

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

PROJECT NO. 472-83851
OCA # 715697
PHASE II

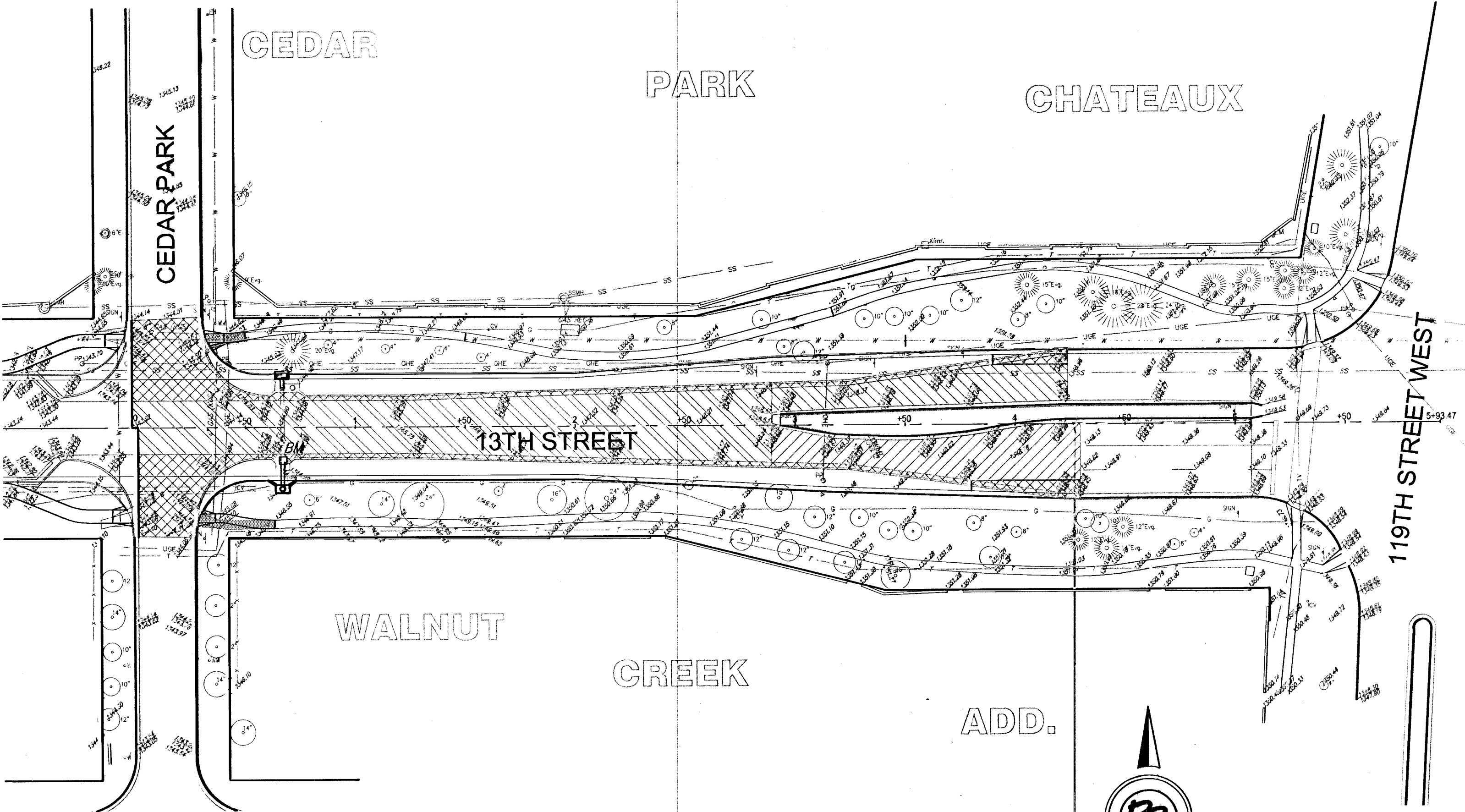
GENERAL NOTES

- 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

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.



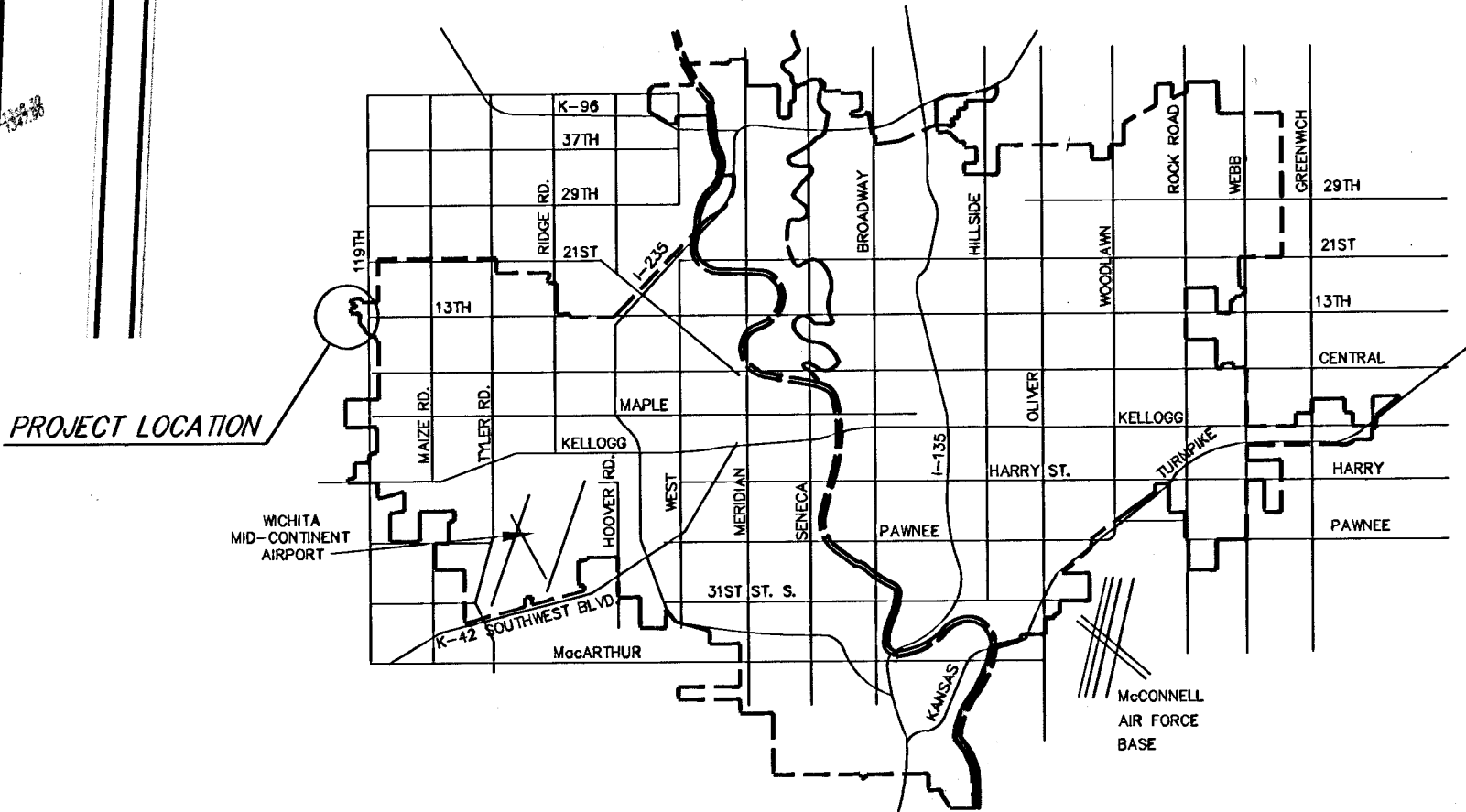
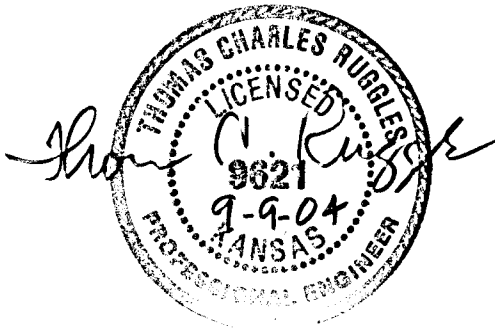
BENCH MARKS

- ' 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

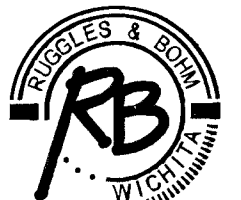
INDEX OF SHEETS

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- JOINT PLANS
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- TYPE I-A SINGLE INLET
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- CROSS SECTIONS
- CROSS SECTIONS
- TRAFFIC CONTROL PLAN
- TRAFFIC CONTROL SIGNS

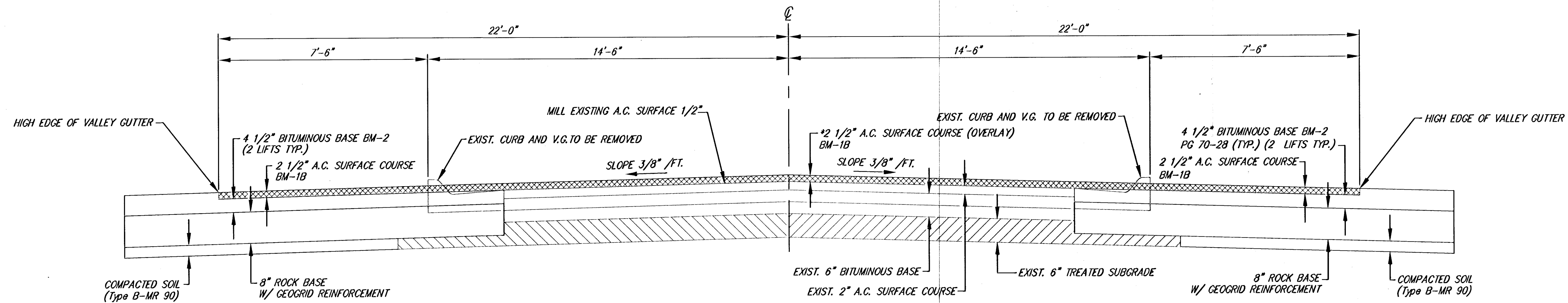
REVISED: 8-24-04
REVISED: 9-9-04



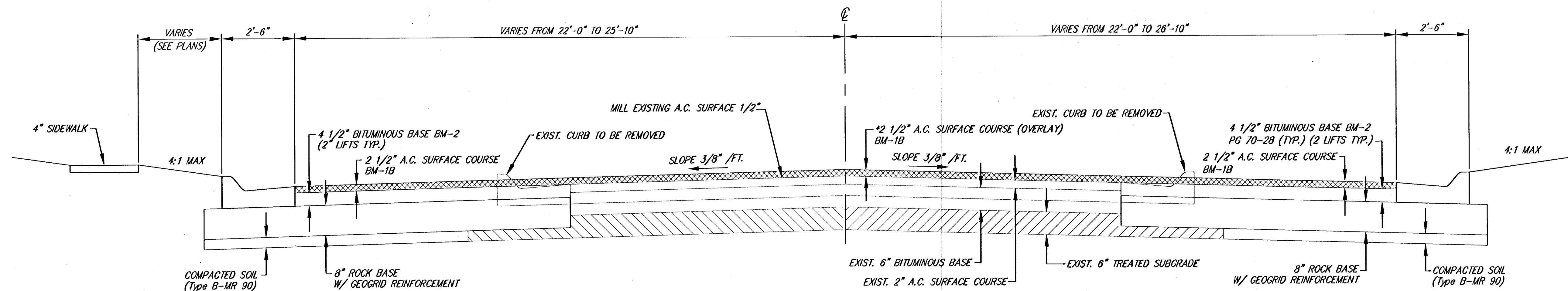
CITY OF WICHITA, KANSAS
JAMES L. ARMOUR, P.E. - ACTING CITY ENGINEER



Ruggles & Bohm, P.A.
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TYPICAL SECTION
0+00 TO 0+56.00

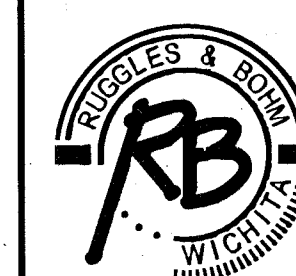


TYPICAL SECTION
0+56.00 TO 2+90

*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

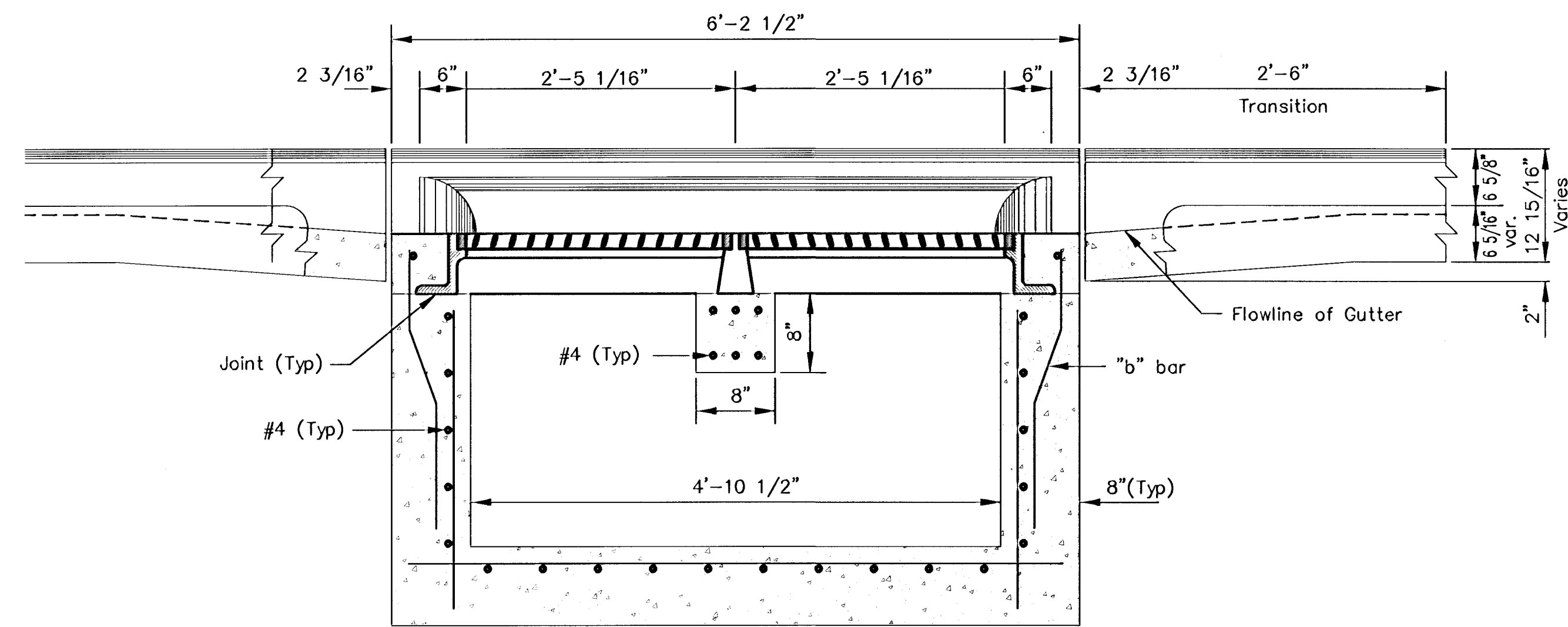


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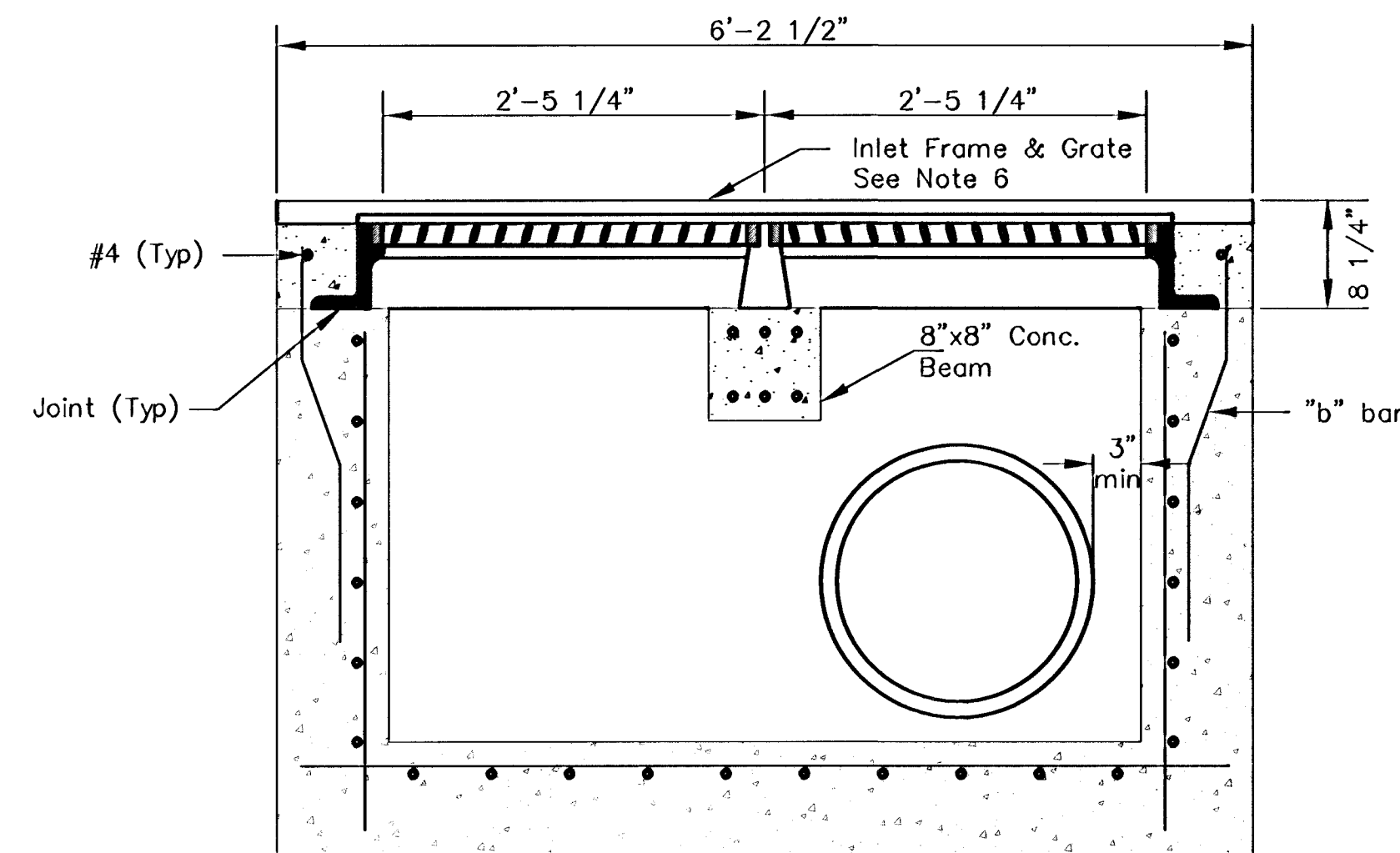
DRAWING FILE
Eng. Base {Typ. Sect.}

