

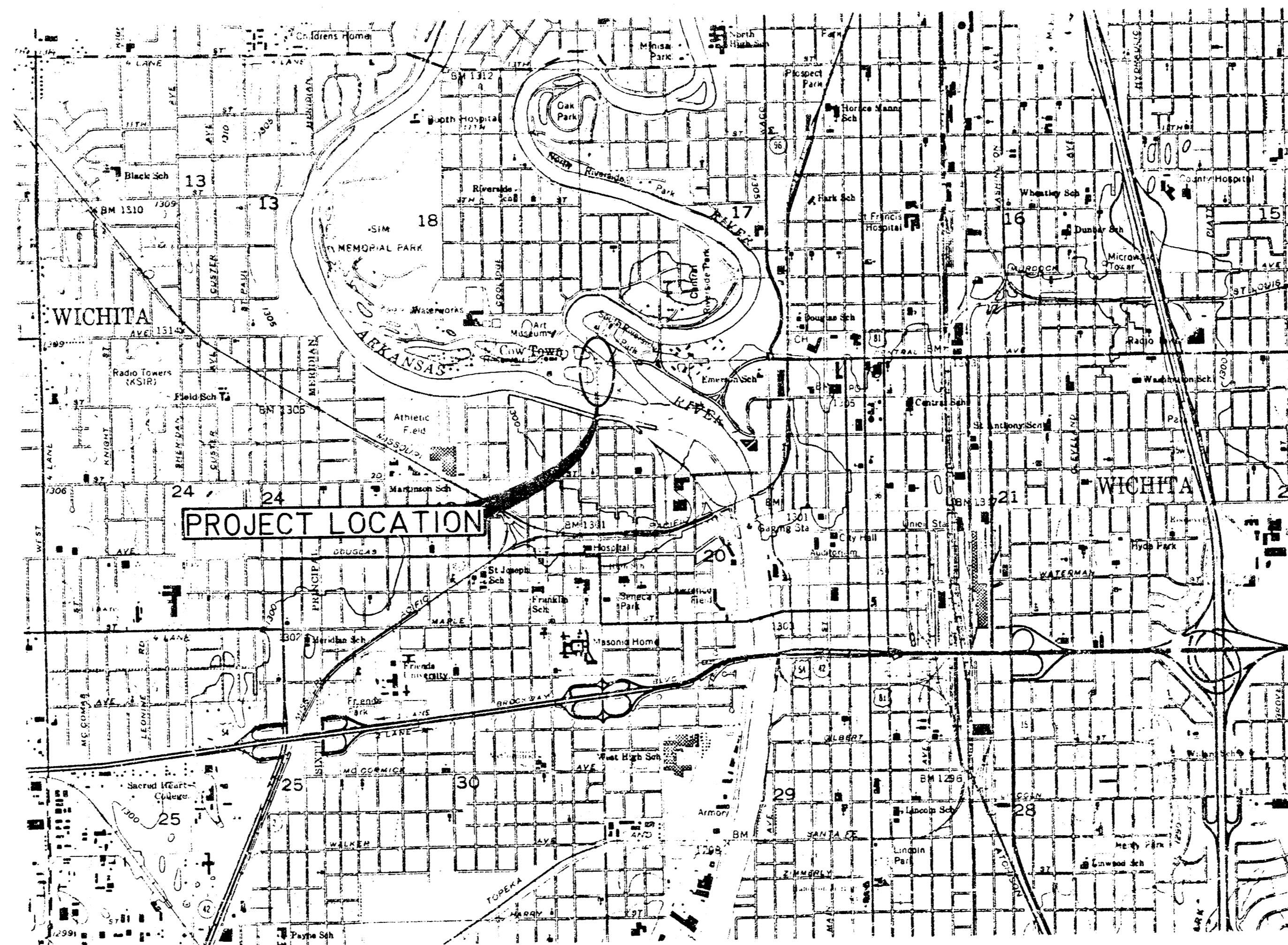
# WICHITA, KANSAS

## CENTRAL - SENECA STREET CONNECTOR

### INCLUDING STACKMAN INTERSECTION IMPROVEMENTS

#### LEGEND

	WATER VALVE
○ WM	WATER METER
○ SH	WATER SPRINKLER HEAD
α	FIRE HYDRANT
○ MH	MANHOLE
✱	LIGHT POLE
●	POWER POLE
○ HLP-STEEL	STEEL HIGH LINE POWER POLE
→	GUY WIRE ANCHOR
○ TS	TRAFFIC SIGNAL
■	DECORATIVE LIGHT
□	TELEPHONE PEDESTAL
-W-	WATER LINE
-G-	GAS LINE
-SD-	STORM SEWER
-SS-	SANITARY SEWER
-SS FM-	SANITARY SEWER FORCE MAIN
-UGE-	UNDERGROUND ELECTRIC CABLE
-UGT-	UNDERGROUND TELEPHONE CABLE
☼	TREE
☼	TREE TO BE REMOVED



**LOCATION MAP**

SCALE 1" = 2000'

#### INDEX TO DRAWINGS

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17 - 21	CROSS-SECTIONS

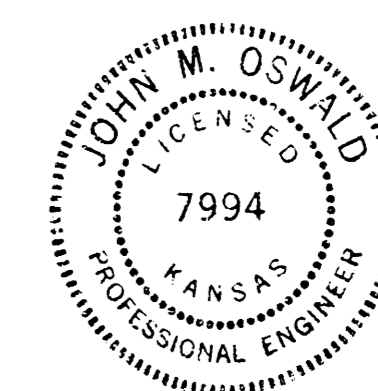
MIKE LINDEBAK, P.E.

CITY ENGINEER, PLANNING DESIGN

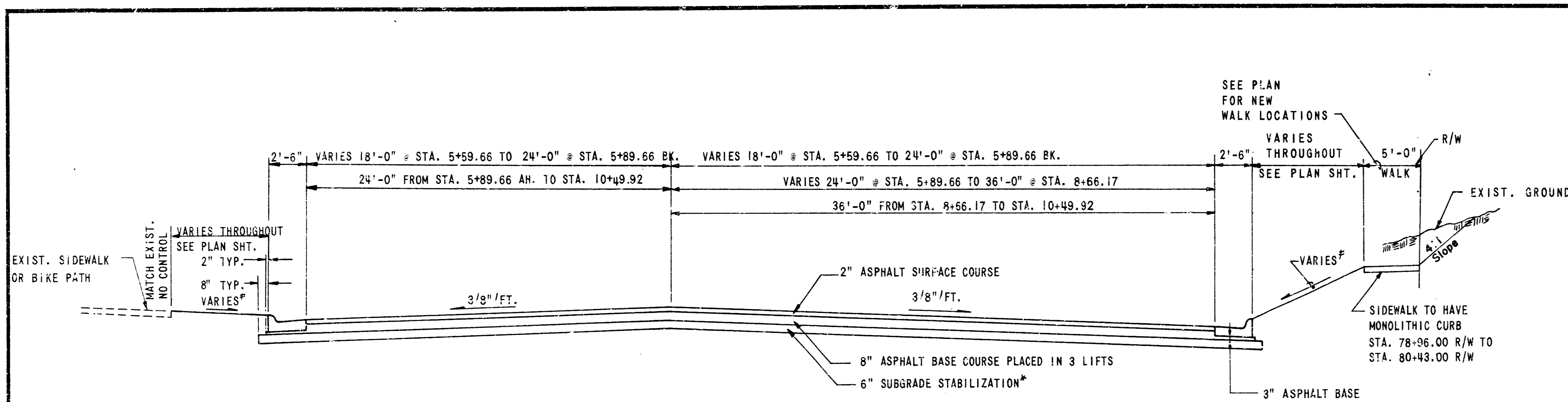
CITY OF WICHITA, KANSAS

PROJECT NO. 472-76-245-81496-000-000-001

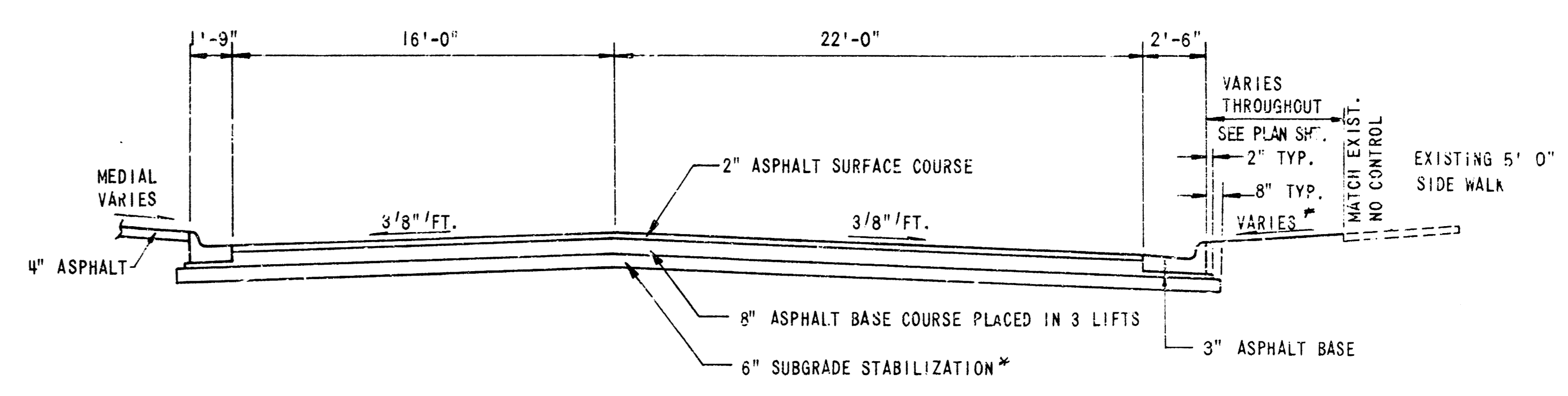
REVISED SH.#5, 5/15/06



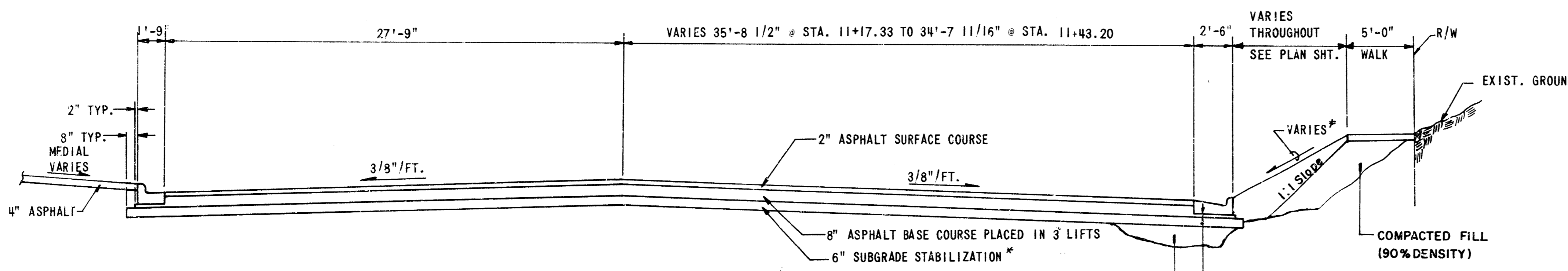
**WILSON & COMPANY**  
ENGINEERS & ARCHITECTS  
WICHITA - KANSAS



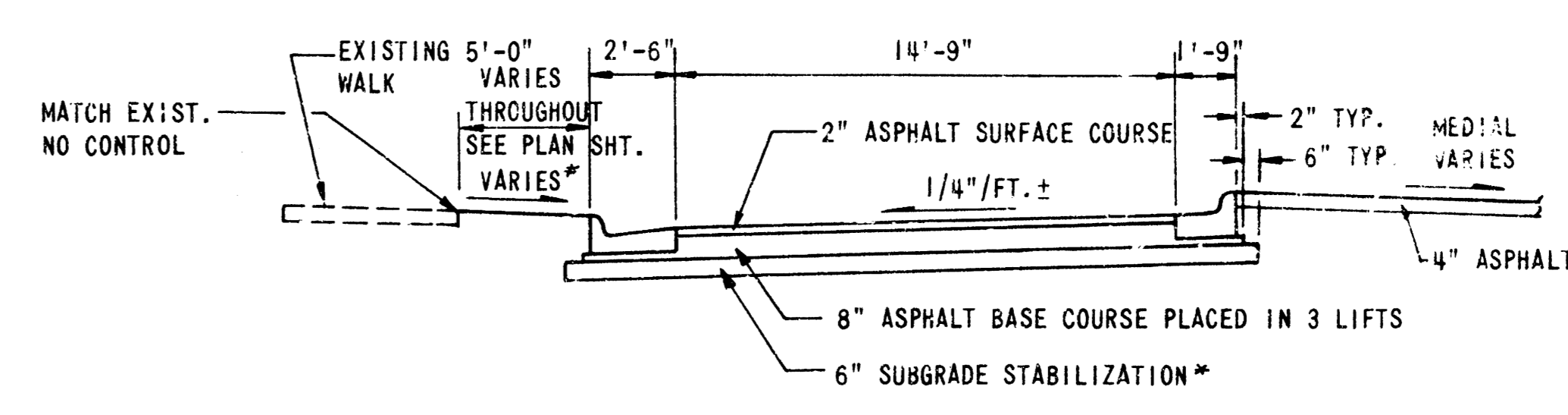
**TYPICAL SECTION  
CENTRAL-SENECA**  
STA. 5+59.66 TO STA. 10+49.92



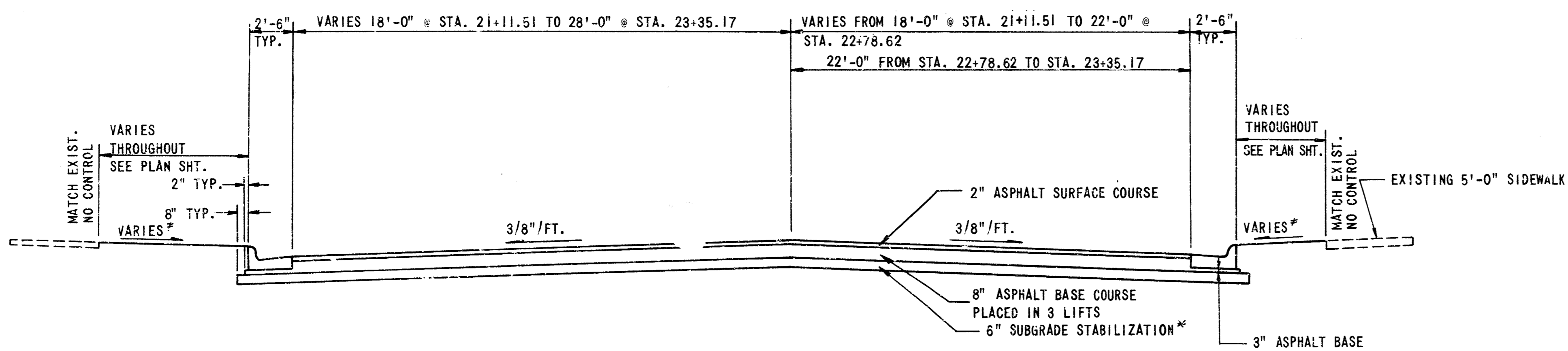
**TYPICAL SECTION  
STACKMAN DRIVE**  
STA. 24+06.42 TO STA. 24+48.68



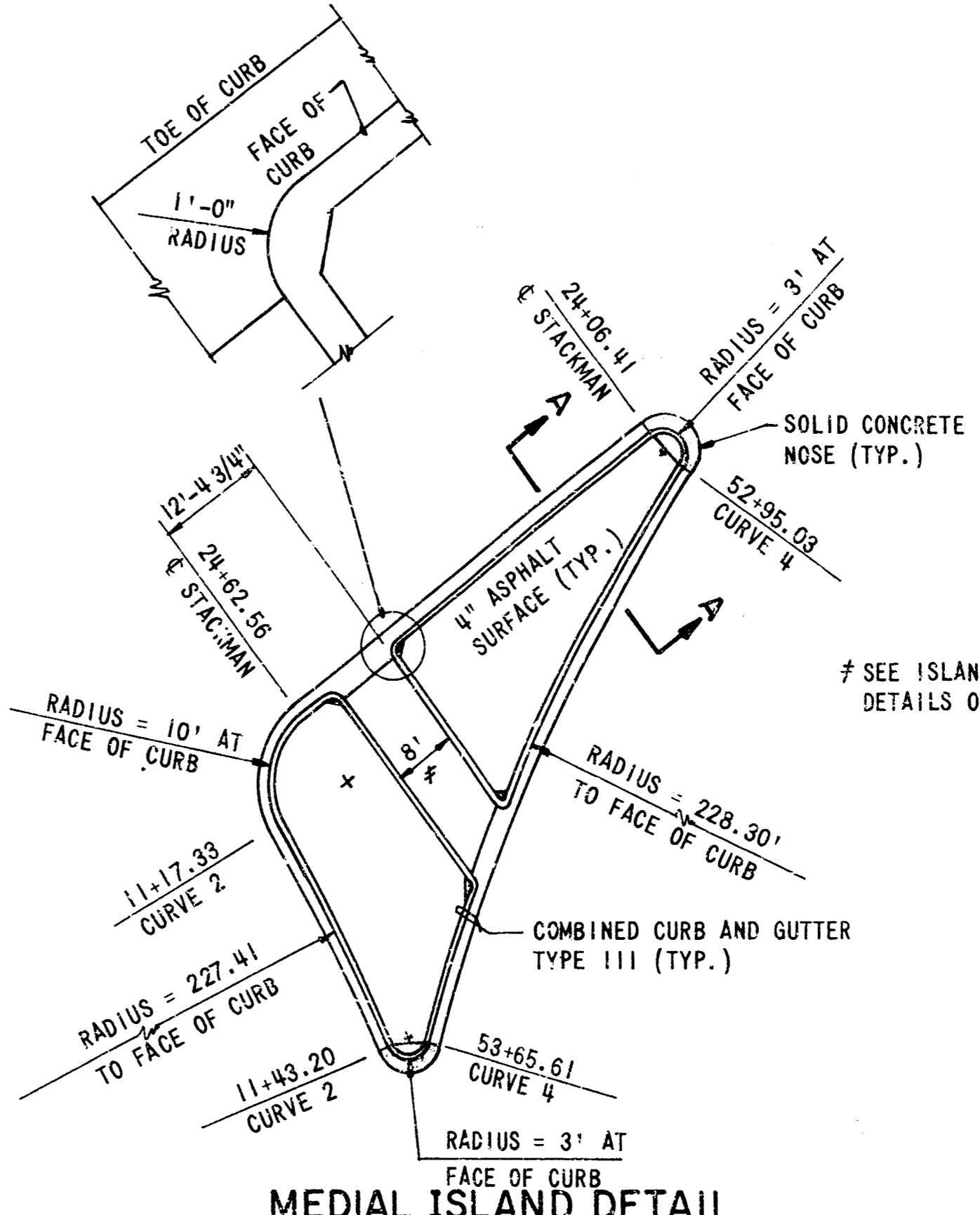
**TYPICAL SECTION  
CENTRAL-SENECA**  
STA. 11+17.33 TO STA. 11+43.20



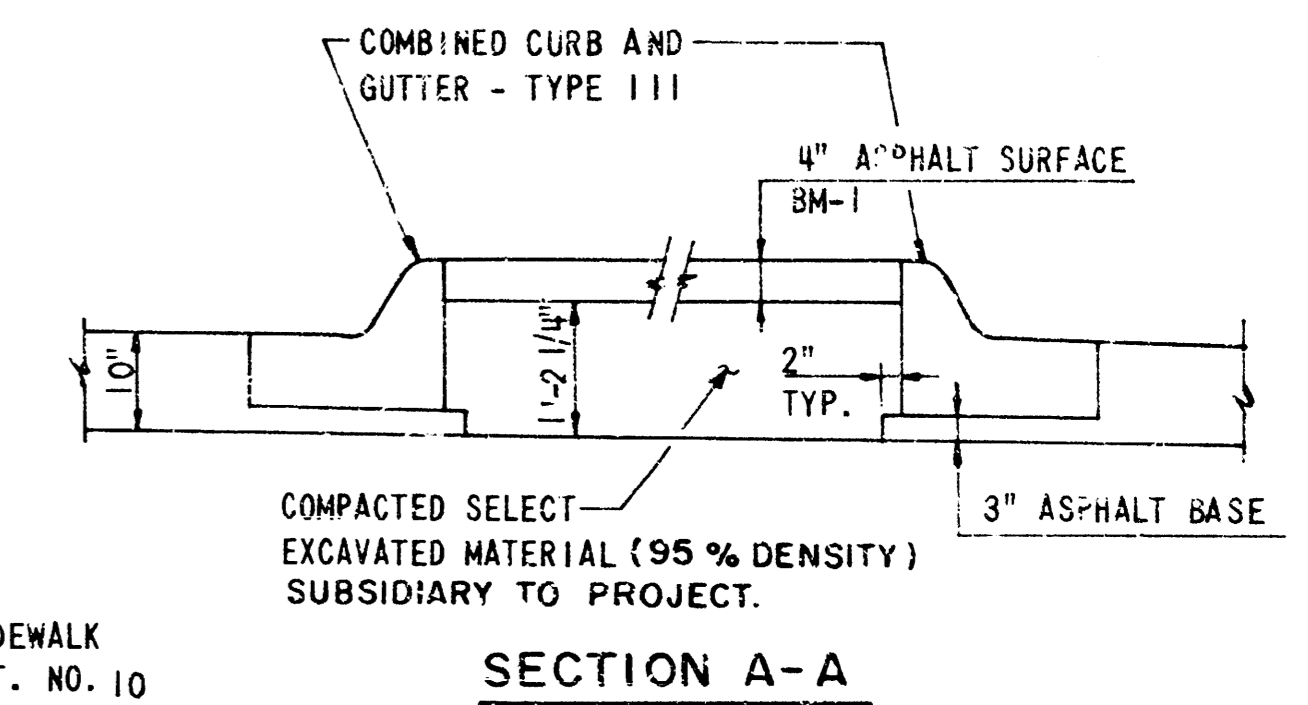
**TYPICAL SECTION  
CENTRAL-STACKMAN  
(FREE RIGHT TURN LANE)**



**TYPICAL SECTION  
STACKMAN DRIVE**  
STA. 21+11.51 TO STA. 23+35.17



**MEDIAL ISLAND DETAIL**



**SECTION A-A**

NOTES:  
\* AREA BETWEEN BACK OF CURB AND NEW WALK SHALL HAVE A MINIMUM SLOPE OF 1/4" PER FOOT, MAXIMUM 3" PER FOOT.  
\* PORTLAND CEMENT TREATED SUBGRADE AS PER CITY SPECIFICATIONS.

NOTE: ALL TYPICAL SECTIONS ARE NOT TO SCALE.  
CITY OF WICHITA PROJ. NO. 472-76-245-61496-000-001

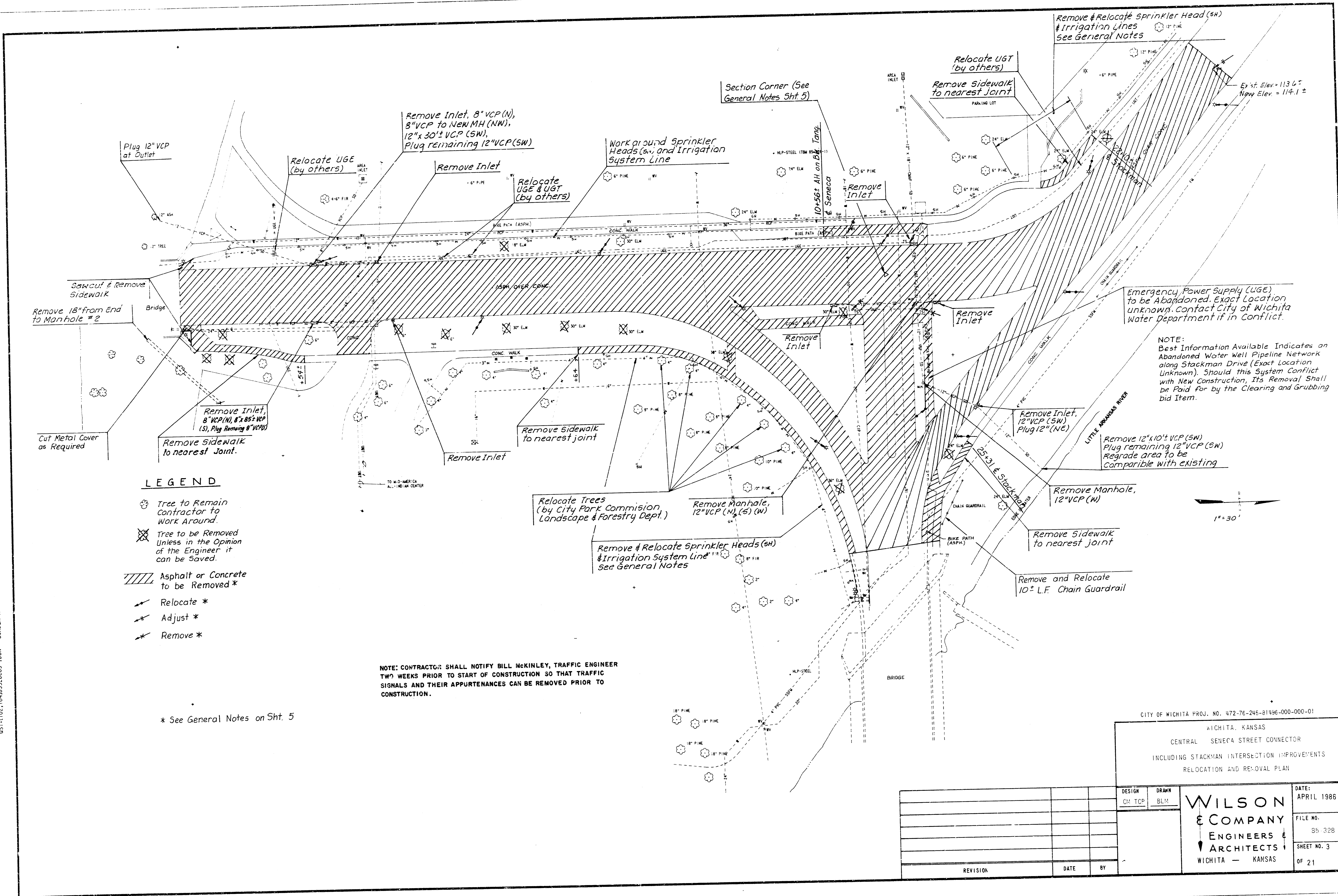
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WICHITA, KANSAS  
CENTRAL - SENECA STREET CONNECTOR  
INCLUDING STACKMAN INTERSECTION IMPROVEMENTS

TYPICAL SECTIONS

DESIGN CM	DRAWN BLM	DATE: APRIL 1986
<b>WILSON &amp; COMPANY</b> ENGINEERS & ARCHITECTS WICHITA - KANSAS		FILE NO. 85-328
		SHEET NO. 2 OF 21

0511102, 1048532803 - DGN - BARRIER A



**LEGEND**

- Tree to Remain Contractor to Work Around.
- Tree to be Removed Unless in the Opinion of the Engineer it can be Saved.
- Asphalt or Concrete to be Removed \*
- Relocate \*
- Adjust \*
- Remove \*

NOTE: CONTRACTOR SHALL NOTIFY BILL MCKINLEY, TRAFFIC ENGINEER TWO WEEKS PRIOR TO START OF CONSTRUCTION SO THAT TRAFFIC SIGNALS AND THEIR APPURTENANCES CAN BE REMOVED PRIOR TO CONSTRUCTION.

