

# 13TH ST. IMPROVEMENTS, 119TH WEST TO CEDAR PARK INCLUDING INCIDENTAL DRAINAGE

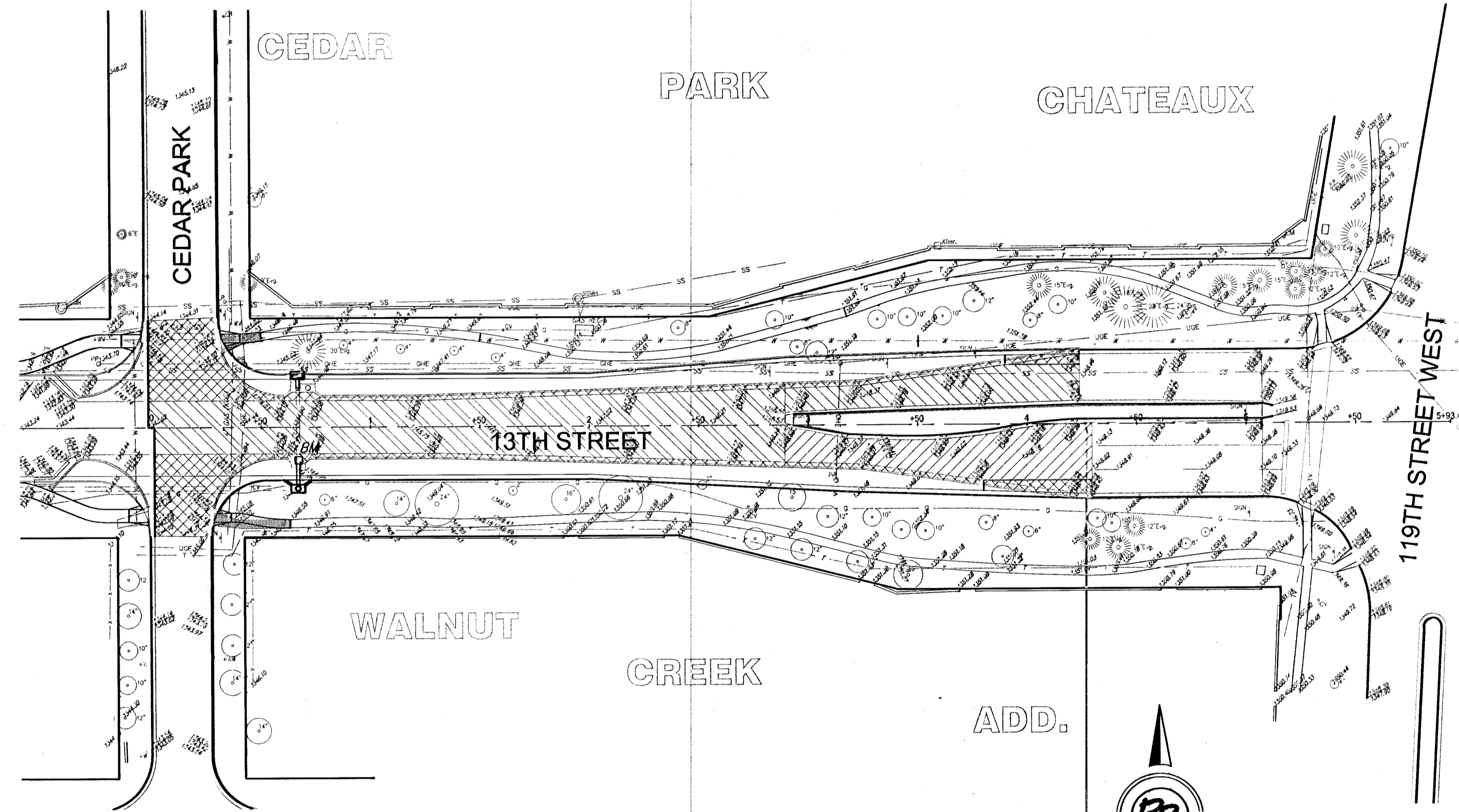
PROJECT NO. 472-83851  
OCA # 715697  
PHASE II

## GENERAL NOTES

- Utility service lines, poles, valve boxes, meters, and et cetera 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.
- Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved.
- All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps permitting regulations. Any material buried or stockpiled beyond approved of Engineers construction limits would require additional archeological investigations unless buried in a previously approved borrow location.
- Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.
- 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 in accordance with state laws.
- Contractor will be required to provide a minimum advance notice of twenty-four (24) hours to utility companies prior to starting any excavation as follows:  
  

Kansas One-Call	687-2470
Cox Communications	262-0661
Kansas Gas Service	383-8600
Westar	383-8600
Aquila	1-800-303-0357
Southwestern Bell Telephone Company	1-800-288-8313
City of Wichita Water Department	262-6000
City of Wichita Sewer Maintenance	262-6000
- The Contractor must notify the following utility companies in case of an emergency:  
  

Cox Communications	262-0661
Kansas Gas Service	383-8600
Westar	383-8600
Aquila	1-800-303-0357
Southwestern Bell Telephone Company	1-800-288-8313
City of Wichita Water Department	262-6000
City of Wichita Sewer Maintenance	262-6000
- Sprinkler irrigation systems within the project limits which are damaged by Contractor's operations shall be repaired or replaced. Any such repair or replacement cost will be subsidiary to the bid item for site restoration.
- All existing traffic signs removed shall be transported to the Central Maintenance Facility, 1801. S. McLean.
- Contractor to provide traffic control plan for Engineer approval. (See sheet 14)
- Contractor to coordinate with bridge contractor for Proj. #87N-0230-01 for construction scheduling.



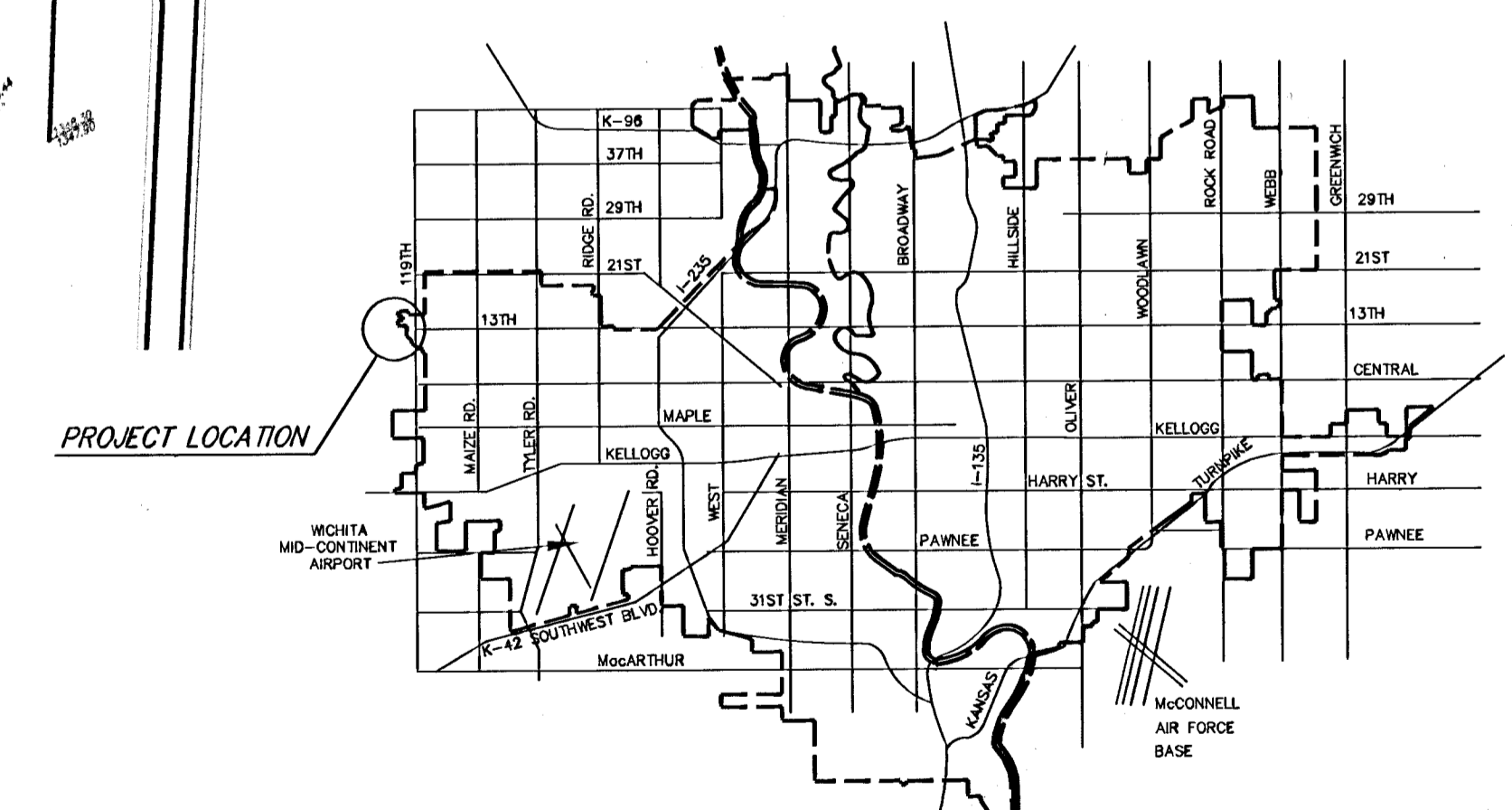
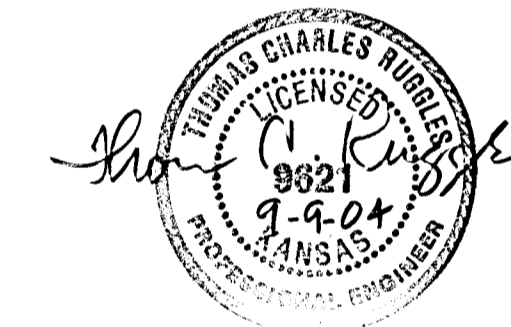
## BENCH MARKS

- ' FRONT FACE INLET AT CEDAR PARK & 13TH ST. 17.39' RT. STA. 2+068.7 (PROJ. NO. 87N-0230-01) ELEV. 1344.88
- ' CUT TOP N.E. COR. CL. STEEL ABUTMENT BEAM 7.55' LT. STA. 1+896.3 (PROJ. NO. 87N-0230-01) ELEV. 1344.88

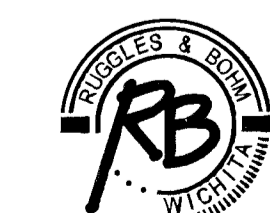
## INDEX OF SHEETS

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- TYPICAL SECTIONS
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- STORM SEWER PLAN
- VALLEY GUTTER DETAILS
- WHEELCHAIR RAMP DETAILS
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- TYPE I-A SINGLE INLET
- TYPE II DOUBLE INLET
- CROSS SECTIONS
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- TRAFFIC CONTROL PLAN
- TRAFFIC CONTROL SIGNS

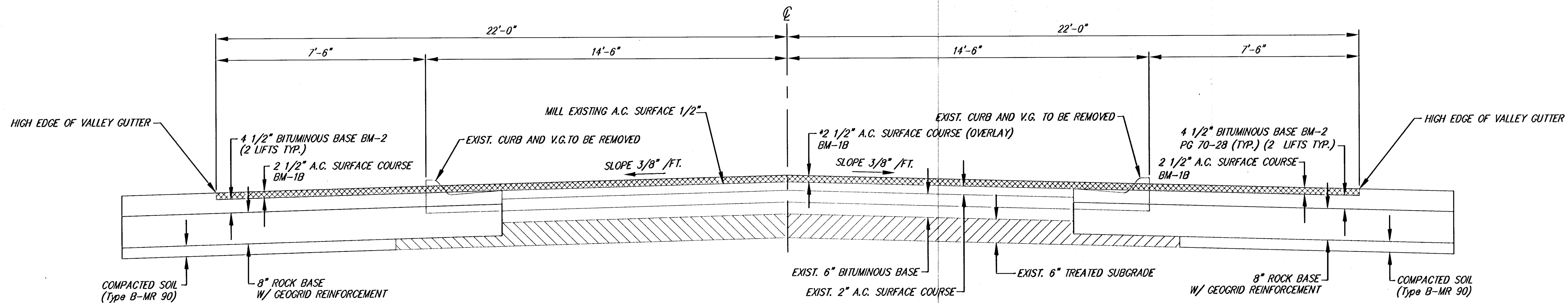
REVISED: 8-24-04  
REVISED: 9-9-04



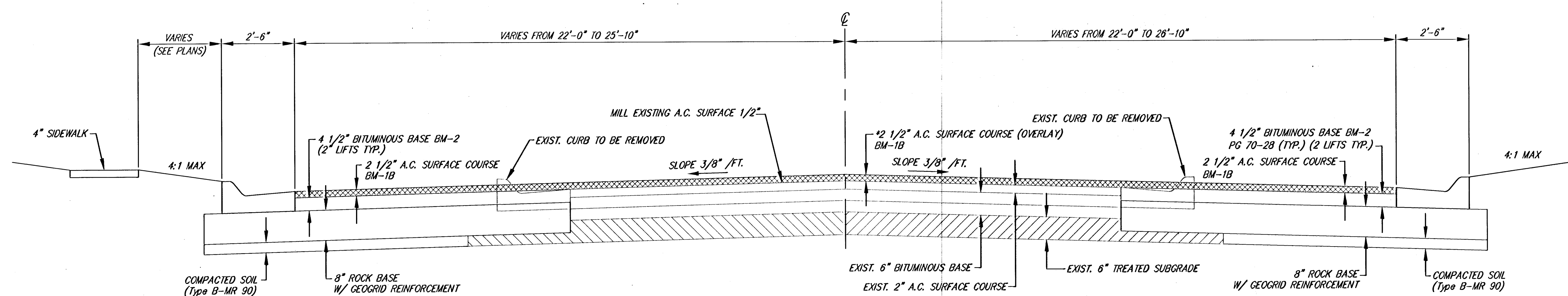
**CITY OF WICHITA, KANSAS**  
**JAMES L. ARMOUR, P.E. - ACTING CITY ENGINEER**



Ruggles & Bohm, P.A.  
Engineering, Surveying, Land Planning  
924 North Main (316) 264-8008  
Wichita, Kansas 67203 (316) 264-4621 fax  
www.rbkansas.com E-mail: info@rbkansas.com



**TYPICAL SECTION**  
0+00 TO 0+56.00

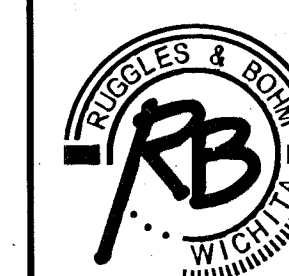


**TYPICAL SECTION**  
0+56.00 TO 2+90

\*NOMINAL THICKNESS (VARIES TO 4 1/2" MAX.)

REVISED: 9-9-04  
REVISED: 8-24-04

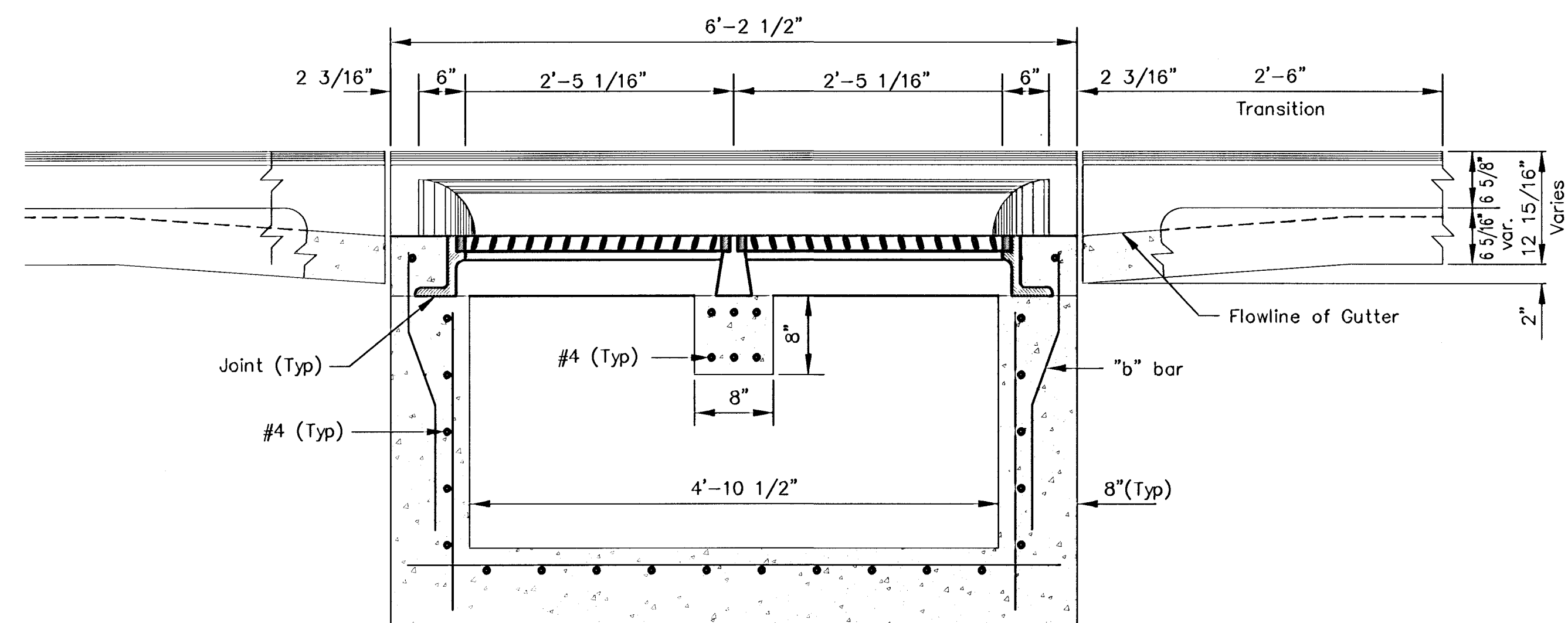
13TH STREET - CEDAR PARK TO 119TH  
TYPICAL SECTIONS  
WICHITA, KANSAS



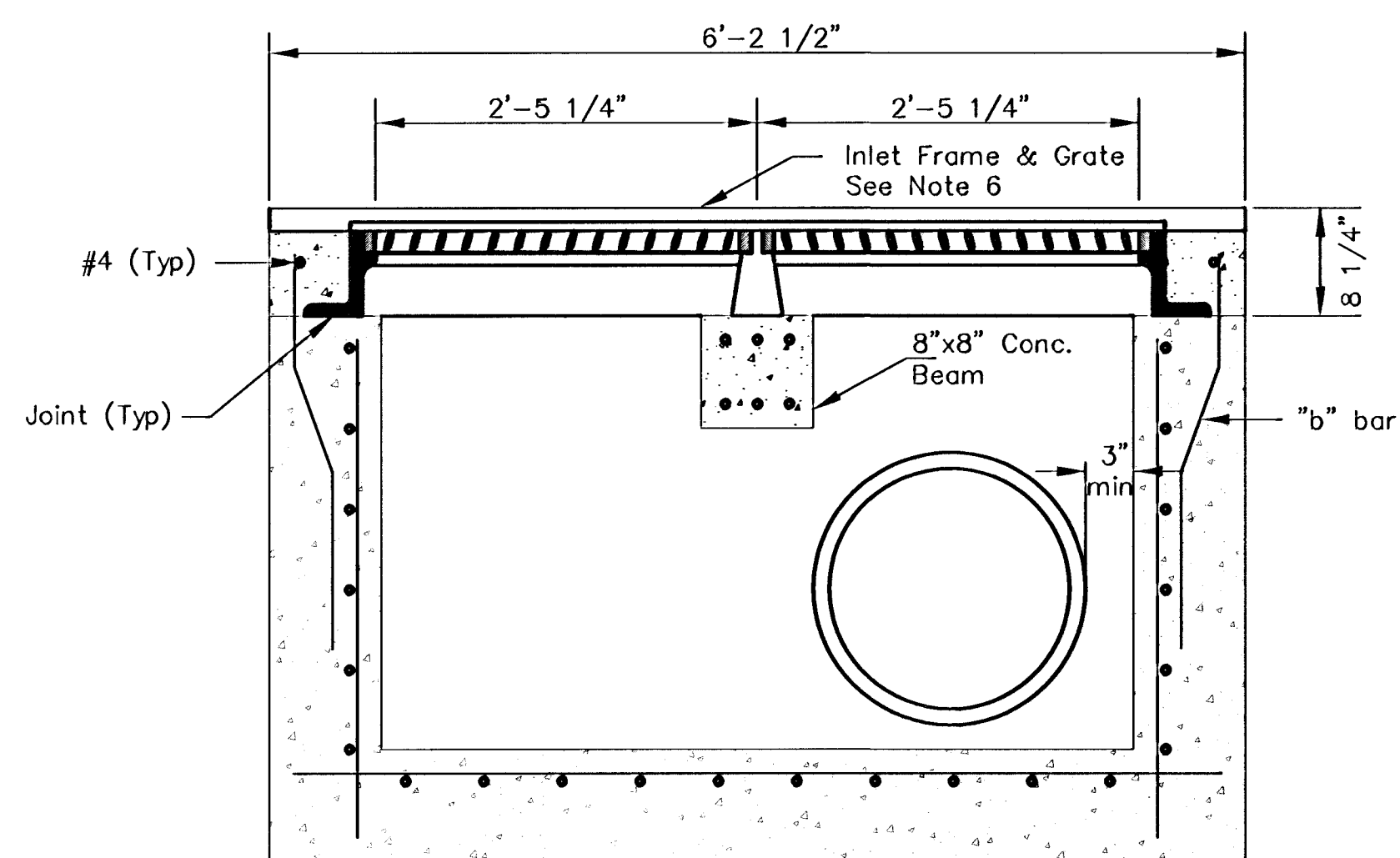
**Ruggles & Bohm, P.A.**  
Engineering, Surveying, Land Planning  
924 North Main  
Wichita, Kansas 67203  
(316) 284-9008  
(316) 284-4821 fax  
www.rbkansas.com  
E-mail: info@rbkansas.com

