

**STREET IMPROVEMENTS**

**WESTWOOD HEIGHTS SECOND ADDITION**

**19th STREET-NORTHWEST PARKWAY** — FROM THE EAST LINE OF WOODCHUCK TO THE WEST LINE OF NORTHWEST PARKWAY COURT AND THE EASTERLY CORNER OF LOT 23, BLOCK 13, WESTWOOD HEIGHTS 2nd. ADDN.  
**BELLA VISTA** — FROM THE EAST LINE OF WOODCHUCK TO THE WEST LINE OF NORTHWEST PARKWAY ; and

**BELLA VISTA COURT** — FROM THE SOUTH LINE OF BELLA VISTA TO, AND INCLUDING, CUL-DE-SAC SERVING LOTS 26 THROUGH 33, BLOCK 13, WESTWOOD HEIGHTS 2nd ADDN.

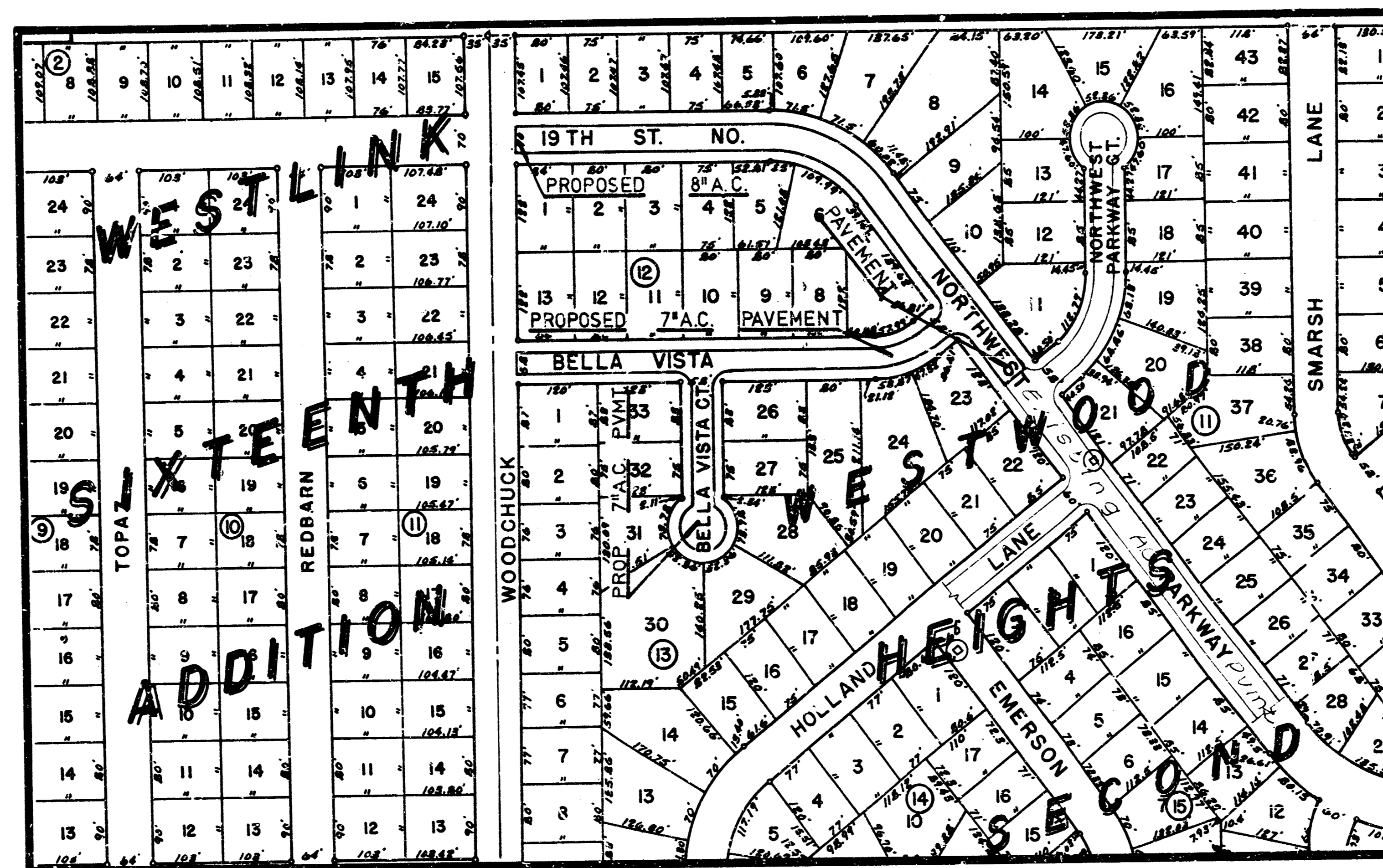
**CITY of WICHITA, KANSAS**

**MICHAEL E. LINDEBAK**  
CITY ENGINEER

**GENERAL NOTES**

- Utility services (lines, poles, valve boxes, meters, and etcetera) 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.
- This project includes a certain amount of roll type curb construction. Roll Curbs shall be depressed through all driveway openings when such drives are constructed as a part of the project.
- No more than 10 drives 16 feet in width, or equivalent combinations thereof, are to be constructed with this project.
- Widened gutter section of combined curb and gutter at intersections will not be paid for directly, and this cost shall be considered as subsidiary to the other contract pay items of work.
- Limit of earthwork shall match existing ground elevations at the right-of-way line unless otherwise noted on the plans with a new finished grade elevation. When a new finished grade elevation is shown, the earthwork shall extend one foot beyond the right-of-way line and then sloped up or down using permissible slopes to match the existing ground surface.
- 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.
- All excess excavated material is to be dumped and spread on property adjoining the project. The Contractor shall contact Jim Loyd at 722-1171 to determine the exact locations.

**472-76-245-81707-000-000-001**



**INDEX of SHEETS**

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7'A.C. Pavement Typical	—	2
8'A.C. Pavement Typical	—	3
Plan Sheets	—	4-6
Earthwork X Sections	—	9-13

**BENCHMARKS**

"□" cut in top of curb, 19' northwesterly of southwesterly corner of Lot 21, Block 11, Westwood Heights 2nd Addition; elev. 155.47.

R.R. spike in lone tree (northeasterly side) 193' south and 47' west of N.E. corner of Lot 15, Block 2, Westlink Village 16th Addition; elev. 157.75.

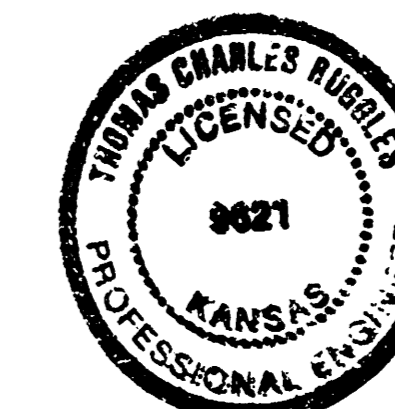
**BENEFIT DISTRICT**

**WESTWOOD HEIGHTS 2ND ADDITION**

Lots 1 through 15 inclusive, Block 11

Lots 1 through 13 inclusive, Block 12

Lots 1 through 5 inclusive and Lots 23 through 33 inclusive, Block 13

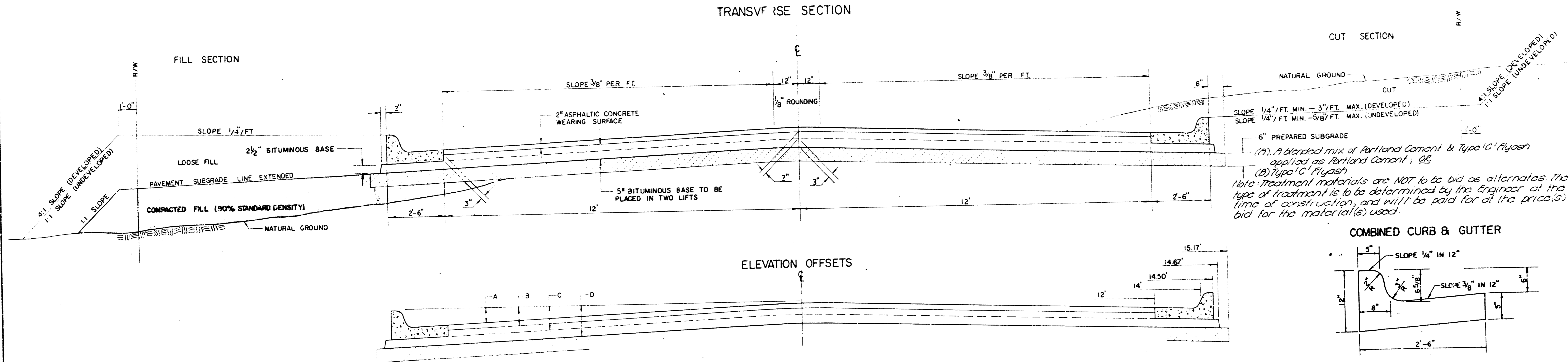


<b>TITLE SHEET</b>			
<b>BAUGHMAN COMPANY, P.A.</b> SURVEYING & ENGINEERING			
316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211			
Project:	Drawn:	Approved:	Date:
	Ruggles	Scott	22 Feb 08
Scale:	1"=20'	Sheet:	13
Project Number:			

Westwood Heights Second Addn. Pavement Improvements 448-76-245-81707-000-000-001

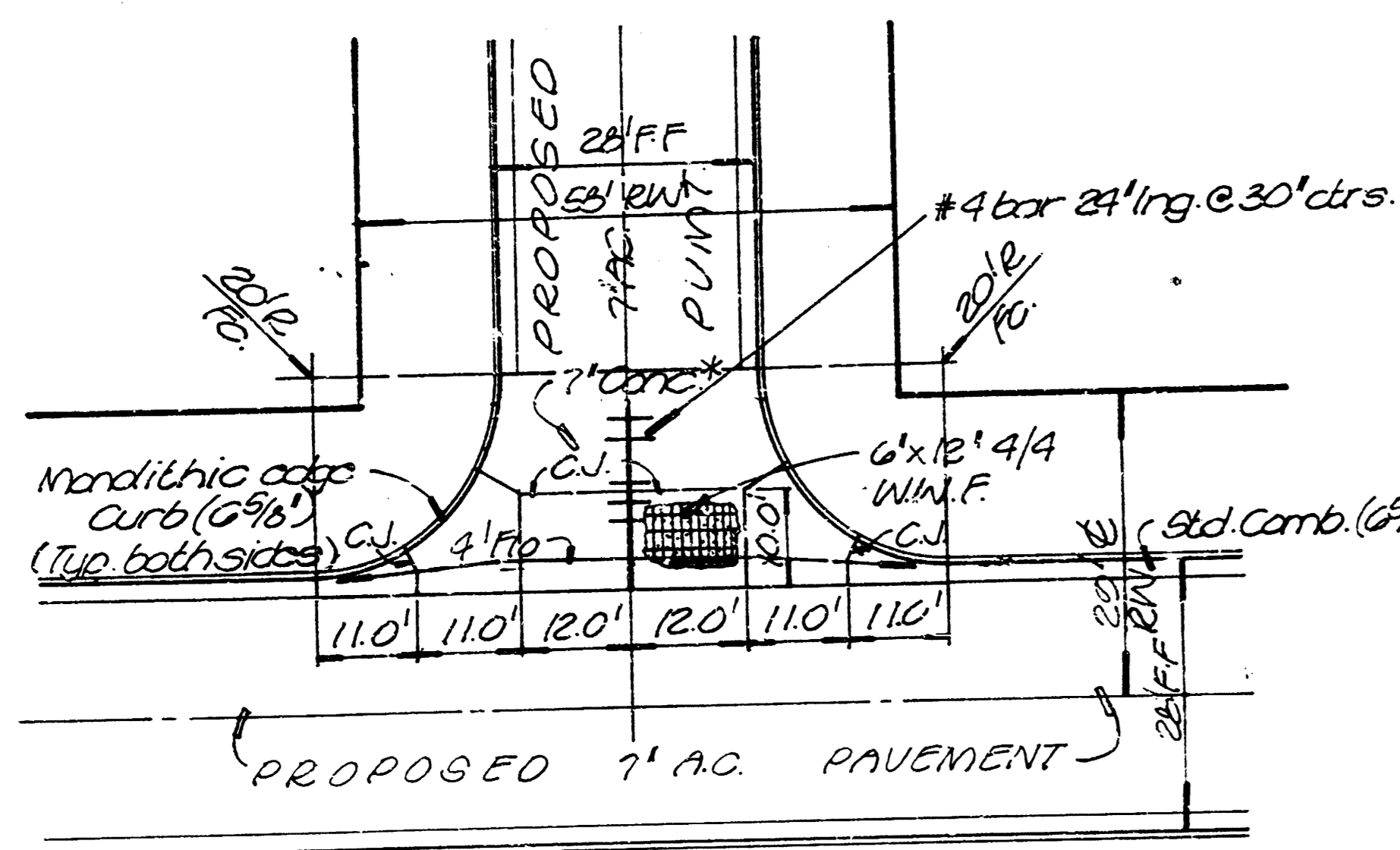
# TYPICAL 29' PAVEMENT DETAILS

## TRANSVERSE SECTION



(A) A blended mix of Portland Cement & Type 'C' Flyash applied as Portland Cement; OR  
(B) Type 'C' Flyash  
Note: Treatment materials are NOT to be bid as alternates. The type of treatment is to be determined by the Engineer at the time of construction, and will be paid for at the price(s) bid for the material(s) used.

