

STATE OF OHIO DEPARTMENT OF HIGHWAYS

AA-11(4)

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO	AA-11(4)	98

SCI-23-4.76
DO-507-B5-B
DO-FG-507-B5-B

SCI-23-4.76 SCIOTO COUNTY

CLAY TOWNSHIP RECONSTRUCTION OF EXISTING SEPARATED CROSSING WITH N. & W. RY. COMPANY

LIMITED ACCESS

This improvement from Station 251+50.47 to Station 319+72.02 has been declared a limited access highway or freeway by action of the Director of Highways and recorded in the Director's Journal Volume 38, Page 92 in accordance with provisions of Section 1178-21 General Code of Ohio.

LIMITED ACCESS

The standard specifications of the State of Ohio Department of Highways 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 not require the closing to traffic of the highway and that provisions for the maintenance and safety of traffic will be set forth on the plans and estimates.

The Right of Way necessary for this improvement will be provided by the State of Ohio.

Approved Joseph N. Doyle P.E. 1209
Date 2-19-53 Resident Division Deputy Director.

Approved _____
Date _____ Chief Engineer, Bureau of Maintenance.

Approved John Heier
Date 8/14/53 Chief Engineer, Bureau of Planning and Programming.

Approved Richard Orta
Date 4/24/53 Chief Engineer, Bureau of Bridges and R.R. X-ings.

Approved W. J. Whittington
Date 8/7/53 Chief Engineer, Bureau of Location and Design.

Approved P. J. Schaeffer
Date _____ First Assistant Director and Chief Engineer.

Approved J. H. King
Date 8/14/53 Director of Highways.

Approved _____
Date _____ Chief Engineer, Norfolk & Western Rly. Co.

CONVENTIONAL SIGNS

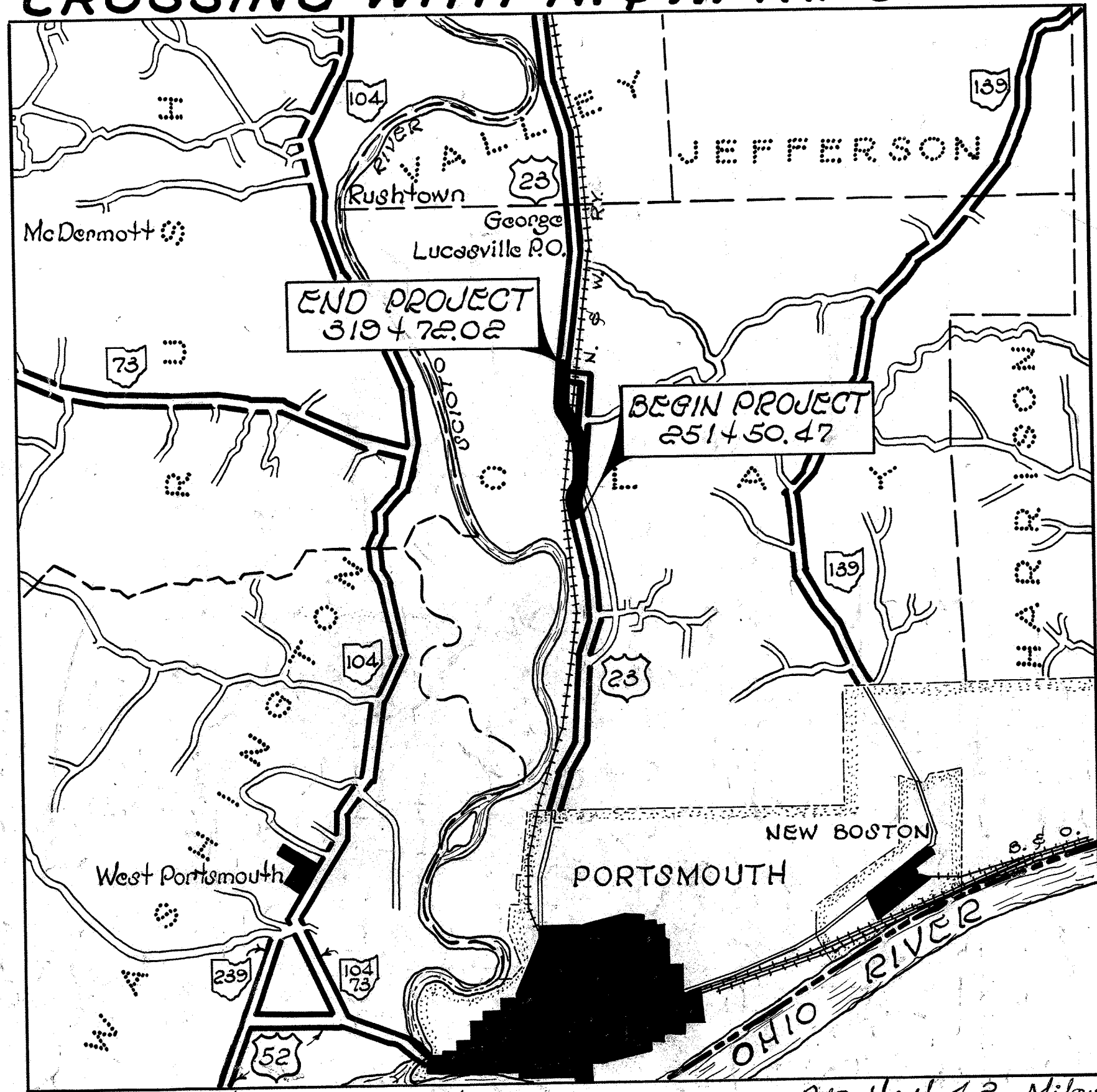
State Line	
Township Line	
Corporation Line	
Center Line	
Fence Line	
Steam Railroad	
Guard Rail	
Poles	
Limits of Construction	
Right of Way	

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LINE DATA

Begin Project AA-11(4)	Sta. 251+50.47
End Project AA-11(4)	Sta. 319+72.02
Gross Length Project	6821.55 LF
Deduct for Equation (Sta. 268+00.54 Back - Sta. 268+06.36 Ahead)	5.82 LF
Net Length Project AA-11(4)	6815.73 LF or 1.290 Mi.
Begin DO-507-B5-B	Sta. 251+50.47
End DO-507-B5-B	Sta. 319+72.02
Gross Length DO-507-B5-B	6821.55 LF
Deductions From DO-507-B5-B Equation (Sta. 268+00.54 - Sta. 268+06.36)	5.82 LF
Begin DO-FG-507-B5-B	Sta. 276+00.00
End DO-FG-507-B5-B	Sta. 306+00.00
Net Length DO-FG-507-B5-B	3000.00 LF or 0.568 Mi.
Net Length DO-507-B5-B	3815.73 LF or 0.728 Mi.



~ LOCATION PLAN ~
SCALE OF MILES

Portion to be Improved State Roads Other Roads	
Plan Profile - Horizontal Profile - Vertical Cross Sections	SCALES 1" = 50' 1" = 50' 1" = 5' 1" = 5' 1" = 10' 1" = 20'

CONSTRUCTION BUREAU
SEP 6 1956
GROUND PHOTOLAB

STANDARD CONSTRUCTION DRAWINGS

*G-707	1-2-53	*I-8 C.B. 22A & B	5-1-52	*I-21	1-2-51
L-1	4-1-50	*I-8 C.B. 22A & B	5-1-52	*T-35	10-1-52
L-3	4-1-50	*I-8 C.B. 23 & 24	5-1-52	R-W-45	9-18-47
L-3A	4-1-50	*I-8 C.B. N#7	5-1-52	*B-1-47	1-20-48
		*I-8 C.B. N#16	5-1-52	SP-48	7-30-48
*RI-1	5-16-51			SBC-45 Sh. 1 & 2	9-18-47
*S-27-PC.1	5-1-52	*I-12	1-25-52	AS-44.5	4-2-45
*S-27-PC.2	3-15-48	*I-14 G	1-22-52	P-1-49	7-27-49
*S-27-PC.3	2-20-45	*I-15 N#1	2-2-53		
I-1, 2, 3, 4, 5	2-20-45	*I-15 N#2	2-2-53		

SUPPL. SPECIFICATIONS

9	Rev. 3-19-53
10	Rev. 7-6-53
F-171.19	Rev. 3-19-53
M-101.7	1-24-53
5	5-28-48
CE-107	5-21-53

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED: ~

DISTRICT ENGINEER DATE

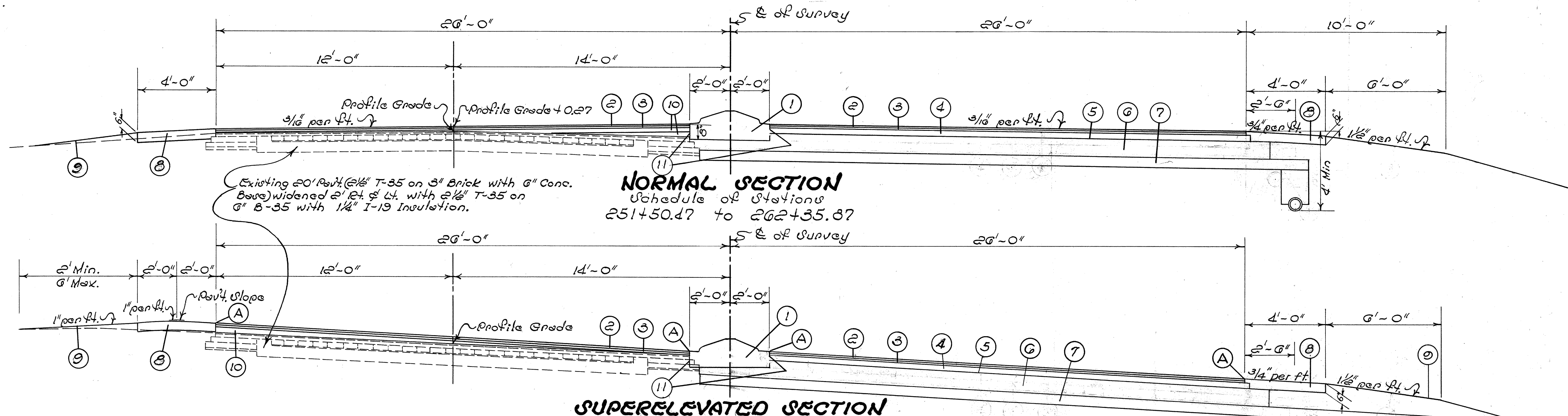
FILE No.	SCIOTO COUNTY
	SCI-23-4.76
	Date of Letting ----- 195
	Contract No. -----

TYPICAL SECTIONS TYPE T-35 (SALVAGE SECTION)

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
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(A) Elevations to be shown in Superlevation Tables.

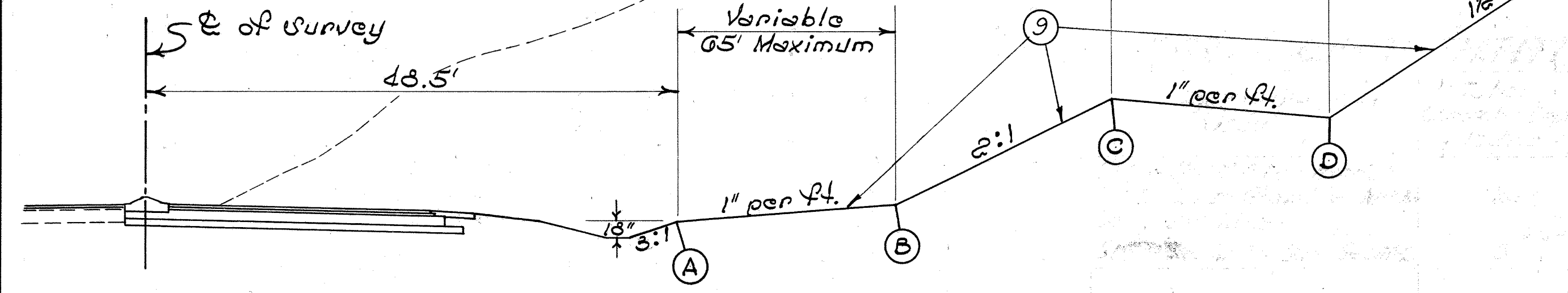
- ① I-21 Standard Concrete Median.
- ② T-35 1 1/4" Asphaltic Concrete Surface Course Type "A" (70-80)
- ③ B-35 *1/4" Min. Asphaltic Concrete Leveling Course.
* Constant depth where placed on courses ④ or ⑩.
- ④ B-35 3" Asphaltic Concrete Base Course
- ⑤ T-30 Bituminous Prime Coat Sec. M.3.7-12t-2 or 3 applied uniformly over the SS-5 Base Course at the rate of 0.35 Gal. per sq. yd.
- ⑥ SS-5 1 1/2" Classified Embankment Material as per plan using crusher run limestone or slag. Material to be placed in layers not to exceed 4" compacted depth.
- ⑦ I-22 6" Subbase Grading "A" or "B"
- ⑧ SS-10 Stabilized Shoulder 6" in depth.
- ⑨ L-9 Seeding & Protecting, Type "A"
- ⑩ B-35 Asphaltic Concrete Leveling Course for crown correction to be placed in courses not to exceed 3" compacted depth.
- ⑪ B-35 Sealing Vertical Face of Existing Pavement.

NOTES:
SS-5 AS PER PLAN:
Gradation of SS-5 as per plan using crusher run limestone shall be as follows:-

Sieve Size	% Passing
2"	100
#4	25 - 75
#200	0 - 15

ROCK EXCAVATION:-

This typical section is designed on the assumption that rock excavation will not be encountered. If rock excavation is encountered within the limits of excavation as shown on the cross sections between Sta. 252 and Sta. 261, the design slopes as shown hereon will be modified to keep the amount of rock excavation to a minimum consistent with safe engineering practice.



TYPICAL SECTION BENCH AREA

Station	A		B		C		D	
	Distance From	Elev.	Distance From	Elev.	Distance From	Elev.	Distance From	Elev.
252+08.77	48.5	563.89	68.5	565.1	88.5	577.5	108.5	575.8
253+28.54		564.47	88.5	567.8	108.5	592.4	128.5	590.7
253+48.31		565.37	108.5	570.4	128.5	607.4	148.5	605.7
254+48.09		566.36	128.5	571.8	148.5	617.3	168.5	615.6
254+95.24		567.06		572.4	168.5	620.6	188.5	618.5
255+45.24		567.69		573.1	188.5	620.7	208.5	619.0
255+95.24		568.01		573.4	208.5	621.2	228.5	619.5
256+45.24		568.23		573.6	228.5	621.7	248.5	621.0
256+95.24		567.82		573.2	248.5	621.2	268.5	619.5
257+45.24		567.43		572.8	268.5	620.7	288.5	619.0
257+95.24		566.94		572.4	288.5	620.2	308.5	618.5
258+45.24		566.42		571.9	308.5	618.2	328.5	616.5
258+95.24		565.93	113.5	571.3	133.5	612.1	153.5	610.4
259+45.24		565.48	108.5	570.5	128.5	602.3	148.5	600.6
259+95.24		565.03	88.5	568.4	108.5	589.3	128.5	588.1
260+45.24	48.5	564.59	68.5	566.3	88.5	575.3	108.5	575.6

MISCELLANEOUS ESTIMATED QUANTITIES

Item No.	DESCRIPTION	Quantities			Unit	Item No.
		DO-507	DO-116	DO-507		
T-35	Asphaltic Concrete Surface Course Type "A" 70-80	608.2	316.3	924.5	Cu.Yds	T-35
B-35	Asphaltic Concrete Leveling Course	764.8	316.3	1,081.1	Cu.Yds	B-35
B-35	Asphaltic Concrete Base Course	1,234.6	763.2	1,997.8	Cu.Yds	B-35
B-35	Sealing Vertical Face of Existing Pavement	2,170		2,170	Lin.Ft	B-35
T-30	Bituminous Prime Coat	5,815	3,740	9,555	Gals	T-30
SS-5	Classified Embankment Material	5,078	3,265	8,343	Cu.Yds	SS-5
I-22	Sub-base Material, Grading "A" or "B"	3,662	2,219	5,881	Cu.Yds	I-22
E-1	Compacted Subgrade	18,338	11,375	29,713	Sq.Yds	E-1
E-11	Water	425	1,040	1,465	M.Gals	E-11
L-9	Commercial Fertilizer	6.11	4.25	10.36	Tons	L-9
L-9	Agricultural Ground Limestone	30.55	21.24	51.79	Tons	L-9
E-4	Borrow			6,742.5	Cu.Yds	E-4

TYPICAL SECTIONS

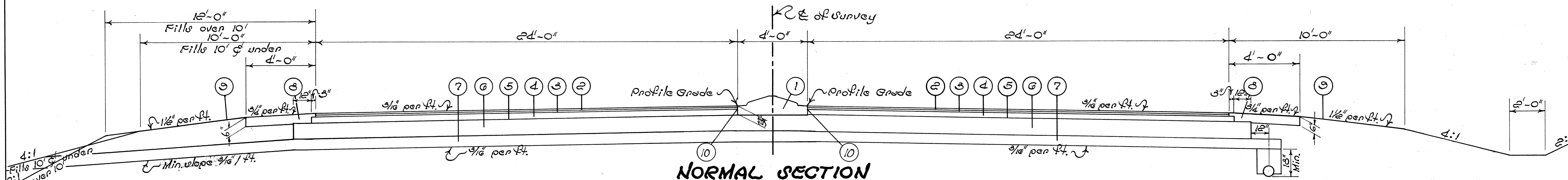
TYPE T-35

(New Construction)

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	AA-11(4)	

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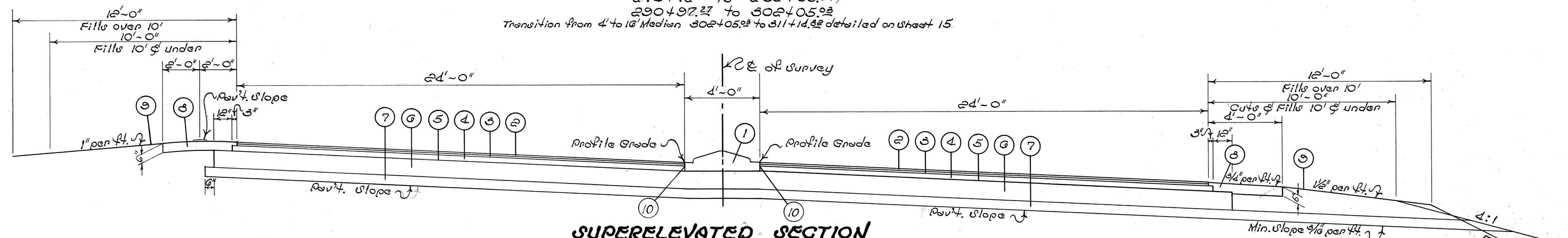
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DO-FG-507-B-5-B



NORMAL SECTION

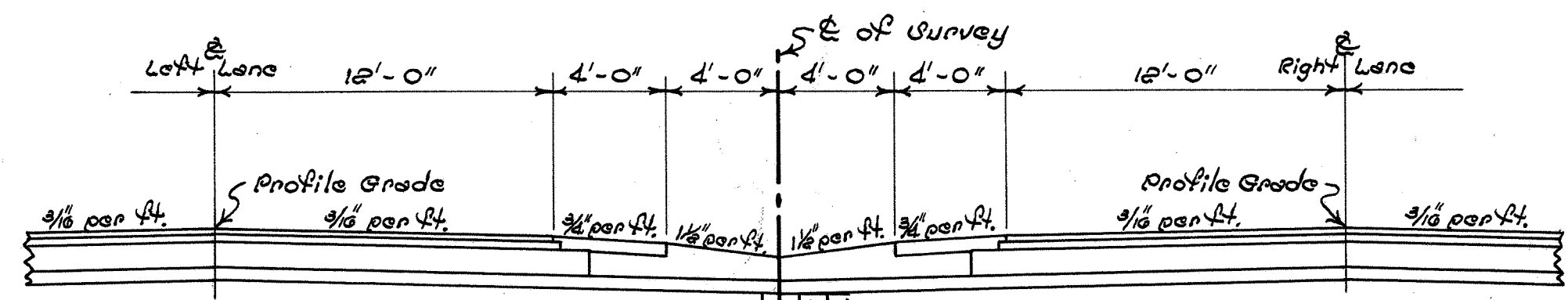
Schedule of Stations
 262+35.27 to 268+00.24 (back)
 268+00.24 (ahead) to 274+28
 274+72 to 282+00.22
 290+97.27 to 302+05.22
 Transition from 4' to 16' Median 302+05.22 to 311+14.22 detailed on sheet 15

Note: ~ Underdrains to be placed at locations noted on Plan & Profile Sheets.



SUPERELEVATED SECTION

- ① I-21 Standard Concrete Median as per plan (5 1/2')
- ② T-35 1 1/2" Asphaltic Concrete Surface Course Type "A" (70-80)
- ③ B-35 1 1/2" Asphaltic Concrete Leveling Course (70-80)
- ④ B-35 3" Asphaltic Concrete Base Course (70-80)
- ⑤ T-30 Bituminous Prime Coat Sec. M.S.7-RT 2 or 3 applied uniformly over the B-35 Base Course at the rate of 0.35 Gal. per sq. ft.
- ⑥ US-5 11" Classified Embankment Material as per plan using crusher run limestone or eqv. Material to be placed in layers not to exceed 4" compacted depth.
- ⑦ I-22 6" Sub-Base Grading "A" or "B"
- ⑧ US-10 Stabilized Shoulder 6" in depth.
- ⑨ L-9 Seeding & Protecting, Type "A"
- ⑩ B-35 Sealing Vertical Face of Existing Pavement.



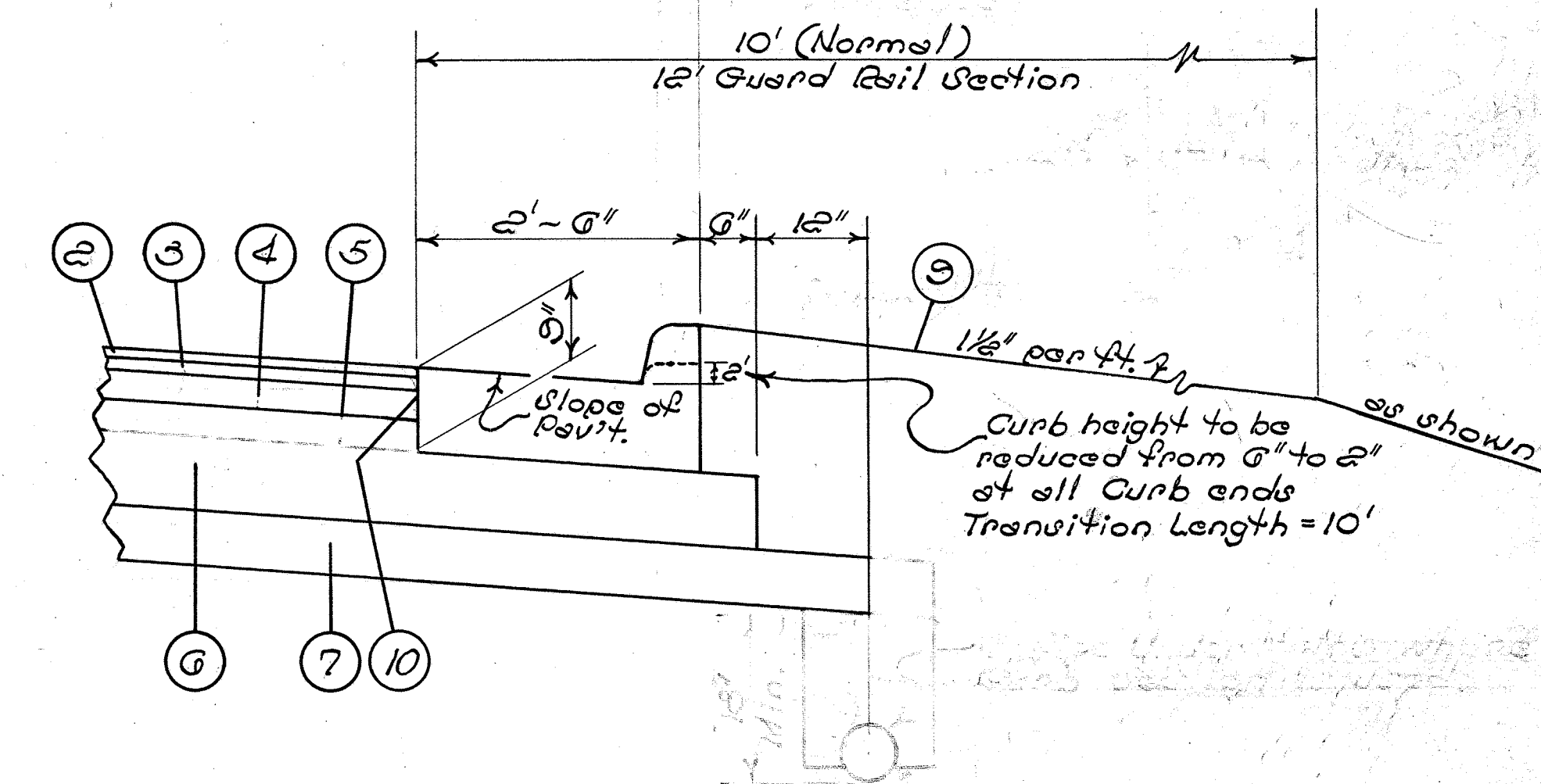
TYPICAL SECTION
 16' DEPRESSIONED MEDIAN
 311+14.22 to 319+72.02

FOR TRANSITION FROM 4' RAISED MEDIAN TO 16' DEPRESSIONED MEDIAN
 See sheet N2.15 for Details and Sections.

Note: ~

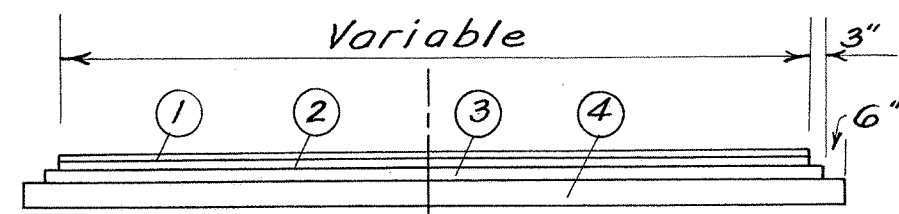
Gradation of US-5 as per plan using crusher run limestone or eqv shall be as follows: ~

Sieve Size	% Passing
2"	100
#4	25-75
#200	0-15

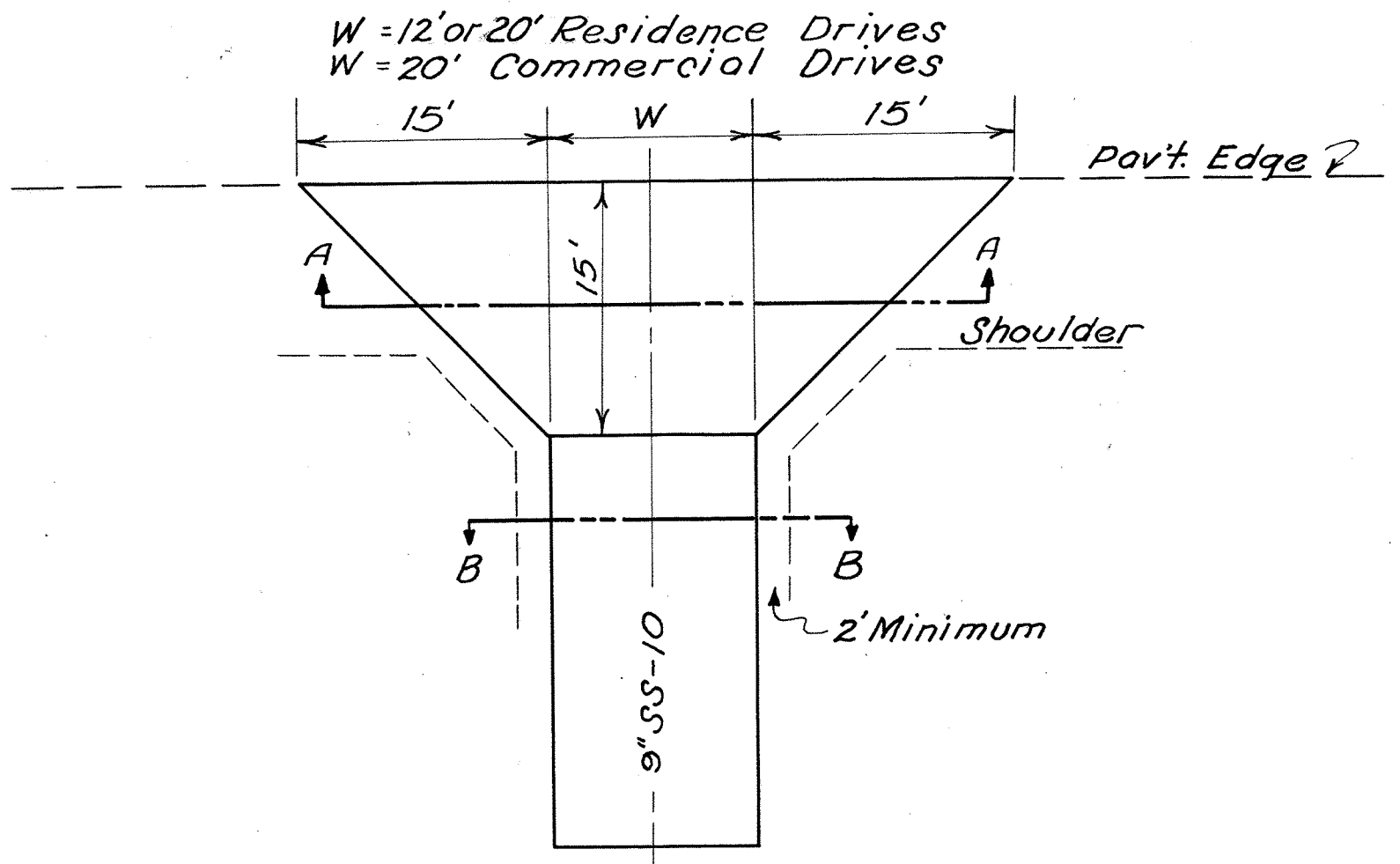


EDGE DETAIL WHERE TYPE 2 CURB & GUTTER IS SPECIFIED

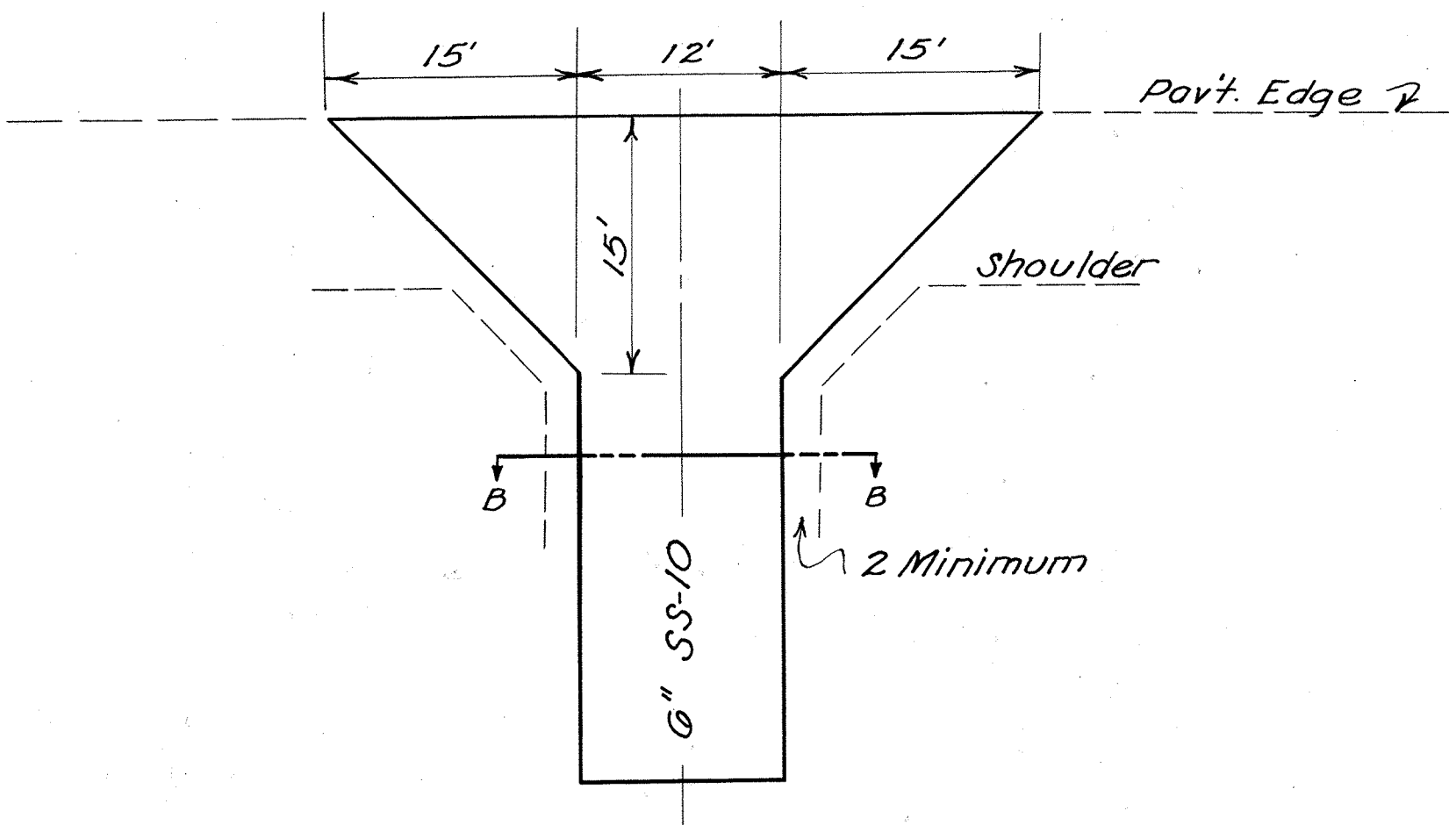
TYPICAL DRIVES



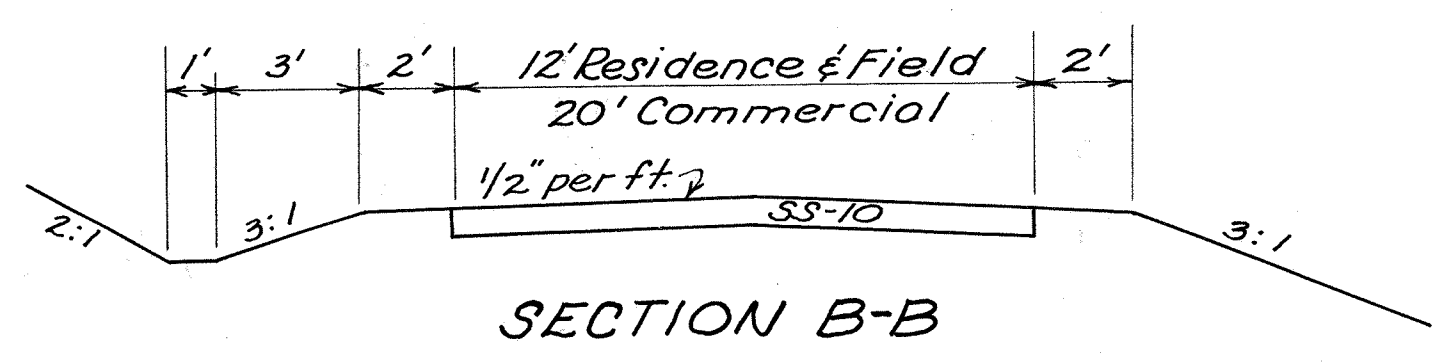
- SECTION A-A**
- ① T-35 1 1/4" Asphaltic Concrete Surface Course
 - ② B-35 1 1/4" Asphaltic Concrete Leveling Course
 - ③ B-35 3" Asphaltic Concrete Base Course
 - ④ SS-10 5" Aggregate



RESIDENCE & COMMERCIAL



FIELD DRIVES



MAILBOX TURNOUTS

Mailbox turnouts shall be constructed as per standard Drawing RI-1 except that the aggregate shall be 9" in depth and shall meet the requirements of SS-10 as per plan. Estimated 10 Mailbox turnouts will be required at 9.0 Cu.Yds. each = 90 Cu.Yds. SS-10 as per plan. The location of Mail Box Turnouts shall be determined by the Engineer.

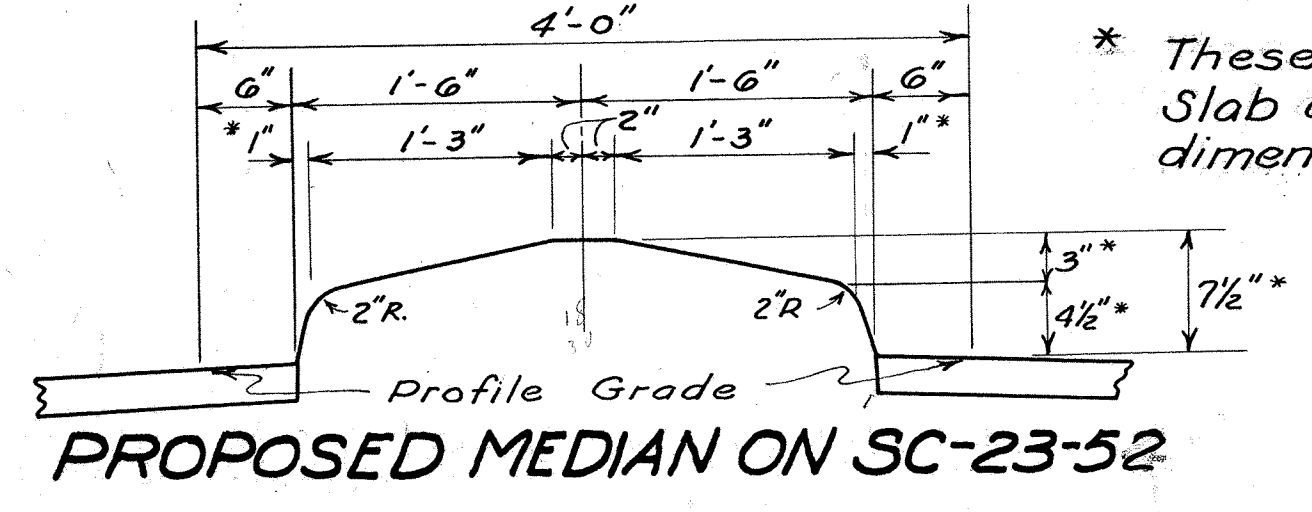
NOTE

- The following work will be performed by the Norfolk & Western Railway.
1. Temporary changes in telegraph, interlocking and signal lines and apparatus and ultimate restoration of same.
 2. Construction of relocated private grade crossings including furnishing pavement between outside ends of ties.
 3. Removal of superstructure and parts of the masonry of the existing structure over old U.S. Route No. 23, structure No. 5C-23-57A.
 4. Provision of switchtenders, flagmen, telegraph operators, watchmen and other protective services and devices to insure safety and continuity of train operation as may be necessary in connection with the work performed by the Company's forces.
 5. Any other work not specifically provided for, but as may be mutually agreed upon from time to time during progress of the work.