DRAWING FILE: Eng. Base [Typ. Sect.]  
PROJECT NUMBER: 472-83851

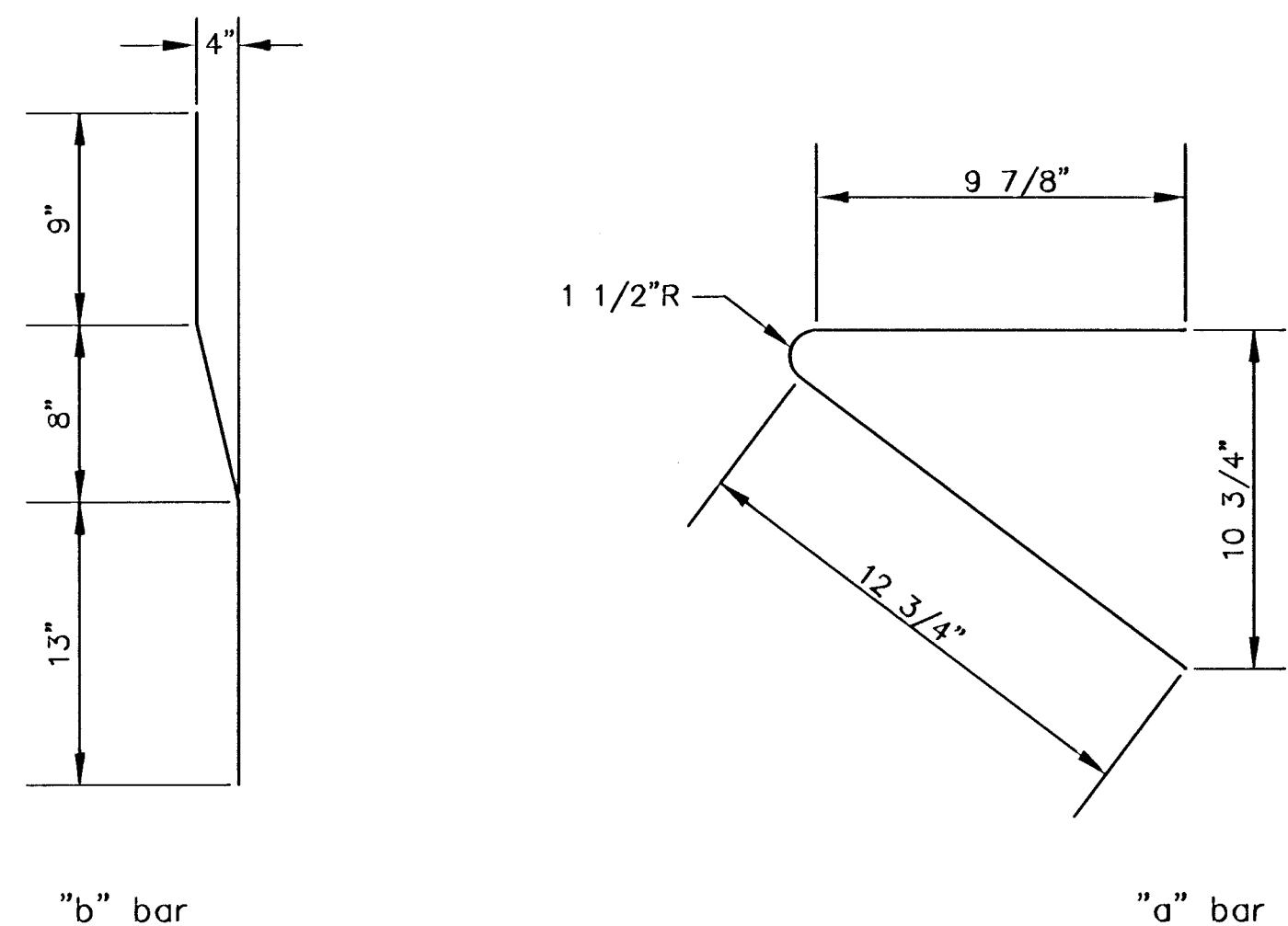
DESIGN	TCR	ROW	20/TT
DRAWN	EJB	SHEET	2
REVIEW		OF	15
UTILITY		DATE	June 9, 2004



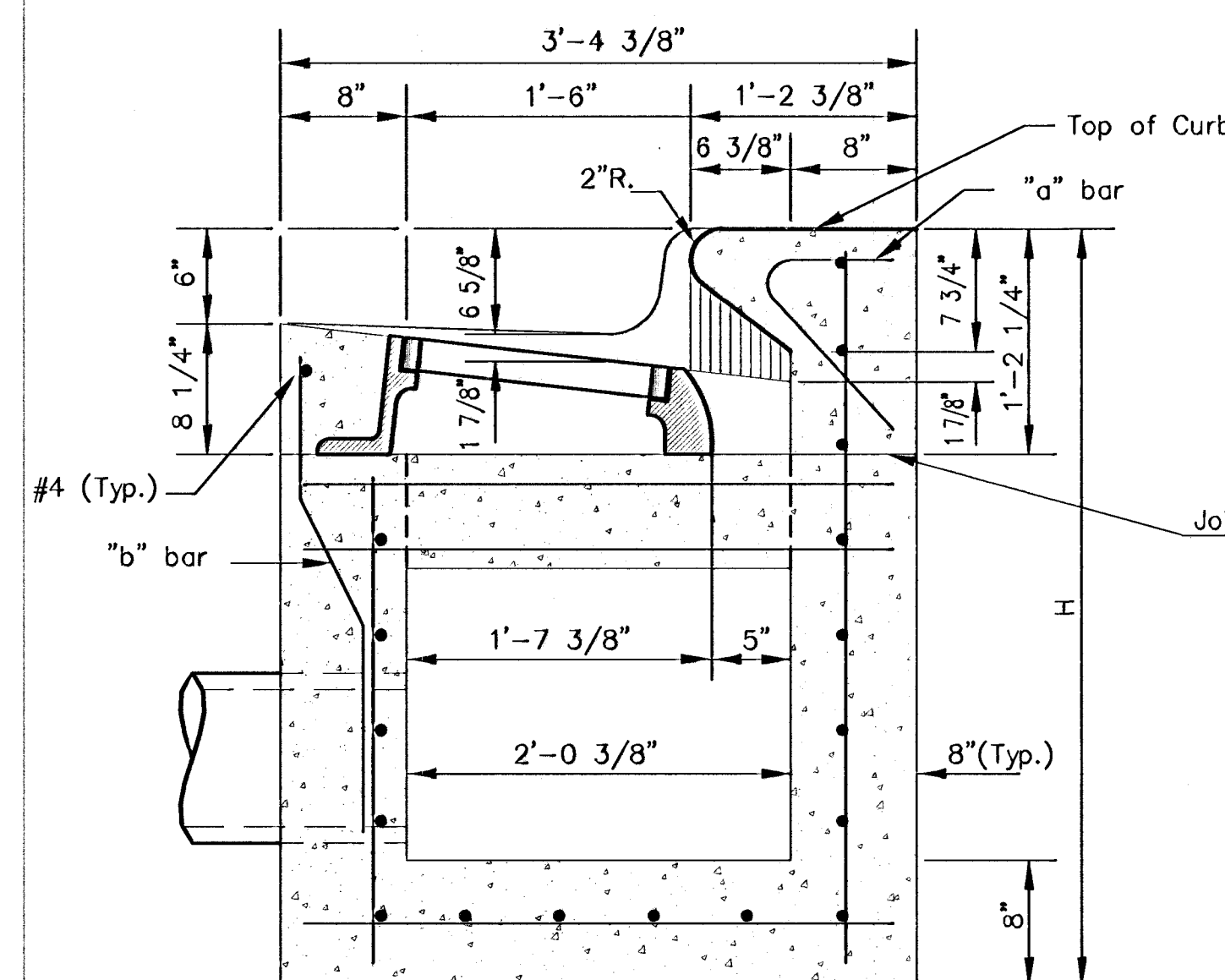
SECTION C-C



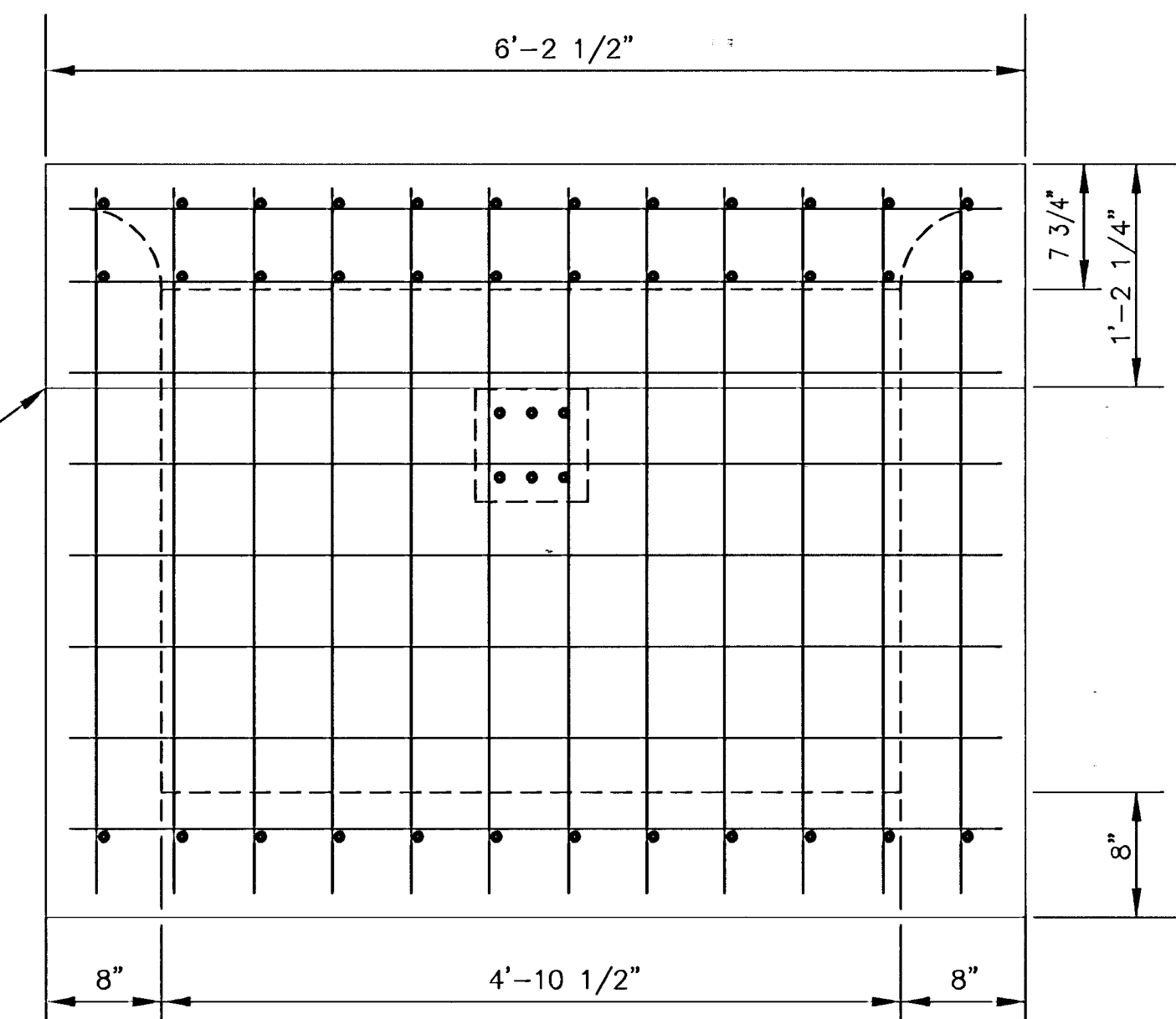
SECTION D-D



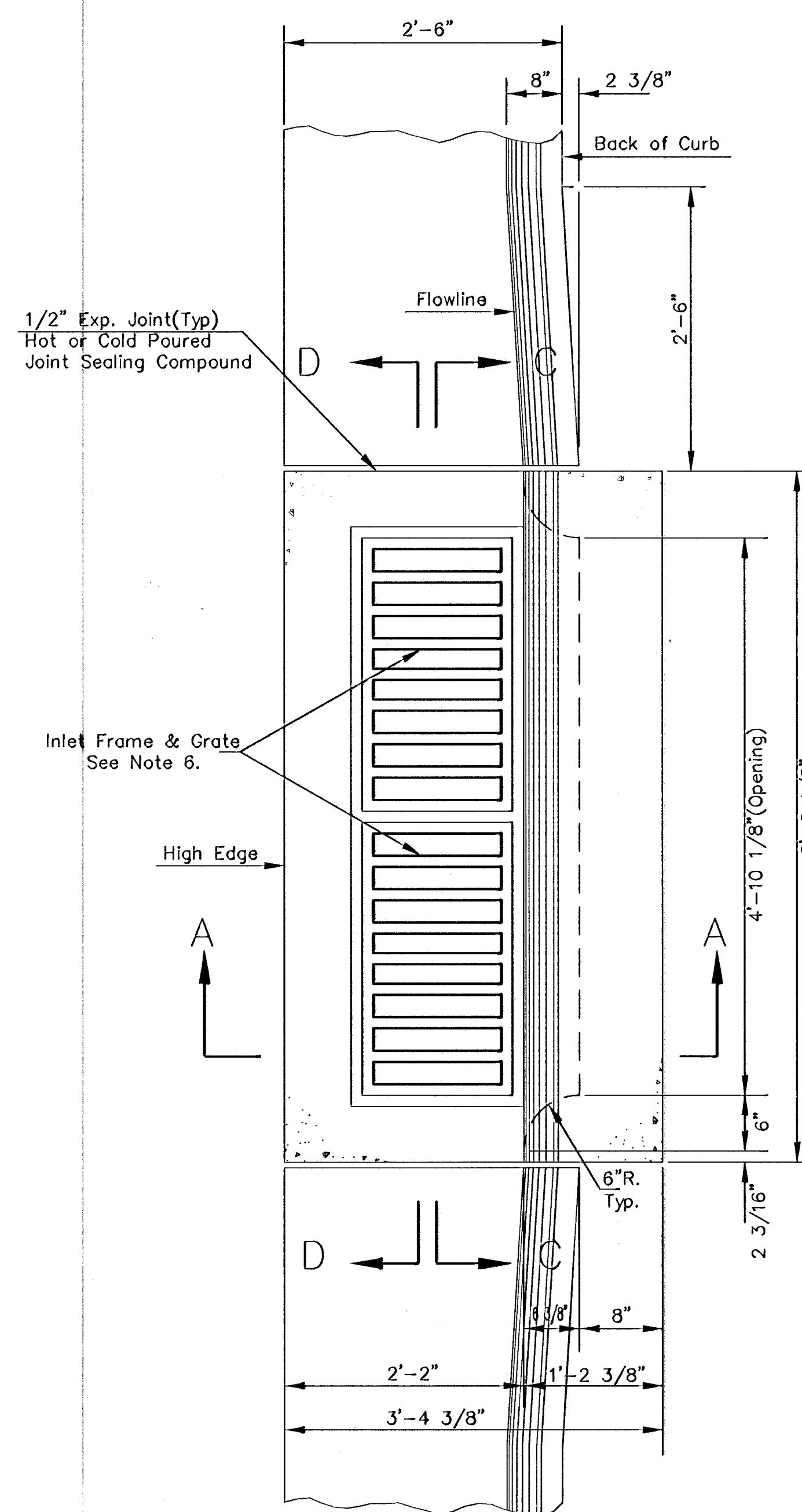
BENDING DIAGRAM



SECTION A-A



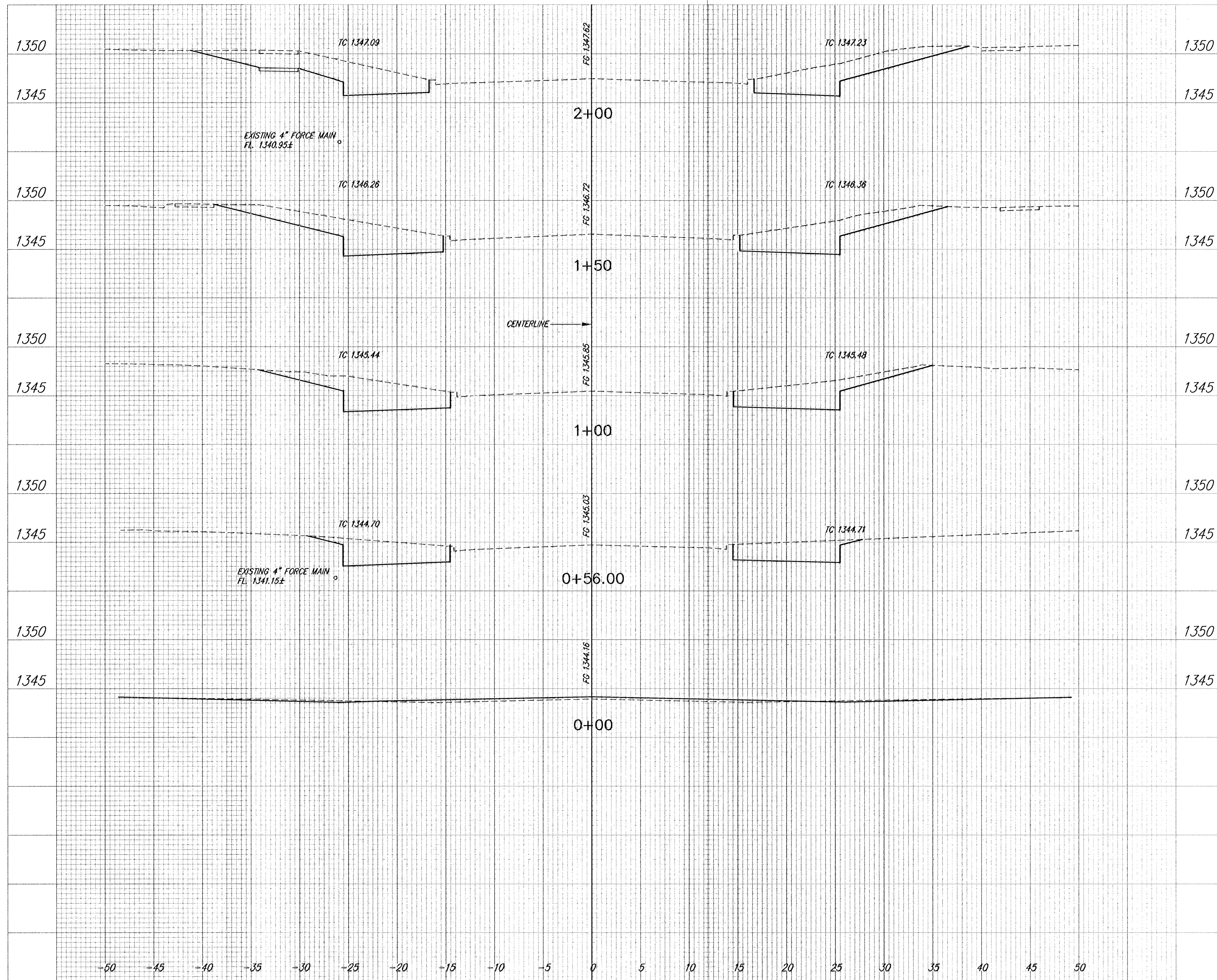
REAR WALL



GENERAL NOTES

1. Use the concrete mix specified for the City of Wichita concrete pavement throughout. All exposed edges shall be finished with an edging tool. Reinforcing bars shall be bent around pipe.
2. Inlet invert shall be shaped with 8 sack 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.
3. All bars are #4 with 6" spacing and shall have a minimum clearance of 1 1/2 inches unless otherwise noted on the plans.
4. When directed by the Engineer, a small opening may be required in the back of the inlet in order to drain a low area. Reinforcing bars will extend through the openings. No deductions in concrete quantities will be made for these openings.
5. No deductions will be made in pay length of curb, gutter, or curb and gutter through the inlet area.
6. Use Neenah R-3288 HV Inlet Frame with Two Piece Grate or approved equal. Inlet frame to be proof load tested to 40,000 lbs. on unsupported side.
7. Reinforcing bars shall be cut or bent around pipes. No deduction in concrete quantities shall be made for pipe openings.
8. The vanes of the grate shall be oriented with respect to the flow arrows shown on the plans.
9. DEETER FOUNDARY, Inc. casting No. 2442/43 with style H grate is an approved equal to NEENAH castings specified. Inlet drawing is based on NEENAH castings and concrete walls and supports will require some field modification to accommodate DEETER castings.

