

# CITY OF WICHITA, KANSAS

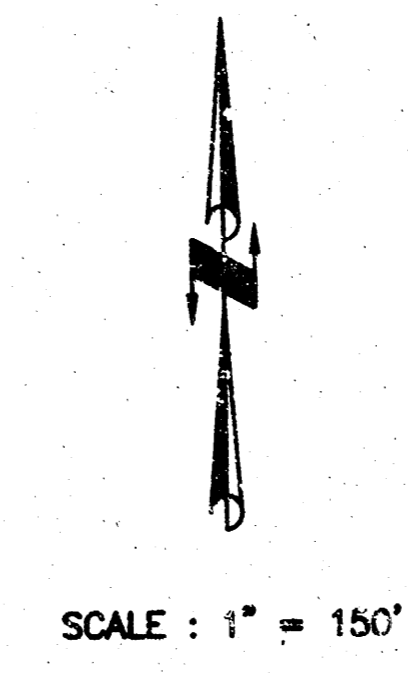
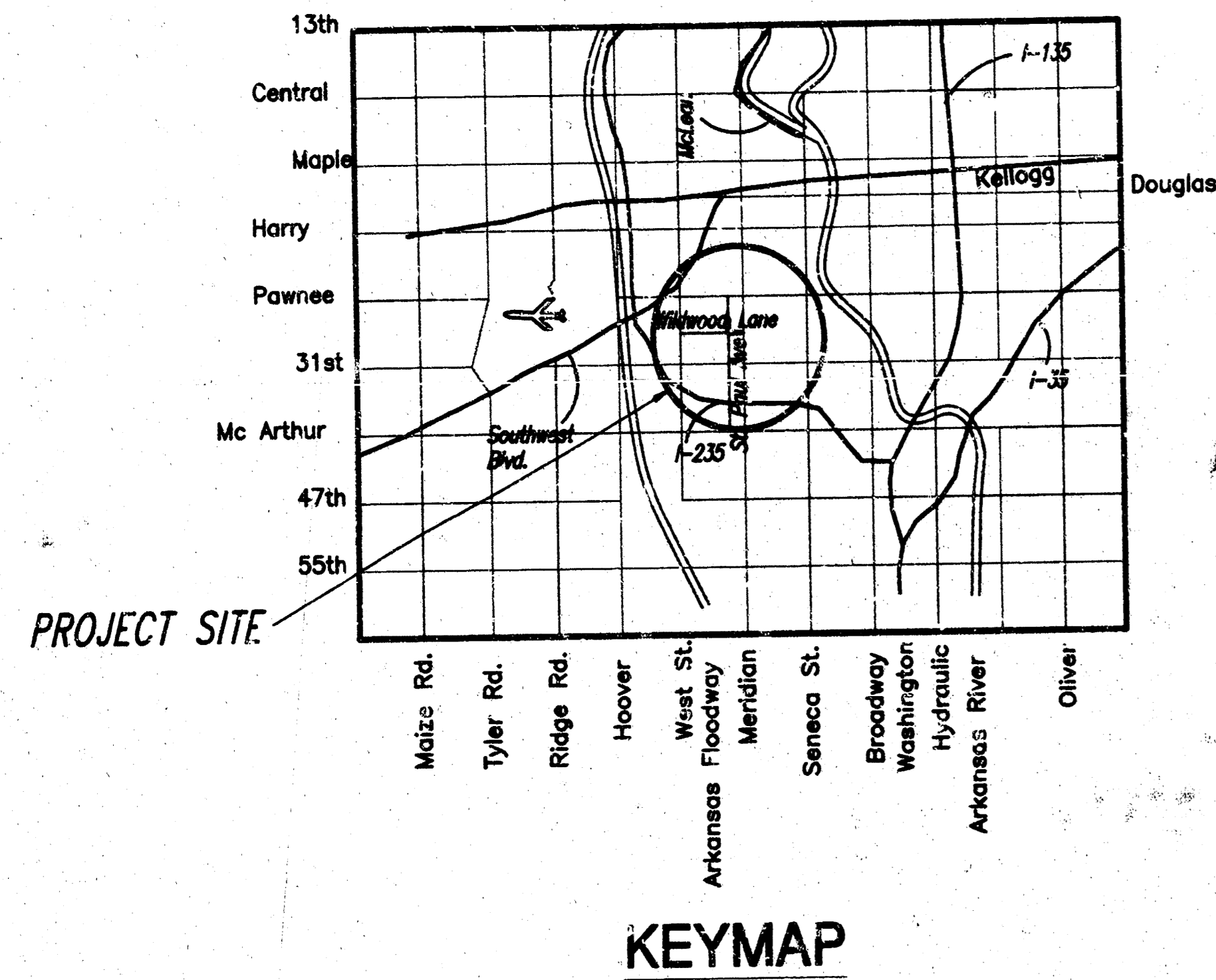
## STREET IMPROVEMENTS

1 - ST. PAUL, FROM THE NORTH LINE OF  
WILDWOOD TO THE NORTH LINE OF 27TH STREET SOUTH  
PROJECT No. 472-82878  
INDEX CODE : 764548

2 - WILDWOOD, FROM ST. PAUL TO RICHMOND  
PROJECT No. 472-82862  
INDEX CODE : 764621

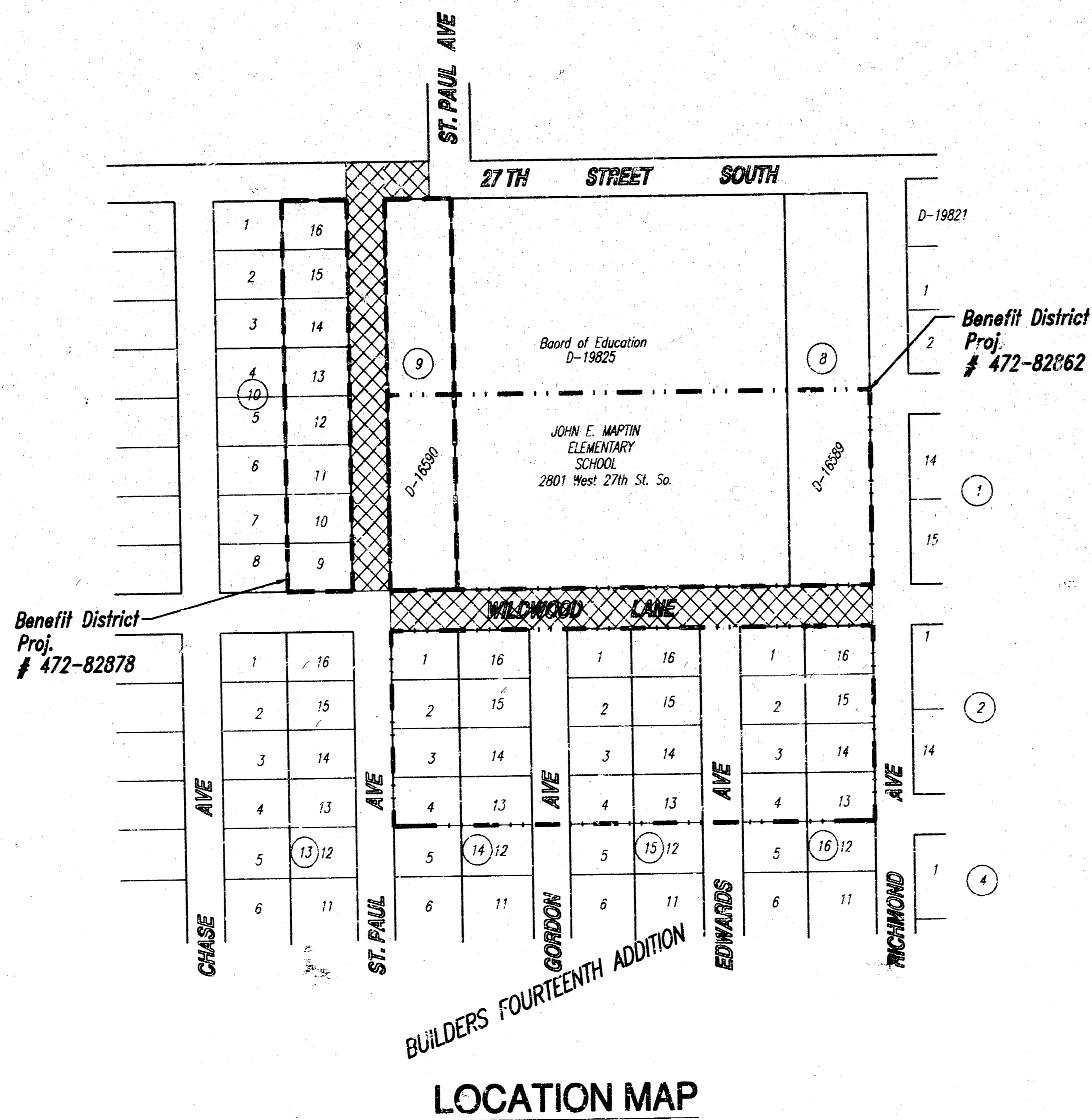
**INDEX:**

SHEET 1	TITLE SHEET
SHEET 2	TYPICAL PAVEMENT SECTION
SHEET 3-6	PLAN SHEETS
SHEET 7	INTERSECTION
SHEET 8	TYPICAL VALLEY GUTTER DETAIL SHEET
SHEET 9	DRIVE ENTRANCE DETAIL SHEET
SHEET 10-13	X-SECTIONS



**PROJECT LENGTH:**

STREET	LENGTH
St. Paul Ave.	634.72'
Wildwood Lane	749.90'
27th Street South	135.47'
<b>TOTAL</b>	<b>1520.09'</b>

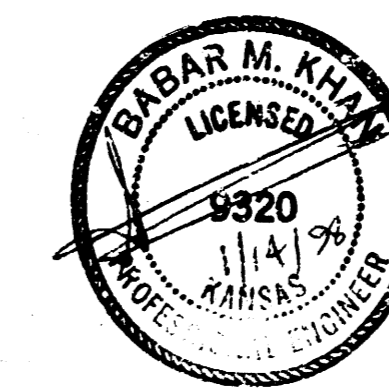


**BENCH MARKS:**

- BM # 1.  
Square cut on B/C, 1' E. of inlet @ the E. end of the NE return at the intersection of 27th St. N. & St. Paul (N. of 27th St. N.)  
Elev. = 99.49
- BM # 2.  
Square cut on B/C @ W. end of SW return at the intersection of St. Paul & Wildwood.  
Elev. = 100.95
- BM # 3.  
Square cut on B/C @ center of SE return at the intersection of Richmond & Wildwood.  
Elev. = 99.36

**EARTHWORK SUMMARY**

<b>Wildwood Project # 472-82862</b>	
Excavation	= 1,090 C.Y.
Loose Fill	= 206 C.Y.
<b>St. Paul Project # 472-82878</b>	
Excavation	= 1,910 C.Y.
Loose Fill	= 100 C.Y.

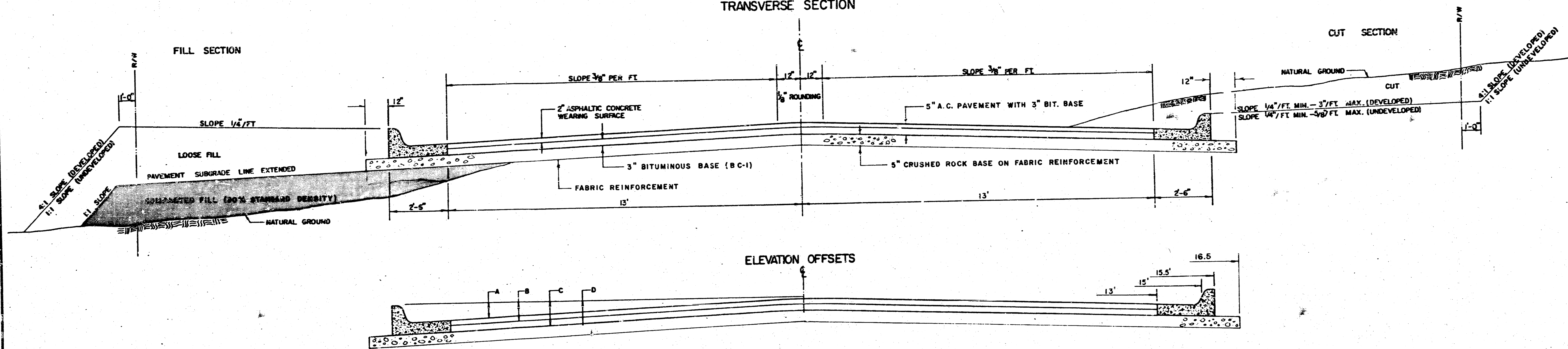


TITLE SHEET		
SCALE:	APPROVED:	DRAWN BY: S.A.
DATE:		CHECKED: R.K.
PROJECT NO:		SHEET NO:
97-163 (MUNICIPAL)		1 OF 13
<b>MUNICIPAL ENGINEERS</b>		
254-LAURA, SUITE 201 WICHITA, KANSAS 67211 316-262-3842		

# TYPICAL 31' PAVEMENT DETAILS

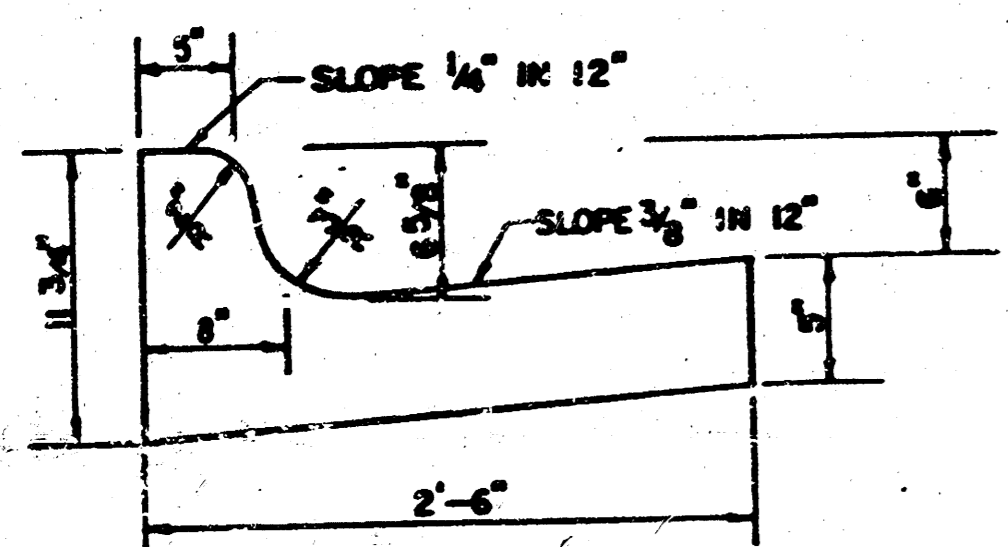
2  
13

## TRANSVERSE SECTION

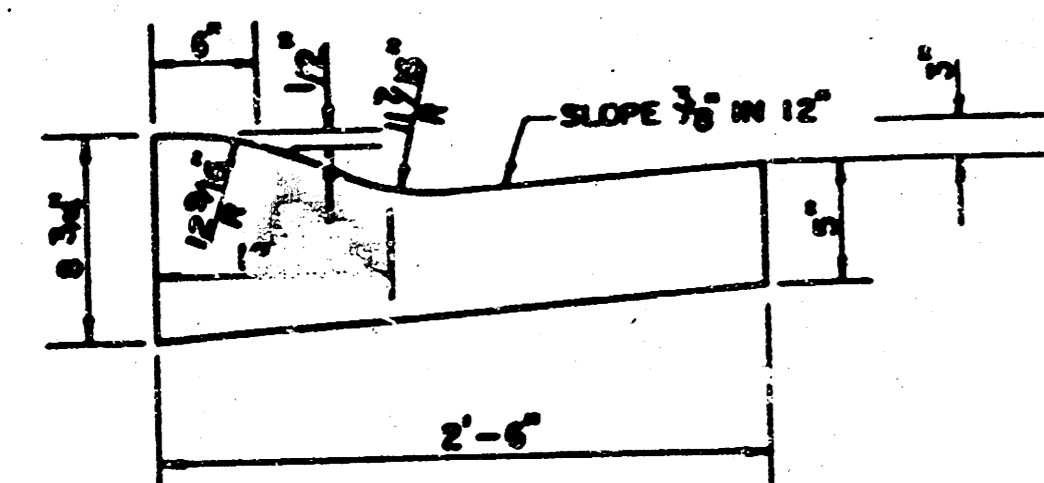


	DISTANCE FROM CENTERLINE (LT. & RT.)											
	0'	2'	4'	6'	7.5'	10'	12'	15'	15.5'	15.67'	16.17'	
A. TOP OF CURBS TO TOP OF SURFACE LIFT	.10	.14	.21	.27	.32	.39	.46	.49	---	---	---	---
B. TOP OF CURBS TO TOP OF BASE LIFT	.27	.31	.37	.44	.48	.56	.62	.65	---	---	---	---
C. TOP OF CURBS TO TOP OF ROCK BASE	.52	.56	.63	.69	.74	.81	.88	.51	-.97	-.98	-.99	---
D. TOP OF CURBS TO TOP OF SUBGRADE												

### COMBINED CURB & GUTTER



### ROLL TYPE COMBINED CURB & GUTTER



### GENERAL NOTES

FABRIC BASE REINFORCEMENT SHALL BE 6 x 1100 BY TENSAR OR APPROVED EQUAL.  
 FABRIC BASE REINFORCEMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. CRUSHED ROCK SHALL BE UNIFORMLY GRADED FROM 1-1/2" MAXIMUM SIZE TO NOT MORE THAN 10% PASSING A NO. 200 SIEVE. ROCK QUALITY SHALL BE THE SAME AS SPECIFIED FOR COARSE AGGREGATE FOR CONCRETE MIXES.

