

MICROFILMED  
MAY 22 1985

STATE OF OHIO  
DEPARTMENT OF HIGHWAY

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	STATE

1  
375

VAN WERT COUNTY  
VAN-30-4.06

VAN-30-4.06

VAN WERT COUNTY

TULLY, UNION, & PLEASANT TWPS.

MICROFILMED  
APR 15 1968  
ORIGINAL PHOTO LIB

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR OF HIGHWAYS IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO.

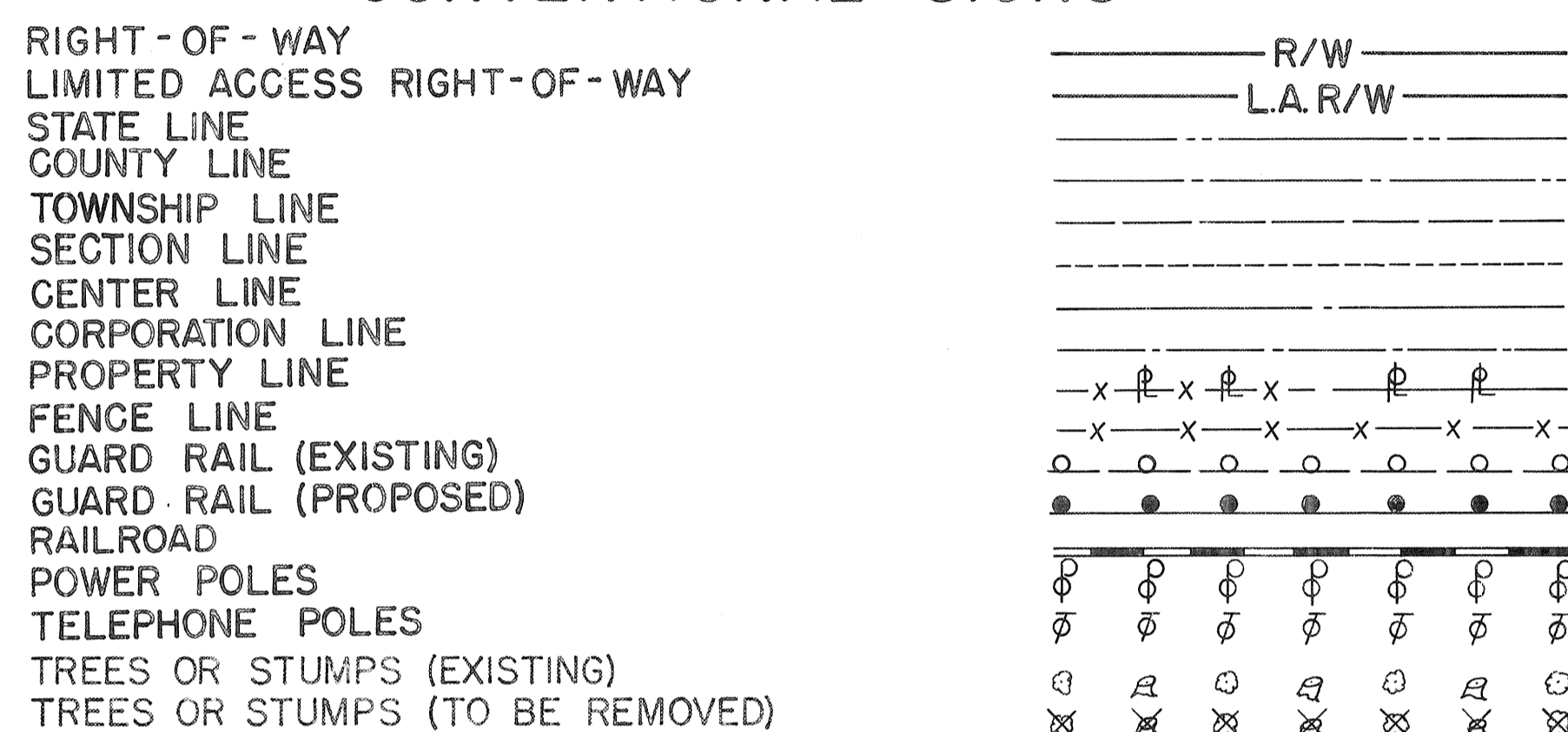
1963 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF HIGHWAYS, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATION LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

THE RIGHT-OF-WAY FOR THIS IMPROVEMENT WILL BE PROVIDED BY THE STATE OF OHIO.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING OF THE HIGHWAY TO TRAFFIC AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH IN THE PLANS AND ESTIMATES.

CONVENTIONAL SIGNS



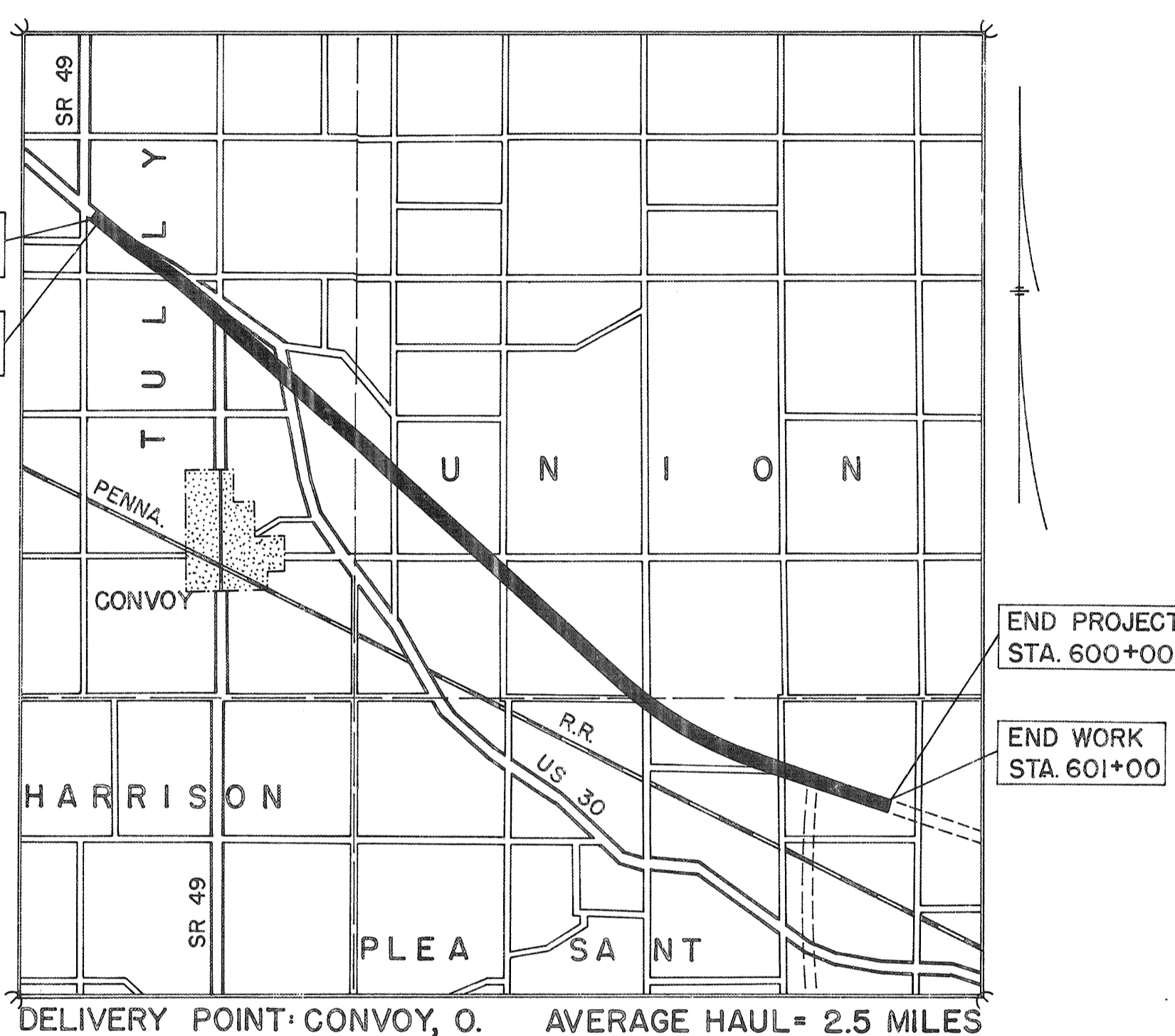
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\*SEE SHEET NO. 2 FOR INDEX OF SHEETS.

LINE DATA

BEGIN PROJECT STA. 220+63.53	END PROJECT STA. 600+00	
NO DEDUCTIONS OR ADDITIONS		
TOTAL LENGTH OF PROJECT 37,936.47 LF = 7.184 MILES		
BEGIN WORK STA. 217+00	END WORK STA. 601+00	38,400 L.F.
ADD FOR APPROACHES		
DIXON RD. - TR 192	2,126.48 LF	
SR 49	2,536.24 LF	
SR 30	2750.00 LF	
COLWELL RD. - TR 65	2,033.92 LF	
CONVOY RD. - CR 168	2,219.89 LF	
ROUND TOTAL		
RICHEY RD. - CR 75	1,812.38 LF	
PEARSON RD. - TR 234	1,552.67 LF	
LIBERTY UNION RD. - CR 77	2,036.80 LF	
TERRY RD. - TR 160	1,788.89 LF	
ADD FOR SR 224	2,465.37 LF	
TOTAL LENGTH OF WORK	59,724.64 LF = 11.311 MILES	



LOCATION MAP

PORTION TO BE IMPROVED  
STATE HIGHWAYS  
OTHER ROADS  
DETOUR ROUTES

SCALE

PLAN 1 INCH = 50 FEET  
PROFILE (HORIZONTAL) 1 INCH = 50 FEET  
PROFILE (VERTICAL) 1 INCH = 5 FEET  
CROSS SECTIONS 1 INCH = 10 FEET

STANDARD DRAWINGS									
B-T-70-71	1-15-60	1-12	2-1-63	L-2	4-1-50	RRA NO. 1	2-1-63	FSB-1-62	1-15-63
B-T-71 R	3-2-53	1-15 NO. 1	11-15-60	L-3	4-1-50	RRA NO. 2	1-20-58	CSB-4-63, shfs. 1 & 4	12-30-63
DR-1	1-3-55	1-15 NO. 2-A	8-17-60	L-3-A	4-1-50	RRA NO. 5	11-3-58	SD-1-63, shfs. 1, 2, 3, 4	11-12-63
G-707	4-1-64	1-15 NO. 5-B	2-1-63	L-J NO. 1	7-1-55	SP-53	6-30-61	AR-1-57	4-2-62
I-1	11-15-60	1-21-23	3-10-64	F-2	2-1-63	AS-1-54	7-5-62	SD-2-64	11-25-64
		T-35	1-2-56	1-8 C.B. No. 2-A & B	2-1-63	1-15 NO. 6	2-1-63	CS-1-54	4-1-63
I-8 CB NO. 6	2-1-63	T. J.	9-12-60	1-8 I NO. 2	2-1-63	F-3	2-1-63	A-1-54	12-1-54
I-8 CB NO. 8	2-1-63	L-1	4-1-50	RI-1	9-1-64	SB-1-64 sh 1	8-25-64	P-1-54	2-2-59

APPROVED W. R. Conner  
DATE 3/10/65 DIVISION DEPUTY DIRECTOR

APPROVED C. W. Althaus  
DATE 5-5-65 ENGINEER OF BRIDGES

APPROVED D. W. Ricketts  
DATE 5-10-65 ENGINEER OF LOCATION AND DESIGN

APPROVED R. B. Shultz  
DATE 5-10-65 DEPUTY DIRECTOR OF DESIGN AND CONSTRUCTION

APPROVED T. H. Borne  
DATE 4-20-65 DEPUTY DIRECTOR OF RIGHT-OF-WAY

APPROVED F. W. Wilson  
DATE 5-13-65 DEPUTY DIRECTOR OF PLANNING AND PROGRAMMING

APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_ FIRST ASSISTANT DIRECTOR

APPROVED H. E. Washburn  
DATE 5/13/65 DIRECTOR OF HIGHWAYS

SUPPLEMENTAL SPECIFICATIONS		
L-120	REV.	1-2-62
T-335		10-28-63
I-127	REV.	1-15-62
I-129	REV.	4-5-61
C.E.-101,04		5-22-56
S-307	REV.	10-1-64
S-101		7-12-62
M-107,18	REV.	4-3-61
I-212	REV.	6-23-61
M-106,11		1-26-61

FILE NO.	VAN WERT COUNTY	VAN-30-4.06
DATE OF LETTING	19	
CONTRACT NO.		

# SCHEMATIC PLAN

U.S. ROUTE 30  
VAN 30-4.06

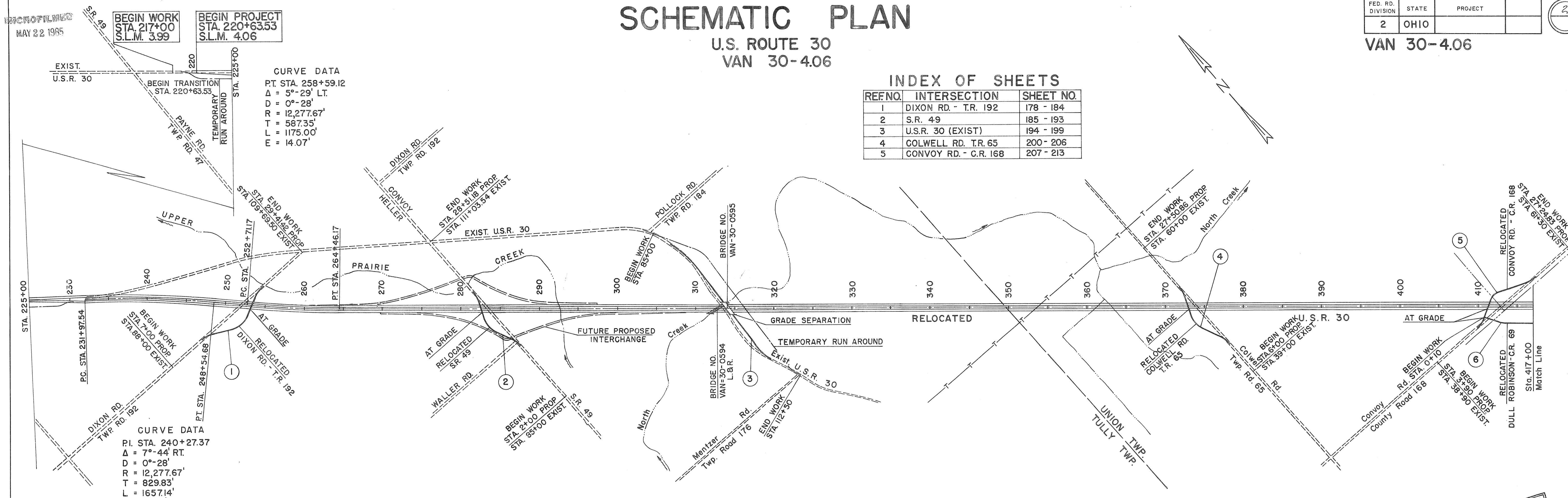
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

VAN 30-4.06

2

### INDEX OF SHEETS

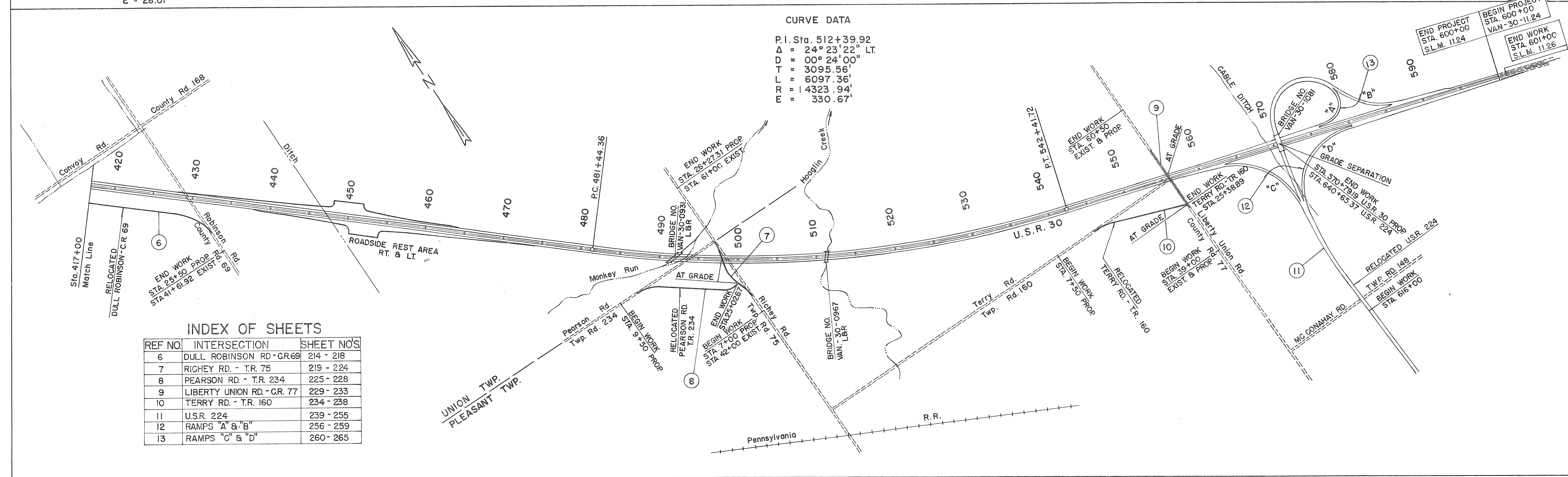
REFNO.	INTERSECTION	SHEET NO.
1	DIXON RD. - T.R. 192	178 - 184
2	S.R. 49	185 - 193
3	U.S.R. 30 (EXIST)	194 - 199
4	COLWELL RD. T.R. 65	200 - 206
5	CONVOY RD. - C.R. 168	207 - 213



**CURVE DATA**  
 PT. STA. 258+59.12  
 $\Delta = 5^{\circ} 29' \text{ LT.}$   
 $D = 0^{\circ} 28'$   
 $R = 12,277.67'$   
 $T = 587.35'$   
 $L = 1175.00'$   
 $E = 14.07'$

**CURVE DATA**  
 P.I. STA. 240+27.37  
 $\Delta = 7^{\circ} 44' \text{ RT.}$   
 $D = 0^{\circ} 28'$   
 $R = 12,277.67'$   
 $T = 829.83'$   
 $L = 1657.14'$   
 $E = 28.01'$

**CURVE DATA**  
 P.I. Sta. 512+39.92  
 $\Delta = 24^{\circ} 23' 22'' \text{ LT.}$   
 $D = 00^{\circ} 24' 00''$   
 $T = 3095.56'$   
 $L = 6097.36'$   
 $R = 14323.94'$   
 $E = 330.67'$



**INDEX OF SHEETS**

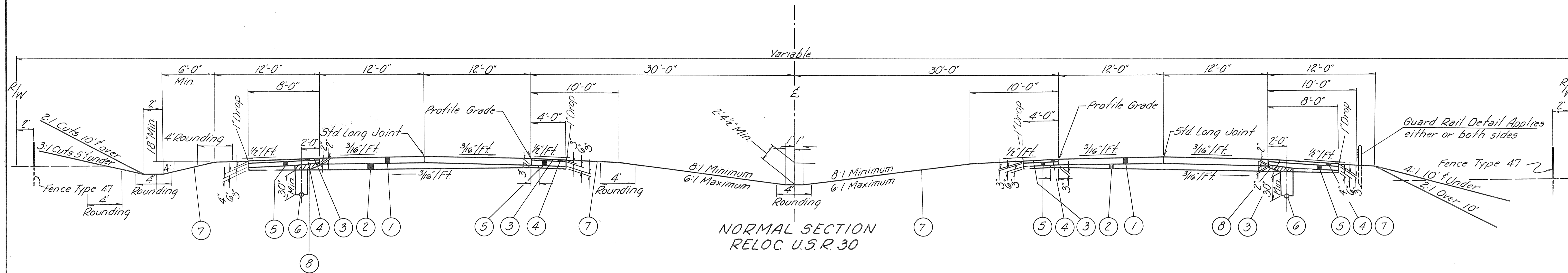
REF NO.	INTERSECTION	SHEET NO'S
6	DULL ROBINSON RD.-C.R.69	214 - 218
7	RICHEY RD. - T.R. 75	219 - 224
8	PEARSON RD. - T.R. 234	225 - 228
9	LIBERTY UNION RD. - C.R. 77	229 - 233
10	TERRY RD. - T.R. 160	234 - 238
11	U.S.R. 224	239 - 255
12	RAMPS "A" & "B"	256 - 259
13	RAMPS "C" & "D"	260 - 265

# TYPICAL SECTIONS

## TYPE T-71

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

VAN WERT COUNTY  
VAN-30-406



NORMAL SECTION  
RELOC. U.S.R. 30

Note: - For details not shown see RI-1 or Cross Sections.

**TYPICAL SECTION ABOVE APPLIES:**

U.S.R. 30	
From *Sta 224+50 to Sta 231+97.54	747.54 Lin. Ft. (Transition)
Sta 231+97.54 to Sta 313+46.56	8,149.02 Lin. Ft.
Sta 314+21.44 to Sta 491+51.63	17,730.19 Lin. Ft.
Sta 492+68.37 to Sta 510+75.2	1,806.87 Lin. Ft.
Sta 512+04.76 to Sta 600+00	8,795.24 Lin. Ft.
Total Length	37,228.86 Lin. Ft.

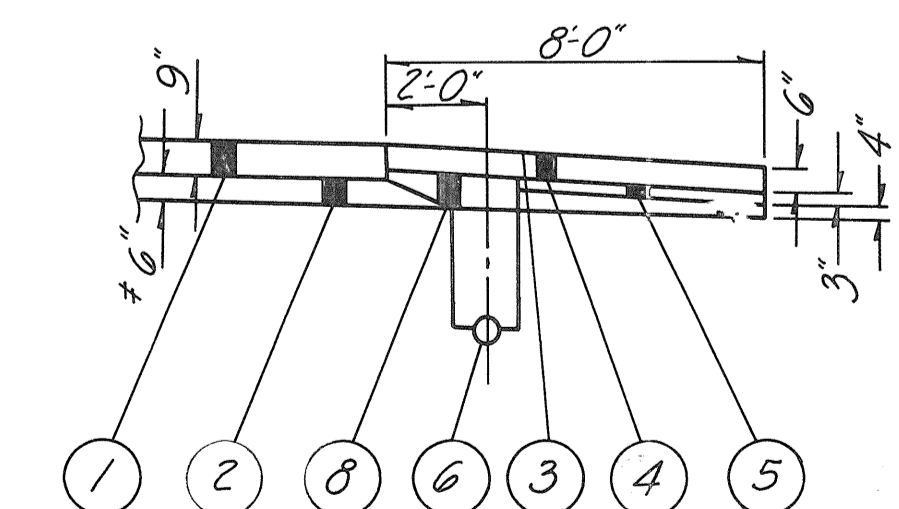
U.S.R. 224	
From *Sta 619+38 to Sta 621+00	162 Lin. Ft. (Transition)

\* Median & Pavement Widths vary, See plan & profile sheets.

**LEGEND**

- ① Item T-71 9" Reinforced Portland Cement Concrete Pavement
- ② Item I-22 Subbase. (Thickness as shown)
- ③ Item T-31 Bituminous Surface Treatment using 0.008 Cu Yd. No. 6 Aggregate per Sq Yd and 0.25 Gal. Bituminous Material. (See Note in Proposal.)
- ④ Item B-21 #3" Waterproofed Aggregate Base Course # Type "A" T-35 or T-335 Material may be used in construction of this Course. (See Note in Proposal) # Thickness shown is "designed" thickness as described in Section B-2101.
- ⑤ Item B-19 Aggregate Base Course. (Thickness as Shown)
- ⑥ Item I-1 6" Pipe Class I-3.
- ⑦ Item L-9 Seeding and Protecting.
- ⑧ Special Drainage connection using No. 6 Aggregate, (See Note in Proposal.)

Note:  
Sequence of operations (1) Install pipe underdrain on outside shoulder. Installation of shallow under drain in median may be deferred until T-71 is placed. (2) Place subbase out to outside edge of underdrain or to one foot beyond edge of pavement where no underdrain is present. (3) Construct T-71. (4) Remove subbase and any contaminated Back Fill over drain and replace with No. 6 Aggregate as shown by ⑧ (5) complete shoulder construction.



DETAIL: Outside Shoulders of Speed change lanes.

# 7 1/2 Normal Section # Superelevated Section.  
## Item B-21 shall be 6" thickness on speed change lanes and ramps with a corresponding reduction in the thickness of Item B-19.

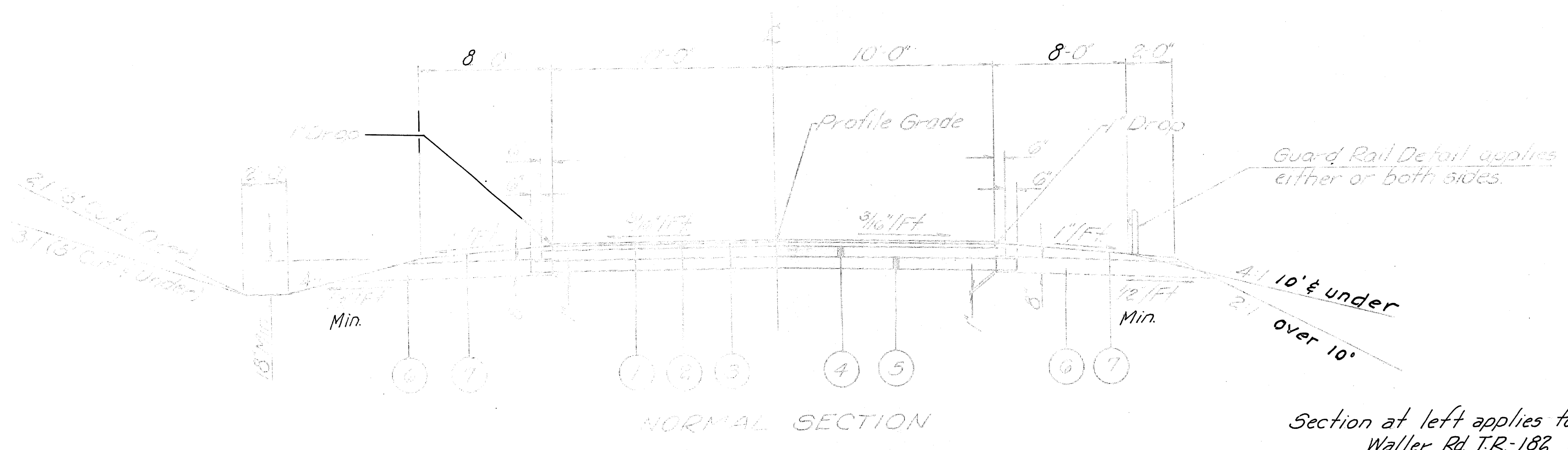


# TYPICAL SECTIONS

TYPE T-35 ON B-19  
S.R. 49 & WALLER RD. - T.R. 182

KEY NO.	STATE	PROJECT
2	OHIO	

VAN WERT COUNTY  
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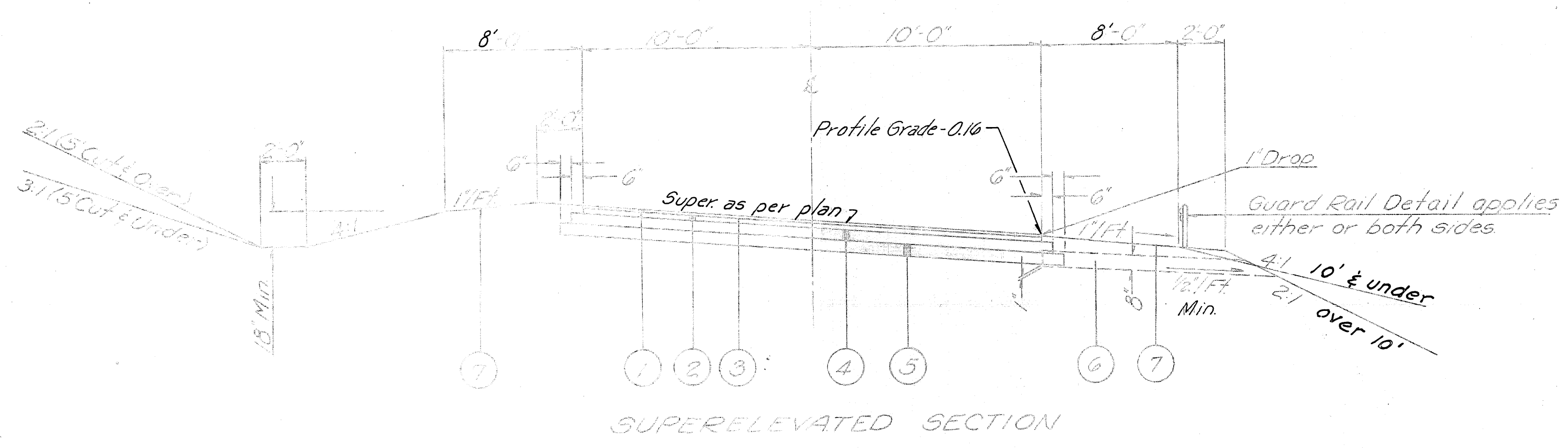


Section at left applies to  
Waller Rd, T.R. 182 Sta 0+78.51

- LEGEND**
- ① Item T-35 - 1/2" Asphaltic Concrete Surface Course, Type C (85-100)
  - ② Item B-35 - 3/4" Asphaltic Concrete Leveling Course (85-100)
  - ③ Item T-30 - Bituminous Prime Coat Sec. M 59, PT-20, RT-3 applied at the rate of 0.02 Gall per sq. ft.
  - ④ Item B-19 - 6" Aggregate Base Course
  - ⑤ Item L-12 - 6" Subbase
  - ⑥ Item S-2 - Stone Underdrains, No. 2 (Spaced at 50' intervals or as directed by the Engineer)
  - ⑦ Item L-9 - Sealing and Protecting

Note: \*Thicknesses shown are "designed" thickness as described in Sect. 35.01 and B-35.01

For Details not shown, See Std. Dwg. RI-1 or Cross Sections



Section at left applies from

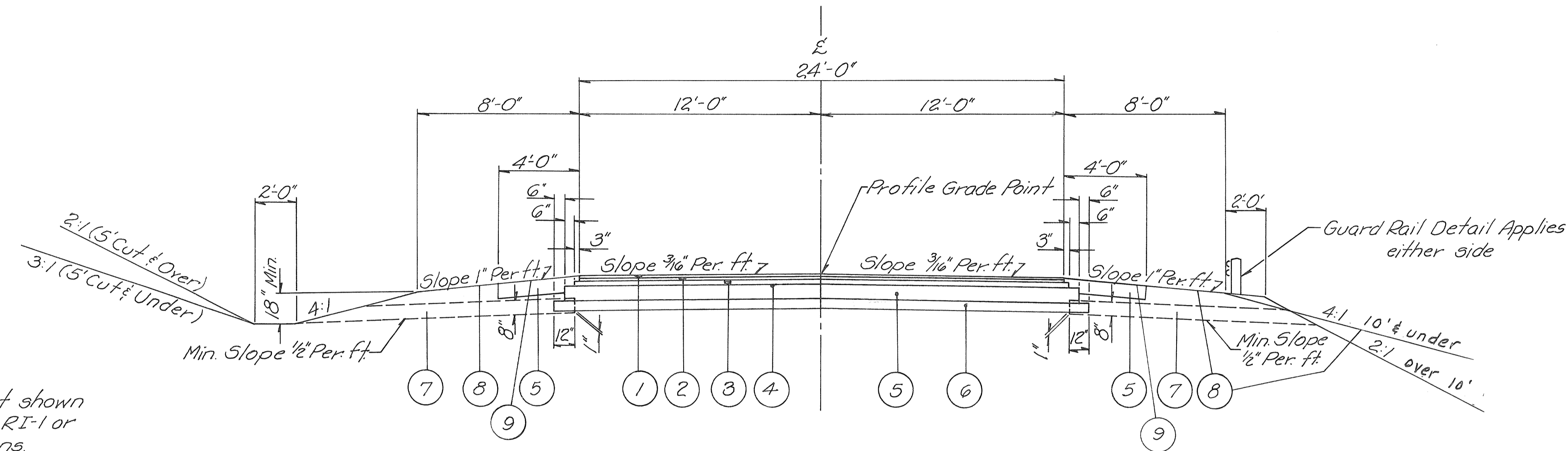
Sta 9+00 to Sta 16+73.18, S.R. 49	773.18
Sta 19+09.66 to Sta 20+50, S.R. 49	140.34
<b>Total Length, S.R. 49</b>	<b>913.52</b>

# TYPICAL SECTIONS

TYPE T-35 ON B-19  
U.S.R. 30 -

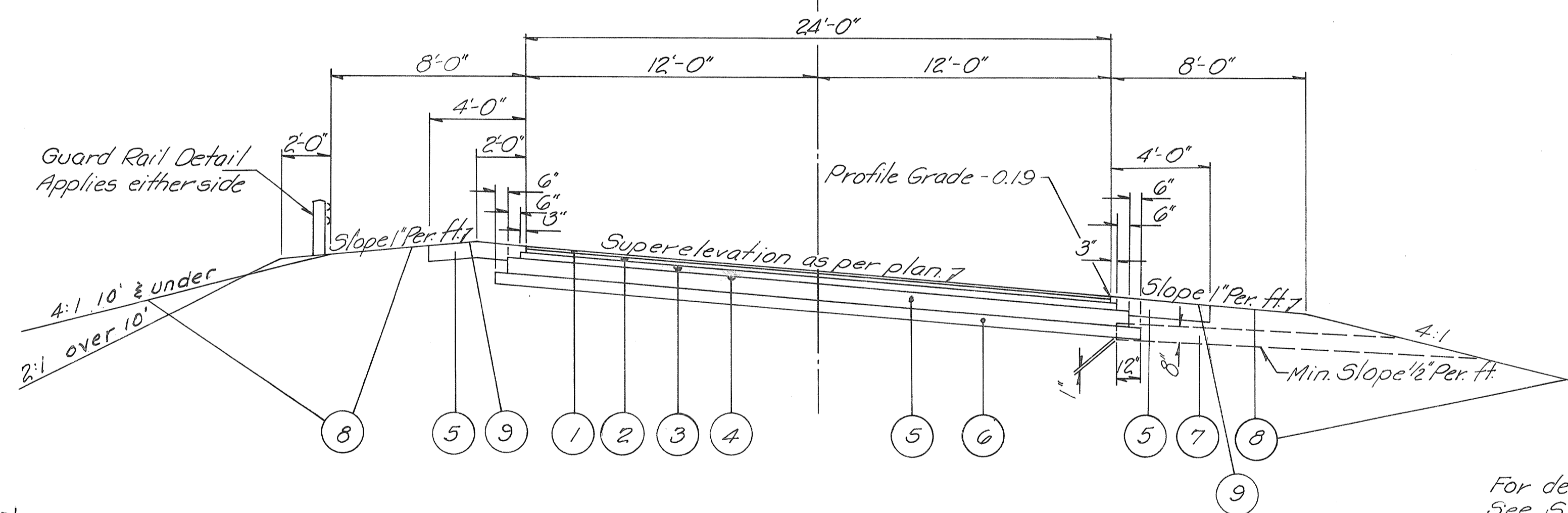
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

VAN WERT COUNTY  
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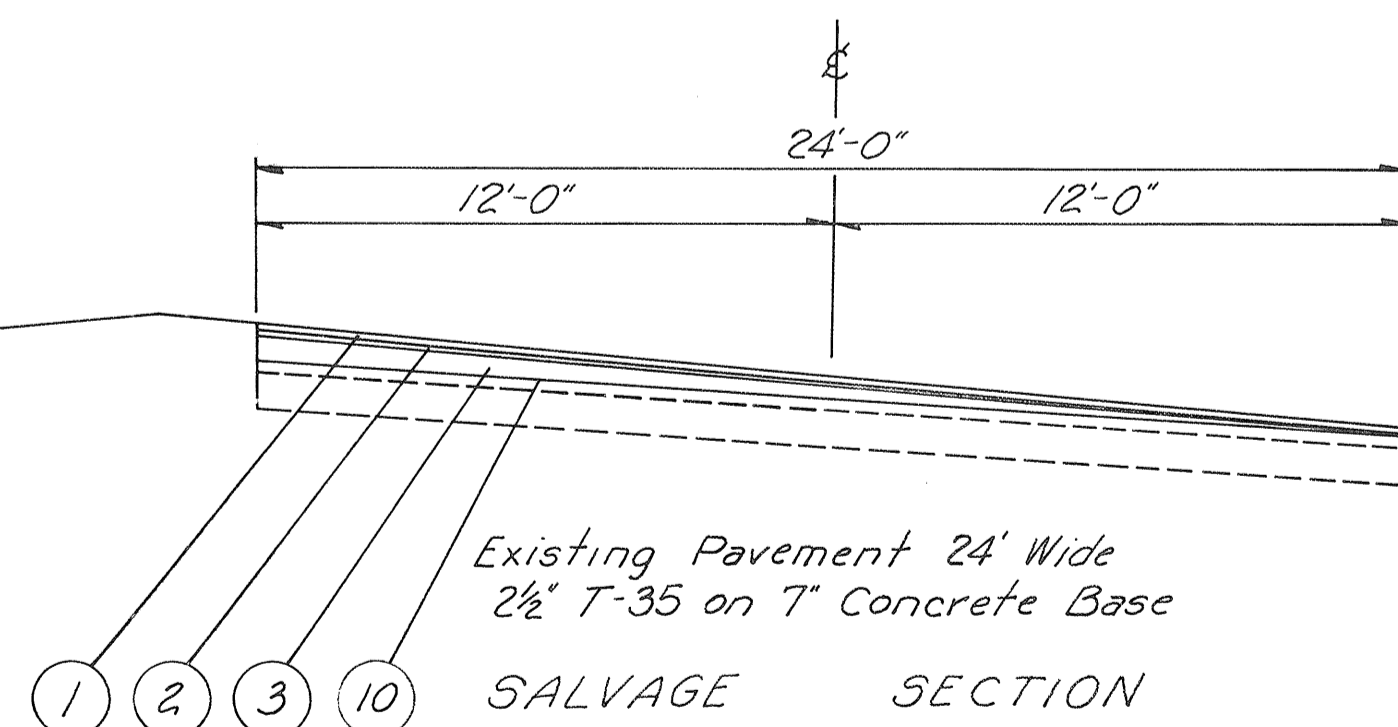
For details not shown  
See Std. Dwg. RI-1 or  
Cross Sections.

Section at left applies from  
Sta 94+00 to Sta 98+27.66 427.66 Lin. Ft.  
Sta 101+72.34 to Sta 102+00 27.66 Lin. Ft.  
Total Length 455.32 Lin. Ft.



Section at left applies from  
Sta 89+00 to Sta 94+00 500 Lin. Ft.  
Sta 102+00 to Sta 111+00 900 Lin. Ft.  
Total Length 1400 Lin. Ft.

For details not shown  
See Std. Dwg. RI-1 or  
Cross Sections.



Existing Pavement 24' Wide  
2 1/2" T-35 on 7" Concrete Base

SALVAGE SECTION

- ① \* Item T-35 1 1/4" Asphaltic Concrete Surface Course Type "C" (70-85).
- ② \* Item B-35 1 1/4" Asphaltic Concrete Leveling Course. (1" Min. to 2 1/4" Max. over Exist. Pavt.) (70-85)
- ③ \* Item B-35 3" Asphaltic Concrete Base Course (70-85). (1" Min. to 5 1/2" Max. over Exist. Pavt.)
- ④ Item T-30 Bituminous Prime Coat using Sec. M-57, RT-2 or RT-3 applied at the rate of 0.40 Gal. per Sq. Yd.
- ⑤ Item B-19 8" Aggregate Base Course.
- ⑥ Item I-22 6" Subbase
- ⑦ Item I-9 Stone Underdrains No. 2 (Spaced at 50' intervals or as directed by the engineer.)
- ⑧ Item L-9 Seeding and Protecting.
- ⑨ Item Special Furnishing and Applying Calcium Chloride on Aggregate Shoulders and Approaches. (See Note in Proposal.)
- ⑩ Item T-30 Bituminous Tack Coat using Sec. M-55 M5-2 or R5-1 or Sec. M-52, RC-1 or RC-2 as per Sec. T-3002 applied at the rate of 0.10 Gal. per Sq. Yd.

\* Thicknesses shown are "designed" thicknesses as described in Sec. T-35.01 and Sec. B-35.01

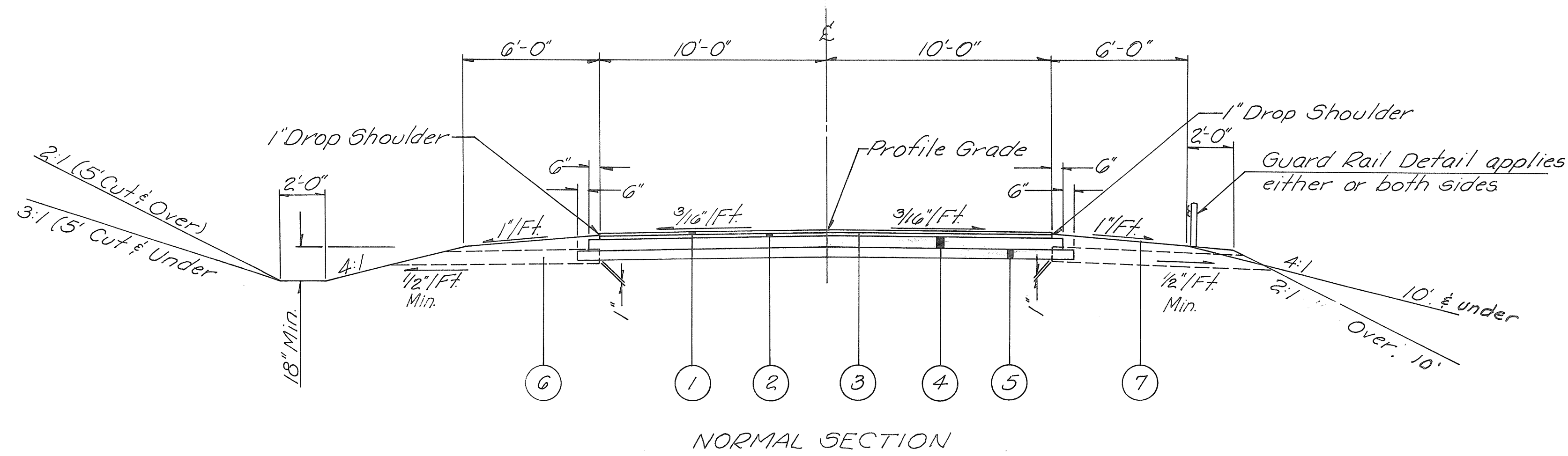
# TYPICAL SECTIONS

TYPE T-35 OR B-19

DIXON RD. - TWP. RD. 192  
COLWELL RD. - TWP. RD. 65

FED. RD. DIVISION	STATE	PROJECT
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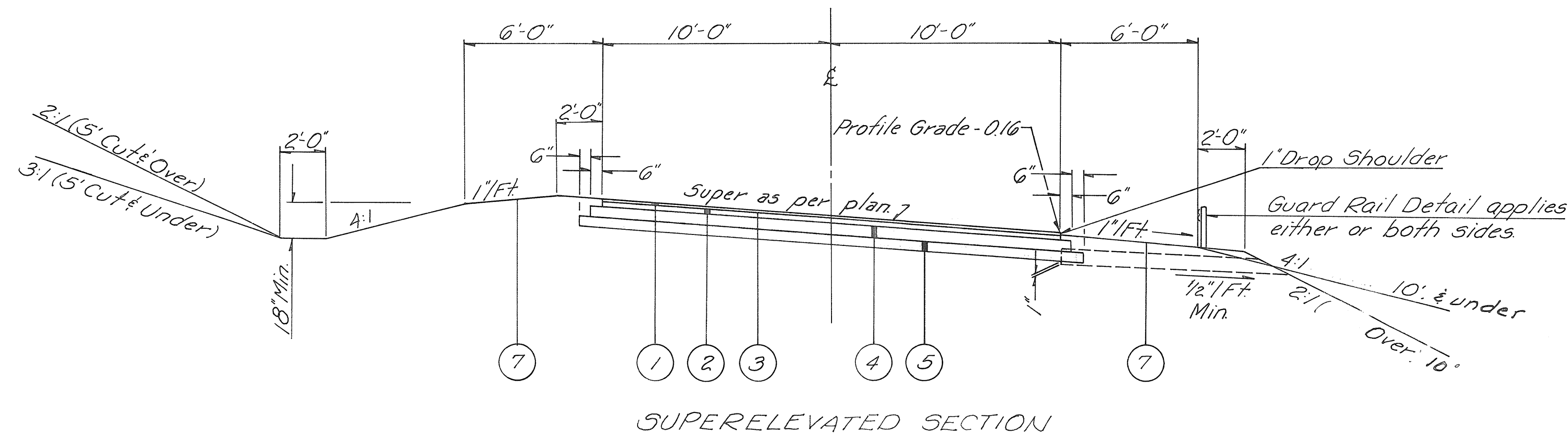
VAN WERT COUNTY  
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- LEGEND
- ① \*Item T-35 ~ 1/4" Asphaltic Concrete Surface Course, Type "C" (85-100).
  - ② \*Item B-35 ~ 1/4" Asphaltic Concrete Leveling Course (85-100).
  - ③ Item T-30 ~ Bituminous Prime Coat Sec. M-5.7, RT-2 or RT-3 applied at the rate of 0.40 Gal. Per Sq. Yd.
  - ④ Item B-19 ~ 6" Aggregate Base Course.
  - ⑤ Item I-22 ~ 4" Subbase.
  - ⑥ Item I-9 ~ Stone Underdrains, No. 2 (Spaced at 50' intervals or as directed by the Engineer).
  - ⑦ Item L-9 ~ Seeding and Protecting.

\*Note ~ Thicknesses shown are "designed" thicknesses as described in Sec. T-35.01 and B-35.01.

For Details not shown, See Std. Dwg. RI-1 or Cross Sections.



ROAD	NORMAL SECTION		SUPERELEVATED SECTION		LIN. FT.	
	Station		Station		NORMAL SECTION	SUPERELEVATED SECTION
	From	To	From	To		
DIXON RD. (TWP. RD. 192)			10+00	18+92.14		892.14
Total			21+85.64	23+50		1056.50
COLWELL RD. (TWP. RD. 65)			9+00	16+84.03		784.03
Total			19+20.51	21+50		1013.52

# TYPICAL SECTIONS

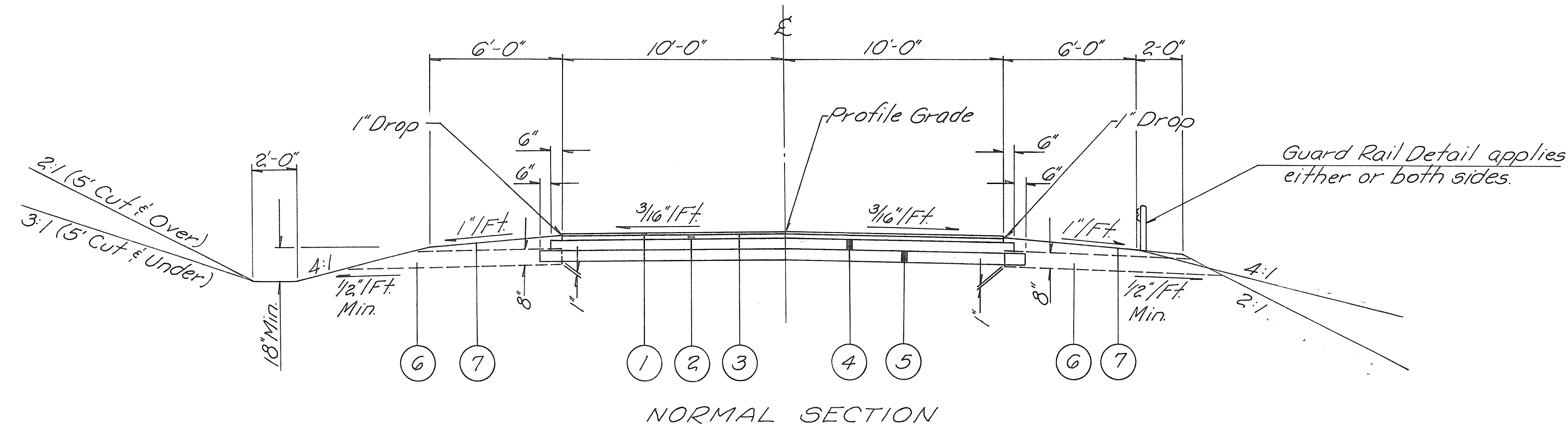
TYPE T-35 ON B-19

CONVOY RD. - CO. RD. 168  
LIBERTY UNION RD. - CO. RD. 77

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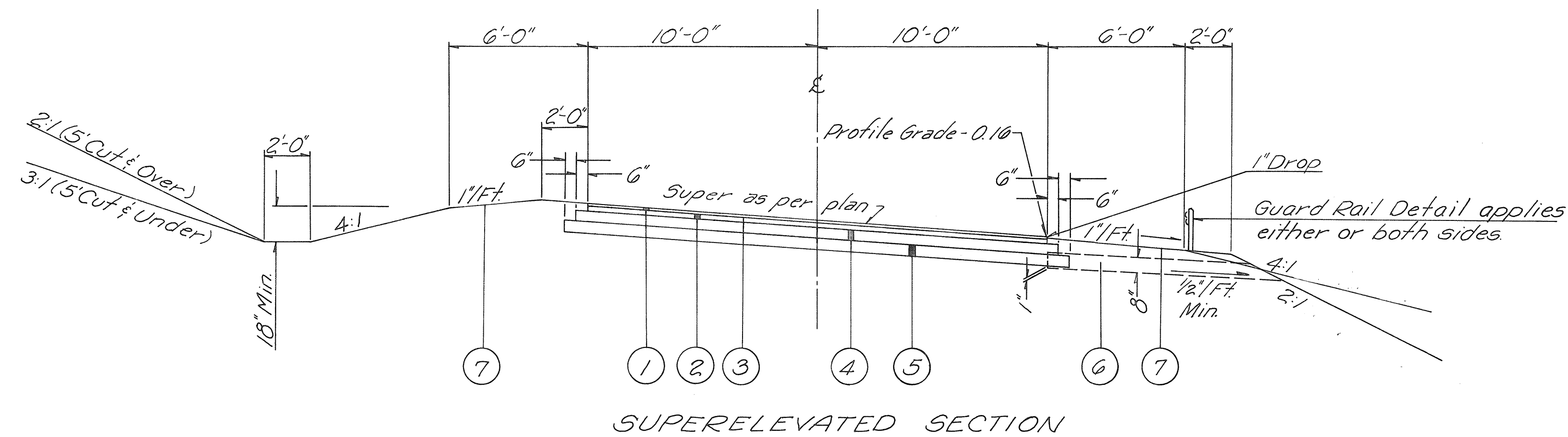
VAN WERT COUNTY  
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- LEGEND
- ① \* Item T-35 ~ 1/4" Asphaltic Concrete Surface Course, Type "C" (85-100).
  - ② \* Item B-35 ~ 1/4" Asphaltic Concrete Leveling Course (85-100).
  - ③ Item T-30 ~ Bituminous Prime Coat Sec. M-5.7, RT-2 or RT-3 applied at the rate of 0.40 Gal. per Sq. Yd.
  - ④ Item B-19 ~ 6" Aggregate Base Course.
  - ⑤ Item I-22 ~ 6" Subbase.
  - ⑥ Item I-9 ~ Stone Underdrains, No. 2 (Spaced at 50' intervals or as directed by the Engineer).
  - ⑦ Item L-9 ~ Seeding and Protecting.

Note: \*Thicknesses shown are "designed" thickness as described in Sec. T-35.01 and B-35.01.

For Details not shown, See Std. Dwg. RI-1 or Cross Sections.



ROAD	NORMAL SECTION		SUPERELEVATED SECTION		LIN. FT.	
	Station		Station		NORMAL SECTION	SUPERELEVATED SECTION
	From	To	From	To		
CONVOY RD - (CO. RD. #168)	10+00	10+50			50	
			10+50	12+10.81		160.81
			15+53.06	24+00		846.04
Total					50	1006.85
LIBERTY UNION (CO. RD. 77)	45+6337	48+8651			323.14	
Total					323.14	

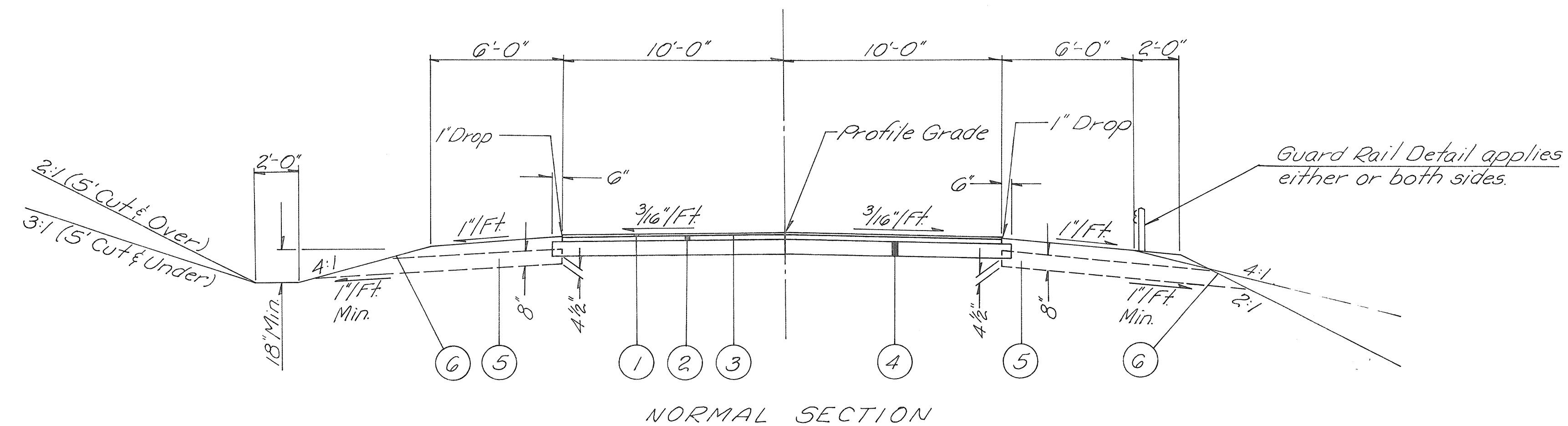


# TYPICAL SECTIONS

TYPE T-35 ON B-19  
 DULL ROBINSON - T.R. 69  
 RICHEY RD - C.R. 75  
 PEARSON RD - T.R. 234  
 TERRY RD - T.R. 160

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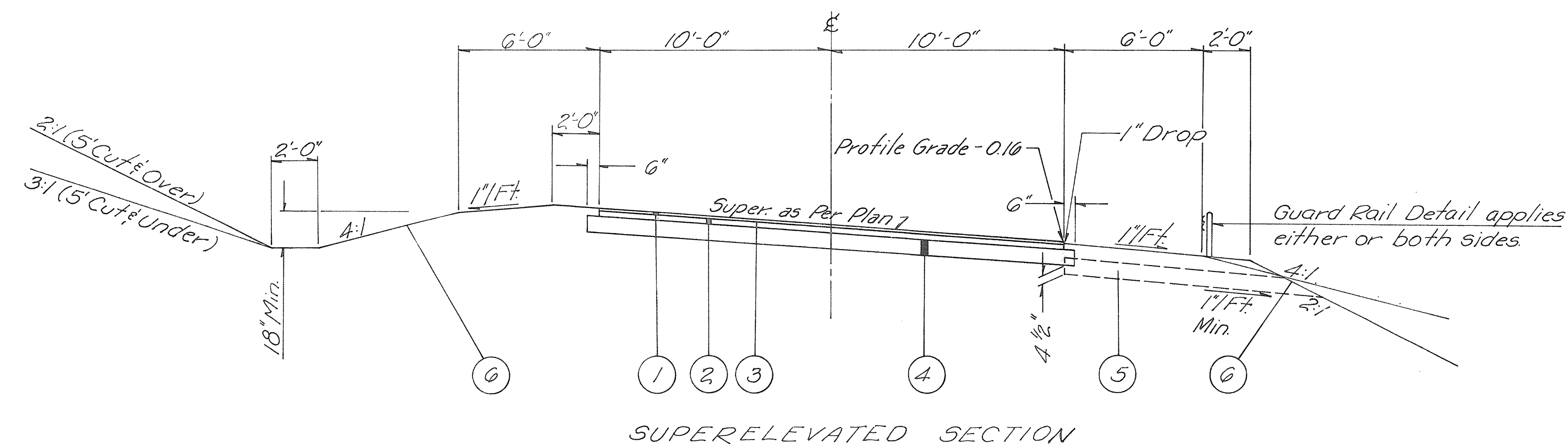


NORMAL SECTION

- LEGEND
- ① \*Item T-35 ~ 1/4" Asphaltic Concrete Surface Course, Type "C" (85-100).
  - ② \*Item B-35 ~ 1/4" Asphaltic Concrete Leveling Course (85-100).
  - ③ Item T-30 ~ Bituminous Prime Coat Sec. M-57, RT-2 or RT-3 applied at the rate of 0.40 Gal. per Sq. Yd.
  - ④ Item B-19 ~ 8" Aggregate Base Course.
  - ⑤ Item I-9 ~ Stone Underdrains, No. 2 (Spaced at 50' intervals or as directed by the Engineer).
  - ⑥ Item L-9 ~ Seeding and Protecting.

\* Note ~ Thicknesses shown are "designed" thicknesses as described in Sec. T-35.01 and B-35.01.

For Details not shown, See Std. Dwg. RI-1 or Cross Sections.



SUPERELEVATED SECTION

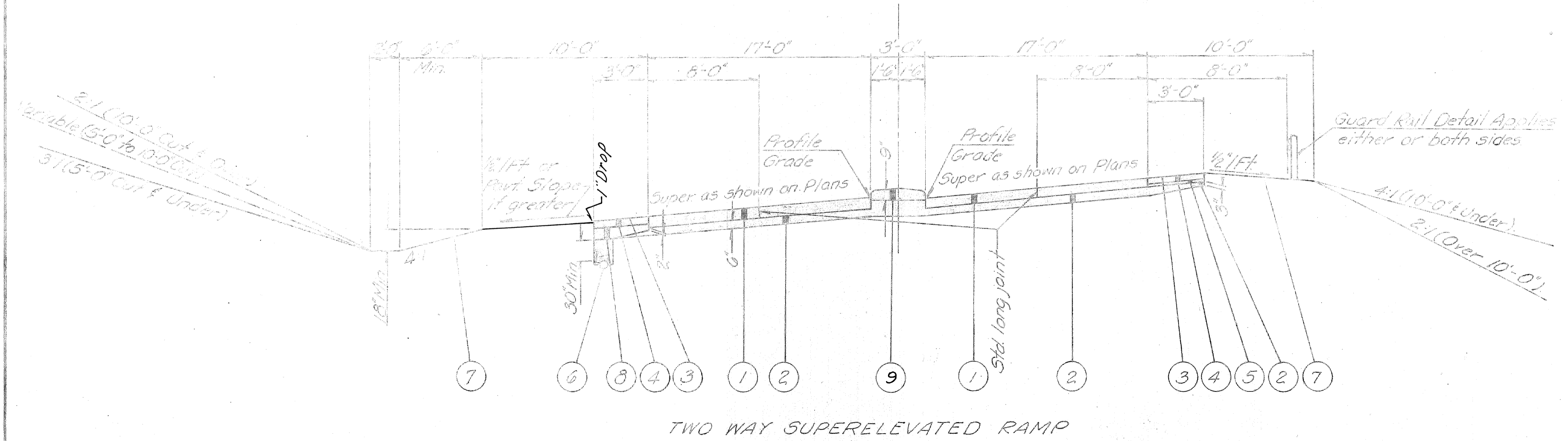
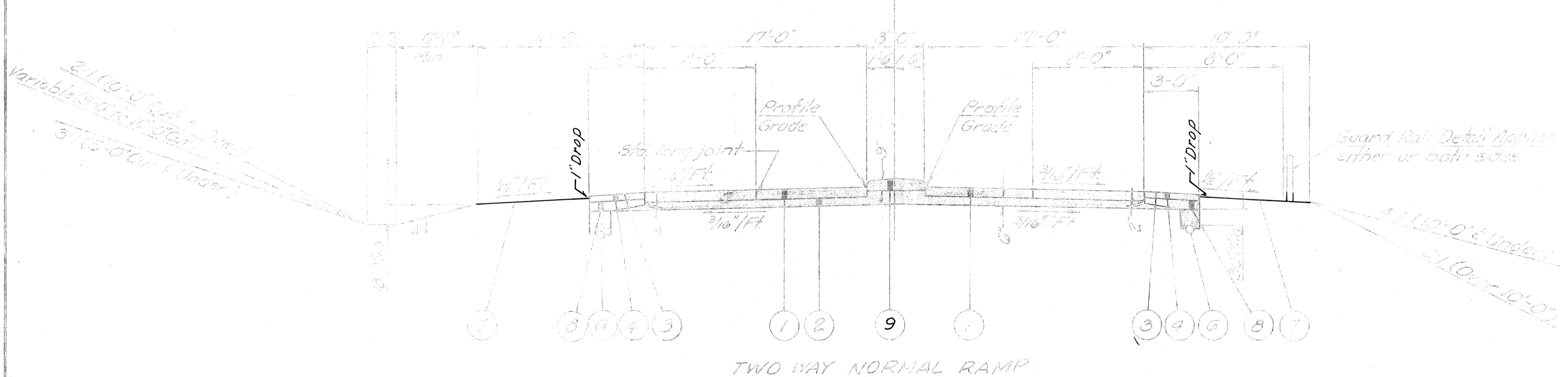
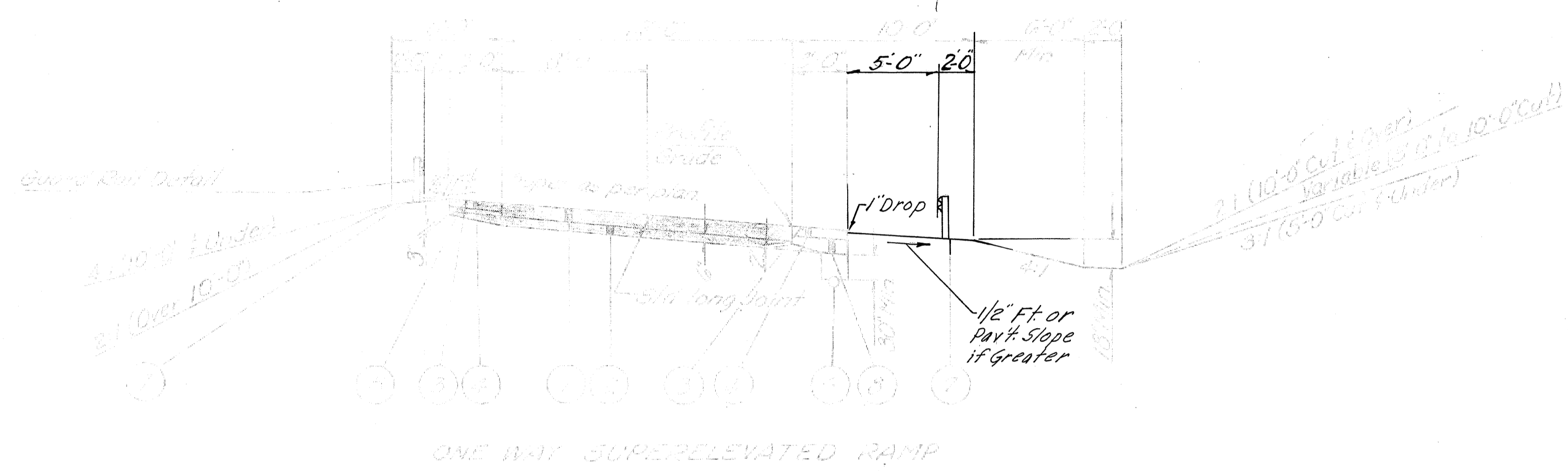
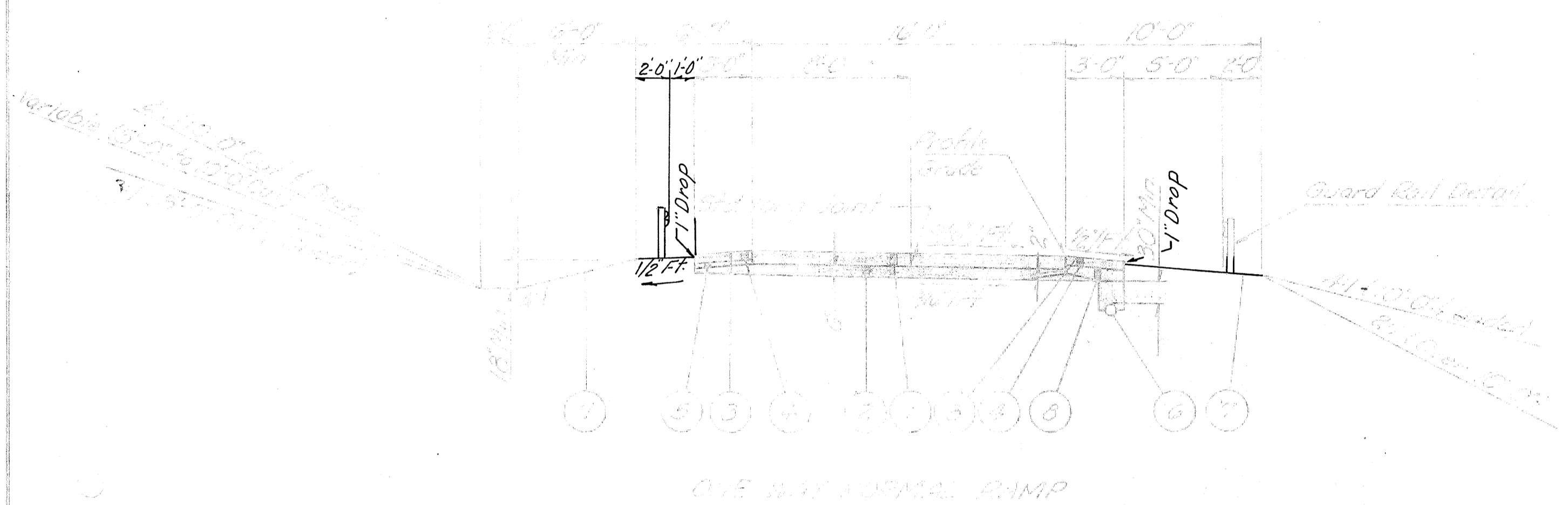
ROAD	NORMAL SECTION		SUPERELEVATED SECTION		LIN. FT.	
	Station		Station		NORMAL SECTION	SUPERELEVATED SECTION
	From	To	From	To		
DULL ROBINSON (TWP RD. 69)	0+10	0+75			65	
	4+50	15+75	0+75	4+50	1125	375
			15+75	25+00		925
<b>Total</b>					1190	1300
RICHEY RD (CO. RD. 75)			10+50	15+79.78		529.78
			18+16.27	19+38.24		121.97
						651.75
<b>Total</b>						
PEARSON RD (TWP RD. 234)			10+50	16+00		550
	16+00	21+25			525	
			21+25	24+27.62		302.62
<b>Total</b>				525	852.62	
TERRY RD. (TWP RD. 160)			10+75	15+50		475
	15+50	24+08.50			918.50	
<b>Total</b>						

# TYPICAL SECTIONS

## TYPE T-71

REF. NO.	STATE	PROJECT
2	OHIO	

MAN 83-4.06



### LEGEND

- ① Item T-71 - 8" Reinforced Portland Cement Concrete Pavement
- ② Item T-22 - Subbase (Thickness as shown)
- ③ Item T-31 - Bituminous Surface Treatment using G-008 and No. 6 Aggregate per 3/4" and 0.15 gal. Bituminous Material. See Note in Proposal.
- ④ Item T-20 - 6" Water-caked Aggregate Base Course (Type T-733 Material may be used in construction of this course - See Note in Proposal). (2-3" Courses) \*Thickness shown is "designed" thickness as described in Section B-21.01.
- ⑤ Item B-19 - 3" Aggregate Base Course
- ⑥ Item T-1 - 6" Pipe, Class I
- ⑦ Item T-2 - Sanding and Protecting
- ⑧ Item Special - Drainage connection using No. 6 aggregate. (See Note in Proposal)
- ⑨ Item T-21 - Portland Cement Concrete Median Pavement

Note - For Details not shown, see Std. Dwg. RI-1 or Cross Sections.

# GENERAL NOTES

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**ROUNDING OF CORNERS (SECTION 11-1.1)**

THE ROUNDED CORNERS SHOWN ON STANDARD DRAWING 11-1.1, APPLIED TO THIS PROJECT, SHALL BE CONSIDERED UNLESS OTHERWISE SHOWN OTHERWISE.

**UTILITY ADJUSTMENT:**

ANY OR ALL WORK NECESSARY FOR PROTECT OR REPAIR UTILITIES WILL BE DONE BY AND AT THE BURDEN OF THE AGENCIES FROM WHICH THE UTILITIES OTHERWISE LOCATED ON THIS PLAN.

**FIELD OFFICE:**

THE CONTRACTOR SHALL, IN ACCORDANCE WITH SEC. 6-1-02 (b), PROVIDE FOR THE EXCLUSIVE USE OF THE STATE'S HIGHWAYS. A SURVEYOR'S FIELD OFFICE HAVING A MINIMUM OF 500 SQ. FT. OF CLEAR SPACE. THE CONTRACTOR SHALL HAVE A SURVEYOR INSTALLED AND MAINTAINED IN THE FIELD OFFICE DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL ALSO PROVIDE AND INSTALL BARRIERS AND OFFICIAL SIGNAGE FOR THE SURVEYOR'S FIELD OFFICE AND OFFICIAL SIGNAGE IN THE FIELD OFFICE AND PROVIDE 110-VOLT INTERMITTENT CURRENT TO THE SERVICE GARAGE THE ENTIRE PERIOD OF CONSTRUCTION OF THIS PROJECT.

**DESIGN SPEED:**

THE GEOMETRICS FOR THIS PROJECT HAVE BEEN DESIGNED FOR A DESIGN SPEED OF 70 MILES PER HOUR.

**UNDERGROUND UTILITIES:**

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DIGGING TEST HOLES AND CHECKING THE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO MAKES NO WARRANTY AS TO THEIR ACCURACY OR COMPLETENESS.

**SUPERELEVATION:**

SUPERELEVATED CURVES SHALL BE BUILT TO ROAD GRADE. THE CURVE SHALL BE WORKED OUT OF THE END OF THE ROADWAY BETWEEN THE DEPARTURE OF THE TRANSITION AND THE POINT WHERE THE SUPERELEVATION BEGINS TWICE THE CHORD.

**CONTRACTOR'S MAINTENANCE RESPECTS (ITEM 1):**

ON THIS PROJECT, THE CONTRACTOR'S RESPONSIBILITY FOR MAINTENANCE OF THE EXISTING PAVEMENT FOR ITEM 1-1 SHALL BE LIMITED TO THOSE PORTIONS OF THE EXISTING PAVEMENT THAT WITHIN THE PROPOSED WORK LIMITS.

**NON-RIGID PAVEMENT REMOVAL:**

REMOVAL AND DISPOSAL OF EXISTING NON-RIGID PAVEMENT, UNLESS OTHERWISE INDICATED ON THESE PLANS, SHALL BE REMOVED AND HAUL AWAY ITEM 1-1, ROADWAY EXCAVATION.

**REMOVAL OF EXISTING PIPES:**

THE REMOVAL OF ALL EXISTING PIPE DRAIN WITHIN THE LIMITS OF PROPOSED EXCAVATION SHALL BE PROVIDED FOR PAYMENT IN THE UNIT PRICE BID FOR THE RESPECTIVE EXCAVATION ITEMS, UNLESS ALREADY BEEN IDENTIFIED IN THE PLANS.

**FINISHING PIPES:**

THE UPSTREAM ENDS OF ALL PIPE OR TILE LINES INTERCEPTED BY CONSTRUCTION (AND, IN SOME INSTANCES, THE ENDS OF PIPE LINES TO BE REINSTALLED IN PLACE) SHALL BE EFFECTIVELY BEGGED AND CAPPED. KNOWN PIPES AND PORTIONS OF PIPE OF VILF SHALL BE REMOVED UNLESS A PROTECTOR IS PROVIDED. THIS PIPE SHALL THEN BE BEEGGED WITH CONCRETE, PLAT STONE OR BRICK Laid IN MORTAR, OR A BRICK OR CONCRETE FLOUNDER. AT THE TIME OF CONSTRUCTION, THERE ARE BENDER TILE OR PRIVATE RIGHT-OF-WAY THAT HAVE NOT BEEN PLACED. THE CONTRACTOR SHALL BEEG AT THE RIGHT-OF-WAY LINE ALL PIPES AND TILES THAT ARE INTERCEPTED BY THE ROADWAY DITCH. PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 1-1, ROADWAY EXCAVATION.

**REMOVAL OF TREES AND STUMPS:**

ALL TREES AND STUMPS LYING WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER THE UNIT PRICE BID PER EACH ITEM 1-9, REMOVAL OF TREES AND STUMPS, EXCEPT THOSE TREES FOR WHICH PROTECTION AND PRESERVATION WORK IS INDICATED ELSEWHERE IN THESE PLANS SHALL NOT BE REMOVED.

THE FOLLOWING IS AN APPROXIMATE SCHEDULE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

SIZE	NO. TREES	NO. STUMPS
12" - 18"	61	3
18" - 24"	23	4
24" - 30"	10	1
30" - 36"	3	
36" - 42"	2	
42" - 48"		
OVER 48"		

THE ABOVE ESTIMATE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE OF THE LIMITS OF CONSTRUCTION THAT WITHIN THE RIGHT-OF-WAY AND/OR EASEMENT LINES. PAYMENT FOR THE REMOVAL OF THESE ADDITIONAL TREES OR STUMPS SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH FOR ITEM 1-9, REMOVAL OF TREES AND STUMPS.

**RAIL ADJACENT TO BRIDGE:**

ONE (1) ADDITIONAL GUARD RAIL POST SHALL BE PROVIDED IN THE CENTER OF EACH PANEL OF GUARD RAIL ADJACENT TO THE BRIDGE. PAYMENT FOR THIS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 1-15 GUARD RAIL.

**SEEDING:**

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN RIGHT-OF-WAY LINES EXCEPT THOSE AREAS WHERE THE EXISTING COVER (TEN (10) FEET BEYOND THE WORK LIMITS IS CONSIDERED TO BE ACCEPTABLE. (SUCH AS WOODLANDS, GRASSLANDS, ETC.) AT THE TIME OF CONSTRUCTION, THE ENGINEER SHALL DETERMINE THE ACCEPTABLE AREAS THAT SHALL NOT BE SEEDING.

**SEEDING FORMULA:**

THE FOLLOWING SEED MIXTURES SHALL, IN LIEU OF THE MIXTURES LISTED IN SECTION 1-9.11, BE USED THROUGHOUT THE LIMITS OF THIS PROJECT:

**MEDIAN AREAS AND ROADSIDE PARS:**

- 60% KENTUCKY BLUE GRASS
- 25% ILLINOIS FESCUE
- 15% RED TOP

**2:1 SLOPE AREAS:**

- 100% KENTUCKY 31 FESCUE

**ALL OTHER AREAS:**

- 60% KENTUCKY 31 FESCUE
- 25% KENTUCKY BLUE GRASS
- 15% RED TOP

ANY STONE OR OTHER DEBRIS 2" OR OVER IN DIAMETER SHALL BE REMOVED FROM THE EXPOSED SURFACE OF THE SEED BED.

**SPECIAL SEEDING PREPARATION AREAS:**

THE REFERENCES IN THE FIRST PARAGRAPH OF SECTION 1-9.11 TO PREPARATION OF THE SEED BED IN FRONT OF RESIDENCES, ETC., SHALL, ON THIS PROJECT, BE CONSIDERED TO BE PARTICULARLY APPLICABLE IN THE FOLLOWING AREAS:

- STA. 231 + 50 TO STA. 231 + 60 (R.L.L.) LEFT
- STA. 104 + 50 TO STA. 107 + 50 (R.F.W. A.S. 30) RIGHT

**ITEM SPECIAL, DRILLED WELL AND BORED:**

THE FINISHING CONCRETE OR STONE SLAB WELL COVER AND PUMPING EQUIPMENT SHALL BE REMOVED AND DISPOSED OF. THE CASING SHALL BE CUT OFF AT LEAST TWO FEET BELOW THE PROPOSED FINISHED GRADE OUTSIDE PROPOSED PAVEMENT AREAS OR AT LEAST TWO FEET BELOW THE PROPOSED BURIED ELEVATION INSIDE PROPOSED PAVEMENT AREAS AND CAPPED WITH CLASS "E" CONCRETE OR A STANDARD THREADED PIPE CAP.

THE UNIT PRICE BID FOR EACH "DRILLED WELL ABANDONED" SHALL INCLUDE PAYMENT FOR ALL LABOR, TOOLS, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

**ADJUSTMENTS TO EXISTING PIPE:**

AS SHOWN ON THE PLANS PROVIDE FOR PROTECTING EXISTING PIPE TO BE ADJUSTED TO EXISTING PIPES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE (OTHER THAN THAT WHICH SHOWN ON THE PLANS) TO LAY OUT PROPOSED PIPE, THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE RESPECTIVE PIPE ITEM.

**REINFORCEMENT FOR EXISTING PIPE:**

ALL PIPES WHICH ARE RE-OPENED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OPENINGS UNDER THE EFFECT OF ALL THE EXISTING. EXISTING COLLECTIONS WHICH ARE LOCATED ABOVE THE ROADWAY SHALL BE RE-OPENED AND EACH CLASS OF ROADWAY SHALL BE WITHIN THE CONSTRUCTION LIMITS BY ITEM 1-1, CLASS 1-1, PIPES.

EXISTING COLLECTIONS AND ISOLATED FROM PIPE WHICH ARE RE-OPENED ABOVE THE ELEVATION OF THE ROADWAY PIPES SHALL BE OPENED INTO THE ROADWAY DITCH. THE OPENING SHALL BE AT LEAST 12" IN DIAMETER, AND FOR A ONE-TWO FEET ELEVATION OF THE DITCH. EXISTING PIPES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY CLASS 1-1 PIPE AND CAPPED IN A CONSTRUCTION DRAWING TO AN APPROPRIATE OUTLET OR ROADWAY CROSSING.

THE CONTRACTOR SHALL PROVIDE OPENING INTO THE ROADWAY DITCH FOR EXISTING AND PROPOSED FARM CHANNELS. THE SIZES OF THE ROADWAY DITCH SHALL BE SIZED TO THE SIZE OF THE EXISTING CHANNELS AND THE ROADWAY DITCH. THE LOCATION, SIZE AND MATERIAL OF SUCH OPENING SHALL BE DETERMINED BY THE ENGINEER. PAYMENT FOR THE COST OF EXCAVATION FOR THE SURFACE DITCHES SHALL BE A UNIT PRICE BID FOR ITEM 1-1, EXCAVATION.

A QUANTITY OF 1-10 AND 1-11 HAS BEEN PROVIDED FOR INSPECTION CONTROL.

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED IN THE GENERAL SUMMARY FOR THE WORK ABOVE:

ITEM	DESCRIPTION	QUANTITY
ITEM 1-1	12" PIPE, CLASS 1-1	450 L.F.
ITEM 1-1	18" PIPE, CLASS 1-1	200 L.F.
ITEM 1-1	24" PIPE, CLASS 1-1	100 L.F.
ITEM 1-1	30" PIPE, CLASS 1-1	100 L.F.
ITEM 1-1	36" PIPE, CLASS 1-1	100 L.F.
ITEM 1-1	42" PIPE, CLASS 1-1	50 L.F.
ITEM 1-5	12" PIPE SPECIALS, CLASS 1-5	15 L.F.
ITEM 1-10	STANDARD APPROXIMATE SLOPE PROTECTOR, 40 SQ. YD.	
ITEM 1-10	STODDING	200 SQ. YD.

**ITEM 1-10, STANDARD APPROXIMATE SLOPE PROTECTOR, 40 SQ. YD.**

THIS ITEM IS TO BE DELIVERED TO THE PROJECT SITE BY THE CONTRACTOR.

**ITEM 1-11, STONE SHOULDERS, 10' WIDE:**

STONE SHOULDERS SHALL BE PLACED AT FIFTY (50) FOOT INTERVALS ON EACH SIDE OF THE ROADWAY SECTIONS AND AT TWENTY-FIVE (25) FOOT INTERVALS ON THE SIDE OF THE SUPERELEVATION SECTIONS, EXCEPT WHERE ITEM 1-1 PIPE UNDERDRAINS HAVE BEEN PROVIDED. THE CONTRACTOR SHALL FINISH, SEED, AND MULCH THE SLOPES SO AS NOT TO IMPEDE DRAINAGE OF THE BASE MATERIAL.

**ITEM 1-12, CEILING INSULATION, 6" MIN. THICK, 10' WIDE, 10' HIGH:**

AS DESCRIBED COMPLETE FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE IN FRONT OF RESIDENCES IN THE PAVED AND RAMP PAVEMENTS AND PAVED SHOULDERS AS DIRECTED BY THE ENGINEER. SNOW REMOVAL SHALL BE PROVIDED WHERE A LOCK OF SNOW OCCURS IN SURFACE AND T. AREAS WHERE STORAGE HAS BEEN PROVIDED TO REPLACE UNDER-SIDE SLOPE DITCHES. IN LIEU OF THE REQUIREMENTS OF CE-101.01, A METHOD OF THE CONTRACTOR WILL BE DECIDED TO CHECK THE SCHEDULE. FUTURE CONTACT BY THE 10' 12" OF STANDARD SHALL NOT BE REQUIRED BY THE CONTRACTOR. THE PRESSURE FOR THE ROADWAY SHALL BE VARIED AS DIRECTED BY THE ENGINEER WITHIN THE LIMITS PROVIDED IN CE-101.01.

AN ESTIMATED QUANTITY OF 173 CUBIC YARDS OF GRAVEL SHALL BE PROVIDED IN THE GENERAL SUMMARY FOR USE AS STATED IN THE SUMMARY.

1-71	245,740	Sq. Yds.
1-71	29,740	Sq. Yds.
1-7	100	Sq. Yds.
	245,740	Sq. Yds.

**ITEM 1-1, CLASS 1-1, PIPE (ITEM 1):**

REINFORCED THIS SHALL BE PROVIDED ON ALL CORRUGATED METAL PIPE EXCEPT HELICAL. IF THE PIPE ENDS ARE UNPROTECTED BY UNDERLAYS, CAPPED ENDS OR ANY OTHER. PAYMENT FOR REINFORCED ENDS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT PIPE ITEM. CONSTRUCTION AND EXPANSION JOINTS.

REINFORCED SPECIFIC LOCATIONS OF CERTAIN EXPANSION AND CONSTRUCTION JOINTS HAVE BEEN DETAILED ON THIS PLAN, TO WITNESS OF THE SPECIFICATIONS IS OTHERWISE. PROVISION OF EXPANSION JOINTS AT ALL MAJOR EXPANSIONS AND THE HAZARD SPACING BETWEEN CONSTRUCTION JOINTS SHALL, IN ALL CASES BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING T.1.

**ITEM CLASS 1-1, GRADES:**

THE GRADES SHOWN ON THE PLAN AND PROFILE SHEETS MAY BE ADJUSTED FOR A SHORT DISTANCE, WHERE THEY OBTAIN IN THE 15' & 10' 1-1 DESIGN DISTANCE, TO SECURE A GOOD CONNECTION.

**REINFORCED PIPES:**

ALL REINFORCED ARE BASED ON U.S.A.S. DATA.

**DRIVEWAYS AND WALKING WITH DRIVE:**

UNLESS OTHERWISE SHOWN ON THESE PLANS, ALL DRIVEWAYS AND WALKING WITH DRIVE ON THIS PROJECT SHALL BE TYPE 1 STANDARD DRAWING 11-1.1, MODIFIED BY DECREASING THE 12" OFFSET AT THE EDGE OF THE PAVEMENT. PAVEMENT COURSES AND THICKNESSES ARE AS FOLLOWS:

TYPE OF APPROACH:	DRIVE DRIVE	OTHER DRIVE	NEW PAINTING DRIVE
RAILROAD APPROACH	2" 12" 1-10	1" 12" 1-10	18" (18" SURFACED) THE SAME COURSE AS
RESIDENCE DRIVE	2" 12" 1-10	1" 12" 1-10	THICKNESSES SHALL BE USED BEYOND THE DRIVE APPROX AS NOTED IN THE DRIVE APPROX.
COMMERCIAL DRIVE	2" 12" 1-10	1" 12" 1-10	
FIELD DRIVE	2" 12" 1-10	1" 12" 1-10	

**CONCRETE FINISHES:**

WORKMANSHIP SHALL BE APPLIED AT THE RATE OF TWENTY (20) POUNDS PER SQUARE FOOT TO ALL AREAS TO BE SMOOTH OR SCORED.

**GUARD RAIL PLACEMENT:**

WHERE TRAFFIC APPROACHES A RUN OF GUARD RAIL, THE FIRST THREE (3) PANELS OF GUARD RAIL WILL BE PLACED FROM 12' TO 10' DISTANCE FROM EDGE OF PAVEMENT IN A MANNER SIMILAR TO THAT SHOWN ON STANDARD DRAWING T-15 10' 1-1.

**ITEM 1-11 FROM CORNER:**

ALTHOUGH THIS ITEM HAS BEEN ESTIMATED FOR USE ON THE OTHER EXISTING SURFACE PAVEMENT AREA TO BE RECONSTRUCTED, IT SHALL BE USED ONLY ON NEW OR CHECKED PAVEMENT AREAS UNLESS SPECIALLY DIRECTED BY THE ENGINEER. PAYMENT WILL BE MADE ON FINAL MEASUREMENT.

**APPROACH SLOPE (LONGITUDINAL JOINTS):**

LONGITUDINAL IMPRESSED OR SAWED JOINTS SHALL BE PROVIDED BETWEEN LANE ELEMENTS ON ALL APPROACH SLABS, IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING L.3, NO. 1.

**ITEM 1-5 PIPE SPECIALS:**

Pipe without perforations will be permitted for use on this project for all Item 1-5 Pipe Specials.

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### CONSTRUCTION LAYOUT SIGNS:

SEE NOTE IN PROPOSED DESCRIPTION FOR SIGN INCLUDED IN THIS LAYOUT SIGN BAY ITEMS.

### TRAFFIC AND CONSTRUCTION SIGNAGE:

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY THE CONTRACTOR UNDER THE PROVISIONS OF ITEM I-3 WITH THE ARRANGEMENTS OF THE WORK BY USING THE EXTENSIVE SIGNAGE, THE PROPOSED PAVED AND THE 6-15 TEMPORARY ROADWAYS. THE FOLLOWING CONSTRUCTION PROCEDURE SHALL BE ADAPTED BY THE CONTRACTOR SO THAT THROUGH TRAFFIC WILL BE KEPT OPEN TO A MINIMUM EXTENT:

- MAINTAIN TWO-WAY TRAFFIC OVER THE 6-15 TEMPORARY ROADWAY, BRIDGE AND APPROACHES AS SHOWN ON SHEETS 194, 195, & 196 AND DURING WHICH TIME THE STRUCTURE OVER RAILROADS, I.R. 30, EMBANKMENT, BRIDGES AND OTHER ITEMS ARE COMPLETED NECESSARY TO ROUTING TRAFFIC OVER THIS PERIOD.
- COMPLETE CONSTRUCTION ON WEST SIDE (LEFT LANE FROM S.W. 237 + 00 TO END OF PROJECT).
- COMPLETE CONSTRUCTION ON EAST SIDE (RIGHT LANE FROM P.W. 225 + 50 TO END OF PROJECT).
- COMPLETE CONSTRUCTION OF ALL INTERSECTED AND RECONNECTED COUNTY, TOWNSHIP AND STATE HIGHWAYS.
- UPON COMPLETION OF ITEMS 1 AND 2, CONTRACTOR TO MAINTAIN TEMPORARY ROADS AS SHOWN ON SHEETS 17 AND 18. 50 DAY TEMPORARY TRAFFIC MAY BE MAINTAINED OVER THE TEMPORARY PAVED AND THE EAST SIDE LANE OF RAILROADS I.R. 30 TO COUNTY ROAD 132. TRAFFIC SHALL BE MAINTAINED OVER THE FULL COMPLETED BAY FROM COUNTY ROAD 132 TO THE END OF PROJECT.
- S.R. 25 MAY BE DETOURED FOR A PERIOD OF TIME NOT TO EXCEED 14 CONSECUTIVE CALENDAR DAYS AS SHOWN ON SHEET NO. 1. DURING THIS TIME COUNTY ROADS 132 AND 133 SHALL BE KEPT OPEN TO TWO-WAY TRAFFIC.
- NO MORE THAN TWO CONSECUTIVE DAYS ON TOWNSHIP ROADS MAY BE CLOSED TO TRAFFIC DURING THE SAME PERIOD OF TIME.

### LIGHTS AND SIGNS AT ADJACENT ROAD INTERSECTIONS:

THE CONTRACTOR SHALL, IN ADDITION TO THE GENERAL REQUIREMENTS OF ITEM I-3 OF THIS PROJECT PERFORM THE FOLLOWING:

PROVIDE, ERECT, AND MAINTAIN STANDARD 48" X 30" SIZE "ROAD CLOSED" SIGNS, SIGN SUPPORTS, AND LIGHTS AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROAD IS CLOSED TO TRAFFIC:

- COUNTY ROAD 132 JUST EAST OF COUNTY ROAD 49 INTERSECTION.
- COUNTY ROAD 132 JUST WEST OF U.S.A. 30 INTERSECTION.
- TOWNSHIP ROAD 65 JUST SOUTH OF TOWNSHIP ROAD 104 INTERSECTION.
- TOWNSHIP ROAD 65 JUST NORTH OF COUNTY ROAD 153 INTERSECTION.
- COUNTY ROAD 168 JUST EAST OF TOWNSHIP ROAD 65 INTERSECTION.
- COUNTY ROAD 153 JUST WEST OF COUNTY ROAD 69 INTERSECTION.
- COUNTY ROAD 49 JUST SOUTH OF COUNTY ROAD 168 INTERSECTION.
- COUNTY ROAD 69 JUST NORTH OF COUNTY ROAD 49 INTERSECTION.
- TOWNSHIP ROAD 234 JUST EAST OF COUNTY ROAD 49 INTERSECTION.
- TOWNSHIP ROAD 234 JUST WEST OF TOWNSHIP ROAD 168 INTERSECTION.
- TOWNSHIP ROAD 75 JUST SOUTH OF COUNTY ROAD 168 INTERSECTION.
- TOWNSHIP ROAD 168 JUST EAST OF TOWNSHIP ROAD 75 INTERSECTION.
- COUNTY ROAD 77 JUST SOUTH OF TOWNSHIP ROAD 154 INTERSECTION.
- TOWNSHIP ROAD 149 JUST EAST OF COUNTY ROAD 77 INTERSECTION.
- TOWNSHIP ROAD 149 JUST WEST OF COUNTY ROAD 81 INTERSECTION.

SIGN SUPPORTS AND LIGHTS FOR "ROAD CLOSED" SIGNS SHALL BE AS DETAILLED IN THE "BIG SIGNAL" OF HIGHWAY TRAFFIC CONTROL DEVICES.

PAYMENT FOR PROVIDING, ERECTING, MAINTAINING, AND REMOVING LIGHTS, SIGNS, AND SIGN SUPPORTS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR "ITEM I-3, MAINTAINING TRAFFIC."

### TRAFFIC SIGN ERECTION:

THE CONTRACTOR SHALL ERECT SIGN PANELS FURNISHED BY OTHERS AS NOTED ON THE SCHEMATIC SIGNING LAYOUT SHEET NO. 280 TO 286. THE PANELS SHALL BE MOUNTED ON THE BRACKETS OR SIGN SUPPORTS PROVIDED IN THE PLANS.

A SCHEDULE FOR SIGN ERECTION SHALL BE SUBMITTED TO THE ENGINEER, BUREAU OF TRAFFIC, 450 EAST TONY SMERZ, COLUMBUS, OHIO, 30 CALENDAR DAYS PRIOR TO THE START OF ANY SCHEDULED ERECTION WORK. THE SCHEDULE SHALL INCLUDE PROPOSED DATES, TIME, SIGN NUMBERS AND DELIVERY POINT.

THE PRICE BID PER SQUARE FOOT FOR "ITEM I-129, SIGN ERECTION BY TYPE, AS PER PLAN", SHALL INCLUDE ALL NECESSARY EQUIPMENT, MATERIAL, AND TOOLS TO ERECT THE SIGNS NOTED. ALL SIGN MATERIAL AND ACCESSORIES WILL BE FURNISHED AND TRANSPORTED TO A DESIGNATED DELIVERY POINT, ON OR NEAR THE SUBJECT PROJECT, BY OTHERS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HANDLING AND STORAGE OF THE SIGN PANELS AND ACCESSORIES FROM THE TIME OF ARRIVAL AT THE DELIVERY POINT.

SIGNS MARKED "BY OTHERS" ARE NOT A PART OF THIS CONTRACT. SIGNS MARKED "FUTURE", THE POSTS, BEAMS AND SIGN SUPPORTS ARE A PART OF THIS CONTRACT. THE SIGNS MARKED "FUTURE" SHALL BE ERECTED BY OTHERS.

### MATERIALS - GENERAL:

MATERIALS TO BE FURNISHED MAY BE SPECIFIED IN THE PLANS BY A OTHER MANUFACTURER'S CATALOG NUMBER OR TYPE. THIS IS FOR DESCRIPTIVE PURPOSES ONLY AND THE CONTRACTOR MAY ASSUME THAT APPROVED EQUAL MATERIALS MAY BE FURNISHED.

### I-129 CONCRETE FOR SIGN SUPPORT FOUNDATIONS:

THE QUANTITY FOR CONCRETE TO BE PAID FOR SHALL BE PER CUBIC YARD BASED ON THE PLAN DIMENSIONS RATHER THAN THE FIELD QUANTITY.

### SIGN SUPPORT SYMBOLS:



### OVERHEAD SIGN SUPPORTS:

ALL COMPONENTS OF THE OVERHEAD SIGN SUPPORTS, I-129, SHALL BE STEEL, EXCEPT THE TRUSS SPAN AND ACCESSORIES TO THE I-129, NO. 7 SERIES WHICH SHALL BE ALUMINUM. FOR SPECIFIC DETAILS AND MATERIALS SEE SHEET NO. 288.

### GALVANIZED SUPPORTS:

THE STRUCTURAL STEEL BEAM SUPPORTS INCLUDING THE 8 POUND AND 4 POUND BEAM, AND 4 POUND AND 2 POUND DRIVE POST SHALL BE GALVANIZED (AFTER PUNCHING) IN ACCORDANCE WITH ASTM A-123. ALL BOLTS, NUTS PLAIN AND LOCKWASHERS SHALL BE GALVANIZED. IN ACCORDANCE WITH ASTM A-153, EXCEPT WHERE ALUMINUM OR STAINLESS STEEL IS REQUIRED.

### GROUND MOUNTED SIGN SUPPORTS:

THE STRUCTURAL STEEL BEAM SUPPORTS SHALL BE GALVANIZED (AFTER PUNCHING) IN ACCORDANCE WITH ASTM A-123.

QUANTITIES FOR ITEM I-129 STRUCTURAL BEAM SUPPORTS APPEARING IN THE QUANTITY TABLES ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT SUPPORT LENGTHS PRIOR TO FABRICATION AND GALVANIZING OF SUPPORTS. PAYMENT SHALL BE AT THE CONTRACT UNIT PRICE BID, WHICH PRICE AND PAYMENT SHALL INCLUDE EMBEDMENT OF THE SUPPORTS.

### TRAFFIC CONTROL DEVICES EMBEDDED IN PAVED AREAS: ITEM I-129

The following two methods are acceptable in placing of posts for signs: The contractor must at the time of paving insert a four inch (4") thin-walled sleeve. The sleeve shall have a corrosion resistant finish, such as galvanizing or cadmium plating;

OR  
The contractor must upon completion of paving and curing, drill, using appropriate equipment, a four inch (4") hole without damage to surrounding concrete.

After the support has been embedded to proper depth, the remaining void around the post shall be filled with a furan resin cement or a not poured inert-mineral sulphur-based compound. The above compounds to be applied with methods and procedures recommended by the manufacturers.

**PAYMENT**  
All labor, tools, materials, and incidentals shall be included in price bid for item I-129 steel drive posts, as per plan.

### NO. 6 OF FLARES, MODIFIED:

FOR MODIFICATION AND LOCATION OF NO. 6 CANAL BASINS, MODIFIED, SEE SHEET NOS. 144 AND 249.

### NO. 2-A SEPTIC INLET, MODIFIED:

FOR MODIFICATION AND LOCATION OF NO. 2-A SEPTIC INLET, MODIFIED, SEE SHEET NO. 278.

### ITEM 3-A, BRUSH BARR:

SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR TO REPAIR THE BRUSH BARR, BRUSH BARR, #Z 125 (1947), LOCATED AT STA. 251 + 27, 3' LEFT, BRILL IF IS REPAIRS BY THE SEPTIC BARRS CREW.

### ITEM SPECIAL - FURNISHING AND APPLYING CALCIUM CHLORIDE TO THE ADJACENT SHOULDERS AND APPROACHES:

CALCIUM CHLORIDE, SECTION 4-10.20 OR A SOLVENT CONTAINING 3% CALCIUM CHLORIDE BY WEIGHT SHALL BE APPLIED TO THE ADJACENT SURFACE OF THE ADJACENT SHOULDERS AND APPROACHES. THE RATE OF APPLICATION OF CALCIUM CHLORIDE SECTION 4-10.20 SHALL BE 1.0 POUND PER SQUARE YARD UNIFORMLY SPREAD OVER THE SURFACE WITH AN APPROVED SPREADER OR WHEN LIQUID CALCIUM CHLORIDE IS USED THE RATE OF APPLICATION SHALL BE 0.15 GALLONS PER SQUARE YARD UNIFORMLY APPLIED OVER THE SURFACE WITH AN APPROVED SPREADER.

THE APPLICATION OF CALCIUM CHLORIDE SECTION 4-10.20 SHALL BE MADE DURING PERIODS OF HIGH WINDS, AS DURING THE PERIODS OF HIGH WINDS, UNLESS THE SURFACE IS IN A DRY CONDITION AND SEVERAL FEET FROM NATURAL SOURCES. IN THE LATTER CASE, THE CALCIUM CHLORIDE MAY BE APPLIED AT ANY TIME.

COSTS OF FURNISHING, HAULING, AND APPLYING THE CALCIUM CHLORIDE ARE FOR ALL OTHER LABOR, EQUIPMENT, TOOLS, AND MATERIALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID PER TON FOR "ITEM SPECIAL FURNISHING AND APPLYING CALCIUM CHLORIDE TO ADJACENT SHOULDERS AND APPROACHES."

THE NUMBER OF TONS OF CALCIUM CHLORIDE TO BE PAID FOR SHALL BE THE NUMBER OF TONS BY WEIGHT MEASUREMENT, FURNISHED AND APPLIED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS ITEM. WHEN A SIGNIFICATION CONTAINED IN CALCIUM CHLORIDE BY WEIGHT IS USED, THE TONS OF CALCIUM CHLORIDE TO BE PAID FOR SHALL BE DETERMINED BY MULTIPLYING THE NUMBER OF GALLONS USED BY 6.002.

### I-1 MAINTAINING TRAFFIC:

ESTIMATED CAPACITIES OF I-1 TO TONS OF CALCIUM CHLORIDE WITH BEST CONTROL AND 1-10 600 GALS. TRAFFIC CAPACITY TABLES TO BE MAINTAINED TRAFFIC HAVE BEEN PROVIDED BY THE BUREAU OF HIGHWAY FOR USE AS DIRECTED BY THE ENGINEER.

### GUARD RAIL FLARES

When proposed guard rail flares are constructed of rail elements which have not been fabricated exactly to fit the curvature shown on the plans, the two end posts of each flared section shall be encased in a minimum 4 inch thickness of Class "E" concrete for the full depth of the post below the ground line. Payment for encasement, if required, shall be included in the unit price bid for the guard rail.

### OVERHEAD SIGNS

The exact stationing of Overhead Sign Assemblies in guard rail sections may be adjusted at the time of construction as directed by the Engineer, to avoid interference with guard rail posts.

### FLARED APPROACH SLABS

In lieu of the reinforcing details shown on Sheet 277, place additional A-bars in flared areas by maintaining the standard spacing along the wide end of the slab and fanning the bars in toward the bridge as directed by the Engineer.

# PAVEMENT COMPLITATIONS

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VAN-30-4.06

From	To	Description	B-19	B-21	B-35		B-35	T-30		T-31		T-35		T-71	I-7	I-12			I-21	I-22		I-23	Special	I-9	E-1	E-8	I-24		
			Aggregate Base Course	Water Proofed Aggregate Base Course	85-100 Asphaltic Conc Leveling Course	70-85 Asphaltic Conc Leveling Course	70-85 Asphaltic Conc Base Course	Bituminous Prime Coat	Bituminous Tack Coat	Bituminous Material	No. 6 Aggregate	85-100 Asphaltic Conc Surface Course	70-85 Asphaltic Conc Surface Course	9" Reinforced Port. Cement Conc. Pavement	Reinforced Conc. Approach Slabs	Concrete Curb Type 6	Concrete Curb Type 7	Concrete Curb Type 8	Port. Cement Concrete Median	Subbase		Precast Traffic Dividers	Drainage Connection No. 1 Aggregate	stone Underdrains No. 2	Compacted Subgrade	Pavement Removal	Type 1 Asphaltic Conc. Curb		
			Cu. Yds.	Cu. Yds.	Cu. Yds.	Cu. Yds.	Cu. Yds.	Gals.	Gals.	Gals.	Cu. Yds.	Cu. Yds.	Cu. Yds.	Sq. Yds.	Sq. Yds.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Sq. Yds.	Cu. Yds.	Cu. Yds.	Each	Cu. Yds.	Lin. Ft.	Sq. Yds.	Sq. Yds.	Lin. Ft.		
220+63.53	231+97.54	Transition	446.00	229.86						685	22.07			5399.89						11,128.89	224.25		89.69			8.158	2,520	181	
231+97.54	600+00	Main Line	14,272.96	7396.67						22,190	710.11			194,566.72	400.00					39,156.81	7412.67		3394.56			283,327	1,950		
428+02.47	447+58.69	Ramp "A" Park	233.98	331.54						591	18.92			3021.73						736.59	219.71		128.75			5,388			
447+58.69	452+69.30	Park Area												3839.03		386.33	1513.64			710.82						3,839			
452+64.51	464+30	Ramp "B" Park	67.34	163.56						245	787			2250.28		124.00				537.91	72.69		66.53			3,233			
437+85	449+49.49	Ramp "C" Park	67.27	163.42						245	786			2248.94		124.00				536.97	72.61		66.47			3,231			
449+44.70	454+55.31	Park Area												3839.03		386.33	1513.64			710.82						3,839			
454+55.31	474+11.53	Ramp "D" Park	233.98	331.54						591	18.92			3021.73						736.59	219.71		128.75			5,388			
U.S. 30 - U.S. 224 Interchange																													
619+38	632+68.82	Lt Lane												7075.05						1179.18			16			7075			
	632+39.18	Rt Lane																											
		Ramp A	211.12	445.54						742	23.71			7626.74			117.16	389.00	1336.88	1899.51	197.83		278.97			99.92			
		Ramp B	143.48	339.13						509	16.29			6735.09		227.21			31.96	1347.97	82.60		101.61			8772			
		Ramp C	182.51	425.95						639	20.45			3221.41		122.00	124.00	129.00	31.96	724.03	205.48		117.63			5779			
		Ramp D	330.05	612.82						1000	31.97			4494.37		125.00	157.00	424.00	40.89	1066.14	311.36		243.19			8492			
		DIXON ROAD	444.34	-10.88	91.97			1112		-32	-1.05	91.97		1906.20						308.29	307.01				301	4425			
		S.R. 49	335.96	-10.88	98.72			853		-32	-1.05	70.51		1906.20						317.67	355.23				282	3807			
		WALLER RD. INTERSECTION	68.28		19.15			164				13.68									70.92				43	394			
		EXIST. U.S. 30 OVERHEAD	1504.60			183.78	433.88	2102	66			192.08		176.44							937.18				688	5108	3,389		
		COLWELL ROAD	377.58	-9.37	78.23			946		-28	-0.91	78.23		1669.64						268.96	260.43				287	3809			
		CONVOY ROAD	429.10	-10.88	88.98			1075		-32	-1.05	88.98		2014.33						326.31	452.87				413	4448			
		DULL ROBINSON ROAD	1338.24		199.26			2409				199.26													476	5737			
		RICHEY ROAD	370.75	-9.37	57.64			696		-28	-0.91	57.64		1669.64						268.96	-14.82				231	3217			
		PEARSON ROAD	825.73		122.98			1486				122.98													427	3541			
		LIBERTY LINION ROAD	150.49	-9.14	32.94			399		-28	-0.88	32.94		1643.46						264.56	160.14				140	2480			
		TERRY ROAD	831.80		125.20			1498				125.20													427	3576			
		<b>Totals</b>	<b>22,865.56</b>	<b>10,379.51</b>	<b>915.07</b>	<b>183.78</b>	<b>433.88</b>	<b>12,740</b>	<b>66</b>	<b>27,257.00</b>	<b>872.32</b>	<b>881.39</b>	<b>192.08</b>	<b>257,549.48</b>	<b>576.44</b>	<b>1,494.87</b>	<b>3,795.44</b>	<b>1,907.06</b>	<b>1,505.61</b>	<b>52,226.38</b>	<b>11,547.87</b>	<b>16</b>	<b>4,616.15</b>	<b>3,715.0</b>	<b>397,055</b>	<b>7,859</b>	<b>181</b>		

\*B-19  
336.40 Cu. Yd. Stab. Shoulders  
1168.16 Cu. Yd. Pavement  
1504.56 Cu. Yd.

(63,774)

SEEDING L-9

Sheet No	Seeding Sq. Yd.	Sheet No	Seeding Sq. Yd.
57	4,112	133	7,421
58	12,744	134	7,332
59	12,332	135	7,332
60	13,088	136	7,332
61	13,149	137	7,332
62	13,192	138	7,321
63	12,713	139	6,310
64	15,094	140	6,230
65	16,973	141	7,516
66	25,855	142	5,833
67	41,966	143	5,321
68	47,946	144	5,455
69	13,673	145	3,534
70	16,445	146	5,7622
71	14,383	147	5,650
72	8,578	148	6,378
73	7,099	149	6,389
74	8,418	150	6,888
75	8,390	Dixon Rd	
76	6,712	180	12,783
77	6,712	181	13,720
78	6,712	182	16,199
79	6,712	S.R. 49	
80	6,712	187	28,833
81	6,712	188	1,677
82	6,712	189	9,774
83	7,195	U.S.R. 30 Exist	
84	8,000	197	14,569
85	8,044	198	8,474
86	8,044	199	7,675
87	5,926	Colwell Rd	
88	6,477	202	6,614
89	6,433	203	10,800
90	6,444	204	13,756
91	6,447	Convoy Rd	
92	6,444	209	15,820
93	6,444	210	11,347
94	6,444	211	13,124
95	6,444	Dull Robinson Rd	
96	6,416	216	25,913
97	5,587	217	18,120
98	7,451	Richey Rd	
99	7,561	221	11,726
100	7,556	222	15,907
101	8,656	Pearson Rd	
102	8,762	226	7,668
103	7,161	227	13,635
104	8,089	Liberty Union Rd	
105	10,206	231	34,441
106	4,373	Terry Rd	
107	9,873	236	12,761
108	6,338	237	9,985
109	2,312	U.S.R. 224	
110	15,016	245	3,333
111	15,288	246	9,455
112	10,711	247	9,056
113	9,472	248	6,817
114	6,678	249	6,841
115	6,689	250	2,973
116	7,082	251	4,339
117	7,321	252	719
118	7,438	253	10,128
119	7,978	254	6,417
120	8,000	255	5,311
121	5,049	U.S.R. 224 Interchange	
122	1,429		
123	4,370	Ramp A	
124	5,083	258	3,263
125	7,938	Ramp B	
126	8,268	259	8,470
127	8,164	Ramp C	
128	3,012	262	5,251
129	8,350	263	6,388
130	8,356	Ramp D	
131	8,323	264	10,015
132	8,273	265	8,101
Total			1,334,948

EARTHWORK E-1

Station	Excavation	Embankment		
		Cu. Yd.	Cu. Yd.	Emb +20%
210+00	220+00	0	0	0
220+00	230+00	3549	1706	2047
230+00	240+00	2225	11,931	14,317
240+00	250+00	5521	16,542	19,850
250+00	260+00	6936	13,181	15,817
260+00	270+00	2,358	18,396	22,075
270+00	280+00	2,716	13,421	16,105
280+00	290+00	5,593	10,110	18,132
290+00	300+00	2,218	15,827	18,992
300+00	310+00	2,570	12,214	14,657
310+00	320+00	3,534	10,886	13,063
320+00	330+00	1,279	13,893	16,672
330+00	340+00	1,345	13,748	16,498
340+00	350+00	2,040	10,147	12,176
350+00	360+00	3,375	6,620	7,944
360+00	370+00	5,444	4,856	5,827
370+00	380+00	1,840	17,878	21,454
380+00	390+00	348	22,522	27,026
390+00	400+00	802	19,182	23,018
400+00	410+00	1,520	15,374	18,449
410+00	420+00	3,036	17,738	21,286
420+00	430+00	1,090	20,672	24,806
430+00	440+00	666	22,671	27,205
440+00	450+00	3971	12,212	14,654
450+00	460+00	1,617	19,444	23,333
460+00	470+00	543	20,342	24,410
470+00	480+00	1,852	11,191	13,429
480+00	490+00	2,665	12,921	15,505
490+00	500+00	3,396	15,401	18,481
500+00	510+00	5,889	8,828	10,594
510+00	520+00	9,038	8,617	10,340
520+00	530+00	7,345	4,876	5,851
530+00	540+00	2,672	7,830	9,396
540+00	550+00	1,615	11,338	13,606
550+00	560+00	2,646	7,588	9,106
560+00	570+00	2,745	8,274	9,929
570+00	580+00	1,874	10,059	12,071
580+00	590+00	639	18,528	22,234
590+00	600+00	1046	16,183	19,420
600+00	610+00	123	884	1,061
Dixon Rd		7,401	11,511	13,811
S.R. 49		1,769	1,779	2,135
U.S.R. 30 Exist		2,194	44,883	53,860
Colwell Rd		4,428	1,950	2,340
Convoy Rd		3,526	3,650	4,380
Dull Robinson Rd		5,718	10,404	12,485
Richey Rd		2,574	12,883	15,400
Pearson Rd		2,715	8,320	9,960
Liberty Union Rd		1,829	11,445	13,744
Terry Rd		2,998	474	569
U.S.R. 224		6,550	19,568	23,468
U.S.R. 224 Inter.				
Ramp A		585	2,186	2,623
Ramp B		645	6,159	7,391
Ramp C		1,872	11,184	13,421
Ramp D		2,976	16,895	20,274
Totals		157,469	803,572	964,287

FENCE I-25

Left of Centerline			Right of Centerline		
Station	To	Length	Station	To	Length
220+64	230+62	998	220+64	230+67	1003
233+00	252+02	1902	230+97	249+59	1862
252+02	① 105+06	446	249+59	① 92+00	508
① 105+36	① 107+78	242	254+08	① 92+00	862
109+70	① 107+00	284	254+08	280+70	2,675
① 106+60	① 255+73	324	280+70	② 94+67	530
255+73	274+70	1,832	② 94+27	② 90+90	438
274+28	② 109+00	709	② 90+90	292+15	604
② 108+00	286+30	890	292+60	312+75	2,046
286+75	290+95	437	313+45	313+82	37
291+45	312+22	2076	316+33	372+92	5,659
314+95	361+96	4719	372+92	③ 44+20	594
362+30	371+72	942	③ 43+00	376+68	452
371+72	③ 58+00	553	376+68	409+92	3,324
③ 56+50	374+48	600	409+92	④ 43+00	400
374+48	411+12	3,672	④ 43+00	47+53	464
411+12	④ 57+00	832	412+79	415+68	309
④ 57+00	416+80	412	416+12	437+90	2,234
416+80	428+16	2,776	474+00	490+43	1,643
465+00	492+45	2,745	491+58	497+47	593
493+20	496+45	325	497+47	⑤ 48+65	248
496+45	⑤ 55+60	192	⑤ 47+77	⑤ 45+00	278
⑤ 54+40	⑤ 56+40	200	⑤ 45+00	501+10	400
⑤ 53+97	499+25	188	510+10	510+74	974
499+25	511+40	1,215	511+65	555+32	4,400
512+03	554+47	4,252	555+32	⑥ 47+08	204
554+47	⑥ 56+88	490	⑥ 45+85	⑥ 44+00	185
⑥ 56+50	556+88	560	⑥ 43+50	557+83	498
556+88	600+00	4,918	565+00	⑦ 616+00	2,254
			⑦ 616+00	⑦ 630+55	1,450
			⑦ 632+00	578+00	920
			578+00	600+00	2,200
Total Left		39,731	Total Right		40,243
Total Left & Right					79,979

- ① = DIXON RD
- ② = S.R. 49
- ③ = COLWELL RD
- ④ = CONVOY RD
- ⑤ = RICHEY RD
- ⑥ = LIBERTY UNION RD
- ⑦ = U.S.R. 224

VAN WERT COUNTY  
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E-4 BORROW  
Embankment +20% 964,287 Cu Yd  
Less Excavation 157,769 Cu Yd  
Less Suitable E-3, Est. 9,611 Cu Yd  
Total Borrow 796,907 Cu Yd

E-11 WATER  
B-19 23,432 Cu Yd  
I-22 Grading 63,806 Cu Yd  
Embankment 964,287 Cu Yd  
Total Cu Yd 1,051,525 Cu Yd  
M. Gal. @ 5 Gal. per Cu Yd = 1,051,525 x 5 = 5,258 M. Gal.

L-9 SEEDING AND PROTECTING  
From Seeding Table 1,334,948 Sq Yd  
Deduct Rip Rap 604 Sq Yd  
Deduct C.A.S.P. 1,678 Sq Yd  
Deduct Sod 3,419 Sq Yd  
Deduct Sod Special 429 Sq Yd  
Net Seeding 1,328,818 Sq Yd

L-9 COMMERCIAL FERTILIZER  
Net L-9 Seeding 1,328,818 Sq Yd  
Add L-10 Sodding 3,419 Sq Yd  
Add Sod Special 429 Sq Yd  
Net Seeding and Sod 1,332,666 Sq Yd  
Quantity = 1,332,666 x 9 x 20 = 1000 = 2000 = 119.94 Tons

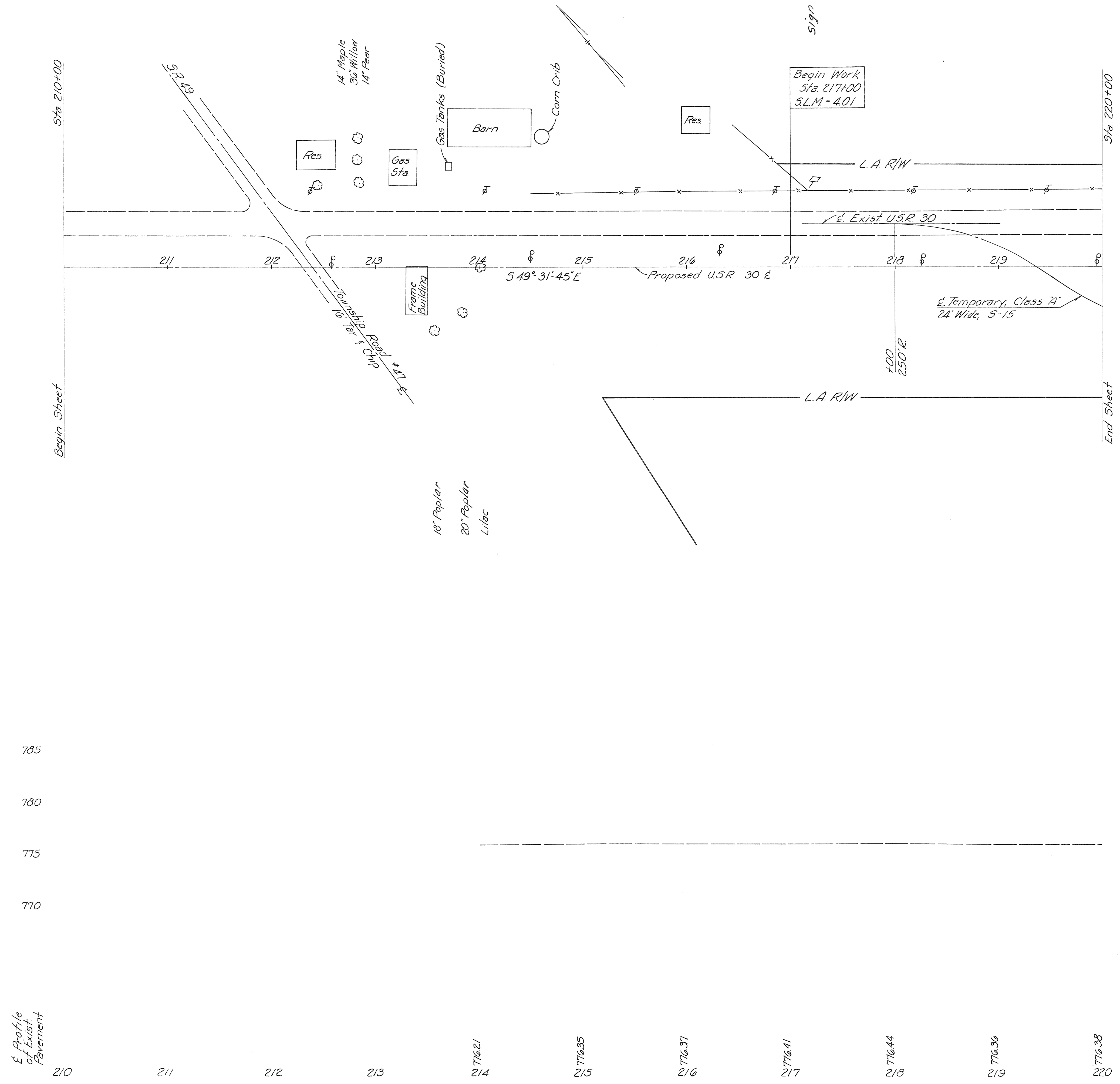
ITEM SPECIAL-FURNISHING AND APPLYING  
Calcium Chloride on Aggregate Shoulders and Approaches  
For Stabilizing B-19 - See Sheets 5, 12.  
336.40 x 36 x 1 x 1 = 0.76 Ton Use 0.8 Ton  
8 2000



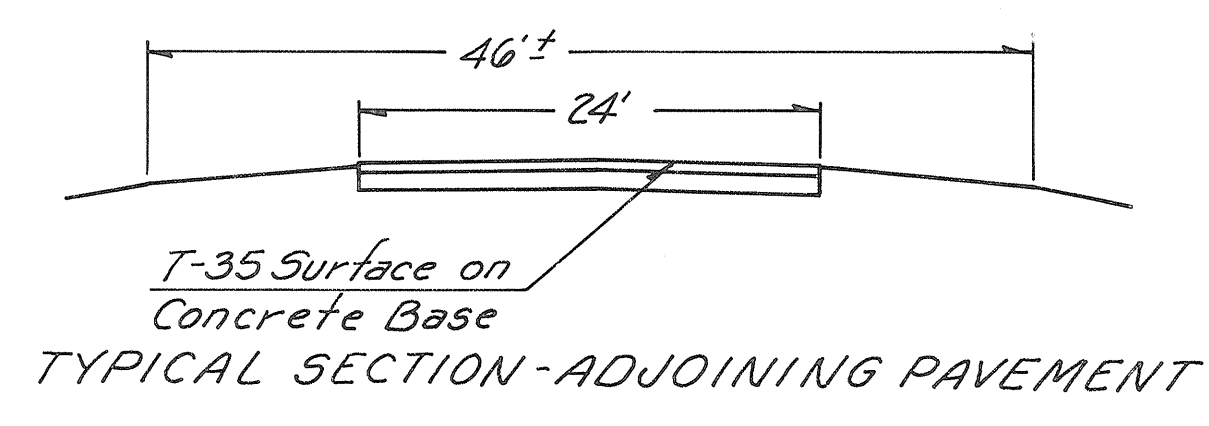




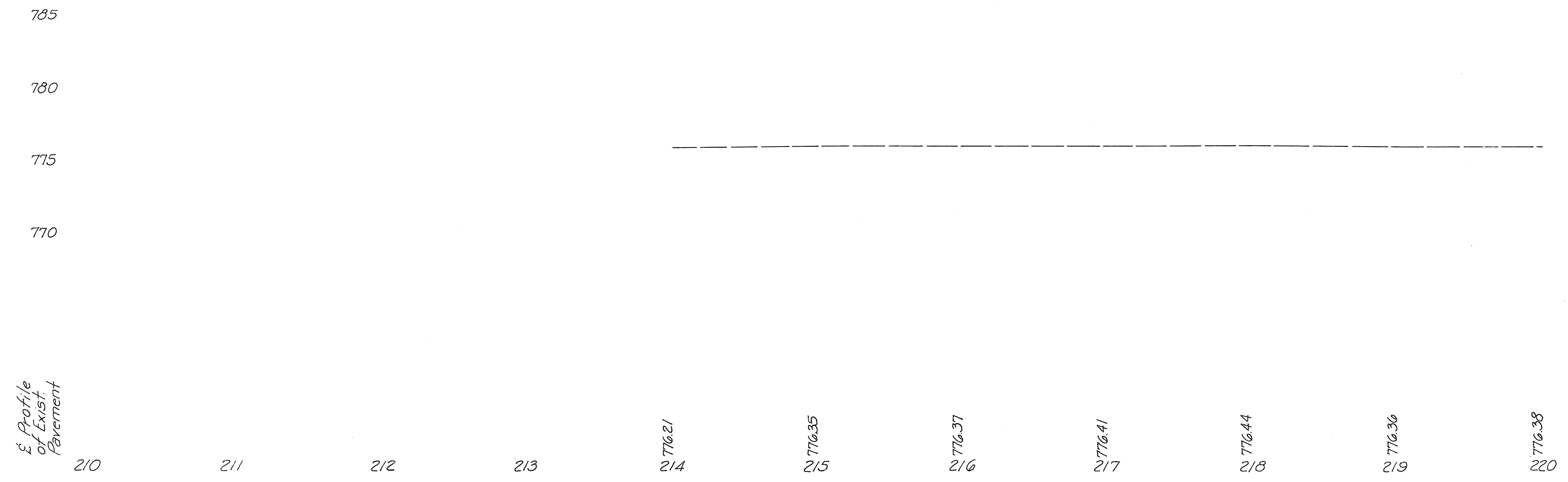


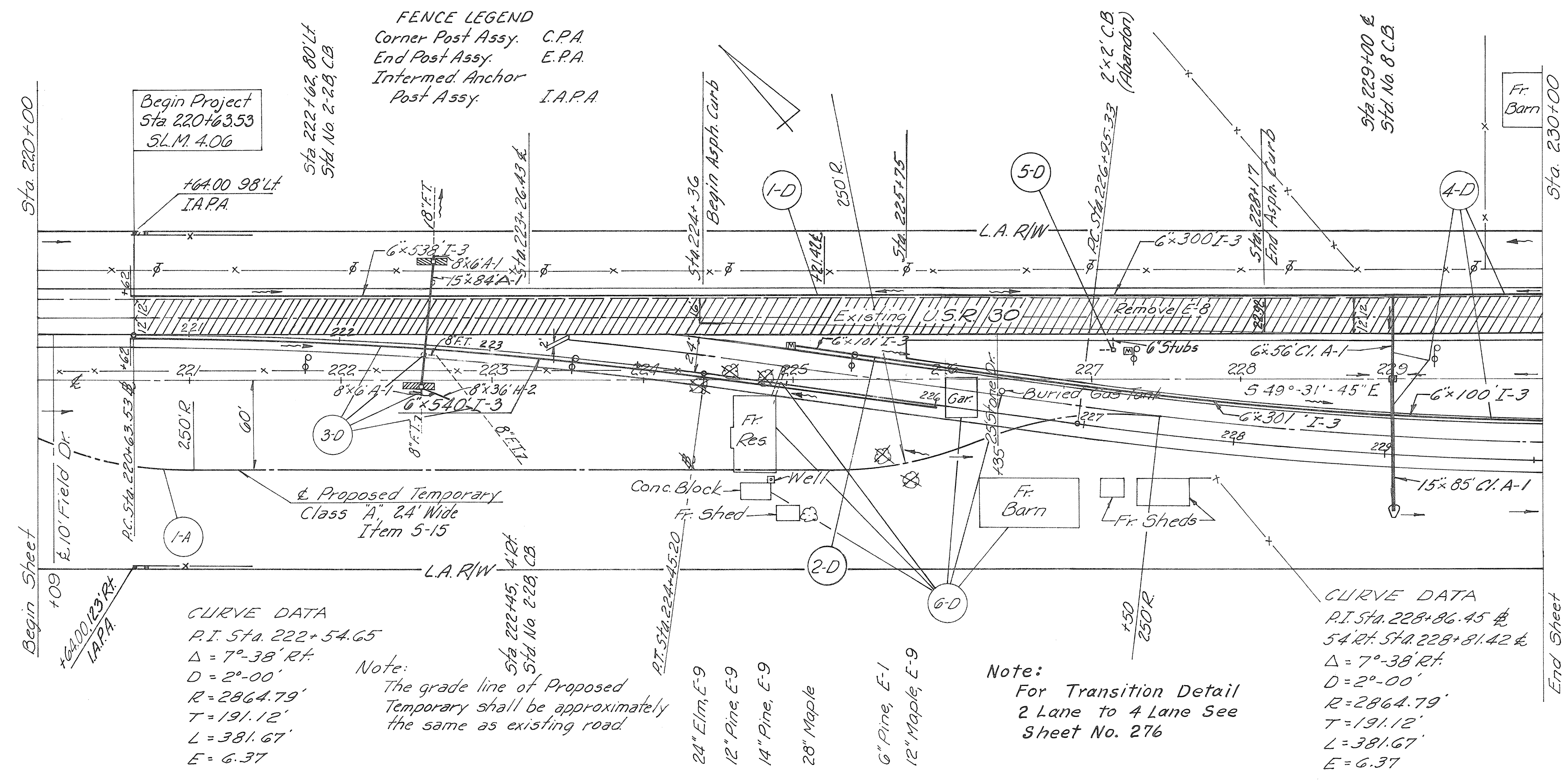


- UTILITIES**
- ⊗ = Ohio Power Co., Canton, O.
  - ⊕ = General Telephone Co. of Ohio, Marion, O.
  - ⊖ = American-Louisiana Pipe Line Co., Detroit, Mich.
  - ⊙ = Paulding-Putnam Electric Co-Op. Inc., Paulding, O.



E-10 Removal of frame Building, Parcel No. 92 WL





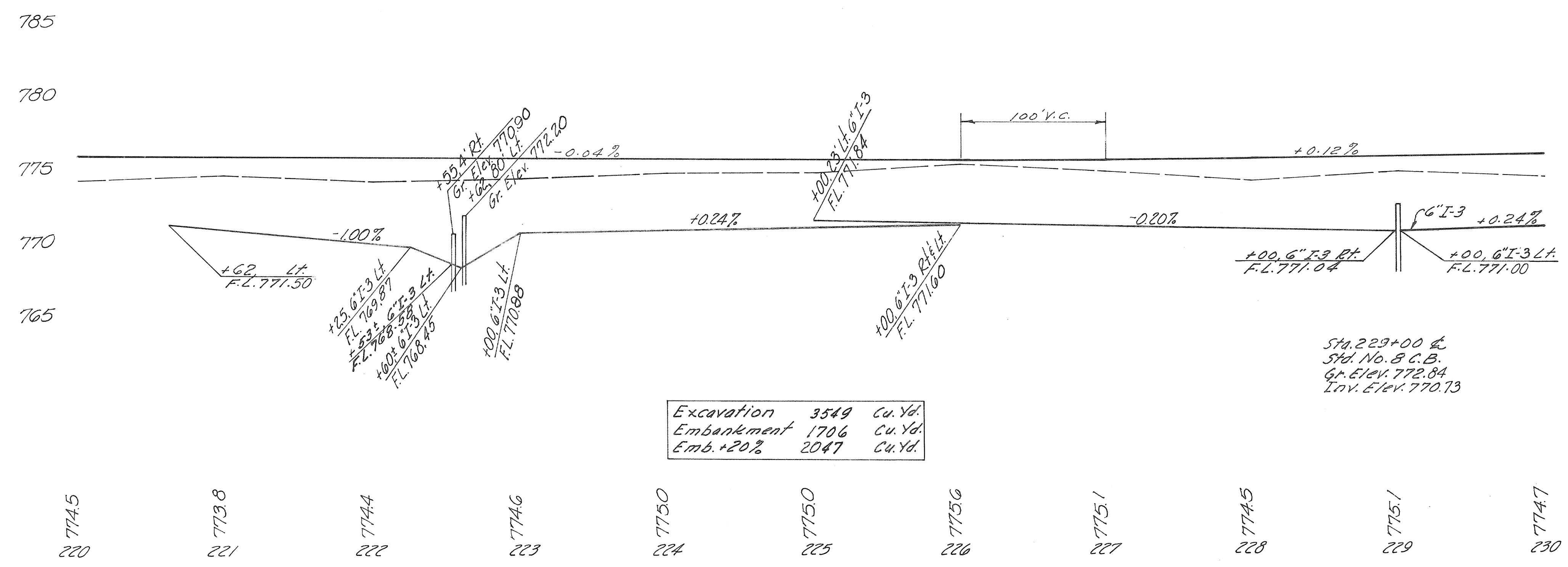
SIDE APPROACHES "A"

No. Ref	Station	Side	5-15 Temp. Run Around Lump	Remarks
I-A	218+00 to 227+50	Rt.	Lump	Temp. Run Around
Total			Lump	

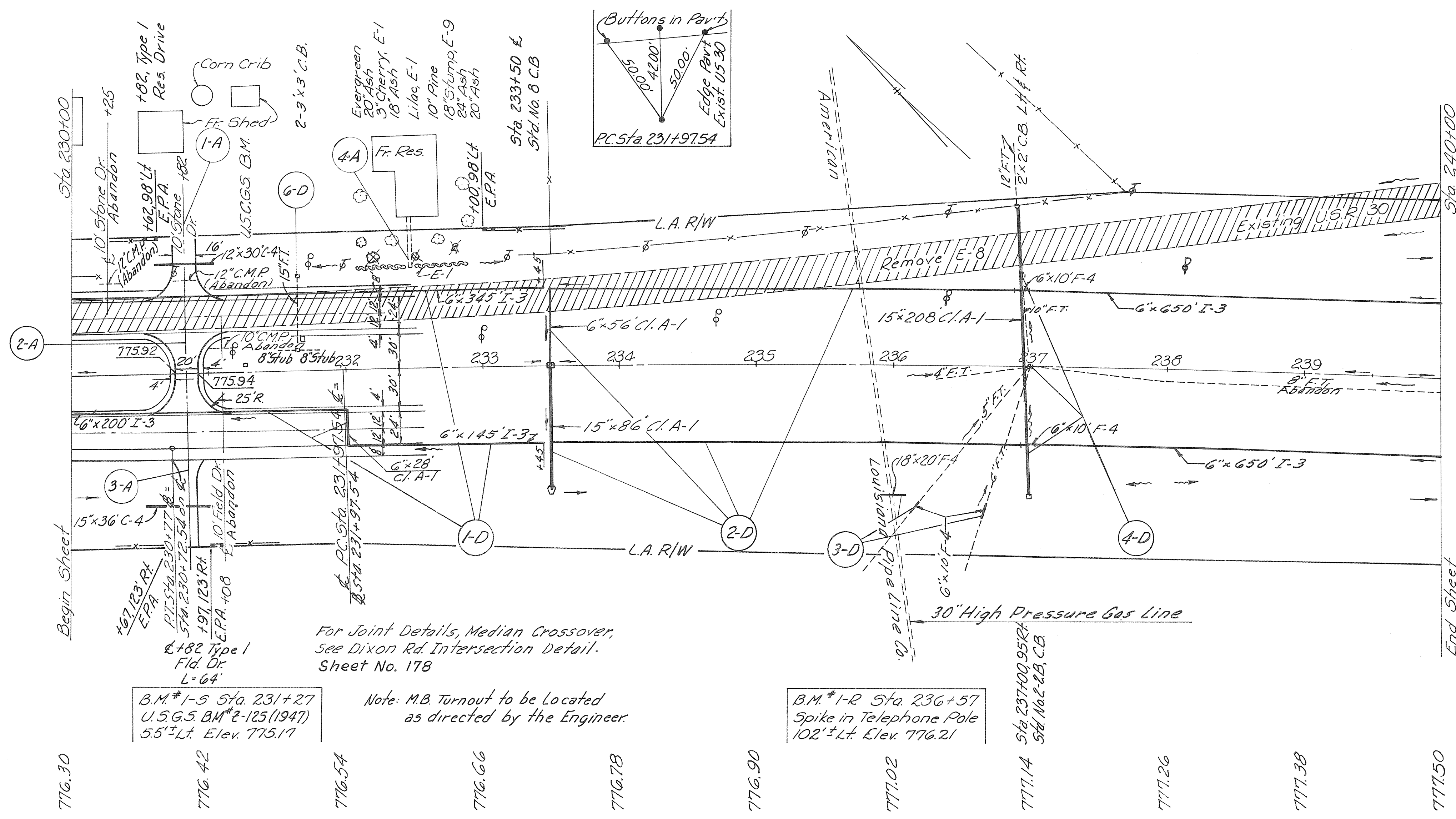
DRAINAGE

Ref. No.	Station	Side	Pipe Lin. Ft.			L-10	I-5			I-8	I-10	E-8	5-22	L-120	I-16		
			A-1	I-3	H-2		Pipe Specials										
From		To		Class			Soodling 50' W	A-1 (Each) HZ			5/4" C.B.	5/4" C.B.	5/4" C.B.	5/4" C.B.			
I-D	220+62	Lt.	15"	8"	6"	6"		838									
2-D	225+00	Lt.	15"	8"	6"	6"	402										
3-D	220+62	Lt.	15"	8"	6"	6"	540	36	32	2	1	2			2		
4-D	229+00	Lt.	15"	8"	6"	6"	85	56	200	1	1	1	2.14		250		
5-D	227+22	Lt.													1		
6-D	224+	Lt.													40 Lump		
Totals			169	18	56	1980	36	32	1	3	1	1	2	2.14	40 Lump	250	3

E-9, Removal of Trees and Stumps 4 Each  
 E-10, Removal of Frame Residence, Frame Barn, 3 Frame Sheds, Conc. block Shed, and Garage, Parcel No. 92, WL  
 \*Shall include the Removal and Disposal of conc. foundations, buried gas tank, etc.



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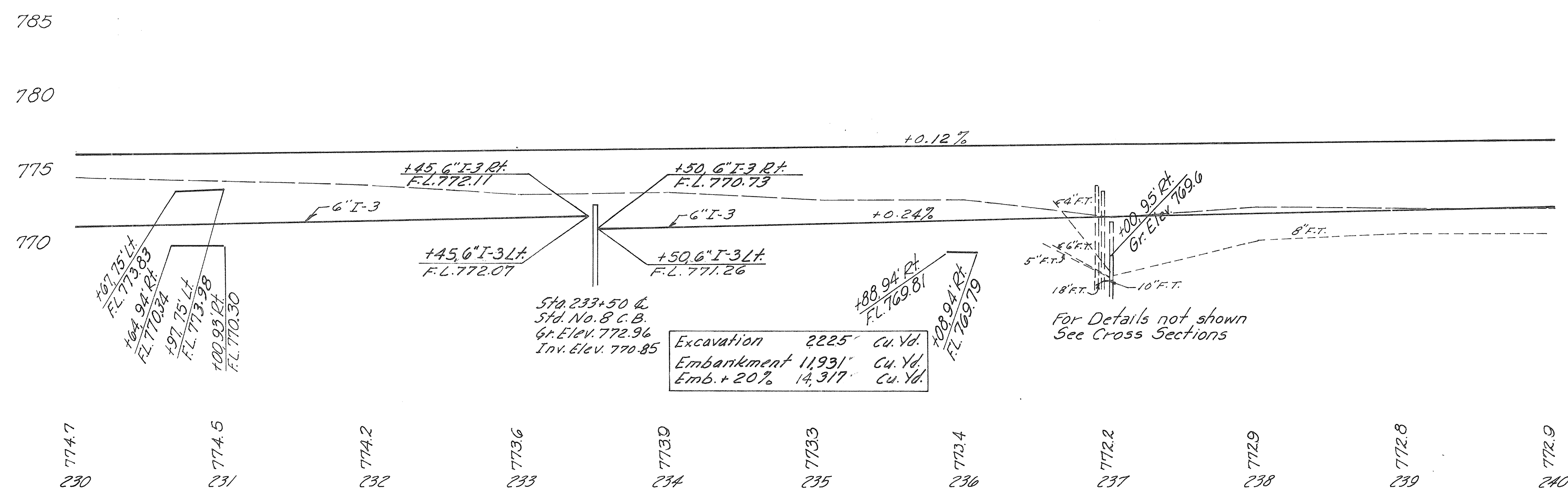
**SIDE APPROACHES "A"**

Ref. No.	Station	Side	Pipe							Remarks	Drives			
			E-8	I-13	B-19	I-22	T-71	T-35	I-1		Length	Width	T-30	
			Subgrade Removal	Subgrade 4" Thick	Aggregate Base	Sub-base	Conc.	Asph. Class	Conc. C-4					
			S.F.	S.F.	Cu. Yd.	C.Y.	Sq. Yd.	Cu. Yd.	Lin. Ft.	Bit	Prime	Gal.		
1-A	230+82	Lt.			6	8.3			4.2	30	Res. Dr.	46	16	30
2-A	230+82	Rt.					32.1	192.95			Cross over	60	20	
3-A	230+82	Rt.			14						36 Fld. Dr.	64	12	
4-A	232+49	Lt.	12	12										
Total			12	12	28.3	32.1	192.95	4.2	30	36				30

**DRAINAGE**

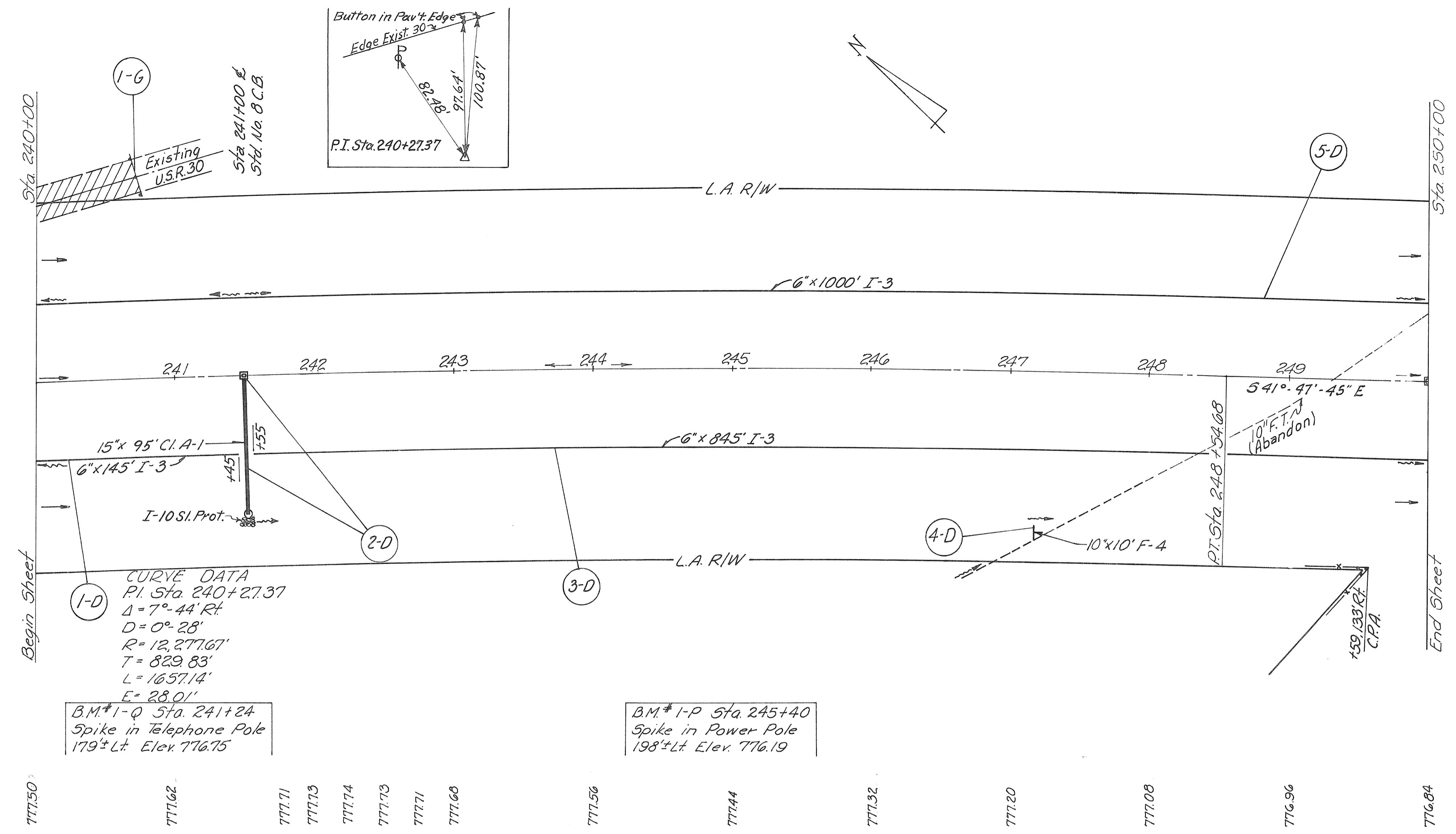
Ref. No.	Station		Side	Pipe Lin. Ft.			I-5		I-8	I-10	E-12	I-16	L-120		
				Class			Pipe Spec. Ea		2-2 B. C.B. 5" Dia. No. 8	6" Conc. Rip Rap	Pipe Rem. 15' Under C.B. Abandon	Pipe Rem. 15' Under C.B. Abandon	Joint Meeting		
				A-1	F-4	I-3	6" Tee	90°						Each	Sq. Yd.
1-D	230+00	233+45	Lt./Rt.	15" 28	6" 18"	6"	690		2						
2-D	233+50	240+00	Lt./Rt.	86 56	20	1280	1	1	1	2.14		250			
3-D	235+88	236+73	Rt.		20 20										
4-D	236+85	237+15	Lt./Rt.	208					1			2			
6-D	231+68		Lt.								50	2			
Totals				294	84	40	20	1970	1	3	1	2.14	50	4	250

E-9 Removal of Trees and Stumps / each



Sta. 230+00 to Sta. 240+00

VAN WERT COUNTY  
VAN-30-4.06

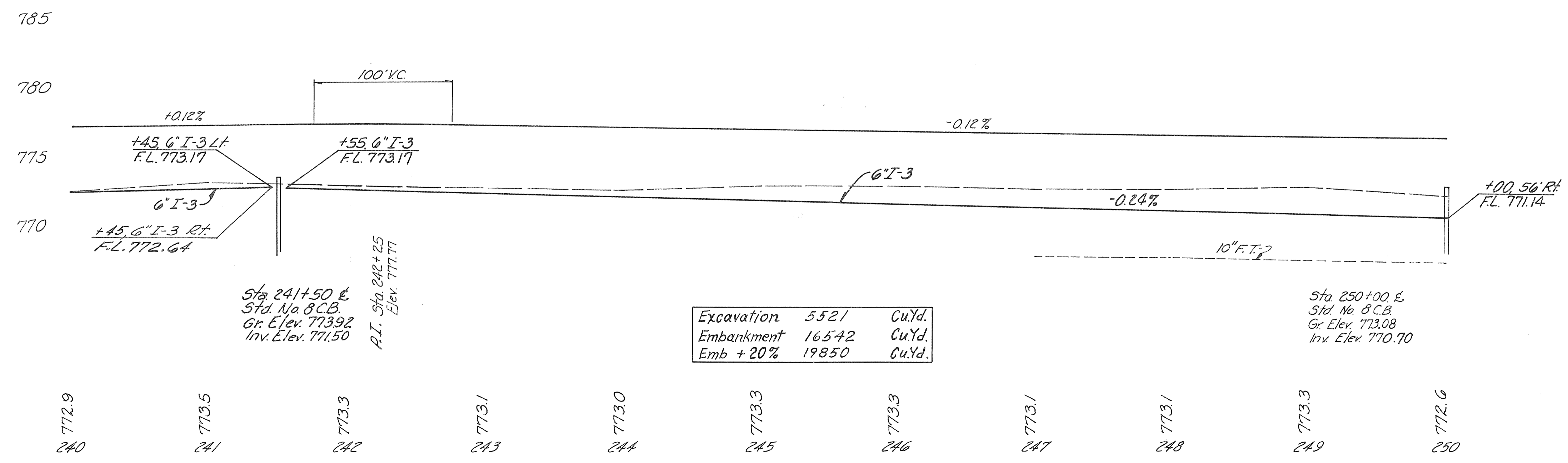


**GUARD RAIL "G"**

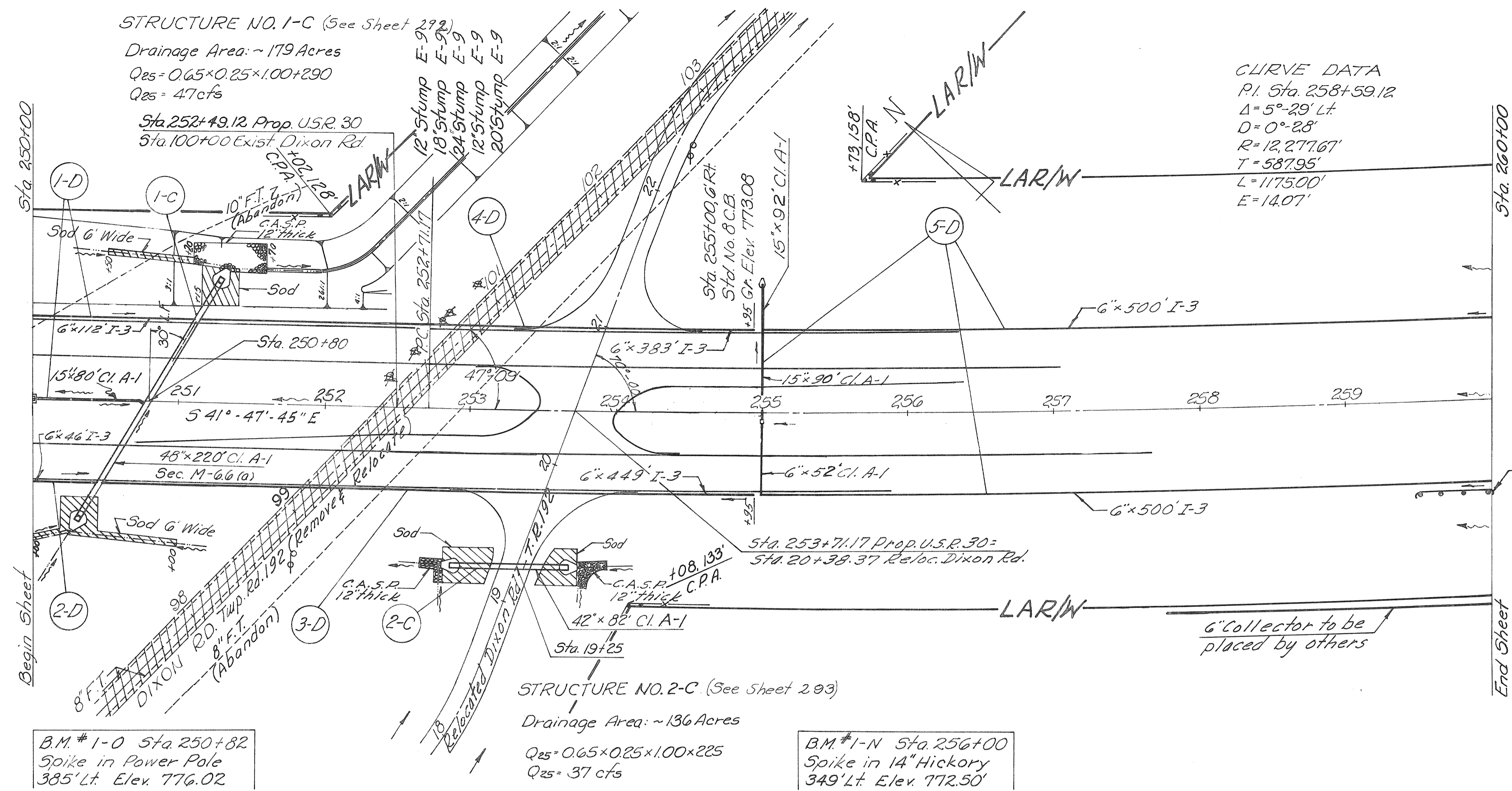
Ref. No	Station		Side	I-15
	From	To		Guard Rail/Steel Beam Type (Deep) Lin. Ft.
I-G	240+76		Lt.	Straight 25'
<b>Total</b>				25

**DRAINAGE**

Ref. No	Station		Side	I-1 Pipe Lin. Ft. Class			I-5 Each		I-8 Stand No. B C.B. Each	I-10 Rip Rap Sq. Yds.	Crush Aggr. Slope Prot. Sq. Yds.	I-120 Jute Matting Sq. Yds.
	From	To		A-1	F-4	I-3	H-2					
				15'	10"	6"	12" 60"					
I-D	240+00	241+45	Rt.			145						
2-D	241+50		Rt.	95					1	2.14	5	250
3-D	241+55	250+00	Rt.			845						
4-D	247+18		Rt.		10		1					
5-D	240+00	250+00	Lt.			1000						
<b>Totals</b>				95	10	1990	1	1	2.14	5	250	



Sta. 240+00 to Sta. 250+00



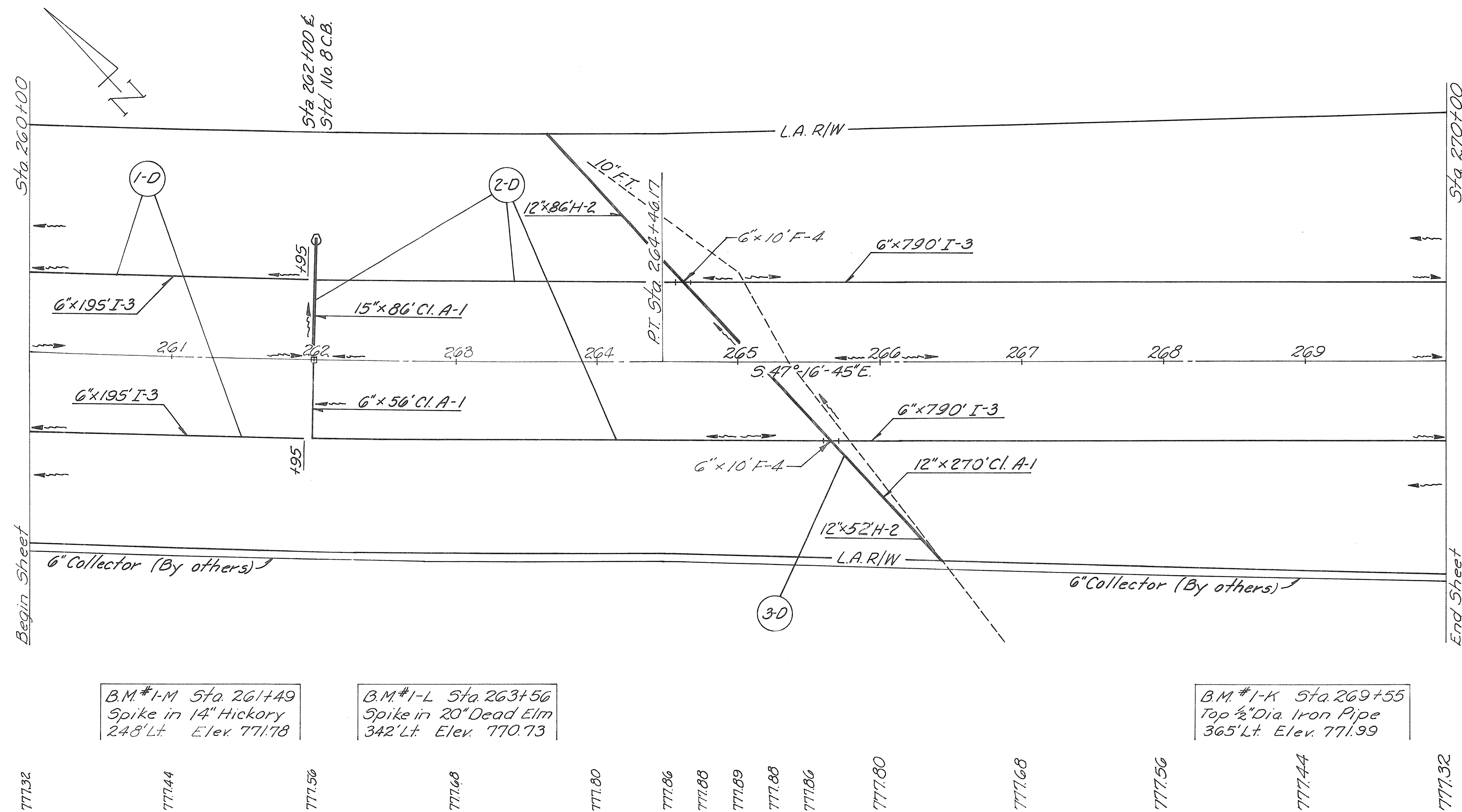
Sign support guardrail, for quantities, see sheet 279. Guardrail detail, see sheet 287.

E-9 Removal of Trees & Stumps 6-Each

**DRAINAGE**

Ref. No.	Station	Side	Pipe Lin. Ft.		Side	Total
			A-1	I-3		
I-1	250+00 to 250+26	HARR	82	112		194
I-1	250+26 to 250+46	HARR	82	46		128
I-1	250+46 to 250+95	HARR	82	449		531
I-1	250+95 to 250+112	HARR	82	383		465
I-1	250+112 to 250+260	HARR	82	1000		1082
I-5	250+00 to 250+05	Lt			1	1
I-5	250+05 to 250+10	Lt			1	1
I-5	250+10 to 250+15	Lt			1	1
I-5	250+15 to 250+20	Lt			1	1
I-5	250+20 to 250+25	Lt			1	1
I-5	250+25 to 250+30	Lt			1	1
I-5	250+30 to 250+35	Lt			1	1
I-5	250+35 to 250+40	Lt			1	1
I-5	250+40 to 250+45	Lt			1	1
I-5	250+45 to 250+50	Lt			1	1
I-5	250+50 to 250+55	Lt			1	1
I-5	250+55 to 250+60	Lt			1	1
I-5	250+60 to 250+65	Lt			1	1
I-5	250+65 to 250+70	Lt			1	1
I-5	250+70 to 250+75	Lt			1	1
I-5	250+75 to 250+80	Lt			1	1
I-5	250+80 to 250+85	Lt			1	1
I-5	250+85 to 250+90	Lt			1	1
I-5	250+90 to 250+95	Lt			1	1
I-5	250+95 to 250+100	Lt			1	1
I-5	250+100 to 250+105	Lt			1	1
I-5	250+105 to 250+110	Lt			1	1
I-5	250+110 to 250+115	Lt			1	1
I-5	250+115 to 250+120	Lt			1	1
I-5	250+120 to 250+125	Lt			1	1
I-5	250+125 to 250+130	Lt			1	1
I-5	250+130 to 250+135	Lt			1	1
I-5	250+135 to 250+140	Lt			1	1
I-5	250+140 to 250+145	Lt			1	1
I-5	250+145 to 250+150	Lt			1	1
I-5	250+150 to 250+155	Lt			1	1
I-5	250+155 to 250+160	Lt			1	1
I-5	250+160 to 250+165	Lt			1	1
I-5	250+165 to 250+170	Lt			1	1
I-5	250+170 to 250+175	Lt			1	1
I-5	250+175 to 250+180	Lt			1	1
I-5	250+180 to 250+185	Lt			1	1
I-5	250+185 to 250+190	Lt			1	1
I-5	250+190 to 250+195	Lt			1	1
I-5	250+195 to 250+200	Lt			1	1
I-5	250+200 to 250+205	Lt			1	1
I-5	250+205 to 250+210	Lt			1	1
I-5	250+210 to 250+215	Lt			1	1
I-5	250+215 to 250+220	Lt			1	1
I-5	250+220 to 250+225	Lt			1	1
I-5	250+225 to 250+230	Lt			1	1
I-5	250+230 to 250+235	Lt			1	1
I-5	250+235 to 250+240	Lt			1	1
I-5	250+240 to 250+245	Lt			1	1
I-5	250+245 to 250+250	Lt			1	1
I-5	250+250 to 250+255	Lt			1	1
I-5	250+255 to 250+260	Lt			1	1
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I-5	250+410 to 250+415	Lt			1	1
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I-5	250+430 to 250+435	Lt			1	1
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I-5	250+455 to 250+460	Lt			1	1
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I-5	250+475 to 250+480	Lt			1	1
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I-5	250+490 to 250+495	Lt			1	1
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I-5	250+565 to 250+570	Lt			1	1
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I-5	250+575 to 250+580	Lt			1	1
I-5	250+580 to 250+585	Lt			1	1
I-5	250+585 to 250+590	Lt			1	1
I-5	250+590 to 250+595	Lt			1	1
I-5	250+595 to 250+600	Lt			1	1
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I-5	250+605 to 250+610	Lt			1	1
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I-5	250+680 to 250+685	Lt			1	1
I-5	250+685 to 250+690	Lt			1	1
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I-5	250+695 to 250+700	Lt			1	1
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I-5	250+755 to 250+760	Lt			1	1
I-5	250+760 to 250+765	Lt			1	1
I-5	250+765 to 250+770	Lt			1	1
I-5	250+770 to 250+775	Lt			1	1
I-5	250+775 to 250+780	Lt			1	1
I-5	250+780 to 250+785	Lt			1	1
I-5	250+785 to 250+790	Lt			1	1
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I-5	250+795 to 250+800	Lt			1	1
I-5	250+800 to 250+805	Lt			1	1
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I-5	250+810 to 250+815	Lt		</		

VAN WERT COUNTY  
VAN-30-4.06



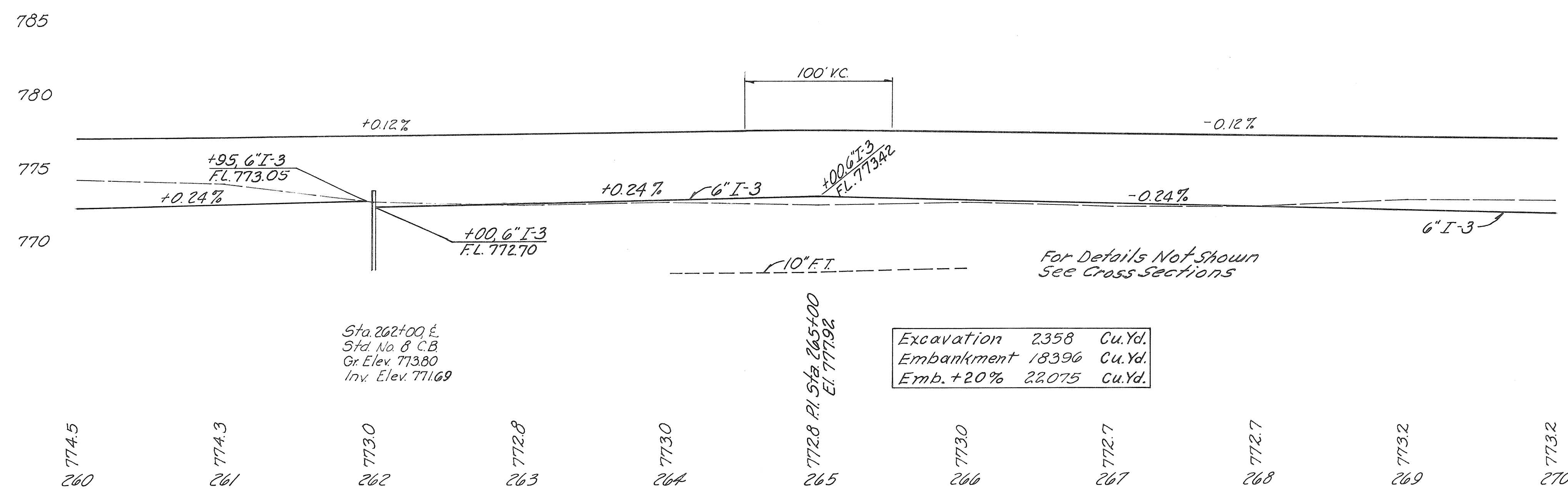
B.M.#1-M Sta. 261+49  
Spike in 14" Hickory  
248' Lt Elev. 771.78

B.M.#1-L Sta. 263+56  
Spike in 20" Dead Elm  
342' Lt Elev. 770.73

B.M.#1-K Sta. 269+55  
Top 1/2" Dia Iron Pipe  
365' Lt Elev. 771.99

**DRAINAGE**

Ref. No.	Station		Side	I-1 Pipe Lin. Ft.						I-5 Each A-1		I-8 Std No. 8 C.B.	I-10 Rip Rap	I-120 Jute Matting
				Class						6" on 15" Tee	6" x 90" Bend			
				6"	12"	15"	6"	H-2	I-3					
1-D	260+00	261+95	L.H.R.A.											
2-D	262+00	270+00	L.H.R.A.	56	86			390	1	1	1	2.14		250
3-D	263+64	266+50	L.H.R.A.	270			20	138						
<b>Totals</b>				56	270	86	20	138	1970	1	1	1	2.14	250



Sta. 262+00 ±  
Std. No. 8 C.B.  
Gr. Elev. 773.80  
Inv. Elev. 771.69

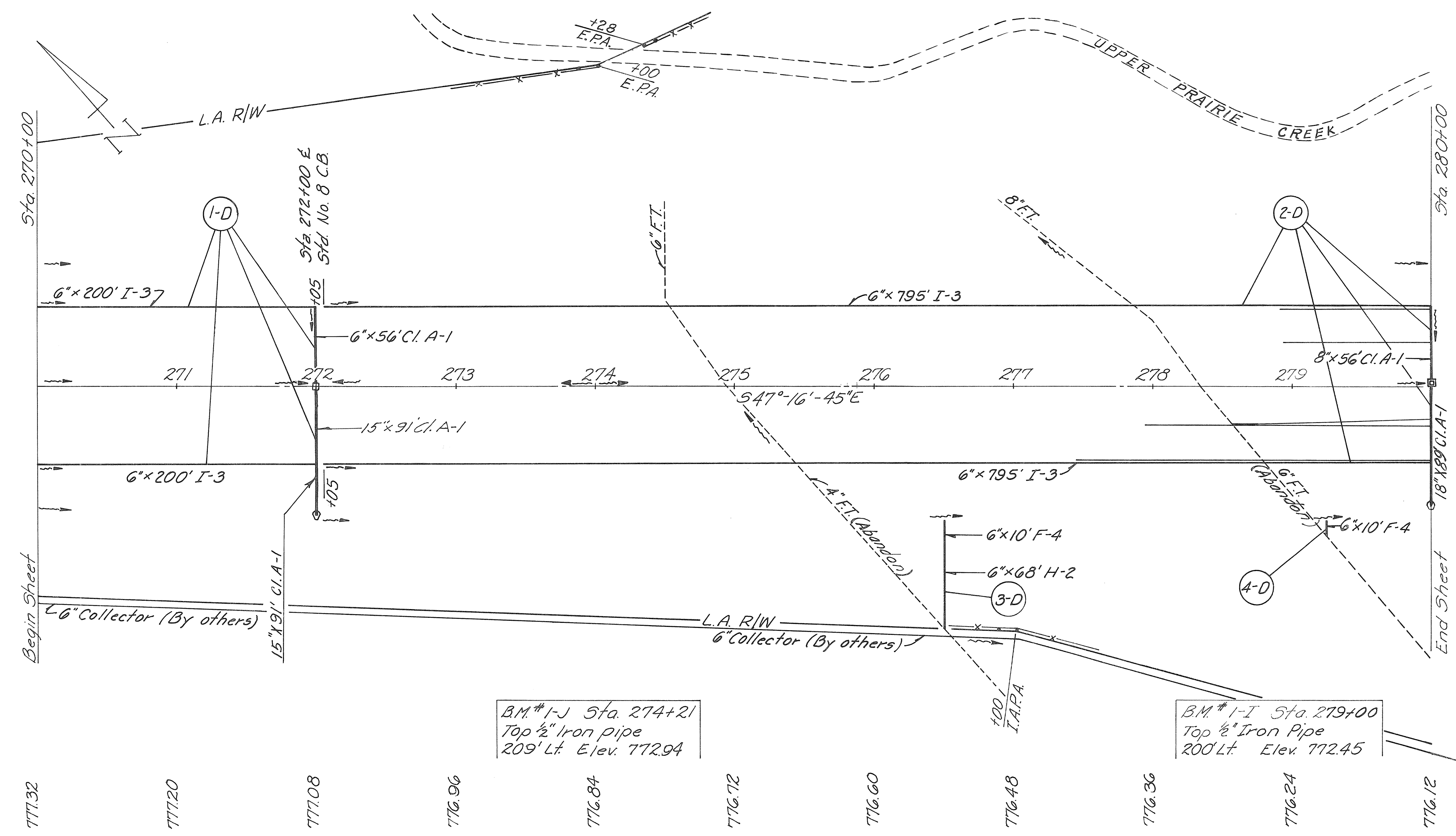
P.I. Sta. 265+00  
Elev. 777.92

Excavation 2358 Cu.Yd.  
Embankment 18396 Cu.Yd.  
Emb. +20% 22075 Cu.Yd.

For Details Not Shown  
See Cross Sections

Sta. 260+00 to Sta. 270+00

VAN WERT COUNTY  
VAN-30-4.06

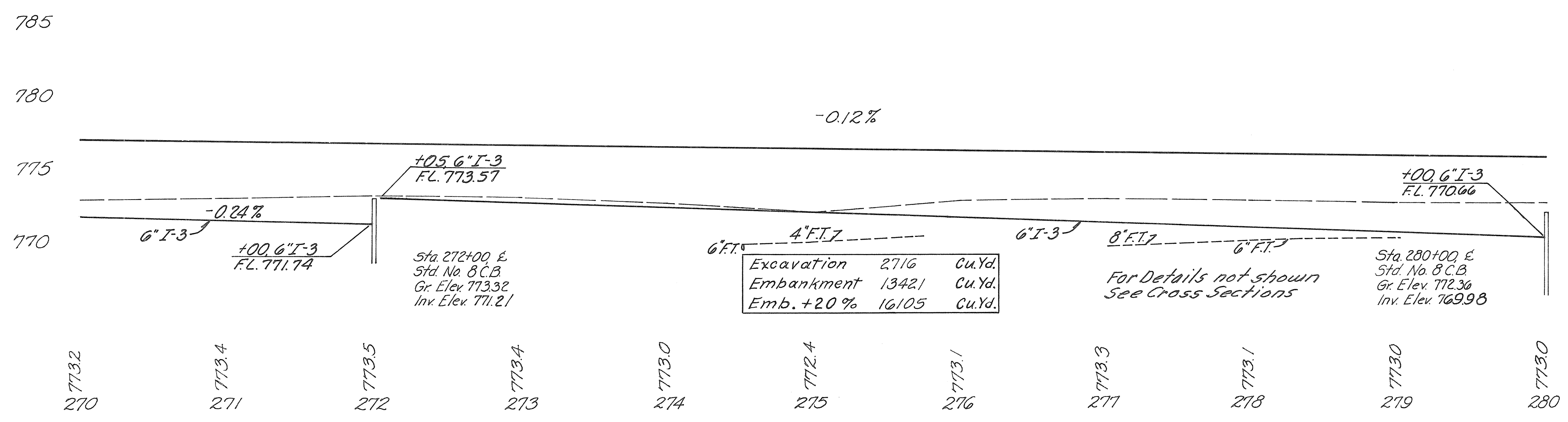


**DRAINAGE**

Ref. No.	Station		Side	I-1						I-5				I-8	I-10	L-120		
				Pipe Lin. Ft.						Pipe Specials								
				Class						A-1								
	From	To		6"	8"	15"	18"	F-4	I-3	H-2	6"x90° Bend	6"x15° Tee	6" on 8" Tee	8" on 8" Tee	6"x45° Bend	Std. No. 8 C.B.	6" Rip Rap	Jute Matting
1-D	270+00	272+00	Lt. Rt.	56	91	18	6	400	6"	6"	1	1	1	1	1	2.14		250
2-D	272+05	280+00	Lt. Rt.	56	89			1590							1	2.98		250
3-D	276+50		Rt.					10		68								
4-D	279+25		Rt.					10										
<b>Totals</b>				56	56	91	89	20	1990	68	1	1	1	1	2	5.12		500

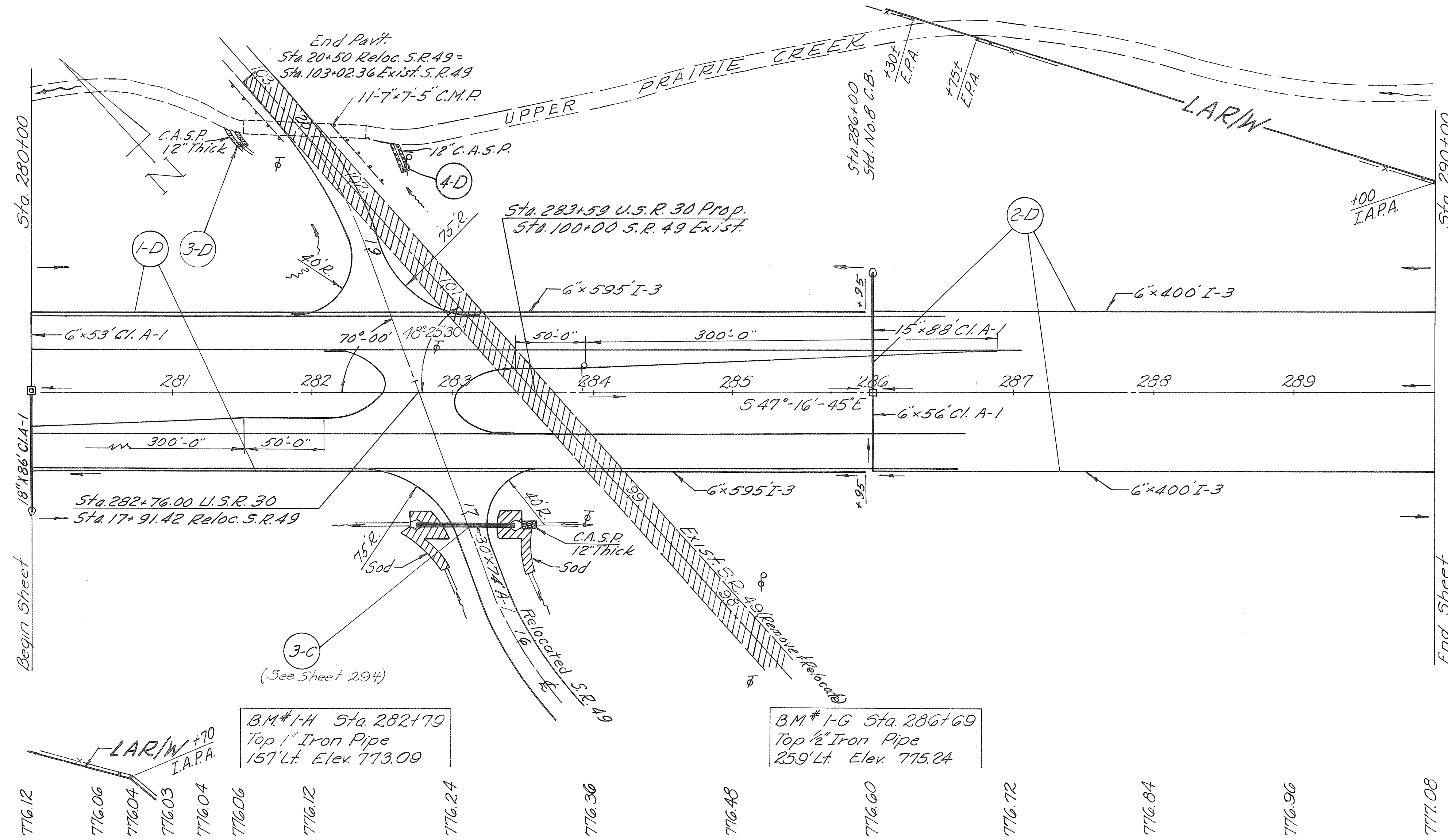
B.M. #1-J Sta. 274+21  
Top 1/2" Iron pipe  
209' Lt. Elev. 772.94

B.M. #1-I Sta. 279+00  
Top 1/2" Iron Pipe  
200' Lt. Elev. 772.45



Sta. 270+00 to Sta. 280+00

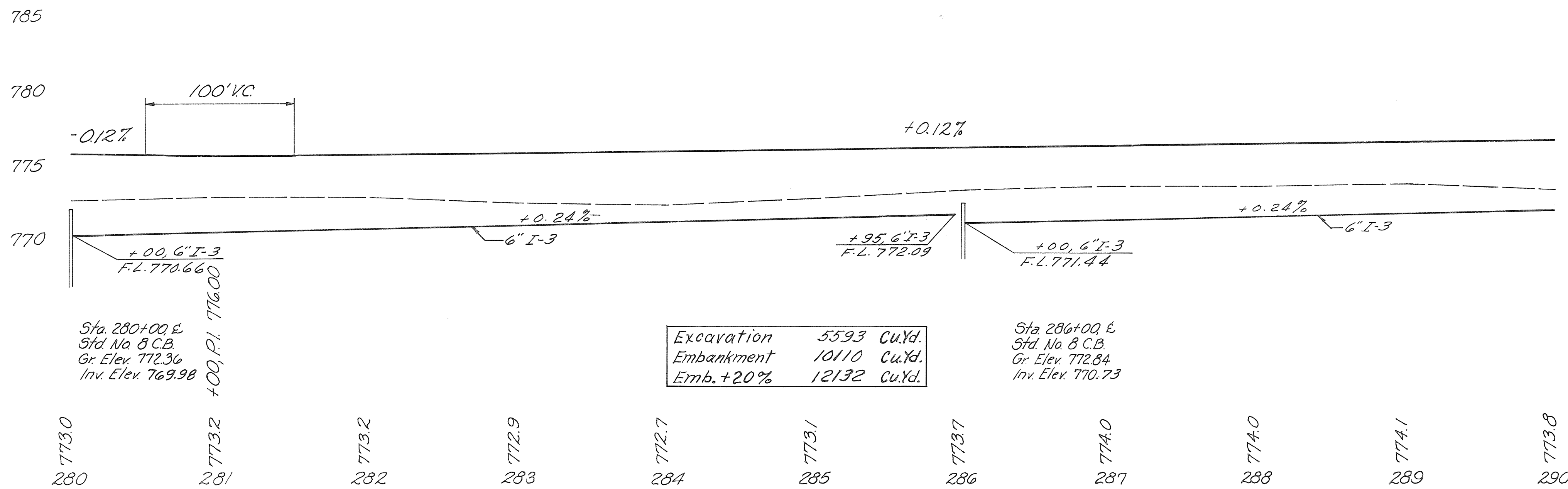


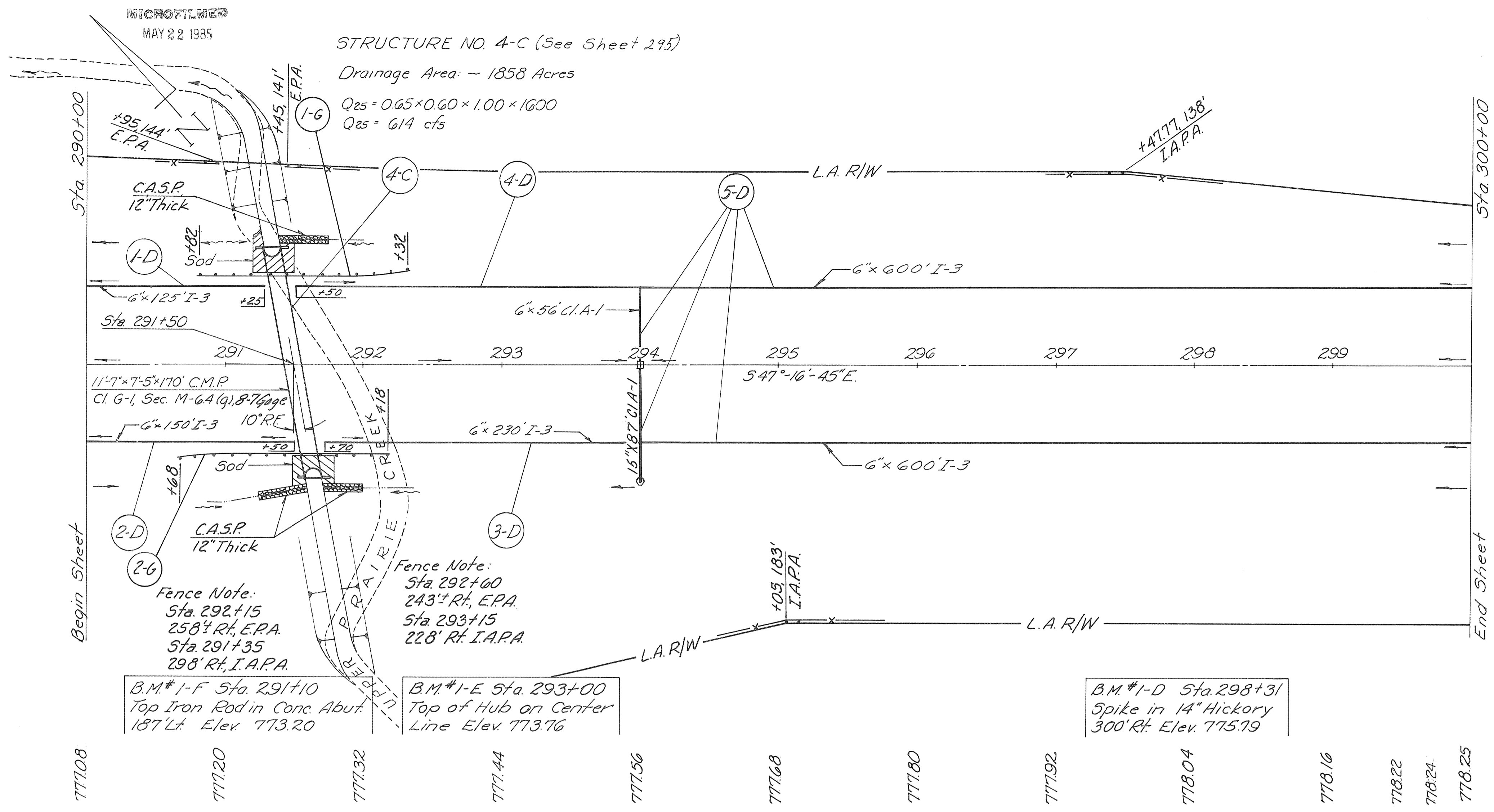


### DRAINAGE

Ref. No.	Station		Side	I-1		I-5		S-22	I-8	I-10	I-10	I-120						
				Pipe Lin. Ft.		Pipe Specials							Remov. Ex. S.R.	Std. No. 8 C.B.	Rip RAP	Crushed Aggregate Slope Prot.	Sodding	Jute Matting
				A-1	I-3	A-1												
3-C	16+79.53	17+04.84	Lt/Rt															
1-D	280+00	285+95	Lt/Rt		1190													
2-D	286+00	290+00	Lt/Rt	56 88	800	1	1		1	2.14		250						
Relocated S.R. 49																		
3-D	20+14	20+30	Lt.								10.00							
4-D	19+33	19+50	Rt.								13.00							
5-D	27+38		R															
Totals				56	88	74	1990		1	1								

\*Shall include the removal & disposal of exist. conc. islands, underground gas tanks, etc.  
See sheets 186, 343.





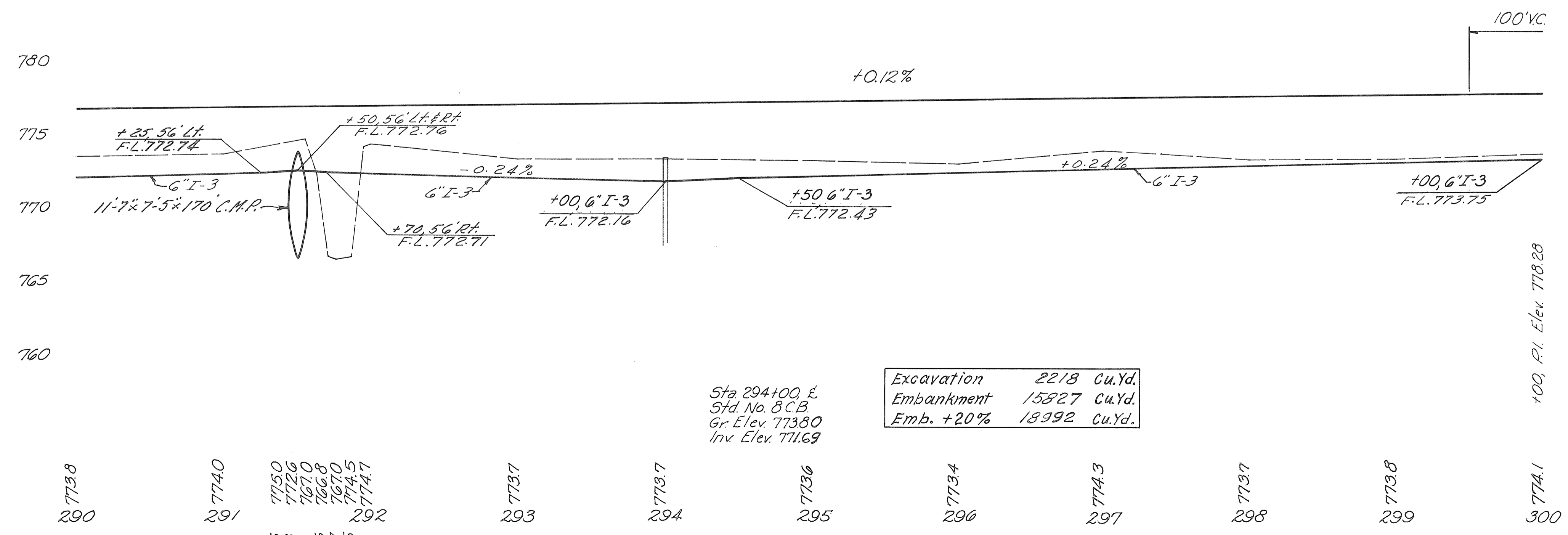
VAN WERT COUNTY  
VAN - 30-4.06

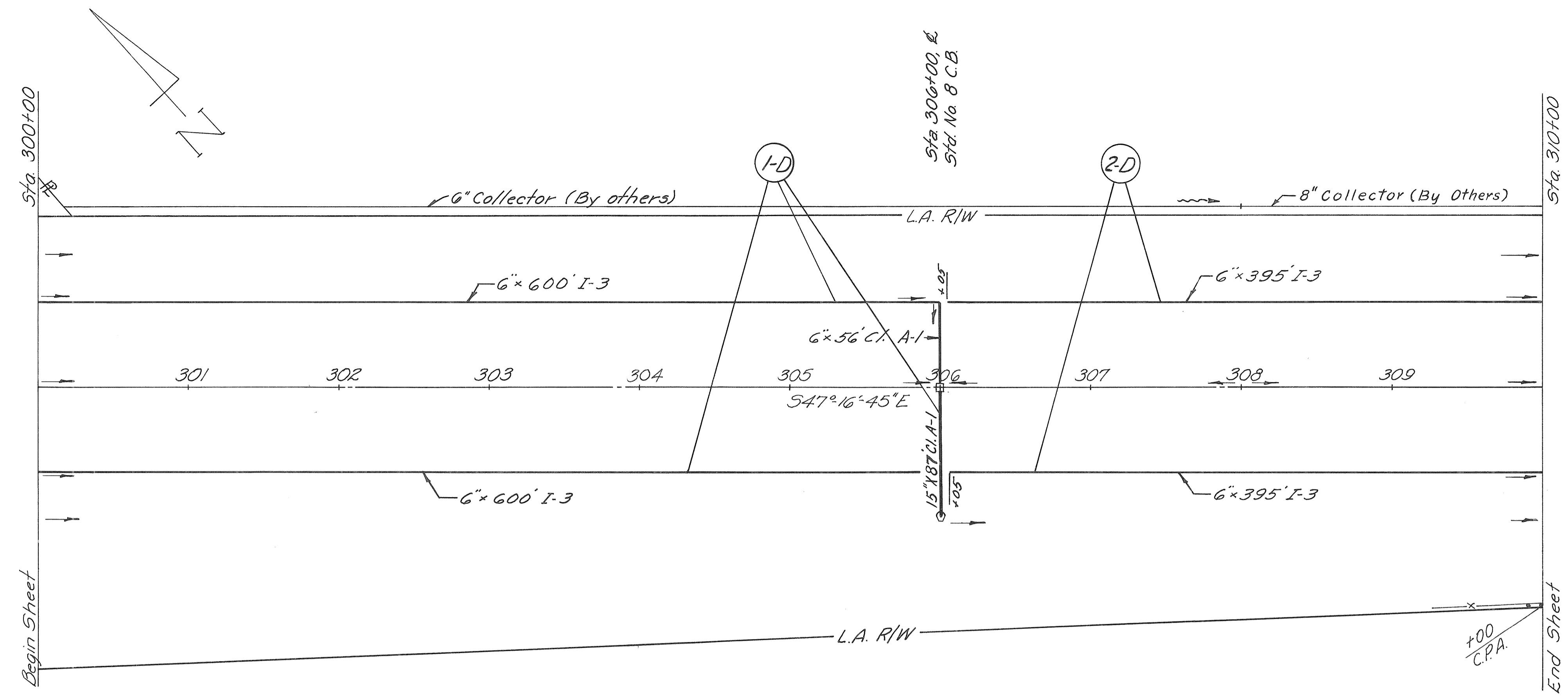
Ref. No.	Station		Side	I-15 GUARD RAIL Steel Beam Type (Deep) Lin. Ft.	
	From	To		Straight	
1-G	290+82	292+32	Lt.	150	
2-G	290+68	292+18	Rt.	150	
Total				300	

DRAINAGE

Ref. No.	Station	Side	I-1 Pipe Lin. Ft.			I-5 Pipe Specials Each		E-3 Channel Excavation (Cu.Yd.)	I-2 Masonry Class. E. (Cu.Yd.)	I-8 Stl. #8 Catch Basin Each	I-10 Rip Rap Sq. Yd.	L-10 Slope Protection Sq. Yd.	L-120 Sodding Sq. Yd.	L-120 Turfs Matting Sq. Yd.		
			CLASS			6"	6"								6"	
			A-1	G-1	I-3											
4-C	291+45.07	291+64.59	Lt.	15	170	6"										
1-D	290+00	291+25	Lt.													
2-D	290+00	291+50	Rt.													
3-D	291+70	294+00	Rt.													
4-D	291+50	294+00	Lt.													
5-D	294+00	300+00	Lt.	56	87					1	2.14			250		
Total				56	87	170	1955	1	1	24	122	1	2.14	72	130	250

\* Sec. M-6.4(g), 8-7 Gage 1213





B.M.#1-C Sta. 301+39  
Spike in 16" Hickory  
54' Rt. Elev. 775.70

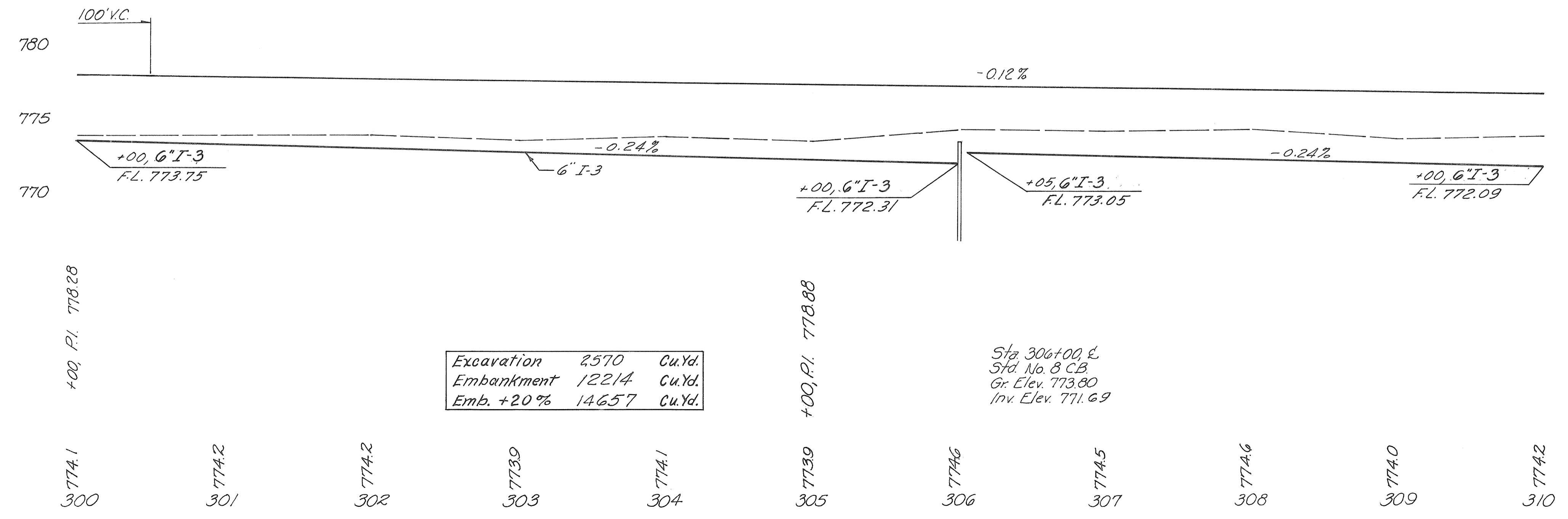
B.M.#1-B Sta. 306+00  
Top Hub on Center-Line  
Elev. 774.58

B.M.#1-A Sta. 309+87  
Spike in Power Pole  
200' Rt. Elev. 775.53

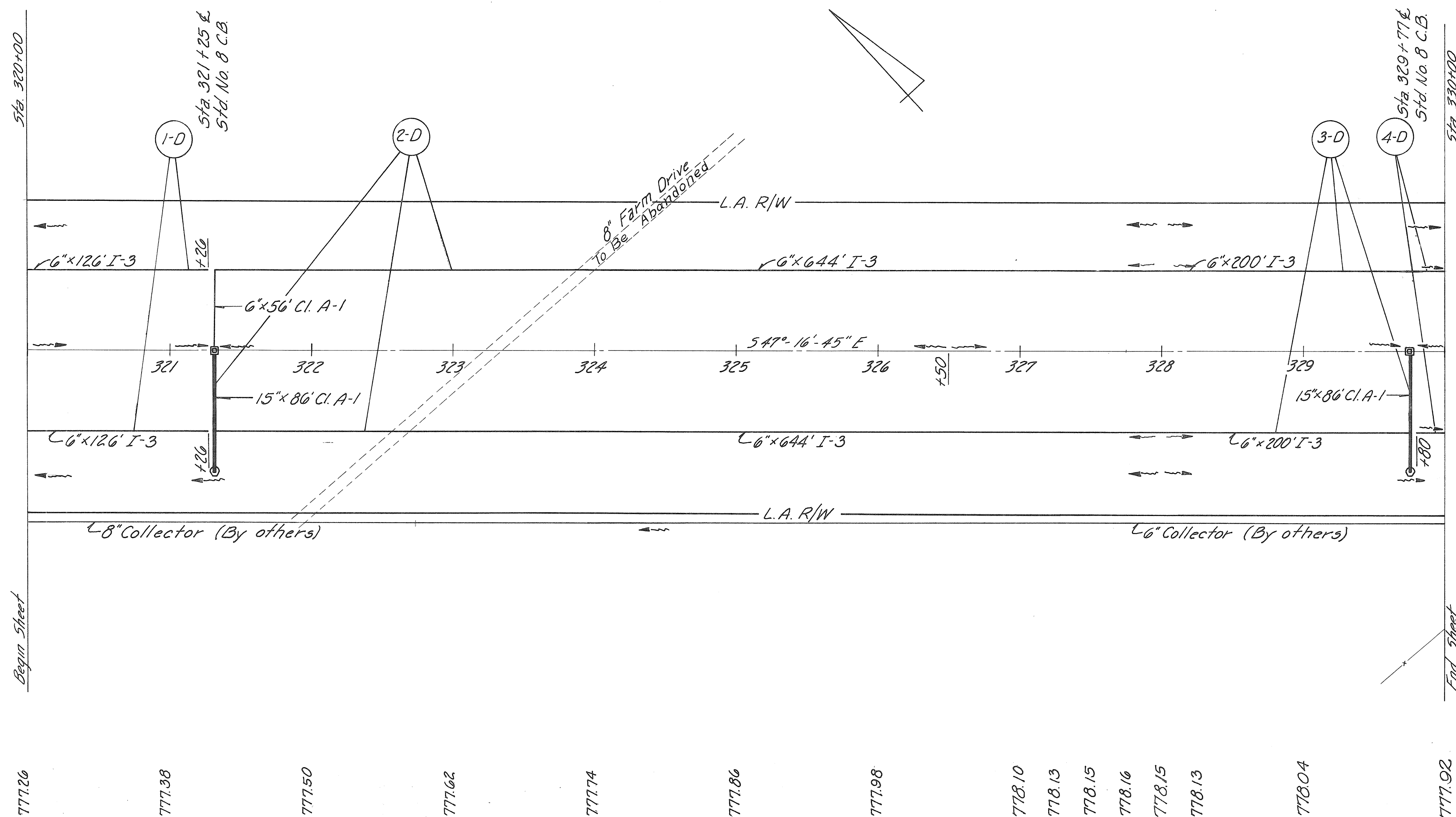
778.25 778.24 778.22 778.16 778.04 777.92 777.80 777.68 777.56 777.44 777.32 777.20 777.08

### DRAINAGE

Ref. No.	Station		Side	I-1		I-5			I-8	I-10	L-120
				Pipe Lin. Ft.		Pipe Specials			Stk #8		
				Class					Catch Basin		Jute Matting
				A-1	I-3	6" x 90' Bend	6" x 90' Tee		Each	Sa. Yd.	
				6"	15"	6"					
I-D	300+00	306+00	L.H.H.A.	56	87	1200	1	1	1	2.14	250
2-D	306+05	310+00	L.H.H.A.			790					
<b>Total</b>				<b>56</b>	<b>87</b>	<b>1990</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2.14</b>	<b>250</b>

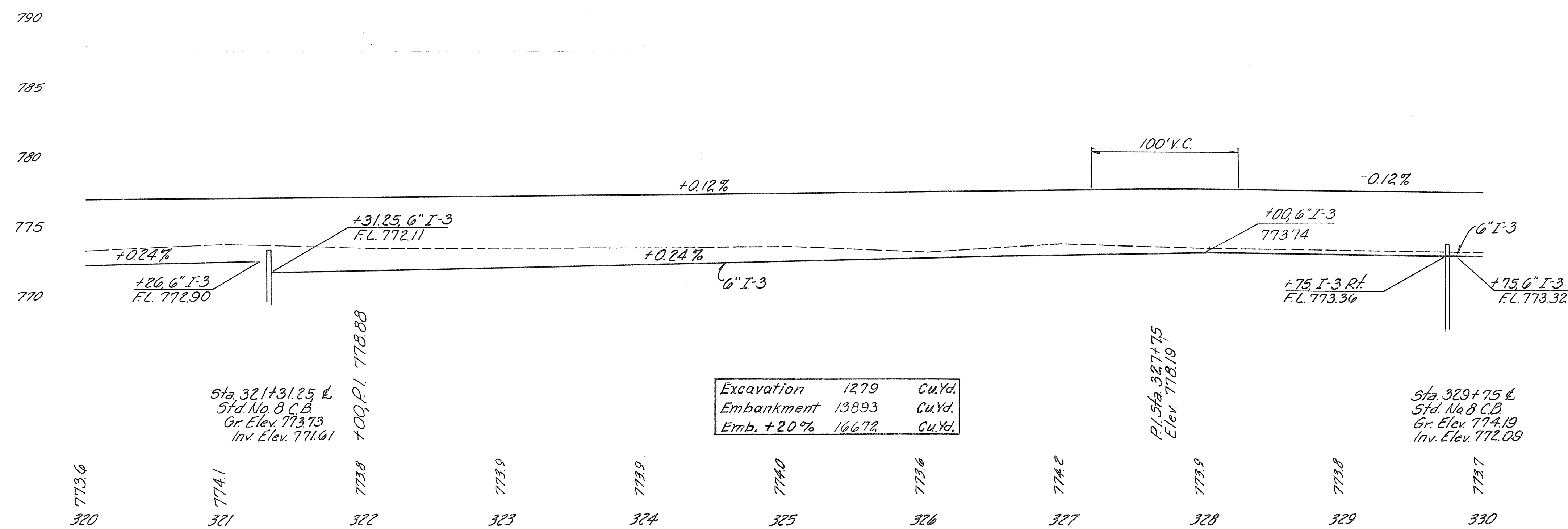






### DRAINAGE

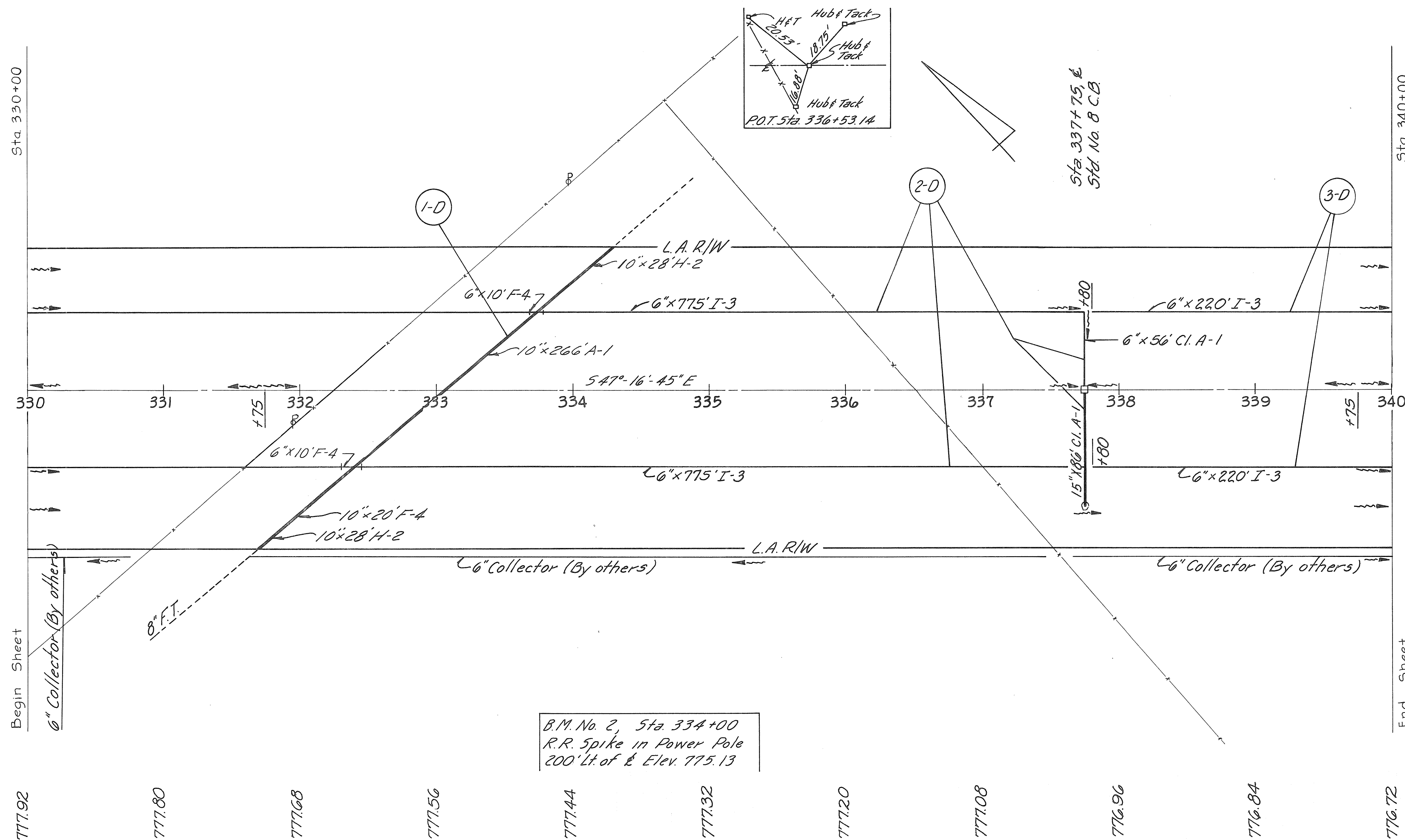
Ref. No.	Station		Side	I-1		I-5		I-8	I-10	L-120	
				Pipe Lin. Ft.		Pipe Specials		Std. No. 8 C.B.	6" Conc. Rip Rap Each Sq. Yd.		
				A-1	I-3	Each, A-1	6" Tee				
	From	To	6"	15"	6"	6" 90° Tee					
1-D	320+00	321+26			252						
2-D	321+31.25	327+75	L+R	56	86	1288	1	1	1	2.14	
3-D	327+75	329+75	L+R		86	400	1		1	2.14	
4-D	329+75	330+00	L+R			45					
Totals				56	172	1985	1	2	2	4.28	500



Sta. 321+31.25 L  
Std. No. 8 C.B.  
Gr. Elev. 773.73  
Inv. Elev. 771.61

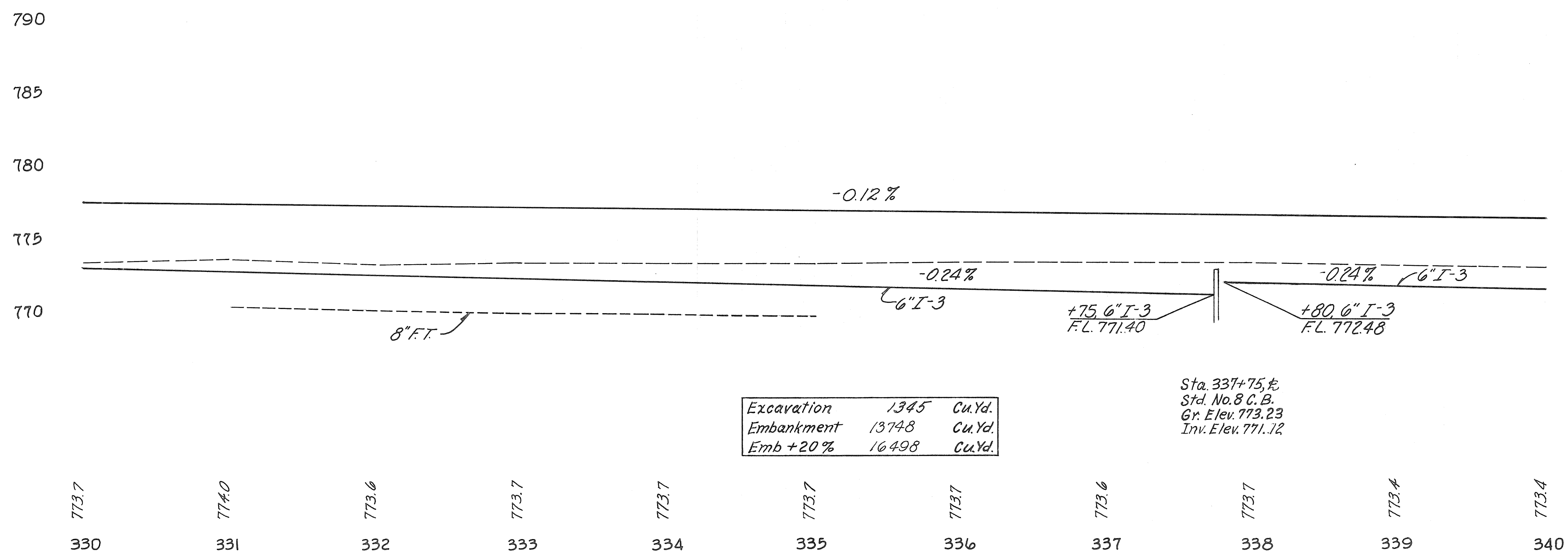
Excavation	1279	Cu. Yd.
Embankment	13893	Cu. Yd.
Emb. + 20%	16672	Cu. Yd.

Sta. 329+75 L  
Std. No. 8 C.B.  
Gr. Elev. 774.19  
Inv. Elev. 772.09



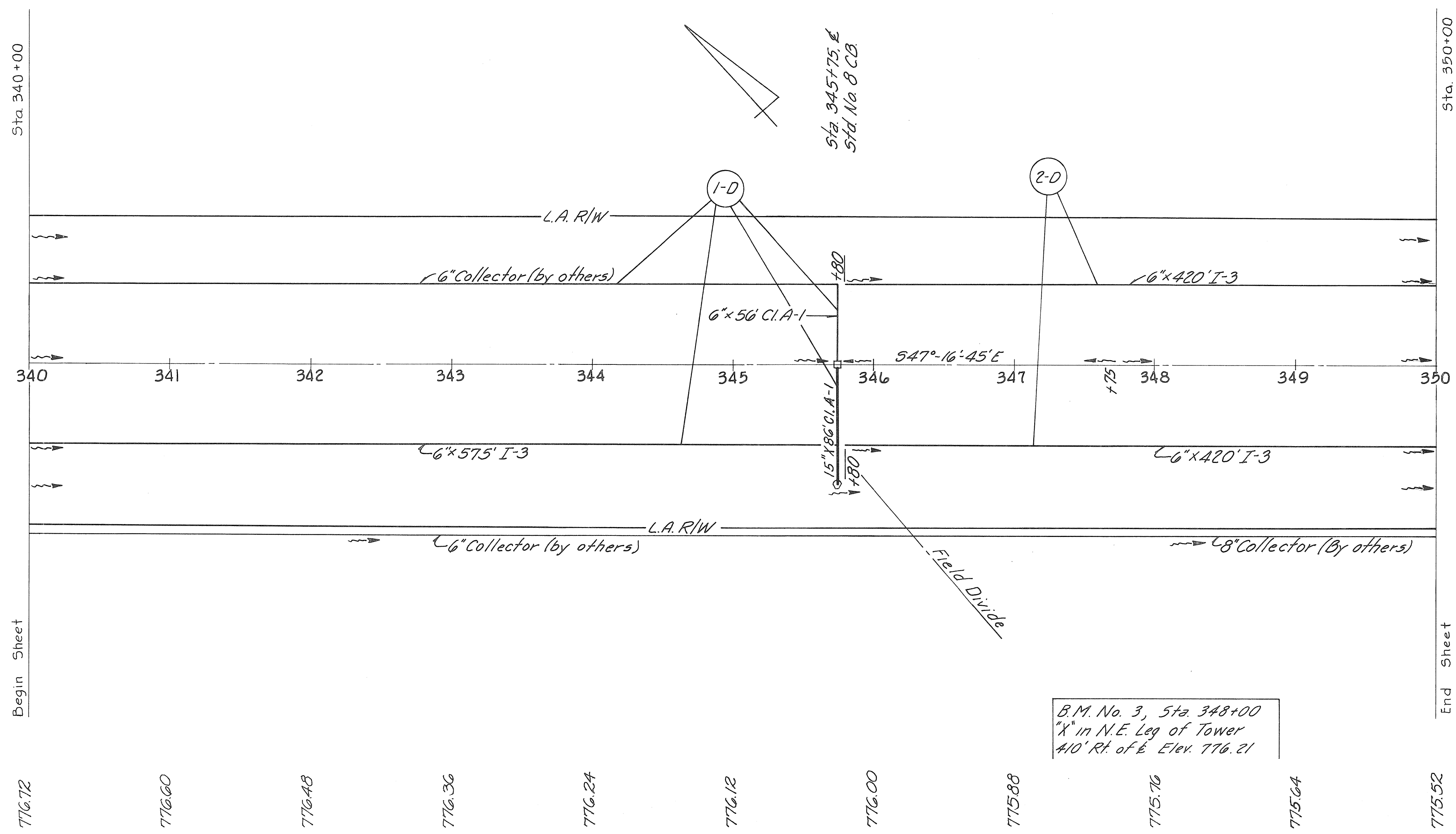
### DRAINAGE

Ref. No.	Station		Side	I-1				I-5		I-8	I-10	L-120		
				Pipe Lin. Ft.				Specials		Std. No. 8	6" Conc. Rip Rap			
				A-1	F-4	H-2	I-3	6" 90° Tee	6" 15" Tee	Each	Sq. Yd.			
I-D	331+70	334+30	L.H.R.	266										
2-D	330+00	337+75	L.H.R.	86	56	20	56	1530	1	1	1			
3-D	337+80	340+00	L.H.R.					440						
<b>Totals</b>				266	86	56	20	56	1970	1	1	1	2.14	250



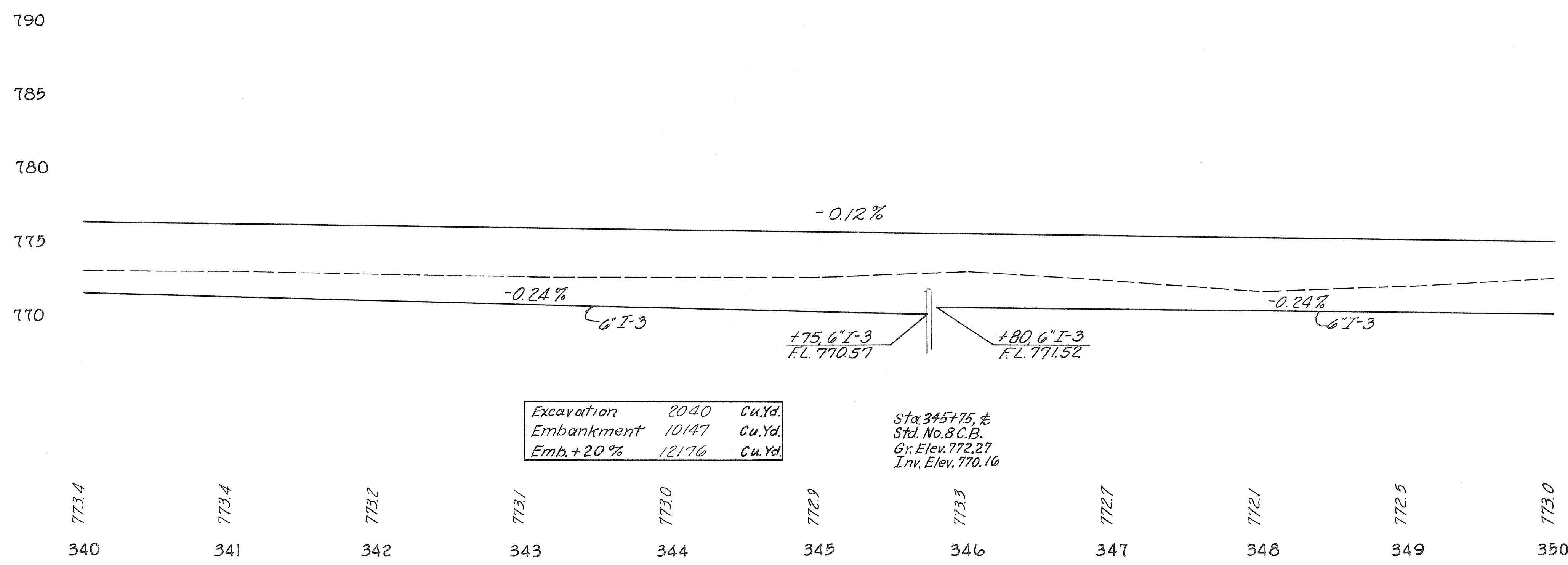
Excavation	1345	Cu. Yd.
Embankment	13748	Cu. Yd.
Emb +20%	16498	Cu. Yd.

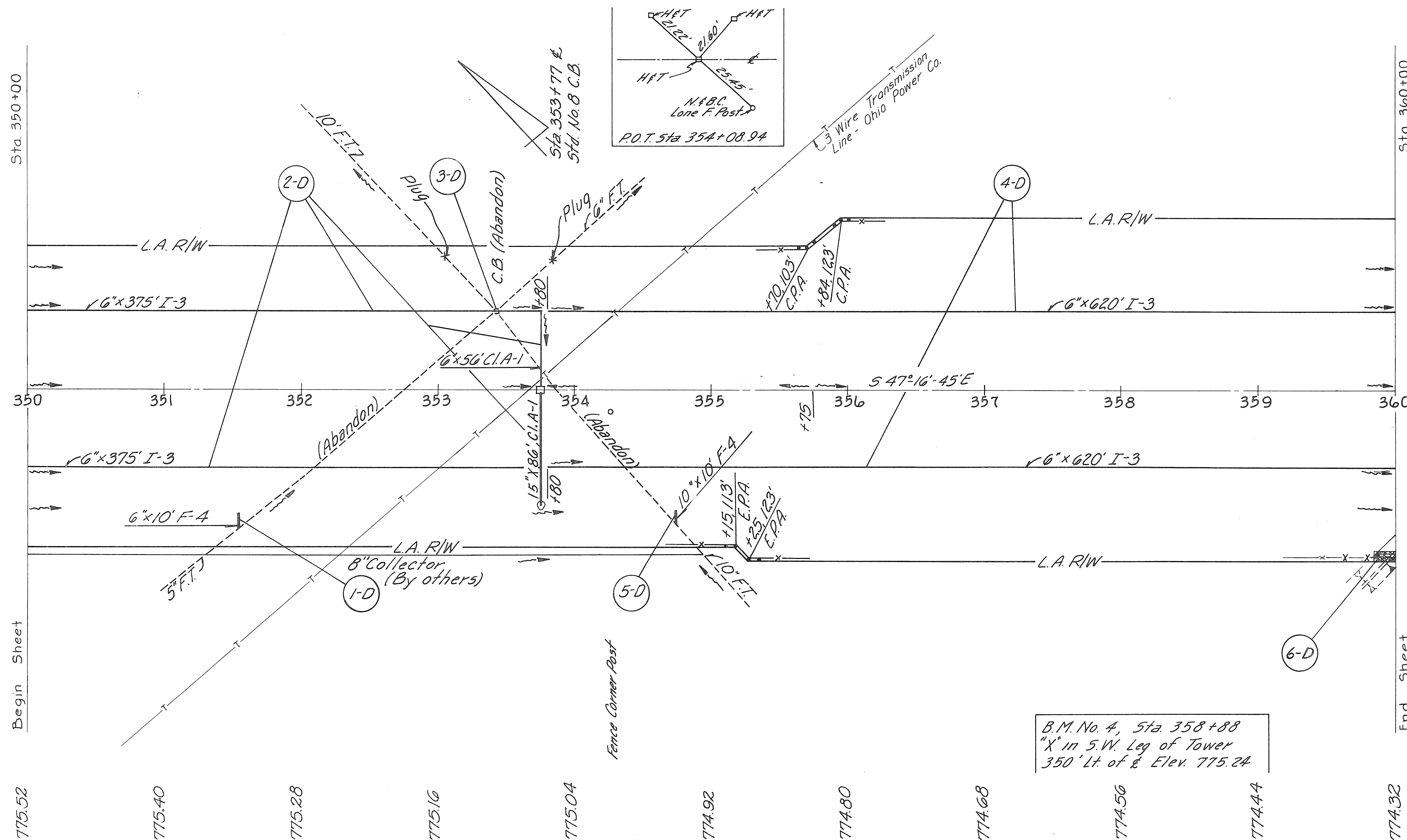
Sta. 337+75.6  
Std. No. 8 C.B.  
Gr. Elev. 773.23  
Inv. Elev. 771.12



### DRAINAGE

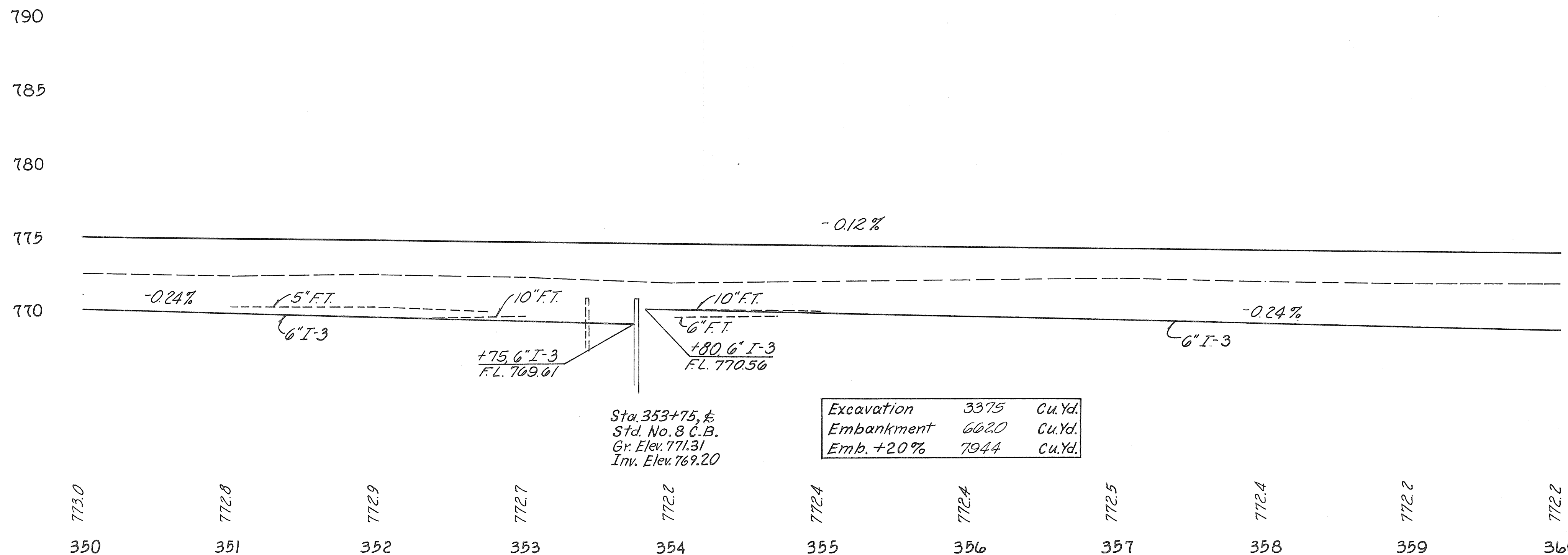
Ref. No.	Station		Side	I-1		I-5		I-8	I-10	I-120	
				Pipe Lin. Ft.		Pipe Specials		Std. No. 8	6" Conc. Rip		
				A-1	I-3	A-1, Each	90° Tee	Each	Sq. Yd.		
I-D	340+00	345+75	Left	56	86	1150	1	1			
2-D	345+80	350+00	Left			840			1	2.14	
Totals				56	86	1990	1	1	1	2.14	250





**DRAINAGE**

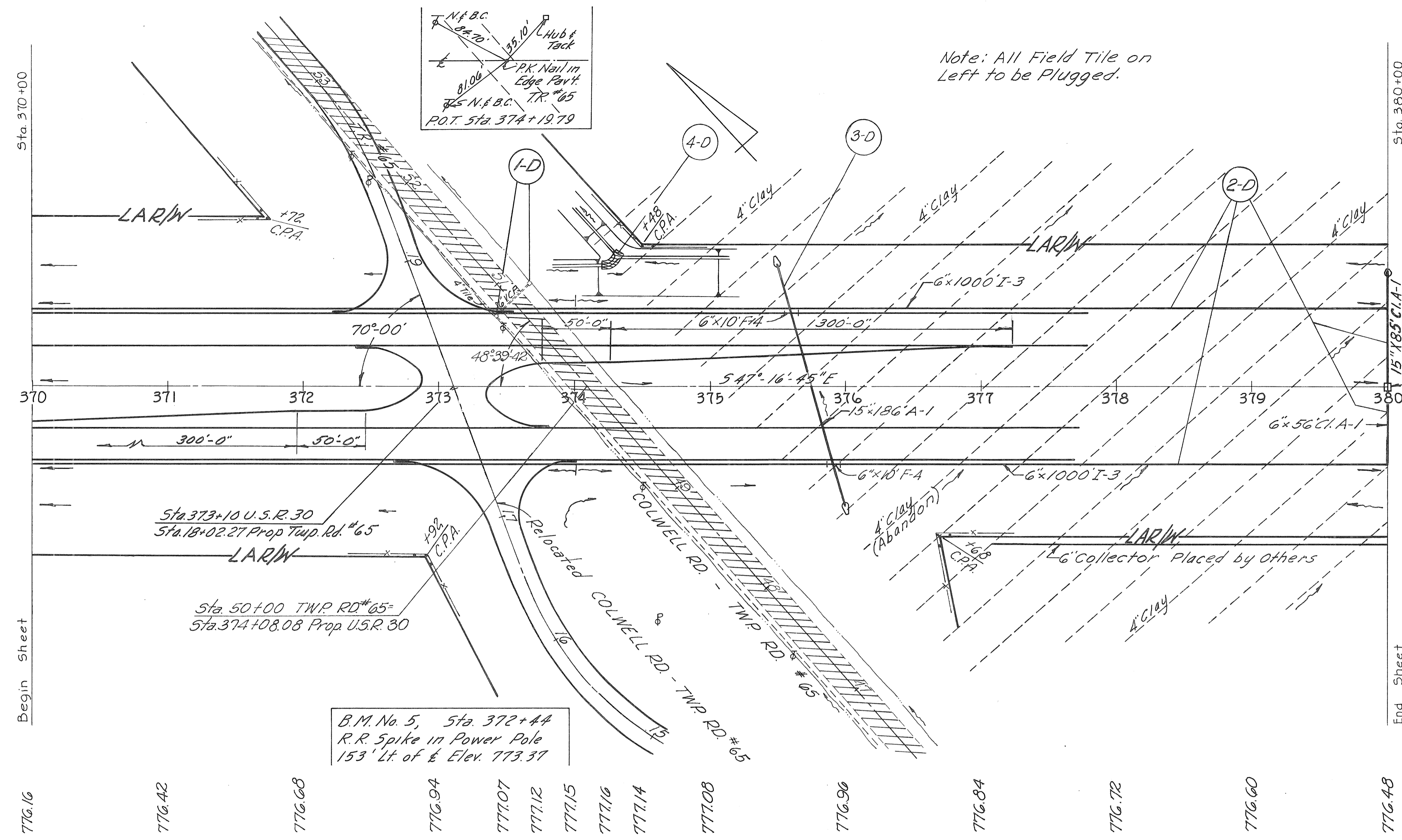
Ref. No.	Station		Side	I-1			I-5			I-8	I-10	I-16	L-120			
				Pipe Lin. Ft.			Pipe Specials			Std. No. 8	6" Conc. Rip	Dump Rock Fill	Abandon. C.B.	Wire Matting		
				A-1	F-4	I-3	A-1	H-2	Each	Sq. Yd.	Cu. Yd.	Each	Sq. Yd.			
1-D	351+54		Rt.													
2-D	350+00	353+75	R.H.L.	56	86					1	2.14		250			
3-D	353+42		Lt.									1				
4-D	353+80	360+00	R.H.L.													
5-D	354+75		Rt.					10								
6-D	359+84	360+07	Rt.								15					
<b>Totals</b>				56	86	10	10	1990	1	1	1	1	2.14	15	1	250







VAN WERT COUNTY  
VAN-30-4.06



SIDE APPROACHES

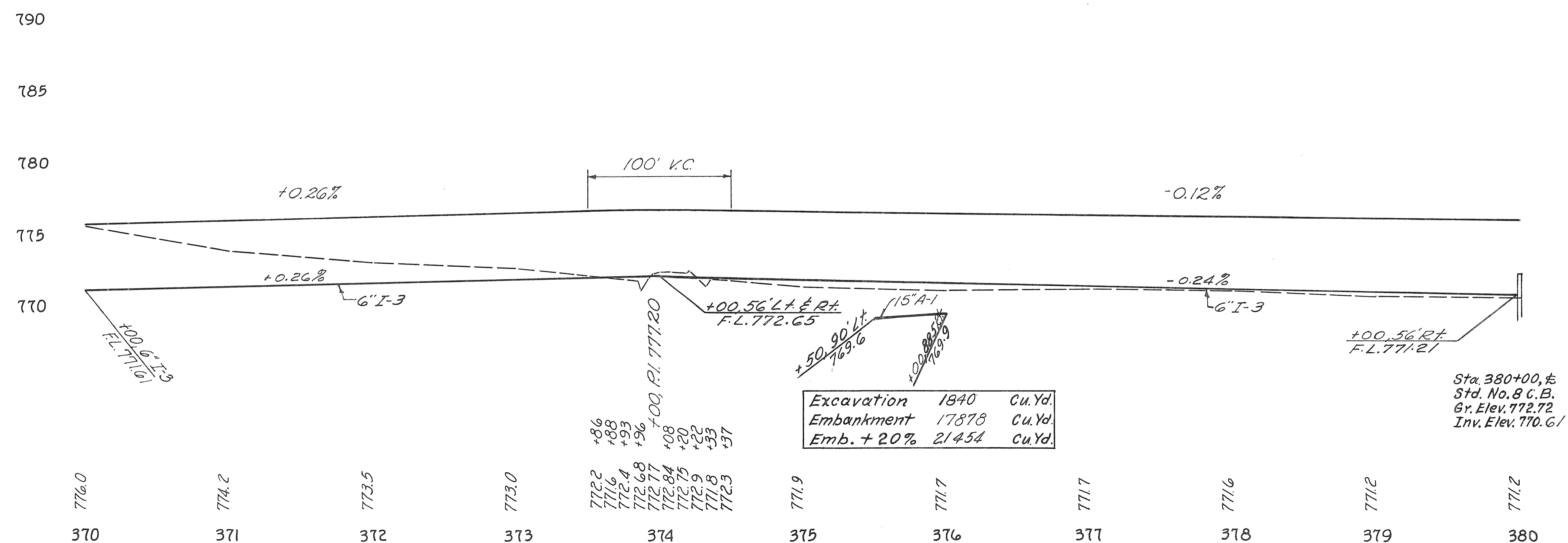
Ref. No.	Station	Side	B-19			F-30	F-35	I-1	Remarks	Length	Width
			Aggregate Base	Asph. Prime	Asph. Surf.	C.I.	Gal.	C.Y.			
# 1-A	9169	Lt.	10.2	9.2	29	4.1	36	Res. Dr.	56	12	
# 2-A	9169	Rt.	17.6				36	Fld. Dr.	57	12	
# 3-A	58+00	Rt.	35.6					Fld. Dr.	150	12	
Total			72.6	2.9	4.1	72					

\* COLWELL RD.

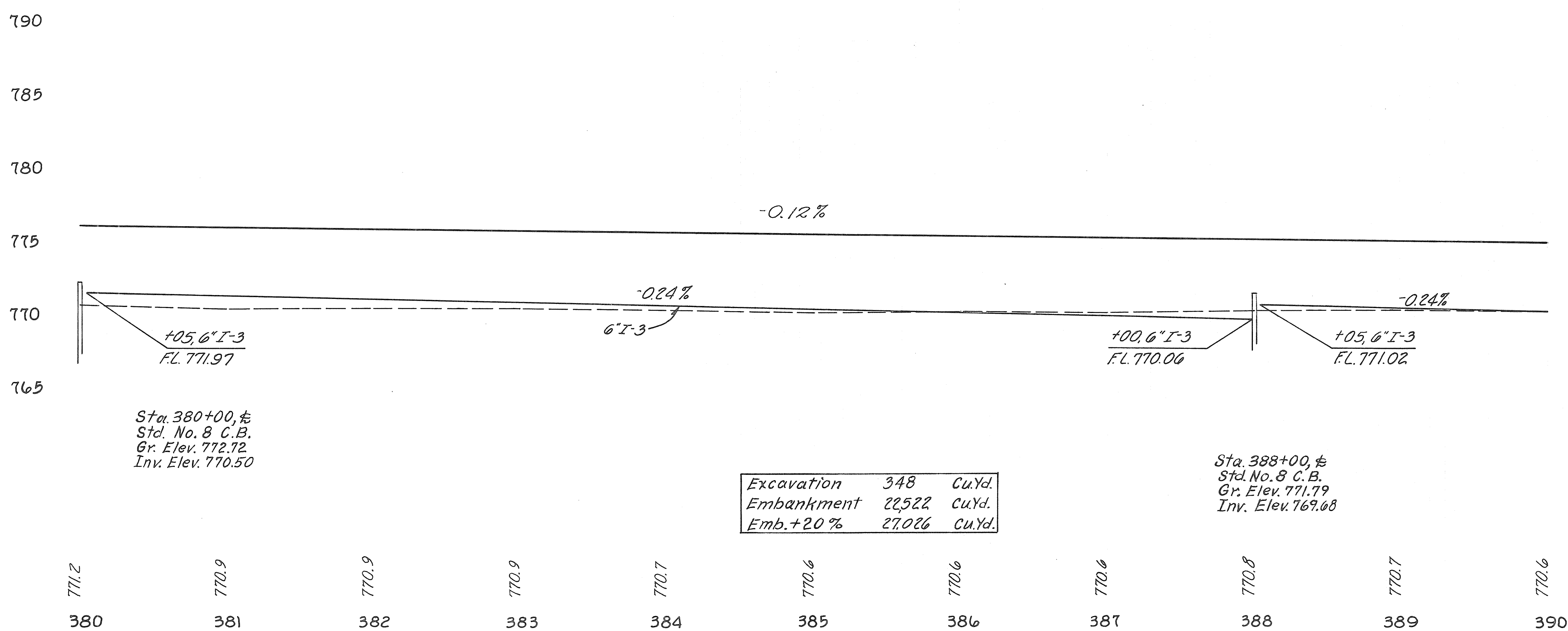
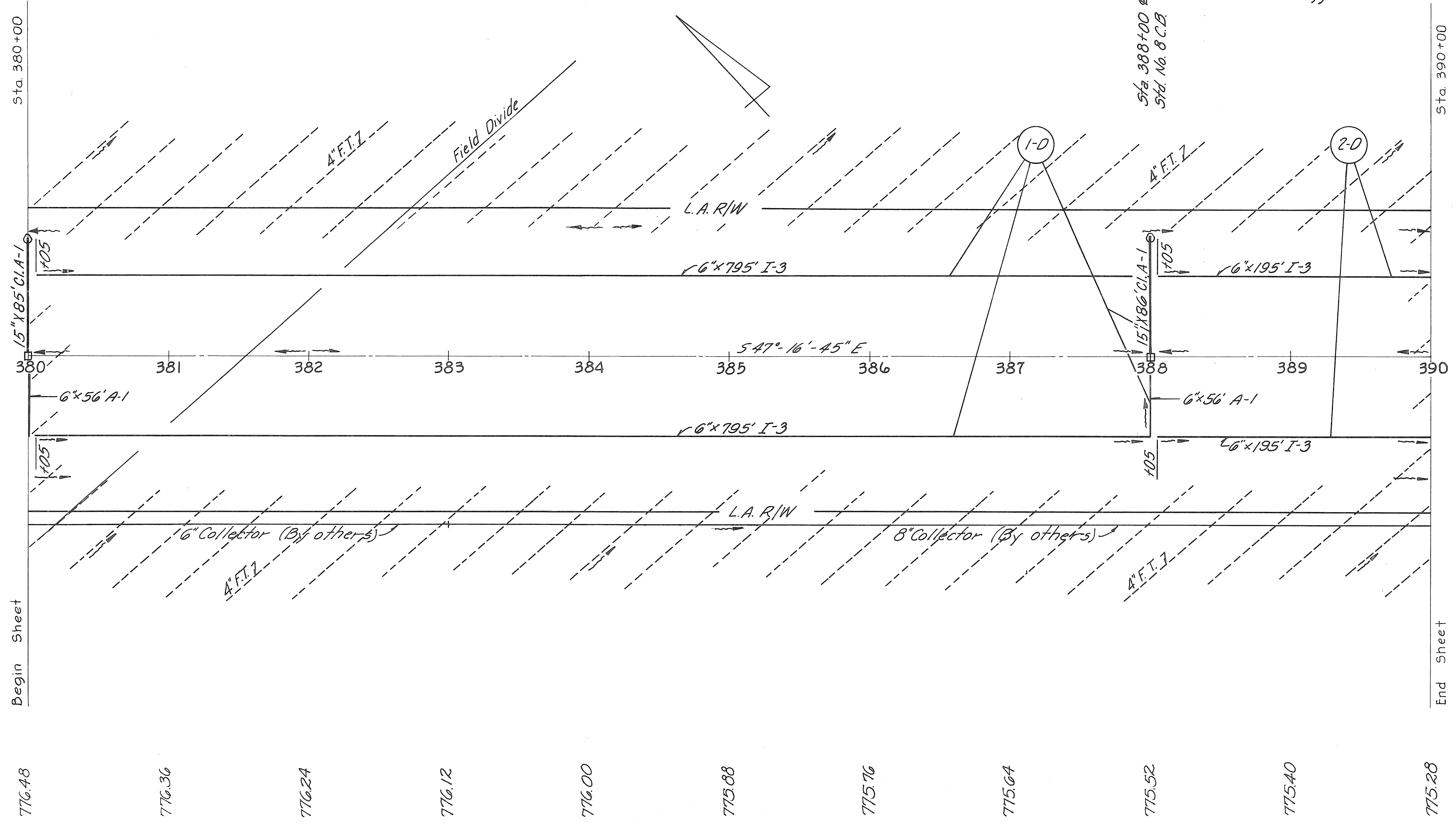
DRAINAGE

Ref. No.	Station	Side	I-1				I-5			S22	I-8	I-10	I-16	L-10	L-120			
			Pipe Lin Ft.				Pipe Specials											
From		To		A-1	C-4	F-4	I-3	6" 90° Bend	6" 125° Tee	6" 45° Bend	Lump	Each	5X	5X	5X			
1-D	373+43 And	373+67	Lt.	6"	15"	18"	6"											
2-D	370+00	380+00	Rt.	56	85		20	1980	1	1		1	214			250		
3-D	375+50	376+00	Rt.		186							428						
4-D	374+20	374+35	Lt.													16		
Relocated Colwell Rd.																		
5-D	9+10		Lt.				20			1								
6-D	10+18		Lt.													1		
7-D	57+35	57+75	Rt.			46								23				
8-D	21+50		Rt.															
Total				56	271	46	40	1980	1	1	1	Lump	1	642	23	3	16	250

- E-9 Removal of Trees and Stumps 12 Ea.
- E-10 Removal of Shed, Parcel No. 106 WL  
Grain Bin, Parcel No. 104 WL  
Two Story Fr. Residence, Parcel No. 105 WL
- \* Shall include Removal & Disposal of Exist. found. walls, & etc.
- From Relocated Colwell Rd. Line Sheet No. 201



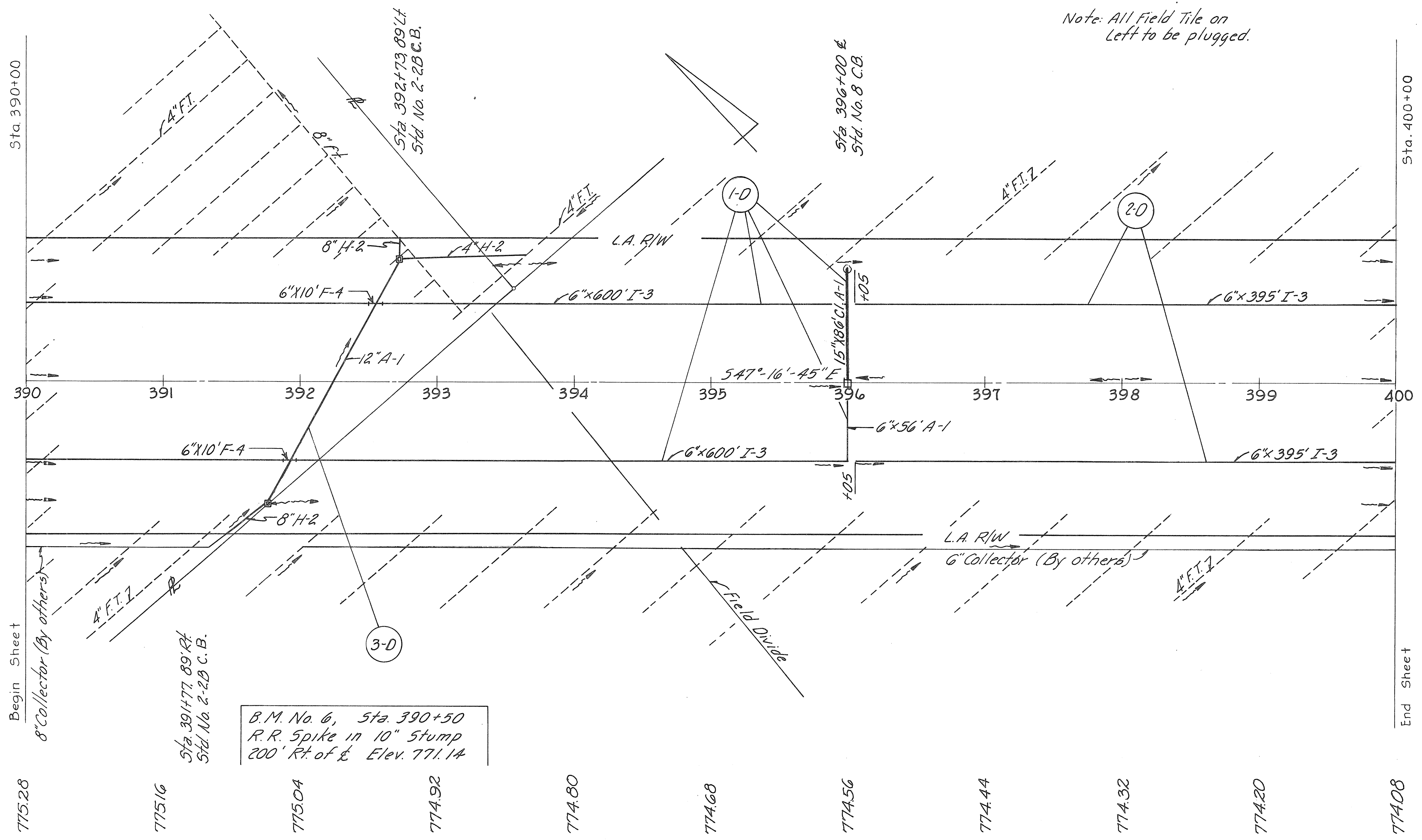
Note: All Field Tile on Lt. to be Plugged.



### DRAINAGE

Ref. No.	Station		Side	I-1		I-5			I-8	I-10	L-120			
				Pipe Lin. Ft.		Pipe Specials			Std. No. 8 C.B.	6" Conc. Rip Rap				
				6"	15"	A-1	I-3	6" x 90' Bend				6" x 15' Tee		
I-D	380+05	388+00	L.R.	56	86		1590	1	1		1	2.14		250
2-D	388+05	390+00	L.R.				390							
<b>Totals</b>				56	86		1980	1	1		1	2.14		250

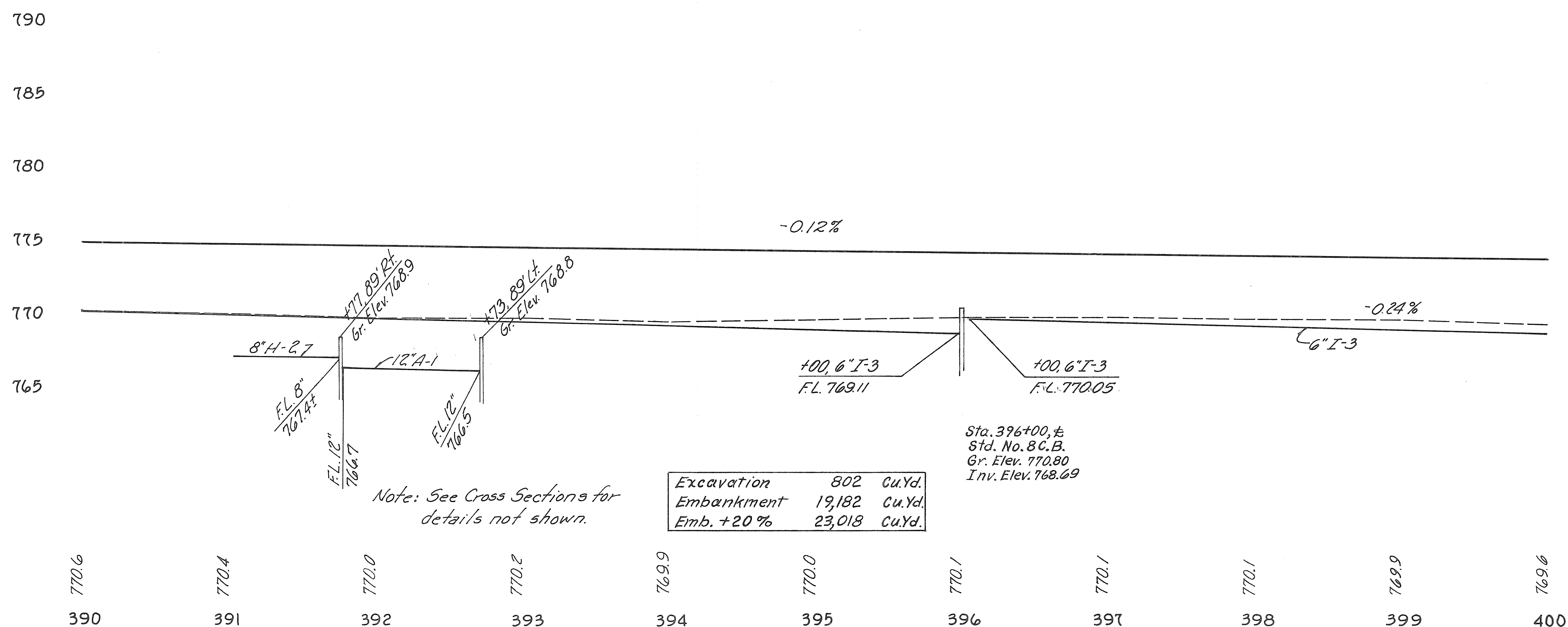
Note: All Field Tile on left to be plugged.



B.M. No. 6, Sta. 390+50  
R.R. Spike in 10" Stump  
200' Rt. of E. Elev. 771.14

**DRAINAGE**

Ref. No.	Station		Side	I-1				I-5				I-8 C.B.	I-10 6" Conc. Rip Rap	L-10 Seeding	L-120 Jute Matting			
				Pipe Lin. Ft.				Pipe Specials										
				A-1	F-4	H-2	I-3	A-1	H-2	C.B.								
I-D	390+00	396+00	L/R	56	86	20	1180	1	1		1	2.14	30	250				
Z-D	396+05	400+00	L/R				790											
3-D	391+47	392+16.5	L/R	203		92	53			1	1	2	30					
<b>Totals</b>				56	203	86	20	92	53	1970	1	1	1	1	2	2.14	30	250

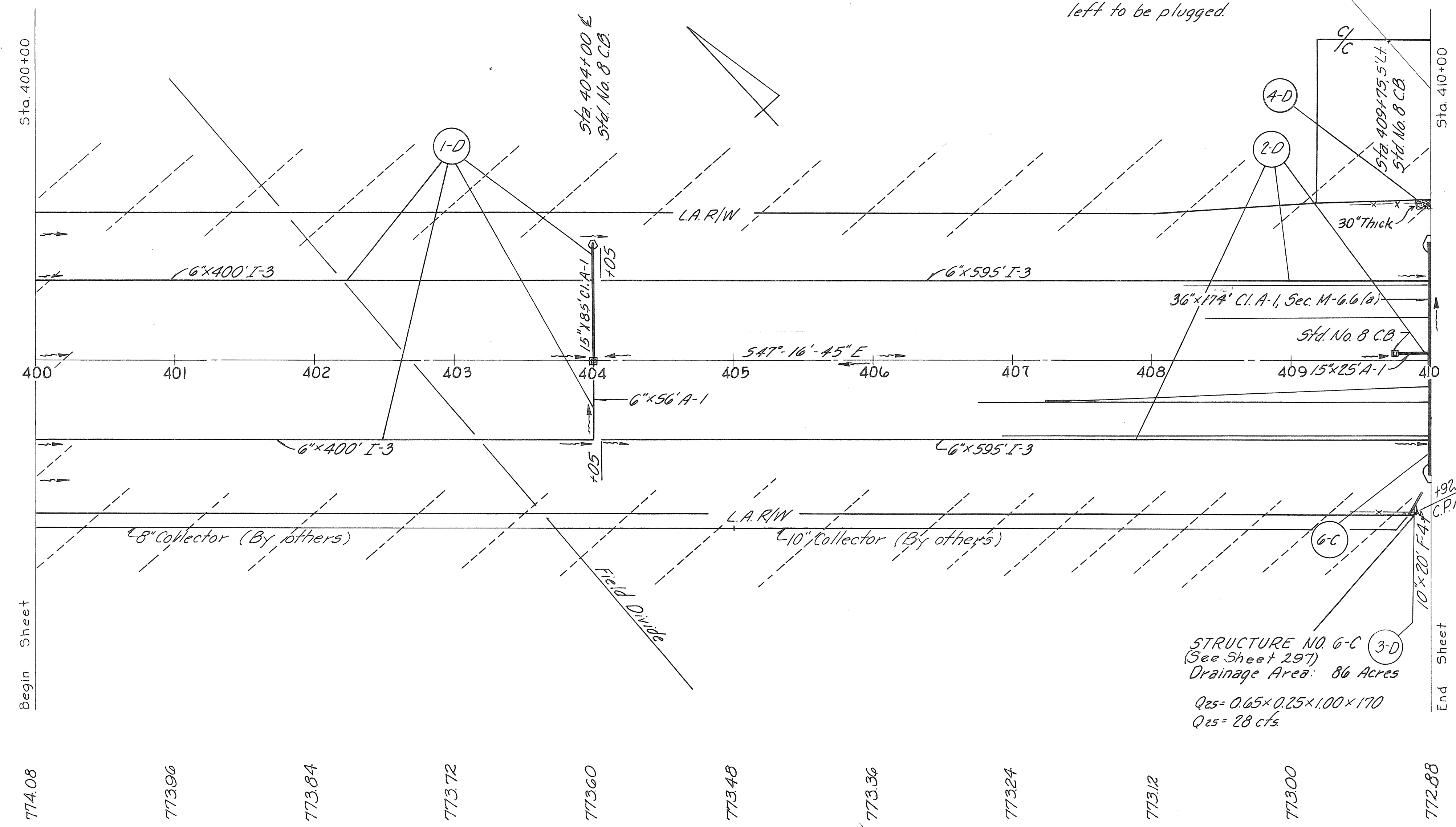


Excavation	802	Cu.Yd.
Embankment	19,182	Cu.Yd.
Emb. +20%	23,018	Cu.Yd.

Note: See Cross Sections for details not shown.

Sta. 396+00, ±  
Std. No. 8 C.B.  
Gr. Elev. 770.80  
Inv. Elev. 768.69

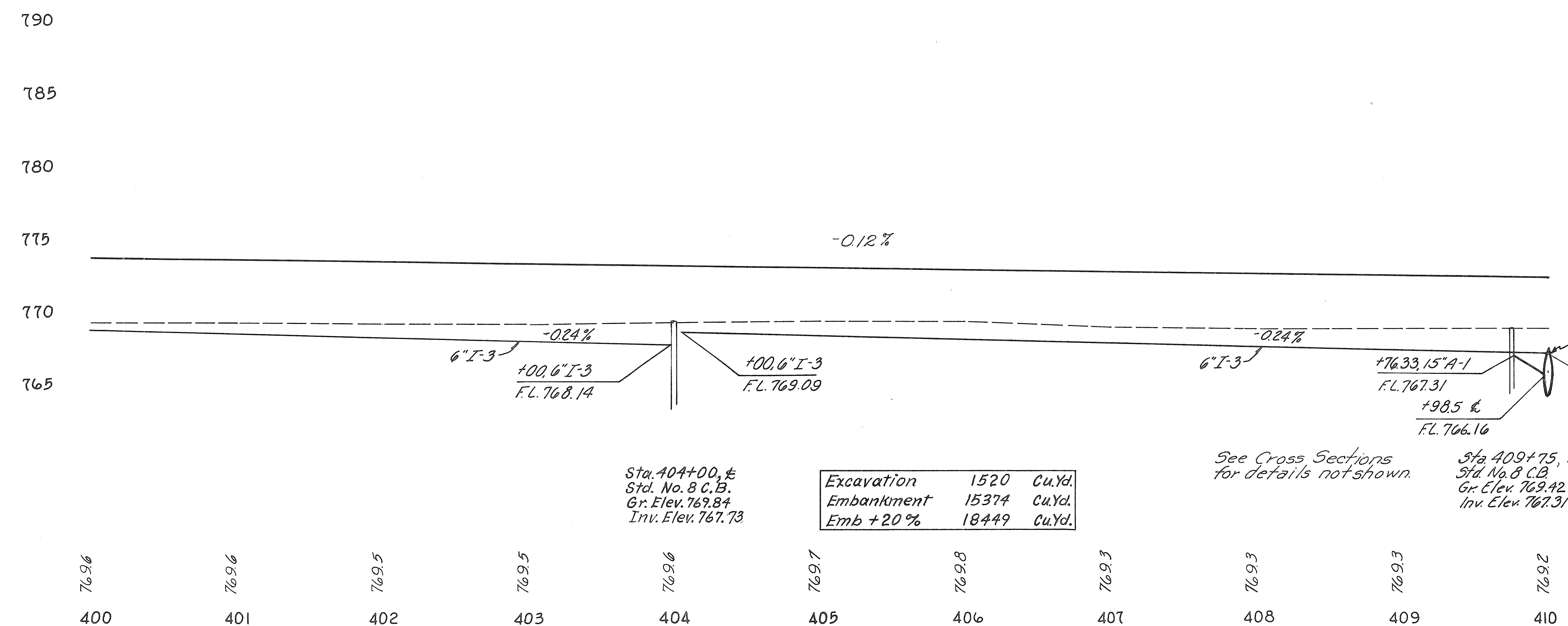
Note: All Field Tile on left to be plugged.



**DRAINAGE**

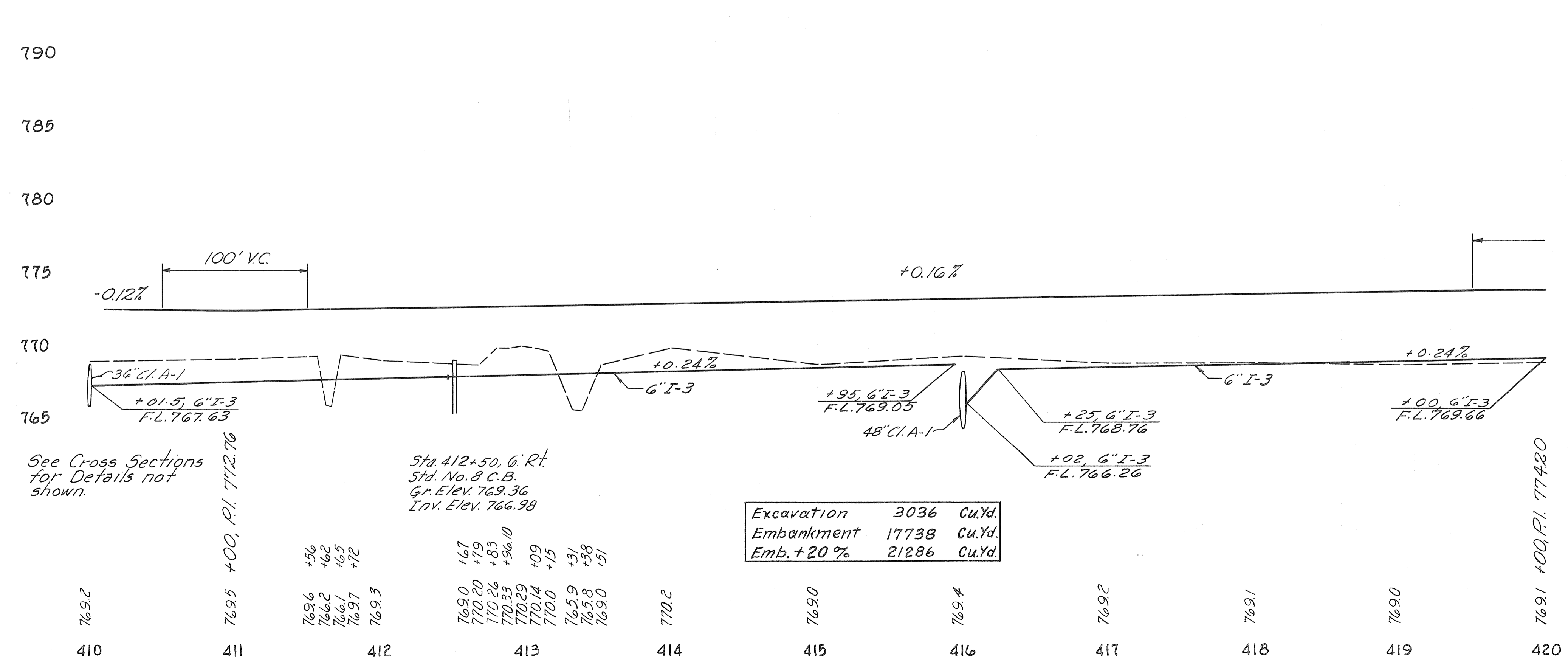
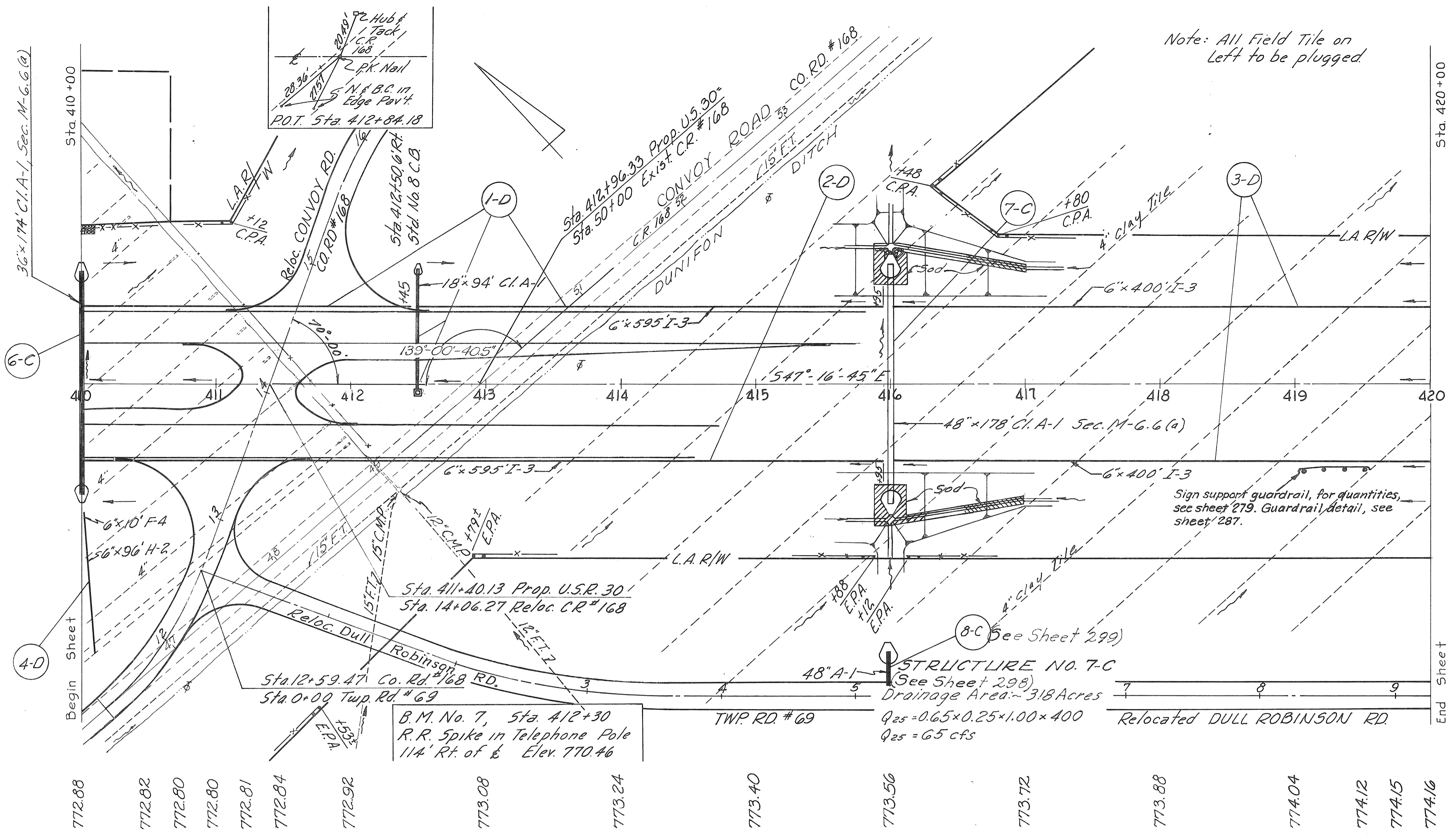
Ref. No.	Station		Side	I-1					I-5				I-8	I-10	E-3	L-10	L-120	
				Pipe Lin. Ft.					Pipe Specials									
				A-1		F-4	I-3	6" x 30" Band	6" x 15" Tee	15" x 36" Tee	6" x 36" Cross	Std. No. 8 C.B.						6" Conc. Rip. Rep.
6"	15"	36"	10"	6"	Each	SY	C.Y.						C.Y.	SY	SY			
G-C	410+00		R/L			174												
1-D	400+00	404+00	L/R	56	85			800	1	1			1	2.14				250
2-D	404+05	410+00	L/R		25			1190					1					217
3-D	409+82	409+95	R/L				20											
4-D	409+90	410+10	Lt.											11.1				
<b>Totals</b>				56	110	174	20	1990	1	1	1	2	2	2398	11.1	122	120	467

STRUCTURE NO. 6-C  
(See Sheet 297)  
Drainage Area: 86 Acres  
Q<sub>25</sub> = 0.65 x 0.25 x 100 x 170  
Q<sub>25</sub> = 28 cfs



Excavation	1520	Cu.Yd.
Embankment	15374	Cu.Yd.
Emb + 20%	18449	Cu.Yd.