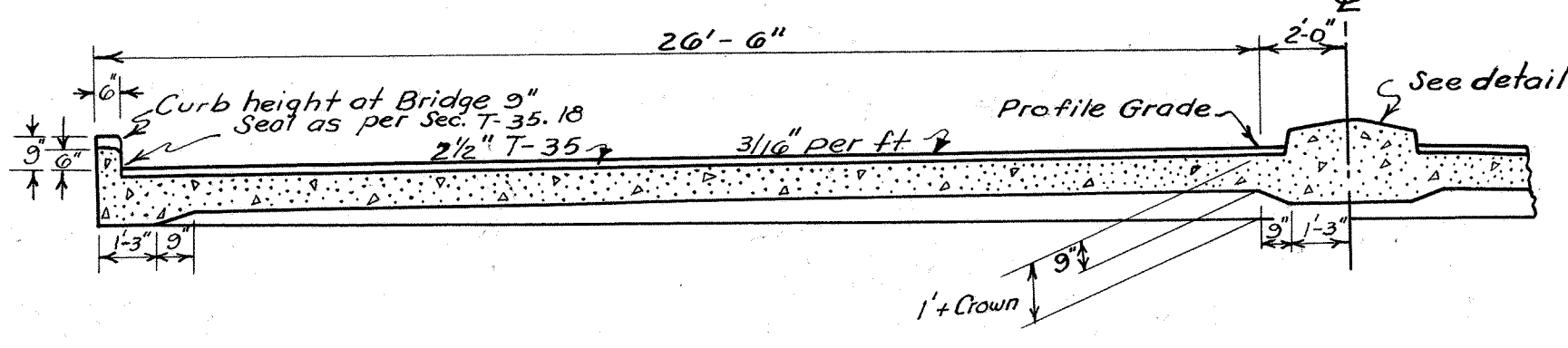
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
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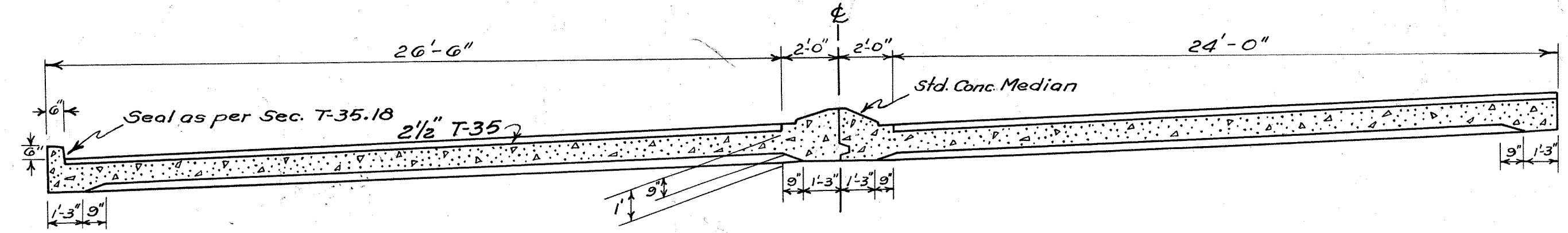
* These dimensions vary from St'd. at End of Appr. Slab at Sta. 282+00.02 & Sta. 290+97.27 to dimensions shown.



HALF SECTION
Sta. 282+00.02 - 282+15.02
Sta. 290+82.27 - 290+97.27

Station	I-7 Reinf. Conc. Appr. Slab Sq. Yds.	T-30 Bituminous Tack Coat Gals.	T-35 Asph. Conc. Surf. Course Cu. Yds.	I-22 6" Subbase Material Cu. Yds.
From 274+28				
To 274+43	90.8	8	5.9	19
274+57	90.8	9	6.2	19
282+00.02	95	9	6.1	20
290+82.27	95	9	6.1	20
TOTAL	371.6	35	24.3	78

DO-507-B5-B
DO-FG-507-B5-B



Sta. 274+28 - 274+43
Sta. 274+57 - 274+72
Raised Median ends at Sta. 274+60

Note: The curbs and Median Pavement shall be included in the price bid per square yard of Item I-7 Reinforced Conc. Appr. Slab.
Note: Holes for pavement jacking will not be required.

APPROACH SLABS (AS-44-S TYPE II) MODIFIED

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GENERAL NOTES

DESIGN SPEED:~

This project has been designed for a speed of 70 miles per hour.

LIMITATION OF ACCESS:~

This improvement from Sta. 251+50.47 to 319+72.02 has been declared a limited access highway or free-way by action of the Director of Highways, in accordance with the provisions of Section 1178-21, General Code of Ohio.

ROCK EXCAVATION:~

See Note on Sheet 2 regarding modification of typical section between Sta. 252 and Sta. 261 if rock is encountered.

TRAFFIC:~

The uninterrupted flow of two-way traffic shall be maintained at all times. The existing facility shall be used for maintaining traffic until such time as the East pair (Northbound) lanes are constructed from Station 251+50.47 to Station 276+50; the West (Southbound) lanes are constructed between Station 274+50 and Station 276+50; and the approach on the left at Station 275+24.94 is constructed. Traffic shall then be carried from Station 251+50.47 on the new East lanes and the approach to the existing pavement to the left of Station 275+24.94 and on the existing pavement from Station 275+24.94 to the end of project, Station 319+72.02.

Traffic shall be maintained in this manner until the West lanes are complete from Station 276+50 to Station 319+72.02. Traffic will then be diverted to the West lanes at Station 275+24.94 until the remaining portions of the East Lane are constructed. Consideration will be given to suggested alternate methods but shall not be used unless approved by Division Engineer. All new pavement shall be opened to traffic at the earliest practicable moment.

EMBANKMENT:~

In lieu of the requirements for full width construction, under E-1.08, the embankment may be placed in part width in those areas where traffic maintenance would be facilitated.

REMOVAL AND DISPOSAL:~

All items listed for removal and disposal shall become the property of the contractor and shall be disposed of by him.

PILING CUT-OFF:~

Any existing piling encountered within the new pavement area shall be cut off at the bottom of the sub-base. The cost thereof shall be included in the unit price bid per cu. yd. for Item E-1 Roadway Excavation.

SS-10 STABILIZED SHOULDER, AS PER PLAN:~ In addition to stabilizing berms this item shall include construction of a compacted course or courses of Aggregate for drives and approaches, constructed upon a subgrade prepared in accordance with Item SS-10 and in conformance with the lines, grades, thickness, and cross-sections shown on the plans. This item shall meet all requirements set forth in Supplemental Specification No. 10

I-3 ROADWAY DRAINAGE, AS PER PLAN:~

An estimated amount of Roadway Drainage, Item I-3, has been provided to outlet any field drains or existing herringbone and longitudinal pavement drains which may be encountered during construction. The outlet locations, grades and lengths required shall be determined by the Engineer during construction, and payment shall be made on final measurement. The sizes and estimated amounts are listed as follows: 4" pipe, 200 lin. ft.; 6" pipe, 100 lin. ft.; 8" pipe, 100 lin. ft.; 10" pipe, 100 lin. ft.; 12" pipe, 100 lin. ft. It is further intended that this pipe also be used to drain any springs or similar conditions encountered in the subgrade where the plans do not specify underdrains.

OUTLETS FOR SANITARY DRAINS OR SEWERS:~

No sanitary sewers or septic tank outlets shall be connected to any highway facilities.

FIELD OFFICE:~

The contractor shall provide a field office of not less than 250 Sq. Ft. of floor space at a central location on the project as per S-0.01 (b) for the exclusive use of the Engineer and inspectors assigned to the work. The contractor shall have a telephone installed and maintained throughout the life of the contract.

PREPARATION OF AREAS TO BE SODDED:~

All earthwork necessary to accomplish the preparation of areas to be sodded is included in the unit price bid per sq. yd. for Item L-10, Sodding. Commercial Fertilizer, 10-G-4, and Agricultural Ground Limestone shall be applied as per L-9.11 and be worked into the soil prior to laying the sod. The sod bed shall be 2" of loose soil on which sod is laid after excavation for sod thickness.

BERMS, SLOPES AND DITCHES:~

While the typical sections show straight lines for the slope intersections and ditches, the corners shall be rounded as shown on Standard Drawing RI-1.

UTILITIES:~

Any and all work required by utilities, either public or private, shall be performed by and at the expense of their respective owners.

ELECTRIC - TELEPHONE - TELEGRAPH

The contractors shall exercise extreme care, whenever working in the vicinity of overhead utilities, that the continuous operation of the utilities is not disrupted by damage due to blasting or equipment operation. The Utility owner shall be notified by the Contractor of his operations in the vicinity of the overhead Utility Lines at least 24 hrs. in advance of the proposed work.

REMOVAL OF REFUSE AND DEBRIS:~

Any existing refuse, debris or other unsuitable material shall be removed and disposed of by the contractor outside of the right of way or easement lines.

MISCELLANEOUS REMOVALS:~

The removal and disposal of any existing pavement, sidewalk, building foundations, steps, cellar floors, well covers, cisterns, tanks, concrete bases, walls, curb and gutters, rails, ties, pole stubs, guard posts, headwalls, pipes, cast iron plates or masonry lying within or below the limits of Roadway Excavation, Item E-1; Excavation for Structures, Item E-2; or Channel Excavation, Item E-3 (and not specifically paid for under a separate item) are classified as excavation and paid for under the excavation item of which they are a part.

Sidewalks, steps, cellar floors, or other masonry shall be excavated to a depth of three (3) ft. below subgrade if located within the proposed pavement area and to a depth of three (3) feet below the finished surface if outside the proposed pavement area.

Pavement, cellar floors, or other masonry below the above limits shall be broken up into portions not to exceed one sq. ft. in area, but need not be removed.

All backfilling shall be in accordance with Section E-1.08 of the Construction and Material Specifications.

Wells, cisterns and tanks shall be filled with broken foundation masonry, or rock placed as Rock Embankment according to Section E-1.08 of the Construction and Material Specifications.

Payment for the above operations shall be included in the contract unit price bid for Roadway Excavation, Item E-1, Excavation for Structures, Item E-2, or Channel Excavation, Item E-3.

Additional excavation necessary to perform any of the above operations shall be paid for at the unit price bid per cu. yd. for Roadway Excavation, Item E-1; Excavation for Structures, Item E-2; and Channel Excavation, Item E-3.

REMOVAL OF TREES AND STUMPS:~

The number and sizes of trees and stumps shown below for removal under the construction as detailed on these plans is as nearly correct as the available information permits. The State of Ohio will not be responsible for any variations found during construction. The lump sum bid for Item E-9, Removal of Trees and Stumps, shall constitute full payment for this item and no additional compensation will be allowed.

NUMBER and SIZES of TREES and STUMPS to be REMOVED is estimated below:~

SIZES:	12"-18"	18"-24"	24"-30"	30"-36"	36"-42"	42"-48"	Over 48"
TREES:	123	53	37	12	6	2	2
STUMPS:							

REMOVAL AND STORAGE OF GUARD RAIL AS PER PLAN:~

All Guard Rail except posts shall be removed and stored on the right of way for disposal by State forces. Posts shall be removed and disposed of by the Contractor.

I-10 RIPRAP, AS PER PLAN:~

At locations where Item I-10 Riprap as per plan is called for the contractor shall place a reinforced concrete slab as specified under I-10.03. All other provisions of I-10 shall apply.

EMBANKMENT UNDER RAILWAY STRUCTURE:~ Area under structure shall be filled by the contractor to the bottom of the girders. The embankment shall be compacted in accordance with Sec. E-1.08 of the Construction and Material Specifications to the elevation that will give proper clearance in which to operate standard construction equipment. The remaining area shall be filled at the direction of the Engineer but the compaction requirements need not be fulfilled.

E-1 EXCAVATION:~

Located between Sta. 255+00 and 258+00 on the left and approximately two to five feet above profile grade is a portion of an old pavement consisting of a bituminous surface on brick and concrete. This old pavement is in a cut section and the cost of removal shall be included in the unit price bid per cubic yard for Item E-1 Excavation.

L-9 SEEDING AND PROTECTING TYPE "A"

Quantities of seeding, Item L-9, are calculated for soil areas between lines ten feet outside the construction limits or the right of way line which ever occurs first.

The quantities are approximate and the actual limits of seeding will be as determined by the Engineer during construction. The number of square yards of seeding to be paid for shall be the actual number of sq. yds of seeding placed as determined by final measurements.

DO-507-B5-B
DO-FG-507-B5-B

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	AA-11(4)	

6
98

SCI-23-4.76

CODE TYPE 6201

Item	DO-507-B5-B															DO-FG-507-B5-B					ITEM	DO-507-B5-B	DO-FG-507-B5-B	TOTAL	UNIT	DESCRIPTION													
	2	4	5	3	9	10	13	15	17	18	19	20	23	24	27	31	2	4	5	3		11	12	15			21	22	25	AA-11(4)									
E-1					211.945	12.722	6.213													1449	962					E-1	230,880	2411	233,291	Cu.Yds	Roadway Excavation								
E-1	18,338																			11375							E-1	18,338	11375	29,713	Sq.Yds	Compacted Subgrade							
E-4																				67425							E-4		67425	67425	Cu.Yds	Borrow							
E-8						1073	1435																				E-8	2508		2508	Sq.Yds	Removal and Disposal of Existing Pavement							
E-9				Lump																	Lump						E-9	Lump	Lump	Lump	Lump	Removal of Trees and Stumps							
E-11	425																			1040							E-11	425	1040	1465	M.Gal.	Water							
I-15					577	282	669																		34		I-15	1328	34	1362	Lin.Ft.	Guard Rail Removed and Stored, as per plan.							
I-15					598.5	898.5	1090.														1200	2060			50		I-15	2587	3910	6497	Lin.Ft.	Guard Rail Steel Beam Type (Deep)							
L-9					38259	13360	15641														21,793	25,094					L-9	67,260	46,887	114,147	Sq.Yds	Seeding and Protecting, Type 'A'							
L-9	6.11																			4.25							L-9	6.11	4.25	10.36	Tons	Commercial Fertilizer, 10-6-4							
L-9	30.55																			21.24							L-9	30.55	21.24	51.79	Tons	Agricultural Ground Limestone							
L-10					278	200	142															125		194			L-10	620	319	939	Sq.Yds	Sodding							
SS-10		90			160.8	154.9	230.2	164.0	32.6	40.1		64.0	71.6	58.0							43.7	81.4	55.0	632.4			SS-10	1067	813	1880	Cu.Yds	Stabilized Shoulder, As Per Plan							
SS-9																869									1943		SS-9	869	1943	2812	Sq. Ft.	Precast Reinforced Concrete Cellular Retaining Walls or Galvanized Metal Cellular Retaining Walls.							
																				PAVEMENT																			
T-30		17.0																			18.0						T-30	17	18	35	Gals	Bituminous Tack Coat, Sec. M-5.5, MS-2 or SS-1							
T-30	5815						1054		212												3740			862	57		T-30	7081	4659	11740	Gals	Bituminous Prime Coat, Sec. M-5.7 RT-2 or 3							
T-35	6082	12.1					95.3	3.2	3.2	19.3		5.8	11.6		6.7						316.3	12.2		73.2	5.3	9.6	T-35	766	417	1183	Cu.Yds	Asphaltic Concrete Surface Course, Type 'A' (70-80)							
B-35	764.8						95.3	3.2	3.2	19.3		5.8	11.6								316.3			73.2	5.3	24.3	B-35	904	419	1323	Cu.Yds	Asphaltic Concrete Leveling Course (70-80)							
B-35	1234.6						233.6	7.6	7.6	47.1		13.7	28.0								763.2			177.6	12.9	25.6	B-35	1573	980	2553	Cu.Yds	Asphaltic Concrete Base Course (70-80)							
SS-5	5078						920.4			185.0											3265			752.7			SS-5	6184	4018	10202	Cu.Yds	Classified Embankment Material, as per plan.							
I-22	3662	38.0					804.8			112.0											2219	40.0		6562	41.0		I-22	4617	2956	7573	Cu.Yds	Subbase Grading 'A' or 'B'							
B-35	2170			1906		298				110															554		B-35	4484	6164	10648	Lin.Ft.	Sealing vertical face of Existing Pavement							
I-12						298.1				110.0														564.3	1079.5		I-12	408	1644	2052	Lin.Ft.	Std. Type 2, Combination Curb and Gutter							
I-21					482.4																						I-21	482		482	Sq.Yds	Standard Portland Cement Concrete Median Pavement							
I-21						410.9																					I-21	411	921	1332	Sq.Yds	Standard Portland Cement Concrete Median Pavement as per plan							
I-7		181.6																			190.0						I-7	182	190	372	Sq.Yds	Reinforced Concrete Approach Slabs, As Per Plan							

See Sheet No. 1

DO-507-B5-B
DO-FG-507-B-5-B

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	AA-11(A)	

7
98

SCI-23-4.76

CODE TYPE 6201

Item	DO-507-B5-B											DO-FG-507-B5-B					ITEM	DO-507-B5-B	DO-FG-507-B5-B	Total	UNIT	DESCRIPTION			
	5	9	10	13	19	20	23	27	29	30	31	11	12	21	22	33							34	35	35A
E-2									2	175	270					102	40	82	50	E-2	447	274	721	Cu.Yd.	Excavation for Structures
E-3																3006		35	E-3		3041	3041	Cu.Yd.	Channel Excavation	
E-12												20							E-12		20	20	Lin.Ft.	Pipe Removed Over 15"	
E-12		112	34																E-12	146		146	Lin.Ft.	Pipe Removed 15" & Under	
I-1						24							80						I-1	24	80	104	Lin.Ft.	12" Pipe for Driveway	
I-2			280	134								34							I-2	414	34	448	Lin.Ft.	12" Pipe for Storm Sewer	
I-2			464									186							I-2	464		464	Lin.Ft.	15" Pipe for Storm Sewer	
I-2												186							I-2		186	186	Lin.Ft.	24" Pipe for Storm Sewer	
I-2		116	40									32	228						I-2	156	260	416	Lin.Ft.	12" Pipe for Storm Sewer Sec. M-6.4(d)	
I-2			158	72								64	152						I-2	230	216	446	Lin.Ft.	12" Pipe for Storm Sewer under Pavement	
I-2					66														I-2	66		66	Lin.Ft.	15" Pipe for Storm Sewer under Pavement	
I-3	200																		I-3	200		200	Lin.Ft.	4" Pipe for Roadway Drainage	
I-3	100																		I-3	100		100	Lin.Ft.	6" Pipe for Roadway Drainage	
I-3	100																		I-3	100		100	Lin.Ft.	8" Pipe for Roadway Drainage	
I-3	100																		I-3	100		100	Lin.Ft.	10" Pipe for Roadway Drainage	
I-3	100																		I-3	100		100	Lin.Ft.	12" Pipe for Roadway Drainage	
I-4		1044	948	1124															I-4	3116		3116	Lin.Ft.	6" Pipe Underdrains	
I-4		20	20																I-4	40		40	Lin.Ft.	3" Pipe Outlets for Underdrain	
I-5		1	1																I-5	2		2	Each	3" Pipe Specials for Underdrains	
I-5		4	2									2	8						I-5	6	10	16	Each	12" Pipe Specials for Storm Sewers Sec. M-6.4(d)	
I-5			1																I-5	1		1	Each	15" Pipe Special for Storm Sewers	
I-8			2	4															I-8	6		6	Each	54" No. 1-2-A Catch Basins	
I-8		2																	I-8	2		2	Each	54" No. 2-2-A Catch Basins	
I-8								1											I-8	1		1	Each	54" No. 2-3 Catch Basin	
I-8			2																I-8	2		2	Each	54" No. 7 Side Ditch Catch Basin	
I-8			1									2	5						I-8	1	7	8	Each	54" No. 16 Catch Basins	
I-8			6									2	5						I-8	6	7	13	Each	Three Grate Median Catch Basin as per plan	
I-10										90					439				I-10	90	439	529	Sq.Yd.	Riprap Type "A", 6" Reinforced Concrete	
I-10		12	10	6								4	20		11	3			I-10	28	38	66	Sq.Yd.	Riprap Type "A" Grouted	
I-14		500	515									50		220	25				I-14	1015	295	1310	Lin.Ft.	Std. Type 1 Paved Gutter	
I-16				1															I-16	1		1	Each	Inlet Abandoned	
S-1										37.2					5.4				S-1	37.2	5.4	42.6	Cu.Yd.	Concrete for Structures Class "C"	
S-1										1.6	72.2	298.6				1.6	2.7	3.6	S-1	372.4	7.9	380.3	Cu.Yd.	Concrete for Structures Class "E"	
S-3										108									S-3	108		108	Sq.Yd.	Type "C" Waterproofing	
S-3										84									S-3	84		84	Lin.Ft.	Waterproofing, Premolded Sealing Strip	
S-4										18	637	1982			678				S-4	20476	678	21154	Lb.	Reinforcing Steel	
S-14										28									S-14	28		28	Lin.Ft.	Railing, Type I-15.13 with Steel Posts	
S-22															0.1		0.5		S-22		0.6	0.6	Cu.Yd.	Removal of Portions of Existing Structures	
S-23										6									S-23	6		6	Lin.Ft.	Dowel Holes	
S-27																		100	S-27		100	100	Lin.Ft.	60" Pipe for Roadway Culverts	
S-24										Lump									S-24	Lump		Lump	Lump	Removal of Existing Structures	
S-27																92			S-27		92	92	Lin.Ft.	15" Pipe for Roadway Culverts	
S-27										44									S-27	44		44	Lin.Ft.	24" Pipe for Roadway Culverts	
S-27																	188		S-27		188	188	Lin.Ft.	30" Paved Birmingham Coated Corrugated Metal Pipe, Sec. M-6.4(d)	
S-27										156									S-27	156		156	Lin.Ft.	30" Extra Strength Reinforced Concrete Culvert Pipe, Sec. M-6.4(c) or N-10, Page 4, N-8 Gauge	
S-27																164			S-27		164	164	Lin.Ft.	24" Unstudded Sectional Corrugated Plate Pipe, Sec. M-6.4(g) For Roadway Culverts	
S-27															36				S-27		36	36	Lin.Ft.	48" Pipe for Roadway Culverts	
S-27										10	172								S-27		36	36	Lin.Ft.	48" Cast Iron Pipe for Roadway Culvert, Installed Only As Per Plan	
S-29																			S-29		182	182	Cu.Yd.	Porous Backfill	

STRUCTURES OVER 20 FT. SPAN
Estimated Quantities for Bridge No. 3C-23-54 See Sheet No. 79
For Railway Force Account Work See Sheet No. 98

LOCATION PLAN

Scale: 1"=200'

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO	AA-11(A)	

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98

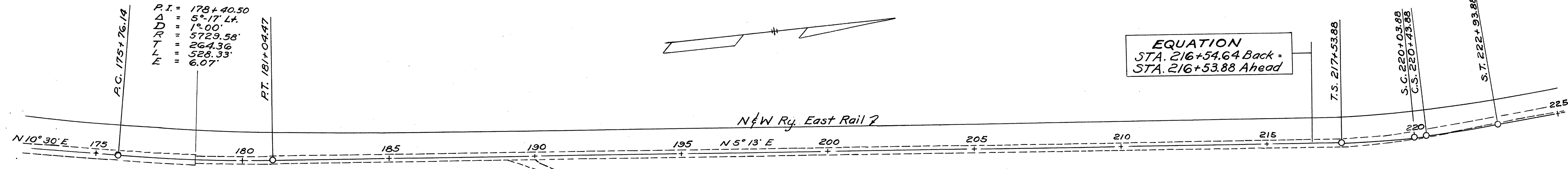
SCI-23-4.76
DO-507-B5-B
DO-FG-507-B5-B

Sta. 177+40.80 = Sta. 57+25
FAP - E - G2G - A

P.I. = 178+40.50
Δ = 5° 17' Lt.
D = 1° 00'
T = 5729.58'
L = 264.36'
E = 528.33'
R = 6.07'

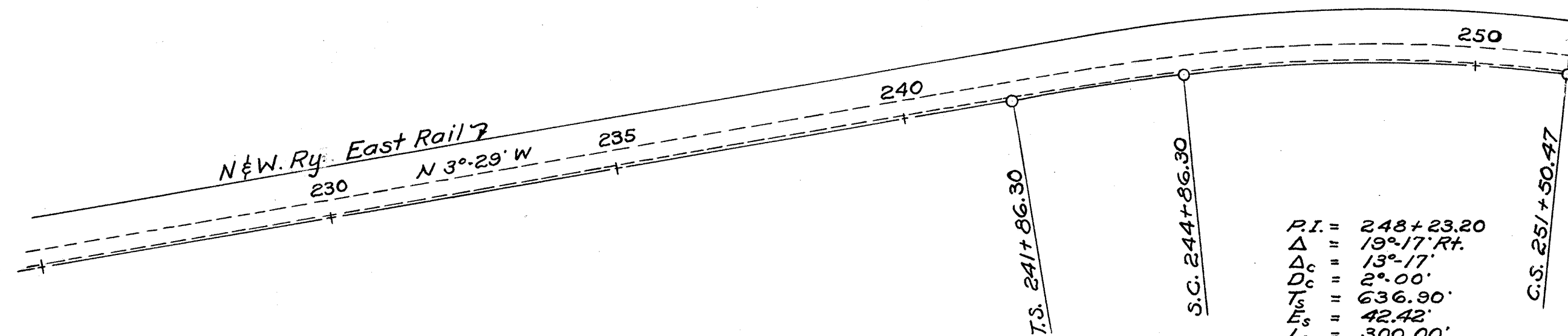
P.I. = 220+24.25
Δ = 8° 42' Lt.
D = 1° 12'
T = 3° 00'
L = 270.37'
E = 6.91'
Ls = 250.00'
Lc = 40.00'
R = 1908.86'

EQUATION
STA. 216+54.64 Back =
STA. 216+53.88 Ahead



Sta. 251+50.47 = Sta. 131+46.07
FAP - E - G2G - A

P.I. = 248+23.20
Δ = 13° 17' Rt.
D = 2° 00'
T = 636.90'
L = 42.42'
Ls = 300.00'
Lc = 664.17'
R = 2864.79'

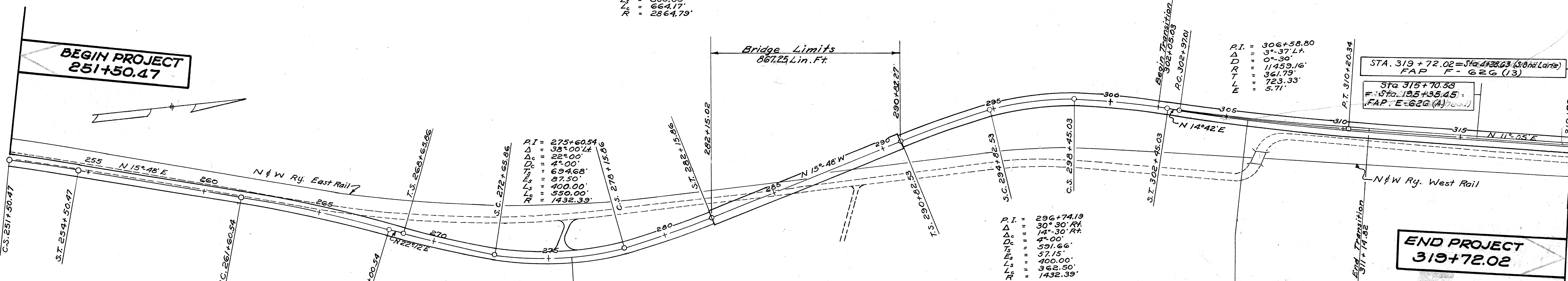


Bridge Limits
667.25 Lin. Ft.

P.I. = 306+58.80
Δ = 5° 37' Lt.
D = 0° 30'
T = 1453.16'
L = 723.33'
E = 5.71'

STA. 319+72.02 = Sta. 428.63 (S. Blvd. Lane)
FAP - F - G2G (13)

Sta. 315+70.53
= Sta. 125+35.45
FAP - E - G2G (A) (cont.)



P.I. = 296+74.19
Δ = 30° 30' Rt.
D = 14° 30' Rt.
T = 4° 00'
L = 591.66'
Ls = 57.15'
Lc = 400.00'
R = 362.50'
R = 1432.39'

P.I. = 264+80.88
Δ = 6° 24' Rt.
D = 1° 00'
T = 5729.58'
L = 320.34'
E = 640.00'
R = 8.95'

EQUATION
STA. 268+00.54 Back =
STA. 268+06.36 Ahead.

BEGIN PROJECT
251+50.47

END PROJECT
319+72.02

DO-507-B5-B
276+00

DO-FG-507-B5-B

DO-507-B5-B
306+00

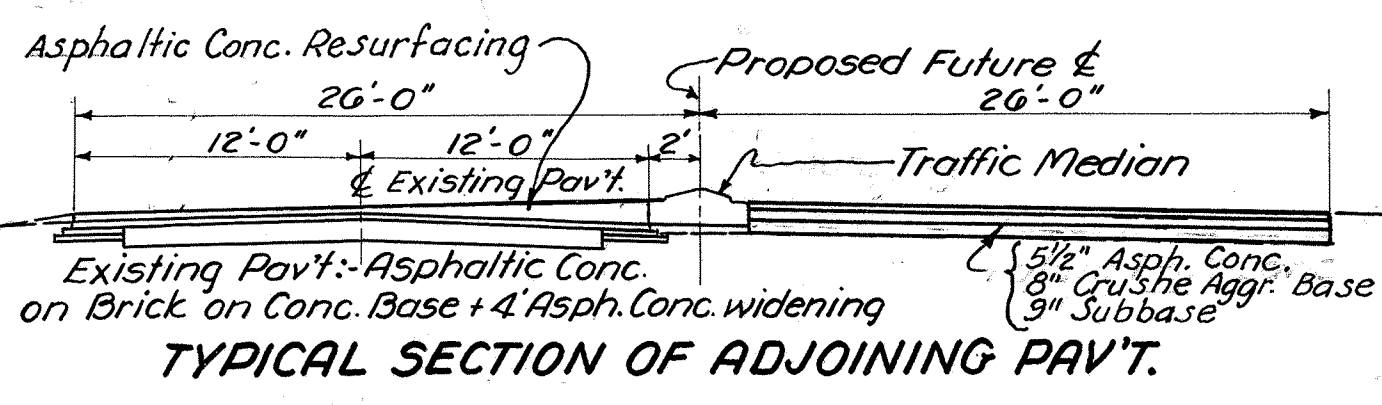
RI = 248 + 23.20
 Δ = 19° - 17' R
 D = 2° - 00' R
 Ls = 300.00'
 Δc = 13° - 17'
 R = 2864.79
 θ = 3° - 00'
 Ts = 636.90
 Es = 42.42
 Lc = 664.17'
 Xc = 299.92
 Yc = 5.24'

NOTE: FOR SUPPLEMENTAL LINE & GRADE SEE SHEET 14.

D DITCHES

Mark	Station		Side	L-10 Sodding Sq. Yds.	I-14 Type 1 Paved Gutter Lin. Ft.
	From	To			
1-D	251+50.47	252+63	Rt.	113	
2-D	252+77.44	254+50.47	Rt.		210
3-D	258+150.47	260+42.57	Rt.	165	228
4-D	260+150	262+15	Rt.		
5-D	254+56		Lt.		32
6-D	258+05	258+15	Lt.		30
Total				278	500

County Road No. 38 or Rosemont Road. See Note Above.
 Sta. 251+50.47 on AA-11(4)
 = Sta. 251+50.47 on A-F-626(15)



BEGIN PROJECT 251+50.47

Note: The Contractor shall conduct his operations Rt. & Sta. 251+50 to Sta. 262+35.87 in such a manner as to permit the existing County Road No. 38 pavement to be used as a detour road for North bound Traffic by the adjoining project to the South.

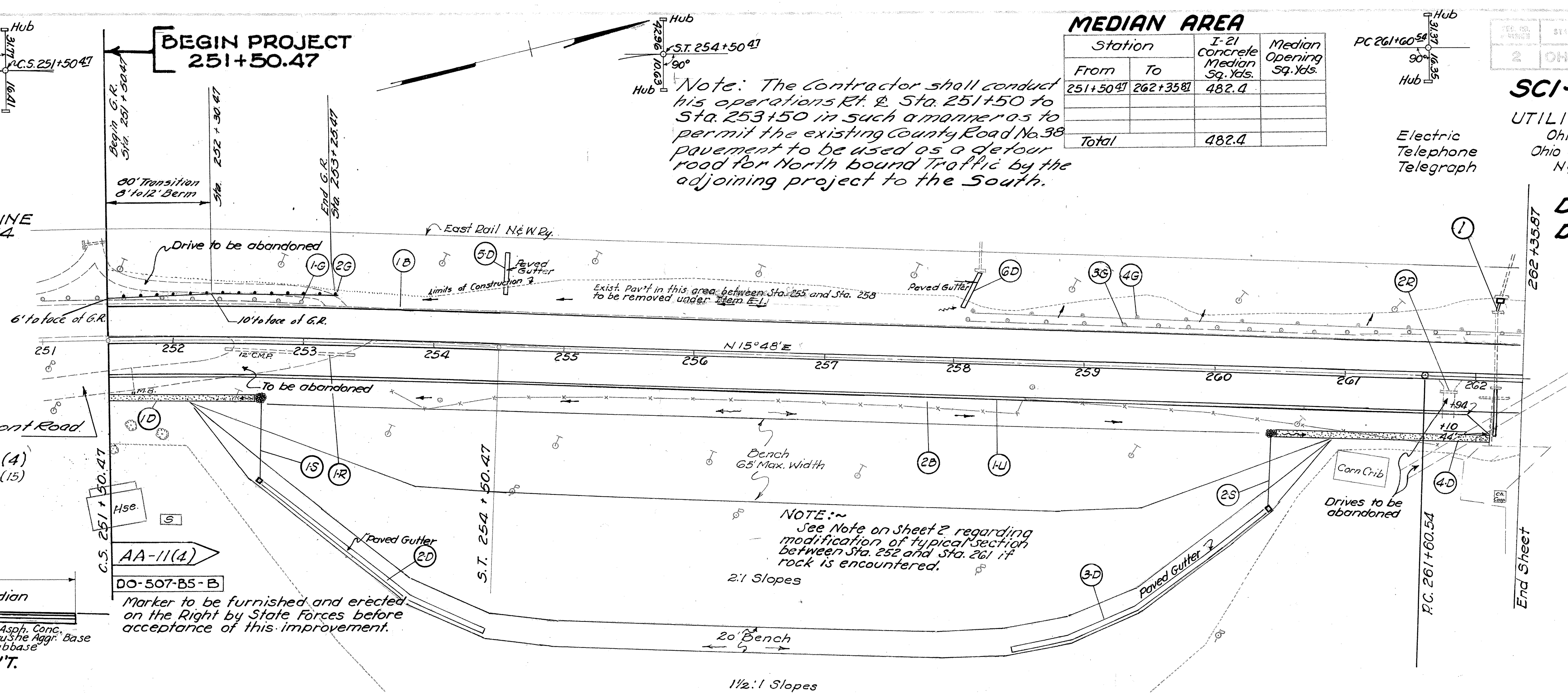
MEDIAN AREA

Station	I-21 Concrete Median Sq. Yds.	Median Opening Sq. Yds.
From 251+50.47	262+35.87	482.4
Total		482.4

SCI-23-4.76

UTILITIES
 Ohio Power Co., Canton, O.
 Ohio Consolidated, Portsmouth, O.
 N & W Ry. Roanoke, Va.