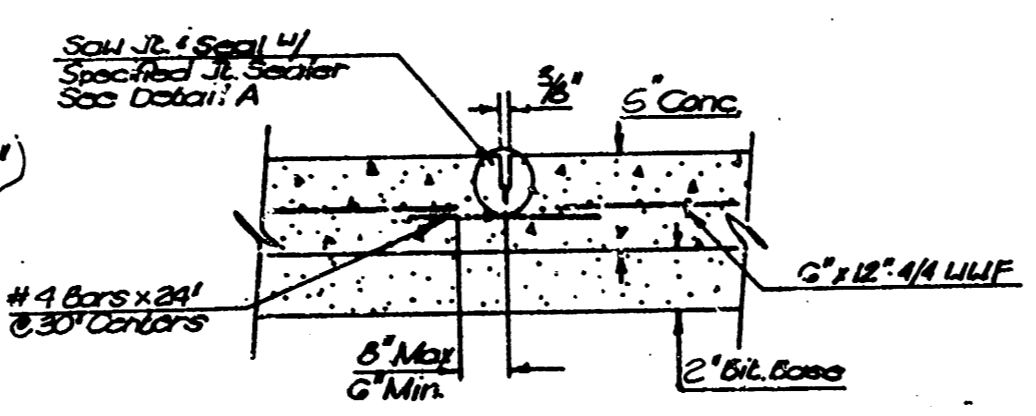
## VALLEY GUTTER DETAILS



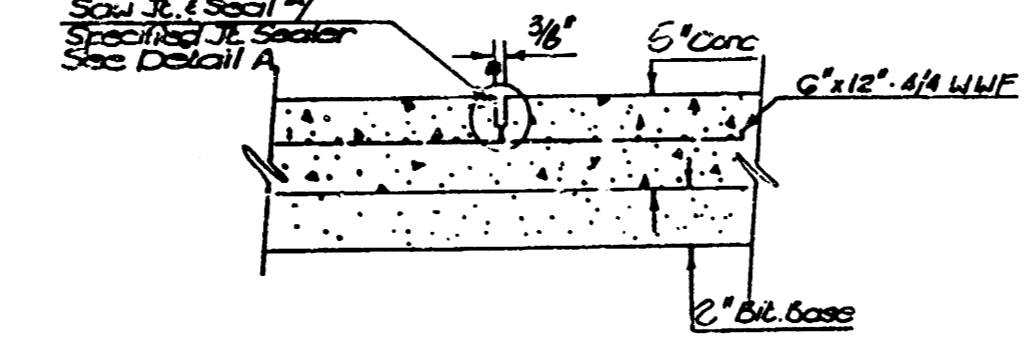
\* 7" Reinforced Valley Gutter Curb.  
(5" Concrete with 2" Bituminous base)

	DISTANCE FROM CENTERLINE (LT. & RT.)													
	0'	2'	4'	6'	7'	8'	10'	14'	14.5'	14.67'	15.17'			
A. TOP OF CURBS TO TOP OF SURFACE LIFT	0.13	0.18	0.24	0.30	0.33	0.36	0.43	0.42	---	---	---	---	---	---
B. TOP OF CURBS TO TOP OF UPPER BASE LIFT	0.30	0.35	0.41	0.47	0.50	0.53	0.60	0.66	---	---	---	---	---	---
C. TOP OF CURBS TO TOP OF LOWER BASE LIFT	0.47	0.52	0.60	0.68	0.71	0.75	0.83	0.90	0.96	1.00	1.01	---	---	---
D. TOP OF CURBS TO TOP OF SUBGRADE	0.72	0.77	0.84	0.91	0.94	0.98	1.05	1.12	1.19	1.21	1.21	1.23	---	---

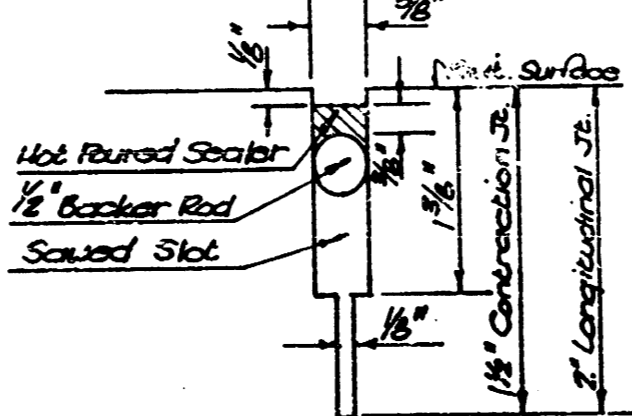
## LONGITUDINAL JOINT DETAIL



## CONTRACTION JOINT DETAIL



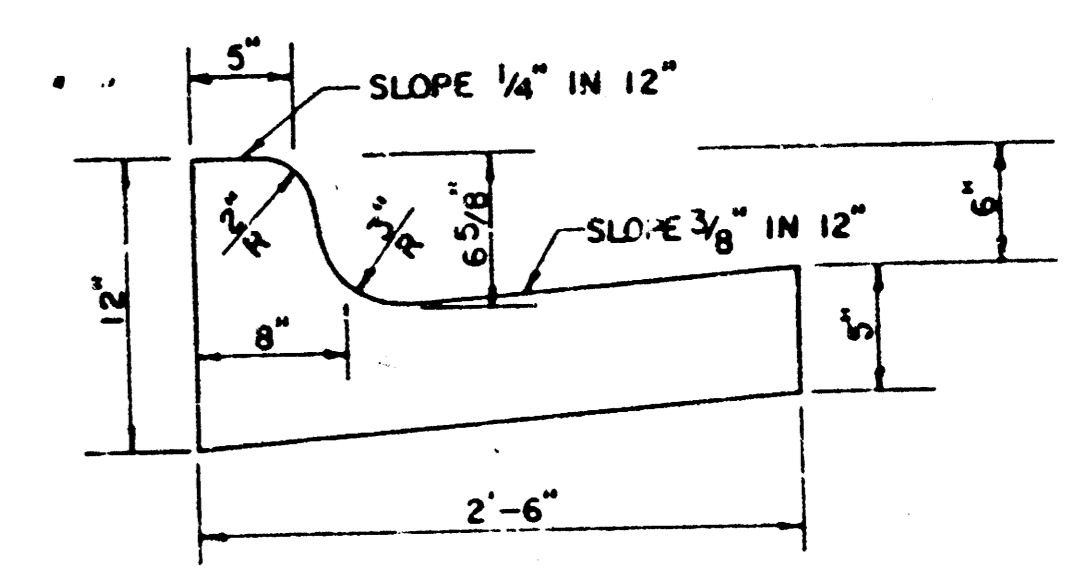
## DETAIL A



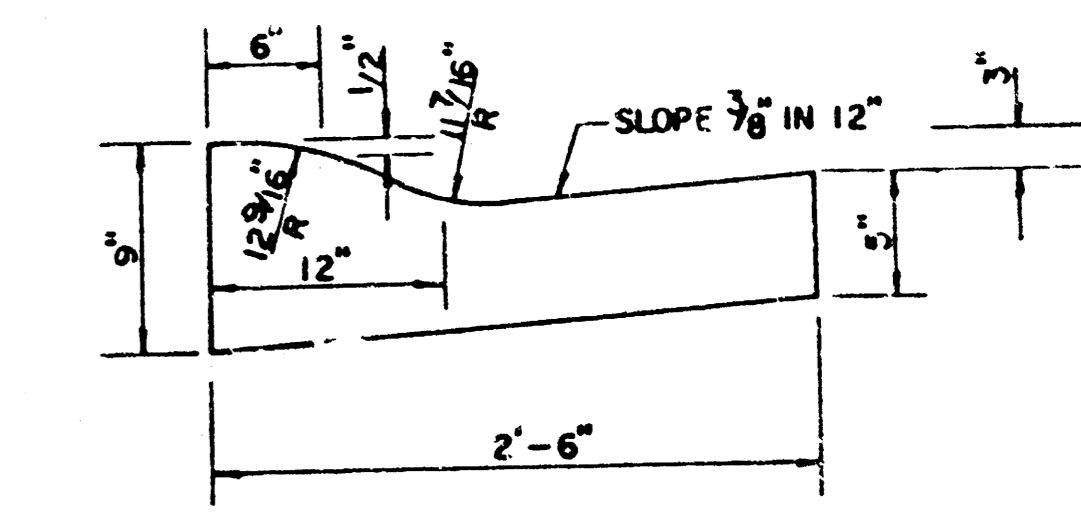
## GENERAL NOTES

1. THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAVED AS SHOWN WITHIN THE 2" ASPHALTIC CONCRETE (2" BITUMINOUS BASE).
2. THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAVED AS SHOWN WITHIN THE 5" BITUMINOUS BASE.
3. A THICK LAYER OF EMULSIFIED ASPHALT (EMULSION OR ASPHALT) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.
4. BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE PAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.
5. 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.
6. CONTRACTOR TO BID ONLY ONE SUBGRADE TREATMENT ALTERNATE WHEN ALTERNATES ARE PROVIDED IN THE PROPOSAL AND CONTRACT. THE ALTERNATE CHOSEN BY THE SUCCESSFUL BIDDER SHALL BE USED IN CONSTRUCTING THIS PROJECT.