PROJECT NUMBER
472-83851

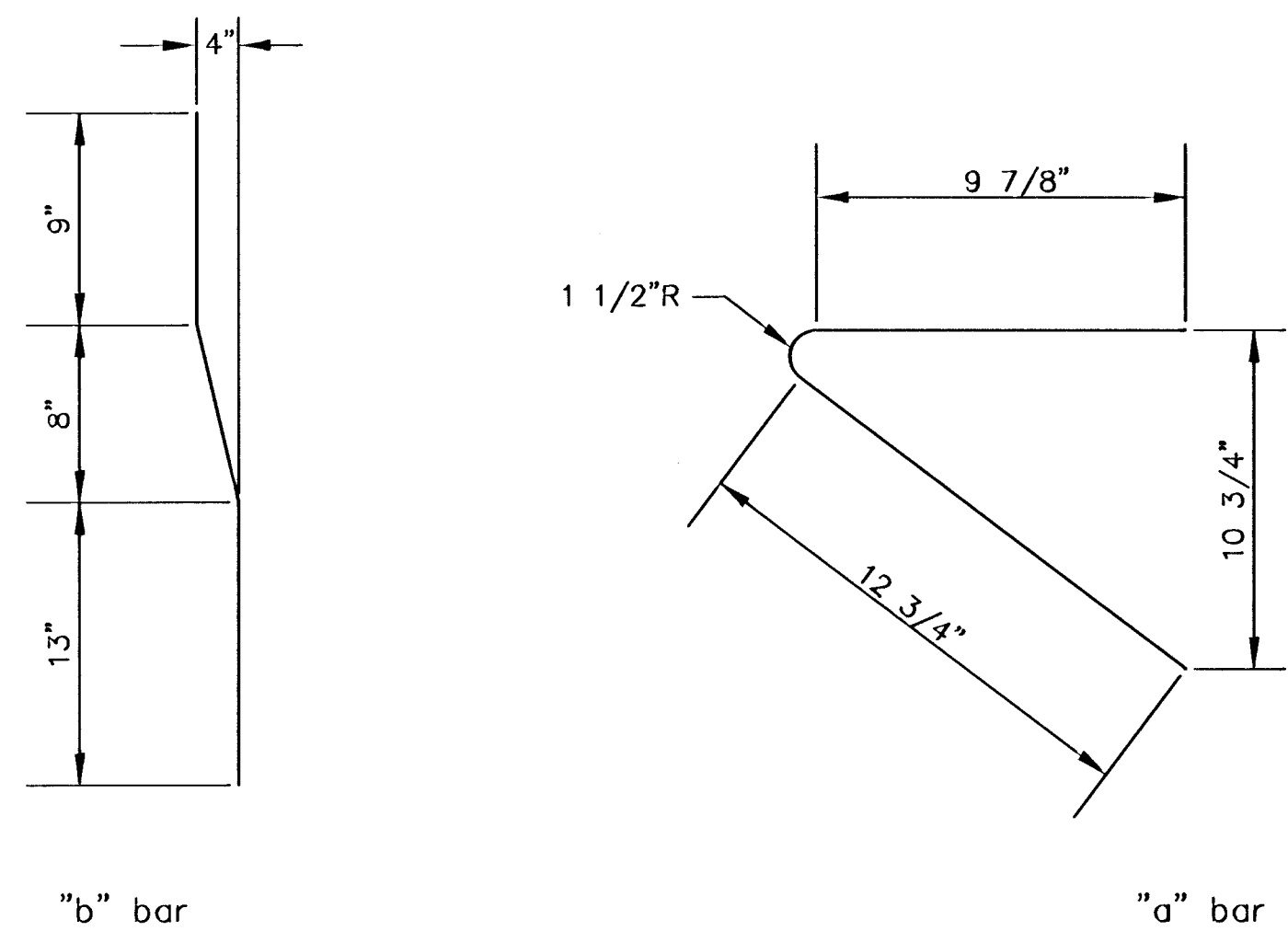
DESIGN TCR	SHEET 2 OF 15
DRAWN EJB	
REVIEW	
UTILITY	
DATE June 9, 2004	



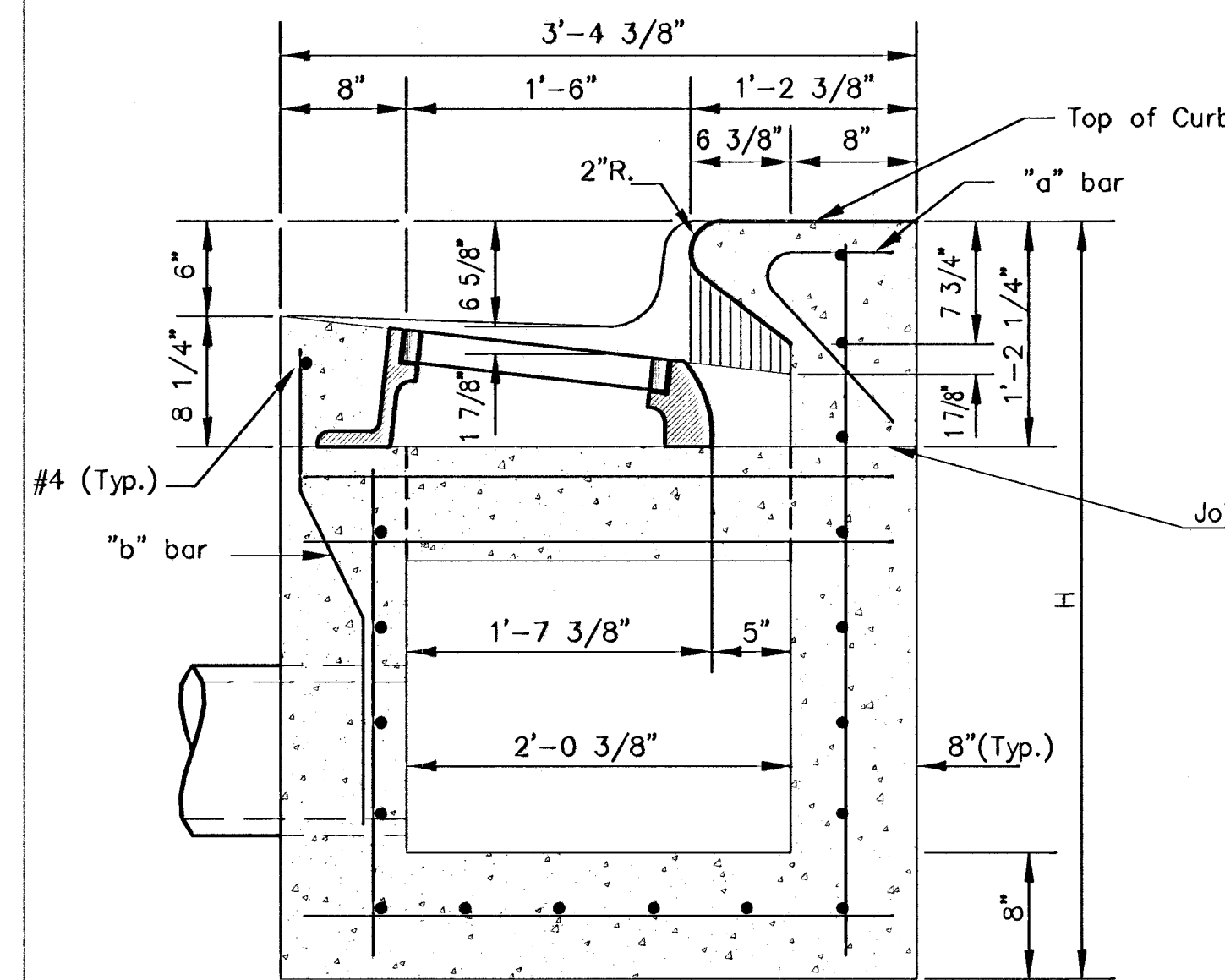
SECTION C-C



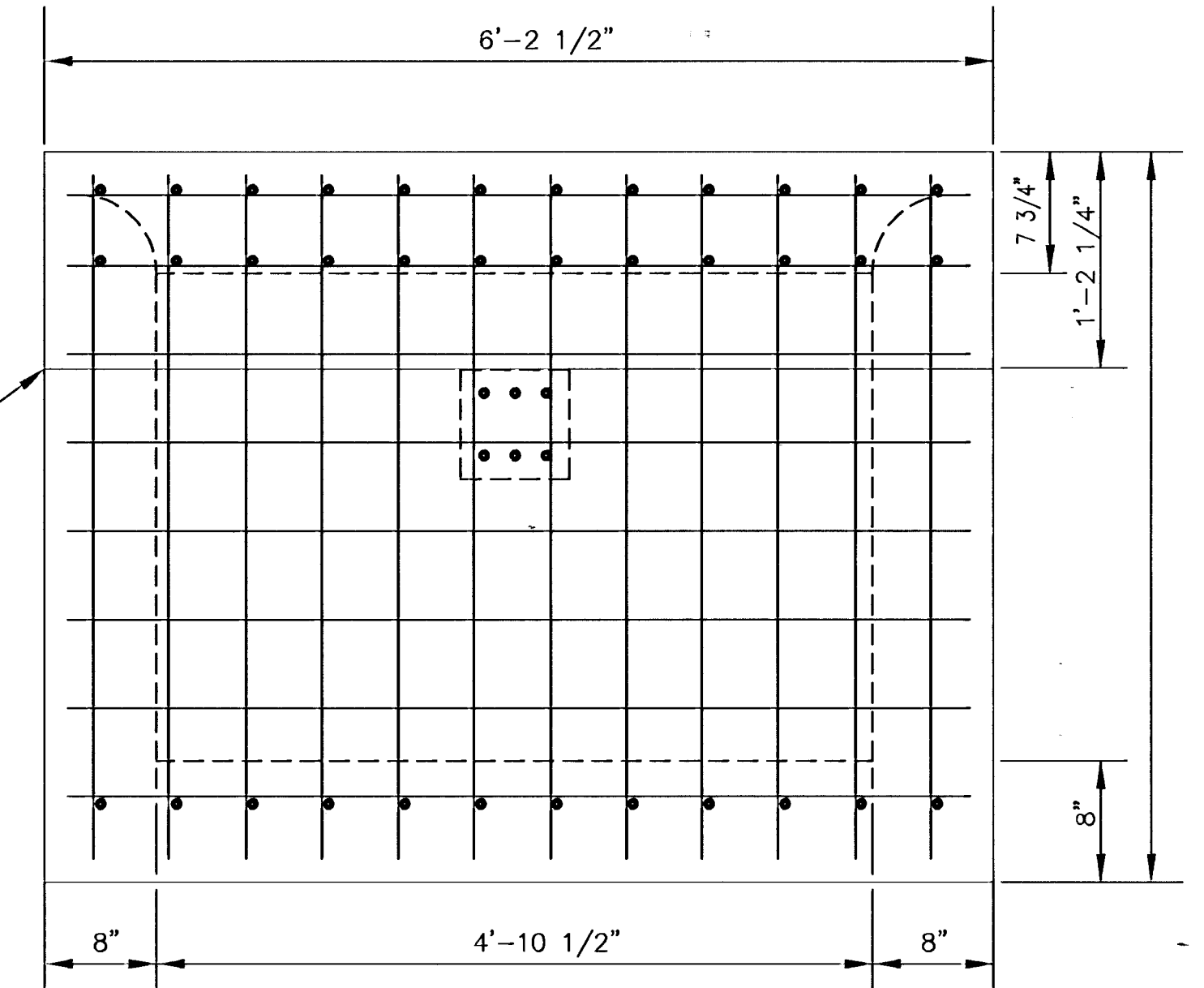
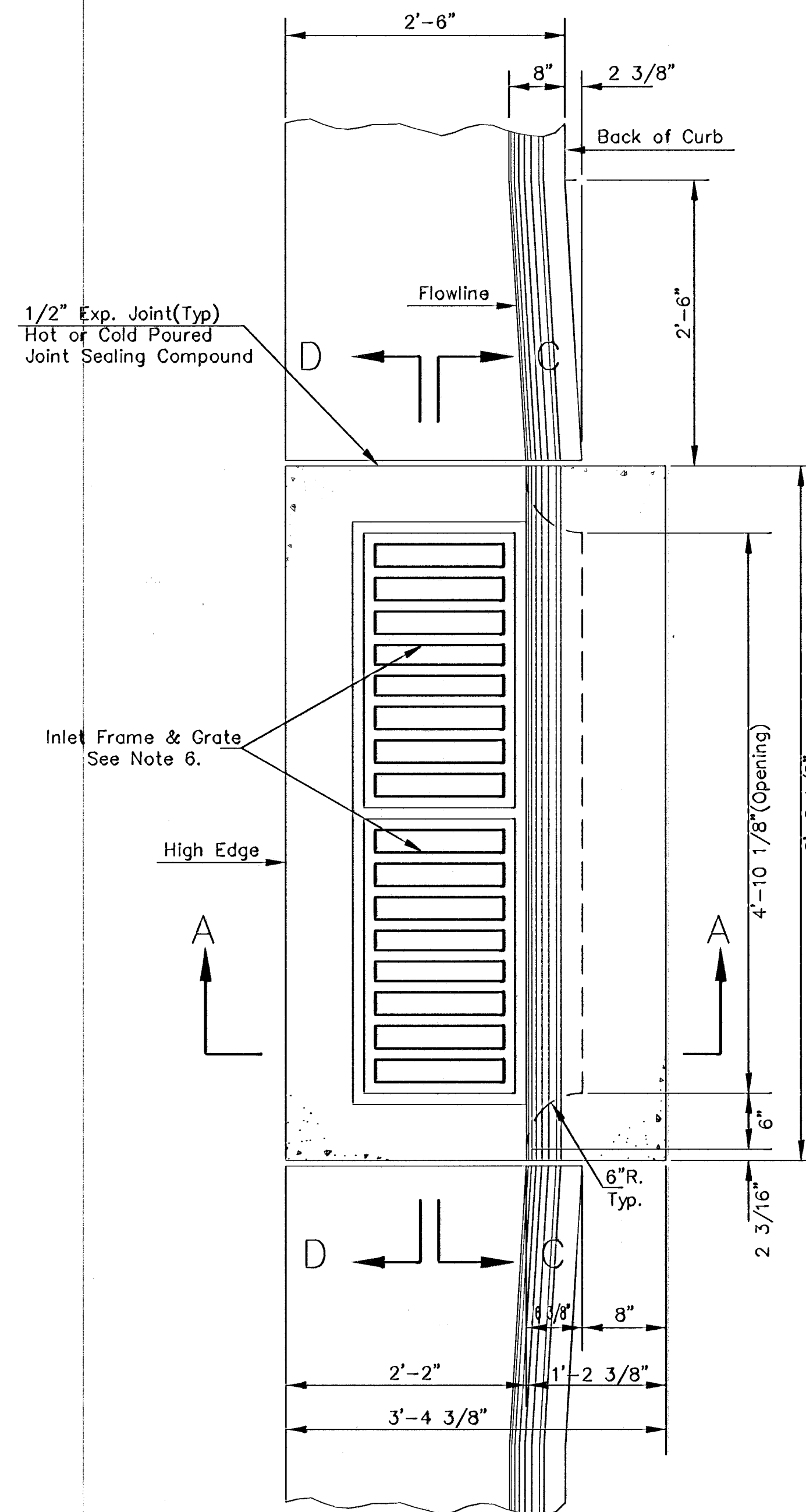
SECTION D-D