DO-507-B5-B
DO-FG-507-B-5-B



STRUCTURES 20' SPAN & UNDER

Struc	Station	Existing		Proposed		Details on Sheet
		Type	Size	Type	Size	
1	262+14.15	Pipe	24"	58.26'	24"	44
						29

G GUARD RAIL

Mark	Station		Side	I-15 Guard Rail Lin. Ft.	I-15 G.R. Removed & Stored Lin. Ft.
	From	To			
3-G	258+09	262+36	Lt.	423.5	427
4-G	258+125	262+36	Lt.		150
1-G	251+50.47	253+00	Lt.	175	
2-G	251+50.47	253+25.47	Lt.		
Total				598.5	577

R PIPE REMOVAL

Mark	Station		Side	E-12 Pipe Rmvd. & Disp. of 15' & Under
	From	To		
1-R	252+40	253+40	Rt.	100.
2-R	261+73	261+85	Rt.	12
Total				112

B BERM MATERIAL

Mark	Station		Side	55-10, 6" Stabilized Shoulder Cu. Yds.
	From	To		
1-B	251+50.47	262+35.87	Lt.	80.4
2-B	251+50.47	262+35.87	Rt.	80.4
Total				160.8

U PIPE UNDERDRAINS

Mark	Station		Side	I-4 9" Outlet Pipe Lin. Ft.	I-4 8" Outlet Pipe Lin. Ft.	I-5 6" x 45° Bends Units
	From	To				
1-U	251+50.47	262+10	Rt.	1044	20	1
Total				1044	20	1

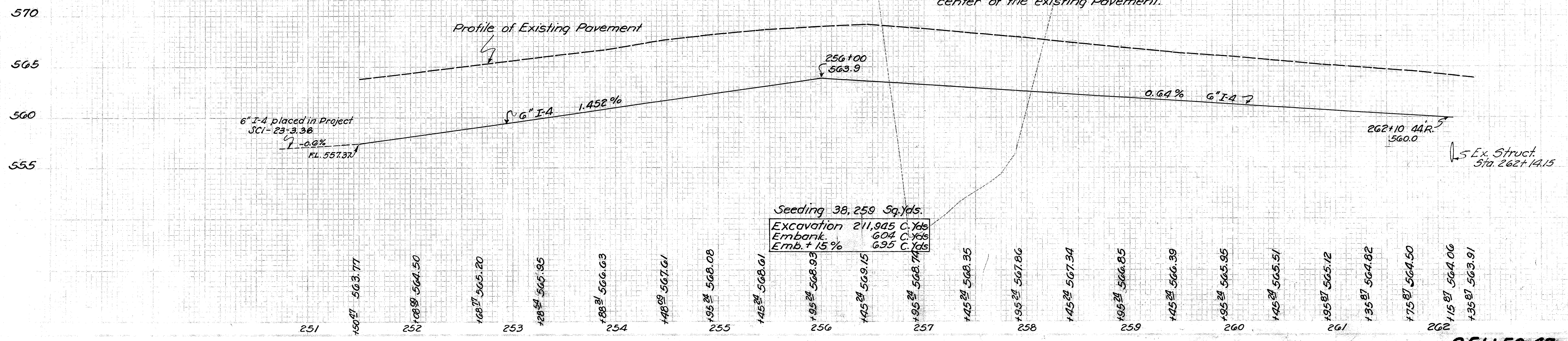
S STORM SEWERS

Mark	Station		Side	12" Pipe for S.S. Sec. M-441 Lin. Ft.	12" x 22 1/2° Bends Lin. Ft.	I-5 45° catch basin units	I-10 Riprap Sq. Yds.
	From	To					
*1-S	252+68.77		Rt.	60	2	1	6
*2-S	260+45.24		Rt.	56	2	1	6
Total				116	4	2	12

251+50.47 - 255+25
 For Pav't. edges See Superelevation Table

255+25 - 260+60.54
 Profile Grade of Salvage and new pav't. is approx. 0.27' above the center of the existing Pavement.

260+60.54 - 262+35.87
 For Pav't. edges see Superelevation Table



R.I. 264+80.33
 $\Delta = 6^{\circ}24'12''$
 $D = 1^{\circ}00'$
 $R = 5729.58'$
 $T = 320.34'$
 $L = 640.00'$

D DITCHES

Station	Side	L-10 Sodding Sq. Yds.	I-14 Pav. Gutter Type I Lin. Ft.
1-D 271+45	271+95 Rt.	45	
2-D 271+85	272+90 Rt.		115
3-D 271+00	273+23 Lt.		215
4-D 273+50	274+38 Rt.	95	
5-D 273+40	275+00 Lt.		160
6-D 275+00	275+62 Lt.	60	
7-D 265+50	Rt.		25
Totals		200	515

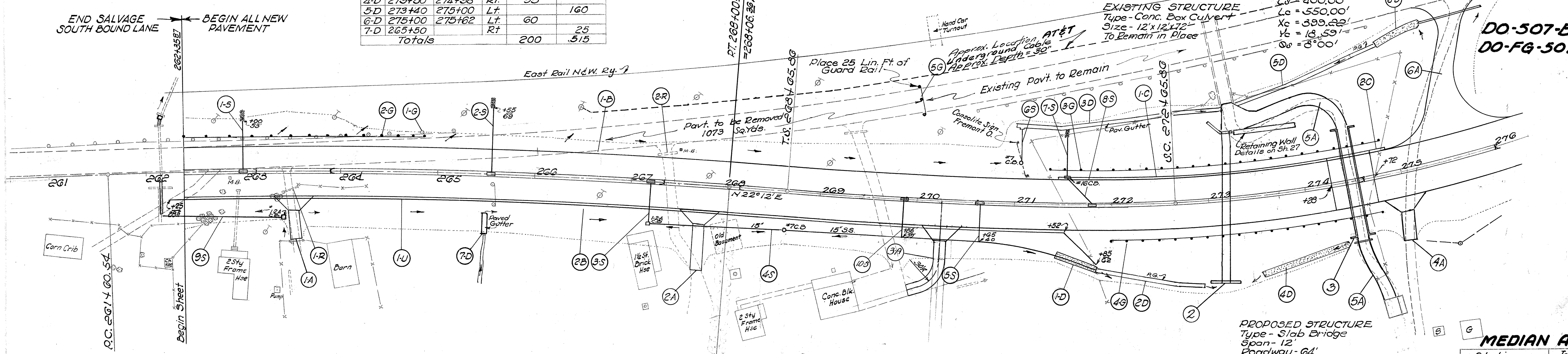
EQUATION
 Deduct 5.32'

C CURB

Station	Side	I-12 Type 2 Curb Cu. Yds.
1-C 271+40	274+28 Lt.	279.4 *
2-C 274+72	274+90 Lt.	18.7
Total		298.1

* C.B. deducted 77 L.F.

R.I. 275+60.54
 $\Delta = 33^{\circ}00'14''$
 $\Delta c = 22^{\circ}00'$
 $Dc = 4^{\circ}00'$
 $Rc = 1432.33'$
 $Tc = 694.63'$
 $Lc = 87.50'$
 $Lc = 400.00'$
 $Lc = 550.00'$
 $Xc = 393.22'$
 $Yc = 18.59'$
 $Oc = 8^{\circ}00'$



A DRIVES & APPR.

Mark	Station	Side	Type	Details on Sheet
1-A	263+52	Rt.	Resid. Dr.	17
2-A	267+72	Rt.	Resid. Dr.	18
3-A	270+25	Rt.	Resid. Dr.	18
4-A	274+9	Rt.	Resid. Dr.	17
5-A	274+50	LpR	Field Dr.	20
6-A	275+24	Lt.	Access Rd.	19

STRUCTURES-20' SPAN & UNDER

Struc. No.	Station	Existing Type	Existing Size	Existing Leng.	Proposed Type	Proposed Size	Proposed Leng.	Details on Sheet
2	273+18	L.B.C.	12"x12"	72'	Pipe	34"	150'	30
3	274+50	Same as Str. 2			Bridge	12'		31-32

G GUARD RAIL

Station	Side	I-15 Guard Rail Lin. Ft.	I-15 G.R. Removed & Stored Lin. Ft.
1-G 262+36	265+18 Lt.		232
2-G 262+36	264+87 Lt.	251.5	
3-G 271+28	274+90 Lt.	348.5 *	
4-G 271+28	274+78 Lt.	273.5 *	
5-G 270+00	Lt.	25	
Totals		898.5	232

* 14' Deducted for bridge

R PIPE REMOVAL

Station	Side	I-12 R. Rem & Disp. Lin. Ft.
1-R 263+43	263+57 Rt.	14
2-R 267+28	267+46 Lt.	20
Total		34

B BERM MATERIAL

Station	Side	55-10 G. stabil. 6" x 45" Bends Cu. Yds.
1-B 262+35	271+40 Lt.	66.6
2-B 262+35	276+00 Rt.	88.3 *
Total		154.9

* Drives & Struc. deducted

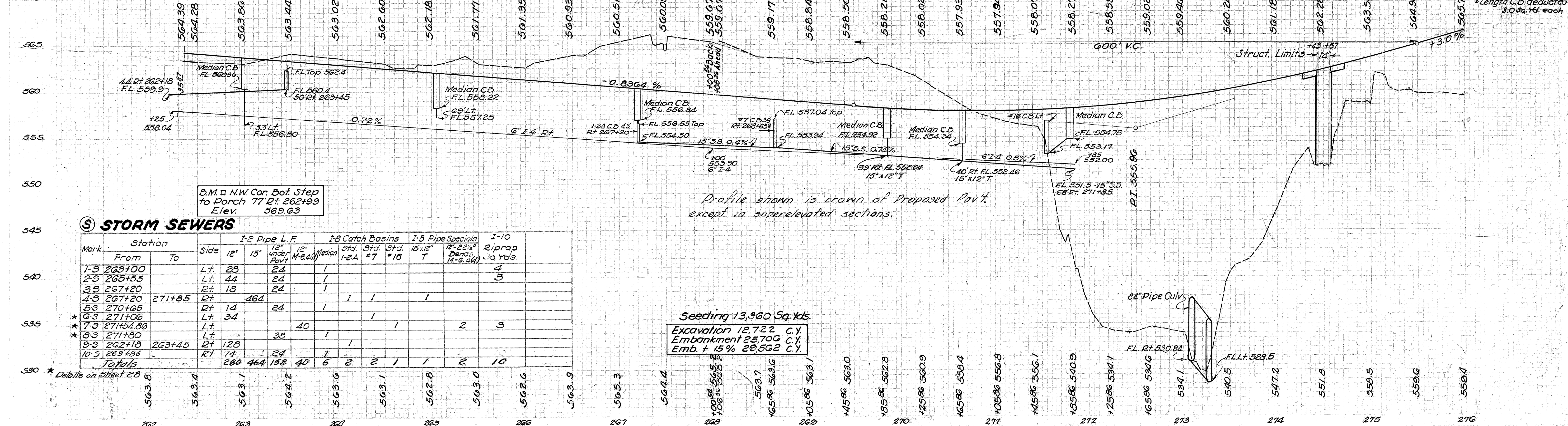
U PIPE UNDERDRAINS

Station	Side	I-4 6" Pipe 8' Outlet Lin. Ft.	I-4 6" x 45" Bends	I-5 6" x 45" Bends
1-U 262+25	271+85 Rt.	948	20	1
Totals		948	20	1

MEDIAN AREAS

Station	I-21 Median Opening as per plan Sq. Yds.	Median Opening Sq. Yds.
262+35	263+14	31.7
263+14	263+90	33.8
263+90	267+34	146.9
267+34	268+15	33.8
268+15	269+45	57.4
269+45	270+21	33.8
270+21	274+28	174.9
274+28	276+00	56.9
Totals		510.2

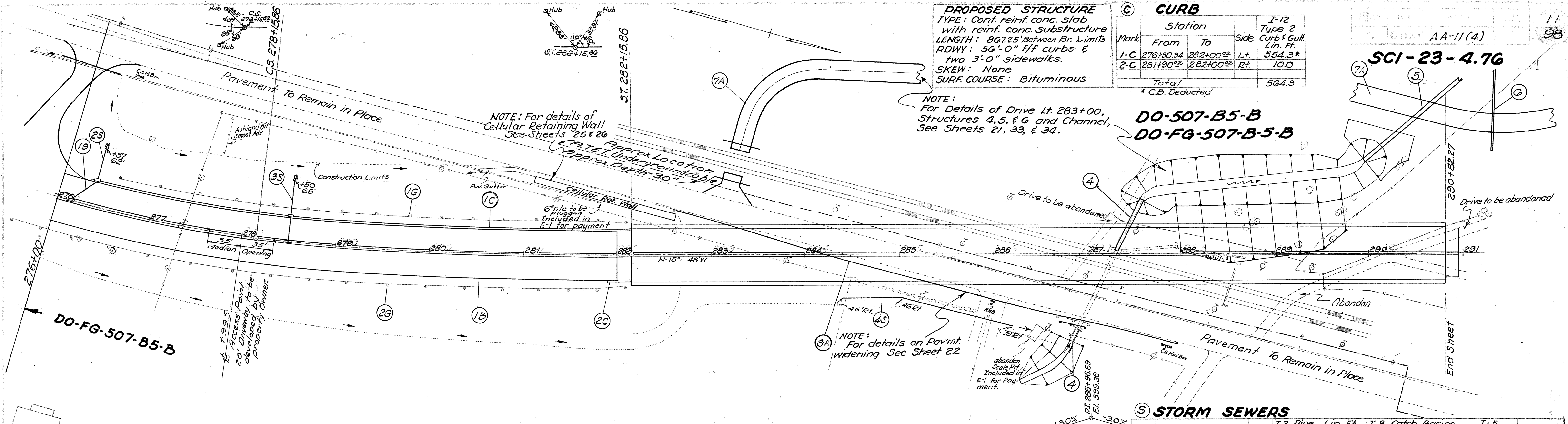
* Length C.B. deducted 3.0 Sq. Yd. each



S STORM SEWERS

Station	Side	I-2 Pipe L.F.				I-8 Catch Basins			I-5 Pipe Specials		I-10 Riprap Sq. Yds.
		12"	15"	18"	24"	Std. 1-2A	Std. #7	Std. #16	15"x12" T	12"x22" Bends M-6.44	
1-S 263+00	Lt.	28				1					4
2-S 265+55	Lt.	44				1					3
3-S 267+20	Rt.	18				1					
4-S 267+20	271+85 Rt.		164			1	1	1	1		
5-S 270+65	Rt.	14				1					
6-S 271+06	Lt.	34						1			
7-S 271+54.86	Lt.			40						2	3
8-S 271+80	Lt.			38		1					
9-S 262+18	263+45 Rt.		128			1					
10-S 269+86	Rt.	14		24		1	2	1	1		10
Totals		280	464	138	40	6	2	2	1	2	10

SCI-23-4.76



DROPOSED STRUCTURE
 TYPE: Cont. reinf. conc. slab with reinf. conc. substructure.
 LENGTH: 867.25' between Br. Limits
 RDWY: 56'-0" f/f curbs & two 3'-0" sidewalks.
 SKEW: None
 SURF COURSE: Bituminous

(C) CURB

Mark	Station		Side	I-12 Type 2 Curb & Gutt. Lin. Ft.
	From	To		
1-C	276+30.34	282+00.02	Lt.	554.3*
2-C	281+90.02	282+00.02	Rt.	10.0
Total				564.3

* C.B. Deducted

NOTE: For details of Drive Lt. 283+00, Structures 4, 5, & G and Channel, See Sheets 21, 33, & 34.

DO-507-B5-B
DO-FG-507-B5-B

(A) DRIVES & APPROACHES

Mark	Station	Side	Type	Details on Sheet
7-A	283+00	Lt.	Resid. Appr.	21
8-A			Pavement Widening under Dr.	22

STRUCTURES-20' SPAN & UNDER

Str. No.	Station	Existing		Proposed		Details on Sheet
		Type	Size	Type	Size	
4	287+13.16	Box & Pipe	4' x 4' 3/4" 38'	Exten	2' x 2' 1/2" 164'	33
5	Dr. Lt. 283+00	None	None	Pipe	48" 164'	34
6	Dr. Lt. 283+00	None	None	Pipe	15" 92'	34

(C) GUARD RAIL

Mark	Station		Side	I-15 Guard Rail Lin. Ft.
	From	To		
1-G	276+60	282+10	Lt.	550
2-G	275+60	282+10	Rt.	650
Total				1200

(B) BERM MATERIAL

Mark	Station		Side	55-10 6" Stabil. Shoulder Cu. Yds.
	From	To		
1-B	276+00	281+90.02	Rt.	437
Total				437

MEDIAN AREA

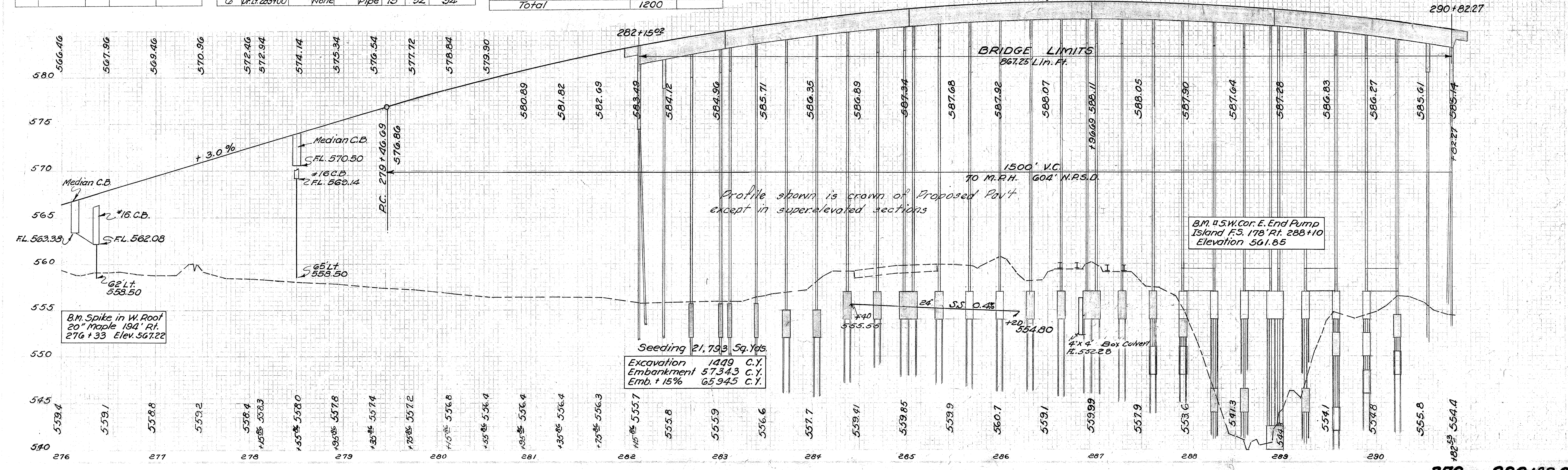
Mark	Station		Side	I-21 Median as per plan Sq. Yds.
	From	To		
1-M	276+00	282+00.02	Lt.	229.6*
Total				229.6

* C.B. & Median Opening Deducted

(S) STORM SEWERS

Mark	Station		Side	I-2 Pipe Lin. Ft.		I-8 Catch Basins		I-5 Pipe Spec. 12" x 23 1/2" Bends M-G.D.(d)	I-10 Riprap Sq. Yds.
	From	To		12"	24"	No.	16		
1-S	276+10		Lt.			1			
2-S	276+37			34		1			2
3-S	278+50*			28	32	1	1	2	2
4-S	284+40	286+20		186					
Total				34	186	64	32	2	4

* Detail on Sheet No. 28



Seeding 21,793 Sq. Yds.
 Excavation 1449 C.Y.
 Embankment 5734.3 C.Y.
 Emb. + 15% 6594.5 C.Y.

MEDIAN AREA

Station	I-21 Median as per plan Sq. Yds.
From 290+97.22	To 302+05.23
477.4*	

*Deduct for C.B. (35 sq. yd.)

(C) CURB

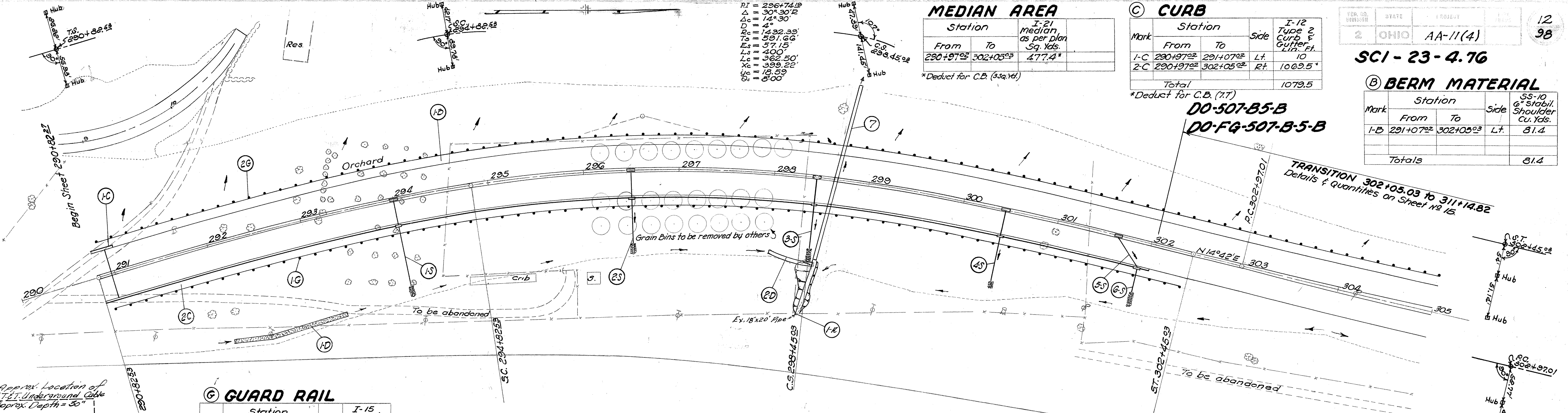
Mark	Station	Side	I-12 Type 2 Curb Gutter Ft.
I-C	290+97.22	291+07.22	Lt. 10
Z-C	290+97.22	302+05.23	Rt. 100.9.5*
Total			109.9.5

*Deduct for C.B. (7.7)

SCI - 23 - 4.76

(B) BERM MATERIAL

Mark	Station	Side	SS-10 6" Stabl. Shoulder Cu. Yds.
I-B	291+07.22	302+05.23	Lt. 81.4
Totals			81.4



(G) GUARD RAIL

Mark	Station	Side	I-15 Guard Rail Lin. Ft.
I-G	290+90	302+40	Rt. 1150
Z-G	290+90	306+00	Lt. 1510
Totals			2660

(R) PIPE REMOVAL

Mark	Station	Side	I-12 Pipe Remv. of Disp. of Over 15"
I-R	298+45	Rt.	20
Total			20

(S) STORM SEWERS

Mark	Station	Side	I-2 Pipe 12" Under Pav't M.G. (4)	I-8 Catch Basins Median #16	I-5 12" x 22 1/2" Bends M.G. (4)	I-10 Riprap Sq. Yds.
I-S	294+00	Rt.	28 60	1 1	2 4	
Z-S	296+50	Rt.	28 48	1 1	2 4	
I-S	298+45	Rt.	28 48	1 1	2 4	
Z-S	300+45	Rt.	28 48	1 1	2 3	
I-S	301+65	Rt.	40			5
Z-S	301+91	Rt.	26			
Totals			152 228	5 5	8 20	

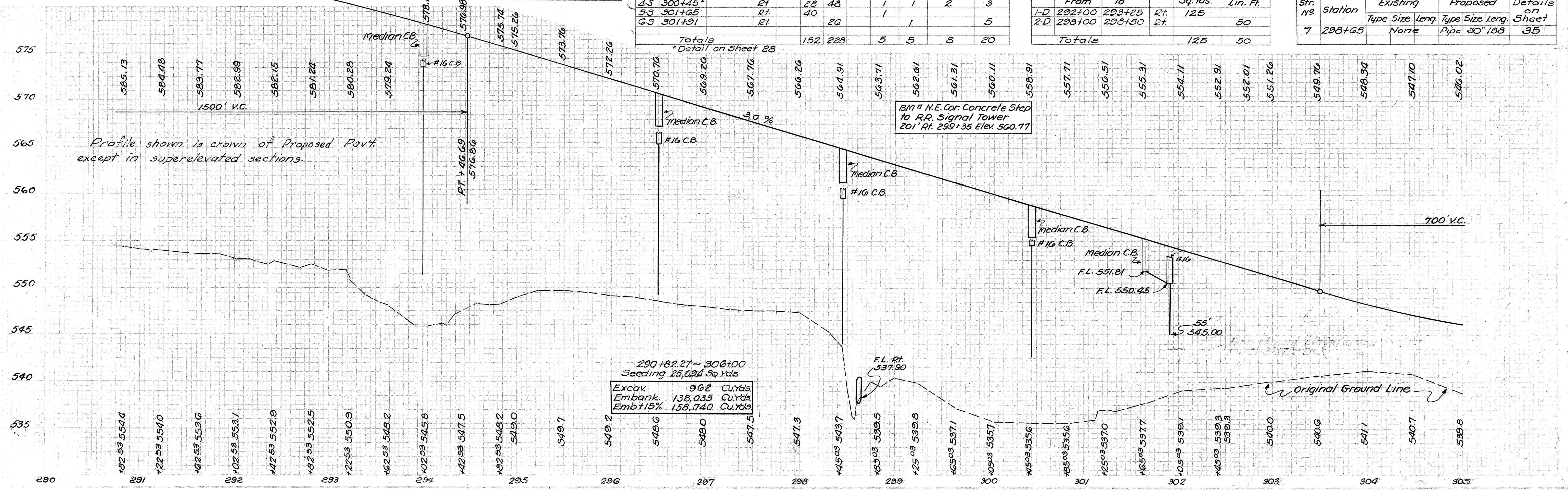
*Detail on Sheet 28

(D) DITCHES

Mark	Station	Side	L-10 Sodding Sq. Yds.	I-14 Rip Gutter Type 1 Lin. Ft.
I-D	292+00	293+25	Rt.	125
Z-D	298+00	298+50	Rt.	50
Totals			125	50

STRUCTURES - 20' SPAN & UNDER

Str. No	Station	Existing Type Size Leng.	Proposed Type Size Leng.	Details on Sheet
7	298+65	None	Pipe 30' 188	35



290+82.27 - 306+00
Seeding 25,034 Sq. Yds.
Excav. 962 Cu. Yds.
Embank. 138,035 Cu. Yds.
Emb+15% 158,740 Cu. Yds.

BM N.E. Cor. Concrete Step to RR. Signal Tower
20' Rt. 299+35 Elev. 560.77

DO-FG-507-B5-B
 P.I. = Sta. 306+58.80
 Δ = 3°-37' Lt.
 D = 0°-30'
 R = 11459.16
 T = 361.79
 L = 723.33
 E = 5.71

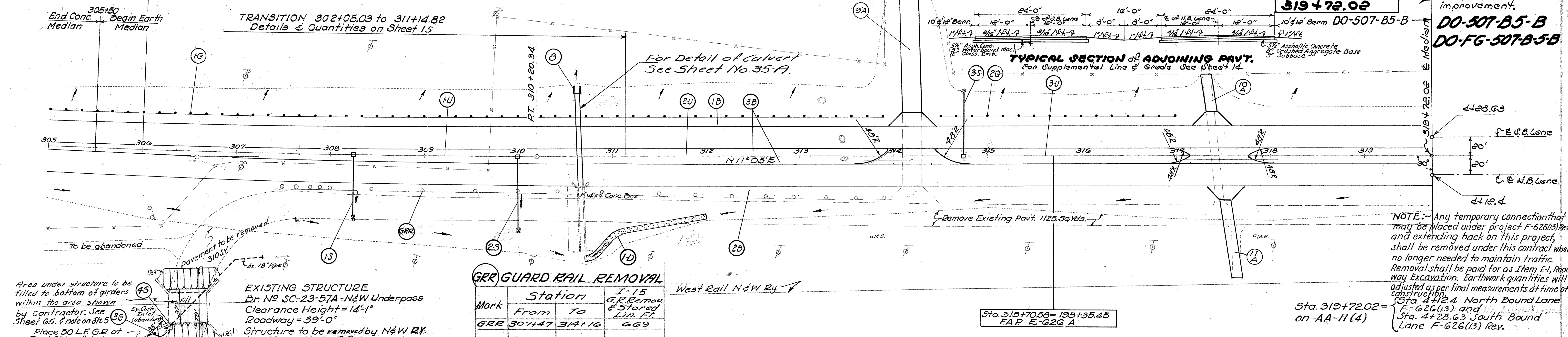
D DITCHES

Mark	Station	Side	L-10 Sadding Sq. Yds.
1-D	310+70	Rt	142
Total			142

SCI-23-4.76
 AA-11(4)
 Note: - Markers to be furnished and erected on the left by State Forces before acceptance of this improvement.

END PROJECT
 319+72.02

DO-507-B5-B
DO-FG-507-B5-B



Area under structure to be filled to bottom of girders within the area shown by contractor. See Sheet 65.7 note on Str. 5

Place 50 L.F. G.R. at East Side of Underpass as directed by the Engineer.

EXISTING STRUCTURE
 Dr. No SC-23-57A-N&W Underpass
 Clearance Height = 14'-1"
 Roadway = 39'-0"
 Structure to be removed by N&W RY. (See Sec. 3-(b)-3 of Agreement with N&W Railway Co.)

GRR GUARD RAIL REMOVAL

Mark	Station	I-15 G.R. Removal & Stored Lin. Ft.	
GRR	307+47	314+16	669
Total			669

A DRIVES & APPROACHES

Mark	Station	Side	Type	Details on Sheet
9A	314+20	Lt	Commercial	23
10A	317+45.9	Lt	Field Drive	24
11A	317+45.9	Rt	Residence	24

STRUCTURES-20 SPAN & UNDER

Str. No	Station	Existing Type	Existing Size	Existing Leng.	Proposed Type	Proposed Size	Proposed Leng.	Details on Sheet
3	310+65.2	S.B.C	4'x2'	68.42	Pipe	60"	100'	35 A

C GUARD RAIL

Mark	Station	Side	I-15 Guard Rail Lin. Ft.	
1-G	306+00	Lt	790	
2-G	314+50	Lt	250	
3-G	Rt 306+50	Rt	50	
Totals				1090

B BERM MATERIAL

Mark	Station	Side	S.S.-10 6" Stabil. Shoulder Cu. Yds.	
1-B	311+14.82	Lt	57.3 *	
2-B	311+14.82	Rt	60.7 *	
3-B	311+14.82	L&R	112.2 *	
Total				230.2

* Drive Deducted * Crossover deducted

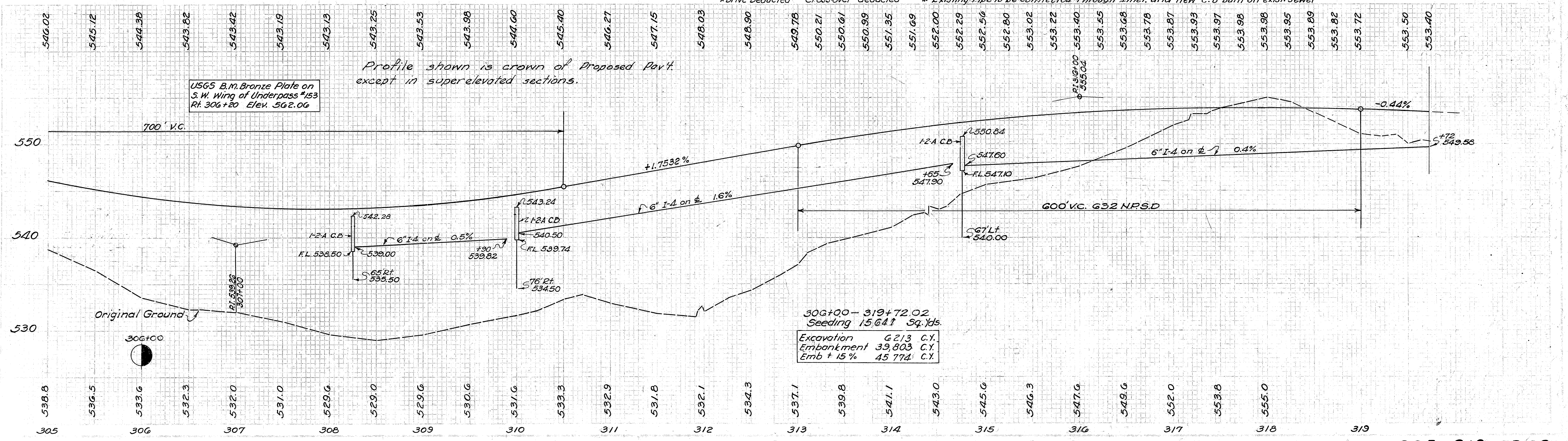
S STORM SEWER

Mark	Station	I-16 Inlets Abandoned	Side	F2 Pipe 12" Under Pavt. Lin. Ft.	I-8 1-2 A catch Basin	I-10 Riprap Sq. Yds.
1-S	308+25		Rt	40	24	1
2-S	310+00		Rt	52	24	1
3-S	314+75		Lt	42	24	1
4-S	306+35		Rt	1		1
Totals				134	72	4

* Existing Pipe to be Connected Through Inlet, and new C.B built on exist. sewer

U PIPE UNDERDRAINS

Mark	Station	Side	I-4 6" Pipe Lin. Ft.	
1-U	308+26	±	164	
2-U	310+01	±	464	
3-U	314+76	±	496	
Total				1124