See Cross Sections for details not shown.  
Sta. 409+75, 5' Lt.  
Std. No. 8 C.B.  
Gr. Elev. 769.42  
Inv. Elev. 767.31



DRAINAGE

Ref No.	Station	Side	Pipe Lin. Ft.		I-3	I-5	I-8	I-10	I-16	I-22	I-28	I-34	I-40	I-46	I-52	I-58	I-64	I-70	I-76	I-82	I-88	I-94	I-100	I-106	I-112	I-118	I-124	I-130	I-136	I-142	I-148	I-154	I-160	I-166	I-172	I-178	I-184	I-190	I-196	I-202	I-208	I-214	I-220	I-226	I-232	I-238	I-244	I-250	I-256	I-262	I-268	I-274	I-280	I-286	I-292	I-298	I-304	I-310	I-316	I-322	I-328	I-334	I-340	I-346	I-352	I-358	I-364	I-370	I-376	I-382	I-388	I-394	I-400	I-406	I-412	I-418	I-424	I-430	I-436	I-442	I-448	I-454	I-460	I-466	I-472	I-478	I-484	I-490	I-496	I-502	I-508	I-514	I-520	I-526	I-532	I-538	I-544	I-550	I-556	I-562	I-568	I-574	I-580	I-586	I-592	I-598	I-604	I-610	I-616	I-622	I-628	I-634	I-640	I-646	I-652	I-658	I-664	I-670	I-676	I-682	I-688	I-694	I-700	I-706	I-712	I-718	I-724	I-730	I-736	I-742	I-748	I-754	I-760	I-766	I-772	I-778	I-784	I-790	I-796	I-802	I-808	I-814	I-820	I-826	I-832	I-838	I-844	I-850	I-856	I-862	I-868	I-874	I-880	I-886	I-892	I-898	I-904	I-910	I-916	I-922	I-928	I-934	I-940	I-946	I-952	I-958	I-964	I-970	I-976	I-982	I-988	I-994	I-1000	I-1006	I-1012	I-1018	I-1024	I-1030	I-1036	I-1042	I-1048	I-1054	I-1060	I-1066	I-1072	I-1078	I-1084	I-1090	I-1096	I-1102	I-1108	I-1114	I-1120	I-1126	I-1132	I-1138	I-1144	I-1150	I-1156	I-1162	I-1168	I-1174	I-1180	I-1186	I-1192	I-1198	I-1204	I-1210	I-1216	I-1222	I-1228	I-1234	I-1240	I-1246	I-1252	I-1258	I-1264	I-1270	I-1276	I-1282	I-1288	I-1294	I-1300	I-1306	I-1312	I-1318	I-1324	I-1330	I-1336	I-1342	I-1348	I-1354	I-1360	I-1366	I-1372	I-1378	I-1384	I-1390	I-1396	I-1402	I-1408	I-1414	I-1420	I-1426	I-1432	I-1438	I-1444	I-1450	I-1456	I-1462	I-1468	I-1474	I-1480	I-1486	I-1492	I-1498	I-1504	I-1510	I-1516	I-1522	I-1528	I-1534	I-1540	I-1546	I-1552	I-1558	I-1564	I-1570	I-1576	I-1582	I-1588	I-1594	I-1600	I-1606	I-1612	I-1618	I-1624	I-1630	I-1636	I-1642	I-1648	I-1654	I-1660	I-1666	I-1672	I-1678	I-1684	I-1690	I-1696	I-1702	I-1708	I-1714	I-1720	I-1726	I-1732	I-1738	I-1744	I-1750	I-1756	I-1762	I-1768	I-1774	I-1780	I-1786	I-1792	I-1798	I-1804	I-1810	I-1816	I-1822	I-1828	I-1834	I-1840	I-1846	I-1852	I-1858	I-1864	I-1870	I-1876	I-1882	I-1888	I-1894	I-1900	I-1906	I-1912	I-1918	I-1924	I-1930	I-1936	I-1942	I-1948	I-1954	I-1960	I-1966	I-1972	I-1978	I-1984	I-1990	I-1996	I-2002	I-2008	I-2014	I-2020	I-2026	I-2032	I-2038	I-2044	I-2050	I-2056	I-2062	I-2068	I-2074	I-2080	I-2086	I-2092	I-2098	I-2104	I-2110	I-2116	I-2122	I-2128	I-2134	I-2140	I-2146	I-2152	I-2158	I-2164	I-2170	I-2176	I-2182	I-2188	I-2194	I-2200	I-2206	I-2212	I-2218	I-2224	I-2230	I-2236	I-2242	I-2248	I-2254	I-2260	I-2266	I-2272	I-2278	I-2284	I-2290	I-2296	I-2302	I-2308	I-2314	I-2320	I-2326	I-2332	I-2338	I-2344	I-2350	I-2356	I-2362	I-2368	I-2374	I-2380	I-2386	I-2392	I-2398	I-2404	I-2410	I-2416	I-2422	I-2428	I-2434	I-2440	I-2446	I-2452	I-2458	I-2464	I-2470	I-2476	I-2482	I-2488	I-2494	I-2500	I-2506	I-2512	I-2518	I-2524	I-2530	I-2536	I-2542	I-2548	I-2554	I-2560	I-2566	I-2572	I-2578	I-2584	I-2590	I-2596	I-2602	I-2608	I-2614	I-2620	I-2626	I-2632	I-2638	I-2644	I-2650	I-2656	I-2662	I-2668	I-2674	I-2680	I-2686	I-2692	I-2698	I-2704	I-2710	I-2716	I-2722	I-2728	I-2734	I-2740	I-2746	I-2752	I-2758	I-2764	I-2770	I-2776	I-2782	I-2788	I-2794	I-2800	I-2806	I-2812	I-2818	I-2824	I-2830	I-2836	I-2842	I-2848	I-2854	I-2860	I-2866	I-2872	I-2878	I-2884	I-2890	I-2896	I-2902	I-2908	I-2914	I-2920	I-2926	I-2932	I-2938	I-2944	I-2950	I-2956	I-2962	I-2968	I-2974	I-2980	I-2986	I-2992	I-2998	I-3004	I-3010	I-3016	I-3022	I-3028	I-3034	I-3040	I-3046	I-3052	I-3058	I-3064	I-3070	I-3076	I-3082	I-3088	I-3094	I-3100	I-3106	I-3112	I-3118	I-3124	I-3130	I-3136	I-3142	I-3148	I-3154	I-3160	I-3166	I-3172	I-3178	I-3184	I-3190	I-3196	I-3202	I-3208	I-3214	I-3220	I-3226	I-3232	I-3238	I-3244	I-3250	I-3256	I-3262	I-3268	I-3274	I-3280	I-3286	I-3292	I-3298	I-3304	I-3310	I-3316	I-3322	I-3328	I-3334	I-3340	I-3346	I-3352	I-3358	I-3364	I-3370	I-3376	I-3382	I-3388	I-3394	I-3400	I-3406	I-3412	I-3418	I-3424	I-3430	I-3436	I-3442	I-3448	I-3454	I-3460	I-3466	I-3472	I-3478	I-3484	I-3490	I-3496	I-3502	I-3508	I-3514	I-3520	I-3526	I-3532	I-3538	I-3544	I-3550	I-3556	I-3562	I-3568	I-3574	I-3580	I-3586	I-3592	I-3598	I-3604	I-3610	I-3616	I-3622	I-3628	I-3634	I-3640	I-3646	I-3652	I-3658	I-3664	I-3670	I-3676	I-3682	I-3688	I-3694	I-3700	I-3706	I-3712	I-3718	I-3724	I-3730	I-3736	I-3742	I-3748	I-3754	I-3760	I-3766	I-3772	I-3778	I-3784	I-3790	I-3796	I-3802	I-3808	I-3814	I-3820	I-3826	I-3832	I-3838	I-3844	I-3850	I-3856	I-3862	I-3868	I-3874	I-3880	I-3886	I-3892	I-3898	I-3904	I-3910	I-3916	I-3922	I-3928	I-3934	I-3940	I-3946	I-3952	I-3958	I-3964	I-3970	I-3976	I-3982	I-3988	I-3994	I-4000	I-4006	I-4012	I-4018	I-4024	I-4030	I-4036	I-4042	I-4048	I-4054	I-4060	I-4066	I-4072	I-4078	I-4084	I-4090	I-4096	I-4102	I-4108	I-4114	I-4120	I-4126	I-4132	I-4138	I-4144	I-4150	I-4156	I-4162	I-4168	I-4174	I-4180	I-4186	I-4192	I-4198	I-4204	I-4210	I-4216	I-4222	I-4228	I-4234	I-4240	I-4246	I-4252	I-4258	I-4264	I-4270	I-4276	I-4282	I-4288	I-4294	I-4300	I-4306	I-4312	I-4318	I-4324	I-4330	I-4336	I-4342	I-4348	I-4354	I-4360	I-4366	I-4372	I-4378	I-4384	I-4390	I-4396	I-4402	I-4408	I-4414	I-4420	I-4426	I-4432	I-4438	I-4444	I-4450	I-4456	I-4462	I-4468	I-4474	I-4480	I-4486	I-4492	I-4498	I-4504	I-4510	I-4516	I-4522	I-4528	I-4534	I-4540	I-4546	I-4552	I-4558	I-4564	I-4570	I-4576	I-4582	I-4588	I-4594	I-4600	I-4606	I-4612	I-4618	I-4624	I-4630	I-4636	I-4642	I-4648	I-4654	I-4660	I-4666	I-4672	I-4678	I-4684	I-4690	I-4696	I-4702	I-4708	I-4714	I
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Note: Proposed grade on Pavement for Cul-De-Sac to be approx. the same as the exist. Pav't. Slope Pavement 3/16" per ft. to outside Pav't. edge.

\*\* End Mainline Fence Begin Roadside Rest Area Fence Sta. 428+16 Lt.

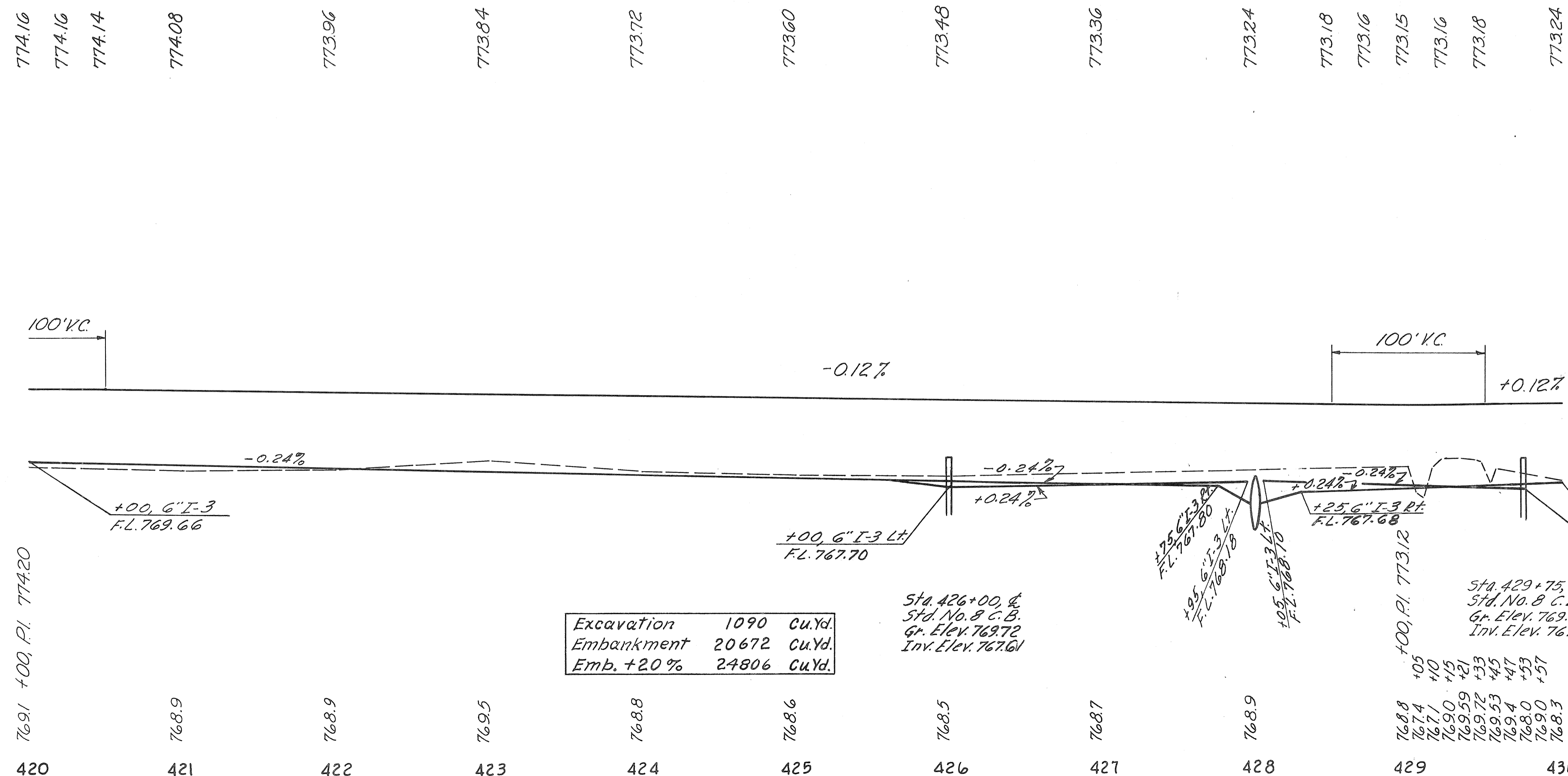
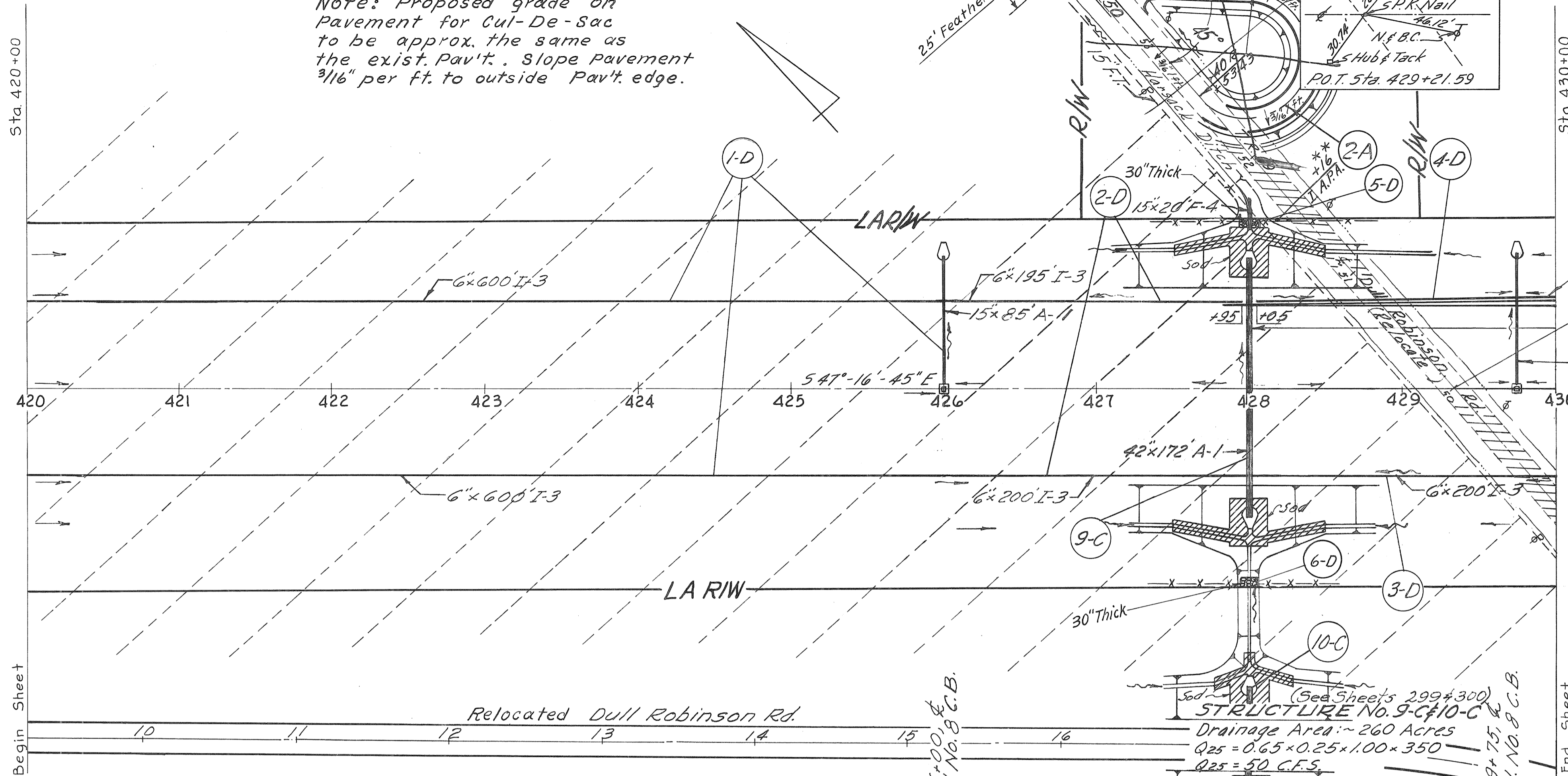
SIDE APPROACHES "A"

Ref. No.	Station	Side	B-19	T-30	T-35	I-1	E-1	T-30	Remarks	Drives	
			Aggregate Base Cu. Yd.	Bit. Coat	Asph. Conc. 2" Lin. Ft.	Class C-4 Compacted Subgrade	Bit. Tack Coat	Length		Width	
I-A	*22+40	RT	22						Field Dr.	54	12'
2A	*53+50	RT	80	155	37.60		386	30	Cul-De-Sac	387	16'
Total			102	155	37.60	36	386	30			

\* Stations on Dull Robinson Rd. Turnaround to be non-performed Quantities will be adjusted by the Engineer on construction

DRAINAGE

Ref. No.	Station	Side	I-16 C.B. Aban.	I-1 Pipe Lin. Ft.			I-12 12" Dia. 15' & Under	I-5 Pipe Spec. Ea.		I-8 No. 8 C.B.	I-10 Rip Rap	I-3 C.A.S.P. Channel Excavation	L-10 Sod	L-120 Jute Matting						
				A-1	F-4	I-3		H-2	A-1											
9-C	428+00	Lt		15	42	8	12	15	6											
10-C	Top. Rd. #69	Lt		172							29.36	34	266							
I-D	420+00	Lt	85				1200			1	1	2.14		250						
2-D	426+00	Lt					395													
3-D	428+00	RT					200													
4-D	428+05	Lt	87				195			1	1	2.14		240						
5-D	427+93	Lt																		
6-D	427+95	RT																		
Dull Robinson Rd.																				
5-D	17+25	RT					10													
6-D	48+90	Lt						155												
7-D	47+48	Lt	1																	
8-D	41+62	Lt					13				13									
Total			1	172	242	10	13	20	1990	155	1	1	2	2	63.00	13	145	34	446	490

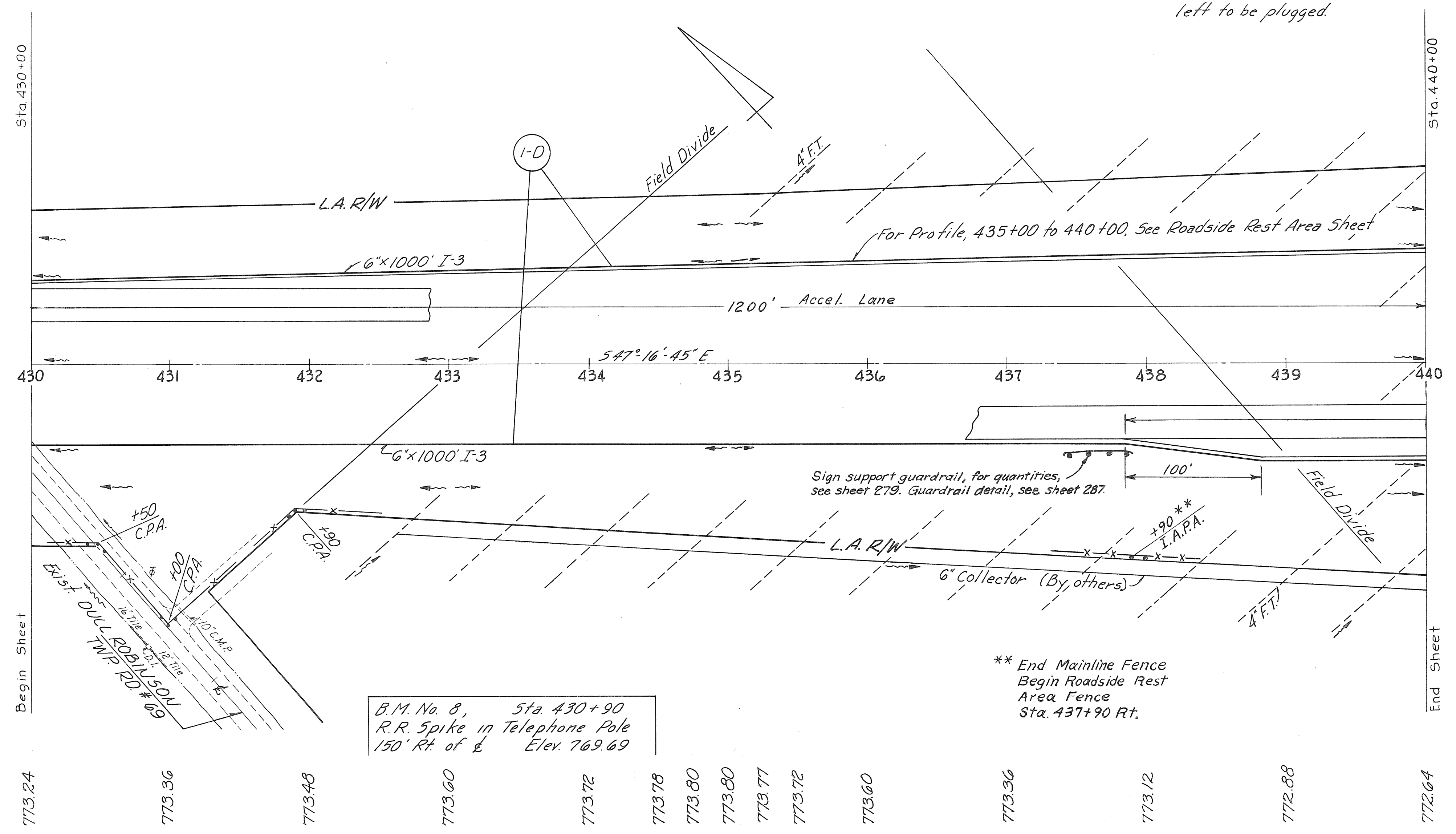


Excavation	1090	Cu. Yd.
Embankment	20672	Cu. Yd.
Emb. +20%	24806	Cu. Yd.

Sta. 426+00, & Sta. No. 8 C.B. Gr. Elev. 769.72 Inv. Elev. 767.61

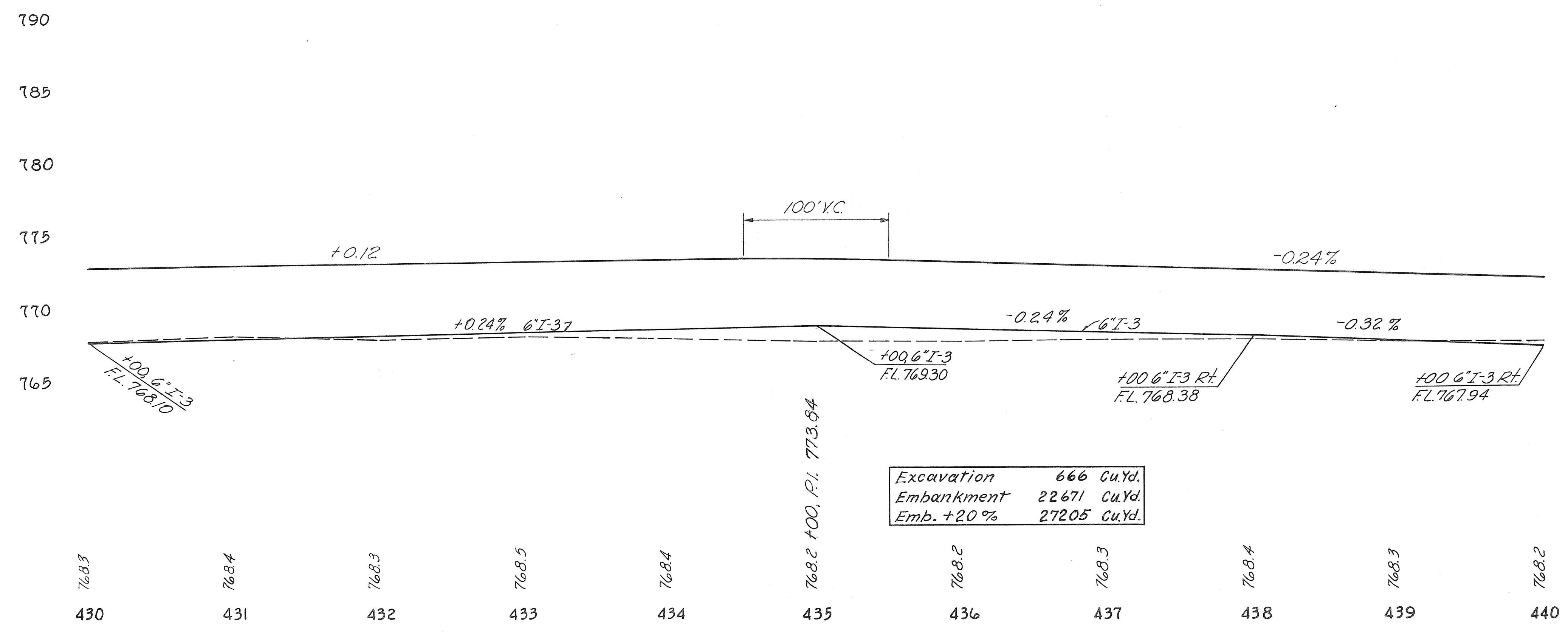
Sta. 429+75, & Sta. No. 8 C.B. Gr. Elev. 769.78 Inv. Elev. 767.67

Note: All Field Tile on left to be plugged.



**DRAINAGE**

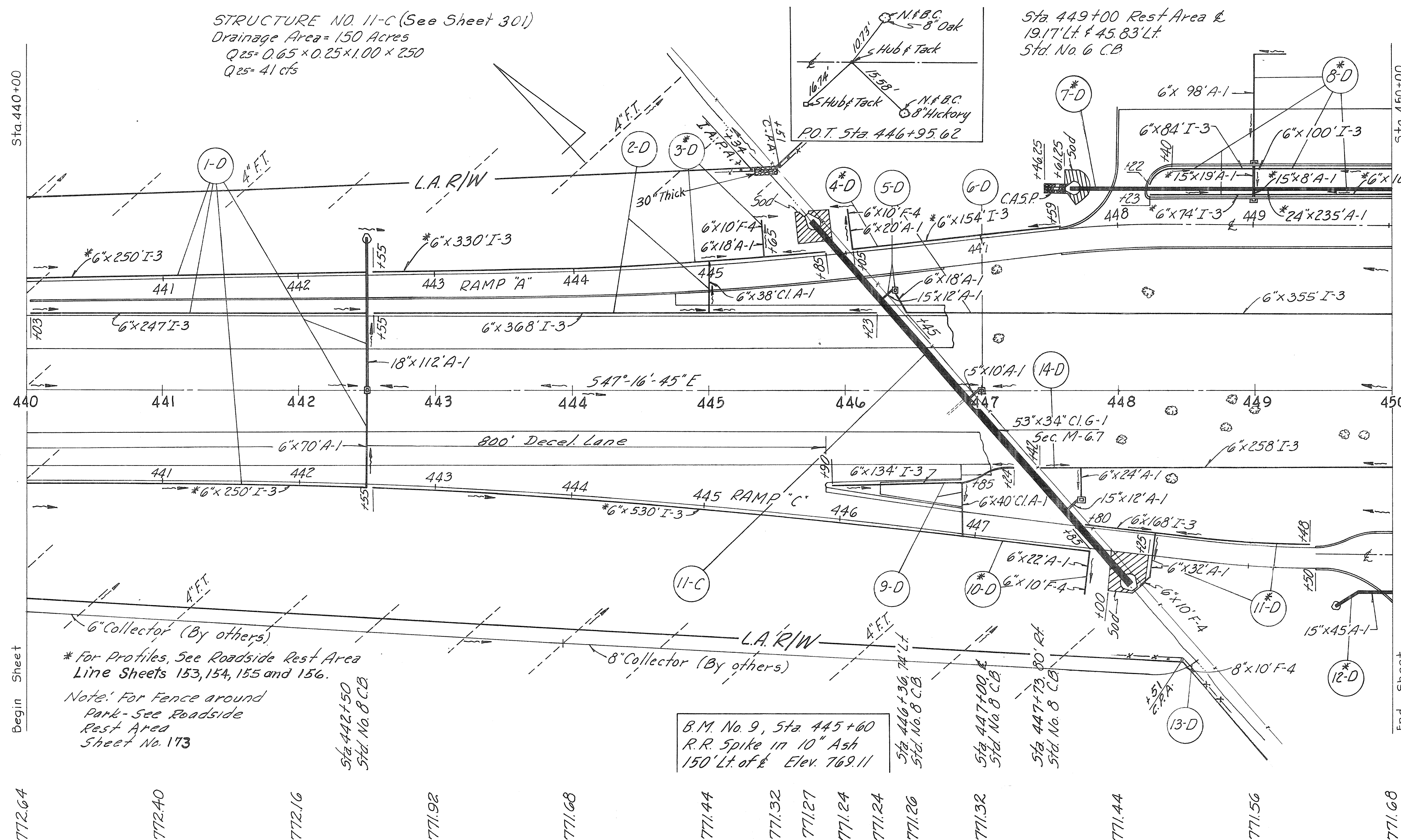
Ref. No.	STATION		Side	I-1	
	From	To		Pipe	I-3
I-D	430+00	440+00	LHR	6"	2000
<b>Total</b>					2000





STRUCTURE NO. 11-C (See Sheet 301)  
Drainage Area = 150 Acres  
Q<sub>25</sub> = 0.65 x 0.25 x 1.00 x 250  
Q<sub>25</sub> = 41 cfs

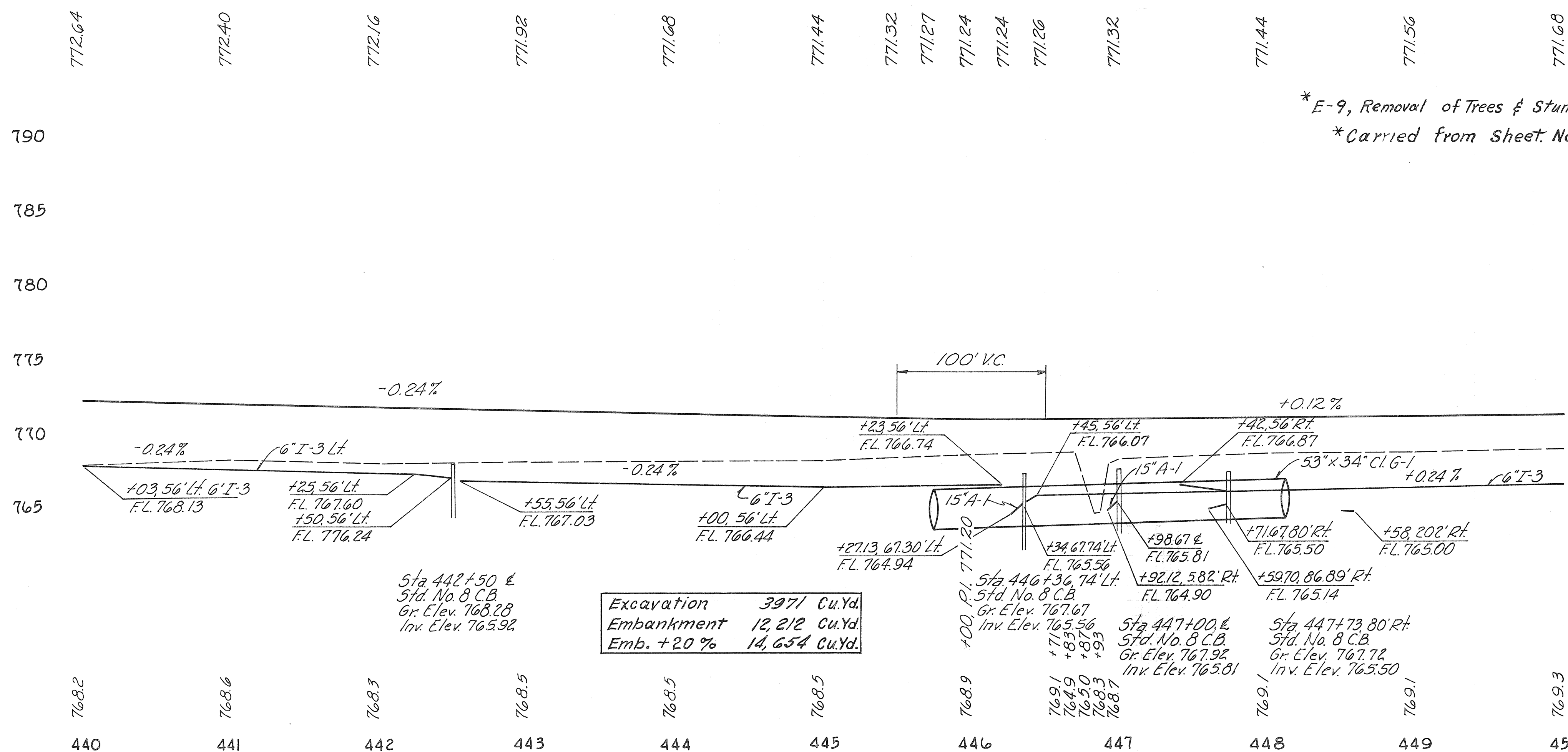
Sta 449+00 Rest Area &  
19.17' Lt & 45.83' Rt  
Std. No. 6 C.B.



6" Collector (By others)  
\* For Profiles, See Roadside Rest Area Line Sheets 153, 154, 155 and 156.  
Note: For Fence around Park - See Roadside Rest Area Sheet No. 173

B.M. No. 9, Sta 445+00  
R.R. Spike in 10" Ash  
150' Lt. of & Elev. 769.11

\* E-9, Removal of Trees & Stumps, 28 each  
\* Carried from Sheet No. 153

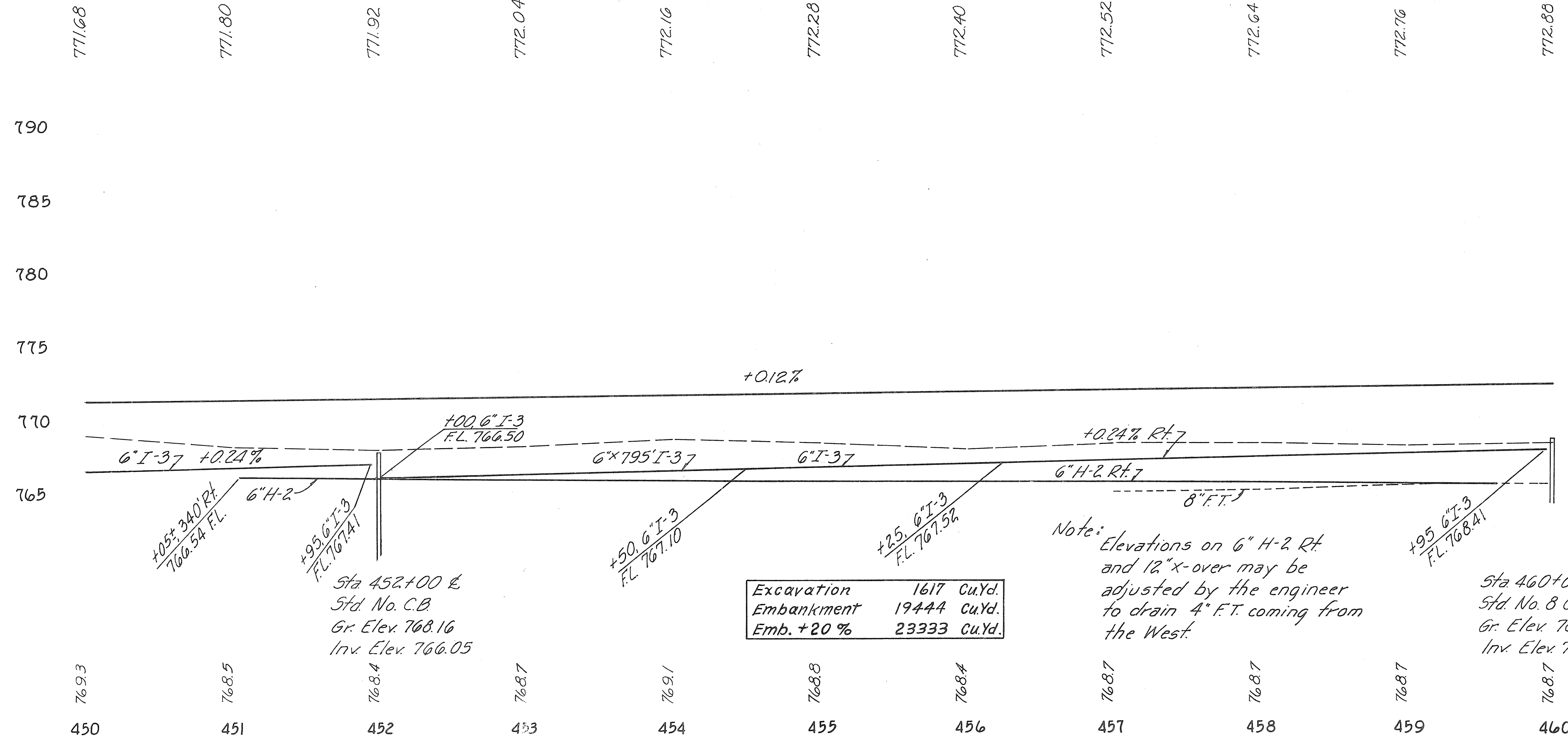
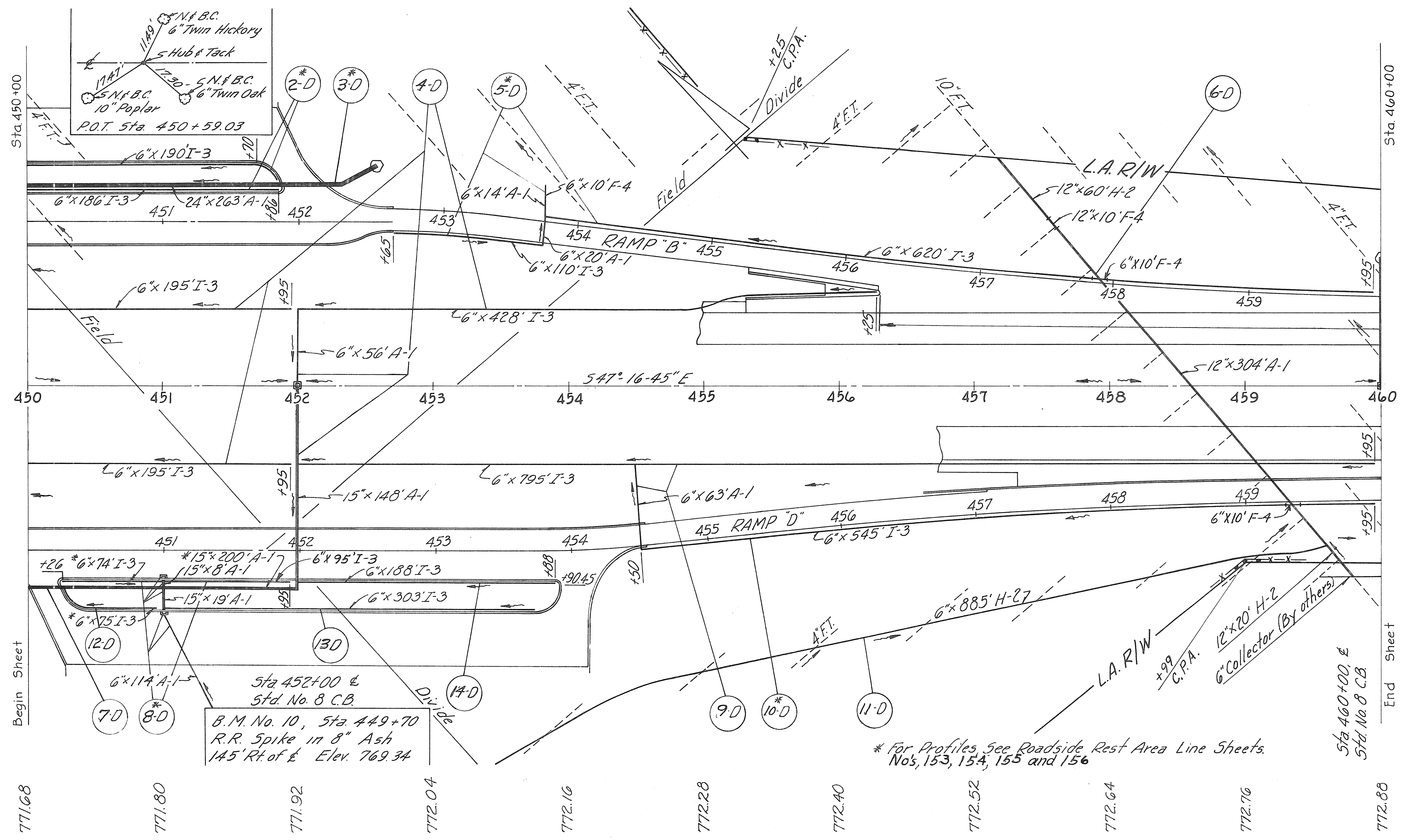


Excavation 3971 Cu.Yd.  
Embankment 12,212 Cu.Yd.  
Emb. + 20% 14,654 Cu.Yd.

DRAINAGE

Ref No	Station		Side	Pipe, Lin. Ft.			I-5	I-8	I-10	I-120										
	From	To		A-1	F-4	I-3														
11-C	446+84		LtR	6"	15'	18'	24'	6"	15'	18'	24'	6"								
1-D	440+00	442+50	LtR																	
2-D	442+55	446+23	Lt																	
3-D	442+55	445+85	Lt																	
4-D	446+05	447+59	Lt																	
5-D	446+84	450+00	Lt																	
6-D	447+69	450+00	Lt																	
8-D	448+22	450+00	Lt																	
9-D	445+90	447+24	Rt																	
10-D	442+55	447+85	Rt																	
11-D	447+80	449+48	LtR																	
12-D	449+57	450+00	Rt																	
13-D	448+50	448+58	Rt																	
14-D	444+42	450+00	Rt																	
Totals				380	106	112	235	40	10	352	3402									

\* Stations on Ramp 'A' &  
\*\* Stations on Rest Area &  
\*\*\* Stations on Ramp 'C'

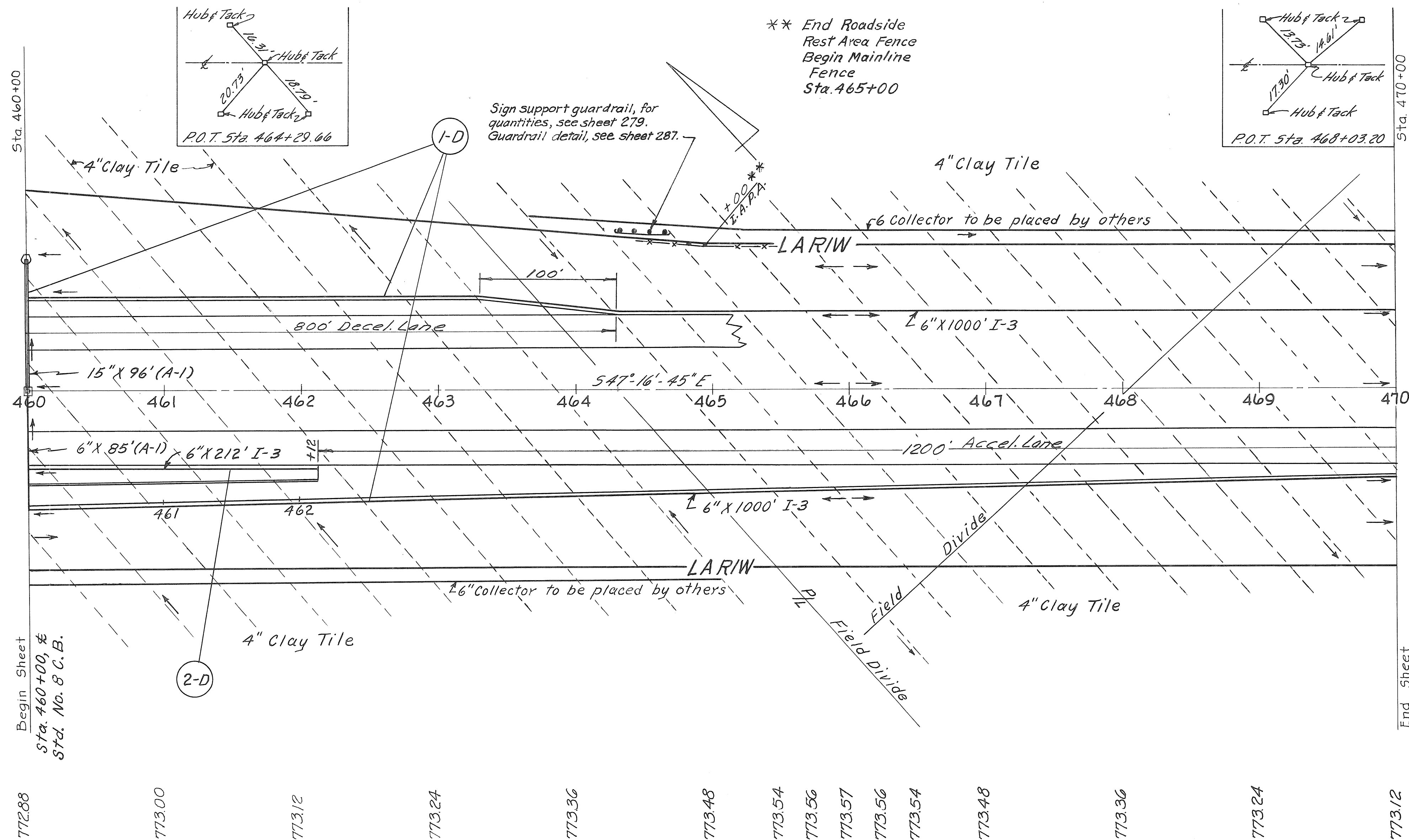


DRAINAGE

Ref. No.	Station		Side	Pipe, Lin. Ft.				I-1	I-5				I-8	I-10	I-10	I-10
	From	To		A-1	F-4	H-2	I-3		A-1	Cross	Each	Each				
1-D	450+42	450+52	Rt.	24	12	6	6									
2-D	450+00	451+70	Lt.	263												
3-D	450+00	452+58	Lt.	148												
4-D	450+00	456+25	Lt.	56												
5-D	452+65	459+95	Lt.	34												
6-D	451+18	459+72	Lt.	304												
7-D	450+00	452+00	Rt.	200												
8-D	450+26	451+95	Rt.	27												
9-D	454+50	459+95	Rt.	63												
10-D	454+50	459+95	Rt.													
11-D	451+05	459+100	Rt.													
12-D	450+26	450+195	Rt.													
13-D	451+00	453+90	Rt.													
14-D	452+00	453+88	Rt.													
Totals				267	304	375	263	30	10	885	75	303	183			

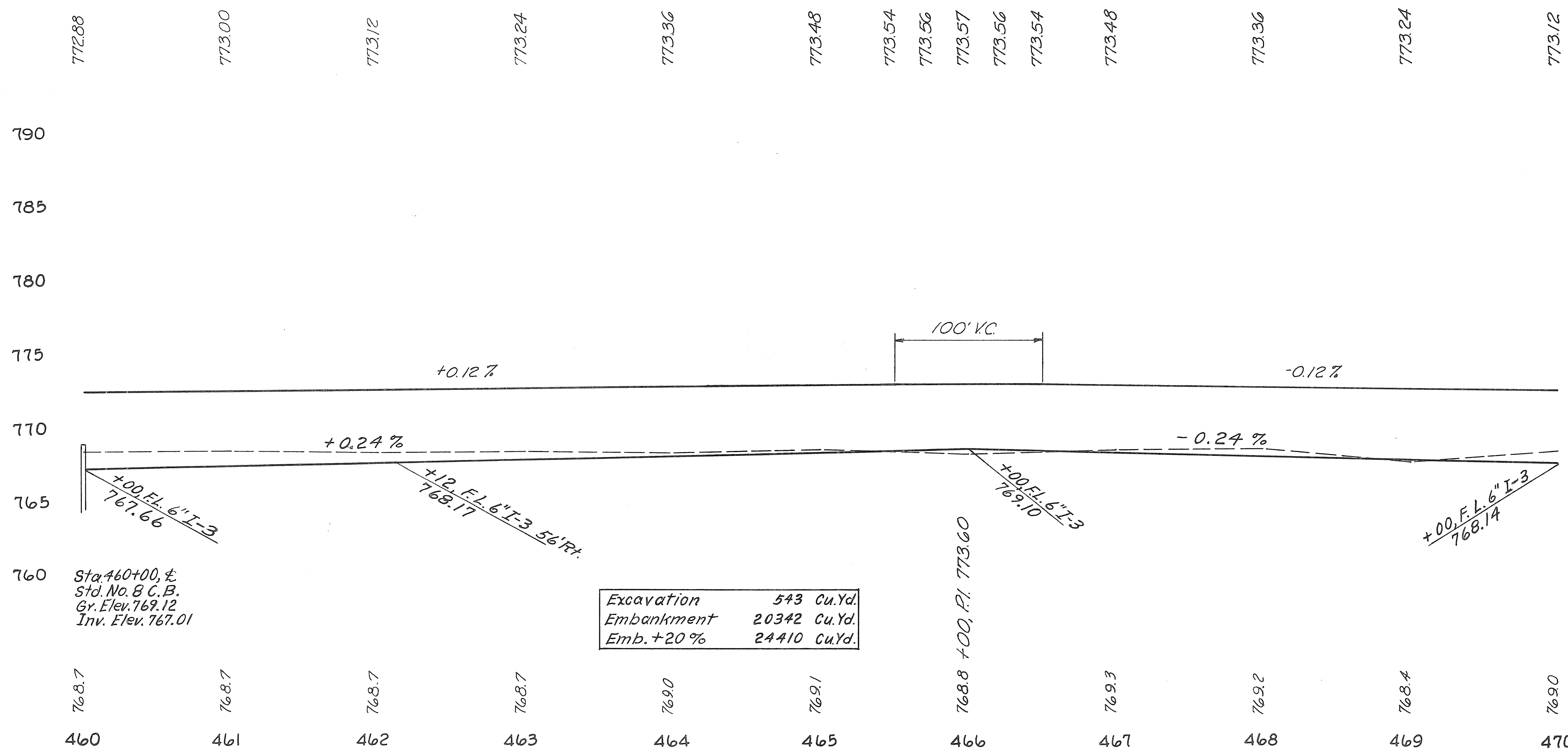
- \* Stations on Rest Area Lt of E.
- \*\* Stations on Ramp B.
- Stations on Rest Area Rt of E.
- Stations on Ramp D.
- \*\*\* (-D) See Roadside Rest Area Rt. Sheet No. 155

\* E-9, Removal of Trees & Stumps, 27 each  
\* Carried from sheet No. 155

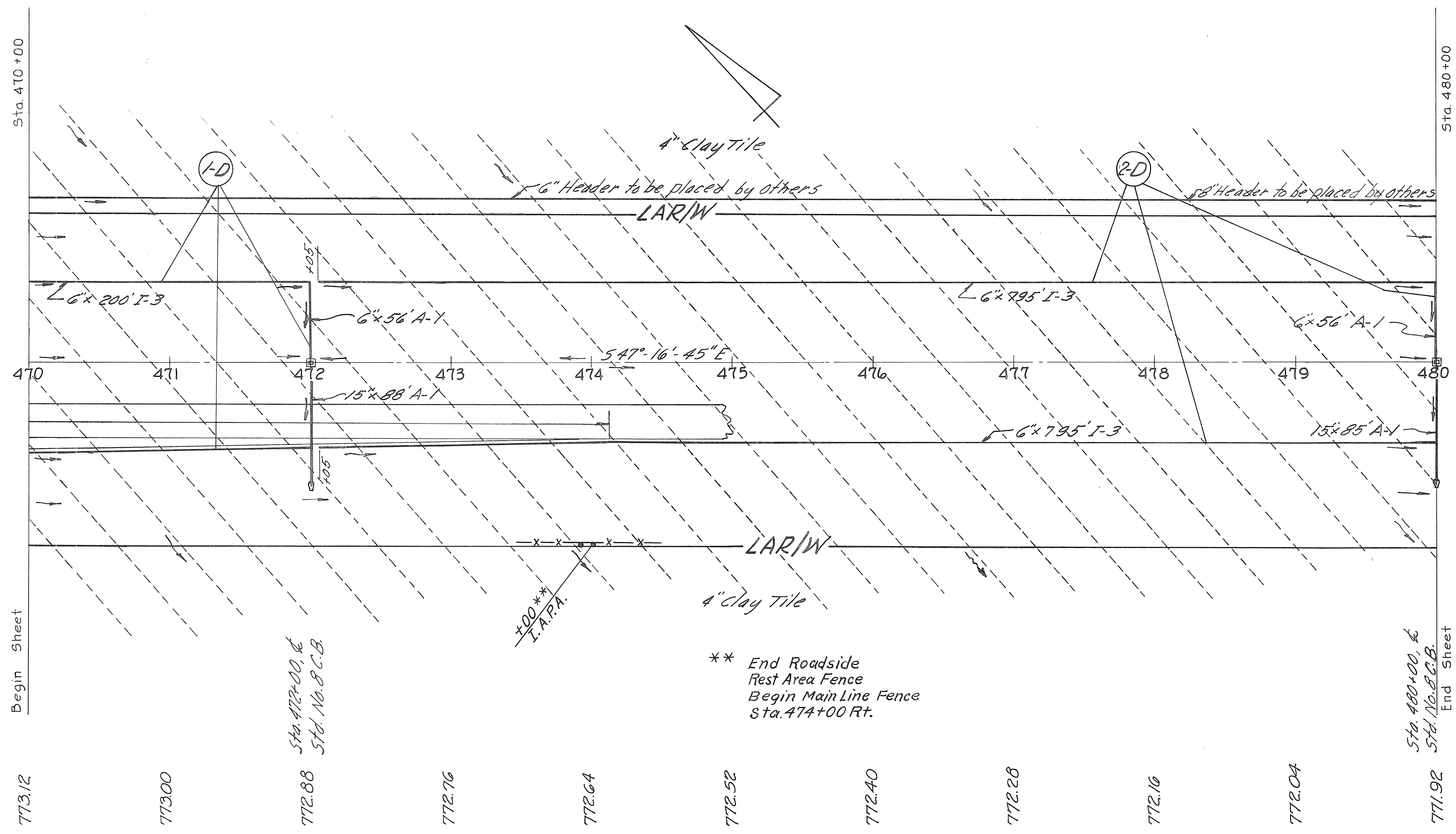


**DRAINAGE**

REF. NO.	STATION		Side	I-1		I-5			I-8	I-10	L-120			
				Pipe Lin. Ft.		Pipe Specials Each, A-1			Standard No. 8 Catch Basins Each	6" Concrete Riprap	Jute Matting			
				6"	15"	I-3	6"	6" Tee	6" Tee		Sq. Yd.	Sq. Yd.		
I-D	460+00	470+00	Lt. Rt.	85	96		2,000	1	1	1		1	2.14	250
2-D	460+00	462+12	Rt.				212							
<b>Total</b>				85	96		2,212	1	1	1		1	2.14	250

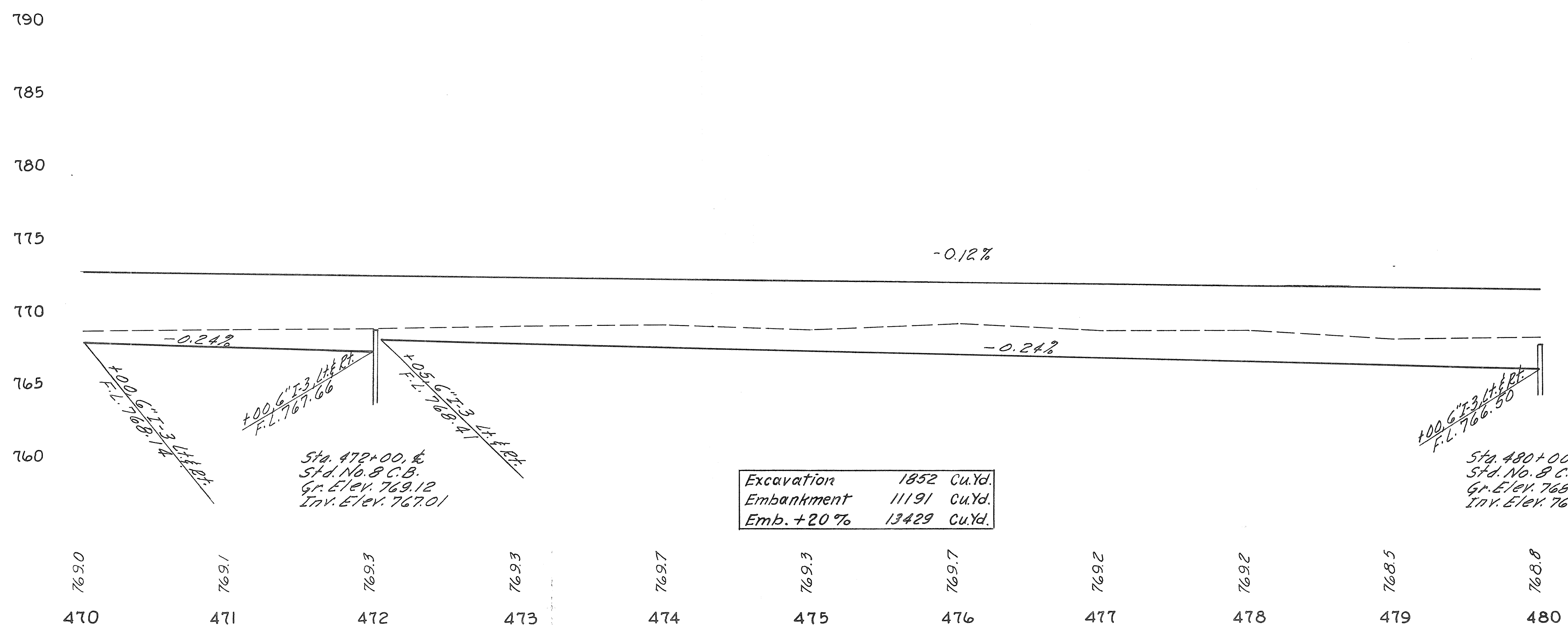


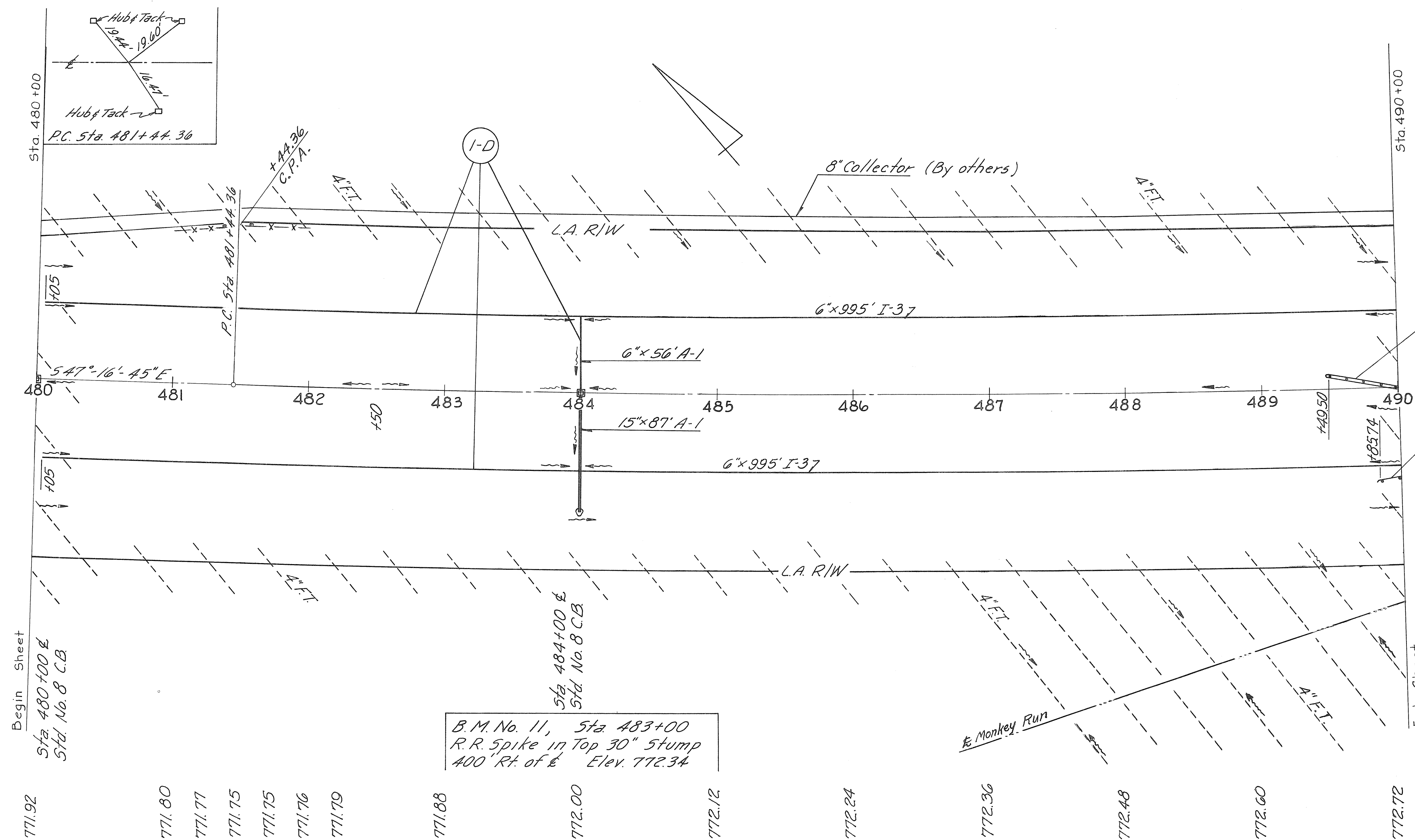
Excavation	543 Cu.Yd.
Embankment	20342 Cu.Yd.
Emb. +20%	24410 Cu.Yd.



**DRAINAGE**

Ref. No.	Station		Side	I-1 Pipe Lin. Ft.		I-5 Pipe Specials Each			I-8 Std. No. 8 catch Basin	I-10 6" Conc. Rip Rap	L-120 Jute Matting
	From	To		A-1	I-3	6" x 90" Bend	6" x 15" Tee	Each	Sq. Yd.	Sq. Yd.	
1-D	470+00	472+00	Left	6"	15'	400	1	1	1	2.14	2.50
2-D	472+05	480+00	Left	6"	85'	1390	1	1	1	2.14	2.50
<b>Total</b>				112	173	1990	2	2	2	4.28	5.00





**GUARD RAIL**

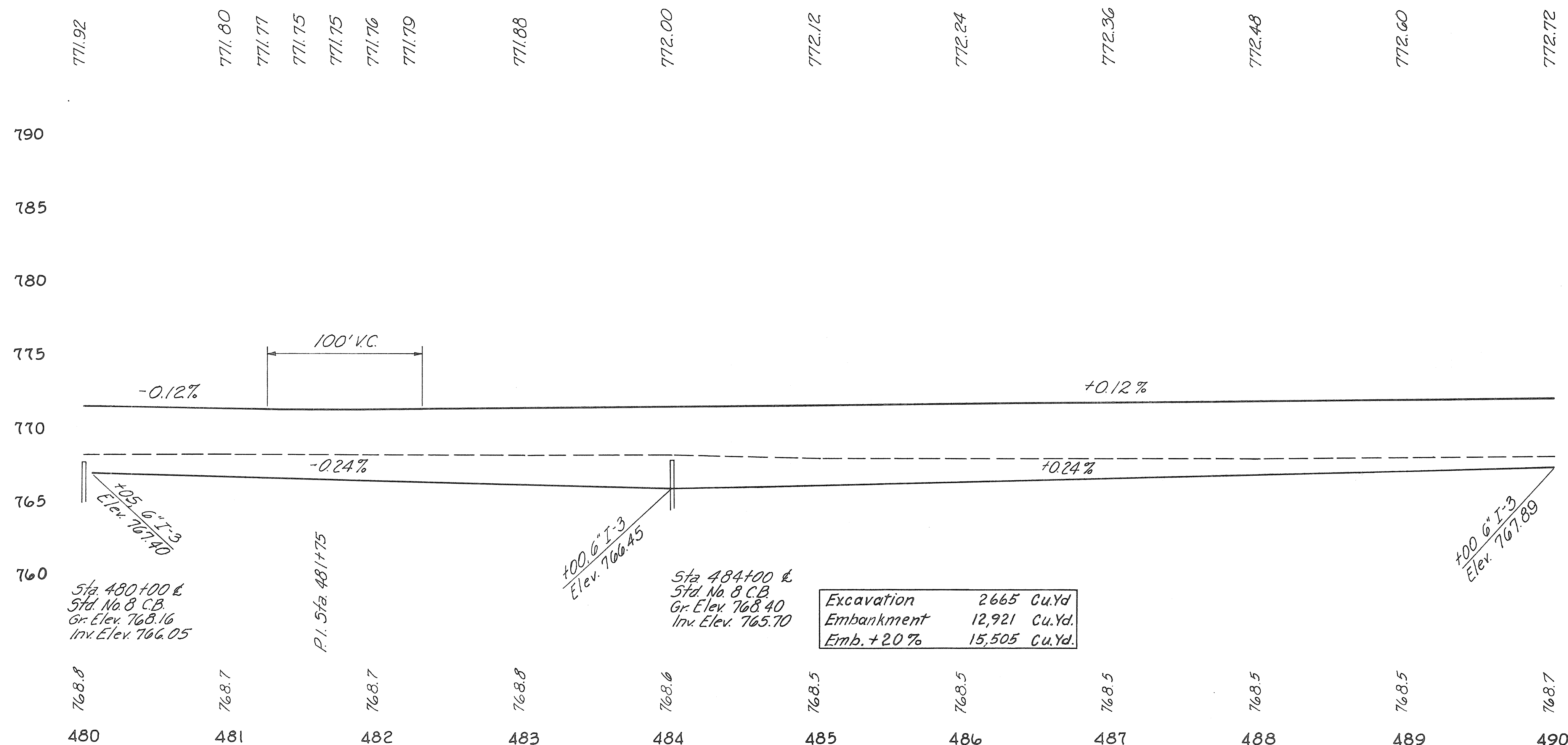
Ref. No.	Station		Side	I-15	
	From	To		Guard Rail Steel Beam Type (Deep) Lin. Ft.	Barrier
1-G	489+49.50	490+00	L	50.00	
2-G	489+85.74	490+00	R	14.26	
Total				14.26	50.00

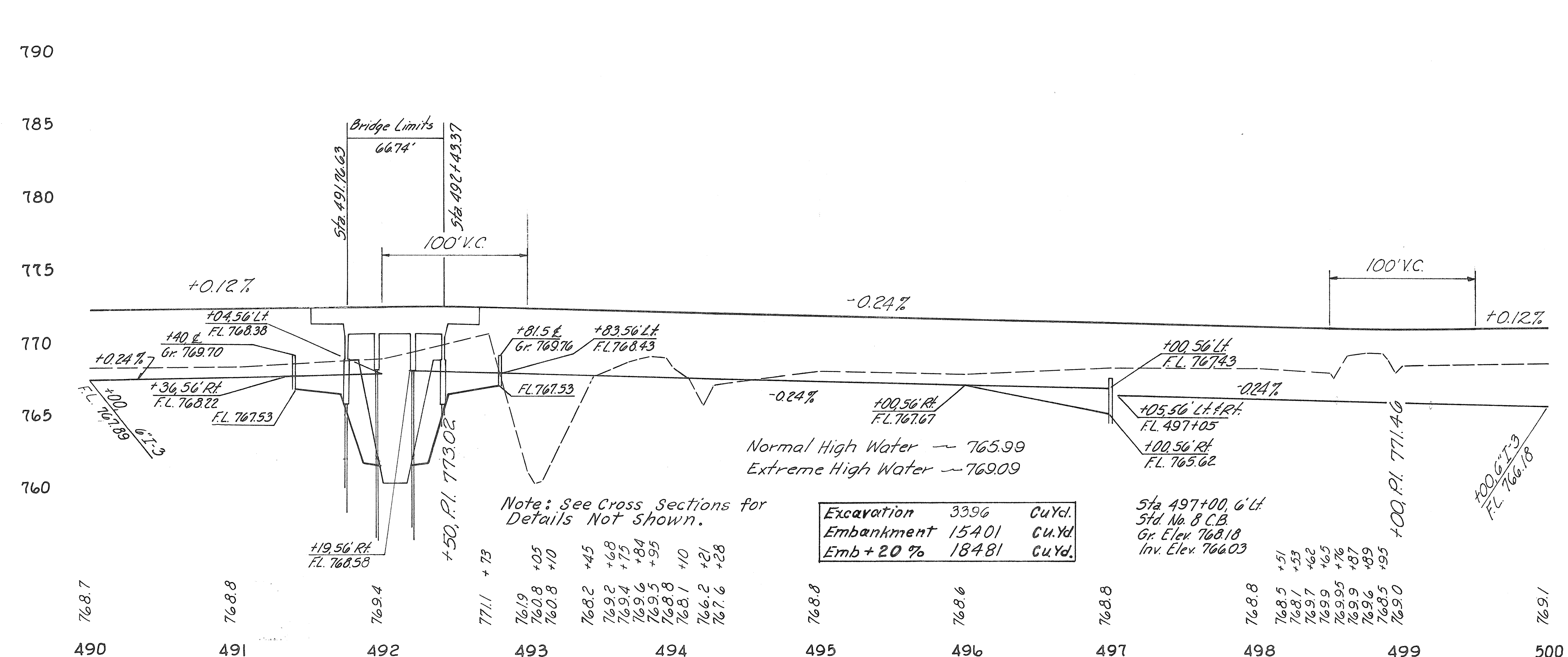
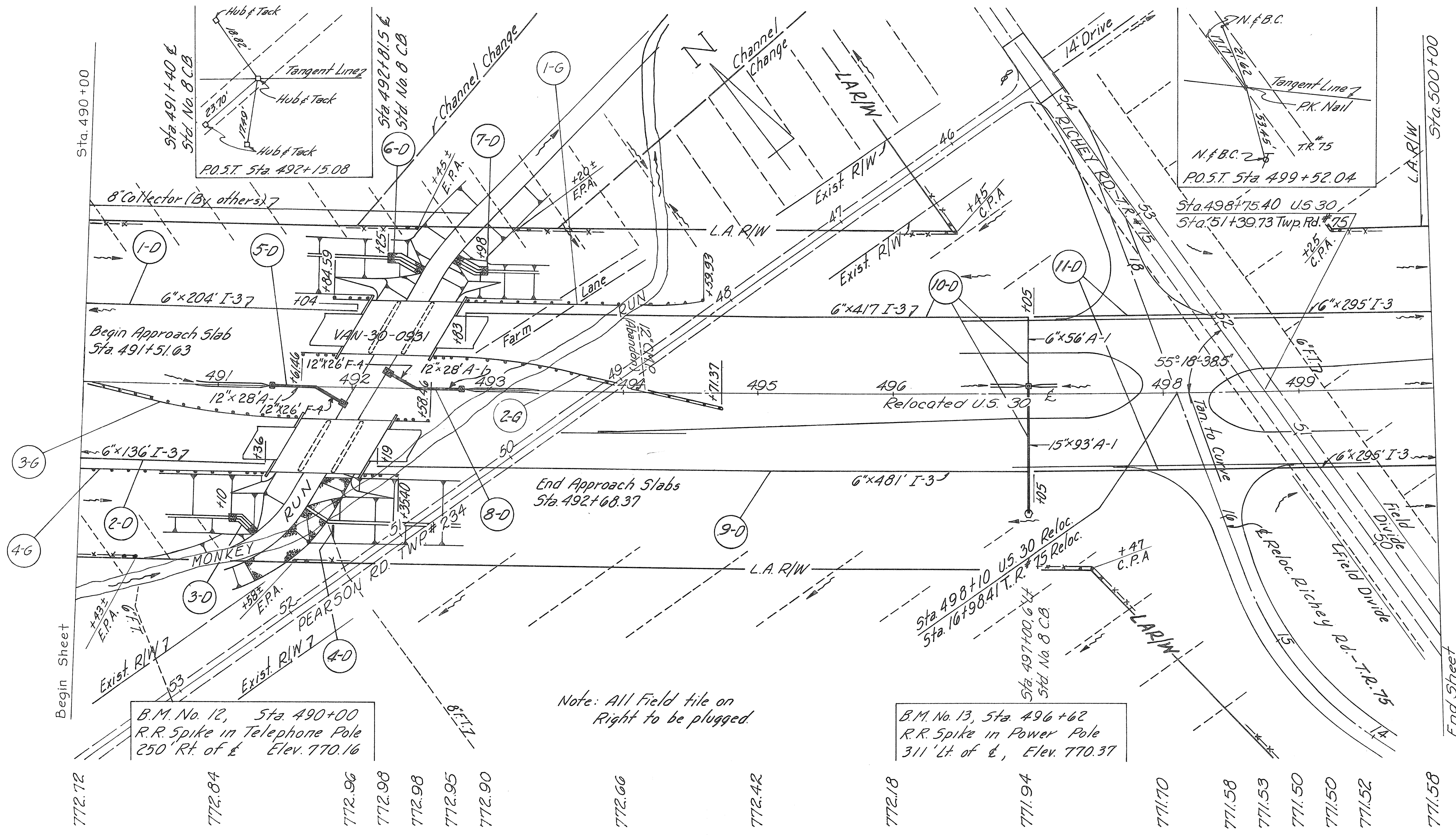
**DRAINAGE**

Ref. No.	Station		Side	I-1		I-5		I-8	I-10	I-120	
	From	To		Pipe Lin. Ft.		Pipe Specials Each A-1		Standard No. 8 Catch Basin Each	6" Concrete Rip Rap Sq. Yd.	Jute Matting Sq. Yd.	
	Class			6"	15"	6" Tee	6" Cross				
1-D	480+05	490+00	L/R	56	87	1,990	1	1	1	2.14	250
Total				56	87	1,990	1	1	1	2.14	250

B.M. No. 11, Sta 483+00  
R.R. Spike in Top 30" Stump  
400' Rt. of E Elev. 772.34

Excavation	2665 Cu.Yd.
Embankment	12,921 Cu.Yd.
Emb. + 20%	15,505 Cu.Yd.





Station	Side	Pipe Lin. Ft.		Pipe Class	I-5	I-8	I-10	I-15	I-20	I-25	I-30	I-35	I-40	I-45	I-50	I-55	I-60	I-65	I-70	I-75	I-80	I-85	I-90	I-95	I-100	I-105	I-110	I-115	I-120	I-125	I-130	I-135	I-140	I-145	I-150	I-155	I-160	I-165	I-170	I-175	I-180	I-185	I-190	I-195	I-200	I-205	I-210	I-215	I-220	I-225	I-230	I-235	I-240	I-245	I-250	I-255	I-260	I-265	I-270	I-275	I-280	I-285	I-290	I-295	I-300	I-305	I-310	I-315	I-320	I-325	I-330	I-335	I-340	I-345	I-350	I-355	I-360	I-365	I-370	I-375	I-380	I-385	I-390	I-395	I-400	I-405	I-410	I-415	I-420	I-425	I-430	I-435	I-440	I-445	I-450	I-455	I-460	I-465	I-470	I-475	I-480	I-485	I-490	I-495	I-500	I-505	I-510	I-515	I-520	I-525	I-530	I-535	I-540	I-545	I-550	I-555	I-560	I-565	I-570	I-575	I-580	I-585	I-590	I-595	I-600	I-605	I-610	I-615	I-620	I-625	I-630	I-635	I-640	I-645	I-650	I-655	I-660	I-665	I-670	I-675	I-680	I-685	I-690	I-695	I-700	I-705	I-710	I-715	I-720	I-725	I-730	I-735	I-740	I-745	I-750	I-755	I-760	I-765	I-770	I-775	I-780	I-785	I-790	I-795	I-800	I-805	I-810	I-815	I-820	I-825	I-830	I-835	I-840	I-845	I-850	I-855	I-860	I-865	I-870	I-875	I-880	I-885	I-890	I-895	I-900	I-905	I-910	I-915	I-920	I-925	I-930	I-935	I-940	I-945	I-950	I-955	I-960	I-965	I-970	I-975	I-980	I-985	I-990	I-995	I-1000	I-1005	I-1010	I-1015	I-1020	I-1025	I-1030	I-1035	I-1040	I-1045	I-1050	I-1055	I-1060	I-1065	I-1070	I-1075	I-1080	I-1085	I-1090	I-1095	I-1100	I-1105	I-1110	I-1115	I-1120	I-1125	I-1130	I-1135	I-1140	I-1145	I-1150	I-1155	I-1160	I-1165	I-1170	I-1175	I-1180	I-1185	I-1190	I-1195	I-1200	I-1205	I-1210	I-1215	I-1220	I-1225	I-1230	I-1235	I-1240	I-1245	I-1250	I-1255	I-1260	I-1265	I-1270	I-1275	I-1280	I-1285	I-1290	I-1295	I-1300	I-1305	I-1310	I-1315	I-1320	I-1325	I-1330	I-1335	I-1340	I-1345	I-1350	I-1355	I-1360	I-1365	I-1370	I-1375	I-1380	I-1385	I-1390	I-1395	I-1400	I-1405	I-1410	I-1415	I-1420	I-1425	I-1430	I-1435	I-1440	I-1445	I-1450	I-1455	I-1460	I-1465	I-1470	I-1475	I-1480	I-1485	I-1490	I-1495	I-1500	I-1505	I-1510	I-1515	I-1520	I-1525	I-1530	I-1535	I-1540	I-1545	I-1550	I-1555	I-1560	I-1565	I-1570	I-1575	I-1580	I-1585	I-1590	I-1595	I-1600	I-1605	I-1610	I-1615	I-1620	I-1625	I-1630	I-1635	I-1640	I-1645	I-1650	I-1655	I-1660	I-1665	I-1670	I-1675	I-1680	I-1685	I-1690	I-1695	I-1700	I-1705	I-1710	I-1715	I-1720	I-1725	I-1730	I-1735	I-1740	I-1745	I-1750	I-1755	I-1760	I-1765	I-1770	I-1775	I-1780	I-1785	I-1790	I-1795	I-1800	I-1805	I-1810	I-1815	I-1820	I-1825	I-1830	I-1835	I-1840	I-1845	I-1850	I-1855	I-1860	I-1865	I-1870	I-1875	I-1880	I-1885	I-1890	I-1895	I-1900	I-1905	I-1910	I-1915	I-1920	I-1925	I-1930	I-1935	I-1940	I-1945	I-1950	I-1955	I-1960	I-1965	I-1970	I-1975	I-1980	I-1985	I-1990	I-1995	I-2000	I-2005	I-2010	I-2015	I-2020	I-2025	I-2030	I-2035	I-2040	I-2045	I-2050	I-2055	I-2060	I-2065	I-2070	I-2075	I-2080	I-2085	I-2090	I-2095	I-2100	I-2105	I-2110	I-2115	I-2120	I-2125	I-2130	I-2135	I-2140	I-2145	I-2150	I-2155	I-2160	I-2165	I-2170	I-2175	I-2180	I-2185	I-2190	I-2195	I-2200	I-2205	I-2210	I-2215	I-2220	I-2225	I-2230	I-2235	I-2240	I-2245	I-2250	I-2255	I-2260	I-2265	I-2270	I-2275	I-2280	I-2285	I-2290	I-2295	I-2300	I-2305	I-2310	I-2315	I-2320	I-2325	I-2330	I-2335	I-2340	I-2345	I-2350	I-2355	I-2360	I-2365	I-2370	I-2375	I-2380	I-2385	I-2390	I-2395	I-2400	I-2405	I-2410	I-2415	I-2420	I-2425	I-2430	I-2435	I-2440	I-2445	I-2450	I-2455	I-2460	I-2465	I-2470	I-2475	I-2480	I-2485	I-2490	I-2495	I-2500	I-2505	I-2510	I-2515	I-2520	I-2525	I-2530	I-2535	I-2540	I-2545	I-2550	I-2555	I-2560	I-2565	I-2570	I-2575	I-2580	I-2585	I-2590	I-2595	I-2600	I-2605	I-2610	I-2615	I-2620	I-2625	I-2630	I-2635	I-2640	I-2645	I-2650	I-2655	I-2660	I-2665	I-2670	I-2675	I-2680	I-2685	I-2690	I-2695	I-2700	I-2705	I-2710	I-2715	I-2720	I-2725	I-2730	I-2735	I-2740	I-2745	I-2750	I-2755	I-2760	I-2765	I-2770	I-2775	I-2780	I-2785	I-2790	I-2795	I-2800	I-2805	I-2810	I-2815	I-2820	I-2825	I-2830	I-2835	I-2840	I-2845	I-2850	I-2855	I-2860	I-2865	I-2870	I-2875	I-2880	I-2885	I-2890	I-2895	I-2900	I-2905	I-2910	I-2915	I-2920	I-2925	I-2930	I-2935	I-2940	I-2945	I-2950	I-2955	I-2960	I-2965	I-2970	I-2975	I-2980	I-2985	I-2990	I-2995	I-3000	I-3005	I-3010	I-3015	I-3020	I-3025	I-3030	I-3035	I-3040	I-3045	I-3050	I-3055	I-3060	I-3065	I-3070	I-3075	I-3080	I-3085	I-3090	I-3095	I-3100	I-3105	I-3110	I-3115	I-3120	I-3125	I-3130	I-3135	I-3140	I-3145	I-3150	I-3155	I-3160	I-3165	I-3170	I-3175	I-3180	I-3185	I-3190	I-3195	I-3200	I-3205	I-3210	I-3215	I-3220	I-3225	I-3230	I-3235	I-3240	I-3245	I-3250	I-3255	I-3260	I-3265	I-3270	I-3275	I-3280	I-3285	I-3290	I-3295	I-3300	I-3305	I-3310	I-3315	I-3320	I-3325	I-3330	I-3335	I-3340	I-3345	I-3350	I-3355	I-3360	I-3365	I-3370	I-3375	I-3380	I-3385	I-3390	I-3395	I-3400	I-3405	I-3410	I-3415	I-3420	I-3425	I-3430	I-3435	I-3440	I-3445	I-3450	I-3455	I-3460	I-3465	I-3470	I-3475	I-3480	I-3485	I-3490	I-3495	I-3500	I-3505	I-3510	I-3515	I-3520	I-3525	I-3530	I-3535	I-3540	I-3545	I-3550	I-3555	I-3560	I-3565	I-3570	I-3575	I-3580	I-3585	I-3590	I-3595	I-3600	I-3605	I-3610	I-3615	I-3620	I-3625	I-3630	I-3635	I-3640	I-3645	I-3650	I-3655	I-3660	I-3665	I-3670	I-3675	I-3680	I-3685	I-3690	I-3695	I-3700	I-3705	I-3710	I-3715	I-3720	I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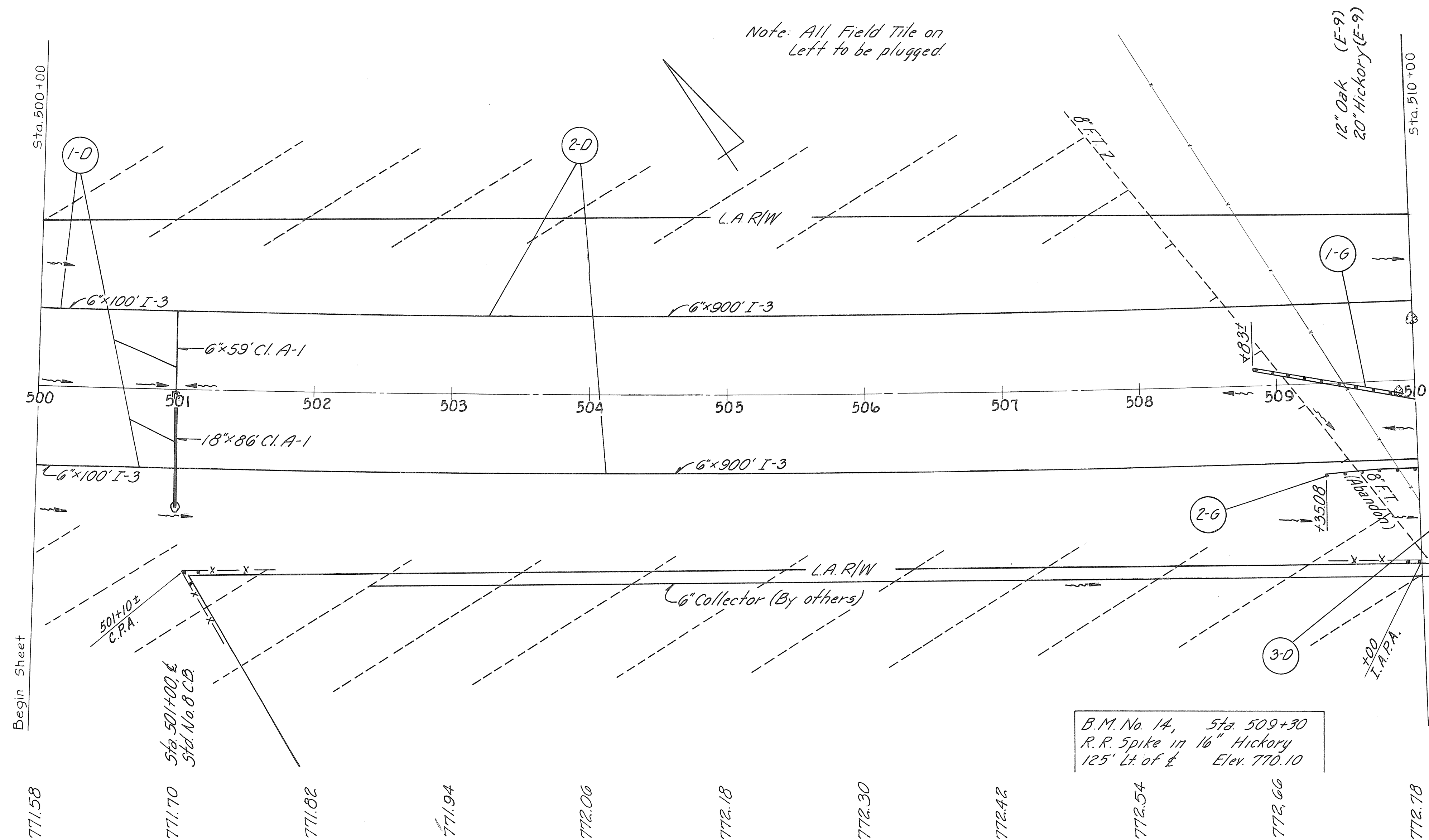
**GUARD RAIL**

Ref. No	Station		Side	I-15	
	From	To		Guard Rail Steel Beam Type (Deep) Lin. Ft.	Standard Barrier
1-6	508+83±	510+00	£	18.0	100.0
2-6	509+3508	510+00	RT	64.92	
<b>Totals</b>				82.92	100.0

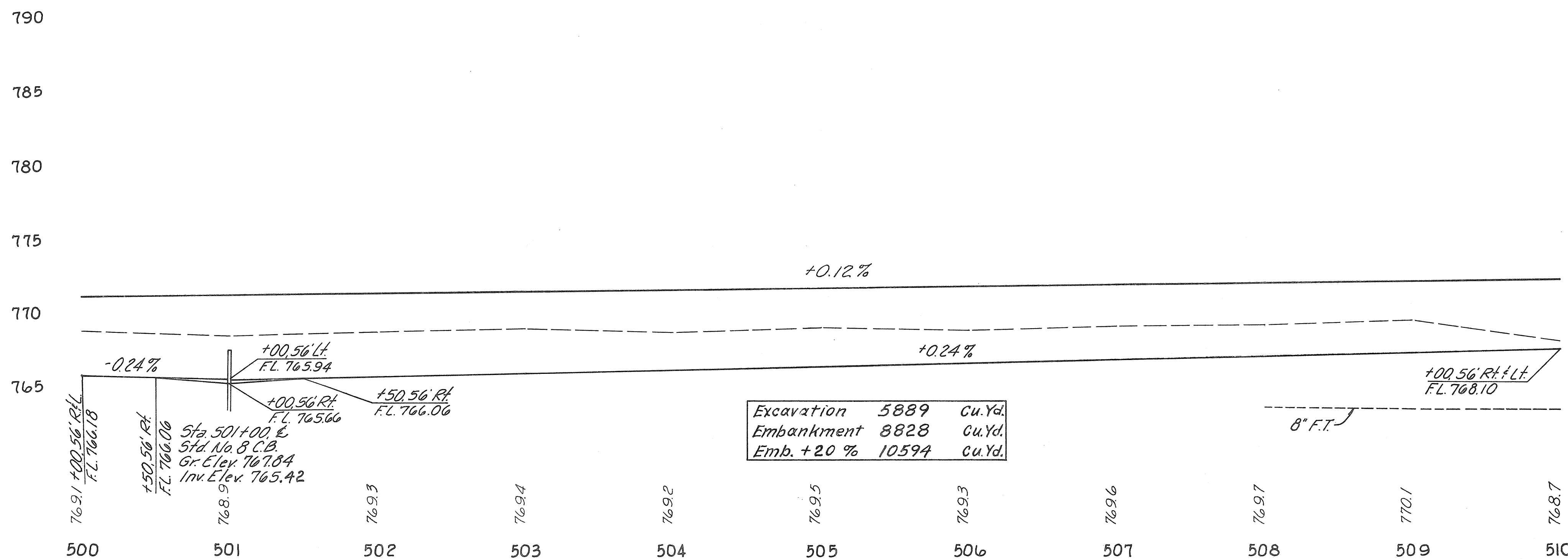
**DRAINAGE**

Ref. No	Station		Side	I-1 Pipe Lin. Ft.				I-5 Pipe Specials		I-8 Std. No. 8 Catch Basin Each	I-10 6" Concrete Rip Rap Sq. Yd.	L-120 Jute Matting Sq. Yd.		
	From	To		A-1	F-4	H-2	I-3	6" on Tee	18" on Cross					
	1-D	500+00		501+00	LHRA	59	86						200	1
2-D	501+00	510+00	LHRA					1800						
3-D	510+08		RT			10	20							
<b>Totals</b>				59	86	10	20	2000	1	1		1	2.14	250

E-9 Removal of Trees and Stumps 2 ea.



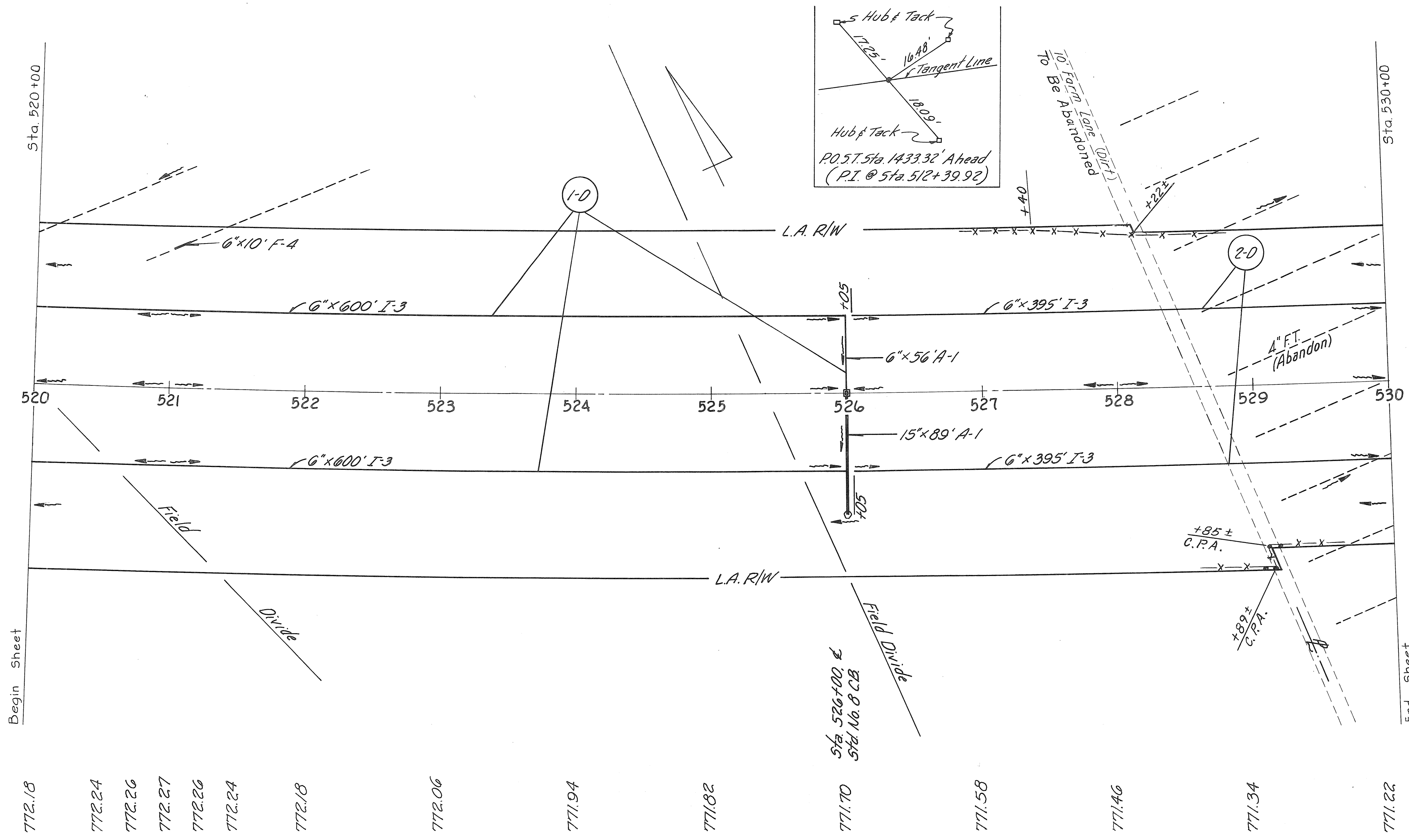
B.M. No. 14, Sta. 509+30  
R.R. Spike in 16" Hickory  
125' Lt. of £ Elev. 770.10



Excavation	5889	Cu. Yd.
Embankment	8828	Cu. Yd.
Emb. + 20 %	10594	Cu. Yd.

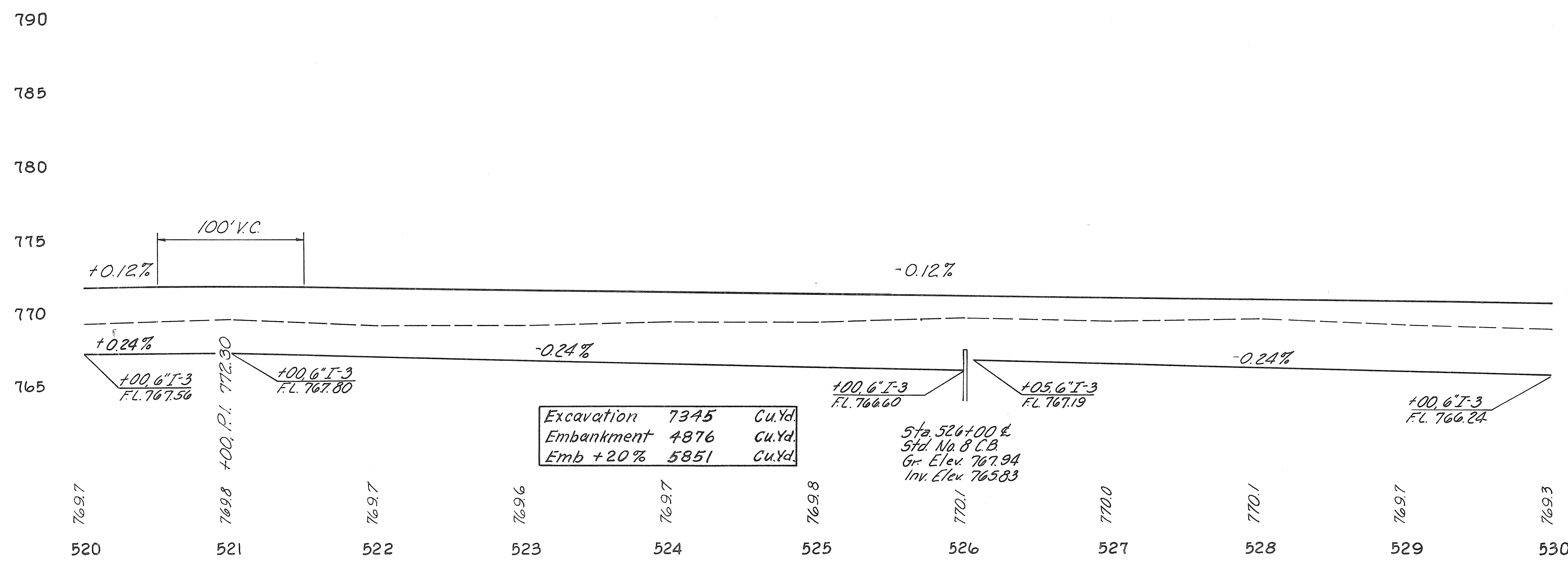






**DRAINAGE**

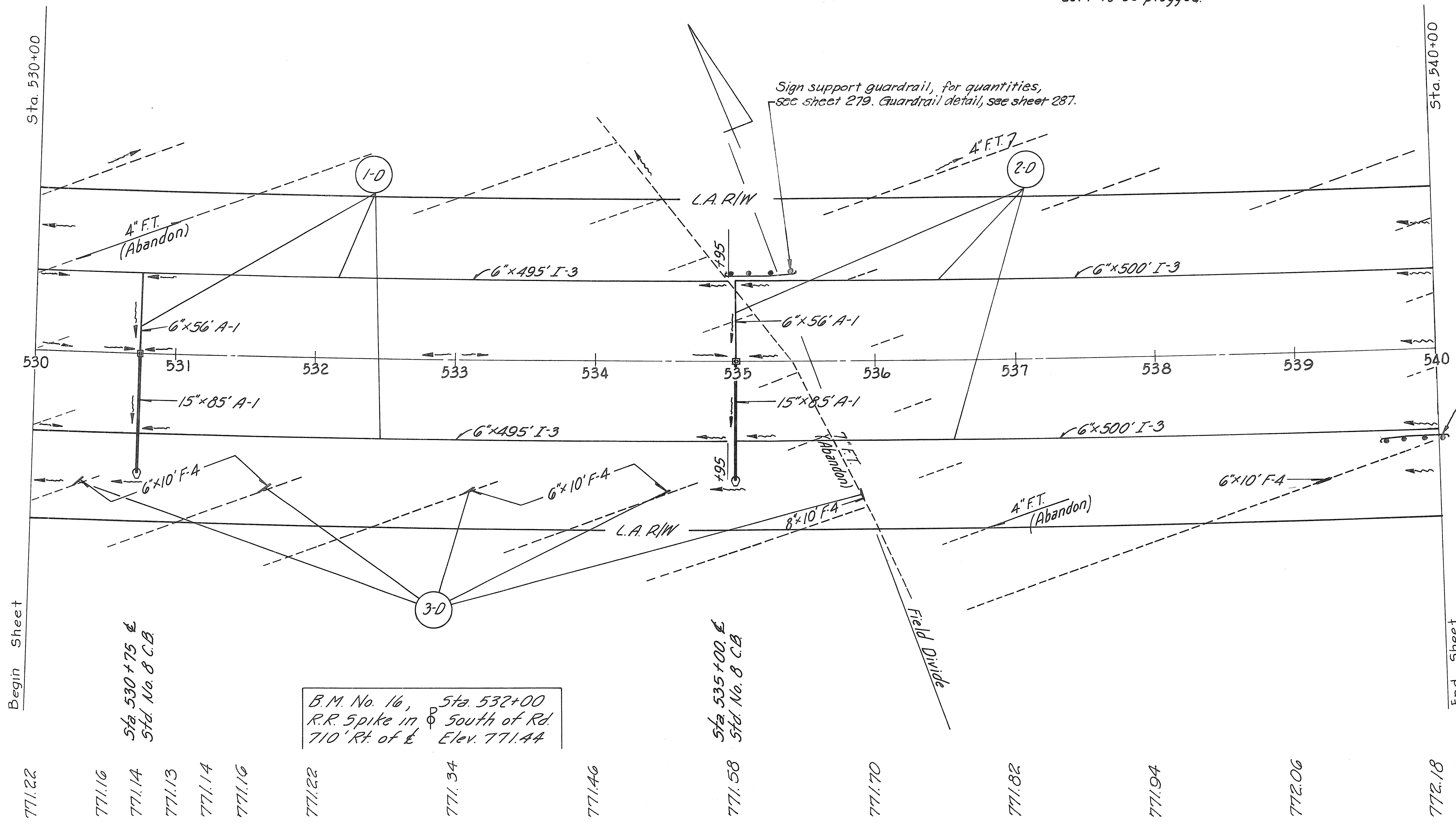
Ref. No.	Station		Side	I-1		I-5		I-8	I-10	I-120
				Pipe Lin. Ft.		Pipe Specials Each, A-1		Standard No. 8 Catch Basin Each	6" Concrete Rip Rap Sq. Yd.	1/2" Jute Matting Sq. Yd.
				6"	15"	6"	15"			
1-D	520+00	526+00	L.R.	56	89			1		
2-D	526+05	530+00	L.R.							
<b>Totals</b>				56	89			1		250



Note: All Field Tile on Left to be plugged.

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

VAN WERT COUNTY  
VAN-30-4.06

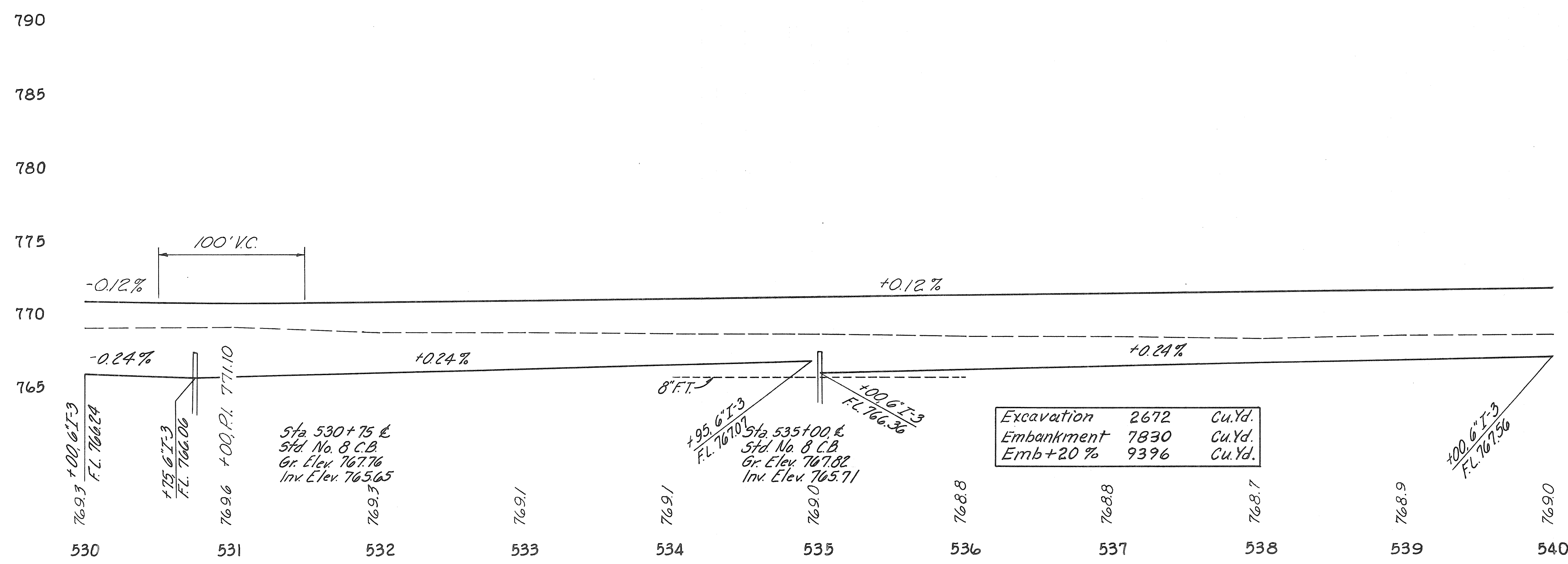


Sign support guardrail, for quantities, see sheet 279. Guardrail detail, see sheet 287

**DRAINAGE**

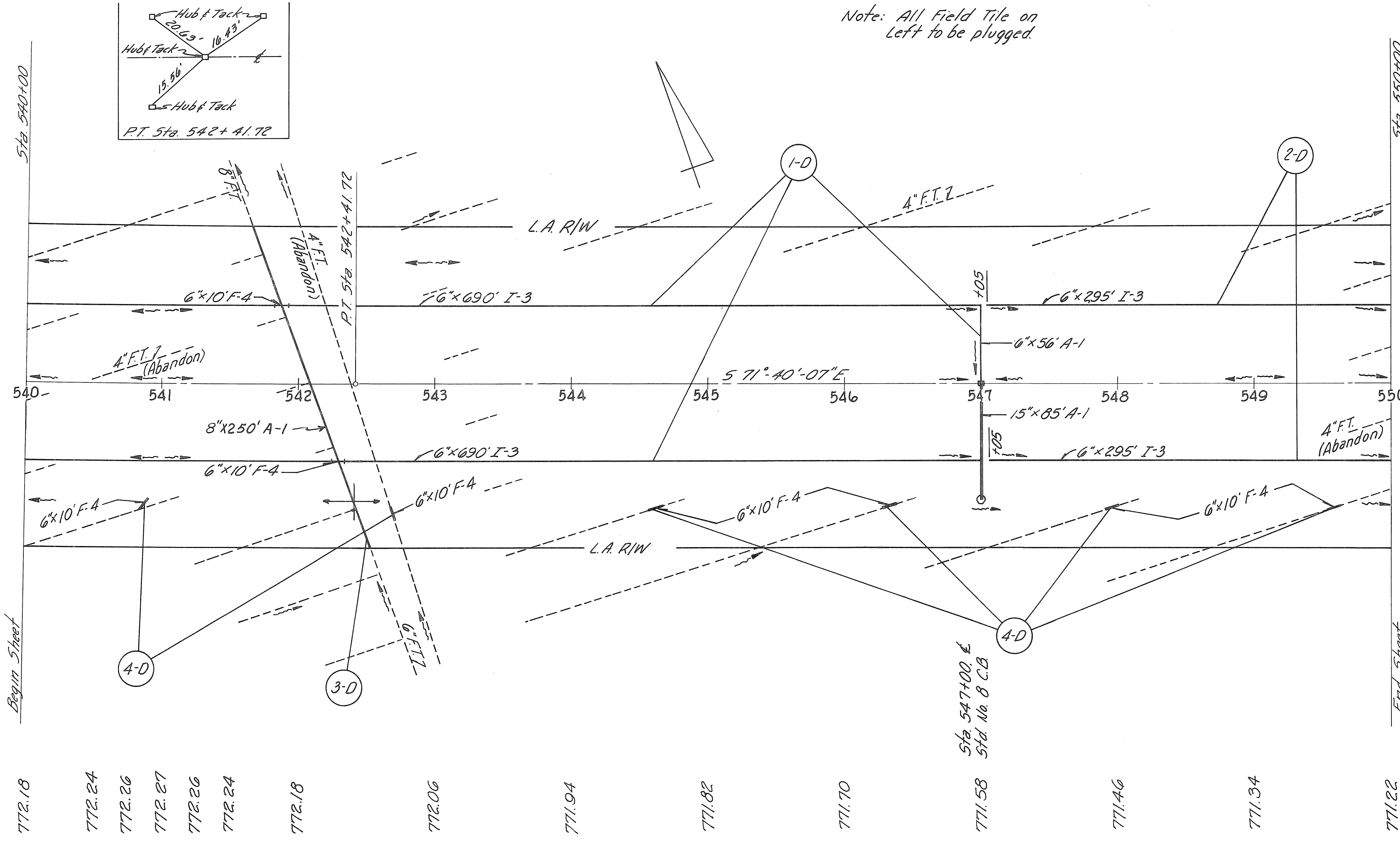
Ref. No.	Station		Side	I-1 Pipe Lin. Ft.			I-5 Pipe Specials Each, A-1				I-8 Standard No. 8 Catch Basins Each	I-10 6" Concrete Rip Rap Sq. Yd.	L-120 Jute Matting Sq. Yd.		
				A-1	F-A	I-3	6"x90" Bend	6"x90" Tee	6"x15" TEE	6"x15" CROSS					
				6" 15"	6" 8"	6"									
1-D	530+00	534+95	L/R	56	85						1	2.14	250		
2-D	535+00	540+00	L/R	56	85						1	2.14	250		
3-D	530+00	540+00	Rt.			50	10								
<b>Total</b>				112	170	50	10	1990	1	1	1	1	2	4.28	500

\* Estimated for outletting 4" F.T.



Sta. 530+00 to Sta. 540+00

Note: All Field Tile on Left to be plugged.

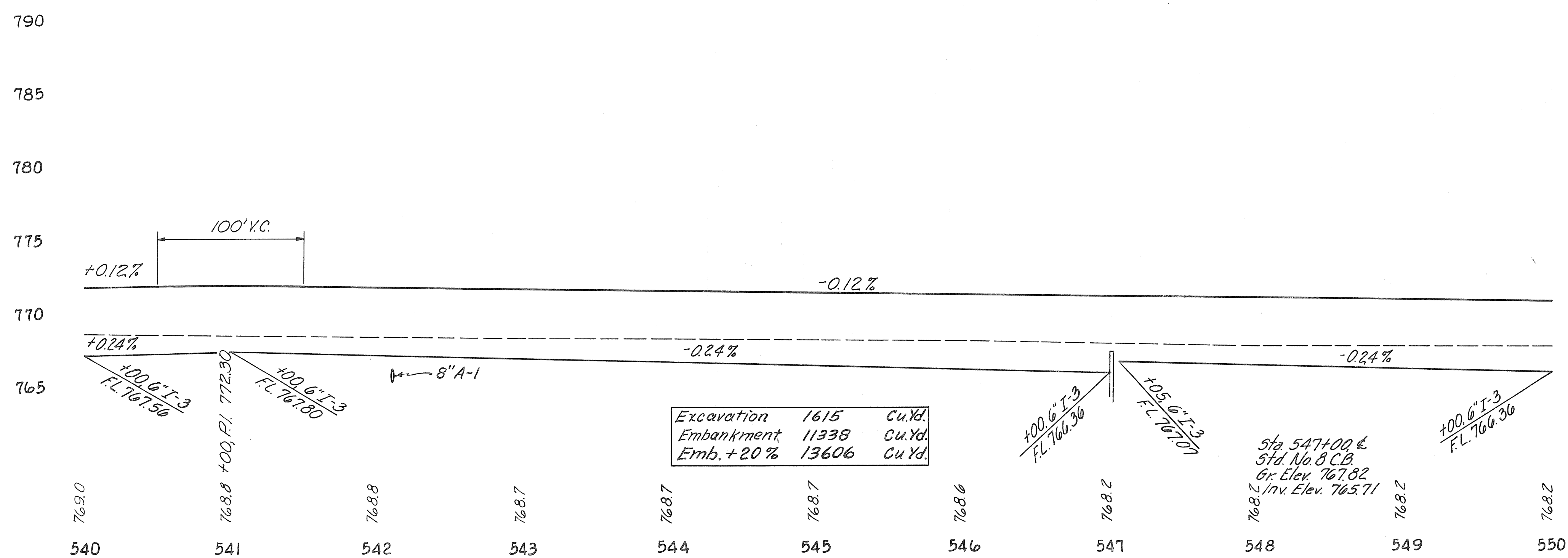


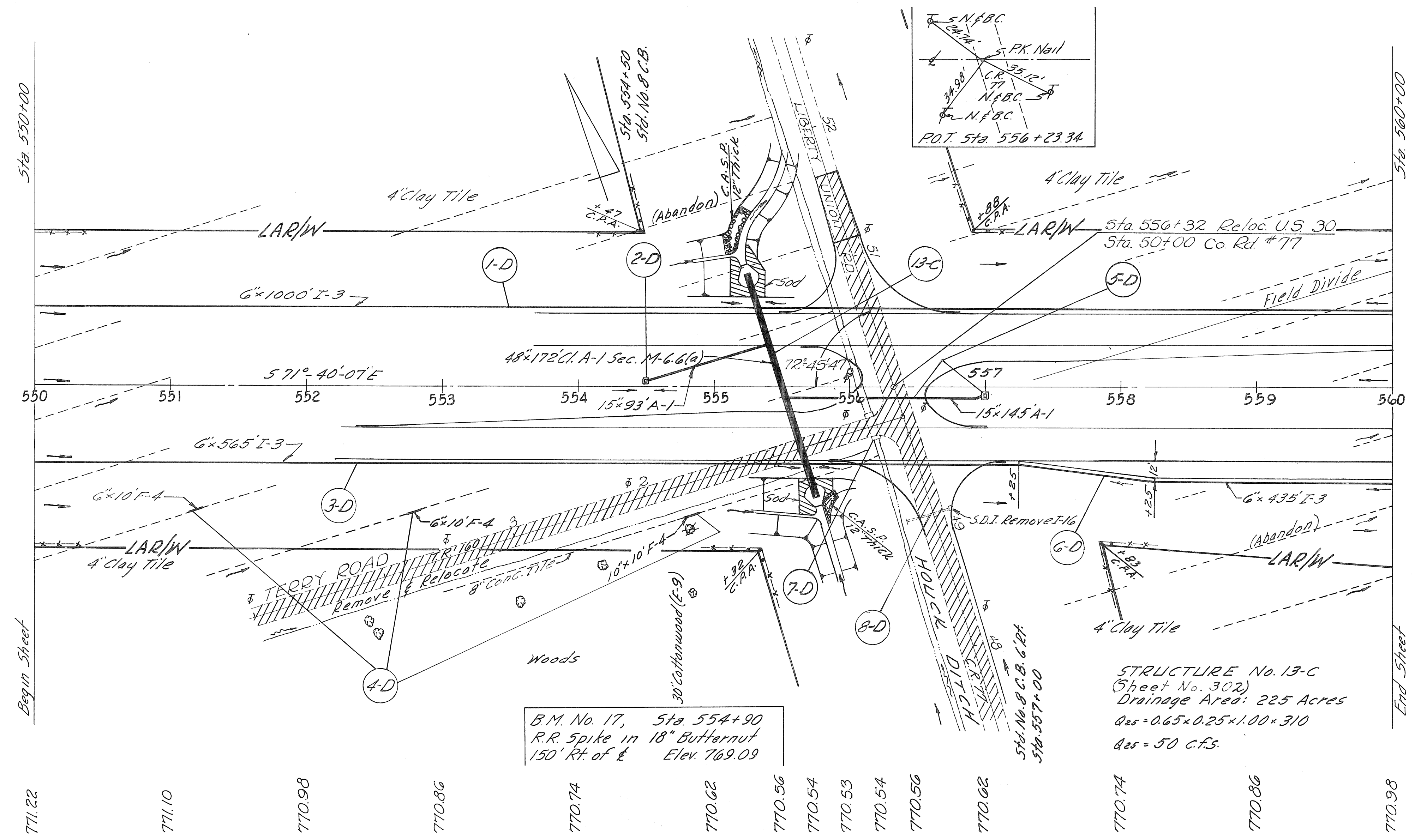
772.18 772.24 772.26 772.27 772.26 772.24 772.18 772.06 771.94 771.82 771.70 771.58 771.46 771.34 771.22

### DRAINAGE

Ref. No.	Station		Side	I-1					I-5			I-8 Standard No. 8 Catch Basin Each	I-10 6" Concrete Rip Rap Sq. Yd.	L-120 Jute Matting Sq. Yd.
				Pipe Lin. Ft.					Pipe Specials Each, A-1					
				A-1	F-4	I-3	6" Bend	4" on 8"	6" on 15"	tee				
1-D	540+00	547+00	L/R	56	85	20	1,380				1	2.14	250	
2-D	547+05	550+00	L/R				590							
3-D	541+65	542+55	L/R	250				1						
4-D	540+00	550+00	R/L			60*								
<b>Totals</b>				56	250	85	80	1,970	1	1	1	1	2.14	250

\* Estimated for outletting 4" F.T.





SIDE APPROACHES

Ref. No.	Station	Side	B-19		I-1		Remarks	Length	Width
			Aggregate Base	Cu. Yd.	C-1	C-4			
1-A	16+00	Terry Rd.	Lt.	12.3		36	Fld. Dr.	45	12
Totals				12.3		36			

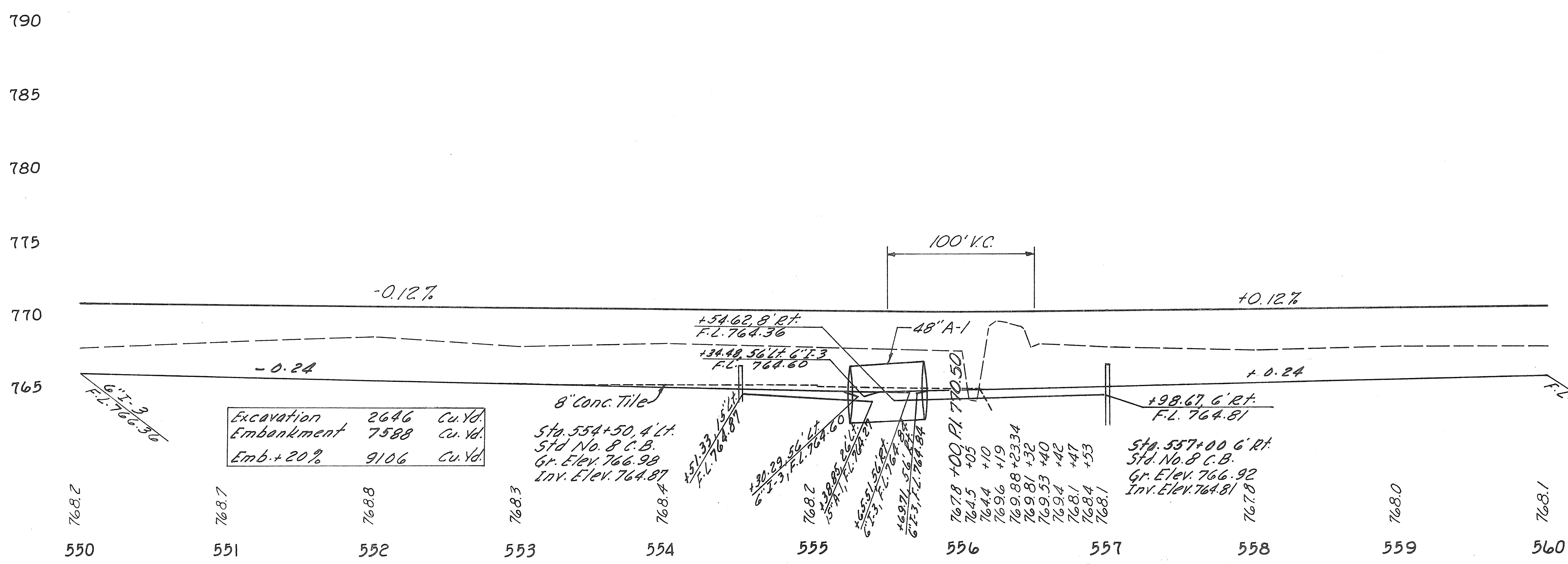
DRAINAGE

Ref. No.	Station		Side	I-1			I-5		F-8	S-22	I-8	I-16	S-24	E-12	I-10	L-10	L-120						
	From	To		A-1	F-4	I-3	Each A-1	Each A-1															
13-C	555+50		Lt.	15"	36"	48"	172	6"	10"	6"													
1-D	550+00	560+00	Lt.				1000																
2-D	554+50		Lt.	93							1						250						
3-D	550+00	555+70	Rt.				570																
4-D	551+30	554+80	Rt.		20	10																	
5-D	555+55	557+00	Rt.	145						1		1					125						
6-D	555+70	560+00	Rt.				430																
7-D	556+06.50		Rt.																				
LIBERTY UNION RD. & PEARSON RD.																							
14-C	24+71.17	T.R. #160			104						1				39.2	7.3	36						
8-D	49+0.3	C.R. #77									1		20										
9-D	57+15	C.R. #77	Rt.							144													
Totals					238	104	172	20	10	2000	2	2	1	144	Lump	2	2	Lump	20	77.18	12.8	128	375

\* Estimated Quantities for Field Tile Outlet. I-5, Special-Abandoned Well Sta. 57+15 Rt.

E-9 Removal of Trees and Stumps  
 U.S.R. 30 Main Line 1 Each  
 Terry Rd. 17 Each  
 Total 18 Each

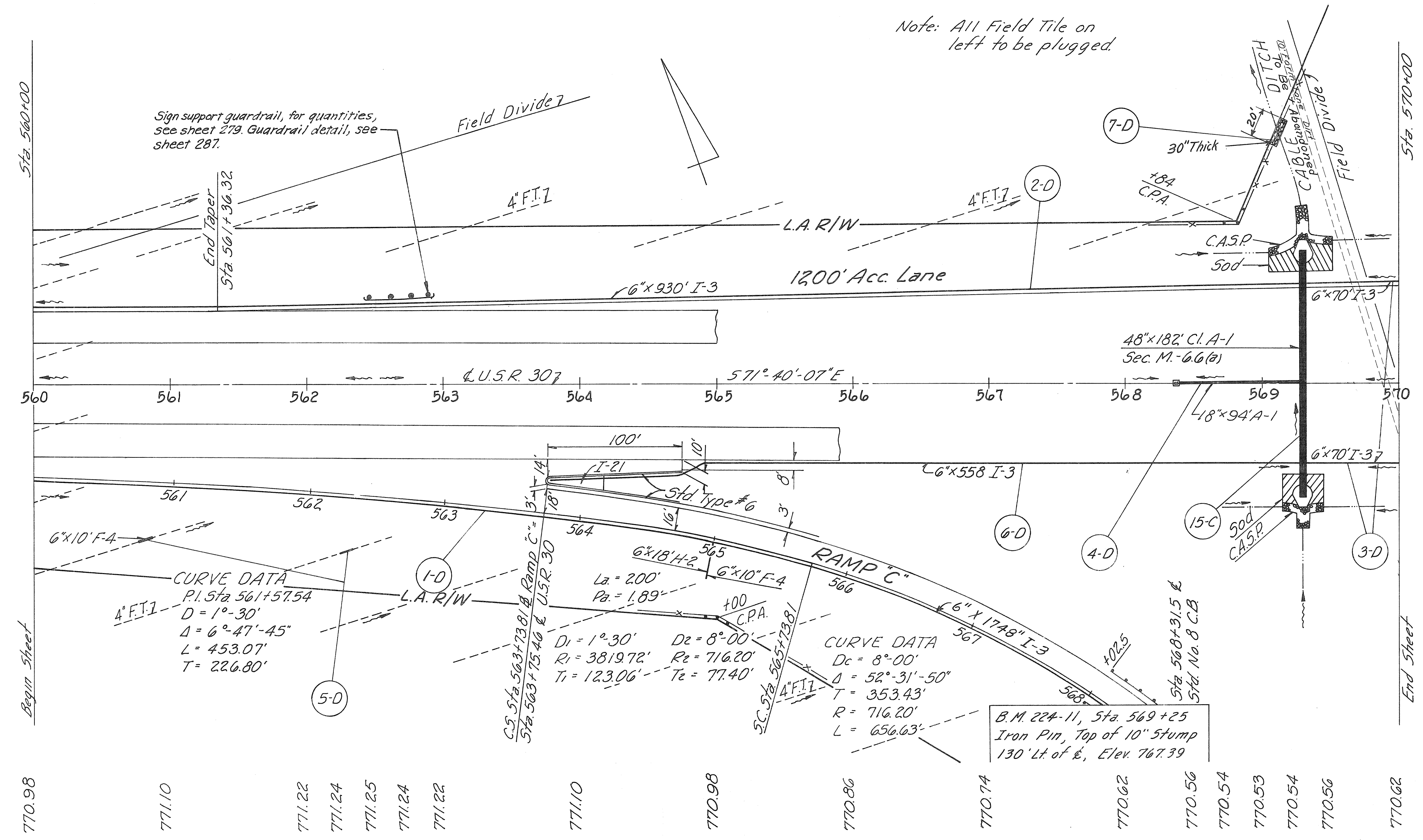
E-10 Remove 1/2 sty. Frame House Parcel No. 123  
 \*\* Shall include the Removal & Disposal of found. walls, front conc. Steps, etc.



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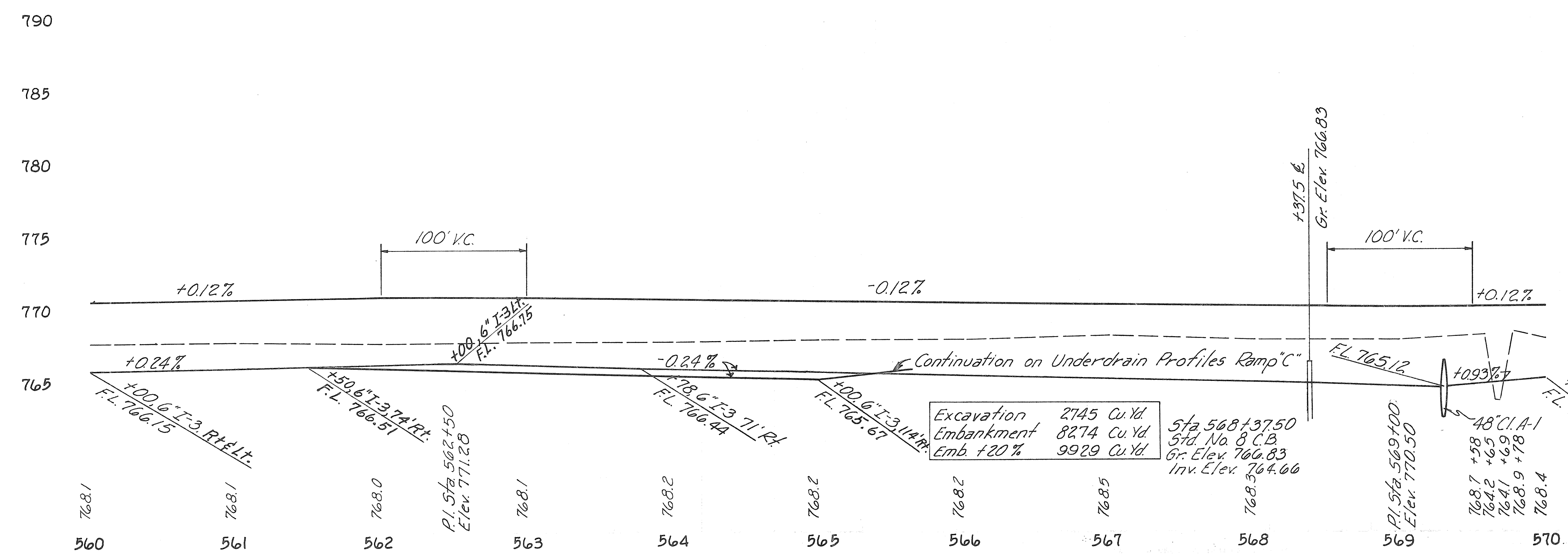
STRUCTURE-15-C (See Sheet 304)  
Drainage Area: 245 Acres  
Q<sub>25</sub> = 0.65 x 0.25 x 1.00 x 320  
Q<sub>25</sub> = 49 cfs

Note: All Field Tile on left to be plugged.



Ref. No.	Station		Side	I-1 Pipe Lin. Ft. Class					I-5 Pipe Special, Each			I-10 Dump Rock Fill Cu. Yd.	I-8 Std. No. 8 Catch Basin Each	I-10 Rip Rip C.A.S.P. 5Y. 5Y.	L-10 Sodding 5Y. 5Y.	L-120 Curb Metting	
	From	To		A-1	F-4	H-2	I-3	A-1	A-1	A-1							
15-C	569+30		R/L	182													
1-D	560+00	577+48	R/L			10	18	1748									
2-D	560+00	569+30	Lt.				930	1									
3-D	569+30	570+00	R/L				140										
4-D	568+37.5	569+30	E.		94				1								250
5-D	560+00	570+00	R/L			80											
6-D	563+76	569+30	R/L				558	1									
7-D	569+05	569+20	Lt.								11.1						
Total				182	94	90	18	3316	2	1	1	11.1	1	3798	79	132	250

\* Estimated for outletting 4" F.I. into side ditch in this area.  
 † See Ramp Underdrain Profiles & Cross Sections for details.



Sta. 560+00 to Sta. 570+00

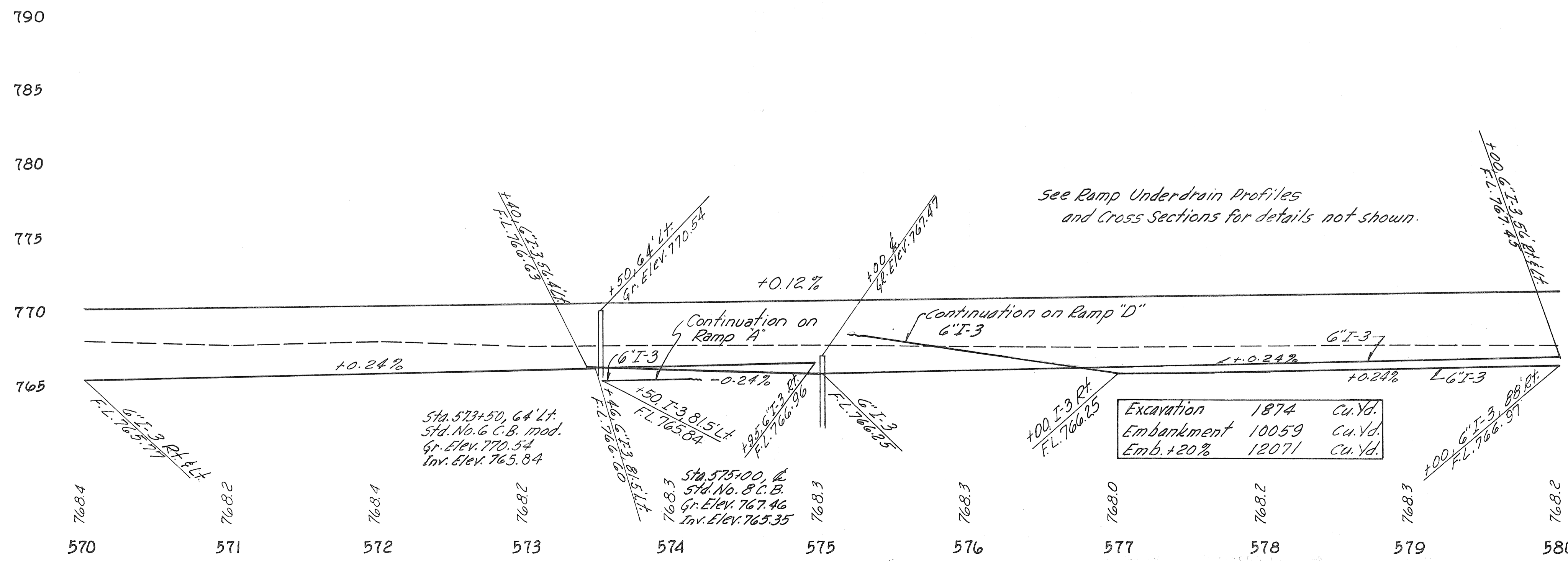
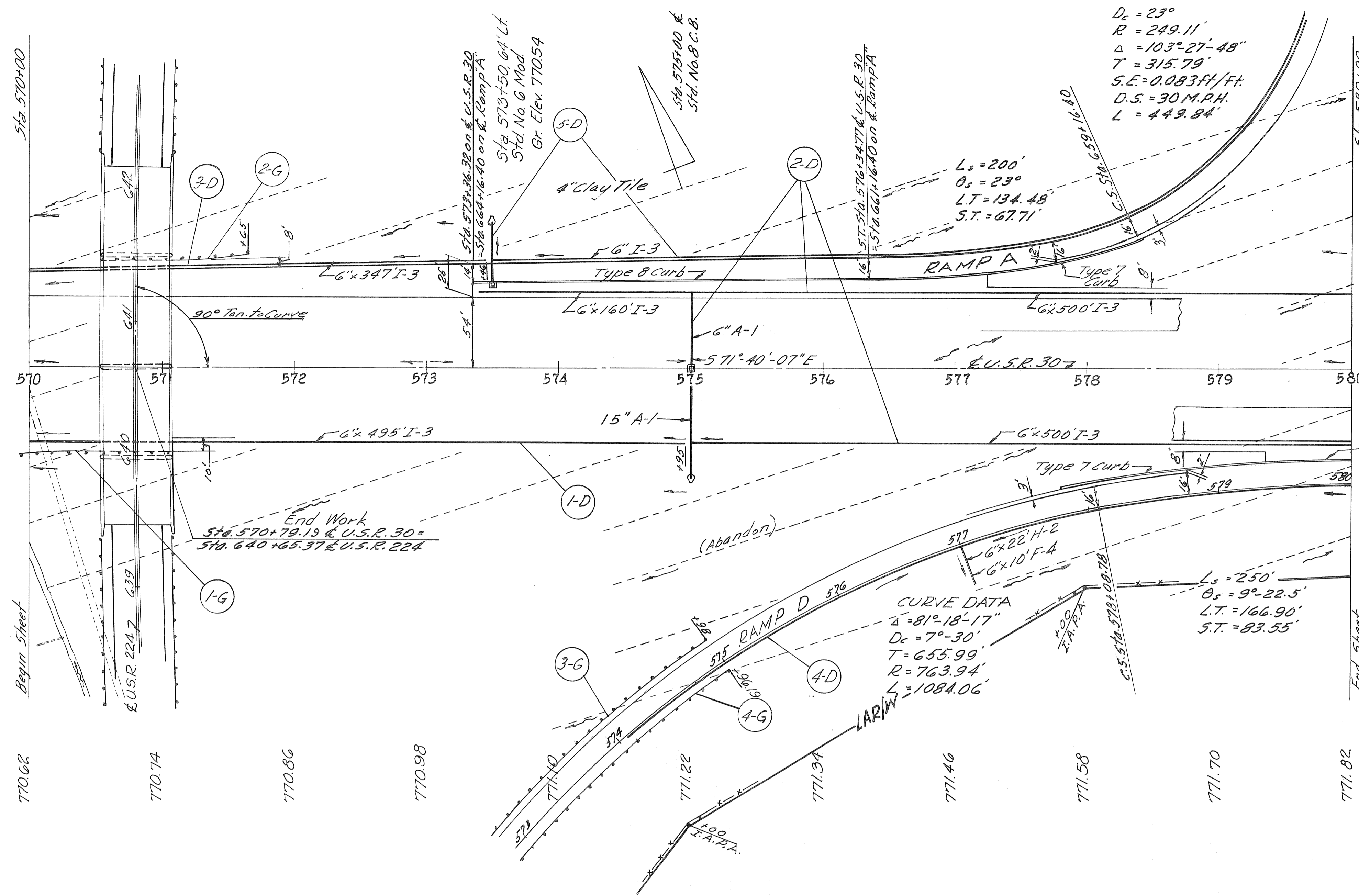
**GUARD RAIL**

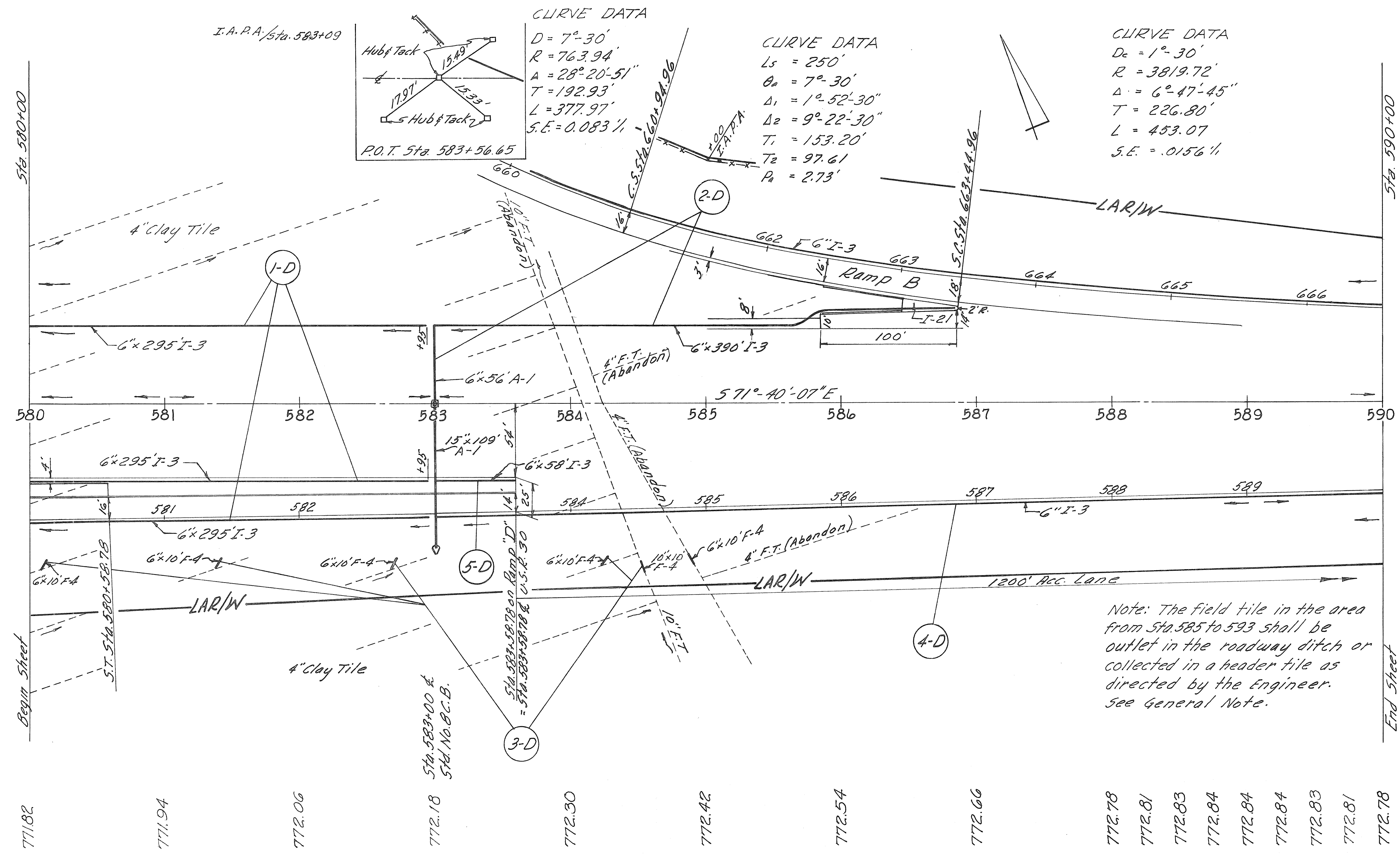
Ref. No.	Station		Side	I-15	
	From	To		Guard Rail Steel Beam Type (Deep) Lin. Ft.	Standard
1-G	569+92.5	571+05	RT		112.5
2-G	570+52.5	571+65	LT		112.5
3-G	573+00	574+98	LT		203.5
4-G	573+00	574+96.19	RT		194.0
Total					622.5

**DRAINAGE**

Ref. No.	Station		Side	I-1 Pipe Lin. Ft.			I-5 Pipe Specials Each				I-8 #B #C Mod. Each	I-10 Rip Rep Sa. Yd.	L-120 Jute Matting Sa. Yd.			
	From	To		A-1	F-4	H-2	I-3	A-1								
	6"	12"		15"	6"	6"	6"	6" x 12"	6" x 6"	6" x 15"				6" x 15"		
1-D	570+00	574+95	RT													
2-D	573+40	580+00	LAR	56		85										
3-D	570+00	573+46	LT													
4-D	565+55	580+00	RT				10	22	1445							
5-D	573+50	574+05	LT	47					695							
Total				56	47	85	10	22	1442	1	2	1	1	1	3.58	250

\* For Modification see Cross Section Sheet No. 144  
 † Refer to Ramp Under-drain Profile and Cross Sections  
 • Ramp 'A'  
 •• Ramp 'D'



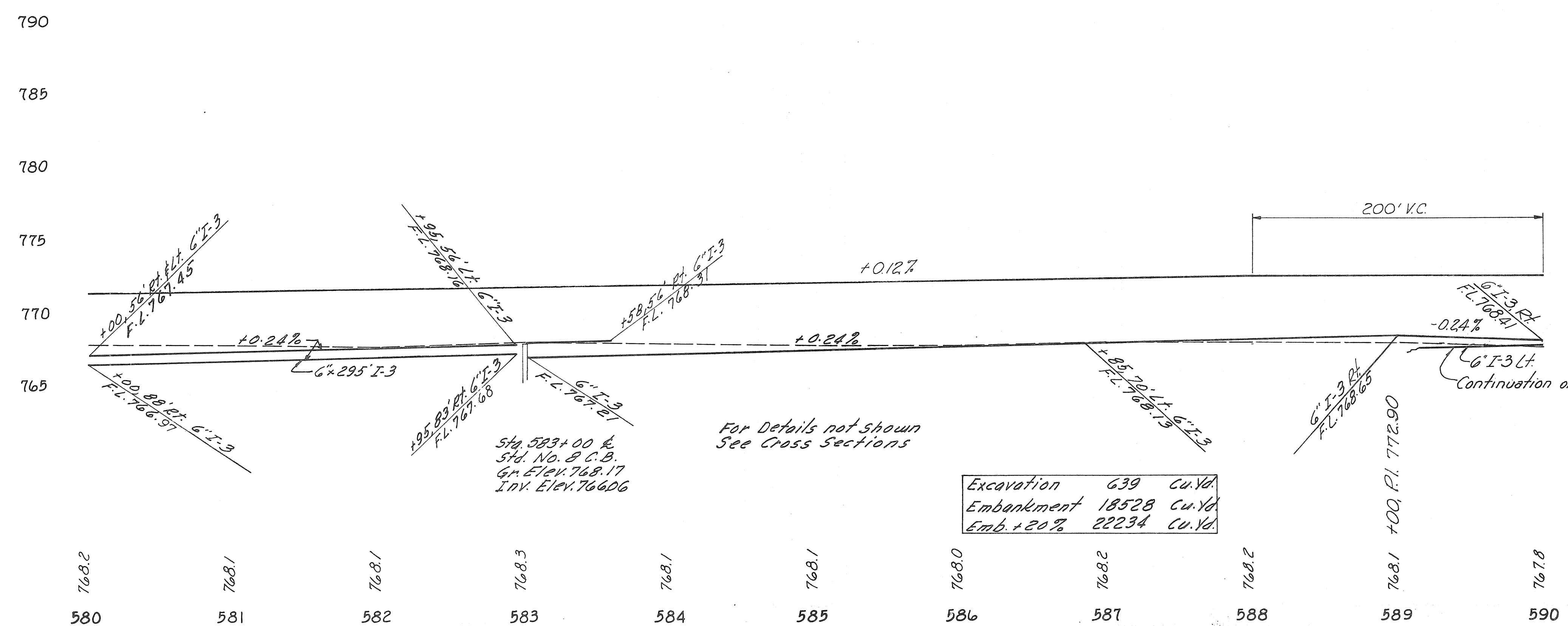


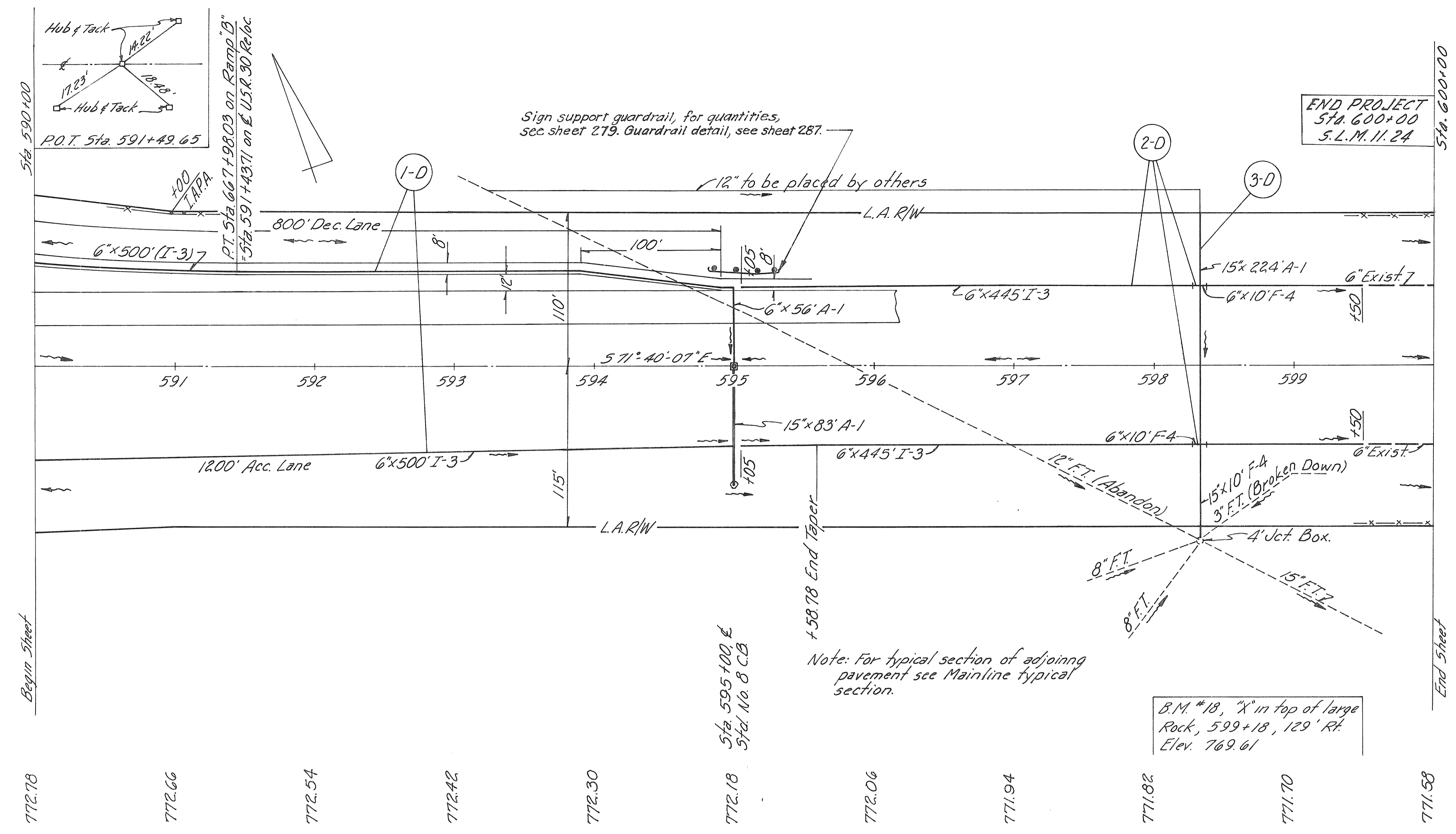
### DRAINAGE

Ref. No.	Station		Side	I-1 Pipe Lin. Ft.			I-5 Pipe Specials, Ea.			I-8	I-10	I-120
				A-1	F-4	I-3	6" Bend	6" x 15" Tee	A-1	Std. No. Catch Basins	Riprap	Jute
1-D	580+00	582+95	RT	6"	15'	6"	10'	6"				
2-D	583+00	586+95	RT	6"	109'				1	2		
3-D	580+00	585+00	RT			50	10					
4-D	583+00	590+00	RT									
5-D	583+00	583+58	RT									
<b>Totals</b>				56	109	50	10	2033	1	2		

Note: The field tile in the area from Sta. 585 to 593 shall be outlet in the roadway ditch or collected in a header tile as directed by the engineer. See General Note.

\* Estimated for outletting 4" F.T.





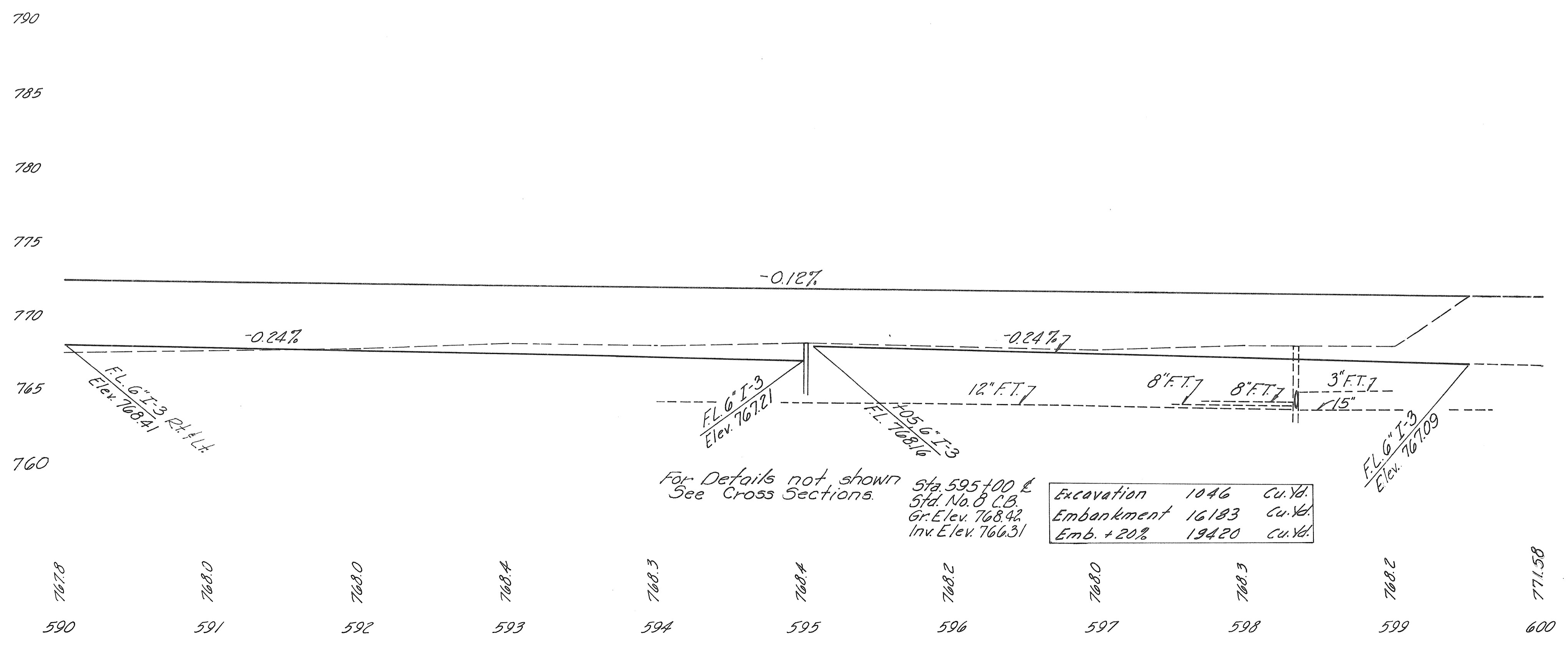
END PROJECT  
Sta 600+00  
S.L.M. 11.24

DRAINAGE

Ref. No.	Station		Side	I-1			I-5		I-8	I-10	L-120		
				Pipe Lin. Ft.			Pipe Specials (Each) A-1		No. 8 Catch Basin Each	Rip Rap 5X	Jute Matting 5X		
				A-1	F-4	F-3	6" x 90" Bend	6" x 15" Tee					
I-D	590+00	595+00	L/R	56	83		1	1	1	2.14	250		
2-D	595+05	599+50	L/R		20	890							
3-D	598+33		L/R	224	10								
Total				56	307	20	10	1890	1	1	1	2.14	250

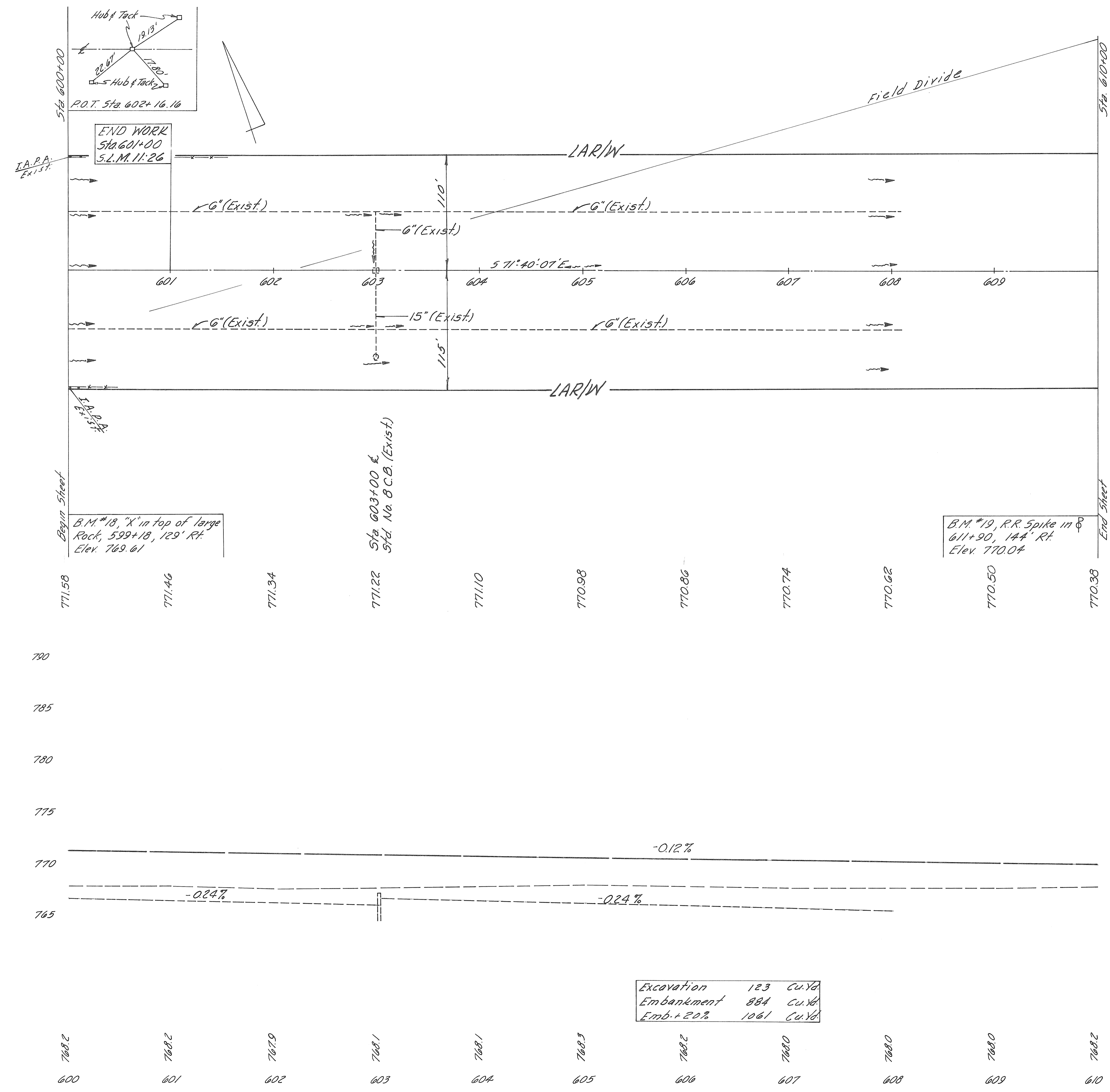
Note: For typical section of adjoining pavement see Mainline typical section.

B.M. #18, "X" in top of large Rock, 599+18, 129' Rt. Elev. 769.61



Excavation	1046	Cu. Yd.
Embankment	16183	Cu. Yd.
Emb. +20%	19420	Cu. Yd.

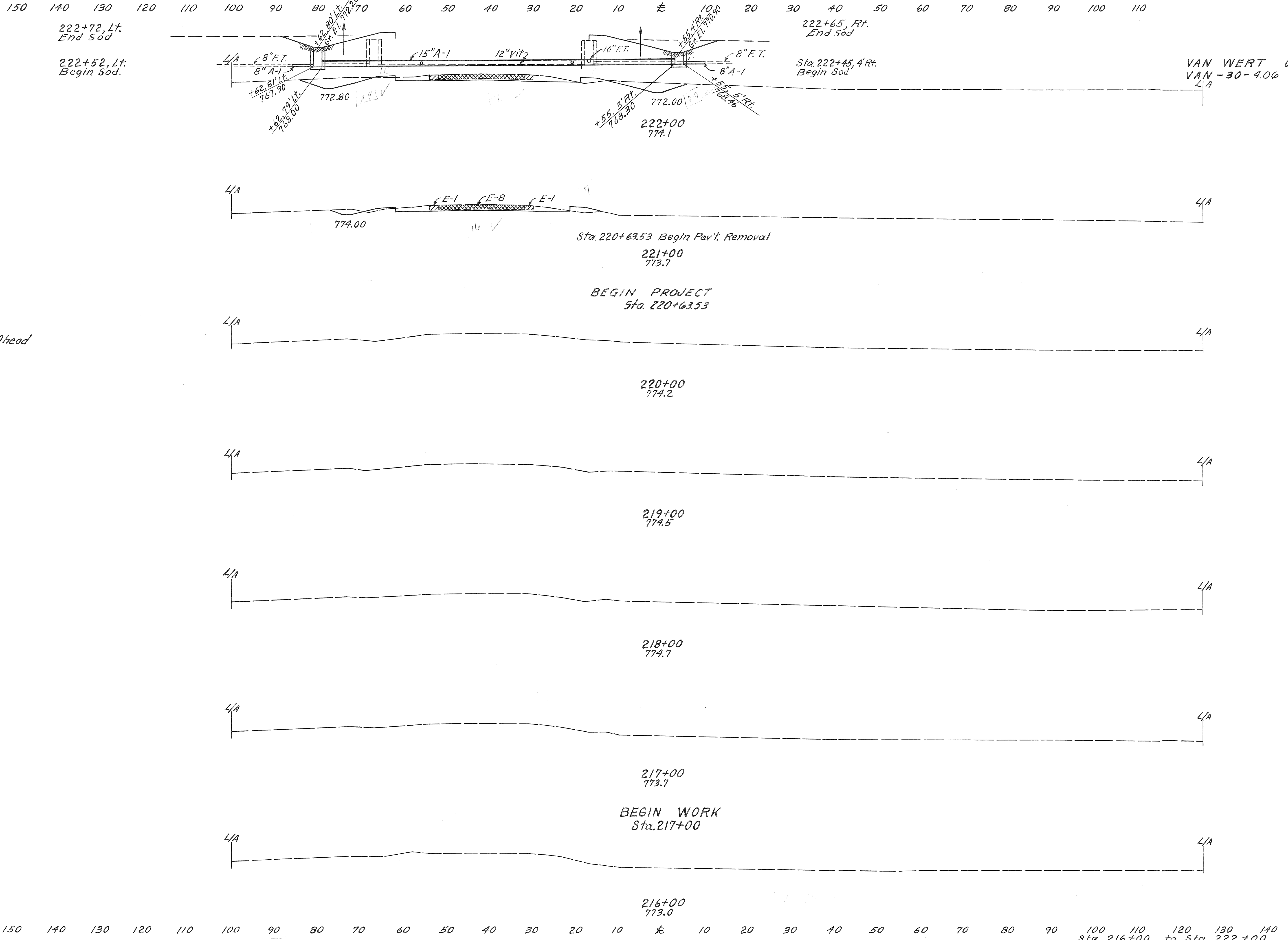




Sta. 600+00 to Sta. 610+00

VAN WERT COUNTY  
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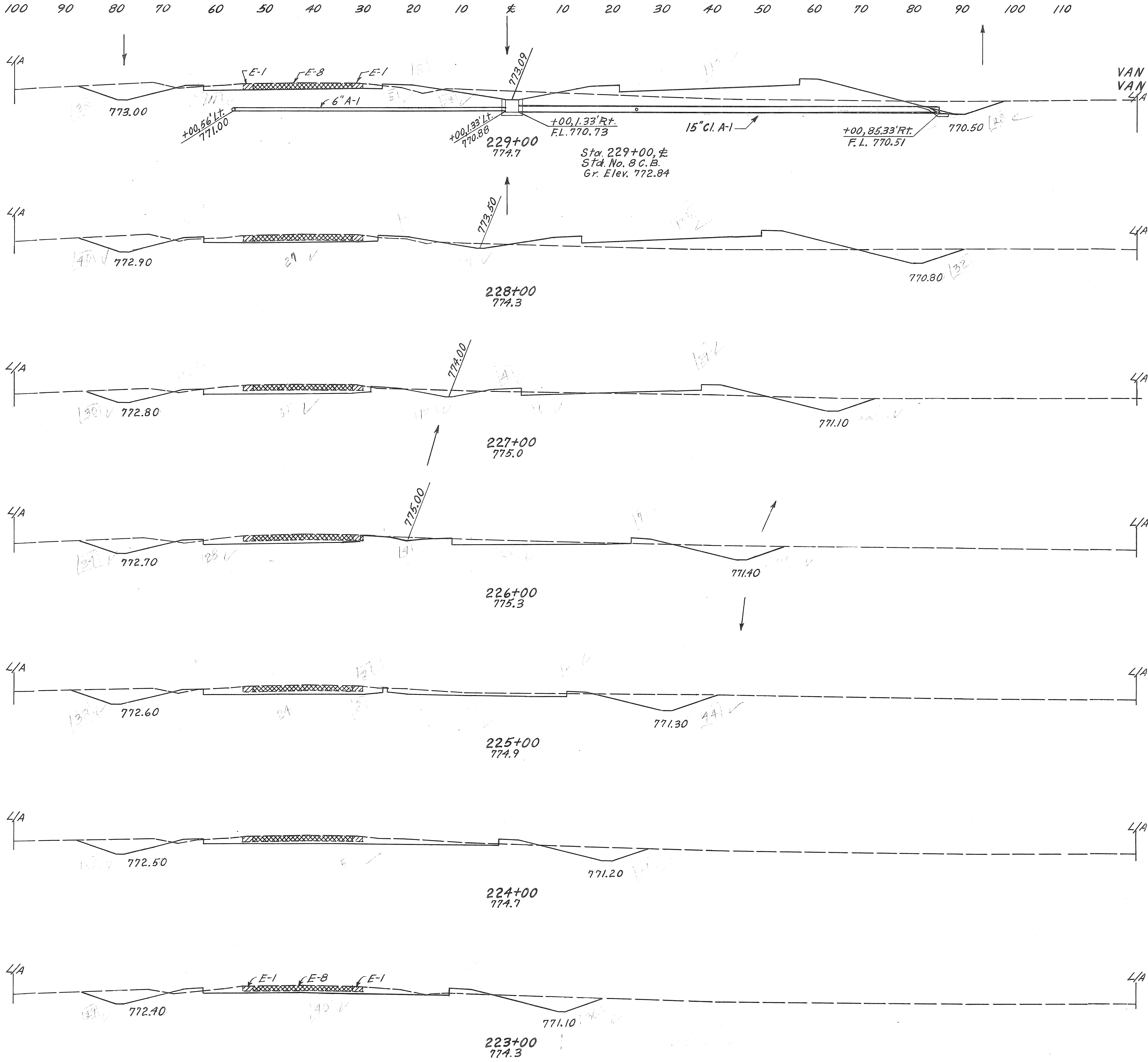
Seeding	Width Sq. Yds.
185	
2056	
185	
2056	
185	Ahead
0	
0	
0	
0	
0	
4,112	



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
80	6		
		189	28
22	9		
		41	17
0	0		

VAN WERT COUNTY  
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Seeding	Width	Sp. Yds
157		
1733		
155		
1733		
157		
1761		
160		
1789		
162		
1822		
166		
1900		
176		
2006		
185		
12,744		



End Area	Cu. Yds.	
	Cut	Fill
105	151	
		391 546
106	144	
		409 330
115	34	
		441 81
123	10	
		470 30
131	6	
		478 19
127	4	
		430 22
105	8	
		343 26
80	6	

Sta. 222+00

Sta. 223+00 to Sta. 229+00

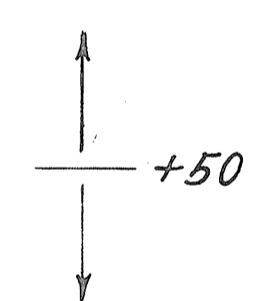
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



VAN WERT COUNTY  
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L/A

Corr. for Res. Dr. Lt. & Rt. & Crossover  
Sta. 230+82

Lawn Section



Corr. Lawn Section

End 8" C-4  
Sta. 230+98, 75' Lt.

End 15" C-4  
Sta. 231+00, 93' Rt.

Type 1 Res. Dr. +82  
Begin "C-4  
Sta. 230+67, 75' Lt.

Type 1 Fld. Dr.  
Sta. 230+82

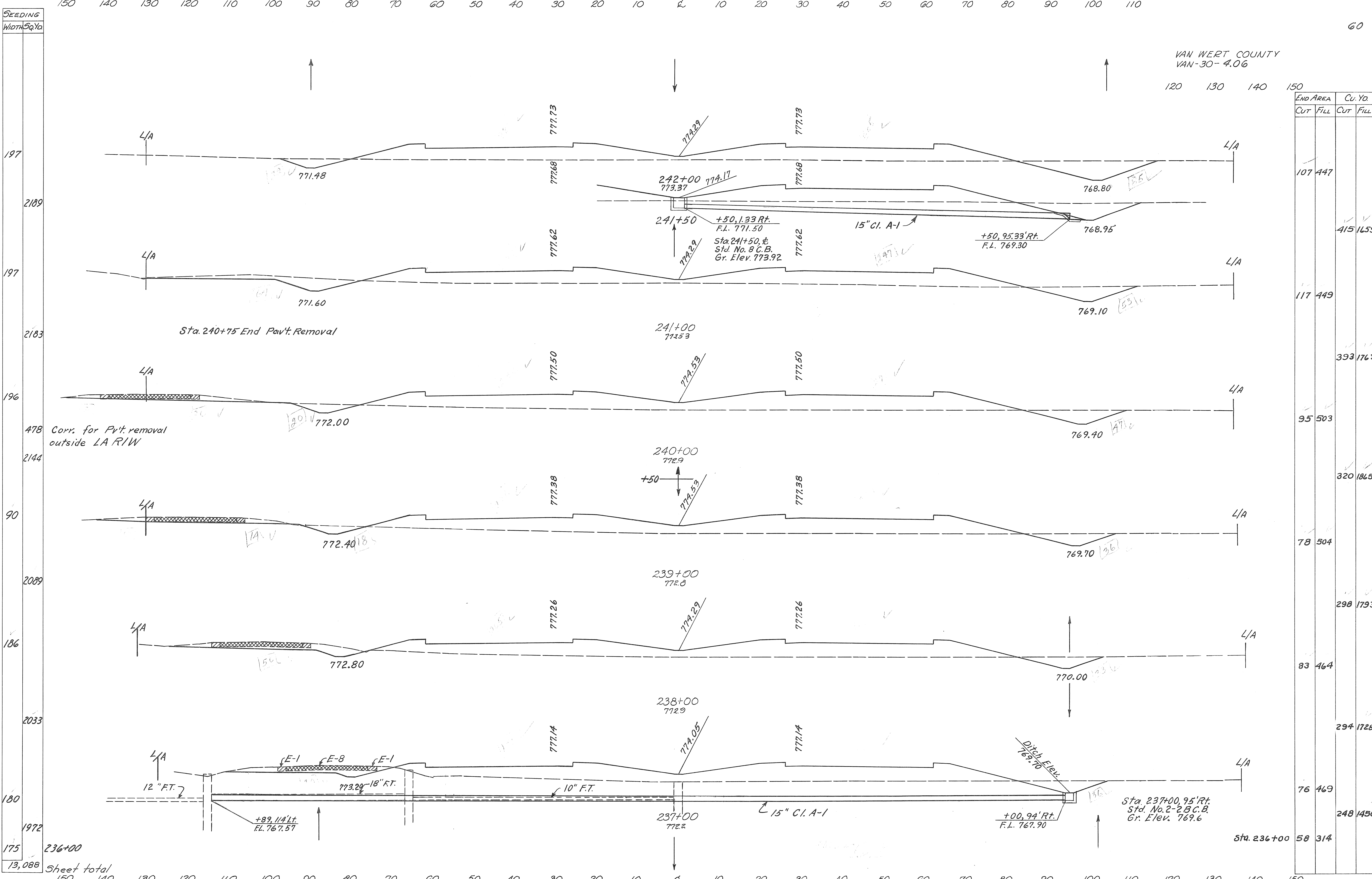
Begin 15" C-4  
Sta. 230+64, 93' Rt.

Sta. 229+00  
From Sta. 230+00 to Sta. 236+00

END AREA	Cu. Yd.	Cu. Yd.
CUT	FILL	CUT/FILL
58	314	
		200 1104
50	282	
		180 924
47	217	
		169 778
44	203	
		180 715
		177 0
53	183	
		0 33
		224 683
		0 16
		0 170
68	186	
		289 672
88	177	
		357 607
105	151	

229+00  
12,332  
Sheet total  
150 140

VAN WERT COUNTY  
VAN-30-4.06

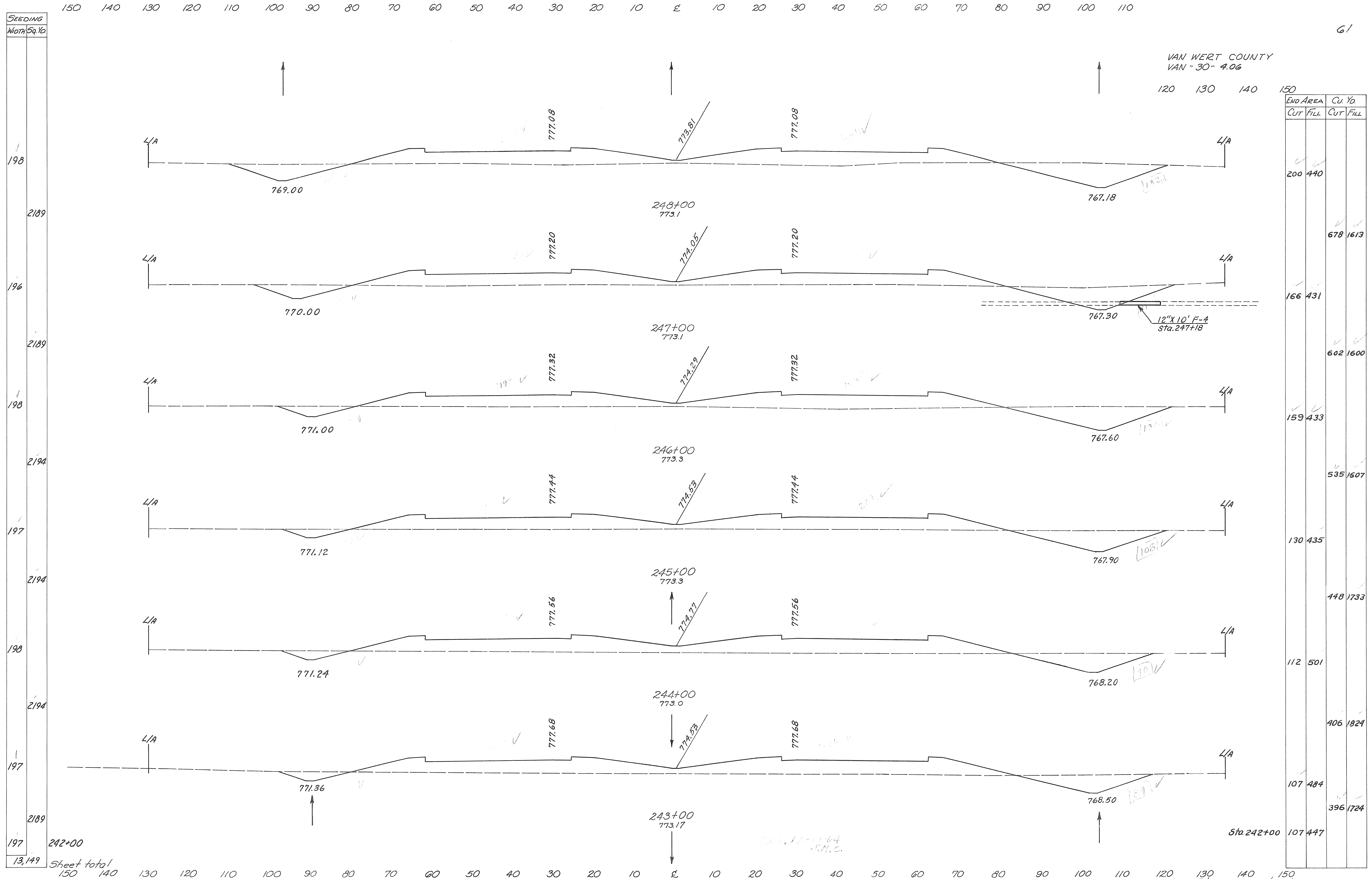


END AREA		CU. YD.	
CUT	FILL	CUT	FILL
107	447		
		415	1659
117	449		
		393	1763
196			
478			
		95	503
2144			
		320	1865
90			
		78	504
2089			
		298	1793
186			
		83	464
2033			
		294	1728
180			
		76	469
1972			
		248	1450
175			
		58	314

13,088 Sheet total  
150 140

From Sta. 237+00 to Sta. 242+00

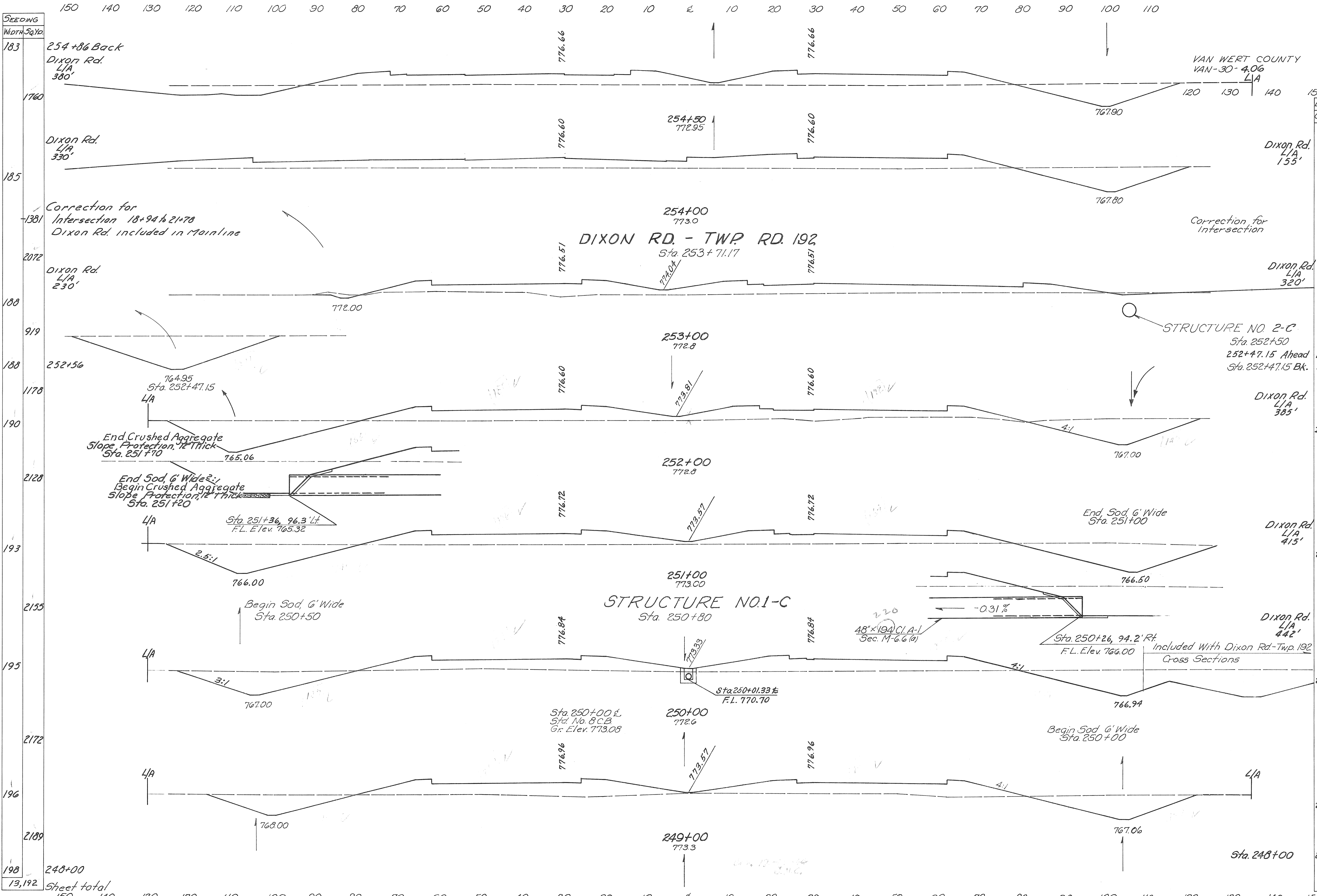
VAN WERT COUNTY  
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END AREA		Cu. Yd.	
Cut	Fill	Cut	Fill
200	440		
166	431	678	1613
159	433	602	1600
130	435	535	1607
112	501	448	1733
107	484	406	1824
107	447	396	1724

Sheet total  
150 140

Sta. 242+00  
From Sta. 243+00 to Sta. 248+00

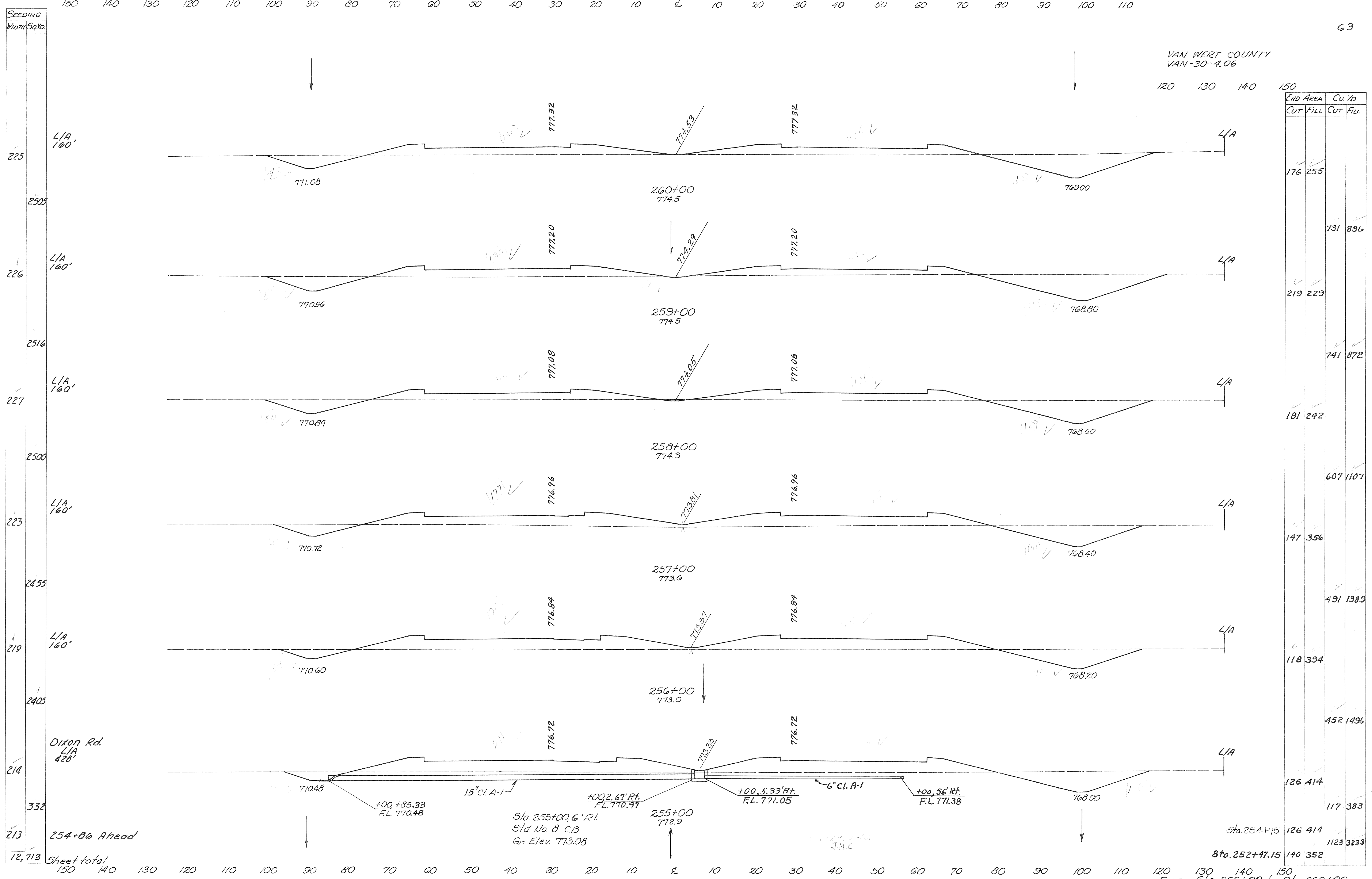


END AREA		Cu. Yd.	
CUT	FILL	CUT	FILL
		0	572
140	352	351	352
		574	615
306	352		
		1107	1281
292	340		
		993	1337
244	382		
		865	1456
223	404		
		783	1563
200	440		

13,192 Sheet total

From Sta. 249+00 to Sta. 254+00

VAN WERT COUNTY  
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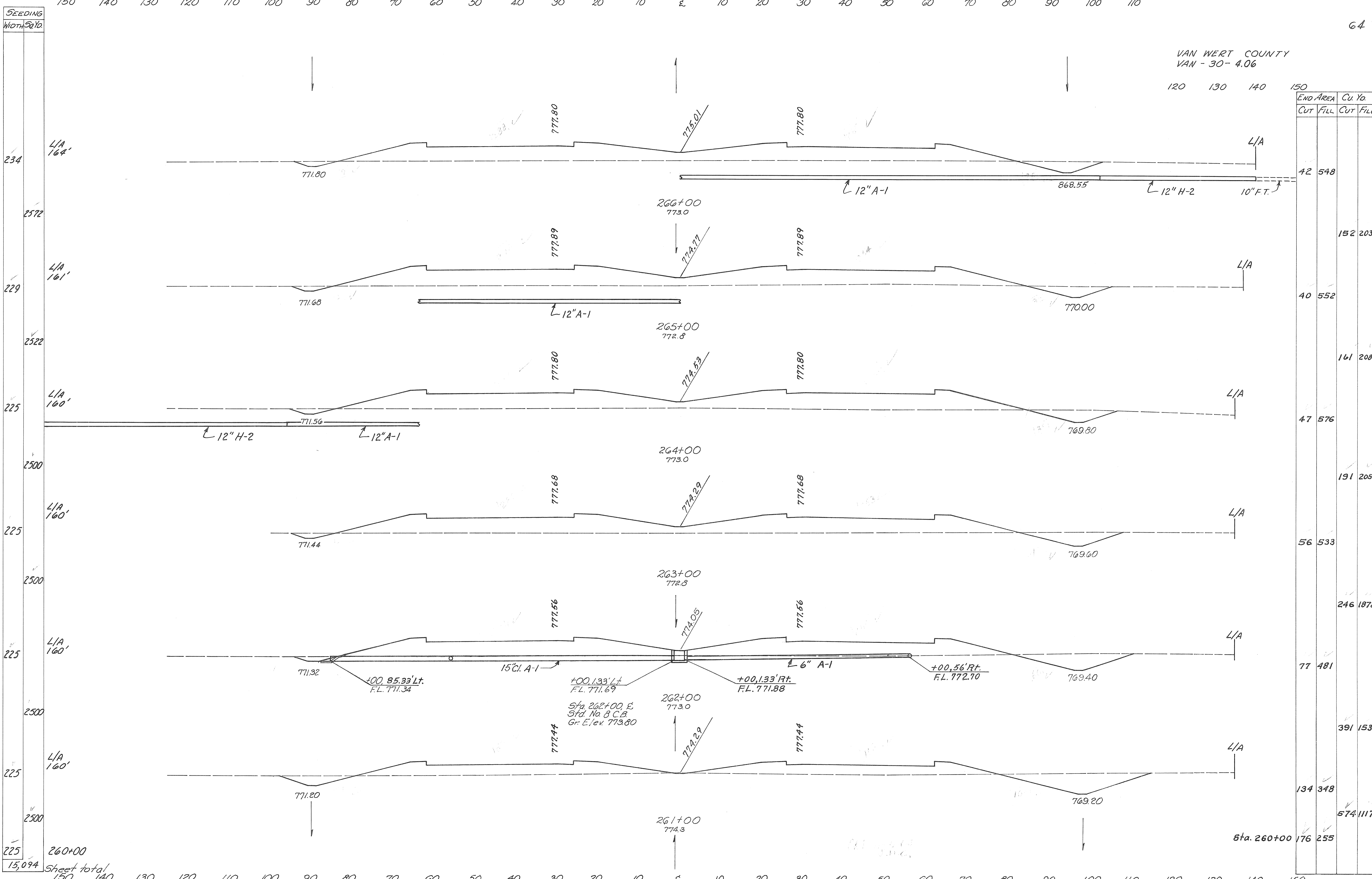
END AREA		CU. YD.	
CUT	FILL	CUT	FILL
176	255		
		731	896
219	229		
		741	872
181	242		
		607	1107
147	356		
		491	1383
118	394		
		452	1496
126	414		
		117	383
126	414		
		1123	3233
140	352		

Sheet total  
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Sta. 254+75  
Sta. 252+47.15  
From Sta. 255+00 to Sta. 260+00



VAN WERT COUNTY  
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END AREA		Cu. Yd.	
CUT	FILL	CUT	FILL
42	548		
40	552	152	2037
47	576	161	2089
56	533	191	2054
77	481	246	1878
134	348	391	1535
176	255	574	1117

SEEDING WIDTH 20' 10"

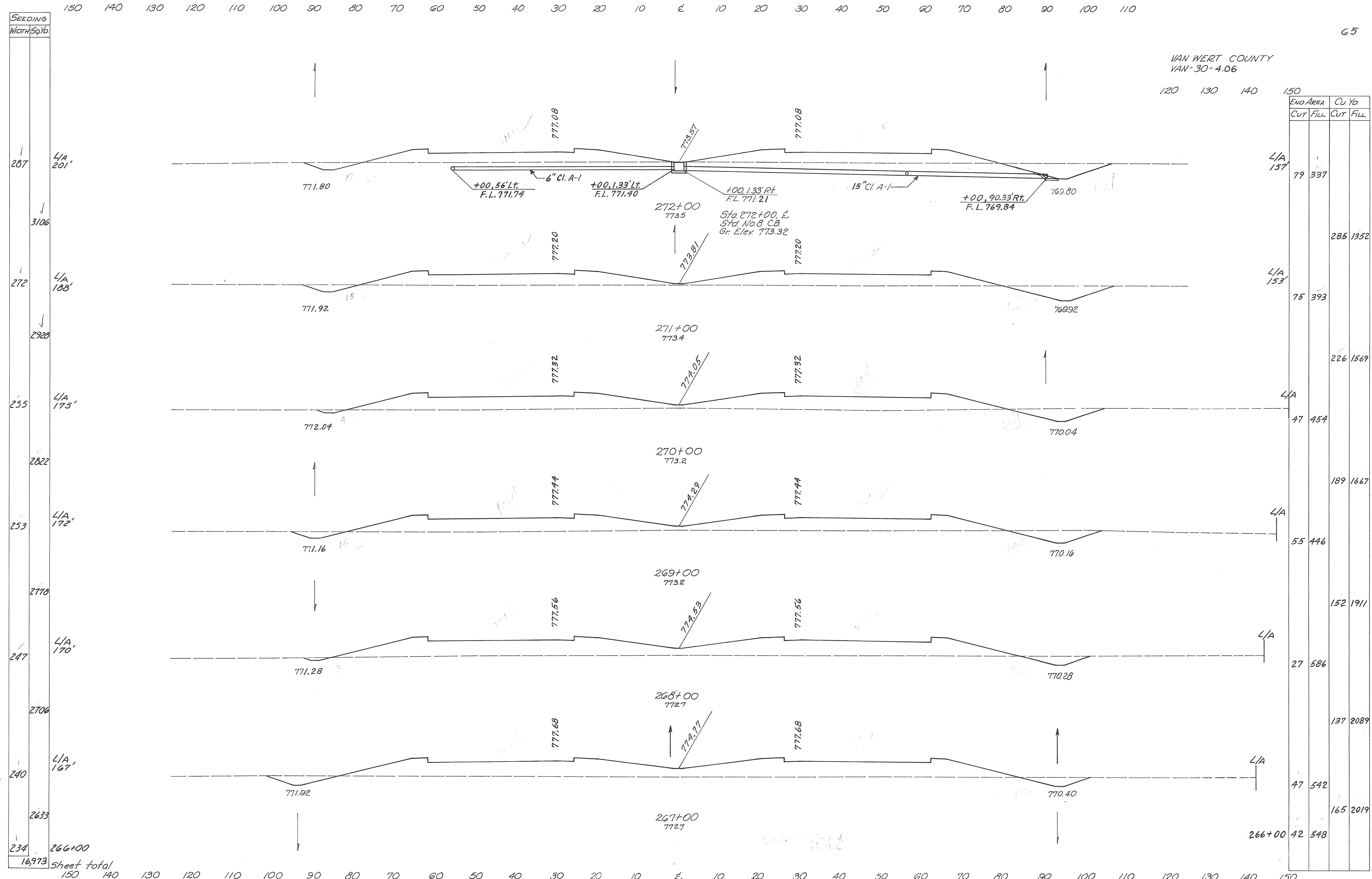
260+00

13,094

Sheet total

From Sta. 261+00 to Sta. 266+00

VAN WERT COUNTY  
VAN-30-4.06



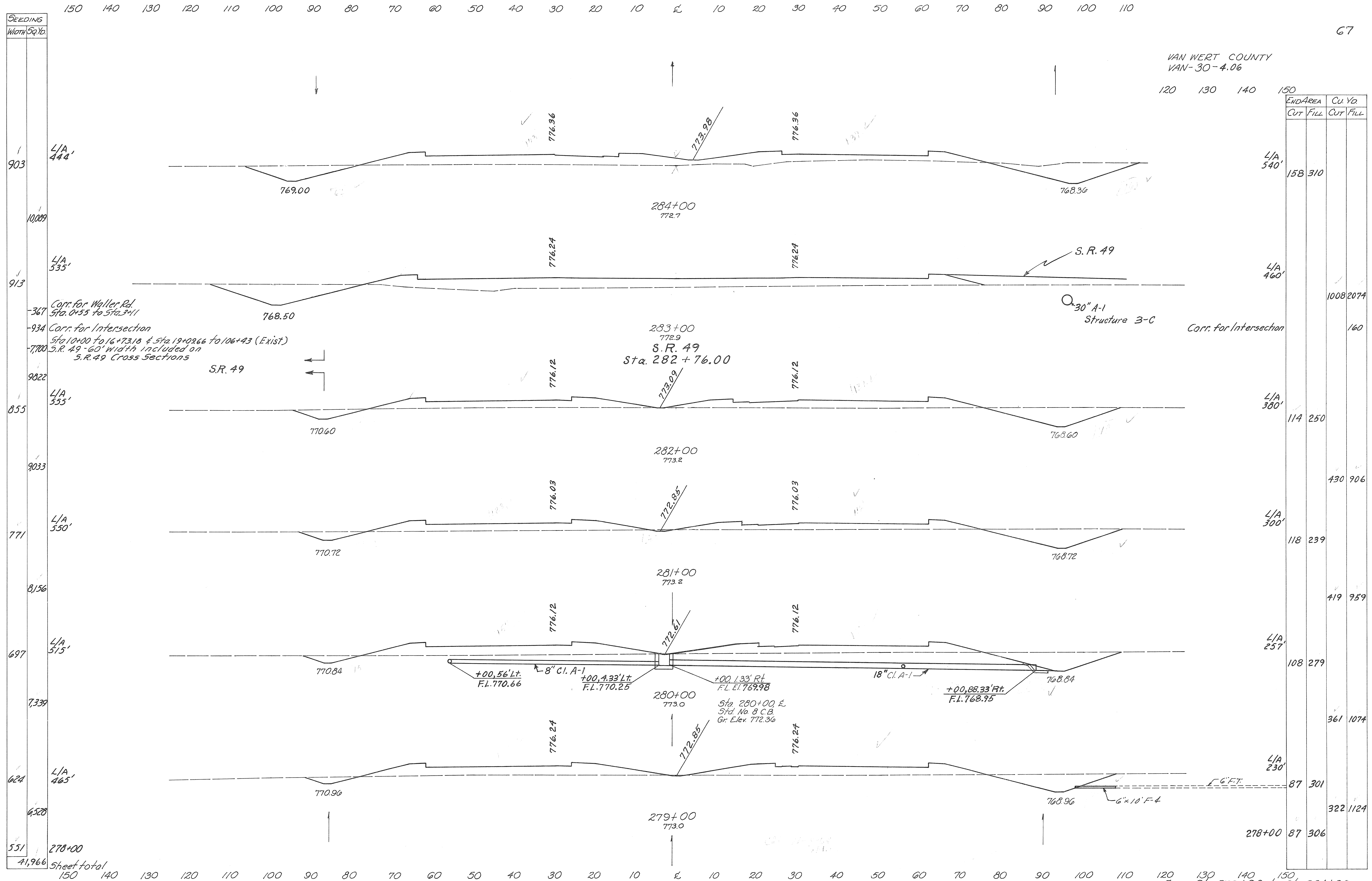
SEEDING	WIDTH	SQ. YD.
287	L/A	201'
272	L/A	188'
255	L/A	175'
253	L/A	172'
247	L/A	170'
240	L/A	167'
234	L/A	167'
16973	Sheet total	

END AREA	Cu. Yd.	
	CUT	FILL
L/A 157	79	337
L/A 153	75	393
L/A	47	454
L/A	55	446
L/A	27	586
L/A	47	542
L/A	42	548
	285	1352
	226	1569
	189	1667
	152	1911
	137	2089
	165	2019

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 E 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
From Sta. 267+00 to Sta. 272+00



VAN WERT COUNTY  
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SEEDING	Width	Sq. Yd.
903	L/A 444'	
10,089	L/A 535'	
913	L/A 555'	
855	L/A 550'	
9033	L/A 515'	
771	L/A 515'	
8,156	L/A 465'	
697	L/A 465'	
7,339	L/A 465'	
624	L/A 465'	
4,528	L/A 465'	
551	L/A 465'	

END AREA	Cu. Yd.	
	Cut	Fill
L/A 540'	158	310
L/A 460'	1008	2074
L/A 380'	114	250
L/A 300'	430	906
L/A 300'	118	239
L/A 257'	108	279
L/A 230'	87	301
278+00	87	306

278+00  
4,966 Sheet total

From Sta. 279+00 to Sta. 284+00

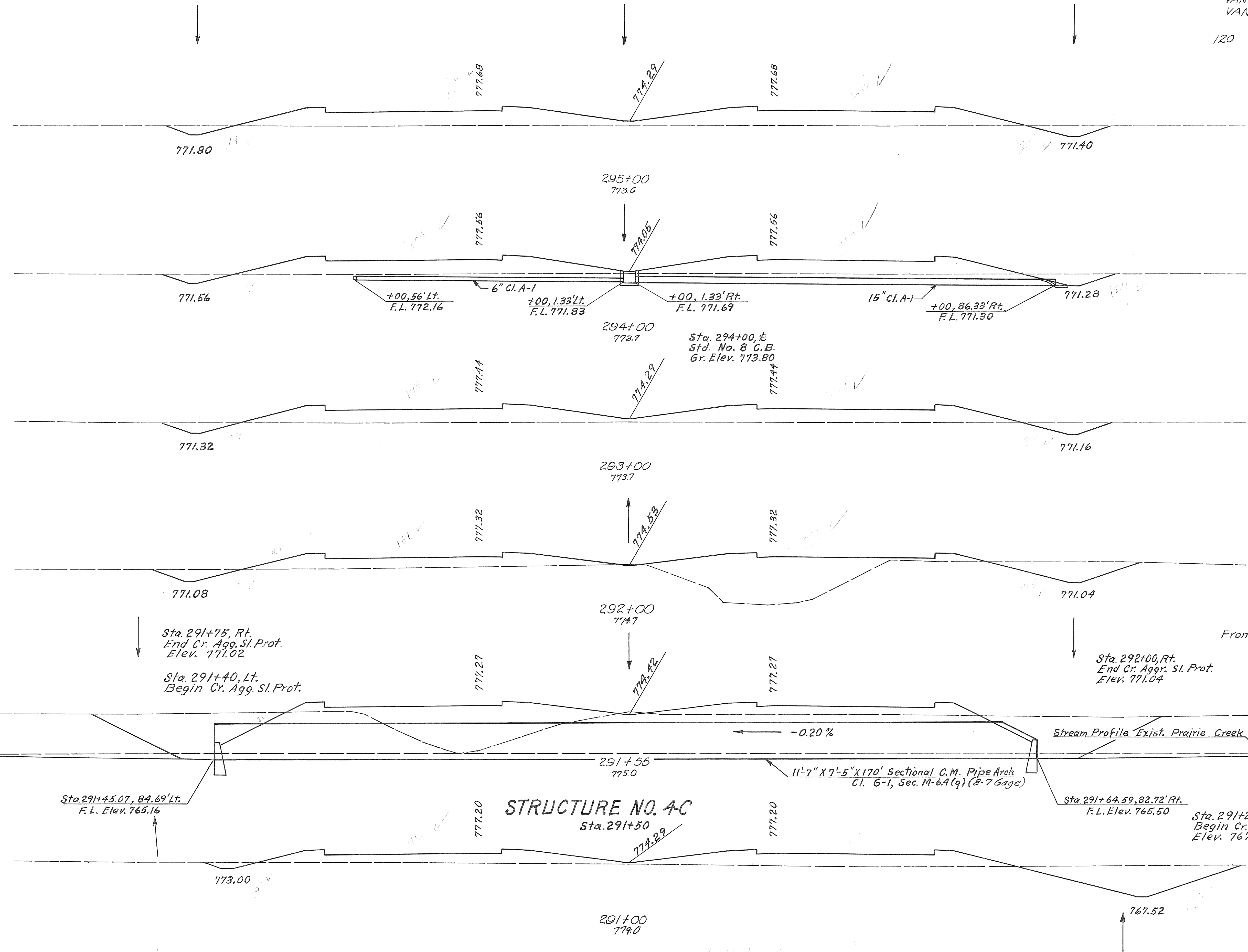


VAN WERT COUNTY  
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SEEDING
WIDTH SQ. YD.
256
2989
282
3261
305
3617
346
4117
301'
143'
395
310'
146'
4689
449
18,673

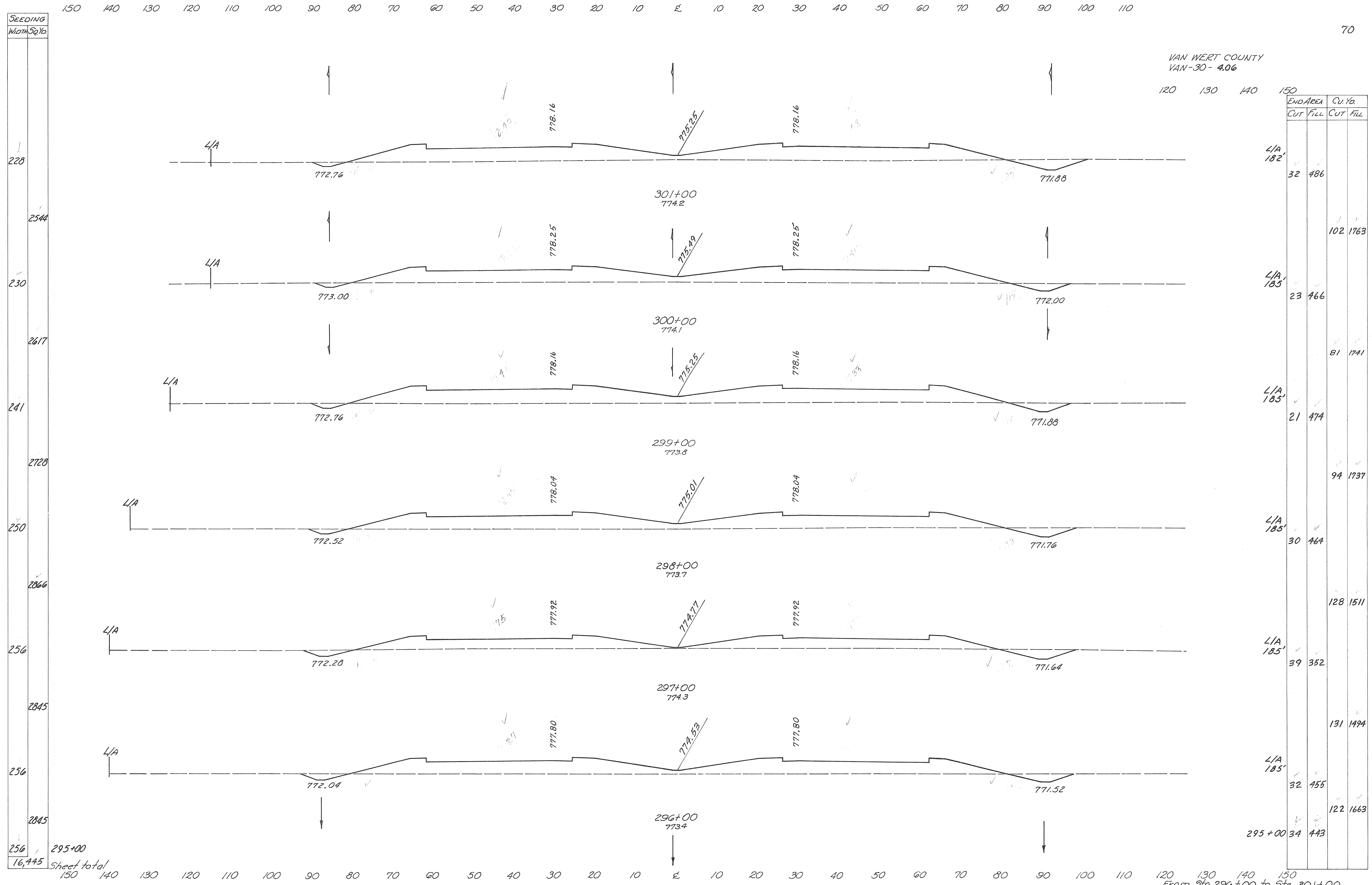
120 130 140 150

END AREA		CU. YD.	
CUT	FILL	CUT	FILL
34	443	143	1574
43	407	163	1494
45	400	265	1643
98	487	478	1493
160	319	613	1183
171	320		



Sheet total 150 140 130 120 110 100 90 80 70 60 50' 40 30 20 10 E 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 from Sta. 291+00 to Sta. 295+00

VAN WERT COUNTY  
VAN-30-4.06

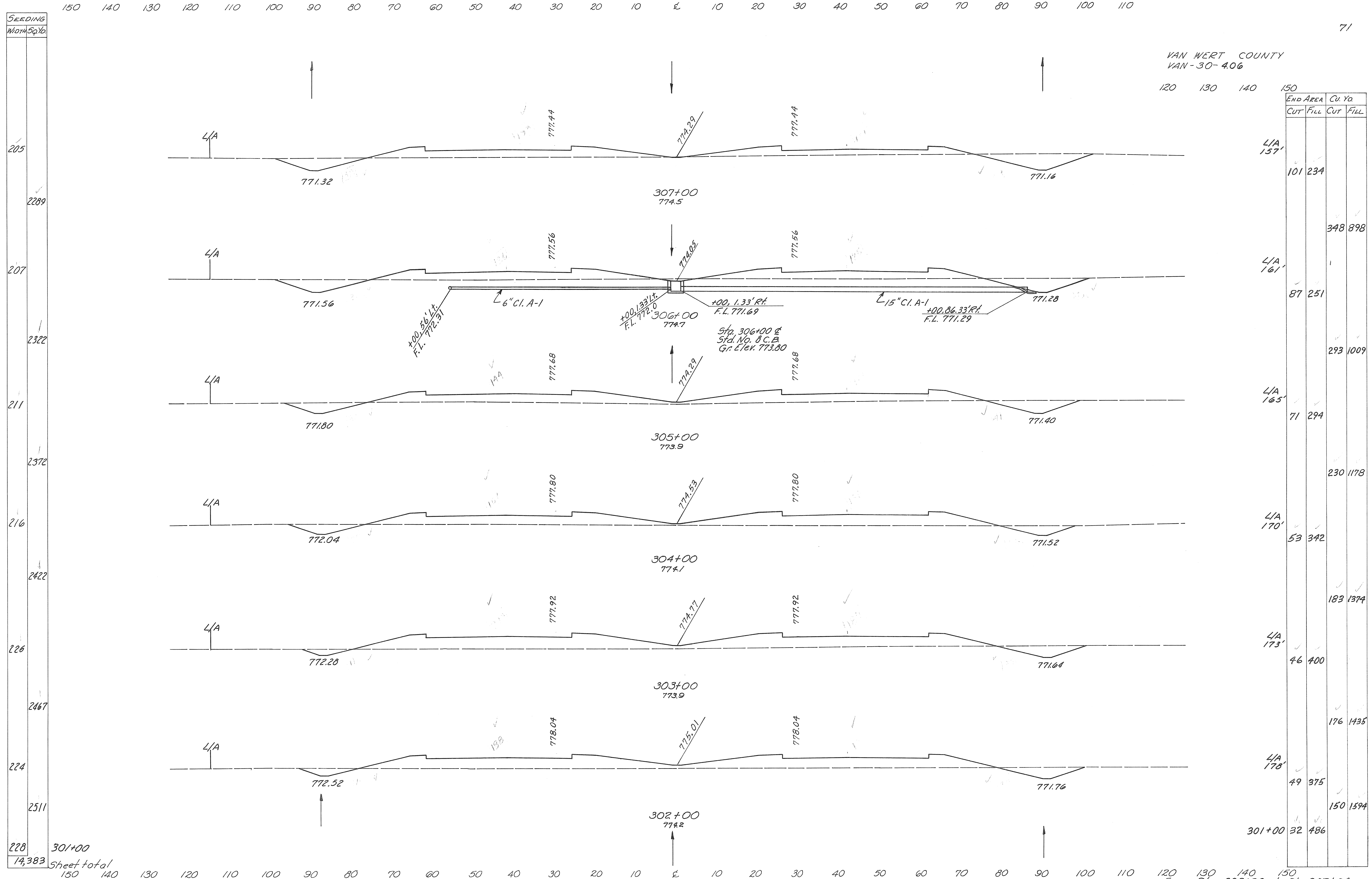


L/A	END AREA		CU. YD.	
	CUT	FILL	CUT	FILL
L/A 182'	32	486		
L/A 185'	23	466	102	1763
L/A 185'	21	474	81	1741
L/A 185'	30	464	94	1737
L/A 185'	39	352	128	1511
L/A 185'	32	455	131	1494
L/A 185'	34	443	122	1663

295+00  
16,445  
Sheet total

From Sta. 296+00 to Sta. 301+00

VAN WERT COUNTY  
VAN-30-406



SEEDING	Width Sq. Yd.
205	2289
207	2322
211	2372
216	2422
226	2467
224	2511
228	14,383

301+00  
Sheet total  
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

L/A	END AREA		Cu. Yd.	
	CUT	FILL	CUT	FILL
L/A 157'	101	234		
L/A 161'	87	251		
L/A 165'	71	294		
L/A 170'	53	342		
L/A 173'	46	400		
L/A 178'	49	375		
301+00	32	486		
			348	898
			293	1009
			230	1178
			183	1374
			176	1435
			150	1594

From Sta. 302+00 to Sta. 307+00



VAN WERT COUNTY  
VAN-30-4.06

120 130 140 150

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 £ 10 20 30 40 50 60 70 80 90 100 110

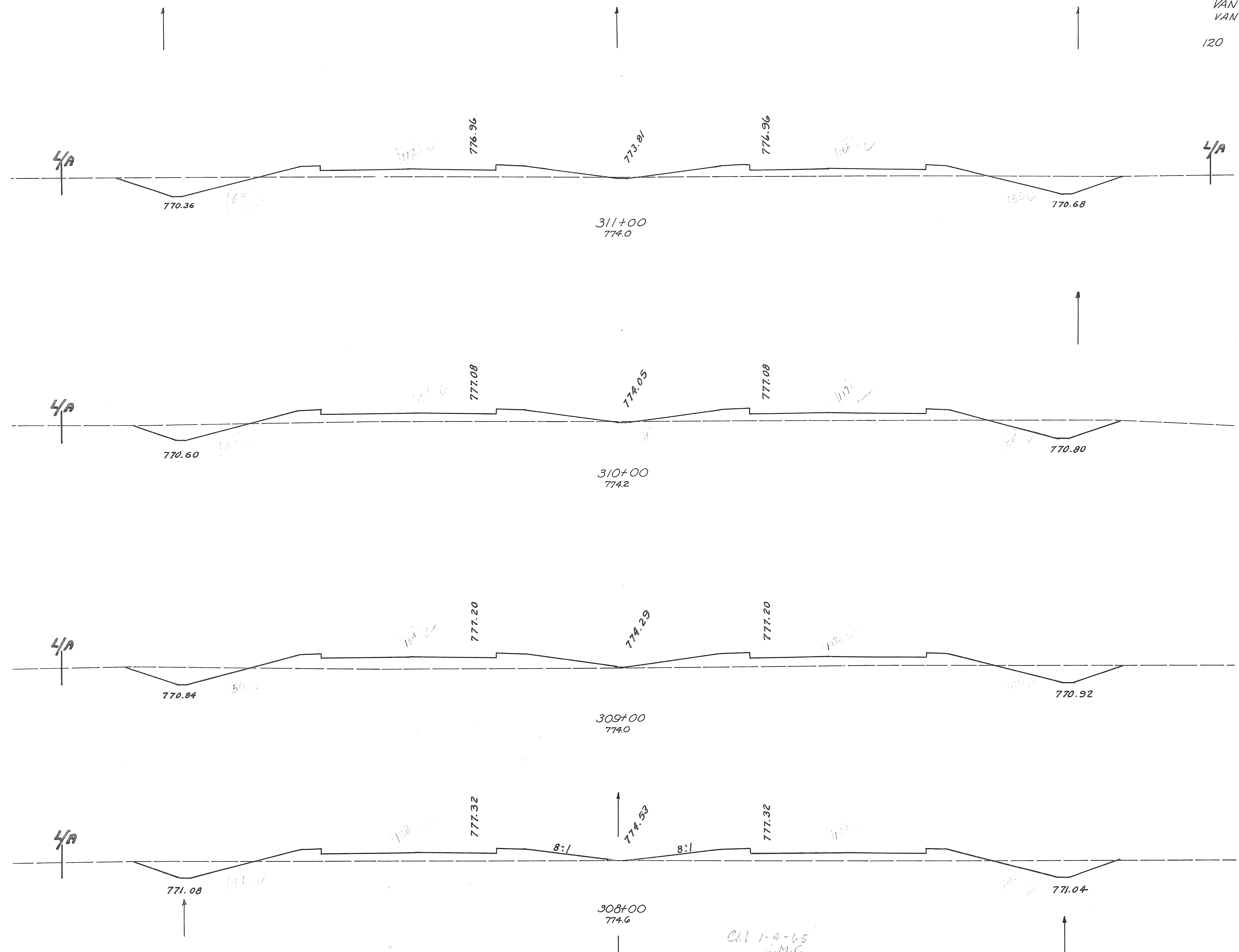
SEEDING
Width 50% 167
1994
192
2156
196
2189
198
2239
205
8,578

R/W  
285'

R/W  
430'

307+00

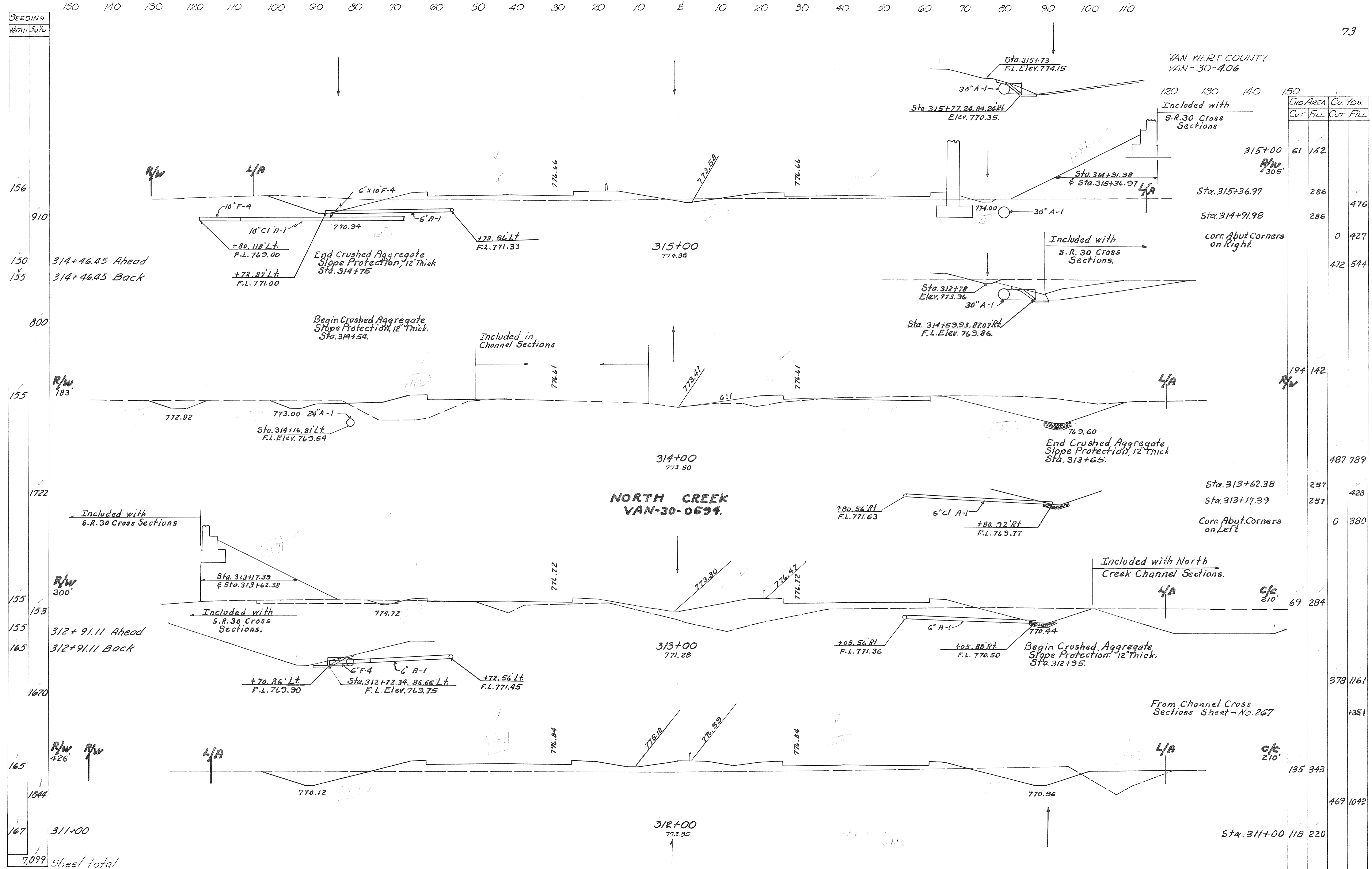
Sheet total  
150 140



END AREA		Cu. Yd.	
CUT	FILL	CUT	FILL
118	220		
99	240	402	852
102	306	372	1011
92	257	359	1043
101	234	357	909

CH 1-4-65  
L.M.C.

From Sta. 308+00 to Sta. 311+00

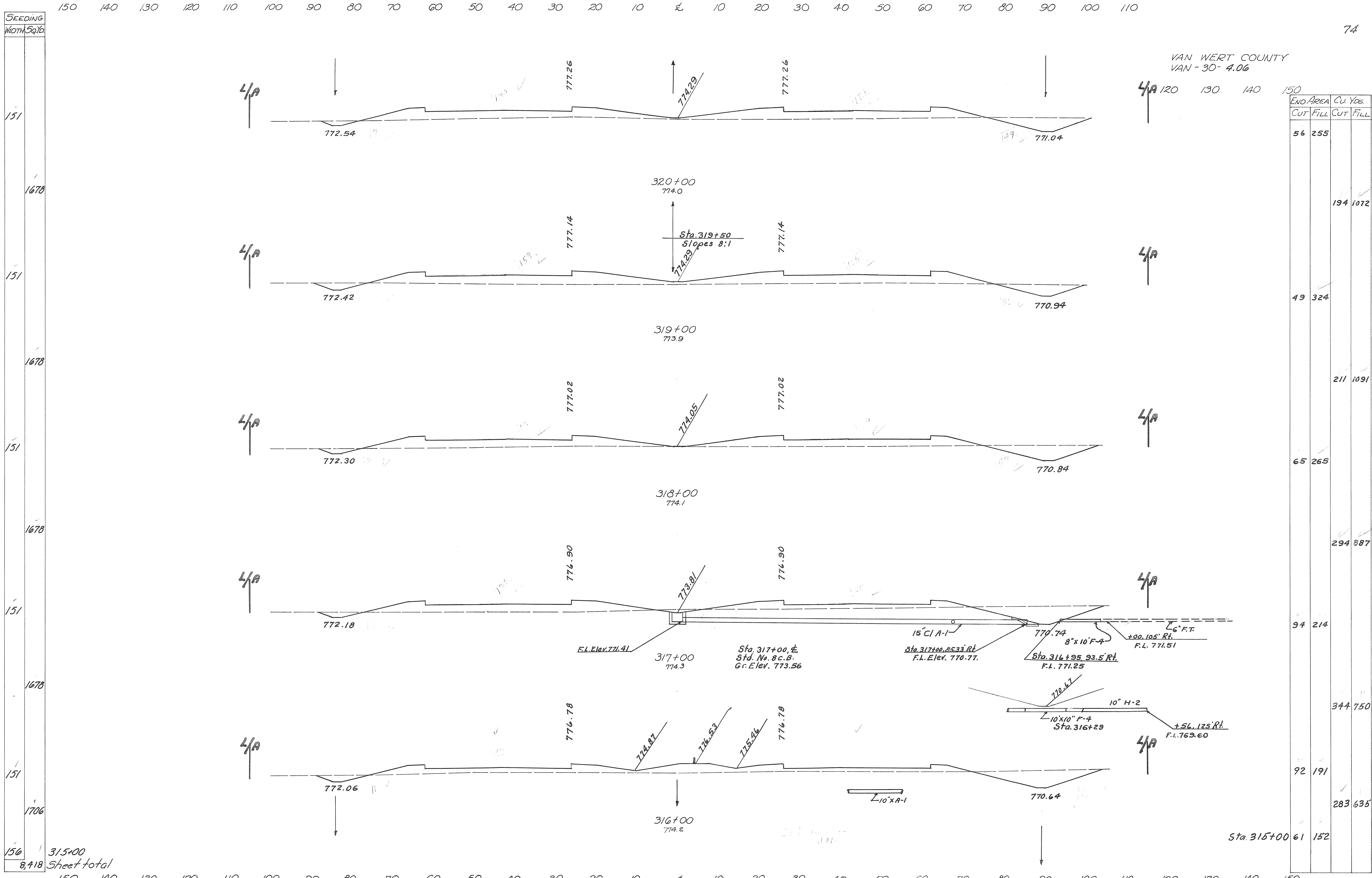


END AREA		Cu. Yds.	
CUT	FILL	CUT	FILL
61	152		
286			476
286			0
		472	544
194	142		
		487	789
257			428
257			0
		69	284
			378
			+351
135	343		
		469	1043
118	220		

Sheet total  
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 E 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

From Sta. 312+00 to Sta. 315+00

VAN WERT COUNTY  
VAN - 30 - 4.06



SEEDING	WIDTH	Sq. Yd.
151		
1678		
151		
1678		
151		
1678		
151		
1678		
151		
1706		
156		

315+00  
8,418 Sheet total

END AREA	Cu. Yds.	
	CUT	FILL
56	255	
194	1072	
49	324	
211	1091	
65	265	
294	887	
94	214	
344	750	
92	191	
283	635	
61	152	

From Sta. 316+00 to Sta. 320+00

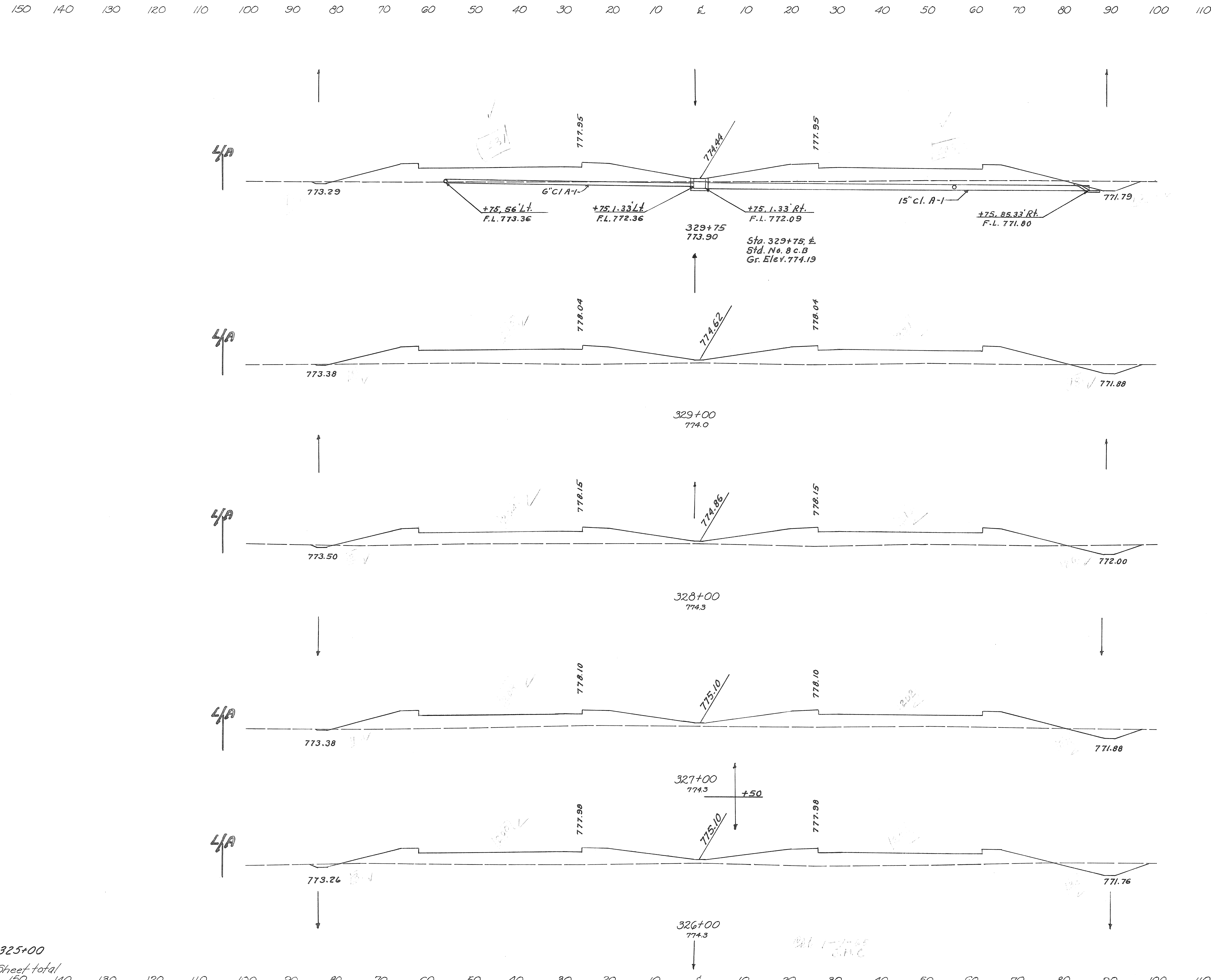


VAN WERT COUNTY  
VAN - 30 - 4.06

120 130 140 150

SEEDING  
Width Sq. ft.

151  
1678  
151  
1678  
151  
1678  
151  
1678  
151  
6,712



END AREA		Cu. Yds.	
CUT	FILL	CUT	FILL
23	434		
		59	1226
19	449		
		76	1609
22	420		
		83	1537
23	410		
		107	1506
35	403		
		128	1419
34	363		

325+00  
Sheet total  
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

From Sta. 326+00 to Sta. 329+75





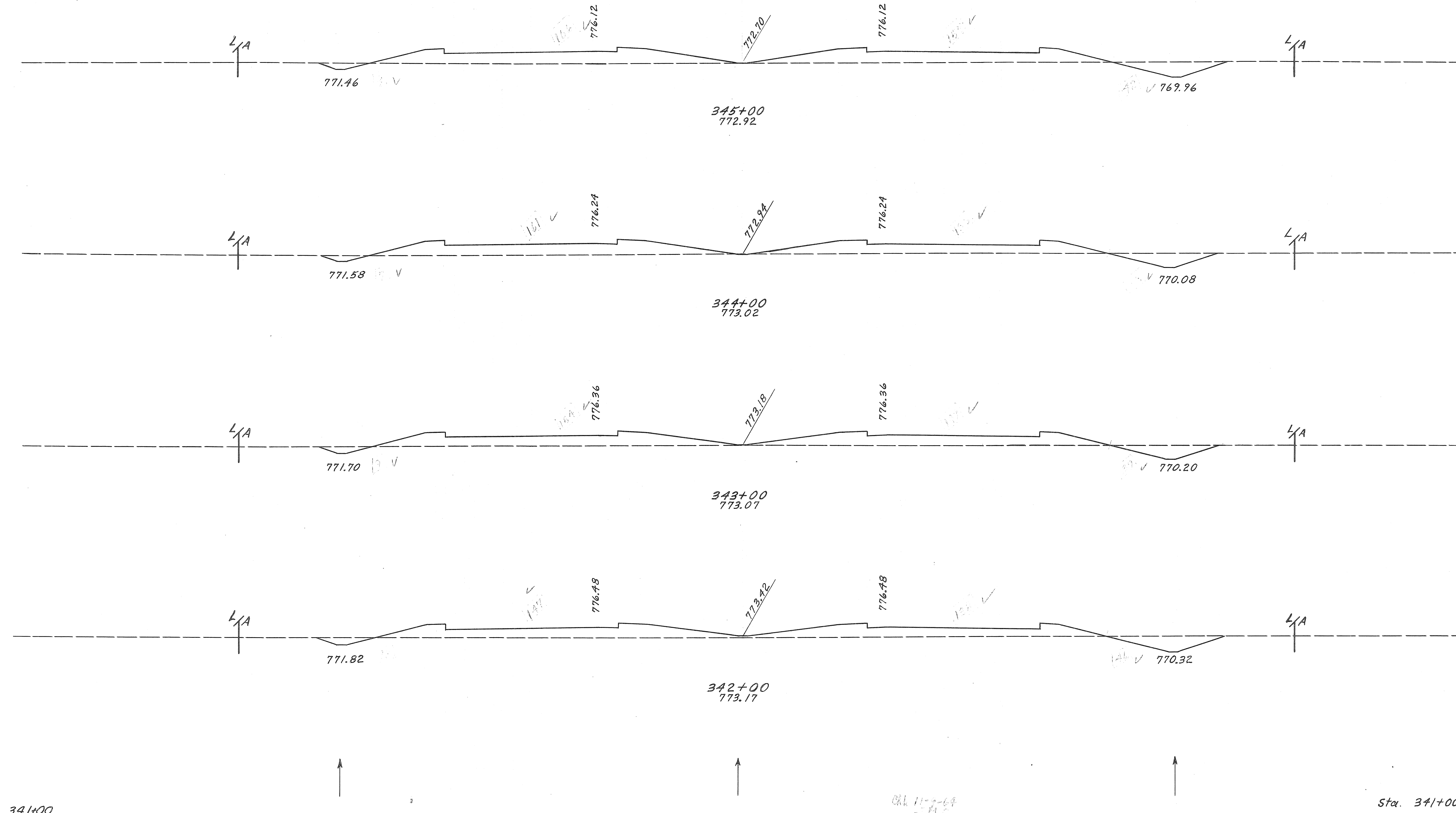




150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

SEEDING	END WIDTH	SQ. YDS.
✓	151	✓
✓	1678	✓
✓	151	✓
✓	1678	✓
✓	151	✓
✓	1678	✓
✓	151	✓
✓	1678	✓
✓	151	✓
✓	1678	✓
✓	151	✓
✓	6,712	✓

END AREA		VOLUME	
CUT	FILL	CUT	FILL
51	323	178	1148
45	297	172	1111
48	303	196	1089
58	285	206	1050
53	282		



341+00  
Sheet Total

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
Sta. 342+00 to Sta. 345+00

Cal. 11-2-64  
C.H.C.

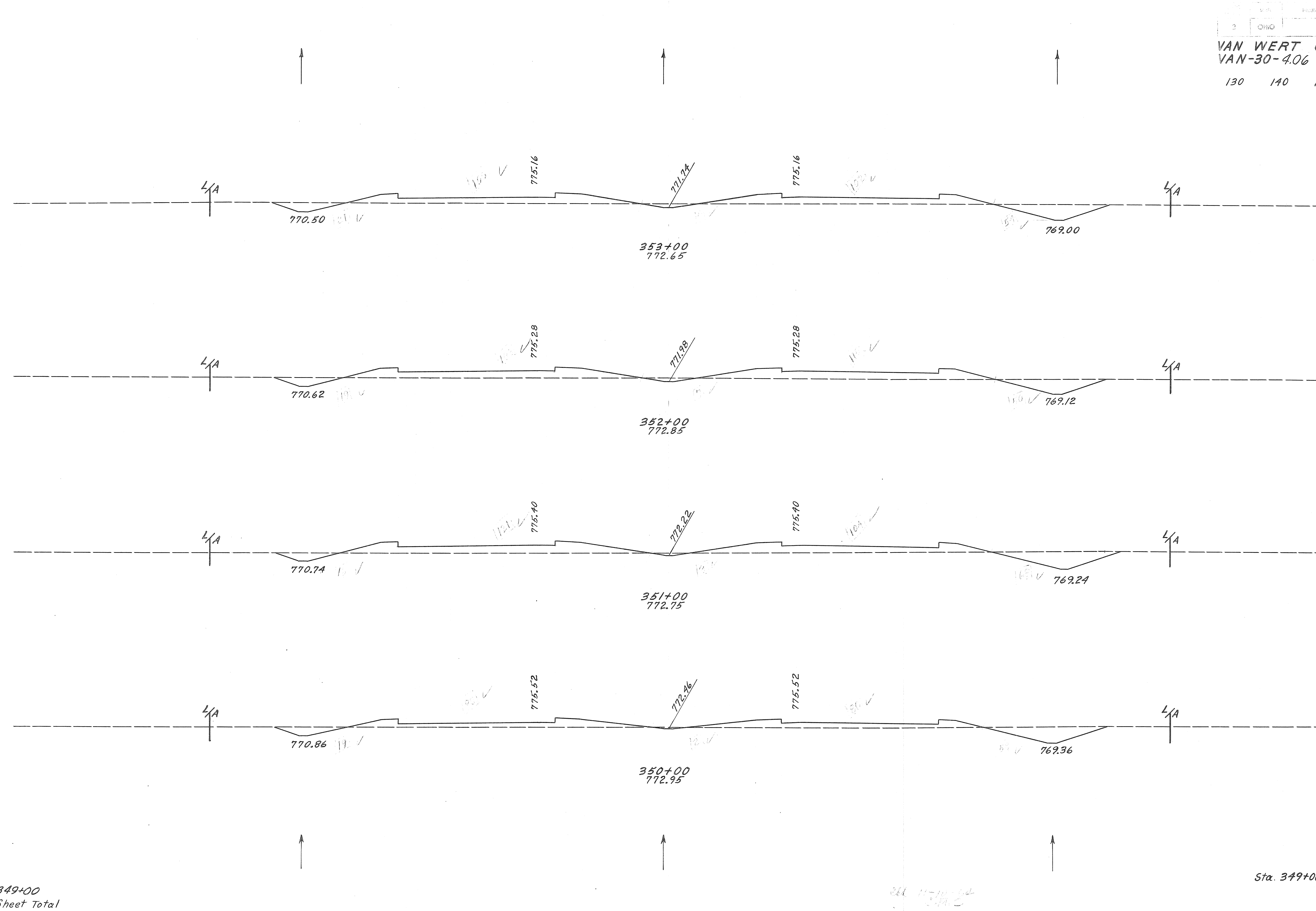
Sta. 341+00



END AREA		VOLUME	
CUT	FILL	CUT	FILL
82	202		
76	216	293	774
87	225	302	817
79	160	307	713
67	239	270	739

SEEDING	
END WIDTH	SQ. YDS.
151	
1678	
151	
1678	
151	
1678	
151	
1678	
151	
6,712	

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120



349+00  
Sheet Total

Sta. 349+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
Sta. 350+00 to Sta. 353+00

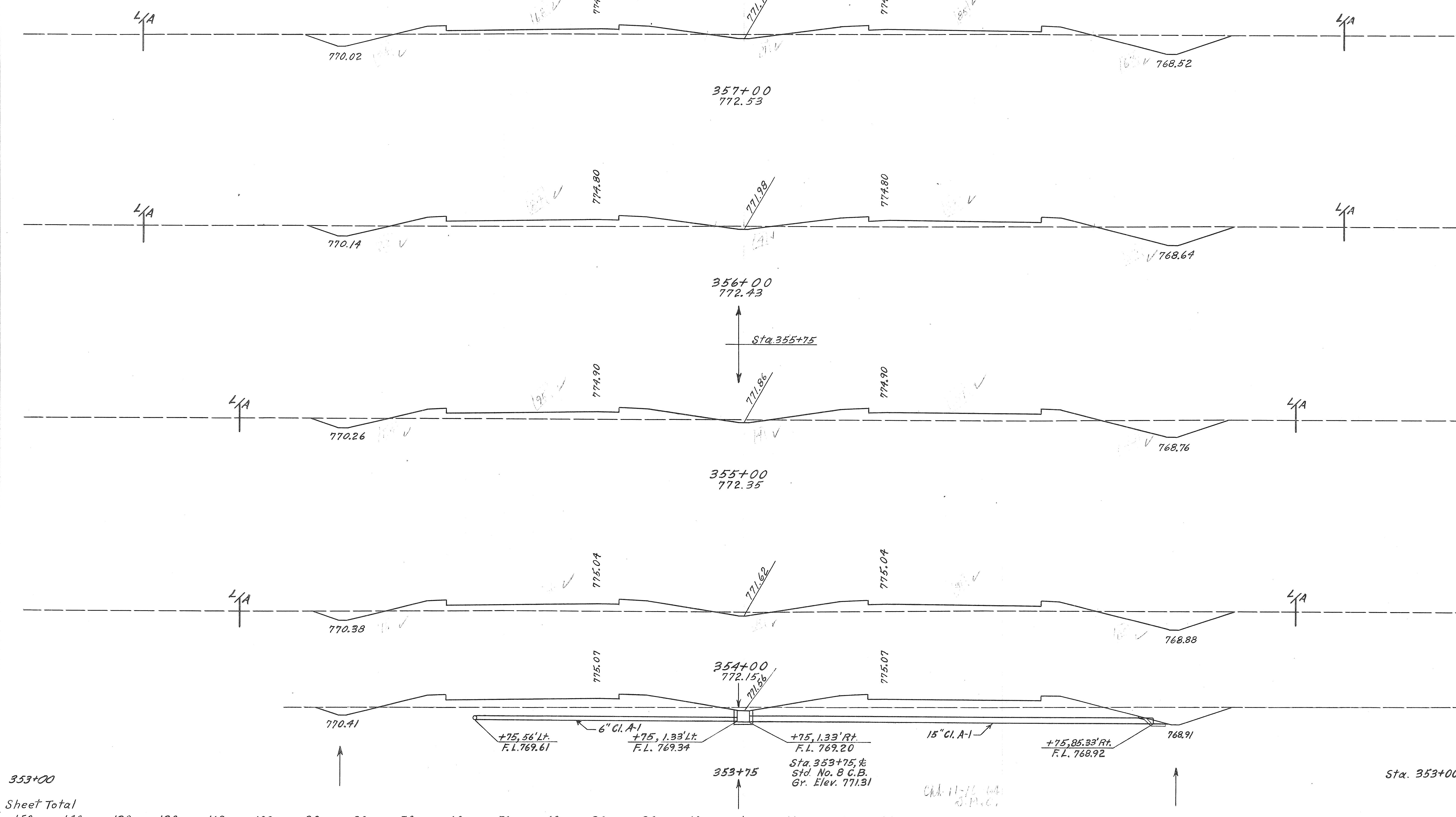
VAN WERT COUNTY  
VAN-30-406

130 140 150

SEEDING
END WIDTH
SQ. YDS.
180
2000
180
1839
151
1678
151
1678
151
7195

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

END AREA	VOLUME	
	CUT	FILL
96	153	
		342 591
89	166	
		309 685
78	204	
		294 724
81	187	
		302 720
82	202	



Sheet Total

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

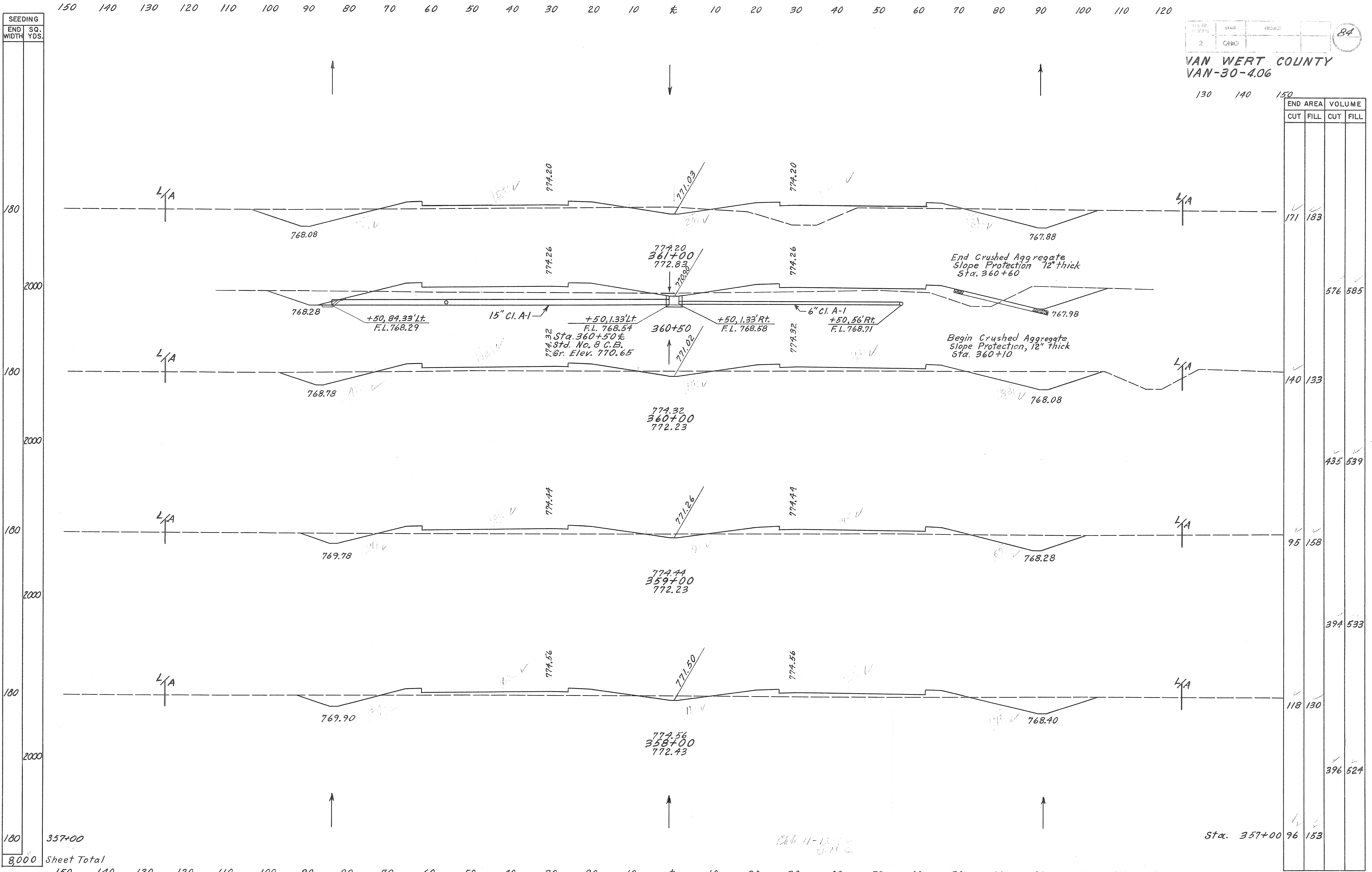
SEEDING	SO. YDS.
END WIDTH	

2	CHIC		84
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VAN WERT COUNTY  
VAN-30-4.06

130 140 150

END AREA		VOLUME	
CUT	FILL	CUT	FILL
171	183		
		576	585
140	133		
		435	539
95	158		
		394	533
118	130		
		396	524
96	153		



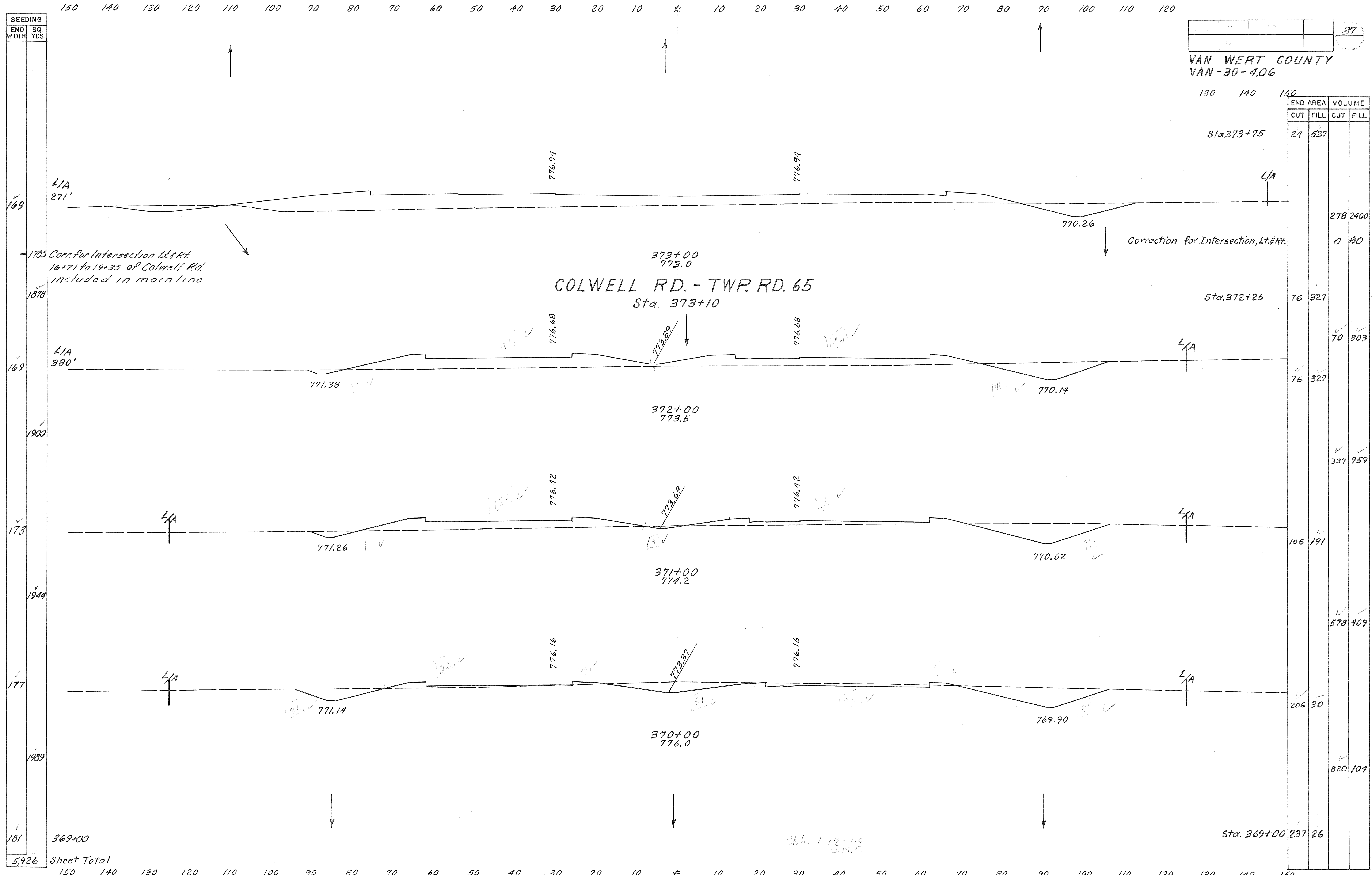
357+00  
Sheet Total  
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Sta. 357+00 to Sta. 361+00  
110 120 130 140 150

Chg. 11-12-52  
J.M.C.







SEEDING	END WIDTH	SQ. YDS.
	169	271'
	169	380'
	1900	
	173	
	1944	
	177	
	1989	
	181	
5,926	Sheet Total	

CHK. 11-12-69  
J.M.C.



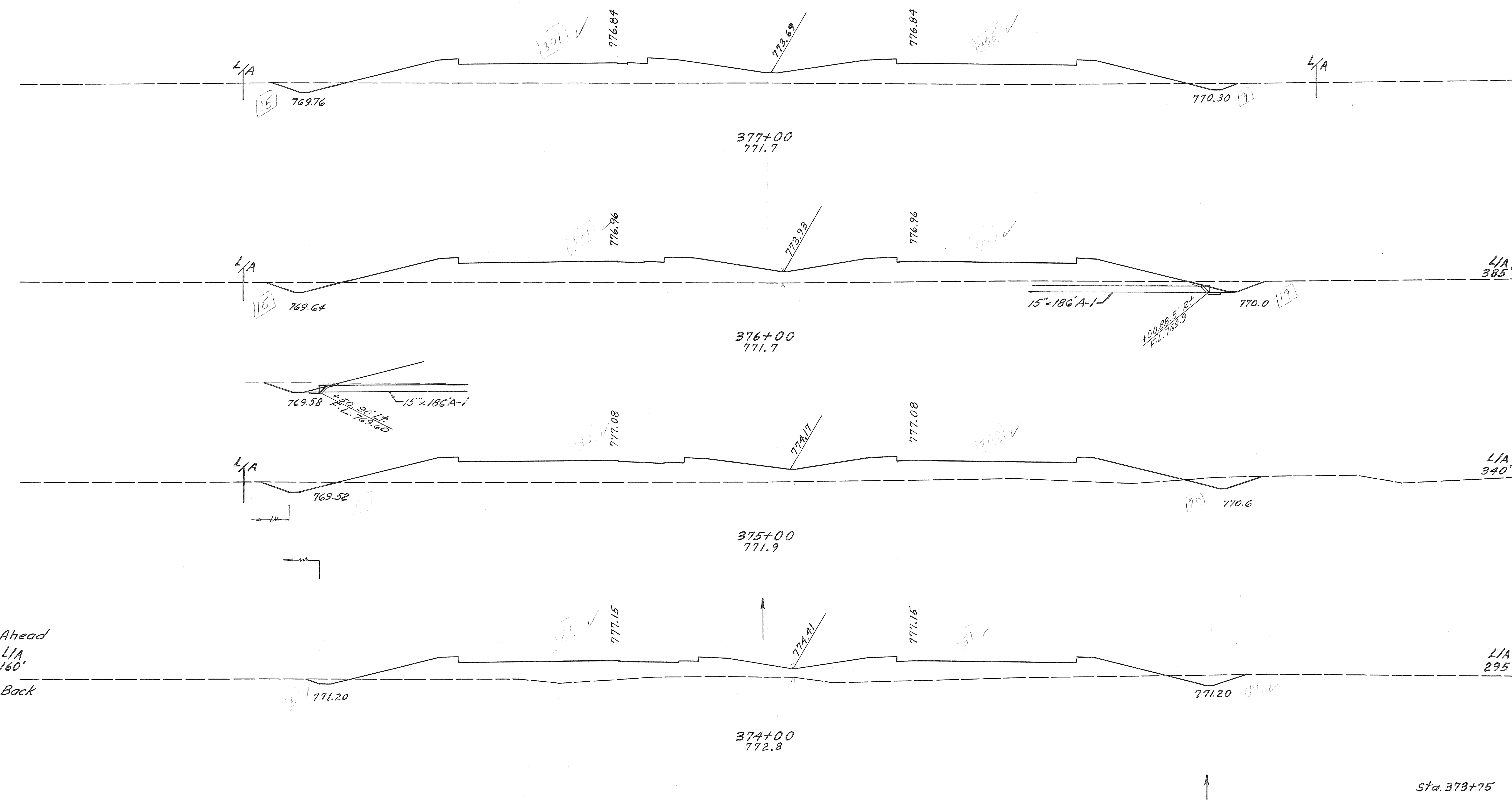
VAN WERT COUNTY  
VAN-30-4.06

130 140 150

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

SEEDING	END WIDTH	SQ. YDS.
143		
1572		
140		
1533		
136		
1500		
134		
168		
1872		
169		
6,477		

END AREA	VOLUME	
	CUT	FILL
24	606	
107	2265	
34	617	
133	2311	
38	631	
115	2163	
24	537	
22	497	
24	537	



373+00  
Sheet Total

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120  
Sta 374+00 to Sta 377+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ± 10 20 30 40 50 60 70 80 90 100 110 120

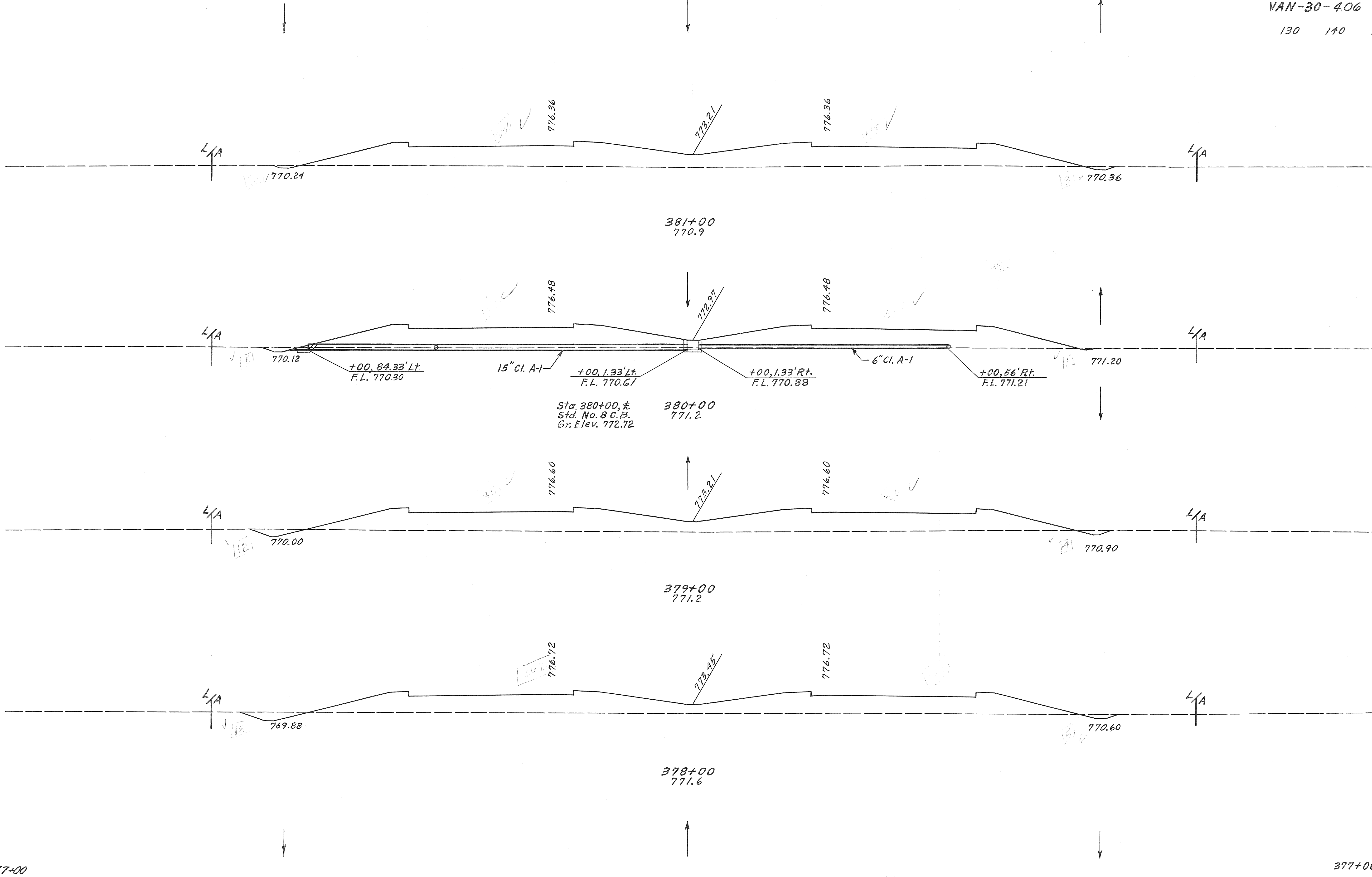
FILE NO.	DATE	PROJECT	89
NO.	DATE		

VAN WERT COUNTY  
VAN-30-4.06

130 140 150

SEEDING	END WIDTH	SQ. YDS.
✓	145	1611
✓	145	1611
✓	145	1611
✓	145	1600
✓	143	6,433

END AREA	VOLUME	
	CUT	FILL
✓ 5	✓ 662	
✓ 20	✓ 2378	
✓ 6	✓ 622	
✓ 41	✓ 2295	
✓ 16	✓ 617	
✓ 72	✓ 2133	
✓ 23	✓ 535	
✓ 87	✓ 2113	
✓ 24	✓ 606	



377+00  
Sheet Total

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ± 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
Sta. 378+00 to Sta. 381+00

SEEDING	
END WIDTH	SQ. YDS.
145	
1611	
145	
1611	
145	
1611	
145	
1611	
145	
6,444	

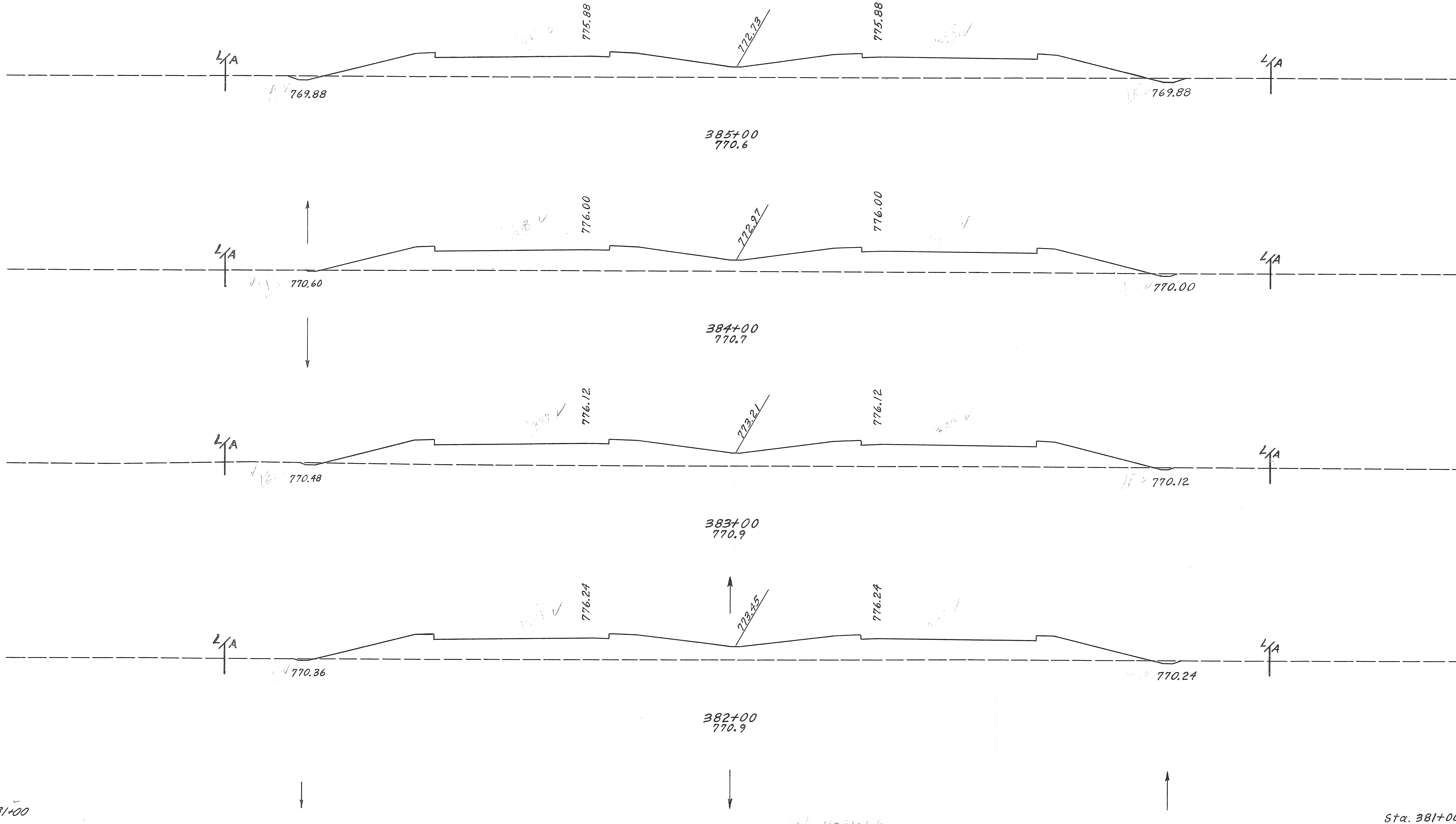
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ± 10 20 30 40 50 60 70 80 90 100 110 120

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

VAN WERT COUNTY  
VAN-30-4.06

130 140 150

END AREA	VOLUME	
	CUT	FILL
9	636	
3	644	
3	680	
4	675	
5	662	
22	2371	
11	2452	
13	2509	
17	2476	



Sheet Total

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ± 10 20 30 40 50 60 70 80 90 100 110 120

Sta. 381+00

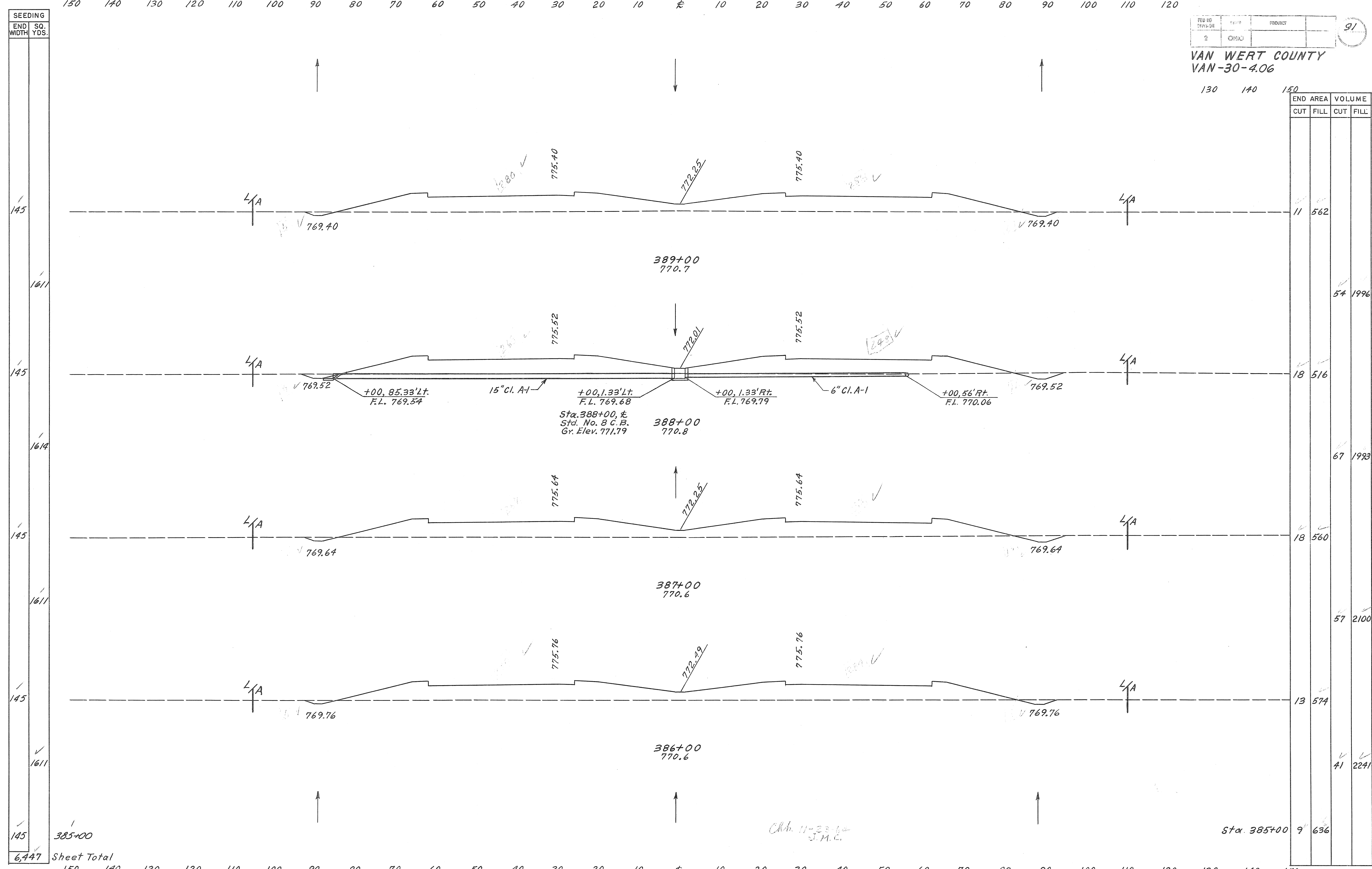
11-21-04  
R.M.S.

FED. RD. DIVISION	STATE	PROJECT	91
2	OHIO		

VAN WERT COUNTY  
VAN-30-4.06

130 140 150

END AREA		VOLUME	
CUT	FILL	CUT	FILL



SEEDING	SQ. YDS.
END WIDTH	YDS.
145	1611
145	1614
145	1611
145	1611
145	6,447

11	562	54	1996
18	516	67	1993
18	560	57	2100
13	574	41	2241
9	636		

385+00  
Sheet Total

Chg. 11-23-64  
J.M.L.