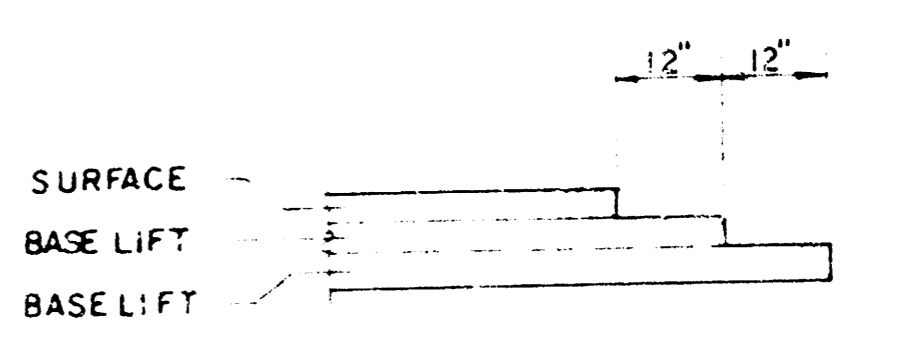
## COMBINED CURB & GUTTER



## ROLL TYPE COMBINED CURB & GUTTER



## 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 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).

## 7" RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT w/ 5" BITUMINOUS BASE

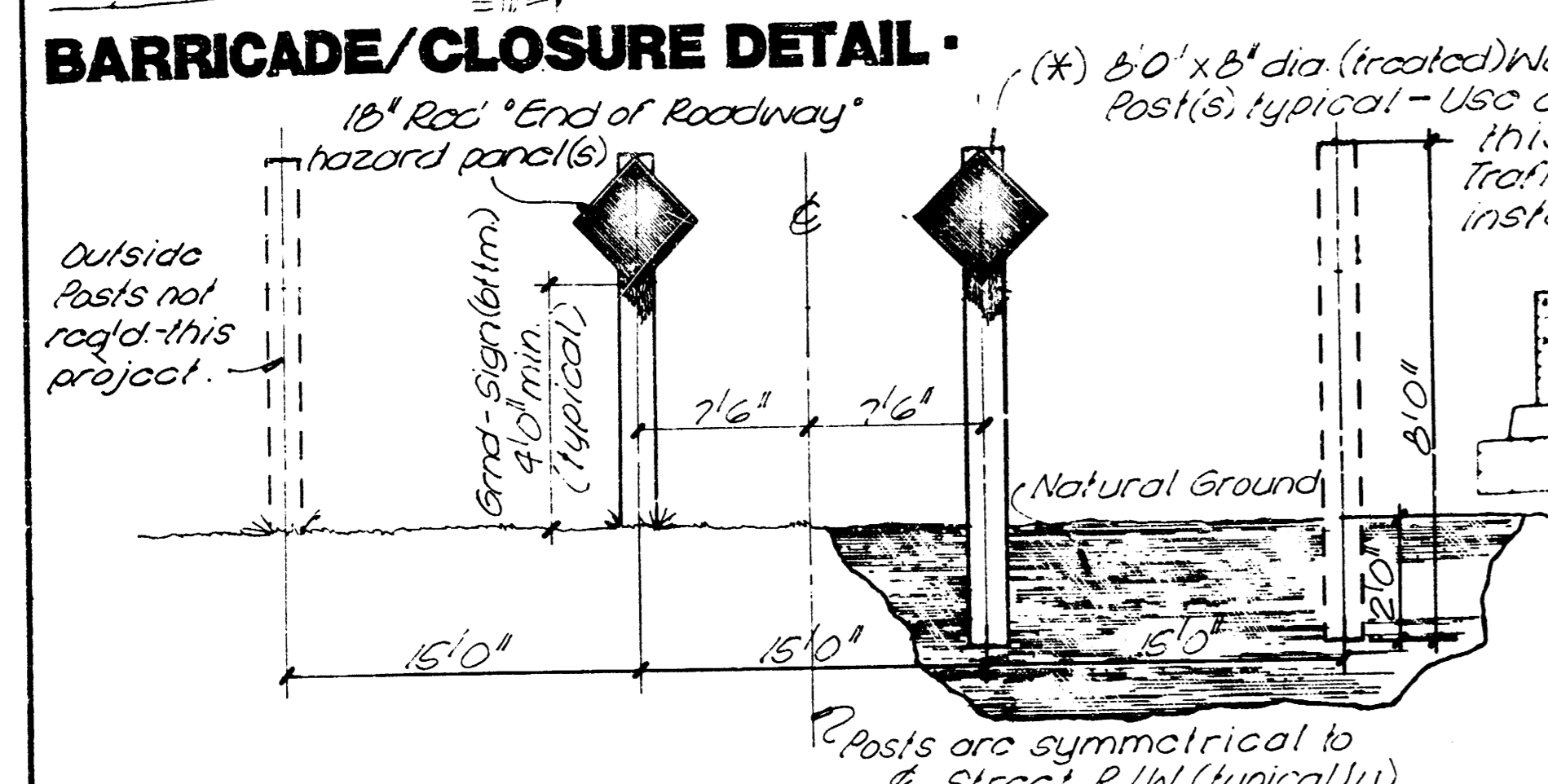
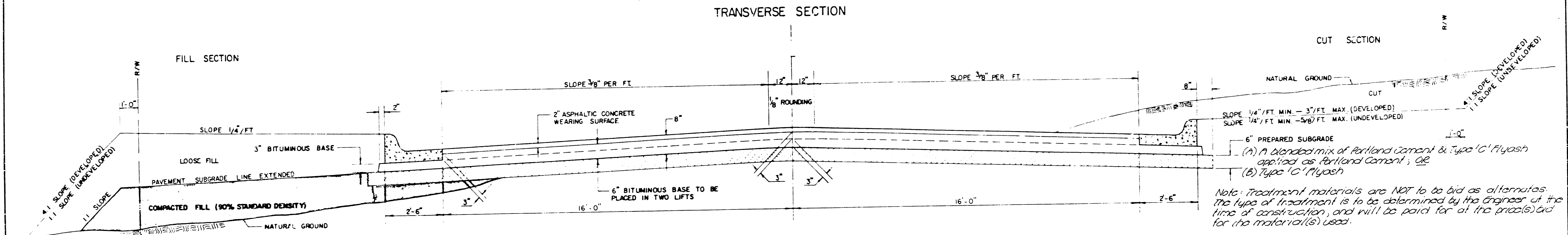
**BAUGHMAN COMPANY, P.A.**  
SURVEYING & ENGINEERING  
316262-7211 • 315 ELLIS • WICHITA, KANSAS 67211

