ENHANCED MAINTENANCE PROJECT - PHASE I

FIRST STREET - W. L. OF LORRAINE TO THE W. L. OF OLIVER

SECOND STREET - W. L. OF LORRAINE TO W. L. OF OLIVER

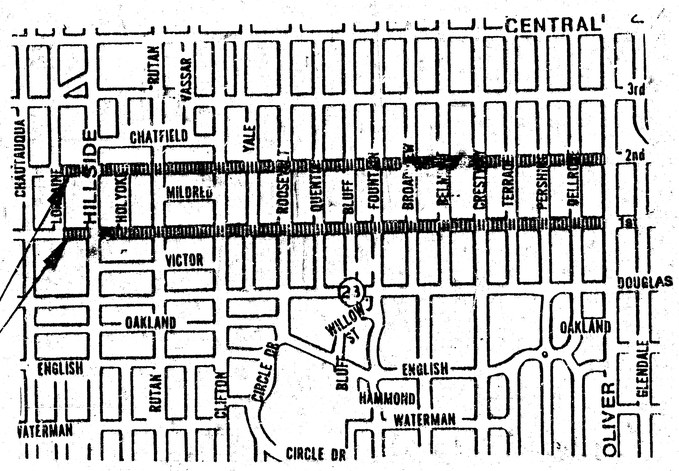
INDEX NO. 705764

CITY OF WICHITA, KANSAS

M. E. LINDEBAK - CITY ENGINEER

GENERAL NOTES:

1. FIRST STREET FROM LORRAINE TO HILLSIDE AND FROM CRESTWAY TO OLIVER IS 2" ASPHALTIC CONCRETE ON 5" CONCRETE BASE. FIRST STREET FROM HILLSIDE TO YALE AND FROM ROOSEVELT TO CRESTWAY IS 4" +/- ASPHALTIC CONCRETE ON 5" CONCRETE BASE. FIRST STREET FROM YALE TO ROOSEVELT IS 2" +/- ASPHALTIC CONCRETE ON BRICK BASE. CONCRETE BASE IS IN POOR CONDITION OVER MUCH OF THE PROJECT.
2. SECOND STREET FROM LORRAINE TO HILLSIDE AND FROM CRESTWAY TO OLIVER IS 2" ASPHALTIC CONCRETE ON 5" CONCRETE BASE. SECOND STREET FROM HILLSIDE TO CRESTWAY IS 3" +/- ASPHALTIC CONCRETE ON 5" CONCRETE BASE. CONCRETE BASE IS IN POOR CONDITION OVER MUCH OF THE PROJECT.
3. THIMBLES ARE TO BE PROTECTED AND SAVED WHEREEVER POSSIBLE. ENGINEER SHALL TAKE TIES TO ANY THIMBLES THAT MAY BE DESTROYED AND REPLACE AS REQUIRED.
4. EXACT INTERSECTION RADII AND CURB ELEVATIONS ARE TO BE DETERMINED ON SITE.
5. ALL WATER VALVE BOXES TO BE ADJUSTED AS REQUIRED. COST TO BE INCIDENTAL TO PROJECT.
6. THE CONCRETE BASE UNDER THE ASPHALT SURFACE IN SECOND STREET FROM HILLSIDE TO CRESTWAY IS CONTINOUS FROM FACE OF CURB FACE OF CURB. FULL DEPTH SAW CUT WILL BE REQUIRED AT THE HIGH EDGE LINE IN THIS AREA TO FACILITATE REMOVAL AND CONSTRUCTION OF NEW CURB AND GUTTER.
7. SOUTHWESTERN BELL AND OTHER PRIVATE UTILITY MANHOLES ARE TO BE ADJUSTED BY OTHERS PRIOR TO OVERLAY.
8. **ALL DRIVEWAYS ARE TO BUILT TO CITY OF WICHITA STANDARD SPECIFICATIONS FOR DRIVEWAYS.**



