

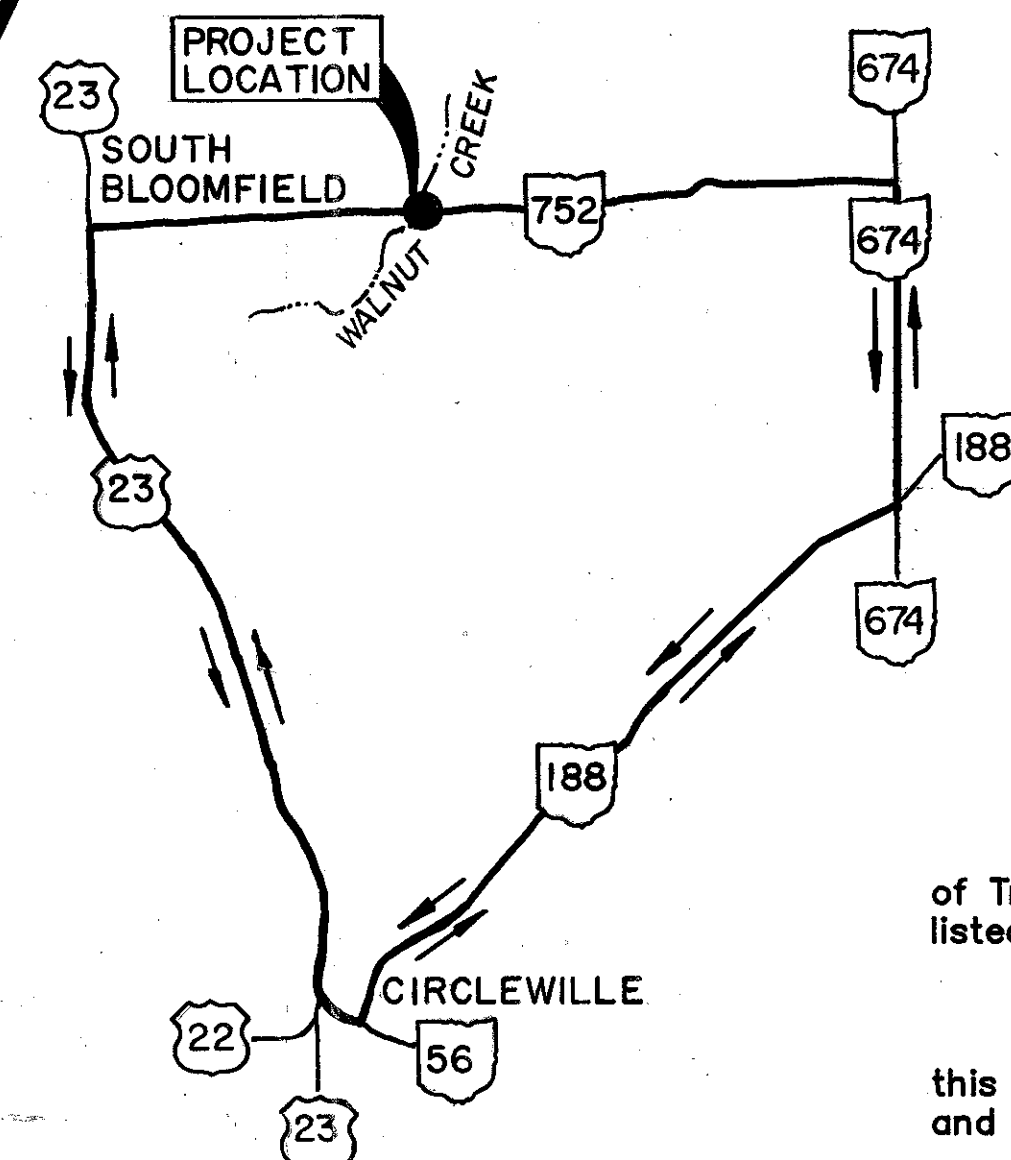
DESIGN DESIGNATION

Current ADT (1991)	= 1514
Design Year ADT (2011)	= 1823
DHV	= 182
D	= 55%
T	= 2%
Design Speed (mph)	= 60 mph
Legal Speed (mph)	= 55 mph
Functional Classification	= Major Collector (Secondary)

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
PIC-752-3.27

PICKAWAY COUNTY PIC-752-3.27	OHIO FHWA REGION 5 FEDERAL PROJECT
BRS-817 (1)	

HARRISON TOWNSHIP
WALNUT TOWNSHIP
PICKAWAY COUNTY



DETOUR MAP

BRS-817 (1)

1991 SPECIFICATIONS

The standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement.

I hereby approve these plans and declare that the making of this improvement will require the closing to traffic of the highway and that detours will be provided as indicated on the plans.

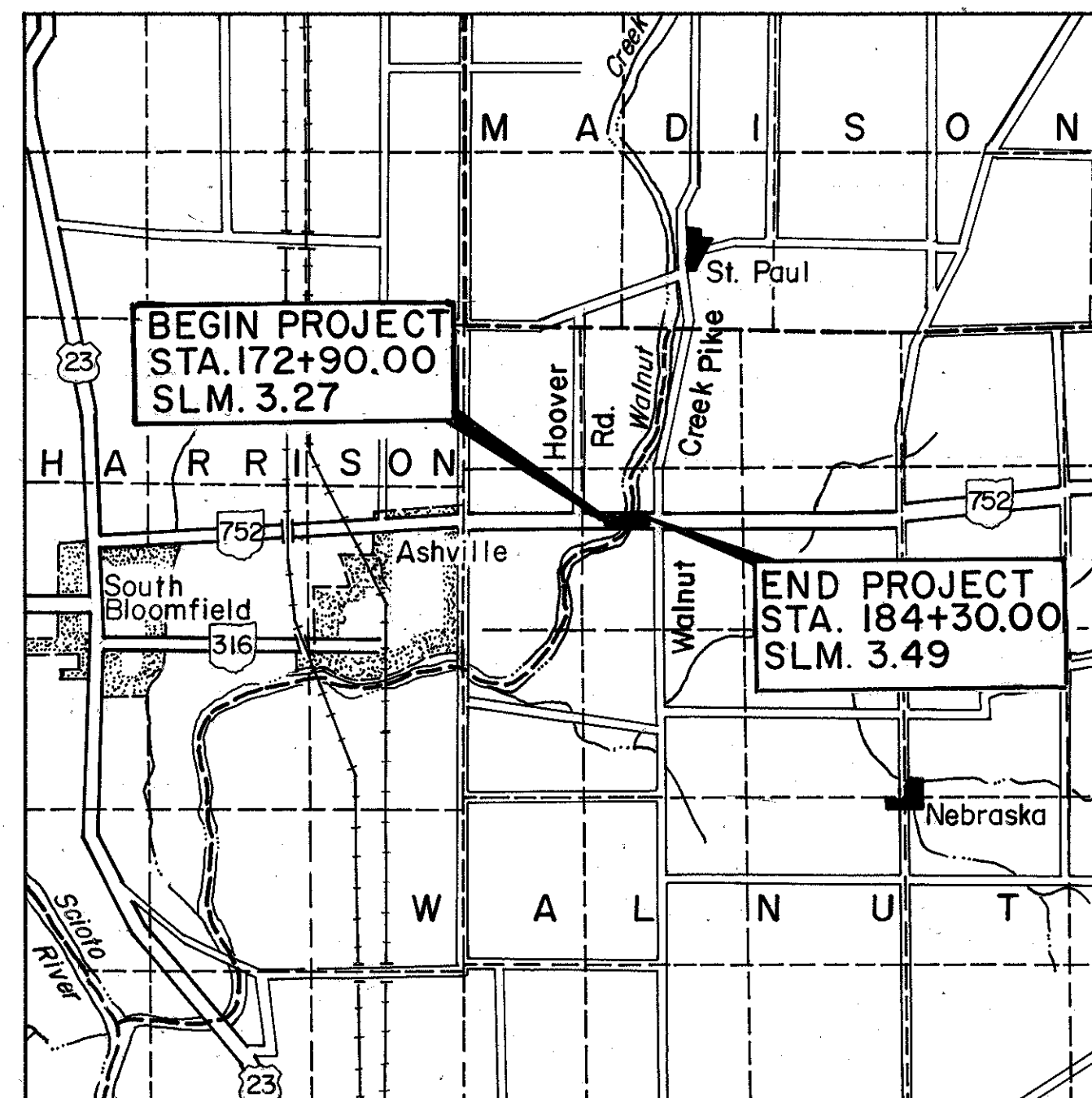
CONVENTIONAL SIGNS

County Line	-----	Limited Access (only)	-----	LA
Township Line	-----	Right of Way (only)	-----	RW
Section Line	-----	Limited Access & Right of Way	-----	LA & RW
Corporation Line	-----	Existing Right of Way	-----	
Fence Line (existing)	-X-X-	Property Line (in existing fence)	-X-X-	
Centerline	---+---	Railroad	-----	
Trees	(Symbol)	Guardrail (existing)	---o---	
Stumps	(Symbol)	Guardrail (proposed)	---o---	
Utility Poles: Telephone	(Symbol)			
Power	(Symbol)			
Light	(Symbol)			

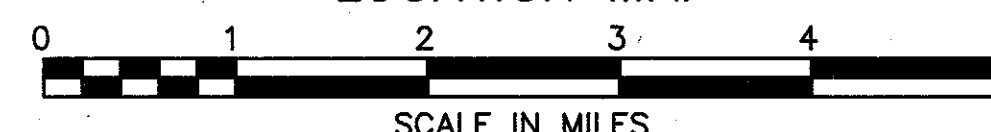
INDEX OF SHEETS

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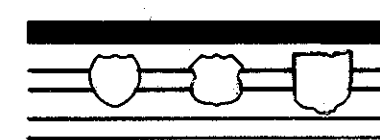
SHEET 29 HAS BEEN OMITTED



LOCATION MAP



Portion to be improved
State & Federal Routes
Other Routes



SCALES

PLAN	0 25' 50'
PROFILE HORIZONTAL	0 25' 50'
PROFILE VERTICAL	0 5'
CROSS SECTION HORIZONTAL	0 5'
CROSS SECTION VERTICAL	0 5'

UNDERGROUND UTILITIES
TWO (2) WORKING DAYS
BEFORE YOU DIG
Call 800-362-2764 (Toll free)
OHIO UTILITIES PROTECTION SERVICE
NON - MEMBERS
MUST BE CALLED DIRECTLY

SUPPLEMENTAL SPECIFICATIONS			
✓802	4-13-90		
✓836	11-12-85	✓940	6-10-87
✓841	5-16-84	✓942	11-27-89
✓843	7-29-88	✓944	5-13-91

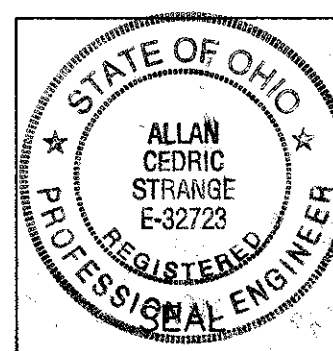
LINE DATA

BEGIN PROJECT	STA. 172+90.00
END PROJECT	STA. 184+30.00
LENGTH OF PROJECT	1140.00 Lin. ft. or 0.216 mi.
BEGIN WORK	STA. 171+50.00
END WORK	STA. 186+00.00
LENGTH OF WORK	1450.00 Lin. ft. or 0.275 mi.

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

DWG. NO.	DATE	DWG. NO.	DATE	DWG. NO.	DATE	DWG. NO.	DATE	DWG. NO.	DATE
✓BP-5	10-1-87	✓HW-1	6-1-65	✓AS-1-81	11-27-81				
✓BP-6	10-1-87	✓HW-4A	4-1-80	✓DBR-2-73	4-10-73				
✓GR-1.1	5-6-91	✓HW-4B	4-1-80	✓EXJ-4-87	1-5-89				
✓GR-2.1	5-6-91	✓MC-10	5-1-76	✓SD-1-69	6-12-69				
✓GR-3.4	5-6-91	✓MC-11	8-1-78						
✓GR-4.1	5-6-91	✓MT-99.10	11-14-86						
✓GR-5	2-5-82			✓MC-4	7-26-76				
✓MC-1	6-13-69	✓LA-1	6-1-79						
✓CB-2-2-A&B	5-1-79								
✓CB-2-3 & 2-4	5-1-79	✓GR-1.2	5-6-91						

Plans Prepared By:
DODSON - LINDBLOM ASSOCIATES, INC.
CONSULTING ENGINEERS
COLUMBUS, OHIO



Project: PIC-752-3.27

Date of Letting _____ 19 __, Contract No. _____

Allan C. Strange E-32723 3/26/94
Registered Engineer No. Date

Approved *[Signature]*
Date *4/4/91* District Deputy Director of Transportation

Approved *[Signature]*
Date *9/6/91* Engineer, Bureau of Bridges and Structural Design

Approved *[Signature]*
Date *10/7/91* Chief Engineer, Planning and Design

Approved *[Signature]*
Date *10-7-91* Director, Department of Transportation

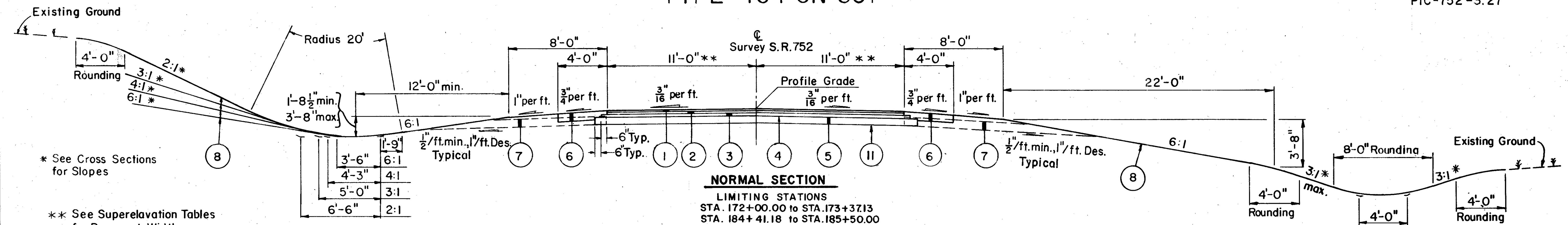
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED: _____
DIVISION ADMINISTRATOR DATE

TYPICAL SECTIONS

TYPE 404 ON 301

FHWA REGION	STATE	PROJECT	CALC. DATE
5	OHIO		
			CHKD. DATE

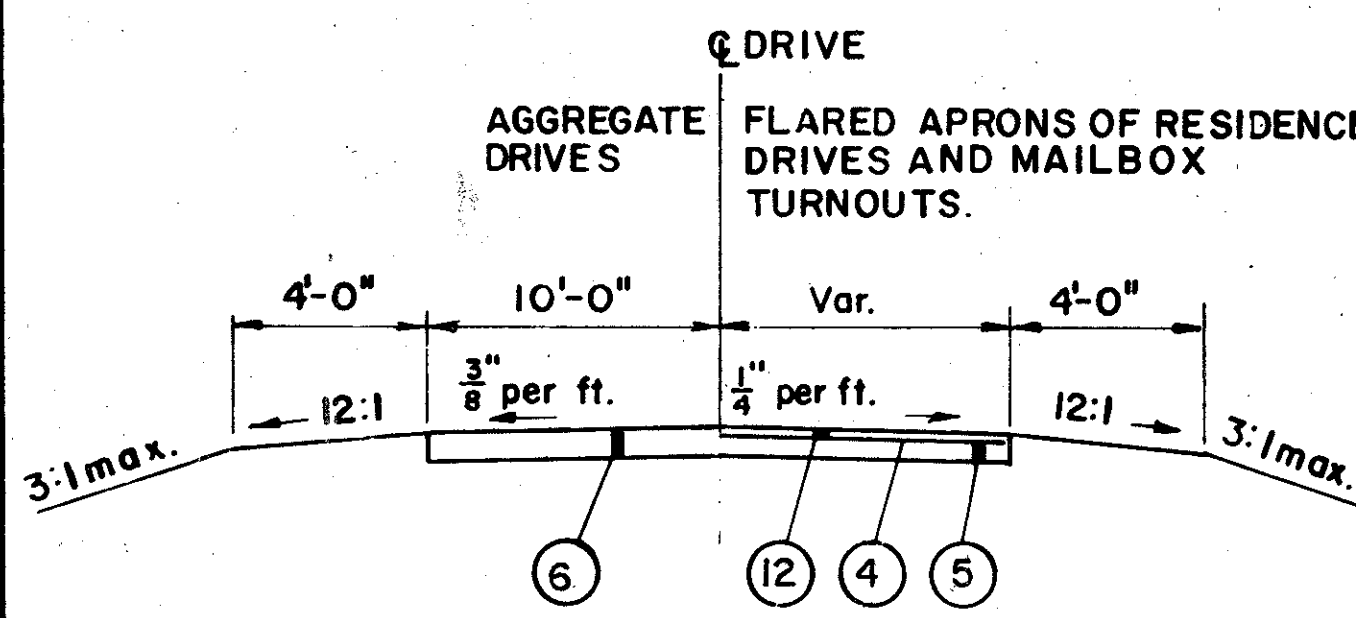
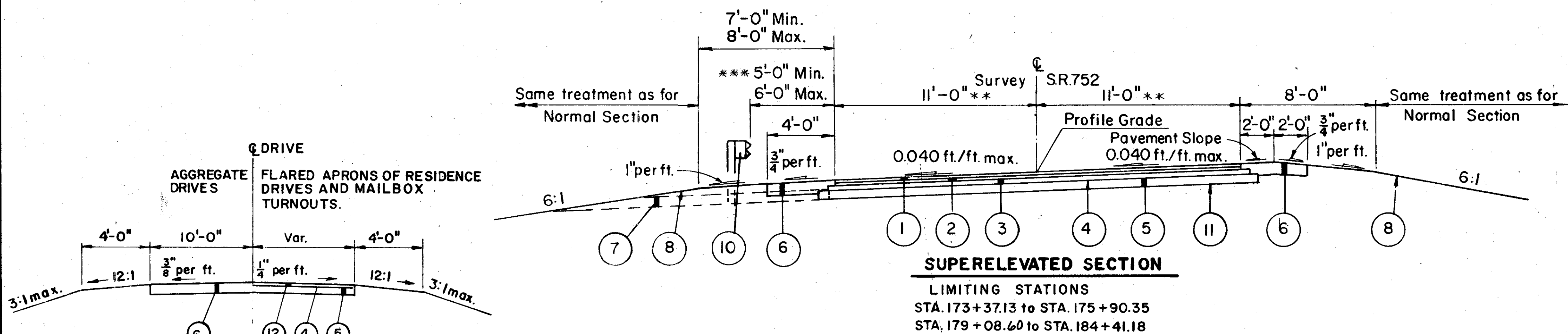
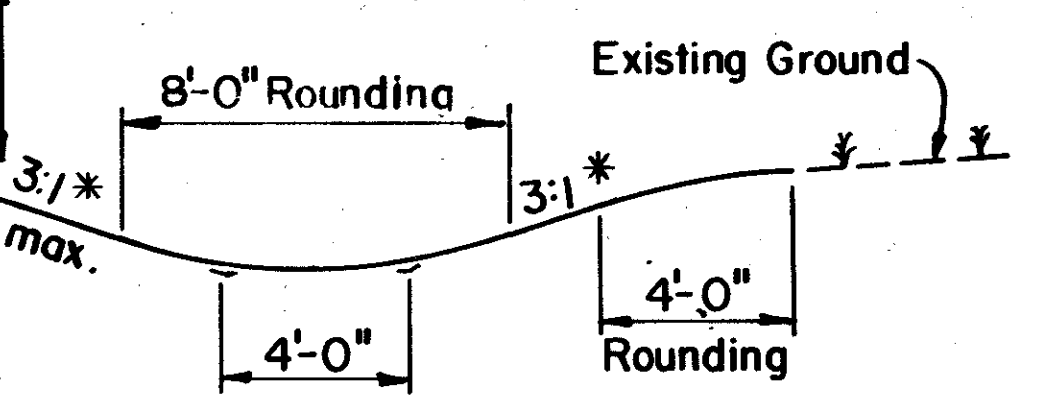
PICKAWAY COUNTY
PIC-752-3.27



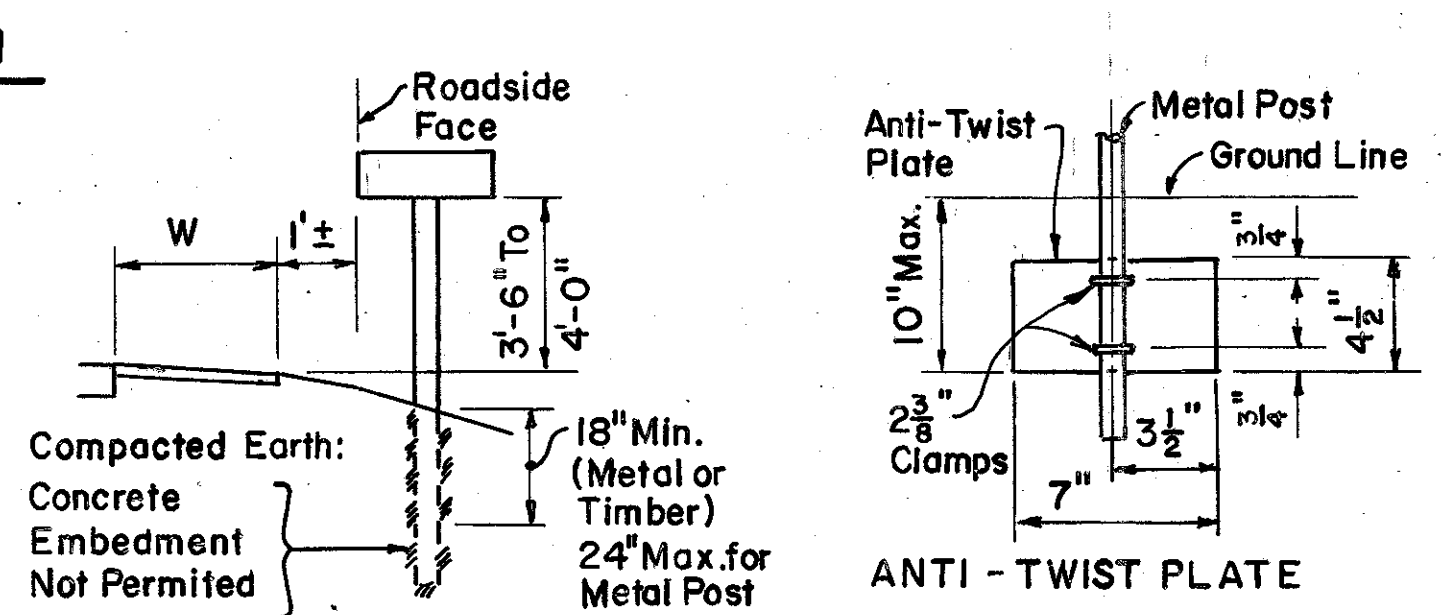
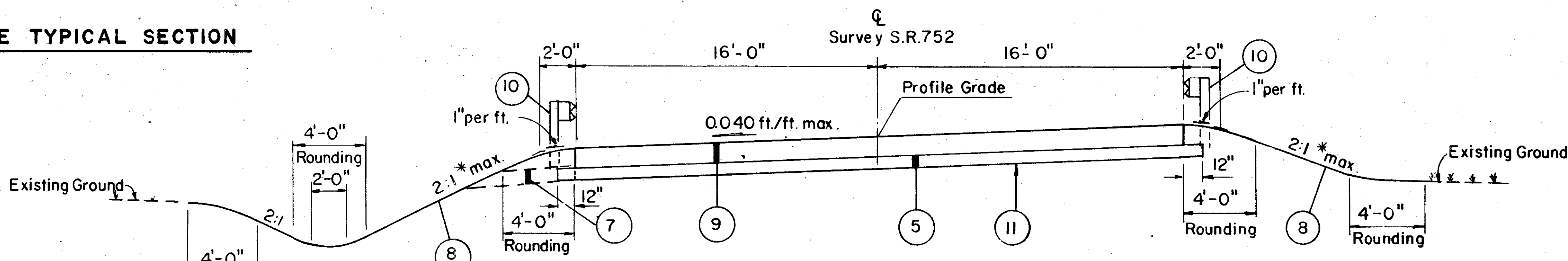
* See Cross Sections for Slopes

** See Super-elevation Tables for Pavement Widths
Sta. 172+00 to Sta. 172+90 and Sta. 184+30 to Sta. 185+50

*** See Plan and Profile Sheets for Guardrail Offsets.



- LEGEND**
- ① Item 404 1 1/4" Asphalt Concrete, AC-20
 - ② Item 402 1 3/4" Asphalt Concrete, AC-20
 - ③ Item 301 4" Bituminous Aggregate Base, AC-20
 - ④ Item 408 Bituminous Prime Coat applied at rate of 0.4 gal. per sq. yd.
 - ⑤ Item 304 6" Aggregate Base, as per plan (See General Notes)
 - ⑥ Item 304 8" Aggregate Base, as per plan (See General Notes)
 - ⑦ Item 605 Aggregate Drains
 - ⑧ Item 659 Seeding and Mulching
 - ⑨ Item 611 Reinforced Concrete Approach Slab, (t=13")
 - ⑩ Item 606 Guard Rail, Type 5
 - ⑪ Item 203 Subgrade Compaction
 - ⑫ Item 404 2" Asphalt Concrete, AC-20 (Driveways)



GENERAL NOTES

PICKAWAY COUNTY
PIC-752-3.27

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS

The rounded corners shown on the typical sections, apply to all cross sections even though otherwise shown on the plans.

ELEVATION DATUM:

All elevations are based on U.S.G.S. Datum.
USGS BM NO. TT-32 TWC (1953) Elevation 715.67
Located 0.5 miles south of SR 752, on west side of Circleville-Groveport Road, 30' south of private drive west, and 18' west of Circleville-Groveport Road, 3' north of telephone pole and 2' N.E. of N.E. fence corner of pasture field. Bench mark is a standard tablet in a concrete post.

UNDERGROUND UTILITIES

The locations of the underground utilities shown on the plans are as obtained from the owners of the utility as required by Section 153.64 ORC.

UTILITY OWNERSHIP

The following utilities and owners are located within the work limits of this project:

ELECTRIC

South Central Power Company
2780 Coonpath Road NE
Lancaster, Ohio 43130
(614) 653-4422

TELEPHONE

GTE North Incorporated
113 Pickney Street
Circleville, Ohio 43113
(614) 474-1715

OHIO BELL TELEPHONE CO.
150 E. GAY ST. - ROOM 6 F
COLUMBUS, OHIO 43215
(614) 223-8535

CONTINGENCY QUANTITIES

The contractor shall not order materials or perform work listed in the General Summary for items designated by plan note to be used "as directed by the Engineer" unless authorized by the Engineer. The actual work locations and quantities used at the Engineer's discretion shall be made a matter of record by incorporation into the final change order governing completion of this project.

REMOVAL OF TREES OR STUMPS

All trees and stumps specifically marked for removal within the construction limits of this project shall be removed under the lump sum price bid for Item 201, Clearing and Grubbing, 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	TOTAL
18"	13	3	16
30"	2	0	2
48"	4	0	4
60"	1	0	1

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 lump sum price bid for Item 201, Clearing and Grubbing.

LOCATIONS OF GUARDRAIL

The locations of guardrail runs, as shown in these plans, are subject to adjustment prior to final acceptance. The Engineer shall be satisfied that all installations will afford maximum protection for traffic.

SEEDING

Quantities for seeding are calculated for the soil areas between ten (10) feet outside the work limits, as shown on the cross sections, or to the right-of-way line, if such line is less than ten (10) feet from the work limits.

WATERING AND MOWING PERMANENT SEEDED AREAS

The following estimated quantities are to be used as directed by the Engineer to promote growth and to care for the permanent seeded areas, as per 659.09:

ITEM 659 Water 30 MGal.
ITEM 659 Mowing 30 MSq. Ft.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

The following estimated quantities are to be used as directed by the Engineer, for temporary erosion and sediment control measures:

ITEM 207 Temporary Seeding and Mulching 2555 Sq. Yd.
ITEM 207 Straw or Hay Bales 200 Each
ITEM 659 Commercial Fertilizer 0.18 Ton
ITEM 659 Repair Seeding and Mulching 640 Sq. Yd.
ITEM 659 Water 6 MGal.

ITEM 304 AGGREGATE BASE, AS PER PLAN

Material for this item shall exclude all slag except granulated slag or crushed air-cooled blast furnace slag.

ITEM 802 BARRIER REFLECTORS

This item shall consist of furnishing and installing Barrier Reflectors on galvanized steel guardrail in accordance with the plans and Supplemental Specifications 802.

ITEM 802 Barrier Reflectors, Type A
Sta. 174+94 Lt. to Sta. 179+82 Lt. 6 Ea.
Sta. 175+14 Rt. to Sta. 179+99 Rt. 6 Ea.
TO GENERAL SUMMARY 12 Ea.

CONNECTION TO EXISTING PIPE

Where the plans provide for proposed conduit to be connected to, or to cross either over or under an existing sewer, 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 conduit.

Payment for all operations described above shall be included in the unit price bid for the pertinent 603 conduit items.

FARM DRAINS

All farm drains, 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 603 Conduit, Type B, one commercial size larger than the existing conduit.

Existing collectors and isolated farm drains, which are encountered above the elevation of the roadway ditches, shall be outletted into the roadway ditch by 603 Type F Conduit. 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 603, Type E Conduit, and carried in a longitudinal direction to an adequate outlet or roadway crossing.

The location, type, size and grade of required replacements shall be determined by the Engineer during construction, and payment shall be made on final measurements.

The following estimated quantities have been included in the General Summary for the work noted above:

ITEM 601 Rock Channel Protection Type C with filter 5 Cu. Yds.
ITEM 603 6" Conduit, Type F 20 Lin. Ft.
ITEM 603 8" Conduit, Type F 20 Lin. Ft.

Necessary bends or branches shall be included for payment in the pertinent conduit item.

None of the above materials shall be ordered by the Contractor until authorized by the Engineer.

ITEM 605 AGGREGATE DRAINS

Aggregate drains 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.

EROSION CONTROL

Items 601 and 670 are provided in the plans for erosion control. Rock of a stable nature will not be removed in order to place any of these items, and turf of a stable nature will not be removed in order to place 670. The Engineer shall check and non-perform quantities or adjust locations and quantities for these items where indicated by field conditions during construction.

JOINT SEALERS

ALL REFERENCES TO 705.01 AND 705.02 APPEARING ON STANDARD DRAWINGS OR IN THE PLANS SHALL BE CONSIDERED TO READ 705.04.

FHWA REGION	STATE	PROJECT	CALC. L.W.R. DATE: 2-91
5	OHIO		CHKD. P.R. DATE: 3-91

GENERAL NOTES

PICKAWAY COUNTY
PIC-752-3.27

ITEM 614 TEMPORARY PAVEMENT MARKINGS

The Contractor shall furnish and apply Temporary Centerlines, Class II in accordance with Standard Drawing MT-99.10.

The following estimated quantities have been carried to the General Summary to perform this item of work:

ITEM 614 Temporary Centerline, Class II 0.27 Mi.

ITEM 642 PAVEMENT MARKINGS

The following quantities have been carried to the General Summary for Item 621 Pavement Markings.

- A. ITEM 642 Center Lines 0.27 Mi.
- B. ITEM 642 Edge Lines 0.53 Mi.

TEMPORARY STREAM CROSSING FORDS

Where stream crossing fords are required for equipment crossings, the following shall apply to the Contractor's operations:

The crossing shall consist of clean non-toxic granular or rock material, properly maintained to prevent erosion with provisions for conveyance of anticipated high flows.

Furthermore, it shall follow Part 330.5 Specific Categories of Discharges - Nationally Permitted, paragraph (a)(14) Minor Road Crossing Fills, of the current publication in the Federal Register - Corps of Engineers Final Regulations.

ITEM(690) SPECIAL MAILBOX SUPPORT

This work shall consist of furnishing and erecting mailbox supports and any associated mounting hardware in accordance with plan details, and attaching an Owner supplied mailbox, at locations specified in the plan, or otherwise established by the Engineer.

Wood posts shall be nominal 4" x 4" square or 4.5" diameter round, and conform to 710.14. Steel posts shall be nominal pipe size 2" I.D., and conform to AASHTO M 181.

Hardware (Plates, Screws, Bolts, Etc.) shall be commercial - grade galvanized steel. Posts shall be set per the first paragraph of 606.03, and shall in no instance be encased in concrete.

Support hardware shall accommodate either a single or a double mailbox installation, and no more than two boxes may be mounted on a single post.

The mailbox shall be securely and neatly attached by the Contractor to the new support. The Contractor shall furnish all necessary attachment hardware (nuts, bolts, plates, spacers, and washers) as necessary to accommodate the complete installation.

In the absence of a new box supplied by the Owner, the Contractor shall salvage the existing box and place it on the new support. Due care shall be exercised in such an operation, and the Contractor shall be responsible for repairing or replacing any box damaged by improper handling on his part, as judged and directed by the Engineer.

The Contractor shall be responsible for coordinating with the local postmaster regarding the timing of the movement of any mailbox to a new location.

Payment under this item shall be limited to final permanent installations. Temporary installations shall be in accordance with 107.12. However, the same material and size limitations as for permanent installations shall apply.

Mailbox supports will be paid for at the contract unit price per each, for the type specified, complete in place.

Payment will be made under:

ITEM	UNIT	DESCRIPTION
Special	1 Each	Mailbox Support System, Single

ITEM 614 MAINTAINING TRAFFIC

Local traffic shall be maintained at all times except when detour is in effect in accordance with Item 614, Maintaining Traffic, and shall be understood to include ingress and egress to adjacent properties at all times.

The following estimated quantities have been included in the General Summary to be used as directed by the Engineer for the maintenance of traffic.

ITEM 410 Traffic Compacted Surface, Type A or B	100 Cu. Yd.
ITEM 616 Calcium Chloride	2 Ton
ITEM 616 Water	10 MGal.

Separate payment shall be made for Item 410 and 616 as noted above. All other work required for traffic maintenance shall be included for payment with Item 614 Maintaining Traffic.

DETOUR LIMITATION

Two-way traffic shall be maintained at all times, except that for a period not to exceed 180 consecutive calendar days, through traffic may be detoured as shown on the Title Sheet Map.

Liquidated Damages shall be assessed in accordance with Sec. 108.07 of the Construction and Material Specifications for each calendar day that the roadway remains closed to traffic beyond the specified limit.

The Contractor shall notify the District Traffic Engineer in writing a minimum of seven (7) days in advance of the date the detour is needed. The State of Ohio will install, maintain, and subsequently remove the detour signing.

CALCULATIONS

FHWA REGION	STATE	PROJECT	CALC. L.W.R. DATE: 2-91
5	OHIO		CHKD: P.R. DATE: 3-91

PICKAWAY COUNTY
PIC-752-3.27

Item 404 Asphalt Concrete, AC-20

Pavement Area			
Sta. 172+00 to Sta. 172+90	90x42/2=	1890.00 sq. ft.	
Sta. 172+90 to Sta. 174+90.35	200.35x22=	4407.70 sq. ft.	
Sta. 179+08.58 to Sta. 184+30	521.42x22=	11471.24 sq. ft.	
Sta. 184+30 to Sta. 185+50	120x42/2=	2520.00 sq. ft.	
Total Pavement Area		20288.94 sq. ft.	
(20288.94x1.25)/(12x27)		78.27 cu. yd.	
Add for feathering - (60x20x1.25)/(12x27)		4.63 cu. yd.	
Total Volume		82.90 cu. yd.	
To General Summary		83 cu. yd.	

Item 402 Asphalt Concrete, AC-20

Pavement Area from 404 calculations	20288.94 sq. ft.
(20288.94x1.75)/(12x27)	109.59 cu. yd.
To General Summary	110 cu. yd.

Item 301 Bituminous Aggregate Base, AC-20

404 Pavement Area	20288.94 sq. ft.
Edge Course Area 931.77x1.0	931.77 sq. ft.
Total 301 Area	21220.71 sq. ft.
(21220.71x4)/(12x27)	261.98 cu. yd.
To General Summary	262 cu. yd.

Item 408 Bituminous Prime Coat

301 Area	21220.71 sq. ft.
(21220.71/9)x0.4	943.1 gal.
To General Summary	943 gal.

Item 304 Aggregate Base, as per plan

404 Pavement Area	20288.94 sq. ft.
Edge Course Area 931.77x2	1863.54 sq. ft.
Approach Slab Area 34x40	1360.00 sq. ft.
Total 6" Depth Area	23512.48 sq. ft.
(23512.48 x 0.5)/27	435.42 cu. yd.
Aggregate Shoulders (2x931.77x2.42)/27	167.03 cu. yd.
Deduct for Drive and Mailbox Turnout (465x8)/(12x27)	11.48 cu. yd.
Net 304 Volume	590.97 cu. yd.
To General Summary	591 cu. yd.

Item 605 Aggregate Drains

Sta. 172+00 to Sta. 174+90.35	(290.35/50)x2	12 drains
Sta. 179+08.58 to Sta. 185+50	(641.42/50)x2	26 drains
Total Drains	38x13.36	507.68 lin. ft.
Add Appr. Slab Drains	2x4.71	9.42 lin. ft.
Total		517.1 lin. ft.
To General Summary		517 lin. ft.

Item 611 Reinforced Concrete Approach Slab, (t=13")

Sta. 174+90.35 to Sta. 175+10.35	20x32/9	71.1 sq. yd.
Sta. 178+88.60 to Sta. 179+08.60	20x32/9	71.1 sq. yd.
Total		142.2 sq. yd.
To General Summary		142 sq. yd.

Item 203 Subgrade Compaction

404 Pavement Area	20288.94 sq. ft.
Approach Slab Area 40x32	1280.00 sq. ft.
Total Subgrade Compaction Area	21568.94 sq. ft.
21568.94/9	2396.55 sq. yd.
To General Summary	2397 sq. yd.

Item 202 Wearing Course Removed

Sta. 171+70 to Sta. 172+00	30x20/9	66.7 sq. yd.
Sta. 185+50 to Sta. 185+80	30x20/9	66.7 sq. yd.
Total		133.4 sq. yd.
To General Summary		134 sq. yd.

