SHEET NO.	TOTAL SHEETS
1	17

CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK, CITY ENGINEER

STREET IMPROVEMENTS

WESTPORT	- E.L. MAIZE ROAD TO W.L. VALLEYVIEW
VALLEYVIEW	- W.L. 17TH STREET TO N.L. WESTPORT
DENENE	- W.L. WESTPORT TO N.L. LOT 7, BLOCK 3
WESTPORT COURT	- W.L. WESTPORT TO AND INCLUDING CUL-DE-SAC SERVING LOTS 34-45, BLOCK 2
WESTPORT COURT	- WESTPORT TO AND INCLUDING CUL-DE-SAC SERVING LOTS 22-33, BLOCK 2

AMARADO ESTATES 3RD ADDITION

CITY OF WICHITA PROJECT NO. 472-76-245-80001-000-000-028

NOTE TO CONTRACTOR

This project will be constructed under the supervision of the CITY ENGINEER and conforming to the SPECIFICATIONS of the CITY OF WICHITA. The CONTRACTOR will pay the City of Wichita for all costs of plan review, inspection and booking per contract.

APPROVED AS NOTED
By CITY ENGINEER OF WICHITA

Sanitary Sewers _____
Storm Sewers _____
Driveway Approaches _____
Water Mains _____
Paving CZR 4-14-87

INDEX OF SHEETS

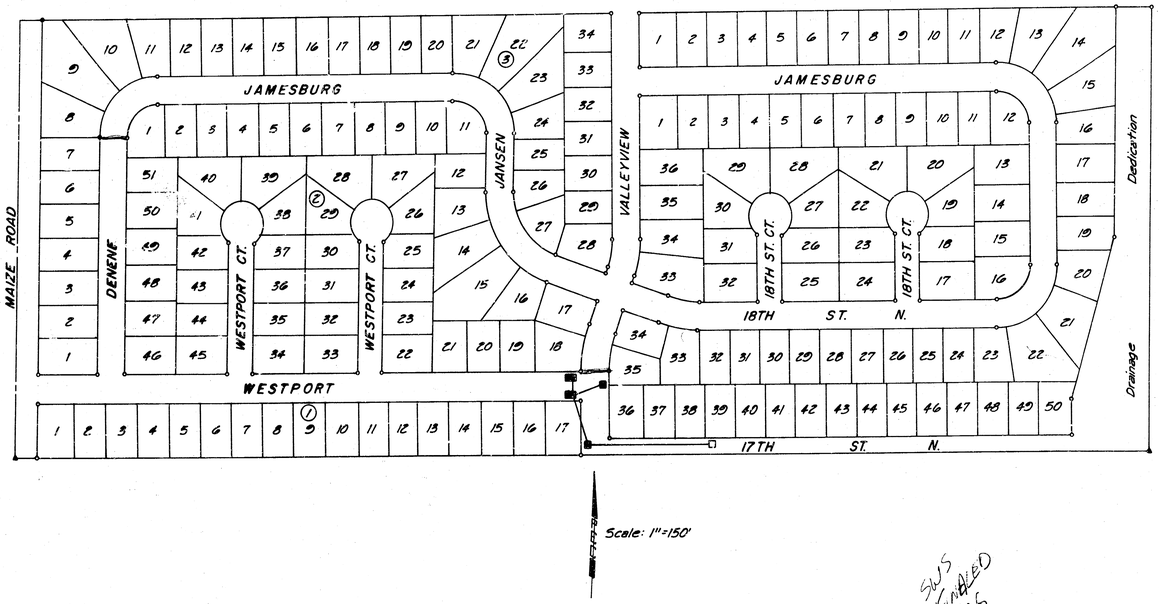
PROJECT SURVEY CONTROL

VERTICAL DATUM: CITY OF WICHITA DATUM

BENCH MARK NO. 1: STANDARD CITY OF WICHITA B.M. DISC ON N.E. COR. RCRC 82' W. AND 35' N. OF THE S.E. COR. N.W. 1/4 SEC. 8, T27S, R1W
ELEV.=156.84

BENCH MARK NO. 2: CHISELED "O" ON TOP OF CURB NORTH RETURN @ S.E. COR VALLEYVIEW AND 17TH STR.
ELEV.=1[illegible].19

BENCH MARK NO. 3: STANDARD CITY OF WICHITA B.M. DISC 11' S. AND 43' E. OF THE S.W. COR. N.W. 1/4 SEC. 8, T27S, R1W
ELEV.=161.04



Scale: 1"=150'

GENERAL NOTES

ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS, LATEST EDITION, UNLESS NOTED OTHERWISE ON THE PLANS.

UTILITY SERVICE LINES, POLES, VALVE BOXES, METERS, AND ETCETERA ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

THIS PROJECT INCLUDES A CERTAIN AMOUNT OF ROLL-TYPE CURB CONSTRUCTION. ROLL CURBS SHALL BE DEPRESSED THROUGH ALL DRIVEWAY OPENINGS IF ANY SUCH DRIVES ARE CONSTRUCTED AS A PART OF THE PROJECT.

CITY OF WICHITA FORCES WILL REMOVE AND REPLACE EXISTING STREET SIGNING AS CONSTRUCTION IS STARTED AND COMPLETED. THE CONTRACTOR WILL COORDINATE HIS ACTIVITIES WITH THE DEPARTMENT OF OPERATIONS AND MAINTENANCE RELATIVE TO TEMPORARY TRAFFIC SIGNING AND REMOVAL OR INSTALLATION OF STREET SIGNING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR OR A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH STATE LAWS.

All Water & Sanitary Sewer Lines under pavement shall be in place prior to paving. Contractor shall coordinate his work with Water & Sanitary Sewer line Contractors.

RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND PAVEMENT REMOVAL WHICH IS TO BE WASTED SHALL BE DISPOSED OF OFF-SITE.

ALL BARRICADES, SIGNS, LIGHTS AND OTHER PROTECTIVE DEVICES SHALL BE INSTALLED AND MAINTAINED IN CONFORMITY WITH THE LATEST EDITION OF THE CITY OF WICHITA BARRICADE MANUEL AS ADOPTED BY THE TRAFFIC ENGINEERING DIVISION OF THE DEPARTMENT OF OPERATIONS AND MAINTENANCE.

THE DEVELOPER SHALL HAVE THE FIRST RIGHT TO ANY EXCESS SOIL FROM THE PROPOSED CONSTRUCTION. CONTACT MR. RANDALL VOTH AT 264-3245.

THE CONTRACTOR SHALL SATISFY HIMSELF OF ALL QUANTITIES REQUIRED TO CONSTRUCT THE IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT A "LUMP SUM" BID TO MR. RANDALL VOTH, 1831 WOODROW AVE., WICHITA, KS. 67203, SAID LUMP SUM SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, AND INCIDENTALS TO COMPLETE THE WORK.

SWS FINALED ML 6

APRIL, 1987

PLANS PREPARED BY
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

CHARLES S. BROWN LICENSED 7581 KANSAS PROFESSIONAL ENGINEER

1/17

AMARADO ESTATES THIRD ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS

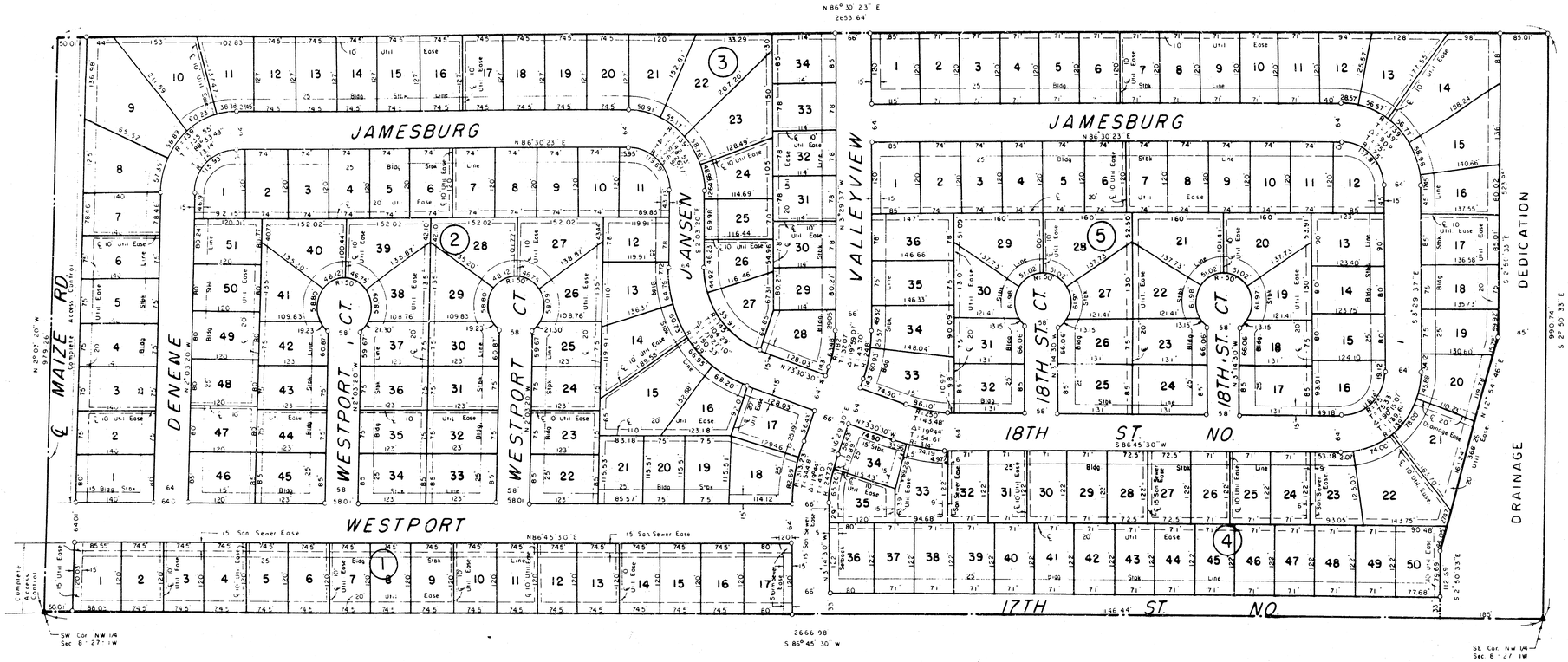


CHART OF MINIMUM PAD ELEVATIONS

BLOCK	LOT	MEAN SEA LEVEL DATUM	CITY OF WICHITA DATUM
4	14	1342.0	154.6
4	15	1341.9	154.5
4	16	1341.8	154.4
4	17	1341.7	154.3
4	18	1341.6	154.2
4	19	1341.6	154.2
4	20	1341.5	154.1
4	21	1341.4	154.0
4	22	1841.3	153.9
4	50	1341.2	153.8

N

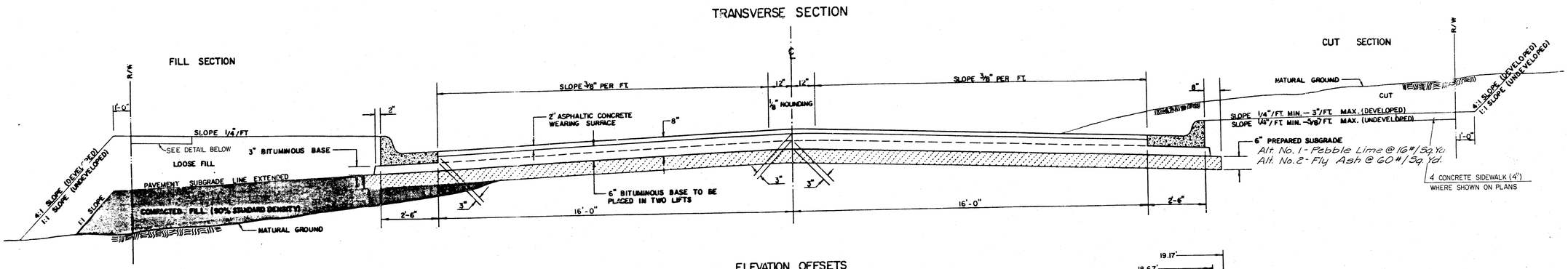
1" = 100'

