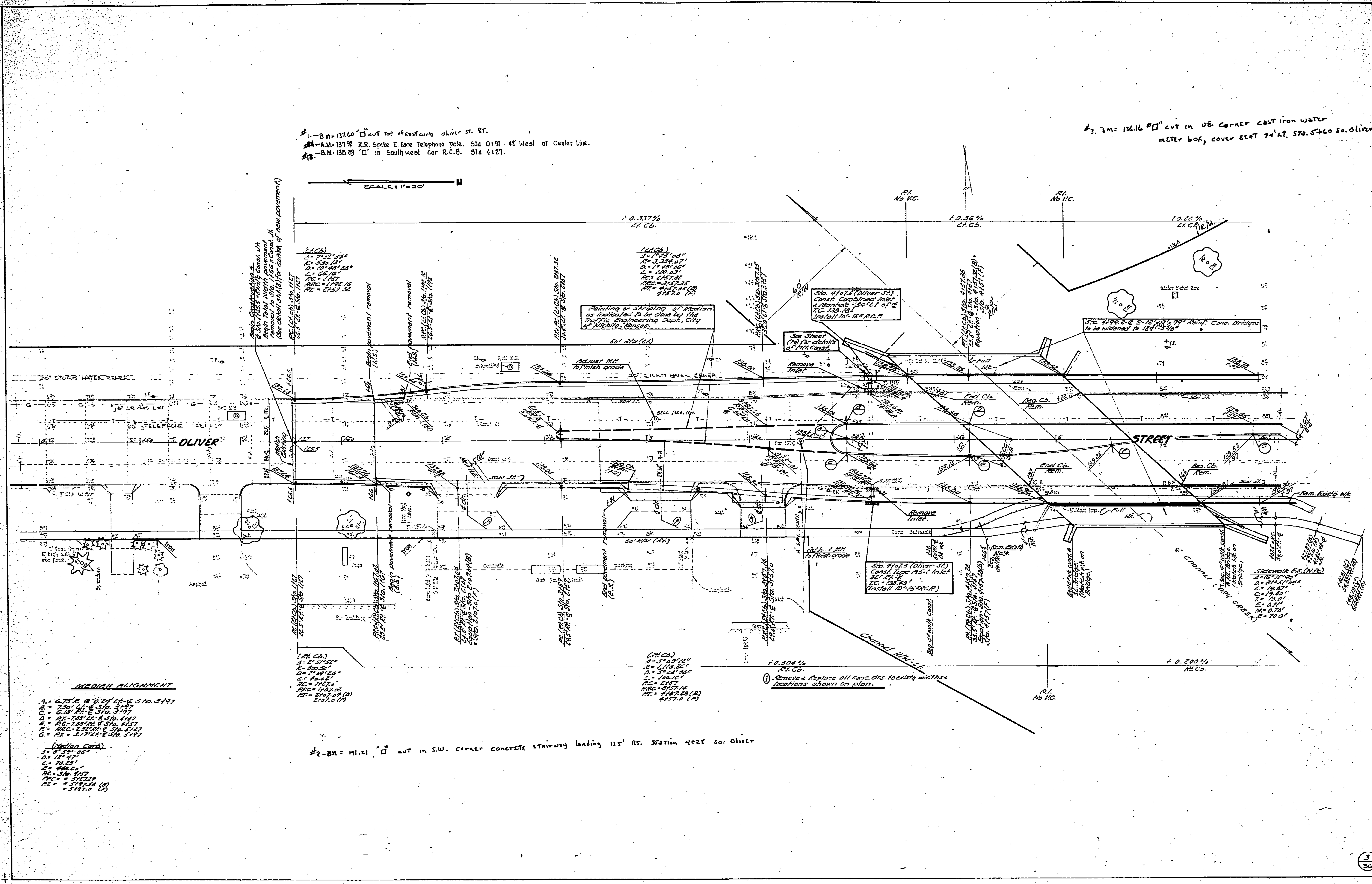
TYPICAL SECTION AND DETAIL SHEET

E 30

DIST. 5 SEDGWICK CO. ROLL 531

5 9 4

16X 14.5X 12X 12X 14.5X 16X



DIST. 5 SEDGWICK CO. ROLL 531 5 9 5

16X 14.5X 12X 12X 14.5X 16X

P/C - P.M. - 1969 City Standard 91.5' South & 99.9' East of ℄ HARRY & OLIVER

℄ 184.95 HARRY - 8150.00 - OLIVER

#6 - BM: 142.45 Top 1" conduit at S.E. corner Furniture Store, N.W. corner Harry & Oliver.

Curve Data (Lt. Curb)
Δ = 6°-54'-28"
D = 34°-34'-48"
L = 19.98'
R = 165.69'
T = 10.00'
P.C. = Sta. 10+85.95
P.T. = Sta. 11+15.93

Curve Data (Lt. Curb)
Δ = 6°-54'-28"
D = 34°-34'-48"
L = 19.98'
R = 165.69'
T = 10.00'
P.C. = Sta. 11+95.70
P.T. = Sta 12+15.68 Bk - 12+15.00 Ah.

Note: Retaining Wall To Be Constructed On Lt. Side Of Oliver From Sta. 9+05 To Sta. 12+74 Along R.O.W. Line (See Sht. 24a.)

No Sidewalk To Be Constructed On This Contract On Lt. Side Of Oliver From Sta. 9+05 To Sta. 12+74.

SCALE 1" = 20'

Rad. 119.9' Bk

R.P. (Rl Cb) Sta 9+18.44 46.0' Rl ℄

P.I. Elev 136.95 50' V.C.

90°-12'-10"

45°-06'-05"

+0.276% Rl Cb

Sta 7+16.41 (OLIVER ST.) Const A 5-1 Inlet 49' Rl ℄ T.C. 136.33 Install 44'-18" R.C.P. Flo into M.H. 134.92 Flo out Inlet 133.32

-0.51%

11.91%

R.C. (Rl Cb) Sta 9+18.44 46.0' Rl ℄

55.5' Rl ℄

Remove Inlet and Const. M.H. (See Sheet 24a) 24" RCP Flo in 135.27 24" RCP Flo out 135.07 25' Rl ℄ Sta 12+15.5 on Harry

Existing 21" RCP Sta 10+01

18" R.C.P. to be constructed. See Sht. 24a.

Sta 10+92.2 (Oliver St.) Const. A 7.5-1 Inlet 45.5' Lt. ℄ Top of Curb 138.02 Install Two 20'-15" R.C.P.'s Flo Out Inlet 134.95 Flo Into M.H. 134.70

Remove Existing Inlet And Const. M.H. (See Sht. 24a) Sta. 10+92.2 - 29' Lt. ℄ Flo Into M.H. 134.70

Const. Sidewalk

P.C. (Lt. Curb) Sta. 10+85.95 463' Lt. of ℄ Sta. 10+85.95

P.T. (Lt. Curb) Sta. 11+15.93 44.98' Lt. of ℄ Sta. 11+15.88

P.C. (Lt. Curb) Sta. 11+95.70 34.82' Lt. of ℄ Sta. 11+95.07

P.T. (Lt. Curb) Sta. 12+15.68 Bk - 12+20.04 Ah. 33.5' Lt. of ℄ Sta. 12+15.00

P.I. Elev. 137.95 30' V.C.

P.I. Elev. 138.61 No V.C.

+0.535%

-0.555%

+0.41%

STREET

OLIVER

HARRY

AVENUE

Saw Jt.

Saw Jt. as required

Existing 24" Conc. Medial

Remove Existing Inlet

Remove lead

Remove Inlet and Lead

Remove walk - do not replace

Fresh Grind

Grade 140N

138.1 in

137.1 out

15" In 134.19

15" In 133.70

Remove Existing Inlet and extend 15" R.C.P. to connect new inlet

18" Out 133.40

Existing 24" Conc. Medial

Connect Rod Drain To Curb

Existing Drop Inlet

Fire Hydrant

Bell Telephone M.H.

See detail Sht (2)

Iron

Const. 4.0' Sidewalk

Const. M.H. over Existing 24" R.C.P. see sht (24a) 15" R.C.P. In 135.08 Existing 24" R.C.P. 135.01 or Rl ℄ Sta 6+01.7

Sta 7+16.8 (OLIVER ST.) Const A 5-1 Inlet 49° Rl ℄ T.C. 139.70 Install 32'-15" R.C.P. Flo out Inlet 136.00

R.P. (Rl Cb) Sta 5+41.05.12

Rad. 74.5'

Rad. 100' Bk

Sta 9+44.1 OLIVER ST 49.5' Rl ℄ Sta 9+54.1 OLIVER ST 48.5' Rl ℄ Const A 5-1 Inlets Install 32'-15" R.C.P.

Sta 10+19.2 (OLIVER ST) Const Type A 7.5-1 Inlet 33.5' Rl ℄ - T.C. 138.17 Install two 10'-15" R.C.P.'s West Install two 8'-15" R.C.P.'s East

Asphalt Paving

Rad. 150' Ec

Rad. 100' Bk

P.I. Elev 138.12 50' V.C.

P.I. 138.45 50' V.C.

P.I. 140.90 50' V.C.

-1.34%

+0.55%

-0.31%

+0.24% Rl Cb

-0.55% Rl Cb

+0.31% Rl Cb

(Rl Cb) Δ = 20° 18' 55" R: 100.15' D: 34° 39' 10" L: 35.14' P.C. Ltn 11 P.R.C. Ltn 11+96.74 P.T. Ltn 11+65.46 Bk. Ltn 11+81 Ah.

West Mad Cb Δ: 8° 59' 06" D: 12° 47' 00" L: 70.59' R: 448.20' P.C. 11+03 P.R.C. 11+73.29 P.T. 12+45.88 Bk 12+39 Ah

(F) Remove and replace all concrete drives to existing widths and locations as shown on plans

℄ MEDIAN ALIGNMENT ℄					
H	2.35' R.P. to Bk Cb.	5.5' Ll of ℄	Sta 7+97.00	on OLIVER	ST.
I.	2.35' R.P. to Bk Cb	5.5 Rl of ℄	Sta 9+03.00	on OLIVER	ST.
J.	P.C.	Sta 11+03.00	5.17' Rl of ℄	Sta 11+03.00	
K	P.C.	7.85' Rl of ℄	Sta 11+03.00		
L.	P.R.C. Cb.	Sta 11+73.29	2.35' Ll ℄	Sta 11+73	
M.	P.R.C.	2.47' Rl of ℄	Sta 11+73.75		
N.	P.T. Cb.	Sta 12+45.88	7.85' Ll of ℄	Sta 12+45	
O.	P.T.	9.17' Ll ℄	Sta 12+45		

1.	1.35' R.P. to Bk Cb -	35' Rl of ℄	Sta 91+87.96	on HARRY	
2.	9.35' R.P. - - -	35' Rl - - -	Sta 92+25.81	on HARRY	
3.	1.35' R.P. - - -	37' Ll - - -	Sta 7+02.75	on OLIVER	
4.	1.35' R.P. - - -	37' Rl - - -	Sta 7+87.53	on OLIVER	
5.	1.35' R.P. - - -	37' Rl - - -	Sta 8+19.02	on OLIVER	
6.	1.35' R.P. - - -	37' Rl - - -	Sta 93+42.10	on HARRY	
7.	1.35' R.P. - - -	39' Ll - - -	Sta 93+62.88	on HARRY	
8.	9.35' R.P. - - -	39' Rl - - -	Sta	8+90.96	on OLIVER
9.	1.35' R.P. to Bk Cb	37' Rl of ℄	Sta	9+23.10	on OLIVER

Revised April 5, 1971

4/36

DIST. 5 | SEDGWICK CO. | ROLL 531

5 9 6

16X | 14.5X | 12X | 12X | 14.5X | 16X

B.M. 1398 City Standard 31.5' South & 33.9' East of ℄ HARRY & OLIVER

52+84.95 HARRY = 8+50.00 OLIVER

VOID See Revised Sheet

SCALE: 1"=20'

Rad. 119.5' Bk

R.P. (Rl Cb) Sta 51+51.48
40.0' Rl ℄.

P.I. Elev 1391.9 50' V.C.

10.06%

90° 12' 10"

N

P.I. Elev 1389.8 50' V.C.

11.37%

P.I. Elev 1389.8 50' V.C.

10.22% Ll Cb

Sta 74+64' (OLIVER ST.)
Const A 5-1 Inlet
69' Ll ℄ T.C. 1385.8
Install 44'-15" R.C.P.
Flo into MH 134.92
Flo out Inlet 138.36

-0.50%

R.P. (Ll Cb) Sta 0+84.02
35.5' Ll ℄

Remove inlet and const. MH (See Sheet #24)
24" RCP Flo in 135.27
24" RCP Flo in 135.07
25 Rl ℄ Sta 52+15.5 on Harry

40.0'

Remove inlet and const. MH (See Sheet #24)
24" RCP Flo in 135.77
24" RCP Flo in 135.77
24" RCP Flo out 135.77
25 Ll ℄ Sta 52+15.5 on Harry

Sta 52+15.5 (HARRY ST.)
Const type A 5-1 Inlet
33.5' Ll ℄ T.C. 1390.9
Install 10'-24" R.C.P.
Flo into MH 135.77
Flo out Inlet 135.87

18" R.C.P. to be constructed see Sht (a)

Excess 37 C.Y. Haul to Central Disp. Site

33.5' ℄ - Rt.

STREET

35.0' B-B

25.0' B-B

Const. Sidewalk

P.I. Elev 1386 50' V.C.

-0.55% Ll Cb

+0.41% Ll Cb

Remove Existing Inlet and Const M.H. (See Sht 24) Sta 101+92.2 - 26' Ll ℄.

Sta 101+92.2 (OLIVER ST.)
Const type A 5-1 Inlet
33.5' Ll ℄ - T.C. 1386.1
Install two 8'-15" R.C.P.'s

15" In 1387.8
Grade 1401
15" Out 1387.3

Connect roof drain to Curb.

R.P. (Ll Cb) Sta 52+51.01
35.5' Ll ℄

Remove walk to be not replace

Drain Opening

Sidewalk

Saw Jt

Saw as required

OLIVER

Existing Curb Median

See detail Sht (2)

Iron

BELL TELEPHONE M.H.

Saw Jt

4.0' B-B

Const Jt

Rem. Inlet & Lead

Rem Existing Walk

1'-8" L.R. 525 LINE

Construct 40' Sidewalk

Remove Existing Inlet and extend 15" R.C.P. to connect new Inlet

18" Out 1386.0

Sta 101+92.2 (OLIVER ST.)
Const type A 7.5-1 Inlet
33.5' Rl ℄ - T.C. 1386.7
Install two 10'-15" R.C.P.'s West
Install two 8'-15" R.C.P.'s East

Asphalt Parking

Sta 91+44' OLIVER ST.
49' Rl ℄ Sta 91+54'
OLIVER ST 49' Rl ℄
Const A 5-1 Inlets
Install 11'-15" R.C.P.

P.I. Elev 1385.6 50' V.C.

-2.34%

10.54%

-0.55% Rl Cb

+0.31% Rl Cb

P.I. Elev 1381.2 50' V.C.

Sta 71+76' OLIVER ST.
Const A 5-1 Inlet
50' Rl ℄ T.C. 1391.0
Install 52'-15" R.C.P.
Flo out Inlet 136.00

R.P. (Rl Cb) Sta 54+05.12
55.5' Rl ℄

Rad. 74.5'

140.0' R.C.

140.05

55.5' B-B

Const M.H. over existing 69" R.C.P. See Sht (2a) 15" R.C.P. to remain existing 66" R.C.P. 133.0' at Rl ℄ Sta 81+07

R.P. (Ll Cb) Sta 54+18.30
46.0' Ll ℄

P.I. 140.90 50' V.C.

87° 40' 50"

Rad. 100' Bk

-1.30%

(Rl Cb)
Δ = 120° 16' 58"
R = 100.18'
D = 36° 39' 20"
L = 35.74'
P.C. Ll 11
P.R.C. Ll 84.76
P.T. Ll 80.48 Bk
Ll 87 Ah.

(F) Remove and replace all Concrete drives to existing widths and locations as shown on plans

West Mad Cb
Δ = 8° 39' 06"
D = 12° 47' 00"
L = 70.69'
R = 448.20'
P.C. 11+03
P.R.C. 11+73.69
P.T. 12+45.55 Bk
12+49 Ah

℄ MEDIAN ALIGNMENT ℄

H	2.55' R.P. to Bk Cb - 5.5' Ll of ℄	Sta 71+97.00 on OLIVER ST.
I.	2.55' R.P. to Bk Cb 5.5' Rl of ℄	Sta 94+03.00 on OLIVER ST.
J.	P.C. Sta 11+03.00	3.17' Rl of ℄ Sta 11+03.00
K	P.C. 7.85' Rl of ℄	Sta 11+03.00
L.	P.R.C. Cb Sta 11+79.29	2.55' Ll ℄ Sta 11+73
M.	P.R.C. 2.85' Rl of ℄	Sta 11+73.73
N.	P.T. Cb. Sta 12+49.55	7.85' Ll of ℄ Sta 12+45
O.	P.T. 3.17' Ll ℄	Sta 12+45

1.	1.55' R.P. to Bk Cb - 37' Rl of ℄	Sta 91+87.32 on HARRY
2.	3.25' R.P. - - - 37' Rl - -	Sta 92+45.81 on HARRY
3.	1.55' R.P. - - - 37' Ll - -	Sta 71+42.79 on OLIVER
4.	1.55' R.P. - - - 37' Rl - -	Sta 71+87.93 on OLIVER
5.	1.55' R.P. - - - 37' Rl - -	Sta 81+13.02 on OLIVER
6.	1.55' R.P. - - - 37' Rl - -	Sta 88+42.10 on HARRY
7.	1.55' R.P. - - - 39' Ll - -	Sta 88+04.88 on HARRY
8.	8.35' R.P. - - - 99' Rl - -	Sta 81+90.94 on OLIVER
9.	1.55' R.P. to Bk Cb 37' Rl of ℄	Sta 91+23.10 on OLIVER

(4/36)

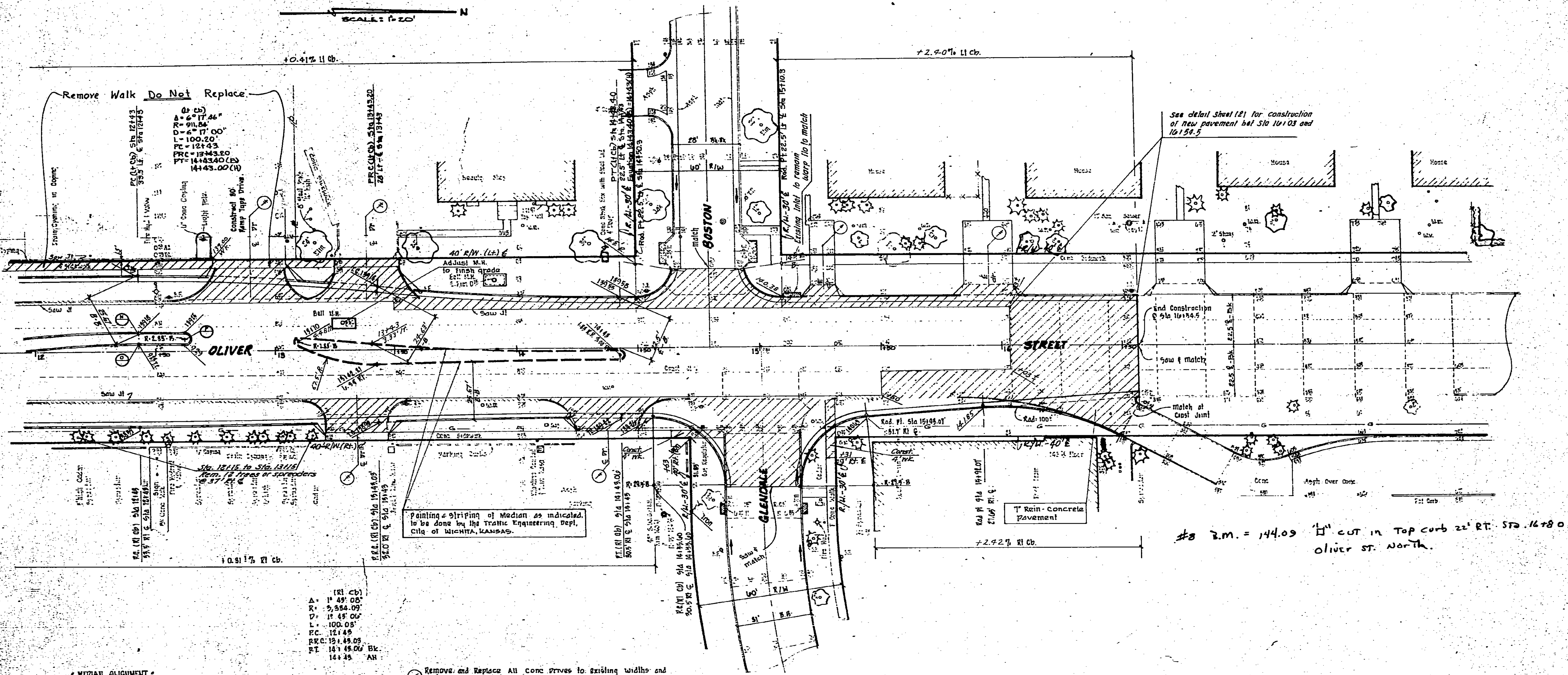
DIST. 5 | SEDGWICK CO. | ROLL 531

5 9 7

16X | 14.5X | 12X | 12X | 14.5X | 16X

Note: Retaining Wall To Be Constructed On Lt. Side Of Oliver From Sta. 9+05 To Sta. 12+74 Along R.O.W. Line (See Sht. 24a)

No Sidewalk To Be Constructed On This Contract On Lt. Side Of Oliver From Sta. 9+05 to Sta. 12+74.



#8 B.M. = 144.09 "□" cut in Top curb 22' RT. Sta. 16+80 Oliver St. North.

#7 - B.M. = 139.57 "□" cut in S.W. Corner of Concrete Walk, 42' RT Sta. 12+50

Revised April 5, 1971

5/36

DIST. 5 | SEDGWICK CO. | ROLL 531 | 5 9 8

16X | 14.5X | 12X | 12X | 14.5X | 16X

#1 - BM 133.83 City Standard 51.5' South & 33.9' East of ℄ Harry & Oliver

#5 - BM 147.61 "□" cut in top curb 24' Lt Sta. 46+58 Harry ST. WEST

Note: Retaining Wall To Be Constructed On Lt. Side Of Harry From Sta. 52+08 to Sta. 52+34 Along R.O.W. Line. (See Sht. 29a)

#4 BM: "□" cut South End Retaining Wall 51' Lt. Sta. 50+70

SCALE: 1" = 20'

-1.66% (Lt Cb) -1.92% (Lt Cb) -0.36% (Lt Cb)

PI Elev 140.19 100' VC

℄ Sta 50+50

Begin Construction ℄ Sta. 46+197.9 on 5.5 Harry ℄ Sta. 47+268 on 5.5 Harry Full Width Pavement from Sta 47+27 to Sta 47+89

Remove Concrete Pavement & Replace With Conc. Pvmt 7" Reinforced From Sta 46+89 to Sta 47+29 Lt&Rt.

(Median Cb)
A = 13°56'12"
R = 156.84'
D = 36°39'54"
L = 95.95'
T = 48.84'
PC(ct) = 49+42.39 (Cb)
= 49+41.95 (H)
PRC = 49+87.40
PT (Cb) = 50+32.85 (Cb)
50+31.95 (H)

Sta. 50+89 on Harry, 36.75' Lt Constr. M.H. Install 125'-18" R.C.P. @ 18" Slp = 197.00, @ 18" out = 136.37

Remove exist. inlet and 24" pipe west.

A.C. DRIVE

BUILDING

CONC. WALK

ASPH. PARKING

Sta 52+15.5 Harry St. Const. A5-1 Inlet Install 10'-24" R.C.P. @ 18" Slp = 135.77 Flo out inlet 135.87

Rad. P. 33.5' Lt ℄ Sta. 52+19.5

50'

45.5' Rt-℄

32+84.95 Harry ℄ 8+50.00 Oliver

STREET

65'

HARRY

STREET

Saw Jt.

Remove exist. pipe.

Remove Inlet

Adjust MH to Grade

Remove Existing Conc. Inlet & 24" RCP Flo in 135.27 24" RCP Flo out 135.01 25' Rt ℄ Sta 52+15.5 on Harry

Gen. Inlet 15' Long.

Sta 7+78 ± Oliver St. Const A5-1 Inlet Install 32'-15" RCP Flo in to MH 134.92 Flo out inlet 135.34

OLIVER

Existing Hatch

30' R/W Rt ℄

-1.53%

P.I. Elev. 145.34 No V.C.

Painting or Striping of Median as Indicated to be done by Traffic Engineering Dept. City of Wichita

Painting or Striping of Median as indicated to be done by Traffic Engineering Department City of Wichita

Ⓚ Remove & Replace All Conc. Drives to existing widths & locations as shown on plans

-2.03%

P.I. Elev. 143.59 No V.C.

-1.98% (Rt Cb)

(Rt Cb)
A = 15°48'32"
R = 165.13'
D = 34°41'51"
L = 45.56'
T = 22.99'
PC = 49+42.39
PRC = 49+87.91
PT = 50+32.49 (Cb)
50+31.95 (H)

PRC (Rt Cb) Sta 50+87.91 59.79 Rt ℄ Sta 49+86.95

PT (Rt Cb) Sta 50+133.49 41 Rt ℄ Sta 50+31.95 Equation Sta 50+32.95 (Cb) Sta 50+31.95 (H)

℄ Sta 50+50

PI Elev 140.06 100' V.C.

-0.905% (Rt Cb)

Rad. P 41' Rt Sta 51+31.43

45°06'05"

1135' Rad to BK

Elev 139.44 80' V.C.

-1.37% Rt Cb

+0.51% (Rt Cb)

PI Elev 139.73 50' V.C

90°12'10"

PT Elev 136.92 80' V.C.

+0.22% (Lt Cb)

Rad P 33.5' Lt ℄ Sta 6+84.02

Median Alignment

A. 1.85' Rad. Pt. - 3.0' Lt - ℄ Sta 48+01.99
B. 7.83' Rad., Pt. on ℄ Sta. 48+73
D. PT (Lt Cb) - 7.83 Lt - ℄ Sta 49+41.95
E. PT & PC (Rt Cb) - 7.83 Rt - ℄ Sta 49+41.95
F. PRC (Rt Cb) - 2.33 Rt - ℄ Sta 49+86.95
G. PT (Rt Cb) - 3.17 Lt - ℄ Sta 50+31.95
H. 2.33' Rad. Pt. - 5.5 Lt - ℄ Sta 50+66.80
I. 2.33' Rad. Pt. - 5.5 Lt - ℄ Sta 51+15.80
J. 2.33' Rad. Pt. - 5.5 Lt - ℄ Sta 52+31.99
1. 1.33' Rad. Pt. - 37.0 Rt - ℄ Sta. 51+87.38 on Harry
2. 2.83' Rad. Pt. - 39.0 Rt - ℄ Sta. 52+46.81 on Harry
3. 1.33' Rad. Pt. - 37.0 Lt - ℄ Sta 7+62.75 on Oliver

Revised April 5, 1971

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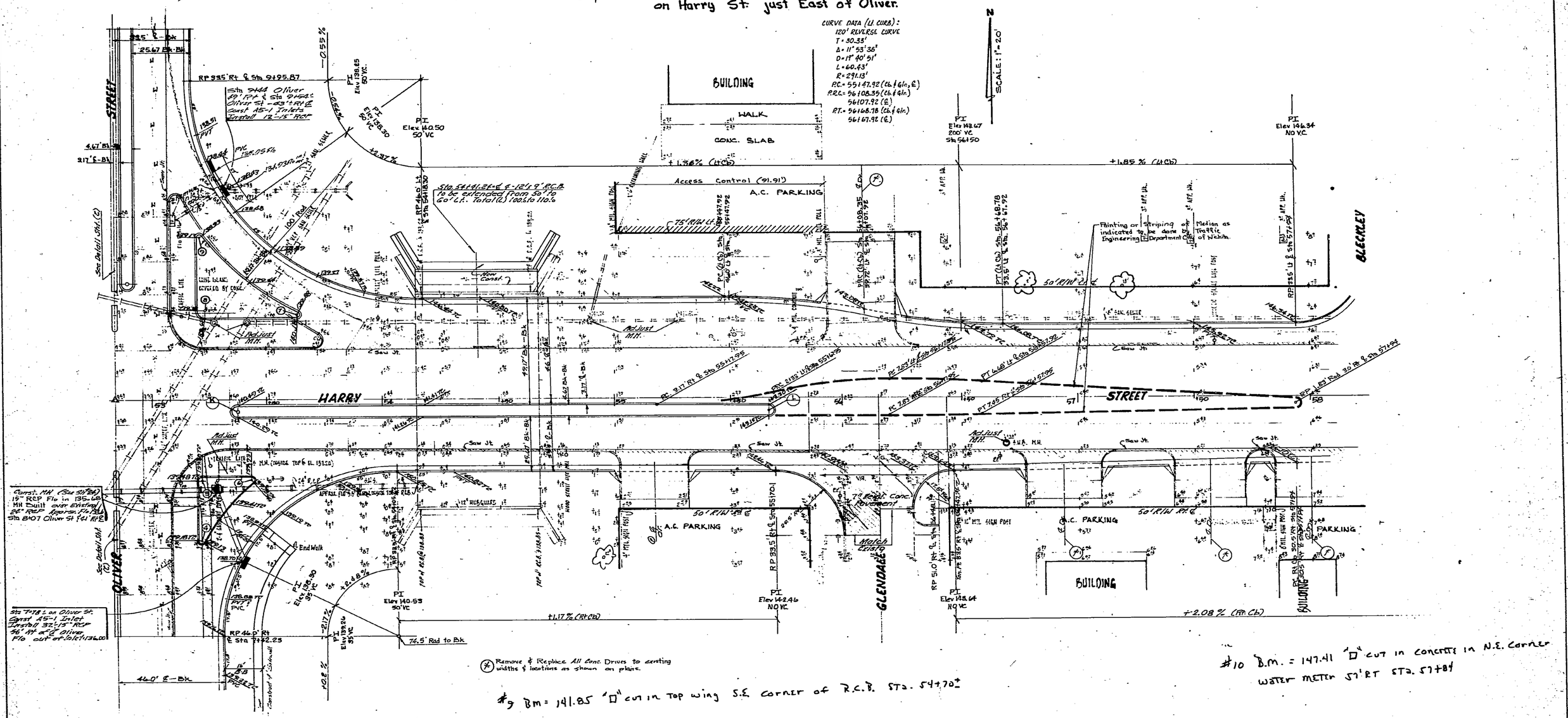
DIST. 5 | SEDGWICK CO. | ROLL 531

5 9 9

16X 14.5X 12X 12X 14.5X 16X

#1c BM 139.83 City Standard 51.5' South & 33.9' East of ℄ HARRY & OLIVER.
#1d BM 141.87 City Standard on SW. End of Conc. Wing @ NE Cor. Conc RCB on Harry St. just East of Oliver.