\* See General Notes on Sht. 5

CITY OF WICHITA PROJ. NO. 472-76-245-81496-000-00-01

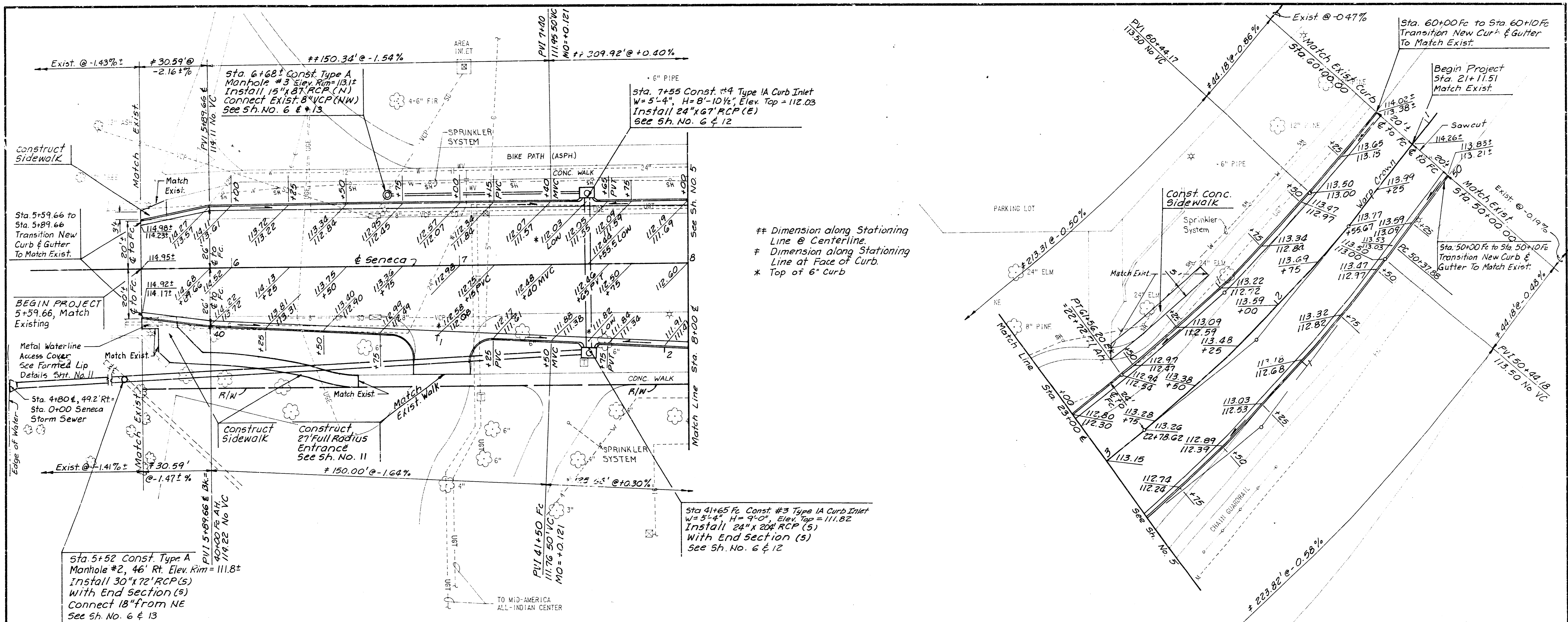
WICHITA, KANSAS  
CENTRAL SENECA STREET CONNECTOR  
INCLUDING STACKMAN INTERSECTION IMPROVEMENTS  
RELOCATION AND REMOVAL PLAN

REVISION	DATE	BY

DESIGN CM TCP	DRAWN BLM
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**WILSON & COMPANY**  
ENGINEERS & ARCHITECTS  
WICHITA - KANSAS

DATE: APRIL 1986
FILE NO. 85-328
SHEET NO. 3 OF 21



# Dimension along Stationing Line @ Centerline.  
 + Dimension along Stationing Line at Face of Curb.  
 \* Top of 6" Curb

**GENERAL NOTES**

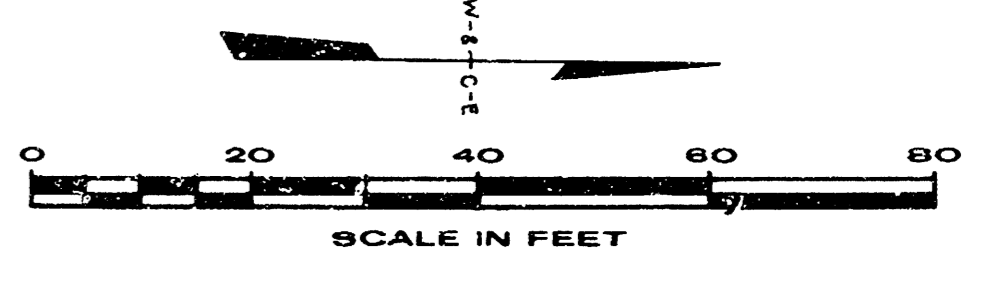
ALL ENCROACHMENTS SUCH AS FENCES, BUILDINGS, TELEPHONE, TELEGRAPH, AND POWER LINES SHALL BE MOVED BEYOND LIMITS OF CONSTRUCTION BY THE OWNERS OR BY THE CITY, UNLESS OTHERWISE NOTED ON THE PLANS.  
 IN THE INTEREST OF PUBLIC SAFETY, ALL GAS, GASOLINE, OIL AND WATER LINES SHALL BE MOVED BEYOND THE LIMITS OF THE ROAD BY OWNERS, UNLESS PROVISIONS FOR THEIR RETENTION HAS BEEN MADE. ALL OTHER UTILITIES SHALL BE PLACED IN GOOD CONDITION AND ADJUSTED TO FIT THE NEW CONSTRUCTION BY THE OWNERS. MANHOLES AND WATER VALVE BOXES SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET FINAL GRADE.  
 ALL METER BOXES, HYDRANTS, ETC., SHALL BE MOVED OR ADJUSTED TO THE NEW CONSTRUCTION BY THE OWNERS UNLESS OTHERWISE NOTED ON THE PLANS, SHOWN THUS: RELOCATE ADJUST REMOVE  
 SITE GRADE ALL DISTURBED AREAS AS DIRECTED BY THE ENGINEER. (SUBSIDIARY ITEM)  
 ALL EXISTING PAVEMENT, CURB AND GUTTER, DRIVEWAYS, SIDEWALKS OR BITUMINOUS SURFACING TO BE REMOVED SHALL BE SAW CUT TO THE NEAT LINES SHOWN ON THE PLANS OR TO THE NEAREST JOINT AS DIRECTED BY THE ENGINEER. DEPTH OF SAW CUTS SHALL BE 2". SAWING OF EXISTING PAVEMENT TO FACILITATE REMOVAL SHALL BE SUBSIDIARY TO PAVEMENT REMOVAL. REMOVAL IS MARKED: [Hatched Box Symbol] ADDITIONAL REMOVAL MAY BE ORDERED BY THE ENGINEER.  
 ALL WASTE OR EXCESS MATERIAL SHALL BE DISPOSED OF ON SITES PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.  
 THE CONTRACTOR SHALL REMOVE ALL TRAFFIC SIGNAL BASES (3).  
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS.  
 THE CONTRACTOR SHALL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY THE CONTRACTOR'S CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR OR A PROFESSIONAL ENGINEER IN ACCORDANCE WITH STATE STATUTES.  
 THE ENGINEER SHALL TAKE FIELD TIES TO ALL QUARTER SECTION CORNERS. THE CONTRACTOR SHALL SET A CITY SURVEY MONUMENT IN THE REQUIRED LOCATION WHERE SUCH QUARTER SECTION CORNERS FALL WITHIN THE LIMITS OF PAVEMENT REMOVAL OR CONSTRUCTION. SURVEY MONUMENTS WILL BE FURNISHED BY THE CITY. THE ENGINEER WILL ACCURATELY LOCATE AND INSTALL THE IRON AT THE QUARTER SECTION CORNER. THIS WORK WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED SUBSIDIARY TO OTHER PAY ITEMS OF WORK IN THE CONTRACT.

CONTRACTOR WILL BE REQUIRED TO WORK SIX DAYS WITH TEN HOUR SHIFTS EACH DAY PER EACH WEEK ON THIS PROJECT.  
 CONTRACTOR TO PROVIDE ACCESS TO THE MID-AMERICA ALL INDIAN CENTER AT ALL TIMES.  
 CONSTRUCTION ON THE CENTRAL AVENUE BRIDGE OVER THE LITTLE ARKANSAS RIVER MAY BE SIMULTANEOUS TO CONSTRUCTION ON THIS PROJECT. CONTRACTOR TO COORDINATE WITH CENTRAL AVENUE BRIDGE CONTRACTOR AND FIELD ENGINEERING DURING CONSTRUCTION.  
 ALL OFFSETS SHOWN ON THE PLANS ARE MEASURED TO FACE OF CURB.  
 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH AND INSTALL ALL MATERIALS AS MAY BE REQUIRED TO EFFECT SATISFACTORY REPLACEMENT OF WATER SPRINKLER SYSTEM, WHETHER OR NOT THESE ITEMS ARE REFLECTED IN THE BILL OF MATERIALS. REPLACEMENT OF THE SPRINKLER SYSTEM AT THE MID-AMERICA ALL-INDIAN CENTER SHALL BE COORDINATED WITH THE CITY OF WICHITA PARK COMMISSION, LANDSCAPE AND FORESTRY DEPARTMENT PRIOR TO INSTALLATION.  
 CLEARING R.C.W. AND SITE PREPARATION SHALL INCLUDE ITEMS SUCH AS STRIPPING, TREE REMOVAL, EXISTING SIGN REMOVAL, LIGHT BASE REMOVAL, AND ALL OTHER ITEMS REQUIRED TO COMPLETE THE PROJECT.  
 ALL UNDERGROUND UTILITY DEPTHS UNKNOWN UNLESS OTHERWISE NOTED. CONTRACTOR'S RESPONSIBILITY TO FIELD LOCATE.  
 ALL DISTURBED AREAS AT THE MID-AMERICA ALL-INDIAN CENTER SHALL BE RESEDED BY CONTRACTOR WITH MID-IRON BERNUDA SOD. PLACEMENT SHALL BE COORDINATED WITH THE CITY OF WICHITA PARK COMMISSION LANDSCAPE AND FORESTRY DEPARTMENT PRIOR TO INSTALLATION. ALL OTHER DISTURBED AREAS SHALL BE RESEDED IN ACCORDANCE WITH CITY OF WICHITA SPECIFICATIONS.

EXISTING SIGNS WILL BE REMOVED BY THE CONTRACTOR AND STOCKPILED. THE CONTRACTOR SHALL REINSTALL SIGNS AS DIRECTED BY THE ENGINEER.  
 REPLACE ALL EXISTING ASPHALT FILLED MANHOLE LIDS IN AREAS TO BE PAVED WITH STANDARD CITY OF WICHITA MANHOLE FRAME AND COVER.  
 EARTHWORK QUANTITIES BASED ON EXISTING PAVEMENT BEING 11" THICK, ASPHALT SURFACE WITH CONCRETE BASE. (BEST INFORMATION AVAILABLE)  
 SITE RESTORATION SHALL INCLUDE SUCH ITEMS AS AREA GRADING, SEEDING, FERTILIZING, MULCHING, SODDING, SIGN REINSTALLATION, GENERAL SITE CLEAN UP, AND ALL OTHER ITEMS REQUIRED TO COMPLETE THE PROJECT.

- UTILITY OWNERS:**
- WATER** - CITY OF WICHITA WATER DEPARTMENT  
 1701 SIMS PARK  
 WICHITA, KS 67203  
 268-4555
  - SANITARY AND STORM SEWER** - CITY OF WICHITA DIVISION OF ENGINEERING  
 455 N. MAIN  
 WICHITA, KS 67202  
 268-4210
  - POWER** - KANSAS GAS AND ELECTRIC  
 120 E. FIRST ST.  
 WICHITA, KS 67202  
 261-6422
  - GAS** - ARKLA GAS COMPANY  
 1630 S. BAEHR  
 WICHITA, KS 67209  
 942-8350
  - TELEPHONE** - SOUTHWESTERN BELL  
 154 N. BROADWAY  
 WICHITA, KS 67202  
 268-3179
  - CABLE TV** - CABLEVISION  
 701 E. DOUGLAS  
 WICHITA, KS 67213  
 262-0661
  - WATER SPRINKLER SYSTEM** - MID-AMERICA ALL-INDIAN CENTER - CITY OF WICHITA PARK COMMISSION LANDSCAPE AND FORESTRY  
 1901 S. KANSAS  
 WICHITA, KS 67211  
 264-8323

EARTHWORK		
	Excav.	Comp. Fill
Cross Sections	2,056.4cy	882 cy
10%	205.7cy	8.8cy
<b>TOTAL</b>	<b>2,262.6cy</b>	<b>97.0cy</b>



CITY OF WICHITA PROJ. NO. 472-76-245-81496-000-000-001

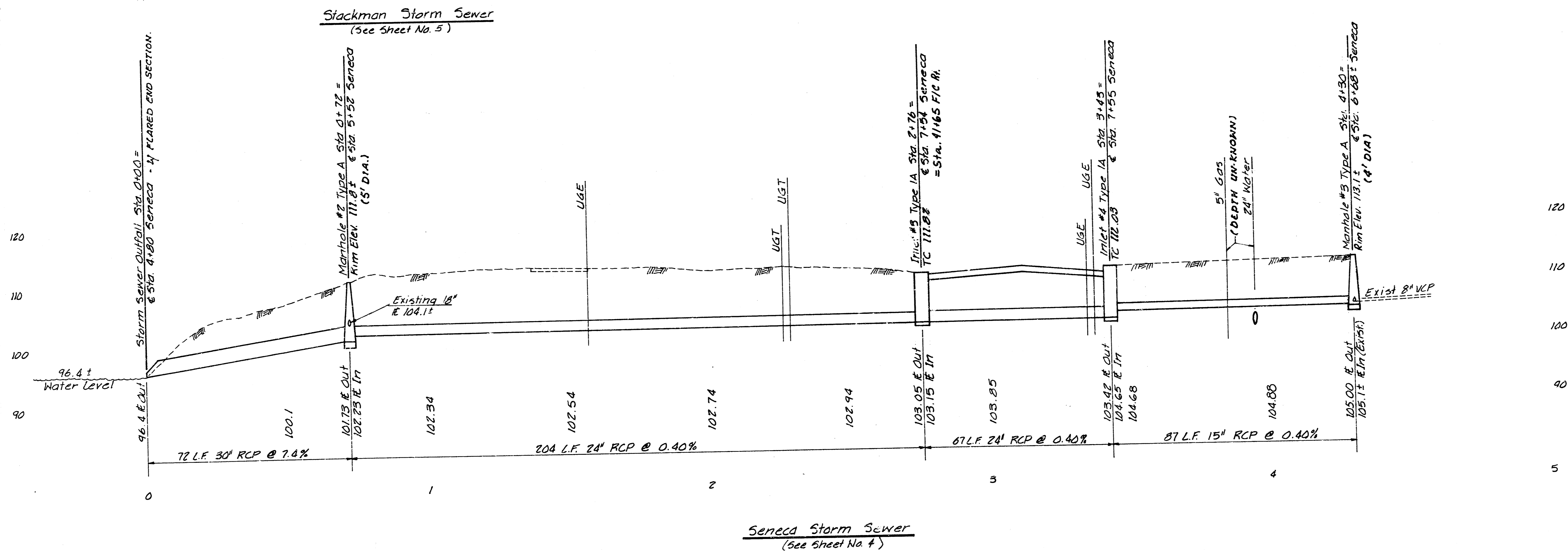
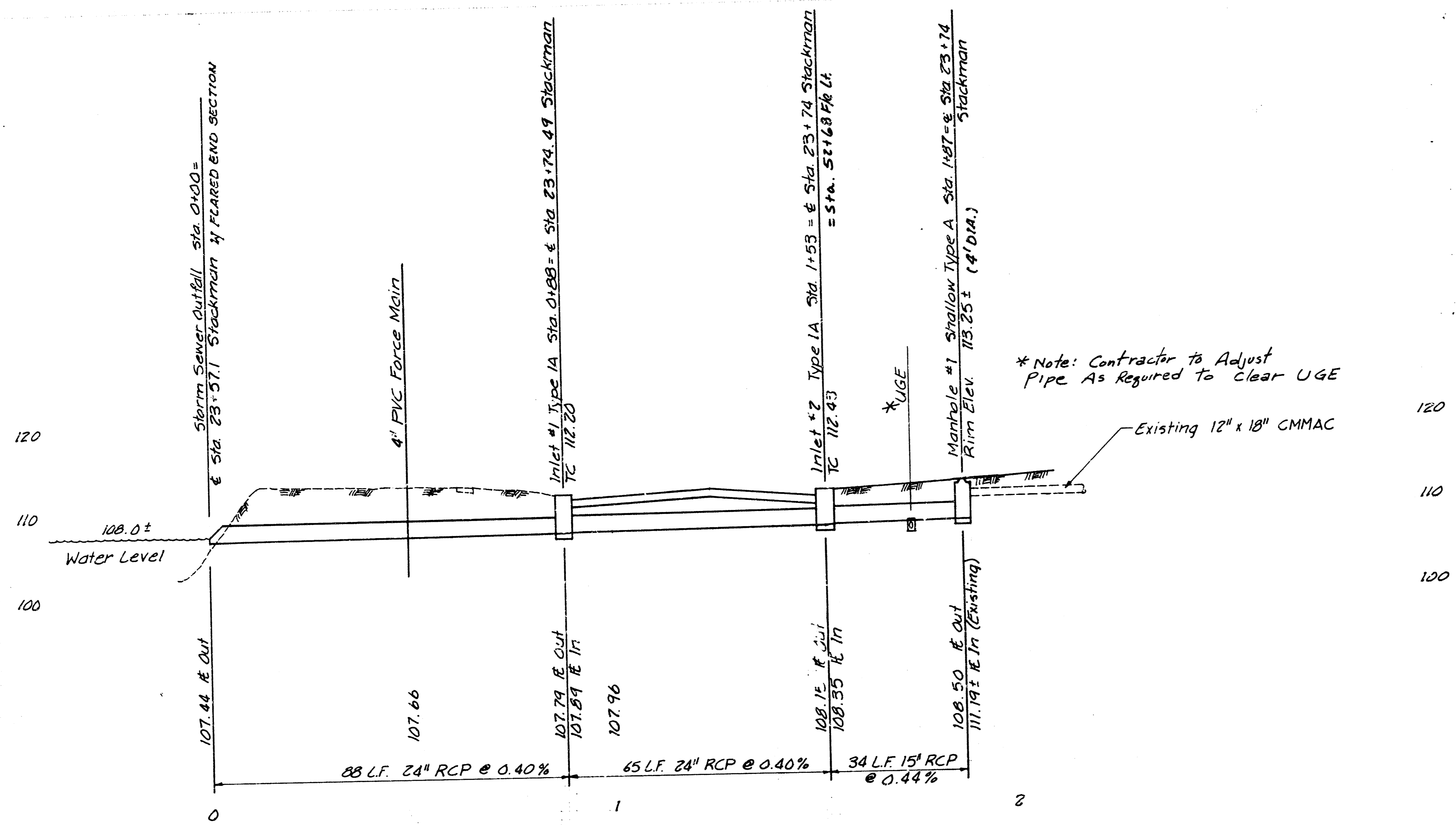
WICHITA, KANSAS  
 CENTRAL - SENECA STREET CONNECTOR  
 INCLUDING STACKMAN INTERSECTION IMPROVEMENTS  
 PAVING PLAN

REVISION	DATE	BY

DESIGN CM/TCP	DRAWN BLM	DATE: APRIL 1986
		FILE NO. 85-328
		SHEET NO. 4 OF 21

05111002, 104385282601, JOHN BURCHER A  
 05111002, 104385282601, JOHN BURCHER A





**Baseline Curve #1**  
 R. BL. = 258'  
 D. BL. = 13.32 min/ft  
 $\Delta/2 = 26^\circ 33' 31''$   
 L. BL. = 239.18'  
 T. BL. = 128.96'

Station	Chord Length		Deflection Angle	
	From Previous Sta.	From P.C.	From Previous Sta.	From P.C.
8+55.33 PC	0	0	0° 00' 00" Ah	0° 00' 00" Ah
8+66.17	10.84	10.84	1° 12' 13" Rt	1° 12' 13" Rt
8+75	8.83	8.83	0° 58' 50" Rt	2° 11' 03" Rt
9+00	25.00	24.99	2° 46' 33" Rt	4° 57' 36" Rt
9+25	25.00	24.99	2° 46' 33" Rt	7° 44' 10" Rt
9+50	25.00	24.99	2° 46' 33" Rt	10° 30' 43" Rt
9+75	25.00	24.99	2° 46' 33" Rt	13° 17' 17" Rt
10+00	25.00	24.99	2° 46' 33" Rt	16° 03' 50" Rt
10+25	25.00	24.99	2° 46' 33" Rt	18° 50' 24" Rt
10+49.92	24.92	24.91	0° 00' 32" Rt	21° 36' 25" Rt
10+50	0.08	0.08	2° 46' 33" Rt	24° 23' 30" Rt
10+75	25.00	24.99	2° 46' 33" Rt	26° 33' 31" Rt
10+94.51 PCC	19.51	19.51	2° 10' 01" Rt	

**Baseline Curve #2**  
 K. BL. = 198.41'  
 D. BL. = 17.33 min/ft  
 $\Delta/2 = 18^\circ 30' 00''$   
 L. BL. = 128.13'  
 T. BL. = 66.39'

Station	Chord Length		Deflection Angle	
	From Previous Sta.	From P.C.	From Previous Sta.	From P.C.
10+94.51 PCC	0	0	0° 00' 00" Ah	0° 00' 00" Ah
11+00	5.49	5.49	0° 47' 34" Rt	0° 47' 34" Rt
11+17.33	17.33	17.33	2° 30' 08" Rt	3° 17' 42" Rt
11+25	7.67	7.67	1° 06' 27" Rt	4° 24' 09" Rt
11+43.20	18.20	18.19	2° 37' 40" Rt	7° 01' 49" Rt
11+50	6.8	6.80	0° 58' 54" Rt	8° 00' 43" Rt
11+75	25.0	24.98	3° 36' 35" Rt	11° 37' 18" Rt
11+99.15 End	24.15	24.14	3° 29' 13" Rt	15° 06' 31" Rt
12+00	0.85	0.85	0° 07' 22" Rt	15° 13' 53" Rt
12+22.64 PT	22.64	22.63	3° 16' 08" Rt	18° 30' 01" Rt

**Baseline Curve #3**  
 R. BL. = 559.98'  
 D. BL. = 6.14 min/ft  
 $\Delta/2 = 6^\circ 17' 25''$   
 L. BL. = 122.95'  
 T. BL. = 61.72'

Station	Chord Length		Deflection Angle	
	From Previous Sta.	From P.C.	From Previous Sta.	From P.C.
21+55.67 PC	0	0	0° 00' 00" Ah	0° 00' 00" Ah
21+75	19.33	19.33	0° 59' 20" Rt	3° 59' 20" Rt
22+00	25.00	25.00	1° 16' 44" Rt	2° 16' 04" Rt
22+25	25.00	25.00	1° 16' 45" Rt	3° 32' 49" Rt
22+50	25.00	25.00	1° 16' 44" Rt	4° 49' 33" Rt
22+72.70	22.70	22.70	0° 07' 03" Rt	5° 59' 14" Rt
22+75	2.30	2.30	0° 11' 07" Rt	6° 06' 17" Rt
22+78.62 PT	3.62	3.62		6° 17' 24" Rt

**Right Curb, Baseline Curve #1**  
 R. F/C = 220'  
 D. F/C = 15.63 min/ft  
 $\Delta/2 = 43^\circ 47' 20''$   
 L. F/C = 336.27'  
 T. F/C = 210.89'

R. OS. = 212'  
 D. OS. = 16.22 min/ft  
 $\Delta/2 = 43^\circ 47' 20''$   
 L. OS. = 324.05'  
 T. OS. = 203.22'

Station	Chord Length		Deflection Angle	
	Along F/C	Along 8' OS.	From Previous Sta.	From P.C.
42+75.68 PC	0	0	0° 00' 00" Ah	0° 00' 00" Ah
43+00	24.32	24.31	3° 15' 20" Rt	3° 10' 01" Rt
43+25	25.00	24.99	3° 15' 20" Rt	6° 25' 20" Rt
43+50	25.00	24.99	3° 15' 20" Rt	9° 40' 40" Rt
43+75	25.00	24.99	3° 15' 20" Rt	12° 56' 00" Rt
44+00	25.00	24.99	3° 15' 20" Rt	16° 11' 19" Rt
44+25	25.00	24.99	3° 15' 20" Rt	19° 26' 39" Rt
44+50	25.00	24.99	3° 15' 20" Rt	22° 41' 58" Rt
44+75	25.00	24.99	3° 15' 20" Rt	25° 57' 18" Rt
45+00	25.00	24.99	3° 15' 20" Rt	29° 12' 38" Rt
45+25	25.00	24.99	3° 15' 20" Rt	32° 27' 57" Rt
45+30.83	5.83	5.83	0° 45' 33" Rt	33° 13' 30" Rt
45+50	19.17	19.16	0° 29' 47" Rt	35° 43' 17" Rt
45+55.83 End	5.83	5.83	0° 45' 33" Rt	36° 28' 50" Rt
45+75	19.17	19.16	2° 29' 46" Rt	38° 58' 36" Rt
46+00	25.00	24.99	3° 15' 20" Rt	42° 13' 56" Rt
46+11.95 PT	11.95	11.95	1° 33' 24" Rt	43° 47' 20" Rt

**Left Curb, Curve #2**  
 R. F/C = 227.41'  
 D. F/C = 15.07 min/ft  
 $\Delta/2 = 7^\circ 01' 54''$   
 L. F/C = 55.82'  
 T. F/C = 28.05'

R. OS. = 235.41'  
 D. OS. = 14.42 min/ft  
 $\Delta/2 = 7^\circ 01' 54''$   
 L. OS. = 57.78'  
 T. OS. = 29.04'

Station	Chord Length		Deflection Angle	
	Along F/C	Along 8' OS.	From Previous Sta.	From P.C.
10+94.51 PCC	0	0	0° 00' 00" Ah	0° 00' 00" Ah
11+00	6.51	6.51	0° 47' 34" Rt	0° 47' 34" Rt
11+17.33 Ret.	20.56	20.56	2° 30' 08" Rt	3° 17' 42" Rt
11+25	9.10	9.10	1° 06' 27" Rt	4° 24' 09" Rt
11+43.20 Ret.	21.59	21.59	2° 37' 40" Rt	7° 01' 49" Rt

**Right Curb, Baseline Curve #3**  
 R. F/C = 601.44'  
 D. F/C = 5.72 min/ft  
 $\Delta/2 = 5^\circ 20' 08''$   
 L. F/C = 112.02'  
 T. F/C = 56.17'

R. OS. = 593.44'  
 D. OS. = 5.79 min/ft  
 $\Delta/2 = 5^\circ 20' 08''$   
 L. OS. = 110.53'  
 T. OS. = 55.42'

Station	Chord Length		Deflection Angle	
	Along F/C	Along 8' OS.	From Previous Sta.	From P.C.
60+44.18 PC	0	0	0° 00' 00" Ah	0° 00' 00" Ah
60+50	5.82	5.82	0° 16' 38" Rt	0° 16' 38" Rt
60+75	25.00	25.00	1° 11' 27" Rt	1° 28' 05" Rt
61+00	25.00	25.00	1° 11' 27" Rt	2° 39' 32" Rt
61+25	25.00	25.00	1° 11' 27" Rt	3° 50' 59" Rt
61+50	25.00	25.00	1° 11' 27" Rt	5° 02' 26" Rt
61+56.20 PT	6.20	6.20	0° 17' 42" Rt	5° 20' 08" Rt

**Left Curb, Curve #1**  
 R. F/C = 284'  
 D. F/C = 12.11 min/ft  
 $\Delta/2 = 21^\circ 36' 26''$   
 L. F/C = 263.29'  
 T. F/C = 141.96'

R. OS. = 292'  
 D. OS. = 11.77 min/ft  
 $\Delta/2 = 21^\circ 36' 26''$   
 L. OS. = 220.24'  
 T. OS. = 115.65'

Station	Chord Length		Deflection Angle	
	Along F/C	Along 8' OS.	From Previous Sta.	From P.C.
8+55.33 PC	0	0	0° 00' 00" Ah	0° 00' 00" Ah
8+75	22.26	22.26	2° 11' 03" Rt	2° 11' 03" Rt
9+00	28.28	28.28	2° 46' 33" Rt	4° 57' 36" Rt
9+25	28.28	28.28	2° 46' 33" Rt	7° 44' 10" Rt
9+50	28.28	28.28	2° 46' 33" Rt	10° 30' 43" Rt
9+75	28.28	28.28	2° 46' 33" Rt	13° 17' 17" Rt
10+00	28.28	28.28	2° 46' 33" Rt	16° 03' 50" Rt
10+25	28.28	28.28	2° 46' 33" Rt	18° 50' 24" Rt
10+49.92 Ret.	28.19	28.19	2° 46' 02" Rt	21° 36' 25" Rt

**Left Curb, Right Turn Lane, Curve #4**  
 R. F/C = 210.30'  
 D. F/C = 16.35 min/ft  
 $\Delta/2 = 26^\circ 30' 00''$   
 L. F/C = 194.53'  
 T. F/C = 104.85'

R. OS. = 202.3'  
 D. OS. = 16.99 min/ft  
 $\Delta/2 = 26^\circ 30' 00''$   
 L. OS. = 187.13'  
 T. OS. = 100.86'

Station	Chord Length		Deflection Angle	
	Along F/C	Along 8' OS.	From Previous Sta.	From P.C.
52+29.20 PRC	0	0	0° 00' 00" Ah	0° 00' 00" Ah
52+50	20.80	20.79	2° 50' 00" Lt	2° 50' 00" Lt
52+75	25.00	24.99	3° 24' 21" Lt	6° 14' 21" Lt
52+95.03	20.03	20.02	2° 43' 42" Lt	8° 58' 07" Lt
53+00	4.97	4.97	0° 40' 38" Lt	9° 38' 41" Lt
53+25	25.00	24.99	3° 24' 20" Lt	13° 03' 01" Lt
53+50	25.00	24.99	3° 24' 20" Lt	16° 27' 21" Lt
53+65.61	15.61	15.61	2° 07' 35" Lt	18° 34' 56" Lt
53+75	9.39	9.39	1° 16' 45" Lt	19° 51' 41" Lt
54+00	25.00	24.99	3° 24' 20" Lt	23° 16' 01" Lt
54+23.73 PT (End)	23.73	23.72	3° 13' 59" Lt	26° 30' 00" Lt

**Right Curb, Right Turn Lane, Curve #4**  
 R. F/C = 228.3'  
 D. F/C = 15.06 min/ft  
 $\Delta/2 = 18^\circ 34' 56''$   
 L. F/C = 76.52'  
 T. F/C = 38.67'

R. OS. = 236.3'  
 D. OS. = 14.55 min/ft  
 $\Delta/2 = 18^\circ 34' 56''$   
 L. OS. = 79.30'  
 T. OS. = 40.03'

Station	Chord Length		Deflection Angle	
	Along F/C	Along 8' OS.	From Previous Sta.	From P.C.
52+29.20 PC	0	0	0° 00' 00" Ah	0° 00' 00" Ah
52+95.03 Ret.	73.67	73.67	8° 58' 03" Lt	8° 58' 03" Ah
53+00	5.58	5.58	0° 40' 38" Lt	9° 38' 41" Lt
53+25	28.08	28.08	3° 24' 20" Lt	13° 03' 01" Lt
53+50	28.08	28.08	3° 24' 20" Lt	16° 27' 21" Lt
53+65.61 Ret.	17.54	17.54	2° 07' 35" Lt	18° 34' 56" Lt

**Left Curb, Baseline Curve #3**  
 R. F/C = 756.52'  
 D. F/C = 4.54 min/ft  
 $\Delta/2 = 7^\circ 14' 41''$   
 L. F/C = 191.31'  
 T. F/C = 96.17'

R. OS. = 764.52'  
 D. OS. = 4.50 min/ft  
 $\Delta/2 = 7^\circ 14' 41''$   
 L. OS. = 193.34'  
 T. OS. = 97.19'

Station	Chord Length		Deflection Angle	
	Along F/C	Along 8' OS.	From Previous Sta.	From P.C.
50+37.88 PC	0	0	0° 00' 00" Ah	0° 00' 00" Ah
50+44.18	6.30	6.30	0° 14' 19" Rt	0° 14' 19" Rt
50+50	5.82	5.82	0° 13' 03" Rt	0° 27' 32" Rt
50+75	25.00	25.00	0° 56' 48" Rt	1° 24' 20" Rt
51+00	25.00	25.00	0° 56' 48" Rt	2° 21' 08" Rt
51+25	25.00	25.00	0° 56' 48" Rt	3° 17' 57" Rt
51+50	25.00	25.00	0° 56' 48" Rt	4° 14' 45" Rt
51+75	25.00	25.00	0° 56' 48" Rt	5° 11' 33" Rt
52+00	25.00	25.00	0° 56' 48" Rt	6° 08' 21" Rt
52+25	25.00	25.00	0° 56' 48" Rt	7° 05' 09" Rt
52+29.20 PRC	4.20	4.20	0° 09' 32" Rt	7° 14' 41" Rt

**Back of Sidewalk, R.O.W., Curve #5**  
 R. R/W = 191.97'  
 D. R/W = 17.70 min/ft  
 $\Delta/2 = 45^\circ 04' 45''$   
 L. R/W = 302.08'  
 T. R/W = 192.50'

R. OS. = 183.97'  
 D. OS. = 18.65'  
 $\Delta/2 = 45^\circ 04' 45''$   
 L. OS. = 289.49'  
 T. OS. = 184.48'

Station	Chord Length		Deflection Angle	
	Along 8' OS.	From Previous Sta.	From Previous Sta.	From P.C.
78+62.01 PC	0	0	0° 00' 00" Ah	0° 00' 00" Ah
79+00	36.35'	36.35'	5° 40' 09" Rt	5° 40' 09" Rt
79+25	23.94'	23.94'	3° 43' 51" Rt	9° 24' 00" Rt
79+50	23.94'	23.94'	3° 43' 51" Rt	13° 07' 51" Rt
79+75	23.94'	23.94'	3° 43' 51" Rt	16° 51' 42" Rt
80+00	23.94'	23.94'	3° 43' 51" Rt	20° 35' 33" Rt
80+25	23.94'	23.94'	3° 43' 51" Rt	24° 19' 23" Rt
80+50	23.94'	23.94'	3° 43' 51" Rt	28° 03' 14" Rt
80+75	23.94'	23.94'	3° 43' 51" Rt	31° 47' 05" Rt
81+00	23.94'	23.94'	3° 43' 51" Rt	35° 30' 56" Rt
81+25.52 End	24.44'	24.44'	3° 48' 30" Rt	39° 19' 26" Rt
81+64.09 PT	36.50'	36.50'	5° 45' 19" Rt	45° 04' 45" Rt

GENERAL NOTES:

- RIGHT-OF-WAY EASEMENTS ARE TO BE FURNISHED BY THE CITY OF WICHITA. CONTRACTOR SHALL CONFINE CONSTRUCTION WITHIN RIGHT-OF-WAY AND EASEMENTS SHOWN ON DRAWINGS. DAMAGES INFLICTED OUTSIDE THIS AREA ARE THE CONTRACTOR'S RESPONSIBILITY.
- ALL OFFSET LINES ARE 8' BEHIND THE FACE OF CURB.
- UNLESS OTHERWISE INDICATED, ALL DIMENSIONS ARE TO THE FACE OF CURB.
- COORDINATES SHOWN ARE ON FLOOD CONTROL DATUM.
- ELEVATIONS SHOWN ARE ON CITY OF WICHITA DATUM.
- PLOTTED FROM WCA 85-328 FIELD NOTES BY TLM, 1985.