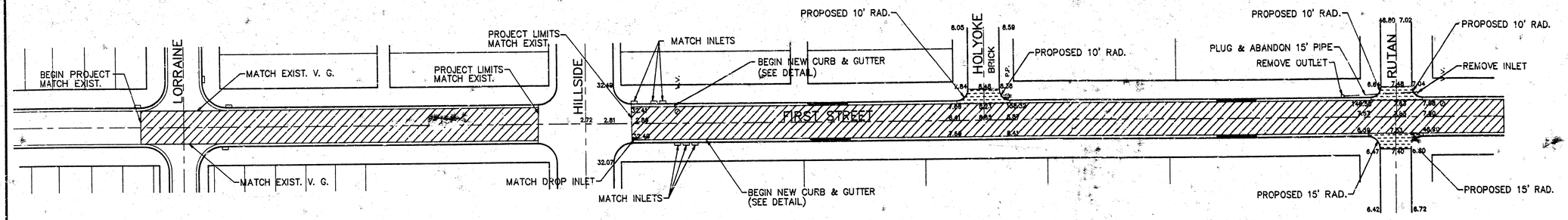
PROJECT LOCATION

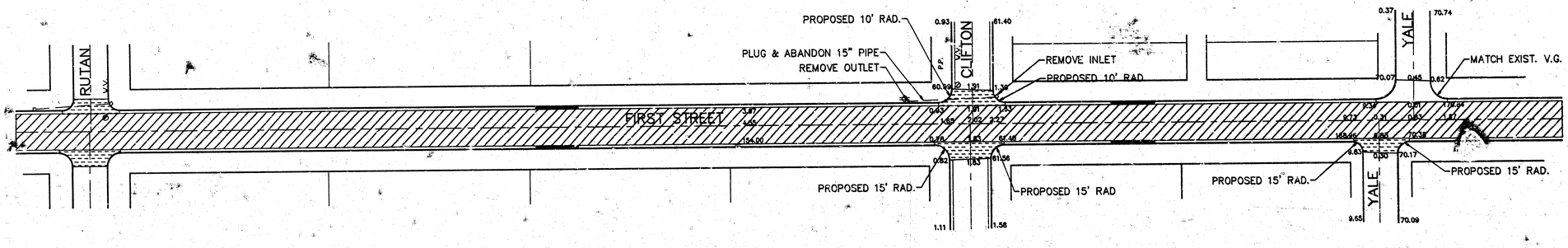
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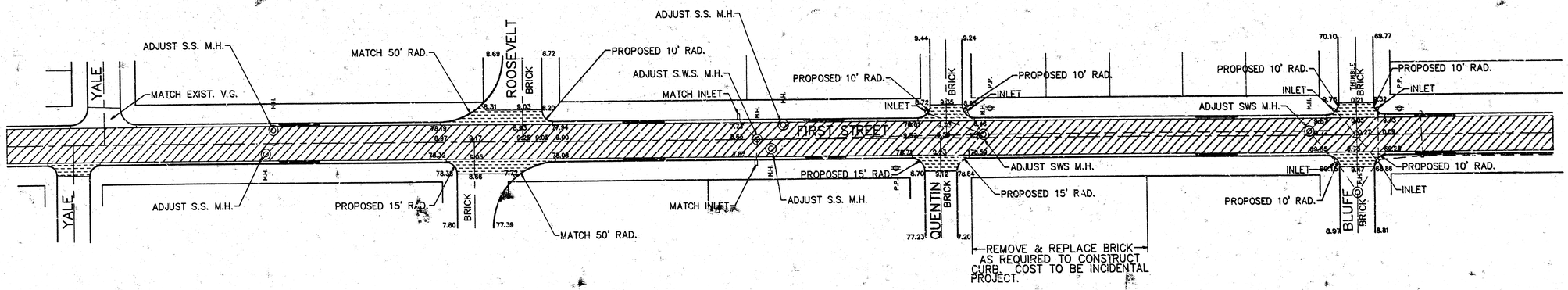
INDEX OF SHEETS

SHEET 1 - TITLE SHEET
SHEET 2-3 - PLAN, FIRST STREET
SHEET 4-5 - PLAN, SECOND STREET
SHEET 6-8 - PAVEMENT DETAILS

SCALE: 1" = 40'