Project: C of W    Drawn: C of W    Date:    Scale: none

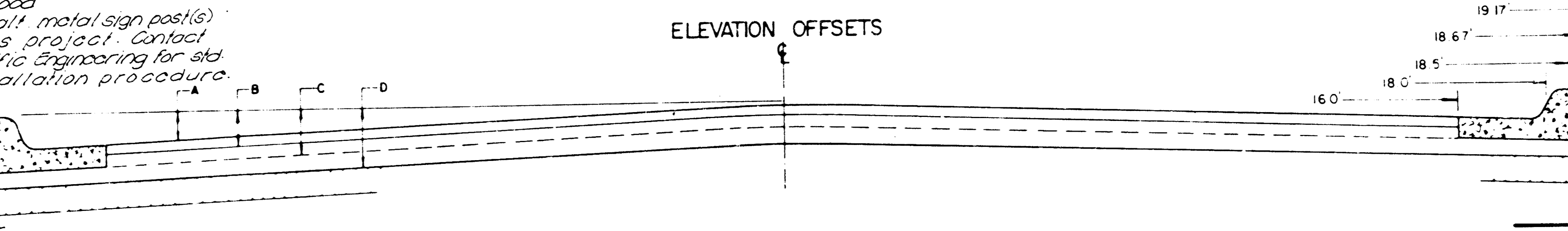
Sheet: 2 of 13

Project Number: 472-76-245-81707-000-001

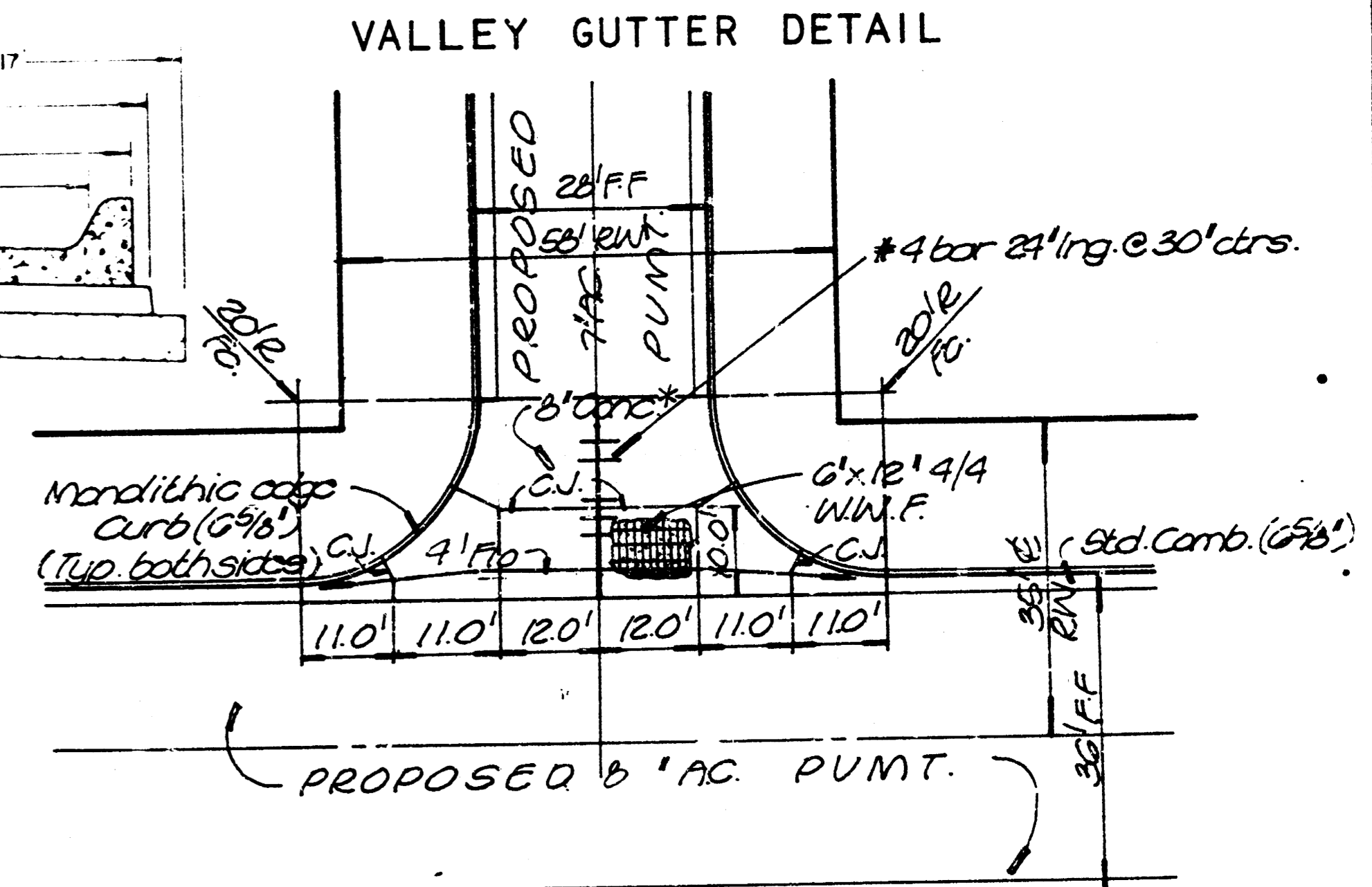
# TYPICAL 37' PAVEMENT DETAILS



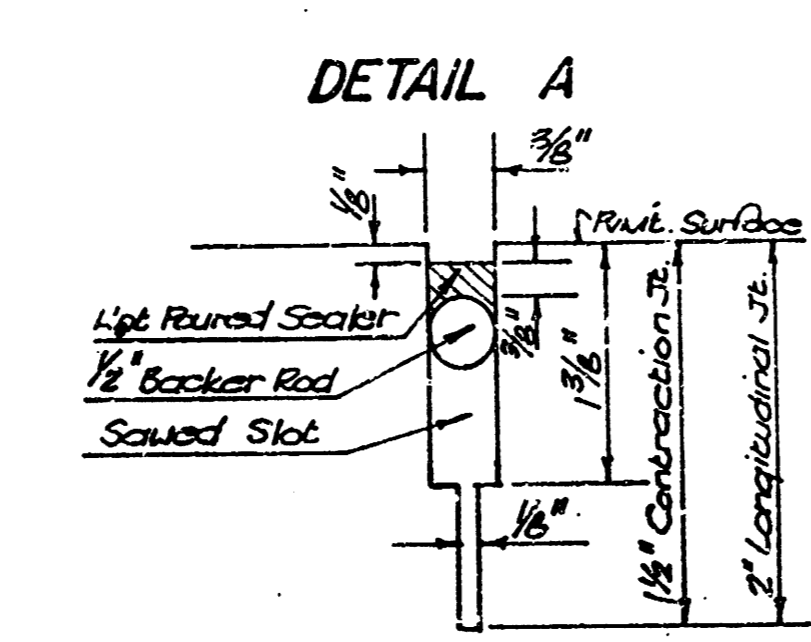
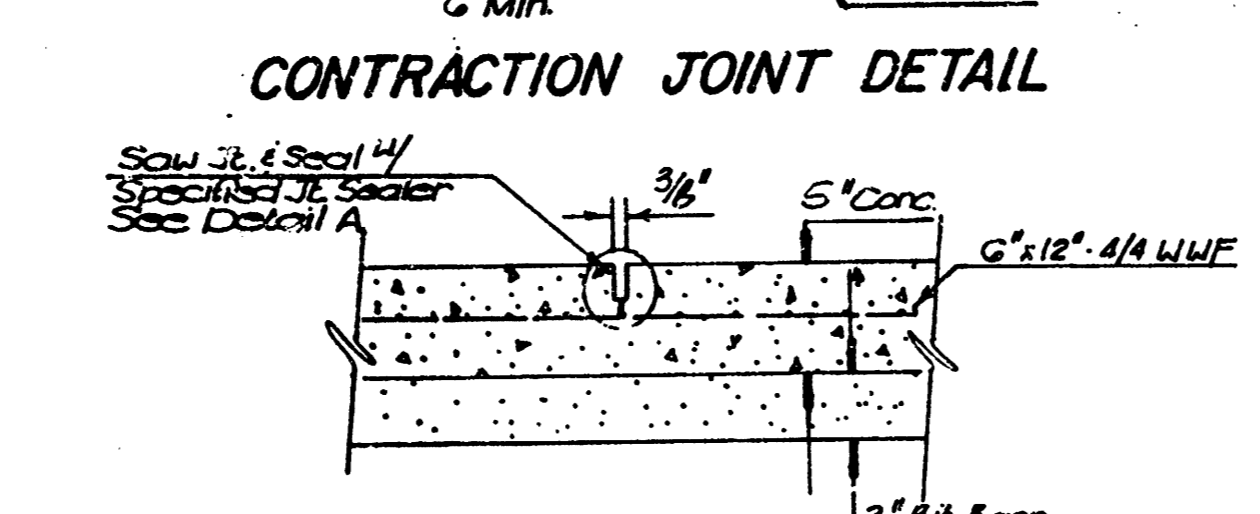
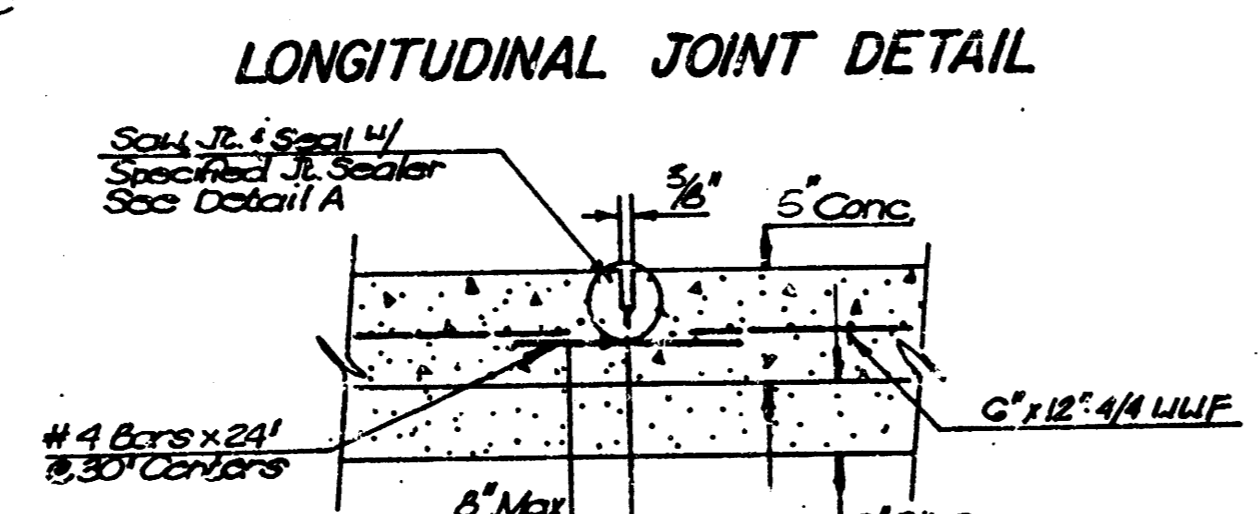
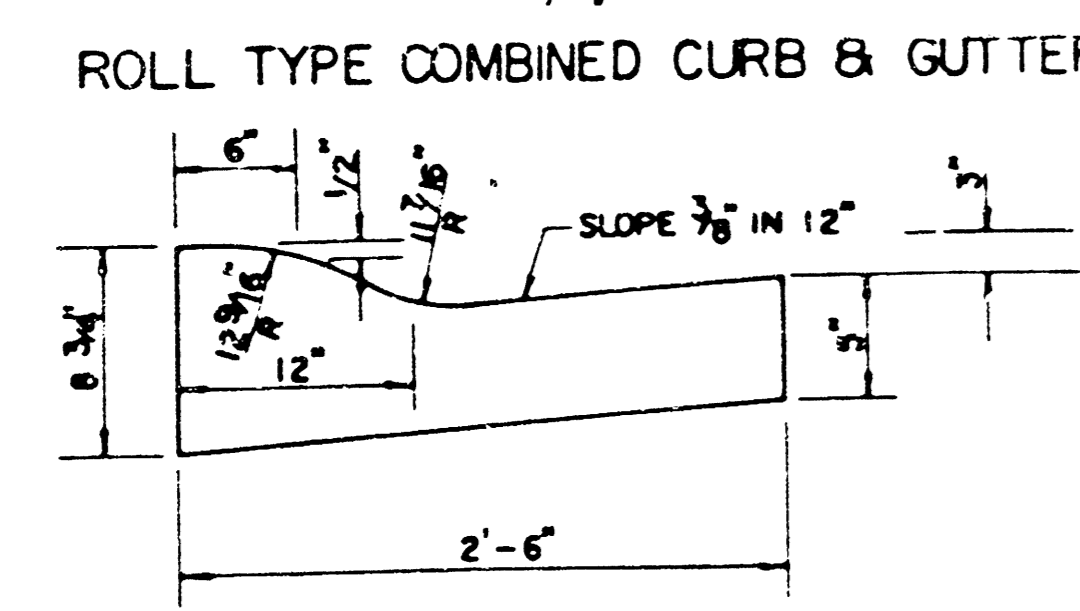
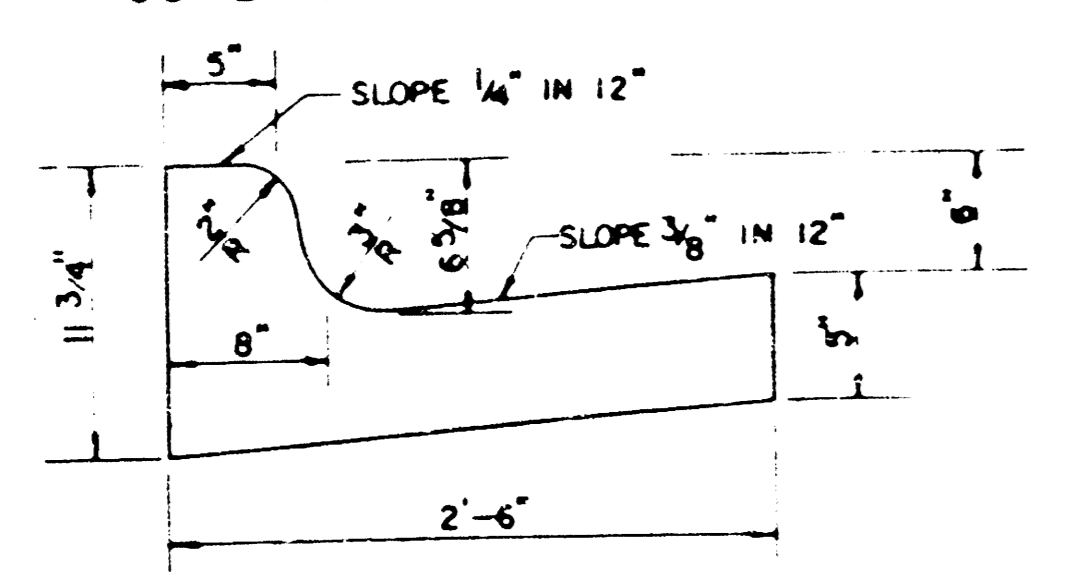
**NOTES:**  
 (A) Outside posts may not be required under spans set forth as min standards by Traffic Engineering Div. (Cal W). Verify necessity with T.E. Div. BEFORE installation. Complete street closure is to be achieved & maintained as such.  
 (B) Do Not install outside posts. Not required on this project.  
 (C) Use Std. Metal Sign Posts as per specified type by Traffic Engineering, Cal W, this project.



	DISTANCE FROM CENTERLINE (LT. & RT.)												
	0	2	4	6	8	10	12	14	16	18	18.5	18.67	19.17
A TOP OF CURBS TO TOP OF SURFACE LIFT	00	05	11	18	24	30	36	43	49	—	—	—	—
B TOP OF CURBS TO TOP OF UPPER BASE LIFT	17	22	28	34	40	47	53	59	65	—	—	—	—
C TOP OF CURBS TO TOP OF LOWER BASE LIFT	42	47	53	59	65	72	78	84	90	97	98	99	—
D TOP OF CURBS TO TOP OF SUBGRADE	67	72	78	84	90	97	103	109	115	122	123	124	125



\* 8" Reinforced Valley Gutter Punt.  
 (5" Concrete with 3" Bituminous base)  
 TRANSVERSE CONSTRUCTION JOINTS



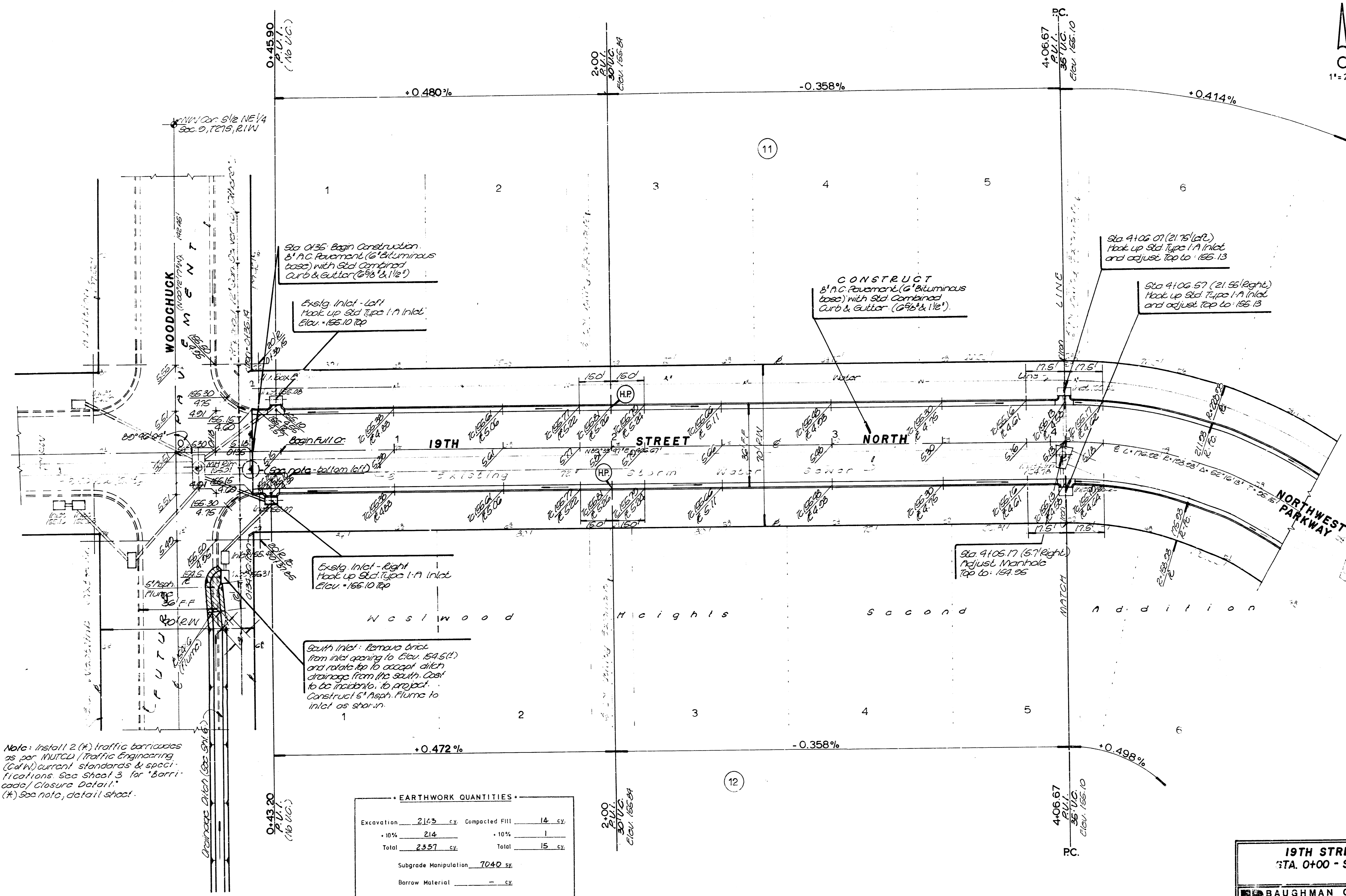
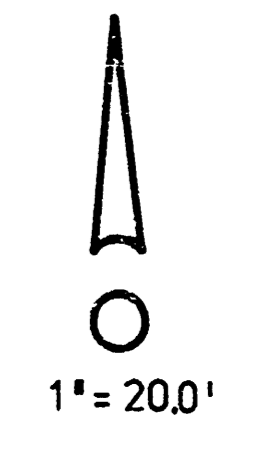
- GENERAL NOTES**
- 1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 8" ASPHALTIC CONCRETE (6" BITUMINOUS BASE).
  - 2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 3" BITUMINOUS BASE.
  - 3) A TACK COAT OF EMULSIFIED 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.
  - 4) BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.
  - 5) 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.
  - 6) CONTRACTOR TO BID ONLY ONE SUBGRADE TREATMENT ALTERNATE WHEN ALTERNATES ARE PROVIDED IN THE PROPOSAL AND CONTRACT. THE ALTERNATE CHOSEN BY THE SUCCESSFUL BIDDER SHALL BE USED IN CONSTRUCTING THIS PROJECT.

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 OF 8" ASPHALTIC CONCRETE (6" BITUMINOUS BASE).

**8" RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT w/ 6" BITUMINOUS BASE**

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 315 ELLIS - WICHITA, KANSAS 67211  
 316-262-7271

Project Number: 472-76-243-81707-000-000-001



Note: Install 2 (\*) traffic barricades as per MUTCD (Traffic Engineering (Cal'n)) current standards & specifications. See Sheet 3 for 'Barricade/Closure Detail'. (\*) See note, detail sheet.

**EARTHWORK QUANTITIES**

Excavation	2,163	cy.	Compacted Fill	14	cy.
+10%	214		+10%	1	
<b>Total</b>	<b>2,357</b>	<b>cy.</b>	<b>Total</b>	<b>15</b>	<b>cy.</b>
Subgrade Manipulation	7040	sq.			
Borrow Material		cy.			