BM-1 BRASS DISC STAMPED "CITY OF WICHITA - ELEV. 1302.30" AT THE S.E. END OF THE S.E. WINGWALL OF THE SENECA STREET BRIDGE. ELEV. 115.01, CITY OF WICHITA DATUM.

BM-2 USGS GAGING STATION DISC ON THE S.E. CORNER OF THE BRIDGE OVER THE BIG ARKANSAS RIVER ON DOUGLAS AVENUE ELEV. 1302.29 (PROJECT DATUM, CITY OF WICHITA PROJECT NO. 472-76-245-81288-000-000-001, CENTRAL AVENUE BRIDGE OVER THE LITTLE ARKANSAS RIVER). PROJECT DATUM - 1187.29 - CITY OF WICHITA DATUM.

BM-3 "D" CUT ON THE E. SIDE OF THE HIGHLINE POWER POLE BASE STA. 9+64.04, 100.62' LT ON PROJECT BL. NO. 1 ELEV. 114.53, CITY OF WICHITA DATUM.

P.O.T. STA. 5+00 PROJECT BASELINE NO. 1, "PK" NAIL ON BASELINE.  
 1. 27.82' NW TO "X" CUT IN TOP OF SENECA BRIDGE CURB.  
 2. 28.06' NE TO "X" CUT IN TOP OF SENECA BRIDGE CURB.  
 3. 24.68' SE TO "X" CUT IN TOP OF SENECA BRIDGE CURB AT AN EXPANSION JOINT.

P.O.T. STA. 20+50 PROJECT BASELINE NO. 2, "PK" NAIL ON BASELINE.  
 1. 49.61' E TO "X" CUT IN CL. OF SIDEWALK.  
 2. 42.48' N TO "X" CUT IN CL. OF SIDEWALK.  
 3. 60.60' W TO NE BOLT OF PARKING LOT LIGHT POLE BASE.

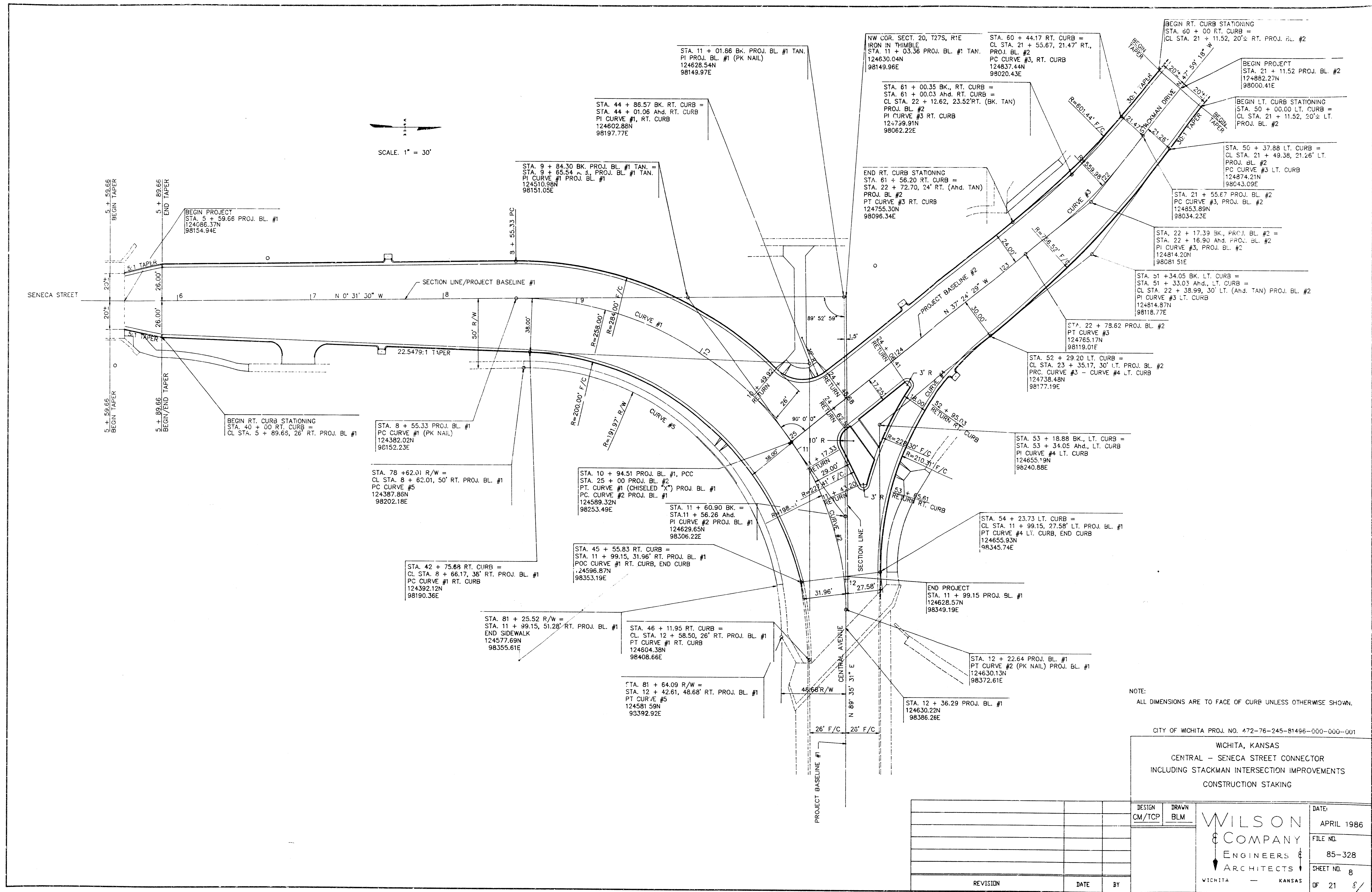
P.O.T. STA. 22+79.24 PROJECT BASELINE NO. 1, 3" PIPE ON BASELINE (ON SECTION LINE).  
 1. 19.00' NE TO NAIL AND CAP IN POWER POLE.  
 2. 42.95' NW TO TOP OF FIRE HYDRANT.  
 3. 5.85' NW TO FACE OF LIGHT POLE.

CITY OF WICHITA PROJ. NO. 472-76-245-81496-000-000-001

WICHITA, KANSAS  
 CENTRAL - SENECA STREET CONNECTOR  
 INCLUDING STACKMAN INTERSECTION IMPROVEMENTS  
 CONSTRUCTION STAKING

DESIGN	DRAWN	DATE:
		APRIL 1988
		FILE NO.
		85-328
		SHEET NO.
		OF 21
REVISION	DATE	BY

**WILSON**  
 & COMPANY



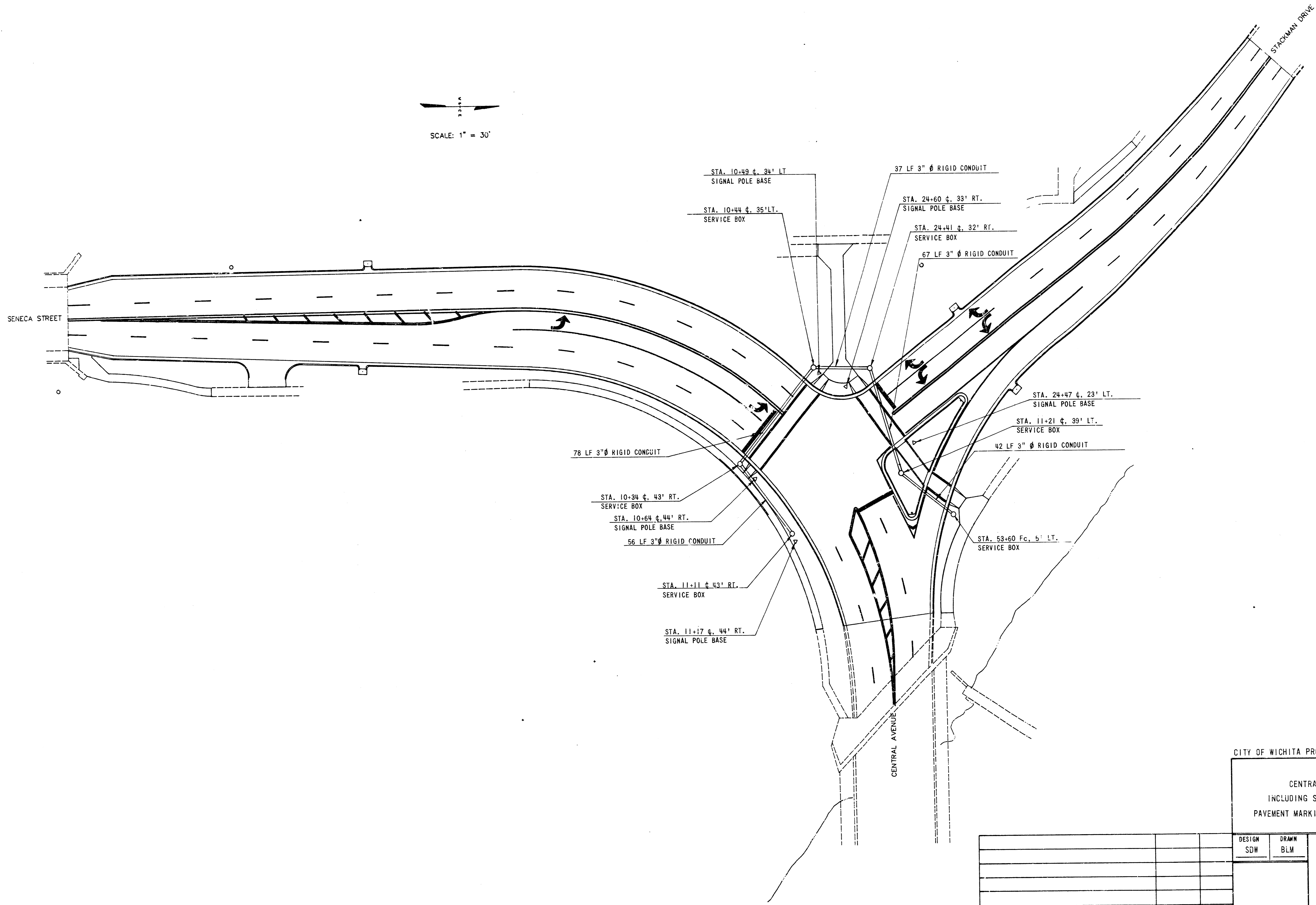
SCALE: 1" = 30'

NOTE:  
ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE SHOWN.

CITY OF WICHITA PROJ. NO. 472-76-245-81456-000-000-001  
 WICHITA, KANSAS  
 CENTRAL - SENECA STREET CONNECTOR  
 INCLUDING STACKMAN INTERSECTION IMPROVEMENTS  
 CONSTRUCTION STAKING

DESIGN CM/TCP	DRAWN BLM	DATE: APRIL 1986
		FILE NO. 85-328
		SHEET NO. 8 OF 21
REVISION	DATE	BY

SCALE: 1" = 30'



CITY OF WICHITA PROJECT NO. 472-76-245-81496-000-000-001

WICHITA, KANSAS

CENTRAL-SENECA STREET CONNECTOR

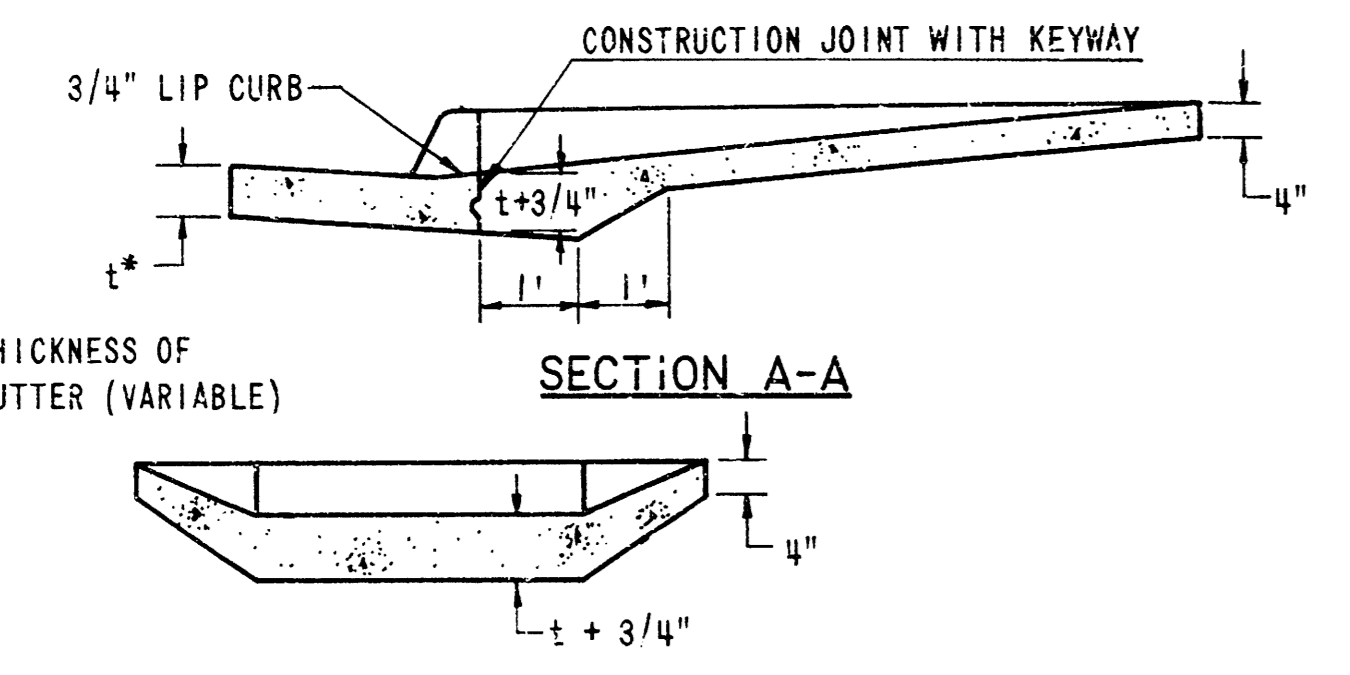
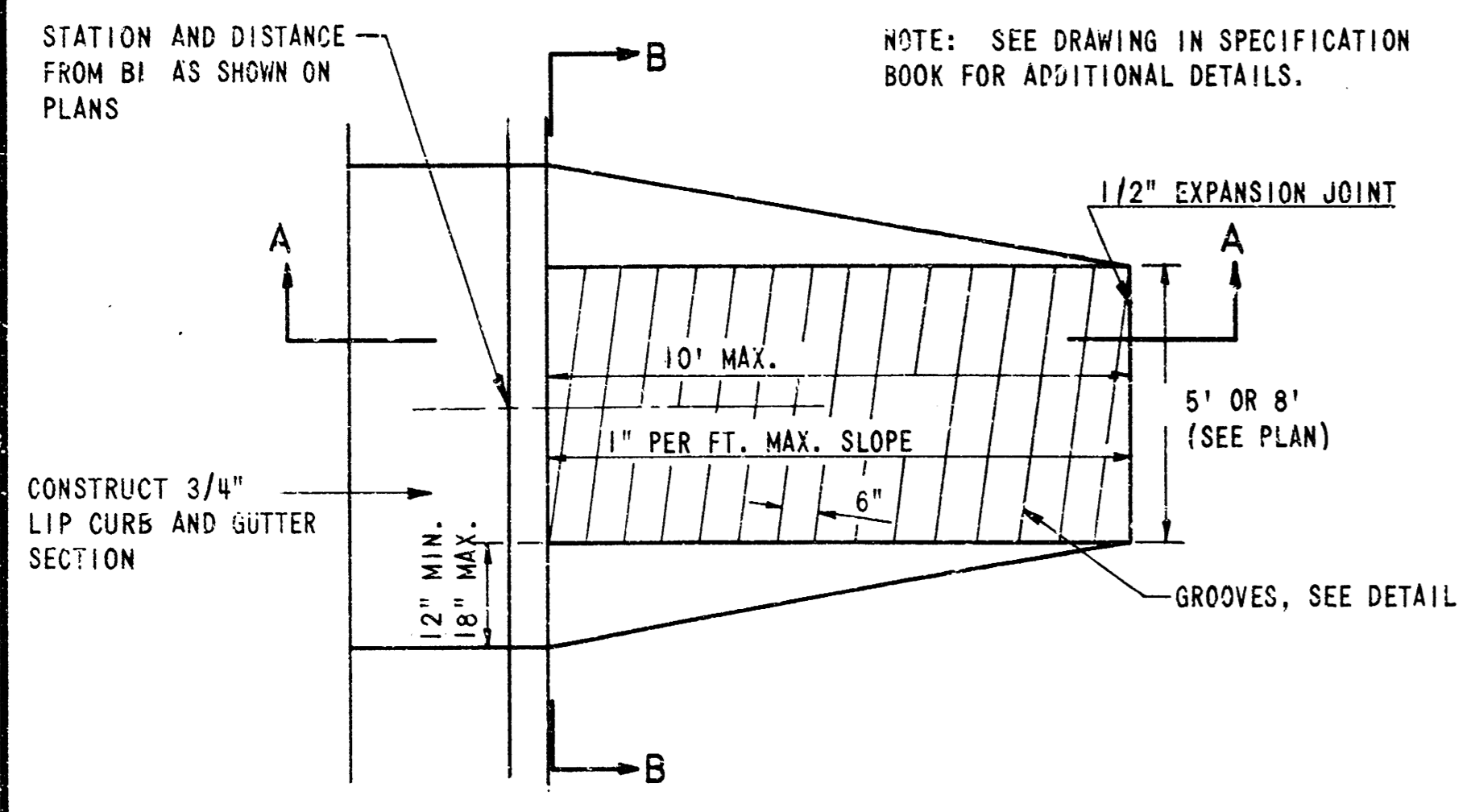
INCLUDING STACKMAN INTERSECTION IMPROVEMENTS

PAVEMENT MARKING - SERVICE BOX/CONDUIT LOCATIONS

REVISION	DATE	BY

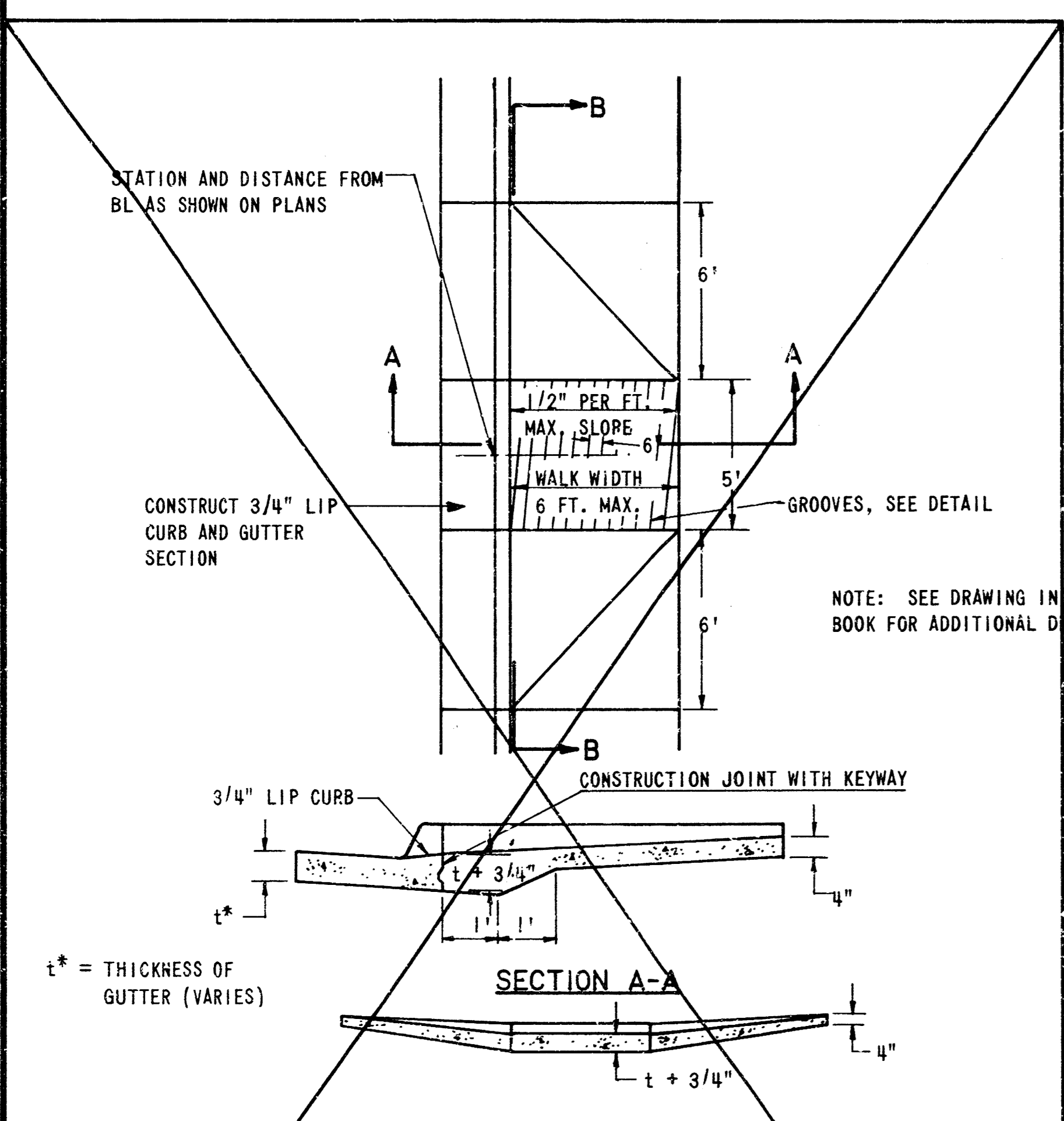
DESIGN SDW	DRAWN BLM	DATE: APRIL 1986
<p>WILSON &amp; COMPANY ENGINEERS &amp; ARCHITECTS WICHITA - KANSAS</p>		FILE NO. 85-328
		SHEET NO. 21 OF 21





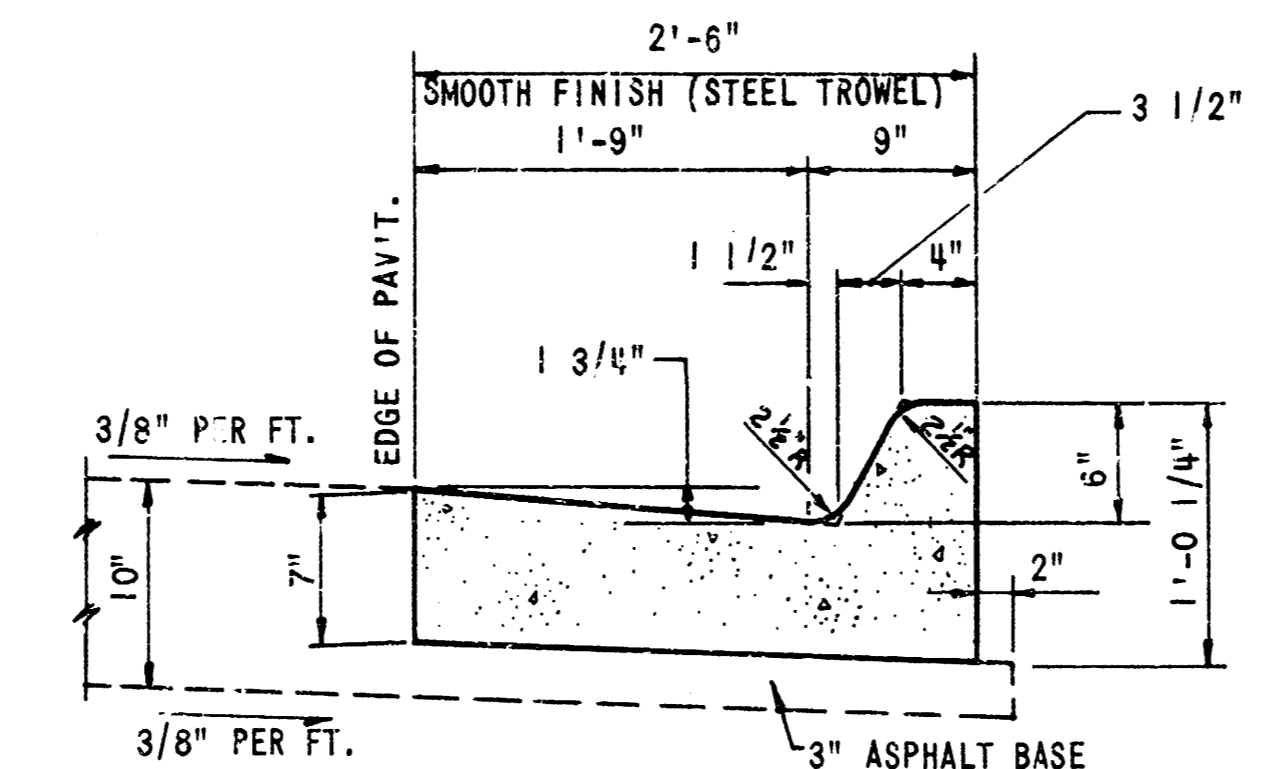
NOTE: THE COST OF ALL WORK INDICATED SHALL BE INCLUDED IN THE UNIT PRICE BID FOR WHEELCHAIR RAMP WHICH PRICE SHALL INCLUDE COSTS OF COMPACTION OF SUBGRADE AND NECESSARY AREA GRADING.

**WHEELCHAIR RAMP DETAIL**  
NOT TO SCALE

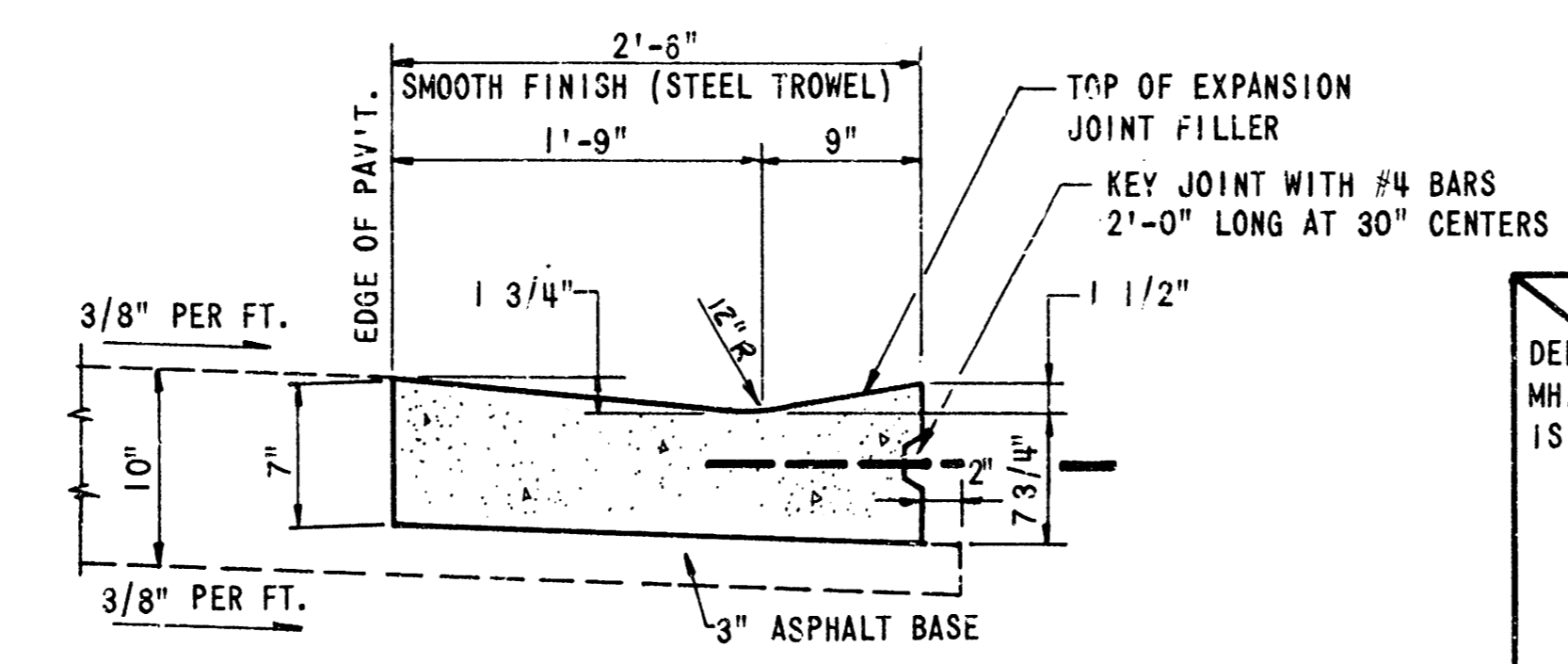


NOTE: THE COST OF ALL WORK INDICATED SHALL BE INCLUDED IN THE UNIT PRICE BID FOR WHEELCHAIR RAMP WHICH PRICE SHALL INCLUDE COSTS OF COMPACTION OF SUBGRADE AND NECESSARY AREA GRADING.