<p>THE CITY OF WICHITA</p>	<p><b>STANDARD TYPE II INLET</b>  <b>OPENING = 6"x4'-10 1/8"</b></p>	
	<p>PROJECT NUMBER  <b>472-83851</b></p>	<p>OCA #  <b>715686</b></p>
<p>CITY ENGINEER'S OFFICE          CITY HALL - SEVENTH FLOOR          452 NORTH MAIN STREET          WICHITA, KANSAS 67202          (316) 268-4501          (316) 268-4114 FAX</p>	<p>DATE  <b>MAR 96</b></p>	<p>SHEET <b>11</b> OF <b>15</b></p>



SCALE: 1"=5'



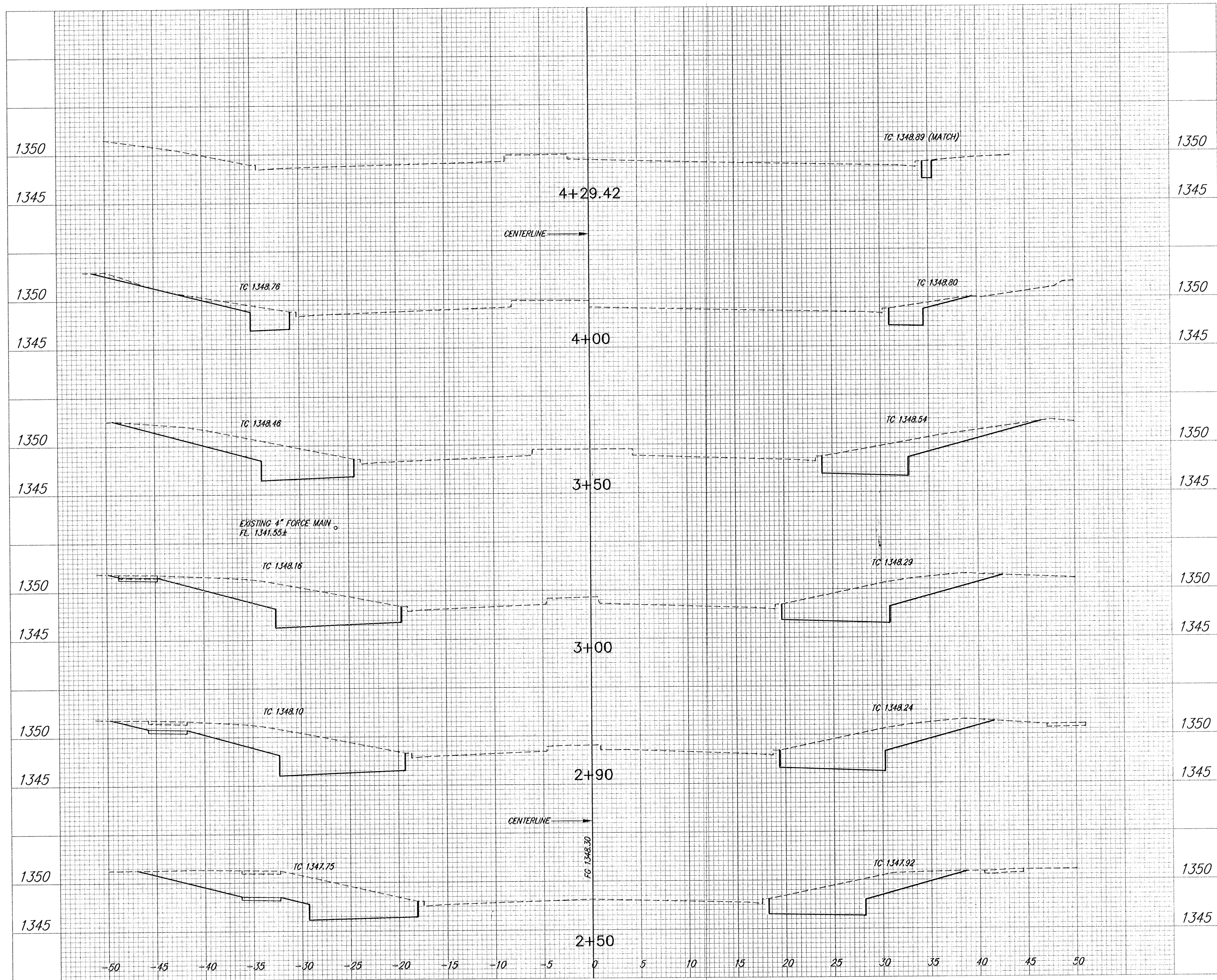
13TH STREET - CEDAR PARK TO 119TH  
CROSS SECTIONS

PROJECT NUMBER 472-83851

June 9, 2004

CITY OF WICHITA, KANSAS

12/15

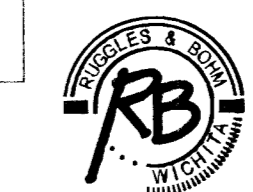


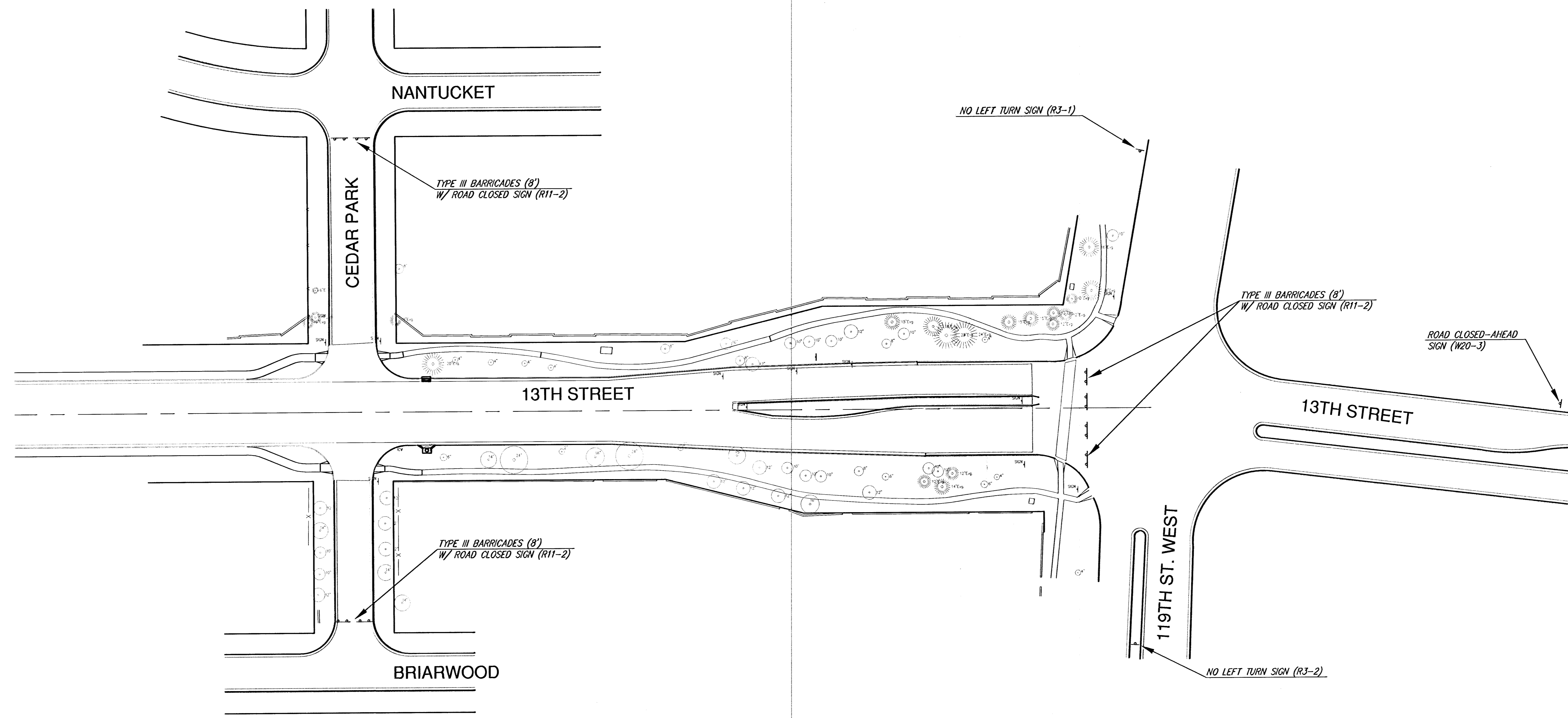
SCALE: 1"=5'

13TH STREET - CEDAR PARK TO 119TH  
CROSS SECTIONS

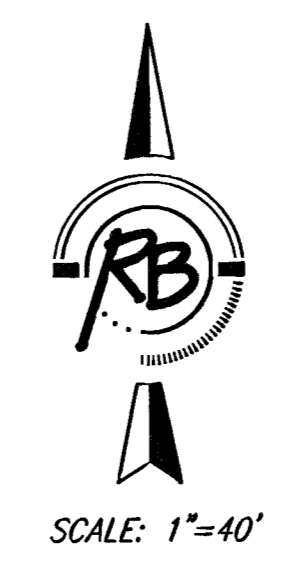
PROJECT NUMBER 472-83851 June 9, 2004

CITY OF WICHITA, KANSAS 13/15





**NOTE:**  
 13TH STREET TRAFFIC WEST OF CEDAR PARK AND E. OF 119TH  
 TO BE DETOURED WITH BRIDGE PROJECT #B7N-0230-01.



<b>13TH STREET - CEDAR PARK TO 119TH</b> <b>TRAFFIC CONTROL PLAN</b> WICHITA, KANSAS			
 <b>Ruggles &amp; Bohm, P.A.</b> Engineering, Surveying, Land Planning 924 North Main Wichita, Kansas 67203 www.rbkansas.com (316) 264-8008 (316) 264-4621 fax E-mail: info@rbkansas.com	DESIGN TCR	14 <small>OF 15</small>	SHEET 15
	DRAWN EJB		
DRAWING FILE Eng. Bose {Traffic}	PROJECT NUMBER 472-83851	DATE June 9, 2004	

GENERAL NOTES

1. MAINTENANCE:

THE CONTRACTOR SHALL MAINTAIN ALL SIGNS AND DEVICES IN AN UPRIGHT POSITION. THE CONTRACTOR SHALL CLEAN OR REPLACE ANY DAMAGED OR ILLEGIBLE SIGN OR DEVICE AS DIRECTED BY THE ENGINEER.

2. EXISTING SIGNS:

IF EXISTING SIGNS THAT ARE TO REMAIN (WHETHER DENOTED ON THE PLANS OR NOT) INTERFERE WITH CONSTRUCTION WORK, THE CONTRACTOR SHALL REMOVE, STORE, AND RESET THE SIGNS. THIS SHALL BE SUBSIDIARY TO OTHER TRAFFIC CONTROL BID ITEMS. SIGNING DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

3. CONFLICTING SIGNS AND SIGNS NOT IN USE:

SIGNS THAT ARE IN CONFLICT WITH THE TRAFFIC CONTROL PLAN OR DO NOT APPLY TO THE TRAFFIC OPERATIONS SHALL BE IMMEDIATELY REMOVED, TURNED SO NOT VISIBLE TO TRAFFIC FROM ANY DIRECTION, OR COMPLETELY COVERED WITH ADEQUATE OPAQUE WATERPROOF MATERIAL. TAPE SHALL NOT BE APPLIED TO THE FACE OF THE SIGN.

4. TEMPORARY AND POST MOUNTED SIGNS:

TRAFFIC CONTROL SIGNS THAT ARE ANTICIPATED TO REMAIN IN PLACE FOR 3 DAYS OR LESS ARE CONSIDERED "TEMPORARY." TEMPORARY SIGNS SHALL BE MOUNTED ON AN APPROVED SUPPORT AT A MINIMUM HEIGHT OF 12". TRAFFIC CONTROL SIGNS IN PLACE FOR OVER 3 DAYS ARE REQUIRED TO BE MOUNTED ON APPROVED POSTS. A MINIMUM OF 42" OF THE APPROVED POST MUST BE BELOW THE GROUND SURFACE WITH ADEQUATE BACKFILL AND COMPACTION. ALL POSTS SHALL EXTEND NO GREATER THAN 6" ABOVE THE SIGN.


5. SHEETING:

ALL ORANGE SIGNS SHALL BE RETROREFLECTORIZED WITH FLOURESCENT ORANGE PRISMATIC GRADE SHEETING. ALL OTHER SIGNS SHALL BE RETROREFLECTORIZED WITH TYPE III HIGH PERFORMANCE SHEETING OF STANDARD COLORS.

6. ROLL-UP SIGNS:

ROLL-UP SIGNS MAY BE USED FOR TEMPORARY WARNING SIGNS. THEY MUST BE FLOURESCENT ORANGE PRISMATIC GRADE RETROREFLECTIVE SIGNS OF OPAQUE MATERIAL. MESH SIGNS ARE NOT ALLOWED.

7. SIGNS INVOLVING SPEEDS:

THE R2-5E (REDUCED SPEED  AHEAD) SHOULD BE USED ONLY IF THE ENGINEER DETERMINES THAT A REDUCED SPEED IS REQUIRED ON THE PROJECT.

THE M4-20 (WORK ZONE) PLAQUE SHALL BE PLACED ABOVE ALL SPEED LIMIT SIGNS, (R2-1), EXISTING AND TEMPORARY.

FOR SPEEDS OF 30 MPH OR LESS, THE W1-1(TURN) OR W1-3(REVERSE TURN) SHOULD BE USED. FOR SPEEDS OF 35 MPH OR MORE, THE W1-2(CURVE) OR W1-4(REVERSE CURVE) SHOULD BE USED. THE W13-1(MPH) IS TO BE ELIMINATED IF THE ADVISORY SPEED IS WITHIN 5 MPH OF THE SPEED LIMIT.

8. SIGNS CONTROLLING WORK AREA:

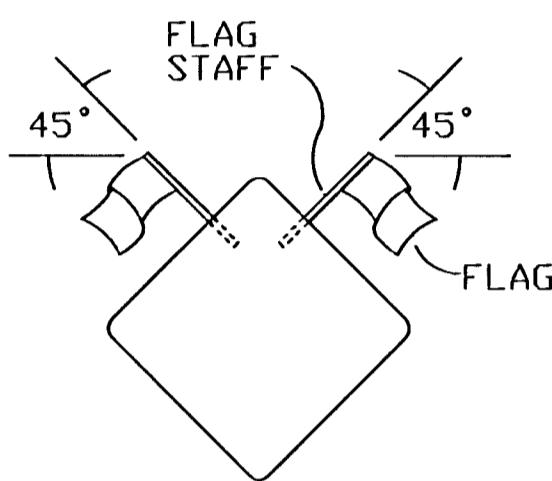
THE G20-2(ENDE ROAD WORK) SHOULD BE PLACED 500' FROM THE END OF THE ACTUAL WORK AREA, NOT NECESSARILY AT THE EXTREME LIMITS OF THE PROJECT.

WHERE TWO WORK AREAS ARE LESS THAN 1 MILE APART IN RURAL AREAS OR 1/2 MILE APART IN URBAN AREAS, THE G20-2(ENDE ROAD WORK) FOR THE FIRST WORK AREA AND THE W20-1(ROAD WORK) FOR THE SECOND WORK AREA SHOULD BE ELIMINATED.

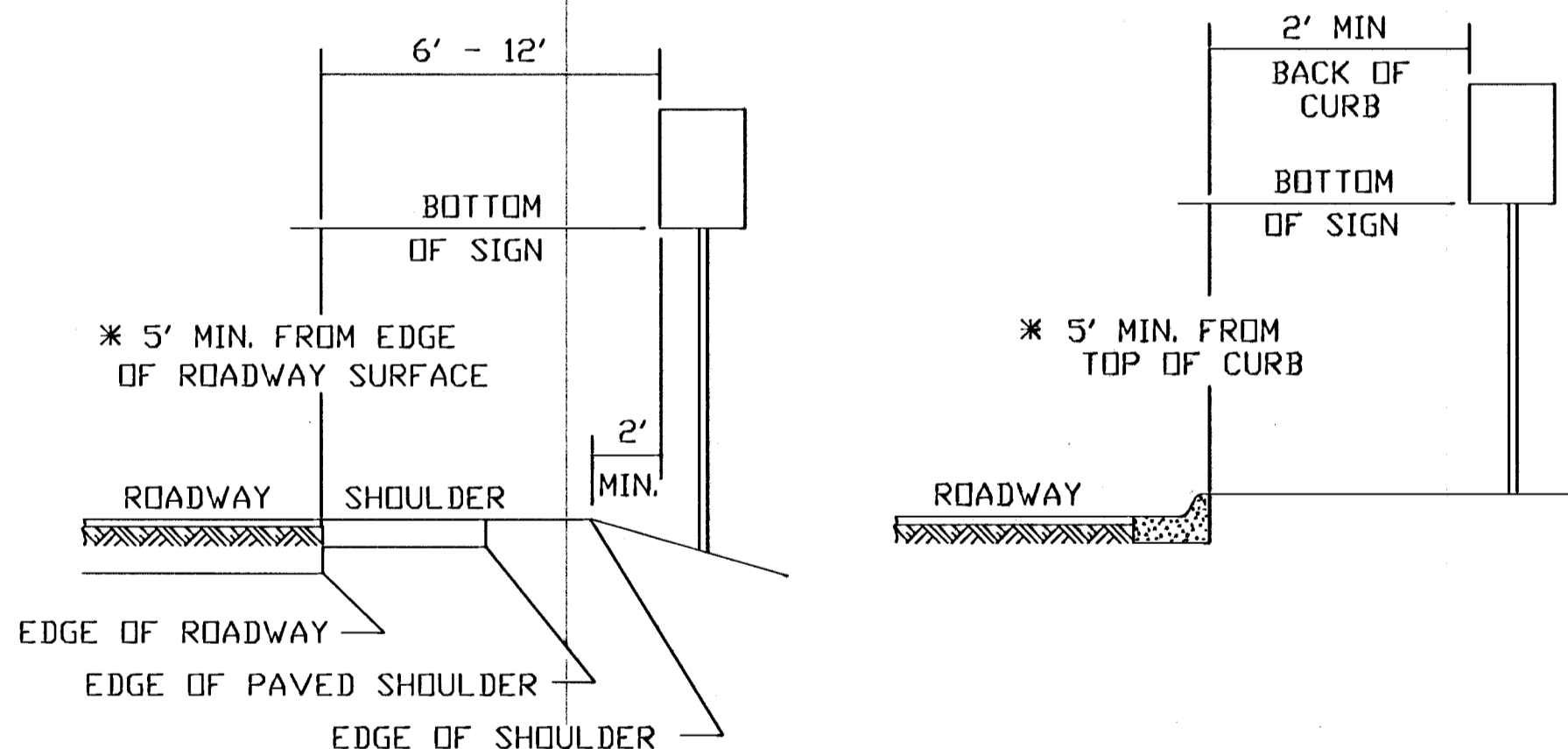
9. WARNING LIGHTS ON SIGNS:

TYPE B HIGH INTENSITY LIGHTS SHALL BE USED ON ALL CONSTRUCTION WARNING ACTION SIGNS. ON ALL OTHER CONSTRUCTION WARNING SIGNS, TYPE B HIGH INTENSITY LIGHTS ARE TO BE USED AS DIRECTED BY THE ENGINEER.

THEY SHALL NOT BE INSTALLED ON SIGNS MOUNTED LESS THAN 5' HIGH ON TEMPORARY SUPPORTS. THEY SHALL BE MAINTAINED SO THAT THEY ARE VISIBLE ON A SUNNY DAY FROM A DISTANCE OF 1000' WHEN VIEWED WITHOUT THE SUN DIRECTLY ON OR BEHIND THE DEVICE. IF A TYPE B LIGHT HAS A SEPARATE BATTERY CASE, THE BATTERY CASE SHALL BE MOUNTED NO HIGHER THAN 12" ABOVE THE GROUND AND MOUNTED BEHIND THE SIGN POST. FOR A TYPE B LIGHT, WHERE THE LENS IS MOUNTED TO THE TOP OF THE BATTERY CASE, THE TYPE B LIGHT (LENS AND BATTERY) SHALL BE MOUNTED AT THE TOP OF THE SIGN.



TWO (2) 18" x 18" FLOURESCENT RED-ORANGE FLAGS ARE TO BE ATTACHED IN THE POSITION SHOWN ON THE W20-2(DETOUR), W1-1(TURN), W1-2(CURVE), W1-3(REVERSE TURN), W1-4(REVERSE CURVE), W3-3(SIGNAL AHEAD), W4-2(LANE REDUCTION), W20-4(ONE LANE ROAD), W20-5(LANE CLOSED), W20-7A(FLAGGER), AND W20-7B (BE PREPARED TO STOP) SIGNS AND ANY OTHER ACTION SIGNS AS SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER. THE FLAGS AND STAFFS ARE TO BE ATTACHED IN SUCH A MANNER THAT THE SIGN WILL NOT BE OBSCURED. THE FLAGS MAY BE EITHER A CLOTH OR VINYL MATERIAL. THE FLAGS SHALL BE SUBSIDIARY TO THE CONSTRUCTION SIGN BID ITEMS.




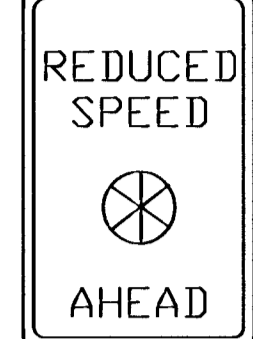

\* NOTE:

- A. IN BUSINESS, COMMERCIAL, AND RESIDENTIAL DISTRICTS, THE DISTANCE BETWEEN THE BOTTOM OF THE SIGN AND THE TOP OF THE NEAR EDGE OF THE TRAVEL WAY SHALL BE AT LEAST 7'.
- B. LARGE SIGNS HAVING AN AREA EXCEEDING 54 SQUARE FEET THAT ARE INSTALLED ON MULTIPLE BREAKAWAY POSTS SHALL BE MOUNTED A MINIMUM OF 7' ABOVE THE GROUND.
- C. THE HEIGHT TO THE BOTTOM OF THE SECONDARY SIGN MOUNTED BELOW ANOTHER SIGN MAY BE 1' LESS THAN THE APPROPRIATE HEIGHT SPECIFIED ABOVE.

HEIGHT AND LATERAL DIMENSIONS FOR POST MOUNTED SIGNS  
(SIGNS LEFT IN PLACE OVER 3 DAYS)

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

SIGN LAYOUT INFORMATION

	STD. SIZE	EXPWY/FREEWAY
	4' C	8' C
	7' C	8' C
	7' C	
W20-7b 48"x 48" (BLACK/ORANGE)		
	4' C	8' C
	10' E	16' E
	4' D	8' D
R2-5e (BLACK/WHITE)	24"x 36"	48"x 72"
	3' C	6' C
M4-20 (BLACK/ORANGE)	24"x 6"	48"x 12"

NOTE:  
TEXT DIMENSIONS ARE IN INCHES.  
BORDER IS BLACK NON-REFLECTIVE.