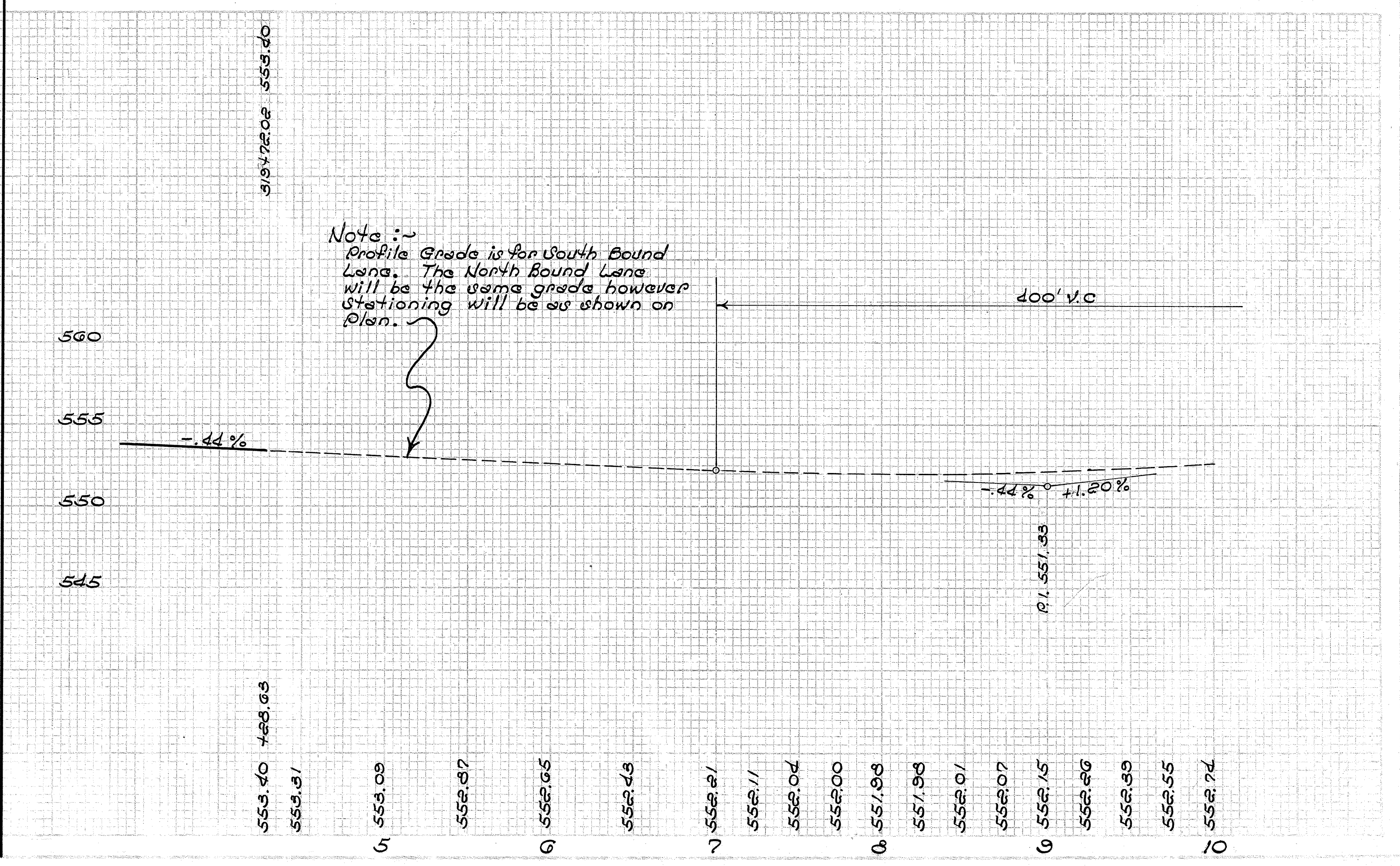
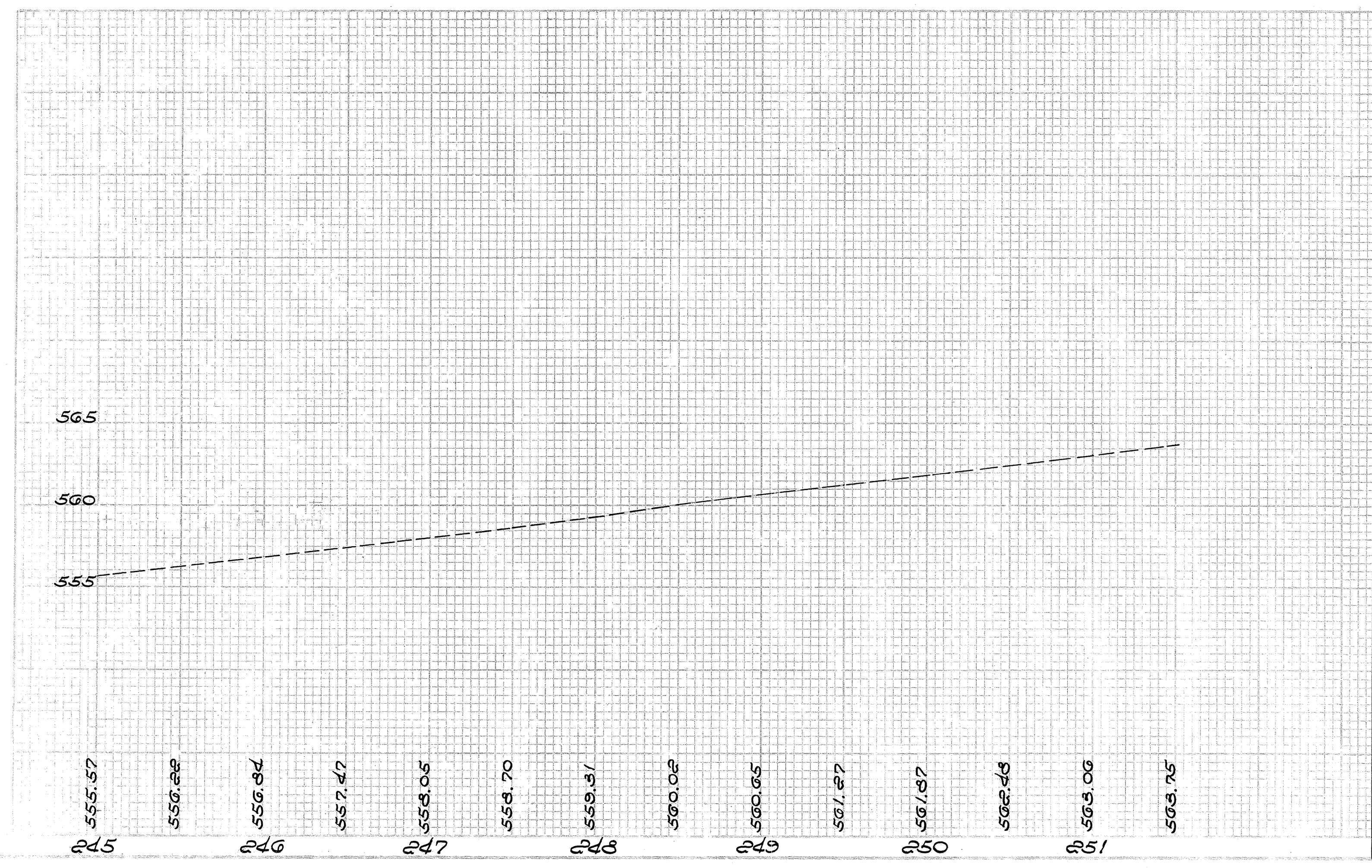
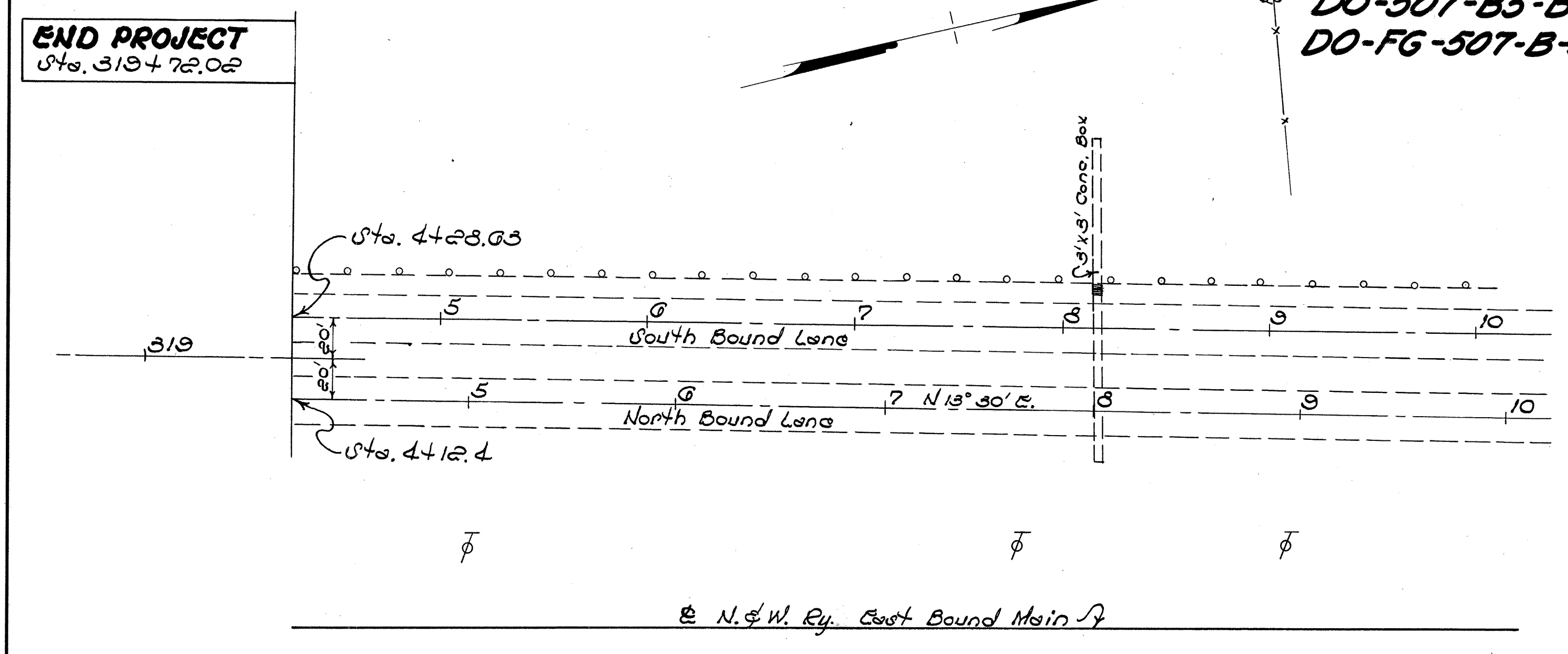
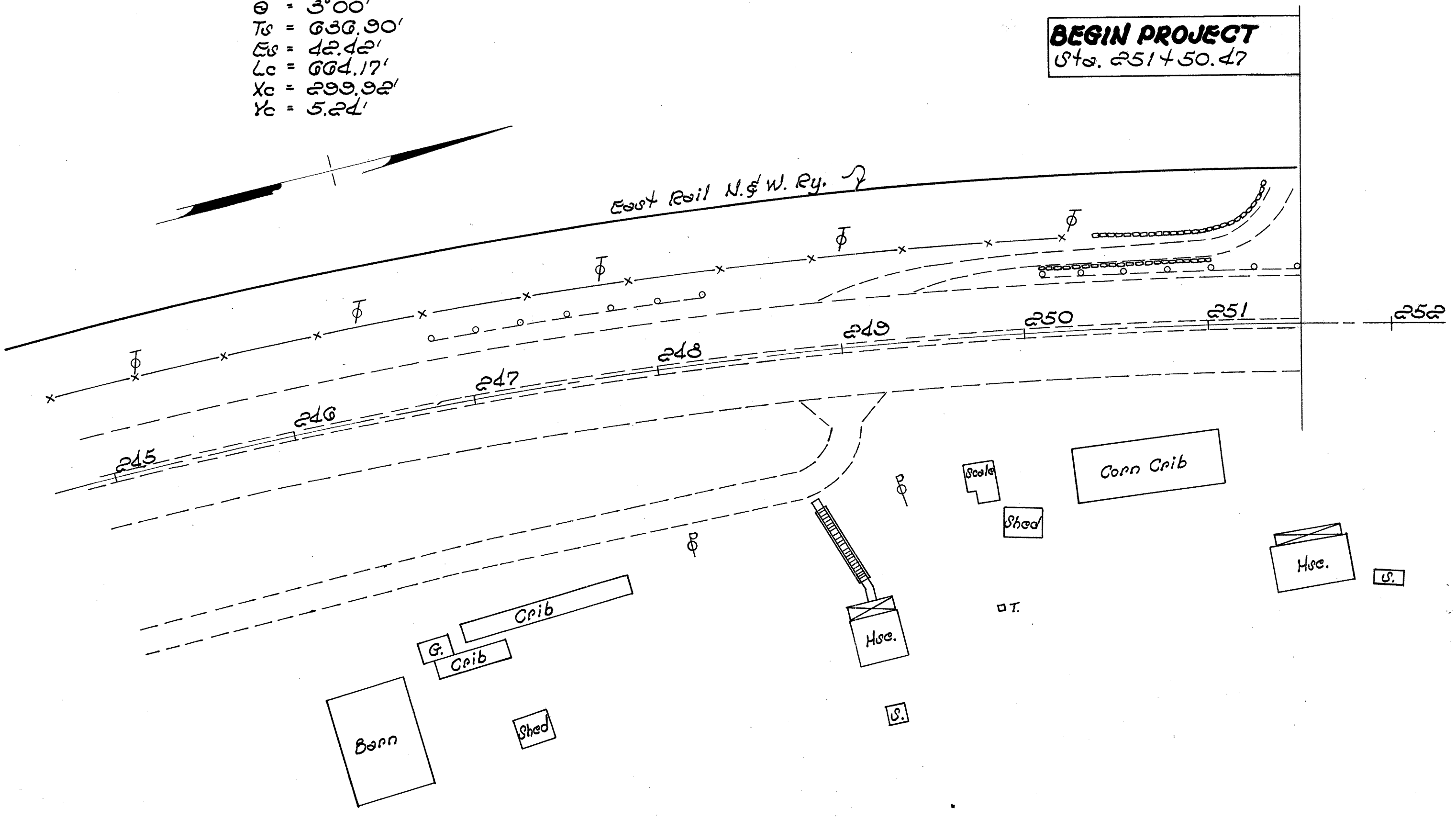
SUPPLEMENTAL ALIGNMENT

P.I. = 243+23.20
 $\Delta = 19^{\circ}17'24''$
 $D = 2^{\circ}00'24''$
 $L_c = 300.00'$
 $\Delta_c = 13^{\circ}17'$
 $R = 2364.73'$
 $\theta = 3^{\circ}00'$
 $T_c = 638.90'$
 $E_c = 42.42'$
 $L_c = 664.17'$
 $X_c = 299.92'$
 $Y_c = 5.24'$

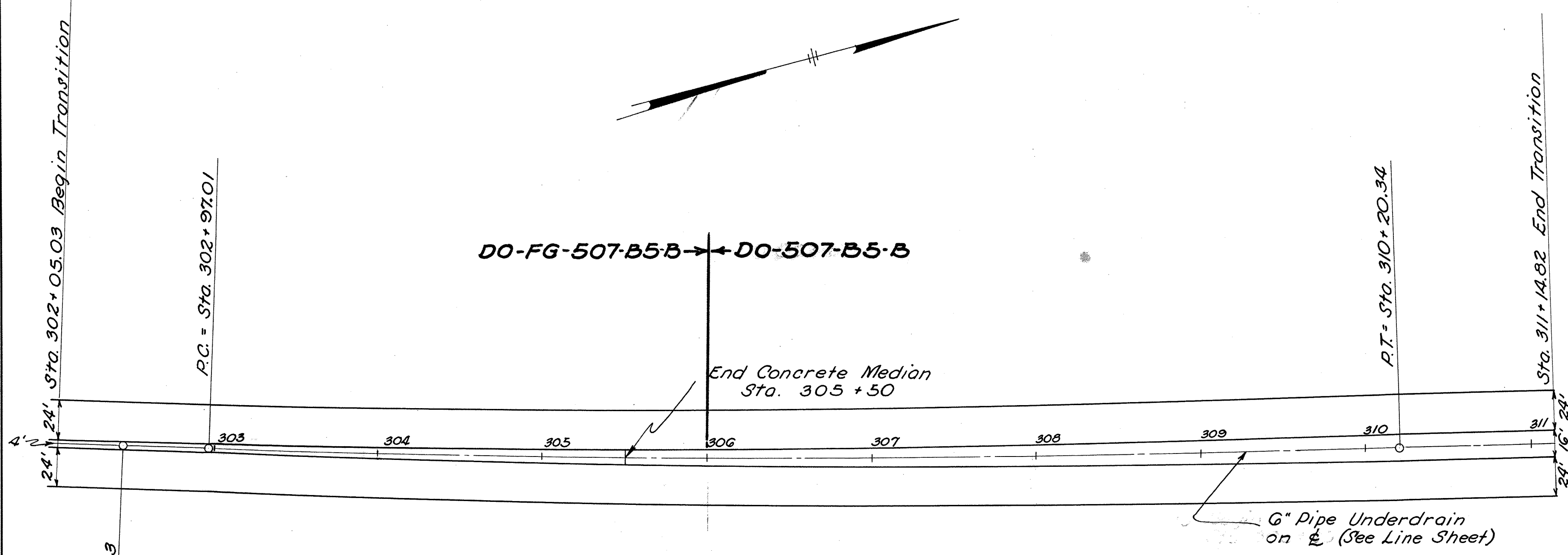
FED. BR. DISTRICT	STATE	PROJECT	SPR. FUND
2	OHIO	AA-11(4)	

14
98

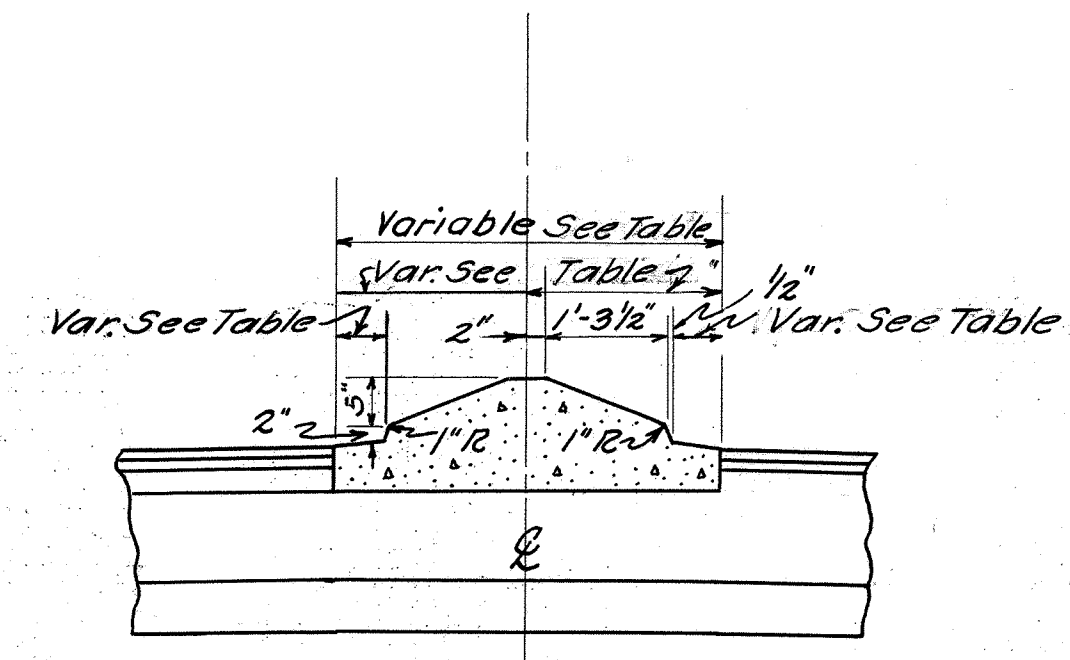
SCI-23-4.76
 DO-507-B5-B
 DO-FG-507-B-5-B



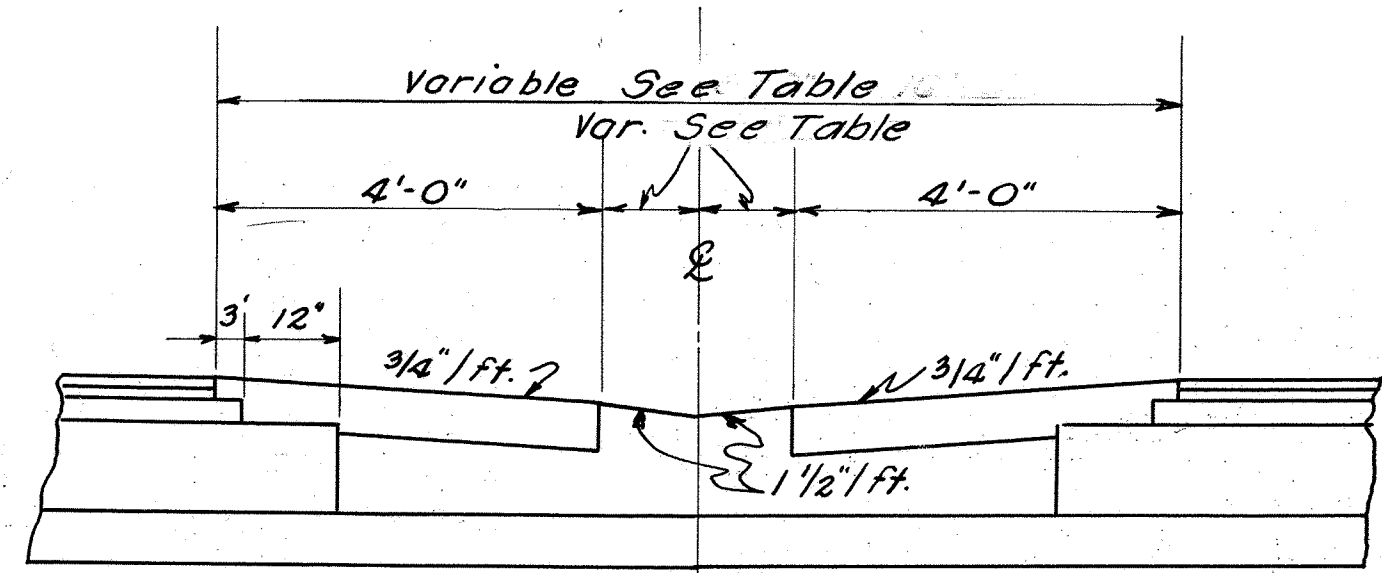
SCI-23-4.76
DIMENSIONS AND ELEVATIONS DO-507-B5-B
FOR TRANSITION
DO-FG-507-B-5-B
STA. 302+05.03 TO STA. 311+14.82



DETAIL OF TRANSITION
 Sta. 302+05.03 to 311+14.82
 Scale 1" = 50'



DETAIL OF MEDIAN
 Sta. 302+05.03 to Sta. 305+50



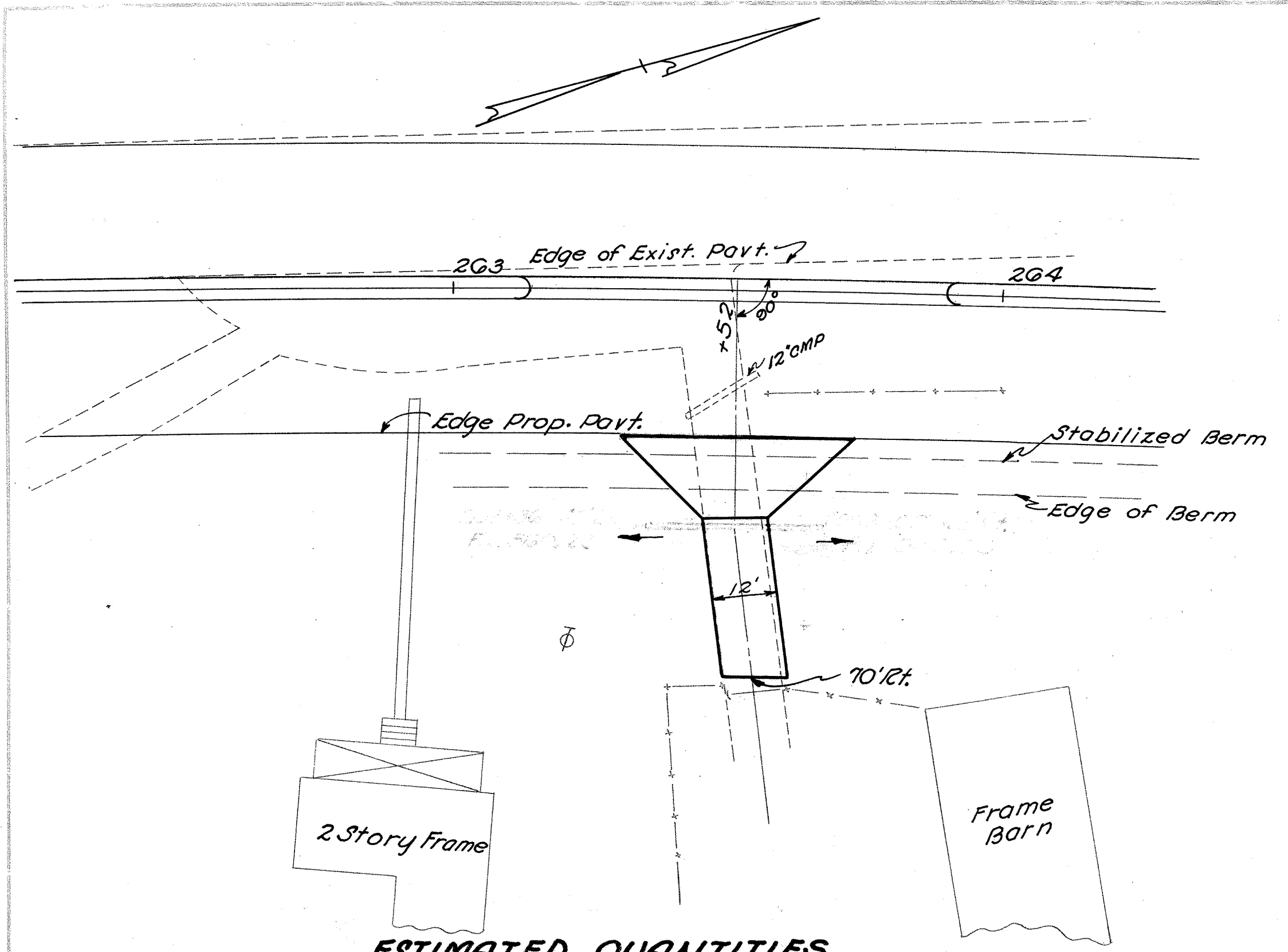
DETAIL OF MEDIAN
 Sta. 305+50 to Sta. 311+14.82

LEFT LANE						CENTER LINE		RIGHT LANE						
Elev.	Dist. From \mathcal{E}	Elev.	Dist. From \mathcal{E}	Elev.	Dist. From \mathcal{E}	Station	Profile Grade	Dist. From \mathcal{E}	Elev.	Dist. From \mathcal{E}	Elev.	Dist. From \mathcal{E}	Elev.	Dist. From \mathcal{E}
554.11	26.00	554.18	14.00	554.26	2.00	302+00	554.26	2.00	554.26	14.00	553.99	26.00	553.72	
554.04	26.00	554.07	14.00	554.11	2.00	+0503	554.11	2.00	554.11	14.00	553.86	26.00	553.60	
553.23	26.02	553.37	14.02	553.51	2.02	+25	553.51	2.00	553.51	14.00	553.28	26.00	553.05	
552.38	26.10	552.57	14.10	552.76	2.10	+50	552.76	2.00	552.76	14.00	552.57	26.00	552.38	
551.63	26.24	551.82	14.24	552.01	2.24	+75	552.01	2.00	552.01	14.00	551.82	26.00	551.63	
550.97	26.40	551.16	14.40	551.35	2.40	+97.01	551.35	2.00	551.35	14.00	551.16	26.00	550.97	
550.13	26.62	550.32	14.62	550.51	2.62	303+25	550.51	2.03	550.51	14.03	550.32	26.03	550.13	
549.88	26.81	549.07	14.81	549.26	2.81	+50	549.26	2.12	549.26	14.12	549.07	26.12	548.88	
549.65	26.99	548.84	14.99	549.03	2.99	+75	549.03	2.27	549.03	14.27	548.84	26.27	548.65	
547.96	27.18	548.15	15.18	548.34	3.18	304+00	548.34	2.44	548.34	14.44	548.15	26.44	547.96	
547.32	27.40	547.51	15.40	547.70	3.40	+25	547.70	2.65	547.70	14.65	547.51	26.65	547.32	
546.72	27.61	546.91	15.61	547.10	3.61	+50	547.10	2.86	547.10	14.86	546.91	26.86	546.72	
546.16	27.82	546.35	15.82	546.54	3.82	+75	546.54	3.07	546.54	15.07	546.35	27.07	546.16	
545.64	28.03	545.83	16.03	546.02	4.03	305+00	546.02	3.28	546.02	15.28	545.83	27.28	545.64	
545.17	28.25	545.36	16.25	545.55	4.25	+25	545.55	3.49	545.55	15.49	545.36	27.49	545.17	
544.74	28.46	544.93	16.46	545.12	4.46	+50	545.12	3.70	545.12	15.70	544.93	27.70	544.74	
544.35	28.67	544.54	16.67	544.73	4.67	+75	544.73	3.91	544.73	15.91	544.54	27.91	544.35	
544.00	28.88	544.19	16.88	544.38	4.88	306+00	544.38	4.12	544.38	16.12	544.19	28.12	544.00	
543.70	29.09	543.89	17.09	544.08	5.09	+25	544.08	4.33	544.08	16.33	543.89	28.33	543.70	
543.44	29.30	543.63	17.30	543.82	5.30	+50	543.82	4.54	543.82	16.54	543.63	28.54	543.44	
543.22	29.51	543.41	17.51	543.60	5.51	+75	543.60	4.75	543.60	16.75	543.41	28.75	543.22	
543.04	29.72	543.23	17.72	543.42	5.72	307+00	543.42	4.96	543.42	16.96	543.23	28.96	543.04	
542.90	29.93	543.09	17.93	543.28	5.93	+25	543.28	5.17	543.28	17.17	543.09	29.17	542.90	
542.81	30.14	543.00	18.14	543.17	6.14	+50	543.17	5.38	543.17	17.38	543.00	29.38	542.81	
542.76	30.35	542.95	18.35	543.10	6.35	+75	543.10	5.59	543.10	17.59	542.95	29.59	542.76	
542.75	30.56	542.94	18.56	543.07	6.56	308+00	543.07	5.80	543.07	17.80	542.94	29.80	542.75	
542.79	30.77	542.98	18.77	543.08	6.77	+25	543.08	6.01	543.08	18.01	542.98	30.01	542.79	
542.87	30.98	543.06	18.98	543.13	6.98	+50	543.13	6.22	543.13	18.22	543.06	30.22	542.87	
542.99	31.19	543.18	19.19	543.23	7.19	+75	543.23	6.43	543.23	18.43	543.18	30.43	542.99	
543.15	31.40	543.34	19.40	543.37	7.40	309+00	543.37	6.63	543.37	18.63	543.34	30.63	543.15	
543.35	31.62	543.54	19.62	543.54	7.62	+25	543.54	6.82	543.54	18.82	543.54	30.82	543.35	
543.62	31.78	543.81	19.78	543.79	7.78	+50	543.79	7.02	543.79	19.02	543.81	31.02	543.62	
543.93	31.92	544.12	19.92	544.08	7.92	+75	544.08	7.25	544.08	19.25	544.12	31.25	543.93	
544.28	31.99	544.47	19.99	544.41	7.99	310+00	544.41	7.45	544.41	19.45	544.47	31.45	544.28	
544.61	32.00	544.80	20.00	544.72	8.00	+20.34	544.72	7.60	544.72	19.60	544.80	31.60	544.61	
545.14	32.00	545.33	20.00	545.21	8.00	+50	545.21	7.82	545.21	19.82	545.33	31.82	545.14	
545.60	32.00	545.79	20.00	545.65	8.00	+75	545.65	7.93	545.65	19.93	545.79	31.93	545.60	
546.05	32.00	546.24	20.00	546.08	8.00	311+00	546.08	7.99	546.08	19.99	546.24	31.99	546.05	
546.33	32.00	546.52	20.00	546.34	8.00	+14.82	546.34	8.00	546.34	20.00	546.52	32.00	546.33	
546.52	32.00	546.71	20.00	546.52	8.00	+25	546.71	8.00	546.52	20.00	546.71	32.00	546.52	

ESTIMATED QUANTITIES

		DO-FG-507	DO-507-B5-B	Total	Unit
I-21	Std. P.C. Conc. Median Pav't, as per plan	213.8	-	213.8	Sq.Yds.
T-35	1 1/2" Asphaltic Concrete Surface Course Type "A" (70-80)	73.2	95.3	168.5	Cu.Yds.
B-35	1 1/4" Asphaltic Concrete Leveling Course (70-80)	73.2	95.3	168.5	Cu.Yds.
B-35	3" Asphaltic Concrete Base Course (70-80)	177.6	233.6	411.2	Cu.Yds.
T-30	Bituminous Prime Coat	862.0	1054.0	1916.0	Gals.
SS-5	11" Classified Embankment Material as per plan	752.7	320.4	1073.1	Cu.Yds.
I-22	G" subbase Grading "A" or "B"	656.2	804.8	1461.0	Cu.Yds.
SS-10	Stabilized Shoulder G" in depth	55.0	164.0	219.0	Cu.Yds.

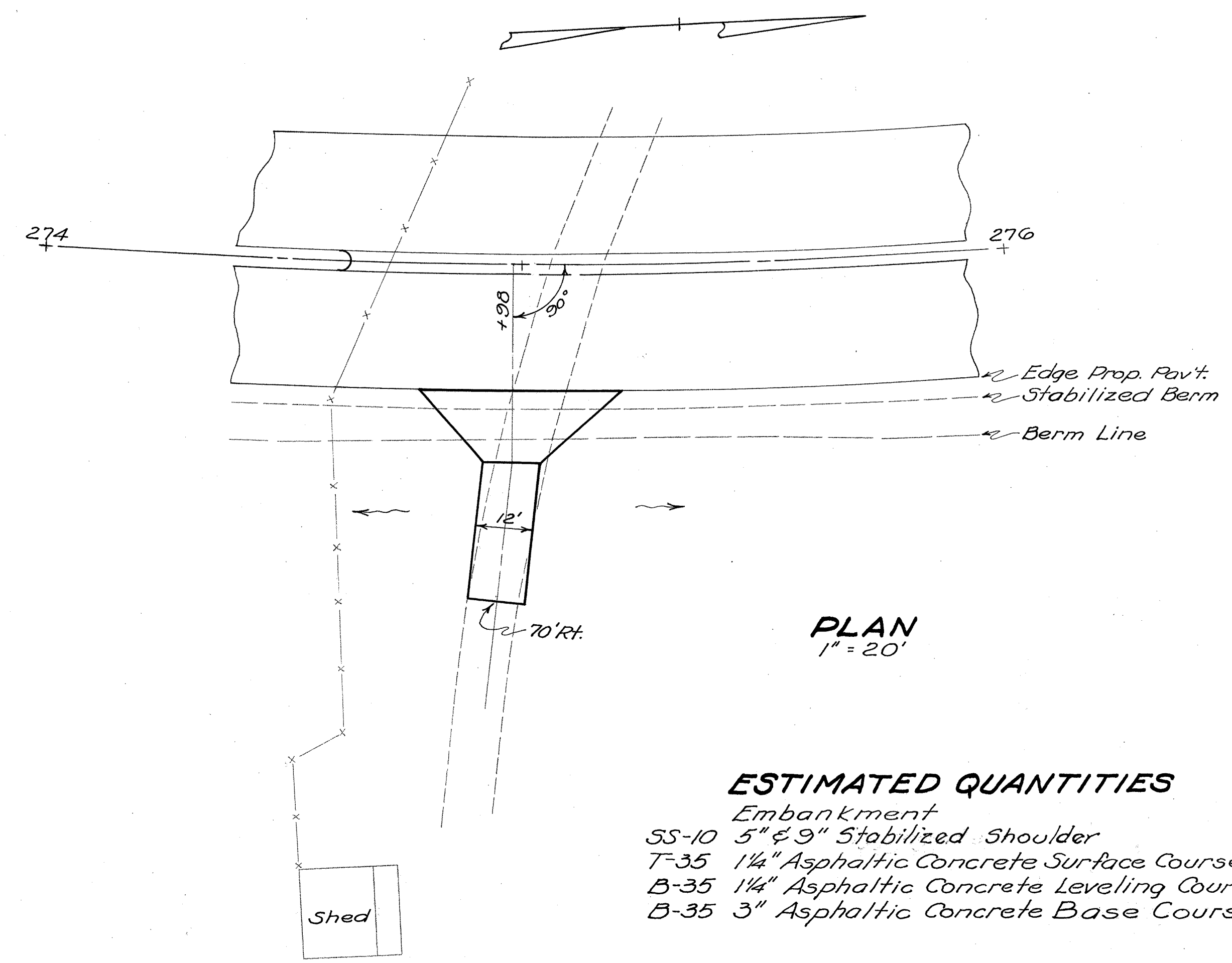
SCI-23-4.76
 DO-507-B5-B
 DO-FG-507-B-5-B



ESTIMATED QUANTITIES

Excavation	13 Cu. Yds.
SS-10 5" & 9" Stabilized Shoulder	16.3 Cu. Yds.
T-35 1 1/4" Asphaltic Concrete Surface Course	1.6 Cu. Yds.
B-35 1 1/4" Asphaltic Concrete Leveling Course	1.6 Cu. Yds.
B-35 3" Asphaltic Concrete Base Course	3.8 Cu. Yds.

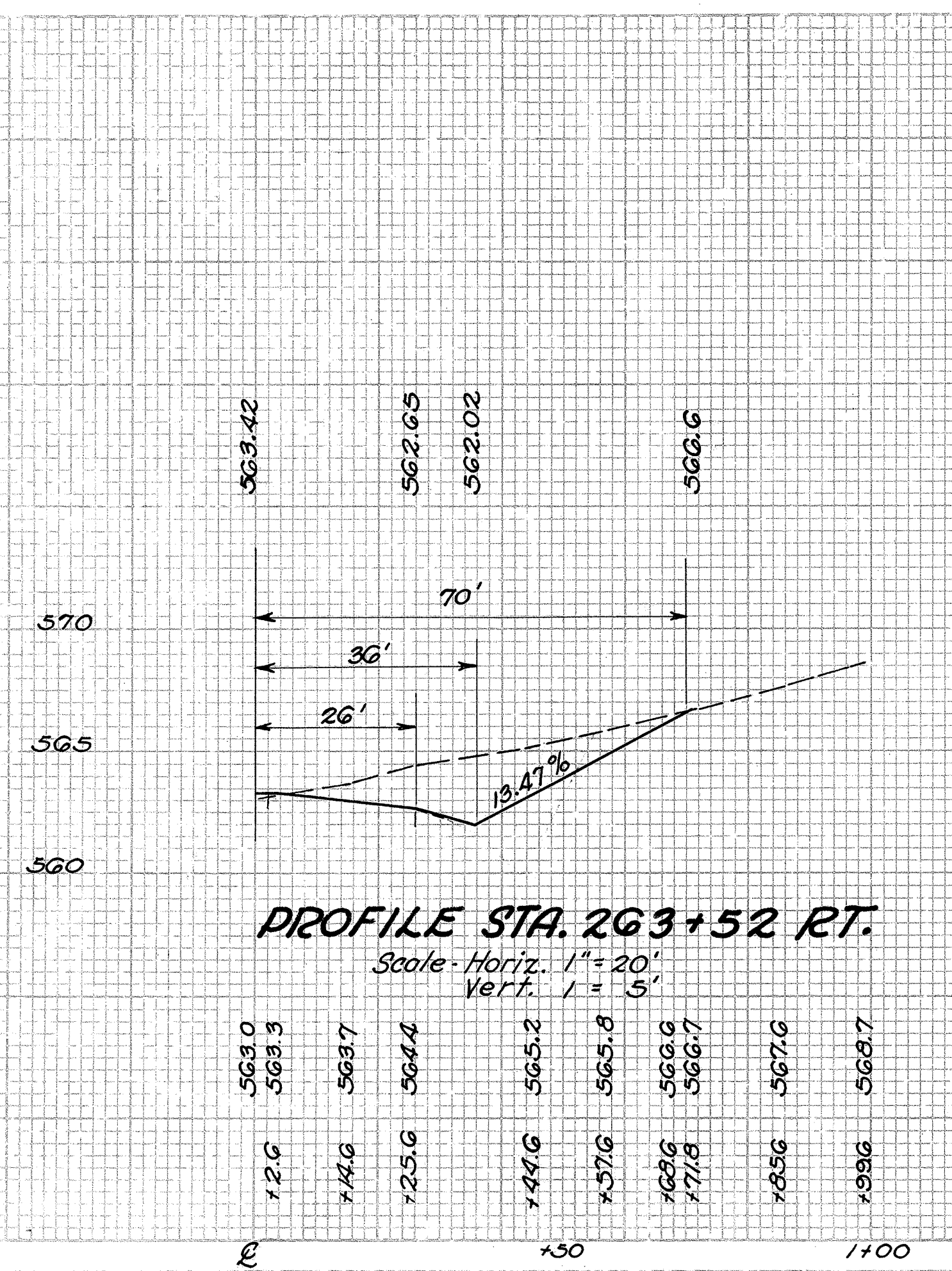
PLAN
1" = 20'



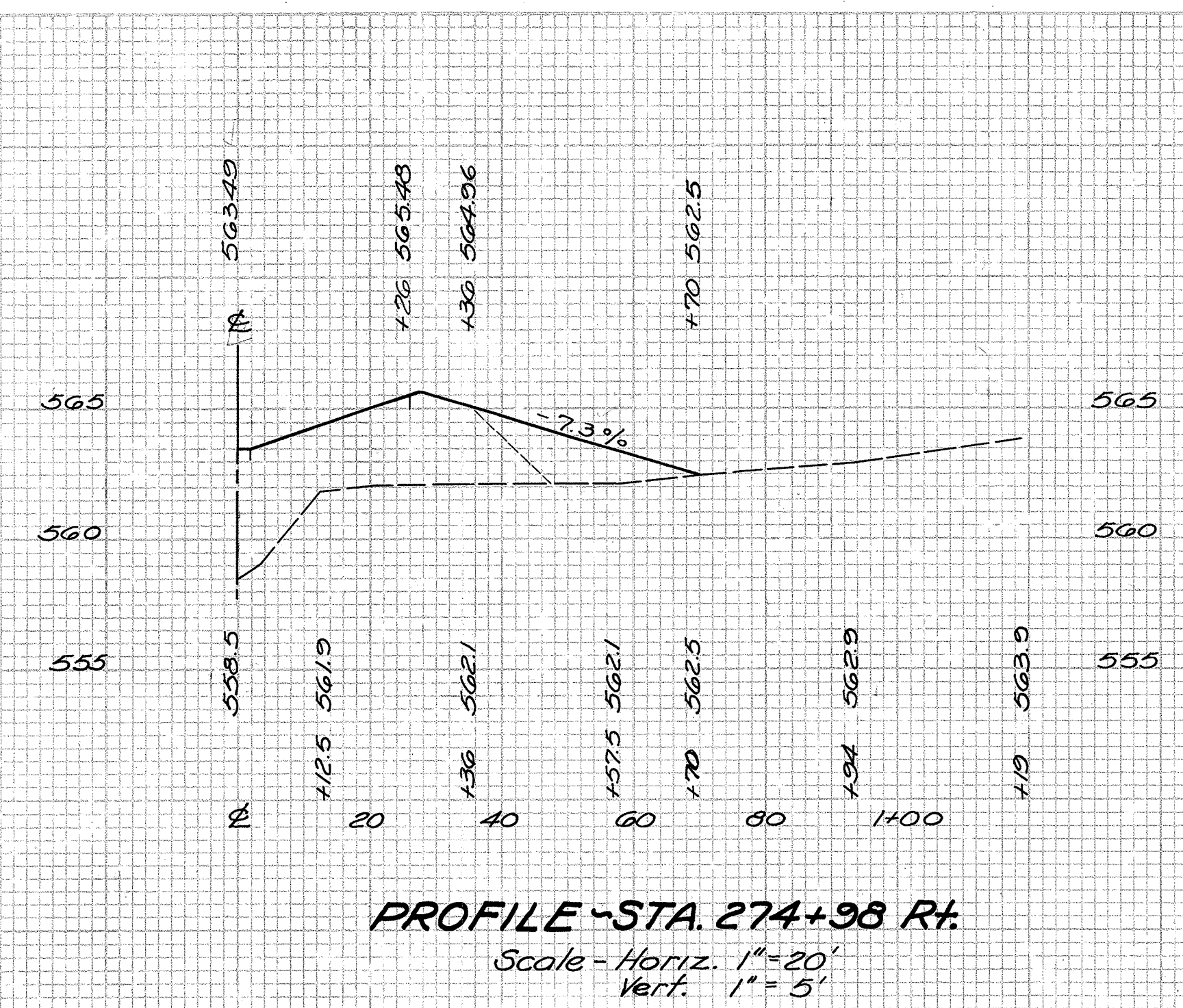
ESTIMATED QUANTITIES

Embankment	23 Cu. Yds.
SS-10 5" & 9" Stabilized Shoulder	16.3 Cu. Yds.
T-35 1 1/4" Asphaltic Concrete Surface Course	1.6 Cu. Yds.
B-35 1 1/4" Asphaltic Concrete Leveling Course	1.6 Cu. Yds.
B-35 3" Asphaltic Concrete Base Course	3.8 Cu. Yds.