Item 659 Commercial Fertilizer

(13709x9)x20/(1000x2000)	1.23 Ton
To General Summary	1.23 Ton

Item 659 Agricultural Liming

(13709x9)x100/(1000x2000)	6.17 Ton
To General Summary	6.17 Ton

ITEM 407 TACK COAT

134 SQ.YD. x 0.075 GAL/SY = 10 GAL.

SUPERELEVATION TABLE

STATION	LEFT LANE		PROFILE GRADE	RIGHT LANE	
	E/P ELEV.	PVT. WIDTH		PVT. WIDTH	E/P ELEV.
172+00	698.63	10.50	698.79	9.50	698.64
+25	698.81	10.64	698.98	9.92	698.83
+50	699.00	10.78	699.17	10.33	699.01
+68.38	699.14	10.85	699.31	10.64	699.14
+75	699.19	10.92	699.36	10.75	699.21
173+00	699.38	11.00	699.55	11.00	699.46
+25	699.57	11.00	699.74	11.00	699.71
+37.13	699.66	11.00	699.83	11.00	699.83
+50	699.76	11.00	699.93	11.00	699.96
+75	699.95	11.00	700.12	11.00	700.21
174+00	700.14	11.00	700.31	11.00	700.47
+05.88	700.17	11.00	700.35	11.00	700.52
+25	700.28	11.00	700.50	11.00	700.72
+50	700.41	11.00	700.69	11.00	700.97
+75	700.53	11.00	700.88	11.00	701.23
175+00	700.66	11.00	701.07	11.00	701.48
+12.13	700.72	11.00	701.16	11.00	701.60
+25	700.83	11.00	701.26	11.00	701.70
+50	701.01	11.00	701.45	11.00	701.89
+75	701.20	11.00	701.64	11.00	702.08
176+00	701.39	11.00	701.83	11.00	702.27
+25	701.58	11.00	702.02	11.00	702.46
+50	701.77	11.00	702.21	11.00	702.65
+75	701.96	11.00	702.40	11.00	702.84
177+00	702.15	11.00	702.59	11.00	703.03
+25	702.34	11.00	702.78	11.00	703.22
+50	702.53	11.00	702.97	11.00	703.41
+75	702.72	11.00	703.16	11.00	703.60
178+00	702.91	11.00	703.35	11.00	703.79
+25	703.10	11.00	703.54	11.00	703.98
+50	703.29	11.00	703.73	11.00	704.17
+75	703.48	11.00	703.92	11.00	704.36
179+00	703.67	11.00	704.11	11.00	704.55
+25	703.86	11.00	704.30	11.00	704.74
+50	704.05	11.00	704.49	11.00	704.93
+75	704.24	11.00	704.68	11.00	705.12
180+00	704.43	11.00	704.87	11.00	705.31
+25	704.62	11.00	705.06	11.00	705.50
+50	704.82	11.00	705.26	11.00	705.70
+75	705.05	11.00	705.49	11.00	705.93
181+00	705.30	11.00	705.74	11.00	706.18
+25	705.58	11.00	706.02	11.00	706.46
+50	705.88	11.00	706.32	11.00	706.76
+75	706.20	11.00	706.64	11.00	707.08
182+00	706.55	11.00	706.99	11.00	707.43
+25	706.92	11.00	707.36	11.00	707.80
+50	707.32	11.00	707.76	11.00	708.20
+66.18	707.59	11.00	708.03	11.00	708.47
+75	707.76	11.00	708.18	11.00	708.60
183+00	708.27	11.00	708.62	11.00	708.97
+25	708.77	11.00	709.06	11.00	709.35
+50	709.26	11.00	709.49	11.00	709.72
+72.43	709.71	11.00	709.88	11.00	710.05
+75	709.75	11.00	709.92	11.00	710.09
184+00	710.19	11.00	710.36	11.00	710.46
+25	710.63	11.00	710.80	11.00	710.84
+41.18	710.91	11.00	711.08	10.81	711.08
+50	711.06	11.00	711.23	10.67	711.21
+75	711.49	11.00	711.66	10.25	711.58
185+00	711.93	11.00	712.10	9.83	711.97
+09.93	712.10	11.00	712.27	9.67	712.12
+25	712.37	11.00	712.54	9.42	712.39
+50	712.80	11.00	712.97	9.00	712.83

GENERAL SUMMARY

FHWA REGION	STATE	PROJECT	CALC: L.W.R. DATE: 2-90
5	OHIO		CHKD: P.R. DATE: 3-91

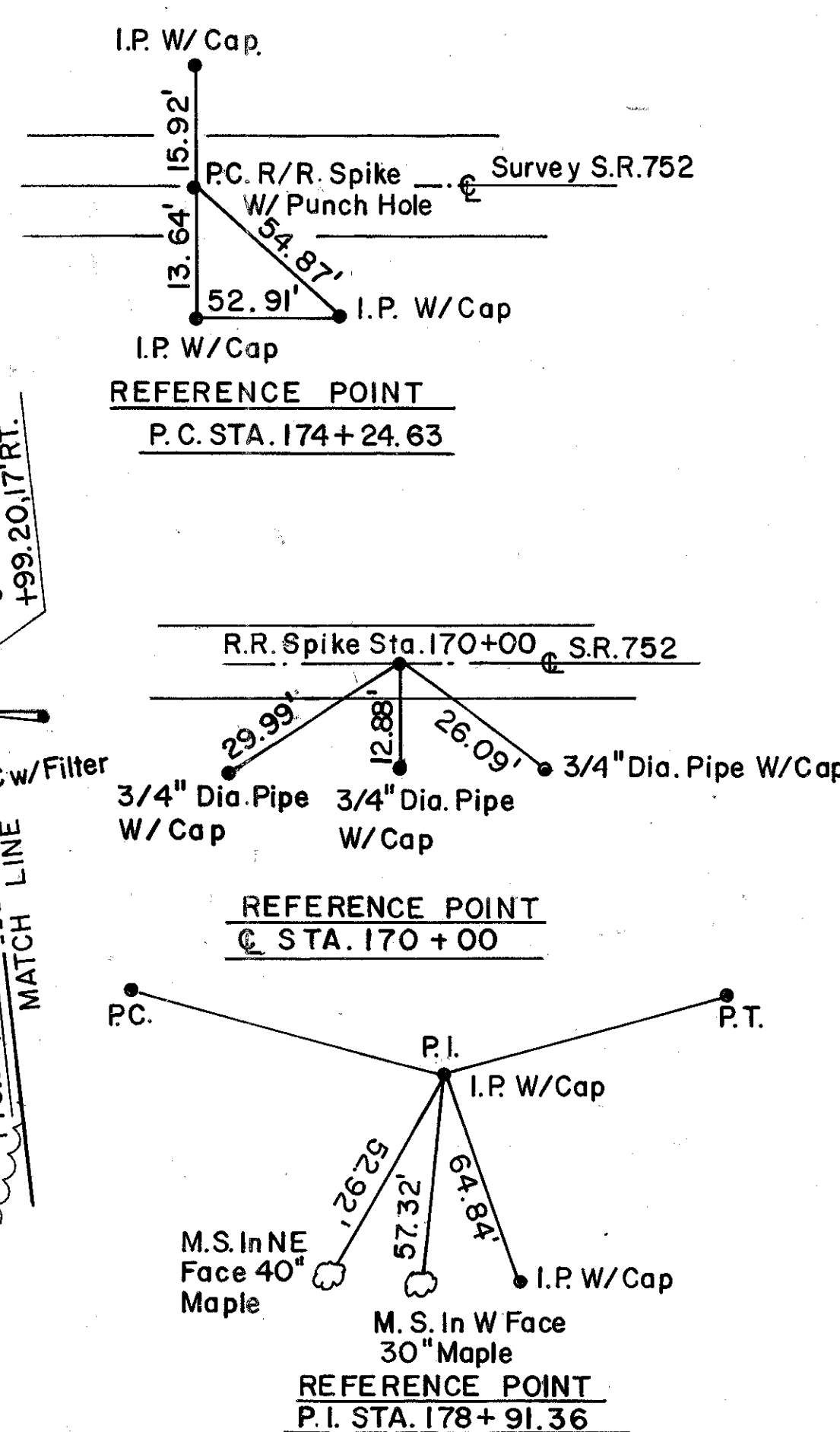
6
32

PICKAWAY COUNTY
PIC-752-3.27

SHEET NUMBER								ITEM	ITEM EXT.	QUANTITY	UNIT	DESCRIPTION
3	4	5	7	8	17	30						
ROADWAY												
Lump							201	11000	Lump		Clearing and Grubbing	
		134					202	23500	134	Sq. Yd.	Wearing Course Removed	
				57			202	35100	57	Lin. Ft.	Pipe Removed, 24" and Under	
				1295			202	38000	1295	Lin. Ft.	Guardrail Removed	
				2			202	58100	2	Each	Catch Basin Removed	
			808	2103	556		203	12000	3467	Cu. Yd.	Excavation not including Embankment Const.	
			6539	1013			203	20000	7552	Cu. Yd.	Embankment	
		2397					203	50000	2397	Sq. Yd.	Subgrade Compaction	
						4	604	40500	4	Each	Reference Monument	
				425.0			606	13000	425.0	Lin. Ft.	Guardrail, Type 5	
				6			606	25000	6	Each	Anchor Assembly, Type A	
				4			606	35140	4	Each	Bridge Terminal Assembly, Type 4	
	1						Special	69050100	1	Each	Mailbox Support System, Single	
EROSION CONTROL												
2555							207	10000	2555	Sq. Yd.	Temporary Seeding and Mulching	
200							207	70000	200	Each	Straw or Hay Bales	
5				214			601	32200	214	Cu. Yd.	Rock Channel Protection, Type C With Filter	
			7610	5144	955		659	10000	13709	Sq. Yd.	Seeding and Mulching	
640							659	14000	640	Sq. Yd.	Repair Seeding and Mulching	
0.18		1.23					659	20000	1.41	Ton	Commercial Fertilizer	
		6.17					659	30000	6.17	Ton	Agricultural Liming	
36							659	35000	36	MGal.	Water	
30							659	40000	30	MSq Ft	Mowing	
				355			670	40000	355	Sq. Yd.	Ditch Erosion Protection	
DRAINAGE												
				2.2			602	20000	2.2	Cu. Yd.	Concrete Masonry	
20							603	01500	20	Lin. Ft.	6" Conduit, Type F	
20							603	02600	20	Lin. Ft.	8" Conduit, Type F	
				20			603	04600	20	Lin. Ft.	12" CONDUIT, TYPE C	
				61			603	06100	61	Lin. Ft.	15" Conduit, Type C	
				30			603	07600	30	Lin. Ft.	18" Conduit, Type C	
				74			603	10400	74	Lin. Ft.	24" Conduit, Type B	
				1			604	04500	1	Each	Catch Basin, No. 2-2B	
				1			604	04900	1	Each	Catch Basin, No. 2-3	
				1			604	45400	1	Each	Flap Gate, 15"	
				1			604	45200	1	Each	FLAP GATE, 12"	
		517					605	31100	517	Lin. Ft.	Aggregate Drains	

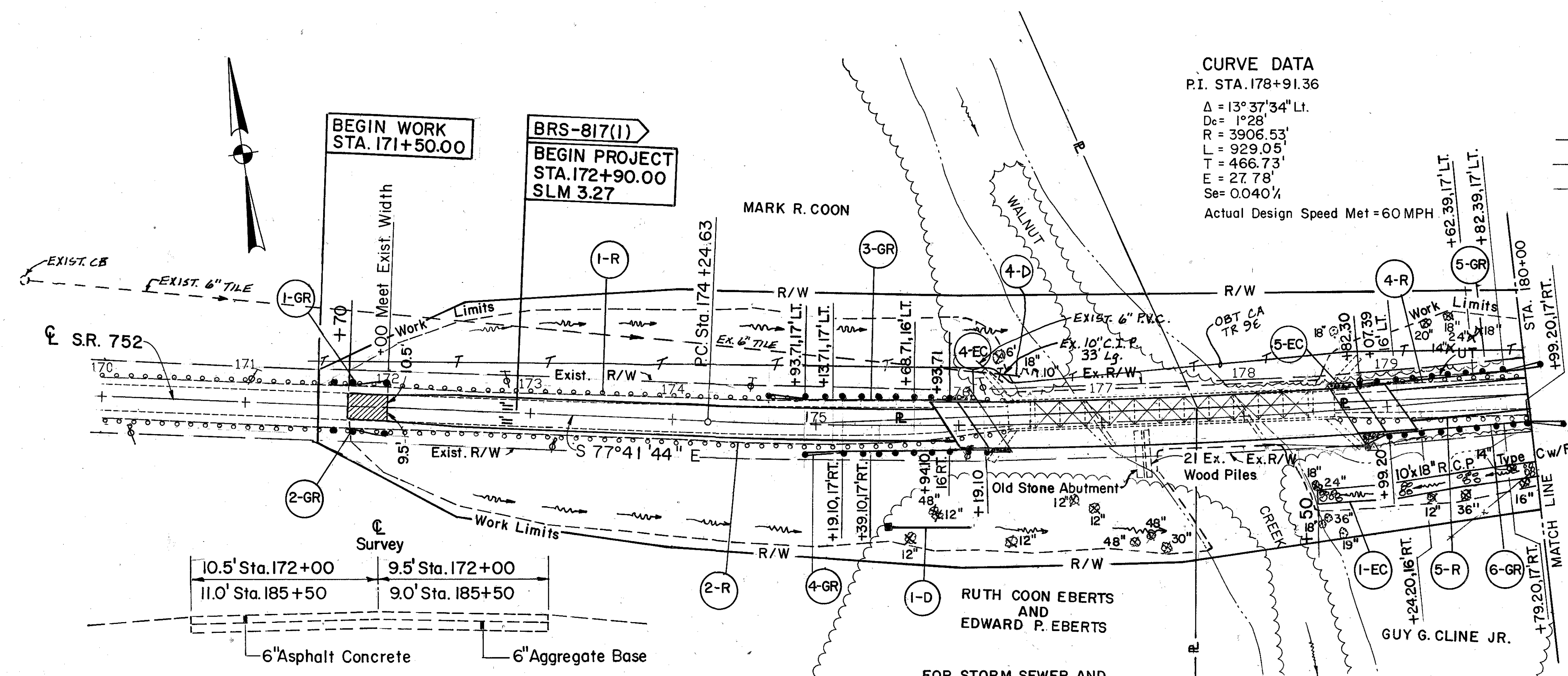
SHEET NUMBER								ITEM	ITEM EXT.	QUANTITY	UNIT	DESCRIPTION
3	4	5	8									
PAVEMENT												
			262				301	10002	262	Cu. Yd.	Bituminous Aggregate Base, AC-20	
			591	42			304	20001	633	Cu. Yd.	Aggregate Base, as per plan	
			110				402	20000	110	Cu. Yd.	Asphalt Concrete, AC-20	
			83				404	20000	83	Cu. Yd.	Asphalt Concrete, AC-20	
				7			404	25000	7	Cu. Yd.	Asphalt Concrete, AC-20 (Driveways)	
			10				407	10000	10	Gal.	TACK COAT	
			943	51			408	10000	994	Gal.	Bituminous Prime Coat	
			142				611	15000	142	Sq. Yd.	Reinforced Concrete Approach Slab, (t=13")	
TRAFFIC CONTROL												
			0.53				642	00090	0.53	Mi.	Edge Line	
			0.27				642	00290	0.27	Mi.	Centerline	
	12						802	00100	12	Each	Barrier Reflector, Type A	
MAINTENANCE OF TRAFFIC												
			100				410	12000	100	Cu. Yd.	Traffic Compacted Surface, Type A or B	
			0.27				614	21400	0.27	Mi.	Temporary Centerlines, Class II	
			10				616	10000	10	MGal.	Water	
			2				616	20000	2	Ton	Calcium Chloride	
							619	15010		Lump	Field Office, Type B	
							623	10000		Lump	Construction Layout Stakes	
							624	10000		Lump	Mobilization	
							614	11000		Lump	Maintaining Traffic	
For Structures 20' and over General Summary See Sheet 20												

CURVE DATA
 P.I. STA. 178+91.36
 $\Delta = 13^{\circ}37'34''$ Lt.
 $D_c = 1^{\circ}28'$
 $R = 3906.53'$
 $L = 929.05'$
 $E = 466.73'$
 $T = 27.78'$
 $S_e = 0.040\%$
 Actual Design Speed Met = 60 MPH



EXISTING STRUCTURE DATA
 Type: Pratt High Steel Truss.
 Span: 220'
 Roadway: 18' f/f Rails.
 Skew: None.
 Wearing Surface: Asphalt Concrete
 Alignment: Tangent.
 Disposition: To Be Removed.

PROPOSED STRUCTURE DATA
 Type: Continuous Composite Rolled Steel Beam w/ Reinforced Concrete Deck & Substructure
 Span: 84', 105', 84'
 Roadway: 32' f/f Guardrail & o/o Deck.
 Skew: 30°00' Rt. Fwd. to Ref. Chord.
 Wearing Surface: Monolithic Concrete
 Approach Slab: AS-1-81 (20'-0" Long)
 Alignment: 1°28' Curve Left.

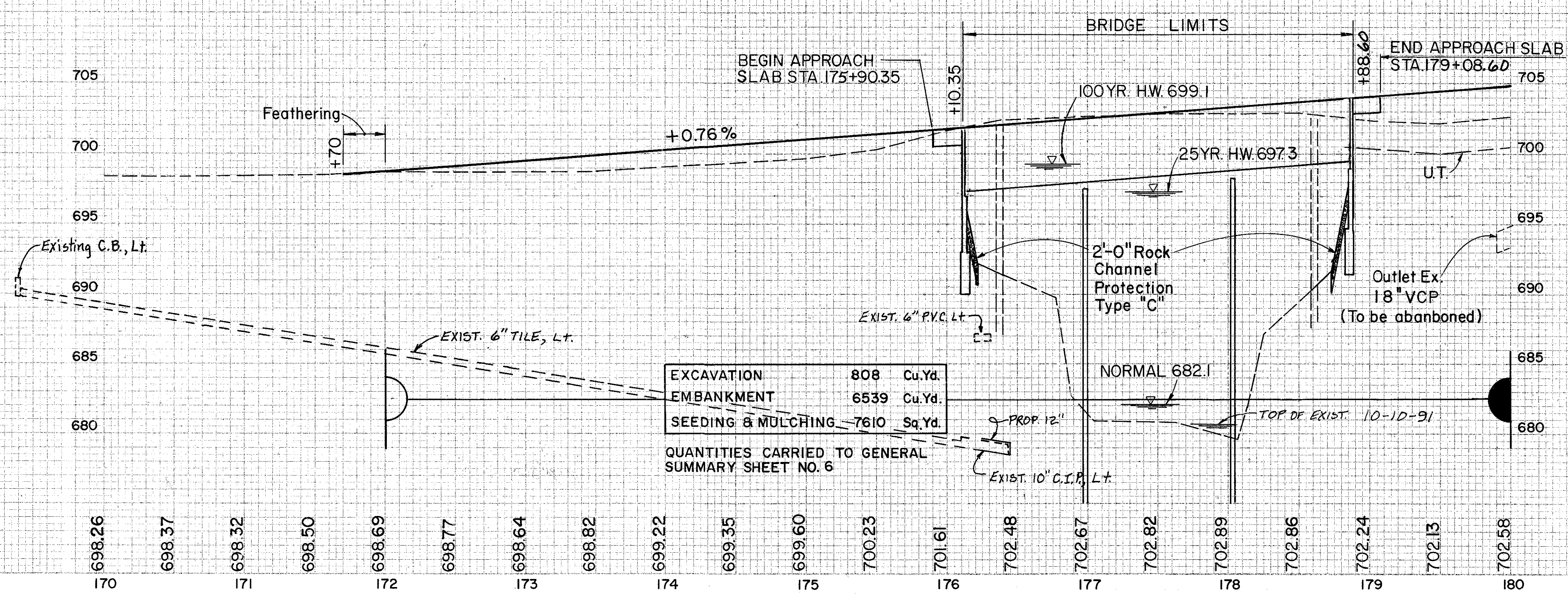


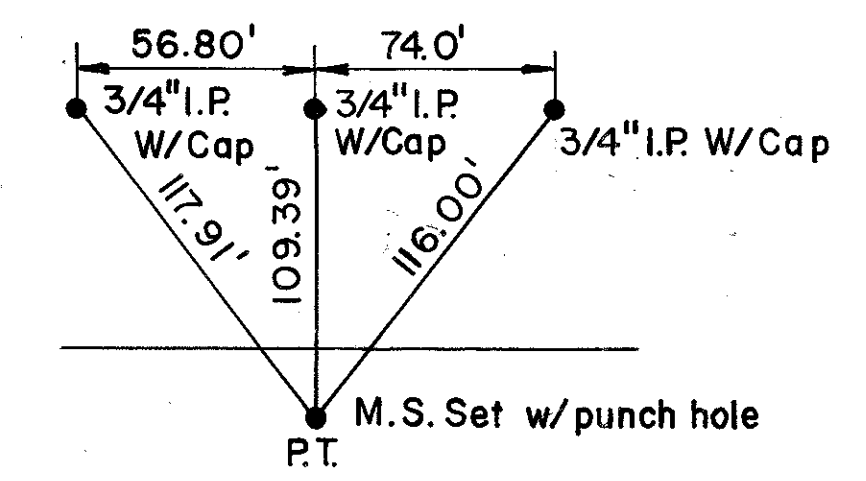
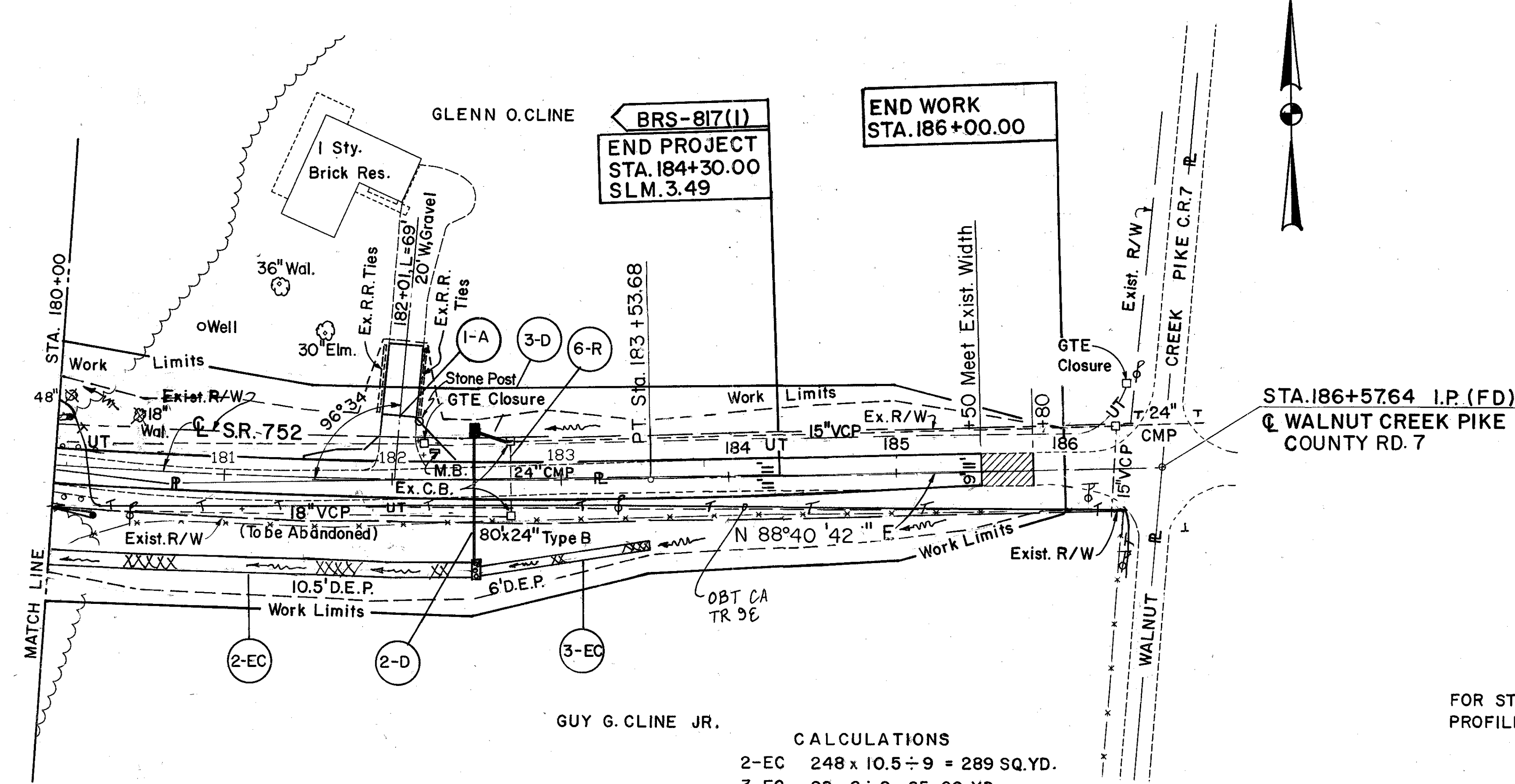
CALCULATIONS
 1-EC $150 \times 10 \times 1.5 \div 27 = 84$ CU.YD
 4-EC $\frac{44+52}{2} \times 16 \times 2 \div 27 = 56.89$ CU.YD.
 5-EC $\frac{44+52}{2} \times 20 \times 2 \div 27 = 71.11$ CU.YD.

TYPICAL SECTION ADJOINING PAVEMENT

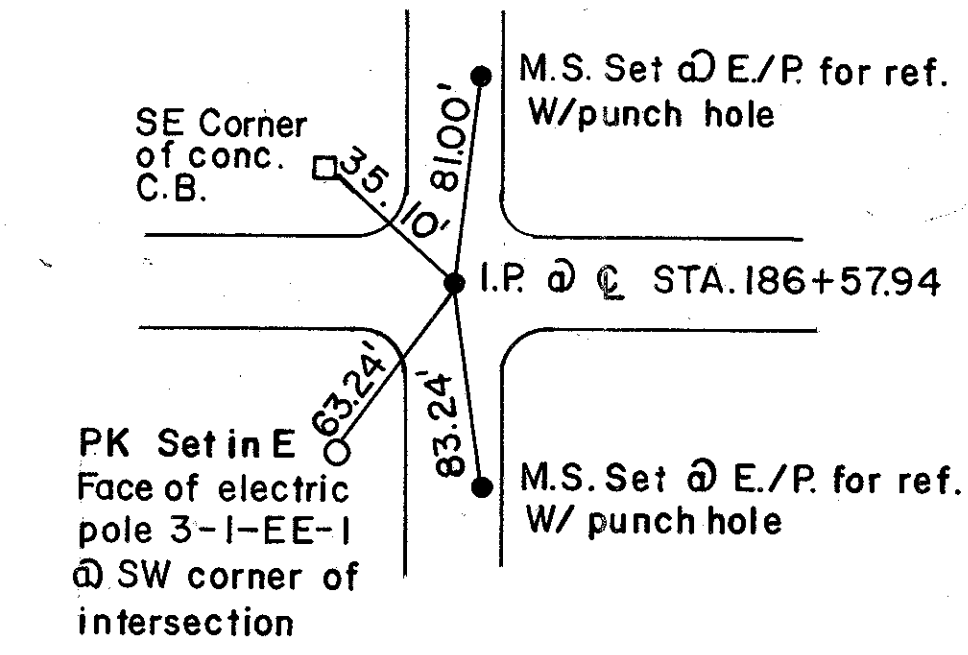
BENCH MARK
 Mine Spike in N Face of 24" Sycamore 98' Rt. of Sta. 175+65
 El. 697.36

698.79	699.17	699.55	699.93	700.31	700.69	701.07	701.45	701.83	702.21	702.59	702.97	703.35	703.73	704.11	704.49	704.87
--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------





REFERENCE POINT
 P.T. STA. 183+53.68

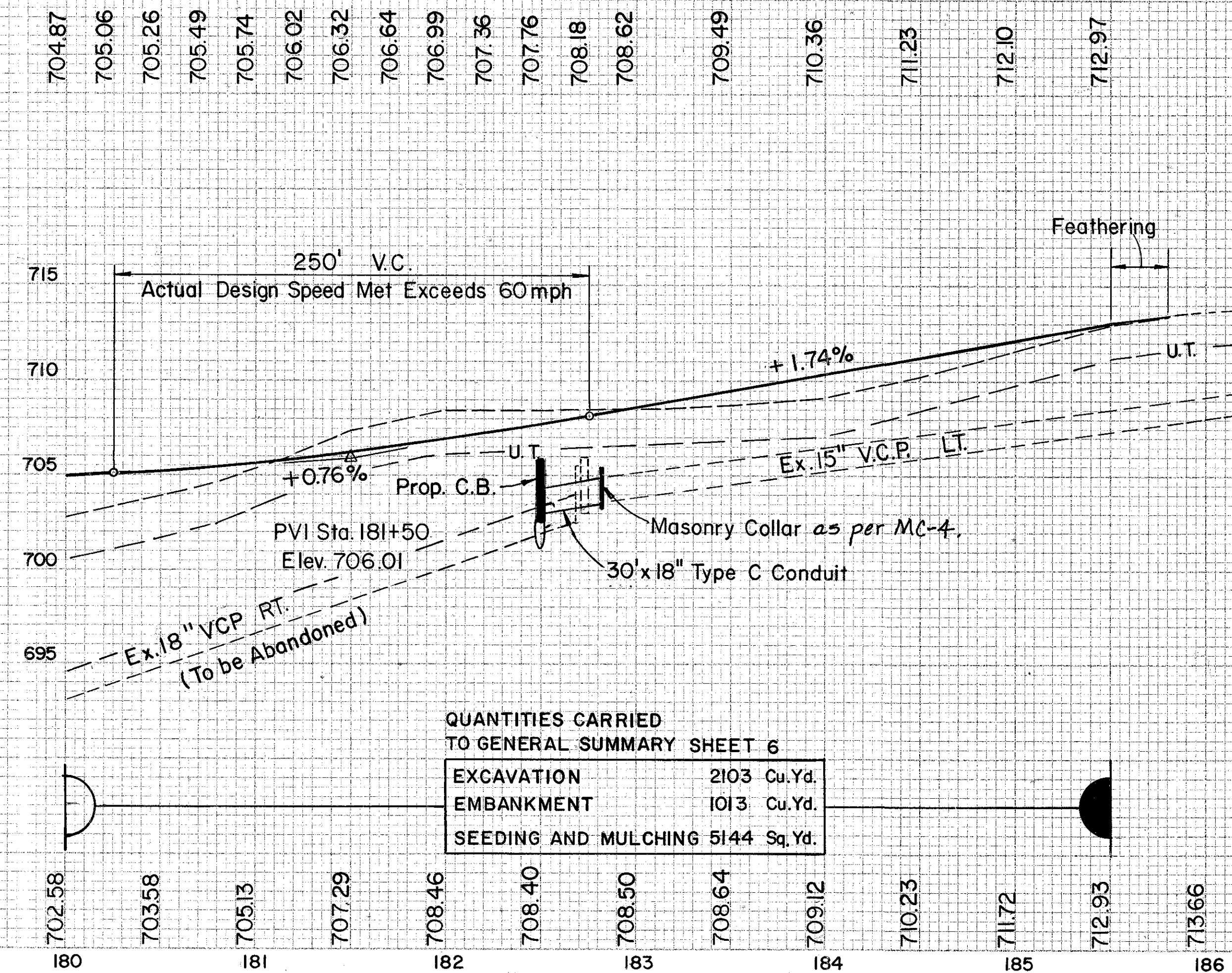


REFERENCE POINT
 STA. 186+57.94

FOR STORM SEWER
 PROFILE SEE SHEET 15

- DRIVE AND MAIL BOX APPROACH
- CALCULATIONS**
 2-EC 248 x 10.5 ÷ 9 = 289 SQ. YD.
 3-EC 98 x 6 ÷ 9 = 65 SQ. YD.
 2-D (10 x 4 x 1.5) ÷ 27 = 2 CU. YD.
 1-A 404 - ((140 x 2) ÷ (12 x 27)) = 7 CU. YD.
 304 - ((140 x 6) + 43 x 20 x 8) ÷ (12 x 27) = 42 CU. YD.
 408 - ((140 ÷ 9) x 0.4 = 51 GAL.

BENCH MARK
 Mine Spike in S Face of
 36" Walnut, 11'4" Lt.
 STA. 181+36
 ELEV. 712.07



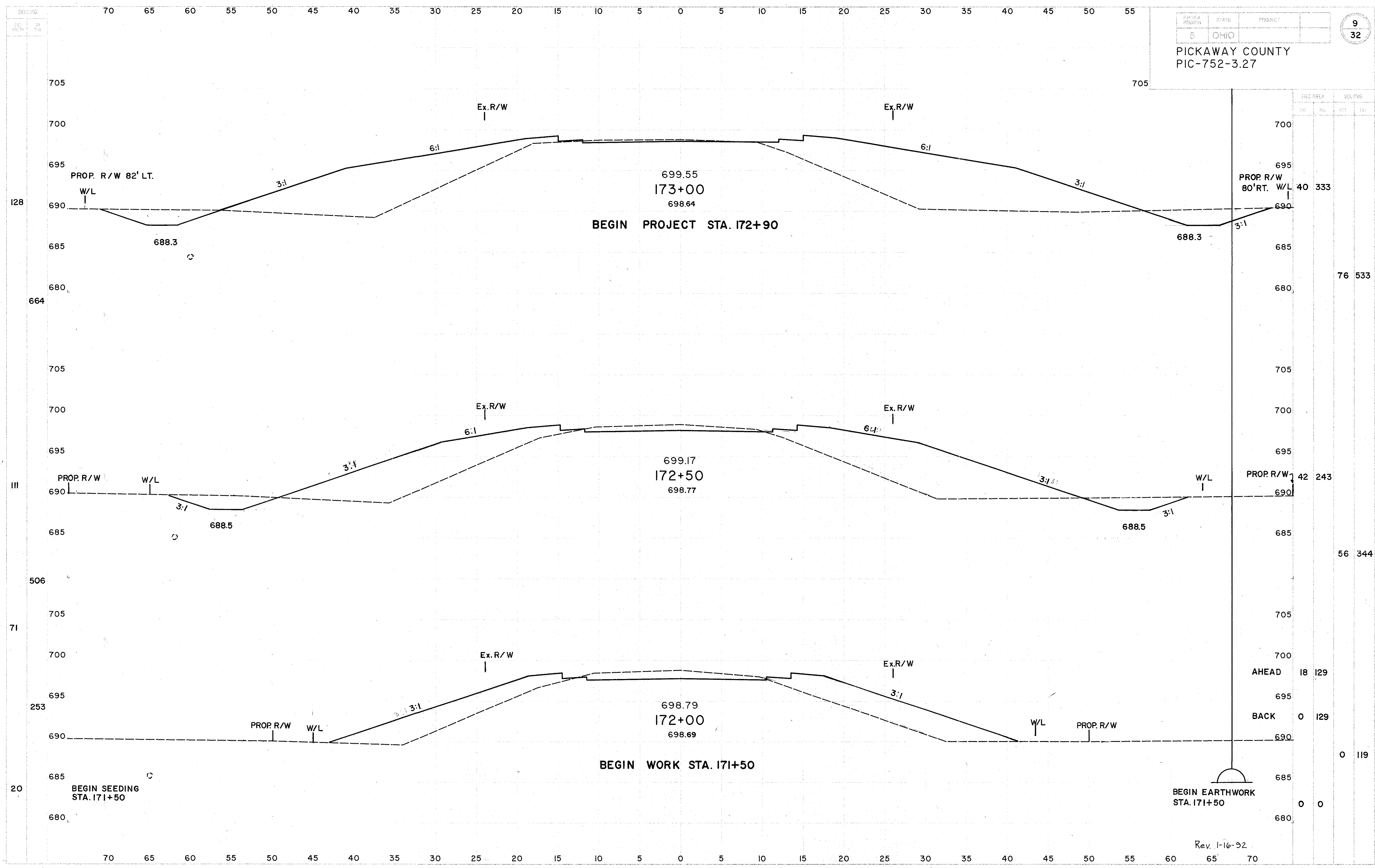
QUANTITIES CARRIED TO GENERAL SUMMARY SHEET 6

EXCAVATION	2103 Cu. Yd.
EMBANKMENT	1013 Cu. Yd.
SEEDING AND MULCHING	5144 Sq. Yd.