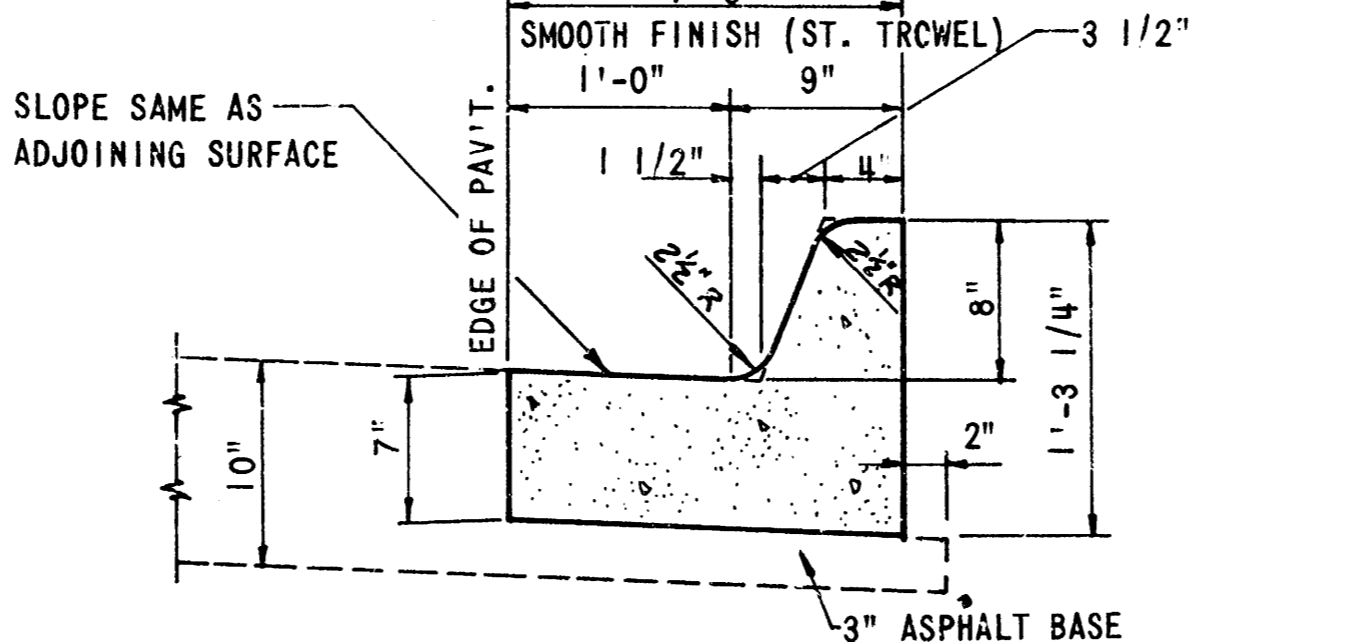
**WHEELCHAIR RAMP DETAIL FOR STREETS WITH FULL WALK**  
NOT TO SCALE



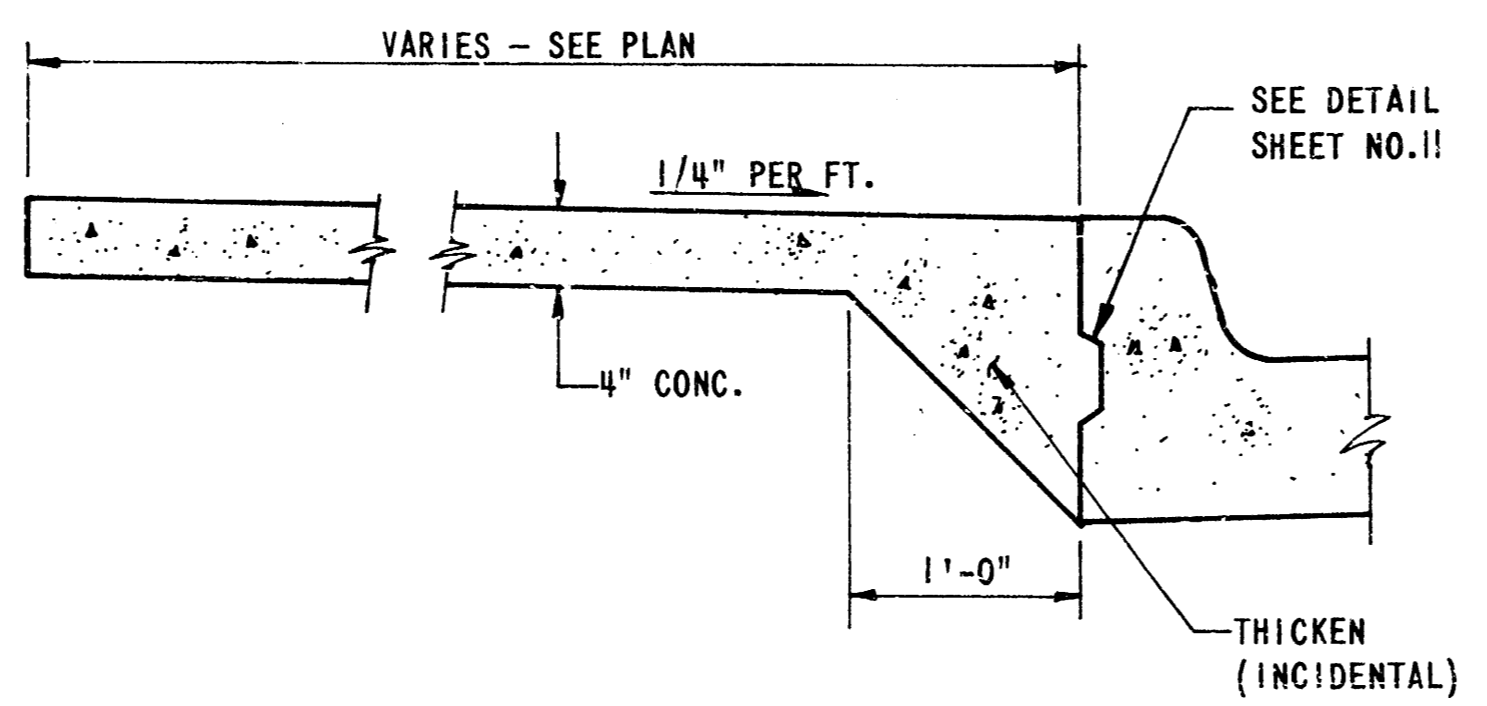
**TYPICAL SECTION COMBINED CURB & GUTTER - TYPE I**  
(2'-6" WIDE)  
NOT TO SCALE



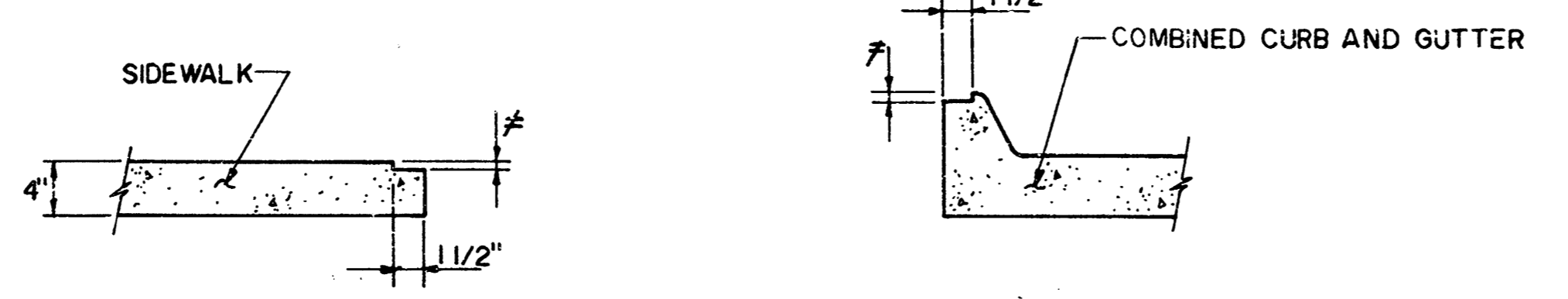
**TYPICAL SECTION COMBINED CURB & GUTTER - TYPE II**  
(2'-6" WIDE)  
NOT TO SCALE



**TYPICAL SECTION COMBINED CURB & GUTTER - TYPE III**  
(1'-9" WIDE)  
NOT TO SCALE

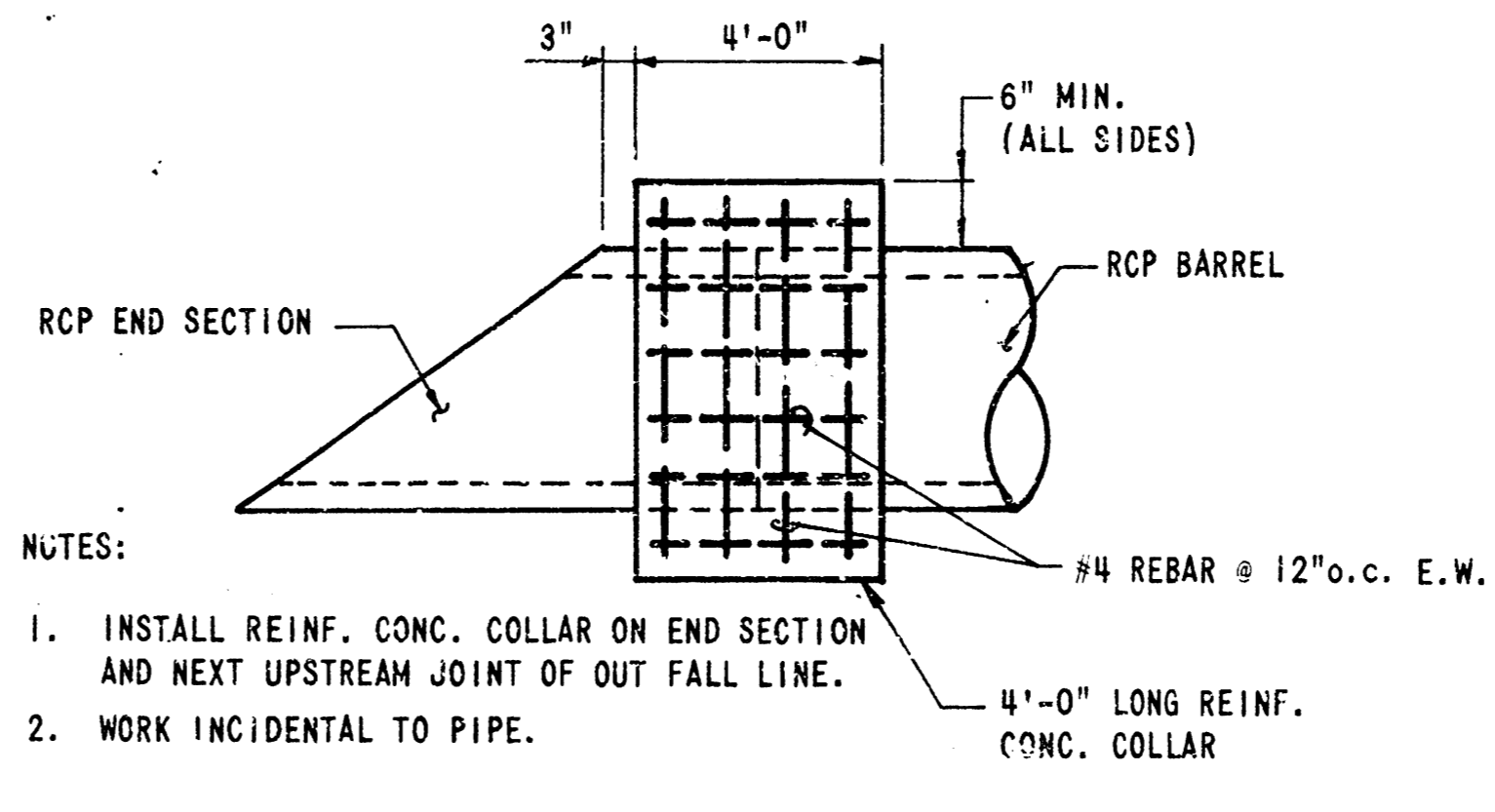


**STANDARD SIDEWALK DETAIL WITH ABUTTING CURB**  
NOT TO SCALE

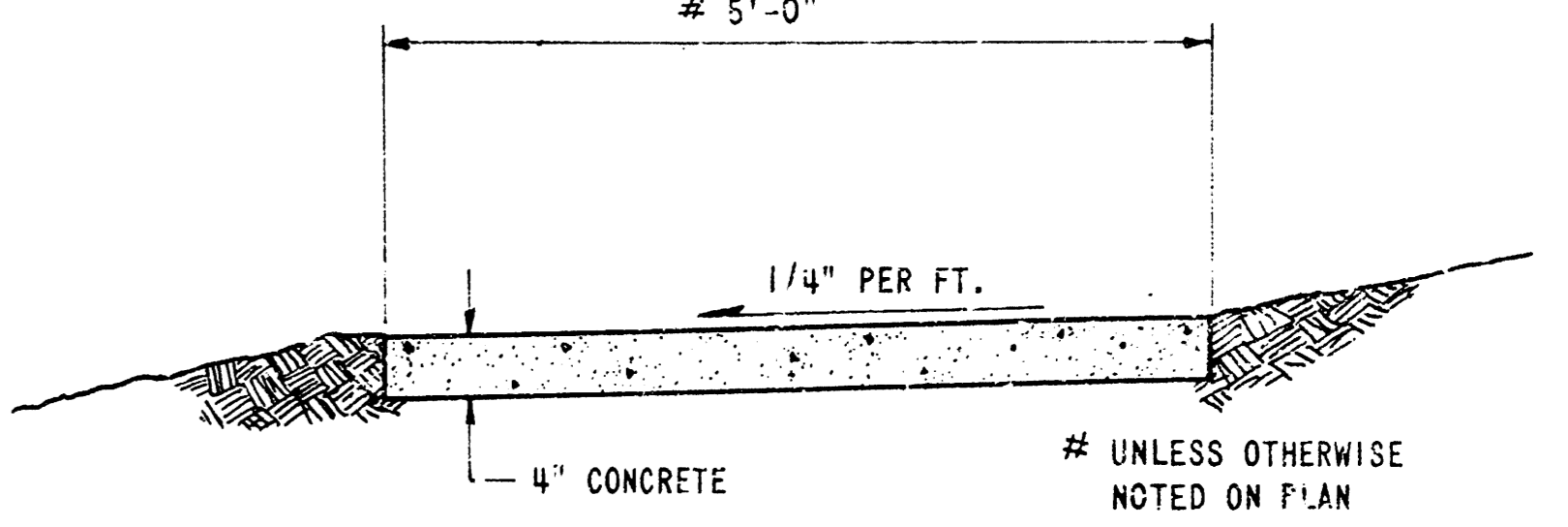
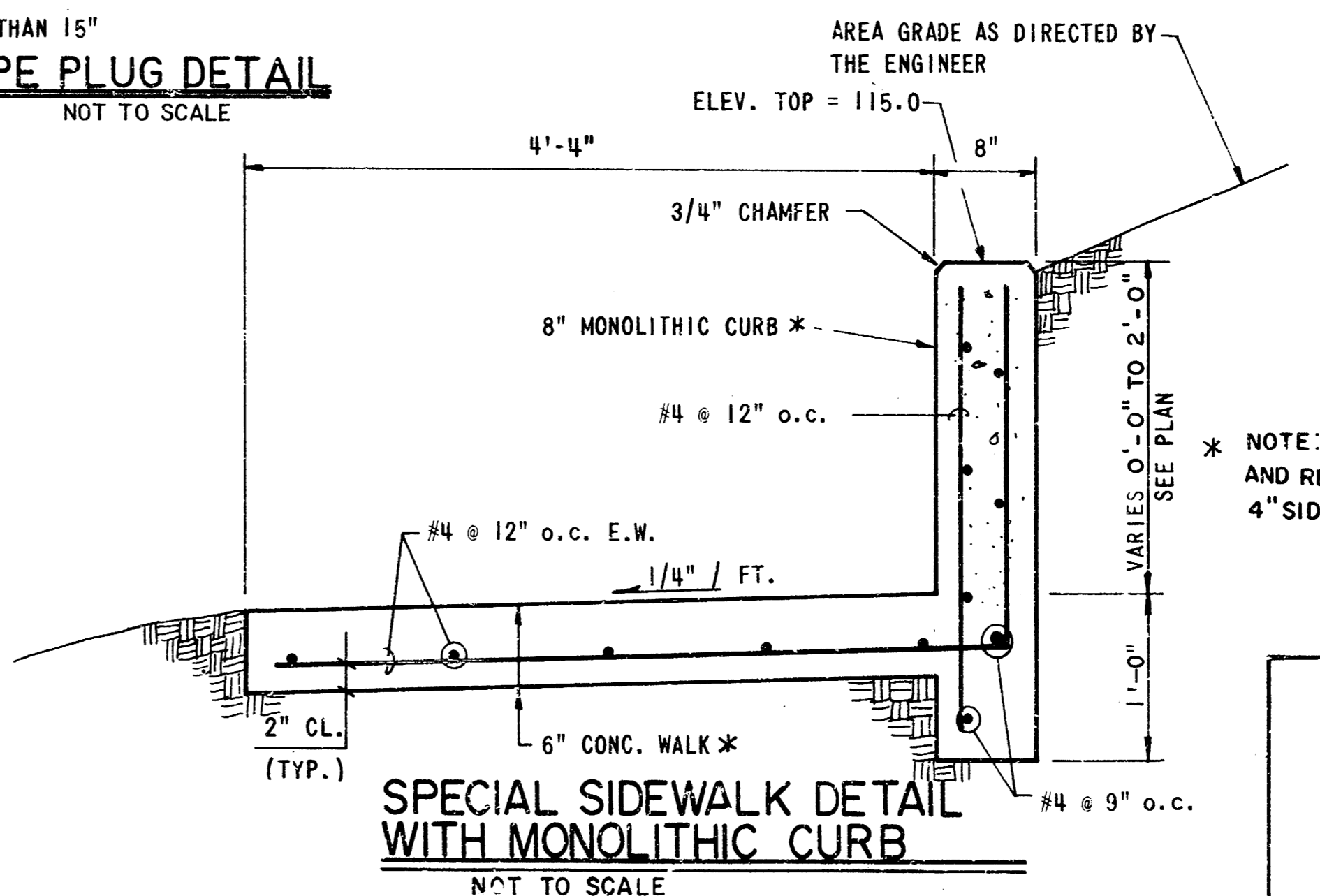
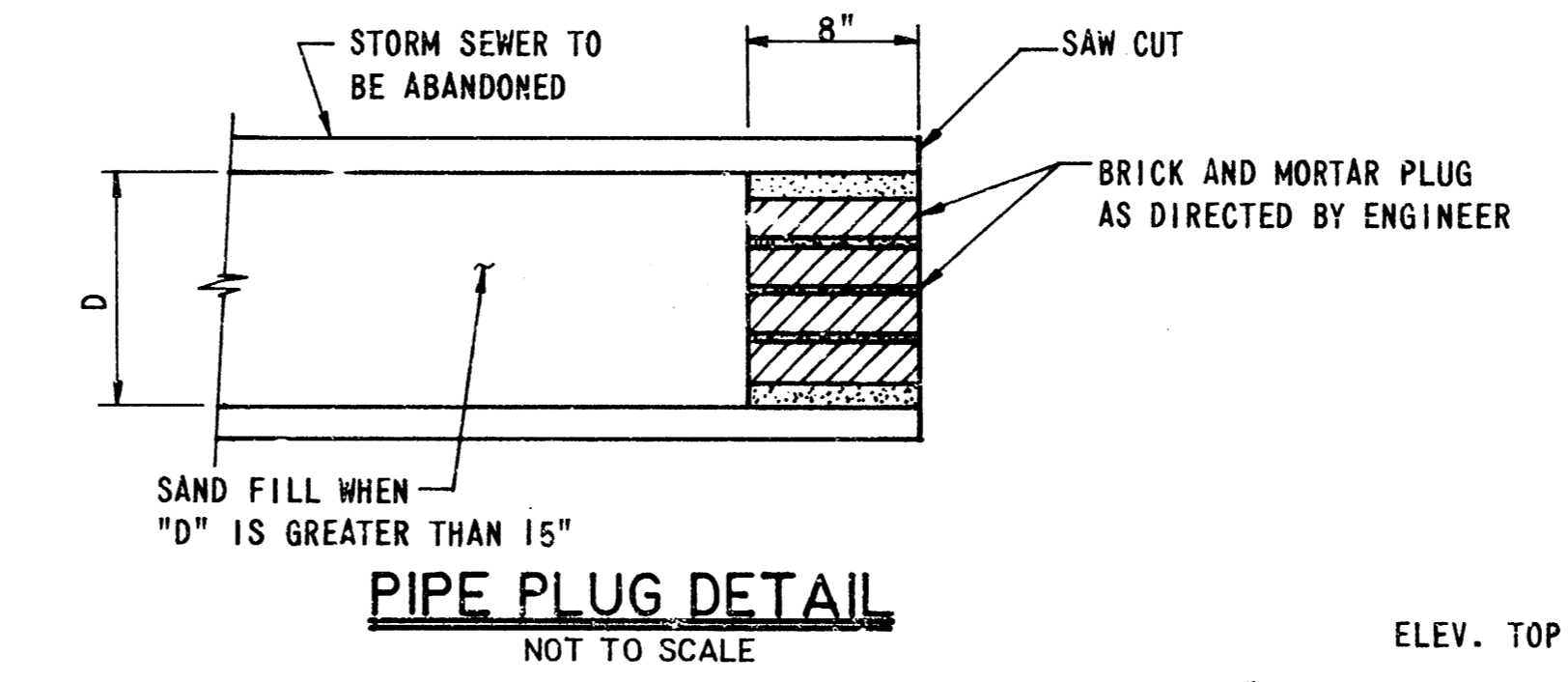
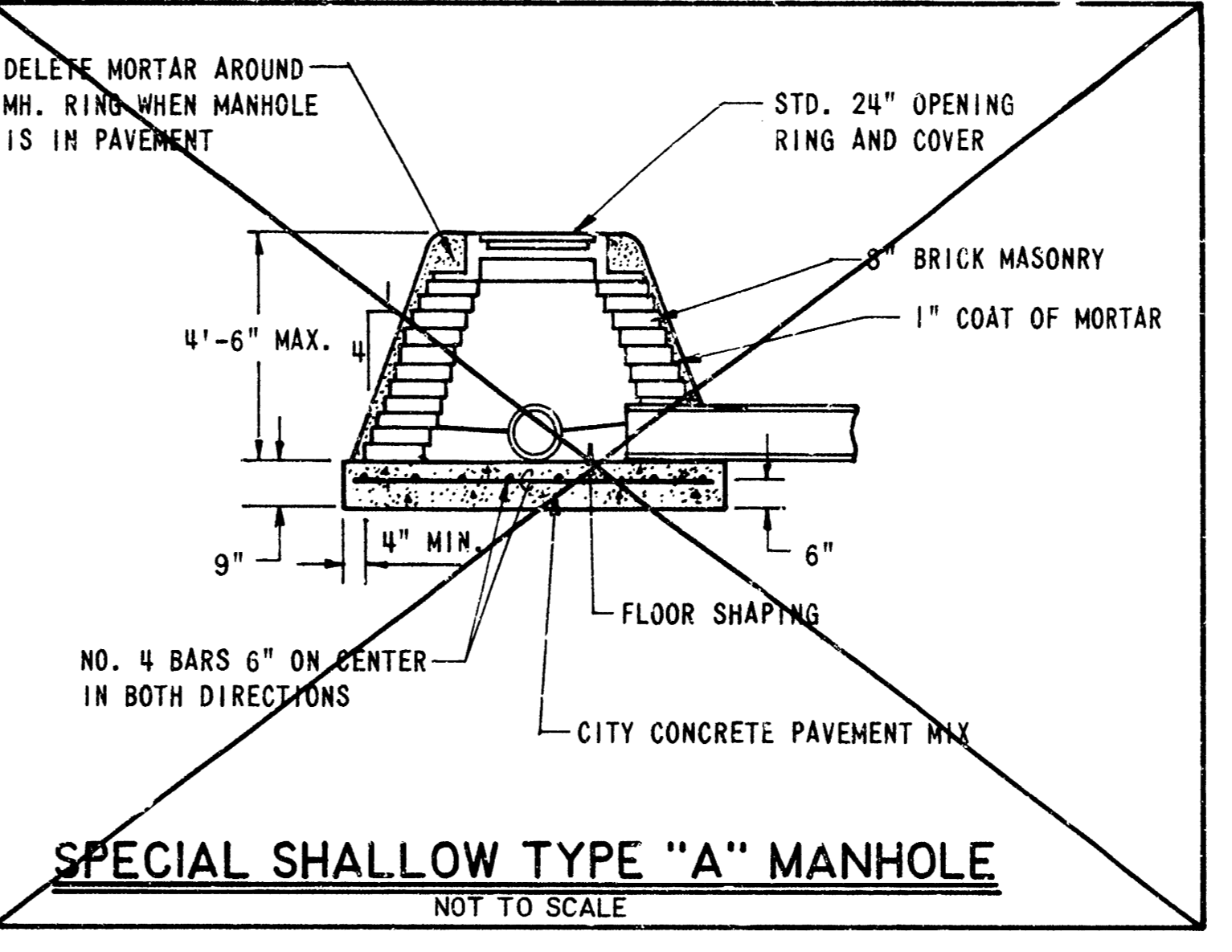


**FORMED LIP CURB**  
NOT TO SCALE

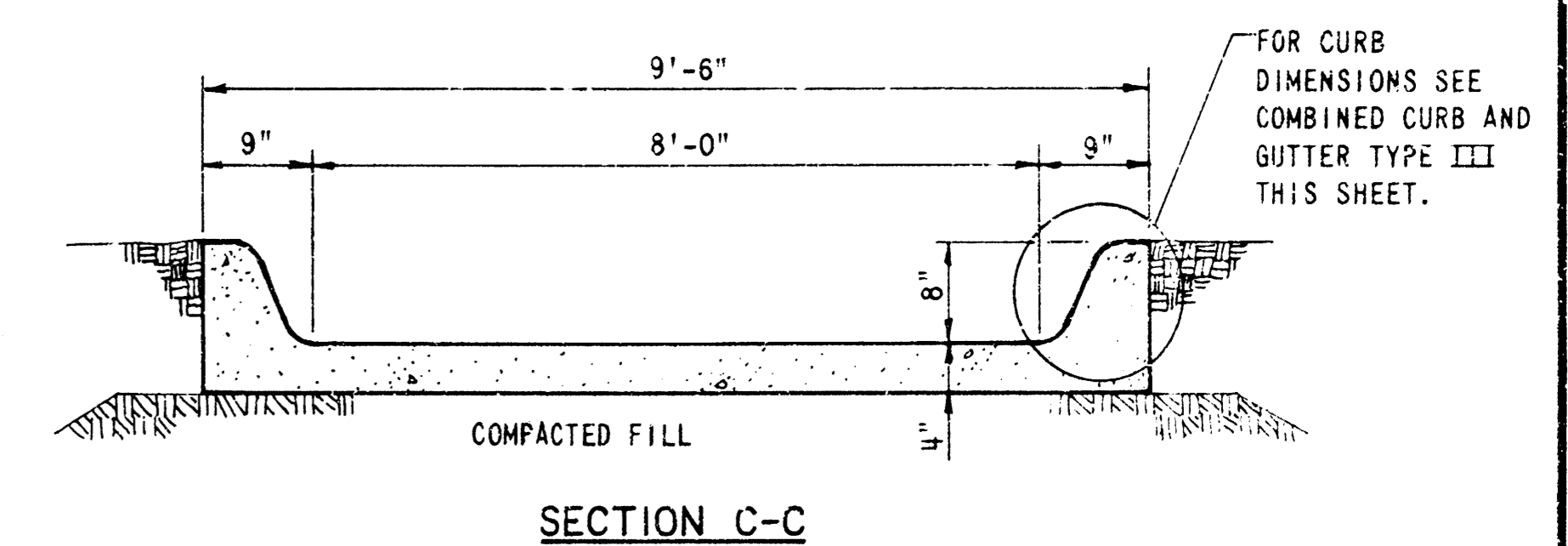
NOTES:  
1) LIP TO BE FORMED ON ALL SIDES OF WATER LINE ACCESS, STA. 5+64, RT.  
2) LIP TO BE FORMED ON ALL SIDES OF WATER LINE ACCESS, STA. 5+64, RT.  
3) EXISTING ACCESS COVER TO BE CUT TO FIT NEW CURB TAPER.



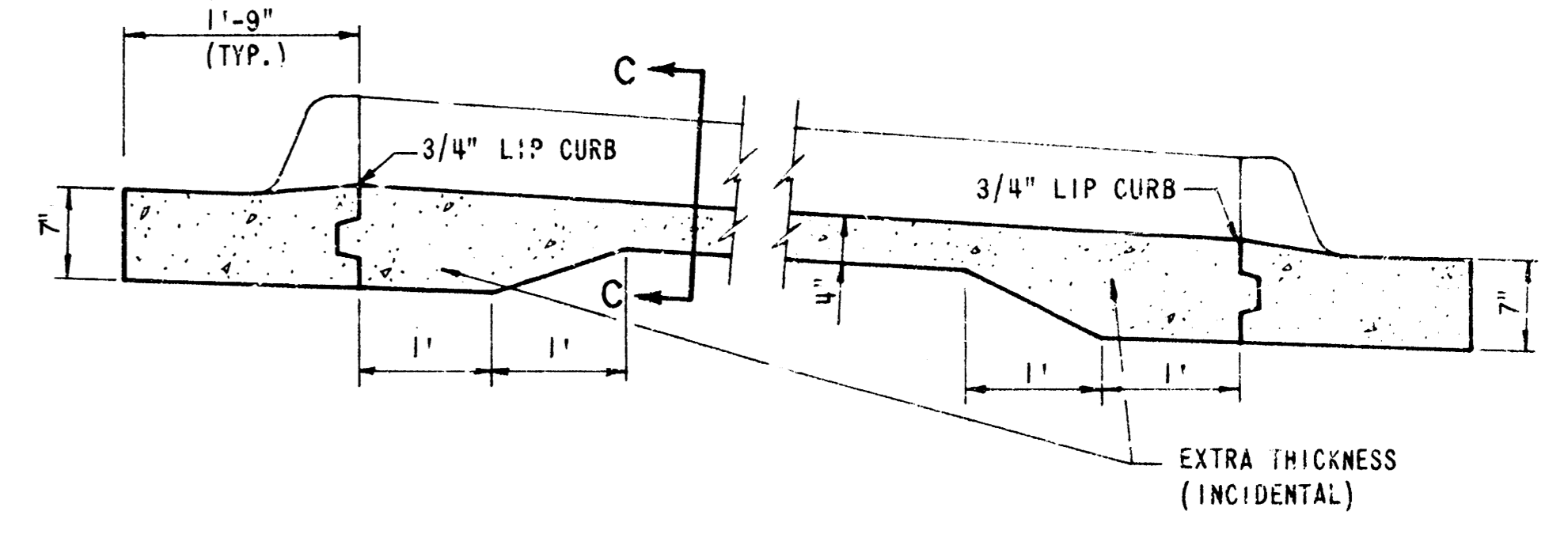
**CONCRETE PIPE CONNECTION DETAIL**  
NOT TO SCALE



**STANDARD SIDEWALK DETAIL**  
NOT TO SCALE



**SECTION C-C**



**SECTION ALONG WALK ISLAND SIDEWALK DETAILS**  
NOT TO SCALE

NOTE: THE COST OF ALL WORK INDICATED SHALL BE INCLUDED IN THE UNIT BID PRICE FOR 4" SIDEWALK.