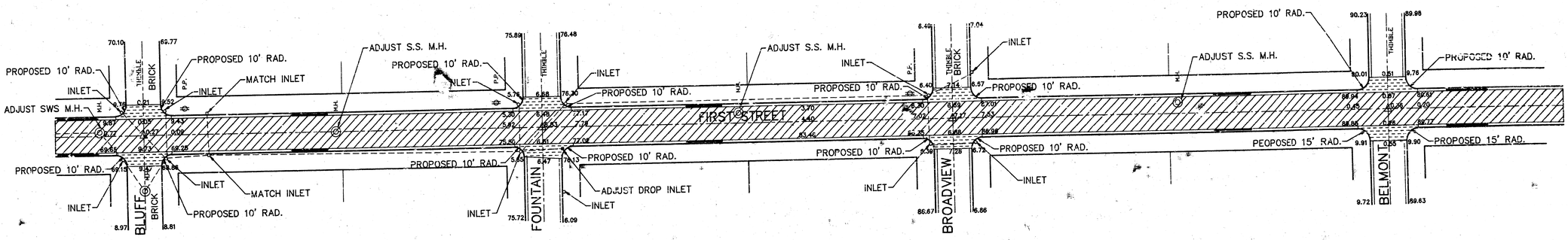


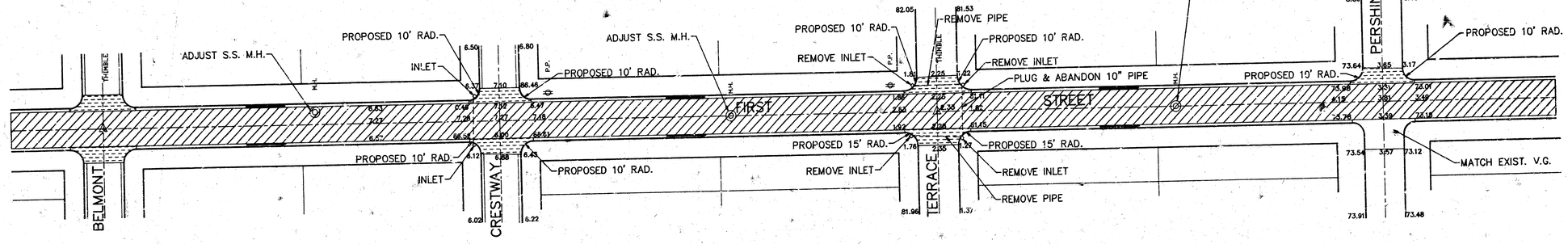
RECONSTRUCT INTERSECTION AS PER DETAIL

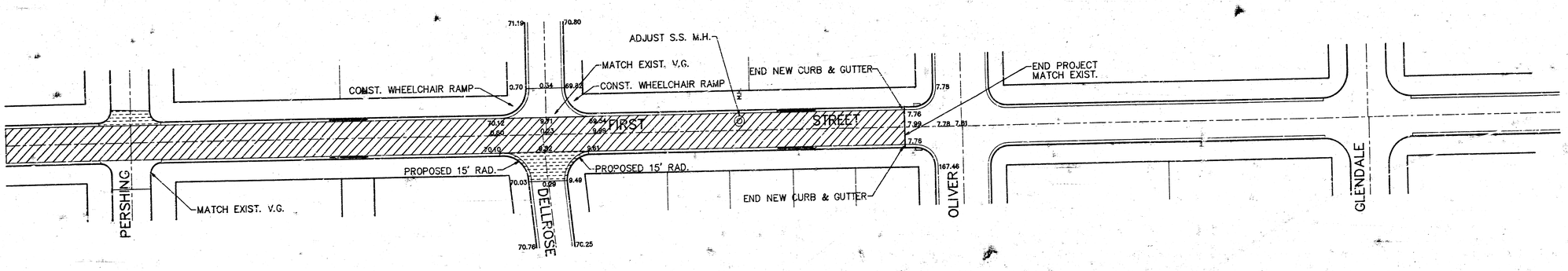
– INDICATES MILL & OVERLAY ASPHALT SURFACE

SHEET 2 OF 8
DRAWN BY: JKB

SCALE: 1" = 40'