ROCK BASE IS TO BE COMPACTED AND SMOOTHED WITH A STEEL FACED ROLLER PRIOR TO PLACEMENT OF ASPHALT. TACK COAT WILL NOT BE APPLIED TO ROCK BASE.

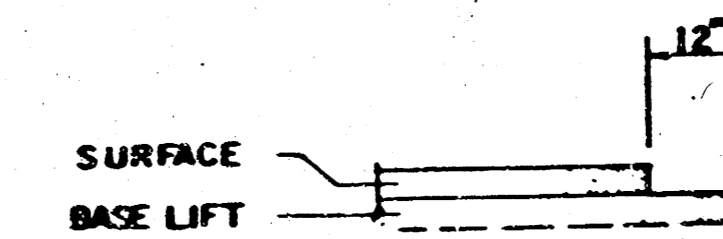
A TACK COAT OF EMULGIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.

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

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

THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 5" ASPHALTIC CONCRETE (3" BITUMINOUS BASE).

### TRANSVERSE CONSTRUCTION JOINTS



TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINTS EXISTING FLEXIBLE BASE PAVEMENT AS SHOWN BY THE DETAIL. ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE TRANSVERSE JOINT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS 5" ASPHALTIC CONCRETE (3" BITUMINOUS BASE).

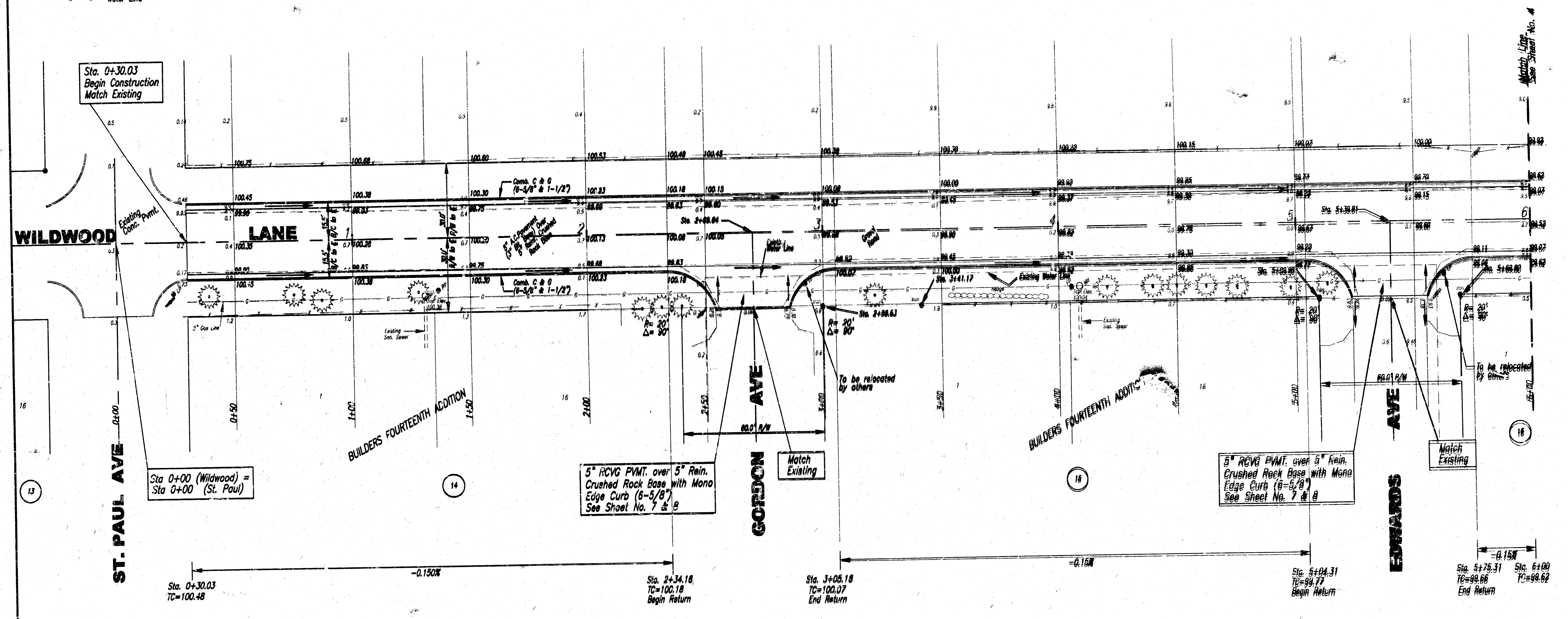
472-82878  
 472-82862  
 REVISED 1-3-92 JKB  
 REVISED 10-31-96 JKB

**5" RESIDENTIAL ASPHALTIC CONCRETE  
 PAVEMENT WITH CRUSHED ROCK BASE  
 ON FABRIC REINFORCEMENT**

**LEGEND**

- Iron Pin or Rebar
- Light Pole
- Power Pole
- Manhole
- Sign
- Bushes
- Tree
- ▣ Remove & Replace Existing Conc. Driveway
- Fence
- Gas Line
- Sewer Line
- Water Line

SCALE: 1" = 20'



Sta. 0+30.03  
Begin Construction  
Match Existing

Sta 0+00 (Wildwood) =  
Sta 0+00 (St. Paul)

5" RCVG PAVT. over 5" Rein.  
Crushed Rock Base with Mono  
Edge Curb (6-5/8")  
See Sheet No. 7 & 8

5" RCVG PAVT. over 5" Rein.  
Crushed Rock Base with Mono  
Edge Curb (6-5/8")  
See Sheet No. 7 & 8

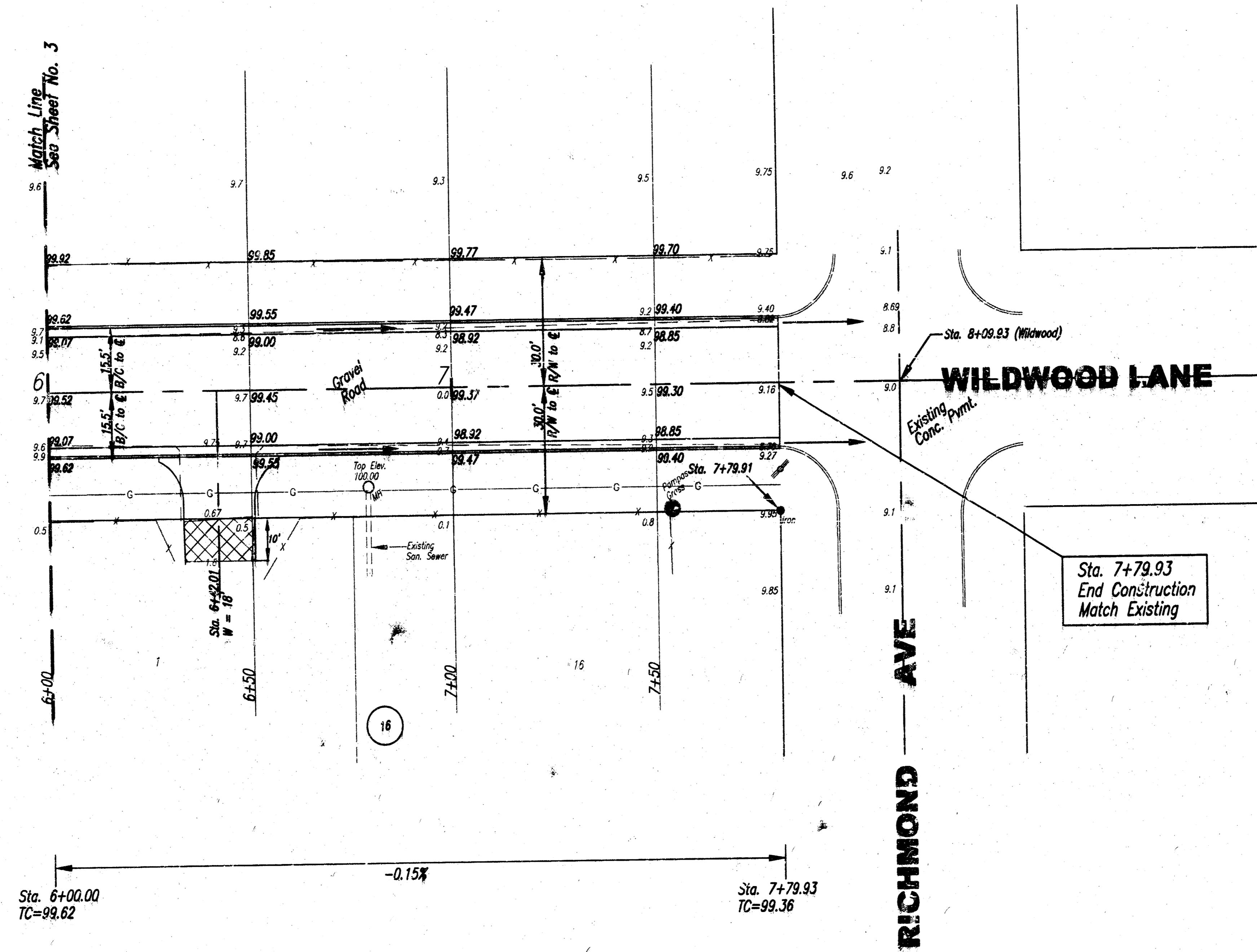
Note  
Warp crown from Sta. 0+30.03 to Full Crown  
@ Sta. 0+50.00.

**Plan Sheet  
Wildwood Lane**

SCALE:	APPROVED:	DRAWN BY:
DATE:	CHECKED:	CHECKED:
PROJECT NO:	97-162	SHEET NO. / 3 OF 12

**MUNICIPAL ENGINEERS**  
224 - LAURA SUITE 201  
WICHITA, KANSAS 67211  
318-262-3842

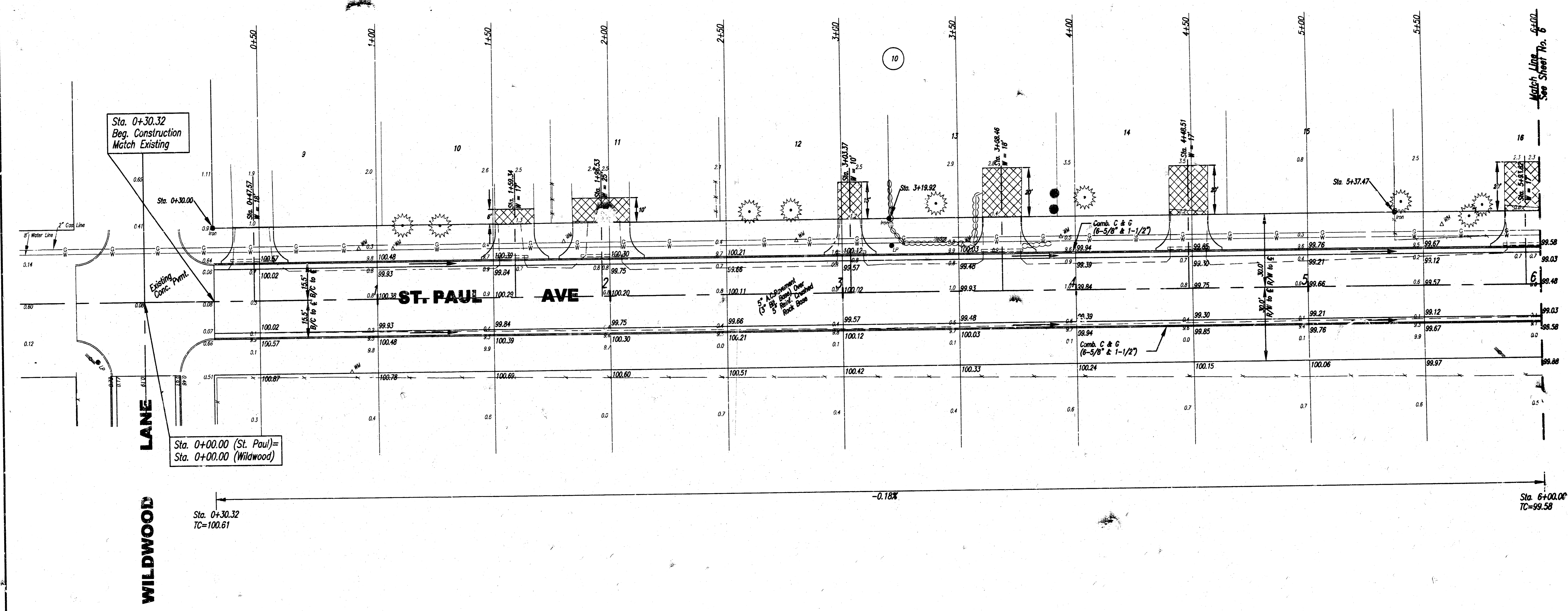
SCALE: 1" = 20'



Note:  
Warp pavement from full crown @ Sta.  
7+50.00 to Sta. 7+79.93

Plan Sheet  
Wildwood Lane

SCALE:	APPROVED:	DRAWN BY:
DATE:	CHECKED:	SHEET NO.:
PROJECT NO. 97-163		4 OF 13
<b>MUNICIPAL ENGINEERS</b> 254-LAURA, SUITE 201 WICHITA, KANSAS 67211 316-262-3842		

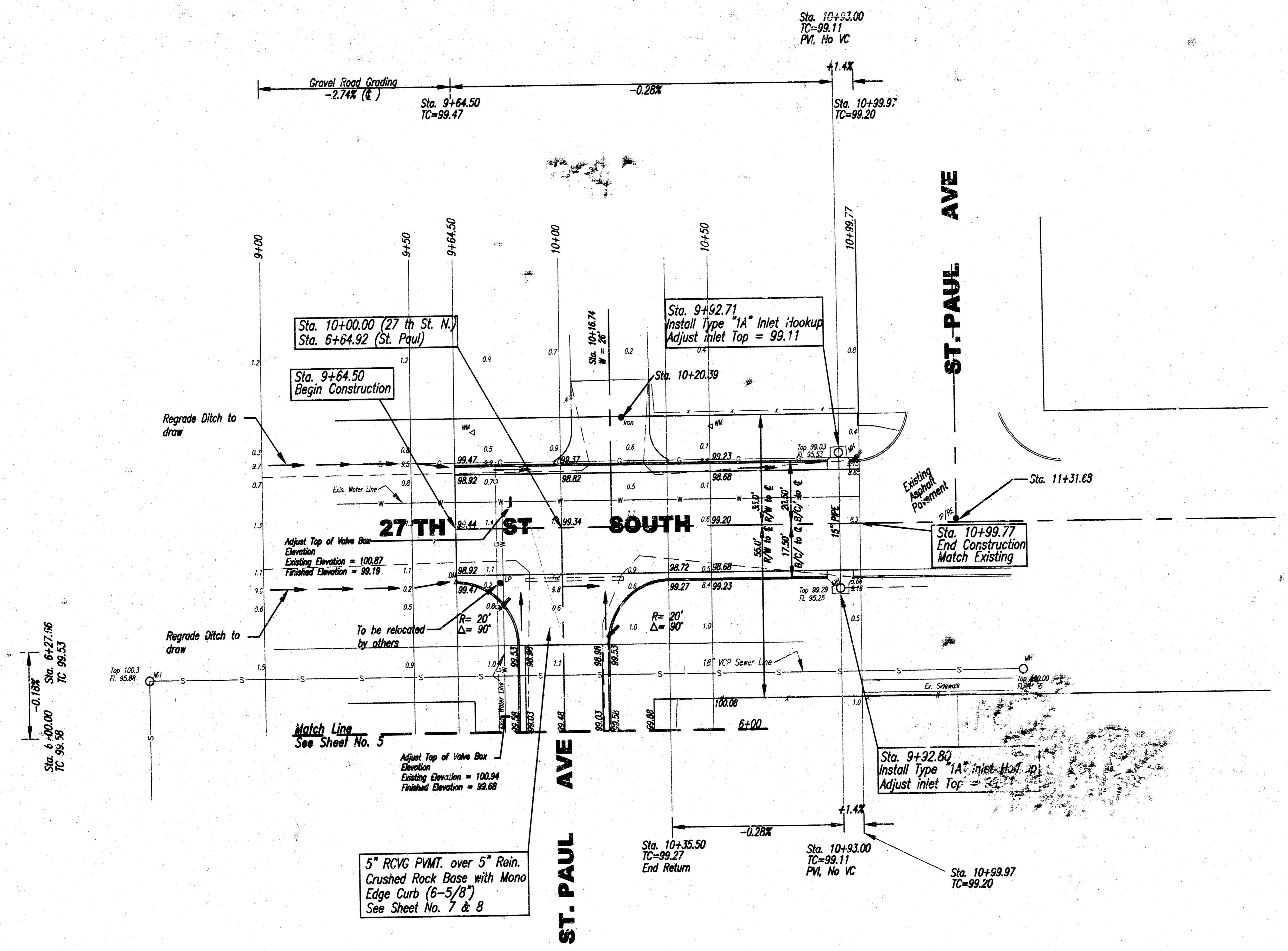


Note:  
Warp Pavement from Sta. 0+30.32 to Full  
Crown @ Sta. 0+80.00.