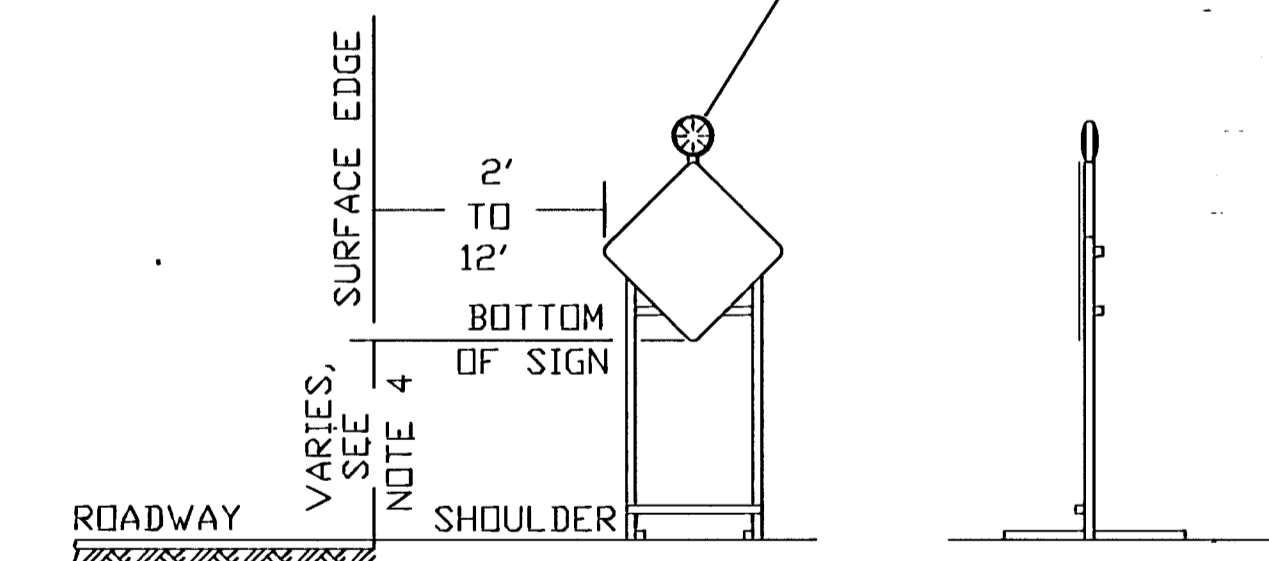
ADVANCE WARNING SIGN SPACING (IN FEET):

	A	B	C
URBAN (40 MPH OR LOWER)	100	100	100
URBAN (45 MPH OR HIGHER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1500	2640

THE SPACING BETWEEN ANY SIGNS MAY BE ADJUSTED AS APPROVED BY THE ENGINEER IN ORDER TO MAXIMIZE VISIBILITY.

THE SPACING BETWEEN SIGNS SHALL BE NO LESS THAN 100', UNLESS DIRECTED BY THE ENGINEER.

POSITION OF TYPE B LIGHT WHEN USED  
(SEE NOTE 9)



(SEE NOTE 6 FOR ROLL-UP SIGNS OPTION)

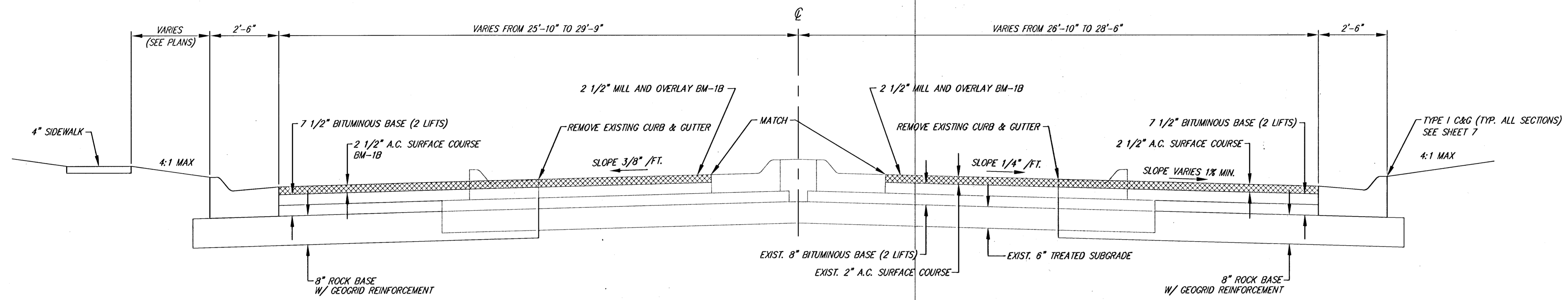
HEIGHT AND LATERAL DIMENSIONS FOR SIGNS  
MOUNTED ON SKIDS OR OTHER PORTABLE SUPPORTS

NO.	DATE	REVISIONS	BY	APP'D
3	11-19-03	CHANGED BORDER	B.H.	S.A.B.
2	3/17/03	MODIFIED NOTES	M.H.	S.A.B.
1	9-26-02	MODIFIED NOTES	M.H.	S.A.B.

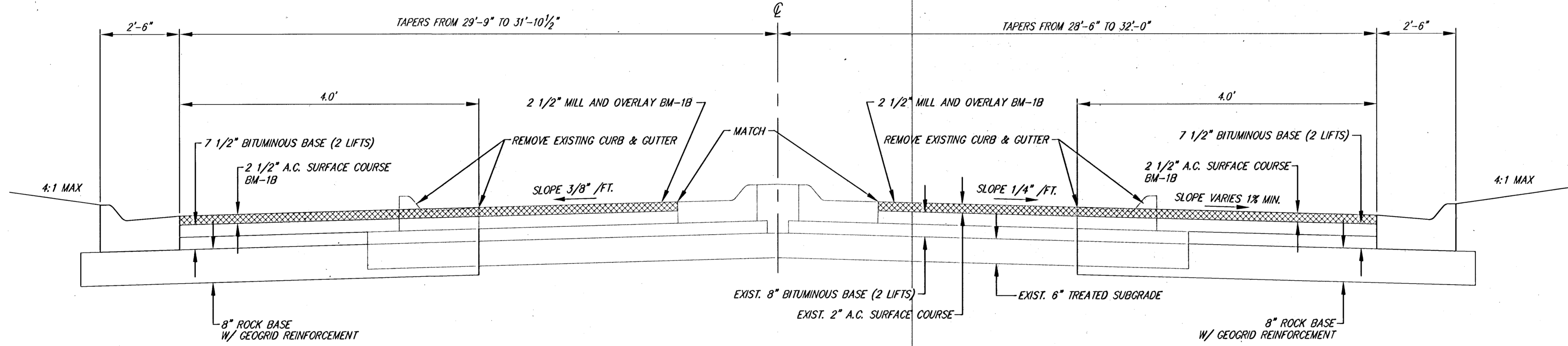
KANSAS DEPARTMENT OF TRANSPORTATION  
TRAFFIC CONTROL SIGNS

TE710 9/1/00

DESIGNED	L.E.R.	DETAILED	B.A.H.	QUANTITIES	Michael P. McKenna
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACED	TRACE CK.	



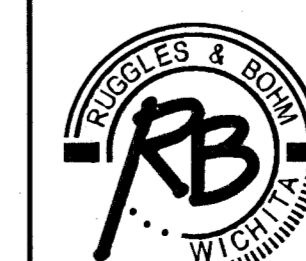
**TYPICAL SECTION**  
2+90 TO 3+70.00



**TYPICAL SECTION**  
3+70.00 TO 4+29.42

REVISED: 8-24-04

13TH STREET - CEDAR PARK TO 119TH  
TYPICAL SECTIONS  
WICHITA, KANSAS



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DESIGN	TCR	SHEET <b>3</b> OF 15
DRAWN	EJB	
REVIEW		
UTILITY		
DRAWING FILE	PROJECT NUMBER	DATE
Eng. Base {Typ. Sect.}	472-83851	June 9, 2004

CEDAR

PARK

CHATEAUX

POWER POLE TO BE RE-LOCATED BY WESTAR

POWER POLE TO BE RE-LOCATED BY WESTAR

STA. 0+00 BEGIN 9" REINF. CONCRETE VALLEY GUTTER (LT. & RT.) W/ MONOLITHIC EDGE CURB. MATCH NEW PAVEMENT WITH PROJ. NO. 87N-0239-01

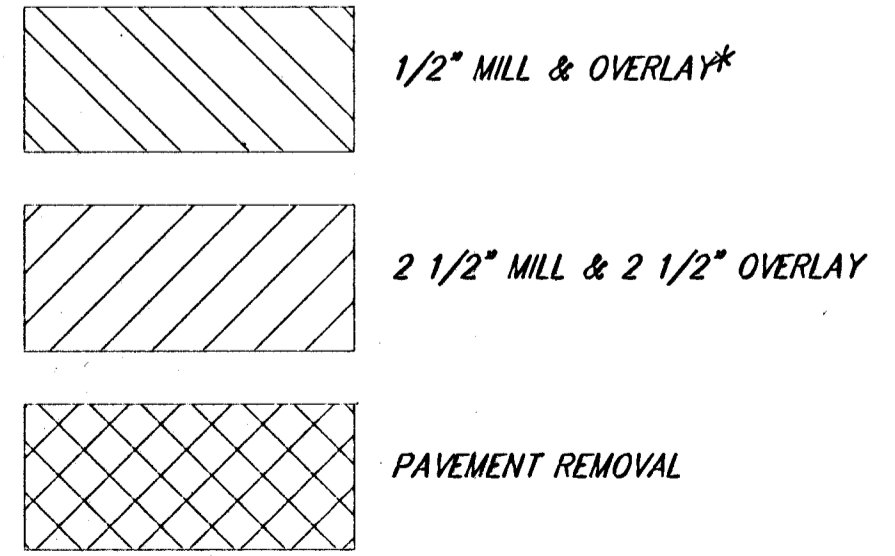
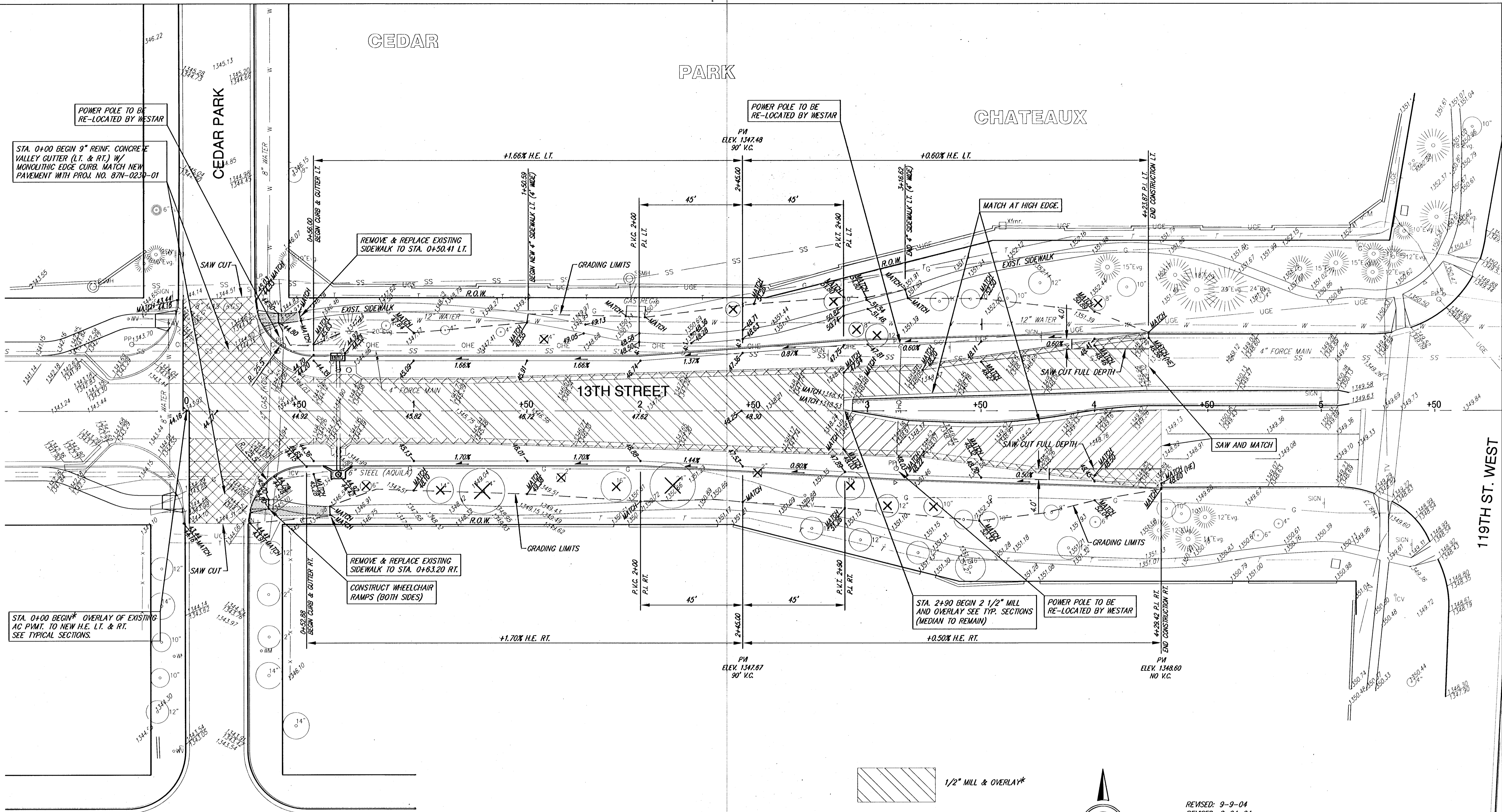
REMOVE & REPLACE EXISTING SIDEWALK TO STA. 0+50.41 LT.

REMOVE & REPLACE EXISTING SIDEWALK TO STA. 0+63.20 RT.  
CONSTRUCT WHEELCHAIR RAMPS (BOTH SIDES)

STA. 0+00 BEGIN\* OVERLAY OF EXISTING AC PVMT. TO NEW H.E. LT. & RT. SEE TYPICAL SECTIONS.

STA. 2+90 BEGIN 2 1/2" MILL AND OVERLAY SEE TYP. SECTIONS (MEDIAN TO REMAIN)

POWER POLE TO BE RE-LOCATED BY WESTAR



\* OVERLAY THICKNESS VARIES 2 1/2" TO 4"

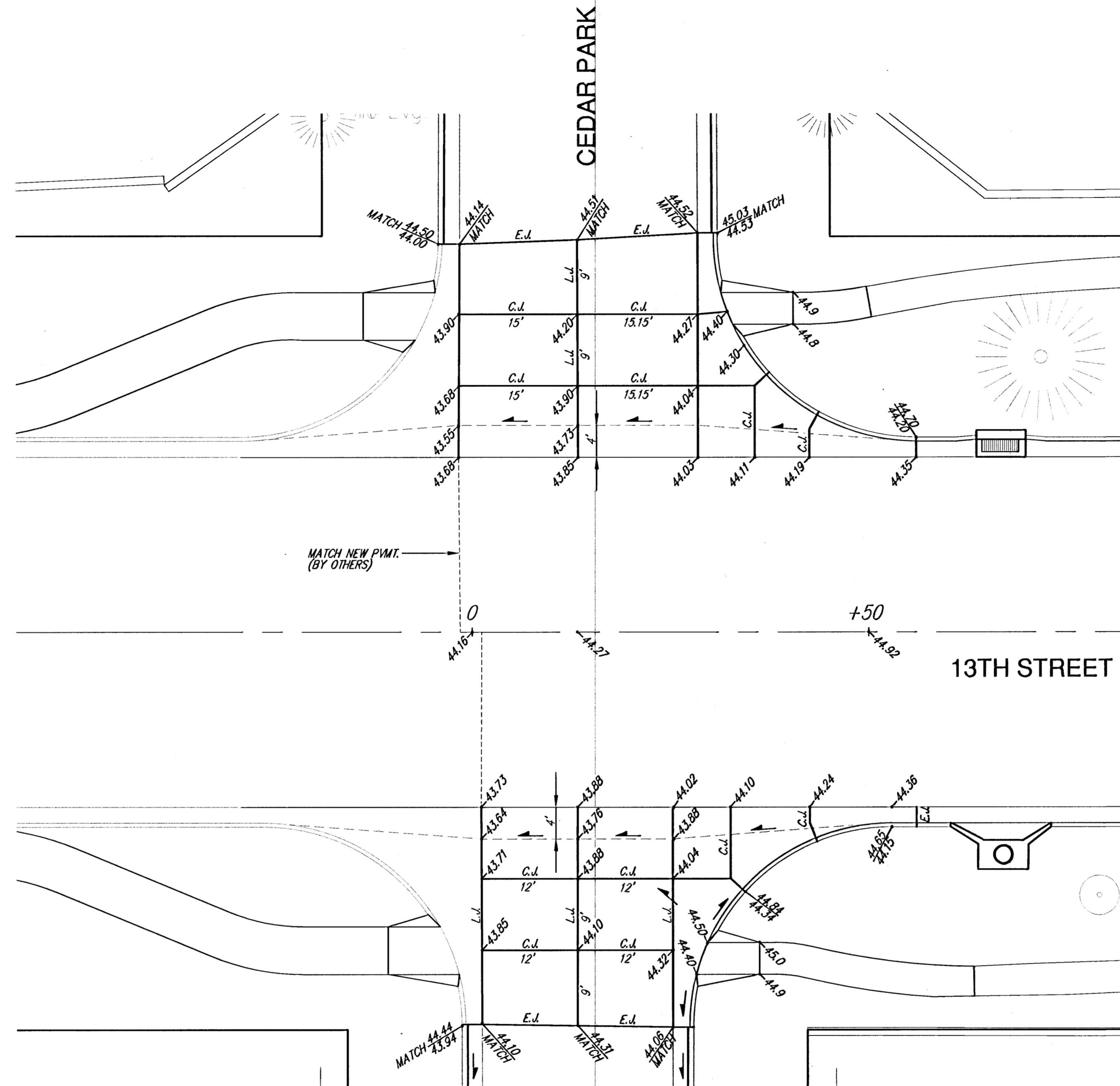


SCALE: 1"=20'

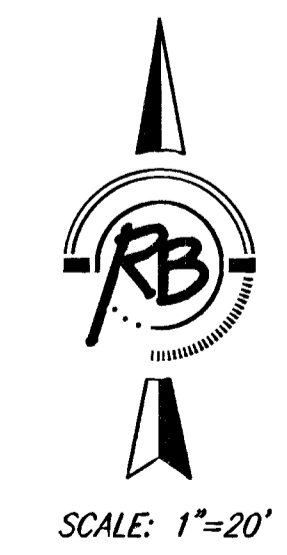
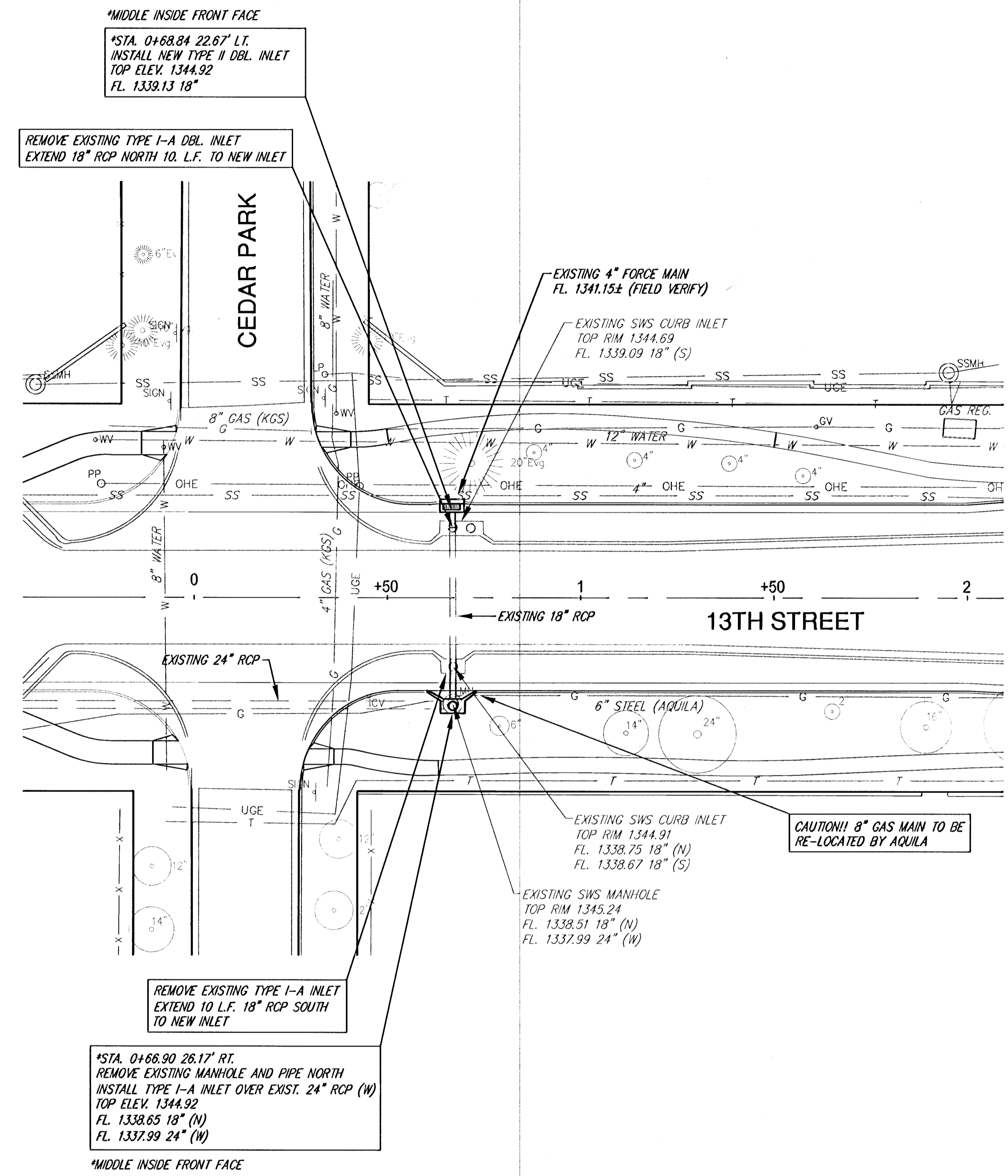
REVISED: 9-9-04  
REVISED: 8-24-04