BENDING DIAGRAM



SECTION A-A

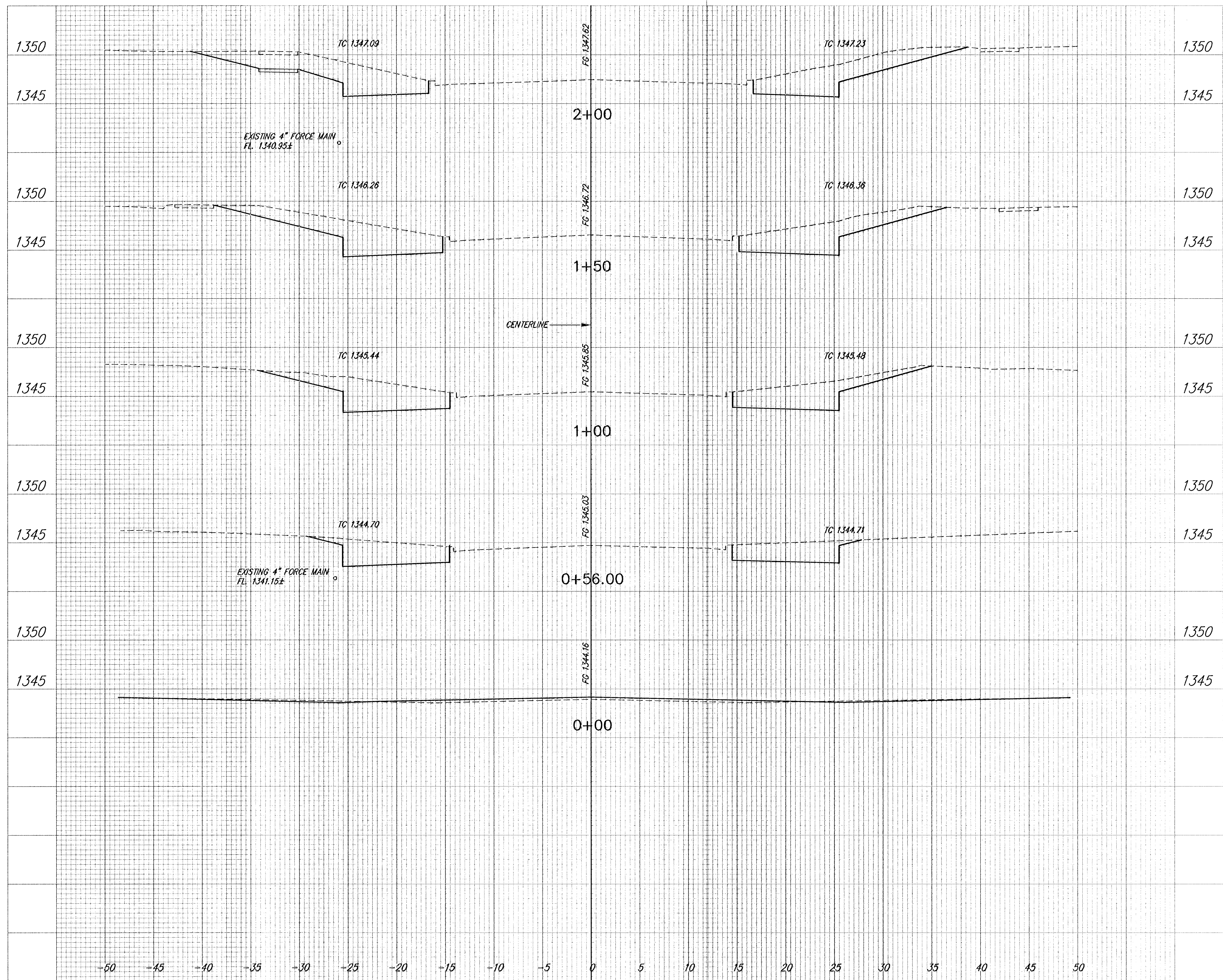


REAR WALL

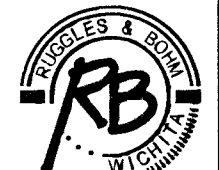
GENERAL NOTES

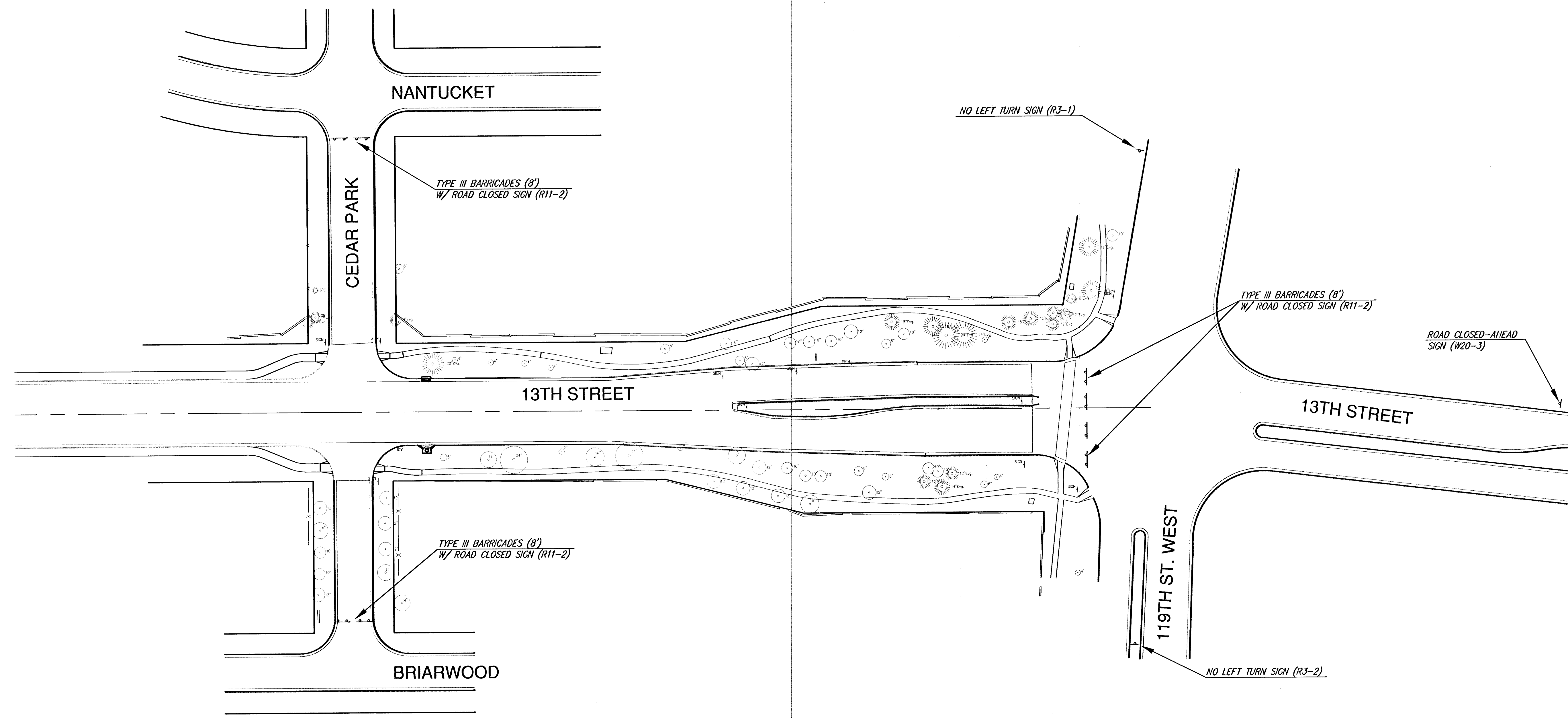
1. Use the concrete mix specified for the City of Wichita concrete pavement throughout. All exposed edges shall be finished with an edging tool. Reinforcing bars shall be bent around pipe.
2. Inlet invert shall be shaped with 8 sack mix concrete to create flow channels and to increase hydraulic efficiency 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 Gate 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 gate 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.

 THE CITY OF WICHITA		STANDARD TYPE II INLET OPENING = 6"x4'-10 1/8"	
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 11 OF 15		

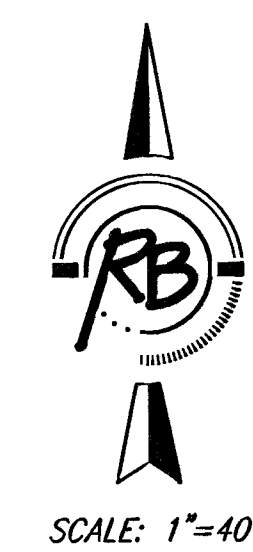


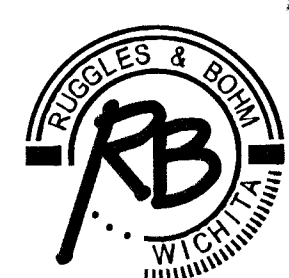
SCALE: 1"=5'





NOTE:
 13TH STREET TRAFFIC WEST OF CEDAR PARK AND E. OF 119TH
 TO BE DETOURED WITH BRIDGE PROJECT #87N-0230-01.



13TH STREET - CEDAR PARK TO 119TH TRAFFIC CONTROL PLAN WICHITA, KANSAS			
 Ruggles & Bohm, P.A. 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	SHEET 14 OF 15
	DRAWN	EJB	
	REVIEW		
	UTILITY		
DRAWING FILE Eng. Base {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:

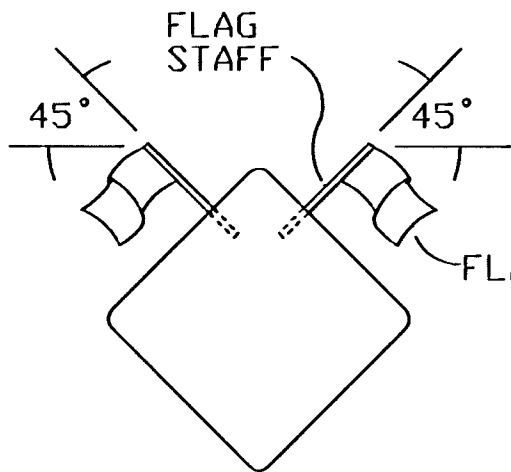
THE G20-2A(END ROAD WORK) SHOULD BE PLACED 500' FROM THE END OF THE ACTUAL WORK AREA, NOT NECESSARILY AT THE EXTREME LIMITS OF THE PROJECT.

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

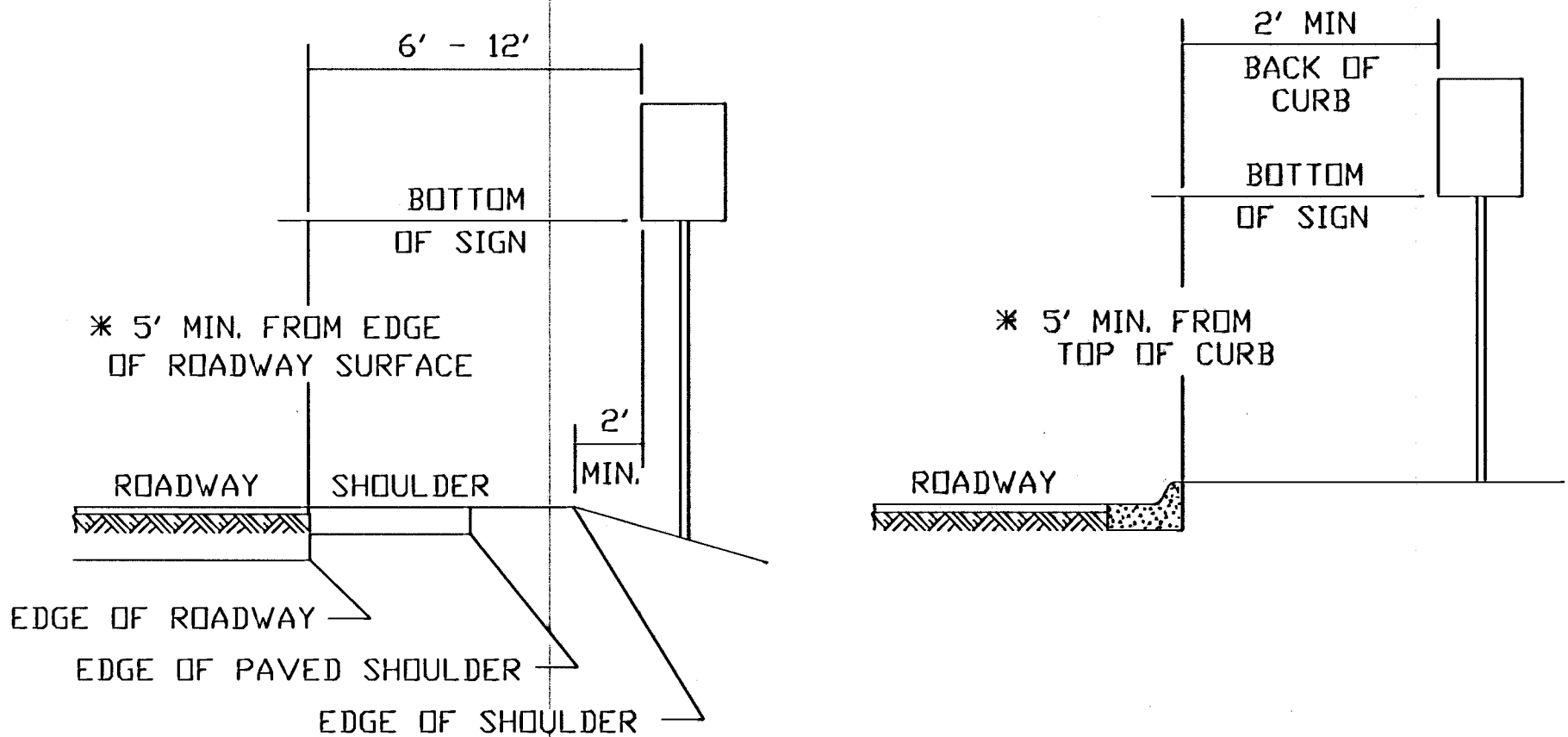
9. WARNING LIGHTS ON SIGNS:

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:

- 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'.
- 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.
- 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)

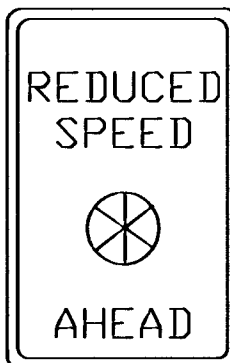
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				

SIGN LAYOUT INFORMATION



W20-7b
48" x 48"
(BLACK/ORANGE)

7" C
7" C
7" C



R2-5e
(BLACK/WHITE)

STD. SIZE	EXPWY/FREEWAY
4' C	8' C
4' C	8' C
10' E	16' E
4' D	8' D

24' x 36' 48' x 72'



M4-20
(BLACK/ORANGE)

3' C	6' C
24' x 6'	48' x 12'

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

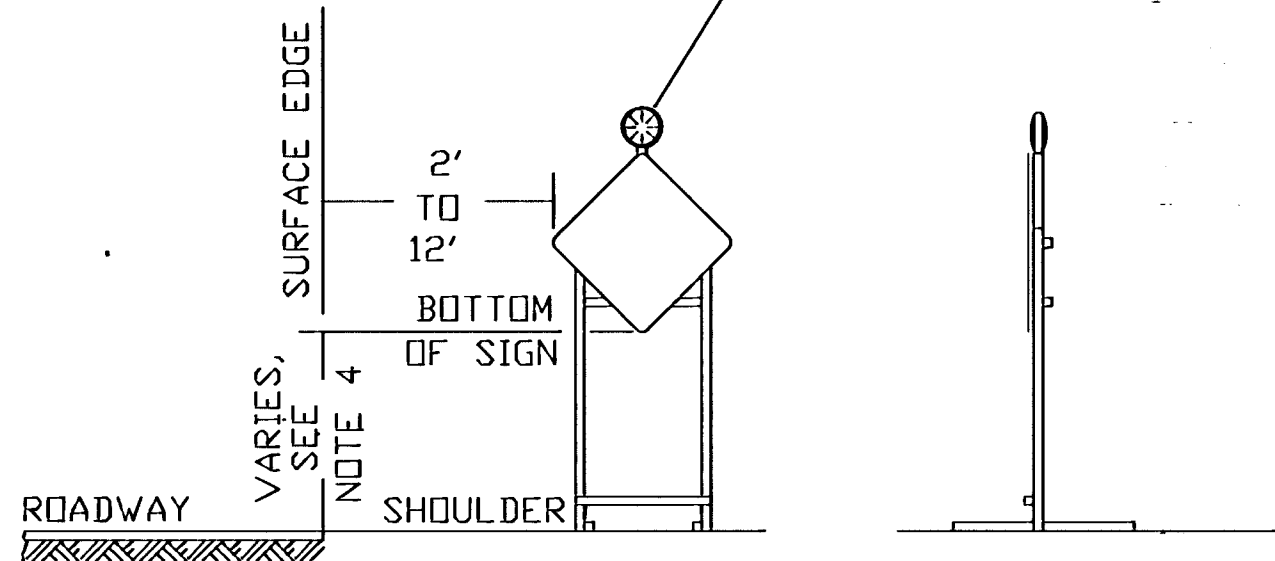
ADVANCE WARNING SIGN SPACING (IN FEET):

	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.