**Plan Sheet  
St. Paul Ave.**

SCALE:	APPROVED:	DRAWN BY:
DATE:		CHECKED:
PROJECT NO:	97-163	SHEET NO.:
		5 OF 13

**MUNICIPAL ENGINEERS**  
254-LAURA, SUITE 201  
WICHITA, KANSAS 67211  
316-252-3842



Sta. 6+00.00  
TC 98.53  
Sta. 6+27.96  
TC 99.53  
-0.18%

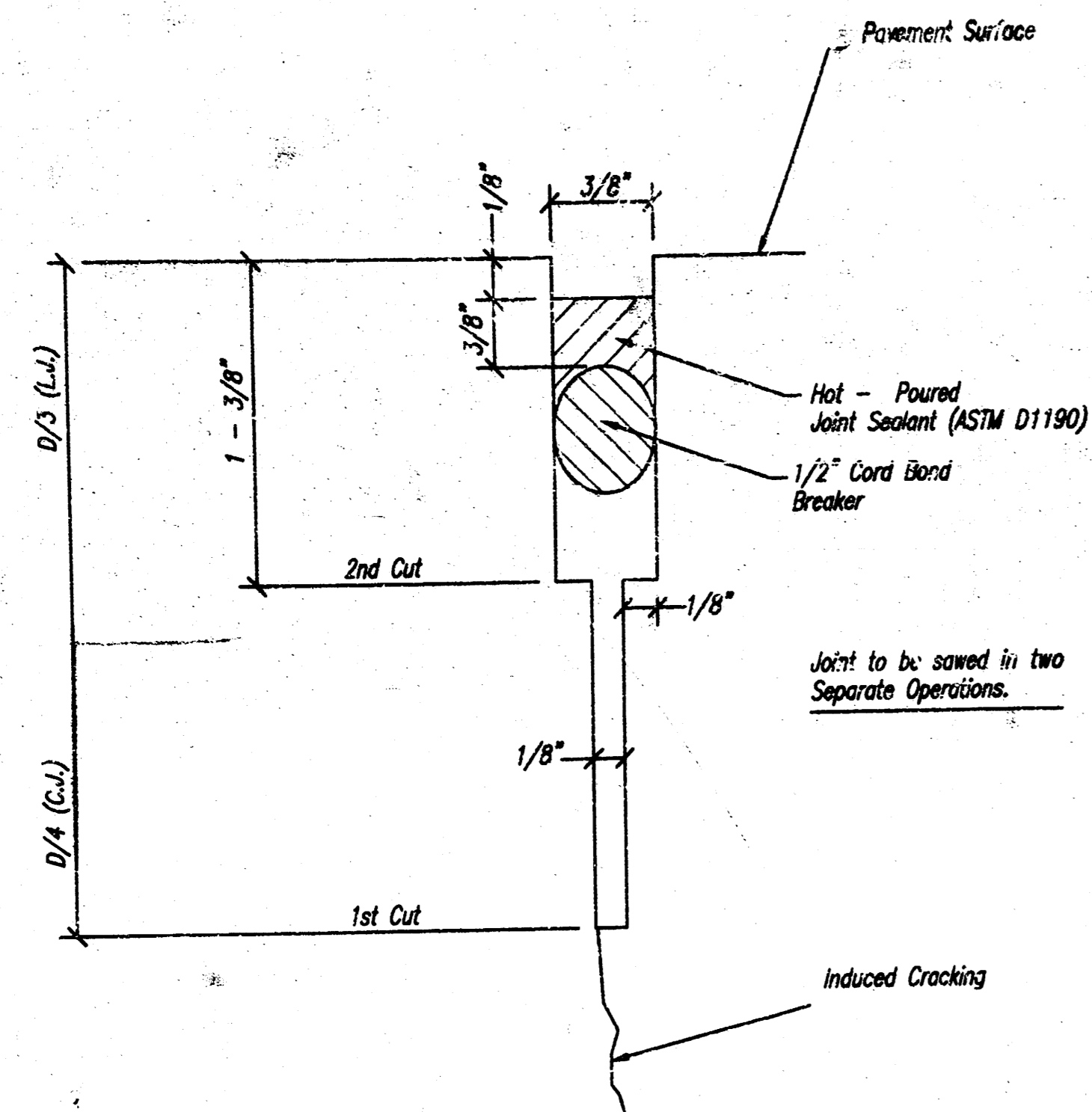
- Notes:**
1. Grade gravel road surface and drainage ditches from Sta. 9+00.00 to Sta. 9+64.50, to drain.
  2. Warp crown from full crown at Sta. 10+50.00 to Sta. 10+99.77.
  3. Contractor shall remove and dispose all existing cross-road pipes and pipes under driveways. This work shall be subsidiary to other bid items.

**Plan Sheet  
27th Street**

SCALE:	APPROVED:	DRAWN BY:	
DATE:		CHECKED:	
PROJECT NO.	97-163	SHEET NO.:	5 OF 13

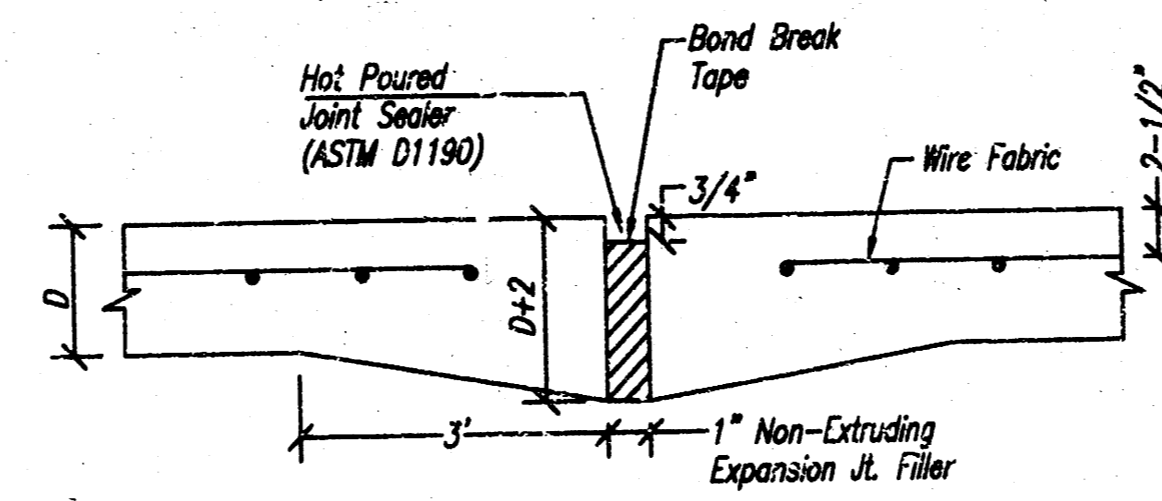
**MUNICIPAL ENGINEERS**  
254-LAURA, SUITE 201  
WICHITA, KANSAS 67211  
316-262-3842





DETAIL A

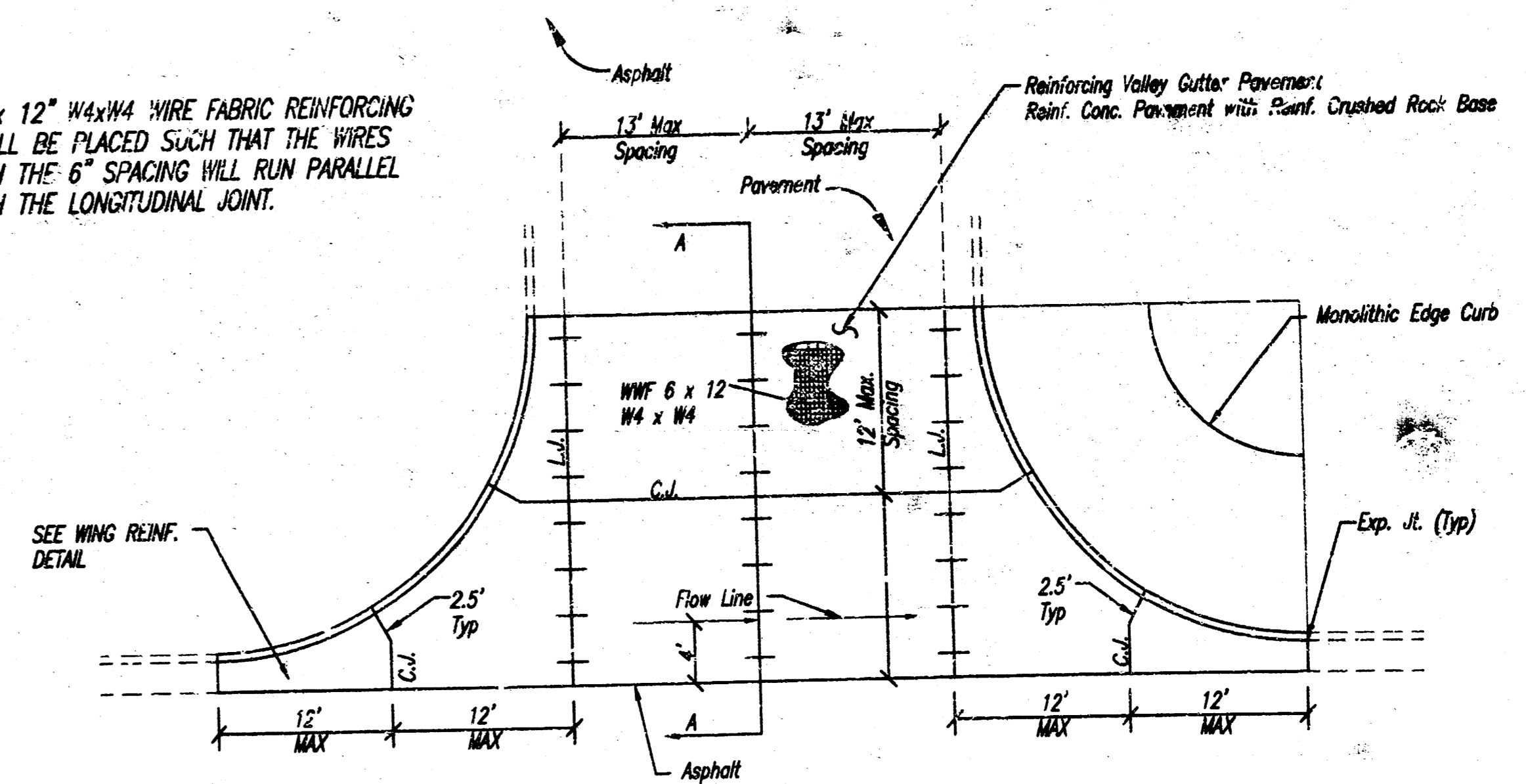
**NOTE:**  
All concrete valley gutter reinforcement shall be adequately supported by bar chairs in the required position unless approved otherwise by the Engineer.



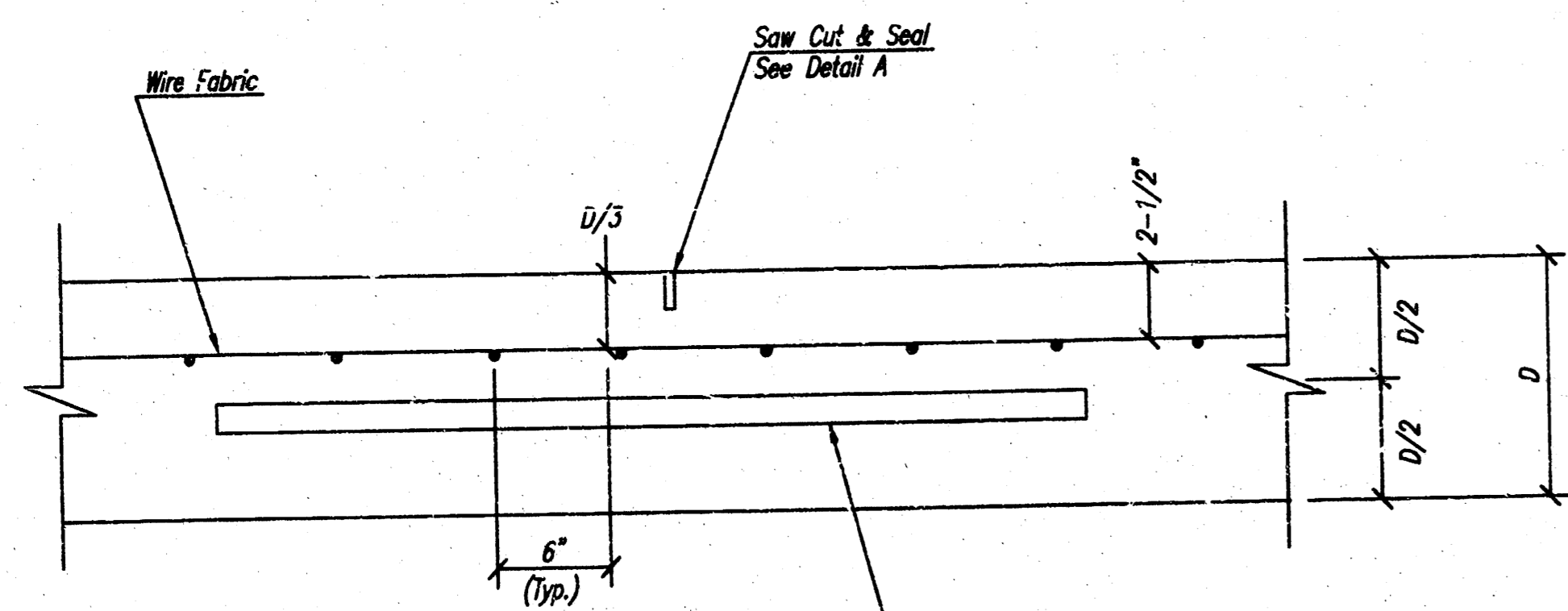
EXPANSION JOINT

Note:  
Extra thickness to be subsidiary to Price of Sq. Yds. Pavement.

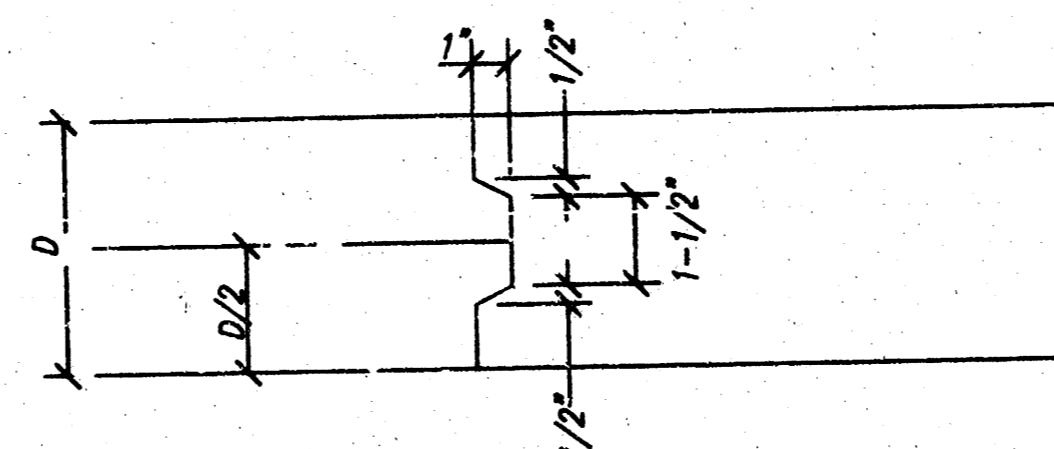
6" x 12" W4XW4 WIRE FABRIC REINFORCING SHALL BE PLACED SUCH THAT THE WIRES WITH THE 6" SPACING WILL RUN PARALLEL WITH THE LONGITUDINAL JOINT.