#12 Bm 142.42 City Standard NW Corner Harry STREET Bridge wingwall



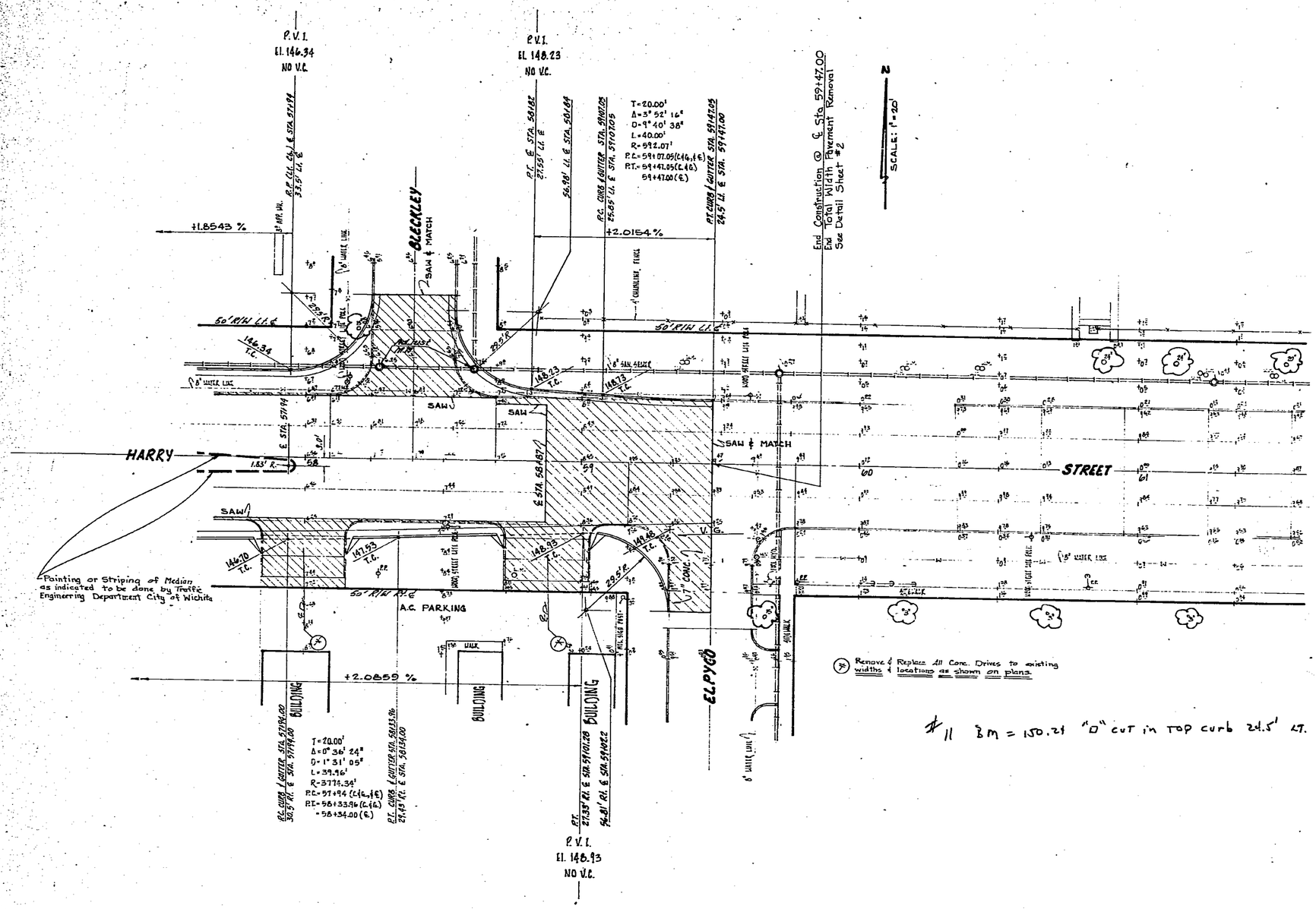
#9 Bm = 141.85 "D" cut in top wing S.E. corner of R.C.B. Sta. 54+70±

#10 B.M. = 147.41 "D" cut in concrete in N.E. corner water meter 51' Rt Sta. 57+84

7-36

DIST. 5 | SEDGWICK CO. | ROLL 531 | [redacted] 6 0 0

16X | 14.5X | 12X | 12X | 14.5X | 16X



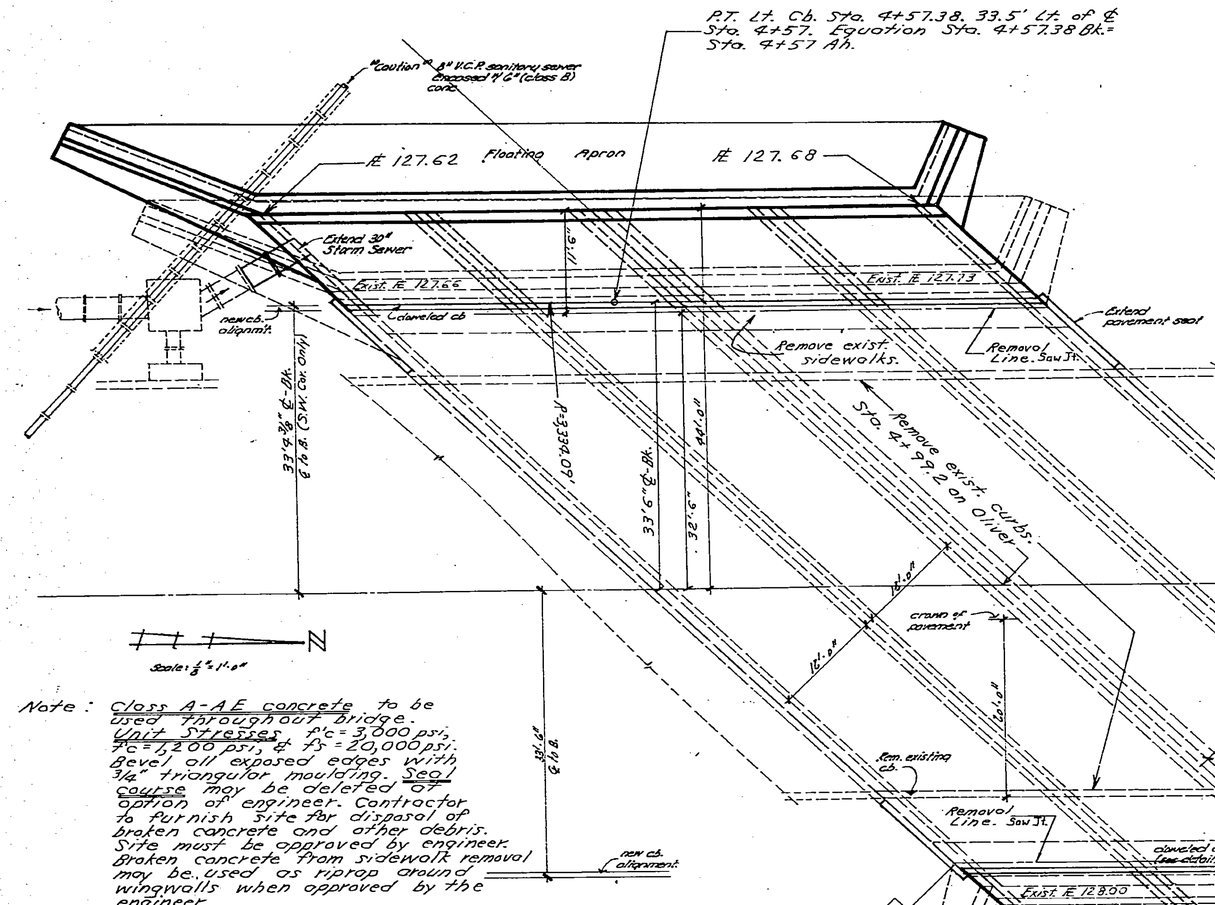
#11 BM = 150.24 "D" cut in top curb 24.5' Lt. Sta. 60+01 E. Harry

8/30

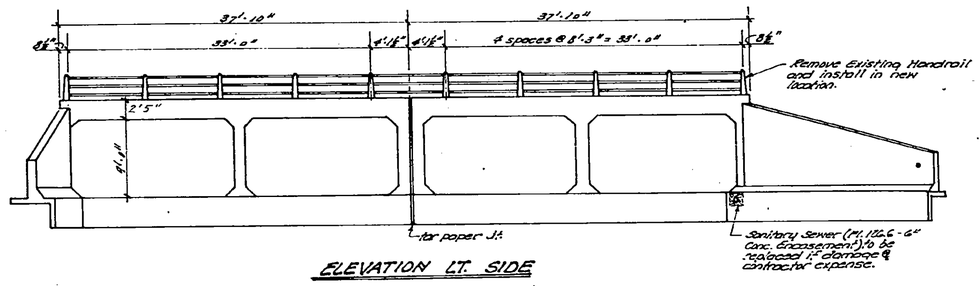
DIST. 5 | SEDGWICK CO. | ROLL 531 | 6 0 1

16X | 14.5X | 12X | 12X | 14.5X | 16X

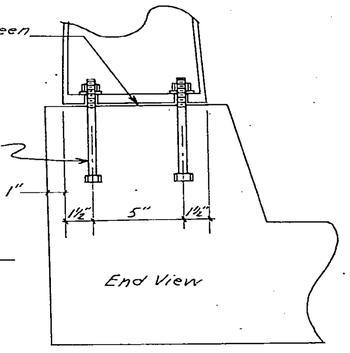
B.M. Elev. 139.83 City of Wichita Datum. Brass disc approx. 51.5 Ft. South of ℄ of Harry & 33.9' east of ℄ of Oliver.

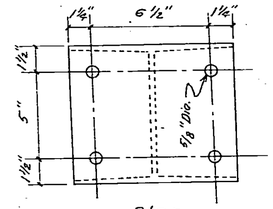


Note: Class A-AE concrete to be used throughout bridge. Unit Stresses. f'c = 3,000 psi; fc = 1,200 psi, & fs = 20,000 psi. Bevel all exposed edges with ¾" triangular moulding. Seal course may be deleted at option of engineer. Contractor to furnish site for disposal of broken concrete and other debris. Site must be approved by engineer. Broken concrete from sidewalk removal may be used as riprap around wingwalls when approved by the engineer.



ELEVATION LT. SIDE





Bridge Handrail Anchor Bolt Detail

Note: Remove exist. wingwalls, toewalls and 2'6" section of barrel from each end of exist. bridge. Exposed exist. reinf. steel to be spliced with new steel. All exposed removal lines to be sawed.

Summary of Bridge Quantities

Class III Excavation	5574 ~~750.0~~	C.Y.
Class A-AE Concrete	311.0	C.Y.
Class A Concrete (For 3" Seal Course)	~~[illegible]~~	C.Y.
Reinforcing Steel	41,~~442~~	Lbs.
Metal Handrail (Installation only)	148.5	L.F.
Removal of Existing Structures	Lump Sum	

Note:
Removal of existing handrail shall be included in the bid item "Removal of Existing Structure".
The contractor shall be responsible for the safe handling and storage of handrail. Any damage due to negligence, to the existing rail shall be repaired at the contractor's expense.
Bridge contractor to install 30"x10' storm sewer. Payment shall be subsidiary to CL A-AE concrete. Pipe shall be furnished by the paving contractor.

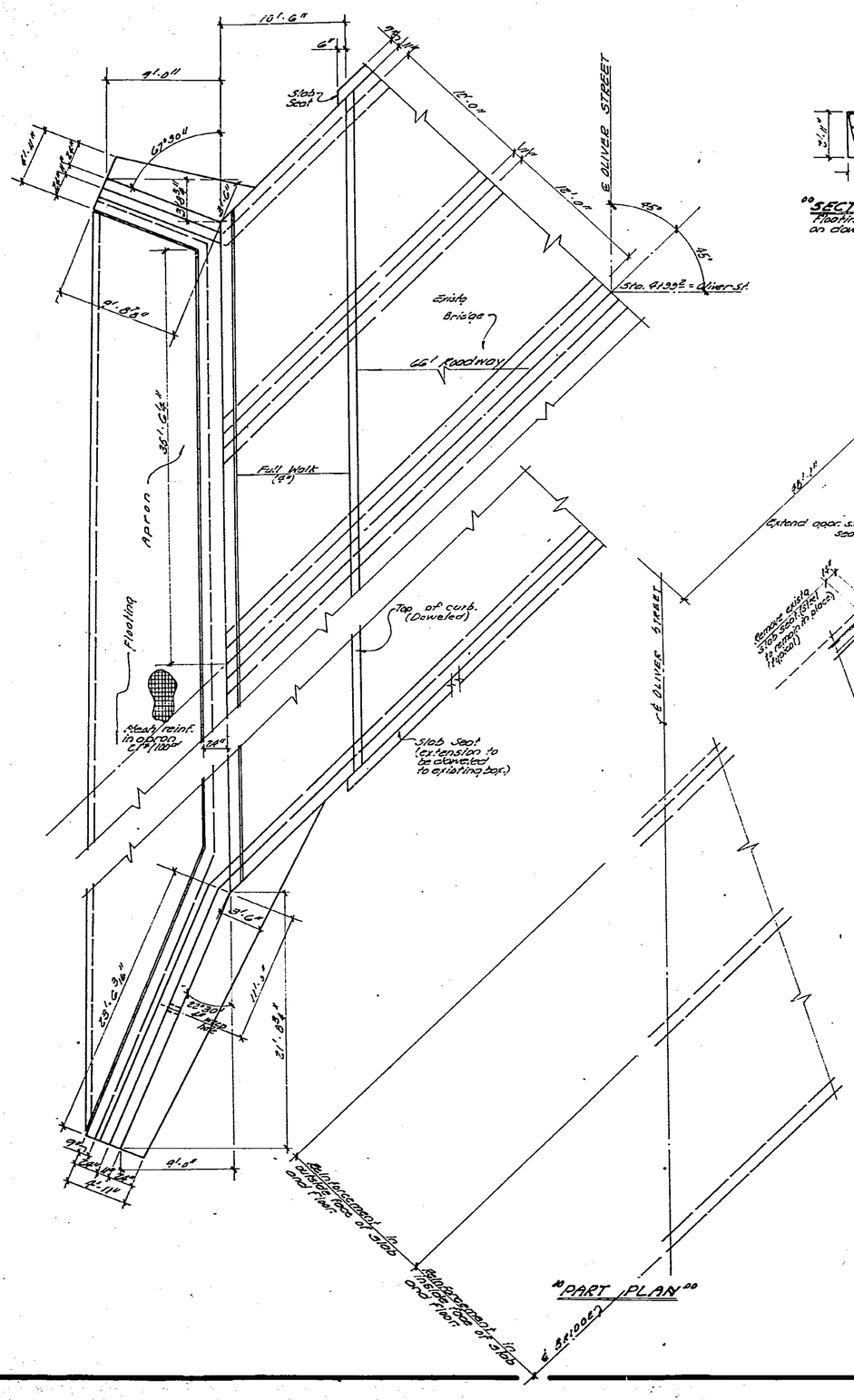
EXTENSION of BRIDGE
CONSTRUCTION LAYOUT

Two Double 12'X 9'X 99' extended to 124'5 5/8"

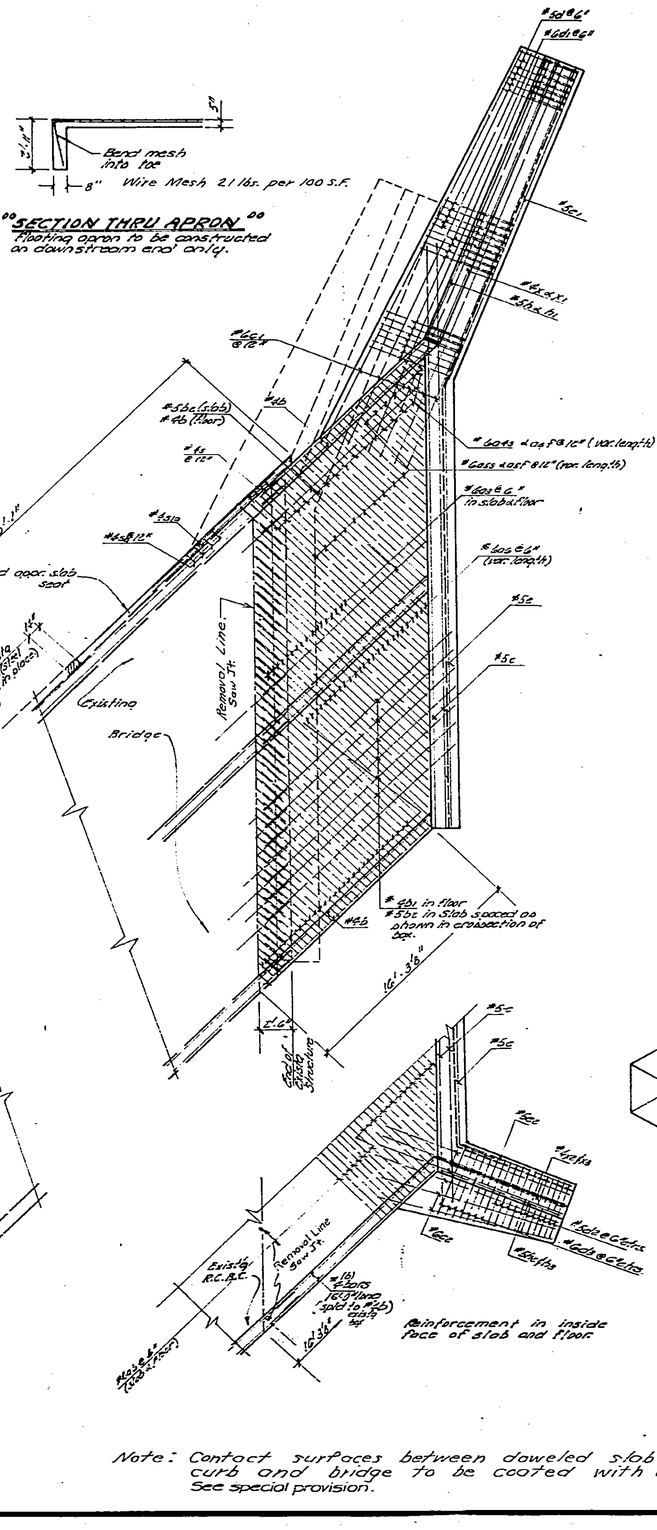
9/30

DIST. 5 | SEDGWICK CO. | ROLL 531 | 6 0 2

16X | 14.5X | 12X | 12X | 14.5X | 16X

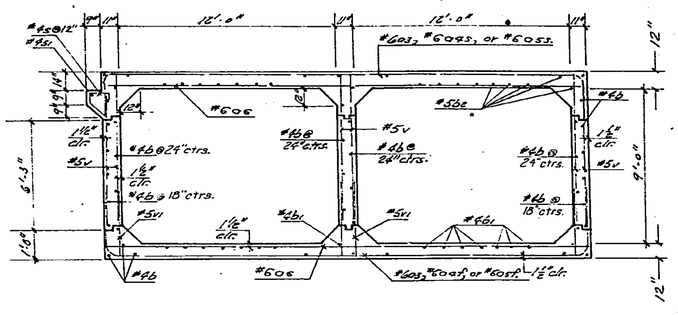


"PART PLAN"

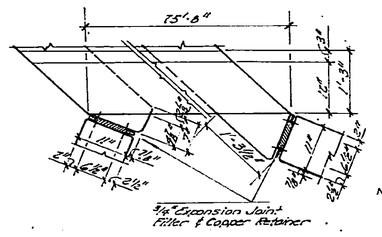


"SECTION THRU APRON"
Floating apron to be constructed on downstream end only.

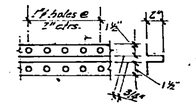
Reinforcement in inside face of slab and floor



"SECTION THRU BOX"
(Existing 4-12'x9' R.C.B.C.)

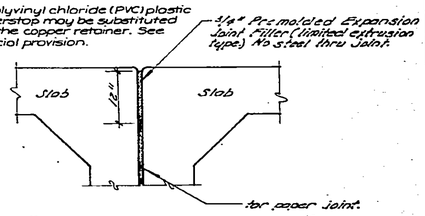


"WING JOINT DETAILS"

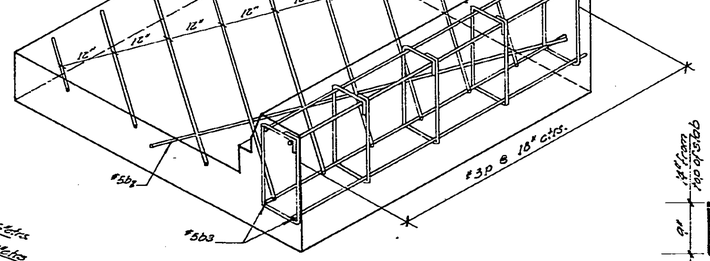


"16 oz. SHEET COPPER RETAINER"
(3 Required)

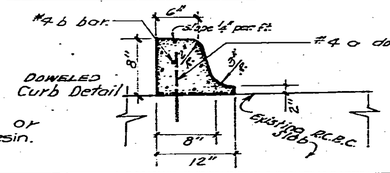
Note: 6" Polyvinyl chloride (PVC) plastic waterstop may be substituted for the copper retainer. See special provision.

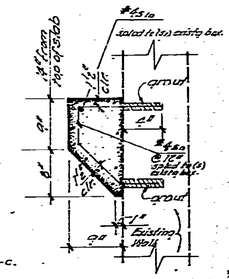


"EXPANSION JOINT DETAIL"



"PARAPET REINFORCEMENT DETAIL"





"DOWELED SLAB SEAT DETAIL"

Note: Contact surfaces between doweled slab seat or curb and bridge to be coated with Epoxy Resin. See special provision.

Extension of Bridge Reinforcing Details

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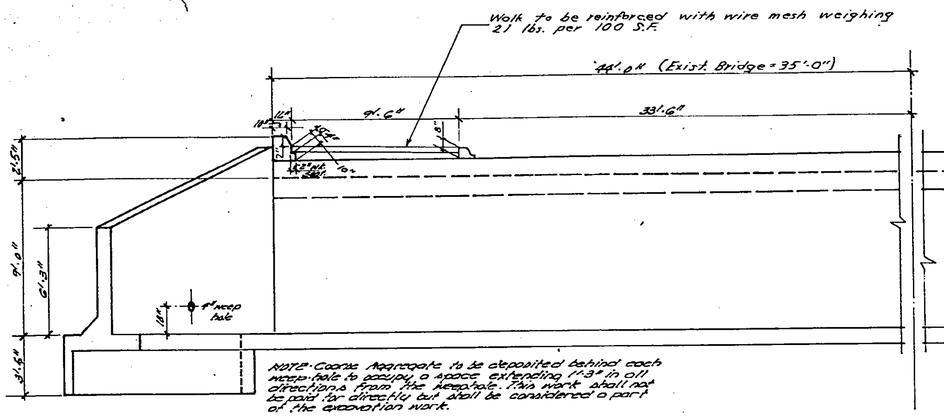
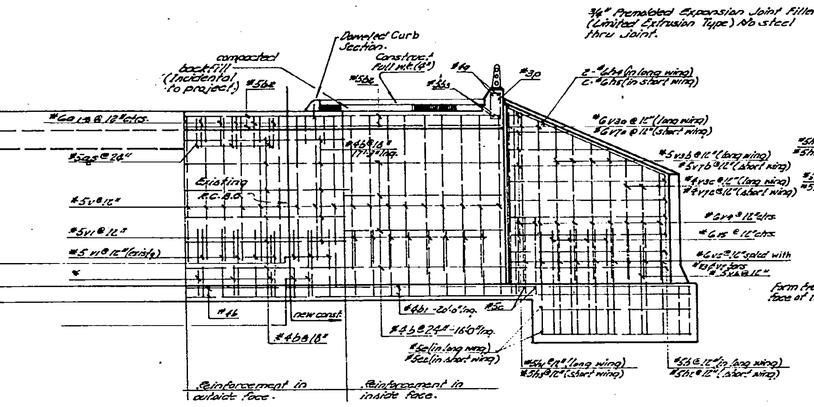
DIST. 5 | SEDGWICK CO. | ROLL 531

6 0 3

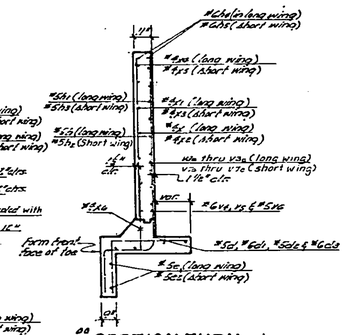
16X | 14.5X | 12X | 12X | 14.5X | 16X



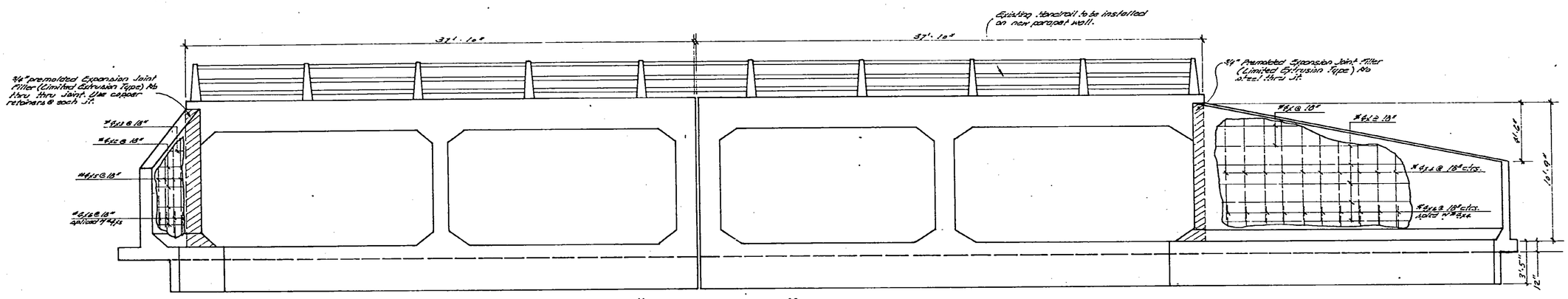
"ELEVATION"



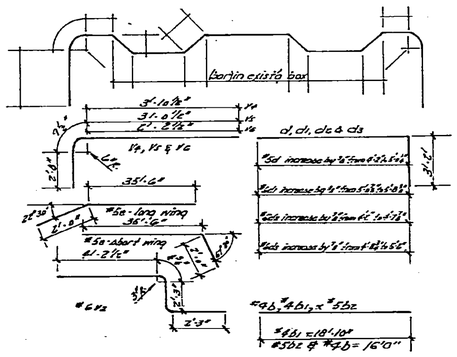
¾" Premolded Expansion Joint Filler (Limited Extrusion Type) No steel thru Joint.