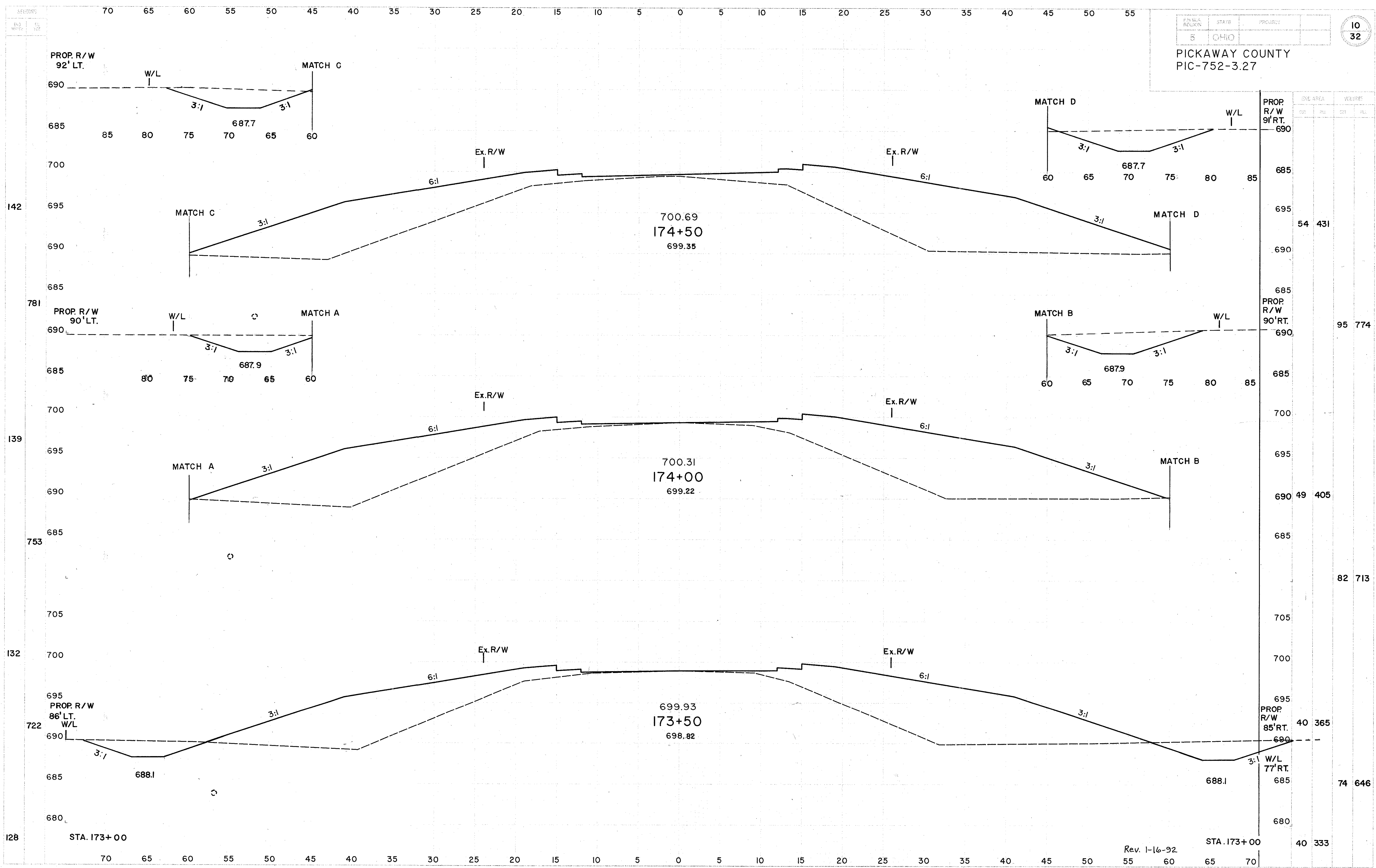
ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	ITEM	UNIT	QUANTITY
1-R	171 + 62.5 TO 176 + 35	LT.	PIPE REMOV UNDER	LN. FT.	57
2-R	171 + 62.5 TO 176 + 35	RT.	PIPE REMOV UNDER	LN. FT.	57
4-R	178 + 55 TO 180 + 30	LT.	GUARD RAIL REMOV	LN. FT.	175
5-R	178 + 55 TO 180 + 30	RT.	GUARD RAIL REMOV	LN. FT.	175
6-R	182 + 70	CL.	CATCH BASIN REMOV	EACH	2
1-GR	171 + 62.5 TO 172 + 00	LT.	AGGR. BASE	CU. YD.	42
2-GR	171 + 62.5 TO 172 + 00	RT.	AGGR. BASE	CU. YD.	42
3-GR	174 + 68.71 TO 175 + 93.71	LT.	AGGR. BASE	CU. YD.	42
4-GR	174 + 94.10 TO 176 + 19.10	RT.	AGGR. BASE	CU. YD.	42
5-GR	178 + 82.39 TO 180 + 07.39	LT.	AGGR. BASE	CU. YD.	42
6-GR	178 + 99.2 TO 180 + 24.20	RT.	AGGR. BASE	CU. YD.	42
1-D	175 + 50 TO 176 + 11	RT.	CONC. MASON.	CU. YD.	1.7
2-D	182 + 50	CL.	R.C.P. TYPE C W/FILT.	CU. YD.	2
3-D	182 + 50 TO 182 + 81	LT.	R.C.P. TYPE C W/FILT.	CU. YD.	84
4-D	176 + 21.21 TO 176 + 41.21	LT.	R.C.P. TYPE C W/FILT.	CU. YD.	57
1-EC	178 + 50 TO 180 + 00	RT.	R.C.P. TYPE C W/FILT.	CU. YD.	71
2-EC	180 + 00 TO 182 + 48	RT.	R.C.P. TYPE C W/FILT.	CU. YD.	57
3-EC	182 + 52 TO 183 + 50	RT.	R.C.P. TYPE C W/FILT.	CU. YD.	71
4-EC	176 + 00 TO 176 + 40	CL.	R.C.P. TYPE C W/FILT.	CU. YD.	71
5-EC	178 + 60 TO 179 + 00	CL.	R.C.P. TYPE C W/FILT.	CU. YD.	71
1-A	182 + 01	CL.	R.C.P. TYPE C W/FILT.	CU. YD.	71
TOTALS					

Rev. 1-16-92



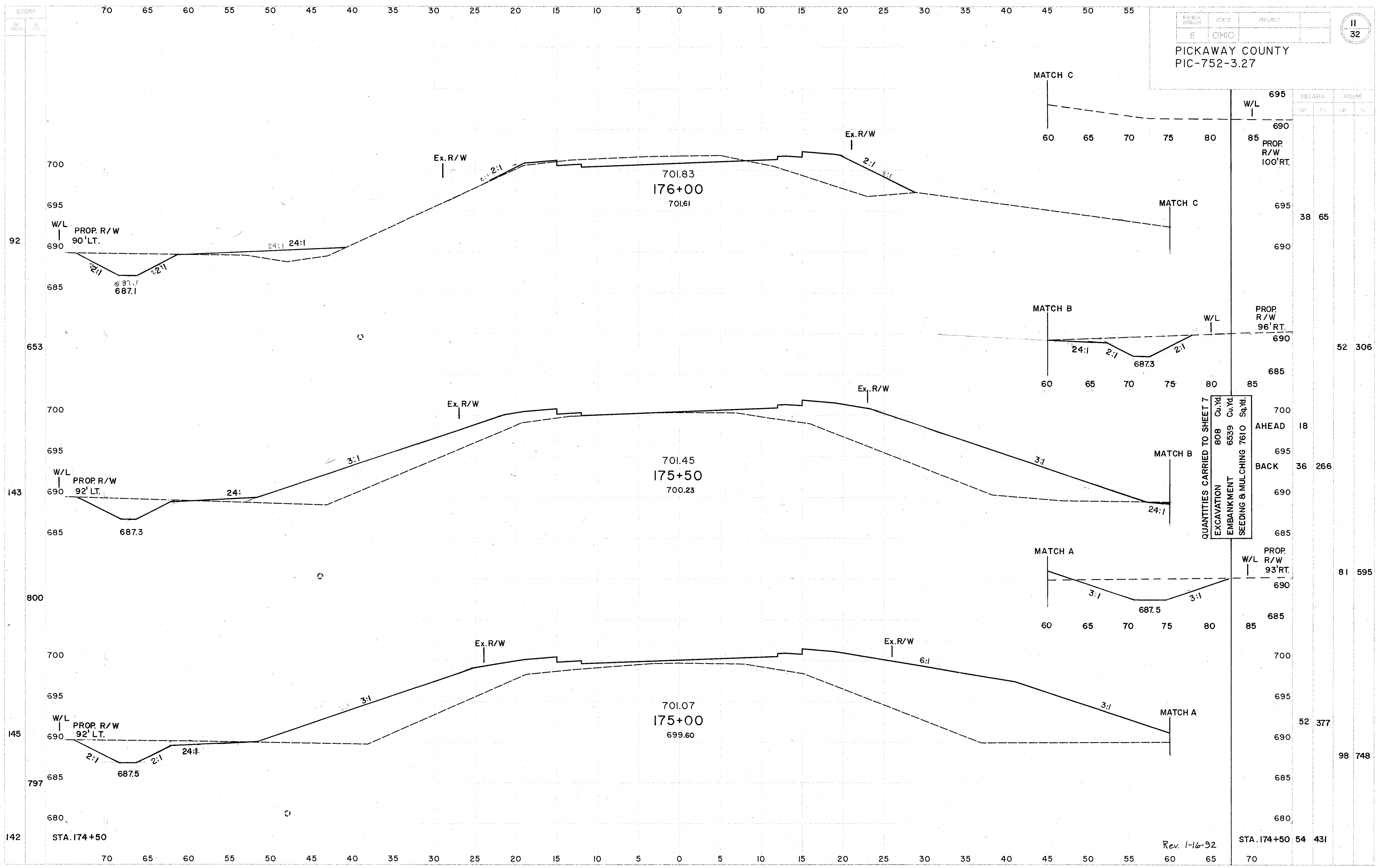
Rev. 1-16-92



Rev. 1-16-92

S.R.752 X-SECTIONS STA. 173+50 TO STA. 174+50

PICKAWAY COUNTY
PIC-752-3.27



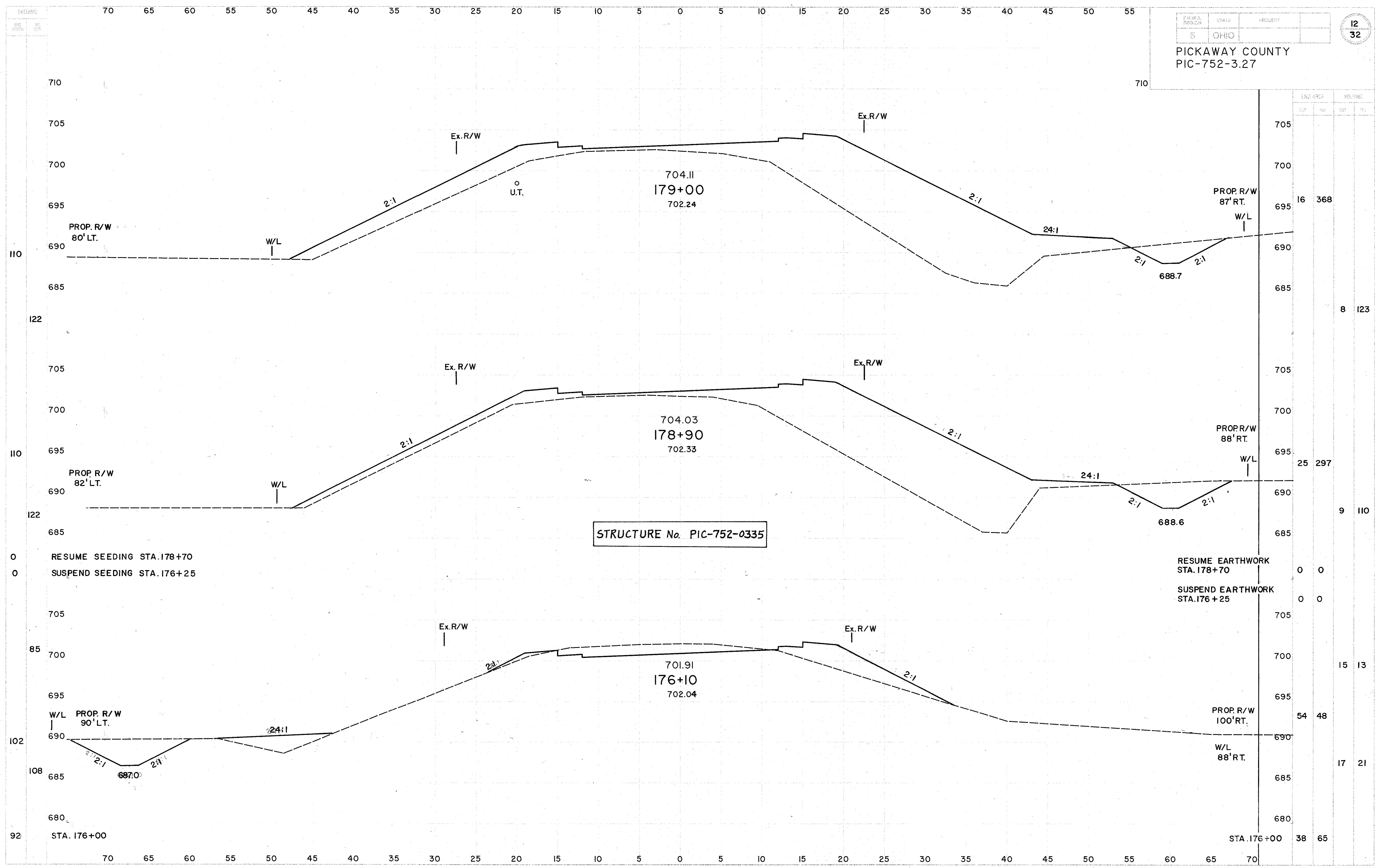
QUANTITIES CARRIED TO SHEET 7

EXCAVATION	808	Cu.Yd.
EMBANKMENT	6539	Cu.Yd.
SEEDING & MULCHING	7610	Sq.Yd.

STA.	W/L	PROP. R/W	END AREA		VOLUME	
			OUT	IN	CUBIC	FEET
176+00	85	90' RT.	695	690	38	65
175+50	85	96' RT.	690	685	52	306
					18	
					36	266
175+00	85	93' RT.	690	685	81	595
174+50	85	92' LT.	690	685	52	377
					98	748
174+50	70	54	431			

S.R.752 X-SECTIONS STA. 175+00 TO STA. 176+00

Rev. 1-16-92



END AREA	VOL. (CUB. YD.)	
	CUT	FILL
16	368	
8	123	
25	297	
9	110	
0	0	
0	0	
15	13	
54	48	
17	21	
38	65	

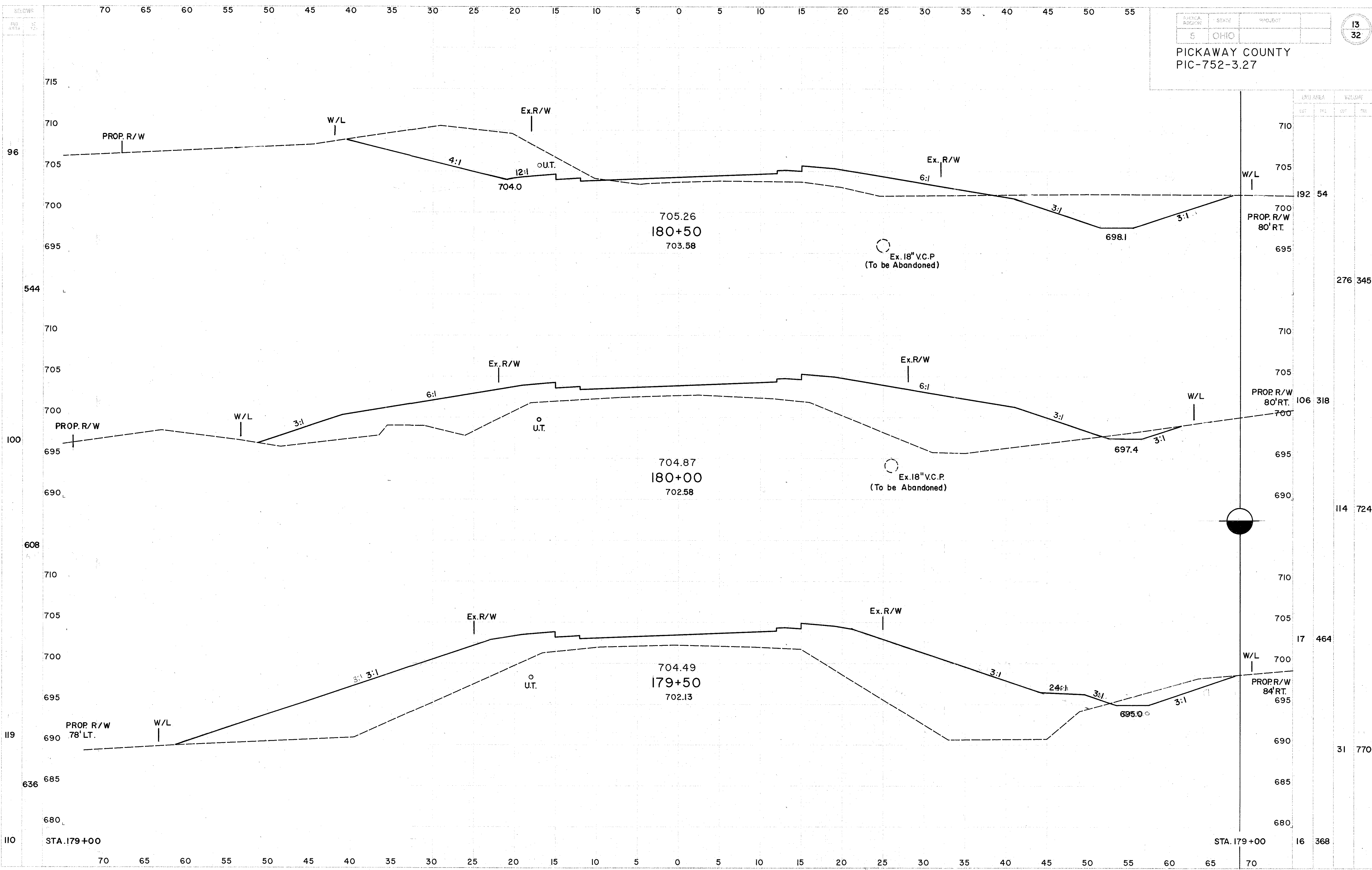
RESUME SEEDING STA. 178+70
SUSPEND SEEDING STA. 176+25

RESUME EARTHWORK STA. 178+70
SUSPEND EARTHWORK STA. 176+25

STRUCTURE No. PIC-752-0335

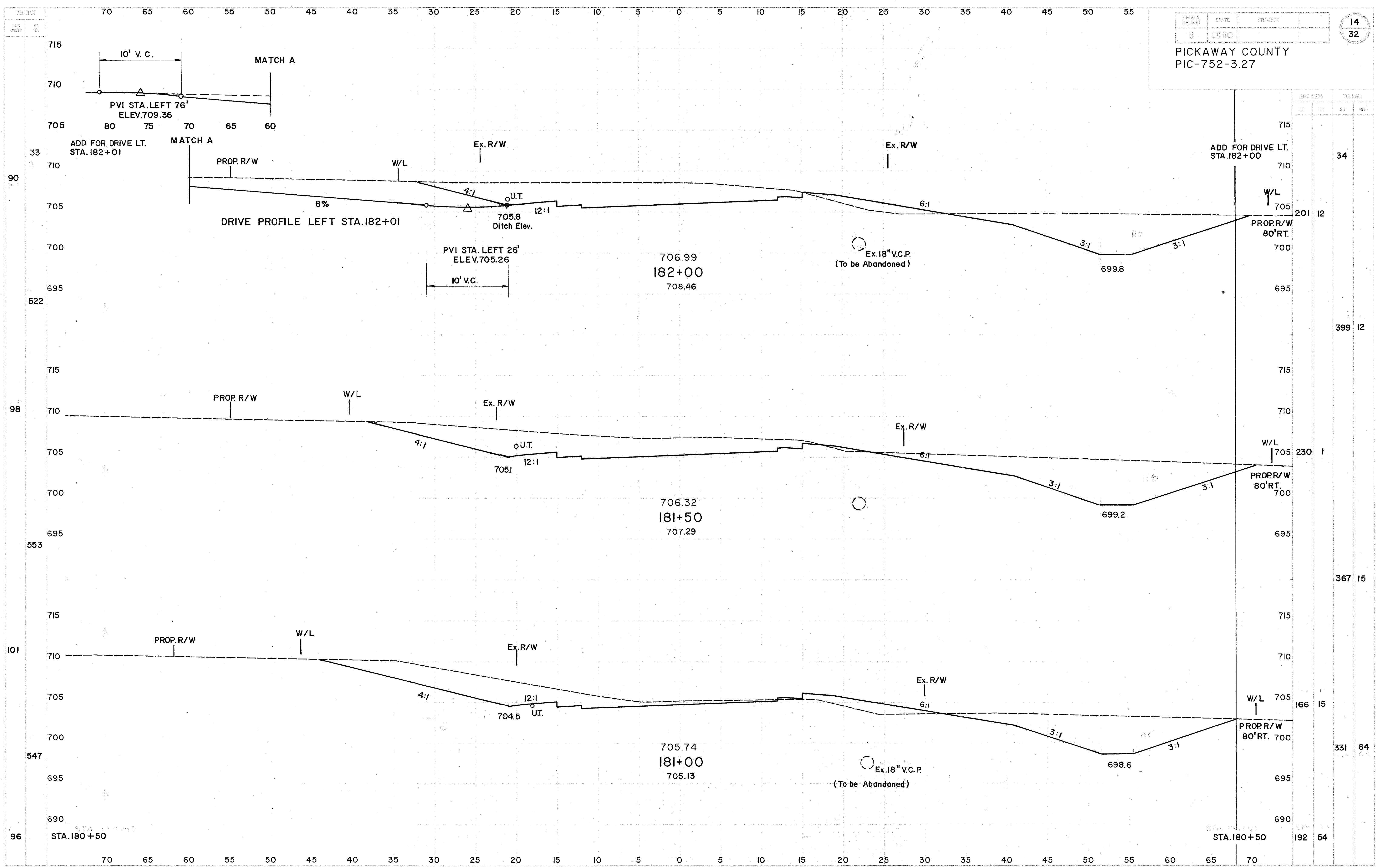
S.R. 752 X-SECTIONS STA. 176+10 TO STA. 179+00

PICKAWAY COUNTY
PIC-752-3.27



AMB. AREA		VOLUME	
CUT	FILL	CUT	FILL
192	54	276	345
106	318	114	724
17	464	31	770
16	368		

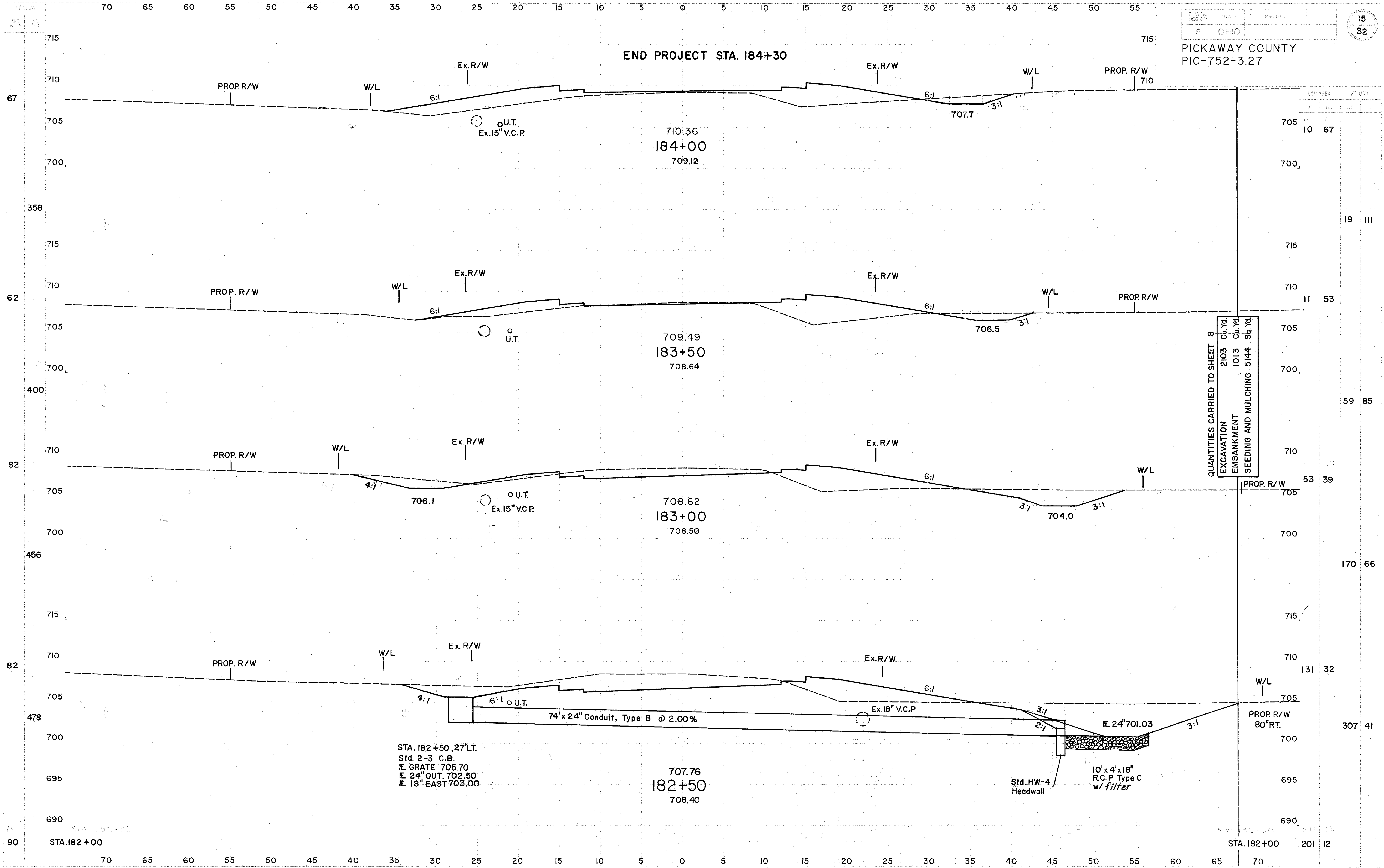
S.R.752 X-SECTIONS STA. 179+50 TO STA. 180+50



SECTION	ENG. AREA		VOLUME	
	FT.	IN.	CU. YD.	CU. FT.
90	201	12	34	
98	230	1	367	15
101	166	15	331	64
96	192	54		

S.R.752 X-SECTIONS STA. 181+00 TO STA. 182+00

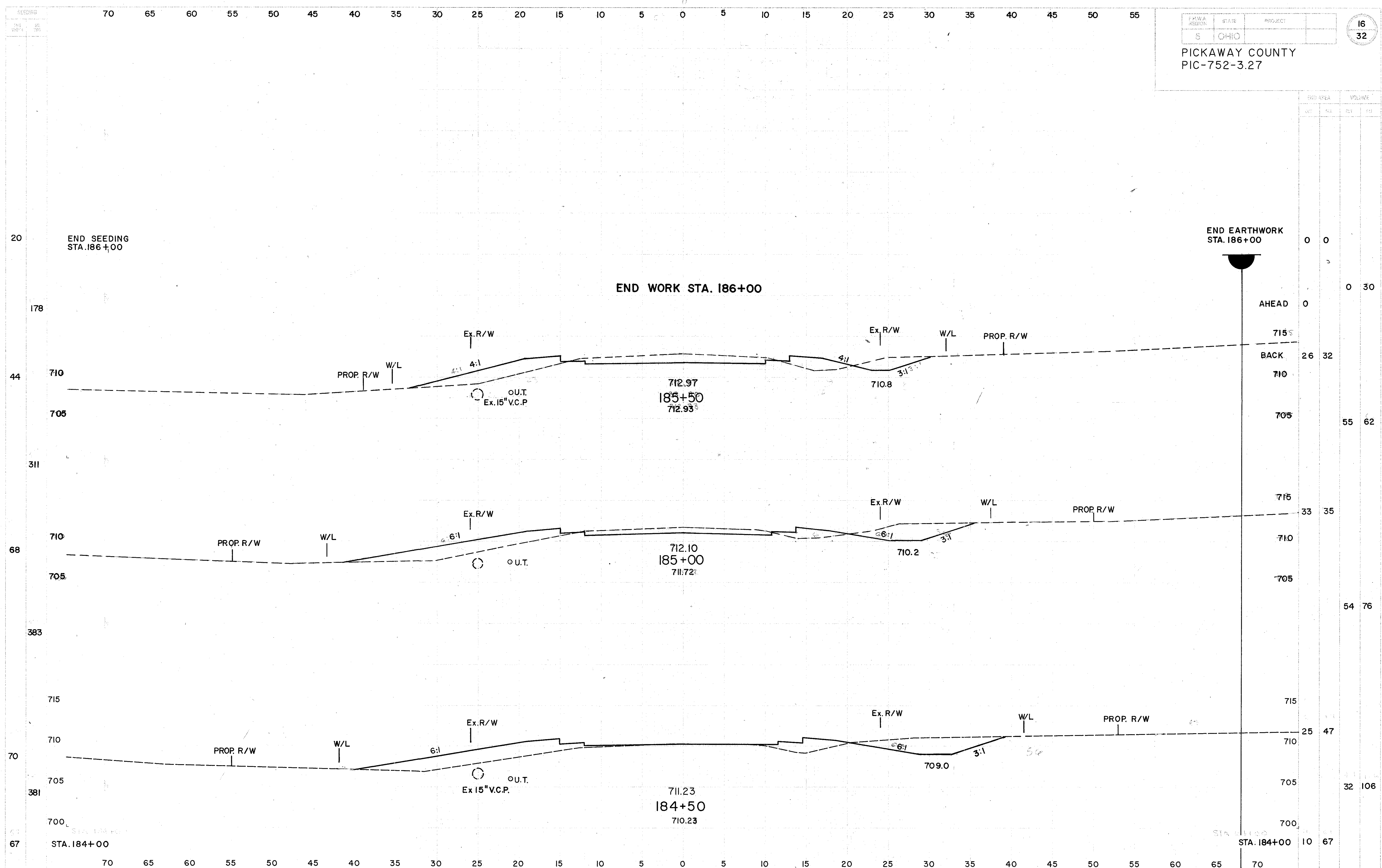
END PROJECT STA. 184+30



QUANTITIES CARRIED TO SHEET 8
 EXCAVATION 2103 Cu.Yd.
 EMBANKMENT 1013 Cu.Yd.
 SEEDING AND MULCHING 5144 Sq.Yd.

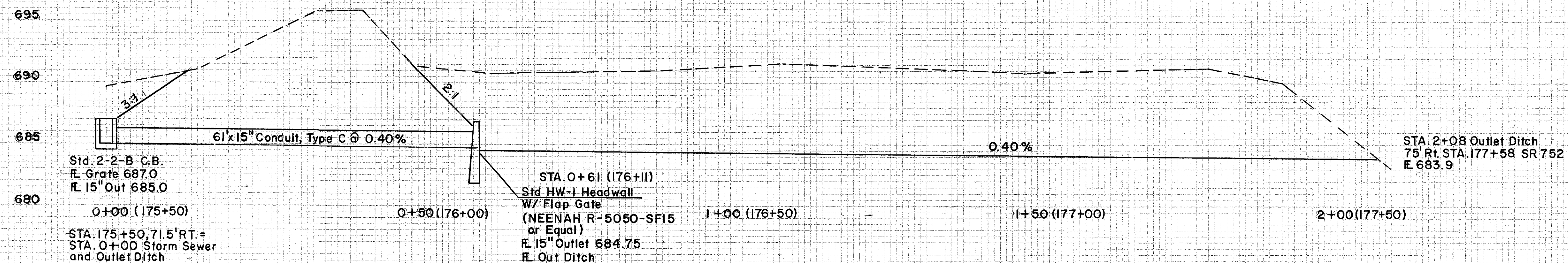
STATION	SUB AREA		VOLUME	
	CUT	FILL	CUT	FILL
182+00	10	67		
182+50			19	III
183+00	11	53		
183+50			59	85
184+00	53	39		
182+00			170	66
182+50	131	32		
183+00			307	41
184+00	201	12		

S.R.752 X-SECTIONS STA. 182+50 TO STA. 184+00



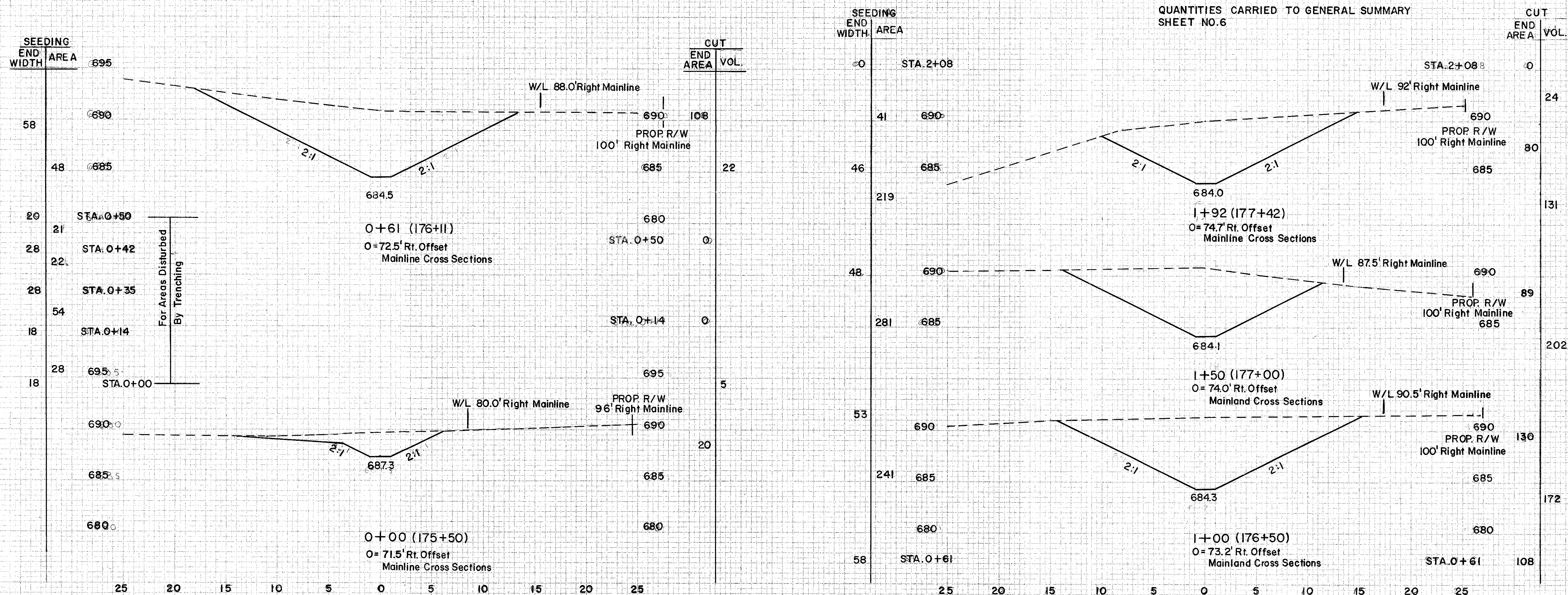
STATION	END AREA		VOLUME	
	sq. ft.	cu. yd.	cu. yd.	cu. yd.
186+00	0	0	0	0
185+50	0	30	0	30
185+00	26	32	55	62
184+50	33	35	54	76
184+00	25	47	32	106
183+50	10	67		

S.R.752 X-SECTIONS STA. 184+50 TO STA. 185+50



PROFILE OF STORM SEWER AND OUTLET DITCH

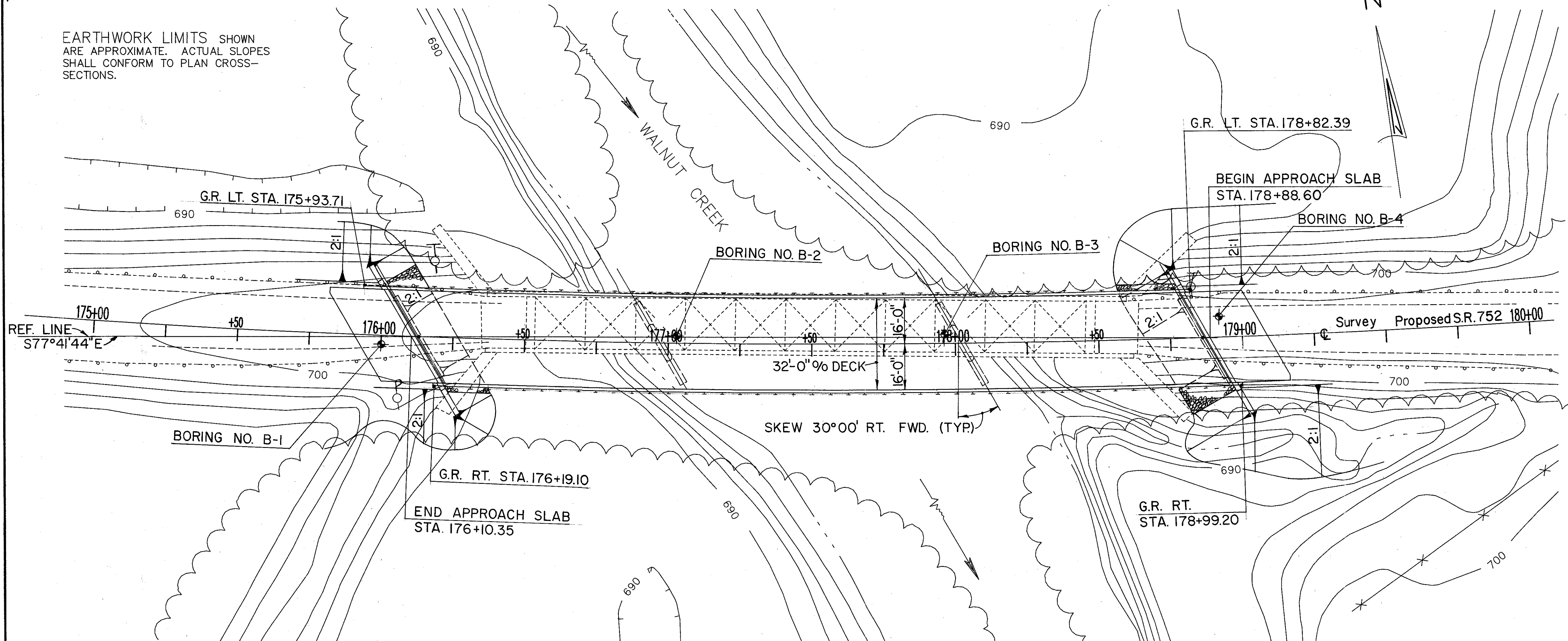
EXCAVATION = 556 Cu. Yd.
SEEDING AND MULCHING = 955 Sq. Yd.
QUANTITIES CARRIED TO GENERAL SUMMARY
SHEET NO. 6



FHWA REGION	STATE	PROJECT	CALC. DATE
5	OHIO		
			CHKD. DATE

PICKAWAY COUNTY
PIC-752-3.27

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.



THE LOWEST ELEVATION OF THE BOTTOM OF THE SUPERSTRUCTURE CLEARS THE Q₂₅ (DESIGN YEAR DISCHARGE) WATER SURFACE ELEVATION BY 0.2 FEET.