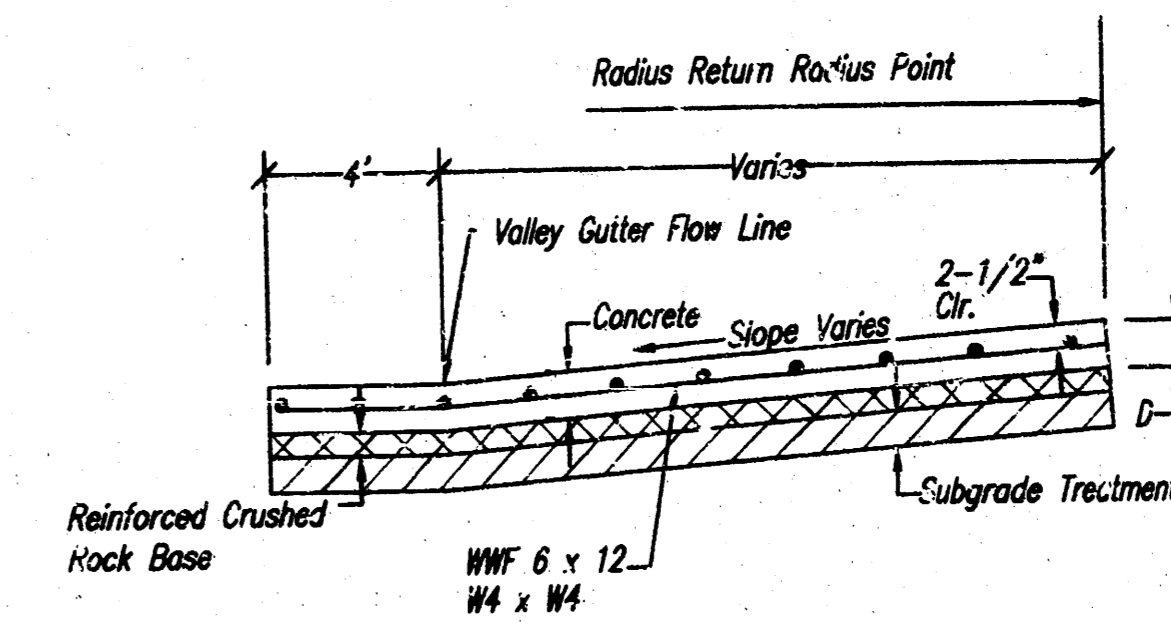
PLAN REINFORCED VALLEY GUTTER



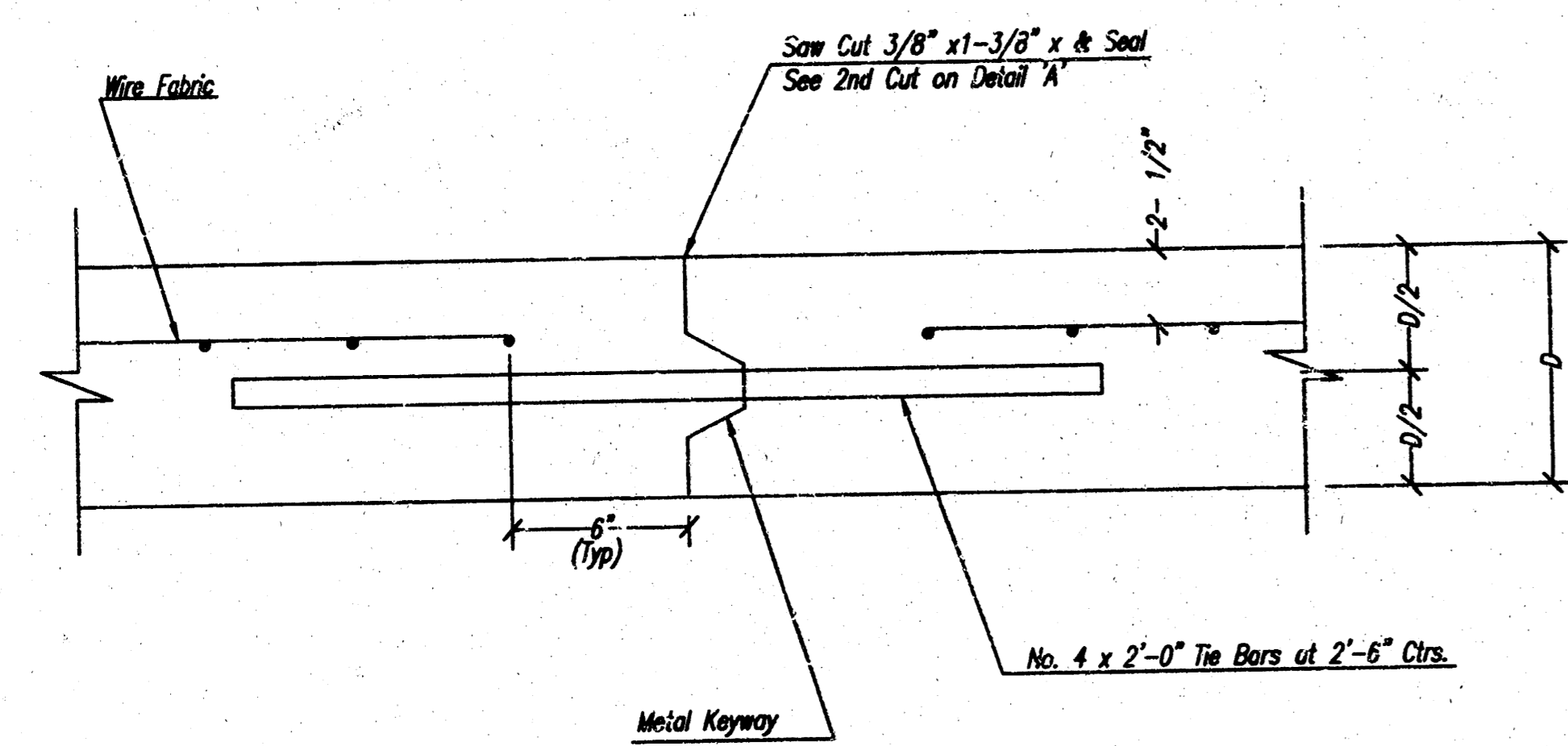
LONGITUDINAL JOINT DETAIL (L.J.)



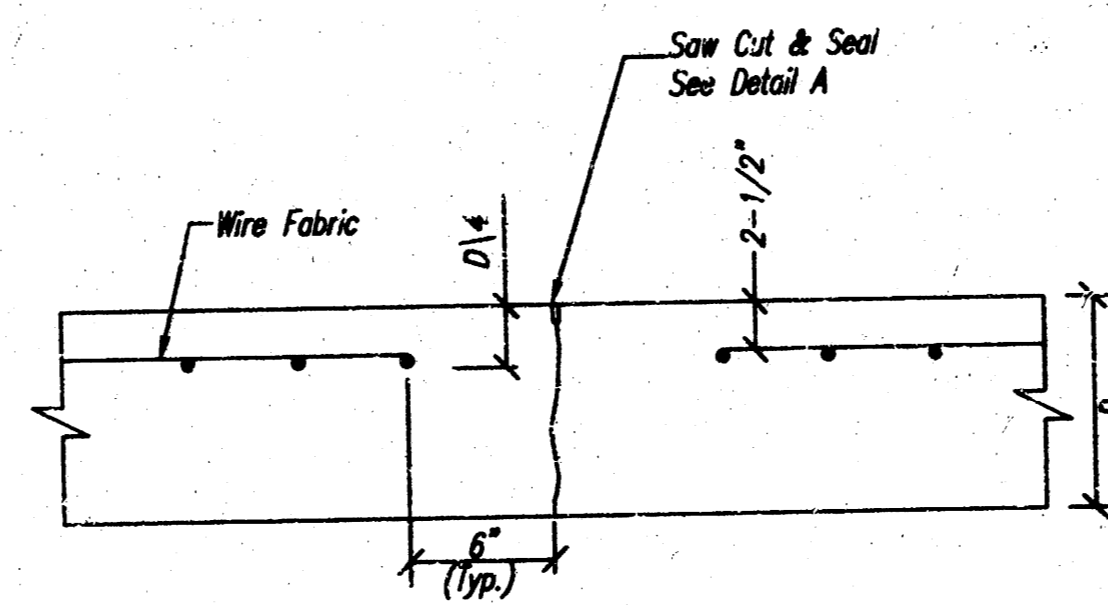
KEYWAY DETAIL



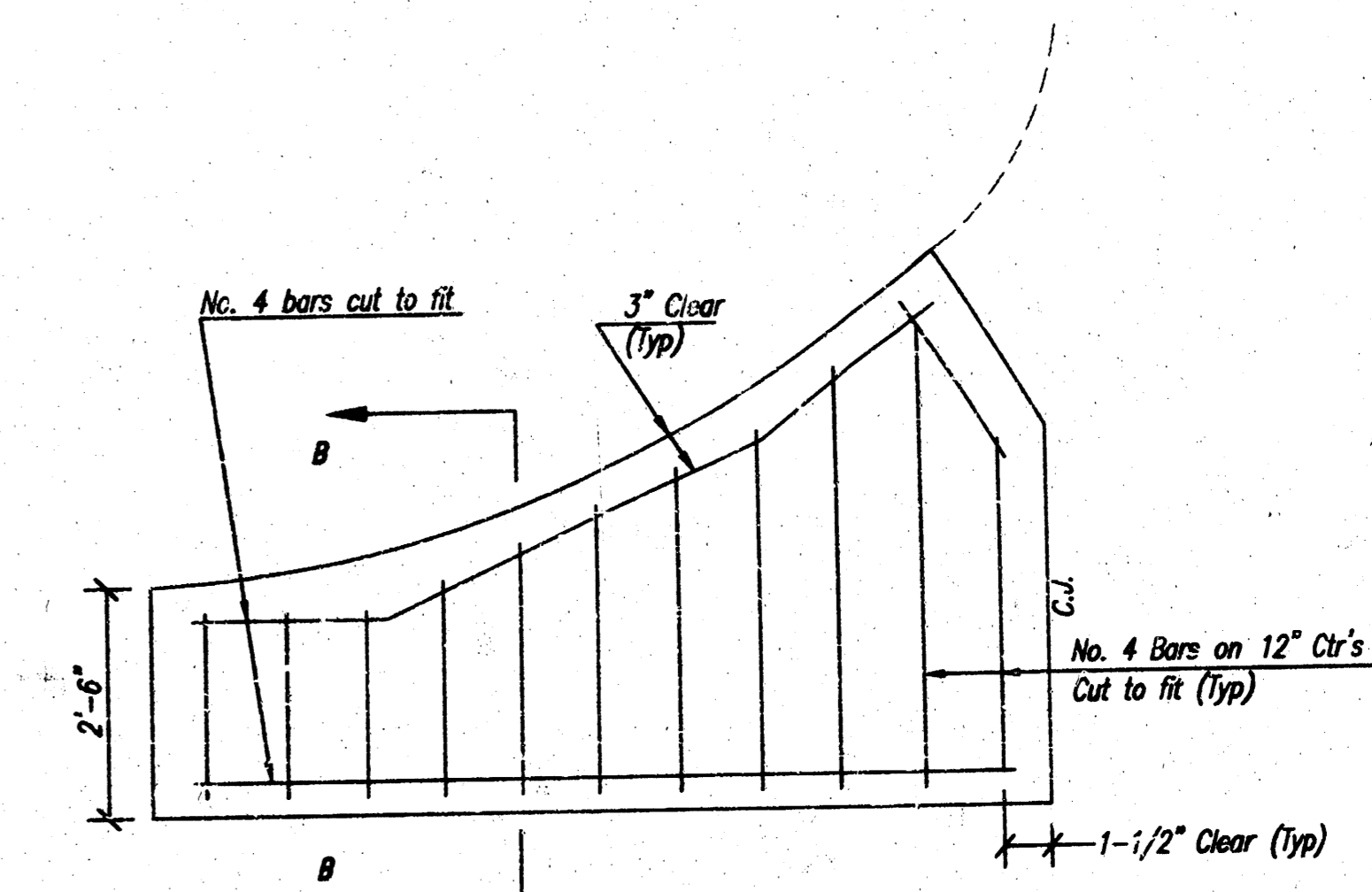
SECTION A-A



OPTIONAL LONGITUDINAL CONSTRUCTION JOINT (L.J.)  
(Alternate L.J.)

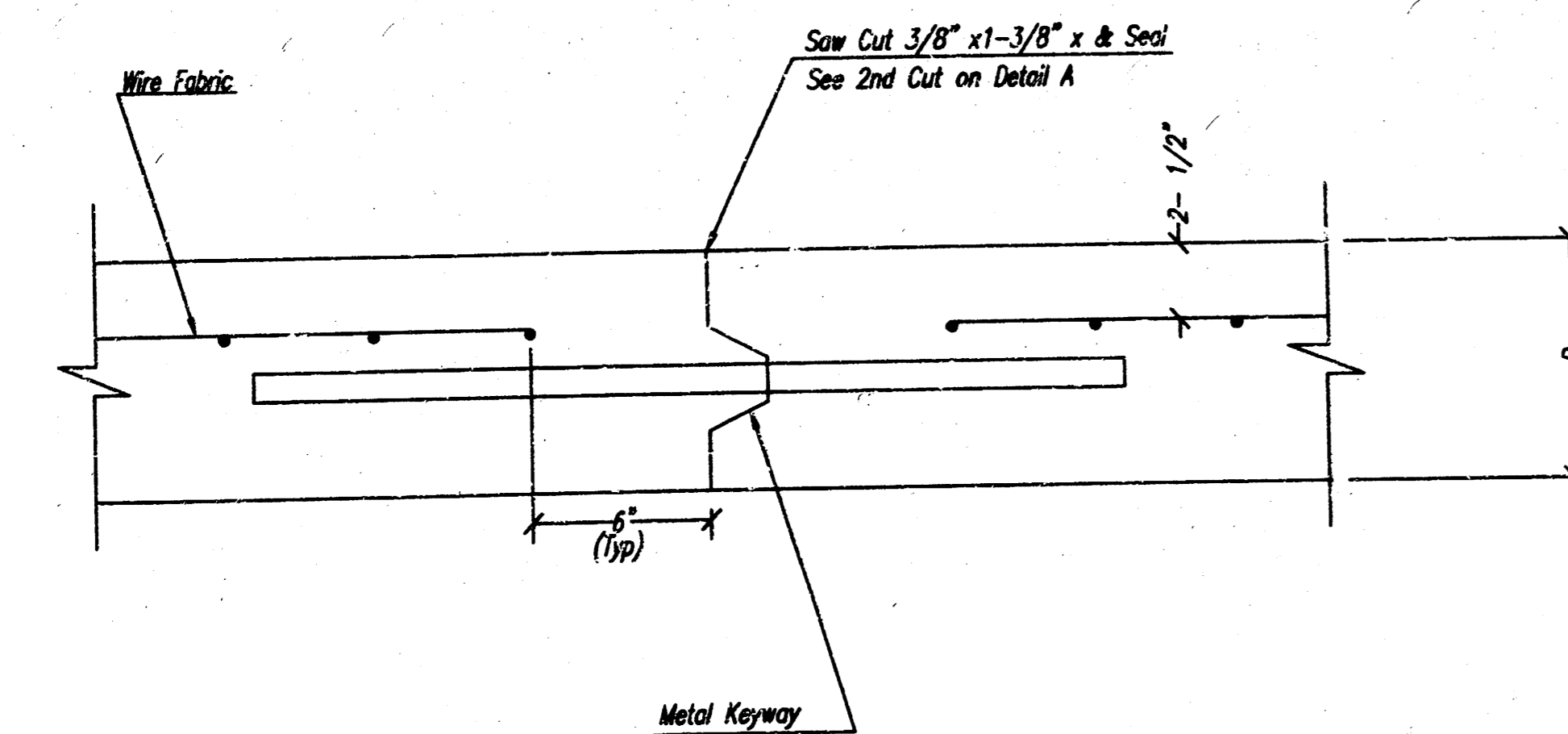


CONTRACTION JOINT DETAIL (C.J.)

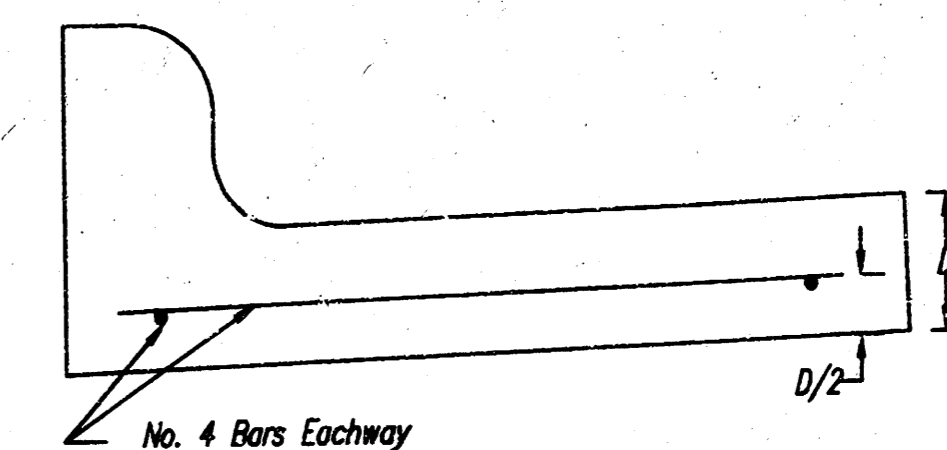


WING REINFORCING DETAIL

Note: Omit wire fabric reinforcing in this section.



OPTIONAL CONTRACTION CONSTRUCTION JOINT (C.J.)  
(Alternate C.J.)