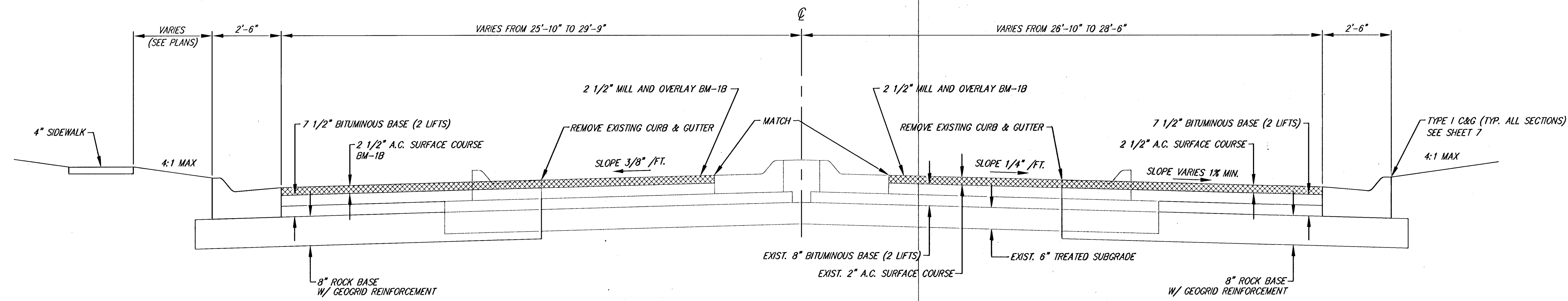
POSITION OF TYPE B LIGHT WHEN USED
(SEE NOTE 9)



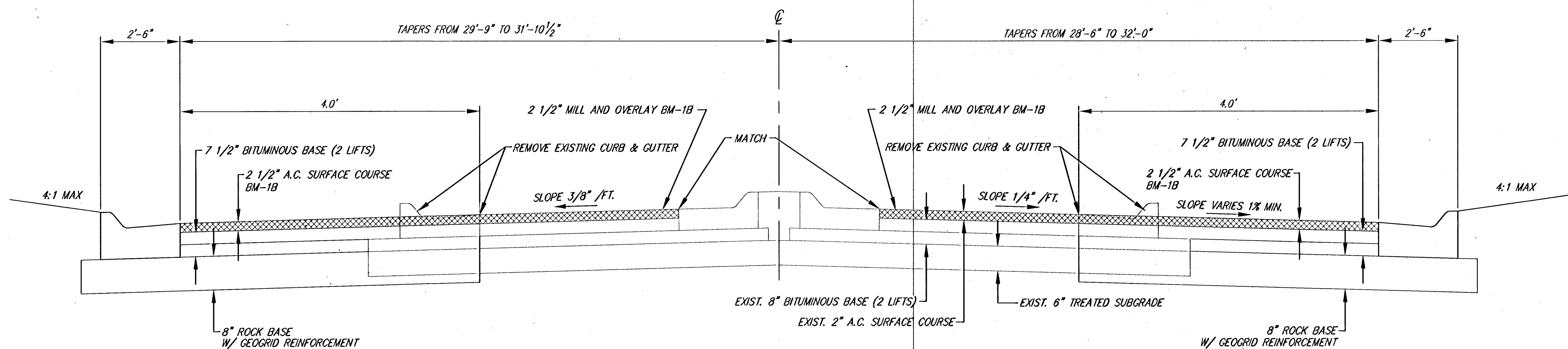
(SEE NOTE 6 FOR ROLL-UP SIGNS OPTION)

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

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.
MD	DATE	REVISIONS	BY	APP'D
KANSAS DEPARTMENT OF TRANSPORTATION				
TRAFFIC CONTROL SIGNS				
TE710 9/1/00				
DESIGNED	L.R.	DETAILED	RAH	QUANTITIES
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACE	CK.



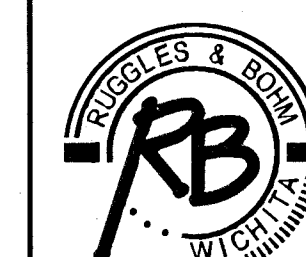
TYPICAL SECTION
2+90 TO 3+70.00



TYPICAL SECTION
3+70.00 TO 4+29.42

REVISED: 8-24-04

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



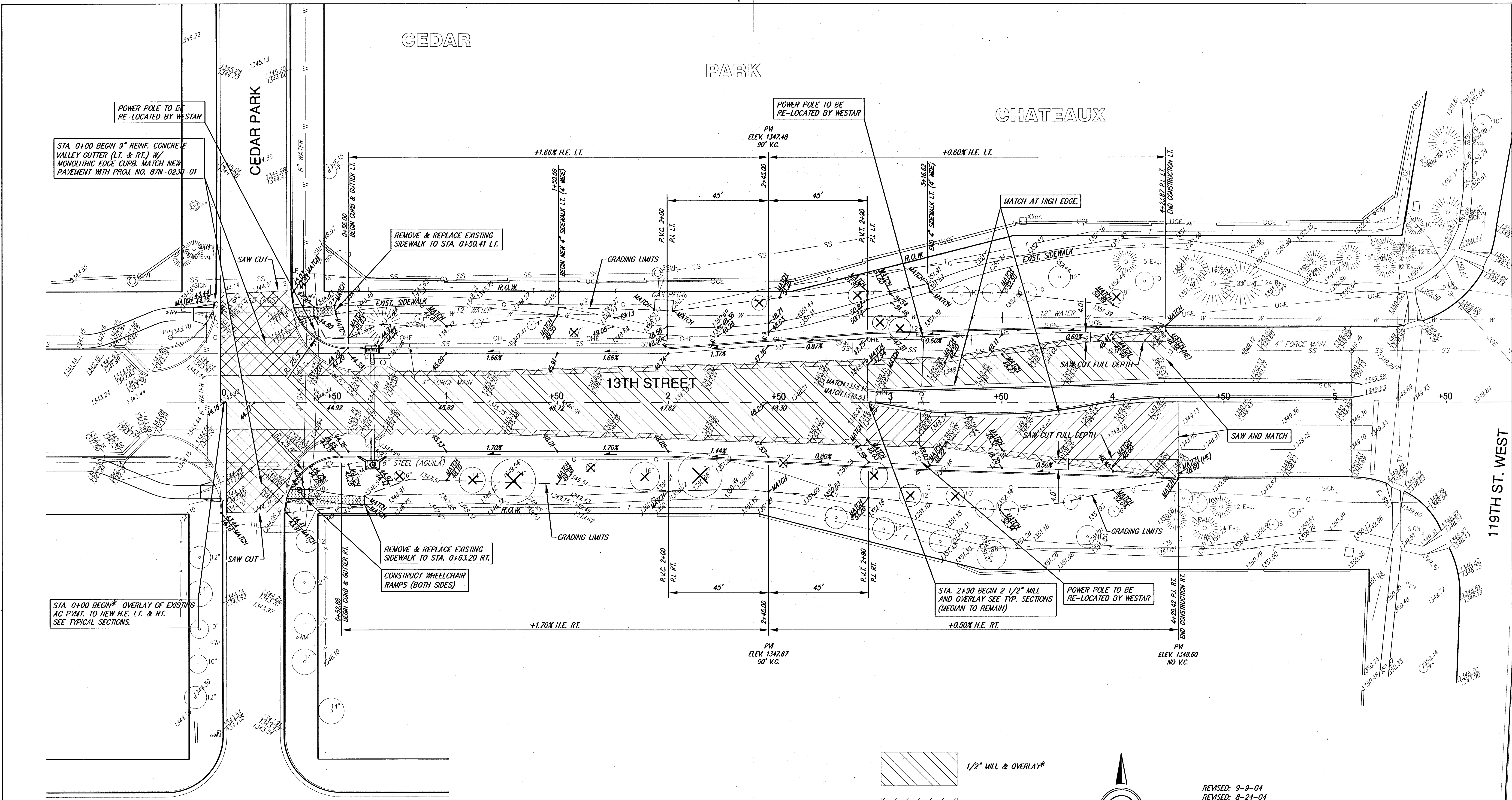
Ruggles & Bohm, P.A.
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E-mail: info@rbkansas.com

DRAWING FILE
Eng. Base {Typ. Sect.}

PROJECT NUMBER
472-83851

DATE
June 9, 2004

DESIGN TCR
DRAWN EJB
REVIEW
UTILITY
SHEET 3 OF 15



- 1/2" MILL & OVERLAY*
- 2 1/2" MILL & 2 1/2" OVERLAY
- PAVEMENT REMOVAL

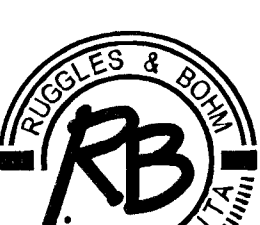
* OVERLAY THICKNESS VARIES 2 1/2" TO 4"

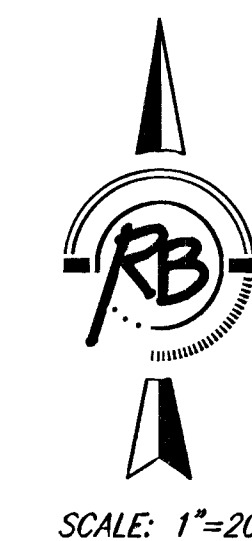
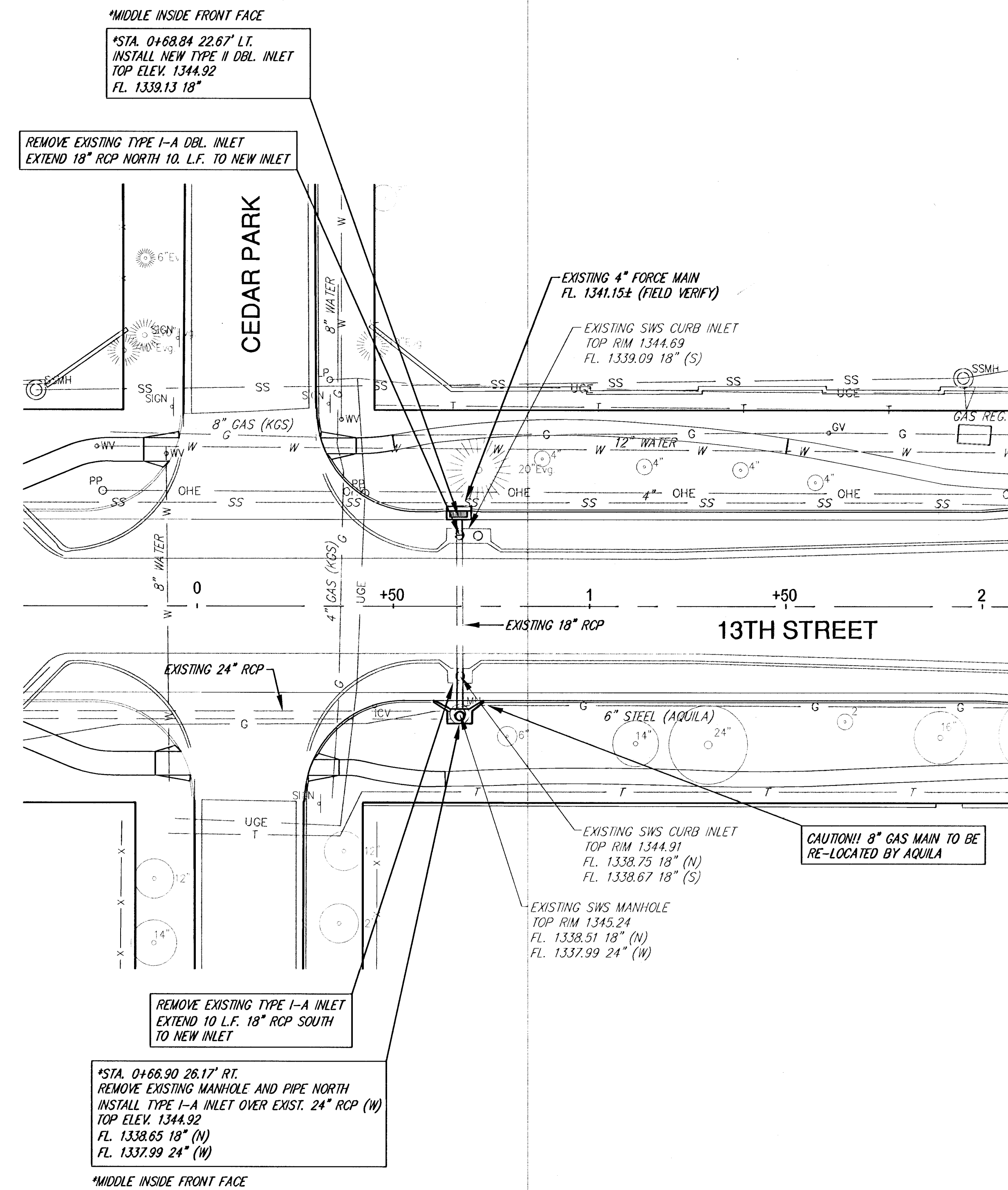


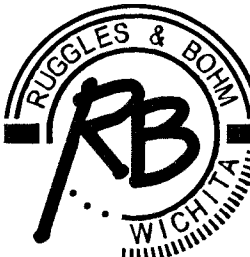
REVISED: 9-9-04
REVISED: 8-24-04

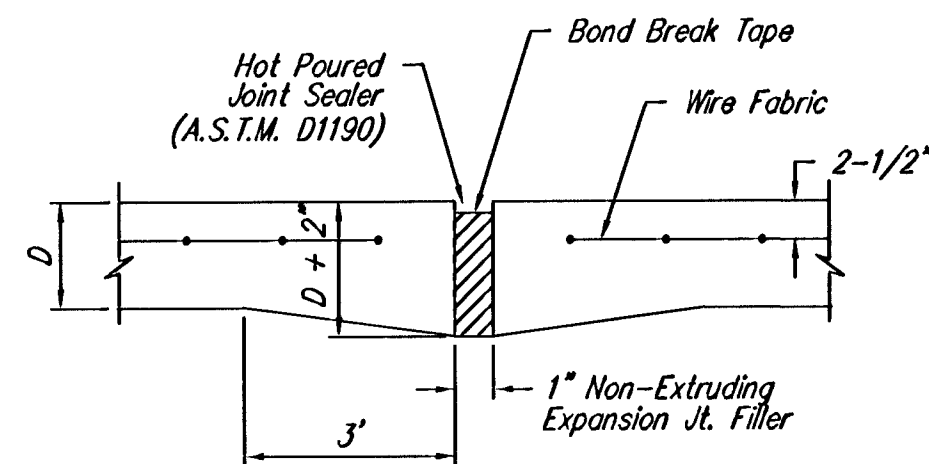
13TH STREET - CEDAR PARK TO 119TH PAVING PLAN WICHITA, KANSAS			
 Ruggles & Bohm, P.A. Engineering, Surveying, Land Planning		DESIGN: TCR DRAWN: EJB REVIEW: [blank] UTILITY: [blank]	
924 North Main Wichita, Kansas 67203 www.rbkansas.com (316) 284-8008 (316) 284-4621 fax E-mail: info@rbkansas.com		PROJECT NUMBER 472-83851 DATE June 9, 2004	
DRAWING FILE Eng. Base {Paving}		SHEET 4 OF 15	



		13TH STREET - CEDAR PARK TO 119TH JOINT PLAN WICHITA, KANSAS	
Ruggles & Bohm, P.A. <i>Engineering, Surveying, Land Planning</i> 924 North Main Wichita, Kansas 67203 www.rbkansas.com		(316) 264-8008 (316) 264-4621 fax E-mail: info@rbkansas.com	
DRAWING FILE Eng. Base {Joint Plan}		PROJECT NUMBER 472-83851	
DATE June 9, 2004		DESIGN TCR DRAWN EJB REVIEW UTILITY	
15		5 OF 15	

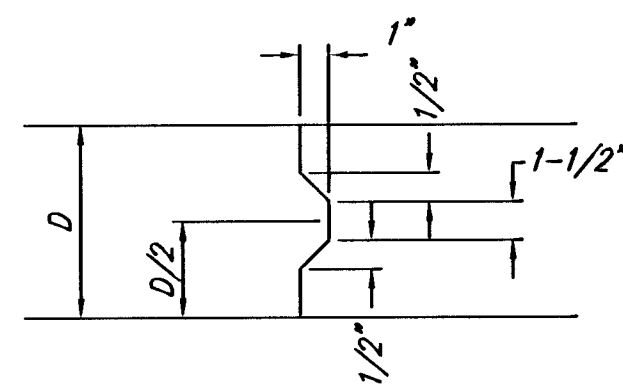


13TH STREET - CEDAR PARK TO 119TH STORM SEWER PLAN WICHITA, KANSAS			
 Ruggles & Bohm, P.A. Engineering, Surveying, Land Planning 924 North Main Wichita, Kansas 67203 www.rbkansas.com (316) 264-8008 (316) 264-4621 fax E-mail: info@rbkansas.com	DESIGN TCR	SHEET 6 OF 15	DATE June 9, 2004
	DRAWN EJB		
DRAWING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