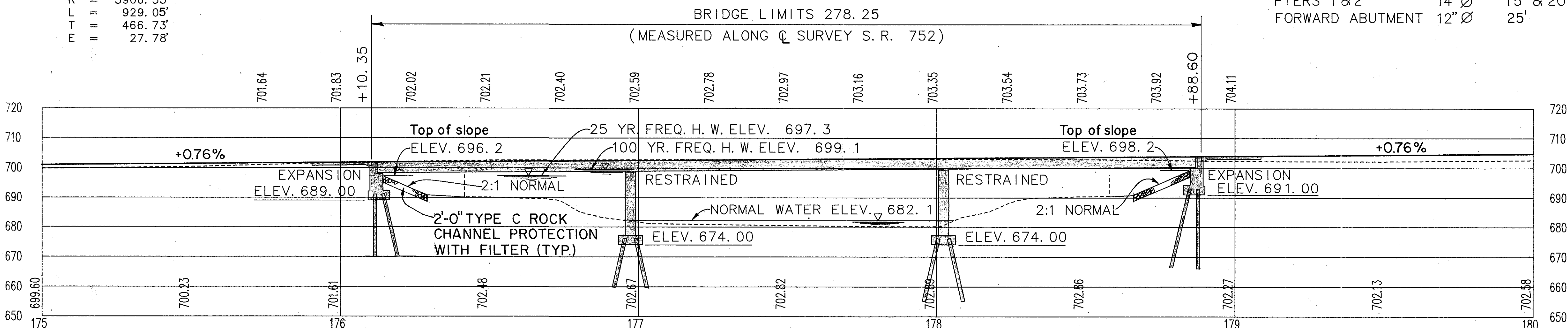
PLAN

HORIZONTAL CURVE DATA

P. I. STA. 178+91.36
 $\Delta = 133^\circ 37' 34''$
 $D_c = 1^\circ 28' 00''$
 $R = 3906.53$
 $L = 929.05'$
 $T = 466.73'$
 $E = 27.78'$

ESTIMATED AVERAGE PAY LENGTH FOR C. I. P. REINFORCED CONCRETE PILES

REAR ABUTMENT	12" Ø	20'
PIERS 1 & 2	14" Ø	15' & 20' RESP.
FORWARD ABUTMENT	12" Ø	25'



PROFILE ALONG Q SURVEY

BENCH MARK
 Mine Spike in N Face of 24" Sycamore
 98' Rt. of Sta. 175+65
 El. 697.36

ASHVILLE QUADRANGLE
 LAT. 39°43'21" LONG. 82°55'24"

DRAINAGE AREA 226 Sq. Mi.
 $Q_{25} = 16630$ cfs $V_{25} = 7.6$ fps Elev. 697.3
 $Q_{100} = 21840$ cfs $V_{100} = 8.7$ fps Elev. 699.1

TRAFFIC
 Design ADT (2011) = 1823
 Design ADTT (2011) = 37

EXISTING STRUCTURE DATA
 Type: Pratt High Steel Truss.
 Span: 220'
 Roadway: 18' f/f Rails.
 Skew: None
 Wearing Surface: Asphalt Concrete.
 Alignment: Tangent
 Date Built: 1914
 SFN: 6503667
 Disposition: To be removed

PROPOSED STRUCTURE DATA
 Type: Continuous A588 Composite Steel Beams with Reinforced Concrete Slab.
 Span: 83', 105', 85' Along Ref. Chord.
 Roadway: 32' f/f Guardrail & o/a Deck.
 Loading: HS20-44 (Case II) & the Alternate Military Loading.
 Skew: 30°-00' Rt. Forward to Reference Chord.
 Wearing Surface: Monolithic Concrete.
 Approach Slab: AS-1-81 (20'-0" Long)
 Alignment: 1'28' Curve Left.
 Superelevation: 0.040 ft./ft.
 Crown: None

DODSON - LINDBLOM ASSOCIATES, INC.
 CONSULTING ENGINEERS
 COLUMBUS, OHIO

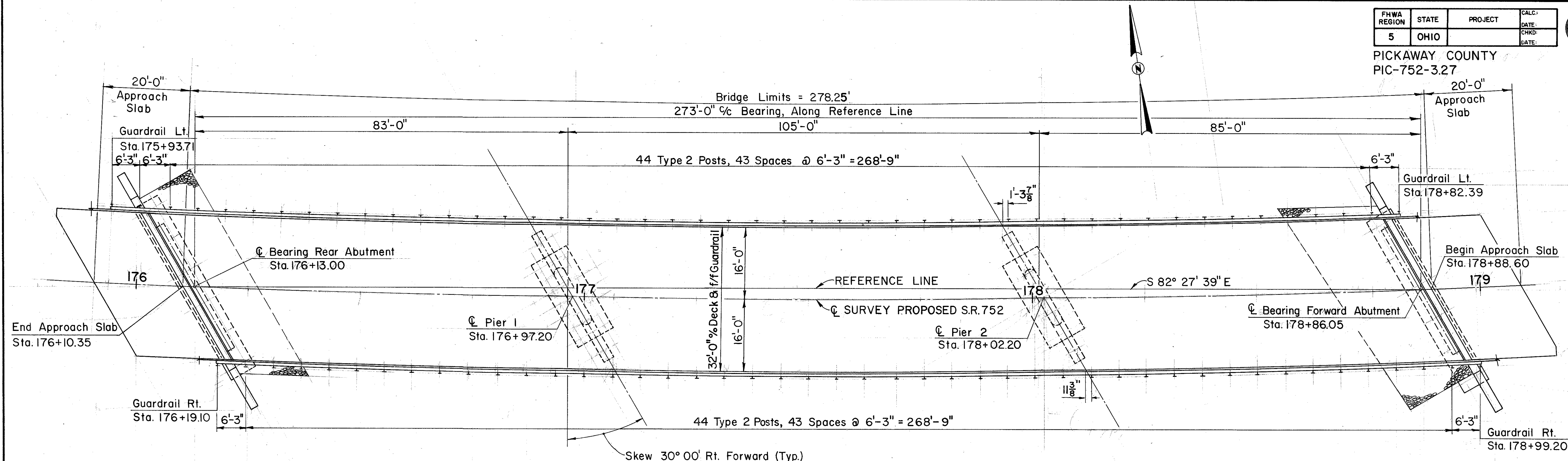
SITE PLAN
 BRIDGE NO. PIC-752-0335
 OVER WALNUT CREEK
 PICKAWAY COUNTY STA. 176+10.35
 STA. 178+88.60

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
DLA	HP	BBD	GV	DEH	A.C.S.

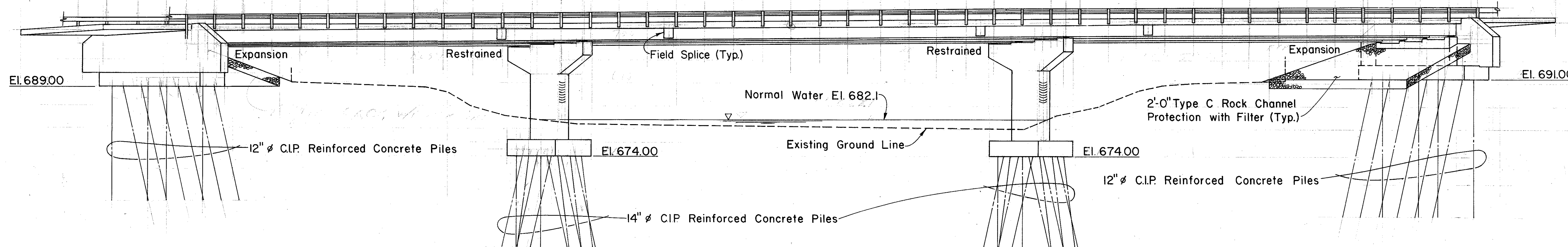
FHWA REGION	STATE	PROJECT	CALC. DATE
5	OHIO		
			CHKD. DATE

19
32

PICKAWAY COUNTY
PIC-752-3.27



PLAN



ELEVATION

DODSON - LINDBLOM ASSOCIATES, INC.
CONSULTING ENGINEERS
COLUMBUS, OHIO 2 / 11

GENERAL PLAN						
BRIDGE NO. PIC-752-0335						
S. R. 752 OVER WALNUT CREEK						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
B.B.D.	G.V.	G.V.	DEH.	ACS.	11-29-90	

GENERAL NOTES

STANDARD DRAWING REFERENCES

DESCRIPTION	DWG. NO.	SHT.	DATE
STRIP SEAL EXPANSION JOINTS AT ABUTMENTS FOR STEEL STRINGER STRUCTURES	EXJ-4-87	1-5	1- 5-89
SUPERSTRUCTURE DETAILS	SD-1-69	1-4	6-12-69
APPROACH SLABS	AS-1-81	1-3	11-27-81
DEEP BEAM BRIDGE GUARD RAIL WITH TUBULAR BACKUP	DBR-2-73		4-10-73

SUPPLEMENTAL SPECIFICATION REFERENCES

DESCRIPTION	NO.	DATE
CONCRETE CURING MEMBRANE	836	11-12-85

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1989 AND THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS.

DESIGN DATA

DESIGN LOADING - HS20-44 CASE II AND THE ALTERNATE MILITARY LOADING.

DESIGN STRESSES

CONCRETE CLASS S - COMPRESSIVE STRENGTH 4500 P.S.I.
 CONCRETE CLASS C - COMPRESSIVE STRENGTH 4000 P.S.I.
 REINFORCING STEEL - ASTM A615, A616, A617 -
 GRADE 60 - MINIMUM YIELD STRENGTH 60,000 P.S.I.
 STRUCTURAL STEEL ASTM A588 - YIELD STRENGTH 50,000 P.S.I.

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL, TOP AND BOTTOM MATS.

MONOLITHIC WEARING SURFACE

THE MONOLITHIC WEARING SURFACE THICKNESS IS ASSUMED TO BE 1 INCH FOR DESIGN PURPOSES.

SEALING OF CONCRETE SURFACES

A CONCRETE SEALER SHALL BE APPLIED TO THE SURFACES AS SHOWN ON PLANS. SEE THE PROPOSAL NOTE FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIALS REQUIREMENTS AND APPLICATION PROCEDURES.

REMOVAL OF EXISTING STRUCTURE

WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC THE EXISTING STRUCTURE SHALL BE REMOVED.

DESIGN LOAD

48 TONS PER PILE FOR THE ABUTMENT PILES
 70 TONS PER PILE FOR THE PIER PILES.

ITEM 511 CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN
 MEMBRANE CURING PER SS 836 WILL NOT BE PERMITTED.
 CONCRETE SHALL BE CURED BY METHOD (a), WATER CURING.

ITEM 507, 12 INCH CAST-IN-PLACE REINFORCED CONCRETE PILES, AS PER PLAN,
 & ITEM 507, 14 INCH CAST-IN-PLACE REINFORCED CONCRETE PILES, AS PER PLAN:

PILE WALL THICKNESS: THE RESPONSIBILITY OF CHOOSING AND PROVIDING A SATISFACTORY PILE WALL THICKNESS FOR THIS PROJECT SHALL BE BORNE BY THE CONTRACTOR EXCEPT THAT THE PILE WALL THICKNESS SHALL NOT BE LESS THAN .215 INCHES. IF A PILE WALL THICKNESS GREATER THAN .215 INCHES IS NECESSARY TO RESIST THE PILE INSTALLATION DRIVING STRESS, THE CONTRACTOR SHALL MAKE THIS DETERMINATION AND SHALL FURNISH A PILE WITH AN ACCEPTABLE WALL THICKNESS. IF MONOTUBE PILES ARE USE, THE MINIMUM WALL THICKNESS SHALL BE 0.16 INCHES.

PILE HAMMER: THE PILE HAMMER USED TO INSTALL THE CAST-IN-PLACE REINFORCED CONCRETE PILES SHALL HAVE A STATE'S ENERGY RATING OF NOT LESS THAN 18,500 FOOT-POUNDS. THIS REQUIREMENT DOES NOT RELIEVE THE CONTRACTOR FROM 108.5 WHICH STATES THAT THE CONTRACTOR IS TO PROVIDE SUFFICIENT EQUIPMENT FOR PROSECUTING THE REQUIRED WORK. REFER TO "ODOT'S MANUAL OF PROCEDURES FOR STRUCTURES" TO OBTAIN THE STATE'S ENERGY RATING.

UTILITY LINES

ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES SHALL BE BORNE BY THE OWNER(S). THE CONTRACTOR AND OWNER(S) ARE REQUESTED TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

ESTIMATED QUANTITIES

CALC. BY O.A. DATE 11-18-90
 CHKD. BY B.B.D. DATE 11-28-90

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	REAR ABUT.	FWD. ABUT.	PIERS	SUPER.	GENERAL
202	11002	L. S.		STRUCTURE REMOVED, OVER 20 FOOT SPAN					L. S.
503	11100	L. S.		COFFERDAMS, CRIBS AND SHEETING					L. S.
503	21100	386	CU. YD.	UNCLASSIFIED EXCAVATION	125	124	137		
505	11100	L. S.		PILE DRIVING EQUIPMENT MOBILIZATION					L. S.
507	21101	450	LIN. FT.	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, AS PER PLAN	200	250			
507	41101	420	LIN. FT.	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, AS PER PLAN			420		
509	15800	97357	LB.	EPOXY COATED REINFORCING STEEL, GRADE 60	5655	5538	20227	65937	
511	31501	278	CU. YD.	CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN				278	
511	42000	73	CU. YD.	CLASS C CONCRETE, PIERS ABOVE FOOTINGS			73		
511	44100	100	CU. YD.	CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING	51	49			
511	46500	111	CU. YD.	CLASS C CONCRETE, FOOTING	31	31	49		
SPECIAL	51267500	316	SQ. YD.	SEALING OF CONCRETE SURFACES (SEE PROPOSAL NOTE)					316
SPECIAL	51267502	94	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY) (SEE PROPOSAL NOTE)	40	40	14		
513	11300	252900	LB.	STRUCTURAL STEEL, A588 AISC CATEGORY I				252900	
513	20000	2364	EACH	WELDED STUD SHEAR CONNECTOR				2364	
514	02501	L. S.		FIELD PAINTING NEW STRUCTURAL STEEL, SYSTEM A, AS PER PLAN					L. S.
516	11210	74	LIN. FT.	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL				74	
516	44000	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (14"x18"x1 3/8" WITH 15"x25"x2" BEVELED STEEL LOAD PLATE)			8		
516	44100	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (9"x12"x2 1/16" WITH 10"x13 1/4"x 1 1/2" BEVELED STEEL LOAD PLATE)	4	4			
517	72300	568.75	LIN. FT.	RAILING (DEEP BEAM RAIL WITH STEEL TUBULAR BACKUP AND TYPE 2 STEEL POSTS AND ANCHOR BOLTS)				568.75	
518	21200	65	CU. YD.	POROUS BACKFILL WITH FILTER FABRIC	31	34			
518	41100	118	LIN. FT.	6" PERFORATED HELICAL CORRUGATED STEEL PIPE, 707.01	60	58			
518	41200	64	LIN. FT.	6" NON-PERFORATED HELICAL CORRUGATED STEEL PIPE, INCLUDING SPECIALS, 707.01	29	35			
523	11100	6	HOUR	DYNAMIC LOAD TEST	** 3		3		
⊕ ALTERNATE BID ITEMS									
511	33404	278	CU. YD.	CLASS S CONCRETE, SUPERSTRUCTURE, USING SHRINKAGE COMPENSATING CEMENT #					
511	33410	L. S.		CLASS S CONCRETE, USING SHRINKAGE COMPENSATING CEMENT, FOR PRE-POUR TESTING #					

** QUANTITY IS TOTAL FOR REAR AND FORWARD ABUTMENTS.

SEE PROPOSAL NOTE.

FHWA REGION	STATE	PROJECT	CALC. DATE
5	OHIO		
CHKD. DATE			

20
32

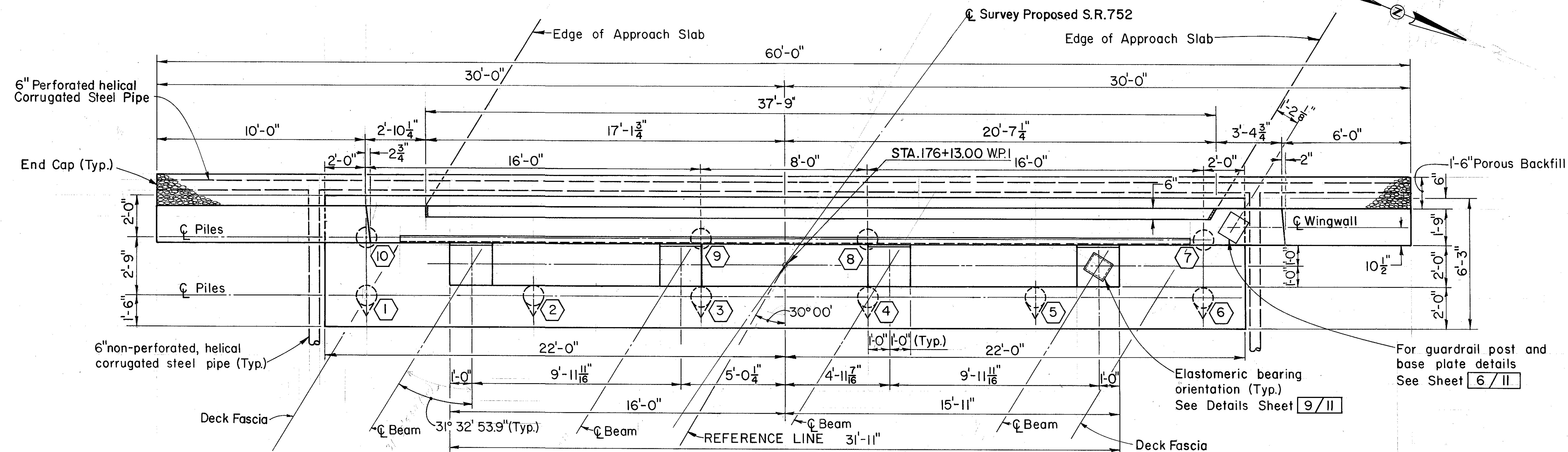
PICKAWAY COUNTY
 PIC-752-3.27

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 CONSULTING ENGINEERS
 COLUMBUS, OHIO 3/11

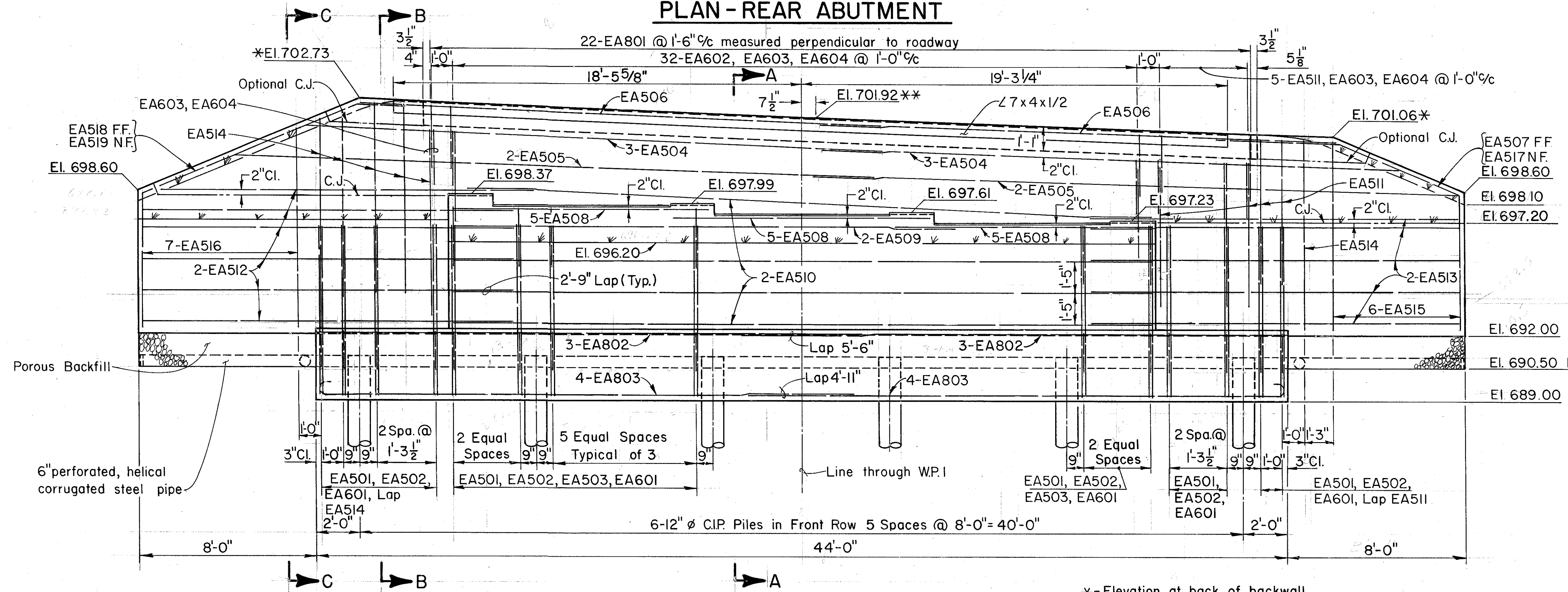
GENERAL NOTES & ESTIMATED QUANTITIES

BRIDGE NO. PIC-752-0335
 S.R. 752 OVER WALNUT CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
OA	OA	HP	BBD	ACS	11/29/90	



PLAN - REAR ABUTMENT



ELEVATION - REAR ABUTMENT

*-Elevation at back of backwall
**-Elevation at face of backwall

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REAR ABUTMENT DETAILS

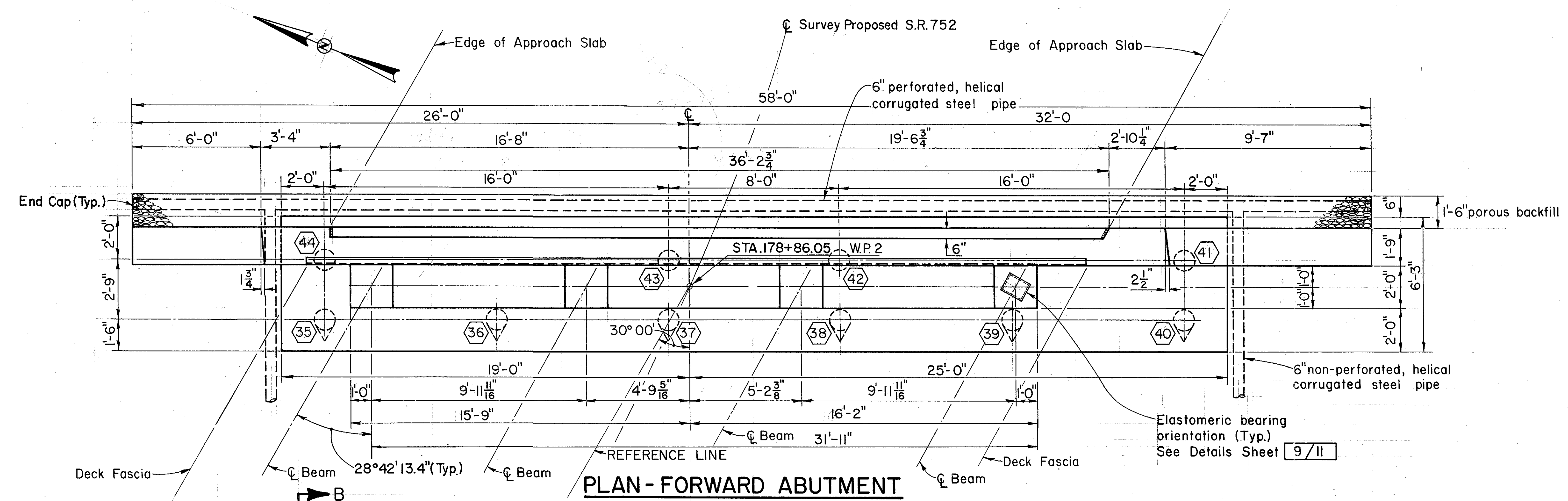
BRIDGE NO. PIC-752-0335
S.R. 752 OVER WALNUT CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
BBD	G.V.	G.V.	D.E.H.	ACS.II-29-90		

FHWA REGION	STATE	PROJECT	CALC. DATE
5	OHIO		
			CHKD. DATE

22
32

PICKAWAY COUNTY
PIC-752-3.27

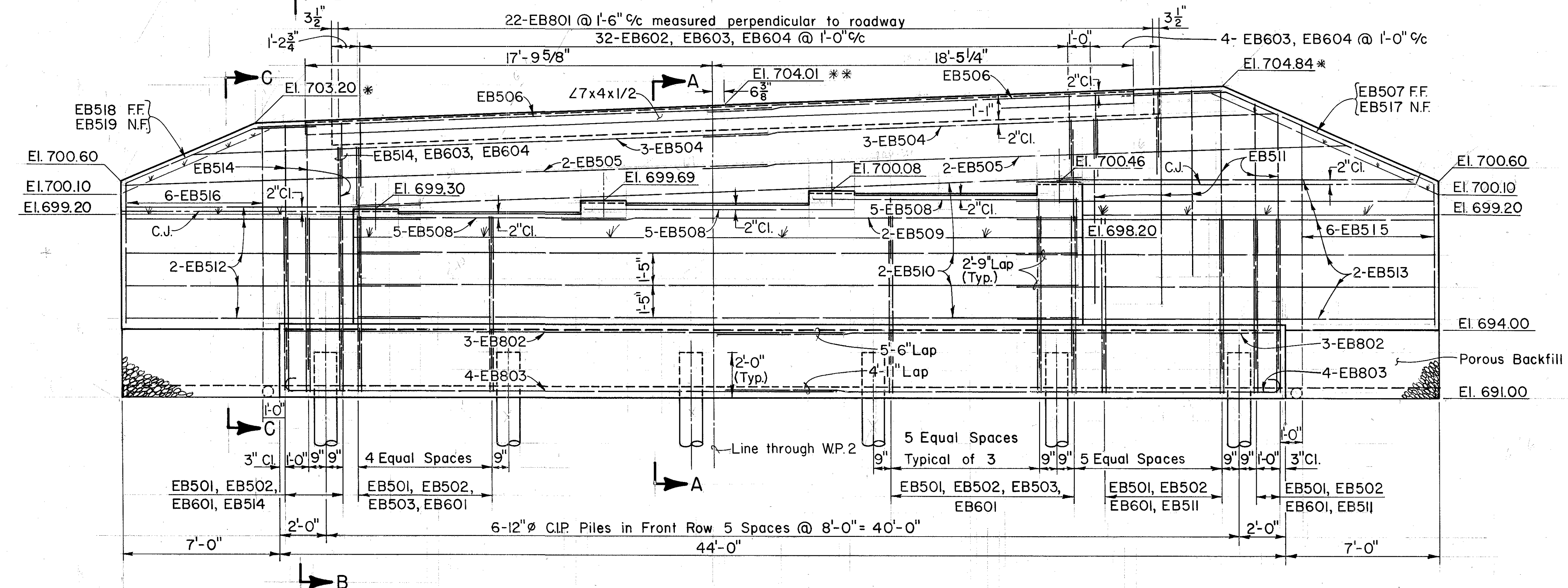


PLAN - FORWARD ABUTMENT

- NOTES:**
- All reinforcing shall be placed to provide a minimum cover of 2 inches unless otherwise shown.
 - For strip seal expansion joint details see standard drawing EXJ-4-87.
 - For sealing of concrete surface see sheet **6/11**

LEGEND:
 N.F. = Near Face
 F.F. = Far Face
 C.J. = Construction Joint
 Typ. = Typical
 Spa. = Spaces

- (12) - Indicates pile number
 ⚡ - Direction of battered piles at 1:3 slope



ELEVATION - FORWARD ABUTMENT

* Elevation at back of backwall
 ** Elevation at face of backwall

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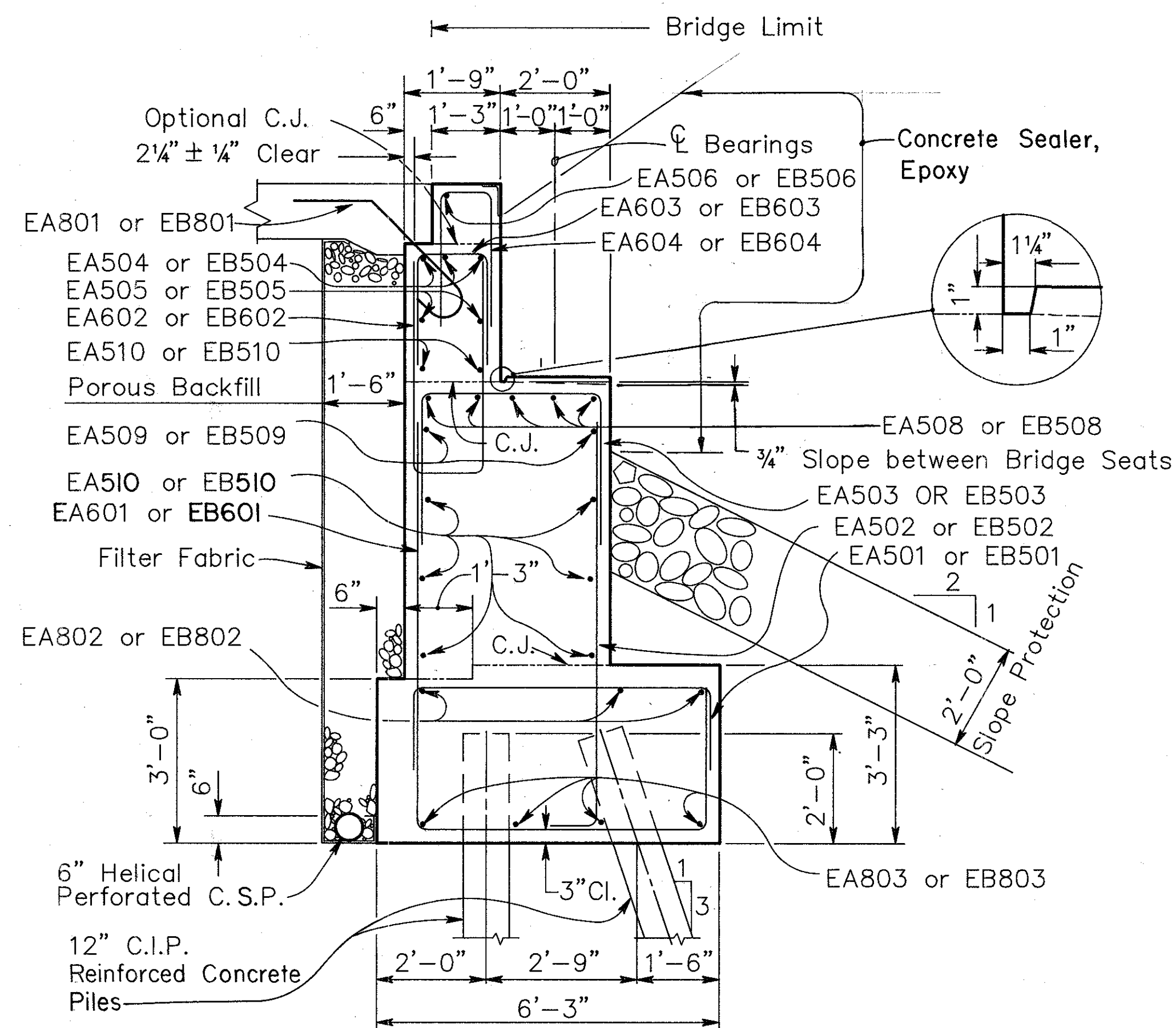
FORWARD ABUTMENT DETAILS
 BRIDGE NO. PIC-752-0335
 S.R. 752 OVER WALNUT CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
B.B.D.	G.V.	G.V.	DE.H.	A.C.S.	11-29-90	

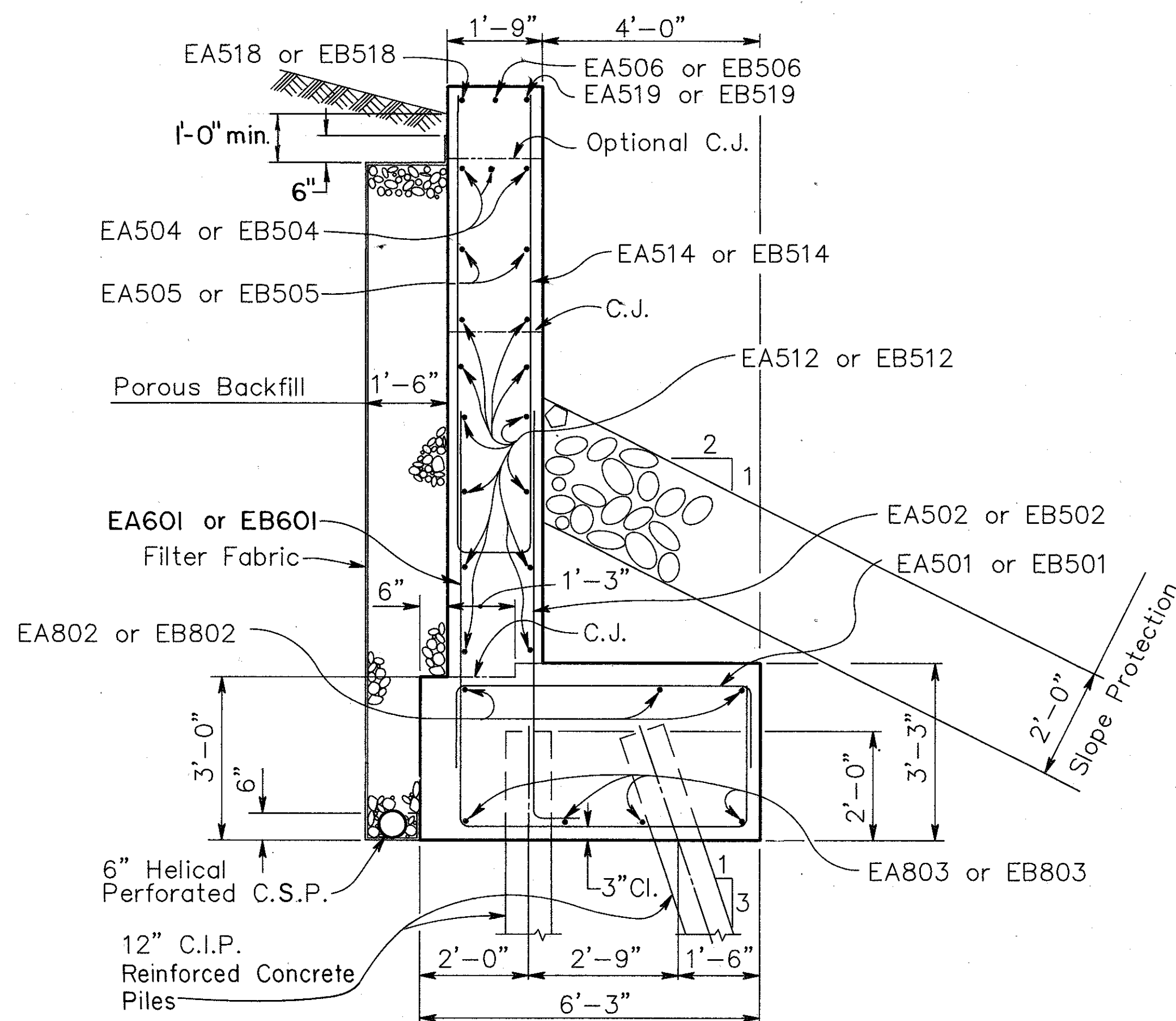
FHWA REGION	STATE	PROJECT	CALC. DATE
5	OHIO		
			CHKD. DATE