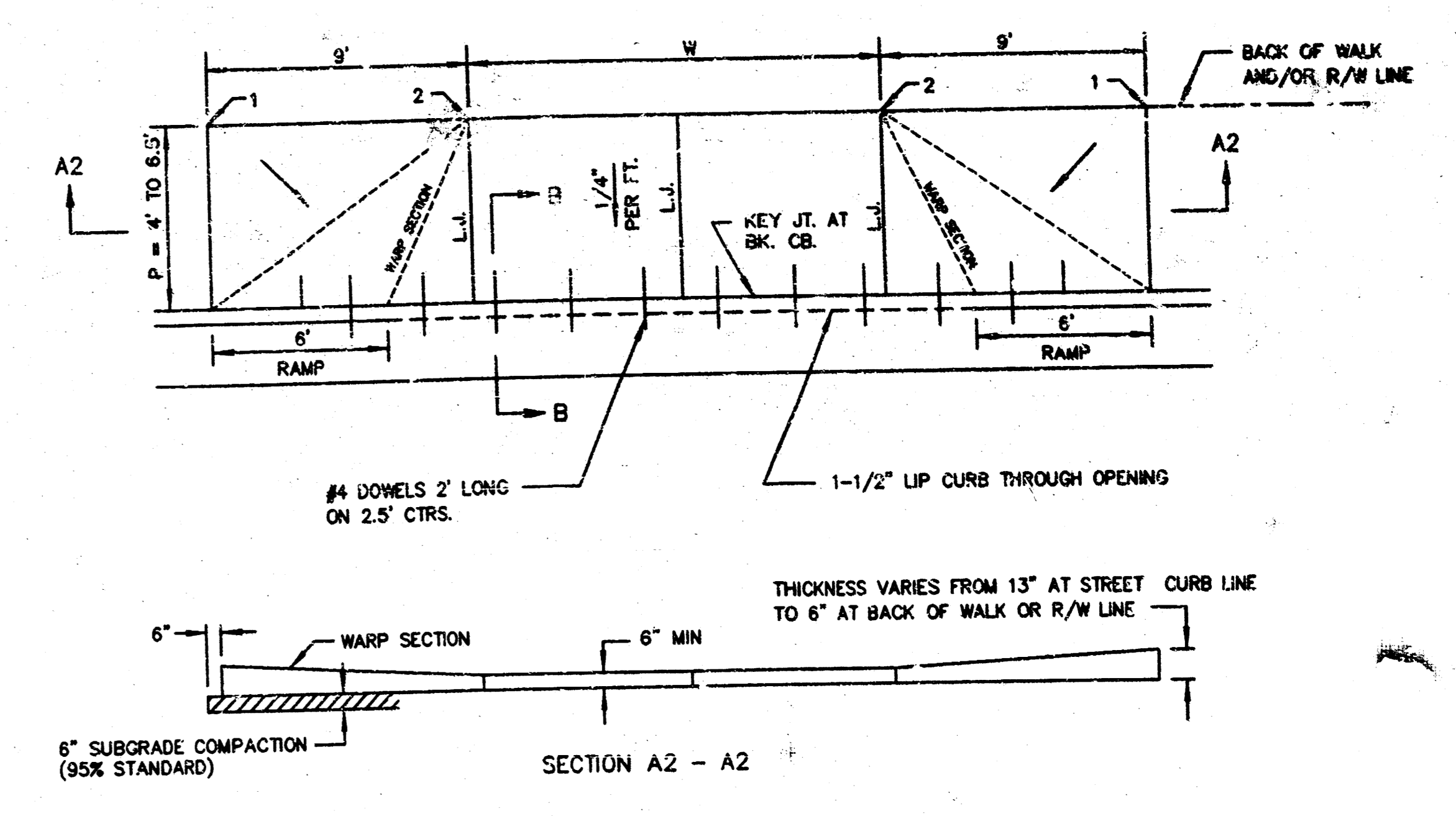
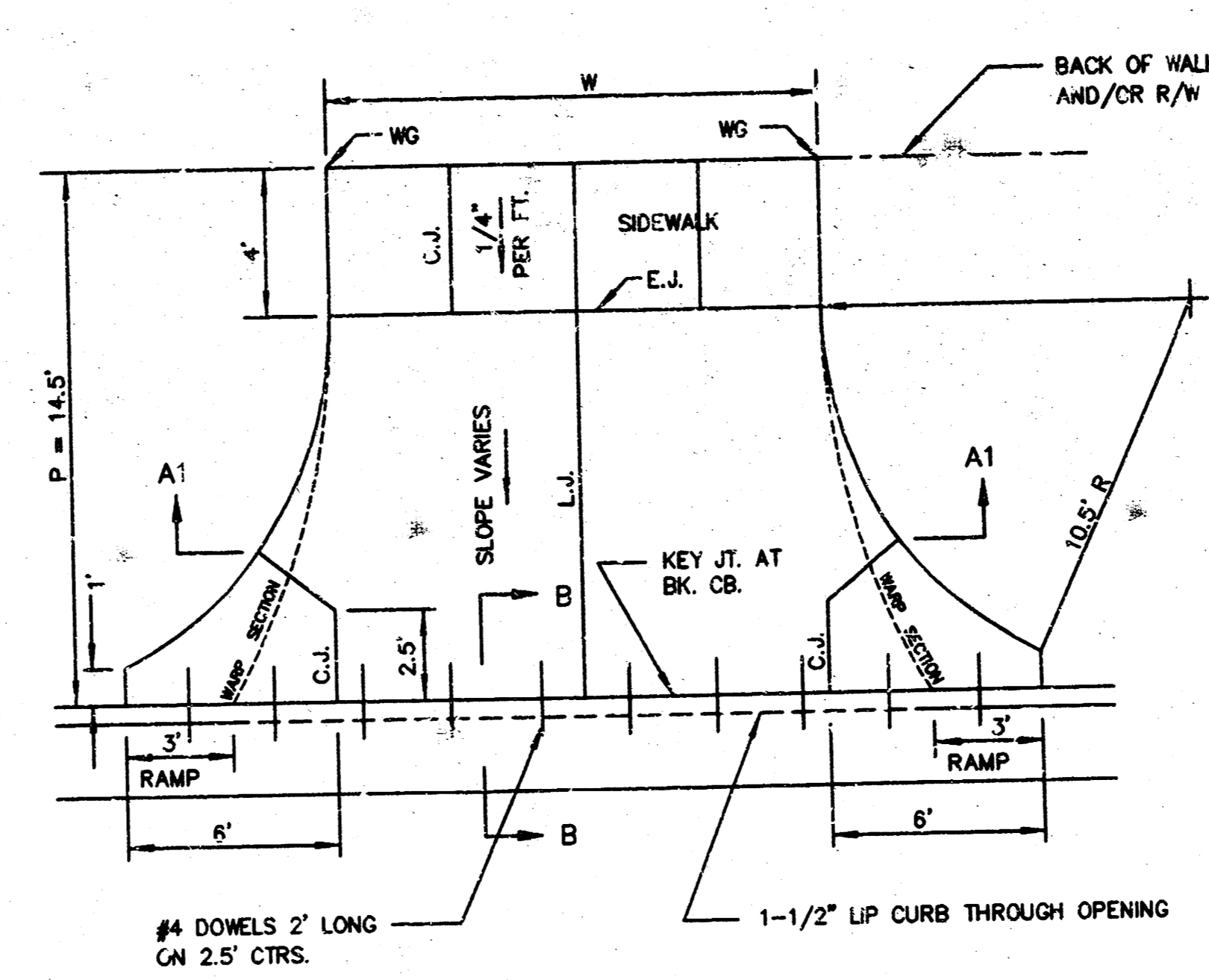
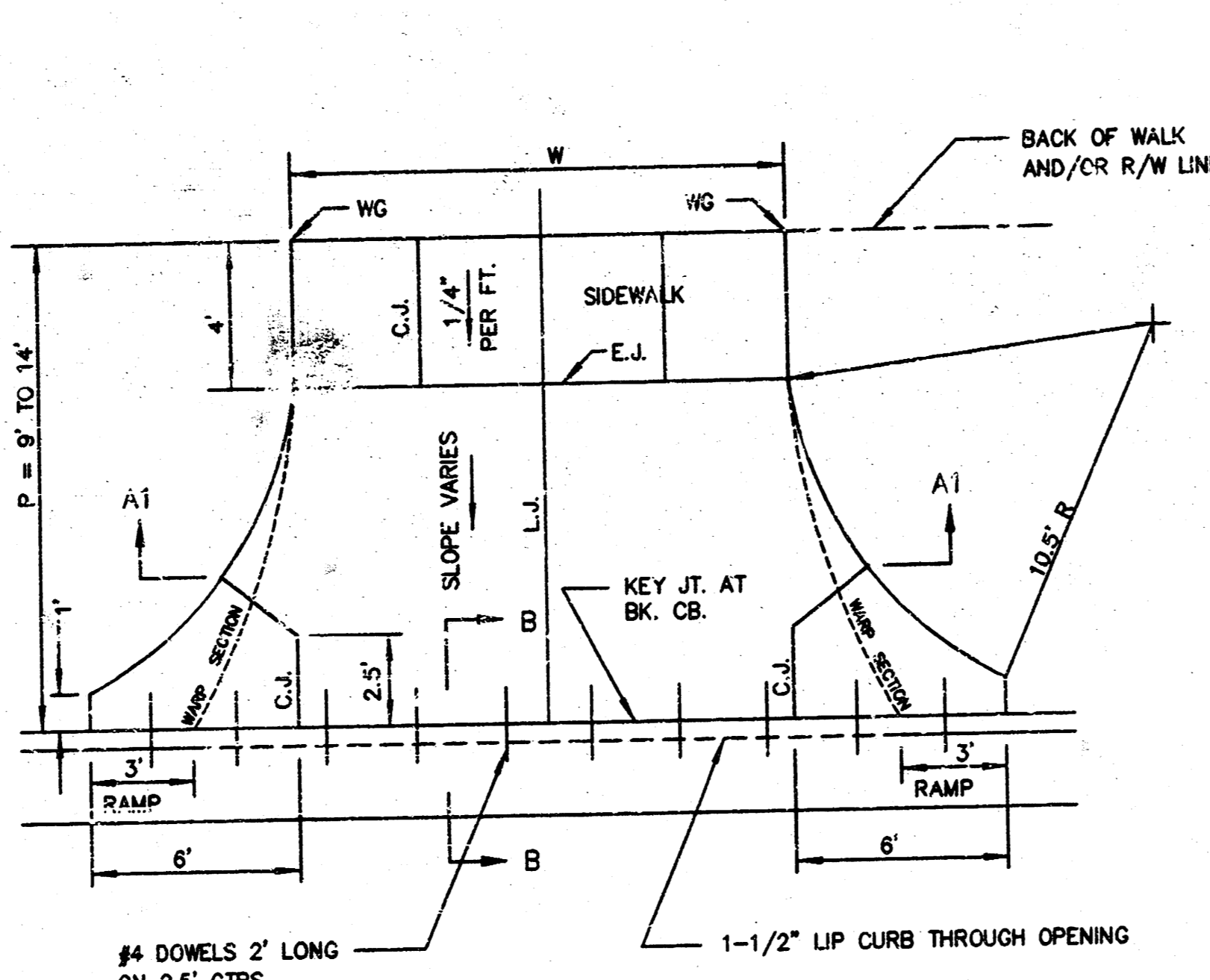
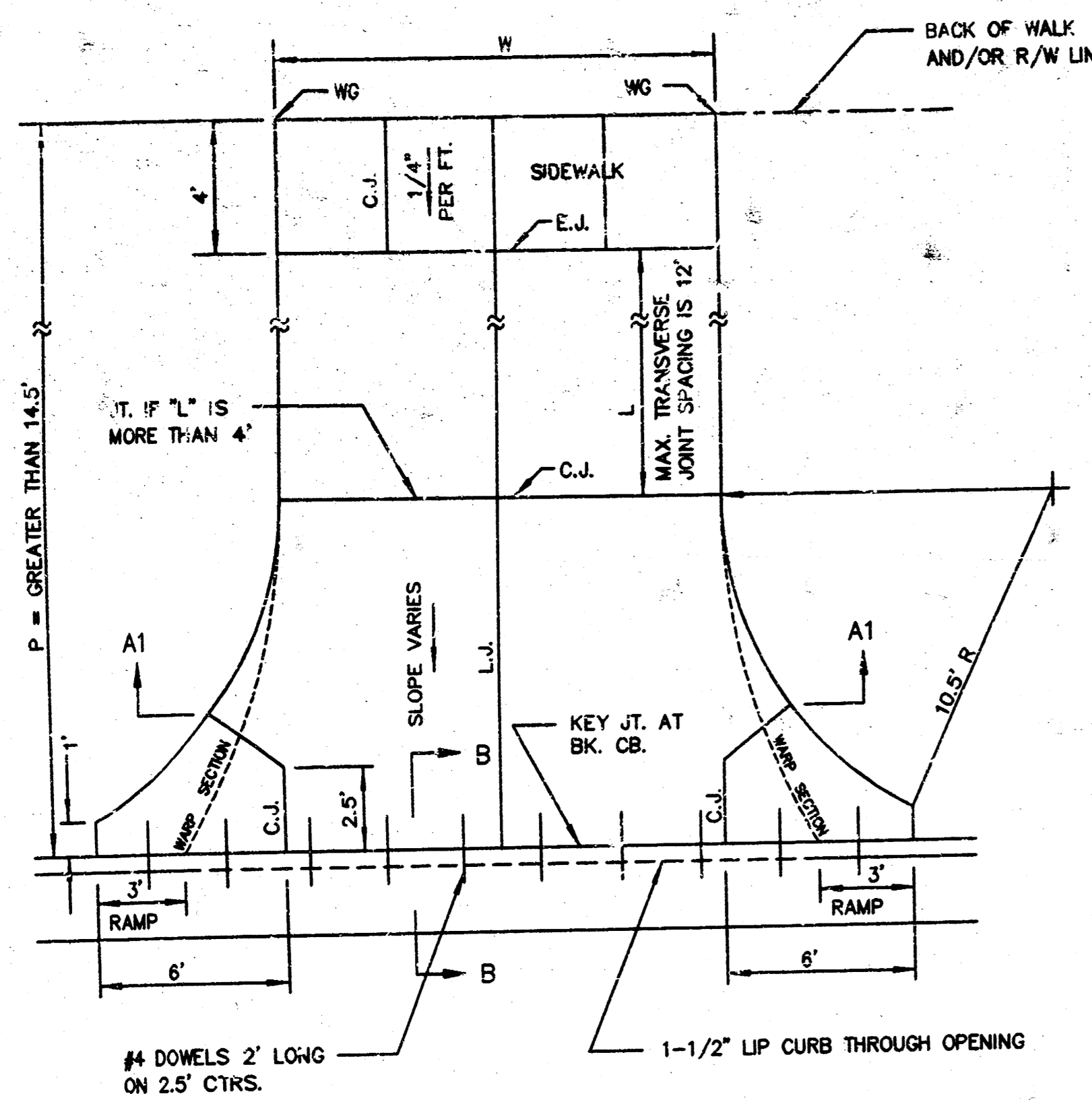


SECTION B-B

D = 5"