**13TH STREET - CEDAR PARK TO 119TH STREET PAVING PLAN**  
WICHITA, KANSAS

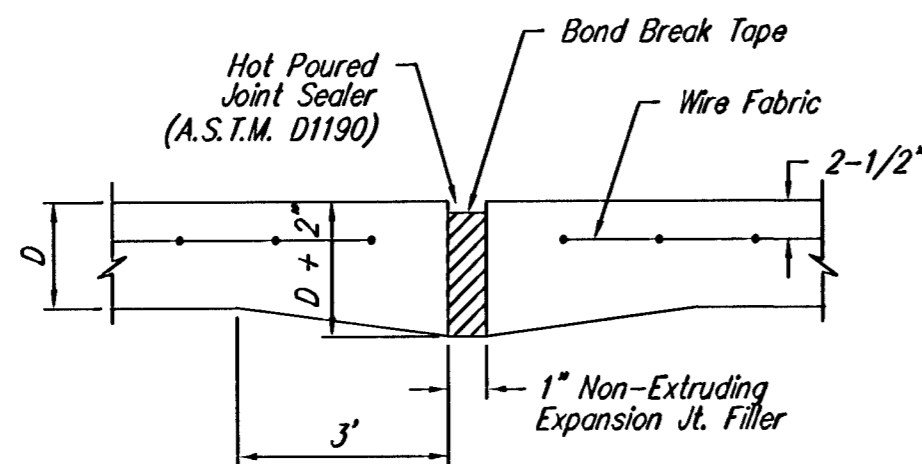
 <b>Ruggles &amp; Bohm, P.A.</b> Engineering, Surveying, Land Planning 924 North Main Wichita, Kansas 67203 www.rbkansas.com	(316) 284-8008 (316) 284-4621 fax E-mail: info@rbkansas.com	DESIGN: TCR DRAWN: EJB REVIEW: UTILITY: DATE: June 9, 2004	PROJECT NUMBER: 472-83851	SHEET: 4 OF 15
	DRAWING FILE: Eng. Base {Paving}		PROJECT NUMBER: 472-83851	



<b>13TH STREET - CEDAR PARK TO 119TH</b> <b>JOINT PLAN</b> <b>WICHITA, KANSAS</b>			
	<b>Ruggles &amp; Bohm, P.A.</b> Engineering, Surveying, Land Planning		DESIGN TCR
	924 North Main Wichita, Kansas 67203 www.rbkansas.com		(318) 264-8008 (318) 264-4621 fax E-mail: info@rbkansas.com
DRAWING FILE Eng. Base {Joint Plan}	PROJECT NUMBER 472-83851	DATE June 9, 2004	DRAWN EJB REVIEW UTILITY SHEET <b>5</b> OF <b>15</b>

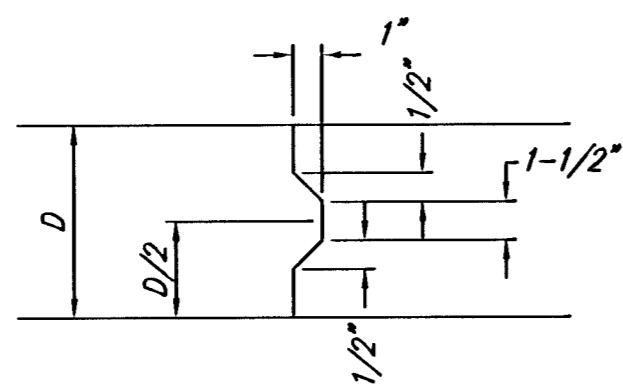


<b>13TH STREET - CEDAR PARK TO 119TH STORM SEWER PLAN WICHITA, KANSAS</b>			
	<b>Ruggles &amp; Bohm, P.A.</b> Engineering, Surveying, Land Planning		DESIGN TCR
	924 North Main Wichita, Kansas 67203 www.rbkansas.com		(316) 264-8008 (316) 264-4621 fax E-mail: info@rbkansas.com
DRAWN EJB	REVIEW	UTILITY	SHEET 6 OF 15
DRAWING FILE Eng. Bose {SWS}	PROJECT NUMBER 472-83851	DATE June 9, 2004	

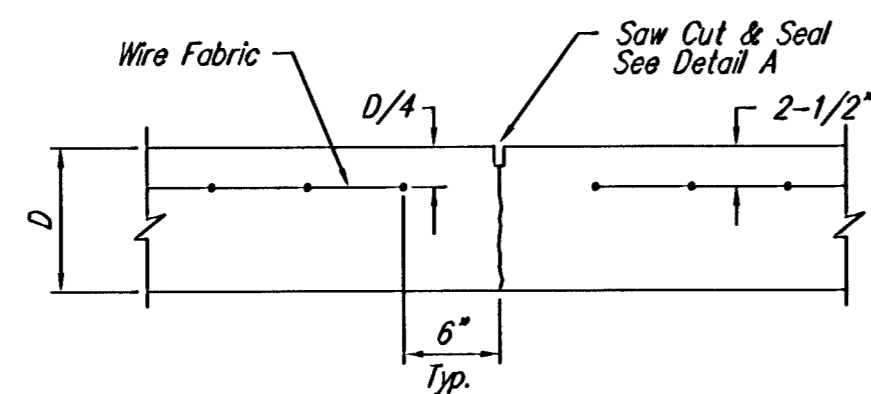


**EXPANSION JOINT**

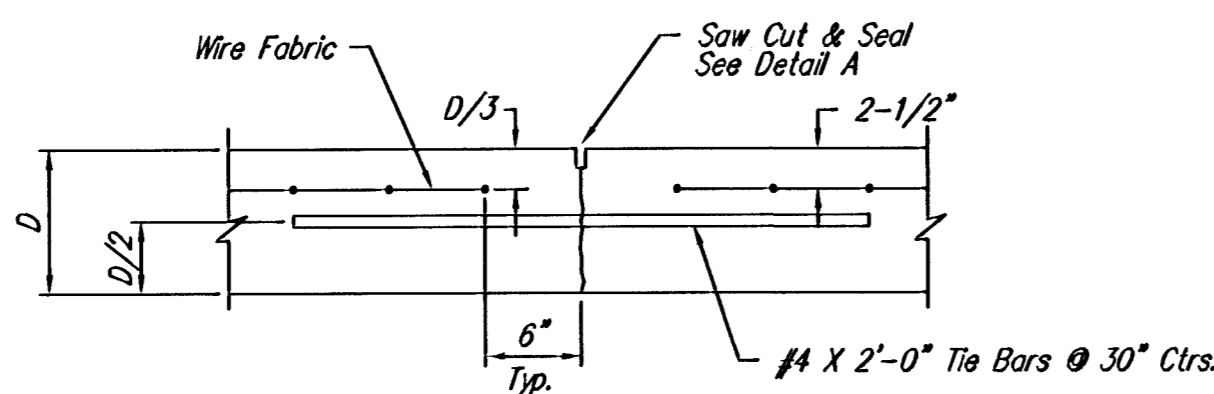
NOTE: Extra Thickness to be Subsidiary to Price of Square Yards Pavement



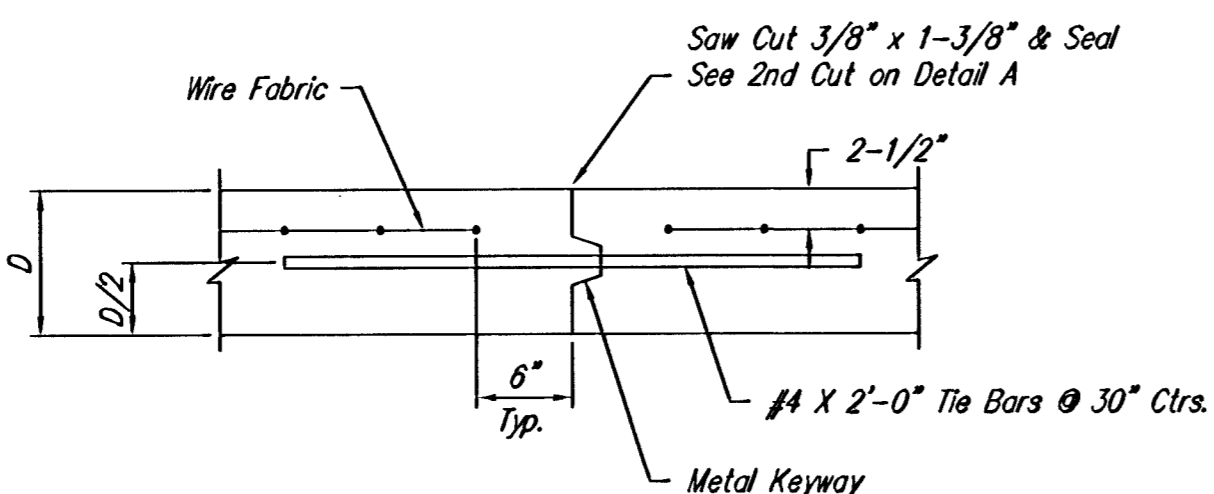
**KEYWAY DETAIL**



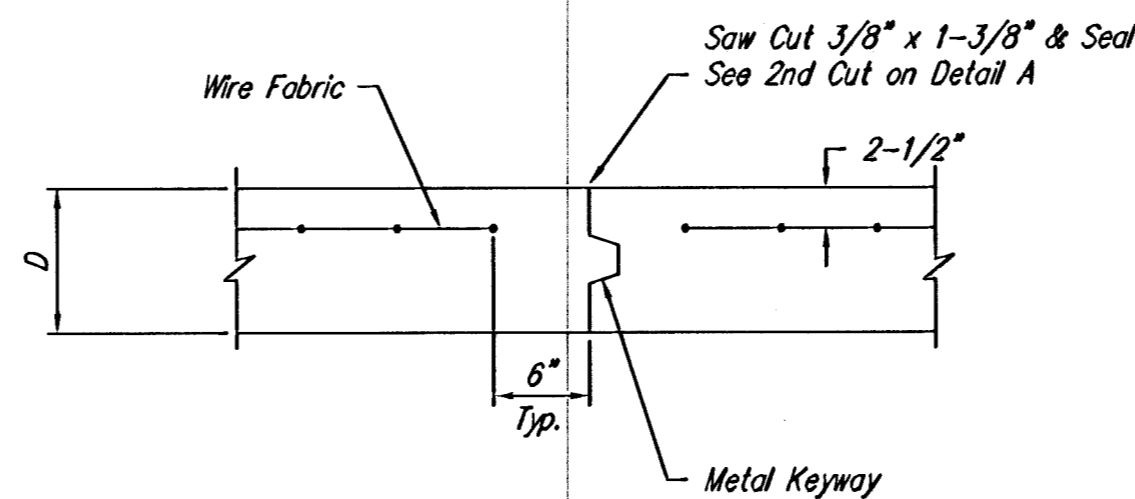
**CONTRACTION JOINT DETAIL (C.J.)**



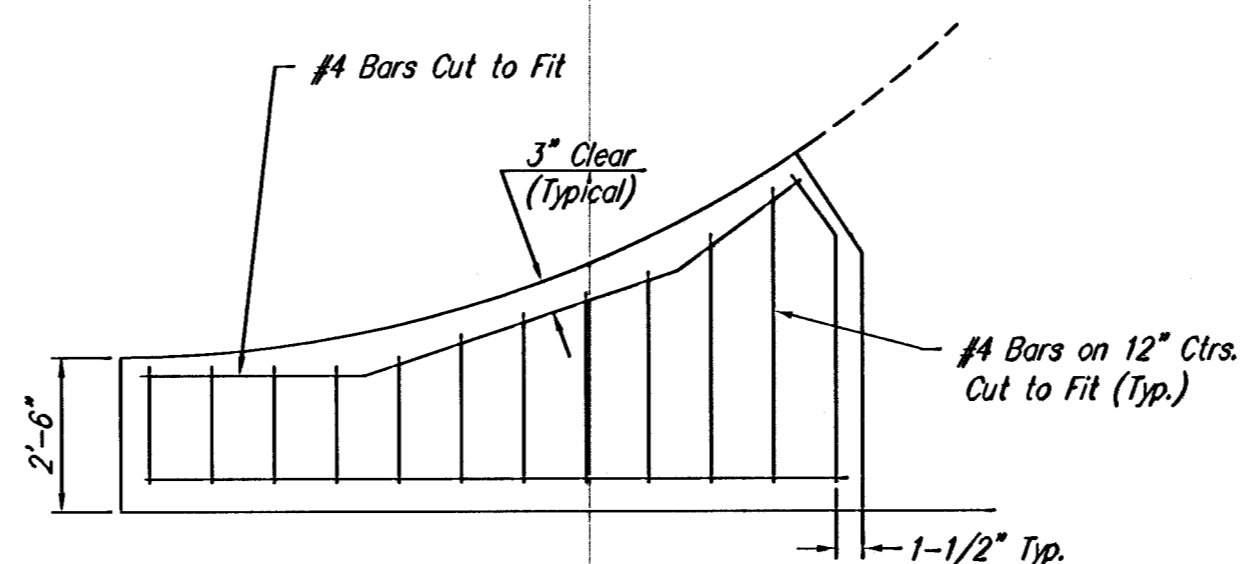
**LONGITUDINAL JOINT DETAIL (L.J.)**



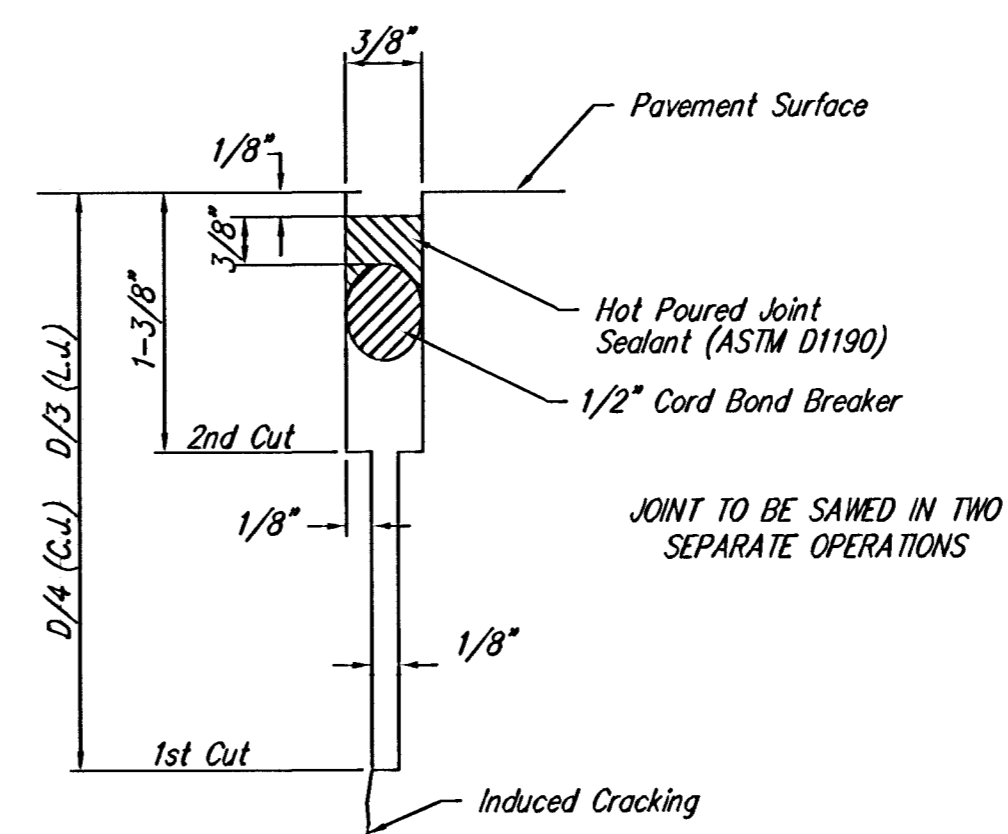
**OPTIONAL LONGITUDINAL JOINT DETAIL (L.J.)**



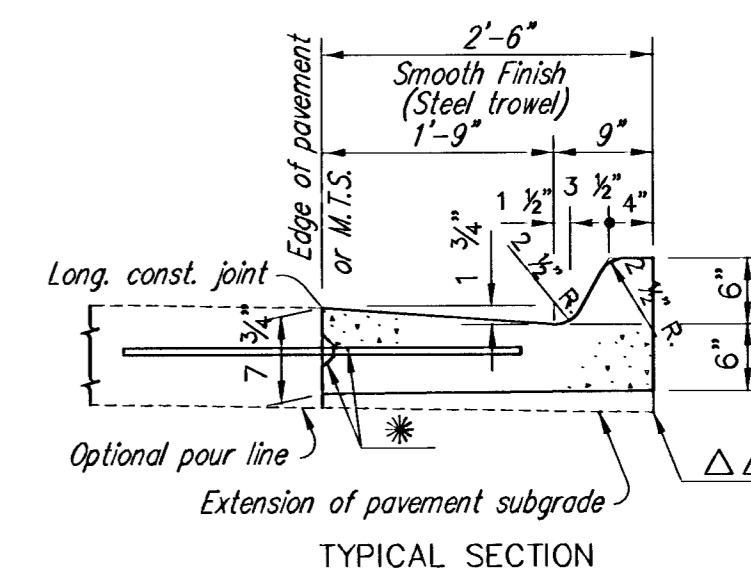
**OPTIONAL CONTRACTION JOINT**



**WING REINFORCING DETAIL**



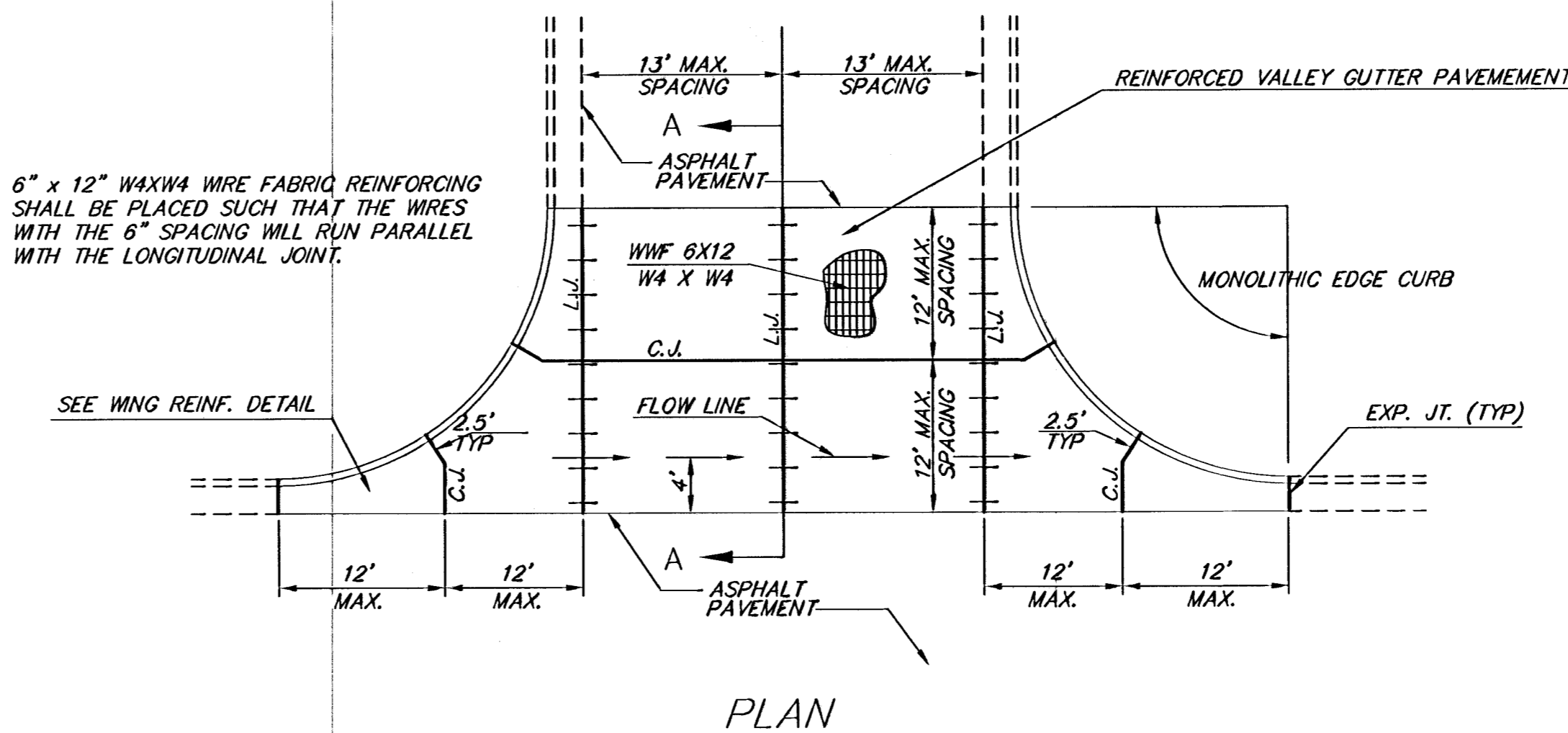
**SAW JOINT DETAIL**



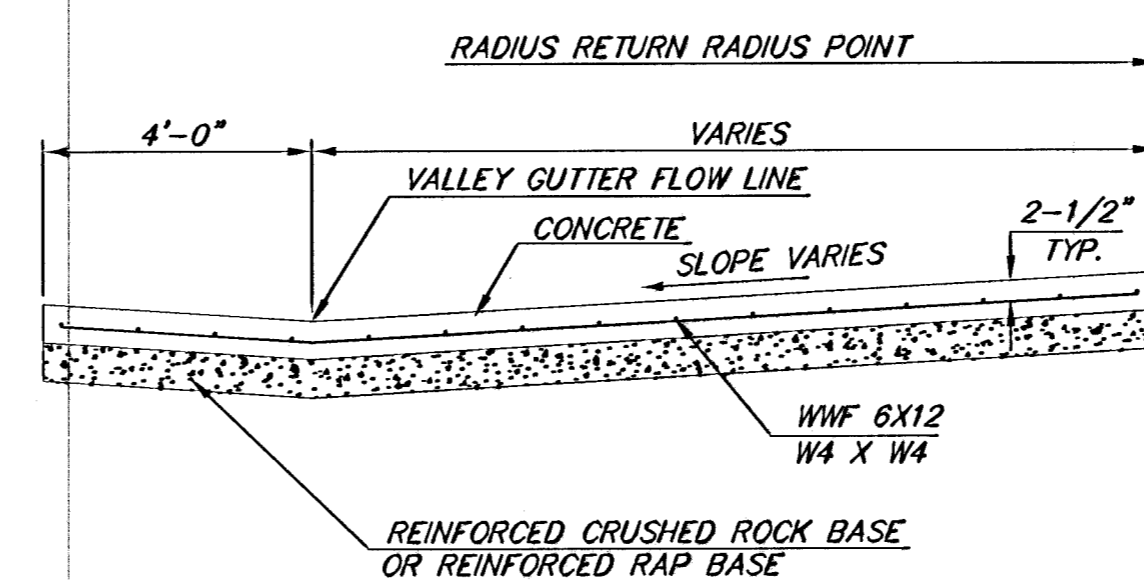
**TYPICAL SECTION**

**COMBINED CURB & GUTTER - TYPE 1**  
(2'-6" WIDTH)

\* Longitudinal construction joint and #4 x 3'-0" bars @ 2'-6" ctrs. where concrete pavement is constructed.  
 Δ Δ Contractor has the option of thickening the curb and gutter as shown.