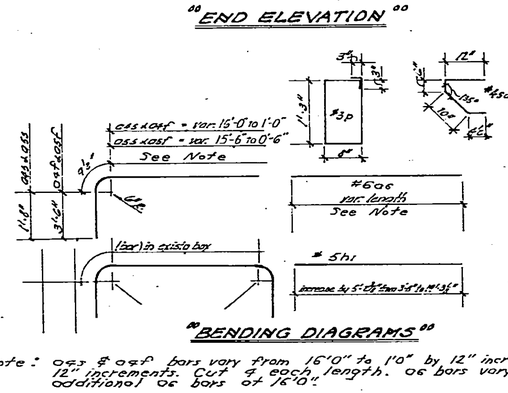


"SECTION THRU WING"



"END ELEVATION"





"BENDING DIAGRAMS"

#6v30 decrease by 2'-6"	from 9'-6" to 8'-0"
#5v5b " " 2'-6"	" 8'-8 5/8" to 7'-9 5/8"
#4v1c " " 2'-6"	" 7'-6 5/8" to 6'-10 5/8"
#6v70 " " 5'-6"	" 9'-5 7/8" to 9'-0"
#5v7b " " 5'-6"	" 8'-6 5/8" to 7'-7 7/8"
#4v7c " " 5'-6"	" 7'-1 5/8" to 6'-10 3/8"

#6v3

16'-0"

#4v4 & 4x3	
#4v5 decrease by 3 1/4"	from 9'-6" to 8'-9 1/2"
#4v5 decrease by 8 3/8"	from 9'-5" to 8'-2 5/8"
#4x1 & 4x3	
#4x1 increase by 7'-9"	from 8'-5" to 16'-2"
#4x3 increase by 3'-3"	from 3'-9" to 6'-11"
#5h3	
increase by 2'-2"	from 1'-11" to 8'-5"

Note: o5s & o5f bars vary from 16'0" to 1'0" by 12" increments. Cut 4 each length. o5s & o5f bars vary from 15'6" to 0'6" by 12" increments. Cut 4 each length. o6 bars vary from 16'0" to 0'6" by 0'6" increments. Cut 8 each length. Cut 88 additional o6 bars at 16'0".

NOTE: Steel shown is for extension of existing box only.

BILL OF MATERIALS FOR ONE DOUBLE BOX

One Double 12'x9'x39' Concrete Box on 45° Skew	Wingwalls, Footings & Cut-off Walls for One Double Box	Project	Sidewalk Complete Bridge	Floating Apron	Approach Slab Abut.	Curb
Bar: d6 d8 o5s o5f o5s o5f b b1 b2 b3 v v1	c c1 c2 d d1 d2 d3 e e1 e2	b5 b6 b7 b8 b9 b10 v5 v6 v7 v8 v9 v10 v11 v12 v13 v14 v15 v16 v17 v18 v19 v20 v21 v22				s b6 b7 b8 o b
No. 344 88 64 64 64 64 76 36 40 4 204 136	5 6 6 30 21 10 7 4 2 2	6 4 6 4 2 2 34 6 6 14 6 10 18 2 3 5 4 2 4 6 15 6 21	4 32			6 12 2 2 72 2
Size: 6 6 6 6 6 6 6 4 5 5 5 5	5 6 6 5 5 5 5 5 5	5 5 5 5 6 6 6 6 5 6 6 6 5 6 5 6 6 6 6 6 6 6 6 6	4 3			6 6 6 6 4 4
Length: Var. 16'-0" var. var. var. var. 16'-0" 12'-10" 14'-0" 37'-6" 8'-8" 3'-5"	16'-0" 38'-6" var. * * * 37'-6" 28'-4" 9'-5"	28'-8" * 9'-5" 11 23'-4" 6'-6" 4'-6" * 11 11 2 3 5 4 2 4 6 7'-1" 6'-11" 6'-3" 4 4 4 8'-4" 4 9'-5" 4 4 4 8'-6"	37'-6" 8'-8"			8'-8" 8'-8"
Cu. Yds. Class A-AE Concrete 99.2	33.0	3.8	17.6	17.6	0.6	1.3
Lbs. Reinforcing Steel 16,290	3,750	185	302	220	79	80

(#) See Bending Diagram

Extension of Bridge Reinforcing Details

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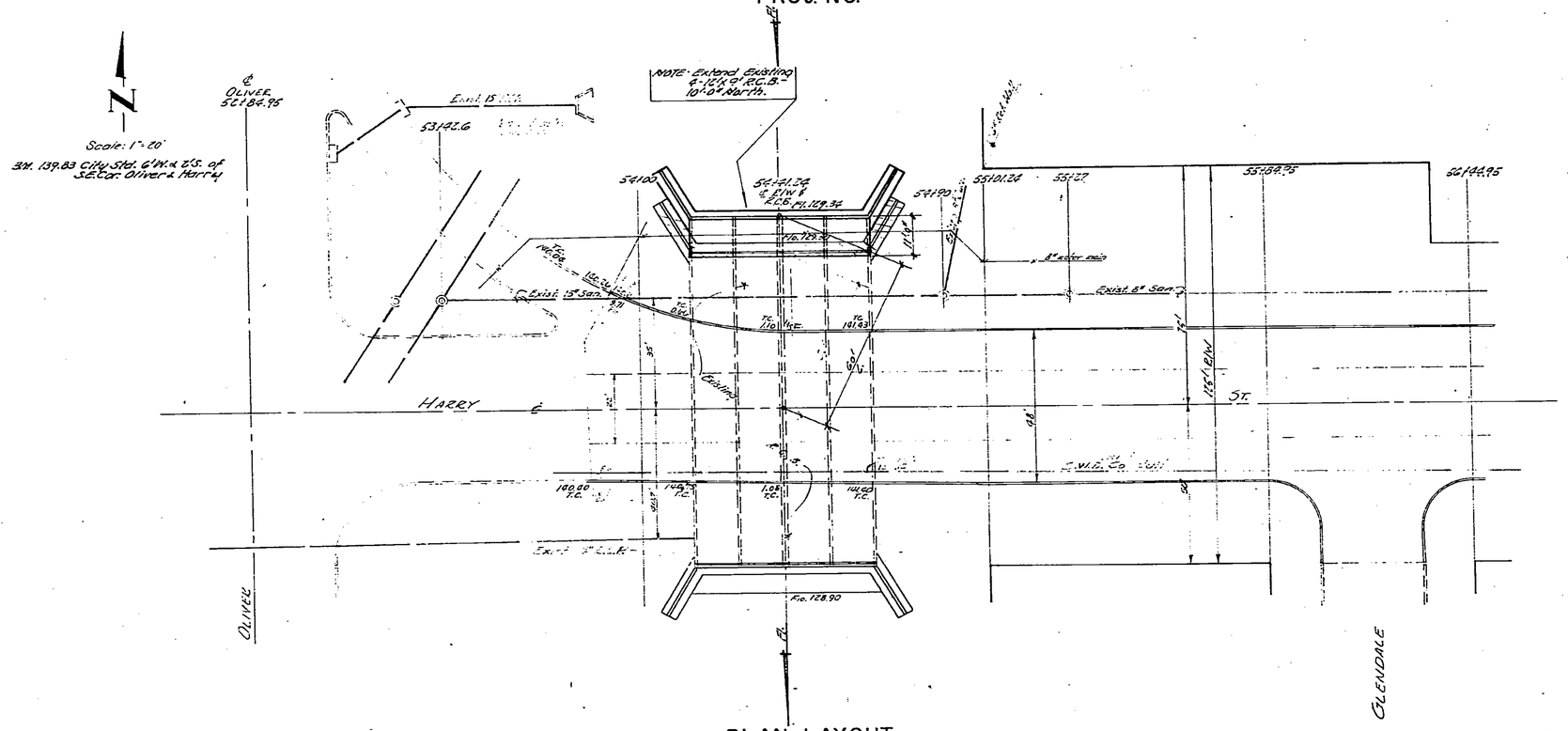
DIST. 5 | SEDGWICK CO. | ROLL 531

6 0 4

16X | 14.5X | 12X | 12X | 14.5X | 16X

4-12' x 9' R.C.B.
HARRY ST. & DRYCREEK

PROJ. NO.



PLAN LAYOUT

SCALE: 1"=20'-0"

BRIDGE EXTENSION
PLAN LAYOUT SHEET

12/36

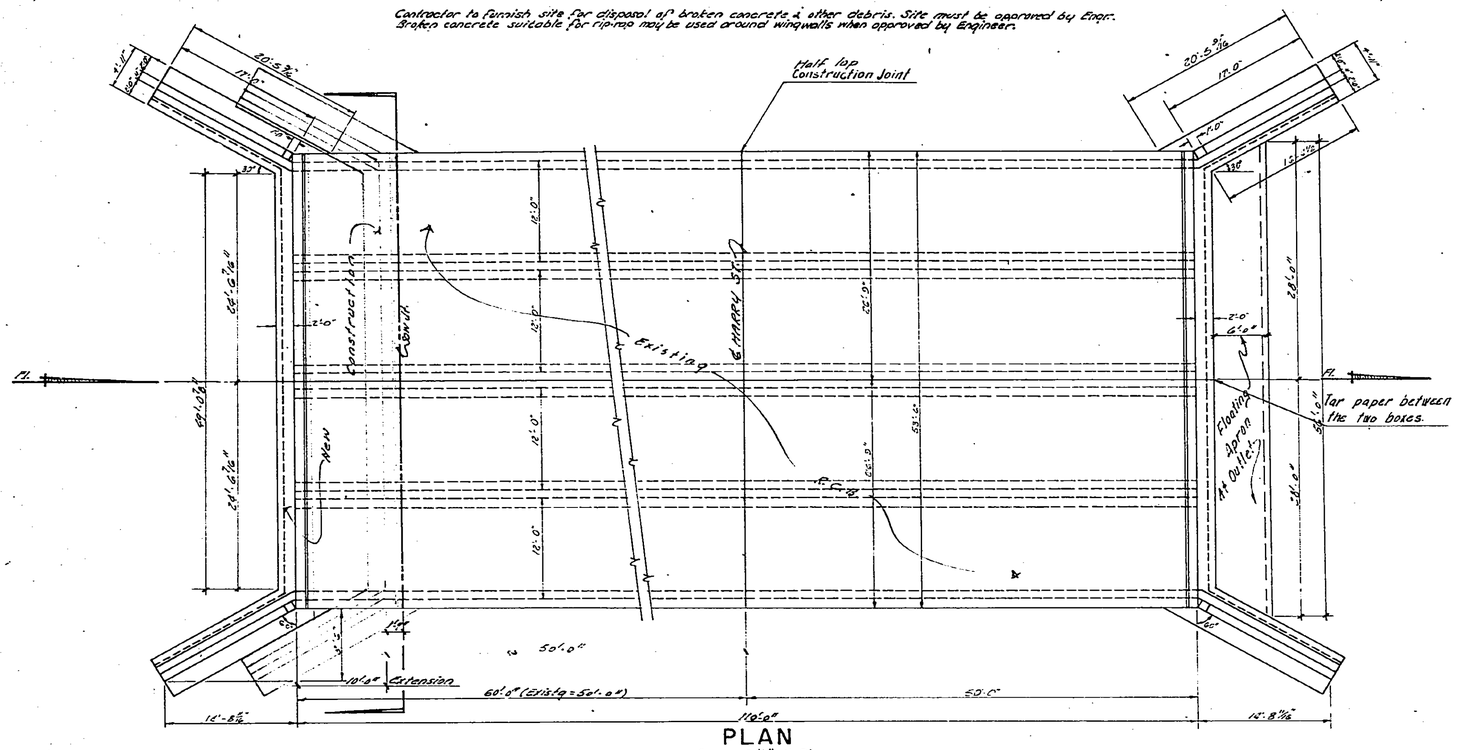
DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted]

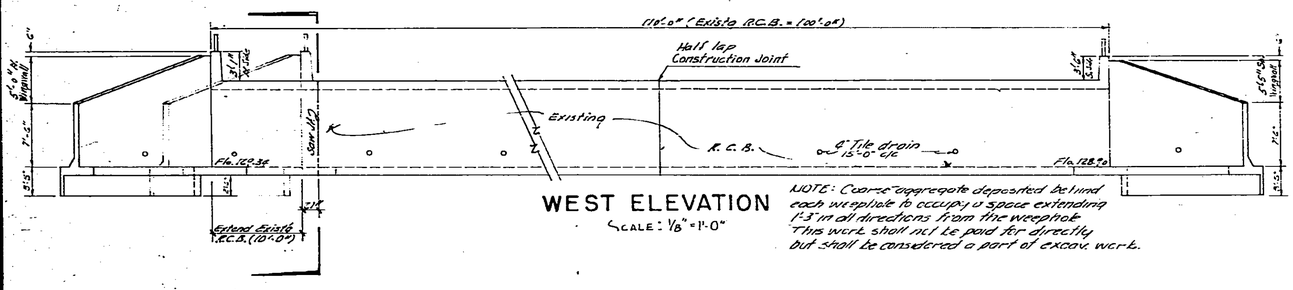
16X | 14.5X | 12X | 12X | 14.5X | 16X

NOTE:
Class A-AE Concrete to be used throughout. Unit Stresses $f'_c = 3,000$ psi, $f_s = 24,000$ psi, $f_v = 1200$ psi.
Bevel all exposed edges with a $\frac{3}{4}$" moulding unless otherwise noted. Seal Course may be deleted at option of Engineer.

Contractor to furnish site for disposal of broken concrete & other debris. Site must be approved by Engr. Broken concrete suitable for rip-rap may be used around wingwalls when approved by Engineer.

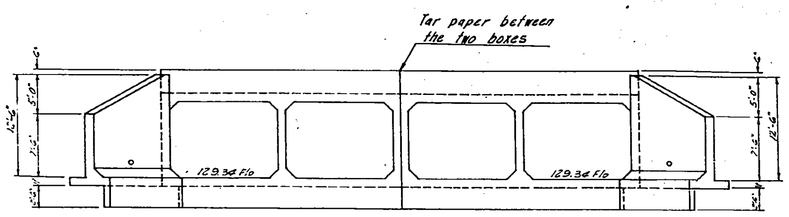


PLAN
SCALE: ⅛" = 1'-0"



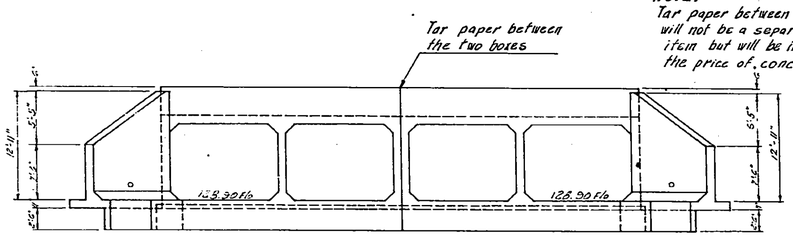
WEST ELEVATION
SCALE: ⅛" = 1'-0"

NOTE: Coarse aggregate deposited behind each weephole to occupy a space extending 1'-3" in all directions from the weephole. This work shall not be paid for directly but shall be considered a part of excav. work.

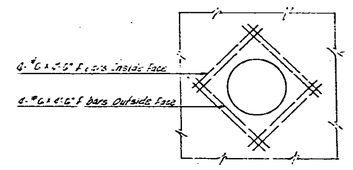


NORTH ELEVATION
NOT TO SCALE

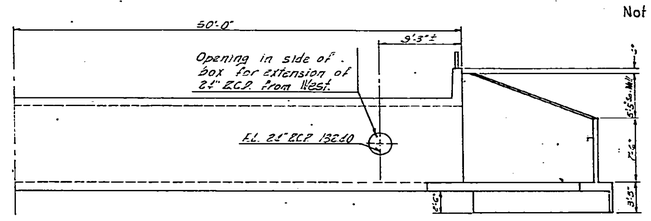
NOTE:
Tar paper between boxes will not be a separate bid item but will be included in the price of concrete.



SOUTH ELEVATION
NOT TO SCALE



SECTION SHOWING STEEL REINF. AROUND OPENING FOR R.C.P.
Not to Scale



HALF WEST SIDE ELEVATION
NOT TO SCALE

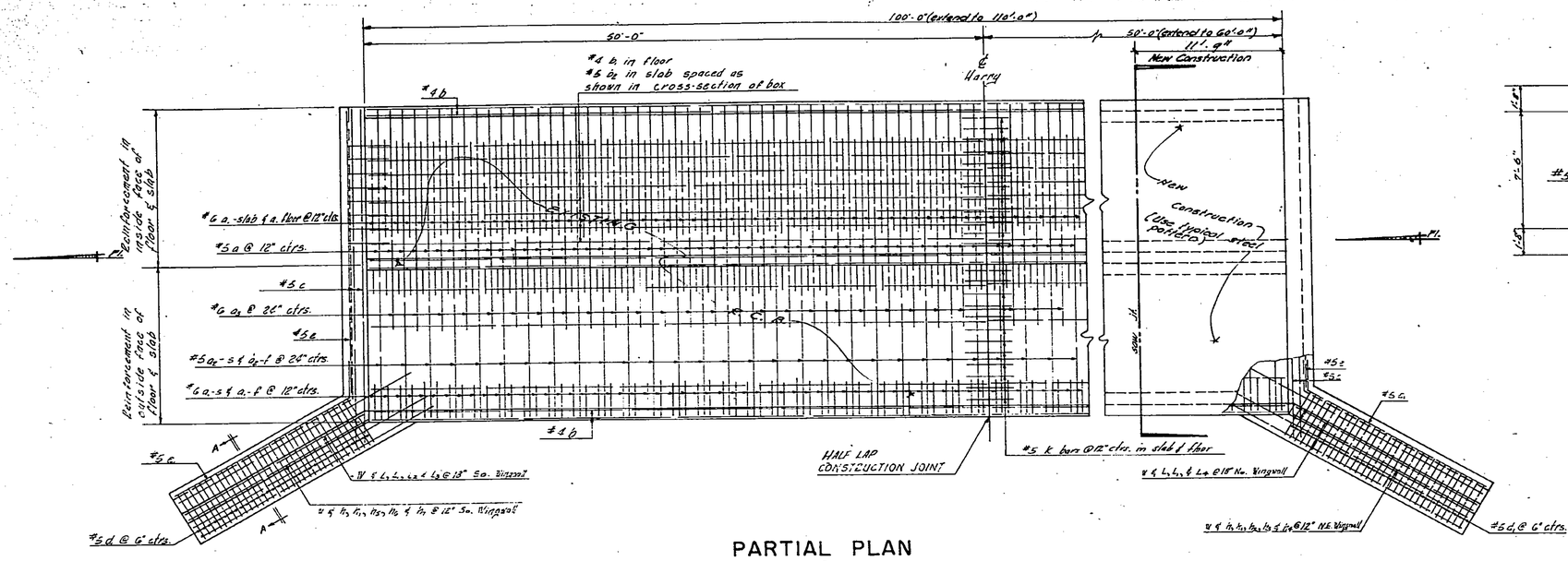
NOTE:
One section of R.C.P. is to be installed at S.E.S. entrance into box when box is constructed.

NOTE - Remove Existing Wingwalls, Toewalls and 1'-9" section of Barrel from North End of Existing R.C.B.. Exposed existing reinf. steel to be spliced with new steel.

13/30

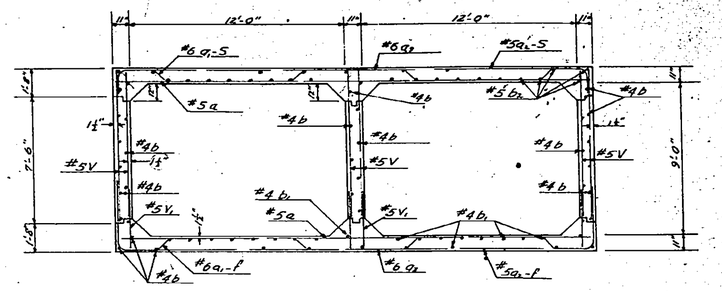
DIST. 5 | SEDGWICK CO. | ROLL 531 | 6 0 6

16X | 14.5X | 12X | 12X | 14.5X | 16X



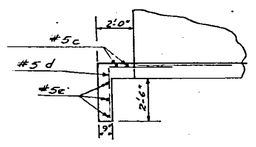
PARTIAL PLAN

SCALE: 3/16" = 1'-0"



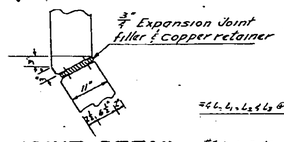
SECTION THRU BOX

SCALE: 1/4" = 1'-0"



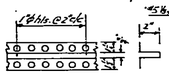
SECTION THRU APRON AT BOX

SCALE: 1/4" = 1'-0"



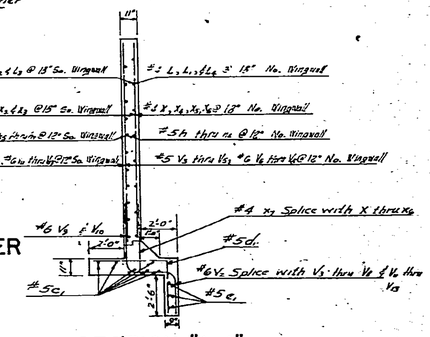
WING JOINT DETAIL

NOT TO SCALE



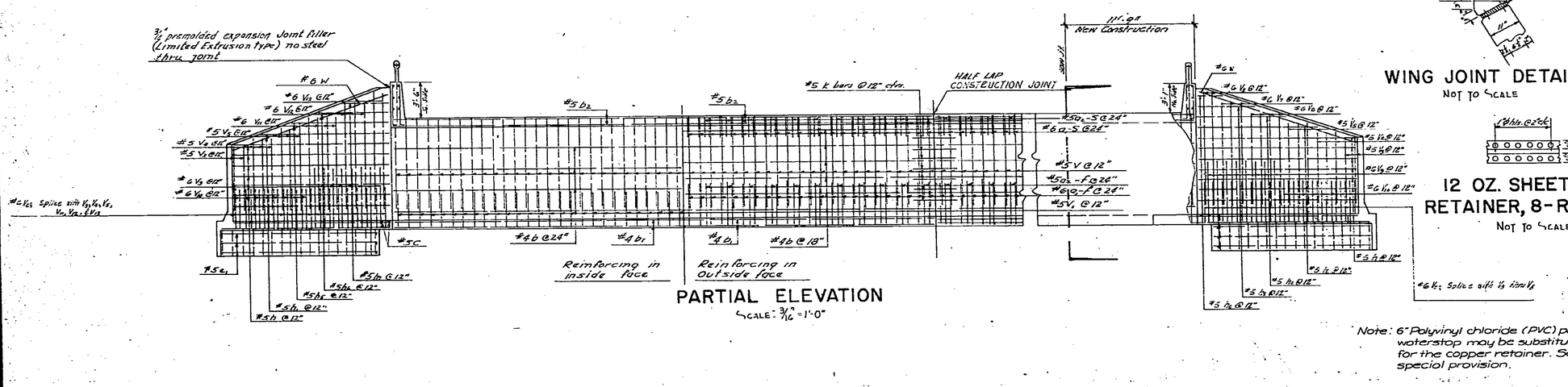
12 OZ. SHEET COPPER RETAINER, 8-REQ'D

NOT TO SCALE



SECTION "A-A"

SCALE: 1/4" = 1'-0"



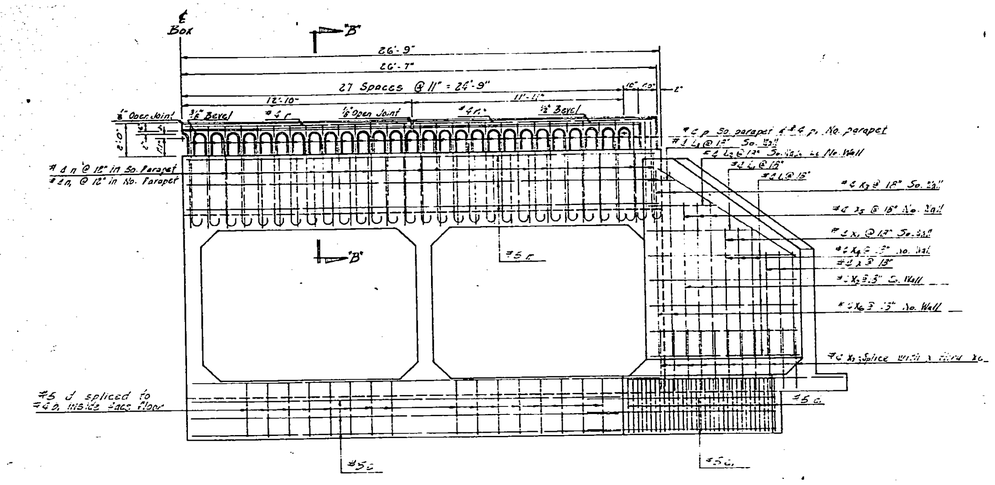
PARTIAL ELEVATION

SCALE: 3/16" = 1'-0"

Note: 6" Polyvinyl chloride (PVC) plastic waterstop may be substituted for the copper retainer. See special provision.

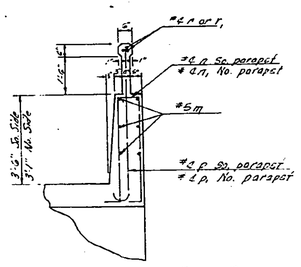
DIST. 5 SEDGWICK CO. ROLL 531 6 0 7

16X 14.5X 12X 12X 14.5X 16X



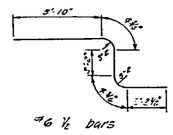
HALF END ELEVATION

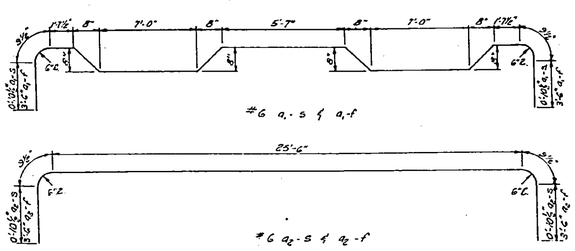
Scale: 1/4" = 1'-0"

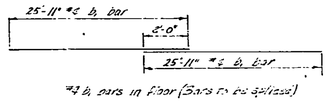


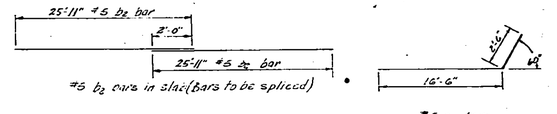
SECTION "B-B"

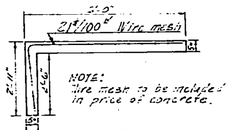
Not to Scale







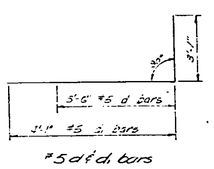




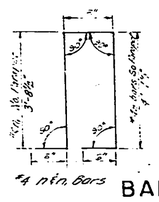
SECTION THRU APRON

Not to Scale

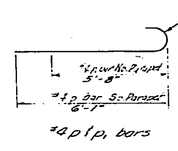
Floating Apron to be constructed on down-stream side only.



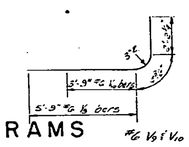
#5 d & d, bars



#4 n in. bars



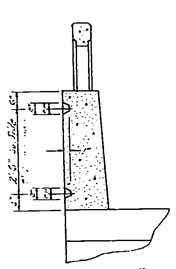
#4 p, p' p, bars



#6 ½ & ½ bars

BAR BENDING DIAGRAMS

Not to Scale

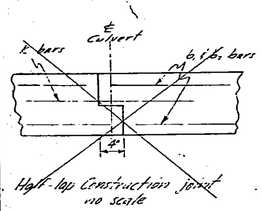


DESIGN ON PARAPET FACE

Not to Scale

SECTION "C-C"

Not to Scale



Half-lap Construction Joint
no scale

NOTE: Cost of removing headwall on 24" R.C.P. to be included in bid of culvert removed. Asphalt mat removal to be included in general excavation.

BILL OF MATERIALS

ITEM	QUANTITY	UNITS
Class A-HS Concrete	654.0	Cu. Yds.
Reinf. Steel	76,645.0	Lbs.
Gen. Excavation	1018.3	Cu. Yds.
Alum. Excavation	53.9	Cu. Yds.
Handrail	156.3	Lin. Ft.
Compaction Fill (Sand Stabilized)	216.2	Cu. Yds.
Removal of Existing R.C.B. & Headwall	1	Lump Sum
66" R.C.P.	16	Lin. Ft.