VALLEY GUTTER DETAILS

**LEGEND**  
C.J. Identifies Contraction Joint  
L.J. Identifies Longitudinal Joint



SECTION A1 - A1

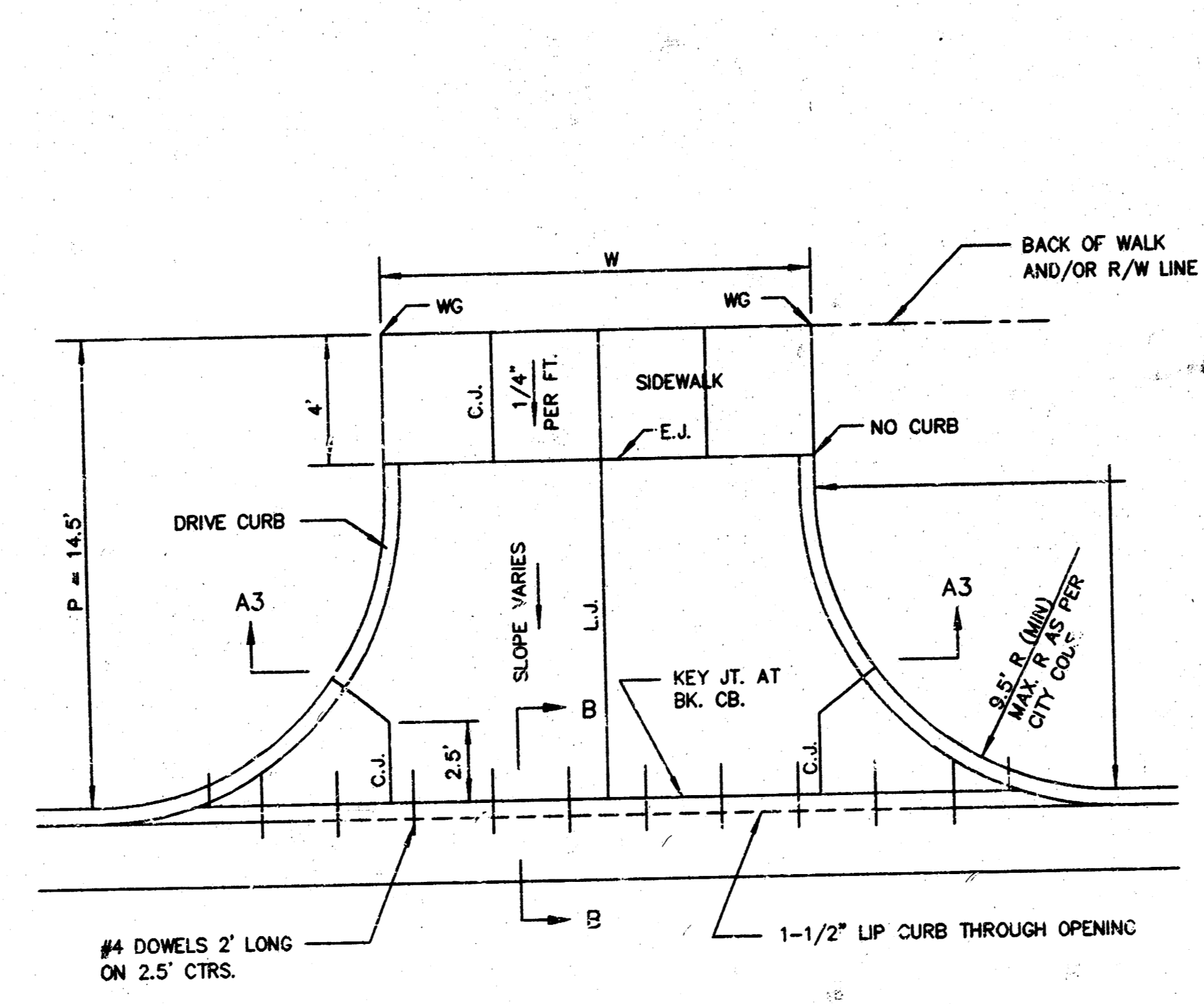
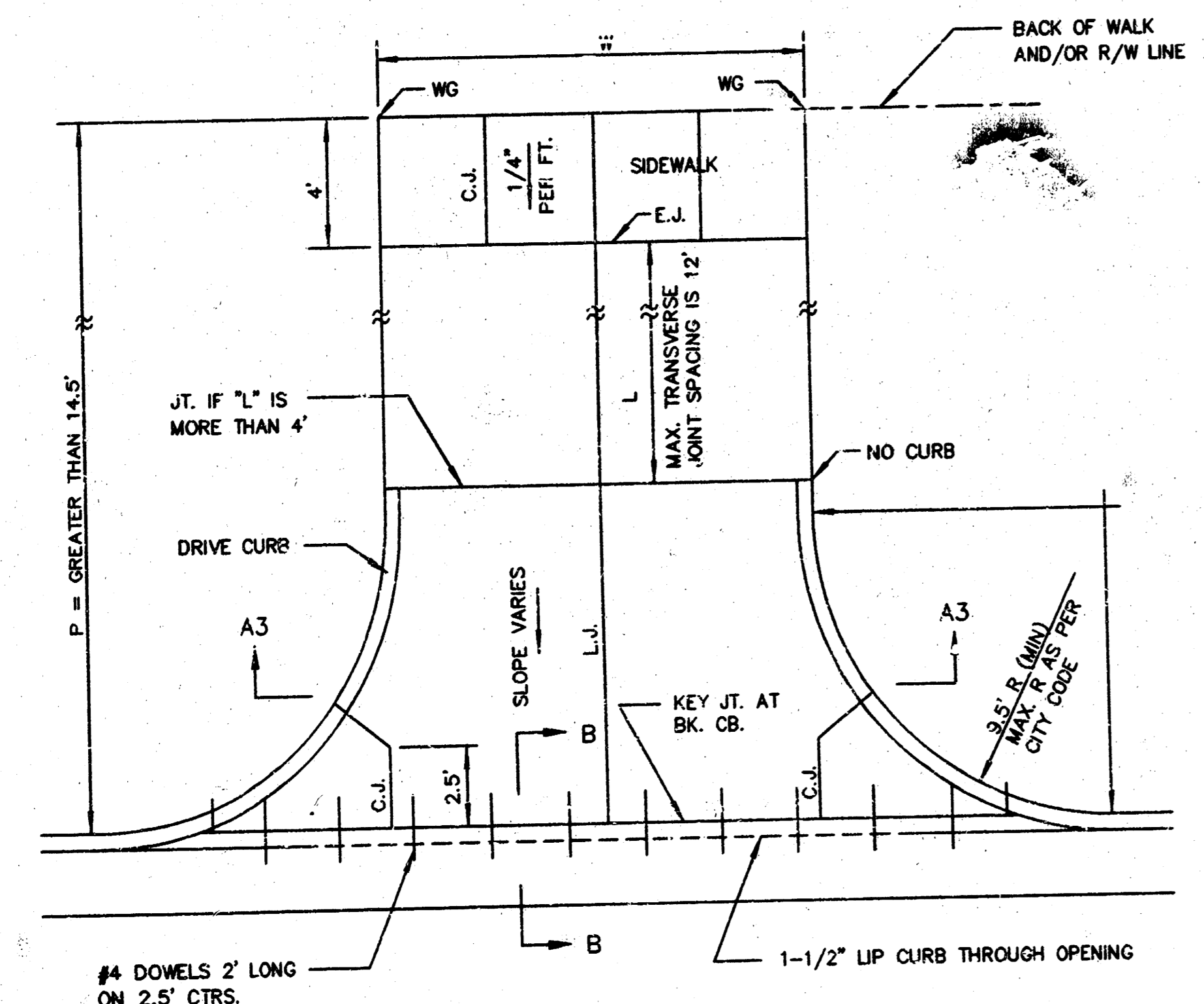
6" SUBGRADE COMPACTION (95% STANDARD)

WARP SECTION 6" MIN

THICKNESS VARIES FROM 13" AT STREET CURB LINE TO 6" AT END OF 10.5' 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 OR BELOW TOP OF FULL CURB	0.27'	0.27'	0.32'	0.37'	0.52'	0.80'	1.35'	1.85'	2.35'	2.85'	3.35'	3.85'	4.35'
OPTIMUM MAX. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.27'	0.27'	0.32'	0.37'	0.52'	0.62'	0.96'	1.22'	1.48'	1.74'	2.00'	2.26'	2.52'
OPTIMUM MIN. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.19'	0.21'	0.23'	0.25'	0.30'	0.30'	0.42'	0.52'	0.62'	0.72'	0.82'	0.92'	1.02'
ABSOLUTE MIN. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	-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)



SECTION A3 - A3

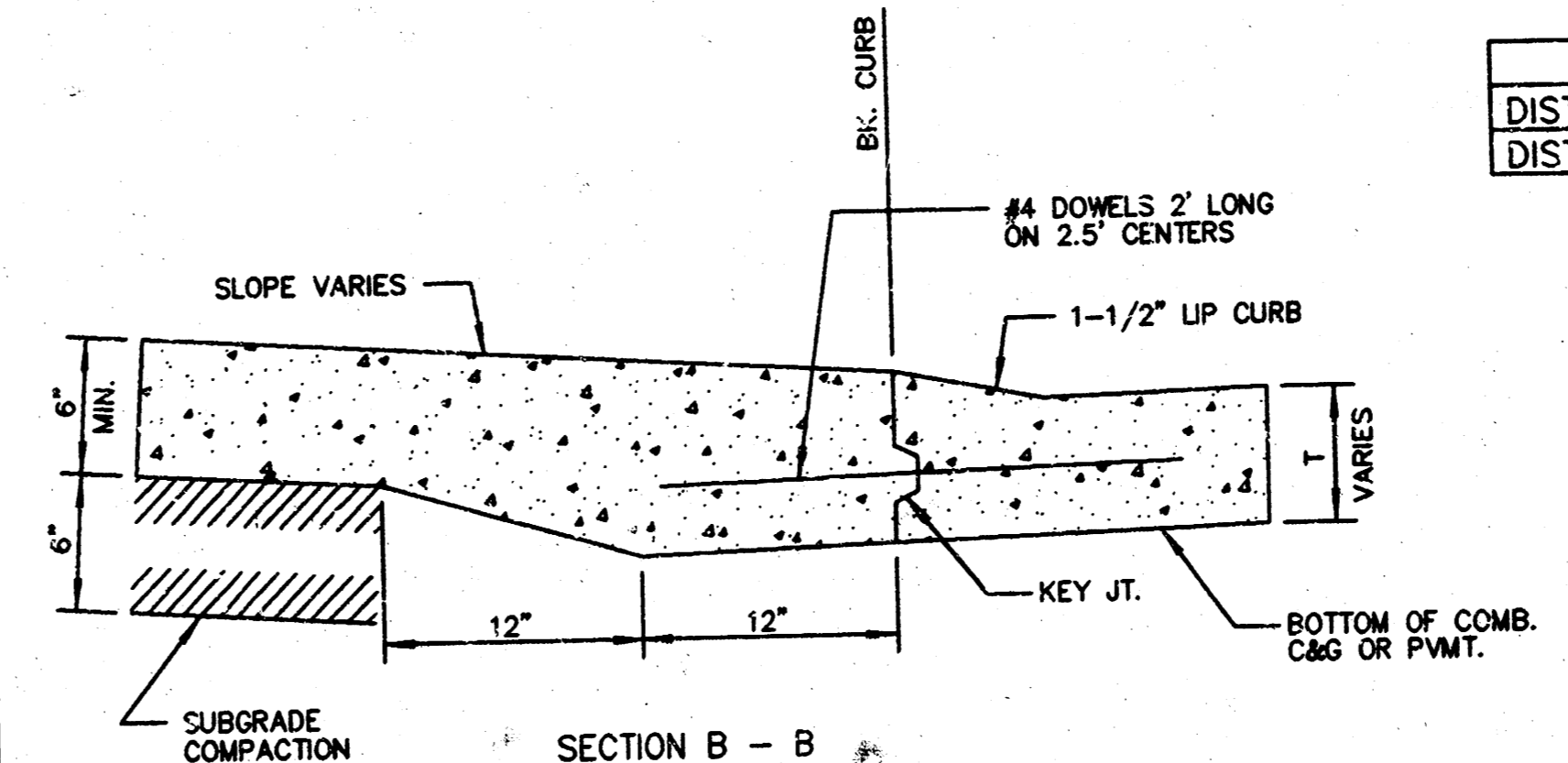
6" SUBGRADE COMPACTION (95% STANDARD)

WARP SECTION 6" MIN

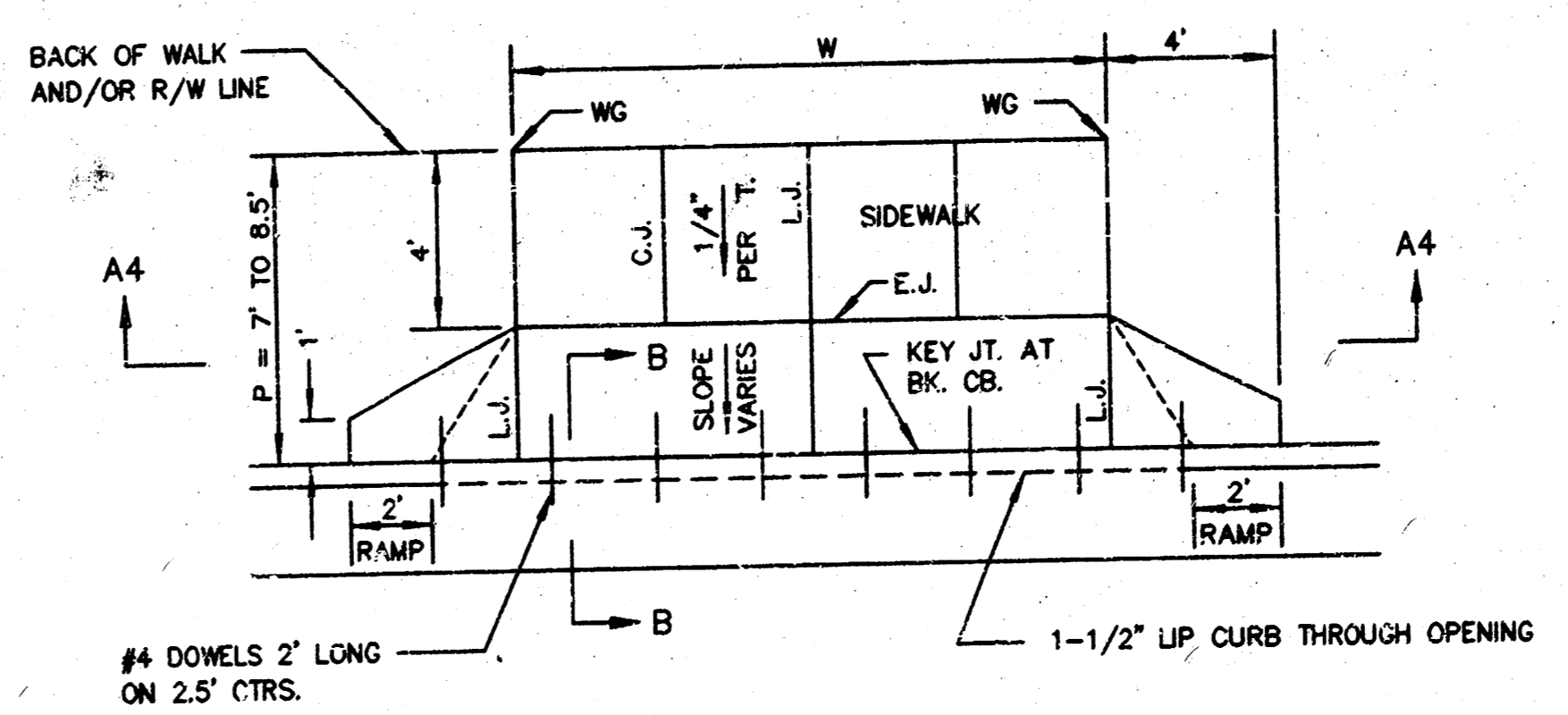
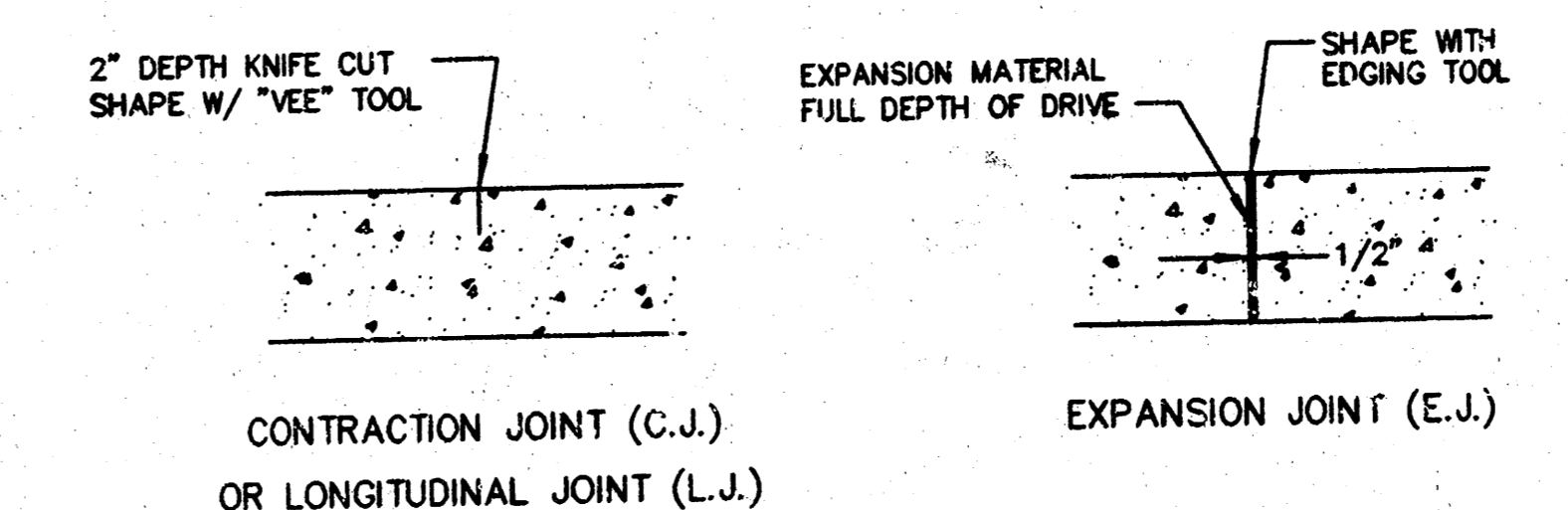
CURB HEIGHT VARIES FROM FULL HEIGHT AT STREET CURB LINE TO NO CURB AS INDICATED

PARKING WIDTH "P"	14.5'	20'	25'	30'	35'	40'	45'	50'
ABSOLUTE MAX. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.72'	1.27'	1.77'	2.27'	2.77'	3.27'	3.77'	4.27'
OPTIMUM MAX. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.70'	1.04'	1.30'	1.56'	1.82'	2.08'	2.34'	2.60'
OPTIMUM MIN. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.30'	0.42'	0.52'	0.62'	0.72'	0.82'	0.92'	1.02'
ABSOLUTE MIN. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	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 A4 - A4