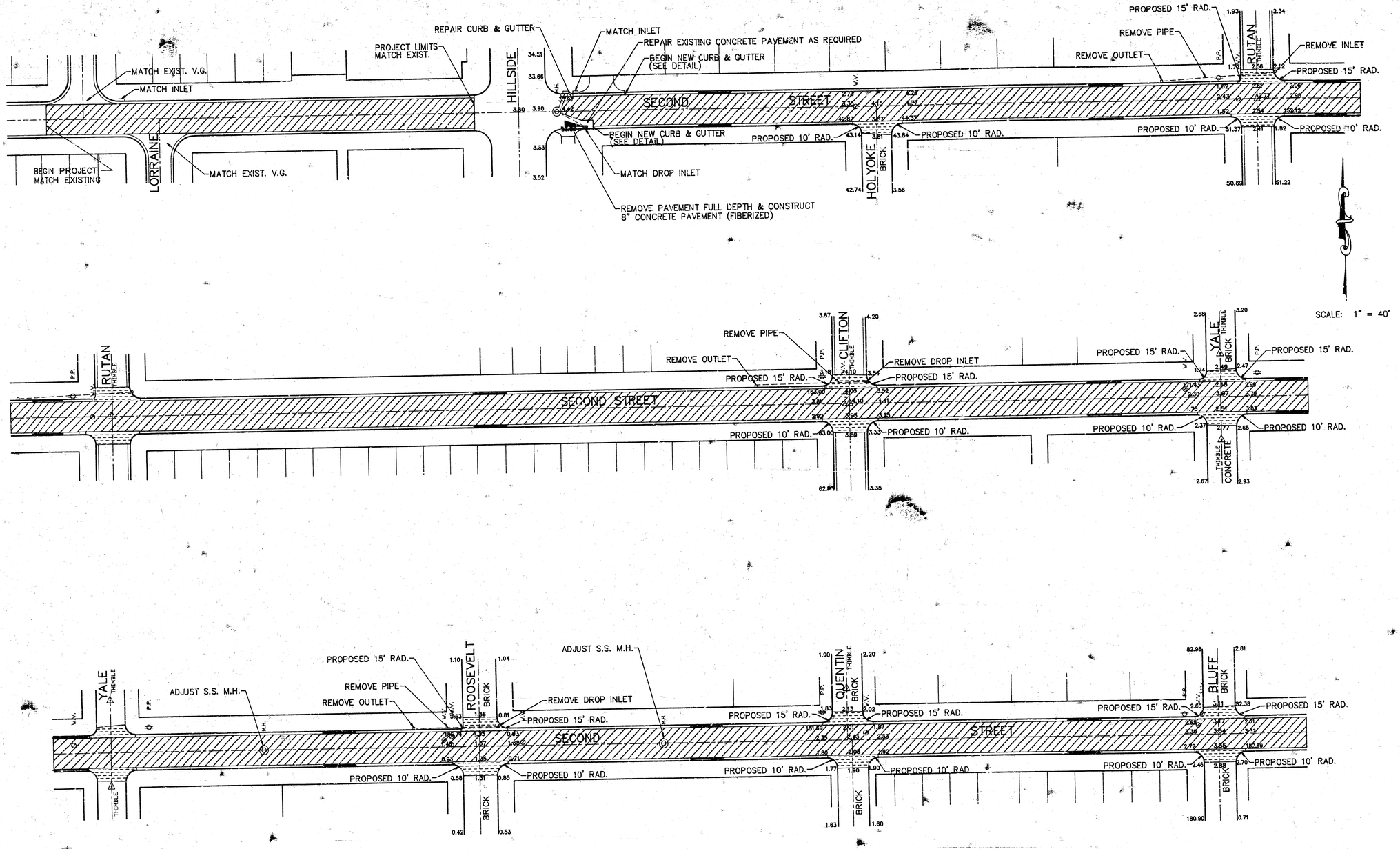




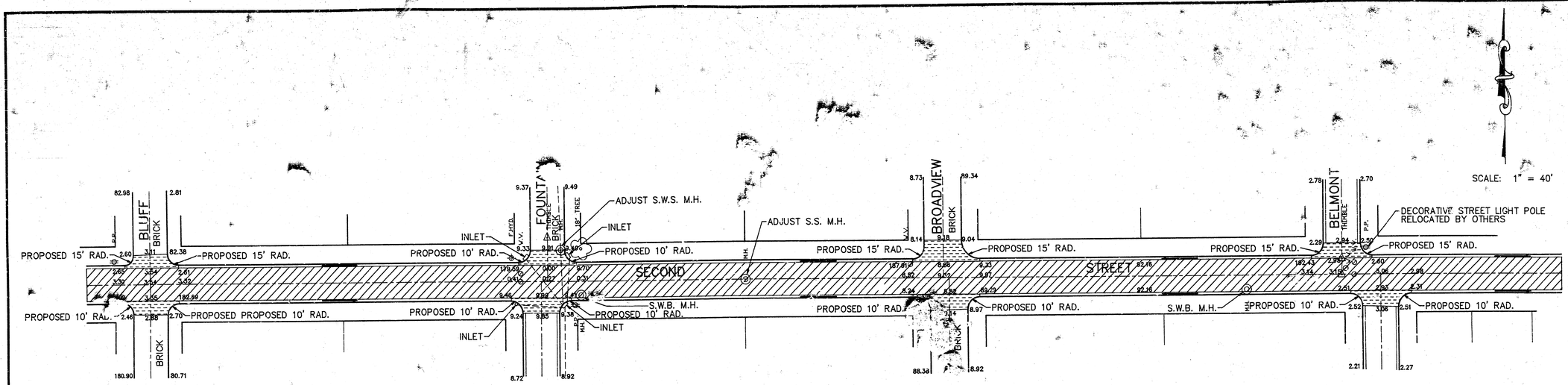
RECONSTRUCT INTERSECTION AS PER DETAIL

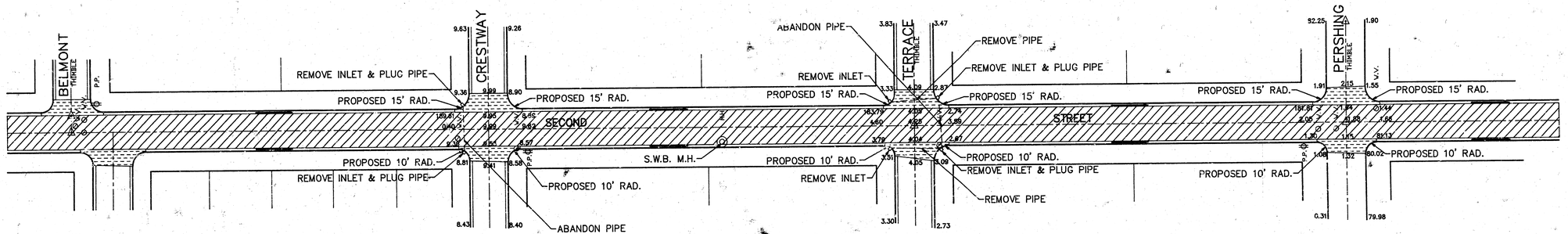
– INDICATES MILL & OVERLAY ASPHALT SURFACE