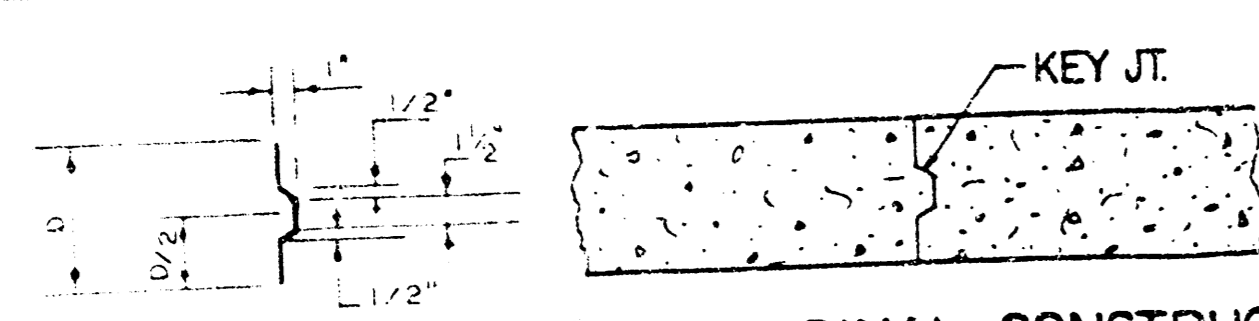
REVISION	DATE	BY

CITY OF WICHITA PROJ. NO. 472-76-245-81496-000-001  
WICHITA, KANSAS  
CENTRAL - SENeca STREET CONNECTOR  
INCLUDING STACKMAN INTERSECTION IMPROVEMENTS  
MISCELLANEOUS DETAILS

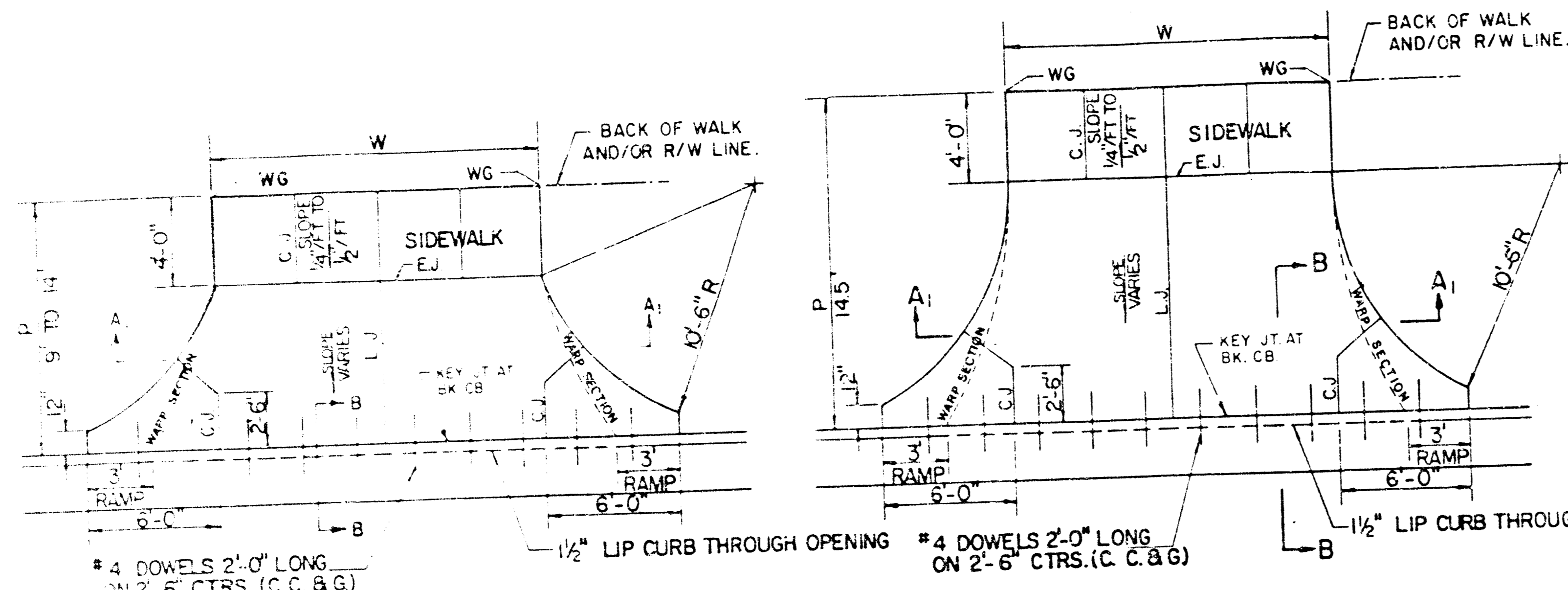
DESIGN	CM/TCP	DRAWN	BLM
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**WILSON & COMPANY**  
ENGINEERS & ARCHITECTS  
WICHITA - KANSAS

DATE: APRIL 1986  
FILE NO. 85-328  
SHEET NO. 11 OF 21



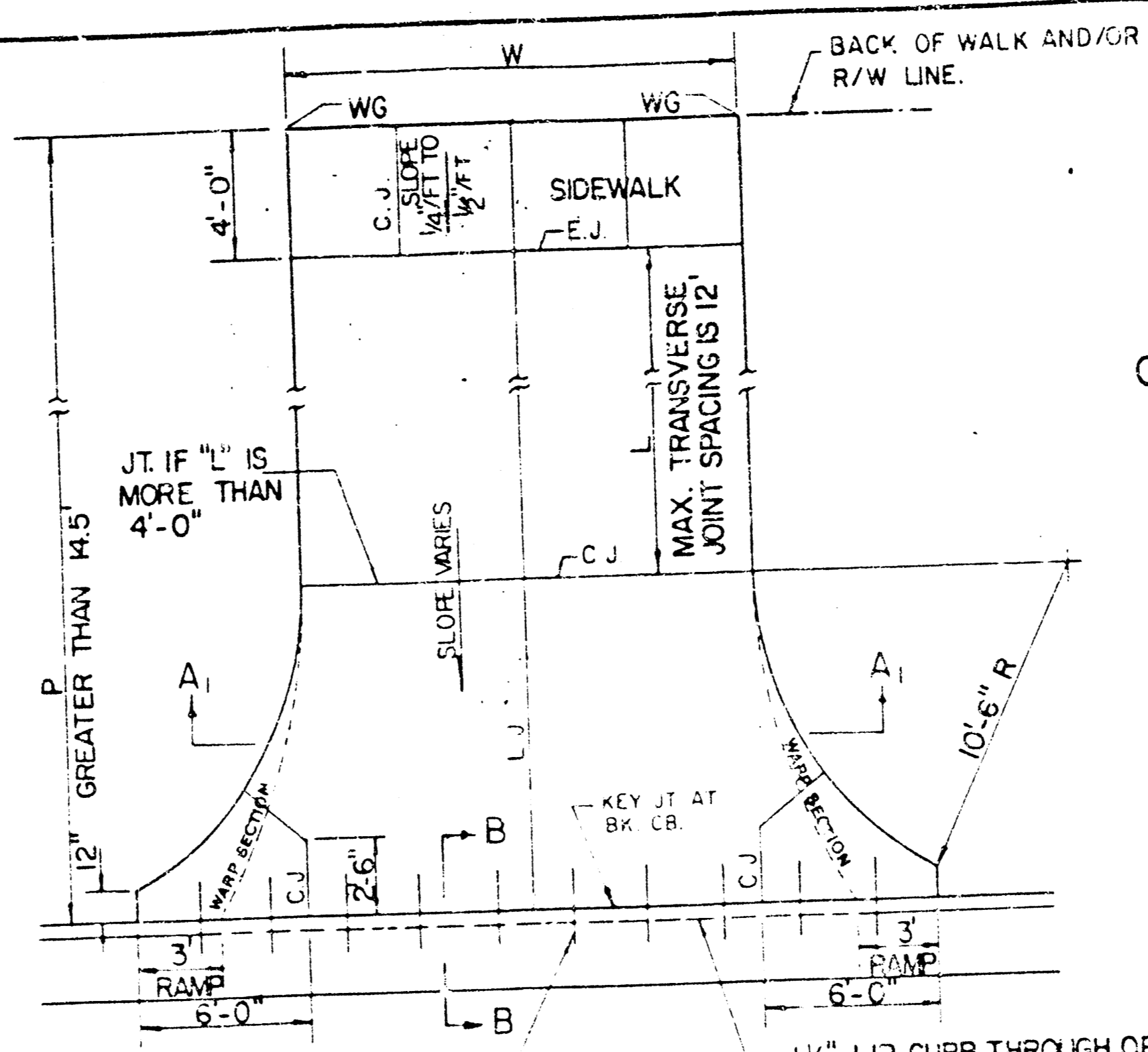
ALT. LONGITUDINAL CONSTRUCTION JOINT



6" SUBGRADE COMPACTION (95% STANDARD)  
SECTION A1-A1  
WARP SECTION 6" MIN  
THICKNESS VARIES FROM 13" AT STREET CURB LINE TO 6" AT END OF 10'-6" RADIUS.

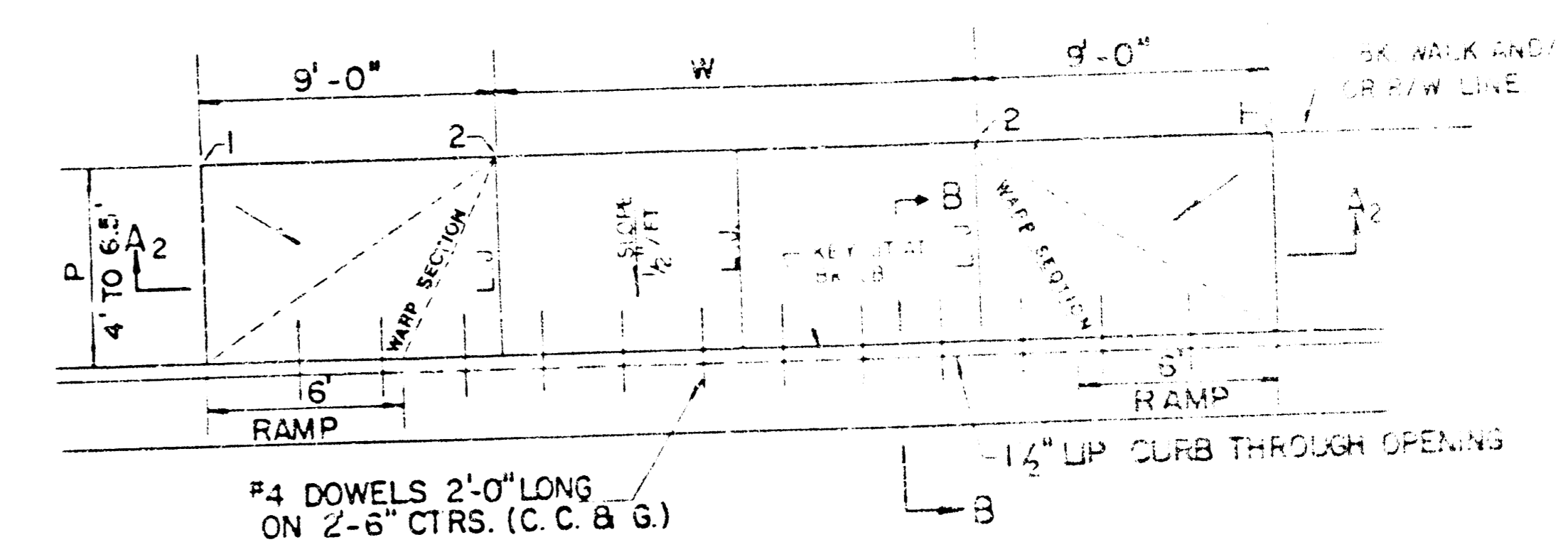
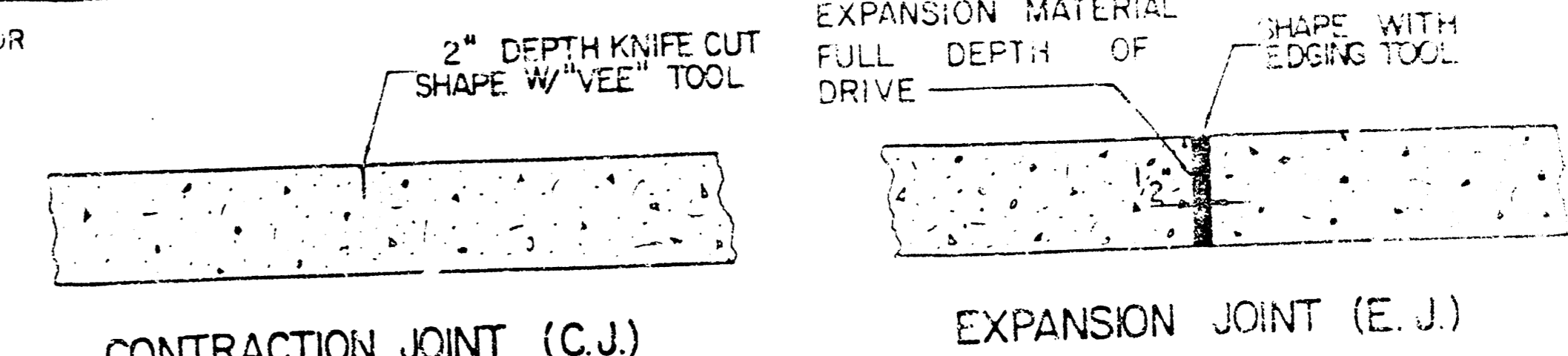
PARKING WIDTH "P"	9'	10'	11'	12'	13'	14.5'	20'	25'	30'	35'	40'	45'	50'
ABSOLUTE MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CURB	0.35	0.35	0.40	0.45	0.60	0.80	1.35	1.85	2.35	2.85	3.35	3.85	4.35
OPTIMUM MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CURB	0.19	0.21	0.23	0.25	0.27	0.30	0.42	0.52	0.62	0.72	0.82	0.92	1.02
ABSOLUTE MIN. DIST. OF PT. "WG" BELOW TOP OF FULL CURB	-0.19	-0.16	-0.13	-0.10	-0.06	0.00	0.00	0.15	0.25	0.35	0.45	0.55	0.65

RADIUS RAMP DRIVES (P = 9.0' & GREATER)



6" SUBGRADE COMPACTION (95% STANDARD)  
SECTION A2-A2  
WARP SECTION 6" MIN  
THICKNESS VARIES FROM 13" AT STREET CURB LINE TO 6" AT END OF 10'-6" RADIUS.

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

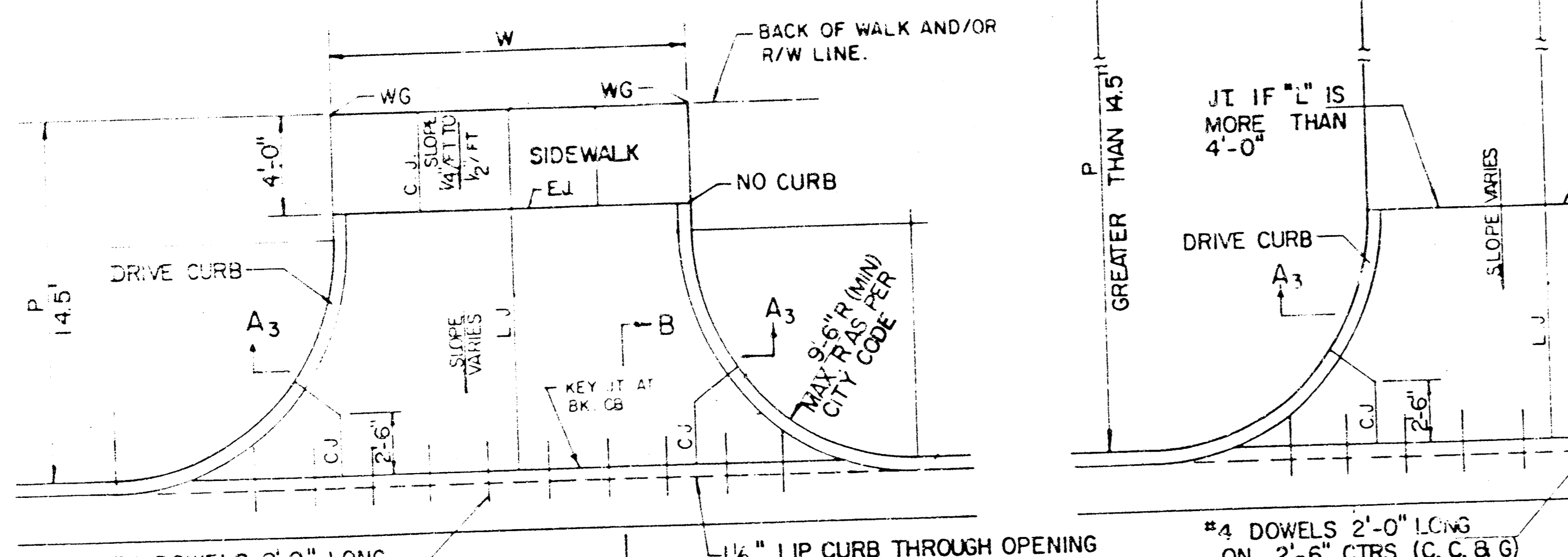


6" SUBGRADE COMPACTION (95% STANDARD)  
SECTION A2-A2  
WARP SECTION 6" MIN  
THICKNESS VARIES FROM 13" AT STREET CURB LINE TO 6" AT BACK OF WALK OR R/W LINE.

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	-0.26	-0.24	-0.22	-0.20	-0.18	-0.16

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

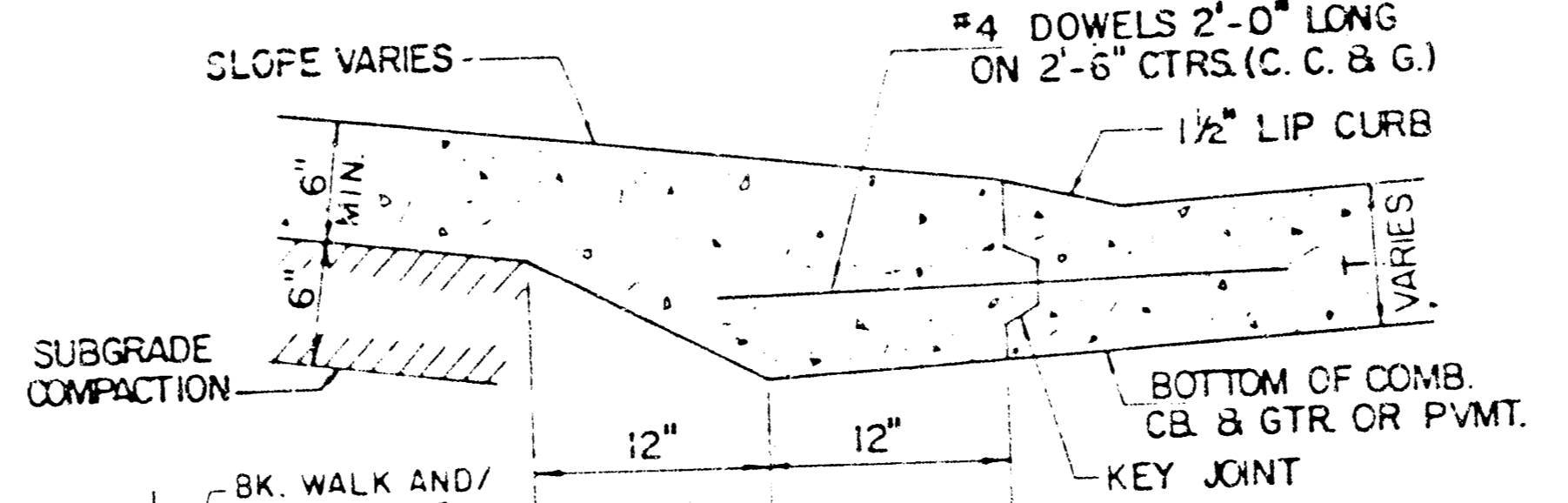
- GENERAL NOTES
- DRIVEWAY CONSTRUCTION DETAILED IN THIS SHEET IS FOR ALL FULL HEIGHT CURBS AND IN AREAS WITHOUT FULL WALK CONSTRUCTION IN THE DRIVEWAY. SEE DETAIL SHEETS FOR DRIVEWAY CONSTRUCTION WITH FULL WALK CONSTRUCTION.
  - ONE LONGITUDINAL JOINT SHALL BE CONSTRUCTED ALONG THE CENTERLINE OF DRIVEWAY A 7" MIN. DIMENSION IF 24" OR LESS. TWO LONGITUDINAL JOINTS SHALL BE CONSTRUCTED WITH EQUAL SPACINGS NOT TO EXCEED 24" FOR DRIVEWAYS WITH A 7" MIN. DIMENSION GREATER THAN 24".
  - DRIVEWAY WIDTH DENOTED AS "W" IN THE DETAIL DRAWINGS SHALL BE A MINIMUM OF 6' AND A MAXIMUM OF 30'. THE MAXIMUM SPACING FOR WALKS SHALL BE 24" WITH WALKS THROUGH THE RADIUS SHALL NOT EXCEED 24" AT THE STREET CURB LINE.
  - CONTRACTION JOINT SPACING IN THE DRIVEWAY WALK SECTION SHALL BE A MINIMUM OF 6' AND A MAXIMUM OF 12' AND HAVE TO BE EQUALLY SPACED WITHIN THE DRIVEWAY. WALKS SHALL BE CONSTRUCTED TO THE SAME THICKNESS AS THE DRIVEWAY.
  - DOWEL BARS SHALL BE OMITTED FROM THE KEY JOINT INSTALLATION OF DRIVEWAYS WITH CONCRETE PAVEMENT CONSTRUCTION.
  - ADDITIONAL THICKNESS OF DRIVE AS INDICATED IN THE DRAWINGS SHALL BE FIELDED IN DIRECTLY AND THIS COST SHALL BE INCLUDED IN THE BIDDING PRICE FOR DRIVEWAY CONSTRUCTION.
  - ONE HALF INCH EXPANSION JOINTS SHALL BE INSTALLED WHEREVER THERE IS A CHANGE IN CURBS SIDEWALK. ONE HALF INCH EXPANSION JOINTS SHALL BE INSTALLED AT THE PROPERTY LINE AND/OR BACK OF WALK LINE WHEN DRIVEWAY CONSTRUCTION IS FULL HEIGHT CURBS CONCRETE PARKING LOTS OR CONCRETE DRIVE EXTENSIONS.
  - ALL DRIVEWAYS SHALL BE A MINIMUM OF 6" IN THICKNESS AND SHALL BE REINFORCED WITH #4 DOWELS 2" DIA. WELDED WIRE FABRIC WHEN FULL HEIGHT CURBS ARE REQUIRED. REINFORCEMENT SHALL BE INSTALLED THROUGH DRIVEWAY AND SHALL BE REINFORCED WITH #4 DOWELS 2" DIA. WELDED WIRE FABRIC WHEN FULL HEIGHT CURBS ARE REQUIRED. REINFORCEMENT SHALL BE INSTALLED THROUGH DRIVEWAY AND SHALL BE REINFORCED WITH #4 DOWELS 2" DIA. WELDED WIRE FABRIC WHEN FULL HEIGHT CURBS ARE REQUIRED.
  - OPTIMUM DRIVEWAY ELEVATIONS SHOWN IN THE TABLES ARE TO BE USED AS A GUIDE ONLY. REINFORCEMENT MAXIMUM AND MINIMUM ELEVATIONS ARE TO BE USED AS A GUIDE ONLY. VALUES SHOWN IN THE TABLES ARE BASED ON A FULL CURB HEIGHT OF 30" ABOVE THE OUTER FLOW LINE AND MUST BE ADJUSTED ACCORDING TO THE ACTUAL CURB HEIGHTS. VALUES SHOWN IN THE TABLES WITH MINUS SIGN INDICATE ELEVATIONS BELOW TOP OF FULL HEIGHT CURB.



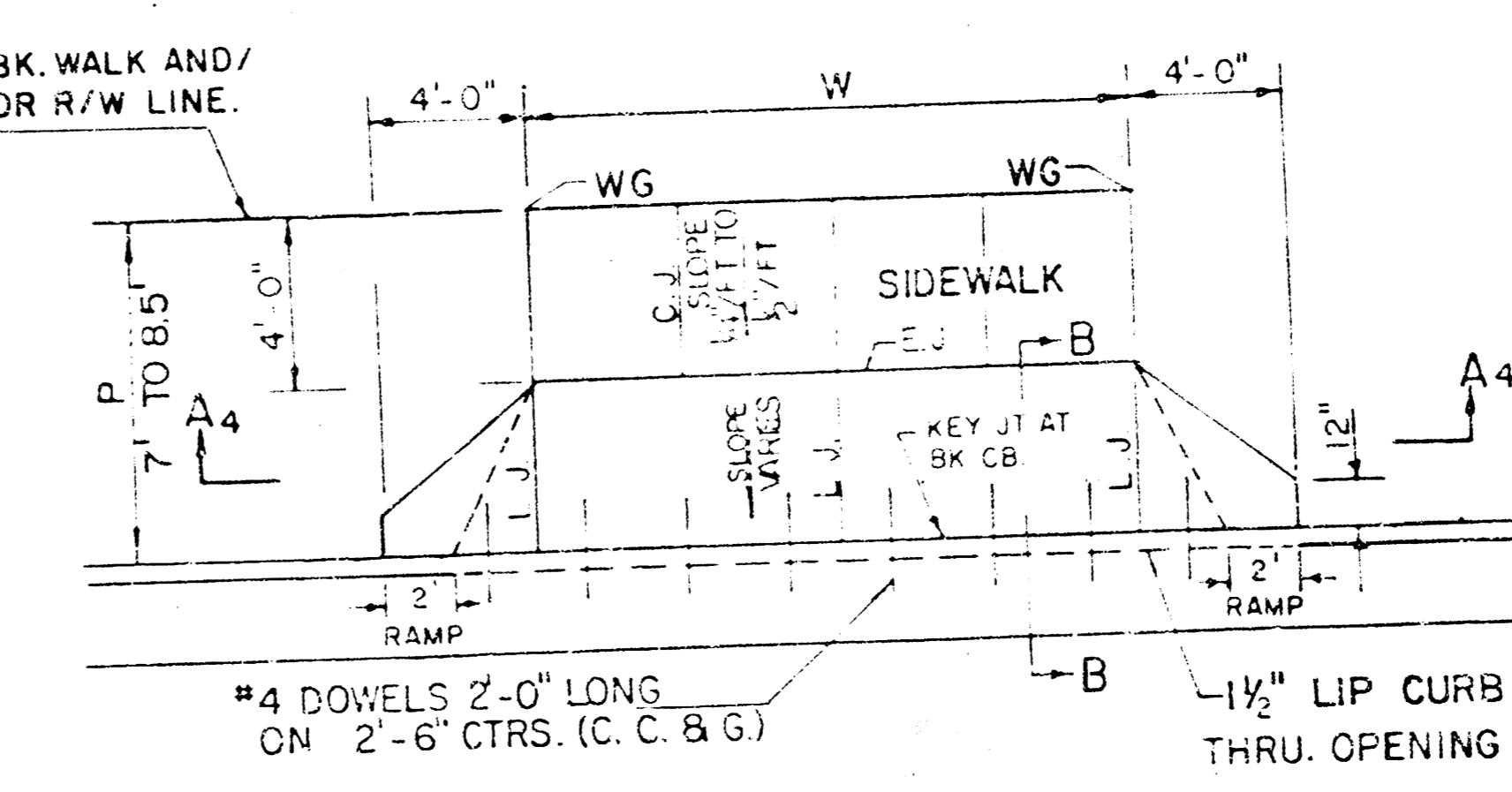
6" SUBGRADE COMPACTION (95% STANDARD)  
SECTION A3-A3  
WARP SECTION 6" MIN  
CURB HEIGHT VARIES FROM FULL HEIGHT AT STREET CURB LINE TO NO CURB AS INDICATED.

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
ABSOLUTE MIN. DIST. OF PT. "WG" BELOW TOP OF FULL CB	0.30	0.42	0.52	0.62	0.72	0.82	0.92	1.02
OPTIMUM MIN. DIST. OF PT. "WG" BELOW 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)



BACK OF CURB DETAIL SECTION B-B



6" SUBGRADE COMPACTION (95% STANDARD)  
SECTION A4-A4  
WARP SECTION 6" MIN  
THICKNESS VARIES FROM 13" AT STREET CURB LINE TO 6" AT SIDEWALK SECTION.