6" SUBGRADE COMPACTION (95% STANDARD)

WARP SECTION 6" MIN

CURB HEIGHT VARIES FROM FULL HEIGHT AT STREET CURB LINE TO NO CURB AS INDICATED

PARKING WIDTH "P"	7'	7.5'	8'	8.5'
ABSOLUTE MAX. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	-0.08'	0.02'	0.18'	0.22'
OPTIMUM MAX. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	-0.08'	0.02'	0.18'	0.22'
OPTIMUM MIN. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	-0.15'	-0.16'	-0.17'	-0.17'
ABSOLUTE MIN. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	-0.25'	-0.20'	-0.20'	-0.20'

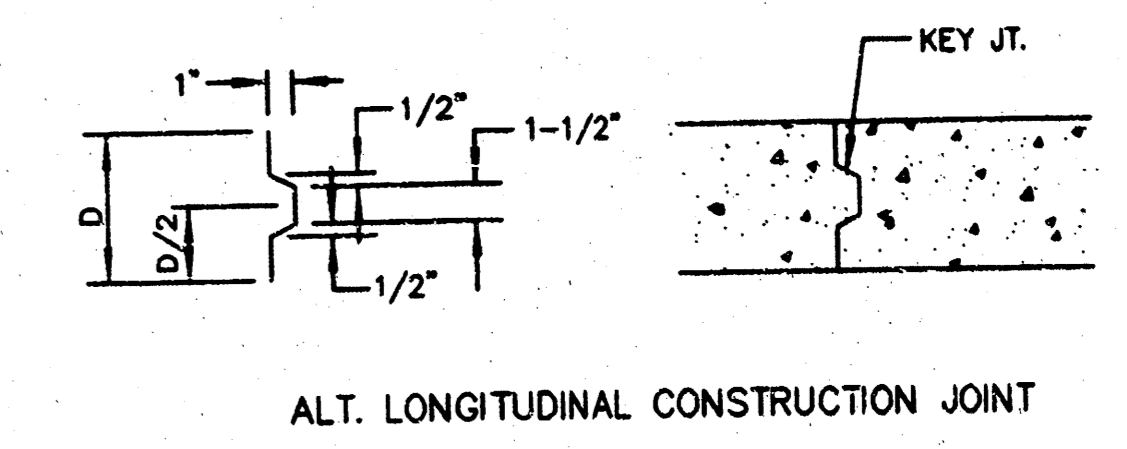
FULL RAMP DRIVE (P = 7.0' TO 8.5')

SECTION A2 - A2

6" SUBGRADE COMPACTION (95% STANDARD)

PARKING WIDTH "P"	4'	4.5'	5'	5.5'	6'	6.5'
DIST. OF PT. "1" ABOVE TOP OF FULL CURB	-0.08'	0.02'	0.18'	0.22'	0.18'	0.22'
DIST. OF PT. "2" BELOW TOP OF FULL CURB	-0.08'	0.02'	0.18'	0.22'	0.18'	0.22'

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



ALT. LONGITUDINAL CONSTRUCTION JOINT

GENERAL NOTES

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

THE CITY OF WICHITA

CITY ENGINEER'S OFFICE  
CITY HALL - SEVENTH FLOOR  
265 NORTH MAIN STREET  
WICHITA, KANSAS 67202  
(316) 266-2200  
(316) 266-1116 FAX