**PLAN**

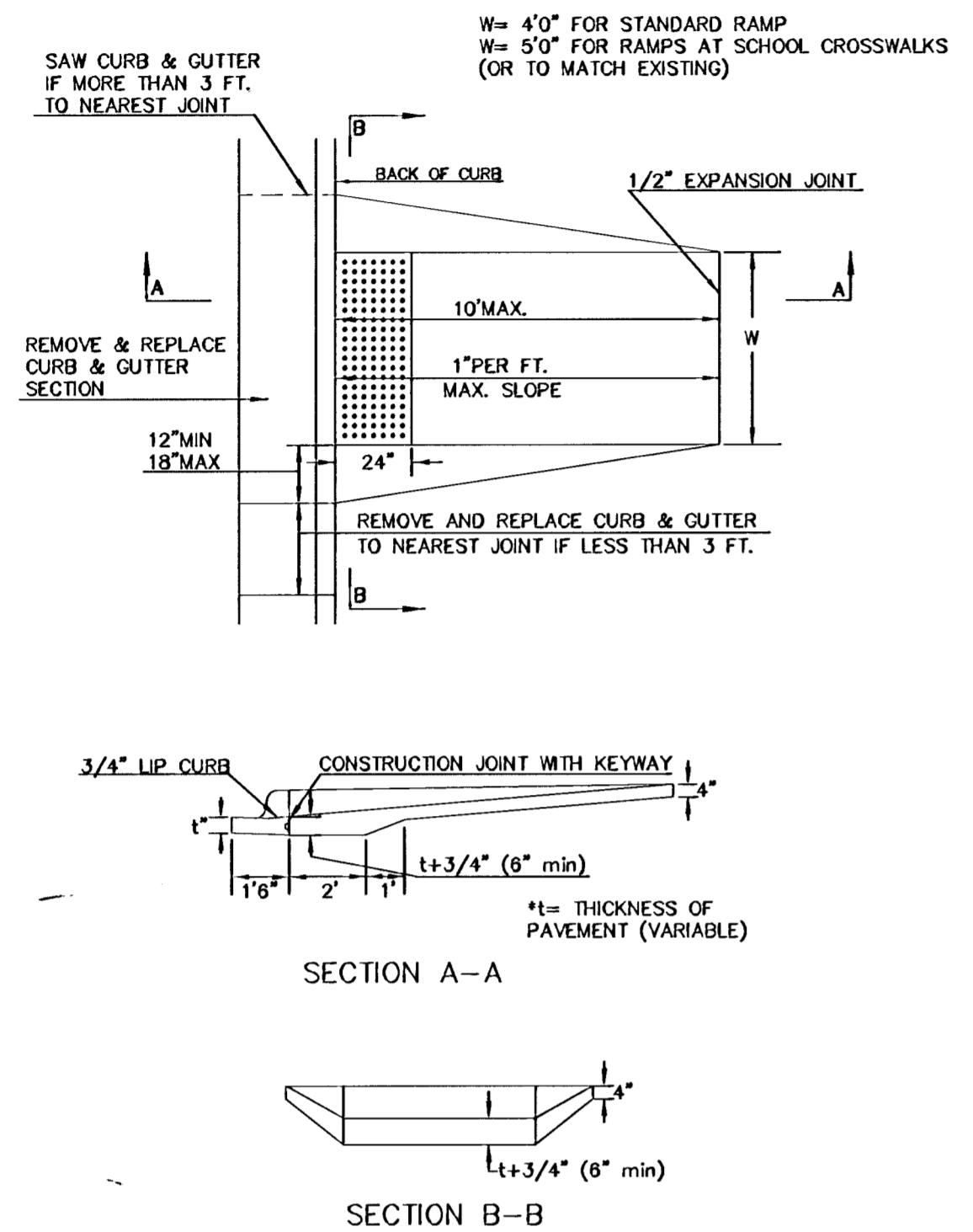


**SECTION A-A**

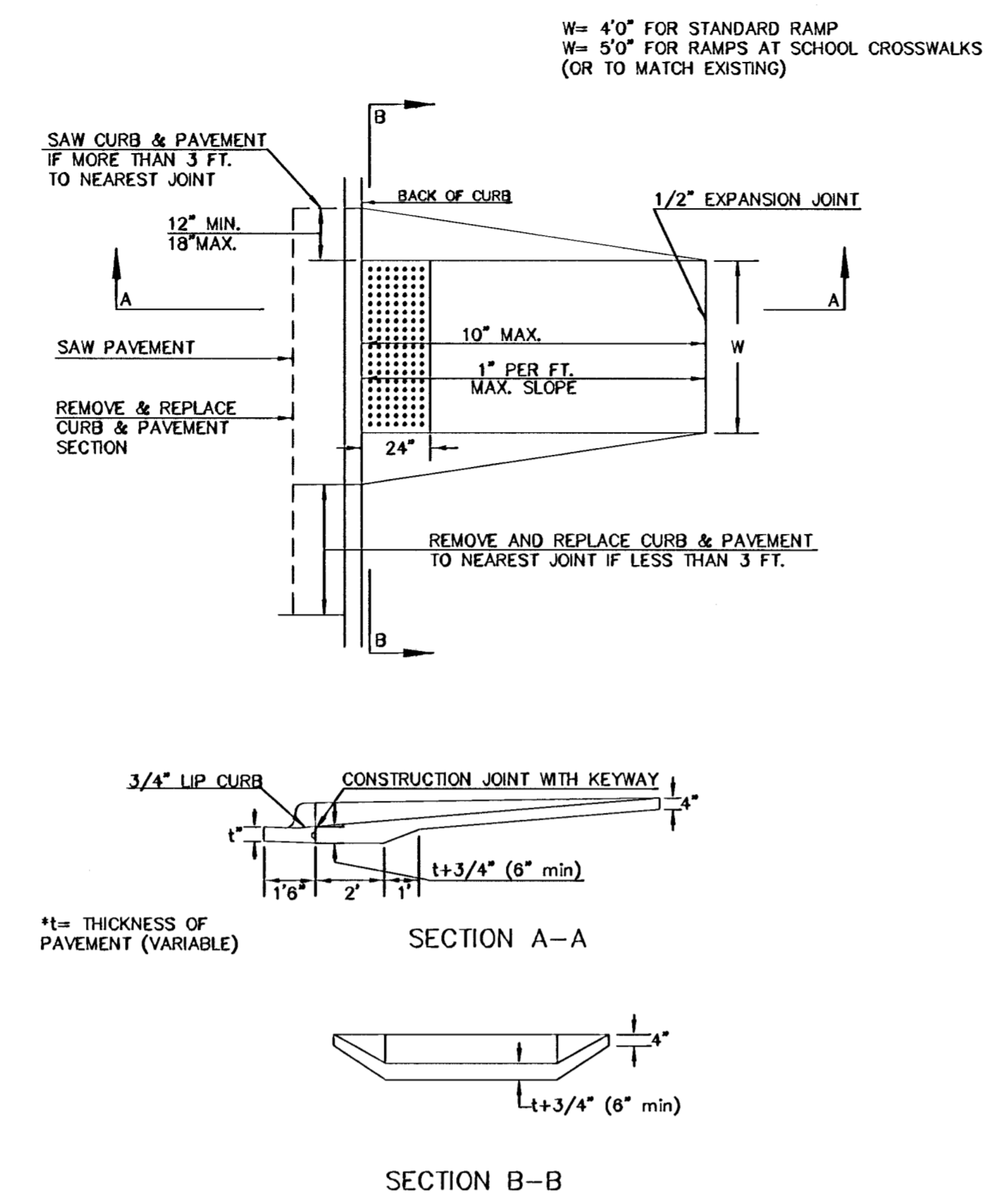
**REINFORCED VALLEY GUTTER DETAIL**

<p>THE CITY OF WICHITA</p>	<b>VALLEY GUTTER DETAILS</b>	
	<b>CURB AND GUTTER DETAILS</b>	
<p>CITY ENGINEER'S OFFICE          CITY HALL - SEVENTH FLOOR          452 NORTH MAIN STREET          WICHITA, KANSAS 67202          (316) 268-4501          (316) 268-4114 FAX</p>	PROJECT NUMBER 472-83851	OCA # 715686
	DATE MAR 96	SHEET 7 OF 15

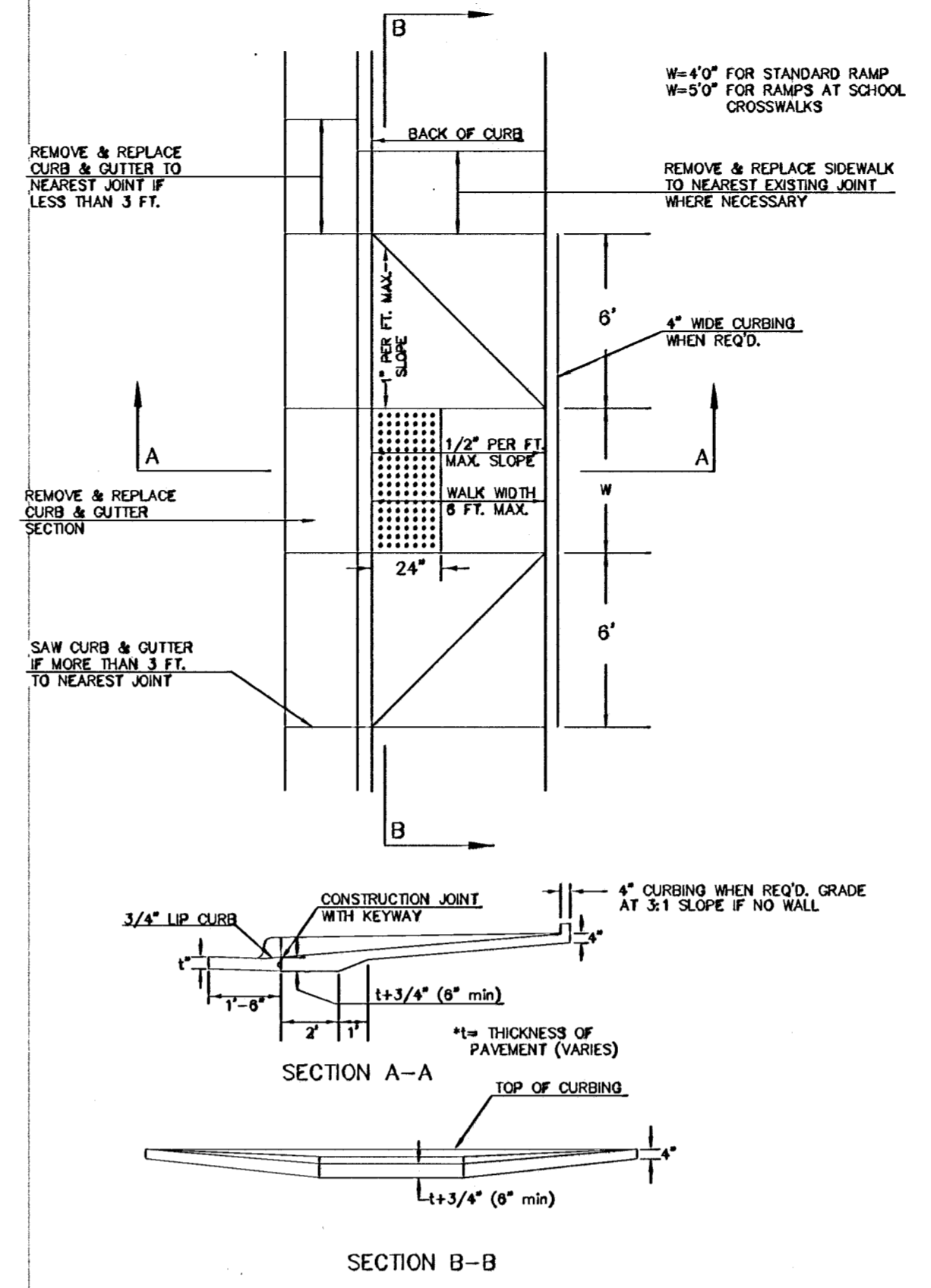
STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR STREETS WITH COMBINED CURB & GUTTER (TYPE A)



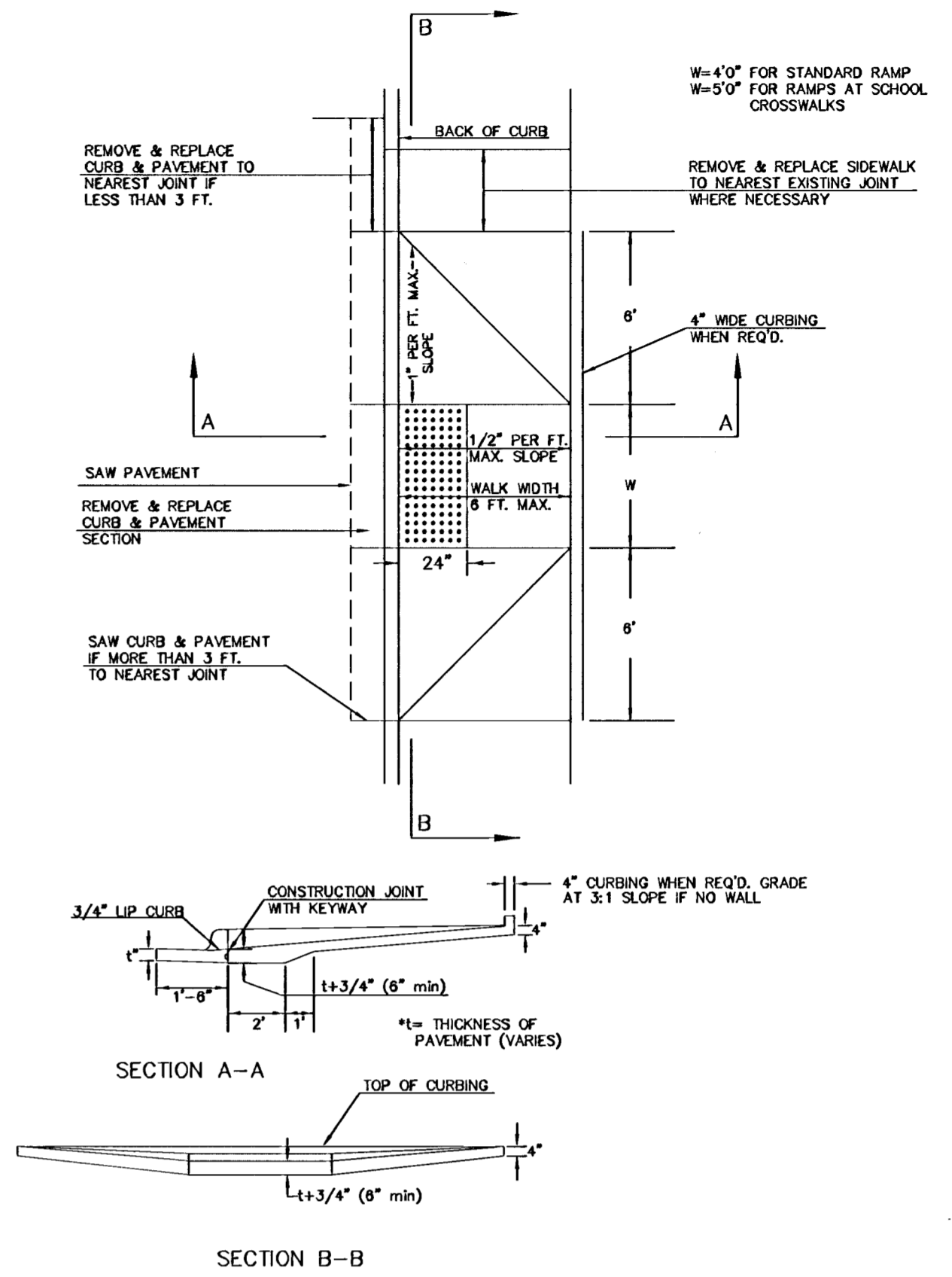
STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR CONCRETE STREETS WITH MONOLITHIC CURB (TYPE A)



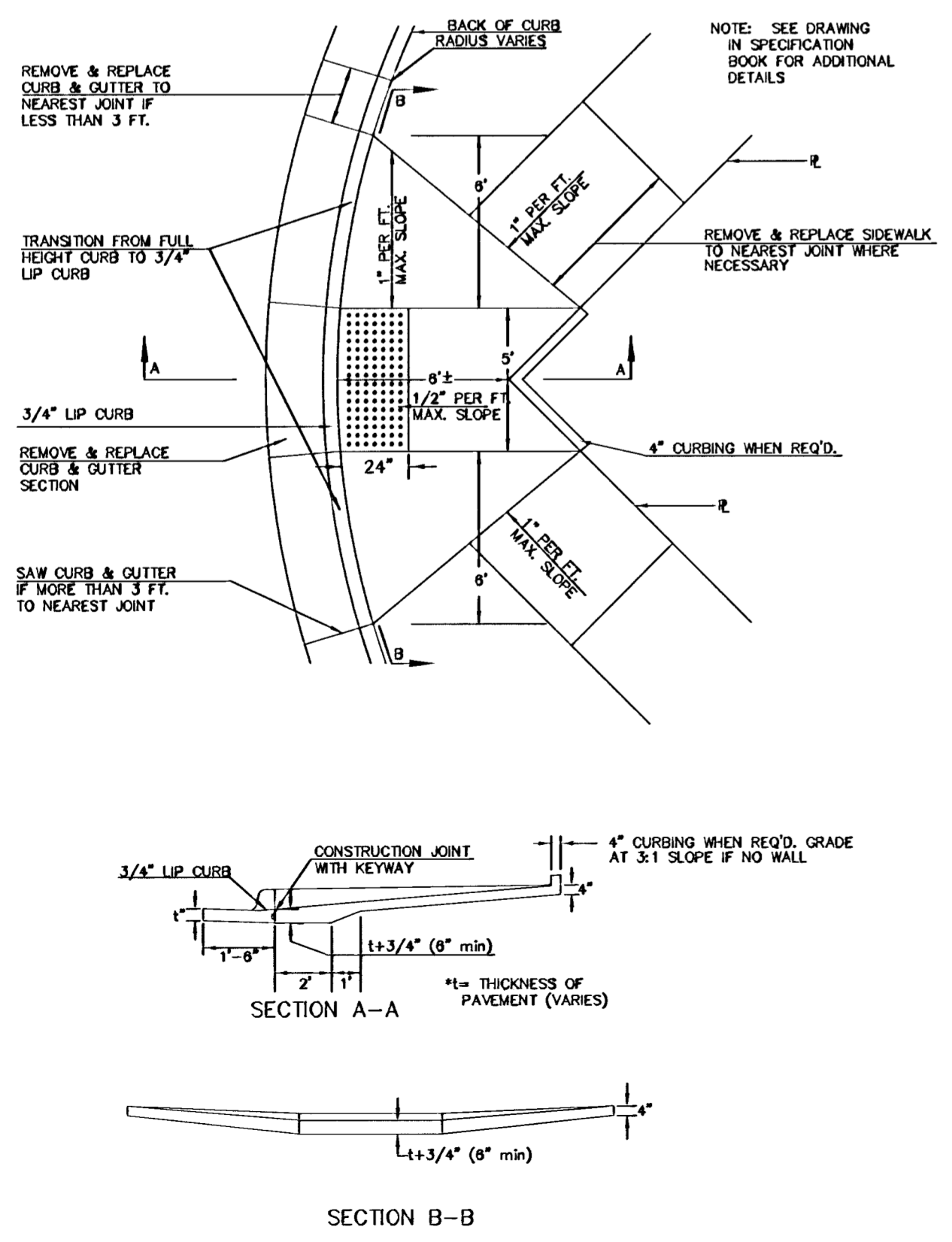
STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR STREETS WITH COMBINED CURB & GUTTER AND FULL WALK (TYPE B)