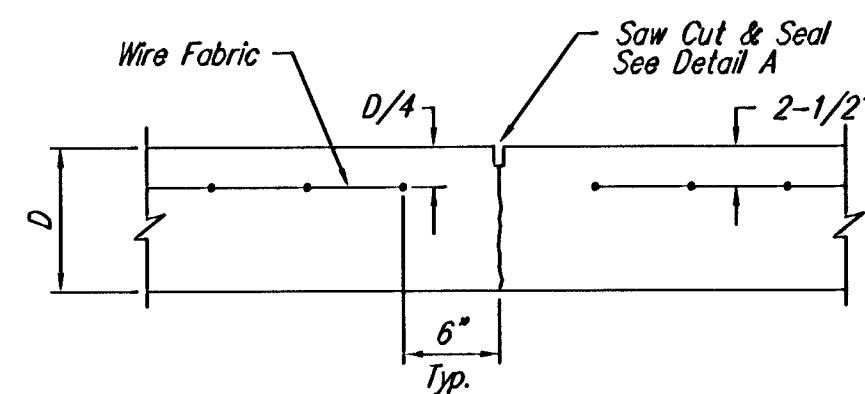


EXPANSION JOINT

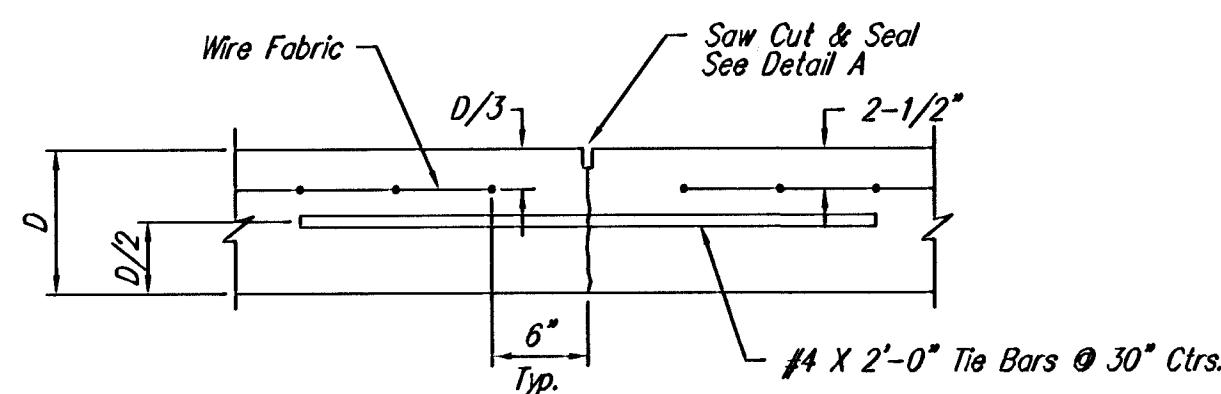
NOTE: Extra Thickness to be Subsidiary to Price of Square Yards Pavement



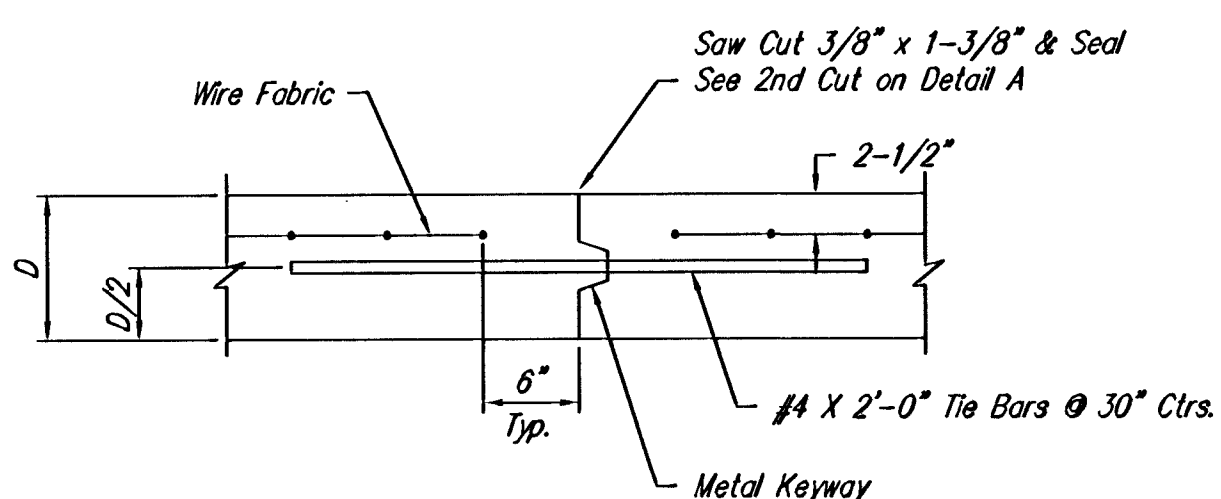
KEYWAY DETAIL



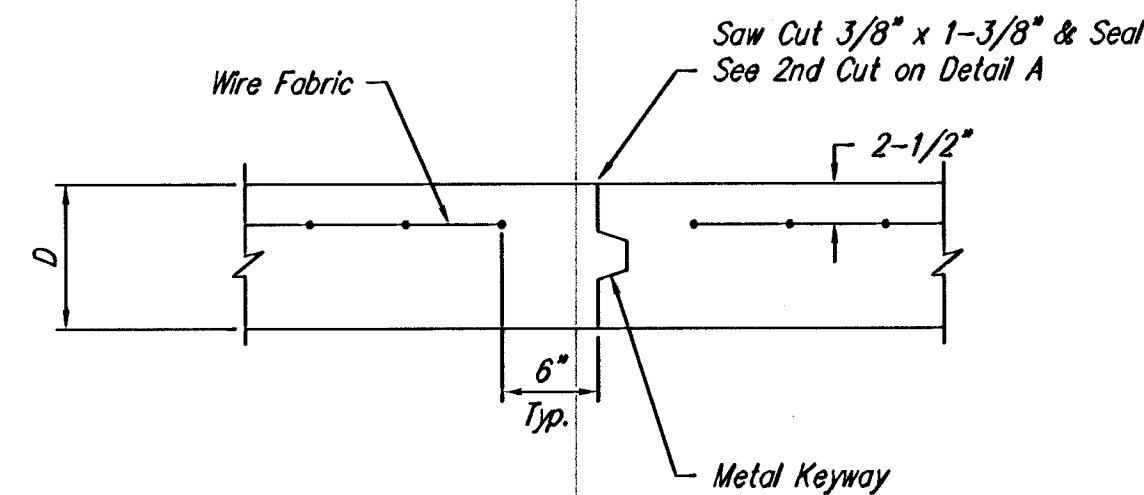
CONTRACTION JOINT DETAIL (C.J.)



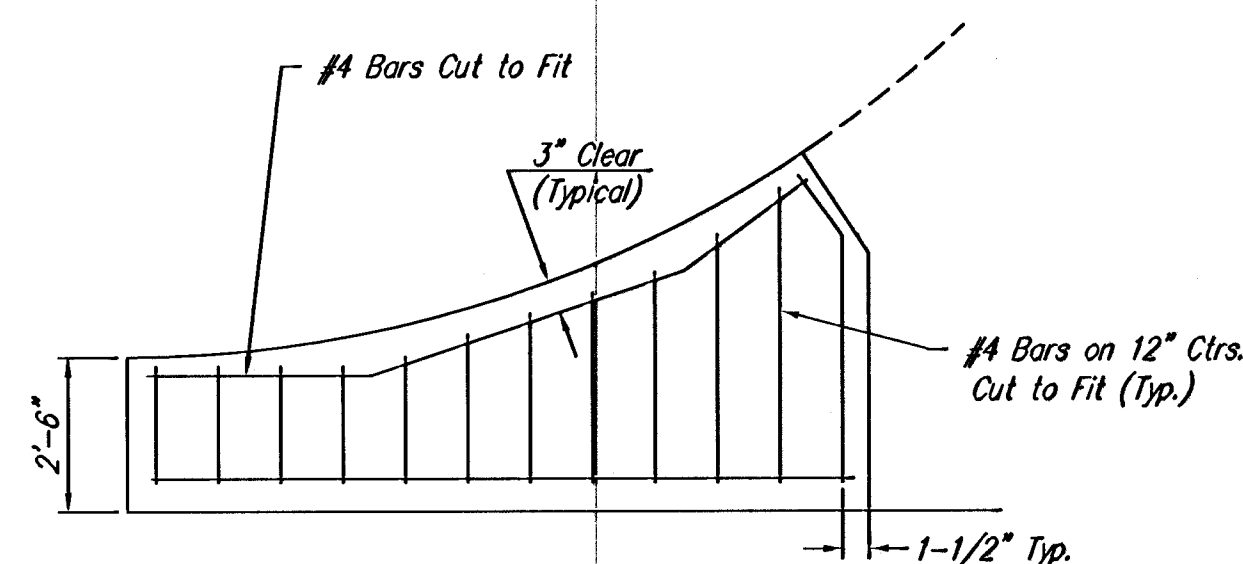
LONGITUDINAL JOINT DETAIL (L.J.)



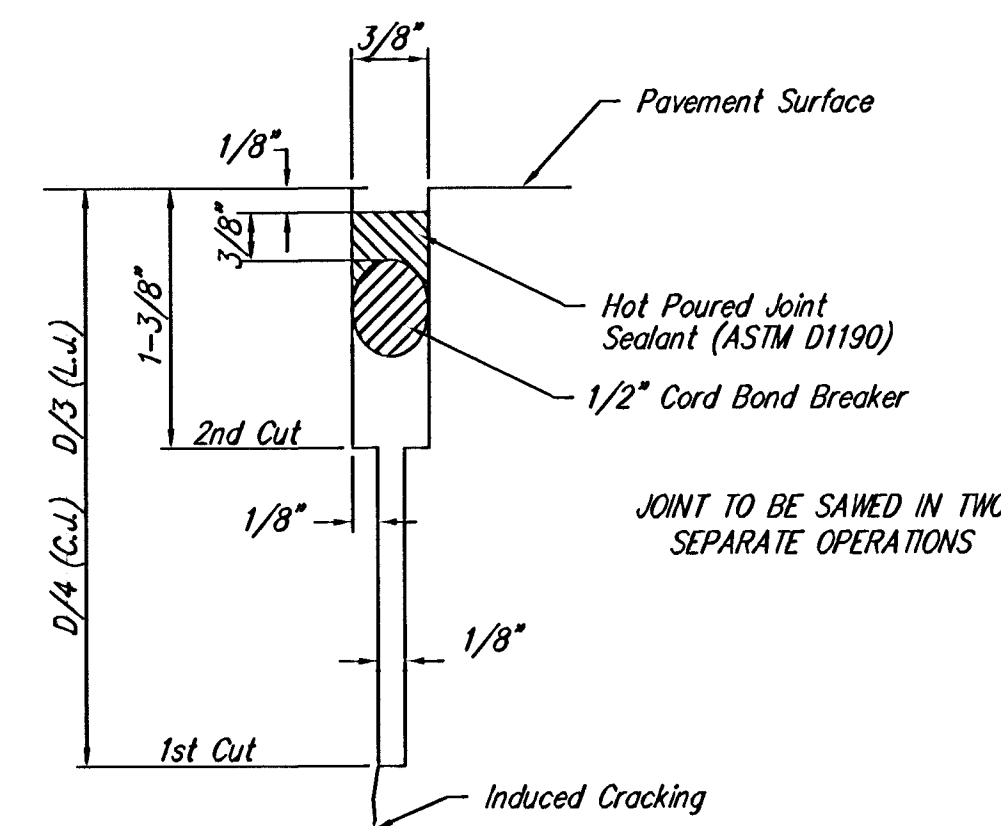
OPTIONAL LONGITUDINAL JOINT DETAIL (L.J.)



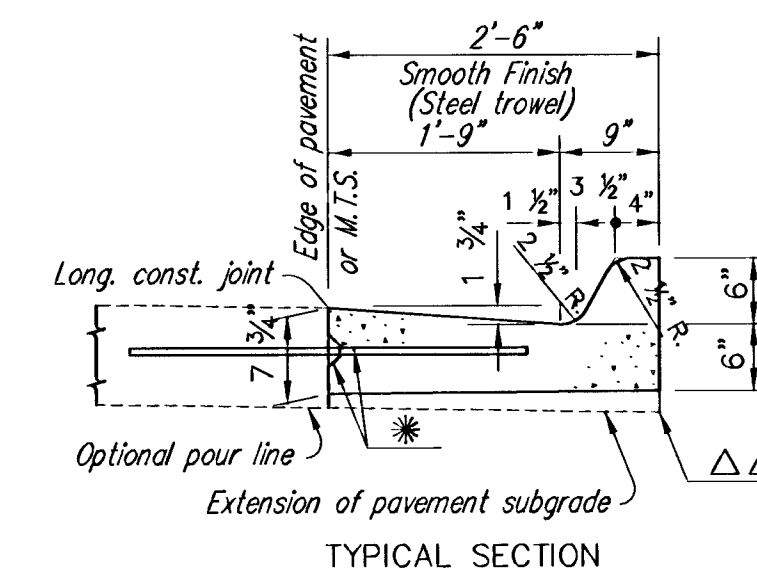
OPTIONAL CONTRACTION JOINT



WING REINFORCING DETAIL

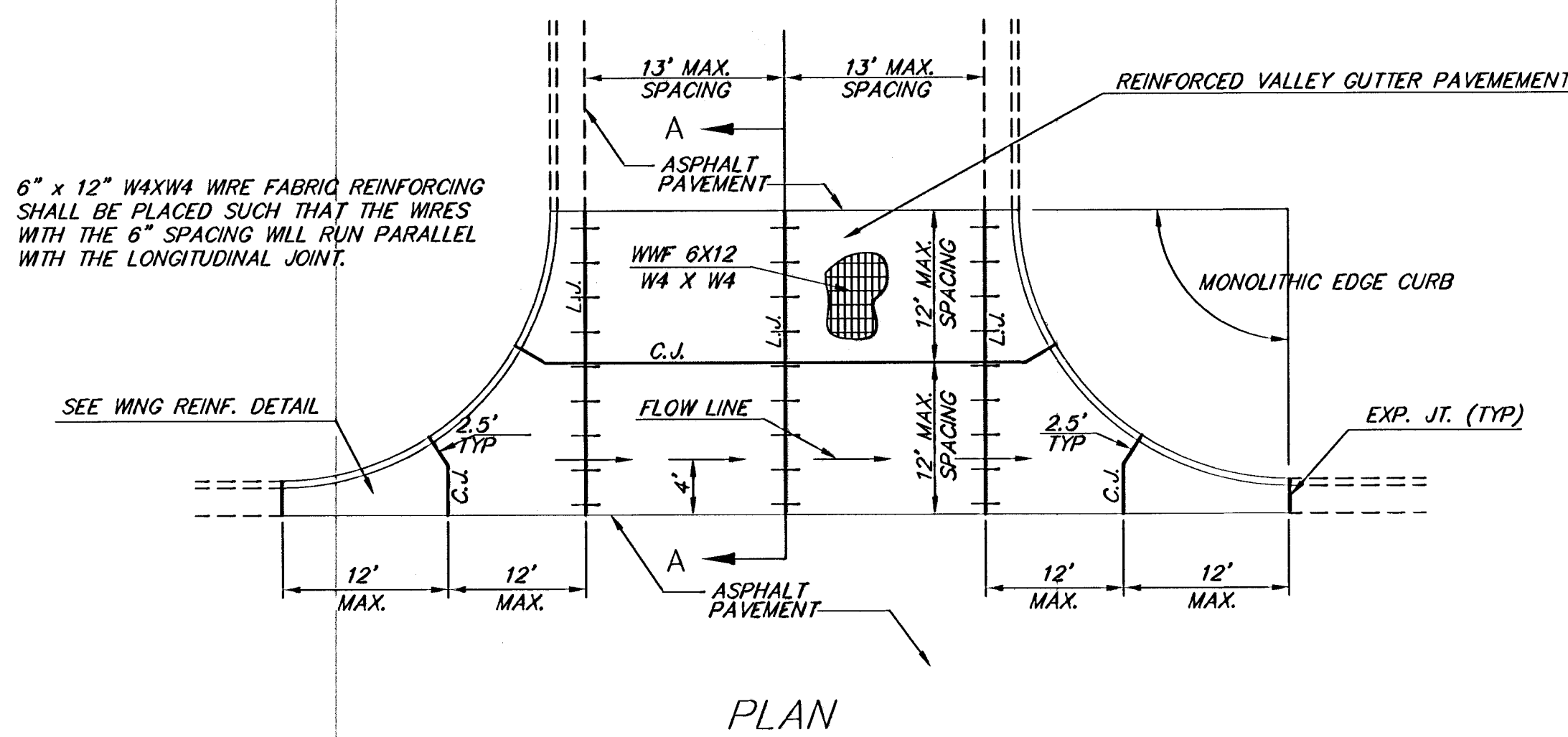


SAW JOINT DETAIL

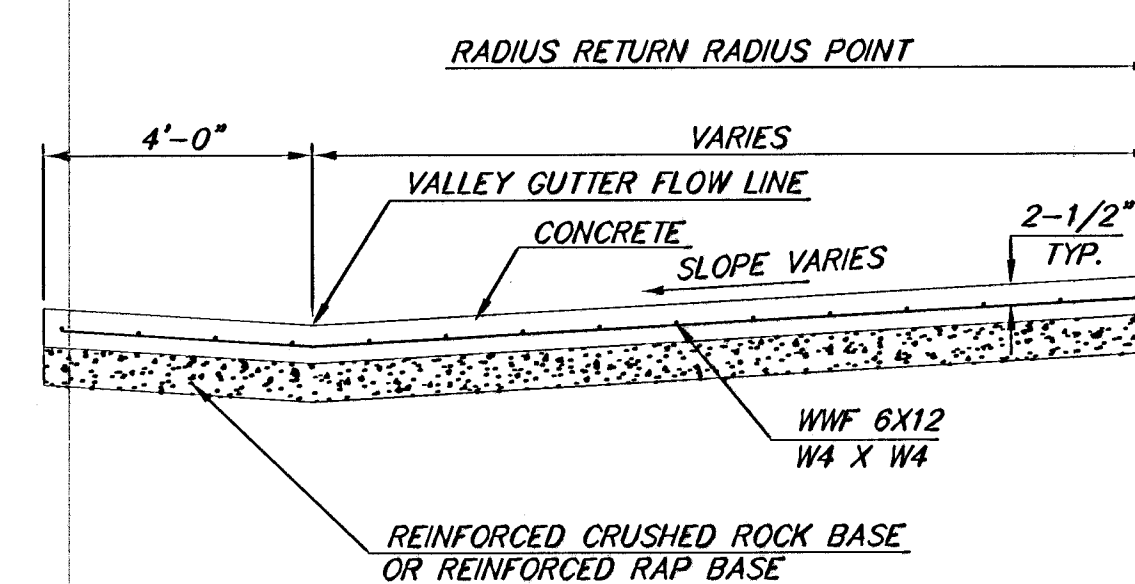


COMBINED CURB & GUTTER - TYPE I
(2'-6" WIDTH)