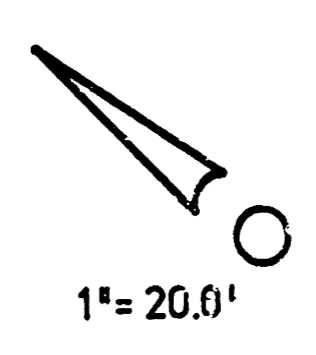
DATE	7-15-87	
BY	FRANCO	
REVISIONS		
DATE	BY	DESCRIPTION
PLAN	NO. 84	APPROVED

**19TH STREET NORTH**  
STA. 0+00 - STA. 4+06.67

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SURVEYING & ENGINEERING  
315 ELLIS • WICHITA, KANSAS 67211

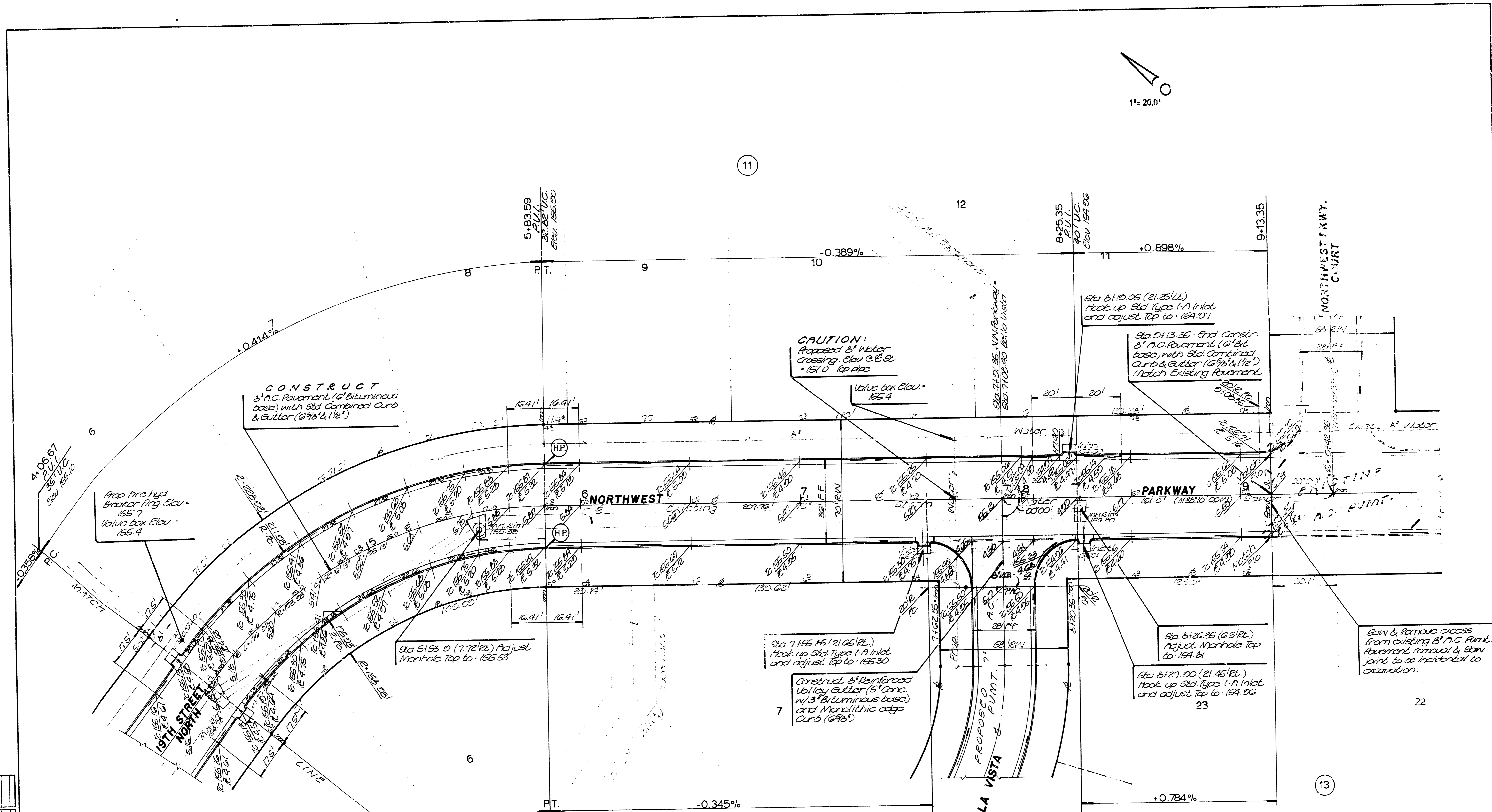
Project Number: 472-76-245-81707-000-000-001

Westwood Heights Second Addition  
Pavement Improvements  
472-76-245-81707-000-000-001



1" = 20.0'

11



**CONSTRUCT**  
8' A.C. Pavement (6" Bituminous base) with Std Combined Curb & Gutter (6 7/8" x 1 1/2")

**CAUTION:**  
Proposed 8' Water Crossing. Elev. C.E.S. = 151.0. Top pipe

Sta 8+10.05 (21.25' L)  
Hook up Std. Type 1-A Inlet and adjust top to 154.97

Sta 0+13.35 - End Constr. 8' A.C. Pavement (6" Bit. base) with Std Combined Curb & Gutter (6 7/8" x 1 1/2") Match Existing Pavement

Prop. Fire Hyd. Breaker Ring Elev. = 155.7  
Valve box Elev. = 155.4

Sta 5+53.0 (7.72' RL) Adjust Manhole Top to 155.53

Sta 7+55.16 (21.05' RL) Hook up Std. Type 1-A Inlet and adjust top to 155.30

Construct 8' Reinforced Valley Curb (5" Conc. w/ 3" Bituminous base) and Monolithic edge Curb (6 7/8")

Sta 8+26.35 (6.5' RL) Adjust Manhole Top to 154.81

Sta 8+27.00 (21.45' RL) Hook up Std. Type 1-A Inlet and adjust top to 154.96

Save & Remove cross from existing 8' A.C. Pavement, removal & save joint to be incidental to occasion.

CURVE DATA BASED ON CENTERLINE DATA

R = 103.00', Δ = 52°16'13", L = 176.02', Chd = 170.25', Tan = 25.15', Def/ft = 0.262328 min.

Station	Arc Length	CHORD LENGTHS		Deflection Angle	Total Deflection Angle
		8' Left/face	8' Right/face		
4+06.67	0			00°00'00"	00°00'00"
4+25	18.33	20.40	16.24	02°42'28"	02°42'28"
4+50	26.0	27.82	22.15	05°41'36"	05°41'36"
4+75	26.0	27.82	22.15	08°41'36"	10°05'13"
5+00	26.0	27.82	22.15	11°41'36"	13°27'13"
5+25	26.0	27.82	22.15	14°41'36"	17°28'24"
5+50	26.0	27.82	22.15	17°41'36"	21°40'24"
5+75	26.0	27.82	22.15	20°41'36"	26°51'54"
5+83.50	6.90	0.50	7.61	01°16'08"	22°08'06"

- INTERSECTION QUANTITIES •
- 120.9 SY Concrete Pavement
  - SY Asphaltic Conc. Pavement (6" Bituminous Base)
  - SY Bituminous Base
  - LF Combined Curb & Gutter
  - LF Masonritic Edge Curb
  - SF 4" Wheelchair Ramp
  - SF 4" Walk
  - CY Excavation
  - CY Compacted Fill
  - Lbs. Reinforcing Steel
  - 225.4 SY Manipulation
  - Tons Lime or Cement
  - 22.9 SY Valley Gtr. (5" Concrete & 3" Asphaltic Conc. Base)

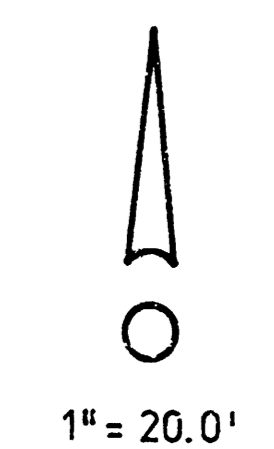
**NORTHWEST PARKWAY**  
STA. 4+06.67 - STA. 9+13.35

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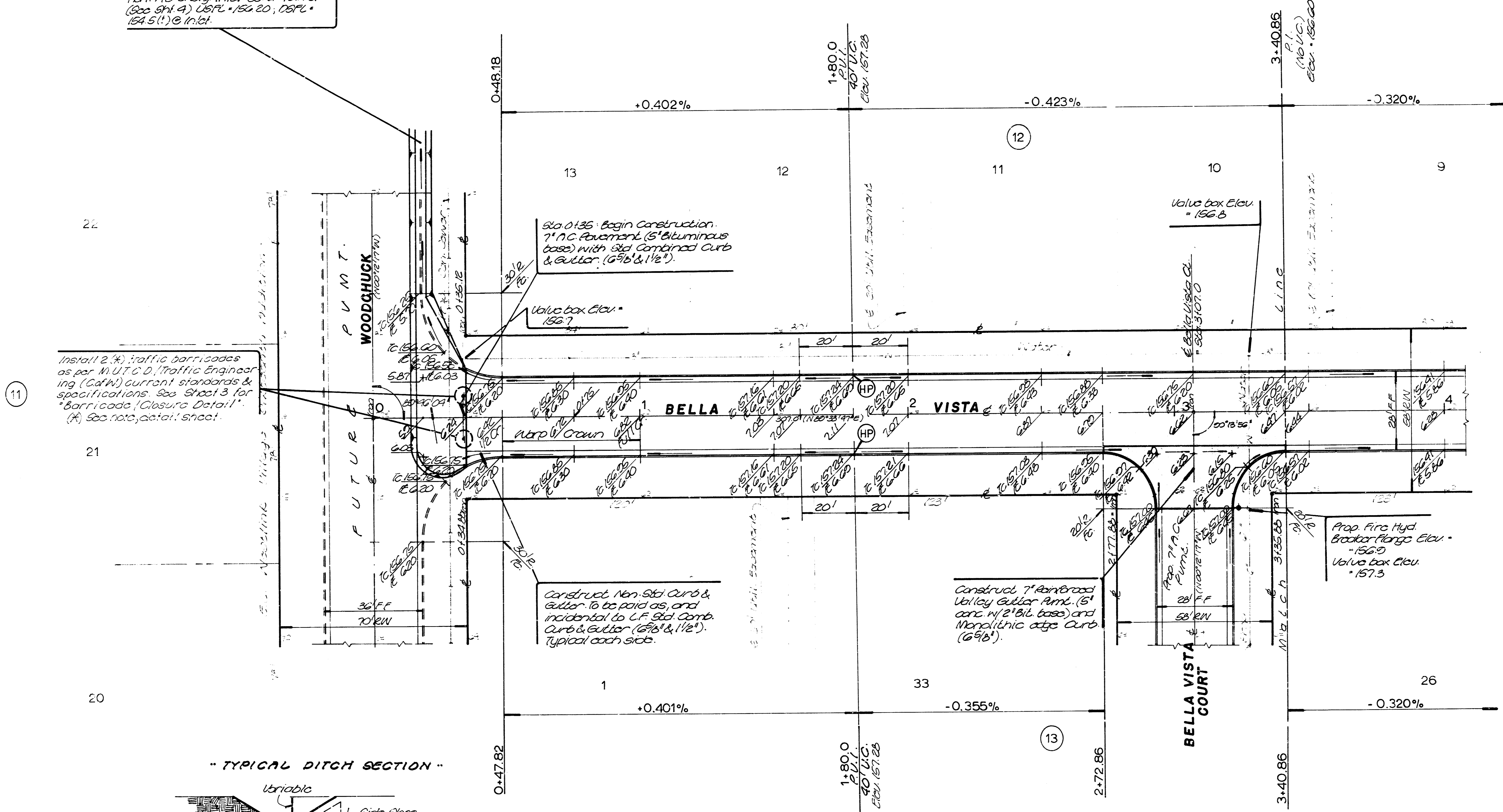
DATE: Sept 07 11:20 AM  
SCALE: 1" = 20.0'  
PROJECT NUMBER: 472-76-245-81707-000-000-001

PLN	7.18.07
EXTENSION	
DATE	
BY	
CHECKED	
APPROVED	

Westwood Heights Second Addn. Pavement Improvements 472-76-245-81707-000-000-001



\* Grade 215 L.F. of ditch to drain north to existing inlet 30' of 10th St. (See Sht. 4) Elev. = 156.20, 156.71, 154.5 (1) in lot.