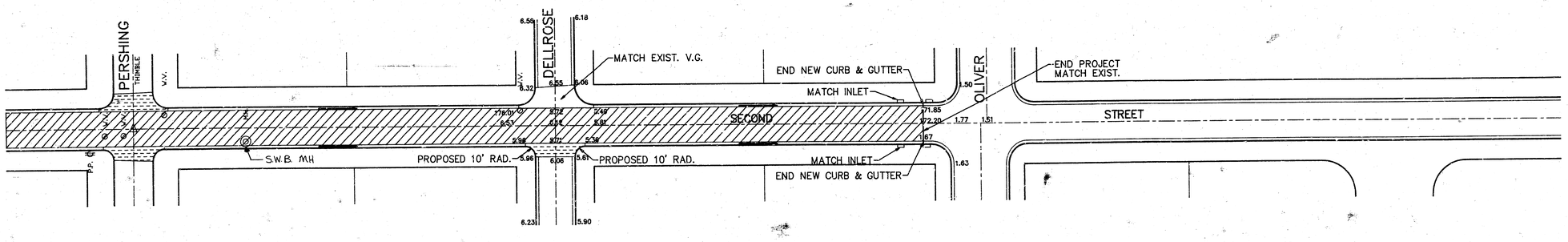
SHEET 3 OF 8
DRAWN BY: JKB



SHEET 4 OF 8
DRAWN BY: JKB







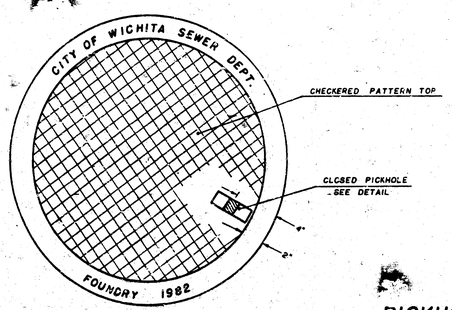
— RECONSTRUCT INTERSECTION AS PER DETAIL

— INDICATES MILL & OVERLAY ASPHALT SURFACE

SHEET 5 OF 8
DRAWN BY: JKB

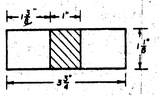
MANHOLE FRAME AND COVER DETAIL
(WIDE FLANGED FRAME)
ADOPTED AS STANDARD DESIGN
BY
City of Wichita, Kansas

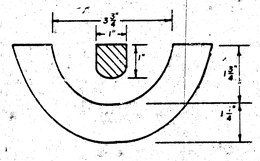
MANHOLE COVER
Weight: 180 Lbs.

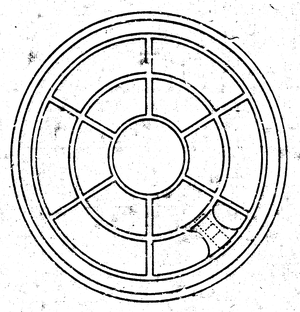


TOP VIEW

PICKHOLE DETAIL

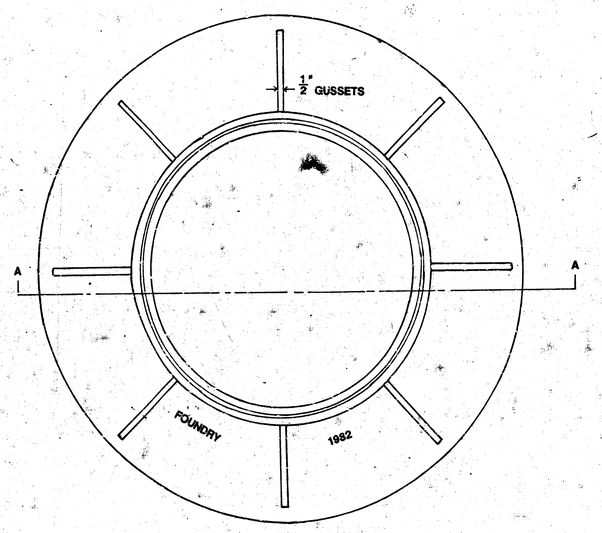




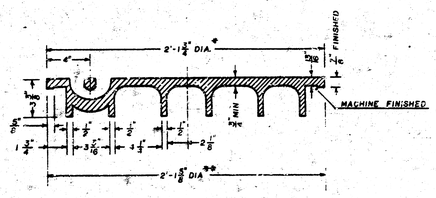


BOTTOM VIEW

MANHOLE FRAME
Weight: 525 Lbs.

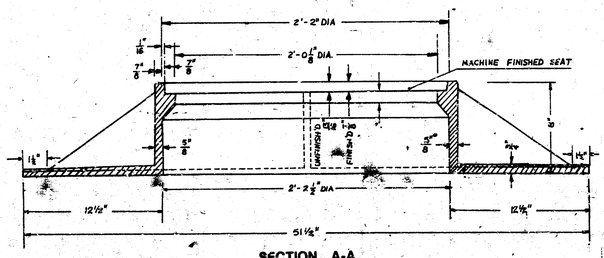


TOP VIEW



SECTION VIEW

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



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.