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



PLAN



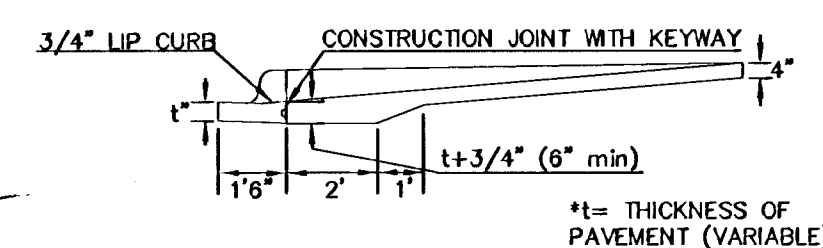
SECTION A-A

REINFORCED VALLEY GUTTER DETAIL

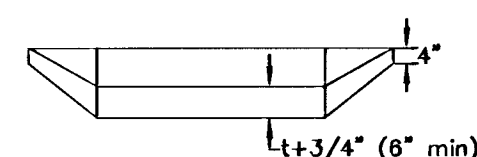
THE CITY OF WICHITA CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4501 (316) 268-4114 FAX	VALLEY GUTTER DETAILS	
	CURB AND GUTTER DETAILS	
	PROJECT NUMBER 472-83851	OCA # 715686
	DATE MAR 96	SHEET 7 OF 15

Diagram illustrating the cross-section of a curb and gutter assembly, showing dimensions and construction details:

- Top Dimensions:**
 - $W = 4'0''$ FOR STANDARD RAMP
 - $W = 5'0''$ FOR RAMPS AT SCHOOL CROSSWALKS (OR TO MATCH EXISTING)
- Left Side Details:**
 - SAW CURB & GUTTER IF MORE THAN 3 FT. TO NEAREST JOINT
 - REMOVE & REPLACE CURB & GUTTER SECTION
 - 12" MIN 18" MAX
- Right Side Details:**
 - 1/2" EXPANSION JOINT
 - W
- Internal Dimensions and Slope:**
 - BACK OF CURB
 - 10" MAX.
 - 1" PER FT. MAX. SLOPE
 - 24"
- Bottom Details:**
 - REMOVE AND REPLACE CURB & GUTTER TO NEAREST JOINT IF LESS THAN 3 FT.

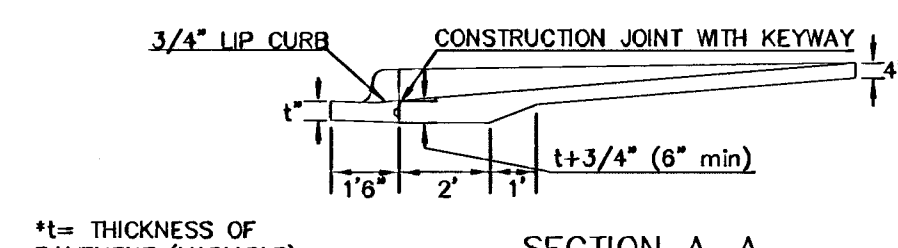
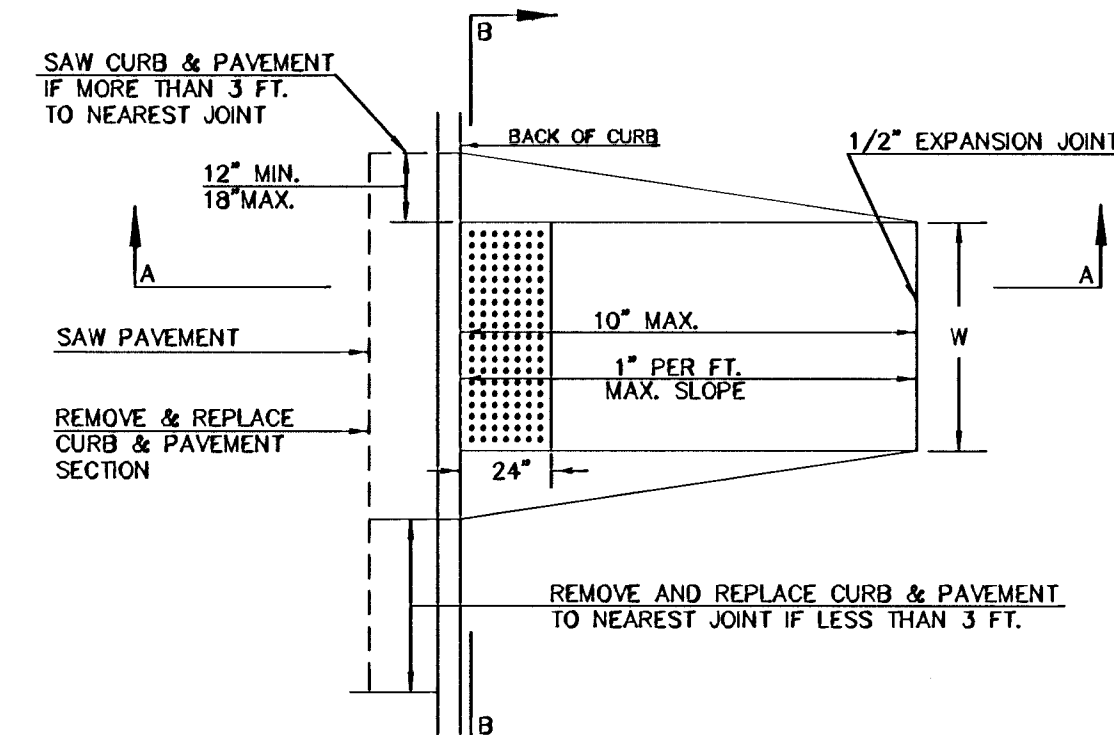


SECTION A-A

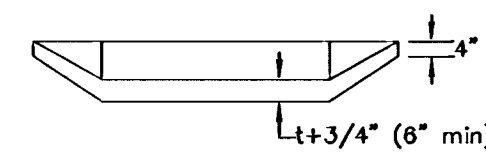


SECTION B-B

W= 4'0" FOR STANDARD RAMP
W= 5'0" FOR RAMPS AT SCHOOL CROSSWALKS
(OR TO MATCH EXISTING)



SECTION A-A



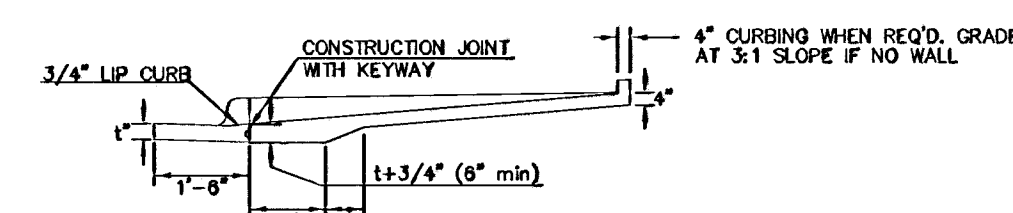
SECTION B-B

Diagram illustrating the construction details for a ramp cross-section, showing the removal and replacement of curb and gutter sections.

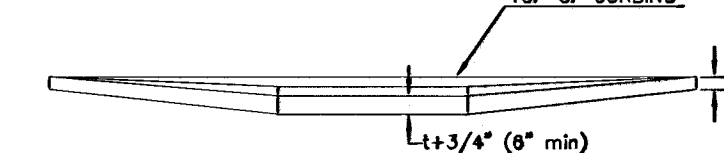
Labels and Dimensions:

- W=4'0" FOR STANDARD RAMP**
- W=5'0" FOR RAMP'S AT SCHOOL CROSSWALKS**
- REMOVE & REPLACE CURB & GUTTER TO NEAREST JOINT IF LESS THAN 3 FT.**
- REMOVE & REPLACE SIDEWALK TO NEAREST EXISTING JOINT WHERE NECESSARY**
- BACK OF CURB**
- 1" PER FT. MAX. SLOPE**
- 1/2" PER FT. MAX. SLOPE**
- WALK WIDTH 6 FT. MAX.**
- 24"**
- 8" WIDE CURBING WHEN REQ'D.**
- 6'**
- W**
- 6'**
- A**
- B**

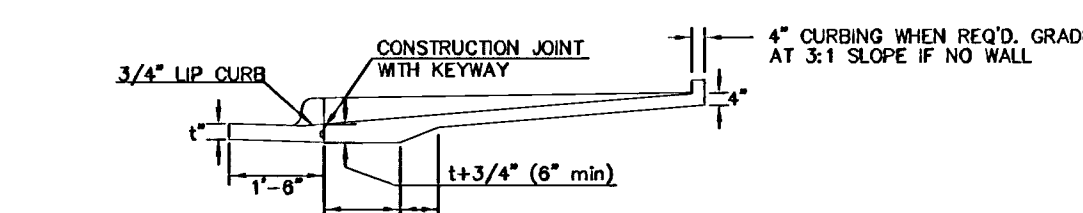
SAW CURB & GUTTER IF MORE THAN 3 FT. TO NEAREST JOINT



SECTION A-A



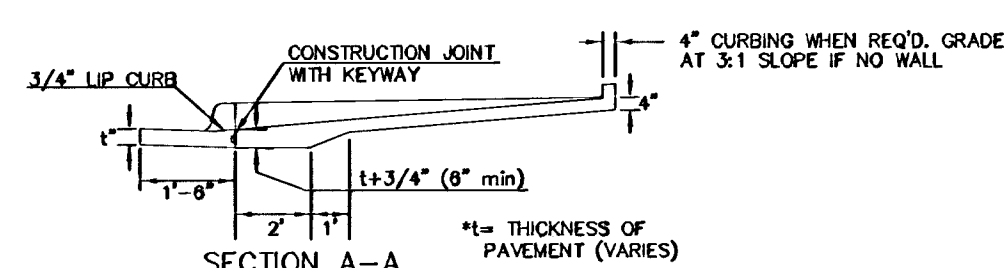
SECTION B-B

[illegible]

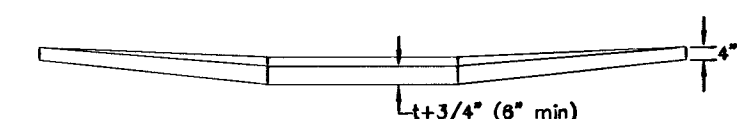
SECTION A-A



SECTION B-B

[illegible]

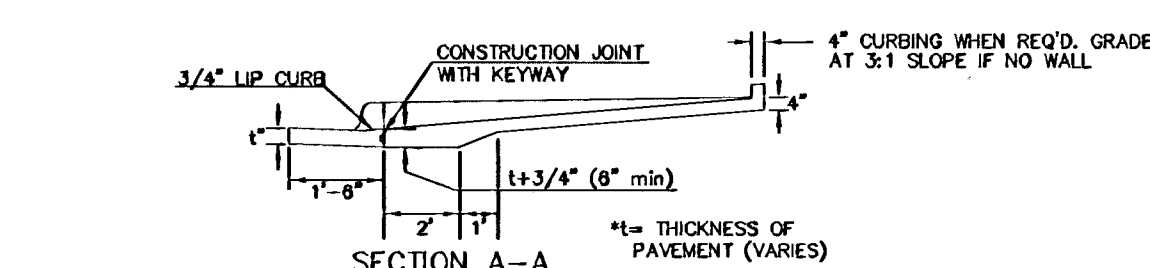
SECTION A-A



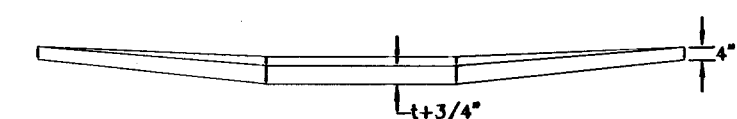
SECTION B-B

Diagram illustrating the cross-section of a street curb and sidewalk, showing various construction details and dimensions:

- REMOVE & REPLACE CURB & PAVEMENT TO NEAREST JOINT IF LESS THAN 3 FT.** (Top left)
- TRANSITION FROM FULL HEIGHT CURB TO 3/4" LIP CURB** (Middle left)
- SAW PAVEMENT** (Middle left)
- 3/4" LIP CURB** (Middle left)
- REMOVE & REPLACE CURB & PAVEMENT SECTION** (Bottom left)
- SAW CURB & PAVEMENT IF MORE THAN 3 FT. TO NEAREST JOINT** (Bottom left)
- BACK OF CURB** (Top center)
- 1" PER FT. MAX. SLOPE** (Top center)
- 6"** (Top center)
- 4" PER FT. MAX. SLOPE** (Top center)
- 8'±** (Middle center)
- 1/2" PER FT. MAX. SLOPE** (Middle center)
- 24"** (Middle center)
- 5'** (Middle center)
- 4" CURBING WHEN REQ'D.** (Middle right)
- REMOVE & REPLACE SIDEWALK TO NEAREST JOINT WHERE NECESSARY** (Middle right)
- 1" PER FT. MAX. SLOPE** (Bottom right)
- 6"** (Bottom right)
- NOTE: SEE DRAWING IN SPECIFICATION BOOK FOR ADDITIONAL DETAILS** (Top right)



SECTION A-A



SECTION B-B

BACK OF CURB

REMOVE & REPLACE CURB & GUTTER TO NEAREST JOINT IF LESS THAN 3' FT.

12" MINIMUM 18" MAXIMUM

9" to 9"

24"

1 1/2" EXPANSION JOINT

1" PER FT. MAX. SLOPE

REMOVE & REPLACE WALK TO NEAREST EXISTING JOINT IF REQUIRED

3/4" LIP CURB

CONSTRUCTION JOINT WITH KEYWAY

16" 2' 1' t+3/4" (6" min)

REMOVE & REPLACE CURB & GUTTER SECTION

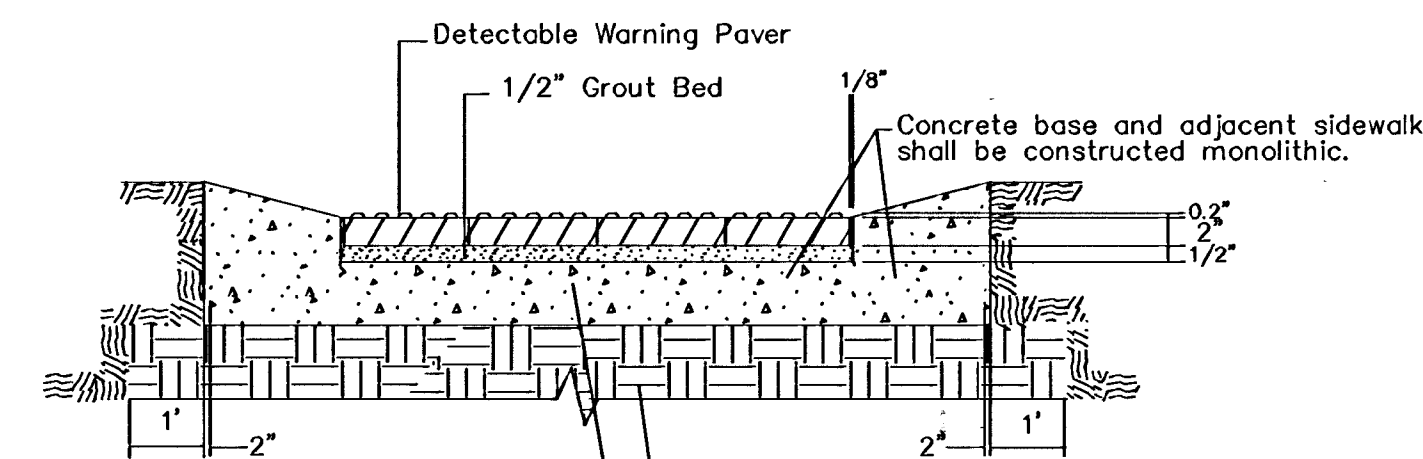
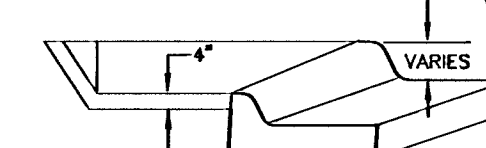
SAW CURB & GUTTER IF MORE THAN 3' FT. TO NEAREST JOINT

SECTION A-A

Diagram illustrating a cross-section of a road or embankment, showing various construction details and dimensions:

- BACK OF CURB**: Indicated by a dashed line on the left side.
- REMOVE & REPLACE CURB & PAVEMENT TO NEAREST JOINT IF LESS THAN 9 FT.**: Instruction for the left curb area.
- 12" MINIMUM 18" MAXIMUM**: Dimension for the width of the left curb.
- 8" to 8"**: Dimension for the width of the left shoulder.
- 24"**: Dimension for the width of the left shoulder.
- SAW JOINT**: Indicated by a dashed line on the left side.
- REMOVE & REPLACE CURB & PAVEMENT SECTION**: Instruction for the middle curb area.
- 1/4" PER FT. MAX. SLOPE**: Slope dimension for the middle curb area.
- 1" PER FT. MAX. SLOPE**: Slope dimension for the right shoulder.
- 4" Min.**: Dimension for the width of the right shoulder.
- 1/2" EXPANSION JOINT**: Indicated by a dashed line on the right side.
- REMOVE & REPLACE WALK TO NEAREST EXISTING JOIN IF REQUIRED**: Instruction for the right shoulder area.
- SAW CURB & GUTTER IF MORE THAN 9 FT. TO NEAREST JOINT**: Instruction for the right curb area.
- SECTION B-B**: Label for the cross-section.
- A** and **B**: Section line markers.