Sta. 385+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
Sta. 386+00 to Sta. 389+00

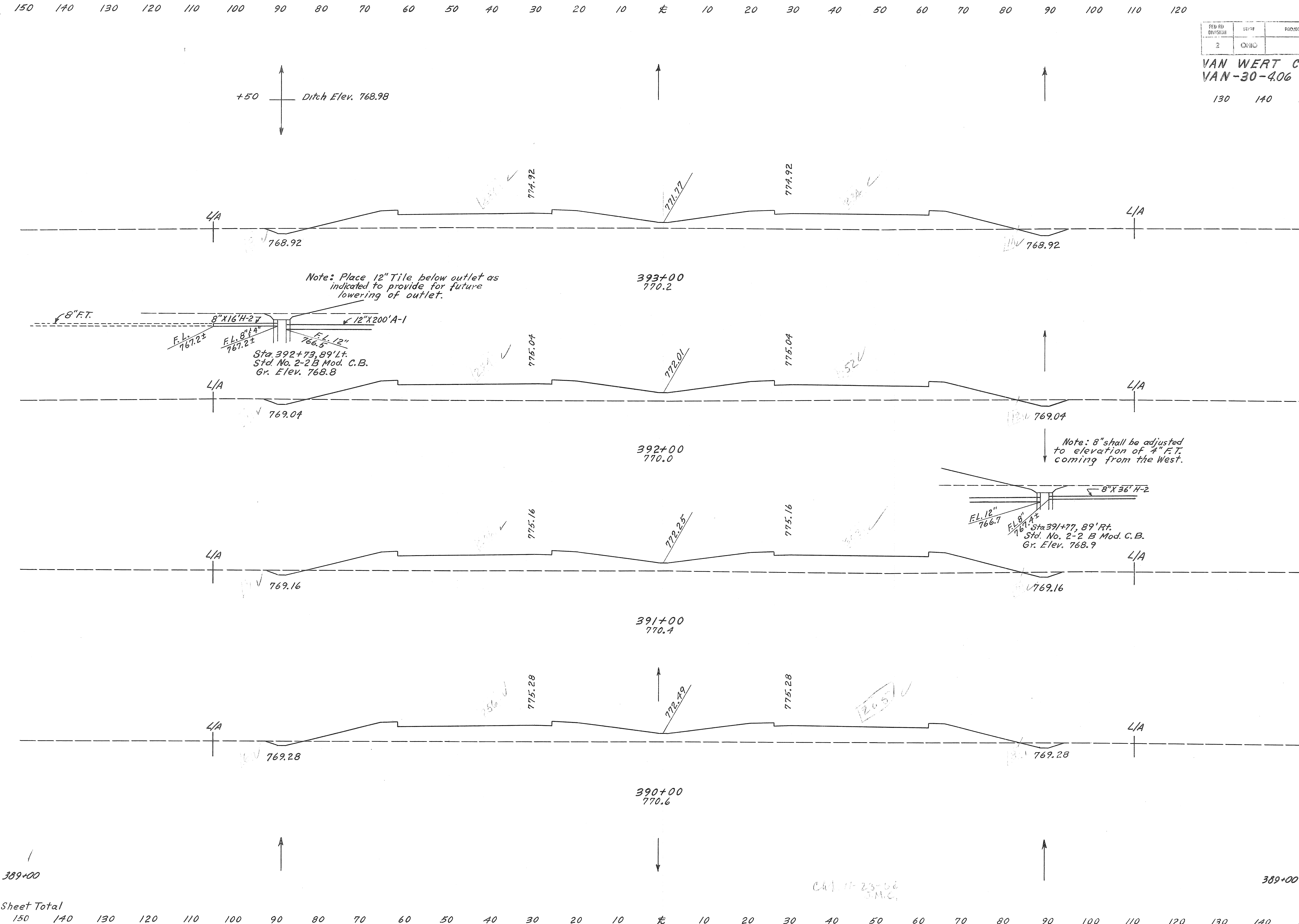
FED. RD. DIVISION	STATE	PROJECT	92
2	OHIO		

VAN WERT COUNTY  
VAN-30-406

130 140 150

END AREA	VOLUME	
	CUT	FILL
19	434	
70	1889	
19	536	
61	2065	
14	579	
52	2037	
14	521	
46	2006	
11	562	

SEEDING	END WIDTH	SQ. YDS.
	145	
	1611	
	145	
	1611	
	145	
	1611	
	145	
	1611	
	145	
	6,444	



Sheet Total

Cut 11-23-06 J.M.C.

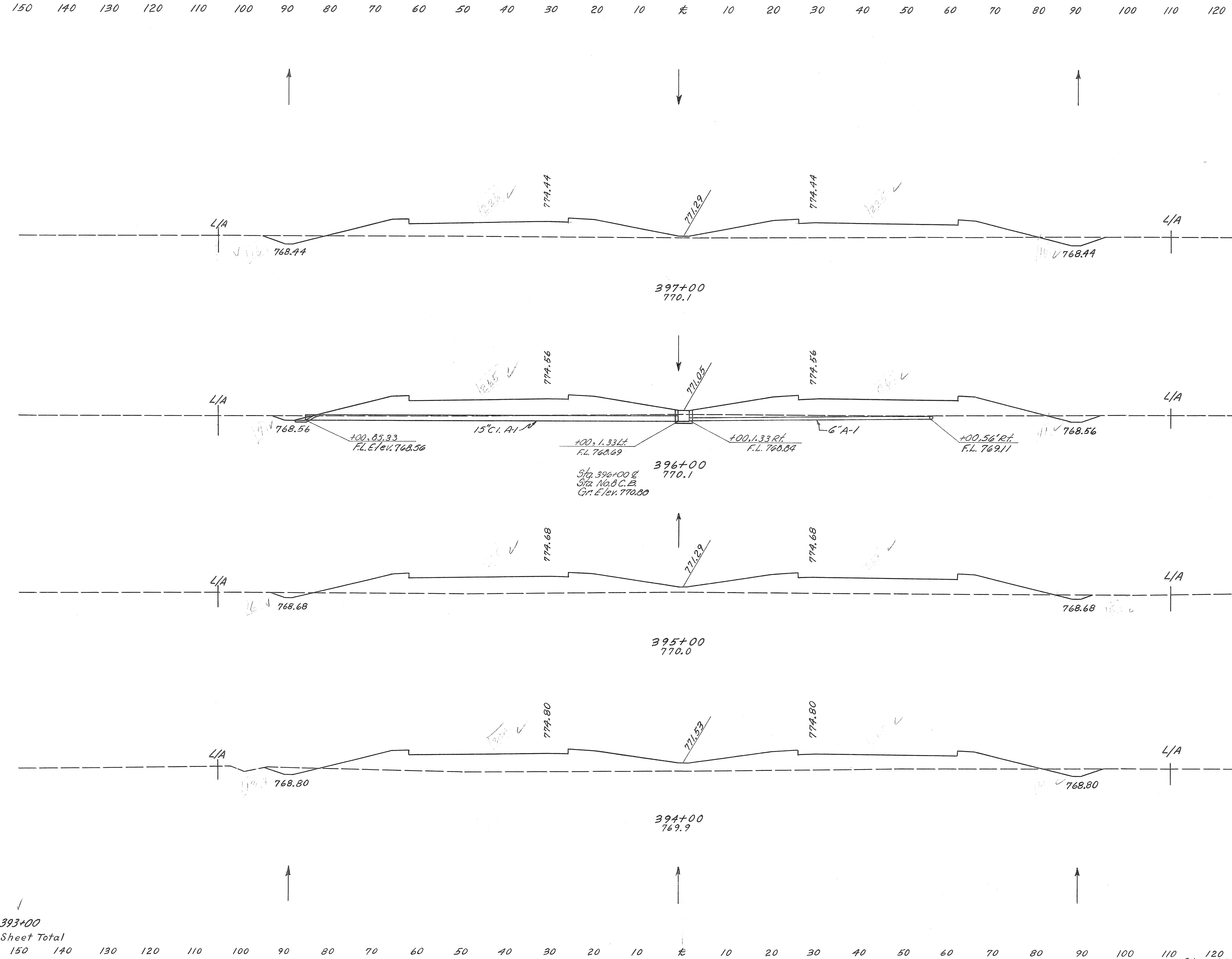
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
Sta. 390+00 to Sta. 393+00

VAN WERT COUNTY  
VAN-30-406

130 140 150

SEEDING
END WIDTH
SQ. YDS.
145
1611
145
1611
145
1611
145
1611
145
6,444

END AREA	VOLUME	
	CUT	FILL
32	451	
93	1811	
18	527	
54	1900	
11	542	
70	2048	
27	564	
85	1941	
19	404	



393+00  
Sheet Total  
6,444

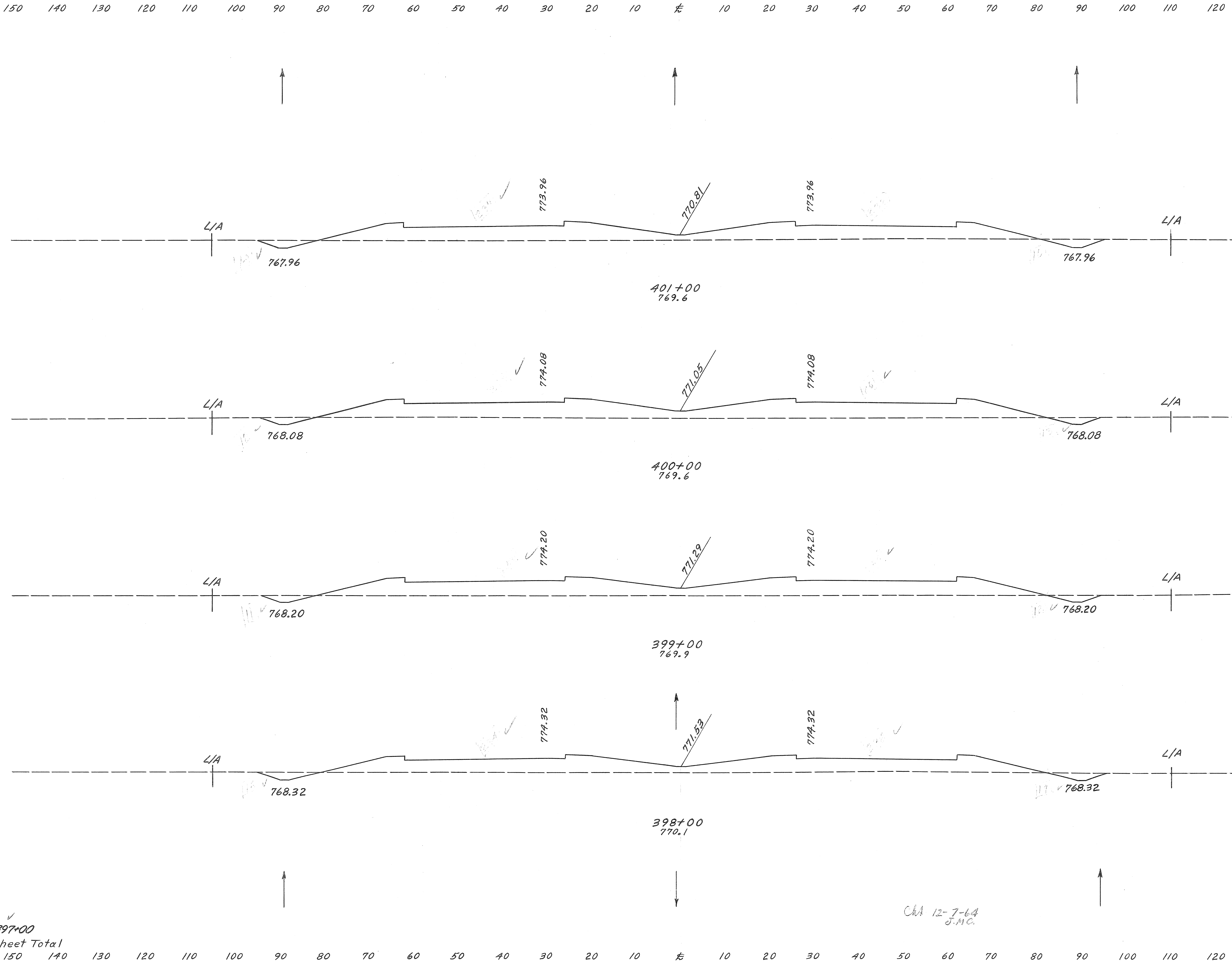
120 130 140 150  
Sta 394+00 to Sta 397+00

REP. NO.	SCALE	PROJECT	94
2	1"=40'		

VAN WERT COUNTY  
VAN-30-4.06

130 140 150

SEEDING	
END WIDTH	SQ. YDS.
145	
1611	
145	
1611	
145	
1611	
145	
1611	
145	
6,444	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
30	469	102	1811
25	509	89	1885
23	509	106	1817
34	472	122	1709
32	451		

397+00  
Sheet Total

Chd 12-7-64  
J.M.C.

397+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ± 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
Sta. 398+00 to Sta. 401+00

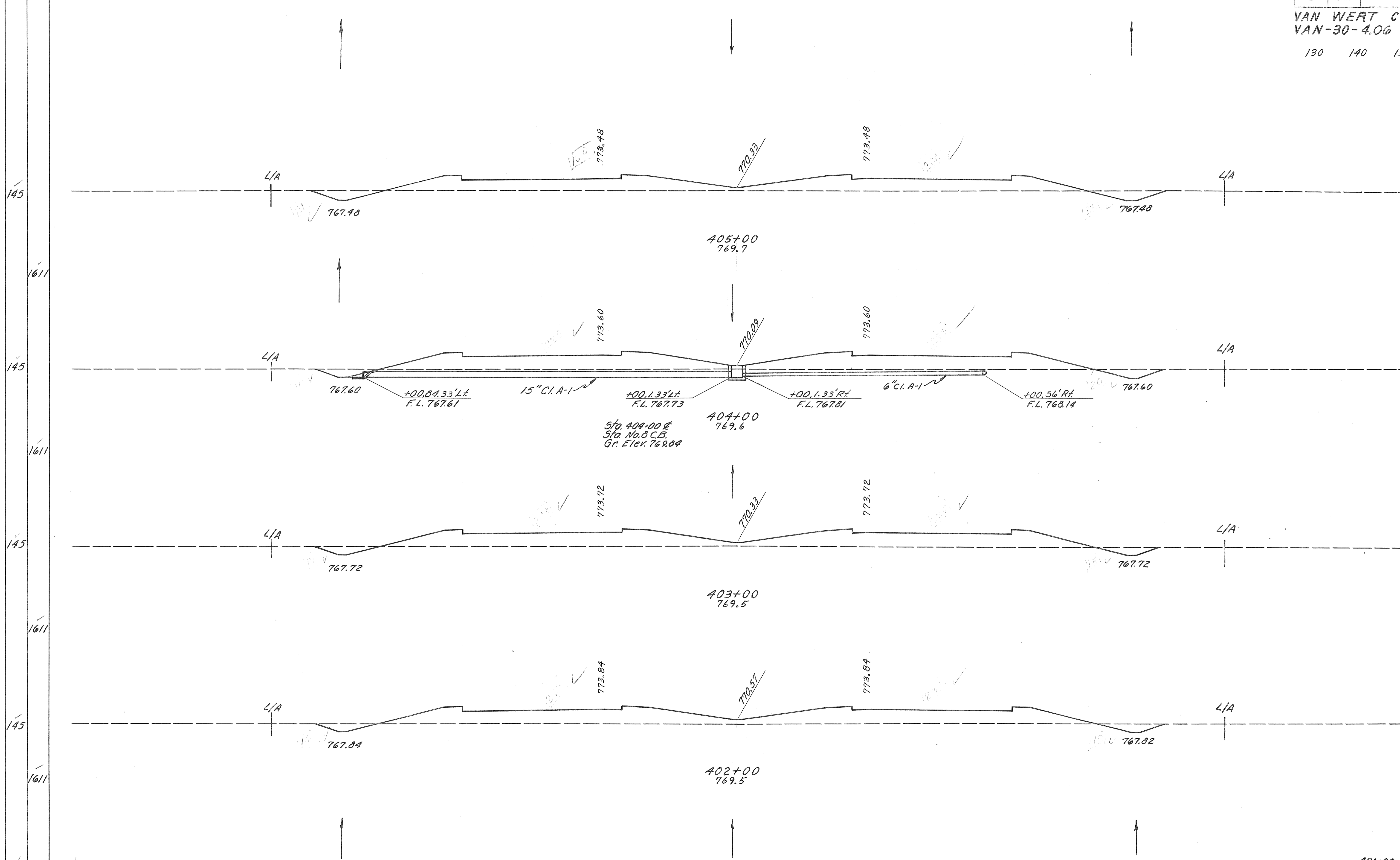
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ± 10 20 30 40 50 60 70 80 90 100 110 120

PER. NO.	STAFF	PROJECT	35
2	CHD		

VAN WERT COUNTY  
VAN-30-4.06

130 140 150

SEEDING	
END WIDTH	SO. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
44	360		
		148	1487
36	443		
		126	1693
32	444		
		119	1676
32	461		
		115	1722
30	469		

401+00  
6,444 Sheet Total

CHK. 10-30-64  
S.M.C.

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ± 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
Sta. 402+00 to Sta. 405+00



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ± 10 20 30 40 50 60 70 80 90 100 110 120

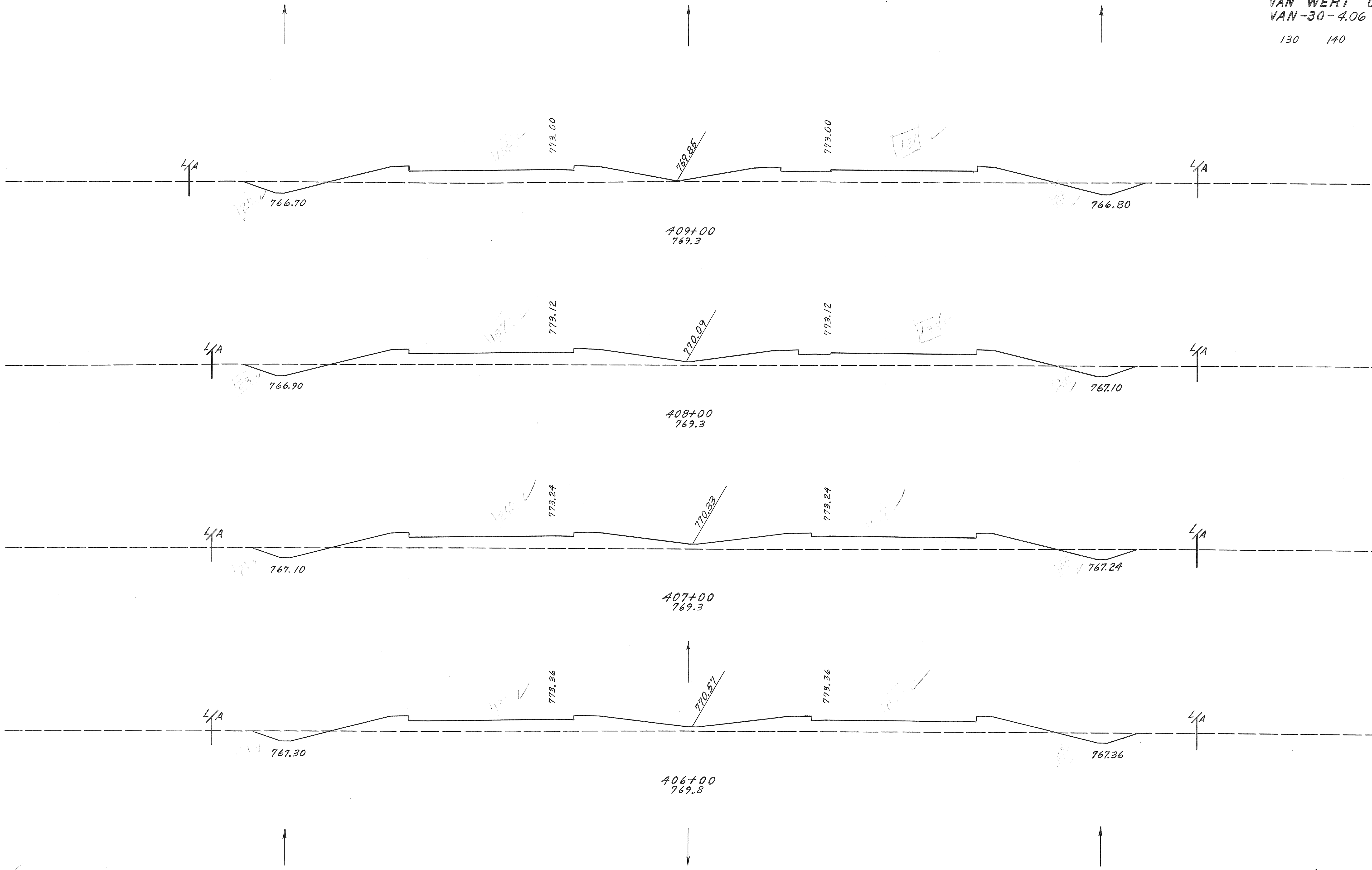
PED. RD. DIVISION	STATE	PROJECT	96
2	OHIO		

VAN WERT COUNTY  
VAN-30-4.06

130 140 150

SEEDING	END WIDTH	SQ. YDS.
✓	144	
✓	1594	
✓	143	
✓	1600	
✓	145	
✓	1611	
✓	145	
✓	1611	
✓	145	
✓	6,916	

END AREA	VOLUME	
	CUT	FILL
43	365	
		167 1356
47	367	
		167 1439
43	410	
		159 1476
43	387	
		161 1383
44	360	



405+00  
Sheet Total

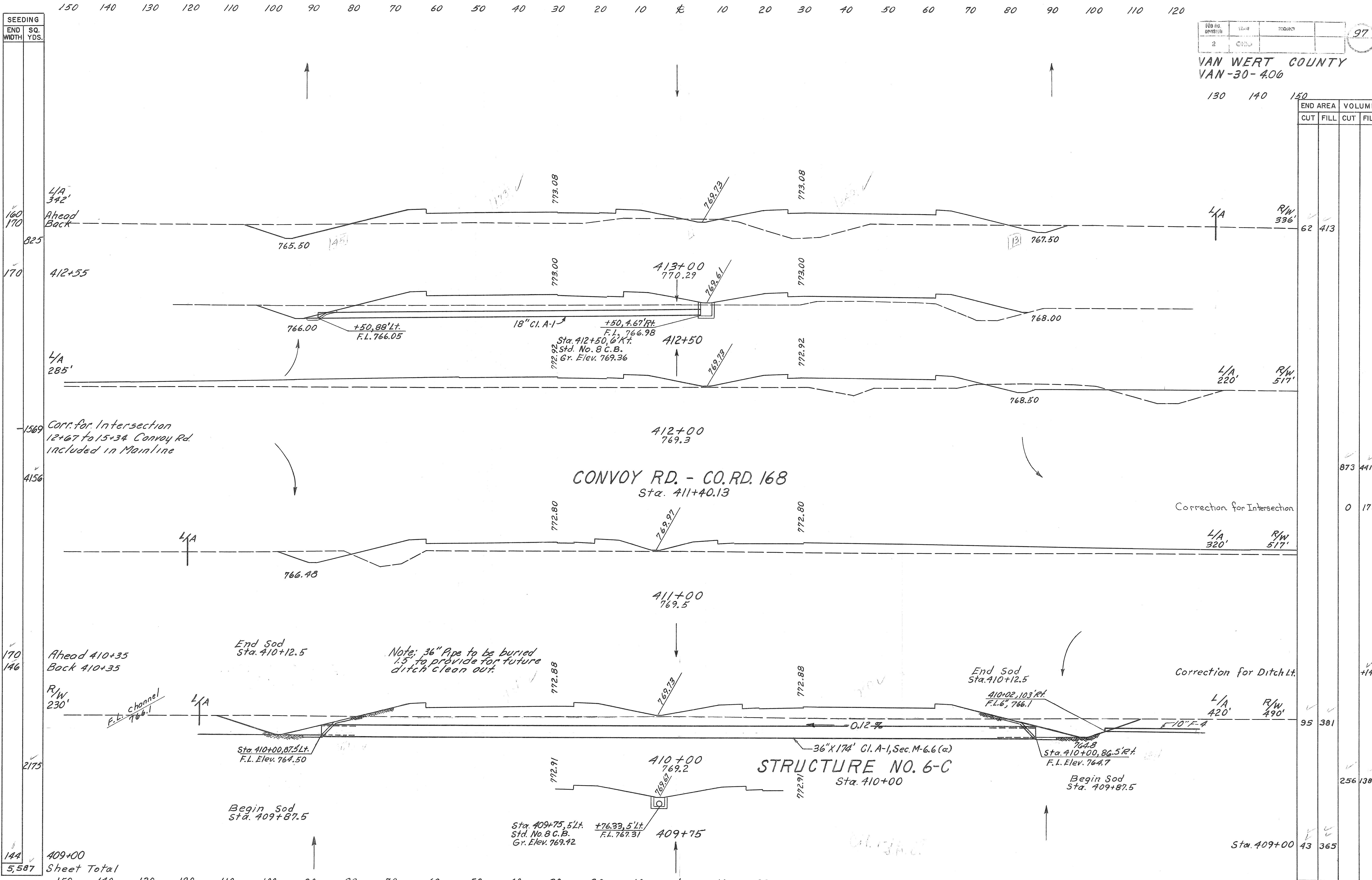
Sta. 405+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ± 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
Sta. 406+00 to Sta. 409+00

SEEDING	SQ. YDS.
END WIDTH	

2	97
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VAN WERT COUNTY  
VAN-30-406



END AREA		VOLUME	
CUT	FILL	CUT	FILL

62	413		
873	4410		
0	170		
95	381		
256	1381		
43	365		

144 409+00  
5,587 Sheet Total

130 140 150  
Sta. 410+00 to Sta. 412+00

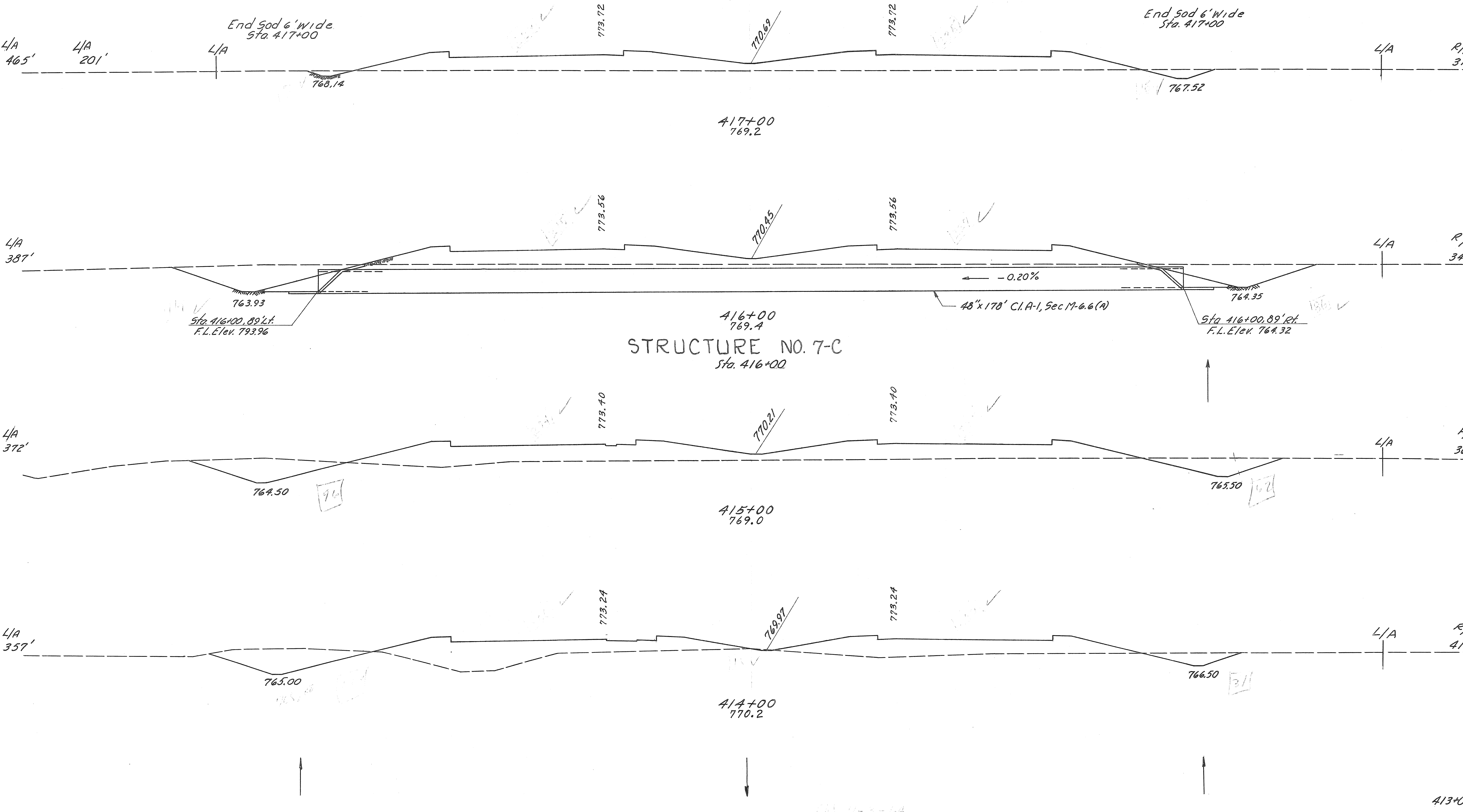
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 E 10 20 30 40 50 60 70 80 90 100 110 120

REG. NO. ENR-1003	STATE OHIO	PROJECT VAN WERT COUNTY VAN-30-4.06	98
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VAN WERT COUNTY  
VAN-30-4.06

130 140 150

SEEDING	
END WIDTH	SQ. YDS.
171	
1906	
172	
1889	
168	
1850	
165	
1806	
160	
7,451	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
22	464	22	464
200	442	200	442
158	511	158	511
141	476	141	476
62	413	62	413
411	1678	411	1678
663	1765	663	1765
554	1828	554	1828
376	1646	376	1646

Ahead 413+00  
Sheet Total  
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 E 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
Sta. 414+00 to Sta. 417+00

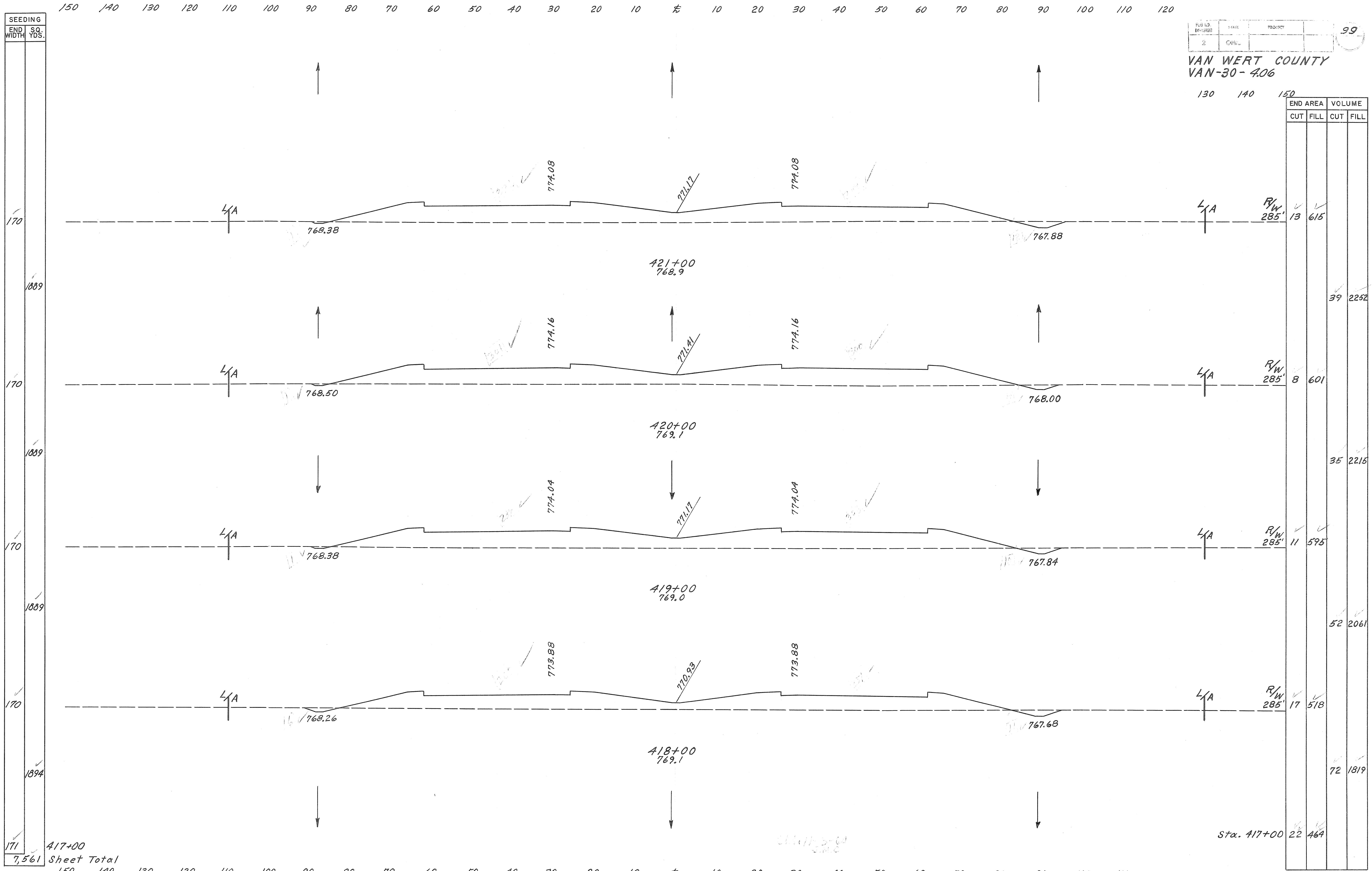
SEEDING  
END WIDTH SQ. YDS.

PUB. NO. 2 STATE OHIO PROJECT 99

VAN WERT COUNTY  
VAN-30-406

130 140 150

END AREA		VOLUME	
CUT	FILL	CUT	FILL



7,561 Sheet Total

Sta. 417+00

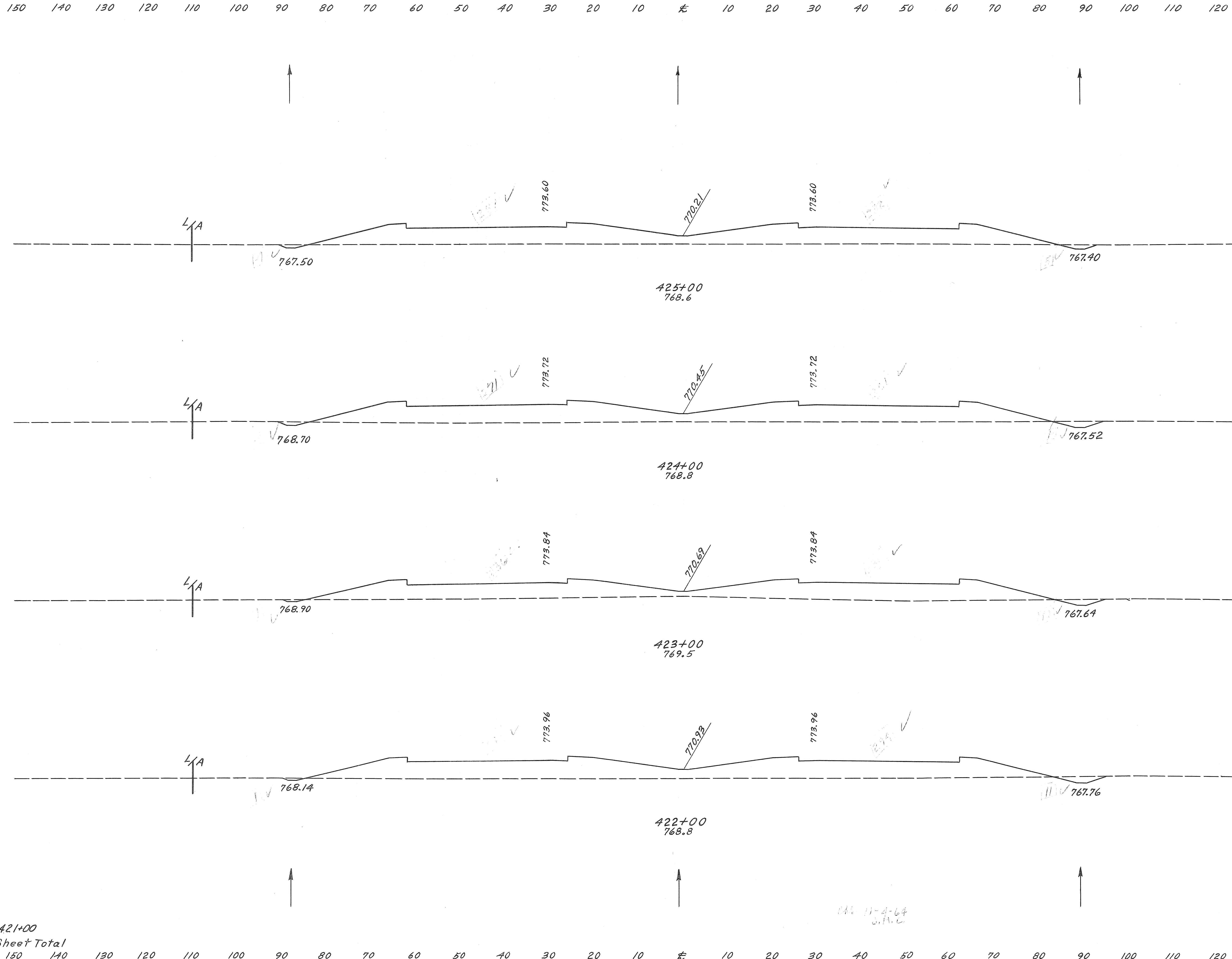
110 120 130 140 150  
Sta. 418+00 to Sta. 421+00

VAN WERT COUNTY  
VAN-30-4.06

130 140 150

END AREA		VOLUME	
CUT	FILL	CUT	FILL
9	564	43	2011
14	522	46	1922
11	516	43	2080
12	607	46	2263
13	615		

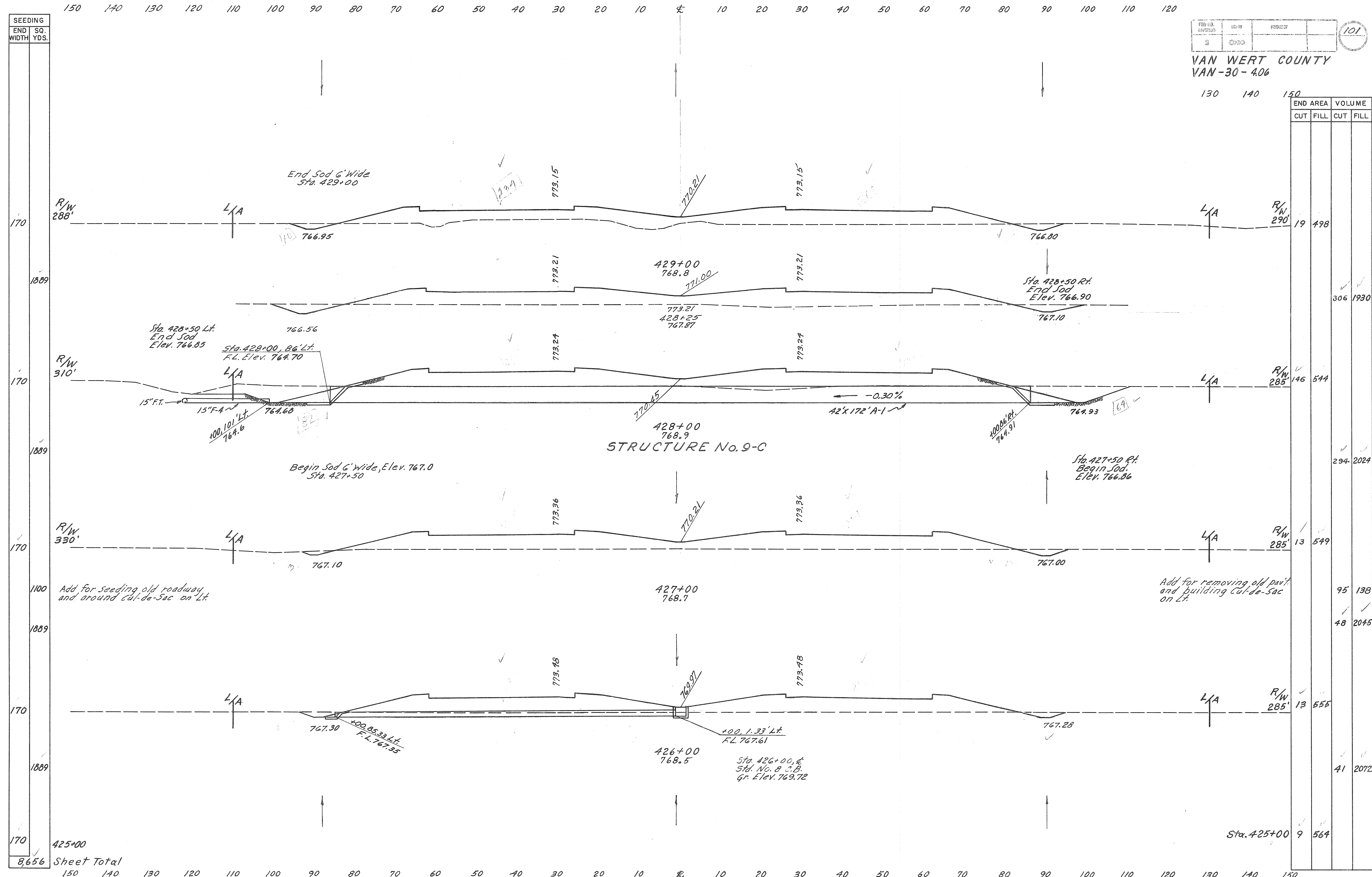
SEEDING	
END WIDTH	SQ. YDS.
170	1889
170	1889
170	1889
170	1889
170	1889



421+00  
Sheet Total  
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
Sta. 422+00 to Sta. 425+00

11-4-64  
J.H.C.

Sta. 421+00



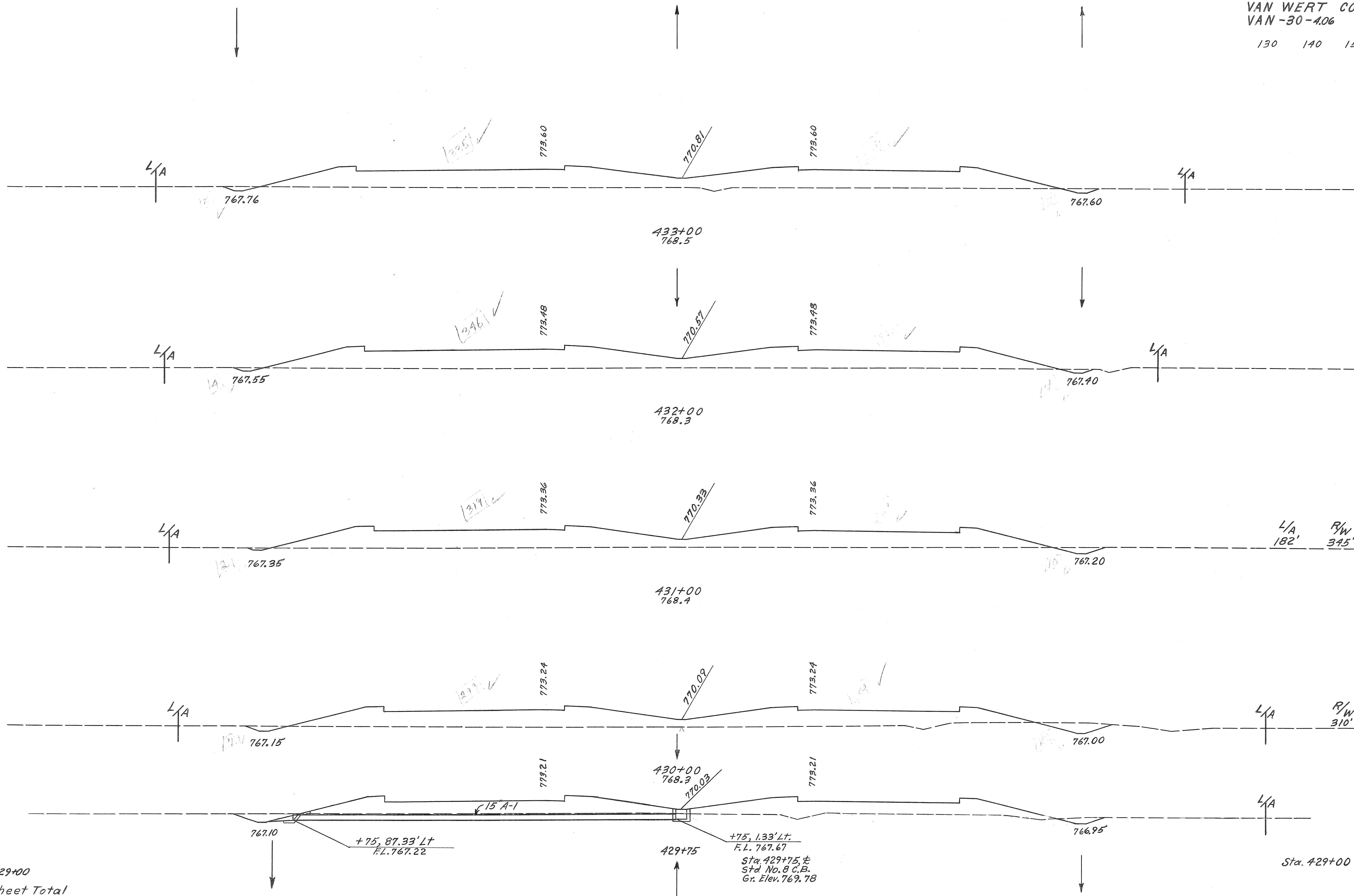
END STA.	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
130	19	498		
140	306	1930		
150	146	544		
160	294	2024		
170	13	549		
180	95	138		
190	48	2045		
200	13	555		
210	41	2072		
220	9	564		

8656 Sheet Total

110 120 130 140 150  
Sta. 426+00 to Sta. 429+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

SEEDING	END WIDTH	SQ. YDS.
149		
1622		
143		
2006		
218		
3256		
168		
1878		
170		
8,762		



END AREA	VOLUME	
	CUT	FILL
10	632	
33	2367	
8	646	
37	2285	
12	588	
76	2102	
29	547	
89	1935	
19	498	

429+00  
Sheet Total  
8,762

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120  
Sta. 429+75 to Sta. 433+00

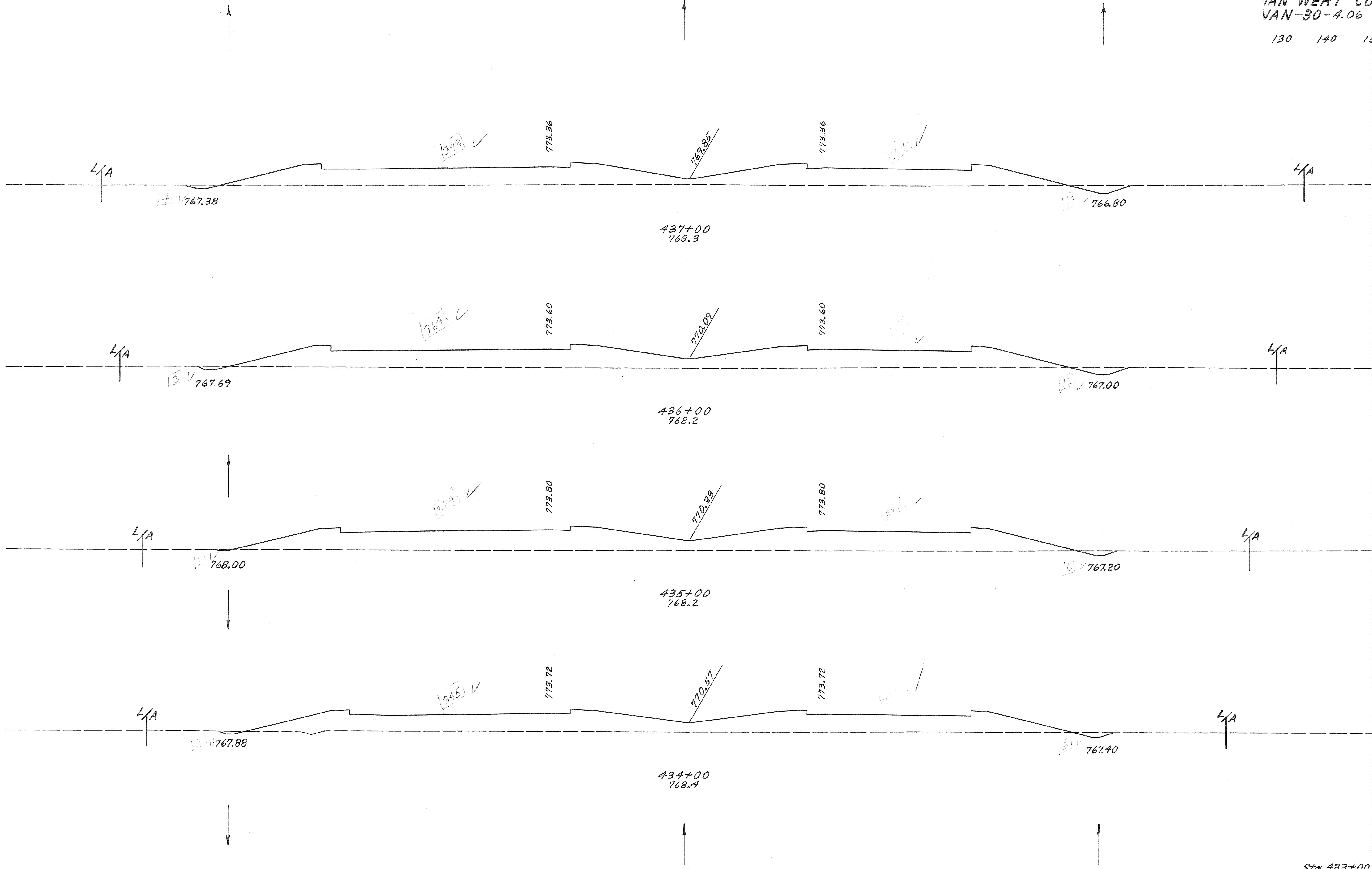
SEEDING	
END WIDTH	SQ. YDS.
176	
1911	
168	
1817	
159	
1744	
155	
1689	
149	
7,161	

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

103  
 VAN WERT COUNTY  
 VAN-30-4.06

130 140 150

END AREA		VOLUME	
CUT	FILL	CUT	FILL
17	627		
		59	2396
15	667		
		41	2554
7	712		
		26	2513
7	645		
		31	2345
10	632		



433+00

Sheet Total

Sta. 433+00

Sta. 434+00 to Sta. 437+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

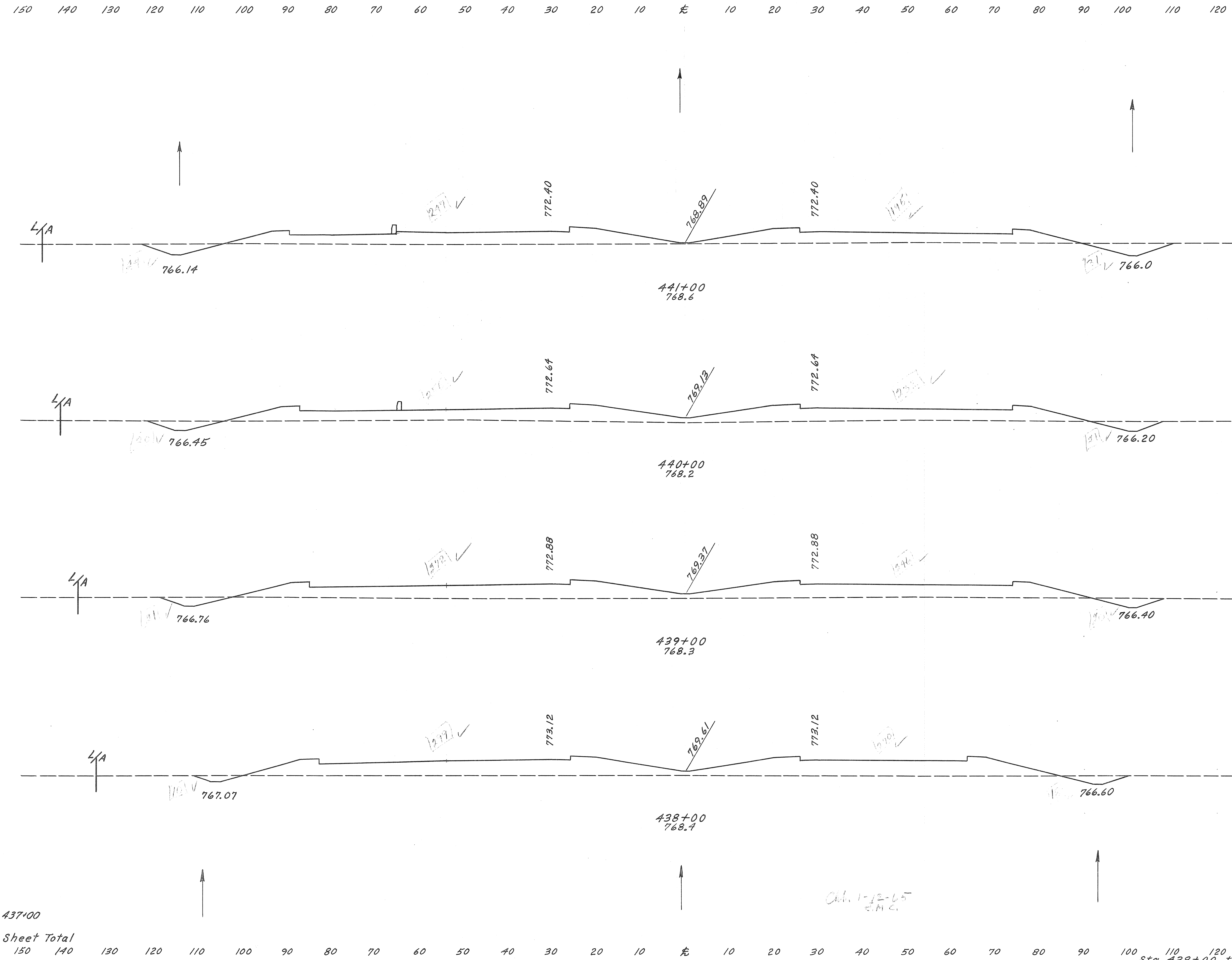


VAN WERT COUNTY  
VAN-30-406

130 140 150

SEEDING
END SQ.
WIDTH YDS.
194
2106
185
2011
177
1989
181
1983
176
8,089

END AREA		VOLUME	
CUT	FILL	CUT	FILL
55	442	178	1720
41	487	152	1861
41	518	128	2013
28	569	83	2215
17	627		

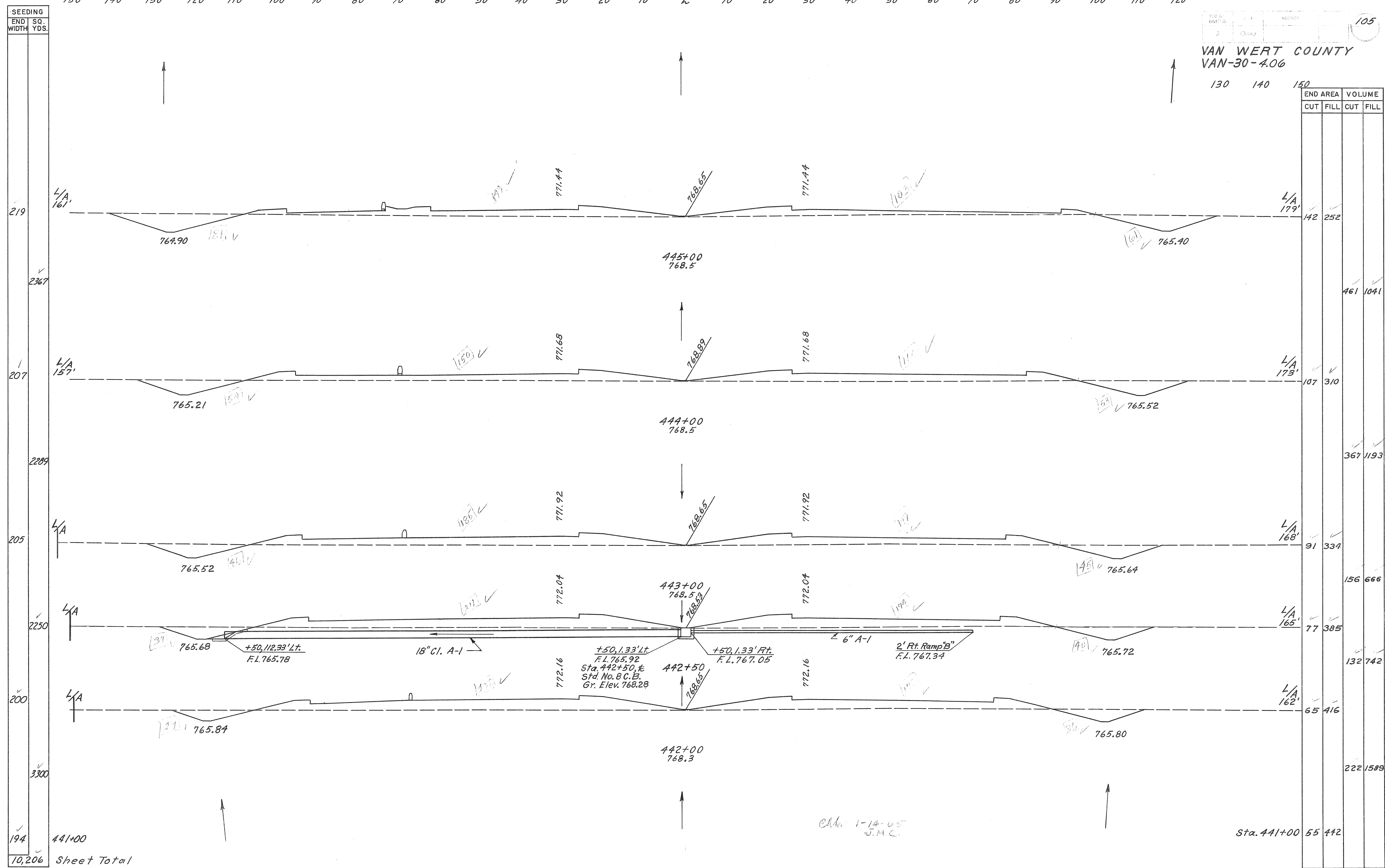


437+00  
Sheet Total

Sta. 437+00

Oct. 1-12-65  
D.M.C.

Sta. 438+00 to Sta. 441+00



SEEDING	
END WIDTH	SQ. YDS.
219	167
2367	
207	157
2289	
205	
2250	
200	162
3300	
194	
10,206	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
142	252		
		461	1041
107	310		
		367	1193
91	334		
		156	666
77	385		
		132	742
65	416		
		222	1589
55	442		

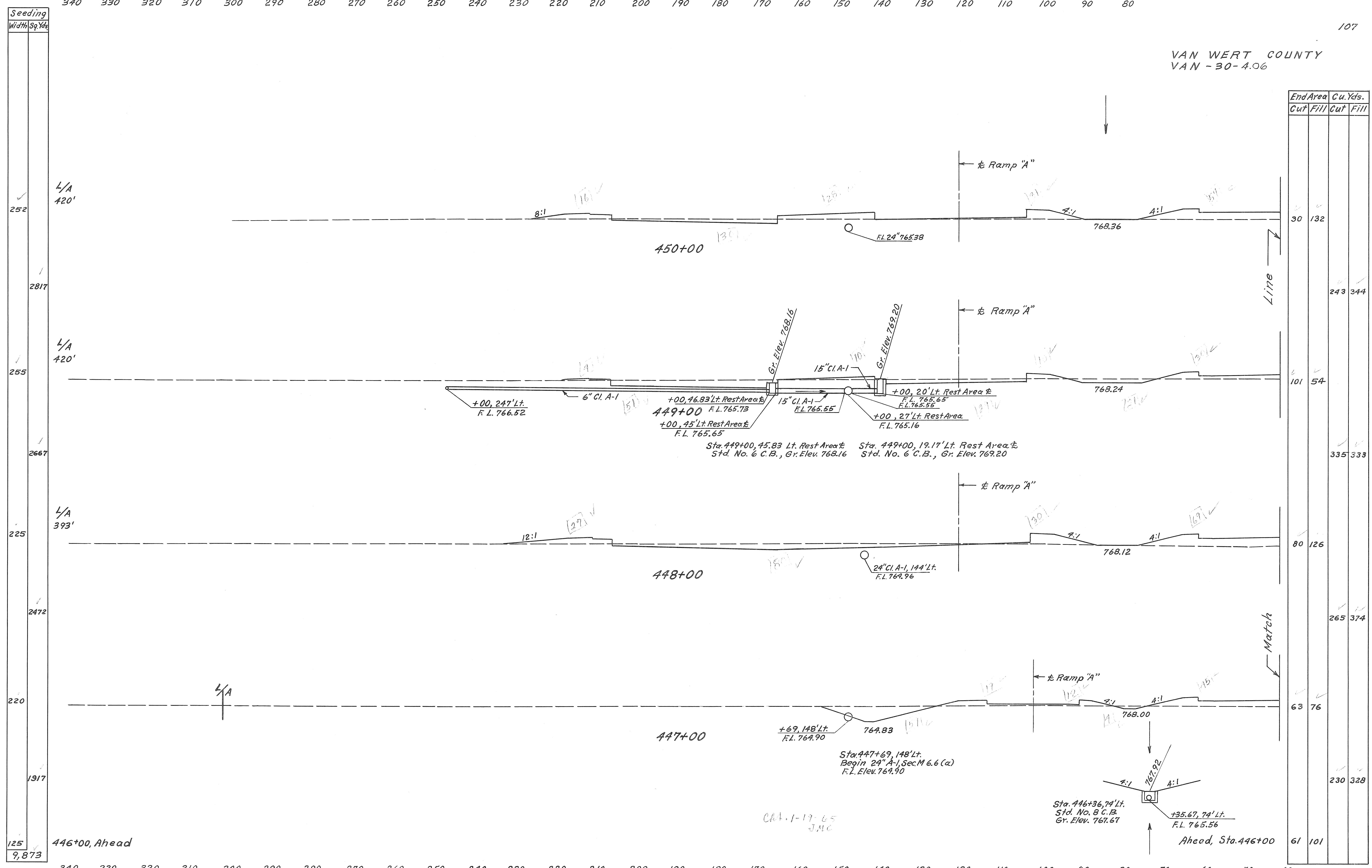
Sheet Total

Chk. 1-14-05  
 J.M.C.

Sta. 441+00

Sta. 442+00 to Sta. 445+00





Seeding	Width	Sq. Yds.
✓	252	420'
✓	2817	420'
✓	255	420'
✓	2667	393'
✓	225	393'
✓	2472	
✓	220	
✓	1917	
✓	125	9,873

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
30	132		
		243	344
101	54		
		335	333
80	126		
		265	374
63	76		
		230	328
61	101		

446+00, Ahead

Sta. 446+36, 74' Lt.  
Std. No. 8 C.B.  
Gr. Elev. 767.67

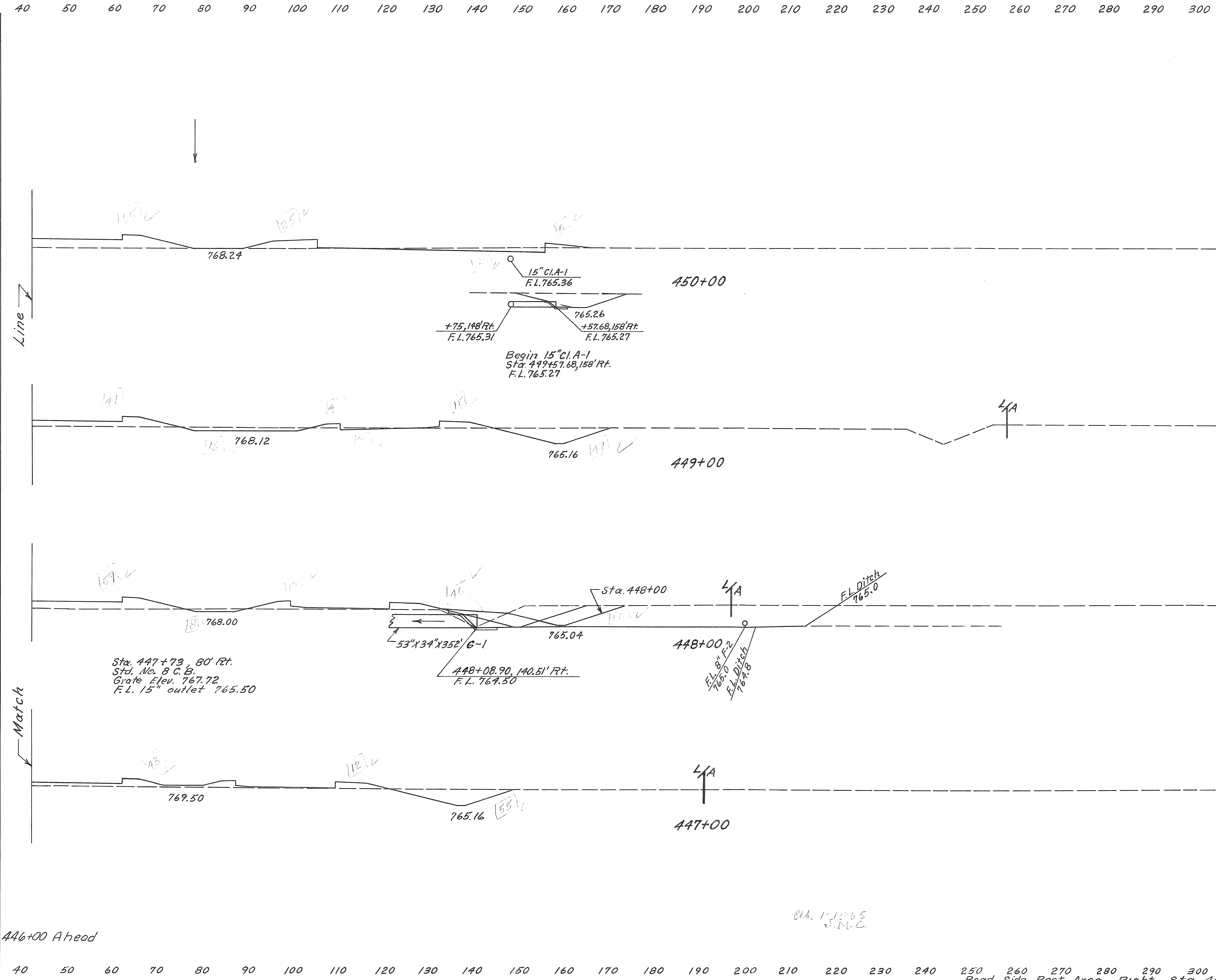
Ahead, Sta. 446+00

Road Side Rest Area Left. Sta. 447+00 to Sta. 450+00

VAN WERT COUNTY  
VAN-30-406

310 320 330 340

Seeding
Width Sp.Yds
260
2422
176
1611
114
1233
108
1072
85
6,338

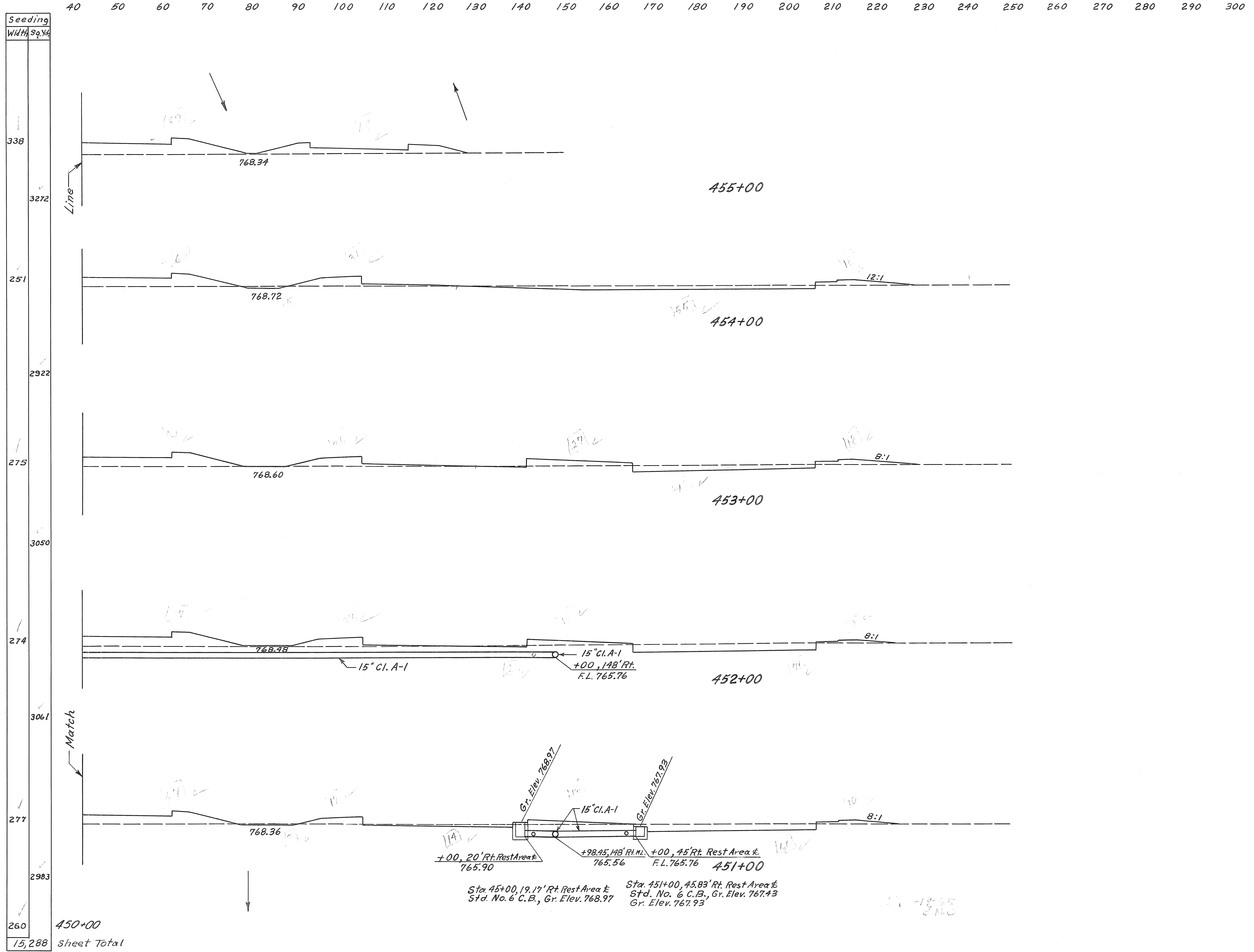


End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
20	95		
		167	287
70	60		
		267	326
74	116		
		239	317
55	55		
		194	276
50	94		

Road Side Rest Area Right Sta. 447+00 to Sta. 450+00







Sta.	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
L/A 420'				
Sta. 456+00	1	179		
			2	607
Sta. 455+00	0	149		
			111	494
L/A 420'	60	118		
			200	504
L/A 420'	48	154		
			224	531
L/A 420'	73	133		
			278	444
L/A 420'	77	107		
			180	374
Sta. 450+00	20	95		

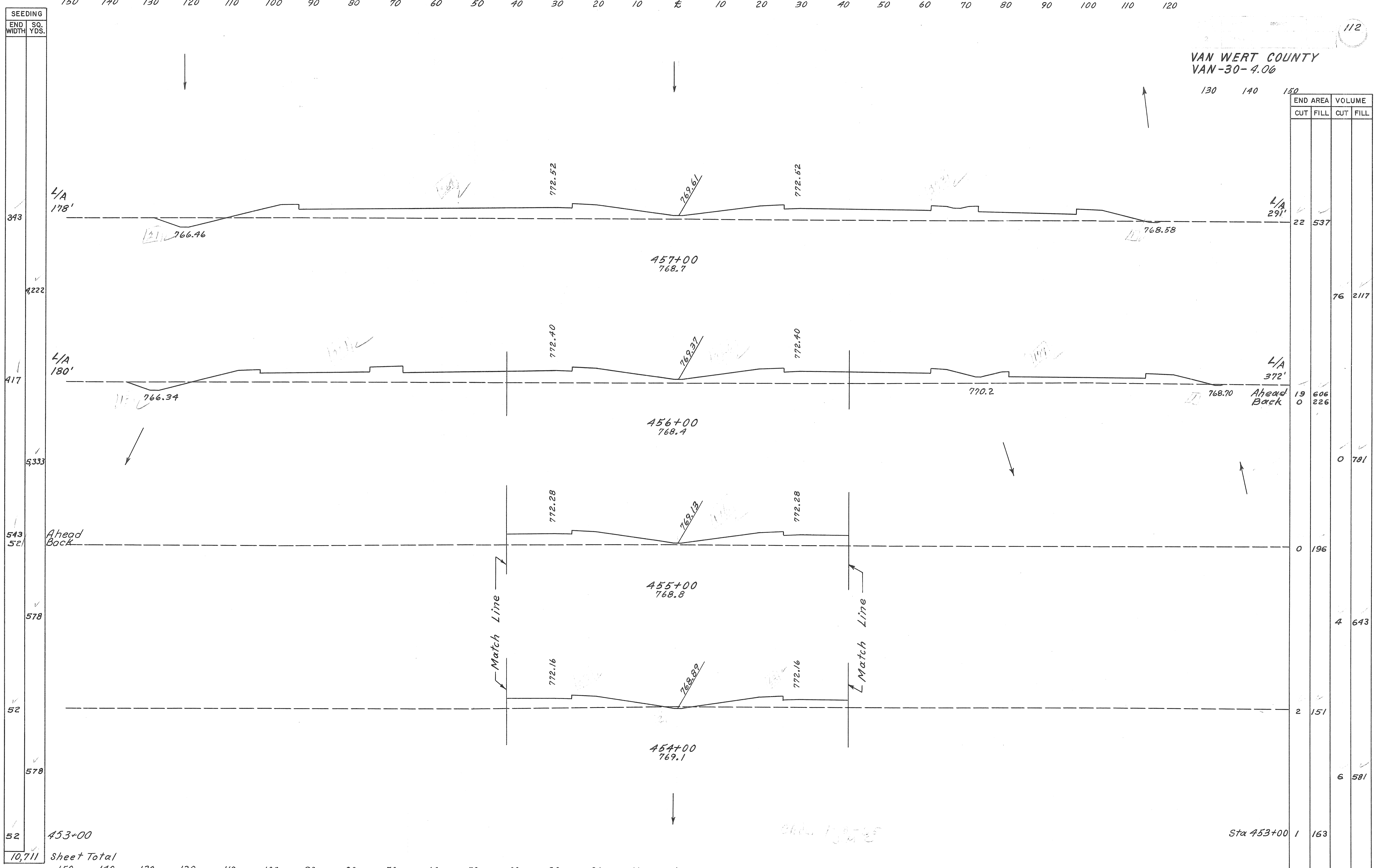
Seeding  
Width Sq. Yds.  
338  
3272  
251  
2922  
275  
3050  
274  
3061  
277  
2983  
260  
15,288

Sta. 45+00, 19.17' Rt. Rest Area & Std. No. 6 C.B., Gr. Elev. 768.97  
Sta. 451+00, 45.83' Rt. Rest Area & Std. No. 6 C.B., Gr. Elev. 767.43  
Gr. Elev. 768.97  
Gr. Elev. 767.93  
+00, 20' Rt. Rest Area & F.L. 765.90  
+98.45, 148' Rt. Rest Area & F.L. 765.56  
+00, 45' Rt. Rest Area & F.L. 765.76

Road Side Rest Area Right, Sta. 451+00 to Sta. 455+00



VAN WERT COUNTY  
VAN-30-4.06



Sheet Total

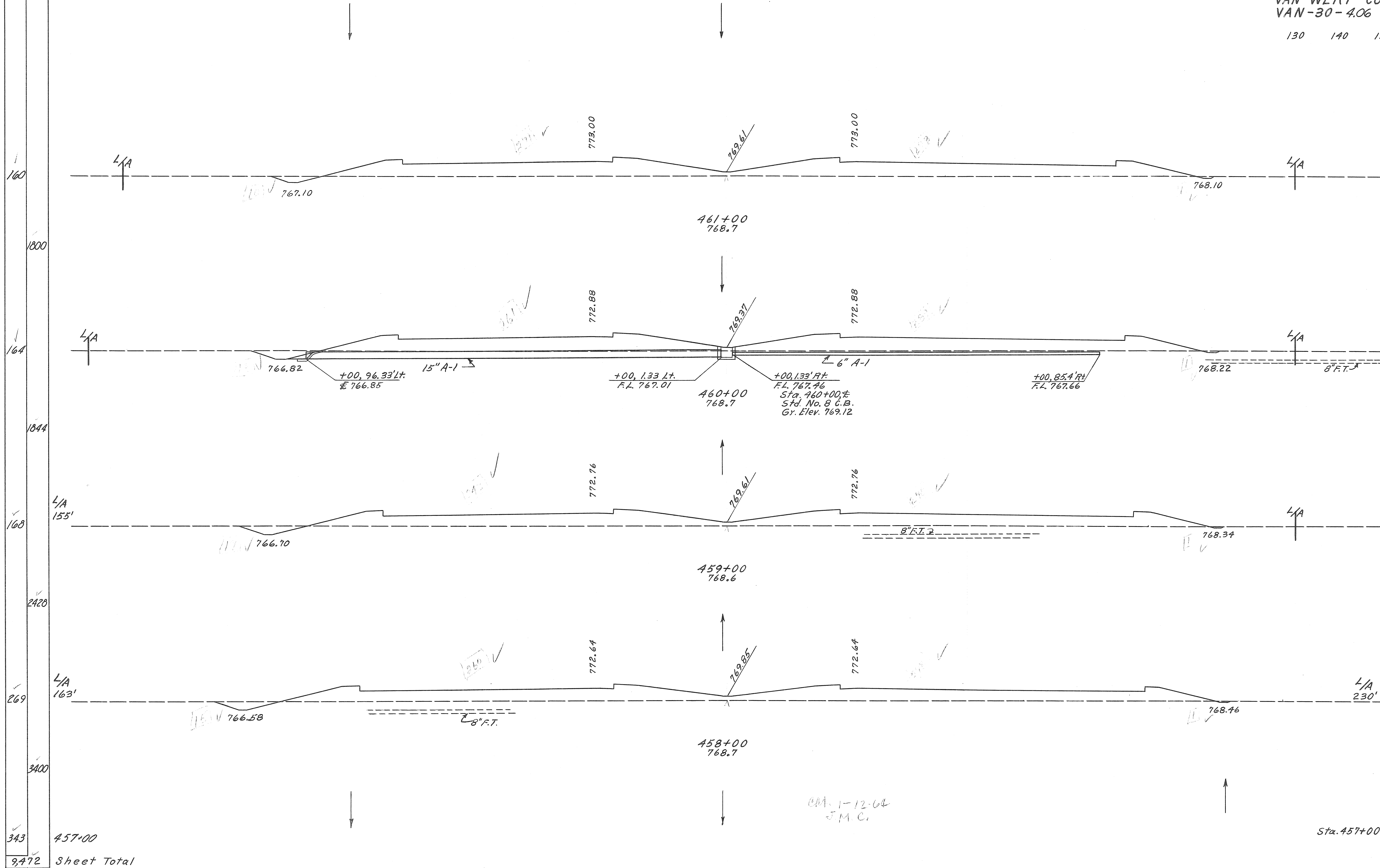
Sta 453+00

Shd. 1/30-45

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

SEEDING	
END WIDTH	SQ. YDS.
160	
1800	
164	
1844	
168	
2428	
163	
3400	
343	
9472	

END AREA	VOLUME	
	CUT	FILL
11	569	
56	2072	
19	550	
72	1967	
20	512	
67	1935	
16	533	
70	1982	
22	537	



Sheet Total

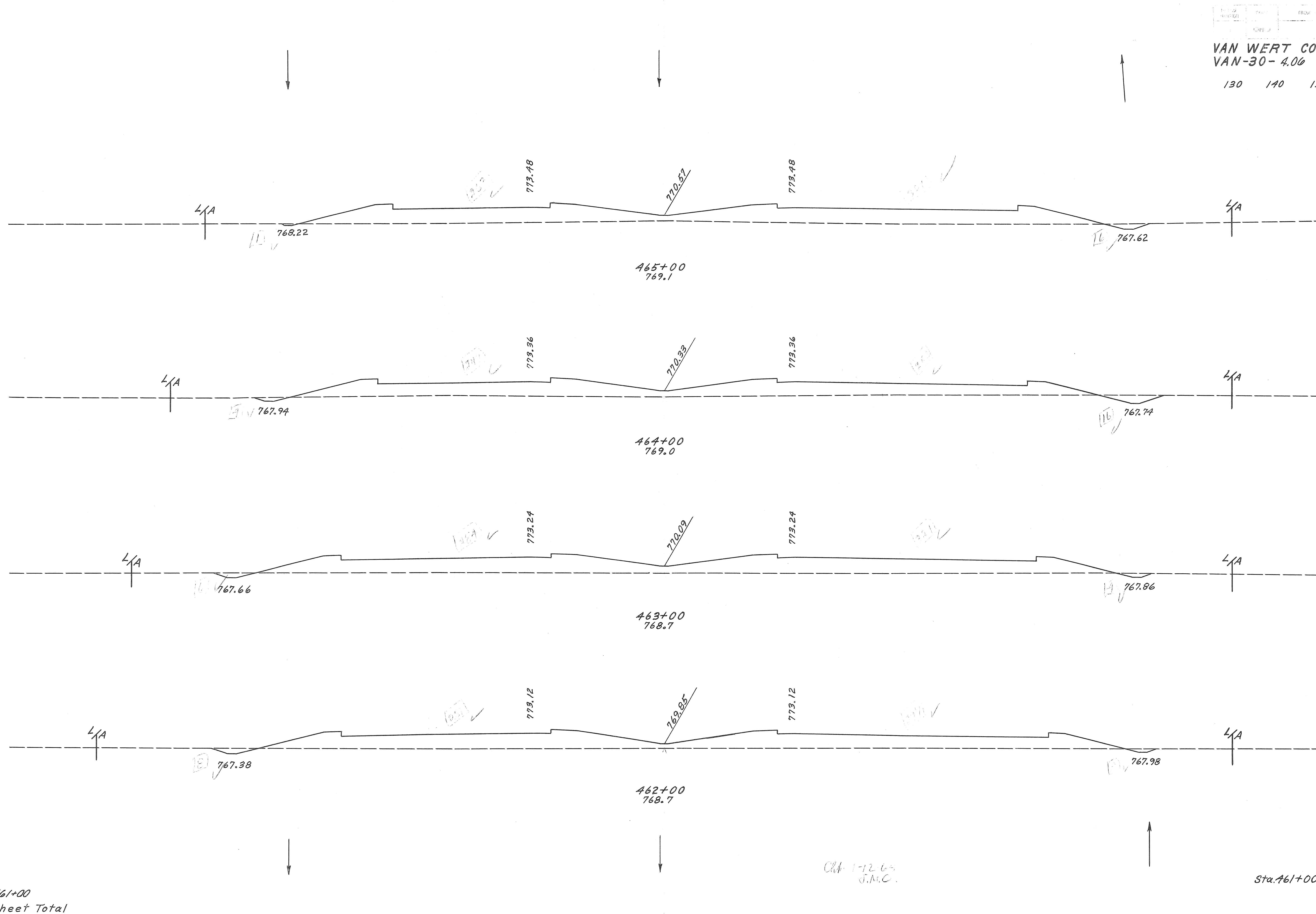
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120  
Sta. 458+00 to Sta. 461+00

VAN WERT COUNTY  
VAN-30-4.06

130 140 150

SEEDING	
END WIDTH	SQ. YDS.
146	
1633	
148	
1650	
149	
1667	
151	
1728	
160	461+00
6,678	Sheet Total

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 £ 10 20 30 40 50 60 70 80 90 100 110 120



END AREA	VOLUME	
	CUT	FILL
7	572	
50	1983	
20	499	
56	2045	
10	605	
39	2191	
11	578	
41	2124	
11	569	

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 £ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Oct 1-12-65  
J.M.C.

Sta. 461+00

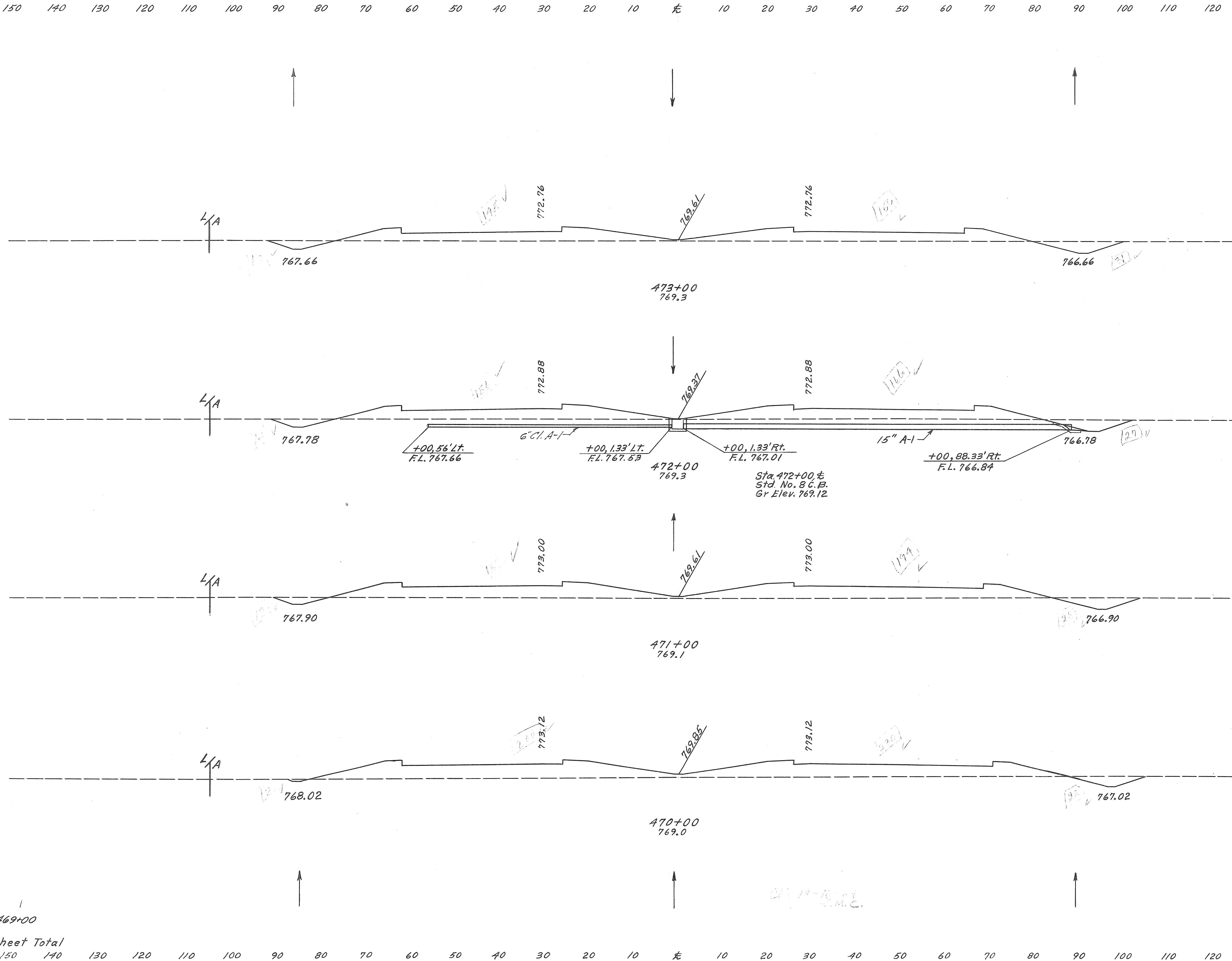
Sta. 462+00 to Sta. 465+00



VAN WERT COUNTY  
VAN-30-4.06

130 140 150

SEEDING
END WIDTH
SQ. YDS.
163
1805
162
1783
159
1761
158
1733
154
7,082



END AREA		VOLUME	
CUT	FILL	CUT	FILL
48	295	165	1143
41	322	150	1293
40	376	119	1493
24	430	72	1815
15	550		

469+00  
Sheet Total

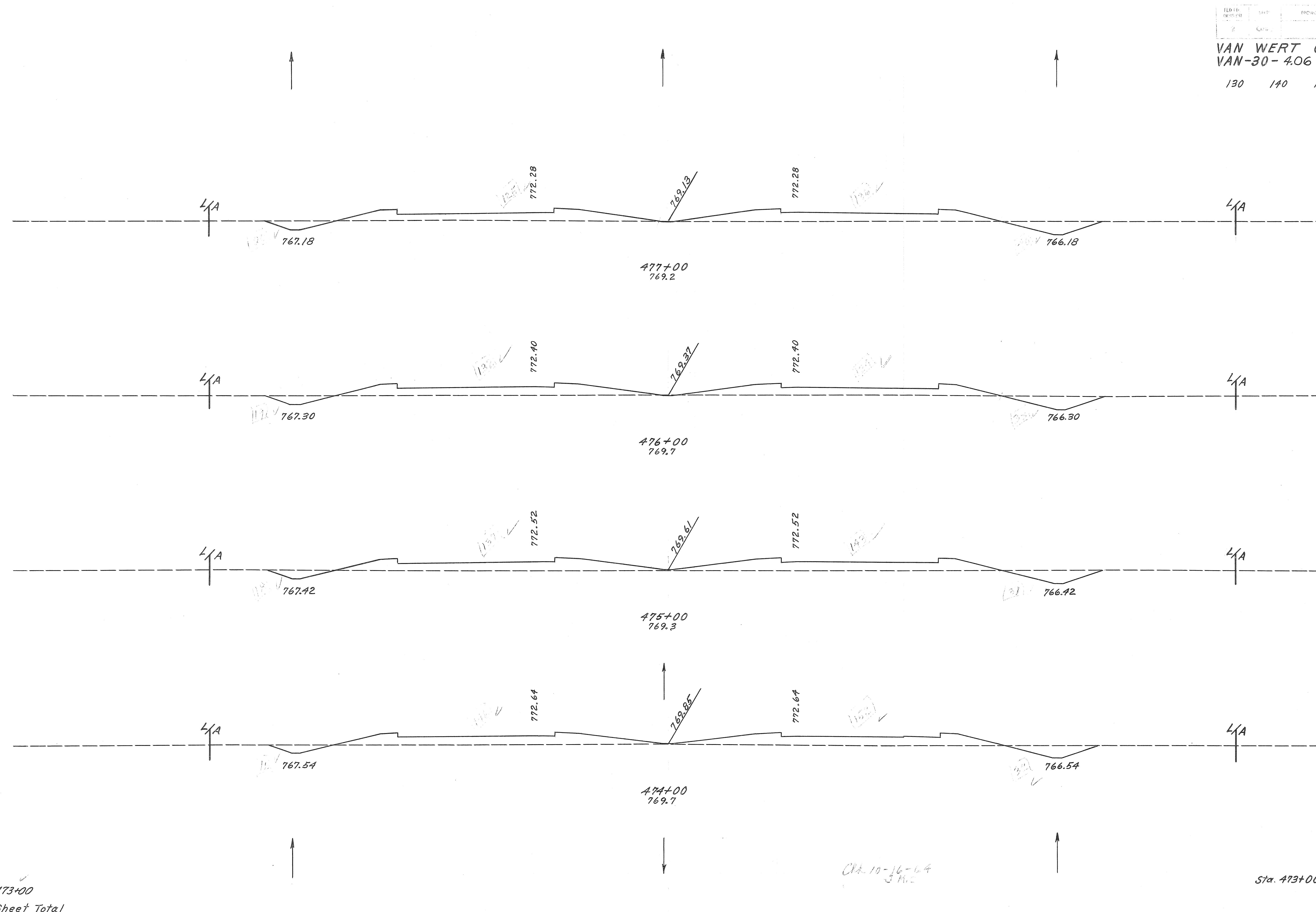
Sta. 469+00

Sta. 470+00 to Sta. 473+00

SEEDING	
END WIDTH	SQ. YDS.
165	
1833	
165	
1833	
165	
1833	
165	
1822	
163	
7,321	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
60	261		
		217	957
57	256		
		211	993
57	280		
		194	1070
48	298		
		178	1038
48	295		

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 £ 10 20 30 40 50 60 70 80 90 100 110 120



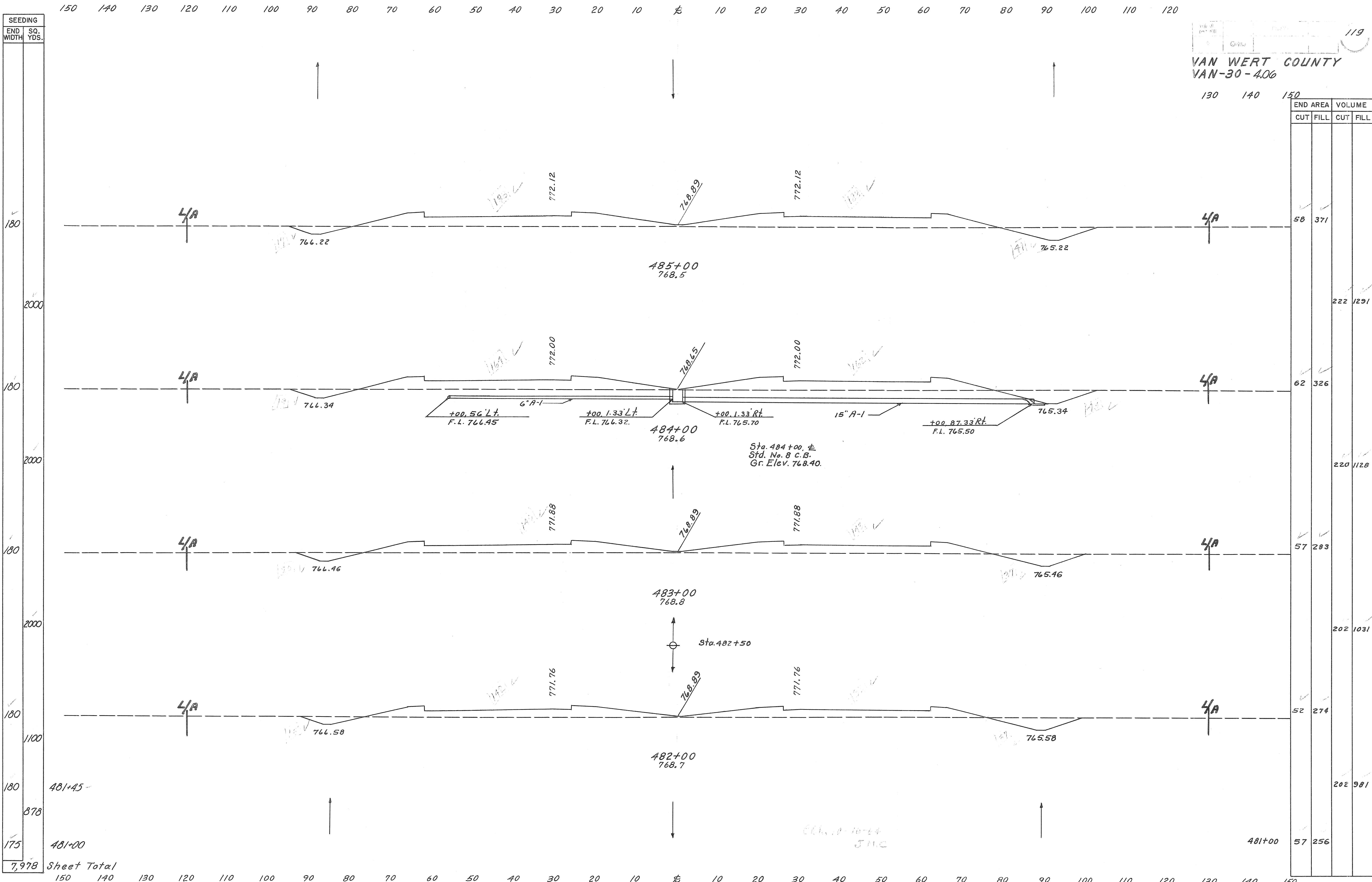
473+00  
Sheet Total

CH. 10-16-64  
J.M.C.

Sta. 473+00

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Sta. 474+00 to Sta. 477+00





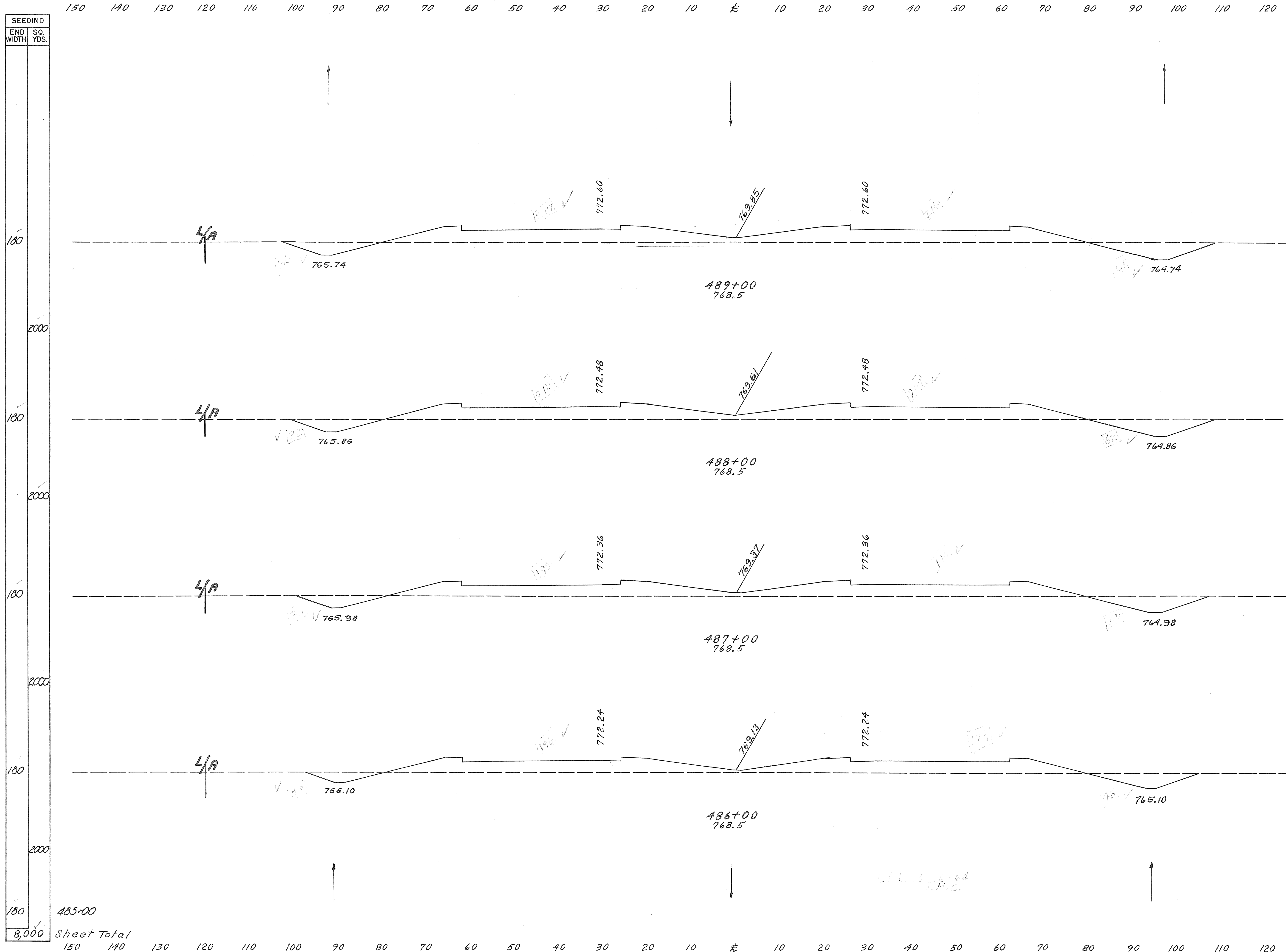
SEEDING	END WIDTH	SQ. YDS.
	180	
	2000	
	180	
	2000	
	180	
	2000	
	180	
	1100	
	180	
	878	
	175	
7,978	Sheet Total	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
58	371		
		222	1291
62	326		
		220	1128
57	293		
		202	1031
52	274		
		202	981
57	256		



VAN WERT COUNTY  
VAN-30-406

130 140 150



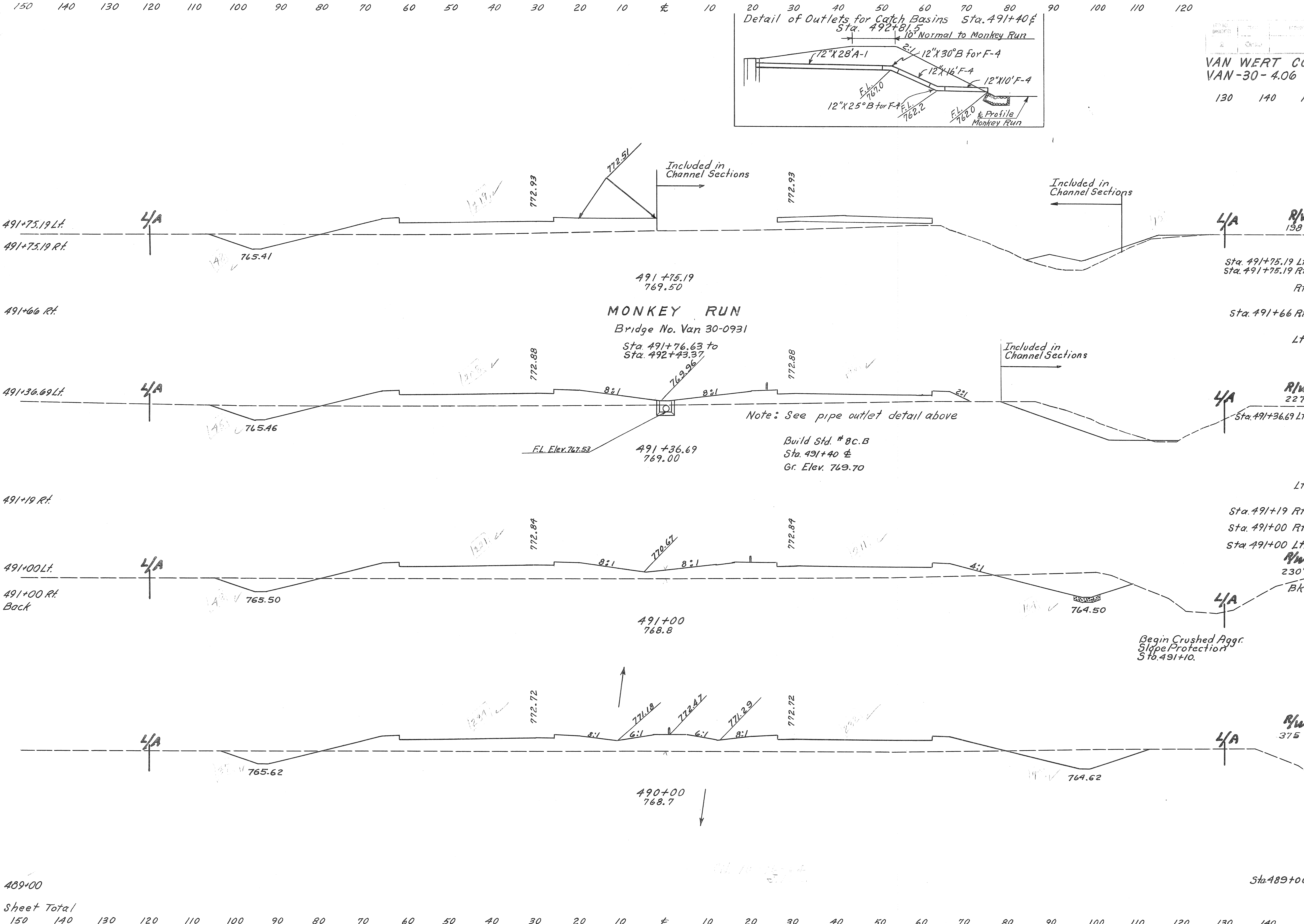
END AREA		VOLUME	
CUT	FILL	CUT	FILL
97	433		
		354	1574
94	417		
		335	1491
87	388		
		287	1411
68	374		
		233	1380
58	371		

SEEDIND  
END WIDTH SQ. YDS.  
8,000

485+00  
Sheet Total

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
Sta. 486+00 to Sta. 489+00

SEEDING	END WIDTH	SO. YDS.
	83	24
	13	0
	466	0
	127	511
	0	59
	124	56
	180	2000
	180	2000
	180	
	5,049	

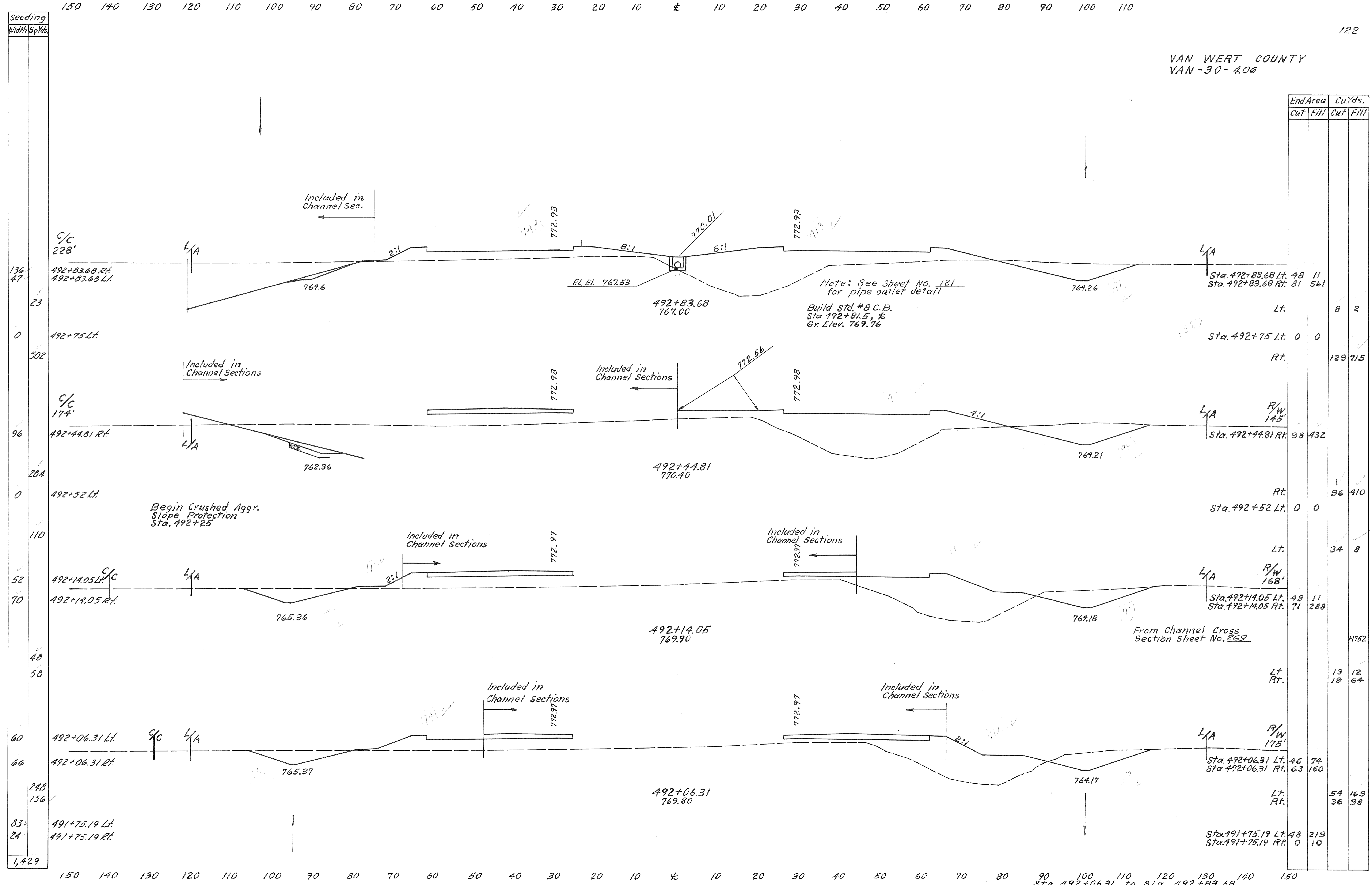


VAN WERT COUNTY  
 VAN-30-4.06  
 121

END STA.	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
Sta. 491+75.19 Lt.	48	219		
Sta. 491+75.19 Rt.	0	10		
Rt.			0	2
Sta. 491+66 Rt.	0	0		
Lt.			66	408
Sta. 491+36.69 Lt.	45	354		
Lt.			60	534
Sta. 491+19 Rt.	0	0		
Sta. 491+00 Rt.	104	0	37	0
Sta. 491+00 Lt.	43	432		
R/W				
230'				
Bk.	147	432		
			485	1663
R/W				
375'				
115				
			393	1665
Sta. 489+00	97	433		

Sheet Total  
 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ± 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
 Sta. 490+00 to Sta. 491+75.19

VAN WERT COUNTY  
VAN-30-4.06

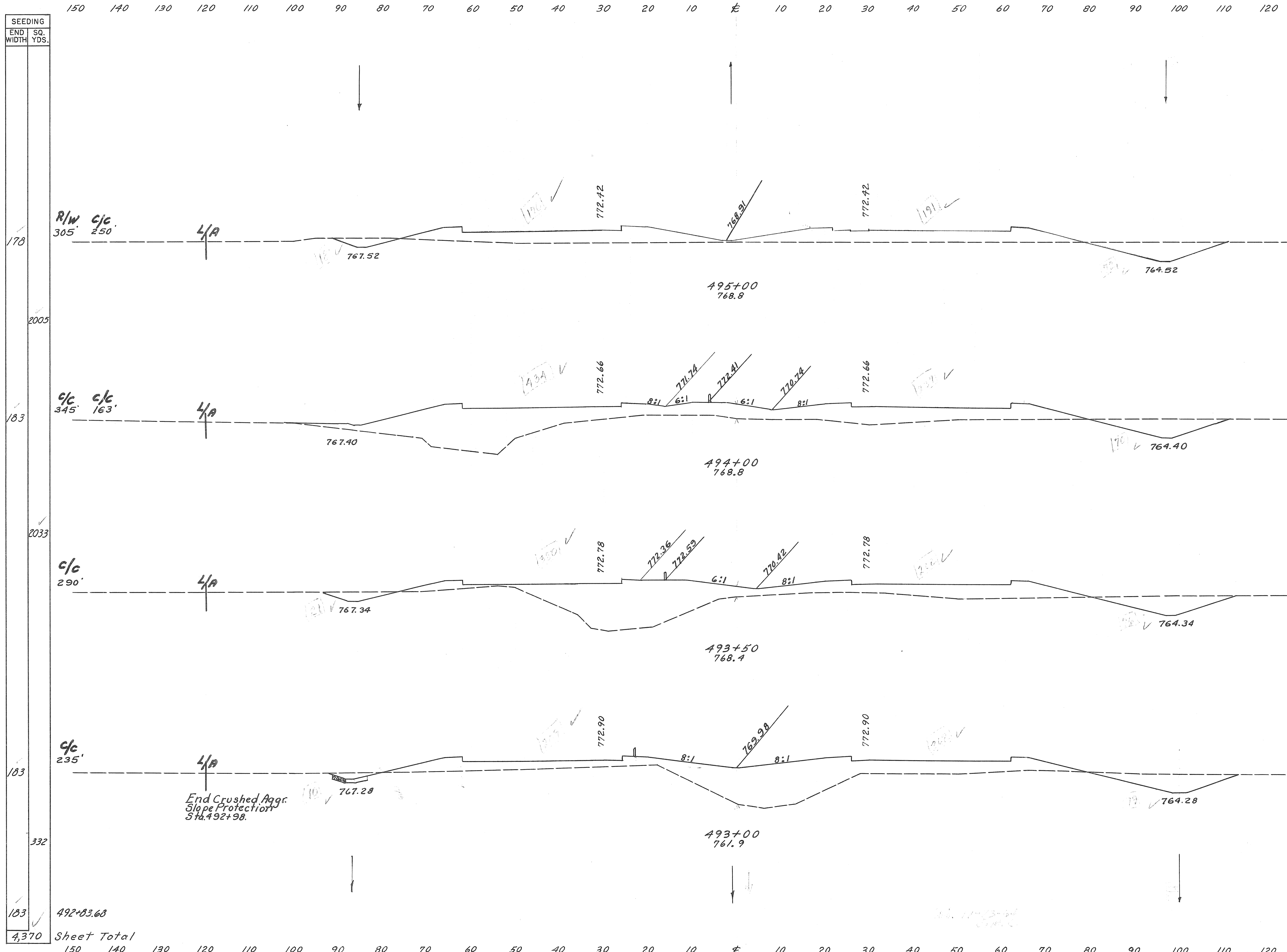


End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
48	11	8	2
81	561	0	0
		0	0
			129
			715
		98	432
			96
		0	0
			34
			8
48	11	46	74
71	288	63	160
			54
			36
			169
			98
48	219	48	219
0	10	0	10

Sta. 492+06.31 to Sta. 492+83.68

VAN WERT COUNTY  
 VAN-30-4.06

130 140 150



END AREA		VOLUME	
CUT	FILL	CUT	FILL
90	367	296	1322
70	671	155	1161
97	582	172	1068
89	571	51	343
81	561		

SEEDING	END WIDTH	SQ. YDS.
	178	305' 250'
	2005	
	183	345' 163'
	2033	
	183	290'
	332	
	183	235'
	4,370	

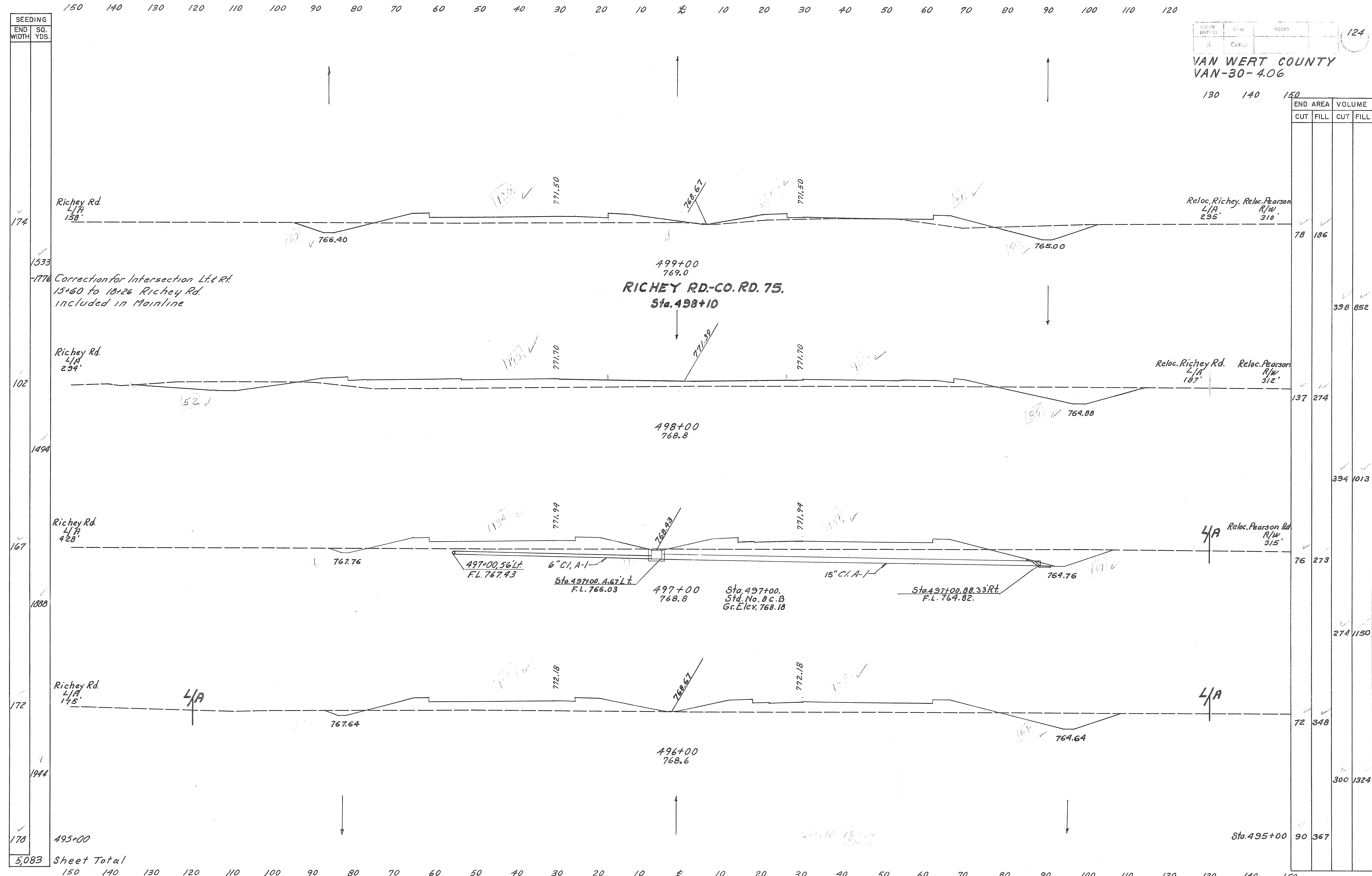
492+83.68  
 Sheet Total

Sta. 492+83.68

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
 Sta. 493+00 to Sta. 495+00

VAN WERT COUNTY  
VAN-30-406

130 140 150



SEEDING	END WIDTH	SO. YDS.
	174	158
	1533	
	1776	
	102	234
	1494	
	167	428
	1088	
	172	175
	1944	
	178	175
5,083		

Sheet Total

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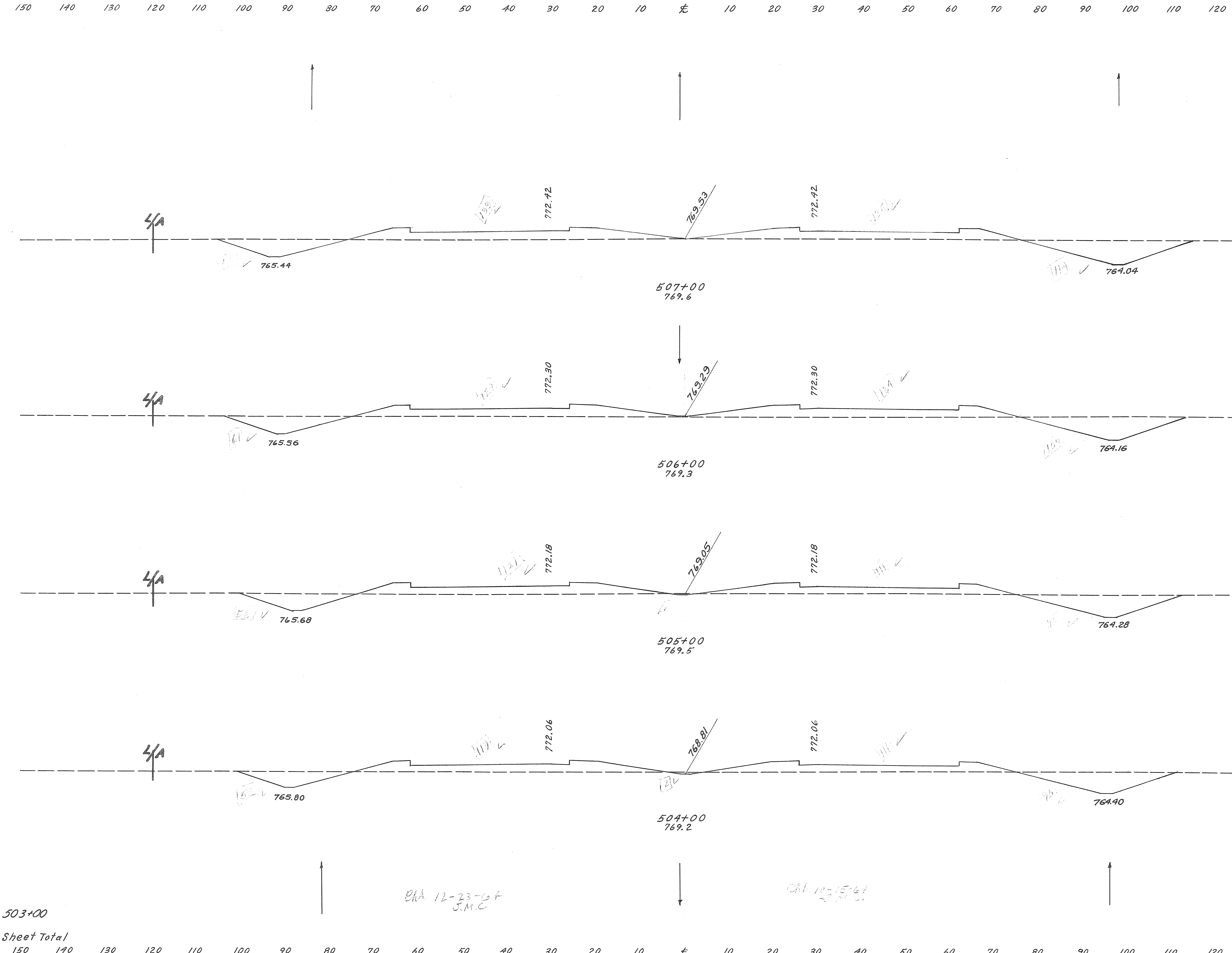


VAN WERT COUNTY  
VAN-30-4.06

130 140 150

SEEDING	END WIDTH	SQ. YDS.
186	186	258
2067	2067	965
186	186	263
2067	2067	917
186	186	232
2067	2067	856
186	186	230
2067	2067	791
186	186	197

END AREA	VOLUME	
	CUT	FILL
180	258	
168	263	
157	232	
149	230	
149	197	



503+00  
8,268 Sheet Total

ORA 12-23-64  
J.M.C

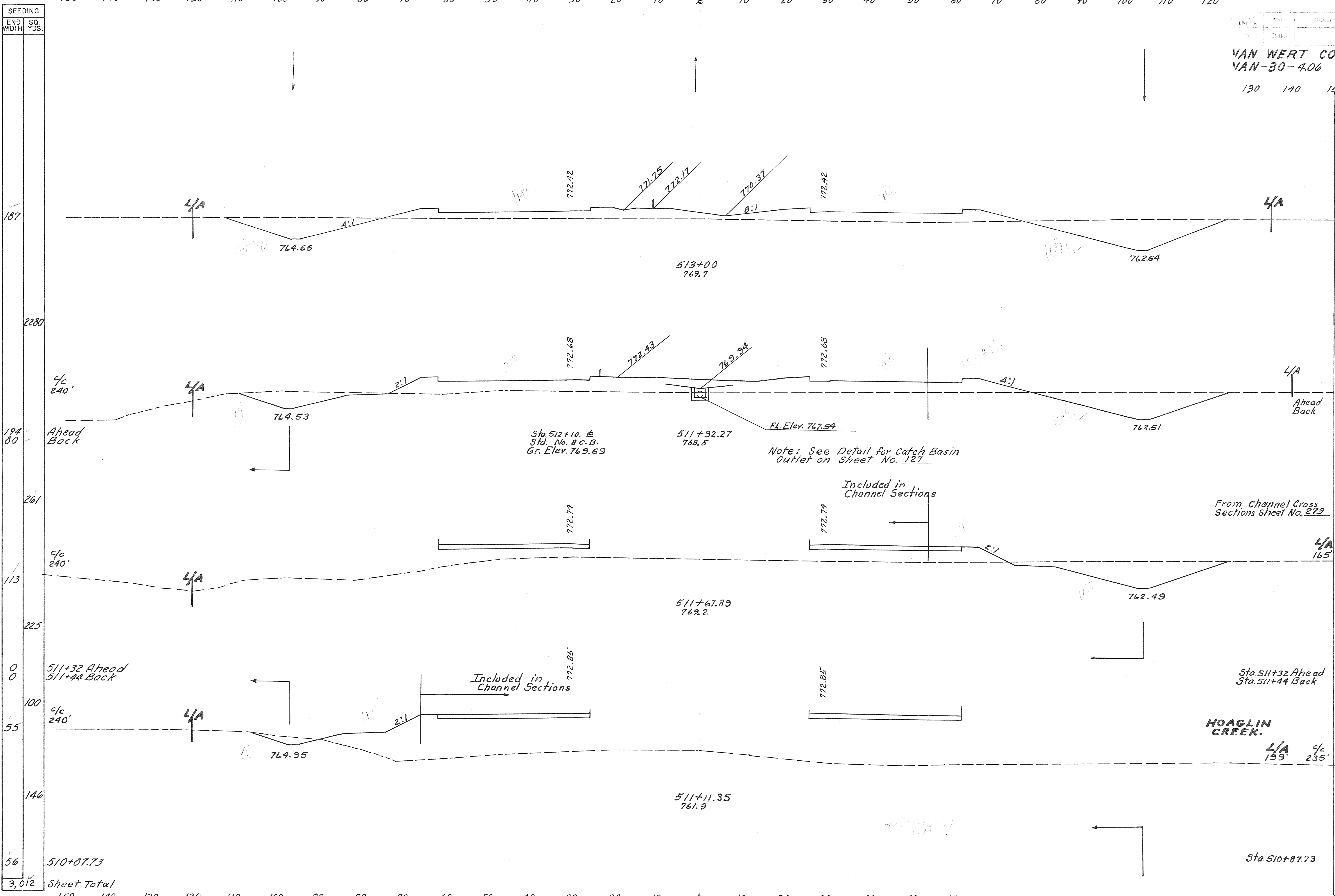
ORA 11-15-64  
J.M.C

Sta. 503+00

Sta. 504+00 to Sta. 507+00







SEEDING	END WIDTH	SO. YDS.
	187	
	2280	
	194 00	
	261	
	113	
	225	
	0 0	
	100	
	55	
	146	
	56	
	3,012	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
283	303		
		1003	1480
223	439		
156	56		
		143	48
			+713
160	51		
		106	34
0	0		
0	0		
		10	74
16	122		
		24	69
39	36		

Sheet Total 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
Sta. 511+11.35 to Sta. 513+00

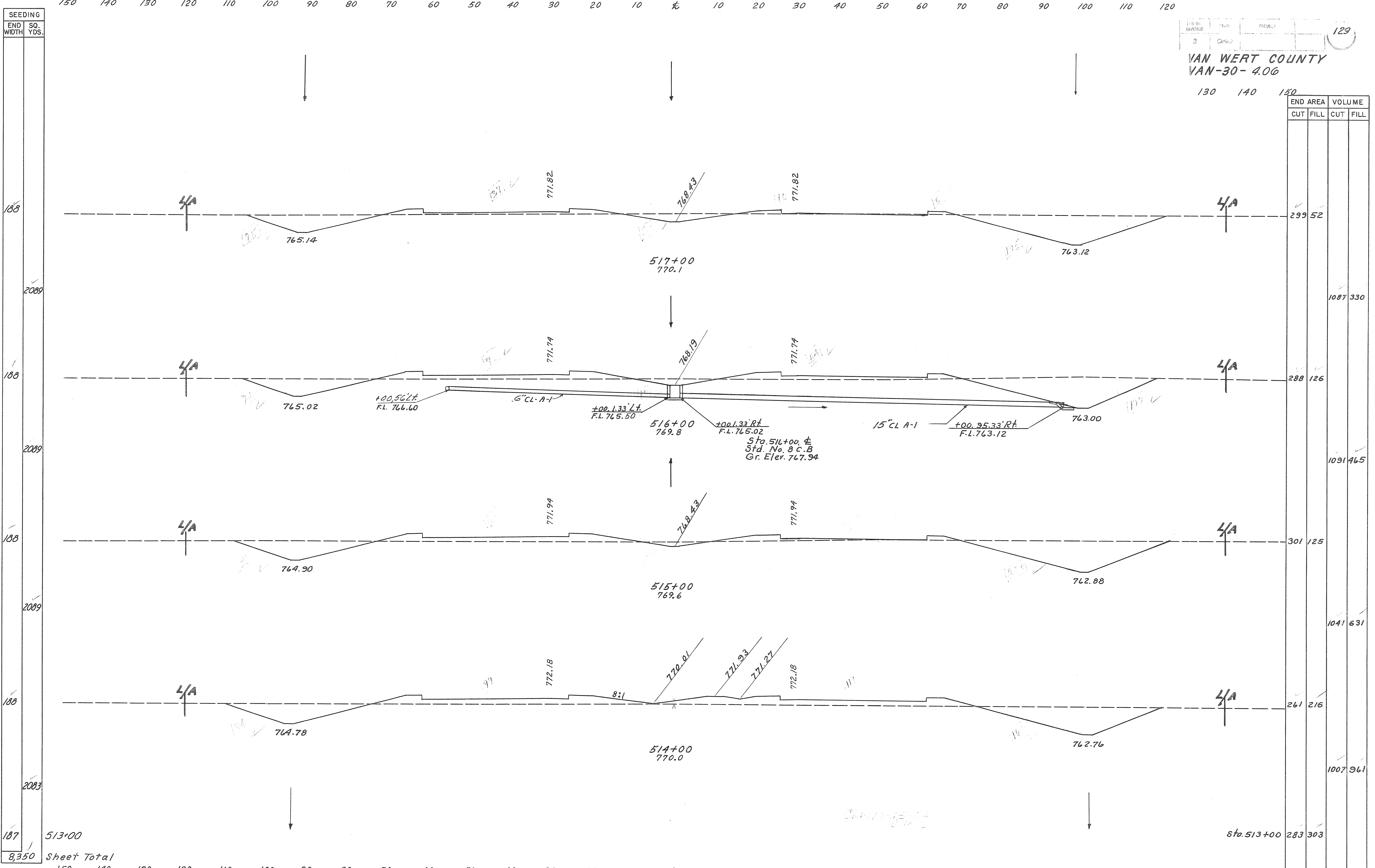
SEEDING  
END WIDTH SQ. YDS.

129

VAN WERT COUNTY  
VAN-30-4.06

130 140 150

END AREA		VOLUME	
CUT	FILL	CUT	FILL



187 513+00  
8,350 Sheet Total

sta. 513+00 283 303

END AREA		VOLUME	
CUT	FILL	CUT	FILL
299	52	1087	330
288	126	1091	465
301	125	1041	631
261	216	1007	361
283	303		



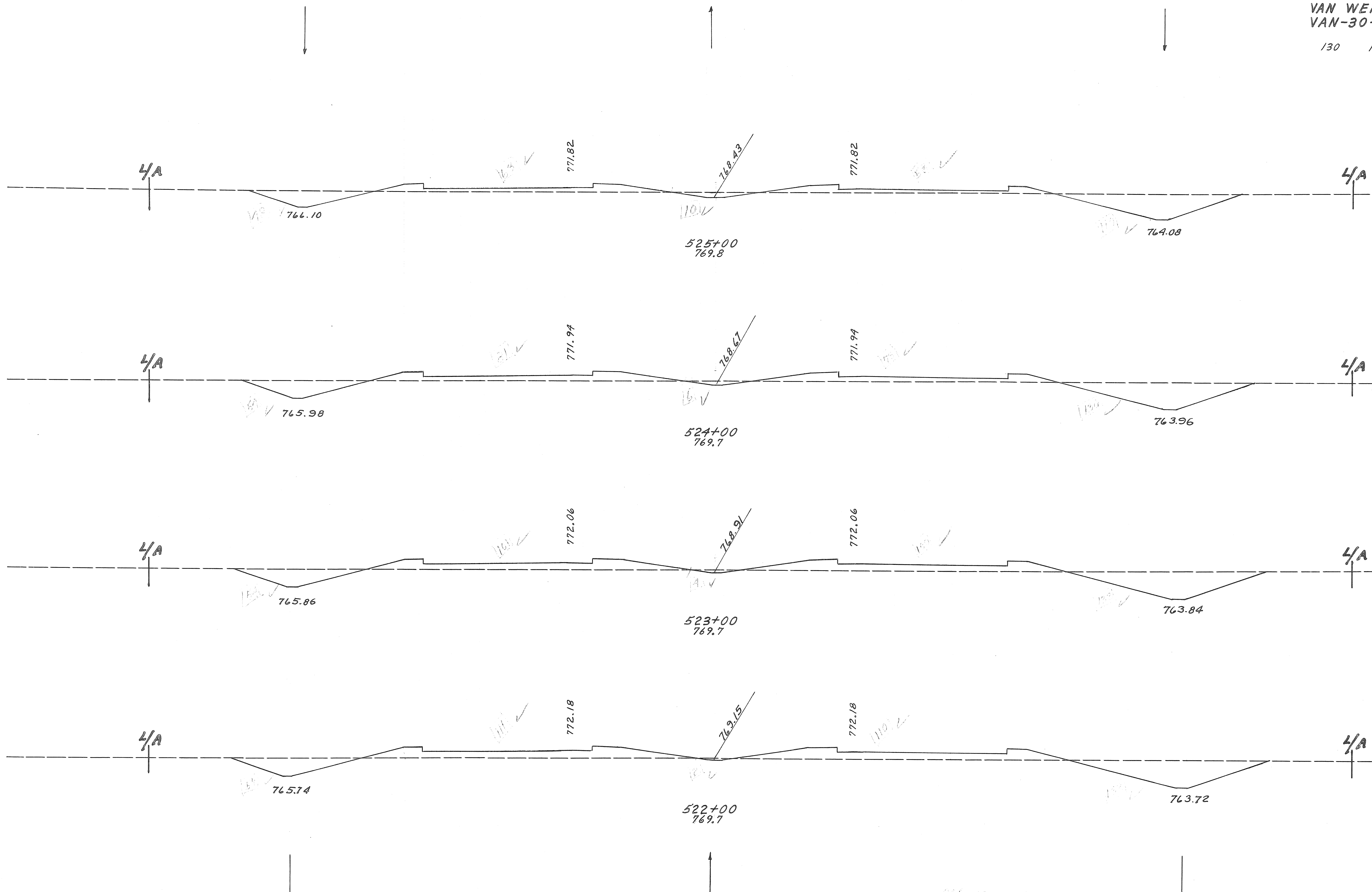
SEEDING	
END WIDTH	SQ. YDS.
186	2078
186	2078
186	2078
188	2089
188	8323

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

VAN WERT COUNTY  
VAN-30-4.06

130 140 150

END AREA		VOLUME	
CUT	FILL	CUT	FILL
175	121		
190	154		
191	201		
192	221		
207	237		
		676	509
		706	657
		709	781
		733	848



521+00  
Sheet Total  
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
Sta. 522+00 to Sta. 525+00

521+00 207 237



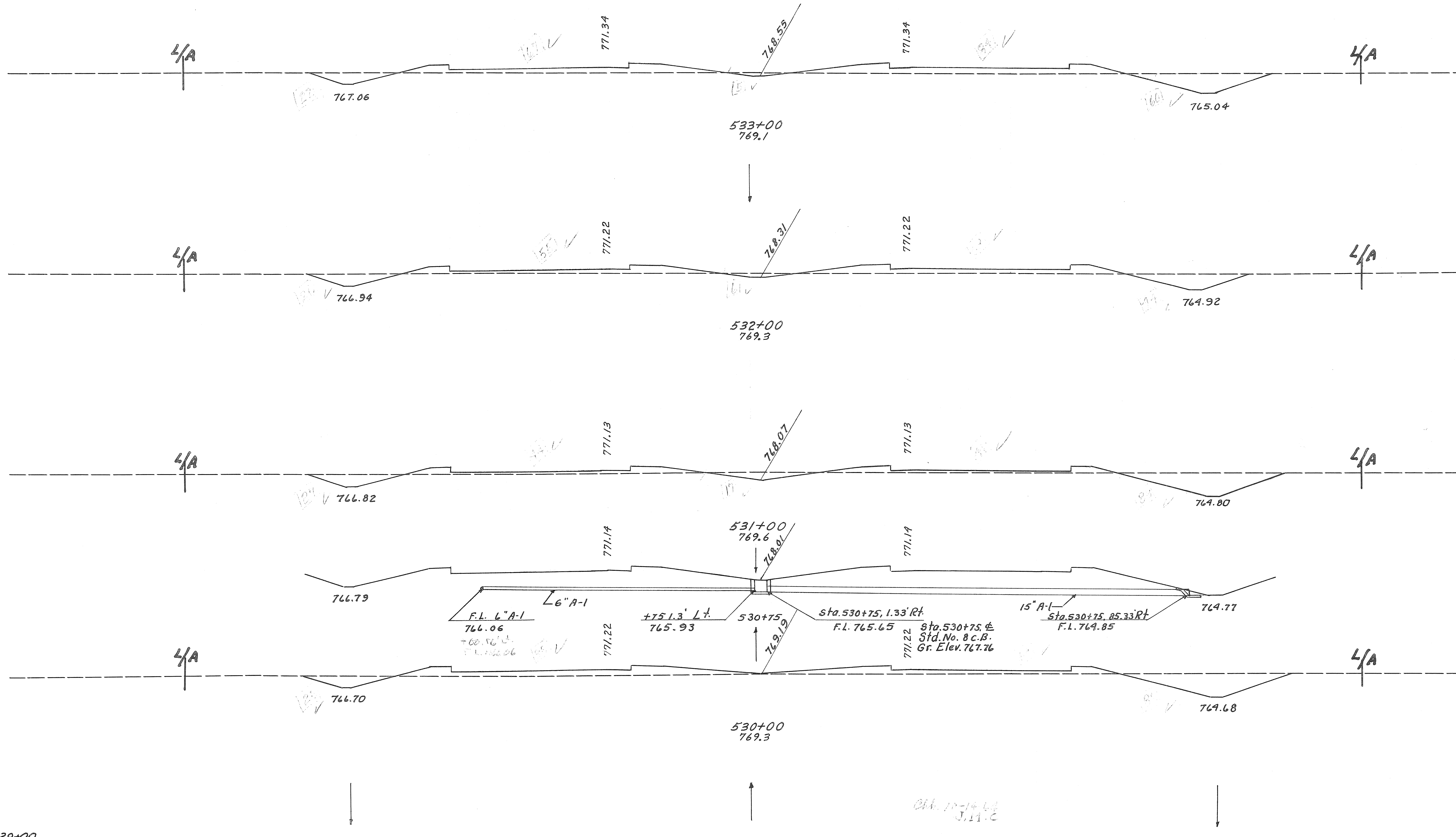
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ± 10 20 30 40 50 60 70 80 90 100 110 120

STATE	PROJECT	133
OHIO		

VAN WERT COUNTY  
VAN-30-4.06

130 140 150

SEEDING	END WIDTH	SO. YDS.
	165	
	1833	
	165	
	1833	
	165	
	1833	
	165	
	1922	
	181	
7421		

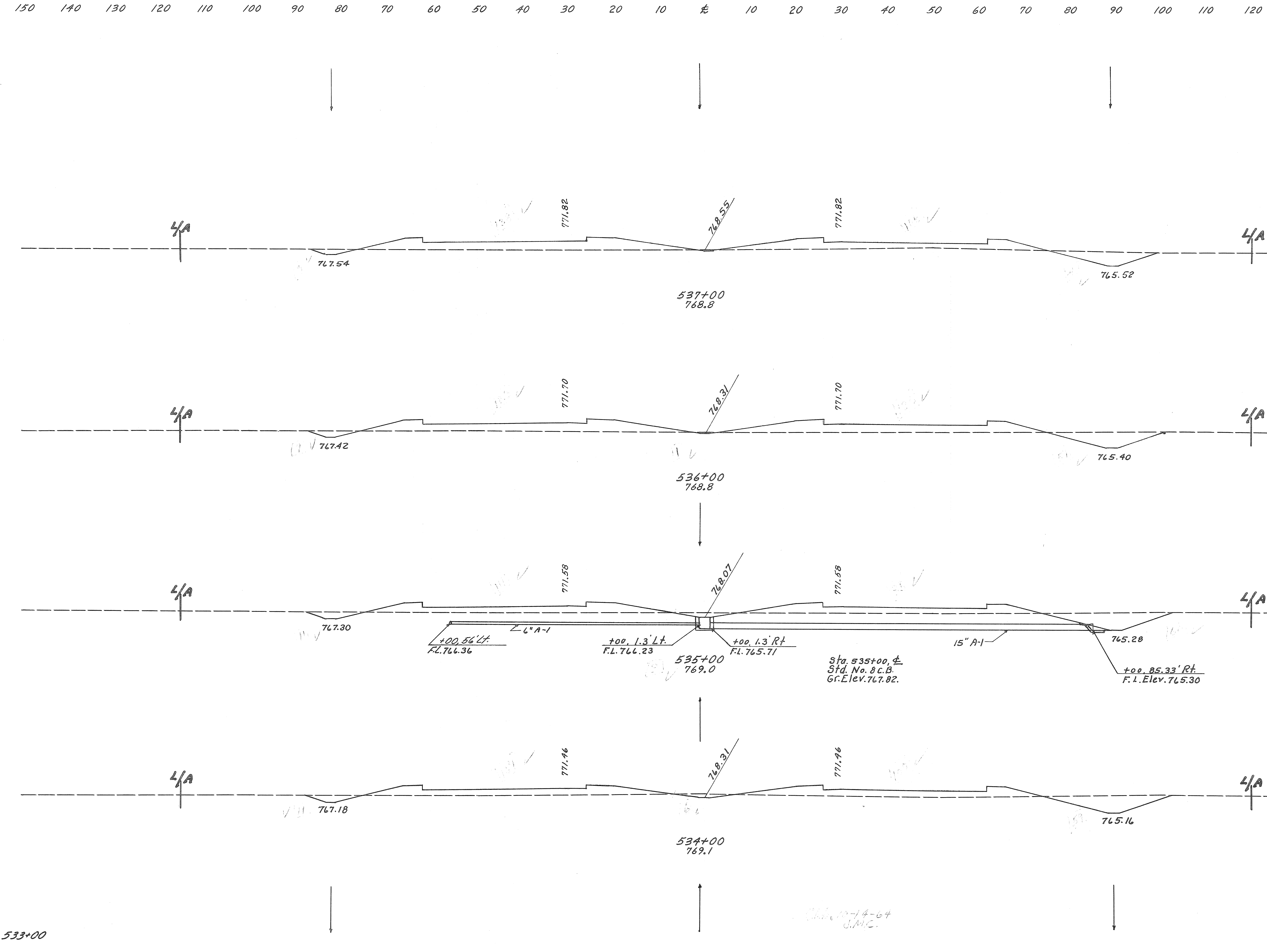


END AREA		VOLUME	
CUT	FILL	CUT	FILL
87	151		
		302	507
76	123		
		376	385
127	85		
		444	498
113	157		
		470	459
529+00	145	91	

529+00  
Sheet Total  
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ± 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
Sta. 530+00 to Sta. 533+00

CH. 10-14-64  
J.H.C.

SEEDING
END WIDTH
SQ. YDS.
165
1833
165
1833
165
1833
165
1833
165
7332



END STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
537+00	49	244		
536+00			204	913
535+00	61	249		
534+00			259	824
533+00	79	196		
532+00			287	759
531+00	76	214		
530+00			302	676
529+00	87	151		

Sheet Total 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ± 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 Sta. 534+00 to Sta. 537+00



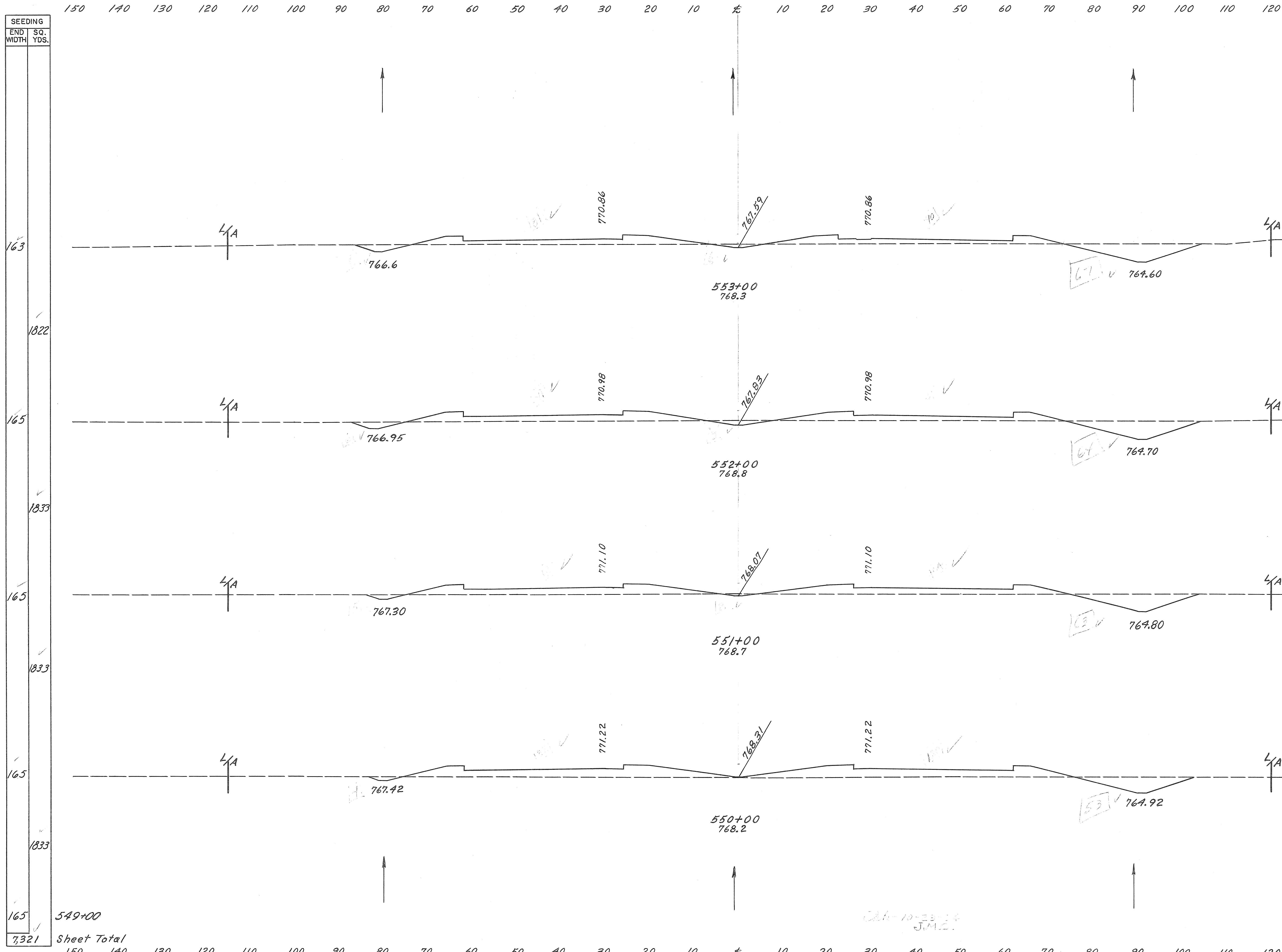






VAN WERT COUNTY  
VAN-30-4.06

130 140 150



END AREA	VOLUME	
	CUT	FILL
79	171	291 635
78	172	274 717
70	215	235 883
57	262	193 1006
47	281	

SEEDING	END WIDTH	SQ. YDS.
	163	1822
	165	1833
	165	1833
	165	1833
	165	1833

549+00  
Sheet Total

Sta. 549+00 to Sta. 553+00

22-10-23-24  
J.M.L.

SEEDING  
END WIDTH SQ. YDS.

147	3933
1309	
148	
153	
170	
154	
1733	
158	
1783	
163	
6,310	

557+50

Corr. for Inter.  
48+79 to 51+19, Liberty Union Rd.  
included on Mainline

Liberty Union  
L/A  
385'

Ahead  
555+10  
Back

1733

158

1783

553+00

Sheet Total

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

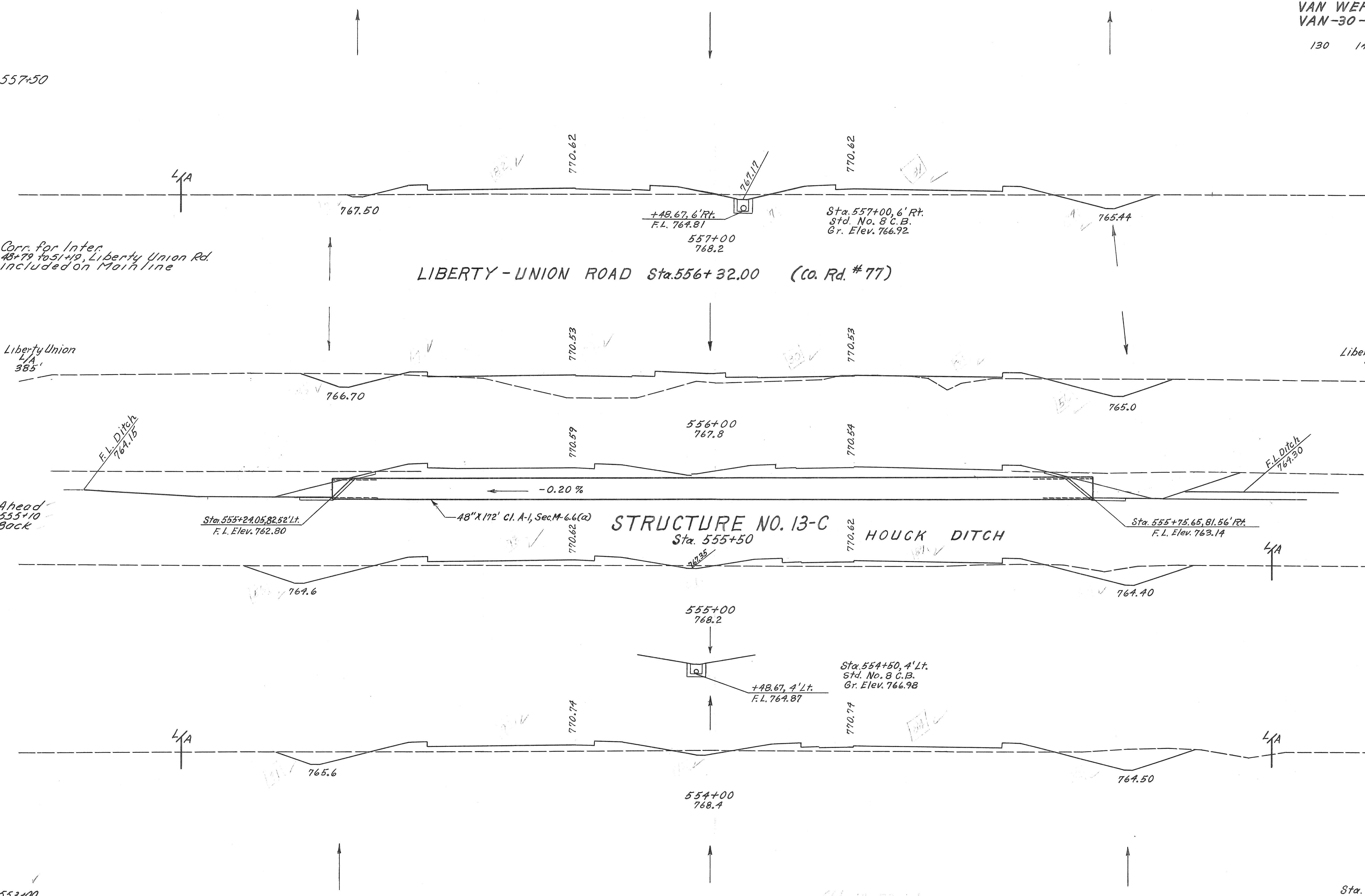
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

2	Cont.	139
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VAN WERT COUNTY  
VAN-30-4.06

130 140 150

END AREA	VOLUME	
	CUT	FILL
43	163	
92	235	250 737
122	165	356 741
113	174	435 628
79	171	356 639
79	171	



Sta. 553+00

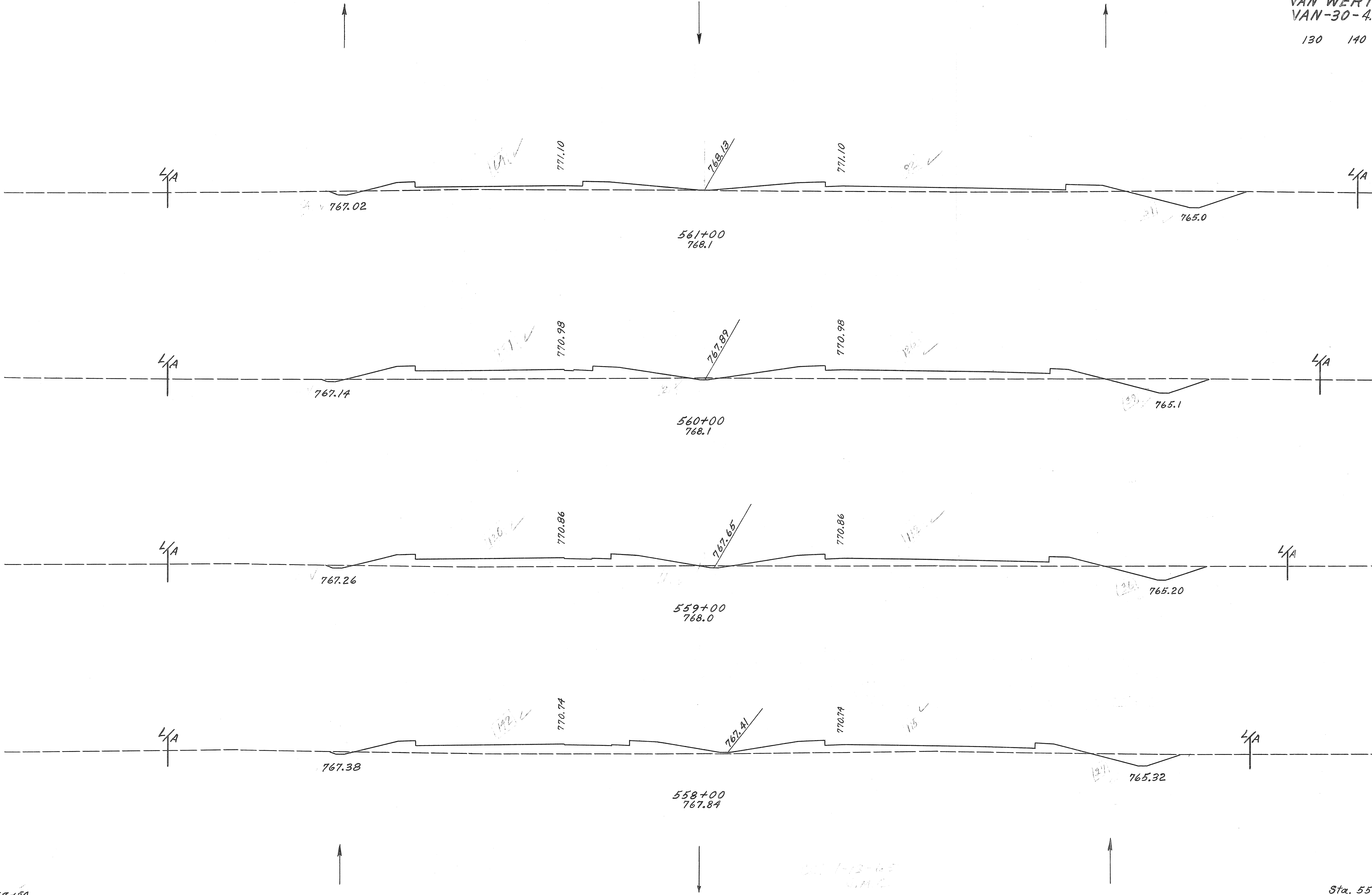
Sta. 554+00 to Sta. 557+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

VAN WERT COUNTY  
VAN-30-4.06

SEEDING	
END WIDTH	SQ. YDS.
170	
1855	
164	
1756	
152	
1644	
144	
975	
147	
6230	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
55	156		
180	783		
42	267		
150	924		
39	232		
126	906		
29	257		
133	778		
43	163		



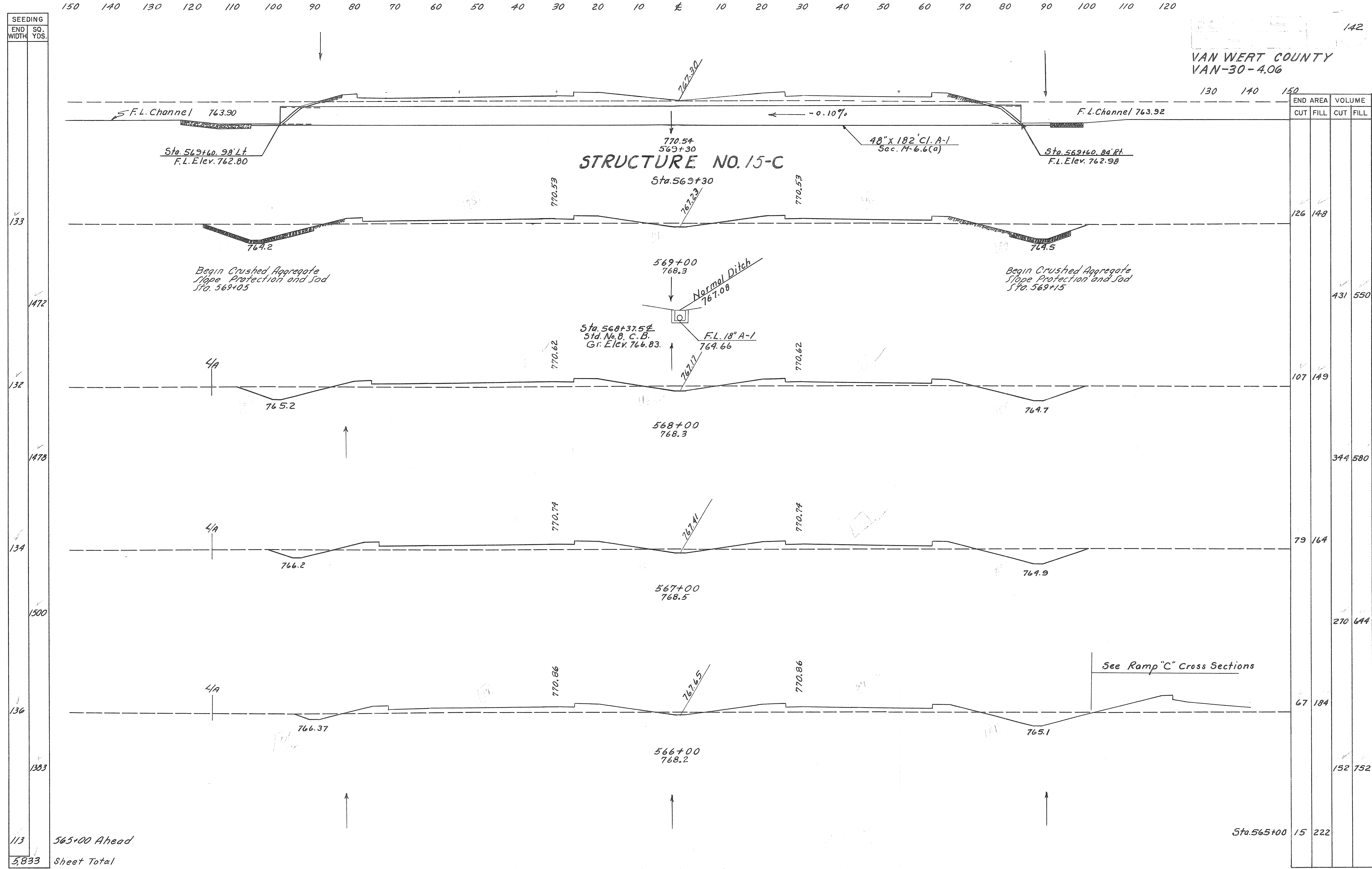
557+00  
Sheet Total

Sta. 557+00

Sta. 558+00 to sta. 561+00

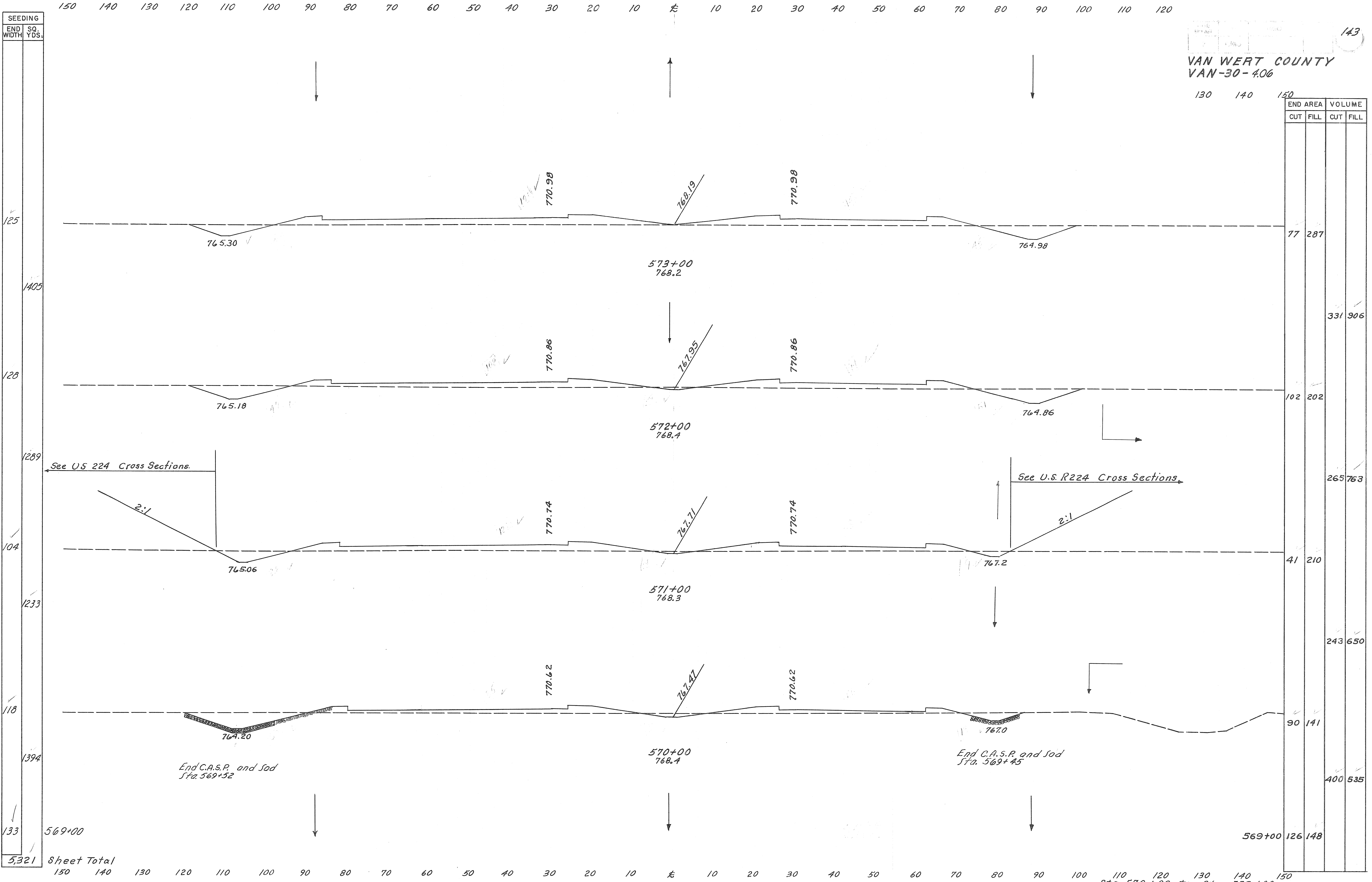
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120





SEEDING	END WIDTH	SQ. YDS.
	133	1472
	132	1478
	134	1500
	136	1383
	113	5,833

END AREA	VOLUME
CUT	FILL
126	148
431	550
107	149
344	580
79	164
270	644
67	184
152	752
15	222



SEEDING
END WIDTH SQ. YDS.
125
1405
128
1289
104
1233
118
1394
133
5,321

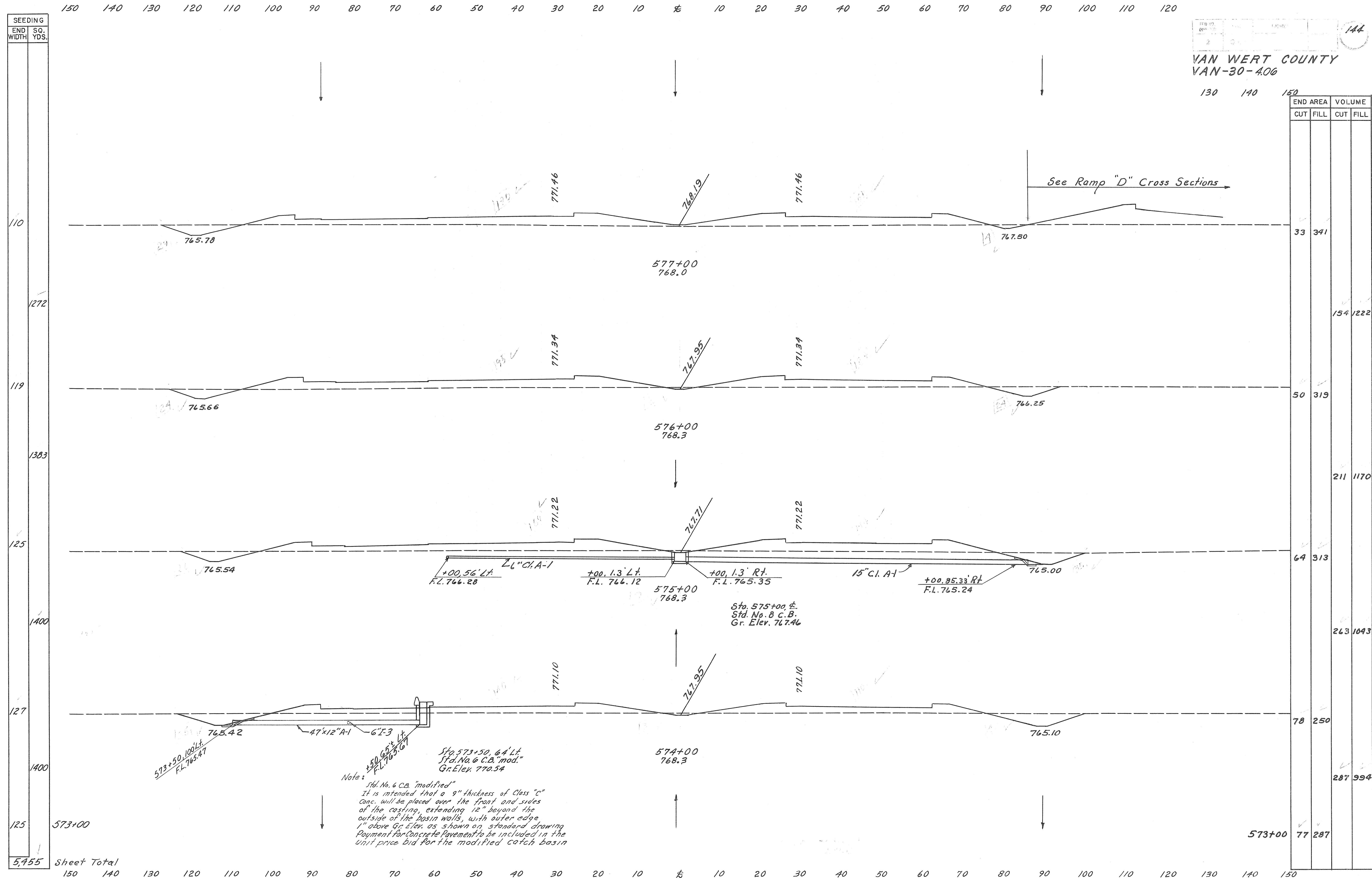
END AREA		VOLUME	
CUT	FILL	CUT	FILL
77	287		
		331	906
102	202		
		265	763
41	210		
		243	650
90	141		
		400	535
126	148		

Sheet Total  
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
Sta. 570+00 to Sta. 573+00



VAN WERT COUNTY  
VAN-30-406

130 140 150



END AREA		VOLUME	
CUT	FILL	CUT	FILL
33	341		
50	319	154	1222
64	313	211	1170
78	250	263	1043
77	287	287	994

SEEDING	END WIDTH	SQ. YDS.
	150	1272
	140	1383
	130	1400
	120	1400
	110	127
	100	125
	90	125
	80	125
	70	125
	60	125
	50	125
	40	125
	30	125
	20	125
	10	125
	0	125
	10	125
	20	125
	30	125
	40	125
	50	125
	60	125
	70	125
	80	125
	90	125
	100	125
	110	125
	120	125
	130	125
	140	125
	150	125

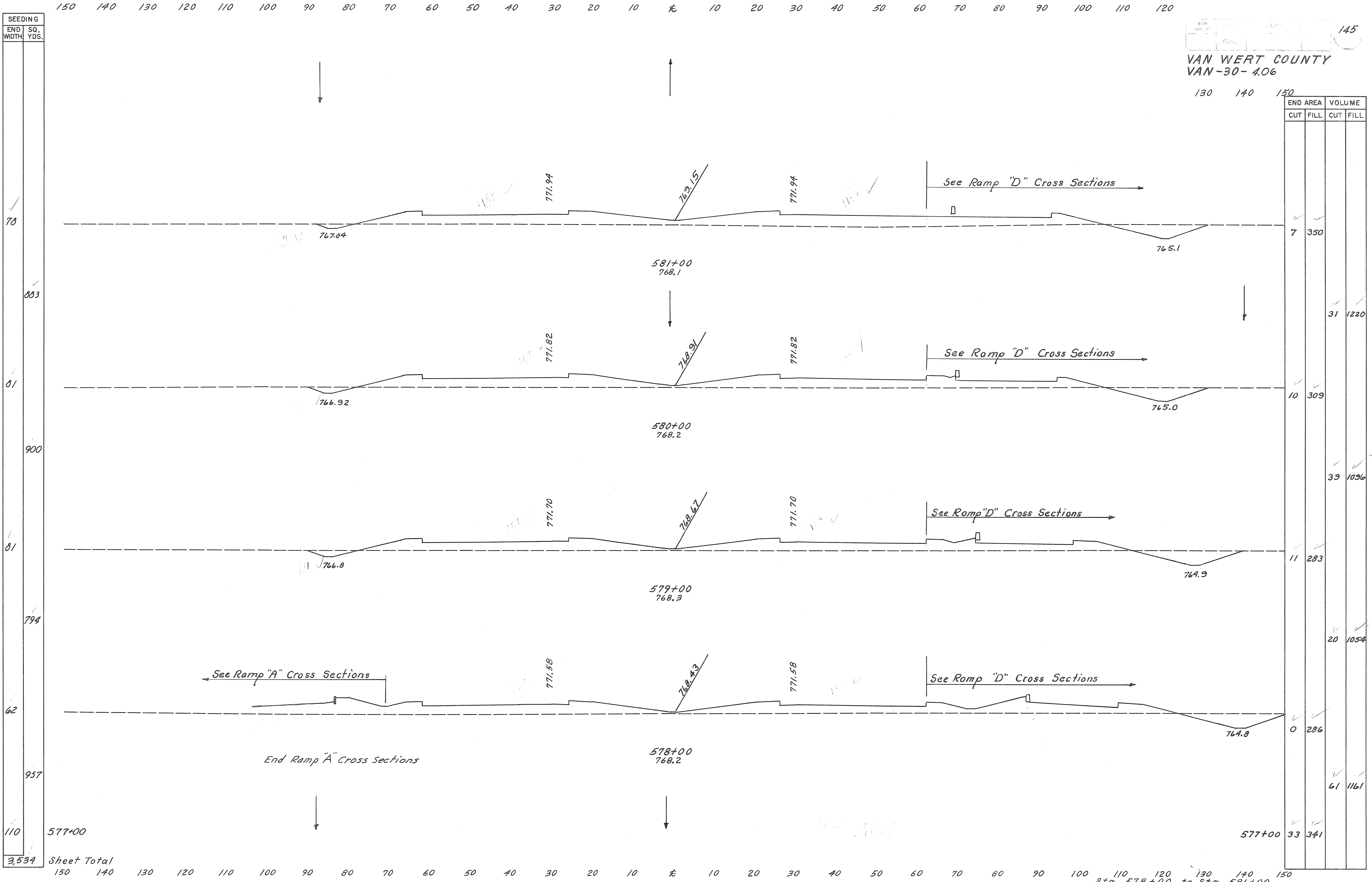
Sheet Total  
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Note: Std. No. 6 C.B. "modified"  
It is intended that a 9" thickness of Class "C" Conc. will be placed over the front and sides of the casting, extending 12" beyond the outside of the basin walls, with outer edge 1" above Gr. Elev. as shown on standard drawing. Payment for Concrete Pavement to be included in the unit price bid for the modified catch basin.

Sta. 573+50, 6" Lt. Std. No. 6 C.B. "mod." Gr. Elev. 770.54

Sta. 575+00, 4" Std. No. 8 C.B. Gr. Elev. 767.46

Sta. 574+00 to Sta. 577+00

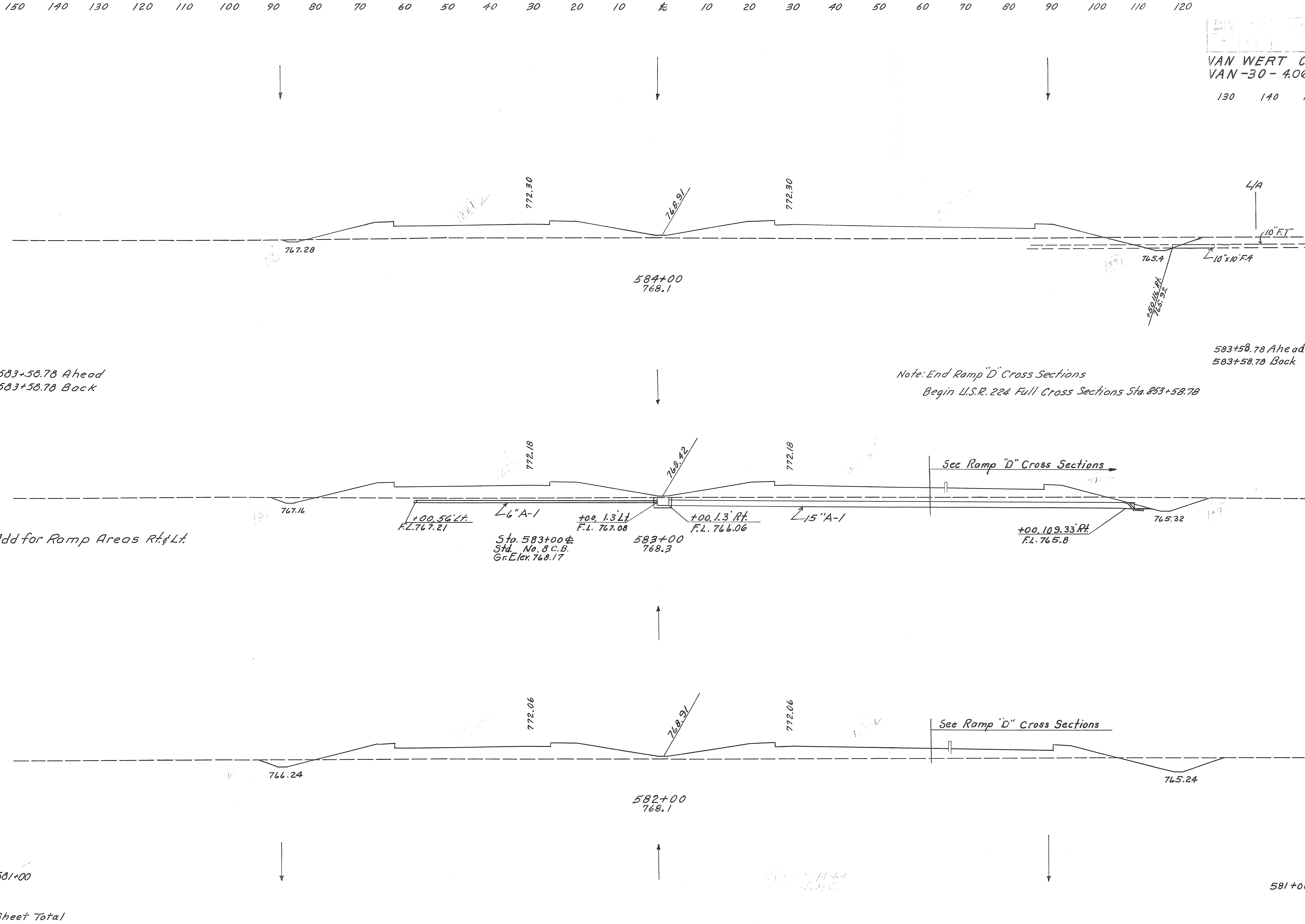


SEEDING
END WIDTH
SQ. YDS.
78
883
81
900
81
794
62
957
110

END AREA	VOLUME	
	CUT	FILL
7	350	
10	309	31 1220
11	283	39 1096
0	286	20 1054
33	341	61 1161

Sheet Total 3,534  
 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
 Sta. 578+00 to Sta. 581+00

SEEDING	END WIDTH	SQ. YDS.
132	132	611
135	82	535
82	82	54632
933	933	
86	86	
911	911	
78	78	
57,622	57,622	Sheet Total



END AREA	VOLUME	
	CUT	FILL
39	484	
63	718	
43	456	
8	349	
18	760	
8	349	
37	1333	
12	371	
35	1335	
7	350	

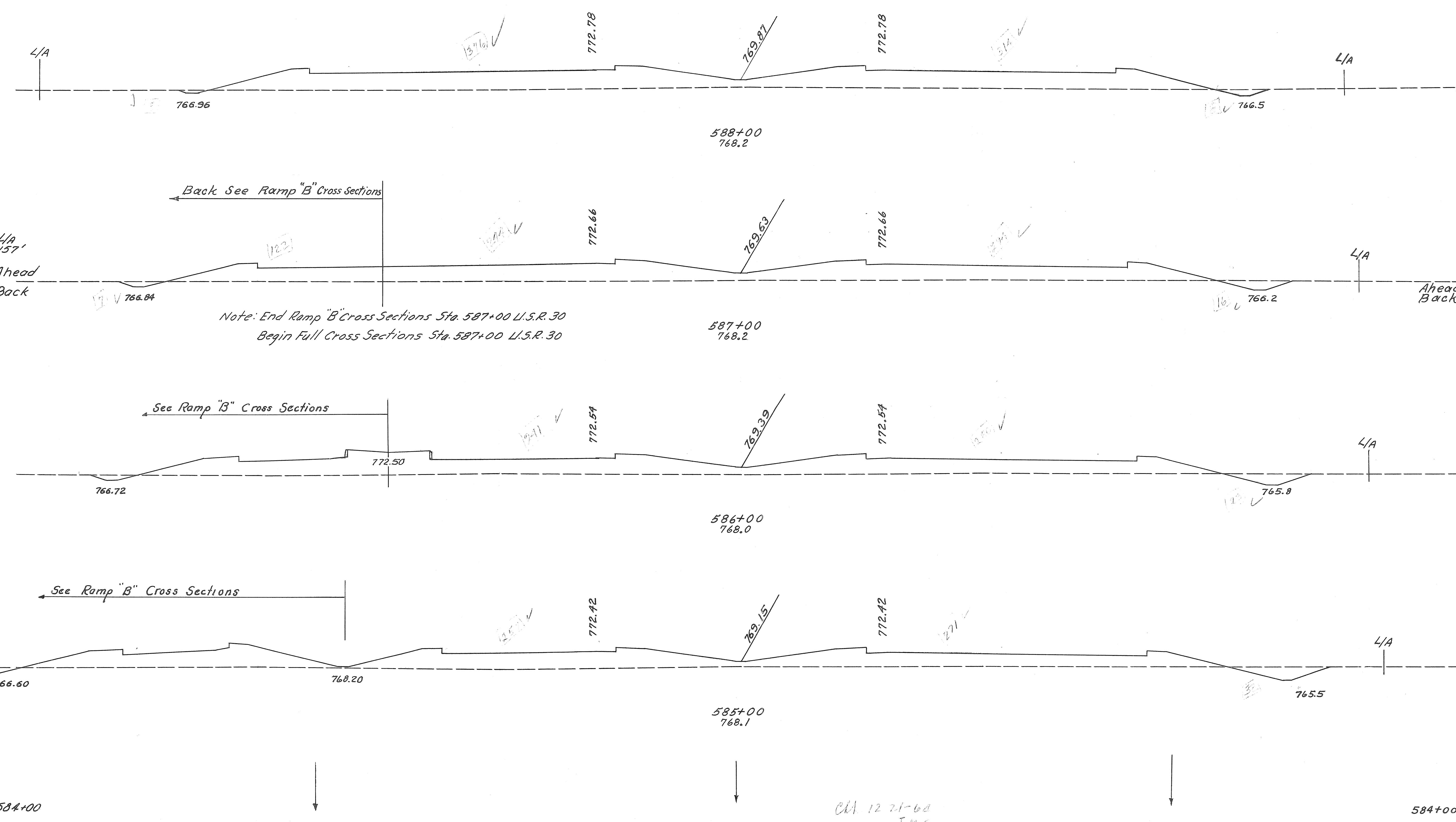
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

147  
 VAN WERT COUNTY  
 VAN-30-4.06

130 140 150

SEEDING	SO. YDS.
END WIDTH	
157	
1755	
159	
101	
1178	
111	
1300	
123	
1417	
132	
5650	

END AREA	VOLUME	
	CUT	FILL
11	630	
63	2500	
23	660	
16	538	
72	1961	
23	521	
102	1946	
32	530	
131	1878	
39	484	



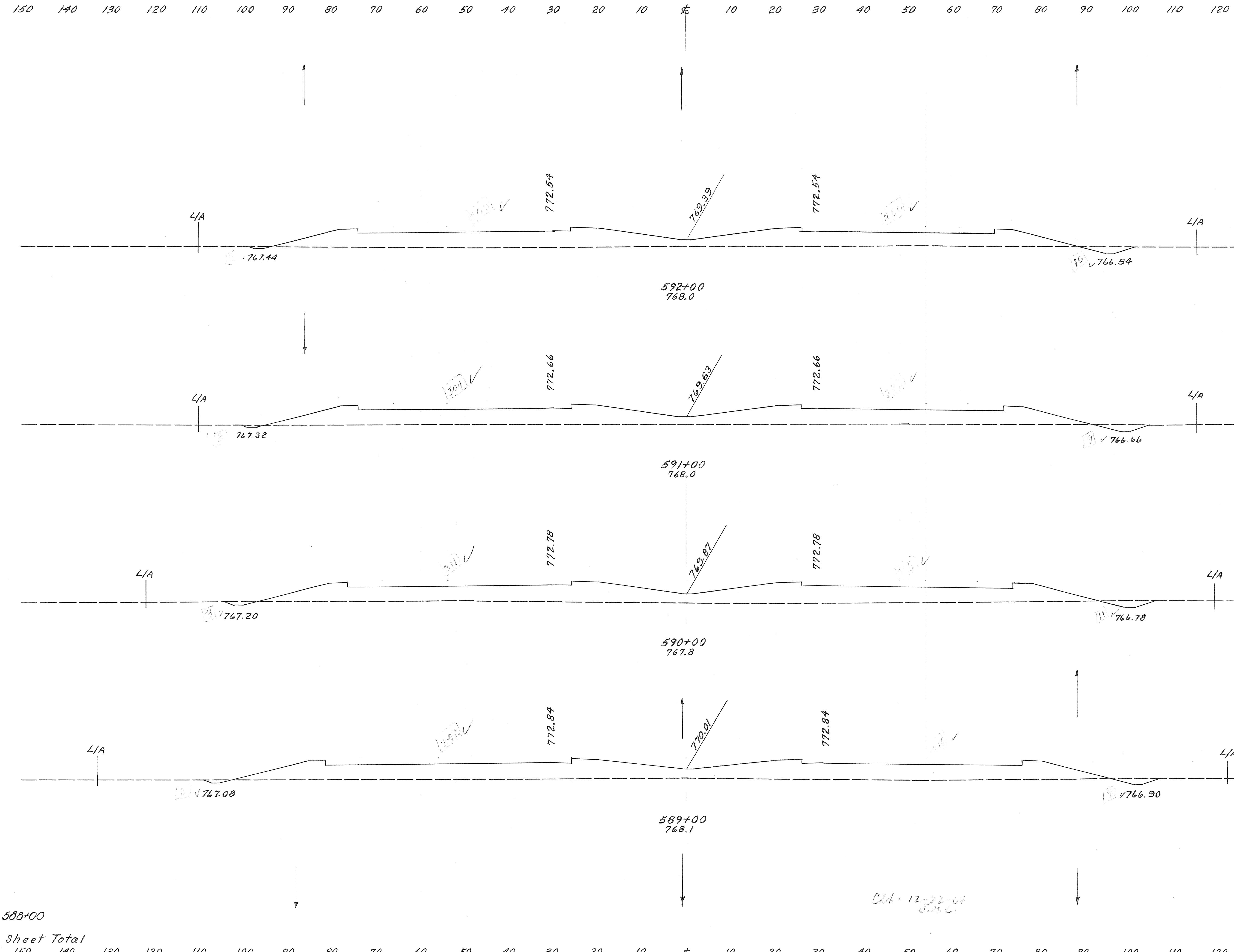
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 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150  
 Sta. 585+00 to Sta. 588+00

VAN WERT COUNTY  
VAN-30-4.06

130 140 150

SEEDING	SQ. YDS.
END WIDTH	
135	
1489	
133	
1539	
144	
1639	
151	
1711	
157	
6318	

END AREA	VOLUME	
	CUT	FILL
12	560	
43	2122	
11	596	
46	2250	
14	629	
46	2392	
11	657	
41	2495	
11	690	



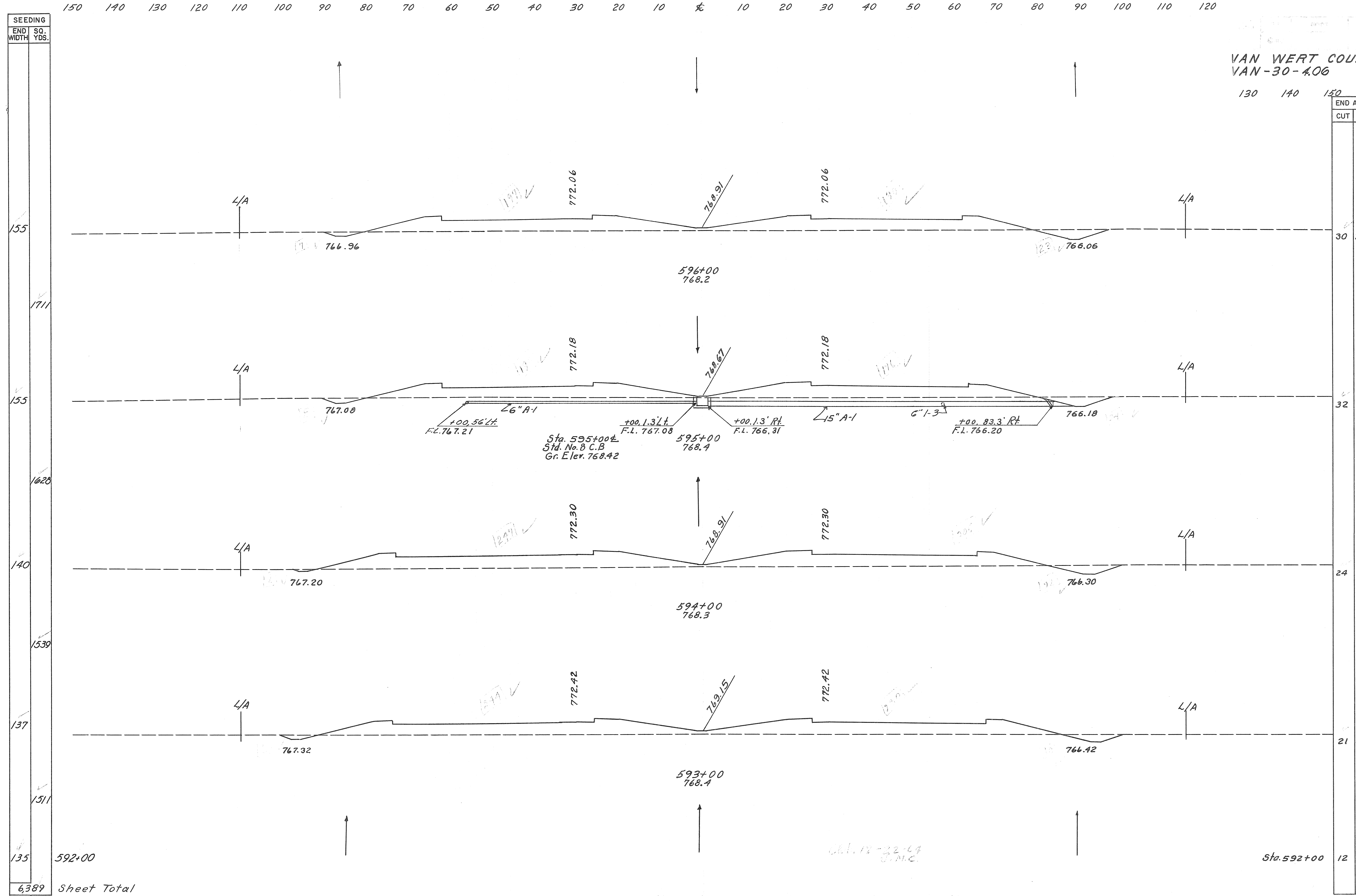
588+00  
Sheet Total

CHK - 12-22-68  
J.M.C.

Sta. 588+00

Sta. 589+00 to Sta. 592+00

130 140 150

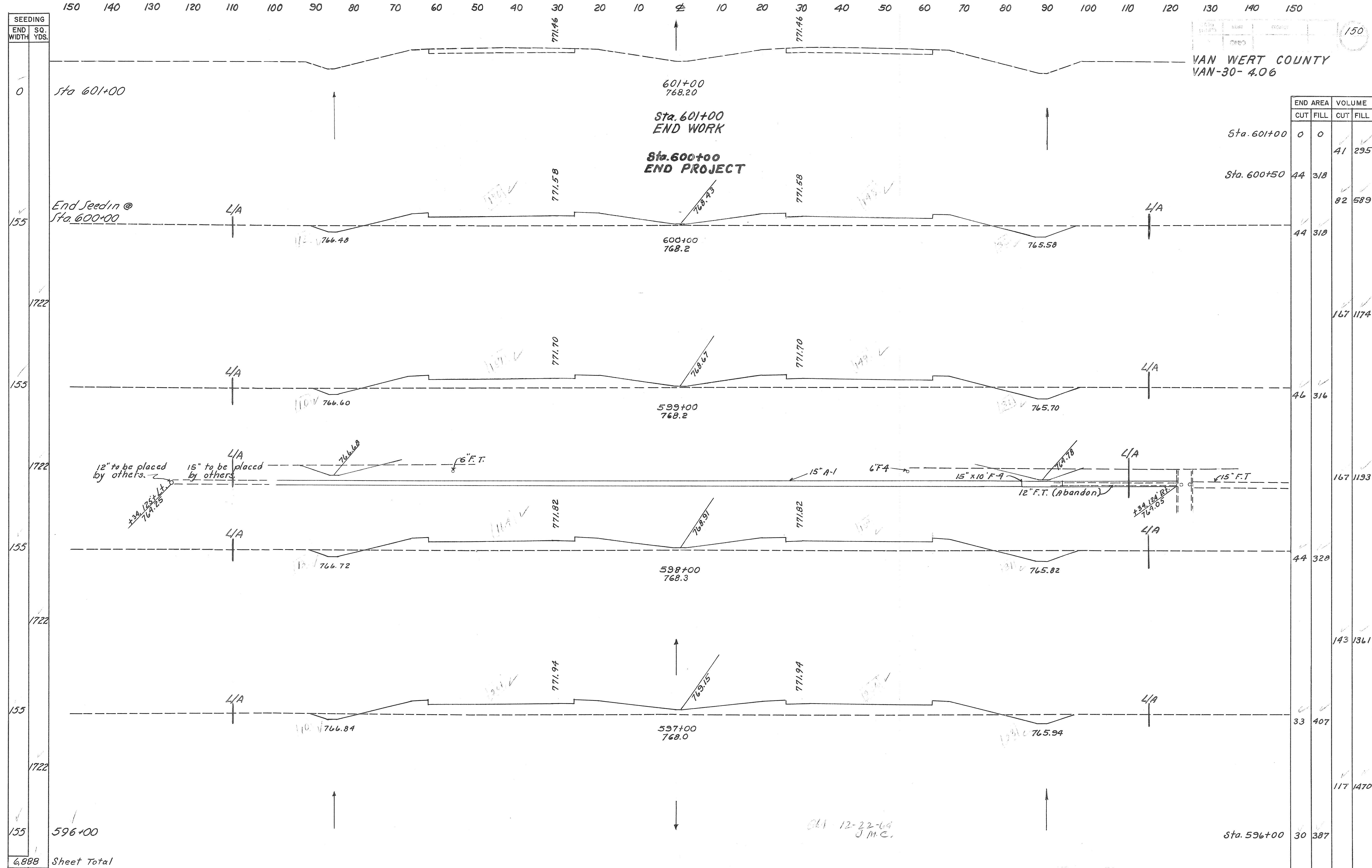


END AREA		VOLUME	
CUT	FILL	CUT	FILL
30	387	115	1431
32	386	104	1552
24	452	83	1715
21	474	61	1915
12	580		

Sheet Total  
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Sta. 593+00 to Sta. 596+00

Oct. 18-22-09  
J.M.C.



Sta.	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
Sta. 601+00	0	0	41	295
Sta. 600+50	44	318	82	589
Sta. 600+00	44	318	167	1174
Sta. 599+50	46	316	167	1193
Sta. 598+50	44	328	143	1361
Sta. 597+50	33	407	117	1470
Sta. 596+00	30	387		

6,888 Sheet Total

CHK 12-22-64  
J.M.C.

# GENERAL NOTES - REST AREA

FED. DIVISION	STATE	PROJECT
2	OHIO	

VAN WERT COUNTY  
VAN - 30-4.06

**REST AREA TREE PROTECTION:**

AREAS OTHER THAN THE PARKING LOOPS, SHALL NOT BE USED FOR STORAGE OF MATERIALS, PARKING OF EQUIPMENT, OR REMOVAL OF THE LOCATION OF CONSTRUCTION BUILDINGS OF ANY KIND DURING CONSTRUCTION. EQUIPMENT SHALL NOT BE OPERATED OVER TREE ROOT AREAS WHEN THE GROUND IS SOFT THEREBY AVOIDING DEEP RUTTING, SOIL COMPACTION AND DESTRUCTION OF ROOT SYSTEMS. TREES THAT ARE TO BE SAVED MUST BE MARKED. ALL OTHERS SHALL BE REMOVED. TREES MARKED TO BE SAVED THAT ARE DAMAGED BEYOND REPAIR BY DESTRUCTION OF MORE THAN 50% OF ROOT AREAS OR 30% OF THE CIRCUMFERENCE IN MANY AREAS ON INDIVIDUAL TREES SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. REPLACEMENTS SHALL BE IN QUANTITY SUFFICIENT TO COMPENSATE FOR SAVED TREES LOST AND SHALL BE COMPLETED AS PER L-10 WITH THE CONTRACTOR FURNISHING AND PLANTING TREES OF THE SIZE AND VARIETY DIRECTED BY THE ENGINEER.

IN LIEU OF "BOXING" FOR TREE PROTECTION AS REQUIRED BY C-7, L-1 AND STANDARD DRAWING L-1, SIGN TABLES MAY BE USED TO FACILITATE ACCESS TO TREE ROOT AREAS OF INDIVIDUAL TREES AND TREE GROUPS. THE ROOT AREAS ARE SHOWN IN SIZE TO THE SPREAD OF THE TREE BRANCHES.

**ITEM SPECIAL:**

WELL SHELTER, ROADSIDE TOILET, PROGRAM UNIT, MOTORIST'S SERVICES SHELTER, PICNIC TABLES WITH CONCRETE SLAB, AND CHARCOAL GRILL AND SERVING TABLE SHALL INCLUDE ALL SUPPLY AND RACKING, FURNISHING, HAULING, AND PLACING ALL MATERIALS AND ALL LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE ITEMS AS DETAILED ON THE PLAN OR AS SHOWN ON THE TYPICAL STANDARD CONSTRUCTION DRAWINGS AND GENERAL NOTES.

THEY SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

**WELLS:**

WELLS HAVE BEEN DRILLED BY OTHERS AND CASING IS IN PLACE AND CAPPED. CONTRACTOR SHALL ADJUST HEIGHT OF CASING TO CONFORM TO WELL SHELTER PLANS. COST OF ADJ. INCLUDED IN WELL SHELTER.

**ITEM L-9 SEEDING AND PROTECTING REST AREAS:**

THE SEED BED SHALL BE PREPARED TO PROVIDE A SMOOTH SURFACE FOR A GOOD LAWN. FINE GRADING IS TO ELIMINATE BUMPS OR DEPRESSIONS THAT WOULD INTERFERE WITH MOWING WITH A 24 INCH MOWER. ALL STONE AND DEBRIS LARGER THAN 1 INCH IN DIAMETER SHALL BE REMOVED FROM THE SURFACE AND THE AREAS SHALL BE LOOSERED TO A DEPTH OF 2 INCHES BEFORE SEEDING.

TOP SOIL SALVAGED AS PER L-1 SHALL BE USED IN FINISH GRADING OVER TREE ROOT AREAS TO AVOID DAMAGE BY GRADING OR TILLAGE EQUIPMENT. IT SHALL BE USED AS DIRECTED TO FILL DEPRESSIONS TO OBTAIN EXTRA SMOOTH FINE GRADING AND TO PROVIDE A MINIMUM DEPTH OF 3 INCHES OF TOPSOIL FOR THE REST AREA LAWNS. WHERE IT IS NOT NECESSARY TO CHANGE GRADES, TOPSOIL PLACEMENT WILL NOT BE REQUIRED. PLACING TOPSOIL WILL BE PAID FOR UNDER ITEM L-3.

THE SEED MIXTURE SHALL BE AS FOLLOWS:

- 15% RED TOP
- 25% PENNLAWN PEGSUE
- 60% KENTUCKY BLUEGRASS

**ITEM E-9 REMOVAL OF TREES AND STUMPS IN REST AREAS:**

TREES, STUMPS AND CLUMPS OF BRUSH THAT ARE NOT MARKED TO BE REMOVED ARE TO BE SAVED. WITHIN THE REST AREAS ONLY THOSE TREES INDICATED BY THE ENGINEER SHALL BE REMOVED. CARE SHALL BE EXERCISED BY THE CONTRACTOR IN PERFORMANCE OF THIS WORK SO THAT NO DAMAGE IS DONE TO TREES INDICATED BY THE ENGINEER TO BE SAVED.

CLEARING AND GRUBBING SHALL BE DONE IN ACCORDANCE WITH SECTION E-1.03 EXCEPT IN AREAS WHERE TREES OR STUMPS ARE TO BE REMOVED WITHIN THE TREE ROOT AREAS OF TREES THAT ARE TO REMAIN. IN SUCH AREAS REMOVAL SHALL BE BY CUTTING TO A MINIMUM DEPTH OF 8 INCHES BELOW FINISH GRADE WITH A STUMP CHIPPER OR SIMILAR EQUIPMENT.

**ITEM E-9 REMOVAL OF TREES AND STUMPS IN REST AREAS - CONT'D:**

THE LUMP SUM BID FOR ITEM E-9, REMOVAL OF TREES AND STUMPS IN REST AREAS, SHALL CONSTITUTE FULL PAYMENT FOR THIS ITEM.

REMOVE:	6" - 12".....	41 TREES
	12" - 15".....	7 TREES
	16" - 24".....	7 TREES
	24" - UP.....	3 TREES

**ITEM L-17 PRUNING EXISTING TREES:**

ALL TREES WITHIN THE REST AREAS THAT ARE INDICATED TO BE SAVED BY THE ENGINEER SHALL BE PRUNED IN ACCORDANCE WITH ITEM L-17 AND IN ADDITION TO L-17 REQUIREMENTS, LOW LIMBS SHALL BE REMOVED TO OBTAIN SEVEN (7) FOOT CLEARANCE ABOVE THE GROUND AS DIRECTED. THE NUMBER AND SIZE OF TREES TO BE PRUNED MAY BE ESTIMATED FROM INFORMATION SHOWN RELATIVE TO EXISTING TREES AND THE PERCENTAGE TO BE REMOVED.

THE STATE WILL NOT BE RESPONSIBLE FOR ANY VARIATIONS POINT DURING CONSTRUCTION. THE LUMP SUM PRICE BID FOR ITEM L-17, PRUNING EXISTING TREES SHALL CONSTITUTE FULL PAYMENT FOR THIS ITEM AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

NO. OF TREES:	6" - 12".....	35 TREES
	12" - 15".....	19 TREES
	16" - 24".....	9 TREES
	24" - UP.....	1 TREES

**ITEM L-6 ROADSIDE CLEANUP MODIFIED:**

THIS ITEM IS ESTIMATED FOR PERFORMANCE ON ALL PARTS AREAS OUTSIDE THE EXCAVATED OR FILLED AREAS WITHIN THE REST AREAS AS DIRECTED. TREE PRUNING AND REMOVAL OF TREES AND STUMPS WILL BE DONE UNDER OTHER ITEMS. IN ADDITION TO THE SPECIFIED REQUIREMENTS OF L-6 THE FOLLOWING WORK SHALL BE PERFORMED. AREAS OUTSIDE THE TREE ROOT AREAS SHALL BE FITTED AND GRADED TO OBTAIN DRAINAGE AWAY FROM ALL STRUCTURES AND TO PREVENT PONDING AT ANY POINTS. ALL SOFT UNEVEN AREAS INCLUDING FENCE POSTS SHALL BE GRADED TO ELIMINATE BUMPS OR DEPRESSIONS THAT WOULD INTERFERE WITH A 24 INCH MOWER. FENCE SHALL BE REMOVED FROM TREES AND TREE TRUNKS REPAIRED. BOULDERS SHALL BE REMOVED AND DISPOSED OF OR BURIED TO A MINIMUM DEPTH OF 2 FEET. STUMP PILES SHALL BE REMOVED AND DISPOSED OF OR BURIED TO A MINIMUM DEPTH OF 2 FEET.

LEFT - STA. 445 + 75 TO STA. 449 + 00	31 UNITS
RIGHT - STA. 448 + 00 TO STA. 450 + 75	24 UNITS

**MULCH FOR TREES AND SHRUBS:**

MULCHING MATERIAL FOR TREES AND SHRUBS SHALL BE WOOD CHIPS, GROUND CORN COBS, WELL ROTTEN SAWDUST OR WOOD SHAVINGS. THE MULCH SHALL BE UNIFORMLY PLACED BETWEEN AND AROUND TREES AND SHRUBS WITHIN 48 HOURS AFTER PLANTING AND TO A DEPTH OF 3" LOOSE MEASUREMENT. THE MULCH SHALL BE SPREAD TO COVER THE PLANT HOLE AND AN AREA EXTENDING OUTWARD TO THE PERIPHERY OF THE PLANT'S BRANCHES.

**LAYOUT OF PLANTING:**

BEFORE THE DIGGING OF POCKET HOLES FOR TREES AND SHRUBS, THE CONTRACTOR SHALL LAYOUT BY SUITABLE STAKING THE LOCATION OF ALL POCKET HOLES. WHERE CATCH BASINS OR OTHER STRUCTURES INTERFERE WITH PROPOSED PLANT LOCATIONS, THE LOCATIONS MAY BE CHANGED AT THE DIRECTION OF THE ENGINEER.

**ITEM L-1 TOPSOIL STOCKPILED:**

THE TOPSOIL TO BE STOCKPILED FOR PLACEMENT UNDER ITEMS L-3, L-13 AND L-14 SHALL BE OBTAINED UNDER ITEM L-1 FROM AREAS WITHIN THE LIMITS OF THE PROPOSED RIGHT OF WAY, AND TO SUCH DEPTHS AS DIRECTED BY THE ENGINEER.

THE PROVISIONS OF THIS SEPARATE L-1 ITEM SHALL, IN NO WAY, BE CONSTRUED AS A WAIVER OF THE PROVISIONS OF SEC. E-1.03 (A) AND SOD AND INCIDENTAL TOPSOIL REMOVED ELSEWHERE ON THIS PROJECT SHALL BE SALVAGED AND USED AS DESCRIBED IN ITEM E-1 WITH PAYMENT THEREFOR INCLUDED IN THE UNIT PRICE BID FOR ROADWAY EXCAVATION.

**ITEM L-3 PLACING STOCKPILED TOPSOIL:**

THE TOPSOIL SHALL BE PLACED TO A DEPTH OF 3 INCHES ON ALL AREAS WHERE GRADING IS REQUIRED IN REST AREAS TO CONFORM TO THE CROSS SECTIONS OR AS DIRECTED BY THE ENGINEER.

IT SHALL BE PLACED AT VARIOUS DEPTHS DEPENDANT ON LOCAL SPODE GRADIES OVER THE TREE ROOT AREAS AND AROUND TREES, STUMPS, BOLLARDS AND OTHER PILES AND PILES. A MINIMUM DEPTH OVER TREE ROOT AREAS SHALL BE 3 INCHES. FERTILIZER FOR THIS ITEM IS INCLUDED IN L-3 UNIT PRICE.

**INCINERATOR**

**GENERAL:** Furnish and install factory built incinerators in accordance with the plans and specifications stated herein. They shall be Schaefer Brothers, Inc. Model No. 5B-4.0 or approved equal.

1. Capacity- 125 lbs. per hour.
2. Dimensions- 5'-1" long x 2'-8" wide x 4'-3"
3. Charging Door- Heavy fabricated steel with 3" refractory lining, Counterweighted for ease of operation 24" x 15".
4. Steel Casing- 12 gauge steel stiffened with 2" angles for stiffness.
5. Refractory Lining- 1" high temperature black insulation, 3" abrasion resistant light weight insulating castable anchored to steel casing.
6. Stack- 12 gauge steel casing with 2" refractory lining 10'-0" high.
7. Cleanout Doors and Grates- Heavy cast iron doors and grates, firebox cleanout door and frame 22"x18", cyclone chamber door and frame 14"x11".
8. Secondary Chamber- A cyclone chamber with stainless steel sleeve.
9. Burner- 250,000 B.T.U. power burner with spark ignition and double safety controls. 90 day warranty.
10. Painting- One primer coat and one secondary coat of heat resistant paint.
11. A welded steel container shall be provided on the side of the incinerator to enclose the power burner and a 100 lb. Propane tank. The container shall be equipped with a lockable door.

**METHOD OF MEASUREMENT:**

The incinerator and all appurtenances as detailed and specified on the plans shall be considered as one unit. The number of units to be paid for shall be the number of each unit, listed and estimated separately, complete and accepted.

**BASIS OF PAYMENT:**

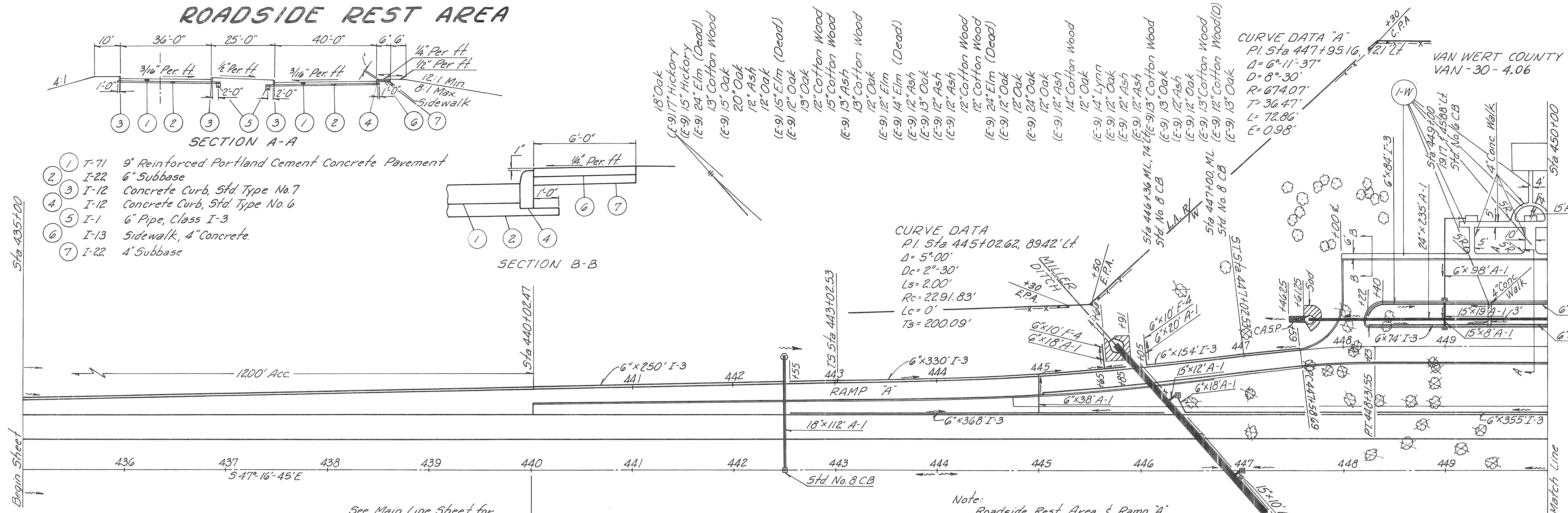
The work included in this item shall be paid for at the contract unit price bid for each Item Special, Incinerator completed and accepted, which price and payment shall constitute full compensation for furnishing hauling and placing all materials and for all labor, equipment, tools and incidentals necessary to complete this item.



# GENERAL SUMMARY - REST AREA

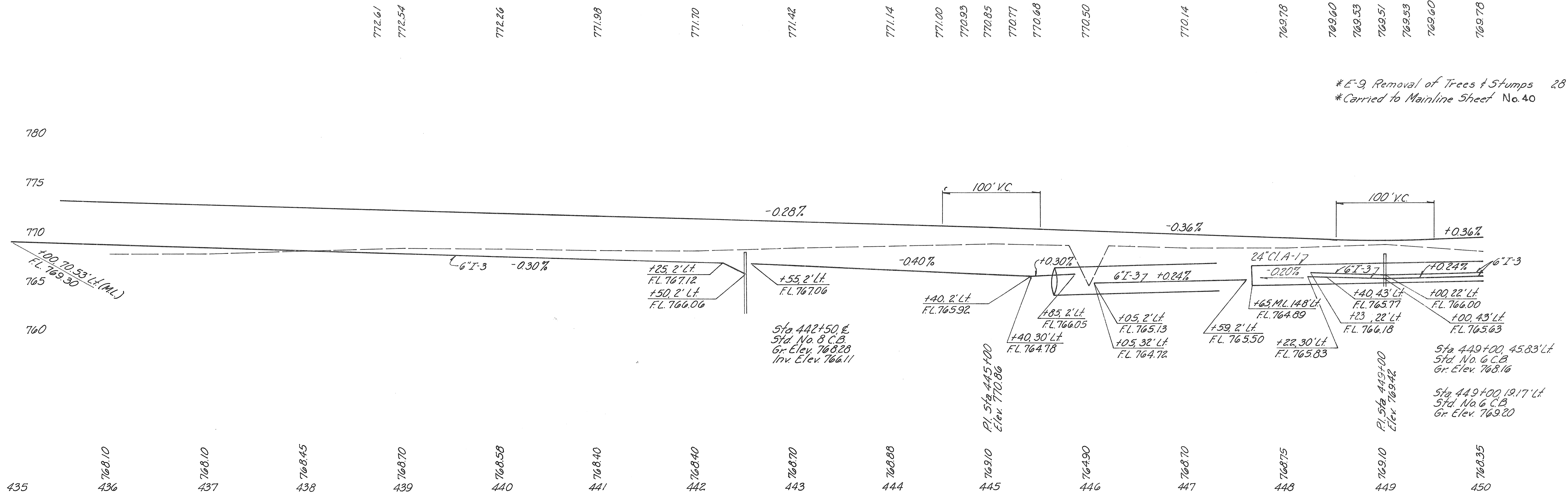
ITEM	RURAL CODE SHEET NO.										ITEM	QUANTITIES	UNIT	DESCRIPTION	
	151	152	154	156	164	165	168	169	171	174					
E-9		56										E-9	56	Each	Removal of Trees and Stumps As per plan.
L-1					2450							L-1	2450	Cu.Yd.	Topsoil Stock piled.
L-3					2250							L-3	2250	Cu.Yd.	Placing Stockpiled Topsoil.
L-6		55										L-6	55	Units	Roadside Cleanup, Modified as per plan.
L-13					44							L-13	44	Each	Cotoneaster Apiculata (Cranberry Cotoneaster) 15'-18" Hgt. - Gallon Cans.
L-13					574							L-13	574	Each	Cotoneaster Divaricata (Spreading Cotoneaster) 2'-2 1/2' Hgt. B & B. (12')
L-13					574							L-13	574	Each	Euonymus Alatus Compactus (Dwarf Winged Euonymus) 4'-5' Hgt. B & B. (15')
L-13					34							L-13	34	Each	Juniperus Horizontalis Plumosa (Andorra Juniper) 1 1/2'-2' Spread B & B. (12')
L-13					514							L-13	514	Each	Lonicera Fragrantissima (Winter Honey Suckle) 4'-5' Hgt. B & B. (15')
L-13					108							L-13	108	Each	Juniperus Pfitzeriana Glauca (Blue Pfitzer Juniper) 2'-2 1/2' Spread - B & B. (13')
L-13					44							L-13	44	Each	Rhamnus Frangula Columnaris (New Tall Hedge) 4'-5' Hgt. B & B. (15')
L-14					9							L-14	9	Each	Acer Rubrum (Red Maple) 1 3/4"-2" Dia. B & B. (20')
L-14					8							L-14	8	Each	Crataegus Monogyna Pyramidal (Pyramidal Single Seed Hawthorn) 1 1/4"-1 1/2" Dia. B & B. (20')
L-14					20							L-14	20	Each	Crataegus Phaenopyrum (Washington Hawthorn [Bush Form]) 5'-6' Hgt. B & B. (16')
L-14					7							L-14	7	Each	Crataegus Phaenopyrum (Washington Hawthorn [Tree Form]) 8'-10' Hgt. B & B. (17')
L-14					7							L-14	7	Each	Fraxinus Americana (White Ash) 1 3/4"-2" Dia. B & B. (20')
L-14					8							L-14	8	Each	Gleditsia Triacanthus Inermis (Thornless Honeylocust) 1 3/4"-2" Dia. B & B. (20')
L-14					25							L-14	25	Each	Malus Aldenhamensis (Aldenham Crabapple) 1"-1 1/4" Dia. B & B. (17')
L-14					4							L-14	4	Each	Malus Baccata "Jackii" (Jackii Crabapple) 1"-1 1/4" Dia. B & B. (17')
L-14					23							L-14	23	Each	Malus "Dorothea" (Dorothea Crabapple) 4'-5' Hgt. B & B. (15')
L-14					7							L-14	7	Each	Malus "Prince Georges" (Prince Georges Crabapple) 1"-1 1/4" Dia. B & B. (17')
L-14					4							L-14	4	Each	Malus Tschonoski (Tschonoski Crabapple) 4'-5' Hgt. B & B. (18')
L-14					4							L-14	4	Each	Malus "Wabiskaw" (Wabiskaw Crabapple) 4'-5' Hgt. B & B. (18')
L-14					5							L-14	5	Each	Pinus Nigra (Austrian Pine) 8'-10' Hgt. B & B. (20')
L-14					8							L-14	8	Each	Plantanus Acerifolia (London Plane Tree) 1 3/4"-2" Dia. B & B. (20')
L-14					26							L-14	26	Each	Quercus Palustris (Pin Oak) 1 3/4"-2" Dia. B & B. (20')
L-17		Lump										L-17	Lump	Lump	Pruning Existing Trees, As Per Plan
I-13			3617	3617								I-13	7234	Sq.Ft.	Sidewalks 4" Concrete
I-13			648	648								I-13	1296	Sq.Ft.	Sidewalks 6" Concrete
I-22			52	52								I-22	104	Cu.Yd.	4" Subbase, Grading A
I-25										7703		I-25	7703	L.F.	Woven Wire Fence For Rest Areas
Special						2						Special	2	Each	Motorists Services Shelter
Special							2					Special	2	Each	Shelter House
Special								2				Special	2	Each	Combination Toilet and Storage Building
Special									2			Special	2	Each	Well Shelter, Pump and Platform
Special					20							Special	20	Each	Picnic Table With Concrete Slab
Special					6							Special	6	Each	Charcoal Grill and Serving Table
Special		2										Special	2	Each	Incinerators
LIGHTING															
S-25												S-25	1	Each	Service Pole, Complete, As per plan.
S-25												S-25	4	Each	Pole, including Luminaire, Complete, as per plan (Picnic Area) (Round Shaft)
S-25												S-25	4	Each	Pole including Luminaire, Complete, as per plan (Island) (Round Shaft)
S-25												S-25	558	L.F.	1" Alloy Steel or Wrought Iron Conduit
S-25												S-25	765	L.F.	1 1/2" Alloy Steel or Wrought Iron Conduit
S-25												S-25	555	L.F.	2" Alloy Steel or Wrought Iron Conduit
S-25												S-25	261	L.F.	3" Alloy Steel or Wrought Iron Conduit
S-25												S-25	14	Each	Pull Boxes, As per plan.
S-25												S-25	1907	L.F.	Trenching
ALTERNATE BID ITEMS															
S-25												S-25	4	Each	Pole, Other than Round, Including Luminaire, Complete, As Per Plan (Picnic Area)
S-25												S-25	4	Each	Pole, Other than Round, Including Luminaire, Complete, As Per Plan (Island)

# ROADSIDE REST AREA



Note:  
 Roadside Rest Area & Ramp 'A'  
 Drainage Quantities carried on  
 Main Line Sheet No. 40  
 Sidewalk Quantities carried on Sheet No. 154

\* E-9, Removal of Trees & Stumps 28 Each  
 \* Carried to Mainline Sheet No. 40



ROADSIDE REST AREA (Lt Side)

# ROADSIDE REST AREA

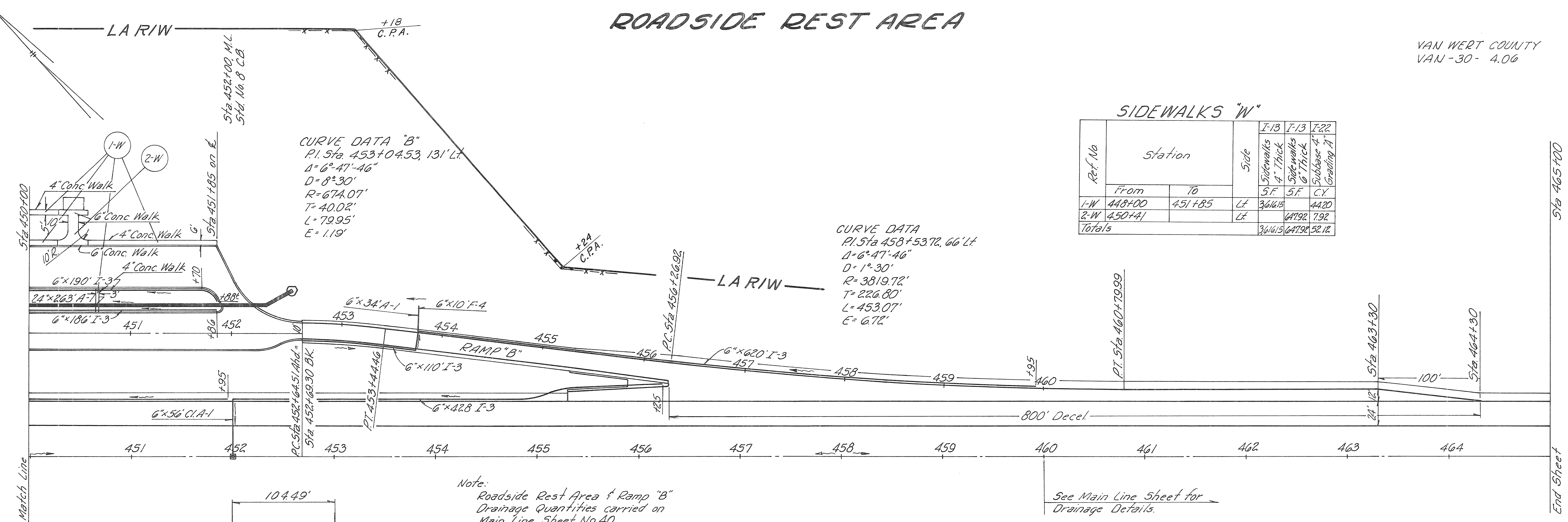
VAN WERT COUNTY  
VAN-30-4.06

## SIDEWALKS "W"

Ref. No	Station		Side	I-13	I-13	I-22
	From	To		SF	SF	C.Y.
1-W	448+00	451+85	Lt	36615		4420
2-W	450+41		Lt		61792	792
Totals				36615	61792	5212

**CURVE DATA "B"**  
 P.I. Sta. 453+04.53, 131' Lt.  
 $\Delta = 6^{\circ}47'46''$   
 $D = 8^{\circ}30'$   
 $R = 674.07'$   
 $T = 40.02'$   
 $L = 79.95'$   
 $E = 1.19'$

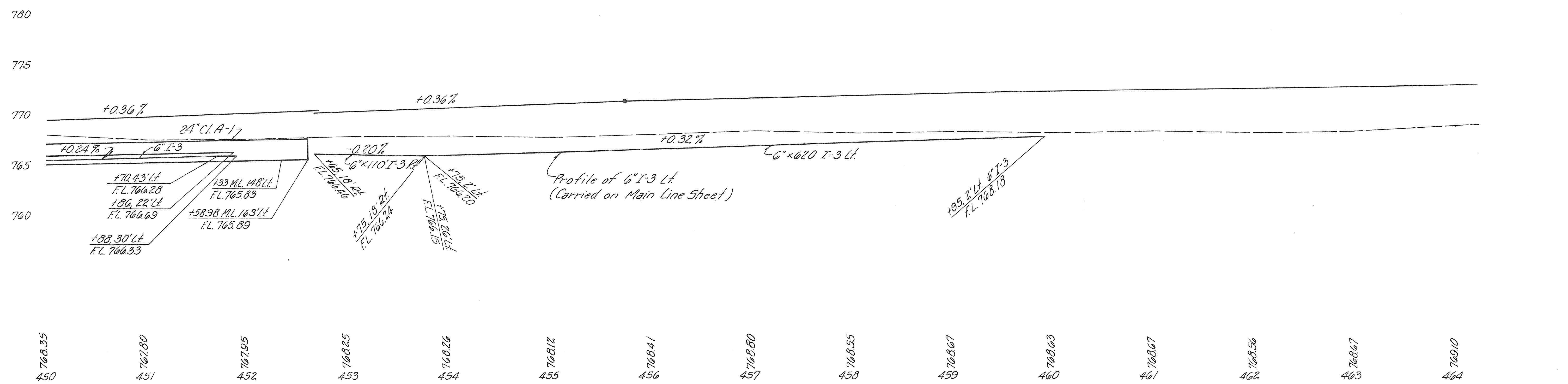
**CURVE DATA**  
 P.I. Sta. 458+53.72, 66' Lt.  
 $\Delta = 6^{\circ}47'46''$   
 $D = 1^{\circ}30'$   
 $R = 3819.72'$   
 $T = 226.80'$   
 $L = 453.07'$   
 $E = 6.72'$



Note:  
 Roadside Rest Area & Ramp "B"  
 Drainage Quantities carried on  
 Main Line Sheet No. 40.

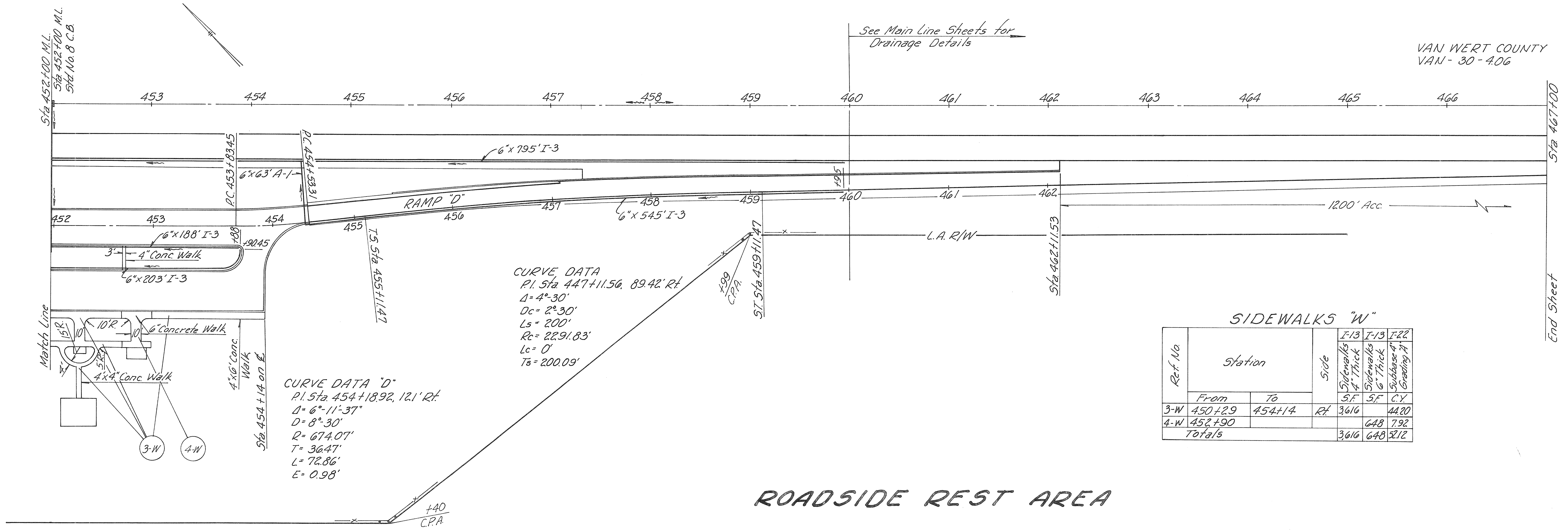
See Main Line Sheet for  
 Drainage Details.

- 769.78
- 770.14
- 770.50
- 770.59
- 770.68
- 770.63
- 770.72
- 771.08
- 771.44
- 771.71
- 771.79
- 771.86
- 771.98
- 771.99
- 772.05
- 772.11
- 772.17
- 772.23
- 772.29
- 772.35
- 772.41
- 772.46
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- 772.90
- 772.93
- 772.96
- 772.99
- 773.02
- 773.05
- 773.08
- 773.15
- 773.23
- 773.30
- 773.38



ROADSIDE REST AREA, Lt. Side

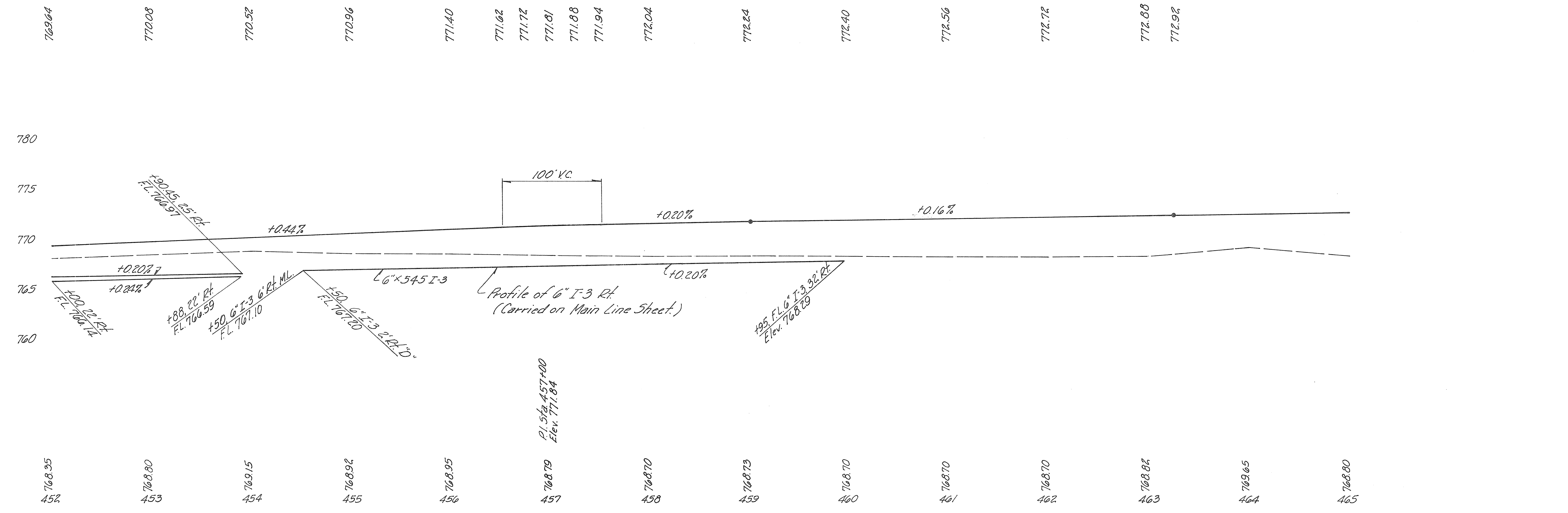




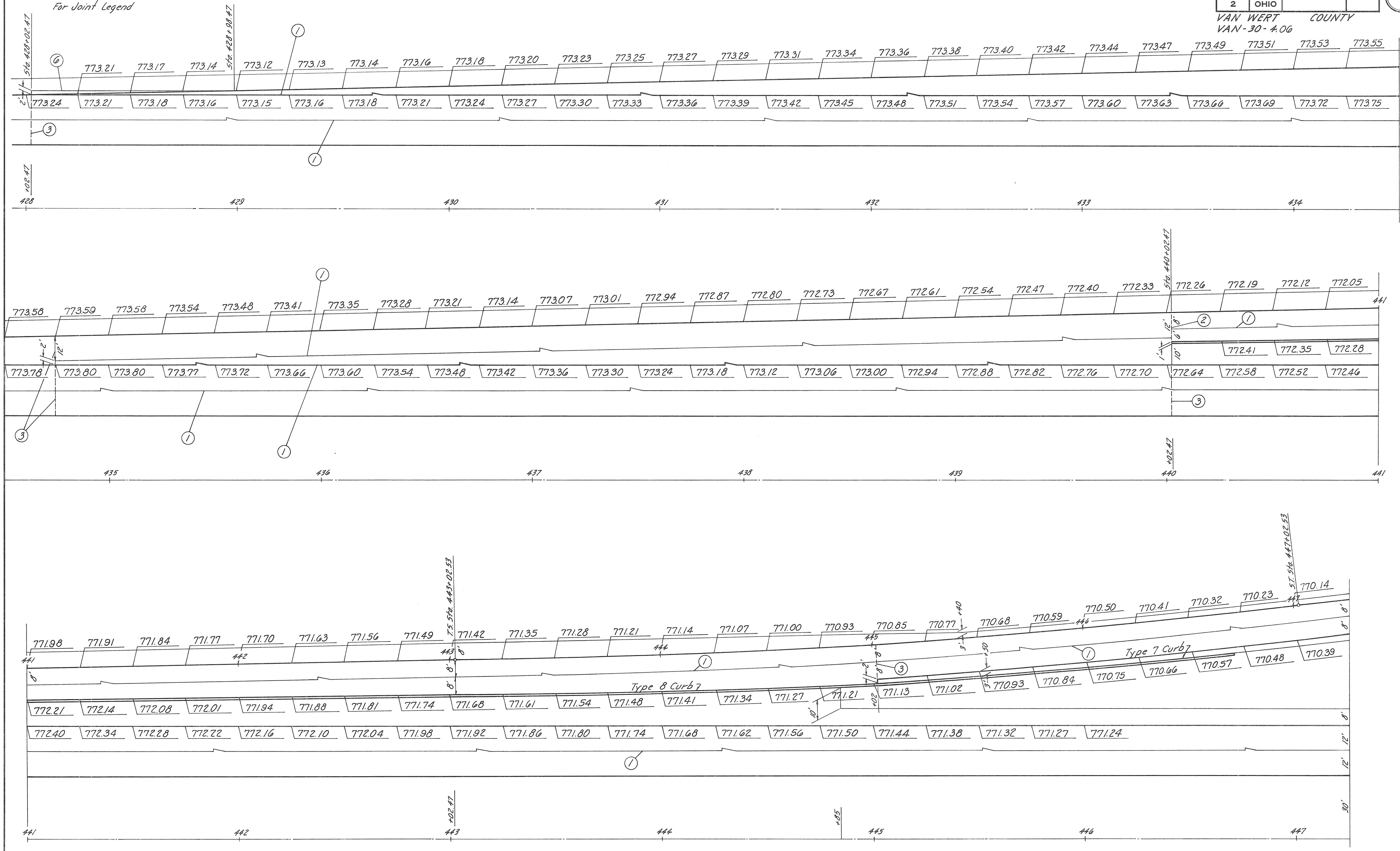
SIDEWALKS "W"

Ref. No.	Station		Side	I-13			I-22		
	From	To		Sidewalks 4" Thick S.F.	Sidewalks 6" Thick S.F.	Subbase 4" Grading C.Y.	Sidewalks 4" Thick S.F.	Sidewalks 6" Thick S.F.	Subbase 4" Grading C.Y.
3-W	450+29	454+14	Rt	3616	648	5212	4420	792	
4-W	452+90				648	792			
Totals				3616	648	5212			

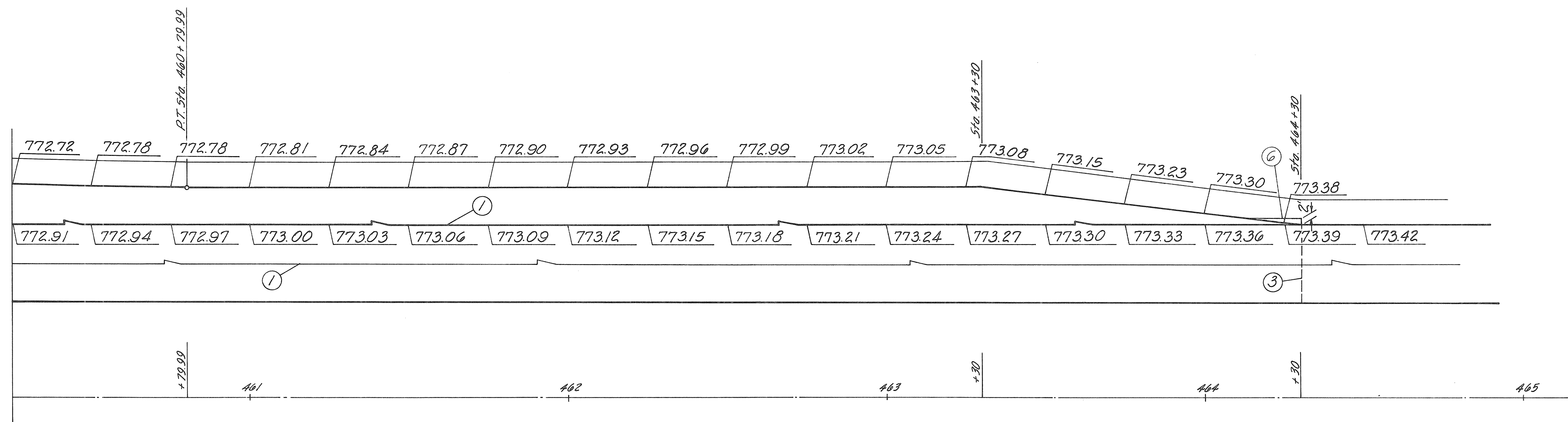
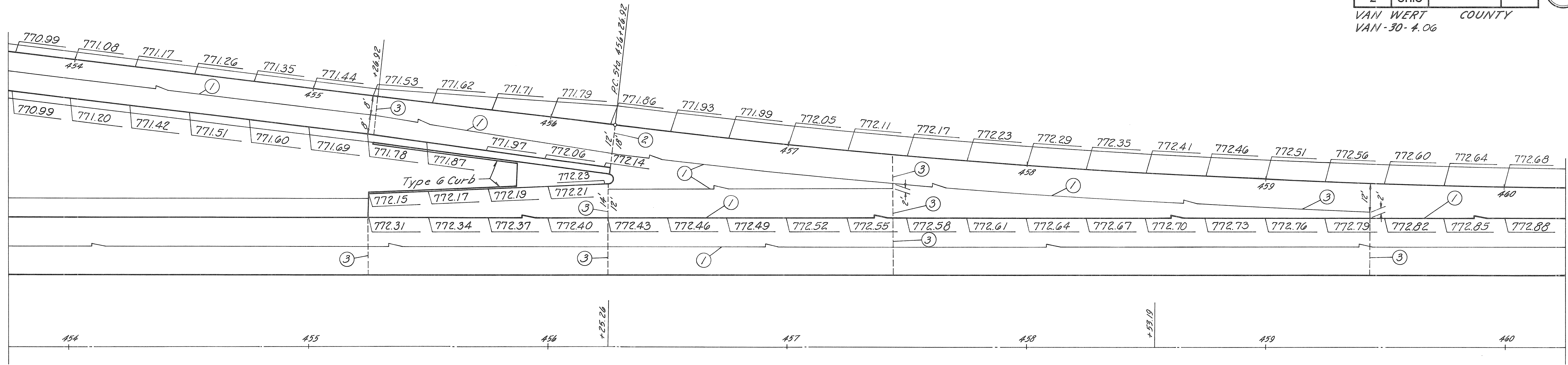
ROADSIDE REST AREA



Note:  
See Sheet No 159  
For Joint Legend







Note:  
See Sheet No. 159  
for Joint Legend

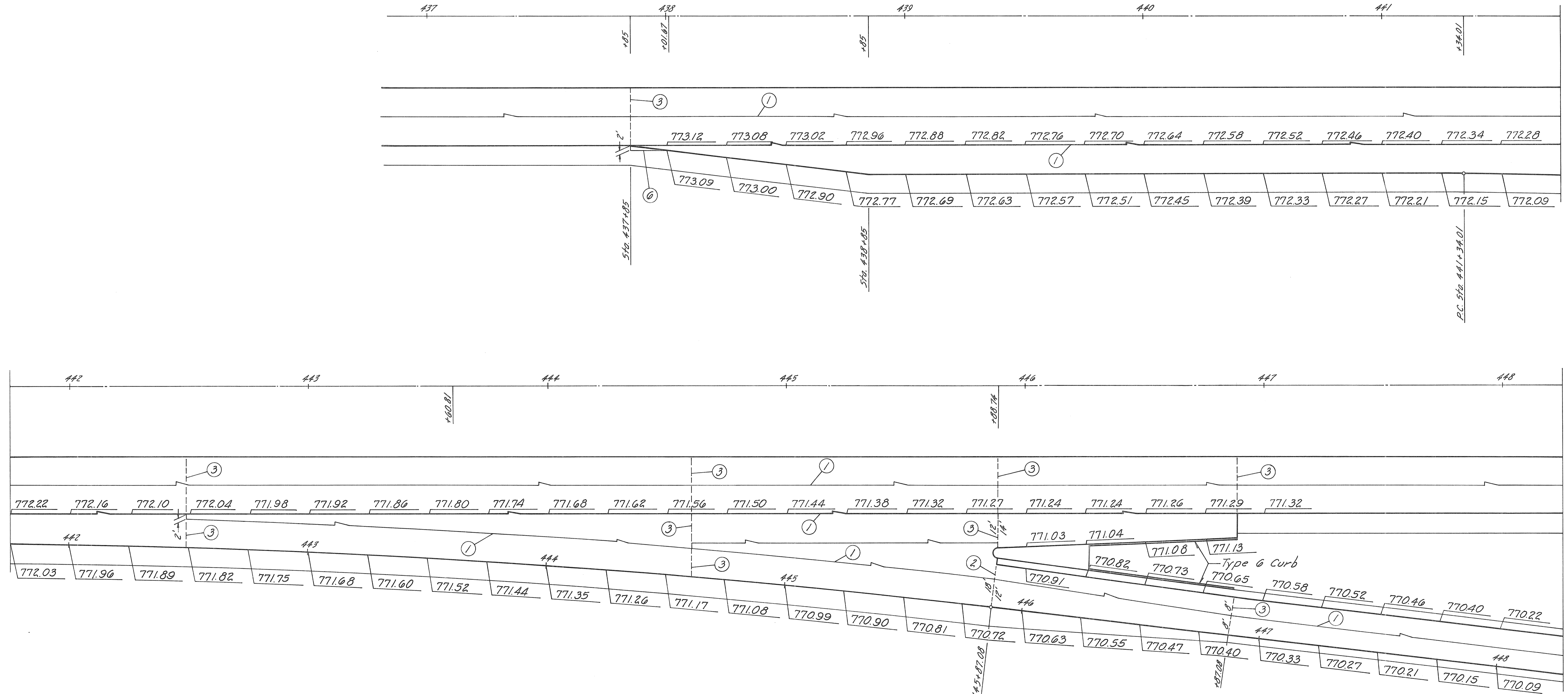


Note:  
See Sheet No. 159  
For Joint Legend

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

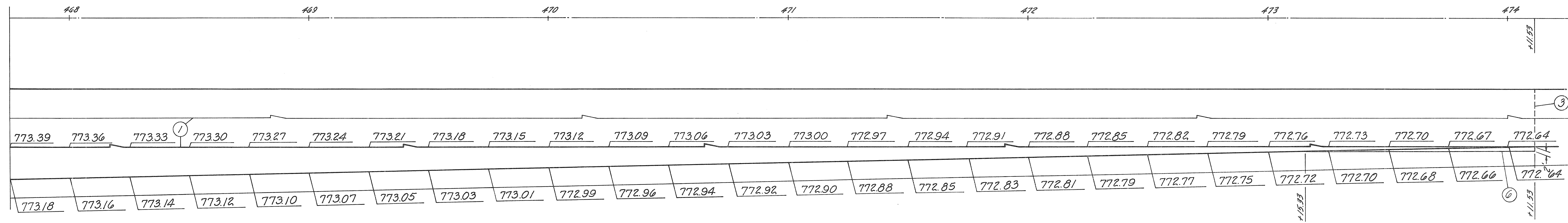
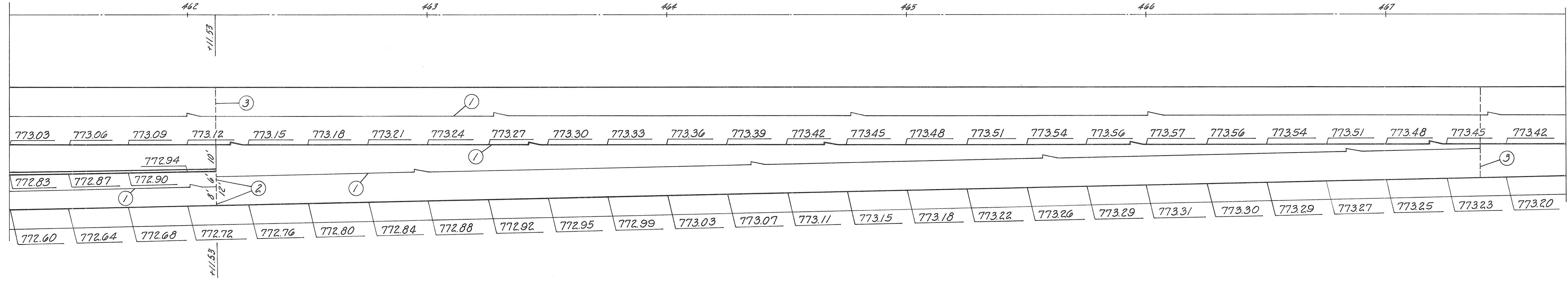
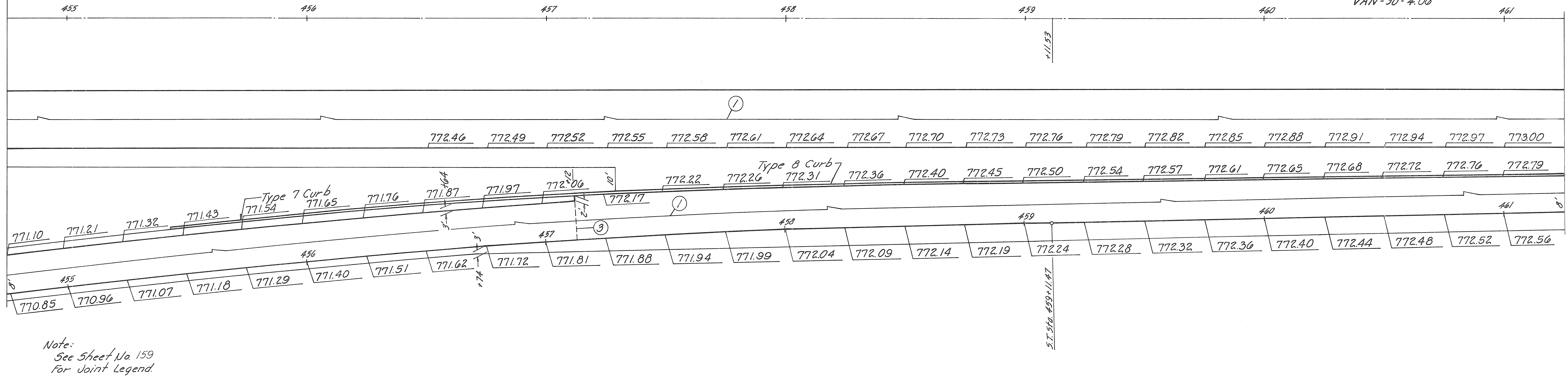
160

VAN WERT COUNTY  
VAN-30-4.06

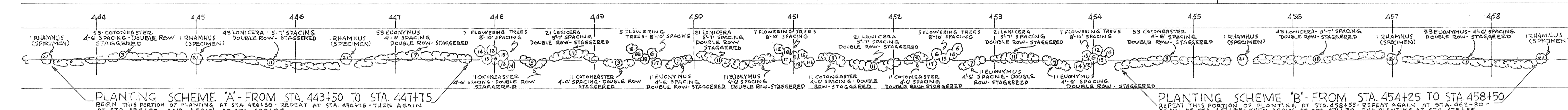
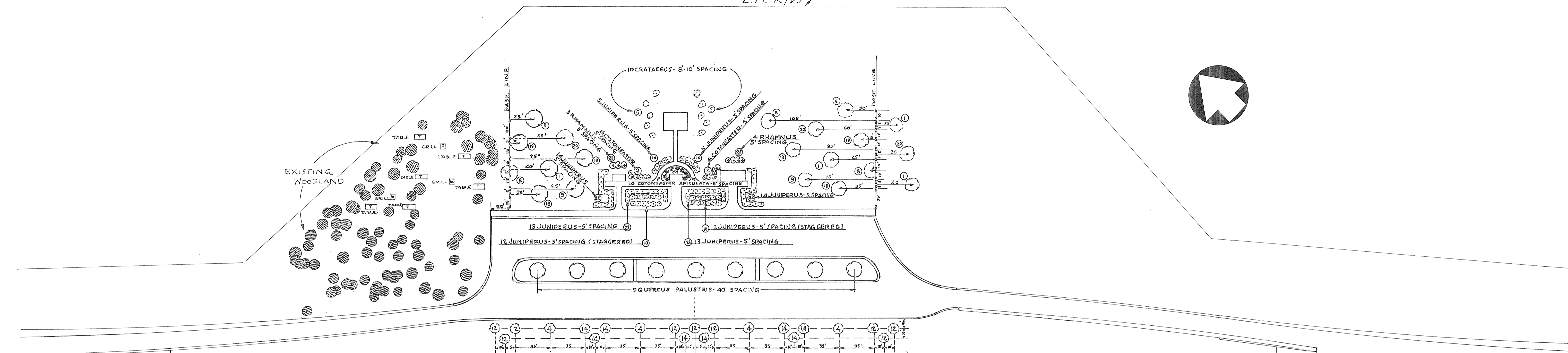


ROADSIDE REST AREA





L.A. R/W7

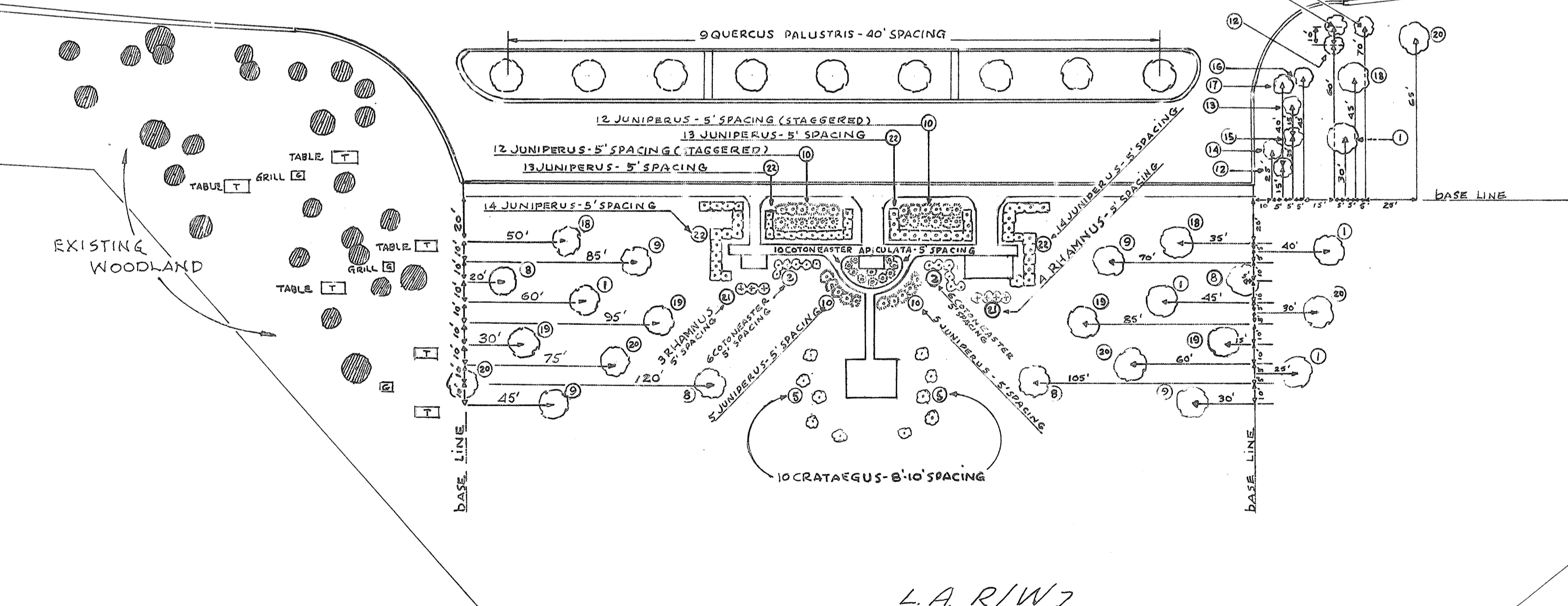


PLANT LIST

KEY	VARIETIES	COMMON NAME	QUANTITY	DESCRIPTION	SPACING
1	A CER RUBRUM	RED MAPLE	9	1 3/4" DIA. - B & B - (20') AS SHOWN	
2	COTONEASTER APICULATA	CRANBERRY COTONEASTER	44	15" HGT. - GALLON CANS AS SHOWN	
3	COTONEASTER DIVARICATA	SPREADING COTONEASTER	274	2'-2 1/2" HGT. - B & B - (12') AS SHOWN	
4	CRATAEGUS MONOGYNA PYRAMIDAL	PYRAMIDAL SINGLESEED HAWTHORN	8	1 1/2" DIA. - B & B - (20') AS SHOWN	
5	CRATAEGUS PHAENOPYRUM	WASHINGTON HAWTHORN (BUSH FORM)	20	5'-6" HGT. - B & B - (12') AS SHOWN	
6	CRATAEGUS PHAENOPYRUM	WASHINGTON HAWTHORN (TREE FORM)	7	8'-10" HGT. - B & B - (12') AS SHOWN	
7	EUNYMIUS ALOTUS COMPACTUS	DWARF WINGED EUNYMIUS	514	4'-5" HGT. - B & B - (15') AS SHOWN	
8	FRAXINUS AMERICANA	WHITE ASH	7	1 3/4" DIA. - B & B - (20') AS SHOWN	
9	GLEPITISIA TRIACANTHUS INERMIS	THORNLESS HONEYLOCUST	8	1 3/4" DIA. - B & B - (20') AS SHOWN	
10	JUNIPERUS HORIZONTALIS PLUMOSA	ANDROEA JUNIPER	34	1 1/2" DIA. - B & B - (12') AS SHOWN	
11	LONICERA FRAGRANTISSIMA	WINTER HONEYSUCKLE	514	4'-5" HGT. - B & B - (15') AS SHOWN	
12	MALUS ALDENHAMENSIS	ALDENHAM CRABAPPLE	25	1" DIA. - B & B - (12') AS SHOWN	
13	MALUS BACCATA JACKII	JACKII CRABAPPLE	4	1" DIA. - B & B - (12') AS SHOWN	
14	MALUS DOROTHEA	DOROTHEA CRABAPPLE	23	4'-5" HGT. - B & B - (15') AS SHOWN	
15	MALUS PRINCE GEORGES	PRINCE GEORGES CRABAPPLE	7	1" DIA. - B & B - (12') AS SHOWN	
16	MALUS TSCHOENSKI	TSCHOENSKI CRABAPPLE	4	4'-5" HGT. - B & B - (15') AS SHOWN	
17	MALUS WABISKAW	WABISKAW CRABAPPLE	4	4'-5" HGT. - B & B - (15') AS SHOWN	
18	PINUS NIGRA	AUSTRIAN PINE	5	8'-10" HGT. - B & B - (20') AS SHOWN	
19	PLATANUS ACERIFOLIA	LONDON PLANETREE	8	1 3/4" DIA. - B & B - (20') AS SHOWN	
20	QUERCUS PALUSTRIS	PIN OAK	26	1 3/4" DIA. - B & B - (20') AS SHOWN	
21	RHAMNUS FRANSULA COLUMNARIS	NEW TALLHEDGE	44	4'-5" HGT. - B & B - (15') AS SHOWN	
22	CRATAEGUS EFFIGERATA SLAUGA	BLUE PRITZER JUNIPER	108	2'-2 1/2" SPREAD - B & B - (12') AS SHOWN	

\* SEE GENERAL NOTES FOR MULCHING REQUIREMENTS AND OTHER PERTINENT PLANTING PROCEDURES.  
20 PARK TABLES - 6 CHARCOAL GRILLS & SERVING TABLES WILL BE LOCATED BY ENGINEER DURING CONSTRUCTION.  
\* SEE GENERAL NOTES FOR SEED FORMULA FOR REST AREAS.

\* GENERAL NOTES - REST AREA  
SEE SHEET NO. 151.



L.A. R/W7

ESTIMATED QUANTITIES  
L-1 Topsoil Stock piled (L.A. & R.A.) \*2450 CY.  
L-3 Placing Stock piled Topsoil (L.A. & R.A.) 2250 CY.

\* Includes 200 CY. For  
Items L-13 & L-14

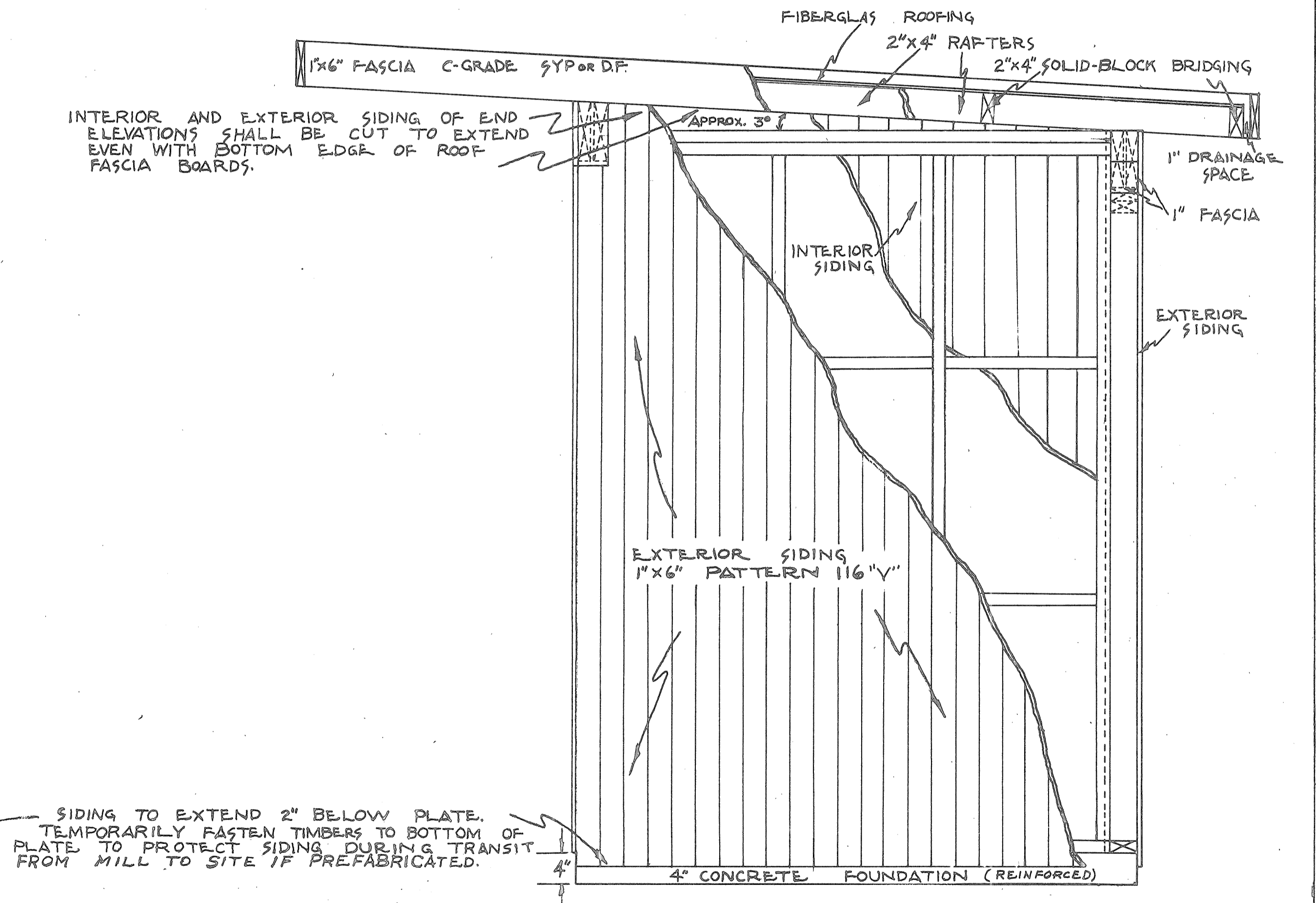
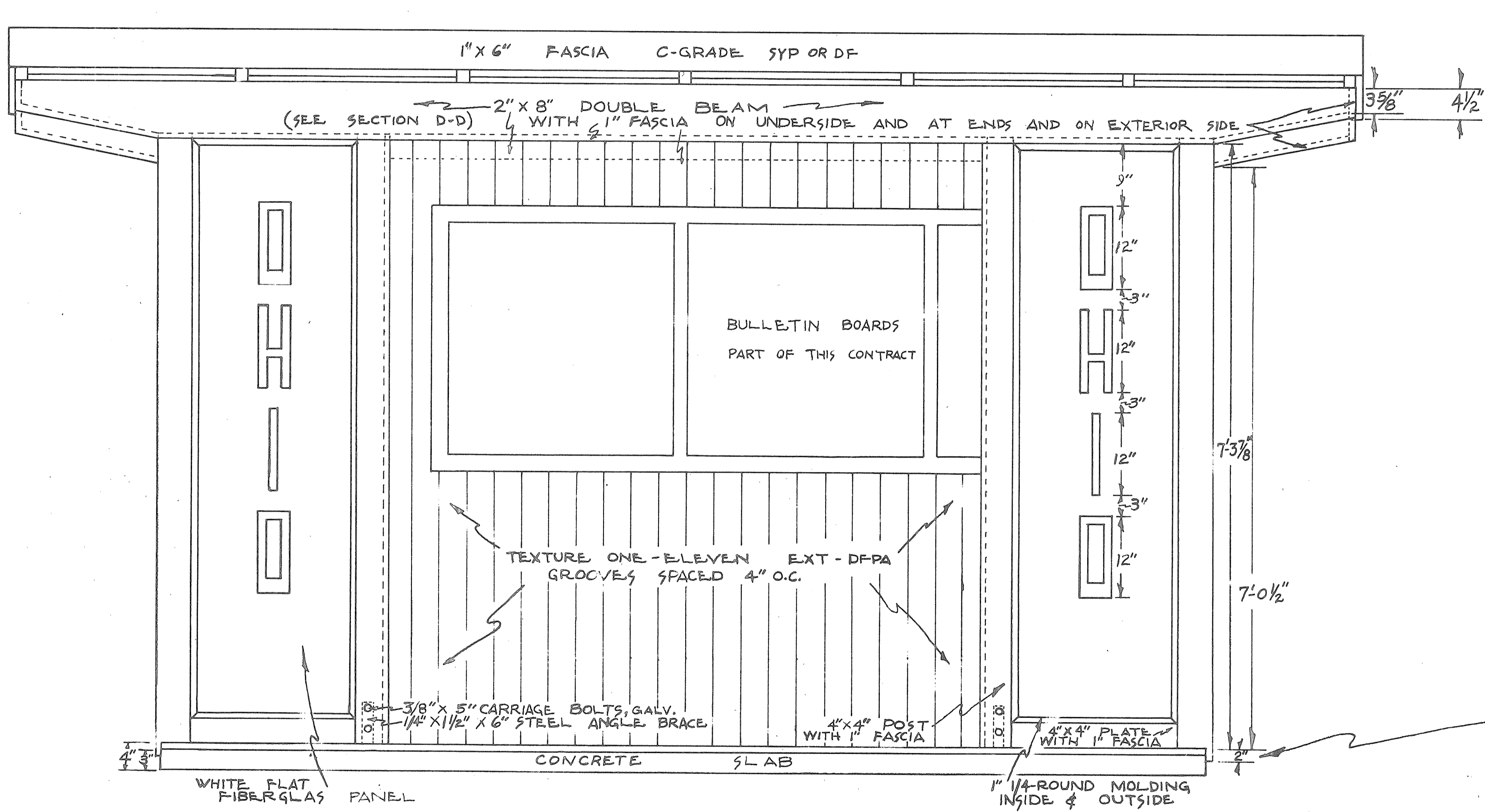
VAN WERT COUNTY  
VAN-30-4.06  
ROADSIDE REST AREA  
PLANTING PLAN  
SCALE - 1" = 50'

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

164

VAN WERT COUNTY  
VAN-30-4.06

- NOTES:
- ALL STRUCTURAL LUMBER SHALL BE NUMBER 1 SOUTHERN YELLOW PINE, STD. K.D., S4S OR CONSTRUCTION GRADE DOUGLAS FIR, STD. K.D. S4S. ALL TRIM SHALL BE "C" GRADE, S4S, STD. K.D. S.Y.P. OR D.FIR.
  - SIDING SHALL BE 1"x6" PATTERN 116 "V" TYPE.
  - INTERIOR SIDING SHALL BE TEXTURE ONE-ELEVEN EXTERIOR GRADE DOUGLAS FIR PLYWOOD. 1/4-INCH GROOVES SHALL BE SPACED 4" O.C. (SEE ALSO NOTE 7.)
  - ROOF MATERIAL SHALL BE HIGH LIGHT TRANSMISSION TYPE TRANSLUCENT FIBERGLAS, .060" THICK, 2 1/2-INCH CORRUGATIONS, SMOOTH FINISH, LIGHT GREEN COLOR AS MANUFACTURED BY THE ALSYNITE COMPANY OF AMERICA. NAIL ALONG RAFTERS & BRIDGING AT APPROX. 12" O.C. WITH ALUMINUM SCREW SHANK NAILS WITH NEOPRENE WASHERS ATTACHED.
  - FRONT ELEVATION PANELS SHALL BE FLAT PATTERN, WHITE COLOR, SMOOTH FINISH, (SEE NO 4).
  - ALL NAILS WILL BE ALUMINUM OR HOT GALV. DIPPED NAILS.
  - INTERIOR WALL PANELS SHALL BE CUT TO SIZE AT THE MILL AND LATER IN-STALLED ON THE SITE AFTER THE STRUCTURE HAS BEEN ANCHORED TO CONCRETE PAD WHEN STRUCTURE IS PREFABRICATED OFF JOB SITE.
  - ALL LETTERS AND SIGNS NOT A PART OF THIS CONTRACT.
  - ALL LUMBER SHALL BE TREATED IN ACCORDANCE WITH THE REQUIREMENT FOR PENTA-CHLOROPHENOL TREATMENT, SEC. M-8.3.