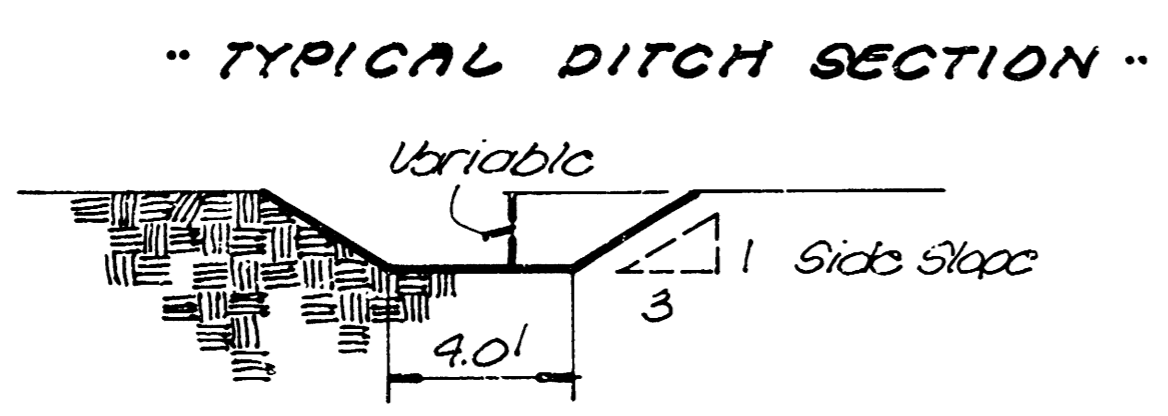
Install 2 (4) traffic barricades as per M.U.T.C.D. Traffic Engineering (Cal'ti) current standards & specifications. See Sheet 3 for "Barricade/Closure Detail". (\*) See note, detail sheet.

Sta. 0+135: Begin construction 7" A.C. Pavement (5" Bituminous base) with 5' Std. Combined Curb & Gutter (6'6" & 1 1/2").

Construct Non-Std Curb & gutter to conform as indicated to L.F. Std. Comb. Curb & Gutter (6'6" & 1 1/2"). Typical each side.

Construct 7" Reinforced Valley Gutter Panel (5' conc w/ 2" Bil. base) and Monolithic Edge Curb (6'6").

Prop. Fire Hyd. Breaker (Range Elev. = 156.0) Valve box Elev. = 157.3



INTERSECTION QUANTITIES

S1	Concrete Pavement
SY	Asphaltic Conc. Pavement (5" Bituminous Base)
SY	Bituminous Base
L.F.	Combined Curb & Gutter
L.F.	Monolithic Edge Curb
SF	4" Wheelchair Ramp
SF	4" Walk
CY	Excavation
CY	Compacted Fill
Lbs.	Reinforcing Steel
SY	Manipulation
Tons	Line of Cement
SY	Valley Gtr. 5" Concrete & 2" Asphaltic Conc. Base

PLAN	DATE	BY	CHKD	DATE
	7/15/87	Fryman		
Revised				
Checked				
Approved				

**BELLA VISTA**  
STA. 0+00 - STA. 3+40.86

**BAUGHMAN COMPANY, P.A.**  
SURVEYING & ENGINEERING  
316282-7271 • 315 ELLIS • WICHITA, KANSAS 67211

DESIGNED BY: *Ruggles* DRAWN BY: *Sealin* APPROVED BY: *[Signature]* DATE: *Sept 87* SCALE: *1" = 20'*

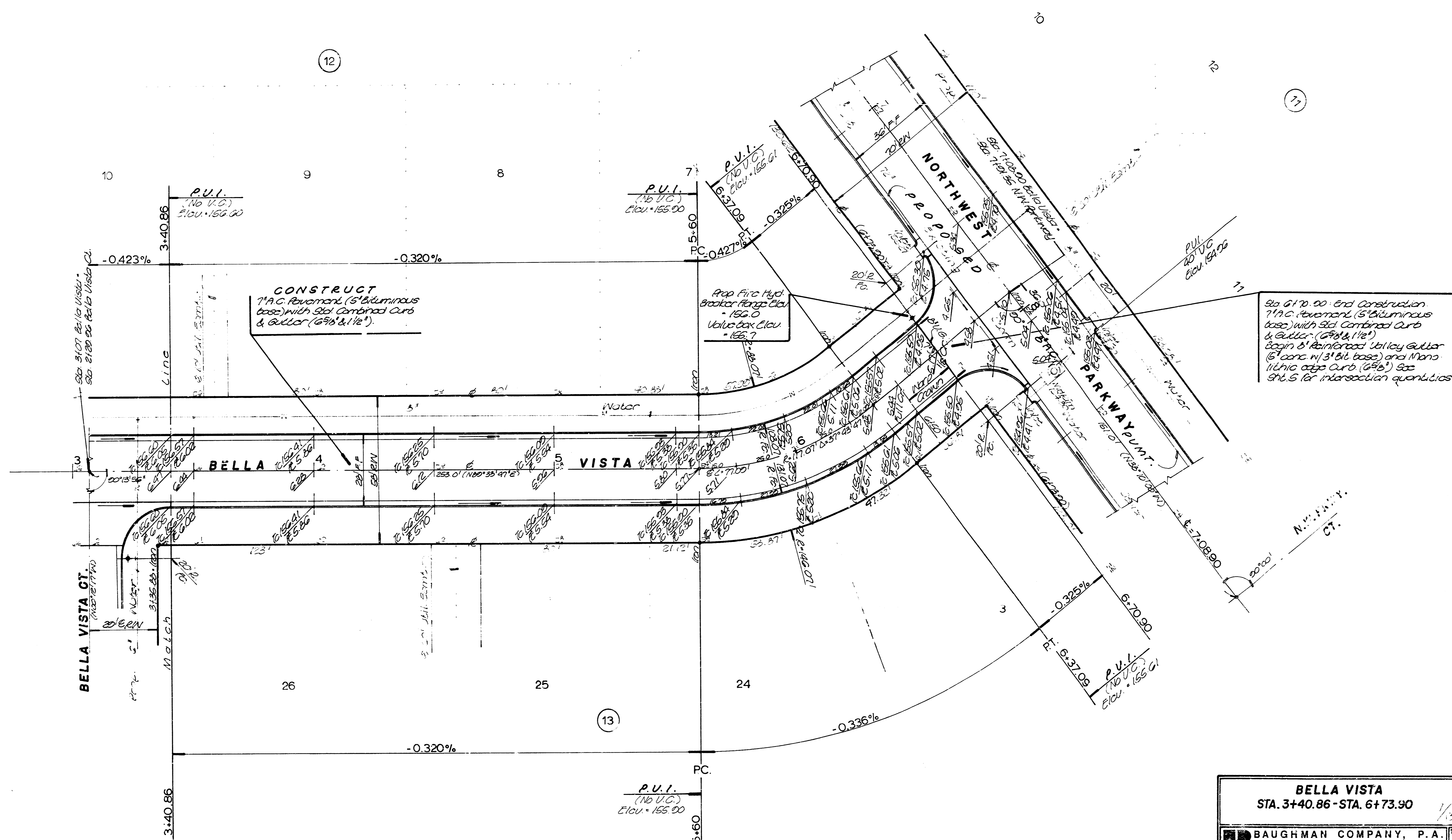
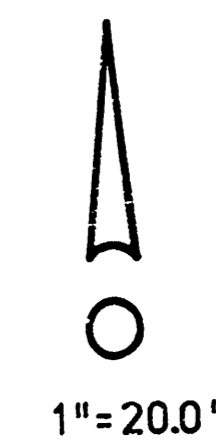
Project Number: 472-76-245-81707000-000-001

Westwood Heights Second Add. Pavement Improvement Project 472-76-245-81707000-000-001

CURVE DATA BASED ON CENTERLINE DATA

R=117.07', Δ=37°43'47", L=77.00', Chd=75.71', Tan.=90.00', Del./ft.=1/4" @ 2873.33 min.

Station	Arc Length	CHORD LENGTHS		Deflection Angle	Total Deflection Angle
		B'Left/face	B'Right/face		
5+00				00°00'00"	00°00'00"
5+15	15.0	12.17	11.61	03°40'14"	03°40'14"
5+30	30.0	20.26	20.64	06°57'05"	06°57'10"
5+45	45.0	29.66	29.64	09°07'04"	15°54'23"
5+73.90	73.90	51.61	49.36	02°57'31"	18°51'54"



PLAN	DATE	BY	CHKD	APP'D
7-19-87				

**BELLA VISTA**  
STA. 3+40.86 - STA. 6+73.90

**BAUGHMAN COMPANY, P.A.**  
SURVEYING & ENGINEERING  
316269-7271 • 515 ELLIS • WICHITA, KANSAS 67211

Design: *Ruggles* Drawn: *Spurr* Approved: *Spurr* Date: *Sept. 87* Scale: *1"=20'*

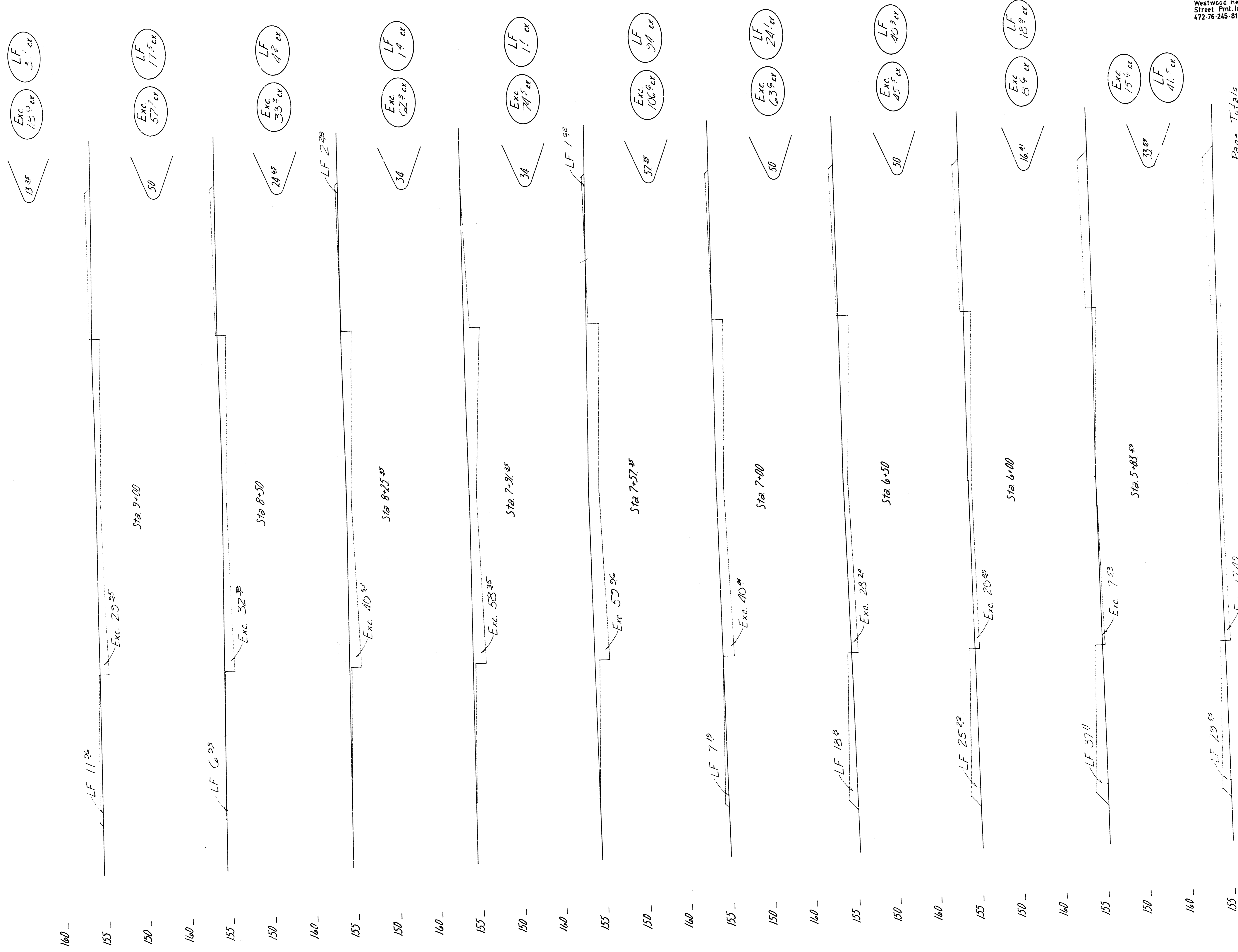
Project Number: 472-76-245-81707-000-000-001

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Westwood Heights Second Add.  
Street Pmt. Improvements  
472-76-245-81707-000-000-001