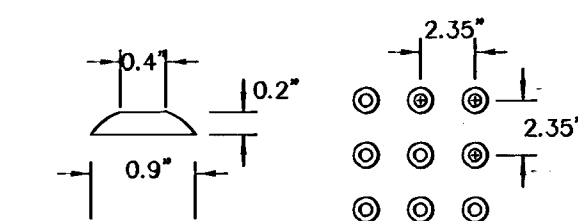
SECTION B-B



TYPICAL SECTION DETECTABLE WARNING PAVEMENT
SECTION A-A

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



DOME DETAIL

WHEEL CHAIR RAMP.DWG



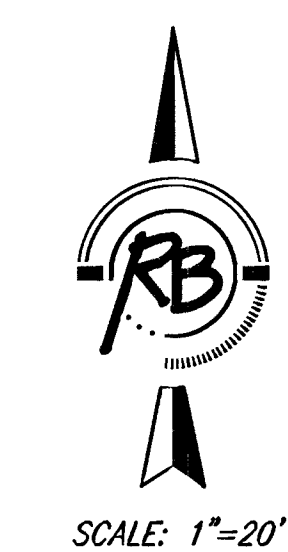
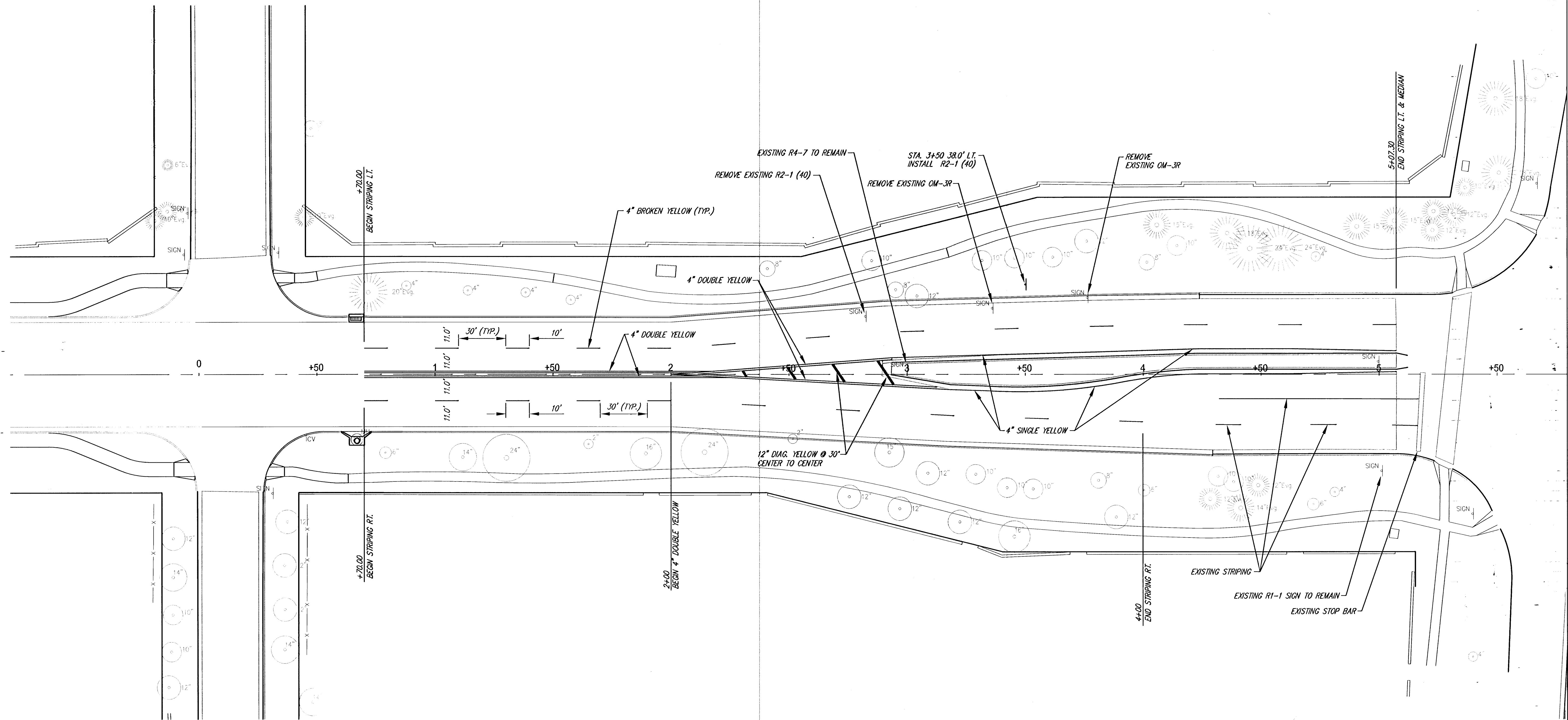
WHEELCHAIR RAMP DETAILS

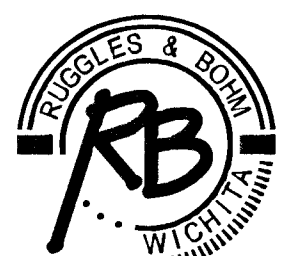
CITY ENGINEER

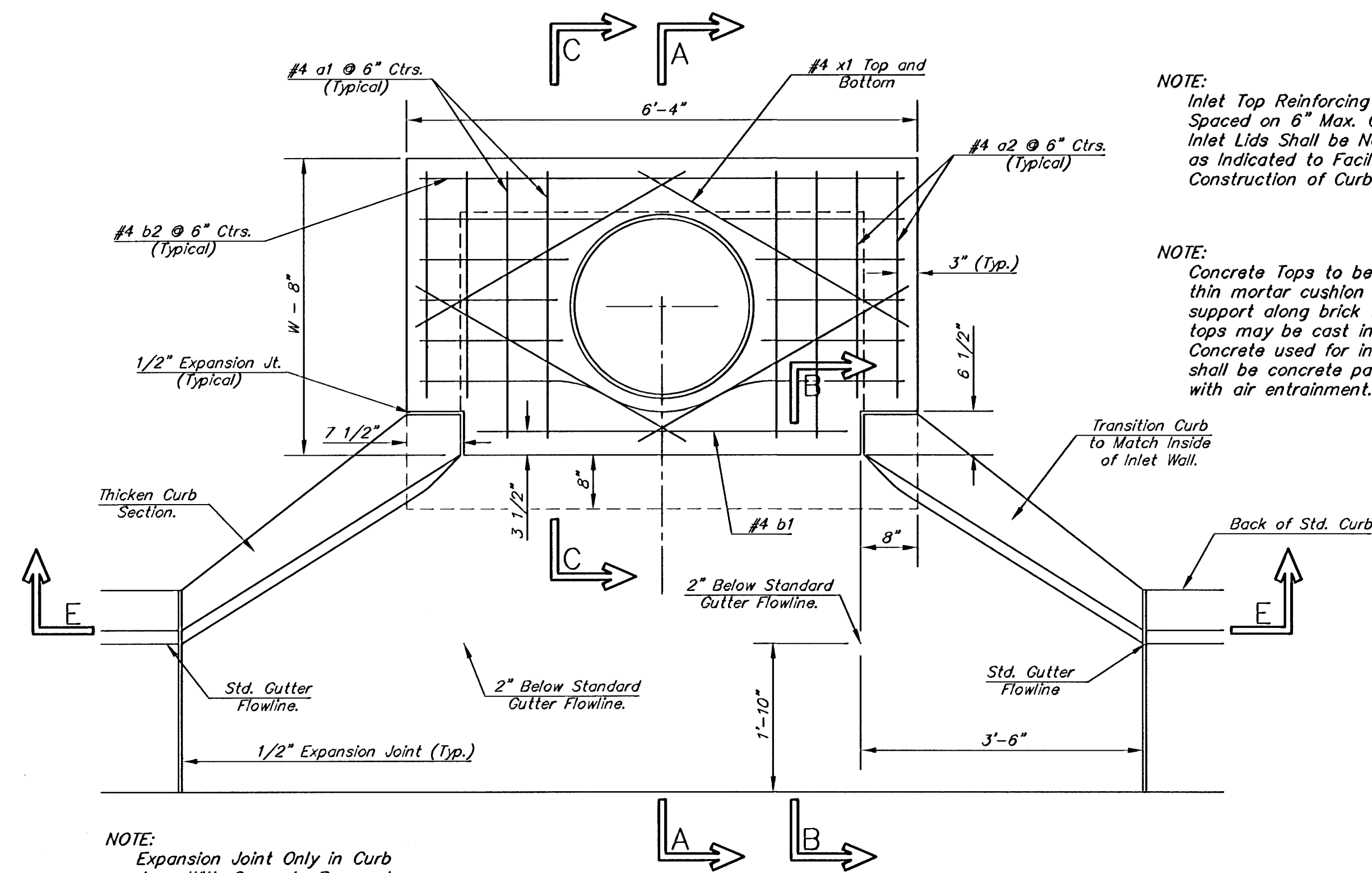
PROJECT NUMBER	OCA NUMBER	DATE
472-83851	715686	June 9, 200

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501
(316) 268-4114 FAX

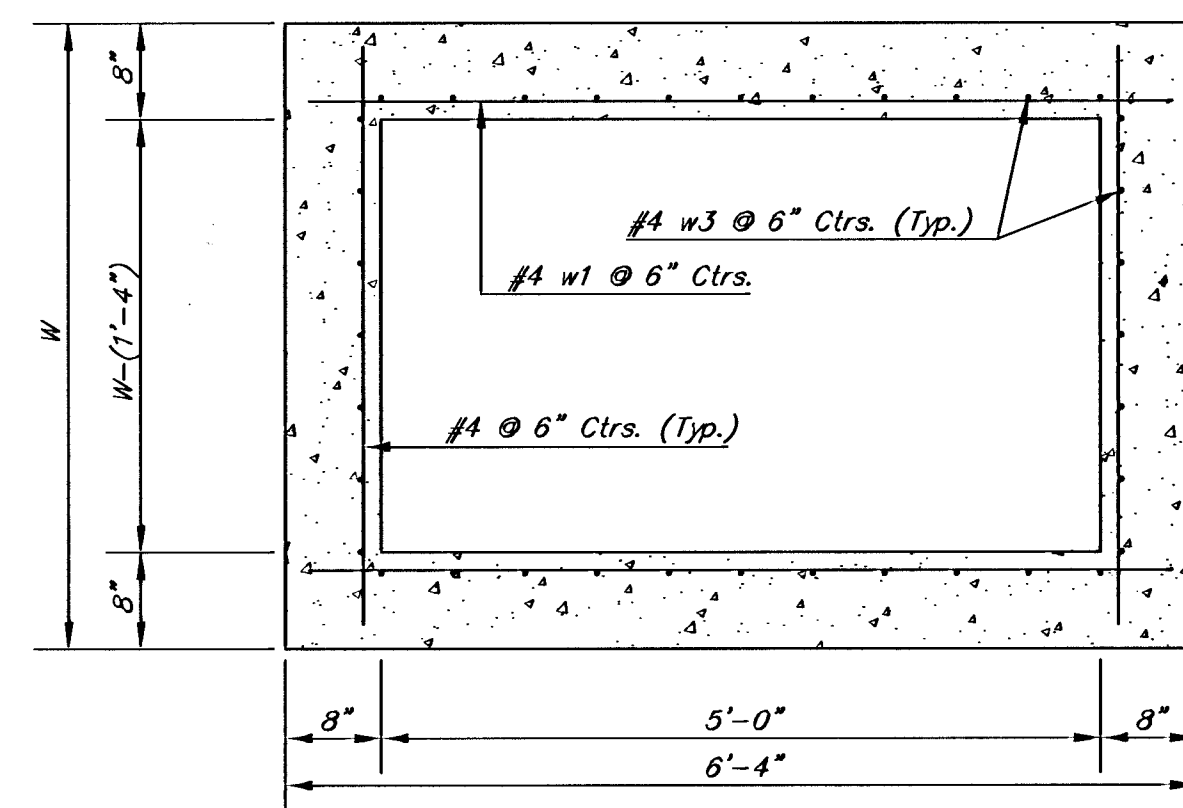
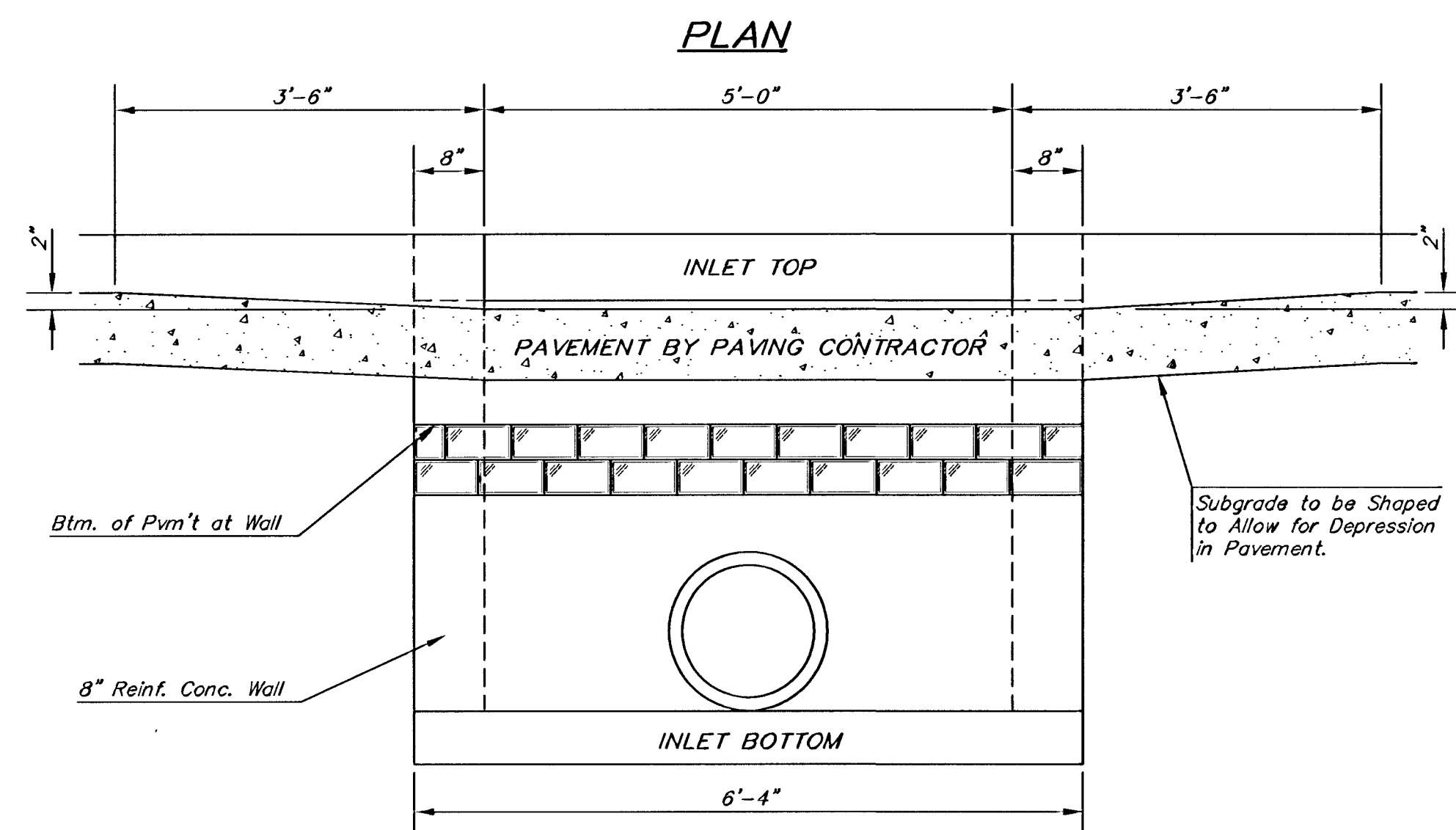
DESIGN	DRAWN
	EJB
SHEET	
8	OF 15



13TH STREET - CEDAR PARK TO 119TH PAVEMENT MARKING AND SIGNING WICHITA, KANSAS			
 Ruggles & Bohm, P.A. 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	RB JOB 25877 SHEET 9 OF 15	
	DRAWN EJB		
	REVIEW UTILITY		DATE June 9, 2004
DRAWING FILE Eng. Base {Striping}	PROJECT NUMBER 472-83851		



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



SECTION D-D

NOTE: Contractor shall have the option of constructing 8" brick masonry walls between the concrete inlet base and top on this inlet when W=6'-4" and H=7'-0" or less.