O = IRON

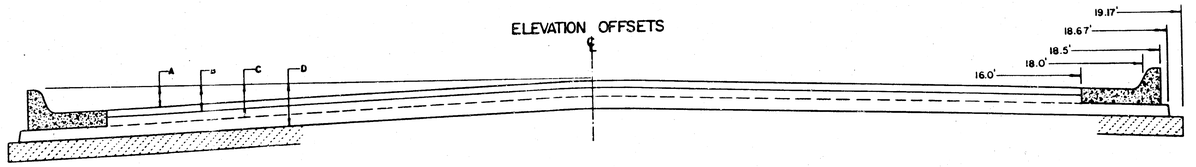
Project No. 472 76 245 80001 000 000 028

TYPICAL 37' PAVEMENT DETAILS

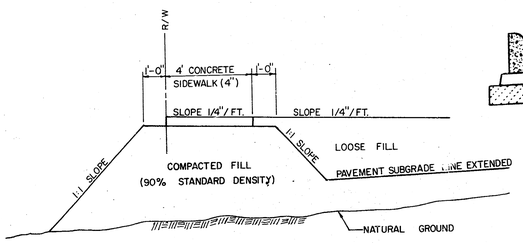
TRANSVERSE SECTION



ELEVATION OFFSETS

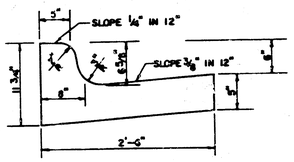


	DISTANCE FROM CENTERLINE (LT. & RT.)												
	0	2	4	6	8	10	12	14	16	18	18.5	18.67	19.17
A: TOP OF CURBS TO TOP OF SURFACE LIFT	.01	.05	.11	.18	.24	.30	.36	.43	.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	.17	.22	.28	.34	.40	.47	.53	.59	.65	—	—	—	—
C: TOP OF CURBS TO TOP OF LOWER BASE LIFT	.42	.47	.53	.59	.65	.72	.78	.84	.90	.97	.98	.99	—
D: TOP OF CURBS TO TOP OF SUBGRADE	.67	.72	.78	.84	.90	.97	1.03	1.09	1.15	1.22	1.23	1.24	1.25

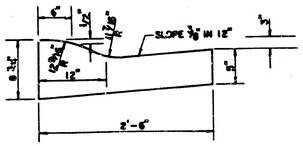


COMPACTED FILL DETAIL
WHEN SIDEWALK IS CONSTRUCTED

COMBINED CURB & GUTTER



ROLL TYPE COMBINED CURB & GUTTER



GENERAL NOTES

1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 8" ASPHALTIC CONCRETE (6" BITUMINOUS BASE).

2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 3" BITUMINOUS BASE.

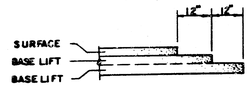
3) A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.

4) BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.

5) CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF ONE (1) FOOT FROM JOINTS IN PRECEDING LIFTS AND PLACED SO THAT A JOINT WILL BE CONSTRUCTED ON THE CENTERLINE OF THE TOP LIFT.

6) CONTRACTOR TO BID ONLY ONE SUBGRADE TREATMENT ALTERNATE WHEN ALTERNATES ARE PROVIDED IN THE PROPOSAL AND CONTRACT. THE ALTERNATE CHOSEN BY THE SUCCESSFUL BIDDER SHALL BE USED IN CONSTRUCTING THIS PROJECT.

TRANSVERSE CONSTRUCTION JOINTS

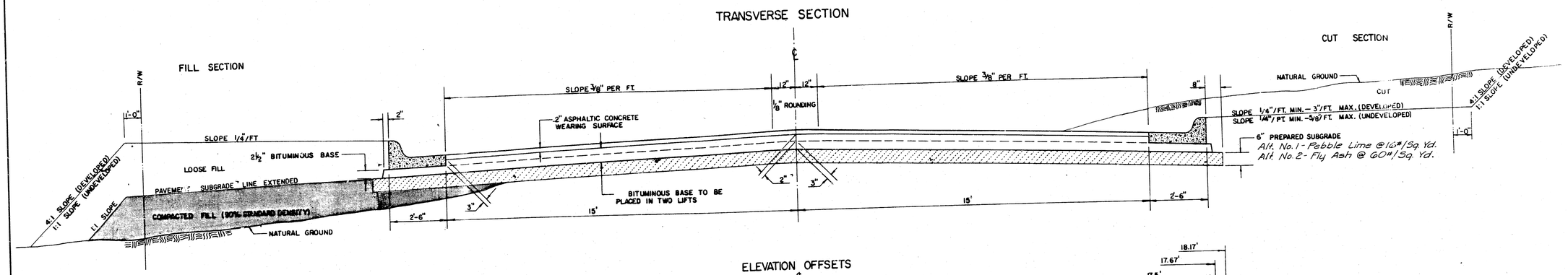


TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINS EXISTING FLEXIBLE BASE PAVEMENT AS SHOWN BY THE DETAIL. ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE TRANSVERSE JOINT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS 8" ASPHALTIC CONCRETE (6" BITUMINOUS BASE).

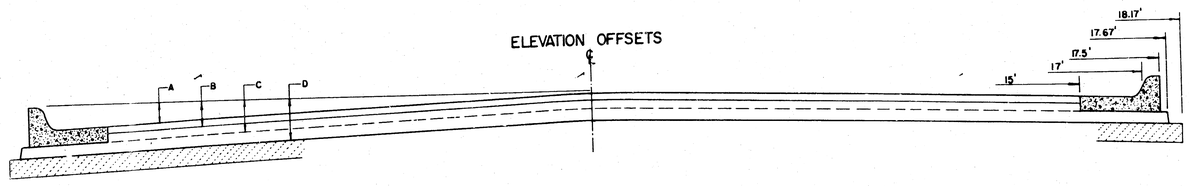
8 INCH RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH 6 INCH BITUMINOUS BASE
CITY OF WICHITA, KANSAS
PROJECT NUMBER
472 76 245 80001 000 000 028

TYPICAL 35' PAVEMENT DETAILS

TRANSVERSE SECTION

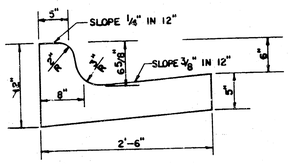


ELEVATION OFFSETS

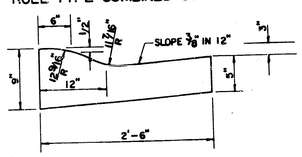


	DISTANCE FROM CENTERLINE (LT. & RT.)												
	0'	2'	4'	6'	8.5'	10'	12'	14'	15'	17'	17.5'	17.67'	18.17'
A: TOP OF CURBS TO TOP OF SURFACE LIFT	0.04	0.08	0.14	0.21	0.29	0.33	0.39	0.46	0.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	0.21	0.25	0.31	0.37	0.45	0.50	0.56	0.62	0.65	—	—	—	—
C: TOP OF CURBS TO TOP OF LOWER BASE LIFT	0.37	0.43	0.50	0.57	0.67	0.72	0.79	0.87	0.90	0.98	1.00	1.00	—
D: TOP OF CURBS TO TOP OF SUBGRADE	0.62	0.67	0.74	0.81	0.90	0.95	1.02	1.08	1.12	1.19	1.21	1.21	1.23

COMBINED CURB & GUTTER



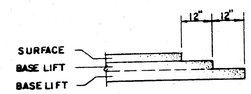
ROLL TYPE COMBINED CURB & GUTTER



GENERAL NOTES

1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).
2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 2 1/2" BITUMINOUS BASE.
3) A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.
4) BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.
5) CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF ONE (1) FOOT FROM JOINTS IN PRECEDING LIFTS AND PLACED SO THAT A JOINT WILL BE CONSTRUCTED ON THE CENTERLINE OF THE TOP LIFT.
6) CONTRACTOR TO BID ONLY ONE SUBGRADE TREATMENT ALTERNATE WHEN ALTERNATES ARE PROVIDED IN THE PROPOSAL AND CONTRACT. THE ALTERNATE CHOSEN BY THE SUCCESSFUL BIDDER SHALL BE USED IN CONSTRUCTING THIS PROJECT.

TRANSVERSE CONSTRUCTION JOINTS



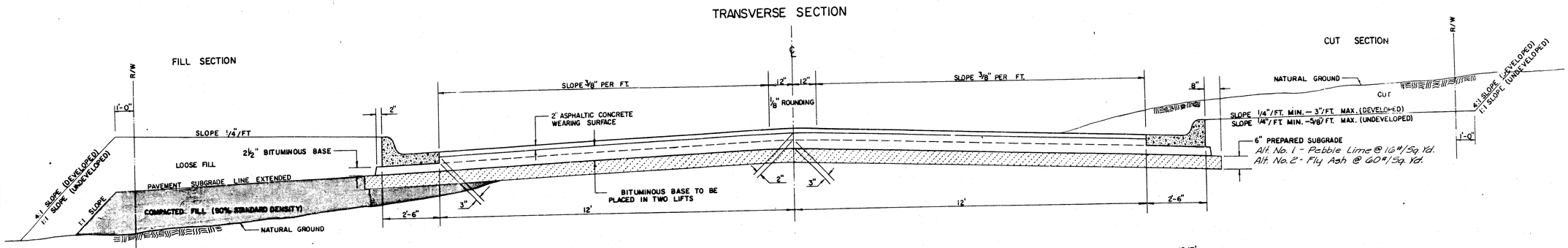
TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINS EXISTING FLEXIBLE BASE PAVEMENT AS SHOWN BY THE DETAIL. ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE TRANSVERSE JOINT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).

7 INCH RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH 5 INCH BITUMINOUS BASE
CITY OF WICHITA, KANSAS
PROJECT NUMBER
472 76 245 80001 000 000 028

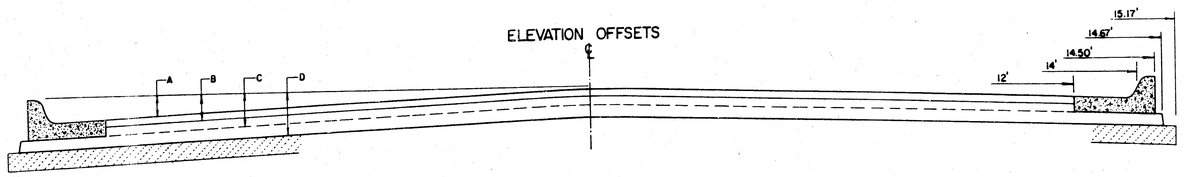
4/17

TYPICAL 29' PAVEMENT DETAILS

TRANSVERSE SECTION

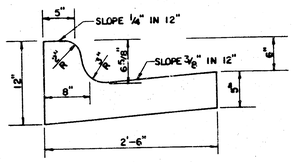


ELEVATION OFFSETS

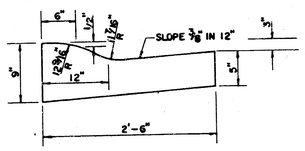


	DISTANCE FROM CENTERLINE (LT. & RT.)											
	0'	2'	4'	6'	7'	8'	10'	12'	14'	14.5'	14.67'	15.17'
A: TOP OF CURBS TO TOP OF SURFACE LIFT	0.13	0.18	0.24	0.30	0.33	0.36	0.43	0.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	0.30	0.35	0.41	0.47	0.50	0.53	0.60	0.66	—	—	—	—
C: TOP OF CURBS TO TOP OF LOWER BASE LIFT	0.47	0.52	0.60	0.68	0.71	0.75	0.83	0.90	0.98	1.00	1.01	—
D: TOP OF CURBS TO TOP OF SUBGRADE	0.72	0.77	0.84	0.91	0.94	0.98	1.05	1.12	1.19	1.21	1.21	1.23

COMBINED CURB & GUTTER



ROLL TYPE COMBINED CURB & GUTTER



GENERAL NOTES

1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).

2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 2 1/2" BITUMINOUS BASE.

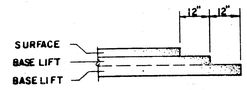
3) A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.

4) BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.

5) CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF ONE (1) FOOT FROM JOINTS IN PRECEDING LIFTS AND PLACED SO THAT A JOINT WILL BE CONSTRUCTED ON THE CENTERLINE OF THE TOP LIFT.

6) CONTRACTOR TO BID ONLY ONE SUBGRADE TREATMENT ALTERNATE WHEN ALTERNATES ARE PROVIDED IN THE PROPOSAL AND CONTRACT. THE ALTERNATE CHOSEN BY THE SUCCESSFUL BIDDER SHALL BE USED IN CONSTRUCTING THIS PROJECT.