**STANDARD DRIVE ENTRANCES**

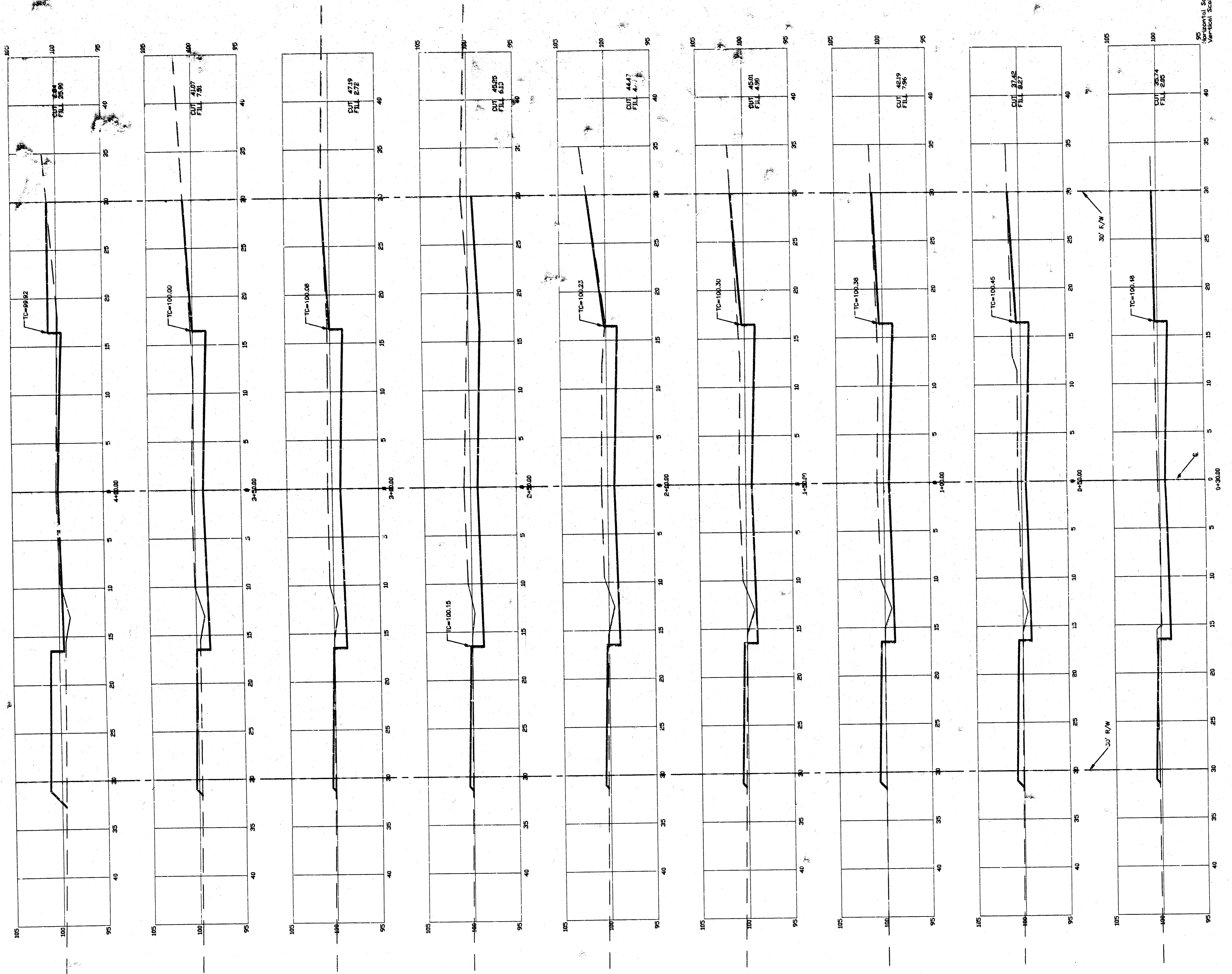
**FULL HEIGHT CURB**

M. E. LINDEBAK P.E. - CITY ENGINEER

PROJECT NUMBER: \_\_\_\_\_ INDEX CODE: \_\_\_\_\_

DATE: MAR 96

SHT 8 OF 15

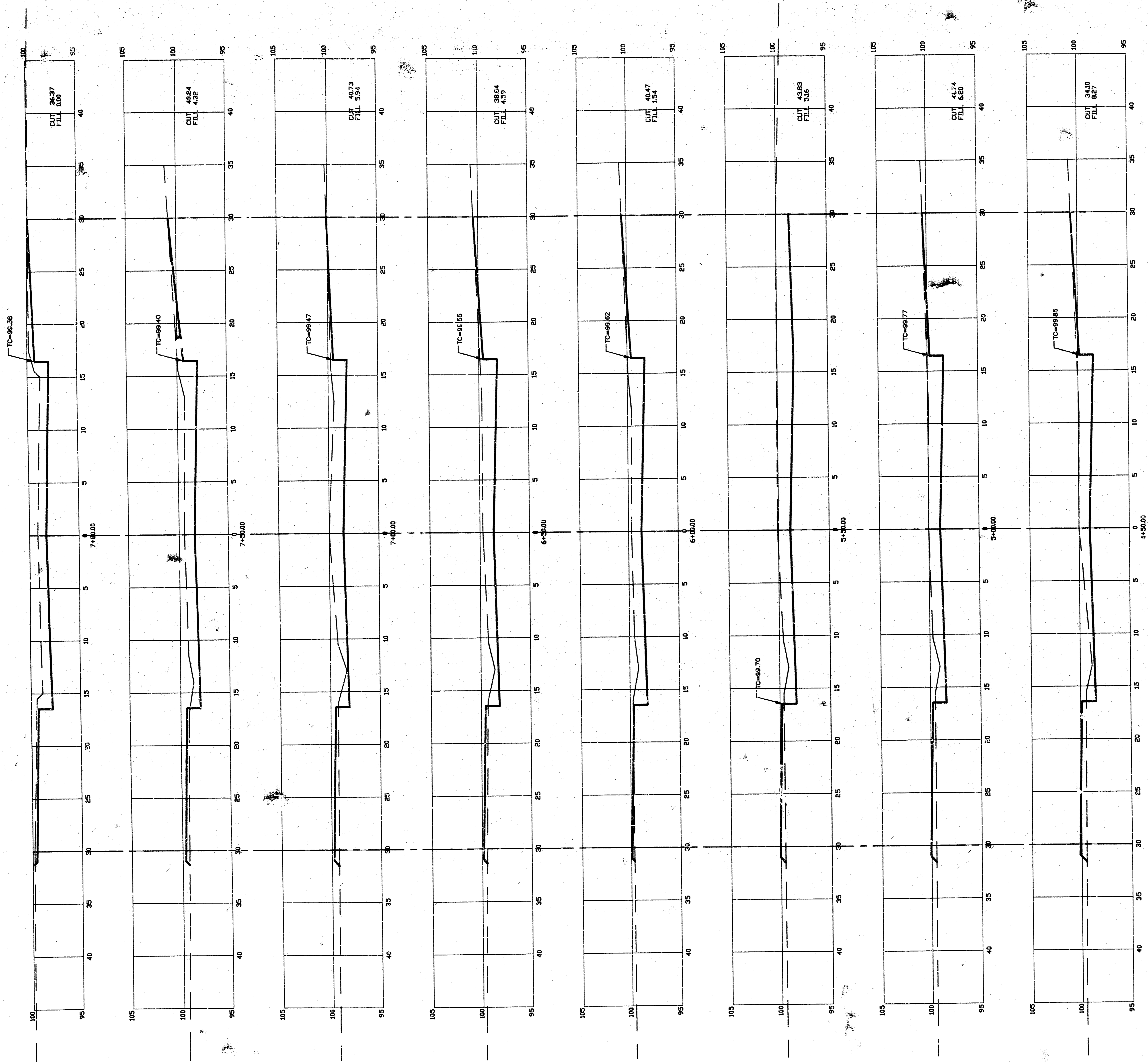


Wildwood Lane

**Cross Sections  
Wildwood Lane**

SCALE	APPROVED	DRAWN BY	
DATE		CHECKED	
PROJECT NO	97-163	SHEET NO.	10 OF 13

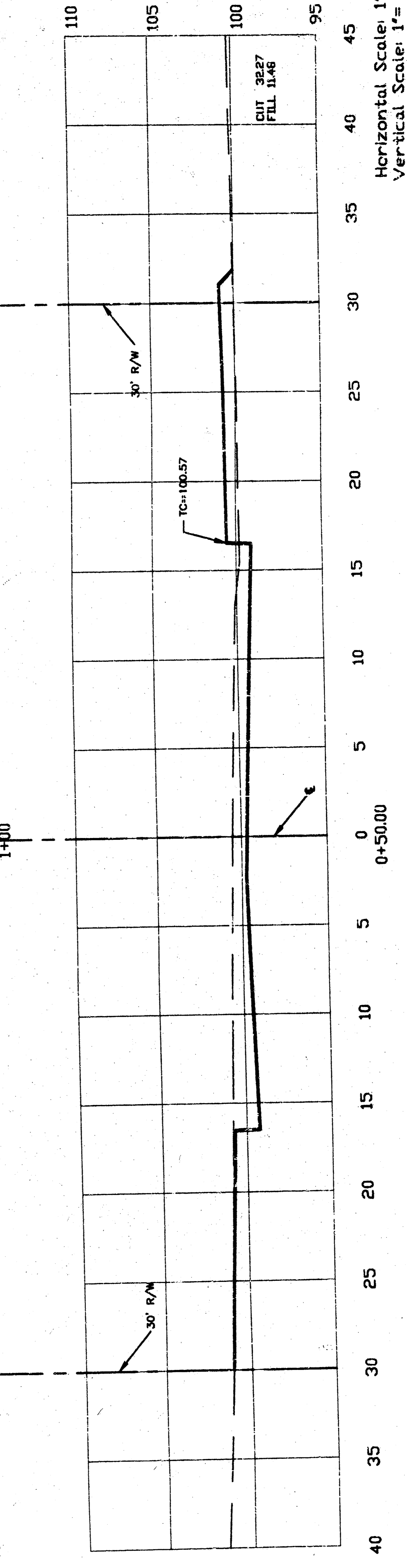
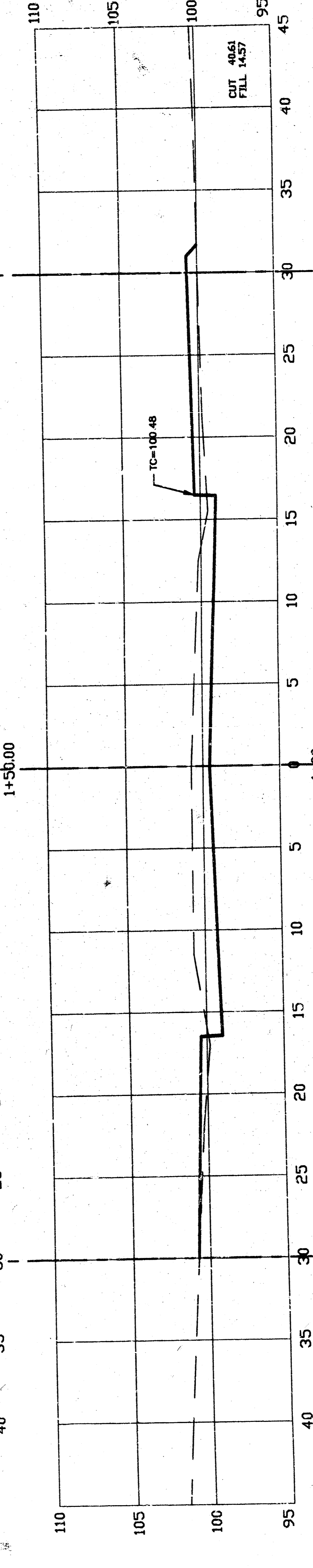
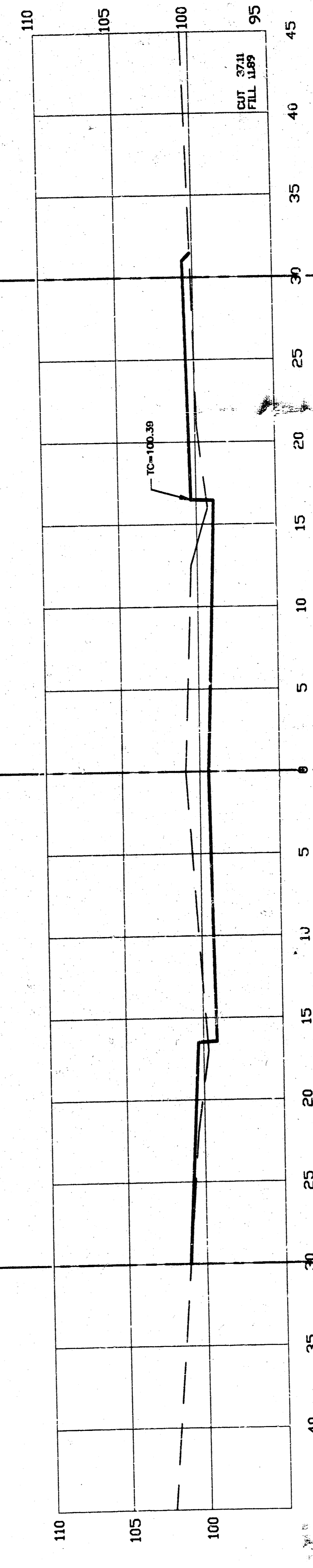
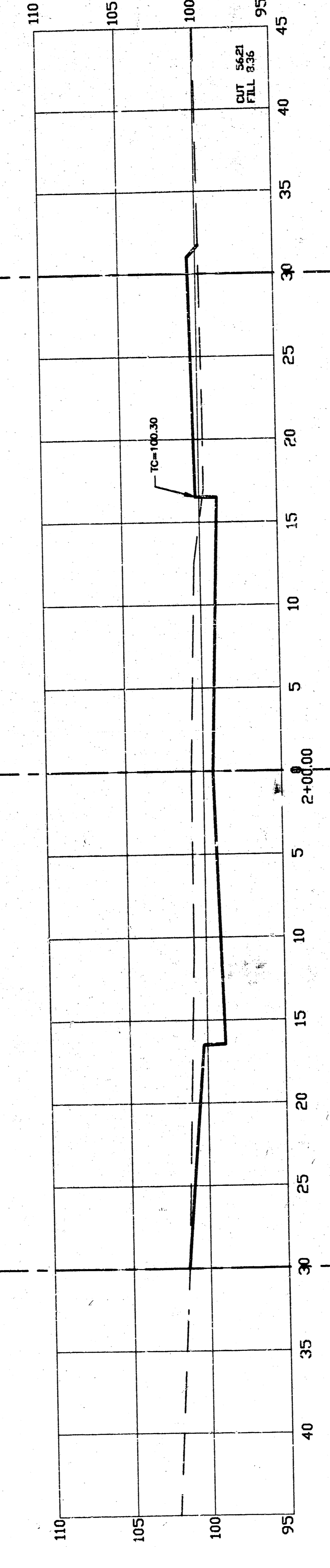
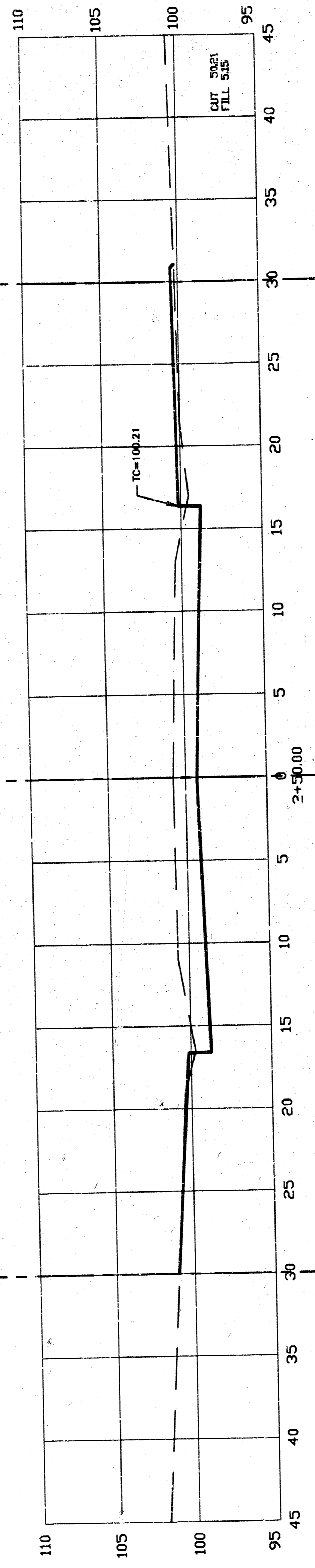
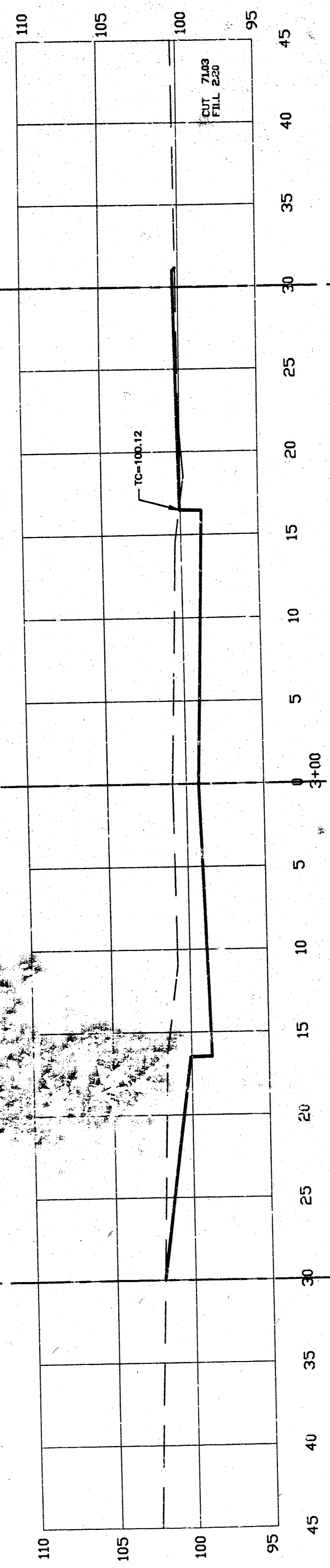
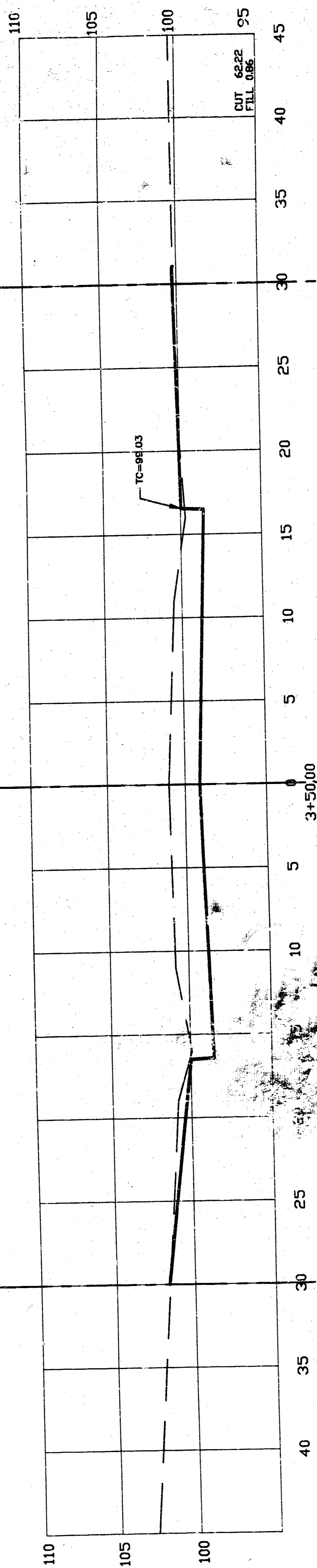
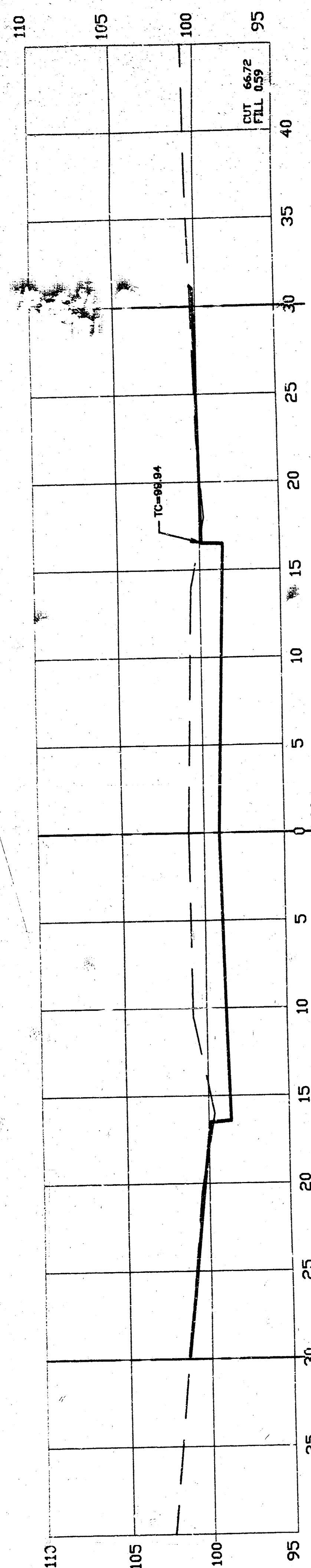
**MUNICIPAL ENGINEERS**  
254-LAURA, SUITE 201  
WICHITA, KANSAS 67211  
316-262-3842



**Cross Sections  
Wildwood Lane**

SCALE:	APPROVED:	DRAWN BY:
DATE:		CHECKED:
PROJECT NO. 97-163		SHEET NO. 11 OF 13

**MUNICIPAL ENGINEERS**  
 254-LAURA, SUITE 201  
 WICHITA, KANSAS 67211  
 316-262-3842



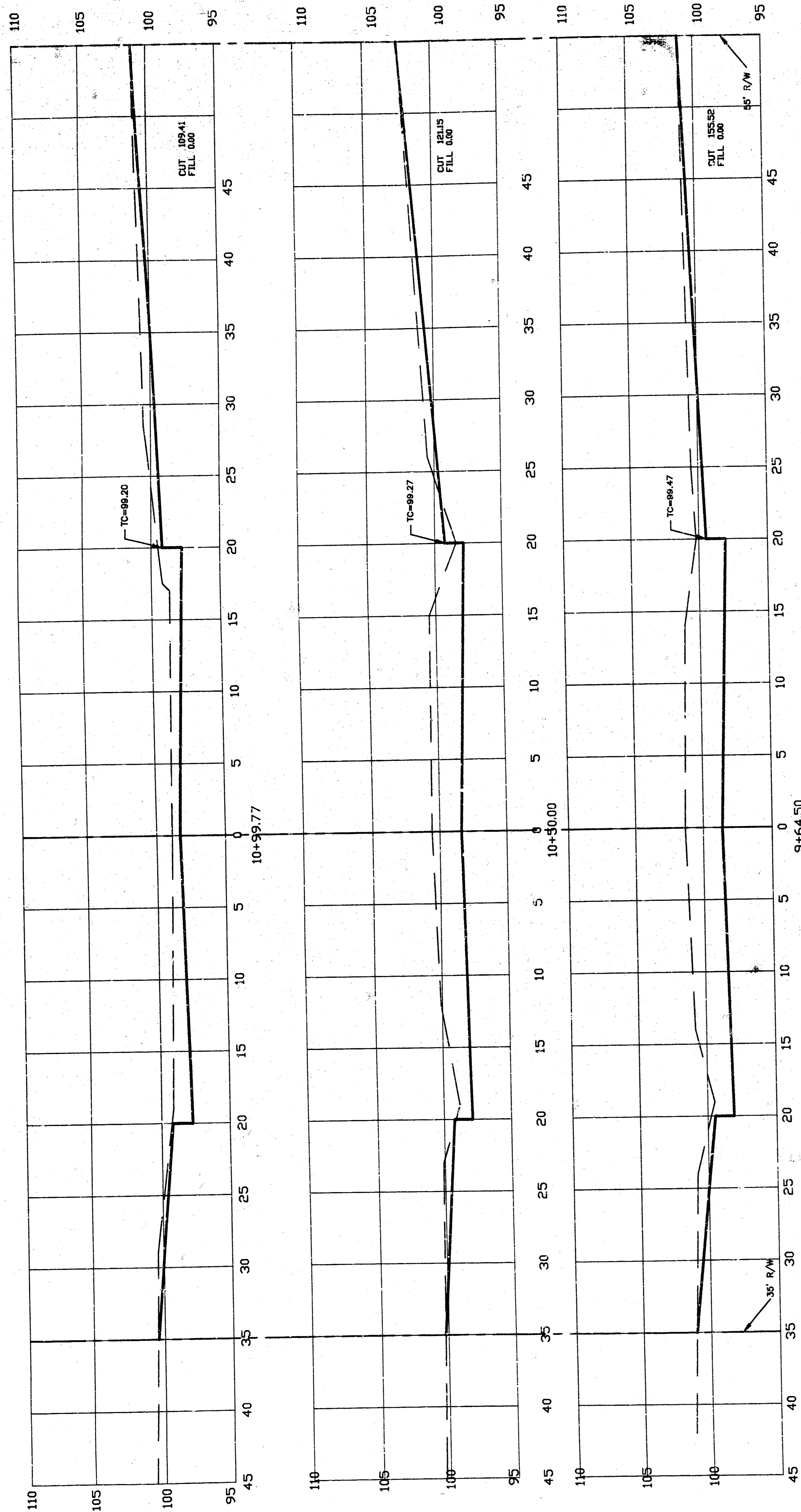
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Vertical Scale: 1" = 5'

ST. PAUL AVE.

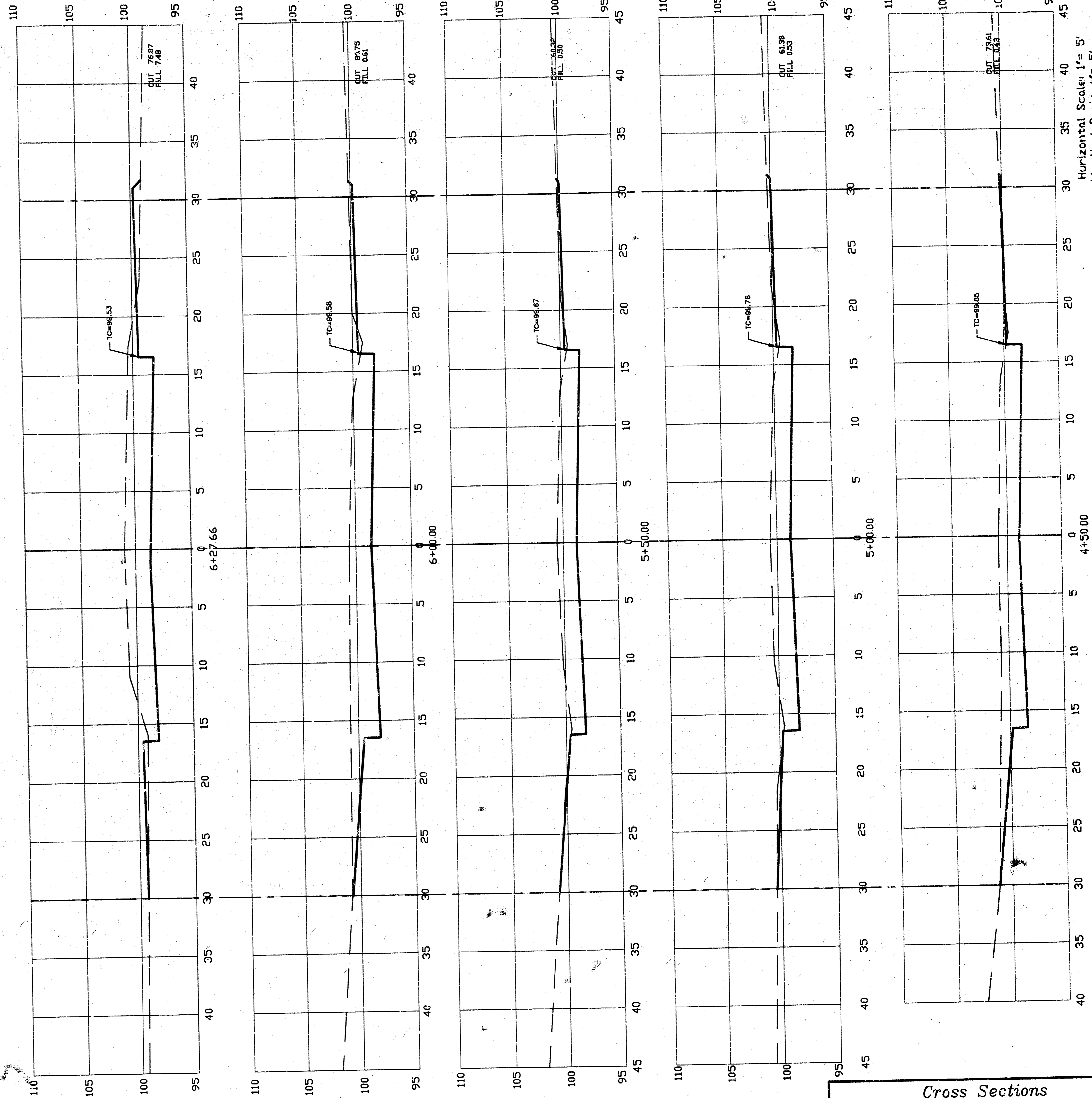
Cross Sections  
St. Paul Ave.

SCALE:	APPROVED:	DRAWN BY:
DATE:	CHECKED:	CHECKED:
PROJECT NO: 97-163		SHEET NO. 12 OF 13

**MUNICIPAL ENGINEERS**  
264-LAURA, SUITE 201  
WICHITA, KANSAS 67211  
316-282-3842



27TH STREET



ST. PAUL AVE.

Horizontal Scale: 1"= 5'  
Vertical Scale: 1"= 5'

Cross Sections  
St. Paul Ave  
& 27 th Street

SCALE:	APPROVED:	DRAWN BY:
DATE:	CHECKED:	
PROJECT NO. 97-163	SHEET NO. 13	OF 13

**MUNICIPAL ENGINEERS**  
254-LAURA, SUITE 201  
WICHITA, KANSAS 67211  
316-262-3842

14-03-04