ROADSIDE IMPROVEMENT  
OHIO DEPARTMENT OF HIGHWAYS

MOTORIST'S SERVICES SHELTER

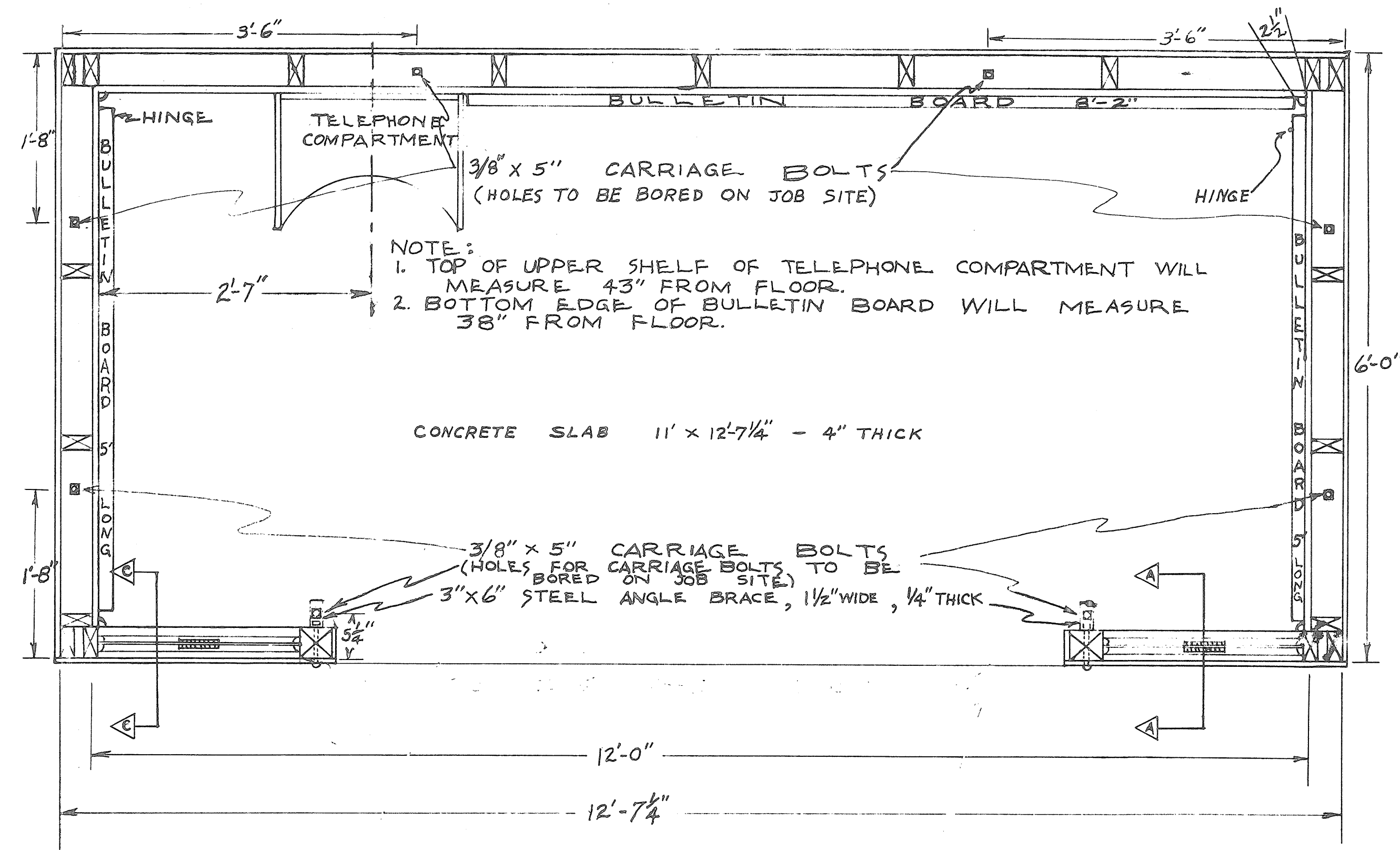
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10-25-60  
11-23-60  
8-6-63

STANDARD CONSTRUCTION DRAWING

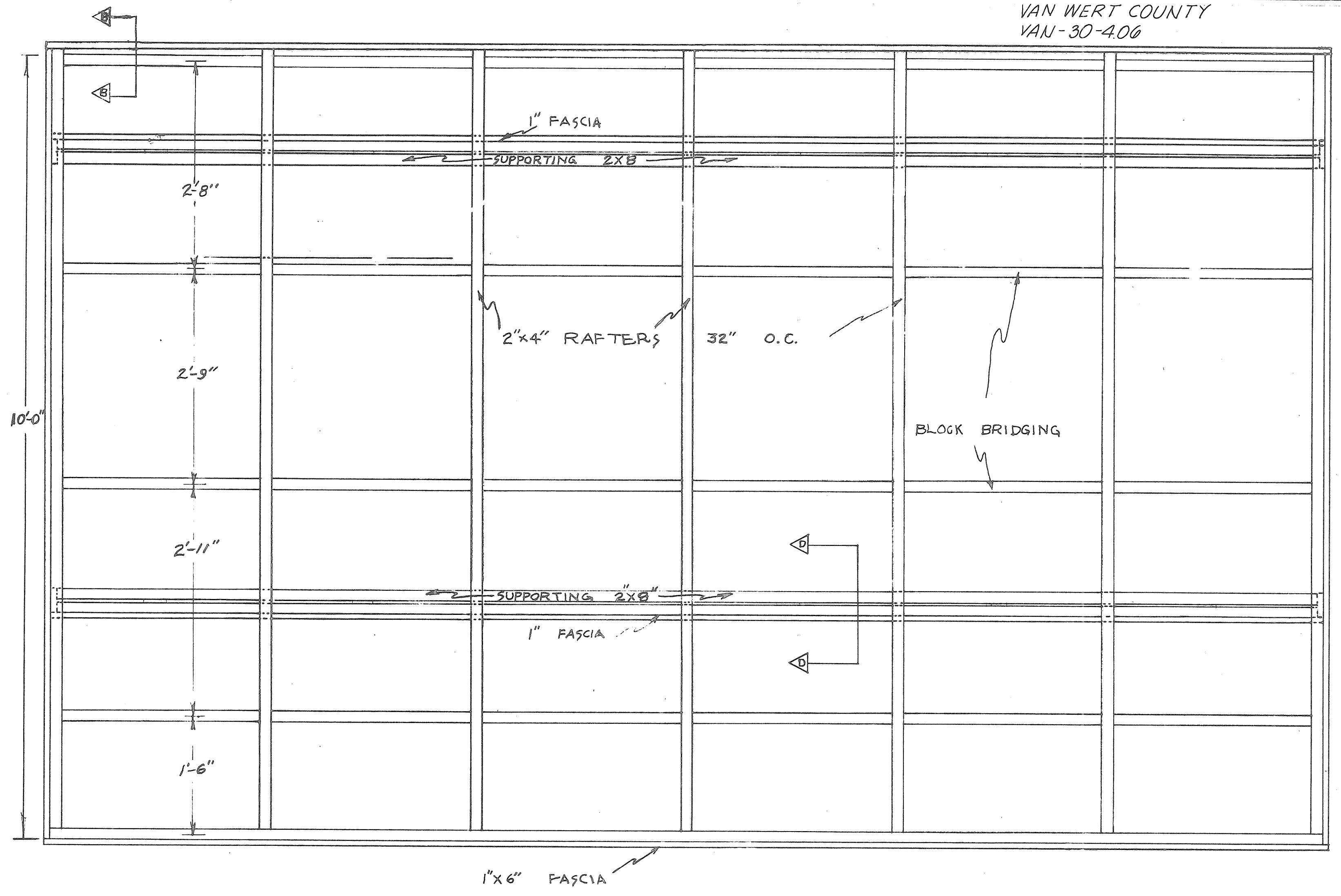
SCALE: 1" = 1'

DESIGNED: RBB APPROVED: JAR

VAN WERT COUNTY  
VAN-30-406

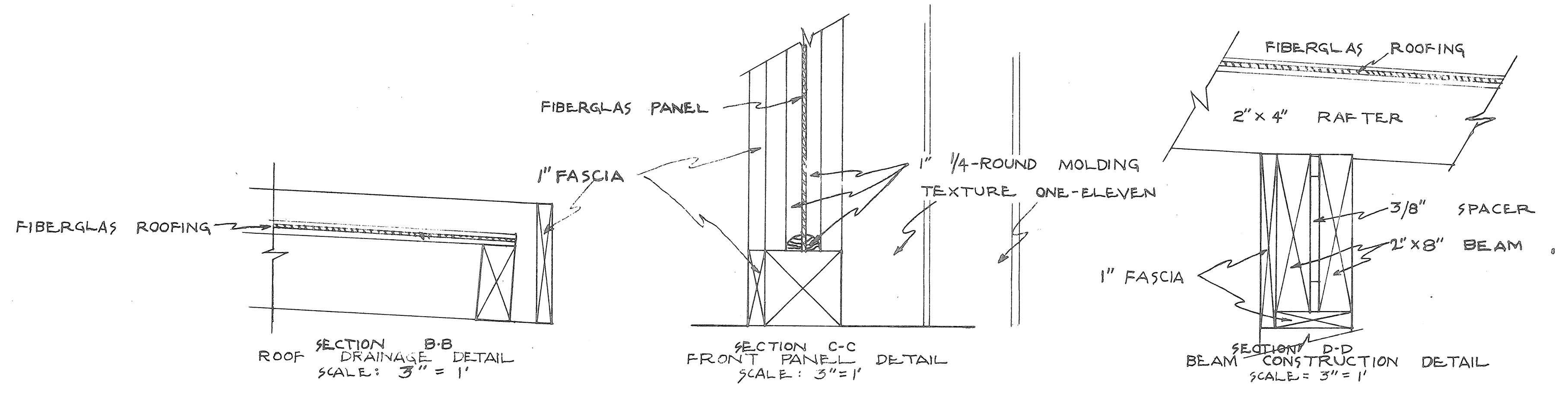
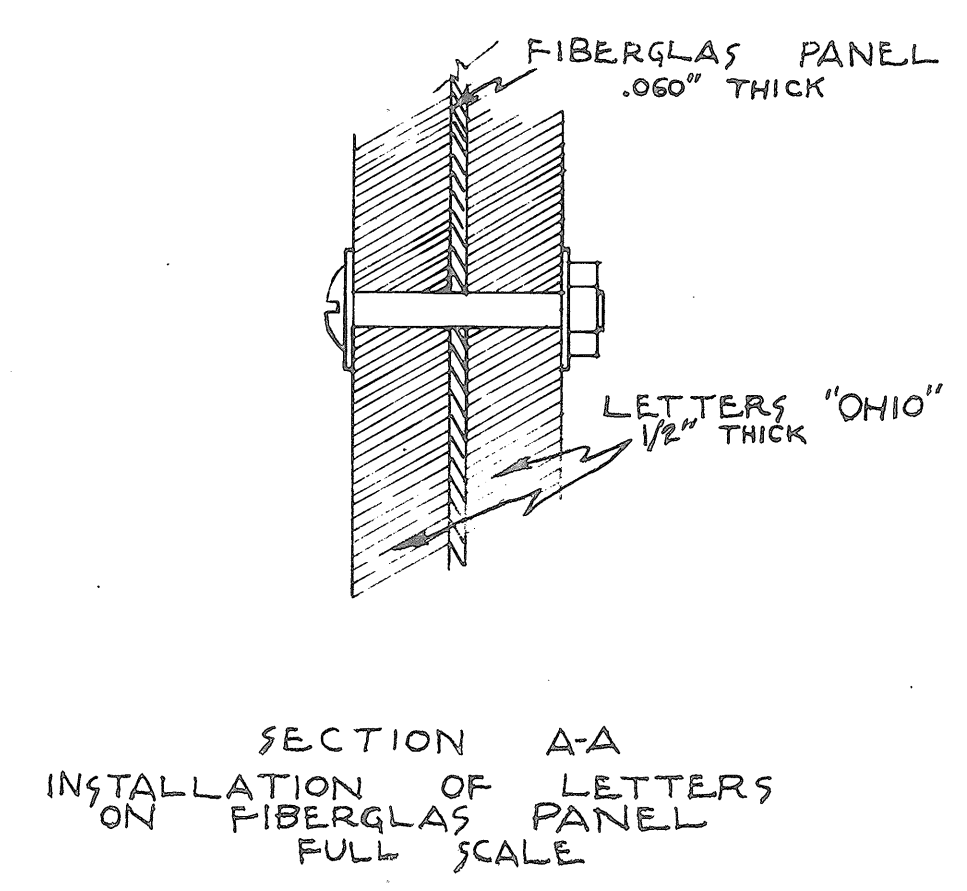


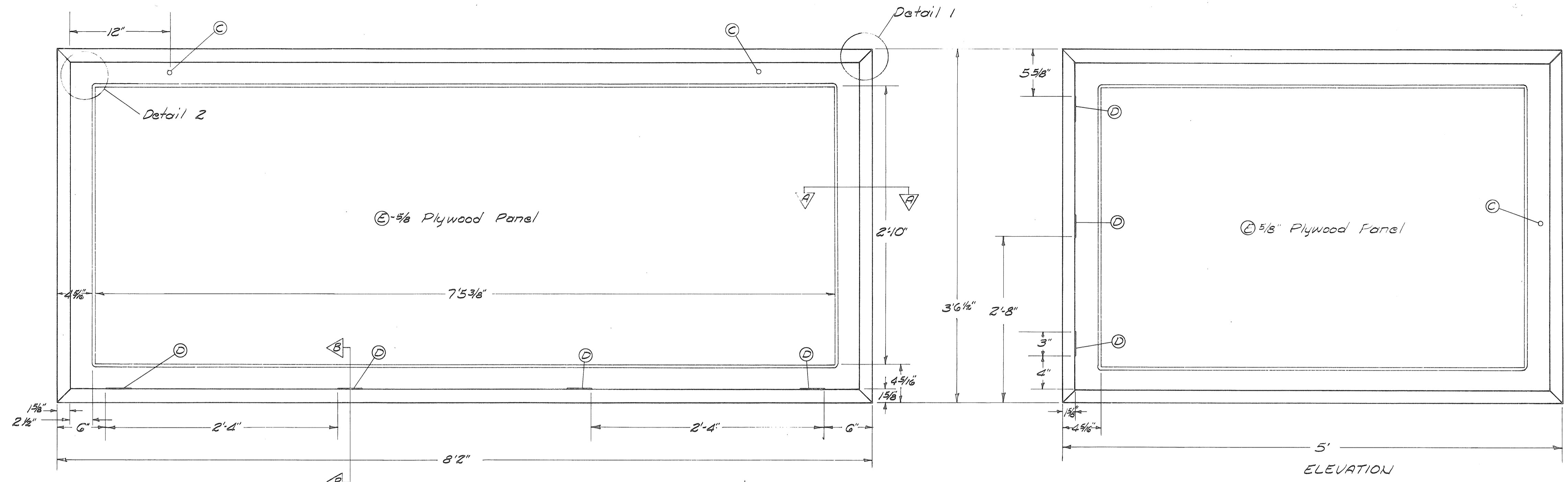
PLAN



SCALE: 1" = 1'

ROOF FRAMING PLAN



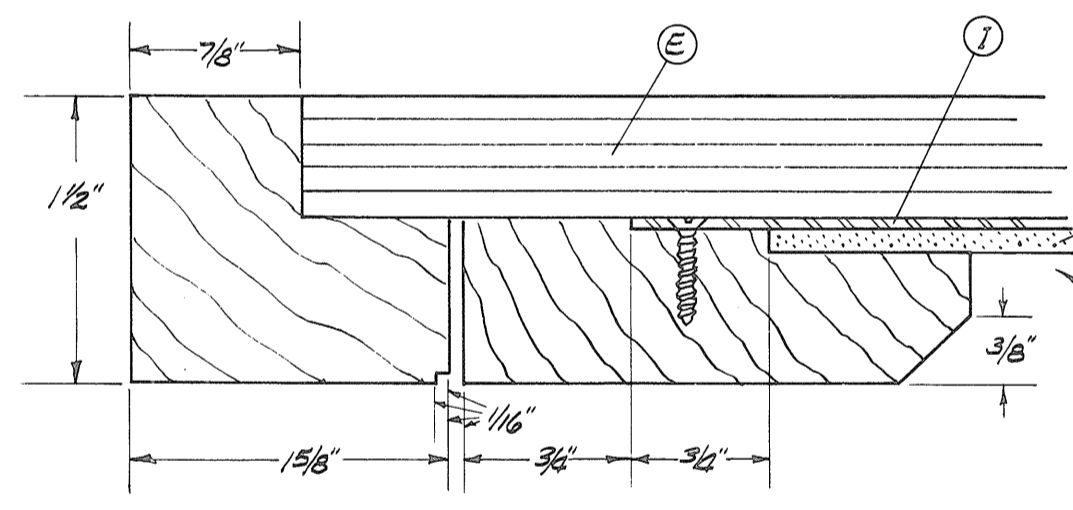


- LEGEND**
- AA+BB Sections
- (C) Brass locks 3/4" diameter - key like
  - (D) Hinges, hot galvanized 3"x2 1/2" with tight brass pins.
  - (E) Douglas Fir Plywood 5/8"-5 ply A.C. Exterior S.L.S.
  - (F) 1 3/4" #10 Brass flat head - Each corner
  - (G) 1 1/4" #8 Steel flat head - Countersunk 8" O.C.
  - (H) 1/8" Plexiglass
  - (I) Aluminum strip - 1 1/2" wide 24 ga. with 1/2" #6 flat head aluminum or cadmium plated screws counter sunk flush 6" O.C.
  - (K) Steel dowels
  - (L) Indicates rabbetted area of joint
  - (M) Indicates rabbetted area for plexiglass and aluminum strip
- Bulletin board to be constructed of F.A.S. grade red or white oak, thoroughly dry.

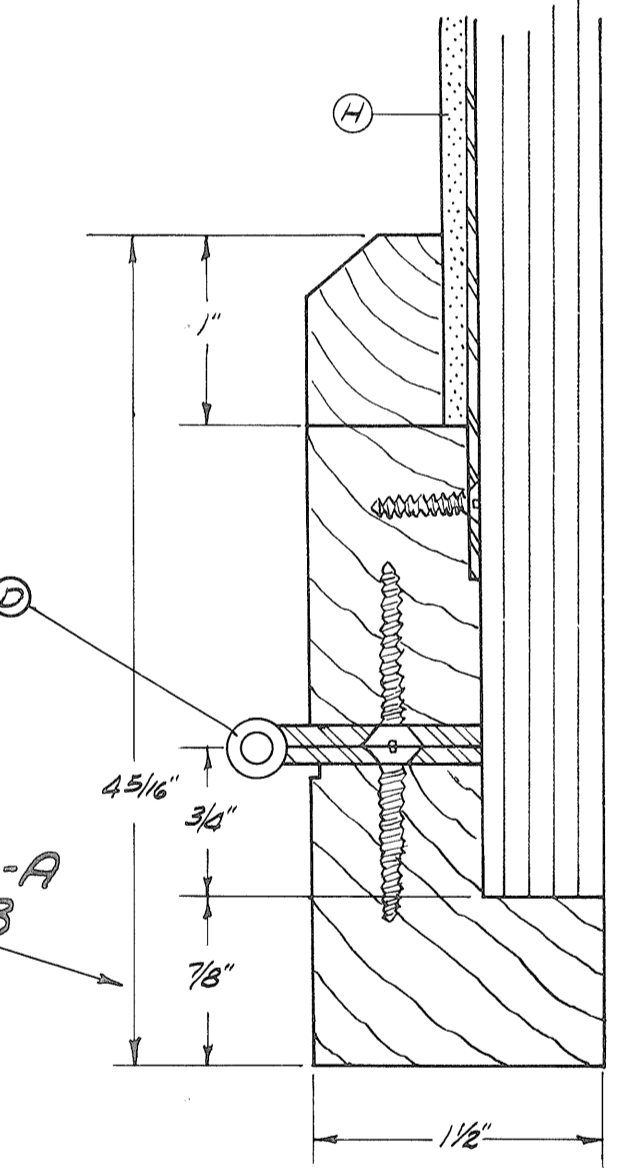
**BULLETIN BOARDS**  
SCALE 1 1/2" = 1'

ELEVATION

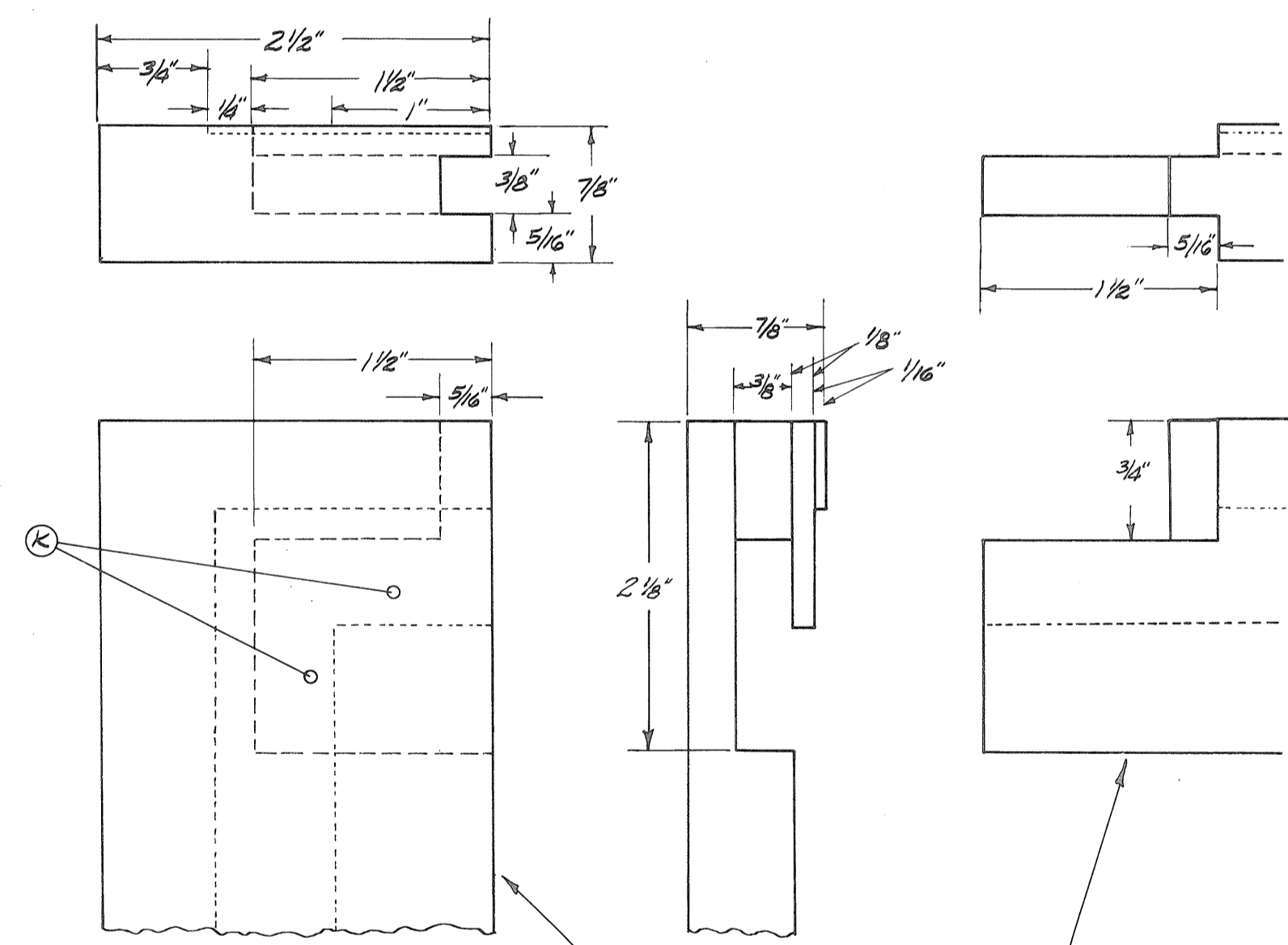
ELEVATION



**SECTIONS A-A AND B-B**  
SCALE 1" = 1"

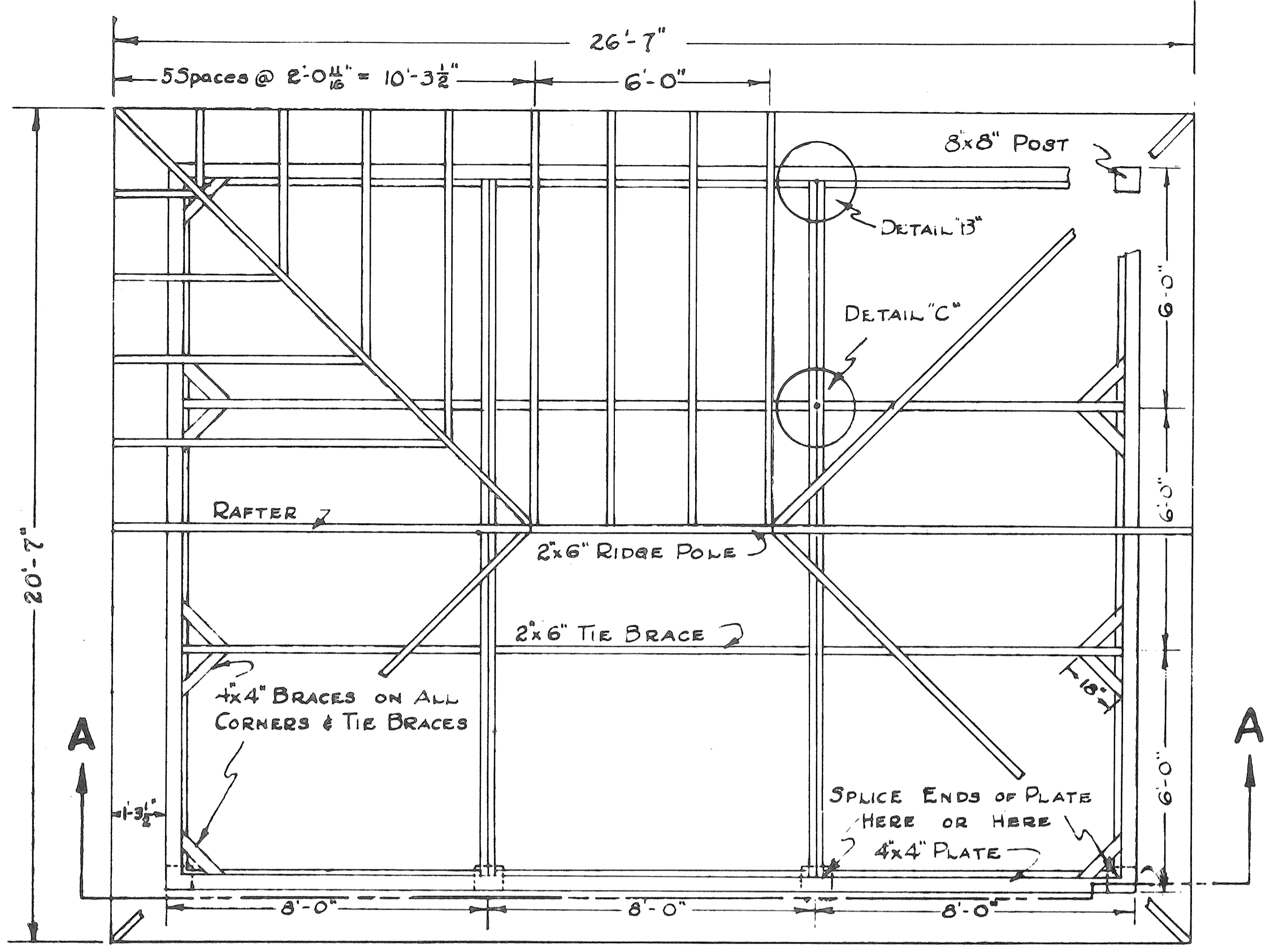


**DETAIL 1**  
SCALE 1" = 1"

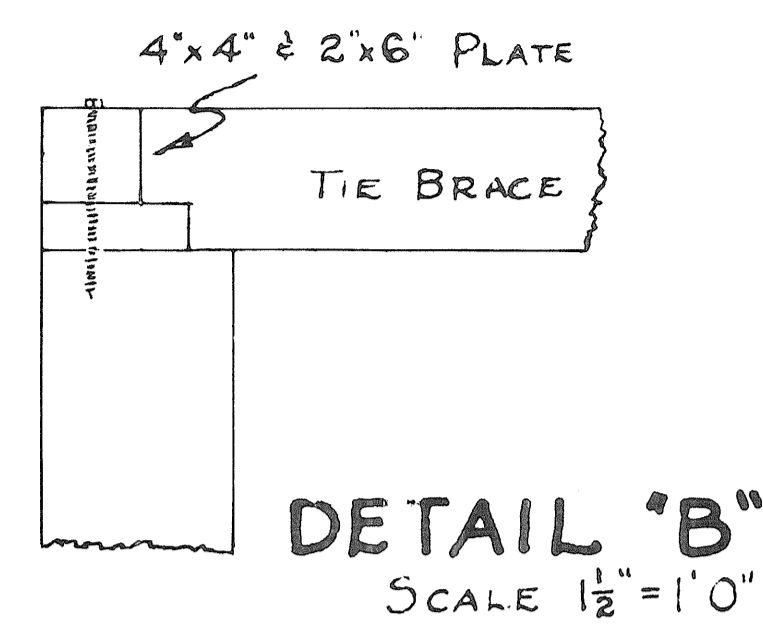


**DETAIL 2 MORTISE AND TENON**  
FULL SCALE

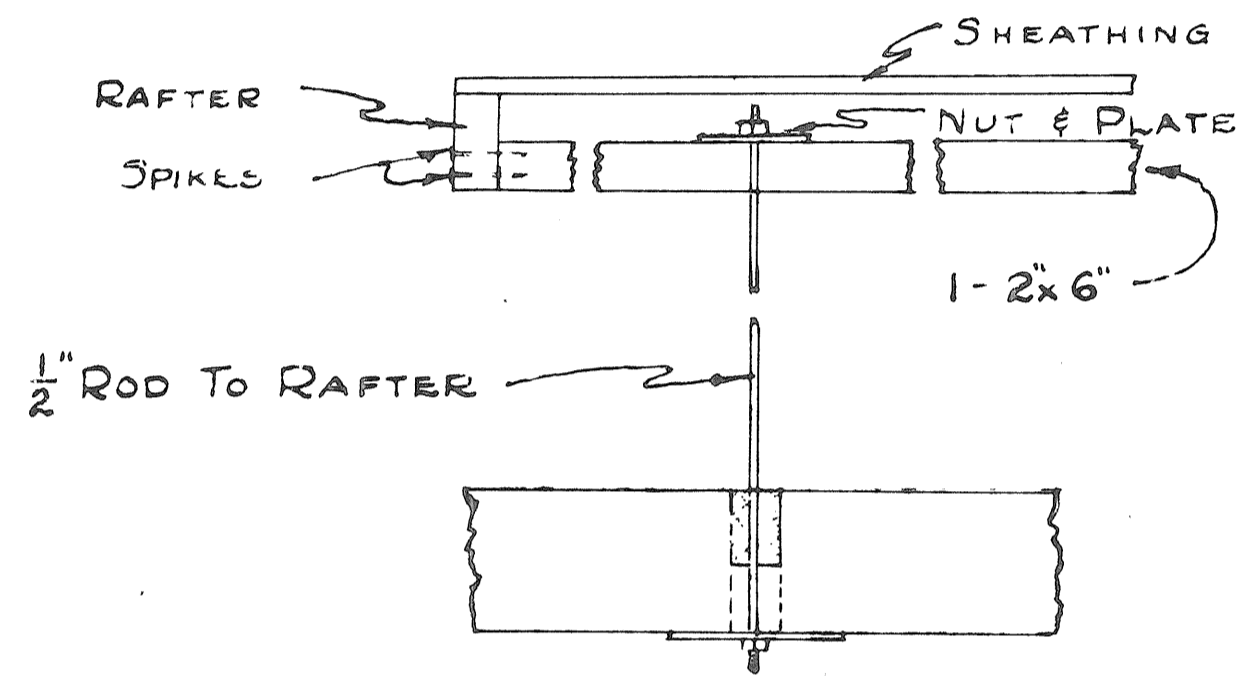
<b>ROADSIDE IMPROVEMENT OHIO DEPARTMENT OF HIGHWAYS</b>	
<b>BULLETIN BOARD</b>	DATE
DIVISION 5 CONSTRUCTION DRAWING	
TRACED: REP	APPROVED: JTH



**ROOF AND RAFTER PLAN**  
SCALE 3/8" = 1'-0"



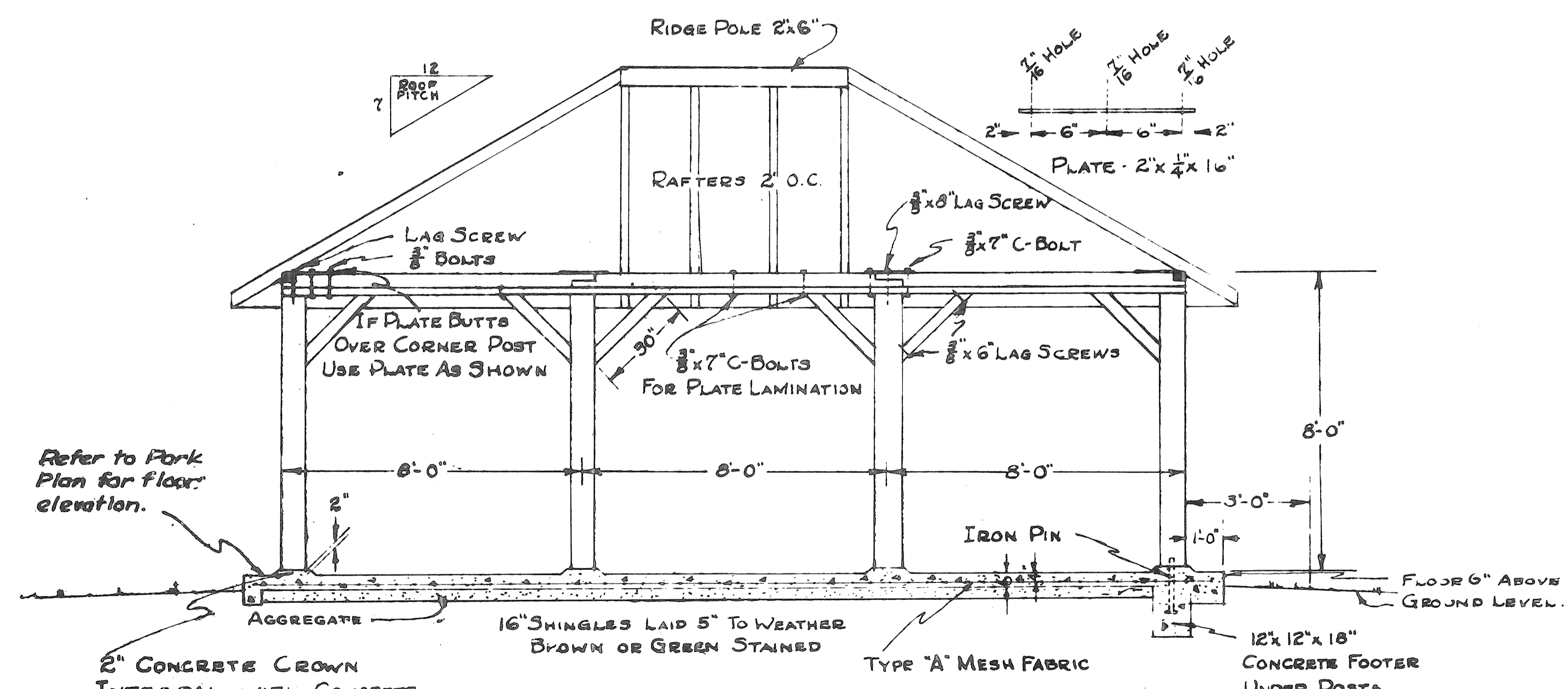
**DETAIL "B"**  
SCALE 1 1/2" = 1'-0"



**DETAIL "C"**  
SCALE 1 1/2" = 1'-0"

**NOTES**

All lumber shall be S&S Std, KD., #1 common and better, Southern Yellow Pine or Douglas Fir. (Sec. M-8).  
All lumber and shingles shall be treated in accordance with the requirements for "Pentachlorophenol Treatment," Sec M-8.6.  
Large sized washers shall be used with all bolts, one at each end; a lock washer shall also be used of the nut end. Bolts shall be cut off 1/4" beyond the nut end and then hammered. All bolt holes shall be painted with pentachlorophenol 5% (by weight) solution. Bolts shall be good quality wrought iron, cadmium plated.  
Aluminum or Hot Galvanized nails, 1 1/4" long shall be used to nail down shingles.  
Aggregate subbase for concrete slab shall meet the requirements of Item I-22 Subbase, Grading "C" or "D".  
The necessary excavation shall be performed in accordance with the requirements of Item E-2 of the Specifications.



**SECTION A-A**  
SCALE 3/8" = 1'-0"

**BILL OF MATERIALS  
FOR SHELTER HOUSE**

26 Pcs.	2' x 4' x 14'
4 "	2' x 4' x 16'
1 "	2' x 6' x 6'
7 "	2' x 6' x 10'
3 "	2' x 6' x 12'
3 "	2' x 6' x 16'
4 "	2' x 6' x 18'
2 "	4' x 4' x 8'
10 "	4' x 4' x 14'
12 "	8' x 8' x 8' HARDWOOD POSTS
30	BUNDLES SHINGLES, BR. OR GR. STAINED
700	BD. FT. SHEATHING 1" x 6"
72	3/8" x 6" LAG SCREWS
12	3/8" x 8" LAG SCREWS
58	3/8" x 7" BOLTS
12	2' x 2' x 16" SPLICE PLATES
4	1/2" x 4' x 3" TIE RODS (THREADED ENDS)

TYPE "A" MESH FABRIC (SEE STANDARD CONSTRUCTION DRAWING B-T-71R).

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
"DETAIL OF SHELTER  
HOUSE  
ROADSIDE PARKS  
JANUARY 16, 1956

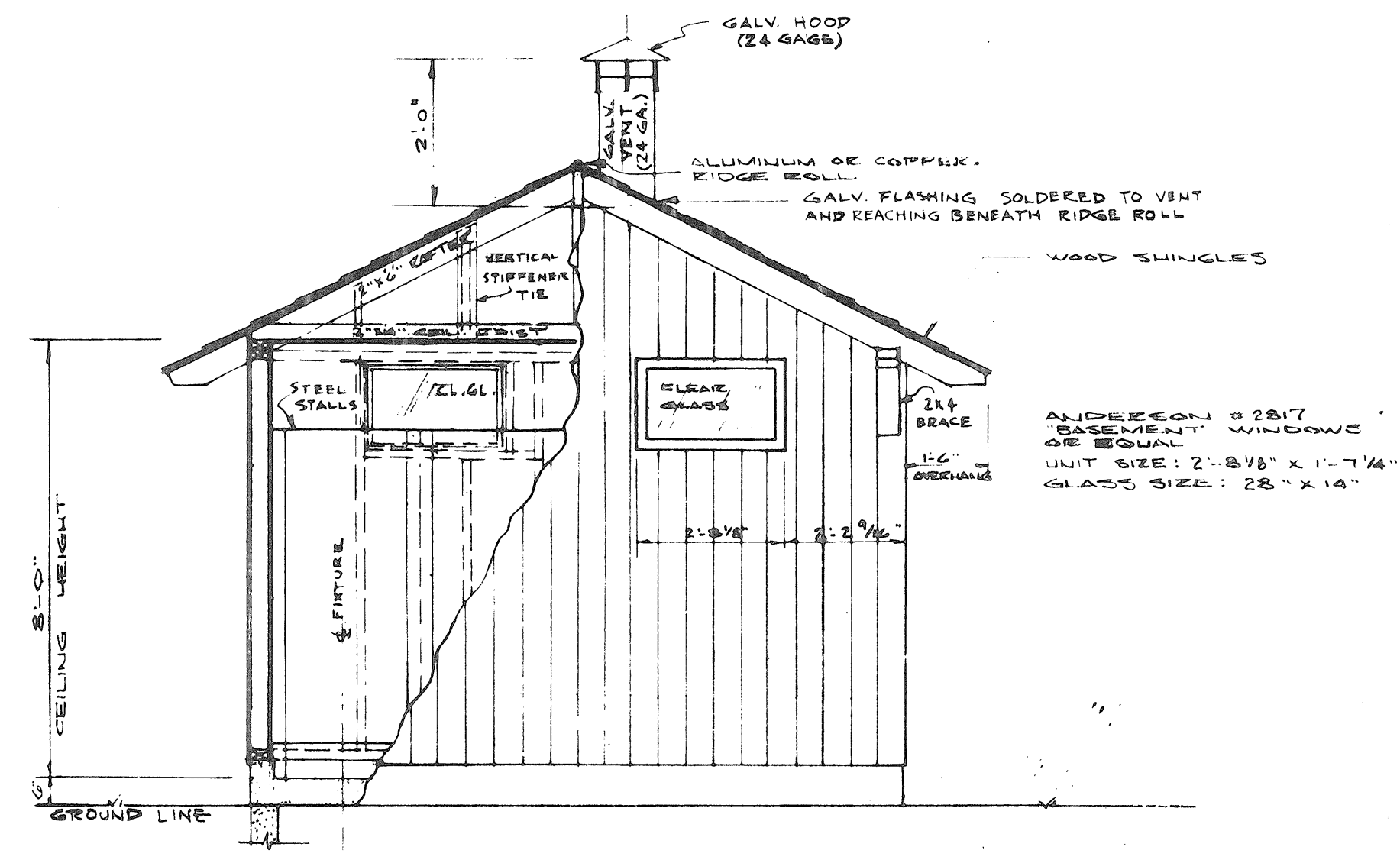
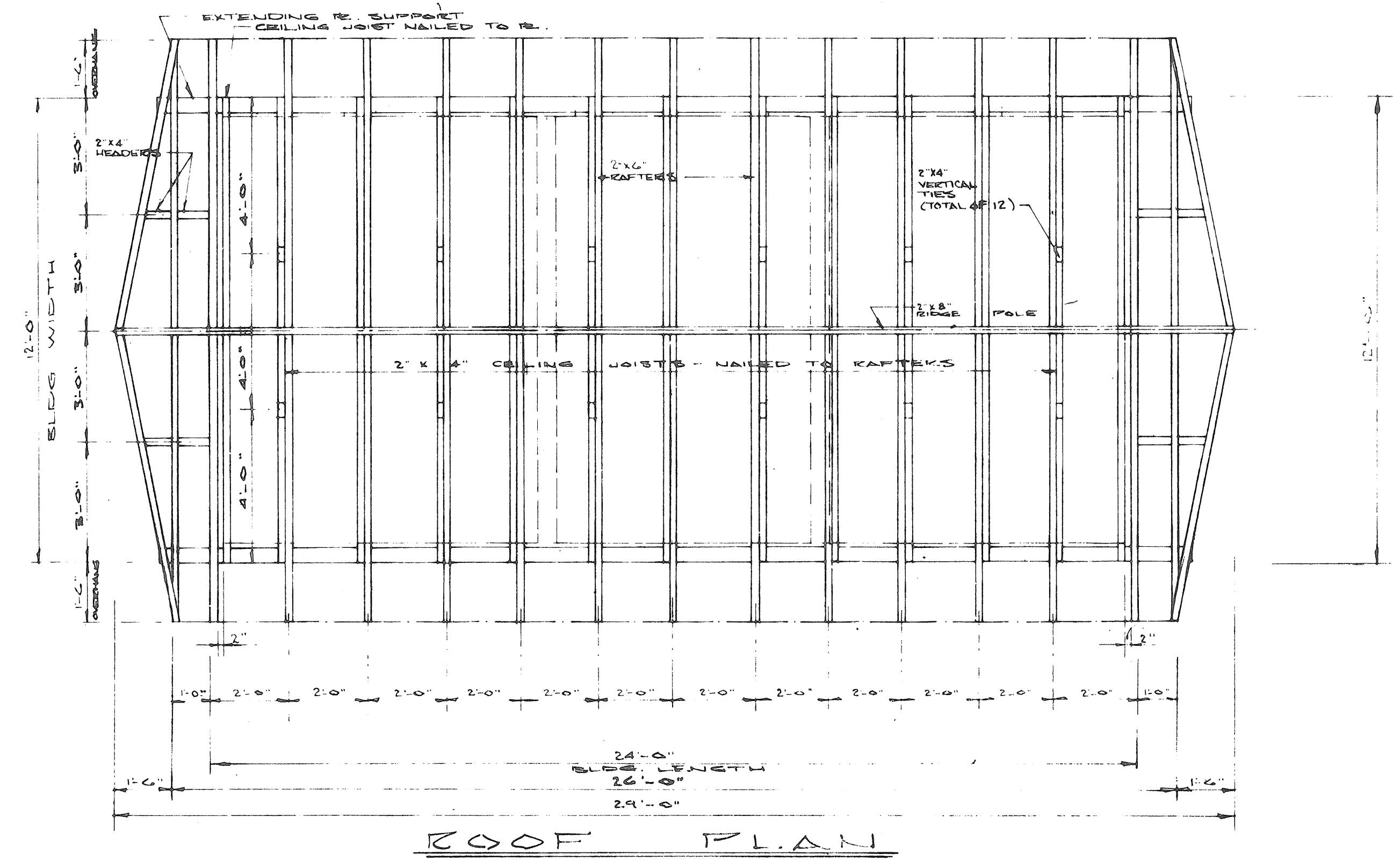
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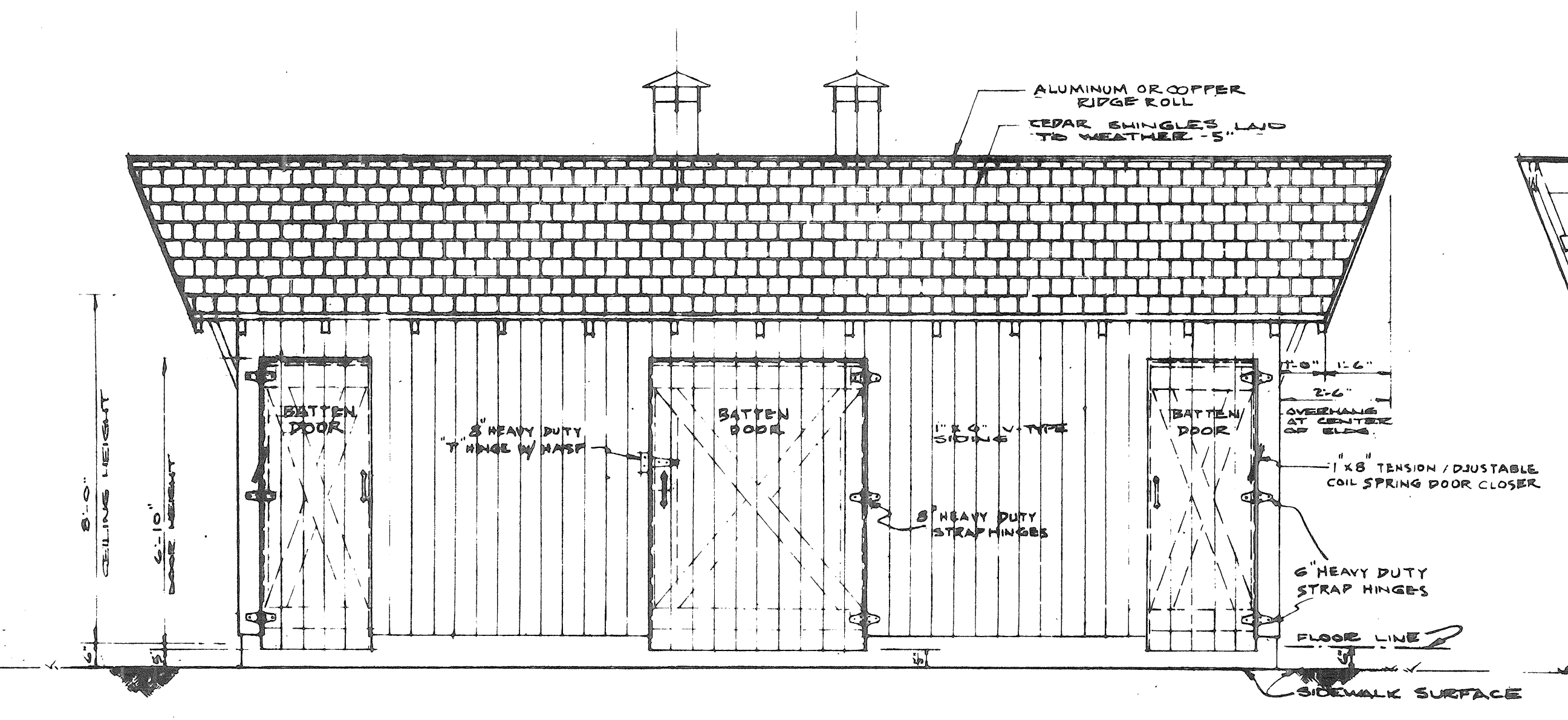
NOTES

ROADSIDE TOILET & STORAGE UNIT

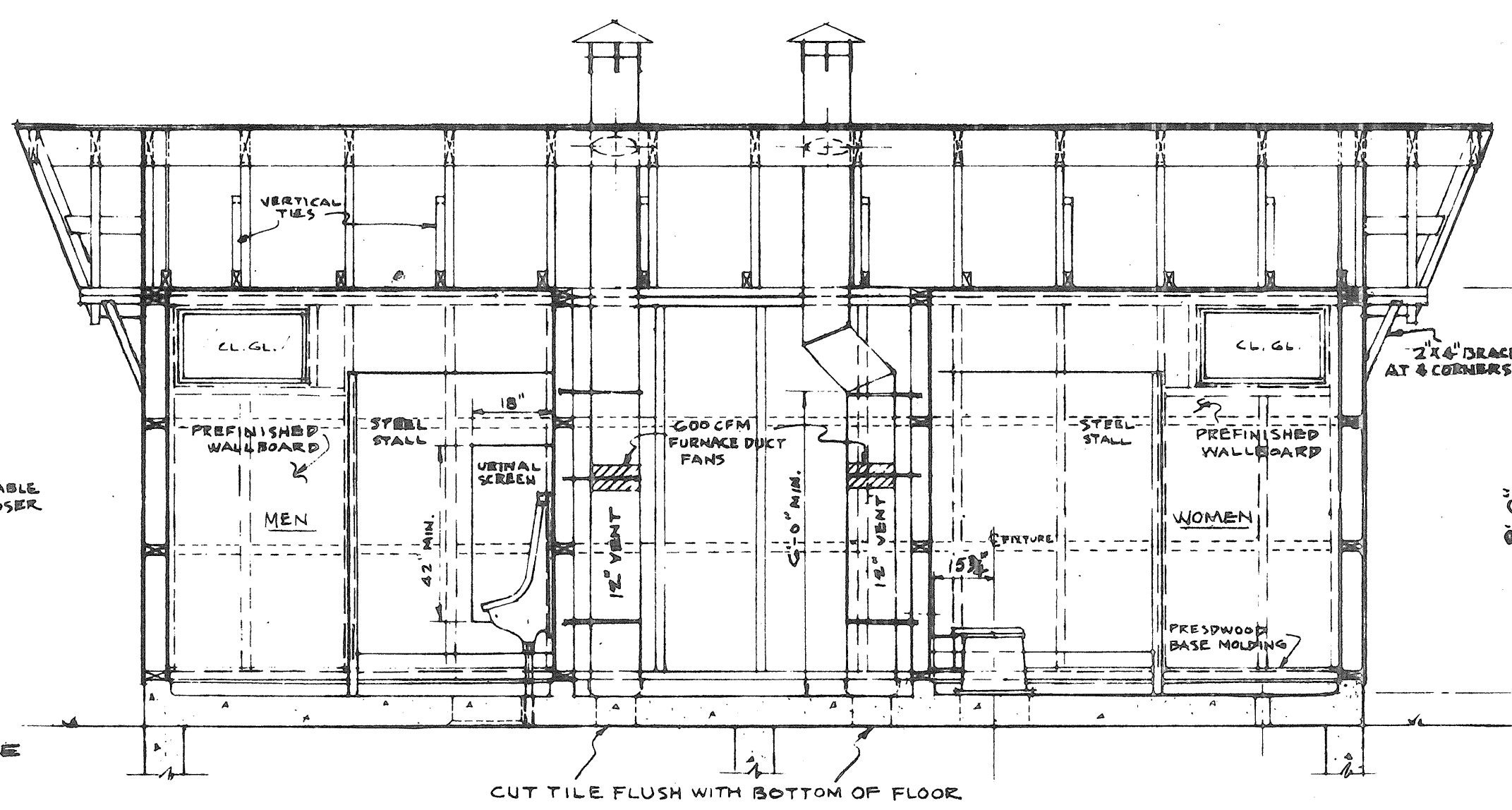


END ELEVATION - SECTION ON "C-C"

SCALE: 3/8" = 1'-0"



FRONT ELEVATION



LONGITUDINAL CROSS SECTION "B-B"

THE VAULT FLOOR, INSIDE WALLS, AND OUTSIDE WALLS SHALL BE TREATED IN ACCORDANCE WITH THE REQUIREMENTS FOR WATERPROOFING, ITEM E-2 TYPE "A" USING BITUMINOUS MATERIAL SEC M-58 W.P.P.

THE UPPER 6" REINFORCED CONCRETE SLAB AND 4" SILL SHALL BE POURED INTEGRALLY AFTER CONCRETE HAS SET SUFFICIENTLY, ALL FORMS SHALL BE REMOVED FROM THE VAULT THROUGH THE MANHOLES.

FLOOR SLAB & SILL IN TOILET ROOMS SHALL HAVE SMOOTH TROWELED FINISH. SLOPE FLOOR TO STANDARD BRASS DRAIN AS SHOWN IN SECTION-SHT. REINFORCEMENT TO BE 3/4" STEEL BARS SPACE 12" O.C. BOTH LONGITUDINALLY AND TRANSVERSELY. CONCRETE SHALL BE CLASS "C" MIX AS PER ITEM S-1 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

3/8" ANCHOR BOLTS SHALL BE OF GOOD QUALITY HOT GALVANIZED OR COPPER BEARING. A LARGE SIZE WASHER, LOCK WASHER, AND NUT SHALL BE PLACED ON THE THREADED END PROTRUDING ABOVE THE 2"x4" PLATE. BOLTS SHALL BE CUT OFF 1/2" BEYOND THE NUT AND HAMMERED. ALL BOLT HOLES IN THE PLATE SHALL BE SOAKED WITH 5% PENTACHLOROPHENOL SOLUTION BEFORE INSERTING BOLTS.

MANHOLE FRAME AND COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN. HOWEVER, A HEAVIER FRAME AND COVER WILL BE ACCEPTABLE.

ALL BACKFILL TO BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8" DEPTH, LOOSE MEASUREMENT, AS PER ITEM E-1 OR ITEM E-2 WHICHEVER IS APPLICABLE.

ALL LUMBER AND SHINGLES SHALL BE TREATED IN ACCORDANCE WITH THE REQUIREMENT FOR PENTACHLOROPHENOL TREATMENT, SEC. M-83.

ALL LUMBER SHALL BE S4S STD. K.D. NO. 1 COMMON OR BETTER, SOUTHERN YELLOW PINE OR DOUGLAS FIR, SEC. M-8. SHINGLES SHALL BE CEDAR XXXX GRADE.

ALL LUMBER EXPOSED TO WEATHER, INCLUDING SHINGLES SHALL BE FASTENED TOGETHER WITH ALUMINUM, OR HOT GALVANIZED FINISHED NAILS.

PLYWOOD SHALL BE EXTERIOR "A" QUALITY.

ALL MATERIAL TO BEAR THE GRADE-TRADEMARK OF A RECOGNIZED REGIONAL INSPECTION ASSOCIATION.

ALL HINGES, SCREWS & DOOR HANDLES SHALL BE HOT GALVANIZED OR CADMIUM PLATED.

PREFINISHED WALLBOARD SHALL BE MARLITE OR APPROVED EQUAL. IT SHALL BE APPLIED TO ALL TOILET WALLS & CEILING IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION. STANDARD BLACK PRESSEDWOOD BASE MOLDING SHALL BE USED. WALL PANELS SHALL BE WILLOW GREEN AND CEILING SHALL BE SWAN WHITE. POLISHED ALUMINUM MOLDINGS SHALL BE USED FOR INSTALLATION OF PANELS.

TOILET PARTITIONS & URINAL SCREEN SHALL BE GALVANIZED AND BONDERIZED PANELS AT LEAST 1" THICK WITH A BAKED-ON ENAMEL FINISH. TOILET PARTITIONS SHALL BE OVERHEAD BRACED, COLOR TO BE SELECTED.

BUREAU OF LOCATION AND DESIGN  
OHIO DEPARTMENT OF HIGHWAYS

ROADSIDE REST AREAS

DATE 12-1-64

STANDARD CONSTRUCTION DRAWING APPROVED

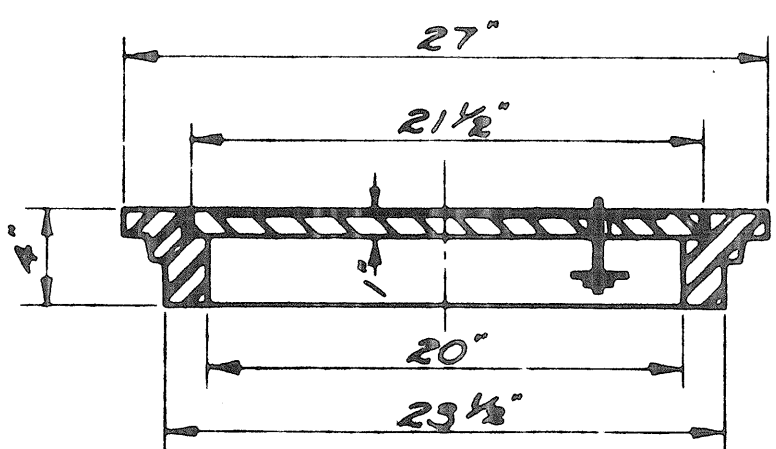
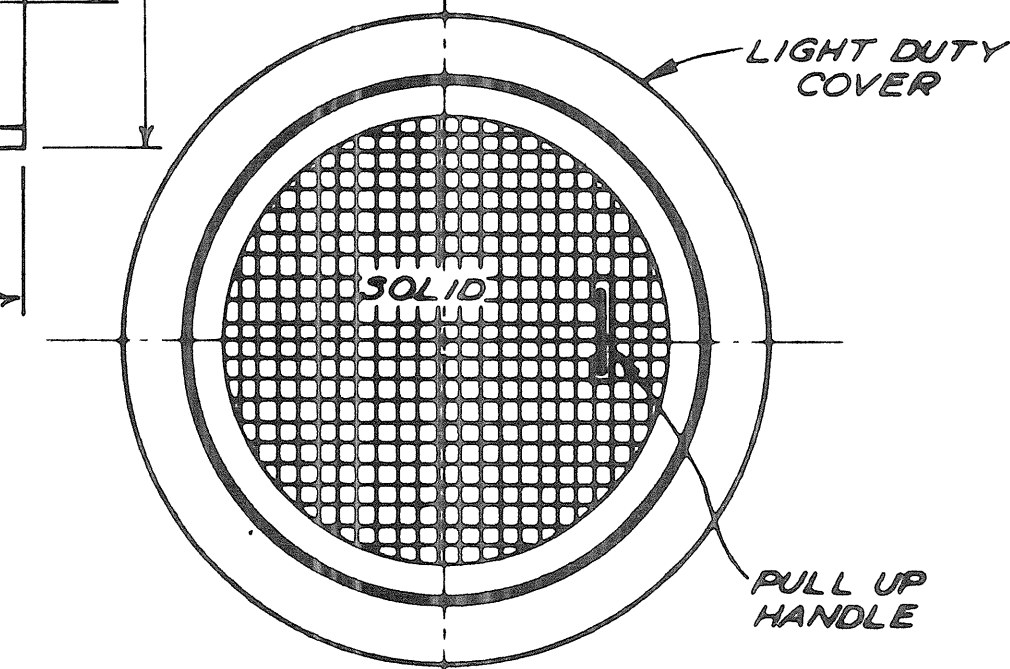
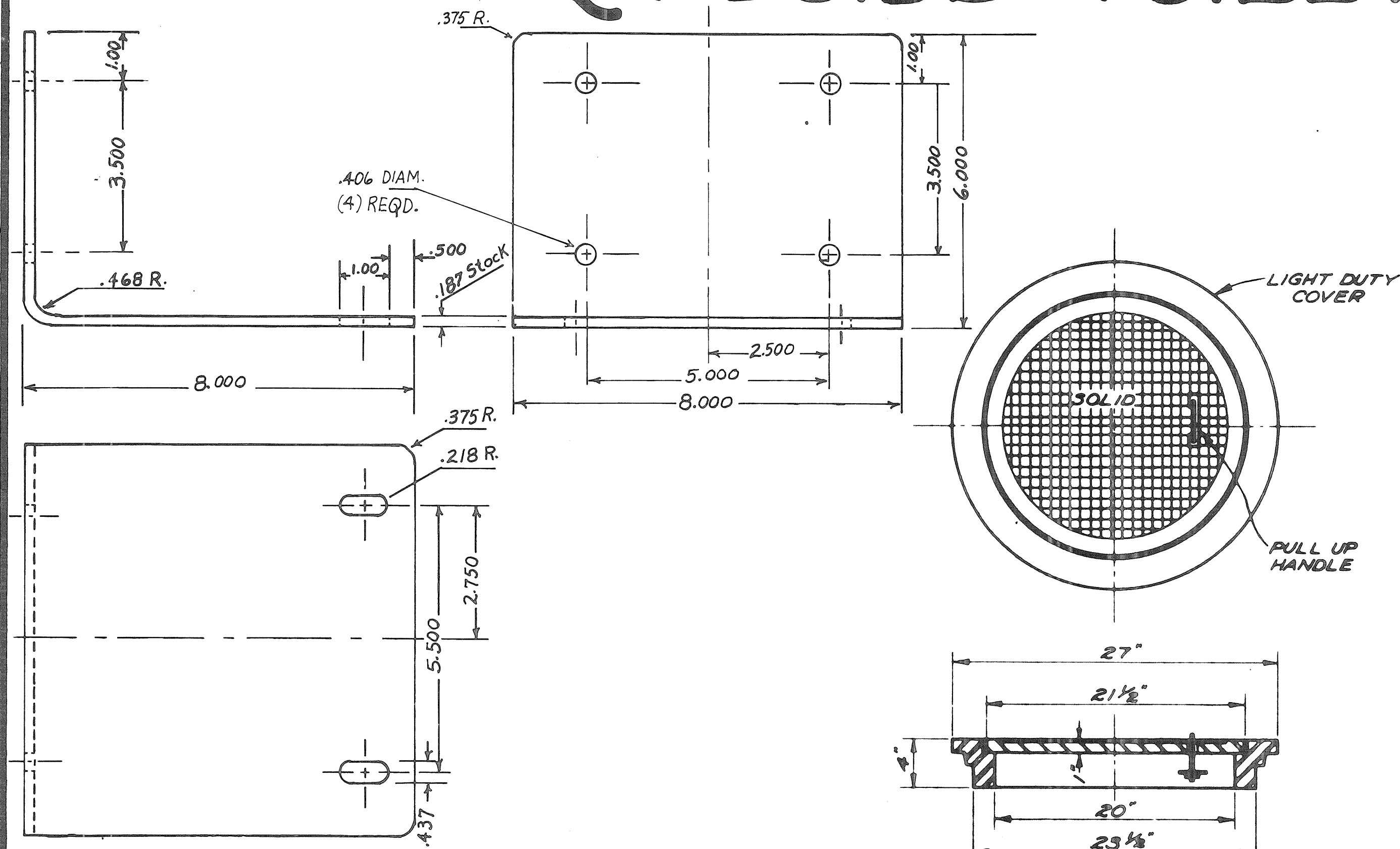
R.R.A. NO. 4-B

ENGR. L. & D.

# ROADSIDE TOILET AND STORAGE UNIT

VAN-30-4.06

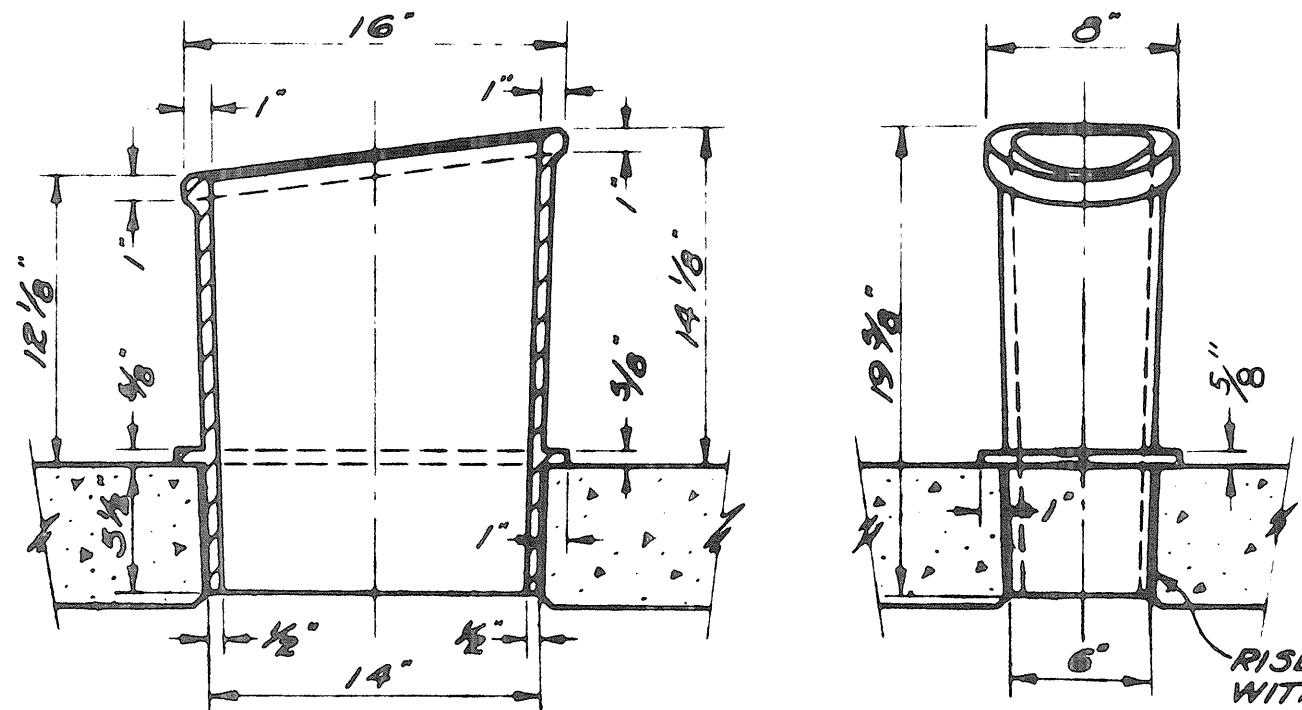
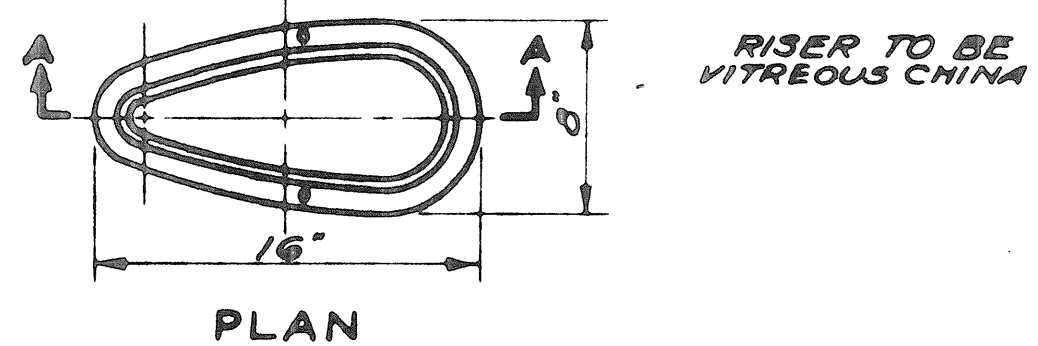
169-A.



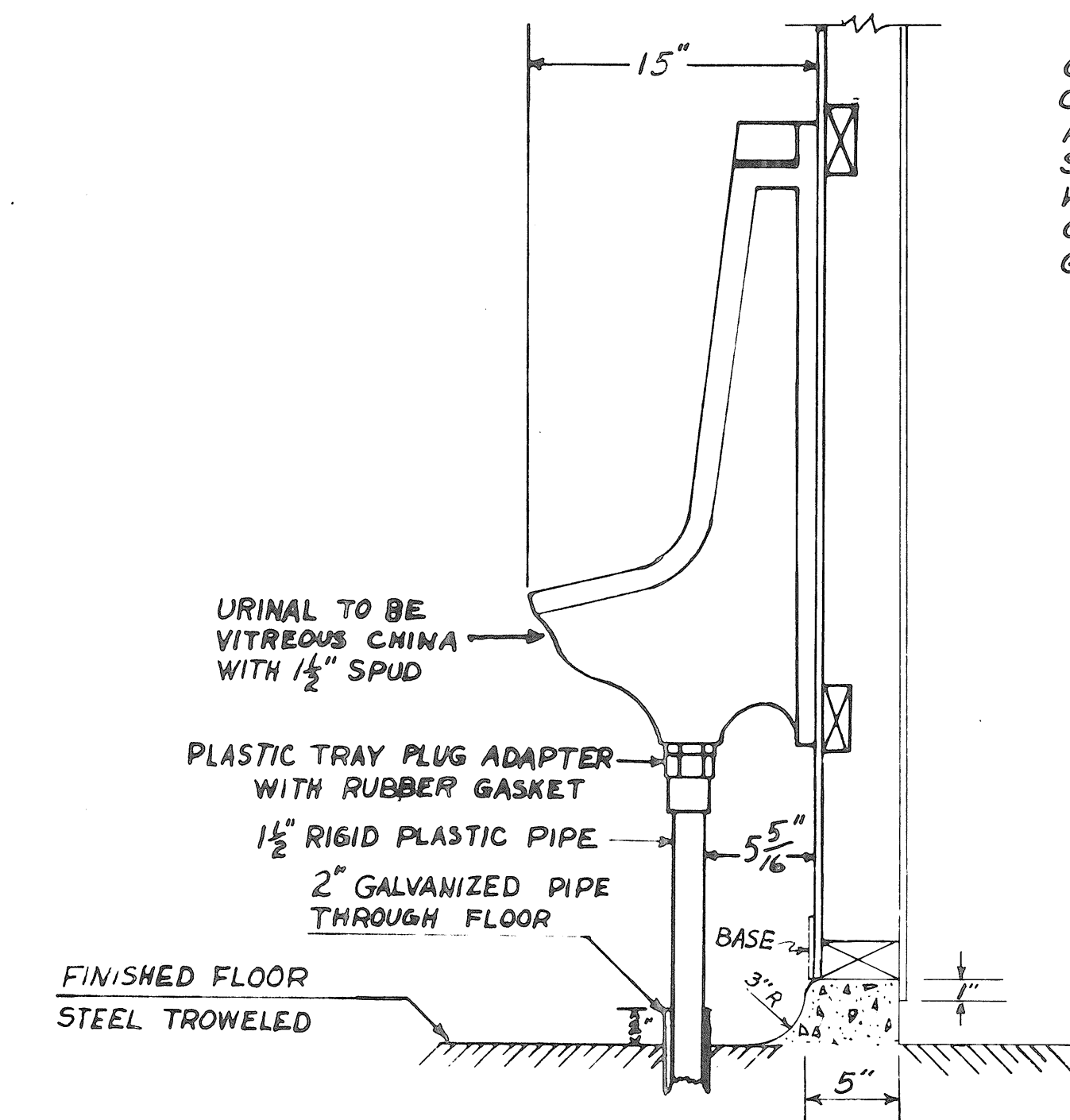
**MANHOLE COVER**  
MINIMUM WEIGHT OF RING & COVER - 80 POUNDS

**TOILET SEAT MOUNTING BRACKET**

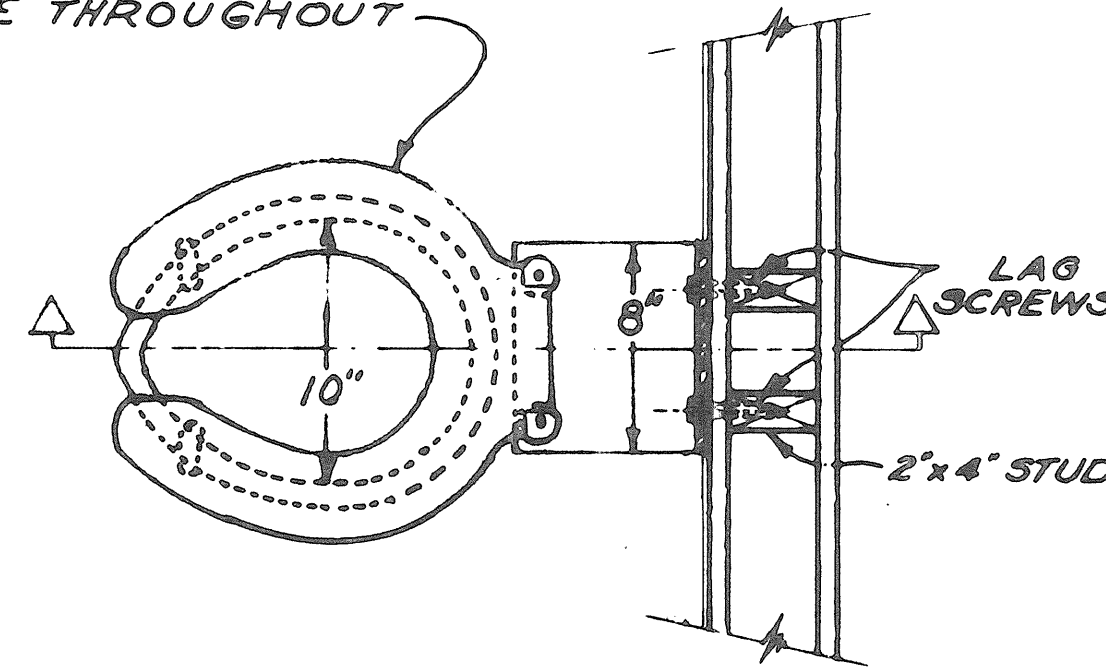
BRACKET SHALL BE CLEANED AND COATED WITH WHITE EPOXY PAINT. MOUNT WITH 3 INCH GALVANIZED LAG SCREWS.



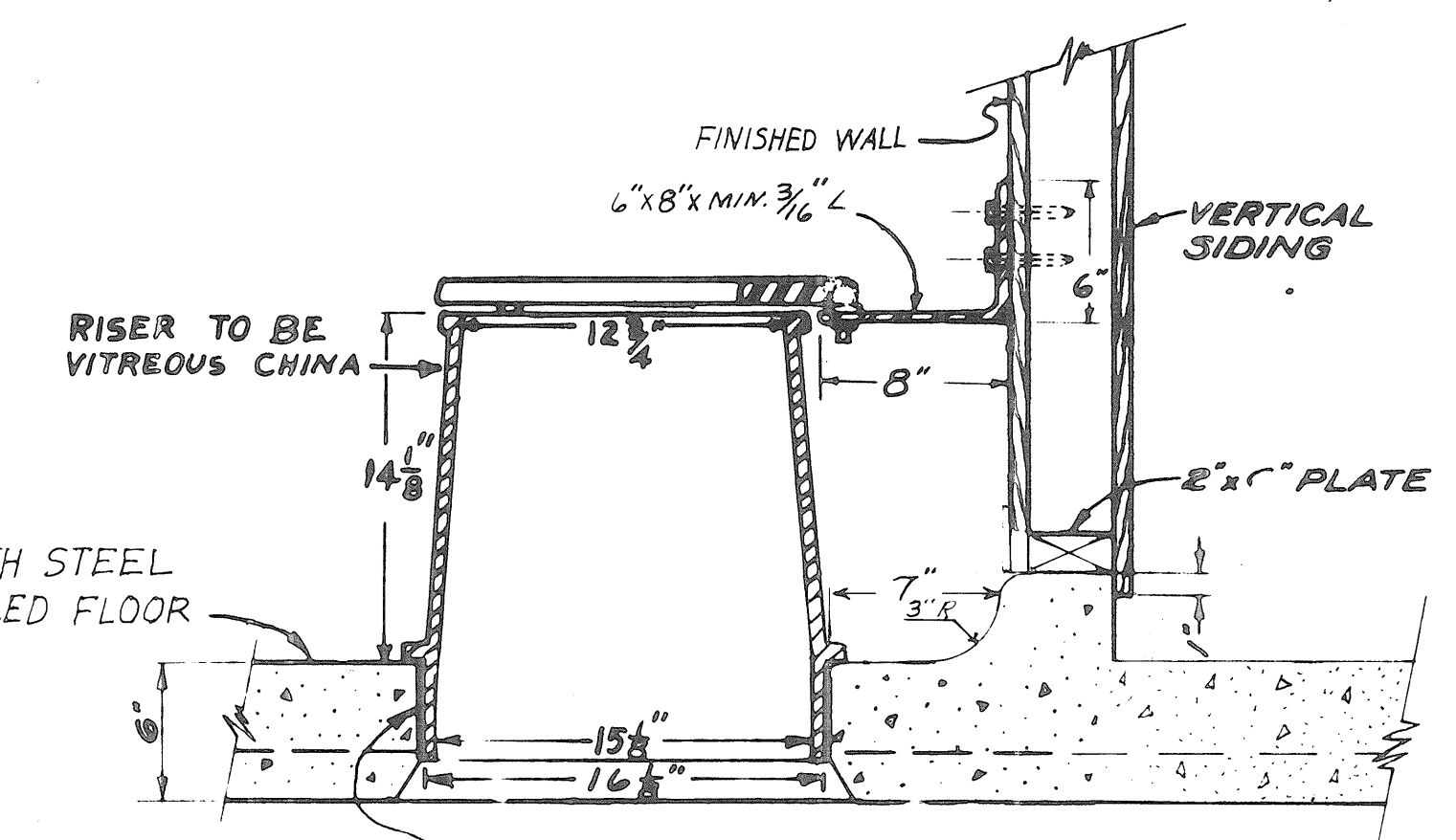
**SECTION A-A**  
**RISER WITHOUT SEAT**



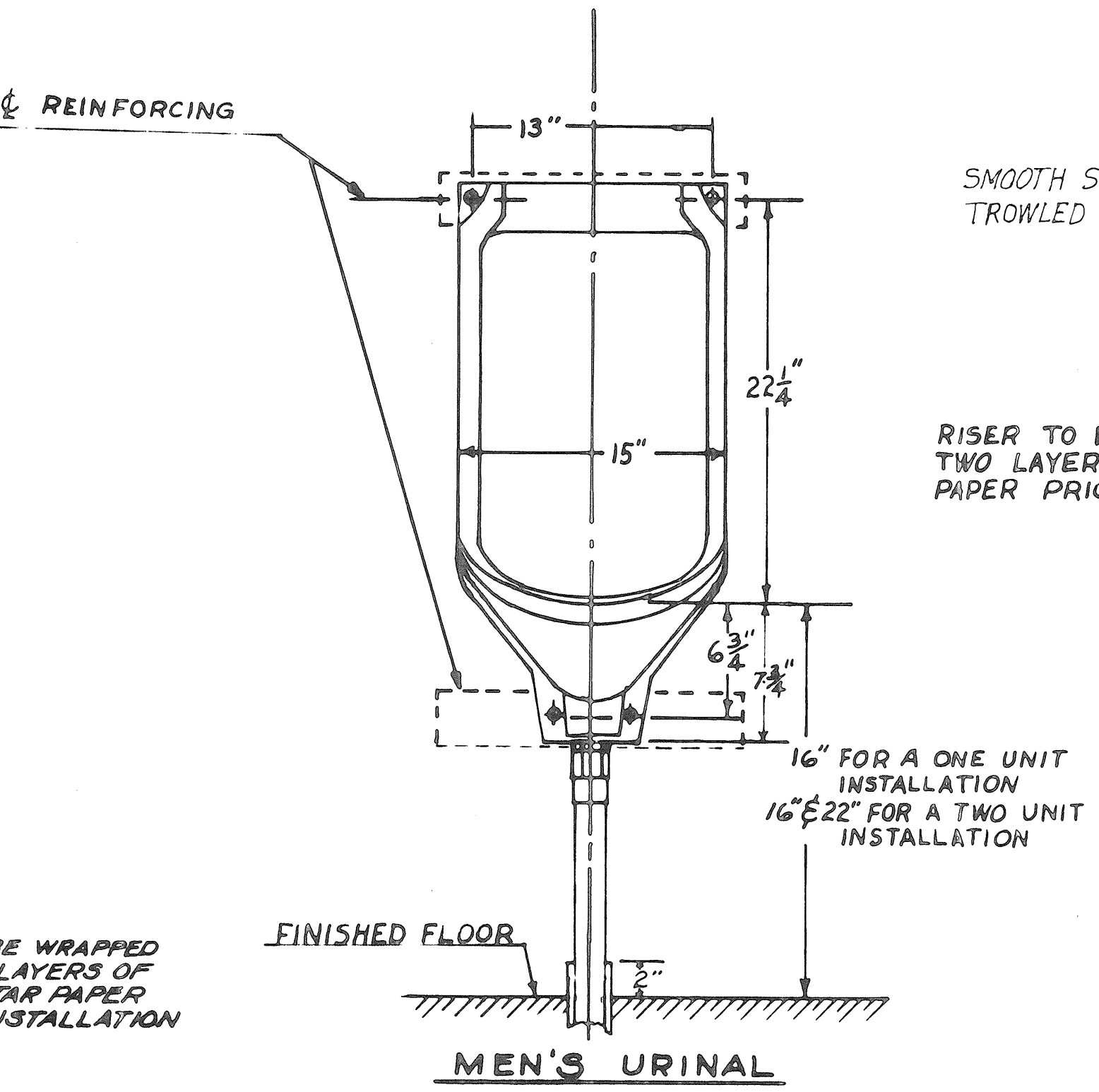
STANDARD SHORT TOILET SEAT, OPEN FRONT, NO LID. SHALL BE OF SOLID WHITE FIREPROOF PLASTIC, WITH FLAT UNDER SURFACE. IT SHALL BE MOLDED WITHOUT JOINTS, SEAMS OR CREVICES AND SHALL BE HOMOGENEOUSLY WHITE THROUGHOUT



**PLAN**



**SECTION**  
**RISER & PRIVY SEAT DETAIL**



**MEN'S URINAL**

BUREAU OF LOCATION AND DESIGN OHIO DEPARTMENT OF HIGHWAYS	
<b>ROADSIDE REST AREAS</b>	
DATE 7-1-57 4-24-58 10-1-62 10-15-63 3-1-65	R.R.A. DRAWING NO. 4-C
STANDARD CONSTRUCTION DRAWING APPROVED <i>[Signature]</i> ENGR. L. & D.	

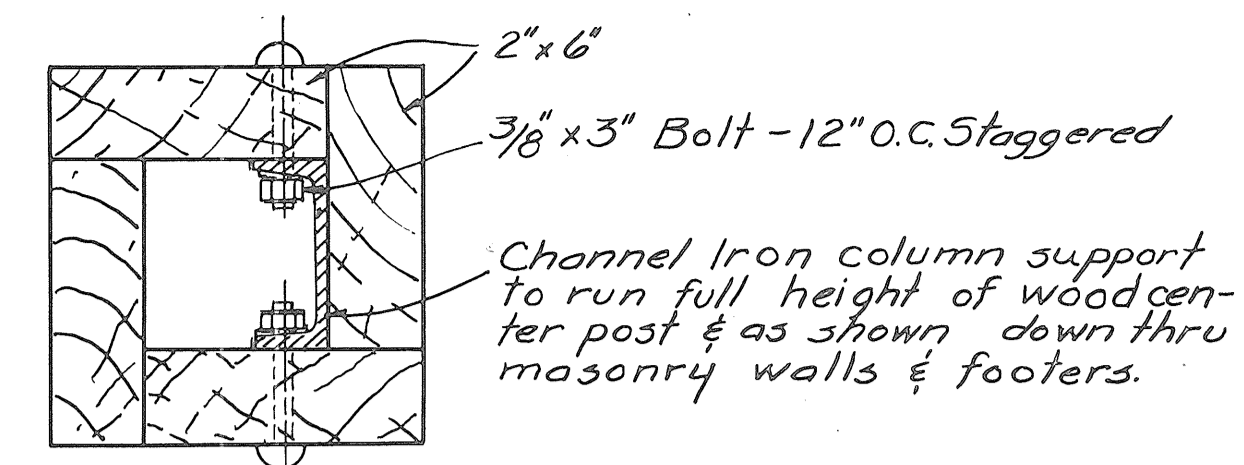
VAN WERT COUNTY  
VAN-30-4.06

### ESTIMATED BILL OF MATERIALS

- 4 pcs. 2"x6"x10' - Cross members for roof and angular supports
- 5 " 2"x6"x14' - Ridge & plate for roof
- 8 " 2"x4"x14' - Roof rafters
- 4 " 2"x6"x16' - Boxing around Channel iron, for column supports
- 2 " 6"x6"x10' - Wood posts (alternate column supports)
- 2 " 5 1/2"-7" O.D. x 11' - Used well casing (alt. column supports)
- 28 " 1"x6"x14' - Roof sheathing
- 2 " 1"x3"x14' - Facia boards
- 10 bundles - 16" - Random width wood shingles, grade xxxxx cedar.

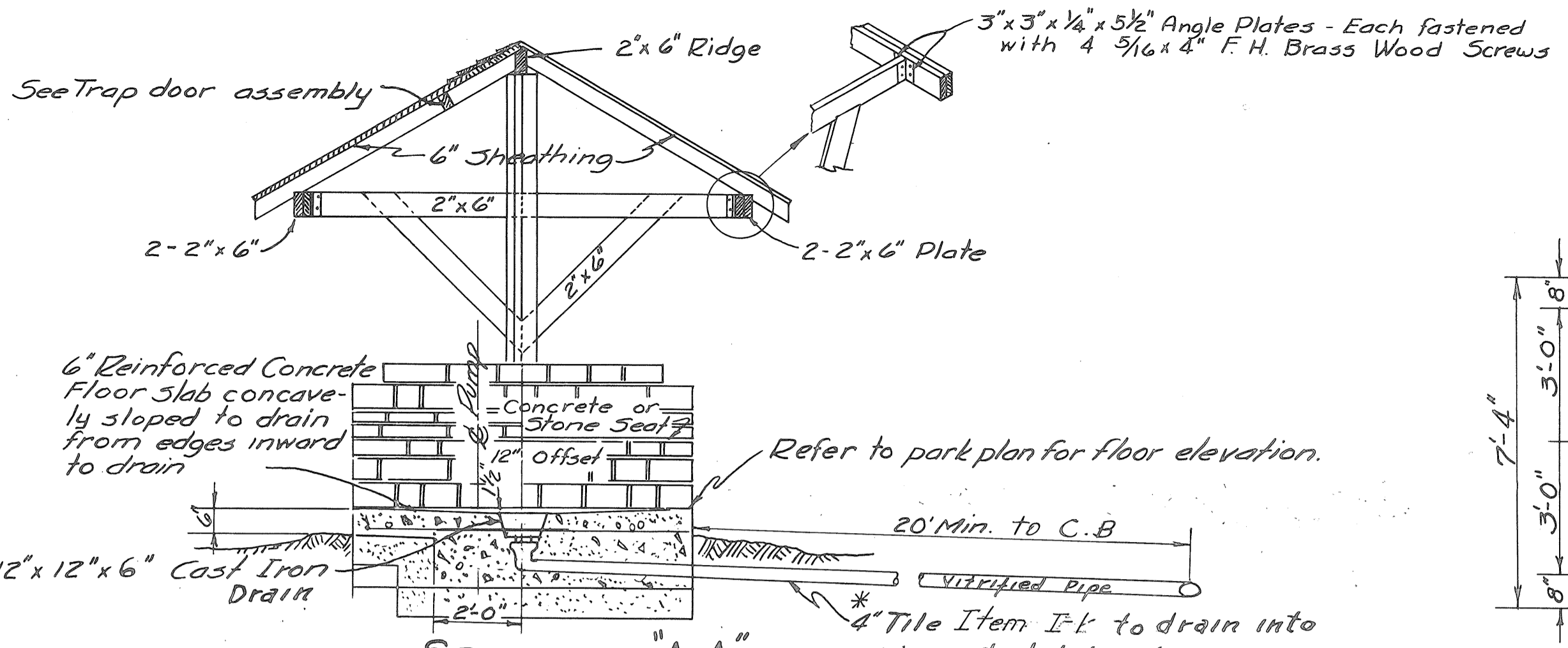
### Hardware

- 24 each 3/8" x 3" - Carriage bolts in column supports
- 4 " 1/2" x 11" - C-Bolts, column & braces
- 4 " 1/2" x 9" - C-Bolts, column & cross-arms
- 4 " 1/2" x 5" - C-Bolts, braces & cross-arms
- 1 " 12" x 12" x 6" Cast Iron Drain Bowl
- 1 " 14" - Copper or Aluminum Ridge Roll
- 2 pcs (11 lin. ft. each) - Channel iron
- 8 ea. 3"x3"x1/4"x5 1/2" - Angle plates
- 46 " 3/16"x4" - F. H. brass wood screws
- 2 " 2 1/2" - Screen door hooks - complete
- 4 " 1/2" x 15" (2" spread) - U-Bolts, alternate with used well casing posts.

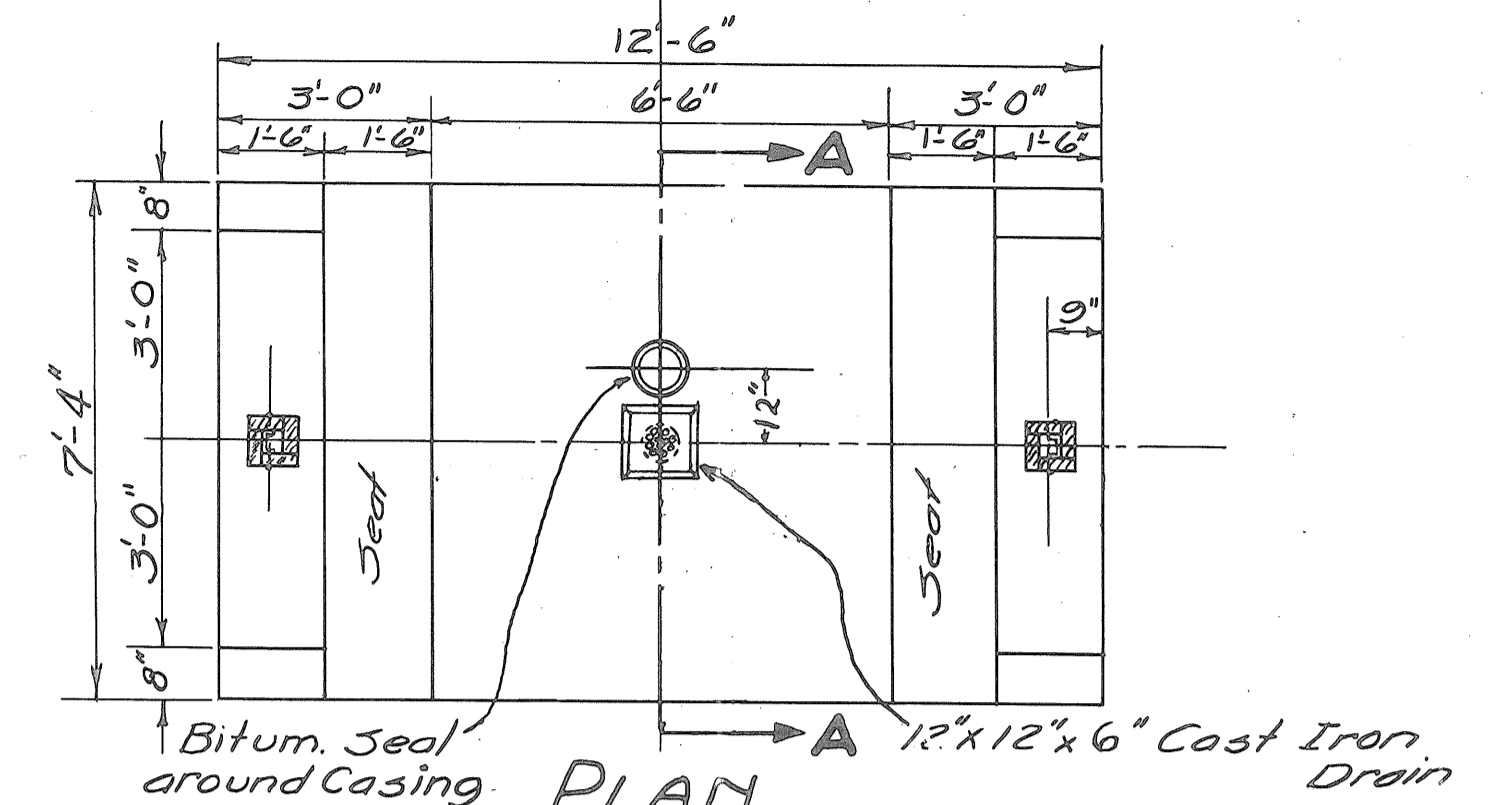


PLAN VIEW OF POST CONSTRUCTION  
Scale 3/8"=1'-0"

- 1 pc. 1"x3"x8' - Trap door cleats
- 2"x4"x2' - Trap door framing



SECTION "A-A"  
Scale 3/8"=1'-0"



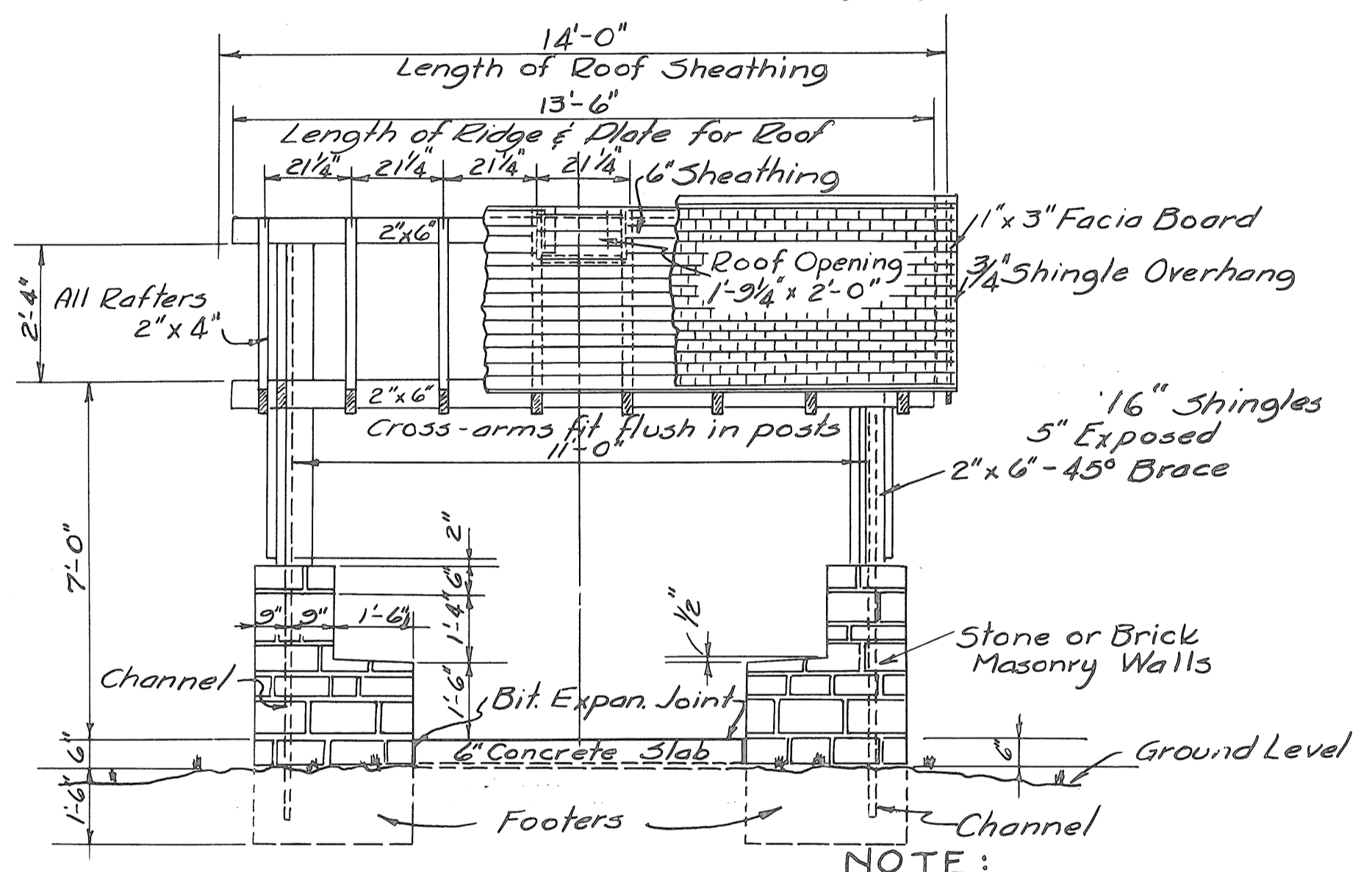
PLAN  
Scale 3/8"=1'-0"

### NOTES

All outside vertical surface joints shall be raked to a depth of 1/4" to 1/2".  
All stone masonry shall comply with specification for Item 5-20. No masonry, stone or brick shall be painted. Brick shall be size number 3 or 4, made from clay and comply with specification for Item 1-8.  
The posts constructed from 2"x6" boards shall be fastened with suitable nails, also 3/16"x4" brass screws at 24" intervals.  
All lumber shall be S4S, Std, KD, #1 common and better, Southern Yellow Pine or Douglas Fir.  
All lumber and shingles be treated in accordance with the requirements for "Pentachlorophenol Treatment", Sec. Concrete shall be Class "C" and constructed in accordance with the requirements of Item 5-1 of the Specifications.

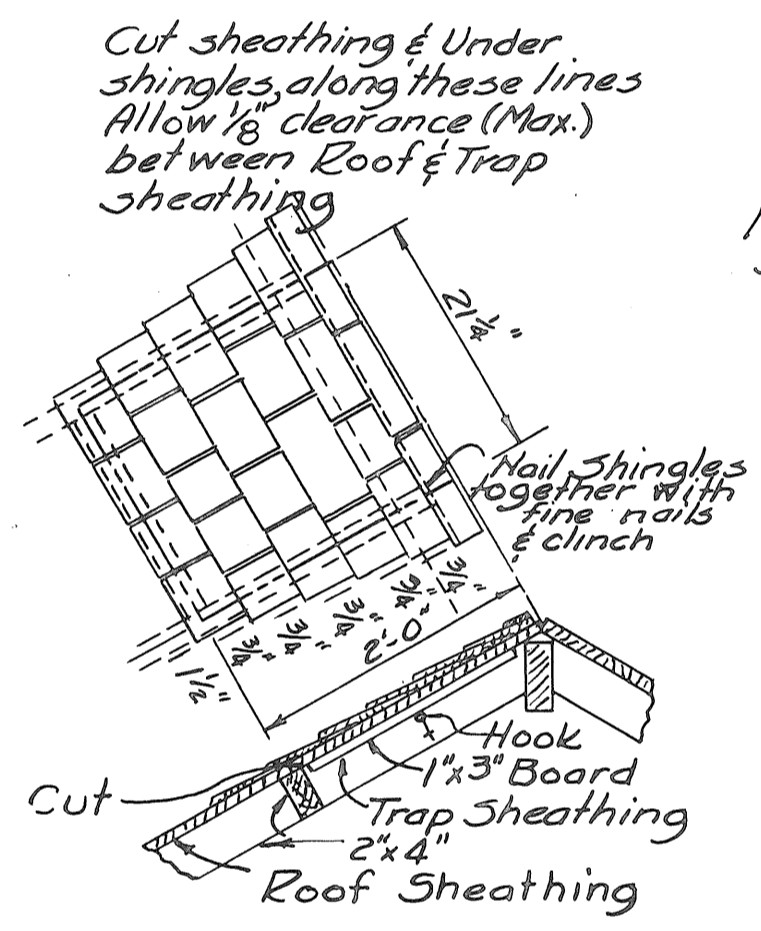
Reinforcing steel in 6" reinforced concrete floor slab shall be 3/4" steel rods spaced 12" apart O.C. both ends. Reinforcing steel not required in footers, nor in 8" walls or 4" floor slab of compartment.  
Large sized washers shall be used with all bolts, one at each end; a lock washer shall also be used at the nut end. Bolts shall be cut off 1/4" beyond the nut & then hammered. All bolt holes shall be soaked with 5% Pentachlorophenol Solution, thoroughly before inserting bolts.

Bolts shall be good quality Hot Galvanized, Cadmium Plated or Copper Bearing.  
In all shelters containing a well & pump these are offset from center of 6" concrete slab and trap door is built into roof of shelter as shown. all to allow for drawing of pump and/or casing, in the event repairs have to be made.  
Should local conditions warrant, drainage of excess ground water from compartment beneath fountains, it shall be carried off either by gravity flow or sump drains as required, by topography of the individual park area affected.

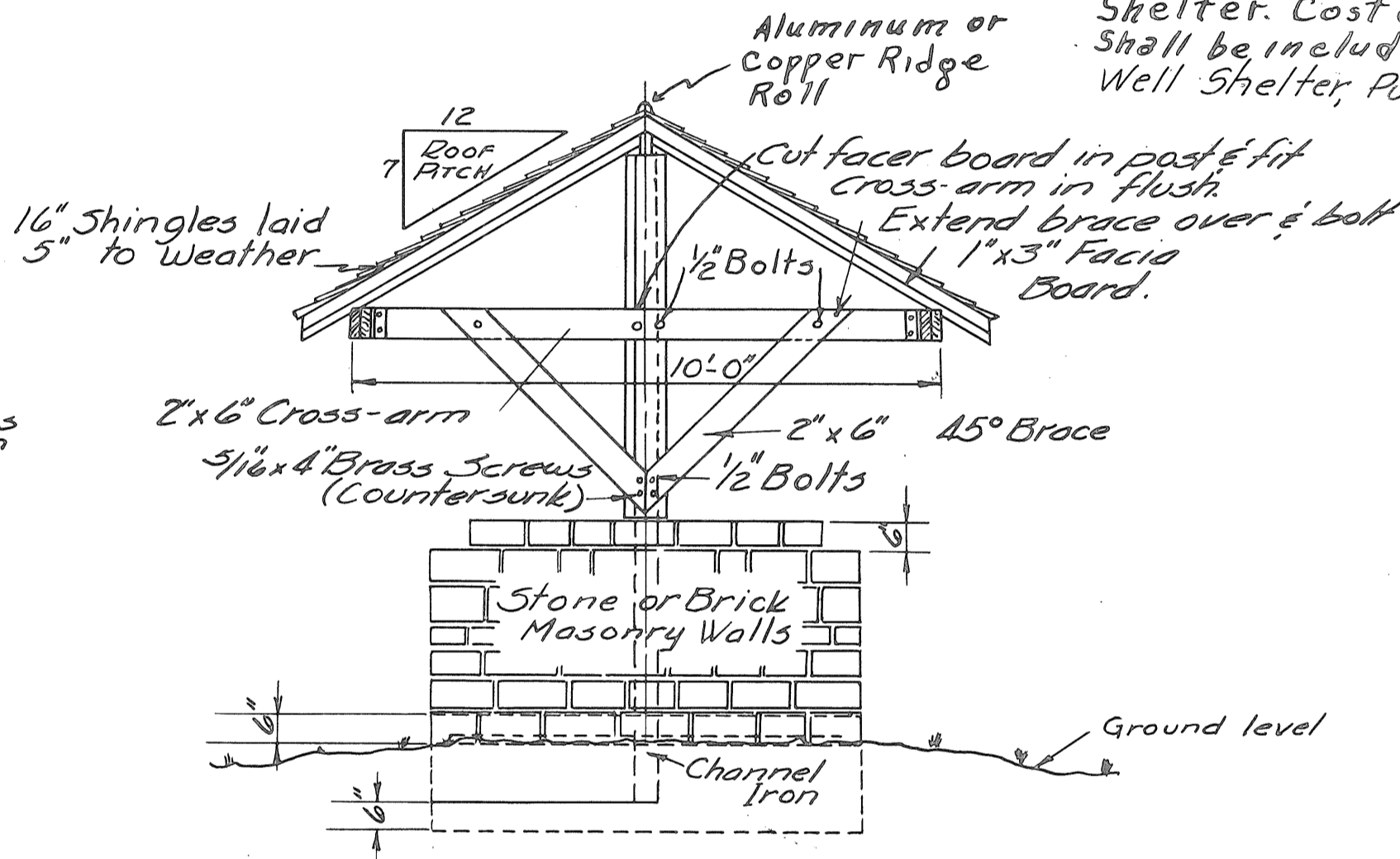


ELEVATION  
Scale 3/8"=1'-0"

NOTE: Bituminous Expansion Joint will not be necessary if concrete well slab is placed integral with footers for Well Shelter.



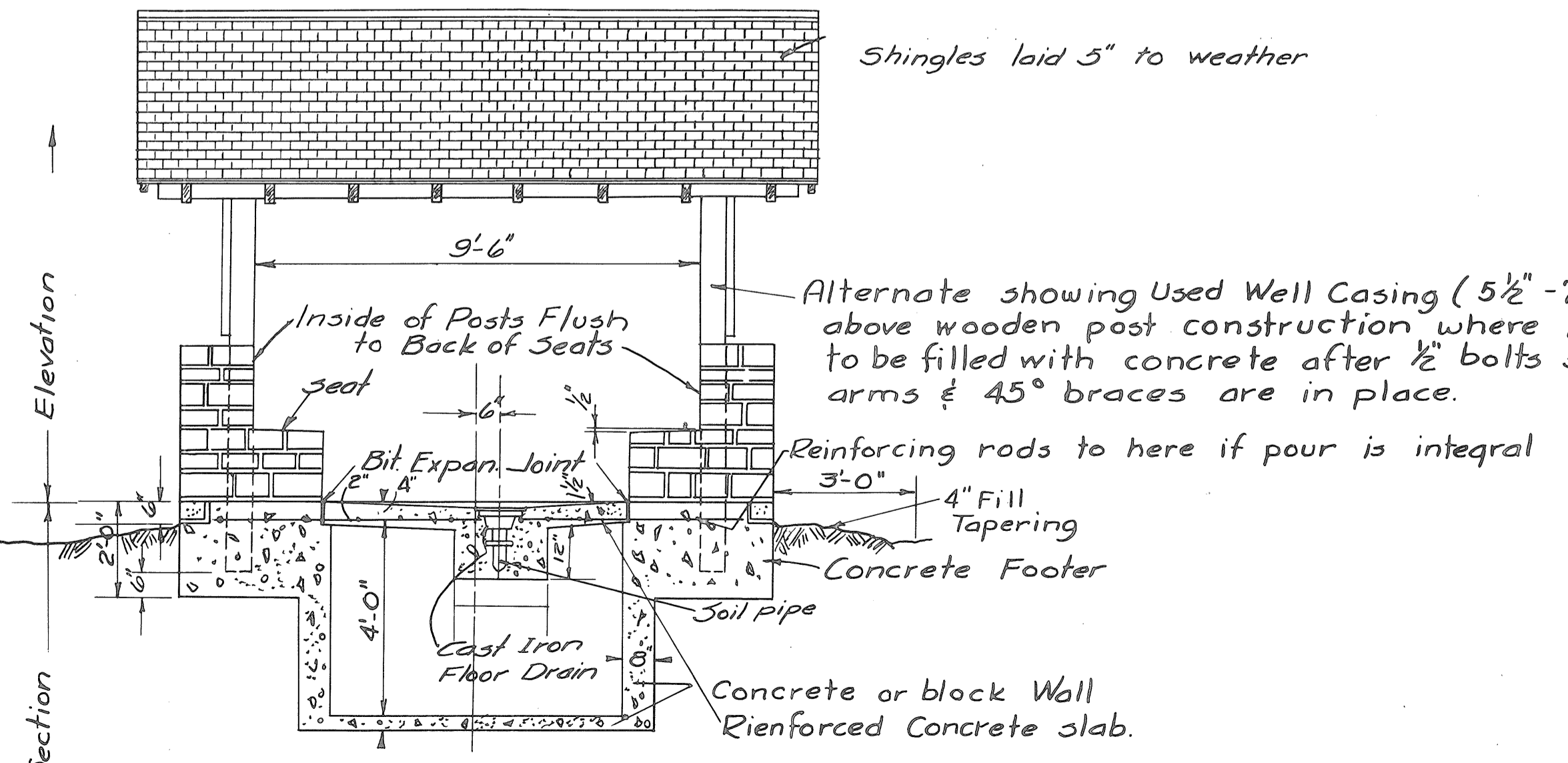
DETAIL OF TRAP DOOR  
Scale 3/4"=1'-0"



ELEVATION  
Scale 3/8"=1'-0"

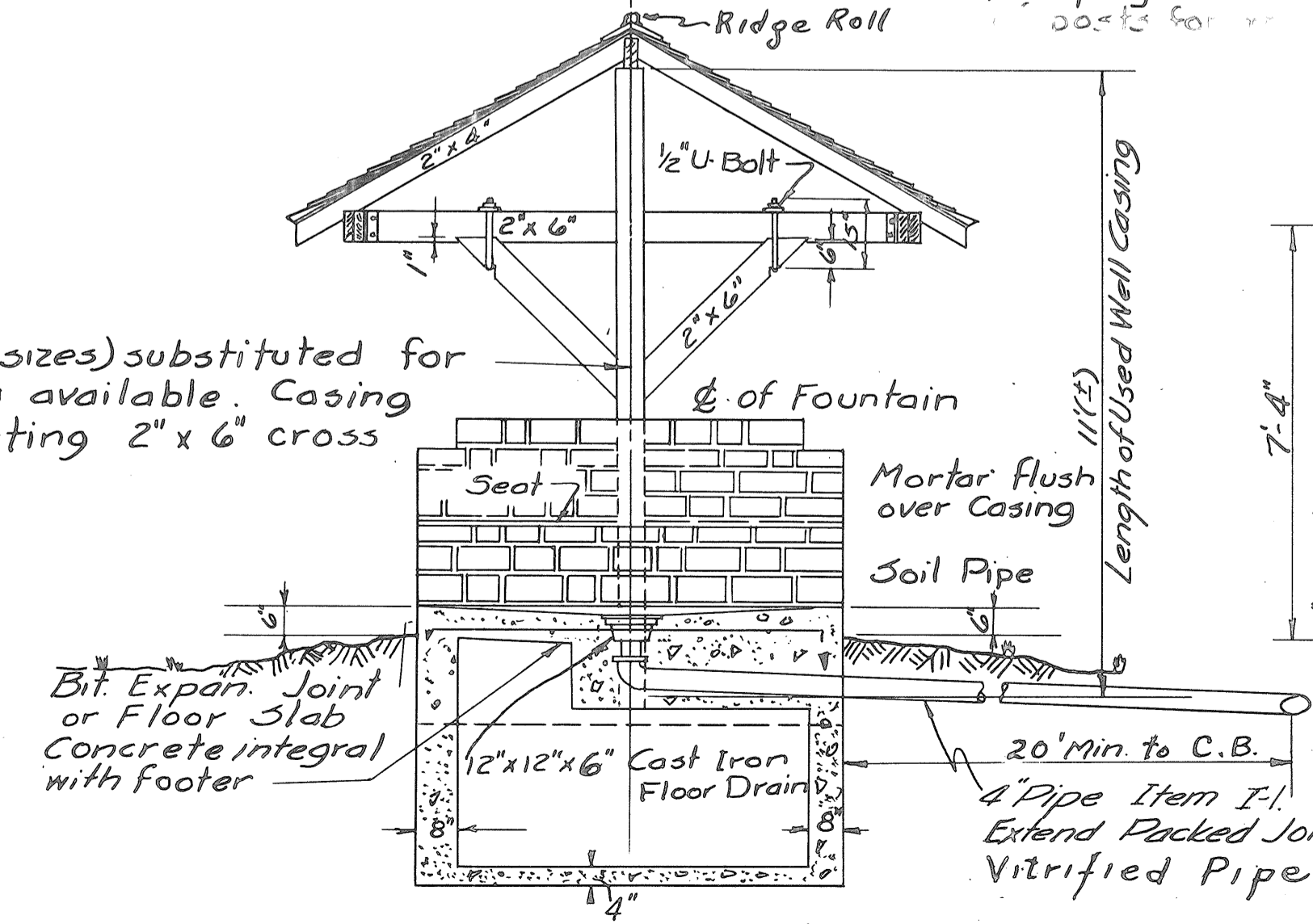
This Well Shelter Design is the "TRADE MARK" of the Roadside Parks in Ohio. It will be erected as standard.

NOTE: Details below this line do not apply to this project.

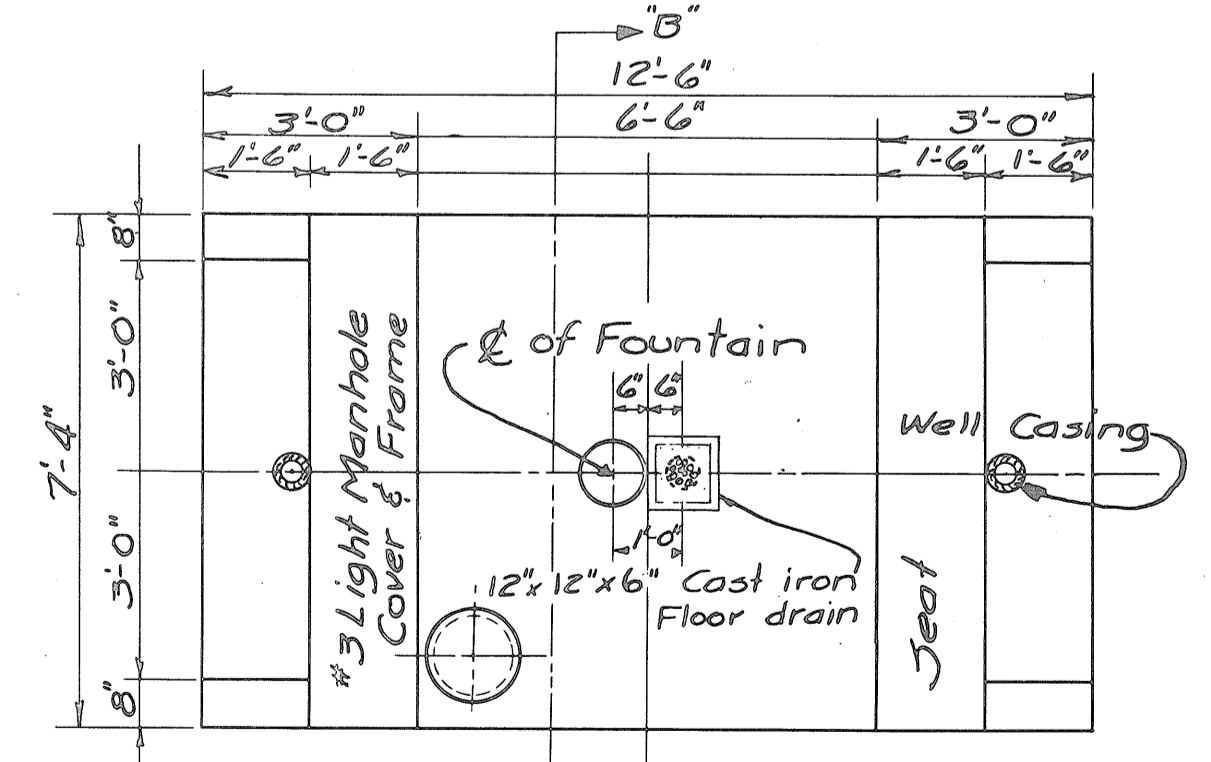


SECTION - ELEVATION  
Scale 3/8"=1'-0"

Compartment Under Slab & Foundation Where City Water is Used To Allow Repairing



SECTION "B-B"  
Scale 3/8"=1'-0"



PLAN  
Showing Used Well Casing Posts  
Scale 3/8"=1'-0"

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
WELL SHELTERS  
ROADSIDE PARKS

DESIGNED	TRACED	APPROVED
C.A.W.	R.C.B.	H.J.B.

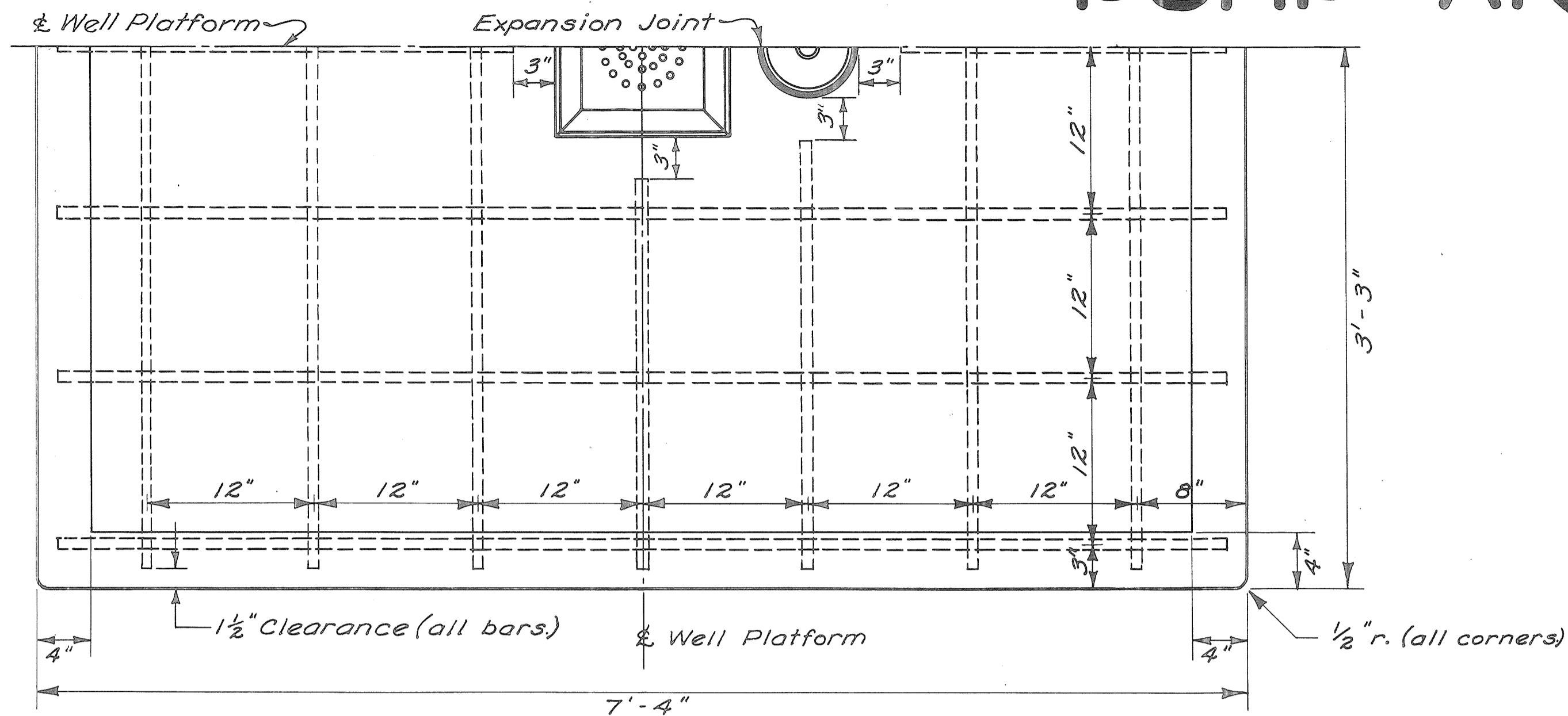
Jan. 1958

# PUMP AND PLATFORM

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

VAN WERT COUNTY  
VAN-30-406

171



**PLATFORM  
HALF-PLAN VIEW**

## BILL OF MATERIALS\*

Hand Drinking Fountain Type Pump (Including pump cylinder.)  
Class "C" Concrete.  
12"x12"x6" Cast Iron Drain Bowl.  
4" Pipe Encased. Item I-1  
4"x90° Bend Item I-5

3/4" φ REINFORCING STEEL	
QUANTITY	LENGTH
1	2'-0"
1	2'-9"
2	2'-4"
2	2'-7"
5	6'-3"
6	7'-1"

\* Payment included in Unit Price Bid for "Item Special Well Shelter, Pump and Platform."

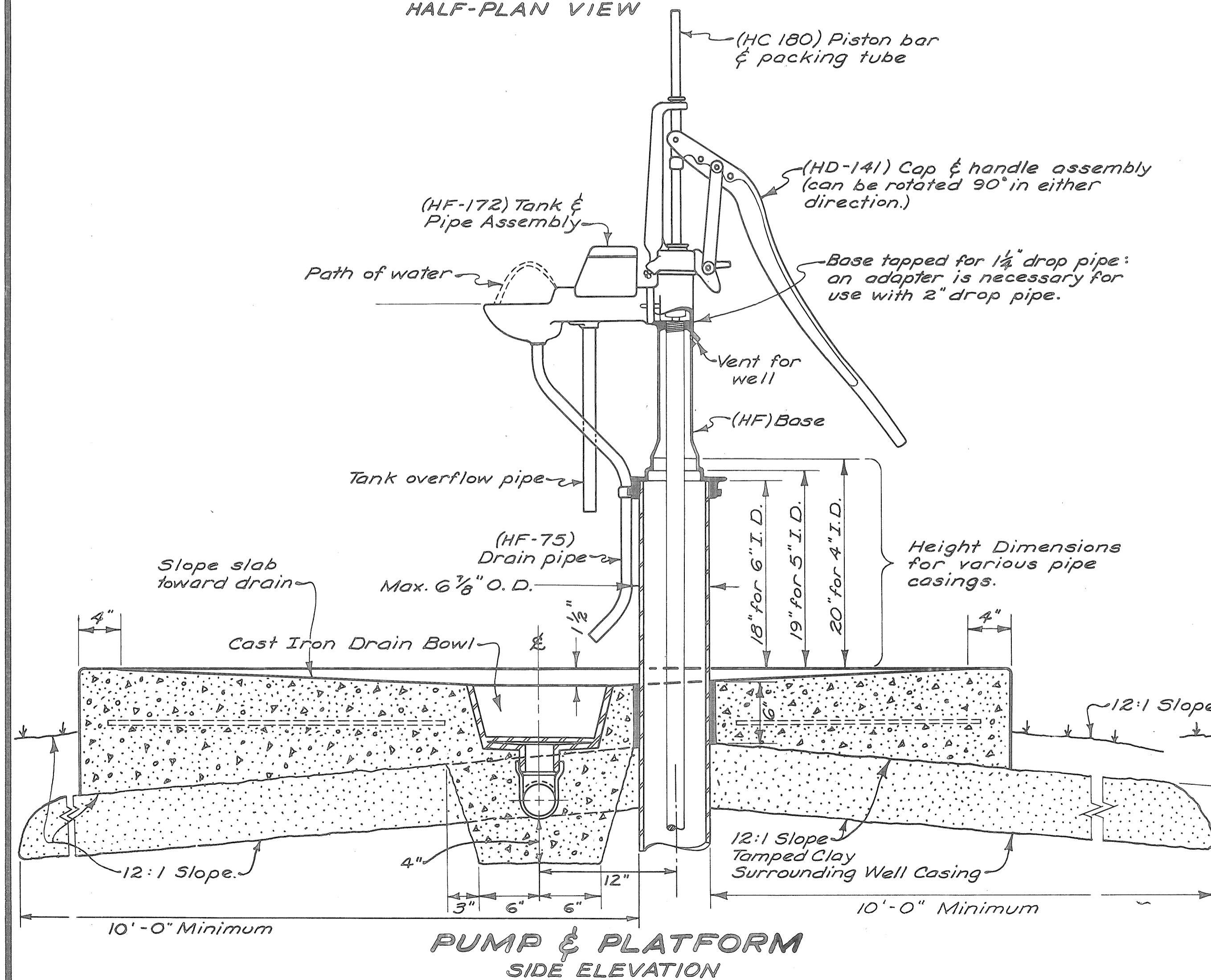
## NOTES

The location of 4" Storm Sewer shall be as furnished on Rest Area plan.  
Floor Slab may be poured integral with the Well Shelter Footer.  
(See detailed drawing of Well Shelter.)  
Hand Drinking Fountain Type Pump shall be Model 1-HF as manufactured by Baker Manufacturing Company, Evansville, Wisconsin, or an approved equal.

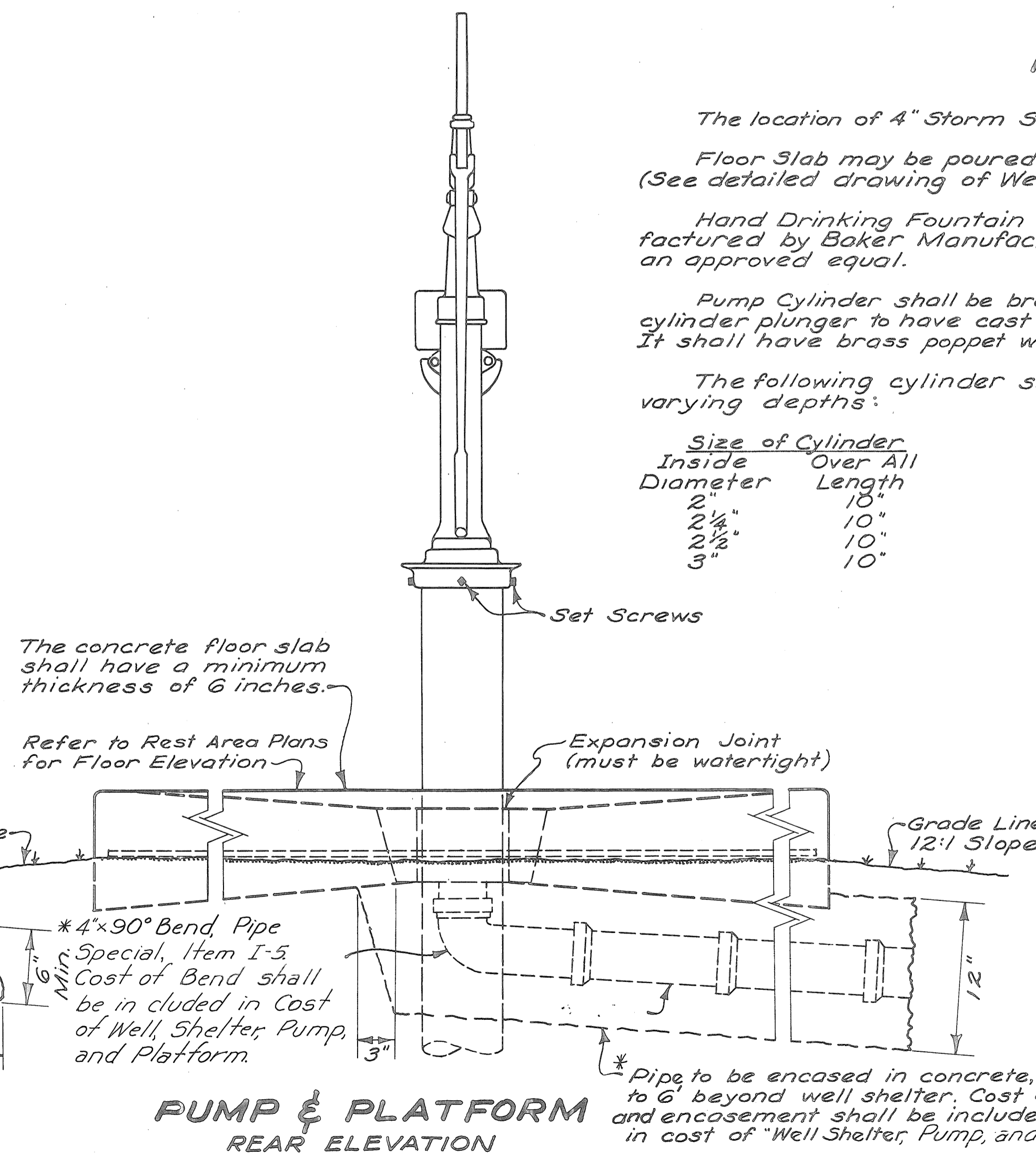
Pump Cylinder shall be brass body cylinder or brass lined. The cylinder plunger to have cast iron cage, brass follower and valve seat. It shall have brass poppet wing valve with rubber facing and steel stem.  
The following cylinder sizes shall be used for wells of varying depths:

Size of Cylinder	Depth of Cylinder Setting
Inside Diameter	Over All Length
2"	10"
2 1/4"	10"
2 1/2"	10"
3"	10"

Depth of Cylinder Setting
175' - 200'
150' - 175'
75' - 150'
25' - 75'

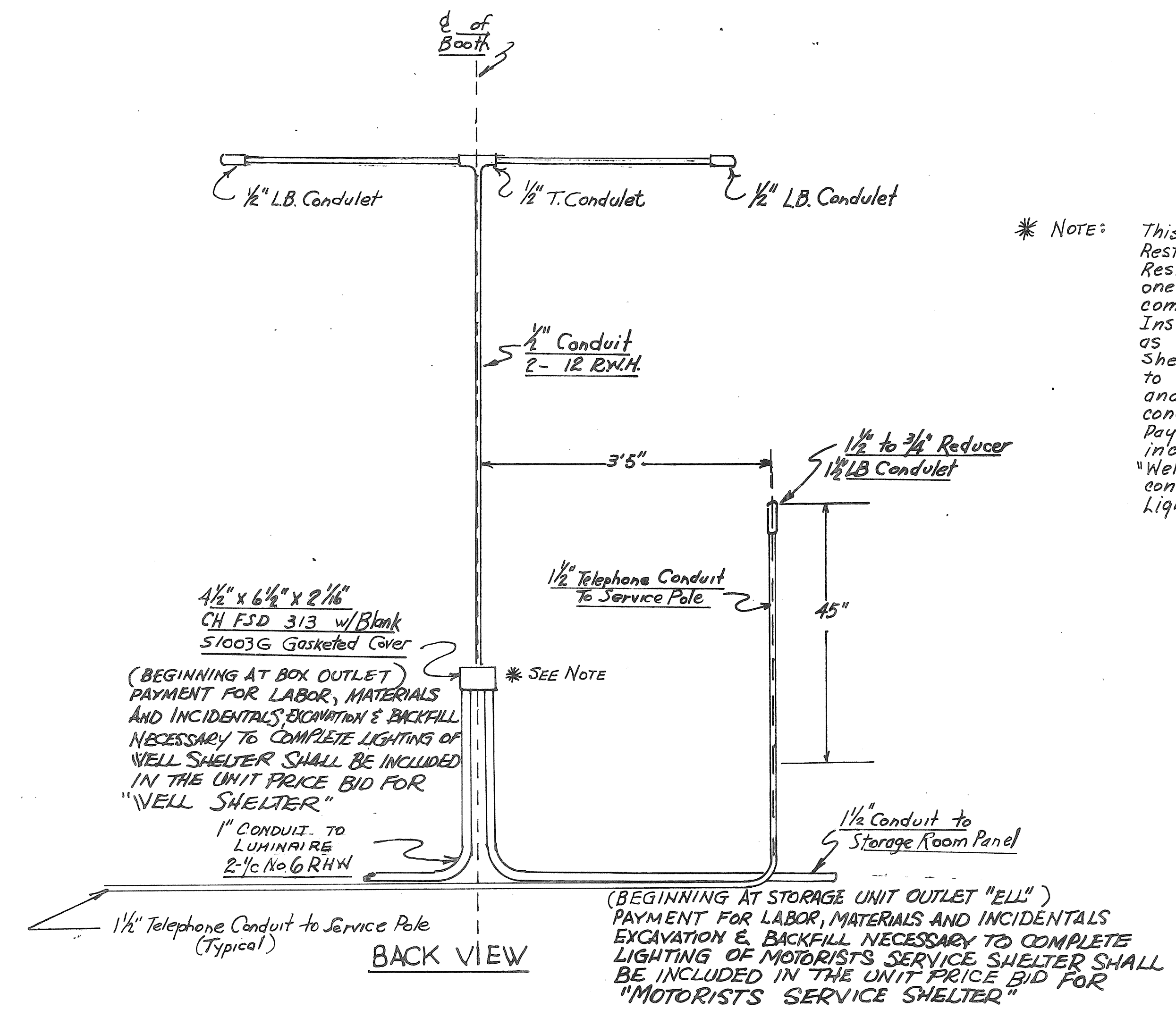
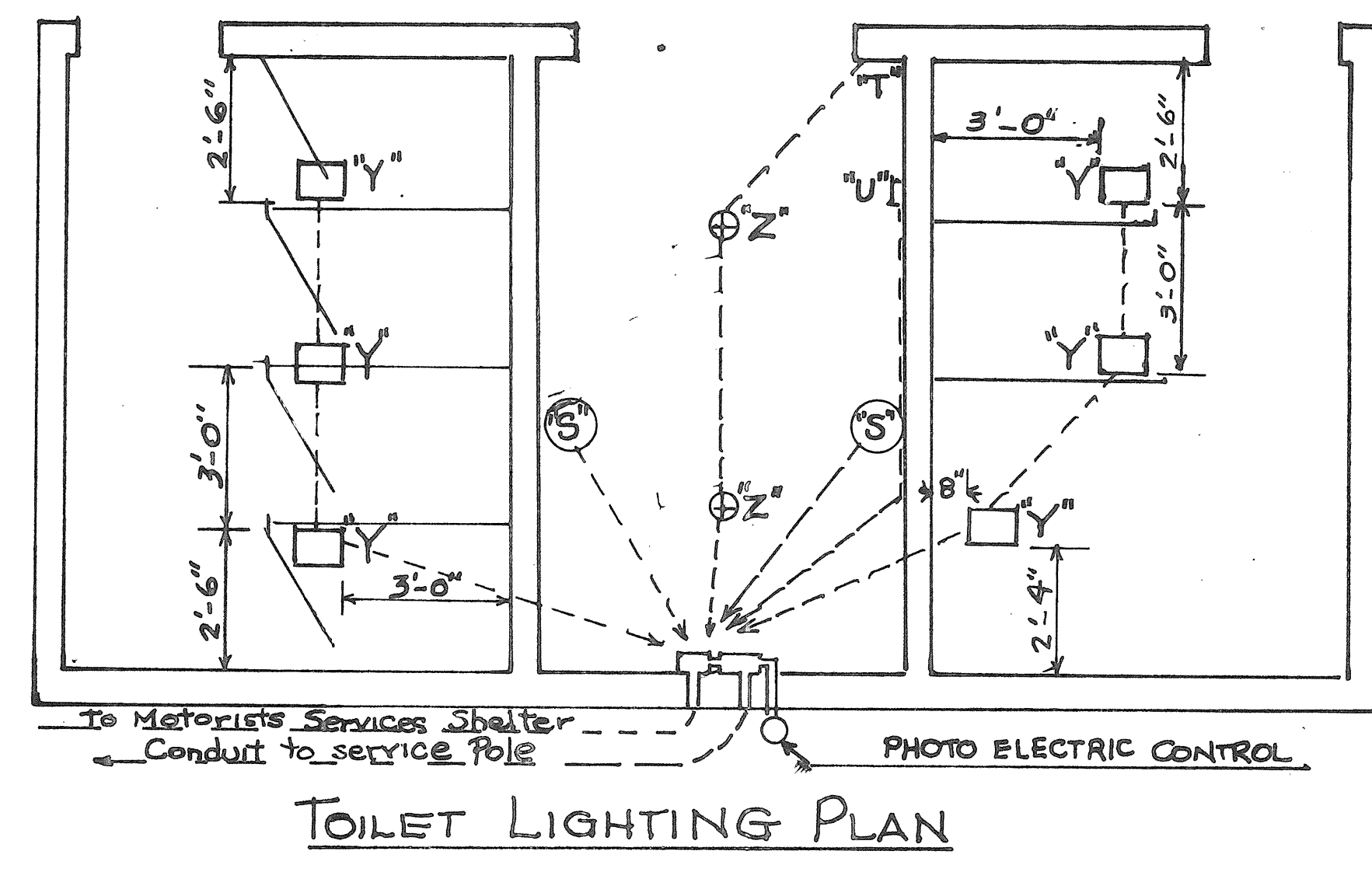
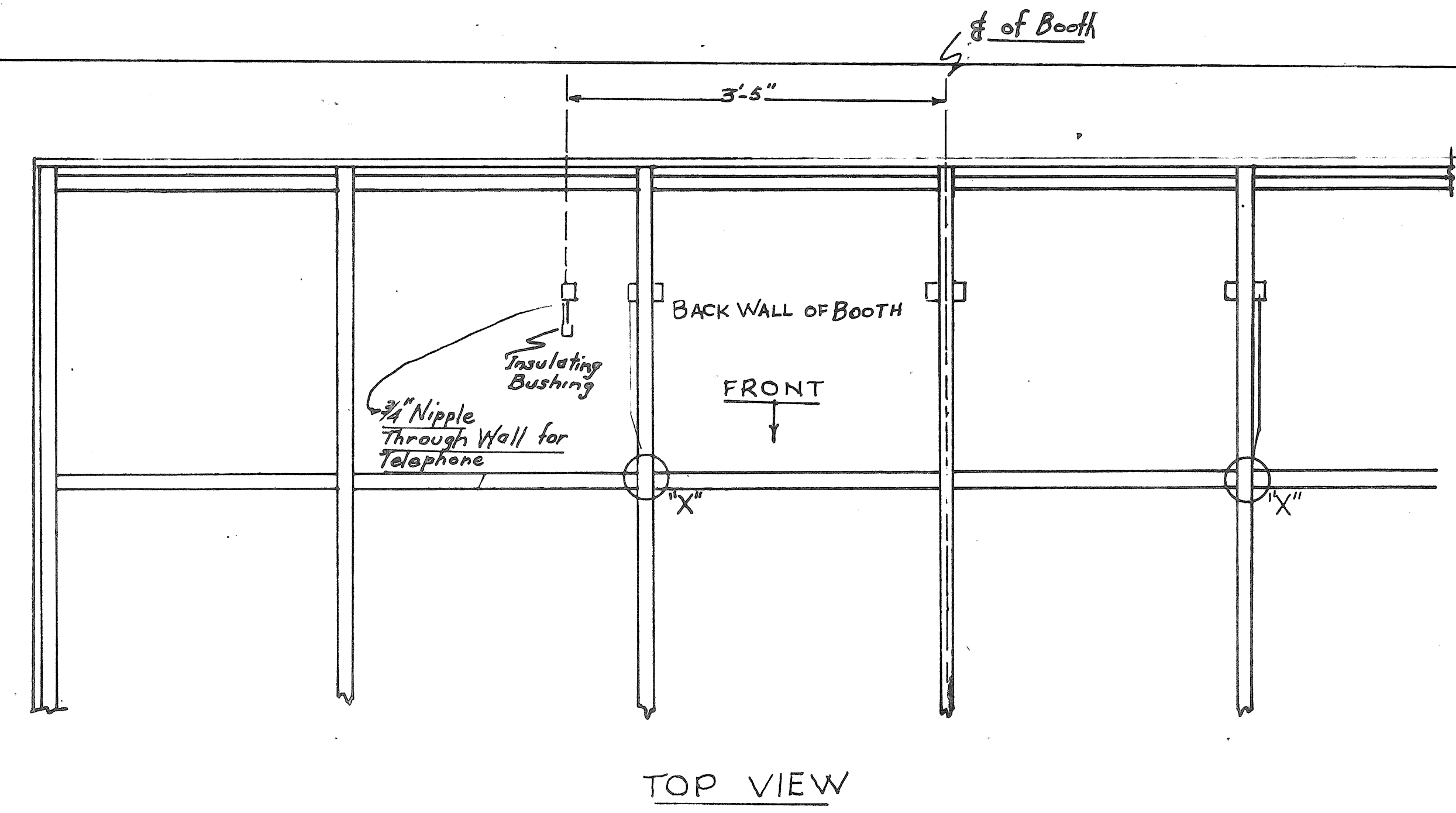


**PUMP & PLATFORM  
SIDE ELEVATION**



**PUMP & PLATFORM  
REAR ELEVATION**

\* Pipe to be encased in concrete, Class "C", to 6' beyond well shelter. Cost of pipe and encasement shall be included in cost of Well Shelter, Pump, and Platform.



\* NOTE: This detail pertains only to the North Rest Area Service Shelter. The South Rest Area Service Shelter shall have one (1), 1" conduit enter the shelter coming from the Storage Room Panel. Instead of employing a junction box as shown for the North Service Shelter, a condulet shall be used to permit splices and pulling wire and a reducer so that the one inch conduit can join the 1/2" conduit. Payment for the above items shall be included in the unit price bid for "Well Shelter" except the one inch conduit which is included in the Lighting Quantities.

FIXTURE SCHEDULE		
TYPE	QUANTITY	DISCRIPTION
LAMPS		100 WATT
"S"	2	FAN-1/100 H.P., 115 V-60 CYCLE 10" / 600 C.E.M. FOR 12" VENT PIPE <sup>W/ GAUGER</sup> OR EQUAL
"T"	1	TUMBLER SWITCH
"U"	1	DUPLEX OUTLET w/ BOX
"X"	2	VARTIGHT-KILLARK No. VUHGG-100, CROUSE-HINDS-APPLETON, OR EQUAL
"Y"	6	RECESSED-KIRTIN No. 508 PRESCOLITE LITECRAFT, OR EQUAL
"Z"	2	PORCELAIN RECEPTACLE-BRYANT No. 5289 HUBBELL-ARROW-HART, OR EQUAL

MOTORISTS' SERVICES SHELTER LIGHTING DETAILS

BUREAU OF LOCATION AND DESIGN  
OHIO DEPARTMENT OF HIGHWAYS

LIGHTING PLAN DETAILS  
ROADSIDE REST AREA

DATE \_\_\_\_\_

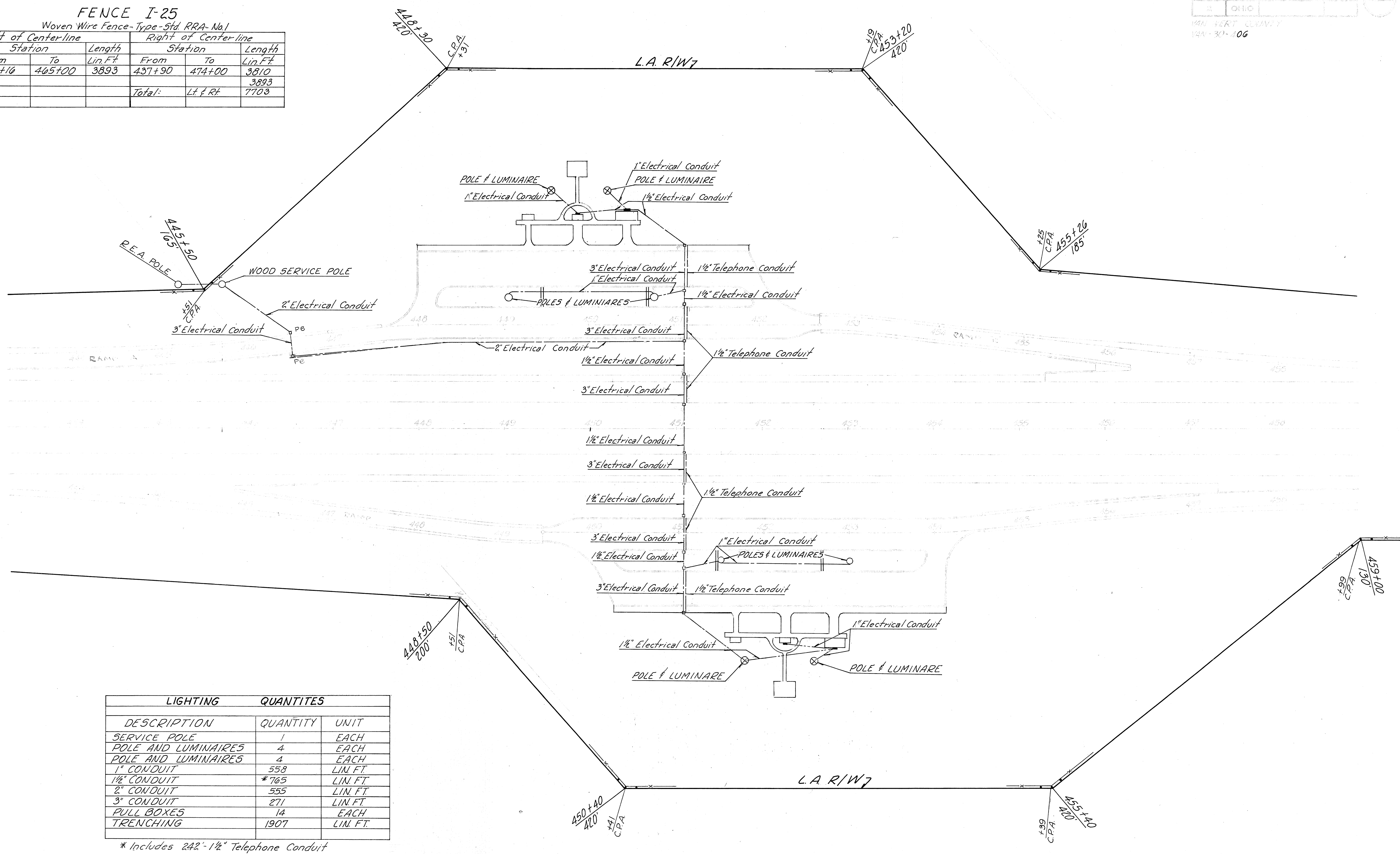
STANDARD CONSTRUCTION DRAWING

APPROVED \_\_\_\_\_ ENGR. W. & D.

### FENCE I-25

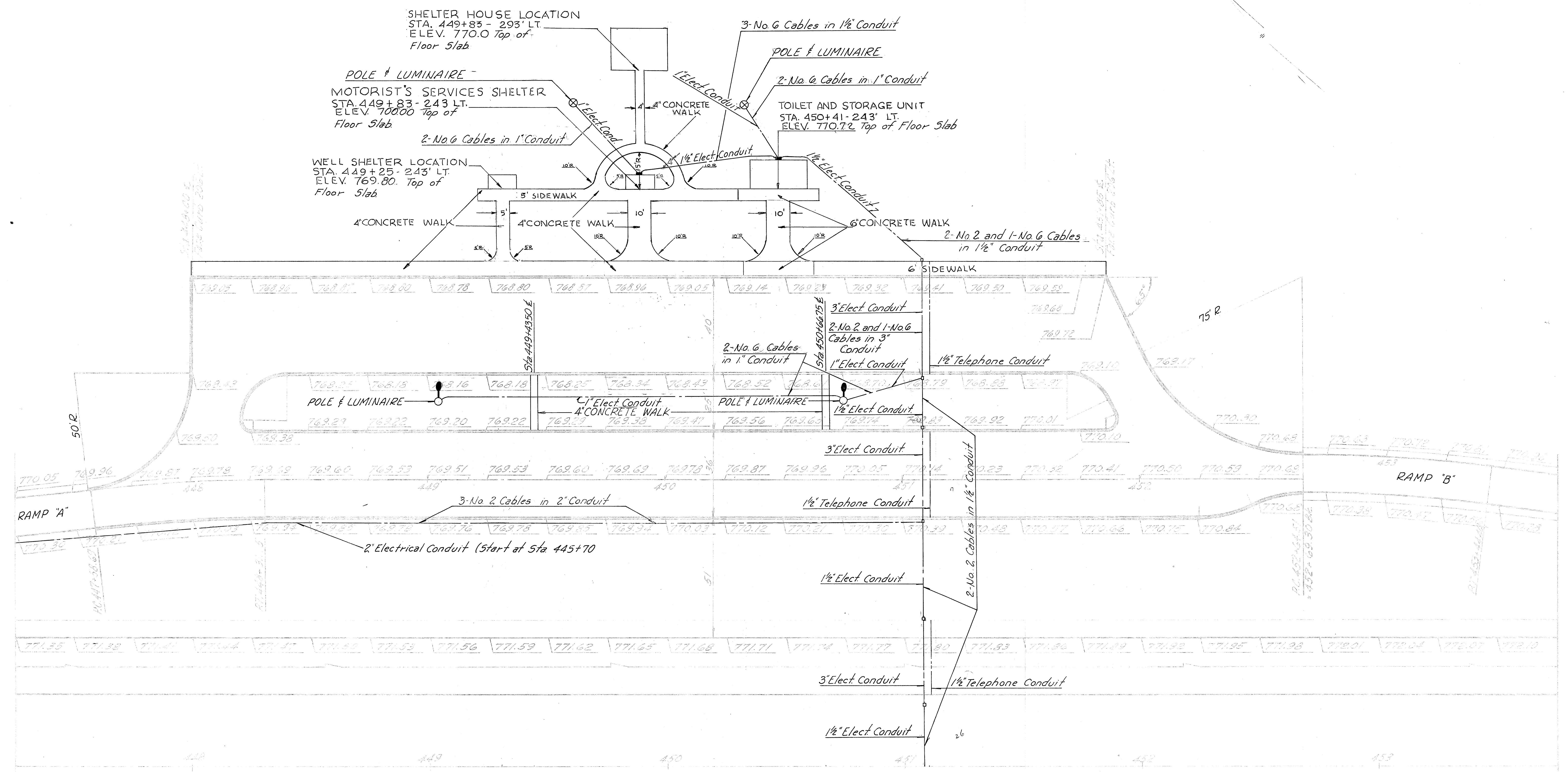
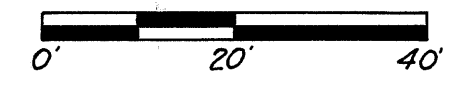
Woven Wire Fence - Type - Std. RRA - No. 1

Left of Centerline			Right of Centerline		
From Station	To	Length Lin. Ft.	From Station	To	Length Lin. Ft.
428+10	405+00	3893	437+90	474+00	3810
					3893
			Total:	Lt. & Rt.	7703

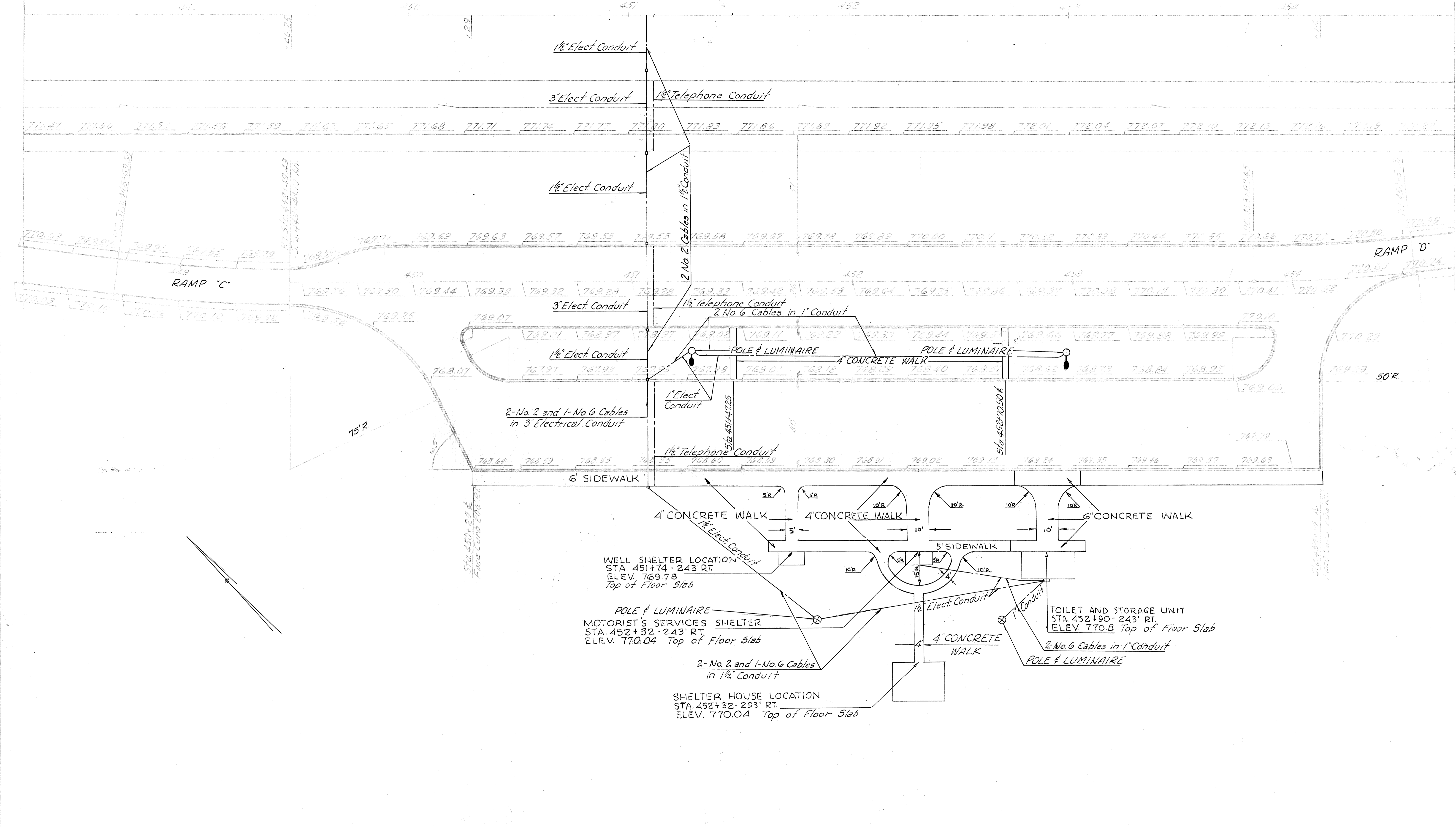
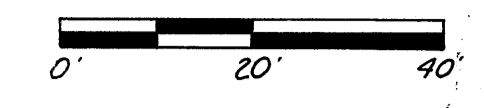


DESCRIPTION	QUANTITY	UNIT
SERVICE POLE	1	EACH
POLE AND LUMINAIRES	4	EACH
POLE AND LUMINAIRES	4	EACH
1" CONDUIT	558	LIN. FT.
1 1/2" CONDUIT	*765	LIN. FT.
2" CONDUIT	555	LIN. FT.
3" CONDUIT	271	LIN. FT.
PULL BOXES	14	EACH
TRENCHING	1907	LIN. FT.

\* Includes 242'-1 1/2" Telephone Conduit







WELL SHELTER LOCATION  
STA. 451+74 - 243' RT.  
ELEV. 769.78  
Top of Floor Slab

POLE & LUMINAIRE  
MOTORIST'S SERVICES SHELTER  
STA. 452+32 - 243' RT.  
ELEV. 770.04  
Top of Floor Slab

2- No. 2 and 1-No. 6 Cables  
in 1 1/2" Conduit

SHELTER HOUSE LOCATION  
STA. 452+32 - 293' RT.  
ELEV. 770.04  
Top of Floor Slab

TOILET AND STORAGE UNIT  
STA. 452+90 - 243' RT.  
ELEV. 770.8  
Top of Floor Slab

2-No. 6 Cables in 1" Conduit  
POLE & LUMINAIRE

GENERAL LIGHTING NOTES

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

VAN WERT COUNTY  
VAN-30-4.06

1. Pole and Luminaires

Poles located in island shall be as described in the proposal and be the size and have the mechanical properties as listed below. Poles located in the picnic area (transformer base) shall be as described in the proposal and have the mechanical properties as listed below:

Location	Size	Arm length	Mtg. Ht.	elastic def. rate %/100lbs.	at % of yield strength			at yield stress			Anchor Bolt	
					load lbs.	total def. inches	perm. set.	load lbs.	total def. inches	perm. set.	Dia. Bolt Circle	Proj'n. Above Found.
Island	4"x4.81"x2.25"	15'	32.5'	2.16	659	14.73	.50	989	24.00	2.64	12.5"	3"
Picnic Area	6.5"x3.9"x1.83"	None	18'	1.16	564	7.04	.50	845	11.28	1.48	15.0"	3"

Luminaires for the traffic island poles shall be 400 watt, 120 volt, with constant wattage integral ballast, Type III IES, ASA light distribution and similar to Westinghouse OV-25, General Electric M-400, Line Material Unistyle or an approved equal. Luminaires for the Picnic Area poles shall be 250 watt, 120 volts, constant wattage ballast, Type VI IES, ASA light distribution and similar to Line Material Westinghouse, General Electric or an approved equal pole top mounted luminaire.

Lamps for the traffic island luminaires shall be 120 volt 400 watt ASA designation H33-1GD. Lamps for picnic area luminaires shall be 120 volt, 400 watt, ASA designation H37-5KB.

Cable for the lamp standards shall be No. 12 AWG, insulation rating at 600 volts, and conform to the Federal Aviation Agency Specification L-824 Type "A".

Connector kits in the handholes and transformer bases shall be "Y" type, unfused, quick disconnect ESNA kit (for the hot side) and "Y" type unfused, quick disconnect ESNA kit (for the ground side). Lamp poles shall be wired with ESNA kits as shown on the detail sheet. (See note in Proposal)

Each pole standard shall be grounded (as shown on the plans) with a 1"x10' solid wrought iron ground rod. The resistance to ground shall be no larger than 25 ohms; if so, additional rods shall be driven, sectionally or parallel at 10' apart until the required 25 ohms or less is reached (maximum of 5 additional rods).

Each standard shall be identified with decals as shown in the details.

The foundations for the standards shall be as detailed on the plans and shall be poured-in-place class "C" concrete. The lower portion may be poured in a 2 foot diameter or a 2 foot square with forms, unless soil stability precludes the need for forms. The top portion shall be formed 2 foot square, for at least one foot deep or a minimum of 6" below the finished grade line.

Pole and luminaires shall be paid for at the contract unit bid price per each unit installed and payment shall be full compensation for the light standard, foundation, grounding, identification, connector kits, pole and bracket cable, lamps, luminaires, tools, labor, materials and all necessary incidentals required to complete this item.

2. Conduit and Cable

Cable shall be pulled through the conduit, the locations and sizes as shown on the plans. Cable shall conform to Federal Aviation Agency Specification L-824 type A and conduit shall be galvanized inside and outside with a plastic type inside coating and conform also to ASA spec. C-80.1; Supplemental Spec. M-106.11 and, as an alternate, Federal General Services spec. des. WWP-441B for wrought iron.

Any splices made in pull boxes shall be made with either the in-line straight unfused ESNA connector kit or the "Y" type, unfused, semi-permanent ESNA connector kit.

Markers as described and detailed in the plans shall be placed at the ends of the telephone conduits and at any abrupt change in conduit direction.

Conduit shall be paid for at the contract unit bid price for the sizes shown per lineal feet of conduit installed and payment shall be full compensation for the conduit, cable, markers, connector kits, materials, labor, equipment and all other incidentals required to complete this item.

3. Pull boxes

Pull boxes shall be manufactured and located as shown on the plans. Payment shall be at the contract unit bid price per each pull box installed and shall be full compensation for all materials, labor, equipment and other incidentals required to complete this item.

4. Service Pole

The service pole shall be as described on the plans and shall contain all required equipment, conduit, ground rod, etc. as shown on the detail.

Conduit shall be the size required to accommodate the required cable and shall be the same conduit as described under note 2. Cable shall be the sizes shown and as described by note 2.

The disconnect switch shall have three blades and fuse holders rated at 60 amps with two 30 amp fuses and adapters. The disconnect switch shall be contained in a NEMA type case and as manufactured by the Square "D" company.

Resistance requirements for the ground rod shall be the same as described under note 1.

Payment for the service pole shall be made at the contract unit bid price per service pole as installed as shown on the plans; payment shall include pole, cable, conduit, disconnect switch, ground rod, materials, labor, equipment necessary to complete this item.

5. Trenching

Trenching for conduit shall be a minimum of 2 feet deep and backfill shall be as described in the plans. Payment shall be made at the contract unit bid price per lineal feet and shall be full compensation for all excavation, backfill, labor, equipment necessary to complete this item.

6. Service Panel

The service panel as shown and described in the circuit diagram shall be located in the Toilet and Storage Bldg. along with the selector switch and photoelectric unit. All wiring within the buildings shall be done with No. 12 AWG, FAA-L-824 Type A. Payment for this item (service panel, cable, photoelectric unit, selector switch, panel cabinet and door, conduit, etc.) shall be included with payment of the Toilet and Storage Building.

7. Testing

The following tests shall be conducted on the completed lighting system:

a) Performance Test

The contractor shall operate the lighting system including automatic control system from sunset to sunrise for seven consecutive days without failure or interruption, after all faults have been corrected. The contractor shall record each fault (if any), the method and date of correction and the beginning and end of the faultless seven day test. Portable power supplies shall not be used. All cost of electrical power shall be borne by the contractor.

b) Circuit Test

The resistance to ground of each insulated conductor (including the insulated ground) shall be not less than 10 megohms. All ballasts and ground rods shall be disconnected during this test.

c) DC High Potential Test

This test shall be performed on each conductor (including insulated ground) with all ballasts and grounds rods disconnected. Conduct this test per manufacturer's recommendations and per applicable sections of ASTM Designation D 470-59T and D 1350-58T. All defective cable shall be repaired or replaced until the test requirements are fulfilled.

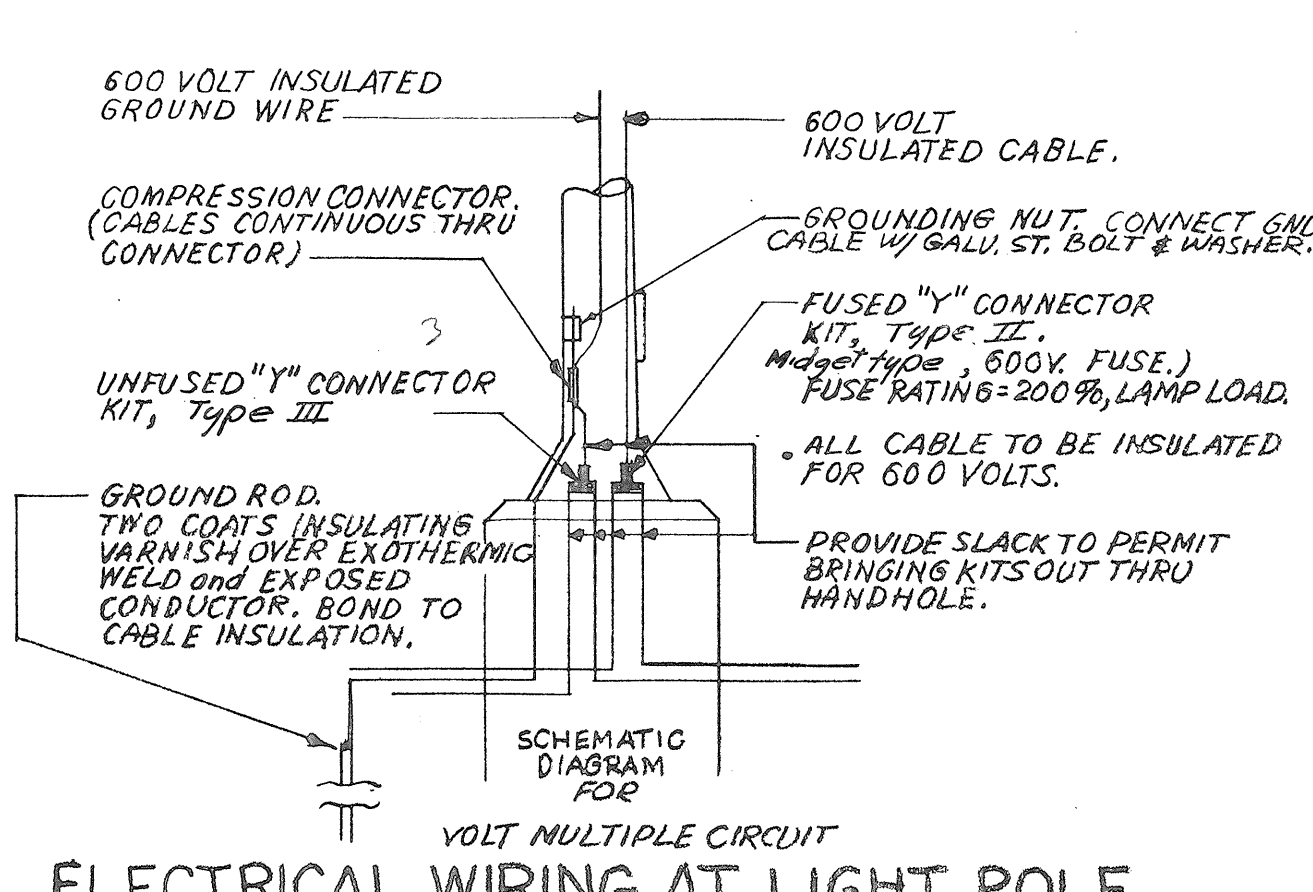
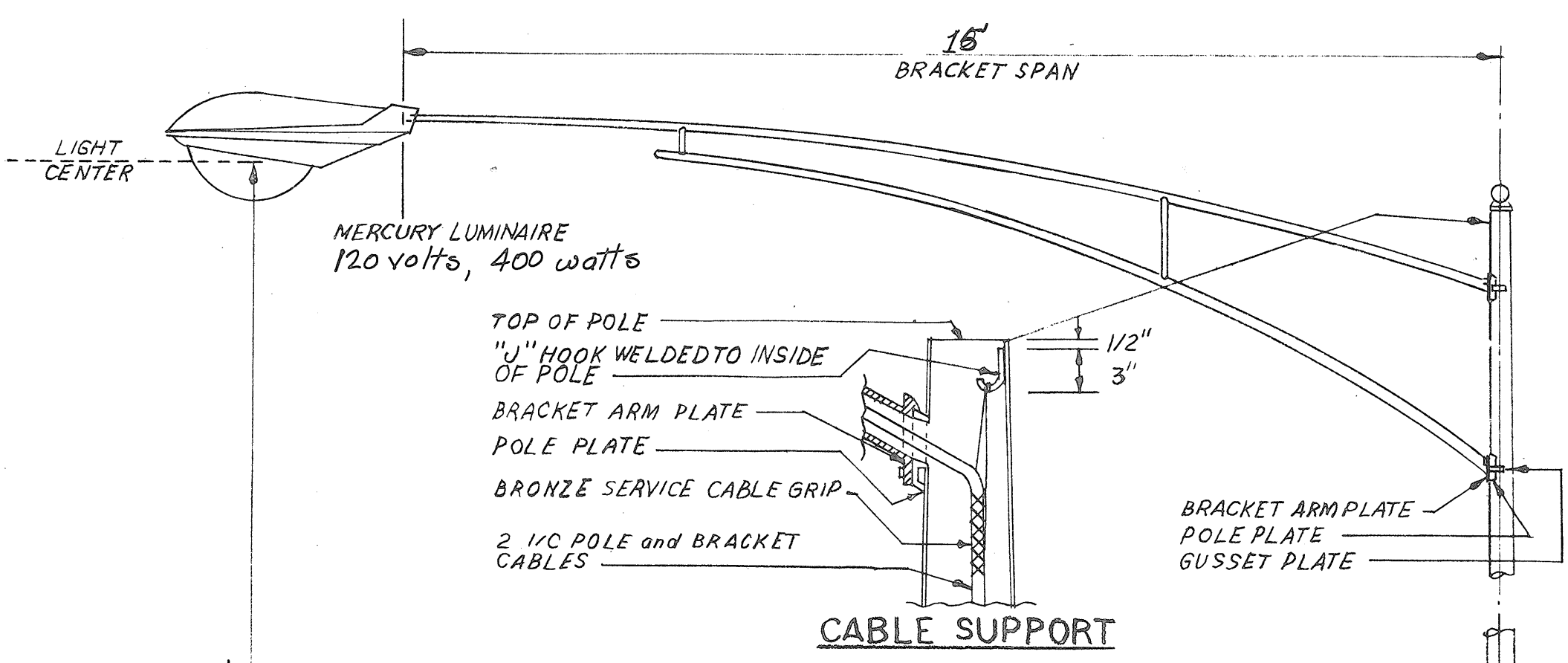
d) Ground Test

The resistance to ground for each ground shall be tested and shall not be more than 25 ohms. If resistance is over this specified amount follow applicable sections of note No. 1 of this sheet.

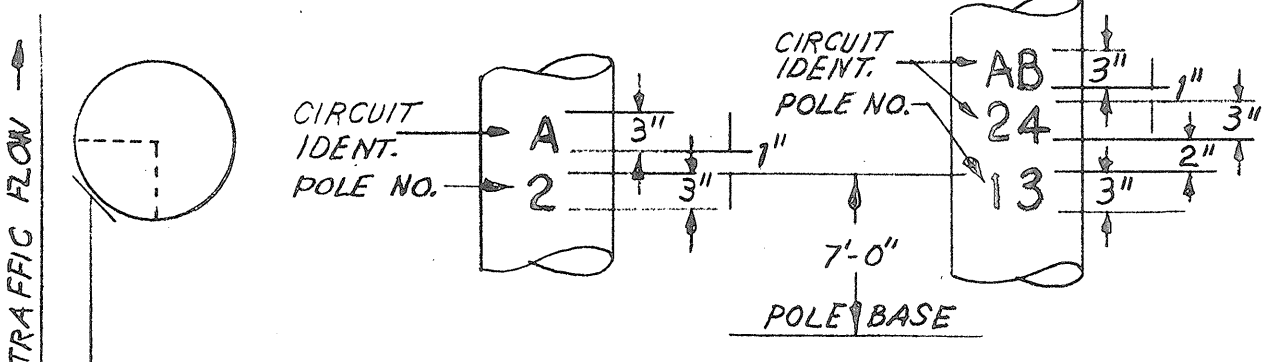
Cost of Testing shall be compensated by Payment of relative items; Testing is a subsidiary item.

Test results shall be submitted (six copies) to the Engineer.

Van Wert County  
Van-30-4.06



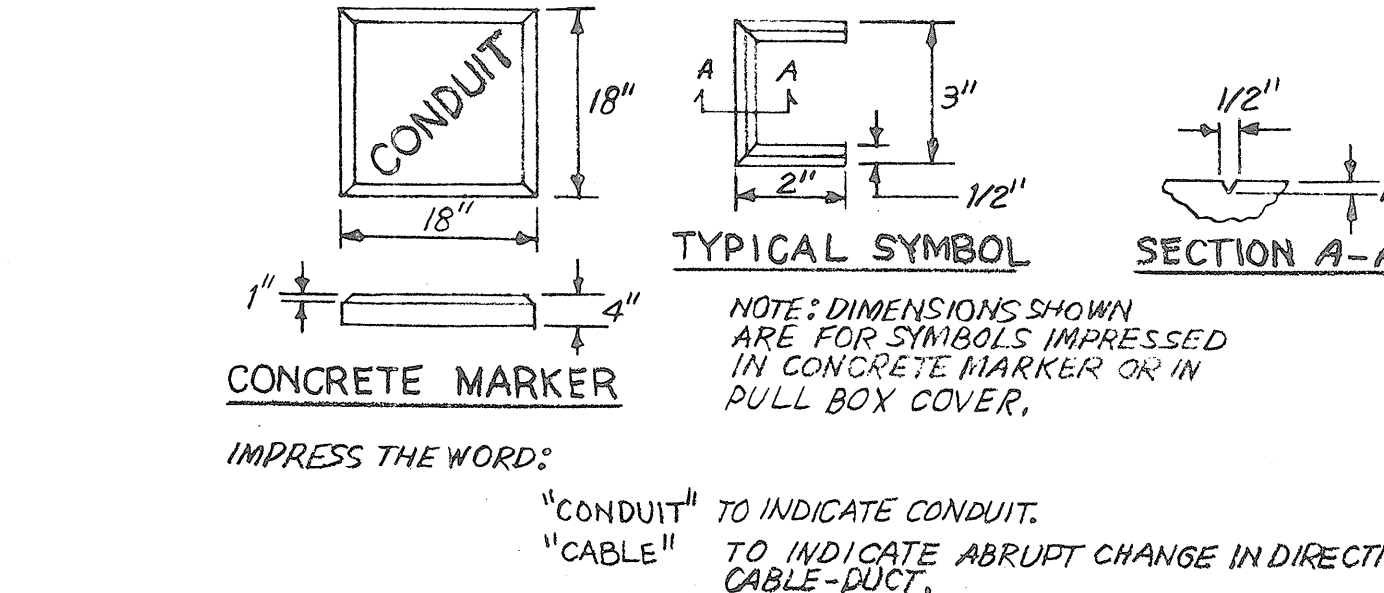
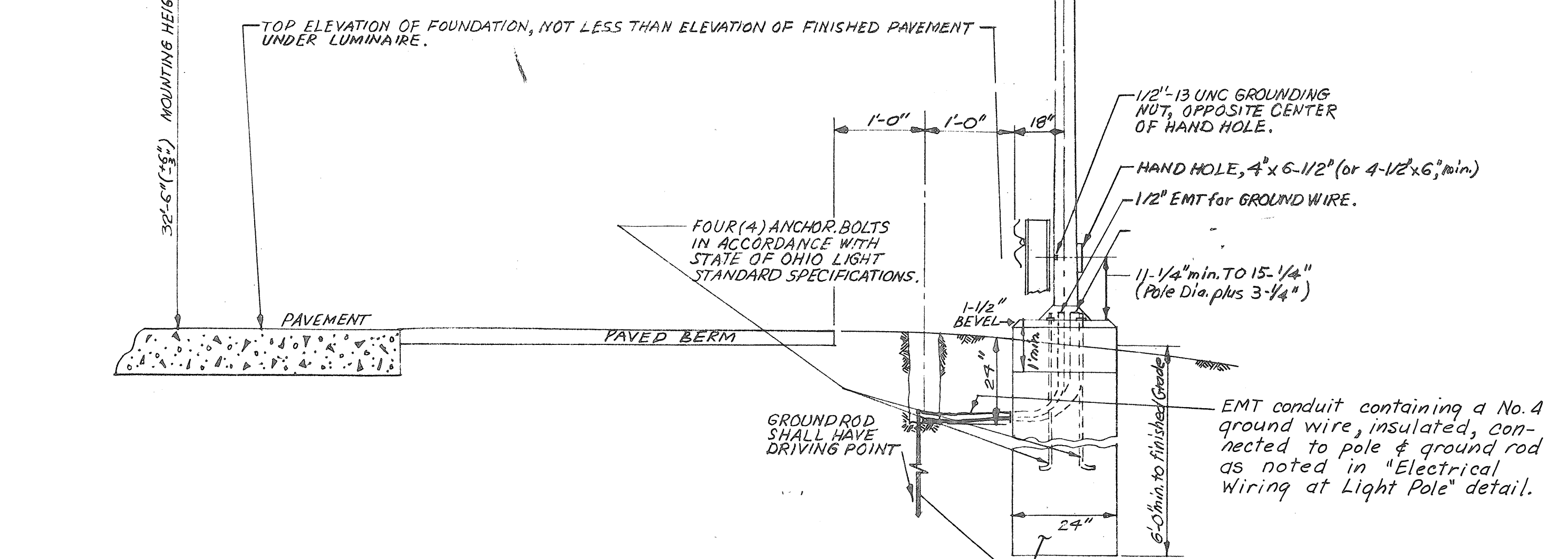
DECALS SHALL BE ADHESIVE TYPE WITH SILVER WHITE REFLECTIVE CHARACTERS ON A REFLECTIVE GREEN BACKGROUND, WITH CIRCUIT AND POLE NUMBERS AS SCHEDULED ON LIGHTING PLAN SHEETS.



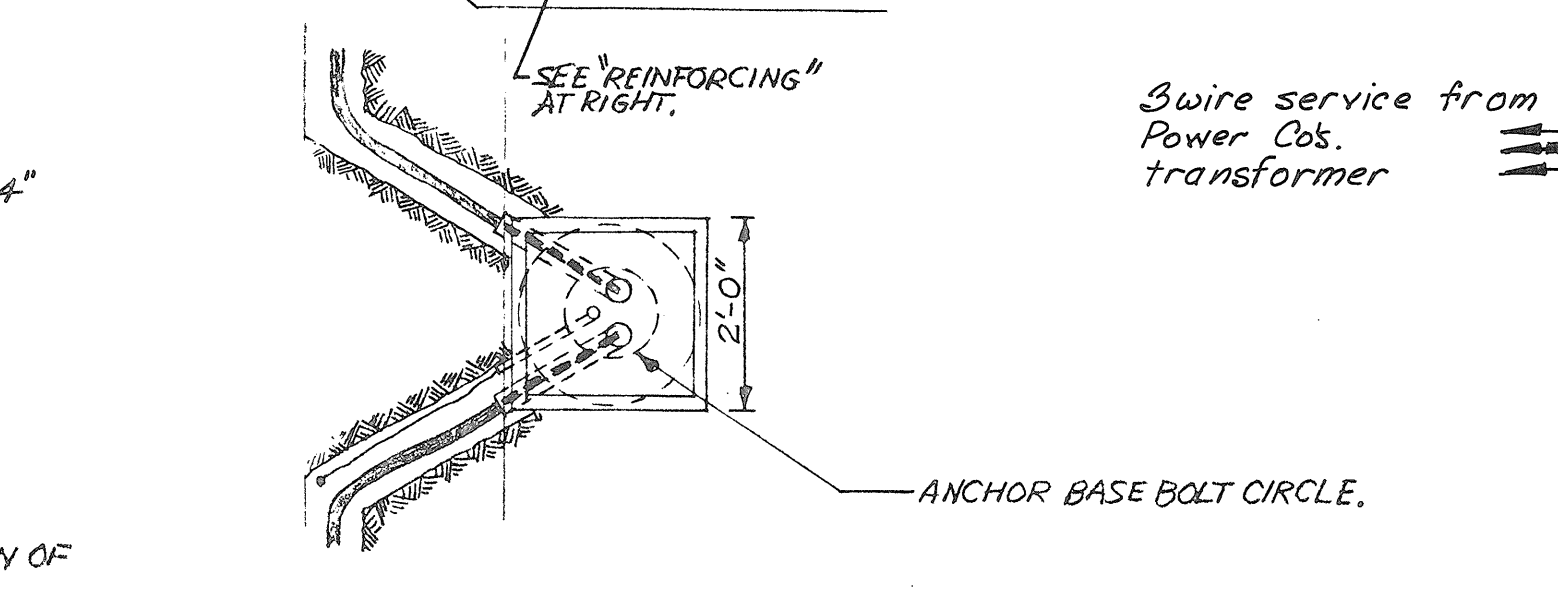
LOCATE IDENTIFICATION DECALS (CIRCUIT AND POLE NOS.) IN THIS AREA, and APPROXIMATELY SEVEN FEET (7'-0") ABOVE POLE BASE.

REFLECTIVE LETTERS and NUMBERS (SPECIFICATION MIL-R-15680 A). SERIES "18" TYPE LETTERS and NUMBERS WITH SPACING PER A.A.S.H.O. SPECIFICATIONS.

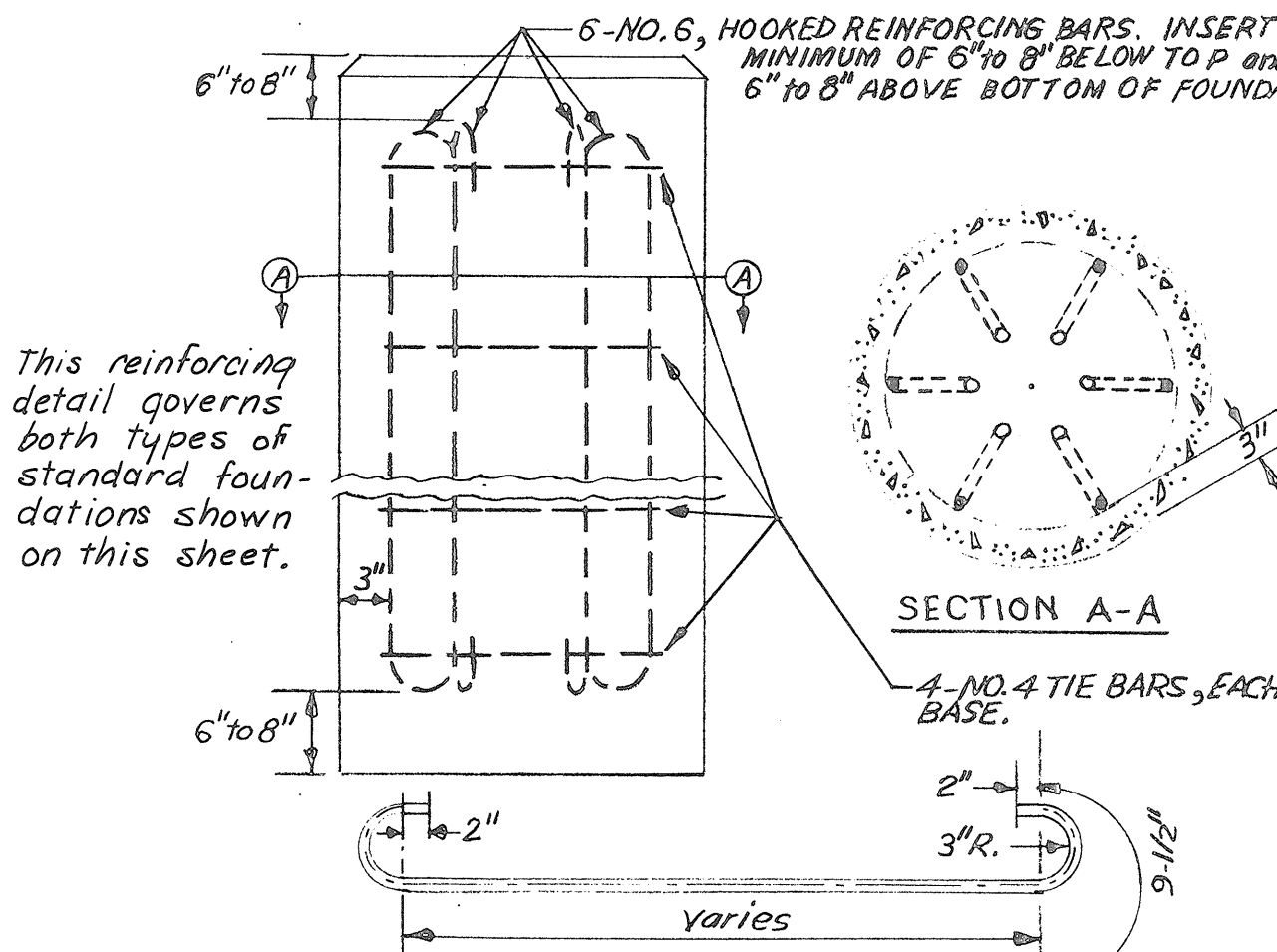
**LIGHT POLE CIRCUIT IDENTIFICATION**



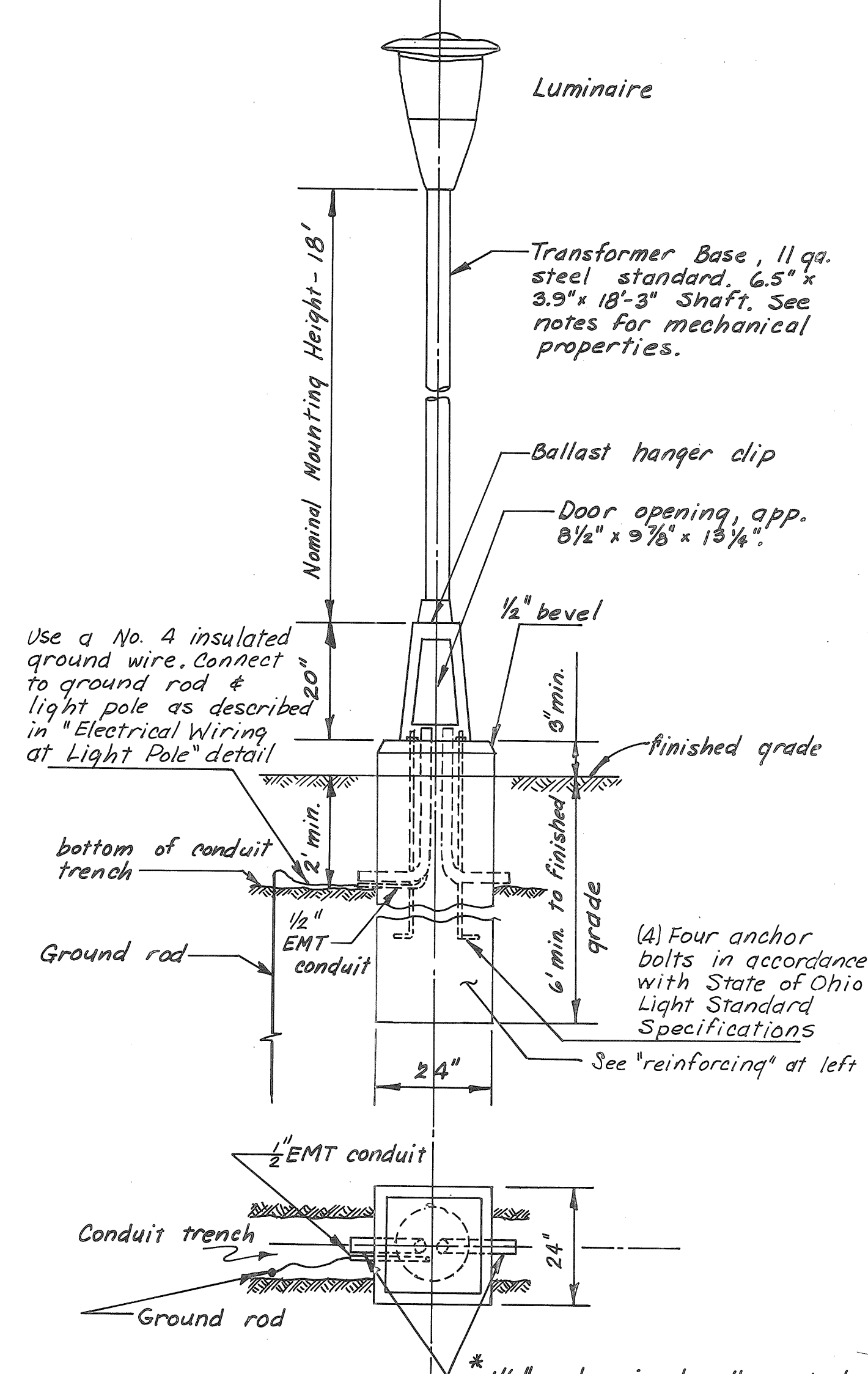
**MARKER DETAILS**



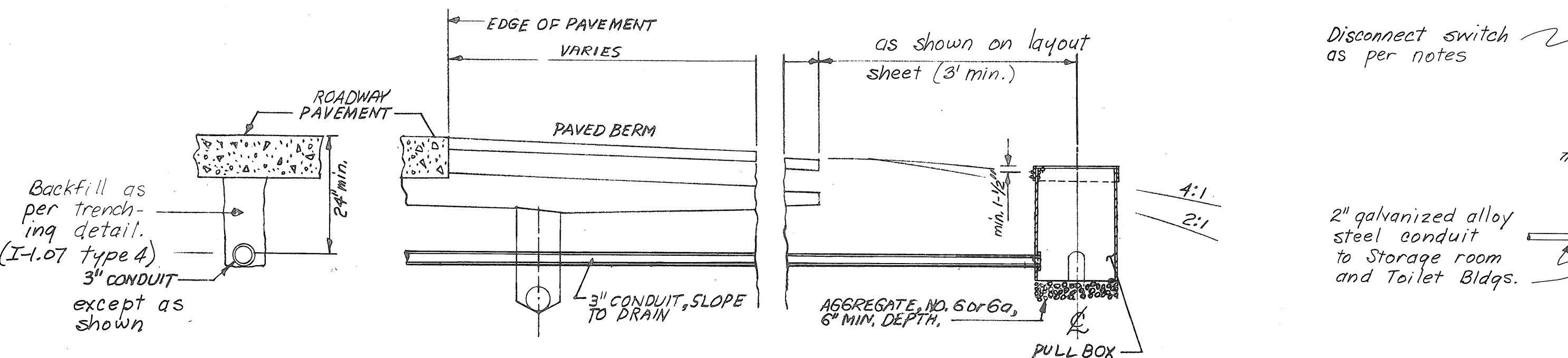
**LIGHT POLE & FOUNDATION DETAILS**



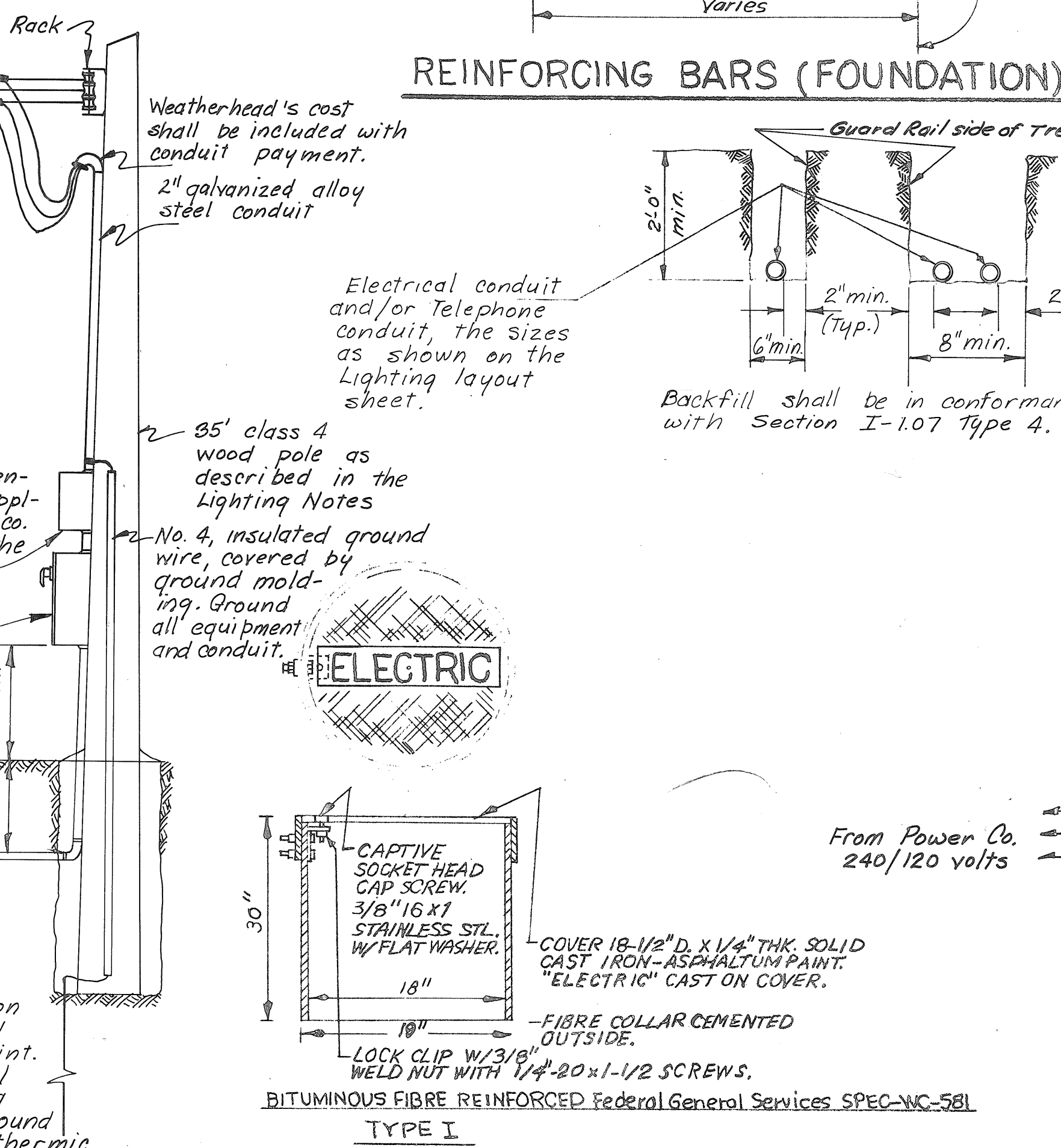
**REINFORCING BARS (FOUNDATION)**



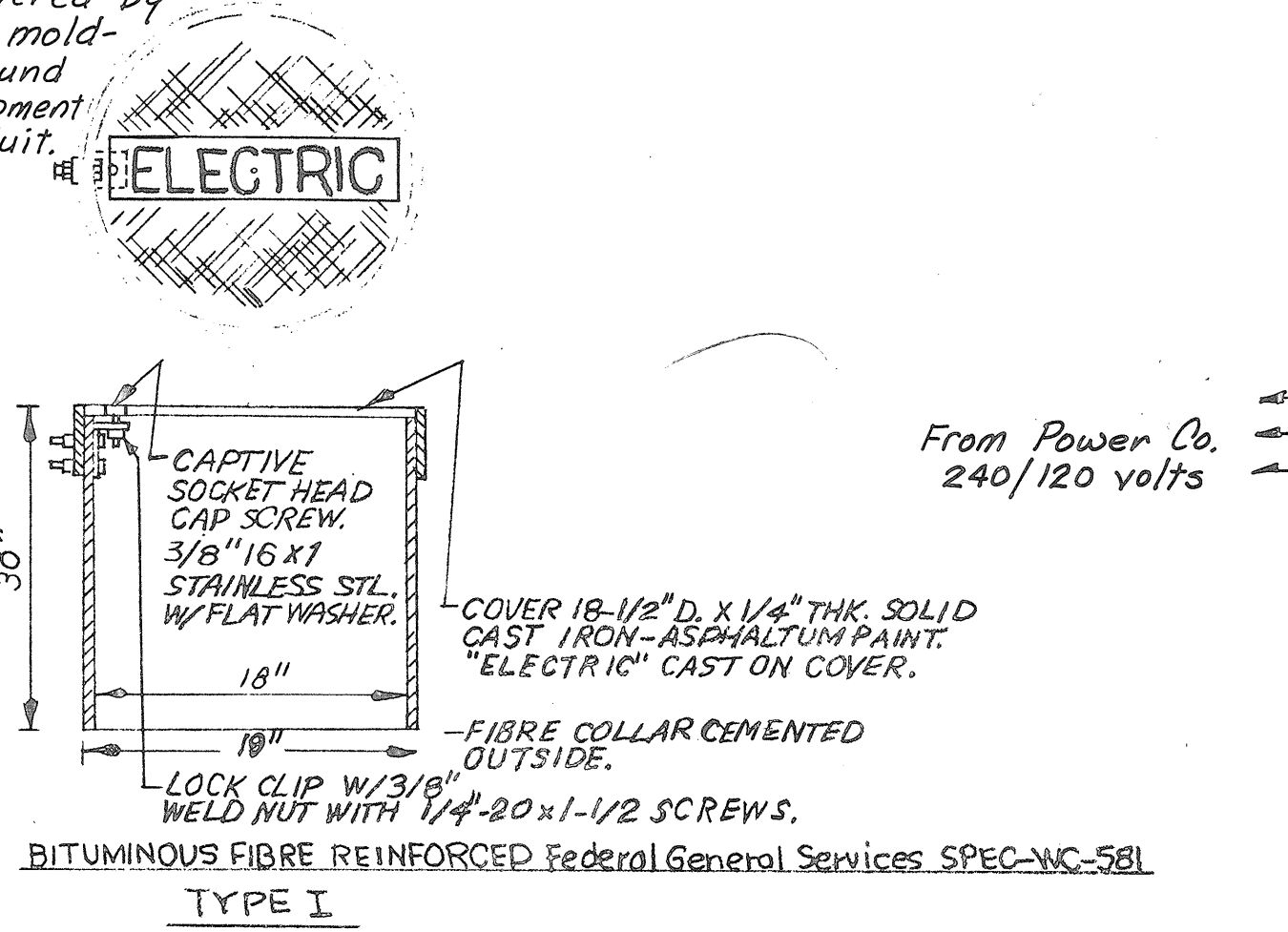
**PICNIC AREA LIGHT POLE & FOUNDATION DETAILS**



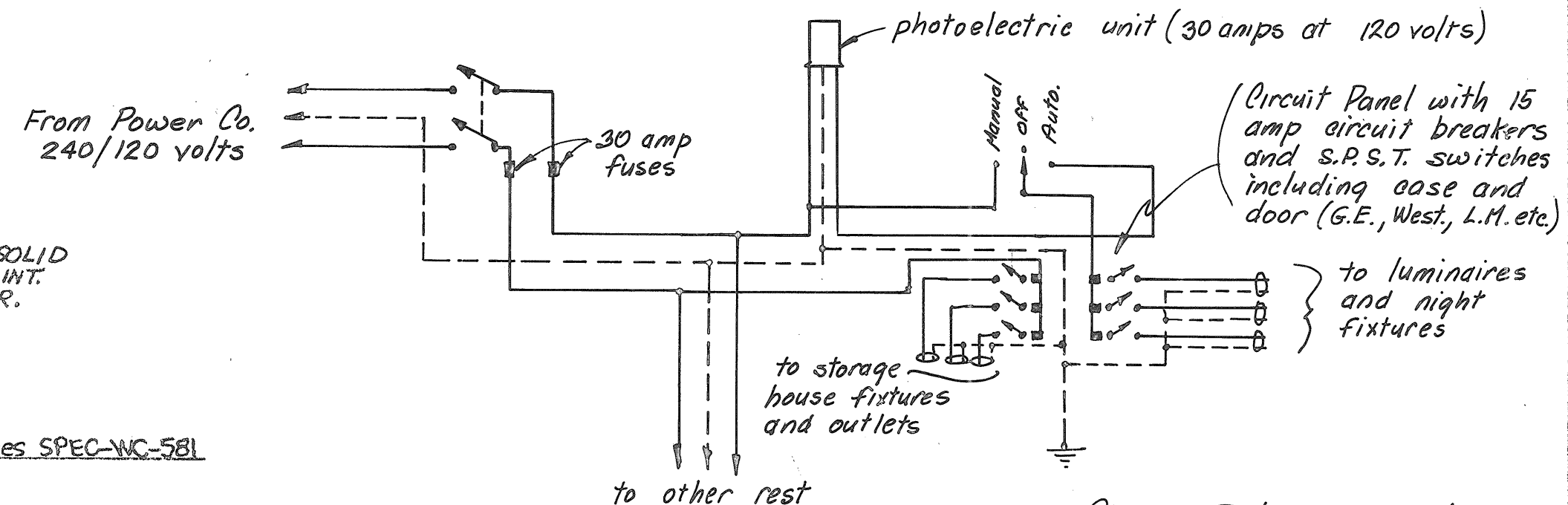
**TYPICAL CONDUIT CROSSOVER DETAIL**



**PULL BOX DETAILS**



**TYPE I**



**Circuit Schematic at Toilet and Storage Bldg.**

**7-1/8" ASSEMBLED**

Receptacle with Socket 1" DIA. IDENTIFYING SYMBOLS: I-WX-YZ

Plug with Pin

TO IDENTIFY THE PROPER KIT FOR AN INSTALLATION, SELECT FROM THE TABLES BELOW THE SYMBOLS WHICH COINCIDE WITH THE REQUIREMENTS and SUBSTITUTE FOR (W,X) and (Y,Z) RESPECTIVELY.

**EXAMPLE**  
IF THE INSTALLATION REQUIRES A RECEPTACLE FOR NO. 6 STRANDED CONDUCTOR and A CABLE DIA. OF .660" and A PLUG FOR NO. 8 SOLID CONDUCTOR and A CABLE DIA. OF .460", THE KIT NO. IS I-F3-E6.

CONDUCTOR SIZE		AWG NO.	SYMBOL FOR X and Z		CABLE DIA.		SYMBOL FOR W and Y	
Concentric Stranded	Solid				MIN.	MAX.		
10, 12	8, 10	6			.195"	.260"	B*	
8	6	4			.250"	.330"	C*	
6	4	3			.320"	.430"	D*	
4	-	2			.420"	.585"	E	
-	-	-			.575"	.785"	F	
-	-	-			.775"	.985"	G	
-	-	-			.975"	1.125"	H	

DIAMETERS VARY ALONG CABLE LENGTHS. TAKE SEVERAL MEASUREMENTS. SELECT A TIGHT FIT RATHER THAN A LOOSE ONE.

\* MOLDED RUBBER ADAPTERS ARE A PART OF THESE KITS FOR SMALL DIA. CABLE.

**TYPE I**  
INLINE SELF LOCKING CONNECTOR KIT FOR PULL BOX INSTALLATION.

**5" ASSEMBLED**

3-1/4" LINE SIDE 1-3/4" LOAD SIDE IDENTIFYING SYMBOLS: II-WX-YZ

FOR LIGHT AT END OF A CIRCUIT, PLUG ONE OPENING WITH INSULATED PLUG HAVING SAME DIAMETER AS CABLE. TO IDENTIFY THE PROPER KIT FOR AN INSTALLATION, SELECT FROM THE TABLES BELOW THE SYMBOLS WHICH COINCIDE WITH THE REQUIREMENTS and SUBSTITUTE FOR (W,X) and (Y,Z) RESPECTIVELY.

**EXAMPLE**  
IF THE LINE SIDE CABLES ARE NO. 2 STRANDED CONDUCTOR WITH AN OUTSIDE DIAMETER OF .54", and THE LOAD SIDE CABLE IS NO. 12 STRANDED CONDUCTOR WITH AN OUTSIDE DIAMETER OF .29", THE KIT NO. IS 3-EB1-C6.

CONDUCTOR SIZE (X)		CONDUCTOR SIZE (Z)		CABLE DIA. (W)		CABLE DIA. (Y)	
AWG NO.	SYMBOL FOR X	AWG NO.	SYMBOL FOR Z	MIN.	MAX.	MIN.	MAX.
8, 6	6	14, 16, 12, 14	8	.250"	.330"	.120"	.160"
8, 6	4	10, 12, 8, 10	6	.320"	.380"	.155"	.205"
6, 4	3	8, 6	4	.370"	.430"	.195"	.260"
4	2	6, 4	3	.420"	.505"	.250"	.330"
2	1	-	-	.495"	.585"	.320"	.430"
1/0	0	-	-	.575"	.685"	-	-
2/0	10	-	-	.675"	.785"	-	-

DIAMETERS VARY ALONG CABLE LENGTHS. TAKE SEVERAL MEASUREMENTS. SELECT A TIGHT FIT RATHER THAN A LOOSE ONE.

**TYPE II**  
FUSED "Y" CONNECTOR KIT FOR POLE BASE INSTALLATION.

**5-18/32" ASSEMBLED**

LINE SIDE 3-1/8" 1-9/32" LOAD SIDE 2-15/32" IDENTIFYING SYMBOLS: III-WX-YZ

FOR LIGHT AT END OF A CIRCUIT, PLUG ONE OPENING WITH INSULATED PLUG HAVING SAME DIAMETER. TO IDENTIFY THE PROPER KIT FOR AN INSTALLATION, SELECT FROM THE TABLES BELOW THE SYMBOLS WHICH COINCIDE WITH THE REQUIREMENTS and SUBSTITUTE FOR (W,X) and (Y,Z) RESPECTIVELY.

**EXAMPLE**  
IF THE LINE SIDE CABLES ARE NO. 2 STRANDED CONDUCTOR WITH AN OUTSIDE DIAMETER OF .54", and THE LOAD SIDE CABLE IS NO. 12 STRANDED CONDUCTOR WITH AN OUTSIDE DIAMETER OF .29", THE KIT NO. IS 3-EB1-C6.

CONDUCTOR SIZE (X)		CONDUCTOR SIZE (Z)		CABLE DIA. (W)		CABLE DIA. (Y)	
AWG NO.	SYMBOL FOR X	AWG NO.	SYMBOL FOR Z	MIN.	MAX.	MIN.	MAX.
8, 6	6	14, 16, 12, 14	8	.250"	.330"	.120"	.160"
8, 6	4	10, 12, 8, 10	6	.320"	.380"	.155"	.205"
6, 4	3	8, 6	4	.370"	.430"	.195"	.260"
4	2	6, 4	3	.420"	.505"	.250"	.330"
2	1	-	-	.495"	.585"	.320"	.430"
1/0	0	-	-	.575"	.685"	-	-
2/0	10	-	-	.675"	.785"	-	-

DIAMETERS VARY ALONG CABLE LENGTHS. TAKE SEVERAL MEASUREMENTS. SELECT A TIGHT FIT RATHER THAN A LOOSE ONE.

**TYPE III**  
UNFUSED "Y" CONNECTOR KIT FOR POLE BASE INSTALLATION.

**2-7/16" ASSEMBLED**

1-9/32" 3-5/8" IDENTIFYING SYMBOLS: IV-WX-YZ

TO IDENTIFY THE PROPER KIT FOR AN INSTALLATION, SELECT FROM THE TABLES BELOW THE SYMBOLS WHICH COINCIDE WITH THE REQUIREMENTS and SUBSTITUTE FOR (W,X) and (Y,Z) RESPECTIVELY.

**EXAMPLE**  
IF THE TWIN CABLES ARE NO. 2 STRANDED CONDUCTOR WITH AN OUTSIDE DIA. OF .54" and THE SINGLE CABLE IS NO. 12 STRANDED CONDUCTOR WITH AN OUTSIDE DIA. OF .29", THE KIT NO. IS 4-EB1-C6.

CONDUCTOR SIZE (X)		CONDUCTOR SIZE (Z)		CABLE DIA. (W)		CABLE DIA. (Y)	
AWG NO.	SYMBOL FOR X	AWG NO.	SYMBOL FOR Z	MIN.	MAX.	MIN.	MAX.
8, 6	6	14, 16, 12, 16	8	.250"	.330"	.155"	.205"
8, 6	4	10, 12, 8, 10	6	.320"	.380"	.195"	.260"
6, 4	3	8, 6	4	.370"	.430"	.250"	.330"
4	2	6, 4	3	.420"	.505"	.320"	.430"
2	1	-	-	.495"	.585"	.420"	.585"
1/0	0	-	-	.575"	.685"	.575"	.785"
2/0	10	-	-	.675"	.785"	-	-

DIAMETERS VARY ALONG CABLE LENGTHS. TAKE SEVERAL MEASUREMENTS. SELECT A TIGHT FIT RATHER THAN A LOOSE ONE.

**TYPE IV**  
UNFUSED "Y" CONNECTOR KIT FOR PULL BOX INSTALLATION.

**4 1/4" ASSEMBLED**

PLUG WITH SOCKET 2 7/16" RECEPTACLE WITH PIN 1 13/16" IDENTIFYING SYMBOLS: V-WXYZ

TO IDENTIFY THE PROPER KIT FOR AN INSTALLATION, SELECT FROM THE TABLES BELOW THE SYMBOLS WHICH COINCIDE WITH THE REQUIREMENTS and SUBSTITUTE FOR (W,X) and (Y,Z) RESPECTIVELY.

**EXAMPLE**: IF THE INSTALLATION REQUIRES A PLUG FOR NO. 8 STRANDED CONDUCTOR AND A CABLE DIAMETER OF .38" and A RECEPTACLE FOR NO. 14 STRAND CONDUCTOR AND A CABLE DIAMETER OF .27", THE KIT NO. IS V-D4-C6.

Conductor Size		AWG	Symbol for X and Z		Cable Diameter		Symbol for W and Y	
Concentric Strd.	Solid				MIN.	MAX.		
14, 16	12, 14	8			.155"	.205"	A	
10, 12	8, 10	6			.195"	.260"	B	
8	6	4			.250"	.330"	C	
6	4	3			.320"	.430"	D	

DIAMETERS VARY ALONG CABLE LENGTHS. TAKE SEVERAL MEASUREMENTS. SELECT A TIGHT FIT RATHER THAN A LOOSE ONE.

**TYPE V**  
UNFUSED INLINE CONNECTOR KIT FOR JUNCTION BOX INSTALLATION.

**4 1/4" ASSEMBLED**

RECEPTACLE 13/16" DIA. PLUG 1 13/16" FUSE 2 3/8" IDENTIFYING SYMBOLS: VI-WXYZ

TO IDENTIFY THE PROPER KIT FOR THE INSTALLATION, SELECT FROM THE TABLES BELOW THE SYMBOLS WHICH COINCIDE WITH THE REQUIREMENTS and SUBSTITUTE FOR (W,X) and (Y,Z) RESPECTIVELY.

**EXAMPLE**: IF THE INSTALLATION REQUIRES A RECEPTACLE FOR THE LINE SIDE FOR NO. 6 STRANDED CONDUCTOR AND A CABLE DIAMETER OF .42" and A PLUG FOR THE FUSE FOR THE LOAD SIDE FOR NO. 12 STRANDED CONDUCTOR AND A CABLE DIAMETER OF .29", THE KIT NO. IS VI-D3-C6.

Conductor Size		AWG	Symbol for X and Z		Cable Diameter		Symbol for Y and W	
Concentric Strd.	Solid				MIN.	MAX.		
14, 16	12, 14	8			.120"	.160"	S	
10, 12	8, 10	6			.155"	.205"	A	
8	6	4			.195"	.260"	B	
6	4	3			.250"	.330"	C	
-	-	-			.320"	.430"	D	

DIAMETERS VARY ALONG CABLE LENGTHS. TAKE SEVERAL MEASUREMENTS. SELECT A TIGHT FIT RATHER THAN A LOOSE ONE.

**TYPE VI**  
FUSED INLINE CONNECTOR KIT FOR JUNCTION BOX INSTALLATION.

**MIDGET SIZE FUSE**

13/32" DIA 3/8"

1 1/2"

MIDGET FUSES ARE AVAILABLE IN THE FOLLOWING CAPACITIES:  
600 VOLTS OR LESS, 1/10 TO 30 AMPS.

ANY STANDARD MIDGET FERRULE TYPE FUSE, (EXCEPT GLASS TUBE) MAY BE USED IN THIS CONNECTOR. A FUSE CAPABLE OF INTERRUPTING THE SHORT CIRCUIT CAPACITY OF THE SUPPLY CIRCUIT MUST BE USED.

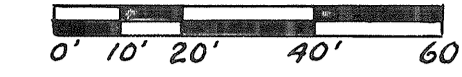
# PAVEMENT COMPUTATIONS

Station	T-35		B-35		T-30		B-19		T-71		I-22		I-9		T-31		B-21		E-1		
	From	To	Width	C.Y.	Width	C.Y.	Width	Gal.	Width	C.Y.	5.Y.	C.Y.	C.Y.	L.F.	Gal.	C.Y.	C.Y.	5.Y.	5.Y.	5.Y.	
DIXON RD																					
9+00	10+00	18'Av	695	18'Av	695	19'Av	84	19'Av	35.19				24.69	28						200	
10+00	18+92.14	20'	68.86	20'	68.86	21'	8.33	21'	34.694				24.229	182						198.3	
18+92.14	19+80.90								*1.51	426.00	71.00	*1.61		*7.67	28	*-13	*0.42	*-4.37		374	
20+06.44	20+70.30								*4.28	1054.20	175.67	*1.67		*-6	*0.21	*-2.14				102.9	
20+95.84	21+85.64								*1.51	426.00	71.00	44.64	35							36.5	
21+85.64	23+50	20'	12.69	20'	12.69	21'	1.53	21'	6.392				12.34	7						100	
23+50	24+00	18'Av	3.47	18'Av	3.47	19'Av	4.2	19'Av	17.59												
Correction													*9.98								
Total			91.97		91.97		1,112		444.34		1,906.20		308.29	307.01	301	-32	-1.05	-10.88		4,425	

\* Quantities are Corrections for paved shoulders as carried in pavement computations

# INTERSECTION DETAIL

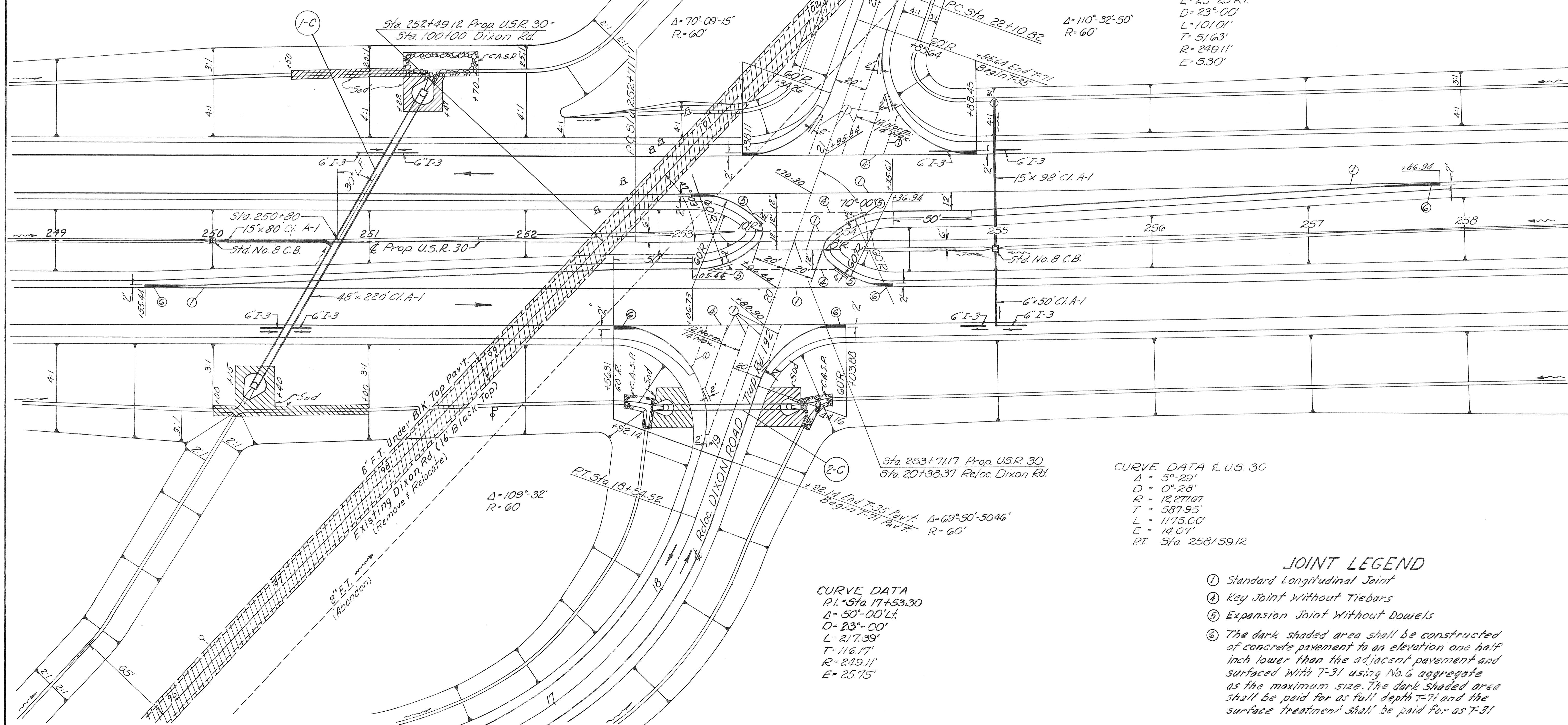
DIXON RD. & Prop. U.S.R. 30



FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

173

VAN WERT COUNTY  
VAN-30-4.06



CURVE DATA  
 P.I. Sta. 22+62.45  
 $\Delta = 23^\circ 25' R$   
 $D = 23^\circ 00'$   
 $L = 101.01'$   
 $T = 51.63'$   
 $R = 249.11'$   
 $E = 5.30'$

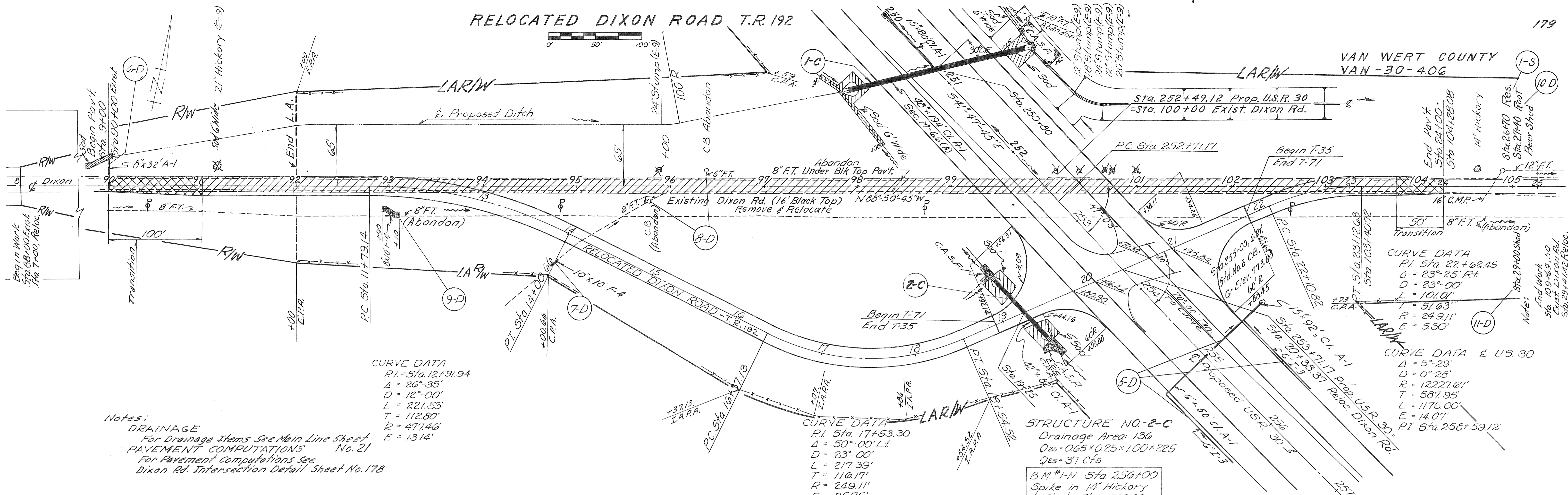
CURVE DATA & U.S. 30  
 $\Delta = 5^\circ 29'$   
 $D = 0^\circ 28'$   
 $R = 12,276.7$   
 $T = 587.95'$   
 $L = 1175.00'$   
 $E = 14.01'$   
 P.I. Sta. 258+59.12

CURVE DATA  
 P.I. = Sta. 17+53.30  
 $\Delta = 50^\circ 00' L$   
 $D = 23^\circ 00'$   
 $L = 217.39'$   
 $T = 116.17'$   
 $R = 249.11'$   
 $E = 25.75'$

### JOINT LEGEND

- ① Standard Longitudinal Joint
- ② Key Joint Without Tiebars
- ③ Expansion Joint Without Dowels
- ④ The dark shaded area shall be constructed of concrete pavement to an elevation one half inch lower than the adjacent pavement and surfaced with T-31 using No. 6 aggregate as the maximum size. The dark shaded area shall be paid for as full depth T-71 and the surface treatment shall be paid for as T-31

RELOCATED DIXON ROAD T.R. 192



Notes:  
 DRAINAGE  
 For Drainage Items See Main Line Sheet  
 PAVEMENT COMPUTATIONS No. 21  
 For Pavement Computations See  
 Dixon Rd. Intersection Detail Sheet No. 178

CURVE DATA  
 PI = Sta 12+91.94  
 Δ = 26°-35'  
 D = 12'-00"  
 L = 221.53'  
 T = 112.80'  
 R = 477.46'  
 E = 13.14'

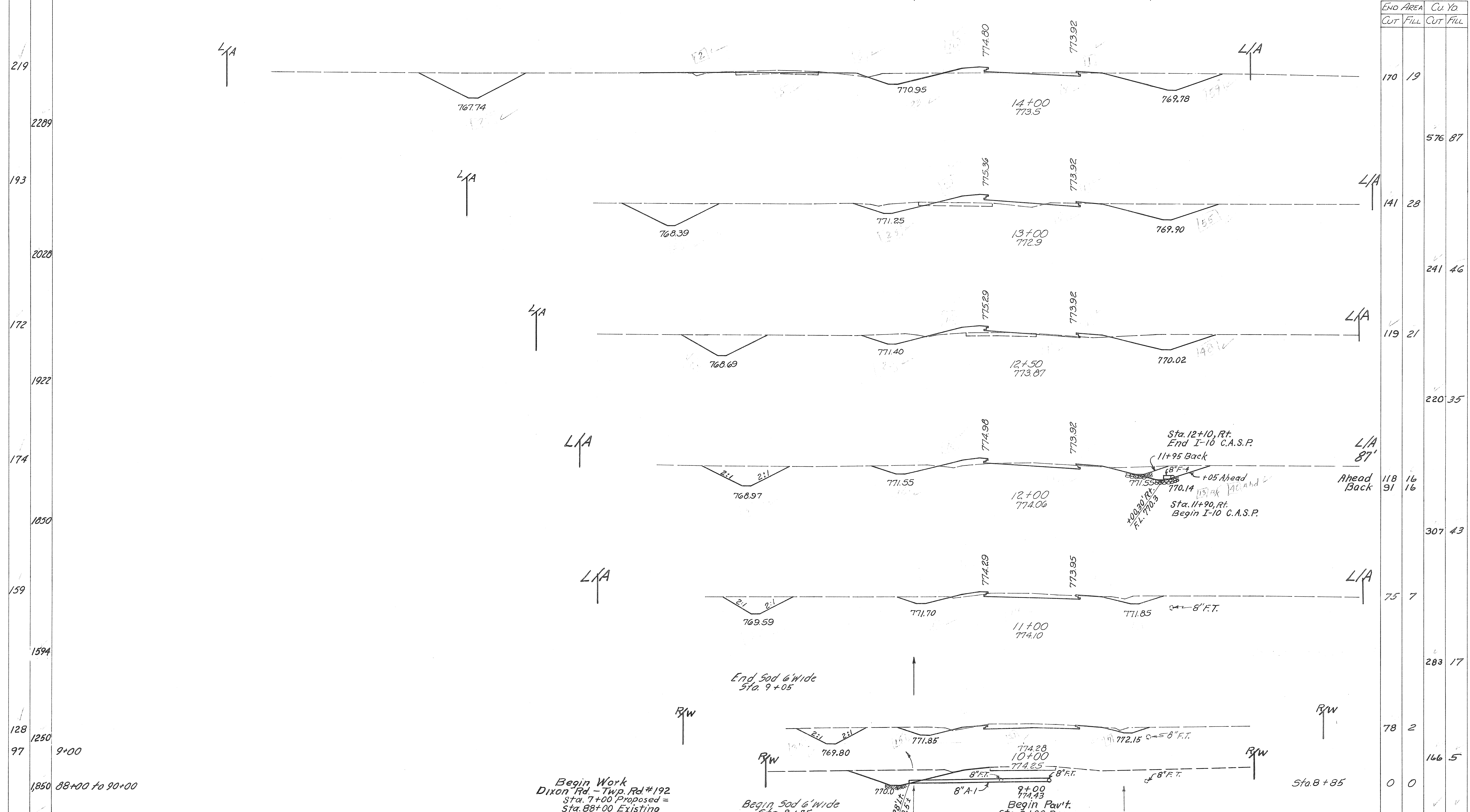
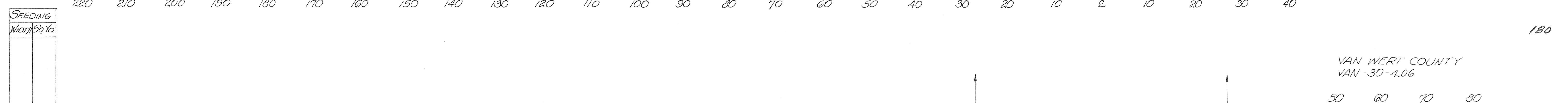
CURVE DATA  
 PI Sta 17+53.30  
 Δ = 50°-00' Lt  
 D = 23'-00"  
 L = 217.39'  
 T = 110.17'  
 R = 249.11'  
 E = 25.75'

STRUCTURE NO. 2-C  
 Drainage Area: 136  
 Q<sub>25</sub> = 0.65 x 0.25 x 1.00 x 225  
 Q<sub>25</sub> = 37 cfs  
 B.M. \*N Sta 250+00  
 Spike in 14" Hickory  
 349' Lt. Elev 772.50

CURVE DATA  
 PI Sta 22+62.45  
 Δ = 23°-25' Rt  
 D = 23'-00"  
 L = 101.01'  
 T = 51.63'  
 R = 249.11'  
 E = 5.30'

CURVE DATA E US 30  
 Δ = 5°-29'  
 D = 0°-28'  
 R = 12227.61'  
 T = 587.95'  
 L = 1175.00'  
 E = 14.07'  
 PI Sta 258+59.12

774.25	774.31	774.37	774.43	774.49	774.55	774.61	774.67	774.73	774.79	774.85	774.91	774.97	775.03	775.09	775.15	775.21	775.27	775.33	775.39	775.45	775.51	775.57	775.63	775.69	775.75	775.81	775.87	775.93	775.99	776.05	776.11	776.17	776.23	776.29	776.35	776.41	776.47	776.53	776.59	776.65	776.71	776.77	776.83	776.89	776.95	777.01	777.07	777.13	777.19	777.25	777.31	777.37	777.43	777.49	777.55	777.61	777.67	777.73	777.79	777.85	777.91	777.97	778.03	778.09	778.15	778.21	778.27	778.33	778.39	778.45	778.51	778.57	778.63	778.69	778.75	778.81	778.87	778.93	778.99	779.05	779.11	779.17	779.23	779.29	779.35	779.41	779.47	779.53	779.59	779.65	779.71	779.77	779.83	779.89	779.95	780.01	780.07	780.13	780.19	780.25	780.31	780.37	780.43	780.49	780.55	780.61	780.67	780.73	780.79	780.85	780.91	780.97	781.03	781.09	781.15	781.21	781.27	781.33	781.39	781.45	781.51	781.57	781.63	781.69	781.75	781.81	781.87	781.93	781.99	782.05	782.11	782.17	782.23	782.29	782.35	782.41	782.47	782.53	782.59	782.65	782.71	782.77	782.83	782.89	782.95	783.01	783.07	783.13	783.19	783.25	783.31	783.37	783.43	783.49	783.55	783.61	783.67	783.73	783.79	783.85	783.91	783.97	784.03	784.09	784.15	784.21	784.27	784.33	784.39	784.45	784.51	784.57	784.63	784.69	784.75	784.81	784.87	784.93	784.99	785.05	785.11	785.17	785.23	785.29	785.35	785.41	785.47	785.53	785.59	785.65	785.71	785.77	785.83	785.89	785.95	786.01	786.07	786.13	786.19	786.25	786.31	786.37	786.43	786.49	786.55	786.61	786.67	786.73	786.79	786.85	786.91	786.97	787.03	787.09	787.15	787.21	787.27	787.33	787.39	787.45	787.51	787.57	787.63	787.69	787.75	787.81	787.87	787.93	787.99	788.05	788.11	788.17	788.23	788.29	788.35	788.41	788.47	788.53	788.59	788.65	788.71	788.77	788.83	788.89	788.95	789.01	789.07	789.13	789.19	789.25	789.31	789.37	789.43	789.49	789.55	789.61	789.67	789.73	789.79	789.85	789.91	789.97	790.03	790.09	790.15	790.21	790.27	790.33	790.39	790.45	790.51	790.57	790.63	790.69	790.75	790.81	790.87	790.93	790.99	791.05	791.11	791.17	791.23	791.29	791.35	791.41	791.47	791.53	791.59	791.65	791.71	791.77	791.83	791.89	791.95	792.01	792.07	792.13	792.19	792.25	792.31	792.37	792.43	792.49	792.55	792.61	792.67	792.73	792.79	792.85	792.91	792.97	793.03	793.09	793.15	793.21	793.27	793.33	793.39	793.45	793.51	793.57	793.63	793.69	793.75	793.81	793.87	793.93	793.99	794.05	794.11	794.17	794.23	794.29	794.35	794.41	794.47	794.53	794.59	794.65	794.71	794.77	794.83	794.89	794.95	795.01	795.07	795.13	795.19	795.25	795.31	795.37	795.43	795.49	795.55	795.61	795.67	795.73	795.79	795.85	795.91	795.97	796.03	796.09	796.15	796.21	796.27	796.33	796.39	796.45	796.51	796.57	796.63	796.69	796.75	796.81	796.87	796.93	796.99	797.05	797.11	797.17	797.23	797.29	797.35	797.41	797.47	797.53	797.59	797.65	797.71	797.77	797.83	797.89	797.95	798.01	798.07	798.13	798.19	798.25	798.31	798.37	798.43	798.49	798.55	798.61	798.67	798.73	798.79	798.85	798.91	798.97	799.03	799.09	799.15	799.21	799.27	799.33	799.39	799.45	799.51	799.57	799.63	799.69	799.75	799.81	799.87	799.93	799.99	800.05	800.11	800.17	800.23	800.29	800.35	800.41	800.47	800.53	800.59	800.65	800.71	800.77	800.83	800.89	800.95	801.01	801.07	801.13	801.19	801.25	801.31	801.37	801.43	801.49	801.55	801.61	801.67	801.73	801.79	801.85	801.91	801.97	802.03	802.09	802.15	802.21	802.27	802.33	802.39	802.45	802.51	802.57	802.63	802.69	802.75	802.81	802.87	802.93	802.99	803.05	803.11	803.17	803.23	803.29	803.35	803.41	803.47	803.53	803.59	803.65	803.71	803.77	803.83	803.89	803.95	804.01	804.07	804.13	804.19	804.25	804.31	804.37	804.43	804.49	804.55	804.61	804.67	804.73	804.79	804.85	804.91	804.97	805.03	805.09	805.15	805.21	805.27	805.33	805.39	805.45	805.51	805.57	805.63	805.69	805.75	805.81	805.87	805.93	805.99	806.05	806.11	806.17	806.23	806.29	806.35	806.41	806.47	806.53	806.59	806.65	806.71	806.77	806.83	806.89	806.95	807.01	807.07	807.13	807.19	807.25	807.31	807.37	807.43	807.49	807.55	807.61	807.67	807.73	807.79	807.85	807.91	807.97	808.03	808.09	808.15	808.21	808.27	808.33	808.39	808.45	808.51	808.57	808.63	808.69	808.75	808.81	808.87	808.93	808.99	809.05	809.11	809.17	809.23	809.29	809.35	809.41	809.47	809.53	809.59	809.65	809.71	809.77	809.83	809.89	809.95	810.01	810.07	810.13	810.19	810.25	810.31	810.37	810.43	810.49	810.55	810.61	810.67	810.73	810.79	810.85	810.91	810.97	811.03	811.09	811.15	811.21	811.27	811.33	811.39	811.45	811.51	811.57	811.63	811.69	811.75	811.81	811.87	811.93	811.99	812.05	812.11	812.17	812.23	812.29	812.35	812.41	812.47	812.53	812.59	812.65	812.71	812.77	812.83	812.89	812.95	813.01	813.07	813.13	813.19	813.25	813.31	813.37	813.43	813.49	813.55	813.61	813.67	813.73	813.79	813.85	813.91	813.97	814.03	814.09	814.15	814.21	814.27	814.33	814.39	814.45	814.51	814.57	814.63	814.69	814.75	814.81	814.87	814.93	814.99	815.05	815.11	815.17	815.23	815.29	815.35	815.41	815.47	815.53	815.59	815.65	815.71	815.77	815.83	815.89	815.95	816.01	816.07	816.13	816.19	816.25	816.31	816.37	816.43	816.49	816.55	816.61	816.67	816.73	816.79	816.85	816.91	816.97	817.03	817.09	817.15	817.21	817.27	817.33	817.39	817.45	817.51	817.57	817.63	817.69	817.75	817.81	817.87	817.93	817.99	818.05	818.11	818.17	818.23	818.29	818.35	818.41	818.47	818.53	818.59	818.65	818.71	818.77	818.83	818.89	818.95	819.01	819.07	819.13	819.19	819.25	819.31	819.37	819.43	819.49	819.55	819.61	819.67	819.73	819.79	819.85	819.91	819.97	820.03	820.09	820.15	820.21	820.27	820.33	820.39	820.45	820.51	820.57	820.63	820.69	820.75	820.81	820.87	820.93	820.99	821.05	821.11	821.17	821.23	821.29	821.35	821.41	821.47	821.53	821.59	821.65	821.71	821.77	821.83	821.89	821.95	822.01	822.07	822.13	822.19	822.25	822.31	822.37	822.43	822.49	822.55	822.61	822.67	822.73	822.79	822.85	822.91	822.97	823.03	823.09	823.15	823.21	823.27	823.33	823.39	823.45	823.51	823.57	823.63	823.69	823.75	823.81	823.87	823.93	823.99	824.05	824.11	824.17	824.23	824.29	824.35	824.41	824.47	824.53	824.59	824.65	824.71	824.77	824.83	824.89	824.95	825.01	825.07	825.13	825.19	825.25	825.31	825.37	825.43	825.49	825.55	825.61	825.67	825.73	825.79	825.85	825.91	825.97	826.03	826.09	826.15	826.21	826.27	826.33	826.39	826.45	826.51	826.57	826.63	826.69	826.75	826.81	826.87	826.93	826.99	827.05	827.11	827.17	827.23	827.29	827.35	827.41	827.47	827.53	827.59	827.65	827.71	827.77	827.83	827.89	827.95	828.01	828.07	828.13	828.19	828.25	828.31	828.37	828.4
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END AREA		CU. YD.	
CUT	FILL	CUT	FILL
170	19		
		576	87
141	28		
		241	46
119	21		
		220	35
118	16		
91	16		
		307	43
75	7		
		283	17
78	2		
		166	5
0	0		
		7401	1151

SEEDING	WIDTH	50%	10%
219			
2289			
193			
2028			
172			
1922			
174			
1850			
159			
1594			
128			
1250			
97			
1850			
12,783			

Sheet total 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 E 10 20 30 40 50 60 70 80  
DIXON ROAD From Sta. 9+00 to Sta. 14+00

Begin Work  
Dixon Rd. - Twp. Rd. #192  
Sta. 7+00 Proposed =  
Sta. 88+00 Existing

End Sod 6' wide  
Sta. 9+05

Begin Sod 6' wide  
Sta. 8+75

Begin Pavt.  
Sta. 9+00 Prop. =  
Sta. 90+00 Exist.

Sta. 8+85

Total

VAN WERT COUNTY  
VAN-30-4.06

SEEDING
Width Sq Yd
779
70
136
116
1412
223
2611
247
2856
267
3066
285
2800
219
13,720

779 Corr. for Inter.  
Note:  
18+94 to 21+78 Dixon Rd.  
included in Mainline.

18+94 Back

Included With U.S.R. 30  
Cross Sections

50 60 70 80

End Area	Cu Yd
Cut	Fill
0	0
288	74
192	49
687	111
600	41
145	11
502	33
126	7
602	41
199	15
683	63
170	19

Sta. 19+80.90  
Pavement Edge  
U.S.R. 30

Sta. 19+09.27, 43.23 Lt  
F.L. Elev. 767.42

42" x 82" C.I. A-1  
Sec. M-6.6 (a)

Sta. 19+37.31, 33.83 Rt  
F.L. Elev. 767.75

STRUCTURE NO 2-C  
Sta. 19+25

Included With U.S.R. 30  
Cross Sections

18+75

767.40

19+00  
773.3

768.55

768.55

18+00  
773.5

769.30

770.05

17+00  
773.6

769.42

770.35

16+00  
773.4

769.54

767.13

770.65

15+00  
773.4

769.66

14+00

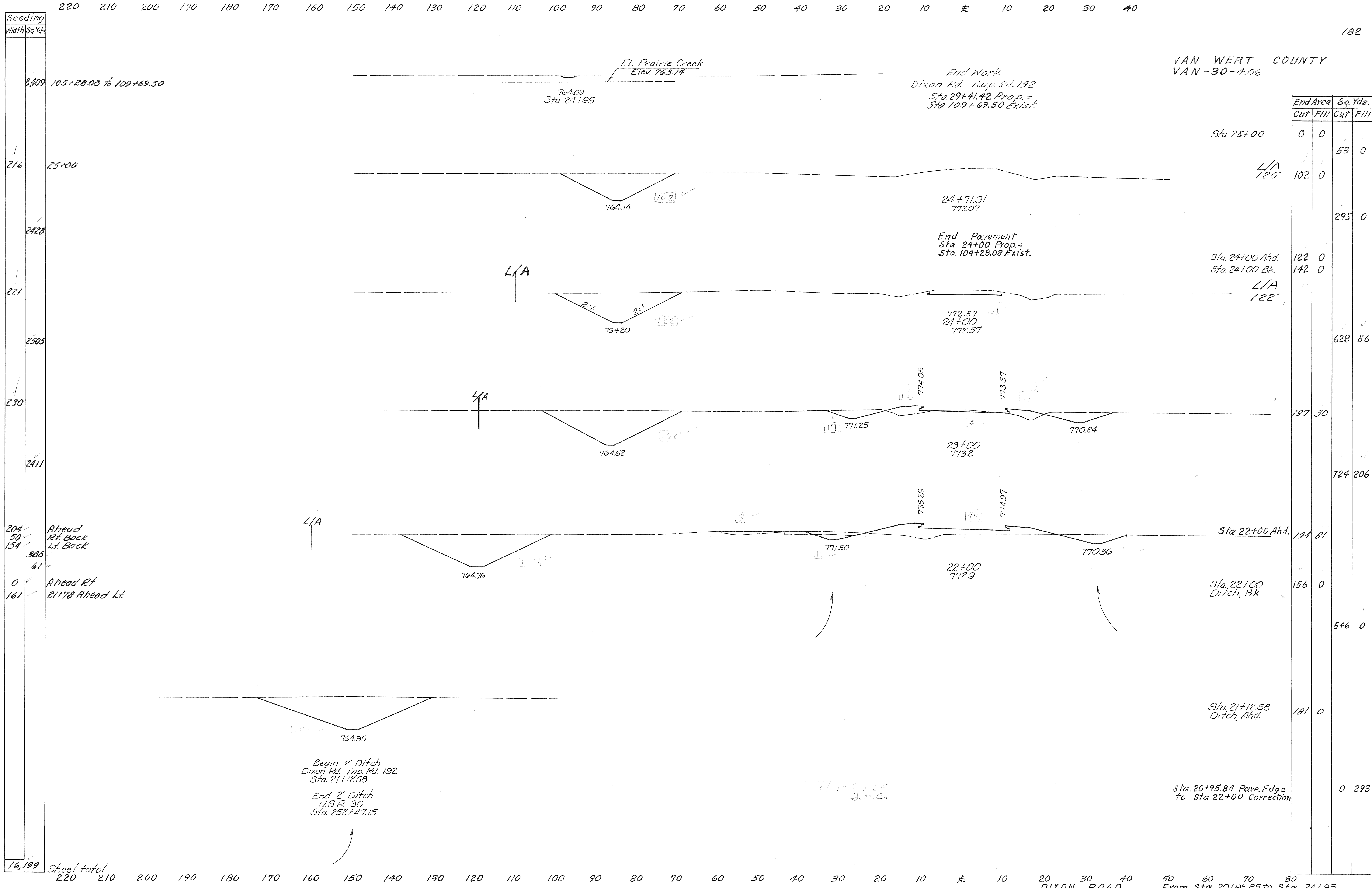
Sta. 14+00

Sheet total  
220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 E 10 20 30 40

DIXON ROAD  
From Sta. 15+00 to Sta. 19+80.90



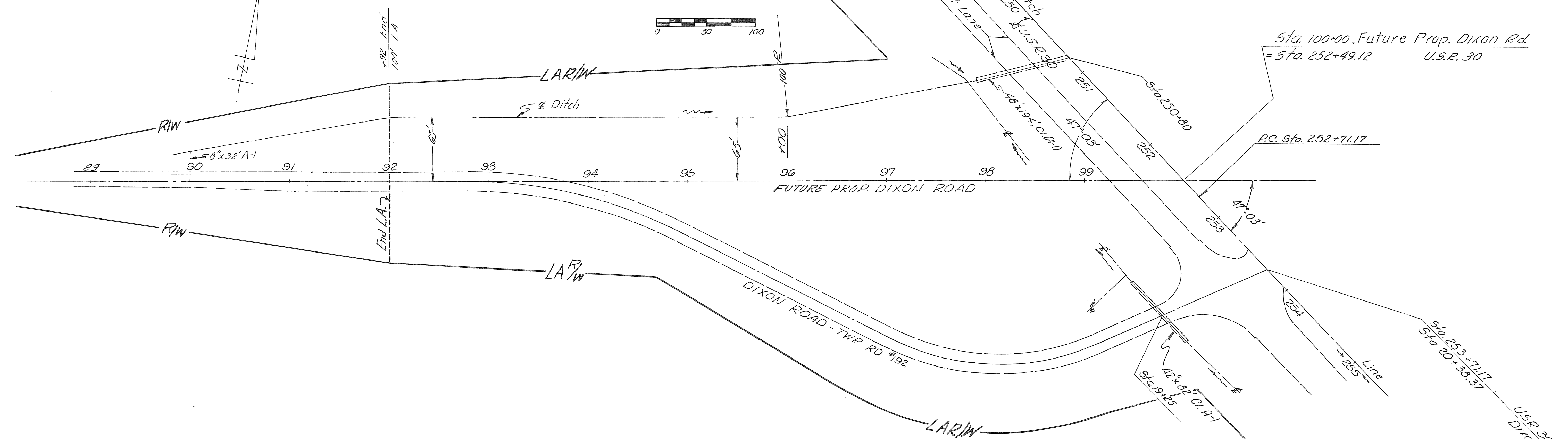
VAN WERT COUNTY  
VAN-30-4.06



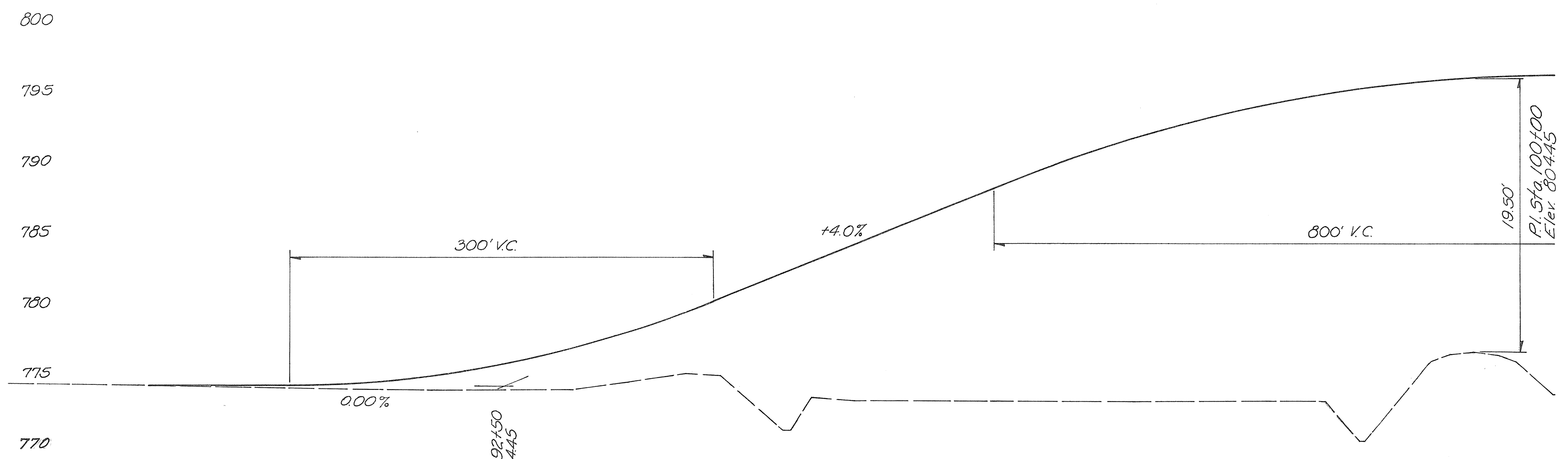
End Area		Sq. Yds.	
Cut	Fill	Cut	Fill
0	0	53	0
102	0	295	0
122	0	628	56
142	0		
197	30		
		724	206
194	81		
156	0		
		546	0
181	0		
		0	293

Sheet total 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80  
DIXON ROAD From Sta. 20+95.85 to Sta. 24+95

# FUTURE PROPOSED DIXON ROAD-T.R.192



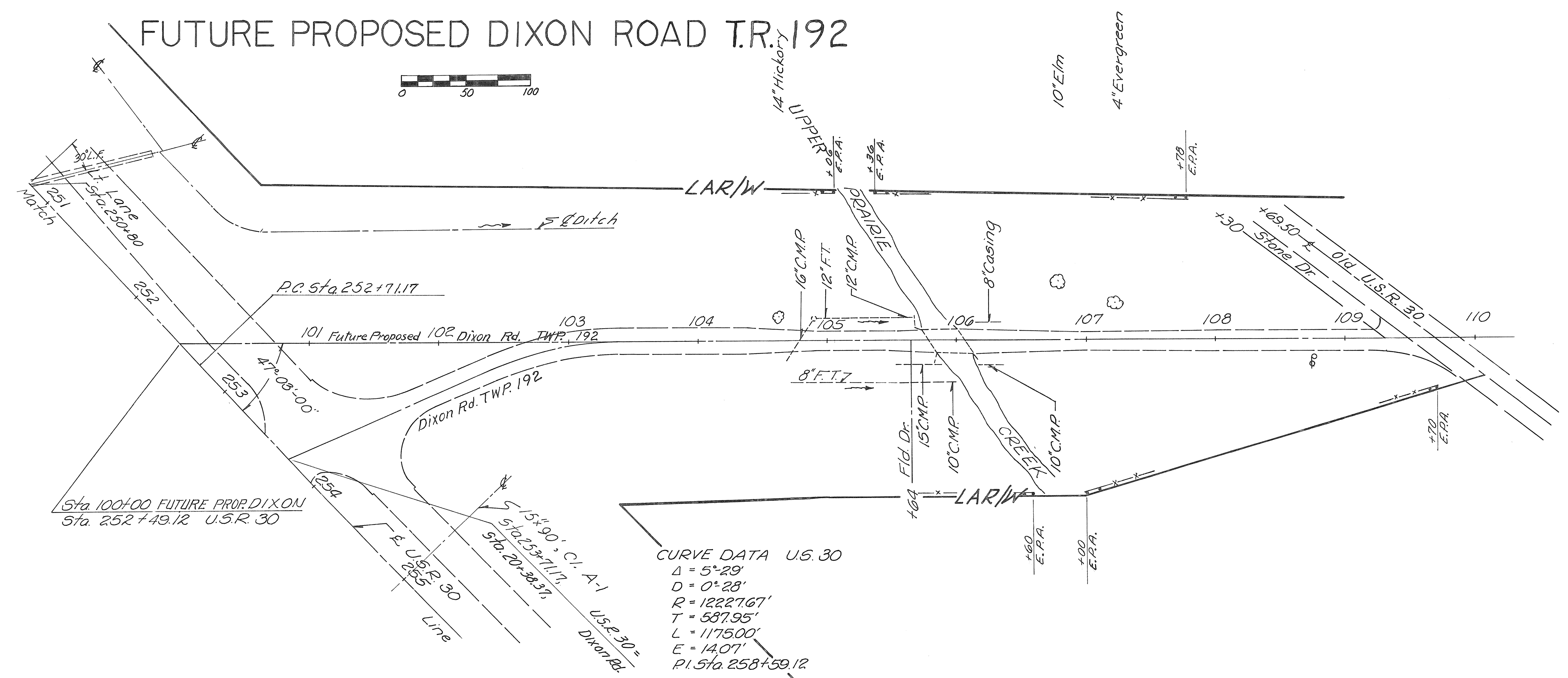
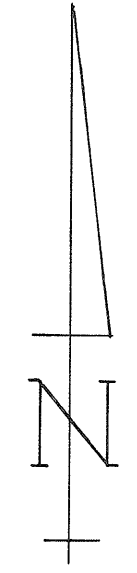
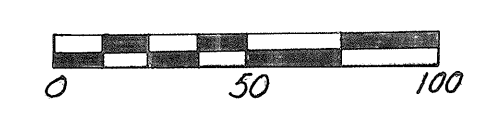
- 774.43
- 774.45
- 774.49
- 774.62
- 774.83
- 775.12
- 775.49
- 775.95
- 776.49
- 777.12
- 777.83
- 778.62
- 779.49
- 780.45
- 784.45
- 788.45
- 789.42
- 790.32
- 791.17
- 791.95
- 792.67
- 793.32
- 793.92
- 794.45
- 794.92
- 795.32
- 795.67
- 795.95
- 796.17
- 796.32
- 796.42
- 796.45



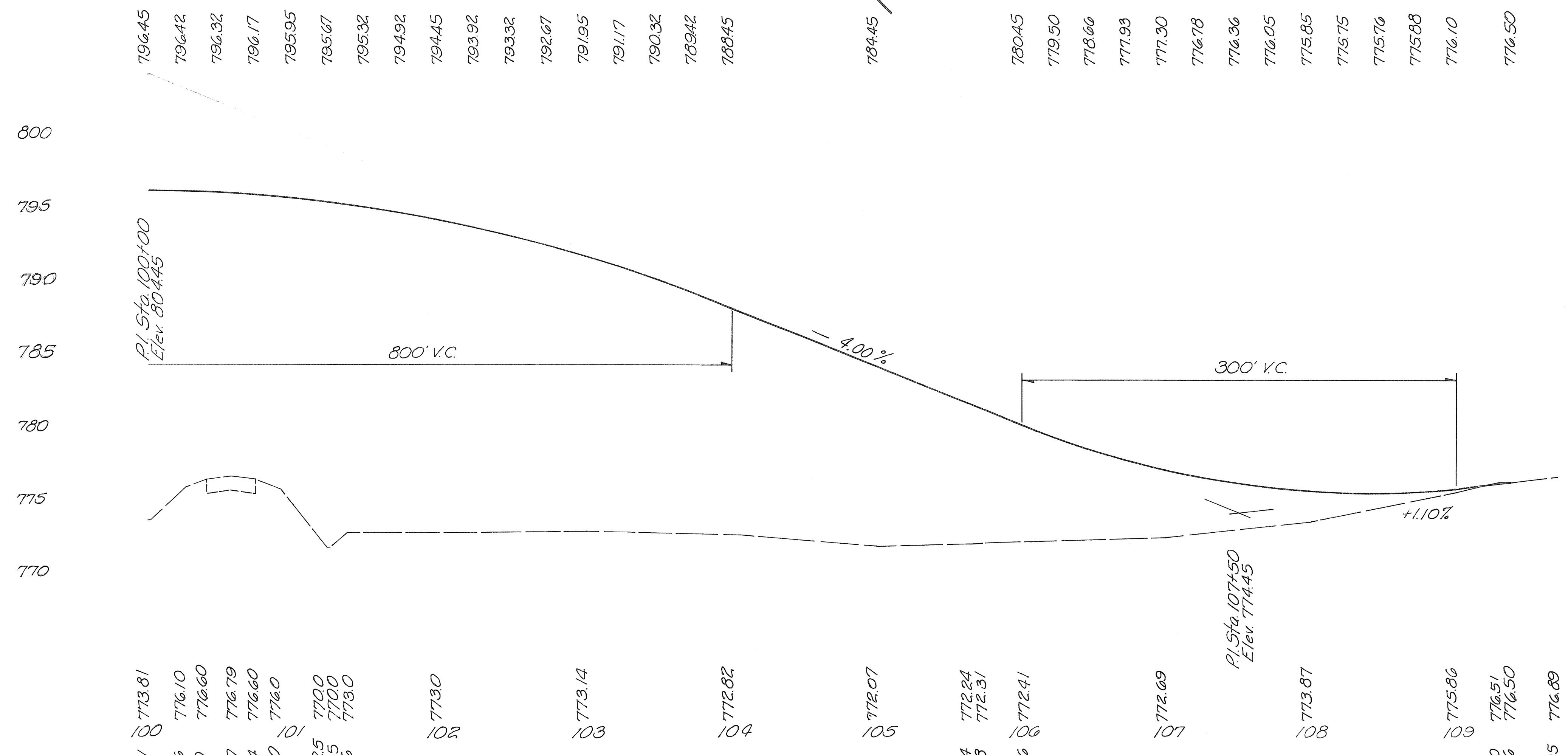
- 89 774.50
- 90 774.43
- 774.34
- 91 774.25
- 92 774.10
- 93 774.12
- 775.36
- 775.17
- 776.25
- 776.25
- 773.60
- 95 773.3
- 96 773.3
- 97 773.3
- 98 773.4
- 773.3
- 767.40
- 767.40
- 776.19
- 776.61
- 776.79
- 776.58
- 776.10
- 99 773.81

From Sta. 90+00 to Sta. 100+00  
FUTURE DIXON ROAD

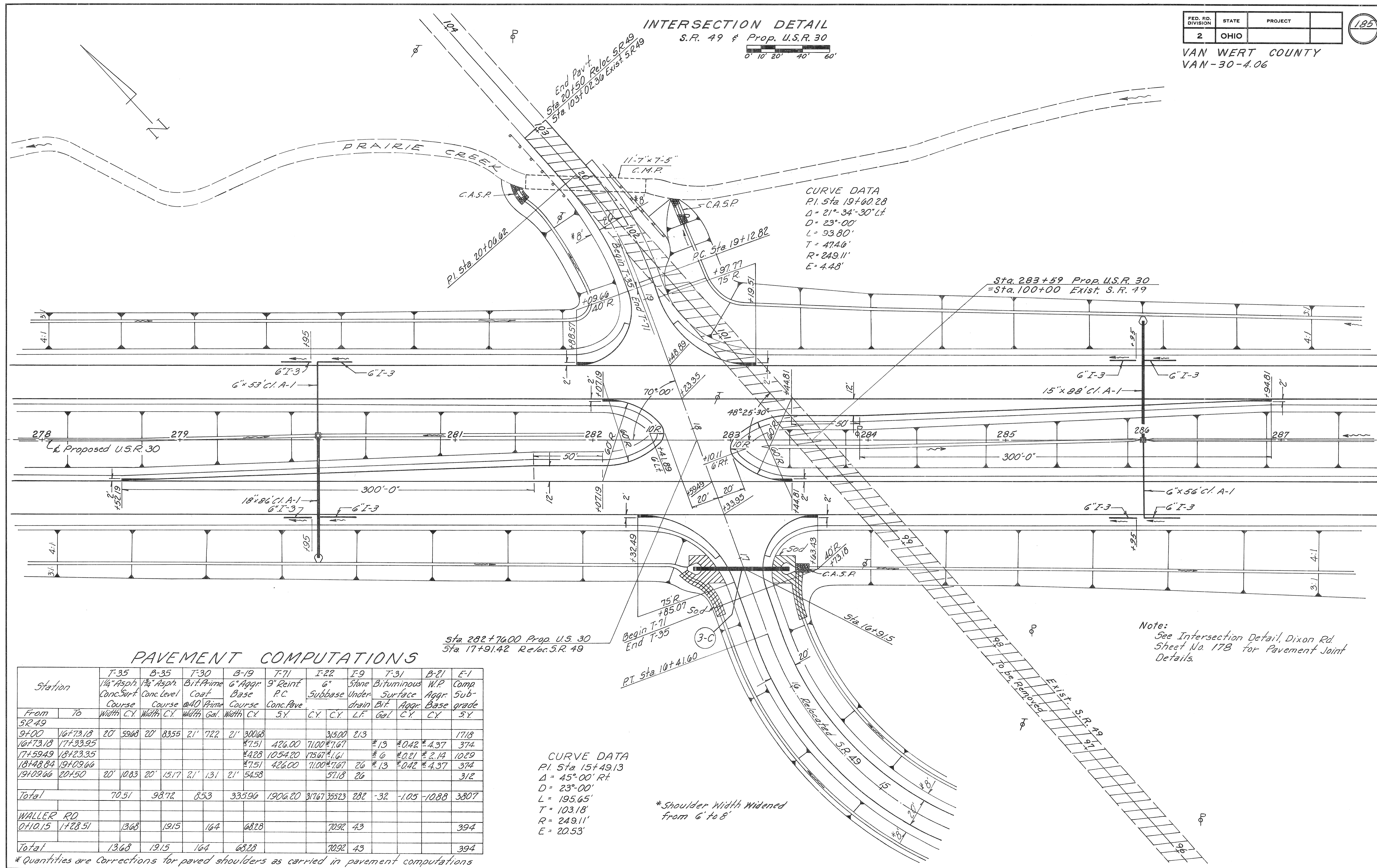
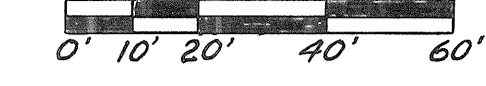
# FUTURE PROPOSED DIXON ROAD T.R.192



**CURVE DATA U.S. 30**  
 $\Delta = 5^{\circ}29'$   
 $D = 0^{\circ}28'$   
 $R = 12227.67'$   
 $T = 587.95'$   
 $L = 1175.00'$   
 $E = 14.07'$   
 $P.I. Sta. 258+59.12$



INTERSECTION DETAIL  
S.R. 49 & Prop. U.S.R. 30



CURVE DATA  
 P.I. Sta 19+00.28  
 Δ = 21°-34'-30" Lt  
 D = 23°-00'  
 L = 93.80'  
 T = 47.46'  
 R = 249.11'  
 E = 4.48'

Sta. 283+59 Prop. U.S.R. 30  
 = Sta. 100+00 Exist. S.R. 49

Sta 282+74.00 Prop. U.S. 30  
 Sta 17+91.42 Reloc. S.R. 49

PAVEMENT COMPUTATIONS

Station	T-35	B-35	T-30	B-19	T-71	I-22	I-9	T-31	B-21	E-1
From	To	Width	Course	Width	Course	Width	Course	Width	Course	Width
5R 49										
9+00	16+73.18	20'	59.68	20'	83.55	21'	72.2	21'	300.68	
16+73.18	17+33.95								7.51	426.00
17+33.95	18+23.35								4.28	1054.20
18+23.35	19+09.66								7.51	426.00
19+09.66	20+50	20'	10.83	20'	15.17	21'	13.1	21'	54.58	
Total		70.51		98.72		8.53		335.96		1906.20
WALLER RD										
0+10.15	1+28.51		13.68		19.15		164		68.28	
Total		13.68		19.15		164		68.28		70.92

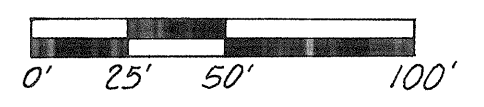
\*Quantities are Corrections for paved shoulders as carried in pavement computations

CURVE DATA  
 P.I. Sta 15+49.13  
 Δ = 45°-00' Rt  
 D = 23°-00'  
 L = 195.65'  
 T = 103.18'  
 R = 249.11'  
 E = 20.53'

\*Shoulder Width Widened from 6' to 8'

Note:  
 See Intersection Detail, Dixon Rd  
 Sheet No. 178 for Pavement Joint  
 Details.