PLAN
1" = 20'

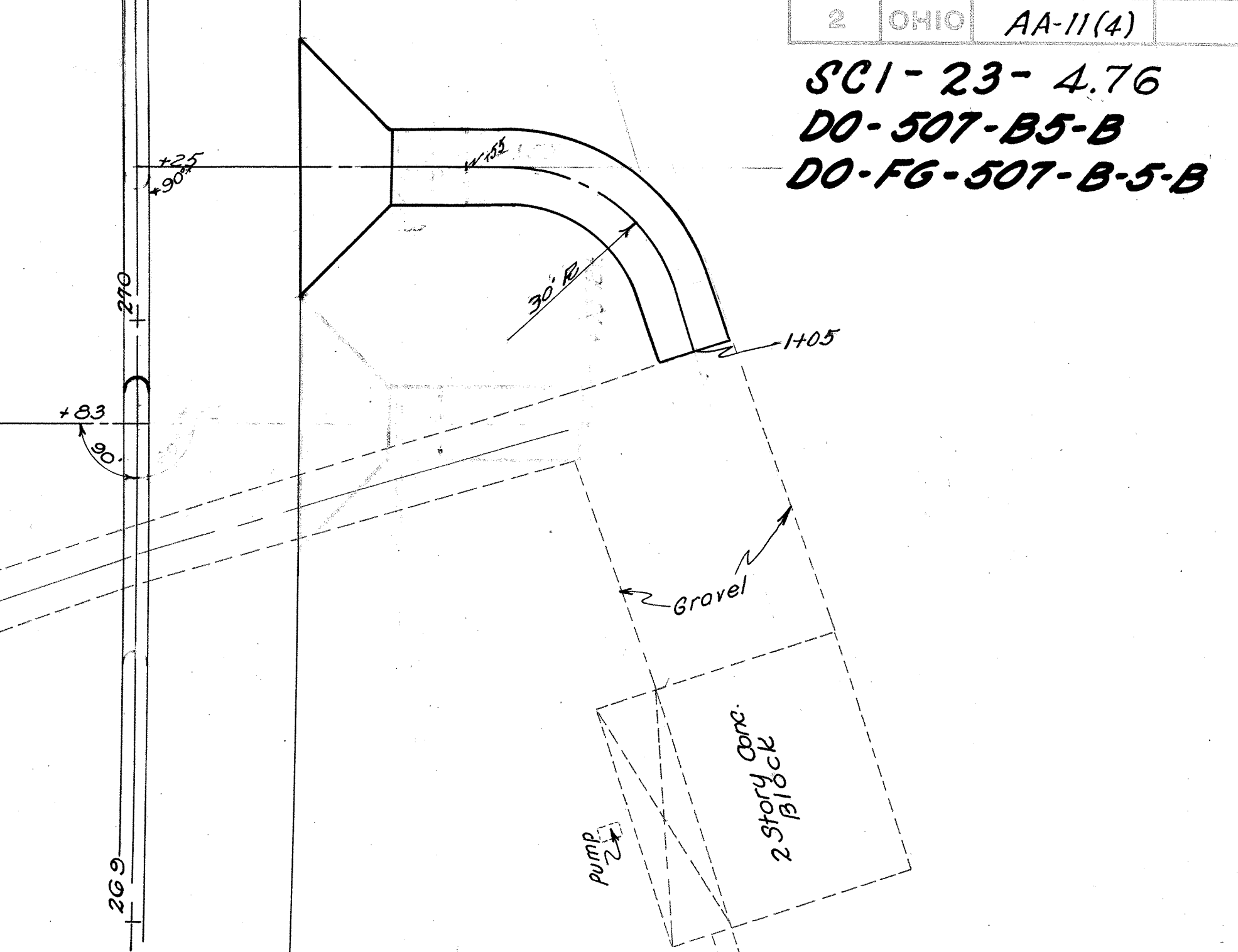
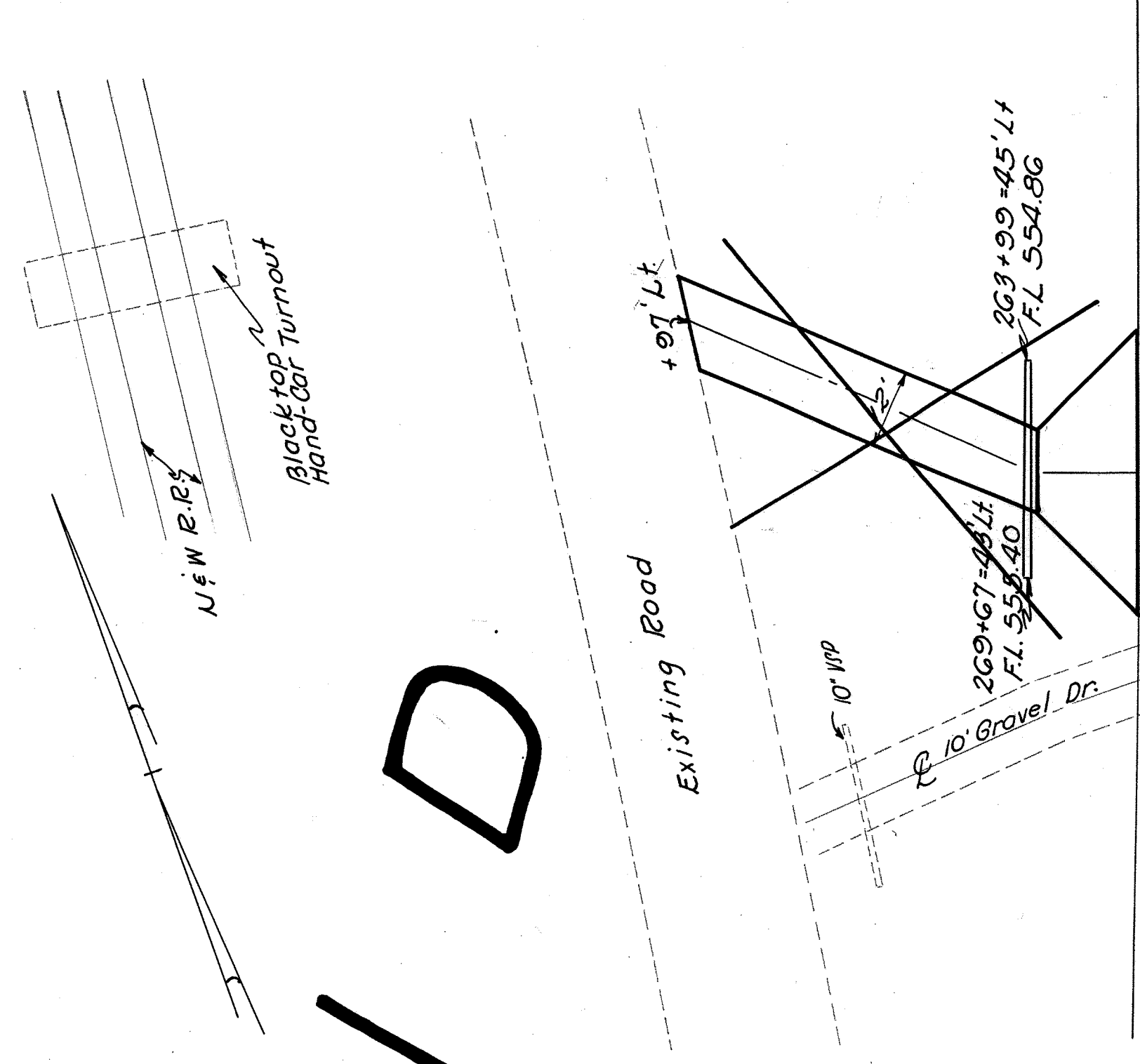
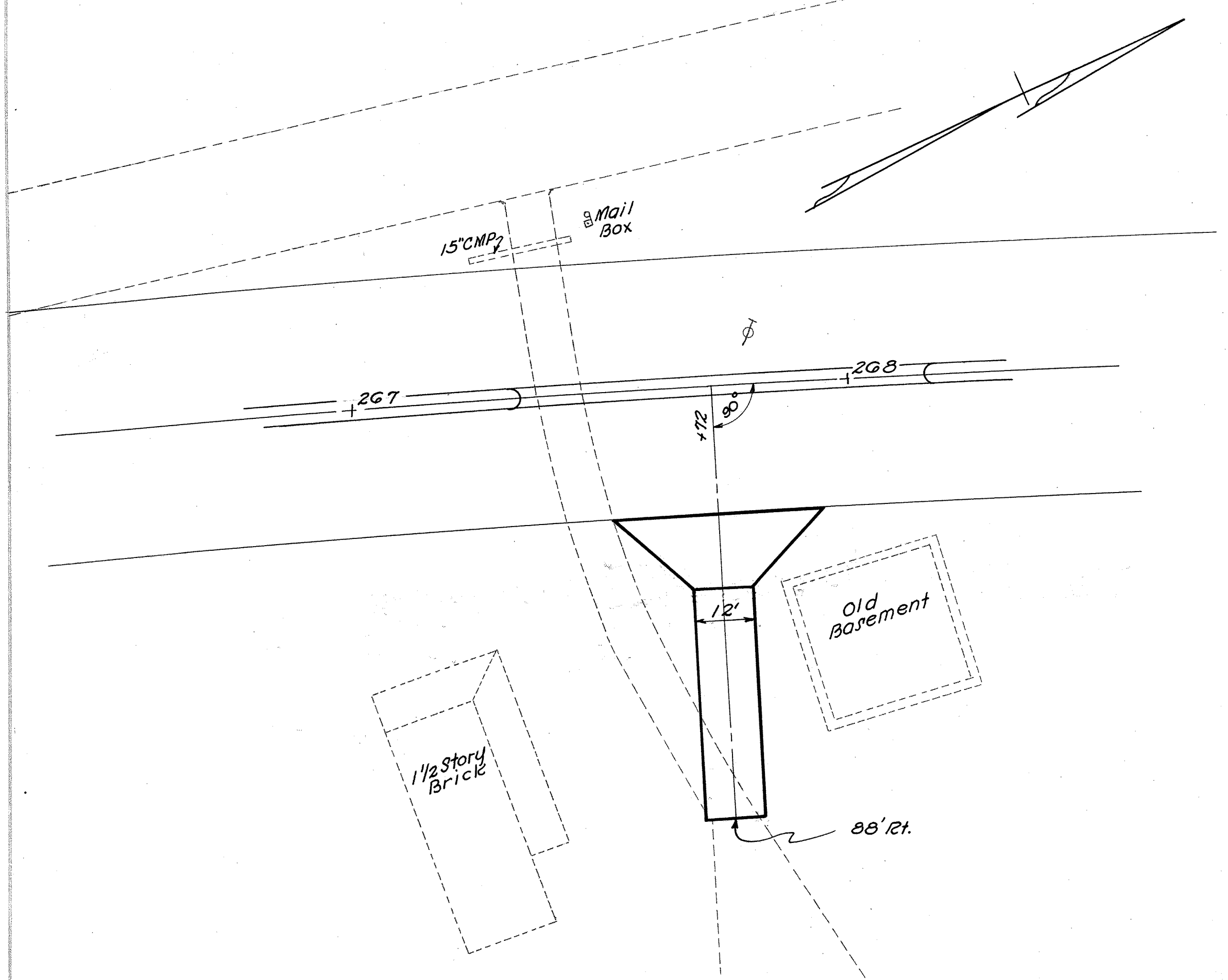


1-A



4-A

SC1-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B



ESTIMATED QUANTITIES - LT.

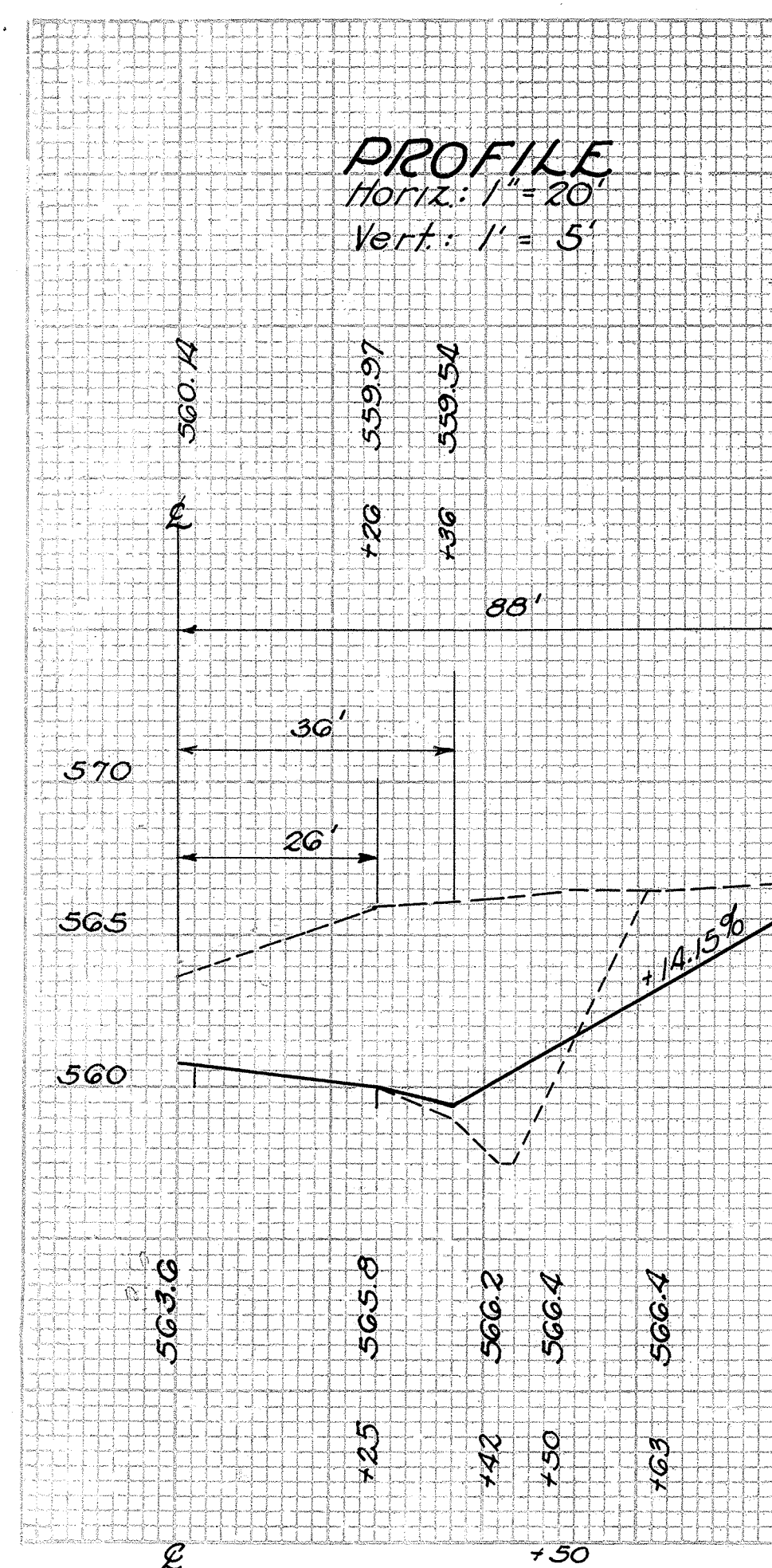
Excavation	7.8 Cu. Yds.
3S-10 5" & 9" Aggregate	25.4 Cu. Yds.
7-35 1 1/4" Asphaltic Concrete Surface Course	1.6 Cu. Yds.
B-35 1 1/4" Asphaltic Concrete Leveling Course	1.6 Cu. Yds.
B-35 3" Asphaltic Concrete Base Course	3.8 Cu. Yds.
I-1 12" Pipe for Driveways	32 Lin. Ft.

ESTIMATED QUANTITIES - RT.

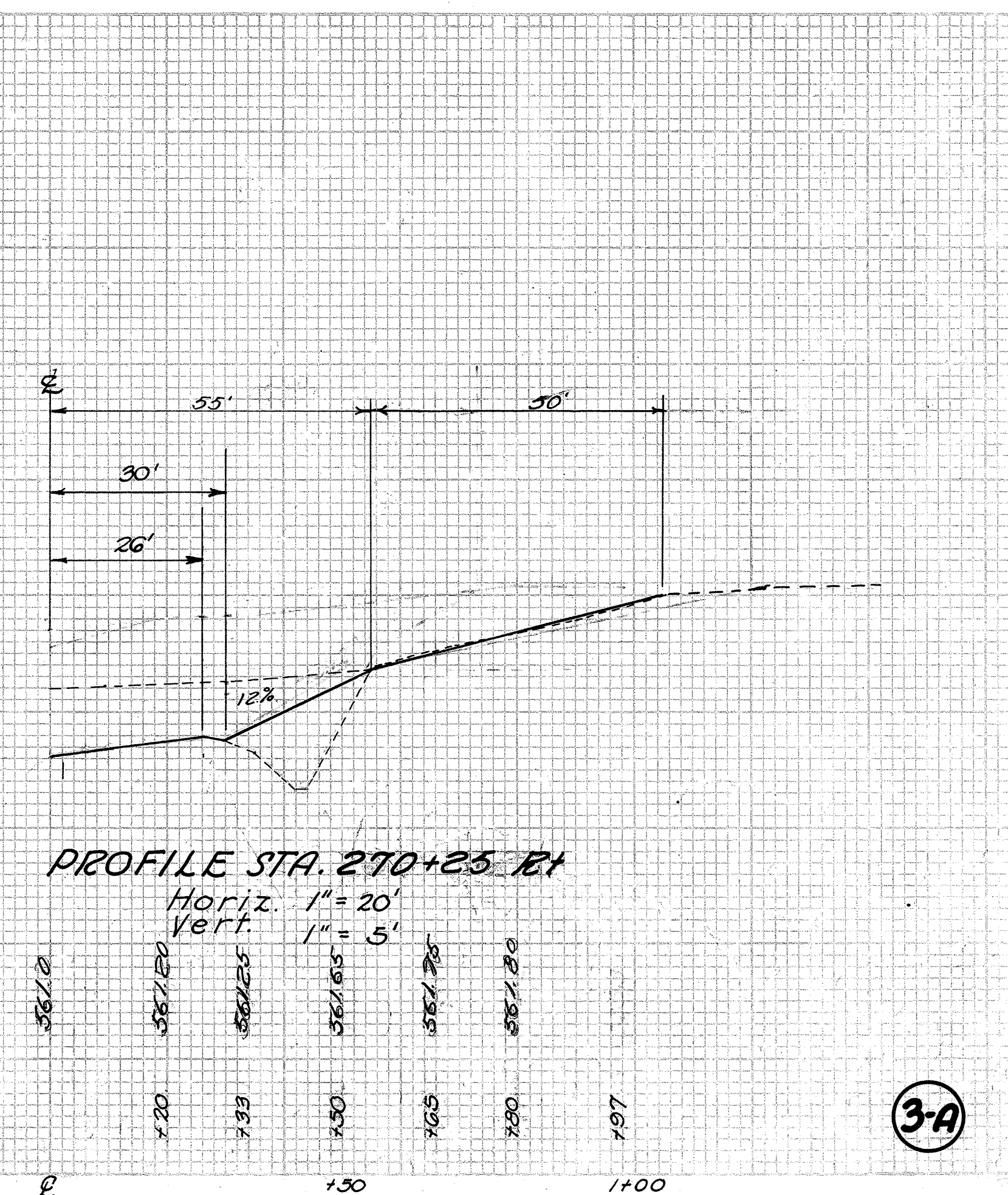
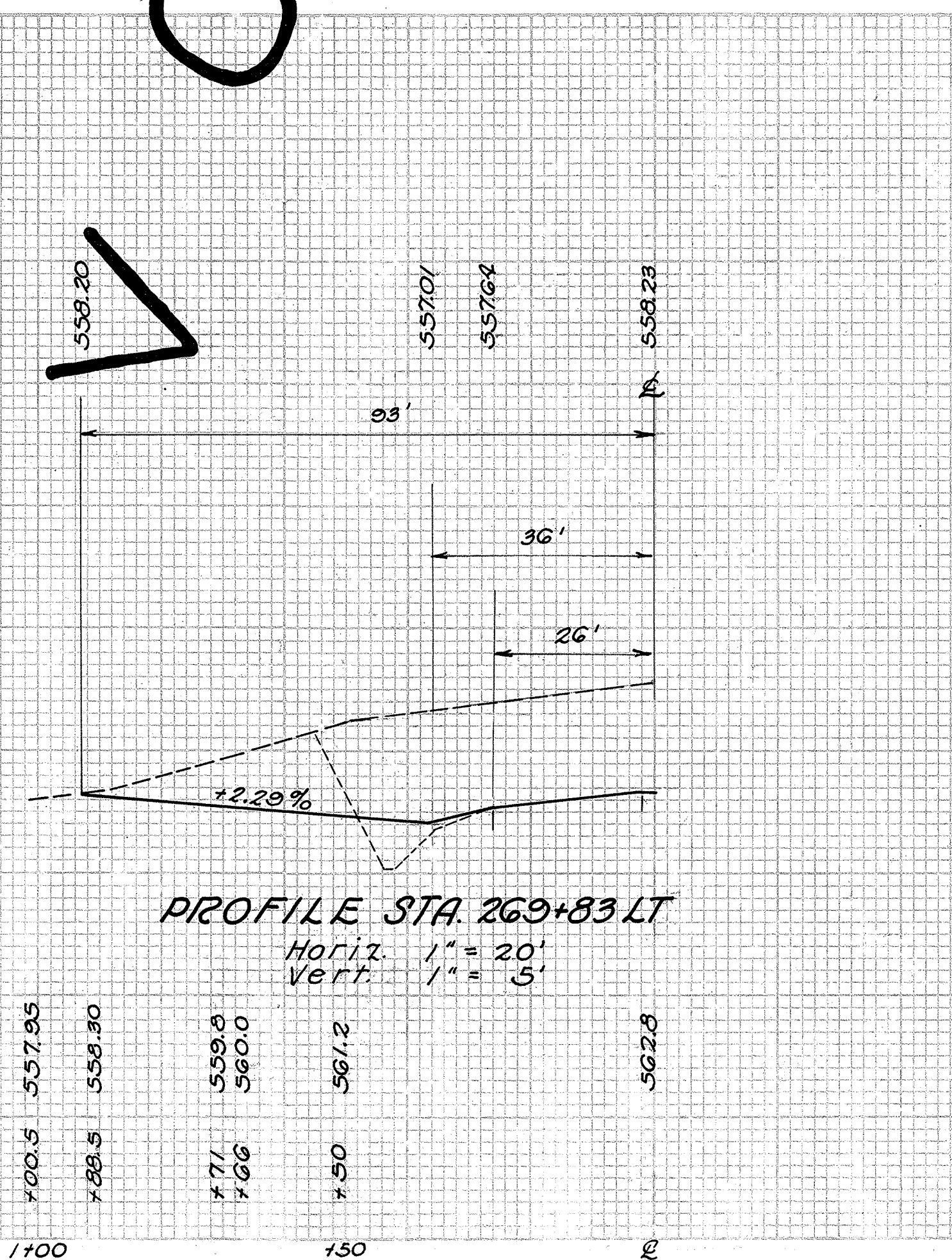
3S-10 5" & 9" Stabilized Shoulder	17.4 Cu. Yds.
7-35 1 1/4" Asphaltic Concrete Surface Course	1.6 Cu. Yds.
B-35 1 1/4" Asphaltic Concrete Leveling Course	1.6 Cu. Yds.
B-35 3" Asphaltic Concrete Base Course	3.8 Cu. Yds.

ESTIMATED QUANTITIES

Excavation	60 Cu. Yds.
3S-10 5" & 9" Stabilized Shoulder	22.7 Cu. Yds.
7-35 1 1/4" Asphaltic Concrete Surface Course	1.6 Cu. Yds.
B-35 1 1/4" Asphaltic Concrete Leveling Course	1.6 Cu. Yds.
B-35 3" Asphaltic Concrete Base Course	3.8 Cu. Yds.



(2-A)

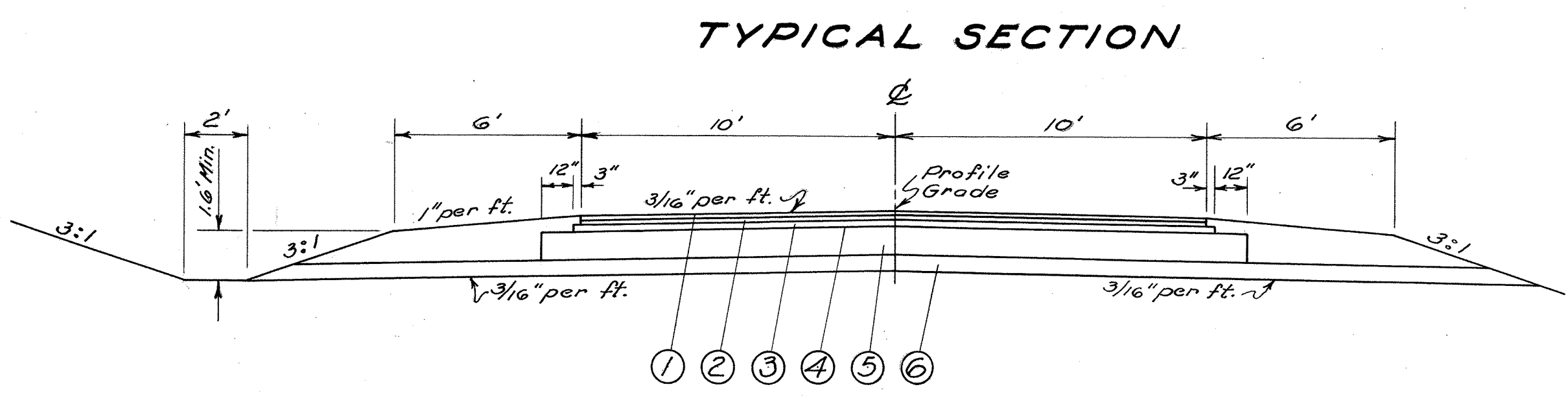
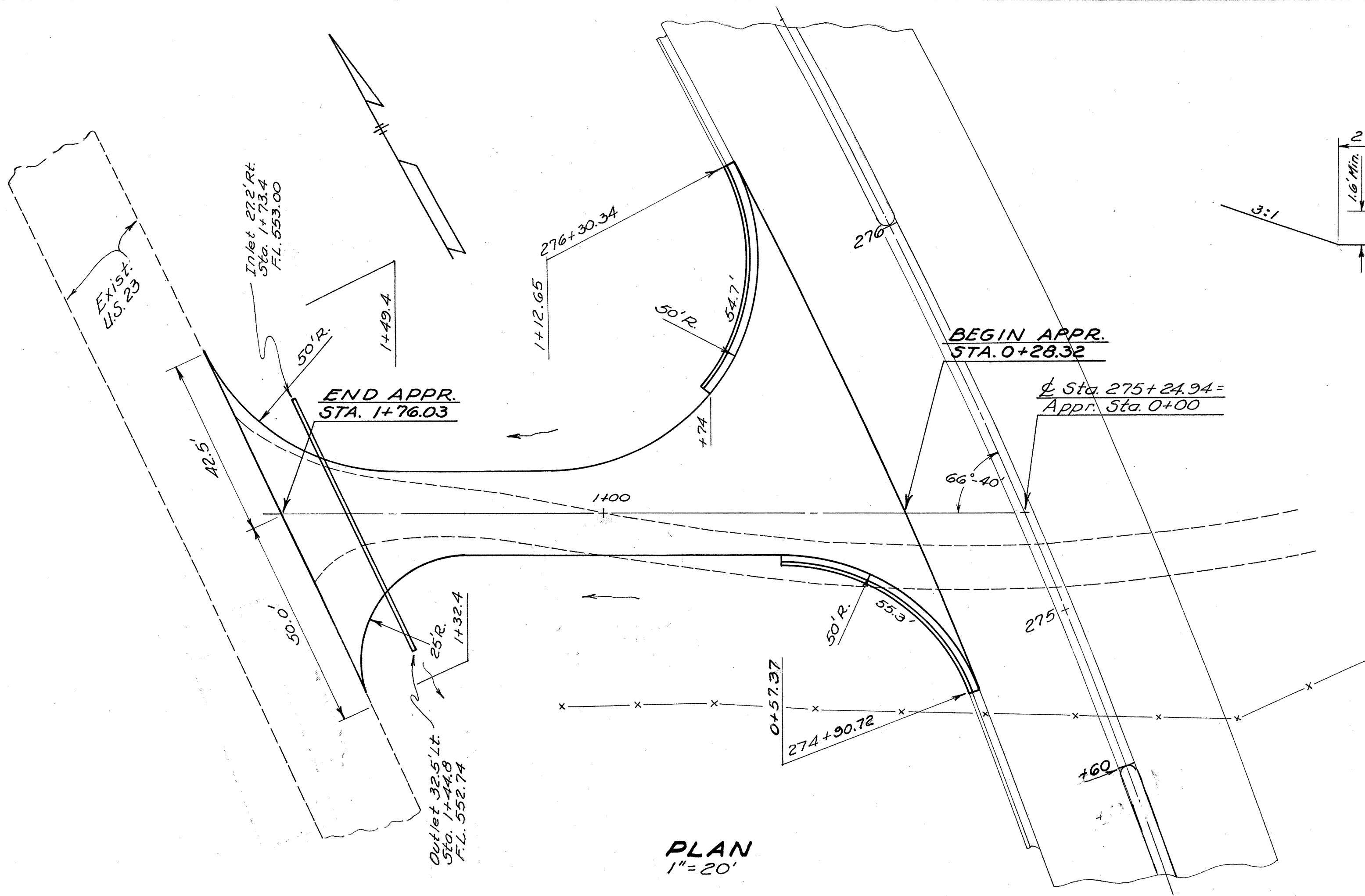


(3-A)

DRIVE 267+72 Rt. & 269+83 Rt.

Design-Ferrell
Check Baker

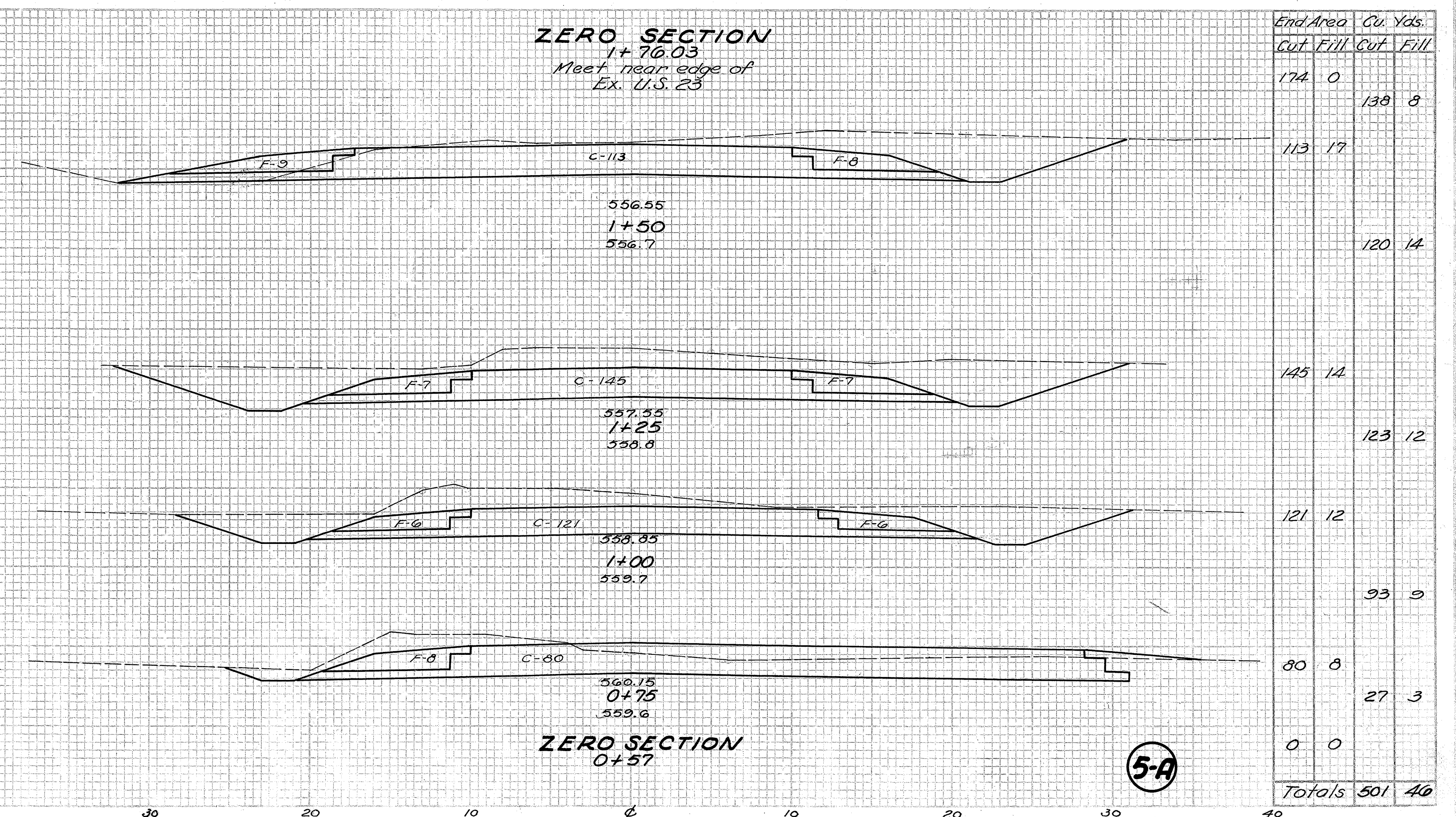
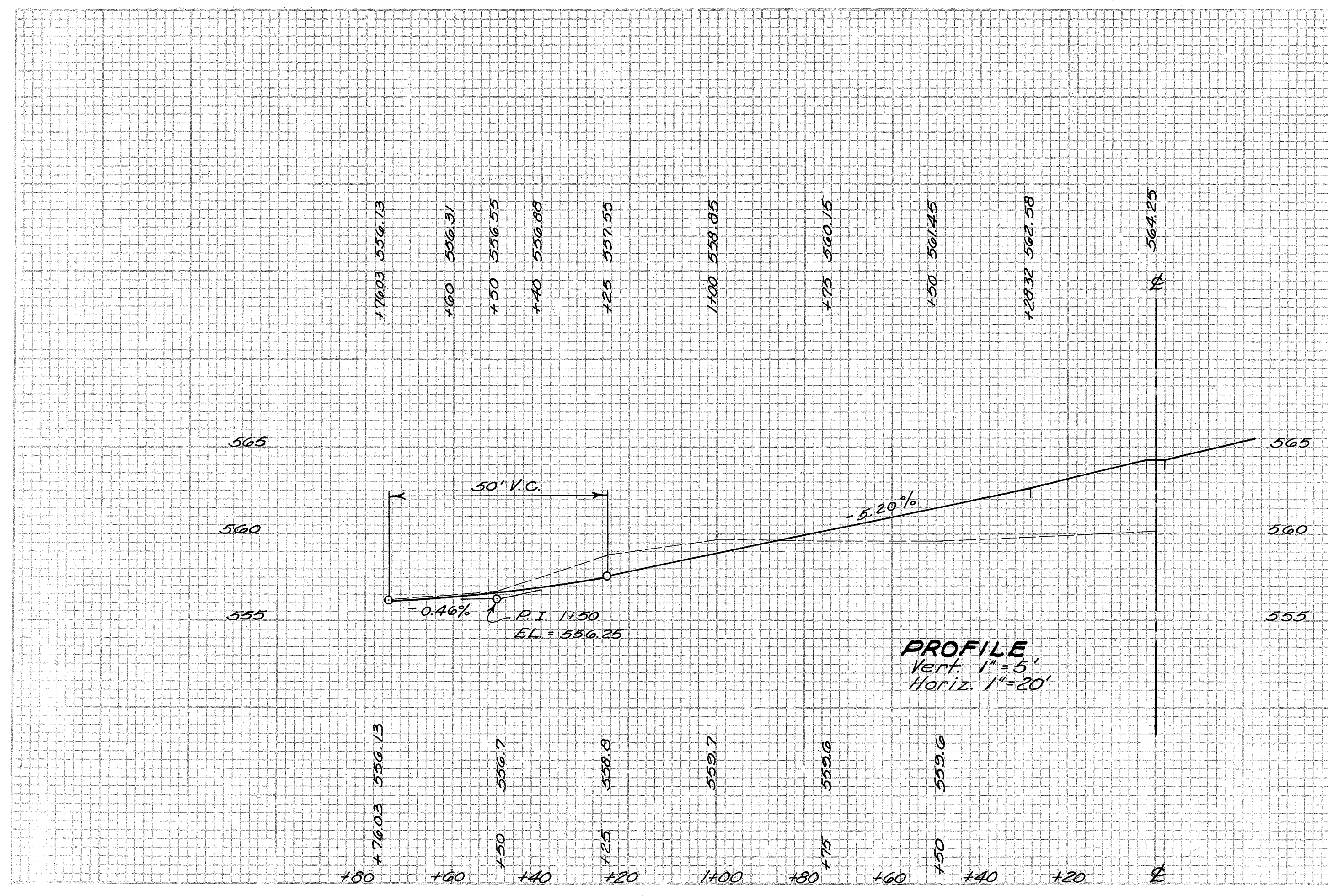
SCI-23-4.76
 DO-507-B5-B
 DO-F6-507-B-5-B



ESTIMATED QUANTITIES

①	* T-35	1/4" Asphaltic Concrete Surface Course, Type "A" (70-80)	19.3	Cu. Yds.
②	* B-35	1/4" Asphaltic Concrete Leveling Course	19.3	Cu. Yds.
③	* B-35	3" Asphaltic Concrete Base Course	471	Cu. Yds.
④	* T-30	Bituminous Prime Coat Sec. M5.7-RT 2 or 3	212	Gals.
⑤	* SS-5	11" Classified Embankment Material	185	Cu. Yds.
⑥	* I-22	6" Sub-Base, Grading "A" or "B"	112	Cu. Yds.
	E-1	Excavation (carried to X-sec's.)	501	Cu. Yds.
		Embankment (carried to X-sec's.)	46	Cu. Yds.
	I-2	Storm Sewer under pavement 15"	66	Lin. Ft.
	I-12	Conc. Curb and Gutter, Type 2 (Mod.)	110.0	Lin. Ft.