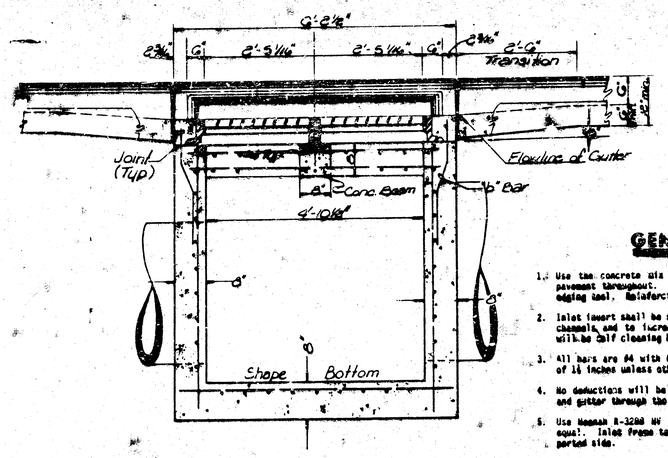
2. MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE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

3. 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.

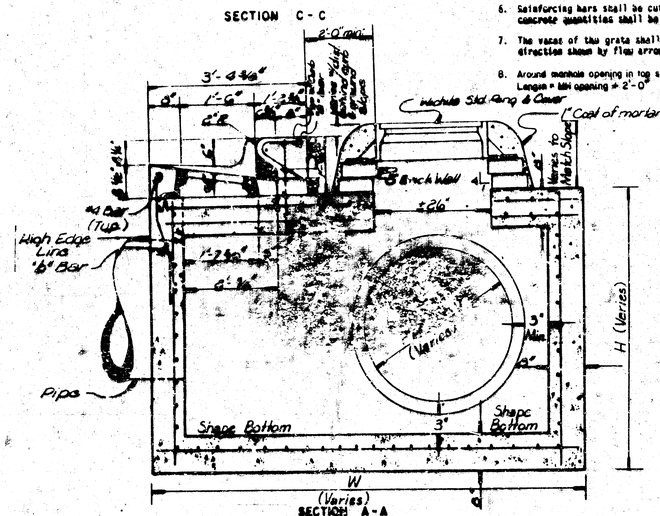
4. THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1" IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER 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.

SHEET 6 OF 8
INDEX #705764

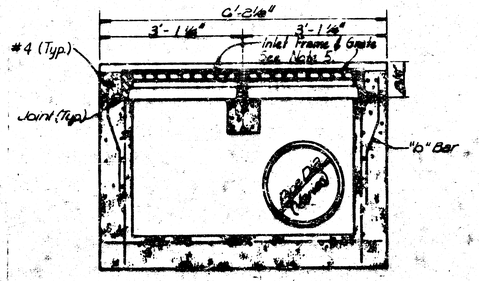
JPL DEC. 1981



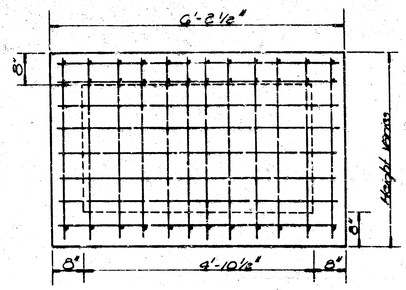
SECTION C - C



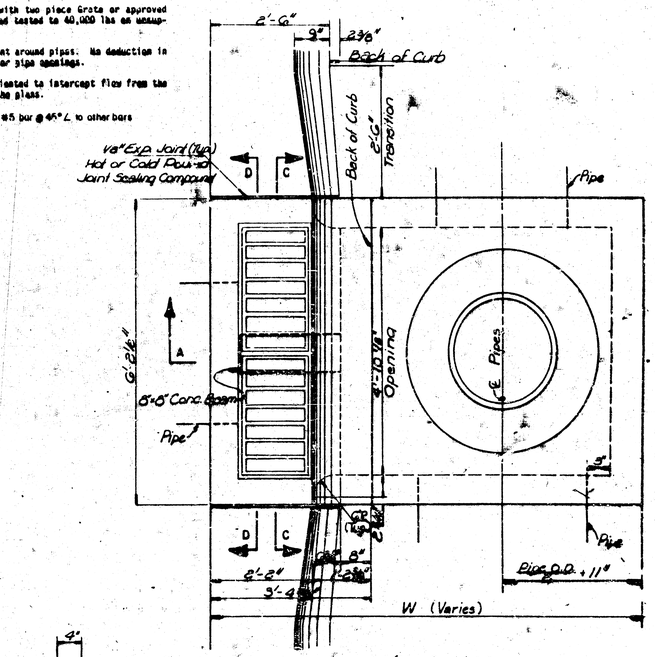
SECTION A-A
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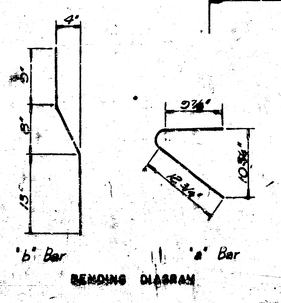
SECTION D - D
(No Scale)