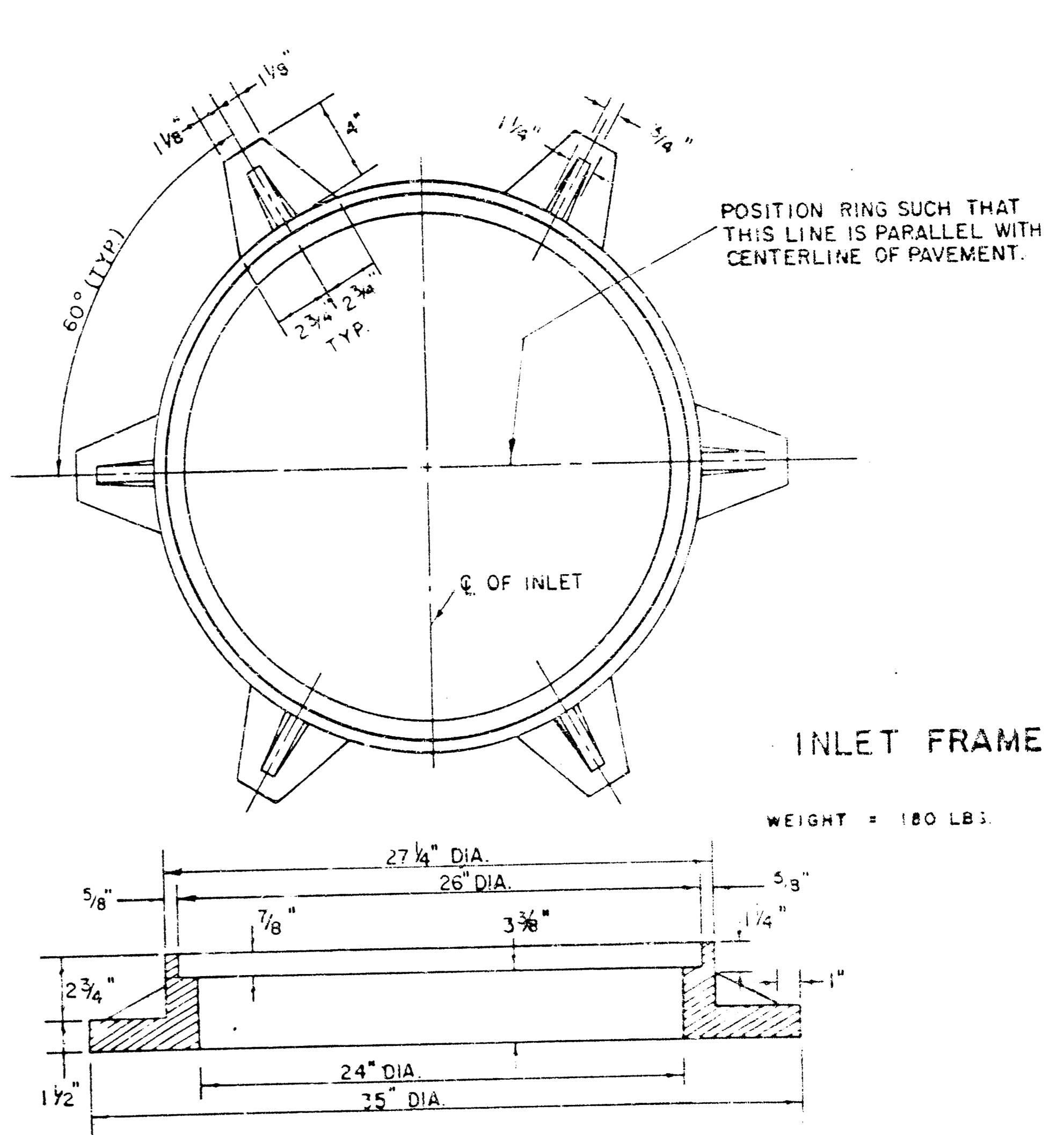
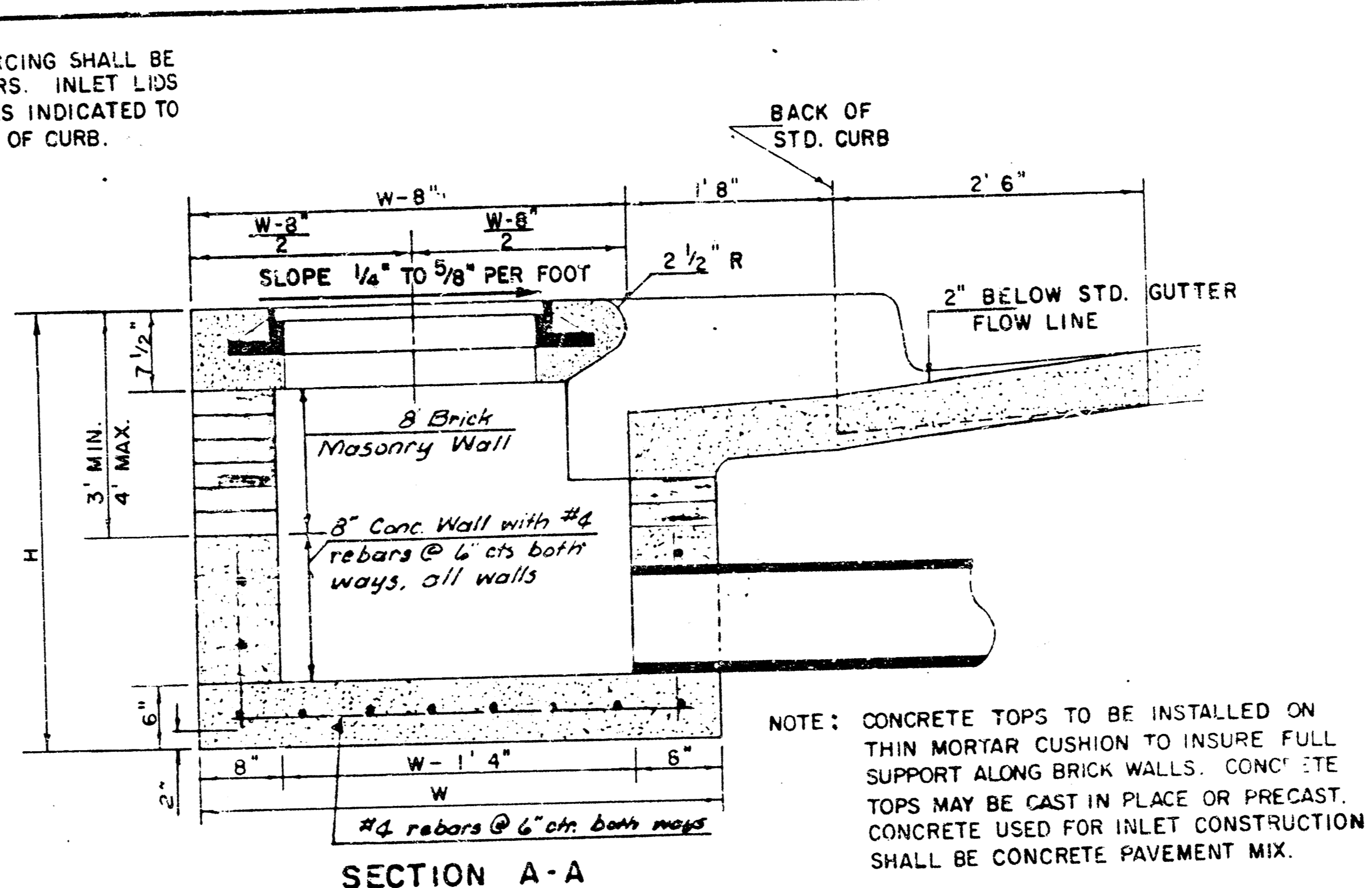
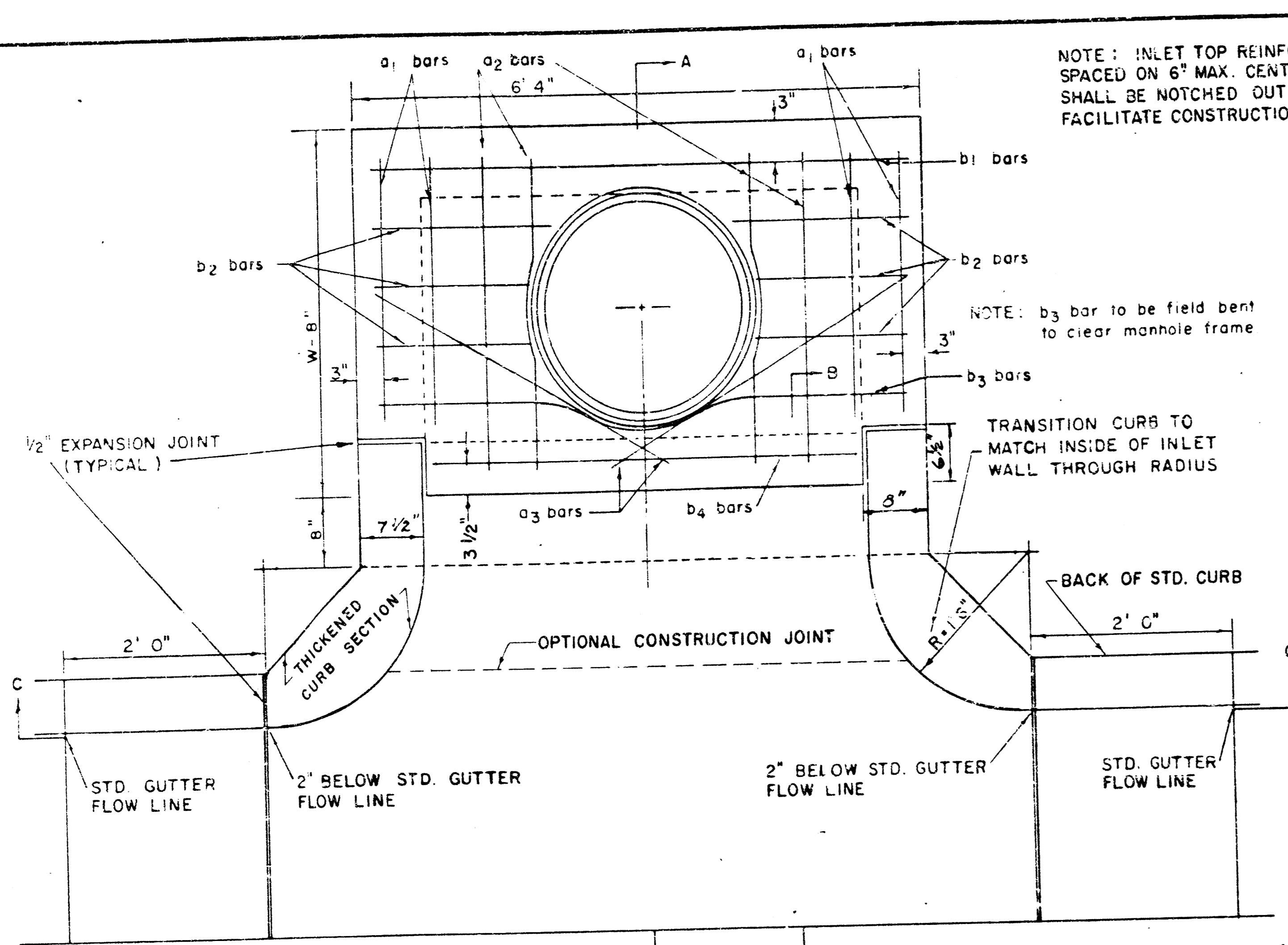
PARKING WIDTH "P"	7'	7.5'	8'	8.5'
ABSOLUTE MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB	0.00	0.10	0.20	0.30
OPTIMUM MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB	0.00	0.10	0.20	0.30
ABSOLUTE MIN. DIST. OF PT. "WG" BELOW TOP OF FULL CB	-0.15	-0.16	-0.17	-0.17
OPTIMUM MIN. DIST. OF PT. "WG" BELOW TOP OF FULL CB	-0.25	-0.20	-0.20	-0.20

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

REVISE: OCTOBER 1985  
SCALE: 1"=5'

STANDARD DRIVE ENTRANCES  
FULL HEIGHT CURB  
CITY OF WICHITA, KANSAS

PROJECT NUMBER SHEET NO. 12 OF 21  
472-76-245-81498-009-001



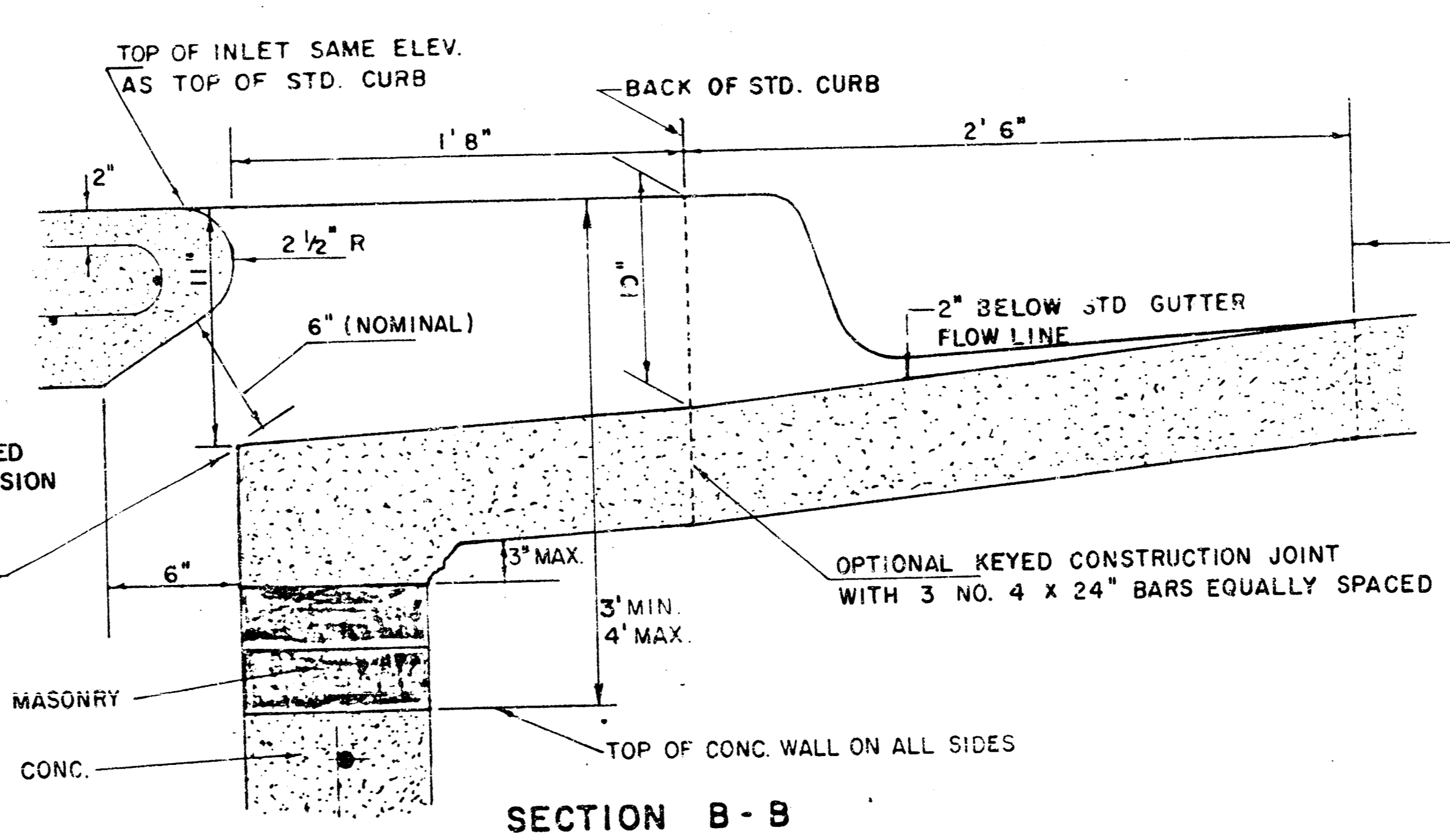
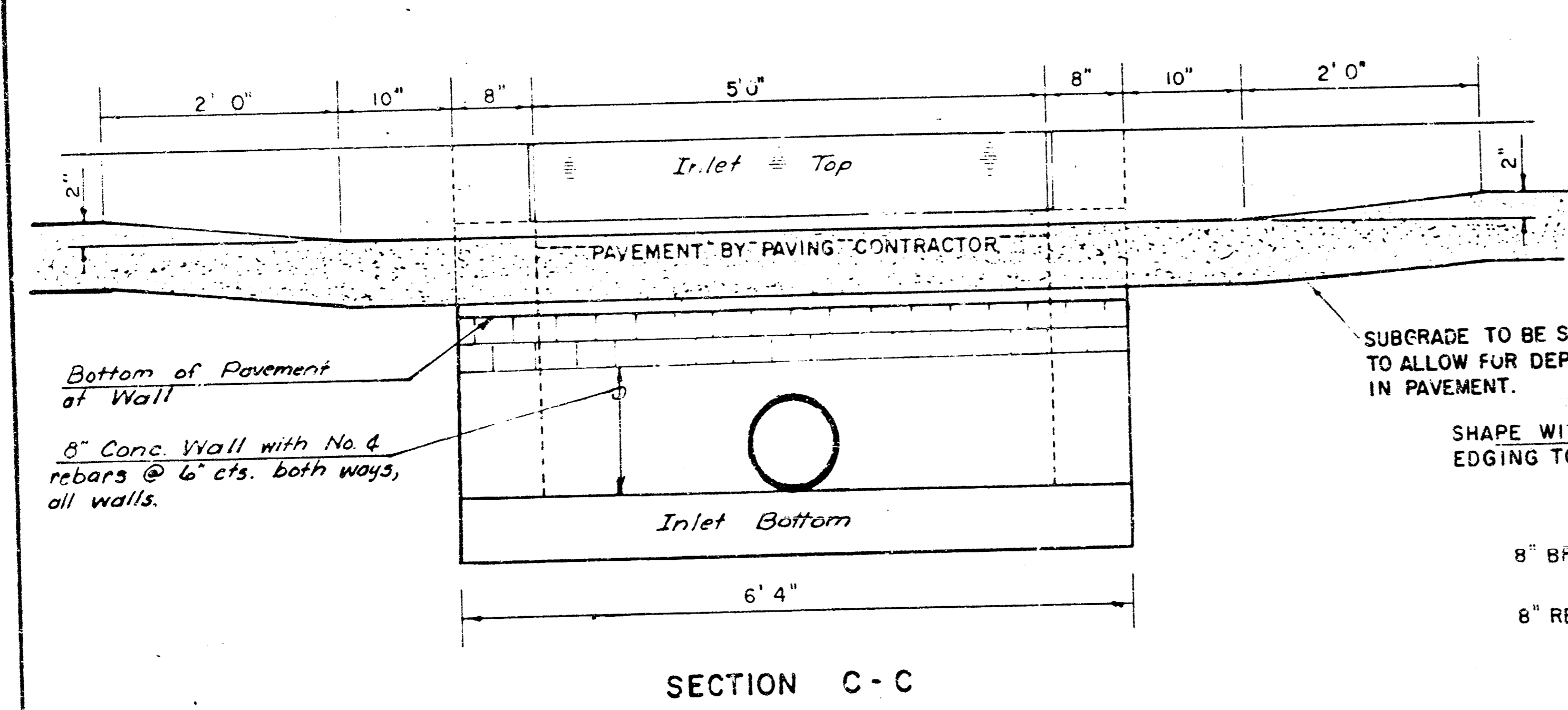
STEEL SCHEDULE

BAR	a1	a2	a3	b1	b2	b3	b4	WT. LBS.
NUMBER	4	4	2	1	3	5	7	
SIZE	#4	#4	#4	#4	#4	#4	#4	#6
W=4'4"	5'7"	6'7"	4'0"	6'1"	-	-	-	60±
W=5'4"	7'7"	8'7"	5'0"	6'1"	-	-	-	81±
W=6'4"	9'7"	10'7"	6'0"	6'1"	-	-	-	101±
W=7'4"	11'7"	12'7"	7'0"	6'1"	-	-	-	121±
W=8'4"	13'7"	14'7"	8'0"	6'1"	-	-	-	141±

\* NOTE: a3 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" x 7 1/2"	21" & SMALLER	0.39±
5'4"	4'8" x 6'4" x 7 1/2"	24" & 30"	0.51±
6'4"	5'8" x 6'4" x 7 1/2"	36" & 42"	0.64±
7'4"	6'8" x 6'4" x 7 1/2"	48" & 54"	0.77±
8'4"	7'8" x 6'4" x 7 1/2"	60" & 66"	0.90±



REVISED 12-21-1984 PROJECT NO. 472-76-245-81496-000-000-001

**DETAIL STANDARD TYPE IA CURB INLET**

CITY OF WICHITA, KANSAS

INLET OPENING = 6" x 5'0"

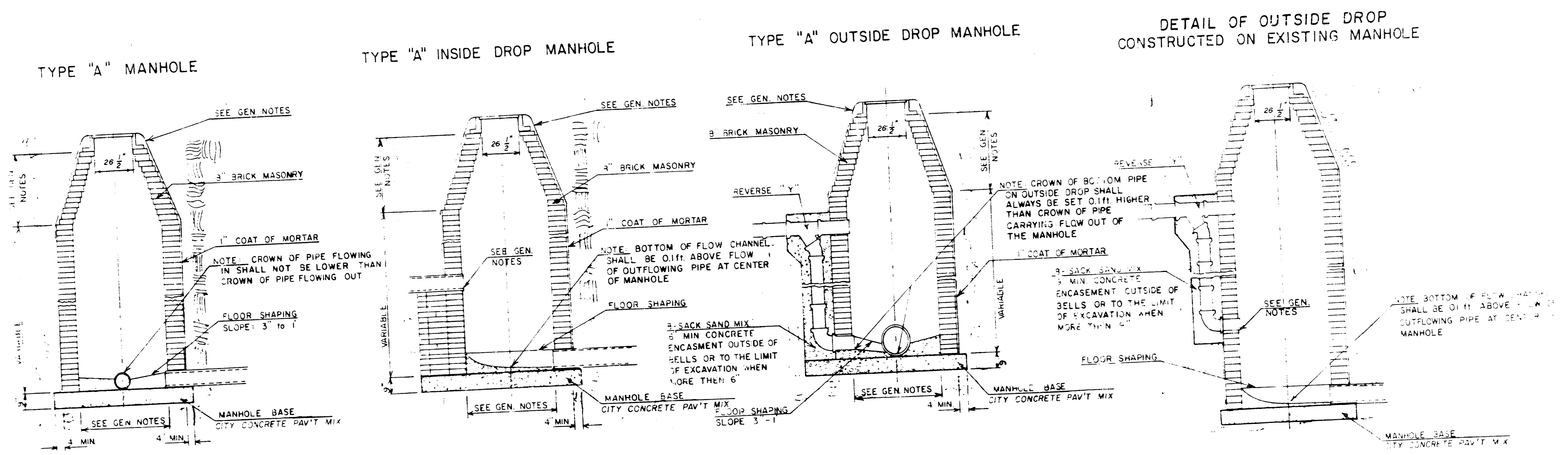
JUNE 1984 SHEET NO. 13 OF 21

# SEWER APPURTENANCES DETAILS

## ADOPTED AS STANDARD DESIGN

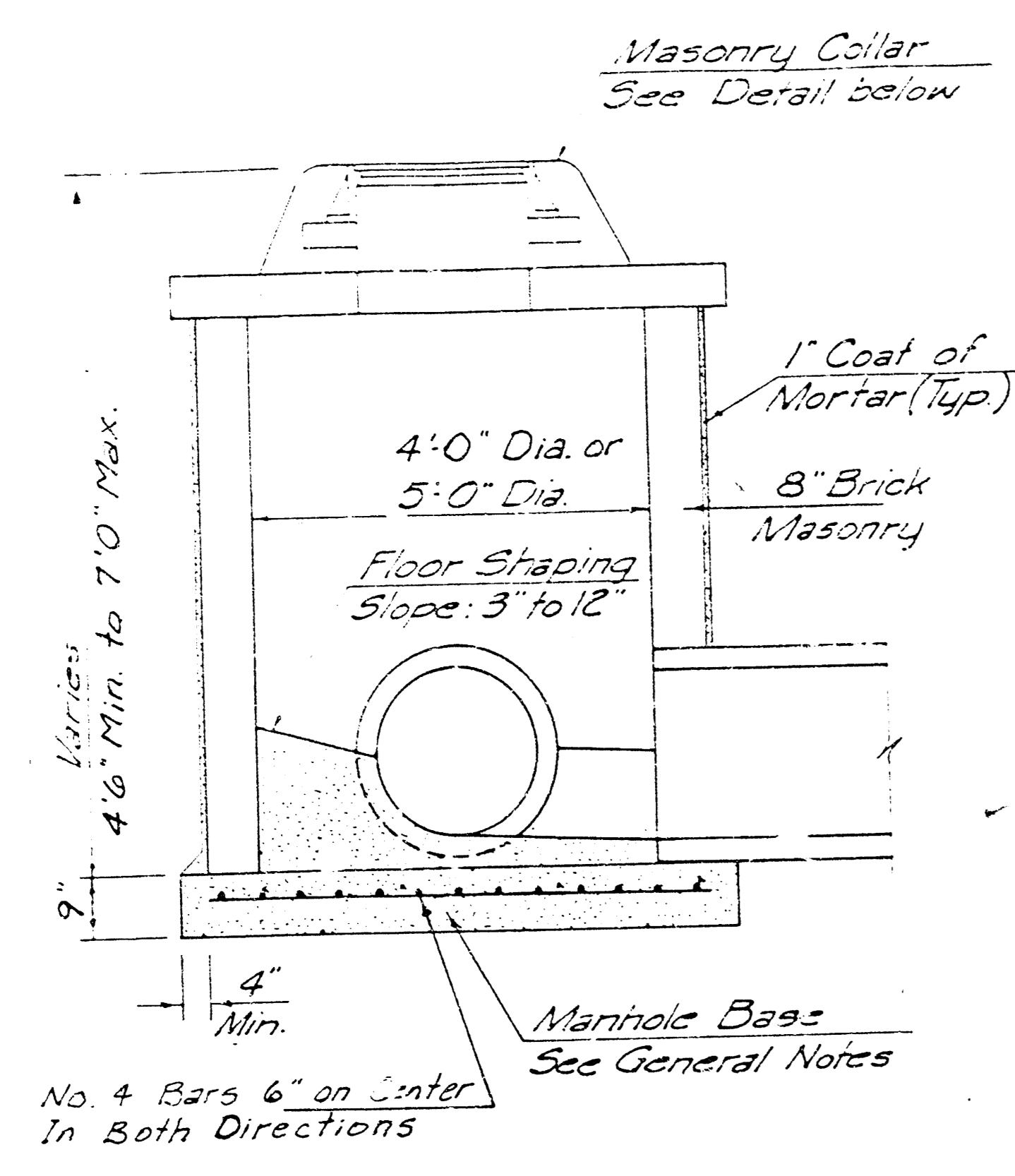
### BY

CITY of WICHITA, KANSAS

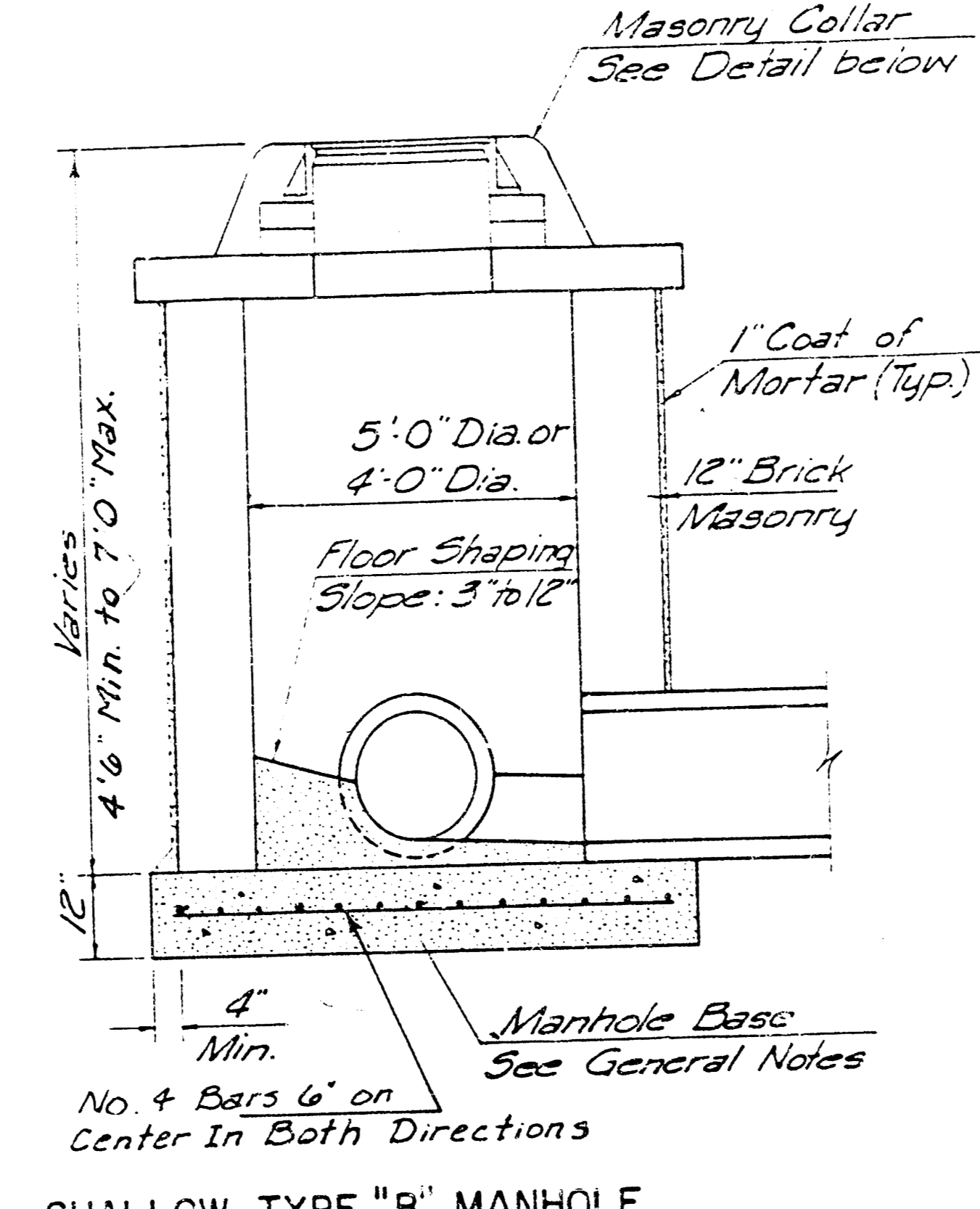


**GENERAL NOTES**

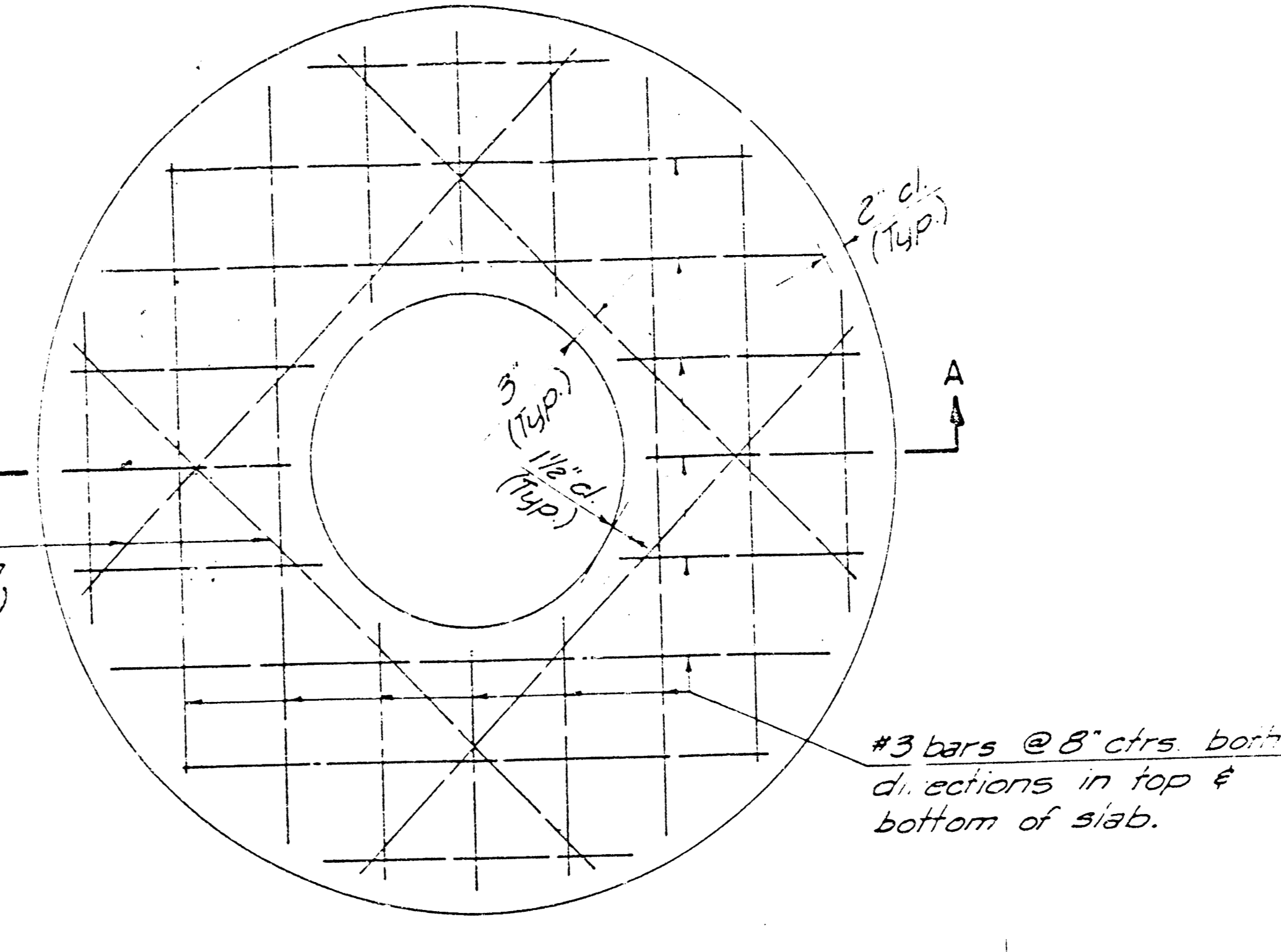
1. MATERIAL USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 BAGS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVING CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE. MORTAR SHALL BE PORTLAND CEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. TYPE "A" MANHOLES CAN BE USED ON PAVED AREAS UP TO 16" IN DEPTH WHEN THE MANHOLE IS NOT LOCATED WITHIN PUBLIC STREET PAVEMENT. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4". MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5". THE HEIGHT OF THE CURBS ON 4" DIAMETER MANHOLES SHALL BE 4". MANHOLES HAVING A DIAMETER OF 5" SHALL HAVE CURBS 6" HIGH. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
2. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 9" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED 9" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
3. OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS CUT INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND LAUNCHING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH THE NEW PIPE. WATERSTOP GASKETS SHALL BE USED WITH THE NEW PIPE AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE ROUTED INTO THE OPENING USING AN APPROVED JOSSHINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE COATED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOOR CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THE VERTICAL DROP FROM THE LOWER PIPE IN SUCH OUTSIDE DROP CONNECTIONS SHALL NOT EXCEED 4" FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2" FOR INFLOWING PIPES SIZED LARGER THAN 12". EXCEPT THE CROWN OF THE LOWER PIPE SHALL NEVER BE SET BELOW THE CROWN OF ANY LARGER OUTFLOWING PIPE. THIS WORK, INCLUDING EQUIPMENT OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
4. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF-CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE SHAPED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. MANHOLE FLOORS SHALL HAVE SLOPES OF 1/8" PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SHAPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO MAKE LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
5. PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE GRADED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN SLAY PIPES ARE USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CRADLE SHALL BE TERMINATED AT THE SLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR TO SLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
6. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
7. THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 4" FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2" FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
8. STANDARD MANHOLES TYPE "A" AND STANDARD INSIDE DROP MANHOLES TYPE "A" SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES TYPE "A" SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.