TRANSVERSE CONSTRUCTION JOINTS



TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINS EXISTING FLEXIBLE BASE PAVEMENT AS SHOWN BY THE DETAIL. ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE TRANSVERSE JOINT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).

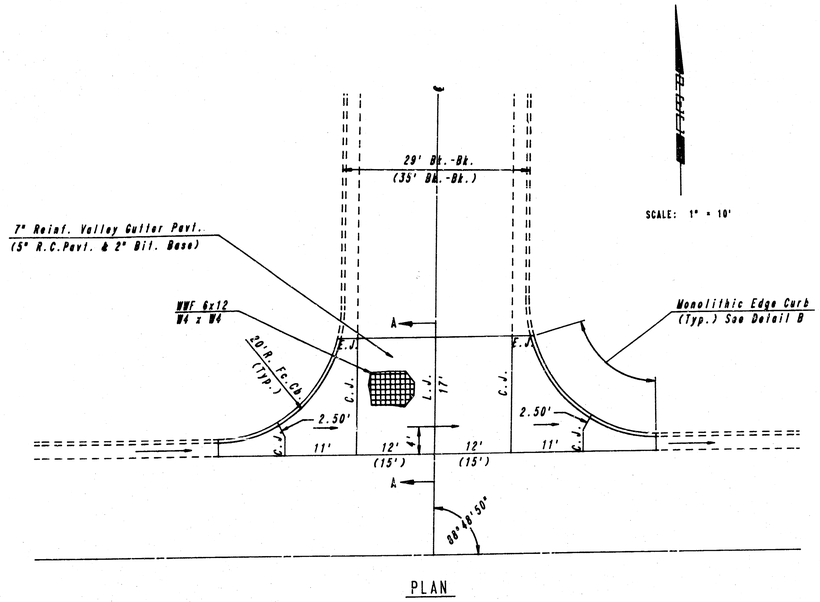
7 INCH RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH 5 INCH BITUMINOUS BASE

CITY OF WICHITA, KANSAS

PROJECT NUMBER 472 76 245 80001 000 000 023

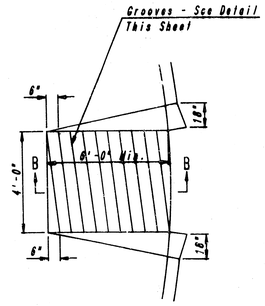
5/17

PROJECT NO.	SHEET NO.	TOTAL SHEETS
472 76 845 80001 000 000 028	6	17

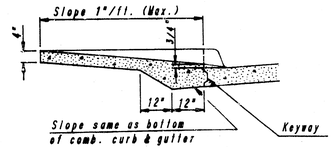


PLAN

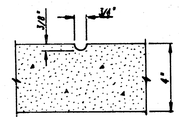
SCALE: 1" = 10'



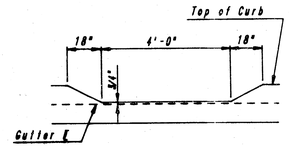
PLAN



SECTION B-B

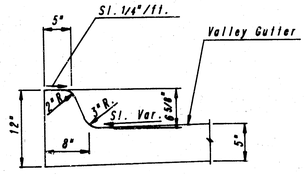


GROOVE DETAIL

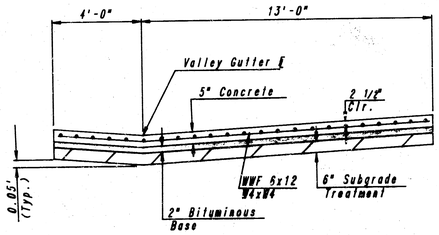


DEPRESSED CURB DETAIL

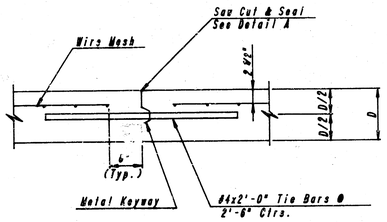
TYPICAL WHEELCHAIR RAMP DETAILS



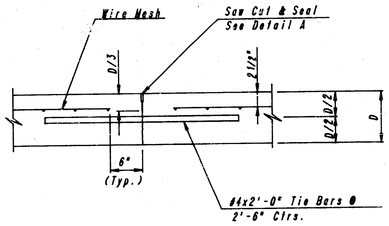
DETAIL B



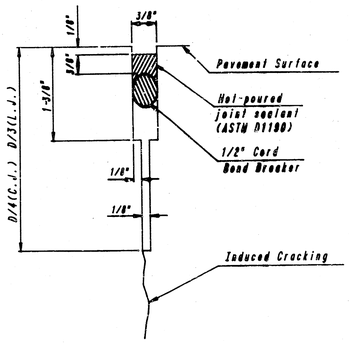
SECTION A-A



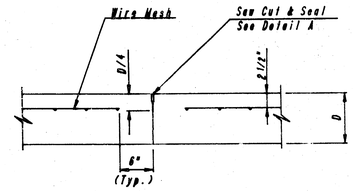
LONGITUDINAL CONSTRUCTION JOINT DETAIL
REINFORCED PAVEMENT
(TRANSVERSE SECTION)
(ALTERNATE L.J.)



LONGITUDINAL JOINT DETAIL
REINFORCED PAVEMENT
(TRANSVERSE SECTION)
(L.J.)



DETAIL A



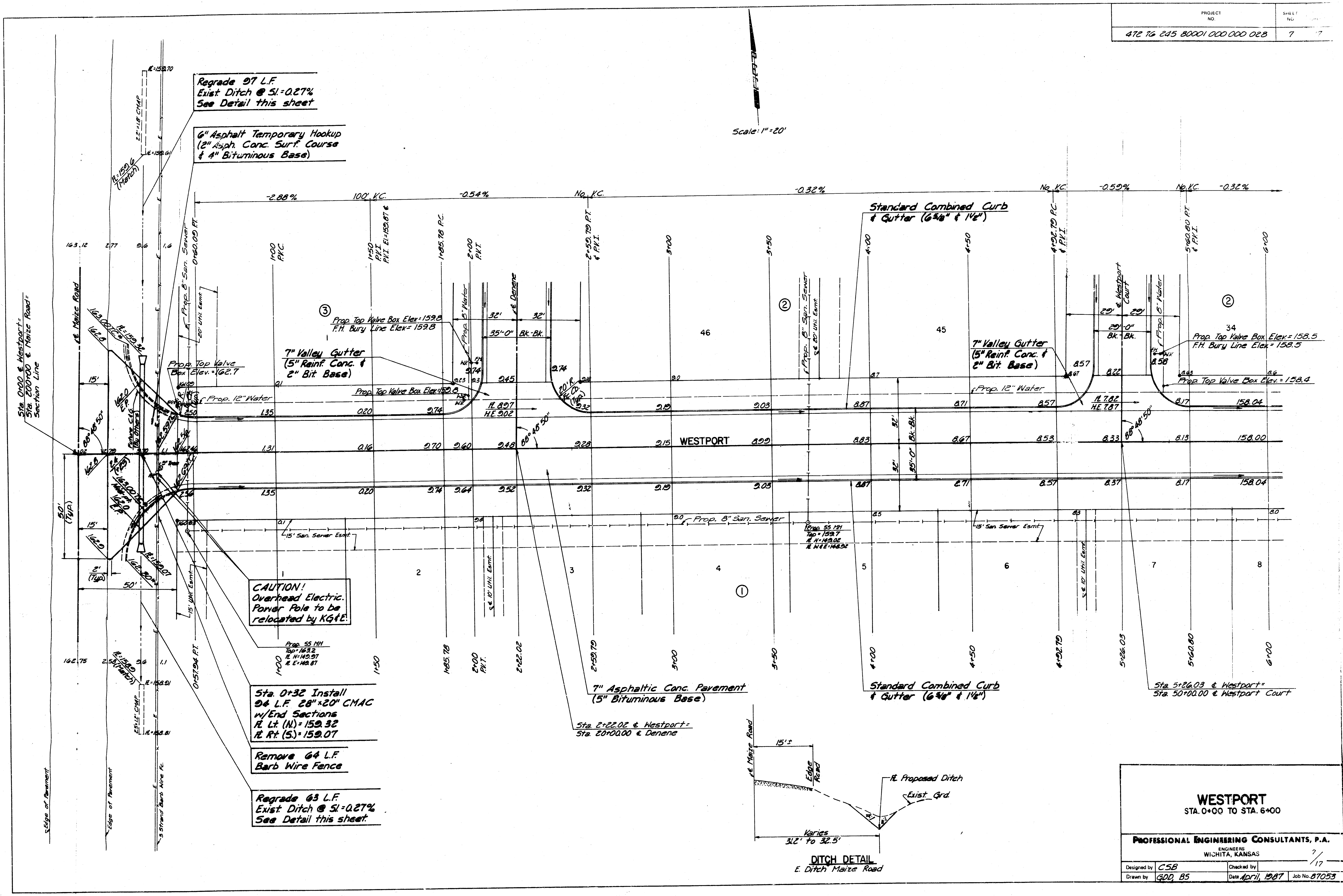
CONTRACTION JOINT DETAIL
REINFORCED PAVEMENT
(C.J.)

VALLEY GUTTER DETAILS & WHEELCHAIR RAMP DETAILS

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

6/17

Designed by	CSB	Checked by	
Drawn by	DEP	Date APR., 1987	Job No. 87053


PROJECT NO.
SHEET NO.
472 TG 245 80001 000 000 028
7
Scale: 1" = 20'
Regrade 97 L.F.
Exist. Ditch @ Sl. = 0.27%
See Detail this sheet
6" Asphalt Temporary Hookup
(2" Asph. Conc. Surf. Course
& 4" Bituminous Base)
-2.88%
100' V.C.
-0.54%
No V.C.
-0.32%
-0.59%
Standard Combined Curb
& Gutter (6 3/8" & 1 1/2")
Sta. 0+00 ℄ Westport = Sta. 200+00 ℄ Maize Road = Section Line
℄ Maize Road
Prop. Top Valve Box Elev. = 162.7
Prop. 12" Water
Prop. Top Valve Box Elev. = 159.8
F.H. Bury Line Elev. = 159.8
7" Valley Gutter
(5" Reinf. Conc. & 2" Bit. Base)
℄ Denene
35'-0" Bk.-Bk.
Prop. 8" San. Sewer
15' Util. Esmt.
10' Util. Esmt.
46
45
34
℄ Westport Court
29'-0" Bk.-Bk.
Prop. Top Valve Box Elev. = 158.5
F.H. Bury Line Elev. = 158.5
Prop. Top Valve Box Elev. = 158.4
WESTPORT
88°48'50"
50' (Typ.)
2' (Typ.)
15'
50'
15' San. Sewer Esmt.
Prop. SS MH
Top = 159.7
CAUTION!
Overhead Electric.
Power Pole to be relocated by KG&E.
Prop. SS MH
Top = 163.2
1
2
3
4
5
6
7
8
Sta. 0+32 Install
94 L.F. 28" x 20" CMAC
w/End Sections
Fl. Lt. (N.) = 159.32
Fl. Rt. (S.) = 159.07
Remove 64 L.F.
Barb Wire Fence
Regrade 63 L.F.
Exist. Ditch @ Sl. = 0.27%
See Detail this sheet.
Edge of Pavement
5 Strand Barb Wire Fc.
7" Asphaltic Conc. Pavement
(5" Bituminous Base)
Sta. 2+22.02 ℄ Westport = Sta. 20+00.00 ℄ Denene
Standard Combined Curb
& Gutter (6 3/8" & 1 1/2")
Sta. 5+26.03 ℄ Westport = Sta. 50+00.00 ℄ Westport Court
℄ Maize Road
15' ±
Edge Road
Fl. Proposed Ditch
Exist. Grd.
Varies 31.2' to 32.5'
DITCH DETAIL
E. Ditch Maize Road