REAR WALL



(No Scale)



BENDING DIAGRAM

GENERAL NOTES

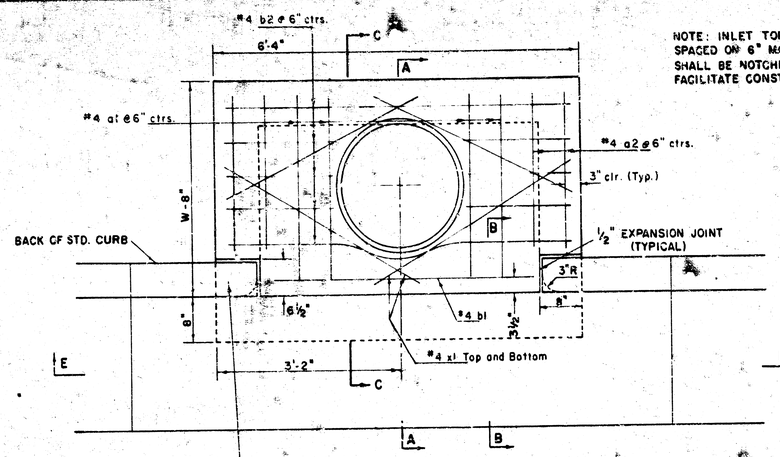
1. Use the concrete mix specified for the City of Wichita concrete pavement throughout. All exposed edges shall be finished with an edging tool. Reinforcing bars shall be bent around pipe.
2. Inlet invert shall be shaped with 8 sack mix concrete to create flow channels and to increase hydraulic efficiency 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 1½ inches unless otherwise noted on the plans.
4. No deductions will be made in pay length of curb, gutter, or curb and gutter through the inlet area.
5. Use Neenah R-3288 WW Inlet Frame with two piece Grate or approved equal. Inlet frame to be proof load tested to 40,000 lbs on unsupported side.
6. Reinforcing bars shall be cut or bent around pipes. No deduction in concrete quantities shall be made for pipe openings.
7. The vanes of the grate shall be oriented to intercept flow from the direction shown by flow arrows on the plans.
8. Around manhole opening in top slab use #5 bar @ 45° ∠ to other bars
   Length = MH opening + 2'-0"

NOTE: THIS INLET TO BE USED WHEN RECONSTRUCTING A 2' x 2' INLET.

DEETER FOUNDRY, 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 accomodate DEETER castings.

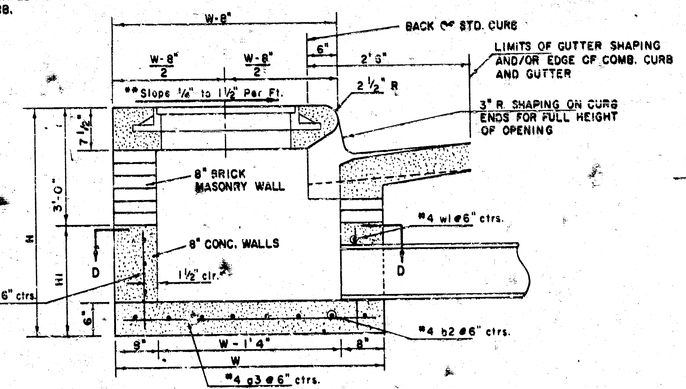
SPECIAL TYPE II CURB INLET & MANHOLE

SHEET 7 OF 8
INDEX #705764



PLAN

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



SECTION A-A

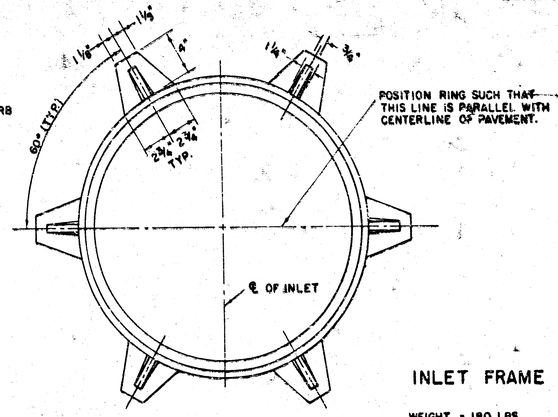
NOTE: CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL BE CONCRETE PAVEMENT MIX.