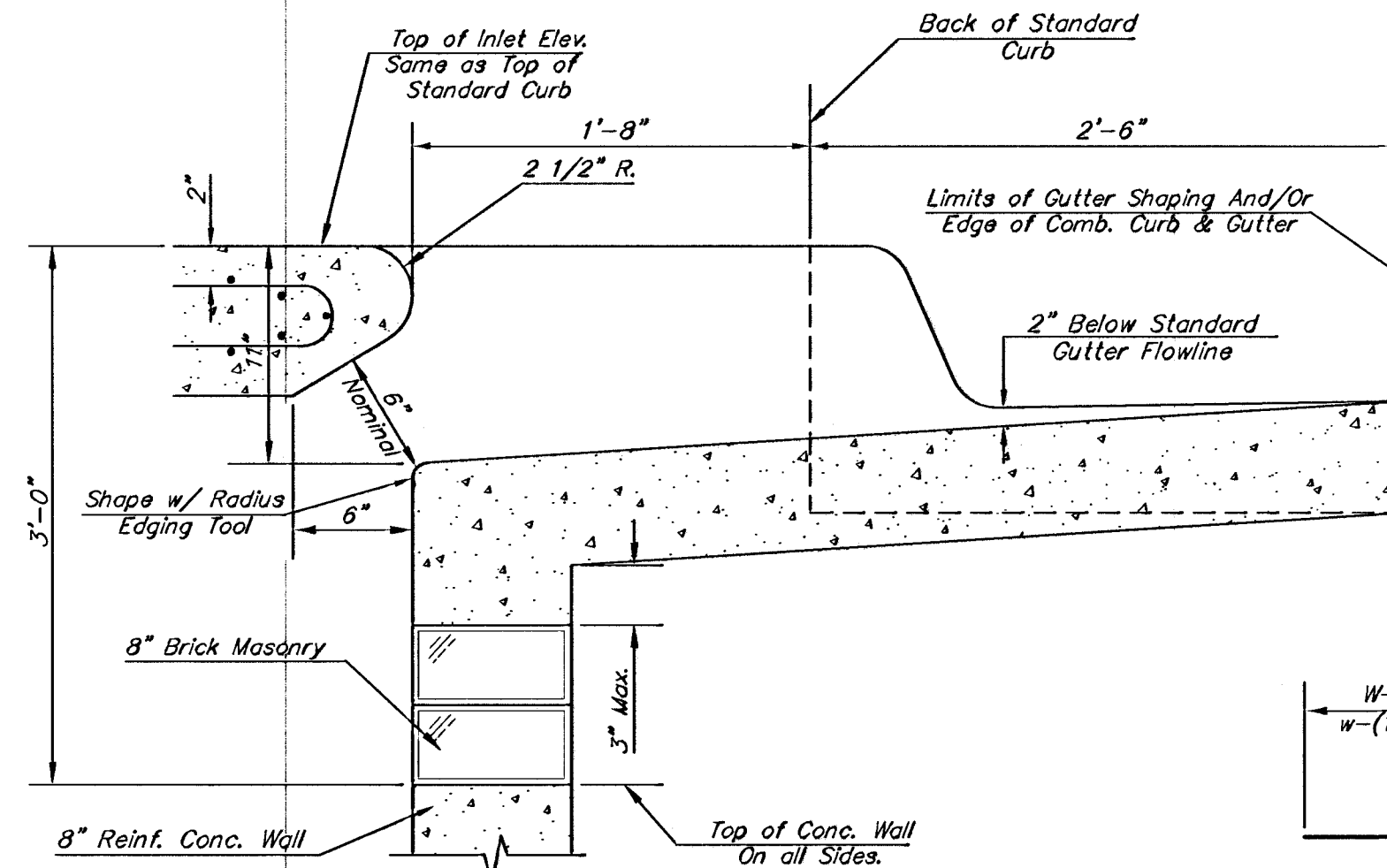
Additional curb and gutter construction necessary to connect set-back inlet to pavement will be paid for at the unit price bid for each inlet hookup.

Inlet invert shall be shaped with 8 sack sand mix concrete to create flow channels and to increase hydraulic efficiency such that the inlet will be self-cleaning between all inlet and/or outlet pipes.

The ends of all pipes installed in inlets shall be cut off flush with the inside face of the inlet wall

NOTE: Inlet Top Reinforcing shall be Spaced on 6" Max. Centers. Inlet Lids Shall be Notched Out as Indicated to Facilitate Construction of Curb.

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.



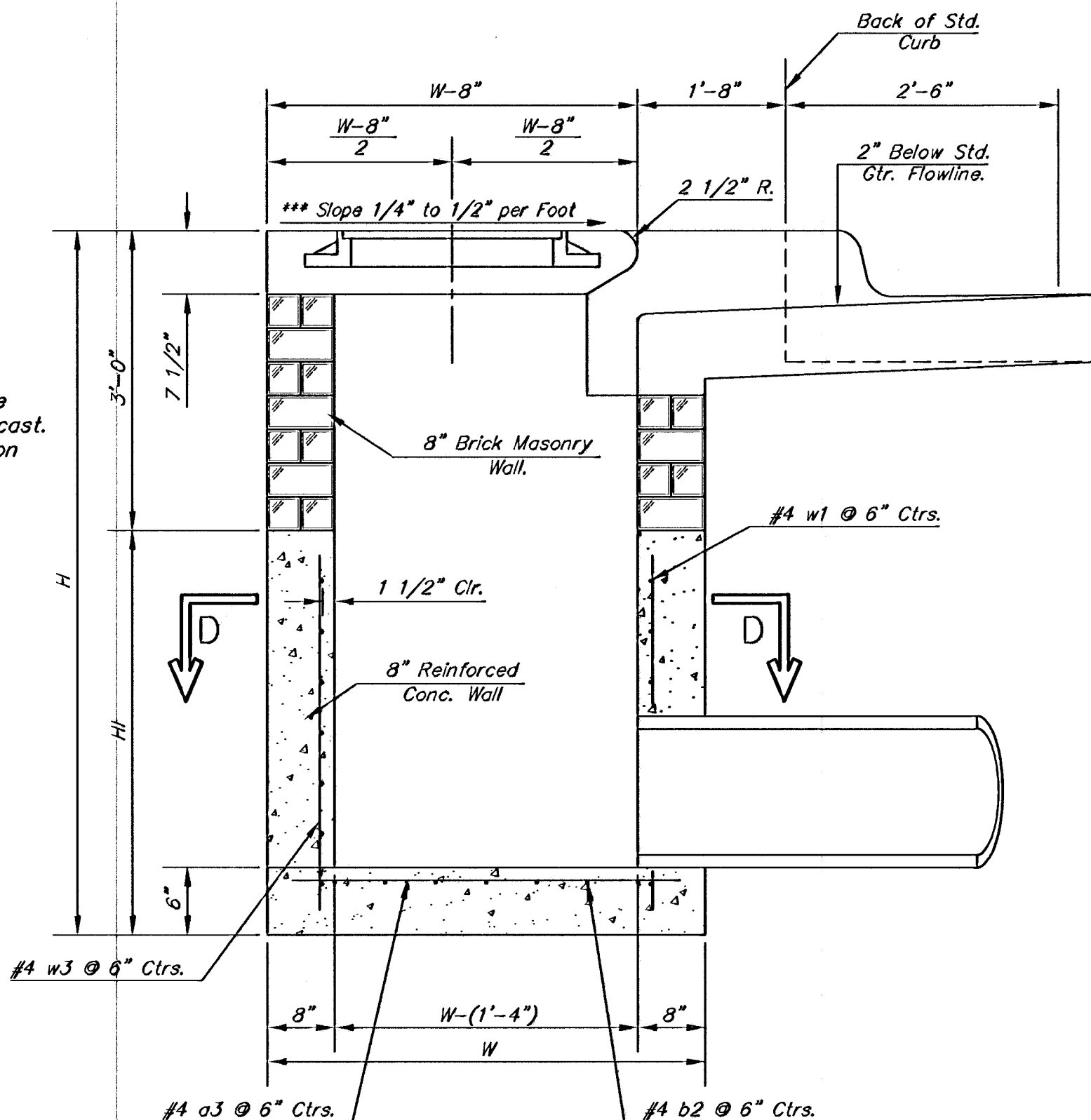
SECTION B-B

PRECAST SLAB AND FLOOR REINFORCING											
MARK	SIZE	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"

* Field Band or Cut Reinforcing as Required for Clearance.

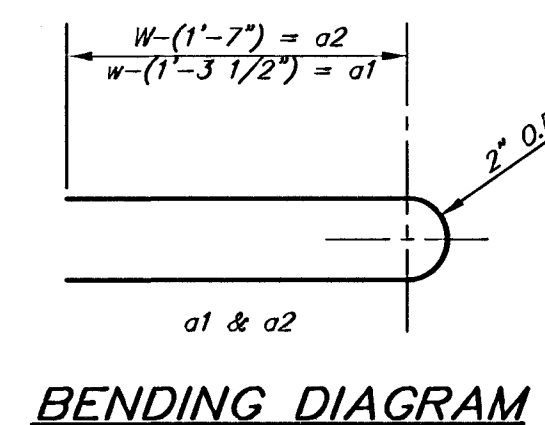
① 4 (H - 12") (H - 21") Rounded down to nearest 0.5'

② H - 3"

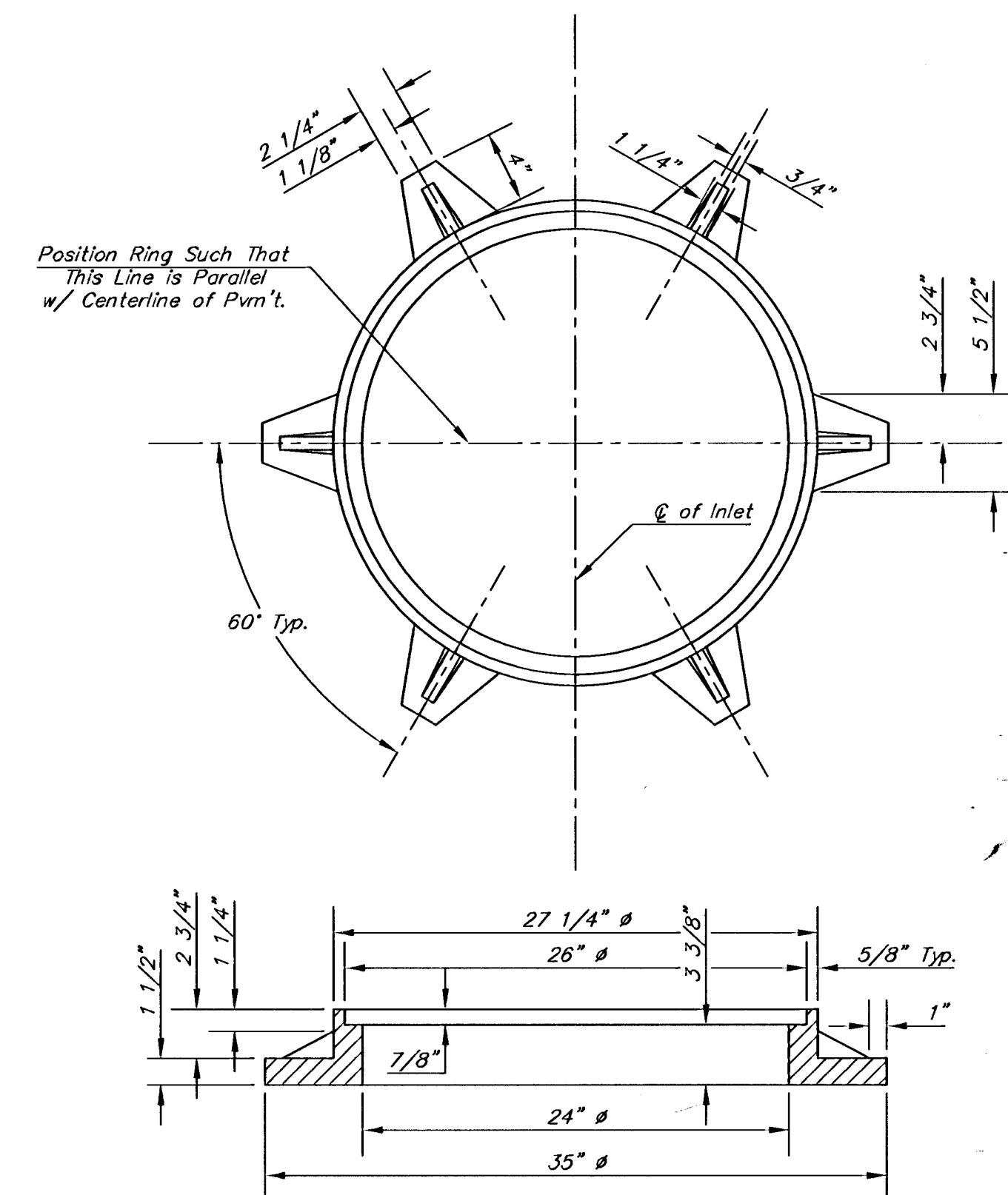


SECTION A-A

***NOTE: Slope of inlet tops to match Sidewalk or Parking Slopes within Limits Indicated.



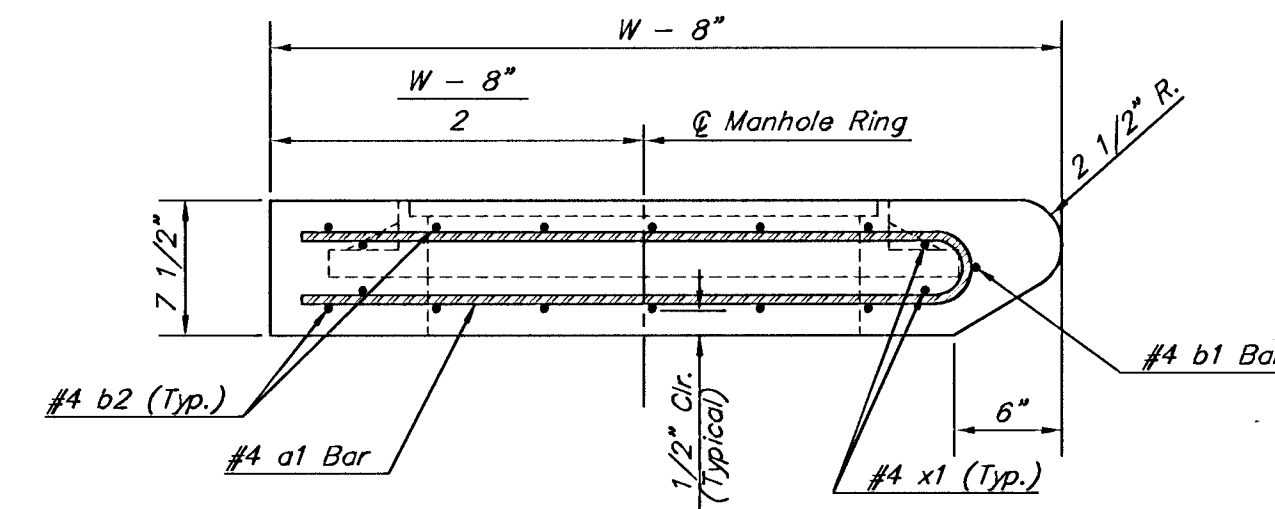
BENDING DIAGRAM



MANHOLE RING AND COVER

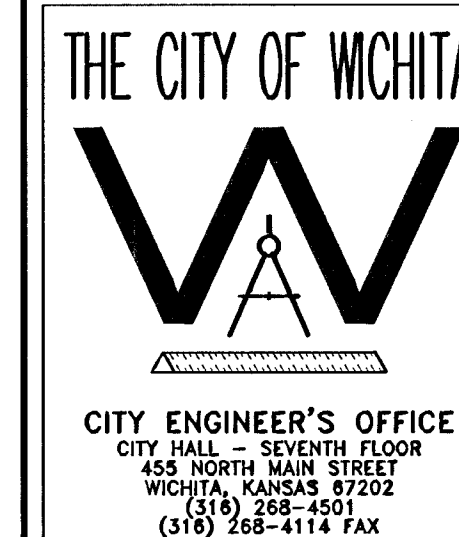
Weight = 180 Lbs.

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



SECTION A-A

W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4'-4"	3'-8" x 6'-4" x 7 1/2"	21" & SMALLER	0.38±
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±



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

PROJECT NUMBER 472-83851
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
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DATE MAR 96 SHEET 10 OF 15