WESTPORT
STA. 0+00 TO STA. 6+00

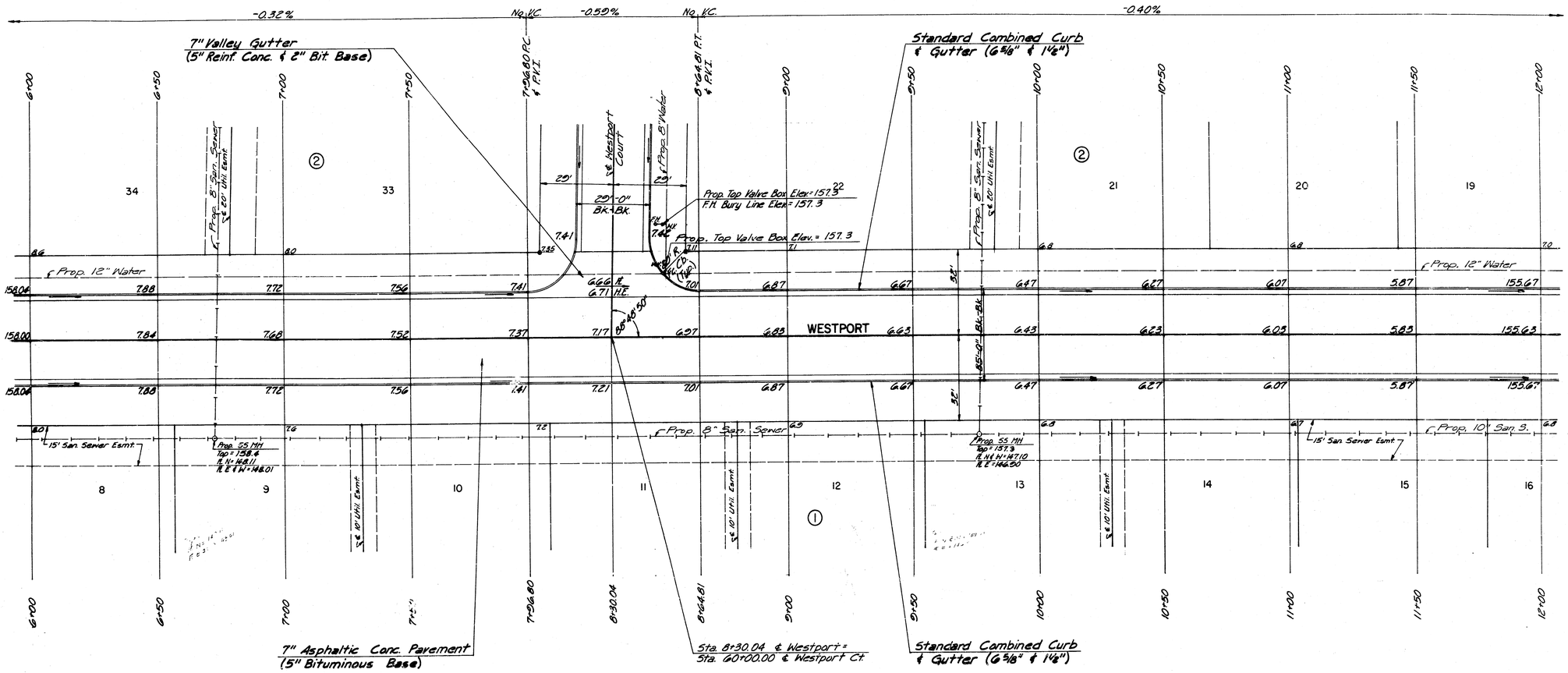
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

7/17

Designed by CSB		Checked by	
Drawn by GDD, BS		Date April, 1987	Job No. 87053

PROJECT NO.	SHEET NO.	TOTAL SHEETS
472 76 845 80001 000 000 083	8	17

Scale: 1"=20'



WESTPORT
STA. 6+00 TO STA. 12+00

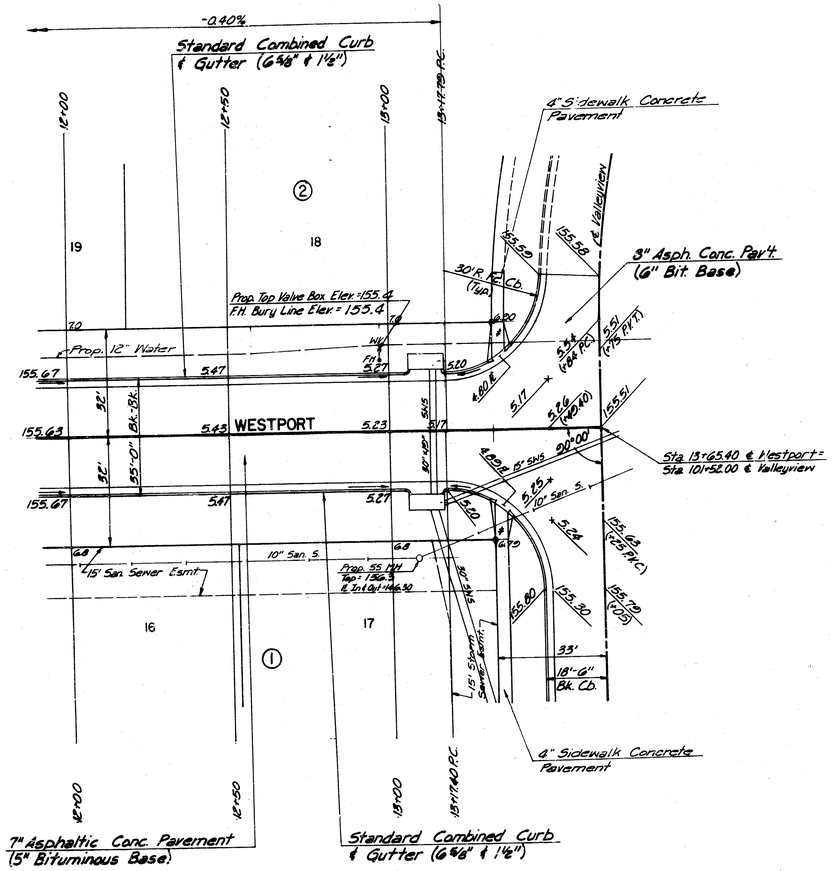
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

8/17

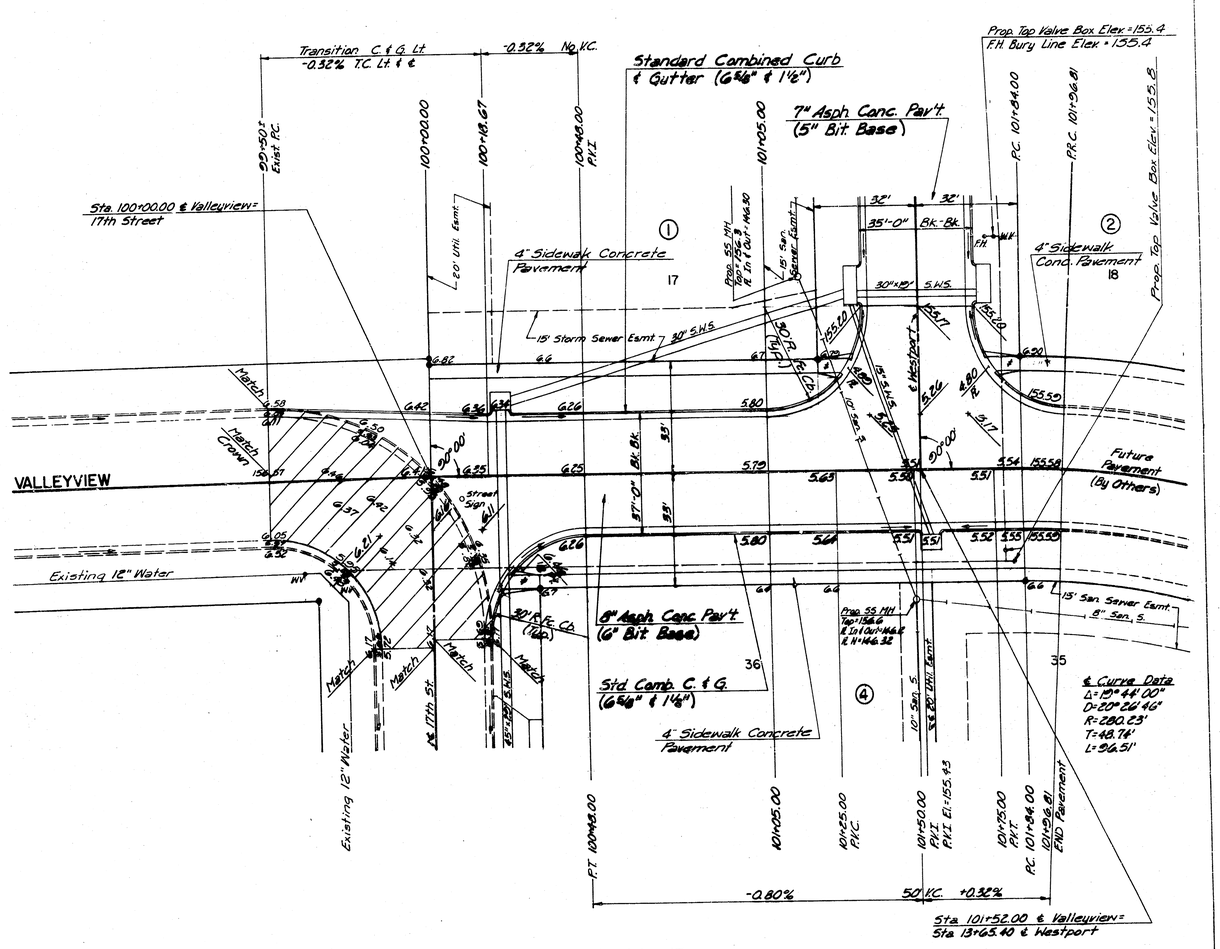
Designed by	CSB	Checked by		
Drawn by	GDD, BS	Date	April, 1987	Job No. 87053

PROJECT NO.	SHEET NO.	TOTAL SHEETS
472 76 245 80001 000 000 028	9	17

Scale: 1" = 20'



Scale: 1" = 20'



℄ Construct Standard Wheelchair Ramp

Asphalt & Curb & Gutter Removal

NOTE: See Sheet No. 14 for Storm Water Sewer.

WESTPORT
STA. 12+00 TO STA. 13+65.40
VALLEYVIEW
STA. 9+50 TO STA. 101+96.81

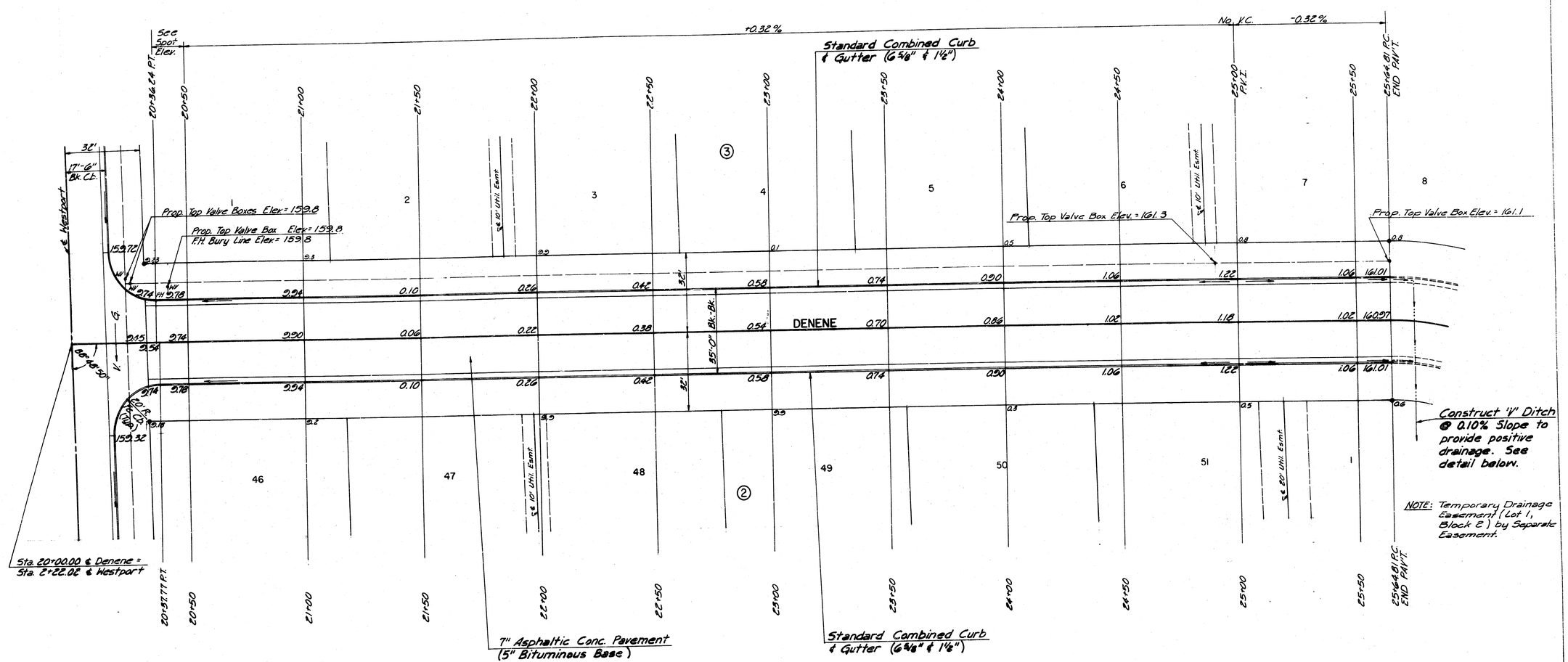
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