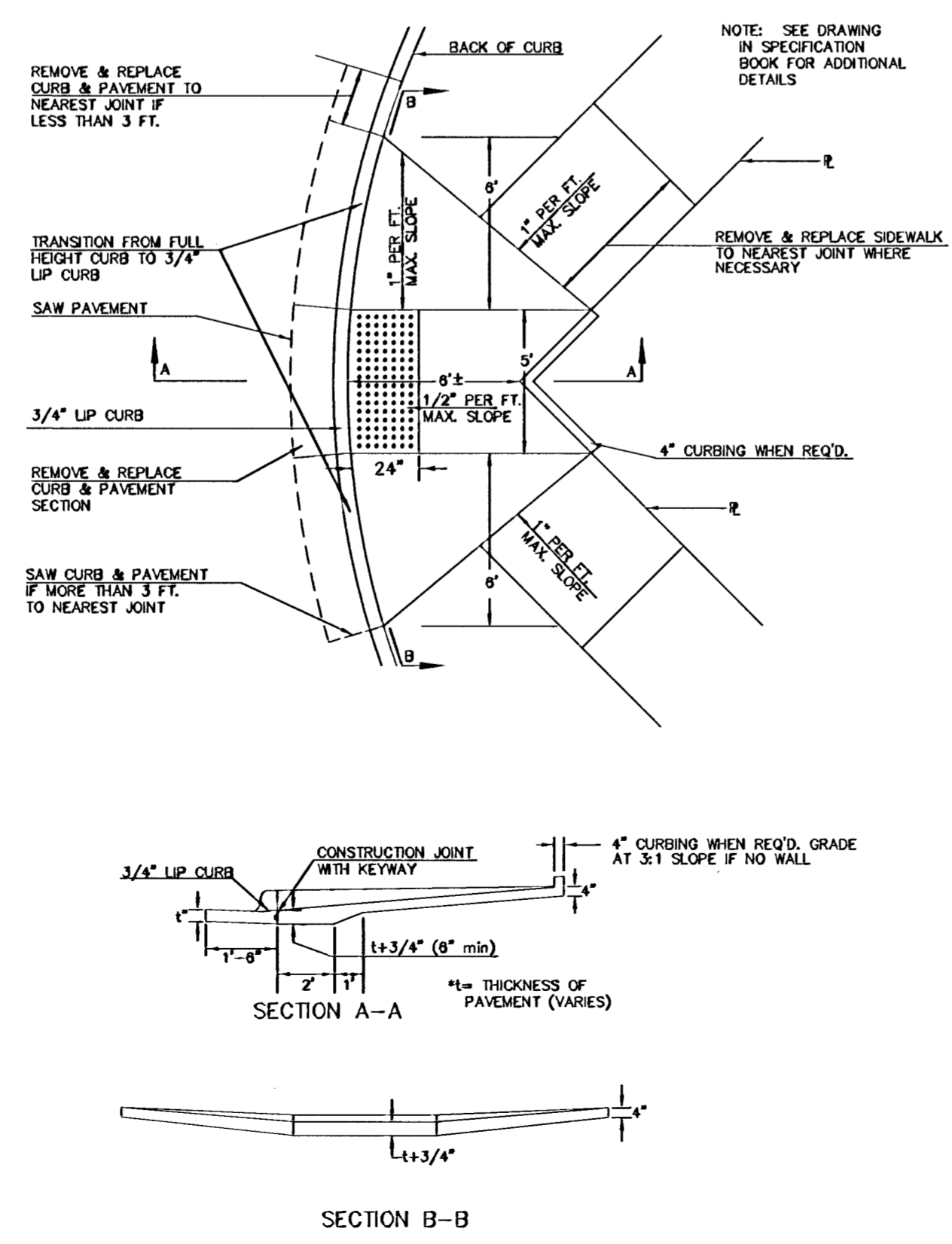
STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR STREETS WITH MONOLITHIC CURB AND FULL WALK (TYPE B)



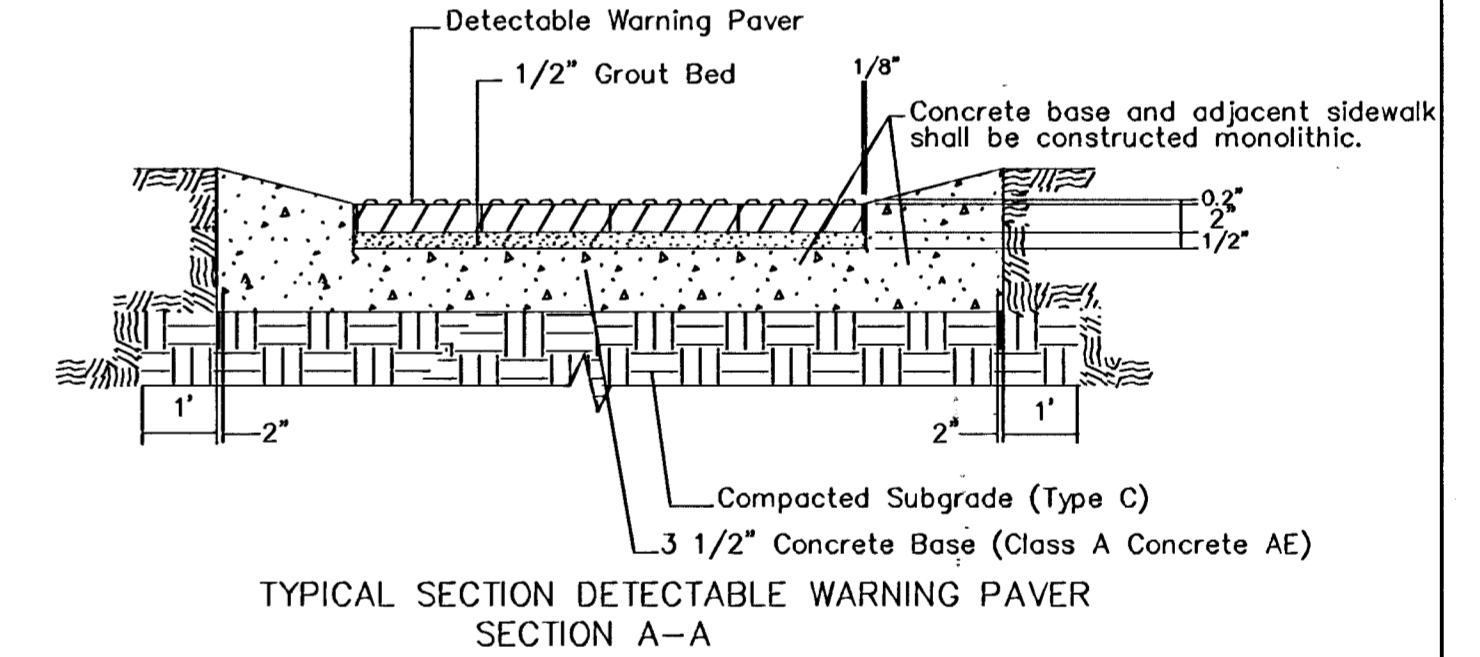
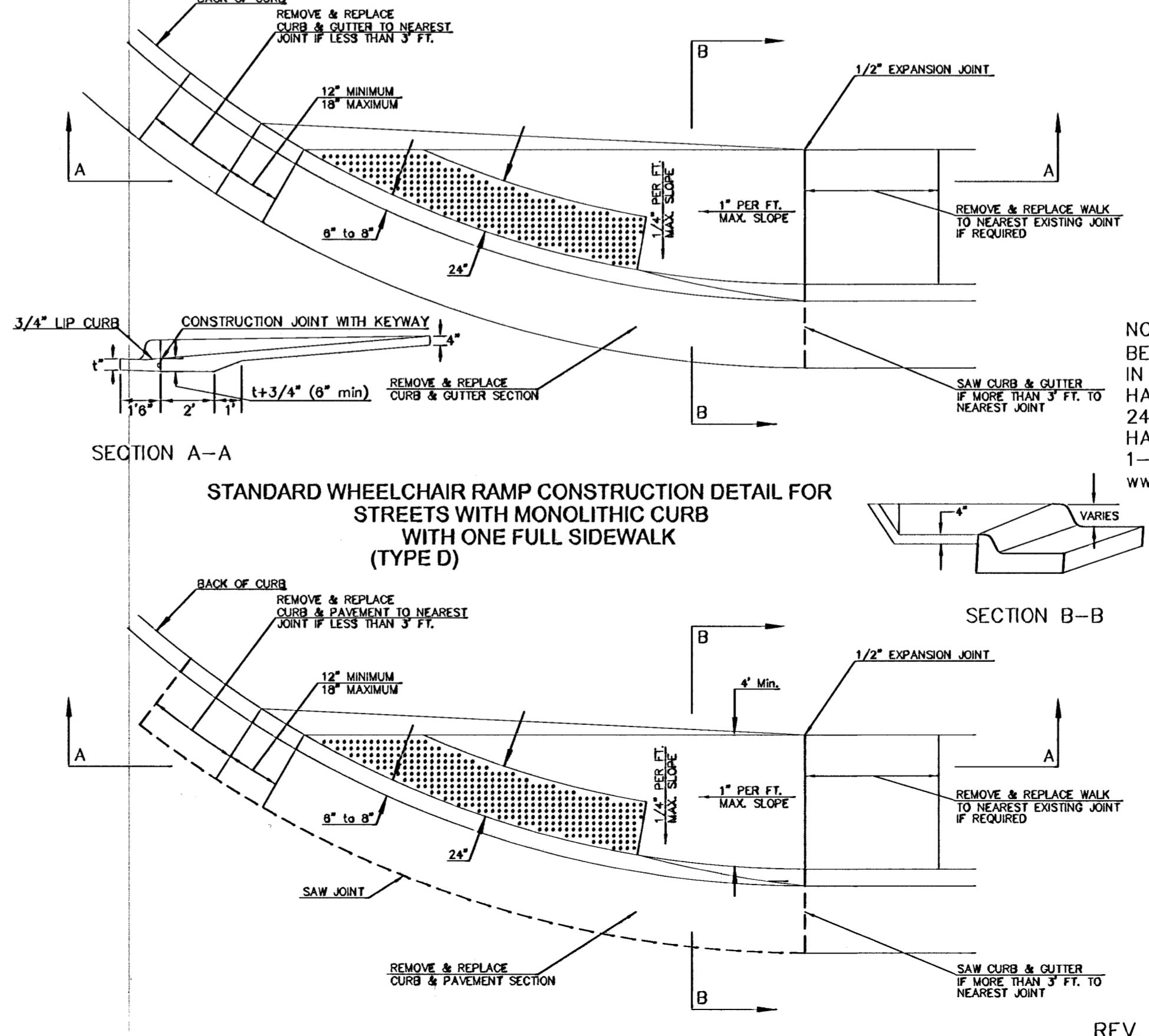
STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR STREET WITH COMBINED CURB AND GUTTER ON RADIUS WITH 6'± FROM BACK OF CURB TO PROPERTY CORNER (TYPE C)



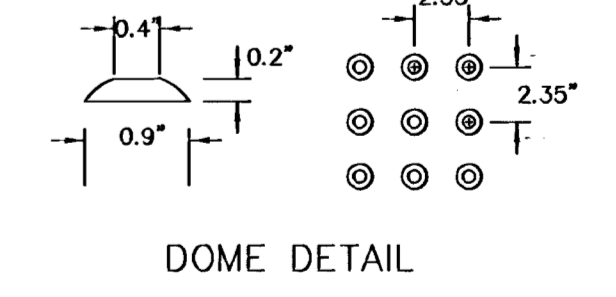
STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR STREET WITH MONOLITHIC CURB ON RADIUS WITH 6'± FROM BACK OF CURB TO PROPERTY CORNER (TYPE C)



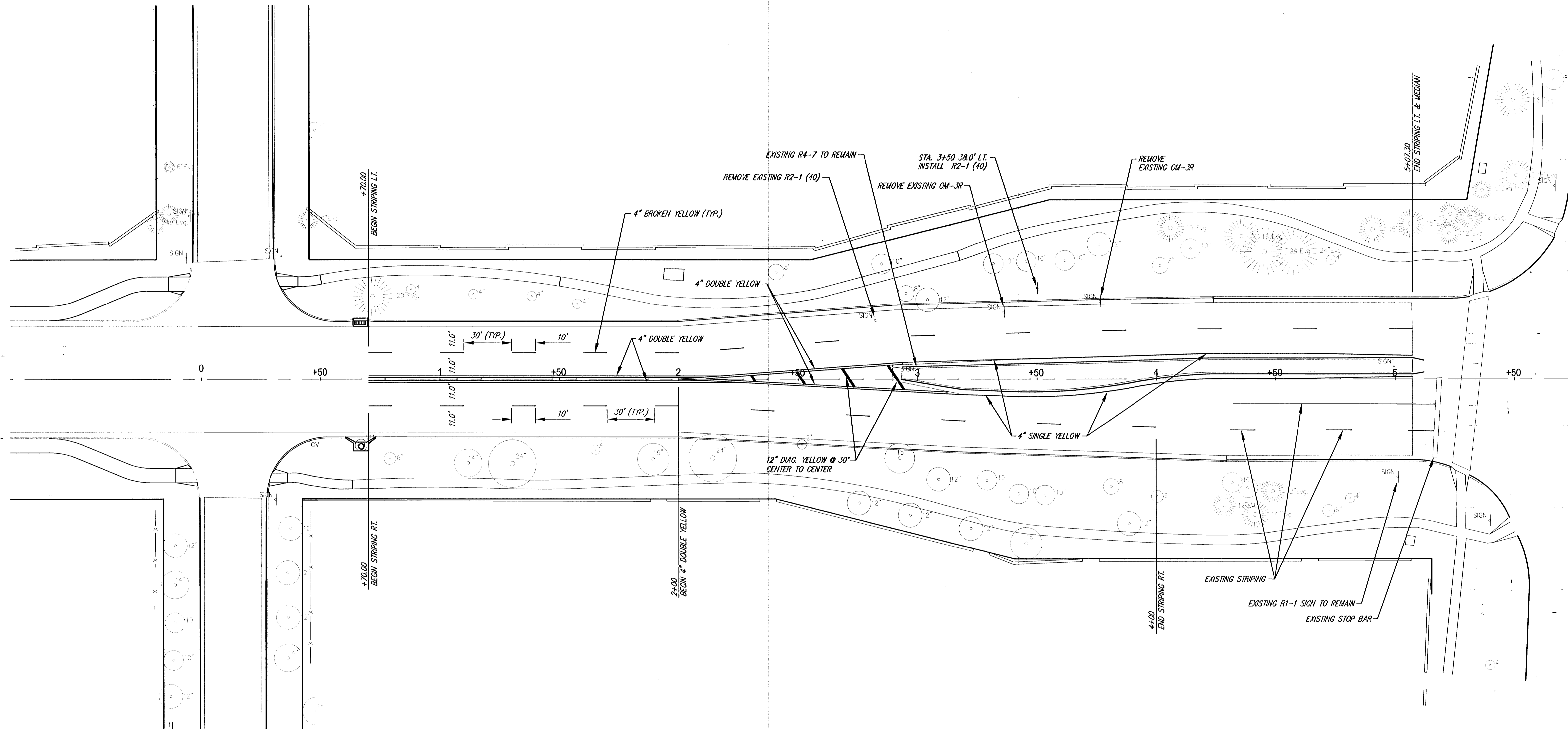
STANDARD WHEELCHAIR RAMP CONSTRUCTION DETAIL FOR STREETS WITH COMBINED CURB & GUTTER WITH ONE FULL SIDEWALK (TYPE D)



NOTE: HANOVER DETECTABLE WARNING PAVERS (OR AN APPROVED ALTERNATE) SHALL BE USED IN ALL WHEELCHAIR RAMPS. THE 11 3/4" RED 15" PAVES SHALL BE USED IN ALL APPLICATIONS.  
HANOVER ARCHITECTURAL PRODUCTS  
240 BENDER ROAD  
HANOVER, PA 17331  
1-717-637-0500  
www.hanoverpavers.com

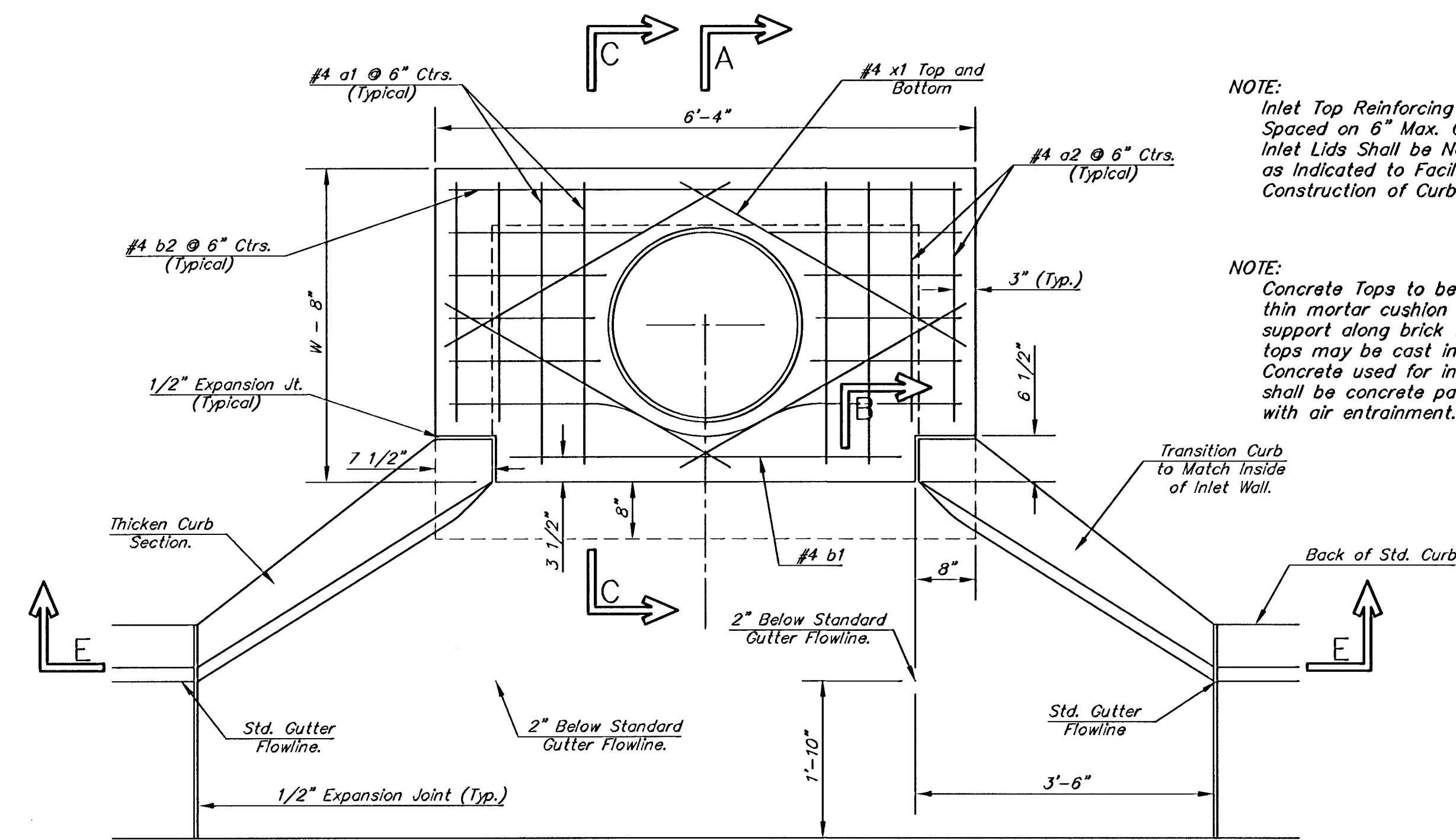


WHEELCHAIR RAMP DETAILS		
CITY ENGINEER		
PROJECT NUMBER 472-83851	OCA NUMBER 715686	DATE June 9, 2004
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1820 (316) 268-4501 (316) 268-4114 FAX		DESIGN EJB
DRAWN EJB		SHEET 8 OF 15



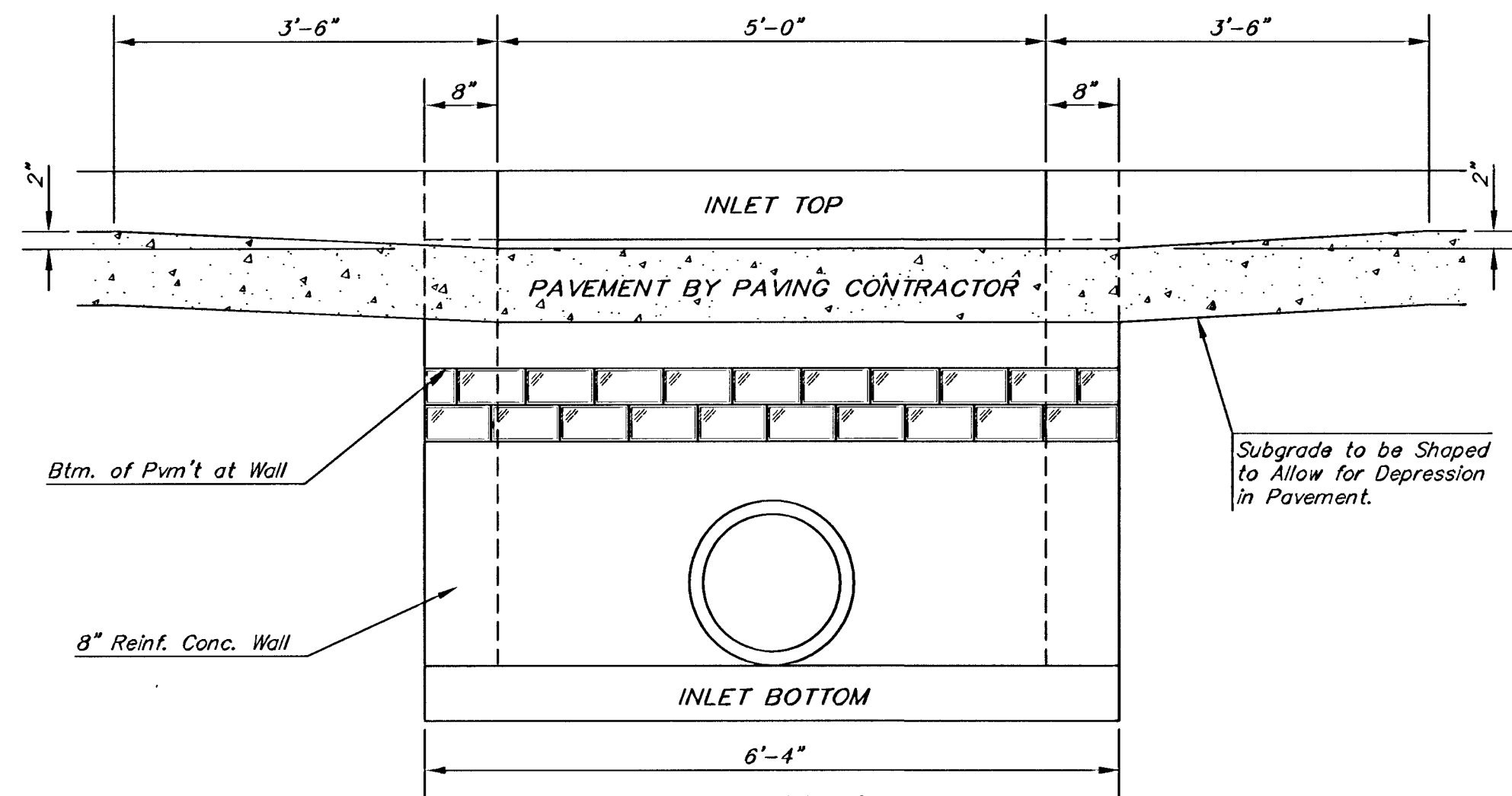
**13TH STREET - CEDAR PARK TO 119TH  
 PAVEMENT MARKING AND SIGNING  
 WICHITA, KANSAS**