23
32

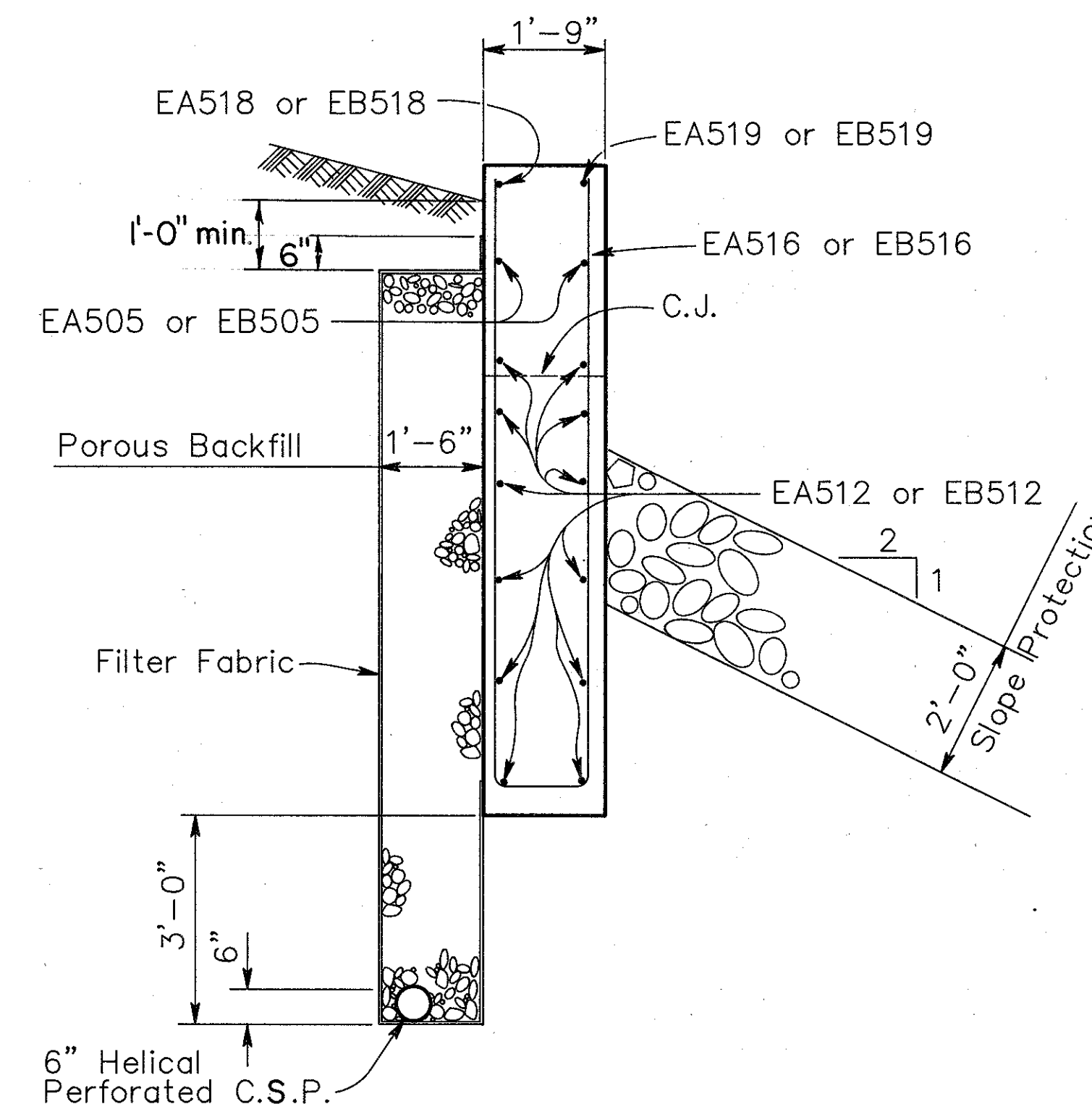
PICKAWAY COUNTY
PIC-752-3.27



SECTION A-A



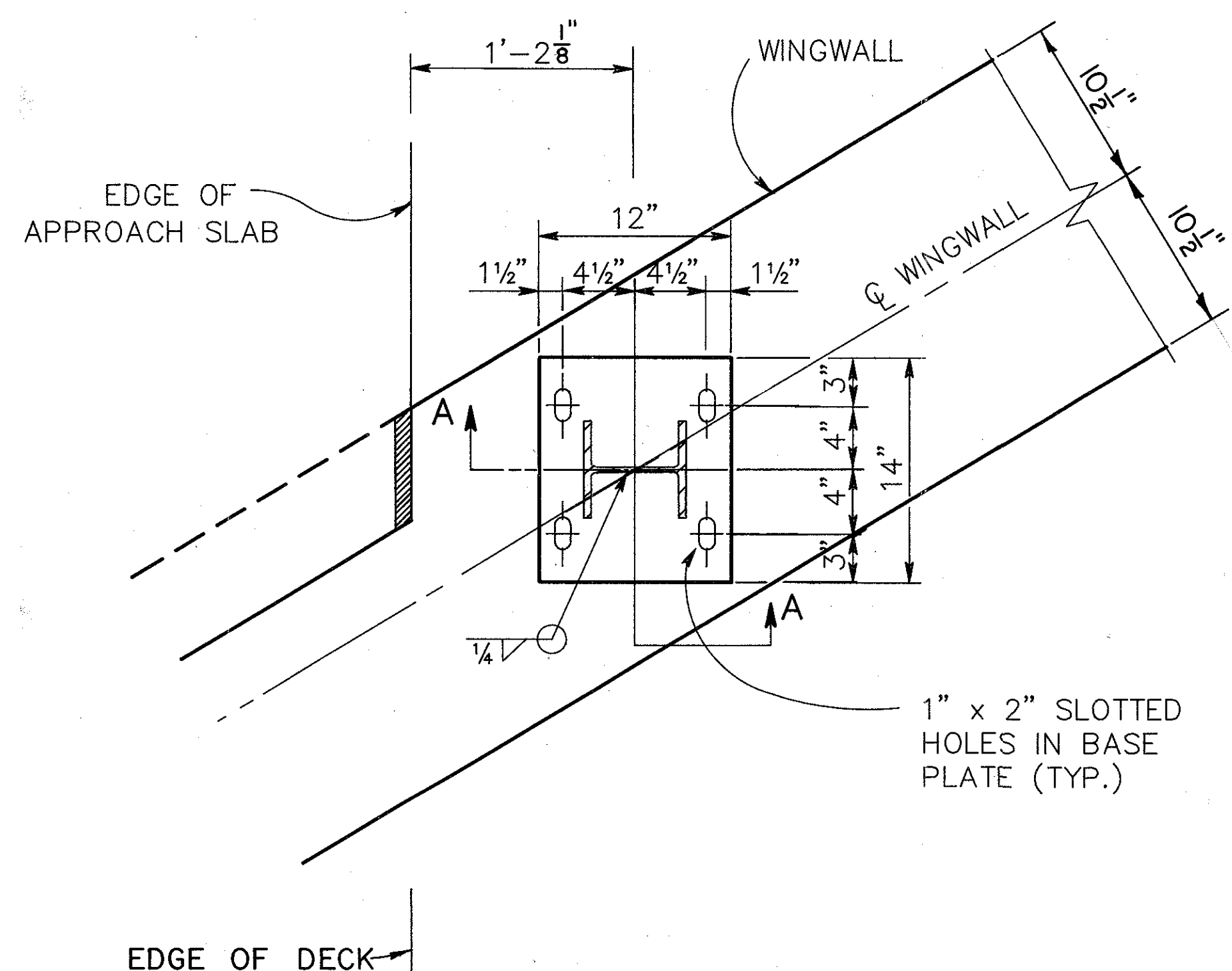
SECTION B-B



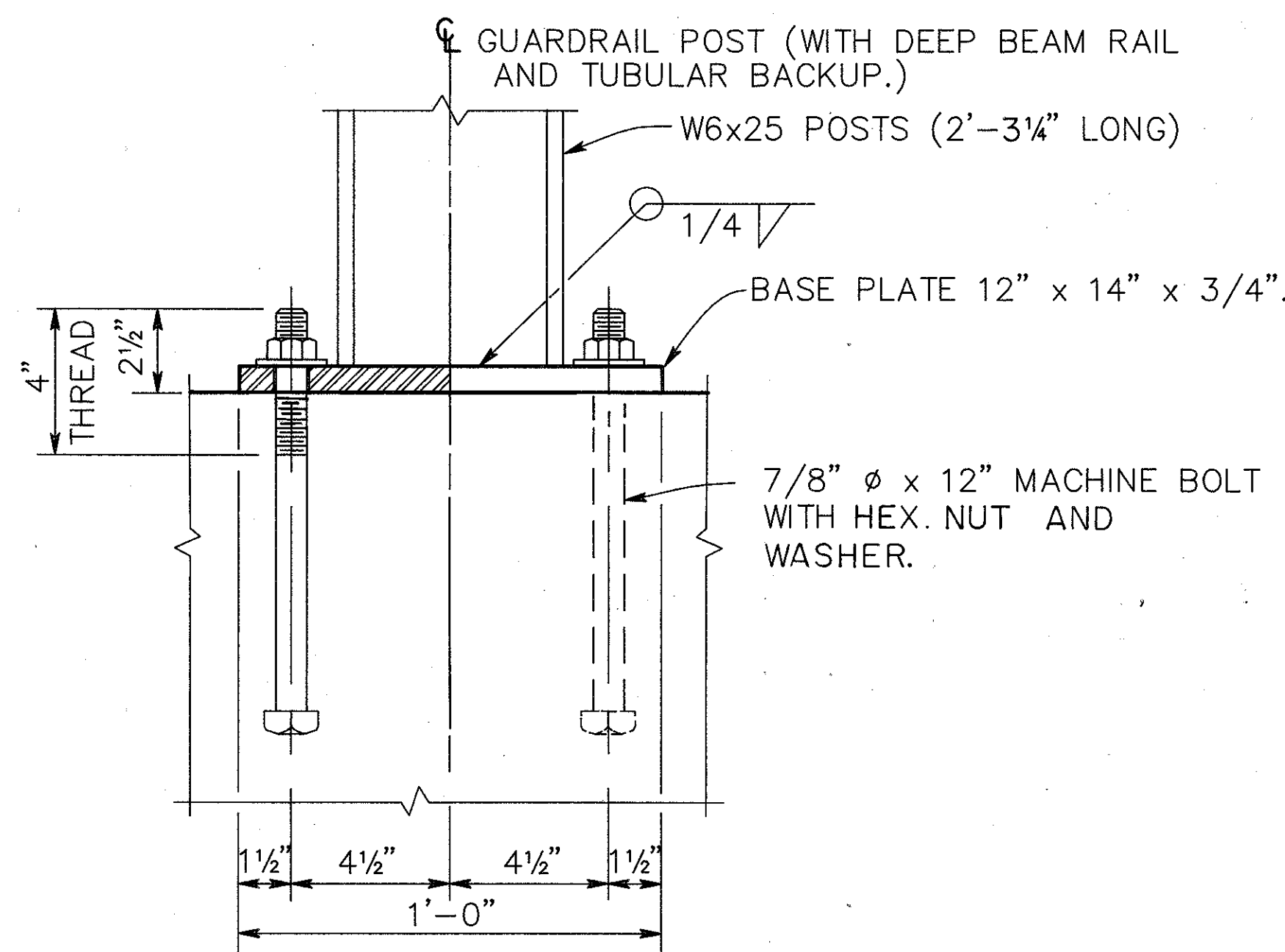
SECTION C-C

NOTE:

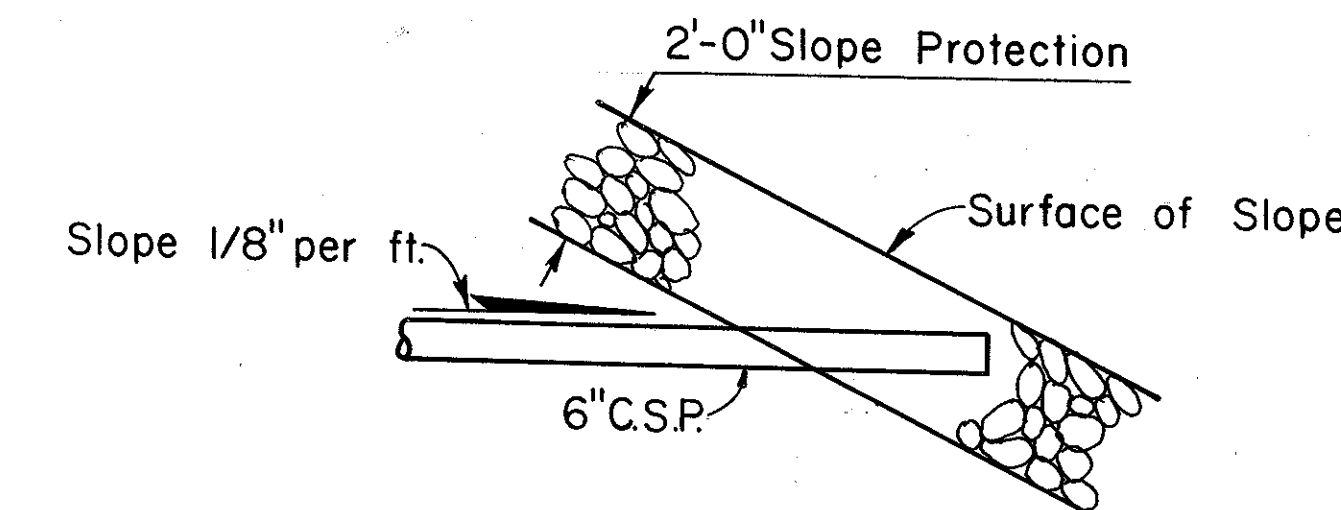
Seal the entire front face above the ground line of wingwalls with epoxy sealer. Filter Fabric shall conform to 712.09 Type A, and shall be included with Porous Backfill for payment.



PLAN



SECTION A-A



TERMINATING 6" C.S.P. AT THE FRONT SLOPE

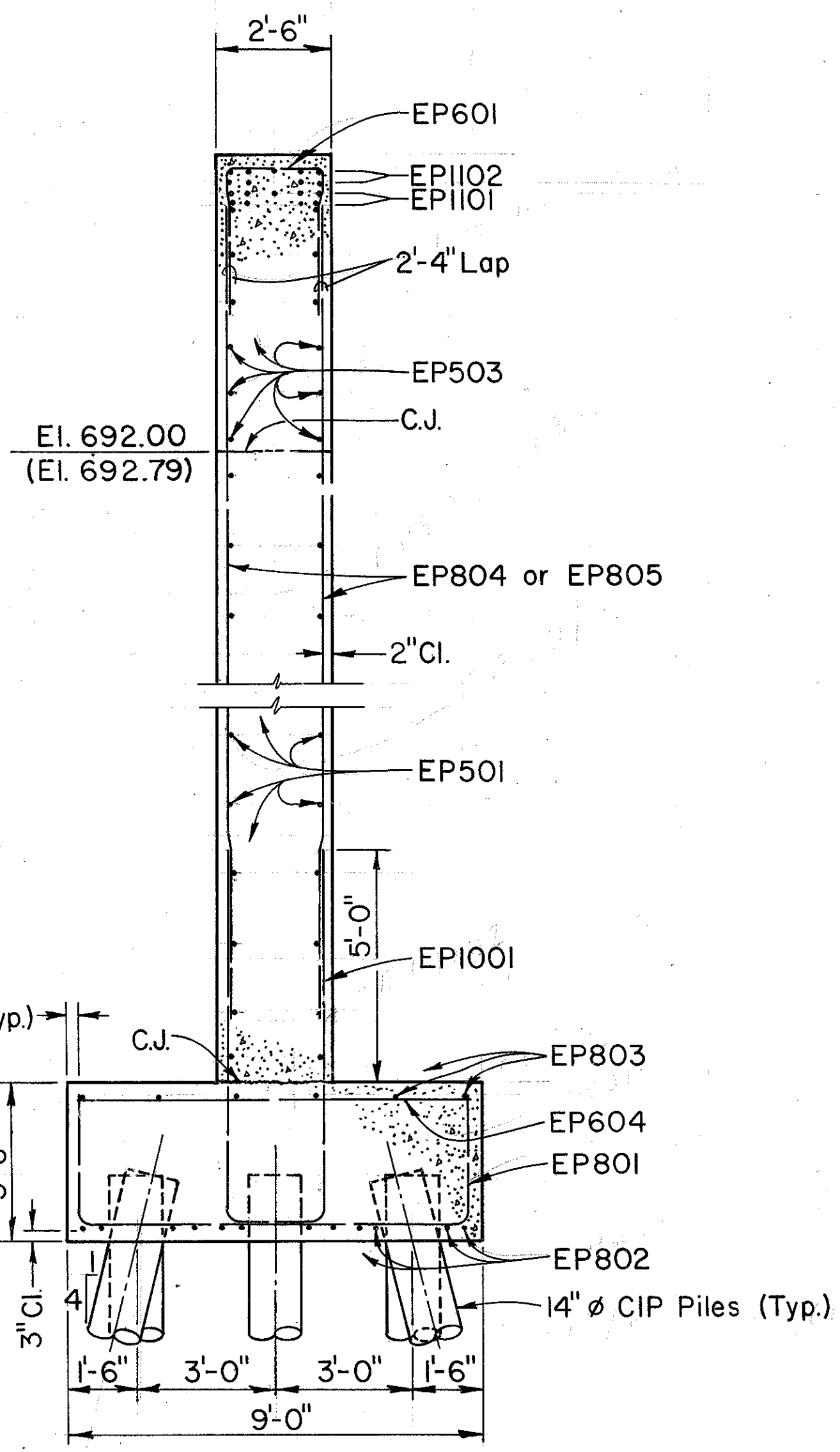
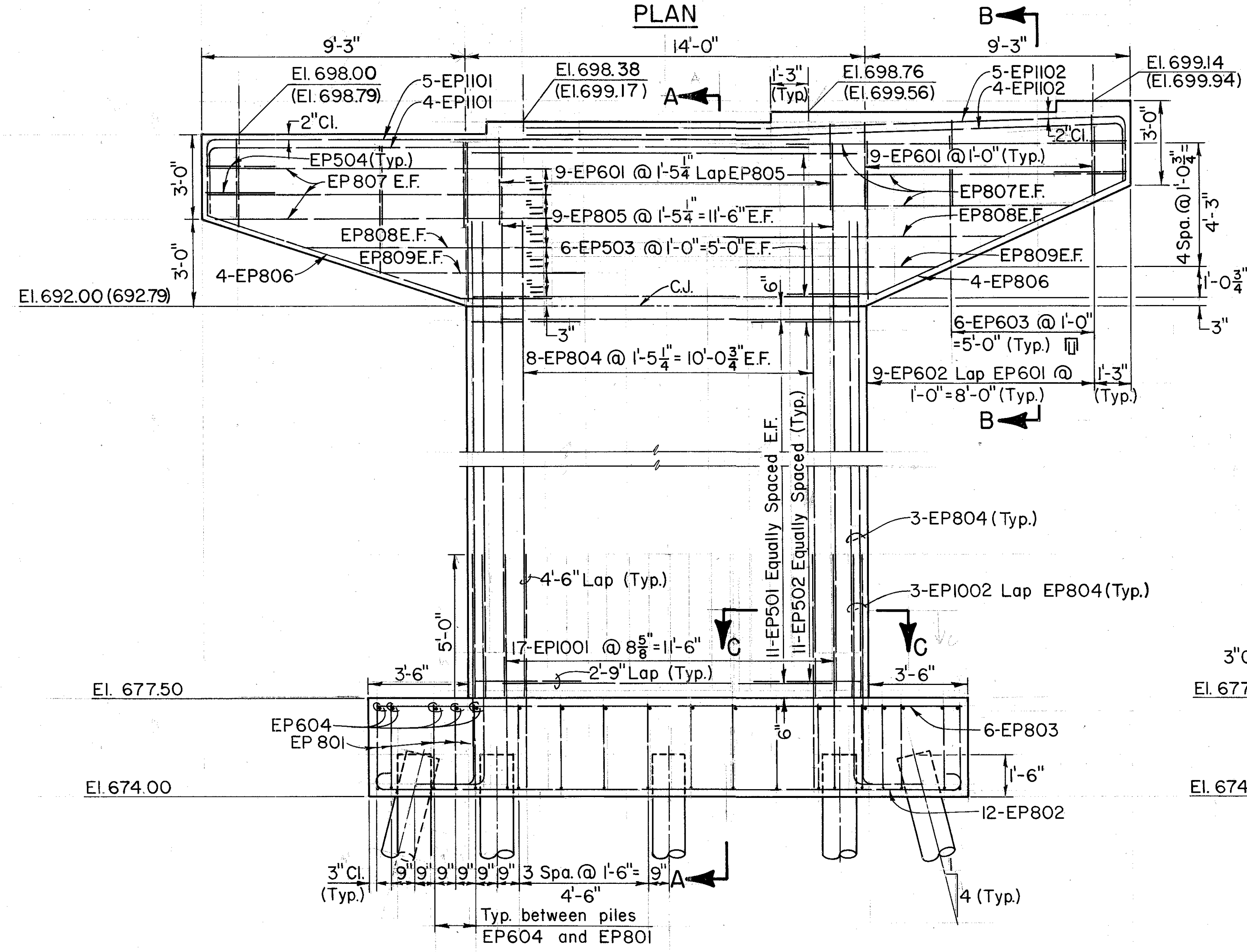
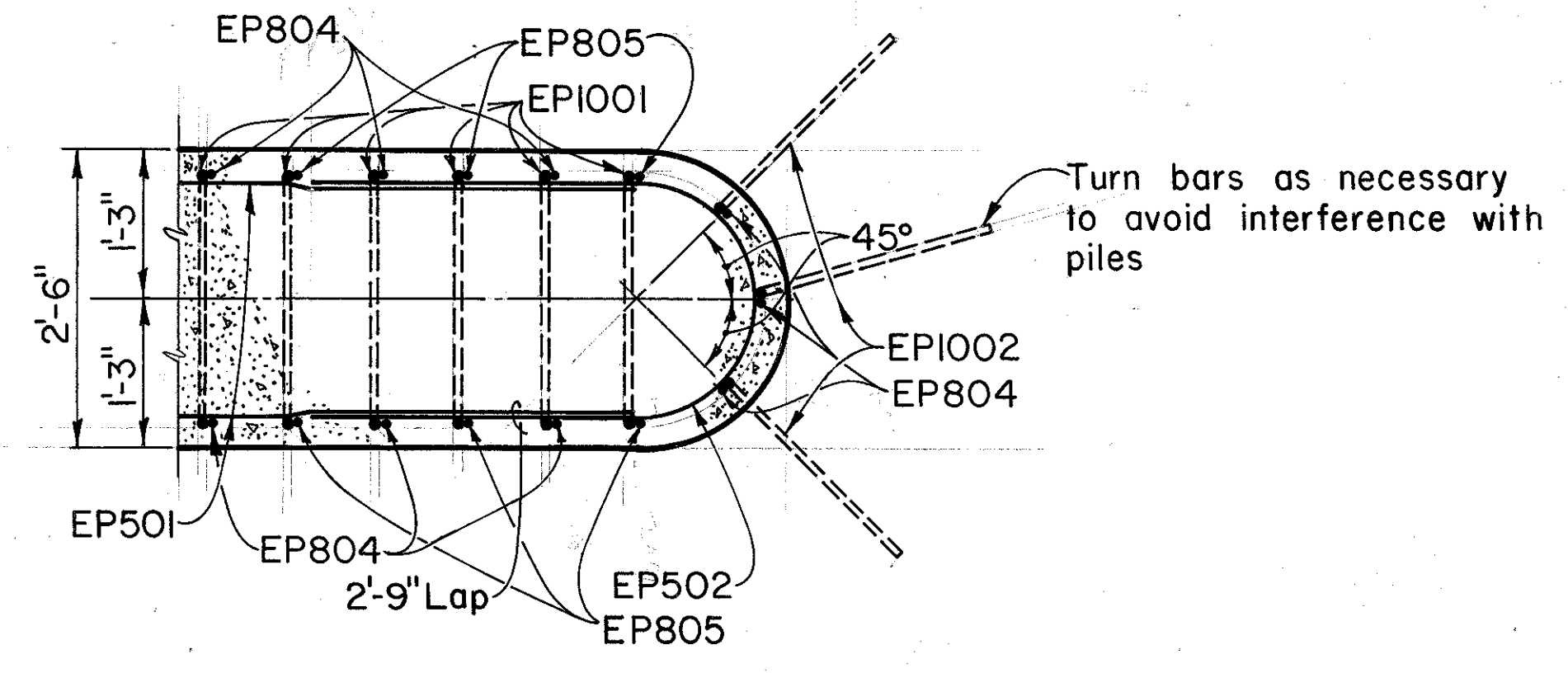
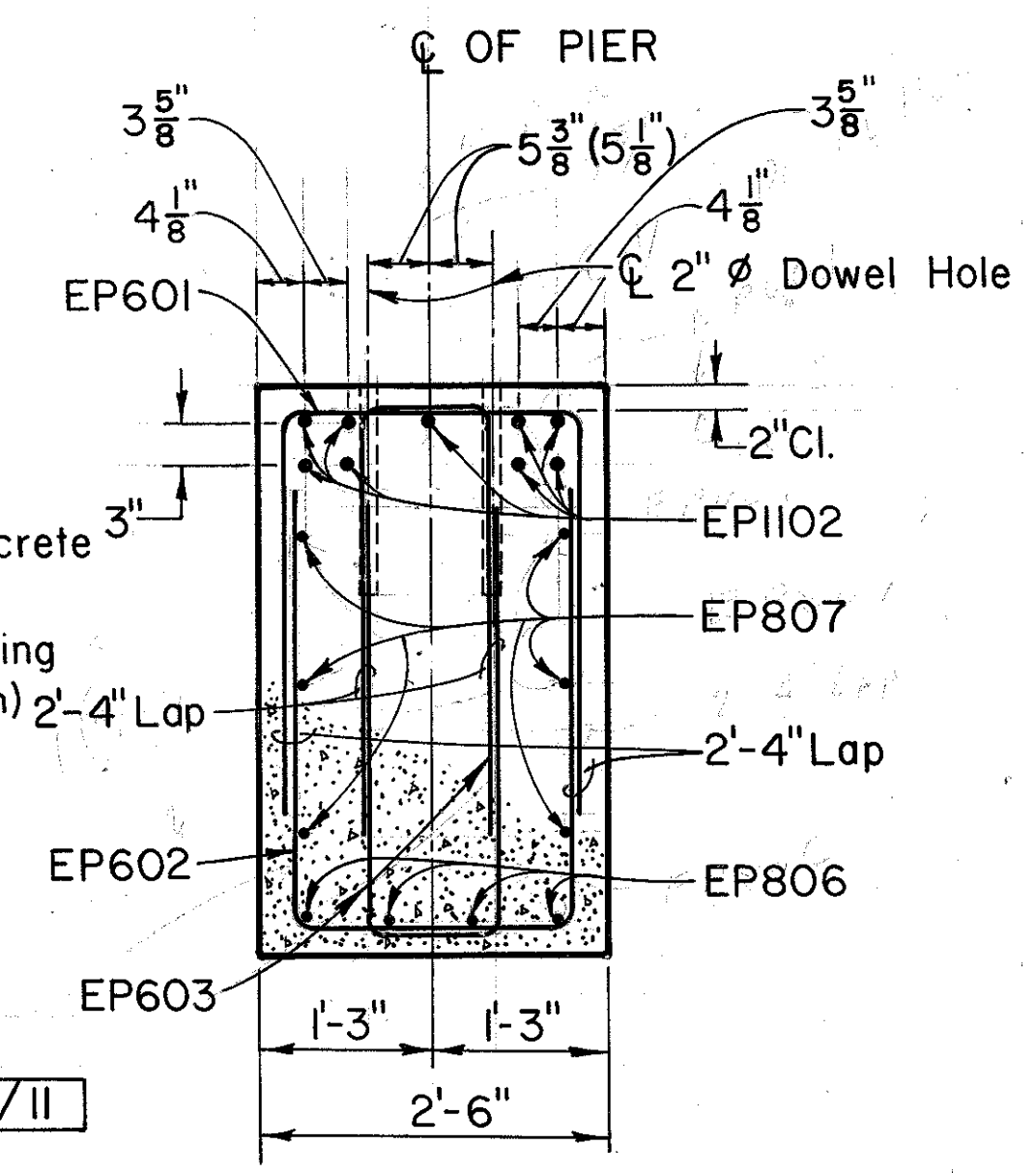
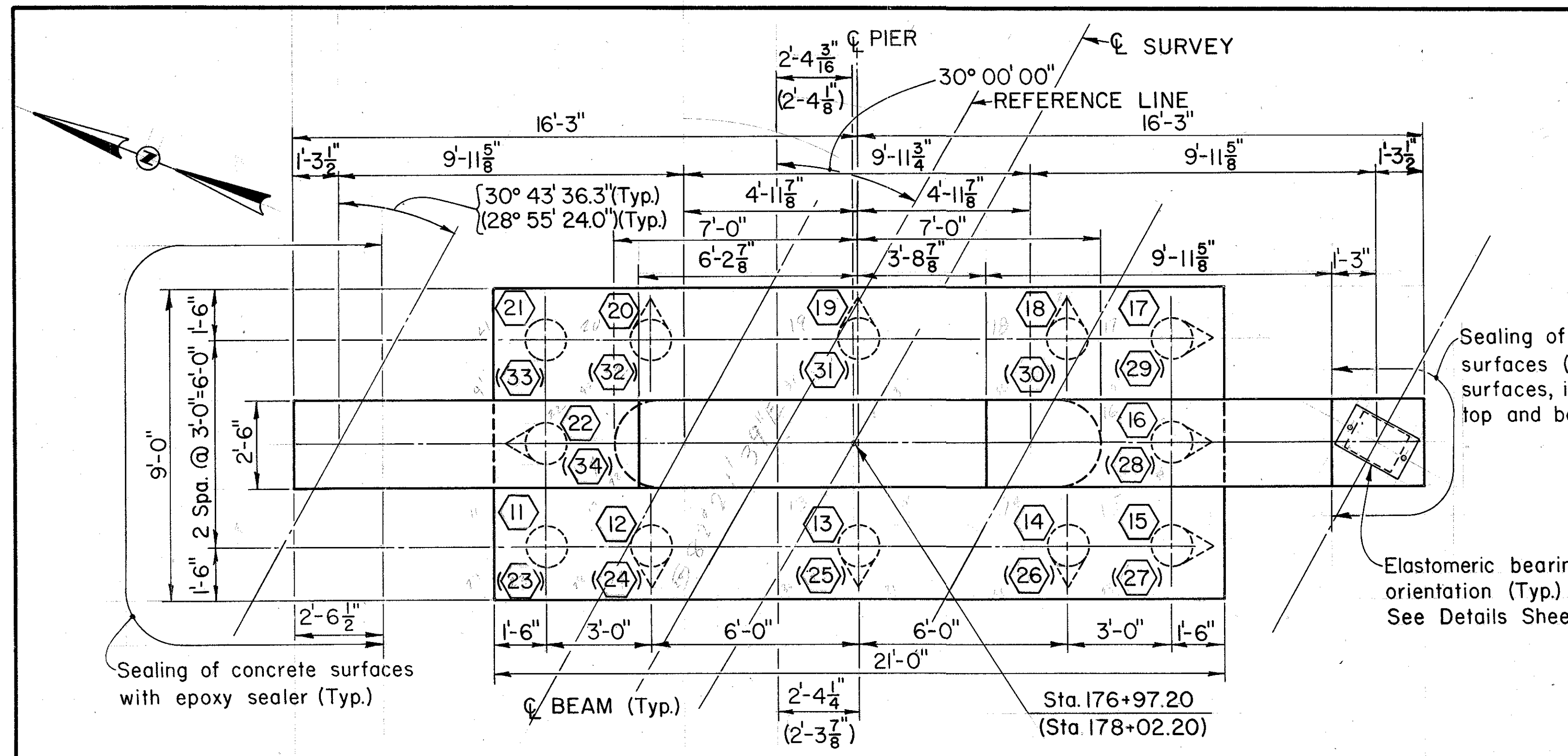
LEGEND:

- C.J. = Construction Joint
- Cl. = Clearance
- min. = minimum
- C.S.P. = Corrugated Steel Pipe
- C.I.P. = Cast in place

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ABUTMENT DETAILS
BRIDGE NO. PIC-752-0335
SR. 752 OVER WALNUT CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
B.B.D.	B.B.D.	HP	B.B.D.	ACS.II-29-90		



- NOTES:**
- Dimensions and the numbers shown in parentheses are for Pier No.2 at Sta.178+02.20, otherwise for Pier No.1 at Sta.176+97.20.
 - Special care shall be taken in placing reinforcing steel in top of pier so as to avoid interference with the drilling of anchor rod holes.
 - All reinforcing steel shall be placed to provide a minimum cover of 2" unless otherwise shown.
 - All piling shall be 14" ϕ C.I.P. reinforced concrete.

- LEGEND:**
- C.J. - Construction Joint
 - E.F. - Each Face
 - Typ. - Typical
 - Cl. - Clearance
 - (23) - Indicates Pile Number
 - Direction of battered pile at 1:4 slope

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PIER DETAILS
BRIDGE NO. PIC-752-0335
S.R. 752 OVER WALNUT CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
B.B.D.	G.V.	G.V.	DE.H.	ACS.II-29-90		

⊙ A haunch width of 9" as shown has been used in computing the quantity of deck concrete and shall be the basis for payment. However the haunch width may vary between 6" and 12" (provided the slope shall not be more than 1:4 for a haunch with less than 9" width.)

* DECK SLAB DEPTH: The distance shown from top of deck slab to top of steel beam is the design dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

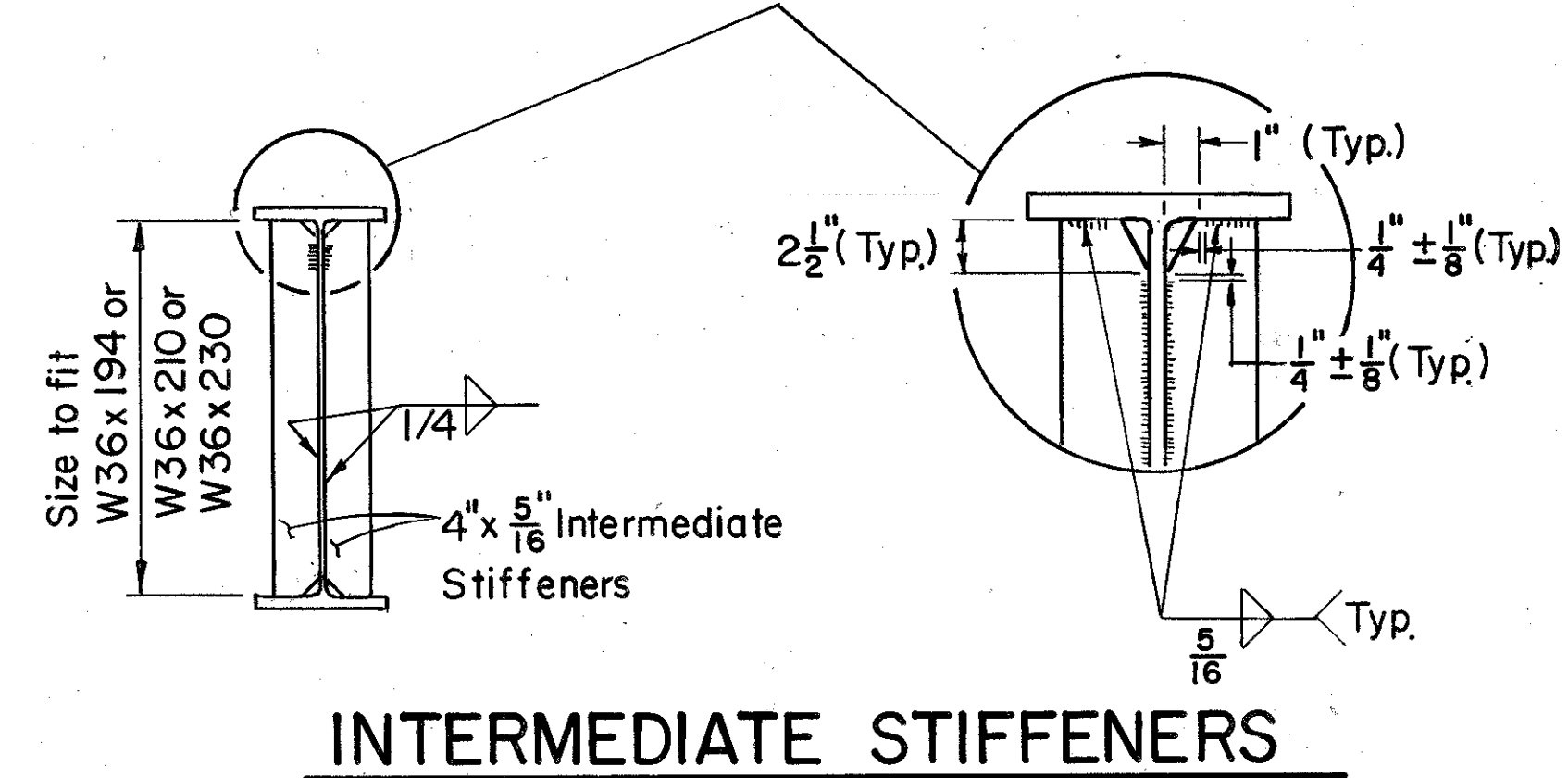
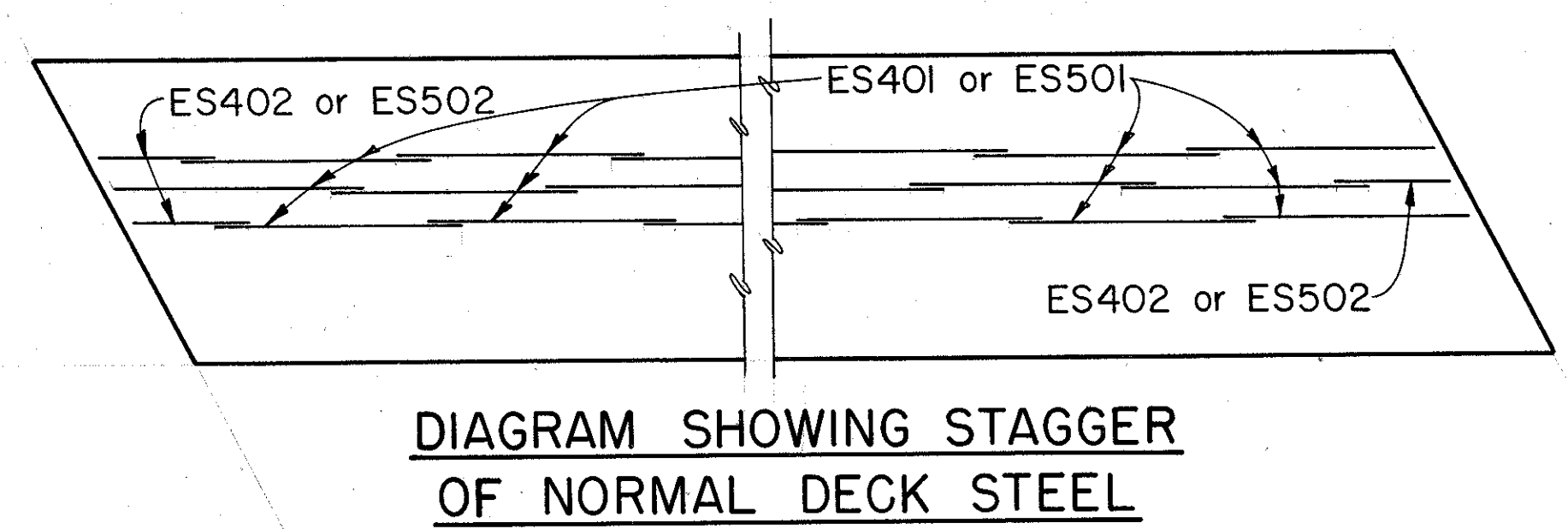
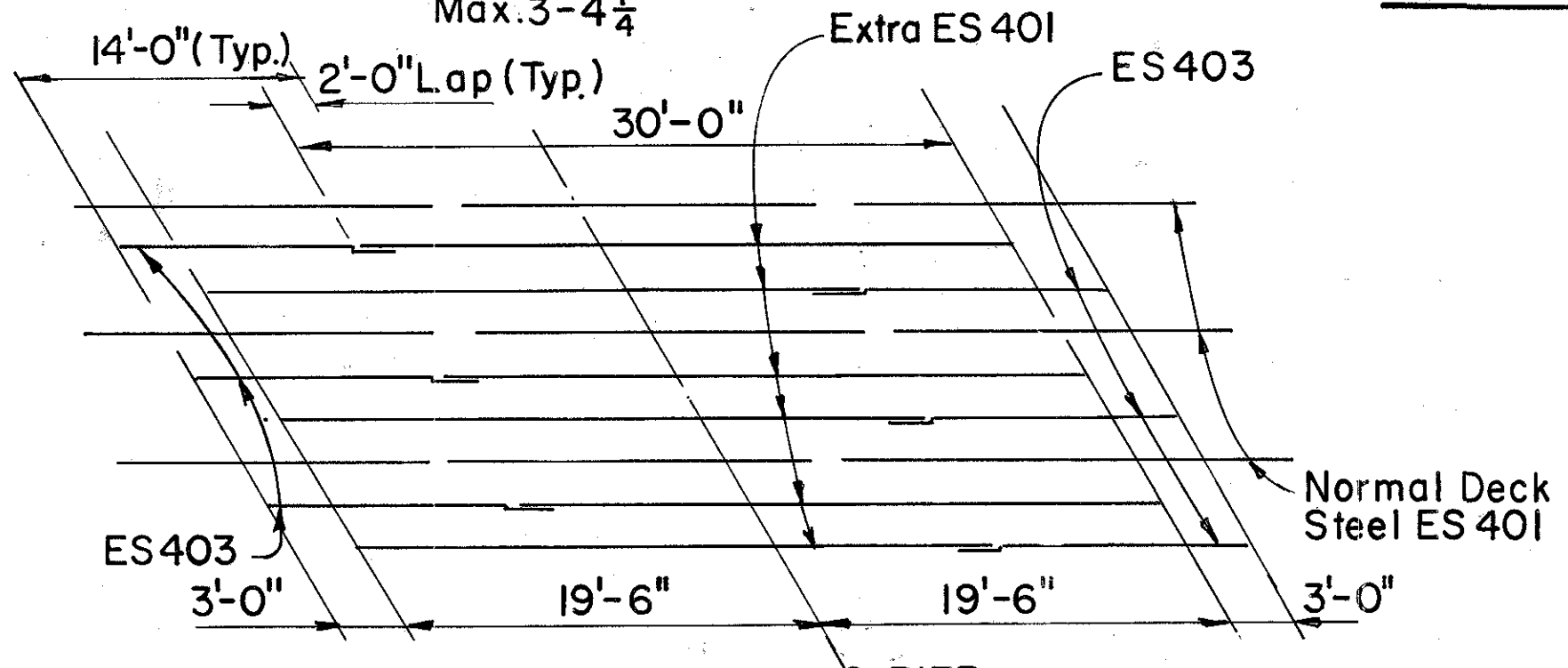
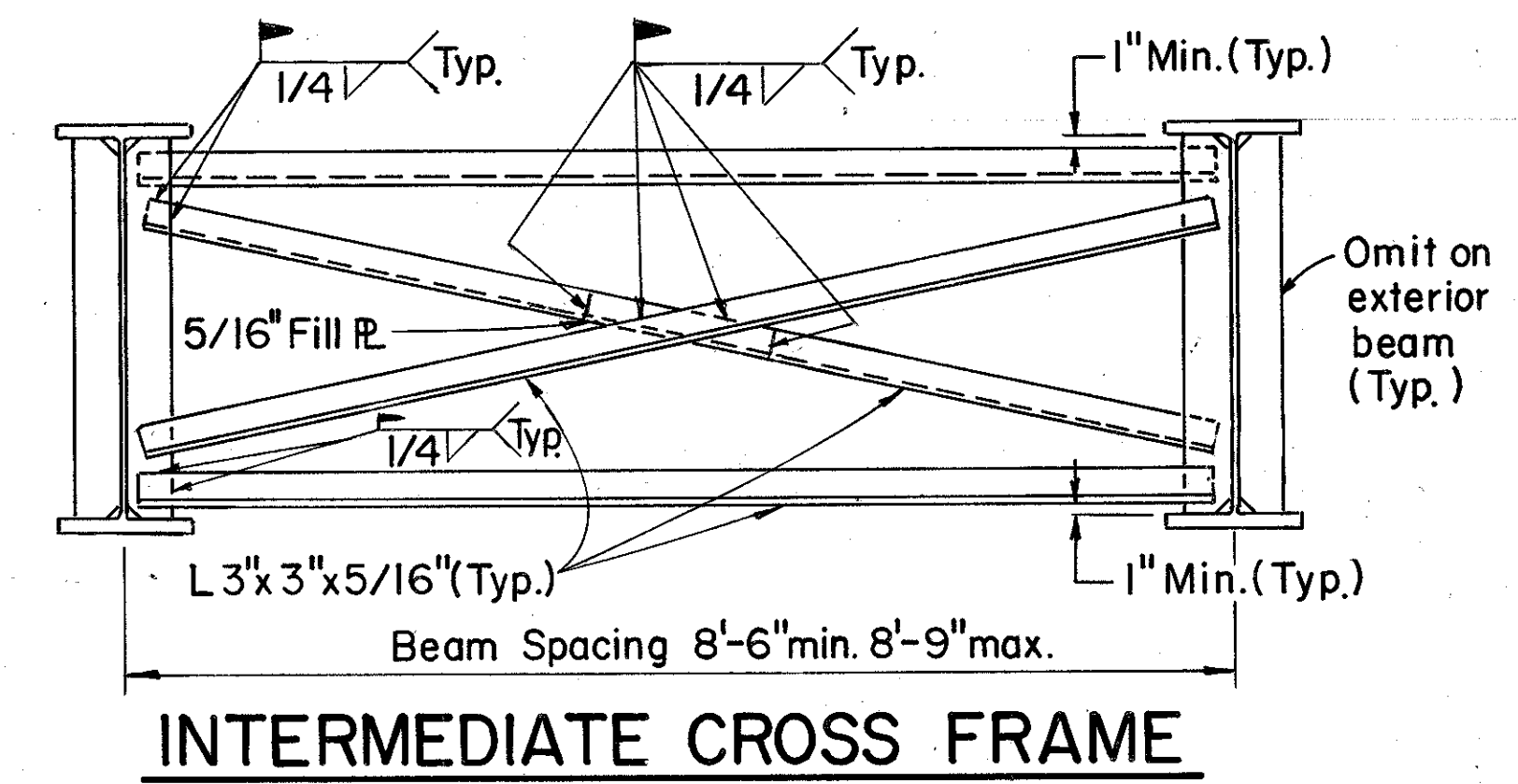
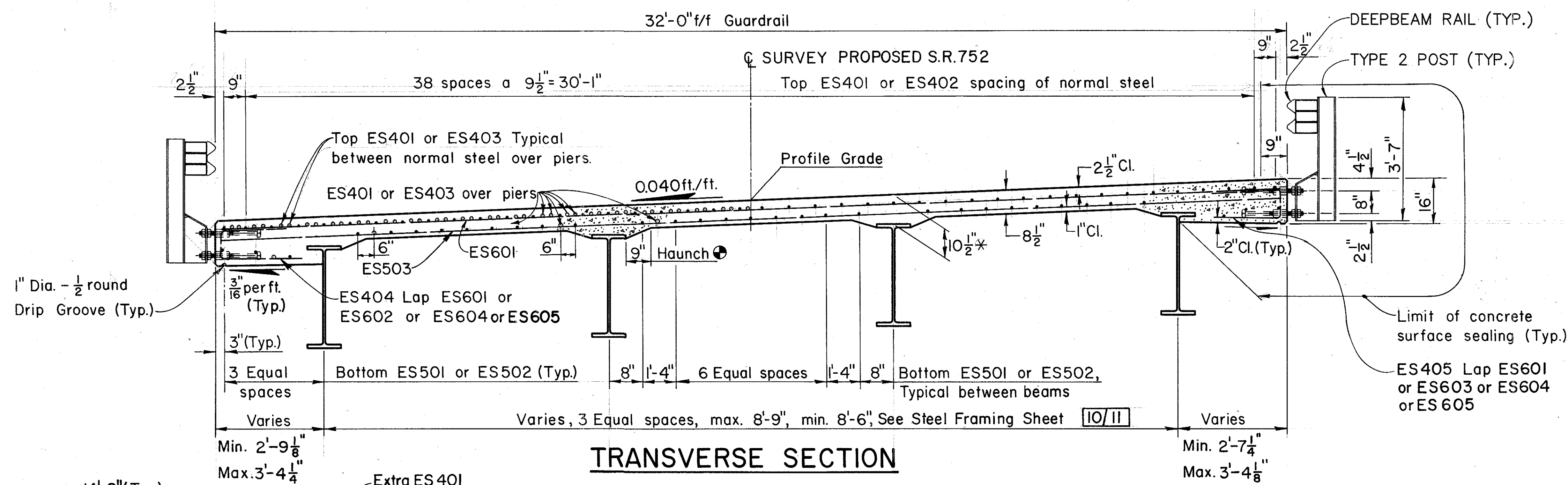
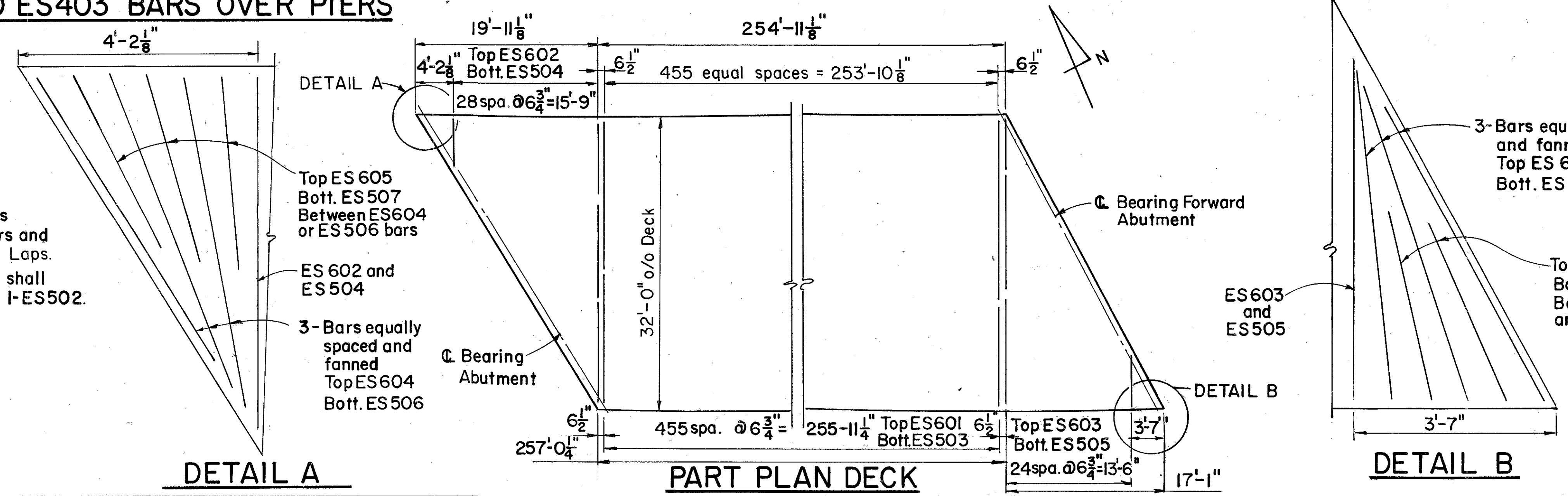