* Note: These materials are to be of the same type and placed in the same manner as the corresponding ones listed on Sht. 2.



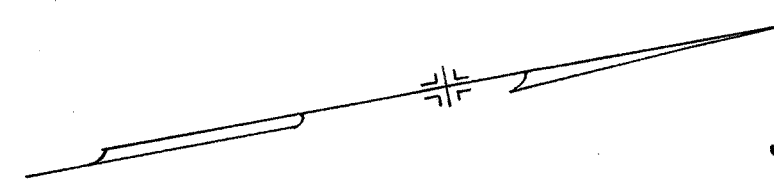
Designed
Traced
Checked

E.W.
J.D.
M.B.

1-15-53
1-21-53

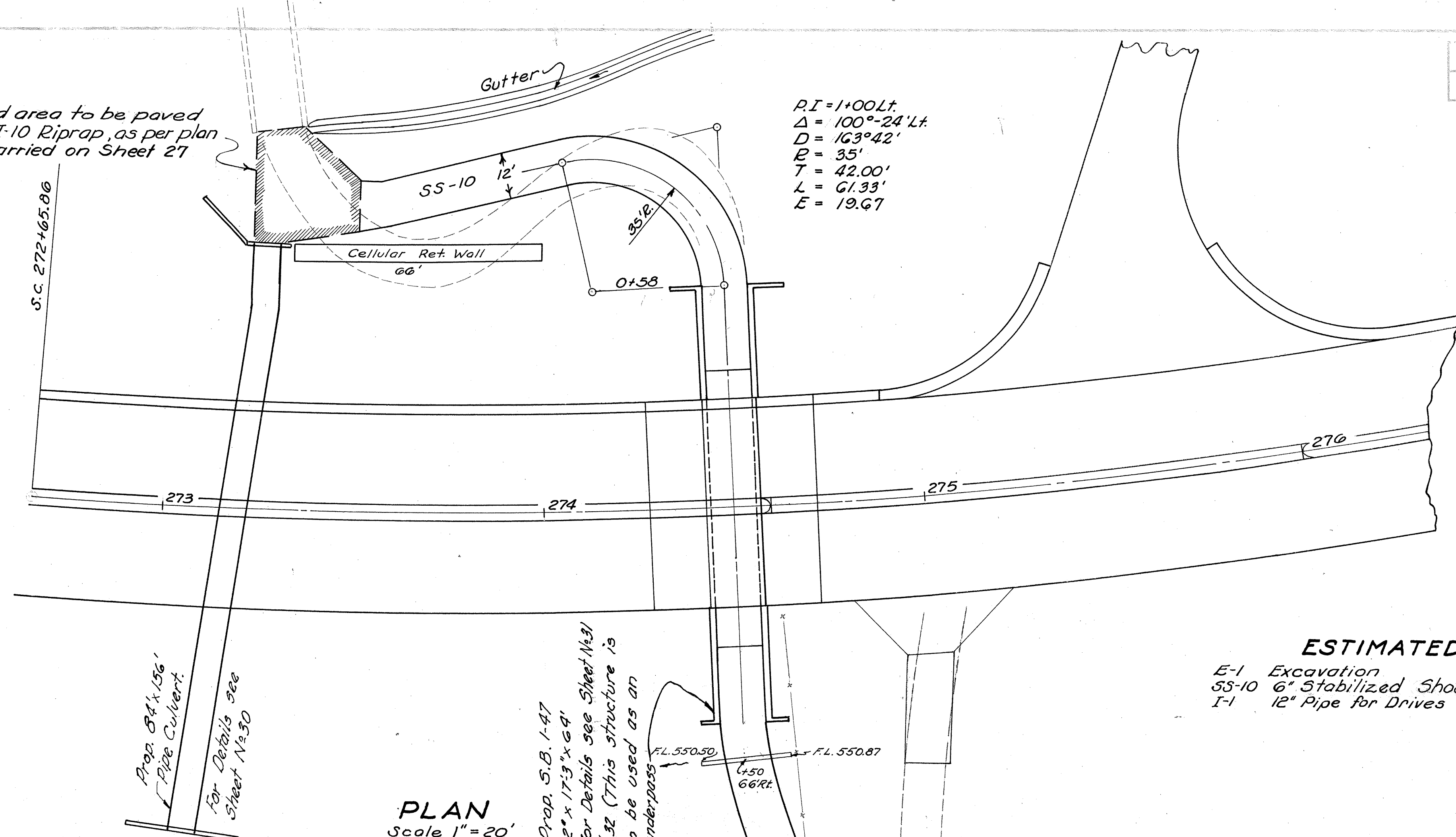
5-A

SCI-23-4.76
DO-507-B5-B
DO-F6-507-B-5-B



Shaded area to be paved with I-10 Riprap, as per plan Carried on Sheet 27

$R.I = 1+00LT$
 $\Delta = 100^{\circ}-24'LT$
 $D = 163^{\circ}42'$
 $B = 35'$
 $T = 42.00'$
 $L = 61.33'$
 $E = 19.67'$



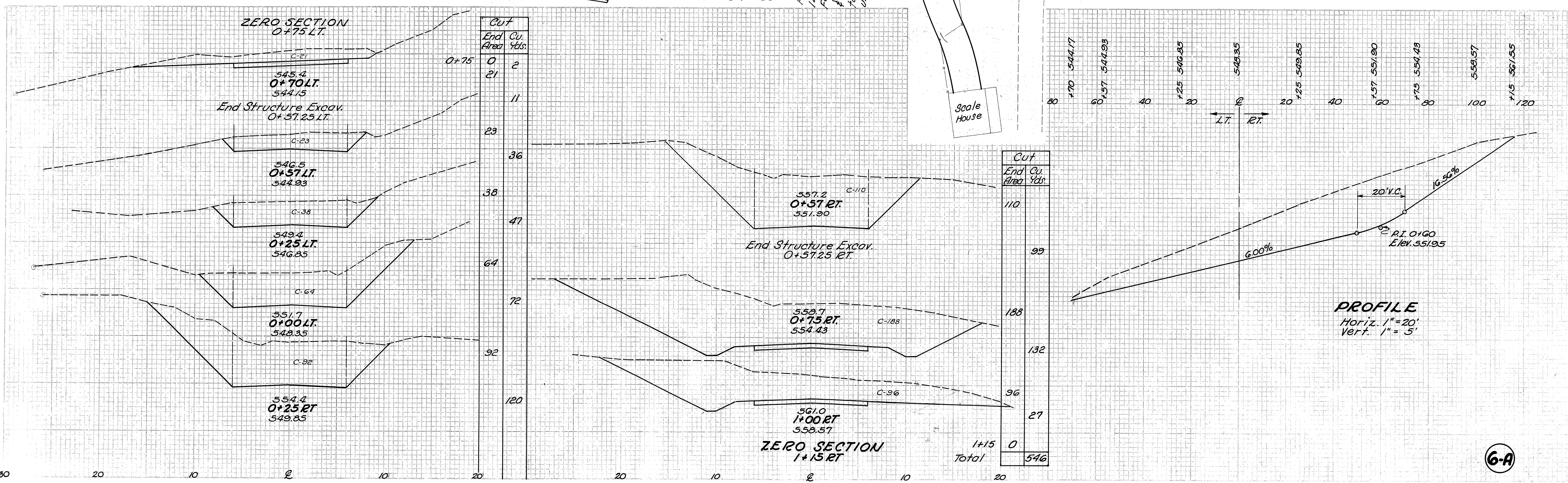
PLAN
Scale 1"=20'

ESTIMATED QUANTITIES

E-1	Excavation	546	Cu. Yds.
SS-10	6" Stabilized Shoulder	64	Cu. Yds.
I-1	12" Pipe for Drives	24	Lin. Ft.

Prop. 8.4' x 15.6' I-12 Pipe Culvert.
For Details see Sheet No. 30

Prop. 5.8' x 1.47' 12" x 17.3' x 64' #32 (This structure is to be used as an underpass)

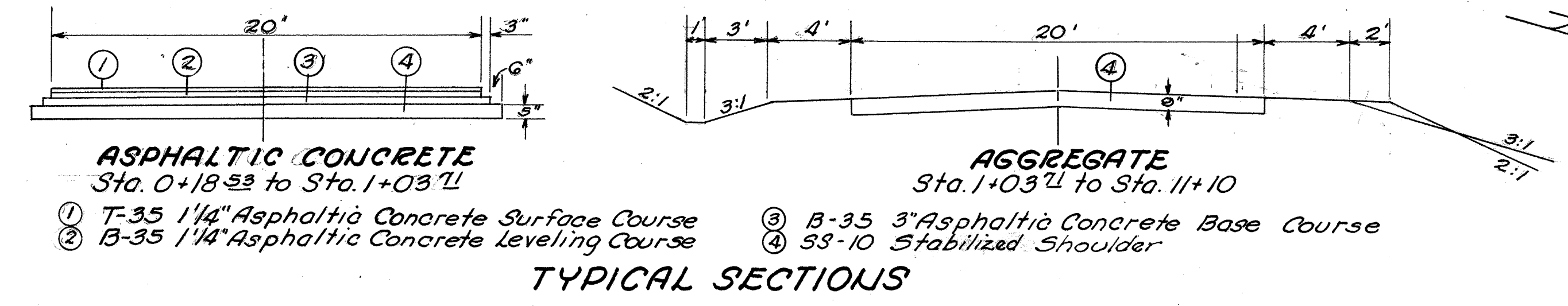


PROFILE
Horiz. 1"=20'
Vert. 1"=5'

6-A

SCI-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B

For Access Road Cross-sections see Sheet N° 70-72

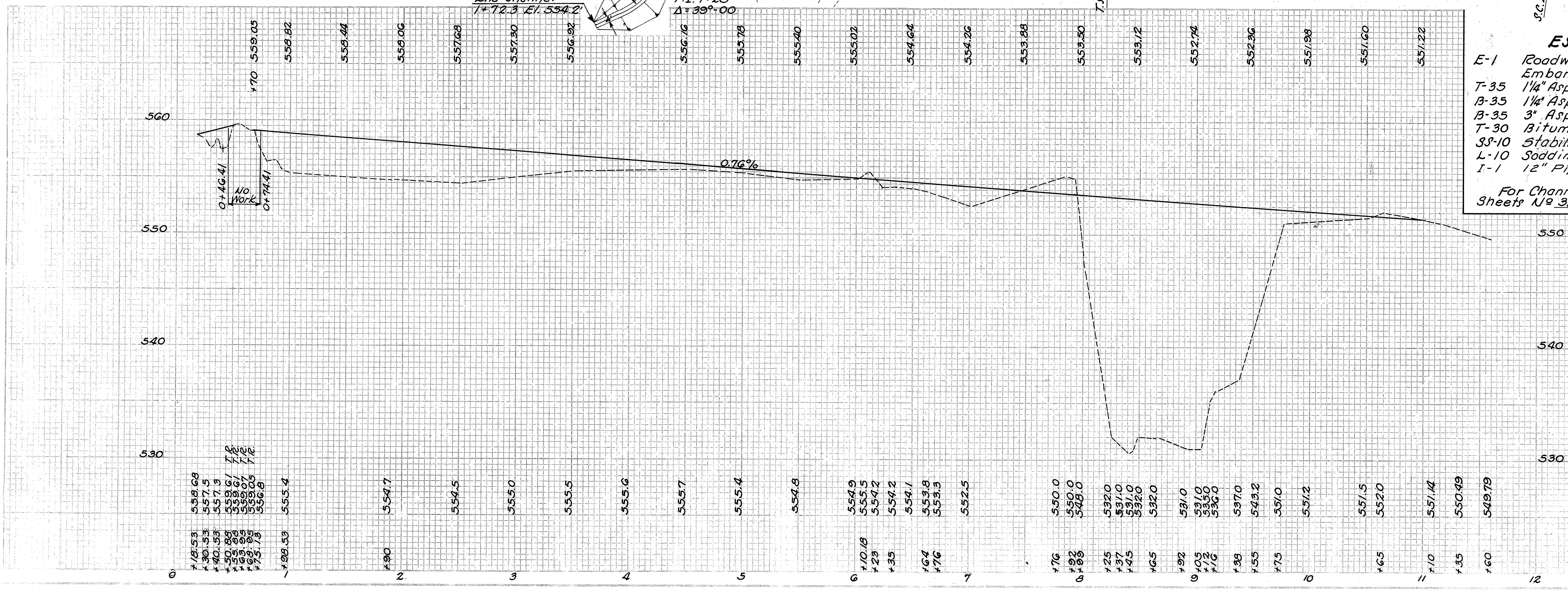
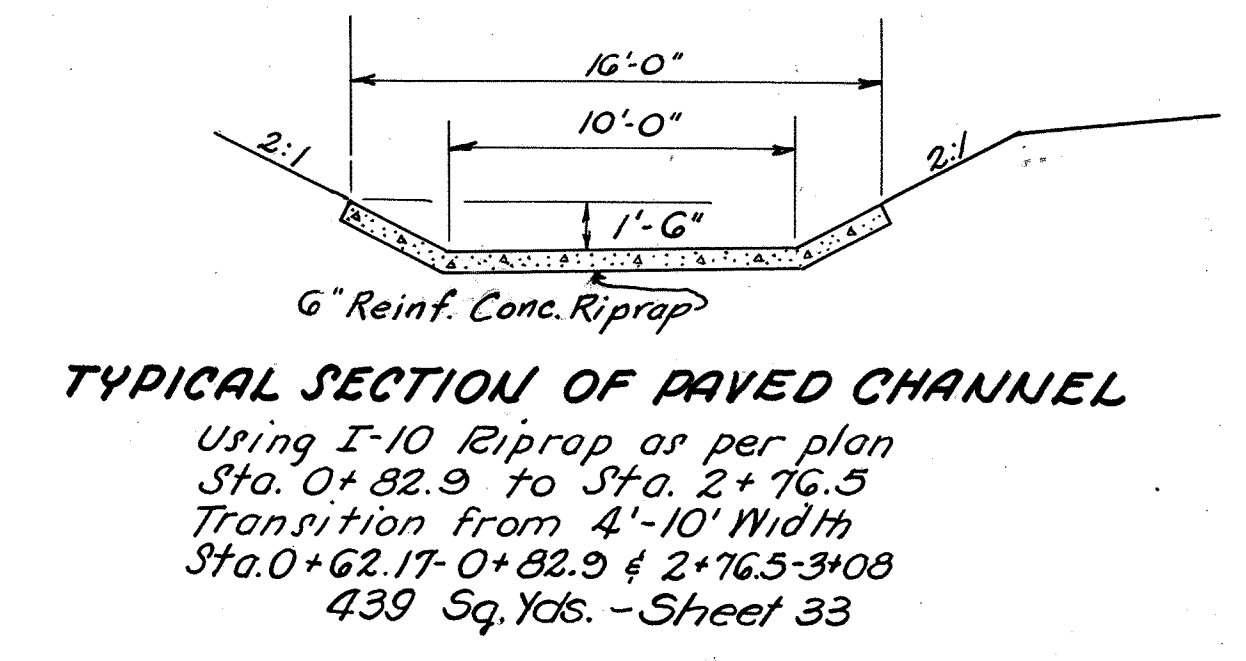
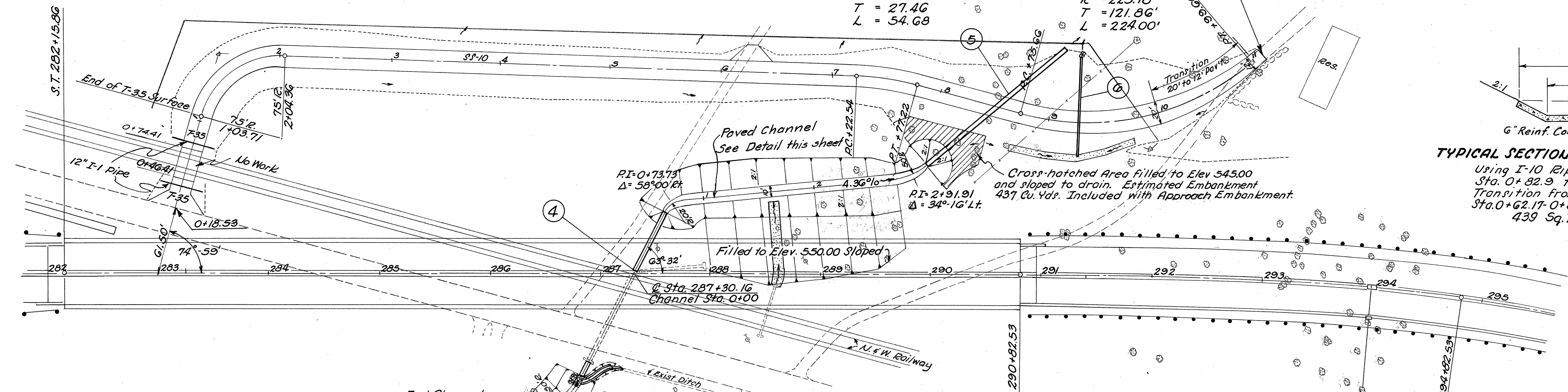


- ① T-35 1 1/4" Asphaltic Concrete Surface Course
- ② B-35 1 1/4" Asphaltic Concrete Leveling Course
- ③ B-35 3" Asphaltic Concrete Base Course
- ④ SS-10 Stabilized Shoulder

TYPICAL SECTIONS

$PI = 7+50$
 $\Delta = 13^{\circ}40' Rt$
 $D = 25^{\circ}00'$
 $R = 229.18'$
 $T = 27.46'$
 $L = 54.68'$

$PI = 9+97.52$
 $\Delta = 56^{\circ}00' Lt$
 $D = 25^{\circ}00'$
 $R = 229.18'$
 $T = 121.86'$
 $L = 224.00'$



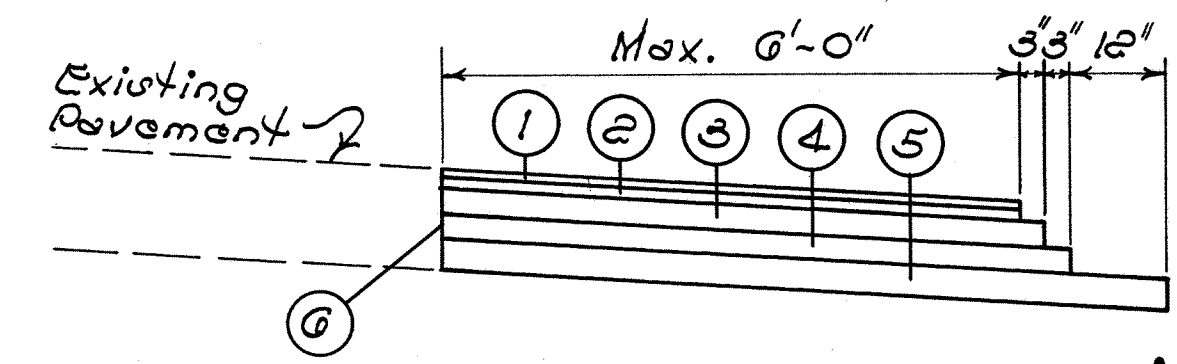
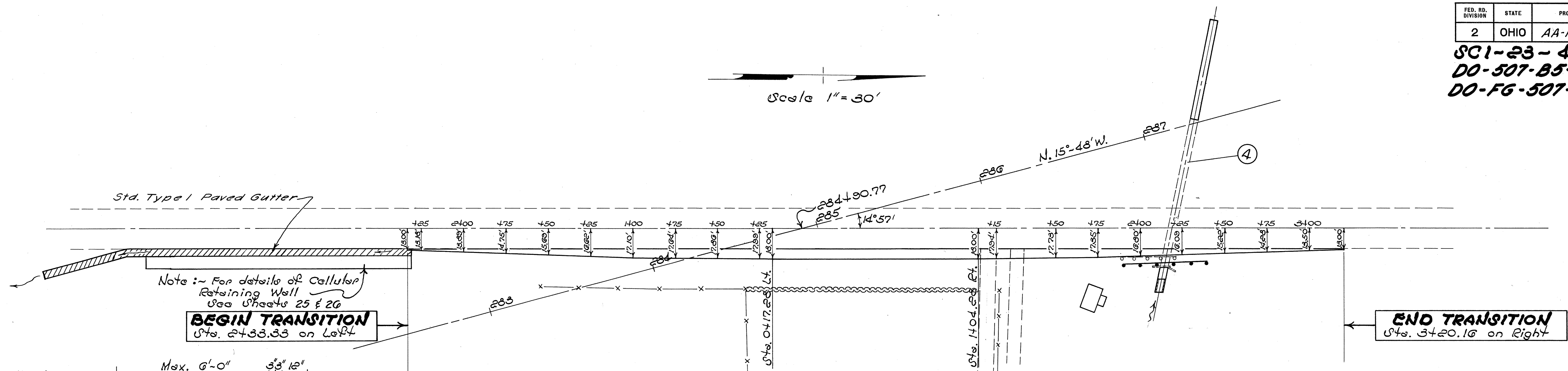
ESTIMATED QUANTITIES

E-1 Roadway Excavation (carried to X-sec.)	547 Cu. Yds.
Embankment (Carried to X-sec.)	8,164 Cu. Yds.
T-35 1 1/4" Asphaltic Conc. Surface Course	5.3 Cu. Yds.
B-35 1 1/4" Asphaltic Conc. Leveling Course	5.3 Cu. Yds.
B-35 3" Asphaltic Conc. Base Course	12.9 Cu. Yds.
T-30 Bituminous Prime Coat	57.0 Gals.
SS-10 Stabilized Shoulder	632.4 Cu. Yds.
L-10 Sodding	194.0 Sq. Yds.
I-1 12" Pipe for Driveways	80 Lin. Ft.

For Channel Quantities and Structure Details See Sheets N° 33 & 34

SC1-23-476
DO-507-B5-B
DO-F6-507-B5-B

Scale 1" = 30'



TYPICAL SECTION OF WIDENING

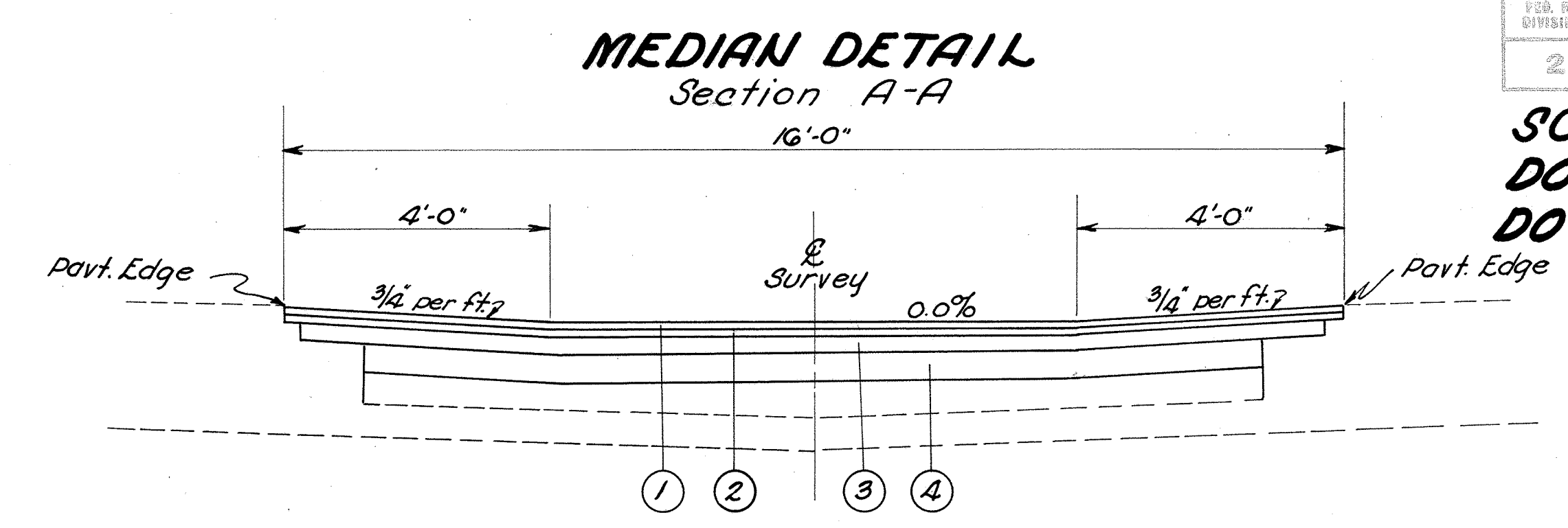
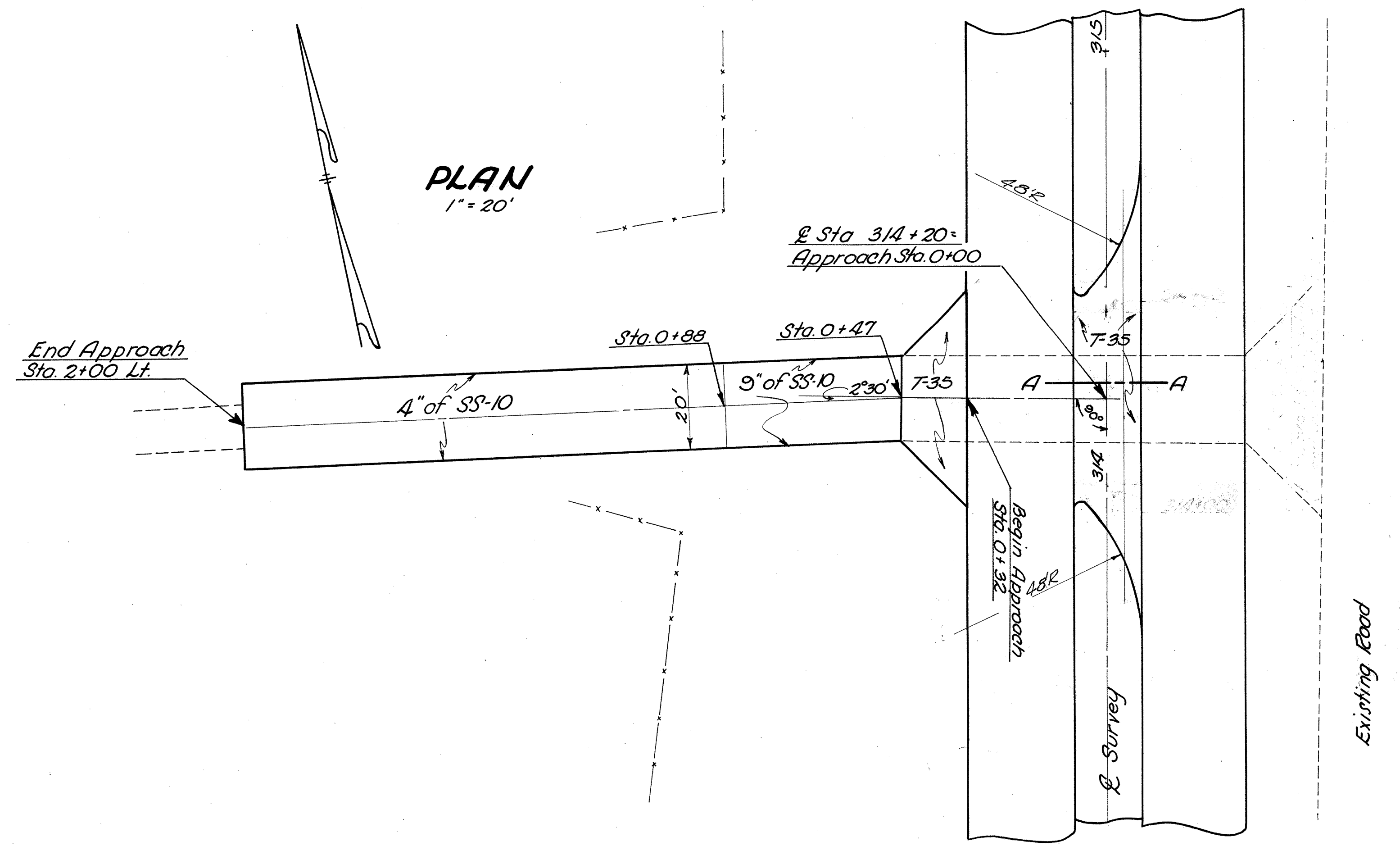
- ① T-35 1 1/2" Asphaltic Concrete Surface Course.
- ② B-35 1 1/2" Asphaltic Concrete Leveling Course.
- ③ B-35 3" Asphaltic Concrete Leveling Course.
- ④ B-35 3" Asphaltic Concrete Base Course.
- ⑤ I-22 4" Sub-Base Grading "A" or "B".
- ⑥ B-35 Sealing Vertical face of Existing Pavement.

ESTIMATED QUANTITIES

T-35	Asphaltic Concrete Surface Course	9.6	Cu. Yds.
B-35	Asphaltic Concrete Leveling Course	24.3	Cu. Yds.
B-35	Asphaltic Concrete Base Course	25.6	Cu. Yds.
I-22	4" Sub-Base	41.0	Cu. Yds.
I-15	Guard Rail	50	Lin. Ft.
I-15	Guard Rail Removed & Stored	34	Lin. Ft.
I-14	Type 1 Paved Gutter	220	Lin. Ft.
B-35	Sealing Vertical face of Existing Pavement	554	Lin. Ft.

Wheeler Terrell

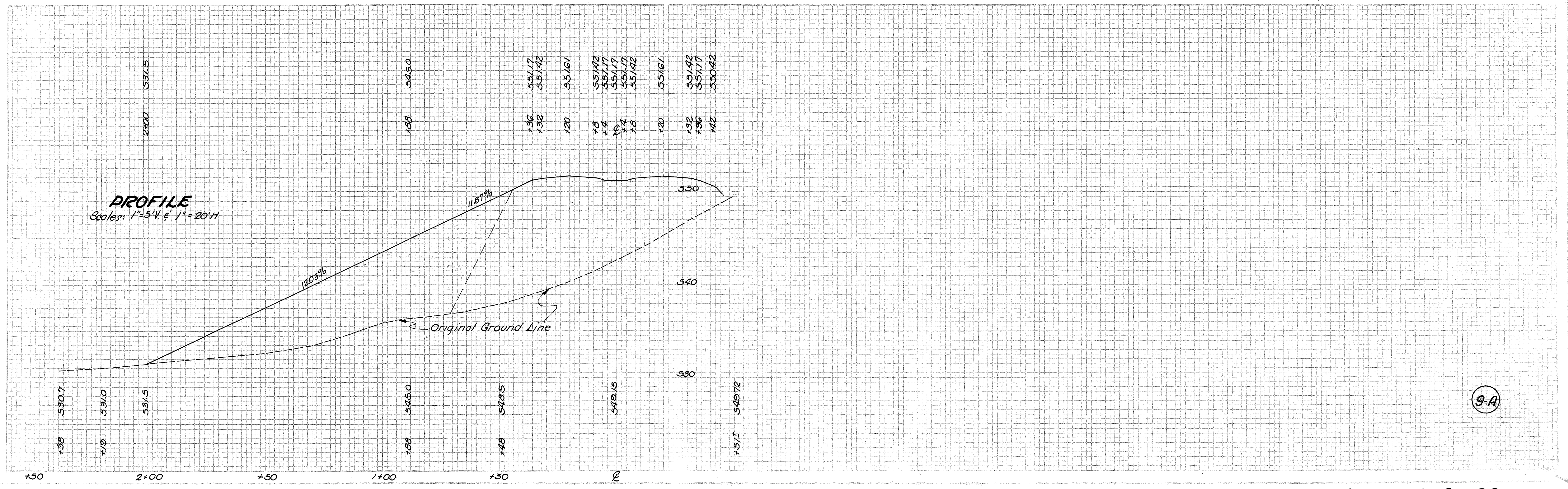
SCI-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B



- ① T-35 1 1/4" Asphaltic Concrete Surface Course
- ② B-35 1 1/4" Asphaltic Concrete Leveling Course
- ③ B-35 3" Asphaltic Concrete Base Course
- ④ SS-10 5" Aggregate

ESTIMATED QUANTITIES

	Approach	Median	Total	
Embankment	124.6	0	124.6	Cu. Yds.
T-35 1 1/4" Asphaltic Concrete Surface Course	2.0	3.8	5.8	Cu. Yds.
B-35 1 1/4" Asphaltic Concrete Leveling Course	2.0	3.8	5.8	Cu. Yds.
B-35 3" Asphaltic Concrete Base Course	4.9	8.8	13.7	Cu. Yds.
SS-10 4", 5" & 8" Stabilized Shoulder	58.3	13.3	71.6	Cu. Yds.