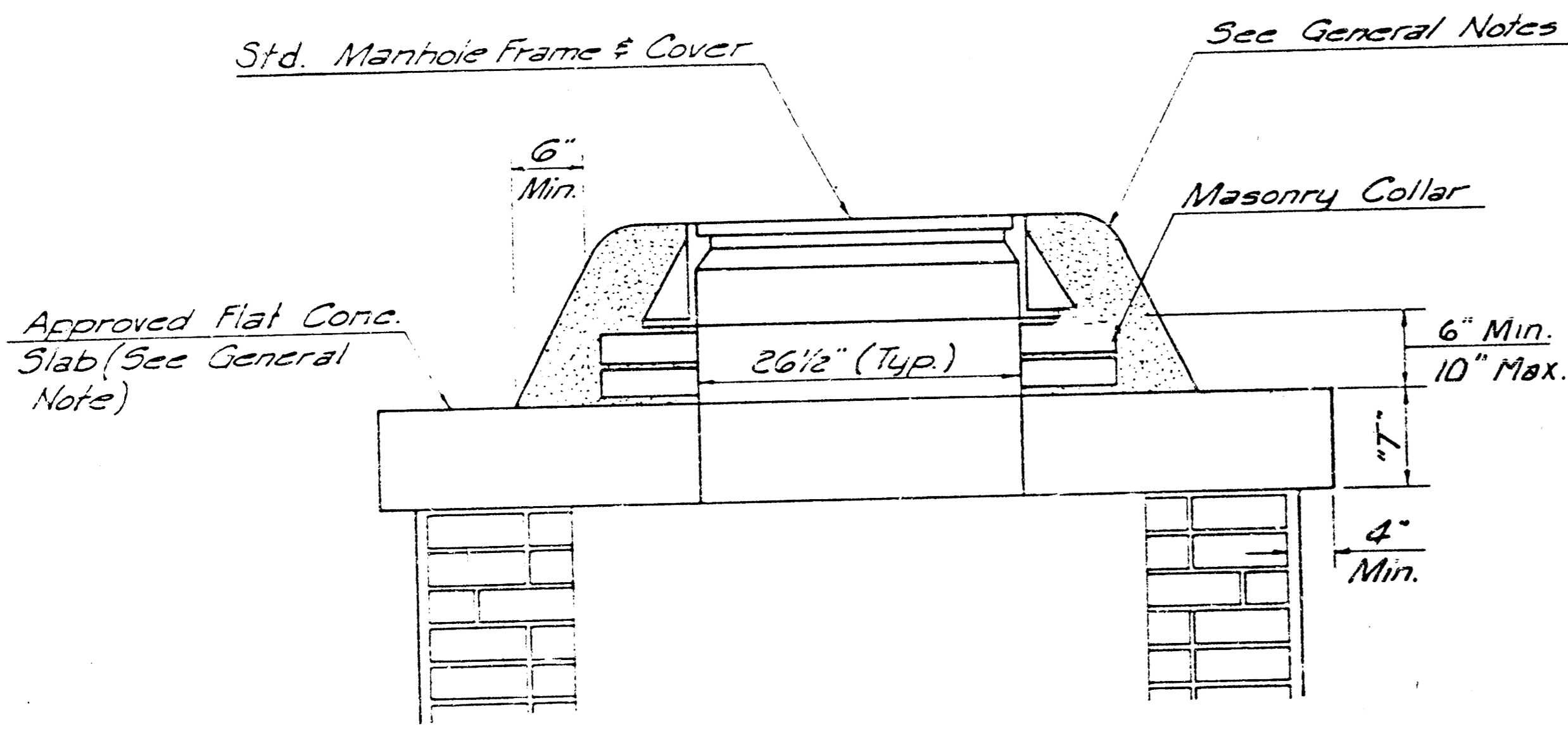
SHALLOW TYPE "A" MANHOLE



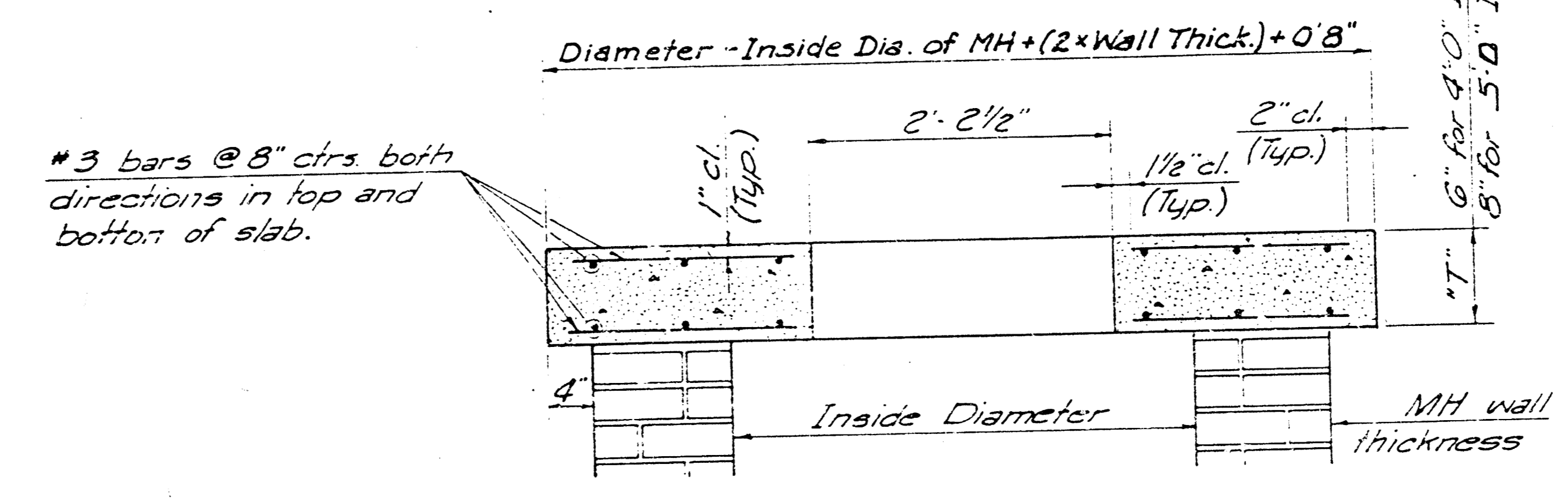
SHALLOW TYPE "B" MANHOLE



PLAN

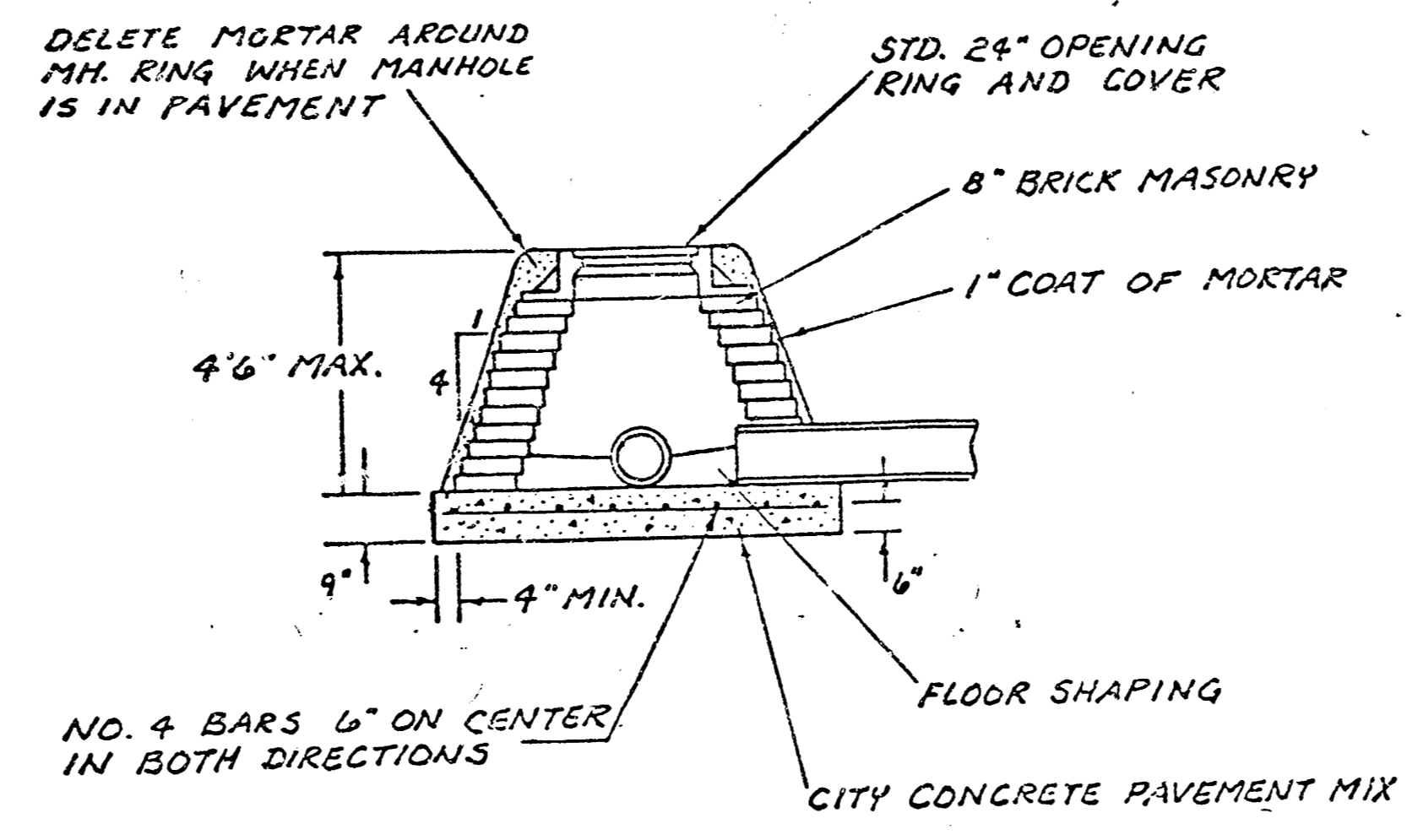


MASONRY COLLAR DETAIL

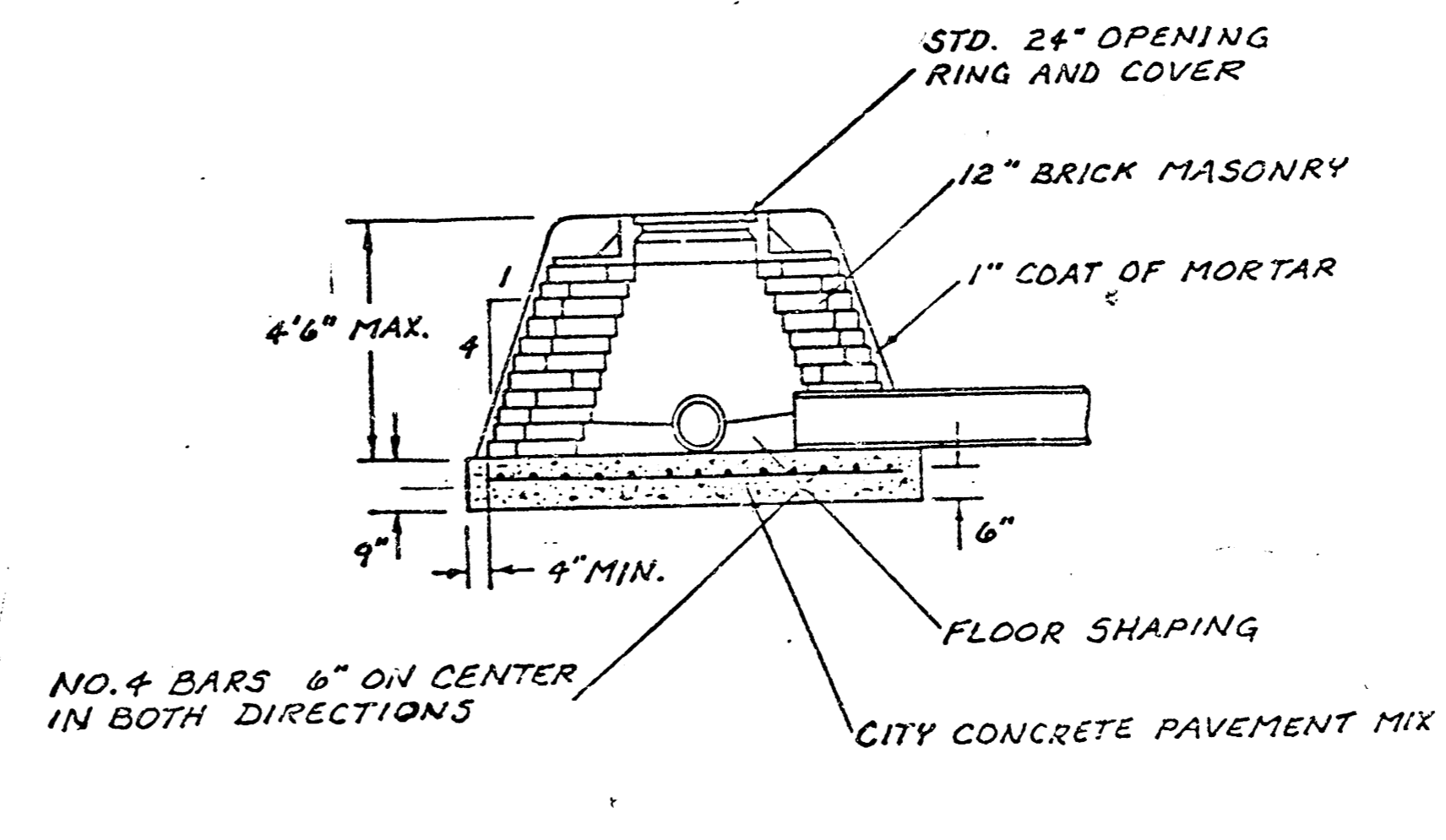


SECTION A-A

FLAT CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE 'A' MANHOLE



SPECIAL SHALLOW TYPE 'B' MANHOLE

GENERAL NOTES

- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE CEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. TYPE "A" SHALLOW MANHOLES CAN BE USED ON SEWERS WHEN THE MANHOLE IS NOT LOCATED WITHIN PUBLIC STREET PAVEMENT. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INCLUSIVE DIAMETER OF 4". MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INCLUSIVE DIAMETER OF 5". COMPLETED MANHOLE SHALL BE AIRTIGHT LEAKS AND WATER TIGHT.
- REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED 6" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
- THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
- PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
- MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWINGS.
- THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
- STANDARD SHALLOW MANHOLES TYPE "A" AND "B" SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR THE TYPE AND DIAMETER INDICATED. STANDARD SPECIAL SHALLOW MANHOLES TYPE "A" AND "B" SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR THE TYPE INDICATED. ALL STANDARD SHALLOW MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.

CITY OF WICHITA, KANSAS  
STANDARD SHALLOW MANHOLES  
TYPE 'A' AND TYPE 'B'

PROJECT NO. 472-76-245-81496-000-000-001  
SHEET NO. 15 OF 21

Designed by	Checked by
Drawn by	Date
	Job No.

# MANHOLE FRAME AND COVER DETAIL

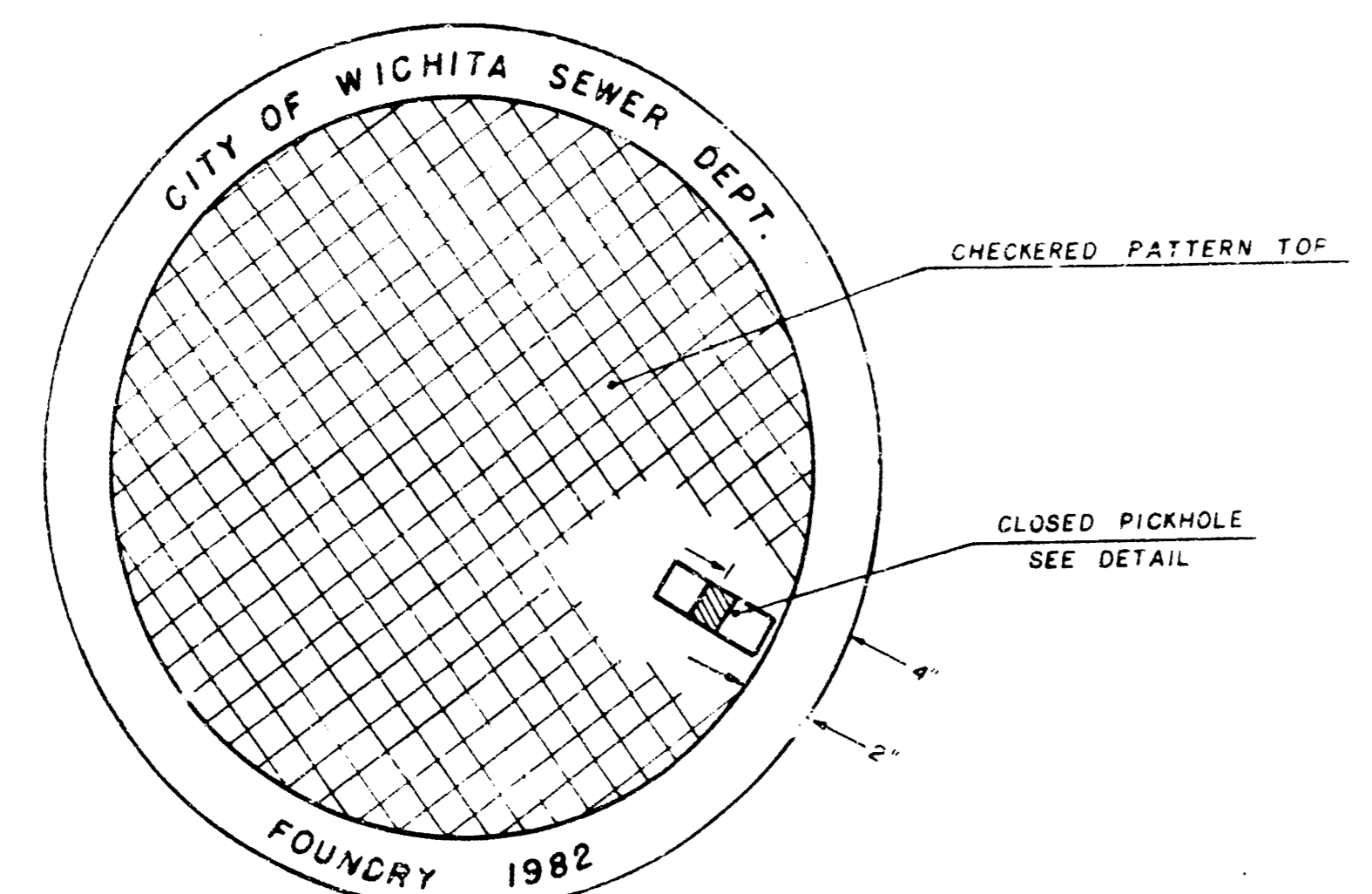
ADOPTED AS STANDARD DESIGN

BY

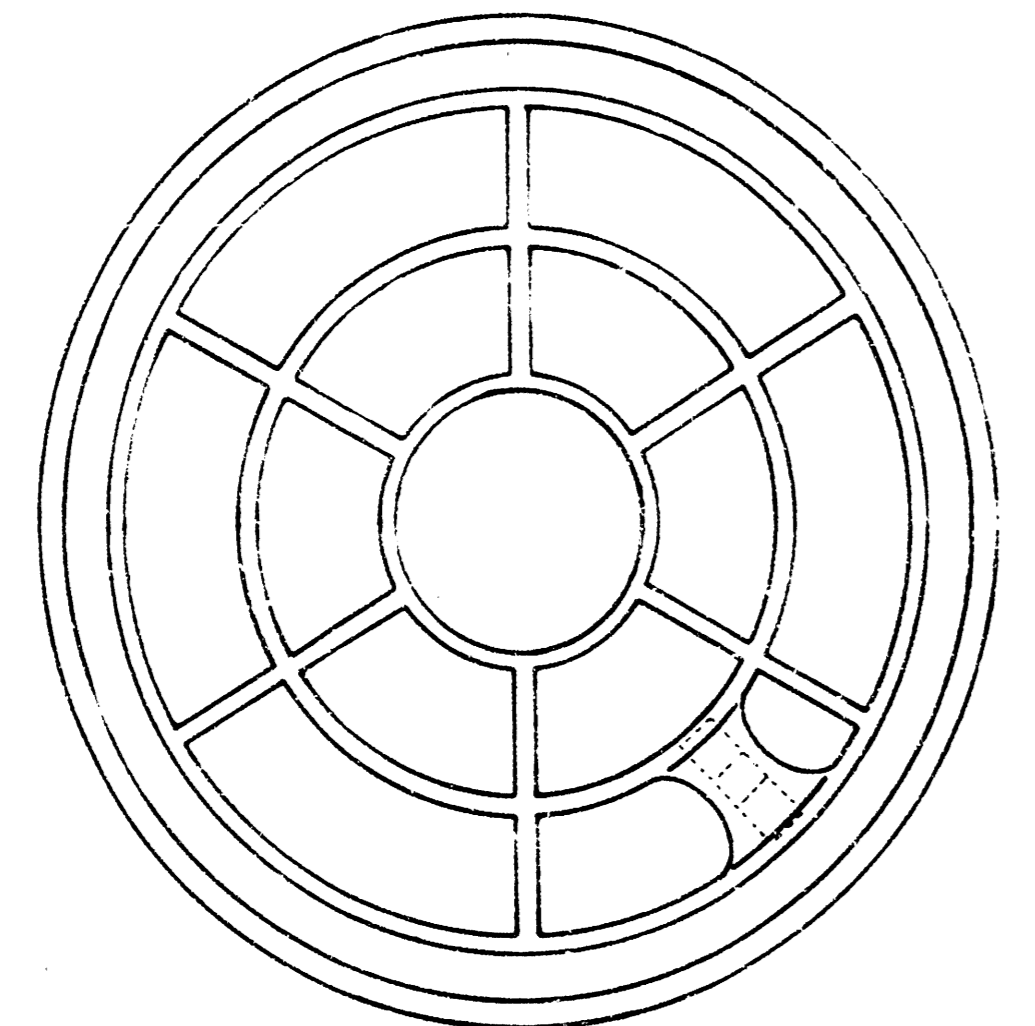
City of Wichita, Kansas

## MANHOLE COVER

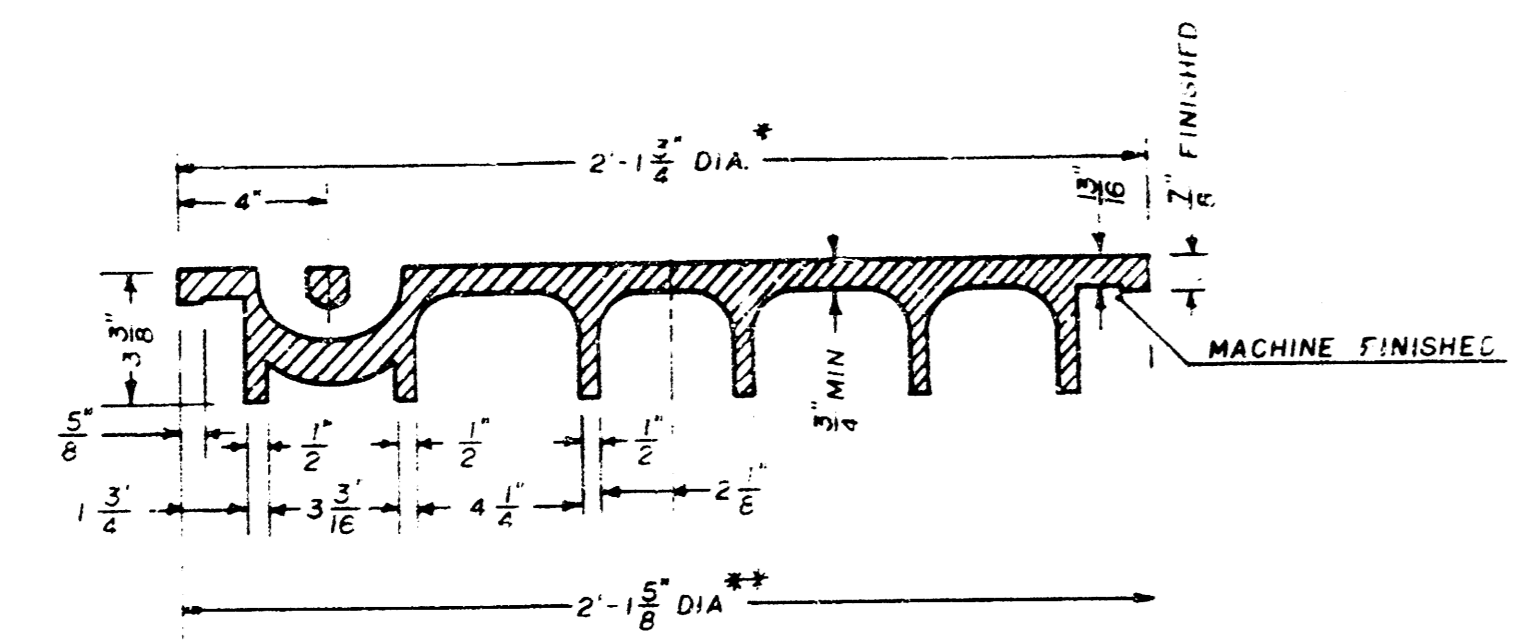
Weight: 180 Lbs.