DIAGRAM SHOWING STAGGER OF EXTRA ES 401 AND ES 403 BARS OVER PIERS

DIAGRAM SHOWING STAGGER OF NORMAL DECK STEEL

INTERMEDIATE STIFFENERS

NOTE: All longitudinal top bars shall consist of 9-ES 401 bars and 1-ES 402. Lap 1'-7". Stagger Laps.
All longitudinal bottom bars shall consist of 9-ES 501 bars and 1-ES 502. Lap 2'-6". Stagger Laps.



DETAIL A

PART PLAN DECK

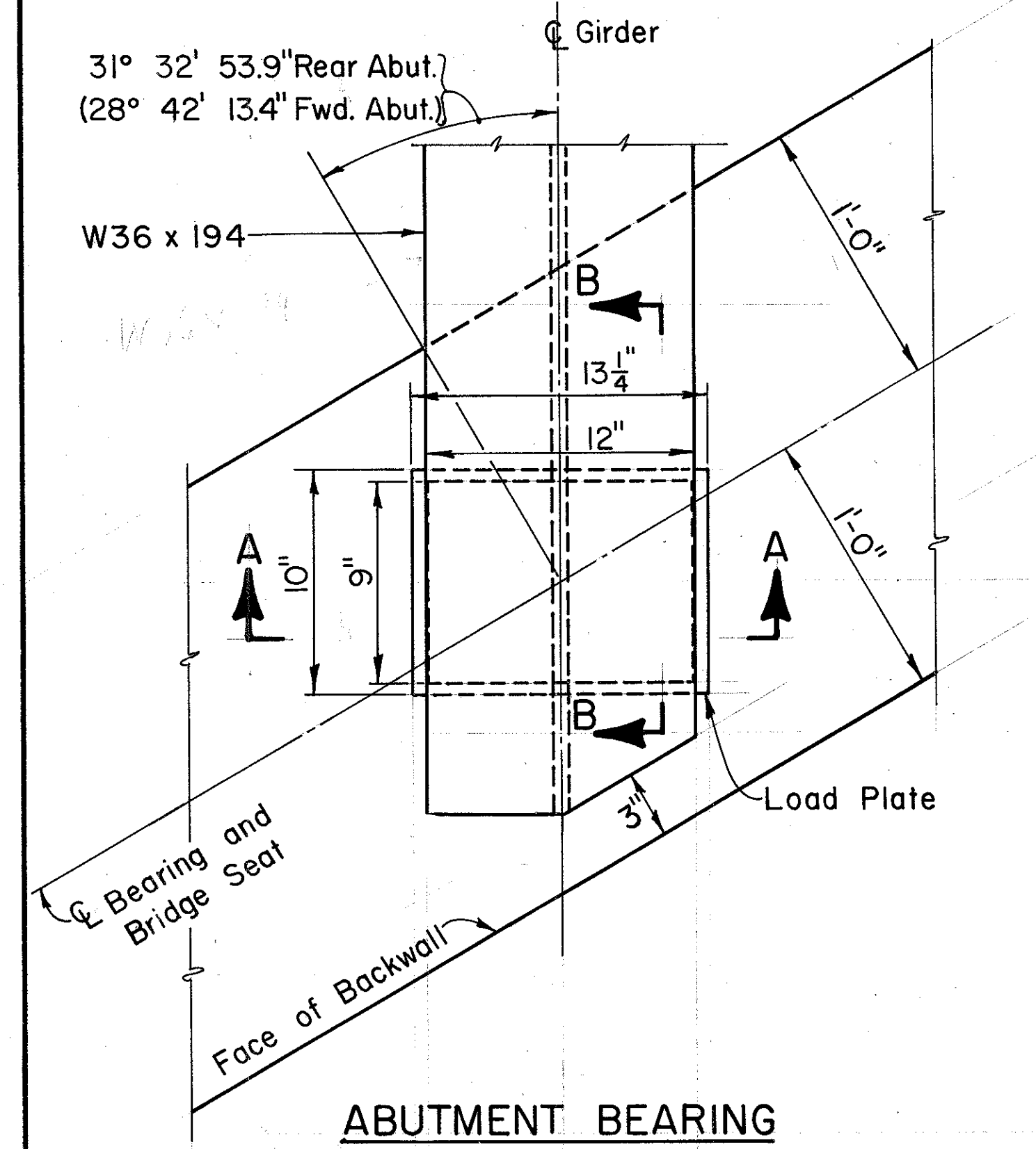
DETAIL B

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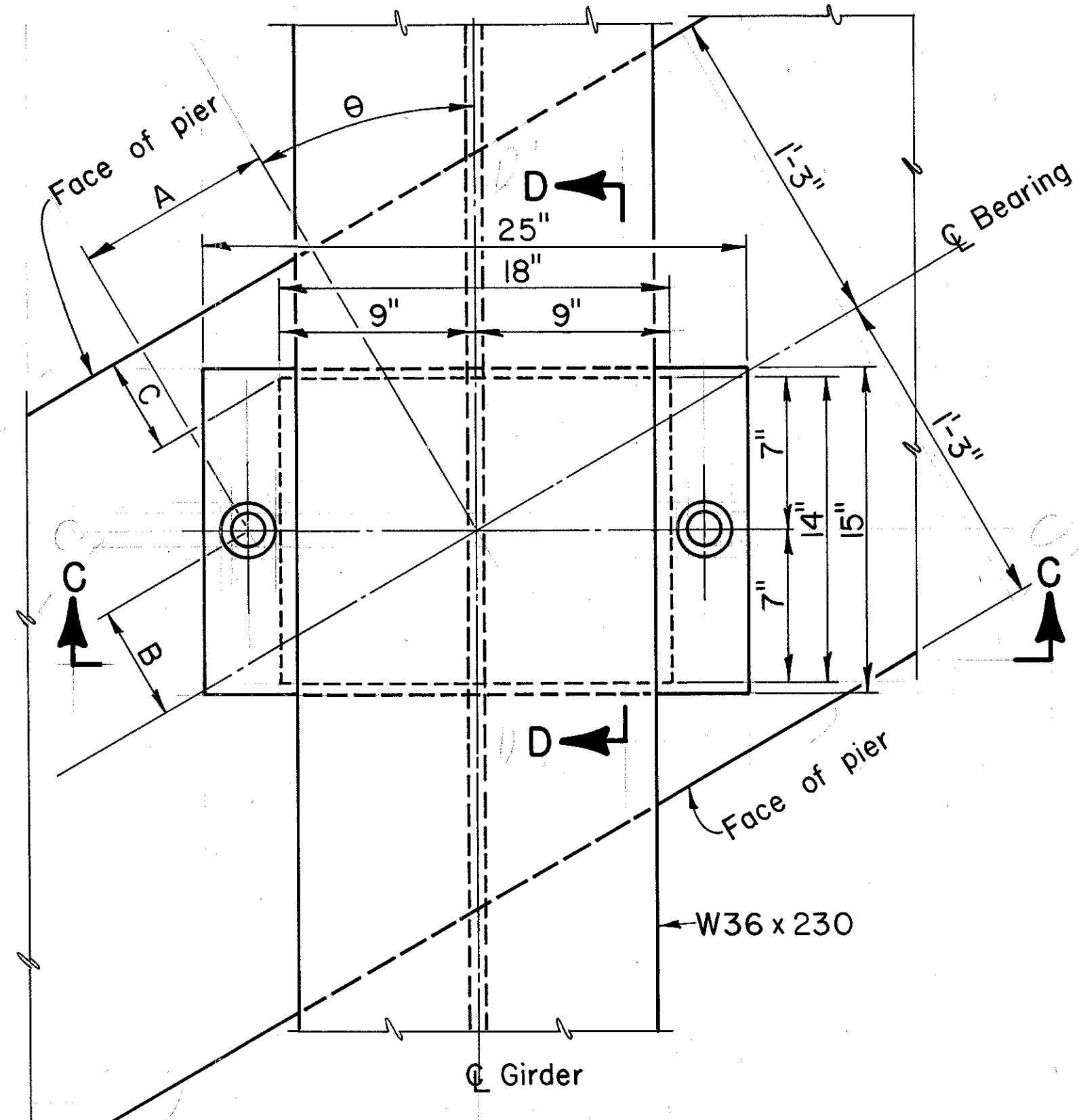
SUPERSTRUCTURE DETAILS

BRIDGE NO. PIC-752-0335
S.R. 752 OVER WALNUT CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
BBD	BBD	AIS	DEH	ACS.II-29-90		

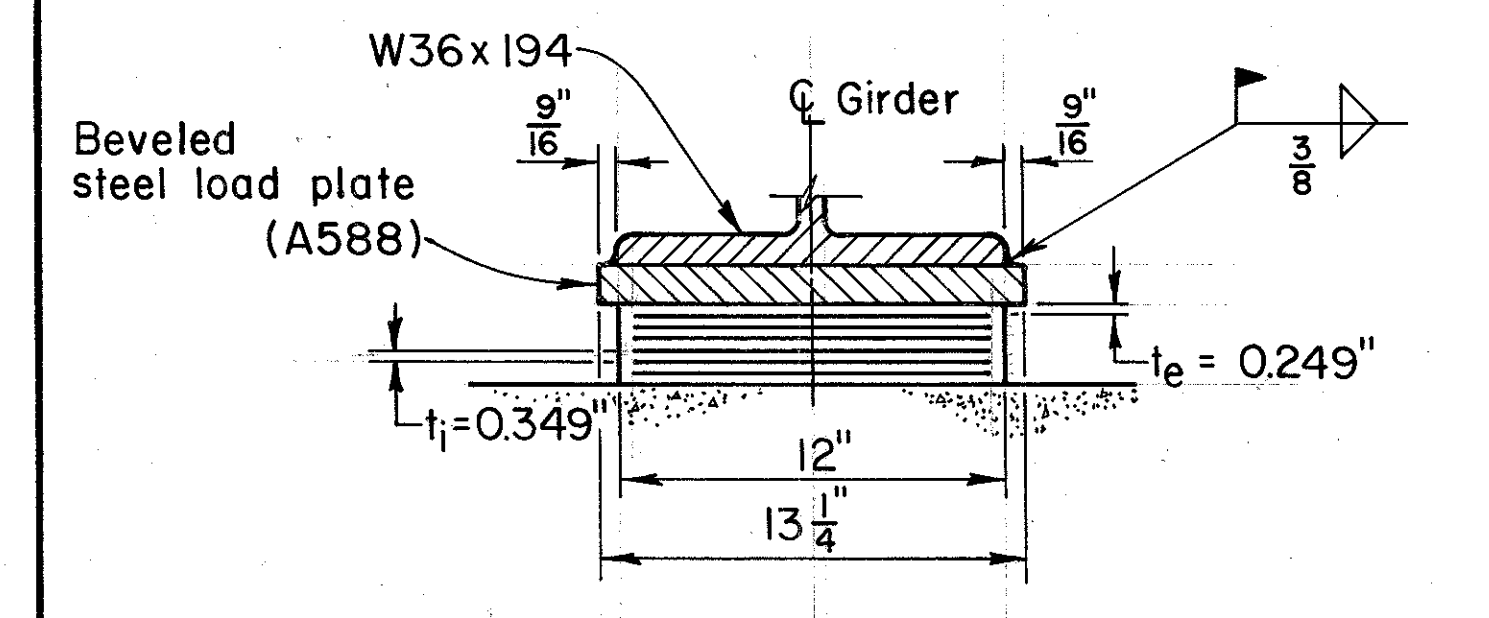


ABUTMENT BEARING

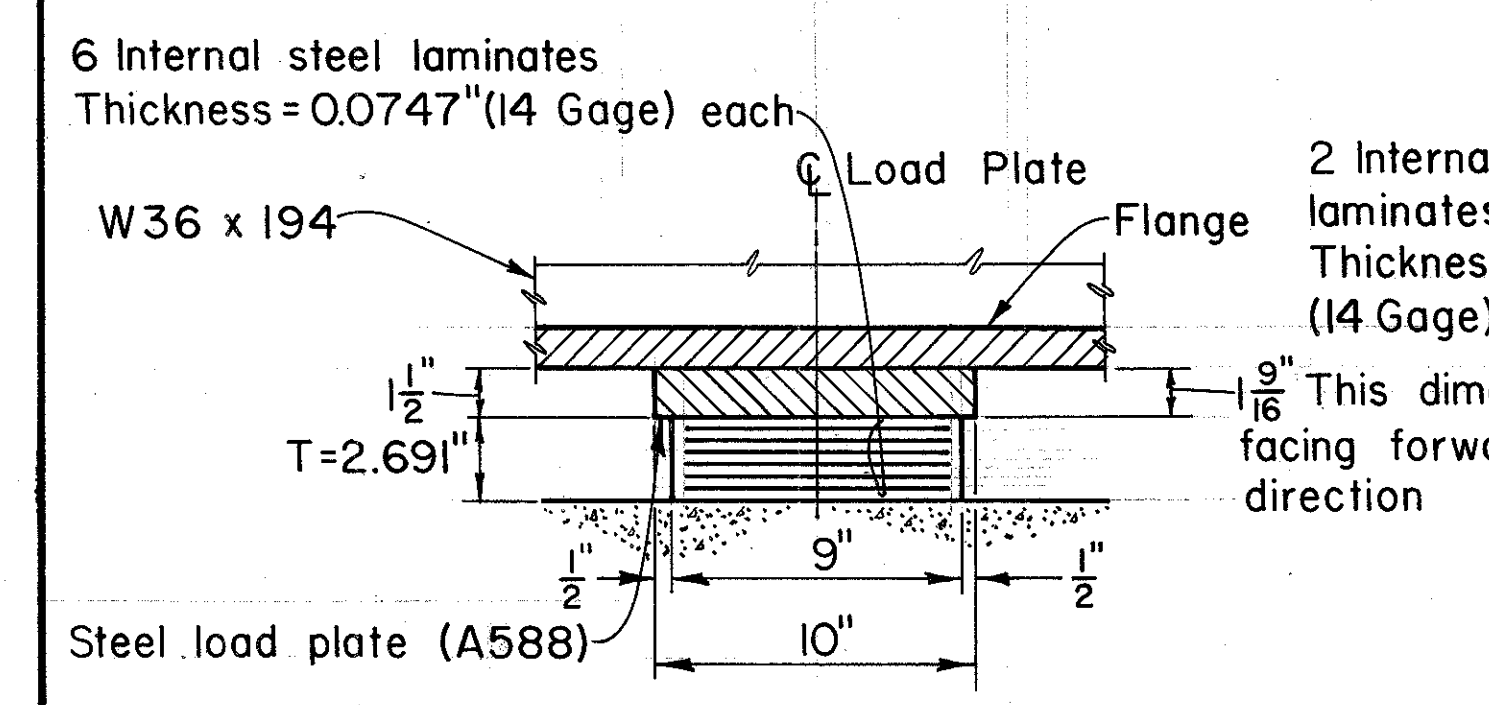


DIMENSION	PIER NO. 1	PIER NO. 2
θ	30° 43' 36.3"	28° 55' 24.0"
A	9"	9 1/4"
B	5 3/8"	5 5/8"
C	4 3/8"	4 1/2"

PIER BEARING

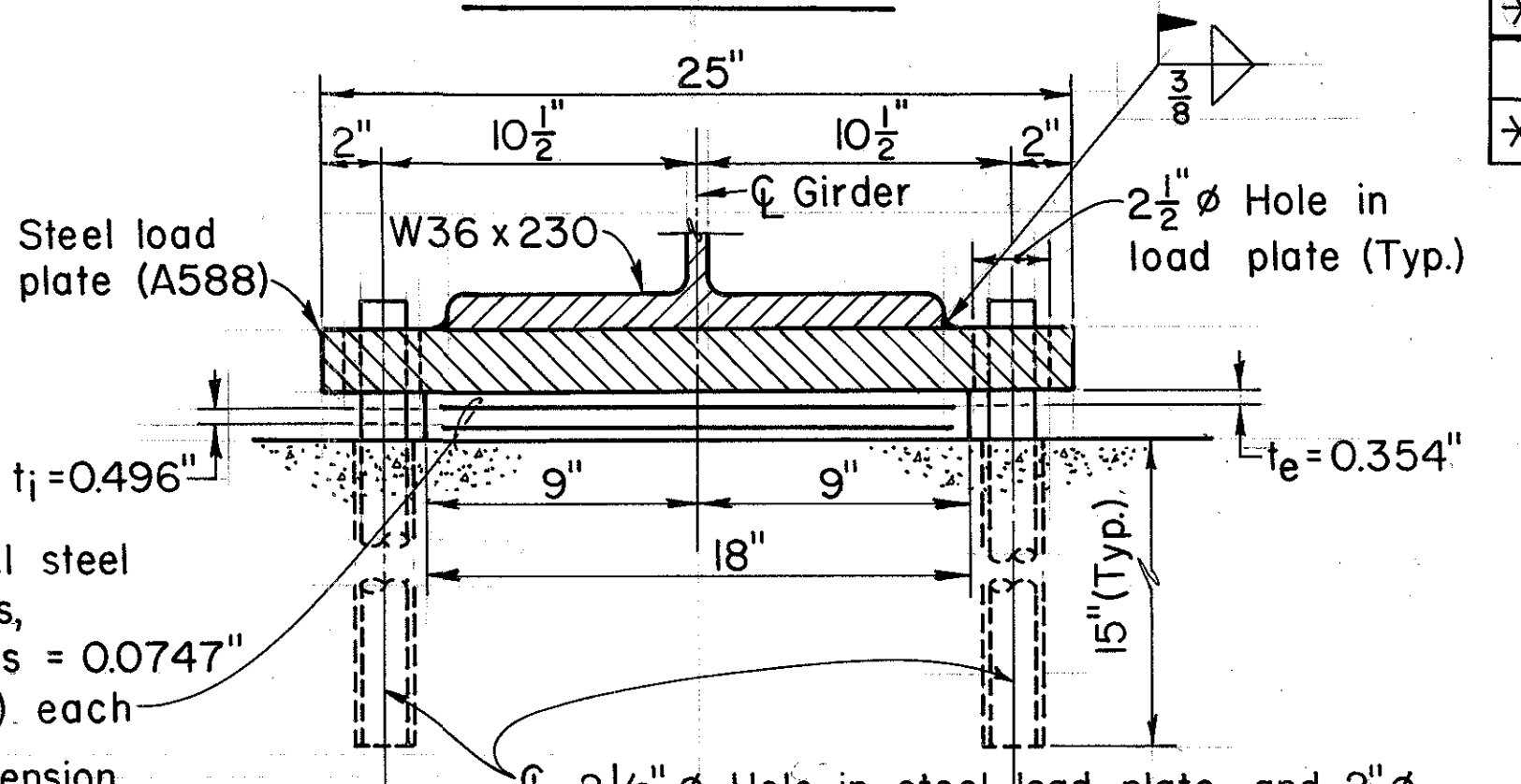


SECTION A-A

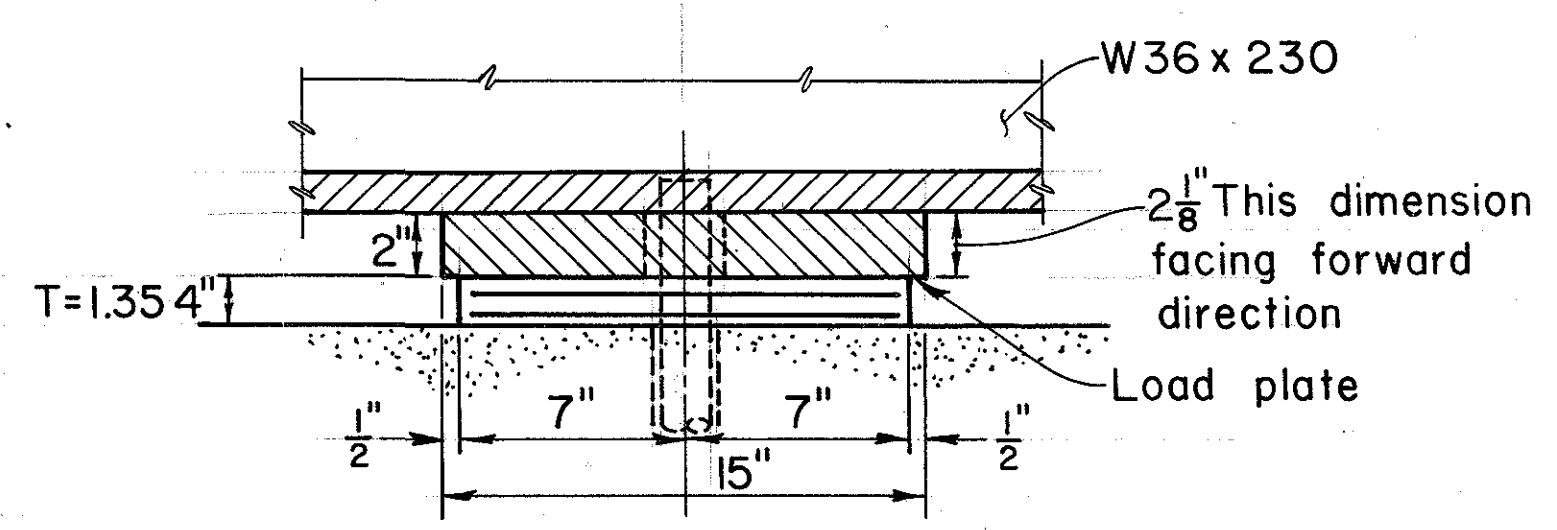


SECTION B-B

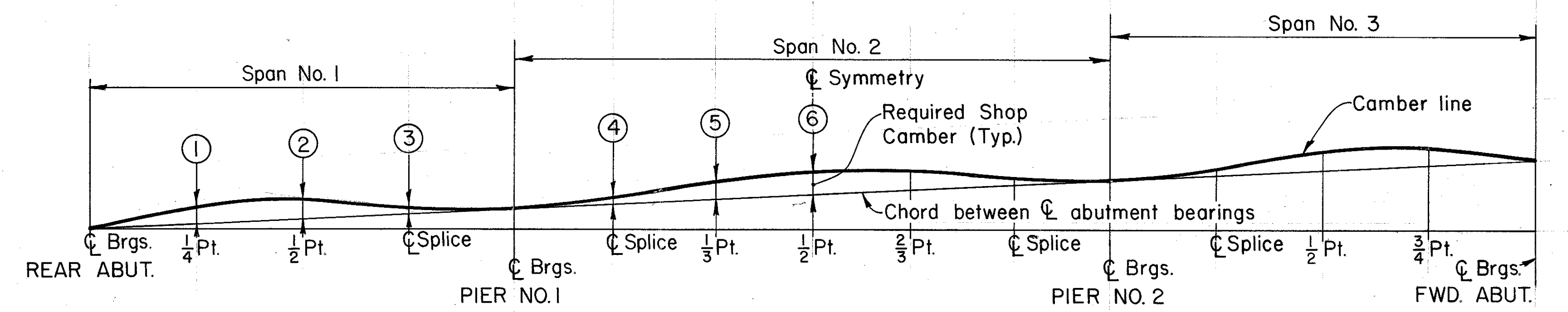
ELASTOMERIC TEST PAD
The elastomeric bearing manufacturer shall supply a plain elastomeric pad for testing purposes. The pad shall be furnished from the same batch of neoprene that is used in the fabrication of the laminated elastomeric bearings and the fabricator shall certify the identity of the elastomer. The pad shall have a 1/2 inch thickness, and shall have minimum length and width dimensions of 6 inches. Payment for the test pad will be included in the price bid for the bearings.



SECTION C-C



SECTION D-D

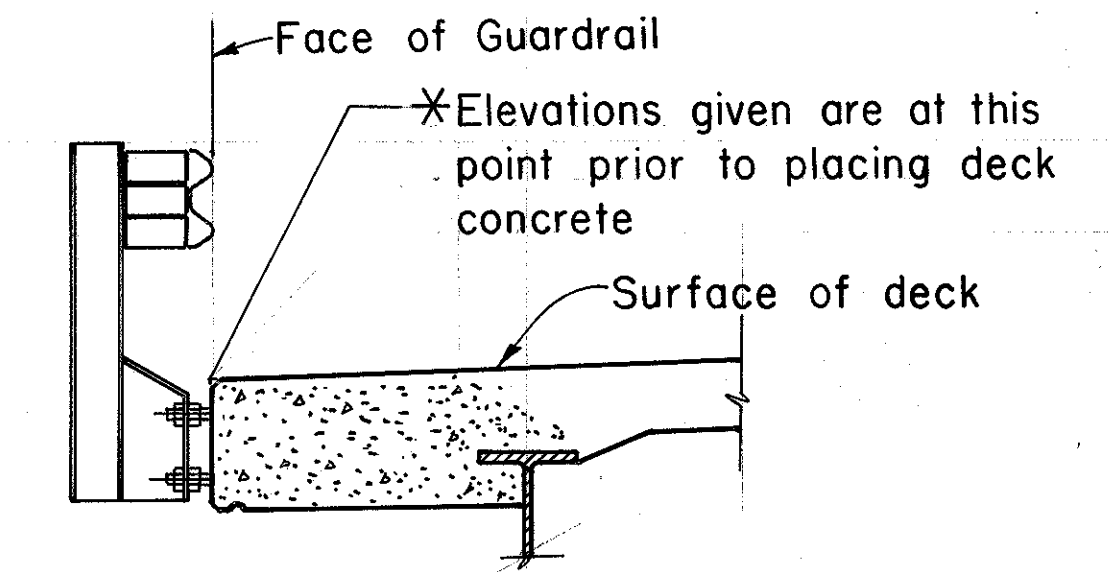


DEFLECTION AND CAMBER

	①	②	③	④	⑤	⑥
Deflection due to weight of steel	9/32"	11/32"	1/8"	5/32"	11/32"	7/16"
Deflection due to remaining dead load	1 5/32"	1 3/8"	1/2"	1/2"	1 1/4"	1 9/16"
Required Shop Camber	1 7/16"	1 23/32"	5/8"	2 1/32"	1 19/32"	2"

SCREED ELEVATION

Lt. Fascia Station	176+02.95	176+25	176+50	176+75	176+87.63	177+00	177+25	177+50	177+75	177+93.21	178+00	178+25	178+50	178+75	178+77.51
*Lt. Fascia Elevation	701.21	701.48	701.67	701.78	701.86	701.97	702.25	702.45	702.56	702.66	702.72	702.99	703.20	703.29	703.30
Rt. Fascia Station	176+22.95	176+25	176+50	176+75	177+00	177+06.68	177+25	177+50	177+75	178+00	178+11.11	178+25	178+50	178+75	178+94.52
*Rt. Fascia Elevation	702.64	702.67	702.96	703.13	703.24	703.28	703.46	703.73	703.91	704.01	704.07	704.20	704.48	704.66	704.71



NOTES:

- ELASTOMERIC BEARINGS TOLERANCES:**
Individual elastomer layer thickness ±20% of design value (not to exceed ±1/8")
Plan dimensions -0, +1/4"
Design thickness -0, +1/8" [for pier] + 1/4" [for abut. bearings]
Edge cover of embedded laminates -0, +1/8"
LOAD PLATE: The steel load plate shall be bonded by vulcanization to the elastomer during the molding process. Welding of the load plate to the superstructure shall be controlled so that the plate temperature at the elastomer bonded surface shall not exceed 400°F as determined by the use of pyrometric sticks or other temperature monitoring devices.
BEARING REPOSITIONING: If structural steel is placed at an ambient temperature higher than 80°F and the abutment bearing shear deflection at 60°F exceeds 1/8" the beams shall be raised to allow the abutment bearings to return to their undeformed shape at 60°F ±10°F.
- BASIS OF PAYMENT:** The unit bid price shall include all materials, labor and incidentals necessary to furnish and install laminated elastomeric bearings. Payment will be made at the contract price for Item 516, each.

DESIGN DATA	ABUTMENT BEARING	PIER BEARING
DL	49.1 K	169.0 K
LL	49.2 K	75.2 K
HARDNESS (Durometers)	60	60
TOTAL DEFLECTION	0.084"	0.044"

- STRIP SEAL EXPANSION JOINTS**
The strip seal glands at both ends of bridge deck shall be of 3" size.
Refer to Standard Drawing EXJ-4-87 for strip seal retainer and joint armor details.

Temperature °F	Joint Opening Dimension "A" ⊕
30°	1 15/16"
40°	1 13/16"
50°	1 3/4"
60°	1 5/8"
70°	1 1/2"
80°	1 1/16" ‡
90°	1 5/16" ‡

⊕-See note ④, on Sheet 5/5 of Standard Drawing EXJ-4-87.