**NOTE: Slope of Inlet Tops to match Sidewalk or Parking Slopes within Limits Indicated.

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

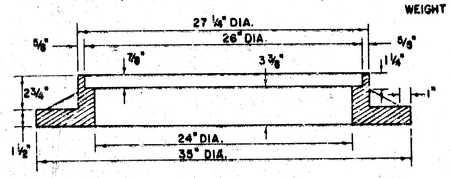
INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

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



INLET FRAME

WEIGHT = 180 LBS.



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

PRECAST SLAB AND FLOOR REINFORCING

		W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
Mark	Size	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length
a1	#4	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

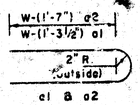
		W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
Mark	Size	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length
w1	#4	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"
w2	#4	①	4'-1"	①	5'-1"	①	6'-1"	①	7'-1"	①	8'-1"
w3	#4	32	②	36	②	40	②	44	②	48	②

Field bend or cut Reinforcing as required for clearance.

① 4(H1-12"); (H1-12") Round down to nearest 0.5'

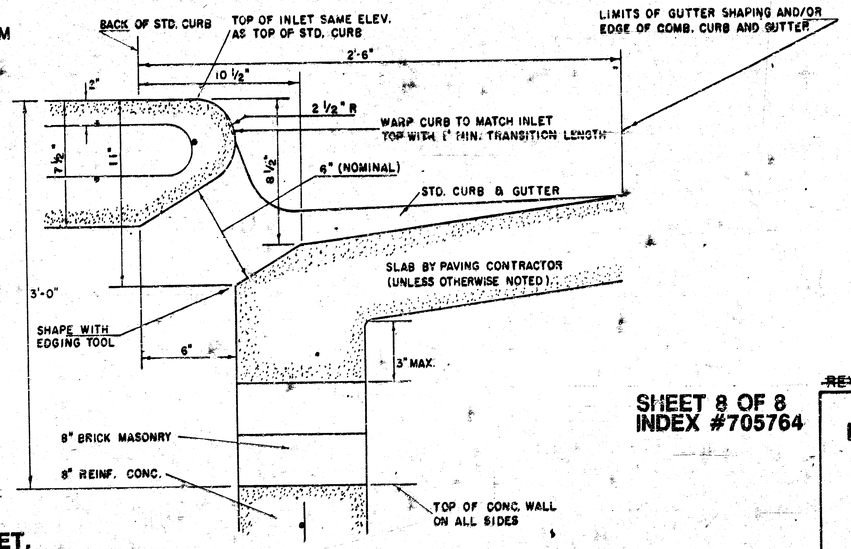
② H1-3"

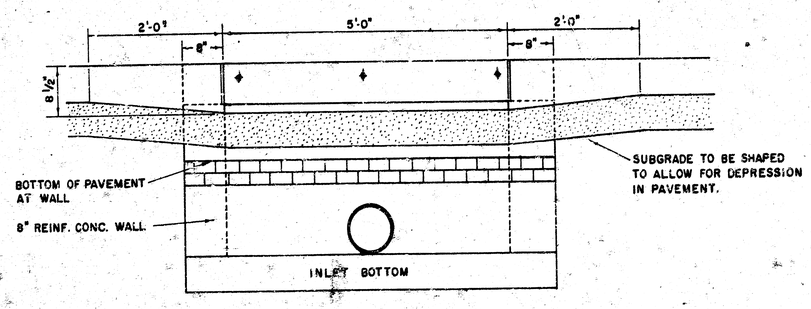
STANDARD CURB INLET PRECAST TOPS					
W	PRECAST TOP SIZE			PIPE SIZE	CU. YD. CONC.
4' 4"	5'6"	7 1/2"		21" & SMALLER	0.38 ±
5' 4"	4'6"	4"	7 1/2"	24" & 30"	0.51 ±
6' 4"	5'6"	6'4"	7 1/2"	36" & 42"	0.64 ±
7' 4"	6'6"	6'4"	7 1/2"	48" & 54"	0.77 ±
8' 4"	7'6"	6'4"	7 1/2"	60" & 66"	0.90 ±



BENDING DIAGRAM

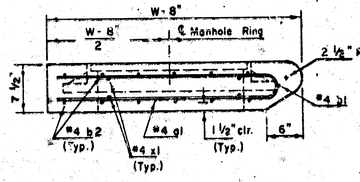
SECTION B-B



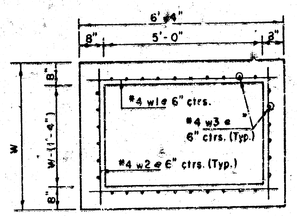


SECTION E-E

NOTE: THIS INLET TO BE USED WHEN RECONSTRUCTING A 2' x 5' INLET.



SECTION C-C



SECTION D-D

~~REVISED 12-21-1988~~ REVISED 2-15-1989

SHEET 8 OF 8
INDEX #705764

DETAIL STANDARD TYPE I CURB INLET

CITY OF WICHITA, KANSAS

INLET OPENING = 6" x 5'0"

JUNE 1984

[redacted] 18-1-3-8