RELOCATED S.R. 49



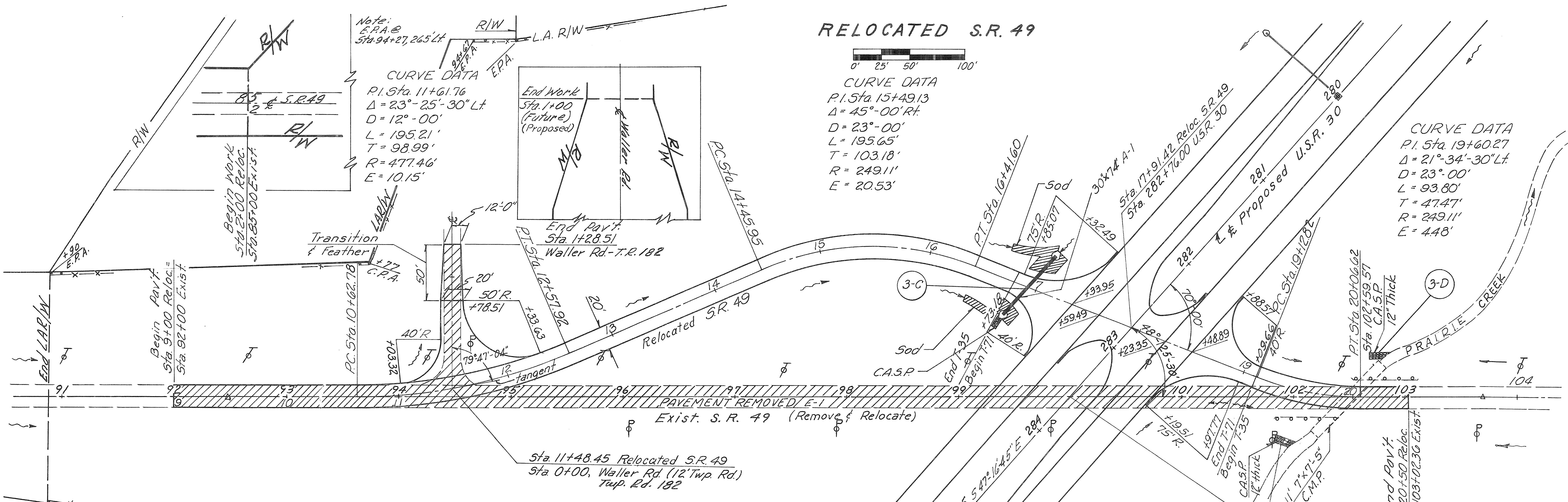
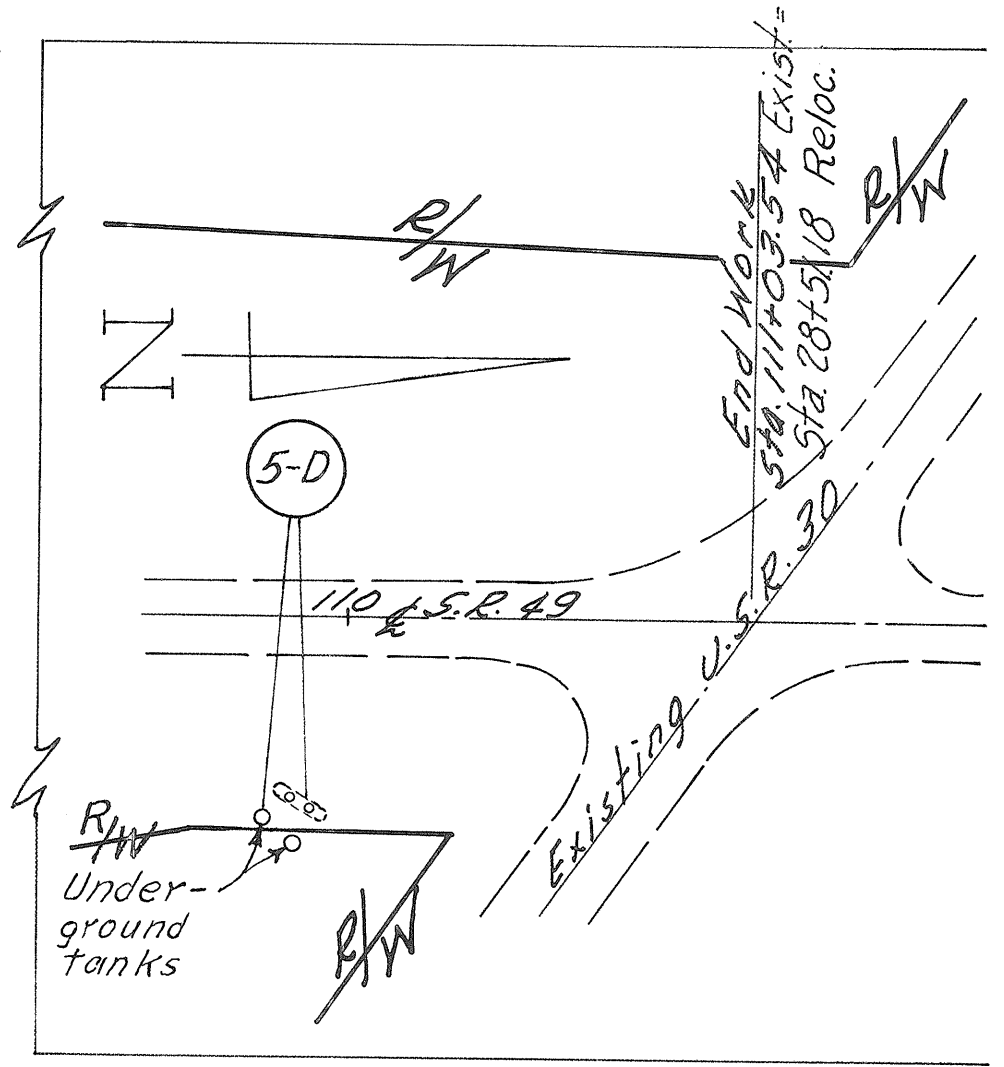
CURVE DATA  
 P.I. Sta. 15+49.13  
 $\Delta = 45^\circ - 00' R.$   
 $D = 23^\circ - 00'$   
 $L = 195.65'$   
 $T = 103.18'$   
 $R = 249.11'$   
 $E = 20.53'$

Note:  
 E.P.A. @  
 Sta. 94+27, 265' Lt

CURVE DATA  
 P.I. Sta. 11+61.76  
 $\Delta = 23^\circ - 25' - 30" L.$   
 $D = 12^\circ - 00'$   
 $L = 195.21'$   
 $T = 98.99'$   
 $R = 477.46'$   
 $E = 10.15'$

CURVE DATA  
 P.I. Sta. 19+60.27  
 $\Delta = 21^\circ - 34' - 30" L.$   
 $D = 23^\circ - 00'$   
 $L = 93.80'$   
 $T = 47.47'$   
 $R = 249.11'$   
 $E = 4.48'$

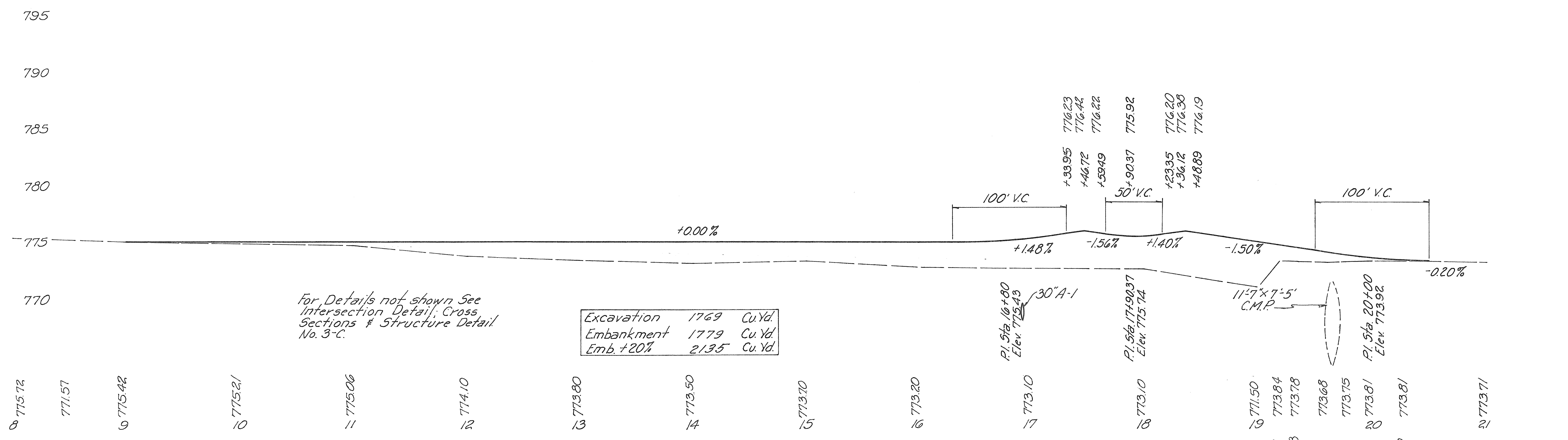
VAN WERT COUNTY  
 VAN-30-4.06



Note:  
 DRAINAGE: For Drainage Items see Main Line Sheet No. 24  
 PAVEMENT COMPUTATIONS: For Pavement Computations see S.R. 49 Intersection Detail, Sheet No. 185  
 Fence: See Future Prop. S.R. 49

Sta. 92+48.73  
 $\Delta = 00^\circ - 11' - 30" L.$

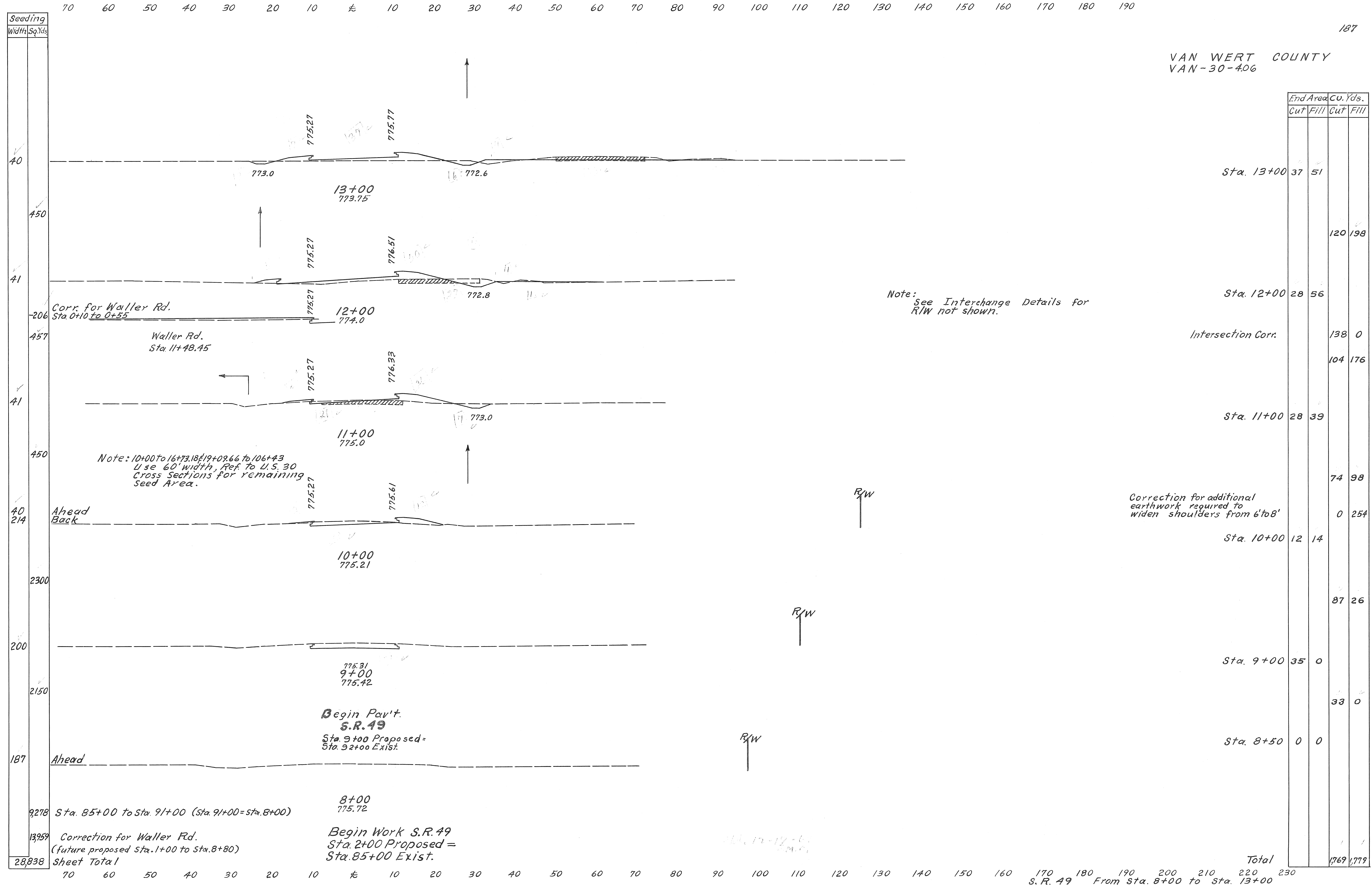
Rt. Edge Lt. Edge	775.42	775.27	775.27	775.35	775.27	775.43	775.27	775.61	775.27	775.79	775.27	775.97	775.27	776.15	775.27	776.33	775.27	776.51	775.27	776.67	775.27	776.84	775.27	777.02	775.27	777.20	775.27	777.38	775.27	777.56	775.27	777.74	775.27	777.92	775.27	780.00	775.27	782.18	775.27	784.36	775.27	786.54	775.27	788.72	775.27	790.90	775.27	793.08	775.27	795.26	775.27	797.44	775.27	799.62	775.27	801.80	775.27	803.98	775.27	806.16	775.27	808.34	775.27	810.52	775.27	812.70	775.27	814.88	775.27	817.06	775.27	819.24	775.27	821.42	775.27	823.60	775.27	825.78	775.27	827.96	775.27	830.14	775.27	832.32	775.27	834.50	775.27	836.68	775.27	838.86	775.27	841.04	775.27	843.22	775.27	845.40	775.27	847.58	775.27	849.76	775.27	851.94	775.27	854.12	775.27	856.30	775.27	858.48	775.27	860.66	775.27	862.84	775.27	865.02	775.27	867.20	775.27	869.38	775.27	871.56	775.27	873.74	775.27	875.92	775.27	878.10	775.27	880.28	775.27	882.46	775.27	884.64	775.27	886.82	775.27	889.00	775.27	891.18	775.27	893.36	775.27	895.54	775.27	897.72	775.27	899.90	775.27	902.08	775.27	904.26	775.27	906.44	775.27	908.62	775.27	910.80	775.27	912.98	775.27	915.16	775.27	917.34	775.27	919.52	775.27	921.70	775.27	923.88	775.27	926.06	775.27	928.24	775.27	930.42	775.27	932.60	775.27	934.78	775.27	936.96	775.27	939.14	775.27	941.32	775.27	943.50	775.27	945.68	775.27	947.86	775.27	950.04	775.27	952.22	775.27	954.40	775.27	956.58	775.27	958.76	775.27	960.94	775.27	963.12	775.27	965.30	775.27	967.48	775.27	969.66	775.27	971.84	775.27	974.02	775.27	976.20	775.27	978.38	775.27	980.56	775.27	982.74	775.27	984.92	775.27	987.10	775.27	989.28	775.27	991.46	775.27	993.64	775.27	995.82	775.27	998.00	775.27	1000.18	775.27
-------------------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	---------	--------



For Details not shown See Intersection Detail, Cross Sections & Structure Detail No. 3-C.

Excavation	1769	Cu.Yd.
Embankment	1779	Cu.Yd.
Emb. +20%	2135	Cu.Yd.

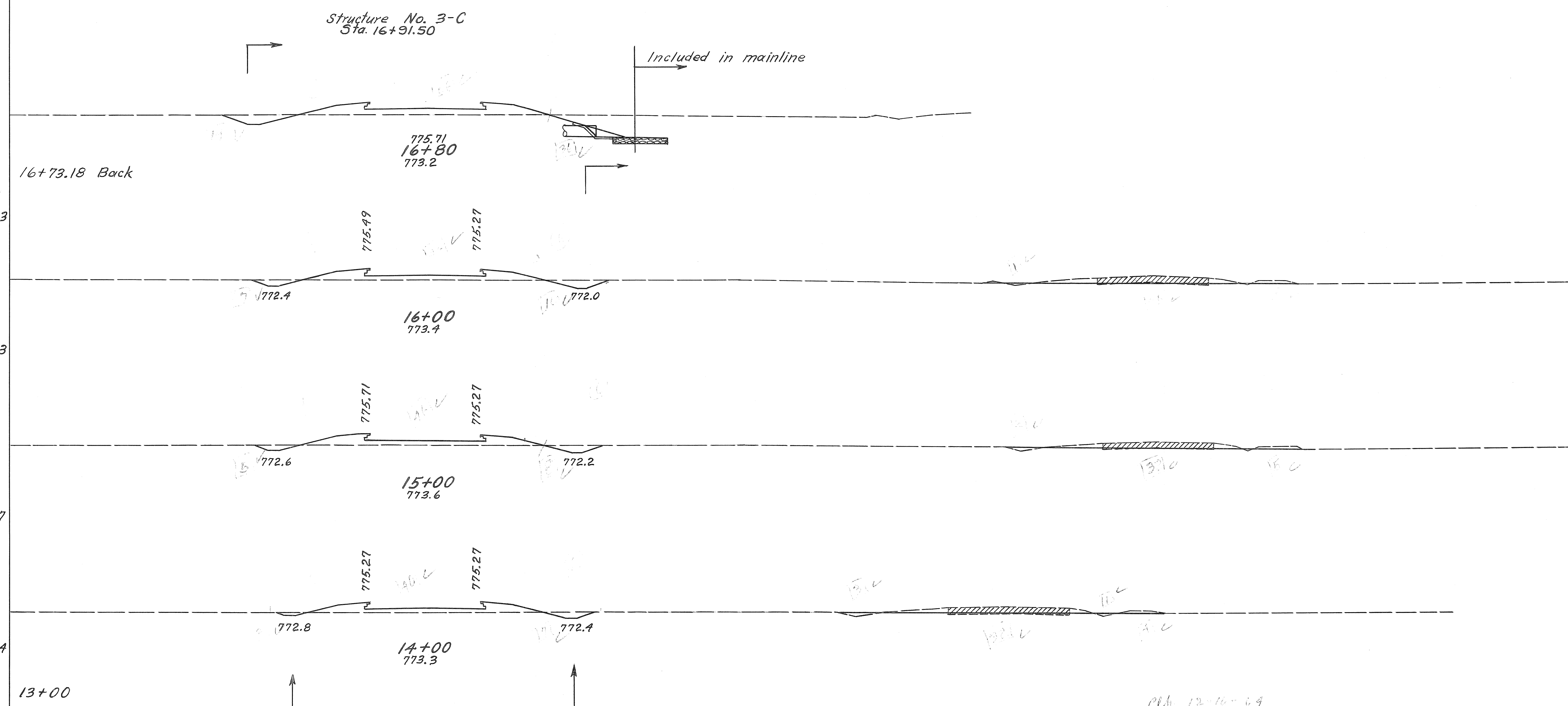
VAN WERT COUNTY  
VAN-30-406



VAN WERT COUNTY  
VAN-30-4.06

Seeding	70	60	50	40	30	20	10	£	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	
Width Sq.Yds.																												
	41	333	41	453	405	447	40	40	1,677																			

Sta. 16+73.18 to Sta. 19+09.66  
Included in U.S. 30 Cross Sections



Pavement Edge  
Sta. 17+33.95

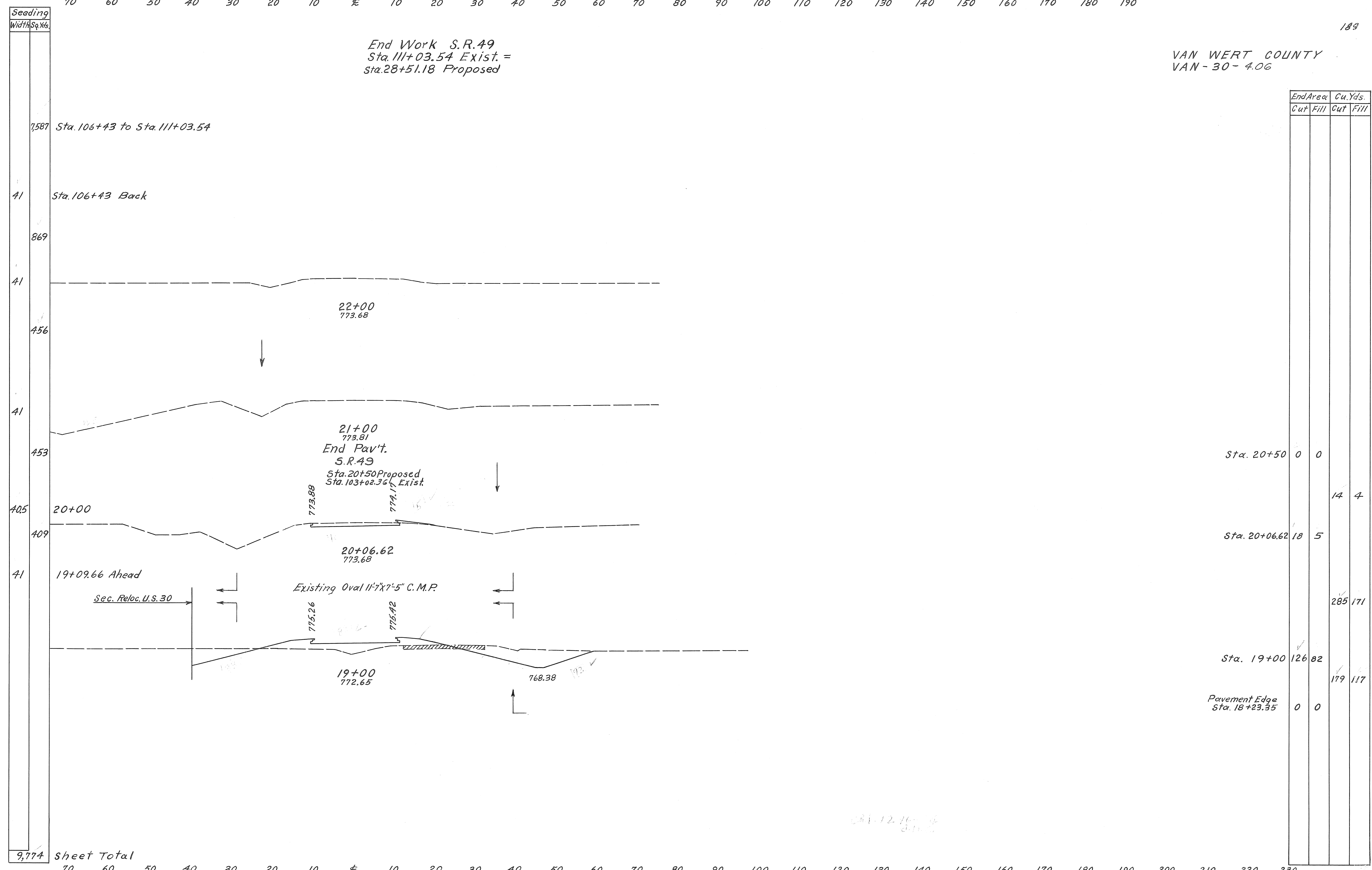
End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
0	0		
		50	56
50	56		
		157	153
56	47		
		196	178
50	49		
		178	172
46	44		
		154	176
37	51		

Sheet Total

Ch. 12-16-19  
C.M.C.

Sta. 13+00

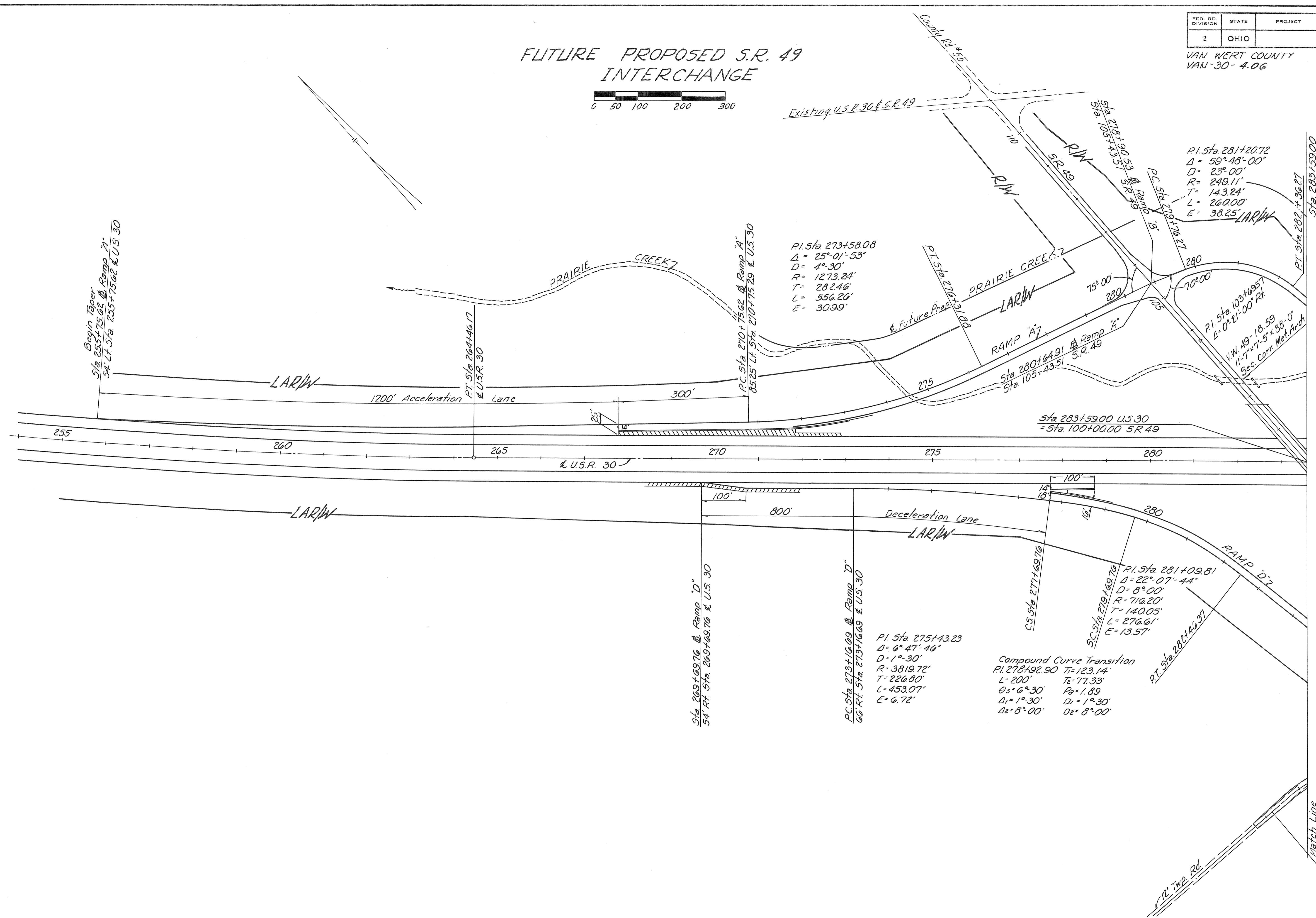
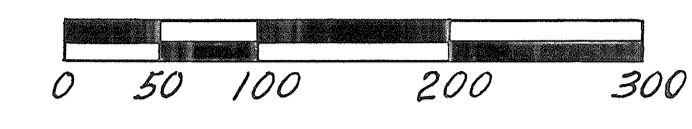
End Work S.R.49  
Sta. 111+03.54 Exist. =  
Sta. 28+51.18 Proposed



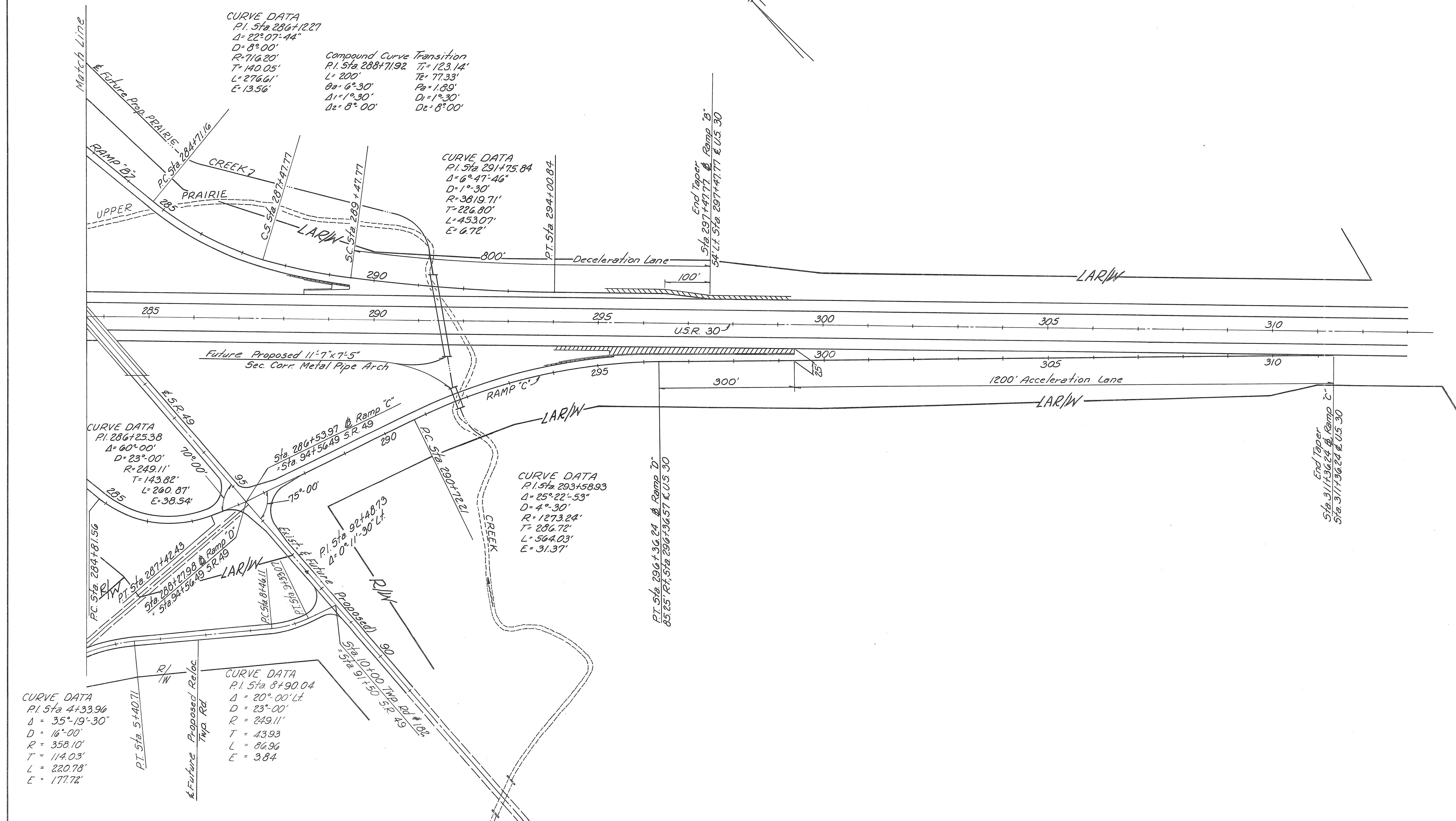
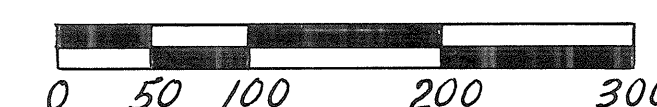
DATE 12-16-06  
BY J.M.S.



# FUTURE PROPOSED S.R. 49 INTERCHANGE



# FUTURE PROPOSED S.R. 49 INTERCHANGE



**CURVE DATA**  
 P.I. Sta 286+12.27  
 $\Delta = 22^\circ 07' 44''$   
 $D = 8^\circ 00'$   
 $R = 716.20'$   
 $T = 140.05'$   
 $L = 276.61'$   
 $E = 13.56'$

**Compound Curve Transition**  
 P.I. Sta 288+71.92  $T_i = 123.14'$   
 $L = 200'$   $T_e = 77.33'$   
 $\theta_a = 6^\circ 30'$   $P_a = 1.89'$   
 $\Delta_1 = 1^\circ 30'$   $D_1 = 1^\circ 30'$   
 $\Delta_2 = 8^\circ 00'$   $D_2 = 8^\circ 00'$

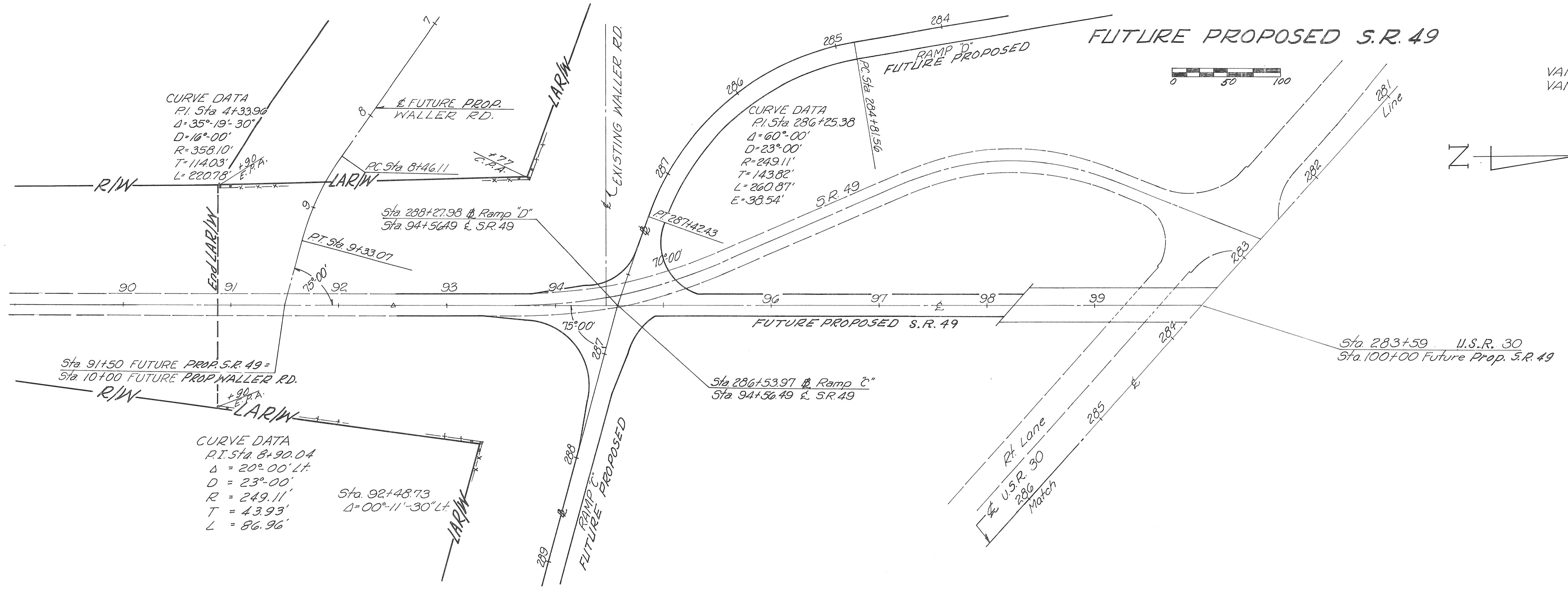
**CURVE DATA**  
 P.I. Sta 291+75.84  
 $\Delta = 6^\circ 47' 46''$   
 $D = 1^\circ 30'$   
 $R = 3819.71'$   
 $T = 226.80'$   
 $L = 453.07'$   
 $E = 6.72'$

**CURVE DATA**  
 P.I. 286+25.38  
 $\Delta = 60^\circ 00'$   
 $D = 23^\circ 00'$   
 $R = 249.11'$   
 $T = 143.82'$   
 $L = 260.87'$   
 $E = 38.54'$

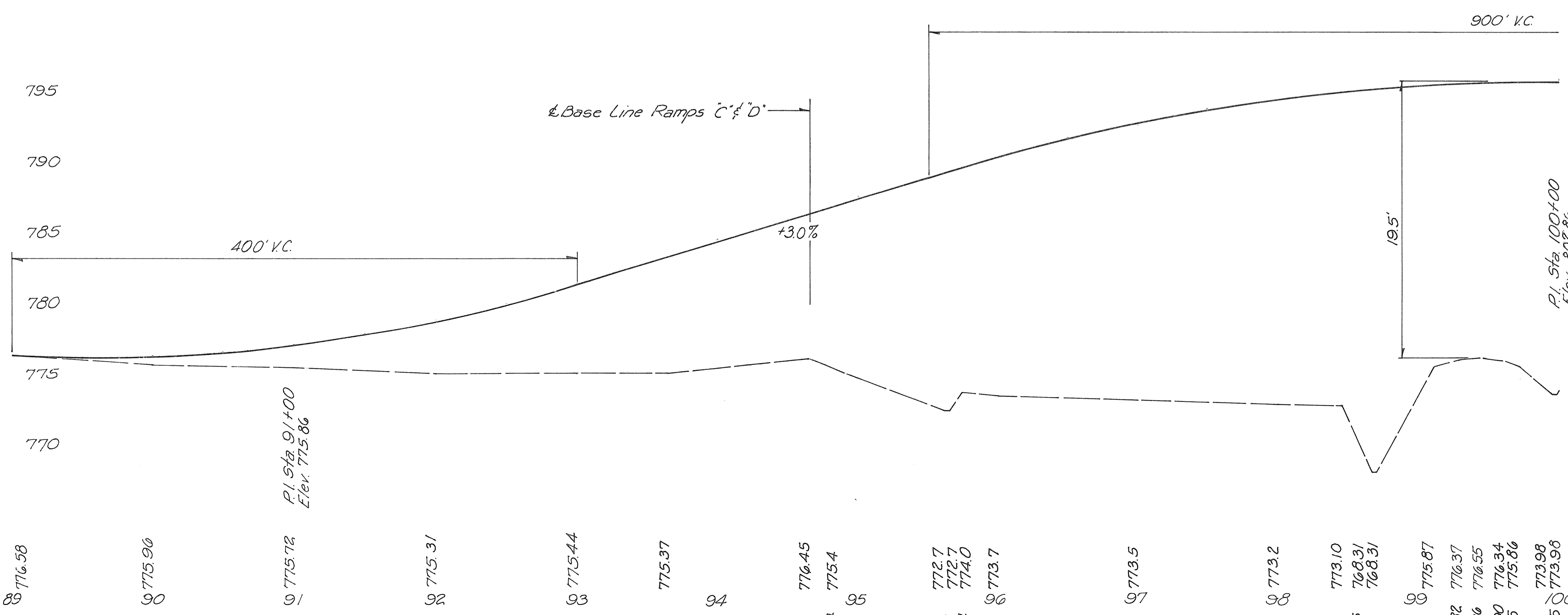
**CURVE DATA**  
 P.I. Sta 293+58.93  
 $\Delta = 25^\circ 22' 53''$   
 $D = 4^\circ 30'$   
 $R = 1273.24'$   
 $T = 286.72'$   
 $L = 564.03'$   
 $E = 31.37'$

**CURVE DATA**  
 P.I. Sta 8+90.04  
 $\Delta = 20^\circ 00' Lt.$   
 $D = 23^\circ 00'$   
 $R = 249.11'$   
 $T = 43.93'$   
 $L = 86.96'$   
 $E = 3.84'$

**CURVE DATA**  
 P.I. Sta 4+33.96  
 $\Delta = 35^\circ 19' 30''$   
 $D = 16^\circ 00'$   
 $R = 358.10'$   
 $T = 114.03'$   
 $L = 220.78'$   
 $E = 177.72'$



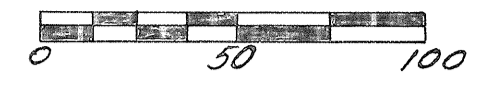
- 716.58
- 716.52
- 716.51
- 716.55
- 716.64
- 716.79
- 716.99
- 717.24
- 717.54
- 717.90
- 718.31
- 718.77
- 719.28
- 719.85
- 780.47
- 781.14
- 781.86
- 784.86
- 787.86
- 789.36
- 790.09
- 790.78
- 791.42
- 792.03
- 792.59
- 793.11
- 793.59
- 794.03
- 794.42
- 794.78
- 795.09
- 795.56
- 795.59
- 795.78
- 795.92
- 796.03
- 796.09
- 796.11



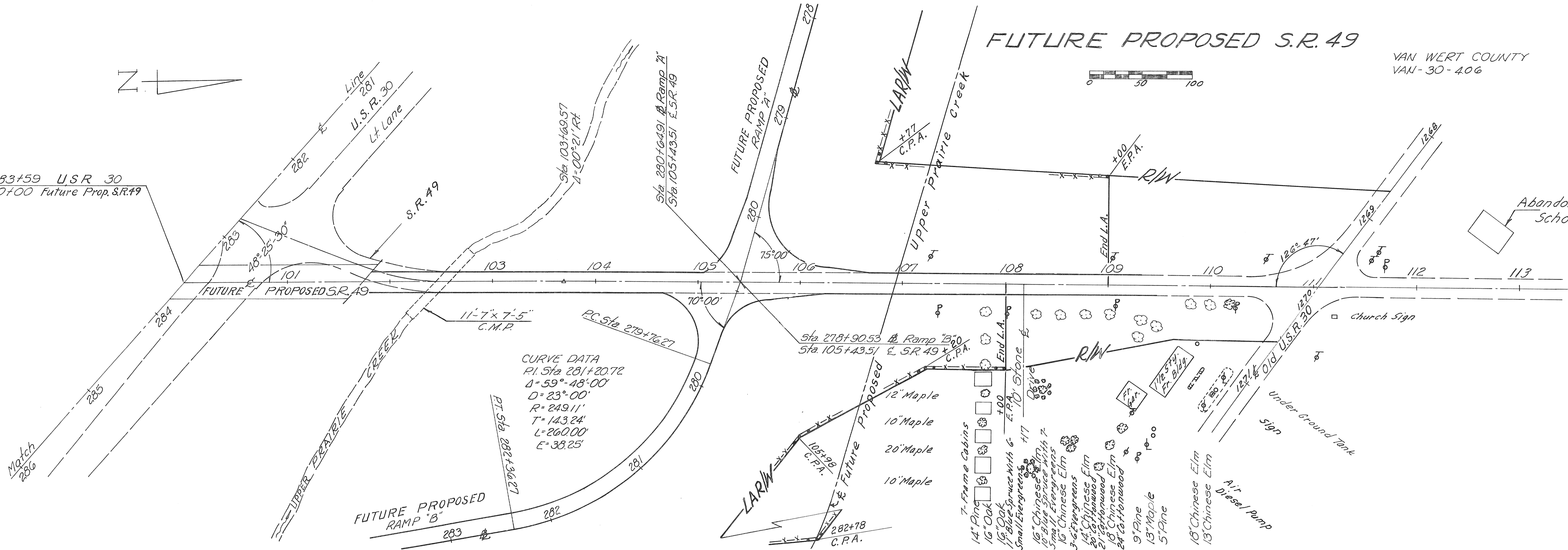
From Sta 90+00 to Sta 100+00  
FUTURE INTERCHANGE S.R. 49

# FUTURE PROPOSED S.R. 49

VAN WERT COUNTY  
VAN-30-406

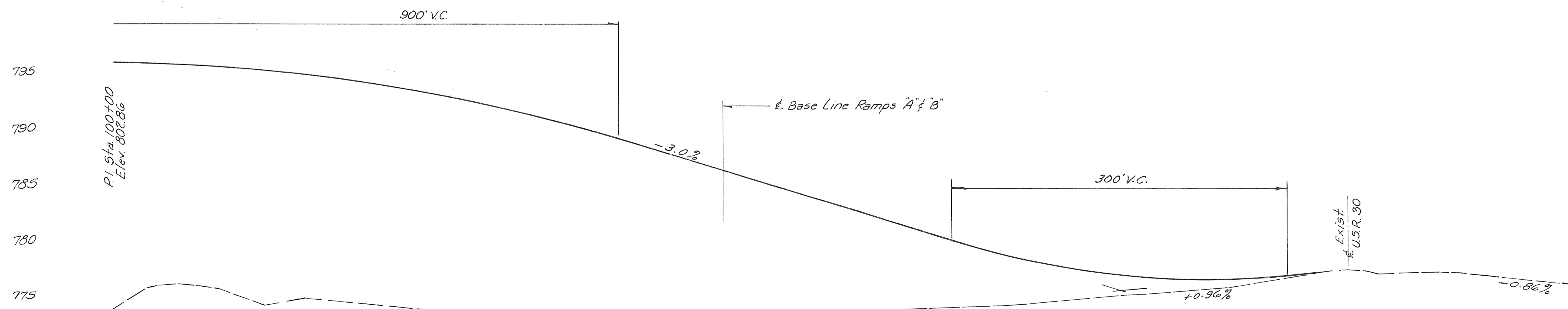


Sta 283+59 U.S.R. 30  
Sta. 100+00 Future Prop. S.R. 49



CURVE DATA  
 P.I. Sta 281+20.72  
 $\Delta = 59^\circ - 48' - 00''$   
 $D = 23^\circ - 00'$   
 $R = 249.11'$   
 $T = 143.24'$   
 $L = 260.00'$   
 $E = 38.25'$

- 796.11
- 796.09
- 796.03
- 795.92
- 795.78
- 795.59
- 795.36
- 795.09
- 794.78
- 794.42
- 794.03
- 793.59
- 793.11
- 792.59
- 792.03
- 791.42
- 790.78
- 790.09
- 789.36
- 787.86
- 784.86
- 781.86
- 780.36
- 779.65
- 779.02
- 778.48
- 778.01
- 777.63
- 777.33
- 777.12
- 776.99
- 776.95
- 776.98
- 777.10
- 777.30
- 777.54
- 776.49



- 100
- +40.10 776.25
- +56.14 776.46
- +72.18 776.28
- +88.22 775.95
- +104.26 774.50
- +120.30 775.10
- +136.34 774.85
- 103
- 773.81
- 773.81
- 104
- 773.71
- 105
- 773.66
- 106
- 773.87
- 107
- 774.08
- 108
- 774.45
- 774.56
- +10
- 109
- 775.37
- 775.51
- +23
- 110
- 776.13
- +45
- 777.68
- +195
- 777.62
- +30
- 777.41
- +85
- 777.50
- 112
- 777.49
- 113
- 776.49

From Sta. 100+00 to Sta. 110+00  
FUTURE INTERCHANGE S.R. 49



### DRAINAGE

VAN WERT COUNTY  
VAN-30-4.06

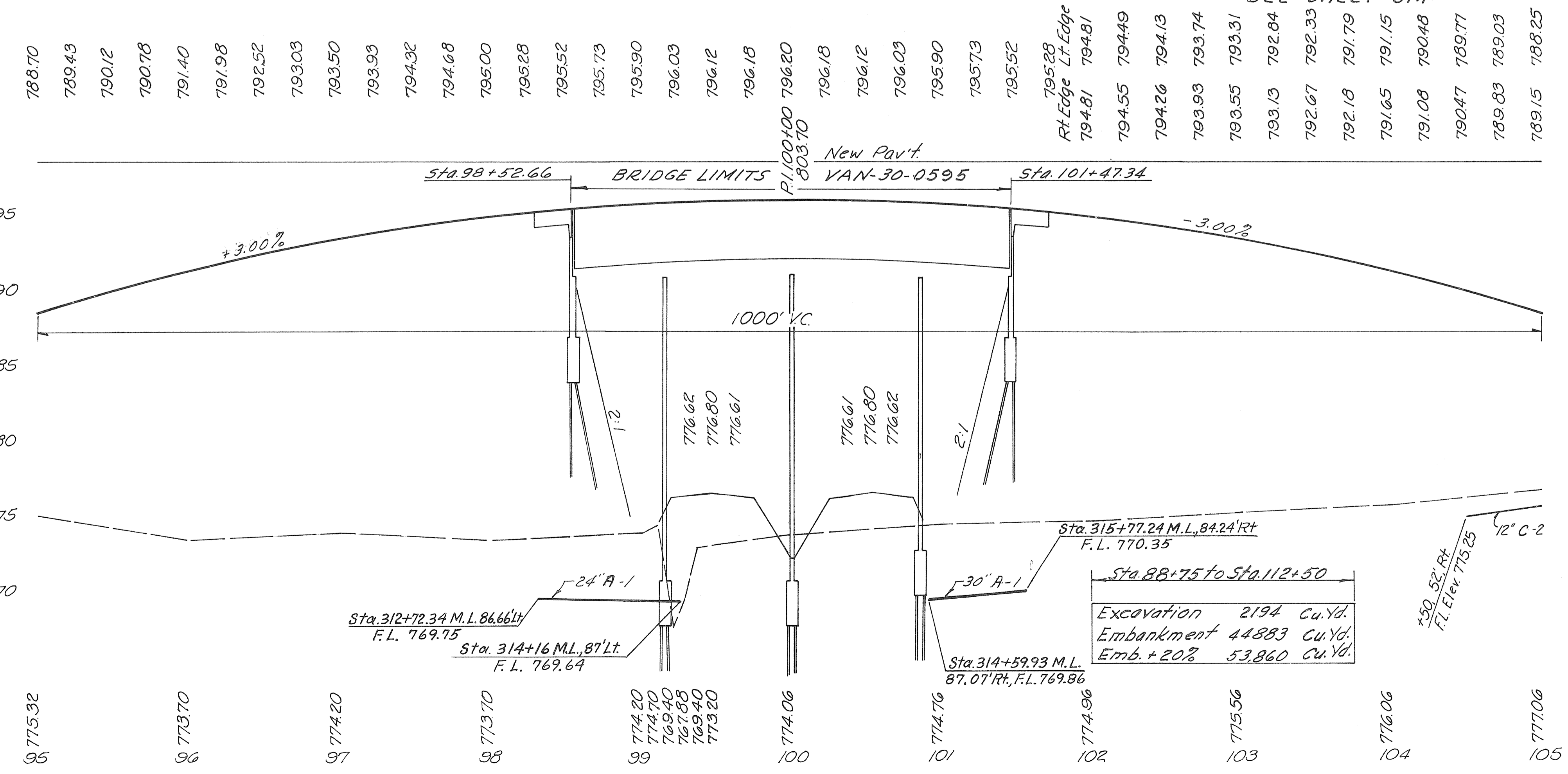
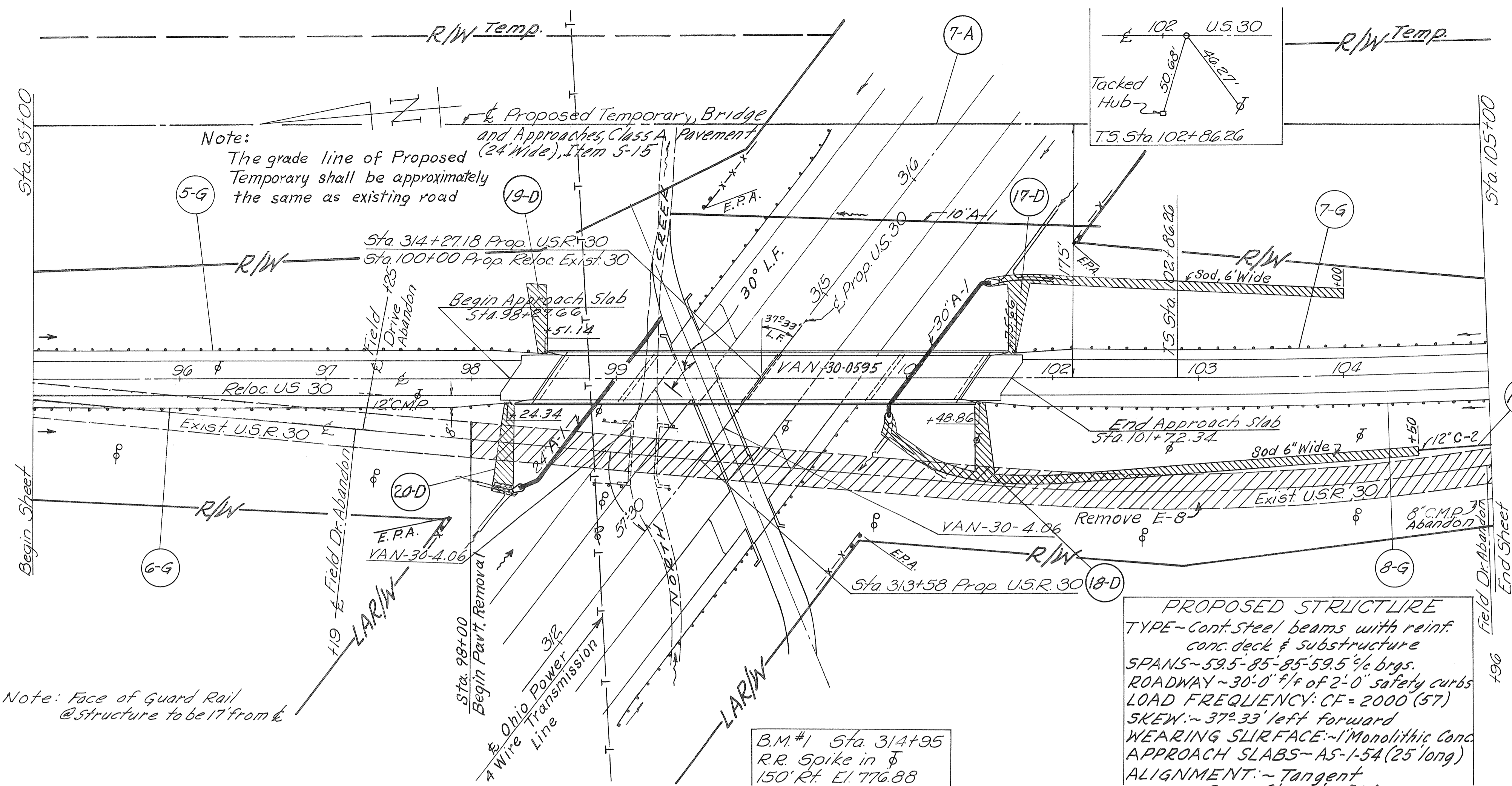
Ref. No.	Station		Side	I-1	L-10	I-10
	From	To		Pipe Lin. Ft. Class	Sod Special Form Slope Protection Sq. Yd.	Sodding
16-D	100+80	107+00	Rt.	250		256
17-D	101+60	104+00	Lt.		54.3	160
18-D	101+47.03	101+53.03	Rt.		58.8	
19-D	98+46.97	98+52.97	Lt.		54.3	
20-D	98+20.17	98+26.17	Rt.		65.0	10
Totals				*250	232.4	*416 *10

Note:  
For Side Approaches see Main Line sheet No. 27

\* Quantities Carried to Drainage Table  
Main Line Sheet No. 27

### PAVEMENT COMPUTATIONS

Station	From	To	T-35	B-35	B-35	T-30	B-19		I-7	I-22	I-9	E-1	E-8	
			1 1/4" Asph. Conc. Surf. Course	1 1/4" Asph. Conc. Level. Course	3" Asph. Conc. Base Course	Bit. Material Tack Prime	8" Aggr. Base (Pavement)	8" Aggr. Base (Shoulder)	Appr. Slabs	6" Sub-base Under Drains	Stone Under Drains	Compaction No. 2	5/8" Part. Removal	
	88+75	89+00	2.00			7					10			
	89+00	98+27.66	85.89	85.89	210.44	1051	584.08	168.22		455.24	328	2474	561.47	
	98+27.66	98+52.66							88.22	13.35	22	80	55.58	
	98+52.66	101+47.34											65.284	
	101+47.34	101+72.34							88.22	13.35	22	80	55.56	
	101+72.34	111+00	85.89	85.89	210.44	1051	584.08	168.22		455.24	306	2474	206147	
	111+00	112+25	12.00	9.00	13.00	40								
	112+25	112+50	2.30			7								
County Rd. 176														
	112+33.44	Rt.	4.00	3.00		12								
Totals			192.08	183.78	433.88	66	2102	1168.16	336.44	176.44	937.18	638	5108	3388.90



From Sta 95+00 to Sta. 105+00  
EXISTING U.S.R. 30

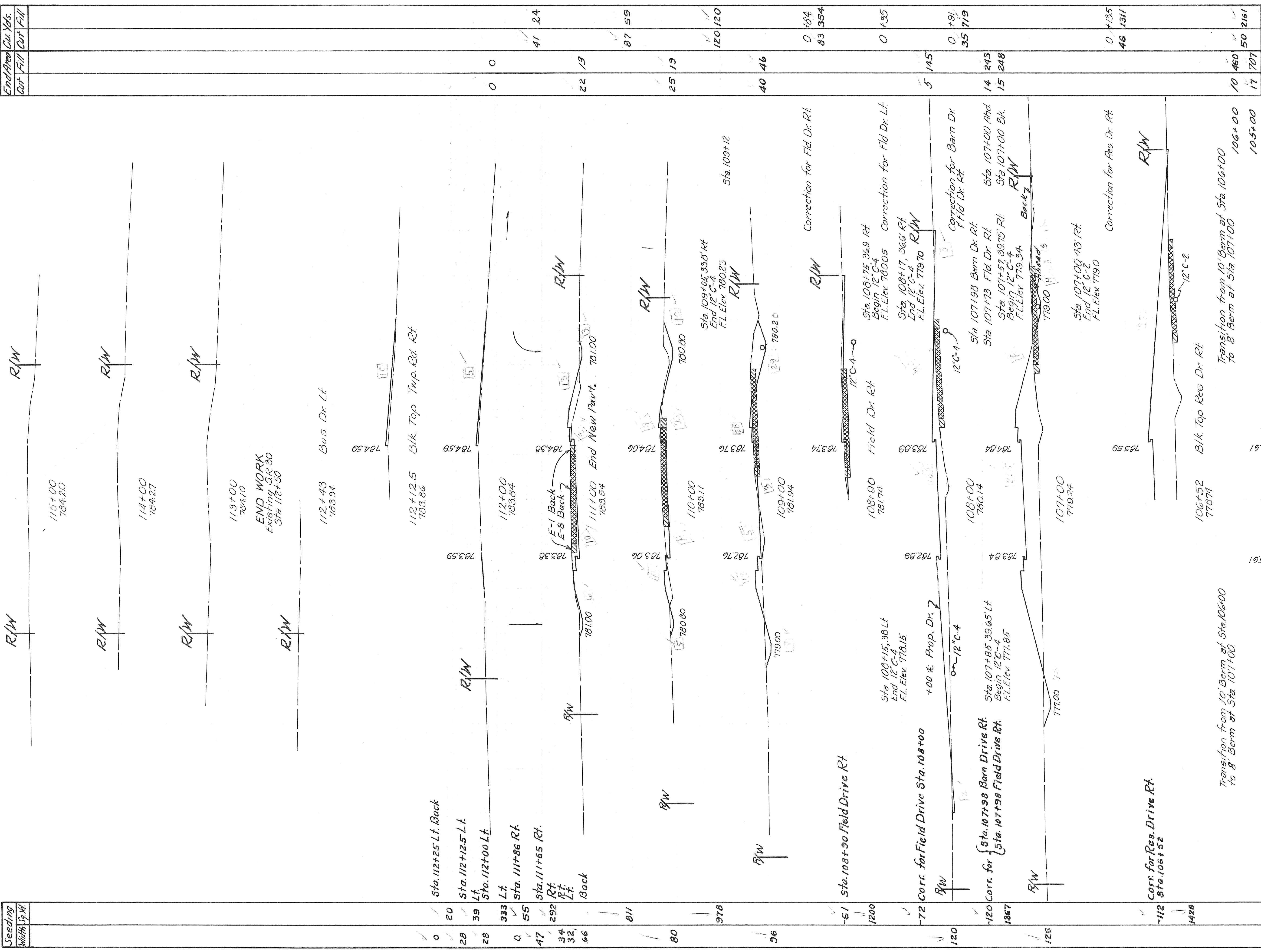








90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90



End Area	Cut	Fill	Cut	Fill	Cut	Fill
0	0	0	0	0	0	0
41	24	22	13	87	59	120
120	120	40	46	0	184	83
0	135	5	145	0	79	35
0	135	14	243	0	735	0
46	131	15	248	0	719	0
0	135	10	460	0	719	0
46	131	17	707	0	719	0

VAN WERT COUNTY  
VAN-30-4.06

Seeding	Width	Sq. Ft.
0	0	0
28	28	28
28	28	28
0	0	0
47	47	47
34	34	34
32	32	32
66	66	66
80	80	80
96	96	96
978	978	978
1200	1200	1200
120	120	120
1367	1367	1367
125	125	125
1428	1428	1428
1517	1517	1517
1428	1428	1428
142	142	142
7,675	7,675	7,675

From Sta. 105+86.5 to Sta. 115+00  
EXIST. U.S.R. 30 OVERHEAD

105+00  
Sheet total

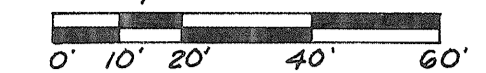
Transition from 2:1 Slope at Sta. 105+00  
to 4:1 Slope at Sta. 107+00

105+86.5 Field Dr. Lt. (Abandon)  
Relocate to Sta. 108+00

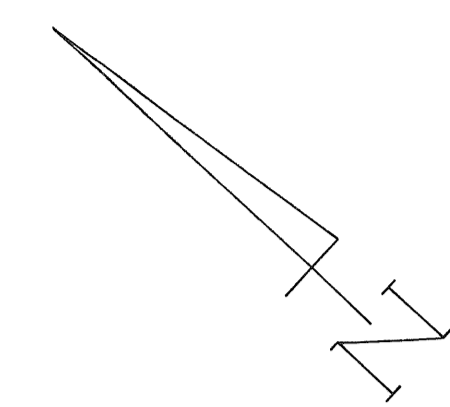
Transition from 10' Berm at Sta. 106+00  
to 8' Berm at Sta. 107+00

Transition from 2:1 Slope at Sta. 105+00  
to 4:1 Slope at Sta. 107+00

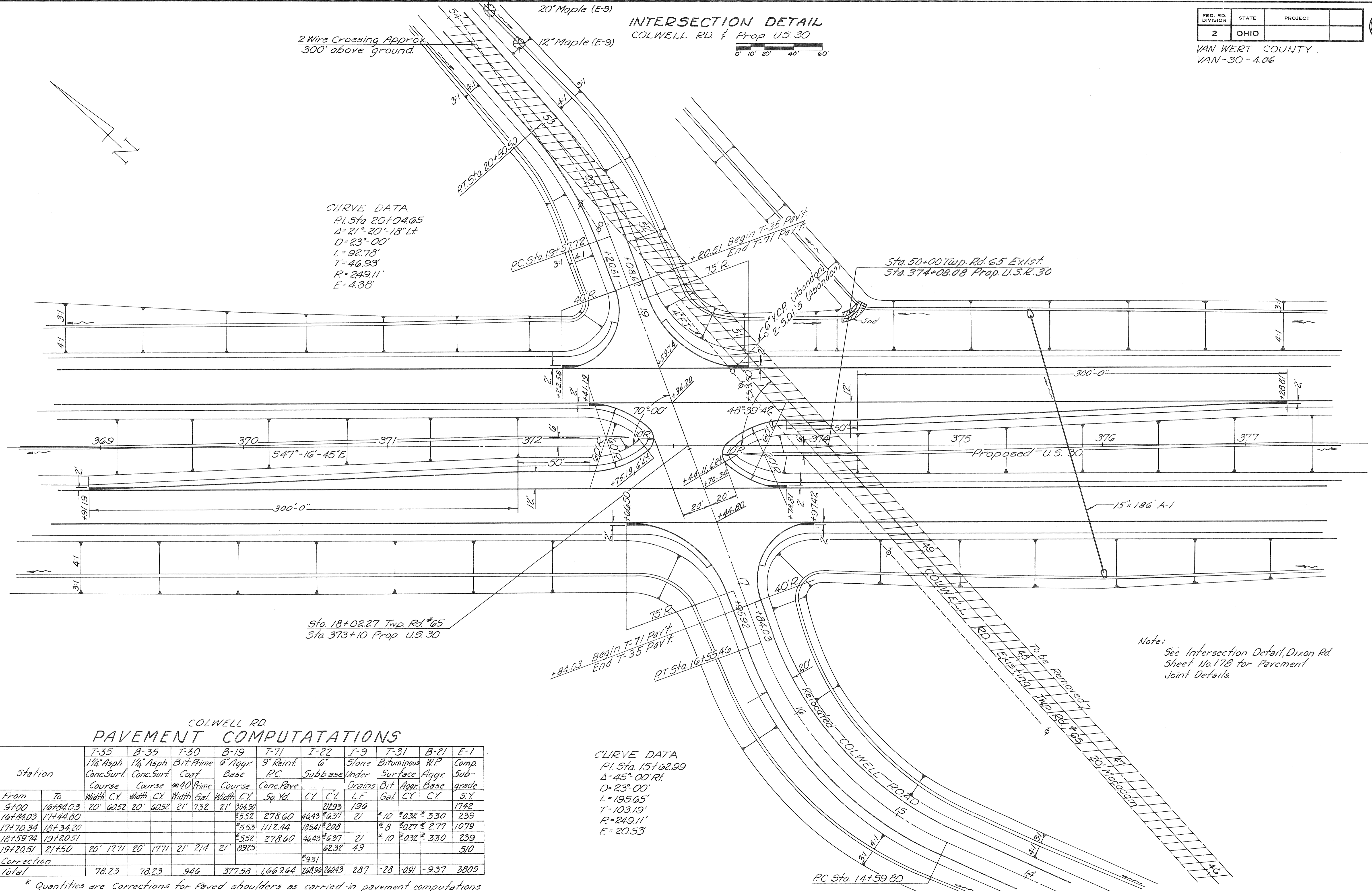
**INTERSECTION DETAIL**  
COLWELL RD & Prop. U.S. 30



2 Wire Crossing Approx.  
300' above ground.



**CURVE DATA**  
P.I. Sta. 20+04.65  
Δ = 21° 20' 18" Lt  
D = 23° 00'  
L = 92.78'  
T = 46.93'  
R = 249.11'  
E = 4.38'



Sta. 18+02.27 Twp. Rd. #65  
Sta. 373+10 Prop. U.S. 30

Note:  
See Intersection Detail, Dixon Rd.  
Sheet No. 178 for Pavement  
Joint Details.

COLWELL RD  
**PAVEMENT COMPUTATIONS**

Station	T-35		B-35		T-30		B-19		T-71		I-22		I-9		T-31		B-21		E-1	
	From	To	Width	C.Y.	Width	C.Y.	Width	Gal	Width	C.Y.	Width	Sp. Yd.	C.Y.	L.F.	Gal	C.Y.	Width	Aggr.	Base	Sub-grade
9+00	16+84.03	20'	60.52	20'	60.52	21'	132	21'	304.90			21293	196							1742
16+84.03	17+44.80							*5.52	278.60	4443	*6.37	21	*10	*0.32	330	239				
17+44.80	18+34.20							*5.53	1112.44	18541	*2.08			*8	*0.27	2.77				1079
18+34.20	19+20.51							*5.52	278.60	4443	*6.37	21	*10	*0.32	330	239				
19+20.51	21+50	20'	17.71	20'	17.71	21'	214	21'	8925			62.32	49							510
Correction																				
Total			78.23	78.23	946	377.58	1,669.64	26896	26043	287	-28	-091	-9.37	3809						

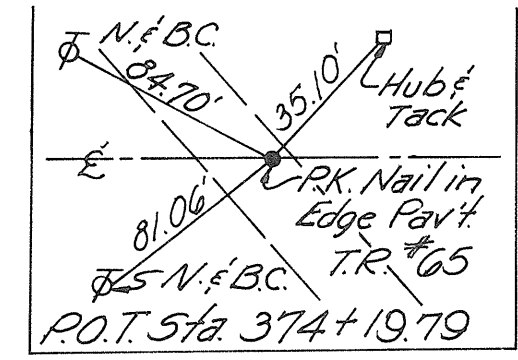
\* Quantities are Corrections for Paved shoulders as carried in pavement computations

**CURVE DATA**  
P.I. Sta. 15+62.99  
Δ = 45° 00' Rt  
D = 23° 00'  
L = 195.65'  
T = 103.19'  
R = 249.11'  
E = 20.53'

# RELOCATED COLWELL ROAD - Twp Rd. #65

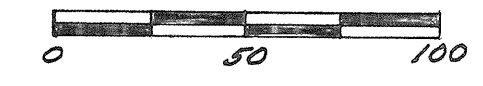
VAN WERT COUNTY  
VAN-30-4.06

Note:  
DRAINAGE & SIDE APPROACHES  
for Drainage and side  
Approach Items see  
Main Line Sheet No. 33  
PAVEMENT COMPUTATIONS  
For Pavement Computations  
see Colwell Rd. Inter-  
section Detail Sheet  
No. 200



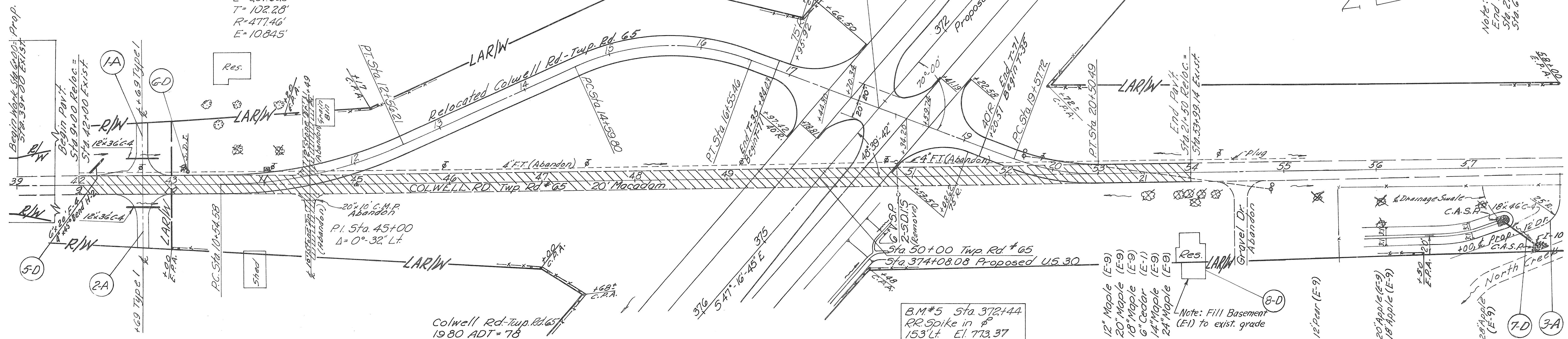
CURVE DATA  
P.I. Sta. 11+56.80  
 $\Delta = 24^{\circ}-11'-42''$  LT.  
D = 12^{\circ}-00'  
L = 201.625'  
T = 102.28'  
R = 47746'  
E = 10845'

CURVE DATA  
P.I. Sta. 15+62.99  
 $\Delta = 45^{\circ}-00'$  RT.  
D = 23^{\circ}-00'  
L = 195.65'  
T = 103.19'  
R = 249.11'  
E = 20.53



CURVE DATA  
P.I. Sta. 20+04.65  
 $\Delta = 21^{\circ}-20'-18''$  LT.  
D = 23^{\circ}-00'  
L = 92.78'  
T = 46.93'  
R = 249.11'  
E = 4.38'

Note:  
End Work  
Sta. 27+00.00 Prop.  
Sta. 60+00.00 Exist.

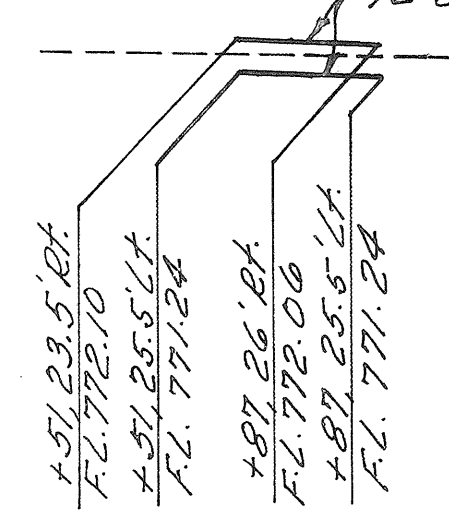
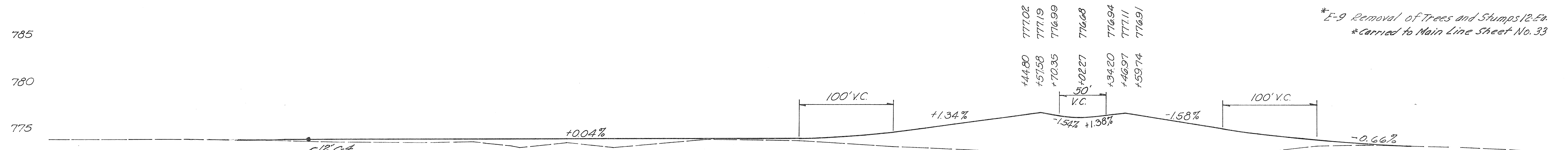


B.M. #5 Sta. 372+44  
RR Spike in  $\phi$   
153' Lt. El. 773.37

Note: Fill Basement  
(E1) to exist. grade

Rt Lane Lt Lane	773.96	773.96	773.98	774.00	774.02	774.03	774.04	774.05	774.06	774.07	774.08	774.09	774.10	774.11	774.12	774.13	774.14	774.15	774.16	774.17	774.18	774.19	774.20	774.31	774.43	774.55	774.67	774.89	775.02	775.18	775.36	775.59	775.81	776.04	776.42	776.67	776.11	775.72	775.32	775.96	774.65	774.40	774.20	774.03	773.87	773.70	773.70
Rt Edge Lt Edge	773.96	773.96	773.98	774.00	774.02	774.03	774.04	774.05	774.06	774.07	774.08	774.09	774.10	774.11	774.12	774.13	774.14	774.15	774.16	774.17	774.18	774.19	774.20	774.31	774.43	774.55	774.67	774.89	775.02	775.18	775.36	775.59	775.81	776.04	776.42	776.67	776.11	775.72	775.32	775.96	774.65	774.40	774.20	774.03	773.87	773.70	773.70

Colwell Rd - Twp Rd. #65  
1980 ADT = 78



Excavation 4428 Cu.Yd.  
Embankment 1950 Cu.Yd.  
Emb. +20% 2340 Cu.Yd.

\* E-9 Removal of Trees and Stumps 12' Ea.  
\* carried to Main Line Sheet No. 33

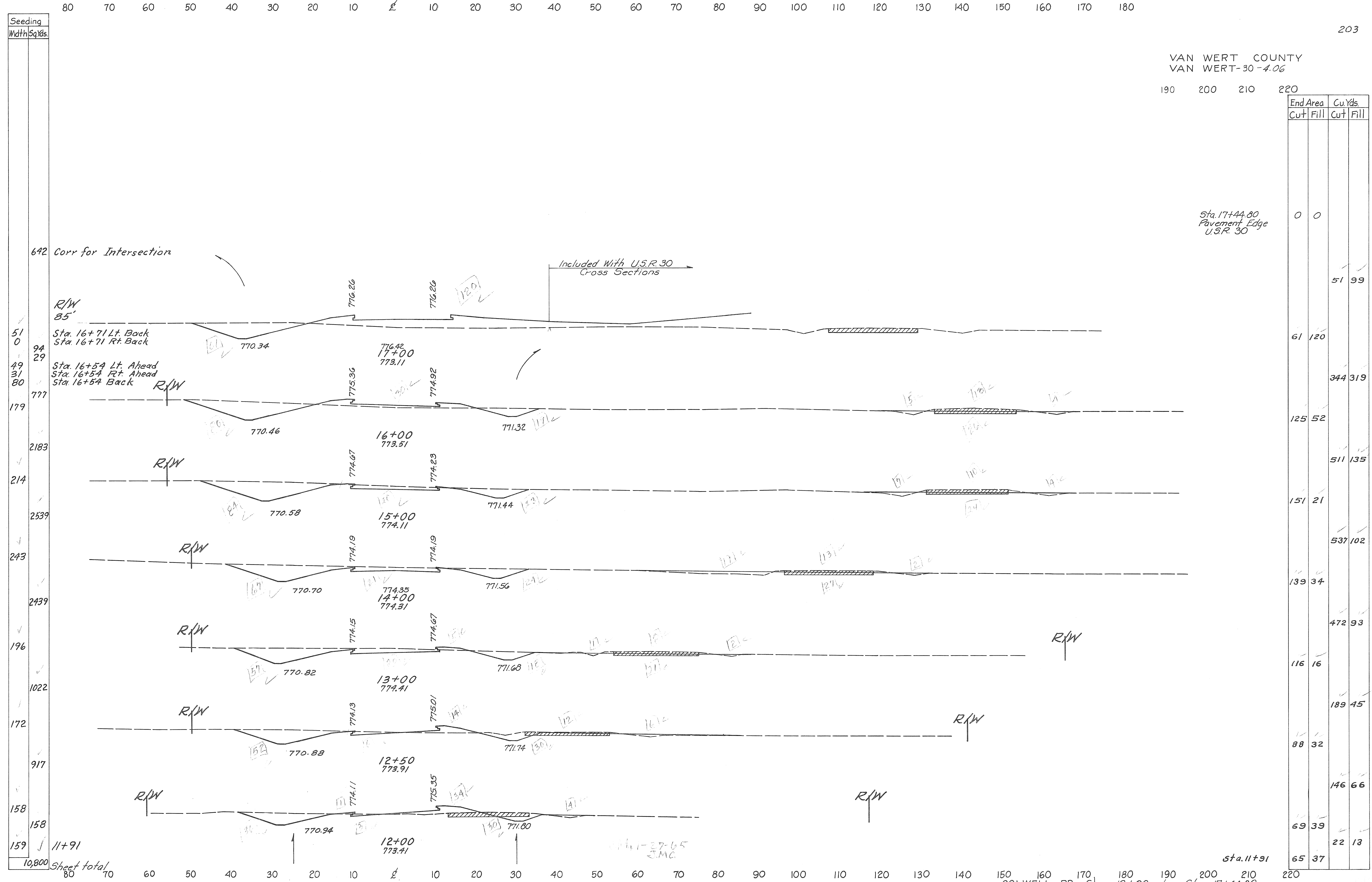
See Cross Sections for  
Details not shown

7	774.17	8	774.21	9	774.12	10	773.99	11	773.99	+50	773.99	+91	773.51 773.41	+50	773.91	13	774.11	14	774.31	15	774.11	16	773.51	17	773.11	18	772.91	19	772.33	+50	772.23	20	773.07	+50	773.58	21	773.76	22	773.60	23	773.05
---	--------	---	--------	---	--------	----	--------	----	--------	-----	--------	-----	------------------	-----	--------	----	--------	----	--------	----	--------	----	--------	----	--------	----	--------	----	--------	-----	--------	----	--------	-----	--------	----	--------	----	--------	----	--------



VAN WERT COUNTY  
VAN WERT-30-4.06

190 200 210 220

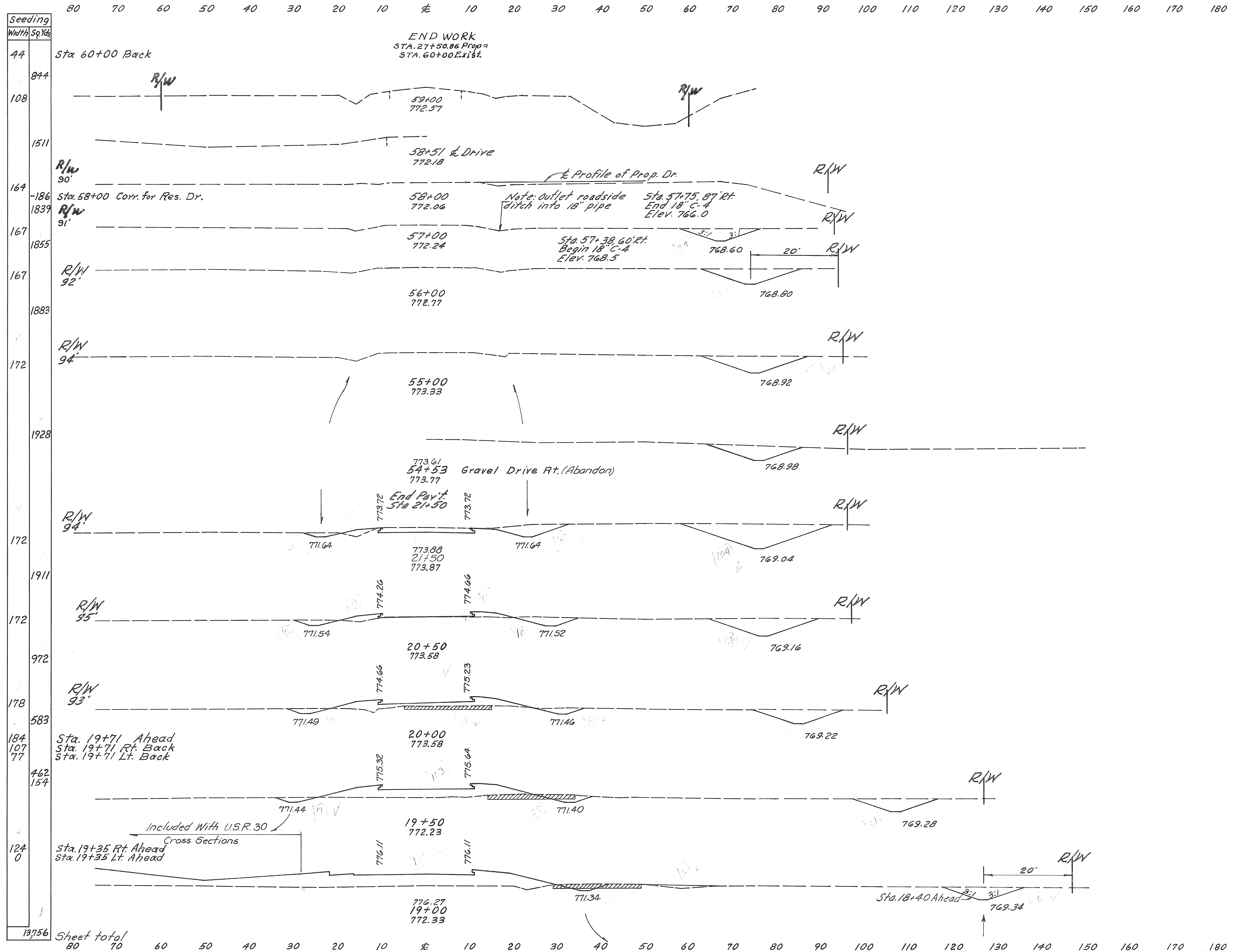


End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
0	0		
		51	99
61	120		
		344	319
125	52		
		511	135
151	21		
		537	102
139	34		
		472	93
116	16		
		189	45
88	32		
		146	66
69	39		
		22	13
65	37		

Seeding	Width	Sq. Yds.
0	51	0
29	94	29
80	49	31
179	80	77
2183	179	77
214	2183	77
2539	214	77
243	2539	77
2439	243	77
196	2439	77
1022	196	77
172	1022	77
917	172	77
158	917	77
158	158	77
159	158	77
10,800	159	77

Sheet total 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220

VAN WERT COUNTY  
VAN-30-4.06



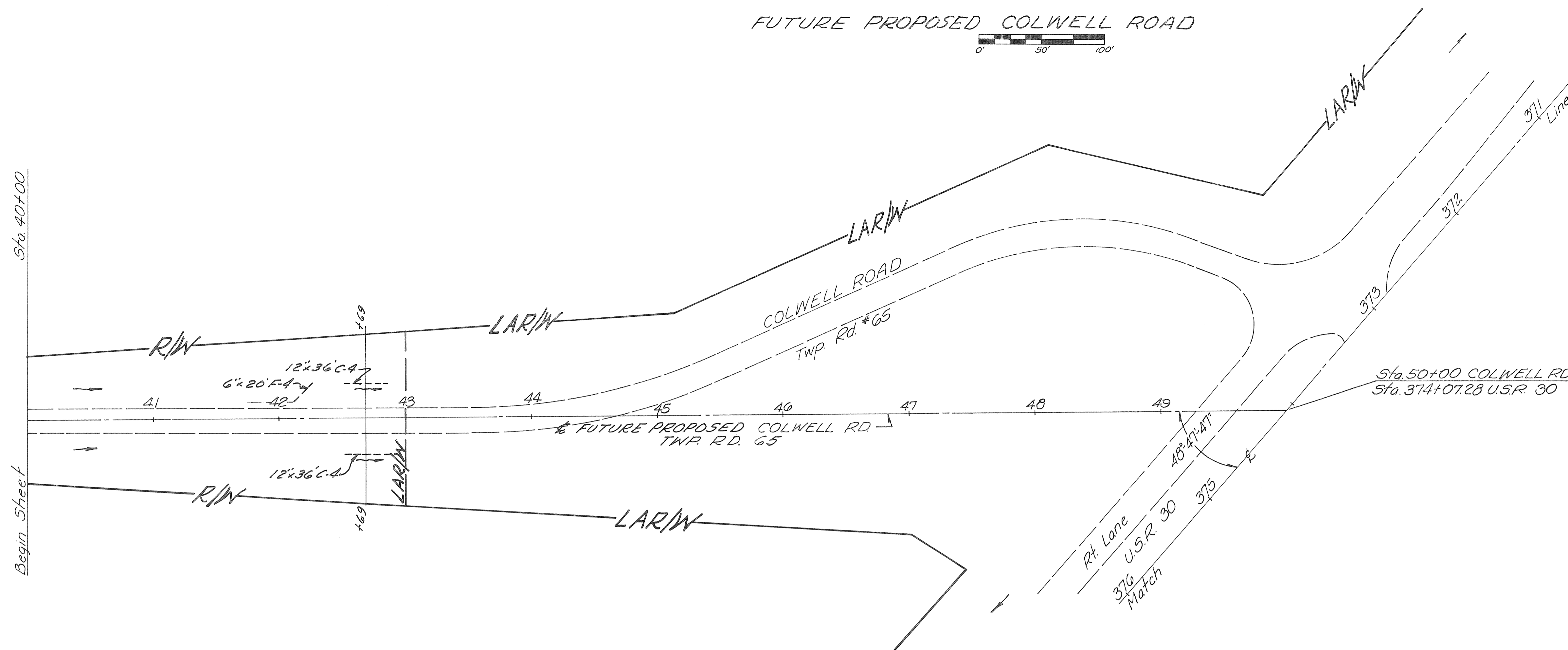
Station	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
Sta. 57+40 Back	34	0	50	0
Sta. 57+00	34	0	143	0
Sta. 56+00	43	0	172	0
Sta. 55+00	50	0	287	0
Corr. for Res. Basement 21+50, RR				180
Sta. 21+50 Ahd.	104	0		450
Sta. 21+50 Bk.	160	8		50
Sta. 20+50	83	19		72
Sta. 20+00	66	59		150
Sta. 19+50	65	103		255
Sta. 19+00	52	172		128
Sta. 18+59.74, Ahd Pavement Edge, RR U.S.R. 30	30	0		0
Sta. 18+40 Ahead	30	0		0

Add for Drive 0 9

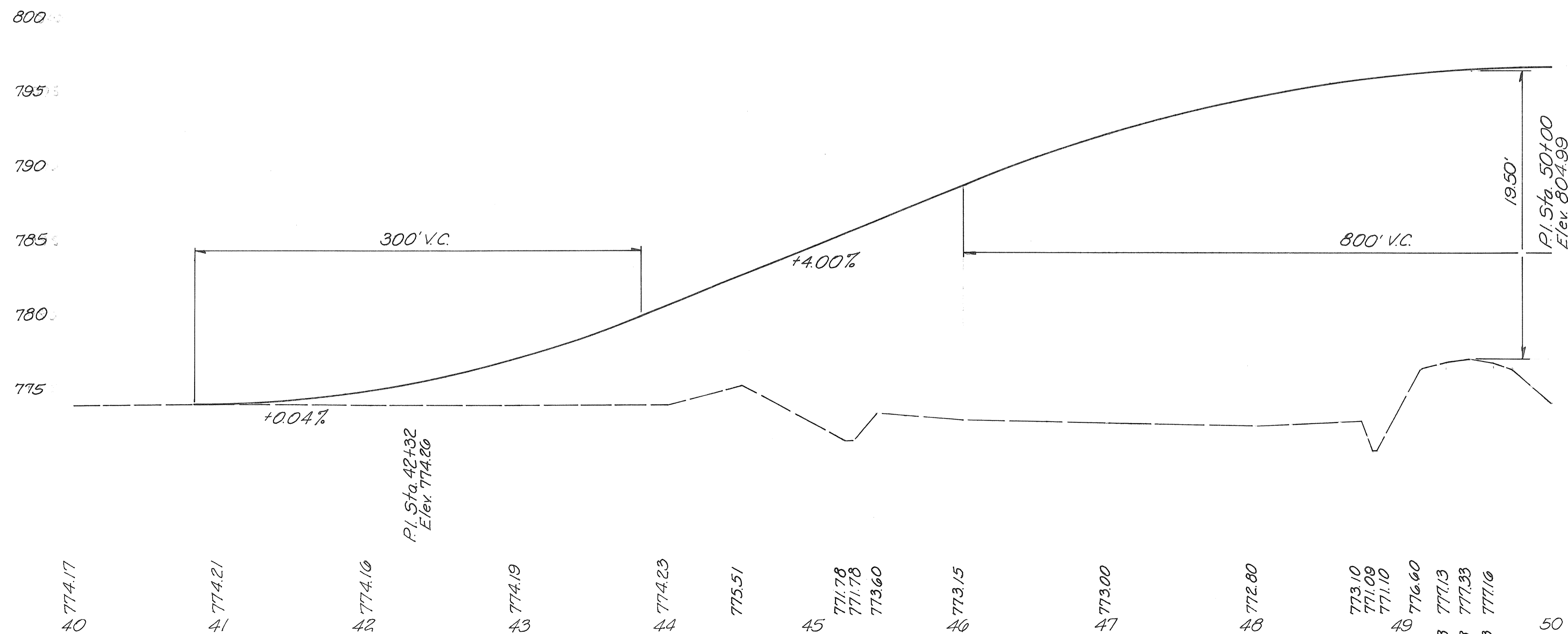
Add for outletting road side ditch. 6 0

FUTURE PROPOSED COLWELL ROAD

VAN WERT COUNTY  
VAN-30-4.06



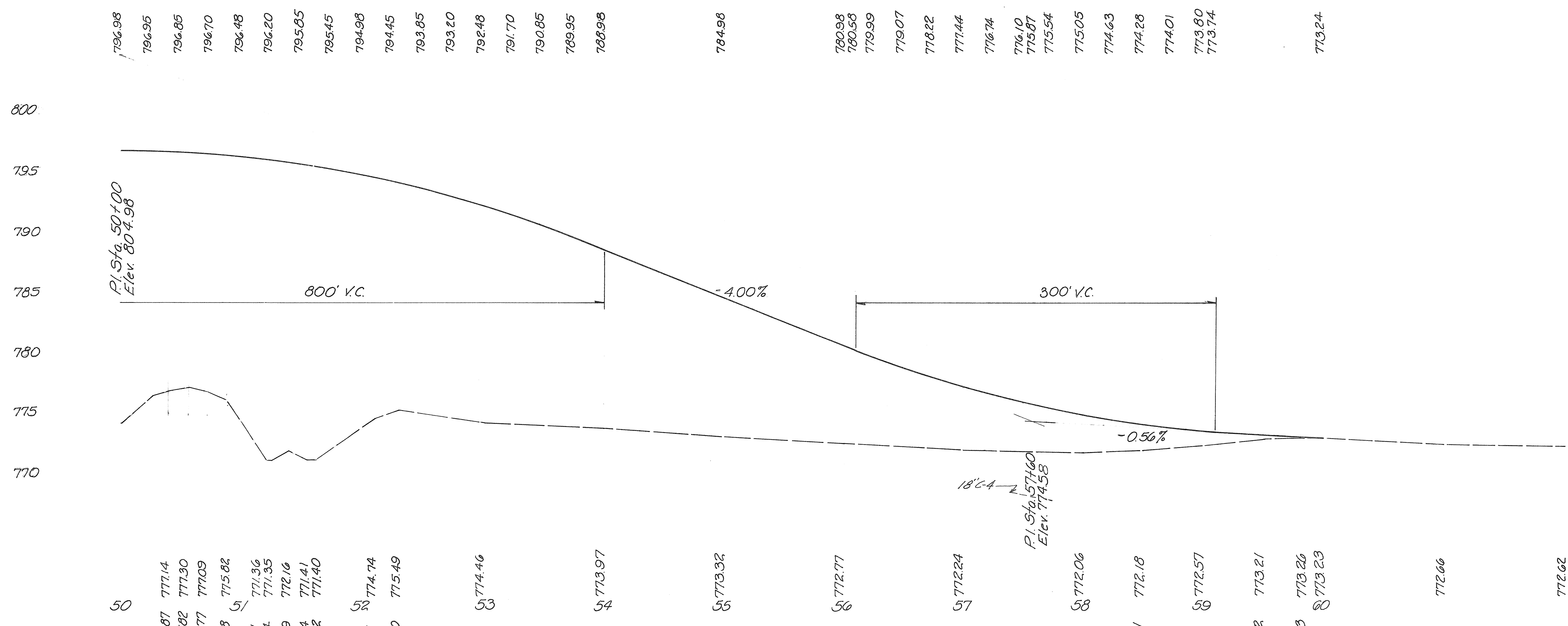
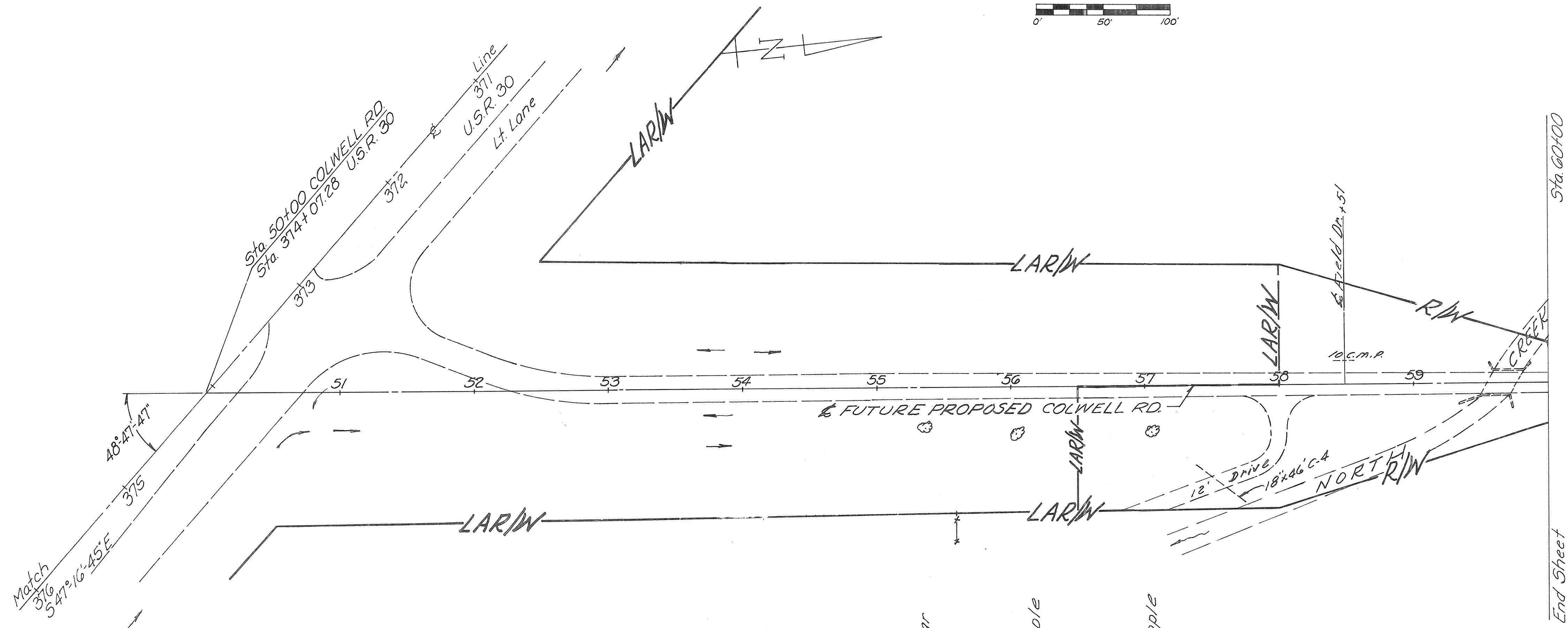
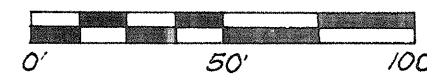
- 77420
- 77423
- 77433
- 77450
- 77476
- 77508
- 77548
- 77567
- 77603
- 77667
- 77738
- 77817
- 77904
- 77958
- 78026
- 78098
- 78498
- 78898
- 78995
- 79085
- 79170
- 79248
- 79320
- 79385
- 79445
- 79498
- 79545
- 79585
- 79620
- 79648
- 79670
- 79685
- 79695
- 79698



- 77417
- 77421
- 77416
- 77419
- 77423
- 77551
- 77178
- 77178
- 77360
- 77315
- 77300
- 77280
- 77310
- 77109
- 77110
- 77660
- 77713
- 77733
- 77716



FUTURE PROPOSED COLWELL ROAD



PAVEMENT COMPUTATIONS

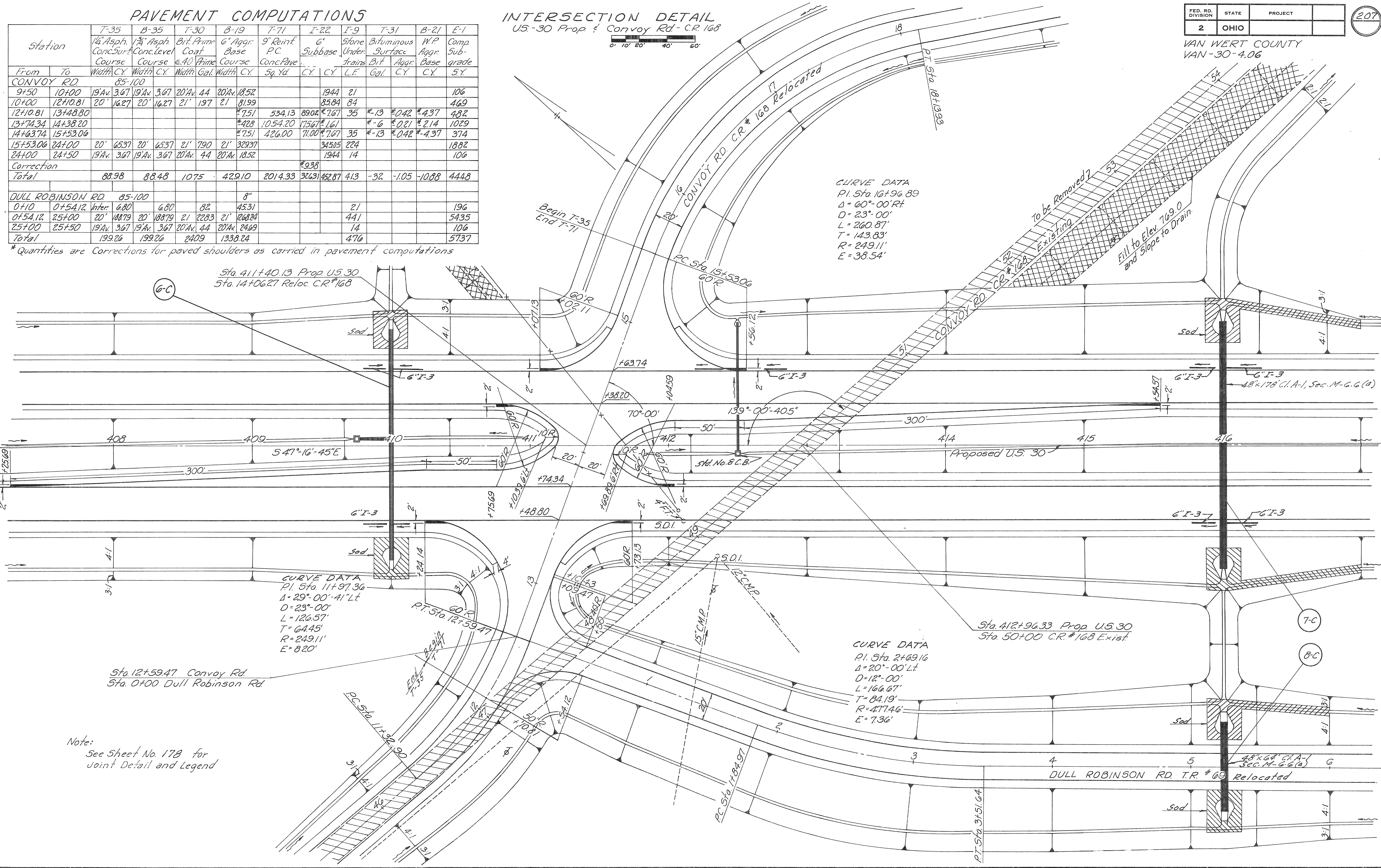
Station	T-35		B-35		T-30		B-19		T-71		I-22		I-9		T-31		B-21		E-1	
	From	To	Width	C.Y.	Width	C.Y.	Width	Gal.	Width	C.Y.	Sq. Yd.	C.Y.	C.Y.	L.F.	Gal.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.
CONVOY RD																				
9+50	10+00	19'Av.	3.67	19'Av.	3.67	20'Av.	4.4	20'Av.	18.52				1944	21						106
10+00	12+10.81	20'	16.27	20'	16.27	21'	197	21'	81.99				8584	84						469
12+10.81	13+148.80									*7.51	534.13	89.02	*7.67	35	*1.13	*0.42	*4.37			482
13+148.80	14+38.20									*4.28	1054.20	175.67	*1.61		*-6	*0.21	*2.14			1029
14+38.20	15+53.06									*7.51	426.00	71.00	*7.67	35	*-1.13	*0.42	*4.37			374
15+53.06	24+00	20'	65.37	20'	65.37	21'	790	21'	329.37				34505	224						1882
24+00	24+50	19'Av.	3.67	19'Av.	3.67	20'Av.	4.4	20'Av.	18.52				1944	14						106
Correction																				
Total																				
88.98 88.48 1075 429.10 2014.33 326.31 452.87 413 -32 -1.05 -10.88 444.8																				
DULL ROBINSON RD 85-100																				
0+10	0+54.12	Inter.	6.80	6.80	82	45.31														196
0+54.12	25+00	20'	18.79	20'	18.79	21'	228.3	21'	248.24											5435
25+00	25+50	19'Av.	3.67	19'Av.	3.67	20'Av.	4.4	20'Av.	24.69											106
Total																				
199.26 199.26 2409 1338.24 476 5737																				

\*Quantities are Corrections for paved shoulders as carried in pavement computations

INTERSECTION DETAIL  
US-30 Prop & Convoiy Rd - C.R. 168



VAN WERT COUNTY  
VAN-30-4.06

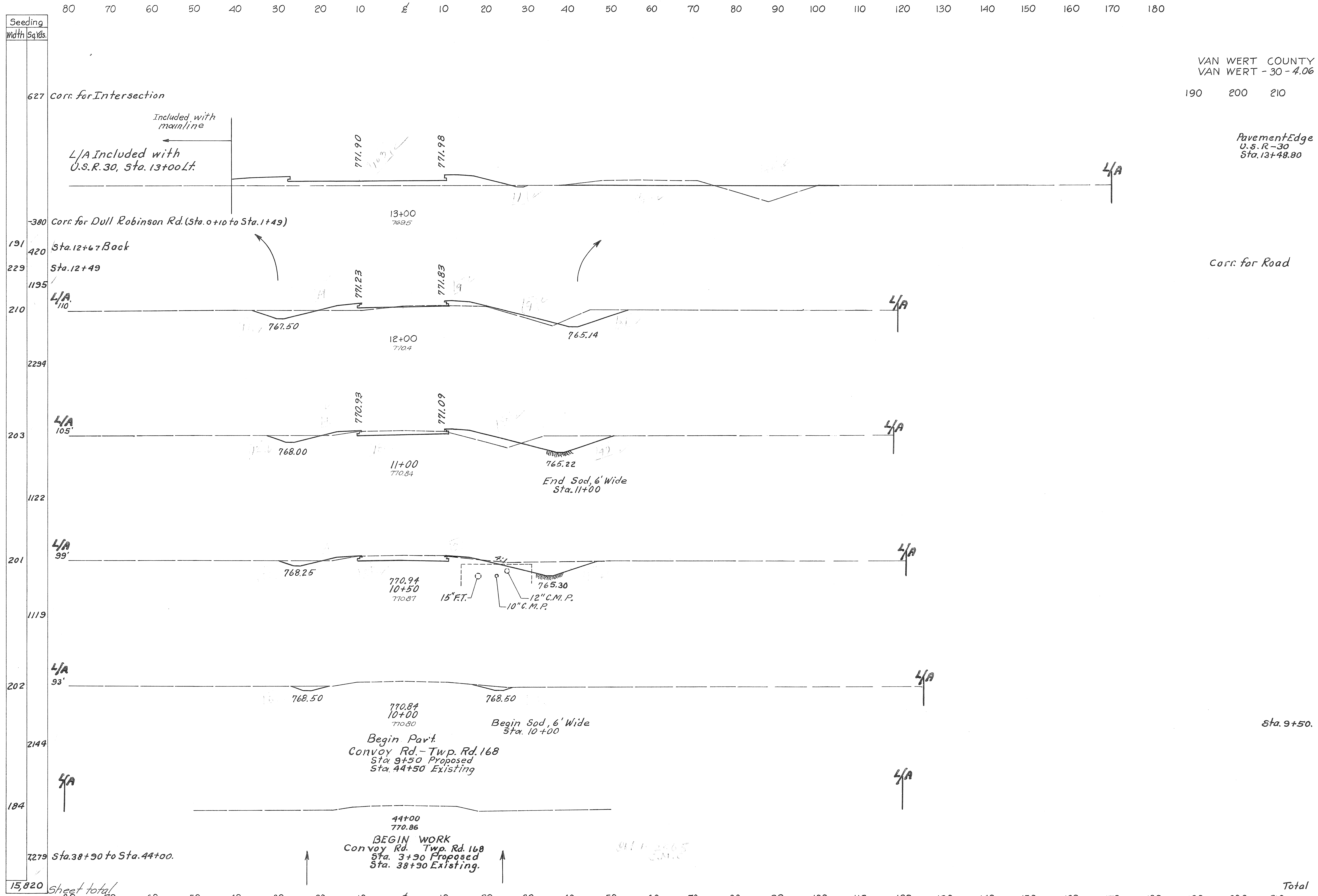


Note:  
See Sheet No. 178 for  
Joint Detail and Legend



VAN WERT COUNTY  
VAN WERT - 30 - 4.06

190 200 210



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
0	0	35	134
39	148	165	333
		0	78
50	32	239	117
		79	31
		151	35
84	6	87	6
10	0	10	0
0	0	0	0
Total		3526	3650

Pavement Edge  
U.S.R. - 30  
Sta. 13+48.80

Corr. for Road

Sta. 9+50.

Begin Part  
Convoy Rd. - Twp. Rd. 168  
Sta. 9+50 Proposed  
Sta. 44+50 Existing

BEGIN WORK  
Convoy Rd. - Twp. Rd. 168  
Sta. 3+50 Proposed  
Sta. 38+50 Existing.

Seeding  
Width Sq. Yds.  
627  
191  
420  
229  
1195  
210  
2294  
203  
1122  
201  
1119  
202  
2144  
184  
7279  
15,820

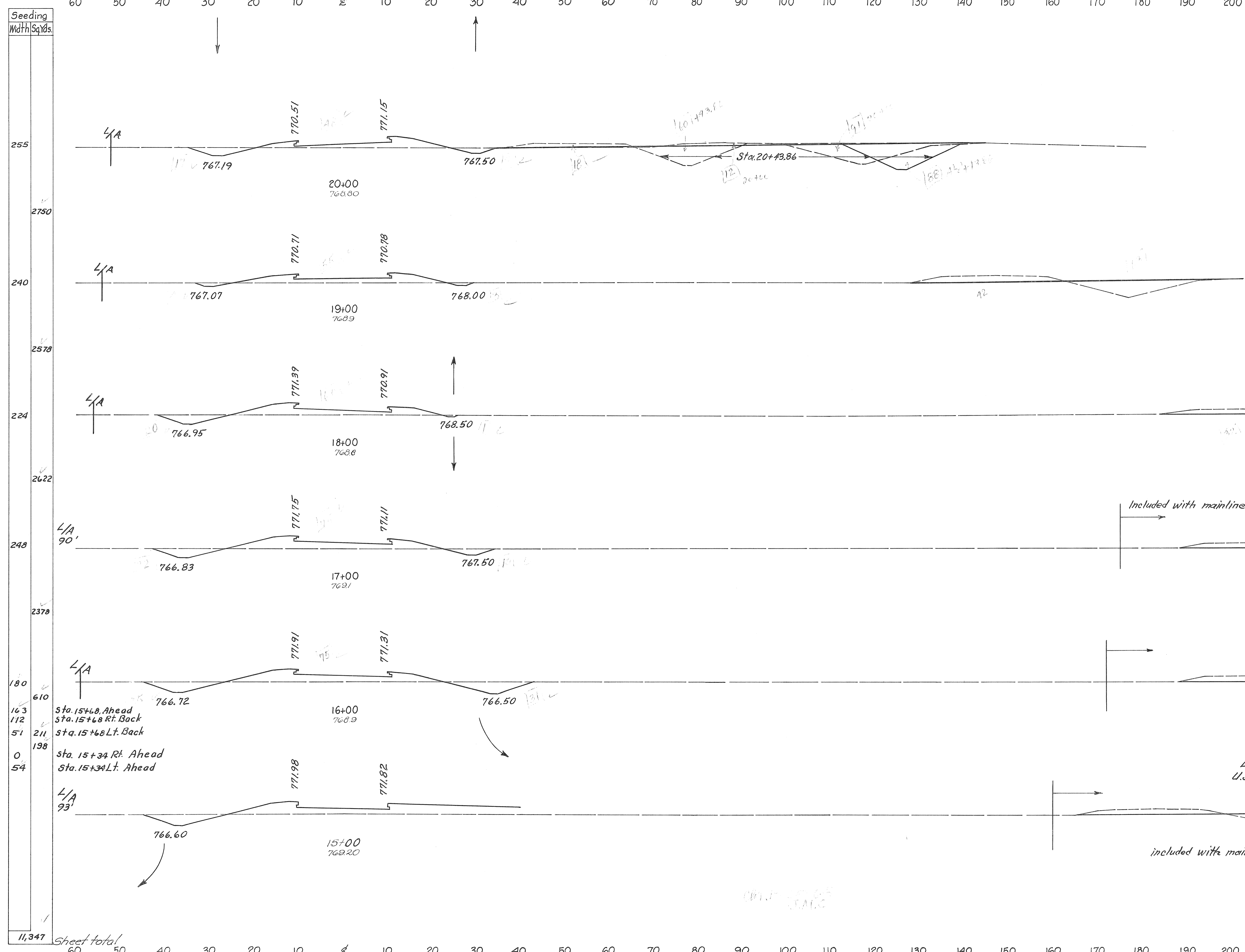
Sheet total

Total

CONVOY RD. Sta. 44+00 to 45+00 & Sta. 10+50

VAN WERT COUNTY  
VAN WERT - 30-4.06

210 220 230 240



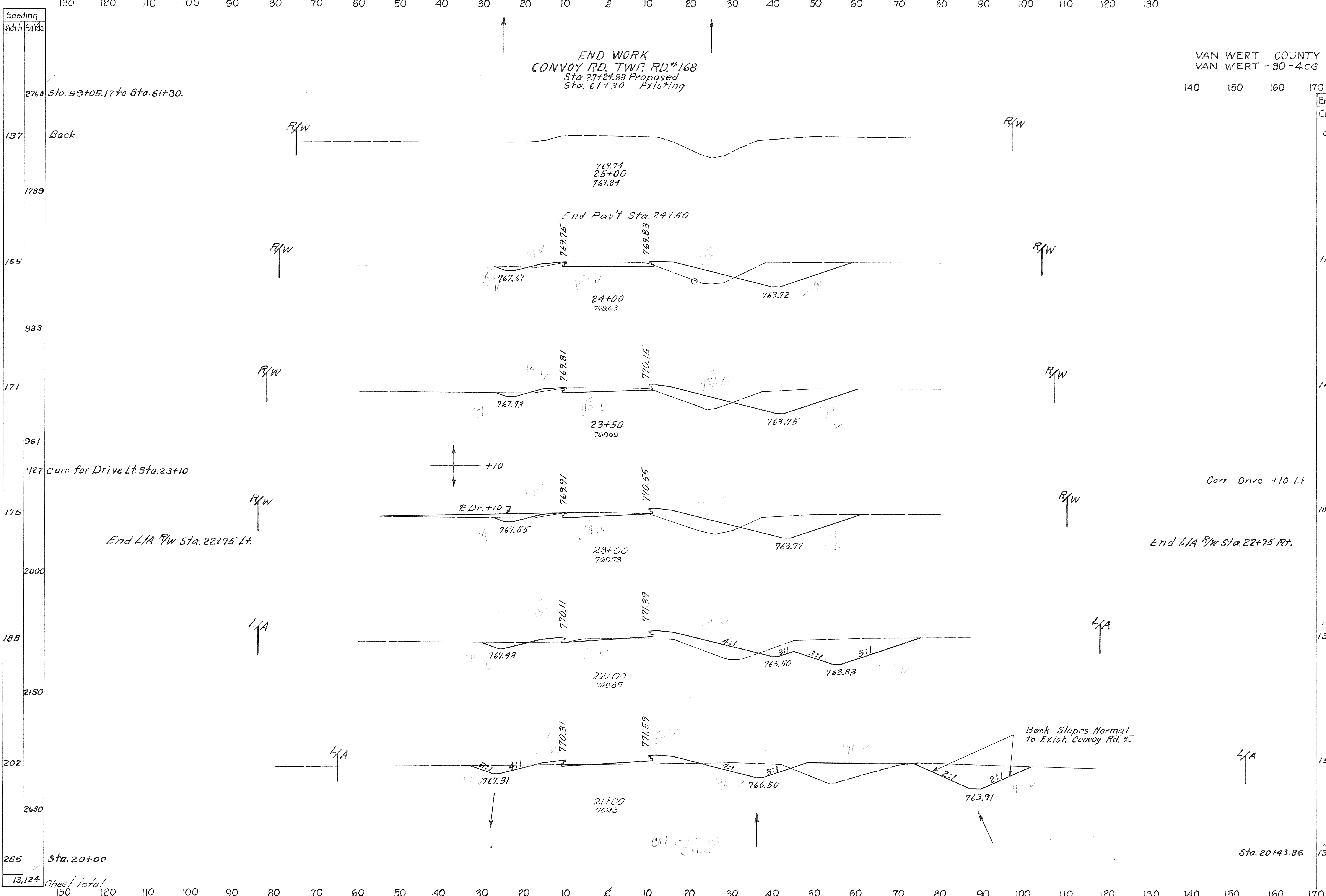
End Area	Cu.Yds.	
	Cut	Fill
Sta. 20+43.86 Ahead Sta. 20+43.86 Back	131 43	108 108
Sta. 20+00	55	139
	49	118
	53	113
	32	75
	56	75
	0	0
	141	189

Seeding	Width Sq.Yds.
255	
2750	
240	
2578	
224	
2622	
248	
2378	
180	
610	
163	
112	
51	
211	
198	
0	
54	
11,347	

Sheet total 11,347  
CONVOY RD. Sta. 15+ to 20+00

VAN WERT COUNTY  
VAN WERT - 30 - 4.06

END WORK  
CONVOY RD. TWP. RD. #168  
Sta. 21+24.83 Proposed  
Sta. 61+30 Existing



Seeding	Width	Sq Yds
	130	124
	120	
	110	
	100	
	90	
	80	
	70	
	60	
	50	
	40	
	30	
	20	
	10	
	0	
	10	
	20	
	30	
	40	
	50	
	60	
	70	
	80	
	90	
	100	
	110	
	120	
	130	

End Area	Cu. Yds.
Cut	Fill
0	0
117	49
115	45
107	55
138	69
150	96
131	108

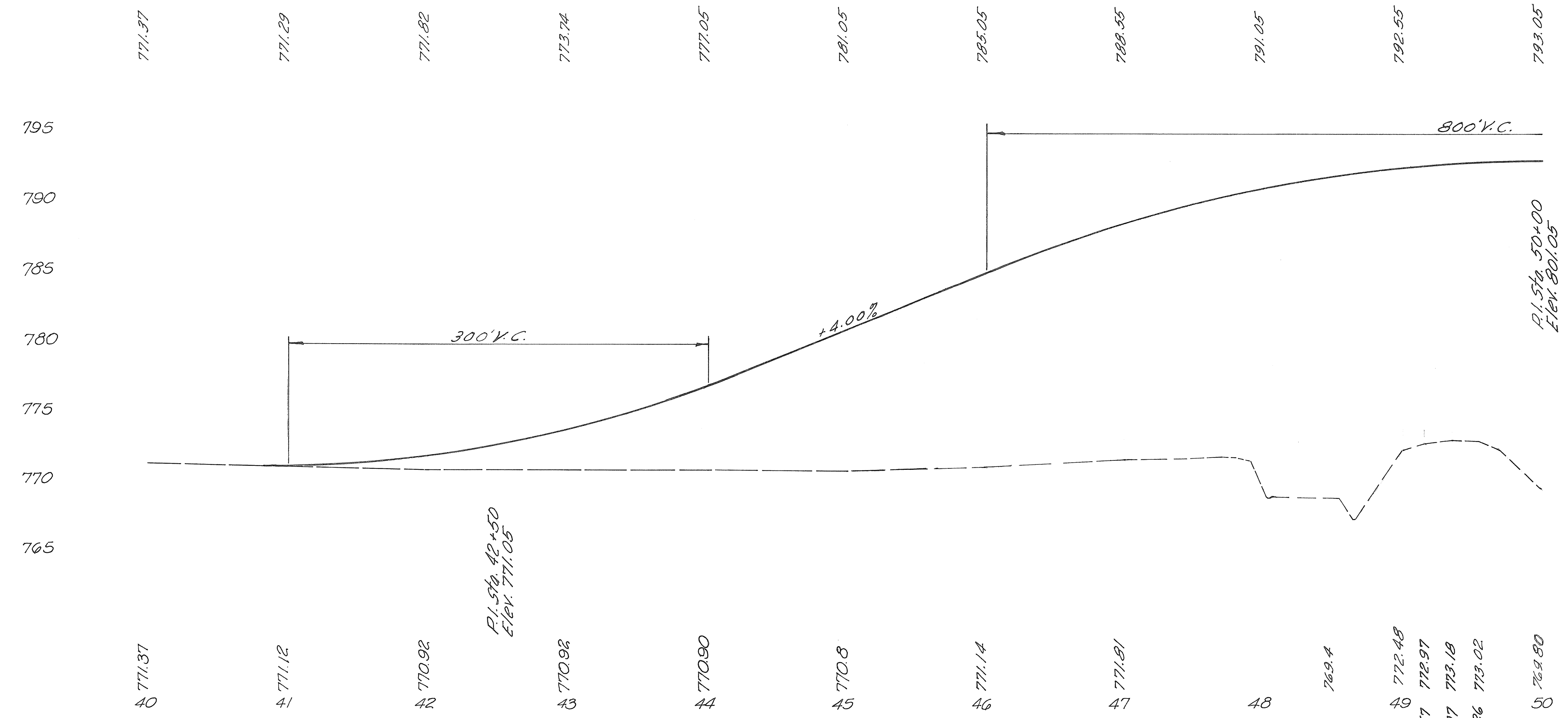
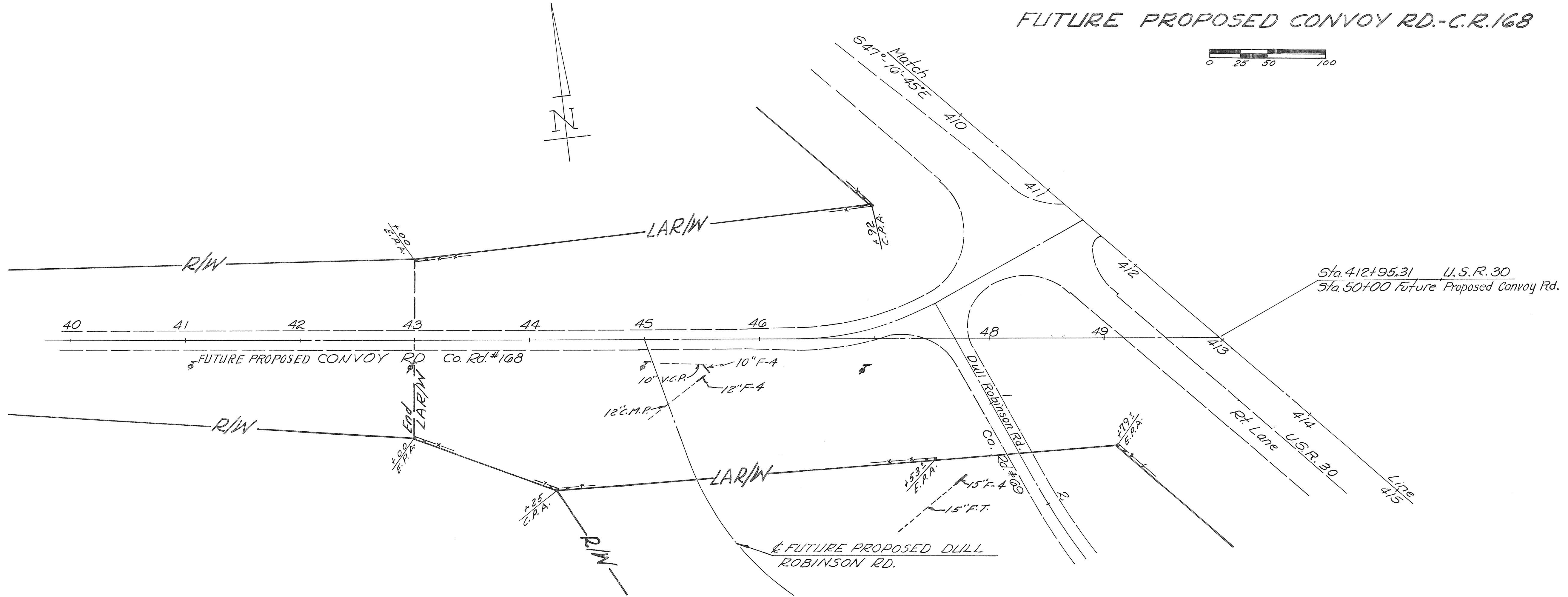
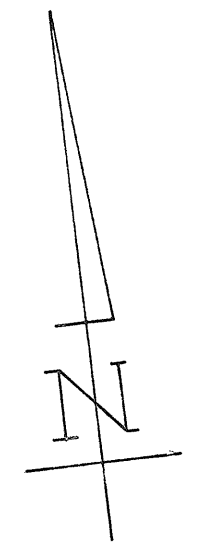
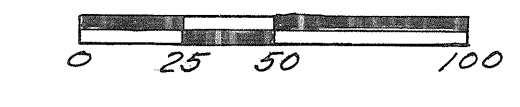
End Area	Cu. Yds.
Cut	Fill
0	0
217	91
215	87
206	93
454	230
533	306
292	212
131	108

13,124 Sheet total

CONVOY RD. Sta. 21+00 to 25+00

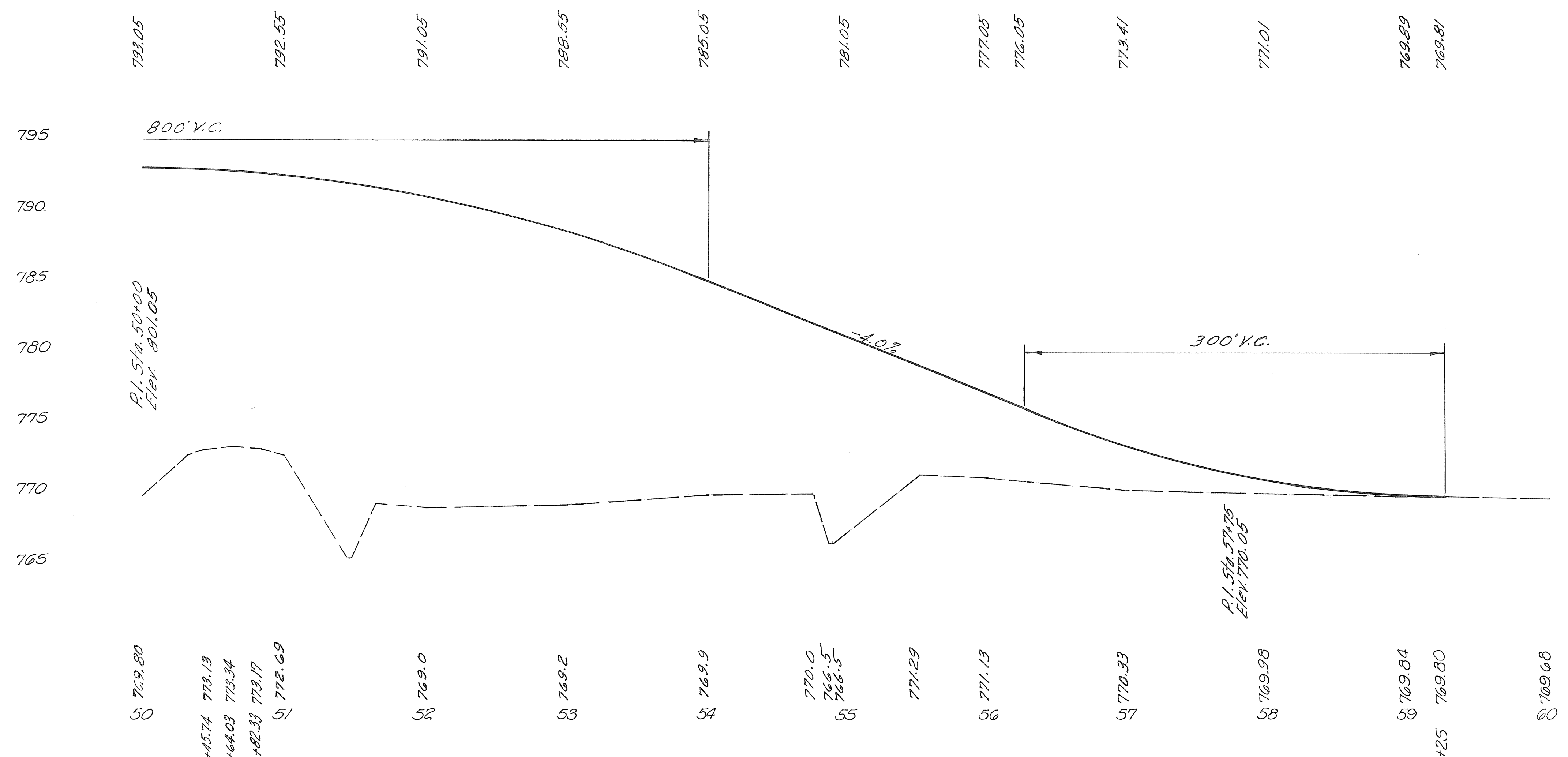
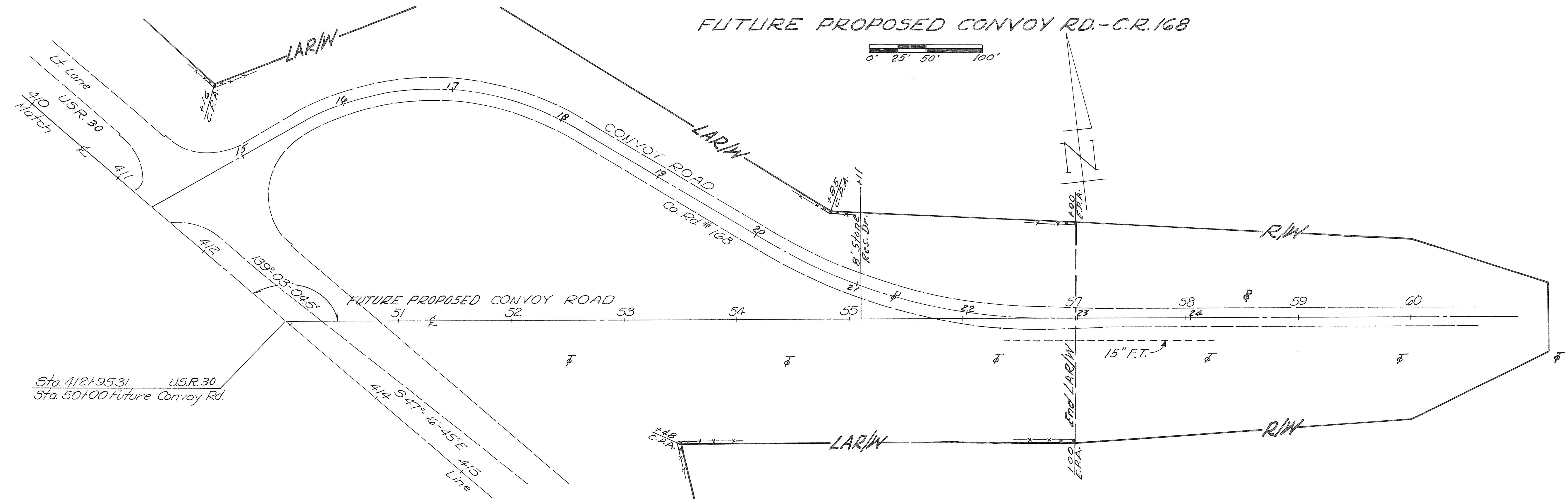
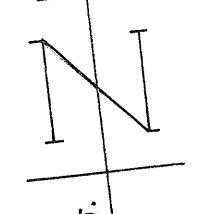
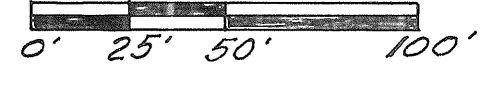
# FUTURE PROPOSED CONVOY RD.-C.R.168

VAN WERT COUNTY  
VAN-30-4.06



From Sta 40+00 to Sta 50+00  
FUTURE PROPOSED CONVOY ROAD-C.R.168

FUTURE PROPOSED CONVOY RD.-C.R.168



From Sta. 50+00 to Sta. 60+00  
FUTURE PROPOSED CONVOY ROAD-C.R.168



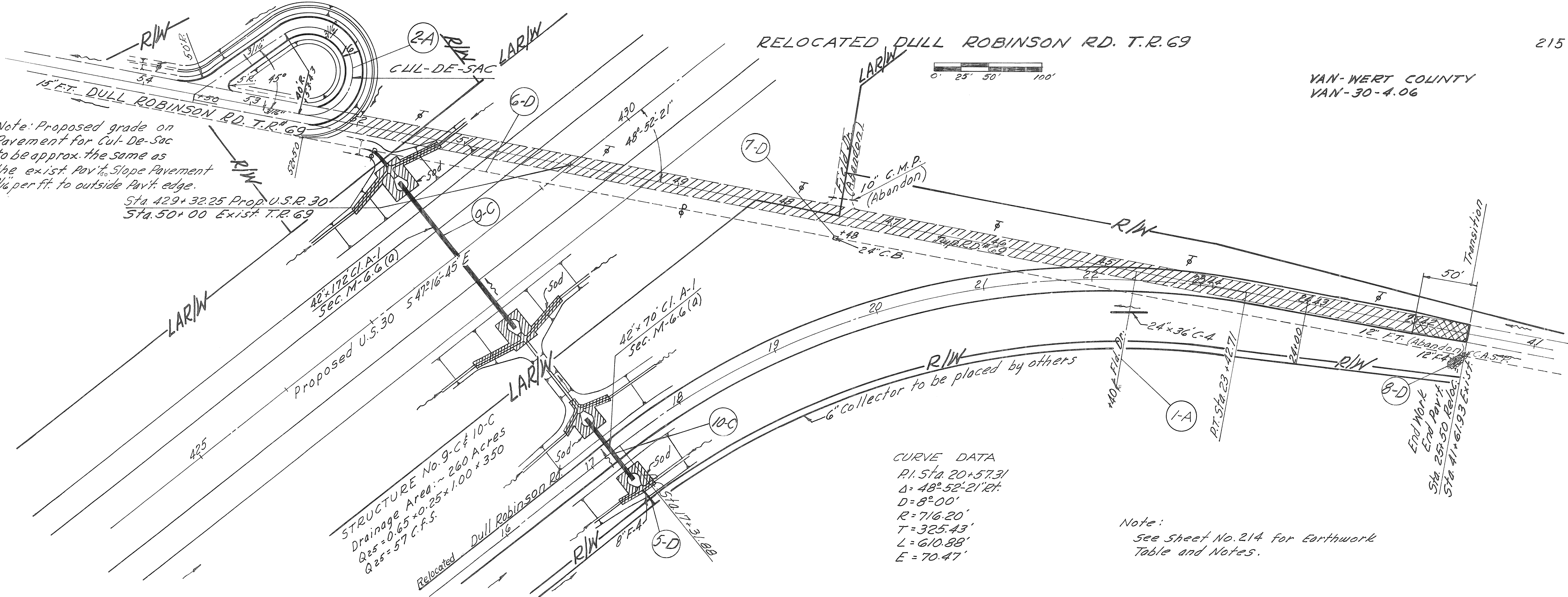


VAN-WERT COUNTY  
VAN-30-4.06

RELOCATED DULL ROBINSON RD. T.R. 69



Note: Proposed grade on Pavement for Cul-De-Sac to be approx. the same as the exist. Pav't. Slope Pavement 3/4" per ft. to outside Pav't. edge.  
Sta. 429+32.25 Prop. U.S.R. 30  
Sta. 50+00 Exist. T.R. 69



CURVE DATA  
P.I. Sta. 20+57.31  
Δ = 48° 52' 21" RT.  
D = 8° 00'  
R = 716.20'  
T = 325.43'  
L = 610.88'  
E = 70.47'

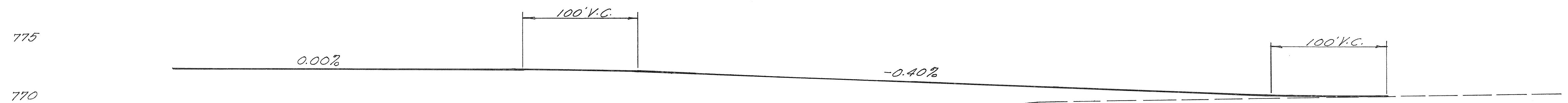
Note:  
See Sheet No. 214 for Earthwork Table and Notes.

STRUCTURE No. 9-C & 10-C  
Drainage Area: ~ 260 Acres  
Q<sub>25</sub> = 0.65 x 0.25 x 1.00 x 350  
Q<sub>25</sub> = 57 C.F.S.

End Work  
End Pav't  
Sta. 25+50 Reloc.  
Sta. 41+61.93 Exist.

Rt. Edge Lt. Edge

772.65	772.65
772.49	772.62
772.49	772.75
772.49	772.88
772.49	773.01
772.49	773.14
772.49	773.17
772.49	773.40
772.49	773.53
772.49	773.66
772.48	773.78
772.44	773.87
772.38	773.90
772.29	773.85
772.19	773.75
772.09	773.65
771.99	773.55
771.89	773.45
771.79	773.35
771.69	773.25
771.59	773.15
771.49	773.05
771.39	772.95
771.29	772.85
771.19	772.72
771.09	772.61
770.99	772.42
770.89	772.19
770.79	771.96
770.69	771.73
770.59	771.50
770.49	771.27
770.39	770.94
770.29	770.74
770.19	770.54
770.09	770.35
770.01	770.14
770.13	
770.12	
770.15	



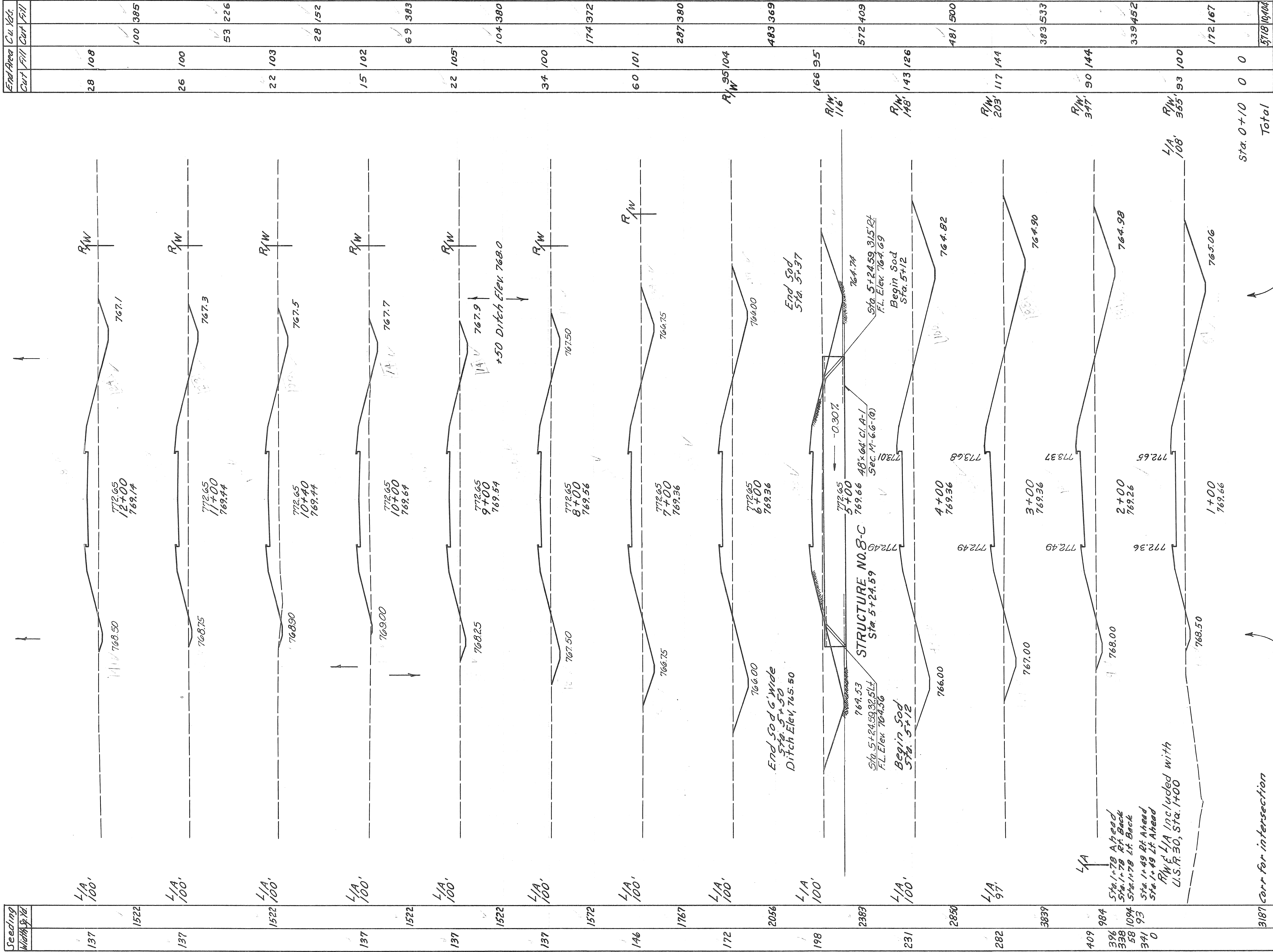
For Details not shown  
See Structure Dwg's. 9-C & 10-C  
and Cross Sections

+19.355' of  
F.L. Elev. 765.06  
+55.355' of  
F.L. Elev. 765.92

P.I. Sta. 25+00  
Elev. 770.05

15	769.14
16	769.14
17	768.66
18	768.86
19	768.86
20	769.25
21	769.16
22	769.26
+40	769.74
23	769.80
+4271	769.85
24	
25	770.03
26	770.26
27	770.44

90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90



Seeding Width Sp. Yr.	End Area Cut/Fill	Cu. Yds. Cut/Fill
137	28	108
137	26	100
137	22	103
137	15	102
137	22	105
137	34	100
146	60	101
172	95	104
198	166	95
231	148	126
282	203	144
383	347	144
409	90	144
396	93	100
338	0	0
58	0	0
341	0	0
0	0	0
3187	0	0
25,913	0	0

VAN WERT COUNTY  
VAN-30-406

From Sta. 0+10 to Sta. 12+00  
DULL ROBINSON ROAD

3187 corr for intersection  
Sta. 0+10 to Sta. 1+49  
on Conroy Rd. Cross Sections

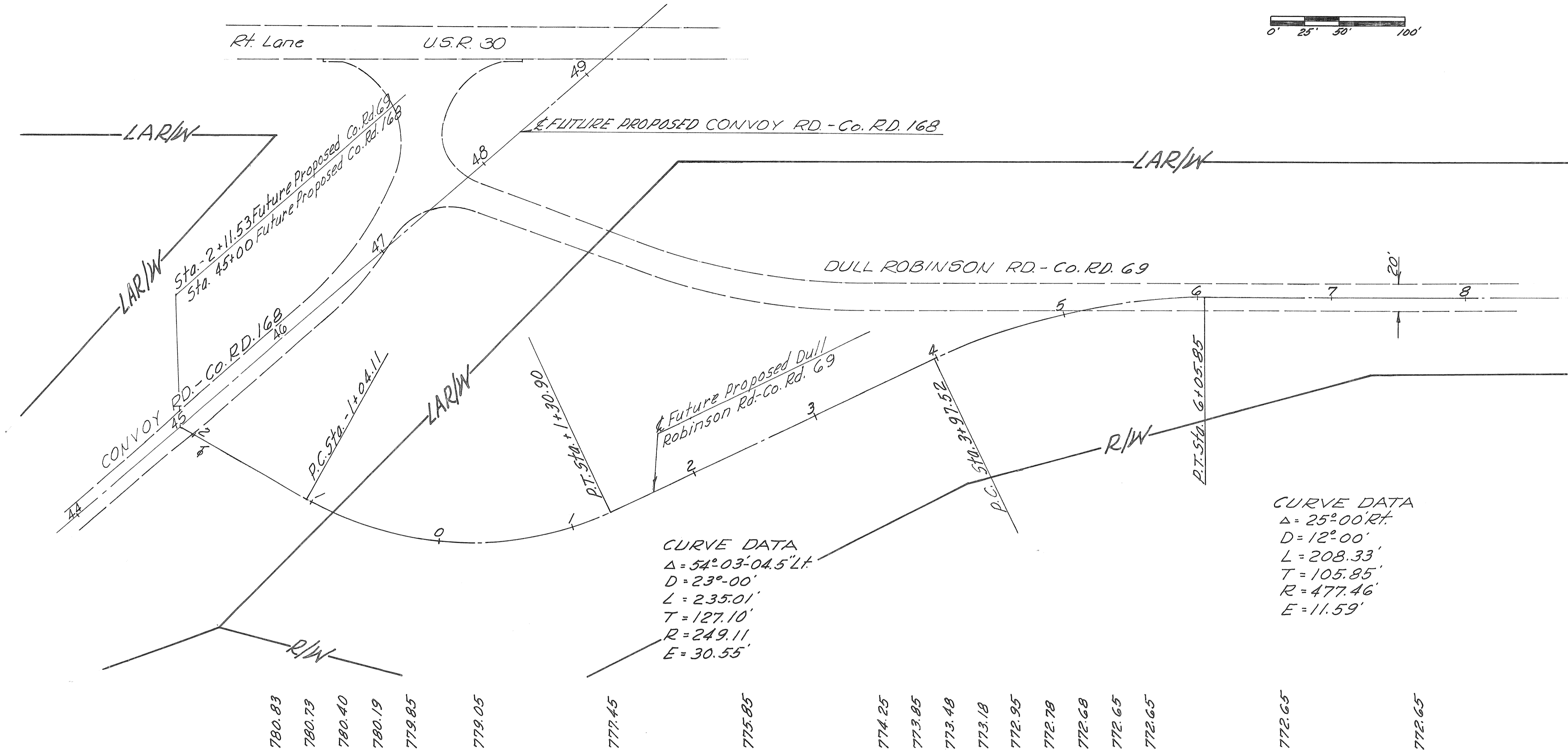
0+10  
767.3  
BEGIN WORK  
Sta. 0+10  
Dull Robinson Rd. - Imp. Rd. #69  
Relocated  
0+100  
Sta. 0+00 Dull Robinson Rd. - Imp. Rd. #69  
Sta. 12+59.47 Conroy Rd. - Co. Rd. 168

Sheet total

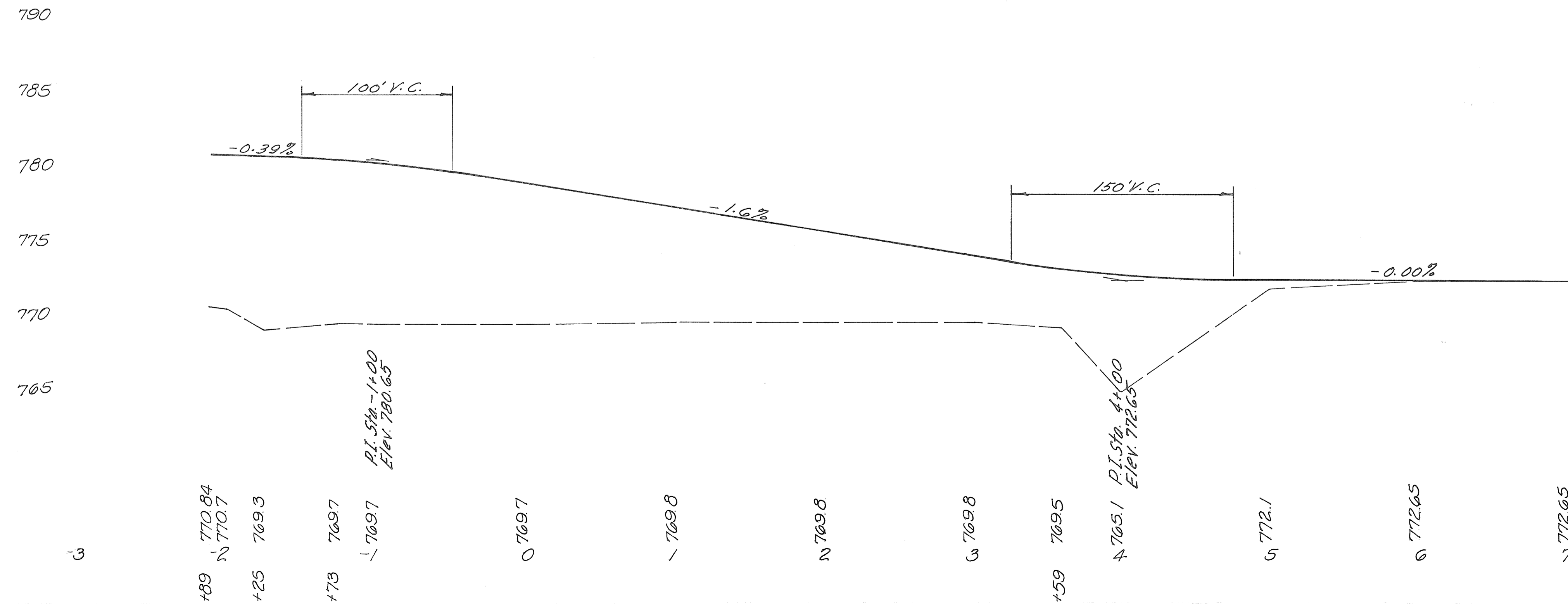


FUTURE PROPOSED DULL ROBINSON RD.-C.R.69

VAN WERT COUNTY  
VAN-30-4.06

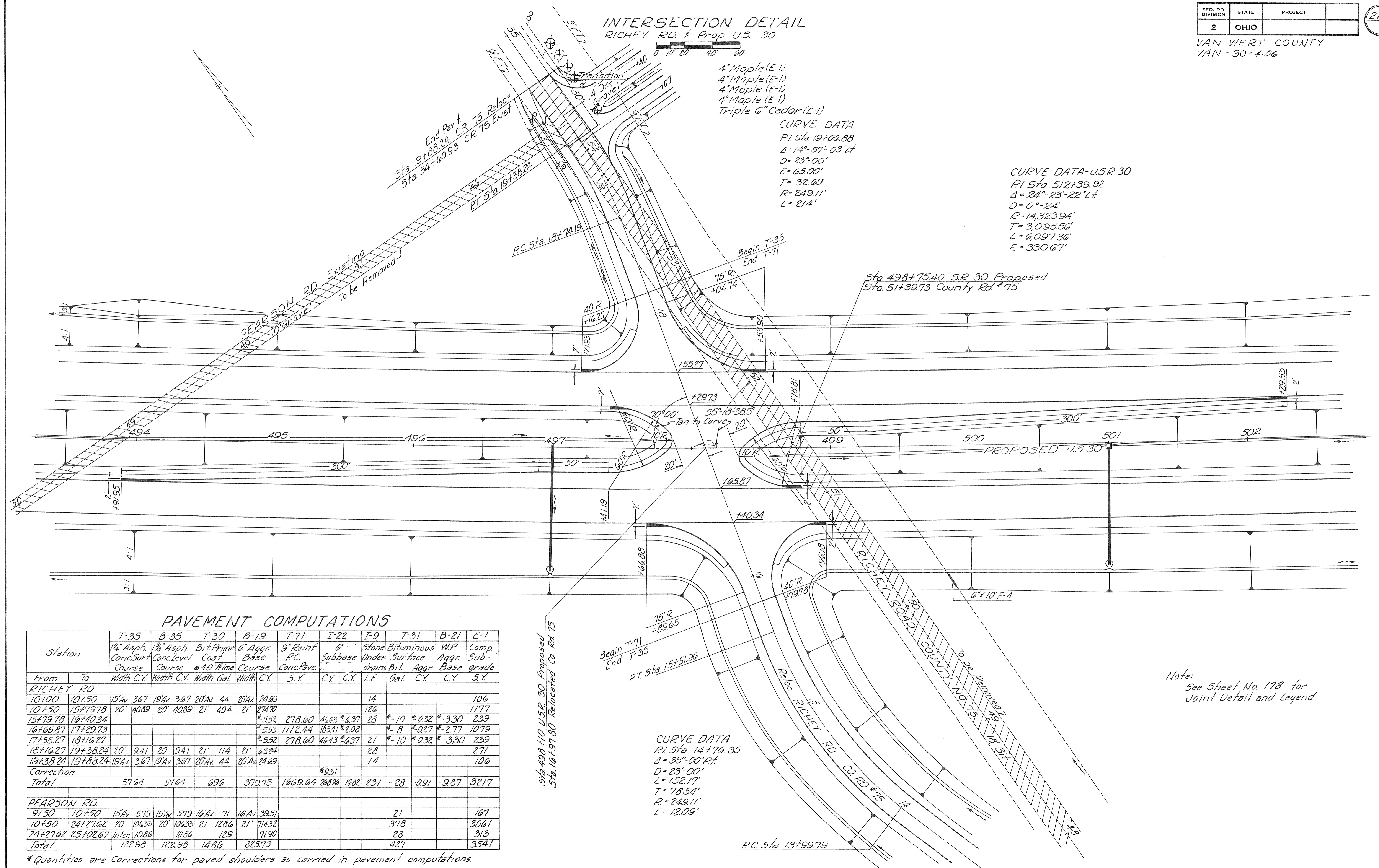
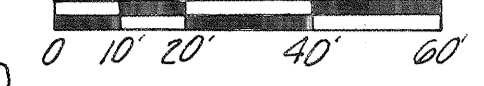


780.83	777.45	775.85	774.25	772.65
780.79			773.85	
780.40			773.48	
780.19			773.19	
779.85			772.95	
779.05			772.79	
			772.68	
			772.65	
			772.65	
				772.65



### INTERSECTION DETAIL

RICHEY RD & Prop U.S. 30



4" Maple (E-1)  
4" Maple (E-1)  
4" Maple (E-1)  
4" Maple (E-1)  
Triple 6" Cedar (E-1)

**CURVE DATA**  
P.I. Sta 19+06.88  
Δ = 14°-57'-03" Lt  
D = 23°-00'  
E = 65.00'  
T = 32.69  
R = 249.11'  
L = 214'

**CURVE DATA-U.S.R. 30**  
P.I. Sta 51+39.92  
Δ = 24°-23'-22" Lt  
D = 0°-24'  
R = 14,323.94'  
T = 3,095.56'  
L = 6,097.36'  
E = 330.67'

### PAVEMENT COMPUTATIONS

Station	T-35		B-35		T-30		B-19		T-71		I-22		I-9		T-31		B-21		E-1		
	From	To	Width	C.Y.	Width	C.Y.	Width	Gal.	Width	C.Y.	S.Y.	C.Y.	C.Y.	L.F.	Gal.	Aggr.	C.Y.	C.Y.	S.Y.	S.Y.	
<b>RICHEY RD</b>																					
10+00	10+50	19'Av	367	19'Av	367	20'Av	44	20'Av	24.69											106	
10+50	15+79.78	20'	4089	20'	4089	21'	494	21'	274.70											1177	
15+79.78	16+40.34								*5.52	278.60	4643	*6.37	28	*-10	*0.32	*-3.30				239	
16+40.34	17+29.73								*5.53	1172.44	18541	*2.08		*-8	*0.27	*-2.77				1079	
17+29.73	18+16.27								*5.52	278.60	4643	*6.37	21	*-10	*-0.32	*-3.30				239	
18+16.27	19+38.24	20'	9.41	20'	9.41	21'	114	21'	63.24											271	
19+38.24	19+88.24	19'Av	367	19'Av	367	20'Av	44	20'Av	24.69											106	
Correction																					
Total			57.64		57.64		696		370.75	1669.64	26896	-1482	231	-28	-0.91	-9.37				3217	
<b>PEARSON RD</b>																					
9+50	10+50	15'Av	579	15'Av	579	16'Av	71	16'Av	39.51											167	
10+50	24+27.62	20'	10633	20'	10633	21'	1286	21'	714.32											3061	
24+27.62	25+02.67	Inter.	1086				129		71.90											313	
Total			122.98		122.98		1486		825.73											3541	

\*Quantities are Corrections for paved shoulders as carried in pavement computations.

Note:  
See Sheet No. 178 for  
Joint Detail and Legend

RELOCATED RICHEY ROAD - T.R. 75

VAN WERT COUNTY  
VAN-30-4.06



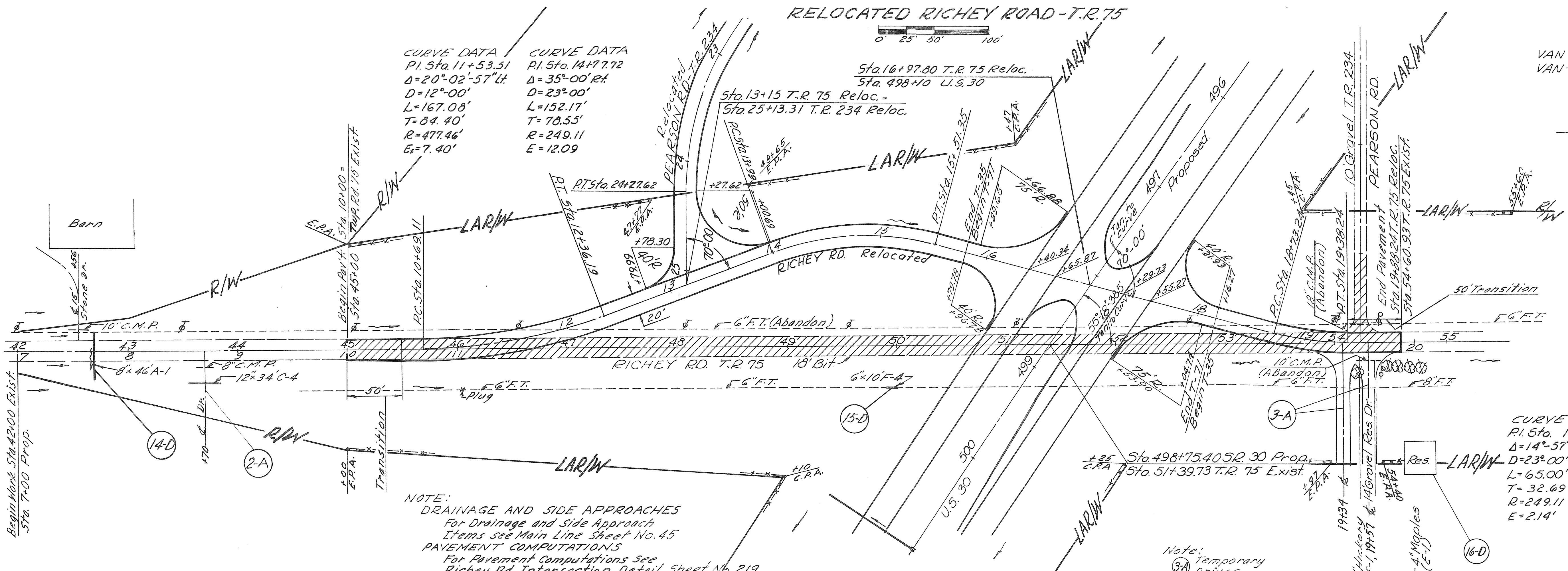
CURVE DATA  
P.I. Sta. 11+53.51  
Δ = 20°-02'-57" Lt.  
D = 12°-00'  
L = 167.08'  
T = 84.40'  
R = 477.46'  
E = 7.40'

CURVE DATA  
P.I. Sta. 14+77.72  
Δ = 35°-00' Rt.  
D = 23°-00'  
L = 152.17'  
T = 78.55'  
R = 249.11'  
E = 12.09

Sta. 16+97.00 T.R. 75 Reloc.  
Sta. 498+10 U.S. 30

Sta. 13+15 T.R. 75 Reloc.  
Sta. 25+13.31 T.R. 234 Reloc.

CURVE DATA  
P.I. Sta. 19+05.93  
Δ = 14°-57'-03" Lt.  
D = 23°-00'  
L = 65.00'  
T = 32.69'  
R = 249.11'  
E = 2.14'



NOTE:  
DRAINAGE AND SIDE APPROACHES  
For Drainage and Side Approach  
Items see Main Line Sheet No. 45  
PAVEMENT COMPUTATIONS  
For Pavement Computations see  
Richey Rd. Intersection Detail, Sheet No. 219

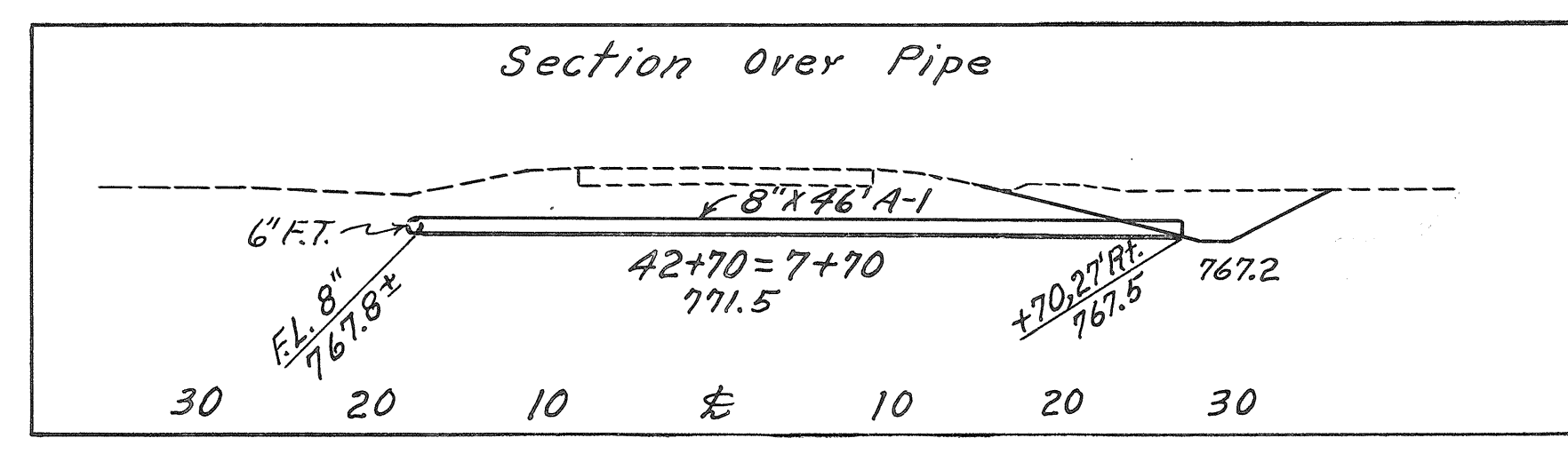
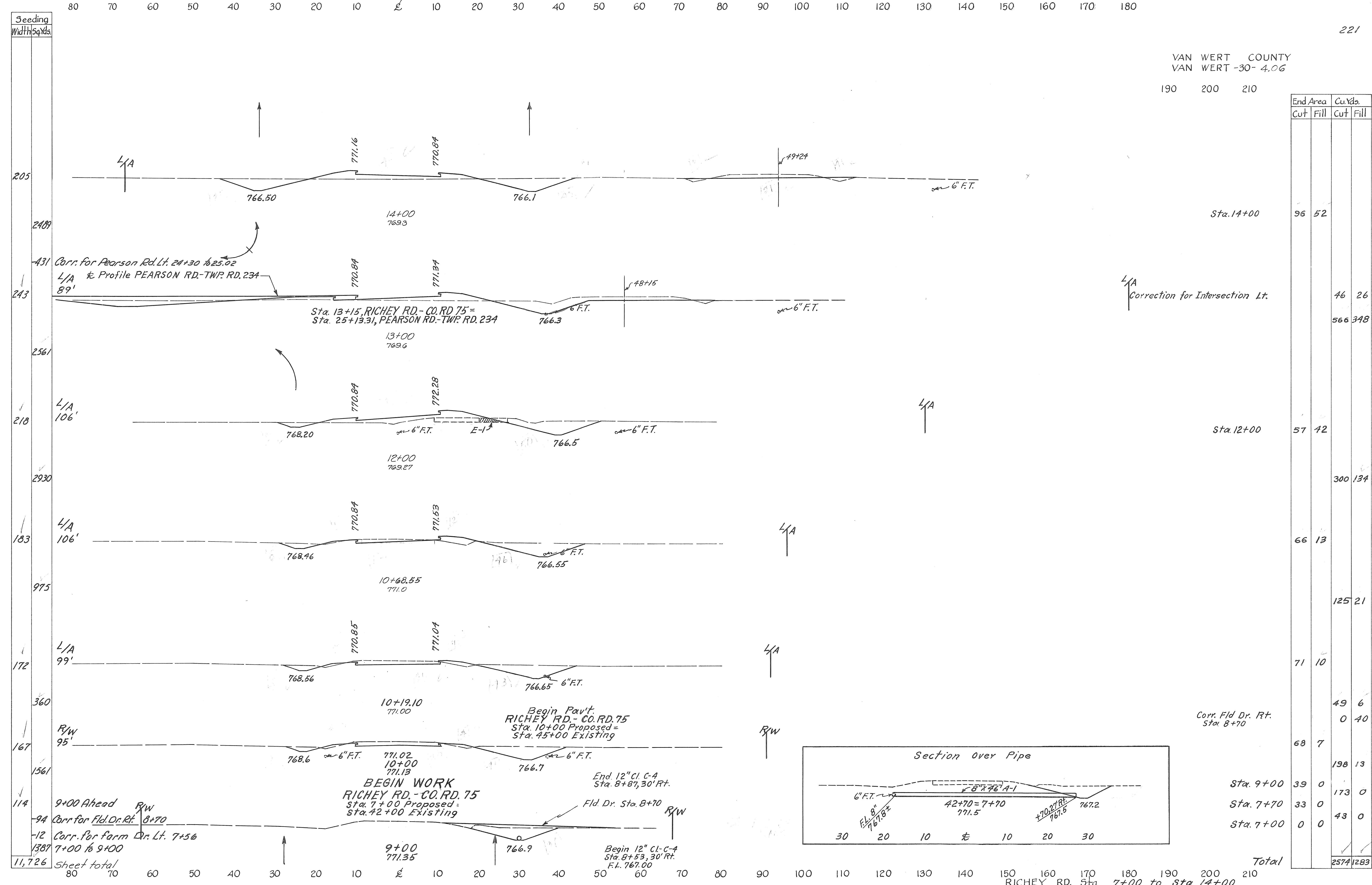
Note:  
Temporary Drives  
3-A

St. No.	Rt. Edge Lt. Edge	Elev.	Notes
9	771.13	770.86	
10	771.02	770.84	
11	770.94	770.84	
12	769.00	770.84	
13	769.30	770.84	
14	769.20	770.84	
15	769.20	770.84	
16	769.00	770.84	
17	768.80	771.39	+40.34
18	768.50	771.63	+53.11
19	770.01	771.83	+65.87
20	769.88	771.65	+97.80
21	760.78	771.70	+29.73
		771.90	+42.51
		771.72	+55.27
		771.44	
		770.93	
		770.73	
		770.58	
		770.51	
		770.52	
		770.29	
		770.11	
		769.92	
		769.74	

Excavation	2574 Cu. Yd.
Embankment	1283 Cu. Yd.
Emb. + 20%	1540 Cu. Yd.

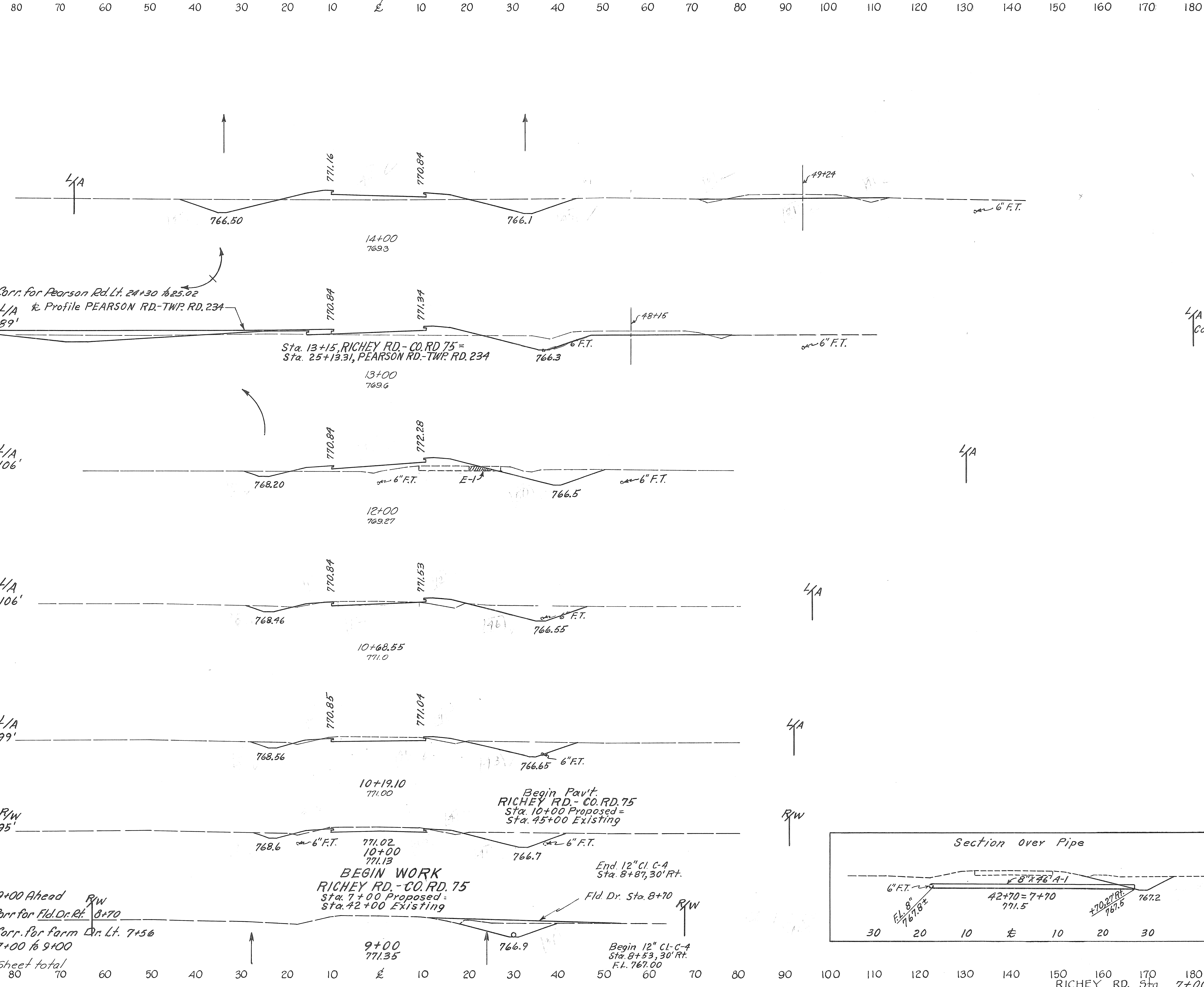
See Cross Sections for  
Details not shown

VAN WERT COUNTY  
VAN WERT -30- 4.06  
190 200 210



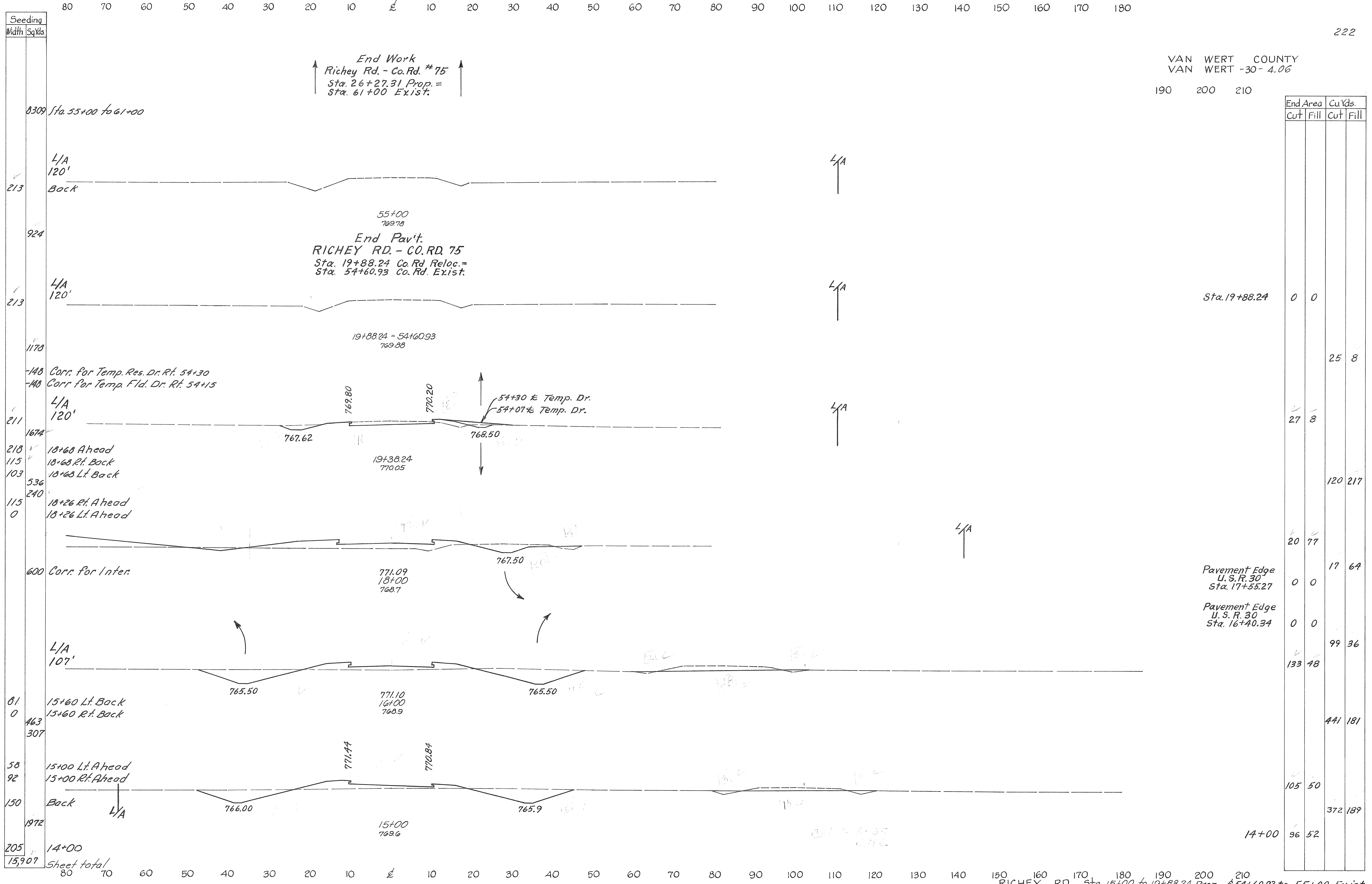
Sta.	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
Sta. 14+00	96	52		
Sta. 12+00	57	42		
Sta. 9+00	39	0	173	0
Sta. 7+70	33	0	43	0
Sta. 7+00	0	0	43	0
<b>Total</b>	<b>2574</b>	<b>1283</b>		

Seeding Width Sq. Yds.
205
2489
243
2561
218
2930
183
975
172
360
167
1561
114
11,726





VAN WERT COUNTY  
 VAN WERT -30- 4.06  
 190 200 210



End Work  
 Richey Rd. - Co. Rd. #75  
 Sta. 26+27.31 Prop. =  
 Sta. 61+00 Exist.

End Pav't  
 RICHEY RD. - CO. RD. 75  
 Sta. 19+88.24 Co. Rd. Reloc. =  
 Sta. 54+60.93 Co. Rd. Exist.

Sta. 19+88.24

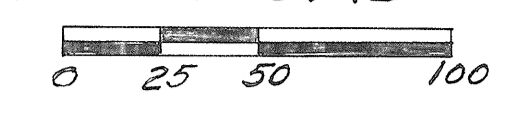
Pavement Edge  
 U.S.R. 30  
 Sta. 17+55.27

Pavement Edge  
 U.S.R. 30  
 Sta. 16+40.34

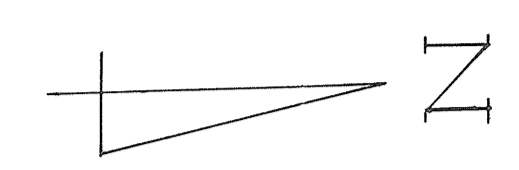
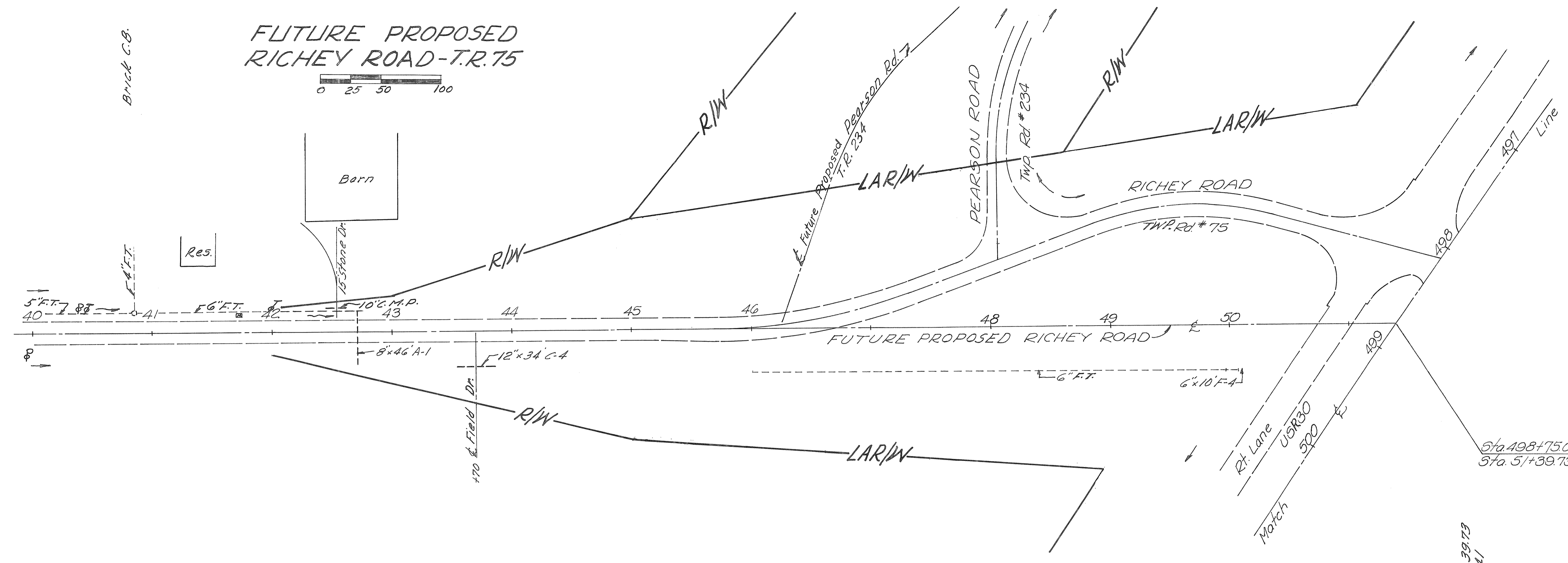
End Area		Cu Yds.	
Cut	Fill	Cut	Fill
0	0		
		25	8
27	8		
		120	217
20	77		
		17	64
0	0		
0	0		
		99	36
133	48		
		441	181
105	50		
		372	189
96	52		

205  
 15,907 Sheet total

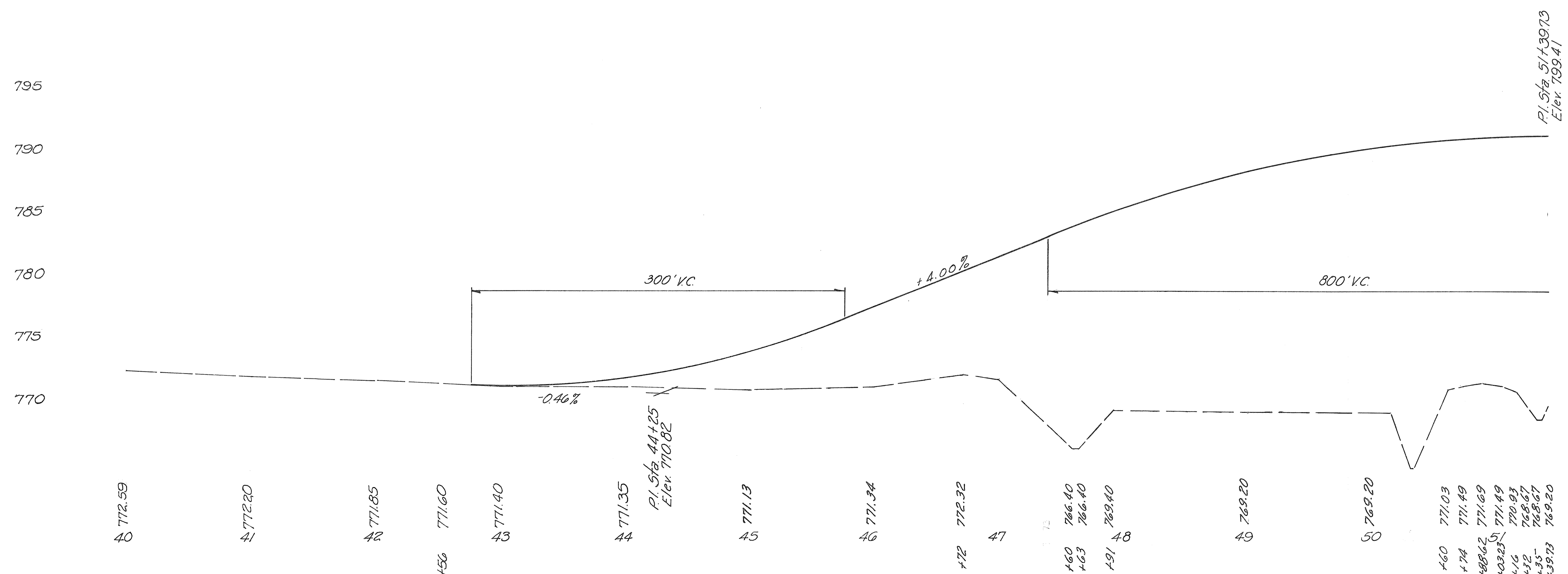
# FUTURE PROPOSED RICHEY ROAD-T.R.75



VAN WERT COUNTY  
VAN-30-4.06



771.51	771.44	771.47	771.58	771.79	772.10	772.49	772.98	773.56	774.24	775.01	775.87	776.82	777.82	781.82	783.41	783.81	784.76	785.64	786.46	787.21	787.91	788.54	789.10	789.61	790.05	790.43	790.75	791.01	791.20	791.33	791.40
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FUTURE PROPOSED RICHEY ROAD



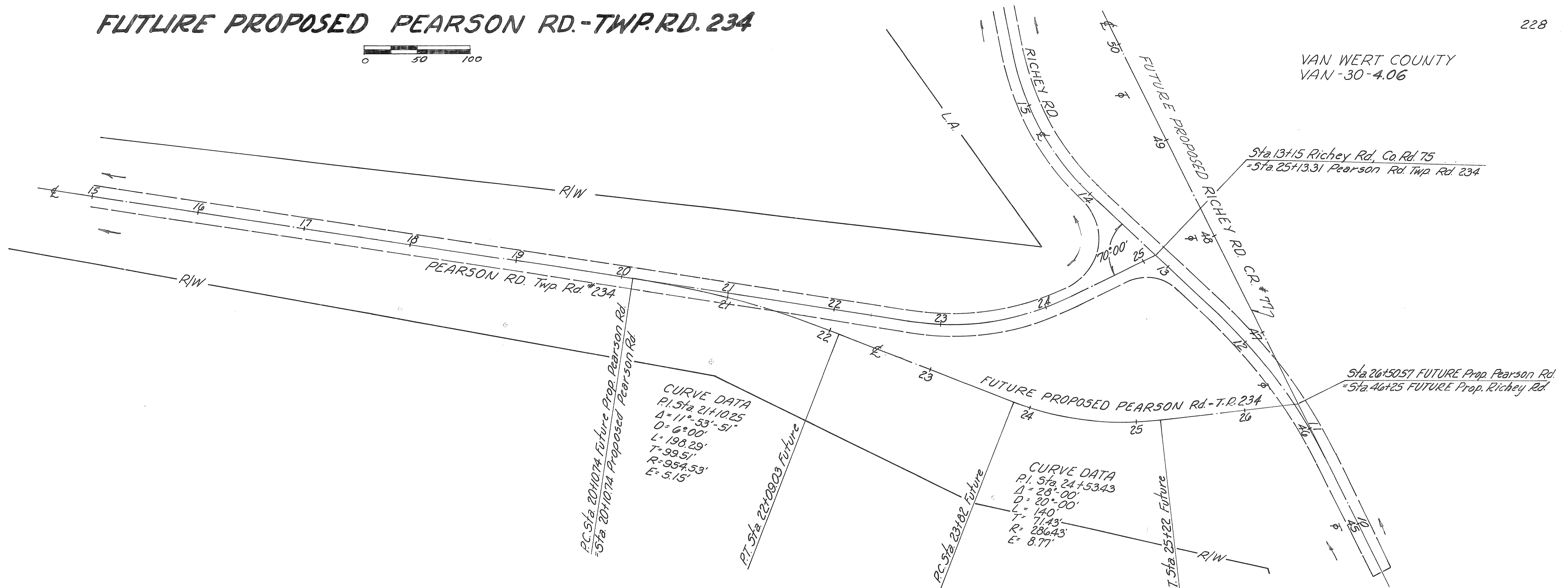
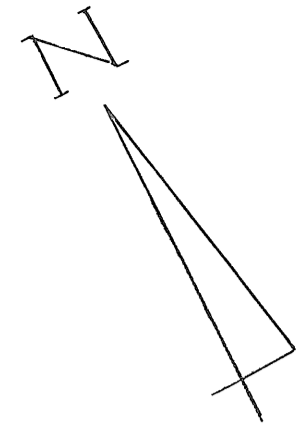






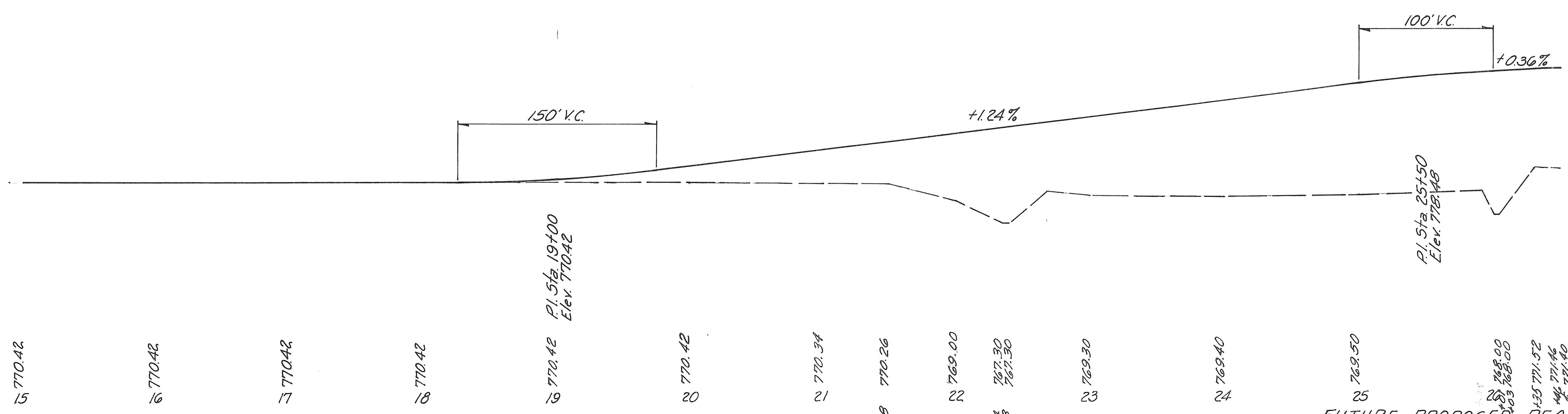
# FUTURE PROPOSED PEARSON RD.-TWP.RD.234

VAN WERT COUNTY  
VAN-30-4.06



770.26	770.60
770.26	770.42
770.26	770.34
770.26	770.26
	770.42
	770.42
	770.42
	770.45
	770.52
	770.65
	770.83
	771.07
	771.35
	771.66
	772.90
	774.14
	775.38
	776.62
	777.86
	778.14
	778.37
	778.53
	778.66
	778.80
	778.82

790  
785  
780  
775  
770



15	770.42
16	770.42
17	770.42
18	770.42
19	770.42
20	770.42
21	770.34
22	770.26
23	769.00
24	769.40
25	769.50
26	769.00
27	767.30
28	767.30
29	769.30
30	769.40
31	769.40
32	769.40
33	769.40
34	769.40
35	769.40
36	769.40
37	769.40
38	769.40
39	769.40
40	769.40

FUTURE PROPOSED PEARSON RD TWP. RD. #234

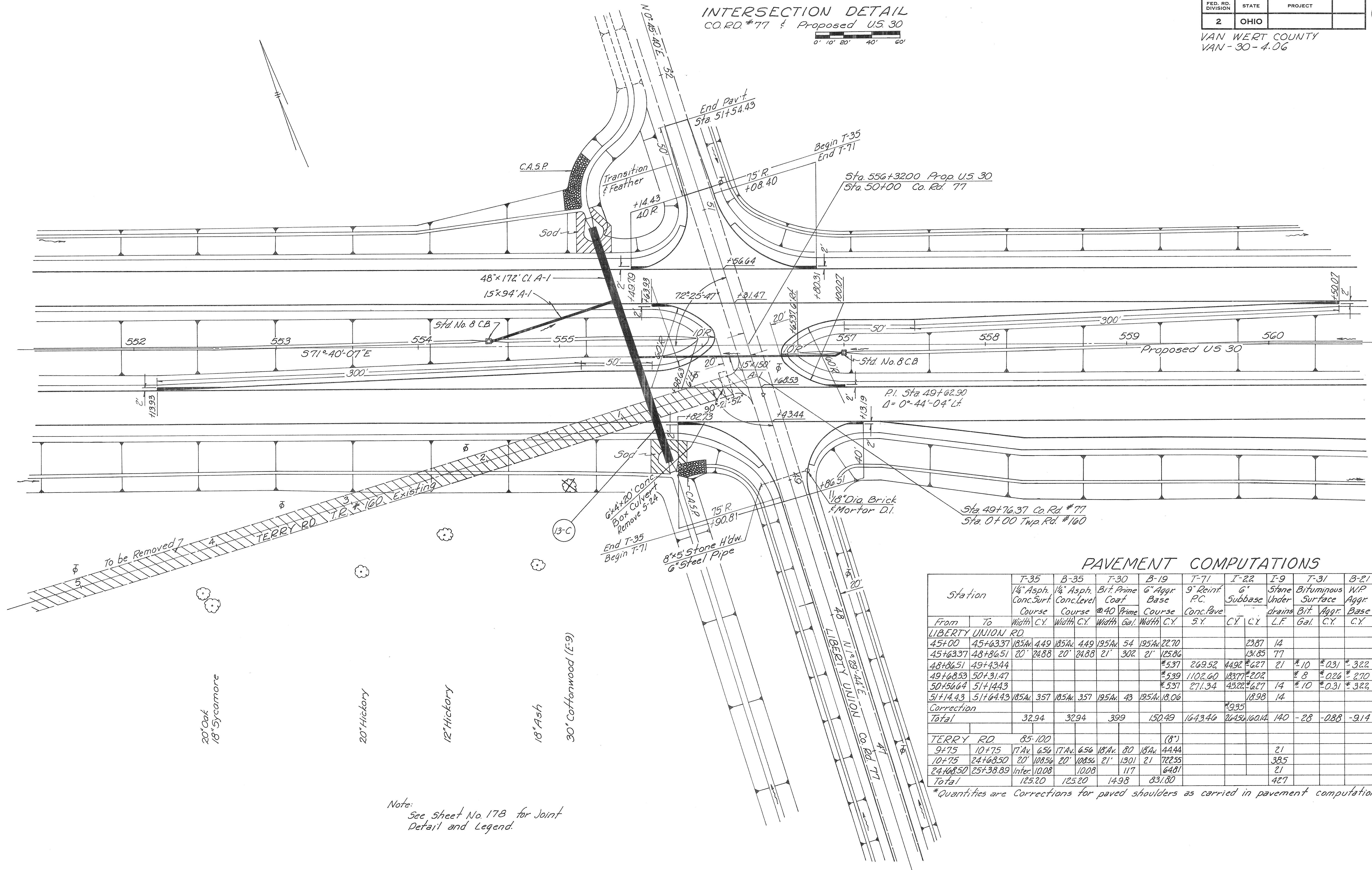
INTERSECTION DETAIL  
CO. RD. #77 & Proposed U.S. 30

0' 10' 20' 40' 60'

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

229

VAN WERT COUNTY  
VAN-30-4.06



PAVEMENT COMPUTATIONS

Station	T-35	B-35	T-30	B-19	T-71	I-22	I-9	T-31	B-21	E-1							
	1/4" Asph. Conc. Surf. Course	1/4" Asph. Conc. Level Course	Bit. Prime Coat	6" Aggr. Base	9" Reint. P.C.	6" Subbase	Stone Underdrains	Bit. Surface Aggr.	W.P. Aggr. Base	Comp. Sub-grade							
From To	Width C.Y.	Width C.Y.	Width Gal.	Width C.Y.	5.Y.	C.Y. C.Y.	L.F.	Gal. C.Y.	C.Y.	5.Y.							
LIBERTY UNION RD																	
45+00	45+63.37	185A	4.49	185A	4.49	195A	54	195A	22.70		23.87	14			129		
45+63.37	48+86.51	20'	24.88	20'	24.88	21'	302	21'	125.86		131.85	77			714		
48+86.51	49+43.44								*5.37	269.52	44.92	*6.27	21	*10	*0.31	*3.22	231
49+43.44	50+31.47								*5.39	1102.60	183.77	*2.02		*8	*0.26	*2.70	1070
50+31.47	51+14.43								*5.37	271.34	43.22	*6.27	14	*10	*0.31	*3.22	233
51+14.43	51+64.43	185A	3.57	185A	3.57	195A	43	195A	18.06		18.98	14				103	
Correction										*9.35							
Total		32.94	32.94	399	150.49	1643.46	2645.16	160.14	140	-2.8	-0.88	-9.14	24.80				
TERRY RD 85-100																	
9+75	10+75	17A	6.56	17A	6.56	18A	80	18A	44.44							189	
10+75	24+68.50	20'	108.56	20'	108.56	21'	1301	21'	722.55				385			3097	
24+68.50	25+38.89	Inter.	10.08	10.08			117		64.81				21			290	
Total		125.20	125.20	14.98	831.80								427			3576	

\*Quantities are Corrections for paved shoulders as carried in pavement computations

Note:  
See Sheet No. 17B for Joint Detail and Legend.

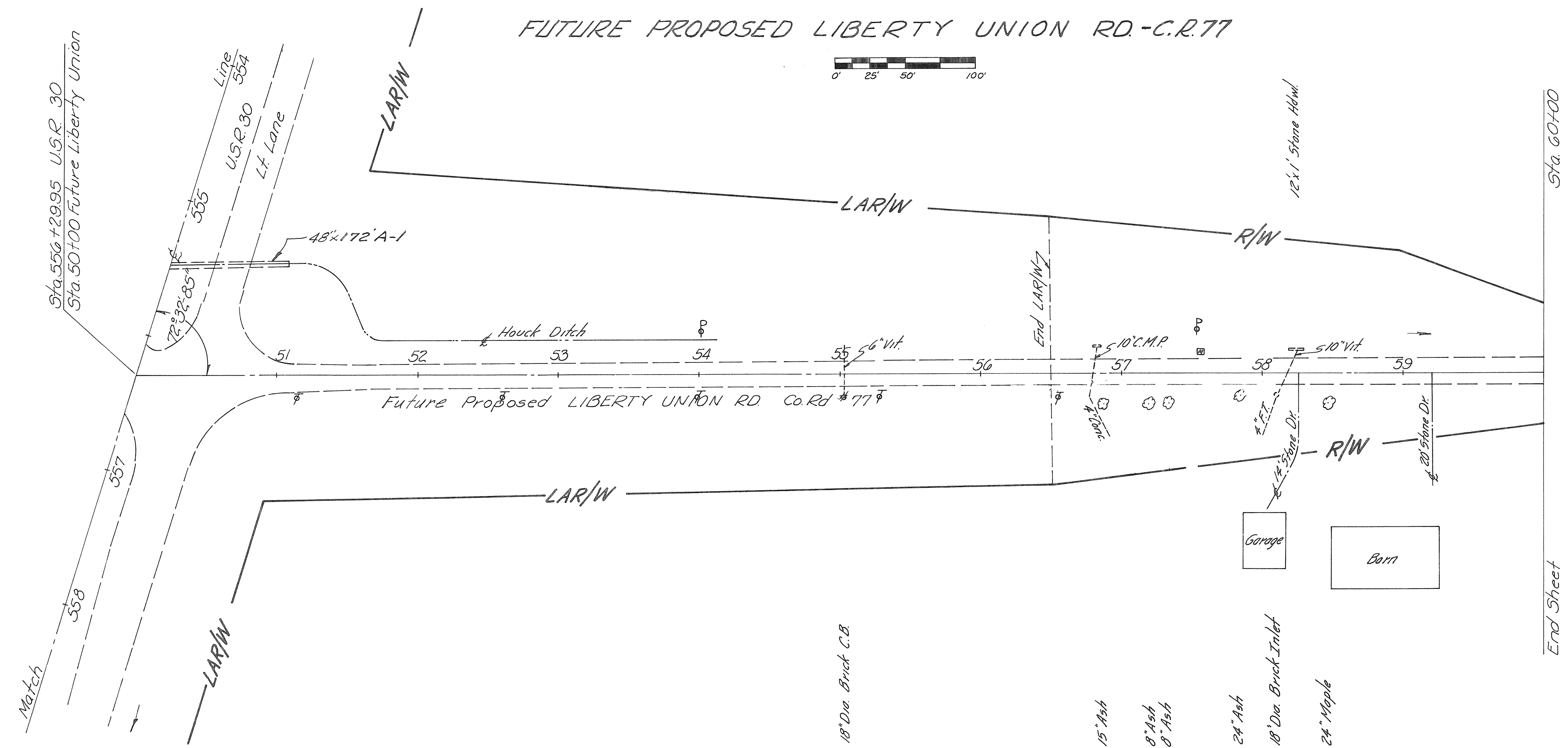
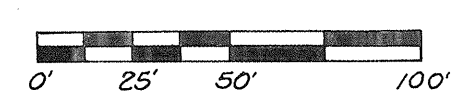




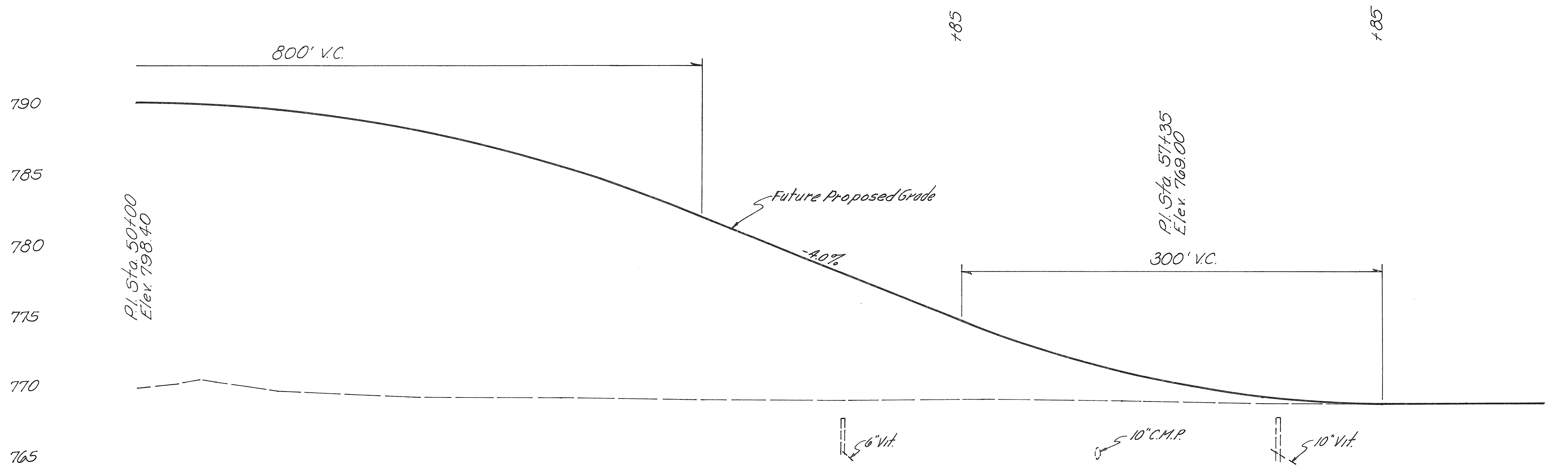




FUTURE PROPOSED LIBERTY UNION RD.-C.R.77



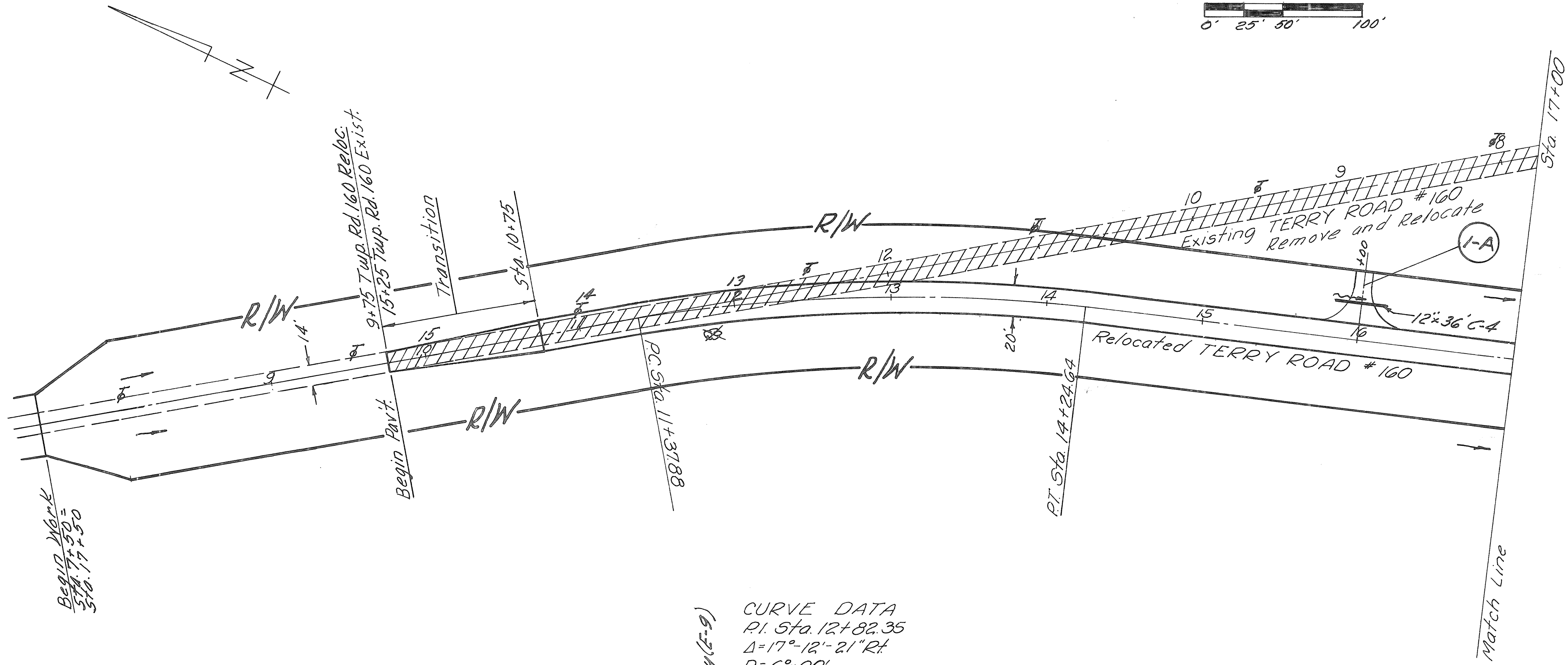
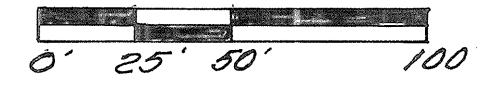
790.40	790.37	790.27	790.12	789.90	789.62	789.27	788.87	788.40	787.87	787.27	786.62	785.90	785.12	784.27	783.37	782.40	778.40	775.00	774.42	773.51	772.68	771.94	771.28	770.71	770.22	769.81	769.48	769.24	769.08	769.01	769.00	769.02
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50	51	52	53	54	55	56	57	58	59	60	
770.55	770.54 770.72 770.53	769.96	769.55	769.48	769.37	769.26	769.34	768.31	769.03	769.03	769.02

RELOCATED TERRY RD.-T.R.160

VAN WERT COUNTY  
VAN-30-4.06



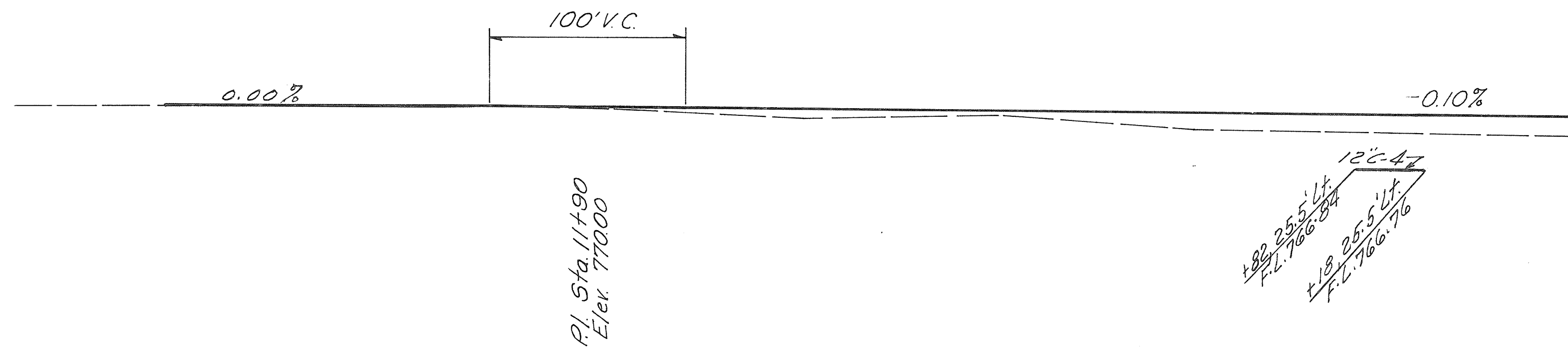
CURVE DATA  
 P.I. Sta. 12+82.35  
 $\Delta = 17^\circ - 12' - 21''$  RT  
 $D = 6^\circ - 00'$   
 $R = 954.93'$   
 $T = 144.47'$   
 $L = 286.76'$   
 $E = 10.87'$

Rt Edge Lt Edge

770.00	770.00	770.00	769.84	770.36	769.84	770.49	769.84	770.62	769.82	770.73	769.82	770.86	769.81	770.98	769.78	771.05	769.76	771.06	769.73	771.00	769.71	770.88	769.68	770.72	769.66	770.57	769.63	770.41	769.61	770.26	769.58	770.10	769.56	769.95	769.53	769.79	769.51	769.64	769.59	769.49
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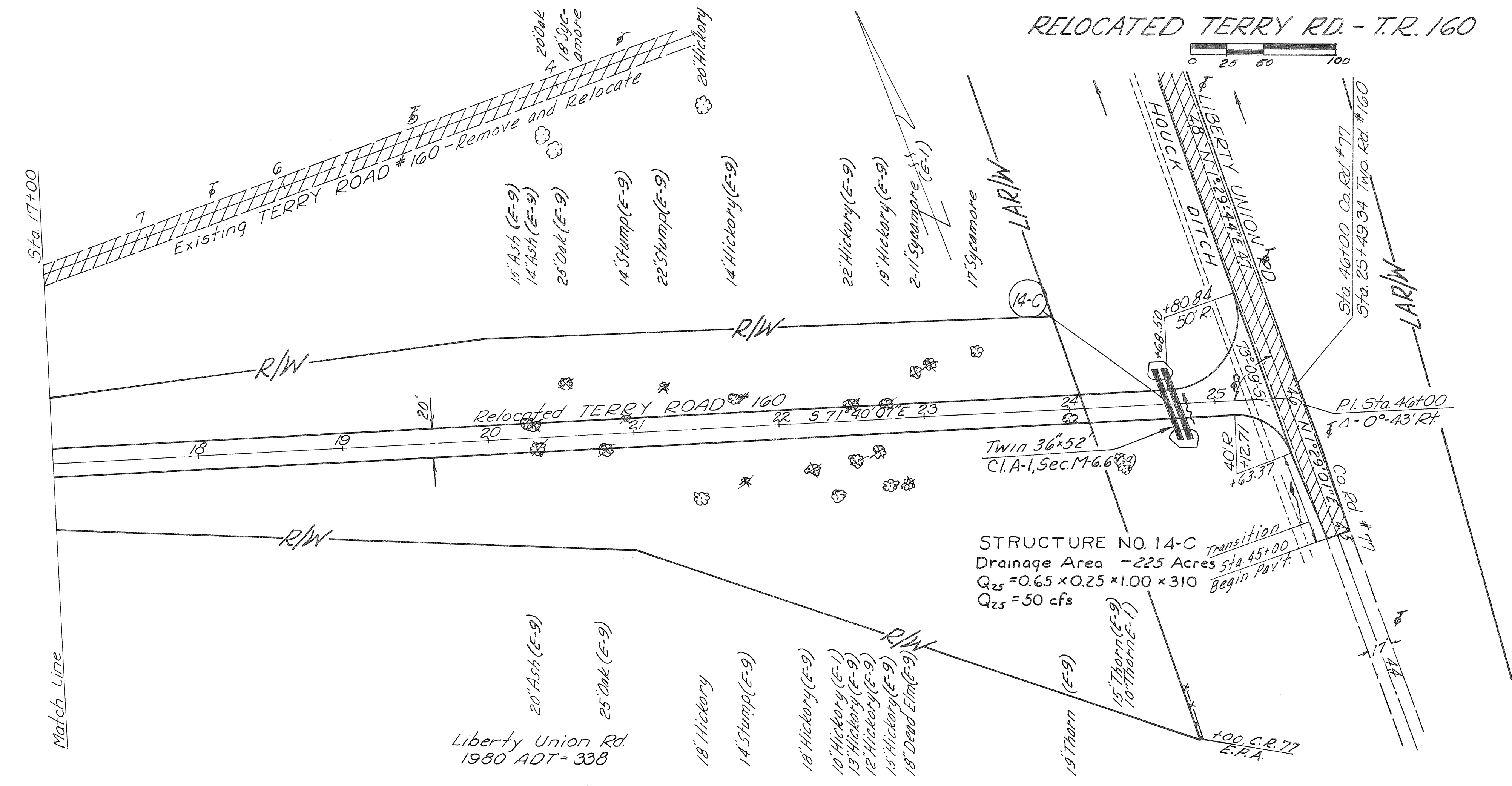
E-9 Removal of Trees and Stumps 1-Each  
Carried to Sheet No. 235

785  
780  
775  
770  
765



8  
9 7700  
10 7700  
11 7700  
12 7698  
13 7693  
14 7685  
15 7688  
16 7686  
17 7685

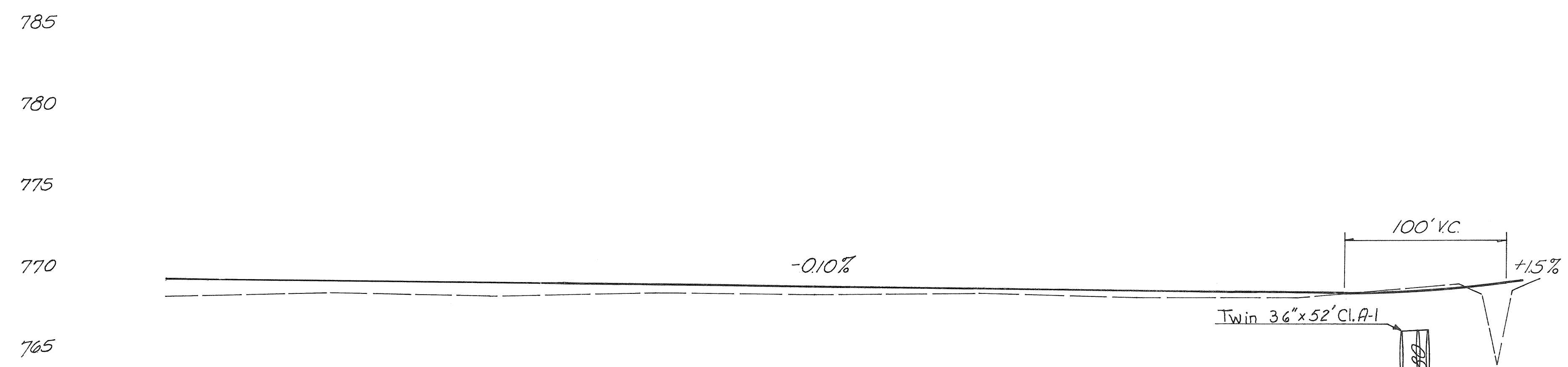
RELOCATED TERRY RD. - T.R. 160



Notes:~  
DRAINAGE AND SIDE APPROACHES  
For Drainage and Side Approach Items  
see Main Line Sheet No. 51  
PAVEMENT COMPUTATIONS  
For Pavement Computations see Liberty  
Union Rd. Intersection Detail, Sheet No. 229

\* E-9 Removal of Trees and Stumps 17 Each  
\* Carried to Main Line Sheet No. 51

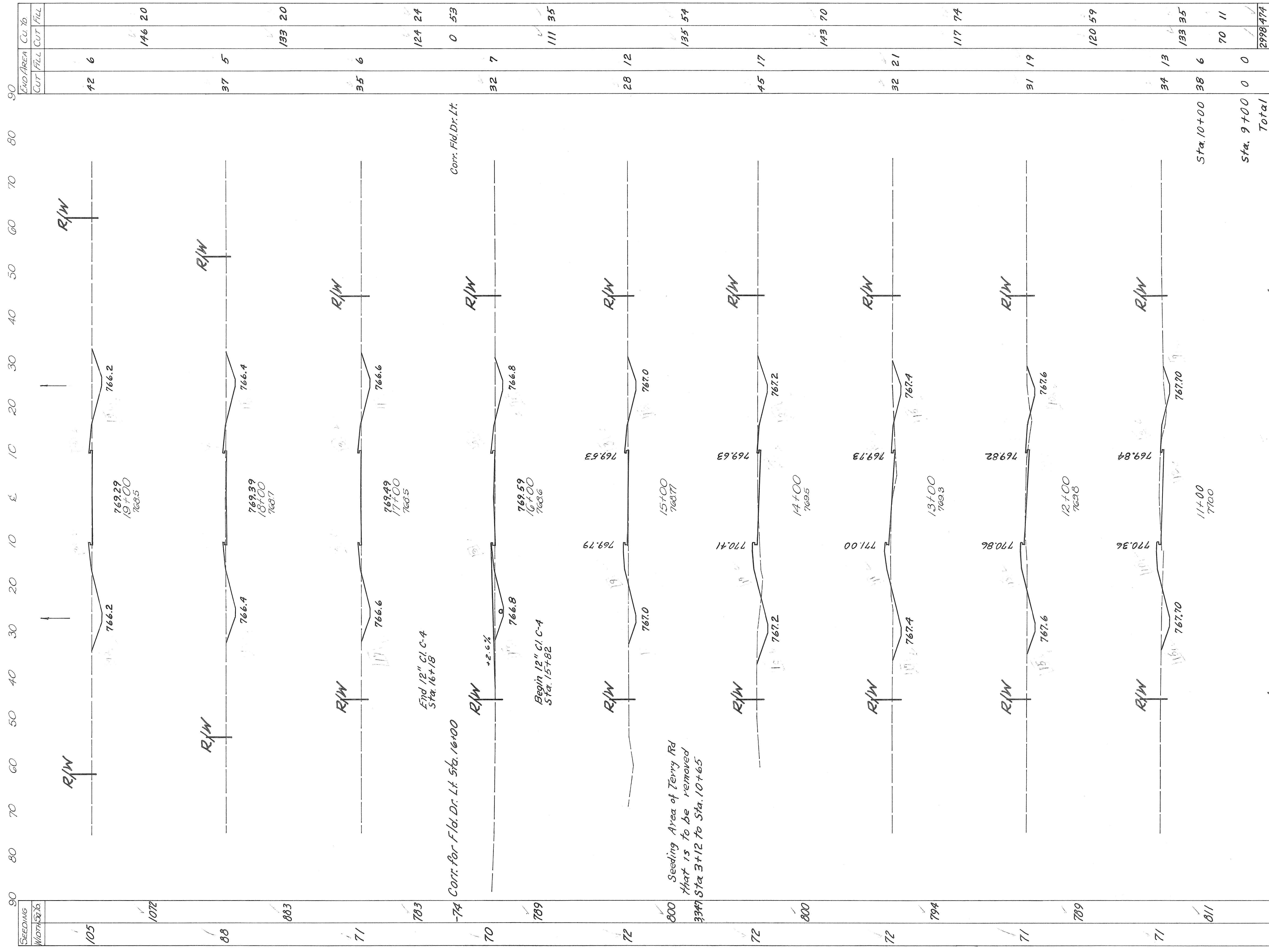
769.49	769.39	769.29	769.19	769.09	768.99	768.89	768.79	768.76	768.77	768.88	769.08	769.41	769.46	769.59
								+30				+30	+30	+38.89



Sta. 9+75 to Sta. 25+38.89	
Excavation	2298 Cu. Yd.
Embankment	474 Cu. Yd.
Emb. +20%	569 Cu. Yd.

For Details not shown  
See Cross Sections  
& Structure Dwg. 14-C

17	18	19	20	21	22	23	24	25	26
768.5	768.7	768.5	768.7	768.6	768.7	768.5	768.5	768.9	769.61
								+15	+33
								+30	+49.94



Sta.	CUT	FILL	CUT	FILL	CUT	FILL
70+00	32	7	35	6	37	5
71+00	28	12	32	21	31	19
72+00	45	17	32	21	31	19
73+00	32	12	35	6	37	5
74+00	28	12	32	21	31	19
75+00	45	17	32	21	31	19
76+00	32	7	35	6	37	5
77+00	28	12	32	21	31	19
78+00	45	17	32	21	31	19
79+00	32	7	35	6	37	5
80+00	28	12	32	21	31	19
81+00	45	17	32	21	31	19
82+00	32	7	35	6	37	5
83+00	28	12	32	21	31	19
84+00	45	17	32	21	31	19
85+00	32	7	35	6	37	5
86+00	28	12	32	21	31	19
87+00	45	17	32	21	31	19
88+00	32	7	35	6	37	5
89+00	28	12	32	21	31	19
90+00	45	17	32	21	31	19
<b>Total</b>	<b>2998</b>	<b>474</b>				

VAN WERT COUNTY  
VAN-30-406

From Sta 10+87.88 to Sta 19+00  
TERRY ROAD

12,761  
Sheet total

770.00  
9+00  
7700  
Begin Work  
Sta 7+50

767.80  
10+00  
7700  
Begin Point  
Sta 9+75

766.2  
146  
20

769.29  
19+00  
768.5

769.39  
18+00  
768.7

769.49  
17+00  
768.5

769.59  
16+00  
768.6

769.63  
15+00  
768.7

769.79  
14+00  
768.8

769.82  
13+00  
768.9

769.84  
12+00  
769.0

769.86  
11+00  
769.1

769.88  
10+00  
769.2

769.90  
9+00  
769.3

769.92  
8+00  
769.4

769.94  
7+00  
769.5

769.96  
6+00  
769.6

769.98  
5+00  
769.7

770.00  
4+00  
769.8

770.02  
3+00  
769.9

770.04  
2+00  
770.0

770.06  
1+00  
770.1

770.08  
0+00  
770.2

770.10  
-1+00  
770.3

770.12  
-2+00  
770.4

770.14  
-3+00  
770.5

770.16  
-4+00  
770.6

770.18  
-5+00  
770.7

770.20  
-6+00  
770.8

770.22  
-7+00  
770.9

770.24  
-8+00  
771.0

770.26  
-9+00  
771.1

770.28  
-10+00  
771.2

770.30  
-11+00  
771.3

770.32  
-12+00  
771.4

770.34  
-13+00  
771.5

770.36  
-14+00  
771.6

770.38  
-15+00  
771.7

770.40  
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770.42  
-17+00  
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770.44  
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770.46  
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770.48  
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770.50  
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770.52  
-22+00  
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770.60  
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770.62  
-27+00  
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770.64  
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770.66  
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773.1

770.68  
-30+00  
773.2

770.70  
-31+00  
773.3

770.72  
-32+00  
773.4

770.74  
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770.76  
-34+00  
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770.78  
-35+00  
773.7

770.80  
-36+00  
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770.82  
-37+00  
773.9

770.84  
-38+00  
774.0

770.86  
-39+00  
774.1

770.88  
-40+00  
774.2

770.90  
-41+00  
774.3

770.92  
-42+00  
774.4

770.94  
-43+00  
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770.96  
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770.98  
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774.7

771.00  
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771.02  
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774.9

771.04  
-48+00  
775.0

771.06  
-49+00  
775.1

771.08  
-50+00  
775.2

771.10  
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775.3

771.12  
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775.4

771.14  
-53+00  
775.5

771.16  
-54+00  
775.6

771.18  
-55+00  
775.7

771.20  
-56+00  
775.8

771.22  
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775.9

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777.2

771.50  
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777.3

771.52  
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777.4

771.54  
-73+00  
777.5

771.56  
-74+00  
777.6

771.58  
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777.7

771.60  
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771.98  
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772.00  
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772.04  
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772.06  
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773.16  
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786.1

773.28  
-160+00  
786.2

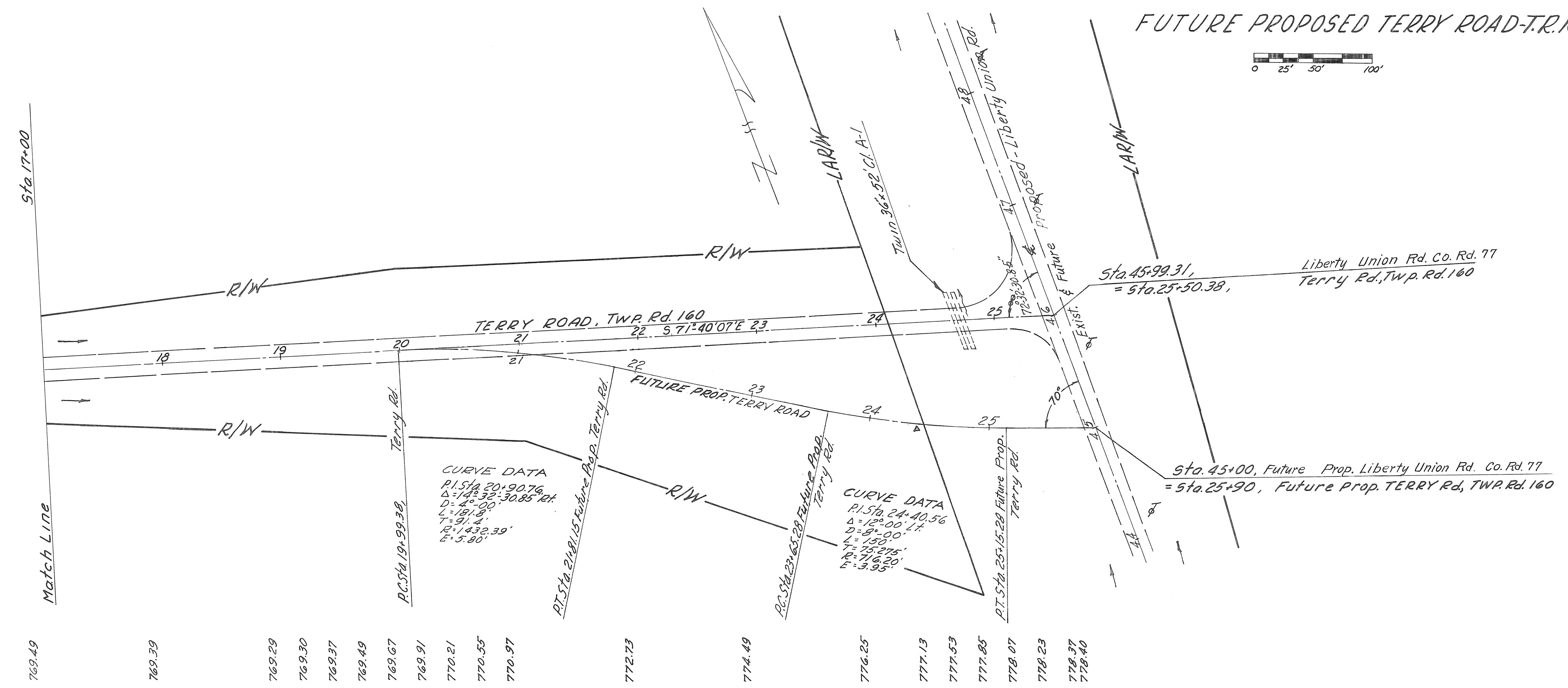
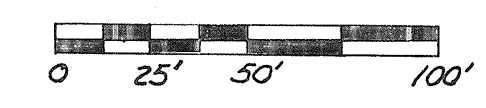
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-161+00  
786.3



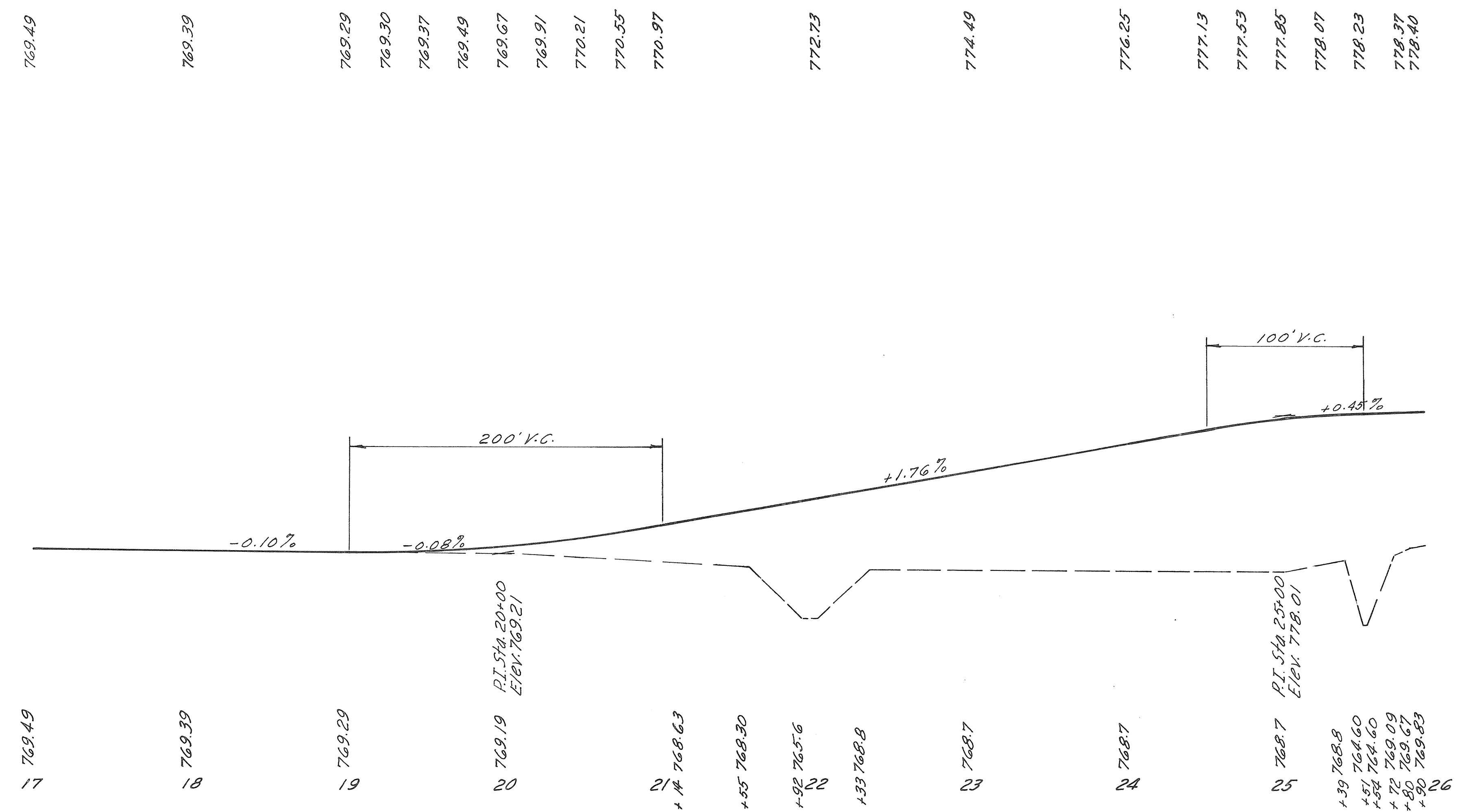


FUTURE PROPOSED TERRY ROAD-T.R.160

VAN WERT COUNTY  
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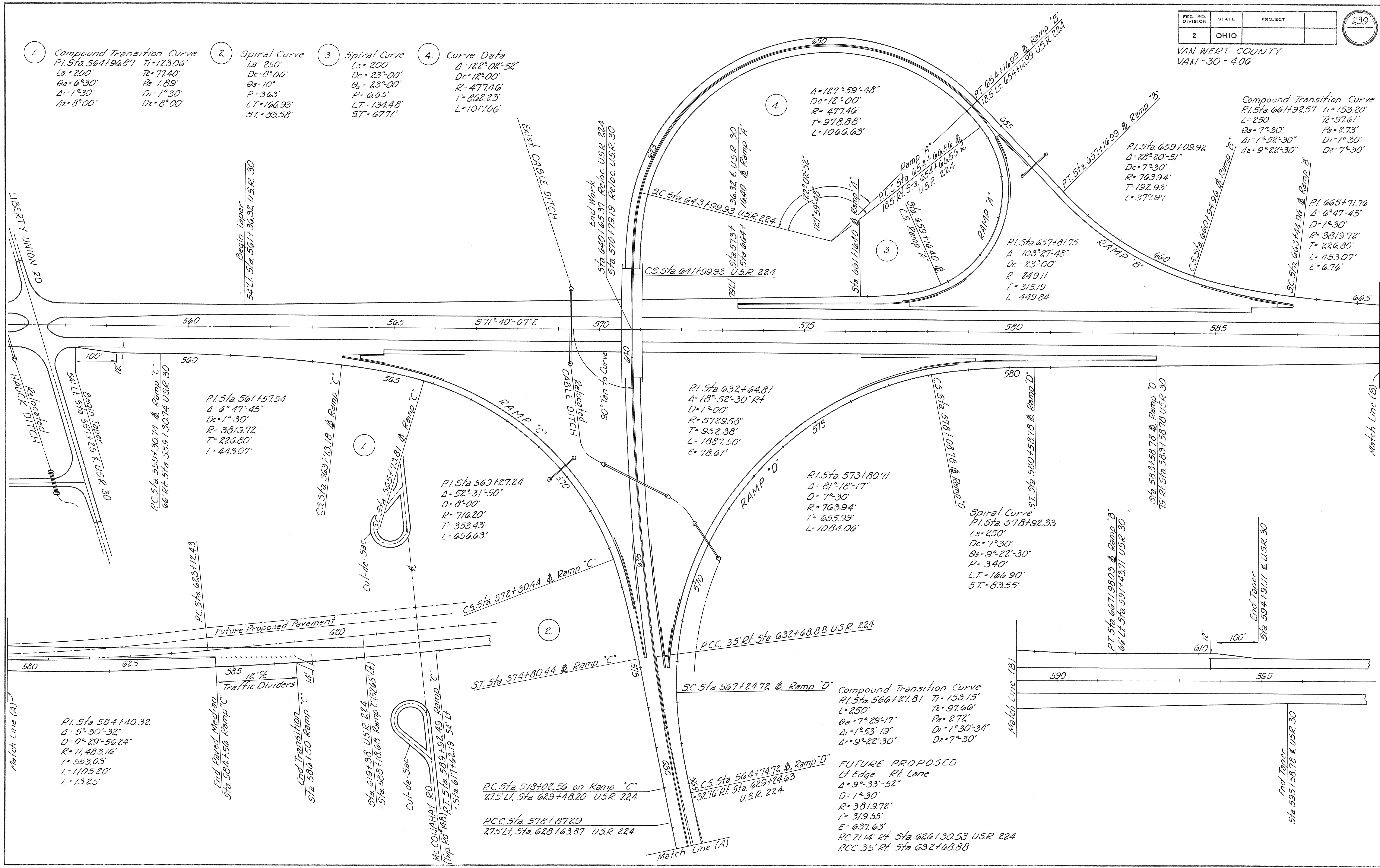
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785  
780  
775  
770  
765



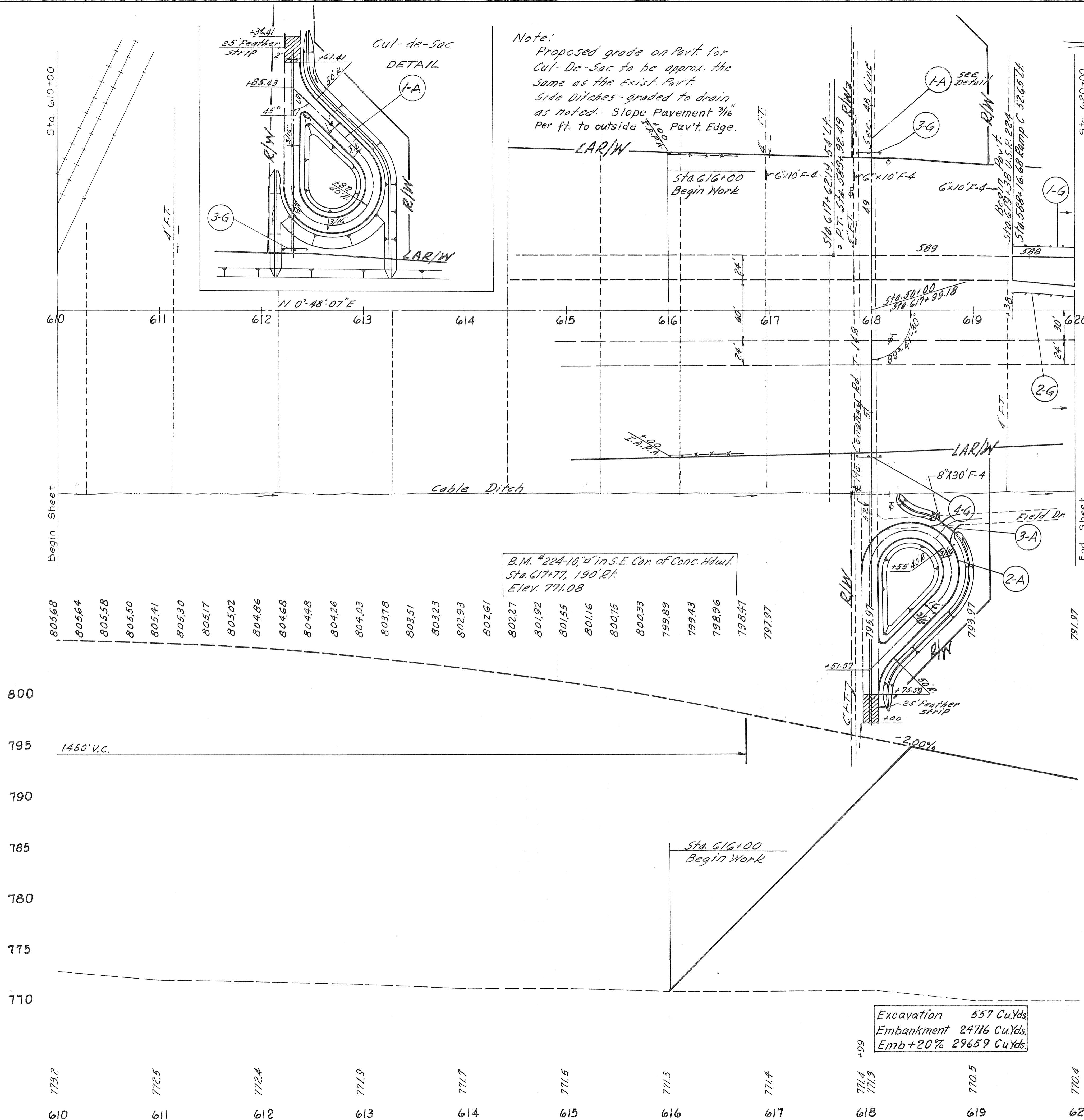
VAN WERT COUNTY  
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- Compound Transition Curve  
P.I. Sta 564+96.87 T<sub>i</sub>=123.06'  
L<sub>a</sub>=200' T<sub>z</sub>=77.40'  
θ<sub>a</sub>=6°30' P<sub>a</sub>=1.89'  
Δ<sub>1</sub>=1°30' D<sub>1</sub>=1°30'  
Δ<sub>2</sub>=8°00' D<sub>2</sub>=8°00'
- Spiral Curve  
L<sub>s</sub>=250' D<sub>c</sub>=8°00'  
θ<sub>s</sub>=10° P=3.63'  
L.T.=166.93' S.T.=83.58'
- Spiral Curve  
L<sub>s</sub>=200' D<sub>c</sub>=23°00'  
θ<sub>s</sub>=23°00' P=4.65'  
L.T.=134.48' S.T.=67.71'
- Curve Data  
Δ=122°02'52"  
D<sub>c</sub>=12°00'  
R=477.46'  
T=862.23'  
L=1017.06'

- Compound Transition Curve  
P.I. Sta 661+92.57 T<sub>i</sub>=153.20'  
L=250' T<sub>z</sub>=97.61'  
θ<sub>a</sub>=7°30' P<sub>a</sub>=2.73'  
Δ<sub>1</sub>=1°52'30" D<sub>1</sub>=1°30'  
Δ<sub>2</sub>=9°22'30" D<sub>2</sub>=7°30'



Note:  
Proposed grade on Pav't. for  
Cul-De-Sac to be approx. the  
same as the Exist. Pav't.  
Side Ditches - graded to drain  
as noted. Slope Pavement 3/16"  
Per ft. to outside Pav't. Edge.



GUARD RAIL "G"

Ref. No.	Station	Side	I-15 Guard Rail Steel Beam Type (Deep) (LID. FT.)
	From	to	Straight
1-G	Ramp C 527+55	Ramp C 528+16.5	RT 61.5
2-G	619+38	620+00	LT 62.0
3-G	48+45	McCarahay St	25.0
4-G	51+45	McCarahay St	25.0
	Total		173.5

SIDE APPROACHES

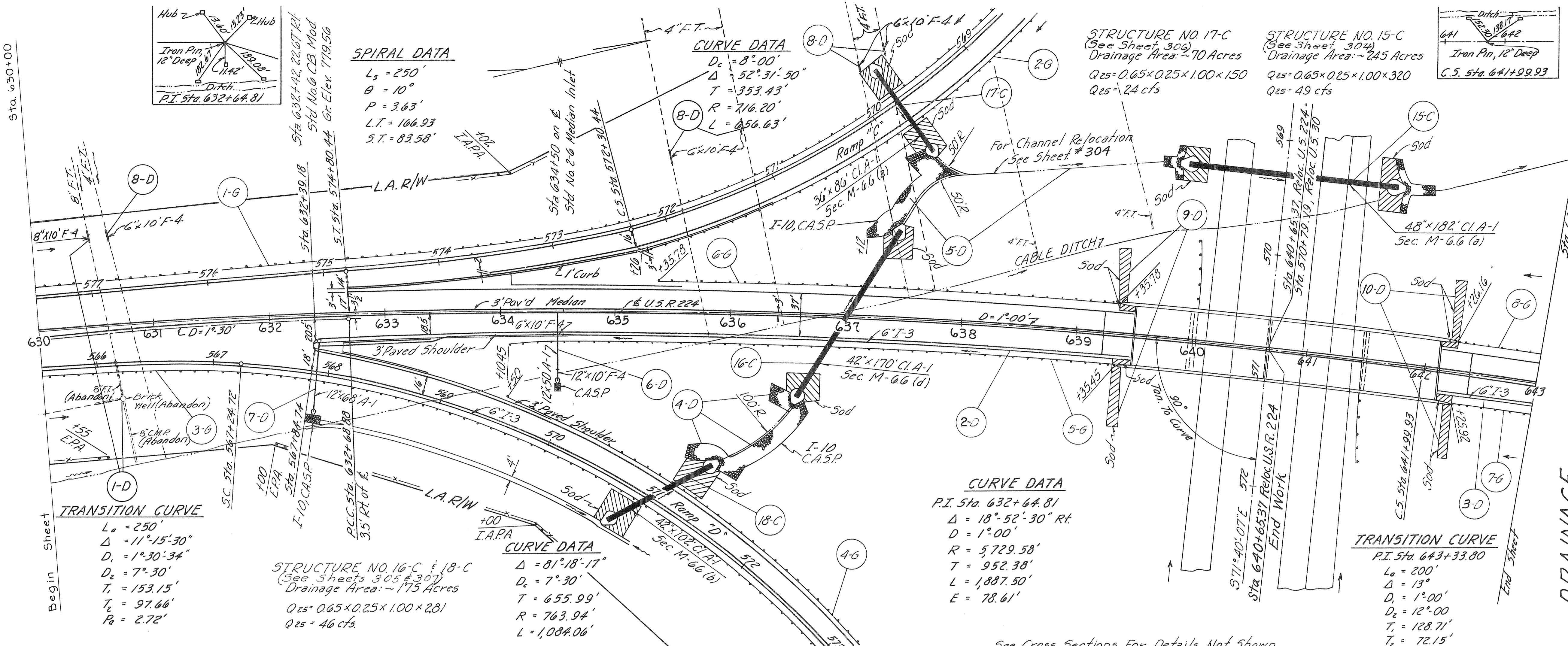
Ref. No.	Station	Side	B-19 Agg. Base	T-30 Face 1/4" Gal.	T-30 Bit. Coat	T-35 ASPH. Prime Surf	E-1 Exc.	E-1 Road Comp. Sub.	Remarks	Length	Width	I-1 Drive Pipe Lin. Ft.
1-A	McCarahay 46+01.41	LT	80	30	155	37.60	84	386	Cul-de-Sac	387	16	
2-A	53+75.59	RT	80	33	155	38.50	65	386	Cul-de-Sac	387	16	
3-A	52+10		9"						Field Dr.	20	12	30
	Total		169	63	310	76.10	149	772				30

\*G" B-19

Note: See following sheet for drainage items

Excavation 557 Cu.Yds  
Embankment 24716 Cu.Yds  
Emb +20% 29659 Cu.Yds



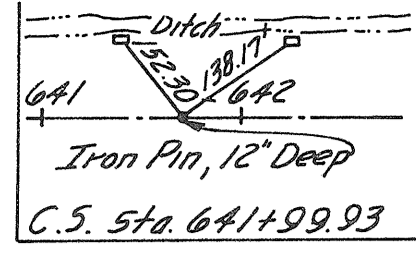


**SPIRAL DATA**  
 $L_s = 250'$   
 $\theta = 10^\circ$   
 $P = 3.63'$   
 $L.T. = 166.93'$   
 $S.T. = 83.58'$

**CURVE DATA**  
 $\Delta_c = 8^\circ 00'$   
 $\Delta = 52^\circ 31' 50''$   
 $T = 353.43'$   
 $R = 716.20'$   
 $L = 456.63'$

**STRUCTURE NO. 17-C**  
 (See Sheet 304)  
 Drainage Area: 70 Acres  
 $Q_{25} = 0.65 \times 0.25 \times 1.00 \times 150$   
 $Q_{25} = 24$  cfs

**STRUCTURE NO. 15-C**  
 (See Sheet 304)  
 Drainage Area: 245 Acres  
 $Q_{25} = 0.65 \times 0.25 \times 1.00 \times 320$   
 $Q_{25} = 49$  cfs



**TRANSITION CURVE**  
 $L_a = 250'$   
 $\Delta = 11^\circ 15' 30''$   
 $D_i = 1^\circ 30' 34''$   
 $T = 153.15'$   
 $L_c = 97.66'$   
 $P_a = 2.72'$

**STRUCTURE NO. 16-C & 18-C**  
 (See Sheets 305 & 307)  
 Drainage Area: 175 Acres  
 $Q_{25} = 0.65 \times 0.25 \times 1.00 \times 281$   
 $Q_{25} = 46$  cfs

**CURVE DATA**  
 $\Delta = 81^\circ 18' 17''$   
 $D_c = 7^\circ 30'$   
 $T = 655.99'$   
 $R = 763.94'$   
 $L = 1,084.06'$

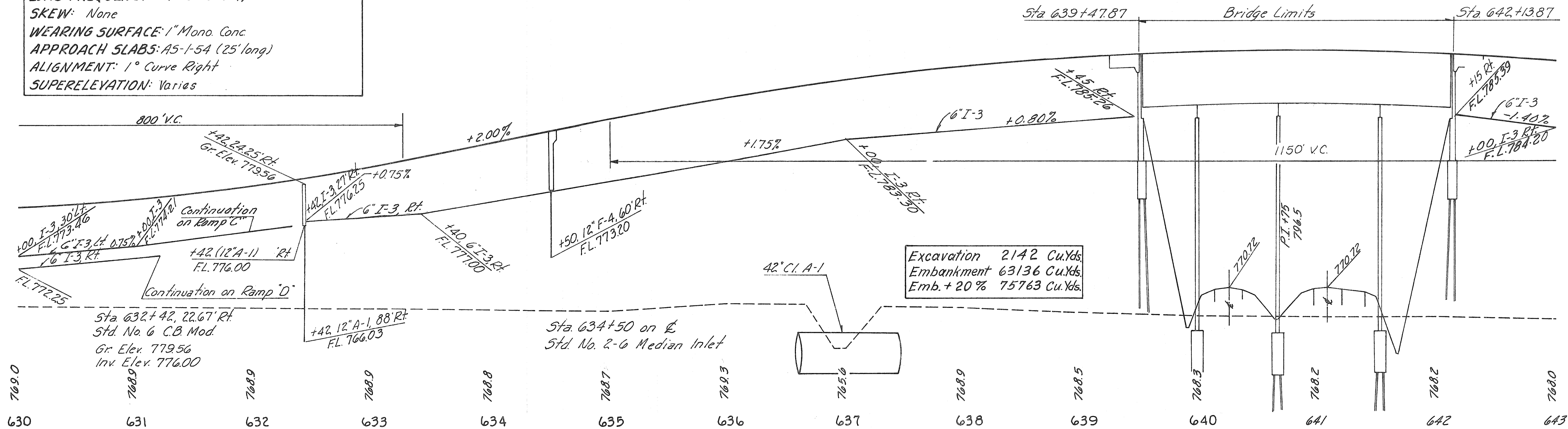
**CURVE DATA**  
 P.I. Sta. 632+64.81  
 $\Delta = 18^\circ 52' 30''$  RT  
 $D = 1^\circ 00'$   
 $R = 5,729.58'$   
 $T = 952.38'$   
 $L = 1,887.50'$   
 $E = 78.61'$

**TRANSITION CURVE**  
 P.I. Sta. 643+33.80  
 $L_a = 200'$   
 $\Delta = 13^\circ$   
 $D_i = 1^\circ 00'$   
 $T = 128.71'$   
 $L_c = 72.15'$

See Cross Sections For Details Not Shown.

Station	Rt. Edge Rt. Lane	Median	Lf. Edge Lt. Lane
777.64	783.96	784.46	785.04
777.75	784.46	785.00	785.54
777.89	784.95	785.49	786.03
778.06	785.42	785.96	786.50
778.26	785.86	786.40	786.94
778.50	786.29	786.83	787.37
778.77	786.69	787.29	787.77
779.06	787.07	787.61	788.15
779.39	787.43	787.97	788.51
779.75	787.76	788.30	788.84
780.14	788.08	788.62	789.16
780.56	788.37	788.91	789.45
781.02	788.64	789.18	789.72
781.50	788.89	789.43	789.97
783.00	789.12	789.66	790.20
	789.33	789.87	790.41
	789.51	790.05	790.59
	789.68	790.22	790.76
	789.82	790.36	790.90
	789.94	790.48	791.02
	790.04	790.58	791.12
	790.11	790.65	791.19
	790.17	790.71	791.25
	790.20	790.74	791.28
	790.21	790.75	791.29
	790.20	790.74	791.28
	790.17	790.71	791.25
	790.11	790.65	791.19
	790.04	790.58	791.12
	789.91	790.48	791.05
	789.71	790.36	791.01
	789.46	790.22	789.98
	789.18	790.05	790.92
	788.89	789.87	790.85

**PROPOSED STRUCTURE**  
 TYPE: Continuous Steel Beams with Reinf. Conc. Deck and Substructure  
 SPANS: 47.5' - 67.75' - 86.0' - 60.25' % Bearings  
 ROADWAY: 53'-0" Parapets with 3'-0" raised median  
 LOAD FREQUENCY: CF-2000 (57)  
 SKEW: None  
 WEARING SURFACE: 1" Mono. Conc.  
 APPROACH SLABS: A5-1-5A (25' long)  
 ALIGNMENT: 1° Curve Right  
 SUPERELEVATION: Varies



**DRAINAGE**

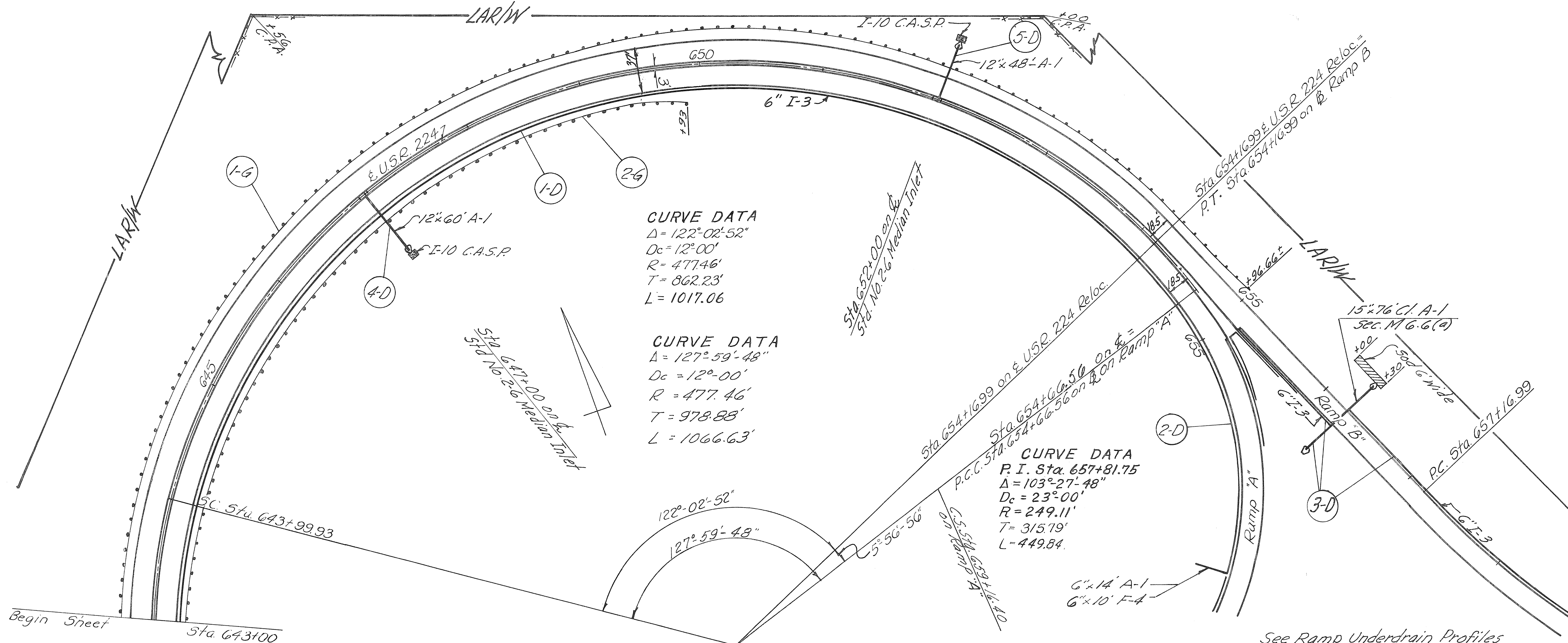
Ref. No.	Station	Side		Litt. Ft.	Pipe, Culverts Sewers & Drains	Pipes, Specialties, etc.	Saddling	Aggregate Slope Protection	Crushed Riprap	SPECIAL CHANNEL FORMATION	C.B. Abandoned
		From	To								
16-C	636+54	637+58	RT	86	42" (6")	170					
17-C	637+75	638+00	RT	102	36" (6")	102					
18-C	630+60	631+45	RT	10	36" (6")	10					
1-D	632+40	633+00	RT	50	36" (6")	50					
2-D	642+75	643+00	RT	68	36" (6")	68					
3-D	642+60	643+00	RT	50	36" (6")	50					
4-D	637+15	637+90	LT	118	36" (6")	118					
5-D	634+50	637+42	RT	10	36" (6")	10					
6-D	632+94	637+00	RT	10	36" (6")	10					
7-D	639+74	642+00	RT	10	36" (6")	10					
8-D	639+32	639+43	RT	10	36" (6")	10					
9-D	639+32	642+28	RT	10	36" (6")	10					
10-D	642+18	642+28	RT	10	36" (6")	10					
	Total			102		170					

**GUARD RAIL "G"**

Ref. No.	Station	Side	Type (Depth) Lin. Ft.		Standard	Total
			From	To		
1-G	568+00	RT	577+57	578+00	951.0	356.542
2-G	568+02.5	RT	572+20	573+00	437.5	
3-G	565+53	RT	573+00	573+00	74.5	
4-G	469+50	LT	573+00	573+00	359	
5-G	634+04.5	RT	639+55	639+55	525	
6-G	635+57.8	LT	639+55	639+55	400	
7-G	642+29.2	RT	643+00	643+00	740.8	
8-G	642+26.0	LT	643+00	643+00	738.4	
	Total					356.542

# Ramp C  
 # Ramp D  
 \* Berm and Slope Protection (See Special Detail)

VAN WERT COUNTY  
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**CURVE DATA**  
 $\Delta = 122^{\circ}02'52''$   
 $D_c = 12^{\circ}00'$   
 $R = 477.46'$   
 $T = 862.23'$   
 $L = 1017.06'$

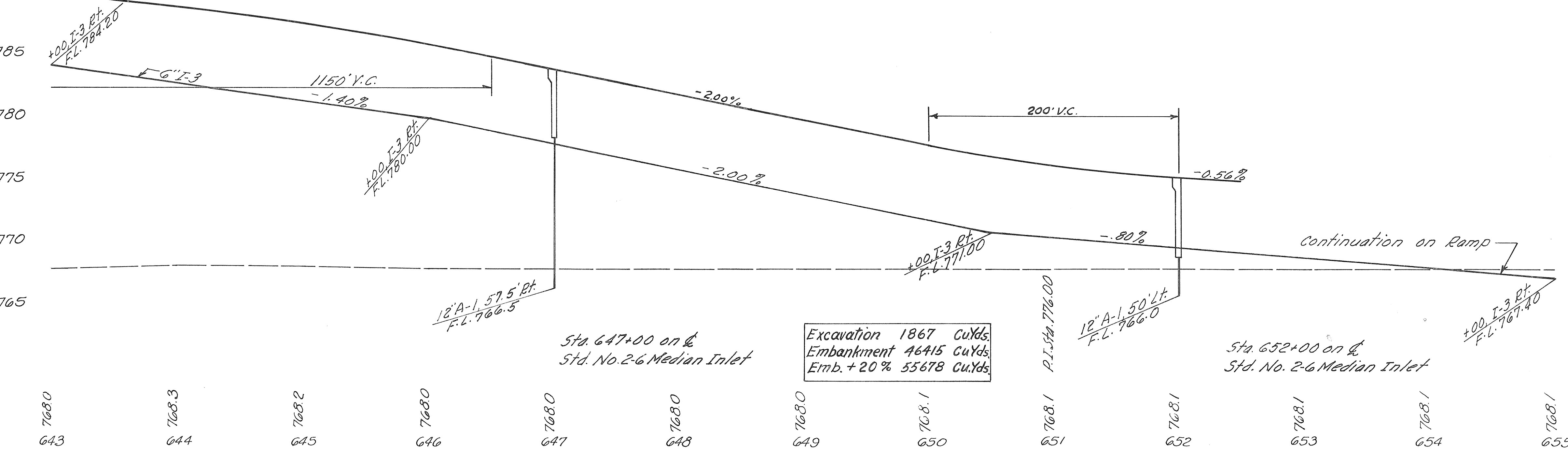
**CURVE DATA**  
 $\Delta = 127^{\circ}59'48''$   
 $D_c = 12^{\circ}00'$   
 $R = 477.46'$   
 $T = 978.88'$   
 $L = 1066.63'$

**CURVE DATA**  
 $P.I. Sta. 657+81.75$   
 $\Delta = 103^{\circ}27'48''$   
 $D_c = 23^{\circ}00'$   
 $R = 249.11'$   
 $T = 315.79'$   
 $L = 449.84'$

Begin Sheet Sta. 643+00

See Ramp Underdrain Profiles & Cross Sections for details not shown

Ref. No.	Station	From	To	Material
1-D	643+00	643+00	654+16.99	RT
2-D	647+00	647+00	652+00	RT
3-D	652+00	652+00	655+00	RT
4-D	647+00	647+00	652+00	LT
5-D	652+00	652+00	655+00	LT
		<b>Total</b>		



Excavation 1867 CuYds  
 Embankment 46415 CuYds  
 Emb. + 20% 55678 CuYds

**DRAINAGE**

Ref. No.	Station	Pipe, Culverts, Sewers & Drains				I-5		I-10		I-10		I-10	
		A-1	I-3	F-4	F-6	12x30" Bend	6x90" Bend	Slope Prof.	El. p. Top	Sodding	El. p. Top	Sodding	
1-D	643+00	12"	6"	6"	6"	1							
2-D	647+00	12"	14"	10"	10"	2							
3-D	652+00	12"	14"	10"	10"	2							
4-D	647+00	12"	14"	10"	10"	2							
5-D	652+00	12"	14"	10"	10"	2							
		<b>Total</b>											

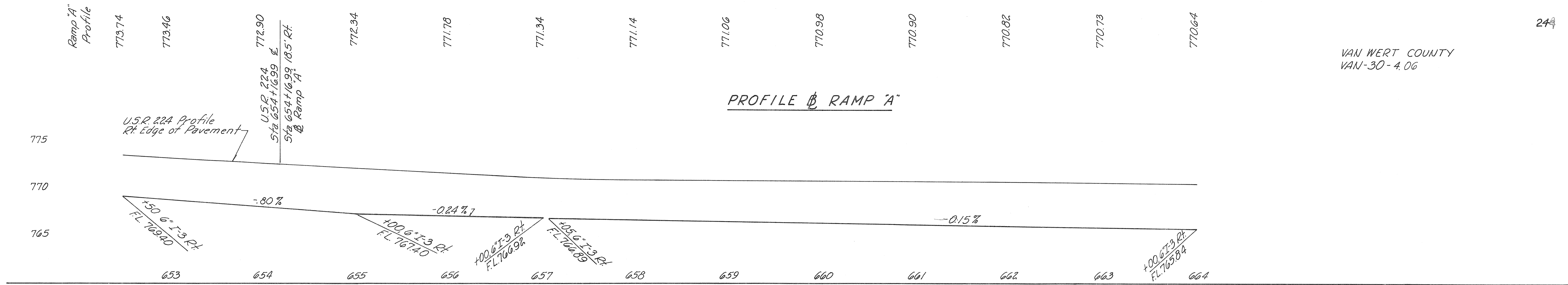
**GUARD RAIL "G"**

Ref. No.	Station	Guard Rail		Type (Deep)		Type (Standard)	
		From	To	Lin. Ft.	Standard	Lin. Ft.	Standard
1-G	643+00	643+00	654+96.66	LT	1251.16		
2-G	643+00	643+00	649+93	RT	650.92		
		<b>Total</b>					1902.08

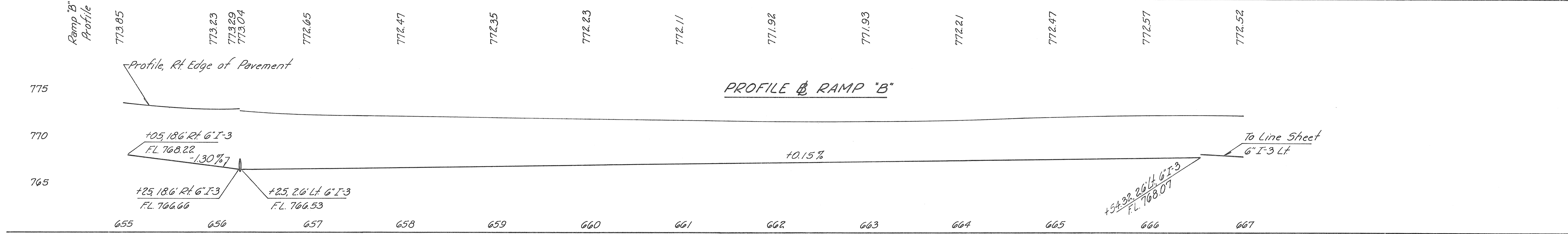
\*Refer to Ramp Underdrain Profiles and Cross Sections

Sta. 643+00 to Sta. 655+00

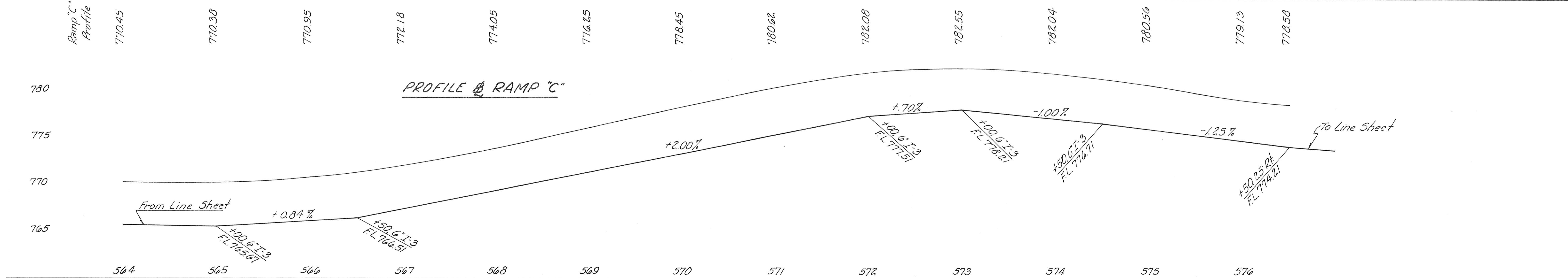
PROFILE B RAMP "A"



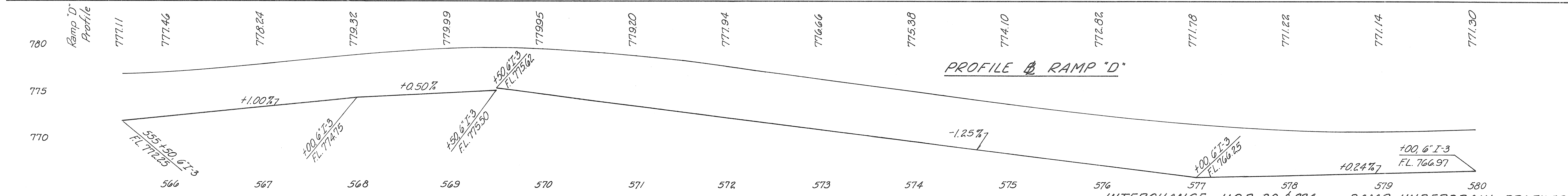
PROFILE B RAMP "B"



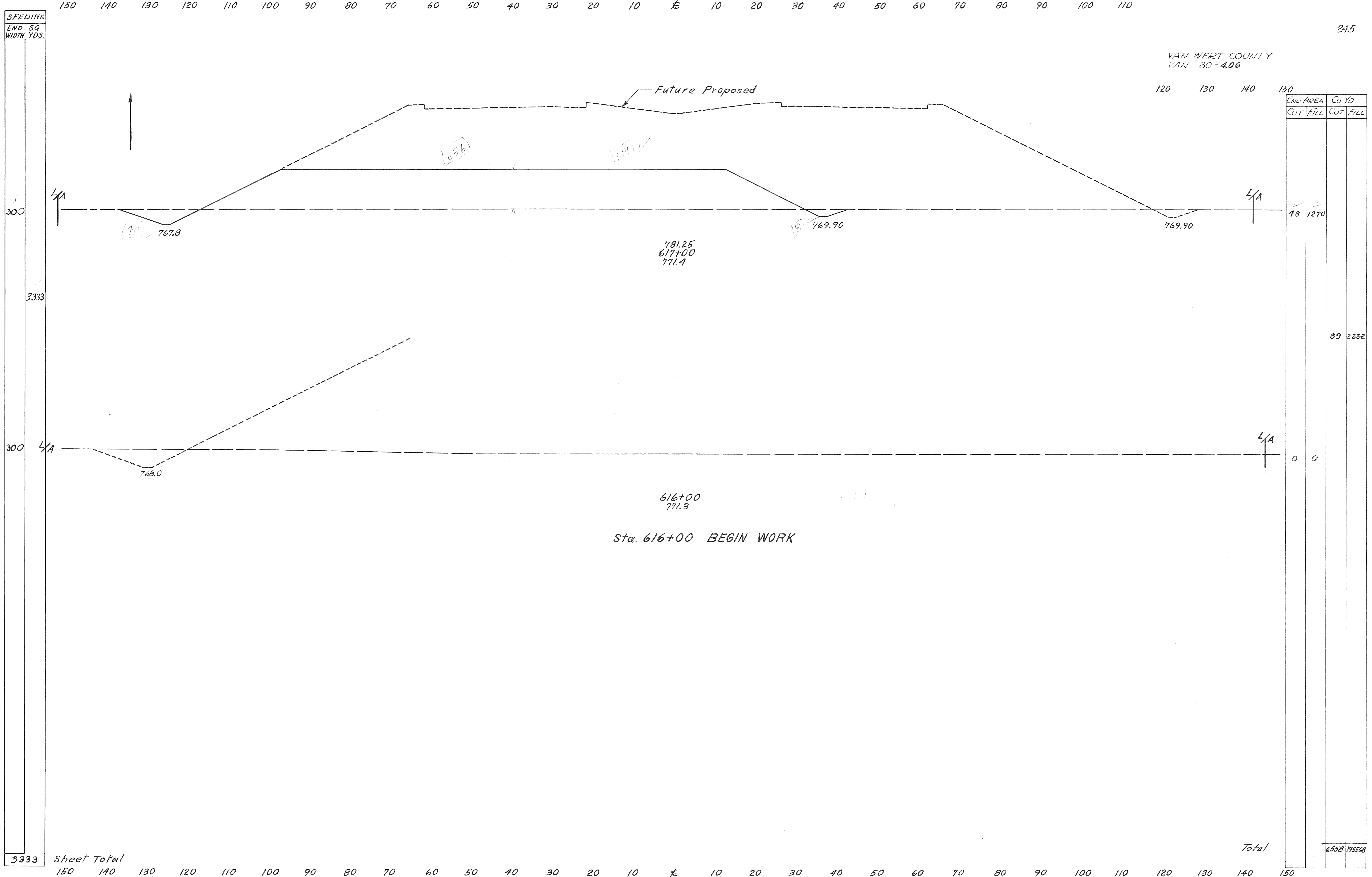
PROFILE B RAMP "C"



PROFILE B RAMP "D"



VAN WERT COUNTY  
VAN - 30 - 4.06



SEEDING  
END SQ  
WIDTH YDS.