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SUPERSTRUCTURE DETAILS
BRIDGE NO. PIC-752-0335
S.R. 752 OVER WALNUT CREEK

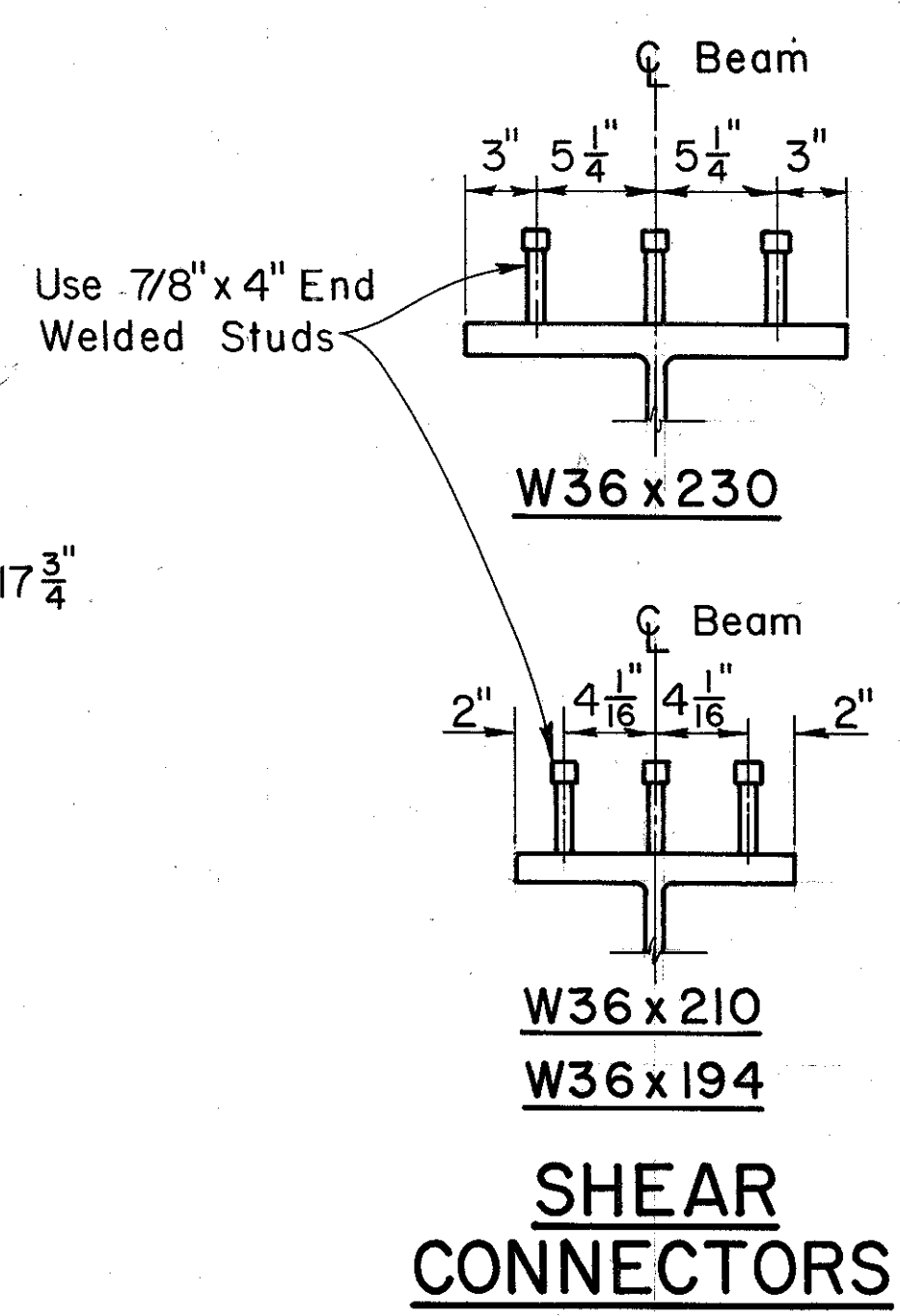
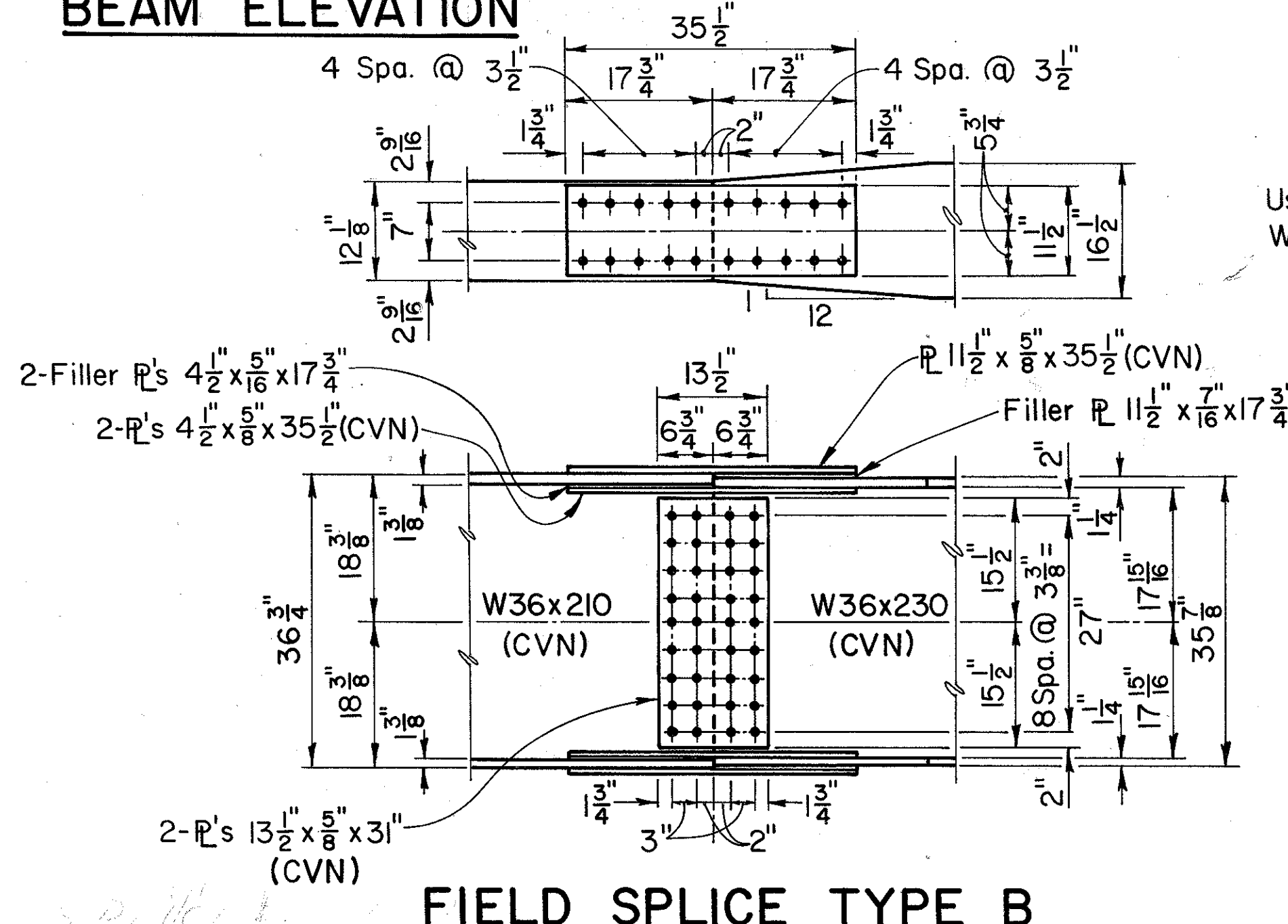
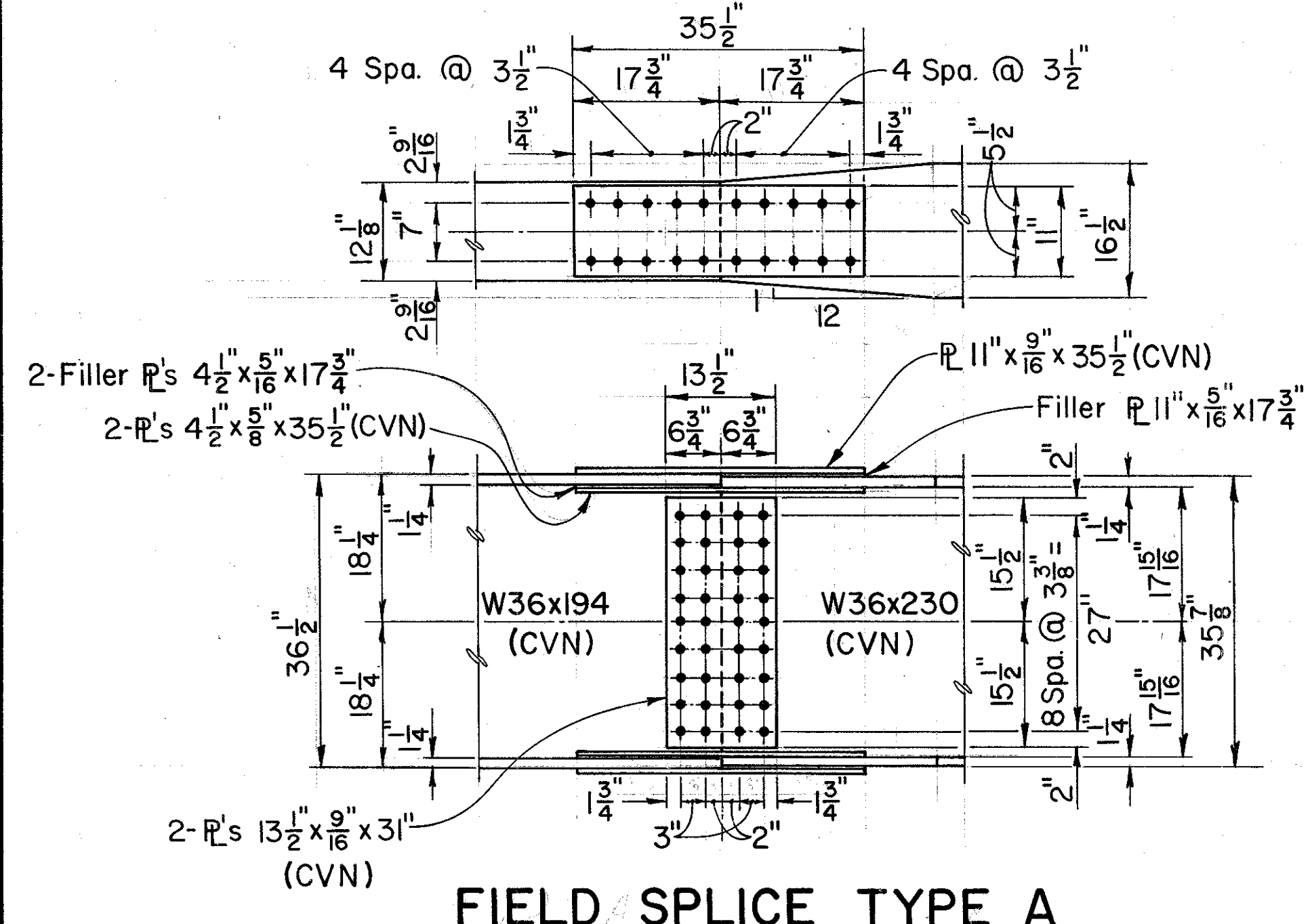
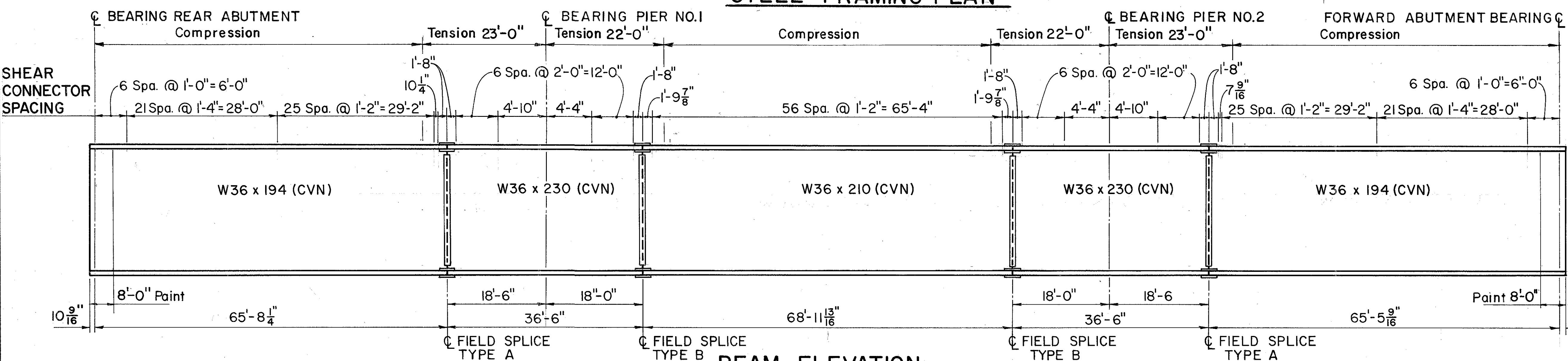
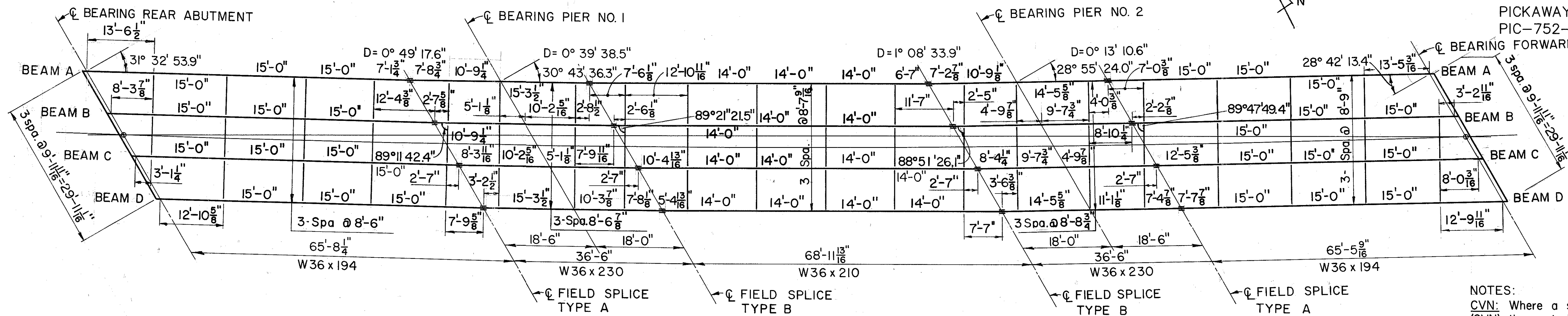
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
B.B.D.	G.V.	G.V.	D.E.H.	ACS.II-29-90		

D = Deviation Angle at Splices

FHWA REGION	STATE	PROJECT	CALC. DATE
5	OHIO		
			CHKD. DATE

27
32

PICKAWAY COUNTY
PIC-752-3.27
BEARING FORWARD ABUTMENT



NOTES:
CVN: Where a shape or plate is designated (CVN) the material shall meet specified minimum notch toughness requirements as specified in 711.01 of CMS.

WELDED ATTACHMENT of supports for concrete deck finishing machine may be made to areas of the fascia stringer flanges designated "Compression". Attachments shall not be made to areas designated "Tension". Fillet welds to compression flanges shall be not closer than 1" from edge of flange, be not more than 2" long, and be not smaller than the minimum size required by AASHTO and AWS.

A588 STEEL is to be left unpainted except where otherwise shown. See CMS 513.221 for cleaning requirements.

PARTIAL PAINTING OF A588 STEEL: An 8'-0" length of the ends of beams adjacent to abutments, and all crossframes and other A588 steel within these limits, shall be painted. Paint shall be 514 System A. The prime coat shall be 708.17. The top coat shall be 708.18 except that the color shall closely approach Federal Standard No. 595a-20045 or 20059 (the color of weathering steel).

CROSS FRAMES: The planes of intermediate cross frames and stiffeners are at 90° angle with the beam web, except for BEAM B where otherwise shown. See sheet [8/11] for stiffener and cross frame details

For details not shown see Standard Drawing SD-1-69

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CONSULTING ENGINEERS
COLUMBUS, OHIO 10/11

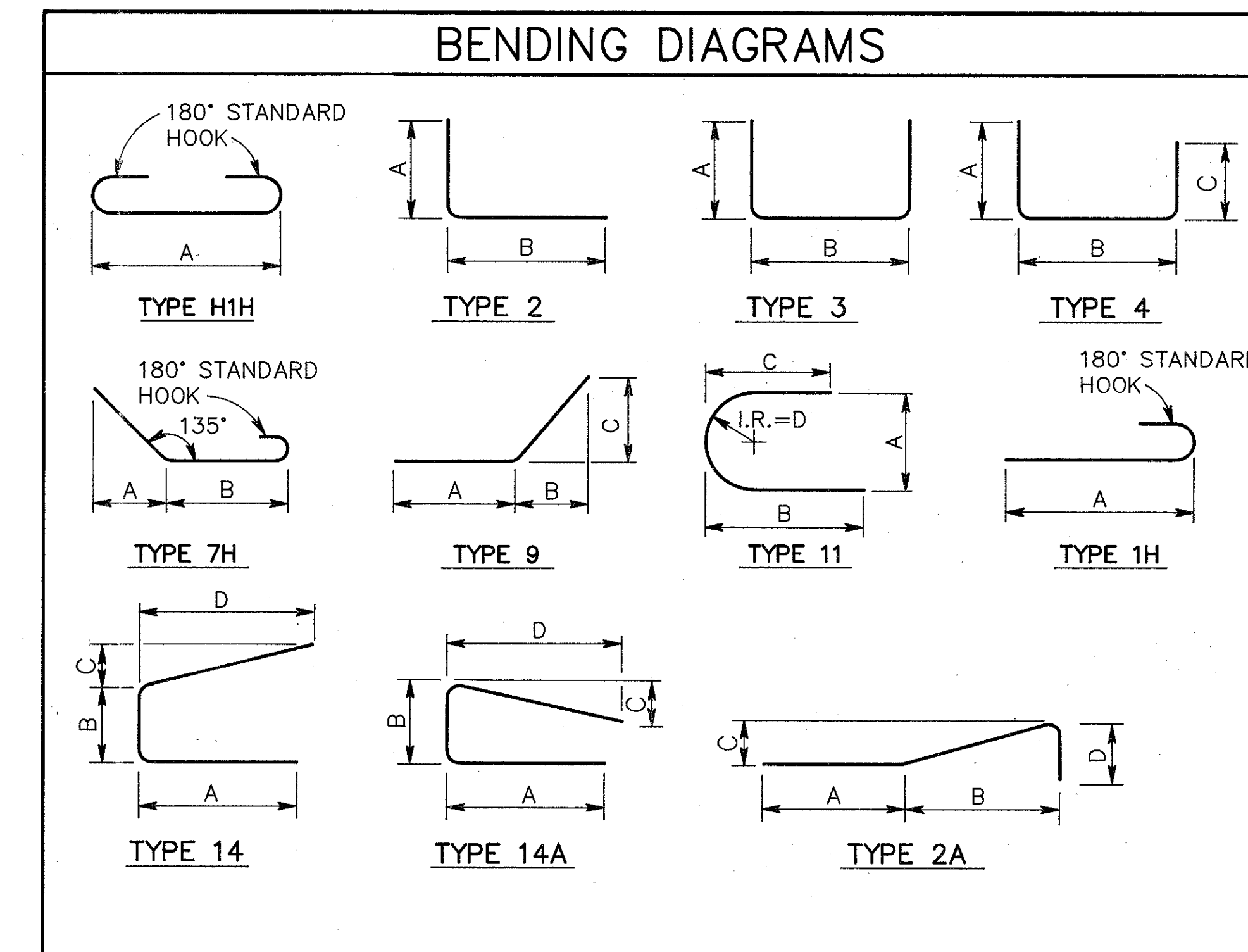
SUPERSTRUCTURE DETAILS
BRIDGE NO. PIC-752-0335
S.R. 752 OVER WALNUT CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JN	G.V.	A.I.S.	DEH	ACS.II-29-90		

PICKAWAY COUNTY
PIC-752-3.27

STEEL LIST										
MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
REAR ABUTMENT										
EA501	34	8'-7"	304	3	1'-9"	5'-4"				
EA502	34	8'-5"	298	2	0'-10"	7'-9"				
EA503	24	8'-6"	213	3	2'-8"	3'-5"				
EA504	6	26'-2"	164	STR.						
EA505	4	29'-0"	121	STR.						
EA506	2	23'-4"	49	STR.						
EA507	1	9'-8"	10	9	6'-6"	2'-10 1/2"	1'-3 1/2"			
EA508	15	11'-8"	183	STR.						
EA509	2	23'-0"	48	STR.						
EA510	8	31'-7"	264	STR.						
EA511	7	14'-2"	103	3	6'-6"	1'-5"				
EA512	12	16'-9"	210	STR.						
EA513	10	16'-10"	176	STR.						
EA514	6	18'-0"	113	3	8'-5"	1'-5"				
					5'-11"	1'-5"				
EA515	SER. OF	TO	97	3	DIMENSION A VARIES BY 0'-6"					1
	1	13'-0"			8'-5"	1'-5"				
	6	18'-0"			5'-11"	1'-5"				
EA516	SER. OF	TO	120	3	DIMENSION A VARIES BY 0'-7"					1
	1	13'-0"			9'-5"	1'-5"				
	7	20'-2"			6'-6"	2'-8 1/2"	2'-1 1/2"			
EA517	1	9'-11"	10	9	10'-9"	2'-4"	1'-3"			
EA518	1	13'-5"	14	9	10'-9"	1'-9"	0'-11 1/2"			
EA519	1	12'-9"	13	9	7'-10"	5'-4"	2'-7"			
EA601	34	15'-5"	787	4	4'-1"	1'-5"				
EA602	32	9'-3"	445	3	2'-6"	1'-5"				
EA603	38	6'-1"	347	3	2'-10"	0'-11"				
EA604	38	6'-3"	357	3						
EA801	22	4'-9"	279	7H	1'-0"	2'-6"				
EA802	6	24'-6"	392	STR.						
EA803	8	25'-2"	538	1H	24'-3"					
EPOXY COATED TOTAL=			5655							
FORWARD ABUTMENT										
EB501	34	8'-7"	304	3	1'-9"	5'-4"				
EB502	34	8'-6"	301	2	0'-10"	7'-10"				
EB503	24	8'-6"	213	3	2'-8"	3'-5"				
EB504	6	25'-3"	158	STR.						
EB505	4	28'-7"	119	STR.						
EB506	2	22'-7"	47	STR.						
EB507	1	12'-9"	13	9	10'-0"	2'-6"	1'-3"			
EB508	15	11'-8"	183	STR.						
EB509	2	23'-0"	48	STR.						
EB510	8	31'-7"	264	STR.						
EB511	7	17'-6"	128	3	8'-2"	1'-5"				
EB512	10	12'-11"	135	STR.						
EB513	12	18'-7"	233	STR.						
EB514	3	14'-10"	46	3	6'-10"	1'-5"				
					6'-0"	1'-5"				
EB515	SER. OF	TO	98	3	DIMENSION A VARIES BY 0'-6"					1
	1	13'-0"			8'-6"	1'-5"				
	6	18'-2"			5'-11"	1'-5"				
EB516	SER. OF	TO	97	3	DIMENSION A VARIES BY 0'-6"					1
	1	13'-0"			8'-5"	1'-5"				
	6	18'-0"			10'-0"	4'-1"	2'-0"			
EB517	1	14'-6"	15	9	6'-0"	2'-10"	1'-3"			
EB518	1	9'-1"	9	9	6'-0"	2'-5"	1'-1"			
EB519	1	8'-8"	9	9						
EB601	34	15'-5"	787	4	7'-10"	5'-4"	2'-7"			
EB602	32	9'-1"	437	3	4'-0"	1'-5"				
EB603	37	6'-1"	338	3	2'-6"	1'-5"				
EB604	37	6'-3"	347	3	2'-10"	0'-11"				
EB801	22	4'-9"	279	7H	1'-0"	2'-6"				
EB802	6	24'-6"	392	STR.						
EB803	8	25'-2"	538	1H	24'-3"					
EPOXY COATED TOTAL=			5538							

STEEL LIST										
MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
PIERS 1 & 2										
EP501	44	11'-6"	528	STR.						
EP502	44	8'-6"	390	11	1'-11 1/2"	3'-9"	3'-9"	0'-11 1/8"		
EP503	24	14'-0"	350	STR.						
EP504	8	7'-3"	60	3	2'-9"	2'-0 1/2"				
EP601	54	7'-10"	635	3	3'-0"	2'-2"				
					2'-8"	2'-2"				
EP602	SER. OF	TO	546	3	DIMENSION A VARIES BY 0'-4 3/4"					1
	9	13'-0"			5'-7"	2'-2"				
EP603	SER. OF	TO	514	3	DIMENSION A VARIES BY 0'-2 1/4"					1
	6	8'-0"			2'-10"	0'-11"				
EP604	36	8'-6"	460	STR.						
EP801	36	13'-11"	1338	3	2'-11"	8'-6"				
EP802	24	22'-4"	1432	H1H	20'-6"					
EP803	12	20'-6"	656	STR.						
EP804	44	17'-10"	2095	STR.						
EP805	36	20'-8"	1987	STR.						
EP806	16	13'-3"	566	9	9'-6"	3'-6"	1'-5"			
EP807	24	12'-10"	822	STR.						
EP808	8	9'-10"	210	STR.						
EP809	8	6'-10"	146	STR.						
EP1001	34	17'-8"	2584	3	8'-1"	2'-2"				
EP1002	12	9'-10"	508	2	2'-1"	8'-1"				
EP1101	18	23'-0"	2200	2	2'-4 1/2"	21'-0"				
EP1102	18	23'-0"	2200	2A	8'-6"	12'-3"	0'-5"	2'-4 1/2"		
EPOXY COATED TOTAL=			20227							
SUPERSTRUCTURE										
ES401	558	30'-0"	11182	STR.						
ES402	42	18'-0"	505	STR.						
ES403	180	14'-0"	1683	STR.						
ES404	491	4'-7"	1503	14	2'-4"	0'-11"	0'-0 3/4"	1'-7"		
ES405	486	4'-3"	1380	14A	2'-0"	0'-11"	0'-0 3/4"	1'-7"		
ES501	297	30'-0"	9293	STR.						
ES502	33	26'-3"	903	STR.						
ES503	456	31'-8"	15061	STR.						
					6'-3"					
ES504	SER. OF	TO	573	STR.	LENGTH VARIES BY 0'-10 3/4"					1
	29	31'-8"								
ES505	SER. OF	TO	493	STR.	LENGTH VARIES BY 1'-0 3/4"					1
	1	6'-2"								
	25	31'-8"								
ES506	6	6'-0"	38	STR.						
ES507	5	3'-6"	18	STR.						
ES601	456	31'-8"	21689	STR.						
					6'-3"					
ES602	SER. OF	TO	826	STR.	LENGTH VARIES BY 0'-10 3/4"					1
	29	31'-8"								
ES603	SER. OF	TO	710	STR.	LENGTH VARIES BY 1'-0 3/4"					1
	1	6'-2"								
	25	31'-8"								
ES604	6	6'-0"	54	STR.						
ES605	5	3'-6"	26	STR.						
EPOXY COATED TOTAL=			65937							



NOTES:

- SERIES BARS - EACH BAR VARIES BY TABULATED AMOUNTS.
- ALL DIMENSIONS ARE OUT TO OUT.
- TYPE 'STR.' MEANS STRAIGHT BAR.
- AN 'E' PREFIX IN THE 'MARK' COLUMN INDICATES EPOXY COATED BARS.

DODSON - LINDBLOM ASSOCIATES, INC.
CONSULTING ENGINEERS
COLUMBUS, OHIO 11/11

REINFORCING STEEL LIST
BRIDGE NO. PIC-752-0335
S.R. 752 OVER WALNUT CREEK

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
OA	OA	HP	JN	ACS	11/29/90	

CENTERLINE SURVEY PLAT

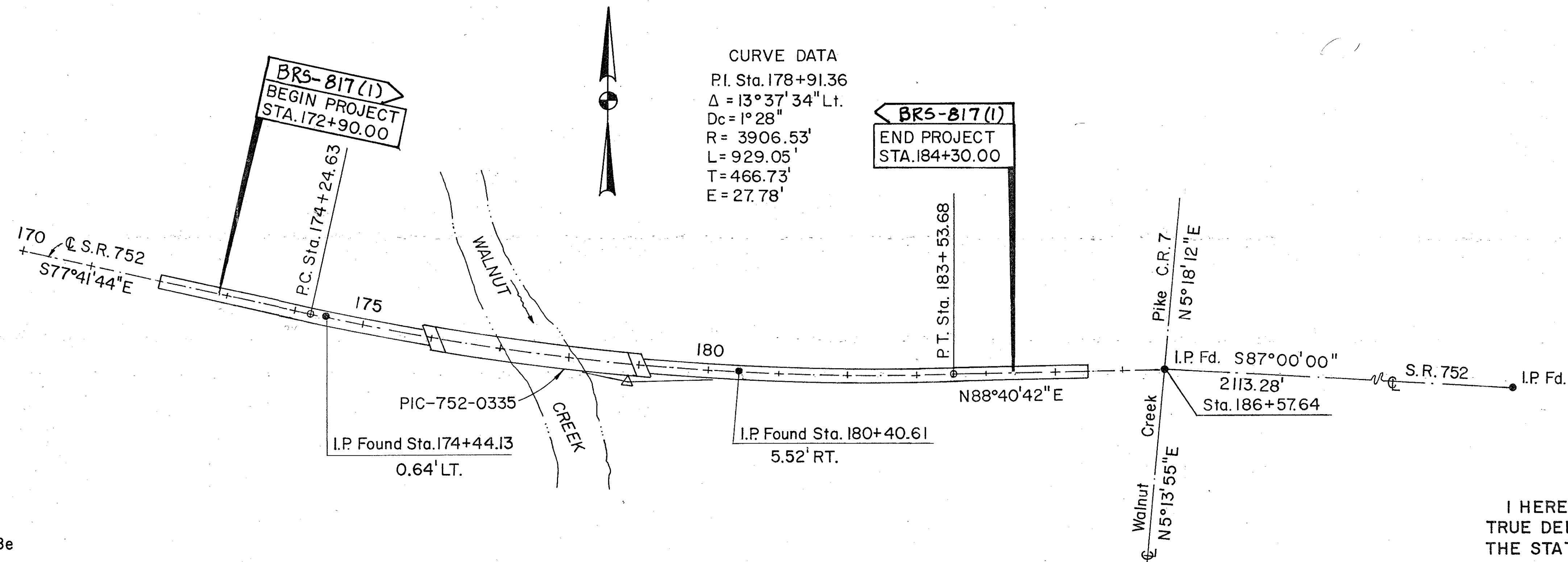
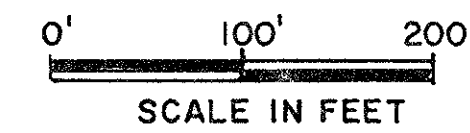
PICKAWAY COUNTY
HARRISON TOWNSHIP
WALNUT TOWNSHIP
SECTION 8 R21 M.S. T9N

FHWA REGION	STATE	PROJECT	CALC. DATE
5	OHIO		
			CHKD. DATE

30
32

PICKAWAY COUNTY
PIC-752-3.27

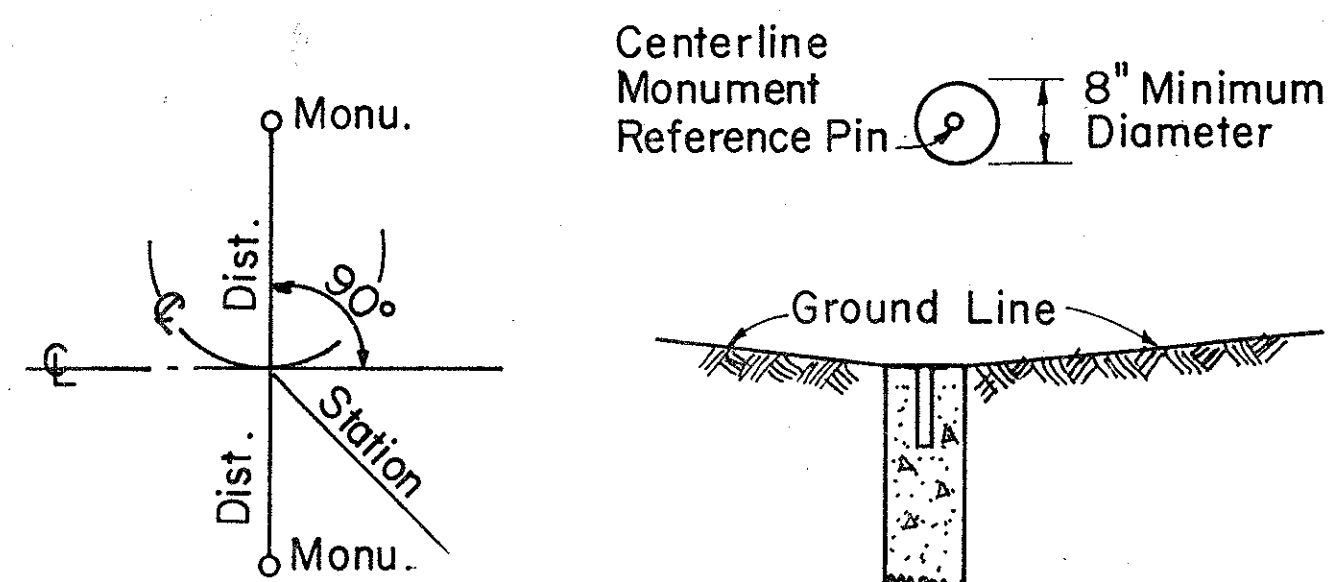
1
3



Reference Monuments To Be Set After Construction

Station	Dist. from C	
	Lt.	Rt.
174+24.63	19.0'	19.0'
183+53.68	19.0'	19.0'

DETAIL FOR SETTING MONUMENTS



NOTE: SEE STANDARD DRAWING MC-1 FOR ADDITIONAL DETAILS.

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION IN 1990 BY

Dodson-Lindblom Associates, Inc.
Allan Strange 5-5460 2/22/91
Registered Surveyor No. Date



APPROVED _____
District-Deputy Director, O.D.O.T. Date

RECEIVED _____

RECORDED _____

PLAT BOOK _____ PAGE _____

SIGNED _____ PICKAWAY COUNTY, OHIO
Recorder

PROPERTY MAP

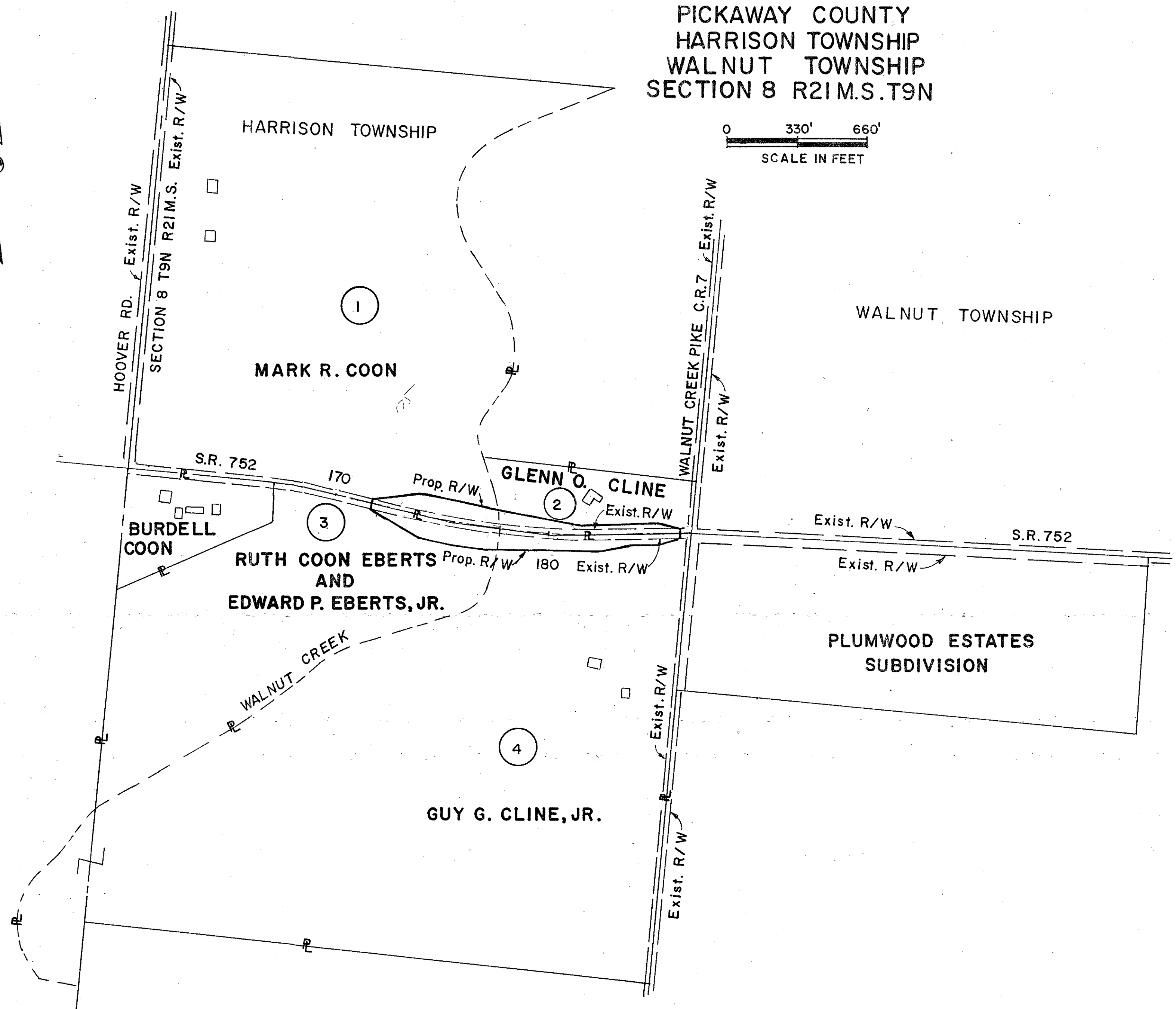
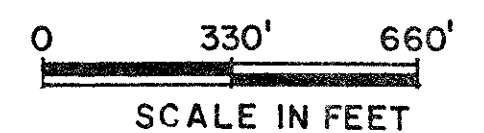
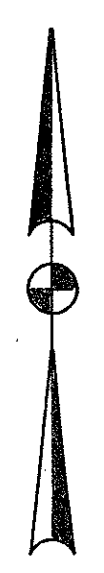
PICKAWAY COUNTY
HARRISON TOWNSHIP
WALNUT TOWNSHIP
SECTION 8 R21M.S.T9N

FHWA REGION	STATE	PROJECT	CALC. DATE
5	OHIO		
			CHKD. DATE

31
32

PICKAWAY COUNTY
PIC-752-3.27

2
3



THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITIES AS REQUIRED BY SECTION 153.64 OHIO REVISED CODE

UTILITY OWNERS

- ELECTRIC**
SOUTH CENTRAL POWER CO.
2780 COONPATH RD., NE
LANCASTER, OHIO 43130
(614) 653-4422
- TELEPHONE**
GTE NORTH INCORPORATED
113 PICKNEY STREET
CIRCLEVILLE, OHIO 43113
(614) 474-1715

OHIO BELL TELEPHONE Co.
150 E. GAY ST.- ROOM 6F
COLUMBUS OHIO 43215
(614) 223-8535

SUMMARY OF ADDITIONAL RIGHT OF WAY

NOTE: RECORD AREA AFTER OUT SALES MINUS TOTAL P.R.O. MINUS NET TAKE EQUALS NET RESIDUE

TOTAL NUMBER OF _____
4 OWNERSHIPS
0 TOTAL TAKES
0 OWNERSHIPS WITH STRUCTURES INVOLVED
0 OWNERSHIPS WITH "P" ITEMS

PARCEL	OWNER	SHEET NO.	OWNERS BOOK	RECORD PAGE	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED	
											LEFT	RIGHT			BOOK	PAGE
1-WD	MARK R. COON	3	253	23	73.540	1.896	1.096	0.351	0.745	NO	70.899		STATE	Auditor's Parcel No. D12-0-001-00-080-02		
2-WD 2-T	GLENN O. CLINE	3	289	718	6.50	0.619	1.229 0.059	0.480	0.749 0.059		5.132			Auditor's Parcel No. M30-0-001-00-052-01 TO CONSTRUCT DRIVE APPROACH		
3-WD	RUTH COON EBERTS AND EDWARD P. EBERTS, JR.	3	278	66	18.390 9.50	0.931	1.240	0.354	0.886			26.073		Auditor's Parcel No. D12-0-001-00-080-01 D12-0-001-00-079-00 (Take=0)		
4-WD	GUY G. CLINE JR.	3	203	573	84.50	1.441	1.353	0.480	0.873	NO		82.186	STATE	Auditor's Parcel No. M30-0-001-00-052-00		