 <b>Ruggles &amp; Bohm, P.A.</b> Engineering, Surveying, Land Planning 924 North Main Wichita, Kansas 67203 www.rbkansas.com (316) 264-8008 (316) 264-4821 fax E-mail: info@rbkansas.com	DESIGN TCR	SHEET <b>9</b> OF <b>15</b>
	DRAWN EJB	
REVIEW	UTILITY	DATE June 9, 2004
DRAWING FILE Eng. Base {Striping}	PROJECT NUMBER 472-83851	JOB NO. 2577

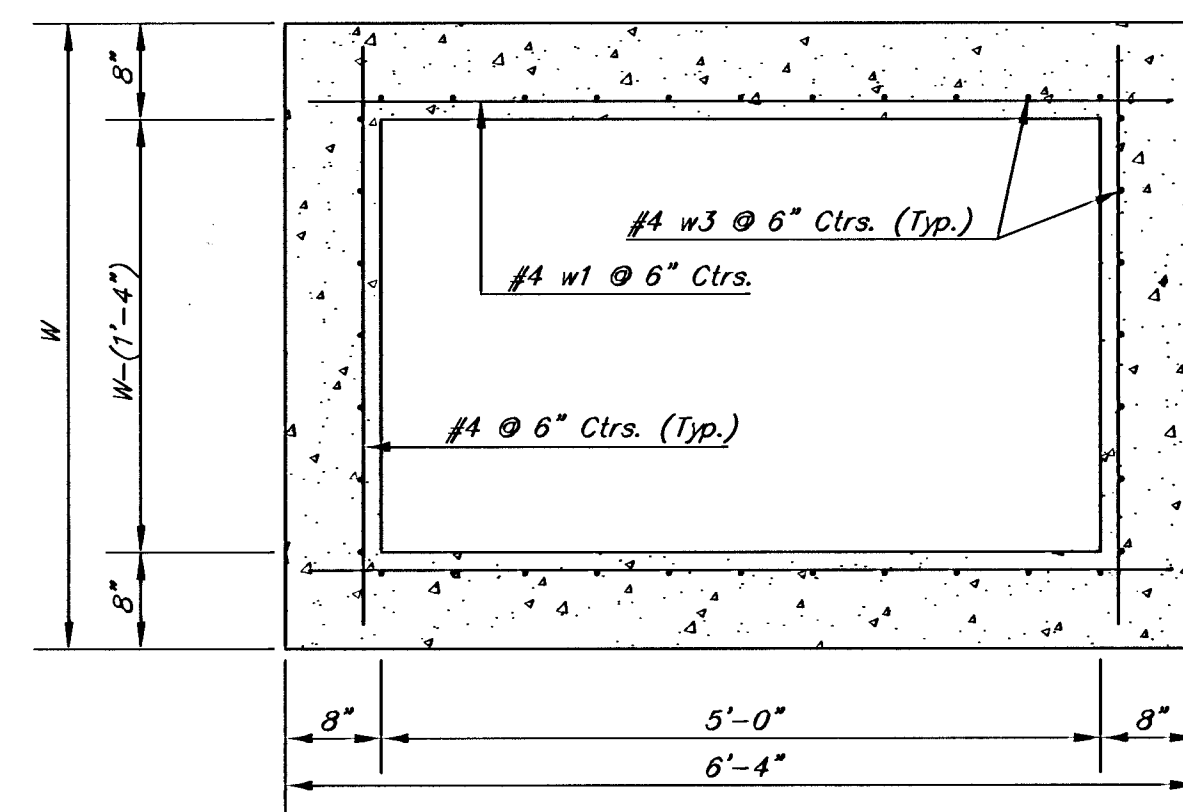


NOTE:  
Expansion Joint Only in Curb Area With Concrete Pavement.

**PLAN**



**SECTION E-E**



**SECTION D-D**

NOTE: Contractor shall have the option of constructing 8\"/>

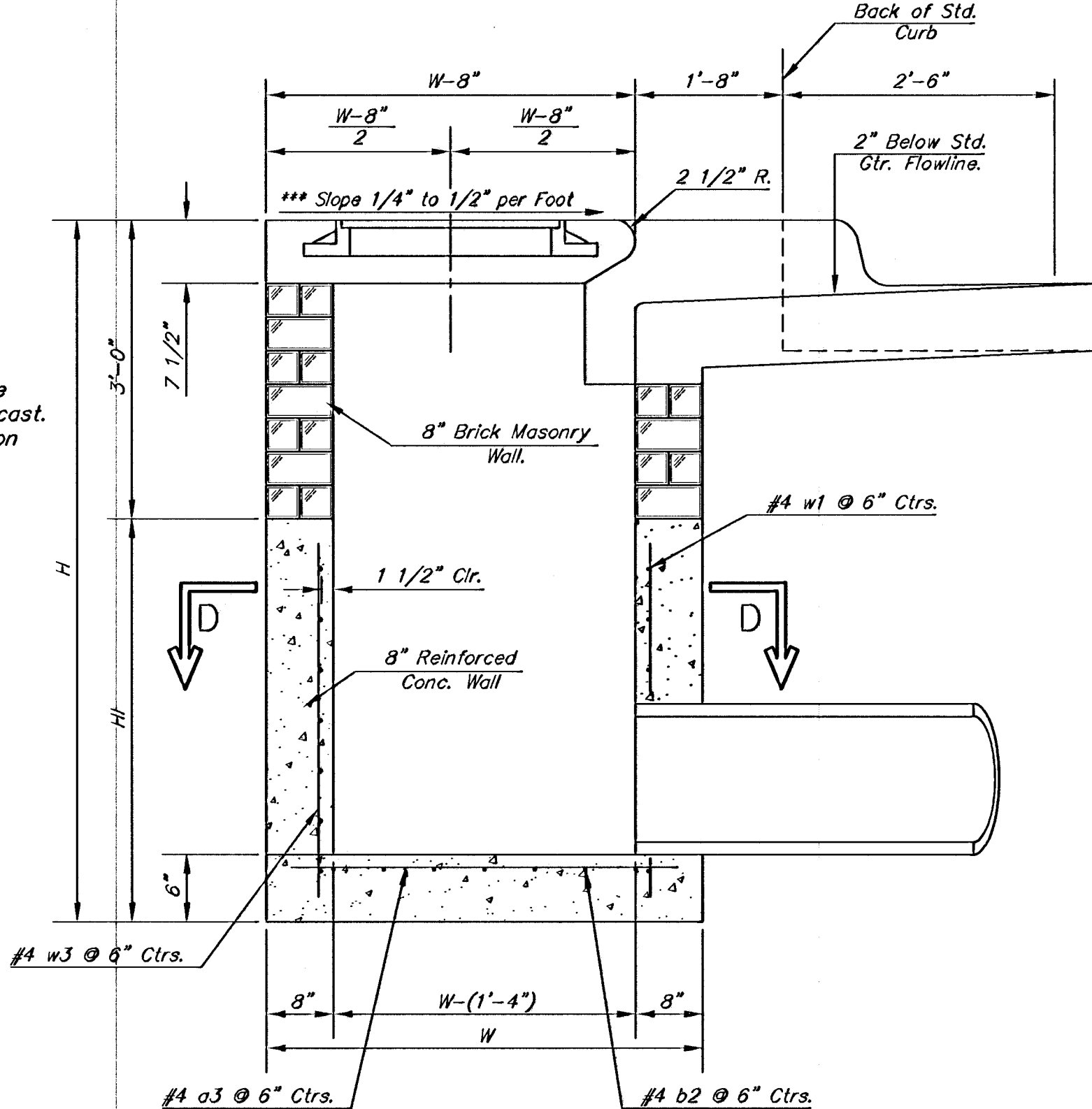
Additional curb and gutter construction necessary to connect set-back inlet to pavement will be paid for at the unit price bid for each inlet hookup.

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

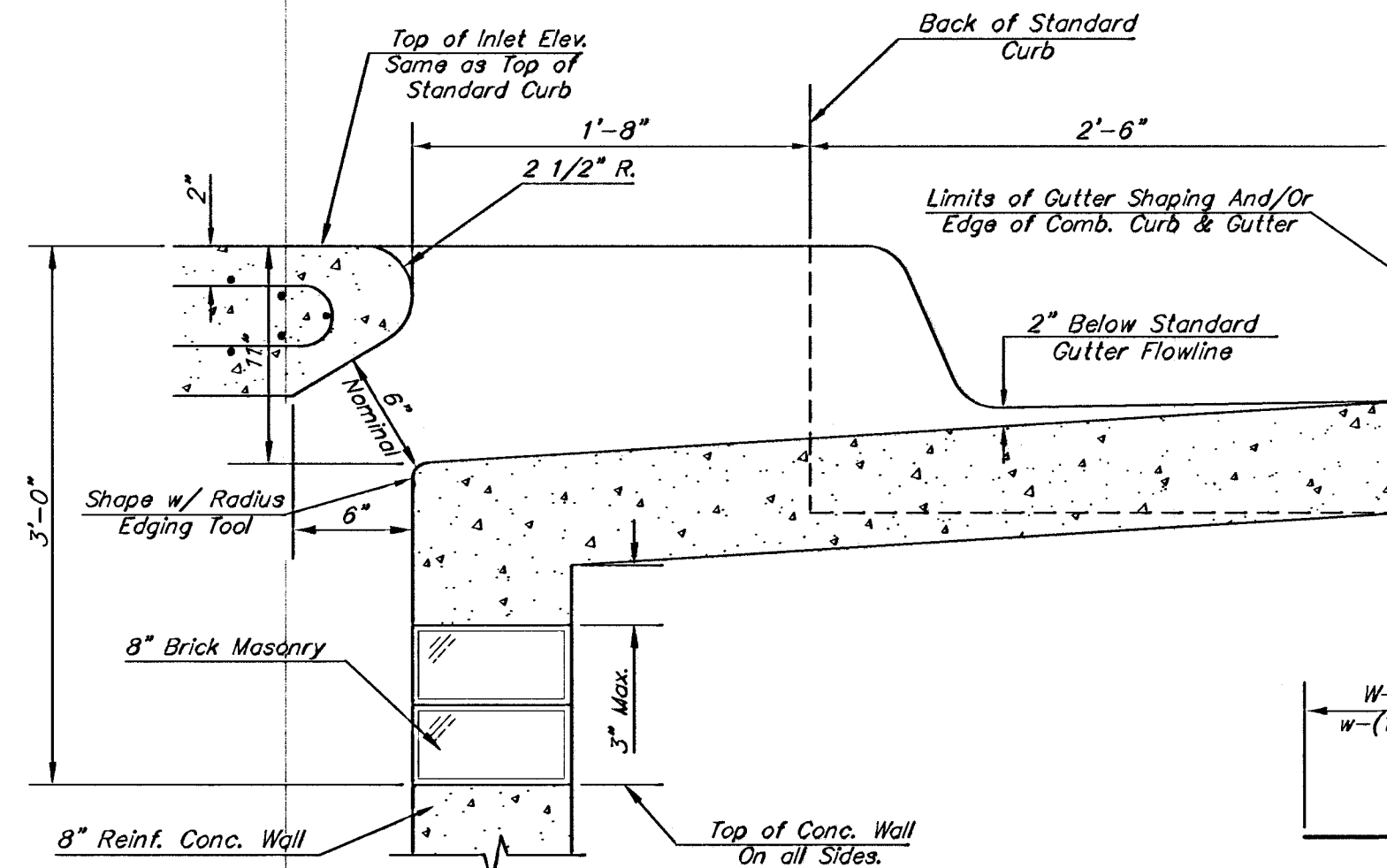
NOTE:  
Inlet Top Reinforcing shall be Spaced on 6\"/>

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 with air entrainment.

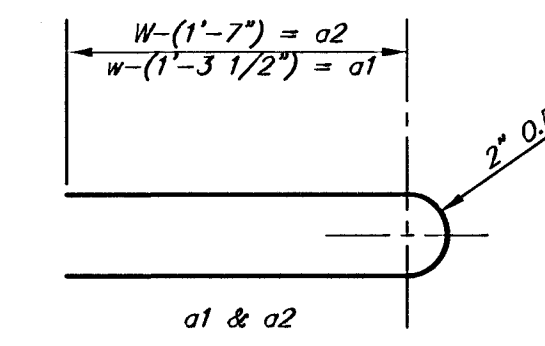


**SECTION A-A**

\*\*\*NOTE: Slope of Inlet tops to Match Sidewalk or Parking Slopes within Limits Indicated.



**SECTION B-B**



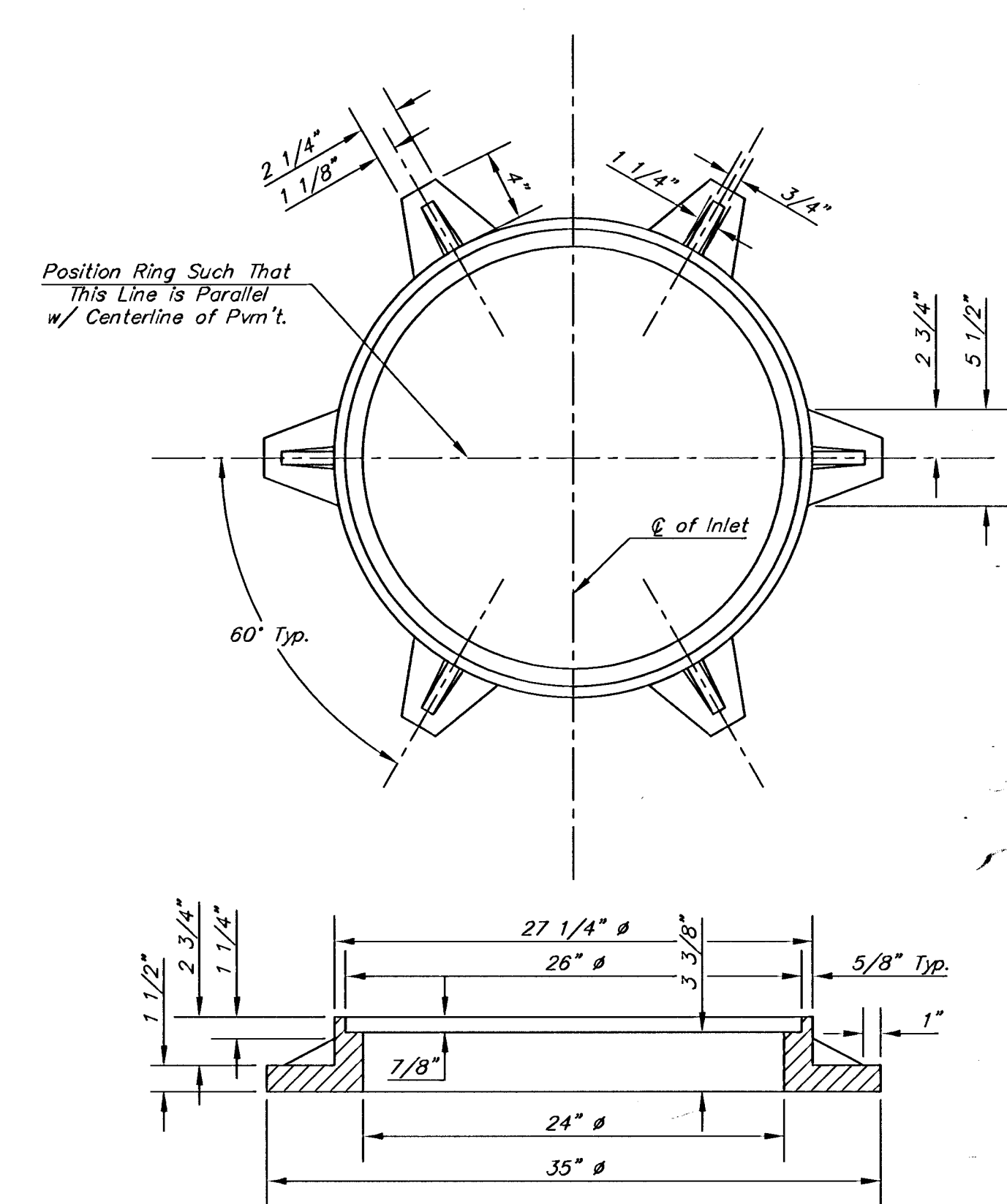
**BENDING DIAGRAM**

PRECAST SLAB AND FLOOR REINFORCING											
MARK	SIZE	W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
* a1	#4	6	6'-7"	6	8'-7"	6	10'-7"	6	12'-7"	6	14'-7"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"	4	14'-0"
a3	#4	13	4'-1"	13	5'-1"	13	6'-1"	13	7'-1"	13	8'-1"
b1	#4	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"
* b2	#4	23	6'-1"	29	6'-1"	35	6'-1"	41	6'-1"	47	6'-1"
x1	#4	8	3'-10"	8	4'-2"	8	4'-6"	8	4'-10"	8	5'-2"

WALL REINFORCING											
MARK	SIZE	W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
w1	#4	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"
w2	#4	①	4'-1"	①	5'-1"	①	6'-1"	①	7'-1"	①	8'-1"
w3	#4	32	②	36	②	40	②	44	②	48	②

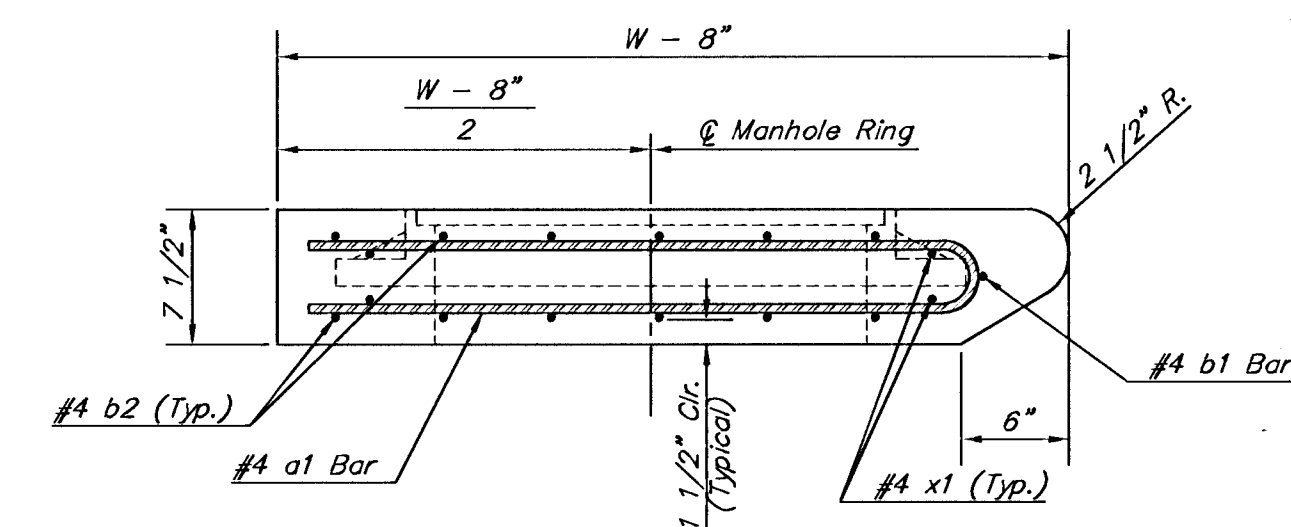
\* Field Band or Cut Reinforcing as Required for Clearance.  
 ① 4 (H - 12") (H - 21") Rounded down to nearest 0.5'  
 ② H - 3'



**MANHOLE RING AND COVER**

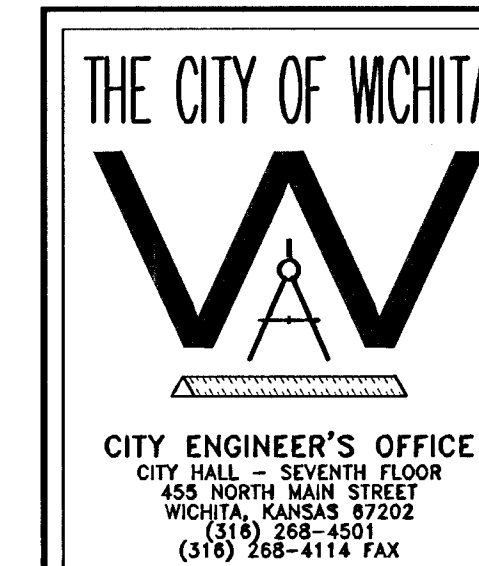
Weight = 180 Lbs.

\*See City of Wichita Standard Manhole Ring and Cover Detail Sheet for Cover Details to Be Used With Inlet Frame.



**SECTION A-A**

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	0.38t
5'-4"	4'-8" x 6'-4" x 7 1/2"	24" & 30"	0.51t
6'-4"	5'-8" x 6'-4" x 7 1/2"	36" & 42"	0.64t
7'-4"	6'-8" x 6'-4" x 7 1/2"	48" & 54"	0.77t
8'-4"	7'-8" x 6'-4" x 7 1/2"	60" & 66"	0.90t



**STANDARD TYPE 1-A CURB INLET**  
**OPENING = 6"x5'-0"**

CITY ENGINEER'S OFFICE  
 CITY HALL - SEVENTH FLOOR  
 455 NORTH MAIN STREET  
 WICHITA, KANSAS 67202  
 (316) 268-4501  
 (316) 268-4114 FAX

PROJECT NUMBER 472-83851 OCA # 715686  
 DATE MAR 96 SHEET 10 OF 15