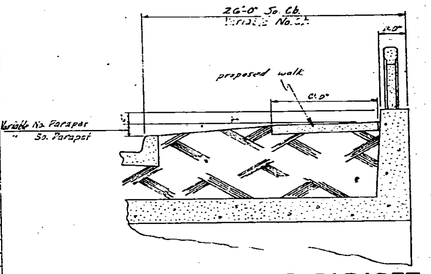
STEEL SCHEDULE (Existing Reinf. Conc. Box)

BAR	SIZE	NO.	LENGTH	SHAPE
a	#6	352	20'-5"	—
a1-s	#5	203	30'-0"	—
a2-f	#6	203	30'-3"	—
a2-s	#6	120	33'-0"	—
a2-f	#6	120	33'-1"	—
a3	#5	196	11'-0"	—
b	#4	272	25'-11"	—
b1	#4	176	25'-11"	—
b2	#5	226	25'-11"	—
c	#	2	28'-5"	—
c1	"	24	28'-0"	—
d	"	66	21'-7"	—
d1	"	132	7'-5"	—
e	"	12	5'-3"	—
e1	"	12	12'-7"	—
f	"	55	13'-5"	—
h	"	4	15'-3"	—
h2	"	2	10'-0"	—
h3	"	2	6'-8"	—
h4	"	2	5'-6"	—
h5	#5	2	10'-3"	—
f	#5	9	4'-5"	—
i	#4	20	15'-9"	—
L	"	4	11'-2"	—
L	"	2	7'-0"	—
L3	#5	2	3'-0"	—

BAR	SIZE	NO.	LENGTH	SHAPE
L4	#4	2	6'-6"	—
m	#5	54	26'-5"	—
n	"	54	"	⊓
n1	"	54	"	⊓
p	"	60	"	⊃
p1	"	60	"	⊃
r	"	8	12'-5"	—
V	#5	1200	5'-5"	—
V1	#5	800	5'-5"	—
V2	#5	400	5'-5"	—
V3	#5	400	5'-3"	—
V4	#5	400	5'-3"	—
V5	"	16	7'-0"	—
V6	#5	12	8'-0"	—
V7	#5	8	5'-9"	—
V8	"	6	10'-6"	—
V9	"	4	11'-0"	—
V10	#4	32	8'-4"	—
V11	#6	32	6'-8"	—
V12	#6	8	9'-0"	—
V13	#6	6	10'-6"	—
V14	#6	4	11'-6"	—
X	#5	138	4'-0"	—

BAR	SIZE	NO.	LENGTH	SHAPE
X1	#5	8	11'-0"	—
X2	"	16	6'-5"	—
X3	"	6	8'-0"	—
X4	"	6	9'-6"	—
X5	"	4	11'-0"	—
X6	"	6	9'-3"	—
X7	"	4	10'-6"	—
X7	#5	66	3'-9"	—
X8	#5	2	7'-0"	—
X9	#5	2	4'-6"	—

* See bending Diagram



SECTION THRU WALK & PARAPET

Not to Scale

(Extension)

BILL OF MATERIALS

Item	Quantity	Unit
Class III Excavation	165	C.Y.
Class (A-AE) Concrete	103.01	C.Y.
Class (A) Concrete (3" Seal Course)		C.Y.
Reinforcing Steel	12,050.0	Lbs.
Removal of Existing Structure		Lump Sum

4-12'x9' R.C.B. STEEL SCHEDULE (Extension)

Bar	Size	No.	Length	Shape
a	#5	44	20'-5"	—
a1-s	#6	24	30'-0"	—
a1-f	#6	24	33'-3"	—
a2-s	#5	12	28'-10"	—
a2-f	#5	12	34'-1"	—
a3	#6	20	11'-0"	—
b	#4	68	11'-3"	—
b1	#6	44	11'-3"	—
b2	#5	56	11'-3"	—
c	#5	4	28'-6"	—
c1	#5	12	22'-0"	—
d	#5	32	6'-7"	—
d1	#5	66	7'-2"	—
e	#5	6	28'-0"	—
e1	#5	6	13'-0"	—
h	#5	16	12'-9"	—
h1	#5	2	13'-9"	—
h2	#5	2	10'-0"	—
h3	#5	2	6'-9"	—
h4	#5	2	3'-6"	—
L	#4	10	15'-9"	—
L1	#4	2	11'-6"	—
L4	#4	2	6'-6"	—
m	#5	10	26'-5"	—
n1	#4	54	*	⊓
p1	#4	60	*	⊃
r	#4	4	12'-6"	—

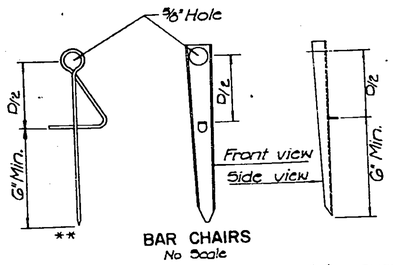
Bar	Size	No.	Length	Shape
V1	#4	4	13'-7"	—
V	#5	146	8'-7"	—
V1	#5	96	9'-5"	—
V2	#6	34	9'-0"	—
V3	#5	4	6'-3"	—
V4	#5	6	7'-0"	—
V5	#5	6	8'-0"	—
V6	#6	8	8'-9"	—
V7	#6	6	10'-0"	—
V8	#6	4	11'-0"	—
V9	#6	12	8'-9"	—
V10	#6	16	6'-8"	—
V	#6	4	17'-0"	—
X	#6	6	6'-6"	—
X6	#6	6	7'-9"	—
X5	#6	6	9'-3"	—
X6	#6	4	10'-6"	—
X7	#6	22	3'-9"	—

DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted] 6 0 8

9X | 16X | 14.5X | 12X | 12X | 14.5X | 16X

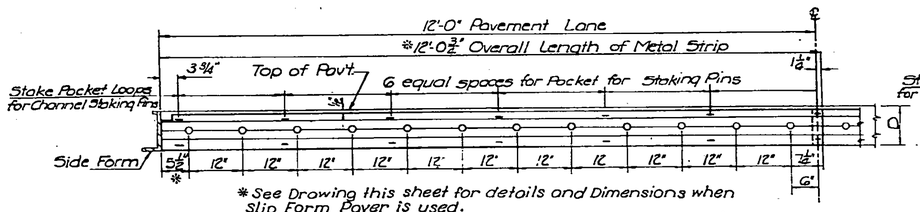
PUB ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	87-T-4004(2)	1970	16	36



BAR CHAIRS
No Scale

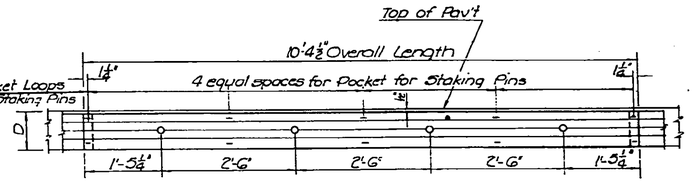
NOTE: Bar chairs shall be used to support transverse tie bars connecting adjoining sections of the slab. Two chairs shall be used to support each transverse tie bar. Other similar types may be used with the approval of the Engineer. The diameter on all wire bar chairs shall not be smaller than No. 5 gauge and shall conform to A.S.T.M. Serial Designation A82. The gauge on all steel bar chairs shall be No. 16 gauge and shall conform to the U.S. std. gauge for sheet steel.

** This type will not be approved for use with stone subbases.



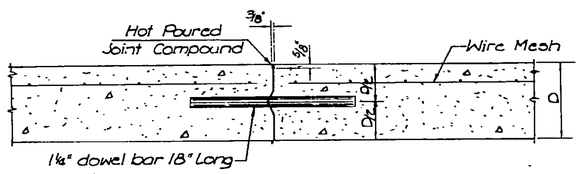
*See Drawing this sheet for details and Dimensions when Slip Form Paver is used.

ELEVATION OF METAL STRIP FOR CONTRACTION JOINT (24' PAVEMENT)
Scale: 3/4" = 1'-0"

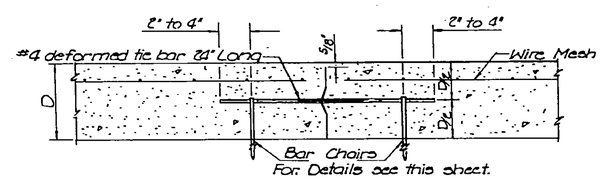


ELEVATION OF METAL STRIP FOR LONGITUDINAL JOINT
Scale: 3/4" = 1'-0"

TOP VIEW OF STAKE POCKET LOOP FOR CHANNEL STAKING PIN



SECTION THRU CONTRACTION JOINT SHOWING METAL STRIP
Scale: 1/8" = 1"



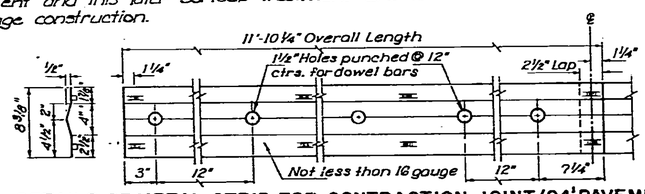
SECTION THRU LONGITUDINAL JOINT SHOWING METAL STRIP
Scale: 1/8" = 1"

NOTE: All contraction joints to be sawed 5/8" deep and 3/16" wide. Sawed joint to be cleaned by sand blasting prior to pouring of the sealing compound.

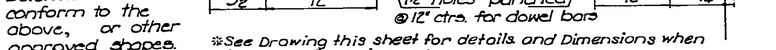
NOTE:
SUBGRADE PAPER
When Subgrade paper is required by the Specifications, or special provisions, it shall be placed on the entire subgrade. The edges of longitudinal strips of subgrade paper shall be lapped a minimum of 3 inches. The ends of longitudinal strips shall be lapped a minimum of 6 inches. The furnishing and placing of Subgrade Paper will not be paid for directly, but will be subsidiary to the pay item "Concrete Pavement".

LINSEED OIL TREATMENT: The entire top surface of the concrete pavement shall be treated after the curing period and prior to opening to traffic. The mixture is to be applied in two applications. The first application shall be at the rate of .025 gallons per square yard, and the second at the rate of .015 gallons per square yard. Payment will be per square yard for "Linseed Oil Surface Treatment".

Under a separate contract another surface treatment will be applied to the top surface of the pavement approximately twelve months after the first treatment. The initial surface treatment and this later surface treatment are to be considered as stage construction.



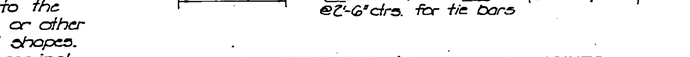
DETAILS OF METAL STRIP FOR CONTRACTION JOINT (24' PAVEMENT)
(When Slip Form Paver is Used)
Scale: 1/8" = 1"



Deformation to conform to the above, or other approved shapes. These are nominal dimensions.

*See Drawing this sheet for details and Dimensions when Slip Form Paver is used.

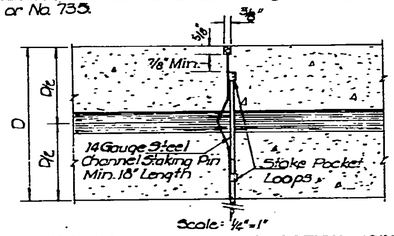
DETAILS OF METAL STRIP FOR CONTRACTION JOINT (24' PAVEMENT)
Scale: 1/8" = 1"



Deformation to conform to the above, or other approved shapes. These are nominal dimensions.

DETAILS OF METAL STRIP FOR LONGITUDINAL JOINTS
Scale: 1/8" = 1"

†Dimension when D=9"
NOTE: Metal strip shown for contraction joint to be used in conjunction with the dowel assembly as shown on Std. Sheet No. 734 or No. 735.

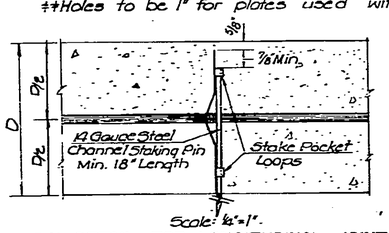


Scale: 1/2" = 1"

PIN DETAIL FOR CONTRACTION JOINT

D=9"

Metal Strip shall not extend thru expansion or contraction joints.
*Dimension when D=9"
**Holes to be 1" for plates used with #6 bars on bridge approach slabs.



Scale: 1/2" = 1"

PIN DETAIL FOR LONGITUDINAL JOINT

5	3-25-69	Rev. Met. strip & Added slip form detail & Rev. Note Subgrade Paper	W.L.H.	K.G.L.
4	2-27-68	Rev. metal strips & Staking Pins	A.L.B.	K.G.L.
3	1-26-68	Rev. shape & length metal strip; Rev. Staking pins; elim. metal clip	P.G.F.	T.R.G.
NO.	DATE	REVISIONS	BY	APP'D

STATE HIGHWAY COMMISSION OF KANSAS
CONCRETE PAVEMENT
AUXILIARY DETAILS-III
STD. NO. 723
1-26-68

SHEET NO. OF	SCALE As Shown	APP'D [signature]	
DESIGNED	DETAILED P.G.F.	QUANTITIES	TRACED P.G.F.
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACE CK.

16 / 36

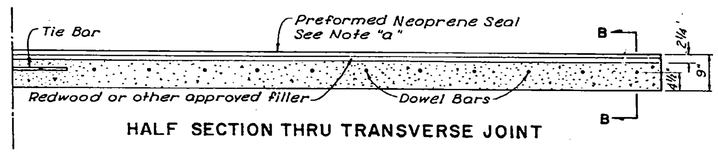
DIST. 5 | SEDGWICK CO. | ROLL 531

6 0 9

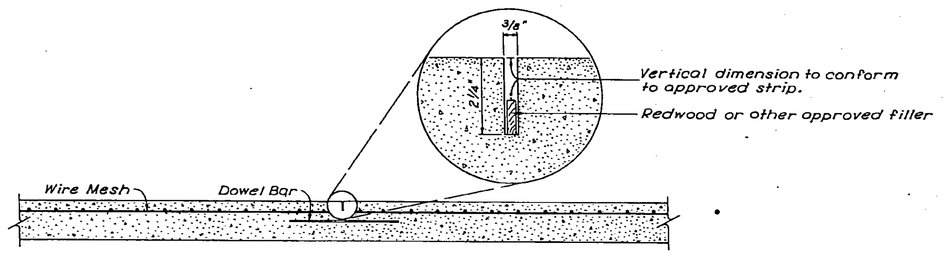
16X | 14.5X | 12X | 12X | 14.5X | 16X

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-7-4004(3)	1970	17	36

Note "a" Preformed Neoprene Seal -
Uncompressed Width 13/16".

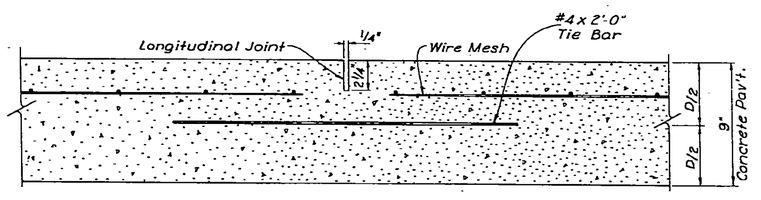


HALF SECTION THRU TRANSVERSE JOINT



SECTION B-B
&
DETAIL OF SAW CUT

CONTRACTION JOINT



LONGITUDINAL JOINT
TRANSVERSE SECTION

NOTES:

Longitudinal joint to be saw cut as detailed, within 48 hours of pavement laying.

Apply lubricant adhesive and install preformed neoprene seal in as long a continuous length as possible (See Special Provisions).

Seal to conform to Special Provision uncompressed width 13/16 inch

NO	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS

CONCRETE PAVEMENT

AUXILIARY DETAILS - IV

STD. NO. 724 May 12, 1969

SHEET NO. 17 | SCALE | APPD. K. D. Forncrook

DESIGNED | DETAILED T.E.R. | CHECKED T.E.R.

DESIGN CK. W.L.H. | DETAIL CK. W.L.H. | PLAN CK. | REC. K. W.L.H.

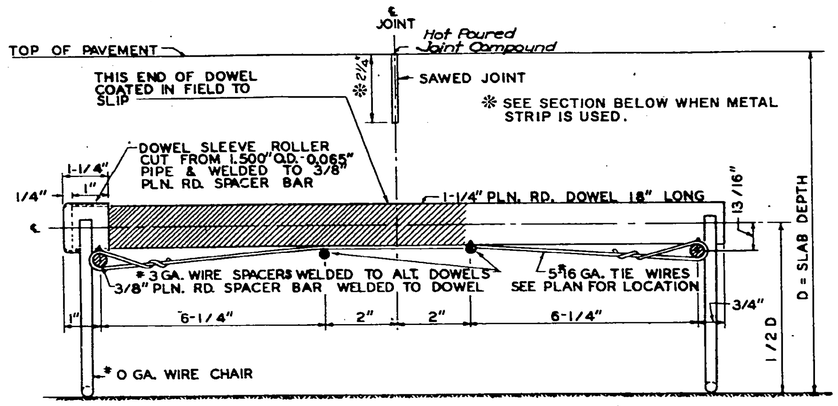
17/36

DIST. 5 | SEDGWICK CO. | ROLL 531

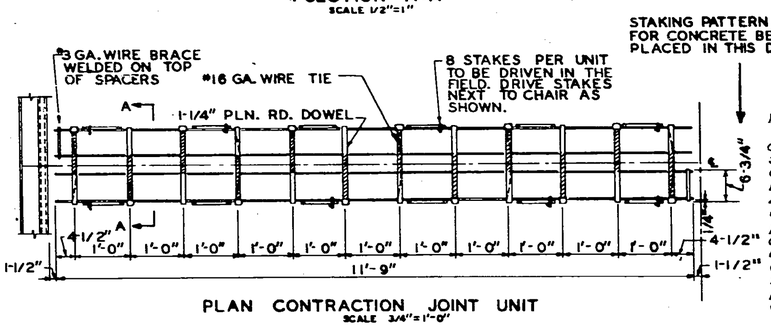
6 1 0

16X 14.5X 12X 12X 14.5X 16X

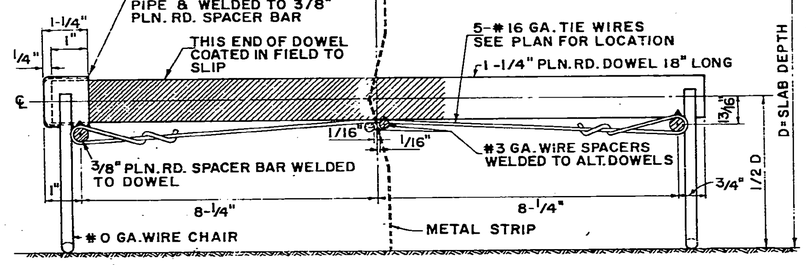
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	87-T-4004(2)	1970	15	36



*SECTION A-A
SCALE 1/2"=1"

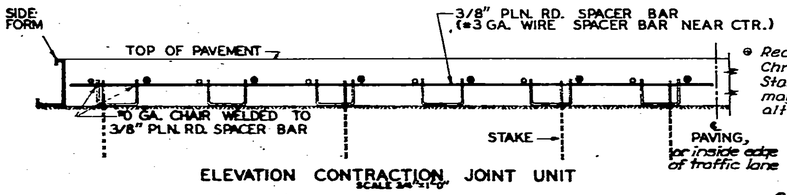


PLAN CONTRACTION JOINT UNIT
SCALE 3/4"=1'-0"



*SECTION A A WHEN METAL STRIP IS USED
SCALE 1/2"=1"

D = ____



ELEVATION CONTRACTION JOINT UNIT
SCALE 3/4"=1'-0"

Note:
Approx. 3/5 of the length of the dowels (floating end) shall be painted with one coat of Zinc Chromated iron oxide ready mix paint, AASHO, M 142 ⊕ and then coated with hard grease prior to installation. Other approved coatings may be used. The cutting to length of the Dowels shall be done in a manner resulting in no appreciable deformation of the ends.

A string line shall be stretched between the pavement forms along the center line of the joint. The position of the joint shall be carefully marked so that the saw cut will coincide with the center line of the joint.

The entire joint assembly shall then be carefully leveled up so that the dowels are parallel to the slab surface and free to slide in the dowel holders. Any grease scraped off the dowels in assembling the joint shall be replaced.

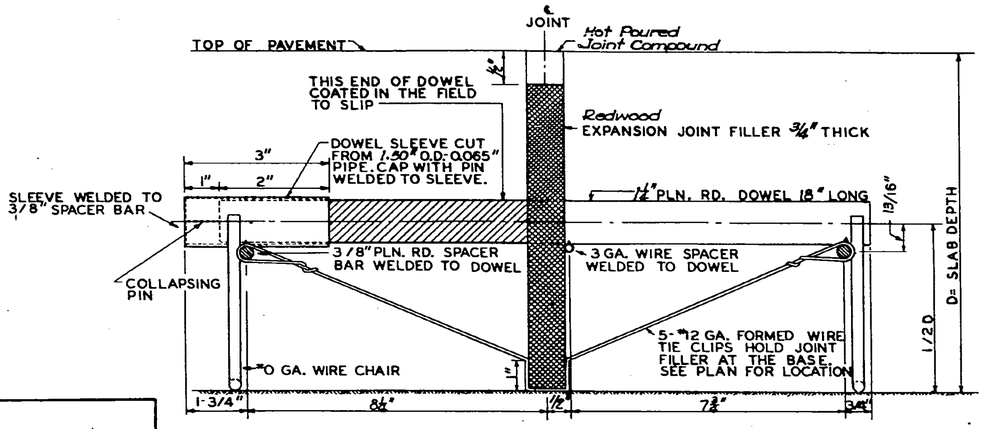
After the complete contraction joint is assembled, it shall be checked to be certain that the vertical plane of the joint will be perpendicular to the finished surface of the slab and at right angles with the centerline of the slab, unless shown otherwise on the plans. The dowels shall be checked to be certain that they are level and will remain in a position parallel with the finished surface of the slab.

Concrete shall then be placed over and adjacent to the joint in accordance with the requirements of the Specifications.

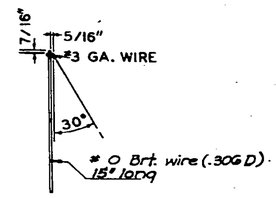
Other approved designs may be used in lieu of the type shown.

⊕ Red Oxide-Zinc Chromate-Federal Standard TT-P-664B may be used as an alternate paint.

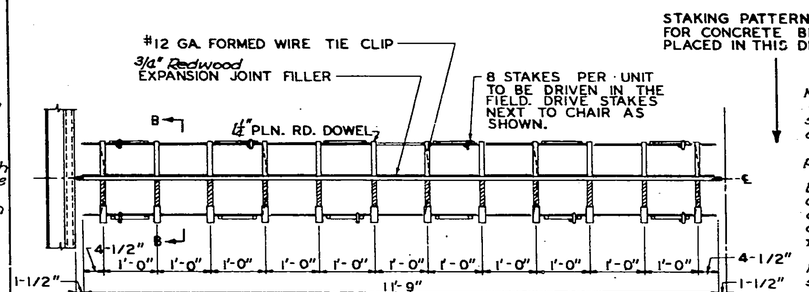
CONTRACTION JOINT



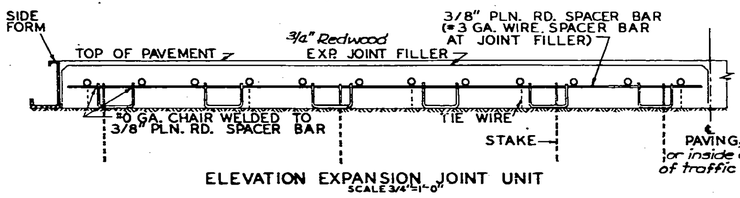
SECTION B-B
SCALE 1/2"=1"



STAKE
SCALE 1-1/2"=1'-0"
Other approved designs may be used in lieu of the type shown.



PLAN EXPANSION JOINT UNIT
SCALE 3/4"=1'-0"



ELEVATION EXPANSION JOINT UNIT
SCALE 3/4"=1'-0"

Note:
One length of Redwood board, cut to fit crown and subgrade, shall be used for each lane of pavement as expansion joint filler.

A string line shall be stretched between the pavement forms along the center line of the joint.

One half (9") of the length of each dowel bar shall be painted with one (1) coat of Zinc Chromated iron oxide ready mix paint AASHO, M142 ⊕ and then heavily coated with hard grease. Each coat of paint shall be thoroughly dry before making further applications.

The entire joint assembly shall then be carefully leveled up so that the dowels are parallel to the slab surface and free to slide in the dowel holders. Any grease scraped off the dowels in assembling the joint shall be replaced. Any excess grease on the dowel holders shall be removed.

After the complete expansion joint is assembled, it shall be checked to be certain that the vertical plane of the joint will be perpendicular to the finished surface of the slab and at right angles with the center line of the slab. The dowels shall be checked to be certain that they are level and will remain in a position parallel with the finished surface of the slab.

Concrete shall then be placed over and adjacent to the joint in accordance with the requirements of the Specifications.

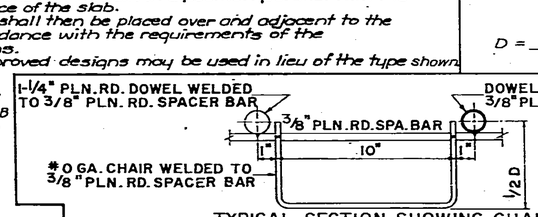
To finish the joint after completion of machine finishing, floating and straight edging of the surface, the concrete over the filler shall be carefully removed and the joint edged with an edger of the proper size.

Other approved designs may be used in lieu of the type shown.

Expansion Joint material is to be installed in the field.

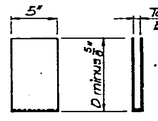
⊕ Red Oxide-Zinc Chromate-Federal Standard TT-P-664B may be used as an alternate paint.

D = ____



TYPICAL SECTION SHOWING CHAIR
SCALE 1/4"=1'-0"

EXPANSION JOINT



JOINT FILLER SPLICE
24 Gauge Black Steel
(1 Req'd per splice)

NO.	DATE	REVISIONS	BY	APP'D
11	3-1-69	Rev. Details when metal strip is used & Rem'd. Sand Plates, Rev. Paint	W.L.H.	K.G.L.
10	8-68	Added Note for alternate staking pin	W.L.H.	K.G.L.
9	8-66	Conforms to 1966 Specs (no change)	A.L.R.	E.A.R.

STATE HIGHWAY COMMISSION OF KANSAS

TRANSVERSE PAVEMENT JOINTS
CONTRACTION JOINT DOWEL
AND
EXPANSION JOINT DOWEL
ASSEMBLIES
STD. NO. 734 (LACLEDE TYPE)

SHEET NO. OF	SCALE Noted	APP'D
DESIGNED Laclede	DETAILED Laclede	QUANTITIES
CHECKED CK	DETAIL CK W.A.B.	CHKD. CK.

TRACED Laclede
TRACED CK.

(15) (36)

DIST. 5 | SEDGWICK CO. | ROLL 531

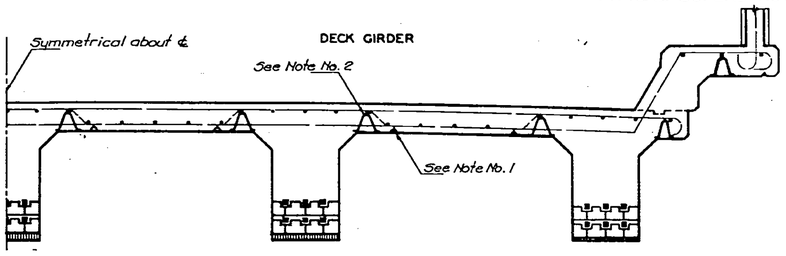
6 1 1

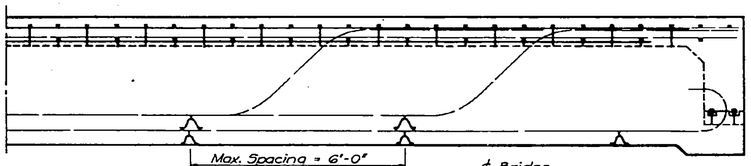
16X 14.5X 12X 14.5X 16X 12X

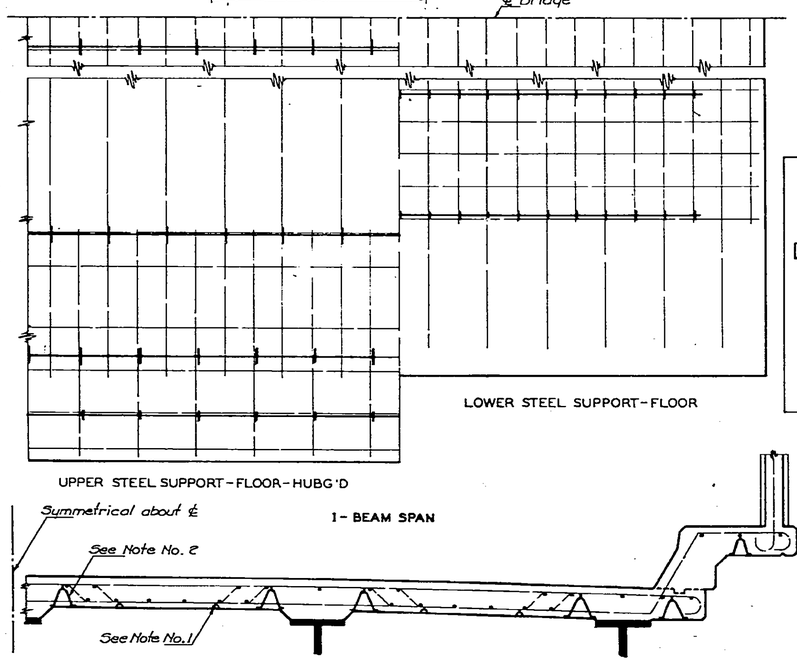
Pub. Road Div. No.	State	Proj. No.	Fiscal Year	Sheet No.	Total Sheets
5	Kansas	81-T-4004(8)	1970	13	36

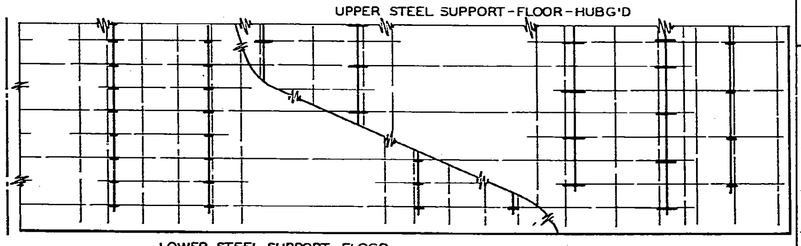
Section

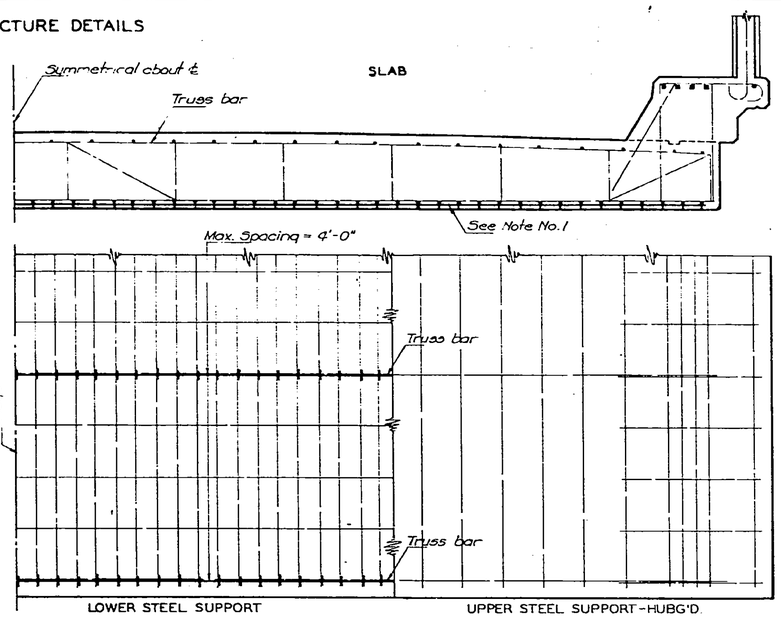
TYPICAL SUPERSTRUCTURE DETAILS



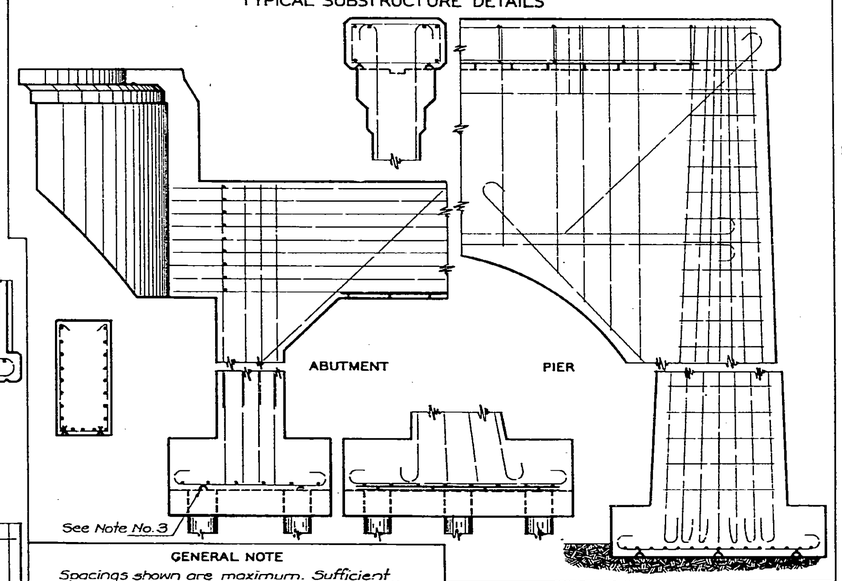








TYPICAL SUBSTRUCTURE DETAILS



GENERAL NOTE

Spacings shown are maximum. Sufficient supports shall be used, as determined by the Engineer, to retain the reinf. steel in position.