PID 4532

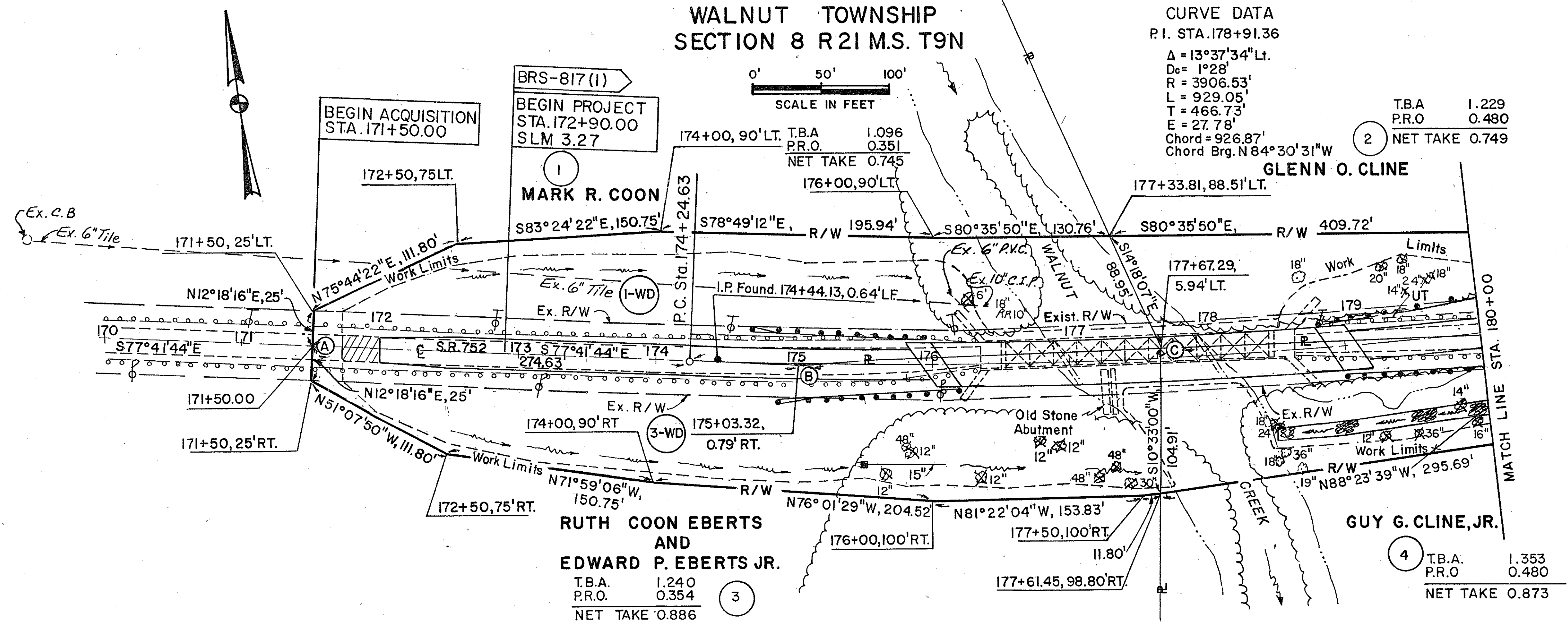
COMPLETION DATE 2-22-91
REV. DATE DESCRIPTION

PICKAWAY COUNTY
HARRISON TOWNSHIP
WALNUT TOWNSHIP
SECTION 8 R21 M.S. T9N

FHWA REGION	STATE	PROJECT	CALC. DATE
5	OHIO		32
			CHKD. DATE
			32

PICKAWAY COUNTY
PIC-752-3.27

32
32
3
3



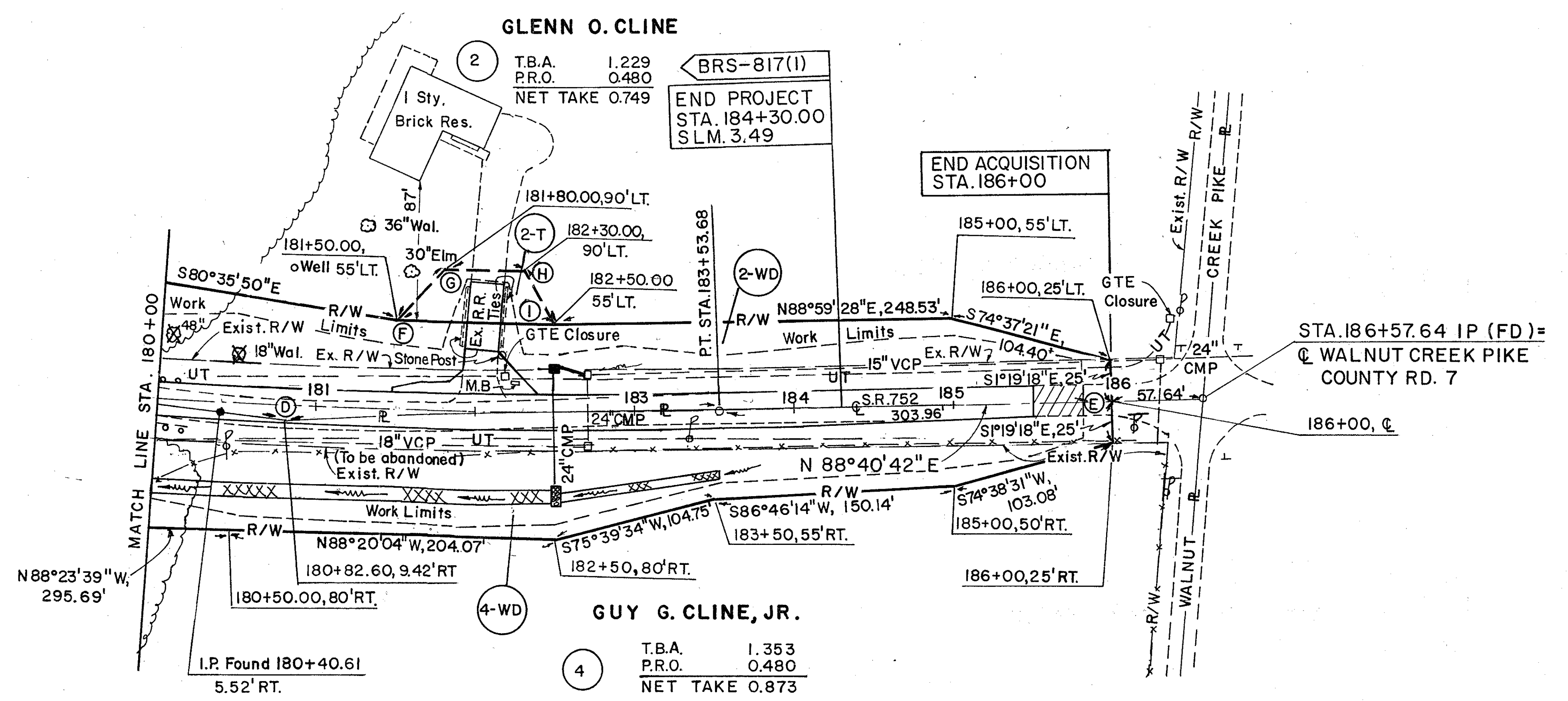
CURVE DATA
P.I. STA. 178+91.36
 $\Delta = 13^\circ 37' 34''$ Lt.
 $D_c = 1^\circ 28'$
 $R = 3906.53'$
 $L = 929.05'$
 $T = 466.73'$
 $E = 27.78'$
Chord = 926.87'
Chord Brg. N84°30'31"W

T.B.A. 1.229
P.R.O. 0.480
NET TAKE 0.749

T.B.A. 1.240
P.R.O. 0.354
NET TAKE 0.886

T.B.A. 1.353
P.R.O. 0.480
NET TAKE 0.873

A-B	353.33'	S77°41'44"E
B-C	263.83'	S82°14'48"E
C-D	315.74'	S82°14'48"E
D-E	517.84'	N88°40'42"E
F-G	45.74'	N41°31'03"E
G-H	48.85'	S89°08'28"E
H-I	40.13'	S28°56'21"E
I-F	98.59'	N89°04'04"W



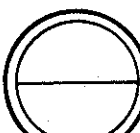
T.B.A. 1.229
P.R.O. 0.480
NET TAKE 0.749

T.B.A. 1.353
P.R.O. 0.480
NET TAKE 0.873

T.B.A. 1.353
P.R.O. 0.480
NET TAKE 0.873

REV. DATE	DESCRIPTION
RDM/10-92	Added drainage tile to Parcel 1 - Coon
	COMPLETION DATE 2-22-91

REVISED 1-31-92
R/W PLAN STA. 171+70 to STA. 186+57.94



BRS-817(1)



GEOLOGY OF THE SITE

GENERALIZED GEOLOGICAL REFERENCES REPORT THAT THE BRIDGE SITE HAS BEEN ABRADED BY BOTH THE ILLINOIAN AND WISCONSIN GLACIERS.

THE UNDERLYING SOILS AT THE BRIDGE SITE ARE COMPOSED OF GLACIALLY DEPOSITED MATERIALS BELOW MORE RECENTLY DEPOSITED STREAM ALLUVIUM.

THE UNDERLYING BEDROCK AT THE BRIDGE SITE AND THE VICINITY IS REPORTED TO BE THE OHIO AND OLENTANGY SHALE FORMATION.

EXPLORATION

THE EXPLORATION CONSISTED OF SIX (6) DRIVE SAMPLES, USING HOLLOW STEM AUGERS, AND MADE BY A TRUCK-MOUNTED DRILL RIG. THE BORINGS WERE DRILLED DURING SEPTEMBER 26 THROUGH 28, 1989.

INVESTIGATIONAL FINDINGS

FILL WAS ENCOUNTERED BELOW APPROXIMATELY 6 INCHES OF ASPHALTIC CONCRETE AND 6 INCHES OF AGGREGATE BASE IN FOUR OF THE BORINGS. FILL MATERIALS EXTENDED TO DEPTHS OF 3.5 FEET IN BORINGS R-1 & R-2, 10.0 FEET IN BORING B-1, AND 12.5 FEET IN BORING B-4. THE FILL WAS GENERALLY COMPOSED OF SILT AND CLAY, AND SOME FINE TO COARSE SAND.

BENEATH THE FILL IN BORINGS R-1 & R-2, THE SOIL ENCOUNTERED WAS ORGANIC SILT AND SOME FINE SAND, WITH LITTLE CLAY. IN BORINGS B-1 AND B-4, THE MATERIAL ENCOUNTERED BELOW THE FILL WAS COMPOSED OF ALLUVIAL DEPOSITS MAINLY SILT AND SOME FINE SAND, WITH LITTLE CLAY. BELOW THESE SOILS, A LAYER OF FINE TO COARSE SAND WAS ENCOUNTERED IN BOTH BORINGS (B-1 & B-4). THE THICKNESS OF THIS LAYER VARIED FROM 18.5 TO 33.5 FEET IN BORINGS B-4 AND B-1, RESPECTIVELY.

BENEATH THIS LAYER, THE SOILS IN BOTH BORINGS CONSISTED OF GLACIAL TILL. THESE SOILS WERE GENERALLY VERY STIFF TO HARD CLAYEY SILTS WITH LITTLE TO SOME FINE TO COARSE SAND AND LITTLE FINE GRAVEL. IRREGULAR SEAMS OF FINE SAND WERE ENCOUNTERED WITHIN THE GLACIAL TILL.

WITH THE EXCEPTION OF THE UPPER 6 FEET IN BORING B-3 WHICH CONSISTED OF SILT AND CLAY, MATERIALS ENCOUNTERED BY BORINGS B-2 & B-3 WERE COMPOSED OF FINE TO COARSE SAND WITH TRACE OF GRAVEL. THIS MATERIAL EXTENDED TO DEPTHS OF 16 AND 18.5 FEET IN BORING B-3 AND B-2, RESPECTIVELY.

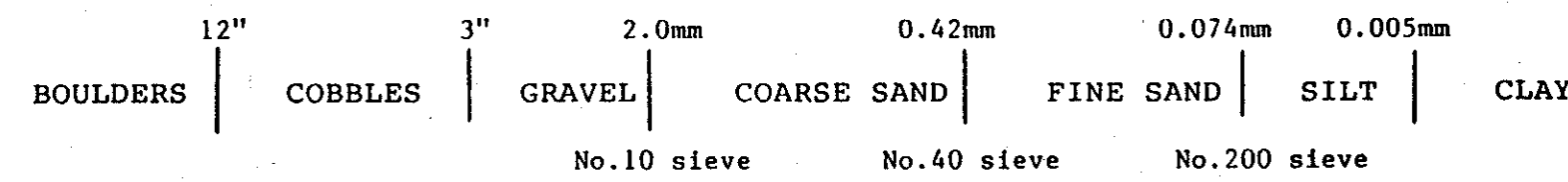
BENEATH THIS MATERIAL, THE SOIL IN BOTH OF THESE BORINGS CONSISTED OF GLACIAL TILL. THESE SOILS WERE GENERALLY MEDIUM STIFF TO HARD CLAYEY SILTS WITH SOME SAND AND CONTAINED IRREGULAR LAYERS OF SAND.

WATER SEEPAGE WAS ENCOUNTERED BY ONLY ONE OF THE BORINGS (B-1) AT A DEPTH OF 21.0 FEET BELOW THE GROUND SURFACE. AT THE COMPLETION OF DRILLING OPERATIONS, WATER LEVELS IN BORING B-1 AND B-4 WERE 19 AND 12 FEET BELOW THE GROUND SURFACE, RESPECTIVELY. BORING B-2 AND B-3 WERE DRILLED THROUGH THE STREAM BED (WATER) AND AS SUCH NO WATER LEVEL MEASUREMENTS WERE MADE.

LEGEND

- DRIVE SAMPLE AND/OR CORE BORING - PLAN VIEW
- DRIVE SAMPLE AND/OR CORE BORING PLOTTED TO VERTICAL SCALE ONLY - PROFILE
- FREE WATER OR WATER SEEPAGE
- DRILLING WATER AT COMPLETION OF BORING (MEASURED IN HOLLOW STEM AUGERS OR FLUSH JOINT CASING)
- DRILLING WATER AT COMPLETION OF BORING (MEASURED WITH HOLLOW STEM AUGERS REMOVED)
- X** NUMBER OF BLOWS FOR "STANDARD PENETRATION" TEST
X = NUMBER OF BLOWS FOR SEATING, IN CASES WHERE THE SAMPLER ENCOUNTERED RESISTANCE TO PENETRATION OF 6 INCHES OR LESS, FROM 50 BLOWS OF THE DROP HAMMER.
- Y** = NUMBER OF BLOWS FOR SECOND 6 INCHES
Z = NUMBER OF BLOWS FOR THIRD 6 INCHES

PARTICLE SIZE DEFINITIONS



GENERAL INFORMATION

DRIVE SAMPLE/PRESS SAMPLE/CORE BORINGS

DRIVE SAMPLE BORINGS ARE MADE BY MEANS OF A MECHANICALLY-POWERED ROTARY-TYPE DRILLING MACHINE, EMPLOYING A 2" O.D., 1-3/8" I.D. SPLIT SPOON SAMPLING DEVICE, AT 2-1/2 AND/OR 5-FOOT DEPTH INTERVALS, DRIVEN BY MEANS OF A 140-POUND DROP-HAMMER WITH A FREE FALL OF 30 INCHES. THE NUMBER OF BLOWS REQUIRED TO DRIVE THE SAMPLING DEVICE THE LAST 12 INCHES OF THE 18 INCH SAMPLING INTERVAL IS CONSIDERED THE STANDARD PENETRATION VALUE.

DRIVE/PRESS SAMPLE BORINGS ARE MADE BY MEANS OF A MECHANICALLY-POWERED ROTARY-TYPE DRILLING MACHINE, EMPLOYING A 2" O.D., 1-3/8" I.D. SPLIT SPOON SAMPLING DEVICE, AND 3" O.D. THIN WALL PRESS SAMPLING DEVICE. THE PRESS SAMPLER IS ADVANCED BY CONTINUOUS UNIFORM PRESSURE, APPLIED BY THE DRILLING MACHINE.

CORE BORINGS ARE MADE BY MEANS OF A MECHANICALLY-POWERED ROTARY-TYPE DRILLING MACHINE, EMPLOYING A NXM CORE BARREL WITH INDUSTRIAL DIAMOND CUTTING HEAD.

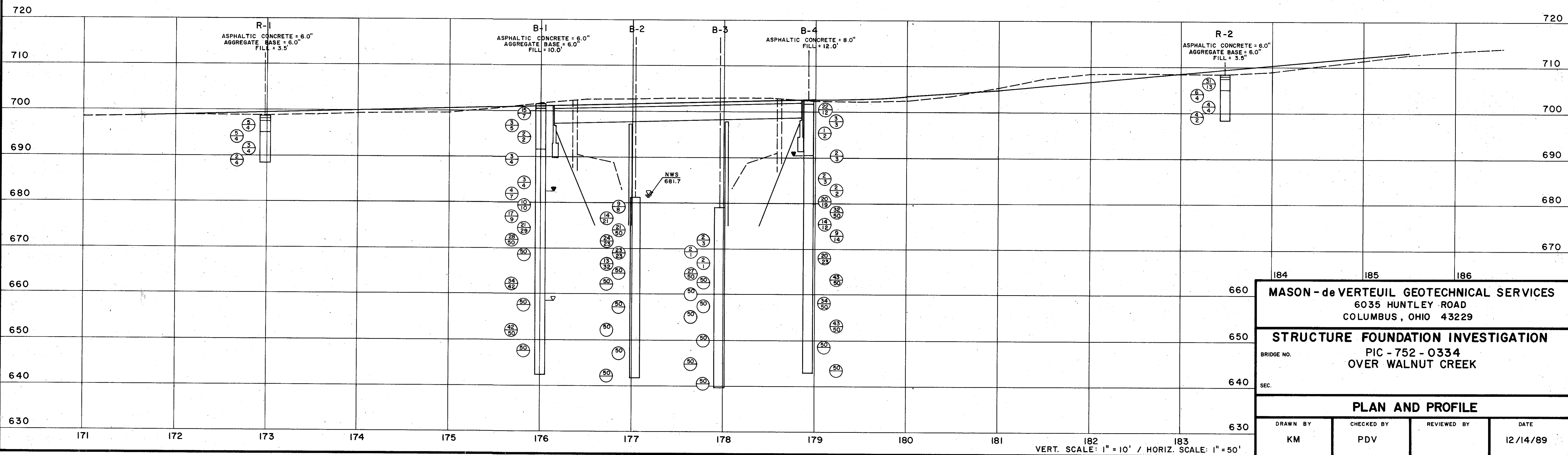
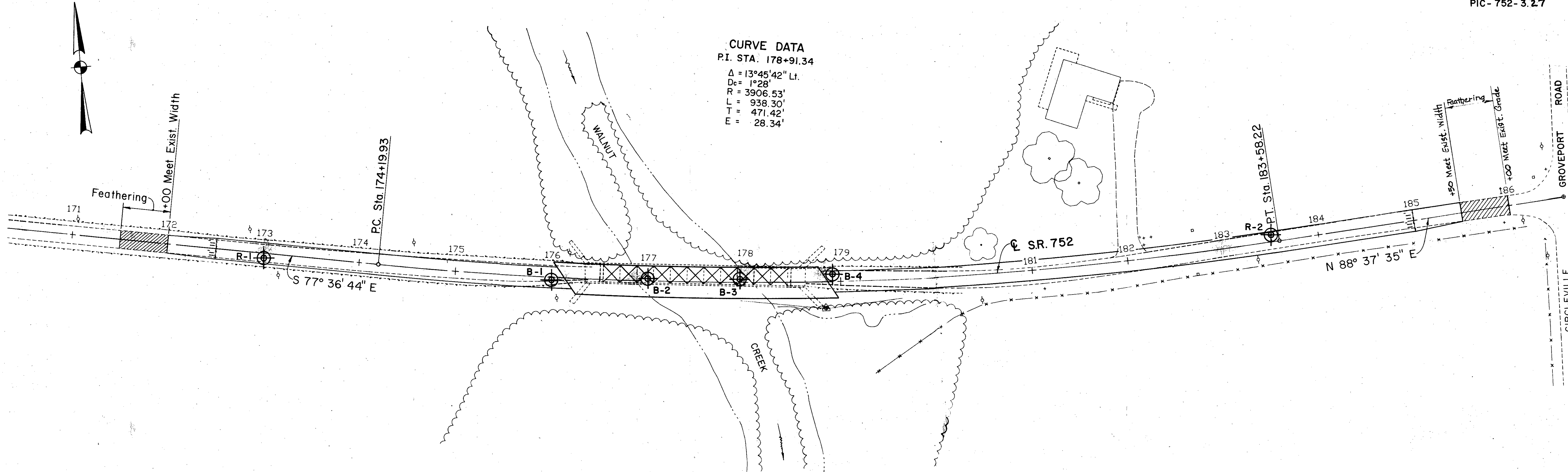
THE BORING LOG SHEETS DISPLAY A GRAPHIC PLOT OF THE INFORMATION OBTAINED, INCLUDING DEPTH AND ELEVATION OF THE SAMPLE, TYPE OF SAMPLE, THE STANDARD PENETRATION TEST READINGS IN THREE 6-INCH INCREMENTS, FIELD NUMBER ASSIGNED TO SAMPLE, SAMPLE DESCRIPTION - BASED ON LABORATORY TESTS UTILIZING THE CASAGRANDE A C CLASSIFICATION SYSTEM AND GRADATION, PLASTICITY AND MOISTURE CONTENT DETERMINATIONS. RESULTS OF STRENGTH AND CONSOLIDATION TESTING, IF PERFORMED ON UNDISTURBED SAMPLES, WILL APPEAR GRAPHICALLY ON SEPARATE ENCLOSURES. ROCK SAMPLES ARE DISPLAYED ON THE LOG SHEETS INCLUDING DEPTH AND ELEVATION OF THE SAMPLE, AMOUNT OF RECOVERY AND A VISUAL CLASSIFICATION BASED ON TYPE, COLOR, DEGREE OF HARDNESS, GRAIN SIZE, DETERIORATION, BEDDING, ACID REACTION AND OTHER QUALIFYING FACTORS.

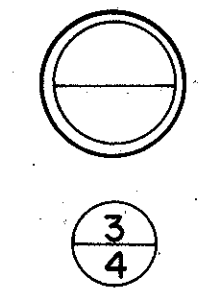
AT DEPTHS WHERE MATERIALS ARE BOULDERY OR GRAVELLY TO THE EXTENT THAT THE SAMPLER CAN NOT BE UTILIZED, A WASH SAMPLE IS PROCURED AND VISUALLY CLASSIFIED, IN ORDER TO DETERMINE THE GENERAL CHARACTERISTICS OF THE MATERIAL. THESE SAMPLES ARE NOT CONSIDERED SUFFICIENTLY REPRESENTATIVE TO WARRANT LABORATORY TESTING.

NOTE: INFORMATION SHOWN BY THIS SUBSURFACE INVESTIGATION WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA AND IT IS NOT TO BE CONSTRUED AS A PART OF THE PLAN GOVERNING CONSTRUCTION OF THIS PROJECT.

NOTE: ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN ON THE STRUCTURE FOUNDATION INVESTIGATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL SUBSURFACE INVESTIGATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE, THE BUREAU OF TESTS AT 1600 WEST BROAD STREET, THE PAVEMENT AND SOILS SECTION OF THE BUREAU OF LOCATION AND DESIGN OR IN THE BRIDGE BUREAU AT 25 SOUTH FRONT STREET.

MASON - de VERTEUIL GEOTECHNICAL SERVICES 6035 HUNTLEY ROAD COLUMBUS, OHIO 43229			
STRUCTURE FOUNDATION INVESTIGATION			
BRIDGE NO. PIC - 752 - 0334 OVER WALNUT CREEK			
SEC.			
TITLE SHEET			
DRAWN BY KM	CHECKED BY PDV	REVIEWED BY	DATE 12/14/89





MASON-deVERTEUIL GEOTECHNICAL SERVICES, 6035 HUNTLEY ROAD, COLUMBUS, OHIO 43229, 614/888-0576

Client: Ohio Department of Transportation										Project: Bridge: PIC-752-03.34										M-V Job No. 6892.61									
LOG OF Boring B-1										Location: Sta 173+00, 5.5' Right of &										Date Drilled: 9-27-89									
DEPTH in feet	ELEVATION in feet	PENETRA- TION Blows/ft	RECOVERY in inches	SAMPLE NO.	DRIVE PRESS. PSI	TRIPLE TRIGGER (ft)	WATER OBSERVATIONS:	GRADATION	STANDARD PENETRATION (IN) Blows per foot			MOISTURE CONTENT - %			DESCRIPTION	SPT	PL	F	C	M	S	CL	LL						
									Agg.	C.S.	M.S.	F.S.	Silt	Clay										PL	Natural	LL			
0	698.6						Water seepage at: None Water level at completion: None		10	20	30	40												Asphaltic concrete - 6.0" Aggregate base - 6.0"					
1.0	697.6																							FILL: Medium dense brown fine to coarse SAND (A-3a), trace fine gravel; damp					
3.5	695.1																							Medium stiff to stiff dark brown SILT (A-4b), some fine sand, little clay, trace coarse sand; organic contaminated; damp					
10	688.6																							Bottom of Boring - 10.0'					

Notes:
Used hollow stem auger to 8.5'

MASON-deVERTEUIL GEOTECHNICAL SERVICES, 6035 HUNTLEY ROAD, COLUMBUS, OHIO 43229, 614/888-0576

Client: Ohio Department of Transportation										Project: Bridge: PIC-752-03.34										M-V Job No. 6892.61									
LOG OF Boring B-2										Location: Sta 183+51.56, 6.5' Left of &										Date Drilled: 9-27-89									
DEPTH in feet	ELEVATION in feet	PENETRA- TION Blows/ft	RECOVERY in inches	SAMPLE NO.	DRIVE PRESS. PSI	TRIPLE TRIGGER (ft)	WATER OBSERVATIONS:	GRADATION	STANDARD PENETRATION (IN) Blows per foot			MOISTURE CONTENT - %			DESCRIPTION	SPT	PL	F	C	M	S	CL	LL						
									Agg.	C.S.	M.S.	F.S.	Silt	Clay										PL	Natural	LL			
0	708.5						Water seepage at: None Water level at completion: None		10	20	30	40												Asphaltic concrete - 6.0" Aggregate base - 6.0"					
1.0	707.5																							FILL: Fine to coarse SAND and GRAVEL (A-3a), some silt, little clay; damp					
3.5	705.0																							Hard mottled brown and gray SILT (A-4a), some fine sand, little clay, trace coarse sand; organic contaminated; damp					
8.5	700.0																							Medium stiff gray SILTY CLAY (A-6b), and fine to coarse sand, little fine gravel; moist					
10	698.5																							Bottom of Boring - 10.0'					

Notes:
Used hollow stem auger to 8.5'

MASON-deVERTEUIL GEOTECHNICAL SERVICES, 6035 HUNTLEY ROAD, COLUMBUS, OHIO 43229, 614/888-0576

Client: Ohio Department of Transportation										Project: Bridge: PIC-752-03.34										M-V Job No. 6892.61									
LOG OF Boring B-1										Location: Sta 176+00, 3.0' Right of &										Date Drilled: 9-26-89									
DEPTH in feet	ELEVATION in feet	PENETRA- TION Blows/ft	RECOVERY in inches	SAMPLE NO.	DRIVE PRESS. PSI	TRIPLE TRIGGER (ft)	WATER OBSERVATIONS:	GRADATION	STANDARD PENETRATION (IN) Blows per foot			MOISTURE CONTENT - %			DESCRIPTION	SPT	PL	F	C	M	S	CL	LL						
									Agg.	C.S.	M.S.	F.S.	Silt	Clay										PL	Natural	LL			
0	701.7						Water seepage at: None Water level at completion: 19.0' Inside hollow stem auger = 43.0'		10	20	30	40												Asphaltic concrete = 6.0" Aggregate base = 6.0"					
4.0	700.7																							FILL: Stiff to very stiff dark brown CLAYEY SILT (A-4b), and fine sand, trace fine gravel; damp					
1.5	695.7																							FILL: Medium stiff to stiff brown CLAYEY SILT (A-4b), and fine sand, trace coarse sand; damp					
10	691.7																							Medium stiff to stiff brown CLAYEY SILT (A-4b), and fine sand; trace coarse sand; damp					
10.0'																								@ 10.0' - 17.5', contains sand seams throughout					
16.0'																								@ 16.0' - 17.5', color changes to gray, contains decomposed roots & vegetation					
18.5'	684.2																							Medium dense brown & gray fine to coarse SAND (A-3a), and fine gravel, trace silt; wet					
18.5'																								@ 18.5' - 20.0', trace clay					
23.5'																								@ 23.5' - 25.0', contains limestone cobbles					
26.0'																								@ 26.0' - 27.5', contains limestone cobbles					
23.5'	673.2																							Very dense gray fine to coarse SAND (A-3a); wet					
38.5'																								@ 38.5' - 40.0', contains clay seam					
38.5'																								@ 38.5' - 51.0', contains fine to coarse gravel					
43.5'																								@ 43.5' - 50.0', contains limestone fragment					
51.0	650.7																							Very dense gray fine to coarse SAND (A-3a); contains limestone fragments; damp					
51.0																								Hard dark gray SILTY CLAY (A-6a), some fine to coarse sand, trace fine gravel; damp					
55	642.3																							Bottom of Boring - 58.5'					

Notes:
Used hollow stem augers to 58.5'

MASON-deVERTEUIL GEOTECHNICAL SERVICES, 6035 HUNTLEY ROAD, COLUMBUS, OHIO 43229, 614/888-0576

Client: Ohio Department of Transportation										Project: Bridge: PIC-752-03.34										M-V Job No. 6892.61									
LOG OF Boring B-2										Location: Sta 177+03, 2.5' Left of &										Date Drilled: 9-28-89									
DEPTH in feet	ELEVATION in feet	PENETRA- TION Blows/ft	RECOVERY in inches	SAMPLE NO.	DRIVE PRESS. PSI	TRIPLE TRIGGER (ft)	WATER OBSERVATIONS:	GRADATION	STANDARD PENETRATION (IN) Blows per foot			MOISTURE CONTENT - %			DESCRIPTION	SPT	PL	F	C	M	S	CL	LL						
									Agg.	C.S.	M.S.	F.S.	Silt	Clay										PL	Natural	LL			
0	681.2						Water seepage at: N/A Water level at completion: at stream level		10	20	30	40												Medium dense dark gray fine to coarse SAND (A-3a), trace fine to coarse gravel; wet					
3.5'																								@ 3.5' - 5.0', gray; contains limestone cobbles					
6.0	675.2																							Very dense brown & gray fine to coarse SAND (A-3a), little fine gravel, trace silt, trace clay; wet					
8.5'																								@ 8.5' - 18.5', dense					
19.37'																								@ 16.0' - 17.0', contains limestone fragments (cobbles)					
18.5'	662.7																							Hard dark gray CLAYEY SILT (A-4a), some fine to coarse sand, some fine gravel; damp					
18.5'																								@ 18.5' - 19.5', slickensided					
23.5'																								@ 23.5' - 25.0', very stiff					
28.5'																								@ 28.5' - 29.0', contains sand seam					
39.5'																								Bottom of Boring - 39.5'					

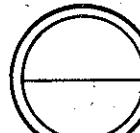
Notes:
Used hollow stem auger 0.0' - 38.5'

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COLUMBUS, OHIO 43229

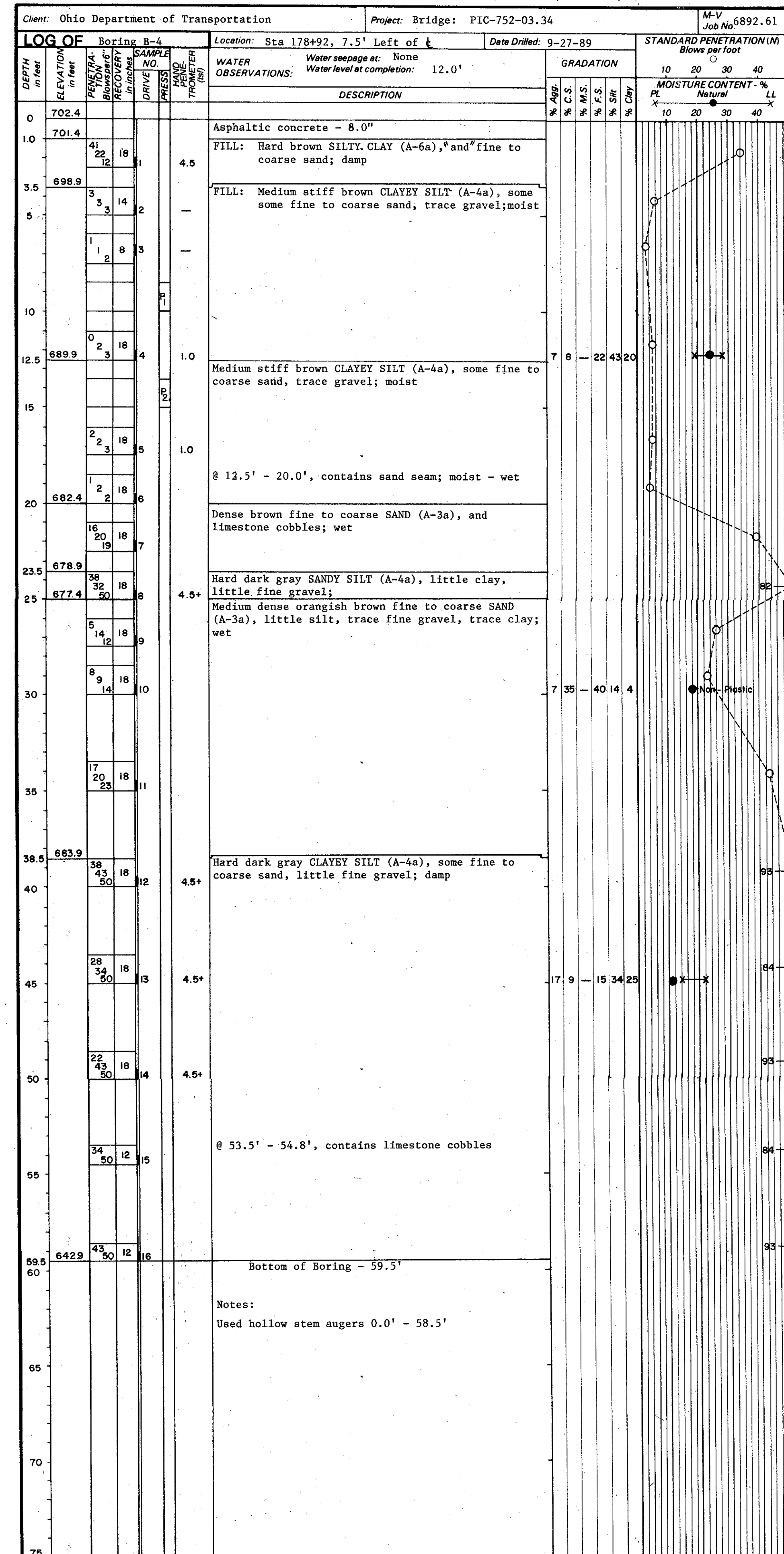
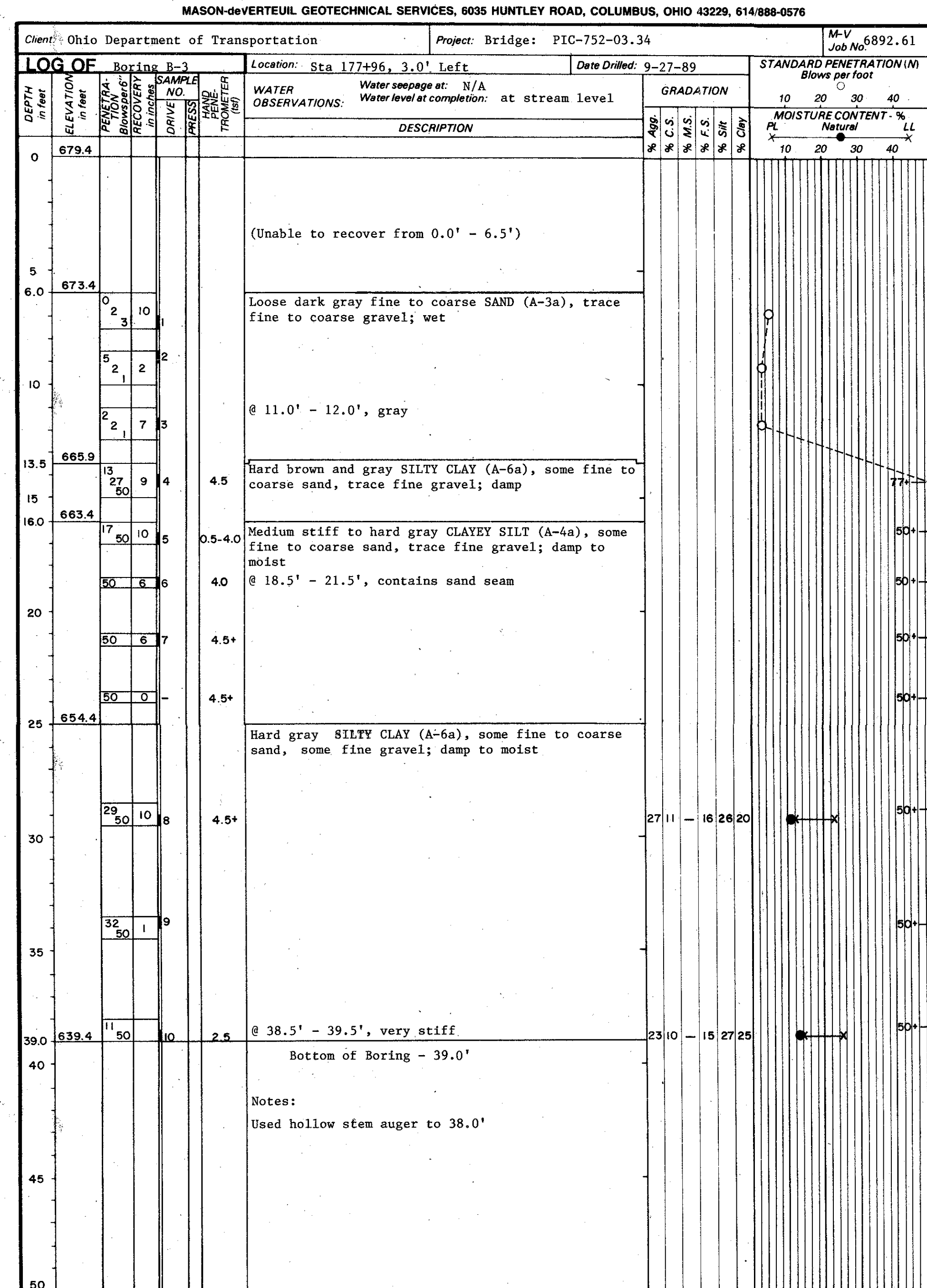
STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. PIC - 752 - 0334
OVER WALNUT CREEK

LOGS OF BORINGS

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STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. PIC - 752 - 0334
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LOGS OF BORINGS

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