300

3333

300

3333

Sheet Total

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

END AREA		Cu. Yd.	
CUT	FILL	CUT	FILL

48	1270		
----	------	--	--

		89	2352
--	--	----	------

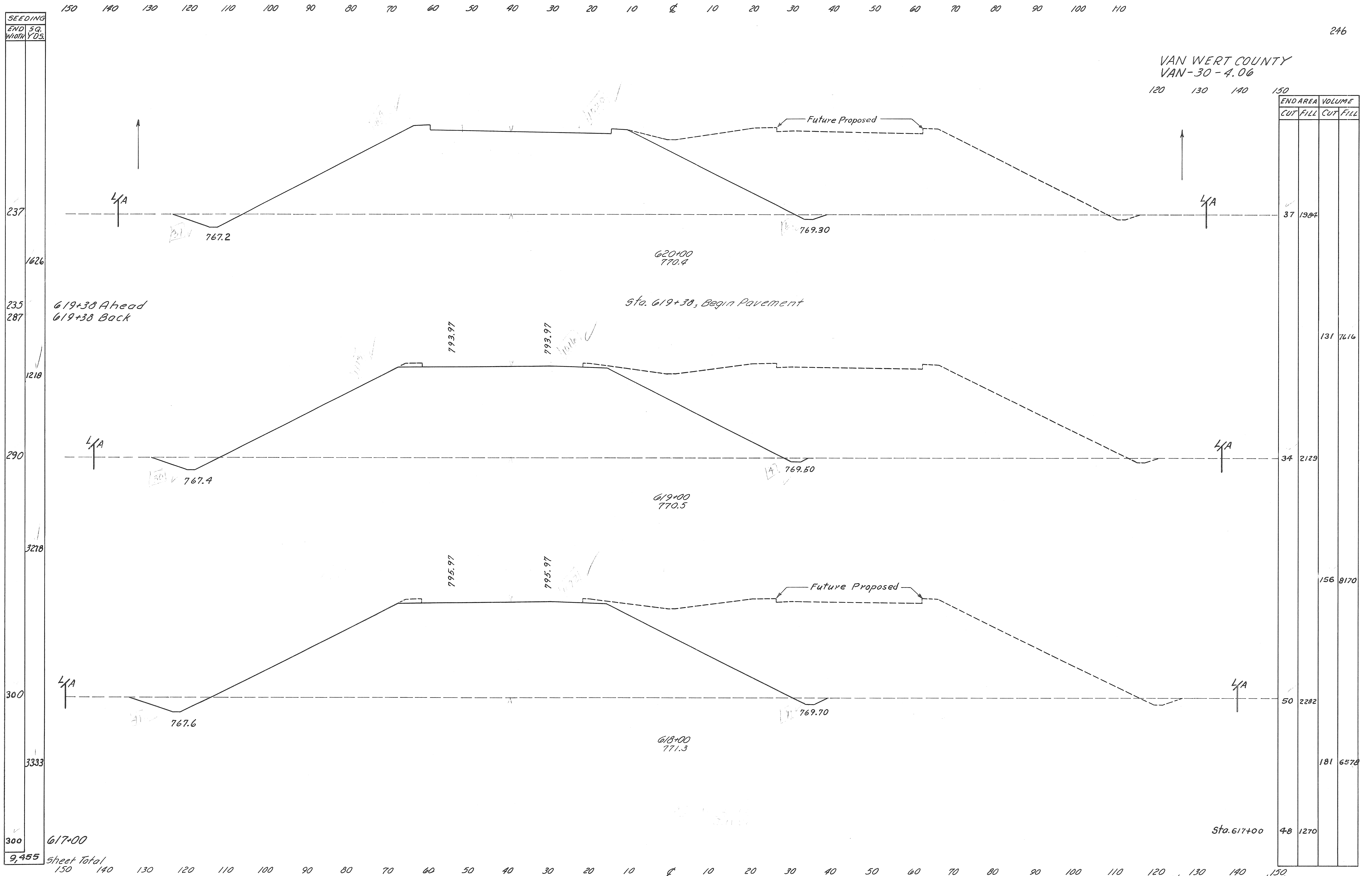
0	0		
---	---	--	--

Total		6558	195568
-------	--	------	--------

U.S.R. 224 Sta. 616+00 To Sta. 617+00



VAN WERT COUNTY  
VAN-30-4.06



SEEDING	END SQ. WIDTH	SQ. YDS.
	237	1626
	235	1218
	287	3218
	290	3278
	300	3333
	300	9,455

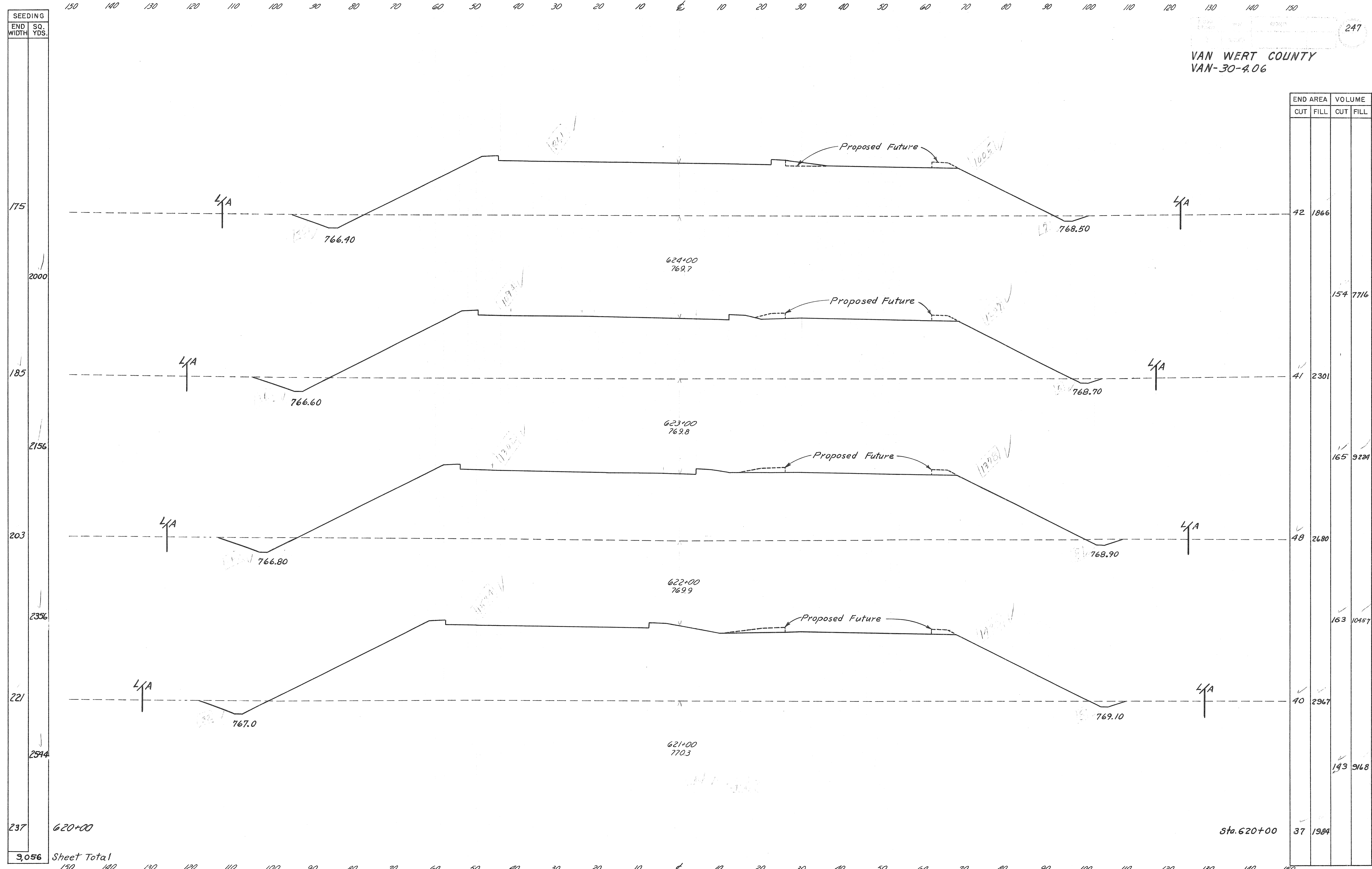
END AREA	VOLUME	
	CUT	FILL
37	1384	
34	2129	131 7616
50	2282	156 8170
48	1270	181 6578

617+00

Sheet Total

Sta. 617+00

Sta. 618+00 to Sta. 620+00 U.S.R.224



SEEDING	END WIDTH	SQ. YDS.
175		2000
185		2156
203		2356
221		2544
237		3,056

END AREA		VOLUME	
CUT	FILL	CUT	FILL
42	1866		
41	2301	154	7716
48	2680	165	9224
40	2967	163	10457
37	1984	193	9168

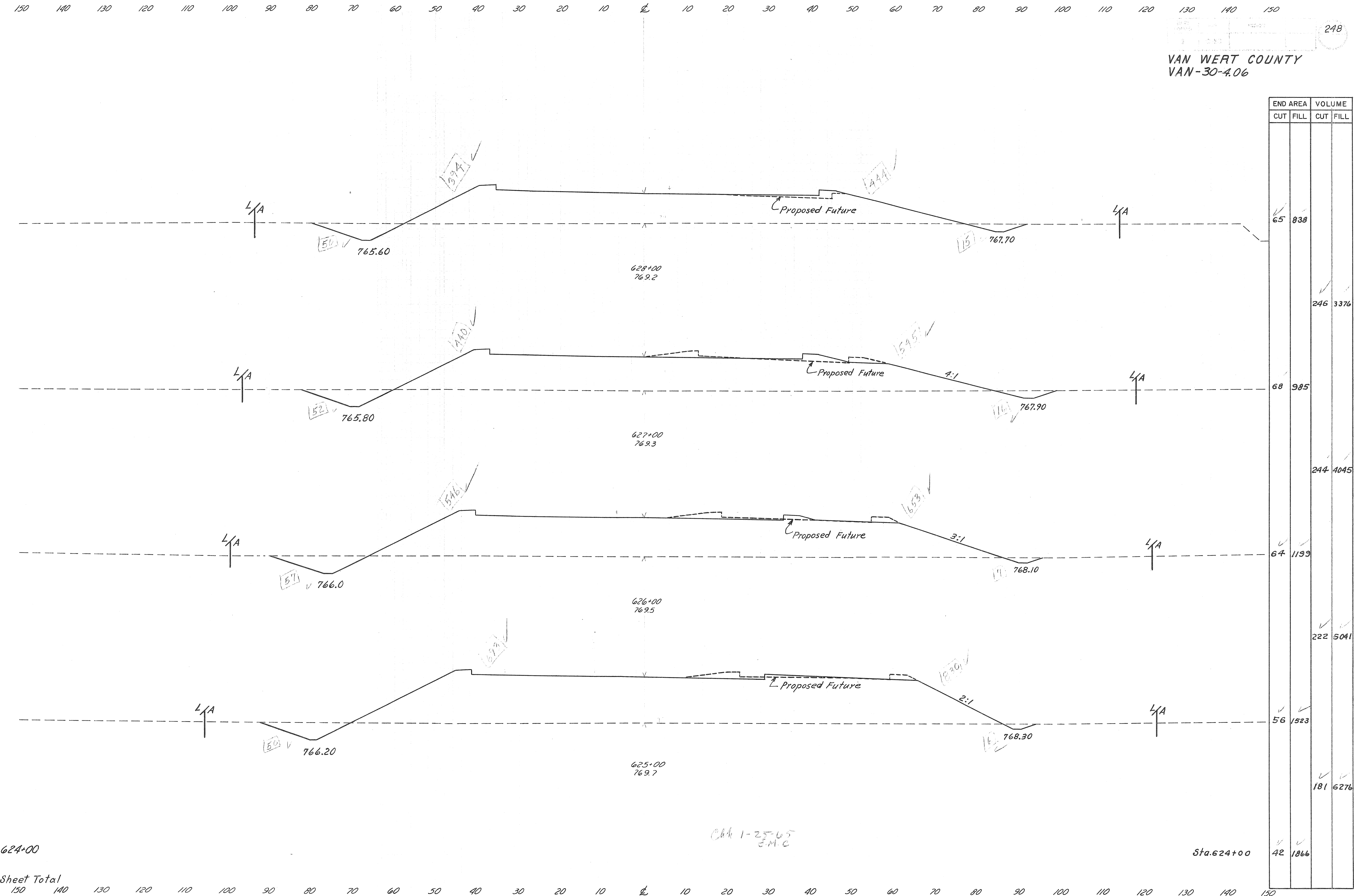
620+00

Sheet Total

Sta. 620+00

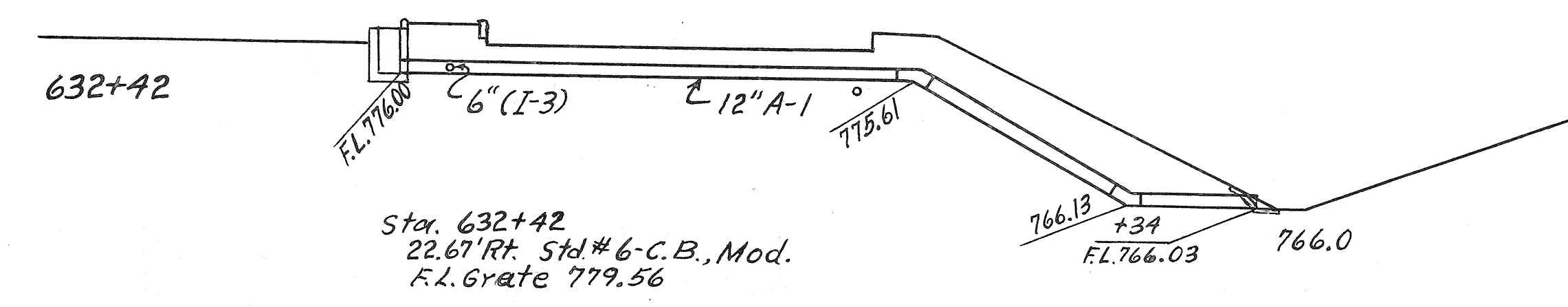
U.S.R. 224 Sta. 621+00 to Sta. 624+00

SEEDING	
END WIDTH	SQ. YDS.
134	1539
143	1639
152	1756
164	1883
175	6817



END AREA		VOLUME	
CUT	FILL	CUT	FILL
65	838	246	3376
68	985	244	4045
64	1199	222	5041
56	1523	181	6276
42	1866		

Note:  
It is intended that a 9" thickness of Class "C" conc. will be placed over the front end and sides of the casting, extending 12" beyond the outside of the basin walls with outer edge 1" above Gr. Elev. as shown on Standard Drawing. Payment for Concrete Pavement to be included in the unit price bid for modified Catch Basin.

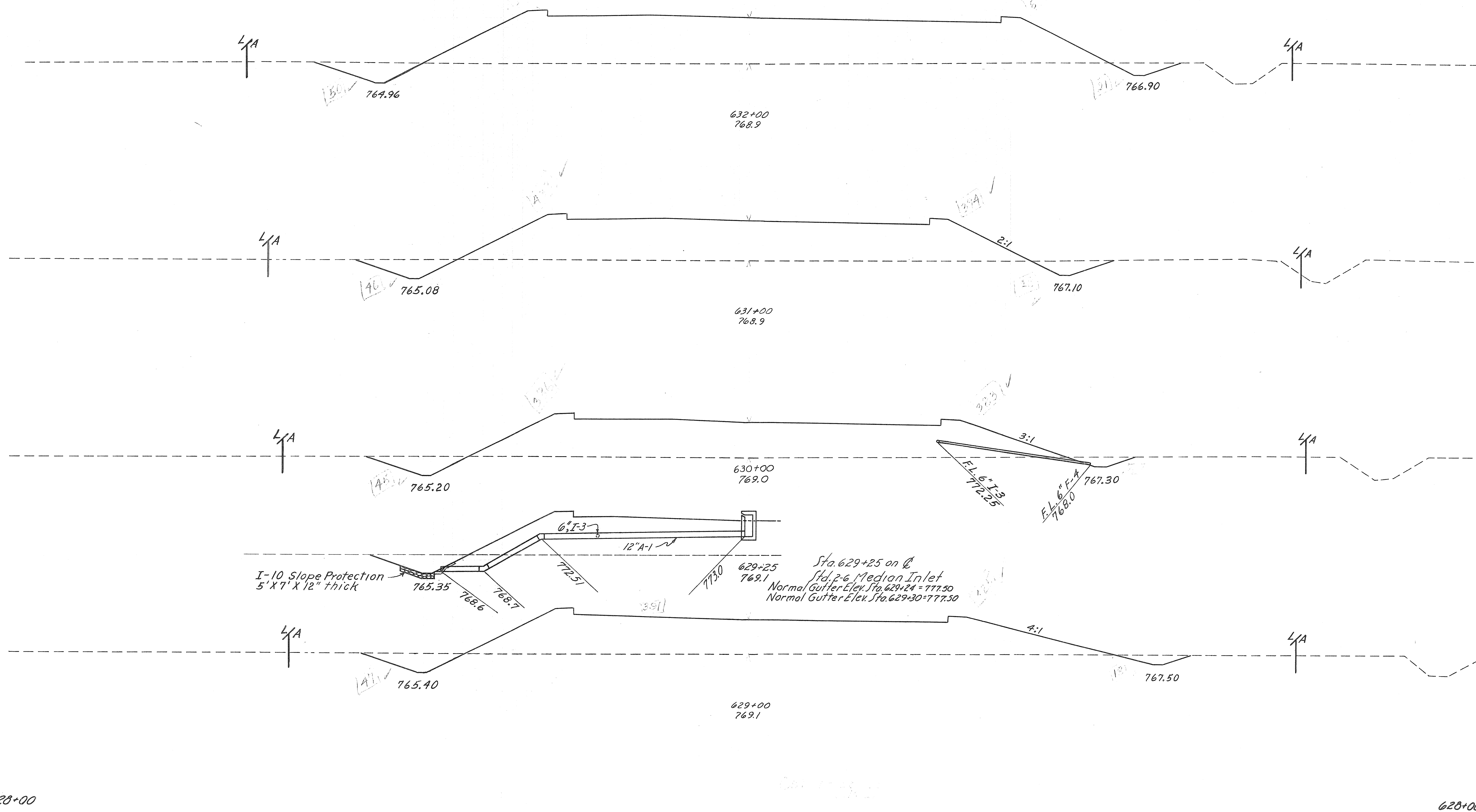


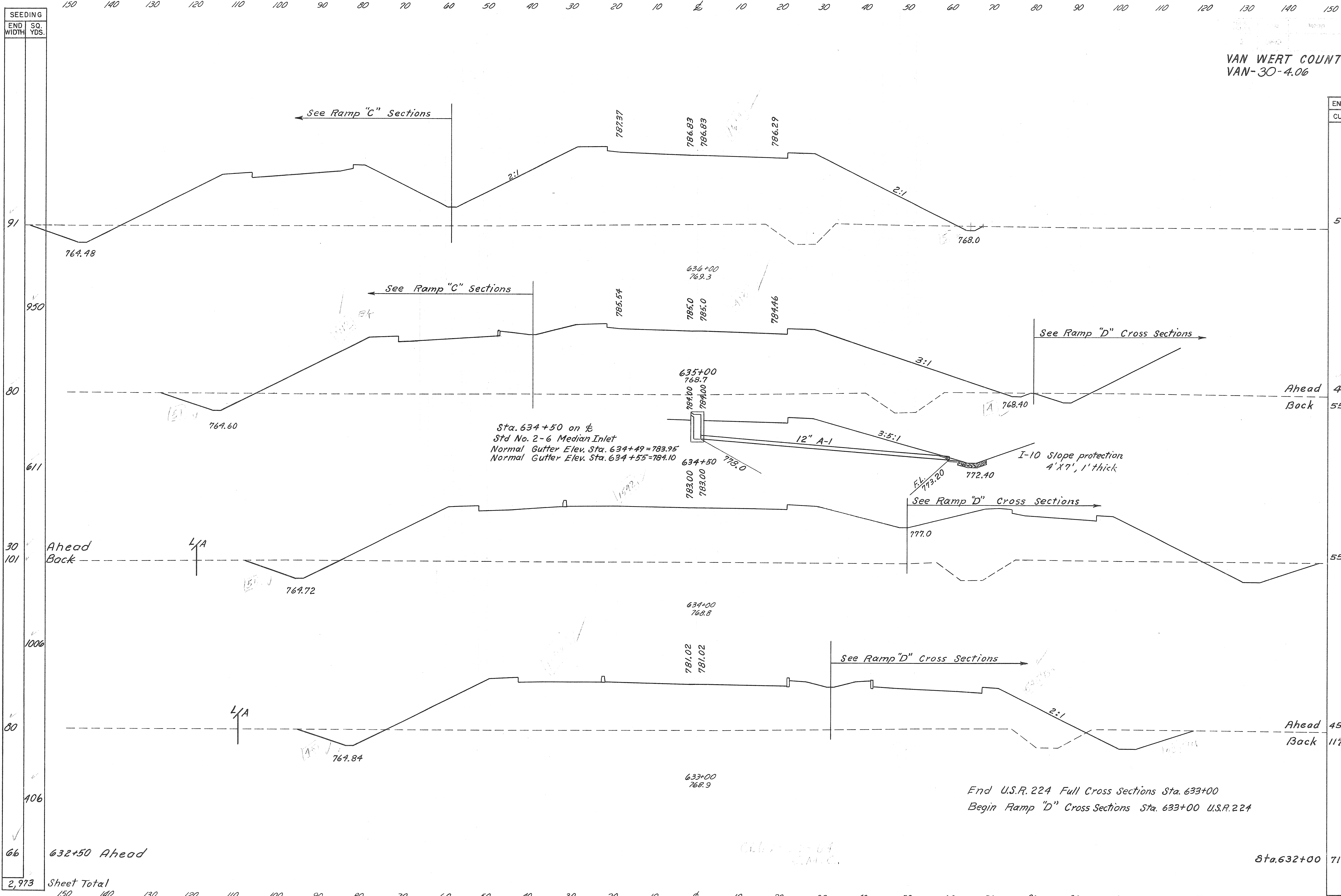
SEEDING	END WIDTH	SQ. YDS.
66	133	
133		2308
144		1561
137		1494
132		1478
134		6841

Ahead  
632+50  
Back

END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
71	1127		269	3618
74	827		250	2955
61	769		233	2935
65	816		241	3063
65	838			

6,841 Sheet Total





Sta. 634+50 on  $\phi$   
Std No. 2-6 Median Inlet  
Normal Gutter Elev. Sta. 634+49 = 783.95  
Normal Gutter Elev. Sta. 634+55 = 784.10

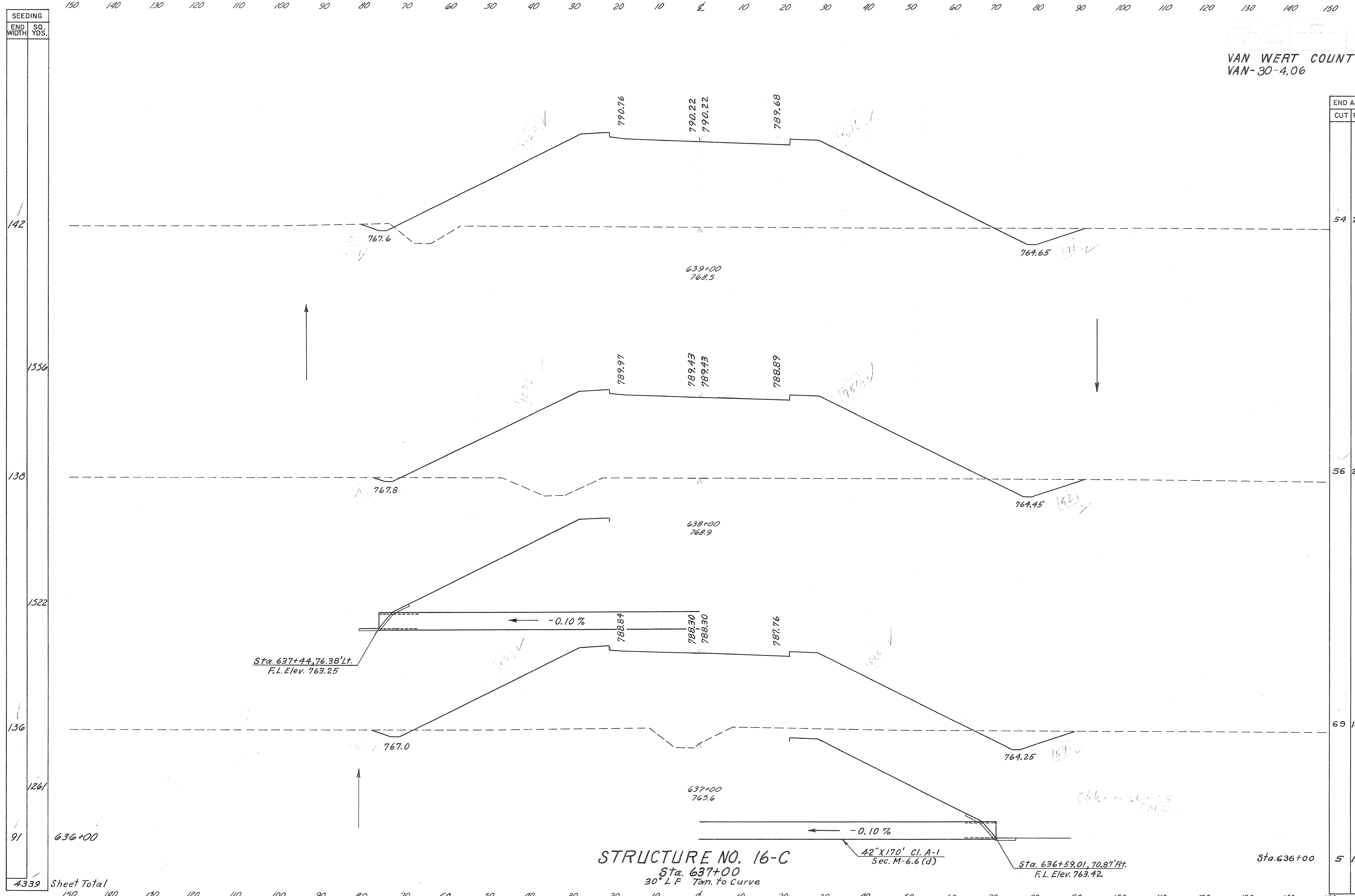
End U.S.R. 224 Full Cross Sections Sta. 633+00  
Begin Ramp "D" Cross Sections Sta. 633+00 U.S.R. 224

END AREA	VOLUME	
	CUT	FILL
5	1614	
17	5615	
Ahead 4	1418	
Back 55	2130	
	204	6800
55	1542	
	185	4848
Ahead 45	1076	
Back 117	1621	
	348	5088
Sta. 632+00	71	1127

SEEDING	END WIDTH	SQ. YDS.
	91	
	950	
	80	
	611	
	30	
	101	
	1006	
	80	
	406	
	66	
2,973		

Sheet Total

Sta. 632+00



SEEDING	END WIDTH	SO. YDS.
	142	
	1556	
	138	
	1522	
	136	
	1261	
	91	
4339	Sheet Total	

END AREA	VOLUME	
	CUT	FILL
54	2140	
		204 7726
56	2032	
		231 7152
69	1830	
		137 6378
5	1614	

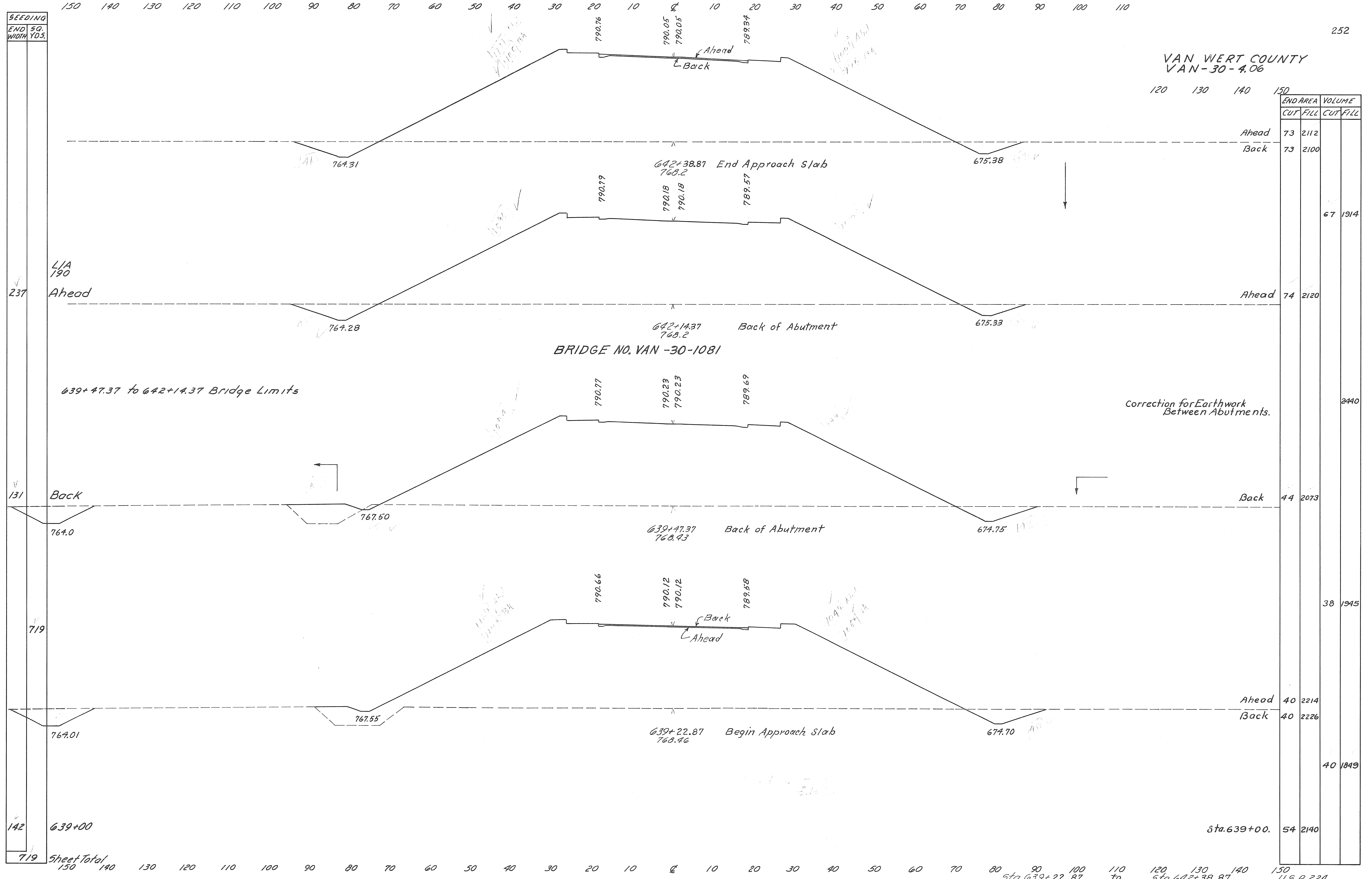
**STRUCTURE NO. 16-C**  
Sta. 637+00  
30° L F Tan. to Curve

42" X 170' CI. A-1  
Sec. M-6.6 (d)

Sta. 636+59.01, 70.87' Rt.  
F.L. Elev. 763.42

Sta. 636+00

VAN WERT COUNTY  
VAN-30-4.06



END AREA	VOLUME	
	CUT	FILL
Ahead 73	2112	
Back 73	2100	
		67 1914
Ahead 74	2120	
Back 44	2073	
		2440
		38 1945
Ahead 40	2214	
Back 40	2226	
		40 1849
Sta. 639+00	54 2140	

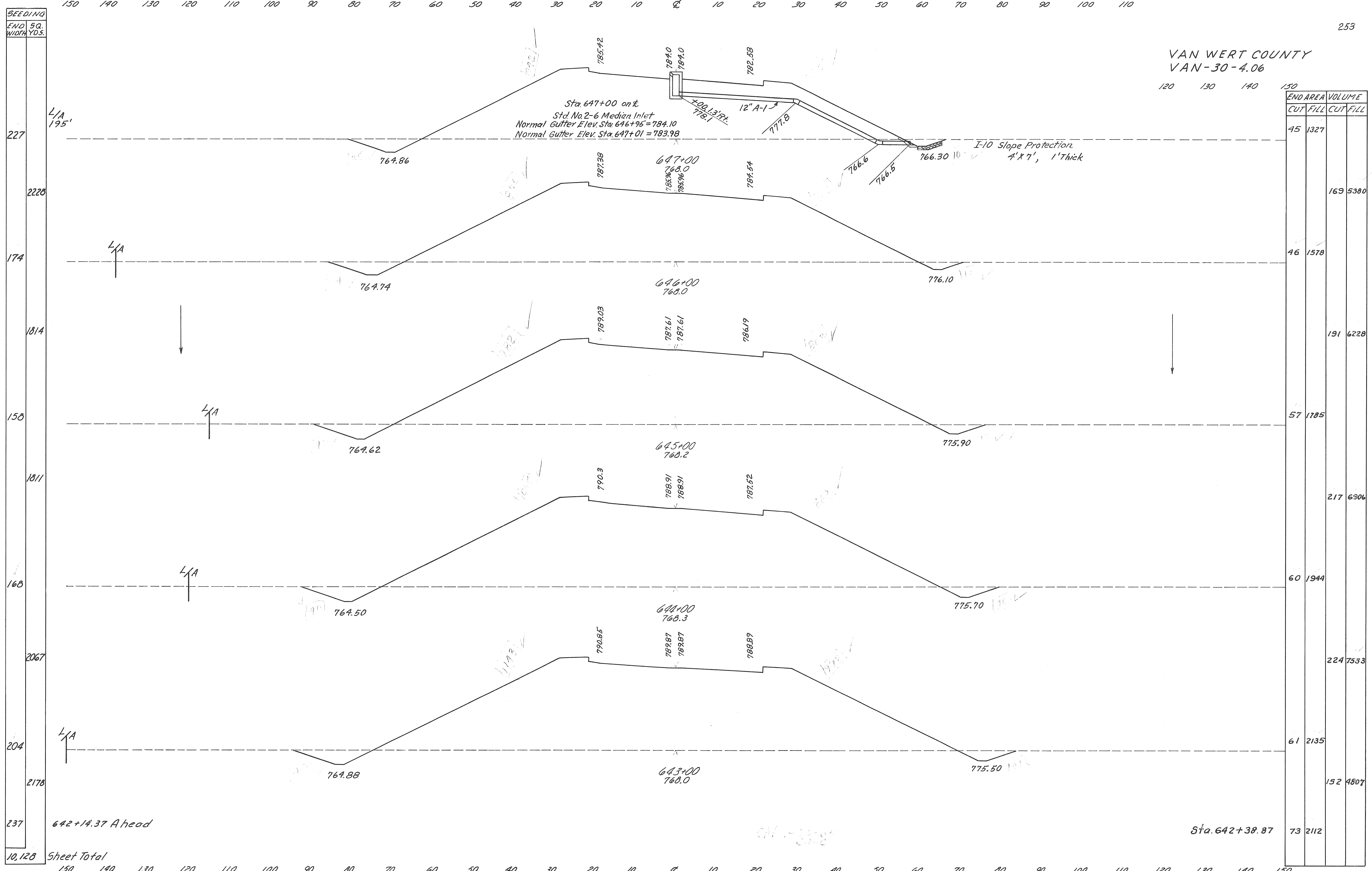
SEEDING	END WIDTH	SG. YDS.
	237	
	131	
	719	
	142	

Sheet Total

Sta. 639+00

Sta. 639+22.87 to Sta. 642+38.87 U.S. 2.224

VAN WERT COUNTY  
VAN-30-4.06



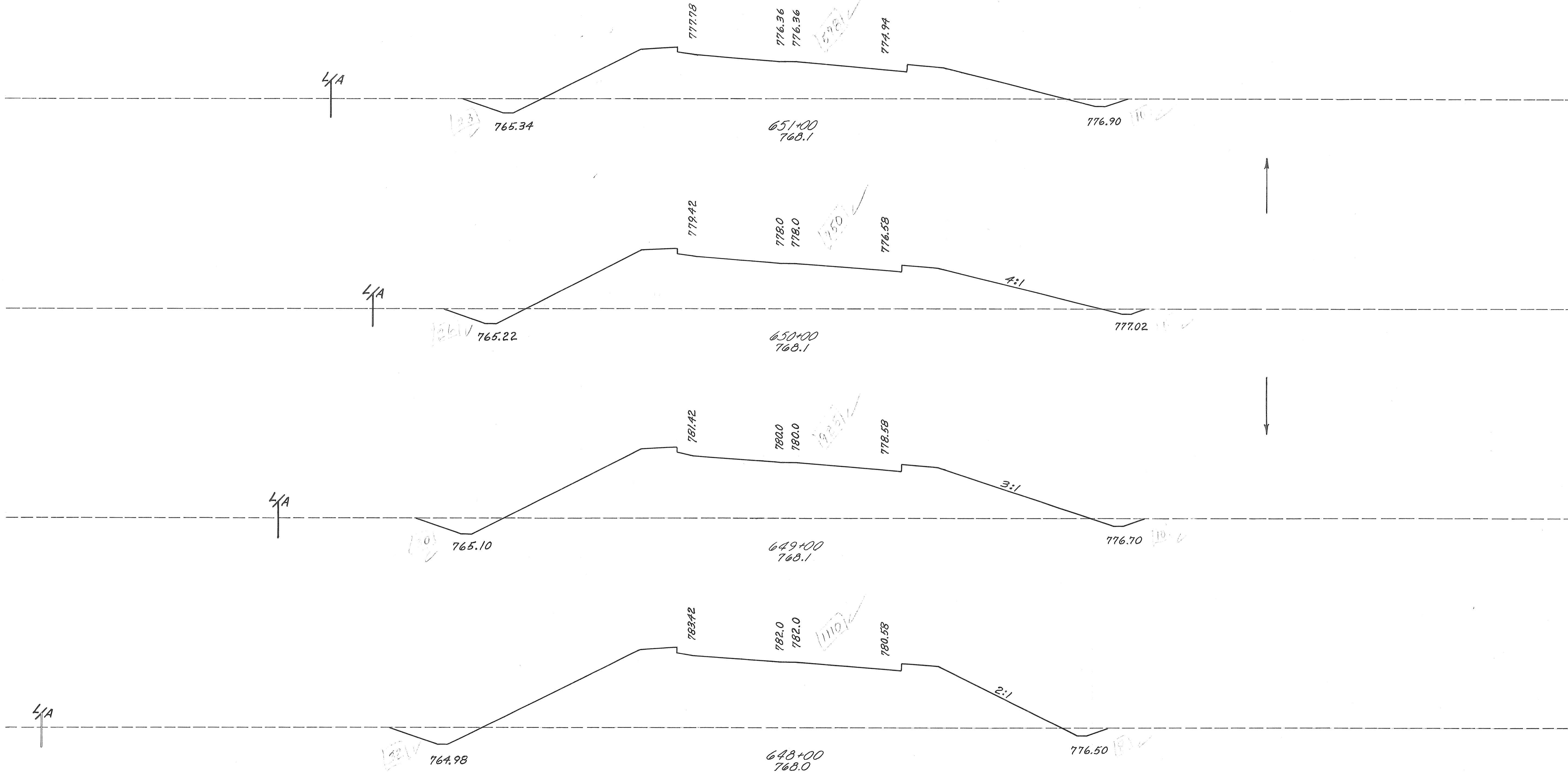


VAN WERT COUNTY  
VAN-30-4.06

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

120 130 140 150

SEEDING
END SQ. WIDTH YDS.
112
1233
110
1322
128
1656
170
2206
227



END AREA	VOLUME
CUT	FILL
33	578
119	2459
31	750
131	3102
40	925
148	3769
40	1110
157	4513
45	1327

647+00

Sta. 647+00

6417 Sheet Total

Sta. 648+00 to 651+00, U.S.R. 224

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

CHK 1-26-65  
J.H.C.

VAN WERT COUNTY  
VAN-30-4.06

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

120 130 140 150

SEEDING  
END SQ. WIDTH YDS.  
34  
70  
104  
1161  
105  
1261  
122  
1472  
143  
1417  
112  
5311

Rt. Ahead  
Lt. Ahead  
Back

Back

See Ramp "B" Cross Sections (Ahead) See Ramp "A" Cross Sections (Ahead)

Ramp "B"

Ramp "A"

L/A

L/A

L/A

L/A

4:1

3:1

2:1

23

Sta. 652+00 on  $\frac{1}{2}$   
Std. No. 2-6 Median Inlet  
Normal Gutter Elev. Sta. 641+95=775.47  
Normal Gutter Elev. Sta. 642+01=775.43

I-10 Slope Protection  
5'x7', 1' Thick

EL. 12" A-1  
766.0

12" A-1

END AREA	VOLUME	
	CUT	FILL
37	354	
		135 1380
36	391	
		130 1530
34	435	
		124 1665
33	464	
		122 1930
33	578	

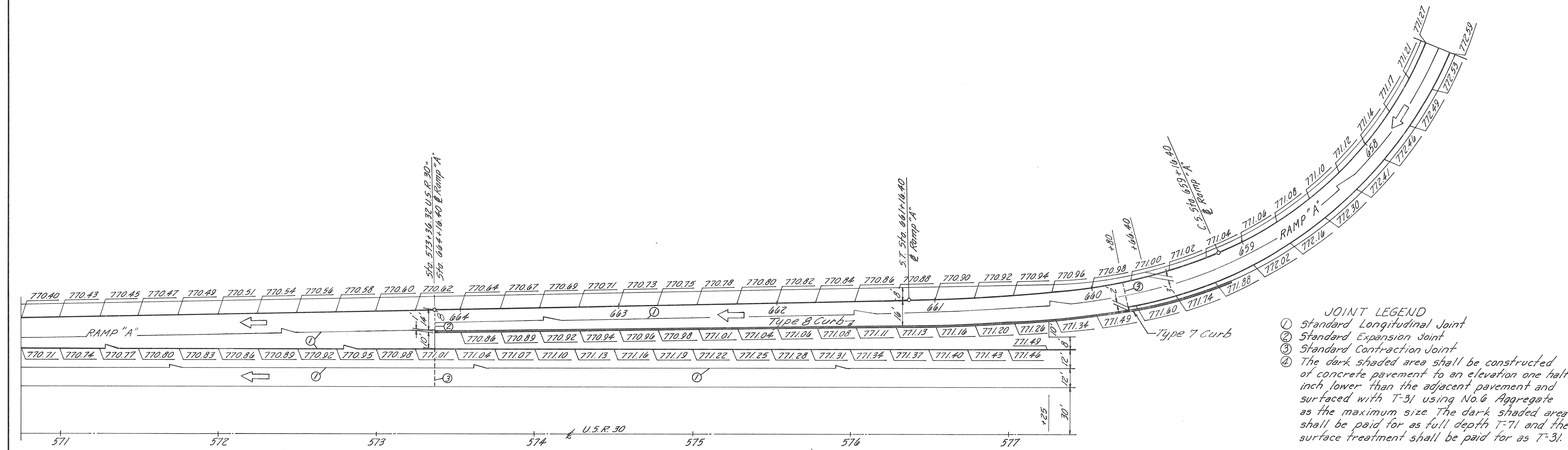
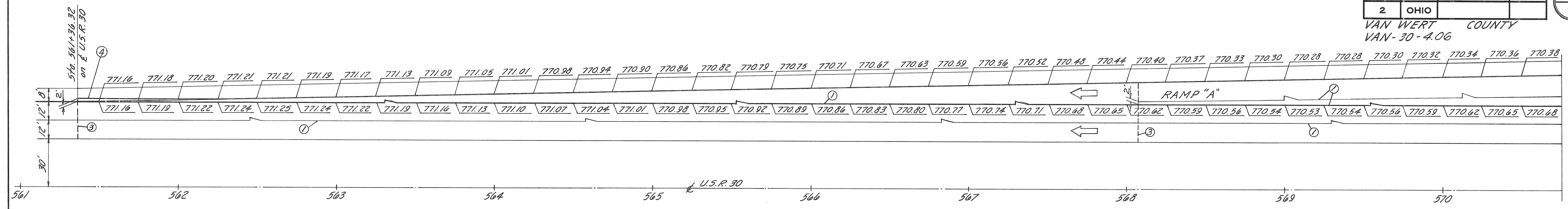
651+00

Sta. 651+00

Sheet Total

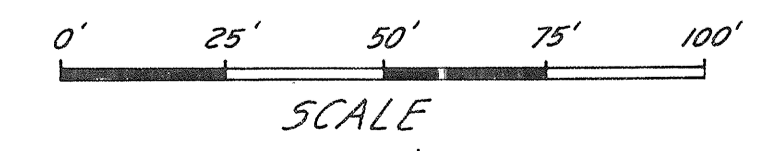
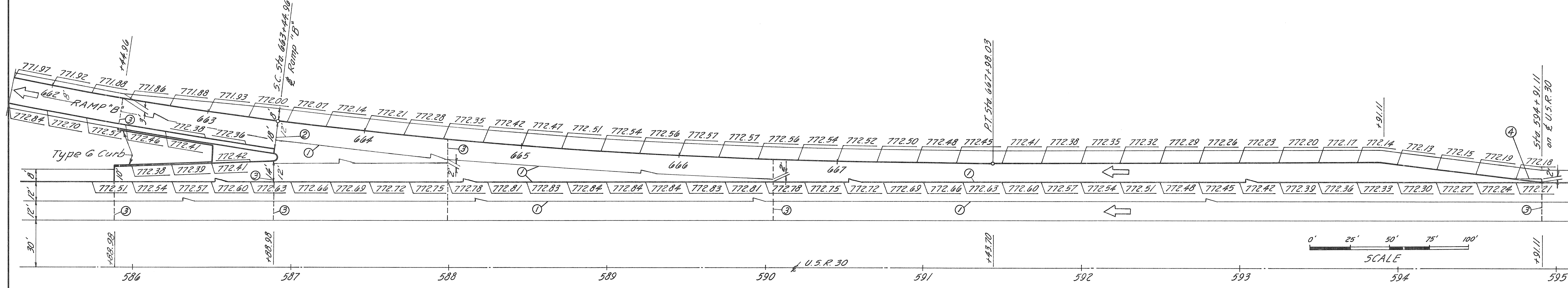
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

120 130 140 150  
Sta. 652+00 to 655+00, U.S.R. 224



**JOINT LEGEND**

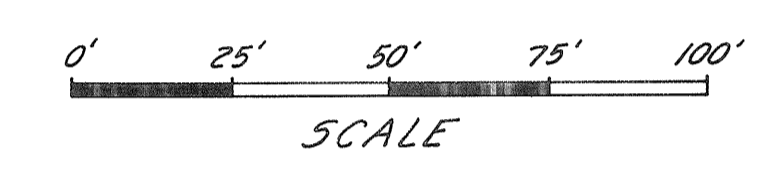
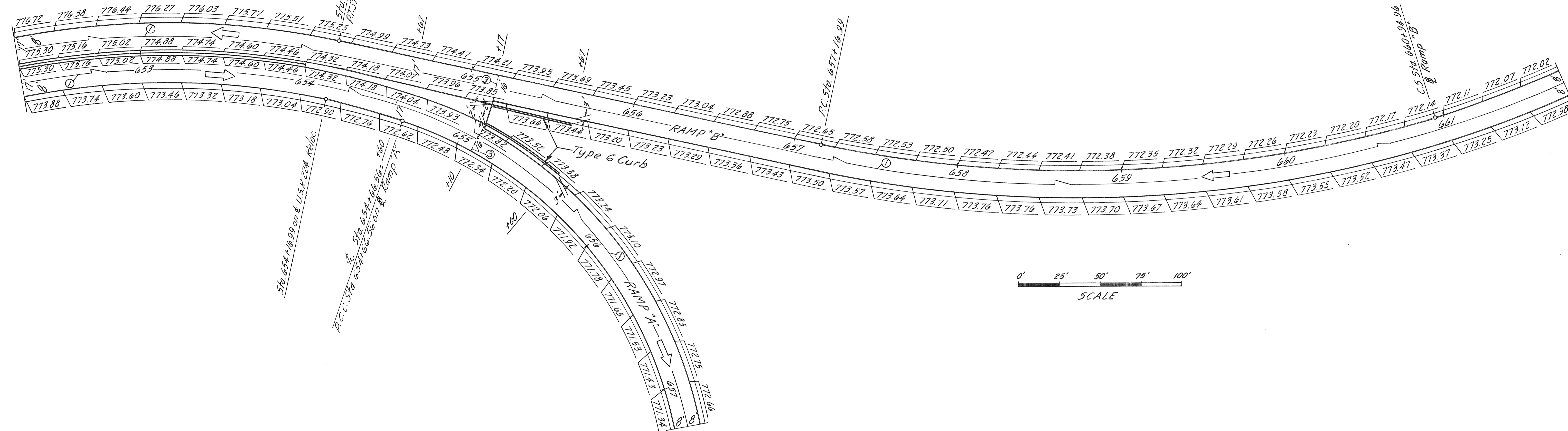
- ① Standard Longitudinal Joint
- ② Standard Expansion Joint
- ③ Standard Contraction Joint
- ④ The dark shaded area shall be constructed of concrete pavement to an elevation one half inch lower than the adjacent pavement and surfaced with T-31 using No. 6 Aggregate as the maximum size. The dark shaded area shall be paid for as full depth T-71 and the surface treatment shall be paid for as T-31.



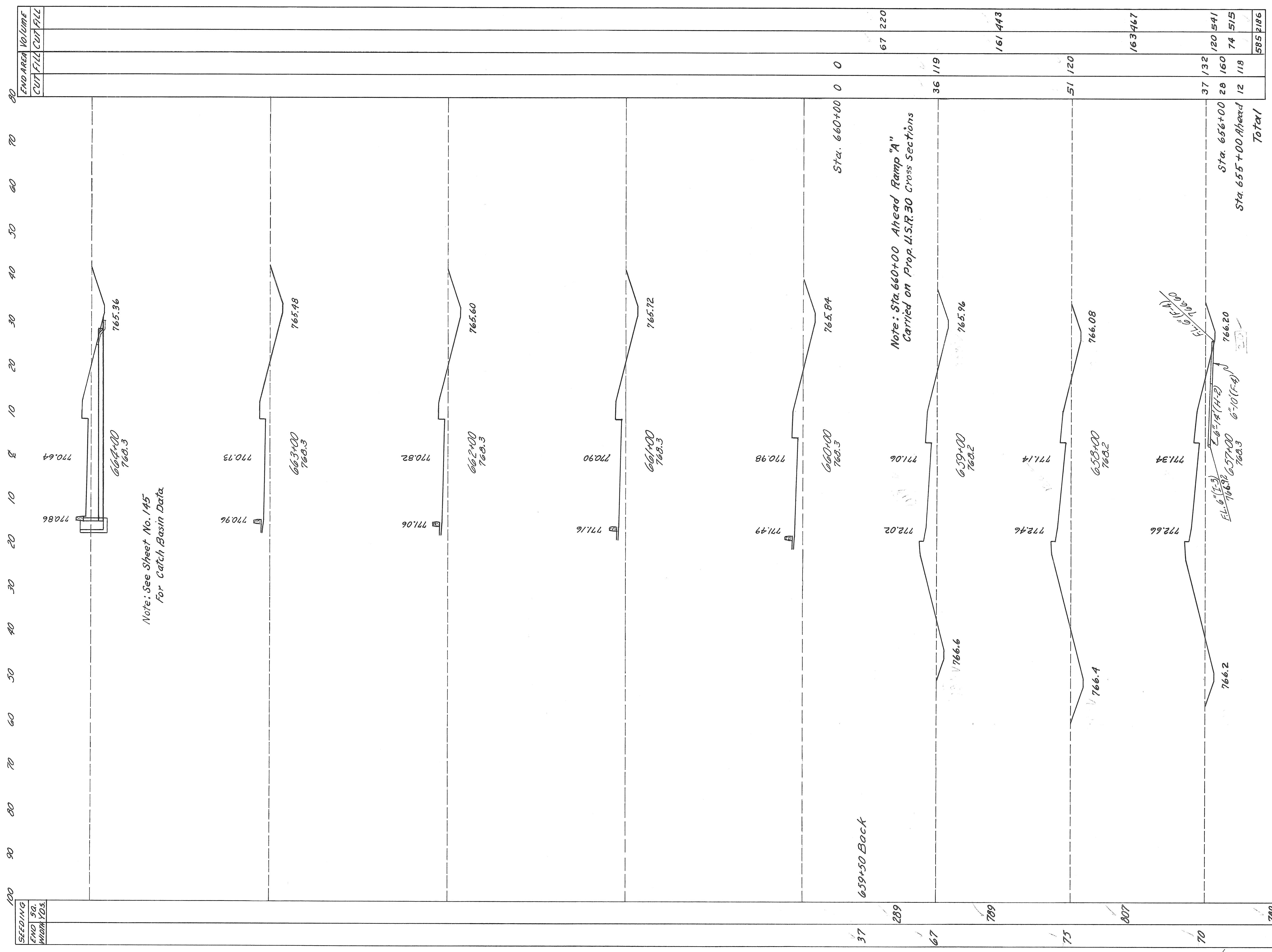
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

257

VAN WERT COUNTY  
VAN-30-4.06



Note:  
For Joint Legend  
See Sheet No. 256



VAN WERT COUNTY  
VAN-30-4.06

Note: See Sheet No. 145  
For Catch Basin Data

Note: Sta. 660+00 Ahead Ramp "A"  
Carried on Prop. U.S.R. 30 Cross Sections

See Ramp "B" Cross Sections

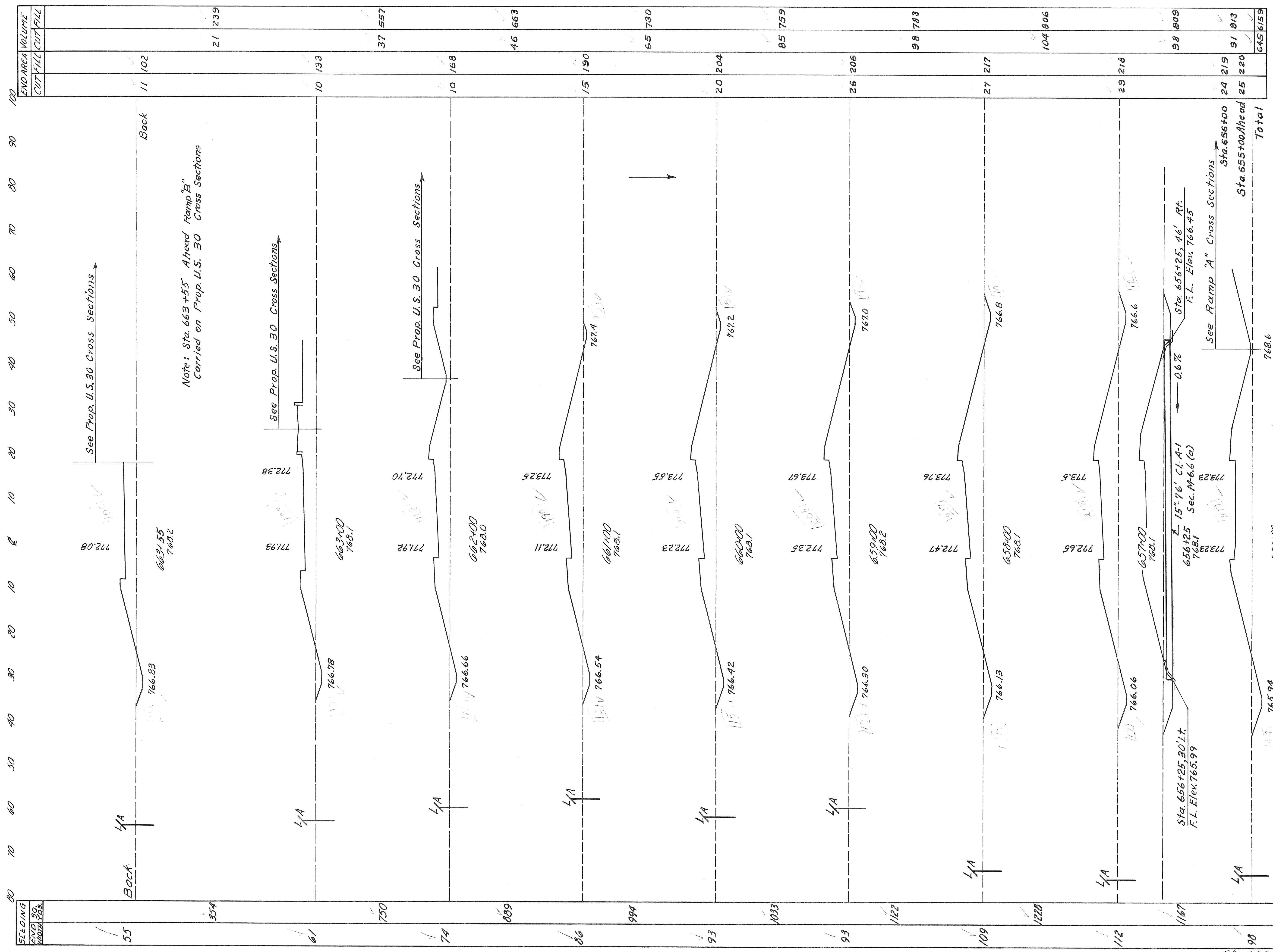
RAMP "A"

655+00 At Ahead

Sheet Total

3263

Sta. 656+00 to Sta 664+00



VAN WERT COUNTY  
VAN-30-4.06

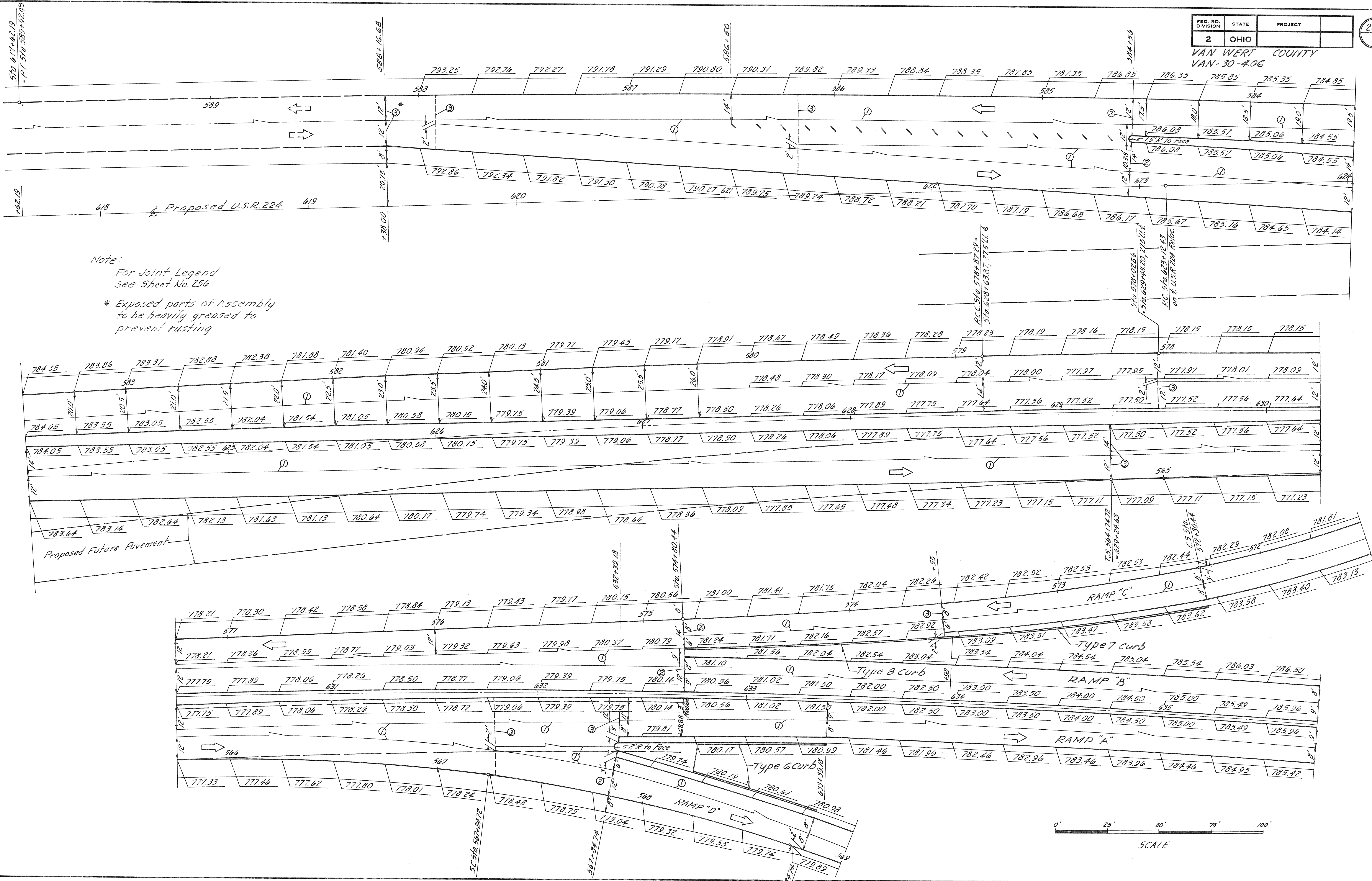
See Ramp "A" Cross Sections Ahead  
See Proposed U.S.R. 224 Cross Sections Back

Note: Quantities back of Sta. 655+00 Ramp "B" carried on U.S.R. 224 Cross Sections

RAMP "B"

Sheet Total 8470

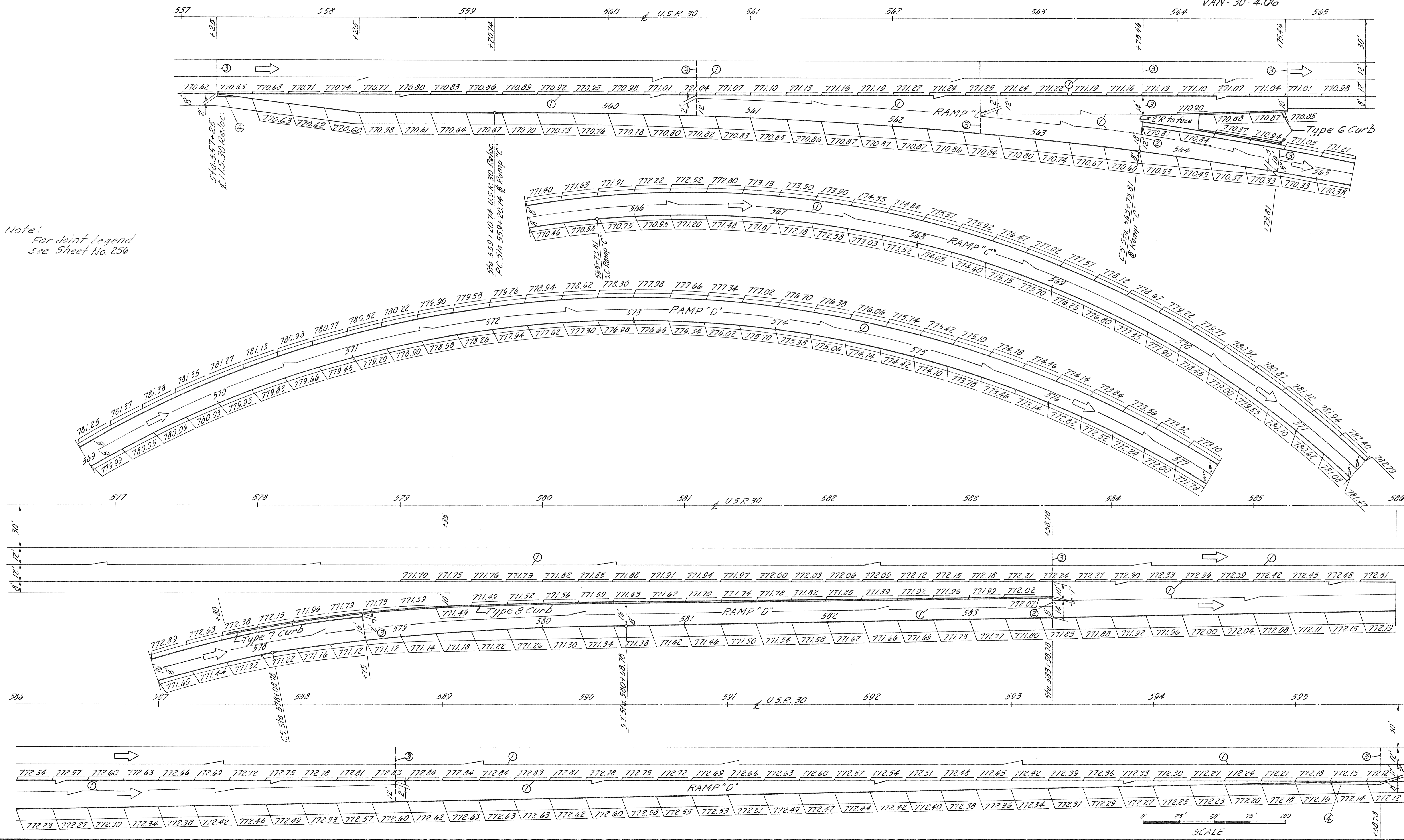
sta. 655+00 to sta. 663+44.96



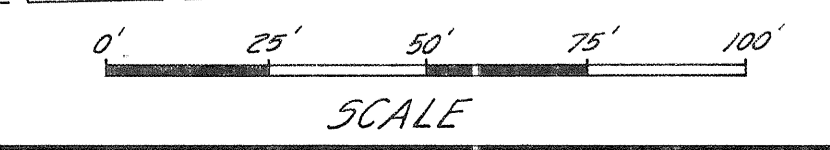
Note:  
For Joint Legend  
See Sheet No. 256

\* Exposed parts of Assembly  
to be heavily greased to  
prevent rusting

RAMPS "C" & "D" U.S.R. 224 INTERCHANGE



Note:  
For Joint Legend  
See Sheet No. 256



RAMPS "C" & "D" U.S.R. 224 INTERCHANGE

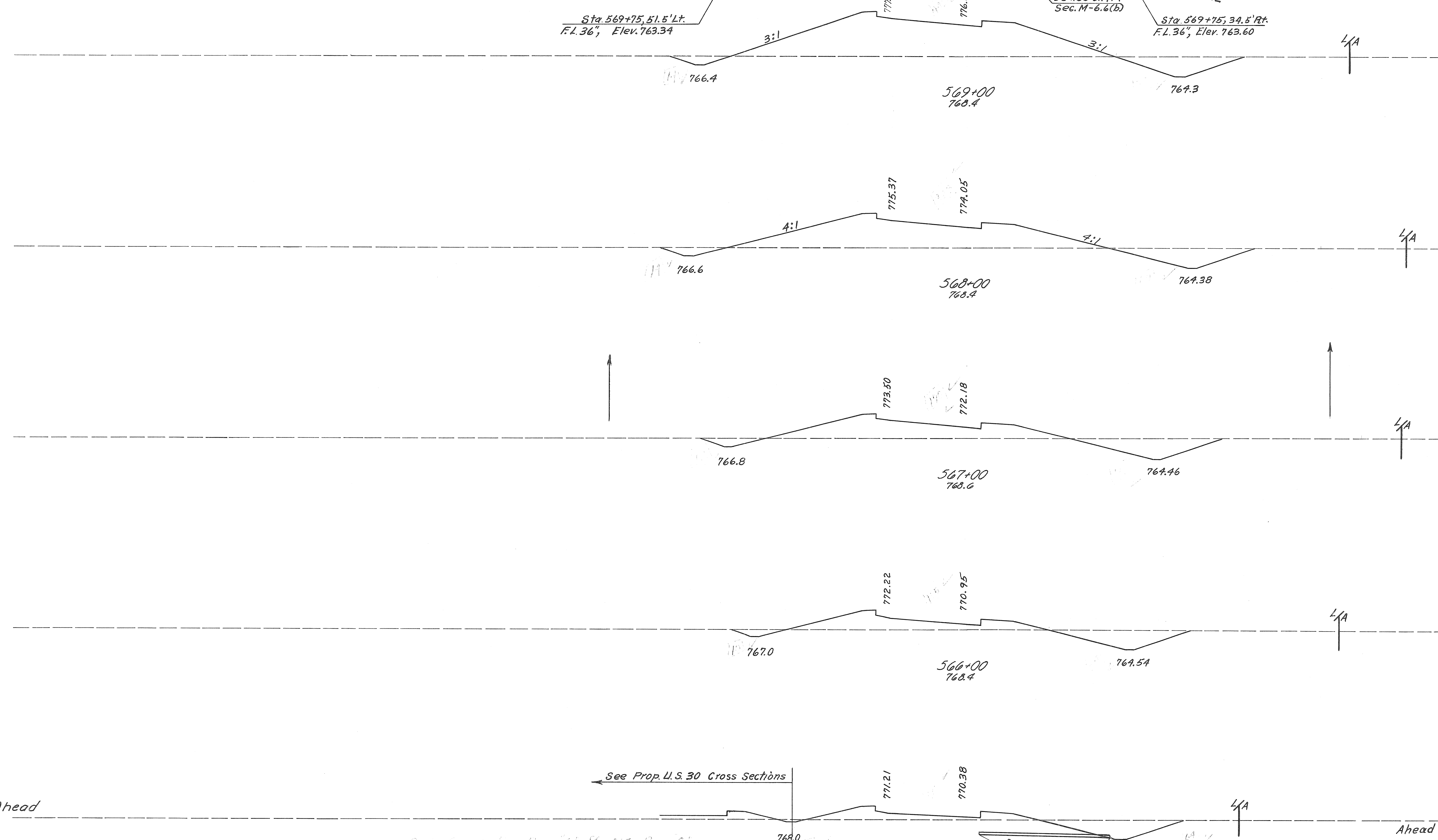


VAN WERT COUNTY  
VAN-30-4.06

**STRUCTURE NO. 17-C**  
Sta. 569+75

Seeding
Width Sp. Yds.
125
1461
138
1478
128
1306
107
1006
74
5251

200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
72	440		
81	323	283	1413
84	170	306	913
74	105	293	509
65	65	257	315
Total		1872	11,184

See Prop. U.S. 30 Cross Sections

See Prop. U.S. 30 Cross Sections

**RAMP "C"**

Sheet Total

200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100

sta. 565+00 to sta. 569+00 RAMP "C"

VAN WERT COUNTY  
VAN-30-406

Seeding
Width Sq.Yds
79
82
1094
115
1428
142
1533
134
1439
125
6388

200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 40 30 20 10 ± 10 20 30 40 50 60

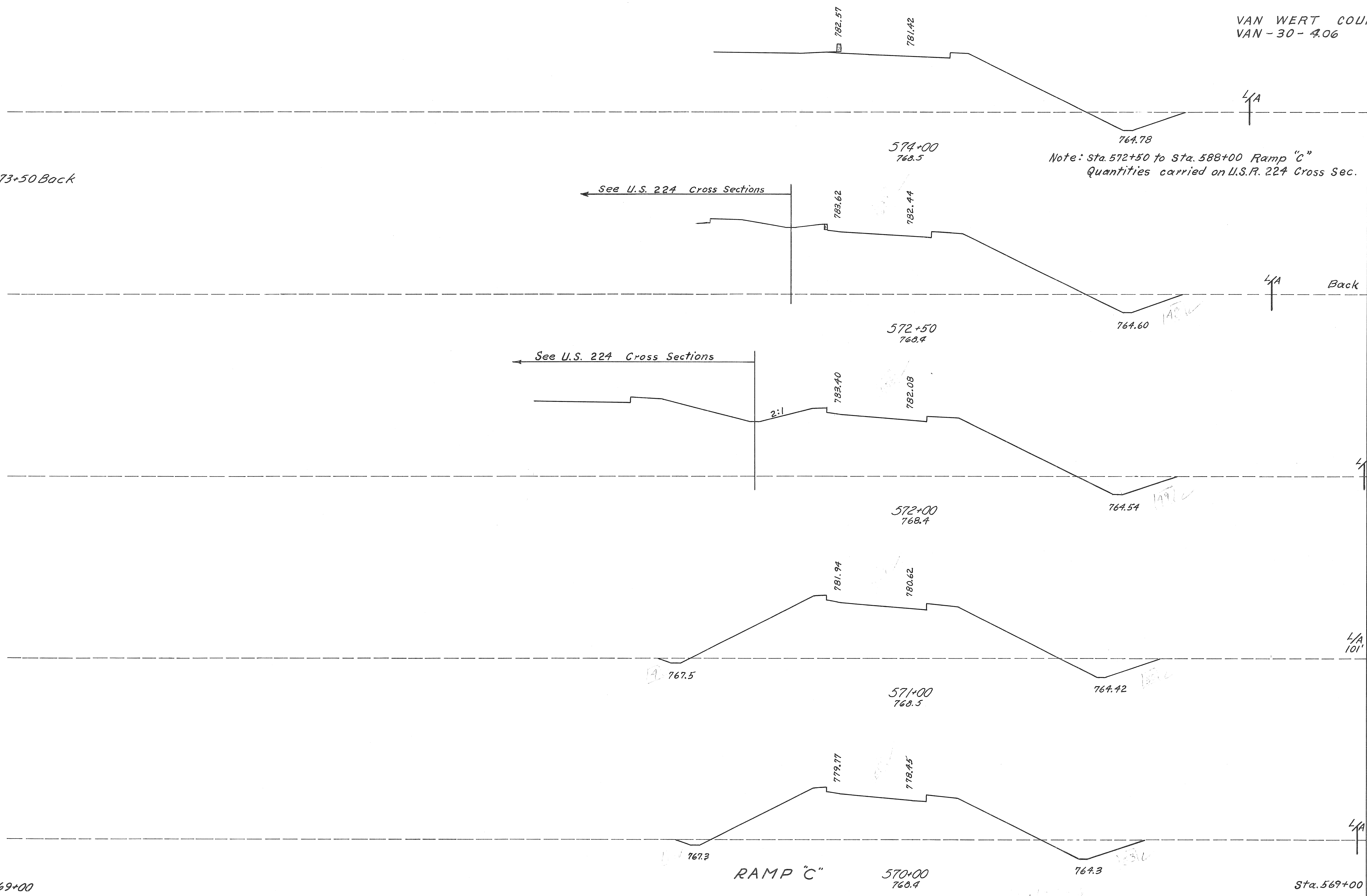
200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ± 10 20 30 40 50 60 70 80 90 100

573+50 Back

See U.S. 224 Cross Sections

See U.S. 224 Cross Sections

Note: Sta. 572+50 to Sta. 588+00 Ramp "C"  
Quantities carried on U.S.R. 224 Cross Sec.



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
48	639		
		90	1349
49	758		
		191	2680
54	689		
		209	2233
59	517		
		243	1772
72	440		

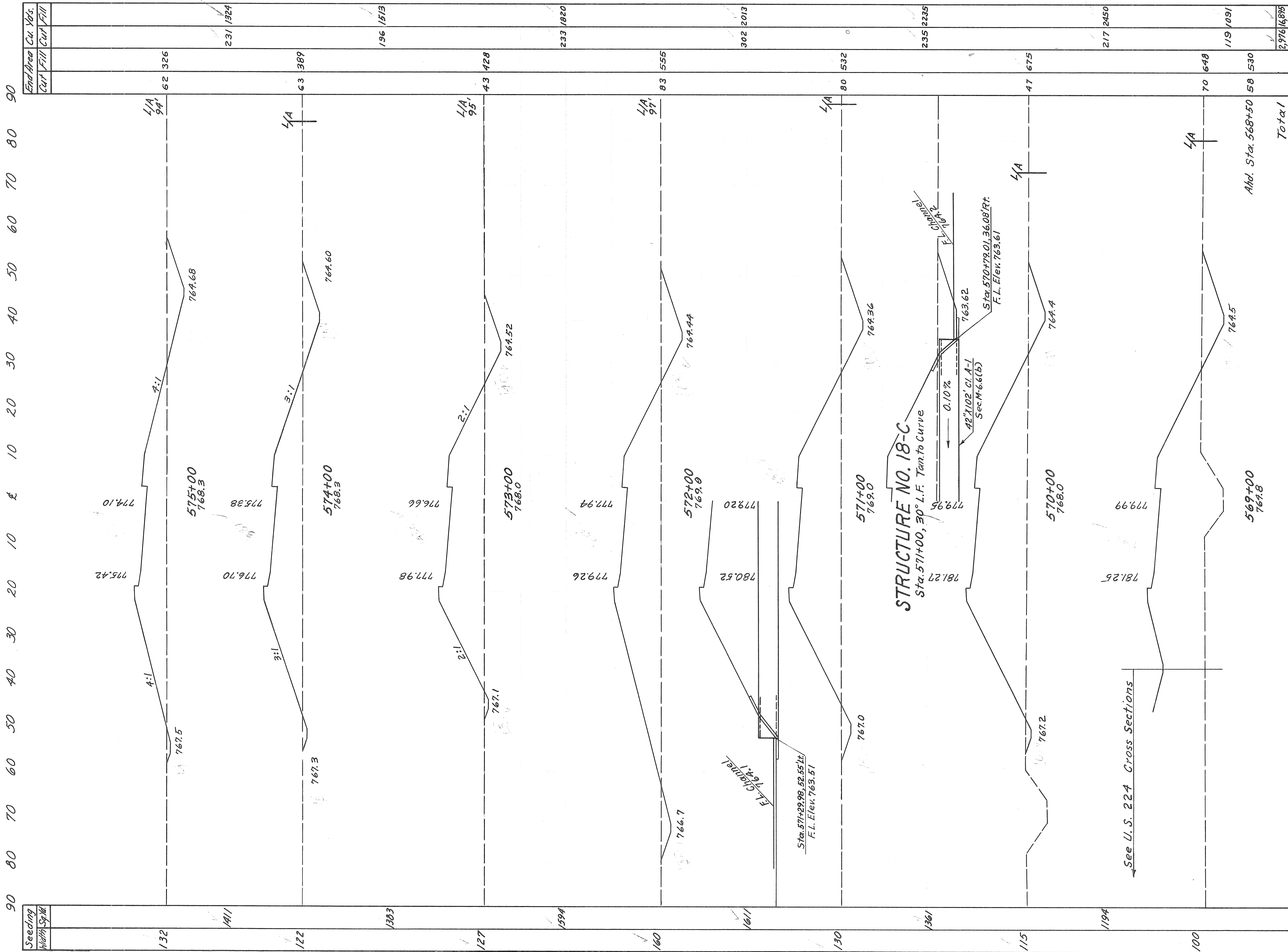
Sheet Total

Sta. 569+00

RAMP "C"

570+00  
768.4

Sta. 570+00 to Sta. 574+00 RAMP "C"



VAN WERT COUNTY  
VAN-30-4.06

568+50 to 575+00 RAMP "D"

**STRUCTURE NO. 18-C**  
Sta. 571+00, 30° L.F. Tan to Curve

See U.S. 224 Cross Sections

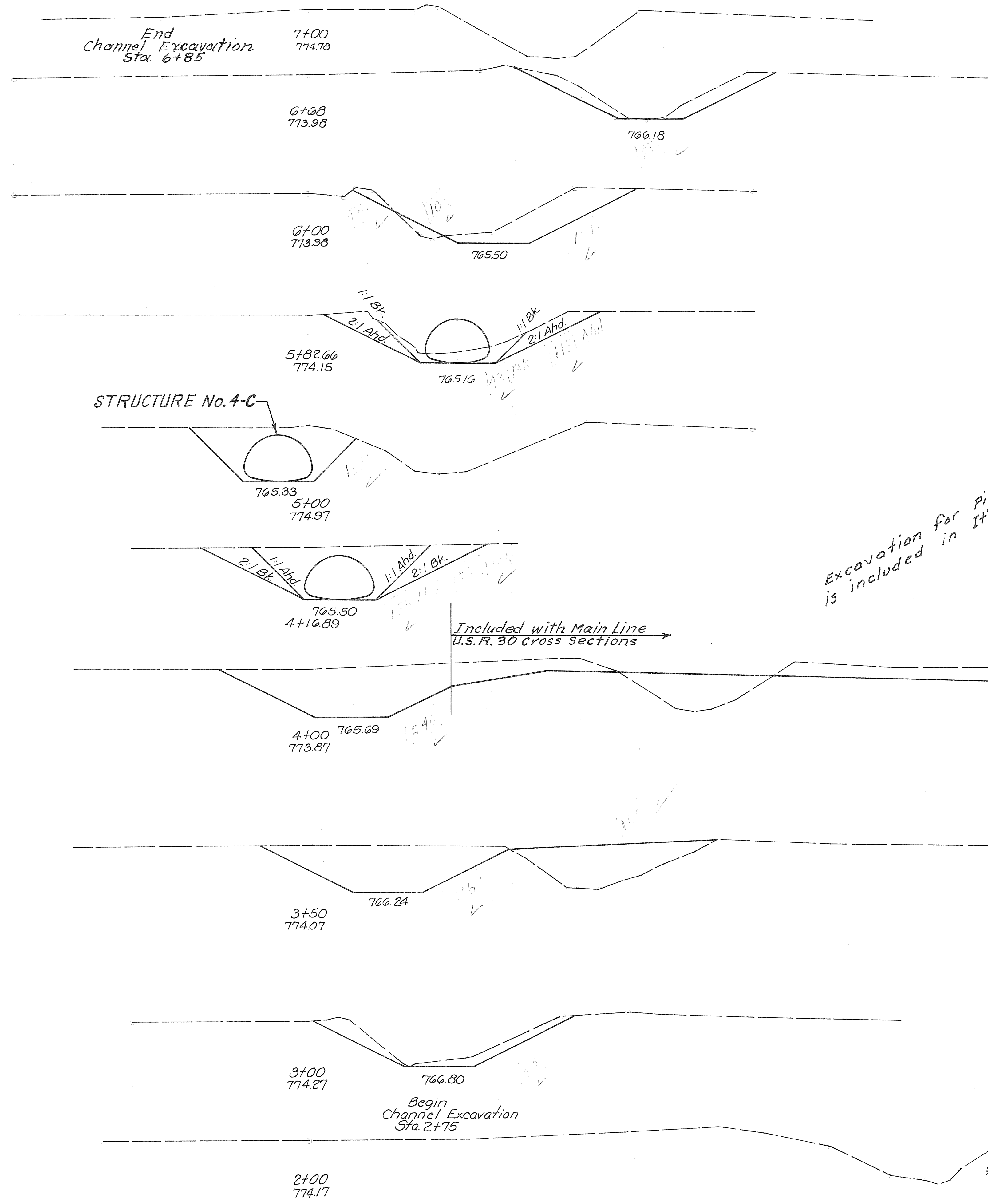
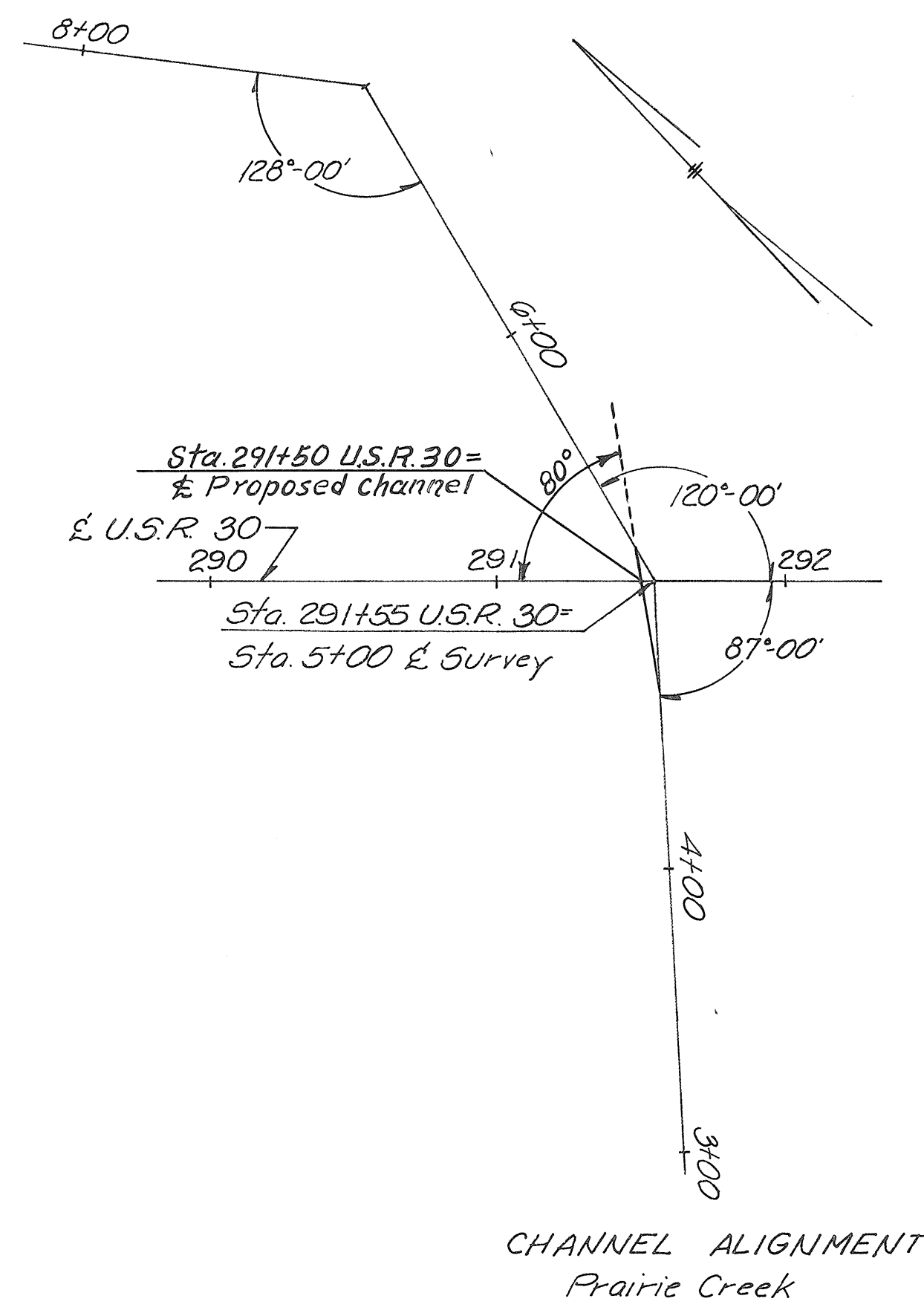
See U.S. 224 Cross Sections

See U.S. 224 Cross Sections

10,015 Sheet Total



VAN WERT COUNTY  
VAN-30-4.06



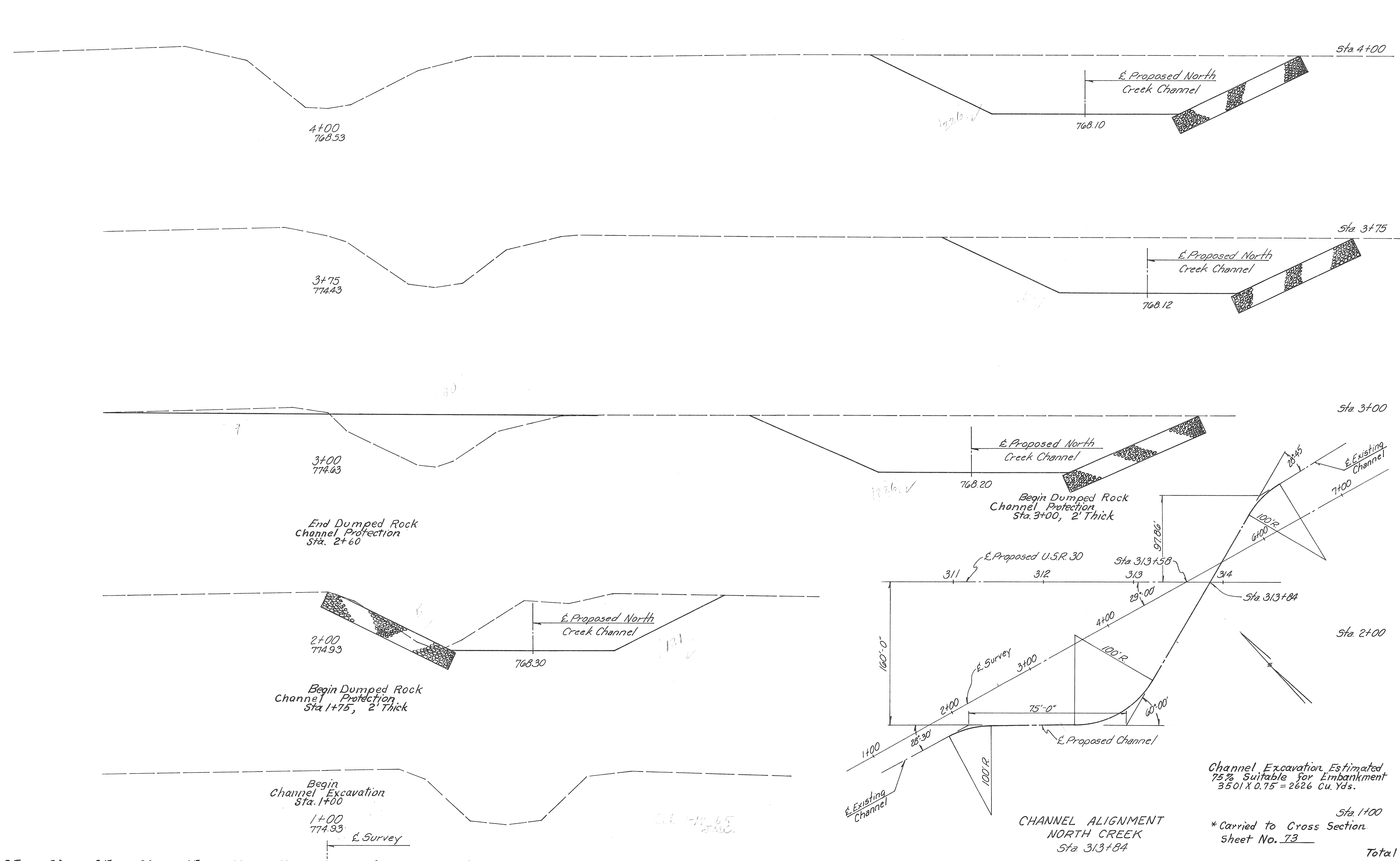
Excavation for Pipe 1-1 is included in Item 1-1

Sta.	End Area		Cu. Yd.	
	Cut	Fill	Cut	Fill
Sta. 6+85	0	0		
Sta. 6+68	81	0	26	0
Sta. 6+00	111	10	242	13
			72	3
Sta. 5+82.66 Ahd.	112	0		
Sta. 5+82.66 Bk.	(43)	0		
			(35)	0
Sta. 5+00	(188)	0		
			(57)	0
Sta. 4+16.89 Ahd.	(185)	0		
Sta. 4+16.89 Bk.	273	0		
			160	0
Sta. 4+00	240	0		
			424	139
Sta. 3+50	218	150		
			260	139
Sta. 3+00	63	0		
			29	0
Sta. 2+75	0	0		
			1213	
			(214)	294
			**	*
Total				

Channel Excavation Estimated.  
75% Suitable for Embankment  
2141 X 0.75 = 1606 Cu. Yd.

\*Carried to Cross Section Sheet No. 69  
\*\*Carried to Structure Dwg. No. 4-C, Sheet No. 295

VAN WERT COUNTY  
VAN-30-4.06



End Area	Cu. Yds.	
	Cut	Fill
226	0	0
205	0	200
235	80	612
121	5	659
0	0	157
		224
		9
		350
		351
Total		

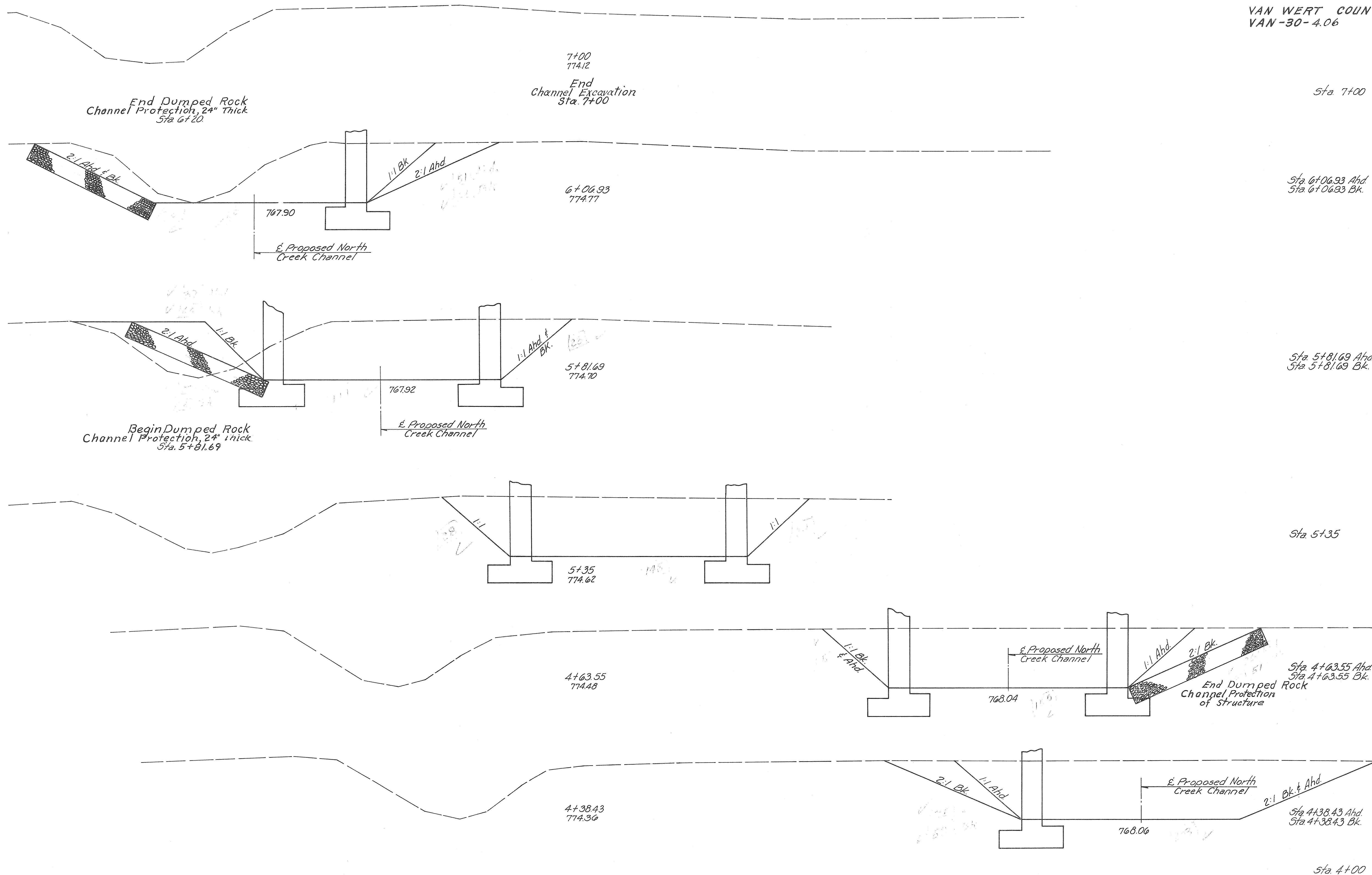
CHANNEL ALIGNMENT  
NORTH CREEK  
Sta 313+84

Channel Excavation Estimated  
75% Suitable for Embankment  
3501 X 0.75 = 2626 Cu. Yds.

\*Carried to Cross Section  
Sheet No. 73

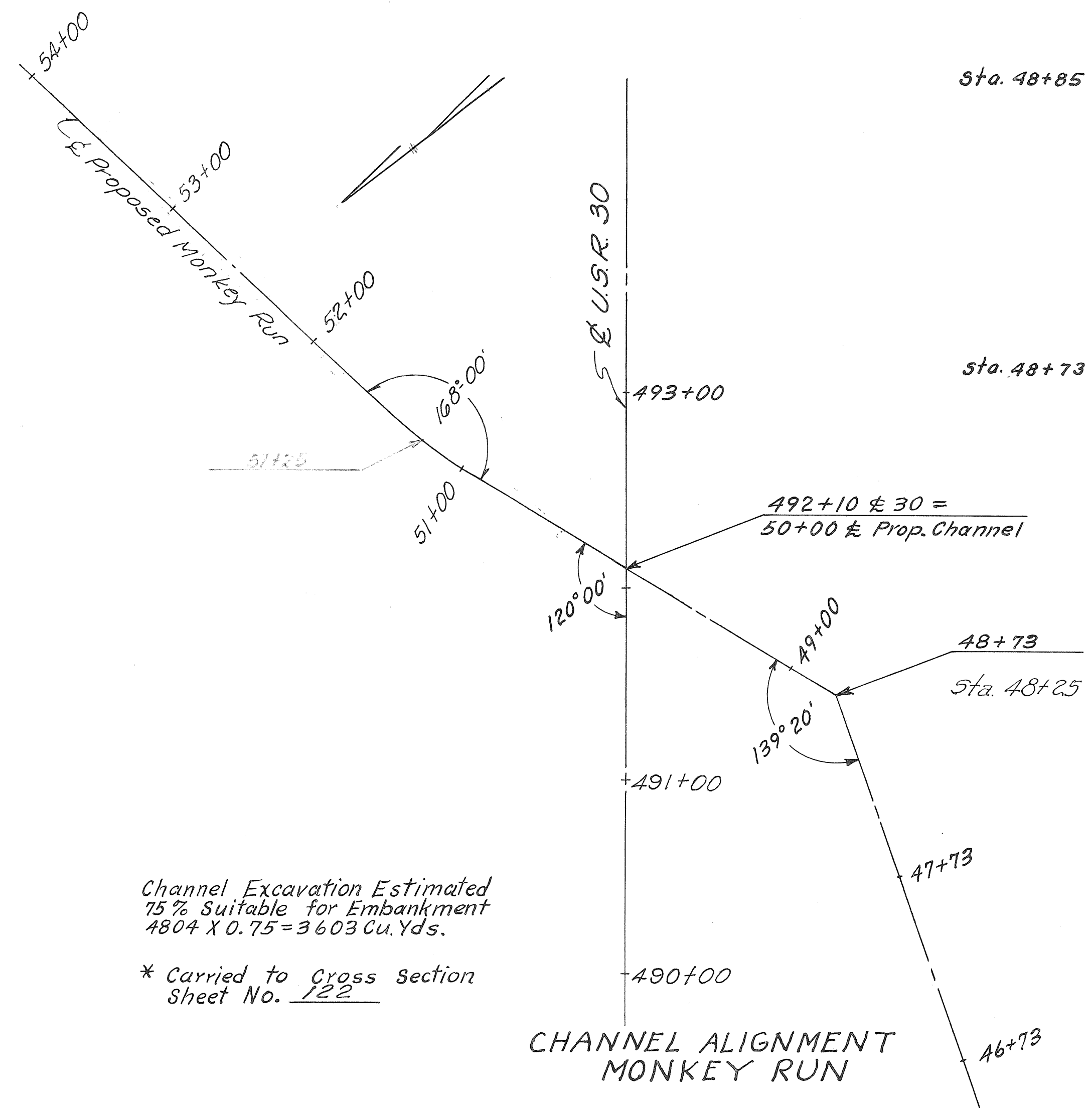
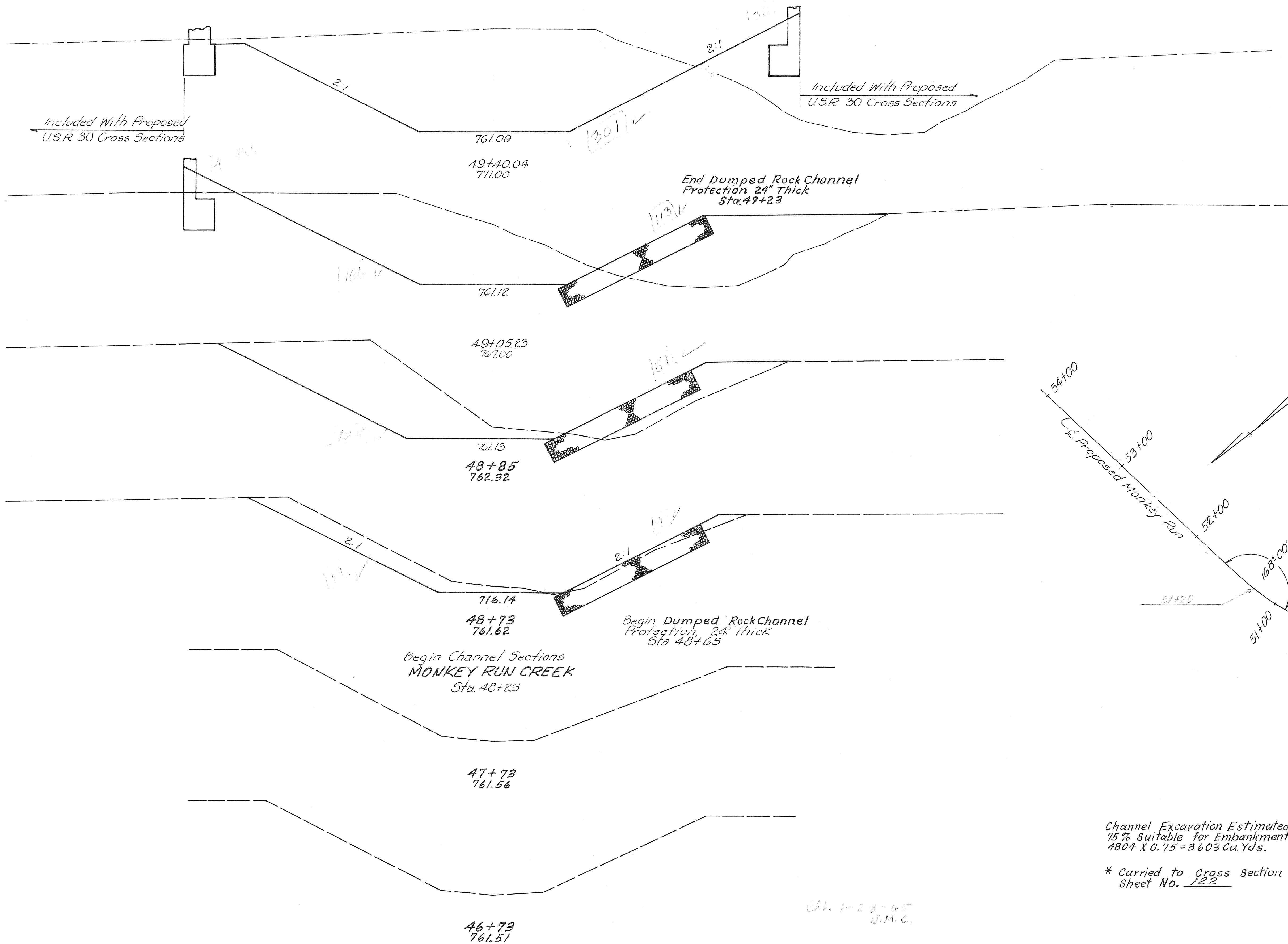
Channel Sections North Creek Sta 1+00 to Sta 4+00

VAN WERT COUNTY  
VAN-30-4.06



Sta	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
Sta 7+00	0	0		
			257	0
Sta 6+06.93 Ahd. Sta 6+06.93 Bk.	149	0		
	124	0		
			141	18
Sta 5+81.69 Ahd. Sta 5+81.69 Bk.	177	39		
	175	65		
			324	56
Sta 5+35	200	0		
			531	0
Sta 4+63.55 Ahd. Sta 4+63.55 Bk.	201	0		
	226	0		
			211	0
Sta 4+38.43 Ahd. Sta 4+38.43 Bk.	228	0		
	255	0		
			342	0
Sta 4+00	226	0		

VAN WERT COUNTY  
VAN-30-4.0G



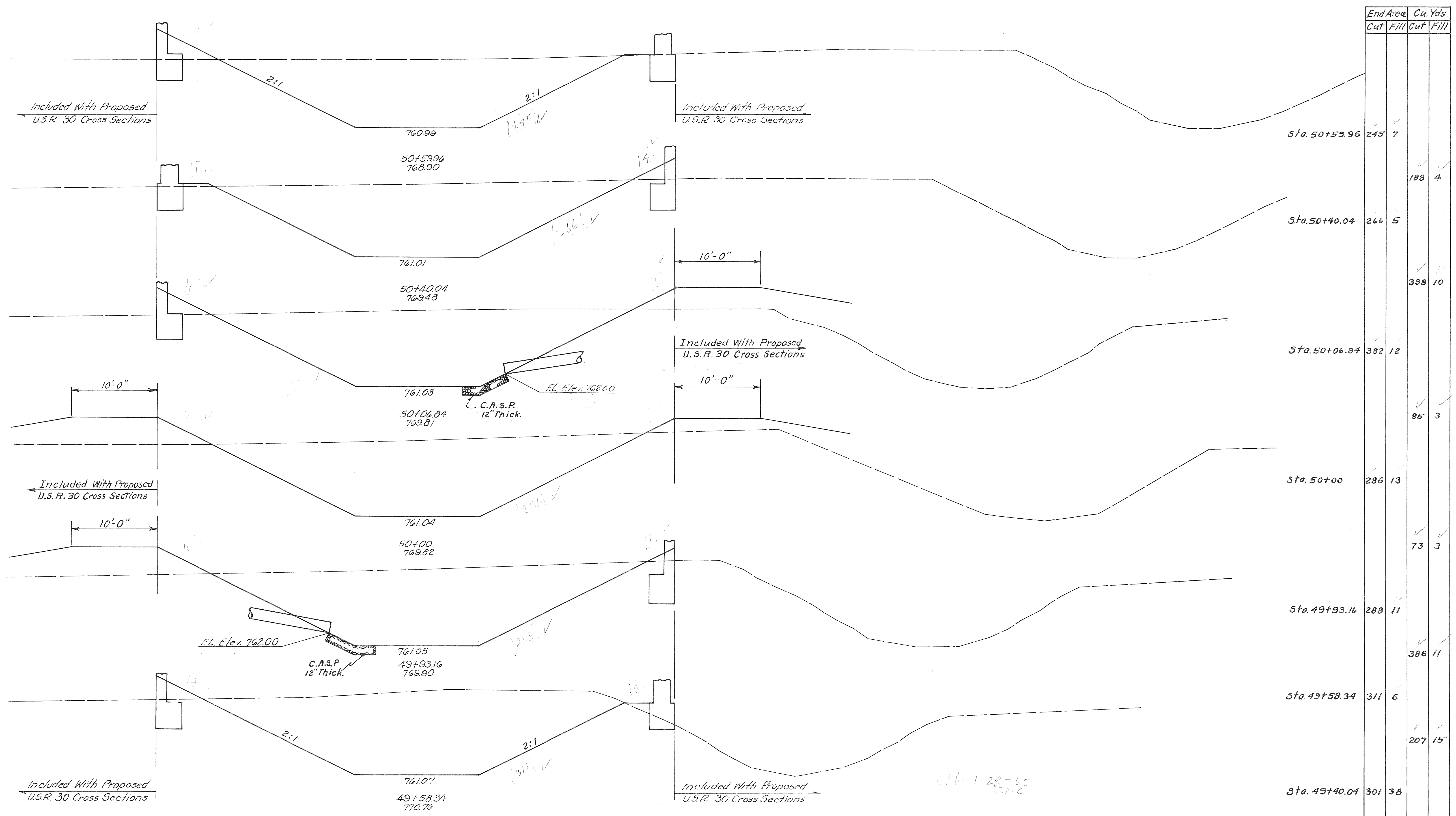
Channel Excavation Estimated  
75% Suitable for Embankment  
4804 X 0.75 = 3603 Cu. Yds.  
\* Carried to Cross Section  
Sheet No. 122

Ch. 1-28-65  
J.M.C.

	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
Sta. 49+40.04	301	38		
			301	100
Sta. 49+05.23 Ahd. 166				117
Sta. 49+05.23 Back. 166				113
Correction for Rt. Ditch			109	61
				26
Sta. 48+85	125	51		
			36	13
Sta. 48+73	39	9		
			35	8
Sta. 48+25			0	0
Total	4804	1752		



VAN WERT COUNTY  
VAN-30-4.06



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
245	7		
		188	4
266	5		
		398	10
382	12		
		85	3
286	13		
		73	3
288	11		
		386	11
311	6		
		207	15
301	38		



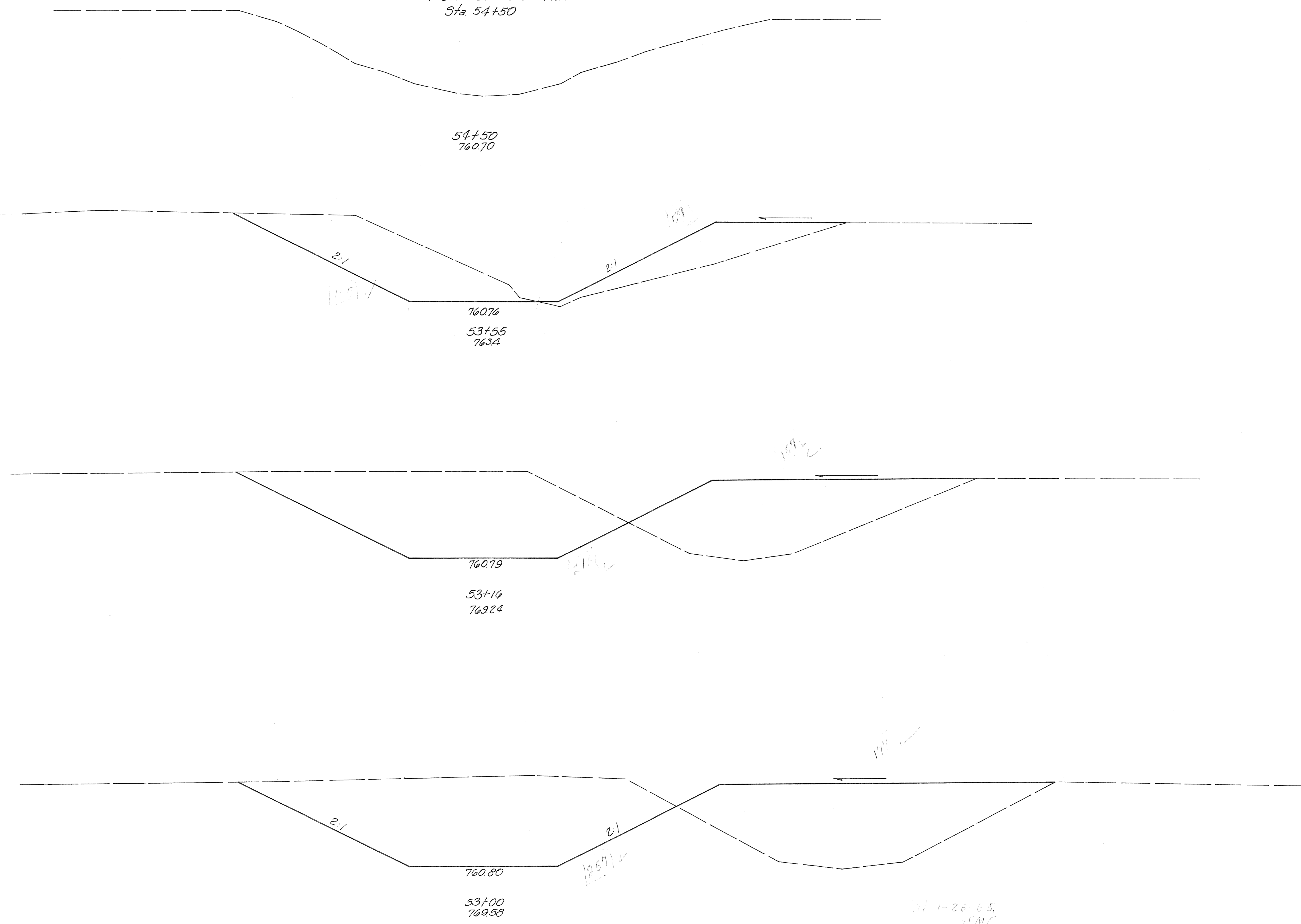
VAN WERT COUNTY  
VAN-30-406

END CHANNEL SECTIONS  
MONKEY RUN CREEK  
Sta. 54+50

95 100 105

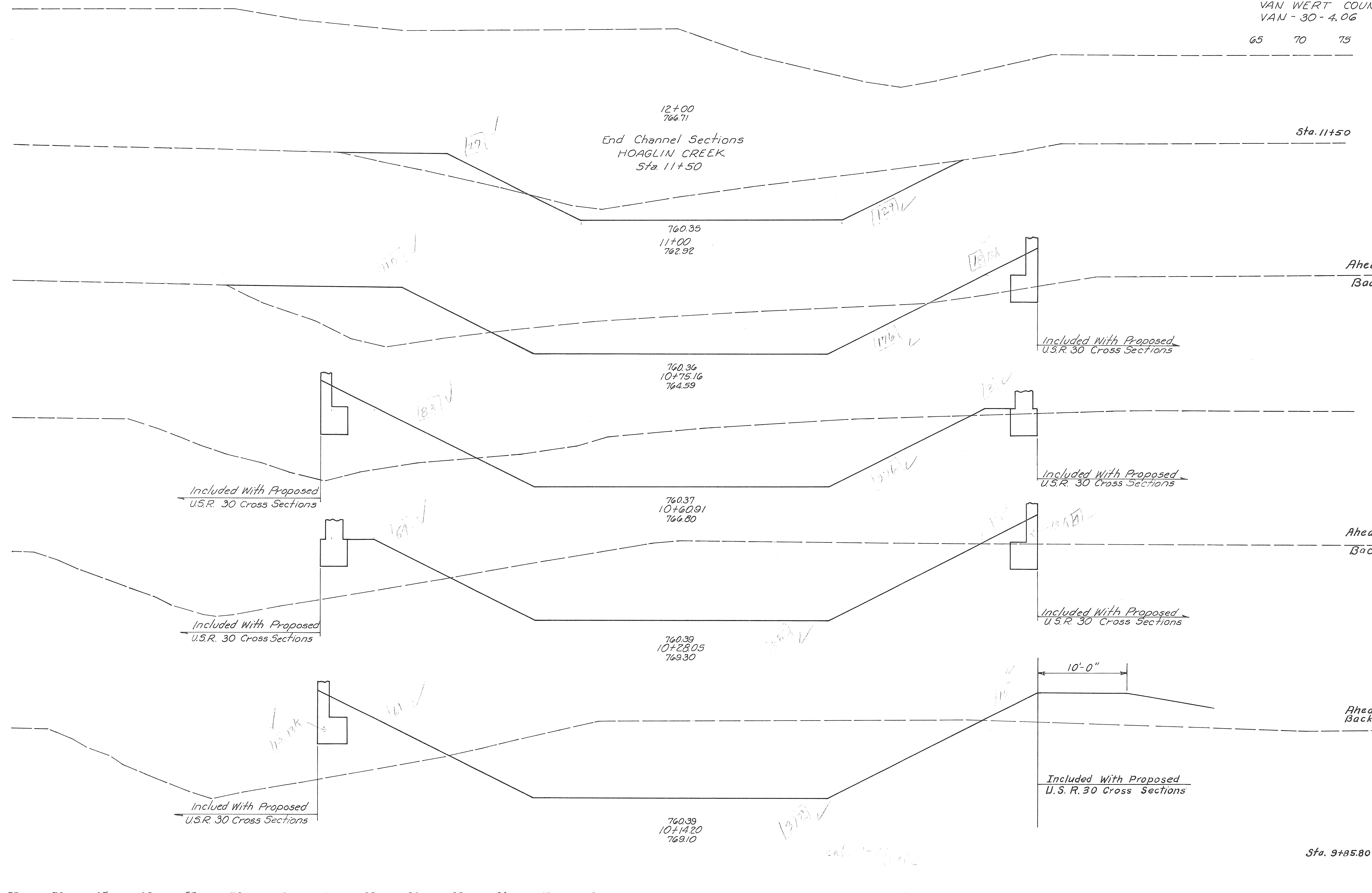
Sta. 54+50

End Area		Cu. Yd.	
Cut	Fill	Cut	Fill
0	0		
		184	104
105	59		
		232	156
216	157		
		140	105
257	197		
		516	375
Sta. 52+50.		300	208



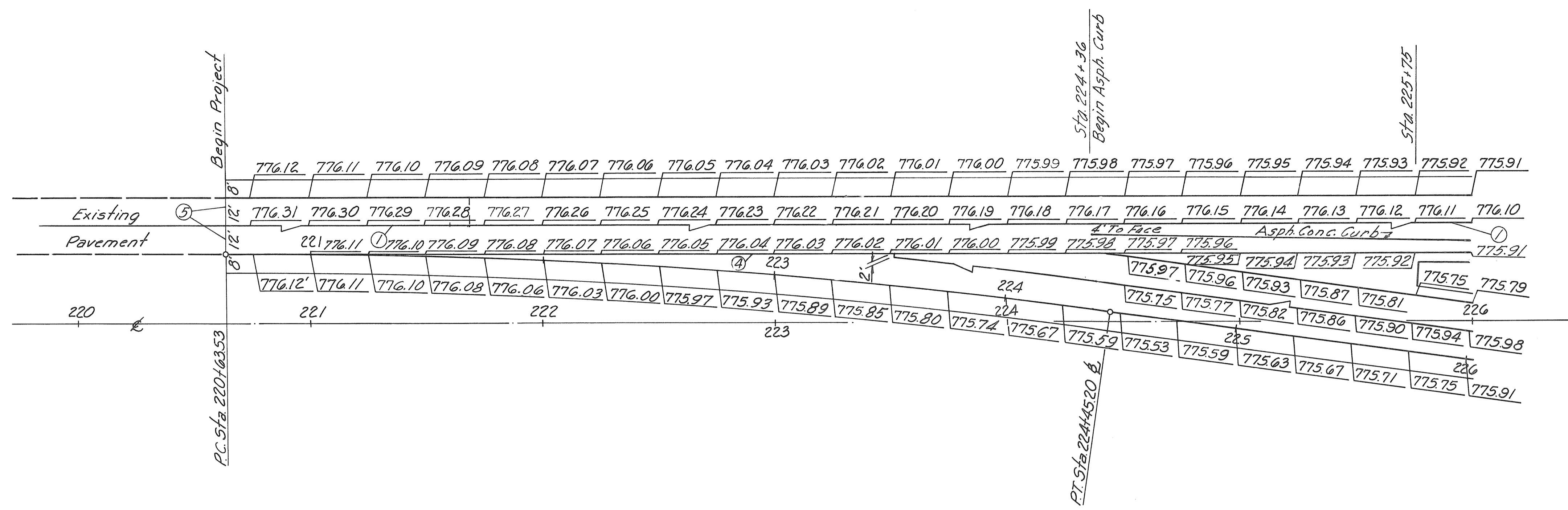


VAN WERT COUNTY  
VAN - 30 - 4.06

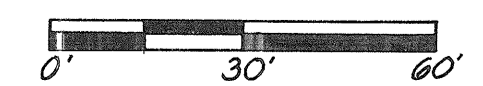
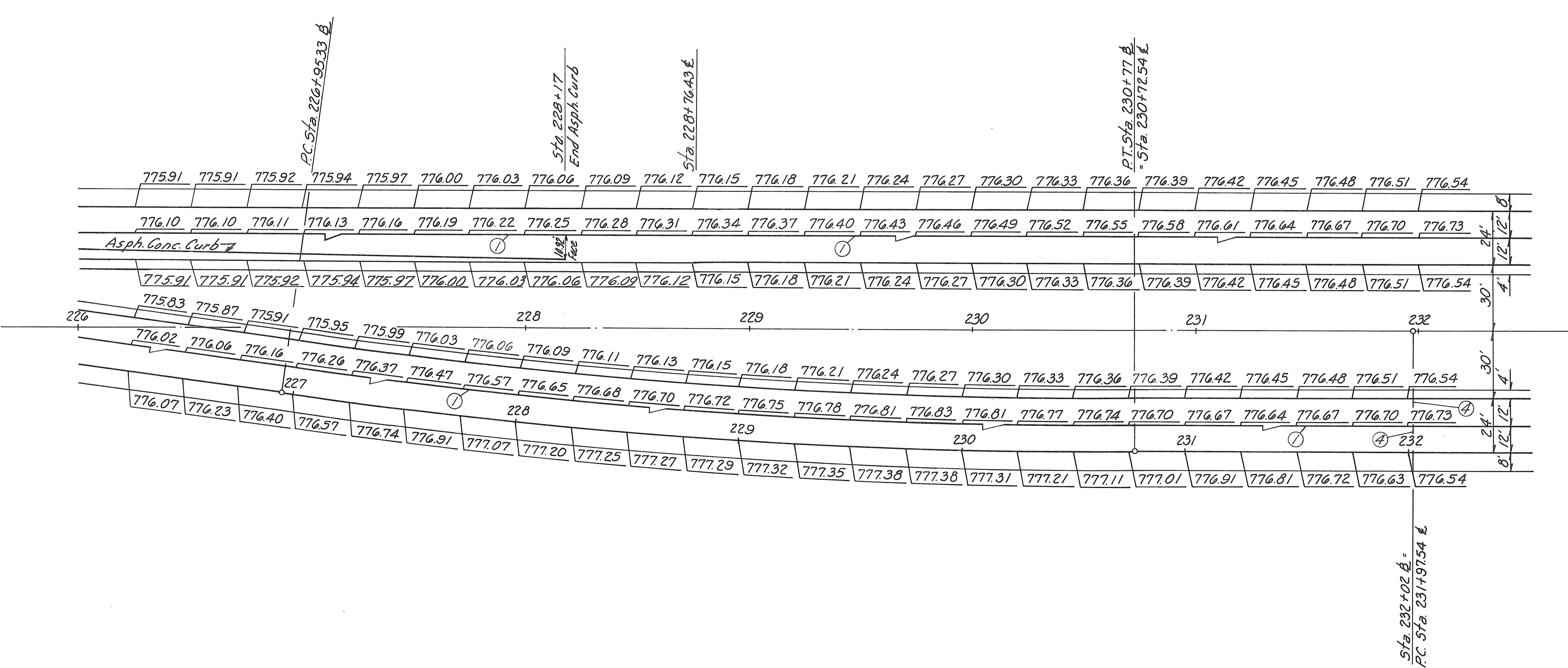


End Area		Cu. Yd.	
Cut	Fill	Cut	Fill
0	0	120	25
129	27	140	63
176	110	119	56
176	128	276	86
		401	89
382	60	382	64
382	64	198	35
392	71	392	85
		242	190
69	277		

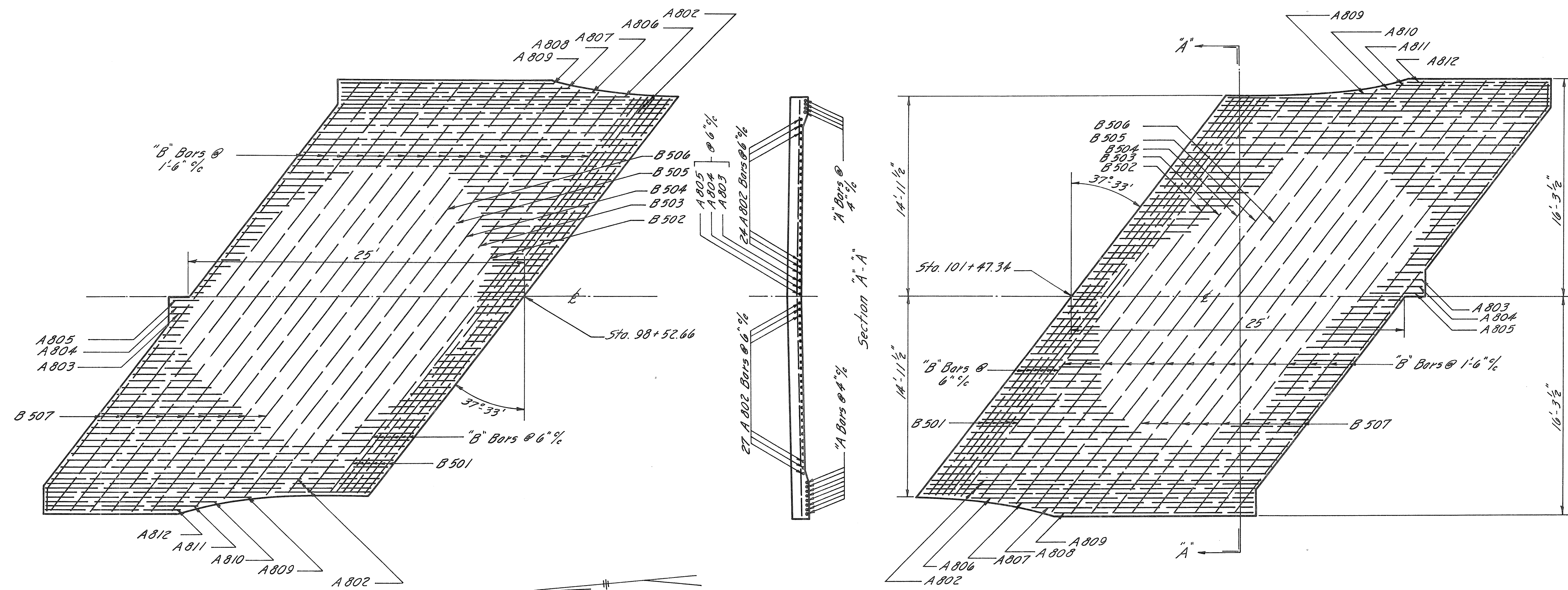




- JOINT LEGEND
- ① Standard Longitudinal Joint
  - ② Standard Expansion Joint
  - ③ Standard Contraction Joint
  - ④ Key Joint Without Tiebars
  - ⑤ Butt Joint to existing pavement

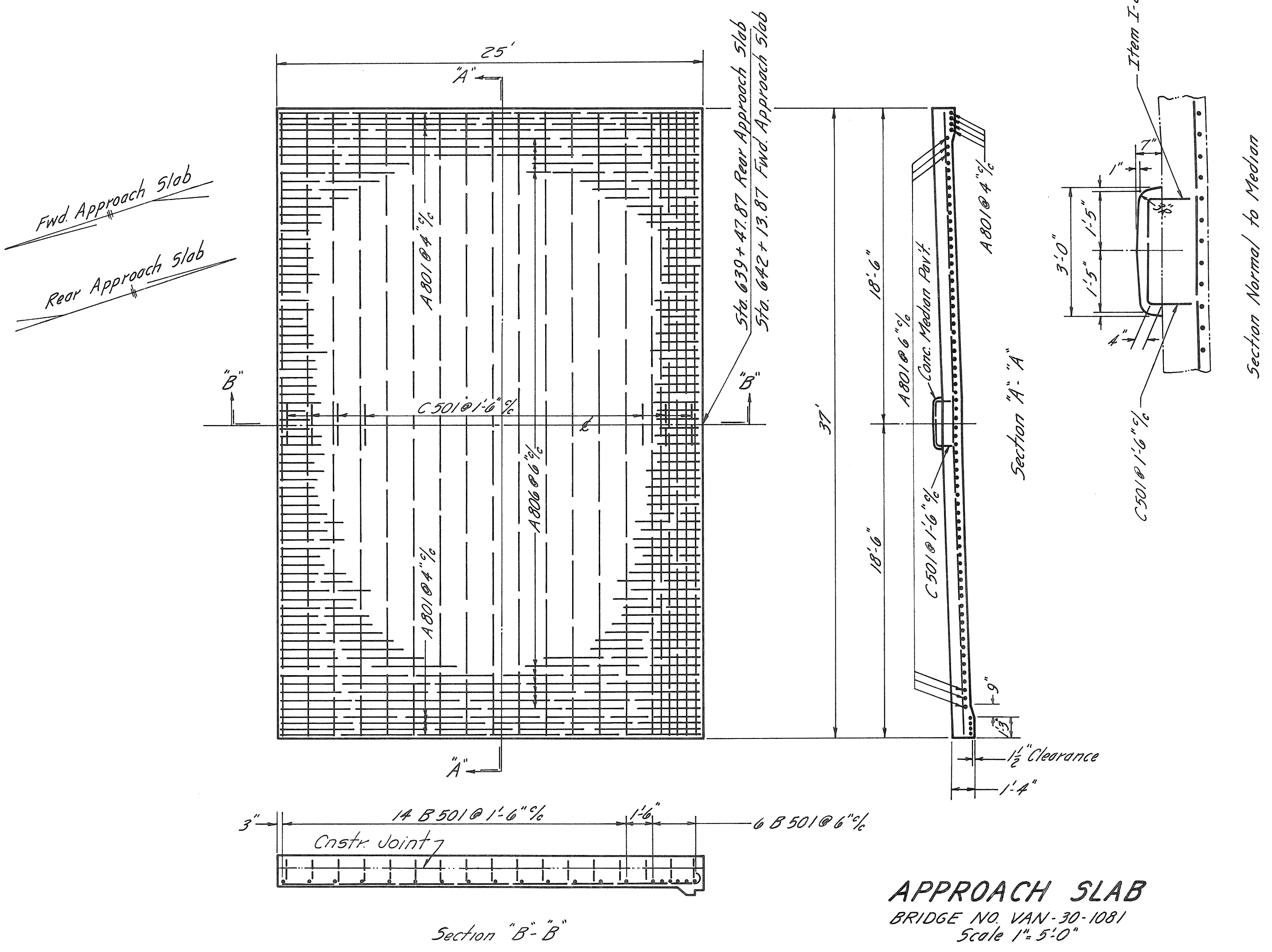


TRANSITION DETAIL - 2 Lane to 4 Lane From Sta. 220+63.53 to Sta. 231+97.54



"A" Bars				"B" Bars		
Mark	No. Req'd.	Length	Dimension "A"	Mark	No. Req'd.	Length
VAN-30-0595						
A 802	118	25'-7"	24'-6"	B 501	12	37'-2"
A 803	2	25'-9"	24'-8"	B 502	2	38'-0"
A 804	2	26'-1"	25'-0"	B 503	2	38'-3"
A 805	2	26'-8"	25'-7"	B 504	2	38'-7"
A 806	2	22'-1"	21'-0"	B 505	2	39'-5"
A 807	2	19'-1"	18'-3"	B 506	2	40'-0"
A 808	2	17'-1"	16'-5"	B 507	18	40'-5"
A 809	4	16'-1"	15'-2"			
A 810	2	14'-1"	13'-0"			
A 811	2	12'-7"	11'-6"			
A 812	2	11'-7"	10'-6"			

**APPROACH SLABS**  
BRIDGE NO. VAN-30-0595  
Scale 1"=5'-0"



**APPROACH SLAB**  
BRIDGE NO. VAN-30-1081  
Scale 1"=5'-0"

**REINFORCING STEEL**  
Bridge No. Van-30-1081  
(For Two Approach Slabs)

"A" Bars			
Mark No.	No. Req'd.	Length	Dimension "A"
A 801	132	25'-7"	24'-6"

"B" Bars		
Mark No.	No. Req'd.	Length
B 501	40	36'-6"

"C" Bars		
Mark No.	No. Req'd.	Length
C 501	34	4'-6"

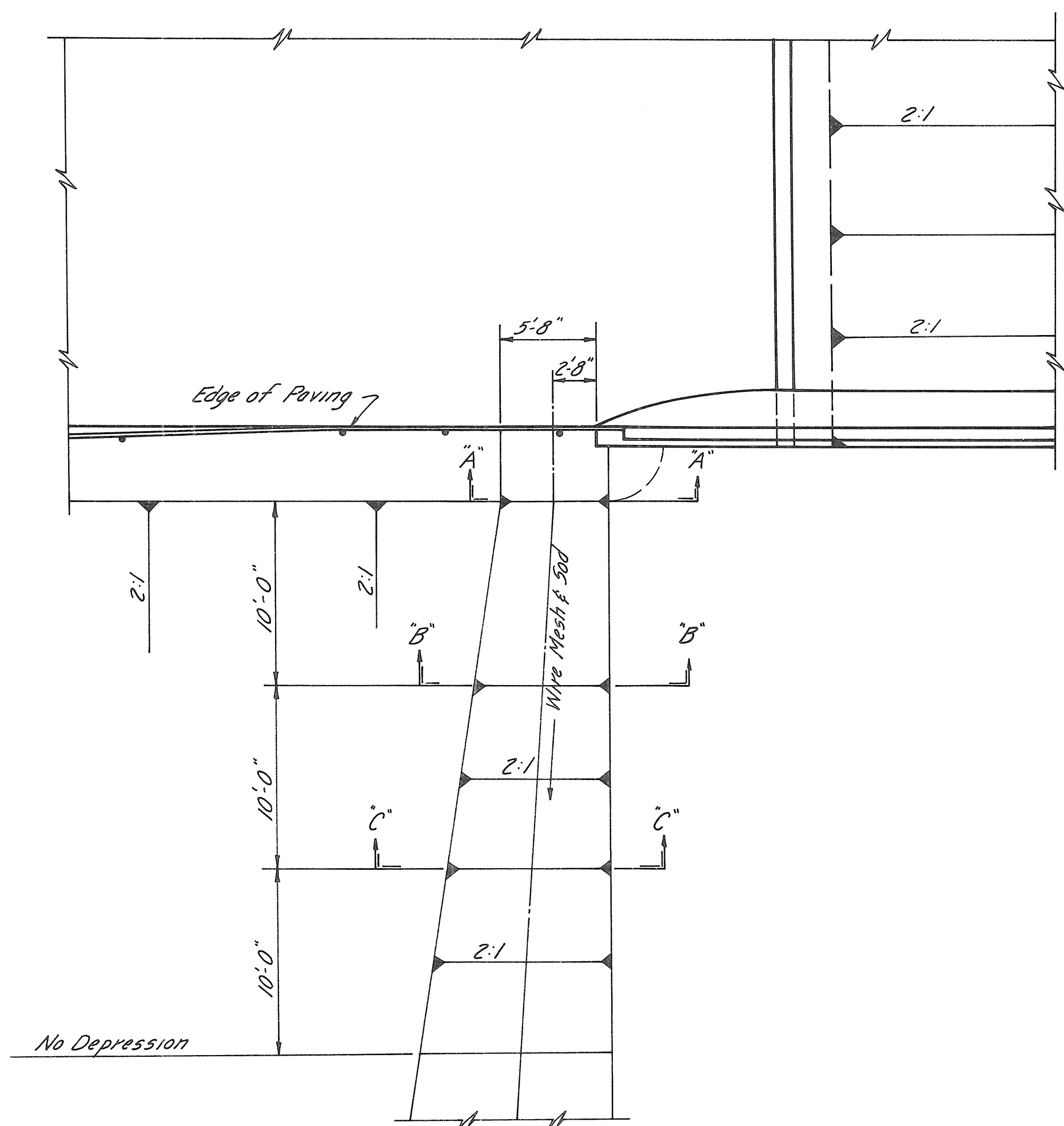
  

Note 1. For General Notes & Standard Design details see Standard Dwg. No. A5-1-54

Note 2. Item I-21, Paved Median as detailed on this sheet shall be included in bid per sq. yd. of Item I-7 Approach Slab for pay purposes



**SPECIAL BERM AND SLOPE PROTECTION**



Prior to placement of sod in the berm and slope, galvanized poultry fence shall be placed on the finished grade in strands which shall be at right angles in the direction of flow, each strand shall be staked securely on top and bottom with stakes placed at four foot intervals and alternated in rows four feet apart.

Stakes shall be 1"x1"x8" wood stakes and shall be perpendicular to the ground and flush with the finished grade.

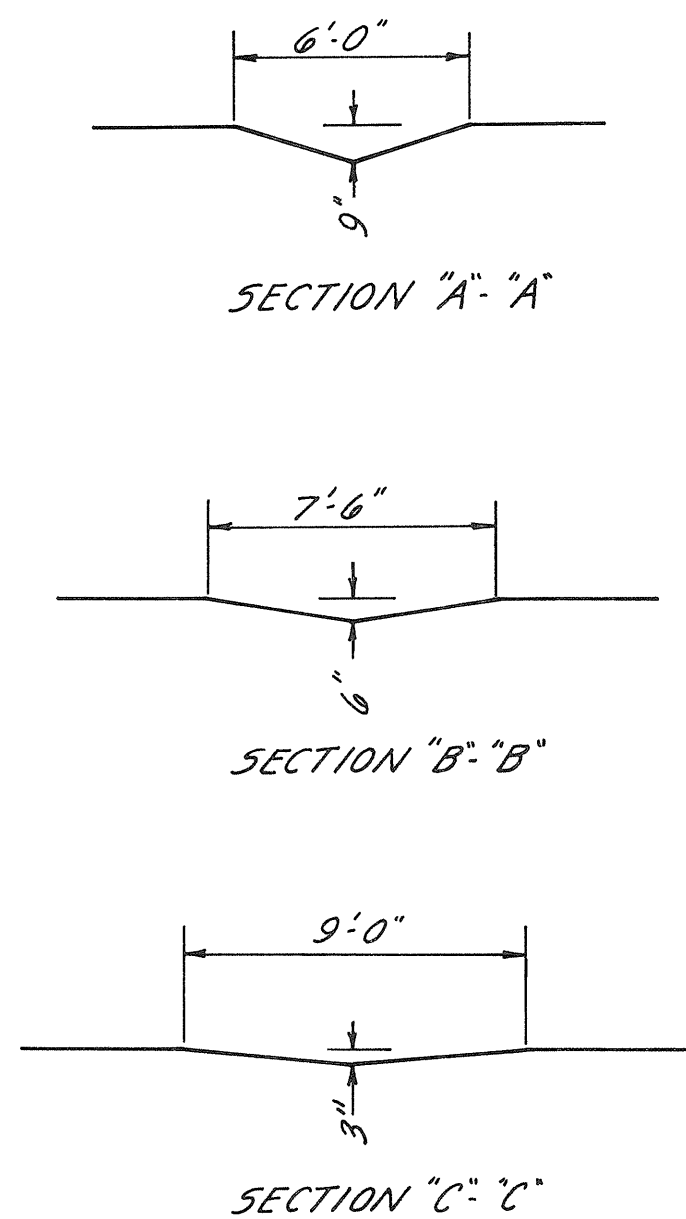
The fence shall be straight line poultry fence or equivalent with strand width of four feet having a two inch mesh and all wires No. 20 gauge.

The strands of fencing shall be fastened together at twelve inch intervals by means of hog rings.

The fence shall be secured to the wood stakes by metal staples.

Sod shall be laid in accordance with the construction and materials specifications section L-10.07.

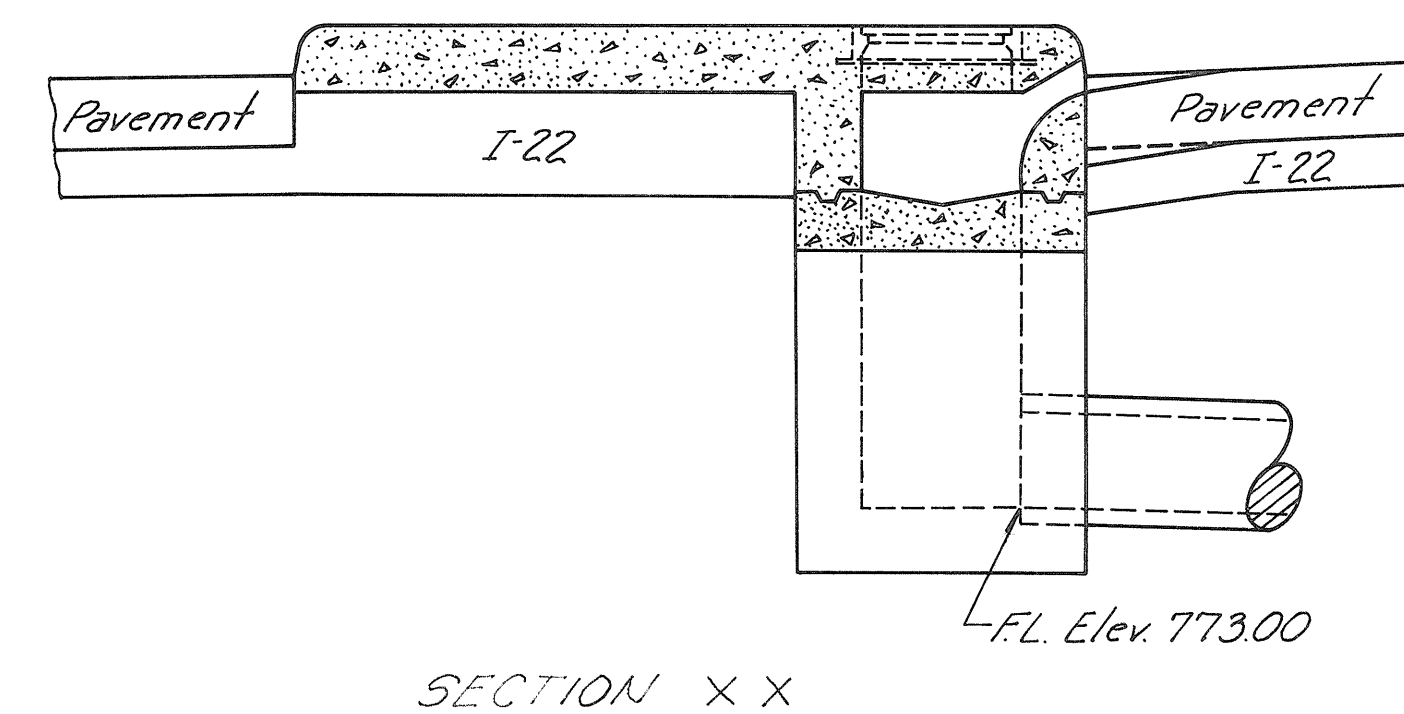
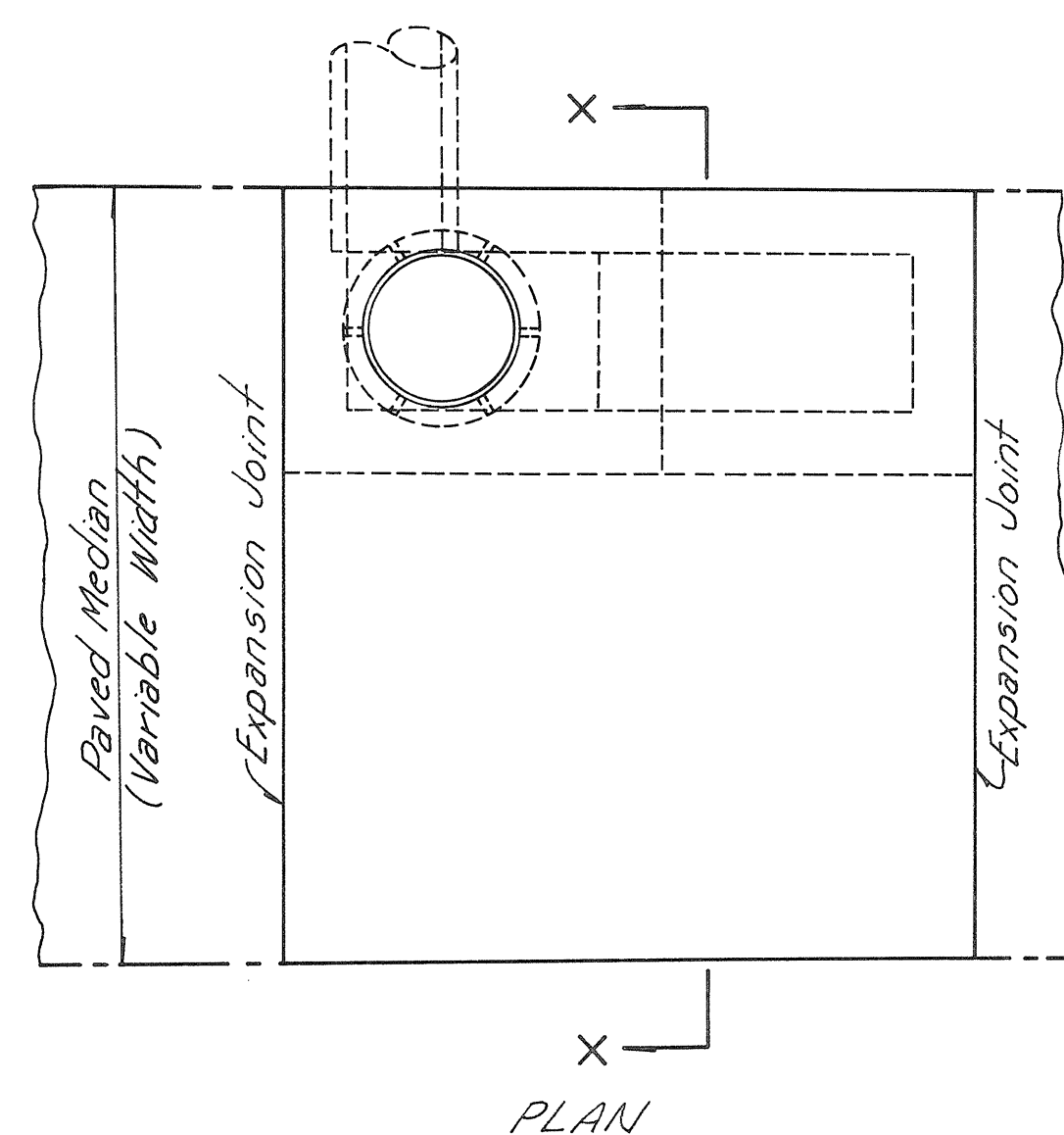
Payment for all of the above shall be included in the unit price bid for Item L-10 Sodding for Special berm and slope protection, as per plan.



FED. RD. DIVISION	STATE	PROJECT
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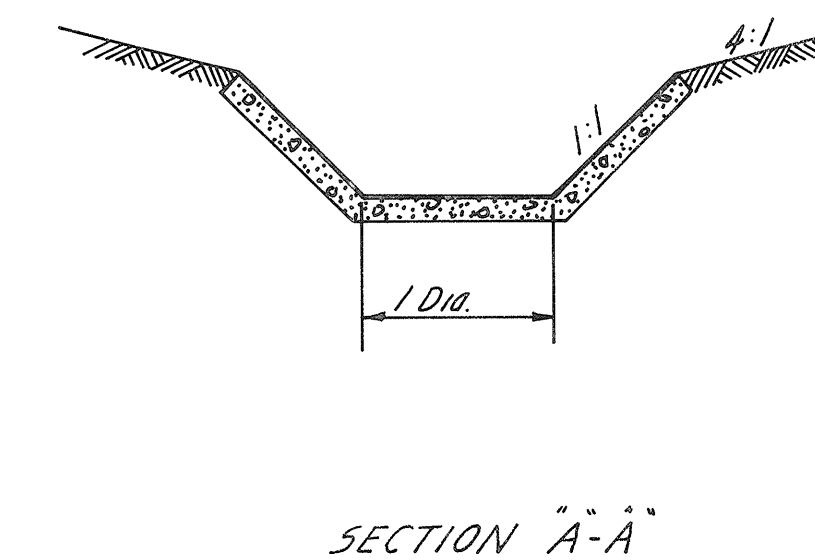
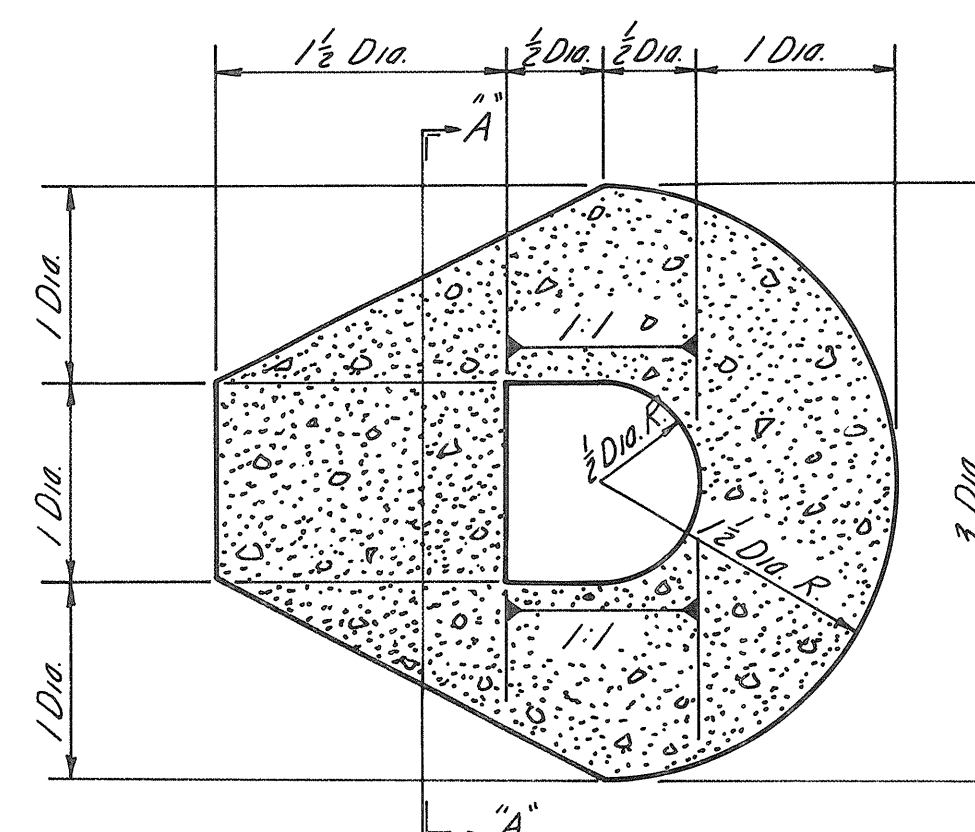
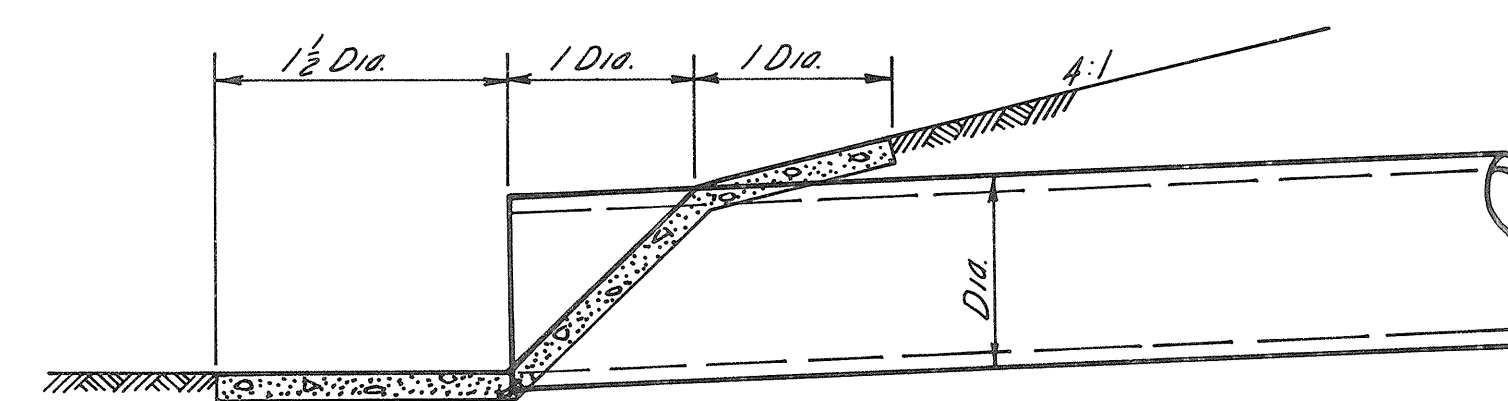
VAN WERT COUNTY  
VAN-30-4.06



Note:  
For Details, Notes and Dimensions not shown, see Standard Drawing I-8 Inlet No. 2. The extension of concrete inlet top to provide continuous paved median will be included in the Unit Price Bid for the Inlet.

MODIFICATION, STD 2-6 MEDIAN INLET  
STA 629+25 USR 224

**RIPRAP DETAIL FOR PIPE ENDS**

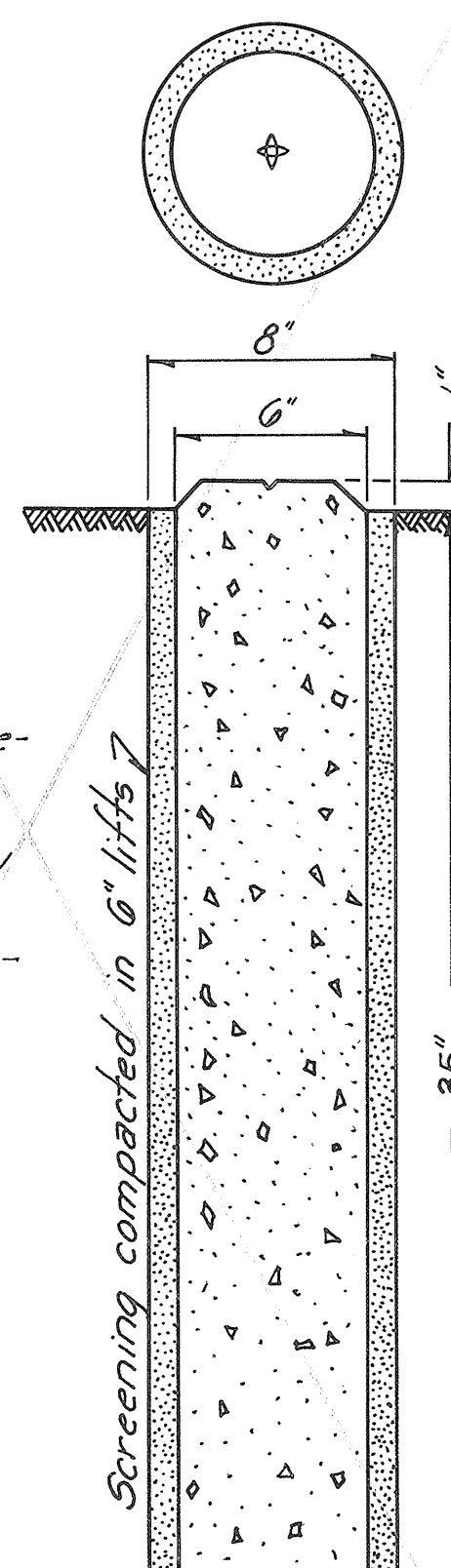


**DETAIL OF REFERENCE MONUMENT**

NOTES

1. Monuments shall be set plumb with the center marker on the exact location as established by the engineer.

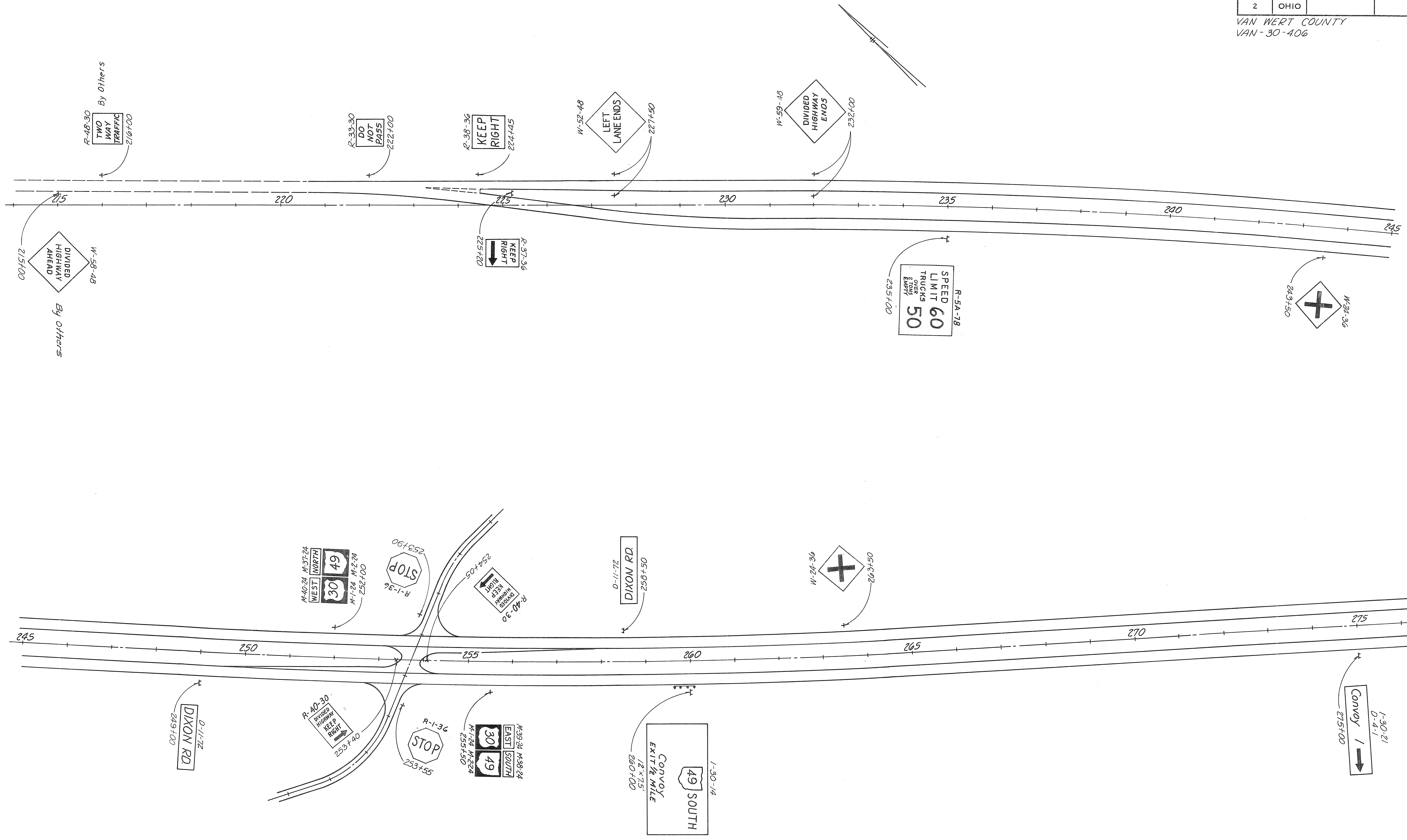
2. The Item, Setting Reference Monuments shall include all labor, equipment, and materials necessary to complete this item - except monuments which will be delivered to the field office by the State.





FED. RD. DIVISION	STATE	PROJECT
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VAN WERT COUNTY  
VAN-30-406



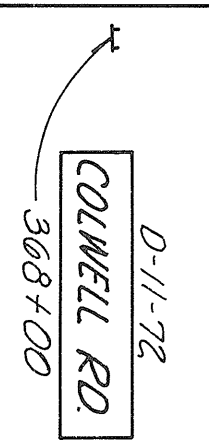
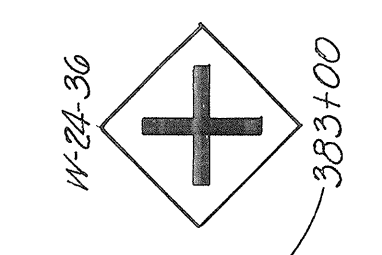
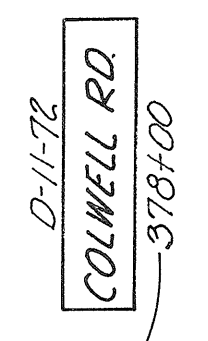
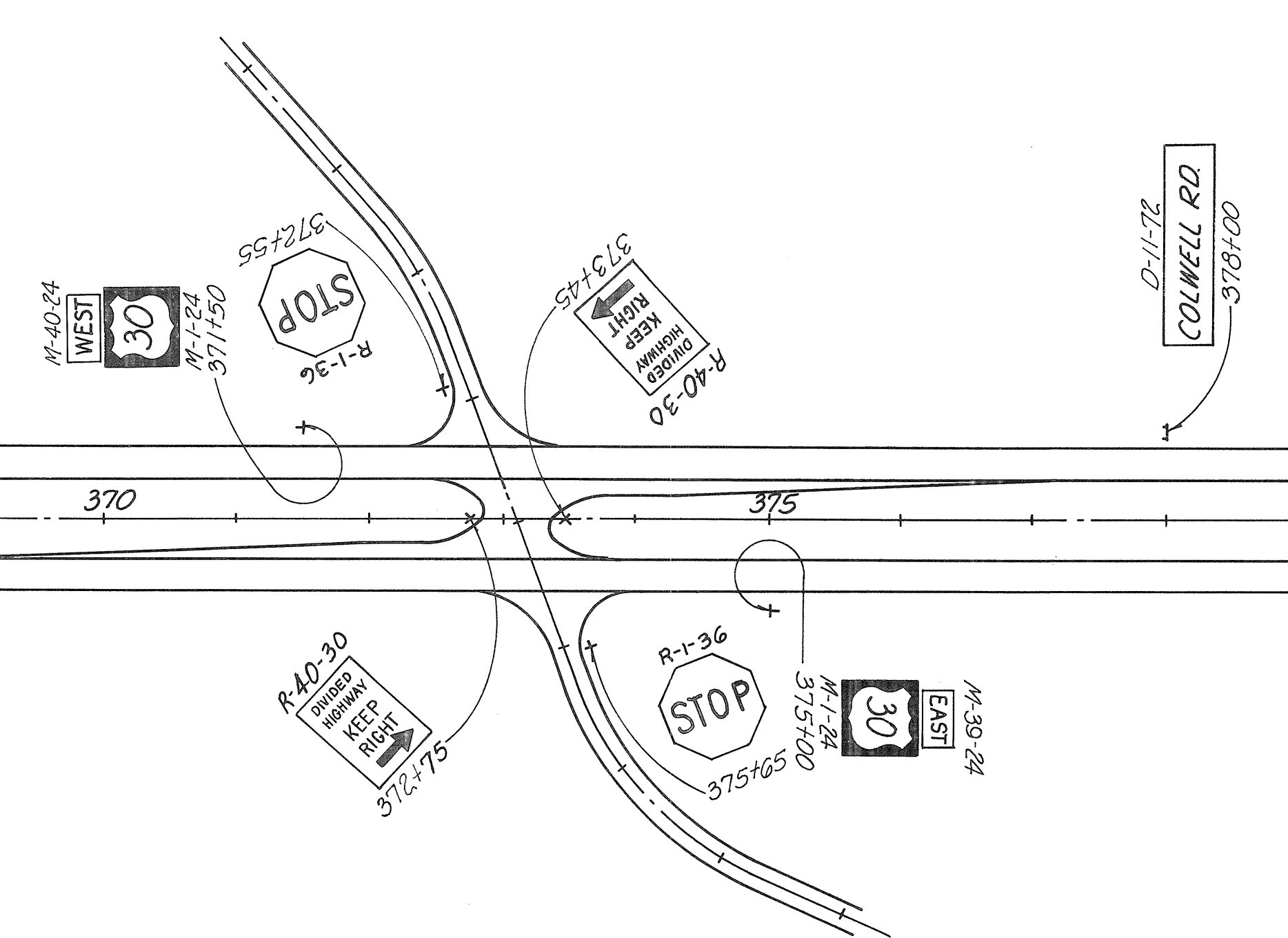
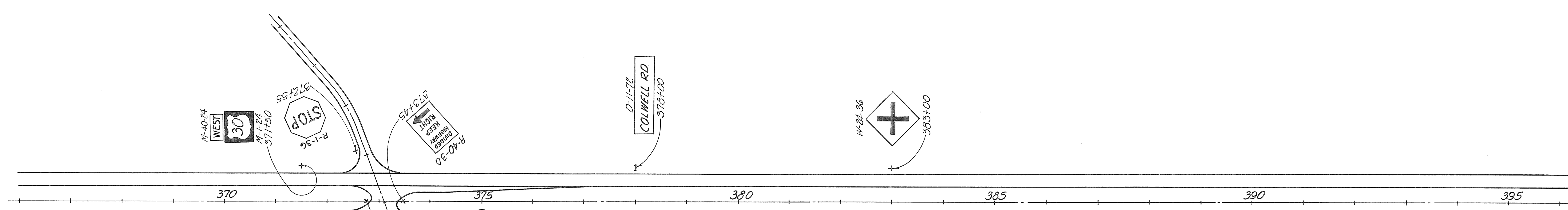
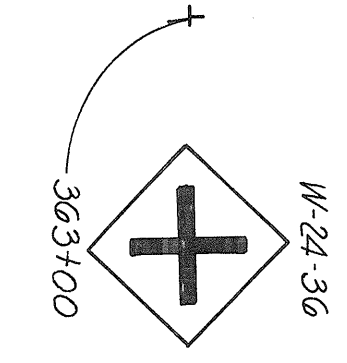
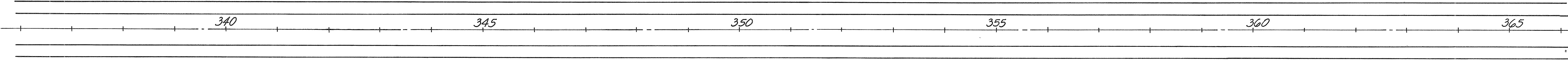
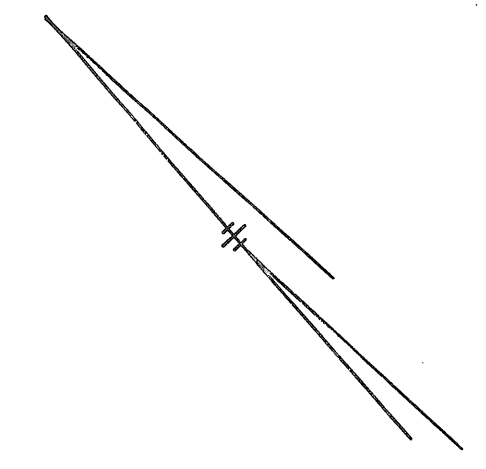
SIGN PLAN LAYOUT Sta 214+00 to Sta 276+00



FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

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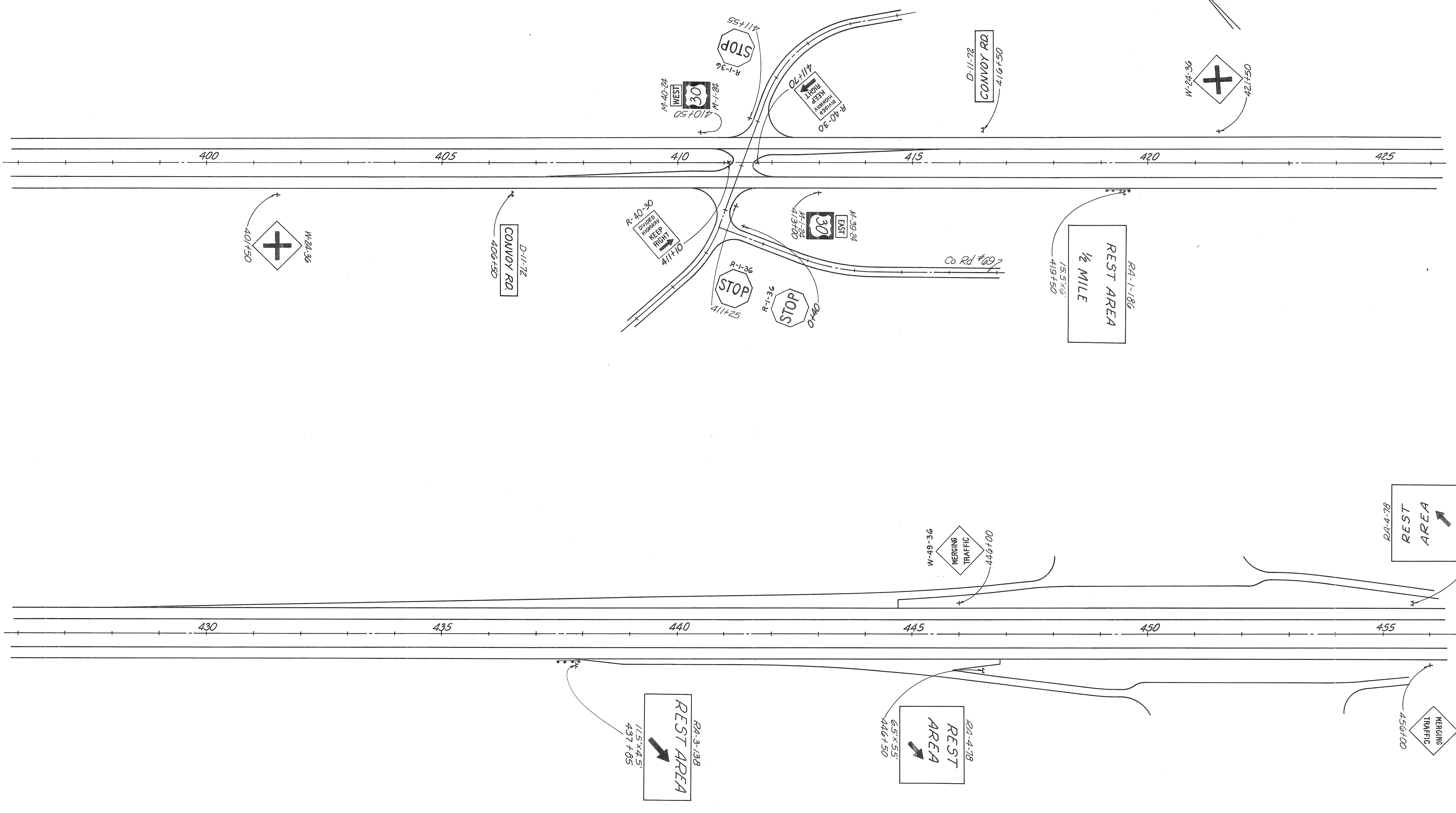
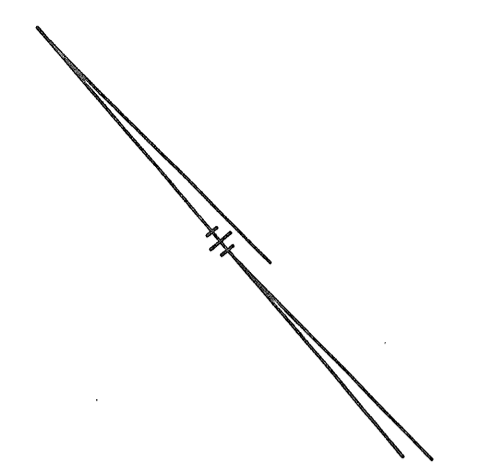
VAN WERT COUNTY  
VAN-30-4.06



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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VAN WERT COUNTY  
VAN - 30 - 4.06

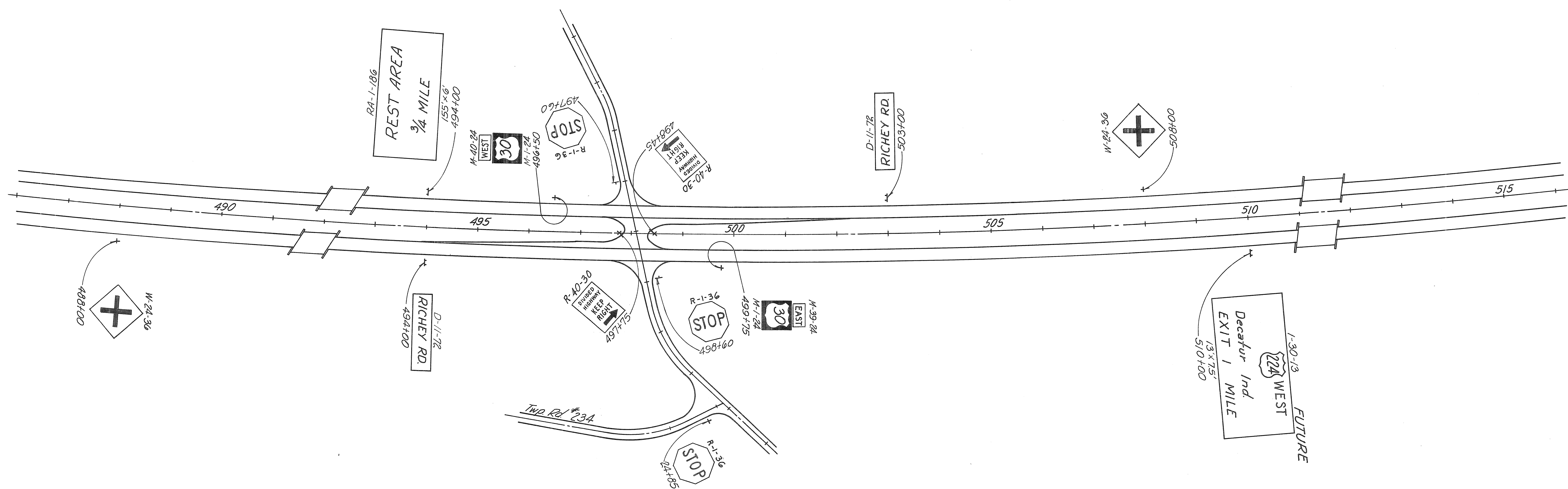
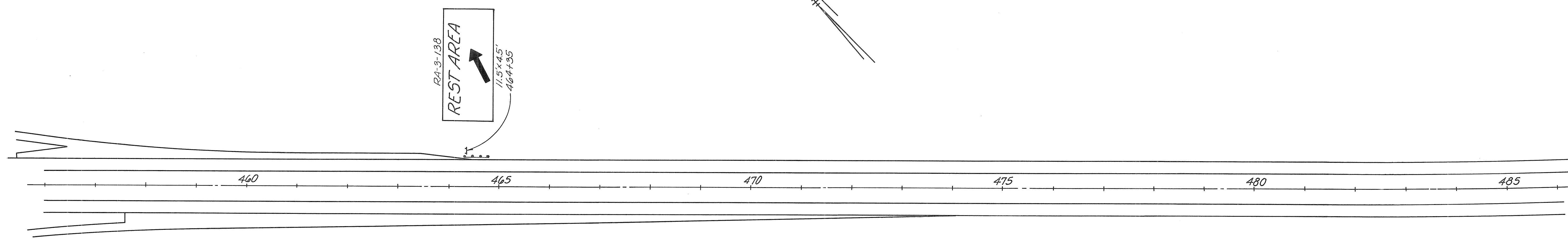


SIGN PLAN LAYOUT Sta 396+00 to Sta 456+00

FED. RD. DIVISION	STATE	PROJECT
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VAN WERT COUNTY  
VAN-30-4.06

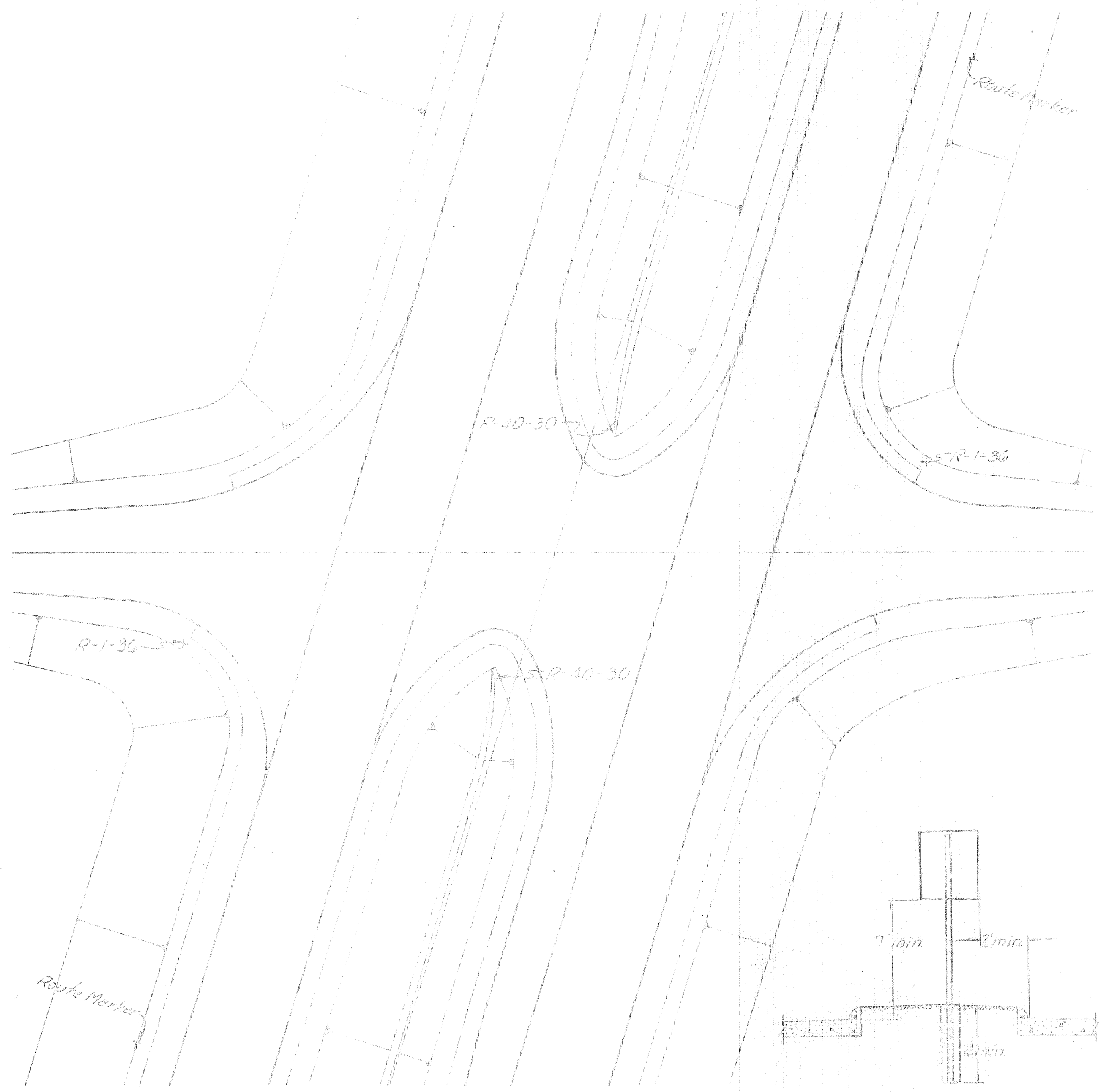


SIGN PLAN LAYOUT Sta 456+00 to Sta 516+00

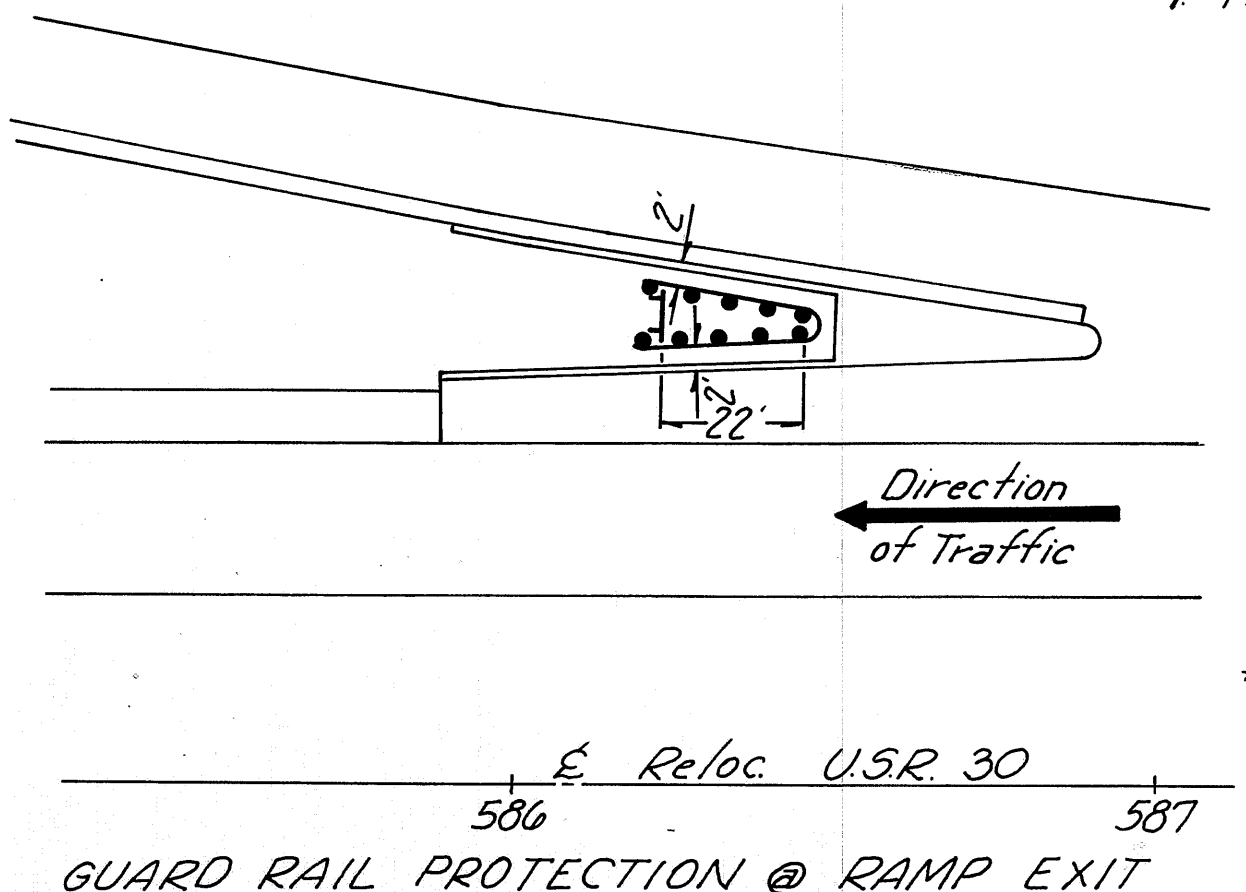
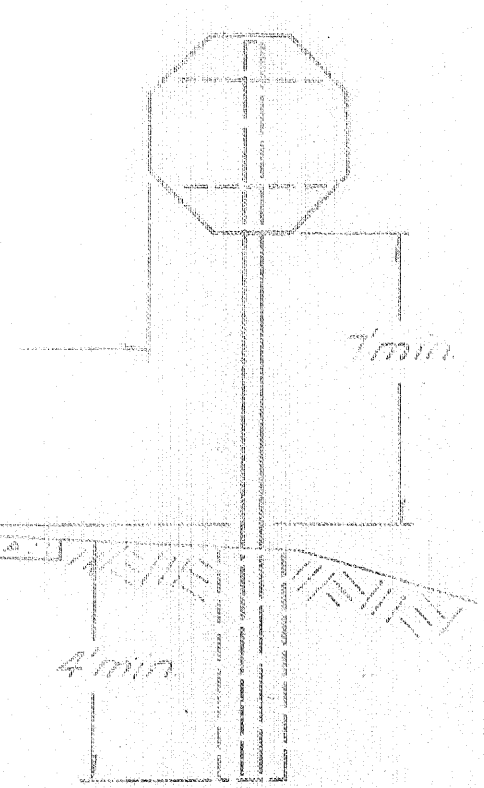
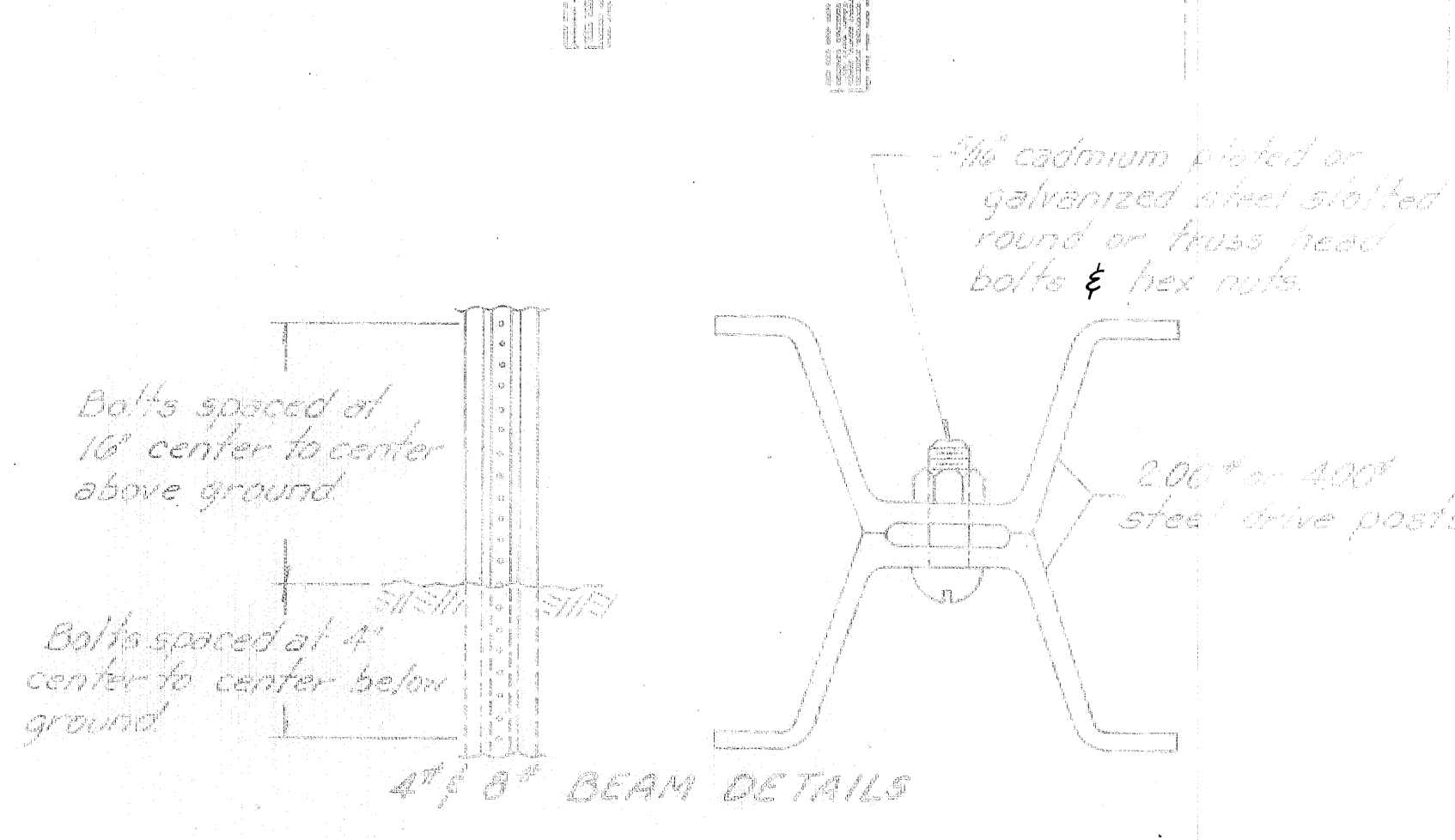
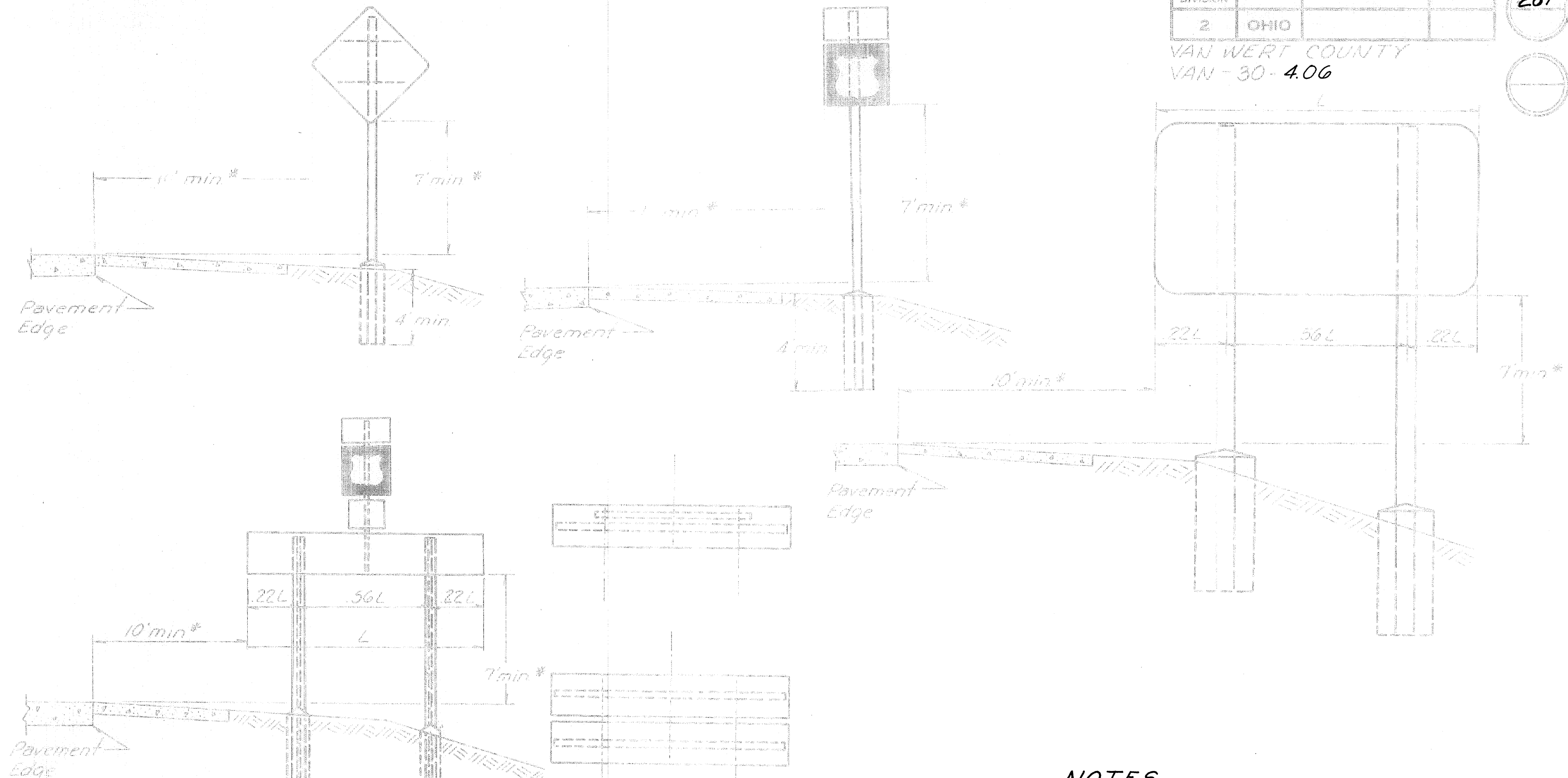








TYPICAL SIGN LOCATION AT AN INTERSECTION



GUARD RAIL PROTECTION @ RAMP EXIT

- NOTES**
- 1-Horizontal back bracing shall always be mounted on the front flange of the support except where signs are mounted back to back. Back bracing shall never extend above the top edge of uppermost sign plate and shall be attached to supports using 5/16\"/>
  - 2-Screws, nuts and Washers for sign erection shall be aluminum except as above noted. 1/4\"/>
  - 3-Sign installations shall be placed so that supports are not placed in drainage ditches.
  - 4-Horizontal clearance shown pertain to non-curbed sections. Sections with an unmountable curb shall have a horizontal clearance of 2'-0\"/>
  - 5-Vertical and Horizontal clearance between signs on one assembly be a maximum of 2\"/>
  - 6-Galvanized steel bearing plates shall be included between all sheet aluminum signs attached to vertical supports at each sign bolt location. Bearing plates will be provided by others.
  - 7-Protective guard rail for ground mounted signs, where required, shall conform to Sec. I-15, for steel beam type (Deep).  
At locations where guard rail is in place, the sign support foundations shall be erected behind existing guard rail.  
A minimum of six guard rail posts is required in advance of the sign support.  
Where proposed guard rail flares are constructed of rail elements which have not been fabricated exactly to fit the curvature shown on the plans, the two end posts of each flared section shall be incased in a minimum 4\"/>

\*All other concrete foundations are 1'-0\"/>

\*This dimension to be 6ft minimum on Ramps and Secondary Roads.

**NOTES**

**MATERIALS**  
THE OVERHEAD SPAN TRUSS SHALL BE ALUMINUM AND THE END FRAMES SHALL BE STEEL. SPAN TRUSS AND END FRAMES, INCLUDING HARDWARE, SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION I-129 UNLESS OTHERWISE NOTED.

STEEL POLE BASES AND GUSSETS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A-373.

AFTER FABRICATION THE TAPERED POLES SHALL HAVE A MINIMUM YIELD STRENGTH OF 48,000 PSI.

**FABRICATION**  
THE ENTIRE STEEL END FRAME SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH SEC. M-7.1(4). MAXIMUM LENGTH OF SPAN SECTIONS IS 30 FT.

**ERECTION**  
USE A MINIMUM OF 1" CAMBER IN SPAN TRUSS MEMBER FOR A 50' SPAN; ADD 1/4" OF CAMBER FOR EACH 5' OF INCREASE IN SPAN OVER 50'.

**PAYMENT**  
PAYMENT FOR THE GALVANIZED CONDUIT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OVERHEAD SIGN SUPPORTS.

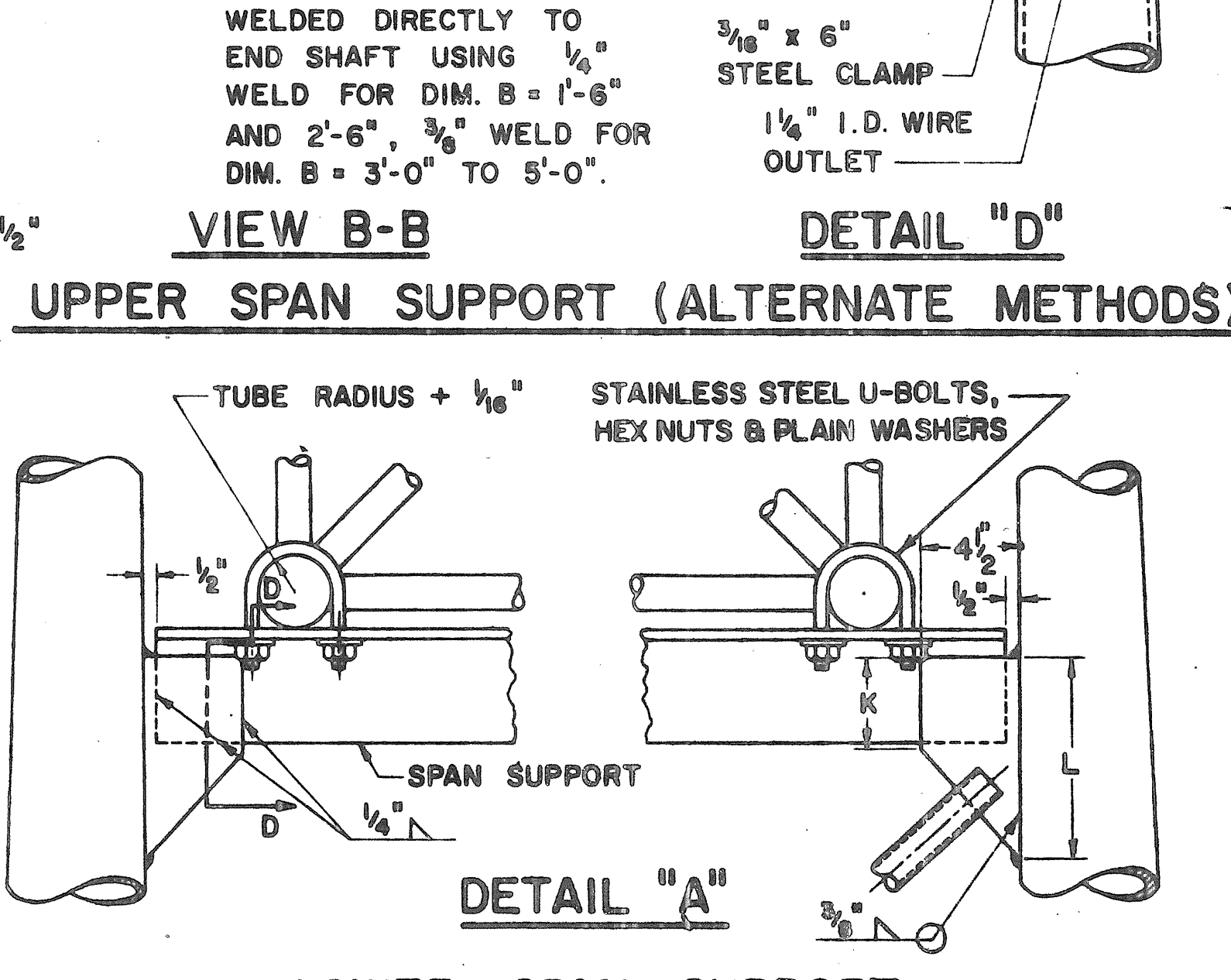
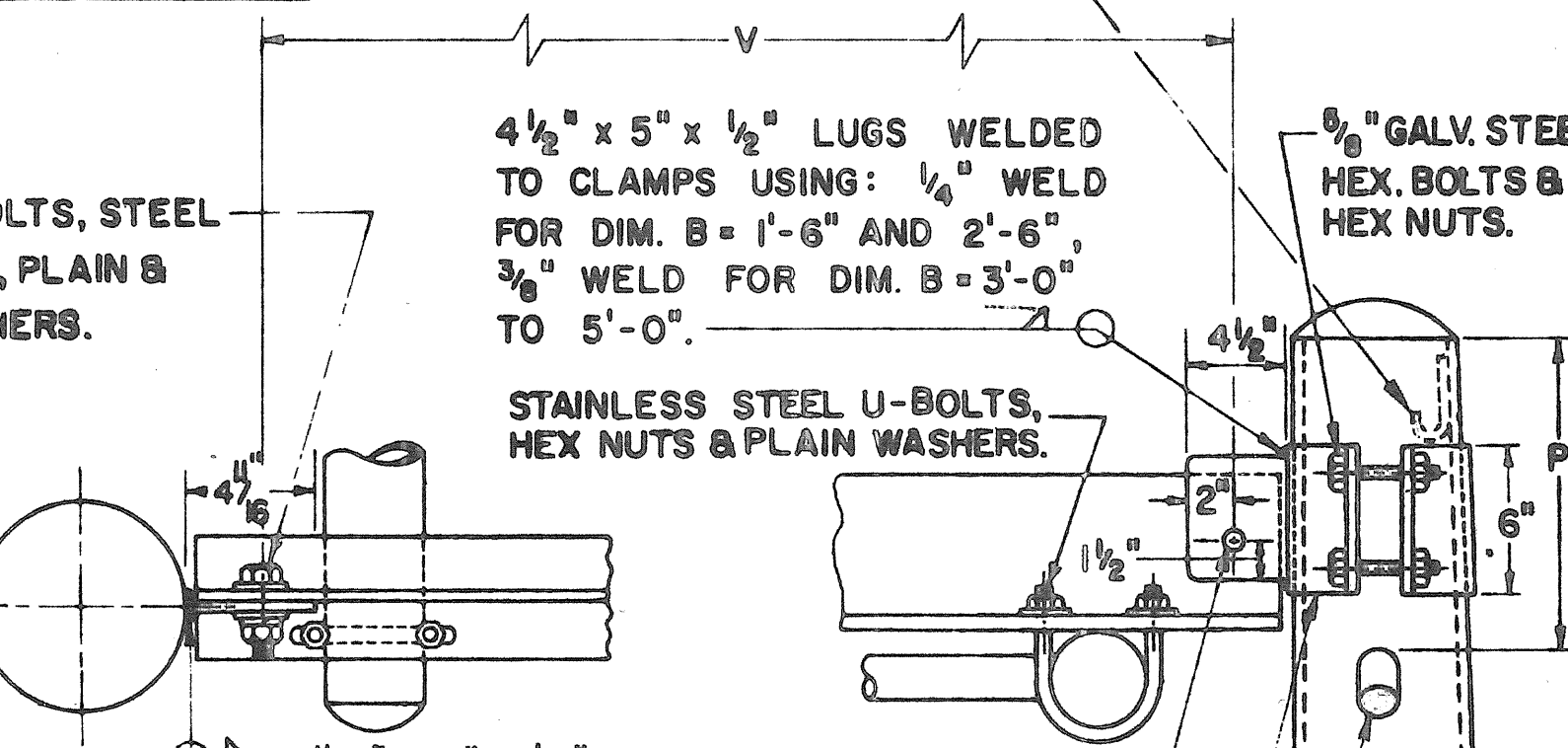
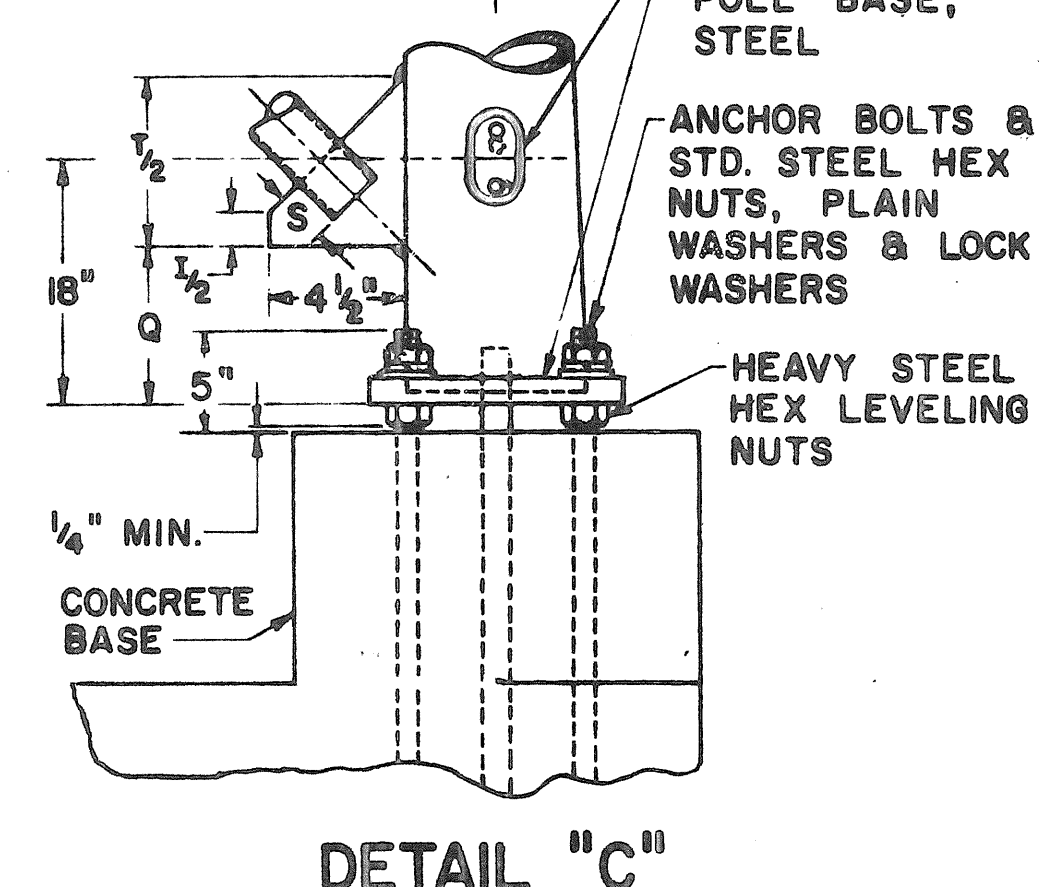
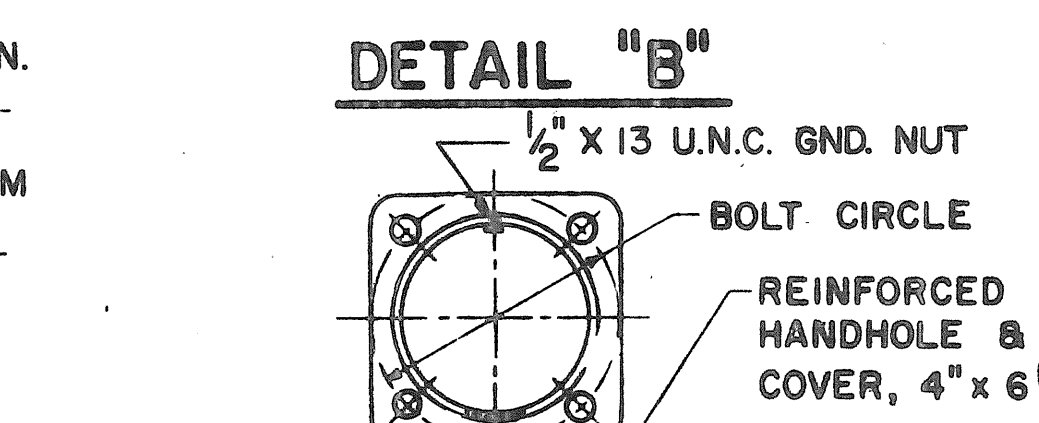
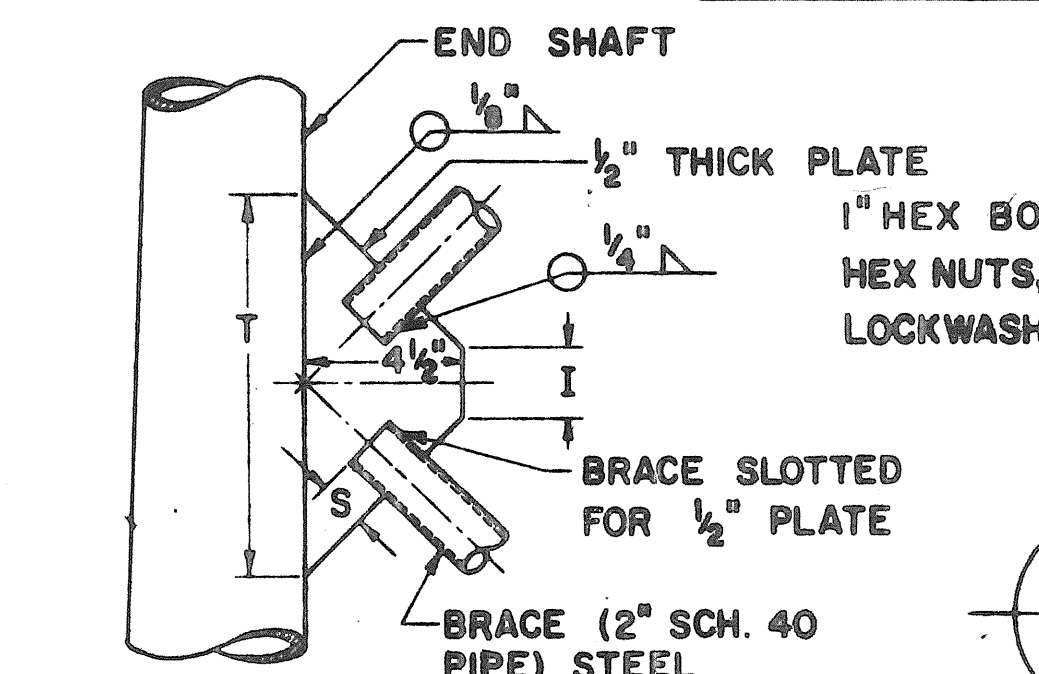
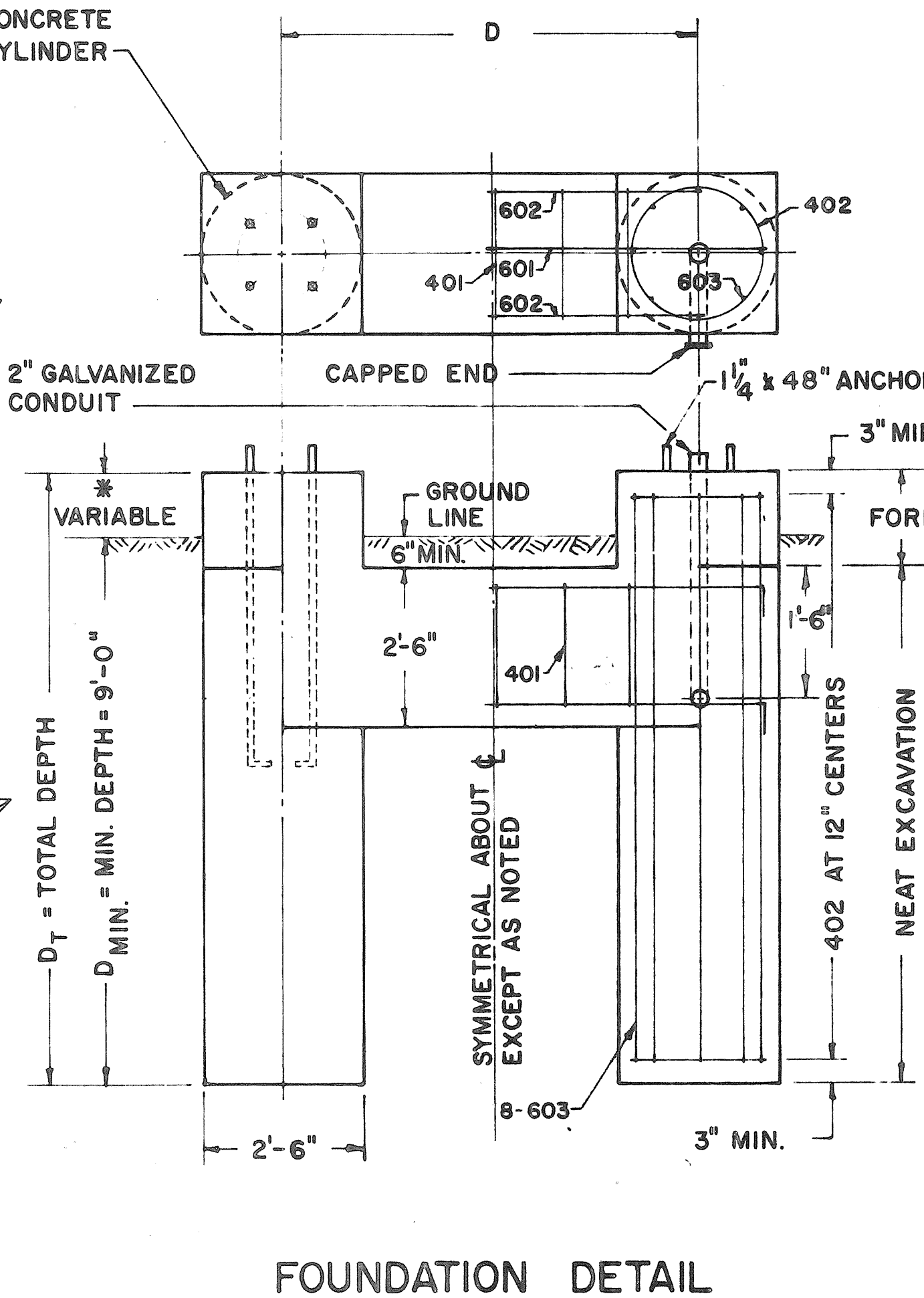
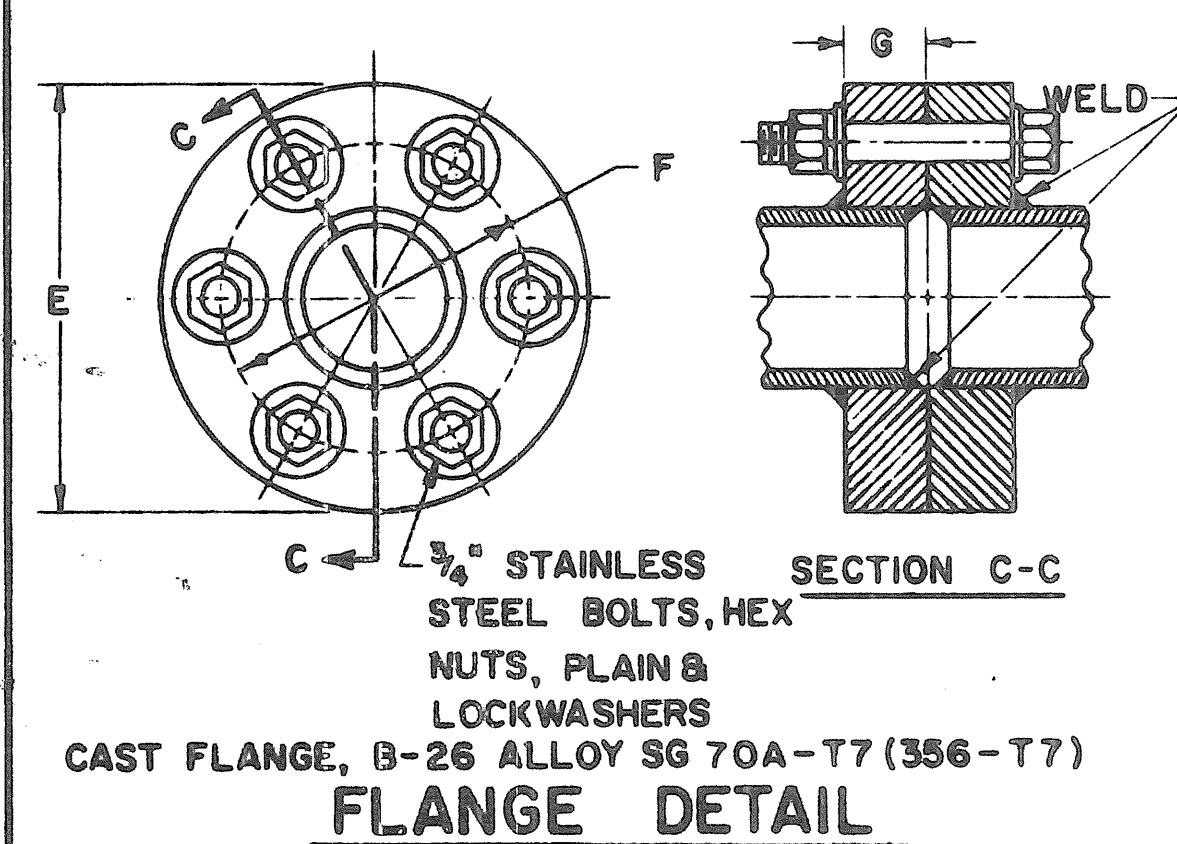
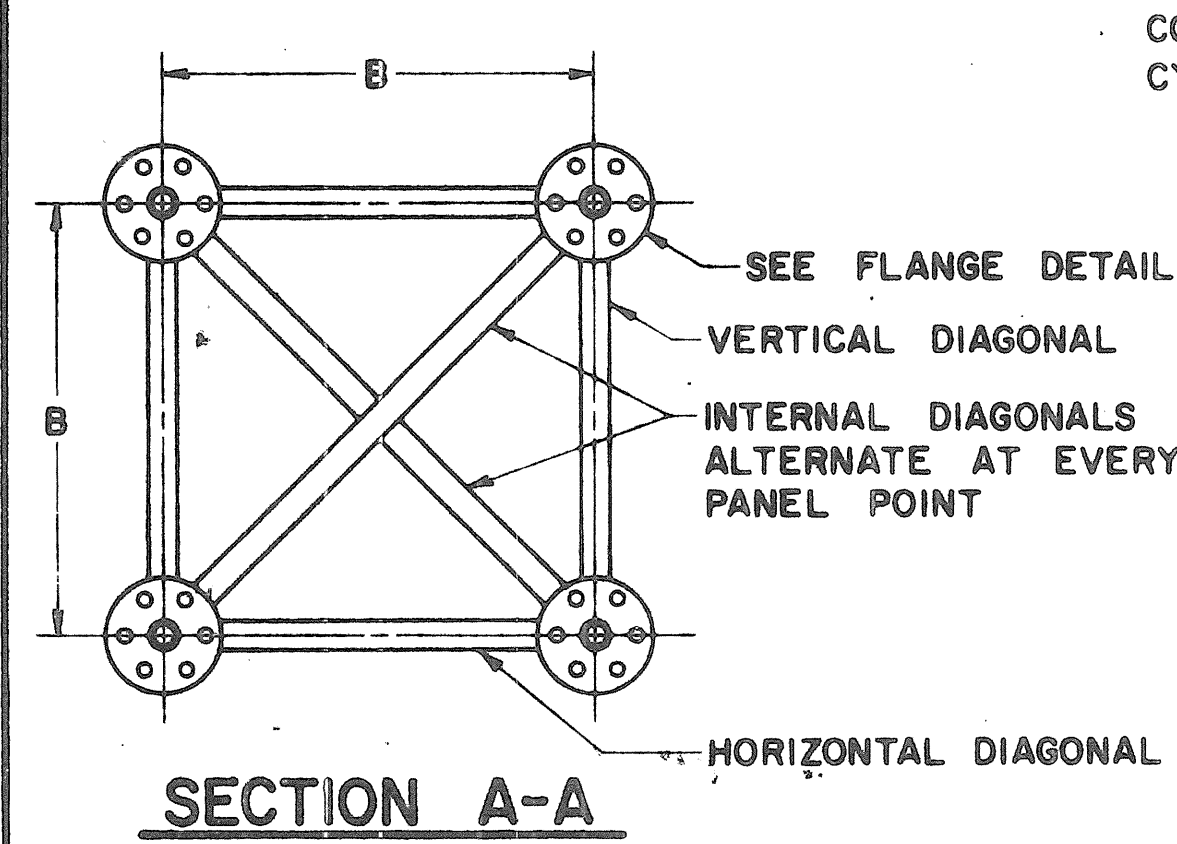
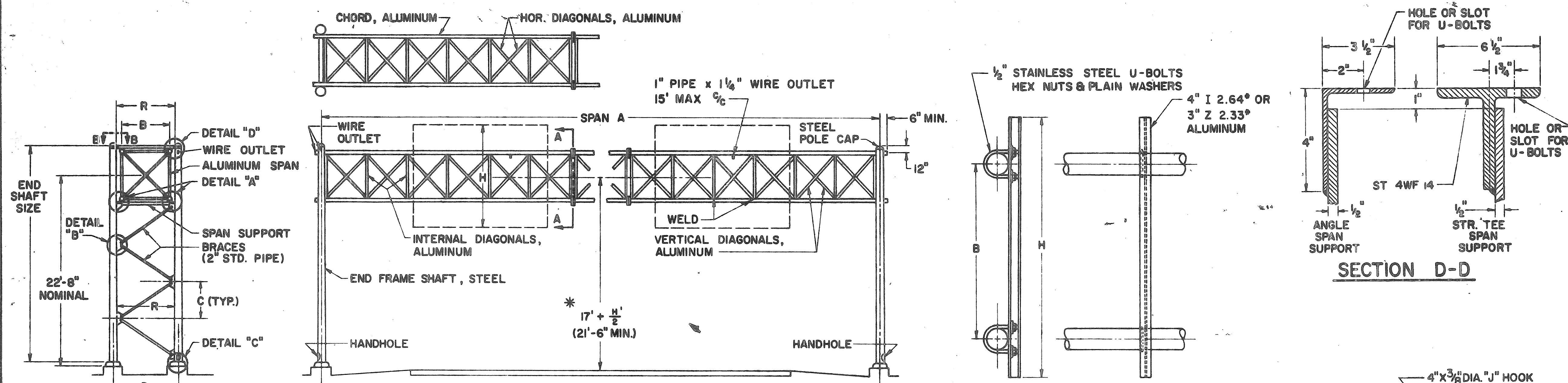
**SOILS**  
THE FOUNDATION DETAILS SHOWN ARE FOR AVERAGE SOIL CONDITIONS (MEDIUM CLAY, CEMENTED SAND AND GRAVEL, SANDY CLAY, OR STIFF CLAY). FOR POOR SOIL CONDITIONS, INCREASE "D" MIN. BY: 50% IN DRY OR WET SAND, 60% IN SILTY CLAY, 100% IN SOFT CLAY, AND FROM 75% TO 150% IN WET SILT, DEPENDING ON QUICKSAND ACTION.

**REINFORCING STEEL**  
COST OF REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM I-129 CONCRETE FOR SIGN SUPPORT FOUNDATIONS.

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER.

**\*FOUNDATION ELEVATION**  
ELEVATION OF TOPS OF FOUNDATIONS SHALL BE BUILT UP SO THAT 17" CLEARANCE IS MAINTAINED OVER THE ENTIRE WIDTH OF THE PAVEMENT AND SHOULDERS.

**DESIGN**  
THE DESIGN OF OVERHEAD SUPPORTS IS IN ACCORDANCE WITH A.A.S.H.O. SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, ADOPTED JUNE 12, 1961.



DESIGN NO.	SPAN A	B	C	D	E	END SHAFT	BRACE LENGTH	F	G	I	K	L	P	Q	R	S	T	U	V	BOLT CIRCLE	SPAN SUPPORT SECTION D-D	CHORDS	HORIZONTAL AND INTERNAL DIAGONAL	VERTICAL DIAGONAL
1	50' Thru 55'	3'-0"	4'-11 3/4"	4'-5"	7"	8"x4.5"x25'-0", 3GA	5'-10 13/16"	5 1/2"	1 1/4"	3 1/2"	4 3/4"	8"	12"	6 5/8"	3'-9"	1 1/2"	10"	5 3/8"	3'-3 5/8"	11"	SPLIT TEE 3'-8"	3 1/2" x .188"	1.660" x .140"	1.660" x .140"
2	56' Thru 80'	3'-0"	4'-11 3/4"	4'-5"	9 1/4"	8"x4.5"x25'-0", 3GA	5'-10 13/16"	7 7/16"	1 3/8"	3 1/2"	4 3/4"	8"	12"	6 5/8"	3'-9"	1 1/2"	10"	5 3/8"	3'-3 5/8"	11"	SPLIT TEE 3'-8"	4 3/4" x .188"	1.900" x .145"	1.660" x .140"
3	81' Thru 90'	4'-0"	4'-10 1/4"	5'-7"	9 1/4"	8"x6.22"x25'-6", 3GA	6'-7 1/8"	7 7/16"	1 3/8"	5 3/8"	4 3/8"	7 3/4"	12"	6 1/4"	4'-1"	1 1/2"	9 1/2"	5 3/8"	4'-5 5/8"	11"	SPLIT TEE 4'-10"	4 3/4" x .188"	1.900" x .145"	1.900" x .145"
4	91' Thru 105'	4'-0"	4'-10 1/4"	5'-7"	9 1/4"	8"x6.22"x25'-6", 3GA	6'-7 1/8"	7 7/16"	1 3/8"	5 3/8"	4 3/8"	7 3/4"	12"	6 1/4"	4'-1"	1 1/2"	9 1/2"	5 3/8"	4'-5 5/8"	11"	SPLIT TEE 4'-10"	4 3/4" x .188"	2" x .188"	1.900" x .145"

REINFORCEMENT SCHEDULE			
MARK	NO.	LENGTH	TYPE
401	12" C/C	8'-6"	102
402	12" C/C	7'-6"	103
601	4	D+4'-0"	101
602	8	D+2'-0"	101
603	32	D <sub>T</sub> -6"	STR.

BUREAU OF TRAFFIC  
OHIO DEPARTMENT OF HIGHWAYS

**OVERHEAD SIGN SUPPORTS No. 7.3**

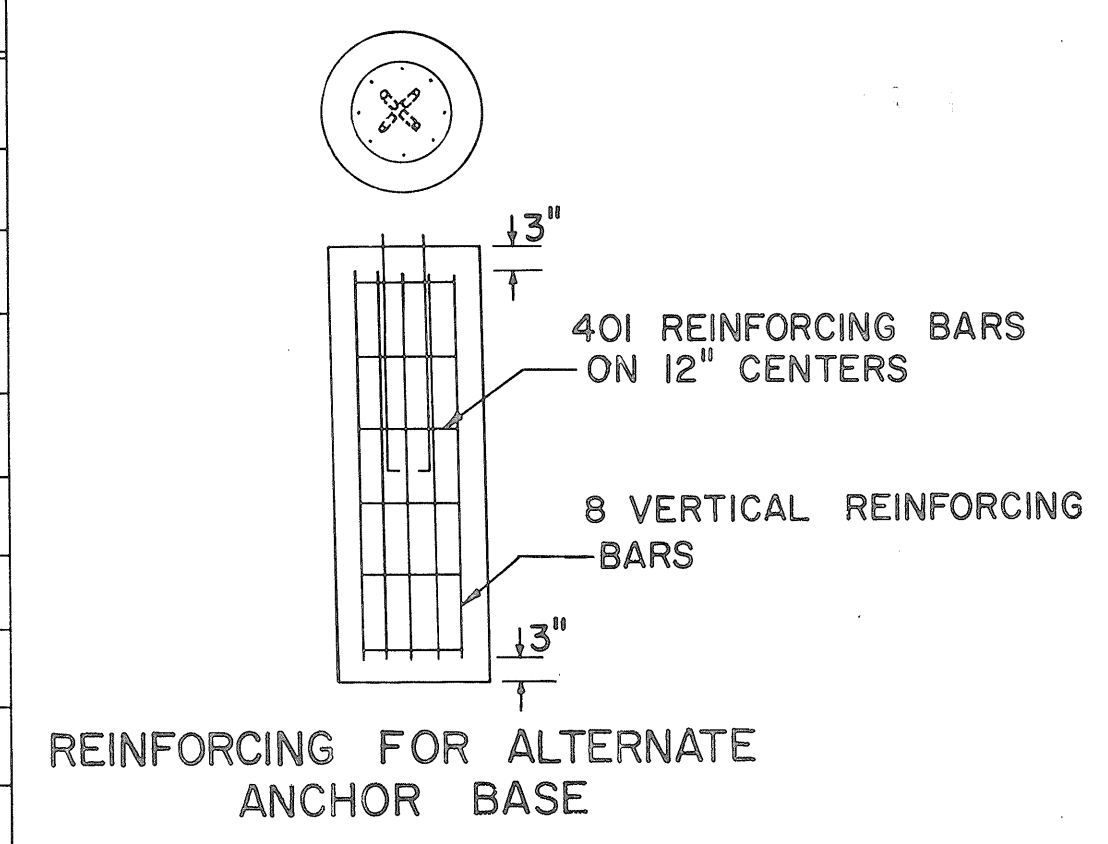
I-129

DATE 7-29-62  
5-5-64

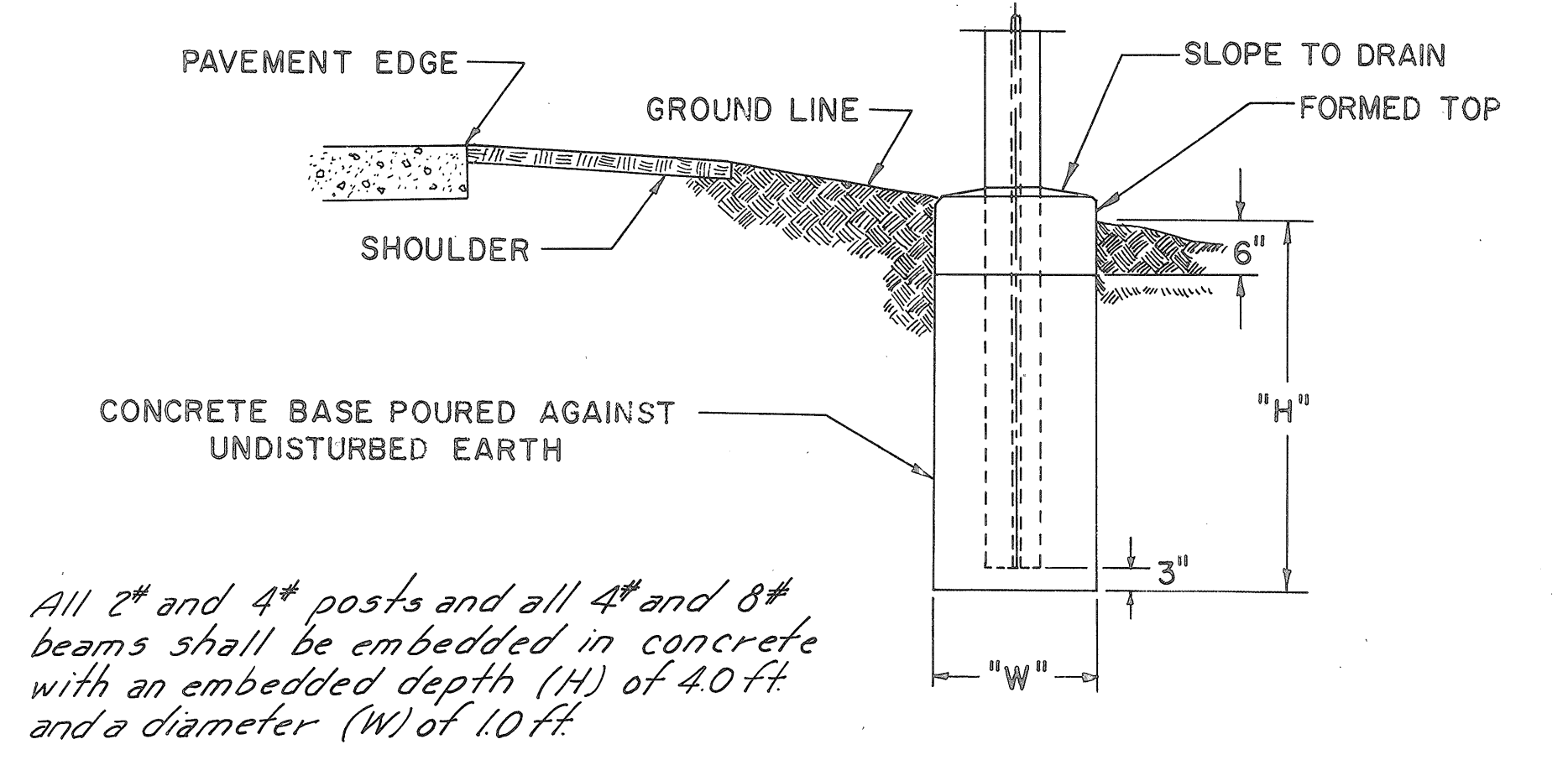
APPROVED *Robert P. Jones*  
ENGINEER OF TRAFFIC

VAN WERT COUNTY  
VAN-30-4.06

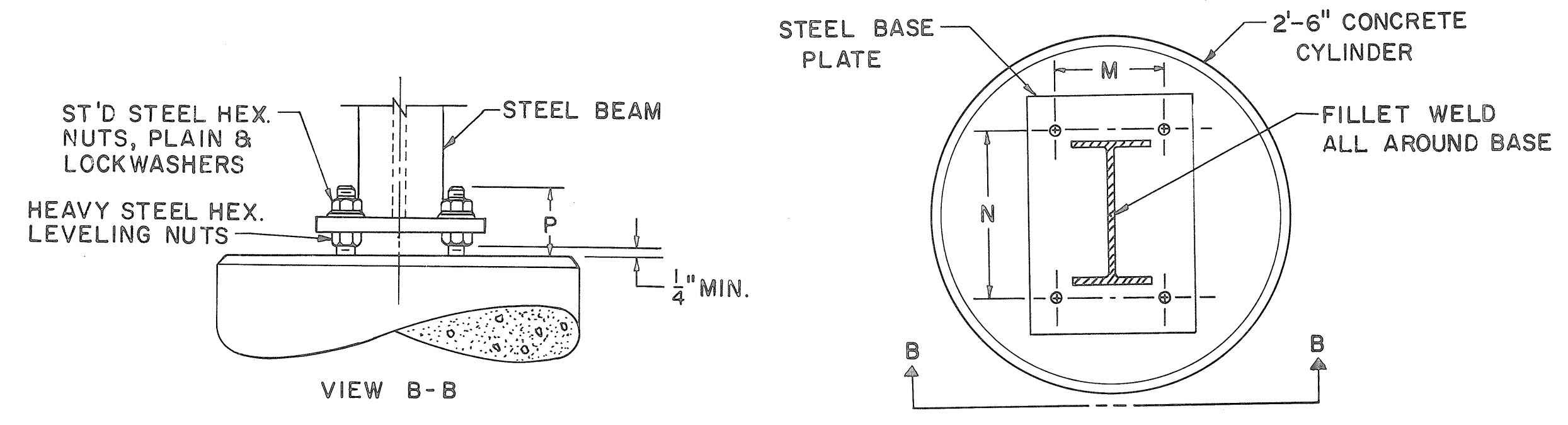
BEAM SIZE	ANCHOR BOLTS		BASE PLATE	HOLE SIZE	DIM. M	DIM. N	DIM. P	WELD SIZE	DIM. H	DIM. W	CU. YDS. FOR 2 POST	MARK	TYPE	NO.	LENGTH	WEIGHT FOR 1 POST
	DIA.	LENGTH														
10B11.5	3/4"	3'-0"	7/8" x 6" x 18"	7/8"	3 1/2"	14"	3 1/2"	1/4"	5.25'	2'-6"	1.9	401	101	6	7'-6"	45
												402	STR.	8	5'-0"	
10B17	1"	3'-6"	7/8" x 6" x 18"	1 1/8"	3 3/4"	14"	4 1/4"	1/4"	6.0'	2'-6"	2.2	401	101	7	7'-6"	52
												403	STR.	8	5'-9"	
12B22	1"	4'-0"	1" x 9" x 19"	1 1/8"	5 1/2"	15"	4 1/4"	1/4"	6.75'	2'-6"	2.5	401	101	8	7'-6"	61
												404	STR.	8	7'-0"	
12WF27	1 1/4"	4'-0"	1" x 9" x 19"	1 3/8"	5 1/2"	15"	5 1/4"	1/4"	8.0'	2'-6"	2.9	401	101	9	7'-6"	94
												501	STR.	8	8'-0"	
14WF30	1 1/4"	4'-0"	1" x 11" x 20"	1 3/8"	7 1/2"	16"	5 1/4"	5/16"	8.25'	2'-6"	3.0	401	101	10	7'-6"	101
												502	STR.	8	8'-6"	
14WF34	1 1/4"	4'-0"	1" x 12" x 22"	1 3/8"	9"	18"	5 1/4"	5/16"	9.0'	2'-6"	3.3	401	101	10	7'-6"	103
												503	STR.	8	8'-9"	
16WF36	1 1/2"	5'-0"	1 1/4" x 14" x 23"	1 5/8"	10"	19"	6"	5/16"	9.75'	2'-6"	3.5	401	101	11	7'-6"	145
												601	STR.	8	9'-3"	
16WF40	1 1/2"	5'-6"	1 1/4" x 14" x 24"	1 5/8"	10"	20"	6"	5/16"	10.0'	2'-6"	3.6	401	101	11	7'-6"	148
												602	STR.	8	9'-6"	
16WF45	1 1/2"	6'-0"	1 1/4" x 14" x 24"	1 5/8"	10"	20"	6"	5/16"	10.5'	2'-6"	3.8	401	101	11	7'-6"	155
												603	STR.	8	10'-0"	
18WF50	1 3/4"	7'-6"	1 1/2" x 14" x 26"	1 7/8"	10"	22"	6 3/4"	5/16"	11.5'	2'-6"	4.2	401	101	12	7'-6"	164
												604	STR.	8	10'-6"	



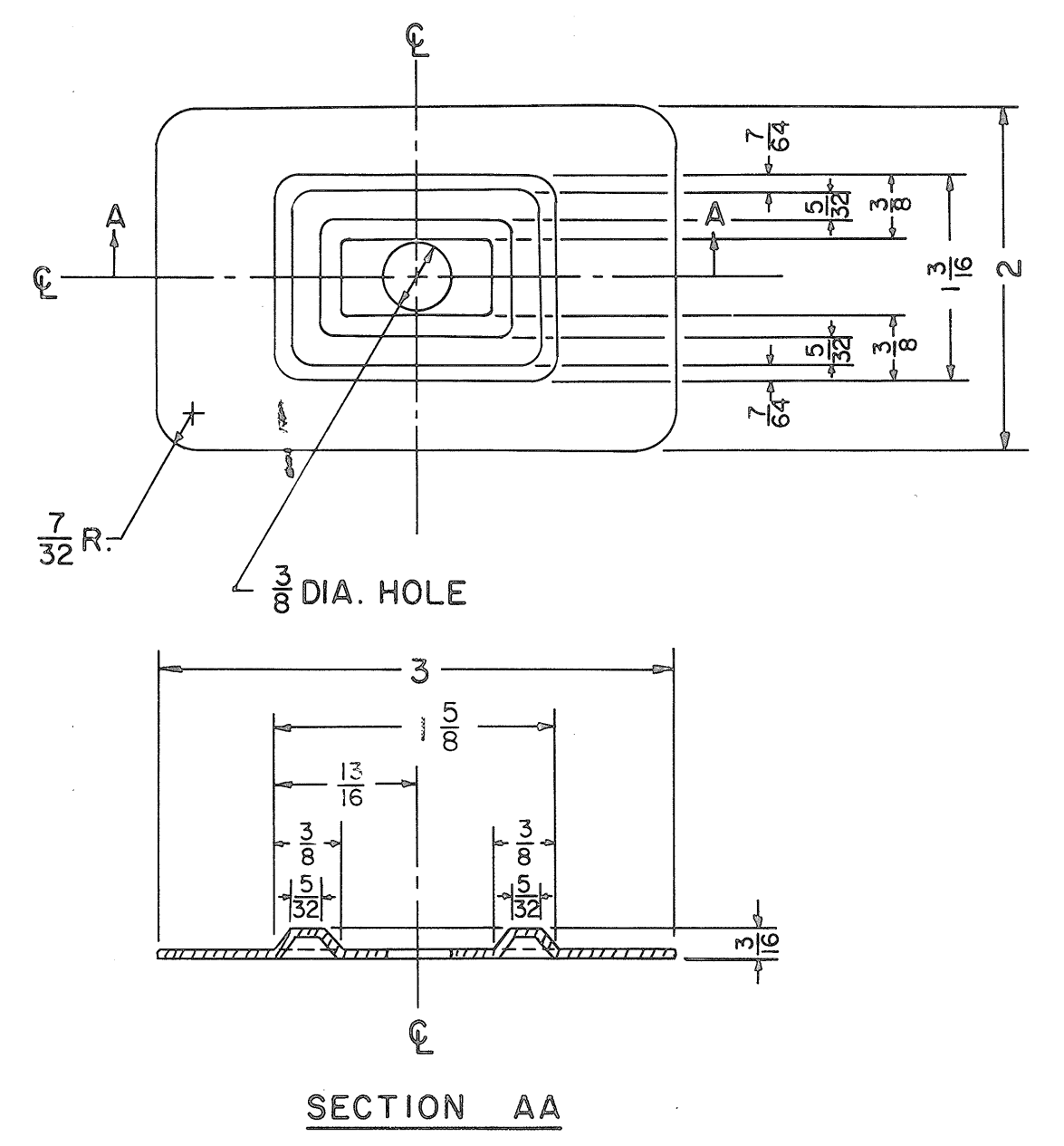
BEAM SIZE	DIM. W	DIM. H	CU. YDS. CONC. 2 POST
4# POST	1'-0"	4.0'	0.2
4# BEAM	1'-0"	4.0'	0.2
8# BEAM	1'-0"	4.0'	0.2
6B 8.5	1'-0"	4.0'	0.2
10B 11.5	2'-6"	5.25'	1.9
10B 17	2'-6"	6.0'	2.2
12B 22	2'-6"	6.75'	2.5
12WF 27	2'-6"	8.0'	2.9
14WF 30	2'-6"	8.25'	3.0
14WF 34	2'-6"	9.0'	3.3
16WF 36	2'-6"	9.75'	3.5
16WF 40	2'-6"	10.0'	3.6
16WF 45	2'-6"	10.5'	3.8
18WF 50	2'-6"	11.5'	4.2



FOUNDATION DETAILS FOR EMBEDDED POSTS AND BEAMS

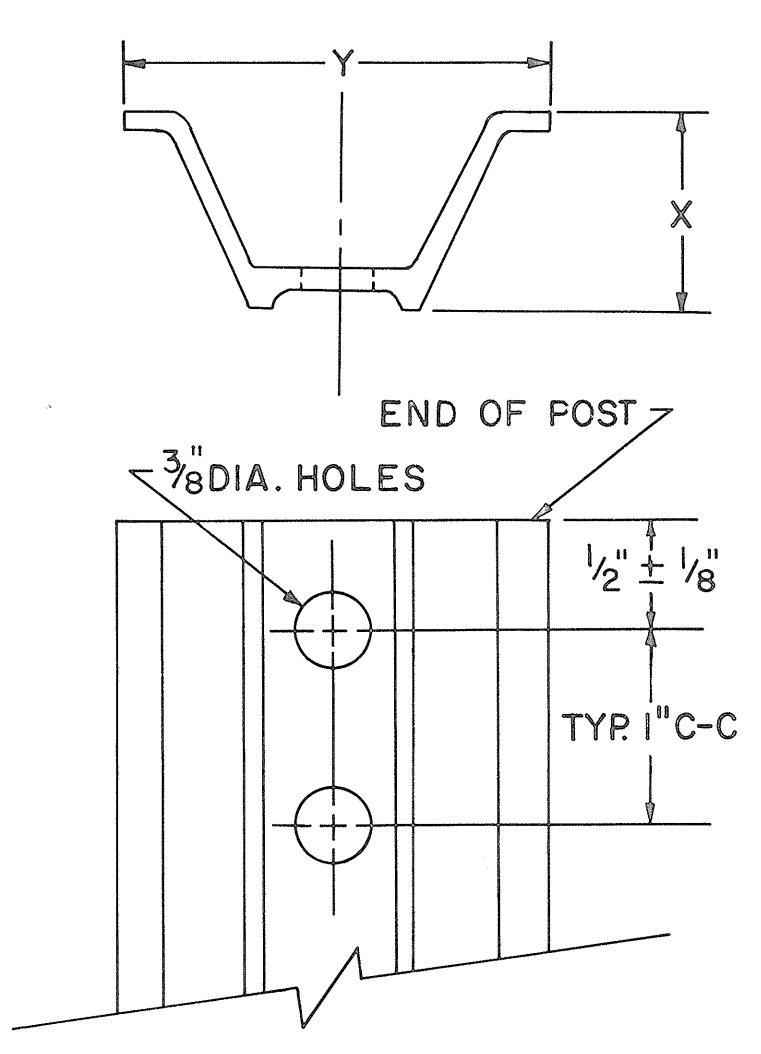


ALTERNATE ANCHOR BASE DETAILS



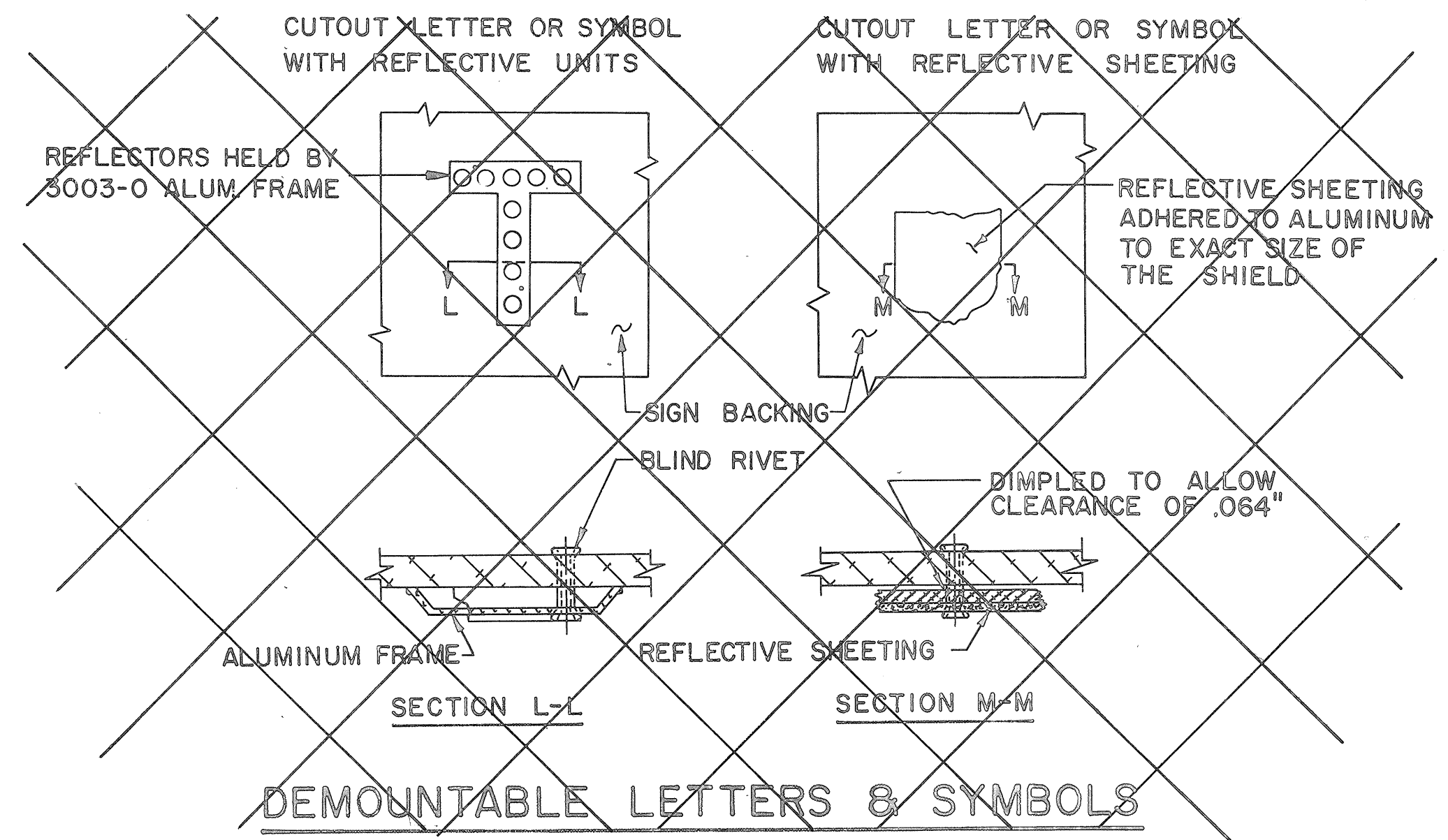
NOTE:  
THE PLATE IS SYMMETRICAL ABOUT EITHER CENTERLINE.  
METAL SHALL BE 16 GAUGE STEEL.  
ALL DIMENSIONS ARE IN INCHES.

BEARING PLATE DETAIL



WEIGHT PER FOOT	X ± 3/32"	Y ± 1/8"
2.00 #	1 1/2"	3 1/8"
3.00 #	1 3/4"	3 1/2"
4.00 #	1 3/4"	3 1/2"

DRIVE POST DETAILS



NOTES

PLAN QUANTITIES FOR POSTS AND STRUCTURAL SUPPORTS ARE BASED UPON THE "FOUNDATION DETAILS FOR EMBEDDED POSTS AND BEAMS".

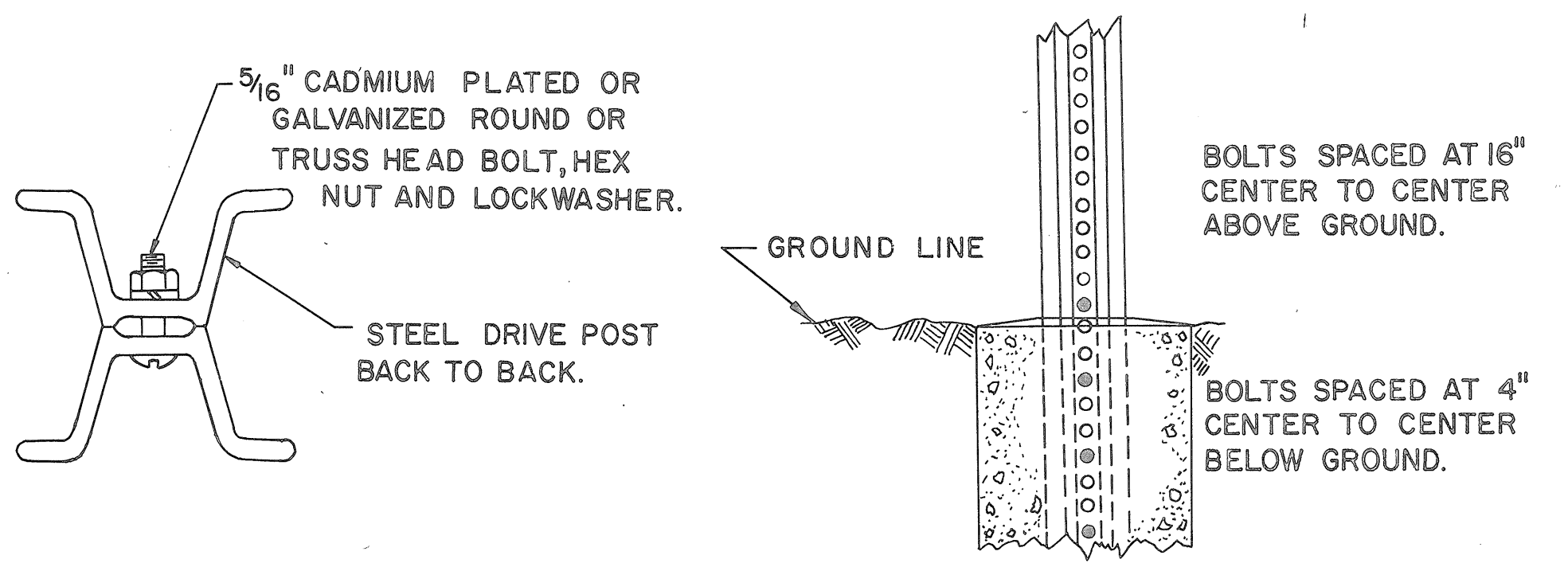
IF THE CONTRACTOR ELECTS TO USE THE METHOD SHOWN FOR "ALTERNATE ANCHOR BASE DETAILS", THE PLAN QUANTITY OF EMBEDDED BEAM ONLY WILL BE ALLOWED IN EXCHANGE AND FULL PAYMENT FOR THE BASE PLATE, ANCHOR BOLTS AND REINFORCING STEEL.

WHERE ANCHOR BASES ARE USED, THE BEAM SIZE SHALL DETERMINE THE ANCHOR BOLT AND BASE PLATE SIZE.

DEMOUNTABLE UNITS SHALL BE ATTACHED TO THE ALUMINUM PANELS WITH ALUMINUM BLIND RIVETS. CARE SHALL BE TAKEN TO INSURE THAT ALL SEGMENTS OF EACH LETTER OR SYMBOL ARE SECURELY AFFIXED TO THE BACKING. LETTERS CONTAINING REFLECTIVE UNITS SHALL BE FASTENED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

DEMOUNTABLE MARKERS OR SHIELDS SHALL BE SECURELY AFFIXED TO THE BACKING UTILIZING THE HOLES AS LOCATED ON SHEET.

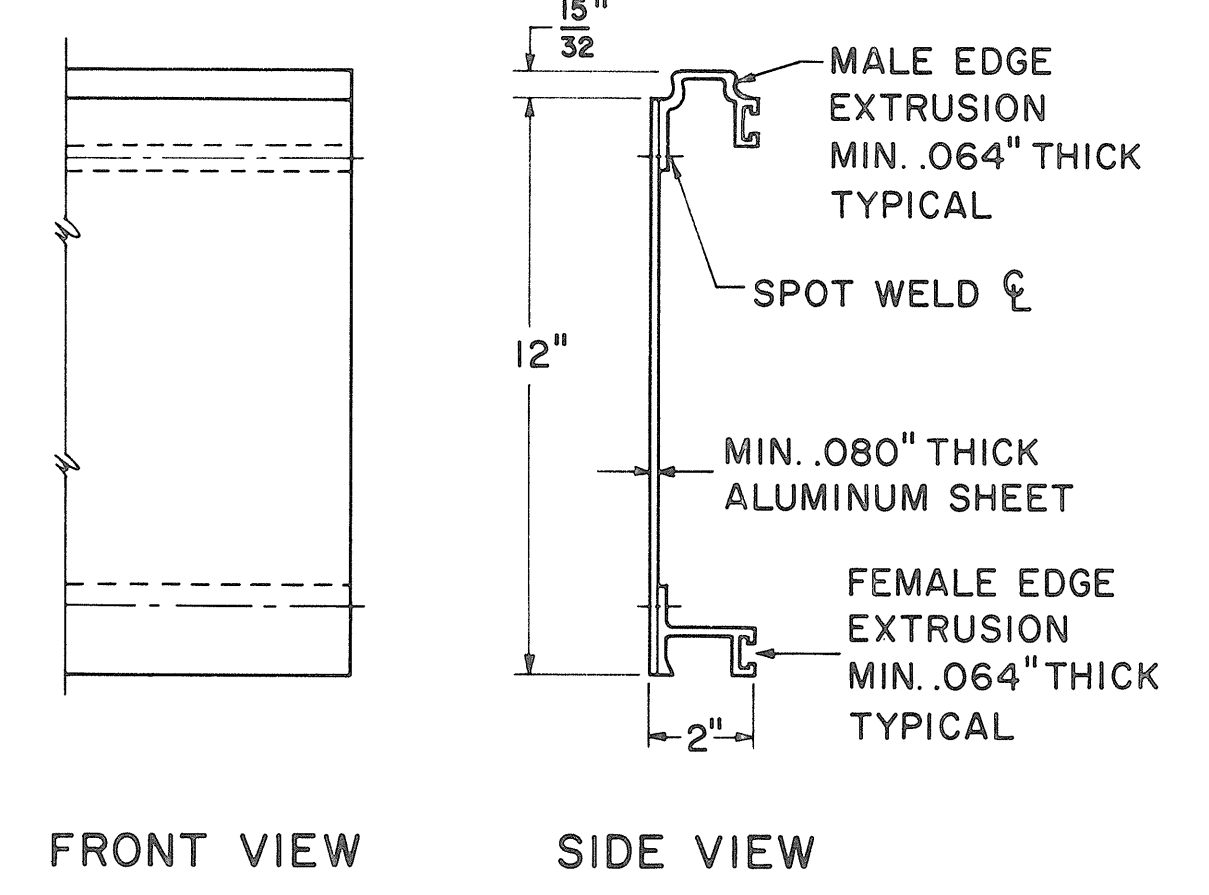
IN LIEU OF THE .040" THICK FRAME SPECIFIED IN SUPPLEMENTAL SPECIFICATION I-128, THE FRAMES FOR THE REFLECTIVE UNITS IN THE SIGN OUTLINES ONLY, MAY BE .032" THICK ALUMINUM. (A.S.T.M. B209GS11A-T6)



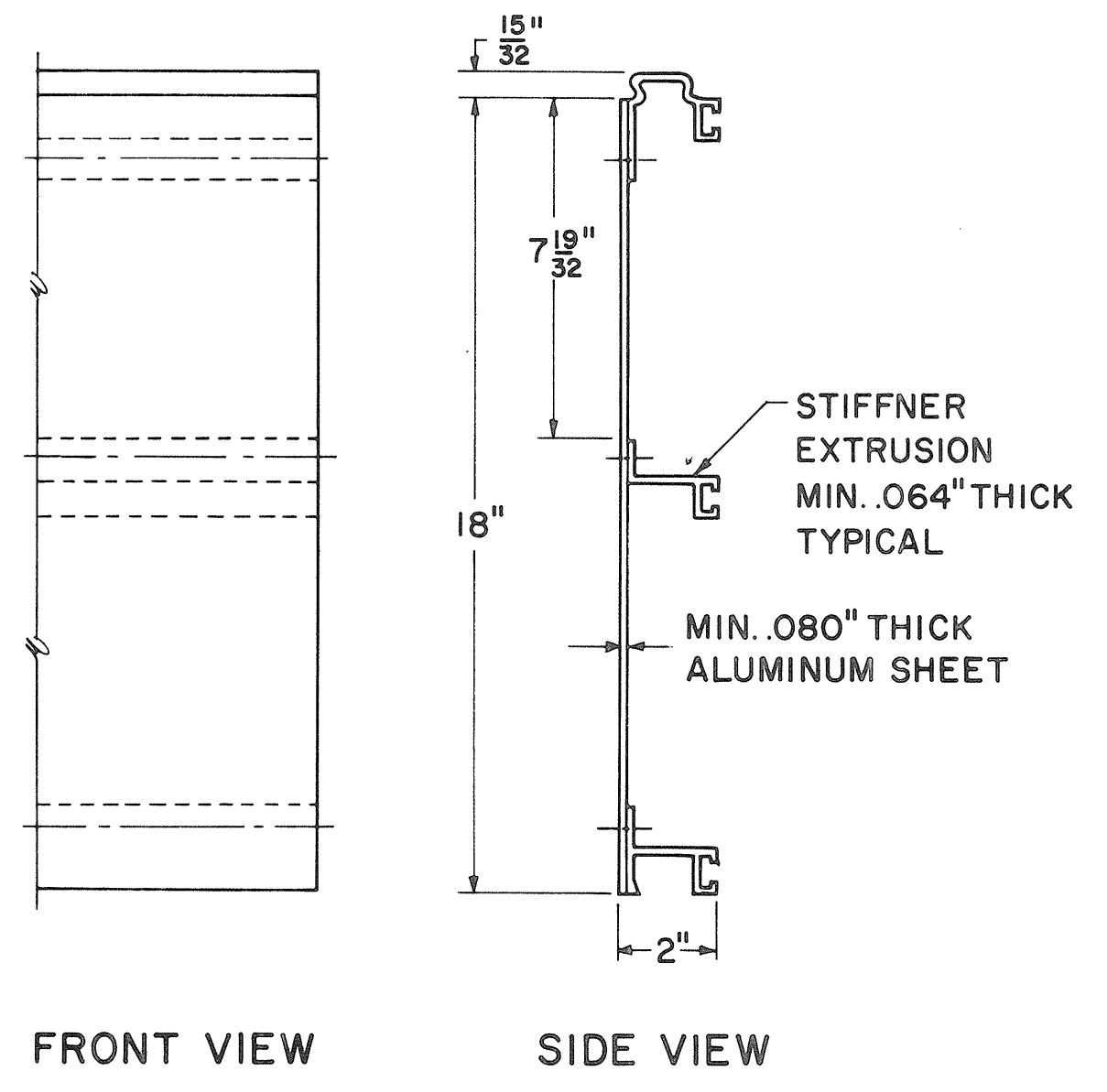
4# AND 8# BEAM DETAILS

BUREAU OF TRAFFIC OHIO DEPARTMENT OF HIGHWAYS		DATE 10-29-63 8-19-64
MISCELLANEOUS SIGNING ITEMS	MSI	
APPROVED _____ ENGINEER OF TRAFFIC		

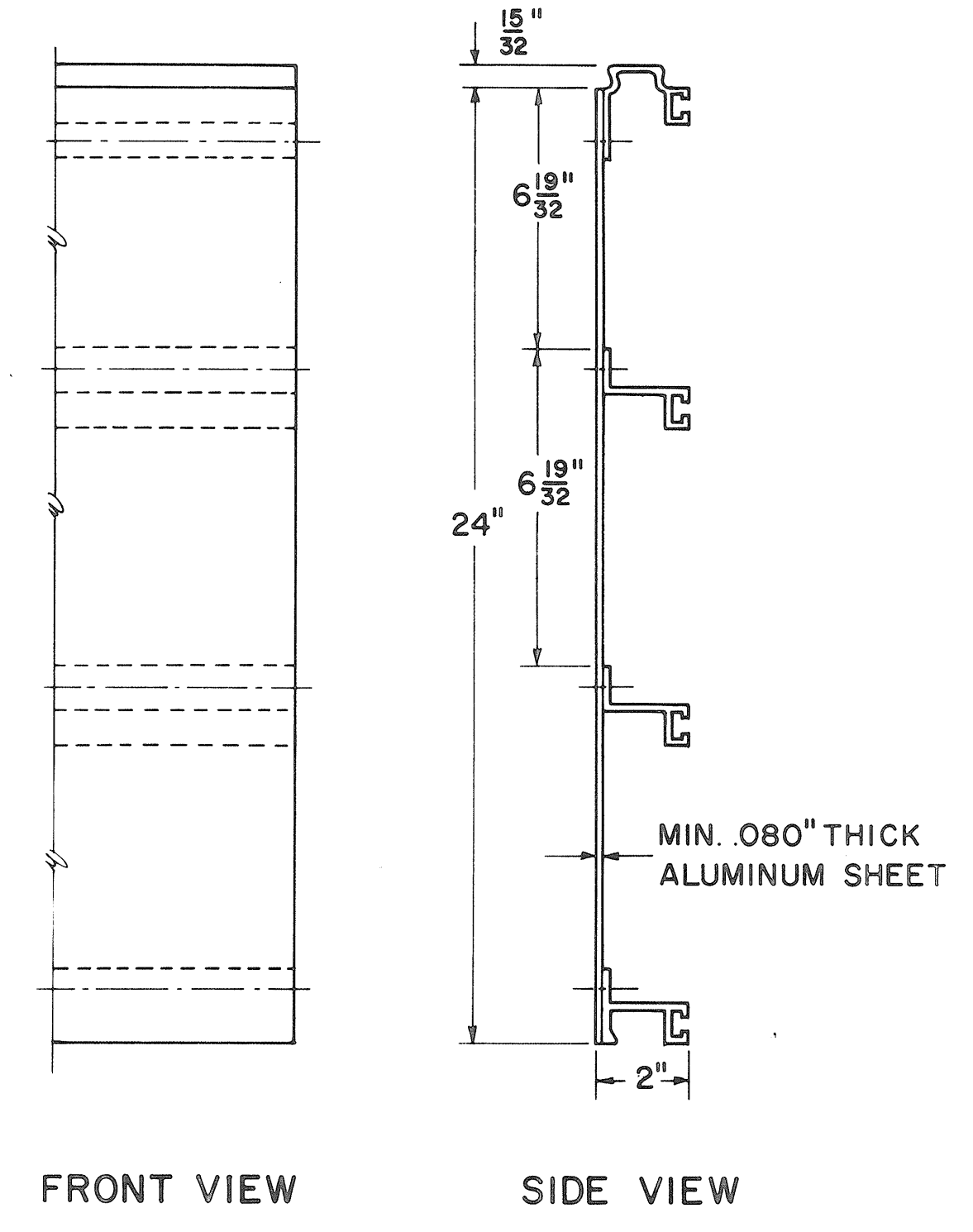
### 12" EXTRUSHEET PANEL



### 18" EXTRUSHEET PANEL



### 24" EXTRUSHEET PANEL



#### NOTES:

EXTRUSHEET PANELS SHALL BE ALUMINUM; SPOT WELDING AND ALL MATERIALS SHALL CONFORM WITH SUPPLEMENTAL SPECIFICATION I-128.