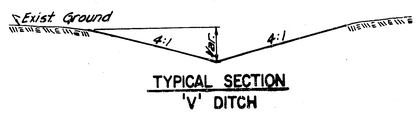
Designed by	CSB	Checked by		
Drawn by	BS GDD	Date	April, 1986	Job No. 87058

9/17

PROJECT NO.	SHEET NO.	TOTAL SHEETS
472 76 845 80001 000 000 028	10	17

Scale: 1"=20'





TYPICAL SECTION
'V' DITCH

DENENE
STA. 20+00 TO STA. 25+64.81

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

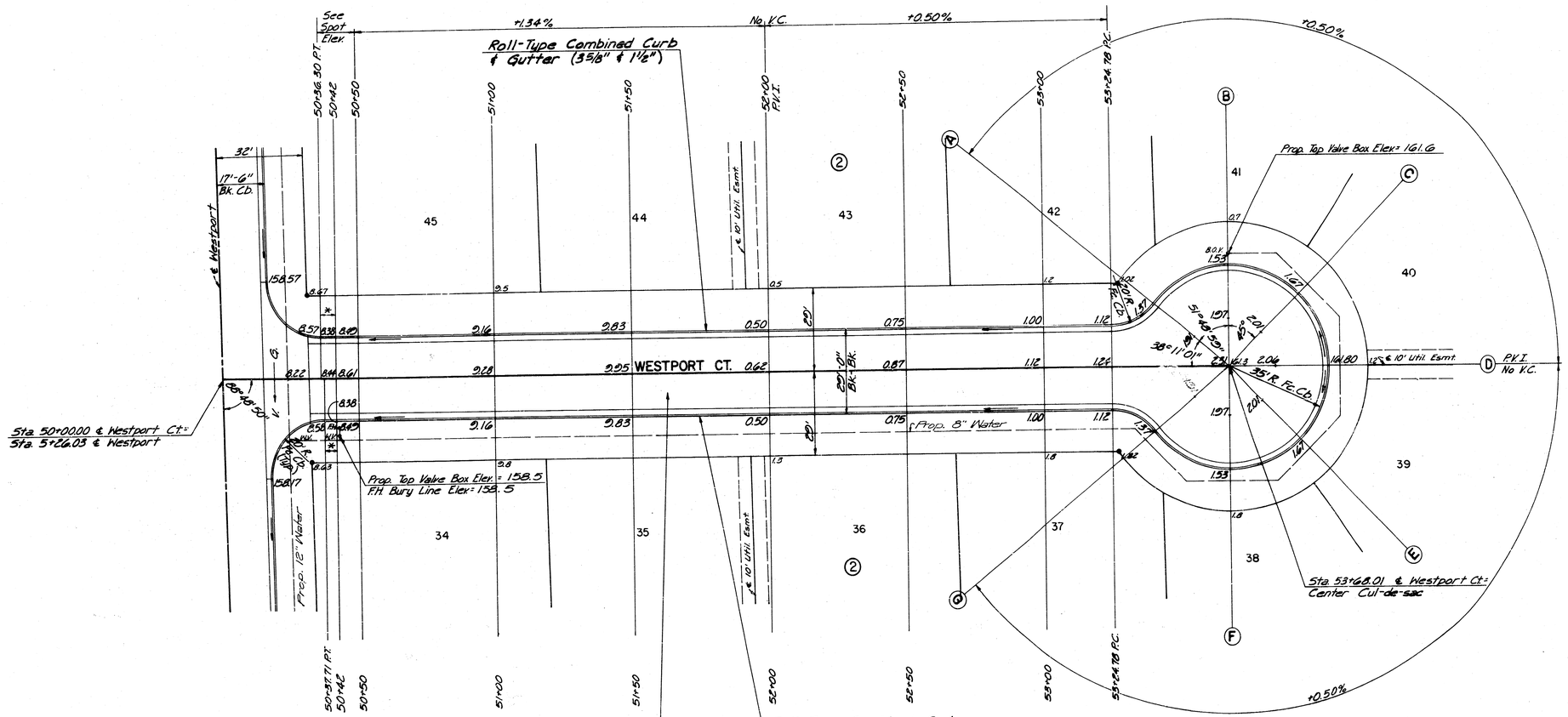
Designed by	CSB	Checked by	
Drawn by	GDD, BS	Date April, 1987	Job No. 87055

10/17

PROJECT NO	SHEET NO.	TOTAL SHEETS
47E 76 245 80001 000 000 028	11	17

PSEC

Scale: 1" = 20'



* Transition from Standard Combined Curb & Gutter (6 5/8" & 1 1/2") to Roll-Type Combined Curb & Gutter (3 5/8" & 1 1/2")

WESTPORT COURT
STA. 50+00 TO STA. 53+68.01

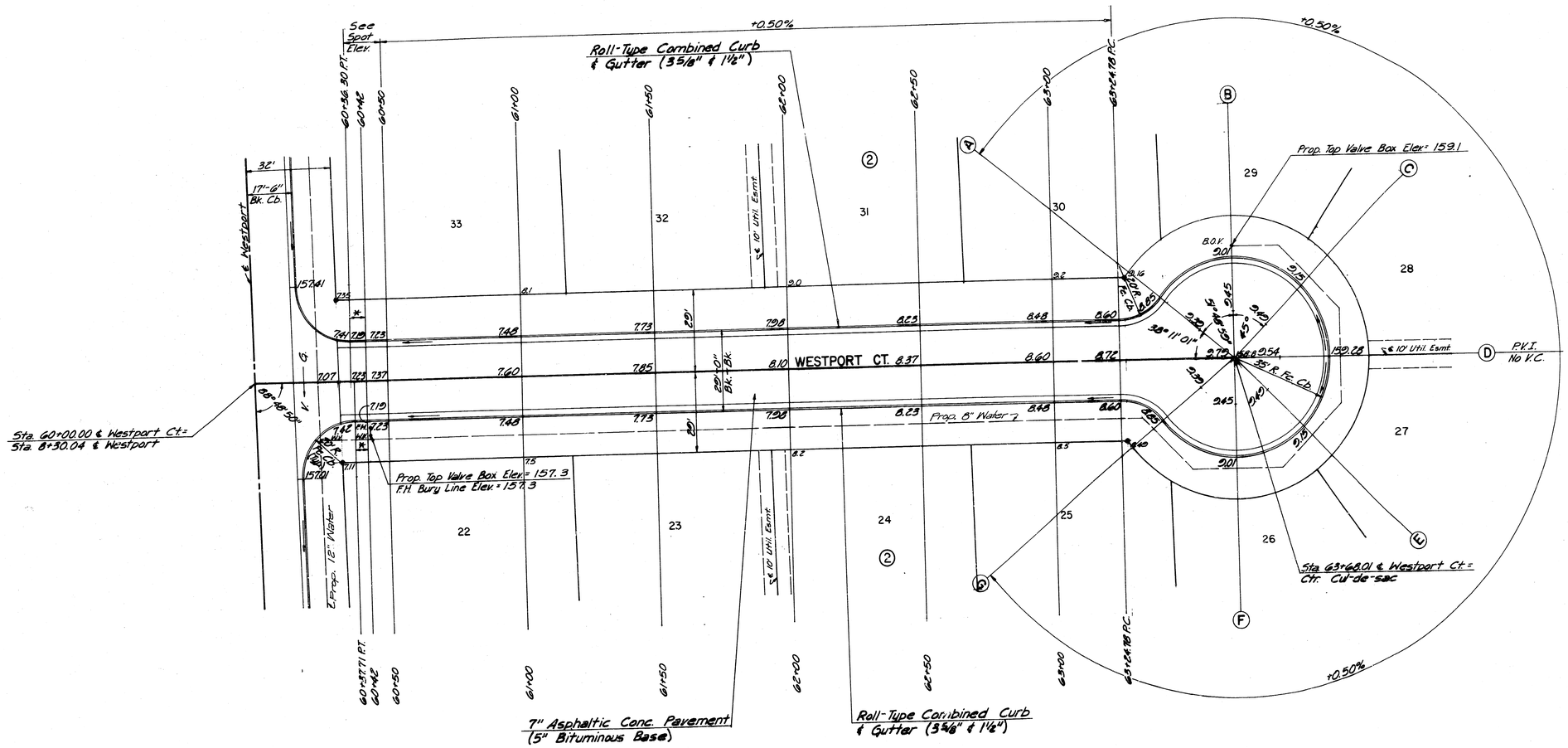
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by	CSB	Checked by	
Drawn by	GDD, BS	Date April, 1987	Job No. 87053

11/17

PROJECT NO.	SHEET NO.	TOTAL SHEETS
472 76 245 80001 000 000 028	12	17

Scale: 1" = 20'



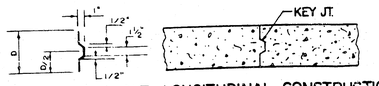
* Transition from Standard Combined Curb & Gutter (6 5/8" & 1 1/2") to Roll-Type Combined Curb & Gutter (3 5/8" & 1 1/2")

WESTPORT COURT
STA. 60+00 TO STA. 63+68.01

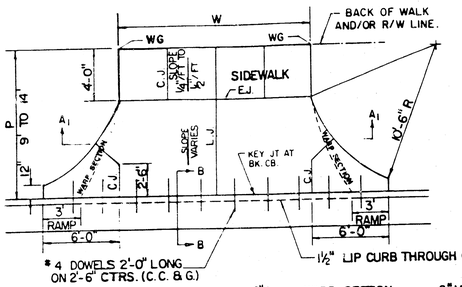
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

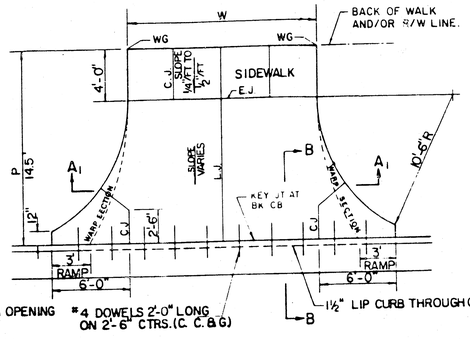
Designed by	CSB	Checked by	
Drawn by	BS, GDD	Date April, 1987	Job No. 87053