Approved designs and arrangements of Supports or Spacers other than as shown on this sheet, may be used with the permission of the Engineer. Component parts of Supports and Spacers shall be securely welded at all contact points. Legs shall be so constructed that only the ends bear upon the forms.

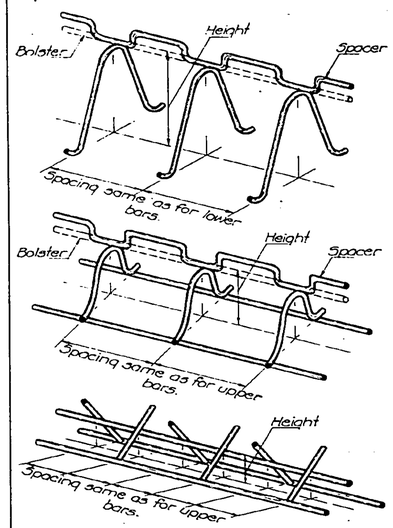
Wire used for Supports and Spacers shall be of sufficient size to insure stability of Reinforcing Steel at the position shown on the Plans, within the limits indicated by Notes 1 & 2. Wire supports shall be supplemented with form ties or other approved devices where necessary.

NOTE 1: The lower side of Reinforcing Steel in these locations shall be not less than one inch (1") from the surface of the concrete.

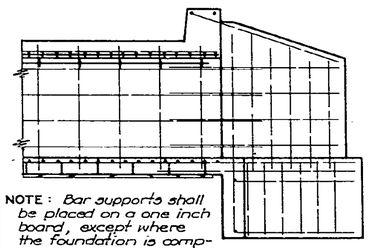
NOTE 2: The upper side of Reinforcing Steel in these locations shall be within the limits shown on the Plans.

NOTE 3: The use of Wire Supports for Reinforcing Steel in these locations is optional. Where they are not used the Steel shall be supported from the forms by means of wire ties or saddles.

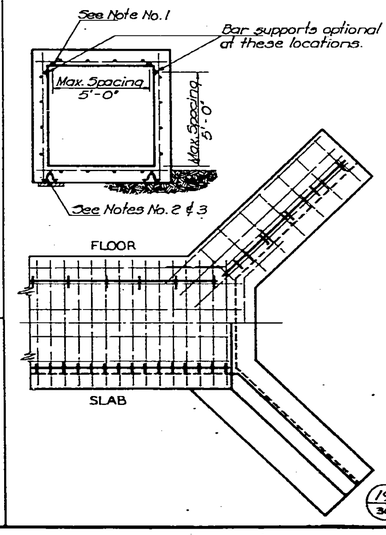
BEAM BAR SPACERS & BOLSTERS



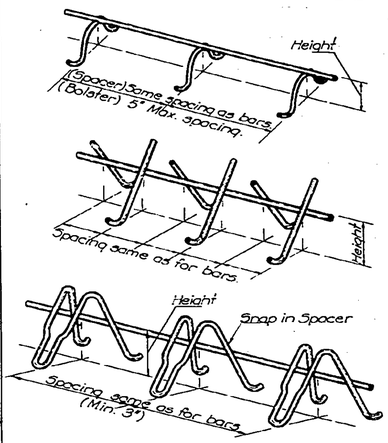
TYPICAL CULVERT DETAILS



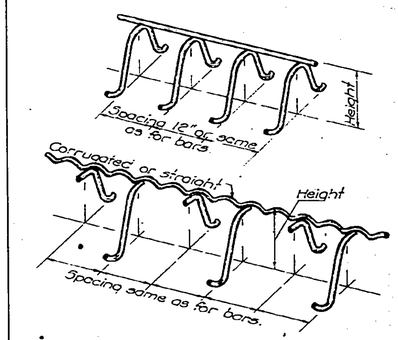
NOTE: Bar supports shall be placed on a one inch board, except where the foundation is composed of rock, firm shale or a seal course. See Note No. 3.



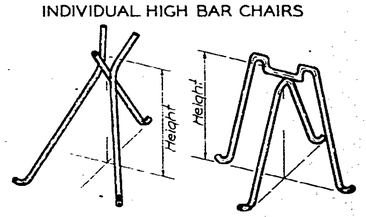
LOW SLAB BAR SPACERS & BOLSTERS



HIGH SLAB BAR SPACERS & BOLSTERS



INDIVIDUAL HIGH BAR CHAIRS



NO.	DATE	REVISIONS	BY	APP'D
5	8-66	Conforms to 1965 Specs. (no change)	A.L.E.	A.R.
4	10-60	To conform to 1960 Specs.	W.B.	K.G.L.

STATE HIGHWAY COMMISSION OF KANSAS

SUPPORTS AND SPACERS FOR REINFORCING STEEL

STD. NO. 610 SCALE No Scale

DESIGNED BY E.A.R. DATE 7-63 DETAILED BY W.A.B. TRACED BY W.A.B.

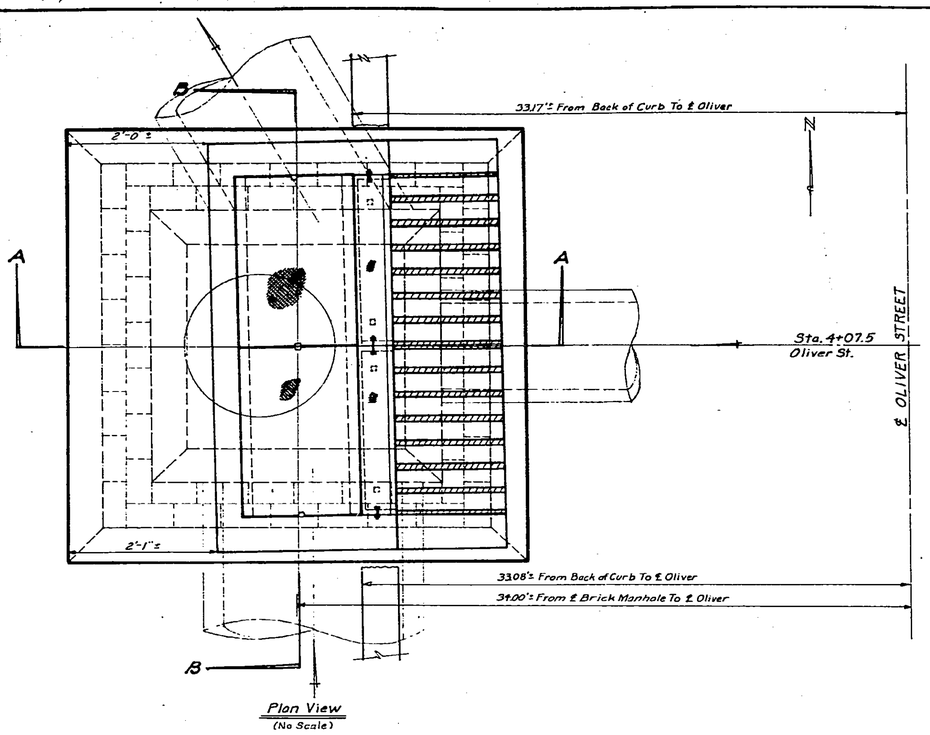
CHECKED BY C.T. APPROVED BY H. L. Vincent DATE 4-1-64

(19/36)

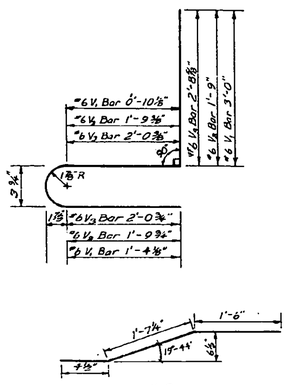
DIST. 5 | SEDGWICK CO. | ROLL 531

6 1 2

16X | 14.5X | 12X | 12X | 14.5X | 16X



Plan View
(No Scale)



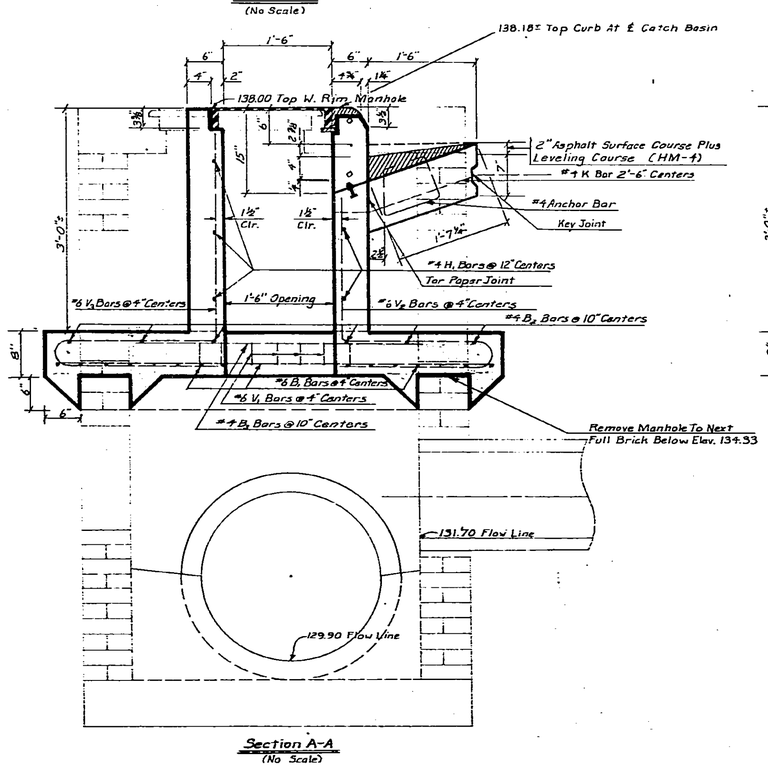
K Bar

BEND DIAGRAM

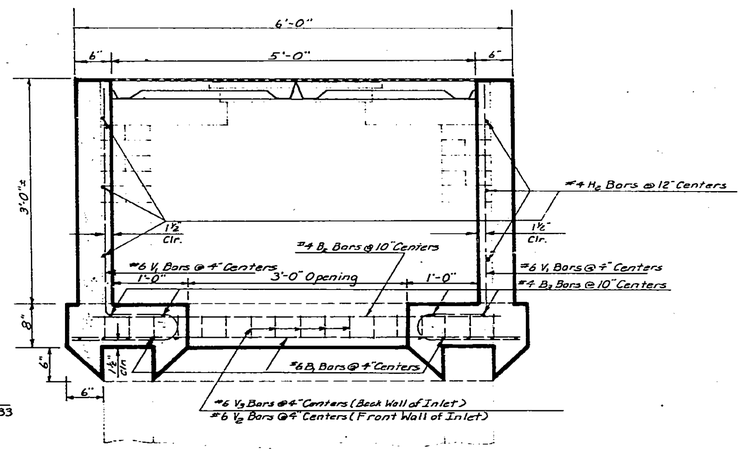
STEEL SCHEDULE			
BAR	SIZE	LENGTH	NO.
B_1	#6	6'-0"	25
B_2	#6	5'-0"	6
B_3	#6	4'-0"	4
H_1	#4	5'-9"	5
H_2	#4	2'-3"	6
V_1	#6	5'-8⅜"	14
V_2	#6	5'-10"	17
V_3	#6	7'-3⅝"	17
K	#4	3'-5¾"	3

Bill Of Materials.
1.9 Cubic Yards Class A Concrete
780 Lbs. Reinforcing Steel
See Sheet #24 Standard No. 632 For Details & Specifications On Castings.

Note: See Sheet #24 Standard No. 632 For Detail & Specifiction on Castings.



Section A-A
(No Scale)



Section B-B
(No Scale)

STATE HIGHWAY COMMISSION OF KANSAS

COMBINATION MANHOLE-INLET
34' Lt. ℄ Sta. 4+07.5
On Oliver St.

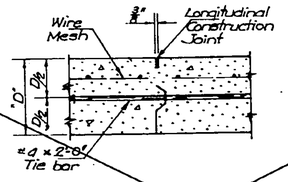
(20)
(36)

DIST. 5 | SEDGWICK CO. | ROLL 531 | [redacted] 6 1 3

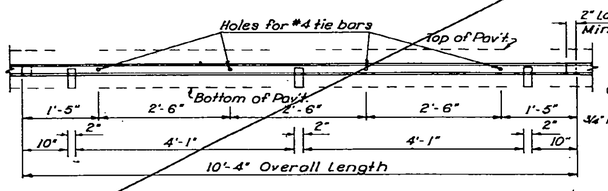
10X | 16X | 14.5X | 12X | 12X | 14.5X | 16X

FUR. ROAD DIV NO.	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	KANSAS	87-T-4004(8)	1970	21	36

Note: At Longitudinal Construction Joints a saw cut 1" deep and 3/8" wide shall be made and poured as specified for contraction joints.

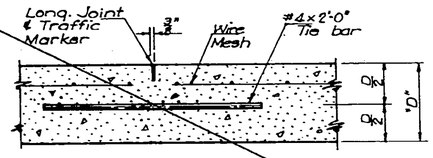


LONGITUDINAL CONSTRUCTION JOINT DETAIL
TRANSVERSE SECTION



METAL STRIP FOR
LONGITUDINAL CONSTRUCTION JOINT
To be used only against forms.
Shall not extend through contraction or expansion joints.

SECTION OF RECESSED FORM LEG

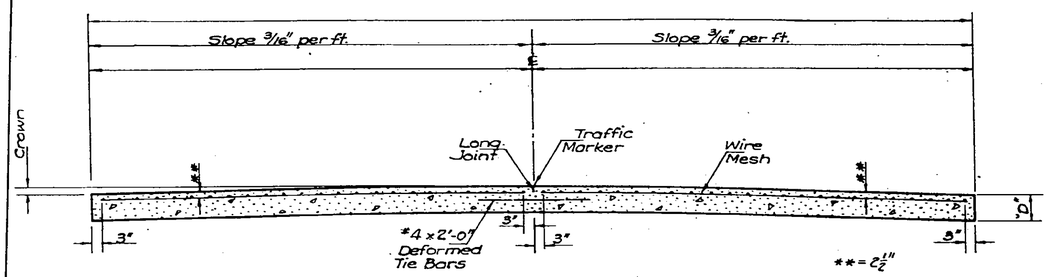


LONGITUDINAL JOINT DETAIL
TRANSVERSE SECTION

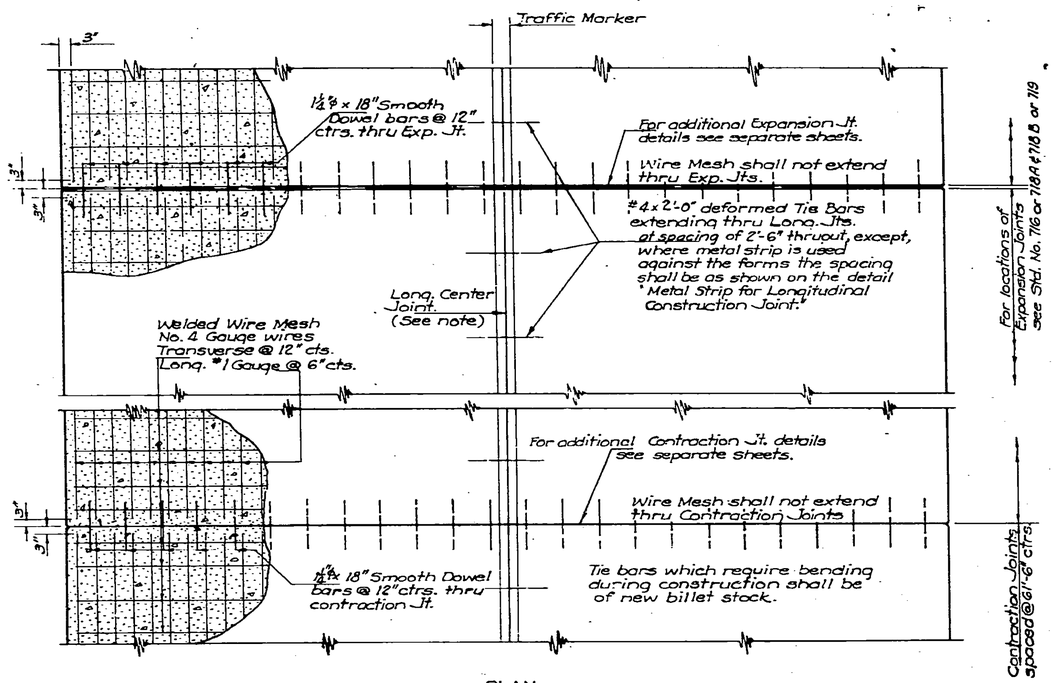
* 2 1/4" Min. (9"D")

Note: A longitudinal joint formed by sawing * deep and 3/8" wide and poured as specified for contraction joints shall be used.

NOTE: Traffic Marker to be painted by the State.



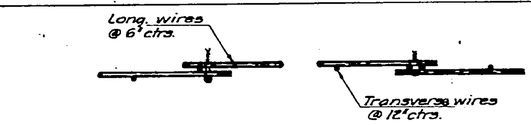
TRANSVERSE SECTION



PLAN

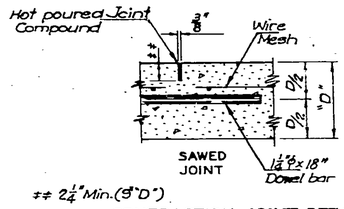
D=

Note: At the beginning and end of the pavement on any given project, a construction joint as outlined in the Standard Specifications shall be used unless the pavement abuts a rigid surface. The header shall be removed and the tie bars bent into the groove at right angles to the centerline of the pavement.



DETAIL OF LAP FOR WIRE MESH

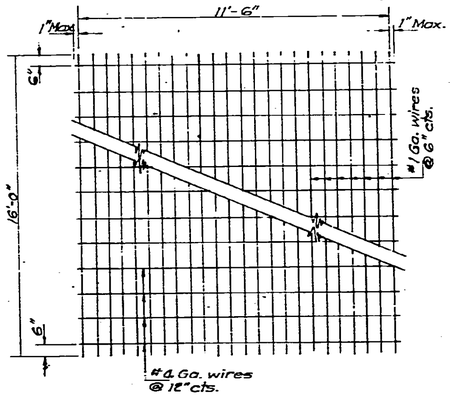
NOTE: The lap shall extend beyond the first transverse wire of each sheet. The sheet shall be wired securely at the edges and at intervals not to exceed 2'-6" for the full width of the sheet. Approx. wt. of wire mesh = 61 lbs. per 100 sq. ft. Other methods for fastening the sheets of wire mesh at the laps may be used with the approval of the Engineer.



** 2 1/4" Min. (9"D")

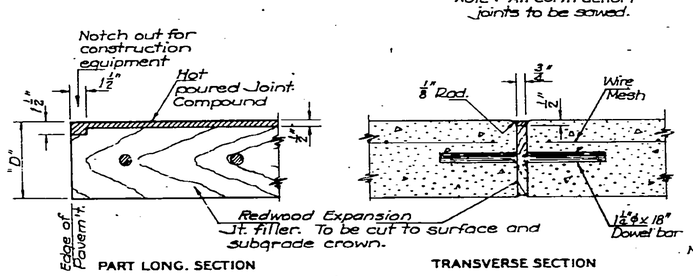
CONTRACTION JOINT DETAIL

Note: All contraction joints to be sawed.



TYPICAL SHEET OF WELDED WIRE MESH

Note: Approved Hinged Welded Wire Fabric Mat reinforcement may be used in lieu of the Flat Welded Wire Mesh shown.



PART LONG. SECTION

TRANSVERSE SECTION

EXPANSION JOINT DETAIL

NOTE: An expansion joint (without load transfer devices), shall be placed at the ends of the pavement slab where the new pavement abuts the ends of bridges or other rigid structures.

Unless otherwise noted, load transfer devices as shown in detail on other standard sheets in the plans, shall be used at all expansion & contraction joints.

QUANTITIES			
	Thickness "D"	End Area Sq. Ft.	Cu. Yds. per Sta.
22' WIDTH	8"	14.67	54.32
	9"	16.50	61.11
	10"	18.33	67.90
24' WIDTH	8"	16.00	59.26
	9"	18.00	66.67
	10"	20.00	74.07

NO	DATE	REVISIONS	BY	APP'D
20	6-27-68	Rev. Metal Long. Strip used against forms	T.E.R	K.G.L.
19	8-66	Conforms to 1966 Specs (no change)	ALR	EAR

STATE HIGHWAY COMMISSION OF KANSAS

CONCRETE PAVEMENT

TWO LANE ____ WIDTH

STD. NO. 707.1

21
36

SHEET NO. ____ OF ____ | SCALE No Scale | Appr'd. [illegible]

DESIGNED ____ | DETAILED WAB | QUANTITIES WAB | TRACED WAB

DESIGN EX. ____ | DETAIL EX. EAR | QUAN. EX. ____ | TRACE EX. ____

DIST. 5 | SEDGWICK CO. | ROLL 531

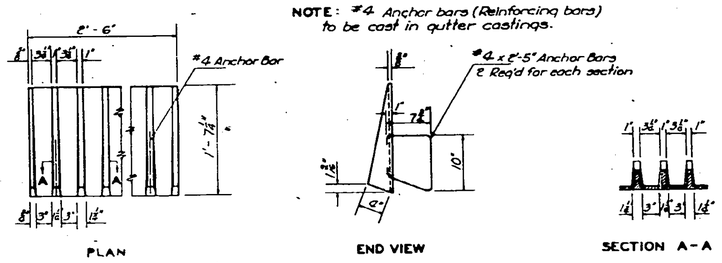
6 1 4

16X 14.5X 12X 12X 14.5X 16X

Fed. Road Div. No.	State	Proj. No.	Fiscal Year	Sheet No.	Total Sheets
5	Kansas	87-T-4004(6)	1970	22	36

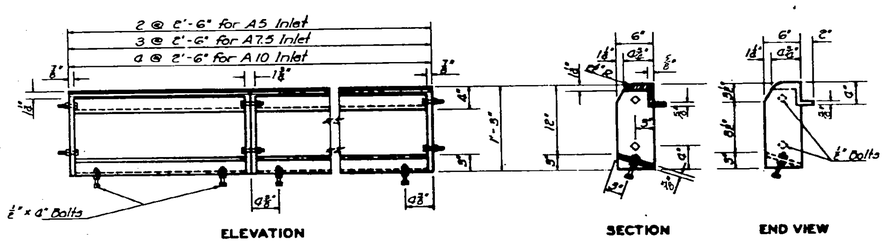
Section

NOTE: #4 Anchor bars (Reinforcing bars) to be cast in gutter castings.



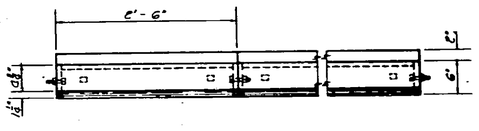
Weight = 145 Lbs. per 2'-6" section.

DETAILS OF GUTTER CASTING (IRON)



TYPES A5-1, A7.5-1 & A10-1

TYPES A5-1 A7.5-1 & A10-1

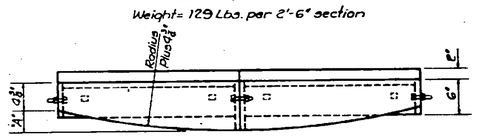


NOTE: All bolts and nuts shall be galvanized and meet the requirements of sub-section U15-2 of the 1966 Specifications.

PLAN

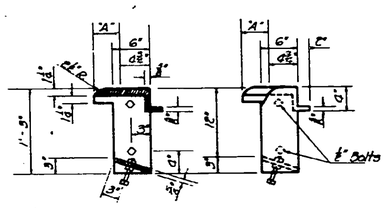
TYPES A5-1, A7.5-1 & A10-1

Weight = 129 Lbs. per 2'-6" section



TYPE A5-2 SHOWN

Weight - See Tables below.



TYPES A5-2, A7.5-2 & A10-2

DETAILS OF CURB CASTING (IRON)

FOR TYPE A5-2 CASTINGS			
Radius	20'	25'	30'
"A"	1⅞"	1⅛"	1⅜"
Weight-Lbs	283	278	274

FOR TYPE A7.5-2 CASTINGS			
Radius	20'	25'	30'
"A"	4¼"	3⅜"	2⅝"
Weight-Lbs	470	455	445

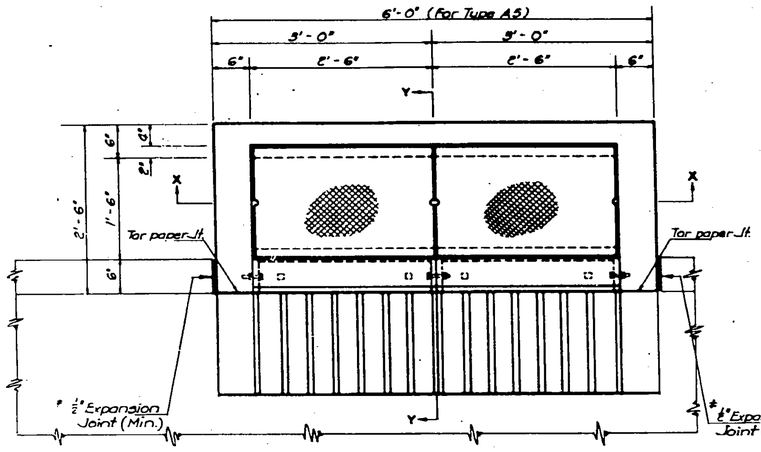
FOR TYPE A10-2 CASTINGS			
Radius	20'	25'	30'
"A"	7⅛"	6"	5"
Weight-Lbs	721	680	653

NOTE: Weights given in tables above are total weights for Curb Castings only.
All weights of castings are calculated weights with no allowance for fillets, overruns, anchor bars and bolts.

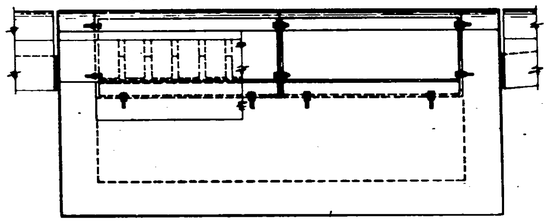
Note: All castings shall be gray iron and shall comply with ASTM A-48 Class 25S.

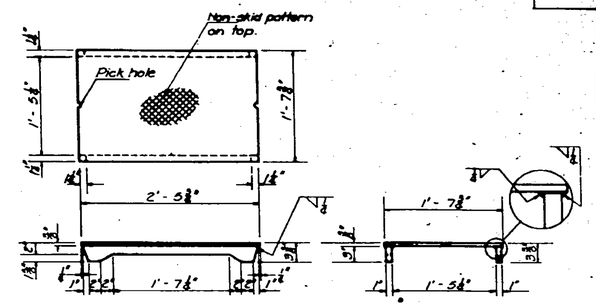
Note: Use Class A Concrete throughout
Bevel all exposed edges with a ¾" triangular moulding.
Reinforcing bars shall be bent around pipe.
No deductions in concrete quantities shall be made for pipe openings.