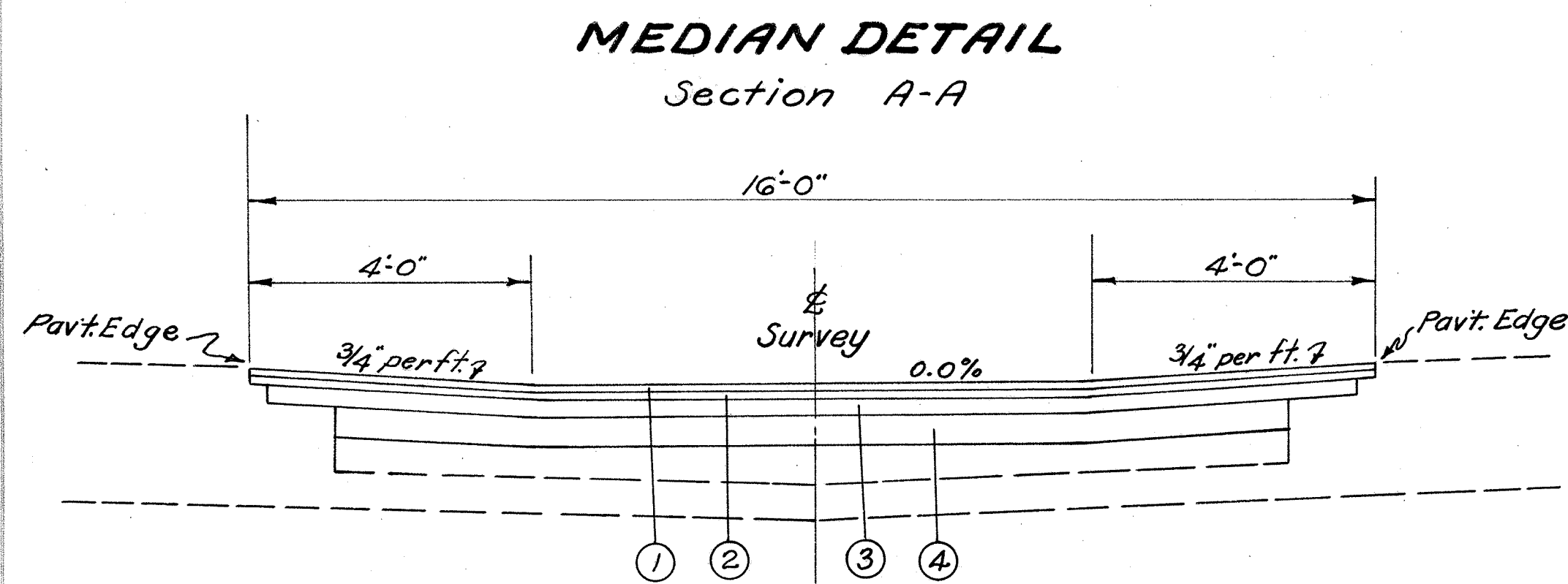


9-A

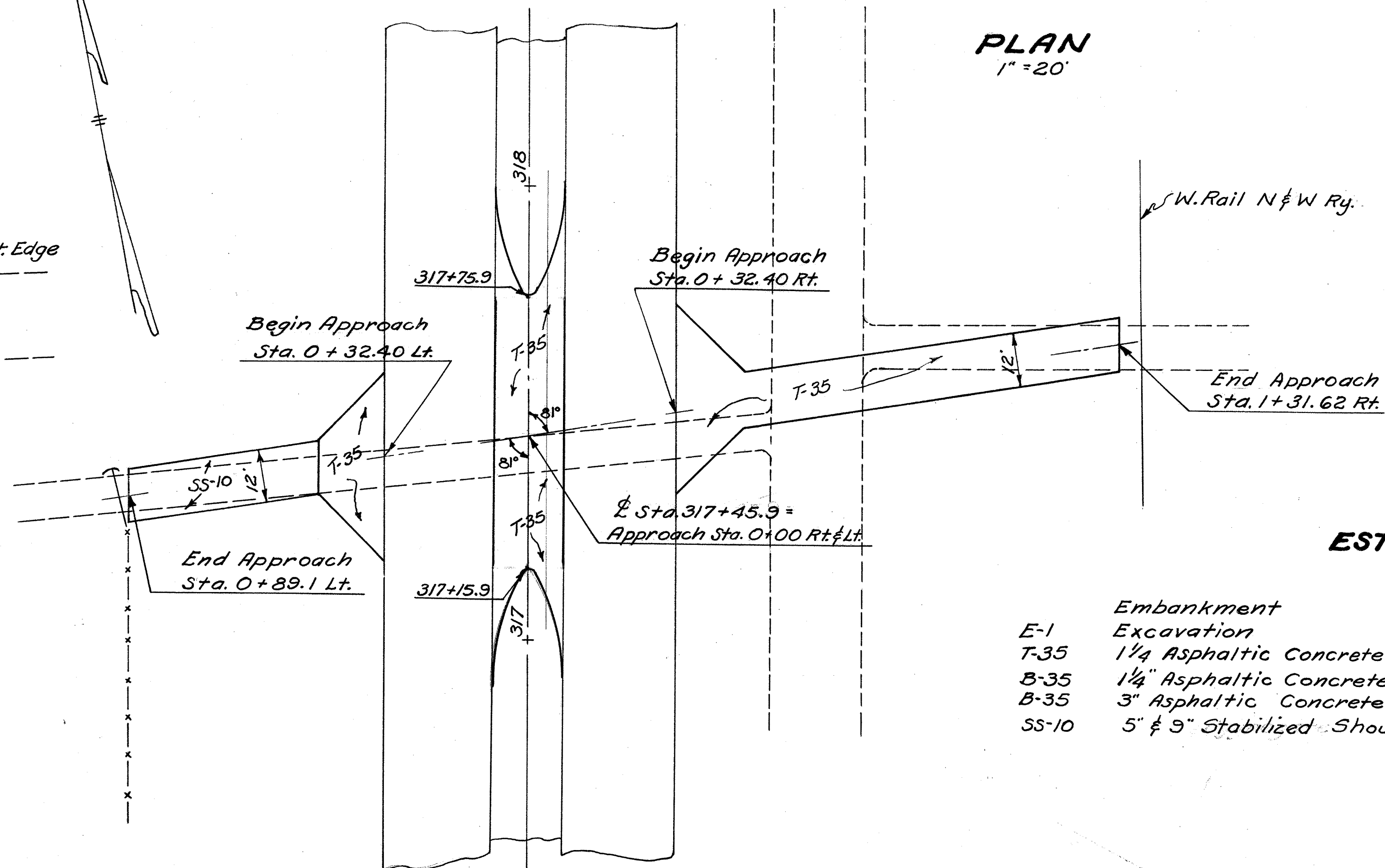
DRIVE LT. 314+20

Checked: W.B. 12/1/53
Drawn: J.H. 12/1/53
Date: 12/1/53

SCI-23-4.76
DO-507-B5-B
DO-F6-507-B-5-B

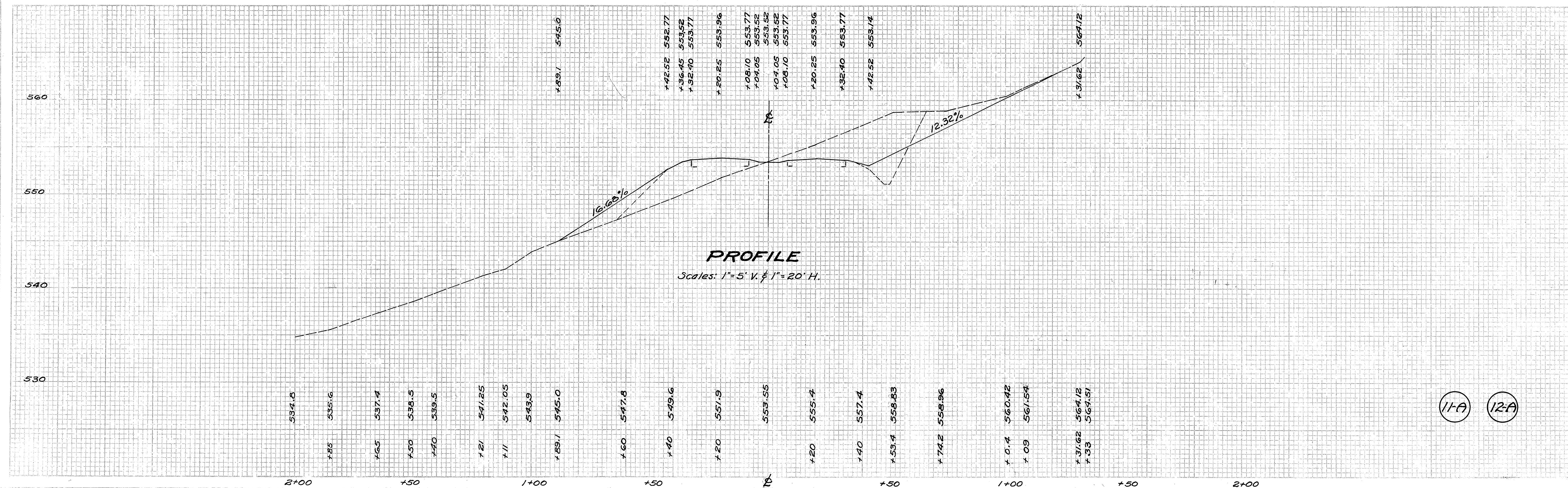


- ① T-35 1/4" Asphaltic Concrete Surface Course
- ② B-35 1/4" Asphaltic Concrete Leveling Course
- ③ B-35 3" Asphaltic Concrete Base Course
- ④ SS-10 5" Stabilized Shoulder



ESTIMATED QUANTITIES

	317+45.9 Lt.	317+45.9 Rt.	Median Total	
Embankment	32	0	0	32 Cu.Yds.
E-1 Excavation	0	80	0	80 Cu.Yds.
T-35 1/4" Asphaltic Concrete Surface Course	1.56	5.45	4.6	11.6 Cu.Yds.
B-35 1/4" Asphaltic Concrete Leveling Course	1.56	5.45	4.6	11.6 Cu.Yds.
B-35 3" Asphaltic Concrete Base Course	3.85	13.38	10.8	28.0 Cu.Yds.
SS-10 5" & 3" Stabilized Shoulder	21.06	23.26	14.2	58.0 Cu.Yds.



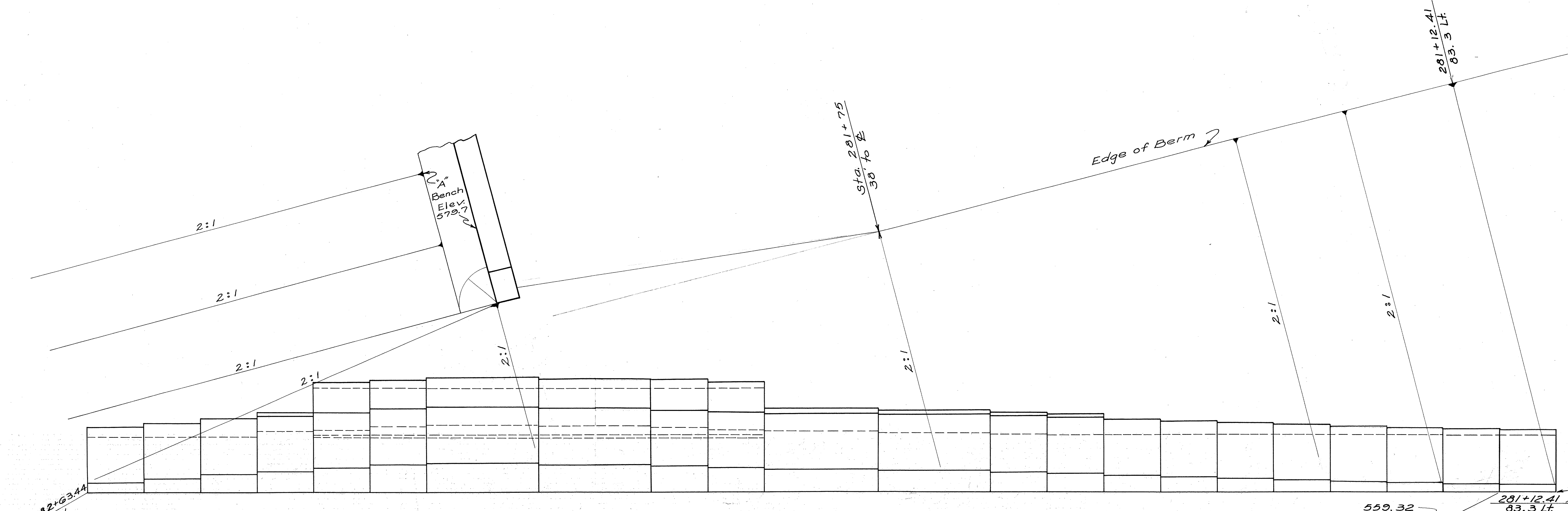
11A 12A

DRIVE Lt. & Rt. 317+45.9

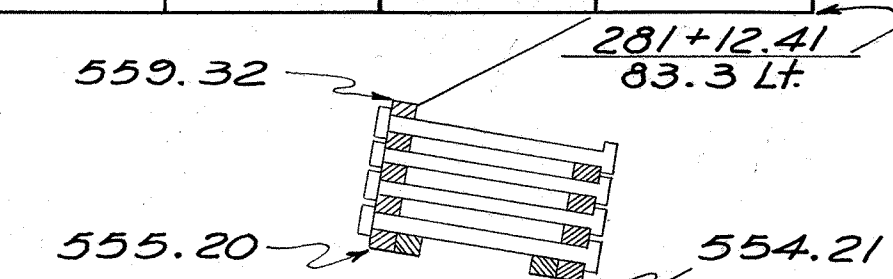
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	AA-11(4)	

25
98

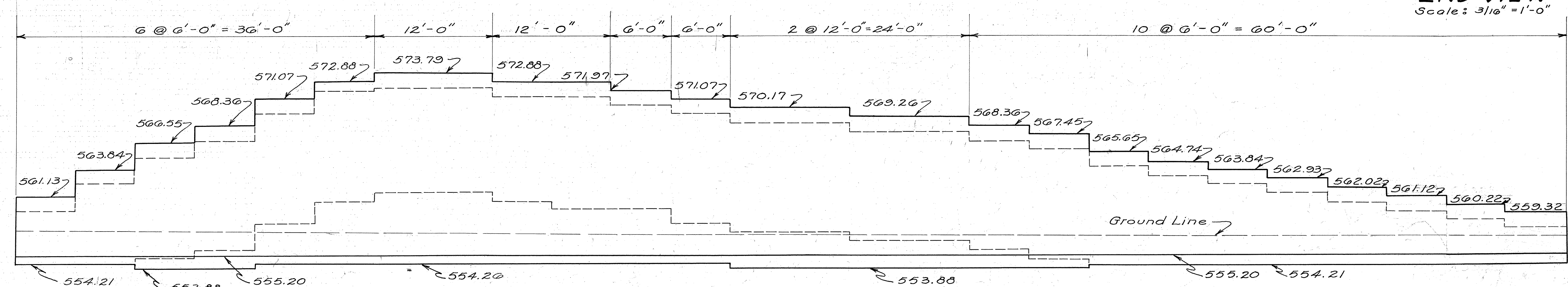
SCI-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B



PLAN
Scale: 3/16" = 1'-0"



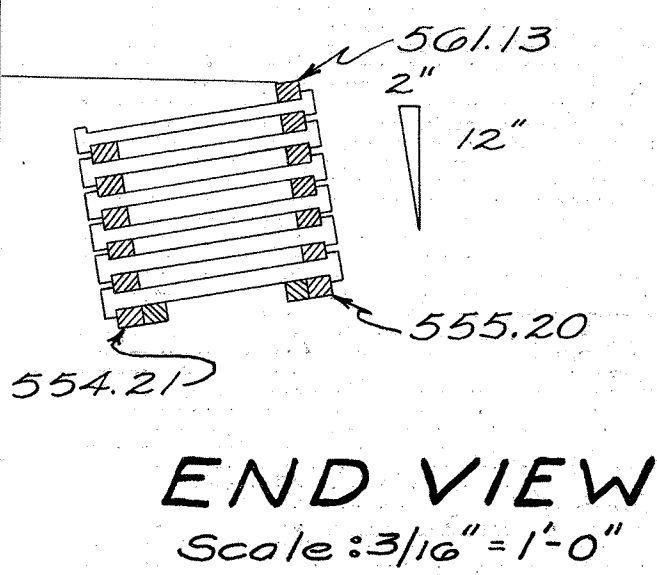
END VIEW
Scale: 3/16" = 1'-0"



FRONT ELEVATION
Scale: 3/16" = 1'-0"

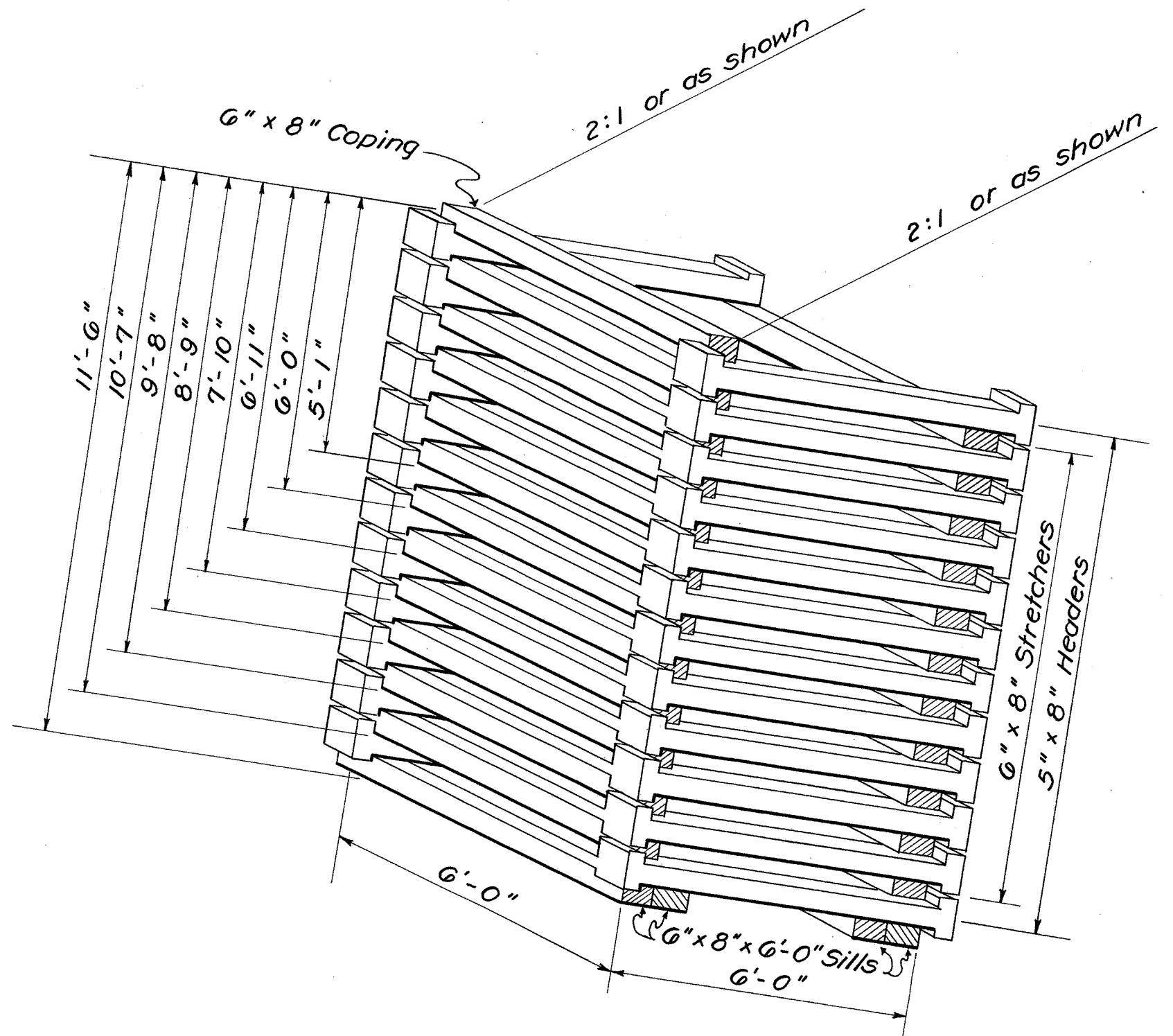
ESTIMATED QUANTITIES
55-9 Precast Reinforced Concrete 1943 Sq. Ft.
Cellular Retaining Wall or
Galvanized Metal Cellular Retaining Wall

Des. Prod.	Back	V.D.



END VIEW
Scale: 3/16" = 1'-0"

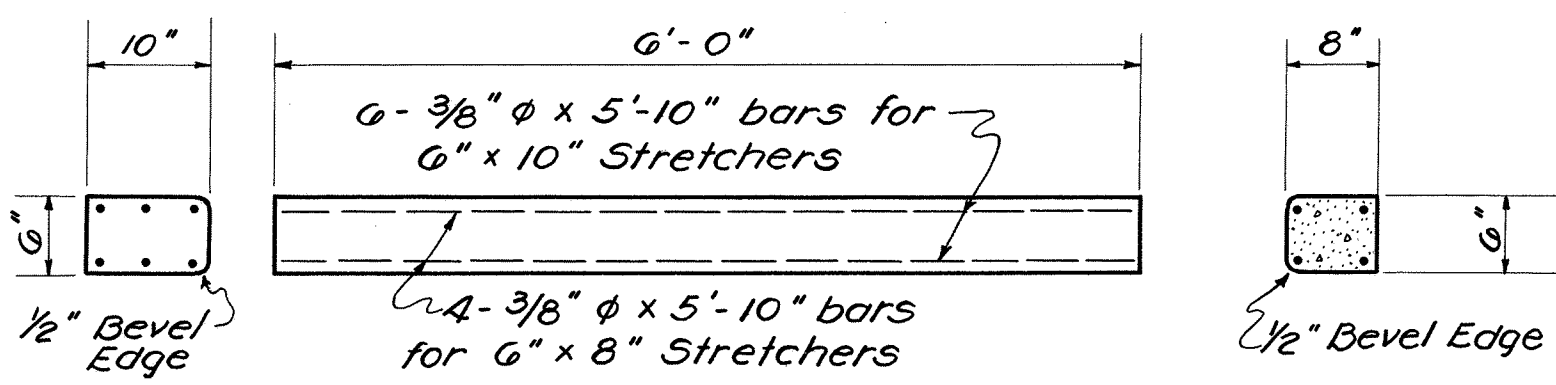
SCI-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B



DETAIL OF CONCRETE CRIBBING WALL

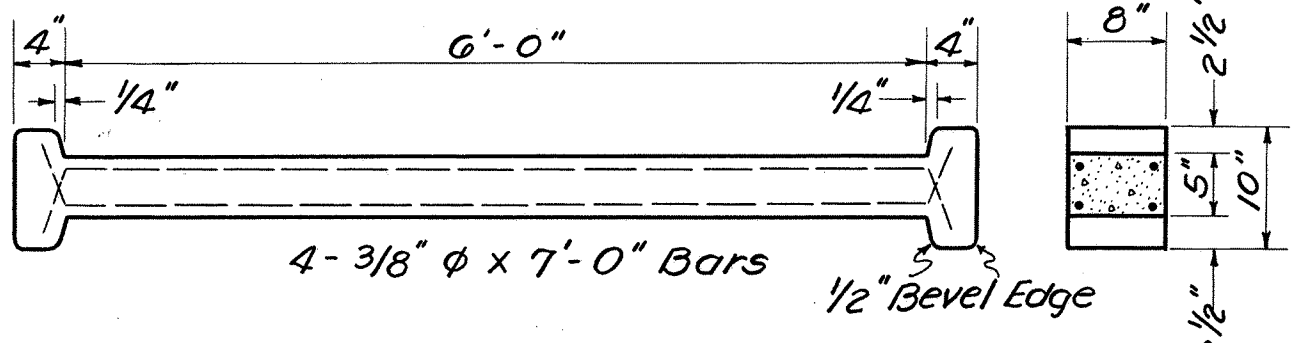
Height varying from 6'-0" to 11'-6"
Scale 3/8" = 1'-0"

NOTE: 1/4" x 8" x 8" bearing pads to be placed between all flat bearing surfaces. Batter of wall is to be 2" Horizontal in 12" Vertical.



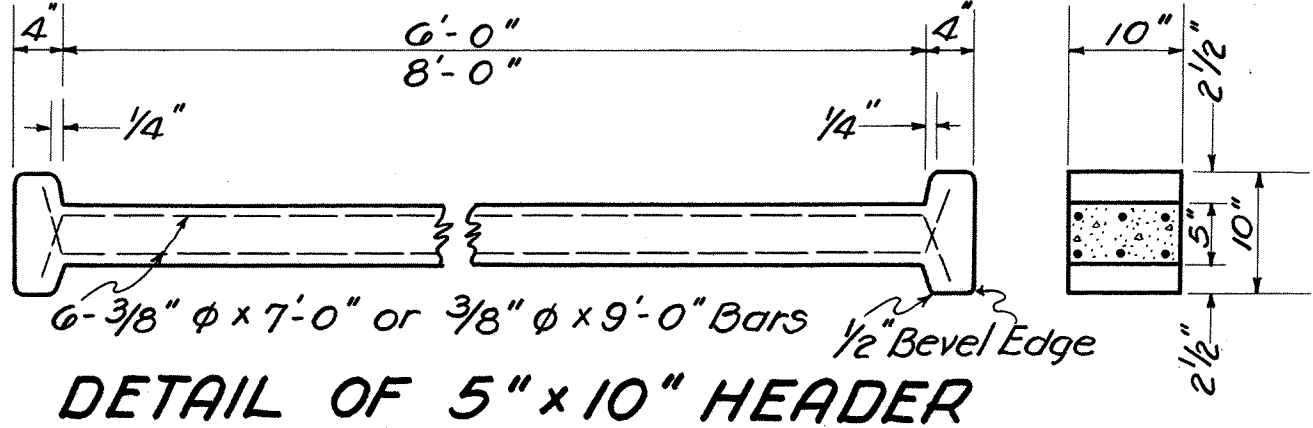
DETAIL OF STRETCHERS & COPING

Scale 3/4" = 1'-0"



DETAIL OF 5" x 8" x 6'-0" HEADER

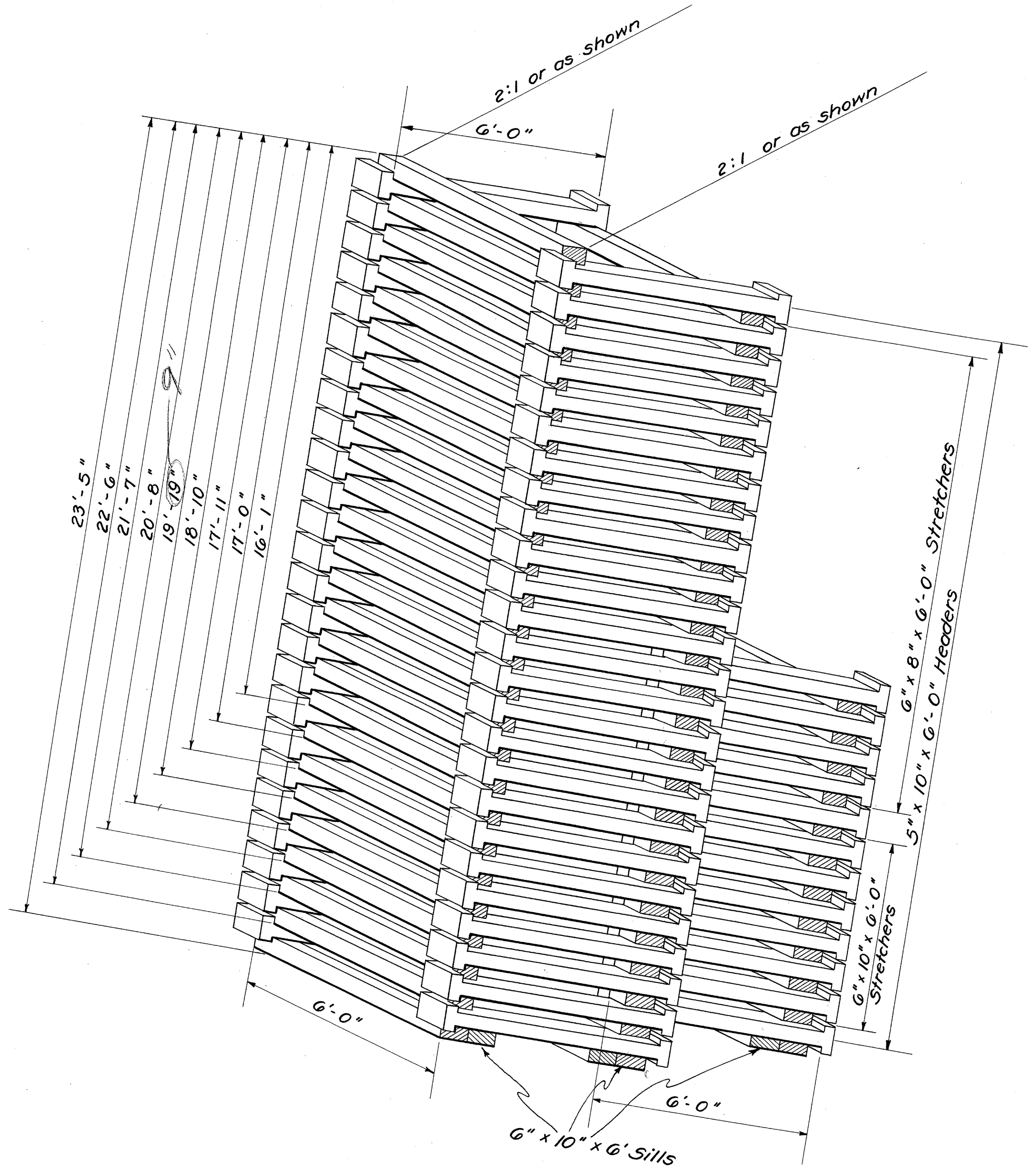
Scale 3/4" = 1'-0"



DETAIL OF 5" x 10" HEADER

Scale 3/4" = 1'-0"

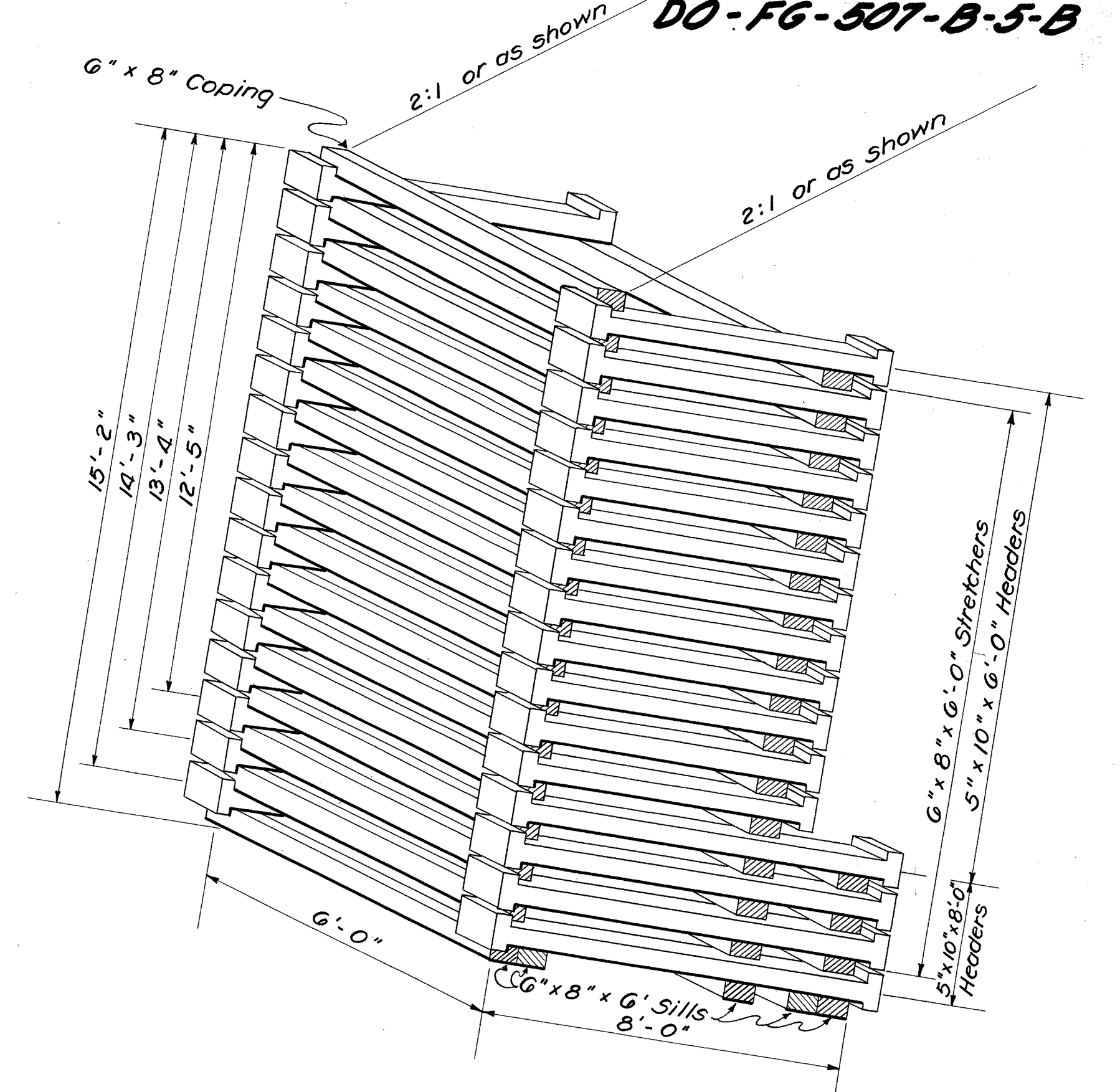
NOTE: All reinforcing bars to be 1" clear from surface of concrete.



DETAIL OF CONCRETE CRIBBING WALL

Height varying from 16'-1" to 23'-5"
Scale 3/8" = 1'-0"

NOTE: Batter of wall is to be 2" Horizontal in 12" Vertical.



DETAIL OF CONCRETE CRIBBING WALL

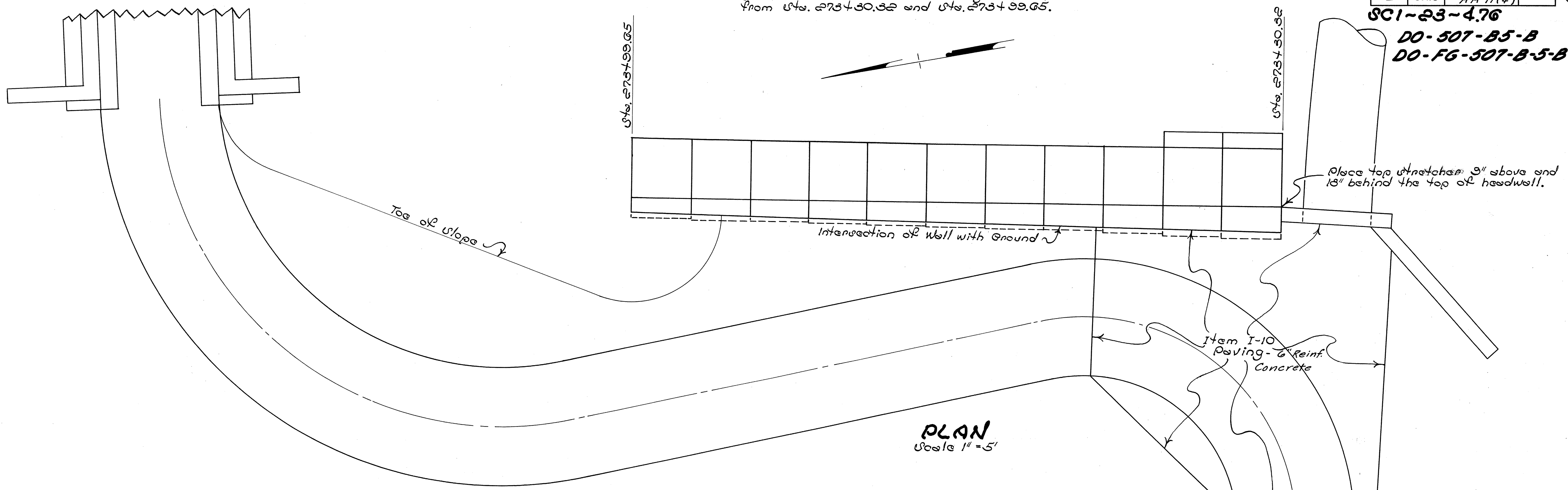
Height varying from 12'-5" to 15'-2"
Scale 3/8" = 1'-0"

NOTE: Batter of wall is to be 2" Horizontal in 12" Vertical.

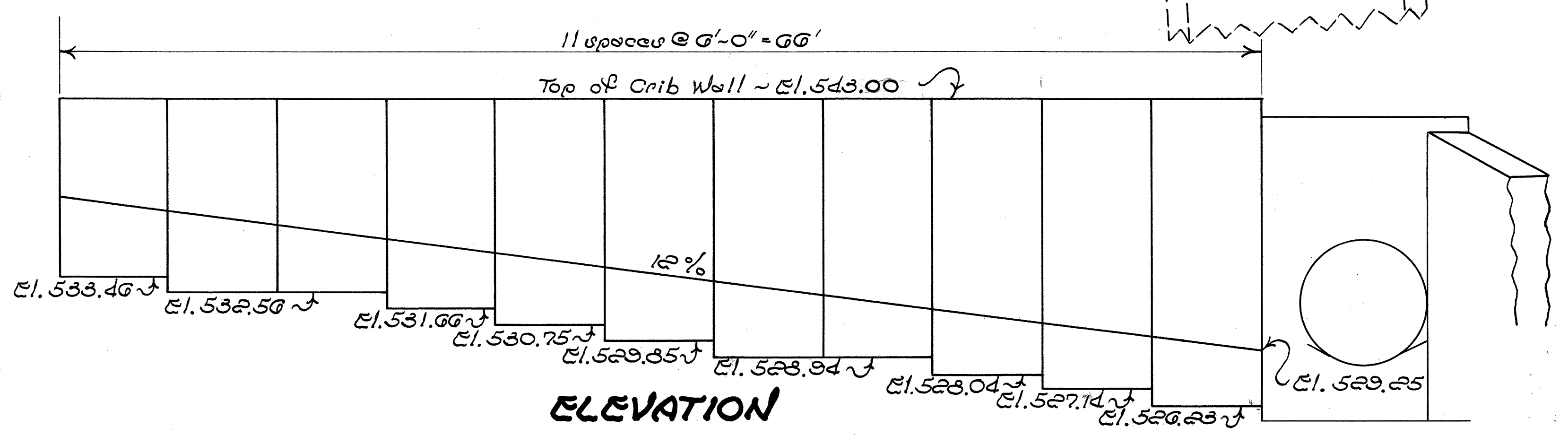
15.85

Note :- In order to establish the line of the top stretchers, measure out from the center line of survey 83.5 ft. to the left from Sta. 273430.32 and Sta. 273439.65.

SC1-23-4.76
DO-507-B5-B
DO-F6-507-B5-B



PLAN
Scale 1" = 5'



ELEVATION

Note :- see sheet No. 20 for details of Retaining Wall.