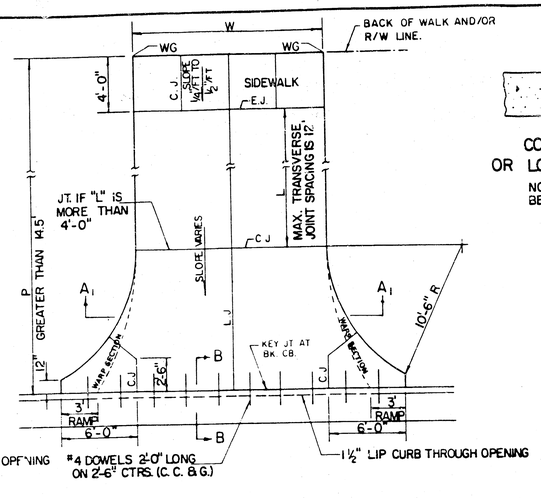
12/17

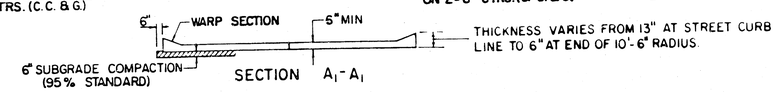


ALT. LONGITUDINAL CONSTRUCTION JOINT



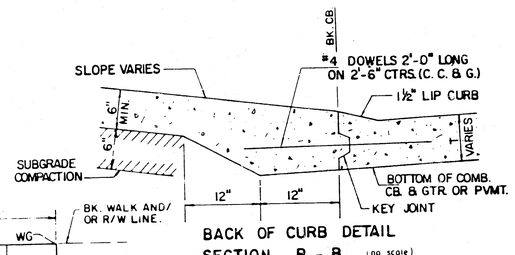




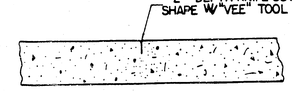


PARKING WIDTH "P"	9'	10'	11'	12'	13'	14.5'	20'	25'	30'	35'	40'	45'	50'
ABSOLUTE MAX. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.35'	0.35'	0.40'	0.45'	0.60'	0.80'	1.35'	1.85'	2.35'	2.85'	3.35'	3.85'	4.35'
OPTIMUM MAX. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.35'	0.35'	0.40'	0.45'	0.60'	0.70'	1.04'	1.30'	1.56'	1.82'	2.08'	2.34'	2.60'
OPTIMUM MIN. DIST. OF PT. "WG" ABOVE TOP OF FULL CURB	0.19'	0.21'	0.23'	0.25'	0.27'	0.30'	0.42'	0.52'	0.62'	0.72'	0.82'	0.92'	1.02'
ABSOLUTE MIN. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	-.19'	-.16'	-.13'	-.10'	-.06'	0.00	0.00	0.15'	0.25'	0.35'	0.45'	0.55'	0.65'

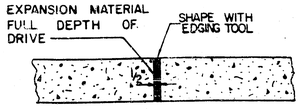
RADIUS RAMP DRIVES (P = 9.0' & GREATER)



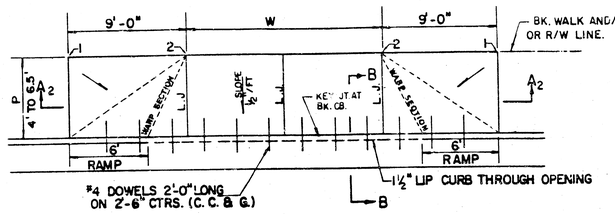
BACK OF CURB DETAIL
SECTION B - B (no scale)



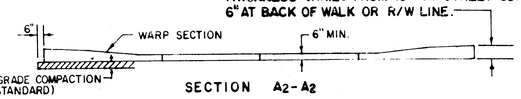
CONTRACTION JOINT (C.J.)
OR LONGITUDINAL JOINT (L.J.)
NO SAWN JOINTS WILL BE ALLOWED.



EXPANSION JOINT (E.J.)



THICKNESS VARIES FROM 13" AT STREET CURB LINE TO 6" AT BACK OF WALK OR R/W LINE.



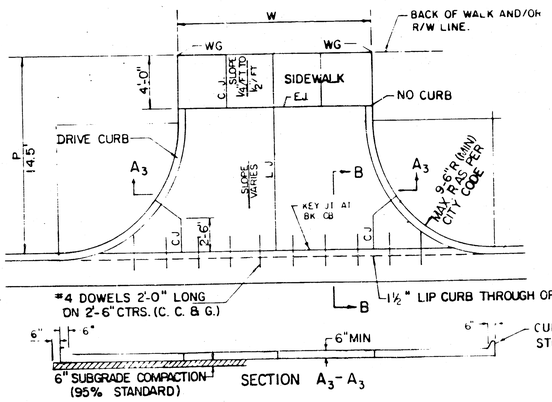
PARKING WIDTH "P"	4'	4.5'	5'	5.5'	6'	6.5'
DIST. OF PT. "1" ABOVE TOP OF FULL CB.	0.08'	0.09'	0.10'	0.12'	0.13'	0.14'
DIST. OF PT. "2" BELOW TOP OF FULL CB.	-.26'	-.24'	-.22'	-.20'	-.18'	-.16'

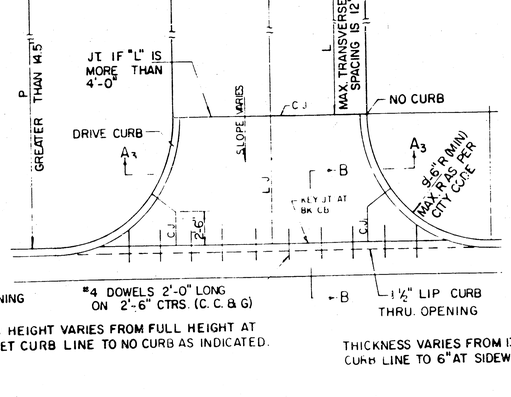
FULL RAMP DRIVE (P=4.0' TO 6.5')

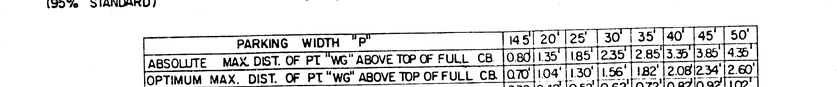
GENERAL NOTES

1. DRIVEWAY CONSTRUCTION DETAILED ON THIS SHEET IS FOR USE WITH FULL HEIGHT STREET CURBS AND IN AREAS WITHOUT FULL WALK CONSTRUCTION IN THE PARKING. SEE OTHER DETAIL SHEETS FOR DRIVEWAY CONSTRUCTION WITH ROLL CURB AND/OR FULL WALK.
2. ONE LONGITUDINAL JOINT SHALL BE CONSTRUCTED ALONG THE CENTERLINE OF DRIVES HAVING A "W" DIMENSION OF 24' OR LESS. TWO LONGITUDINAL JOINTS SHALL BE CONSTRUCTED WITH EQUAL SPACINGS NOT TO EXCEED 10' FOR DRIVES WITH A "W" DIMENSION GREATER THAN 24'.
3. DRIVEWAY WIDTH DENOTED AS "W" ON THE DETAIL DRAWINGS SHALL BE A MINIMUM OF 10' AND A MAXIMUM OF 30'. THE MAXIMUM OPENING FOR RADIUS TYPE DRIVES WITH CURBS THROUGH THE RADIUS SHALL NOT EXCEED 52' AT THE STREET CURB LINE.
4. CONTRACTION JOINT SPACING IN THE DRIVEWAY WALK SECTION SHALL BE A MINIMUM OF 3' AND A MAXIMUM OF 6' AND ARE TO BE EQUALLY SPACED WITHIN THIS RANGE. WALK SECTION SHALL BE CONSTRUCTED TO THE SAME THICKNESS AS THE DRIVEWAY.
5. DOWEL BARS SHALL BE OMITTED FROM THE KEYED CONSTRUCTION JOINT ALONG THE BACK OF THE STREET CURB LINE WHEN DRIVEWAYS ARE CONSTRUCTED IN CONJUNCTION WITH NEW CONCRETE PAVEMENT CONSTRUCTION.
6. ADDITIONAL THICKNESS OF DRIVE AS INDICATED IN THE DRAWINGS WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE DRIVEWAY CONSTRUCTION.
7. ONE HALF INCH EXPANSION JOINTS SHALL BE INSTALLED WHEREVER DRIVE CONSTRUCTION ABUTS SIDEWALK. ONE HALF INCH EXPANSION JOINTS SHALL ALSO BE INSTALLED ALONG THE PROPERTY LINE AND/OR BACK OF WALK LINE WHEN DRIVE CONSTRUCTION ALONG THIS LINE ABUTS CONCRETE PARKING LOTS OR CONCRETE DRIVE EXTENSION.
8. ALL DRIVEWAYS SHALL BE A MINIMUM OF 6" IN THICKNESS AND SHALL BE WITHOUT REINFORCEMENT. DRIVEWAYS MAY BE CONSTRUCTED THICKER THAN 6" AND THEY MAY BE REINFORCED WITH 6"x12" W4-W4 WELDED WIRE FABRIC WHEN PROPERLY AUTHORIZED BY THE PROPERTY OWNER WITH THE ENGINEER'S CONCURRENCE.
9. OPTIMUM DRIVEWAY ELEVATIONS SHOWN IN THE TABLES ARE TO BE USED WHENEVER POSSIBLE. ABSOLUTE MAXIMUM AND MINIMUM ELEVATIONS ARE TO BE USED ONLY WHEN THESE VALUES WILL PERMIT NEW CONSTRUCTION TO MATCH EXISTING DRIVES OR PARKING LOTS. VALUES SHOWN IN THE TABLES ARE BASED ON A FULL CURB HEIGHT ELEVATION OF 0.55' ABOVE THE GUTTER FLOW LINE AND MUST BE ADJUSTED ACCORDINGLY FOR OTHER CURB HEIGHTS. VALUES SHOWN IN THE TABLES WITH MINUS SIGNS INDICATE ELEVATIONS BELOW TOP OF FULL HEIGHT CURB.

REVISED OCTOBER 1985

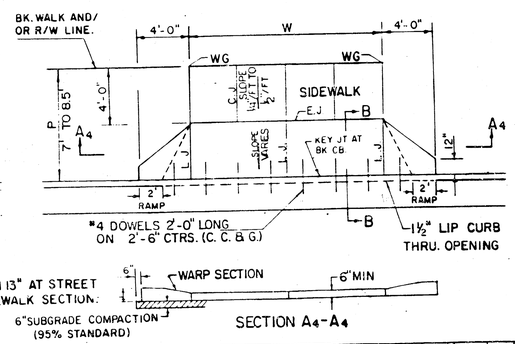




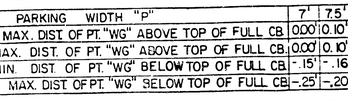


PARKING WIDTH "P"	14.5'	20'	25'	30'	35'	40'	45'	50'
ABSOLUTE MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.80'	1.35'	1.85'	2.35'	2.85'	3.35'	3.85'	4.35'
OPTIMUM MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.70'	1.04'	1.30'	1.56'	1.82'	2.08'	2.34'	2.60'
OPTIMUM MIN. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.30'	0.42'	0.52'	0.62'	0.72'	0.82'	0.92'	1.02'
ABSOLUTE MIN. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.00'	0.00'	0.15'	0.25'	0.35'	0.45'	0.55'	0.65'

FULL RADIUS DRIVES (P=14.5' & GREATER)



THICKNESS VARIES FROM 13" AT STREET CURB LINE TO 6" AT SIDEWALK SECTION:



PARKING WIDTH "P"	7'	7.5'	8'	8.5'
ABSOLUTE MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.00'	0.10'	0.20'	0.30'
OPTIMUM MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.00'	0.10'	0.20'	0.30'
OPTIMUM MIN. DIST. OF PT. "WG" BELOW TOP OF FULL CB.	-.15'	-.16'	-.17'	-.17'
ABSOLUTE MAX. DIST OF PT. "WG" BELOW TOP OF FULL CB.	-.25'	-.20'	-.20'	-.20'

FULL RAMP DRIVE (P=7.0' TO 8.5')

SCALE: 1" = 5'

STANDARD DRIVE ENTRANCES
FULL HEIGHT CURB
CITY OF WICHITA, KANSAS

PROJECT NUMBER
472 76 245 80001 000 000 028

13/17

17th STREET NORTH

570'±

36" SWS

18.33' Bk. Cb.

33'

90°00'00"

20' Util. Esmt.

Field Inlet

Field Inlet

39 38 37 36 17

④ ①

Sta. 100+00 ℄ Valleyview = S. Line Amarado Estates 3rd.

Pipe Sta. 2+87.1 (℄ Valleyview Sta. 100+22.67) Const. Std. Type 1A Curb Inlet L=6'-4", W=6'-4" Install 113.2 L.F. 30" RCP(NW) See Sheet No. 15

Pipe Sta. 4+00.3 (℄ Westport Sta. 13+10.90) Const. Std. Type 1A Curb Inlet L=11'-4", W=4'-4" Install 41.3 L.F. 30"x19" HERCP(N) Install 80.1 L.F. 15" RCP (NE) See Sheet No. 16

15' Storm Sewer Esmt.

Pipe Sta. 0+00.0 Begin SWS Const. = Exist. Std. Type 1A Curb Inlet Remove 24±L.F. 30"RCP(N) Remove Field Inlet (N) Plug Inlet Wall (N) Install 287.1 L.F. 45"x29" HERCP(N)

Remove Concrete Driveway Pavement. Construct Temp. Asphalt Curb Across Exist. Curb opening

37'-0" Bk.-Bk.