At the contractor's option Class A Concrete (AE) may be used throughout, but payment shall be made as Cu. Yds of Class A Concrete miscellaneous.
A small opening may be required in the back of the inlet to drain a low area, if ordered by the Engineer. Reinforcing bars will extend through the opening. No deduction in concrete quantities will be made for this opening.
When so ordered by the Engineer the top of the inlet shall be sloped slightly to approximately fit the ground Line or other conditions
Structural steel cover plate and all exposed cast iron surfaces shall be painted either in the shop or in the field with one coat of a zinc dust paint, followed by two field coats of aluminum paint.
No substitutions of design will be permitted on castings.

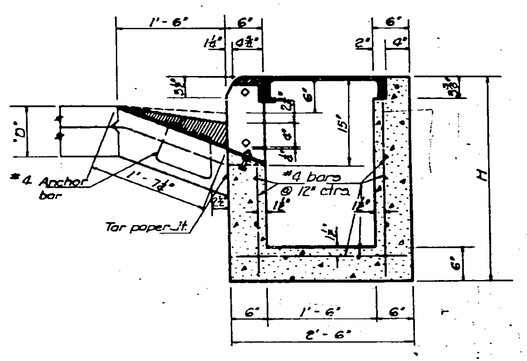


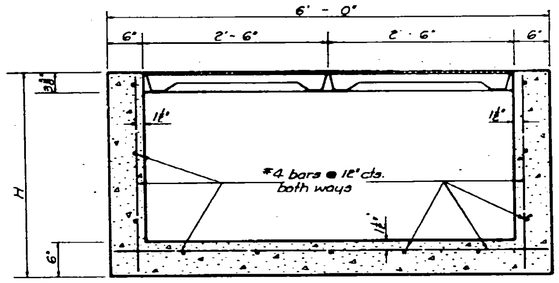
* Hot or cold poured joint sealing compound, or Premoulded Exp. Jt. Filler (Non-extruding, Type B).





* Non skid steel floor plate (Commercial grade) welded to steel (ASTM A-7, A-36, A-242 or A-441) bars.





NOTE: See standard sheet for Concrete Pavement Auxiliary Details-I for shaping gutter approaching and leaving inlets. This shaping will be required at all Type "A" inlets, unless otherwise noted on the plans. This work will be paid for as follows; where combined curb & gutter is used the entire length of the shaped gutter and the curb, together with the concrete under the gutter casting, shall be paid for as "Combined Curb & Gutter, Type I"; where concrete pavement and edge curb is used the shaped approaches and the edge curb, together with the concrete under the gutter casting, shall be paid for as "Concrete Pavement" and "6" Edge Curb."
Floor of Inlet shall be shaped as shown in various "EXAMPLES" on Reinforced Concrete Manhole Standard No. 633.
Concrete used for shaping shall be unreinforced Class "A" concrete
No addition in concrete quantities shall be made for shaping floor of Inlets.

NO.	DATE	REVISIONS	BY	APP'D
26	3-26-70	Class "A" miscellaneous.	W.L.H.	K.G.L.
25	5-5-69	Added Note on shaping of Floor	W.L.H.	K.G.L.
24	5-67	Add point castings & optional opening, etc.	A.L.P.	K.G.L.
23	3-66	To conform to 1966 Specs.	A.L.P.	E.A.R.

STATE HIGHWAY COMMISSION OF KANSAS

TYPE "A" CURB INLET

STD. NO. 632 SCALE 1 Inch = 1 Foot (For 22"x36" sheet)

DESIGNED BY E.A.R. DATE 9-65 DETAILED BY W.L.H. TRACED BY H.A.B.

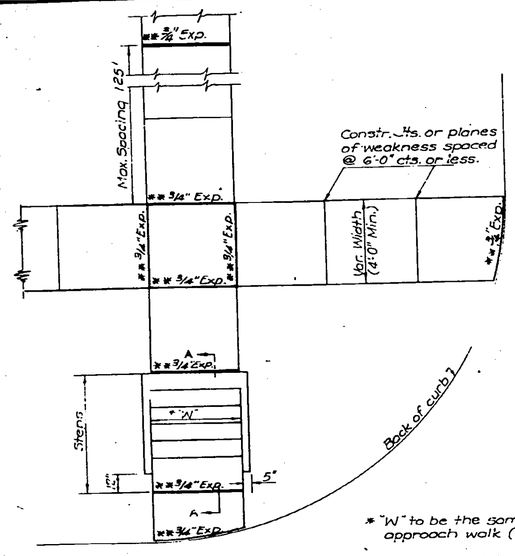
CHECKED BY A.L.P. APPROVED BY [illegible] DATE 4-5-66

22
36

DIST. 5 | SEDGWICK CO. | ROLL 531 | 6 1 5

16X | 14.5X | 12X | 12X | 14.5X | 16X

FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-4084 (8)	1976	23	36



* "W" to be the same width as approach walk (4'-0" Min.).

** ¾" Redwood board

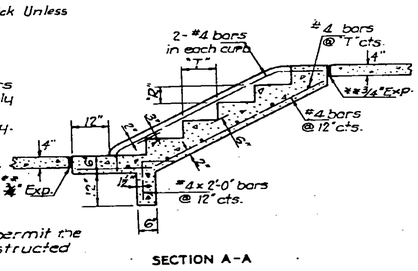
TYPICAL PLAN

Note: Sidewalk to be 4" Thick Unless Otherwise Noted.

Note: Reinforcing bars shown to be used only when more than 4 steps are necessary.

Step formula
"R" x "T" = not less than 70 or not more than 75
The Maximum "R" = 7¾"
The Minimum "T" = 9"

Where field conditions permit the steps should not be constructed too steep.



SECTION A-A

Note: Expansion Joints shall be placed in sidewalks as follows: In long runs, expansion joints shall be ¾" redwood boards flush with the surface, at a maximum spacing of 125'. This same joint shall be used at sidewalk junctions as shown in Typical Plan.

Where the end of the sidewalk abuts a curb, a ¾" redwood board flush with the surface shall be used.

Where the sidewalk is parallel and adjacent to a rigid structure, a ½" premoulded joint filler (Nonextruding, Type B) shall be used.

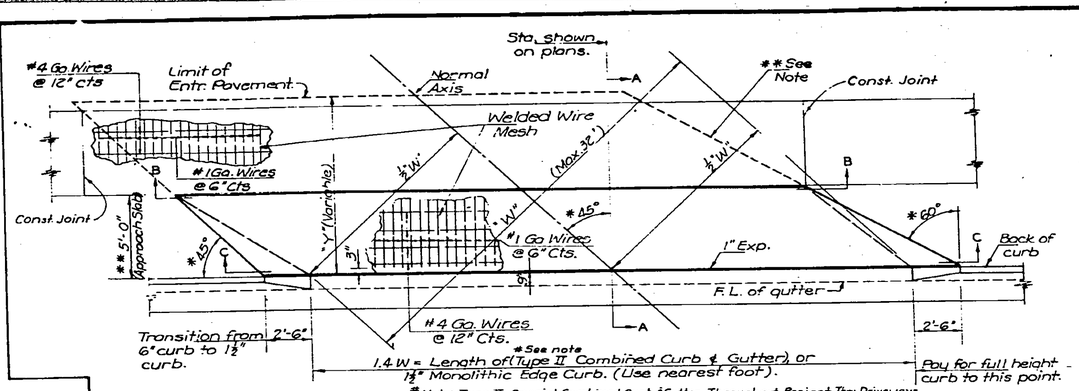
Sidewalk shall slope toward the street at the rate of ¼" per foot, and where necessary, may be depressed or sloped to fit alleys and entrances as shown on the plans or as directed by the Engineer.

Where sidewalk is shown to be constructed back of an entrance, it shall be 6" thick with welded wire mesh of the same gauge and spacing of wires as shown on this sheet for entrance pavement. Bid item will be "Sidewalk Construction (6") Reinforced" either with or without air entrainment.

Where the plans do not require air entrainment for sidewalk, at the contractor's option Class A Concrete (AE) may be used throughout, but payment will be made as square yds. of Sidewalk Construction.

At the contractor's option Class A Concrete (AE) may be used throughout for construction of steps, but payment will be made as Class A Concrete.

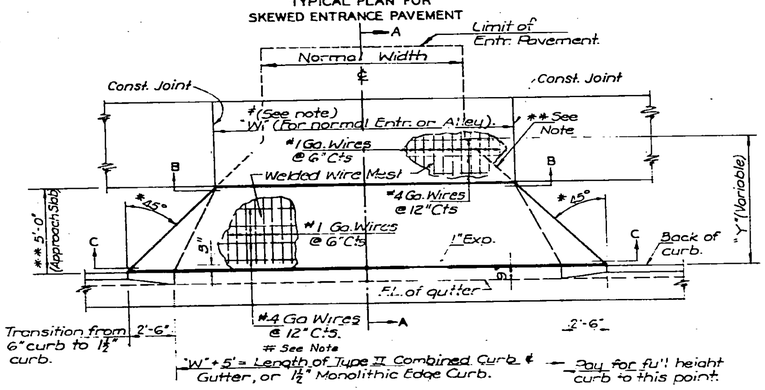
CONCRETE SIDEWALK & STEPS



* See note

Note: Type II Special Combined Curb & Gutter Throughout Project Thru Driveways.

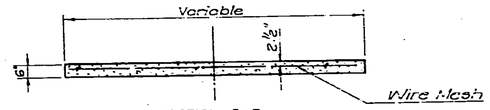
TYPICAL PLAN FOR SKEWED ENTRANCE PAVEMENT



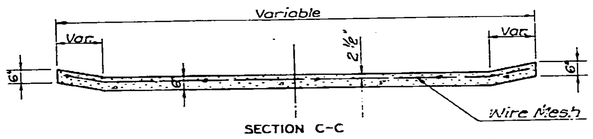
* Note:- Value of "W" for Normal Entr. – Use 13' Min. for Private Entr. Use 16' Min. for Alley

Use 40' Max.

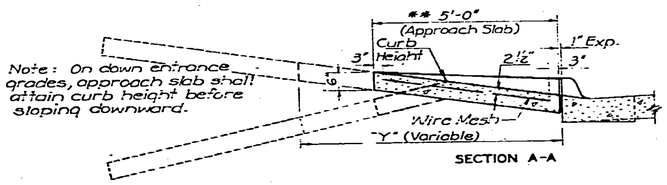
TYPICAL PLAN FOR NORMAL ENTRANCE PAVEMENT



SECTION B-B

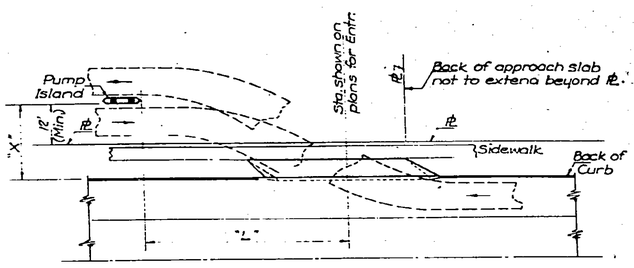


SECTION C-C



Note: On down entrance grades, approach slab shall attain curb height before sloping downward.

SECTION A-A



TYPICAL LOCATION SKETCH FOR SKEWED ENTRANCES

Where "X" = 20', then "L" = 55'.
Where "X" = 25', then "L" = 60'.
Where "X" = 30', then "L" = 65'.
Where "X" = 35', then "L" = 68'.
Where "X" = 40', then "L" = 70'.

Note:
* The angles may be varied to fit Special Conditions.

** Entrance pavement, where required to extend beyond the 5' approach slab, shall follow the extension of the lines shown to the limit of dimension "Y". Beyond this limit the pavement shall follow the normal alley or entrance driveway width. The 5' approach slab of concrete entrance pavement is to be shaped as shown, regardless of sidewalk location.

Alley and entrance pavement shall be 6" uniform thickness with welded wire mesh. Approx. weight of Welded Wire Mesh - 6' Lbs. per 100 sq. ft. Expansion joints shall be ½" of premoulded Exp. Joint Filler (Nonextruding, Type B) and 1" of Hot or Cold poured Joint Sealing Compound.

** Entrance approach slab shall be constructed unless otherwise designated.

CONCRETE ALLEY & ENTRANCE PAVEMENT

NO	DATE	REVISIONS	BY	APP'D
11	2-17-70	Revised Typ. "A" Sidewalk Plate No. 2.	W.I.H.	K.S.L.
10	4-23-68	Rev. 3/4" Exp. Jt. with mach. & Opt. A.E. for 3'-0" Const. in S.H. & Ent.	A.L.K.	K.S.L.
9	8-66	Conforms to U.S. practice	A.L.K.	E.A.R.

STATE HIGHWAY COMMISSION OF KANSAS
CONCRETE
ALLEY & ENTRANCE PAVEMENT
SIDEWALK & STEPS
STD. NO. 726

SHEET NO.	OF	SCALE None	APP'D. [illegible]
DESIGNED G.O.M.		DETAILED W.A.S.	QUANTITIES
DESIGN CK E.A.R.		DETAIL CK	QUAN. CK

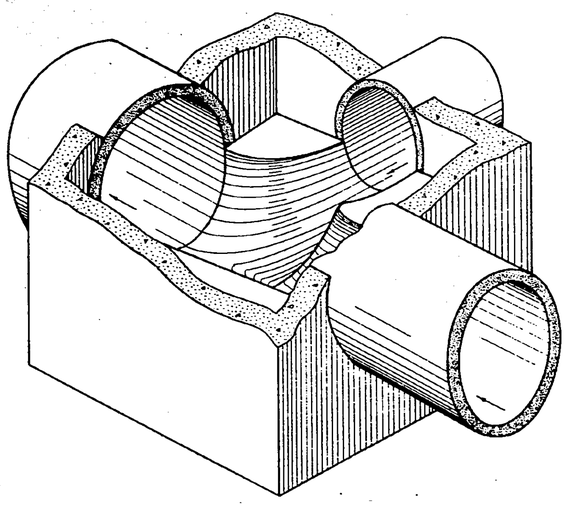
23
36

DIST. 5 | SEDGWICK CO. | ROLL 531 | 6 1 6

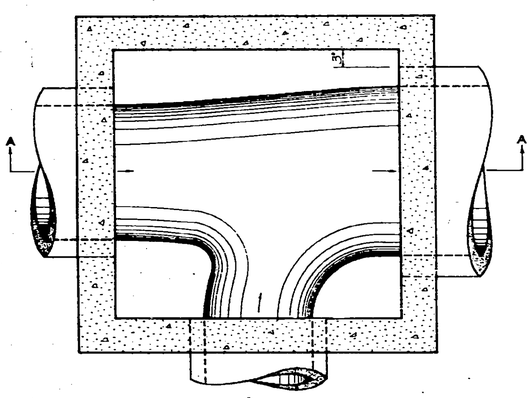
[illegible] 12X 16.5X 16X 12X

Fed. Road Dist. No.	State	Proj. No.	Fiscal Year	Sheet No.	Total Sheets
5	Kansas	87-T-4004(12)	1970	24	36

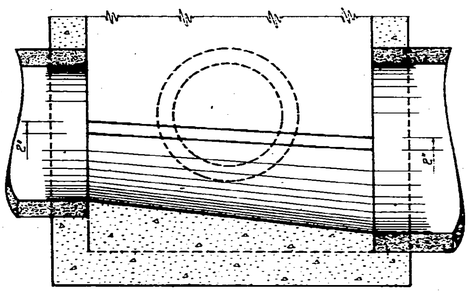
Section



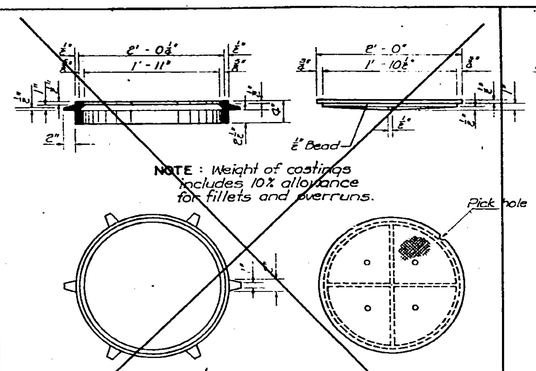
SECTIONAL VIEW (EXAMPLE IV)
Showing Floor Shaping



FLOOR PLAN (EXAMPLE IV)



SECTION A-A (EXAMPLE IV)

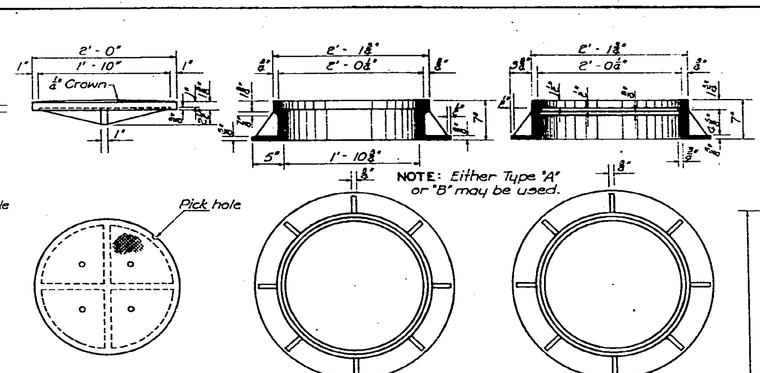


NOTE: Weight of castings includes 10% allowance for fillets and overruns.

CAST IRON MANHOLE RING
Weight = 58 Lbs.

CAST IRON MANHOLE COVER
Weight = 70 Lbs.

LIGHT TYPE MANHOLE COVER & RING



NOTE: Either Type "A" or "B" may be used.

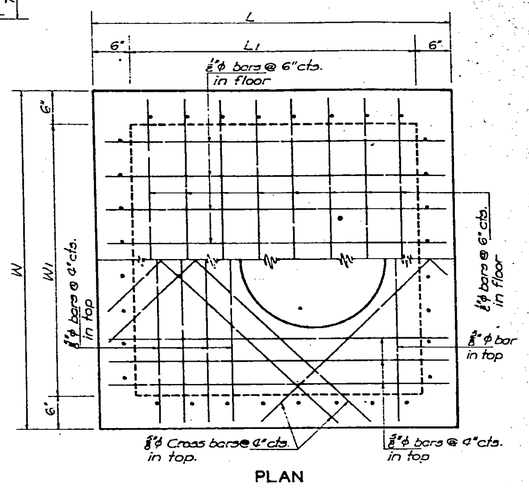
CAST IRON MANHOLE COVER
Weight = 147 Lbs.

TYPE A
CAST IRON MANHOLE RING
Weight = 211 Lbs.

TYPE B
CAST IRON MANHOLE RING
Weight = 217 Lbs.

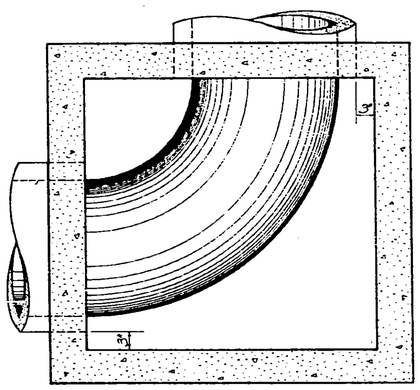
HEAVY TYPE MANHOLE COVER & RING

Where dimension "L" or "W" is greater than 6', use 8" slab thickness.

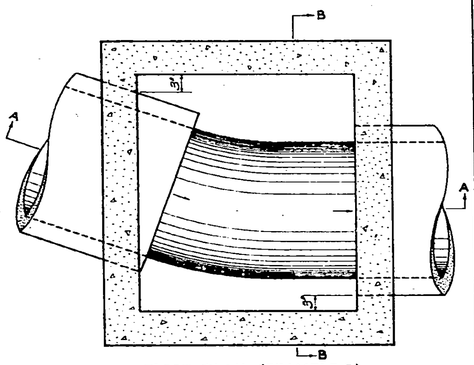


PLAN
(Showing top & floor Reinforcing.)

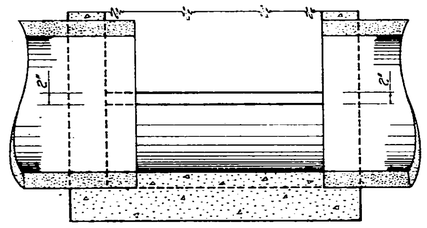
TYPICAL EXAMPLES OF VARIOUS PIPE COMBINATIONS
Showing method of shaping floor of manholes to provide increased hydraulic efficiency.
For reinforcing & other features see "PLAN" and "SECTION."



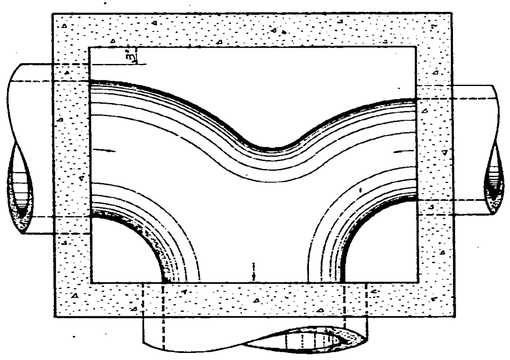
FLOOR PLAN (EXAMPLE II)



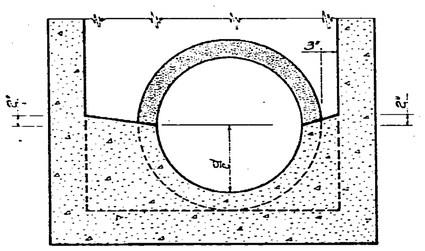
FLOOR PLAN (EXAMPLE I)



SECTION A-A (EXAMPLE I)



FLOOR PLAN (EXAMPLE III)



SECTION B-B (EXAMPLE I)

NOTE: Class "A" concrete to be used thruout. Bevel all exposed edges with a ⅜" triangular moulding.

In general, pipes will enter and leave the manhole at various positions. Where possible bend bars around pipes.

Floor of manhole to be shaped as shown in various "EXAMPLES" with unreinforced Class "A" concrete.

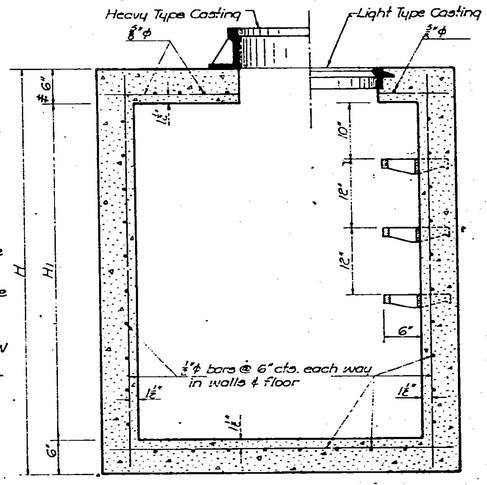
Manhole opening and steps, where used, shall be placed to afford easy access to top of shaped invert. Top reinforcing bars to be adjusted accordingly.

For manholes where "H" is not more than eight (8) feet brick walls of eight (8) inch thickness may be used.

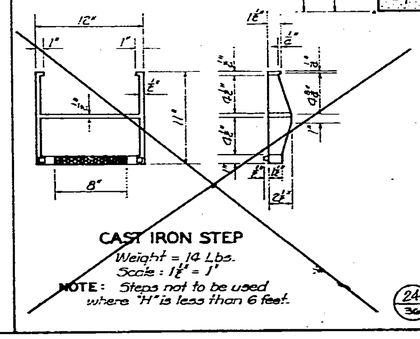
No deductions in concrete quantities shall be made for pipe openings.

No additions in concrete quantities shall be made for shaping floor of Manholes.

All brick shall be Class MW (clay or shale), or Grade A (concrete) and shall conform to the requirements of the Specifications.



SECTION
(Exclusive of floor shaping)



CAST IRON STEP
Weight = 14 Lbs.
Scale: 1½" = 1'
NOTE: Steps not to be used where "H" is less than 6 feet.

24
36

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1	3-45	O.K. for 1945 Spec's.	—	—

STATE HIGHWAY COMMISSION OF KANSAS

REINFORCED CONCRETE MANHOLE

STD NO. 633 SCALE { 1 inch = 1 foot (For 22" x 36" sheet) Except as noted.

DESIGNED BY E.A.R. DATE 5-45 DETAILED BY W.A.B. TRACED BY W.A.B.

CHECKED BY A.L.B. APPROVED BY L. N. Duncan DATE 4-5-45

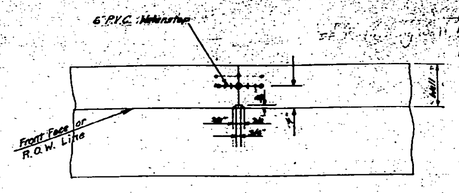
DIST. 5 | SEDGWICK CO. | ROLL 531

6 1 7

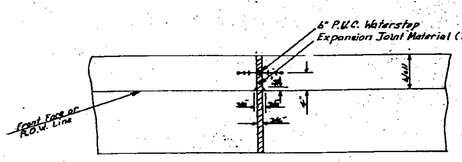
14X | 14.5X | 12X | 12X | 14.5X | 16X

General Notes

Unit Stresses are f'_c = 3000 psi, f_s = 1200 psi, and f_y = 20,000 psi. Class A-AE concrete shall be used throughout. Bevel all exposed edges with a ¾" triangular molding. All dimensions relative to reinforcing steel are to centerline of bar. Footing Excavation shall be Class III Excavation. See detail for pay limits of excavation. The P.V.C. waterstop and ¾" expansion joint material (Type B) will not be paid for direct, and shall be considered subsidiary to the various pay items. The 6" P.V.C. waterstop is to be 6" Dura-joint, type 5 or other approved. Drain openings are to be constructed in the top 6" of the retaining walls to permit surface water to flow from asphalt parking lot. Taper height of retaining walls adjacent to driveways as determined by Engineer. Sidewalk along retaining wall is not to be constructed as a part of this contract. Expansion joints are to be constructed at all angle points and such that the maximum spacing will be 120' in straight runs. Contraction joints shall be constructed such that the maximum spacing will be 30'. Retaining walls to be paid for as cu. yds. of Class III Excavation, cu. yds. of Class A-AE Concrete, and as pounds of Reinforcing Steel. See Summary of Quantities for location, type, and size of retaining wall.

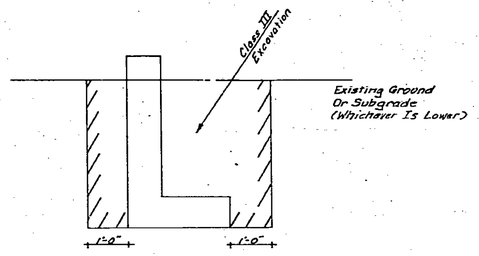


Wall Contraction Joint



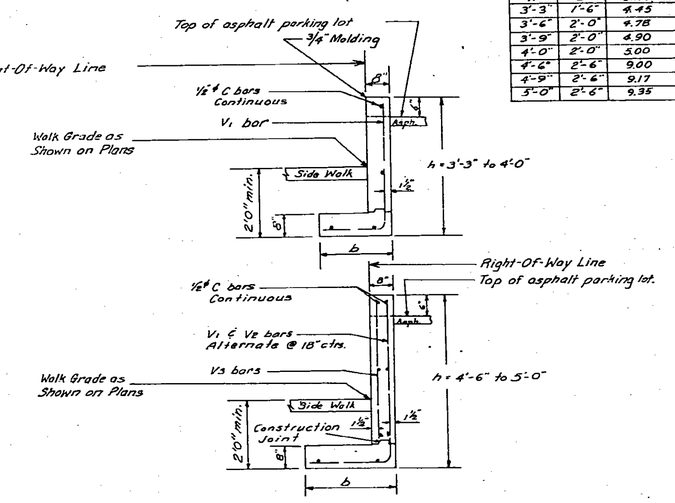
6" P.V.C. Waterstop To Be Installed From Top Of Retaining Wall To Top Of Footing. Preformed Expansion Joint Material (Type B) To Be Installed From Top Of Retaining Wall To Bottom Of Footing. Reinf. Steel To Discontinue Through Expansion Joints.