Page Totals

Exc.	485 <sup>35</sup>
LF	162 <sup>35</sup>

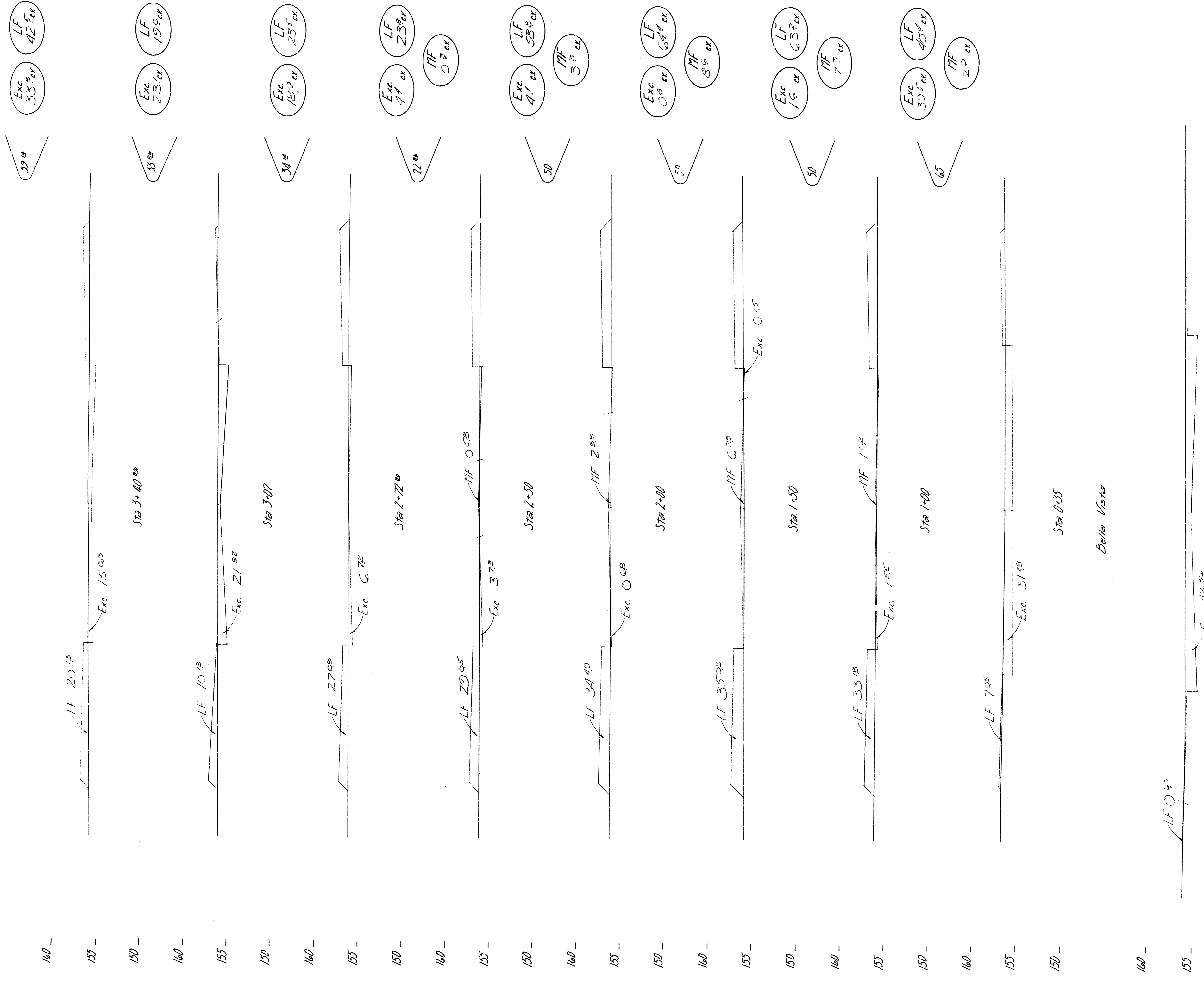
Sta 5+50

Exc.	0
LF	0

40	30	20	10	0	10	20	30	40
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19th Street North - Northwest Parkway

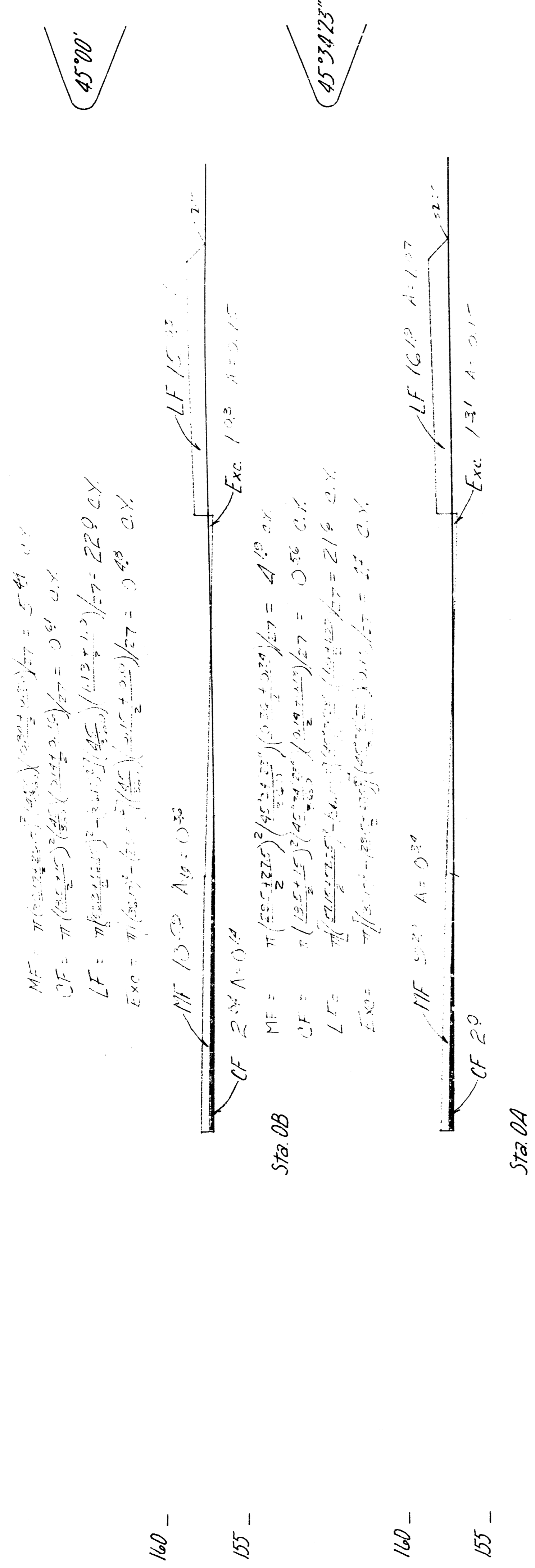
13



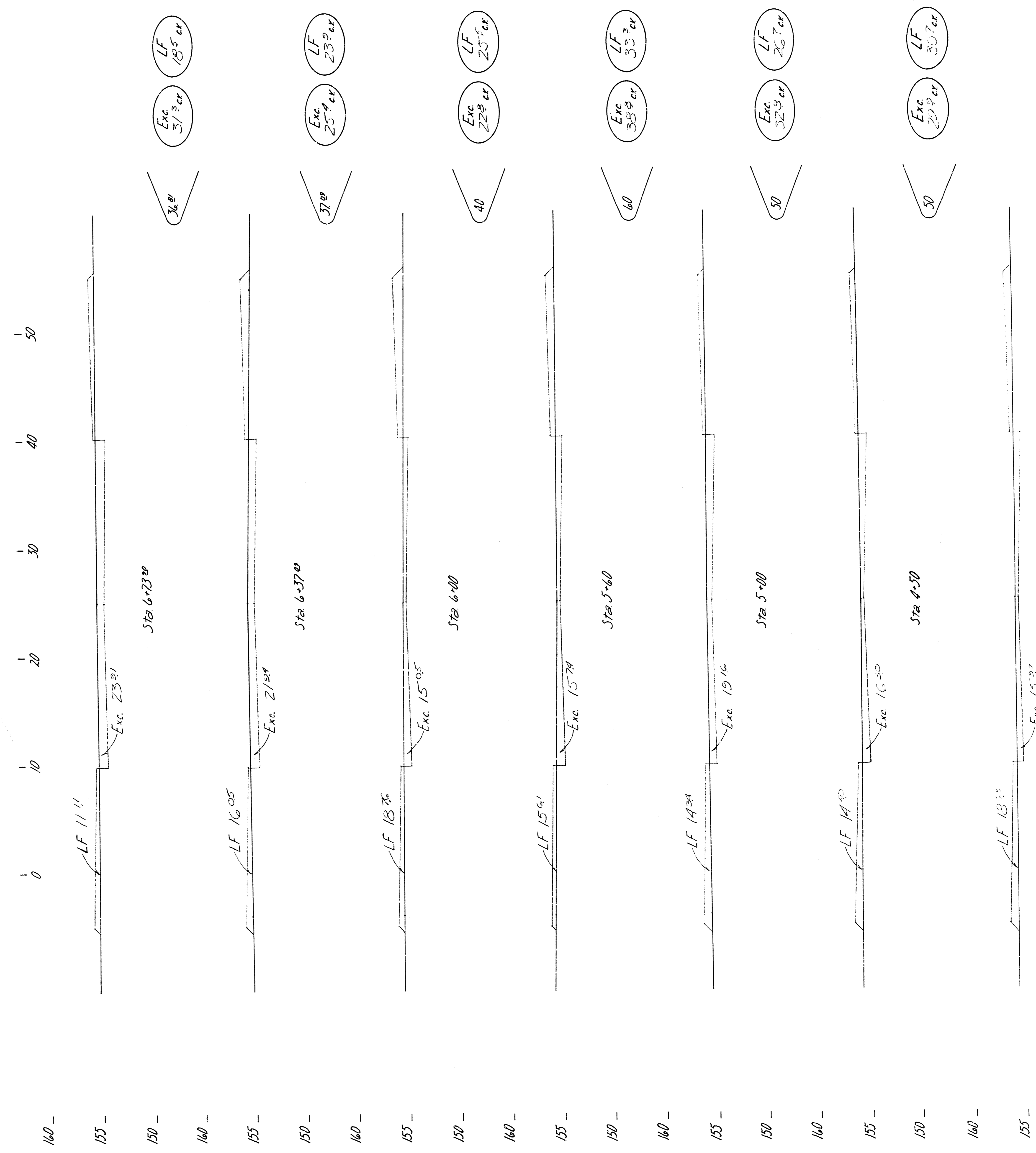
Westwood Heights Second Addn.  
Street Pmt. Improvements  
472-76 245-61707-000-000-001

Page Totals	
Exc.	155.4 cu
MF	21.5 cu
LF	21.5 cu

Station	Exc.	MF	LF
160+00	0	0	0
155+00	0	0	0
150+00	0	0	0
145+00	0	0	0
140+00	0	0	0
135+00	0	0	0
130+00	0	0	0
125+00	0	0	0
120+00	0	0	0
115+00	0	0	0
110+00	0	0	0
105+00	0	0	0
100+00	0	0	0
95+00	0	0	0
90+00	0	0	0
85+00	0	0	0
80+00	0	0	0
75+00	0	0	0
70+00	0	0	0
65+00	0	0	0
60+00	0	0	0
55+00	0	0	0
50+00	0	0	0
45+00	0	0	0
40+00	0	0	0
35+00	0	0	0
30+00	0	0	0
25+00	0	0	0
20+00	0	0	0
15+00	0	0	0
10+00	0	0	0
5+00	0	0	0
0+00	0	0	0
40+00	0	0	0



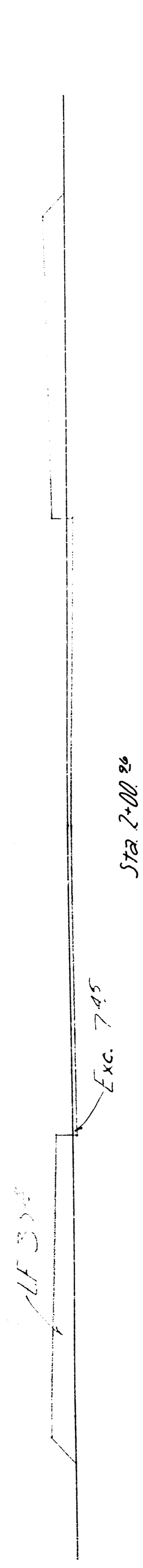
Belle Vista Court



Station	Exc.	LF
Sta 6+23.0	51.5 cr	18.5 cr
Sta 6+37.0	25.9 cr	25.9 cr
Sta 6+00	22.9 cr	25.9 cr
Sta 5+60	38.9 cr	33.9 cr
Sta 5+00	32.9 cr	26.7 cr
Sta 4+50	29.9 cr	30.7 cr
<b>Totals</b>	<b>209.0 cr</b>	<b>157.0 cr</b>

160 -

155 -



Sta 2+00.00

Exc 10.0 cr

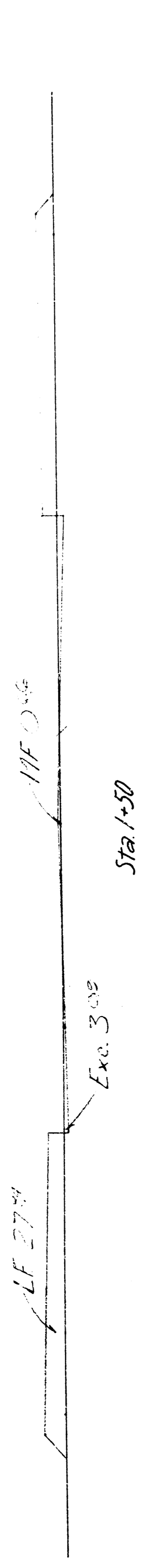
LF 5.5 cr

MF 0.4 cr

50'