33' 33'

VALLEYVIEW

Prop. 12" Water

Prop. 3S MH Top = 1E In & Out = 146.30

15' San. Sewer Esmt.

10" San. S.

90° (typ.) Fc. Co.

℄ Valleyview Sta. 101+56.00 Const. Std. Type 1A Curb Inlet L=6'-4", W=4'-4" Top Elev. = 155.51, 1E Out = 151.10 See Sheet No. 15

Exist. Std. Type 1A Curb Inlet Remove 24±L.F. 24" RCP(N) Remove Field Inlet (N) Plug Inlet Wall (N)

Scale: 1"=20'

10" San. S.

5E 20' Util. Esmt.

Prop. 3S MH Top = 156.6 1E In & Out = 146.12 1E N = 146.32

WESTPORT

90°00'00"

Prop. 12" Water

35

15' San. S. Esmt.

8" San. S.

WV

18 ②

Sta. 101+52 ℄ Valleyview = Sta. 13+65.40 ℄ Westport

Pipe Sta. 4+41.6 (℄ Westport Sta. 13+10.90) Const. Std. Type 1A Curb Inlet L=11'-4", W=4'-4" See Sheet No. 16

PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, NOTE BOOK, CHECKED, No., BY, DATE

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, No., B. M.'s NOTED, STRUCTURE NOTATIONS CHECKED, BY, DATE

Sta. 0+00 Connect to Existing Inlet

Exist. 36" SWS Pipe

Prop. 12" Water

Sta. 2+87.1 Construct Std. Type 1A Curb Inlet Top Elev. = 156.36

Prop. 10" San. Sewer 1E = 146.28

Sta. 4+00.3 Construct Std. Type 1A Curb Inlet Top Elev. = 155.20

Sta. 4+41.6 Construct Std. Type 1A Curb Inlet Top Elev. = 155.20

℄ In (12") = 150.80

155 150 145

287.1 L.F. 45"x29" HERCP @+0.12%

113.2 L.F. 30" RCP @+0.15%

41.3 L.F. 30"x19" HERCP @+0.20%

1E Out = 150.16 1E In = 150.20

1E = 150.26

1E = 150.32

1E = 150.38

1E = 150.44

1E = 150.50

1E Out = 150.52 1E In = 150.54

1E = 150.56

1E = 150.64

1E Out = 150.71 1E In = 150.71

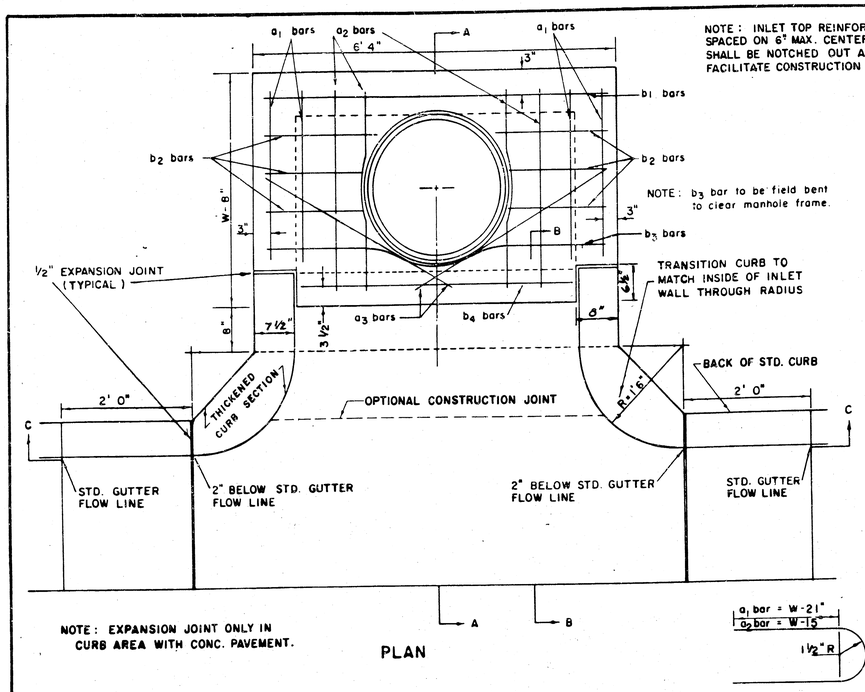
1E Out = 150.13

0+00 1 2 3 4 5+00

Project No. 472 76 845 80001 000 000 028

19/17

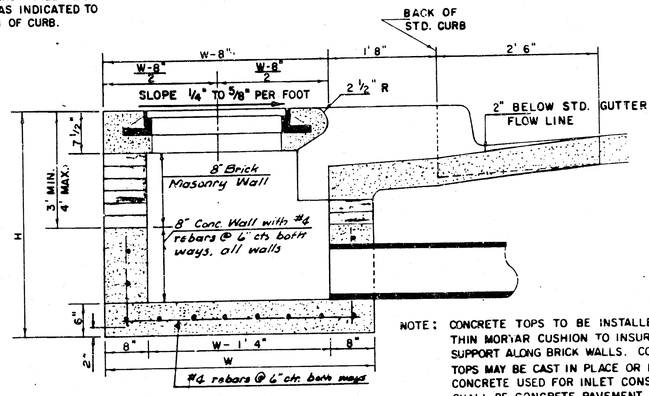
HIGHWAY FEDERAL AID SHEET
PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE
TELEDYNE
PRINTED IN U.S.A.



NOTE: EXPANSION JOINT ONLY IN CURB AREA WITH CONC. PAVEMENT.

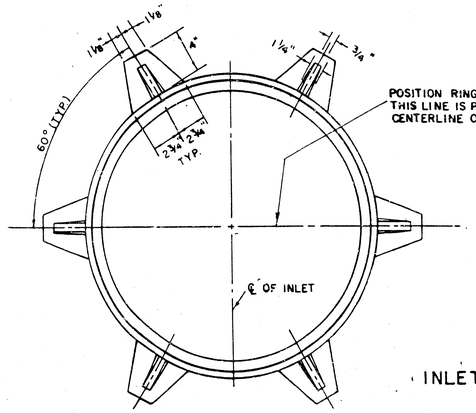
PLAN

NOTE: INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB.



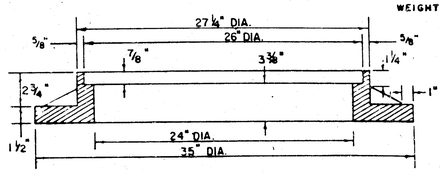
SECTION A-A

NOTE: CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL BE CONCRETE PAVEMENT MIX.



INLET FRAME

WEIGHT = 180 LBS.



SEE CITY OF WICHITA STANDARD MANHOLE FRAME AND COVER DETAIL SHEET FOR COVER DETAILS TO BE USED WITH INLET FRAME.

BENDING DIAGRAM

STEEL SCHEDULE

BAR		a_1	a_2	a_3*	b_1 W=4'4"	W=5'4"	W=6'4"	W=7'4"	W=8'4"	b_2	b_3	b_4	WT. LBS.
NUMBER		4	4	2	1	3	5	7	9	6	1	1	
SIZE		#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6	
LENGTH	W=4'4"	5'7"	6'7"	4'0"	6' 1"	–	–	–	–	1' 9"	6'2"	4'8"	60±
	W=5'4"	7'7"	8'7"	5'0"	–	6' 1"	–	–	–	1' 9"	6'2"	4'8"	81±
	W=6'4"	9'7"	10'7"	6'0"	–	–	6' 1"	–	–	1' 9"	6'2"	4'8"	101±
	W=7'4"	11'7"	12'7"	7'0"	–	–	–	6' 1"	–	1' 9"	6'2"	4'8"	121±
	W=8'4"	13'7"	14'7"	8'0"	–	–	–	–	6' 1"	1' 9"	6'2"	4'8"	141±

* NOTE: a_3 BARS TO BE PLACED APPROX. 2" BELOW TOP OF INLET COVER

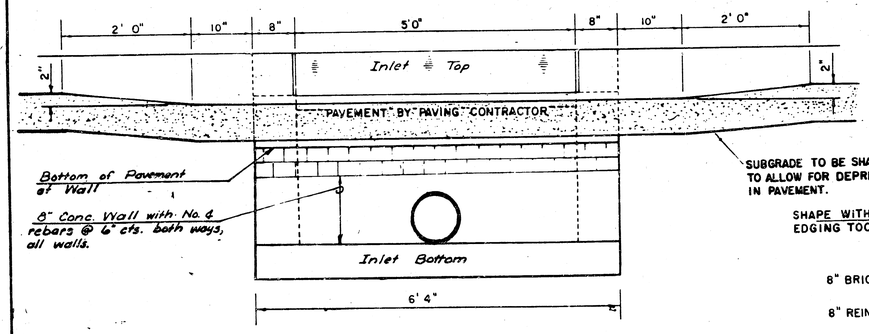
STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4' 4"	3'8"x 6'4" x7 1/2"	21" & SMALLER	0.38 ±
5' 4"	4'8"x 6'4" x7 1/2"	24" & 30"	0.51 ±
6' 4"	5'8"x 6'4" x7 1/2"	36" & 42"	0.64 ±
7' 4"	6'8"x 6'4" x7 1/2"	48" & 54"	0.77±
8' 4"	7'8"x 6'4" x7 1/2"	60" & 66"	0.90±

NOTE: CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W = 6'4" AND H = 7'0" OR LESS.

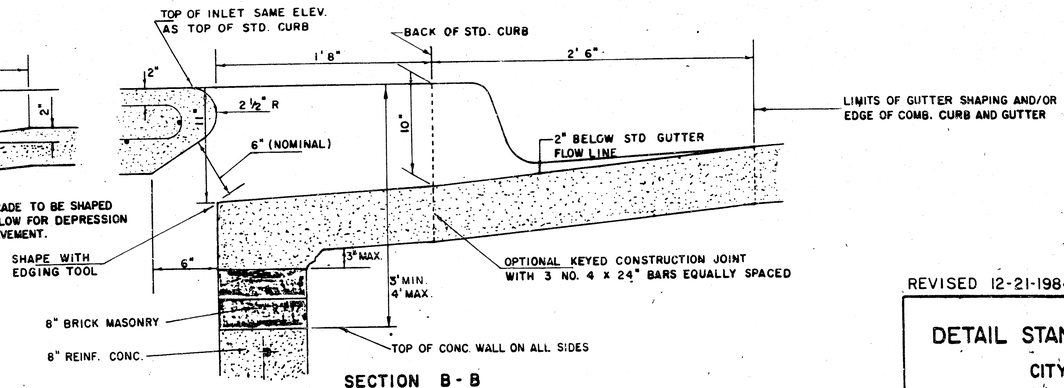
ADDITIONAL CURB AND GUTTER CONSTRUCTION NECESSARY TO CONNECT SET-BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET HOOKUP.

INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.