Wall Expansion Joint

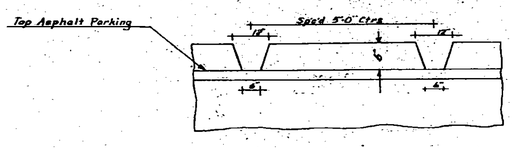


Retaining Wall Excavation

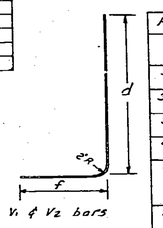
DIMENSIONS		PER LIN. FT. OF WALL	
h	b	# Reinf. Steel	Cu. Yds. Conc.
3'-3"	1'-6"	4.45	.101
3'-6"	2'-0"	4.78	.120
3'-9"	2'-0"	4.90	.126
4'-0"	2'-0"	5.00	.132
4'-6"	2'-6"	9.00	.157
4'-9"	2'-6"	9.17	.163
5'-0"	2'-6"	9.35	.169



L - TYPE WALLS
(Reinf. Concrete)



DRAIN OPENING DETAIL



REINF. STEEL SCHEDULE - L-TYPE RET. WALLS

h	bar	size	Cutting Length	Spacing	d	f	Remarks
3'-3"	V1	½" ϕ	4'-0"	18"	2'-11"	1'-2"	L Shape Straight
	C	"	4 Horiz. bars continuous				
3'-6"	V1	"	4'-9"	18"	3'-2"	1'-8"	L Shape Straight
	C	-	4 Horiz. bars continuous				
3'-9"	V1	-	5'-0"	18"	3'-5"	1'-8"	L Shape Str.
	C	-	4 bars continuous				
4'-0"	V1	"	5'-3"	18"	3'-8"	1'-8"	L Shape Str.
	C	"	4 bars continuous				
4'-6"	V1	"	6'-3"	36"*	4'-2"	2'-2"	L Shape
	V2	-	5'-0"	36"*	2'-11"	2'-2"	L "
	V3	-	3'-6"	24"			Str.
	C	"	8 bars continuous				Str.
4'-9"	V1	-	6'-6"	36"*	4'-5"	2'-2"	L Shape
	V2	-	5'-0"	36"*	2'-11"	2'-2"	L "
	V3	-	3'-9"	24"			Str.
	C	"	8 bars continuous				Str.
5'-0"	V1	"	6'-9"	36"*	4'-8"	2'-2"	L Shape
	V2	-	5'-3"	36"*	3'-2"	2'-2"	L "
	V3	-	4'-0"	24"			Str.
	C	½" ϕ	8 bars continuous				Str.

*Alternate V1 & V2 @ 18" ctrs.

Summary Of Quantities

Location Sta. to Sta.	h	# Reinf. Steel	Cu. Yds. Conc. Class A-AE	Cu. Yds. Class III Excavation	Remarks
52+08 to 52+34	3'-6"	155.69 ~~169~~ lbs.	4.2 ~~5~~ c.y.	~~14.2~~ 14.0 c.y.	N.S. Harry
9+05 to 10+08	3'-6"	513.88 ~~595~~ lbs.	13.6 ~~15~~ c.y.	53.6 ~~59~~ c.y.	W.S. Oliver
10+38 to 12+74	4'-6"	~~1820.52~~ 1820.52 lbs	34.6 ~~39~~ c.y.	~~130.52~~ 130.52 c.y.	W.S. Oliver
Total		~~2334.73~~ 2334.73 lbs.	~~52.4~~ 52.4 c.y.	~~198.72~~ 198.72 c.y.	

24A/36

Retaining Wall Details

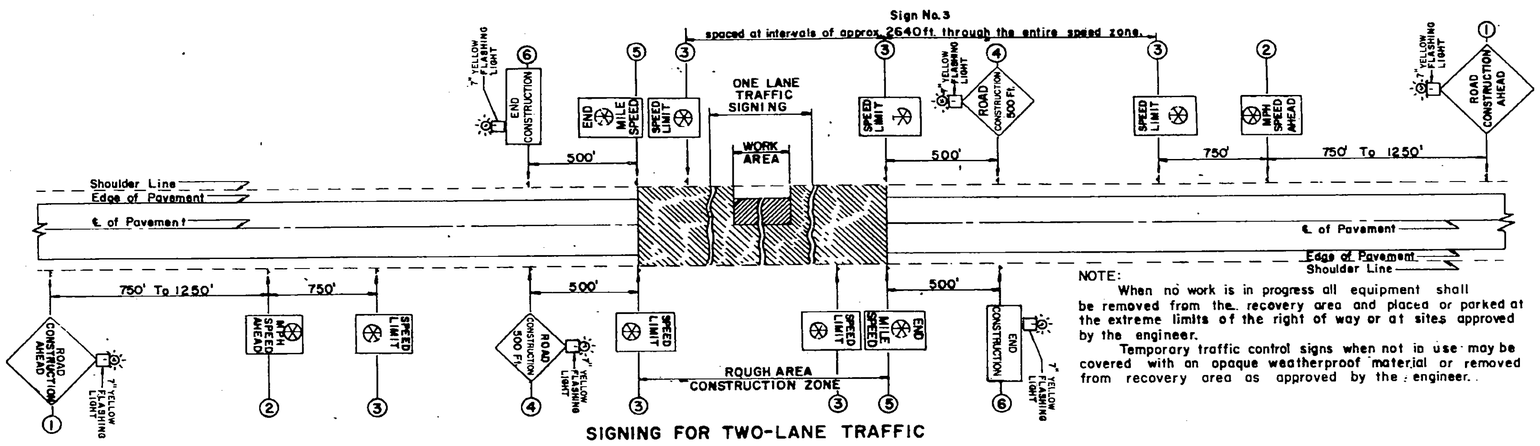
Revised April 5, 1971

DIST. 5 | SEDGWICK CO. | ROLL 531

6 1 8

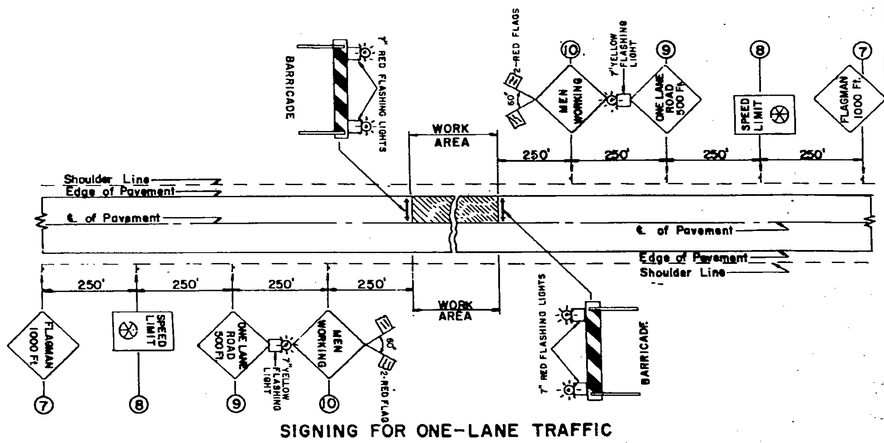
PUB. ROAD DIV. NO	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87-T-9004 (2)	1970	25	39

TRAFFIC CONTROL SIGNING
FOR TRAFFIC MOVEMENT THROUGH CONSTRUCTION



SIGNING FOR TWO-LANE TRAFFIC

NOTE:
When no work is in progress all equipment shall be removed from the recovery area and placed or parked at the extreme limits of the right of way or at sites approved by the engineer.
Temporary traffic control signs when not in use may be covered with an opaque weatherproof material or removed from recovery area as approved by the engineer.



SIGNING FOR ONE-LANE TRAFFIC

NOTE: ON PORTIONS OF THE PROJECT WHERE NO WORK HAS STARTED OR WHERE WORK IS COMPLETED, NO SPECIAL SIGNING (OTHER THAN NORMALLY USED) IS NEEDED.

GENERAL NOTES

(All signs shall conform to the MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS IN KANSAS. Dated June 1, 1962)
All signs shall be reflectorized.

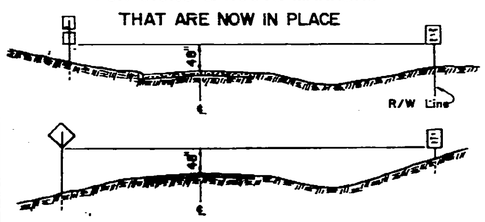
SIGNING FOR TWO-LANE TRAFFIC is to be used to protect traffic in that part of the project under construction.
SIGNING FOR ONE-LANE TRAFFIC is to be used in addition to "Signing for Two-Lane Traffic" at locations where traffic is limited to one lane (concrete patching, finishing machines, etc.). If the only work in progress on the project limits traffic to one lane, Signs No. 1, 2, and 6 shall be used in addition to signs for one-lane traffic.
FLAGMEN SHALL BE USED at one-lane traffic locations.

SIGNS NO. 1, 4, & 9 shall have a reflectorized "Highway" Yellow Background with opaque black legend and border.
SIGNS NO. 7 & 10 shall have a plain painted "Highway" Yellow or Orange-Red Day-Glo Background with opaque black legend and border.
SIGNS NO. 2, 3, 5, 6, & 8 shall have a reflectorized White Background with opaque black legend and border

SIGNING DETAILS (FOR TWO-LANE TRAFFIC)
Sign No. 1, W20-1d 48"X48" reflectorized sign, legend " ROAD CONSTRUCTION AHEAD" is to be erected 1,500 feet to 2,000 feet in advance of each end of construction work, depending on the terrain, and is to be moved ahead as work progresses. A yellow flashing warning light shall be maintained on top of this sign at night.,
Sign No. 2, R2-1 24"X 36" reflectorized sign, legend "⊗ MPH SPEED AHEAD" is to be erected 750 feet in advance of the beginning of the speed zone, and is to be moved ahead as work progresses.
Sign No. 3, R2-1, 24"X30" reflectorized sign, legend "SPEED LIMIT ⊗" is to be erected at the beginning of the speed zone and at intervals of approximately 2,640 feet through the entire speed zone, and is to be moved or removed as work progresses. Higher or lower speed limits should be used as conditions warrant.
Sign No. 4, W20-1c, 48"X48" reflectorized sign, legend "ROAD CONSTRUCTION 500 feet" is to be erected 500 feet in advance of the beginning of all rough areas, and is to be moved or removed when rough areas change locations or conditions. A yellow flashing warning light shall be maintained on top of this sign at night.
Sign No. 5, R2-6, 24"X30" reflectorized sign, legend "END ⊗ MILE SPEED" is to be erected at the end of the construction zone, and is to be moved as work progresses.
Sign No. 6, G20-2, 60"X24" reflectorized sign, legend "END CONSTUCTION " is to be erected past each end of construction zone, and is to be moved as work progresses. A yellow flashing warning light shall be maintained on top of this sign at night.

SIGNING DETAILS (For One-Lane Traffic)
Signs No. 7, 8, 9, 10 shall be removed or advanced when work in area is open to two-lane traffic.
Sign No. 7, W20-7b, 48"X 48" plain painted sign, legend "FLAGMAN 1000 feet" is to be erected 1000 feet in advance of the beginning of the work area whenever flagmen are used.
Sign No. 8, R2-1, 24"X30" reflectorized sign, legend "SPEED LIMIT ⊗ is to be erected 750 ft. in advance of the beginning of the work area.
⊗ Posted speed limit to be determined by Division Engineer.
Sign No. 9, W20-4c, 48"X48" reflectorized sign, legend "ONE LANE ROAD 500 ft." is to be erected 500 ft. in advance of the beginning of the work area. A yellow flashing light shall be maintained on top of this sign at night.
Sign No. 10, W21-1, 30"X30" , plain painted sign, legend "MEN WORKING" is to be erected 250 ft. in advance of the beginning of the work area with red flags mounted on top of this sign. This sign shall be used only when men are working on foot in the work area and shall be removed when equipment only is working, and at all times when work is not in progress.
Signs No. 7 and 10, shall be reflectorized when used at night.
ALL FLASHING WARNING LIGHTS used on top of signs shall have a yellow lens minimum dia. 7". All flashing warning lights used on barricades placed in the traveled way shall have a red lens minimum dia. 7". All flashing warning lights placed on barricades over an open trench or windrow adjacent to the traveled way shall have two yellow lenses minimum dia. 7", so flashing light can be seen in two directions. They shall be erected so flasher light is a minimum of 36" above top of surface edge and at 100 to 500 ft. intervals as instructed by Resident Engineer. All flasher lights shall be battery operated and regulated to flash 50 to 55 times per minute. The length of dwell shall not be less than 25% on time.

ALTERNATE LATERAL LOCATIONS FOR SIGNS & ROUTE MARKERS THAT ARE NOW IN PLACE



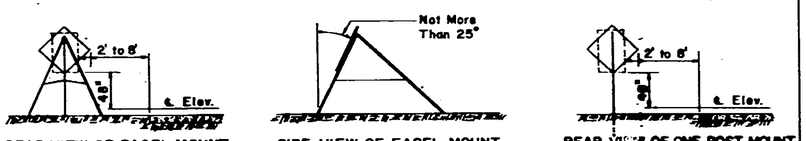
NOTES:
Signs and Markers may be erected on a portable mount, or post, at alternate locations whenever the work being performed will not permit placing the Sign or Marker at normal locations. The alternate locations for Signs and Markers shall be used only while work is in progress on the shoulder. All Signs and Markers shall be erected at their normal locations immediately after the shoulder work has been completed or when work is to be discontinued for two days or more. Due to existing conditions the engineer may require the spacing between barricades and or signs decreased.

HEIGHT & LATERAL LOCATIONS FOR SIGN NO. 1,4,7, & 9.

REAR VIEW SKID MOUNT — SIDE VIEW OF SKID MOUNT — REAR VIEW OF TWO POST MOUNT

NOTE: Sign No. 1 and 1-A may be mounted on portable skid or two post mount.

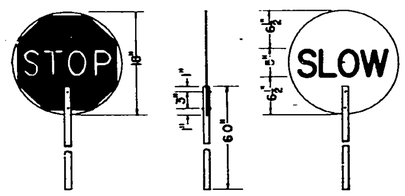
HEIGHT & LATERAL LOCATIONS FOR SIGNS NO. 2,3,5,6,8, & 10.



REAR VIEW OF EASEL MOUNT — SIDE VIEW OF EASEL MOUNT — REAR VIEW OF ONE POST MOUNT

NOTE: Signs No. 2 to 10 inc. may be mounted on portable easel or one post mount.

HAND SIGNALING SIGN



FRONT FACE OF SIGN — SIDE VIEW — BACK FACE OF SIGN

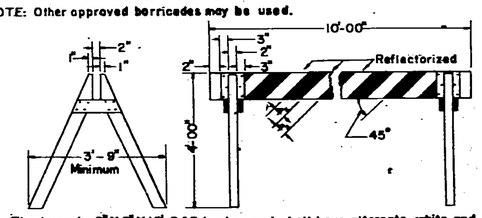
The hand signaling sign shall be made of ⅛ inch tempered masonite 18 inches in diameter, smooth on both faces, or of aluminum (alloy 6061-T6) 0.063 inch (14 gage) thick, 18 inches in diameter. The handle shall be 60 inches long.

The color on the octagon face of the STOP side of the sign shall be Standard Signal Red, pure white letters and border. The color of the SLOW face of the sign shall be Highway Yellow, black letters. The letters shall be 5" series "D" Standard Alphabet for highway signs, with a ⅝" width stroke.

This sign to be reflectorized when used at night

DETAILS FOR CONSTRUCTION OF PORTABLE BARRICADE

NOTE: Other approved barricades may be used.



The beam is 2"X 6" X 10' S4S lumber and shall have alternate white and black 45° diagonal stripes on both sides. The white stripes on all barricades shall be reflectorized white and black stripes shall be painted black. The standards are 2"X4" rough lumber, plain painted white.

STATE HIGHWAY COMMISSION OF KANSAS
CONSTRUCTION
TRAFFIC CONTROL DEVICES & LOCATION
STD. NO. 745.2 REVISED MAY 3, 1965

25 / 346

NO.	DATE	REVISIONS	BY	APP'D
4	2-16-70	Recovery area note change	CM	APT
3	6-27-69	Recovery area & covering of Signs	CM	APT
2	3-26-68	Add barricade spacing note	RV	APT
1	12-16-68	Add reflectorization note	S.A.M.	A.F.T.

DRAWN CK. A.P.B. DETAIL CK. A.P.B. CHKD. CK. A.P.B. TRACE CK. A.P.B.

ORIGINAL

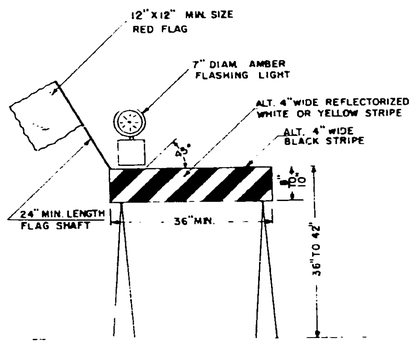
DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted] 6 1 9

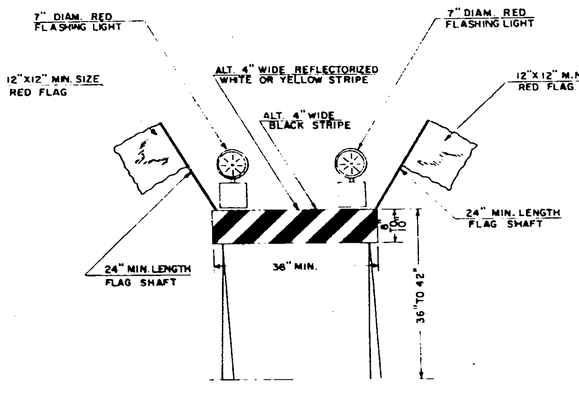
16X | 14.5X | 12X | 12X | 14.5X | 16X

HWY ROAD DIV NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	KANSAS	87-T-4004(2)	1970	25A	36

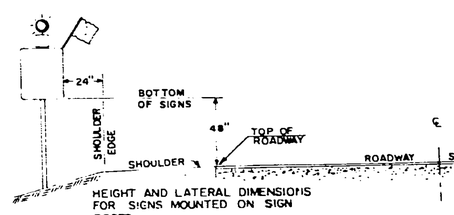
TRAFFIC CONTROL DEVICES
FOR TRAFFIC MOVEMENT THROUGH CONSTRUCTION
ON TWO - LANE HIGHWAY



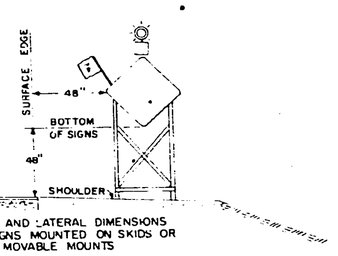
TYPE II BARRICADE WITH AMBER FLASHING LIGHT AND RED FLAG



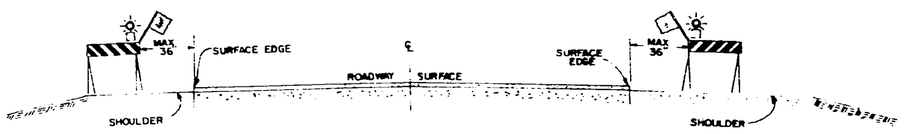
TYPE II BARRICADE WITH TWO RED FLASHING LIGHTS AND TWO RED FLAGS.



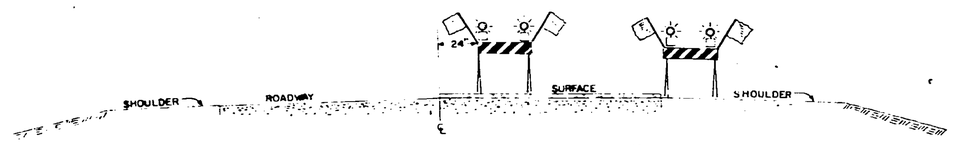
HEIGHT AND LATERAL DIMENSIONS FOR SIGNS MOUNTED ON SIGN POSTS



HEIGHT AND LATERAL DIMENSIONS FOR SIGNS MOUNTED ON SKIDS OR OTHER MOVABLE MOUNTS



POSITION OF TYPE II REFLECTORIZED BAPRICADE WITH AMBER FLASHING LIGHT AND RED FLAG USED ON SHOULDERS ADJACENT TO SURFACE EDGES.



POSITION OF TYPE II REFLECTORIZED BARRICADES NO 1, 2, 3, 4, 5, ETC. WITH TWO RED FLASHING LIGHTS AND TWO RED FLAGS USED TO CLOSE ONE LANE OF THE ROADWAY TO TRAFFIC

NOTE:

All traffic control devices and flagman's equipment shall comply to Section A 7 of the Standard Specification Edition of 1966 and to any Supplemental Specification to this Section

Barricades used to control traffic at night shall be reflectorized.

The amber and red flashing lights shall have 7 inch minimum diameter lens and shall be regulated to flash 50 to 55 times per minute. The length of dwell shall not be less than 25 per cent on time.

All signs, barricades, flashing lights and red flags shall be securely erected and maintained in good condition at all times.

All signs shall be reflectorized.

When no work is in progress all equipment shall be removed from the recovery area and placed or parked at the extreme limits of the right of way or at sites approved by the Engineer.

Temporary traffic control signs when not in use may be covered with an opaque waterproof material or removed from recovery area as approved by the Engineer.

4	2-16-70	Recovery area note change	GM	AFT
3	6-27-69	Recovery area & covering of sign note	SM	AFT
2	12-16-68	Add reflectorization note	SAH	AFT
1	8-66	To conform to 1966 Specs	ALE	EAR

STATE HIGHWAY COMMISSION OF KANSAS
CONSTRUCTION TRAFFIC
CONTROL DEVICES AND LOCATIONS
FOR TWO-LANE
TWO-WAY TRAFFIC

STD. NO. 743 A SHEET 2 OF 2

DESIGNED JFB | DETAILED JFB | CHECKED JRJ | 12-16-68

DRAWN JRJ | TRACED JRJ | JFB

DIST. 5 SEDGWICK CO. ROLL 531 6 2 0

16X 14.5X 12X 12X 14.5X 16X

SCHEDULE OF INLETS AND MANHOLES

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	SHEETS IN SET
5	KANSAS	87-T-4004(2)	1970	26	36

Station	Side	Type: Manholes	Type: Curb Inlets	Type: Gutter Inlets	Type: Ditch Inlets	Rad	Sewer Data: Inflow Pipes: Size	Inflow: FL Elev.	Inflow: Size	Inflow: FL Elev	Inflow: Size	Inflow: FL Elev	Outflow Pipes: Size	Outflow: FL Elev.	Outflow: Grade	Elev. Top	Elev. Floor	Remarks	Dimensions: H	W	L	No. Steps	Cast Iron Lbs.	Class A Conc. Cu. Yds.	Reinf. Steel Lbs.	Struc. Steel Lbs.	Class "A" Excavo. Cu. Yds.	Storm Sewer Lin. Ft.: 15"	18"	21"	24"	30"	36"
4+07.5	LI	(Comb | Inlet - Manhole)				15"	131.70	30"	129.90			30"	129.90		T.C. 138.18'	131.70		See	detail			540 SY	1.9	7907 lbs	196.8	2.5	10	12				
8+07.5	RI		A5-1										15"	133.70		T.C. 138.49'	135.70		3.29	2'-0"	6'		540 SY	2.0	11.3	196.8	4.6	10	12				
7+00.0	LI		A5-1										15"	134.00		T.C. 139.53'	135.34		3.37	2'-0"	6'		540 SY	1.0	280	196.8	4.7	2	23				
7+78.0	RI		A5-1										24"	133.00		T.C. 139.70'	133.00		6.64	5'-00"	4'	4'	540 SY	2.0	340	196.8	7.8						
8+07.0	RI	1					15"	135.08					15"	134.95		T.C. 138.43'	134.95		3.52	2'-0"	6'		540 SY	1.1	240	196.8	4.6	5					
9+68.0	RI		A5-1				15"	134.95					15"	135.05		T.C. 138.00'	135.05		3.22	3'-0"	6'		540 SY	1.0	240	196.8	4.5						
9+84.0	RI		A5-1													T.C. 138.17'	136.80		3.49	3'-0"	2'-6"	8'-6"	882 SY	2.4	310	298.2	10.7	16	14				
10+98.8	LI		A2.5-1										15"	134.40		137.80'	136.40		3.33	3'-0"	6'		340 SY	1.6	240		6.1						
10+98.2	LI	1					15"	133.70	15"	134.08			18"	133.00		T.C. 138.17'	133.00		4.42	3'-0"	2'-6"	8'-6"	882 SY	2.4	340	298.2	10.7	20	14				
10+98.2	RI		A2.5-1				15"	133.70					18"	134.37		139.00'	136.37		3.16	3'-0"	3'	3'	340 SY	0.7	240		3.6		14				
80+89	LI	1					18"	135.97					24"	135.87		T.C. 139.59'	135.87		3.82	3'-0"	2'-6"	6'	540 SY	1.1	220	196.8	4.5	13		11			
82+15.5	LI		A5-1				18"	135.97					24"	135.87		138.27'	135.27		3.00'	2'	6'		340 SY	2.6	240		6.1						
~~88+15.5~~	~~LI~~	1					~~24"~~	~~135.77~~					~~24"~~	~~135.77~~		139.00'	135.01		4.31	2'-5"	6'	6'	540 SY	2.6	240	196.8	10.7				10	9	
82+15.5	RI	1					24"	135.87					24"	135.01																			
4+99.2									30"	(Ext.)																						

	Manholes	Adjusted																														
52+35	RI																Adjust Manhole																
93+28	LI																															
54+02	LI																															
86+90	LI																															
55+28	LI																															
58+26	LI																															
58+60	LI																															
TOTALS																	7 Manholes Adjusted					2,300 / 1,120	28.5 / 18.4	6,900 / 2,554.08	1,908	44.7 / 28.8	145 / 142	184 / 177		16 / 19	10 / 9	

End Sections: 15"	18"	21"	24"	Sewer Exc. (Cu. Yds.): Com.	Rock	Ht. Fill Ft.	Conc. AASHO Class No.	Pipe Gauge: Steel	Alum.
				8.5					
				1.4					
				18.4	8.4				
				13.6					
				1.5					
				19.6					
				28.3					
				6.0					
				6.5					
				129.5 / 130.9					

NO.	DATE	REVISIONS	BY	APP'D

STATE HIGHWAY COMMISSION OF KANSAS

SCHEDULE
INLETS AND MANHOLES

(26/36)

SHEET NO. 26 OF 36 SHEETS | SCALE | DESIGNED BY | DATE | DETAILED BY | TRACED BY | CHECKED BY | APPROVED BY | DATE

DIST. 5 | SEDGWICK CO. | ROLL 531

[redacted] 6 2 1

16X | 14.5X | 12X | 12X | 14.5X | 16X

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	KANSAS	BT-T-4004(2)	1970	27	36

GENERAL NOTE:

EXISTING ASPHALT SURFACING, PATCHES, SEAL COURSE MATERIAL AND ASPHALT MATERIAL PREVIOUSLY USED FOR FILLING CRACKS, WHICH IS LOOSE, SOFT OR UNSATISFACTORY SHALL BE REMOVED AT THE LOCATIONS AND TO THE EXTENT DESIGNATED BY THE ENGINEER. CRACKS AND JOINTS AS NOTED ABOVE SHALL BE CAULKED WITH _____ MATERIAL PRIOR TO RESURFACING.

ALL MATERIAL REMOVED AS NOTED ABOVE, AND AS INDICATED ELSEWHERE IN THE PLANS TO BE WASTED, SHALL BE WASTED ON SITES TO BE PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS WHICH, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. PAYMENT FOR THIS WORK SHALL BE CONSIDERED A SUBSIDIARY ITEM.

THE 6" OF COMPACTION TYPE AA, SHOWN FOR THE CENTER PORTION ON THE ROADBED, IS FOR THE PURPOSE OF RESTORING THE ORIGINAL COMPACTION TYPE AA WHICH MAY HAVE BEEN LOST SINCE GRADING OPERATIONS. THE EXACT LOCATIONS OF THIS COMPACTION TYPE AA, WHICH WILL BE REQUIRED, IS TO BE DETERMINED BY THE ENGINEER AT THE TIME OF CONSTRUCTION.

OVER ALL STRUCTURES, UNLESS OTHERWISE DIRECTED BY THE ENGINEER, WHERE THE TOP OF THE HUBGUARD IS LEVEL WITH OR ABOVE THE FINISHED SHOULDER GRADE, THE EARTH COVER OVER THE STRUCTURE SLAB SHALL BE REMOVED AND BACKFILLED WITH _____ MATERIAL AS DIRECTED BY THE ENGINEER. THE REMOVAL OF THIS MATERIAL WILL BE _____ THE _____ MATERIAL USED TO BACKFILL OVER THE STRUCTURE SHALL BE PAID FOR AT THE PRICES SHOWN IN THE CONTRACT.

THE THICKNESS OF THE EARTH SHOULDERS MAY VARY CONSIDERABLY DUE TO LEVELING AND OR REDUCING EXCESSIVE CROWN IN THE EXISTING SURFACE. ALL OF THE MATERIAL NEEDED TO CONSTRUCT THE SHOULDERS TO THE FINISHED LINES SHALL BE CONSIDERED AS A SUBSIDIARY ITEM.

MATERIAL FOR SHOULDERS SHALL FIRST BE OBTAINED FROM EXCESS EXCAVATION FROM LOCATIONS AS NOTED ON THE PLANS.

ANY ADDITIONAL MATERIAL THEN NEEDED SHALL BE OBTAINED FROM BORROW AREAS AS LISTED ELSEWHERE AND OR FROM LOCATIONS TO BE PROVIDED BY THE CONTRACTOR. ALL BORROW TO BE OBTAINED FROM AREAS PROVIDED BY THE CONTRACTOR SHALL BE APPROVED BY THE ENGINEER BOTH AS TO SUITABILITY OF MATERIAL AND SITE LOCATION. LOCATIONS WHICH, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE ON THIS PROJECT WILL NOT BE APPROVED.

THE EARTH SHOULDERS SHALL BE COMPACTED FULL DEPTH (TYPE B-MR90) EXCEPT, WHEN ORDERED BY THE ENGINEER, THE TOP 3" SHALL BE LEFT UNCOMPACTED FOR SEEDING.