160 -

155 -



Sta 1+50.00

Exc 3.7 cr

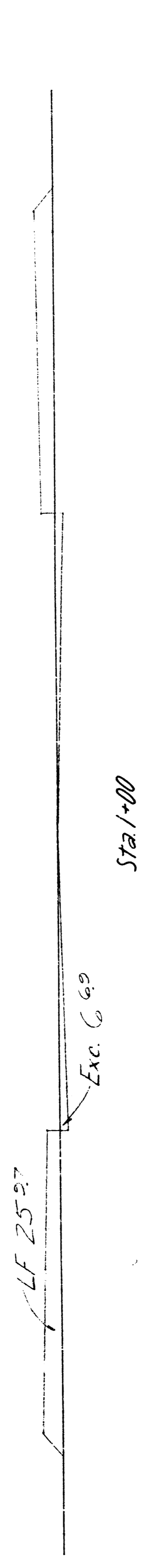
LF 4.0 cr

MF 0.4 cr

50'

160 -

155 -



Sta 1+00.00

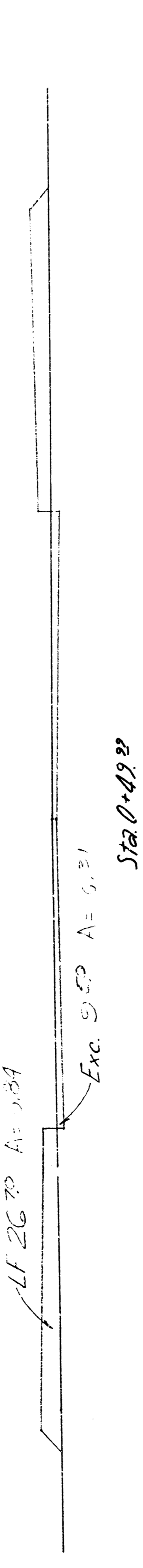
Exc 15.0 cr

LF 4.0 cr

50'

160 -

155 -



Sta 0+82.00

Exc 15.0 cr

LF 4.0 cr

50'

160 -

155 -

140 -

130 -

120 -

110 -

100 -

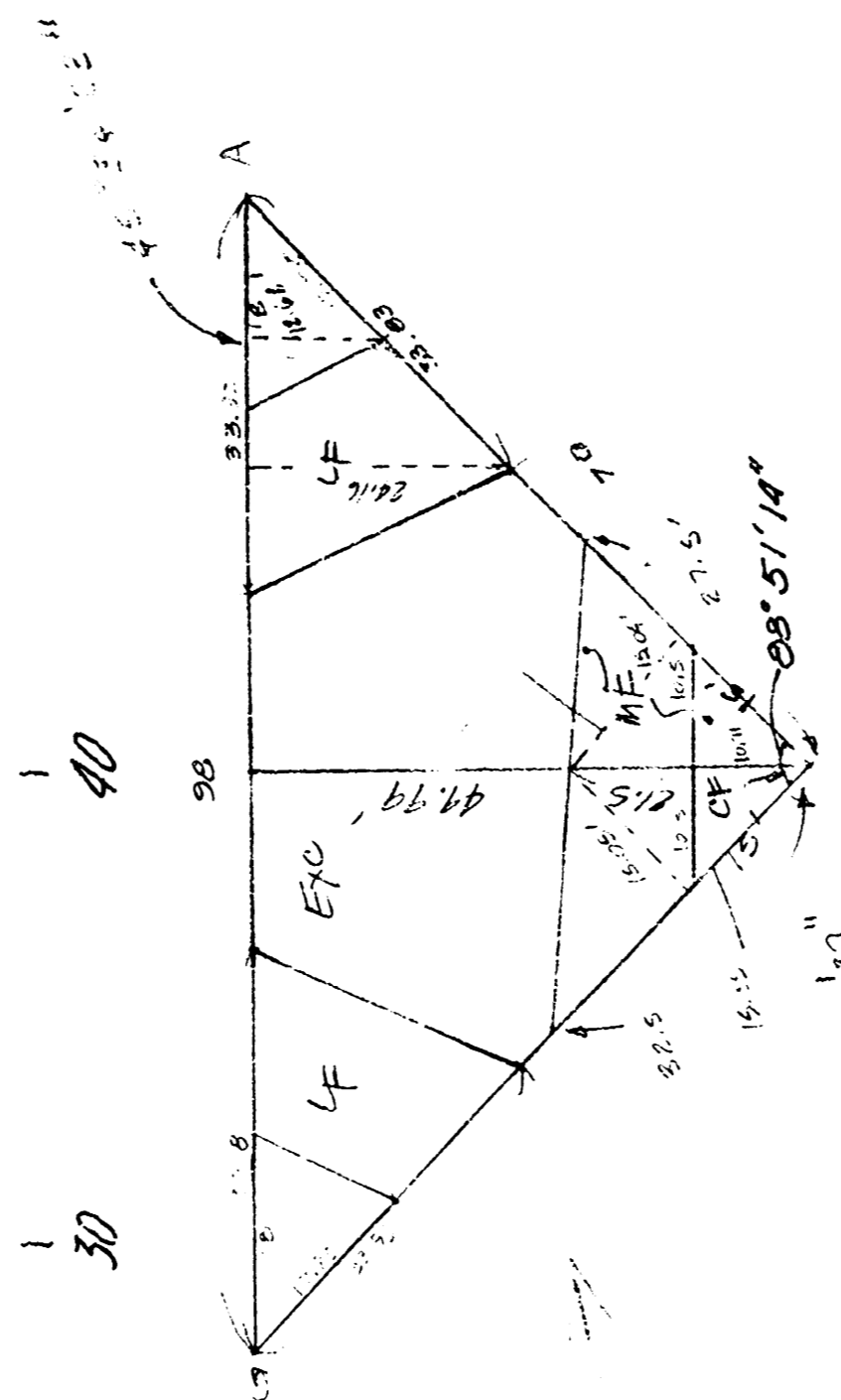
90 -

80 -

70 -

60 -

0 -



Exc =  $(1180.8) \left( \frac{2.00 + 1.00 + 0.00}{3} \right) / 2 = 7.33 \text{ cr}$   
 MF =  $(1180.8) \left( \frac{2.00 - 1.00}{2} \right) / 2 = 5.68 \text{ cr}$   
 CF =  $(112.46 + 11) \left( \frac{2.00 - 1.00}{2} \right) / 2 = 0.45 \text{ cr}$   
 LF =  $(403.60 - 114.23) \left( \frac{2.00 + 1.00}{2} \right) / 2 = 21.95 \text{ cr}$

Exc =  $\frac{1}{2} (10)(4.00) = 20.00 \text{ cr}$   
 MF =  $\frac{1}{2} (10)(4.00) = 20.00 \text{ cr}$   
 CF =  $\frac{1}{2} (10)(4.00) = 20.00 \text{ cr}$   
 LF =  $\frac{1}{2} (10)(4.00) = 20.00 \text{ cr}$

Exc =  $\pi \left( \frac{2.00 + 1.00 + 0.00}{3} \right) / 2 = 0.45 \text{ cr}$   
 MF =  $\pi \left( \frac{2.00 - 1.00}{2} \right) / 2 = 0.45 \text{ cr}$   
 CF =  $\pi \left( \frac{2.00 - 1.00}{2} \right) / 2 = 0.45 \text{ cr}$   
 LF =  $\pi \left( \frac{2.00 + 1.00}{2} \right) / 2 = 0.45 \text{ cr}$

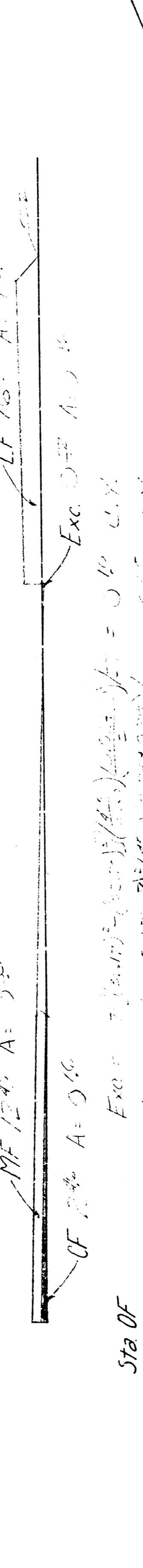
Exc =  $\pi \left( \frac{2.00 + 1.00 + 0.00}{3} \right) / 2 = 0.45 \text{ cr}$   
 MF =  $\pi \left( \frac{2.00 - 1.00}{2} \right) / 2 = 0.45 \text{ cr}$   
 CF =  $\pi \left( \frac{2.00 - 1.00}{2} \right) / 2 = 0.45 \text{ cr}$   
 LF =  $\pi \left( \frac{2.00 + 1.00}{2} \right) / 2 = 0.45 \text{ cr}$

Exc =  $\pi \left( \frac{2.00 + 1.00 + 0.00}{3} \right) / 2 = 0.45 \text{ cr}$   
 MF =  $\pi \left( \frac{2.00 - 1.00}{2} \right) / 2 = 0.45 \text{ cr}$   
 CF =  $\pi \left( \frac{2.00 - 1.00}{2} \right) / 2 = 0.45 \text{ cr}$   
 LF =  $\pi \left( \frac{2.00 + 1.00}{2} \right) / 2 = 0.45 \text{ cr}$

Exc =  $\pi \left( \frac{2.00 + 1.00 + 0.00}{3} \right) / 2 = 0.45 \text{ cr}$   
 MF =  $\pi \left( \frac{2.00 - 1.00}{2} \right) / 2 = 0.45 \text{ cr}$   
 CF =  $\pi \left( \frac{2.00 - 1.00}{2} \right) / 2 = 0.45 \text{ cr}$   
 LF =  $\pi \left( \frac{2.00 + 1.00}{2} \right) / 2 = 0.45 \text{ cr}$

160 -

155 -



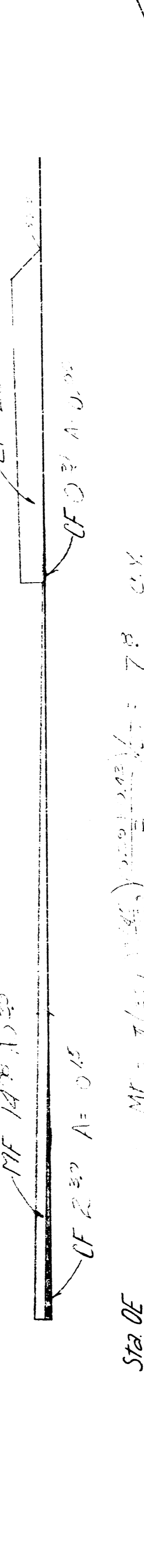
Exc 0.70 cr

MF 12.40 cr

45'

160 -

155 -



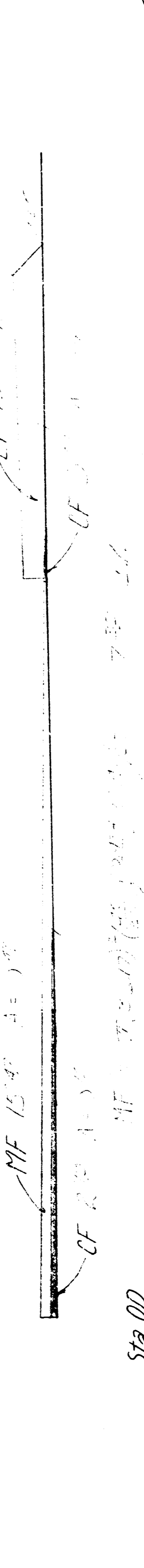
Exc 0.70 cr

MF 14.70 cr

45'

160 -

155 -



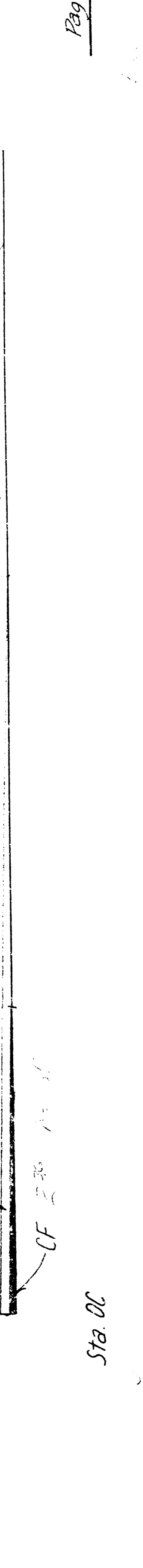
Exc 0.70 cr

MF 12.40 cr

45'

160 -

155 -



Exc 0.70 cr

MF 12.40 cr

45'

Page Totals

Exc	10.0
MF	5.5
CF	0.4
LF	21.95
Total	37.85

50

40

30

20

10

0