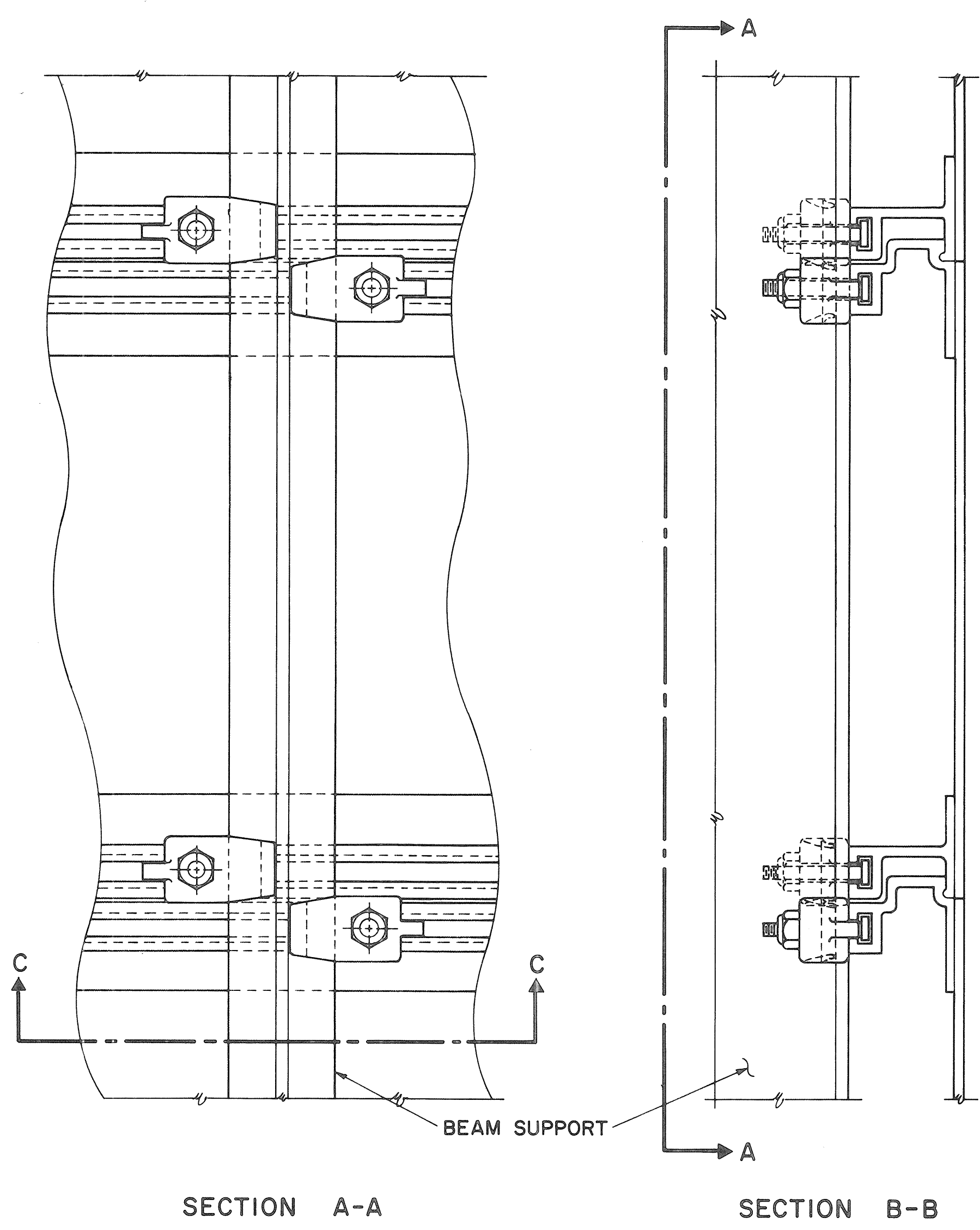
COMBINATIONS OF 12", 18", AND 24" PANELS ARE USED TO ATTAIN REQUIRED SIGN HEIGHT.

INDIVIDUAL PANELS SHALL BE THE SAME LENGTH AS THE HORIZONTAL LENGTH OF SIGN WITH NO SPLICES.

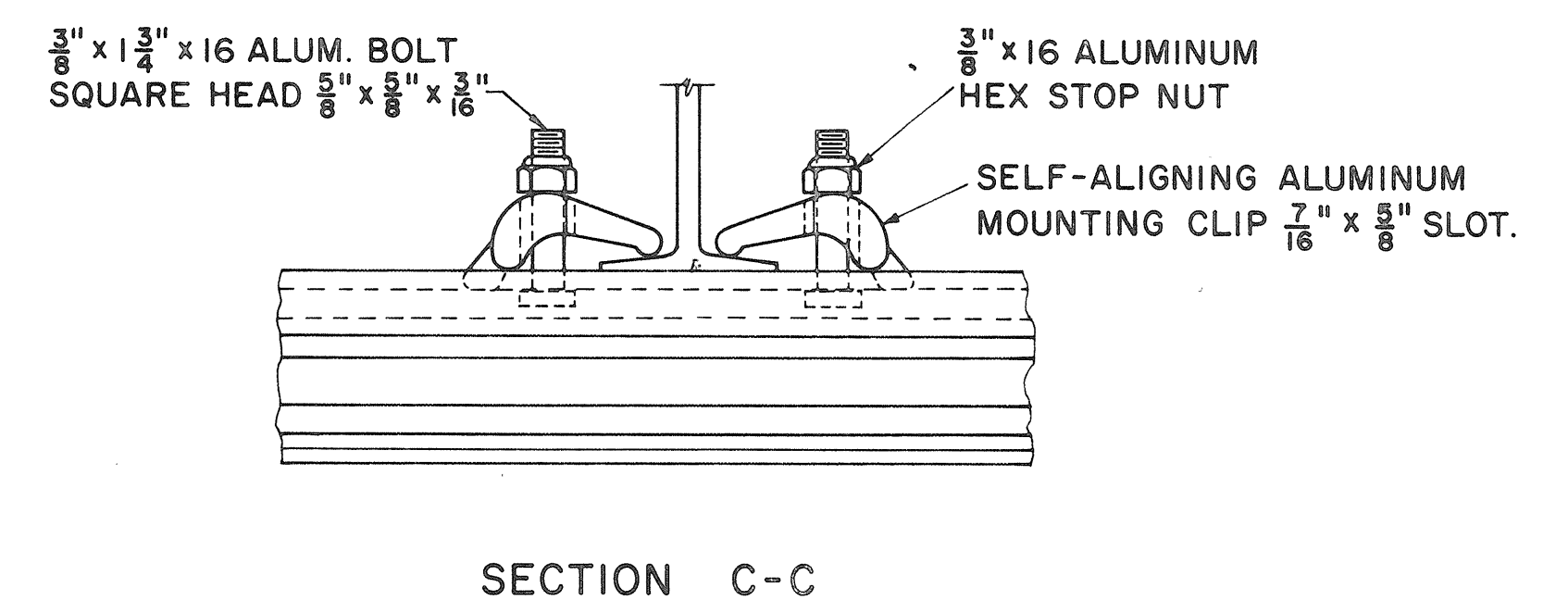
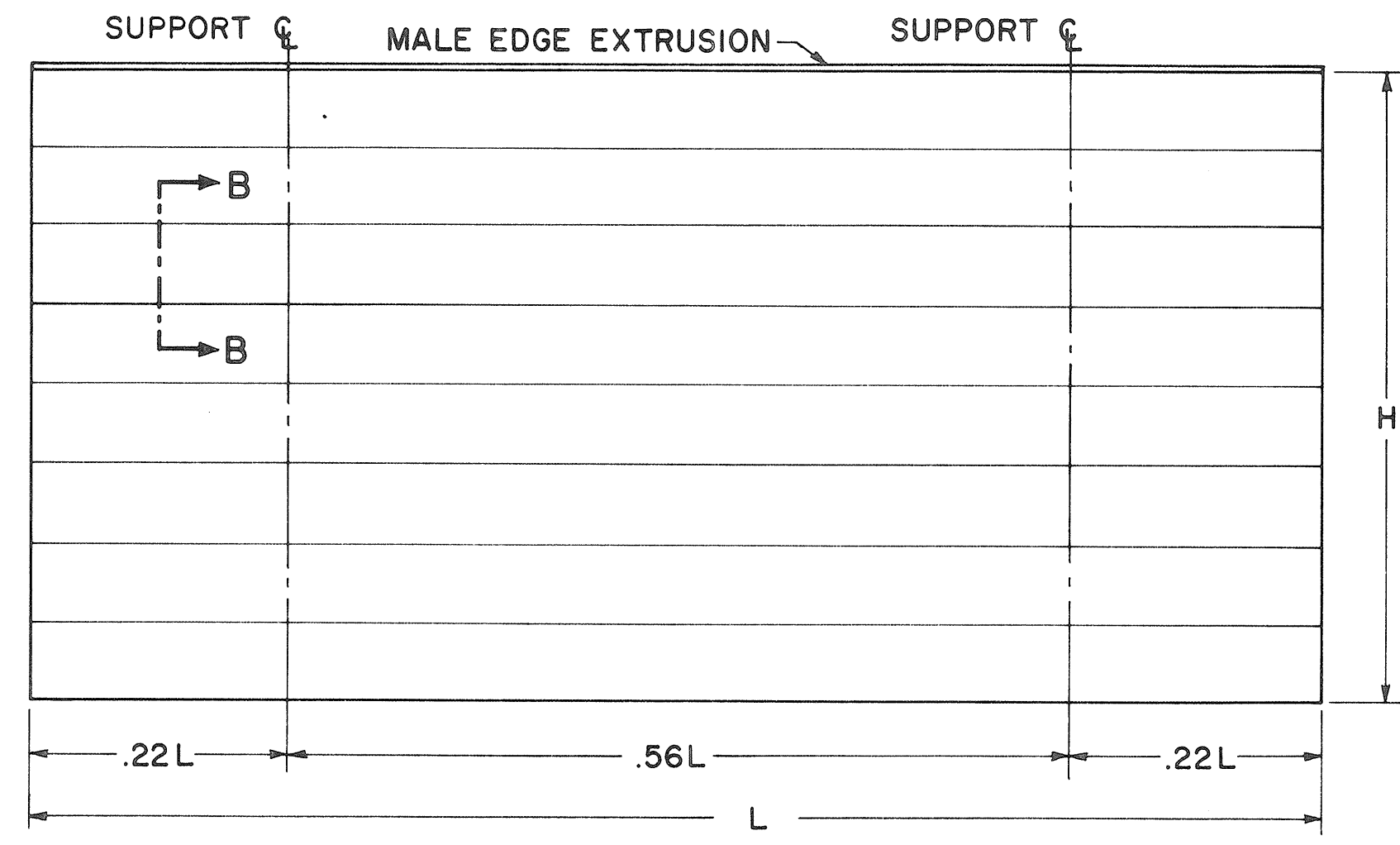
PANELS SHALL BE INTERLOCKED AND ERECTED WITH THE MALE EXTRUSION LOCATED AT THE TOP EDGE OF THE SIGN.

EXTRUSHEET PANELS SHALL BE FASTENED TO EACH VERTICAL SUPPORT MEMBER WITH MOUNTING CLIPS; ALTERNATELY AT EACH HORIZONTAL EXTRUSION; BOTH SIDES AT EACH JOINT, AND ON BOTH SIDES AT TOP AND BOTTOM EDGE OF SIGN.

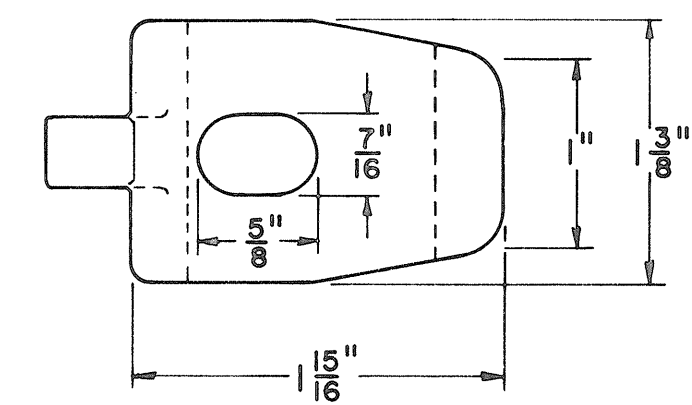
THE PANELS SHALL BE DESIGNED TO WITHSTAND A WIND LOAD OF 35 POUNDS PER SQUARE FOOT.



### GENERAL ARRANGEMENT



### CLIP DETAIL



### SPOT WELDS

PANEL SIZE	MAXIMUM SPOT WELD SPACING CENTER TO CENTER	BETWN ROWS
12 INCH	4 INCH	10 INCH
18 & 24 INCH	4 INCH	8 INCH

BUREAU OF TRAFFIC  
OHIO DEPARTMENT OF HIGHWAYS

**ALUMINUM EXTRUSHEET PANEL SIGN**

APPROVED \_\_\_\_\_  
ENGINEER OF TRAFFIC

ECD

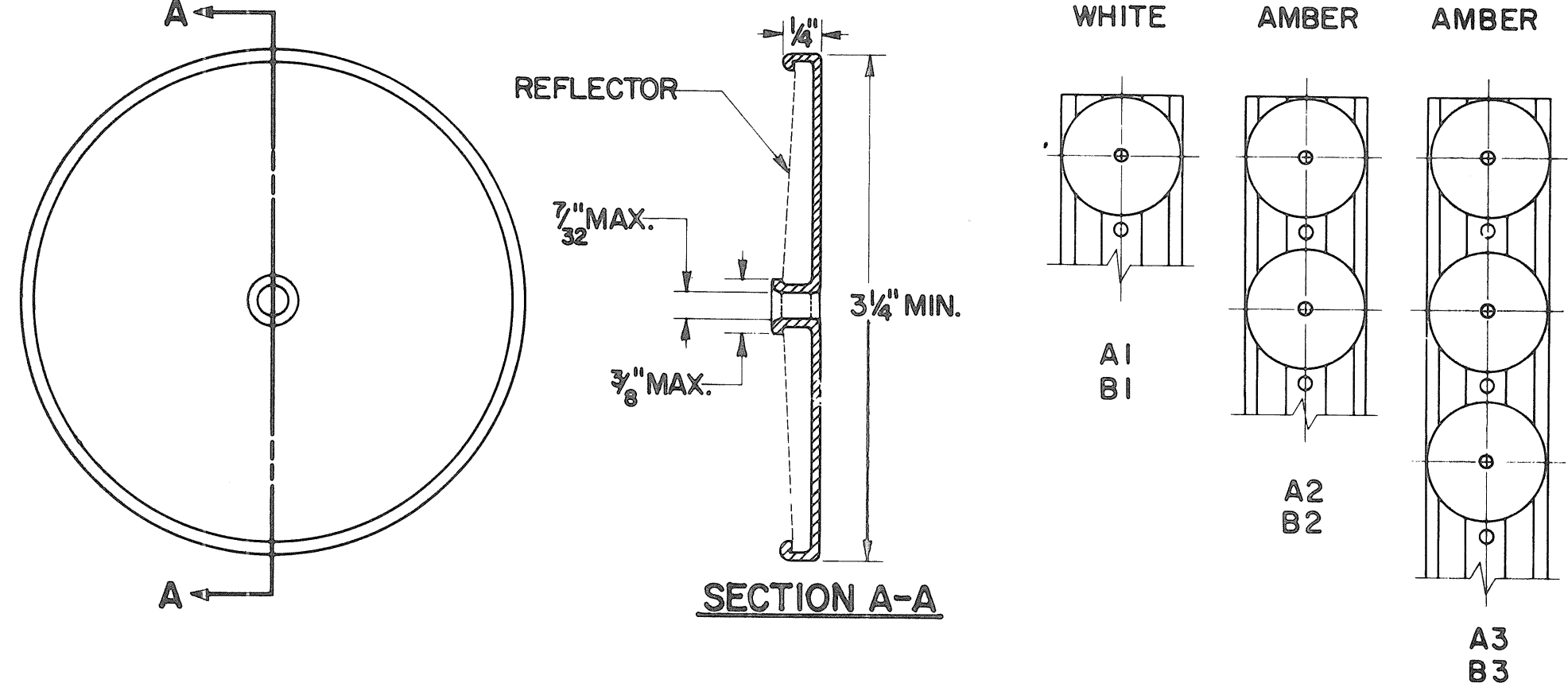
DATE 9-25-63

YAN WERT COUNTY  
VAN-30-4.06

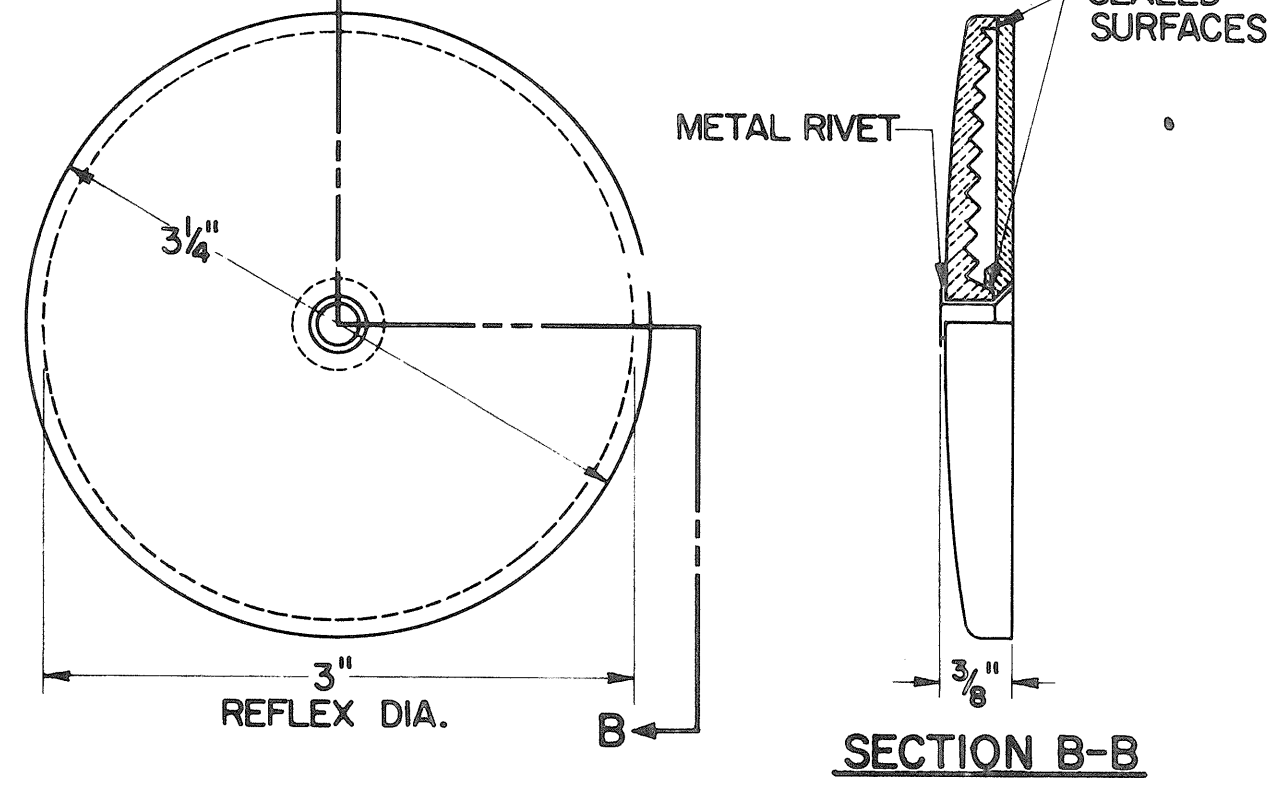
**NOTES**

- TYPE A1 OR B1 DELINEATORS ON THE RIGHT OF THE THROUGH ROADWAY ARE TO BE SPACED AT 200 FT. INTERVALS THROUGHOUT, REGARDLESS OF CURVES, BEGINNING AT STA. +00, +25, +50, OR +75.
- DELINEATORS SHALL BE FURNISHED AND ERECTED IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION NO. I-127, (1-15-62).
- PAYMENT FOR SUPPORTS (DRIVEPOST OR BRACKET) SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH FOR "ITEM I-127 DELINEATORS".
- WHEN CROSSING FROM LEFT TO RIGHT OR FROM RIGHT TO LEFT ON THE RAMPS THE DELINEATORS AT THE POINT OF CROSSOVER ARE TO BE AT THE SAME STATION ON EACH SIDE.
- NO DELINEATORS ARE TO BE PLACED IN PAVED BERM.
- WHEN RADII OF CURVE ON RAMPS REQUIRE 100' SPACING THE DELINEATORS SHALL BE PLACED ON THE RIGHT IN RELATION TO THE FLOW OF TRAFFIC.
- RAMP DELINEATOR AT END OF ACCELERATION & BEGINNING OF DECELERATION LANES TO BE A MAXIMUM OF 5' FROM POINT OF TANGENCY AT MAIN LINE.
- ALL RAMP DELINEATORS SHALL BE PLACED TO THE NEAREST 5' INCREMENTS, SUCH AS +05, +10, +15, +20 AND SO ON.

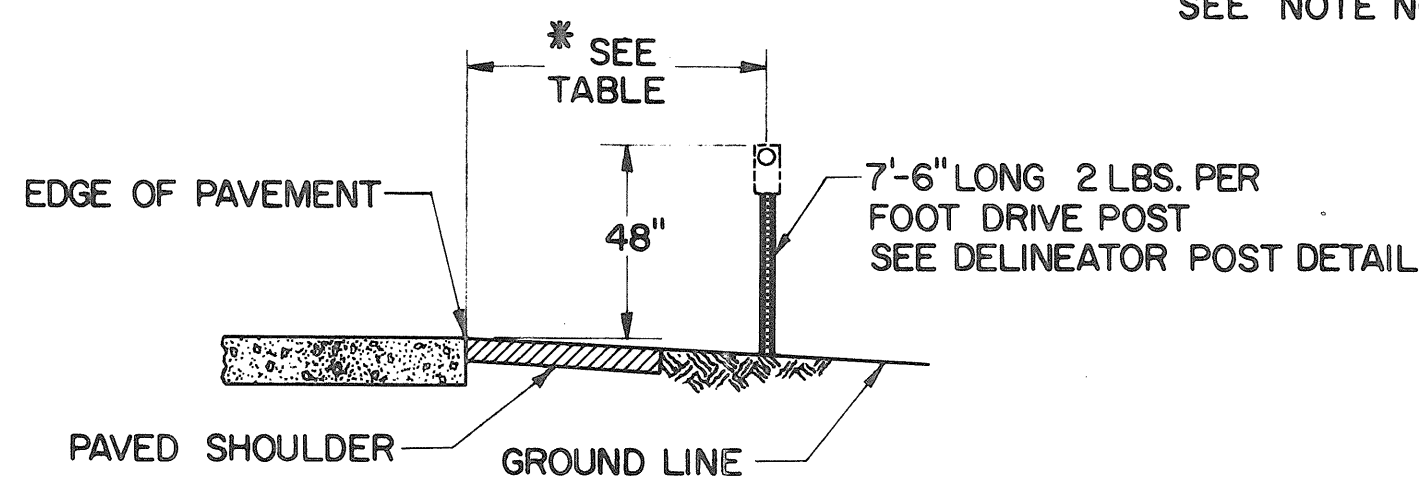
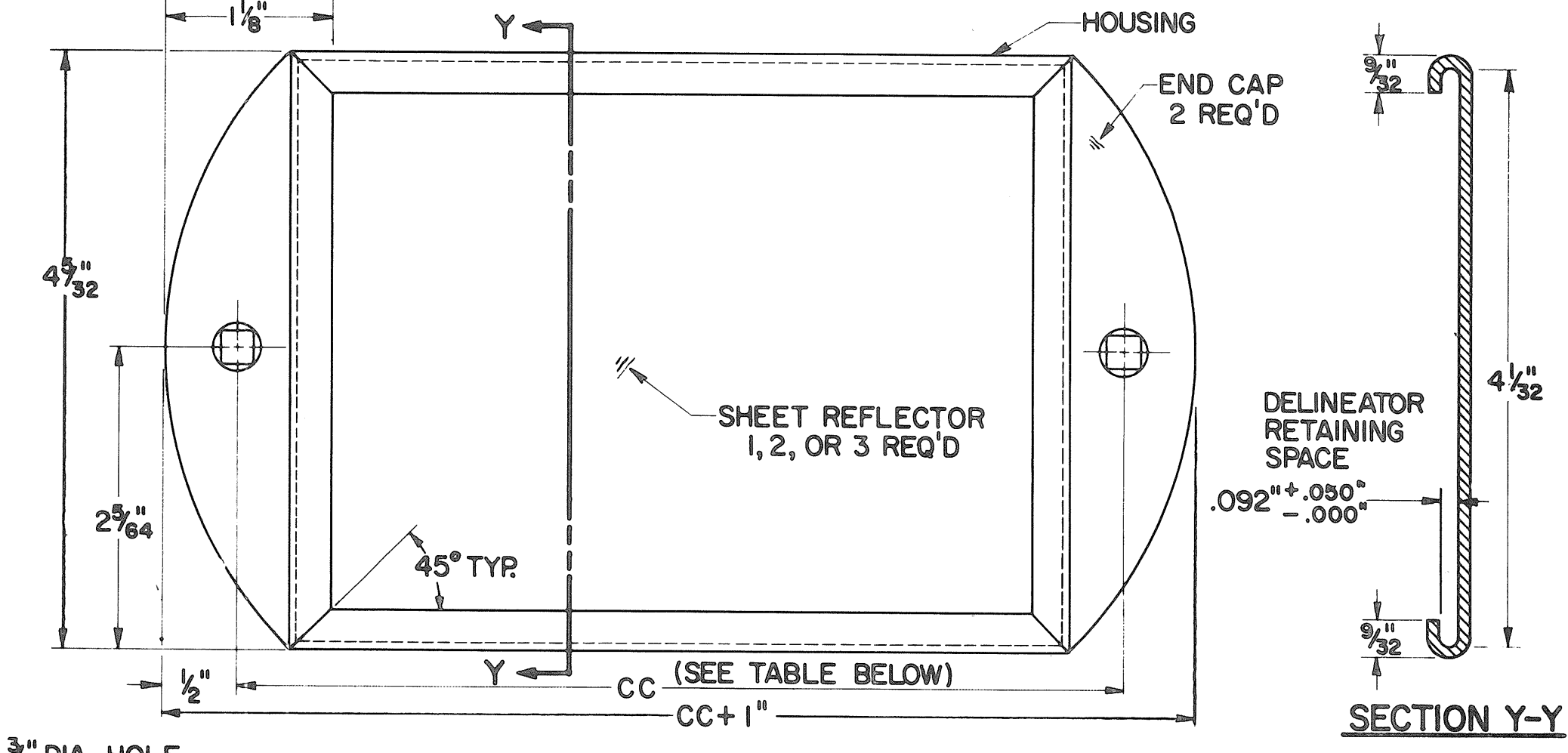
**TYPE A**



**TYPE B**



**TYPE C**



**LATERAL PLACEMENT OF DELINEATORS**

\* TABLE

TYPE DELINEATOR	NO GUARDRAIL	GUARDRAIL
SINGLE WHITE	12'-6"	6" OUTSIDE
DOUBLE AMBER RIGHT SIDE	** 8'-6"	6" OUTSIDE
DOUBLE AMBER LEFT SIDE	4'-6"	6" OUTSIDE
TRIPLE AMBER	12'-6"	6" OUTSIDE

\*\* THIS DIMENSION SHALL VARY ON SPEED CHANGE LANES TO MAINTAIN MINIMUM DISTANCE OF 2'-6" FROM EDGE OF PAVED SHOULDER.

**TYPICAL DELINEATOR PLACEMENT**

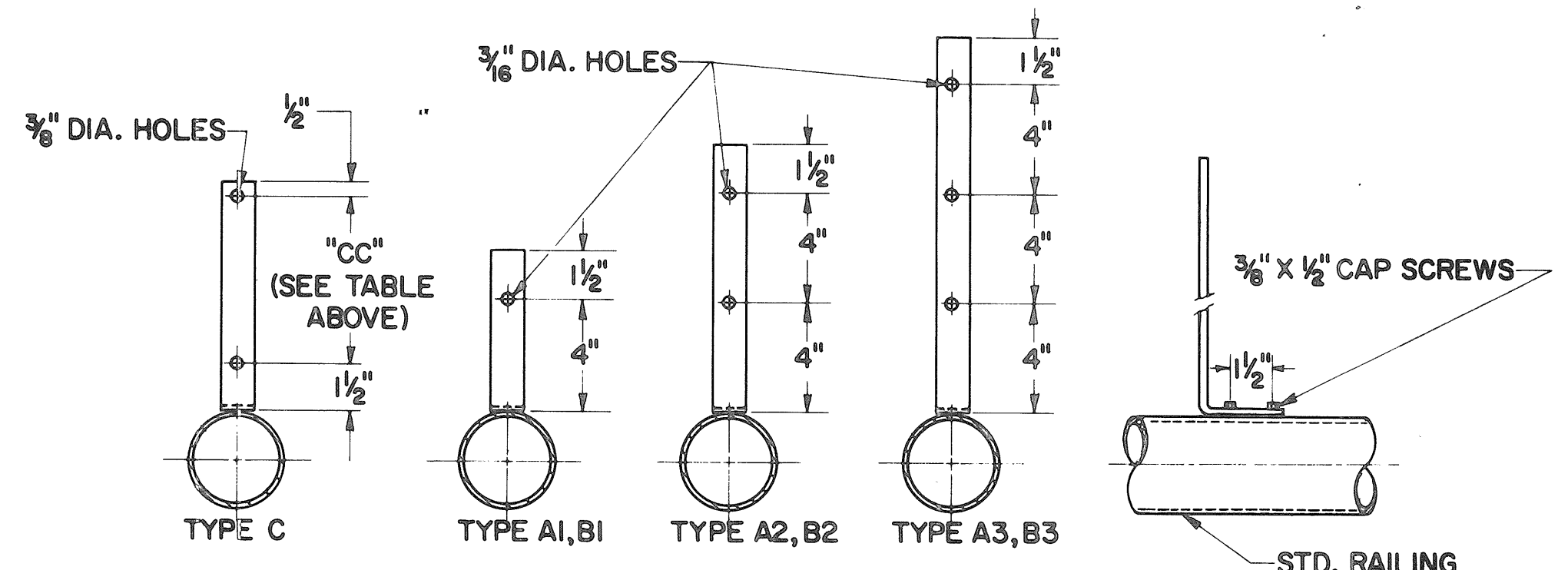
DELINEATOR SPACING ON RAMP HORIZONTAL CURVES

RADIUS, FT.	SPACING ON CURVE		* TRANSITION SPACING	
	FROM	TO		
TANGENT	1,801	100'	100'	100'
1,800	1,401	80'	100'	100'
1,400	1,001	70'	100'	100'
1,000	751	60'	100'	100'
750	551	50'	80'	100'
550	326	40'	70'	100'
325		30'	60'	100'

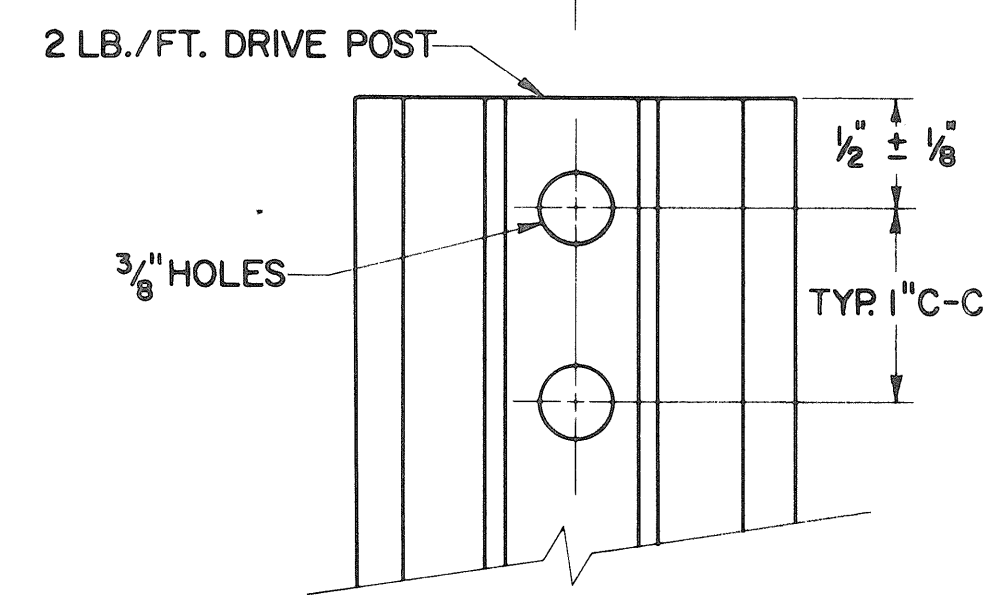
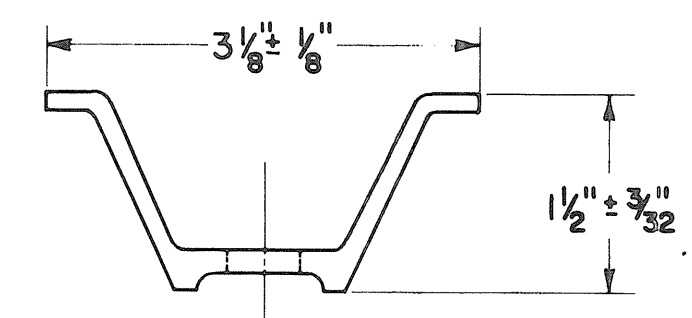
\* SUCH AS 40' TO 70' TO 100' OR 100' TO 80' TO 50' OR ANY OTHER COMBINATION SHOWN ABOVE.

TYPE	DIM. CC
C1-SINGLE WHITE	6"
C2-DOUBLE AMBER	11"
C3-TRIPLE AMBER	16"

ALL BRACKETS 1/4" x 1/4" STAINLESS STEEL



**BRIDGE RAIL BRACKET**



**DELINEATOR POST**

BUREAU OF TRAFFIC OHIO DEPARTMENT OF HIGHWAYS	
DELINEATOR DETAILS	I-127
APPROVED <i>Robert Colman</i> ENGINEER OF TRAFFIC	DATE 9-25-62 10-2-63

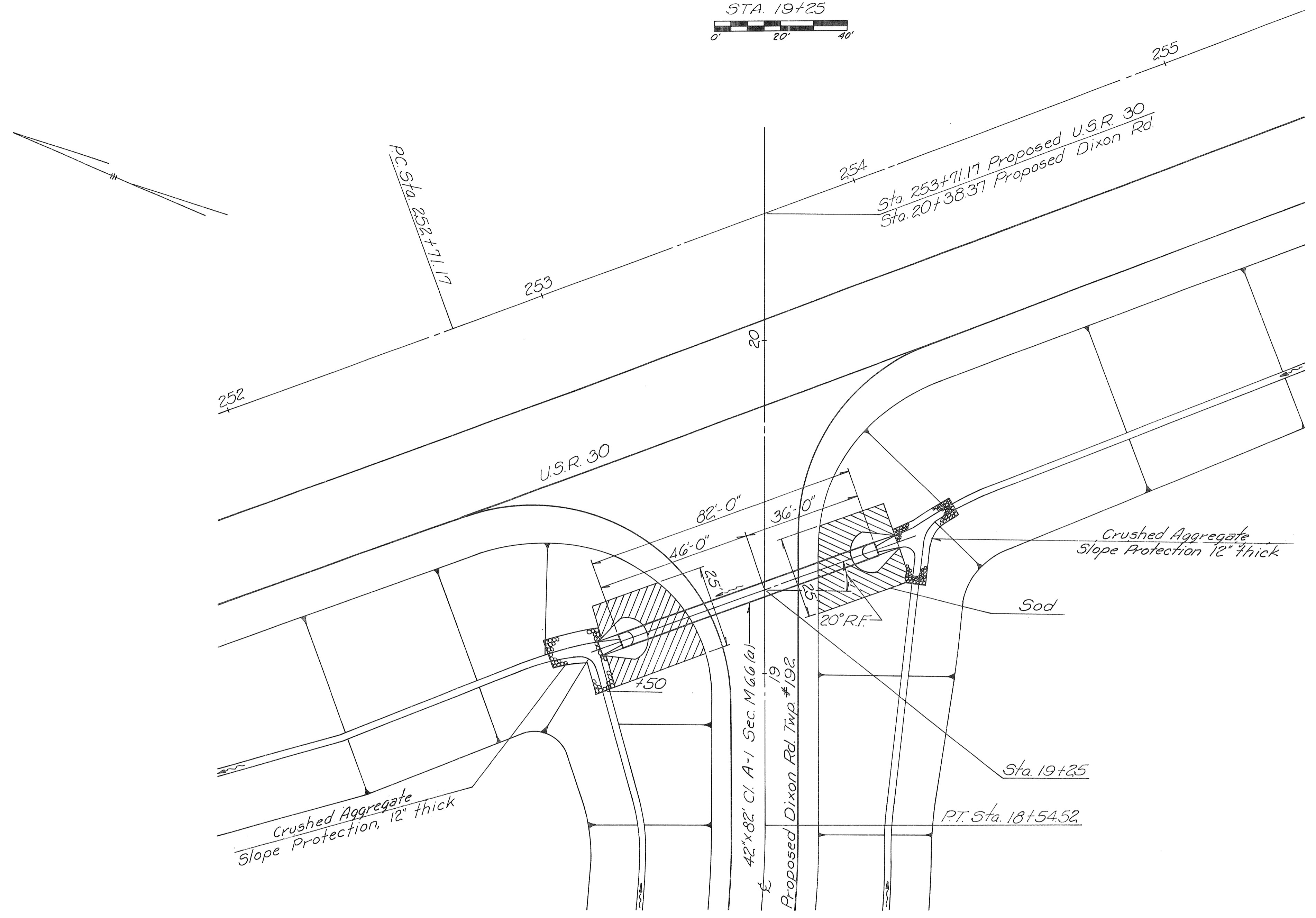


# STRUCTURE NO. 2-C

STA. 19+25  
0' 20' 40'

FED. RD. DIVISION	STATE	PROJECT	293
2	OHIO		

VAN WERT COUNTY  
VAN-30-4.06



**WORK REQUIRED**  
Excavate for Structure as per plan. Construct 42"x82" Reinforced Concrete Pipe, Cl. B-1, Sec. M-6.6 (a). Place Rip Rap, end Protection, Crushed Aggregate Slope Protection and Sod as shown.

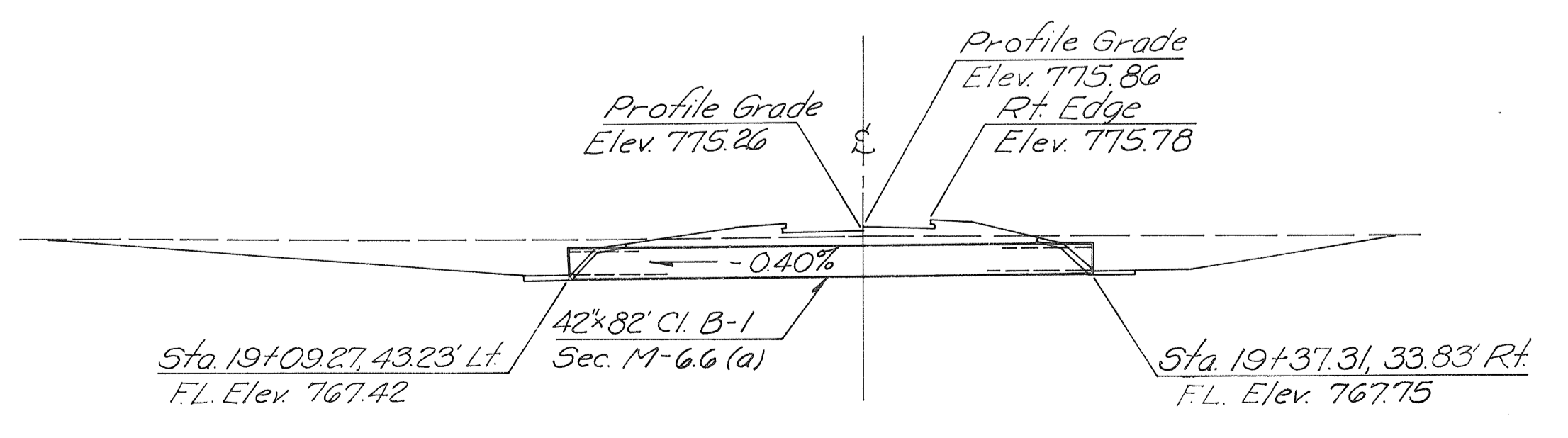
Standard Drawing I-1.

Drainage Area ~ 136 Acres  
 $Q_{25} = 0.65 \times 0.25 \times 1.00 \times 225$   
 $Q_{25} = 37 \text{ cfs}$

**ESTIMATED QUANTITIES**

I-1 42" Reinforced Concrete Pipe Cl. A-1, Sec. M-6.6 (a)	82 Lin. Ft.
I-10 Rip Rap, 6" Reinforced Concrete	29.36 Sq. Yd.
I-10 Crushed Aggregate Slope Protection	55 Sq. Yd.
L-10 Sodding	115 Sq. Yd.

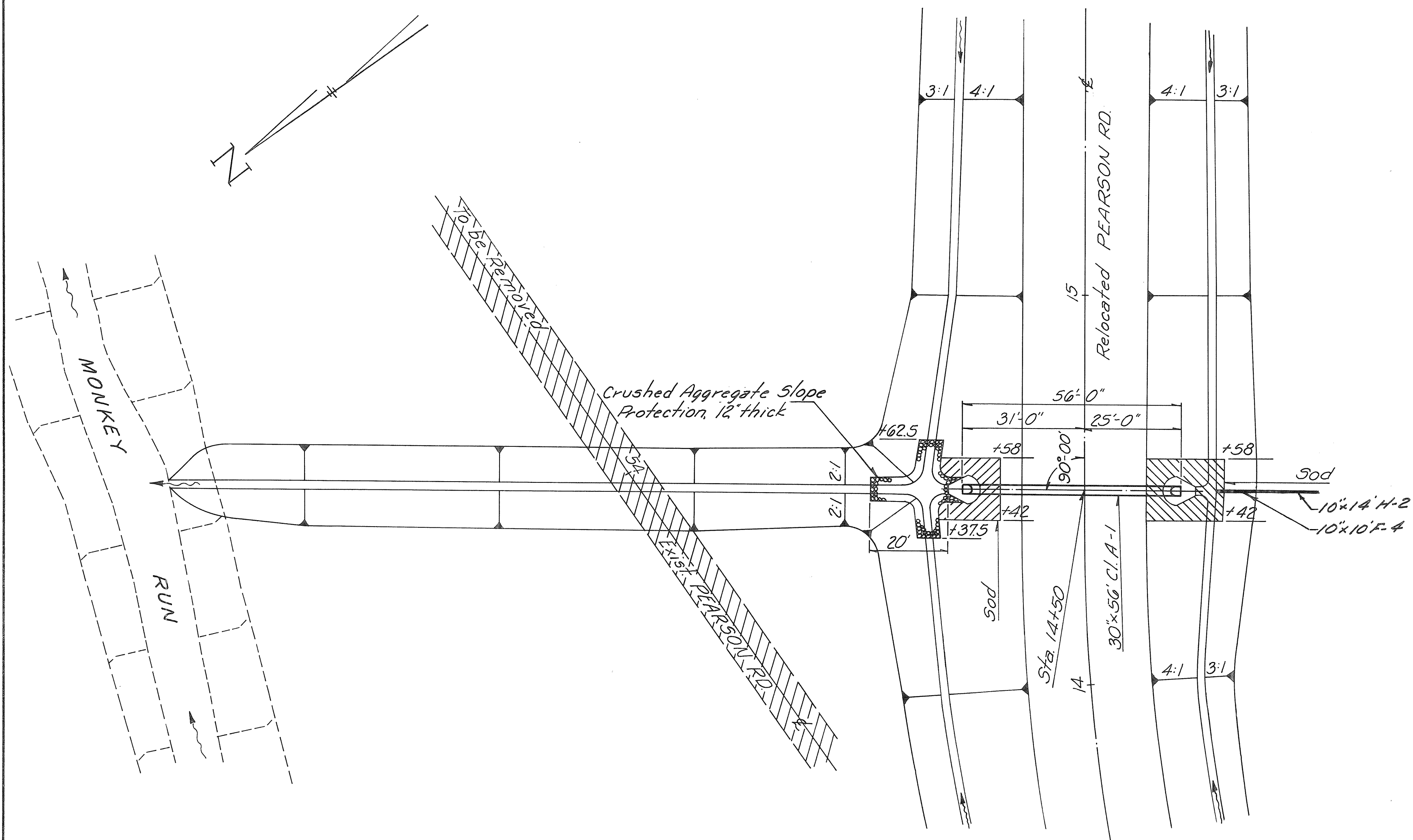
Estimated Quantities Carried on Main Line Sheet No. 21





# STRUCTURE NO. 12-C

STA. 14+50 PEARSON RD.-T.R. 234



### WORK REQUIRED

Excavate for Structure and Channel as per plan.  
Construct Standard 30"x56" Reinforced Concrete Pipe  
Culvert. Place Rip Rap end Protection, Crushed Aggregate  
Slope Protection & Sod as shown.

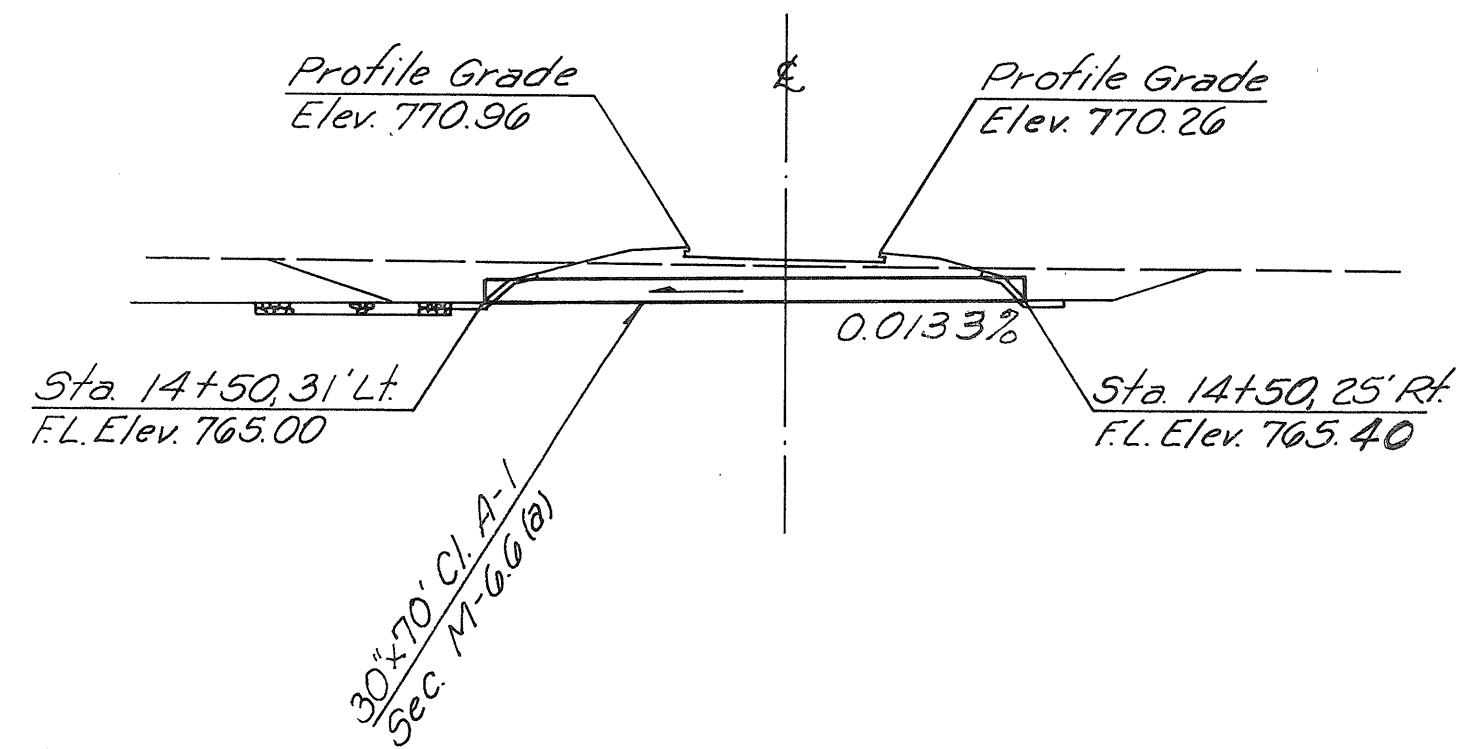
Standard Drawing I-1

Drainage Area ~ 122 Acres  
Q<sub>25</sub> = 286 cfs

### ESTIMATED QUANTITIES

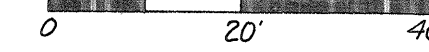
E-3 Channel Excavation	340 Cu. Yd.
I-1 30" Reinforced Concrete Pipe, Cl. A-1, Sec. M-66(a)	56 Lin. Ft.
I-10 Rip Rap, 6" Reinforced Concrete	1544 Sq. Yd.
I-10 Crushed Aggregate Slope Protection	29.33 Sq. Yd.
L-10 Sodding	44 Sq. Yd.

Estimated Quantities carried on Main Line Sheet No. 45



# STRUCTURE NO. 3-C

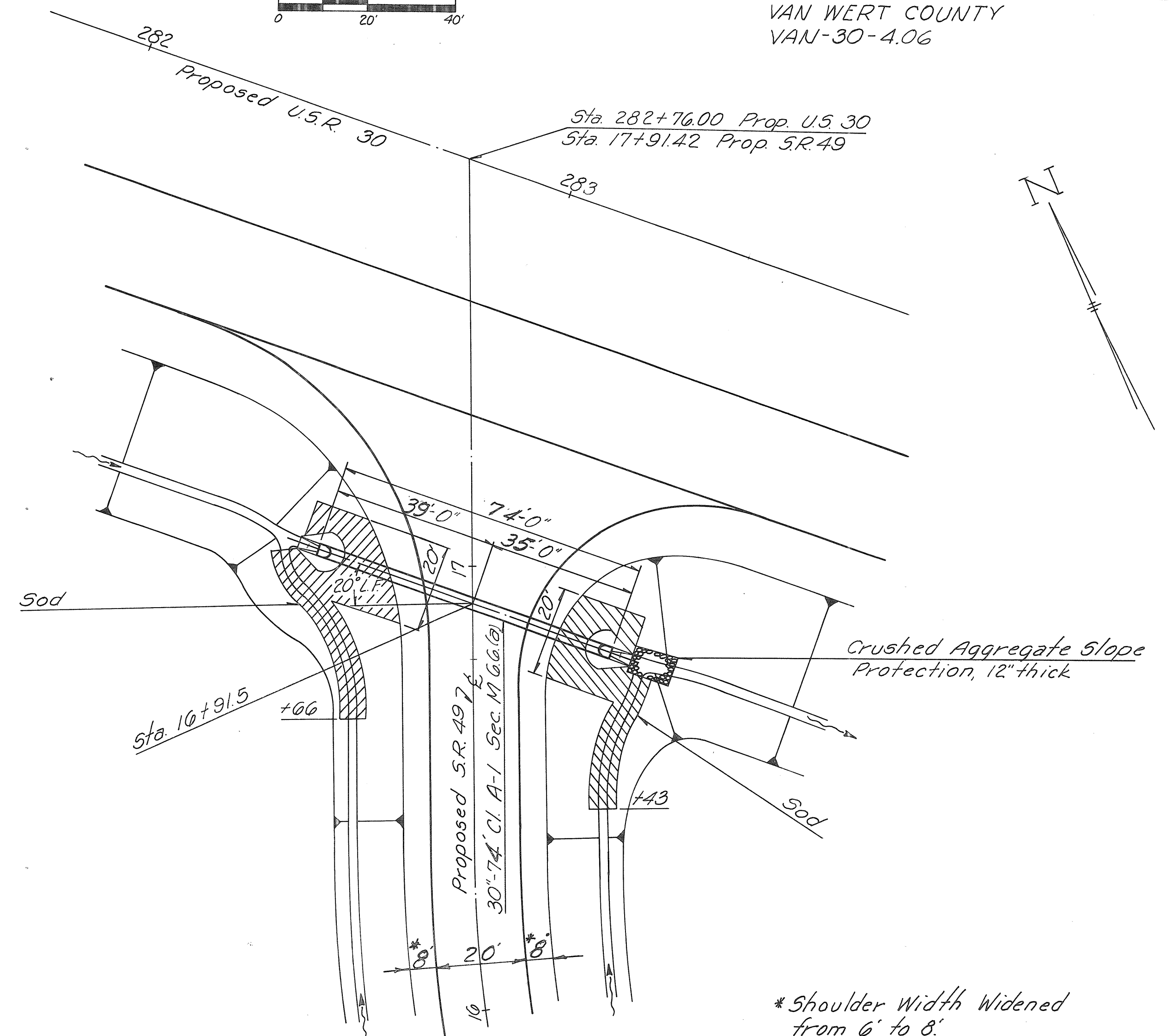
STA. 16+91.5 S.R. 49



FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

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VAN WERT COUNTY  
VAN-30-4.06



### WORK REQUIRED

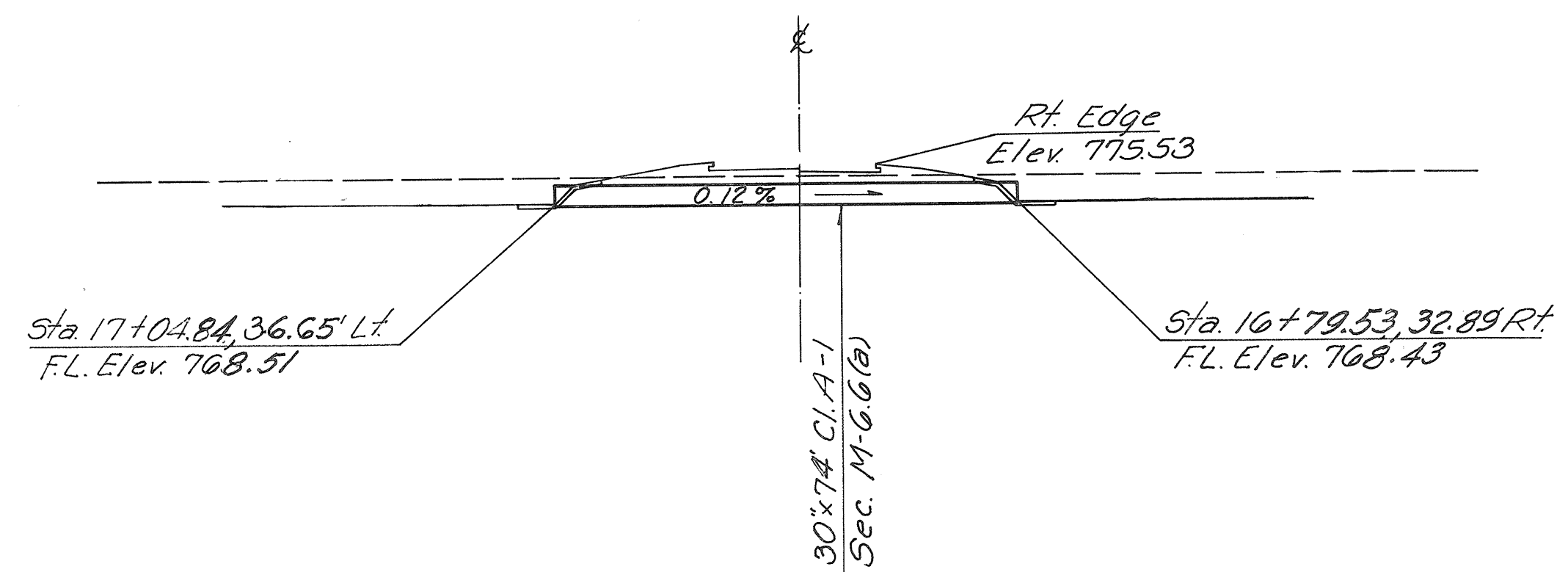
Excavate for Structure as per plan. Construct  
30"x70" Reinforced Concrete Pipe Cl. A-1 Sec.  
M-66(a). Place Rip Rap end Protection, Crushed  
Aggregate Slope Protection and Sod as shown.  
Standard Drawing I-1

Drainage Area ~ 45 Acres  
Q<sub>25</sub> = .65 x 0.25 x 1.00 x 115  
Q<sub>25</sub> = 18.7 cfs.

### ESTIMATED QUANTITIES

I-1 30" Reinforced Concrete Pipe, Cl. A-1 Sec. M-66(a)	74 Lin. Ft.
I-10 Rip Rap, 6" Reinforced Concrete	1544 Sq. Yds.
I-10 Crushed Aggregate slope Protection.	667 Sq. Yds.
L-10 Sodding	104.0 Sq. Yds.

Estimated Quantities Carried on Main Line Sheet No. 24



STRUCTURES NO. 3C & 12C

# STRUCTURE NO. 4-C

# STRUCTURE NO. 4-C

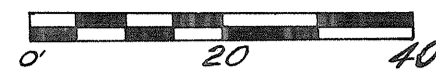
FED. RD. DIVISION	STATE	PROJECT
5	OHIO	

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# STRUCTURE NO. 4-C

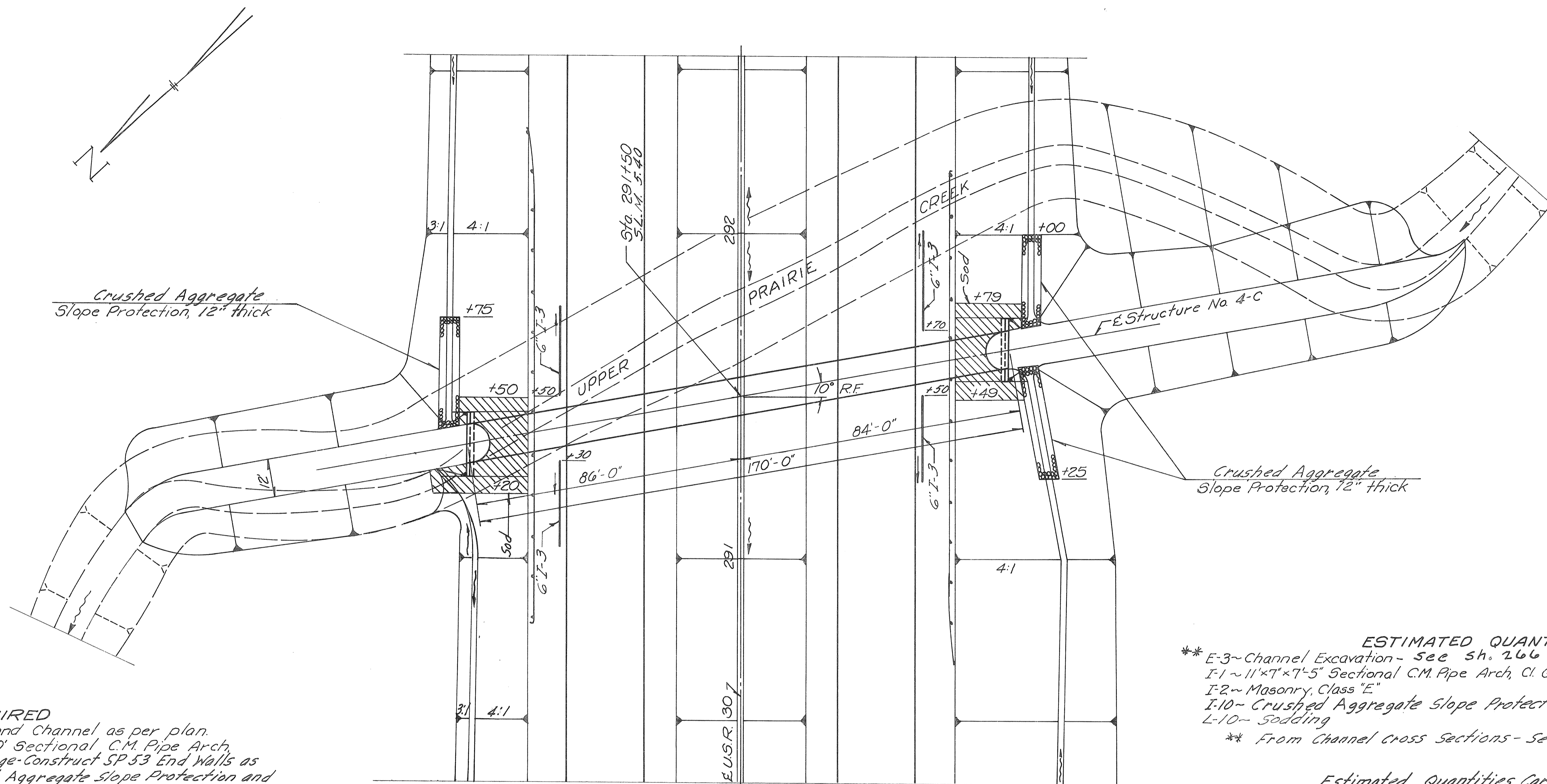
STA. 291+50



FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

295

VAN WERT COUNTY  
VAN-30-4.06



Crushed Aggregate  
Slope Protection, 12" thick

Crushed Aggregate  
Slope Protection, 12" thick

### WORK REQUIRED

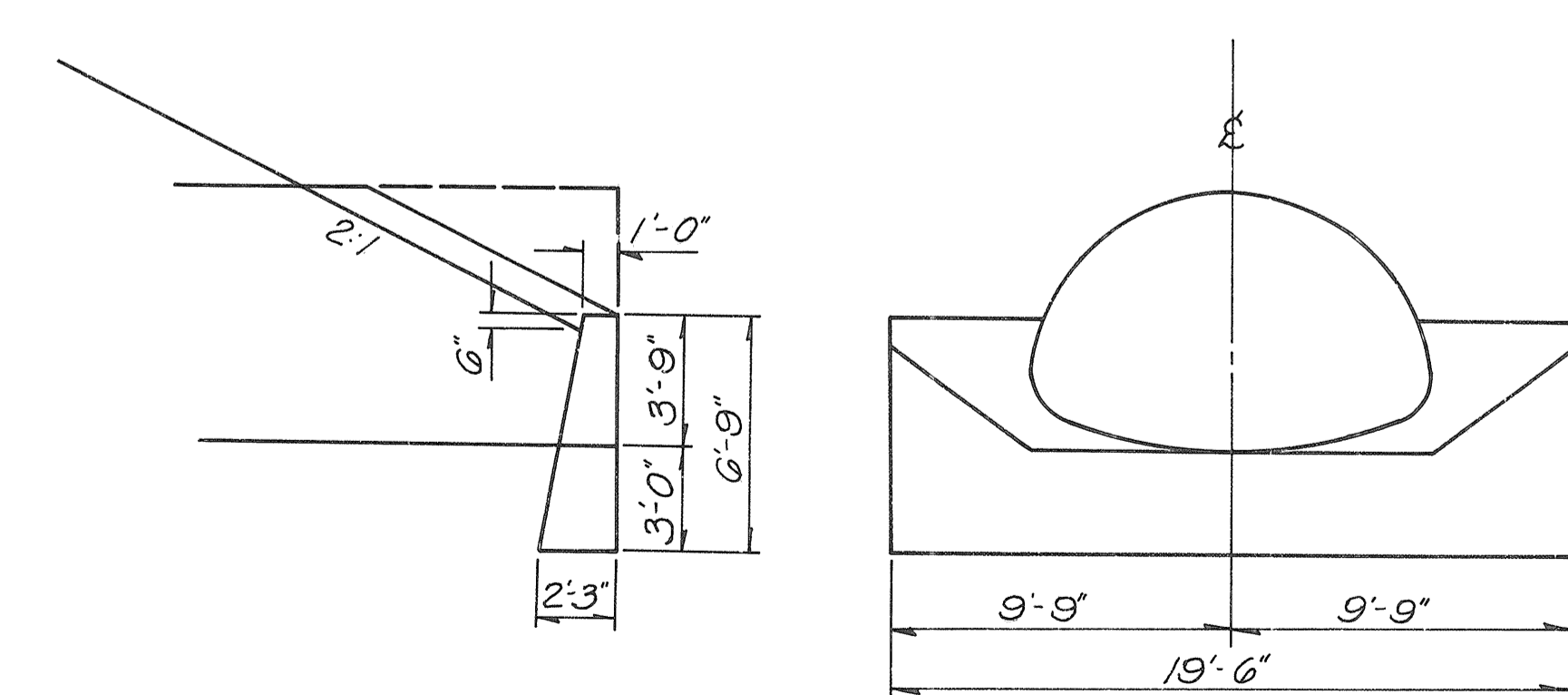
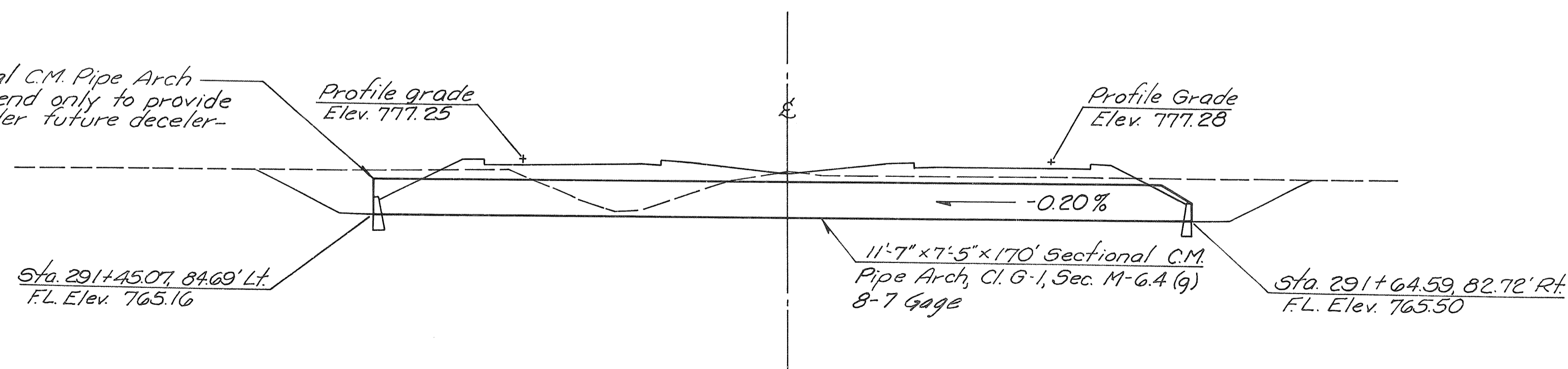
Excavate for Structure and Channel as per plan.  
Construct 11'x7'x7.5'x170' Sectional C.M. Pipe Arch,  
Cl. G-1, Sec. M-6.4 (g), 8-7 Gage-Construct SP 53 End Walls as  
per plan. Place Crushed Aggregate Slope Protection and  
Sod as shown.  
Standard Dwg. SP 53

Drainage Area = 1858 Acres  
Q<sub>25</sub> = 600 cfs

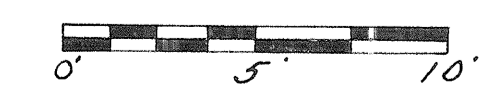
<b>ESTIMATED QUANTITIES</b>		1213
** E-3~Channel Excavation- See Sh. 266		(214) *Cu.Yd.
I-1~11'x7'x7.5' Sectional C.M. Pipe Arch, Cl. G-1 Sec. M-6.4 (g), (8-7 Gage)		170 Lin.Ft.
I-2~Masonry, Class "E"		12.21 Cu.Yd.
I-10~Crushed Aggregate Slope Protection		72 Sq.Yd.
L-10~Sodding		130 Sq.Yd.
** From Channel Cross Sections- See Sheet No. 266		

Estimated Quantities Carried on Main Line Sheet No. 25

Construct Sectional C.M. Pipe Arch  
without bevel, this end only to provide  
for extension under future deceler-  
ation Lane.

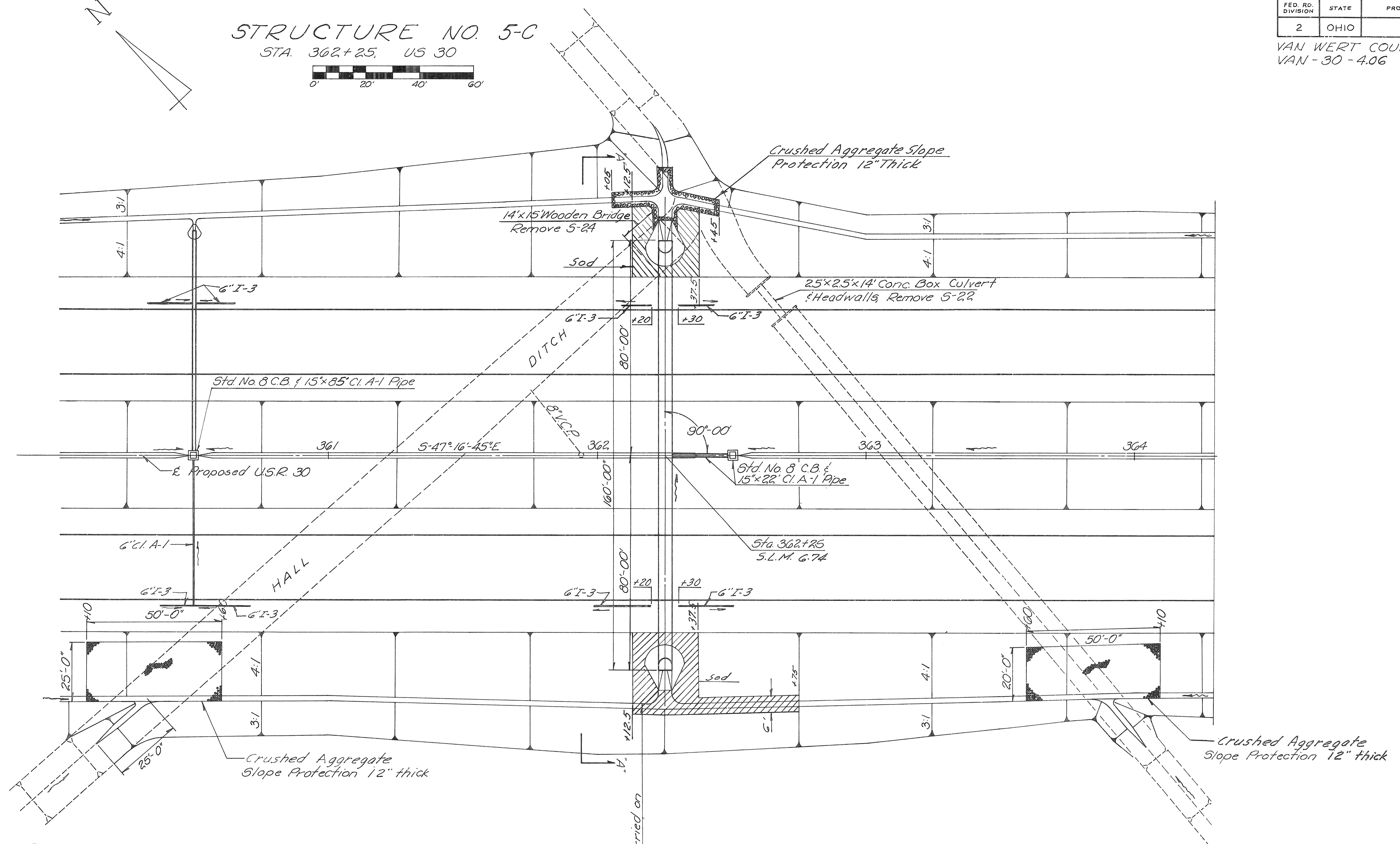
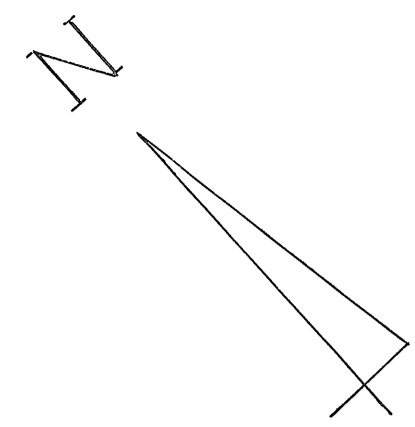
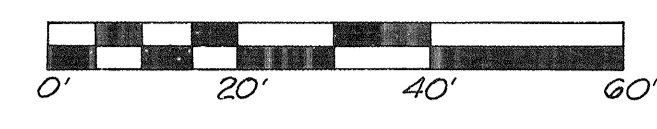


ENDWALL DETAIL



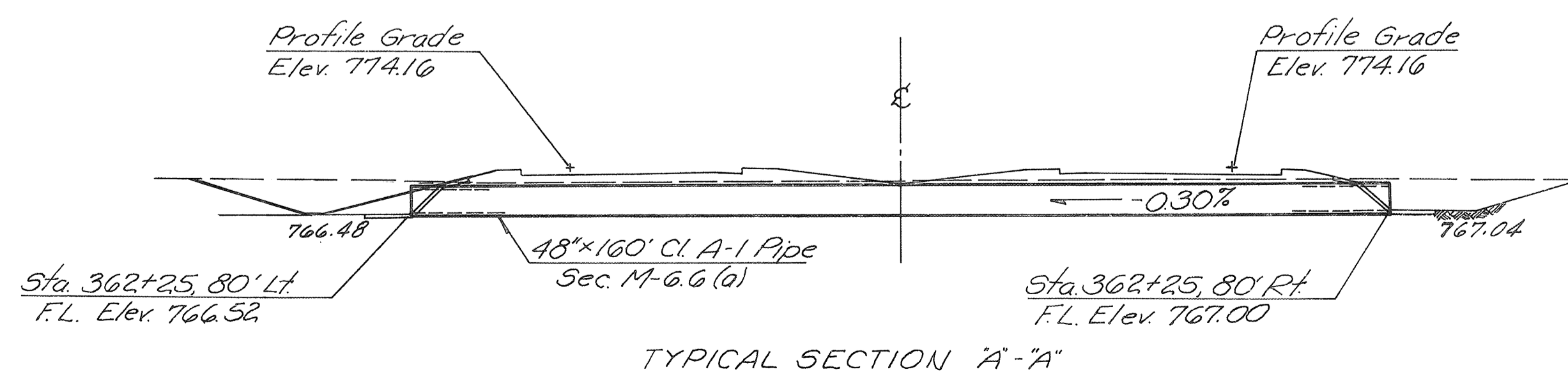
## STRUCTURE NO. 5-C

STA. 362+25, US 30



**WORK REQUIRED**  
 Remove existing Wooden Bridge as per plan.  
 Remove existing 25' x 25' x 14' Concrete Culvert and Headwalls as per 5-22.  
 Perform Channel and Structure excavation as per plan.  
 Construct Standard 48' x 160' Reinforced Concrete Pipe Culvert.  
 Place Rip Rap end Protection, Crushed Aggregate Slope Protection and Sod as shown.

Standard Drawing I-1  
 Drainage Area ~ 304 Acres  
 $Q_{25} = 0.65 \times 0.25 \times 100 \times 400$   
 $Q_{25} = 65 \text{ cfs}$



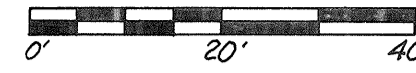
**ESTIMATED QUANTITIES**

E-3 Channel Excavation	18	Cu. Yd.
I-1 48" Reinforced Concrete Pipe, CI (A-1), Sec. M-66 (a)	160	Lin. Ft.
I-10 Rip Rap, 6" Reinforced Concrete	37.98	Sq. Yd.
S-22 Removal of Portions of Existing Structure		Lump
S-24 Removal of Existing Structures		Lump
I-10 Crushed Aggregate Slope Protection	39	Sq. Yd.
L-10 Sodding	113	Sq. Yd.

Estimated Quantities Carried on Main Line Sheet No. 32

# STRUCTURE NO. 6-C

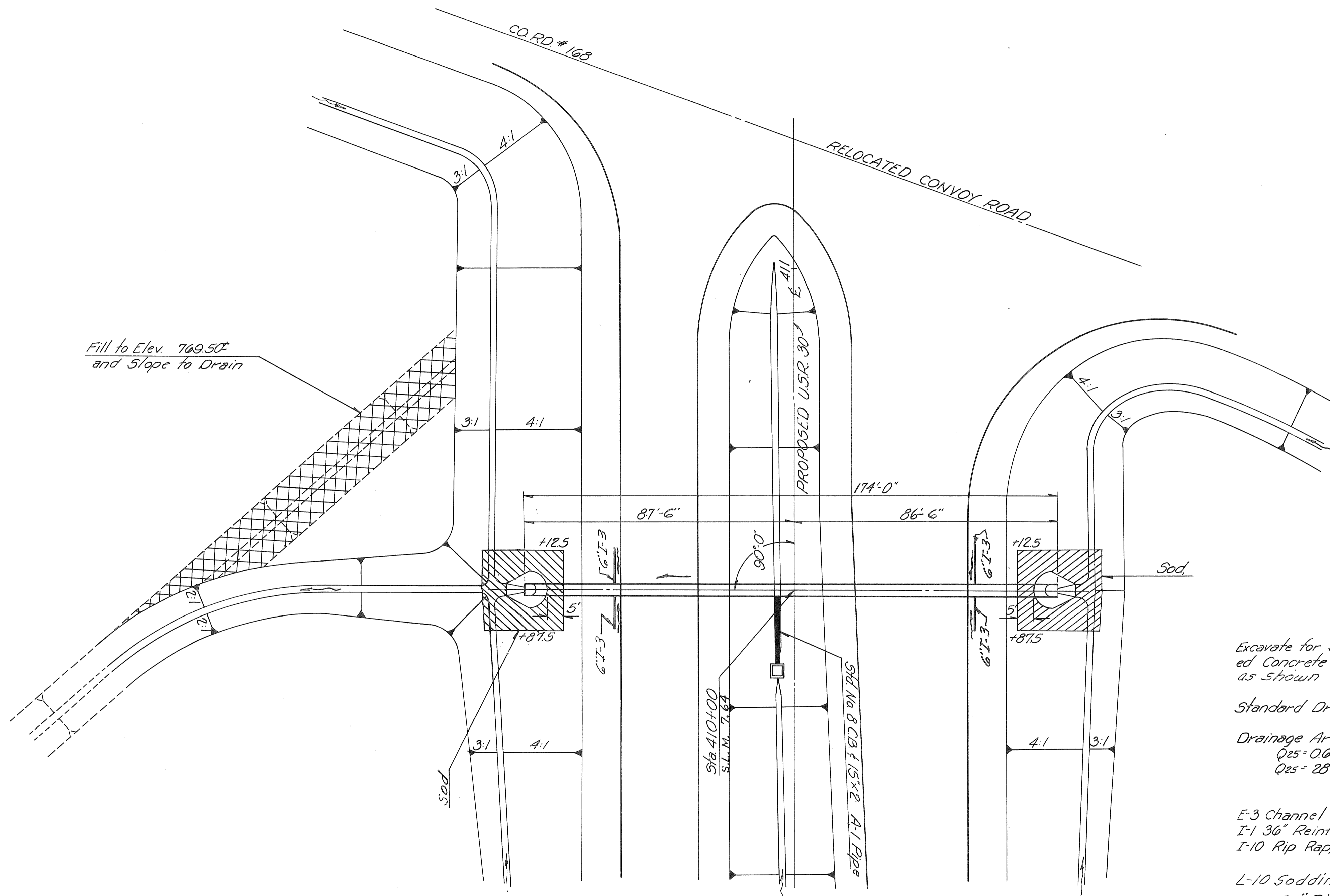
STA. 410+00



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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VAN WERT COUNTY  
VAN-30-4.06



Fill to Elev. 769.50' and Slope to Drain

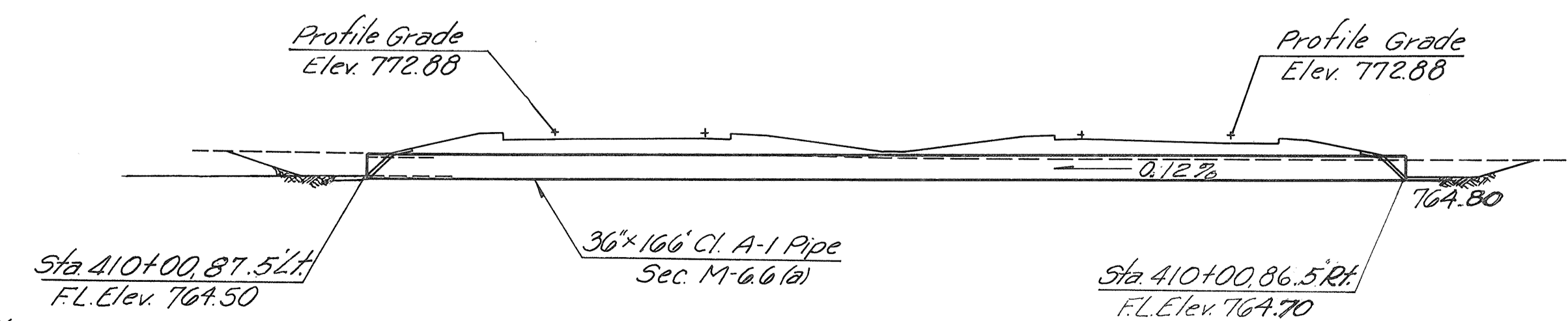
**WORK REQUIRED**  
Excavate for Structure as per plan. Construct Standard 36"x174' Reinforced Concrete Pipe Culvert. Place Rip Rap end protection and Sod as shown

Standard Drawing I-1

Drainage Area ~ 86 Acres  
Q<sub>25</sub> = 0.65 x 0.25 x 1.00 x 170  
Q<sub>25</sub> = 28 cfs

ESTIMATED QUANTITIES	
E-3 Channel Excavation	122 Cu. Yd.
I-1 36" Reinforced Concrete Pipe, CI A-1, Sec. M-66 (a)	174 Lin Ft.
I-10 Rip Rap, 6" Reinforced Concrete	21.84 Sq. Yd.
L-10 Sodding	120 Sq. Yd.
I-5 36" Pipe Special For A-1 (15' on 36" Tee)	1-Each
I-5 36" Pipe Special For A-1 (6' on 36" Cross)	2-Each

Estimated Quantities Carried on Main Line Sheet No. 36



Note:  
Flow Line of Structure below Channel to facilitate future Channel cleanout.

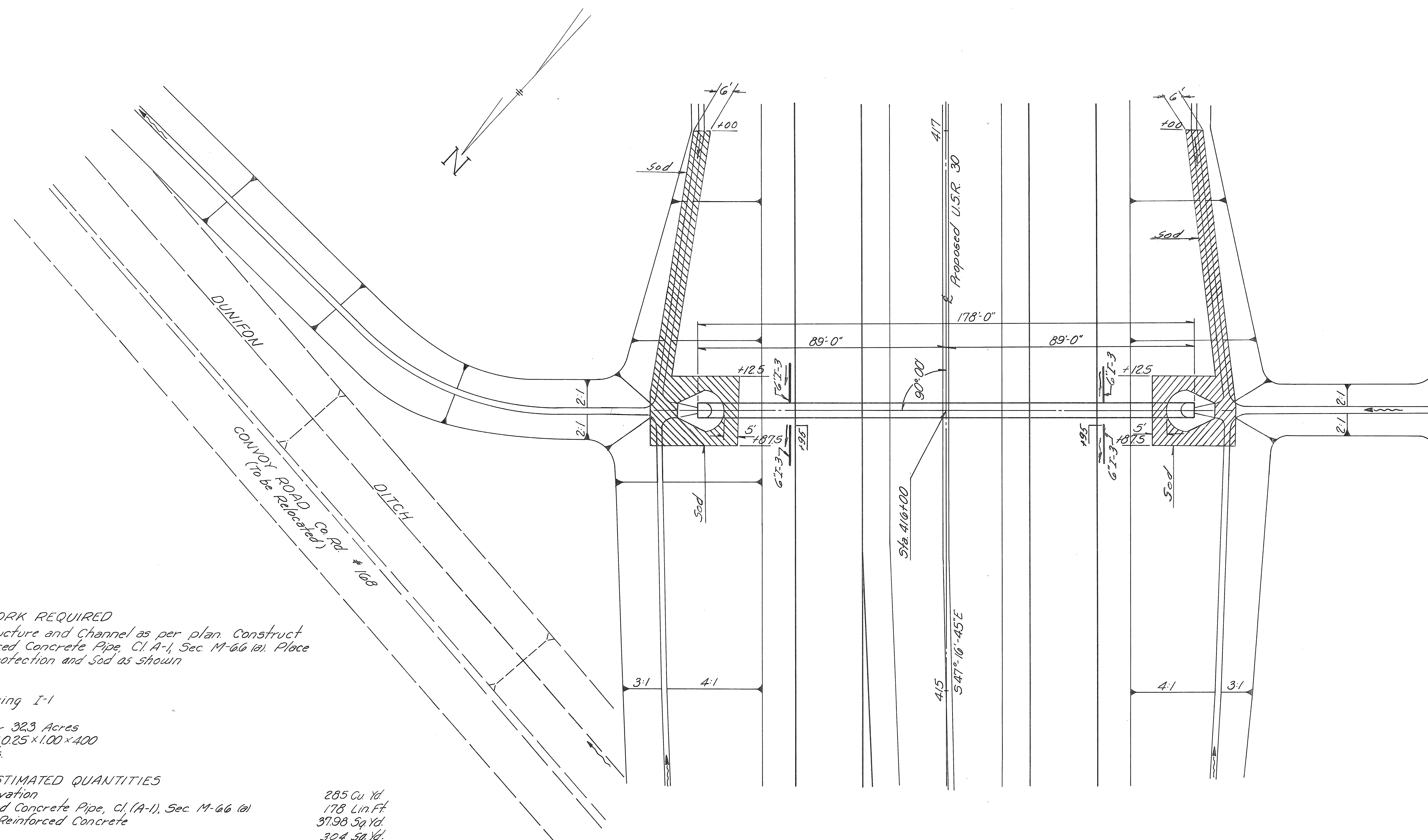
# STRUCTURE NO. 7-C

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

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VAN WERT COUNTY  
VAN-30-4.06

STA. 416+00  
0' 20' 40'



STRUCTURE NO. 8-C  
For Details See Sheet No. 299

**WORK REQUIRED**  
Excavate for Structure and Channel as per plan. Construct 48"x178" Reinforced Concrete Pipe, Cl. A-1, Sec. M-66 (a). Place Rip Rap end protection and Sod as shown.

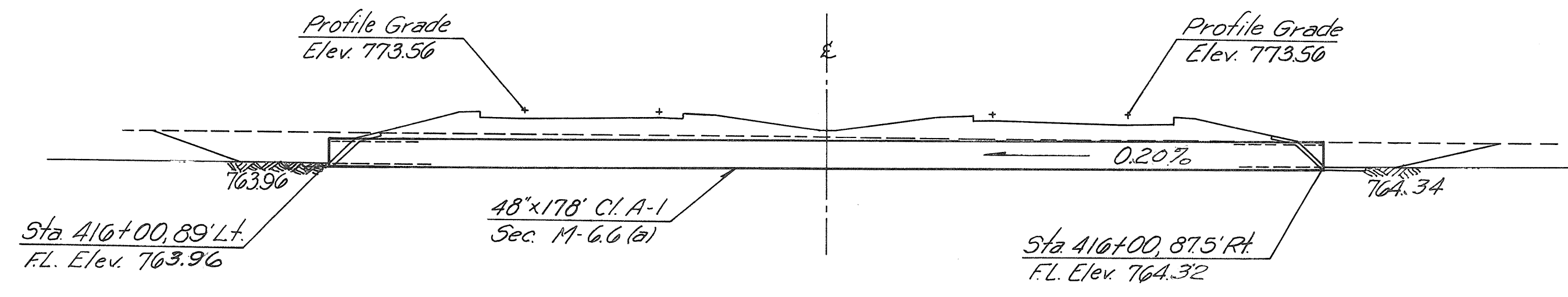
Standard Drawing I-1

Drainage Area ~ 323 Acres  
Q25 = 0.65 x 0.25 x 1.00 x 400  
Q25 = 65 cfs.

**ESTIMATED QUANTITIES**

E-3 Channel Excavation	285 Cu Yd.
F-1 48" Reinforced Concrete Pipe, Cl. (A-1), Sec. M-66 (a)	178 Lin. Ft.
I-10 Rip Rap, 6" Reinforced Concrete	37.98 Sq. Yd.
L-10 Sodding	304 Sq. Yd.

Estimated Quantities Carried on Main Line Sheet No. 37

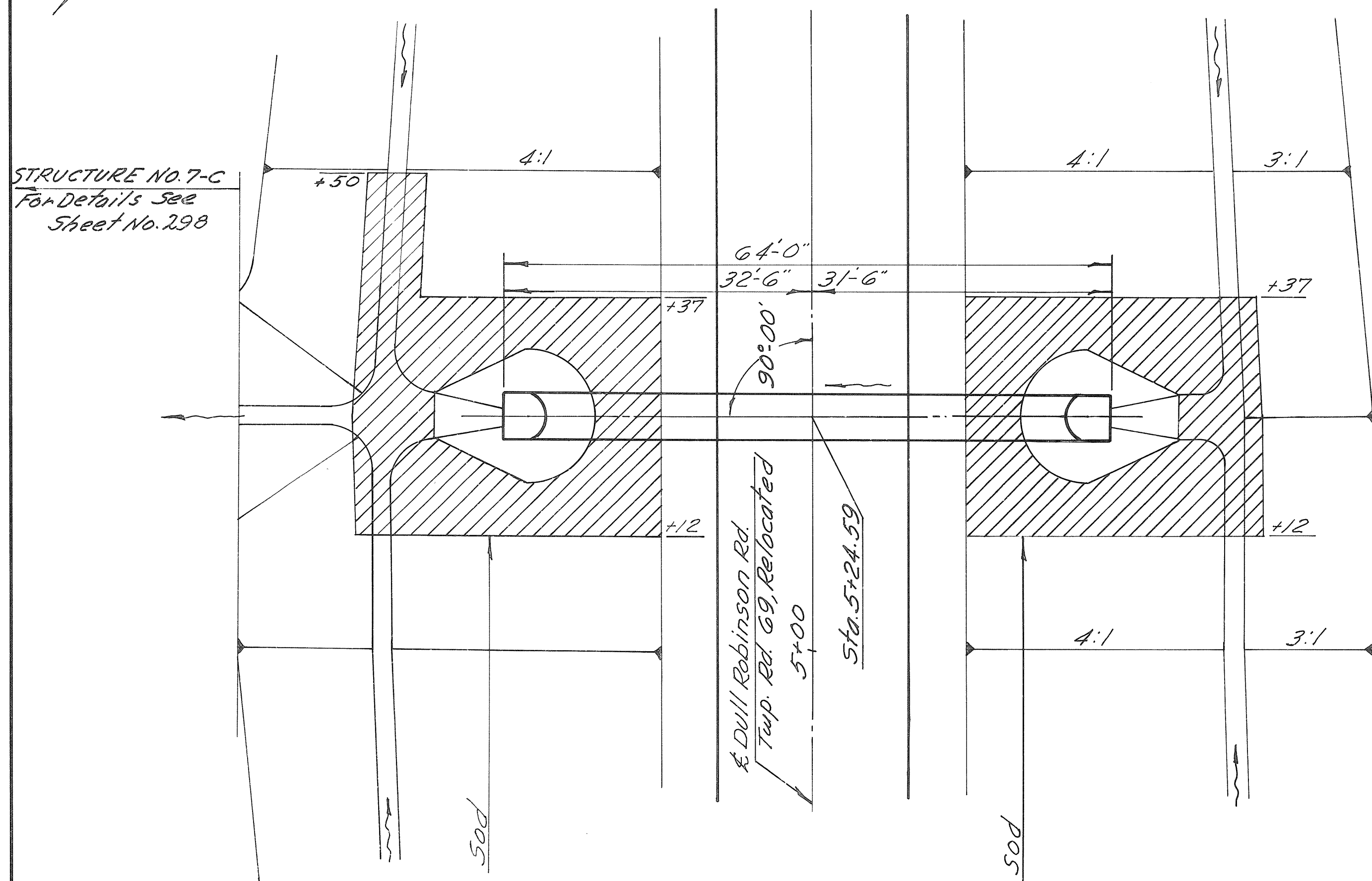
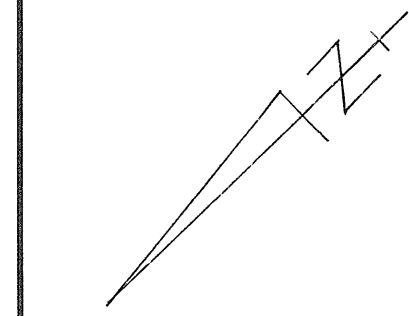


Note:  
Flow Line of Structure below Channel to facilitate future Channel cleanout

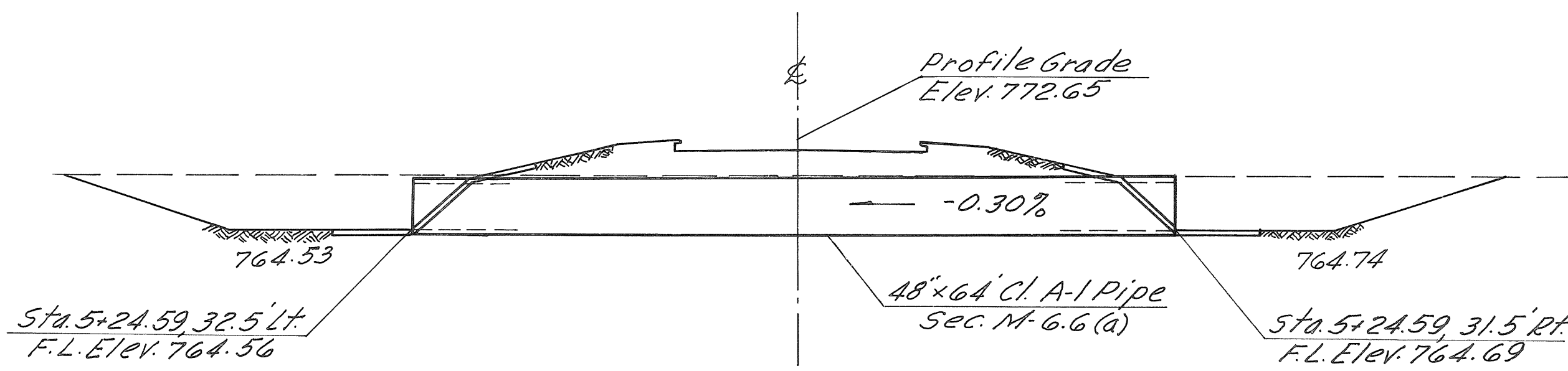
# STRUCTURE No. 8-C

STA. 5+24.59 TWP. RD. 69

SCALE 0' 5' 10' 20'



STRUCTURE NO. 7-C  
For Details See  
Sheet No. 298



**WORK REQUIRED**  
Excavate for Structure as per plan. Construct 48" x 64" Reinforced Concrete Pipe Class A-1, Sec. M-6.6(a). Place Rip Rap end protection and Sod as shown.

**ESTIMATED QUANTITIES**

I-1 48" Reinforced Concrete Pipe, Class A-1, Sec. M-6.6(a)	64 Lin. Ft.
I-10 Rip Rap, 6" Reinforced Concrete	37.98 Sq. Yd.
L-10 Sod	184 Sq. Yd.

Estimated Quantities Carried on Main Line Sheet No. 37

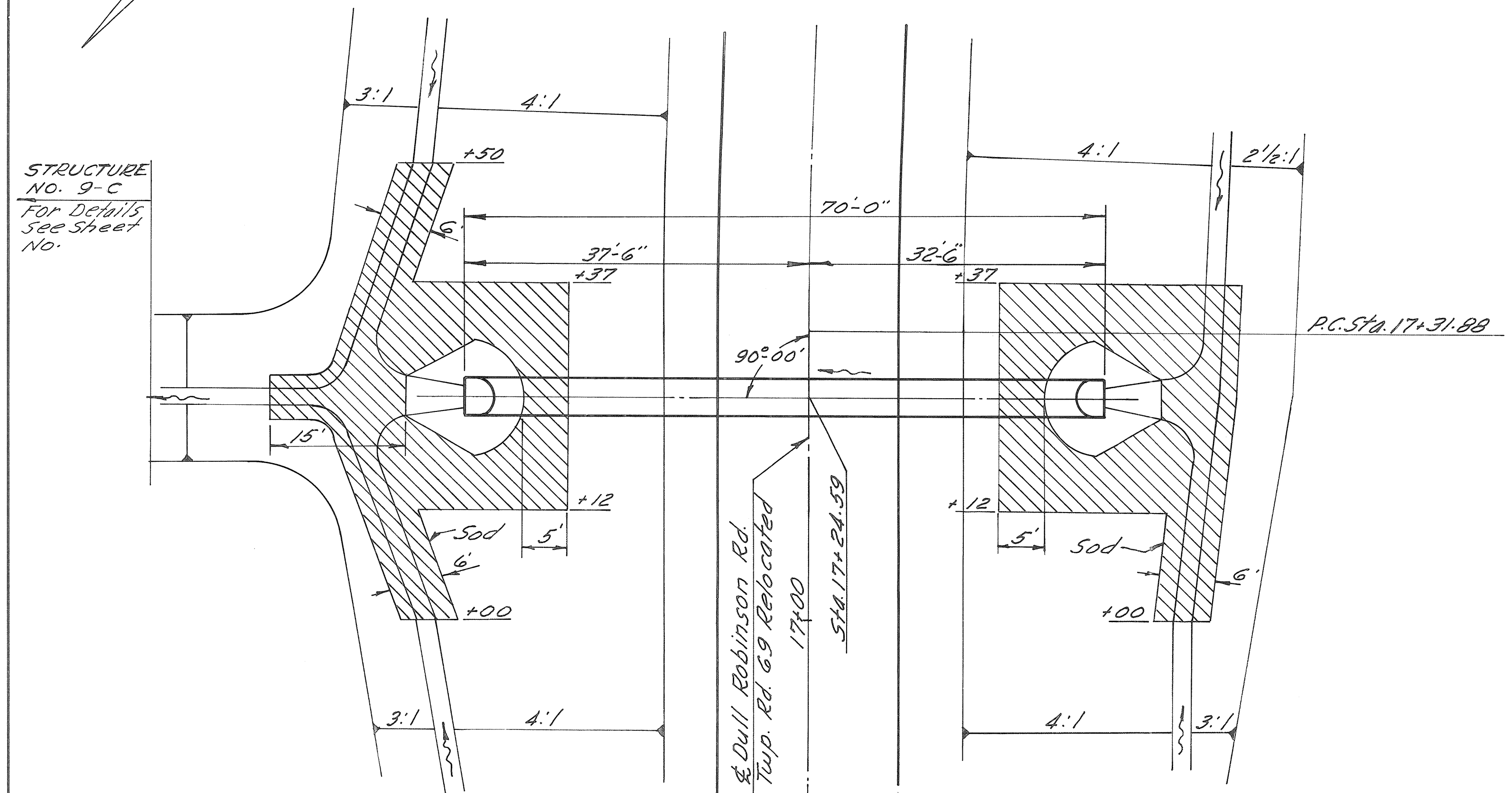
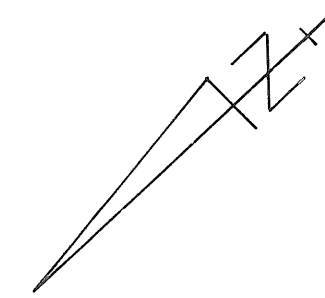
**Note:**  
Flow line of Structure below Channel to facilitate future Channel cleanout.

Standard Drawing - I-1  
Drainage Area ~ 318 Acres  
Q<sub>25</sub> = 0.65 x 0.25 x 1.00 x 400  
Q<sub>25</sub> = 65 cfs.

# STRUCTURE No. 10-C

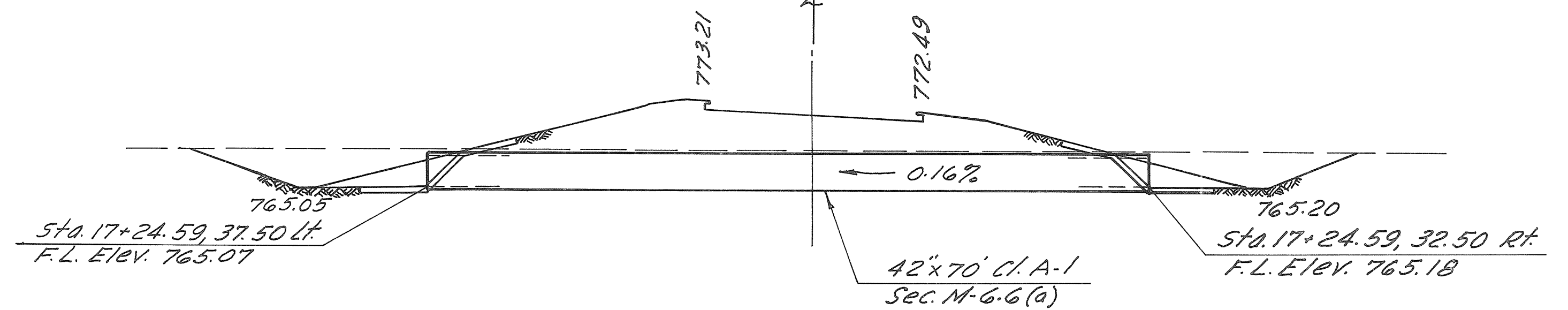
STA. 17+24.59, TWP. RD. #69

SCALE 0' 5' 10' 20'



FED. RD. DIVISION	STATE	PROJECT	299
2	OHIO		

VAN WERT COUNTY  
VAN-30-4.06



**WORK REQUIRED**  
Excavate for Structure as per plan. Construct 42" x 70" Reinforced Concrete Pipe, Class A-1, Sec. M-6.6(a). Place Rip Rap end protection and Sod as shown.

**ESTIMATED QUANTITIES**

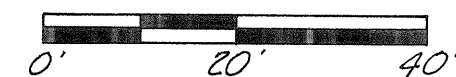
I-1 42" x 70" Reinforced Concrete Pipe, Sec. M-6.6(a)	70 Lin. Ft.
I-10 Rip Rap, 6" Reinforced Concrete	29.36 Sq. Yd.
L-10 Sod	180 Sq. Yd.

Estimated Quantities Carried on Main Line Sheet No. 38

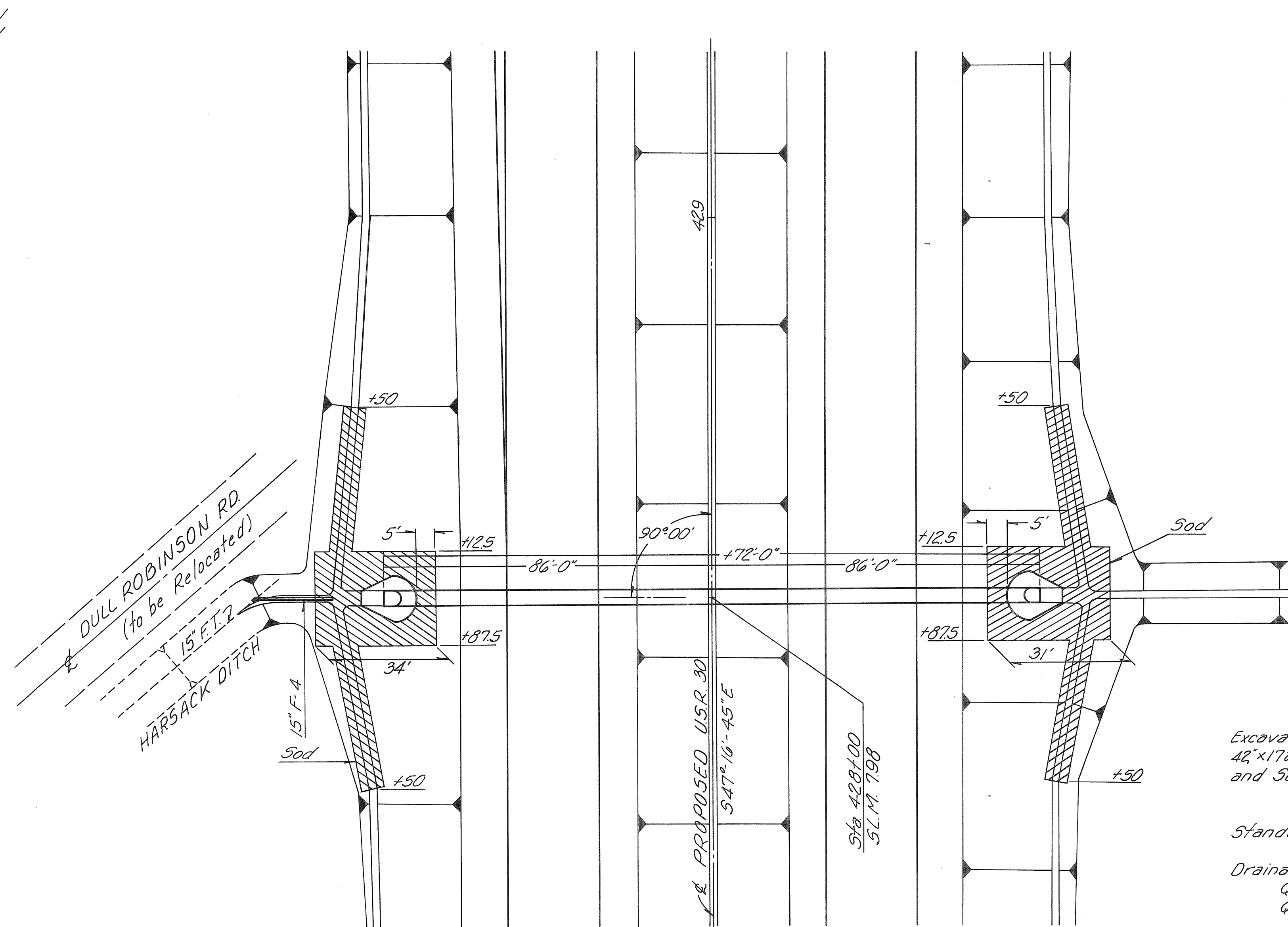
Standard Drawing I-1  
Drainage Area ~ 260 Acres  
Q<sub>25</sub> = 0.65 x 0.25 x 1.00 x 350  
Q<sub>25</sub> = 57 cfs.

# STRUCTURE NO. 9-C

STA. 428+00 U.S.R. 30



VAN WERT COUNTY  
VAN-30-4.06



**WORK REQUIRED**  
Excavate for Structure and Channel as per plan. Construct Standard 42"x172" Reinforced Concrete Pipe Culvert. Place Rip Rap end Protection and Sod as shown.

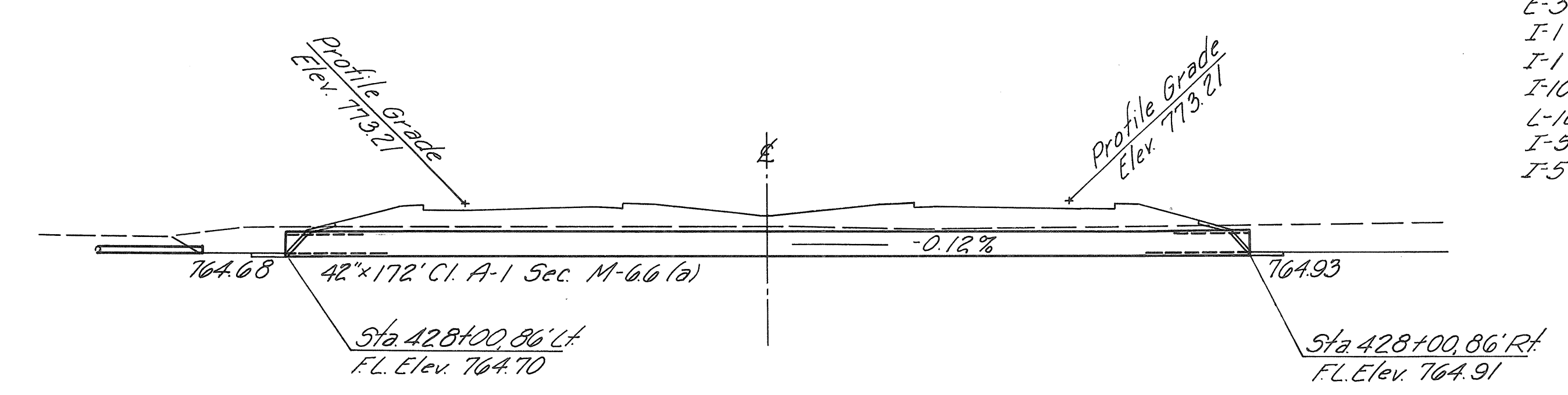
Standard Drawing I-1

Drainage Area ~ 260 Acres  
Q<sub>25</sub> = 0.65 × 0.25 × 100 × 3.50  
Q<sub>25</sub> = 57 cfs

**ESTIMATED QUANTITIES**

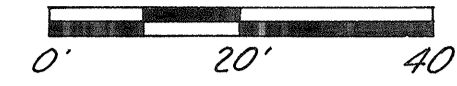
E-3 Channel Excavation	34 Cu. Yd.
I-1 42" Reinforced Concrete Pipe, CI A-1, Sec. M-6.6 (a)	172 Lin. Ft.
I-1 15" Pipe, Class F-4	20 Lin. Ft.
I-10 Rip Rap, 6" Reinforced Concrete	29.36 Sq. Yd.
L-10 Sodding	266 Sq. Yd.
I-5 42" Pipe Special for A-1 (6" on 42" Cross)	1 Each
I-5 15" Pipe Special for H-2 (15" × 45° Bend)	1 Each

Estimated Quantities carried on Main Line Sheet No. 38



# STRUCTURE NO. 11-C

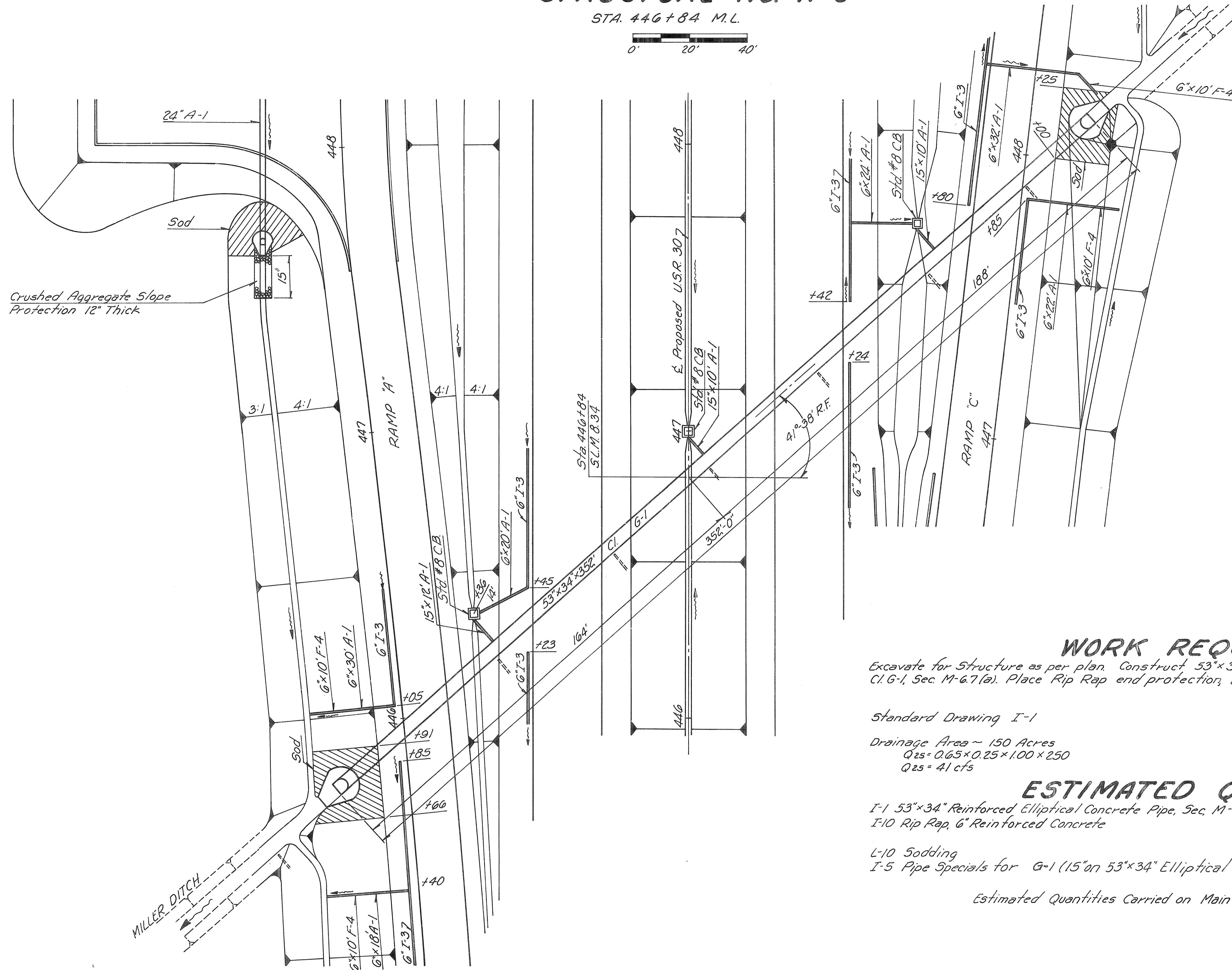
STA. 446+84 M.L.



FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

301

VAN WERT COUNTY  
VAN-30-4.06



## WORK REQUIRED

Excavate for Structure as per plan. Construct 53"x34"x352" Reinforced Elliptical Concrete Pipe, Cl. G-1, Sec. M-6.7(a). Place Rip Rap end protection, and Sod as shown.

Standard Drawing I-1

Drainage Area ~ 150 Acres  
 $Q_{25} = 0.65 \times 0.25 \times 1.00 \times 250$   
 $Q_{25} = 41 \text{ cfs}$

## ESTIMATED QUANTITIES

I-1 53"x34" Reinforced Elliptical Concrete Pipe, Sec. M-6.7(a) G-1

352 Lin. Ft

I-10 Rip Rap, 6" Reinforced Concrete

24.10 Sq. Yd

L-10 Sodding

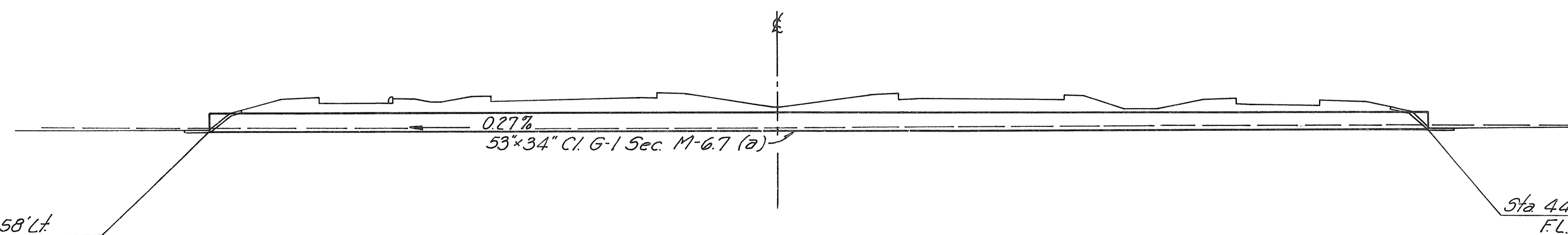
74 Sq. Yd

I-5 Pipe Specials for G-1 (15" on 53"x34" Elliptical Tee) Sec. M-6.7(a)

3 Each

Estimated Quantities Carried on Main Line Sheet No. 40

Sta 445+75.04, 122.58' Lt  
 F.L. Elev. 763.80

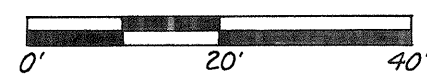


Sta 448+08.90, 140.51' Rt  
 F.L. Elev. 764.50



# STRUCTURE NO. 13-C

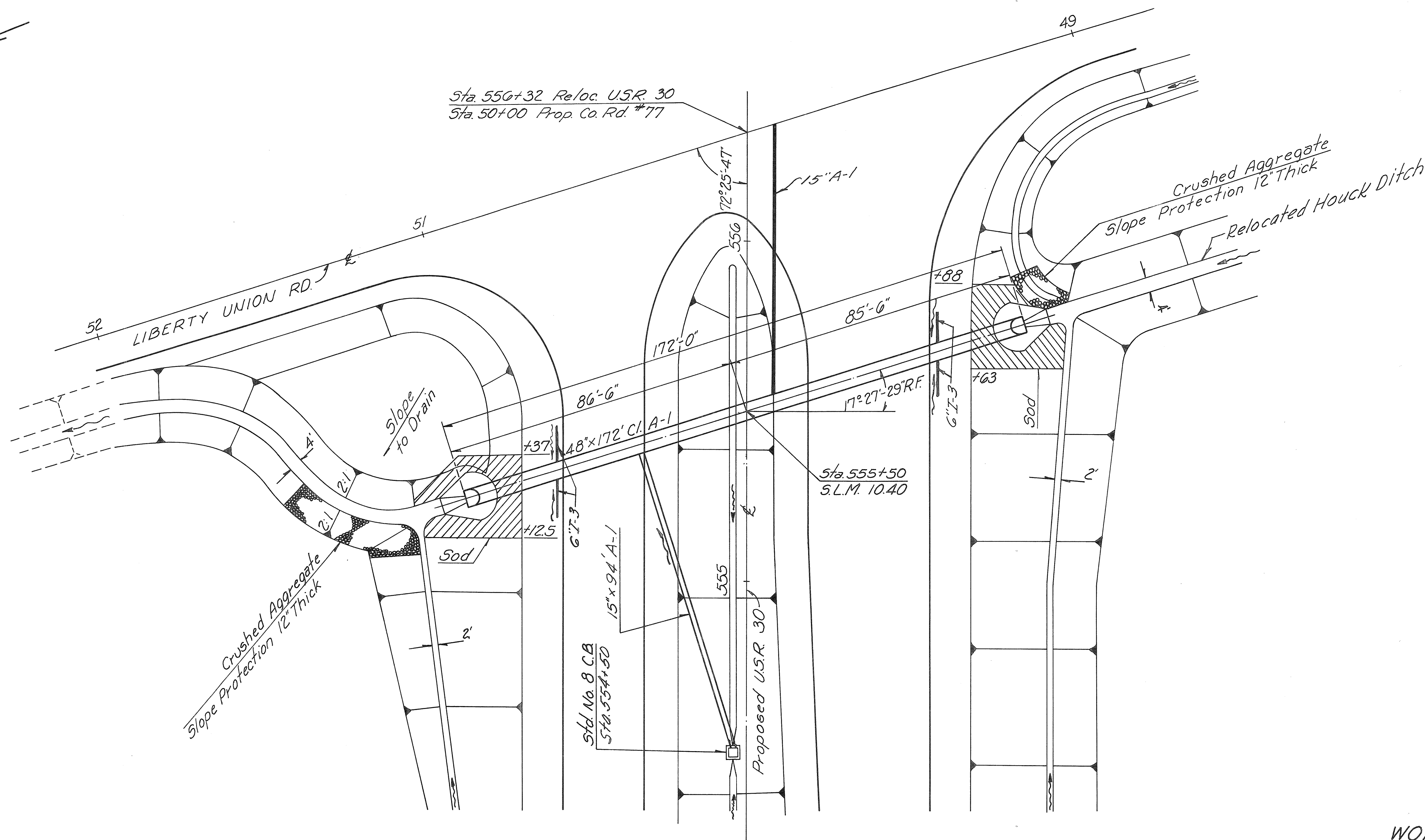
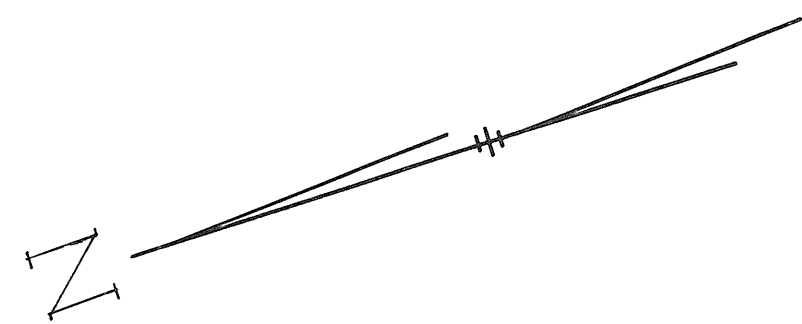
STA. 555+50



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

302

VAN WERT COUNTY  
VAN-30-4.06



### WORK REQUIRED

Excavate for Structure as per plan.  
Construct Standard 48x172' Reinforced Concrete Pipe  
Culvert. Place Rip Rap end Protection, Crushed Aggregate  
Slope Protection and Sod as shown.  
Standard Drawing I-1

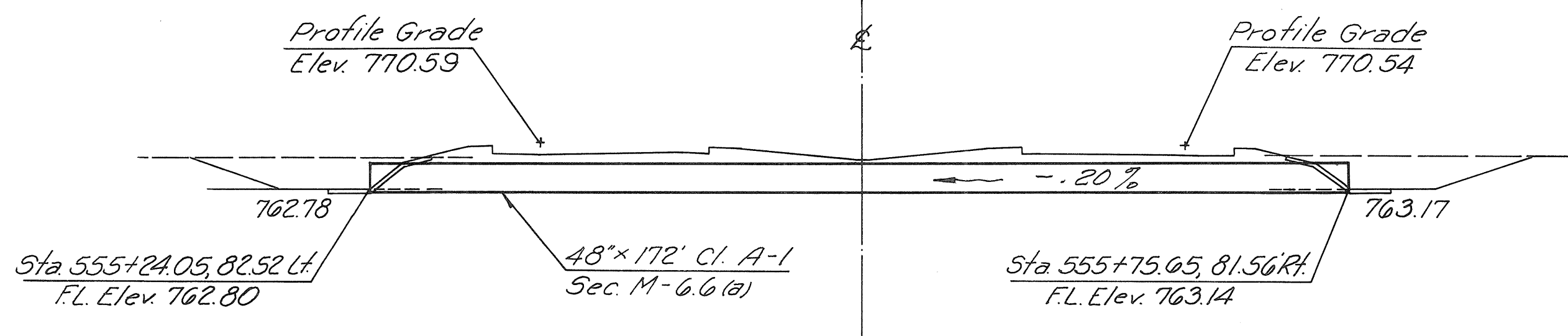
Drainage Area ~ 225 Acres  
Q<sub>25</sub> = 0.65 x 0.25 x 1.00 x 310 =  
Q<sub>25</sub> = 50 cfs

Standard Dwg. I-1

### ESTIMATED QUANTITIES

I-1 48" Reinforced Concrete Pipe, Cl. A-1, Sec. M-6.6 (a)	172 Lin. Ft.
I-10 Rip Rap, 6" Reinforced Concrete	37.98 Sq. Yd.
I-10 Crushed Aggregate Slope Protection	55.0 Sq. Yd.
I-10 Sodding	92.0 Sq. Yd.
I-5 48" Pipe Special for A-1 (15" on 48" Tee)	2 Each
I-5 48" Pipe Special for A-1 (6" on 48" Cross)	2 Each

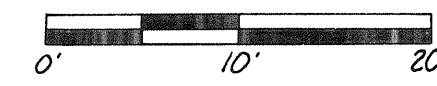
Estimated Quantities carried on Main Line Sheet No. 51



Note ~  
Flow Line of Structure below  
Channel to facilitate future  
Channel cleanout.

# STRUCTURE NO. 14-C

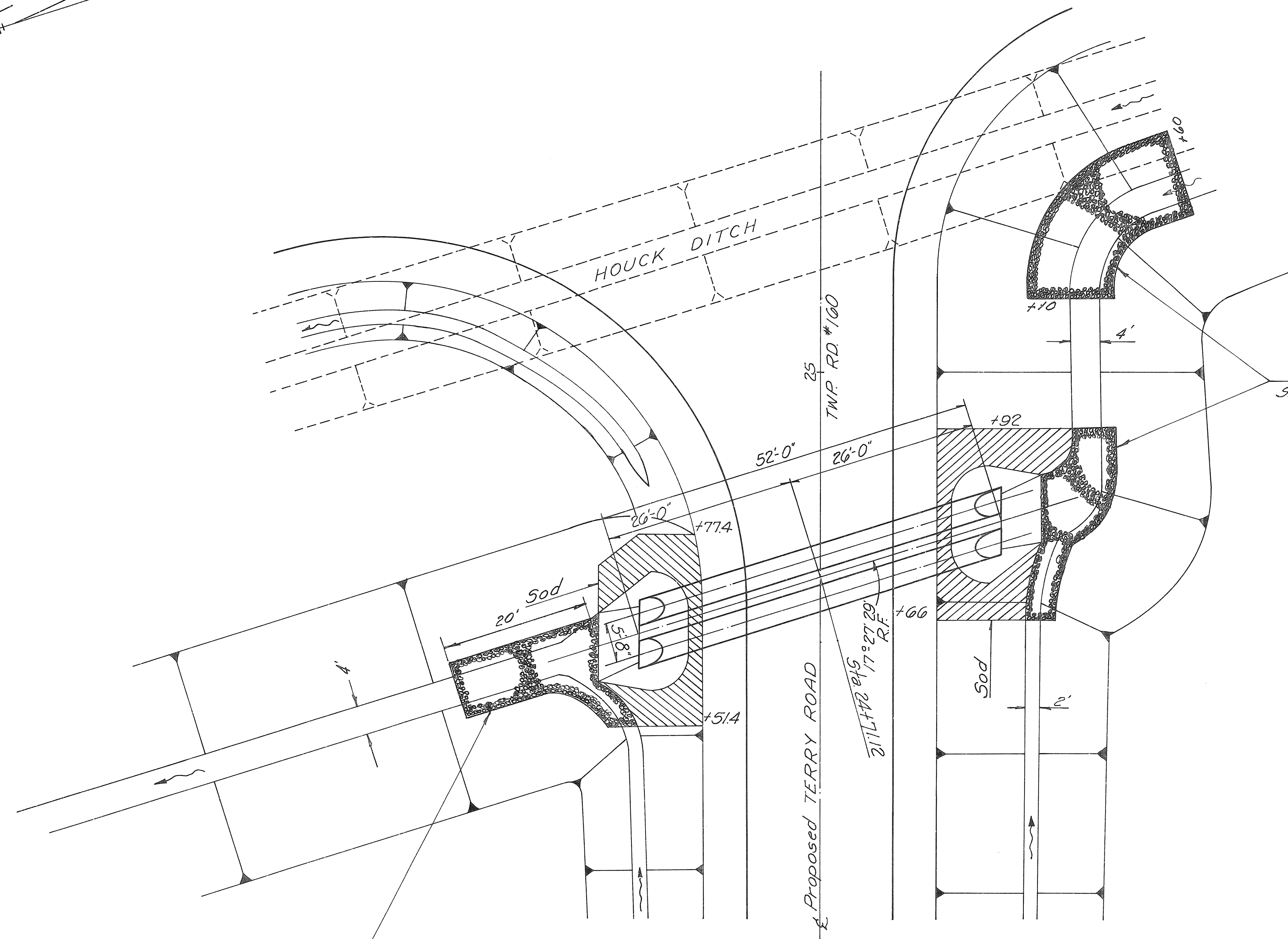
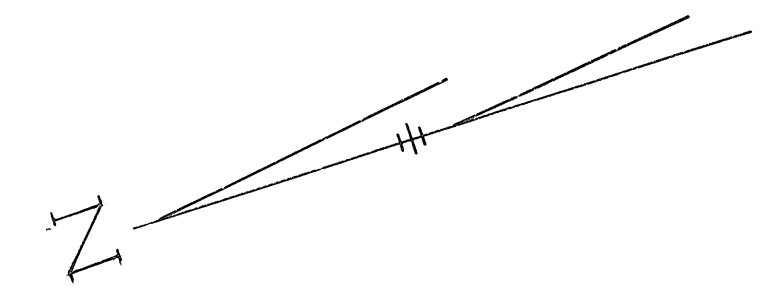
STA. 24+71.12



FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

303

VAN WERT COUNTY  
VAN-30-4.06



Crushed Aggregate  
Slope Protection 12" Thick

Crushed Aggregate  
Slope Protection, 12" Thick

### WORK REQUIRED

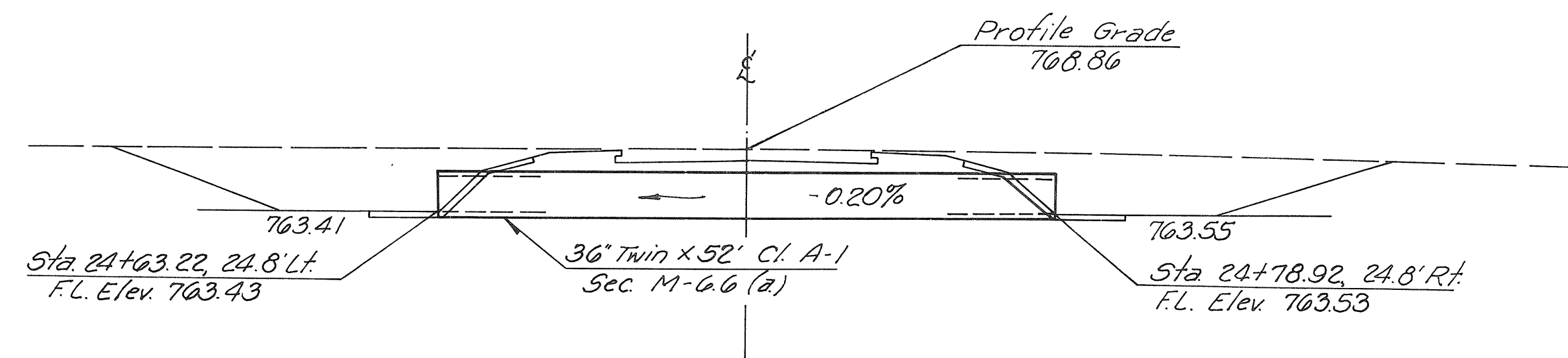
Excavate for Structure as per plan. Construct Standard 36" Twin x 52" Reinforced Concrete Pipe Culvert. Place Rip Rap end protection, Crushed Aggregate Slope Protection, and Sod as shown Standard Drawing I-1

Drainage Area = 225 Acres  
Q<sub>25</sub> = 0.65 x 0.25 x 1.00 x 3.10  
Q<sub>25</sub> = 50 cfs.

### ESTIMATED QUANTITIES

I-1 36" Reinforced Concrete Pipe, Cl. A-1, Sec. M-6.6 (a)	104 Lin. Ft.
I-10 Rip Rap 6" Reinforced Concrete	39.2 Sq. Yd.
I-10 Crushed Aggregate Slope Protection	73.0 Sq. Yd.
L-10 Sodding	36.0 Sq. Yd.

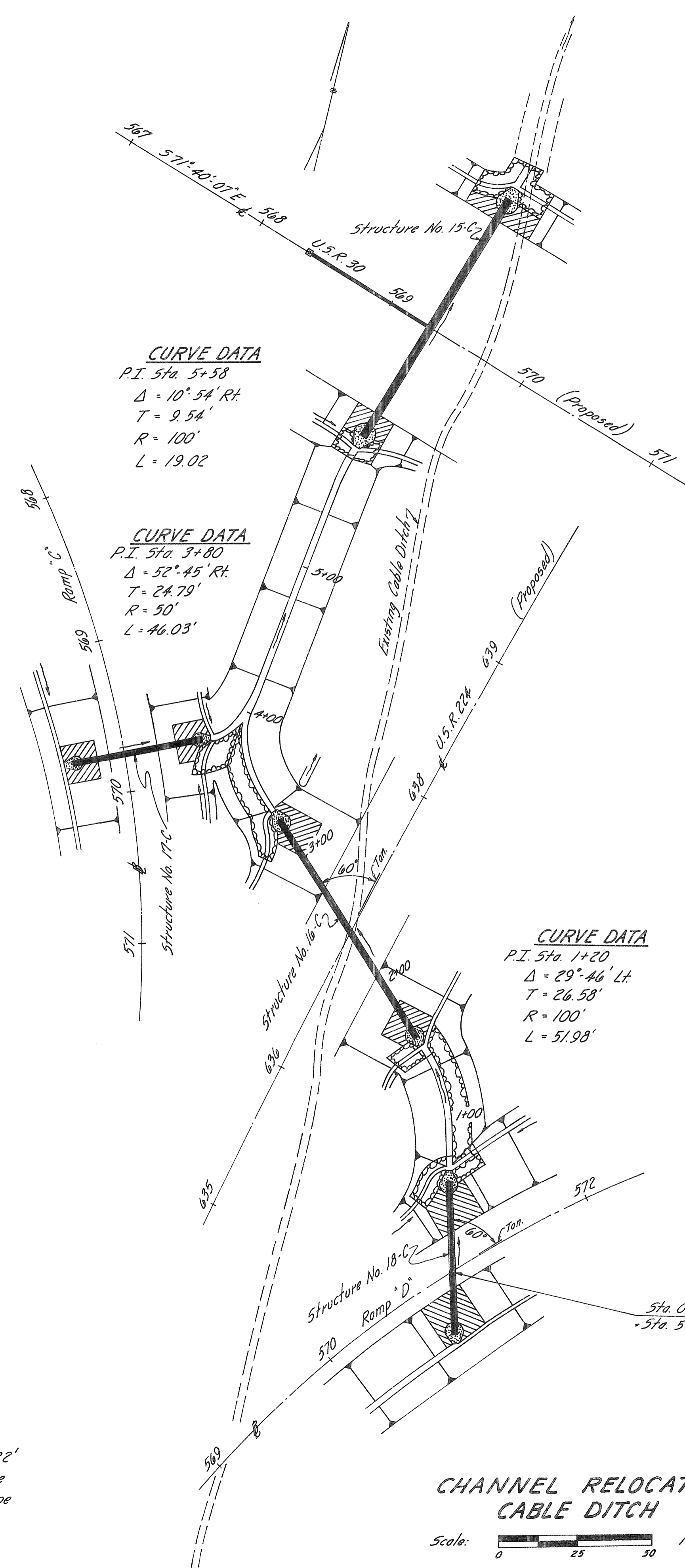
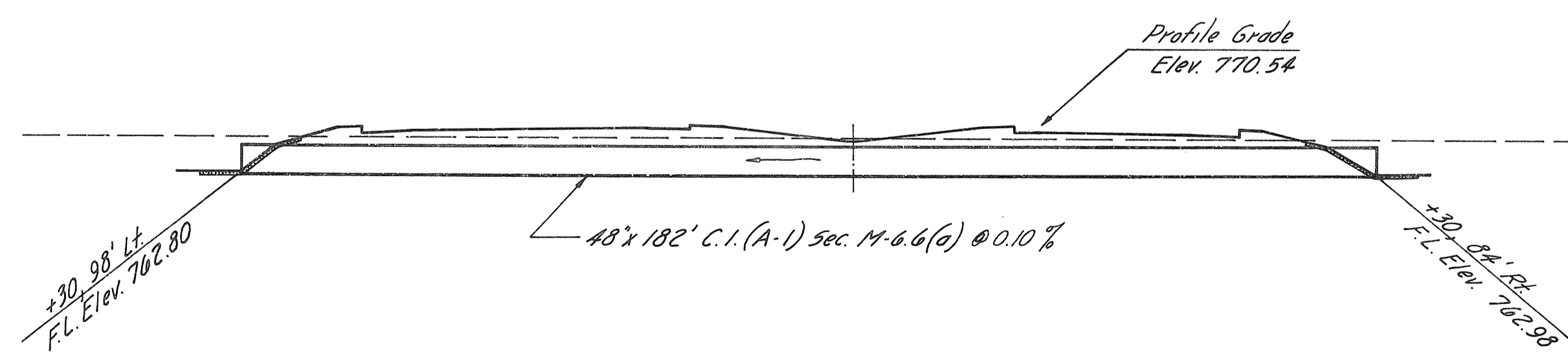
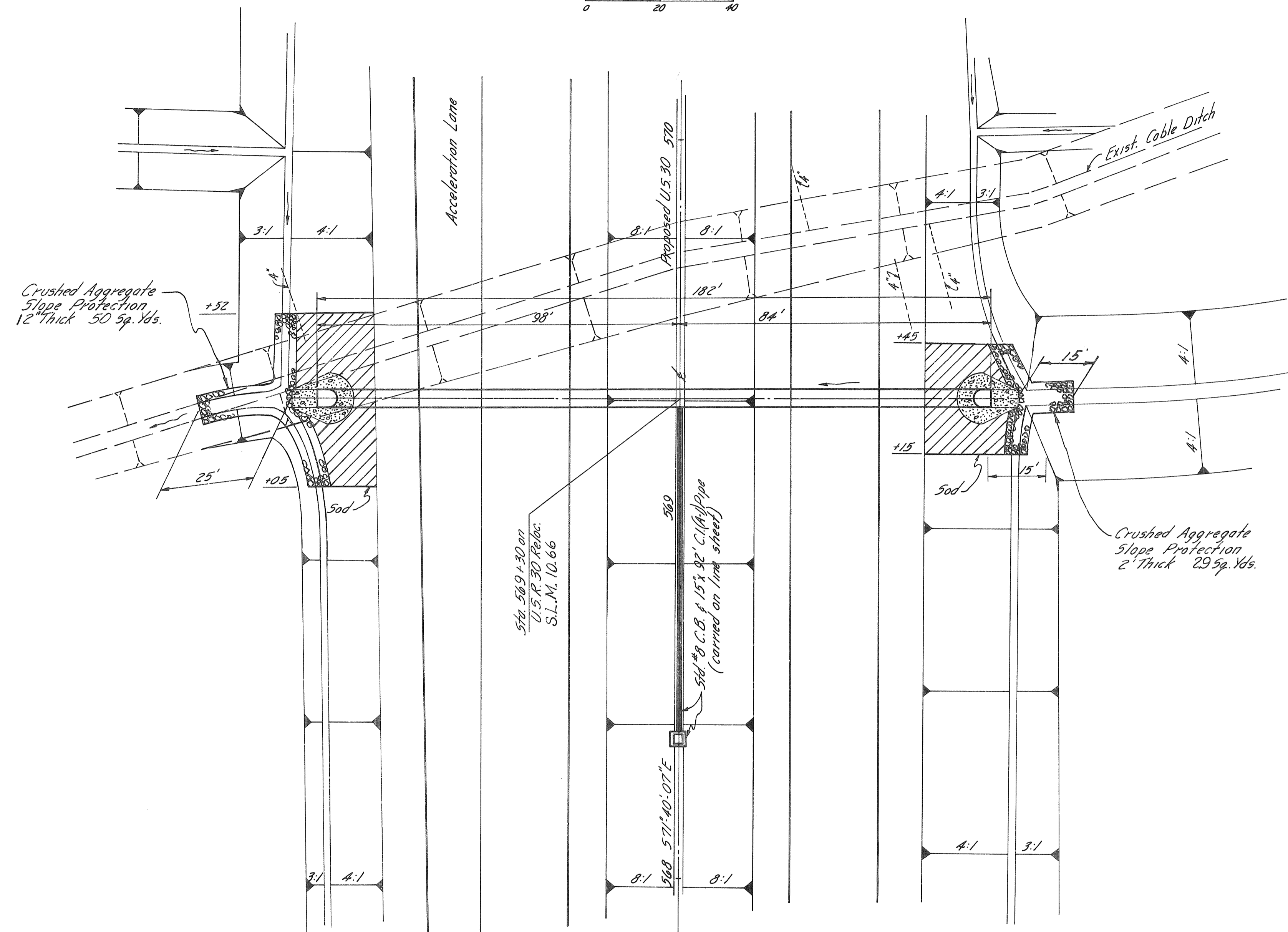
Estimated Quantities Carried on Main Line Sheet No. 51



**STRUCTURE NO. 15-C**

Sta. 569+30 U.S.R. 30

Scale: 0 20 40 Feet



CHANNEL EXCAVATION "E-3"

Station	End Area		Volume	
	CUT	FILL	CUT	FILL
Sta. 5+48	0	0		
763.92 Sta. 5+37 768.3	94	0	19	0
Corr. Lt. Sta. 3+75 to Sta. 4+10			843	0
763.96 Sta. 3+35 768.4	97	0		
Sta. 3+35, Back	0	0		
764.07 Sta. 1+38 768.4	92	0		
Sta. 1+38, Ahead	0	0		
4:1 764.10 Sta. 0+90 768.4	91	0	164	0
Sta. 0+70	0	0		34
Total Cu. Yds.			1060	0

\*Quantities carried on Line Sheet No. 52

Drainage Area 245 Acres  
 $Q_{25} = 0.65 \times 0.25 \times 1.00 \times 320$   
 $Q_{25} = 52 \text{ c.f.s.}$

**ESTIMATED QUANTITIES**

I-1	48" Reinforced Concrete Pipe, C.I. (A-1) Sec. M-6.6(a)	182	Lin. Ft.
I-10	Rip Rap, 6" Reinforced Concrete	37.98	Sq. Yds.
I-10	Crushed Aggregate Slope Protection -12" Thick	79	Sq. Yds.
L-10	Sodding	132	Sq. Yds.

Quantities carried on line sheet No. 52

**WORK REQUIRED**  
 Excavate for Structure as per plan. Construct 48x182" Reinforced Concrete Pipe, C.I. (A-1) Sec. M-6.6(a). Place riprap end protection, sod and Crushed Aggregate Slope Protection.

Standard Drawing I-1

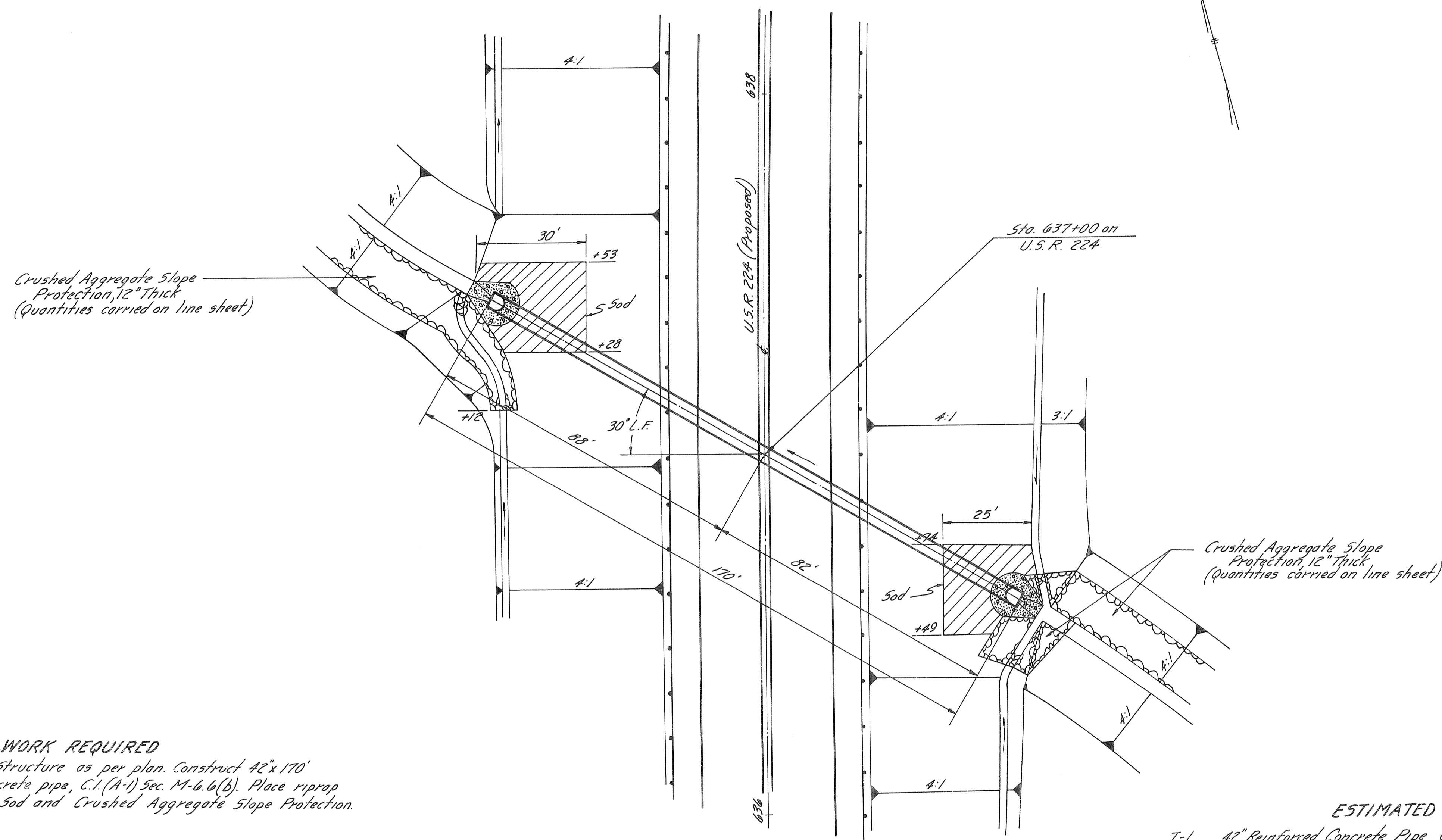
**CHANNEL RELOCATION CABLE DITCH**

Scale: 0 25 30 Feet

### STRUCTURE NO. 16-C

Sta. 637+00, U.S.R. 224

Scale: 0 10 20 40 Feet



Crushed Aggregate Slope Protection, 12" Thick (Quantities carried on line sheet)

Crushed Aggregate Slope Protection, 12" Thick (Quantities carried on line sheet)

#### WORK REQUIRED

Excavate for structure as per plan. Construct 42' x 170' Reinforced Concrete pipe, C.I. (A-1) Sec. M-6.6(b). Place riprap end protection, sod and Crushed Aggregate Slope Protection.

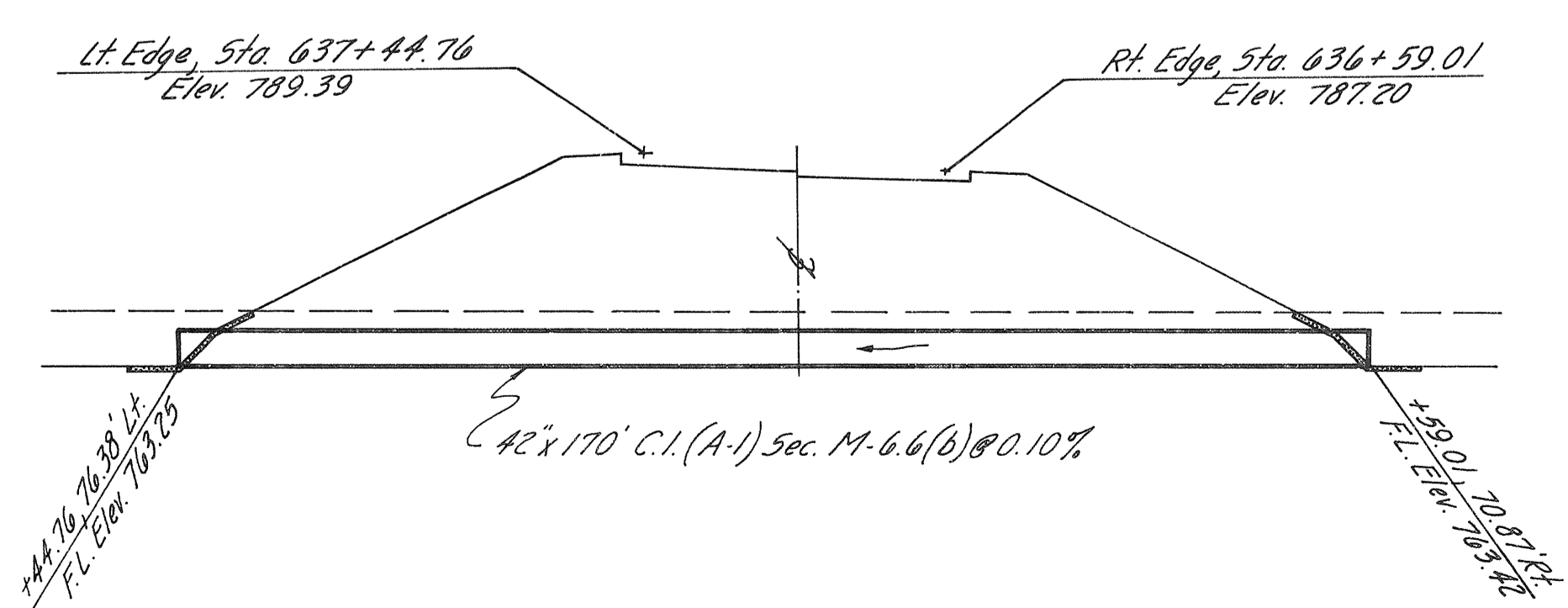
Standard Drawing I-1

Drainage Area 175 Acres  
 $Q_{25} = 0.65 \times 0.25 \times 100 \times 281$   
 $Q_{25} = 46 \text{ c.f.s.}$

#### ESTIMATED QUANTITIES

I-1	42" Reinforced Concrete Pipe, C.I. (A-1) Sec. M-6.6(b)	170	Lin. Ft.
I-10	Riprap, 6" Reinforced Concrete	29.36	Sq. Yds.
L-10	Sodding	117	Sq. Yds.

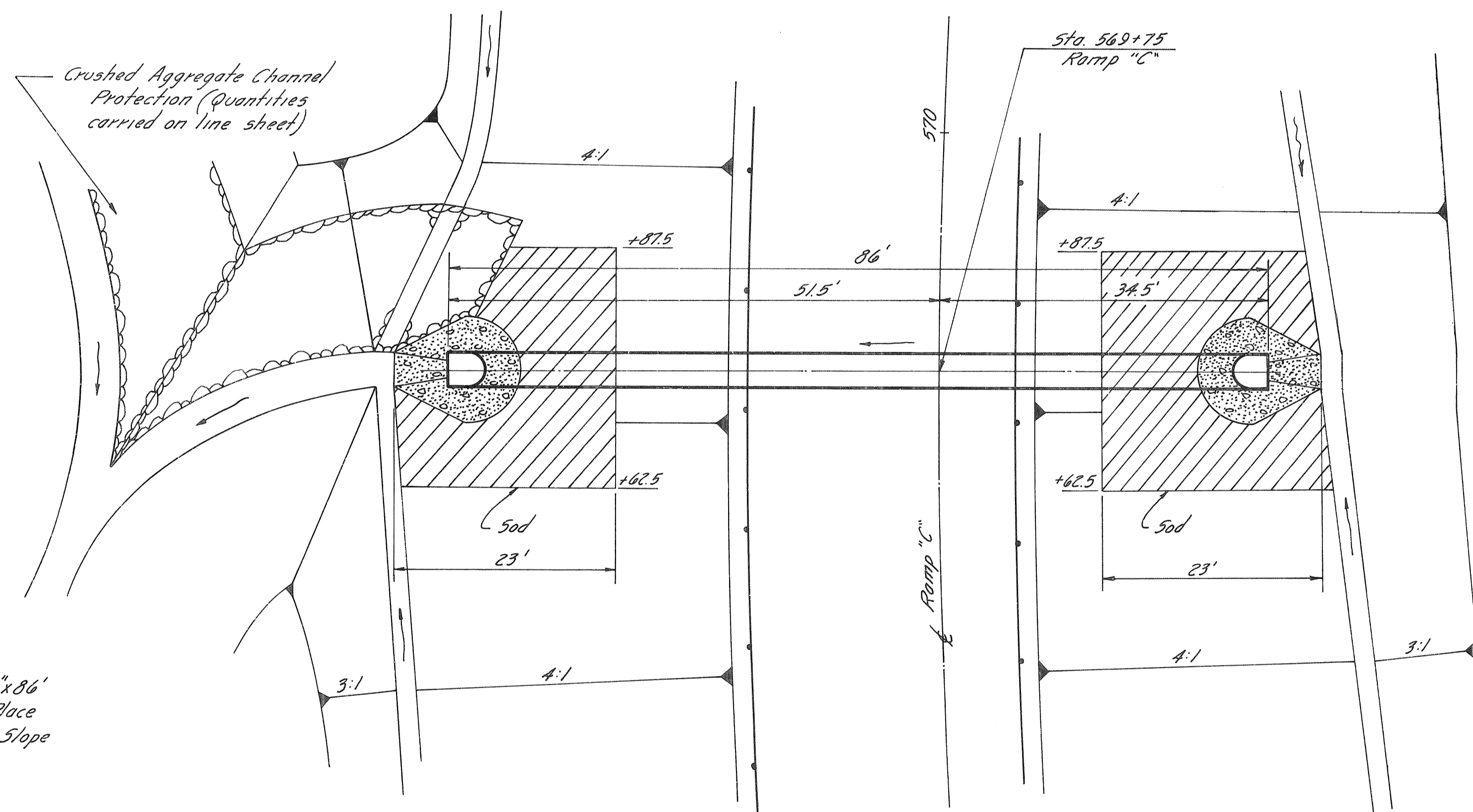
Quantities carried on line sheet No. 241



**STRUCTURE NO. 17-C**

Sta 569+75, Ramp "C"

Scale: 0 5 10 20 Feet



**WORK REQUIRED**  
Excavate for Structure as per plan. Construct 36" x 86' reinforced concrete pipe, C.I. (A-1) Sec. M-6.6(b). Place riprap end protection, sod and Crushed Aggregate Slope Protection.

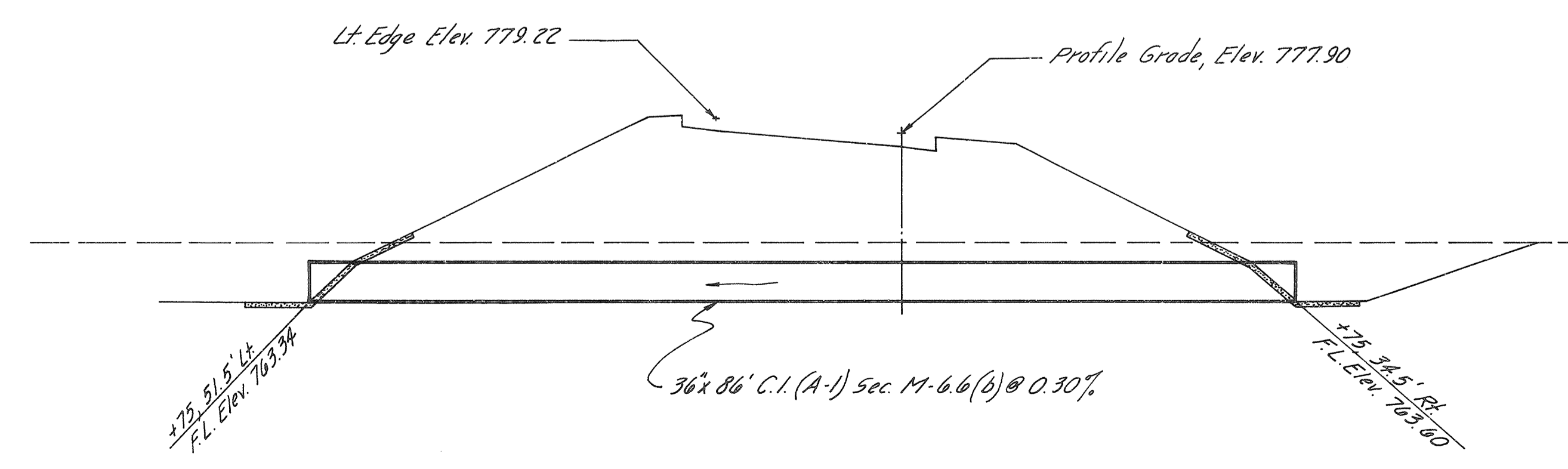
Standard Drawing I-1

Drainage Area 70 Acres  
 $Q_{25} = 0.65 \times 0.25 \times 1.00 \times 150$   
 $Q_{25} = 24 \text{ c.f.s.}$

**ESTIMATED QUANTITIES**

I-1	36" Reinforced Concrete Pipe, C.I. (A-1) Sec. M-6.6(b)	86	Lin. Ft.
I-10	Rip Rap, 6" Reinforced Concrete	21.84	Sq. Yds.
L-10	Sodding	100	Sq. Yds.

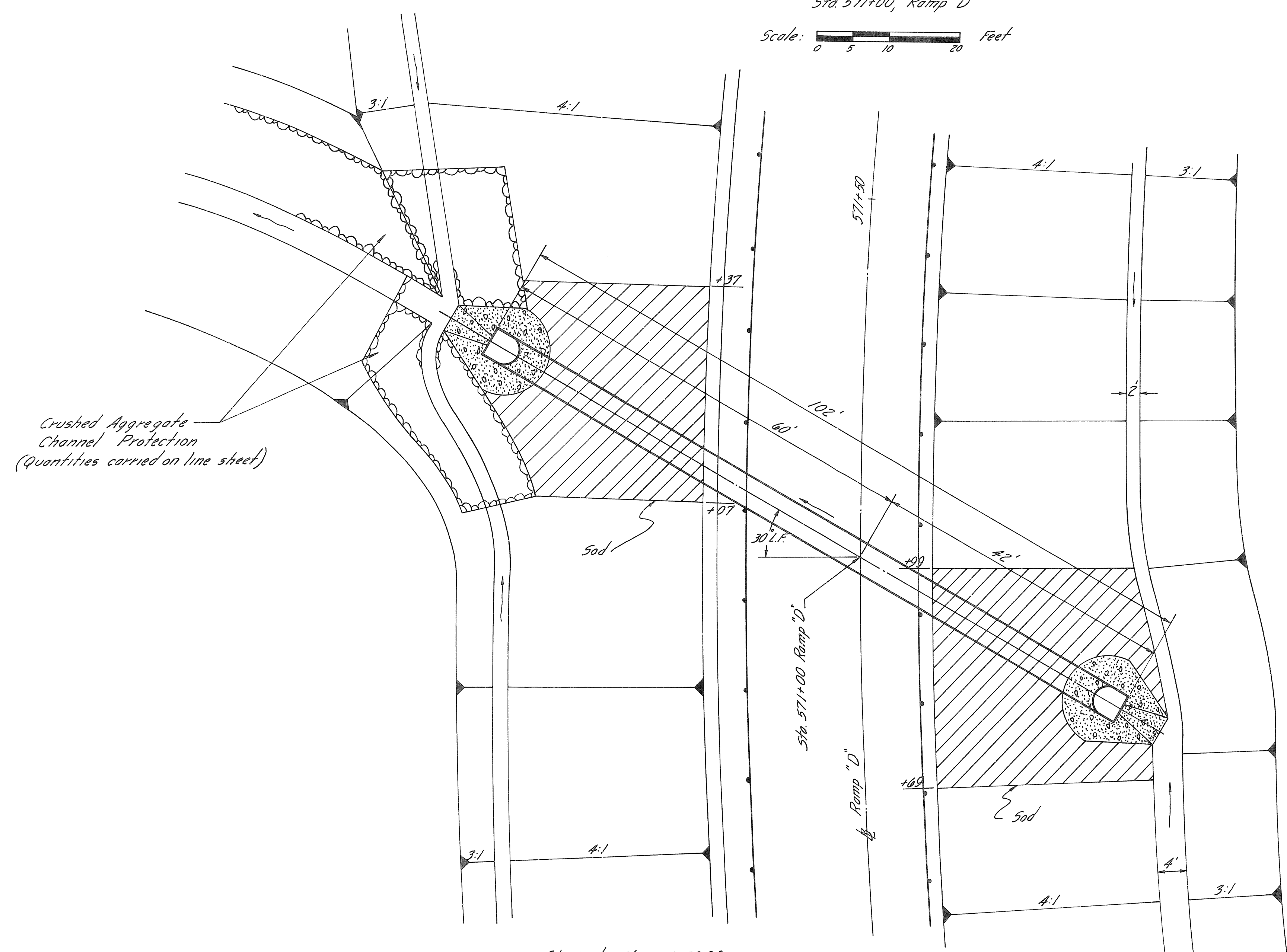
Quantities carried on Line Sheet No. 241



### STRUCTURE NO. 18-C

Sta 571+00, Ramp "D"

Scale: 0 5 10 20 Feet



**WORK REQUIRED**  
Excavate for Structure as per plan. Construct 42"x102" Reinforced Concrete Pipe C.I. (A-1) Sec. M-6.6(b). Place riprap and Protection, sod and Crushed Aggregate Slope Protection.

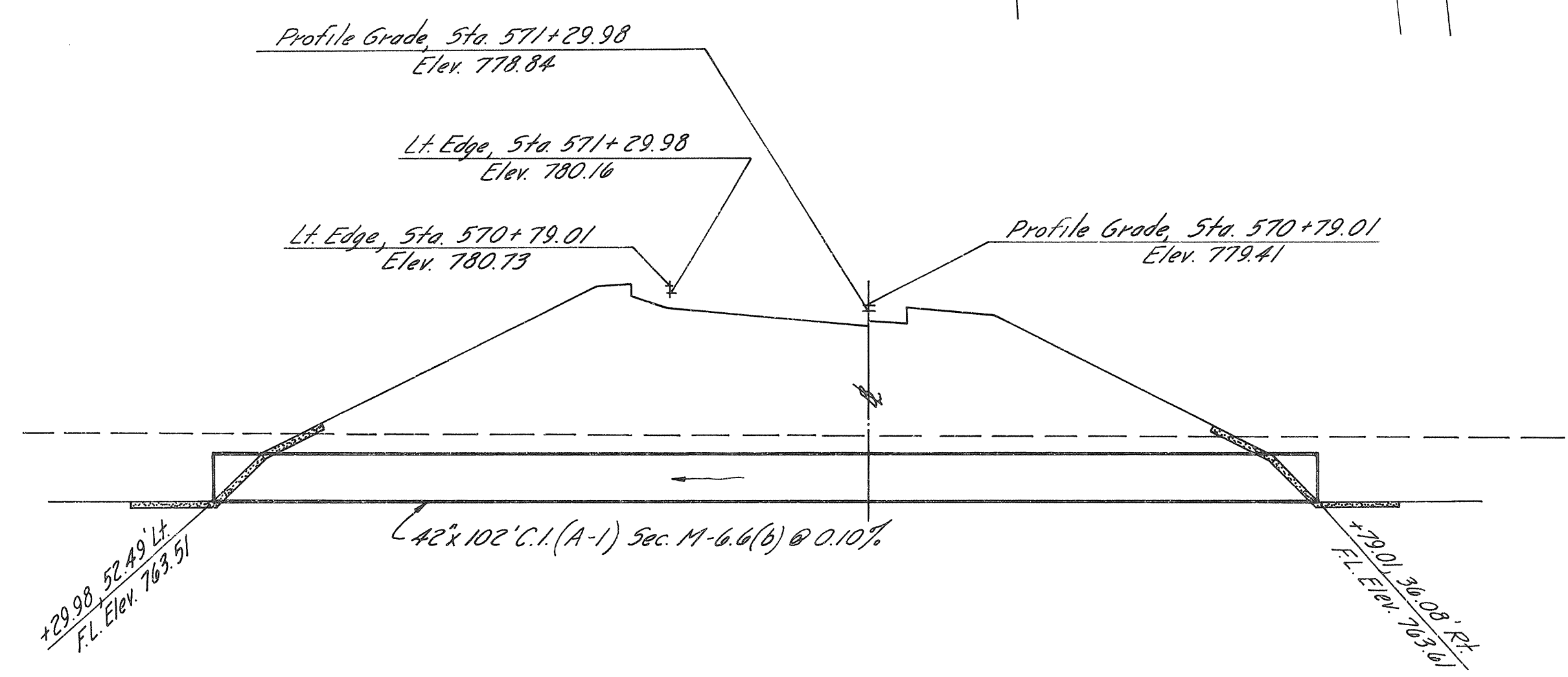
Standard Drawing I-1

Drainage Area 175 Acres  
 $Q_{25} = 0.65 \times 0.25 \times 1.00 \times 281$   
 $Q_{25} = 46 \text{ c.f.s.}$

**ESTIMATED QUANTITIES**

I-1	42" Reinforced Concrete Pipe, C.I. (A-1) Sec. M-6.6(b)	102	Lin. Ft.
I-10	Rip Rap, 6" Reinforced Concrete	29.36	Sq. Yds.
L-10	Sodding	170	Sq. Yds.

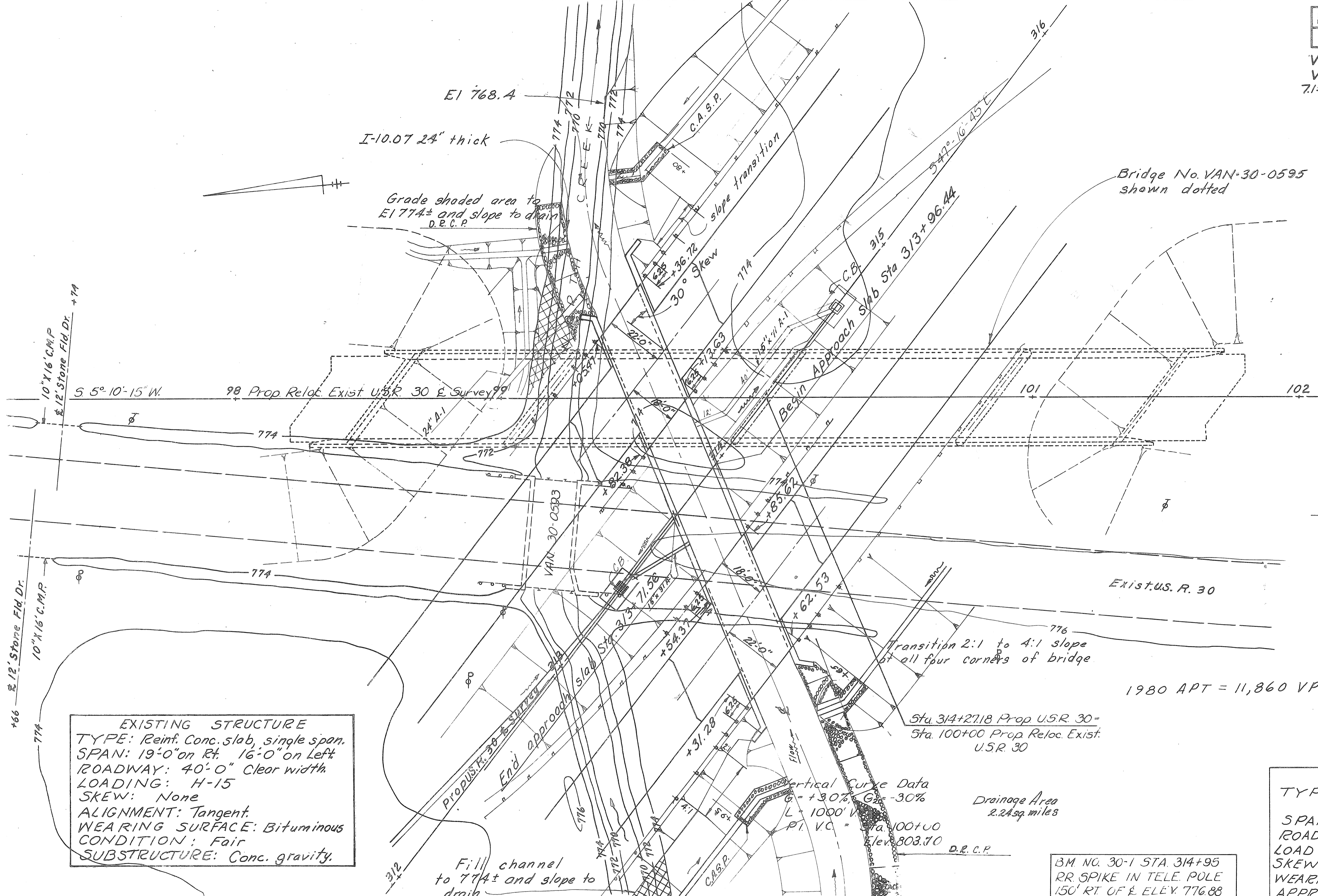
Quantities carried on line sheet NO. 241



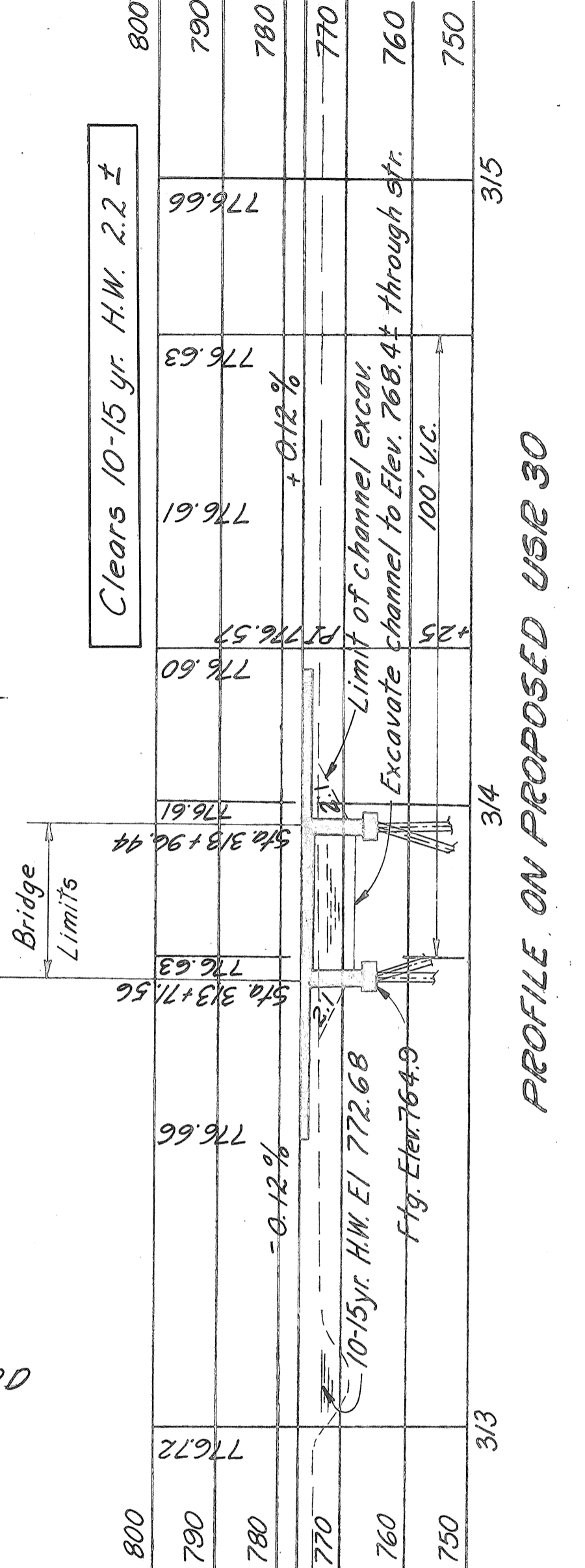
MICROFILMED  
MAY 23 1995

FED. RD. DIVISION	STATE	PROJECT	308
2	OHIO	66 F-STATE	

VAN WERT COUNTY  
VAN-30-4.06  
7.1± Miles West of Van Wert.



**EXISTING STRUCTURE**  
 TYPE: Reinf. Conc. slab, single span.  
 SPAN: 19'-0" on Rt. 16'-0" on Left  
 ROADWAY: 40'-0" Clear width  
 LOADING: H-15  
 SKEW: None  
 ALIGNMENT: Tangent  
 WEARING SURFACE: Bituminous  
 CONDITION: Fair  
 SUBSTRUCTURE: Conc. gravity.



PROFILE ON PROPOSED USE 30

BM NO. 30-1 STA. 314+95  
RR SPIKE IN TELE POLE  
150' RT OF E ELEV 776.88

**PROPOSED STRUCTURE**  
 TYPE: Single span reinf. conc. slab with reinf. conc. abutments.  
 SPAN: 22'-0" face to face of abutments.  
 ROADWAY: Two @ 40'-0" P & G.R.  
 LOAD FREQUENCY: CF = 2000 (57)  
 SKEW: 30°00' left forward.  
 WEARING SURFACE: 1" Mondithic conc.  
 APPROACH SLABS: AS-1-54 (25' long)  
 ALIGNMENT: Tangent.

820	792.82	793.33	793.50		795.00	795.28	795.52	795.73	795.90	796.03	796.12	796.18	796.20	796.18	795.90
810															
800															
790															
780															
770															
760															

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
BUREAU OF BRIDGES

**SITE PLAN**

BRIDGE NO. VAN-30-0594 L & R  
OVER North Creek  
VAN WERT CO. USR 30  
SEC. VAN-30-4.06 STA. 313+71.56  
SCALE 1" = 20' 313+96.44

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
		J.F.B.	J.F.B.	W	P.E. &

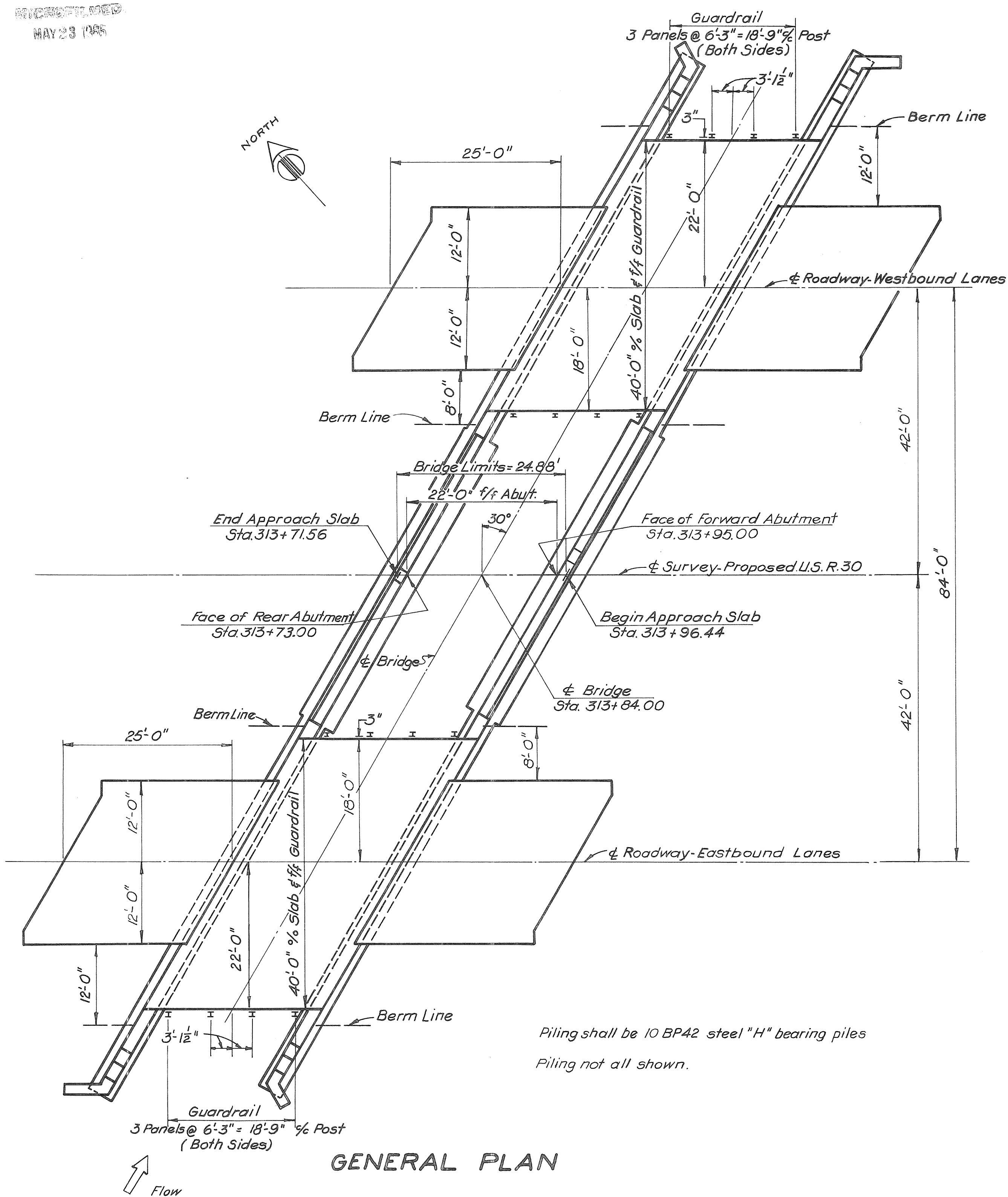
BFG 11-9-64.

RECEIVED  
MAY 23 1965

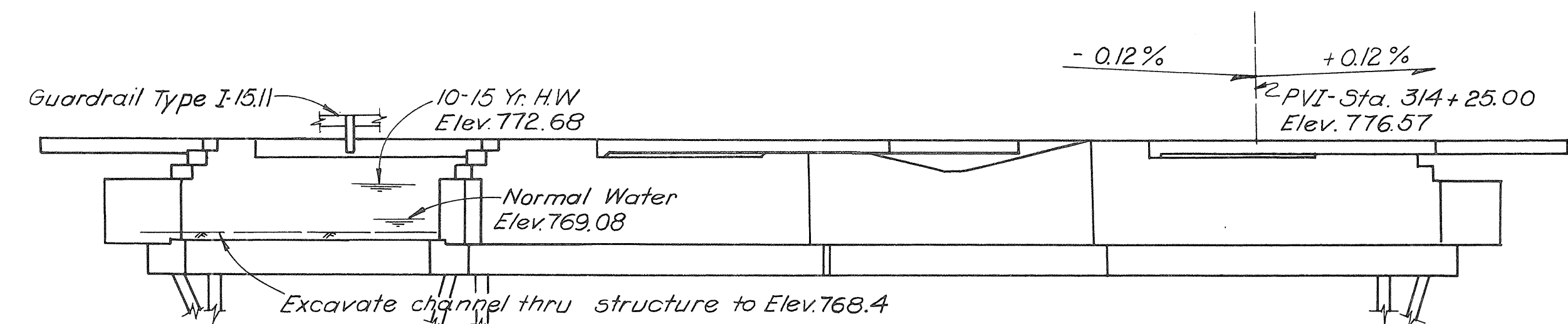
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

309

VAN WERT COUNTY  
VAN-30-406



GENERAL PLAN



ELEVATION

Piling shall be 10 BP42 steel "H" bearing piles  
Piling not all shown.

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Super.	Abuts.	Retaining Wall	Gen'l
E-2	Lump	Sum	Cofferdams, cribs and sheeting				Lump
E-2	391	Cu. Yds.	Unclassified excavation		258	193	
E-3	3501	Cu. Yds.	Channel excavation				3501
S-1	101	Cu. Yds.	Class "C" concrete, superstructure	101			
S-1	172	Cu. Yds.	Class "E" concrete, abutment and retaining walls		133	39	
S-1	152	Cu. Yds.	Class "E" concrete, footings		97	55	
S-3	12	Sq. Yds.	Type "B" waterproofing		6	6	
S-3	46	Lin. Ft.	Waterproofing, premolded sealing strip		32	14	
S-4	39,147	Lbs.	Reinforcing steel	21,944	11,145	6058	
S-9	23	Sq. Ft.	1/2" Preformed expansion joint filler		23		
S-9	59	Sq. Ft.	1" Preformed expansion joint filler			59	
S-14	99.52	Lin. Ft.	Railing (Type I-15.11 with galvanized steel posts and bolts)	99.52			
S-16	Lump	Sum	First test pile				Lump
S-18	920	Lin. Ft.	Steel piles, 10 BP42		700	220	
S-24	Lump	Sum	Removal of existing structure				Lump
S-29	125	Cu. Yds.	Porous backfill		96	29	
S-101	101	Each	Water-reducing, set-retarding admixture	101			
I-10	460	cu. yd.	Dumped Rock Channel Protection				460

GENERAL NOTES

REFERENCE shall be made to Standard Drawing SB-1-64, Sheet No 1 dated 8-25-64, and to Supplemental Specification S-101 dated 7-12-62.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof.

PILES shall be driven to a minimum bearing capacity of 27 tons per pile.

REMOVAL OF EXISTING STRUCTURE: When no longer needed to maintain traffic the existing structure shall be removed.

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

**GENERAL PLAN & ELEVATION, NOTES, AND ESTIMATED QUANTITIES**

BRIDGE No. VAN-30-0594 L&R  
OVER NORTH CREEK

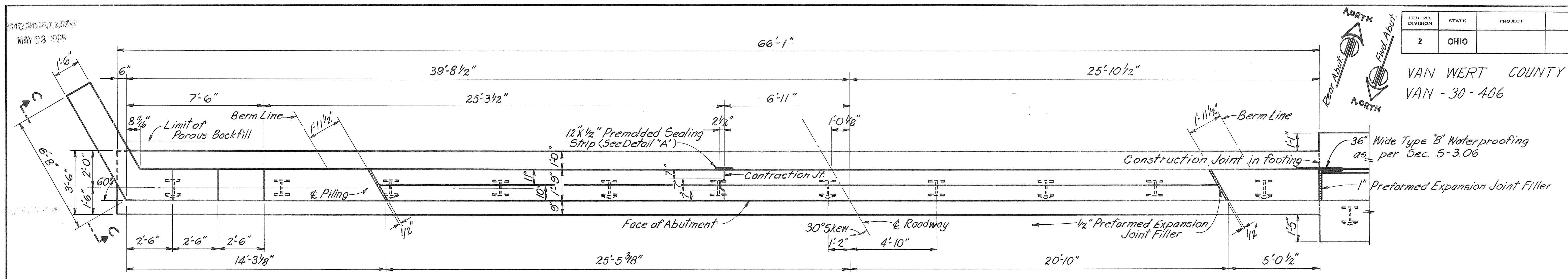
VAN WERT COUNTY  
STA. 313+71.56  
STA. 313+96.44

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JEF	E.F.	WCK	WCK	BFG	11-9-64	



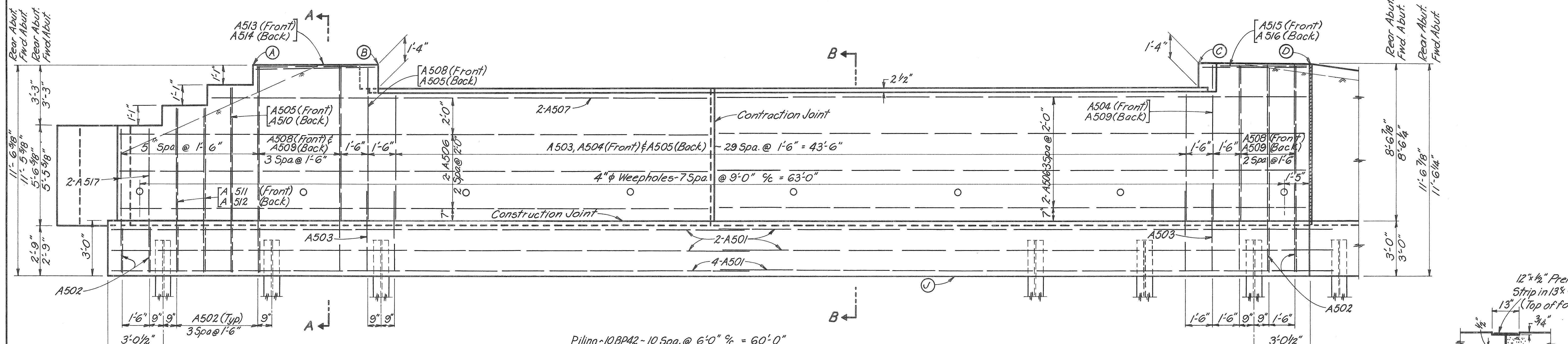
MAY 23 1965

VAN WERT COUNTY  
VAN - 30 - 406



**ABUTMENT PLAN**

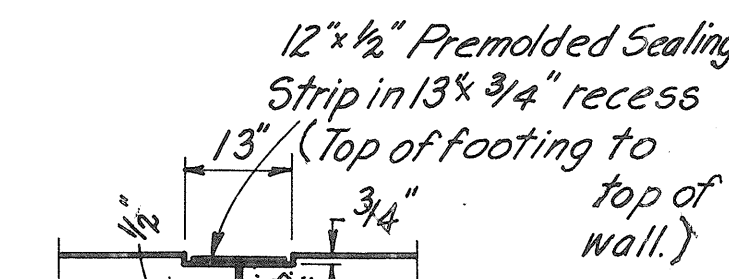
Rear Abutment - East bound Lanes  
Fwd. Abutment - West bound Lanes



**ABUTMENT ELEVATION**

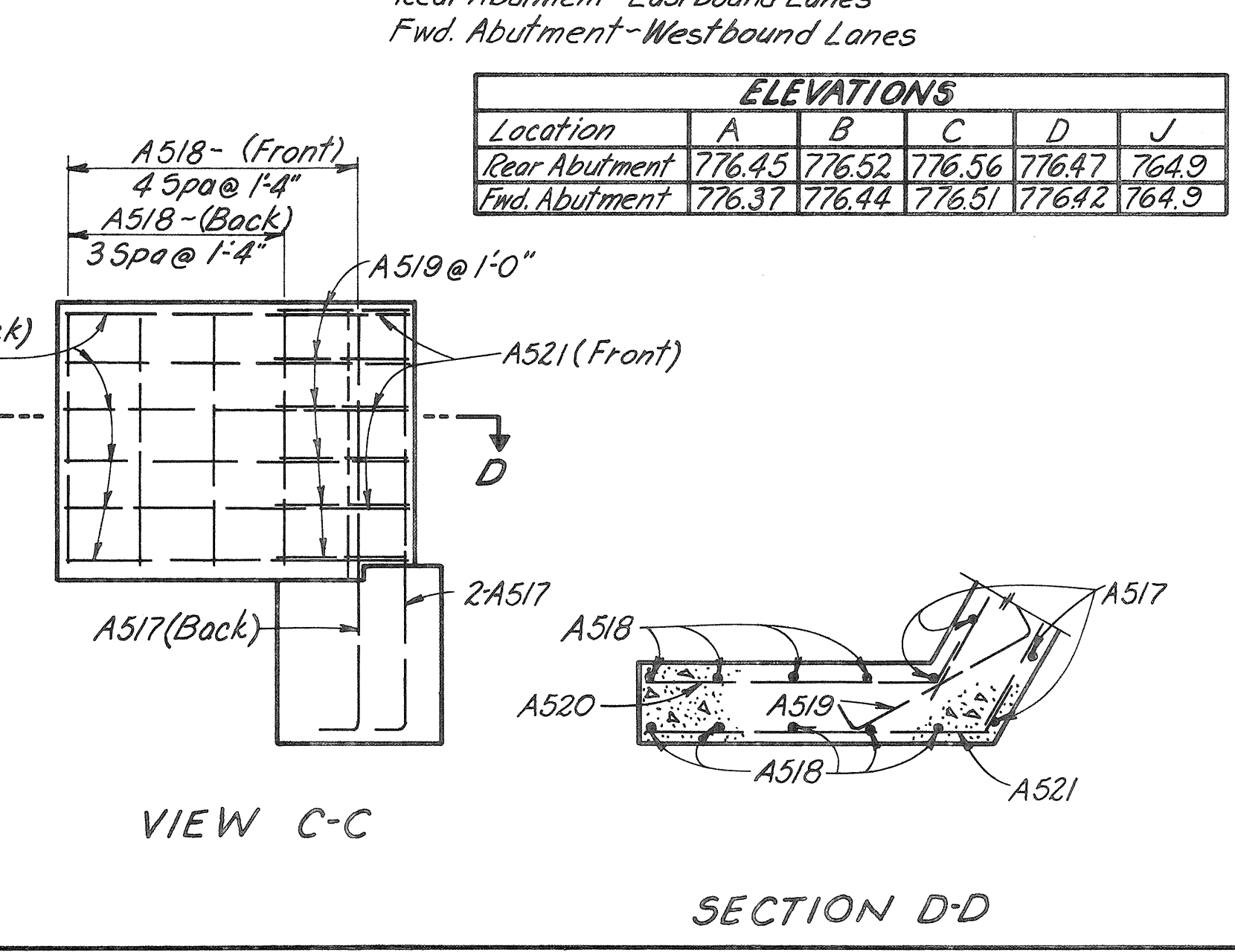
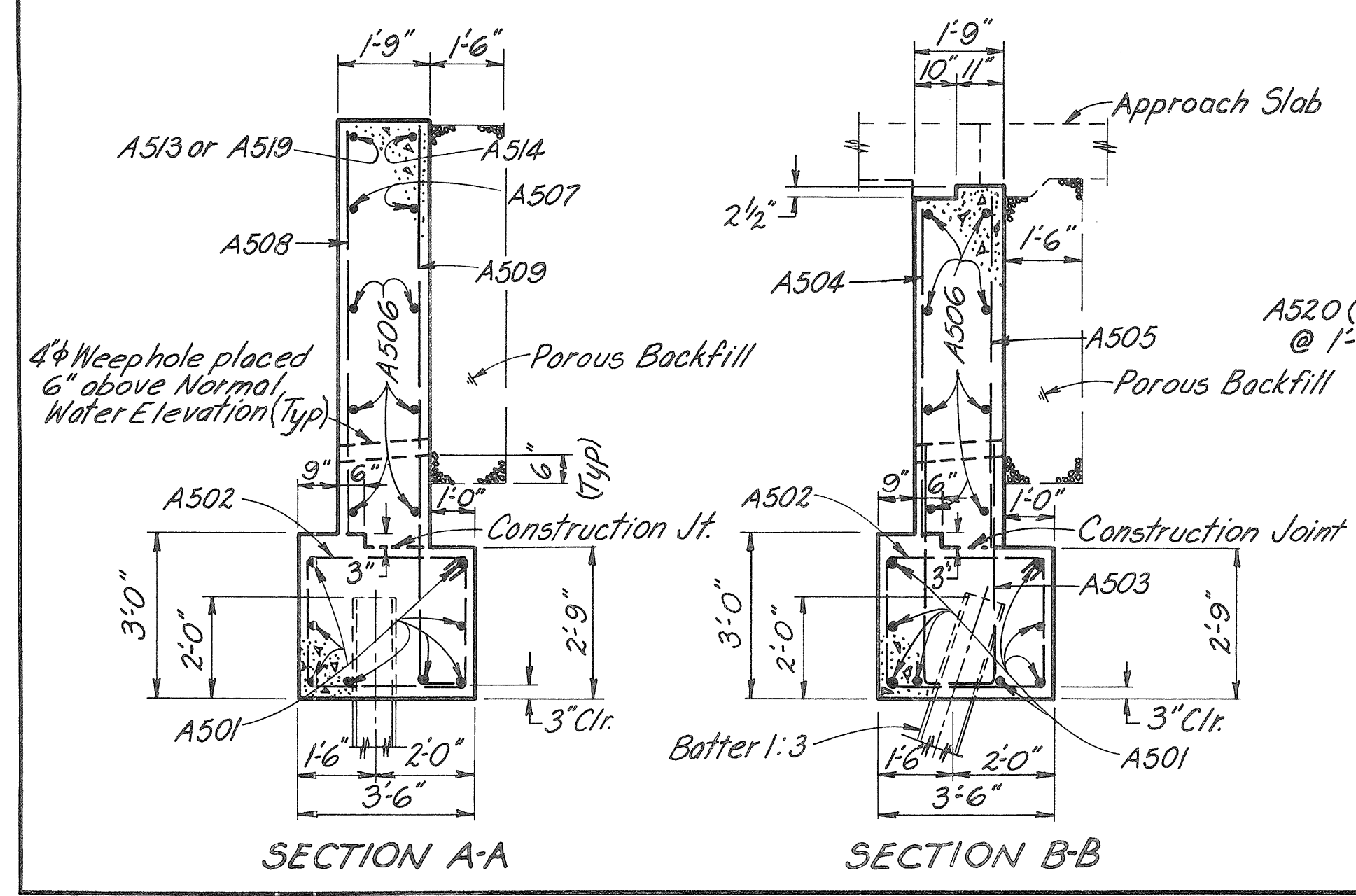
Rear Abutment - East bound Lanes  
Fwd. Abutment - West bound Lanes

ELEVATIONS					
Location	A	B	C	D	J
Rear Abutment	776.45	776.52	776.56	776.47	764.9
Fwd. Abutment	776.37	776.44	776.51	776.42	764.9



DETAIL "A"

PILE LEGEND	
	Battered
	Vertical



POROUS BACKFILL, 1'-6" thick, full length of abutments and retaining wall, shall extend from 6" below weepholes upward to the approach slab and to the finished ground surface. Backfill shall not be placed higher than Elev. 768.7± prior to placing deck slab.

PROCEDURE: Before the abutments and retaining walls are constructed the proposed channel slopes, within the limits of the abutments and retaining walls, shall have a 1:1 slope from the face of wall back to subgrade, after which excavation shall be made for the abutments and retaining walls.

CONCRETE shall be class "E".

STATE OF OHIO  
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DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

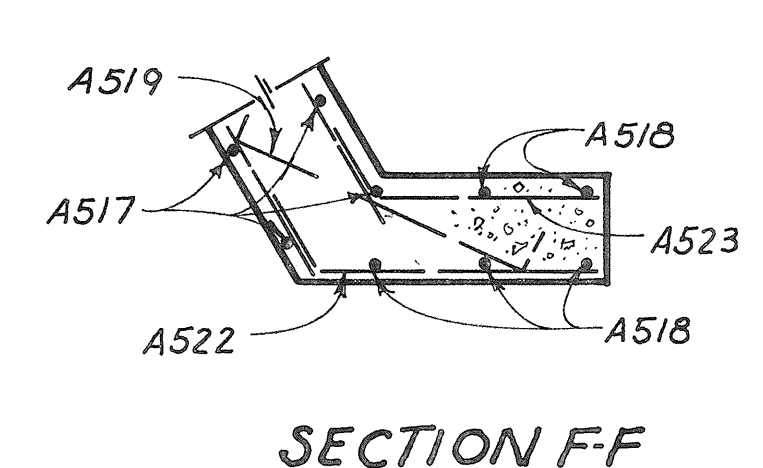
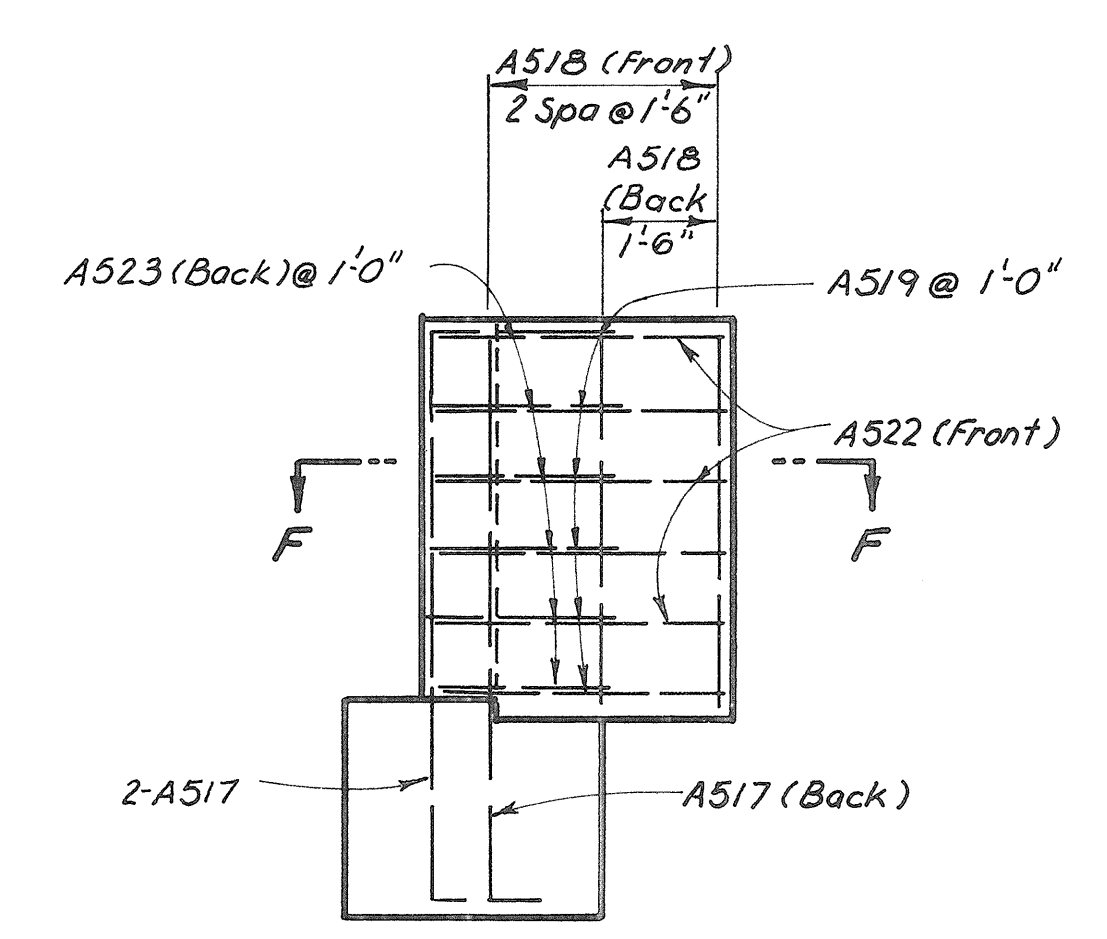
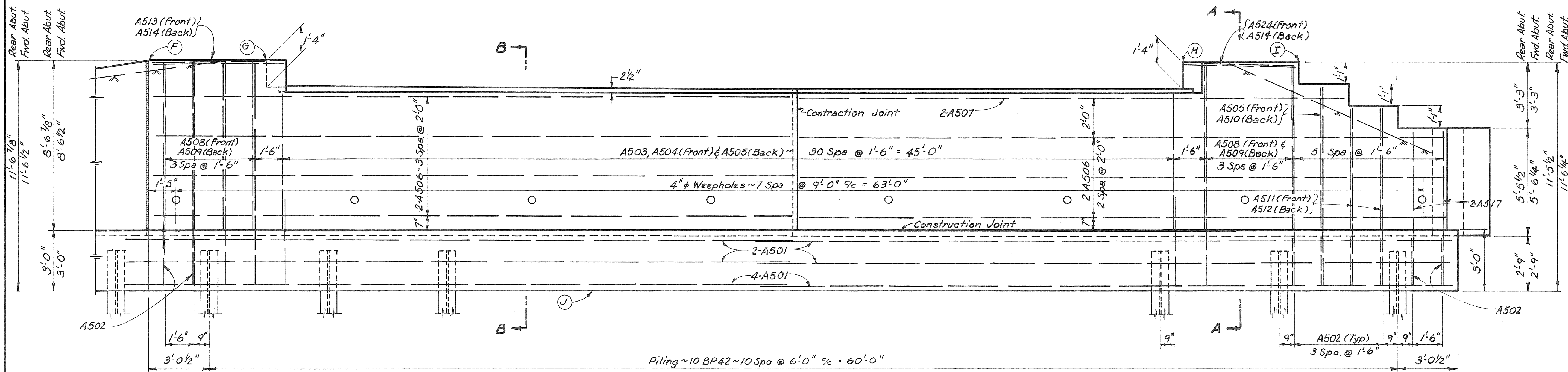
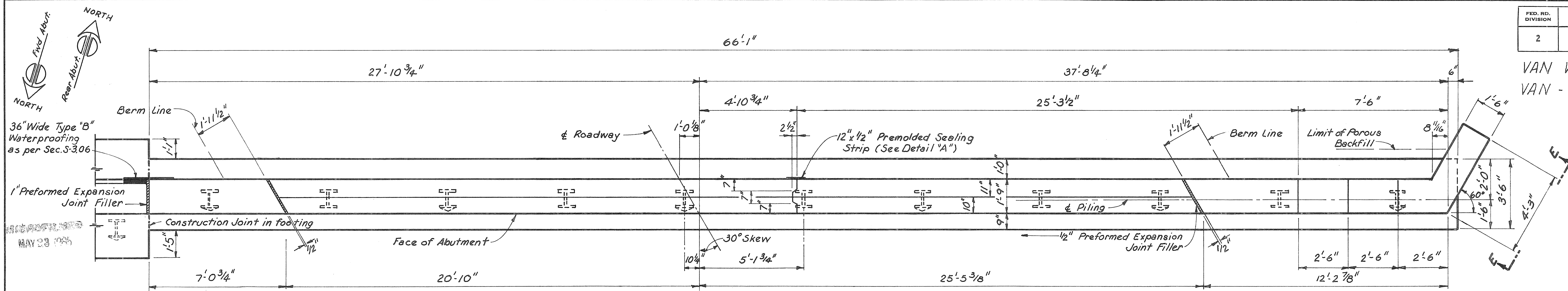
**ABUTMENT DETAILS**

BRIDGE No. VAN-30-0594 L&R  
OVER NORTH CREEK

VAN WERT COUNTY STA. 313+71.56  
STA. 313+96.44

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J E F	J E F	H	WCK	BFG	11-9-64	

VAN WERT COUNTY  
VAN - 30 - 406



ELEVATIONS					
Location	F	G	H	I	J
Rear Abutment	776.47	776.53	776.45	776.36	764.9
Fwd. Abutment	776.44	776.53	776.49	776.42	764.9

ADDITIONAL DETAILS: For additional details and notes and for Sections A-A & B-B and Detail "A" see ABUTMENT DETAILS, Sheet No. 310

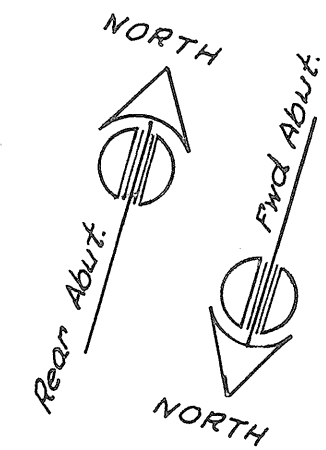
STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

**ABUTMENT DETAILS**  
BRIDGE No. VAN-30-0594 L&R  
OVER NORTH CREEK

VAN WERT COUNTY STA 313+71.56  
STA. 313+96.44

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J E F	J E F	J V R	WCK	BFG	11-9-64	

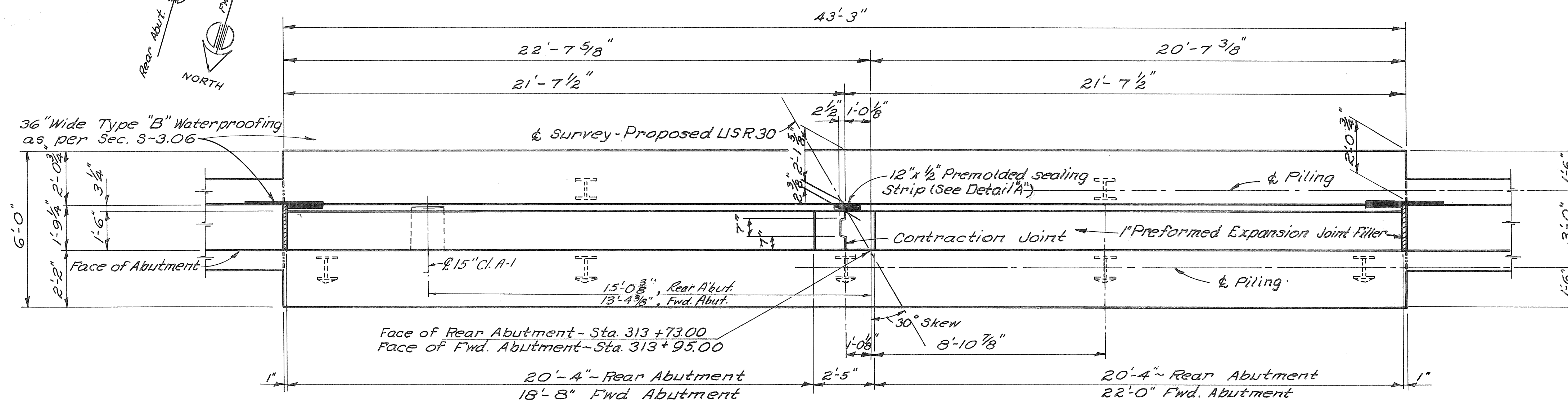
STICKFILMED  
MAY 23 1965



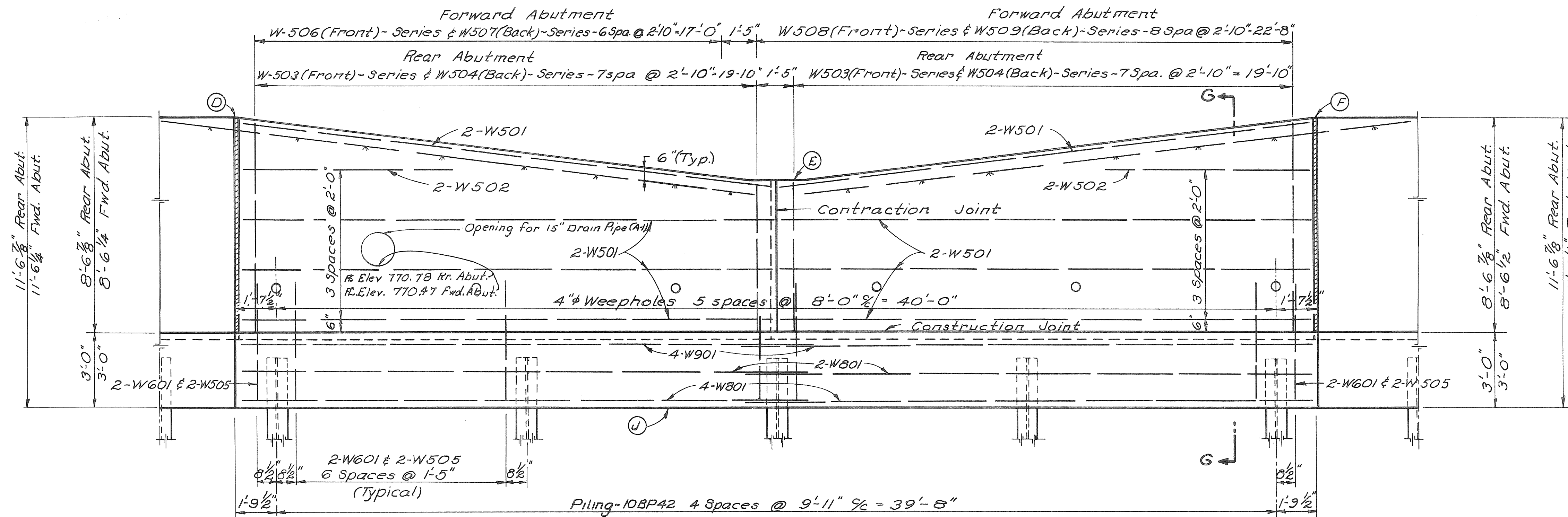
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

312

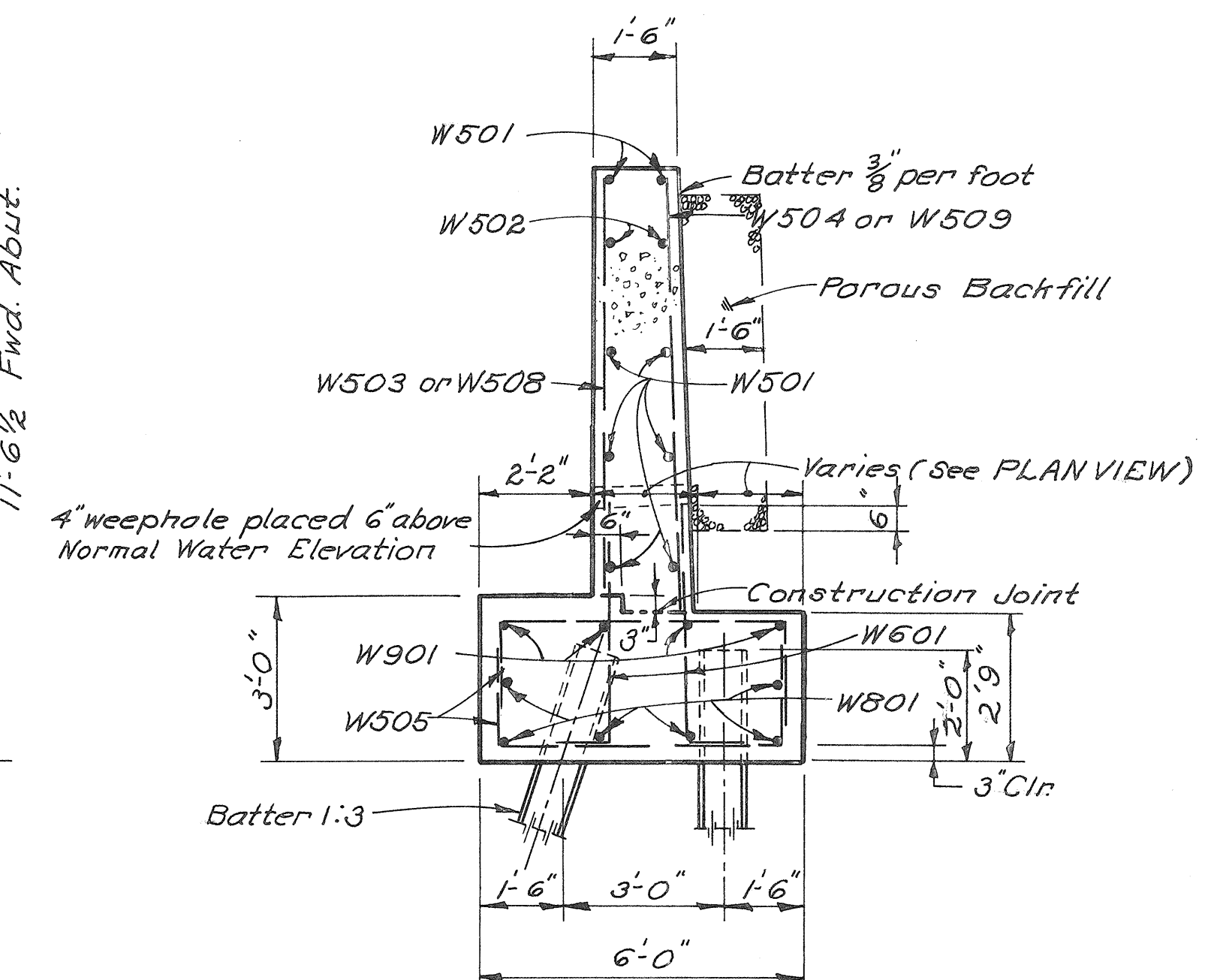
VAN WERT COUNTY  
VAN - 30 - 406



ABUTMENT WALL PLAN



ABUTMENT WALL ELEVATION



SECTION GG

ELEVATIONS				
Location	D	E	F	J
Rear Abutment	776.47	773.93	776.47	764.9
Fwd Abutment	776.42	773.92	776.44	764.9

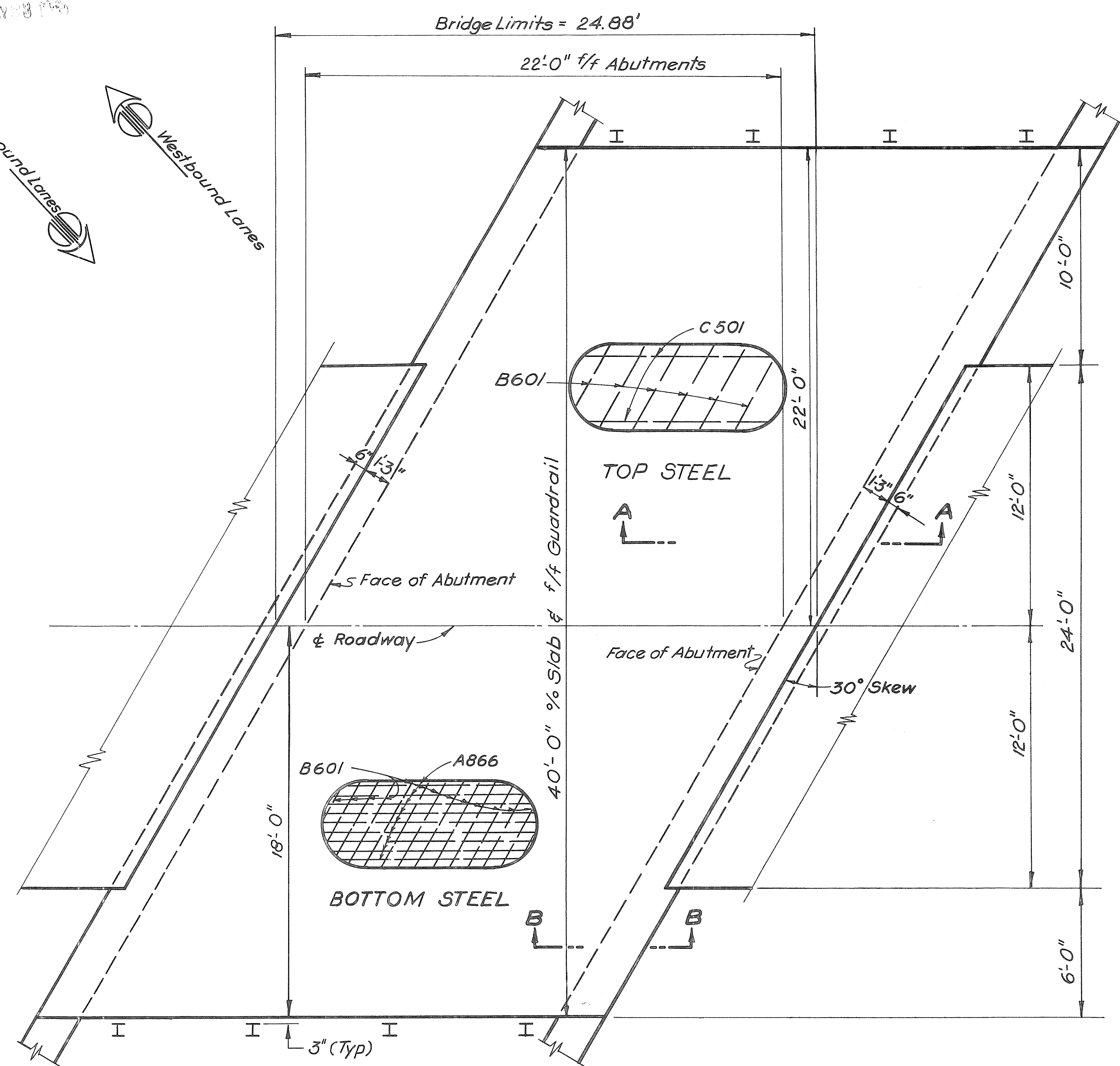
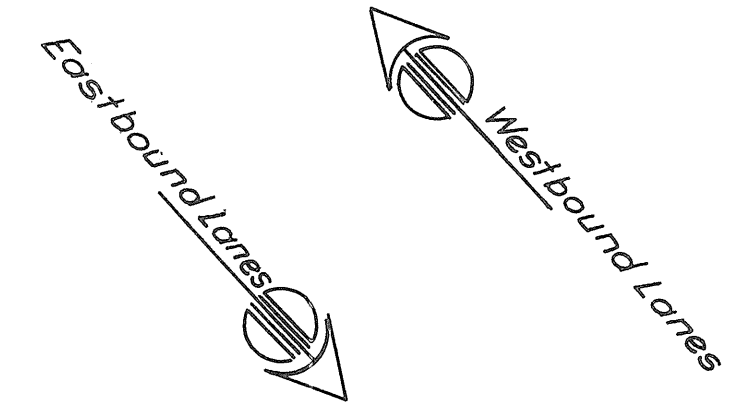
ADDITIONAL NOTES & DETAILS: For additional notes and details see ABUTMENT DETAILS Sheet No.310  
CONCRETE shall be Class "E"

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

**RETAINING WALL DETAILS**  
BRIDGE No. VAN-30-0594 L & R  
Over NORTH CREEK  
VAN WERT COUNTY STA. 313+71.56  
STA. 313+96.44

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J E F	J E F	P.K.I.	WCK	BFG	11-9-64	

MAY 8 1965



Section A-A, Section B-B and other superstructure details are shown on Standard Drawing SB-1-64, Sheet 1

SLAB THICKNESS is 15 3/4" which includes 1" for monolithic wearing surface.

**SUPERSTRUCTURE PLAN**

REINFORCING STEEL LIST										
MARK	No.	LENGTH	WEIGHT	SHR	BENDING DIAGRAMS	MARK	No.	LENGTH	WEIGHT	SHR
<b>Superstructures</b>						<b>Retaining Walls (Cont'd)</b>				
A866	190	26'-8"	13,528	B		W503 <sup>sets of</sup> 2 to 8 3" 117 S varies by increments of 4 1/4"				
B601	216	23'-9"	7,705	S		W504 <sup>sets of</sup> 8 to 8 6-6" 121 S varies by increments of 4 1/4"				
C501	28	24'-4"	711	S		W505 120 9'-5" 1179 B				
<b>Abutments</b>						W506 <sup>sets of</sup> 1 to 8'-4" 52 S varies by increments of 5"				
A501	64	34'-7"	2308	S		W507 <sup>sets of</sup> 1 to 8'-7" 54 S varies by increments of 5"				
A502	176	11'-5"	2096	B		W508 <sup>sets of</sup> 1 to 8'-4" 67 S varies by increments of 3 3/4"				
A503	126	9'-4"	1227	B		W509 <sup>sets of</sup> 1 to 8'-7" 69 S varies by increments of 3 3/4"				
A504	124	6'-9"	873	S		RE901 1 6'-10" — S				
A505	128	7'-2"	957	S		RE801 1 6'-6" — S				
A506	56	32'-5"	1893	S		RE601 1 5'-11" — S				
A507	8	27'-5"	229	S		RE501 1 5'-7" — S				
A508	32	8'-3"	275	S						
A509	30	11'-8"	365	B						
A510	4	10'-5"	43	B						
A511	8	6'-1"	51	S						
A512	8	9'-6"	79	B						
A513	4	6'-6"	27	S						
A514	6	5'-5"	34	S						
A515	2	4'-9"	10	S						
A516	2	5'-9"	12	S						
A517	16	8'-5"	140	B						
A518	28	5'-1"	148	S						
A519	24	5'-5"	136	B						
A520	12	7'-2"	90	B						
A521	6	7'-11"	50	B						
A522	6	5'-6"	34	B						
A523	12	4'-9"	59	B						
A524	2	4'-5"	9	S						
<b>Retaining Walls</b>										
W901	16	22'-11"	1247	S						
W801	24	22'-9"	1458	S						
W601	120	5'-1"	916	B						
W501	32	21'-2"	707	S						
W502	8	8'-6"	71	S						

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

**SUPERSTRUCTURE DETAILS  
AND REINFORCING STEEL LIST**  
BRIDGE No. VAN-30-0594 L&R  
OVER NORTH CREEK  
VAN WERT COUNTY STA. 313+71.56  
STA. 313+96.44

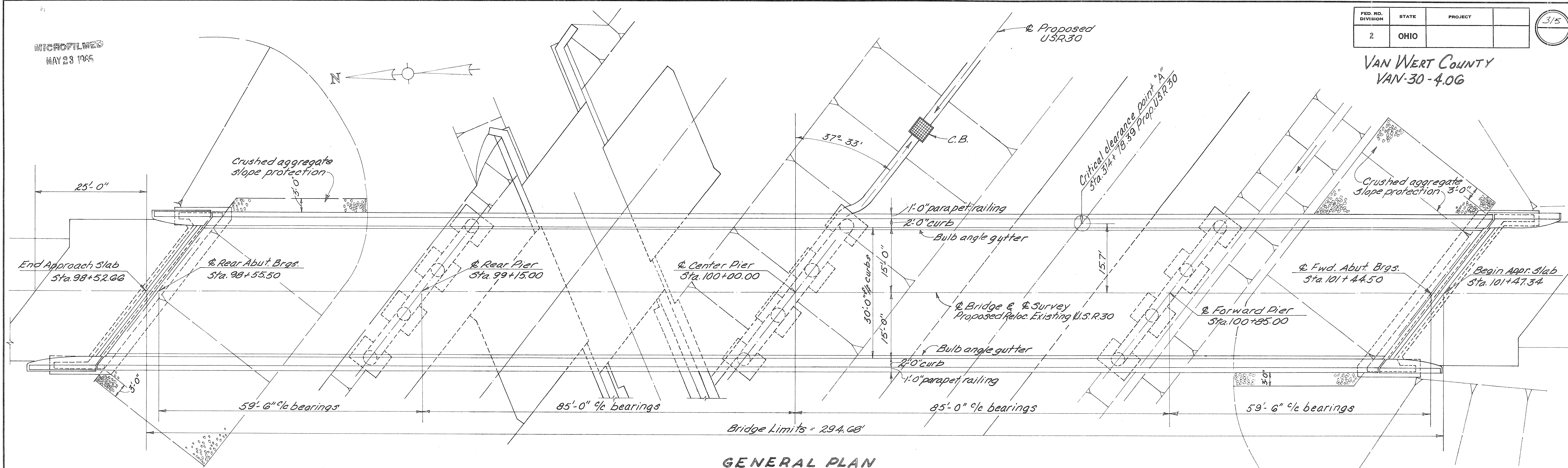
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J E F	J E F	M J	WCK	BFG	11-9-64	



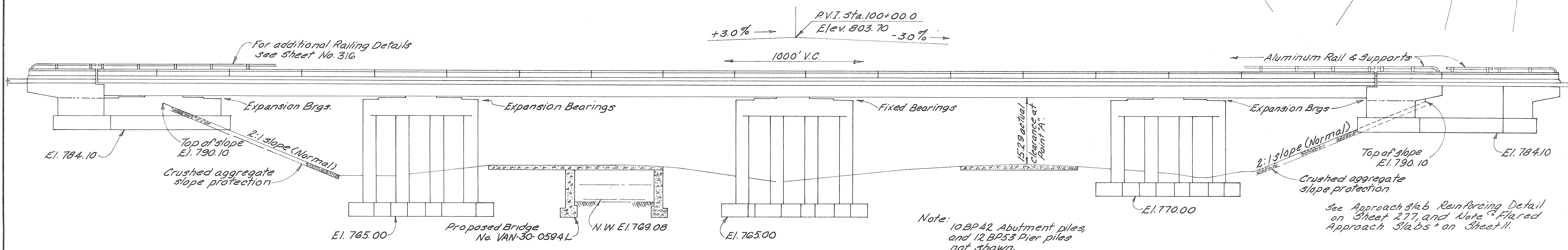
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MAY 23 1965

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		3/5

VAN WERT COUNTY  
VAN-30-4.06



GENERAL PLAN



ELEVATION

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Super.	Abut.	Piers	Gen'l.	As-Built	Item	Total	Unit	Description	Super.	Abut.	Piers	Gen'l.	As Built
E-2	Lump	Sum	Copper dams, cribs and sheeting				Lump		S-29	32	Cu. Yds.	Porous backfill					
E-2	590	Cu. Yds.	Unclassified excavation		272	318			S-29	16	Each	Scuppers, including supports		16			
S-1	347	Cu. Yds.	Class "C" concrete, superstructure	347					S-29	78	Lin. Ft.	6" Perforated Helical C.M.P. M-G.4(h) including specials.			78		
S-1	107	Cu. Yds.	Class "C" concrete, pier cap and columns			107			S-29	62	Lin. Ft.	6" Helical C.M.P. M-G.4(h) non-perforated			62		
S-1	167	Cu. Yds.	Class "E" concrete footings		77	90											
S-1	97	Cu. Yds.	Class "E" concrete abutments above footings.		97				S-101	347	Each	Water-Reducing, Set-Retarding admixture for concrete		347			
S-4	139,684	Lbs.	Reinforcing steel	93,381	12,877	33,426											
S-7	343,000	Lbs.	Structural steel	343,000													
S-8	343,000	Lbs.	Field painting of structural steel	343,000					I-10	470	Sq. Yds.	Crushed aggregate slope protection				470	
S-14	641.71	Lin. Ft.	Railing (Aluminum rail and supports, and concrete parapets)	583.04	58.67												
S-16	Lump	Sum	First test pile (12BP53)				Lump										
S-18	900	Lin. Ft.	Steel pile, 12BP53			900		163.21									
S-18	900	Lin. Ft.	Steel pile, 10BP42					140.30									

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

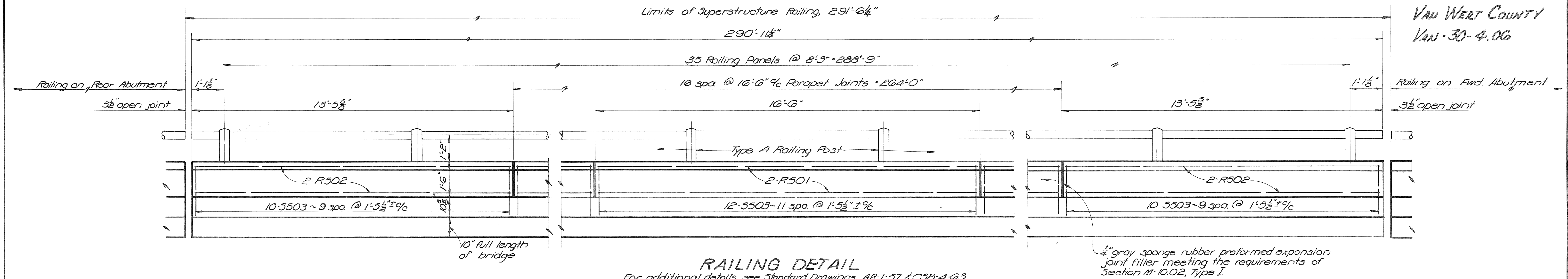
**GENERAL PLAN, ELEVATION AND ESTIMATED QUANTITIES**  
BRIDGE NO. VAN-30-0594L  
UNDER EXIST. USR30 RELOCATED

VAN WERT COUNTY STA 314+27.18

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JVG.	JVG.	JVG.	CPD	BFG	3-18-65	

MICROFILMED  
MAY 23 1965

VAN WERT COUNTY  
VAN-30-4.06

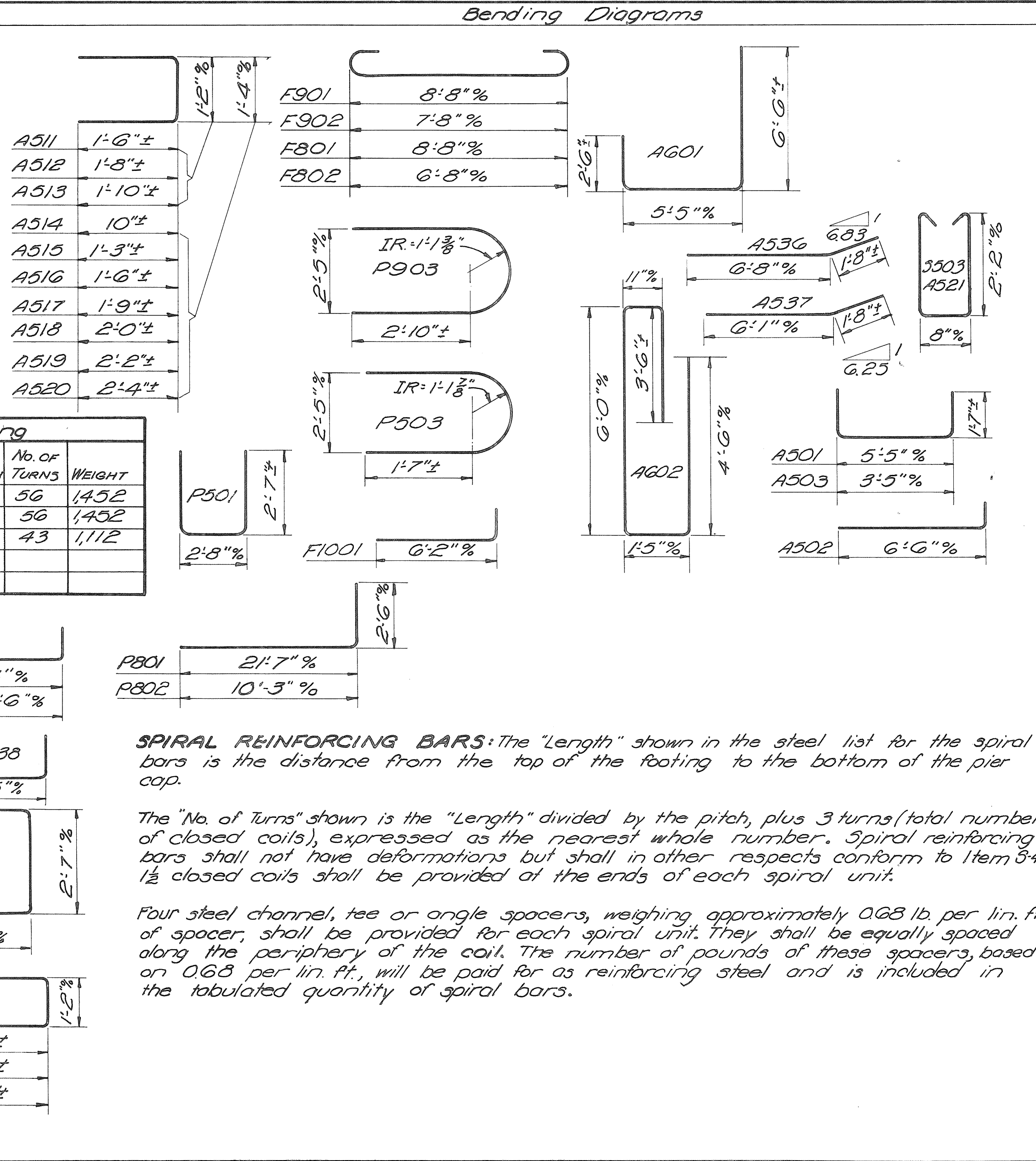


**RAILING DETAIL**

For additional details see Standard Drawings AR-1-57 of CSB-4-G3

**REINFORCING STEEL LIST**

MARK	No.	LENGTH	WEIGHT	SHA	MARK	No.	LENGTH	WEIGHT	SHA	MARK	No.	LENGTH	WEIGHT	SHA
<b>Abutments</b>														
AB01	28	25'-0"	1869	S										
AB02	6	12'-10"	206	S	F1001	132	7'-3"	4,118	B					
AB03	6	9'-8"	155	S										
AB04	6	13'-8"	219	S	F901	48	11'-2"	1,822	B					
AB05	6	7'-9"	124	S	F902	48	10'-2"	1,059	B					
<b>Piers</b>														
AG01	62	14'-1"	1,311	B	F801	48	10'-10"	1,388	B					
AG02	76	15'-8"	1,758	B	F802	48	8'-10"	1,132	B					
AG03	36	19'-2"	1,036	B										
<b>Railing Reinforcing</b>														
R501	128	16'-2"												
R502	16	13'-1"												
R503	8	14'-8"												
R504	8	14'-0"												
<b>Replacement Bars</b>														
RE5001	1	7'-2"												
RE901	1	6'-10"												
RE801	1	6'-6"												
RE701	2	6'-2"												
RE601	3	5'-11"												
RE501	1	5'-7"												
RE401	1	5'-3"												
<b>Spiral Reinforcing</b>														
P9001	88	23'-0"	8,709	S										
P1002	44	18'-0"	3,408	S										
P1003	9	16'-0"	620	S										
P1004	9	25'-3"	978	S										
P901	12	18'-6"	755	S										
P902	12	24'-10"	1,013	S										
P903	12	9'-4"	381	B										
P801	24	23'-11"	1,533	B										
P802	18	12'-7"	605	B										
<b>Superstructure</b>														
S701	397	35'-8"	28,942	S										
S702	of 32	7'-1 3/8"	2,684	S										
S703	14	6'-0"	172	S										
S601	397	35'-8"	21,268	S										
S602	304	33'-0"	23,766	S										
S603	72	34'-0"	5,677	S										
S604	of 32	7'-1 3/8"	1,972	S										
S501	776	2'-4"	1,889	B										
S502	398	3'-6"	1,416	B										
S503	424	5'-7"	2,469	B										
S504	14	6'-0"	126	S										
S505	776	2'-4"	1,889	B										
S506	398	3'-6"	1,416	B										
S507	424	5'-7"	2,469	B										
S508	14	6'-0"	126	S										
S509	776	2'-4"	1,889	B										
S510	398	3'-6"	1,416	B										
S511	424	5'-7"	2,469	B										
S512	14	6'-0"	126	S										
S513	776	2'-4"	1,889	B										
S514	398	3'-6"	1,416	B										
S515	424	5'-7"	2,469	B										
S516	14	6'-0"	126	S										
S517	776	2'-4"	1,889	B										
S518	398	3'-6"	1,416	B										
S519	424	5'-7"	2,469	B										
S520	14	6'-0"	126	S										



**GENERAL NOTES**

**REFERENCE:** shall be made to Standard Drawings FSB-1-G2, rev. 1-15-63, CSB-4-G3, Sheets 1&4, dated 12-30-63, SD-1-G3 sheets 2,3,4 incl. dated 11-12-63, AR-1-57 revised 4-2-62, SD-2-G4 dated 11-25-64 and to Supplemental Specifications No. 5-101 dated 7-12-62 and 5307 revised 10-1-64

**LOADING**  
Design Loading - CF-2000(57)

**BASIC UNIT STRESSES**  
Concrete Class C - Basic unit stress 1,333 p.s.i.  
Concrete Class E - Basic unit stress 1,133 p.s.i.

Structural Steel - ASTM A-36, Basic unit stress 20,000 p.s.i. (except piling) (ASTM A-7 and A373 steel not permitted.)

Reinforcing Steel - ASTM A-15, A-16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20,000 p.s.i. Except, spiral reinforcement may be plain, Structural Grade with basic unit stress of 18,000 p.s.i.

**EXCAVATION QUANTITY** includes the removal of fill material required for construction of the abutments.

**PILES** shall be driven to a minimum bearing capacity of 30 tons per pile for the abutments and 40 tons per pile for the piers.

**SPIRAL REINFORCING BARS:** The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap.

The "No. of Turns" shown is the "Length" divided by the pitch, plus 3 turns (total number of closed coils), expressed as the nearest whole number. Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item 5-4. 1/2 closed coils shall be provided at the ends of each spiral unit.

Four steel channel, tee or angle spacers, weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

**RAILING DETAIL, NOTES & REINFORCING STEEL LIST**  
BRIDGE NO. VAN-30-0595  
UNDER RELOCATED EXISTING USR 30

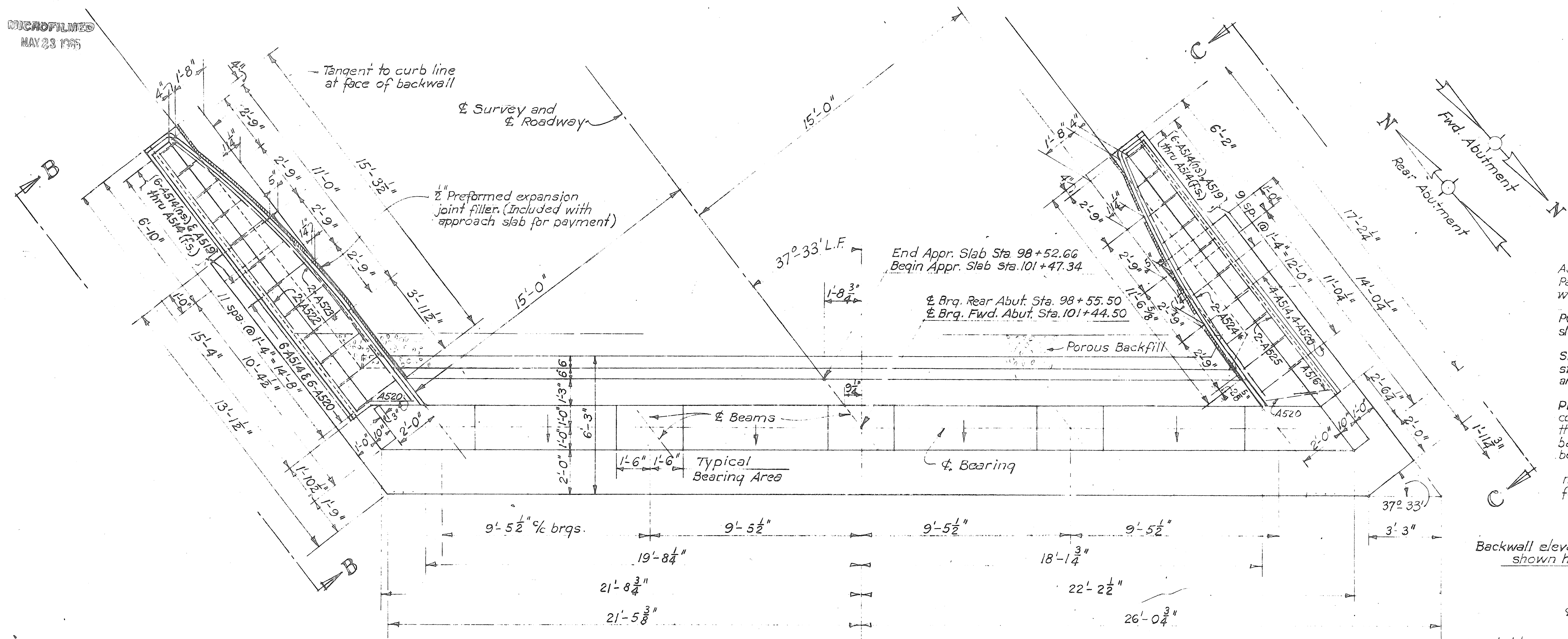
VAN WERT COUNTY STA. 314+27.18

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
J.V.G.	J.V.G.	CAM	CPD	BFG	3-18-65

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MAY 23 1965

FED. RD. DIVISION	STATE	PROJECT	317
2	OHIO		

VAN WERT COUNTY  
VAN-30-4.06



A523\* & A524\* bars shall be bent in the field to fit. Payment for bending shall be considered as included with Item S-4.

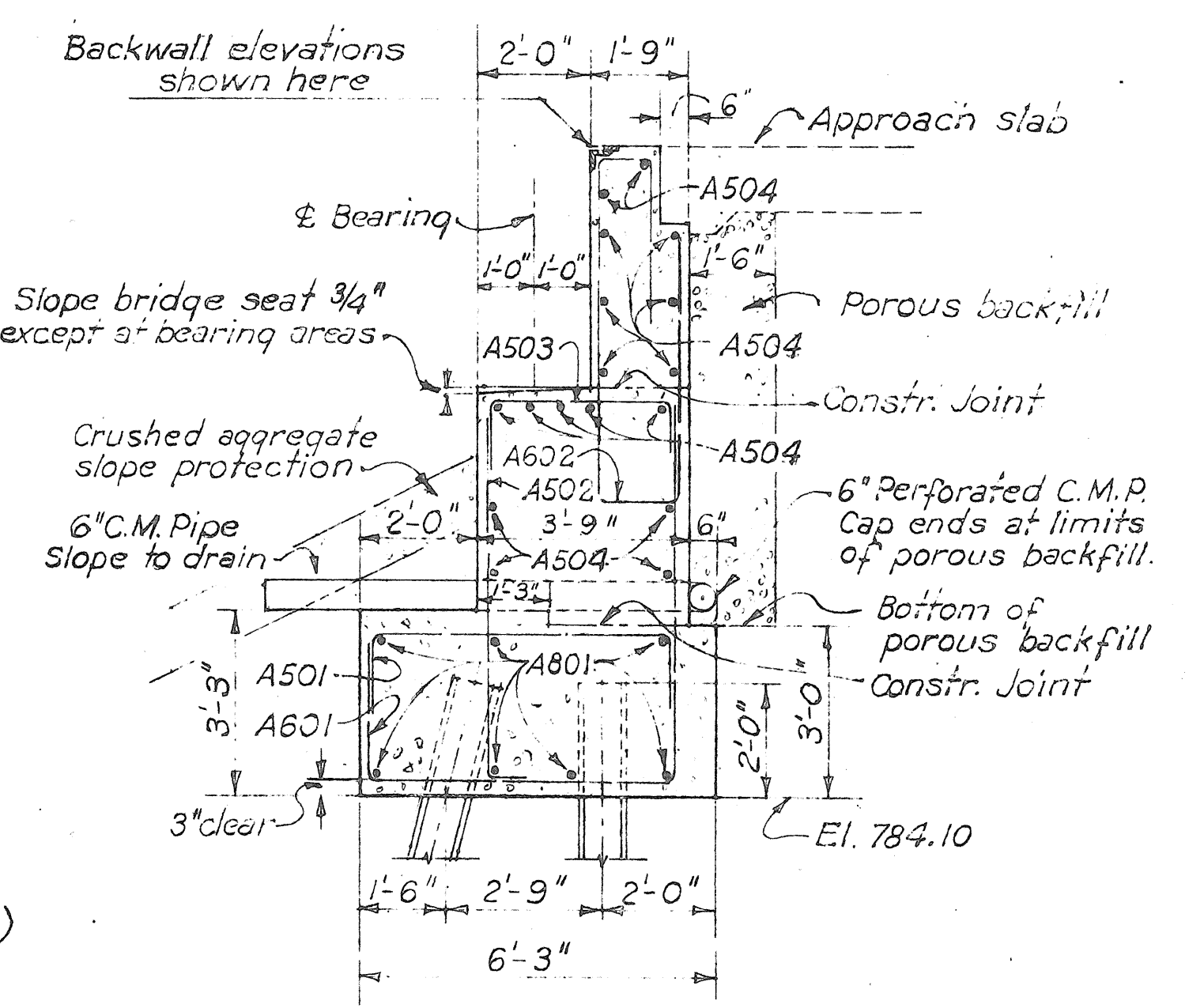
POROUS BACKFILL shall extend upward to the approach slab and outward within limits of turnback wing.

SPECIAL CARE shall be exercised in placing reinforcing steel in the bridge seat to avoid interference with anchor bars.

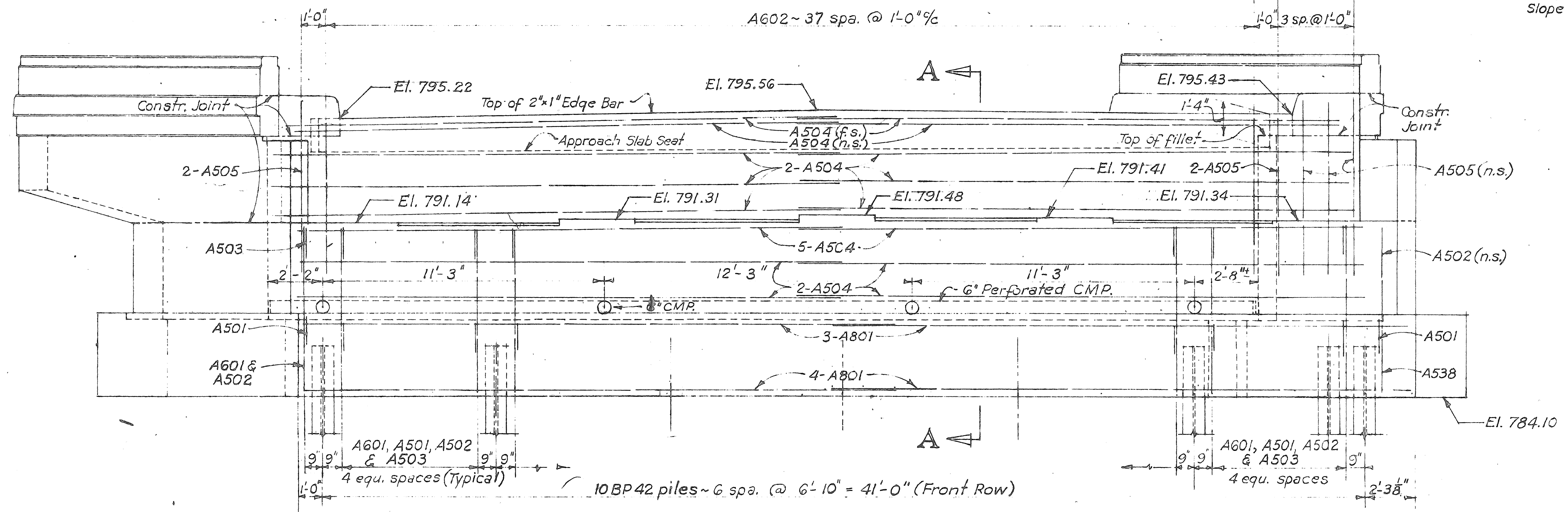
PROCEDURE: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutments.

n.s. denotes near side.  
f.s. denotes far side.