ALL SIDE ROADS AND HOUSE ENTRANCES SHALL BE SURFACED WITH _____ TO THE R/W LINE AS INDICATED ON THE DETAIL. ALL SIDE ROADS AND HOUSE ENTRANCES WITH EXISTING ASPHALT SURFACE SHALL BE SURFACED WITH _____ AT LEAST TO THE R/W LINE OR TO THE END OF CONSTRUCTION, AS DIRECTED BY THE ENGINEER. EACH MAILBOX TURNOUT (ON PROJECTS WHERE STABILIZED SHOULDERS ARE NOT SPECIFIED) SHALL BE SURFACED WITH _____ TO THE LIMITS SHOWN ON THE DETAIL. (SEE NOTE BELOW)

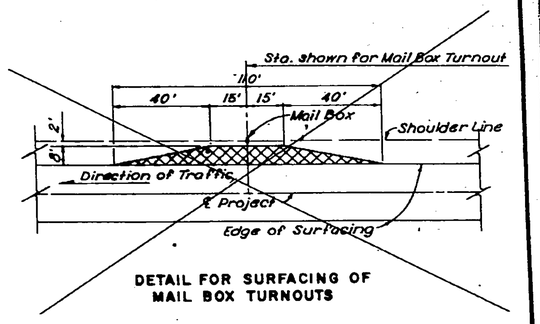
SURFACING MATERIAL (SA-_____) SHALL BE USED FOR SURFACING HOUSE ENTRANCES AND SIDE ROADS (_____ C.Y. /SQ.YD.) BEYOND THE LIMITS OF THE ASPHALT SURFACE TO THE LIMITS OF CONSTRUCTION AS DETERMINED BY THE ENGINEER.

AN ADDITIONAL TACK COAT OF _____ SHALL BE PROVIDED BETWEEN EACH LIFT OF THE SURFACE COURSE WHEN SO ORDERED BY THE ENGINEER AND AT THE RATE DESIGNATED BY HIM. QUANTITIES FOR THESE TACKS HAVE BEEN COMPUTED AT _____ GAL. PER SQ.YD.

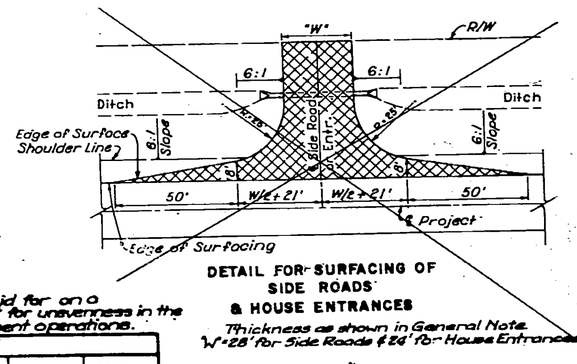
THE THICKNESS OF STABILIZED BASE COURSE AB-3 IS BASED ON A STANDARD DENSITY OF 146 PCF. WHEN THE STANDARD DENSITY OF THE MATERIAL IS LESS THAN 146 PCF, THE RATE OF APPLICATION SHOWN SHALL BE USED, RESULTING IN AN INCREASED THICKNESS CORRESPONDING TO THE DECREASE IN STANDARD DENSITY. WHEN THE STANDARD DENSITY OF MATERIAL IS GREATER THAN 146 PCF, THE RATE OF APPLICATION SHOWN SHALL BE INCREASED IN THE AMOUNT TO PROVIDE A STABILIZED BASE COURSE EQUAL TO THE DESIGNED THICKNESS.

THRU LOCATIONS WHERE THE CROWN GRADE SHOULD NOT BE RAISED, SUCH AS CURB AND GUTTER SECTIONS, THE BASE COURSE SHALL BE CONSTRUCTED TO THE PLAN THICKNESS AS SHOWN AND THE RATE OF APPLICATION SHALL BE ADJUSTED BASED ON THE STANDARD DENSITY OF THE MATERIAL BEING USED.

THE THICKNESS OF SIDE ROAD AND ENTRANCE SURFACING MAY BE INCREASED TO THE SAME THICKNESS AS THE STABILIZED SHOULDER WITHIN THE APPROXIMATE LIMITS OF THE SHOULDER.

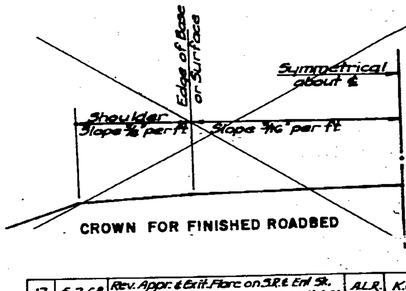


DETAIL FOR SURFACING OF MAIL BOX TURNOUTS



DETAIL FOR SURFACING OF SIDE ROADS & HOUSE ENTRANCES

Thickness as shown in General Note.
W=28' for Side Roads & 26' for House Entrances

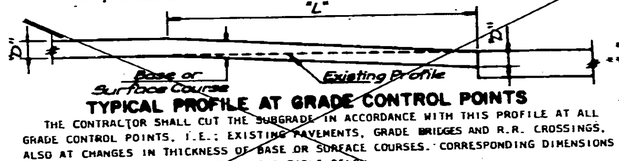


CROWN FOR FINISHED ROADBED

RATES OF APPLICATION

	RATE	UNIT	ITEM
++	145	Lbs.	Agg. for Surfacing Course (HM-4) per Cu.Ft.
+	12.65	Gals.	Asphalt Cement (AC-3) per Ton
	0.10	Gals.	Emulsified Asphalt for Tack per Sq.Yd.

++ Computed at the rate of 145 lbs per Cu.Ft. (Wet Mix)
+ Computed at the rate of 6.5% by dry weight of agg.



TYPICAL PROFILE AT GRADE CONTROL POINTS

THE CONTRACTOR SHALL CUT THE SUBGRADE IN ACCORDANCE WITH THIS PROFILE AT ALL GRADE CONTROL POINTS, I.E.: EXISTING PAVEMENTS, GRADE BRIDGES AND R.R. CROSSINGS, ALSO AT CHANGES IN THICKNESS OF BASE OR SURFACE COURSES. CORRESPONDING DIMENSIONS OF "D" AND "L" SHALL BE AS GIVEN IN THE TABLE BELOW.

THE WORK OF CUTTING THE SUBGRADE AND DISPOSING OF EXCESS EXCAVATED MATERIAL SHALL BE SUBSIDIARY TO OTHER ITEMS IN THE CONTRACT.

TABLE OF DIMENSIONS

D	L	D	L	D	L	D	L	D	L	D	L
1"	25'	3"	75'	5"	125'	7"	175'	9"	225'	11"	275'
2"	50'	4"	100'	6"	150'	8"	200'	10"	250'	12"	300'

Note: Thicknesses indicated for all construction, which is paid for on a weight or volume basis, are approximate and may vary to correct for unevenness in the foundations or for other normal unevenness encountered in placement operations.

SUMMARY OF QUANTITIES

ITEM				TOTAL	UNIT
PAVEMENT SURFACING					
# AGGREGATE FOR SURFACE COURSE (HM-4)			3,181	~~3,441~~	TONS
# ASPHALT CEMENT (AC-3)			34,371	~~43,540~~	GAL.
# EMULSIFIED ASPHALT (SS-1H) FOR TACK			0	~~1,405~~	GAL.
ASPHALTIC PAVEMENT SAMPLING			10	~~15~~	EACH
WATER (EMULSION DILUTION)				1	M-GAL.
MEDIAN SURFACING					
# COMBINED MATERIAL (AB-2)			462	~~4,988~~	TONS
WATER (COMBINED MATERIAL (AB-2)			25	~~80~~	M-GAL.
# AGGREGATE FOR SURFACE COURSE (HM-4)				154	TONS
# ASPHALT CEMENT (AC-3)	These quantities are included in the totals under pavement Surfacing.			2,124	GAL.
# EMULSIFIED ASPHALT (SS-1H) FOR TACK				140	GAL.
WATER (EMULSION DILUTION)				1	M-GAL.
LIME TREATED SUB-GRADE (SLURRY ONLY)					
HYDRATED LIME (SLURRY)			111.8	~~400~~	TONS
WATER			173	~~620~~	M-GAL.
MANIPULATION (LIME TREATED SUBGRADE)			8,267.1	~~9,959~~	SQ.YDS.
REPAIRS AND CONTINGENCIES					
EMULSIFIED ASPHALT (SS-1H) OR CUTBACK ASPHALT (RC-10) FOR TACK				1,138	Gals.
LARGE TREES				1	EACH

Quantities have been increased to allow for Contingencies.
For Surfacing 5% ~~Entrances and Side Roads~~
* Computed at the rate of 25 lbs. of lime per Sq.Yd.
** Computed at the rate of 1,000 Gals. per ton of lime.

(27) 36

NO.	DATE	REVISIONS	BY	APP'D
17	5-7-68	Rev. Appr. & Exit Flare on SR & Ent Sk. Surf. thick. note SR & Ent. same as Shldr.	ALR	KGL
16	10-66	Rev. G.I. Slopes SR Ent Sk. & Sho. Note	ALR	KGL
15	8-66	Conforms to 1966 Specs (no change)	ALR	EAR

STATE HIGHWAY COMMISSION OF KANSAS

ASPHALTIC CONCRETE OVERLAY, LIME TREATED SUBGRADE, & COMB. MATERIAL (AB-2) QUANTITIES

DESIGNED BY | DETAILED | TRACED | CHECKED | SCALE | QUANTITIES | CHECKED | DATE

DIST. 5 | SEDGWICK CO. | ROLL 531 | 6 2 2

16X | 14.5X | 12X | 12X | 14.5X | 16X

Pub. Road Div. No	State	Project No.	Fiscal Year	Sheet No.	Total Sheets
5	Kansas	87-1-4006(2)	1970	28	36

TYPE AA (MR-5) COMPACTION

233.6 CU YDS COMPACTION FOR COMBINED AA-2 MATERIAL STA 46+26.8 TO 59+47.0

TYPE B (MR-5) COMPACTION

51 Cu. Yds Compaction For backfilling trenches where sewers are removed Sta 46+00.6 & Sta 50+05.1

EARTHWORK

Sta. to Sta.		Excavation Cu. Yds. Rock	Excavation Cu. Yds. Common	
46+26.8	59+47.0	~~233.6~~ 311.5		
46+26.8	59+47.0		1,710	
		28		For Removal of Pavement Around Manholes To Be Adjusted.
TOTAL		~~402.6~~ 438.4	1,710	

DRAINAGE STRUCTURES

Station	Side	Size	Type	Conc. Cl. "A" Cu. Yds.	Reinf. Steel Lbs.

RECAPITULATION OF BRIDGE QUANTITIES

Bridge No. Station

Item	Unit
Class 1 Excavation	Cu. Yds.
Class 11 Excavation	Cu. Yds.
Excavation	Cu. Yds.
Water	M. Gals.
Class Concrete	Cu. Yds.
Class Concrete	Cu. Yds.
Reinforcing Steel	Lbs.
Structural Steel	Lbs.
Bearing Devices	Lbs.
Cast Iron	Lbs.
Untreated Timber Piles	Lin. Ft.
Treated Timber Piles	Lin. Ft.
Steel Piles	Lin. Ft.
Untr. Timber Test Piles	Lin. Ft.
Steel Test Piles	Lin. Ft.
Metal Pile Points	Each
Removal of Exist. Struct.	L. S.

RECAPITULATION OF ROAD QUANTITIES

COMB CURB & GUTTER (Type I) (AE) SPEC

STA. TO STA.	SIDE	LENGTH	REMARKS
47+27 – ~~50+00.2~~ 49.9	LT	~~273.2~~ 246.9	246.9
~~51+00.2~~ 49.9 – ~~52+00.2~~ 51.0	LT	~~100.0~~ 65.8	65.8
41+24.9 – ~~51+31.0~~ 45.6	RT	~~406.6~~ 406.6	406.6
54+18.3 – ~~56+34.4~~ 56+89.4	LT	172.0	171.1
56+25.0 – ~~58+43.2~~ 58+43.2	RT	~~217.2~~ 218.3	218.3
58+56.8 – ~~59+72.0~~ 59+72.9	LT	116.3	116.0
54+05.8 – ~~54+99.9~~ 54+99.9	RT	~~94.1~~ 94.2	94.2
55+33.2 – ~~56+70.1~~ 56+70.1	RT	~~36.9~~ 36.8	36.8
56+27.4 – ~~56+74.6~~ 56+74.6	RT	~~47.2~~ 27.2	27.2
57+18.4 – ~~57+86.5~~ 57+86.5	RT	~~68.1~~ 26.4	26.4
57+72.1 – ~~57+84.1~~ 57+84.1	RT	~~12.0~~ 12.0	12.0
58+17.1 – ~~58+69.9~~ 58+69.9	RT	~~52.8~~ 52.8	52.8
59+00.2 – 59+02.8	RT		2.6
TOTAL		~~1681.0~~ 1,596.2	1,596.2

COMB CURB & GUTTER (Type II) (AE) SPEC

STA. TO STA.	SIDE	LENGTH	REMARKS
50+~~21.4~~ 00.2 – 51+00.2	LT	~~100.0~~ 35.8	35.8
50+~~89.4~~ 89.4 – 54+~~23.8~~ 23.8	LT	~~233.4~~ 34.6	34.6
54+~~89.4~~ 89.4 – 55+~~22.8~~ 22.8	RT	~~33.4~~ 33.9	33.9
56+~~75.6~~ 75.6 – 57+15.4	RT	37.5	
57+~~21.5~~ 21.5 – 57+~~55.1~~ 55.1	RT	~~35.2~~ 34.6	34.6
57+~~89.5~~ 89.5 – 58+~~12.1~~ 12.1	RT	~~30.7~~ 32.0	32.0
58+~~22.9~~ 22.9 – 58+00.~~8~~ 08	RT	~~30.3~~ 30.3	30.3
51+15.0 – 52+10.5	LT		35.5
TOTAL		~~259.1~~ 274.2	274.2

6" EDGE CURB (AE)

STA. TO STA.	SIDE	LENGTH	REMARKS
55+70.1 – 55+~~83.6~~ 83.6	RT	~~13.5~~ 13.0	13.0
56+31.1 – 56+~~57.6~~ 57.6	RT	~~26.5~~ 26.5	26.5
55+~~39.5~~ 39.5 – 55+31.2	RT	~~45.7~~ 45.6	45.6
46+98.0 – 47+27.0	LT	—	29.0
TOTAL		~~44.0~~ 154.1	154.1

CONCRETE PAVEMENT (7" UNIFORM)(AE)

STA. TO STA.	SIDE	LENGTH	WIDTH	(SQ. YD) AREA
~~47+14~~ 47.14 – 56+~~82.5~~ 82.5	RT	78.0	VAR.	~~782.4~~ 782.4
59+~~82.5~~ 82.5 – 59+47.0	RT	40.5	VAR.	~~364.5~~ 364.5
TOTAL				~~1147.0~~ 1146.9

CONCRETE PAVEMENT (6" UNIFORM)(AE)

STA. TO STA.	SIDE	AREA (SQ. YD)	REMARKS
46+97.0 – 51+21.9	LT	~~28.9~~ 25.05	25.05
55+03.0 – 56+24.0	LT	~~123.1~~ 108.38	108.38
55+00.0 – 55+24.9	RT	~~28.7~~ 44.14	44.14
56+78.8 – 57+12.3	RT	~~38.9~~ 48.77	48.77
57+33.0 – 57+74.2	RT	~~54.6~~ 52.14	52.14
57+82.9 – 58+18.0	RT	~~64.6~~ 63.27	63.27
58+70.0 – 59+06.6	RT	~~58.6~~ 54.56	54.56
51+90 ℄	LT		24.86
TOTAL		~~439.0~~ 421.10	421.10

PORTLAND CEMENT CONCRETE BASE (7" REINF.)

STA. TO STA.	SIDE	LENGTH	WIDTH	(SQ. YD) AREA	3 DAY 4 STRENGTH	REMARKS
46+97 – 51+21.4	RT	424.40	VAR.	~~461.3~~ 346.07	~~461.3~~ 346.07	346.07
46+78 – 52+37.05	LT	559.05	VAR.	~~649.8~~ 459.03	~~649.8~~ 459.03	
51+18.3 – 52+47.0	LT	828.70	VAR.	~~785.3~~ 325.03	~~785.3~~ 325.03	325.03
55+09.22 – 59+47.0	RT	541.78	VAR.	~~376.9~~ 376.94	~~376.9~~ 376.94	
+ 5% FOR BATTING OF MANHOLES		~~84~~ 176 ~~415~~ 176		176.18	~~176.18~~	
TOTAL				~~2933.3~~ 2933.31	~~2933.3~~ 2933.31	671.14

DOWELED MED. CURB (AE)

STA. TO STA.	SIDE	LENGTH	REMARKS
~~46+~~ 51 – 50+~~46~~ 46	LT	~~542.6~~ 424.5	424.5
51+~~12.9~~ 18.58 – 52+~~58.9~~ 58.9	LT	~~258.8~~ 258.8	258.8
~~54+36~~ 54+36.28 – 55+~~03.8~~ 03.8	RT	~~327.8~~ 403.0	403.0 INCLUDES JOINT REF 54+36.28 - 55+16.83
TOTAL		~~1127.1~~ 1086.3	1086.3

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF QUANTITIES

STD. NO. 50.2

(28/36)

DETAILED & TRACED APPROVED

SUMMARIES TABULATED CHKD.

DIST. 5 SEDGWICK CO. ROLL 531

[redacted] 6 2 3

16X 14.5X 12X 12X 14.5X 16X

Pub. Road Div. No	State	Project No.	Fiscal Year	Sheet No.	Total Sheets
5	Kansas	BT-T-4004(8)	1970	29	36

TYPE AA (MR-5) COMPACTION

817 cu. yds. Compaction For Combined AB-2 Material Sta. 1+25 to Sta. 16+54.5.

TYPE B (MR-5) COMPACTION

~~660~~ Cu. Yds. Compaction For Backfilling Trenches
95.0 Where Sewers Are Removed Sta. 1+25 To Sta. 16+54.5.

EARTHWORK

Sta. to Sta.		Excavation Cu. Yds. Rock	Common	
1+25	7+65		462.5	
9+40	16+54.5	~~932.6~~ 551.9	605.5	
1+25	16+54.5	~~691.1~~ 46		For Removal of Concrete Pavement Around Manholes To Be Adjusted.
TOTAL		~~690.6~~ 597+	1,068.	

DRAINAGE STRUCTURES

Station	Side	Size	Type	Conc. Cl. "A" Cu. Yds.	Reinf. Steel Lbs.

FORTLAND CEMENT CONCRETE BASE (7" REINF.)

STA. TO STA.	SIDE	LENGTH	WIDTH	SQ. YD. AREA	EARLY STRENGTH	REMARKS
1+25.5 – 4+37.0	LT	311.5	VAR	1949	~~Early~~	93.49
3+04.8 – 8+26.6	LT	520.0	VAR	7821	—	
8+71.5 – 16+54.9	LT	783.0	VAR	6252	~~180 Day~~	178.01
1+25.5 – 4+35.8	RT	310.3	VAR	1967	~~Early~~	9.23
8+02.2 – 8+29.8	RT	27.6.3	VAR	738.7	—	
8+73.5 – 16+54.5	RT	781.0	VAR	11893	~~180 Day~~	335.03
6+15.5 – 11+01.5	&					92.45
± 5% FOR ADJUST OF MANHOLES			Not Used	2041	~~Early~~	
TOTAL			~~Sheet~~		~~Early~~	636.47

COMB. CURB & GUTTER (TYPE I) (RE) SPECIAL

STA. TO STA.	SIDE	LENGTH	REMARKS
1+25.5 – 4+37.0	LT	~~312.5~~ 311.5	90.0
5+04.8 – 8+26.6	"	~~322.8~~ 320.0	36.7
8+73.5 – 10+05.0	"	~~132.5~~ 131.5	14.5
10+05.0 – 12+74.0	"	~~270.0~~ 232.0	23.2
12+74.0 – 13+37.3	"	~~64.3~~ 63	16.3
13+57.0 – 14+69.0	"	~~112.5~~ 112	11.9
14+35.0 – 15+87.5	"	~~152.5~~ 151.5	28.1
15+87.5 – 16+54.5	"	~~67.0~~ 67	48.5
16+54.5 – 16+59.5	LT	~~5.0~~ 5	48.7
1+25.5 – 1+31.6	RT	~~6.1~~ 6	47.6
2+31.4 – 2+47.6	"	~~16.2~~ 16	63.7
3+21.2 – 3+31.8	"	~~10.6~~ 10	21.7
3+69.6 – 4+39.8	"	~~70.2~~ 70	125.4
5+71.8 – 8+16.5	"	~~244.7~~ 245	290.5
8+36.0 – 11+71.8	"	~~335.8~~ 336	334.5
12+54.2 – 13+37.3	"	~~83.1~~ 83	147.0
13+57.0 – 14+27.2	"	~~70.2~~ 70	74.1
14+51.3 – 14+83.0	"	~~31.7~~ 32	32.0
15+17.0 – 15+92.1	RT	~~74.1~~ 74	94.4
TOTAL		~~2,550.0~~ 2,542.1	

DOWELED MED. CURB (RE)

STA. TO STA.	SIDE	LENGTH	REMARKS
7+37.5 – 7+61.60	LT	~~38.1~~ 37.5	814.5
7+61.60 – 8+15.33	LT	~~53.7~~ 53.1	202.1
7+84.00 – 8+15.33	RT	~~31.3~~ 31.3	991.8
8+52.16 – 8+76.33	RT	~~24.2~~ 24.2	Shown in TOTAL for 33+18.8
8+57.67 – 9+25.00	RT	~~67.3~~ 66.5	149.6
9+25.00 – 12+08.00	RT	~~283.0~~ 282.5	742.1
TOTAL		~~2,401.2~~ 2,401.2	2015.4

COMB. CURB & GUTTER (TYPE II) (RE) SPEC.

STA. TO STA.	SIDE	LENGTH	REMARKS
10+05.0 – 10+37.5	LT	~~33.5~~ 32.5	34.8
12+74.0 – 13+08.0	"	~~34.0~~ 34.0	31.0
13+08.0 – 13+42.0	"	~~34.0~~ 34.0	31.8
13+42.0 – 13+57.0	"	~~15.0~~ 15.0	14.7
15+87.5 – 16+54.5	LT	~~67.0~~ 67.0	
1+25.5 – 2+31.4	RT	~~106.0~~ 105.9	92.8
2+47.6 – 3+21.2	"	~~34.0~~ 33.6	31.8
3+31.8 – 3+69.6	"	~~38.0~~ 37.8	25.0
4+39.8 – 5+71.8	"	~~132.0~~ 132.0	23.6
13+42.0 – 13+57.0	"	~~15.0~~ 15.0	19.9
14+27.2 – 14+51.3	RT	~~24.1~~ 24.1	30.4
[redacted]			
TOTAL		~~336.0~~ 336.0	312.0

6" EDGE CURB (RE)

STA. TO STA.	SIDE	LENGTH	REMARKS
15+92.1 – 16+49.3	RT.	~~57.2~~ 57.2	
16+54 TO Radius	RT		6.0
TOTAL		~~57.5~~ 57.2	63.2

CONCRETE PAVEMENT (7" UNIFORM) (RE)

STA. TO STA.	SIDE	LENGTH	WIDTH	SQ. YD. AREA	
15+72.07 – 16+54.50	RT	82.43	VAR	~~55.0~~ 54.88	
TOTAL				~~55.0~~ 54.88	

CONCRETE PAVEMENT (6" UNIFORM) (RE)

STA. TO STA.	SIDE	AREA (SQ. YD.)	REMARKS
1+25.4 – 2+29.0	RT	~~20.8~~ 20.39	
2+29.5 – 3+21.0	"	~~21.5~~ 21.40	
3+43.0 – 3+60.5	"	~~16.5~~ 16.55	
11+72.0 – 12+02.0	"	~~21.8~~ 21.73	
13+17.8 – 13+49.5	"	~~23.5~~ 23.42	
14+21.0 – 14+51.3	RT	~~12.3~~ 12.39	
10+03.0 – 10+43.0	LT	~~17.5~~ 17.45	
12+72.0 – 13+10.0	"	~~10.9~~ 10.96	
13+23.0 – 13+57.0	"	~~35.1~~ 35.11	
15+70.0 – 15+94.0	"	~~8.3~~ 8.13	
15+80.3 – 16+07.9	LT	~~13.9~~ 13.92	
TOTAL		~~229.7~~ 229.66	

SIDEWALK CONSTR. (RE) (4")

STA. TO STA	SIDE	SQ. YD. AREA	REMARKS
2C 5+00.0 – 7+88.0	RT	~~129.1~~ 129.1	
14+78.0 – 14+96.2	RT	~~19.9~~ 1.9	
~~5+00.0 – 5+16.2~~	RT	~~17.8~~	Shown in TOTAL for 5+16 – 7+83
9+05 – 10+08.3	LT		43.4
10+38.7 – 11+08.75	LT		32.3
11+08.75 – 12+03.5	LT		53.3
12+03.5 – 12+14	LT		48.7
13+04 – 13+21.35	LT		2.8
15+26 – 15+30	RT		2.0
13+45 – 13+57	RT		4.3
TOTAL		~~193.1~~ 193.1	336.8

RECAPITULATION OF BRIDGE QUANTITIES

* Total includes retaining wall. 52.9 cu. yds. class AE

Item	Unit	Bridge Station 4+99.2	Bridge Station 54+41.21	Total
Class I Excavation	Cu. Yds.			
Class II Excavation	Cu. Yds.			
Class III Excavation	Cu. Yds.	~~150~~ 551.9	~~90~~ 165.1	~~240~~ 722.5
Water	M. Gals.			
Class (A-AE) Concrete	Cu. Yds.	311	103	~~414~~ 466.4*
Class A Concrete	Cu. Yds.	~~100~~	~~59~~	~~259~~ 0
Reinforcing Steel	Lbs.	41,290	12,050	~~53,340~~ 53,452
~~Metal Handrail Removed~~	~~Lin. Ft.~~			
Metal Handrail (Install only)	Lin. Ft.	148.5		148.5
~~Sidewalk Removed~~	~~Sq. Yds.~~			
Untreated Timber Piles	Lin. Ft.			
Treated Timber Piles	Lin. Ft.			
Steel Piles	Lin. Ft.			
Untr. Timber Test Piles	Lin. Ft.			
Steel Test Piles	Lin. Ft.			
Metal Pile Points	Each			
~~30" Storm Sewer R.C.P.~~	~~Lin. Ft.~~			
Removal of Exist. Struct.	L.S.			Lump Sum
~~Bridge Ends Removed~~	~~L.S.~~			
~~Curb Removed~~	~~Lin. Ft.~~			

RECAPITULATION OF ROAD QUANTITIES

BID ITEMS		QUANT.	UNIT
Common Excavation		~~2,310~~ 3,224	Cu. Yds.
Rock Excavation	1,093	~~1,000~~	Cu. Yds.
Class III Excavation	276.6	~~100~~	Cu. Yds.
Compaction of Earthwork (Type AA) (MR-5)		283 ~~310~~	Cu. Yds.
Compaction of Earthwork (Type B) (MR-5)		~~739~~ 86	Cu. Yds.
Water (For Grading)		~~1~~ 0	M-Gals.
Early Strength Portland Cement Concrete Base (7" Reinforced)	330	~~1,300~~	Sq. Yds.
Portland Cement Concrete Base (7" Reinforced)	6,102.1	~~5,544~~	Sq. Yds.
Concrete Pavement (7" Uniform) (AE)	281.9	~~256~~	Sq. Yds.
Concrete Pavement (6" Uniform) (AE)	650.8	~~693~~	Sq. Yds.
Sidewalk Construction (AE) (4")	336.8	~~123~~	Sq. Yds.
Class A Concrete (Miscellaneous)	18.5	~~230~~	Cu. Yds.
Reinforcing Steel	4,830	~~4,100~~	Lbs.
Cast Iron	7,120	~~7,300~~	Lbs.
Structural Steel	1,968	~~1,960~~	Lbs.
15" Storm Sewer (R.C.P.)	142	~~144~~	Lin. Ft.
18" Storm Sewer (R.C.P.)	177	~~441~~	Lin. Ft.
24" Storm Sewer (R.C.P.)	17	~~10~~	Lin. Ft.
Sewer Excavation (Common)	150.4	~~134~~	Cu. Yds.
Combined Curb & Gutter (Type I) (AE) Special	4,119.3	~~4,185~~	Lin. Ft.
Combined Curb & Gutter (Type II) (AE) Special	596.2	~~509~~	Lin. Ft.
6" Edge Curb (AE)	217.3	~~172~~	Lin. Ft.
Special Edge Curb (Doweled)	3,181.7	~~3,044~~	Lin. Ft.
Temporary Surfacing Material	87	~~1~~	Cu. Yds.
Field Office & Laboratory (Type B)		1	Each
~~Linseed Oil Surface Treatment~~		~~959~~	~~Sq. Yds.~~
Adjustment of Manholes		7	Each
30" Storm Sewer (RCP)		7 ~~10~~	Lin. Ft.
Traffic Control		Lump Sum	

Note: For Asphalt, Lime & Combined AB-II Material Quantities See Sheet No. 27.

STATE HIGHWAY COMMISSION OF KANSAS

SUMMARY OF QUANTITIES

STD. NO. 50.2

29/30

DETAILED & TRACED _____ APPROVED _____ DATE _____

SUMMARIES TABULATED _____ CHKD. _____ JNRED _____

DIST. 5 | SEDGWICK CO. | ROLL 531

6 2 4

16X | 14.5X | 12X | 12X | 14.5X | 16X

END
ROLL

531