SECTION C-C



SECTION B-B

REVISED 12-21-1984 *Project No. 472 76 245 80001 000 000 028*

DETAIL STANDARD TYPE IA CURB INLET

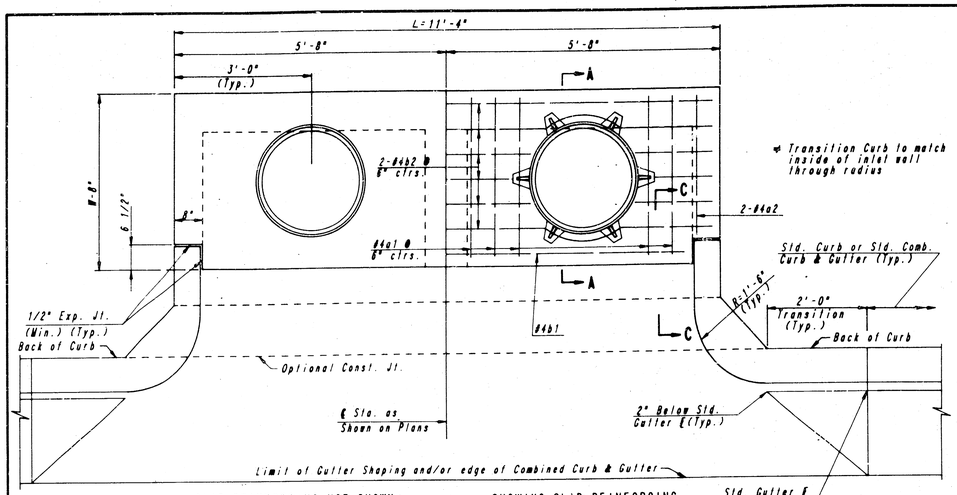
CITY OF WICHITA, KANSAS

INLET OPENING = 6" x 5' 0"

JUNE 1984

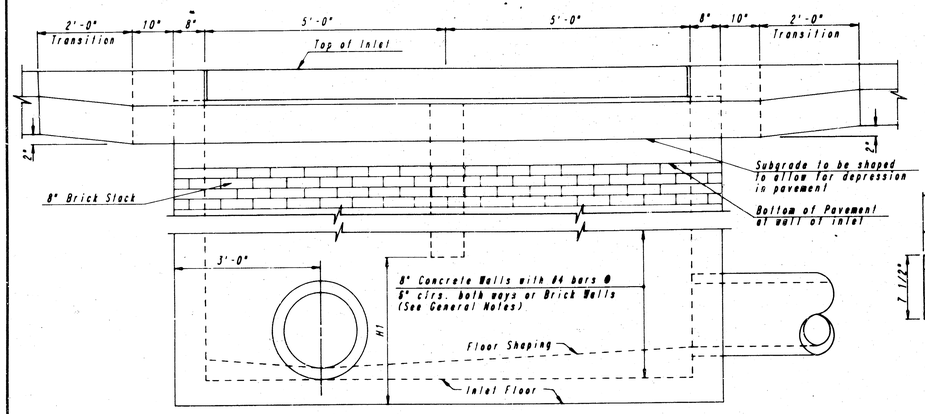
15/17

PROJECT NO.	SHEET NO.	TOTAL SHEETS
472 76 245 80001 000 000 028	16	17

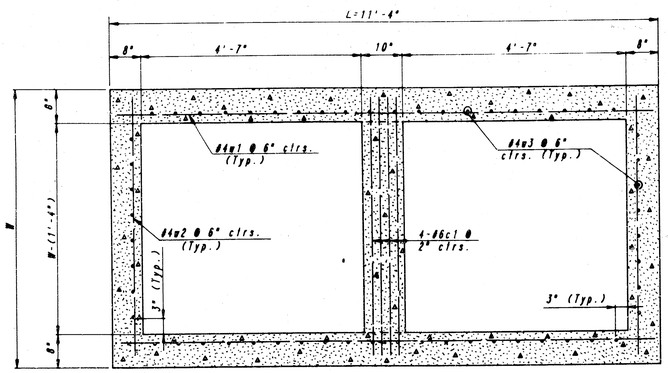


SLAB REINFORCING NOT SHOWN — SHOWING SLAB REINFORCING

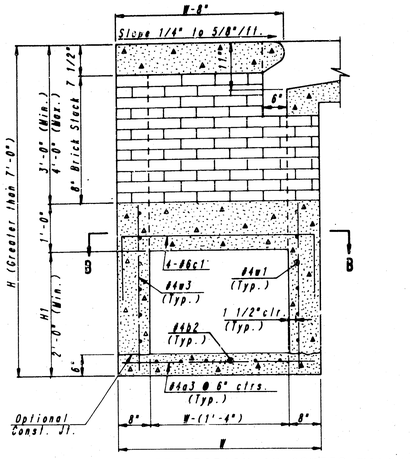
PLAN



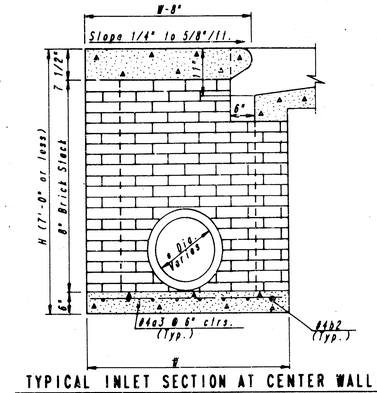
ELEVATION



SECTION B-B

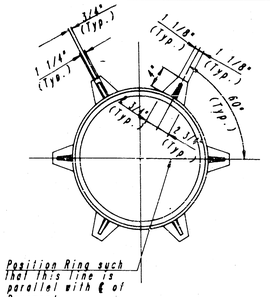


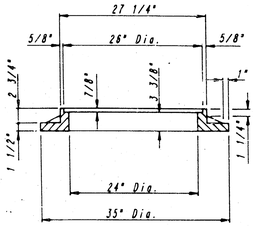
TYPICAL INLET SECTION AT CENTER WALL
(REINFORCED CONCRETE WALLS)



TYPICAL INLET SECTION AT CENTER WALL
(MASONRY WALLS).

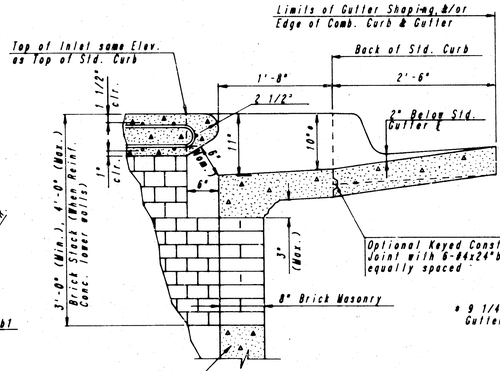
* A center wall opening shall be provided by means of a section of reinforced concrete pipe. The minimum diameter used shall be that of the outlet pipe.





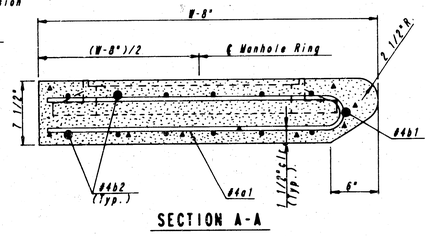
CAST IRON INLET FRAME
Wt.=180 lbs.

See City of Wichita Standard Manhole Frame and Cover Detail Sheet for Cover Details to be used with Inlet Frame.



* 9 1/4" for Combined Curb & Gutter (Type I)

SECTION C-C



SECTION A-A

GENERAL NOTES

THE CONTRACTOR WILL BE REQUIRED TO CONSTRUCT 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W=4'-4" OR LESS AND W=7'-8" OR LESS. WHEN W IS GREATER THAN 8'-4" AND W IS LESS THAN 7'-8", THE OUTSIDE WALLS BELOW THE BRICK STACK SHALL BE REINFORCED CONCRETE CONSTRUCTION AND THE CENTER WALL SHALL BE OF MASONRY CONSTRUCTION AS SHOWN FOR THE MASONRY WALL OPTION.

INLET INVERT SHALL BE SHAPED WITH 6 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF-CLEANING BETWEEN ALL INLET AND/OR OUTLET TYPES.

CONCRETE SHALL BE CITY OF WICHITA STANDARD PAVING MIX. ALL EXPOSED EDGES SHALL BE FINISHED WITH AN EDGING TOOL. INLET TOPS ARE TO BE PLACED ON A THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE PRECAST OR CAST IN PLACE. INLET TOPS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB. UNLESS OTHERWISE NOTED, ALL BARS ARE #4 ON 6" MAX. CENTERS AND SHALL HAVE A MINIMUM CLEARANCE OF 1-1/2". BARS SHALL BE FIELD BENT OR CUT TO CLEAR MANHOLE RINGS AND PIPE OPENINGS.

THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

ADDITIONAL CURB AND/OR CURB AND GUTTER CONSTRUCTION NECESSARY TO CONNECT SET-BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR "INLET HOOKUP".

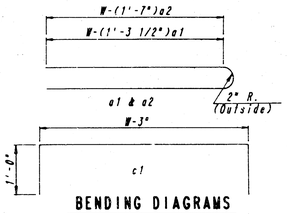
SLAB AND FLOOR REINFORCING

		W=4'-4"		W=5'-4"		W=6'-4"		W=7'-4"		W=8'-4"	
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
a1	#4	13	6'-7 1/4"	13	8'-7 1/4"	13	10'-7 1/4"	13	12'-7 1/4"	13	14'-7-1/4"
a2	#4	2	6'-0"	2	8'-0"	2	10'-0"	2	12'-0"	2	14'-0"
a3	#4	20	4'-1"	20	5'-1"	20	6'-1"	20	7'-1"	20	8'-1"
b1	#4	1	9'-8"	1	9'-8"	1	9'	1	9'-8"	1	9'-8"
*b2	#4	18	11'-1"	24	11'-1"	30	11'	36	11'-1"	42	11'-1"

WALL REINFORCING

		W=4'-4"		W=5'-4"		W=6'-4"		W=7'-4"		W=8'-4"	
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
c1	#6	4	6'-1"	4	7'-1"	4	8'-1"	4	9'-1"	4	10'-1"
a1	#4	①	11'-1"	①	11'-1"	①	11'-1"	①	11'-1"	①	11'-1"
a2	#4	①	4'-1"	①	5'-1"	①	6'-1"	①	7'-1"	①	8'-1"
a3	#4	②	③	②	③	②	③	①	③	②	③

* Field bend or cut Reinforcing as required for clearance
① 4(H1-6")+4 (H1-8") Rounded down to nearest 0.5'
② 40+4(W - 16") ③ H1+(9")



BENDING DIAGRAMS

CITY OF WICHITA, KANSAS

DETAIL STANDARD TYPE IA CURB INLET

INLET OPENING = 6'X10'-0" (L=11'-4")

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

16/17

Designed by | Checked by

Drawn by | Date April, 1987 | Job No. 87053

Original

17/17

MANHOLE FRAME AND COVER DETAIL

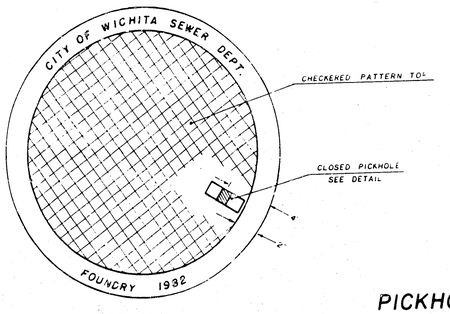
ADOPTED AS STANDARD DESIGN

BY

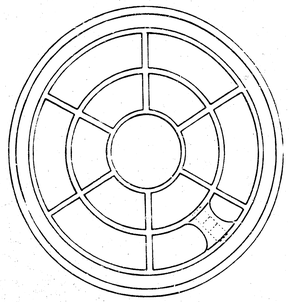
City of Wichita, Kansas

MANHOLE COVER

Weight: 180 Lbs.

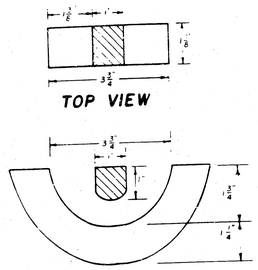


TOP VIEW



BOTTOM VIEW

PICKHOLE DETAIL

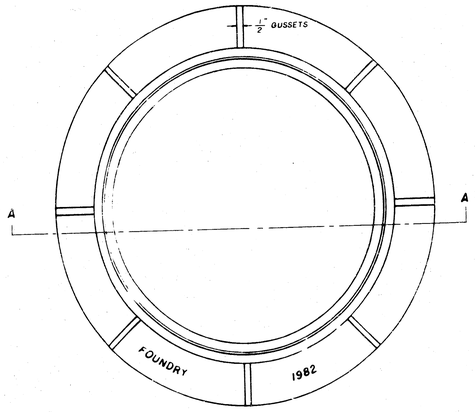


TOP VIEW

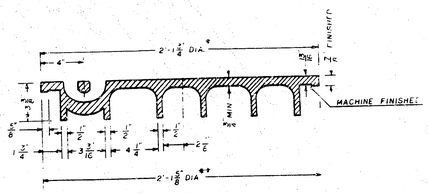
SECTION VIEW

MANHOLE FRAME

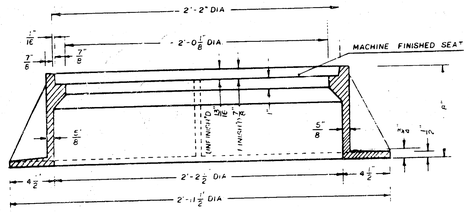
Weight: 240 Lbs.



TOP VIEW



SECTION VIEW



SECTION A-A

* OUTSIDE DIA TOP OF COVER

** OUTSIDE DIA BOTTOM OF COVER

GENERAL NOTES

1. MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

2. MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.

3. MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

4. THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH THAT THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

5. THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERINC INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1" IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

JL DEC. 1981

Project No. 472 76 245 80001 000 000 028 17/17