PLAN  
(Piles not shown)



SECTION A-A  
For Views B-B and C-C, and additional abutment details see Sheet 318

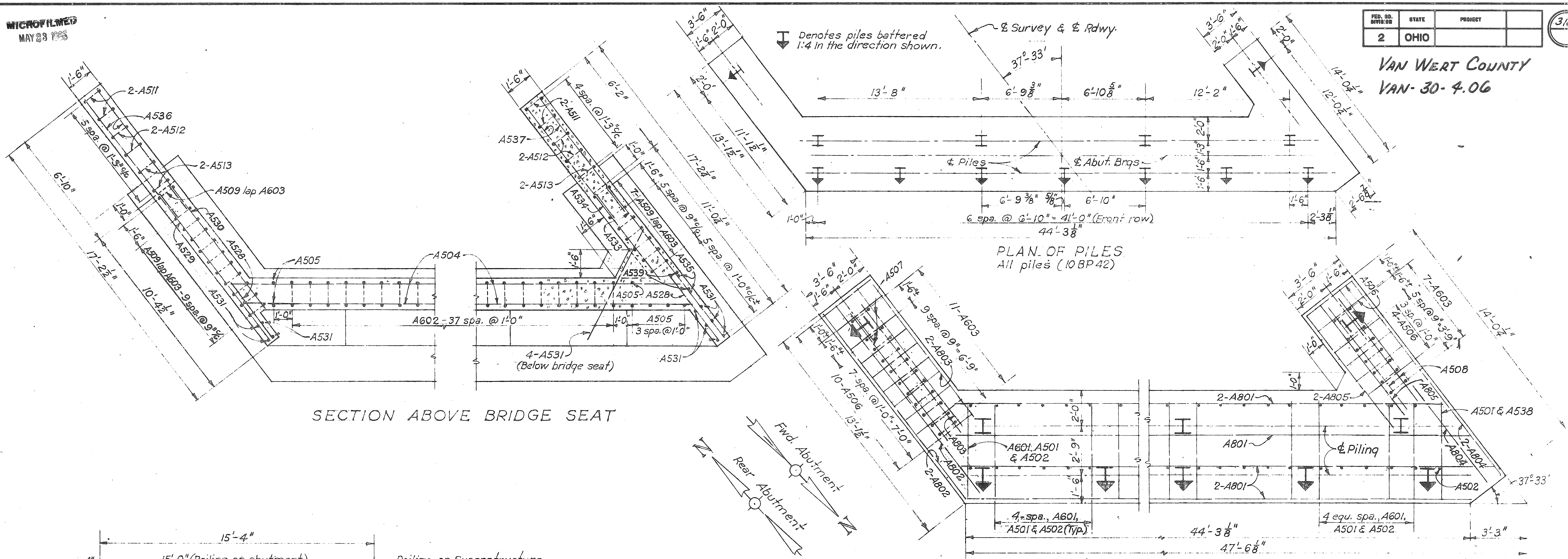


ELEVATION  
Piles under Wingwalls not shown

STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES						
ABUTMENT DETAILS						
BRIDGE NO. VAN-30-0595 UNDER EXISTING USR 30 RELOCATED						
SEC. VAN-30-4.27 VAN WERT COUNTY STA. 314+27.18						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.V.G.	J.V.G.		C.P.D.	B.F.G.	3-18-65	

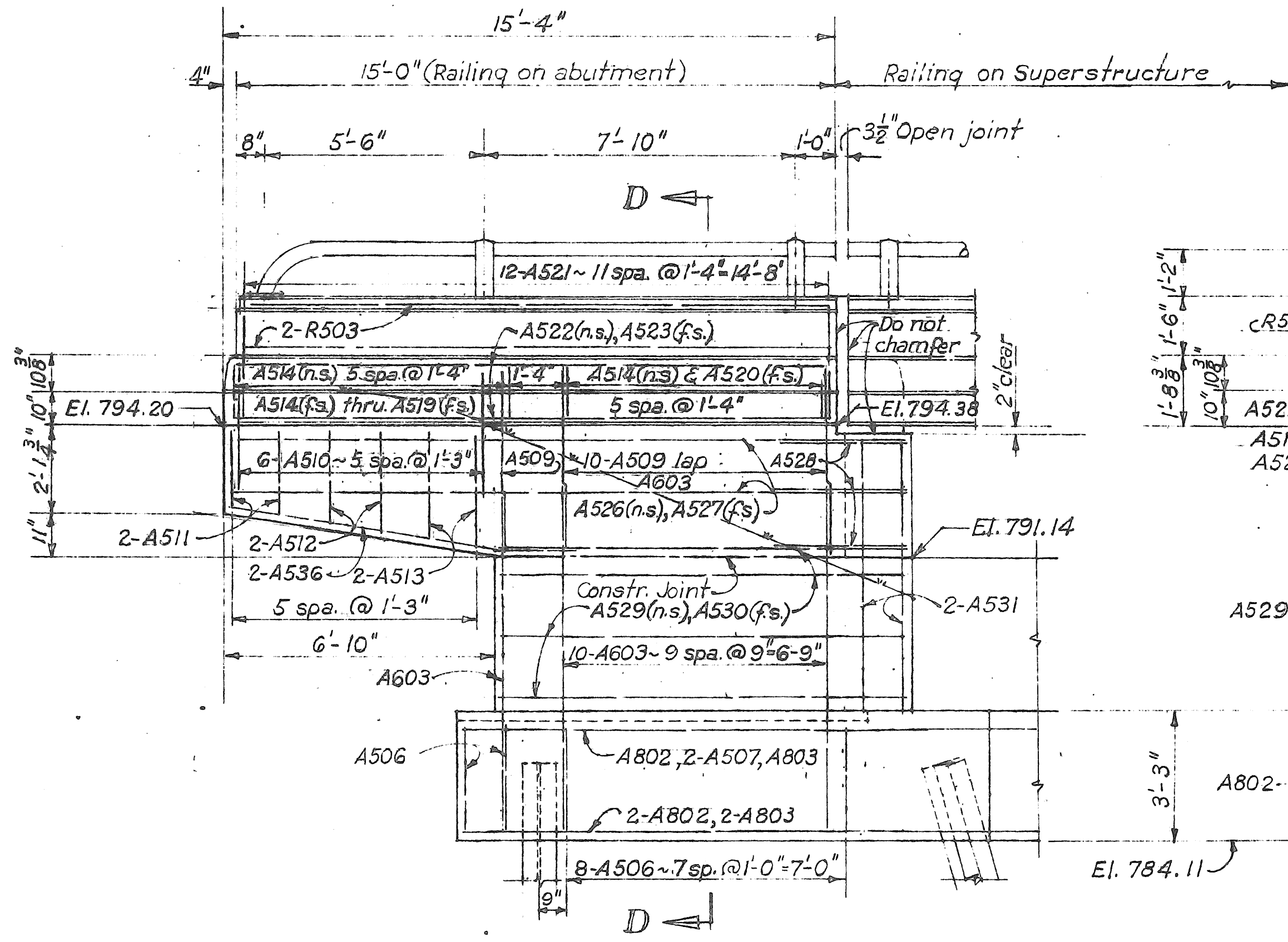


VAN WERT COUNTY  
VAN-30-4.06

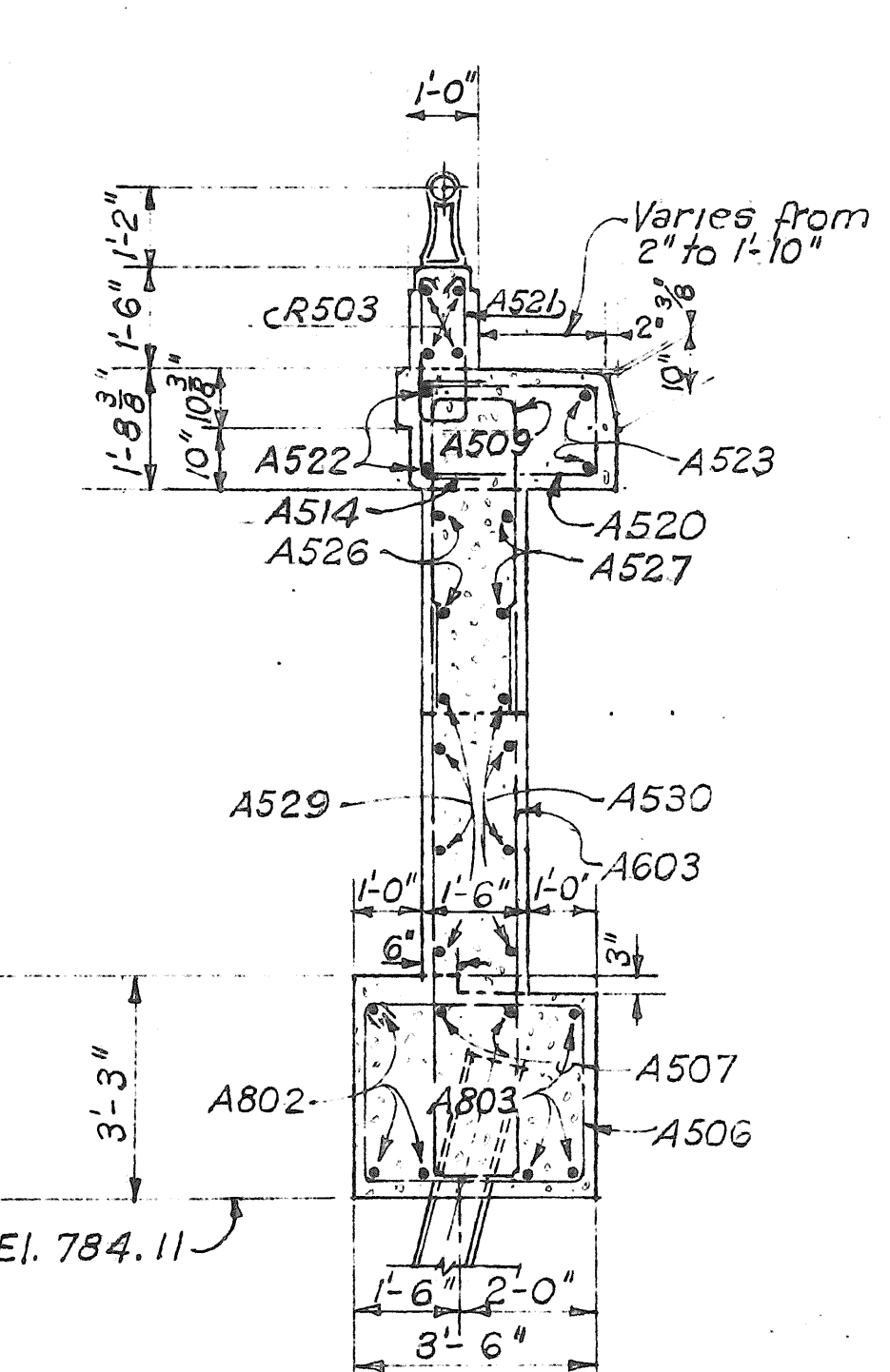


SECTION ABOVE BRIDGE SEAT

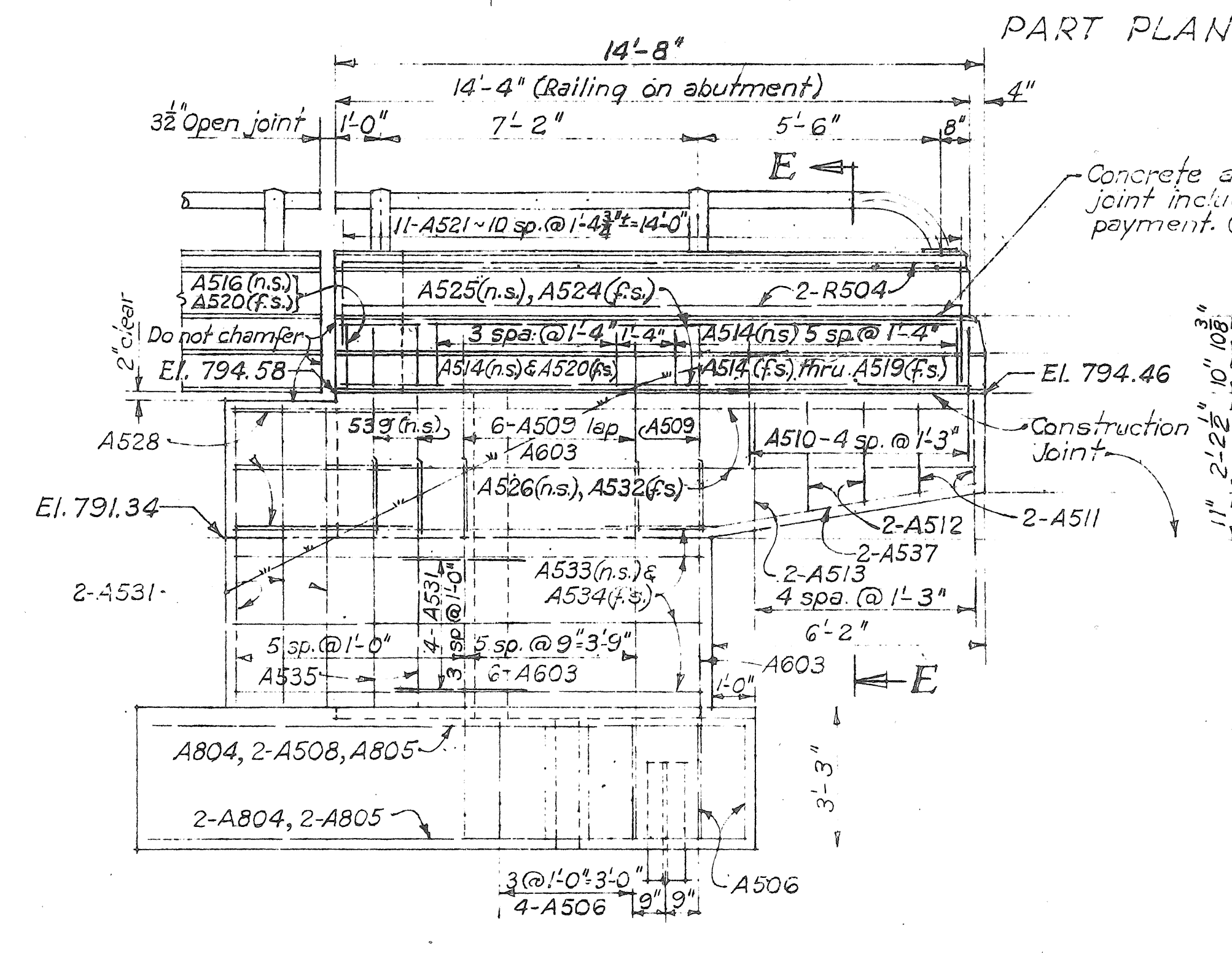
PART PLAN OF FOOTING



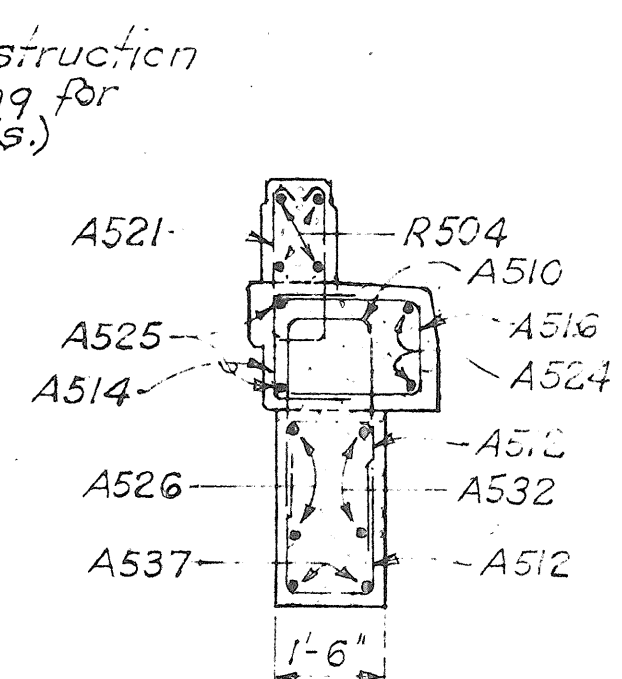
VIEW B-B



SECTION D-D



VIEW C-C



SECTION E-E

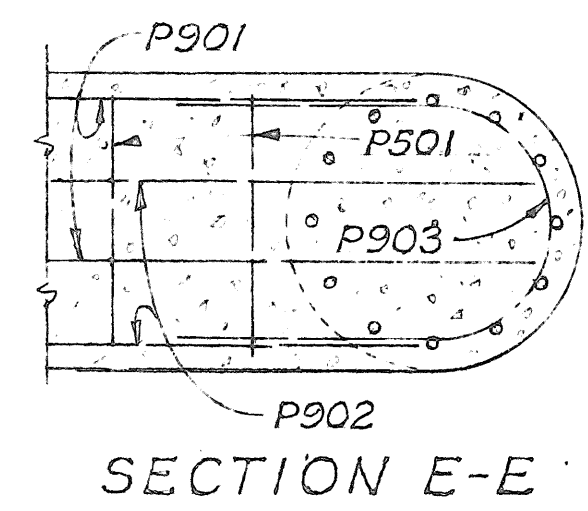
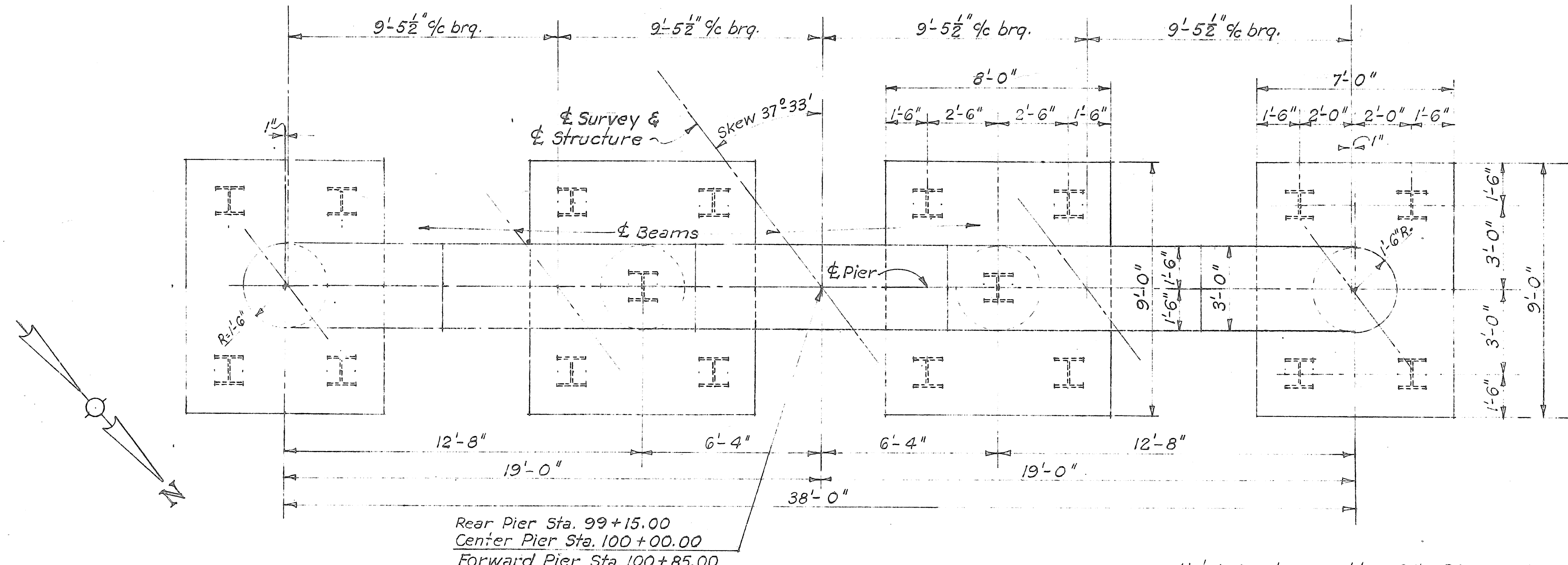
STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

**ABUTMENT DETAILS**

BRIDGE NO. VAN-30-0595  
UNDER EXISTING USR 30 RELOCATED  
SEC. VAN-30-4.27  
VAN WERT COUNTY STA. 314+27.18

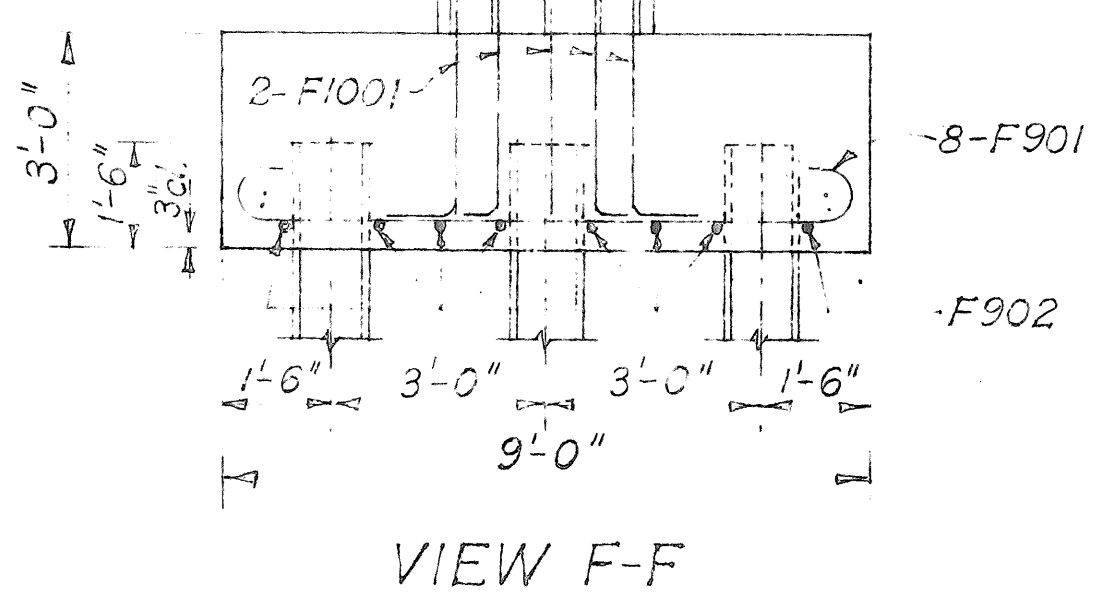
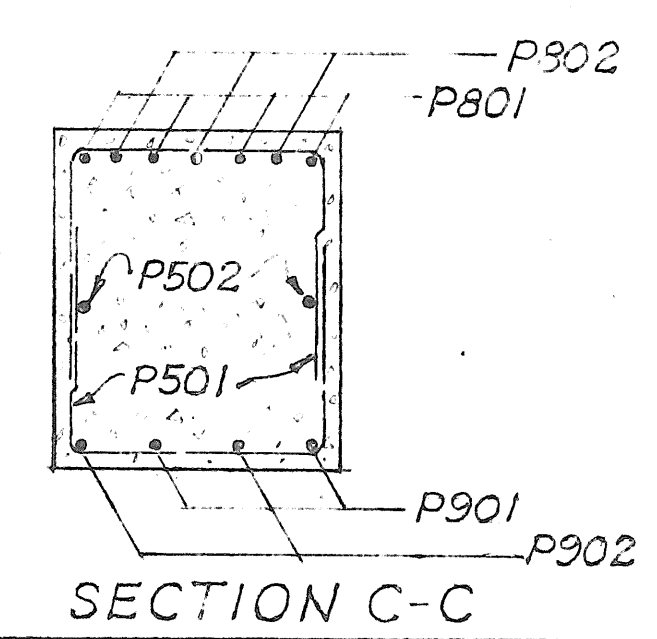
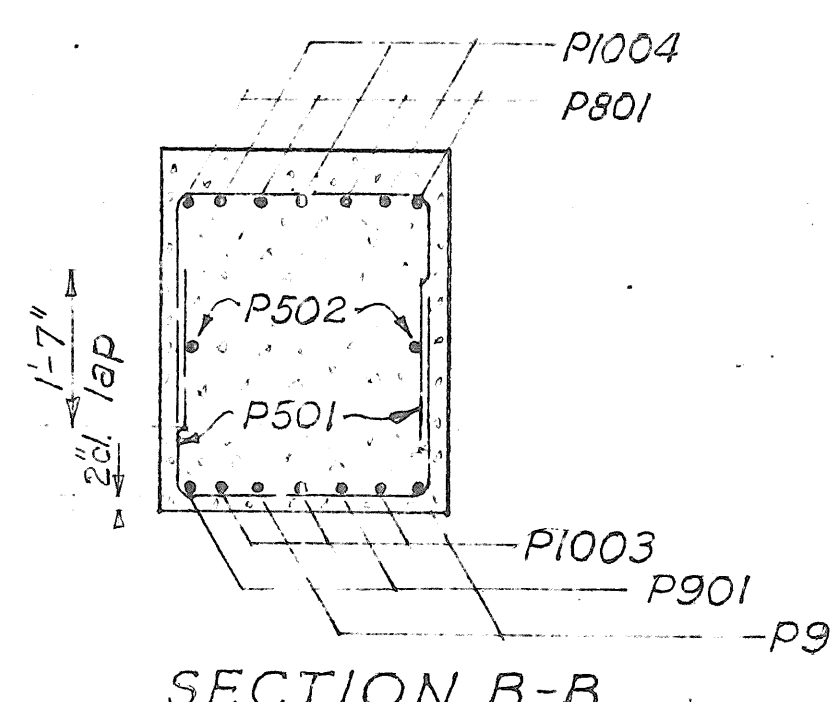
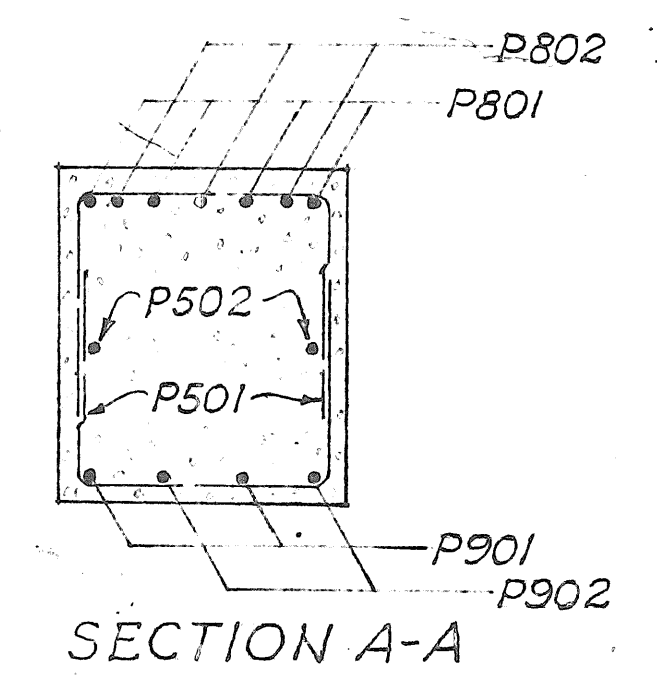
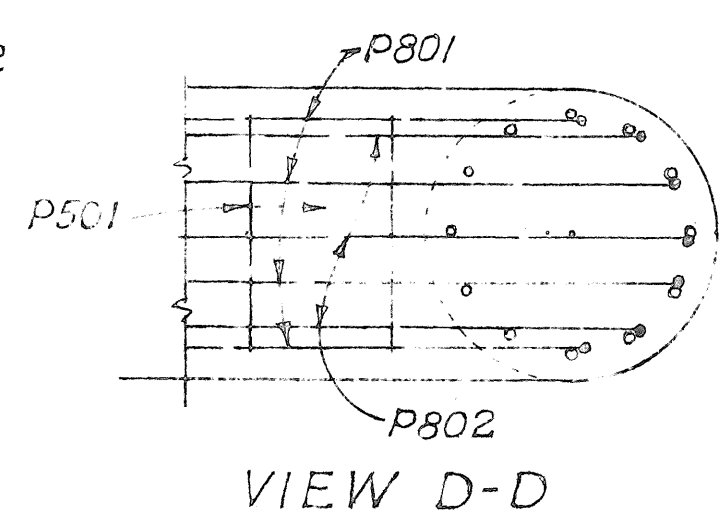
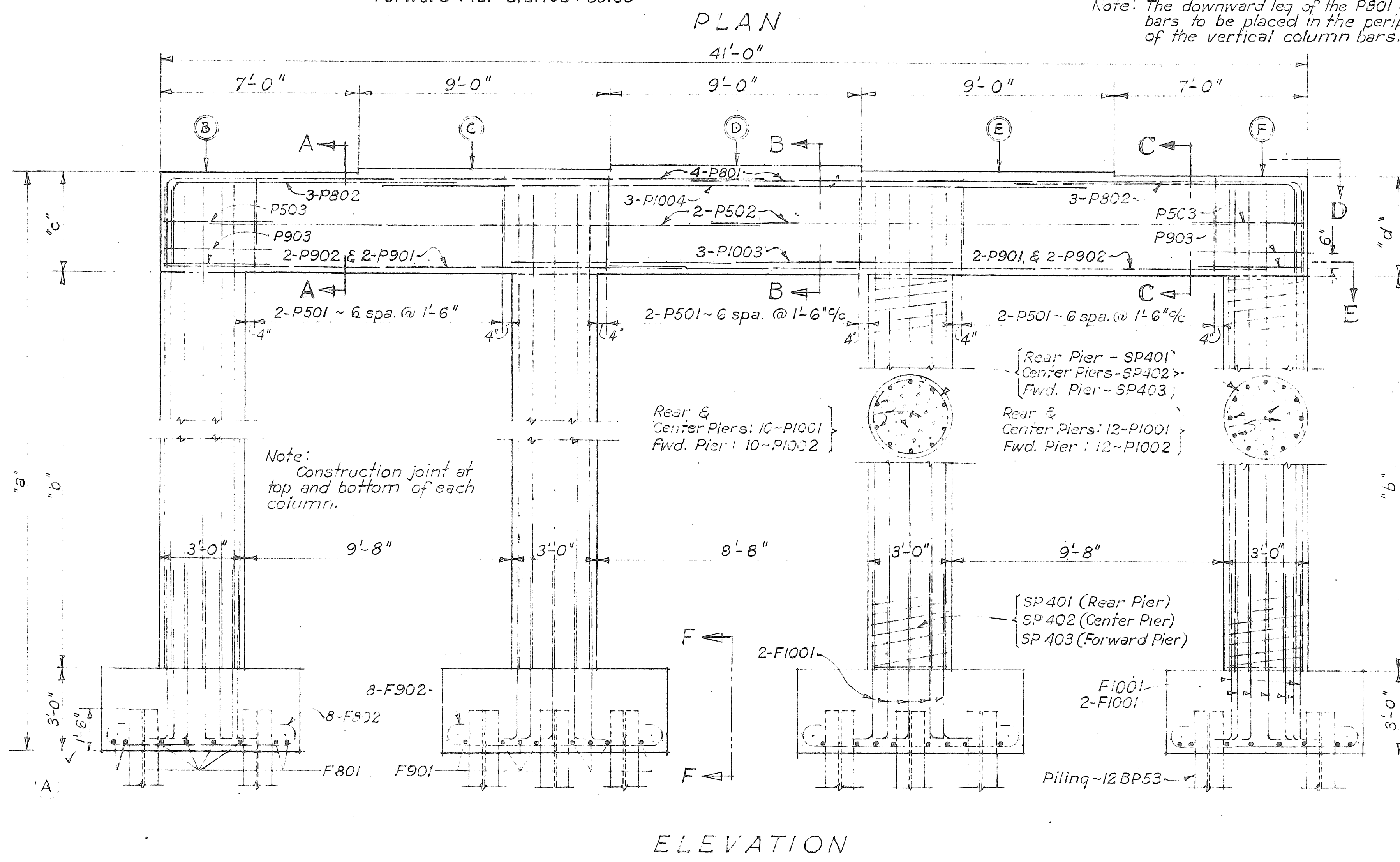
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JVS	JVS		CFD	BFG	3-18-65	

VAN WERT COUNTY  
VAN-30-4.06



Note:  
CONCRETE shall be Class "C" for caps and columns and Class "E" for the footings.  
SPECIAL CARE shall be taken in placing reinforcing steel in the caps so that it will not interfere with the drilling of anchor bolt holes.

Note: The downward leg of the P801 & P802 bars to be placed in the periphery of the vertical column bars.



ELEVATIONS AND DIMENSIONS			
ELEVATIONS	REAR PIER	CENTER PIER	FORWARD PIER
Point A	EI. 765.00	EI. 765.00	EI. 770.00
B	791.65	791.44	791.54
C	791.74	791.56	791.68
D	791.83	791.67	791.83
E	791.68	791.56	791.74
F	791.54	791.44	791.65

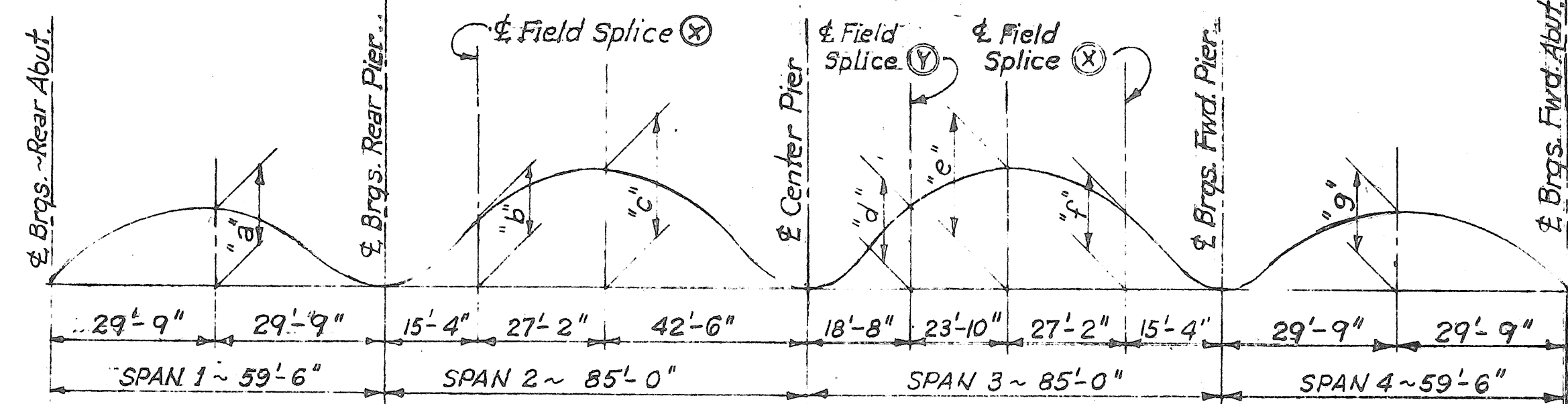
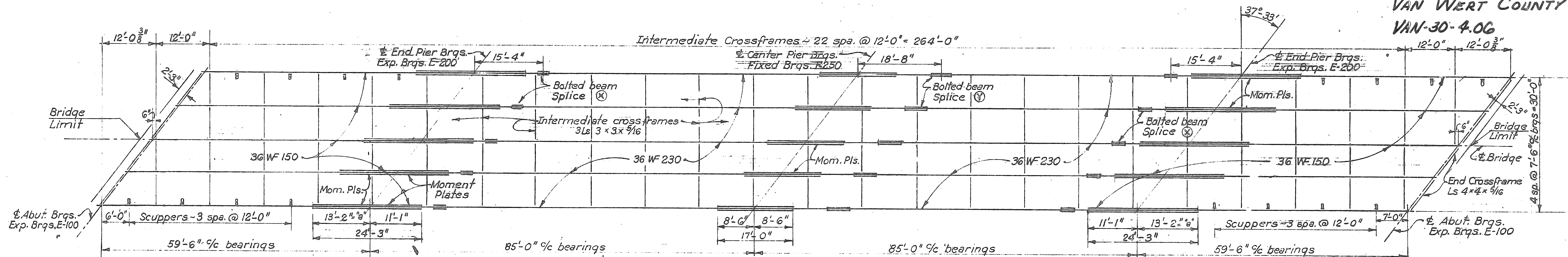
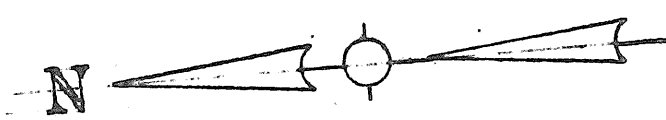
DIMENSIONS	REAR PIER	CENTER PIER	FORWARD PIER
Dimension "a"	26'-7 3/4"	26'-5 1/4"	21'-6 1/2"
"b"	20'-0 3/8"	19'-11 1/4"	15'-0 1/2"
"c"	3'-7 3/8"	3'-6"	3'-6"
"d"	3'-6"	3'-6"	3'-7 3/8"

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

PIER DETAILS  
BRIDGE NO. VAN-30-0595  
UNDER EXISTING USR 30 RELOCATED  
VAN WERT COUNTY STA. 314+27.18

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.W.G.	J.W.G.		C.P.D.	B.F.G.	3-18-65	

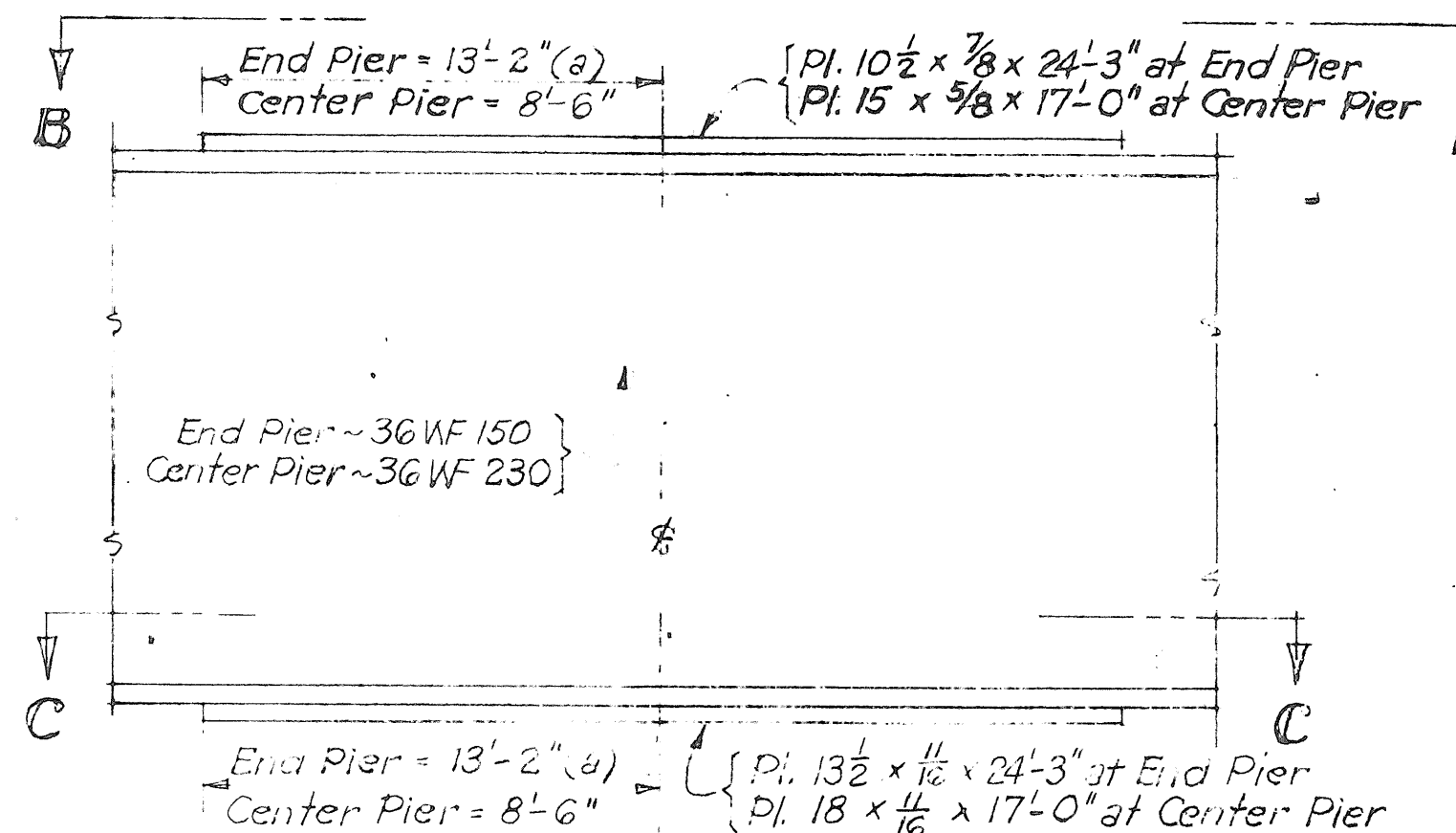
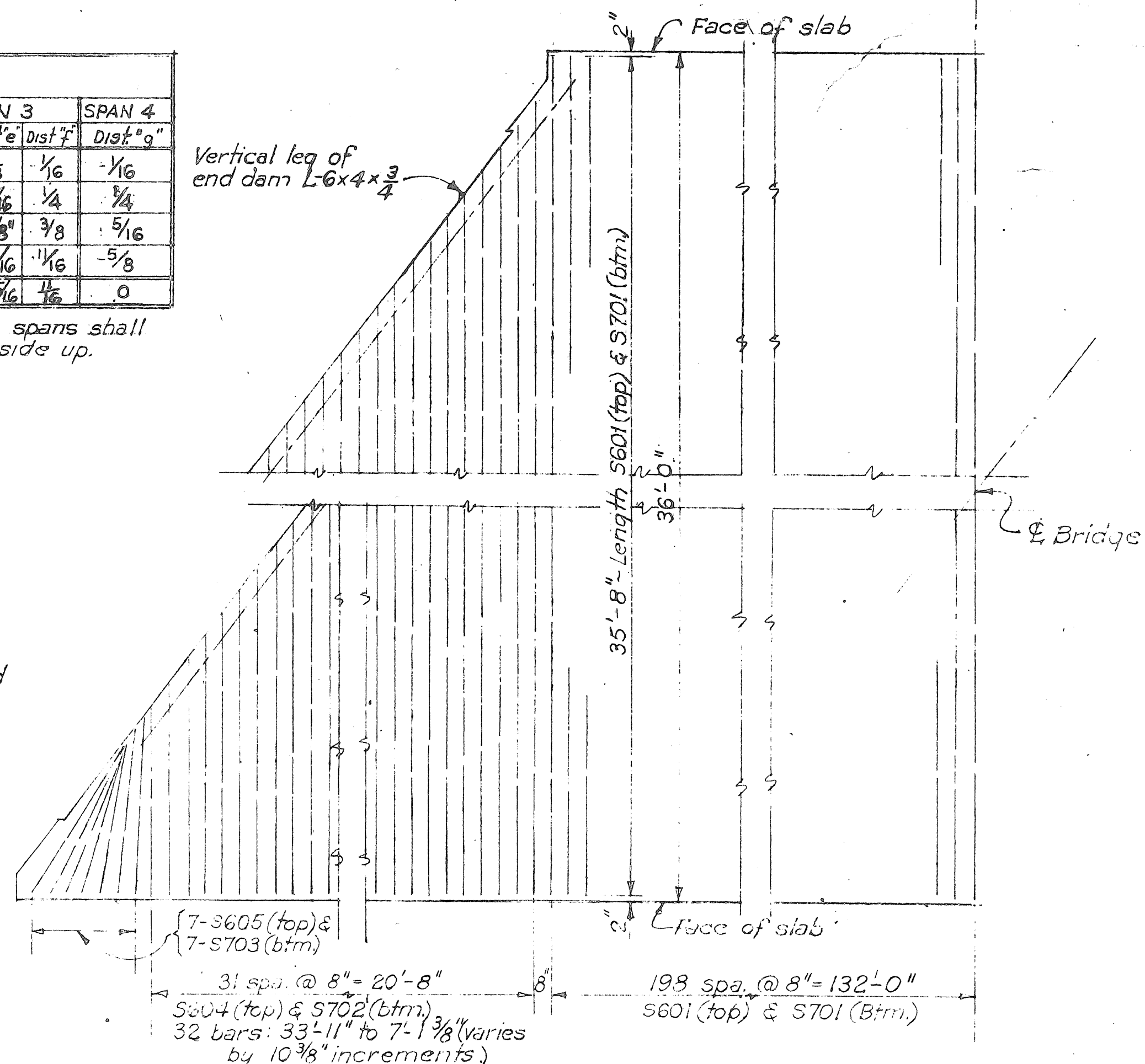
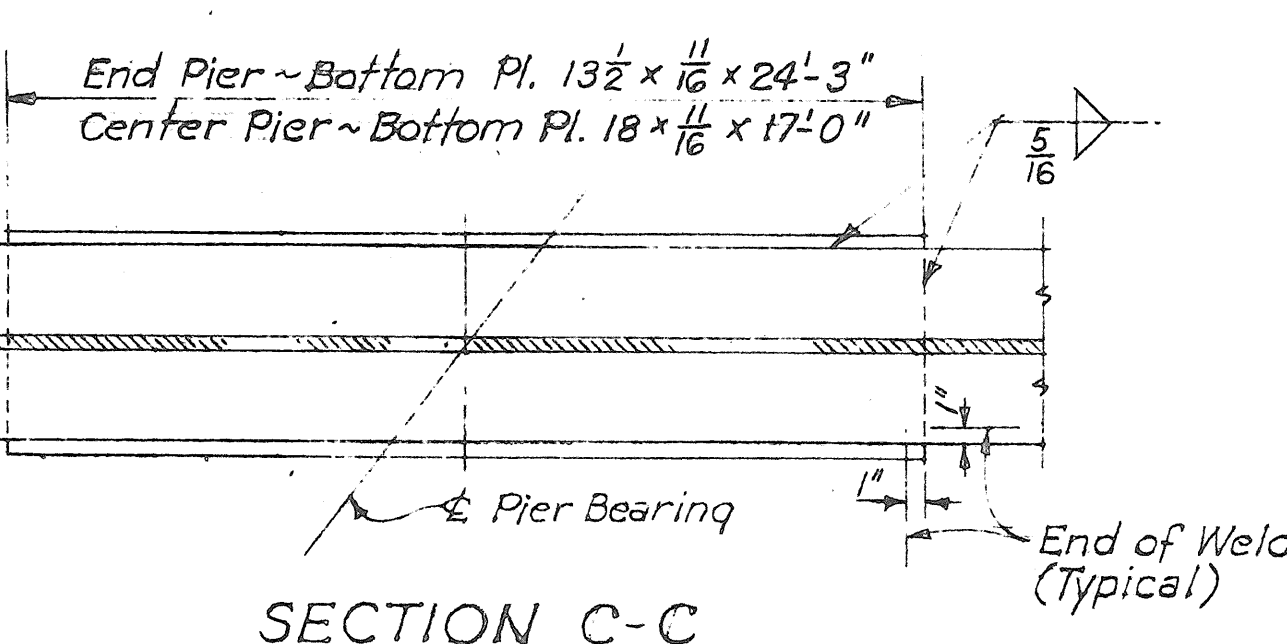
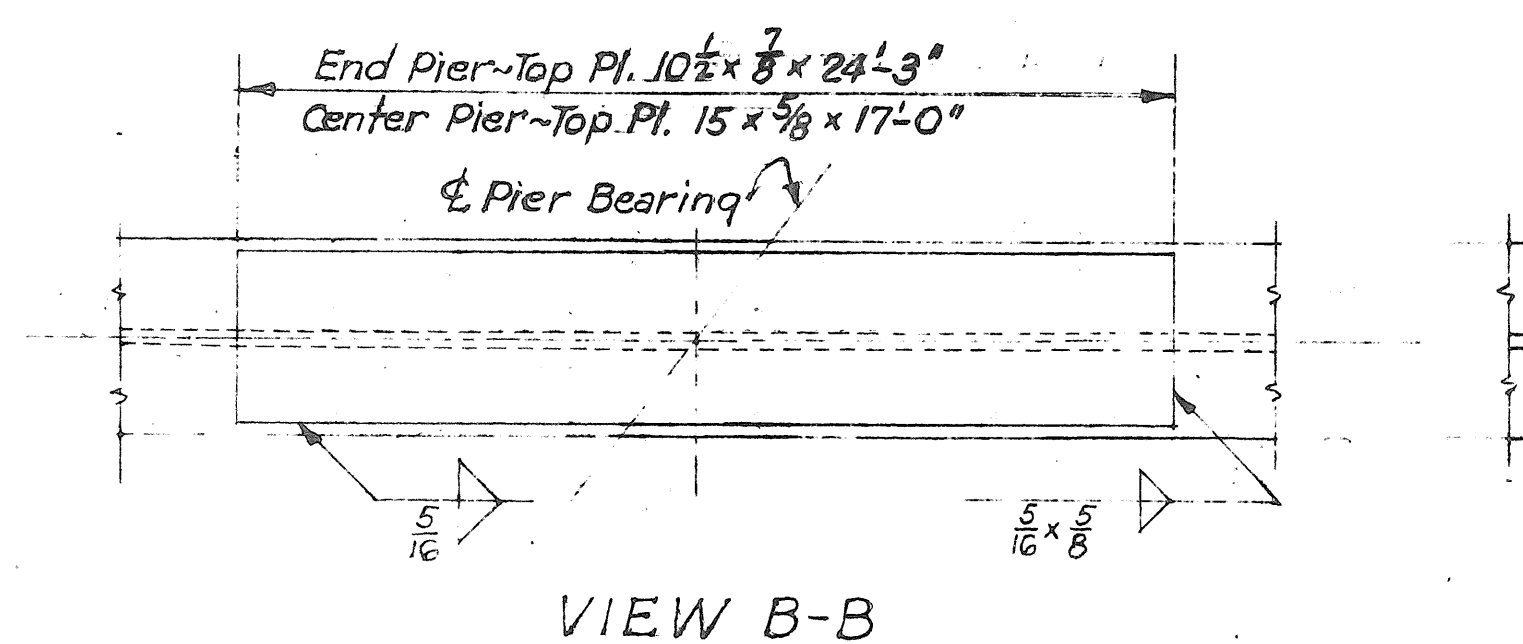
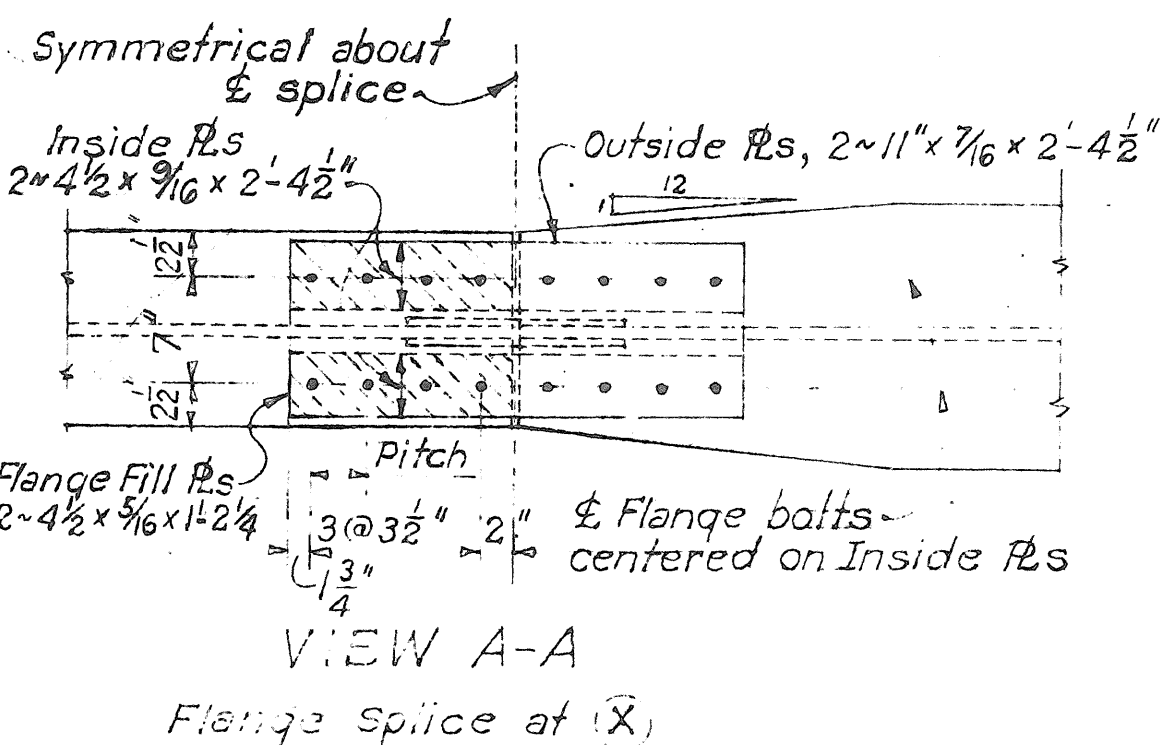
VAN WERT COUNTY  
VAN-30-4.06



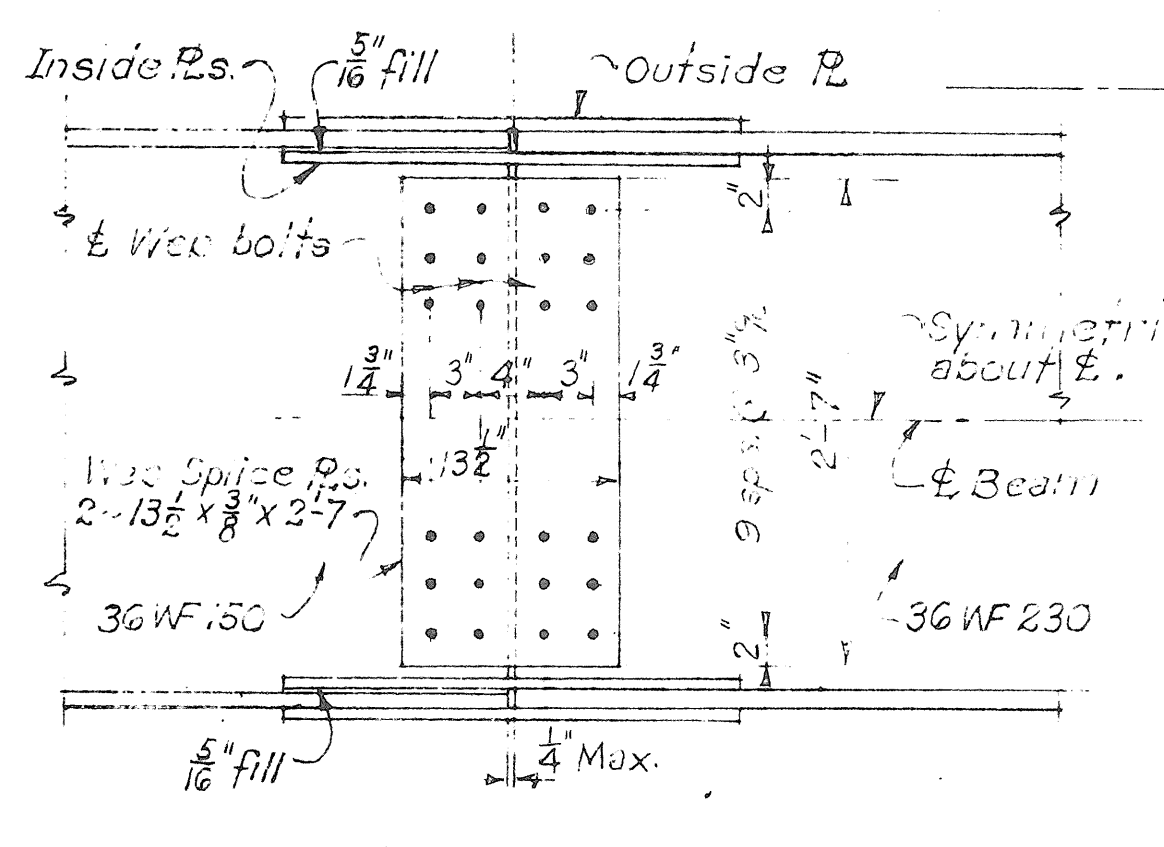
DEFLECTION AND CAMBER				
LOCATION	SPAN 1 Dist. 'a'	SPAN 2 Dist. 'b' Dist. 'c'	SPAN 3 Dist. 'd' Dist. 'e' Dist. 'f'	SPAN 4 Dist. 'g'
Deflection due to weight of steel	-1/16	-1/16 1/8	1/16 1/8 1/16	-1/16
Deflection due to remaining dead load	-1/4	1/4 3/16	1/4 3/16 1/4	1/4
Convexity required for vertical curve	3/16	3/8 3/8	7/16 5/8 3/8	5/16
Sum of deflection and convexity	5/8	1/16 15/16	3/4 15/16 11/16	5/8
Required Camber	0	1/16 15/16 3/4 15/16 1/16	0	0

Reference Line is composed of Grade Line chords between centers of bearings.

Camber not required in spans 1 and 4. Beams in these spans shall be inspected for camber and fabricated with convex side up.

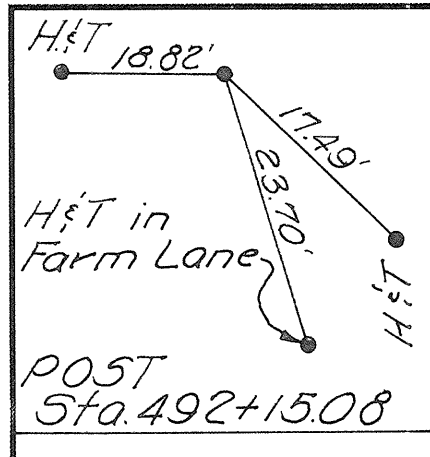


- REFERENCES: Standard Details,  
Continuous Steel Beam Bridge — CSB-4-63  
Superstructure Details — SD-1-63  
Fixed & Sliding Bearings — FSB-1-62  
Aluminum Railing — AR-1-57  
Bolted Beam Splice — SD-2-64



NOTE: For Beam Splice at (Y), refer to Standard Drawing SD-2-64 Type B Splice.

STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES						
SUPERSTRUCTURE DETAILS						
BRIDGE NO. VAN-30-0595						
UNDER EXISTING USR 30 RELOCATED						
VAN WERT COUNTY STA. 314+27.18						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVIEWED
JVG	JVG		CPD	BFG	3-18-65	



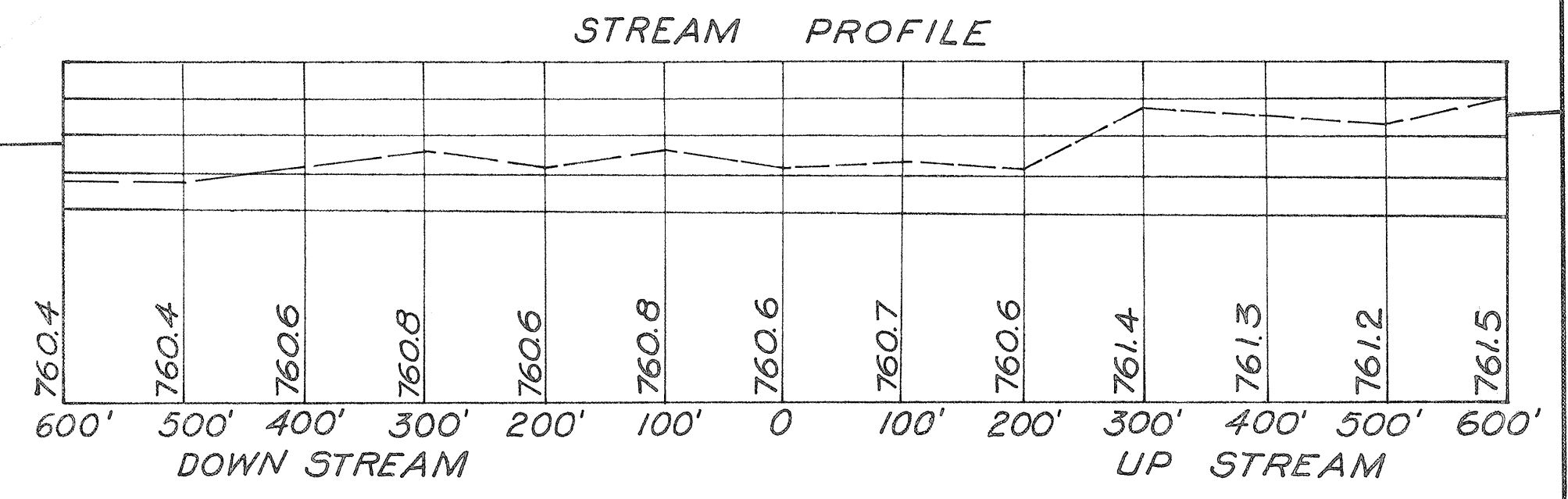
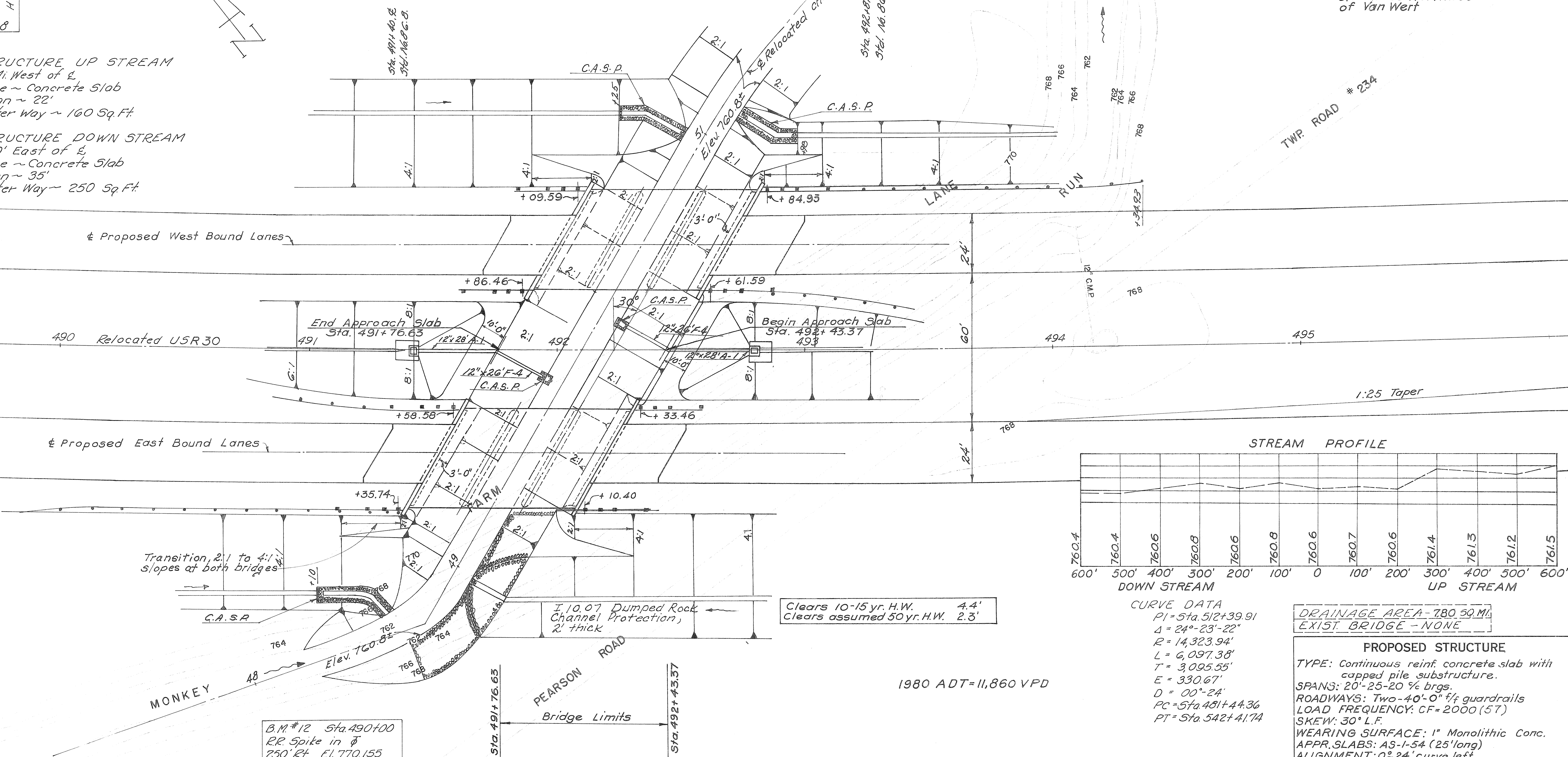
MICROFILMED  
MAY 23 1985

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		321

VAN WERT COUNTY  
VAN-30-4.06  
3.0 miles Northwest  
of Van Wert

FIRST STRUCTURE UP STREAM  
1/2 Mi. West of  $\xi$   
Type ~ Concrete Slab  
Span ~ 22'  
Water Way ~ 160 Sq. Ft.

FIRST STRUCTURE DOWN STREAM  
400' East of  $\xi$   
Type ~ Concrete Slab  
Span ~ 35'  
Water Way ~ 250 Sq. Ft.



Clears 10-15 yr. H.W. 4.4'  
Clears assumed 50 yr. H.W. 2.3'

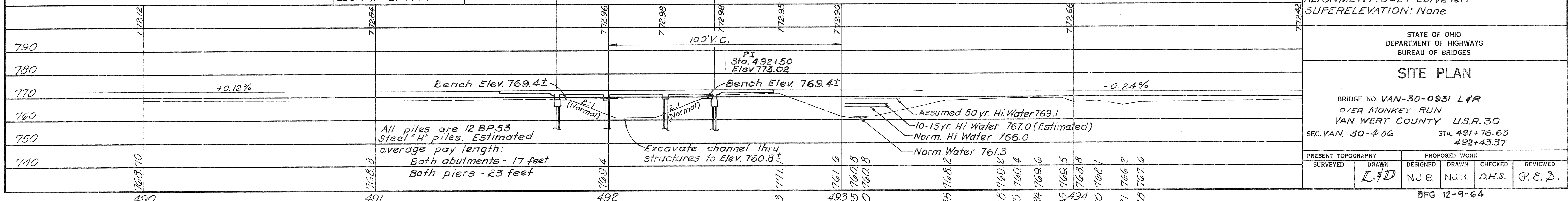
CURVE DATA  
 $PI = Sta. 512+39.91$   
 $\Delta = 24^\circ-23'-22''$   
 $R = 14,323.94'$   
 $L = 6,097.38'$   
 $T = 3,095.55'$   
 $E = 330.67'$   
 $D = 00^\circ-24'$   
 $PC = Sta. 481+44.36$   
 $PT = Sta. 542+41.74$

DRAINAGE AREA - 780.59 MI.  
EXIST. BRIDGE - NONE

**PROPOSED STRUCTURE**  
 TYPE: Continuous reinf. concrete slab with capped pile substructure.  
 SPANS: 20'-25'-20% brgs.  
 ROADWAYS: Two-40'-0" f/f guardrails  
 LOAD FREQUENCY: CF=2000 (57)  
 SKEW: 30° L.F.  
 WEARING SURFACE: 1" Monolithic Conc.  
 APPR. SLABS: AS-1-54 (25' long)  
 ALIGNMENT: 0° 24' curve left  
 SUPERELEVATION: None

1980 ADT=11,860 VPD

B.M.#12 Sta. 490+00  
R.R. Spike in  $\phi$   
250' RT. El. 770.155



STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
BUREAU OF BRIDGES

**SITE PLAN**

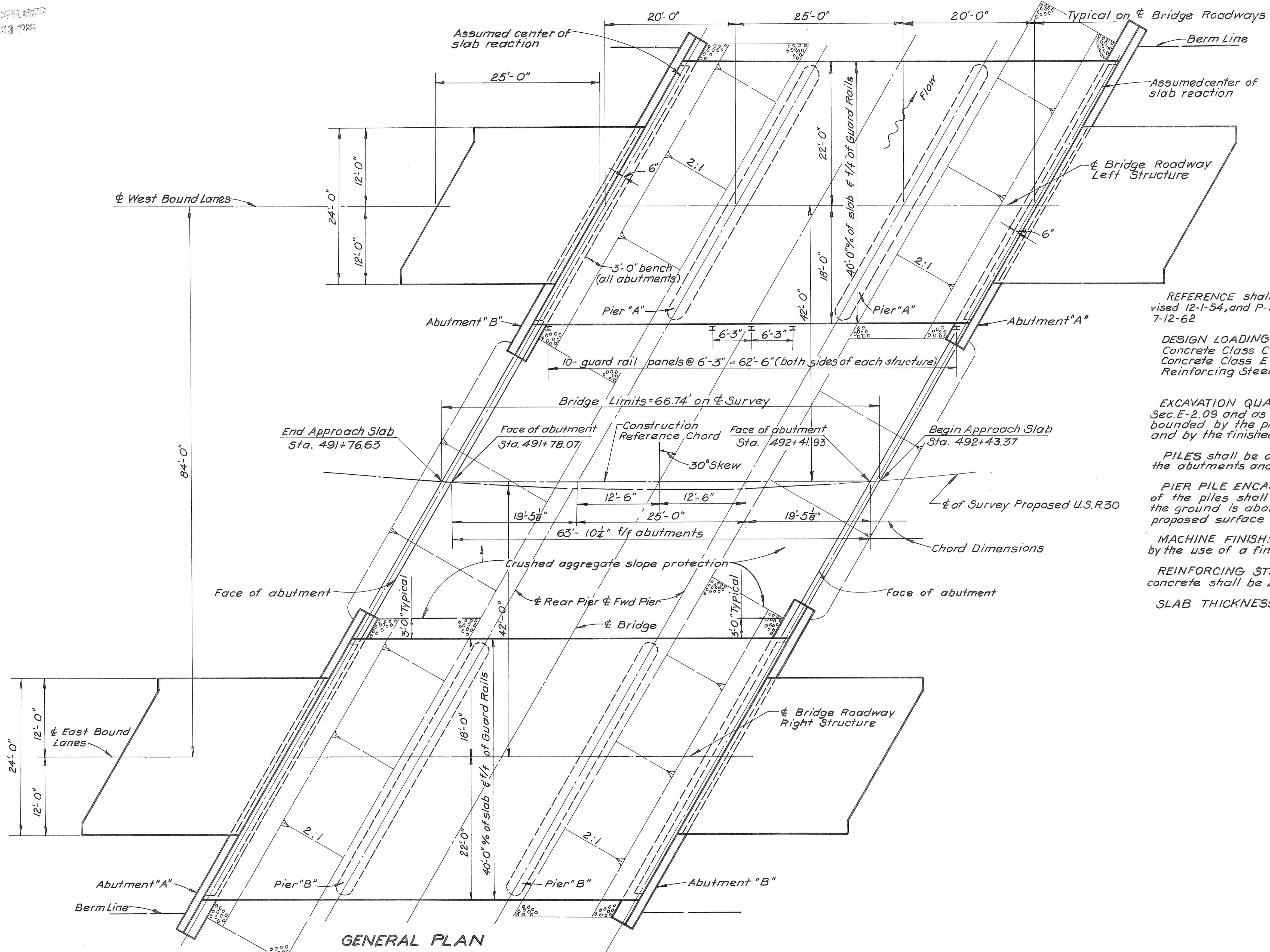
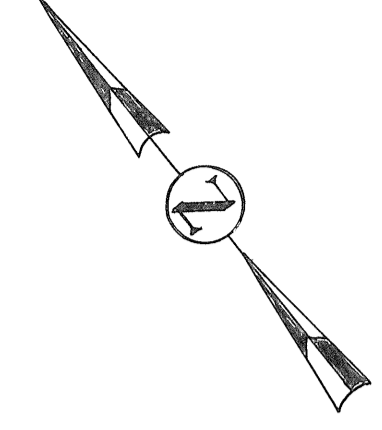
BRIDGE NO. VAN-30-0931 LFR  
OVER MONKEY RUN  
VAN WERT COUNTY U.S.R. 30  
SEC. VAN. 30-4.06 STA. 491+76.63  
492+43.37

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
	LJD	N.J.B.	N.J.B.	D.H.S.	P.E.S.

MICROFILMED  
MAY 23 1965

FED. RD. DIVISION	STATE	PROJECT	322
2	OHIO		

VAN WERT COUNTY  
VAN - 30 - 406



**GENERAL NOTES**

REFERENCE shall be made to Standard Drawings CS-1-54 revised 4-1-63, A-1-54 revised 12-1-54, and P-1-54 revised 2-2-59 and to Supplemental Specification No. S-101 dated 7-12-62

DESIGN LOADING - CF 2000 (57)  
 Concrete Class C - basic unit stress 1,333 p.s.i.  
 Concrete Class E - basic unit stress 1,133 p.s.i.  
 Reinforcing Steel - ASTM A15, A16, A160 Deformed, Intermediate or Hard Grade.  
 Basic unit stress 20,000 p.s.i.

EXCAVATION QUANTITY for the abutments, in the addition to that outlined in Sec. E-2.09 and as noted on Std. Dwg. A-1-54, includes the removal of material bounded by the proposed bench, by the front vertical plane described in Sec. E-2.09 and by the finished slope of the cut.

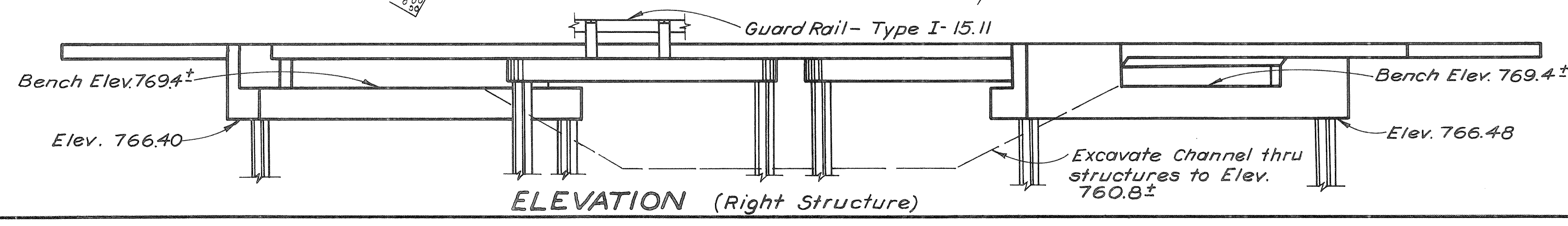
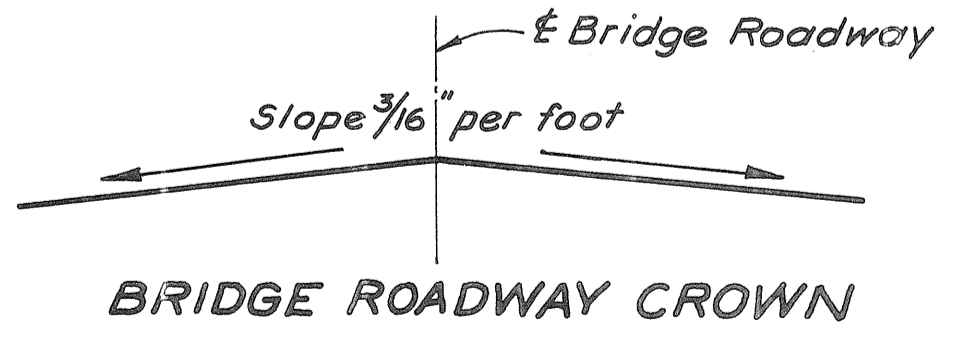
PILES shall be driven to a minimum bearing capacity of 23 tons per pile for the abutments and 28 tons per pile for the piers.

PIER PILE ENCASEMENT as shown on Std. Dwg. P-1-54 is not required. The painting of the piles shall extend to low water elevation or, if the proposed surface of the ground is above low water, it shall extend to at least one foot below the proposed surface of the ground.

MACHINE FINISH: At the Contractor's option the concrete deck may be finished by the use of a finishing machine.

REINFORCING STEEL CLEARANCE (in the deck slab) from the surface of concrete shall be 2 1/4" for the top bars and 1" for the bottom bars.

SLAB THICKNESS is 13 1/4" which includes 1" for monolithic wearing surface.



Note: All piles are 12 BP53 steel "H" piles. Only end piles shown.

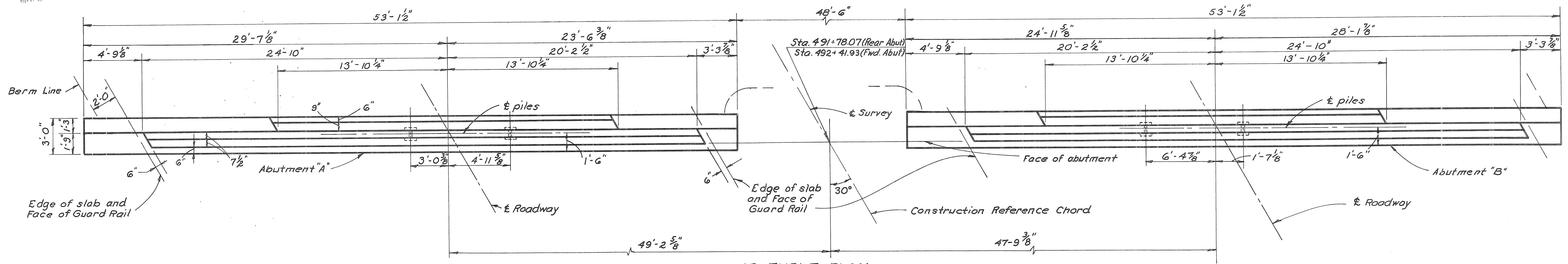
STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES						
<b>GENERAL PLAN, ELEVATION AND GENERAL NOTES</b>						
BRIDGE No. VAN-30-0931 L&R over MONKEY RUN VAN WERT COUNTY Sta. 491+76.63 492+43.37						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WDW	WDW	MPB	BFG		12-9-64	

MICROFILMED  
MAY 28 1965

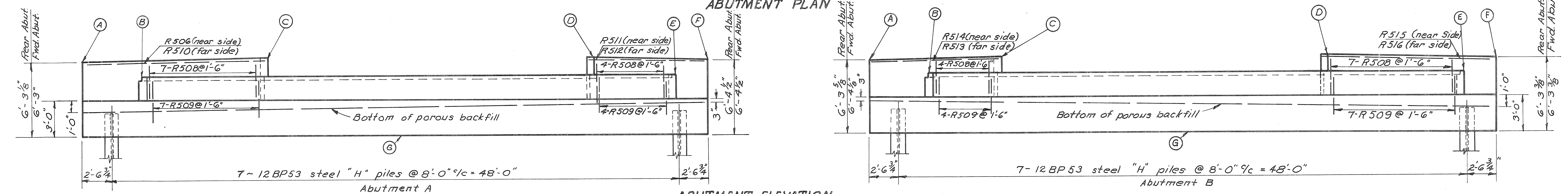
VAN WERT COUNTY  
VAN - 30 - 406

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

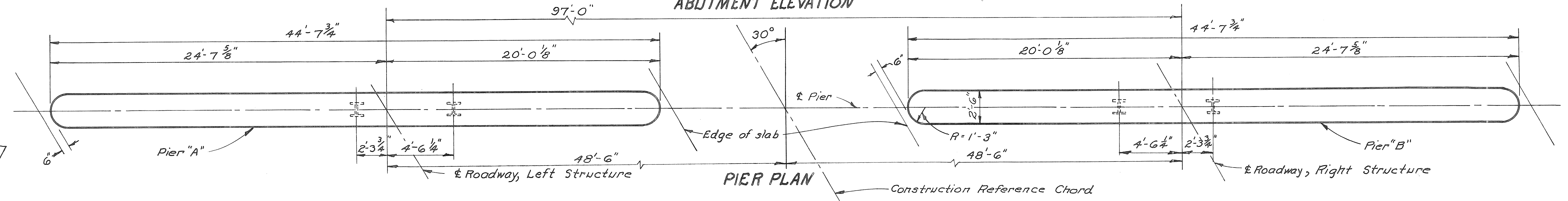
323



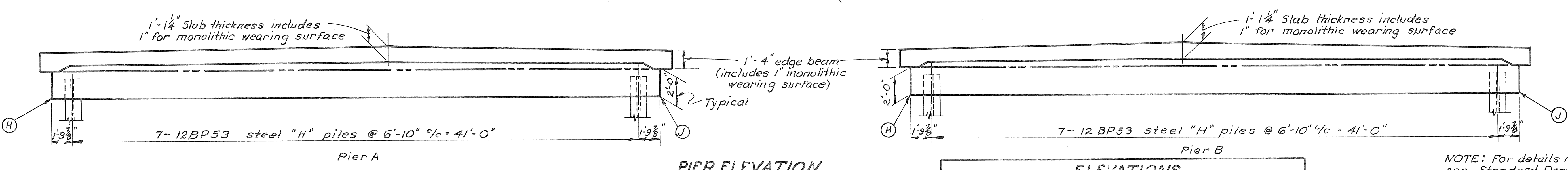
ABUTMENT PLAN



ABUTMENT ELEVATION



PIER PLAN



PIER ELEVATION

Point	REAR ABUTMENTS & PIERS		FWD. ABUTMENTS & PIERS	
	Abutment "A"	Abutment "B"	Abutment "A"	Abutment "B"
A	772.66	772.79	772.70	772.82
B	771.40	771.53	771.45	771.56
C	772.89	772.95	772.95	772.98
D	772.91	772.97	772.96	772.97
E	771.49	771.49	771.55	771.48
F	772.77	772.77	772.83	772.76
G	766.40	766.49	766.45	766.48
	Pier "A"	Pier "B"	Pier "A"	Pier "B"
H	769.49	769.52	769.48	769.55
J	769.55	769.42	769.56	769.45

NOTE: For details not modified here see Standard Drawings CS-1-54, A-1-54 and P-1-54.

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

**ABUTMENT & PIER DETAILS**

BRIDGE No. VAN-30-0931 L & R  
over MONKEY RUN  
VAN WERT COUNTY Sta. 491 + 76.63  
492 + 43.37

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WDW	WDW	P.K.I.	MPB	BFG	12-9-64	

DESIGN CLOSED  
MAY 23 1965

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

324

VAN WERT COUNTY  
VAN - 30 - 406

REINFORCING STEEL LIST					
Mark	No.	Length	Weight	Shp.	Bending Diagrams
<b>Superstructure</b>					
A862	222	23'-8"	14078	S	
B862	72	18'-1"	3476	B	
C862	72	16'-1"	3092	B	
D862	36	17'-4"	1666	S	
E862	36	13'-10"	1330	S	
F962	136	24'-3"	11,213	S	
G962	64	13'-0"	2829	S	
H962	68	12'-1"	2794	S	
J601	68	11'-7"	1183	S	
K601	34	6'-1"	311	S	
M701	114	45'-8"	10,641	S	
N601	94	45'-8"	6448	S	
<b>Piers</b>					
P1001	16	45'-8"	3144	S	
P901	16	42'-2"	2294	S	
P501	8	42'-2"	352	S	
P502	120	9'-0"	1126	B	
P503	16	6'-4"	106	B	
P401	112	5'-5"	405	B	
<b>Replacement Bars</b>					
RE1001	1	7'-2"	—	S	
RE901	1	6'-10"	—	S	
RE801	2	6'-6"	—	S	
RE701	1	6'-2"	—	S	
RE601	1	5'-11"	—	S	
RE501	1	5'-7"	—	S	
RE401	1	5'-5"	—	B	

ESTIMATED QUANTITIES						
Item	Total	Unit	Description	Super.	Abuts.	Piers
E-2	130	Cu. yds.	Unclassified excavation		130	
E-3	4,804	Cu. yds.	Channel excavation			4,804
S-1	255	Cu. yds.	Class C concrete, superstructure and pier caps	222		33
S-1	110	Cu. yds.	Class E concrete, abutments		110	
S-4	77,716	Lbs.	Reinforcing Steel	59,061	11,228	7427
S-14	266.96	Lin. ft.	Railing (Type I-15.11 with galv. steel posts and bolts)	266.96		
S-16	Lump	Sum	First test pile			Lump
S-18	1120	Lin. ft.	Steel piles, 12 BP53		480	640
S-29	33	Cu. yds.	Porous backfill			33
I-10	575	Sq. yds.	Crushed aggregate slope protection			575
S-101	255	Each	Water-reducing, set-retarding admixture	222		33
I-10	70	Cu. yds.	Dumped rock channel protection			70

STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES						
<b>REINFORCING STEEL LIST</b>						
<b>ESTIMATED QUANTITIES</b>						
BRIDGE No. VAN-30-0931 L & R						
OVER MONKEY RUN						
VAN WERT COUNTY Sta. 491 + 76.63						
Sta. 492 + 43.37						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WDW	WDW	H.C.	MPB	BFG	12-9-64	

MICROFILMED  
MAY 28 1965

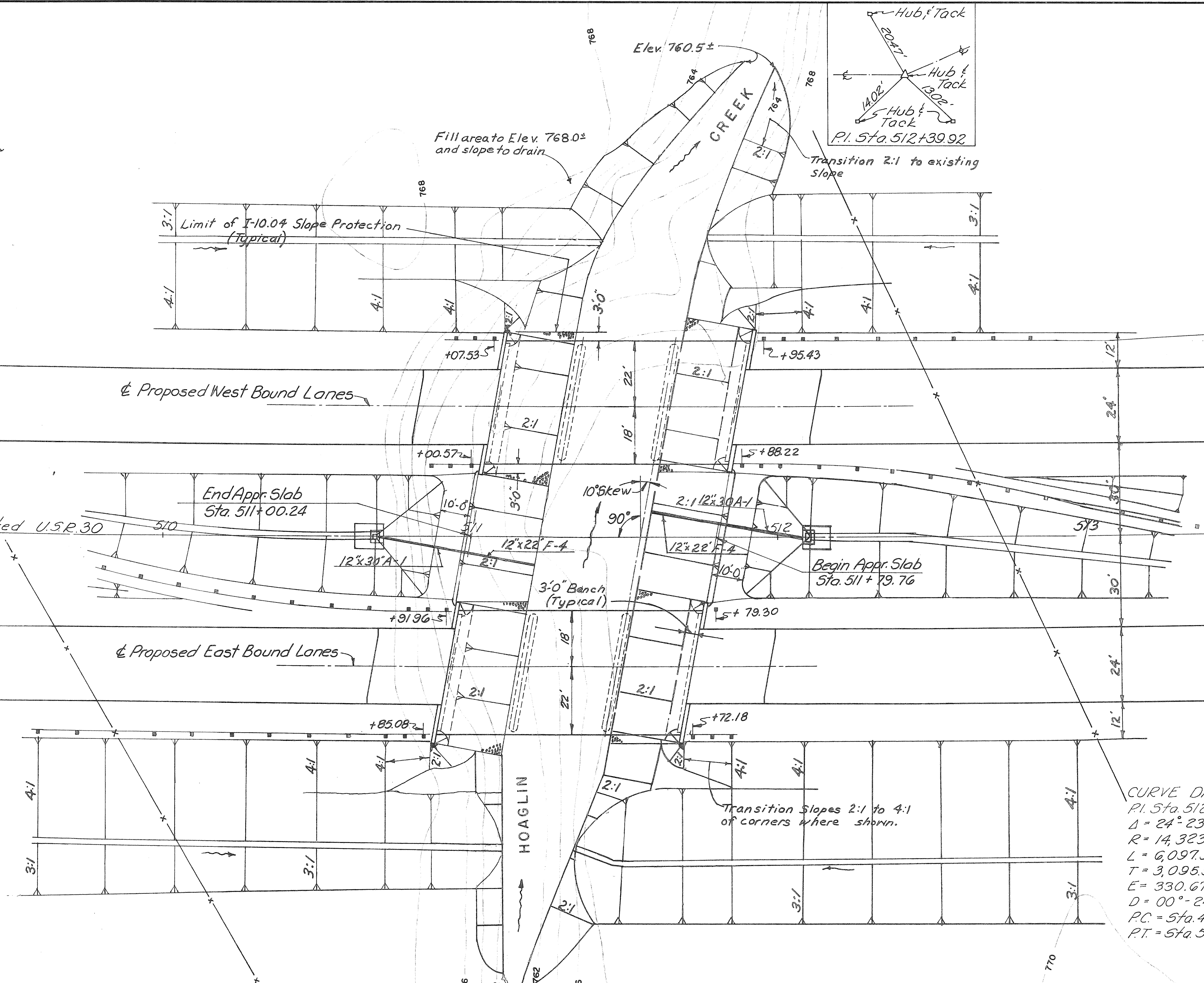
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

325

VAN WERT COUNTY  
VAN-30-4.06  
3.5± miles north west of Van Wert

FIRST STRUCTURE UP STREAM  
1/4 Mi. South, on Twp. Rd. #160  
Type - Concrete Slab  
Span - 50'  
Waterway - 425 Sq. Ft.

FIRST STRUCTURE DOWN STREAM  
1/4 Mi. North, on Co. Rd. #77  
Type - Concrete Slab  
Span - 41'  
Waterway - 570 Sq. Ft.



CURVE DATA  
P.I. Sta. 512+39.91  
Δ = 24°-23'-22" Lt.  
R = 14,323.94'  
L = 6,097.38'  
T = 3,095.55'  
E = 330.67'  
D = 00°-24'  
P.C. = Sta. 481+44.36  
P.T. = Sta. 542+41.74

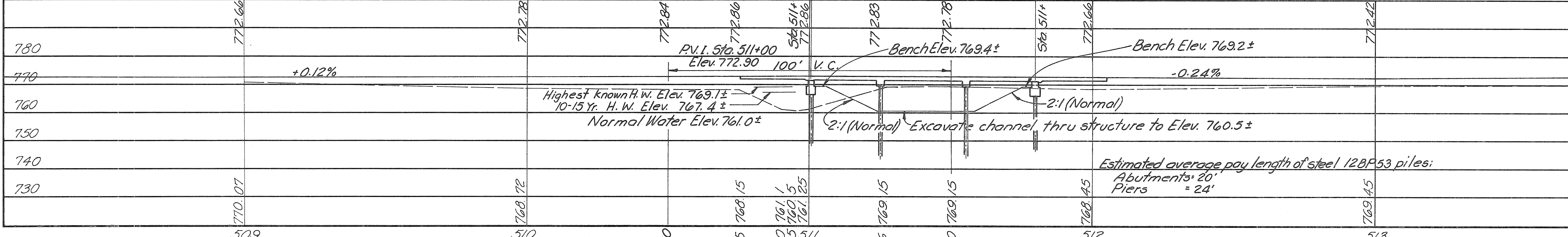
DRAINAGE AREA - 17.06 SQ. MI.  
EXIST. BRIDGE - NONE

**PROPOSED STRUCTURE**  
TYPE: Continuous reinforced concrete slabs with capped pile substructure  
SPANS: 24'-30'-24' % Brgs.  
ROADWAY: Two - 40'-0" ft guard rail  
LOAD FREQUENCY: CF = 2000 (57)  
SKEW: 10° L.F.  
WEARING SURFACE: 1" monolithic concrete  
APPROACH SLABS: AS-1-54 (25' long)  
ALIGNMENT: 00°-24' curve left  
SUPERELEVATION: None

B.M. #14 Sta. 509+30  
RR Spike in 16" Hickory  
125 Lt. El. 770.099

Clears 10-15 Yr.  
H.W. Elev. 3.7± ft.

B.M. #15 Sta. 514+00  
RR Spike in 24" Walnut  
400 Lt. El. 772.361



STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
BUREAU OF BRIDGES

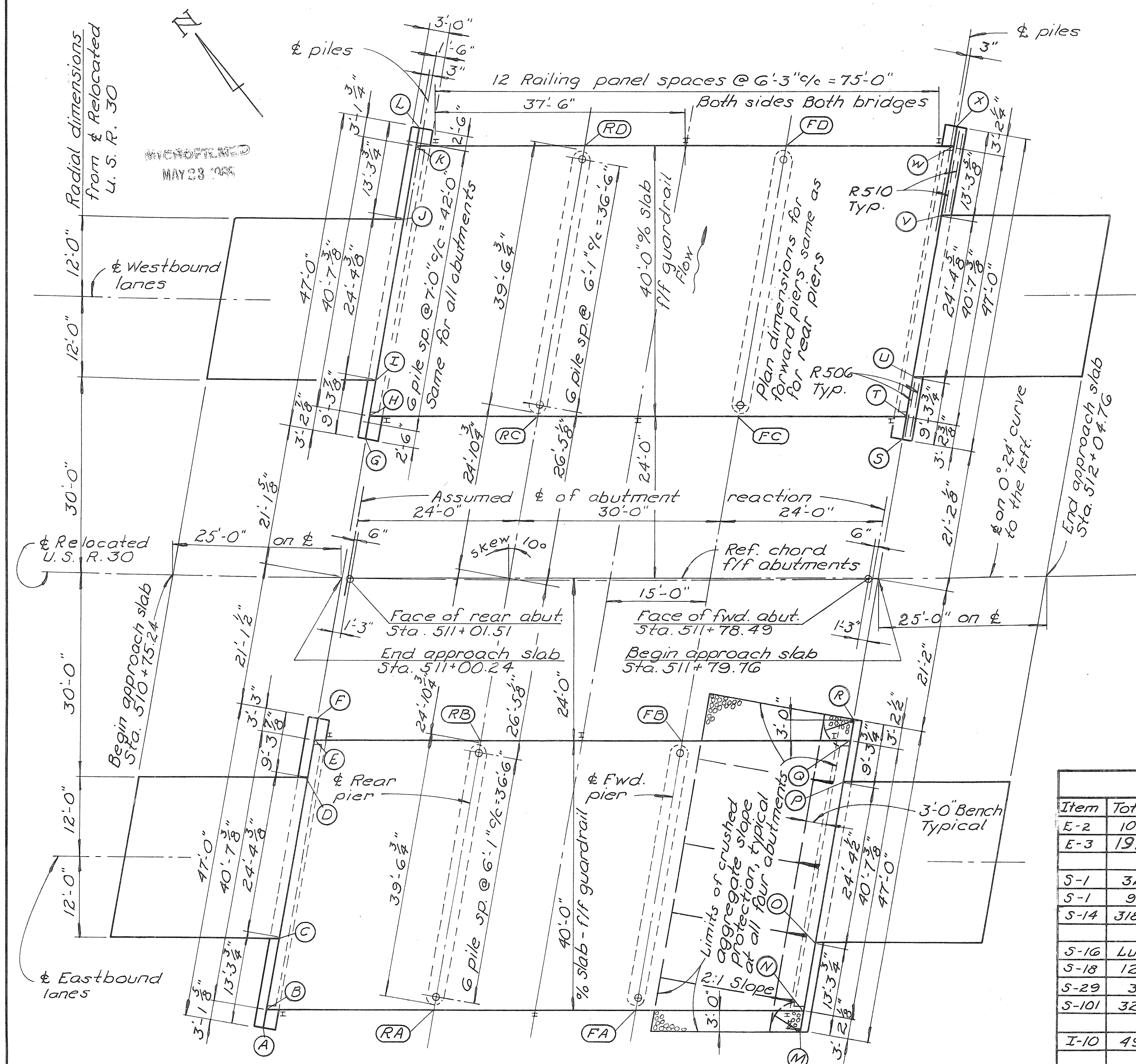
**SITE PLAN**  
BRIDGE NO. VAN-30-0967 L&R  
OVER HOAGLIN CREEK  
VAN WERT COUNTY U.S.R. 30  
SEC. VAN-30-4.06 STA. 511+00.24  
SCALE 1" = 20' 511+79.76

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
				NJB	P. E. S.



### REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	SHR	BENDING DIAGRAMS		MARK	NO.	LENGTH	WEIGHT	SHR
<b>Superstructure</b>							<b>Abutments</b>				
AB64	240	28'-1"	17,996	S			R1001	32	21'-3"	2926	S
B864	80	21'-0"	4,486	B			R801	32	24'-7"	2100	S
CB64	76	18'-4"	3,720	B			R501	32	24'-2"	807	S
DB64	40	19'-6"	2,083	S			R502	272	6'-7"	1868	B
EB64	38	15'-10"	1,606	S			R503	16	20'-7"	343	S
F964	156	24'-9"	13,127	S			R504	48	5'-4"	267	S
G964	76	11'-10"	3,058	S			R505	64	7'-11"	528	B
H964	76	9'-7"	2,476	S			R506	8	8'-9"	73	S
J601	80	14'-1"	1,692	S			R507	32	4'-11"	164	S
K601	40	10'-7"	636	S			R508	48	6'-8"	334	B
N601	216	21'-0"	6,813	S			R509	48	8'-5"	421	B
MT01	268	21'-2"	11,595	S			R510	8	12'-9"	106	S
<b>Piers</b>							<b>Replacement Bars</b>				
P1001	32	21'-8"	2,983	S			RE1000	1	7'-2"	-	S
P901	32	20'-0"	2,176	S			RE900	2	6'-10"	-	S
P501	16	19'-4"	323	S			RE800	2	6'-6"	-	S
P502	120	9'-0"	1,126	B			RE700	1	6'-2"	-	S
P503	16	6'-4"	106	B			RE600	1	5'-11"	-	S
P401	112	5'-5"	405	B			RE500	1	5'-7"	-	S
							RE400	1	5'-5"	-	B

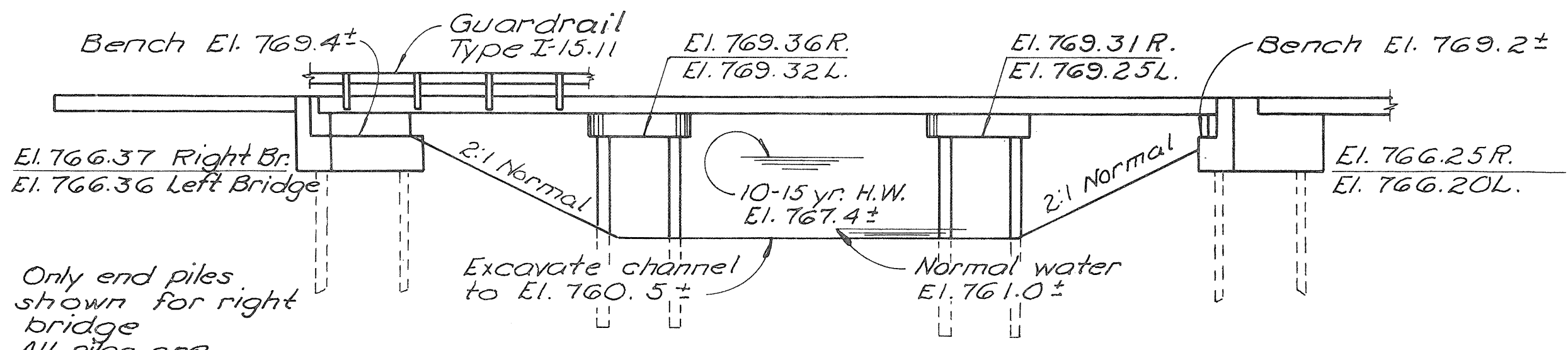


### GENERAL PLAN

P.V.I. Sta 511+00  
 El. 772.90  
 V.C. = 100'  
 +0.12% | -0.24%

All dimensions are measured with respect to the reference chord, extended as necessary, except as otherwise noted.

Edges of deck slabs are parallel with the reference chord.



### ELEVATION - RIGHT BRIDGE

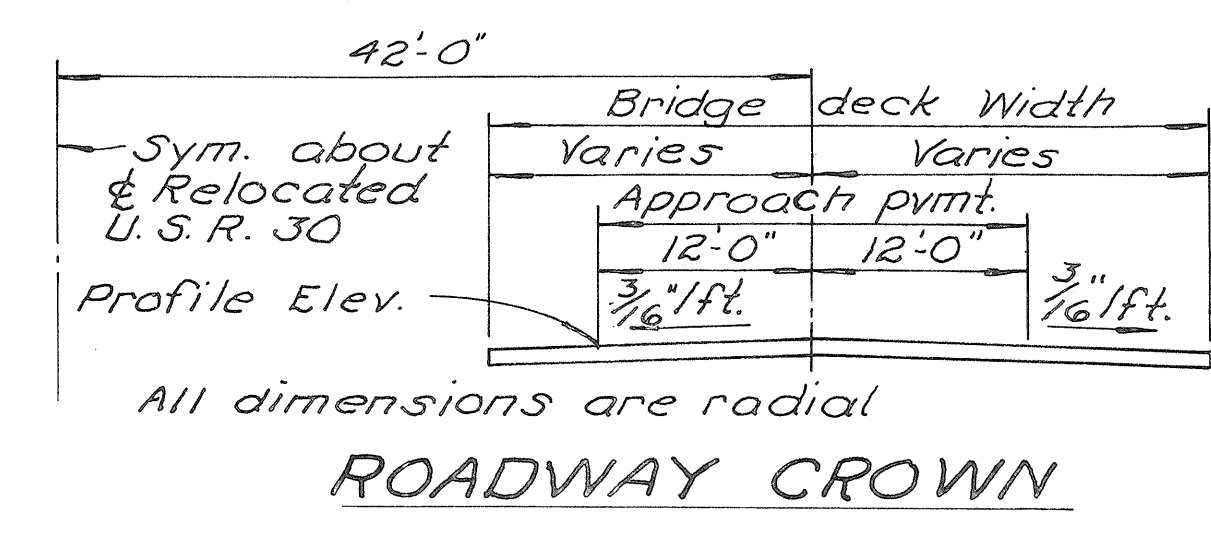
### ESTIMATED QUANTITIES - TWO BRIDGES

Item	Total	Unit	Description	Super	Abuts	Piers	Gen.	As Built
E-2	109	Cu.Yd.	Unclassified excavation		109			
E-3	1920	Cu.Yd.	Channel excavation				1920	
S-1	327	Cu.Yd.	Class "C" concrete, superstructure and pier caps	298		29		
S-1	97	Cu.Yd.	Class "E" concrete, abutments		97			
S-14	318.08	Lin.Ft.	Railing (Type I-15.11 with galvanized steel posts and bolts)	318.08				
S-16	Lump	Sum	First test pile				Lump	
S-18	1230	Lin.Ft.	Steel piles 12BP53		560	670		
S-29	33	Cu.Yd.	Porous Backfill		33			
S-101	327	Each	Water-reducing, set-retarding admixture	298		29		
I-10	493	Sq.Yd.	Crushed aggregate slope protection				493	
S-4	86,749	Lbs.	Reinforcing steel	69,288	10,342	7,119		

### ELEVATIONS

Top of abut. backwalls and top of deck slab

Rear Abutment	Forward Abutment	On Pier & s
A 772.65	M 772.53	RA 772.69
B 772.70	N 772.58	RB 772.74
C 772.86	O 772.73	RC 772.73
D 772.86	P 772.72	RD 772.65
E 772.76	Q 772.63	
F 772.71	R 772.57	
G 772.71	S 772.56	FA 772.64
H 772.76	T 772.60	FB 772.68
I 772.85	U 772.70	FC 772.67
J 772.85	V 772.69	FD 772.58
K 772.69	W 772.53	
L 772.64	X 772.48	



### ROADWAY CROWN

### GENERAL NOTES

REFERENCE shall be made to Standard Drawings CS-1-54 Sheets 1&2, rev. 4-1-63, P.1-54, revised 2-2-59, A-1-54, revised 12-1-54, and to Supplemental Specification S-101 dated 7-12-62.

Design Loading - CF 2000 (57).

Concrete Class C - basic unit stress 1,333 p.s.i.  
 Concrete Class E - basic unit stress 1,133 p.s.i.

Reinforcing Steel - ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20,000 p.s.i.

PILES shall be driven to a minimum bearing capacity of 25 tons per pile for the abutments and 34 tons per pile for the piers.

FIRST TEST PILE. Payment will be made for only one first test pile. It may be driven for either the Right or Left bridge.

PIER PILE ENCASEMENT as shown on Std. Dwg. P-1-54 is not required. The painting of the piles shall extend to low water elevation or, if the proposed surface of the ground is above low water, it shall extend to at least one foot below the proposed surface of the ground.

MACHINE FINISH: At the contractor's option, the concrete deck may be finished by the use of a finishing machine.

SLAB THICKNESS is 14 3/4" which includes 1" for monolithic wearing surface.

REINFORCING STEEL CLEARANCE in the top of the deck slab shall be 2 1/4" which includes 1" for monolithic wearing surface.

STATE OF OHIO  
 DEPARTMENT OF HIGHWAYS  
 DIVISION OF DESIGN AND CONSTRUCTION  
 BUREAU OF BRIDGES

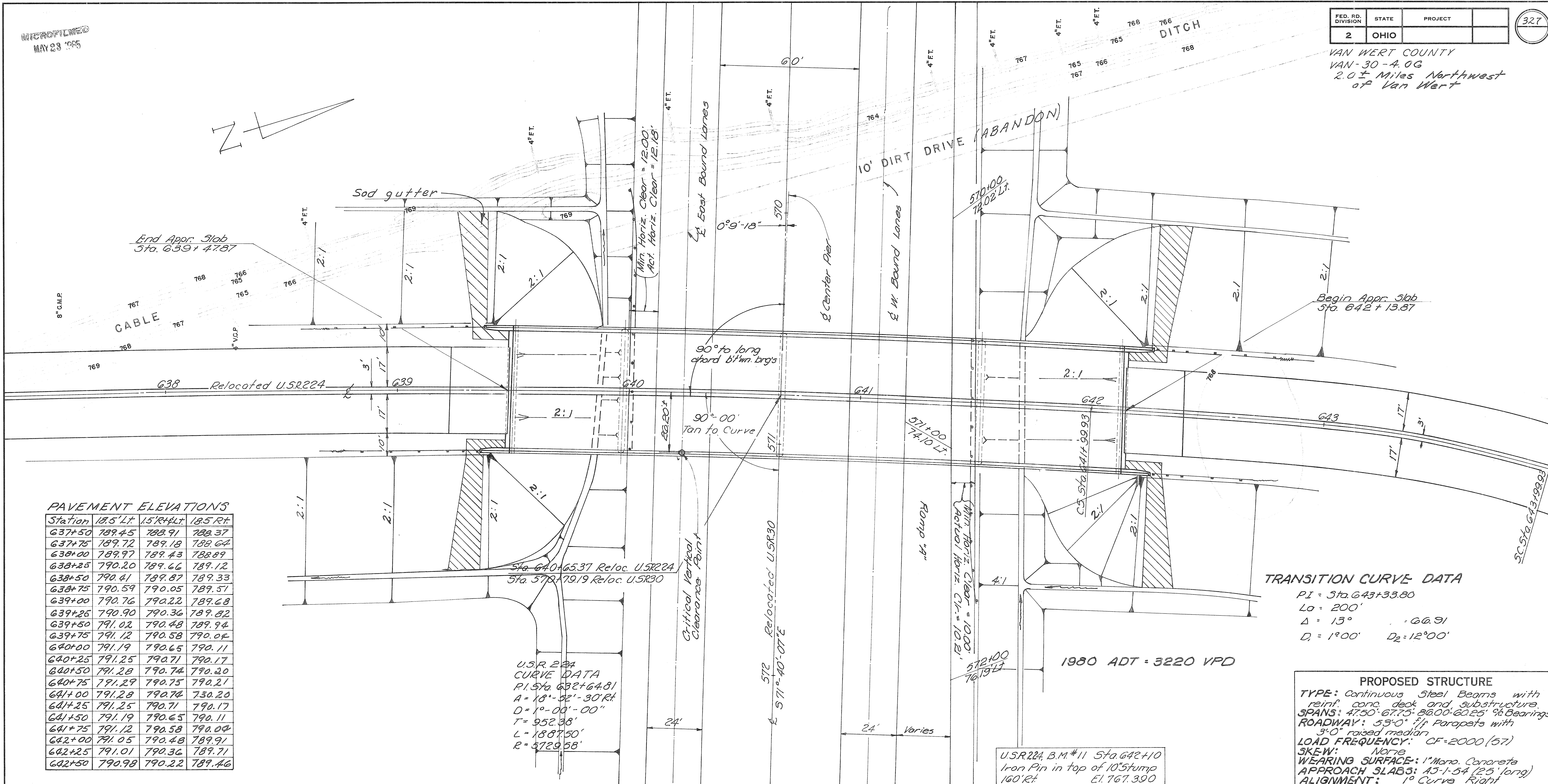
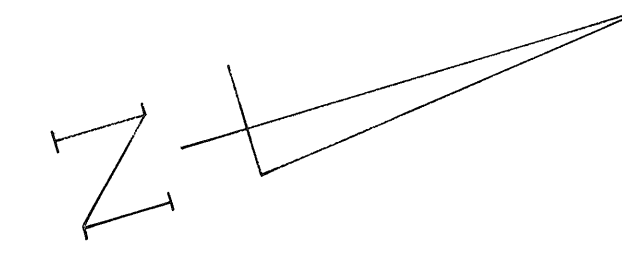
GENERAL PLAN, ELEVATION & NOTES  
 ESTIM. QUANTITIES & REINF. STEEL LIST  
 BRIDGE NO VAN-30-0967 1/2 R  
 OVER HOAGLIN CREEK  
 VAN WERT CO. STA. 511+00.24  
 STA. 511+79.76

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Innes	Innes	P.K.I.	NAA	BFG	3-22-65	

MICROFILMED  
MAY 29 1965

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		327

VAN WERT COUNTY  
VAN-30-4.0G  
2.0 ± Miles Northwest  
of Van Wert



PAVEMENT ELEVATIONS

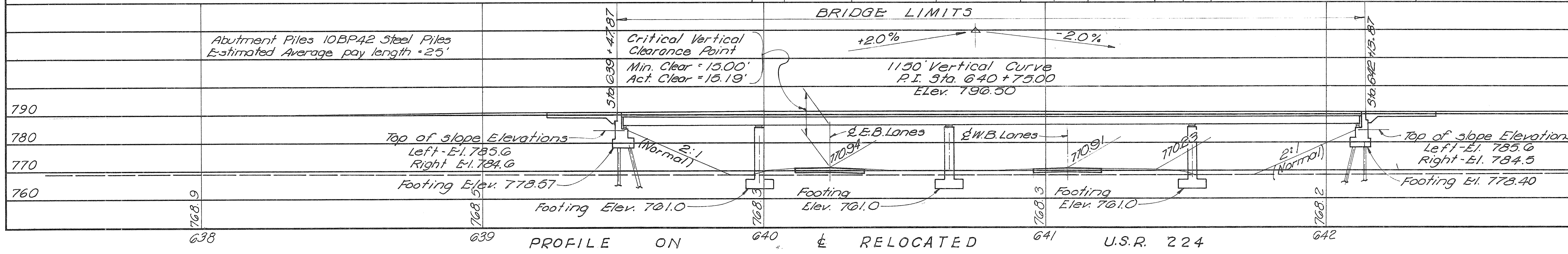
Station	18.5' Lt.	15' R+P.Lt.	18.5' Rt.
637+50	789.45	789.91	789.37
637+75	789.72	789.18	789.64
638+00	789.97	789.43	788.89
638+25	790.20	789.66	789.12
638+50	790.41	789.87	789.33
638+75	790.59	790.05	789.51
639+00	790.76	790.22	789.68
639+25	790.90	790.36	789.82
639+50	791.02	790.48	789.94
639+75	791.12	790.58	790.04
640+00	791.19	790.65	790.11
640+25	791.25	790.71	790.17
640+50	791.28	790.74	790.20
640+75	791.29	790.75	790.21
641+00	791.28	790.74	790.20
641+25	791.25	790.71	790.17
641+50	791.19	790.65	790.11
641+75	791.12	790.58	790.04
642+00	791.05	790.48	789.91
642+25	791.01	790.36	789.71
642+50	790.98	790.22	789.46

U.S.R. 224  
CURVE DATA  
P.I. Sta. 632+64.81  
A = 18°-52'-30" Rt.  
D = 1°-00'-00"  
T = 952.38'  
L = 1587.50'  
E = 5729.58'

TRANSITION CURVE DATA  
PI = Sta. 643+33.80  
Lo = 200'  
Δ = 13° = 06.91  
D<sub>1</sub> = 1°00' D<sub>2</sub> = 12°00'

1980 ADT = 3220 VPD

U.S.R. 224, B.M. #11 Sta. 642+10  
Iron Pin in top of 10' jump  
160' Rt. El. 767.390



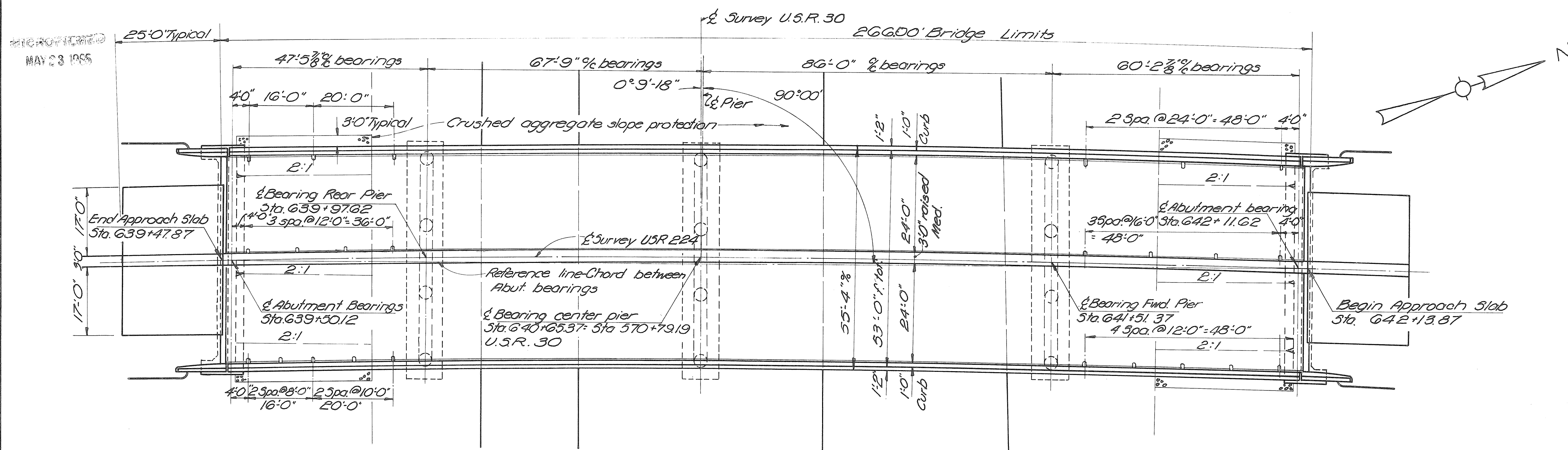
PROPOSED STRUCTURE  
TYPE: Continuous Steel Beams with reinf. conc. deck and substructure.  
SPANS: 47.50'-67.75'-86.00'-60.25' % Bearings  
ROADWAY: 53'-0" flt Parapets with 3'-0" raised median  
LOAD FREQUENCY: CF=2000 (57)  
SKEW: None  
WEARING SURFACE: 1" Mono. Concrete  
APPROACH SLABS: A5-1-54 (25' long)  
ALIGNMENT: 1° Curve Right  
SUPERELEVATION: Varies

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
BUREAU OF BRIDGES

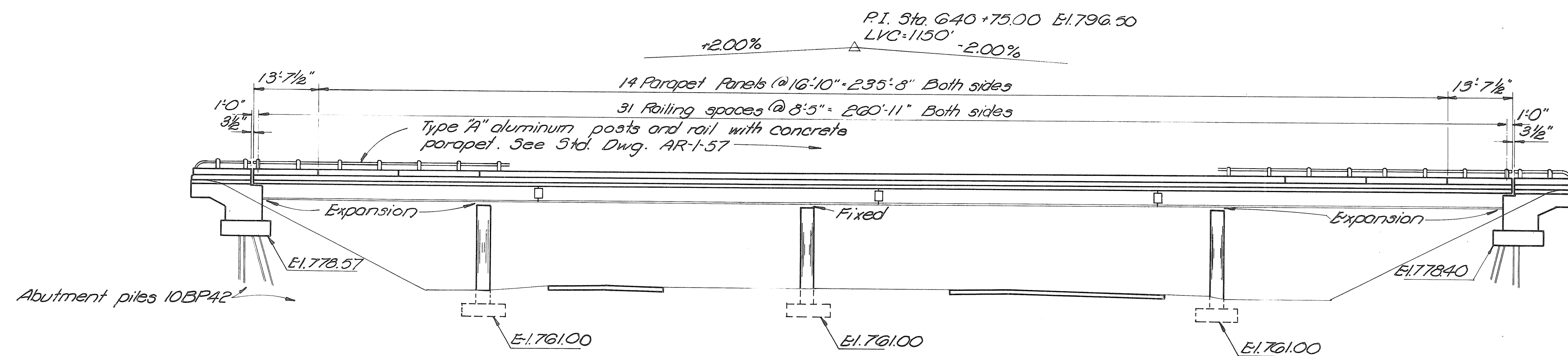
SITE PLAN

BRIDGE NO. VAN-30-1081  
Under Relocated U.S.R. 224  
Van Wert County  
SEC. VAN-30-4.0G STA. 570+79.19  
SCALE 1" = 20'

DESIGNED	DRAWN	CHECKED	REVIEWED
REJ	REJ	NJB	P. E. S.



PLAN



ELEVATION

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Super.	Abut.	Piers	Genl.	As Built
E-2	825	Cu. Yds.	Unclassified excavation		290	535		
S-1	457	Cu. Yds.	Class "C" concrete, superstructure	457				
S-1	130	Cu. Yds.	Class "C" concrete, pier caps and columns			130		
S-1	174	Cu. Yds.	Class "E" concrete, pier footings			174		
S-1	205	Cu. Yds.	Class "E" concrete, abutments		205			
S-4	224,038	Lbs.	Reinforcing steel	138,537	13,145	72,356		
S-7	40,750	Lbs.	Structural steel	40,750				
S-8	40,750	Lbs.	Field painting of structural steel	40,750				
S-14	575.00	lin. Ft.	Railing (aluminum rail and posts, concrete parapets)	521.00	48.00			
S-16	Lump	Sum	First test pile				Lump	
S-18	700	lin. Ft.	Steel piles, 10BP42		700			
S-29	42	Cu. Yds.	Porous backfill		42			
S-29	95.0	Lin. Ft.	6" Perforated helical C.M.P. M-G4(h), including specials		95.0			
S-29	960	lin. Ft.	6" Helical C.M.P. M-G4(h), non-perforated		960			
S-29	24	Each	Scuppers, including supports	24				
F-10	500	Sq. Yds.	Crushed aggregate slope protection				500	
S-101	457	Each	Water-reducing, set-retarding admixture	457				
F-127	6	Each	Delimiters, bracket-mounted Type C-2	6				

**GENERAL NOTES**  
 REFERENCE shall be made to Standard Drawings CSB-463, sheet 1 dated 12-30-63; SD-1-63, sheets 1 thru 4 dated 11-12-63; AR-1-57, revised 4-2-62; FSB-1-62, revised 1-15-63; and to Supplemental Specifications 5-101 dated 7-12-62 and 5-307 revised 10-1-64.

**DESIGN LOADING** - CF-2000 (57)

**BASIC UNIT STRESSES:**

Concrete Class "C", 1,353 p.s.i.  
 Concrete Class "E", 1,153 p.s.i.  
 Structural Steel (except piling) ASTM A36-20,000 p.s.i. (ASTM A7 and A373 steel not permitted)  
 Reinforcing Steel - ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade - 20,000 p.s.i. Except spiral reinforcing may be plain Structural Grade - 18,000 p.s.i.

**EXCAVATION QUANTITY** includes the removal of fill material required for construction of the abutments.

**PILES** shall be driven to a minimum bearing capacity of 30 tons per pile.

**FOUNDATION BEARING PRESSURE:** Pier footings are designed for a maximum bearing pressure of 2.5 tons per sq. ft.

**HIGH STRENGTH BOLTS:** Reference is made to Construction and Material Specifications, dated January 1, 1963. Under Sect. 5-7.10, High-Strength Steel Bolts, Nuts and Washers, paragraph two (2) shall be completely revised to read as follows:

"In the final assembly of the parts to be bolted, drift pins shall be placed in a sufficient number of holes (not less than 25 percent for field erection) to provide and maintain accurate alignment of holes and parts, and sufficient bolts shall be installed and brought to a snug tight condition to bring the parts into complete contact. Bolts shall then be installed in any remaining open holes and tightened to a snug tight fit, after which all bolts shall be tightened completely by calibrated wrenches or by the turn-of-nut method. Drift pins shall then be replaced with bolts, tightened in the same manner."

**MACHINE FINISH:** At the Contractor's option, the concrete deck may be finished by the use of a finishing machine.

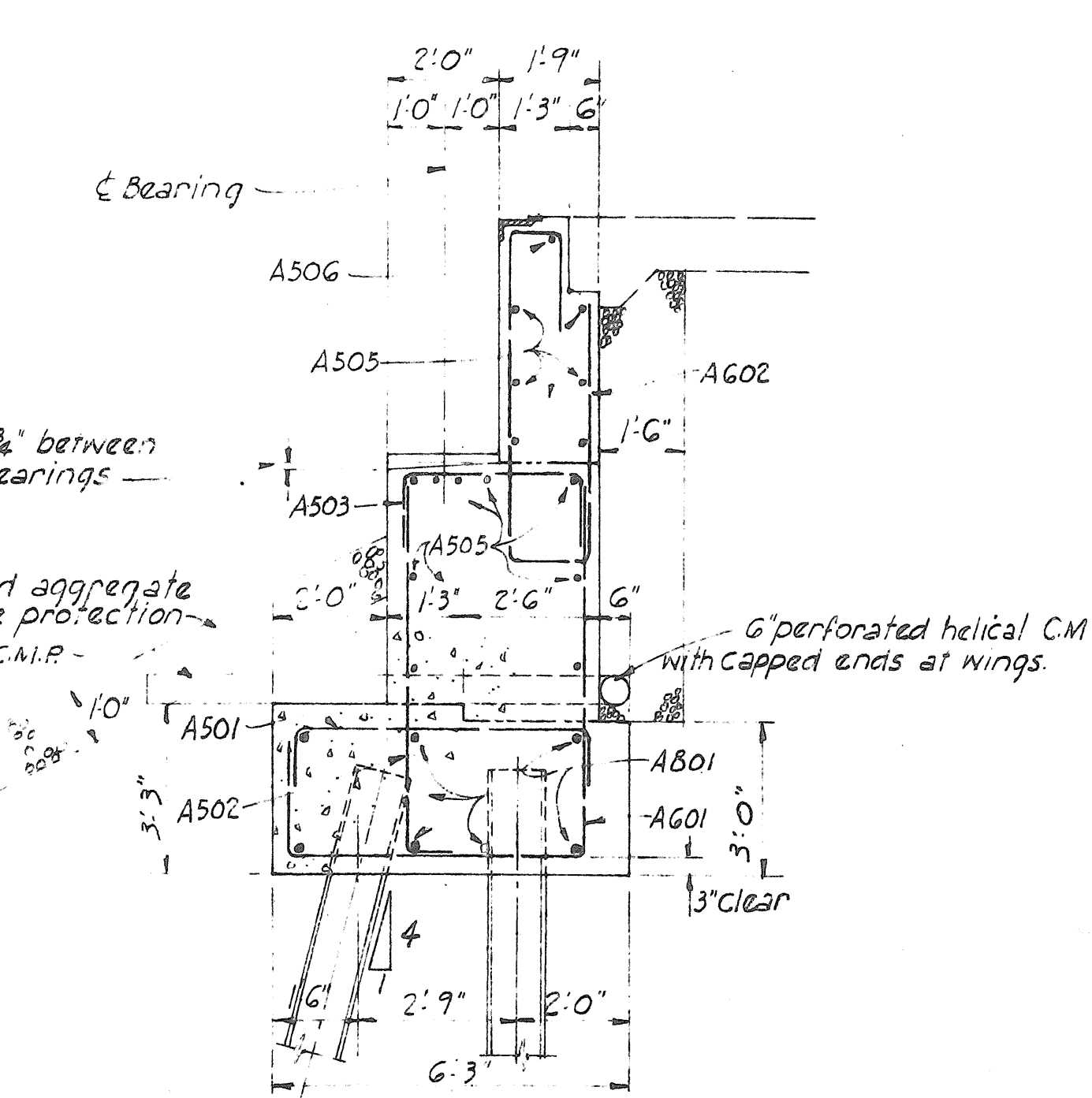
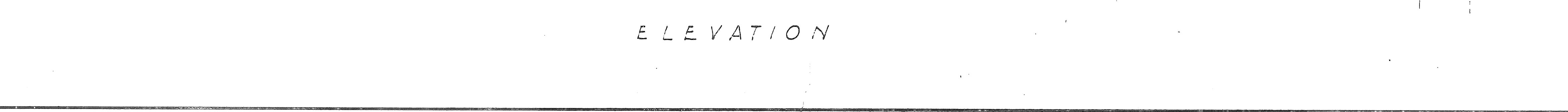
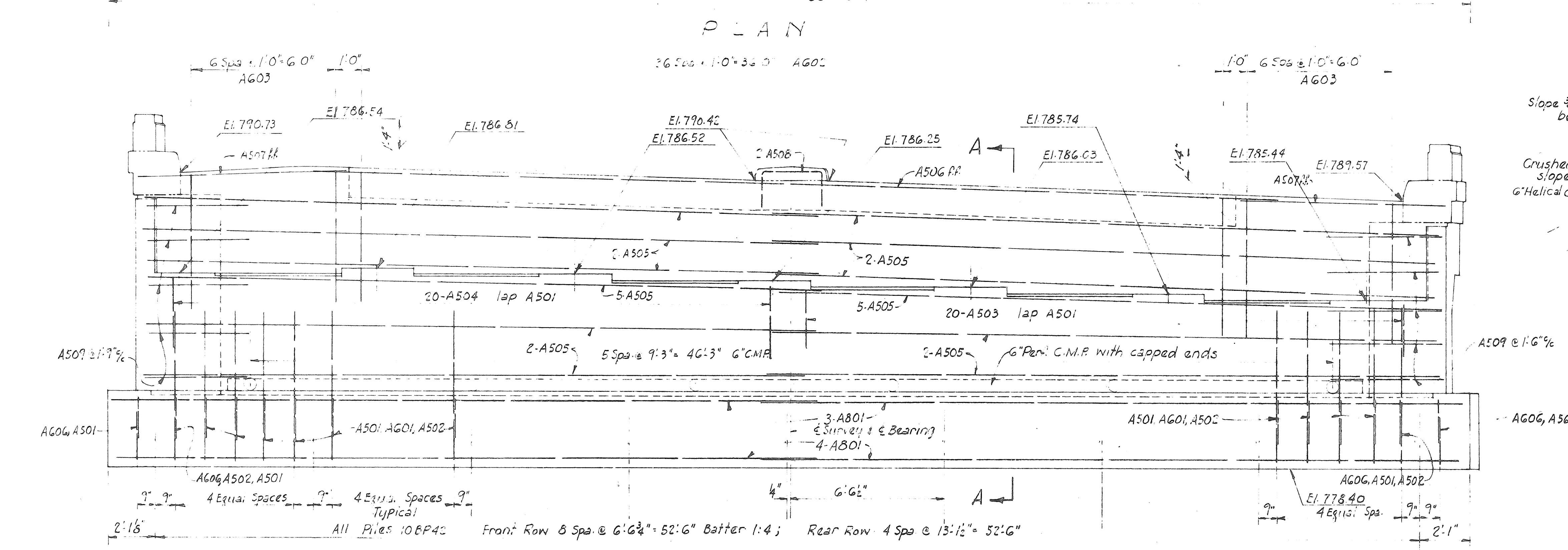
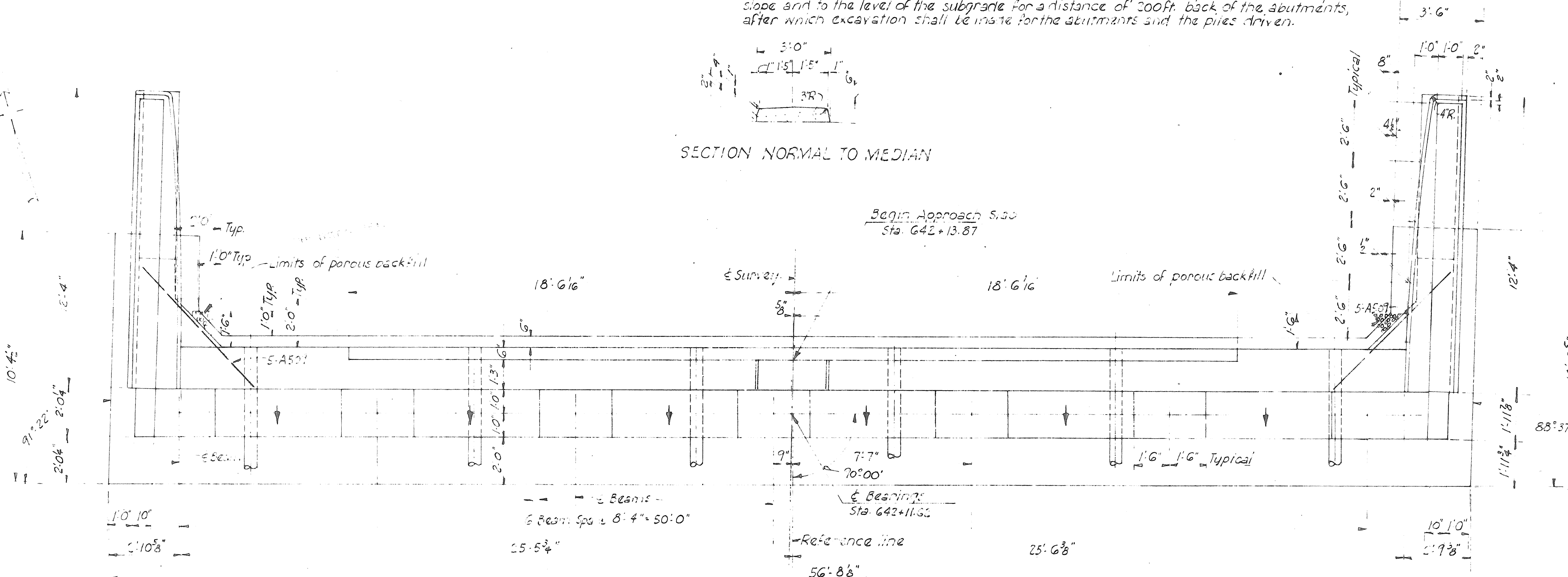
STATE OF OHIO  
 DEPARTMENT OF HIGHWAYS  
 DIVISION OF DESIGN AND CONSTRUCTION  
 BUREAU OF BRIDGES

**GENERAL PLAN AND ELEVATION,  
 ESTIMATED QUANTITIES AND NOTES**  
 BRIDGE No. VAN-30-108/  
 UNDED RE-LOCATED USR 224  
 VAN WERT COUNTY STA. 570+79.19

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.D.R.	J.D.R.	CAM	WCK	BFG	3-19-65	

VAN WERT COUNTY  
VAN - 30 - 406

POROUS BACKFILL 1'-6" thick, full length of the abutments to the wings shall extend 10' to the underside of the approach slab on to the finished ground surface.  
PROCEDURE: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200ft. back of the abutments, after which excavation shall be made for the abutments and the piles driven.



SECTION A-A

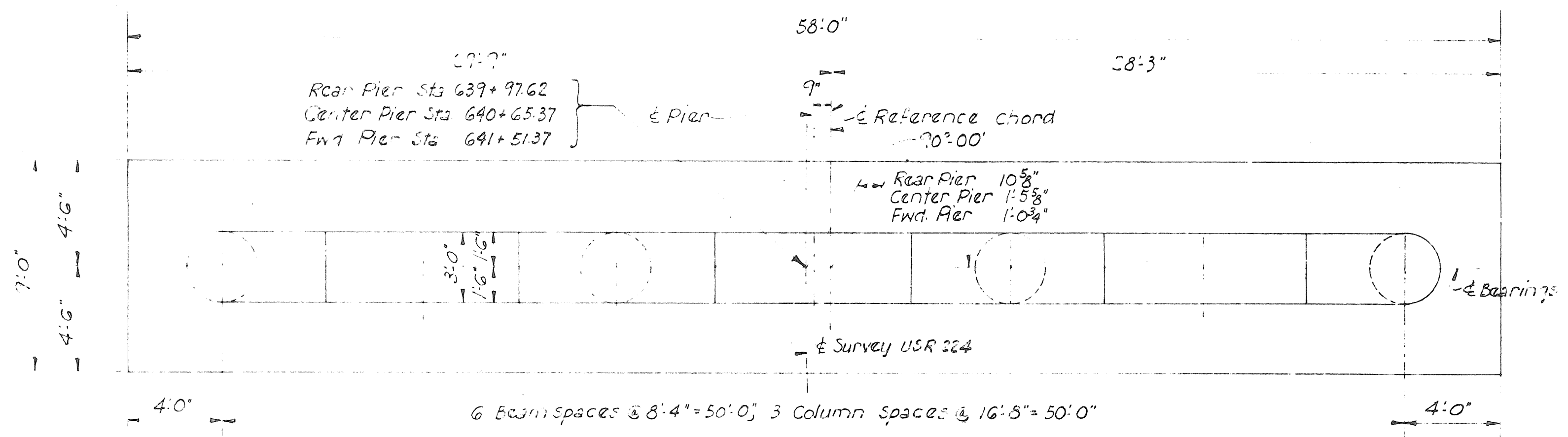
STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES						
FWD. ABUTMENT DETAILS						
BRIDGE NO. VAN-30-1081						
UNDER RELOCATED USR 224						
VAN WERT COUNTY Sta. 570+79.19						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.D.R.	J.D.R.		W.C.K.	B.F.G.	3-19-65	



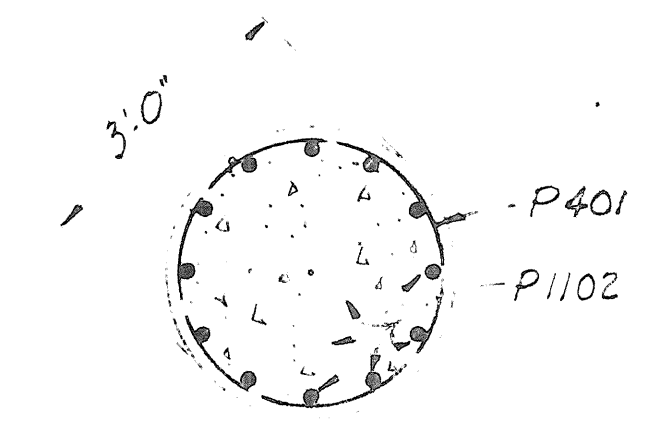
WICROFILMED  
MAY 23 1965

FED. DD. DIVISION	STATE	PROJECT	331
2	OHIO		

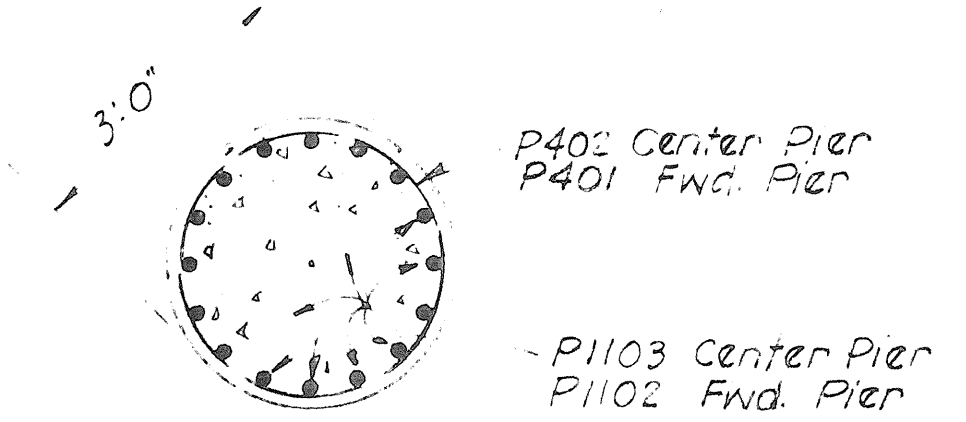
VAN WERT COUNTY  
VAN - 30 - 406



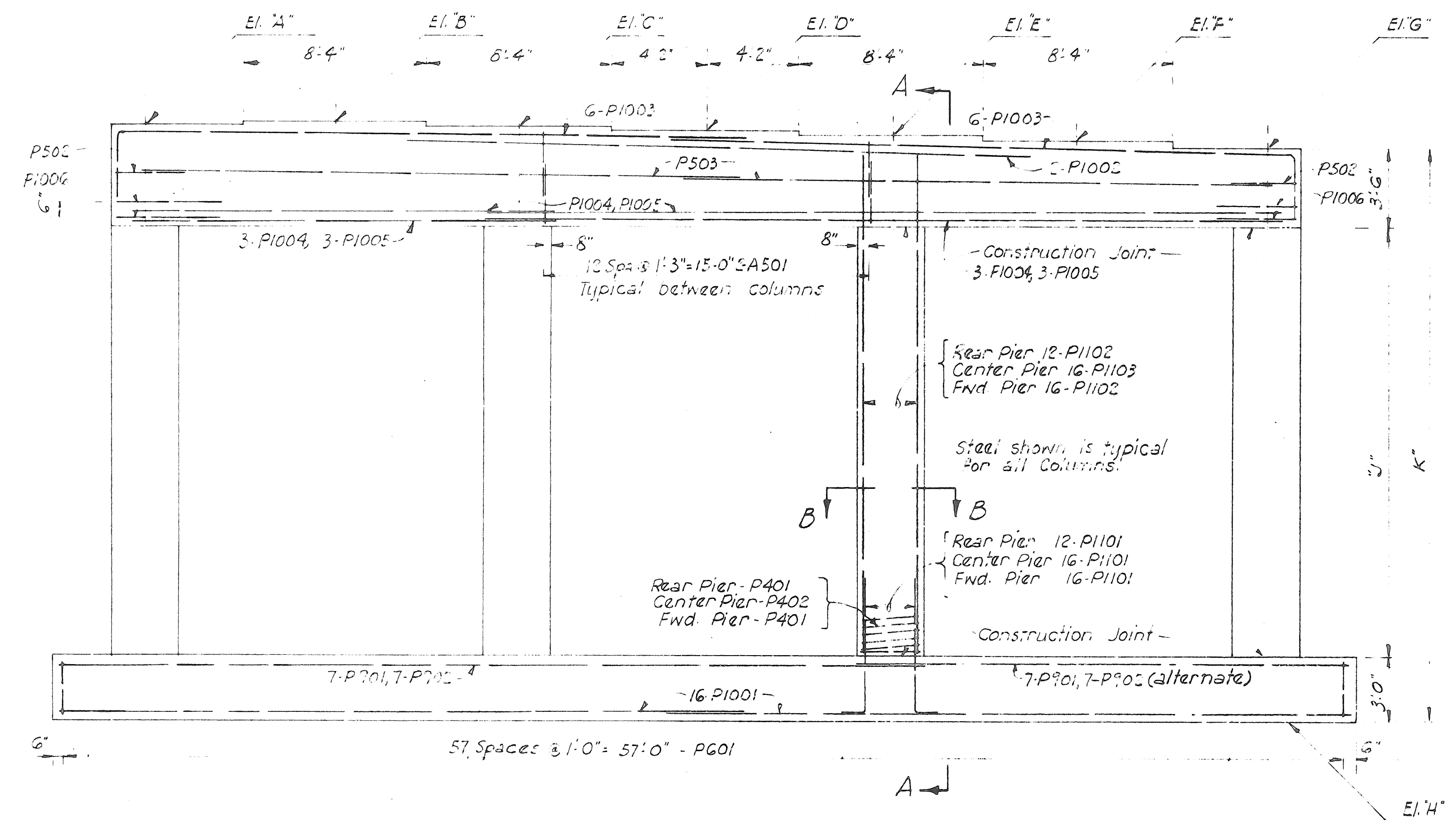
PLAN



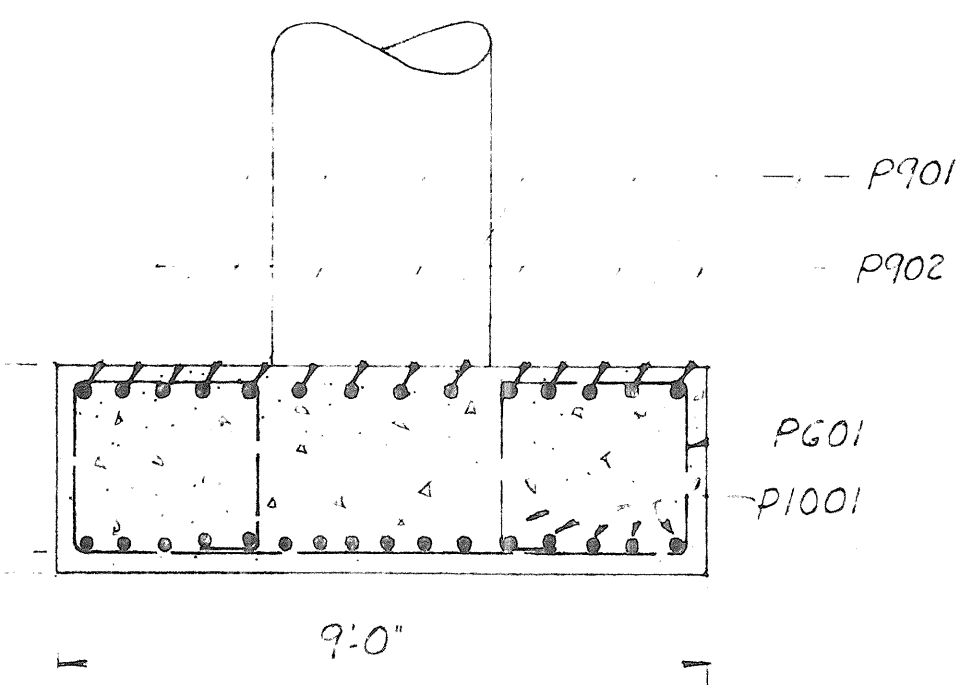
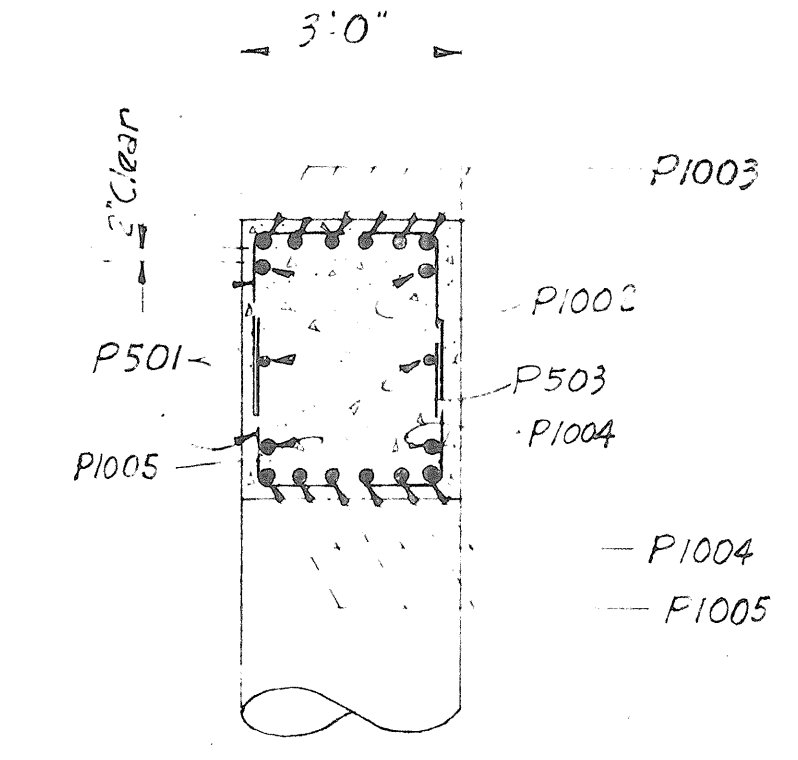
SECTION B~B  
(Rear Pier)



SECTION B~B  
(Center and Forward Pier)



ELEVATION



SECTION A~A

SPECIAL CARE SHALL BE TAKEN in placing the reinforcing steel in the vicinity of the beam seats so as not to interfere with the drilling of the anchor bar holes.

TABLE OF ELEVATIONS AND DIMENSIONS										
	EL. A	EL. B	EL. C	EL. D	EL. E	EL. F	EL. G	EL. H	Dim. J	Dim. K
Rear Pier	786.73	786.93	786.66	786.45	786.23	785.76	785.70	786.00	18'-2 3/8"	24'-8 3/8"
Center Pier	786.45	786.59	786.32	786.13	785.89	785.62	785.36	786.00	17'-10 3/8"	24'-4 3/8"
Forward Pier	786.64	786.82	786.55	786.35	786.12	785.86	785.59	786.00	18'-1 1/8"	24'-7 1/8"

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

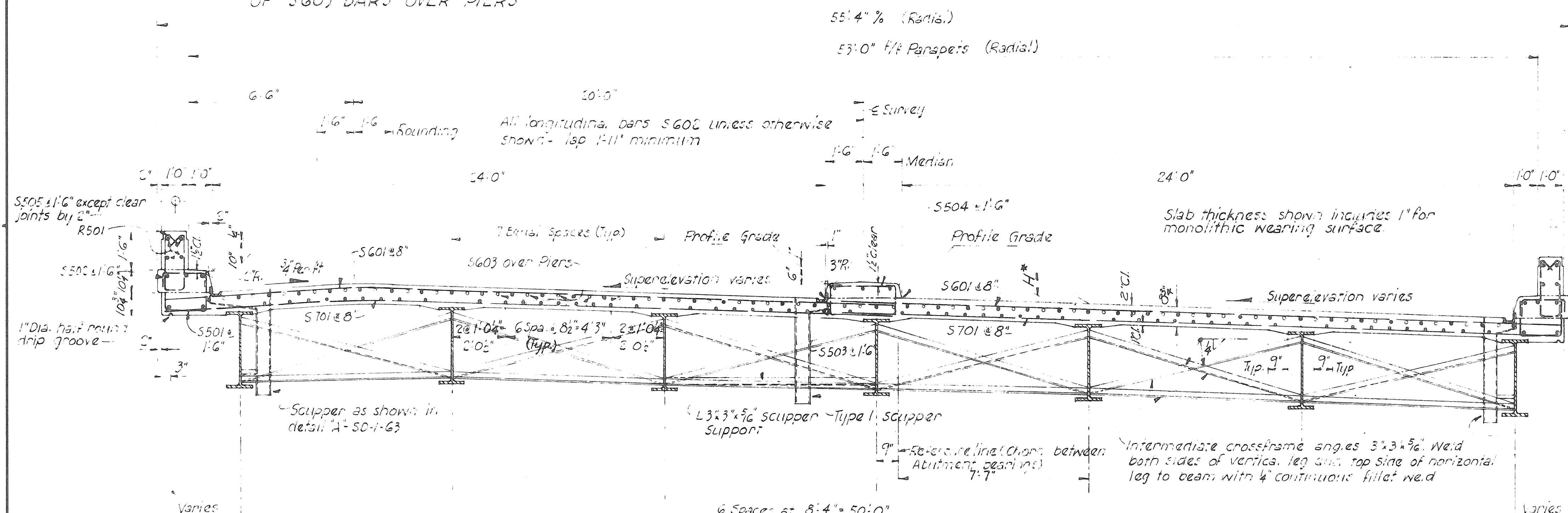
PIER DETAILS  
BRIDGE NO. VAN-30-1081  
UNDER RELOCATED USR 224  
VAN WERT COUNTY Sta. 570+79.19

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JDR	JDR		WCR	BFG	3-19-65	

MICROFILMED  
MAY 23 1965

VAN WERT COUNTY  
VAN - 30 - 406

DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS



DEFLECTION AND CAMBER		Span 1	Span 2	Span 3	Span 4
Deflection due to dead load of steel		1 1/16"	-	5 1/16"	-
Deflection due to remaining dead load		8"	3 1/16"	3 1/4"	5 1/16"
Convexity because of vertical & horiz. curve		1 1/8"	1 1/8"	5 1/16"	3 1/16"
Sum of deflection and convexity		5 1/16"	5 1/16"	1 1/2"	3 1/16"
Required Camber		0	0	1 1/2"	1 3/8"

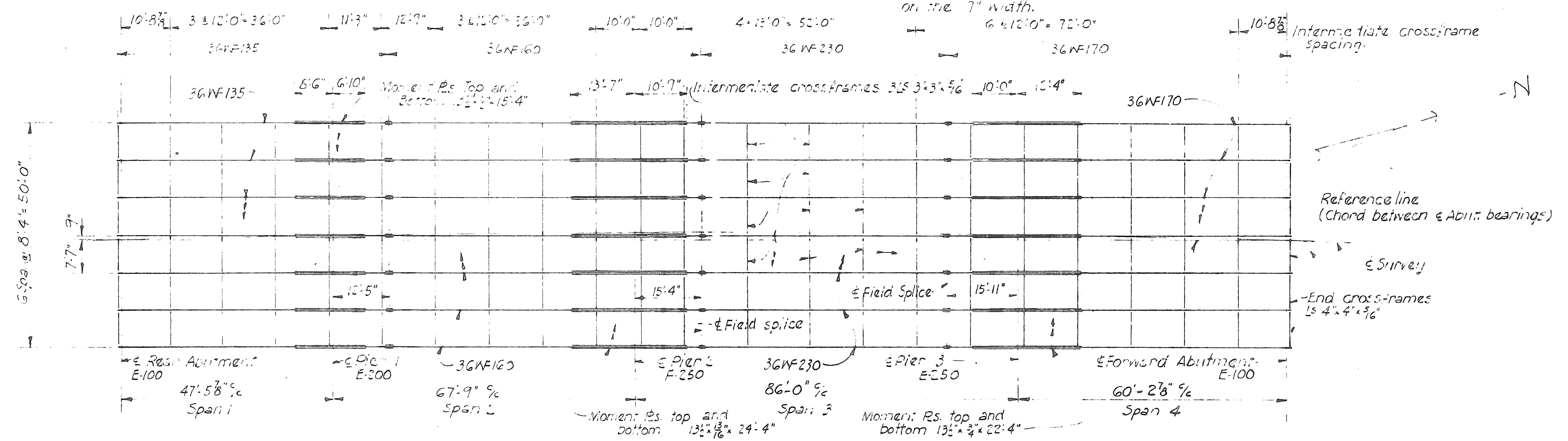
36 WF 135	H = 7 7/8"
36 WF 160	H = 9 1/2"
36 WF 230	H = 12 1/2"
36 WF 170	H = 11"

TRANSVERSE SECTION

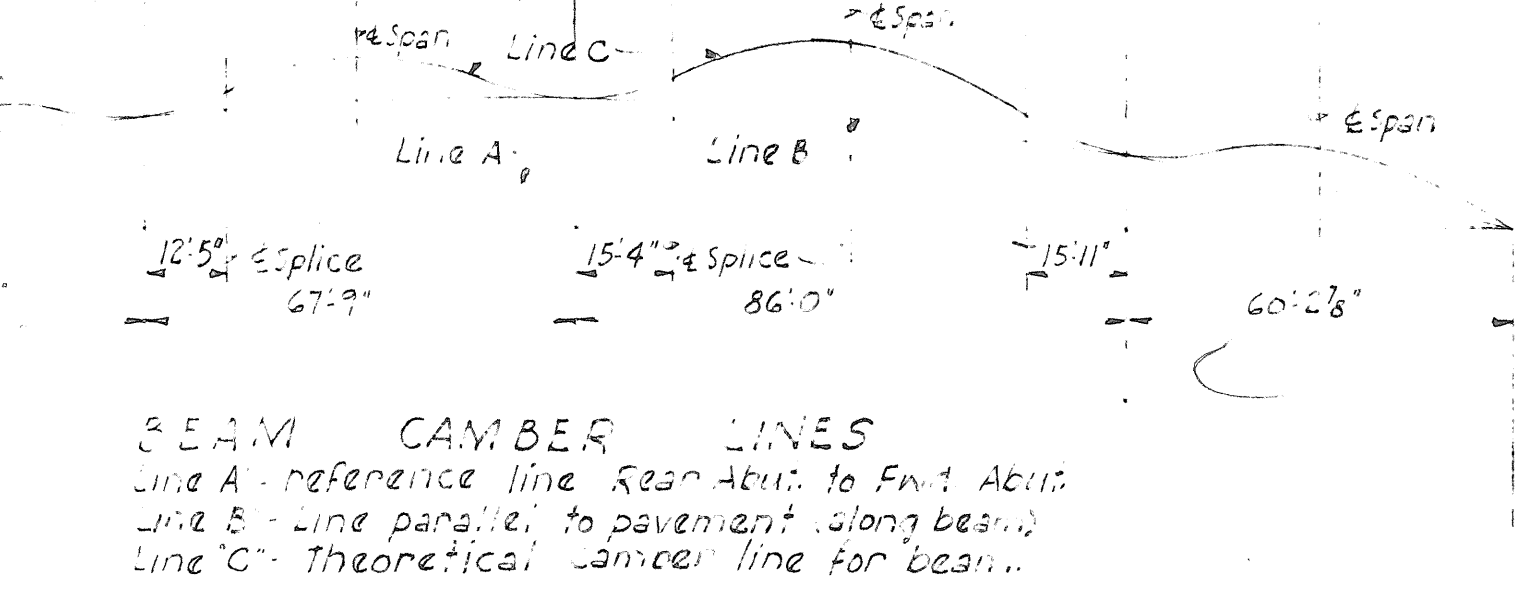
	West Bm.	Remaining Bms.	West Bm.	Remaining Bms.	West Bm.	Remaining Bms.	West Bm.	Remaining Bms.
West Bm. only	17"	28"	3 1/2"	3 3/4"	44"	4 1/2"	4"	3 1/2"
Line A to line B	0	1/16"	3/16"	3/16"	4 1/4"	4 1/4"	5 1/2"	3 1/2"
Line B to line C	1 1/8"	2 1/8"	3 1/8"	3 1/8"	4 1/4"	4 1/4"	5 1/2"	3 1/2"
Sum Line A to line C	1 1/8"	2 1/8"	3 1/8"	3 1/8"	4 1/4"	4 1/4"	5 1/2"	3 1/2"
All Remaining Beams	1 5/8"	1 5/8"	1 5/8"	1 5/8"	2 5/8"	2 5/8"	2 5/8"	2 5/8"
Line A to line B	0	0	0	0	0	0	0	0
Line B to line C	1 5/8"	1 5/8"	1 5/8"	1 5/8"	2 5/8"	2 5/8"	2 5/8"	2 5/8"
Sum Line A to line C	1 5/8"	1 5/8"	1 5/8"	1 5/8"	2 5/8"	2 5/8"	2 5/8"	2 5/8"

\* H dimensions tabulated are nominal dimensions. The quantity of deck concrete to be paid for shall be based on these dimensions, even though deviation from them may be necessary because the top flange of the beam may not have the exact camber or conformation necessary to place it parallel to the finished grade.

DECK SLAB HAUNCH: The haunch in the super-elevated deck slab adjacent to the top of steel beams which is shown as 9" wide, may vary from this dimension between the limits of 6" and 12" on the low side and between 9" and 12" on the high side. The maximum slope shall not exceed 3 inches per ft. Payment for deck slab concrete shall be based on the 7" width.



PLAN OF STEEL FRAMING



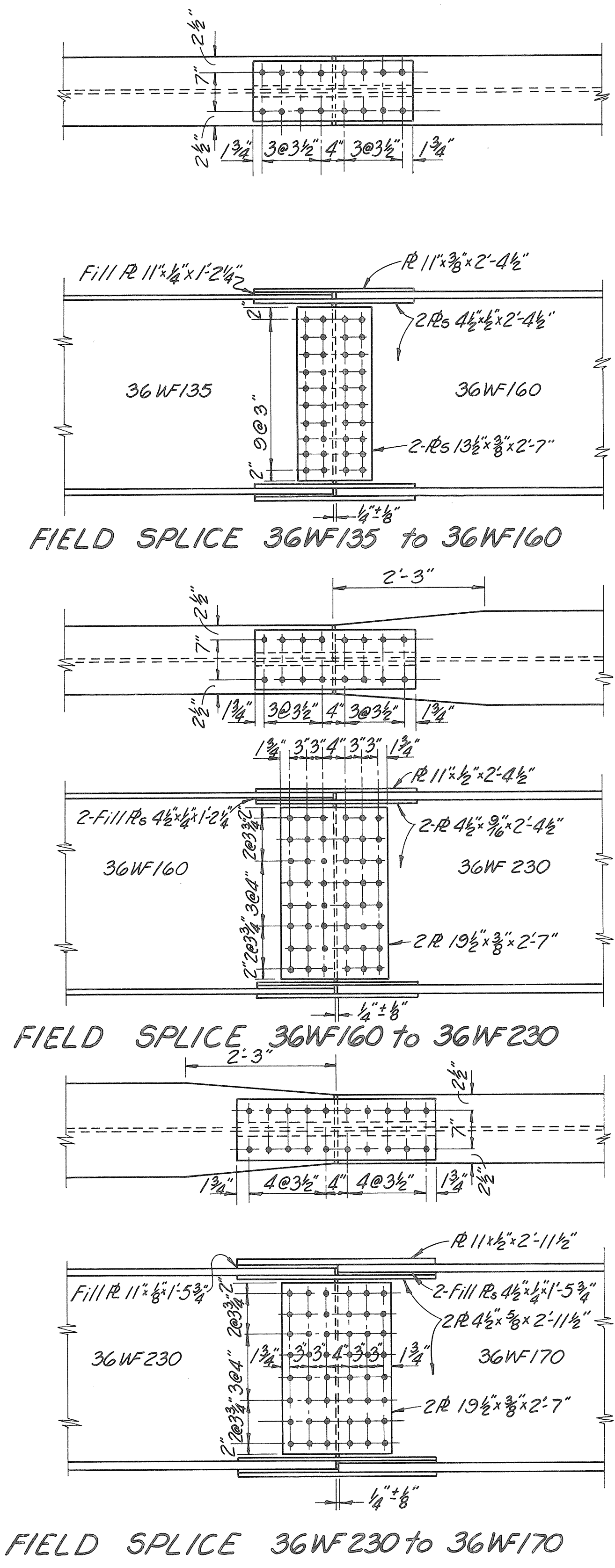
BEAM CAMBER LINES  
Line A - reference line (rear abut. to front abut.)  
Line B - line parallel to pavement along beam  
Line C - theoretical camber line for beam

- Refer to Sta Dwg. CSB-4-63, sheet 1.
- Refer to Sta Dwg. SD-1-63 for the following:
- Shop welding of moment plates
  - End crossframes and end dam.
  - Curb and median plates.
  - Scuppers, supports, and gutter supports.

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

**SUPERSTRUCTURE DETAILS**  
BRIDGE NO. VAN-30-108!  
UNDER RELOCATED USR 224  
VAN WERT COUNTY Sta. 570+79.19

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.D.R.	J.D.R.		W.C.K.	B.F.G.	3-19-65	



All Bolts 1" dia. high strength

REINFORCING STEEL LIST					Bending Diagram						
Mark	No.	Length	Weight	Shp.							
<b>Superstructure</b>					<b>Piers</b>						
S701	790	28'-5"	45,886	S							
S601	790	28'-4"	33,620	S							
S602	999	30'-11"	46,390	S							
S603	129	35'-0"	6,782	S							
S501	352	4'-1"	1,499	B							
S502	352	2'-6"	918	B							
S503	176	5'-3"	964	B							
S504	176	2'-4"	428	S							
S505	352	5'-7"	2,050	B							
<b>Abutments</b>					<b>Replacement Bars</b>						
A801	28	29'-5"	2,199	S							
A802	24	9'-11"	635	S							
A601	76	14'-1"	1,608	B							
A602	74	14'-8"	1,630	B							
A603	28	12'-11"	543	B							
A604	16	19'-2"	461	B							
A605	8	7'-2"	86	B							
A606	8	10'-1"	121	B							
A501	84	8'-2"	716	B							
A502	80	7'-0"	584	B							
A503	40	8'-0"	334	B							
A504	40	8'-10"	369	B							
A505	60	27'-10"	1,742	S							
A506	2	41'-0"	86	S							
A507	4	8'-6"	35	S							
A508	4	4'-11"	21	B							
A509	20	6'-8"	139	S							
A510	36	8'-11"	335	B							
A511	16	5'-3"	88	S							
A512	8	3'-7"	30	S							
A513	8	13'-11"	116	S							
A514	32	12'-0"	401	S							
A515	8	7'-6"	63	S							
A516	24	11'-11"	298	B							
A517	24	6'-11"	173	S							
A518	36	3'-3"	122	B							
A519	36	5'-7"	210	B							
					<b>Spiral Reinforcing</b>						
					Mark	No.	Core Dia.	Length	Pitch	No. of Turns	Weight
					SP401	8	32"	18'-1"	4 1/2"	51	2,633
					SP402	4	32"	17'-10"	4 1/2"	51	1,314

**NOTES**

**SPIRAL REINFORCING BARS:** The Length shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap.

The No. of Turns shown is the Length divided by the pitch, plus 3 turns (total number of closed coils), expressed as the nearest whole number. Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item 5-4. 1/2 closed coils shall be provided at the ends of each spiral unit. Four steel channel, tee or angle spacers, weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 lb. per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

**BAR SIZE** is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example, A700 is a No. 7 size bar and A1014 is a No. 10 size.

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

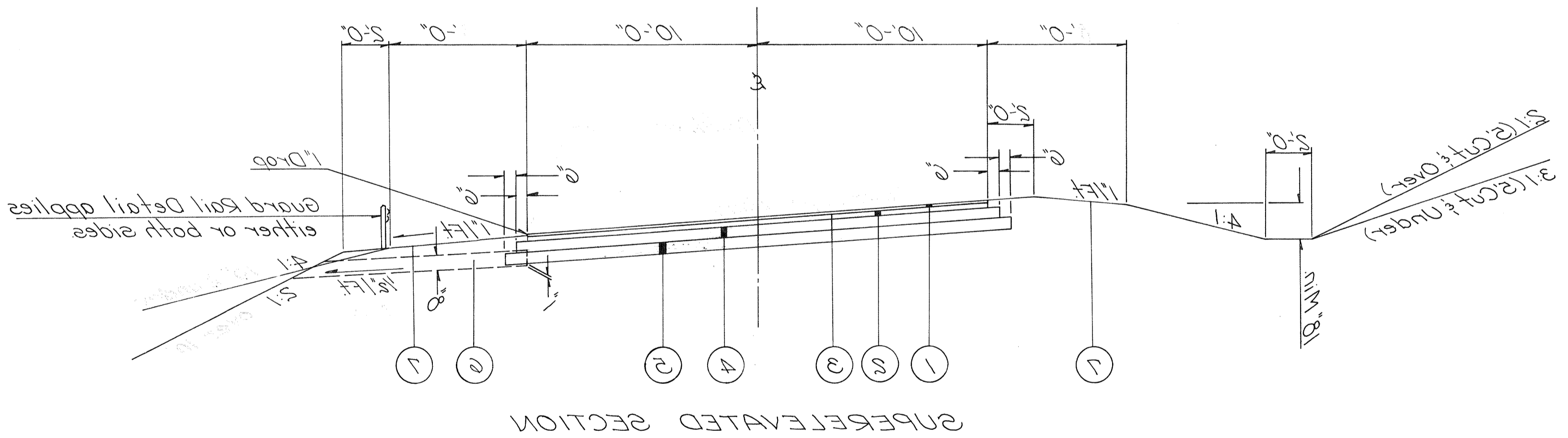
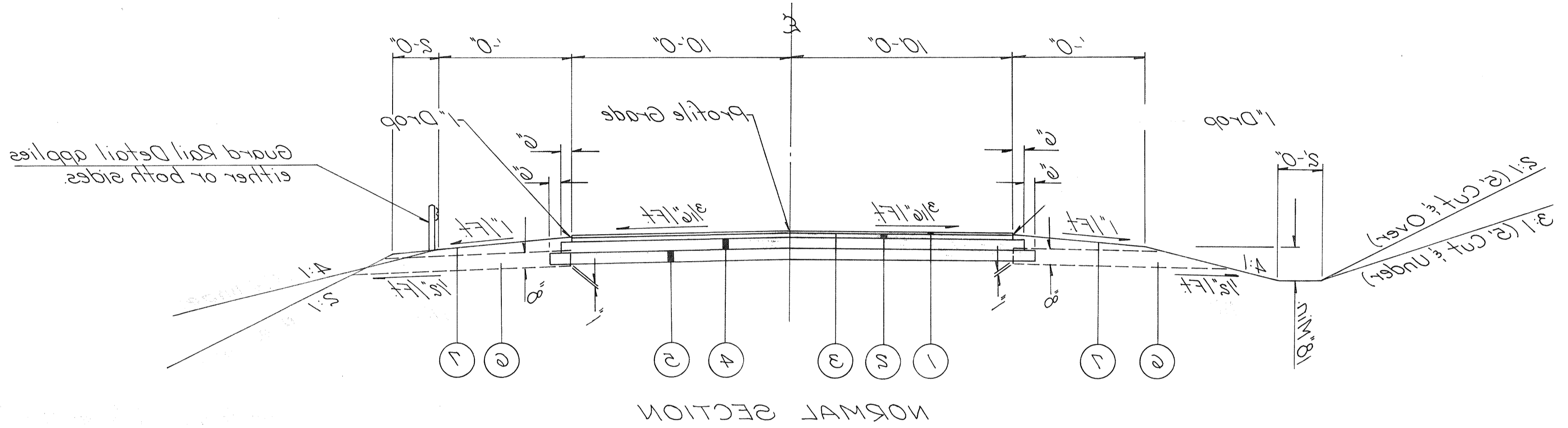
**SUPERSTRUCTURE DETAILS AND REINFORCING STEEL LIST**  
BRIDGE NO. VAN-30-1081  
UNDER RELOCATED USR 224  
VAN WERT COUNTY Sta. 570+79.19

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.D.R.	J.D.R.	H.C.	WCK	BFG	3-19-65	



# TYPICAL SECTIONS

## TYPE T-32



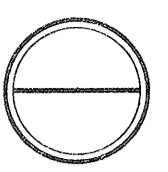
- LEGEND
- ① Item T-32 - 1/4" Asphaltic Concrete Surface Course Type C (82-100)
  - ② Item B-32 - 1/4" Asphaltic Concrete Leveling Course (82-100)
  - ③ Item T-30 - Bituminous Prime Coat Sec. M-57 RT-2 or RT-3 applied at the rate of 0.40 Gal. per sq. Yd.
  - ④ Item B-12 - 6" Aggregate Base Course
  - ⑤ Item T-22 - 6" Subbase
  - ⑥ Item T-9 - Stone Underdrains No. 2 (Spaced at 50' intervals or as directed by the Engineer)
  - ⑦ Item L-9 - Seeding and Protecting

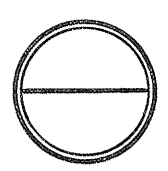
Note: Thicknesses shown are designed thickness as described in Sec. T-32.01 and B-32.01.

For Details not shown see Std. Dwg. RI-1 or Cross Sections

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

VAN WERT COUNTY  
VAN-30-A



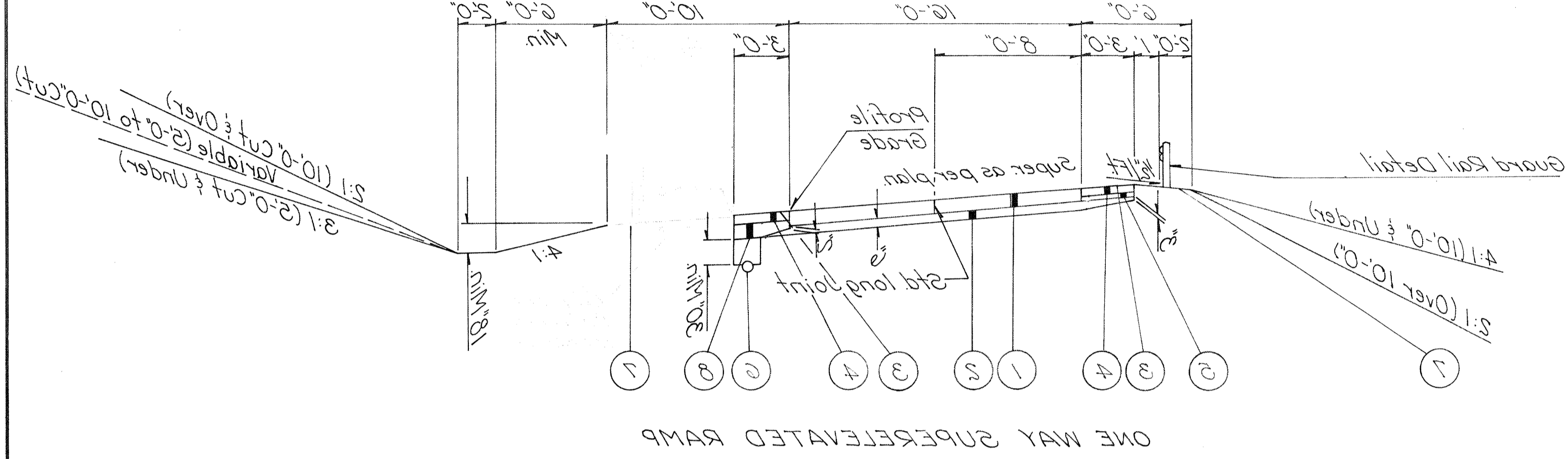


FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

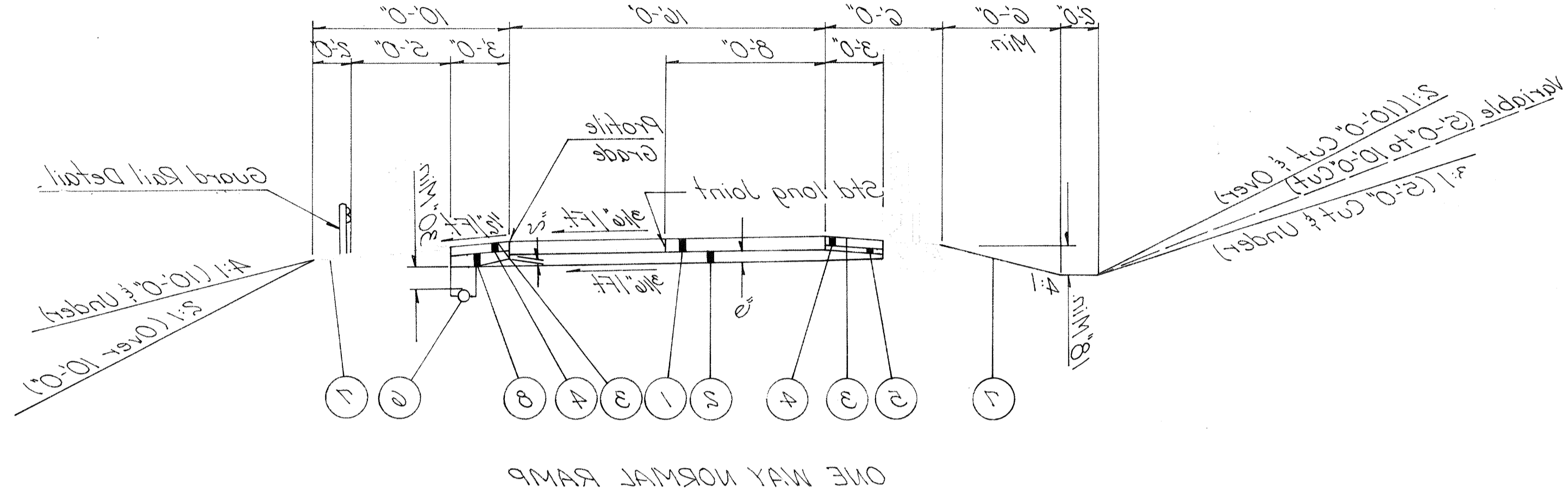
VAN WERT COUNTY  
VAN 30 -

# TYPICAL SECTIONS

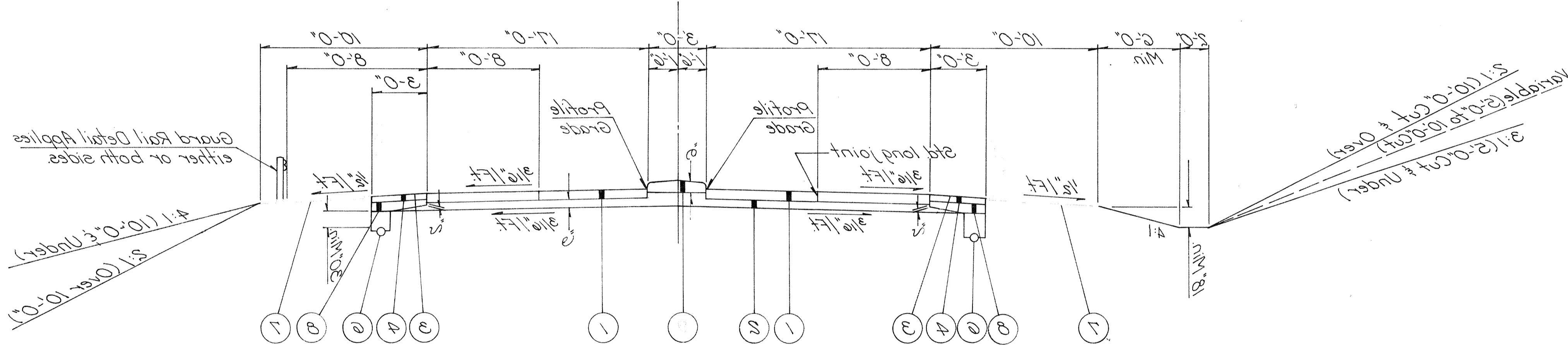
TYPE T-71



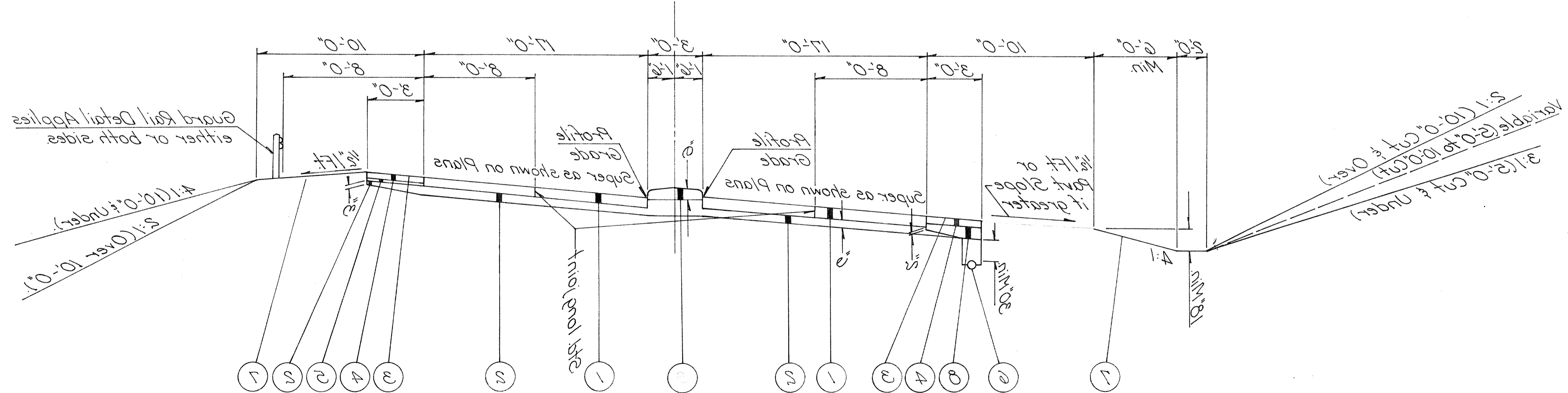
ONE WAY SUPERELEVATED RAMP



ONE WAY NORMAL RAMP



TWO WAY NORMAL RAMP



TWO WAY SUPERELEVATED RAMP

## LEGEND

- ① Item T-71 - Reinforced Portland Cement Concrete Pavement
- ② Item I-22 -
- ③ Item T-31 - Bituminous Surface Treatment using 0008 Cut No. 6 Aggregate per 2 1/2 yd and 0.25 gal. Bituminous Material. See Note in Proposal.
- ④ Item B-21 - Waterproofed Aggregate Base Course (Type A-T-35 Material may be used in construction of this course - See Note in Proposal). \*Thickness shown is designed thickness as described in Section B-21.01.
- ⑤ Item B-19 - 3" Aggregate Base Course.
- ⑥ Item I-1 - Type Class I-3
- ⑦ Item L-9 - Seeding and Protecting
- ⑧ Item Special - Drainage connection using No. 6 aggregate. (See Note in Proposal)
- ⑨ Item I-21 - Portland Cement Concrete Median Pavement

Note - For Details not shown see Std. Dwg. RI-1 or Cross Sections



FED. RD. DIVISION	STATE	PROJECT
5	OHIO	

# GENERAL NOTES

**CONSTRUCTION LAYOUT STAKES:**  
SEE NOTE IN PROPOSAL DESCRIBING THE WORK INCLUDED IN THIS LUMP SUM PAY ITEM.

**TRAFFIC AND CONSTRUCTION PROCEDURES:**  
TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH THE PROVISIONS OF ITEM I-3 AND WITH THE REQUIREMENTS OF THE WORK BY USING THE EXISTING PAVEMENT, THE PROPOSED PAVEMENT AND THE 2-15 TEMPORARY RUNAROUNDS. THE FOLLOWING CONSTRUCTION PROCEDURE SHALL BE ADOPTED BY THE CONTRACTOR SO THAT THROUGH TRAFFIC ON U.S. 30 CAN PROCEED WITH A MINIMUM DISRUPTION:

1. MAINTAIN TWO-WAY TRAFFIC OVER THE 2-15 TEMPORARY RUNAROUND, BRIDGE AND APPROACHES AS SHOWN ON SHEETS \_\_\_\_\_ AND \_\_\_\_\_ DURING WHICH TIME THE STRUCTURE OVER R122 IS RELOCATED U.S. 30.
2. UPON COMPLETION OF ITEMS 1 THRU 4 CONSTRUCT TEMPORARY RUN-AROUNDS AS SHOWN ON SHEETS \_\_\_\_\_ AND \_\_\_\_\_ SO THAT TWO-WAY TRAFFIC MAY BE MAINTAINED OVER THE TEMPORARY PAVEMENT, AND THE RELOCATED LANE OF R122 TO COUNTY ROAD 122.
3. COMPLETE CONSTRUCTION ON EASTBOUND (RIGHT) LANES FROM STA. 232 + 50 TO END OF PROJECT.
4. COMPLETE CONSTRUCTION ON ALL INTERSECTIONS AND RELOCATED COUNTY, TOWNSHIP AND STATE HIGHWAYS.
5. UPON COMPLETION OF ITEMS 1 THRU 4 CONSTRUCT TEMPORARY RUN-AROUNDS AS SHOWN ON SHEETS \_\_\_\_\_ AND \_\_\_\_\_ SO THAT TWO-WAY TRAFFIC MAY BE MAINTAINED OVER THE TEMPORARY PAVEMENT, AND THE RELOCATED LANE OF R122 TO COUNTY ROAD 122.
6. S.R. 49 MAY BE DETOURED FOR A PERIOD OF TIME NOT TO EXCEED 45 CONSECUTIVE CALENDAR DAYS AS SHOWN ON SHEET NO. 1. DURING THIS TIME COUNTY ROADS 122 AND 128 SHALL BE KEPT OPEN TO TWO-WAY TRAFFIC.
7. NO MORE THAN TWO CONSECUTIVE COUNTY OR TOWNSHIP ROADS MAY BE CLOSED TO TRAFFIC DURING THE SAME PERIOD OF TIME.

**LIGHTS AND SIGNS AT ADJACENT ROAD INTERSECTIONS:**  
THE CONTRACTOR SHALL, IN ADDITION TO THE GENERAL REQUIREMENTS OF ITEM I-3 ON THIS PROJECT PERFORM THE FOLLOWING:

- PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC:
1. COUNTY ROAD 122 JUST EAST OF TOWNSHIP ROAD 49 INTERSECTION.
  2. COUNTY ROAD 122 JUST WEST OF U.S. 30 INTERSECTION.
  3. TOWNSHIP ROAD 62 JUST SOUTH OF TOWNSHIP ROAD 124 INTERSECTION.
  4. TOWNSHIP ROAD 62 JUST NORTH OF COUNTY ROAD 128 INTERSECTION.
  5. COUNTY ROAD 128 JUST EAST OF TOWNSHIP ROAD 62 INTERSECTION.
  6. COUNTY ROAD 128 JUST WEST OF COUNTY ROAD 62 INTERSECTION.
  7. COUNTY ROAD 62 JUST SOUTH OF COUNTY ROAD 128 INTERSECTION.
  8. COUNTY ROAD 62 JUST NORTH OF TOWNSHIP ROAD 234 INTERSECTION.
  9. TOWNSHIP ROAD 234 JUST EAST OF COUNTY ROAD 62 INTERSECTION.
  10. TOWNSHIP ROAD 75 JUST NORTH OF TOWNSHIP ROAD 120 INTERSECTION.
  11. TOWNSHIP ROAD 75 JUST SOUTH OF COUNTY ROAD 128 INTERSECTION.
  12. TOWNSHIP ROAD 120 JUST EAST OF TOWNSHIP ROAD 75 INTERSECTION.
  13. COUNTY ROAD 77 JUST NORTH OF TOWNSHIP ROAD 124 INTERSECTION.
  14. COUNTY ROAD 77 JUST SOUTH OF TOWNSHIP ROAD 124 INTERSECTION.
  15. TOWNSHIP ROAD 124 JUST EAST OF COUNTY ROAD 77 INTERSECTION.
  16. TOWNSHIP ROAD 124 JUST WEST OF COUNTY ROAD 83 INTERSECTION.

SIGN SUPPORTS AND LIGHTS FOR "ROAD CLOSED" SIGNS SHALL BE AS DETAILLED IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".  
PAYMENT FOR PROVIDING, ERECTING, MAINTAINING, AND REMOVING LIGHTS, SIGNS, AND SIGN SUPPORTS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR "ITEM I-3, MAINTAINING TRAFFIC."

**TRAFFIC SIGN ERECTION:**  
THE CONTRACTOR SHALL ERECT SIGN PANELS FURNISHED BY OTHERS AS NOTED ON THE SCHEMATIC SIGNING LAYOUT SHEET NO. \_\_\_\_\_. THE PANELS SHALL BE MOUNTED ON THE BACKS OF BEAM SUPPORTS PROVIDED IN THE PLANS.

A SCHEDULE FOR SIGN ERECTION SHALL BE SUBMITTED TO THE ENGINEER, HUBBAH OR TRAFFIC, 250 EAST TOWN STREET, COLUMBUS, OHIO, 60 CALENDAR DAYS PRIOR TO THE START OF ANY SCHEDULED ERECTION WORK. THE SCHEDULE SHALL INCLUDE PROPOSED DATES, TIME, SIGN NUMBERS AND DELIVERY POINT.

THE PRICE BID PER SQUARE FOOT FOR "ITEM I-129, SIGN ERECTION BY TYPE, AS PER PLAN," SHALL INCLUDE ALL NECESSARY EQUIPMENT, MANPOWER, AND TOOLS TO ERECT THE SIGNS NOTED. ALL SIGN MATERIAL AND ACCESSORIES WILL BE FURNISHED AND TRANSPORTED TO A DESIGNATED DELIVERY POINT, ON OR NEAR THE SUBJECT PROJECT, BY OTHERS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HANDLING AND STORAGE OF THE SIGN PANELS AND ACCESSORIES FROM THE TIME OF ARRIVAL AT THE DELIVERY POINT.  
SIGNS MARKED "BY OTHERS" ARE NOT A PART OF THIS CONTRACT. SIGNS MARKED "FUTURE", THE POSTS, BEAMS AND SIGN SUPPORTS ARE A PART OF THIS CONTRACT. THE SIGNS MARKED "FUTURE" SHALL BE ERECTED BY OTHERS.

**MATERIALS - GENERAL:**  
APPROVED EQUAL MATERIALS MAY BE FURNISHED.  
DESCRIBING PURPOSES ONLY AND THE CONTRACTOR MAY ASSUME THAT GIVEN MANUFACTURER'S CATALOG NUMBER OR TYPE. THIS IS FOR MATERIALS TO BE FURNISHED MAY BE SPECIFIED IN THE PLANS BY A

**I-129 CONCRETE FOR SIGN SUPPORT FOUNDATIONS:**  
APPROVED EQUAL MATERIALS MAY BE FURNISHED.  
DESCRIBING PURPOSES ONLY AND THE CONTRACTOR MAY ASSUME THAT GIVEN MANUFACTURER'S CATALOG NUMBER OR TYPE. THIS IS FOR MATERIALS TO BE FURNISHED MAY BE SPECIFIED IN THE PLANS BY A

**SIGN SUPPORT SYMBOLS:**  
OVERHEAD SIGN (TRUSS OR MOUNTED)  
TWO SUPPORTS, GROUND MOUNTED  
ONE SUPPORT, GROUND MOUNTED

**OVERHEAD SIGN SUPPORTS:**  
ALL COMPONENTS OF THE OVERHEAD SIGN SUPPORTS, I-129, SHALL BE STEEL, EXCEPT THE TRUSS SPAN AND ACCESSORIES TO THE I-129. NO 7 SERIES WHICH SHALL BE ALUMINUM. FOR SPECIFIC DETAILS AND MATERIALS SEE SHEET NO. \_\_\_\_\_.

**GALVANIZED SUPPORTS:**  
THE STRUCTURAL STEEL BEAM SUPPORTS INCLUDING THE 8 POUND AND 4 POUND BEAM, AND 4 POUND AND 2 POUND DRIVE POST SHALL BE GALVANIZED (AFTER FINISHING) IN ACCORDANCE WITH ASTM A-123. ALL BOLTS, NUTS PLAIN AND LOCKWASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-123, EXCEPT WHERE ALUMINUM OR STAINLESS STEEL IS REQUIRED.

**GROUND MOUNTED SIGN SUPPORTS:**  
THE STRUCTURAL STEEL BEAM SUPPORTS SHALL BE GALVANIZED (AFTER FINISHING) IN ACCORDANCE WITH ASTM A-123.

QUANTITIES FOR ITEM I-129 STRUCTURAL BEAM SUPPORTS APPEARING IN THE QUANTITY TABLES ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT SUPPORT LENGTHS PRIOR TO FABRICATION AND GALVANIZING OF SUPPORTS. PAYMENT SHALL BE AT THE CONTRACT UNIT PRICE BID WHICH PRICE AND PAYMENT SHALL INCLUDE EMBEDMENT OF THE SUPPORTS.

**NO. 6 CATCH BASINS, MODIFIED:**  
SEE SHEET NOS. \_\_\_\_\_ FOR MODIFICATION AND LOCATION OF NO. 6 CATCH BASINS, MODIFIED.

**NO. 2-6 MEDIA INLET, MODIFIED:**  
SEE SHEET NO. \_\_\_\_\_ FOR MODIFICATION AND LOCATION OF NO. 2-6 MEDIA INLET, MODIFIED.

**U.S. 30 BENCH MARK:**  
SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR TO PRESERVE THE U.S. 30 BENCH MARK, # -125 (1947), LOCATED AT STA. 231 + 27, 5' LEFT, UNTIL IT IS REPERCHED BY THE STATE SURVEY CREW.

**ITEM SPECIAL - FURNISHING AND APPLYING CALCIUM CHLORIDE ON AGGREGATE SHOULDERS AND APPROACHES:**  
CALCIUM CHLORIDE, SECTION M-10.20 OR A SOLUTION CONTAINING 3% CALCIUM CHLORIDE BY WEIGHT SHALL BE APPLIED TO THE COMPACTED SURFACE OF THE AGGREGATE SHOULDERS AND APPROACHES. THE RATE OF APPLICATION OF CALCIUM CHLORIDE SECTION M-10.20 SHALL BE 1.0 POUND PER SQUARE YARD UNIFORMLY SPREAD OVER THE SURFACE WITH AN APPROVED SPREADER OR WHEN LIQUID CALCIUM CHLORIDE IS USED THE RATE OF APPLICATION SHALL BE 0.21 GALLONS PER SQUARE YARD UNIFORMLY APPLIED OVER THE SURFACE WITH AN APPROVED SPRAY BAR.

THE APPLICATION OF CALCIUM CHLORIDE SECTION M-10.20 SHALL BE MADE DURING PERIODS OF HIGH HUMIDITY, AS DURING THE NIGHT OR EARLY MORNING HOURS, UNLESS THE SURFACE IS IN A DAME CONDITION FROM SPRINKLING OR FROM NATURAL SOURCES. IN THE LATTER CASE, THE CALCIUM CHLORIDE MAY BE APPLIED AT ANY TIME.

COSTS OF FURNISHING, HAULING, AND APPLYING THE CALCIUM CHLORIDE AND FOR ALL OTHER LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID PER TON FOR "ITEM SPECIAL FURNISHING AND APPLYING CALCIUM CHLORIDE ON AGGREGATE SHOULDERS AND APPROACHES."

THE NUMBER OF TONS OF CALCIUM CHLORIDE TO BE PAID FOR SHALL BE THE NUMBER OF TONS OF WEIGHT MEASUREMENT, FURNISHED AND APPLIED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS ITEM, WHEN A SOLUTION CONTAINING 3% CALCIUM CHLORIDE BY WEIGHT IS USED, THE TONS OF CALCIUM CHLORIDE TO BE PAID FOR SHALL BE DETERMINED BY MULTIPLYING THE NUMBER OF GALLONS USED BY 0.0024.

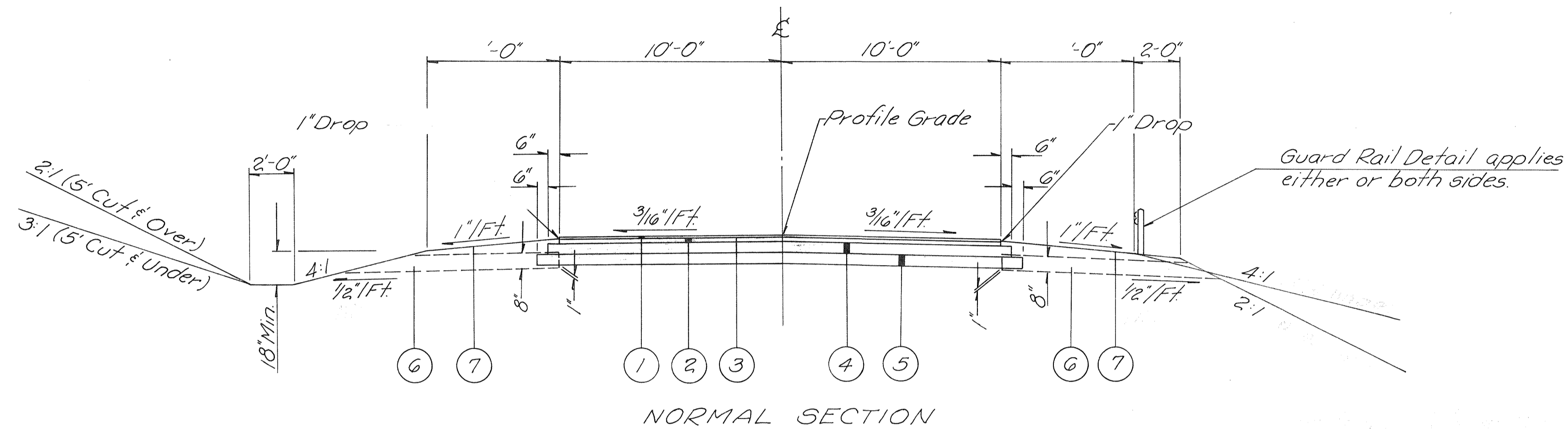
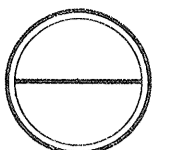
**I-1 MAINTAINING TRAFFIC:**  
ESTIMATED QUANTITIES OF 1-4 12 TONS OF CALCIUM CHLORIDE FOR DUST CONTROL AND 1-10 600 CU. YDS. TRAFFIC COMPACTED SURFACE COURSE FOR MAINTAINING TRAFFIC HAVE BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

# TYPICAL SECTIONS

## TYPE T-35

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

VAN WERT COUNTY  
VAN-30-4.

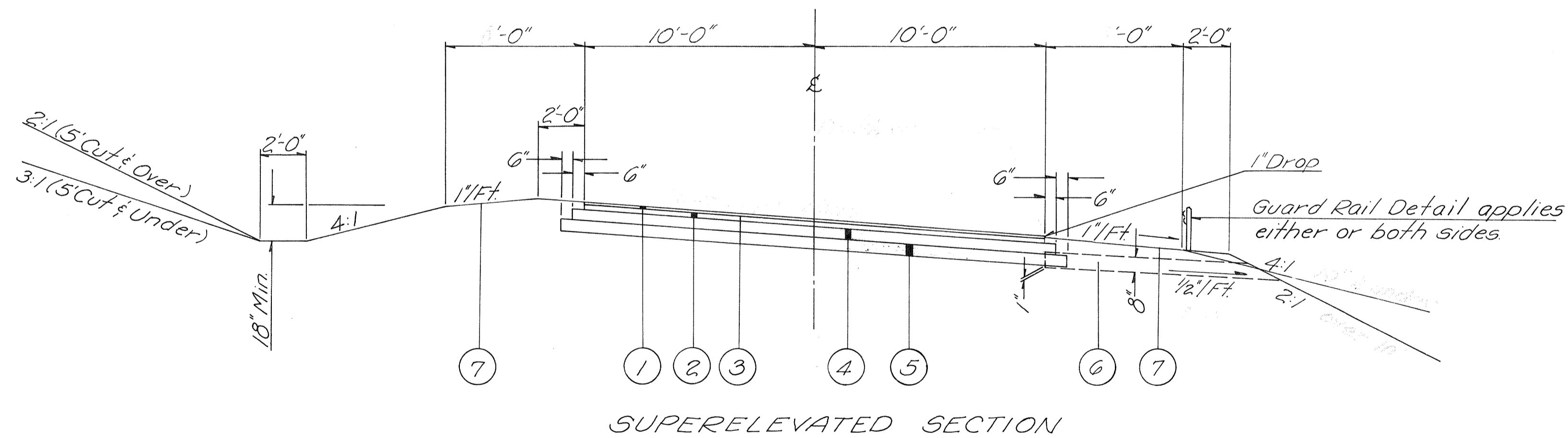


### LEGEND

- ① Item T-35 ~ 1/4" Asphaltic Concrete Surface Course, Type "C" (85-100).
- ② Item B-35 ~ 1/4" Asphaltic Concrete Leveling Course (85-100).
- ③ Item T-30 ~ Bituminous Prime Coat Sec. M-5.7, RT-2 or RT-3 applied at the rate of 0.40 Gal. per Sq. Yd.
- ④ Item B-19 ~ 6" Aggregate Base Course.
- ⑤ Item I-22 ~ 6" Subbase.
- ⑥ Item I-9 ~ Stone Underdrains, No. 2 (Spaced at 50' intervals or as directed by the Engineer).
- ⑦ Item L-9 ~ Seeding and Protecting.

Note: \*Thicknesses shown are "designed" thickness as described in Sec. T-35.01 and B-35.01.

For Details not shown, See Std. Dwg. RI-1 or Cross Sections

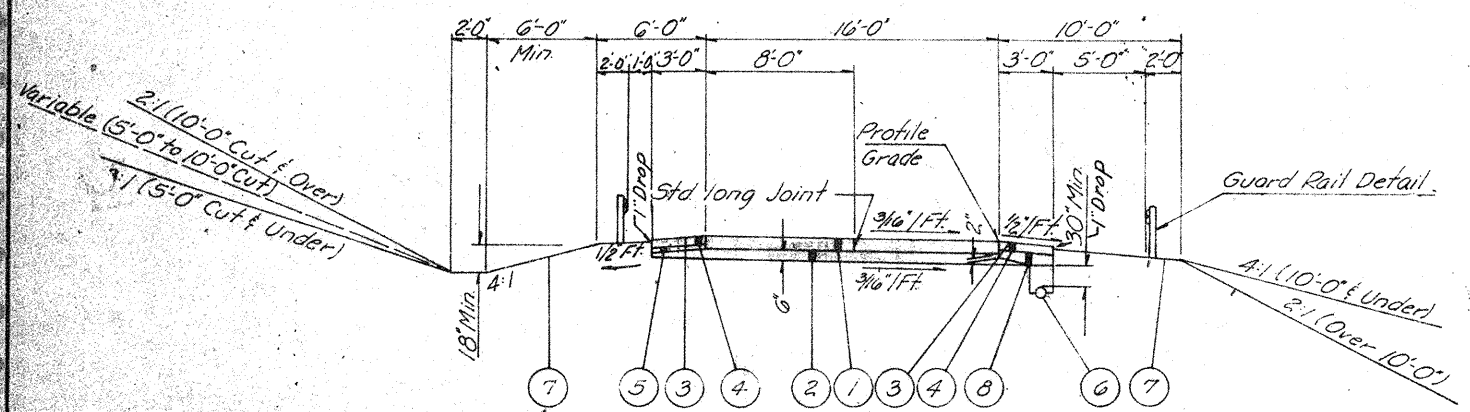


# TYPICAL SECTIONS

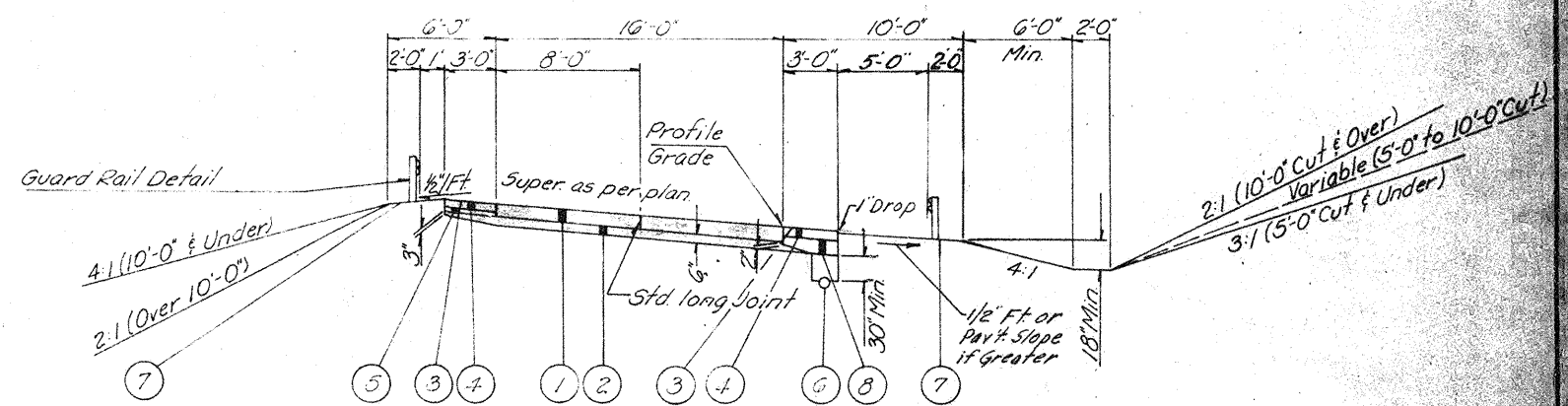
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FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

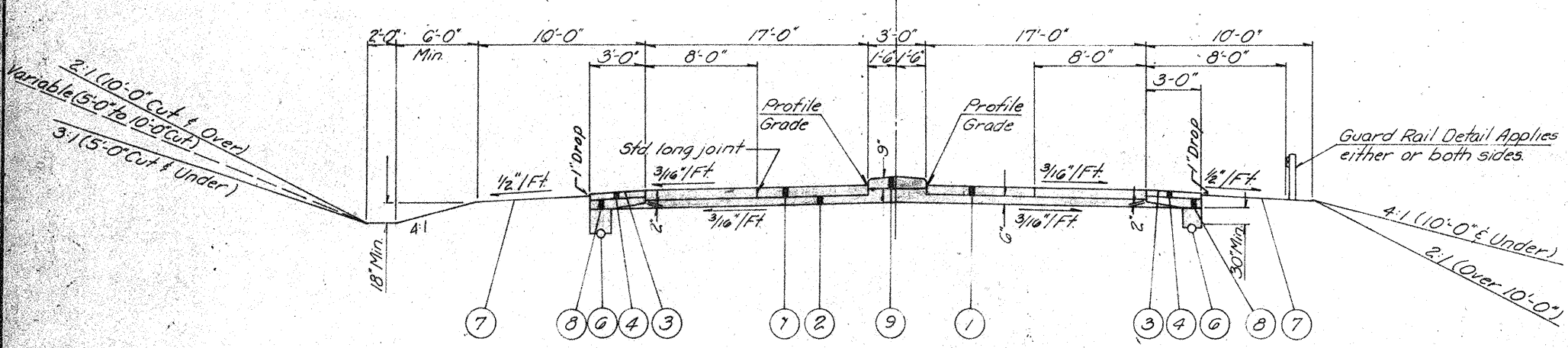
FBI COUNTY  
VAN 30-4.06



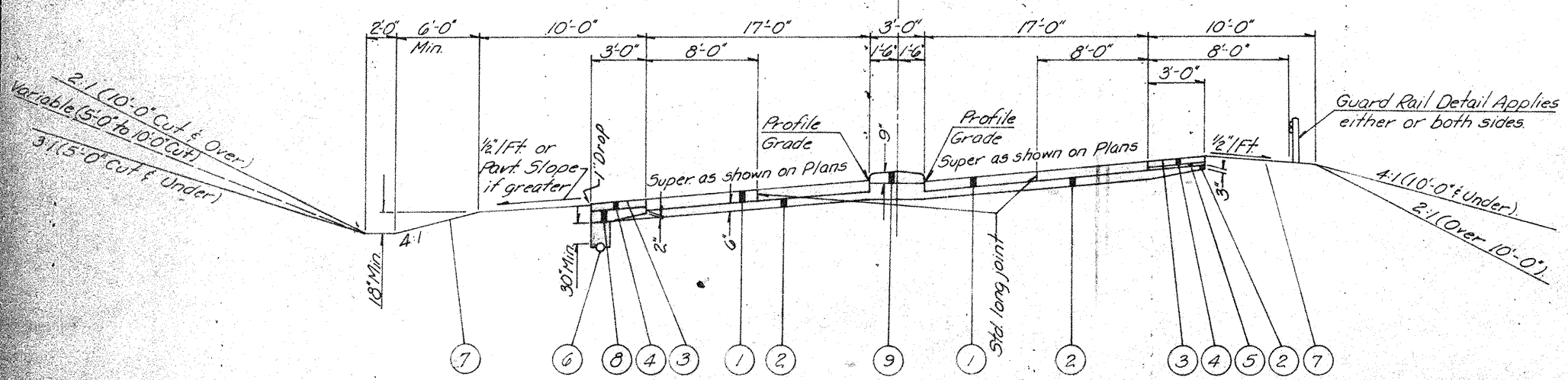
ONE WAY NORMAL RAMP



ONE WAY SUPERELEVATED RAMP



TWO WAY NORMAL RAMP



TWO WAY SUPERELEVATED RAMP

### LEGEND

- ① Item T-71 ~ 9" Reinforced Portland Cement Concrete Pavement. (Thickness as shown)
- ② Item I-22 ~ Subbase. (Thickness as shown)
- ③ Item T-31 ~ Bituminous Surface Treatment using 0008 Cu Yd No 6 Aggregate per Sq Yd. and 0.25 gal. Bituminous Material. See Note in Proposal.
- ④ Item B-21 ~ 6" Waterproofed Aggregate Base Course (Type A T-35 Material may be used in construction of this course - See Note in Proposal). (2-3" Courses) \*Thickness shown is designed thickness as described in Section B-21.01.
- ⑤ Item B-19 ~ 3" Aggregate Base Course.
- ⑥ Item I-1 ~ 6" Pipe, Class I-3
- ⑦ Item L-9 ~ Seeding and Protecting
- ⑧ Item Special - Drainage connection using 1.0 G aggregate. (See Note in Proposal)
- ⑨ Item I-21 ~ Portland Cement Concrete Median Pavement

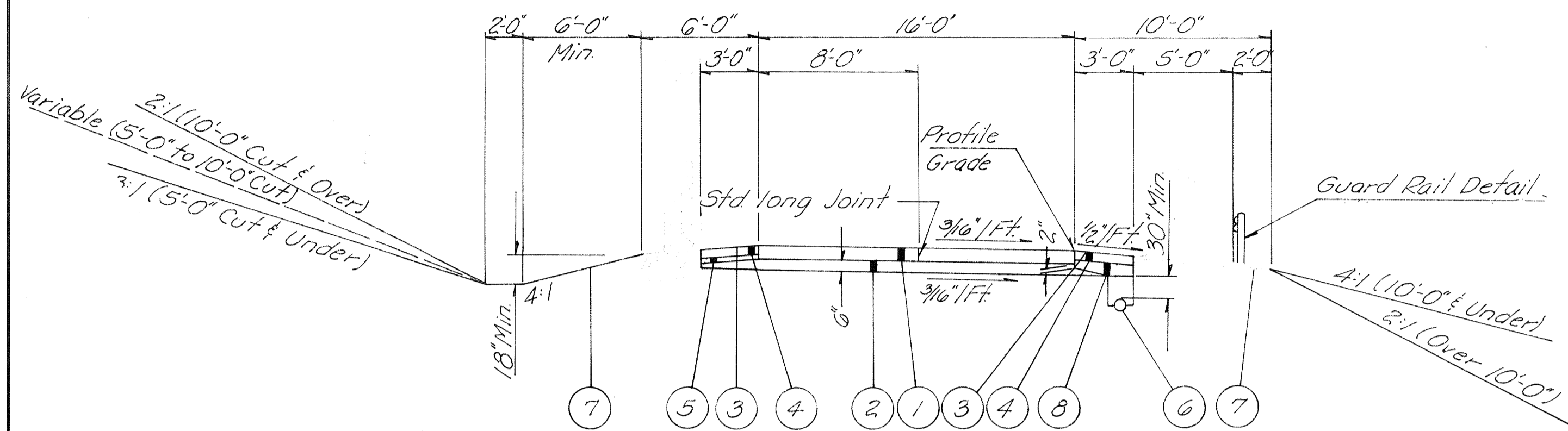
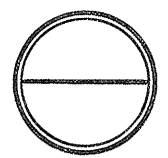
Note ~ For Details not shown, see Std Dwg. RI-1 or Cross Sections.

# TYPICAL SECTIONS

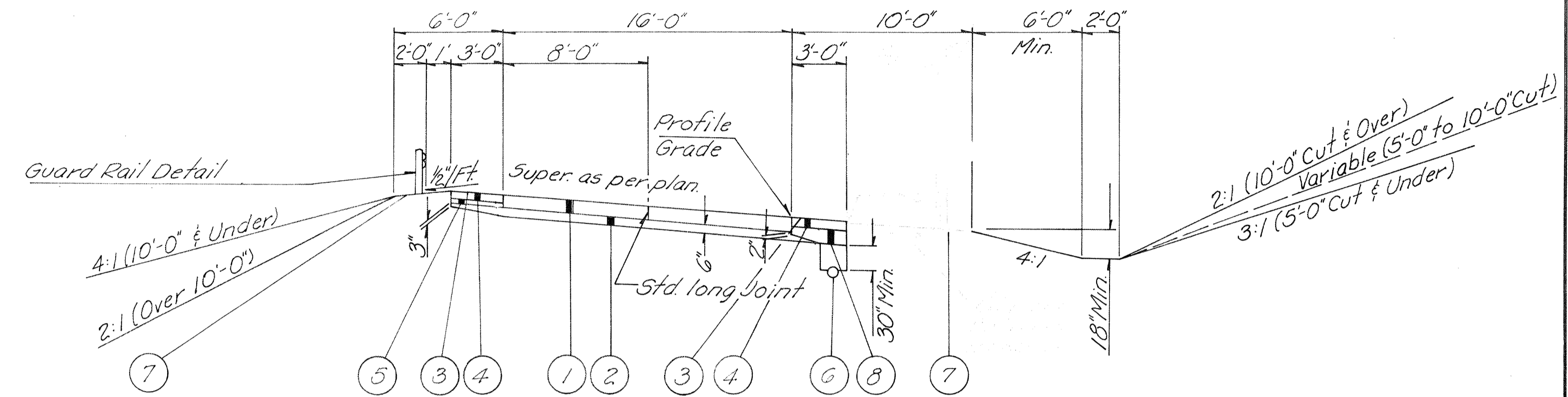
TYPE T-71

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

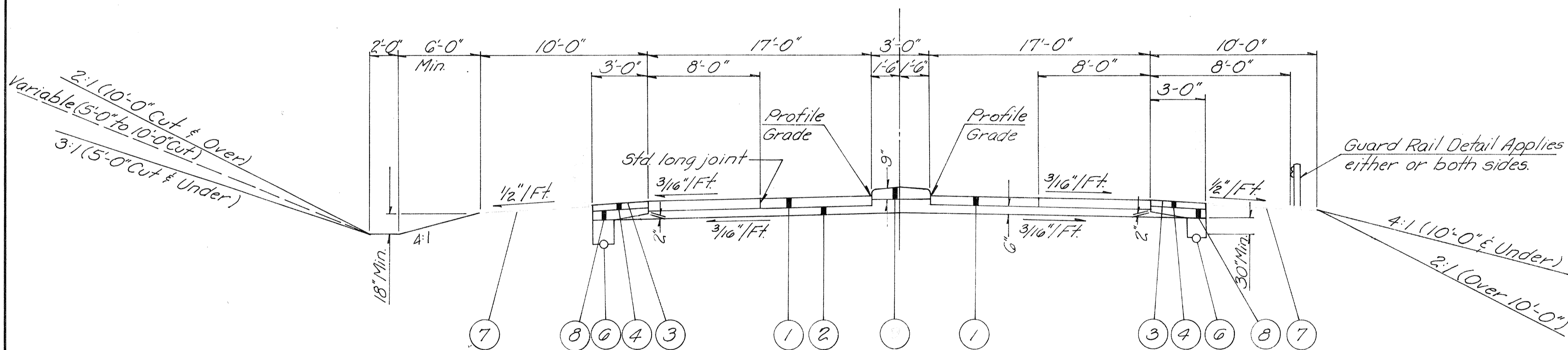
VAN WERT COUNTY  
VAN 30-



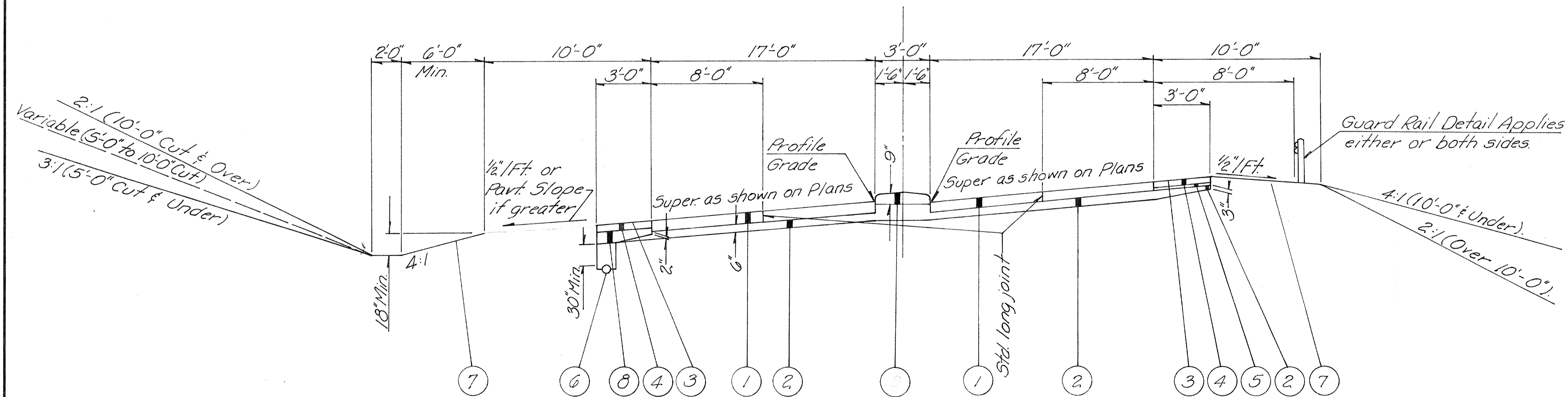
ONE WAY NORMAL RAMP



ONE WAY SUPERELEVATED RAMP



TWO WAY NORMAL RAMP



TWO WAY SUPERELEVATED RAMP

## LEGEND

- ① Item T-71 ~ 9" Reinforced Portland Cement Concrete Pavement
- ② Item I-22 ~
- ③ Item T-31 ~ Bituminous Surface Treatment using 0.008 Cu Yd. No. 6 Aggregate per Sq Yd. and 0.25 gal. Bituminous Material. See Note in Proposal.
- ④ Item B-21 ~ 6" Waterprooed Aggregate Base Course (Type "A" T-35 Material may be used in construction of this course - See Note in Proposal).  
\*Thickness shown is "designed" thickness as described in Section B-21.01.
- ⑤ Item B-19 ~ 3" Aggregate Base Course.
- ⑥ Item I-1 ~ 6" Pipe, Class I-3
- ⑦ Item L-9 ~ Seeding and Protecting.
- ⑧ Item Special - Drainage connection using No. 6 aggregate (See Note in Proposal)
- ⑨ Item I-21 ~ Portland Cement Concrete Median Pavement

Note ~ For Details not shown, see Std. Dwg. RI-1 or Cross Sections.

# GENERAL NOTES

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

VAN WERT COUNTY  
VAN - 30 - 4.06

10

**ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS:**

THE ROUNDED CORNERS SHOWN ON STANDARD DRAWING RI-1, APPLY TO ALL CROSS SECTIONS, EVEN THOUGH OTHERWISE SHOWN ON THESE PLANS.

**UTILITY ADJUSTMENT:**

ANY OR ALL WORK REQUIRED FOR PUBLIC OR PRIVATE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS.

**FIELD OFFICE:**

THE CONTRACTOR SHALL, IN ACCORDANCE WITH SEC. 8-0.01 (b), PROVIDE FOR THE EXCLUSIVE USE OF THE STATE'S EMPLOYEES, A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 500 SQ. FT. OF FLOOR SPACE. THE CONTRACTOR SHALL HAVE A TELEPHONE INSTALLED AND MAINTAINED IN THIS FIELD OFFICE DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL ALSO PROVIDE AND INSTALL WIRING AND OUTLETS SUITABLE FOR CONNECTING ELECTRIC LIGHTS AND OFFICE EQUIPMENT IN THE FIELD OFFICE AND PROVIDE 110-VOLT ALTERNATING CURRENT TO THE OFFICE DURING THE ENTIRE PERIOD OF CONSTRUCTION OF THIS PROJECT.

**DESIGN SPEED:**

THE GEOMETRICS FOR THIS PROJECT HAVE BEEN PLANNED FOR A DESIGN SPEED OF 70 MILES PER HOUR.

**UNDERGROUND UTILITIES:**

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO MAKES NO GUARANTEES AS TO THEIR ACCURACY OR COMPLETENESS.

**SUPERELEVATION:**

SUPERELEVATED CURVES SHALL BE BUILT WITHOUT CROWN. THE CROWN SHALL BE WORKED OUT OF THE PAVEMENT IN THE PORTION BETWEEN THE BEGINNING OF THE TRANSITION AND THE POINT WHERE THE SUPERELEVATION EQUALS TWICE THE CROWN.

**CONTRACTOR'S MAINTENANCE RESPONSIBILITY:**

ON THIS PROJECT, THE CONTRACTOR'S RESPONSIBILITY FOR MAINTENANCE OF THE EXISTING PAVEMENT PER ITEM I-3 SHALL BE LIMITED TO THOSE PORTIONS OF THE EXISTING PAVEMENT LYING WITHIN THE PROPOSED WORK LIMITS.

**NON-RIGID PAVEMENT REMOVAL:**

REMOVAL AND DISPOSAL OF EXISTING NON-RIGID PAVEMENT, UNLESS OTHERWISE INDICATED ON THESE PLANS, SHALL BE MEASURED AND PAID FOR AS ITEM E-1, ROADWAY EXCAVATION.

**REMOVAL OF EXISTING PIPE:**

THE REMOVAL OF ALL EXISTING PIPE DRAINS WITHIN THE LIMITS OF PROPOSED EXCAVATION ITEMS SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICES BID FOR THE RESPECTIVE EXCAVATION ITEMS, UNLESS OTHERWISE ITEMIZED IN THE PLANS.

**PLUGGING PIPE:**

THE UPSTREAM ENDS OF ALL PIPE OR TILE LINES INTERCEPTED BY EARTHWORK OPERATIONS (AND, WHERE INDICATED, THE ENDS OF PIPE LINES TO BE ABANDONED IN PLACE) SHALL BE EFFECTIVELY BLOCKED AND COVERED. BROKEN PIECES AND PORTIONS OF PIPE OR TILE SHALL BE REMOVED UNTIL A WHOLE UNDAMAGED LENGTH IS ENCOUNTERED. THIS PIPE SHALL THEN BE BLOCKED WITH CONCRETE, FLAT STONE OR BRICK LAID IN MORTAR, OR A PRECAST CLAY OR CONCRETE STOPPER. IF AT THE TIME OF CONSTRUCTION, THERE ARE HEADER TILE ON PRIVATE RIGHT-OF-WAY THAT HAVE NOT BEEN PLACED, THE CONTRACTOR SHALL PLUG AT THE RIGHT-OF-WAY LINE ALL FIELD TILE THAT ARE INTERCEPTED BY THE ROADWAY DITCH. PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-1, ROADWAY EXCAVATION. *not including Embankment Construction*

**REMOVAL OF TREES AND STUMPS:**

ALL TREES AND STUMPS LYING WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER THE UNIT PRICE BID PER EACH FOR ITEM E-9, REMOVAL OF TREES AND STUMPS, EXCEPT THAT THOSE TREES FOR WHICH PROTECTION AND PRESERVATION WORK IS INDICATED ELSEWHERE IN THESE PLANS SHALL NOT BE REMOVED.

THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

SIZES	NO. TREES	NO. STUMPS
12" - 18"	61	3
18" - 24"	23	4
24" - 30"	10	1
30" - 36"	3	
36" - 42"	2	
42" - 48"		
OVER 48"		

THE ABOVE ESTIMATE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE OF THE LIMITS OF CONSTRUCTION BUT WITHIN THE RIGHT-OF-WAY AND/OR EASEMENT LINES. PAYMENT FOR THE REMOVAL OF THESE ADDITIONAL TREES OR STUMPS SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH FOR ITEM E-9, REMOVAL OF TREES AND STUMPS.

**GUARD RAIL ADJACENT TO BRIDGE:**

ONE (1) ADDITIONAL GUARD RAIL POST SHALL BE PROVIDED IN THE CENTER OF EACH PANEL OF GUARD RAIL ADJACENT TO THE BRIDGE, PAYMENT FOR WHICH SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM I-15 GUARD RAIL.

**SEEDING:**

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN RIGHT-OF-WAY LINES EXCEPT THOSE AREAS WHERE THE EXISTING COVER TEN (10) FEET BEYOND THE WORK LIMITS IS CONSIDERED TO BE ACCEPTABLE. (SUCH AS WOODLANDS, GRASSLANDS, ETC.) AT THE TIME OF CONSTRUCTION, THE ENGINEER SHALL DETERMINE THE ACCEPTABLE AREAS THAT SHALL NOT BE SEEDING.

**SEEDING FORMULA:**

THE FOLLOWING SEED MIXTURES SHALL, IN LIEU OF THE MIXTURES LISTED IN SECTION L-9.11, BE USED THROUGHOUT THE LIMITS OF THIS PROJECT:

**MEDIAN AREAS AND ROADSIDE PARKS:**

60% KENTUCKY BLUE GRASS
25% ILLINOIS PESCUE
15% RED TOP

**2:1 SLOPE AREAS:**

100% KENTUCKY 31 PESCUE
-------------------------

**ALL OTHER AREAS:**

60% KENTUCKY 31 PESCUE
25% KENTUCKY BLUE GRASS
15% RED TOP

ANY STONE OR OTHER DEBRIS 2" OR OVER IN DIAMETER SHALL BE REMOVED FROM THE EXPOSED SURFACE OF THE SEED BED.

**SPECIAL SEEDING PREPARATION AREAS:**

THE REFERENCES IN THE FIRST PARAGRAPH OF SECTION L-9.11 TO PREPARATION OF THE SEED BED IN FRONT OF RESIDENCES, ETC., SHALL, ON THIS PROJECT, BE CONSIDERED TO BE PARTICULARLY APPLICABLE IN THE FOLLOWING AREAS:

STA. 231 + 50 TO STA. 233 + 00 (M.L.) LEFT
STA. 104 + 50 TO STA. 107 + 50 (EXIST. U.S. 30) RIGHT

**ITEM SPECIAL, DRILLED WELL ABANDONED:**

THE EXISTING CONCRETE OR STONE SLAB WELL COVER AND PUMPING EQUIPMENT SHALL BE REMOVED AND DISPOSED OF. THE CASING SHALL BE CUT OFF AT LEAST TWO FEET BELOW THE PROPOSED FINISHED GRADE OUTSIDE PROPOSED PAVEMENT AREAS OR AT LEAST TWO FEET BELOW THE PROPOSED SUBGRADE ELEVATION INSIDE PROPOSED PAVEMENT AREAS AND CAPPED WITH CLASS "E" CONCRETE OR A STANDARD THREADED PIPE CAP.

THE UNIT PRICE BID FOR EACH "DRILLED WELL ABANDONED" SHALL INCLUDE PAYMENT FOR ALL LABOR, TOOLS, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

**CONNECTIONS TO EXISTING PIPE:**

AT PLACES WHERE THE PLANS PROVIDE FOR PROPOSED DRAINAGE PIPE TO BE CONNECTED TO EXISTING PIPES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED PIPE. THE COST OF THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT PIPE ITEM.

**ESTIMATED QUANTITIES TO BE USED AS DIRECTED:**

ALL FARM TILE WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS UNDER THE DIRECTION OF THE ENGINEER. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS AND WHICH CROSS THE ROADWAY SHALL BE REPLACED WITHIN THE CONSTRUCTION LIMITS BY ITEM I-1 CLASS "A-1" PIPE.

EXISTING COLLECTORS AND ISOLATED FARM TILE WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF THE ROADWAY DITCHES SHALL BE OUTLETTED INTO THE ROADWAY DITCH. THE OPTIMUM OUTLET ELEVATION SHALL BE, IF POSSIBLE, ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL TILE FIELDS WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY CLASS H-2 PIPE AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE CONTRACTOR SHALL PROVIDE OUTLETS INTO THE ROADWAY DITCH FOR EXISTING AND PROPOSED FARM SURFACE DRAINAGE. THE BACKSLOPE OF THE ROADWAY DITCH SHALL BE SODDED WHERE THESE SURFACE DRAINS OUTLET INTO THE ROADWAY DITCH. THE LOCATION, SIZE AND FLOWLINE OF THESE DRAINS SHALL BE DETERMINED BY THE ENGINEER. PAYMENT FOR THE CU. YD. OF EXCAVATION FOR THE SURFACE DRAINS SHALL BE AT THE UNIT PRICE BID FOR ITEM E-1, EXCAVATION.

A QUANTITY OF L-10 AND I-10 HAS BEEN INCLUDED FOR EROSION CONTROL.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK ABOVE:

ITEM E-1	ROADWAY EXCAVATION	300 CU.YD.
ITEM I-1	6" PIPE, CLASS A-1	400 LIN.FT.
ITEM I-1	8" PIPE, CLASS A-1	400 LIN.FT.
ITEM I-1	4" PIPE, CLASS H-2	1000 LIN.FT.
ITEM I-1	8" PIPE, CLASS H-2	1200 LIN.FT.
ITEM I-1	6" PIPE, CLASS F-4	150 LIN.FT.
ITEM I-1	8" PIPE, CLASS F-4	50 LIN.FT.
ITEM I-5	8" PIPE, SPECIALS, CLASS H-2	15 EACH
ITEM I-10	CRUSHED AGGREGATE SLOPE PROTECTION	40 SQ.YD.
ITEM L-10	SODDING	200 SQ.YD.

**THE EXISTING STATE GRADE, AND USED QUANTITIES TO BE USED AS DIRECTED BY THE ENGINEER OR MATTER OF RECORD BY INCORPORATING THE EXISTING STATE GRADE AND USED QUANTITIES TO BE USED AS DIRECTED BY THE ENGINEER.**

THESE QUANTITIES ARE NOT TO BE DELIVERED TO THE PROJECT UNTIL SO DIRECTED BY THE ENGINEER.

**ITEM I-9, STONE UNDERDRAINS, NO. 2:**

STONE UNDERDRAINS SHALL BE PLACED AT FIFTY (50) FOOT INTERVALS ON EACH SIDE OF NORMAL CROWNED SECTIONS AND AT TWENTY-FIVE (25) FOOT INTERVALS ON THE LOW SIDE ONLY OF SUPERELEVATED SECTIONS, EXCEPT WHERE ITEM I-1 PIPE UNDERDRAINS HAVE BEEN PROVIDED. THE CONTRACTOR SHALL FINISH, SEED, AND MULCH THE SLOPES SO AS NOT TO IMPEDE DRAINAGE OF THE BASE MATERIAL.

**ITEM S.S. CE-101.04 COMPACTION USING HEAVY PNEUMATIC TIRED ROLLER:**

AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE IN PROOF ROLLING OF SUBGRADE ON THE MAINLINE AND RAMP PAVEMENTS AND PAVED SHOULDERS AS DIRECTED BY THE ENGINEER. PROOF ROLLING WILL NOT BE REQUIRED WHERE ROCK OR SHALE OCCURS IN SUBGRADE AND IN AREAS WHERE SUBBASE HAS BEEN THICKENED TO REPLACE FROST SUSCEPTIBLE SILTS. IN LIEU OF THE REQUIREMENTS OF CE-101.04, A MINIMUM OF ONE COVERAGE WILL BE REQUIRED TO CHECK THE SUBGRADE. MOISTURE CONTENT OF THE TOP 12" OF SUBGRADE SHALL NOT EXCEED OPTIMUM AT THE TIME OF PROOF ROLLING. TIRE PRESSURE AND TOTAL LOAD SHALL BE VARIED AS DIRECTED BY THE ENGINEER WITHIN THE LIMITS PROVIDED IN CE-101.04.

AN ESTIMATED QUANTITY OF 173 HOURS OF HEAVY ROLLING TIME HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

T-71	246,740	Sq.Yds.
T-31	99,748	SQ.YDS.
I-7	206	SQ.YDS.
	346,698	SQ.YDS./2000 = 173 HOURS

**I-1, CLASS F - PIPE ENDS:**

REINFORCED ENDS SHALL BE REQUIRED ON ALL CORRUGATED METAL PIPE EXCEPT HELICAL IF THE PIPE ENDS ARE UNPROTECTED BY HEADWALLS, CATCH BASINS OR MAN HOLDS. PAYMENT FOR REINFORCED ENDS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT PIPE ITEM. CONTRACTION AND EXPANSION JOINTS:

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN EXPANSION AND CONTRACTION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES AND THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS SHALL IN ALL CASES BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING T.J.J.

**ITEM CLASS I-3, GRADES:**

THE GRADES SHOWN ON THE PLAN AND PROFILE SHEETS MAY BE ADJUSTED FOR A SHORT DISTANCE, WHERE THEY OUTLET IN THE 15" & 18" MEDIAN OUTLETS, TO SECURE A GOOD CONNECTION.

**ELEVATION DATUM:**

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.

**DRIVEWAYS AND MAILBOX TURN OUTS:**

UNLESS OTHERWISE SHOWN ON THESE PLANS, ALL DRIVEWAYS AND MAILBOX TURN OUTS ON THIS PROJECT SHALL BE TYPE 1 STANDARD DRAWING DR-1, MODIFIED BY DELETING THE 12" OFFSET AT THE EDGE OF THE PAVEMENT. PAVEMENT COURSES AND THICKNESSES ARE AS FOLLOWS:

TYPE OF APPROACH:	DRIVE APPROX		OTHER AREAS		# IF EXISTING DRIVE IS HARD-SURFACED THE SAME COURSES & THICKNESSES SHALL BE USED BEYOND THE DRIVE APPROX AS WITHIN THE DRIVE APPROX.
	T-35*	B-19	T-35*	B-19	
MAILBOX APPROACHES	2"	5"			
RESIDENCE DRIVE	2"	5"	#	8"	
COMMERCIAL DRIVE	2"	7"	#	9"	
FIELD DRIVE	0"	6"	0"	6"	

\*TWO 1" COURSES

**COMMERCIAL FERTILIZER:**

FORMULA 12-12-12 SHALL BE APPLIED AT THE RATE OF TWENTY (20) POUNDS PER THOUSAND (1000) SQUARE FEET TO ALL AREAS TO BE SEEDING OR SODDED.

**GUARD RAIL FLARES:**

WHERE TRAFFIC APPROACHES A RUN OF GUARD RAIL, THE FIRST THREE (3) PANELS OF GUARD RAIL WILL BE FLARED FROM 12' TO 10' (DISTANCE FROM EDGE OF PAVEMENT) IN A MANNER SIMILAR TO THAT SHOWN ON STANDARD DRAWING I-15 NO. 6.

**ITEM T-30 TACK COAT:**

ALTHOUGH THIS ITEM HAS BEEN ESTIMATED FOR USE ON THE ENTIRE EXISTING BITUMINOUS PAVEMENT AREA TO BE RESURFACED, IT SHALL BE USED ONLY ON DRY OR CHECKED PAVEMENT AREAS WHERE SPECIFICALLY DIRECTED BY THE ENGINEER. PAYMENT WILL BE MADE ON FINAL MEASUREMENT.

**APPROACH SLAB LONGITUDINAL JOINTS:**

LONGITUDINAL IMPRESSED OR SAWED JOINTS SHALL BE PROVIDED BETWEEN LANE ELEMENTS, ON ALL APPROACH SLABS, IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING L.J. NO. 1.

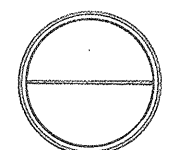
**ITEM I-5 PIPE SPECIALS:**

Pipe without perforations will be permitted for use on this project for all Item I-5 Pipe Specials.



# GENERAL NOTES

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### ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS:

THE ROUNDED CORNERS SHOWN ON STANDARD DRAWING RI-1, APPLY TO ALL CROSS SECTIONS, EVEN THOUGH OTHERWISE SHOWN ON THESE PLANS.

### UTILITY ADJUSTMENT:

ANY OR ALL WORK REQUIRED FOR PUBLIC OR PRIVATE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS.

### FIELD OFFICE:

THE CONTRACTOR SHALL, IN ACCORDANCE WITH SEC. S-0.01 (1), PROVIDE FOR THE EXCLUSIVE USE OF THE STATE'S EMPLOYEES, A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 500 SQ. FT. OF FLOOR SPACE. THE CONTRACTOR SHALL HAVE A TELEPHONE INSTALLED AND MAINTAINED IN THIS FIELD OFFICE DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL ALSO PROVIDE AND INSTALL WIRING AND OUTLETS SUITABLE FOR CONNECTING ELECTRIC LIGHTS AND OFFICE EQUIPMENT IN THE FIELD OFFICE AND PROVIDE 110-VOLT ALTERNATING CURRENT TO THE OFFICE DURING THE ENTIRE PERIOD OF CONSTRUCTION OF THIS PROJECT.

### DESIGN SPEED:

THE GEOMETRICS FOR THIS PROJECT HAVE BEEN PLANNED FOR A DESIGN SPEED OF 70 MILES PER HOUR.

### UNDERGROUND UTILITIES:

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO MAKES NO GUARANTEES AS TO THEIR ACCURACY OR COMPLETENESS.

### SUPERELEVATION:

SUPERELEVATED CURVES SHALL BE BUILT WITHOUT CROWN. THE CROWN SHALL BE WORKED OUT OF THE PAVEMENT IN THE PORTION BETWEEN THE BEGINNING OF THE TRANSITION AND THE POINT WHERE THE SUPERELEVATION EQUALS TWICE THE CROWN.

### CONTRACTOR'S MAINTENANCE RESPONSIBILITY:

ON THIS PROJECT, THE CONTRACTOR'S RESPONSIBILITY FOR MAINTENANCE OF THE EXISTING PAVEMENT PER ITEM I-3 SHALL BE LIMITED TO THOSE PORTIONS OF THE EXISTING PAVEMENT LYING WITHIN THE PROPOSED WORK LIMITS.

### NON-RIGID PAVEMENT REMOVAL:

REMOVAL AND DISPOSAL OF EXISTING NON-RIGID PAVEMENT, UNLESS OTHERWISE INDICATED ON THESE PLANS, SHALL BE MEASURED AND PAID FOR AS ITEM E-1, ROADWAY EXCAVATION.

### REMOVAL OF EXISTING PIPE:

THE REMOVAL OF ALL EXISTING PIPE DRAINS WITHIN THE LIMITS OF PROPOSED EXCAVATION ITEMS SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICES BID FOR THE RESPECTIVE EXCAVATION ITEMS, UNLESS OTHERWISE ITEMIZED IN THE PLANS.

### PLUGGING PIPE:

THE UPSTREAM ENDS OF ALL PIPE OR TILE LINES INTERCEPTED BY EARTHWORK OPERATIONS (AND, WHERE INDICATED, THE ENDS OF PIPE LINES TO BE ABANDONED IN PLACE) SHALL BE EFFECTIVELY BLOCKED AND COVERED. BROKEN PIECES AND PORTIONS OF PIPE OR TILE SHALL BE REMOVED UNTIL A WHOLE UNDAMAGED LENGTH IS ENCOUNTERED. THIS PIPE SHALL THEN BE BLOCKED WITH CONCRETE, FLAT STONE OR BRICK LAID IN MORTAR, OR A PRECAST CLAY OR CONCRETE STOPPER. IF AT THE TIME OF CONSTRUCTION, THERE ARE LEADER TILE ON PRIVATE RIGHT-OF-WAY THAT HAVE NOT BEEN PLACED, THE CONTRACTOR SHALL PLUG AT THE RIGHT-OF-WAY LINE ALL FIELD TILE THAT ARE INTERCEPTED BY THE ROADWAY DITCH. PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-1, ROADWAY EXCAVATION.

### REMOVAL OF TREES AND STUMPS:

ALL TREES AND STUMPS LYING WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER THE UNIT PRICE BID FOR ITEM E-9, REMOVAL OF TREES AND STUMPS, EXCEPT THAT THOSE TREES FOR WHICH PROTECTION AND PRESERVATION WORK IS INDICATED ELSEWHERE IN THESE PLANS SHALL NOT BE REMOVED.

THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

SIZES	NO. TREES	NO. STUMPS
12" - 18"		
18" - 24"		
24" - 30"		
30" - 36"		
36" - 42"		
42" - 48"		
OVER 48"		

THE ABOVE ESTIMATE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE OF THE LIMITS OF CONSTRUCTION BUT WITHIN THE RIGHT-OF-WAY AND/OR EASEMENT LINES. PAYMENT FOR THE REMOVAL OF THESE ADDITIONAL TREES OR STUMPS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-9, REMOVAL OF TREES AND STUMPS.

### GUARD RAIL ADJACENT TO BRIDGE:

ONE (1) ADDITIONAL GUARD RAIL POST SHALL BE PROVIDED IN THE CENTER OF EACH PANEL OF GUARD RAIL ADJACENT TO THE BRIDGE, PAYMENT FOR WHICH SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM I-15 GUARD RAIL.

### SEEDING:

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN RIGHT-OF-WAY LINES EXCEPT THOSE AREAS WHERE THE EXISTING COVER TEN (10) FEET BEYOND THE WORK LIMITS IS CONSIDERED TO BE ACCEPTABLE. (SUCH AS WOODLANDS, GRASSLANDS, ETC.) AT THE TIME OF CONSTRUCTION, THE ENGINEER SHALL DETERMINE THE ACCEPTABLE AREAS THAT SHALL NOT BE SEEDDED.

### SEEDING FORMULA:

THE FOLLOWING SEED MIXTURES SHALL, IN LIEU OF THE MIXTURES LISTED IN SECTION L-9.11, BE USED THROUGHOUT THE LIMITS OF THIS PROJECT:

#### MEDIAN AREAS AND ROADSIDE PARKS:

60%	KENTUCKY BLUE GRASS
25%	ILLINOIS PESCUE
15%	RED TOP

#### 2:1 SLOPE AREAS:

100%	KENTUCKY 31 PESCUE
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#### ALL OTHER AREAS:

60%	KENTUCKY 31 PESCUE
25%	KENTUCKY BLUE GRASS
15%	RED TOP

ANY STONE OR OTHER DEBRIS 2" OR OVER IN DIAMETER SHALL BE REMOVED FROM THE EXPOSED SURFACE OF THE SEED BED.

### SPECIAL SEEDING PREPARATION AREAS:

THE REFERENCES IN THE FIRST PARAGRAPH OF SECTION L-9.11 TO PREPARATION OF THE SEED BED IN FRONT OF RESIDENCES, ETC., SHALL, ON THIS PROJECT, BE CONSIDERED TO BE PARTICULARLY APPLICABLE IN THE FOLLOWING AREAS:

STA. 231 + 50 TO STA. 233 + 00	(M.L.) LEFT
STA. 104 + 50 TO STA. 107 + 50	(EXIST. U.S. 30) RIGHT

### ITEM SPECIAL, DRILLED WELL ABANDONED:

THE EXISTING CONCRETE OR STONE SLAB WELL COVER AND PUMPING EQUIPMENT SHALL BE REMOVED AND DISPOSED OF. THE CASING SHALL BE CUT OFF AT LEAST TWO FEET BELOW THE PROPOSED FINISHED GRADE OUTSIDE PROPOSED PAVEMENT AREAS OR AT LEAST TWO FEET BELOW THE PROPOSED SUBGRADE ELEVATION INSIDE PROPOSED PAVEMENT AREAS AND CAPPED WITH CLASS "E" CONCRETE OR A STANDARD THREADED PIPE CAP.

THE UNIT PRICE BID FOR EACH "DRILLED WELL ABANDONED" SHALL INCLUDE PAYMENT FOR ALL LABOR, TOOLS, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

### CONNECTIONS TO EXISTING PIPE:

AT PLACES WHERE THE PLANS PROVIDE FOR PROPOSED DRAINAGE PIPE TO BE CONNECTED TO EXISTING PIPES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED PIPE. THE COST OF THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT PIPE ITEM.

### ESTIMATED QUANTITIES TO BE USED AS DIRECTED:

ALL FARM TILE WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS UNDER THE DIRECTION OF THE ENGINEER. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS AND WHICH CROSS THE ROADWAY SHALL BE REPLACED WITHIN THE CONSTRUCTION LIMITS BY ITEM I-1 CLASS "A-1" PIPE.

EXISTING COLLECTORS AND ISOLATED FARM TILE WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF THE ROADWAY DITCHES SHALL BE OULETTED INTO THE ROADWAY DITCH. THE OPTIMUM OUTLET ELEVATION SHALL BE, IF POSSIBLE, ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL TILE FIELDS WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY CLASS H-2 PIPE AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE CONTRACTOR SHALL PROVIDE OUTLETS INTO THE ROADWAY DITCH FOR EXISTING AND PROPOSED FARM SURFACE DRAINAGE. THE BACKSLOPE OF THE ROADWAY DITCH SHALL BE SODDED WHERE THESE SURFACE DRAINS OUTLET INTO THE ROADWAY DITCH. THE LOCATION, SIZE AND FLOWLINE OF THESE DRAINS SHALL BE DETERMINED BY THE ENGINEER. PAYMENT FOR THE CU. YD. OF EXCAVATION FOR THE SURFACE DRAINS SHALL BE AT THE UNIT PRICE BID FOR ITEM E-1, EXCAVATION.

A QUANTITY OF L-10 AND I-10 HAS BEEN INCLUDED FOR EROSION CONTROL.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK ABOVE:

ITEM E-1	ROADWAY EXCAVATION	300 CU.YD.
ITEM I-1	6" PIPE, CLASS A-1	400 LIN.FT.
ITEM I-1	8" PIPE, CLASS A-1	400 LIN.FT.
ITEM I-1	4" PIPE, CLASS H-2	1000 LIN.FT.
ITEM I-1	8" PIPE, CLASS H-2	1200 LIN.FT.
ITEM I-1	6" PIPE, CLASS F-4	150 LIN.FT.
ITEM I-1	8" PIPE, CLASS F-4	50 LIN.FT.
ITEM I-5	8" PIPE, SPECIALS, CLASS H-2	15 EACH
ITEM I-10	CRUSHED AGGREGATE SLOPE PROTECTION	40 SQ.YD.
ITEM L-10	SODDING	200 SQ.YD.

THE LOCATION, TYPE, SIZE, GRADE, AND USAGE OF THE ESTIMATED QUANTITIES TO BE USED AS DIRECTED SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT. THESE QUANTITIES ARE NOT TO BE DELIVERED TO THE PROJECT UNTIL SO DIRECTED BY THE ENGINEER.

### ITEM I-9, STONE UNDERDRAINS, NO. 2:

STONE UNDERDRAINS SHALL BE PLACED AT FIFTY (50) FOOT INTERVALS ON EACH SIDE OF NORMAL CROWNED SECTIONS AND AT TWENTY-FIVE (25) FOOT INTERVALS ON THE LOW SIDE ONLY OF SUPERELEVATED SECTIONS, EXCEPT WHERE ITEM I-1 PIPE UNDERDRAINS HAVE BEEN PROVIDED. THE CONTRACTOR SHALL FINISH, SEED, AND SOD THE SLOPES AS BEING TO IMPROVE DRAINAGE OF THE BASE MATERIAL.

### ITEM S.S. CE-101.04 COMPACTION USING HEAVY PNEUMATIC TIRE ROLLER:

AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE IN PROOF ROLLING OF SUBGRADE ON THE MAINLINE AND IN AREAS AS DIRECTED BY THE ENGINEER. PROOF ROLLING WILL NOT BE REQUIRED WHERE ROCK OR SHALE OCCURS IN SUBGRADE AND IN AREAS WHERE SUBBASE HAS BEEN THICKENED TO REPLACE FROST SUSCEPTIBLE SILTS. IN LIEU OF THE REQUIREMENTS OF CE-101.04, A MINIMUM OF ONE COVERAGE WILL BE REQUIRED TO CHECK THE SUBGRADE. MOISTURE CONTENT OF THE TOP 12" OF SUBGRADE SHALL NOT EXCEED OPTIMUM AT THE TIME OF PROOF ROLLING. TIRE PRESSURE AND TOTAL LOAD SHALL BE VARIED AS DIRECTED BY THE ENGINEER WITHIN THE LIMITS PROVIDED IN CE-101.04.

AN ESTIMATED QUANTITY OF \_\_\_\_\_ HOURS OF HEAVY ROLLING TIME HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

T-71	246,740	Sq. Yds.
T-31	99,748	SQ. YDS.
I-7	100	SQ. YDS.
	346,588	SQ. YDS./2000 = 173 HOURS

### I-1, CLASS F - PIPE ENDS:

REINFORCED ENDS SHALL BE REQUIRED ON ALL CORRUGATED METAL PIPE EXCEPT HEADWALLS. IF THE PIPE ENDS ARE UNPROTECTED BY HEADWALLS, CATCH BASINS OR MAN HOLES.

### CONTRACTION AND EXPANSION JOINTS:

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN EXPANSION AND CONTRACTION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES AND THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS SHALL IN ALL CASES BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING T.J.

### ITEM CLASS I-3, GRADES:

THE GRADES SHOWN ON THE PLAN AND PROFILE SHEETS MAY BE ADJUSTED FOR A SHORT DISTANCE, WHERE THEY OUTLET IN THE 15" & 18" A-1 MEDIAN OUTLETS, TO SECURE A GOOD CONNECTION.

### ELEVATION DATUM:

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.

### DRIVEWAYS AND MAILBOX TURN OUTS:

UNLESS OTHERWISE SHOWN ON THESE PLANS, ALL DRIVEWAYS AND MAILBOX TURN OUTS ON THIS PROJECT SHALL BE TYPE 1 STANDARD DRAWING DR-1, MODIFIED BY DELETING THE 12" OFFSET AT THE EDGE OF THE PAVEMENT. PAVEMENT COURSES AND THICKNESSES ARE AS FOLLOWS:

TYPE OF APPROACH:	DRIVE APRONS		OTHER AREAS		#IF EXISTING DRIVE IS HARD-SURFACED THE SAME COURSES & THICKNESSES SHALL BE USED BEYOND THE DRIVE APRONS.
	T-35*	B-19	T-35*	B-19	
MAILBOX APPROACHES	2"	5"			
RESIDENCE DRIVE	2"	5"	#	8"	
COMMERCIAL DRIVE	2"	7"	#	9"	
FIELD DRIVE	0"	6"	0"	6"	

\*TWO 1" COURSES

### COMMERCIAL FERTILIZER:

FORMULA 12-12-12 SHALL BE APPLIED AT THE RATE OF TWENTY (20) POUNDS PER THOUSAND (1000) SQUARE FEET TO ALL AREAS TO BE SEEDDED OR SODDED.

### GUARD RAIL FLARES:

WHERE TRAFFIC APPROACHES A RUN OF GUARD RAIL, THE FIRST THREE (3) PANELS OF GUARD RAIL WILL BE FLARED FROM 12' TO 10' (DISTANCE FROM EDGE OF PAVEMENT) IN A MANNER SIMILAR TO THAT SHOWN ON STANDARD DRAWING I-15 NO. 6.

### ITEM T-30 TACK COAT:

ALTHOUGH THIS ITEM HAS BEEN ESTIMATED FOR USE ON THE ENTIRE EXISTING BITUMINOUS PAVEMENT AREA TO BE RESURFACED, IT SHALL BE USED ONLY ON DRY OR CHECKED PAVEMENT AREAS WHERE SPECIFICALLY DIRECTED BY THE ENGINEER. PAYMENT WILL BE MADE ON FINAL MEASUREMENT.

### APPROACH SLAB LONGITUDINAL JOINTS:

LONGITUDINAL IMPRESSED OR SAWED JOINTS SHALL BE PROVIDED BETWEEN ELEMENTS, ON ALL APPROACH SLABS, IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING L.J. NO. 1.

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VAN WERT COUNTY  
VAN - 30-4.06

## CONSTRUCTION LAYOUT STAKES:

SEE NOTE IN PROPOSAL DESCRIBING THE WORK INCLUDED IN THIS LUMP SUM PAY ITEM.

## TRAFFIC AND CONSTRUCTION PROCEDURE:

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH THE PROVISIONS OF ITEM I-3 AND WITH THE REQUIREMENTS OF THE WORK BY USING THE EXISTING PAVEMENT, THE PROPOSED PAVEMENT AND THE S-15 TEMPORARY RUNAROUNDS. THE FOLLOWING CONSTRUCTION PROCEDURE SHALL BE ADOPTED BY THE CONTRACTOR SO THAT THROUGH TRAFFIC ON U.S. 30 CAN PROCEED WITH A MINIMUM DISRUPTION:

1. MAINTAIN TWO-WAY TRAFFIC OVER THE S-15 TEMPORARY RUNAROUND, BRIDGE AND APPROACHES AS SHOWN ON SHEETS 194, 195, & 196 AND DURING WHICH TIME THE STRUCTURE OVER RELOCATED U.S. 30, EMBANKMENT, PAVEMENT AND OTHER ITEMS ARE COMPLETED NECESSARY TO ROUTING TRAFFIC OVER THIS STRUCTURE.
2. COMPLETE CONSTRUCTION ON WESTBOUND (LEFT) LANES FROM STA. 237 + 00 TO END OF PROJECT.
3. COMPLETE CONSTRUCTION ON EASTBOUND (RIGHT) LANES FROM STA. 225 + 50 TO END OF PROJECT.
4. COMPLETE CONSTRUCTION ON ALL INTERSECTED AND RELOCATED COUNTY, TOWNSHIP AND STATE HIGHWAYS.
5. UPON COMPLETION OF ITEMS 1 THRU 4 CONSTRUCT TEMPORARY RUNAROUNDS AS SHOWN ON SHEETS 17 AND 18 SO THAT TWO-WAY TRAFFIC MAY BE MAINTAINED OVER THE TEMPORARY PAVEMENT, AND THE EASTBOUND LANES OF RELOCATED U.S. 30 TO COUNTY ROAD 192. TRAFFIC SHALL BE MAINTAINED OVER THE FOUR COMPLETED LANES FROM COUNTY ROAD 192 TO THE END OF PROJECT.
6. S.R. 49 MAY BE DETOURED FOR A PERIOD OF TIME NOT TO EXCEED 45 CONSECUTIVE CALENDAR DAYS AS SHOWN ON SHEET NO. 1. DURING THIS TIME COUNTY ROADS 192 AND 168 SHALL BE KEPT OPEN TO TWO-WAY TRAFFIC.
7. NO MORE THAN TWO CONSECUTIVE COUNTY OR TOWNSHIP ROADS MAY BE CLOSED TO TRAFFIC DURING THE SAME PERIOD OF TIME.

## LIGHTS AND SIGNS AT ADJACENT ROAD INTERSECTIONS:

THE CONTRACTOR SHALL, IN ADDITION TO THE GENERAL REQUIREMENTS OF ITEM I-3 ON THIS PROJECT PERFORM THE FOLLOWING:

PROVIDE, ERECT, AND MAINTAIN STANDARD 48" X 30" SIZE "ROAD CLOSED" SIGNS, SIGN SUPPORTS, AND LIGHTS AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC:

1. COUNTY ROAD 192 JUST EAST OF TOWNSHIP ROAD 49 INTERSECTION.
2. COUNTY ROAD 192 JUST WEST OF U.S.R. 30 INTERSECTION.
3. TOWNSHIP ROAD 65 JUST SOUTH OF TOWNSHIP ROAD 184 INTERSECTION.
4. TOWNSHIP ROAD 65 JUST NORTH OF COUNTY ROAD 168 INTERSECTION.
5. COUNTY ROAD 168 JUST EAST OF TOWNSHIP ROAD 65 INTERSECTION.
6. COUNTY ROAD 168 JUST WEST OF COUNTY ROAD 69 INTERSECTION.
7. COUNTY ROAD 69 JUST SOUTH OF COUNTY ROAD 168 INTERSECTION.
8. COUNTY ROAD 69 JUST NORTH OF TOWNSHIP ROAD 234 INTERSECTION.
9. TOWNSHIP ROAD 234 JUST EAST OF COUNTY ROAD 69 INTERSECTION.
10. TOWNSHIP ROAD 75 JUST NORTH OF TOWNSHIP ROAD 160 INTERSECTION.
11. TOWNSHIP ROAD 75 JUST SOUTH OF COUNTY ROAD 168 INTERSECTION.
12. TOWNSHIP ROAD 160 JUST EAST OF TOWNSHIP ROAD 75 INTERSECTION.
13. COUNTY ROAD 77 JUST NORTH OF TOWNSHIP ROAD 148 INTERSECTION.
14. COUNTY ROAD 77 JUST SOUTH OF TOWNSHIP ROAD 154 INTERSECTION.
15. TOWNSHIP ROAD 148 JUST EAST OF COUNTY ROAD 77 INTERSECTION.
16. TOWNSHIP ROAD 148 JUST WEST OF COUNTY ROAD 83 INTERSECTION.

SIGN SUPPORTS AND LIGHTS FOR "ROAD CLOSED" SIGNS SHALL BE AS DETAILED IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."

PAYMENT FOR PROVIDING, ERECTING, MAINTAINING, AND REMOVING LIGHTS, SIGNS, AND SIGN SUPPORTS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR "ITEM I-3, MAINTAINING TRAFFIC."

## TRAFFIC SIGN ERECTION:

THE CONTRACTOR SHALL ERECT SIGN PANELS FURNISHED BY OTHERS AS NOTED ON THE SCHEMATIC SIGNING LAYOUT SHEET NO. 280 TO 286. THE PANELS SHALL BE MOUNTED ON THE BRACKETS OR BEAM SUPPORTS PROVIDED IN THE PLANS.

A SCHEDULE FOR SIGN ERECTION SHALL BE SUBMITTED TO THE ENGINEER, BUREAU OF TRAFFIC, 450 EAST TOWN STREET, COLUMBUS, OHIO, 60 CALENDAR DAYS PRIOR TO THE START OF ANY SCHEDULED ERECTION WORK. THE SCHEDULE SHALL INCLUDE PROPOSED DATES, TIME, SIGN NUMBERS AND DELIVERY POINT.

THE PRICE BID PER SQUARE FOOT FOR, "ITEM I-129, SIGN ERECTION BY TYPE, AS PER PLAN", SHALL INCLUDE ALL NECESSARY EQUIPMENT, MANPOWER, AND TOOLS TO ERECT THE SIGNS NOTED. ALL SIGN MATERIAL AND ACCESSORIES WILL BE FURNISHED AND TRANSPORTED TO A DESIGNATED DELIVERY POINT, ON OR NEAR THE SUBJECT PROJECT, BY OTHERS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HANDLING AND STORAGE OF THE SIGN PANELS AND ACCESSORIES FROM THE TIME OF ARRIVAL AT THE DELIVERY POINT.

SIGNS MARKED "BY OTHERS" ARE NOT A PART OF THIS CONTRACT. SIGNS MARKED "FUTURE", THE POSTS, BEAMS AND SIGN SUPPORTS ARE A PART OF THIS CONTRACT. THE SIGNS MARKED FUTURE SHALL BE ERECTED BY OTHERS.

## MATERIALS - GENERAL:

MATERIALS TO BE FURNISHED MAY BE SPECIFIED IN THE PLANS BY A GIVEN MANUFACTURER'S CATALOG NUMBER OR TYPE. THIS IS FOR DESCRIPTIVE PURPOSES ONLY AND THE CONTRACTOR MAY ASSUME THAT APPROVED EQUAL MATERIALS MAY BE FURNISHED.

## I-129 CONCRETE FOR SIGN SUPPORT FOUNDATIONS:

THE QUANTITY FOR CONCRETE TO BE PAID FOR SHALL BE PER CUBIC YARD BASED ON THE PLAN DIMENSIONS RATHER THAN THE PLAN QUANTITY.

## SIGN SUPPORT SYMBOLS:

- ⊥ ONE SUPPORT, GROUND MOUNTED.
- ⊥ TWO SUPPORTS, GROUND MOUNTED
- O — OVERHEAD SPAN (TRUSS OR MONOTUBE)

## OVERHEAD SIGN SUPPORTS:

ALL COMPONENTS OF THE OVERHEAD SIGN SUPPORTS, I-129, SHALL BE STEEL, EXCEPT THE TRUSS SPAN AND ACCESSORIES TO THE I-129, NO. 7 SERIES WHICH SHALL BE ALUMINUM. FOR SPECIFIC DETAILS AND MATERIALS SEE SHEET NO. 288.

## GALVANIZED SUPPORTS:

THE STRUCTURAL STEEL BEAM SUPPORTS INCLUDING THE 8 POUND AND 4 POUND BEAM, AND 4 POUND AND 2 POUND DRIVE POST SHALL BE GALVANIZED (AFTER PUNCHING) IN ACCORDANCE WITH ASTM A-123. ALL BOLTS, NUTS PLAIN AND LOCKWASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, EXCEPT WHERE ALUMINUM OR STAINLESS STEEL IS REQUIRED.

## GROUND MOUNTED SIGN SUPPORTS:

THE STRUCTURAL STEEL BEAM SUPPORTS SHALL BE GALVANIZED (AFTER PUNCHING) IN ACCORDANCE WITH ASTM A-123.

QUANTITIES FOR ITEM I-129 STRUCTURAL BEAM SUPPORTS APPEARING IN THE QUANTITY TABLES ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT SUPPORT LENGTHS PRIOR TO FABRICATION AND GALVANIZING OF SUPPORTS. PAYMENT SHALL BE AT THE CONTRACT UNIT PRICE BID, WHICH PRICE AND PAYMENT SHALL INCLUDE EMBEDMENT OF THE SUPPORTS.

## TRAFFIC CONTROL DEVICES EMBEDDED IN PAVED AREAS: ITEM I-129

The following two methods are acceptable in placing of posts for signs: The contractor must at the time of paving insert a four inch (4") thin-walled sleeve. The sleeve shall have a corrosion resistant finish, such as galvanizing or cadmium plating.

OR  
The contractor must upon completion of paving and curing, drill, using appropriate equipment, a four inch (4") hole without damage to surrounding concrete.

After the support has been embedded to proper depth, the remaining void around the post shall be filled with a furan resin cement or a not-poured inert-mineral sulphur-based compound. The above compounds to be applied with methods and procedures recommended by the manufacturers.

## PAYMENT

All labor, tools, materials, and incidentals shall be included in price bid for item I-129 steel drive posts, as per plan.

## NO. 6 CATCH BASINS, MODIFIED:

FOR MODIFICATION AND LOCATION OF NO. 6 CATCH BASINS, MODIFIED, SEE SHEET NOS. ~~144 AND 240~~.

## NO. 2-6 MEDIAN INLET, MODIFIED:

FOR MODIFICATION AND LOCATION OF NO. 2-6 MEDIAN INLET, MODIFIED, SEE SHEET NO. 278.

## U.S.G.S. BENCH MARK:

SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR TO PRESERVE THE U.S.G.S. BENCH MARK, #Z-125 (1947), LOCATED AT STA. 231 + 27, 5' LEFT, UNTIL IT IS REFERENCED BY THE STATE SURVEY CREW.

## ITEM SPECIAL - FURNISHING AND APPLYING CALCIUM CHLORIDE ON AGGREGATE SHOULDERS AND APPROACHES:

CALCIUM CHLORIDE, SECTION M-10.20 OR A SOLUTION CONTAINING 34% CALCIUM CHLORIDE BY WEIGHT SHALL BE APPLIED TO THE COMPACTED SURFACE OF THE AGGREGATE SHOULDERS AND APPROACHES. THE RATE OF APPLICATION OF CALCIUM CHLORIDE SECTION M-10.20 SHALL BE 1.0 POUND PER SQUARE YARD UNIFORMLY SPREAD OVER THE SURFACE WITH AN APPROVED SPREADER OR WHEN LIQUID CALCIUM CHLORIDE IS USED THE RATE OF APPLICATION SHALL BE 0.21 GALLONS PER SQUARE YARD UNIFORMLY APPLIED OVER THE SURFACE WITH AN APPROVED SPRAY BAR.

THE APPLICATION OF CALCIUM CHLORIDE SECTION M-10.20 SHALL BE MADE DURING PERIODS OF HIGH HUMIDITY, AS DURING THE NIGHT OR EARLY MORNING HOURS, UNLESS THE SURFACE IS IN A DAMP CONDITION FROM SPRINKLING OR FROM NATURAL SOURCES. IN THE LATTER CASE, THE CALCIUM CHLORIDE MAY BE APPLIED AT ANY TIME.

COSTS OF FURNISHING, HAULING, AND APPLYING THE CALCIUM CHLORIDE AND FOR ALL OTHER LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID PER TON FOR "ITEM SPECIAL FURNISHING AND APPLYING CALCIUM CHLORIDE ON AGGREGATE SHOULDERS AND APPROACHES."

THE NUMBER OF TONS OF CALCIUM CHLORIDE TO BE PAID FOR SHALL BE THE NUMBER OF TONS BY WEIGHT MEASUREMENT, FURNISHED AND APPLIED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS ITEM. WHEN A SOLUTION CONTAINING 34% CALCIUM CHLORIDE BY WEIGHT IS USED, THE TONS OF CALCIUM CHLORIDE TO BE PAID FOR SHALL BE DETERMINED BY MULTIPLYING THE NUMBER OF GALLONS USED BY 0.6024.

## I-3 MAINTAINING TRAFFIC:

ESTIMATED QUANTITIES OF I-4 12 TONS OF CALCIUM CHLORIDE FOR DUST CONTROL AND T-10 500 CU. YDS. TRAFFIC COMPACTED SURFACE COURSE FOR MAINTAINING TRAFFIC HAVE BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

## GUARD RAIL FLARES

When proposed guard rail flares are constructed of rail elements which have not been fabricated exactly to fit the curvature shown on the plans, the two end posts of each flared section shall be encased in a minimum 4 inch thickness of Class "E" concrete for the full depth of the post below the ground line. Payment for encasement, if required, shall be included in the unit price bid for the guard rail.

## OVERHEAD SIGNS

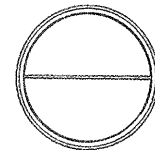
The exact stationing of Overhead Sign Assemblies in guard rail sections may be adjusted at the time of construction as directed by the Engineer, to avoid interference with guard rail posts.

## FLARED APPROACH SLABS

In lieu of the reinforcing details shown on Sheet 277, place additional A-bars in flared areas by maintaining the standard spacing along the wide end of the slab and fanning the bars in toward the bridge as directed by the Engineer.

# GENERAL NOTES

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	



## CONSTRUCTION LAYOUT STAKES:

SEE NOTE IN PROPOSAL DESCRIBING THE WORK INCLUDED IN THIS LUMP SUM PAY ITEM.

## TRAFFIC AND CONSTRUCTION PROCEDURE:

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH THE PROVISIONS OF ITEM I-3 AND WITH THE REQUIREMENTS OF THE WORK BY USING THE EXISTING PAVEMENT, THE PROPOSED PAVEMENT AND THE S-15 TEMPORARY RUNAROUNDS. THE FOLLOWING CONSTRUCTION PROCEDURE SHALL BE ADOPTED BY THE CONTRACTOR SO THAT THROUGH TRAFFIC ON U.S. 30 CAN PROCEED WITH A MINIMUM DISRUPTION:

1. MAINTAIN TWO-WAY TRAFFIC OVER THE S-15 TEMPORARY RUNAROUND, BRIDGE AND APPROACHES AS SHOWN ON SHEETS \_\_\_\_\_ AND DURING WHICH TIME THE STRUCTURE OVER RELOCATED U.S. 30, EMBANKMENT, PAVEMENT AND OTHER ITEMS ARE COMPLETED NECESSARY TO ROUTING TRAFFIC OVER THIS STRUCTURE.
2. COMPLETE CONSTRUCTION ON WESTBOUND (LEFT) LANES FROM STA. 237 + 00 TO END OF PROJECT.
3. COMPLETE CONSTRUCTION ON EASTBOUND (RIGHT) LANES FROM STA. 225 + 50 TO END OF PROJECT.
4. COMPLETE CONSTRUCTION ON ALL INTERSECTED AND RELOCATED COUNTY, TOWNSHIP AND STATE HIGHWAYS.
5. UPON COMPLETION OF ITEMS 1 THRU 4 CONSTRUCT TEMPORARY RUNAROUNDS AS SHOWN ON SHEETS \_\_\_\_\_ AND \_\_\_\_\_ SO THAT TWO-WAY TRAFFIC MAY BE MAINTAINED OVER THE TEMPORARY PAVEMENT, AND THE EASTBOUND LANES OF RELOCATED U.S. 30 TO COUNTY ROAD 192. TRAFFIC SHALL BE MAINTAINED OVER THE FOUR COMPLETED LANES FROM COUNTY ROAD 192 TO THE END OF PROJECT.
6. S.R. 49 MAY BE DETOURED FOR A PERIOD OF TIME NOT TO EXCEED 45 CONSECUTIVE CALENDAR DAYS AS SHOWN ON SHEET NO. 1. DURING THIS TIME COUNTY ROADS 192 AND 168 SHALL BE KEPT OPEN TO TWO-WAY TRAFFIC.
7. NO MORE THAN TWO CONSECUTIVE COUNTY OR TOWNSHIP ROADS MAY BE CLOSED TO TRAFFIC DURING THE SAME PERIOD OF TIME.

## LIGHTS AND SIGNS AT ADJACENT ROAD INTERSECTIONS:

THE CONTRACTOR SHALL, IN ADDITION TO THE GENERAL REQUIREMENTS OF ITEM I-3 ON THIS PROJECT PERFORM THE FOLLOWING:

PROVIDE, ERECT, AND MAINTAIN STANDARD 48" X 30" SIZE "ROAD CLOSED" SIGNS, SIGN SUPPORTS, AND LIGHTS AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC:

1. COUNTY ROAD 192 JUST EAST OF TOWNSHIP ROAD 49 INTERSECTION.
2. COUNTY ROAD 192 JUST WEST OF U.S.R. 30 INTERSECTION.
3. TOWNSHIP ROAD 65 JUST SOUTH OF TOWNSHIP ROAD 184 INTERSECTION.
4. TOWNSHIP ROAD 65 JUST NORTH OF COUNTY ROAD 168 INTERSECTION.
5. COUNTY ROAD 168 JUST EAST OF TOWNSHIP ROAD 65 INTERSECTION.
6. COUNTY ROAD 168 JUST WEST OF COUNTY ROAD 69 INTERSECTION.
7. COUNTY ROAD 69 JUST SOUTH OF COUNTY ROAD 168 INTERSECTION.
8. COUNTY ROAD 69 JUST NORTH OF TOWNSHIP ROAD 234 INTERSECTION.
9. TOWNSHIP ROAD 234 JUST EAST OF COUNTY ROAD 69 INTERSECTION.
10. TOWNSHIP ROAD 75 JUST NORTH OF TOWNSHIP ROAD 160 INTERSECTION.
11. TOWNSHIP ROAD 75 JUST SOUTH OF COUNTY ROAD 168 INTERSECTION.
12. TOWNSHIP ROAD 160 JUST EAST OF TOWNSHIP ROAD 75 INTERSECTION.
13. COUNTY ROAD 77 JUST NORTH OF TOWNSHIP ROAD 148 INTERSECTION.
14. COUNTY ROAD 77 JUST SOUTH OF TOWNSHIP ROAD 154 INTERSECTION.
15. TOWNSHIP ROAD 148 JUST EAST OF COUNTY ROAD 77 INTERSECTION.
16. TOWNSHIP ROAD 148 JUST WEST OF COUNTY ROAD 83 INTERSECTION.

SIGN SUPPORTS AND LIGHTS FOR "ROAD CLOSED" SIGNS SHALL BE AS DETAILED IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."

PAYMENT FOR PROVIDING, ERECTING, MAINTAINING, AND REMOVING LIGHTS, SIGNS, AND SIGN SUPPORTS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR "ITEM I-3, MAINTAINING TRAFFIC."

## TRAFFIC SIGN ERECTION:

THE CONTRACTOR SHALL ERECT SIGN PANELS FURNISHED BY OTHERS AS NOTED ON THE SCHEMATIC SIGNING LAYOUT SHEET NO. \_\_\_\_\_. THE PANELS SHALL BE MOUNTED ON THE BRACKETS OR BEAM SUPPORTS PROVIDED IN THE PLANS.

A SCHEDULE FOR SIGN ERECTION SHALL BE SUBMITTED TO THE ENGINEER, BUREAU OF TRAFFIC, 450 EAST TOWN STREET, COLUMBUS, OHIO, 60 CALENDAR DAYS PRIOR TO THE START OF ANY SCHEDULED ERECTION WORK. THE SCHEDULE SHALL INCLUDE PROPOSED DATES, TIME, SIGN NUMBERS AND DELIVERY POINT.

THE PRICE BID PER SQUARE FOOT FOR, "ITEM I-129, SIGN ERECTION BY TYPE, AS PER PLAN", SHALL INCLUDE ALL NECESSARY EQUIPMENT, MANPOWER, AND TOOLS TO ERECT THE SIGNS NOTED. ALL SIGN MATERIAL AND ACCESSORIES WILL BE FURNISHED AND TRANSPORTED TO A DESIGNATED DELIVERY POINT, ON OR NEAR THE SUBJECT PROJECT, BY OTHERS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HANDLING AND STORAGE OF THE SIGN PANELS AND ACCESSORIES FROM THE TIME OF ARRIVAL AT THE DELIVERY POINT.

SIGNS MARKED "BY OTHERS" ARE NOT A PART OF THIS CONTRACT. SIGNS MARKED "FUTURE", THE POSTS, BEAMS AND SIGN SUPPORTS ARE A PART OF THIS CONTRACT. THE SIGNS MARKED FUTURE SHALL BE ERECTED BY OTHERS.

## MATERIALS - GENERAL:

MATERIALS TO BE FURNISHED MAY BE SPECIFIED IN THE PLANS BY A GIVEN MANUFACTURER'S CATALOG NUMBER OR TYPE. THIS IS FOR DESCRIPTIVE PURPOSES ONLY AND THE CONTRACTOR MAY ASSUME THAT APPROVED EQUAL MATERIALS MAY BE FURNISHED.

## I-129 CONCRETE FOR SIGN SUPPORT FOUNDATIONS:

THE QUANTITY FOR CONCRETE TO BE PAID FOR SHALL BE PER CUBIC YARD BASED ON THE PLAN DIMENSIONS RATHER THAN THE PLAN QUANTITY.

## SIGN SUPPORT SYMBOLS:

ONE SUPPORT, GROUND MOUNTED  
TWO SUPPORTS, GROUND MOUNTED  
OVERHEAD SPAN (TRUSS OR MONOTUBE)

## OVERHEAD SIGN SUPPORTS:

ALL COMPONENTS OF THE OVERHEAD SIGN SUPPORTS, I-129, SHALL BE STEEL, EXCEPT THE TRUSS SPAN AND ACCESSORIES TO THE I-129, NO. 7 SERIES WHICH SHALL BE ALUMINUM. FOR SPECIFIC DETAILS AND MATERIALS SEE SHEET NO. \_\_\_\_\_.

## GALVANIZED SUPPORTS:

THE STRUCTURAL STEEL BEAM SUPPORTS INCLUDING THE 8 POUND AND 4 POUND BEAM, AND 4 POUND AND 2 POUND DRIVE POST SHALL BE GALVANIZED (AFTER PUNCHING) IN ACCORDANCE WITH ASTM A-123. ALL BOLTS, NUTS PLAIN AND LOCKWASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, EXCEPT WHERE ALUMINUM OR STAINLESS STEEL IS REQUIRED.

## GROUND MOUNTED SIGN SUPPORTS:

THE STRUCTURAL STEEL BEAM SUPPORTS SHALL BE GALVANIZED (AFTER PUNCHING) IN ACCORDANCE WITH ASTM A-123.

QUANTITIES FOR ITEM I-129 STRUCTURAL BEAM SUPPORTS APPEARING IN THE QUANTITY TABLES ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT SUPPORT LENGTHS PRIOR TO FABRICATION AND GALVANIZING OF SUPPORTS. PAYMENT SHALL BE AT THE CONTRACT UNIT PRICE BID, WHICH PRICE AND PAYMENT SHALL INCLUDE EMBEDMENT OF THE SUPPORTS.

## NO. 6 CATCH BASINS, MODIFIED:

FOR MODIFICATION AND LOCATION OF NO. 6 CATCH BASINS, MODIFIED, SEE SHEET NOS. \_\_\_\_\_.

## NO. 2-6 MEDIAN INLET, MODIFIED:

FOR MODIFICATION AND LOCATION OF NO. 2-6 MEDIAN INLET, MODIFIED, SEE SHEET NO. \_\_\_\_\_.

## U.S.G.S. BENCH MARK:

SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR TO PRESERVE THE U.S.G.S. BENCH MARK, # -125 (1947), LOCATED AT STA. 231 + 27, 5' LEFT, UNTIL IT IS REFERENCED BY THE STATE SURVEY CREW.

## ITEM SPECIAL - FURNISHING AND APPLYING CALCIUM CHLORIDE ON AGGREGATE SHOULDERS AND APPROACHES:

CALCIUM CHLORIDE, SECTION M-10.20 OR A SOLUTION CONTAINING 34% CALCIUM CHLORIDE BY WEIGHT SHALL BE APPLIED TO THE COMPACTED SURFACE OF THE AGGREGATE SHOULDERS AND APPROACHES. THE RATE OF APPLICATION OF CALCIUM CHLORIDE SECTION M-10.20 SHALL BE 1.0 POUND PER SQUARE YARD UNIFORMLY SPREAD OVER THE SURFACE WITH AN APPROVED SPREADER OR WHEN LIQUID CALCIUM CHLORIDE IS USED THE RATE OF APPLICATION SHALL BE 0.21 GALLONS PER SQUARE YARD UNIFORMLY APPLIED OVER THE SURFACE WITH AN APPROVED SPRAY BAR.

THE APPLICATION OF CALCIUM CHLORIDE SECTION M-10.20 SHALL BE MADE DURING PERIODS OF HIGH HUMIDITY, AS DURING THE NIGHT OR EARLY MORNING HOURS, UNLESS THE SURFACE IS IN A DAMP CONDITION FROM SPRINKLING OR FROM NATURAL SOURCES. IN THE LATTER CASE, THE CALCIUM CHLORIDE MAY BE APPLIED AT ANY TIME.

COSTS OF FURNISHING, HAULING, AND APPLYING THE CALCIUM CHLORIDE AND FOR ALL OTHER LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID PER TON FOR "ITEM SPECIAL FURNISHING AND APPLYING CALCIUM CHLORIDE ON AGGREGATE SHOULDERS AND APPROACHES."

THE NUMBER OF TONS OF CALCIUM CHLORIDE TO BE PAID FOR SHALL BE THE NUMBER OF TONS BY WEIGHT MEASUREMENT, FURNISHED AND APPLIED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS ITEM. WHEN A SOLUTION CONTAINING 34% CALCIUM CHLORIDE BY WEIGHT IS USED, THE TONS OF CALCIUM CHLORIDE TO BE PAID FOR SHALL BE DETERMINED BY MULTIPLYING THE NUMBER OF GALLONS USED BY 0.0024.

## I-1 MAINTAINING TRAFFIC:

ESTIMATED QUANTITIES OF I-4 12 TONS OF CALCIUM CHLORIDE FOR DUST CONTROL AND I-10 600 CU.YDS. TRAFFIC COMPACTED SURFACE COURSE FOR MAINTAINING TRAFFIC HAVE BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

## TRAFFIC CONTROL REQUIREMENTS:

The following traffic control is a minimum requirement. The contractor must be prepared to provide a minimum of 200' of advance warning. The contractor shall use a minimum of 200' of advance warning or provide a minimum of 200' of advance warning.

The contractor shall use a minimum of 200' of advance warning.

The contractor shall use a minimum of 200' of advance warning.

The contractor shall use a minimum of 200' of advance warning.

The contractor shall use a minimum of 200' of advance warning.