TOP VIEW



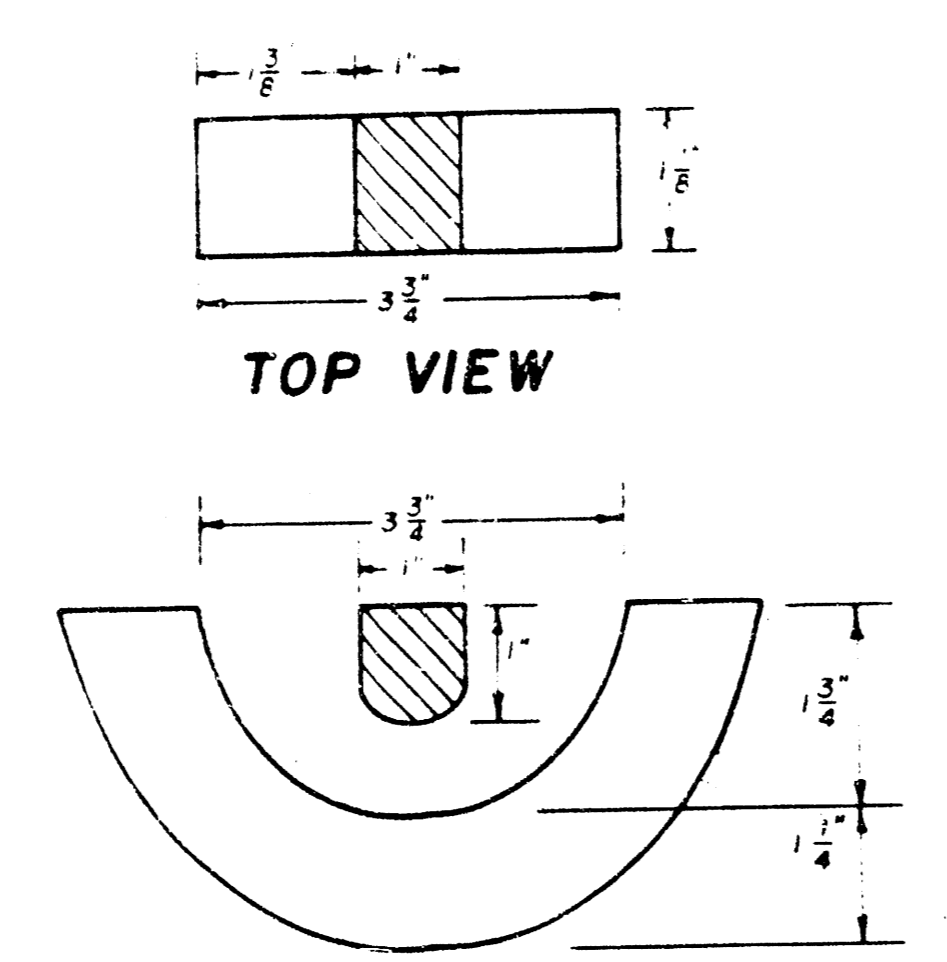
BOTTOM VIEW



SECTION VIEW

\* OUTSIDE DIA TOP OF COVER  
\*\* OUTSIDE DIA BOTTOM OF COVER

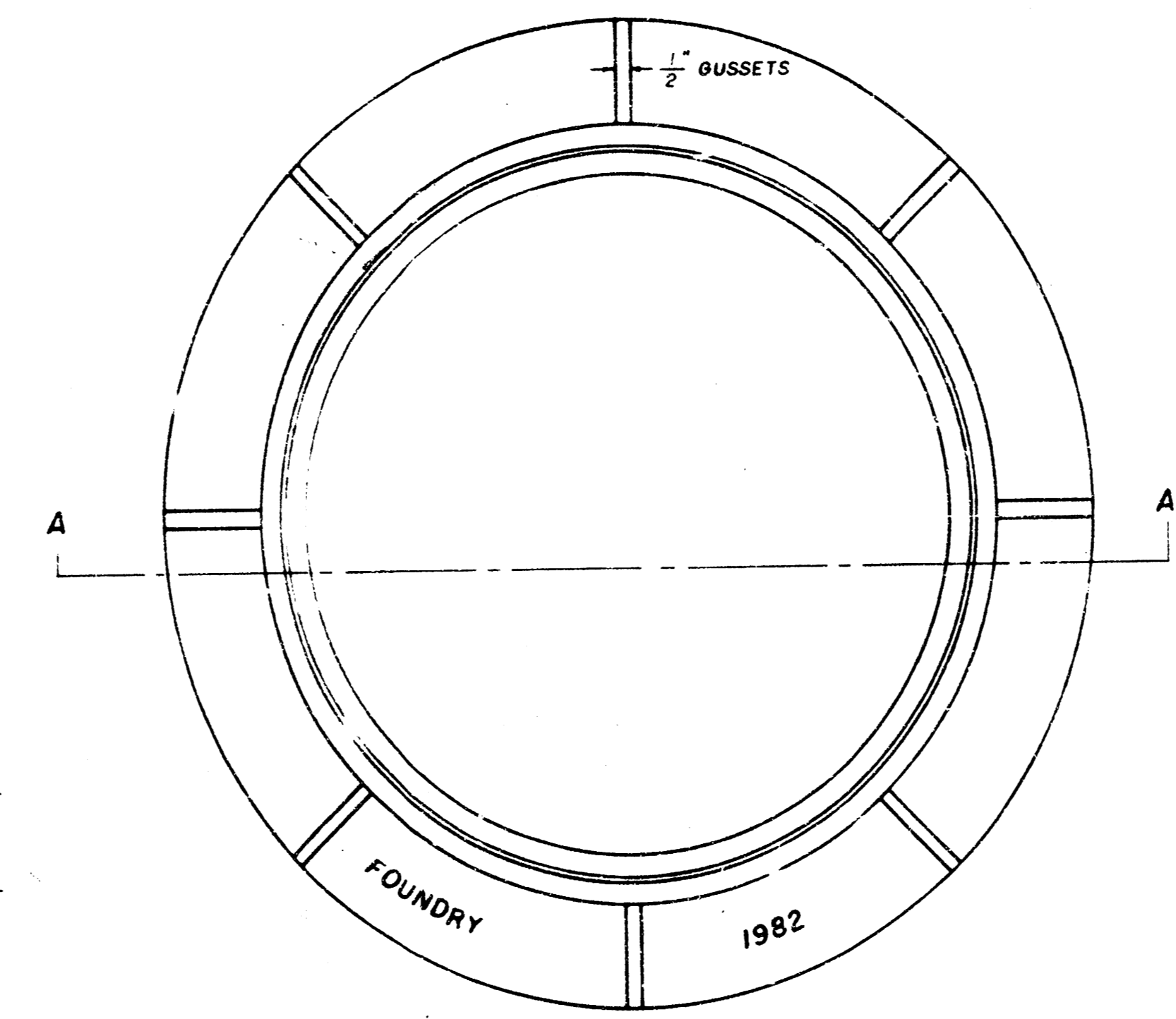
## PICKHOLE DETAIL



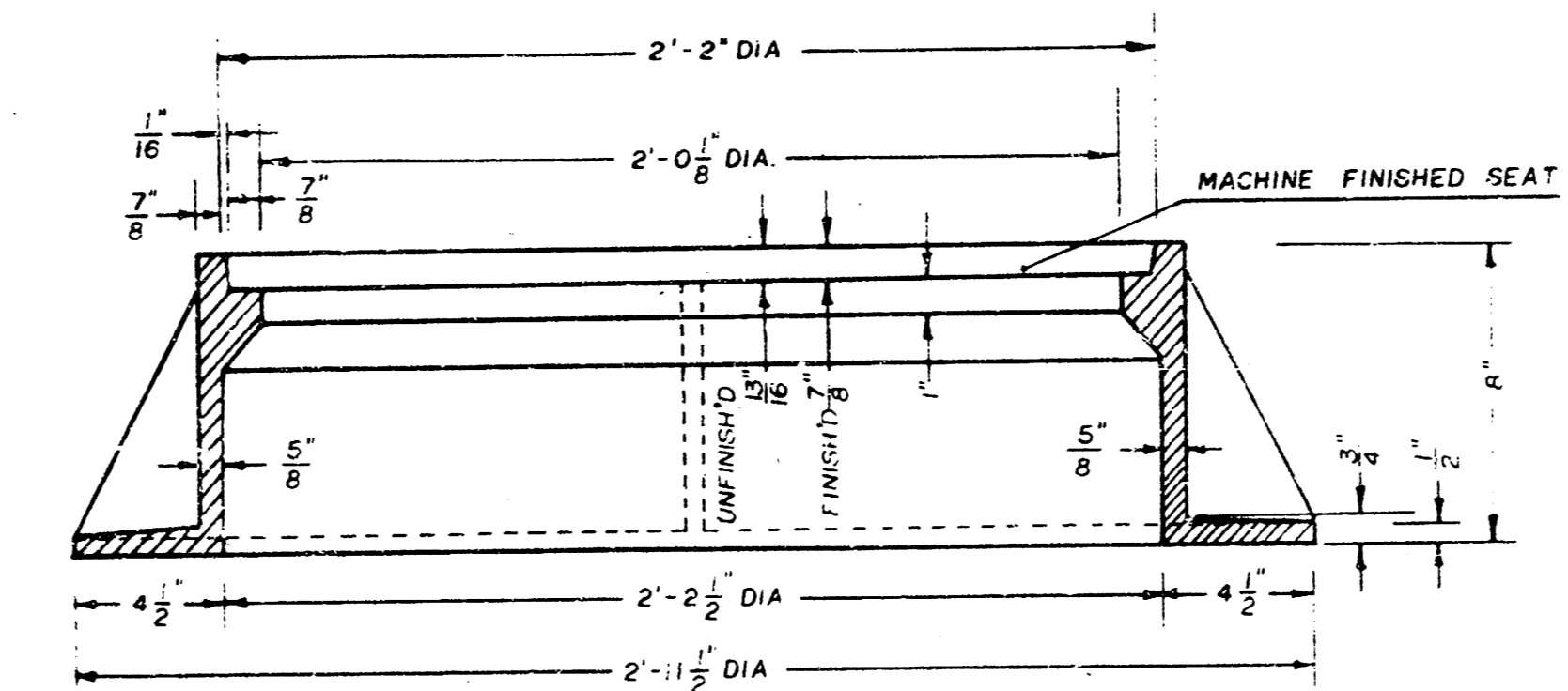
SECTION VIEW

## MANHOLE FRAME

Weight: 240 Lbs.



TOP VIEW



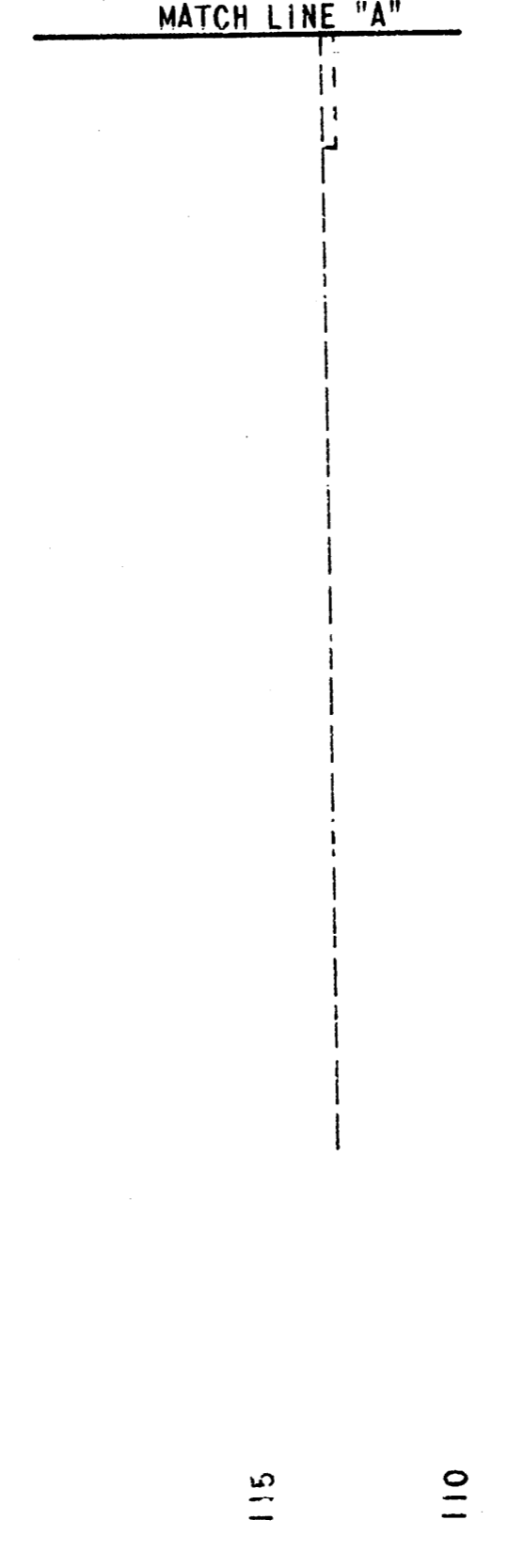
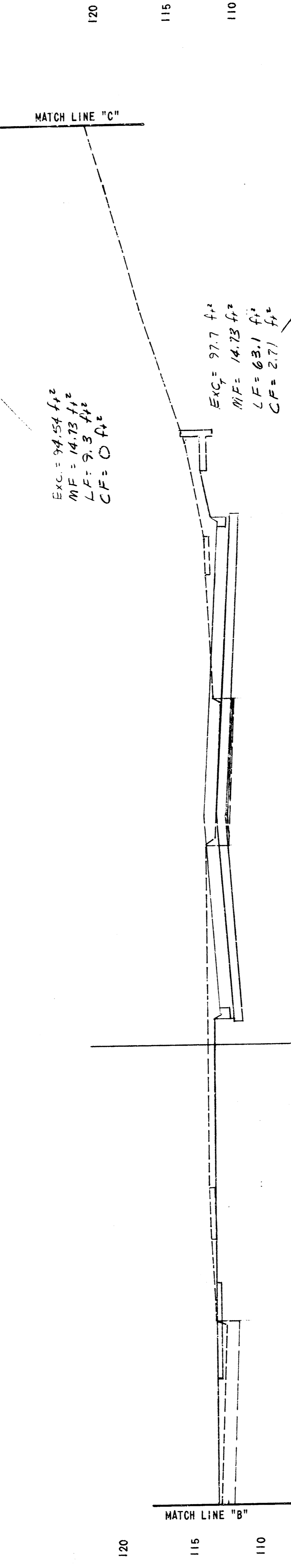
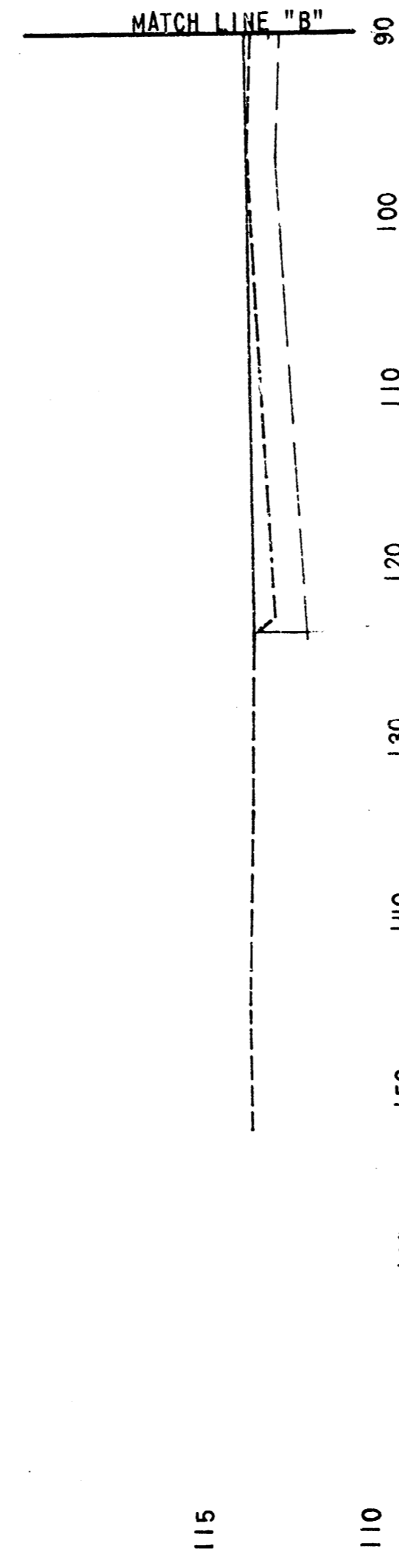
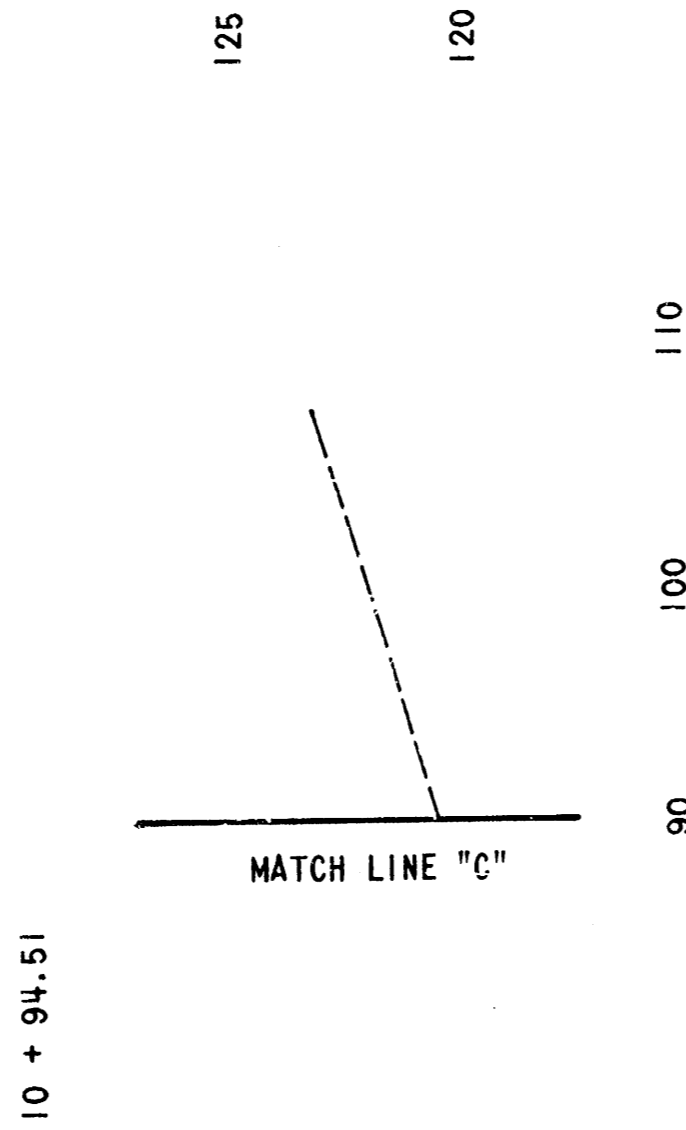
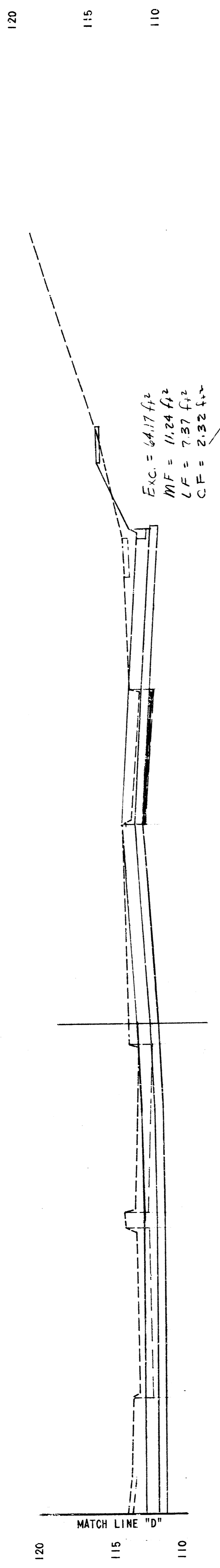
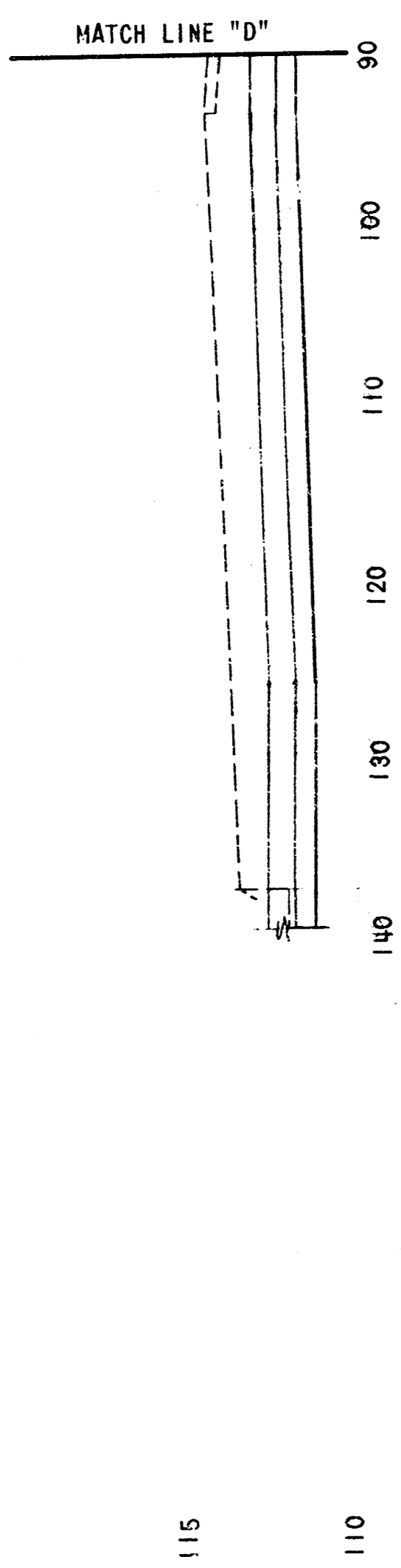
SECTION A-A

### GENERAL NOTES

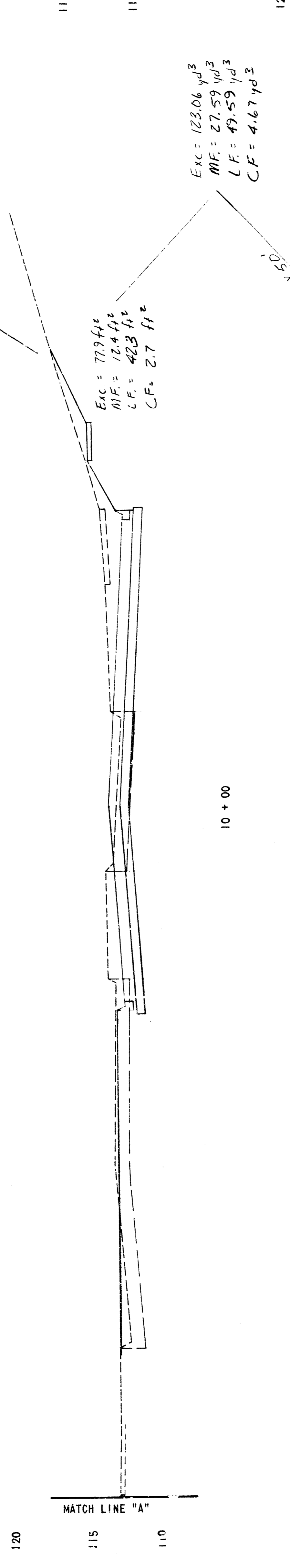
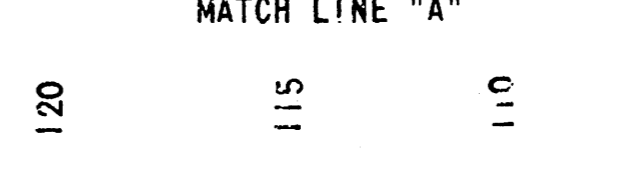
1. MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE 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 LETTERING 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.



90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90



Exc = 162.59 yd<sup>3</sup>  
MF = 25.12 yd<sup>3</sup>  
LF = 49.59 yd<sup>3</sup>  
CF = 4.67 yd<sup>3</sup>



Exc = 95.74 yd<sup>3</sup>  
MF = 21.11 yd<sup>3</sup>  
LF = 10.44 yd<sup>3</sup>  
CF = 2.16 yd<sup>3</sup>

Exc = 65.24 ft<sup>2</sup>  
MF = 17.4 ft<sup>2</sup>  
LF = 13.1 ft<sup>2</sup>  
CF = 0.3 ft<sup>2</sup>

SHEET TOTAL  
Exc = 695.04 yd<sup>3</sup>  
MF = 139.95 yd<sup>3</sup>  
LF = 140.50 yd<sup>3</sup>  
CF = 51.62 yd<sup>3</sup>

Exc = 484 ft<sup>2</sup>  
MF = 54 ft<sup>2</sup>  
LF = 64 ft<sup>2</sup>  
CF = 0.4 ft<sup>2</sup>

Exc = 854.94 yd<sup>3</sup>  
MF = 4.72 yd<sup>3</sup>  
LF = 0 yd<sup>3</sup>  
CF = 0 yd<sup>3</sup>

WICHITA, KANSAS

CENTRAL - SENECA STREET CONNECTOR INCLUDING STACKMAN INTERSECTION IMPROVEMENTS

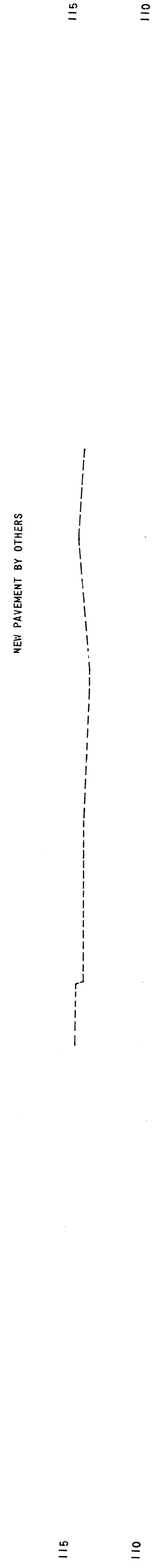
CROSS SECTIONS

WCEA FILE NO. 85-328

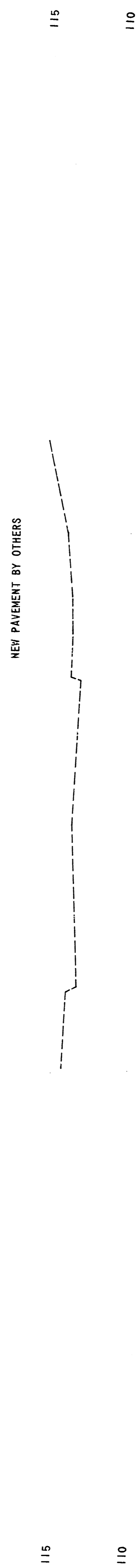
SHEET NO. 18 OF 21

18/21

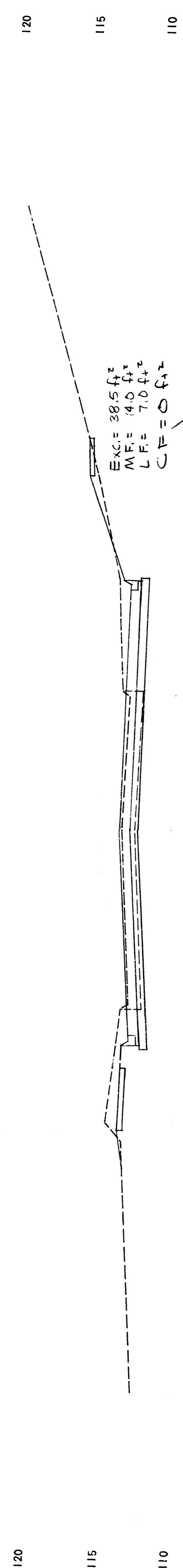
90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90



12 + 36



12 + 22



Exc. = 38.5 ft<sup>2</sup>  
 MF = 4.0 ft<sup>2</sup>  
 LF = 7.0 ft<sup>2</sup>  
 CF = 0 ft<sup>2</sup>

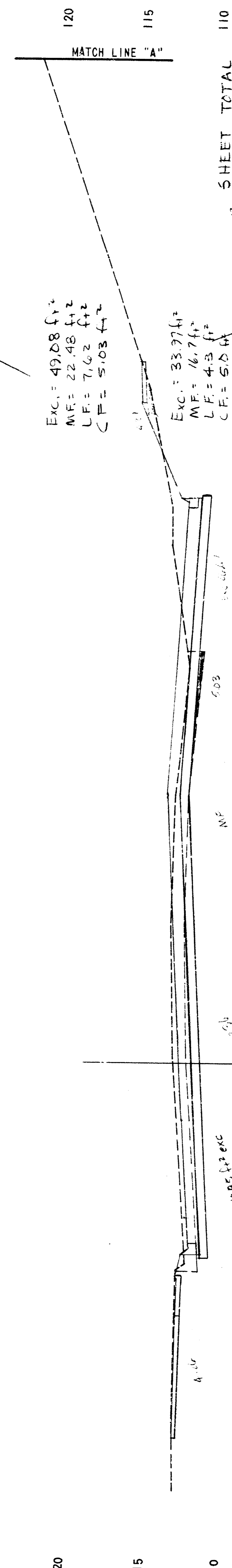
Exc. = 60.28 yd<sup>3</sup>  
 MF = 33.20 yd<sup>3</sup>  
 LF = 13.87 yd<sup>3</sup>  
 CF = 4.58 yd<sup>3</sup>

11 + 99.15

MATCH LINE "A"

Exc. = 49.28 ft<sup>2</sup>  
 MF = 22.98 ft<sup>2</sup>  
 LF = 7.62 ft<sup>2</sup>  
 CF = 5.03 ft<sup>2</sup>

110



Exc. = 49.28 ft<sup>2</sup>  
 MF = 22.98 ft<sup>2</sup>  
 LF = 7.62 ft<sup>2</sup>  
 CF = 5.03 ft<sup>2</sup>

Exc. = 33.97 ft<sup>2</sup>  
 MF = 16.71 ft<sup>2</sup>  
 LF = 4.33 ft<sup>2</sup>  
 CF = 5.0 ft<sup>2</sup>

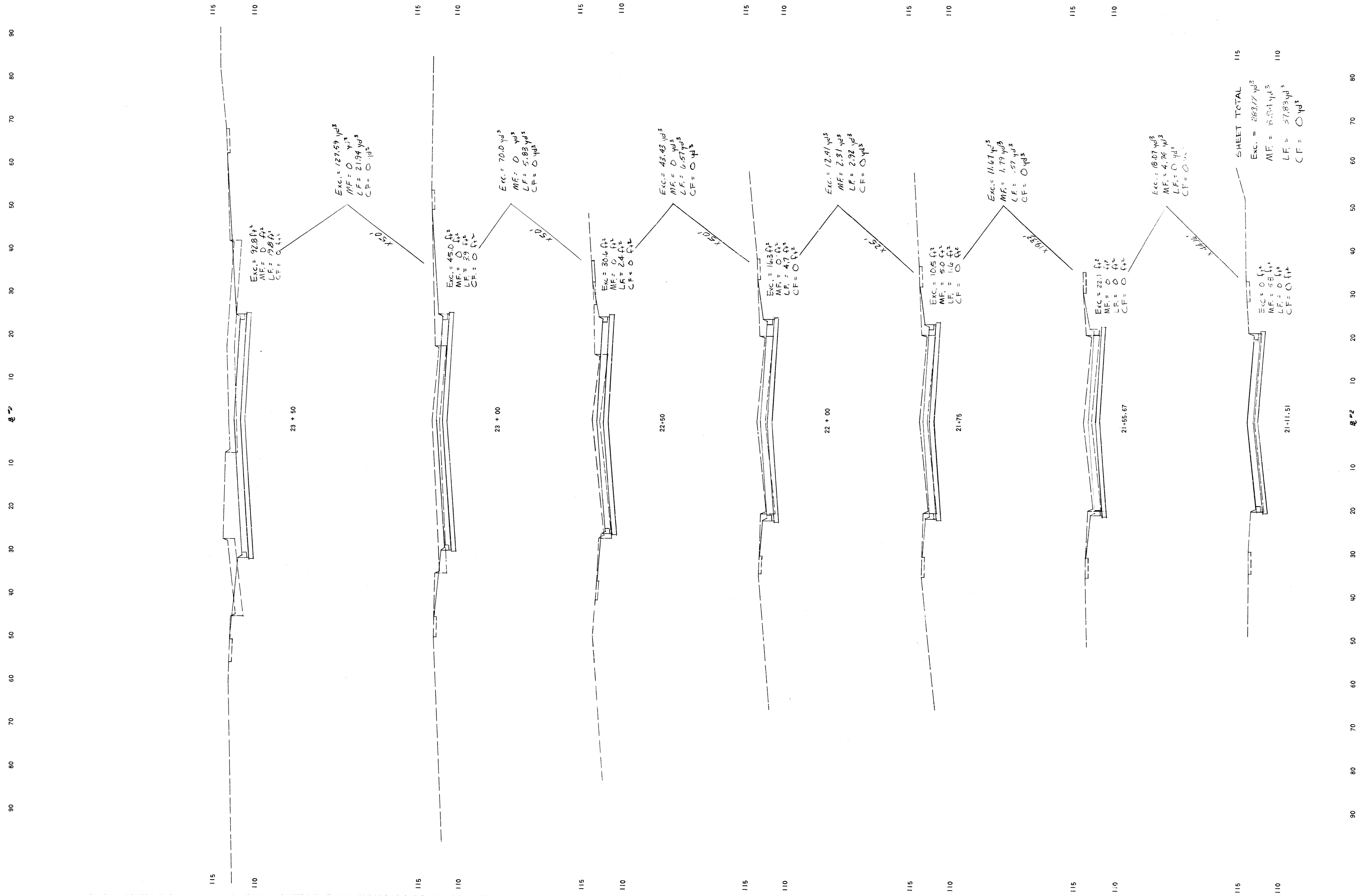
Exc. = 100.85 yd<sup>3</sup>  
 MF = 28.71 yd<sup>3</sup>  
 LF = 6.77 yd<sup>3</sup>  
 CF = 12.74 yd<sup>3</sup>

Exc. = 64.17 ft<sup>2</sup>  
 MF = 11.24 ft<sup>2</sup>  
 LF = 2.27 ft<sup>2</sup>  
 CF = 7.27 ft<sup>2</sup>

Exc. = 101.34 ft<sup>2</sup>

SHEET TOTAL  
 Exc. = 191.18 yd<sup>3</sup>  
 MF = 81.91 yd<sup>3</sup>  
 LF = 20.88 yd<sup>3</sup>  
 CF = 17.32 yd<sup>3</sup>

11 + 51



WICHITA, KANSAS

CENTRAL - SENECA STREET CONNECTOR INCLUDING STACKMAN INTERSECTION IMPROVEMENTS

CROSS SECTIONS

WCEA FILE NO. 85-328

SHEET NO. 20 OF 21