ESTIMATED QUANTITIES

Item	Quantity	Unit	Description
US-9	869	Sq. Ft.	Precast Reinf. Conc. Cellular Retaining Wall or Galvanized Metal Cellular Retaining Wall
I-10	90	Sq. Yd.	Riprap Type 'A' (see plan)

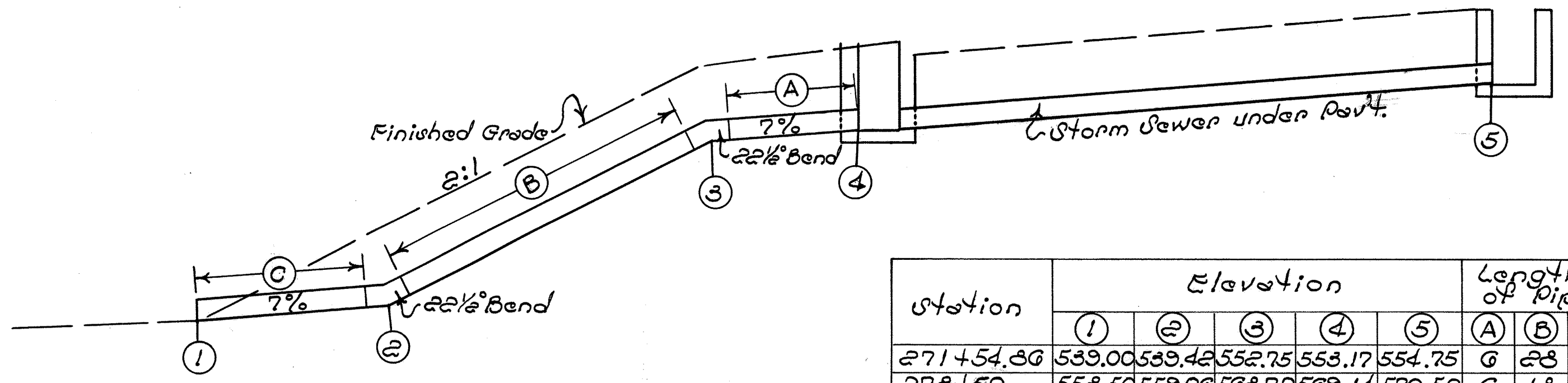
PH
RW
e-e-53

STORM SEWER DETAILS

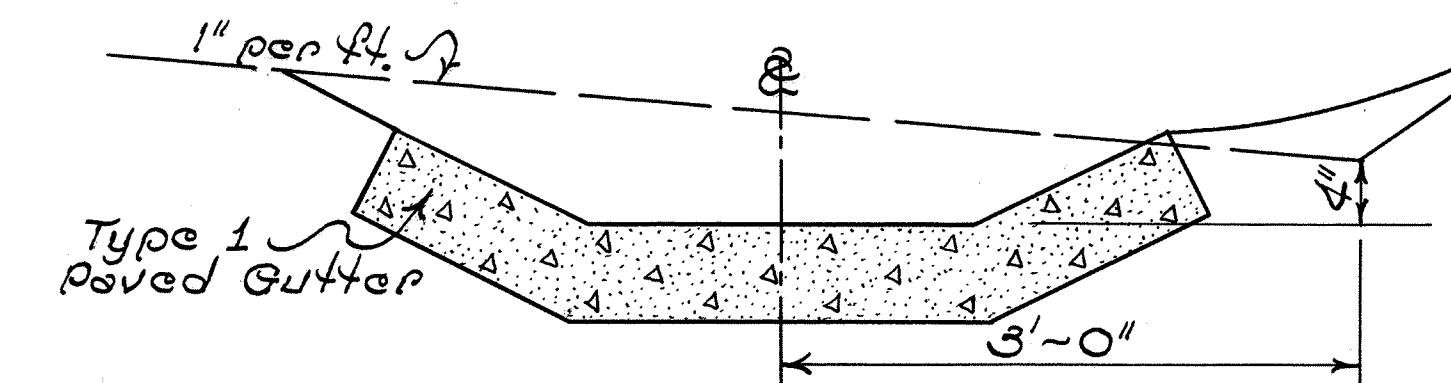
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	AA-11(4)	

28
98

SCI-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B

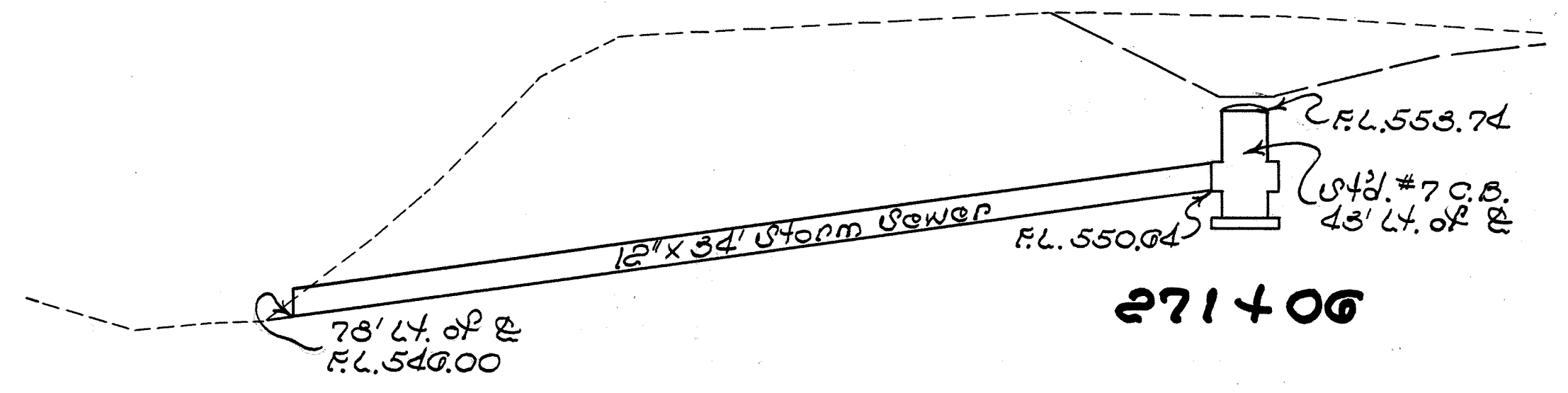
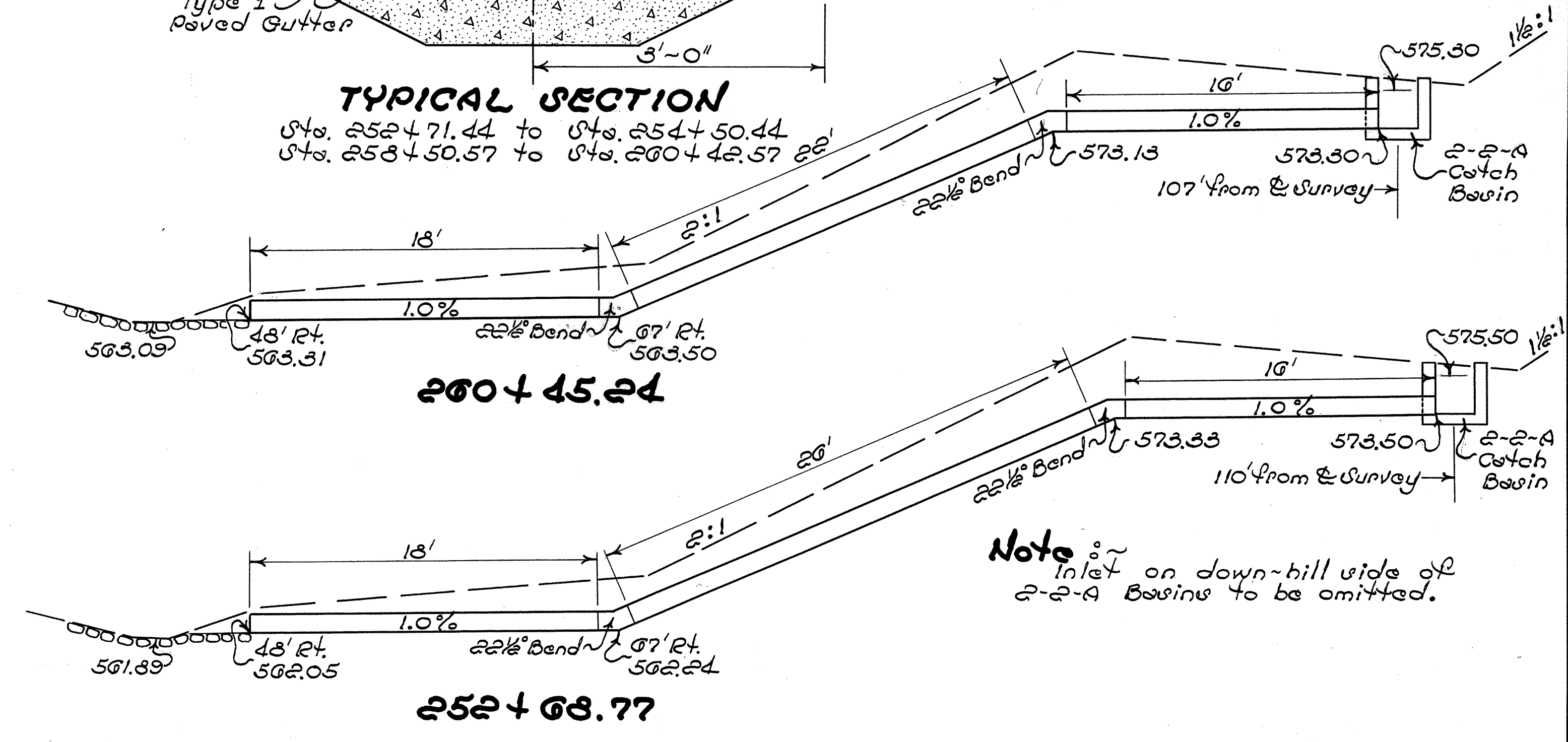


Station	Elevation					Lengths of Pipe		
	(1)	(2)	(3)	(4)	(5)	(A)	(B)	(C)
271+54.30	539.00	539.44	552.75	553.17	554.75	6	23	6
278+50	553.50	559.00	568.72	569.14	570.50	6	13	3
294+00	551.30	551.30	573.17	573.59	574.04	6	46	3
296+50	549.20	549.90	564.35	565.27	567.20	6	32	10
298+45	544.00	544.50	559.17	559.59	561.20	6	32	3
300+45	542.00	544.20	554.12	554.54	555.41	6	20	22

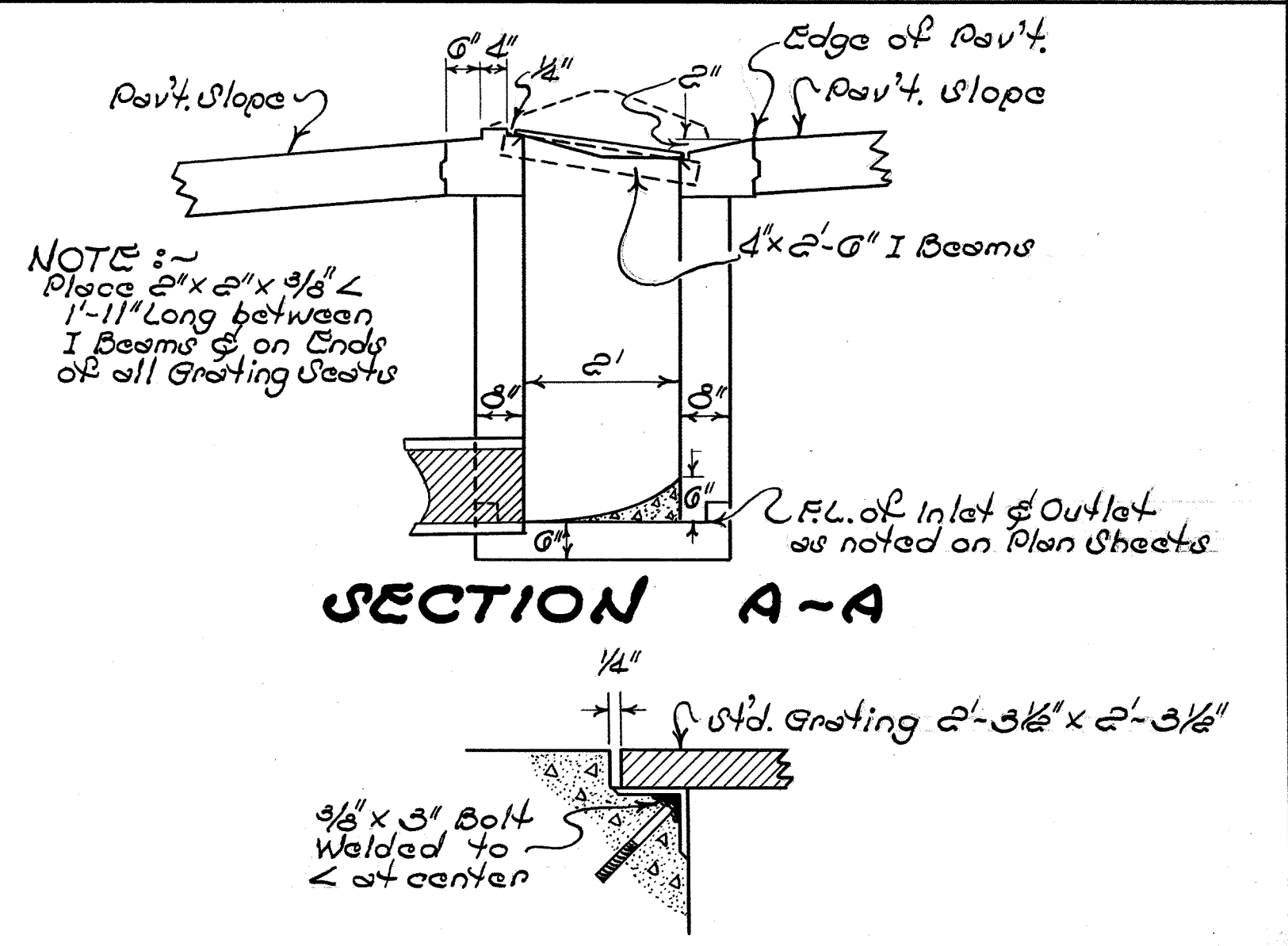
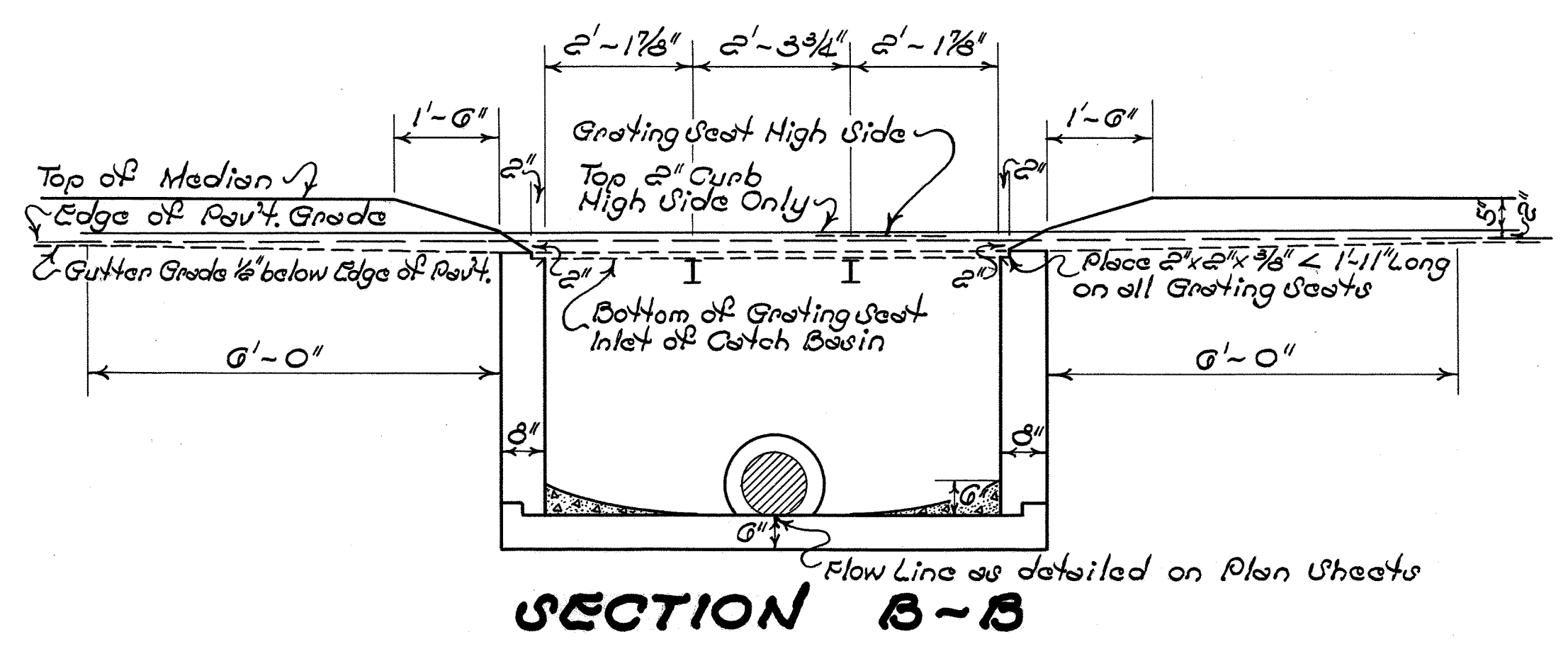
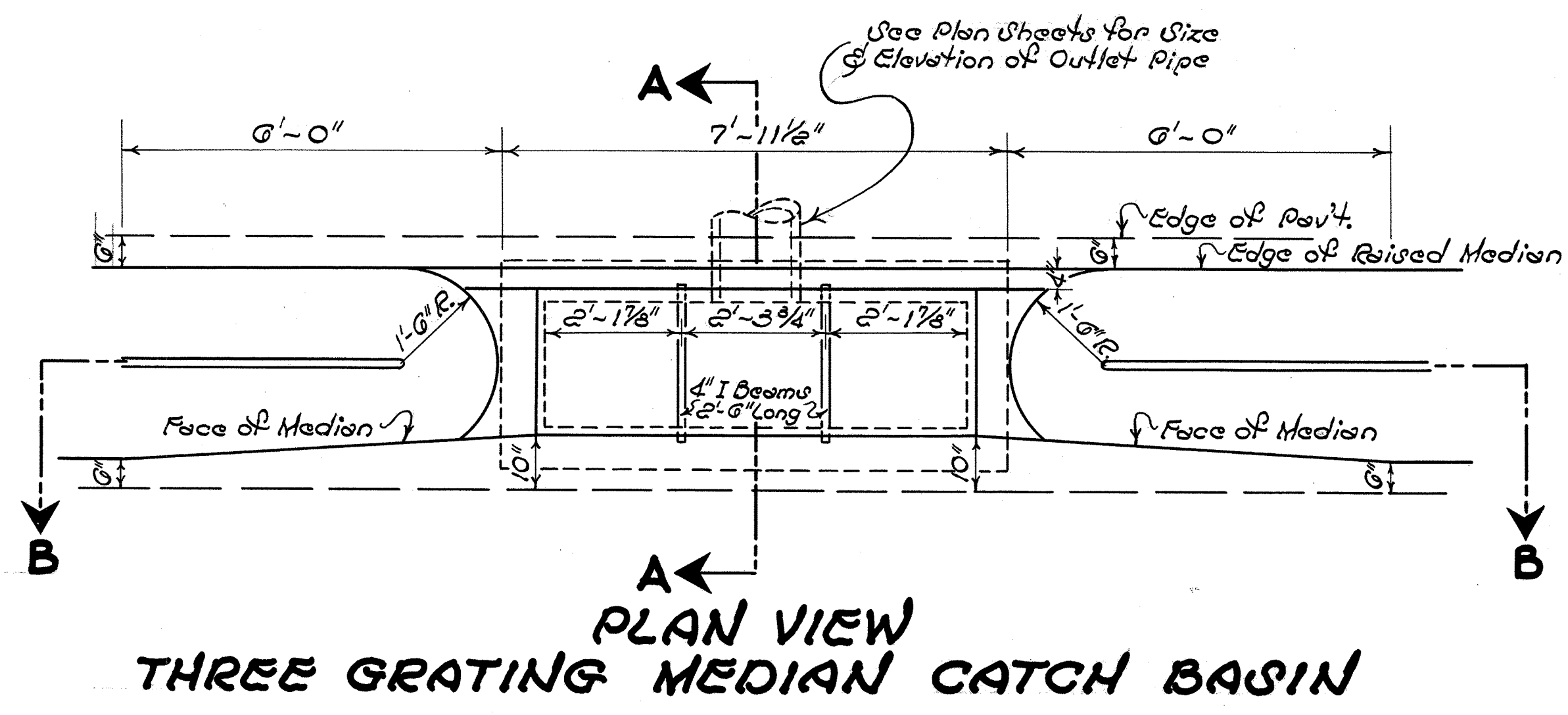


TYPICAL SECTION

Sta. 252+71.44 to Sta. 254+50.44
Sta. 253+50.57 to Sta. 260+42.57



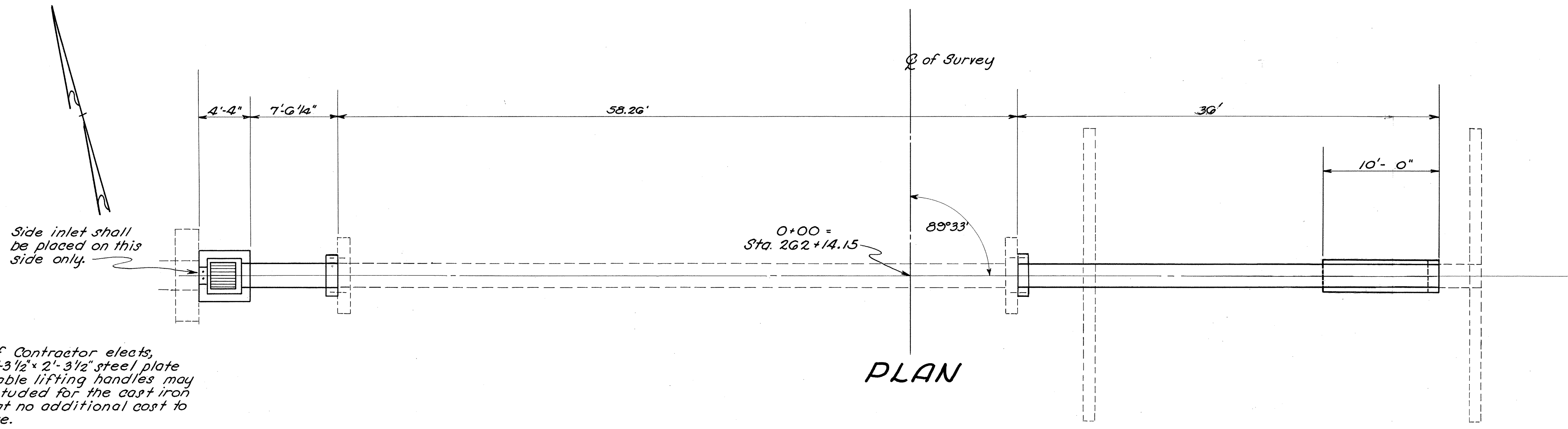
DETAIL OF MEDIAN AREA CATCH BASIN



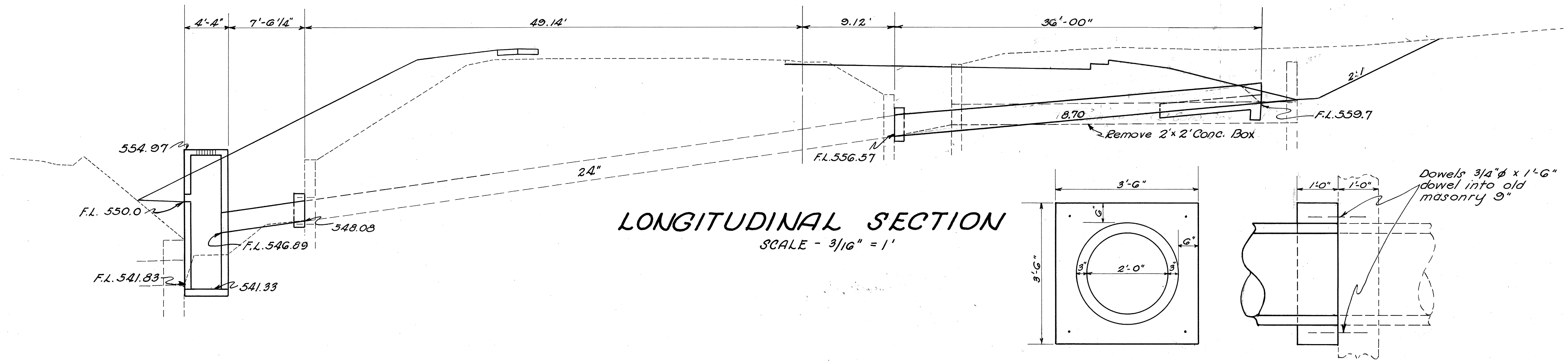
DETAIL OF GRATING BEARINGS
Used on all corners where grating would rest on basin walls.

Assigned
Checked
E. W.
1-23-53

SCI-23-4.76
DO-507-B5-B
DO-F6-507-B-5-B



NOTE: IF Contractor elects, a 1/4" x 2'-3 1/2" x 2'-3 1/2" steel plate with suitable lifting handles may be substituted for the cast iron grating at no additional cost to the State.



LONGITUDINAL SECTION
SCALE - 3/16" = 1'

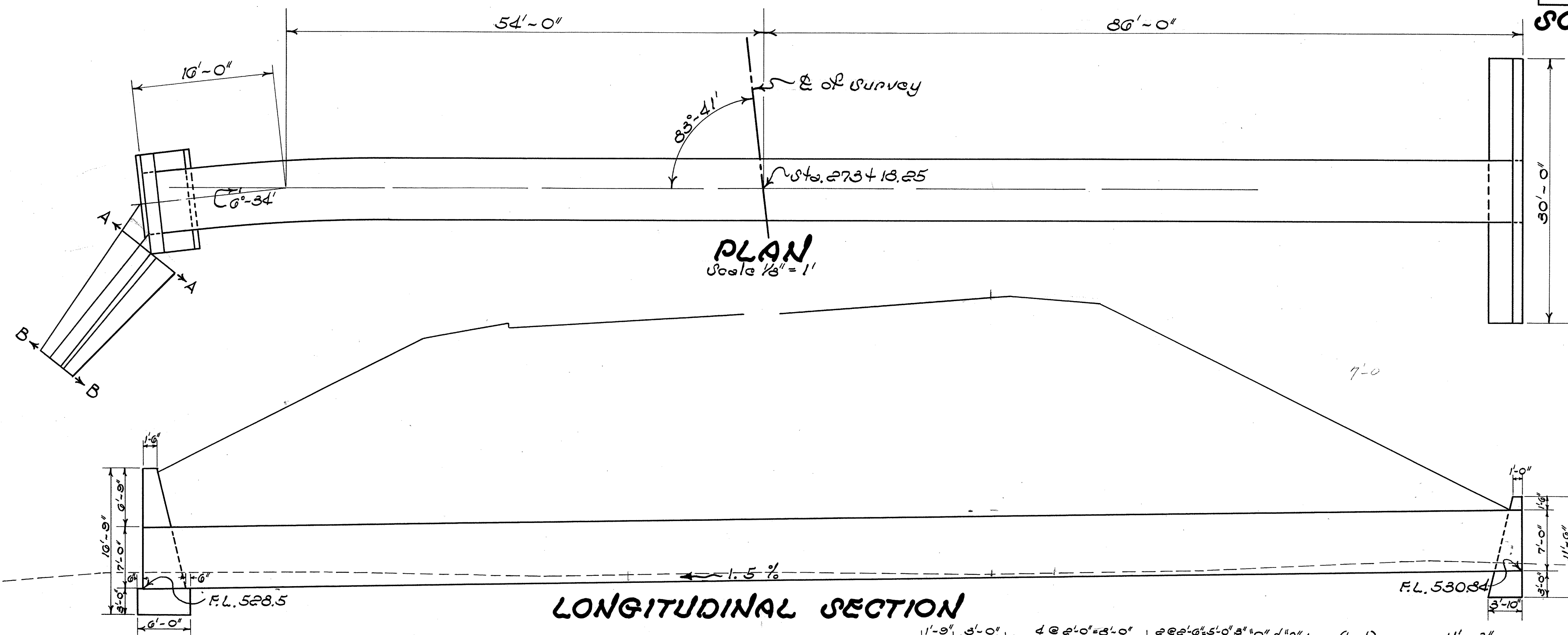
CULVERT DATA

TYPE: Pipe Culvert Std. Dwg. S-27 P.C. 2-3 I-8 C.B 2-3
 SIZE: 24" x 102.26
 WORK REQUIRED: Remove 2' x 2' Box Culvert on Rt. and construct Catch Basin and Pipe Extensions as per plan.

ESTIMATED QUANTITIES

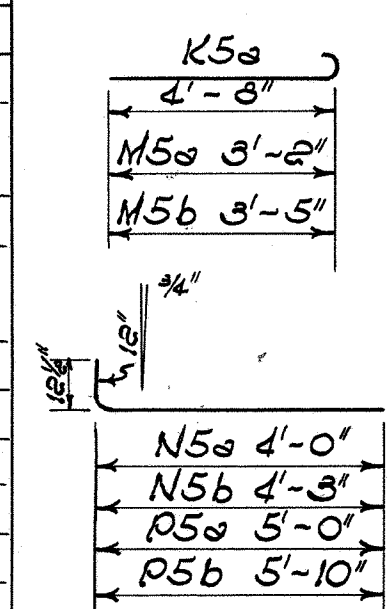
Item	Quantity	Unit	Description	Check	Appr.
E-2	2	Cu.Yds.	Excavation for Structure	✓	
S-1	1.6	Cu.Yds.	Class "E" Concrete for Collar, Cradle & C.O. Wall	✓	
S-4	18	Lbs.	Reinforcing Steel for Collars (3pes. x 1.5 x 1.5)	✓	
S-24	Lump	Lump	Removal of Existing Structure	✓	
S-23	6	Lin.Ft.	Dowel Holes	✓	
S-27	44	Lin.Ft.	24" Pipe for Roadway Culvert	✓	
I-8	1	Unit	Std. No. 2-3 Catch Basin, Modified	✓	

SCI-23-4.76
DO-507-B5-B
DO-F6-507-B-5-B

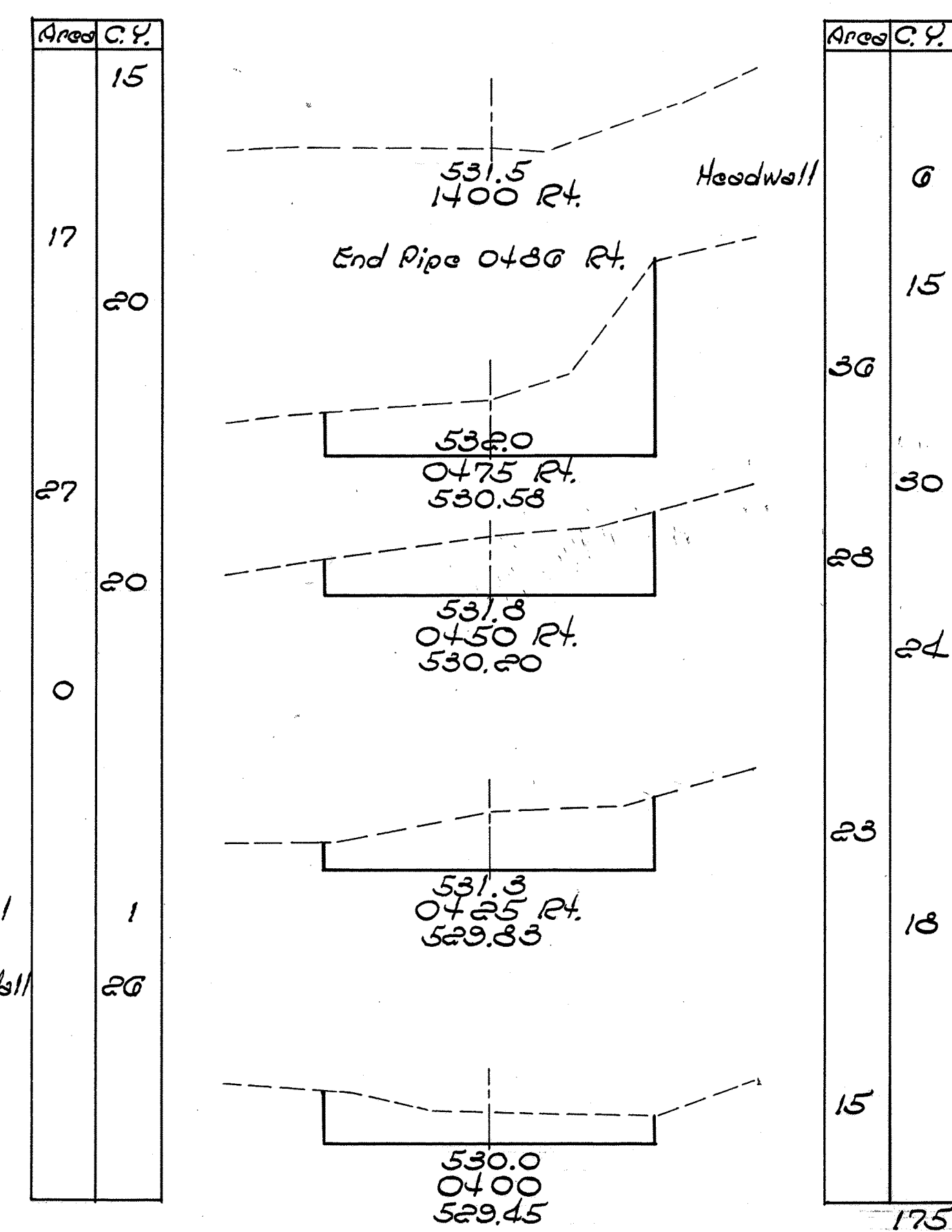


STEEL LIST

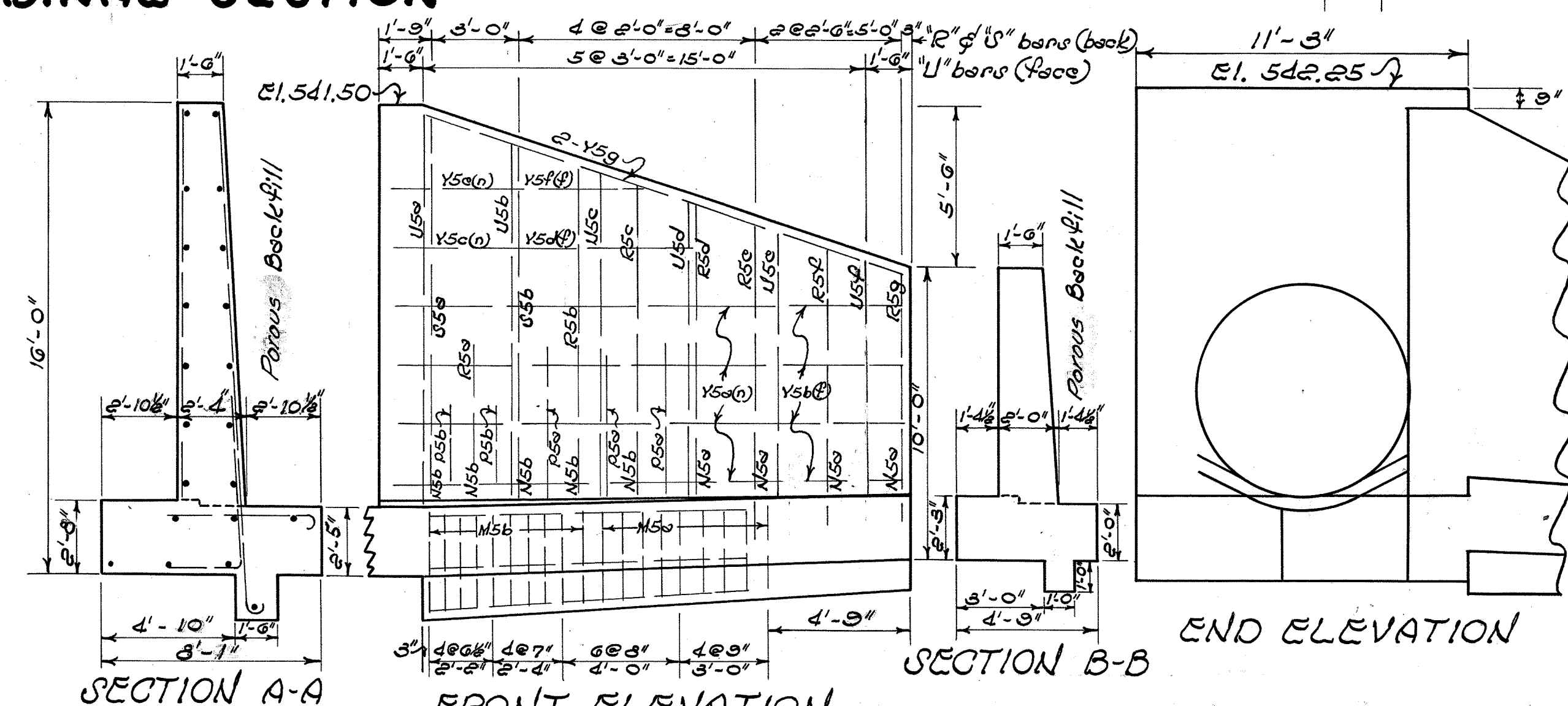
Mark	Shape	Nr.	Length	Wt.
R5a	Bent	1	5'-3"	5
M5a	Bent	9	3'-9"	35
M5b	Bent	10	4'-0"	42
N5a	Bent	4	4'-11"	21
N5b	Bent	5	5'-2"	27
R5a	Bent	3	5'-11"	19
R5b	Bent	2	6'-9"	14
R5a	St. pt.	1	5'-0"	6
R5b	St. pt.	1	11'-10"	12
R5c	St. pt.	1	11'-0"	11
R5d	St. pt.	1	10'-3"	11
R5e	St. pt.	1	9'-3"	10
R5f	St. pt.	1	8'-9"	9
R5g	St. pt.	1	7'-10"	8
R5h	St. pt.	1	13'-3"	14
R5i	St. pt.	1	12'-5"	13
U5a	St. pt.	1	13'-1"	14
U5b	St. pt.	1	12'-1"	13
U5c	St. pt.	1	11'-1"	12
U5d	St. pt.	1	10'-1"	11
U5e	St. pt.	1	9'-1"	9
U5f	St. pt.	1	8'-1"	8
V5a	St. pt.	3	11'-0"	32
V5b	St. pt.	4	17'-0"	73
V5c	St. pt.	4	16'-0"	67
V5d	St. pt.	1	15'-0"	16
V5e	St. pt.	1	13'-0"	12
V5f	St. pt.	1	8'-0"	9
V5g	St. pt.	2	17'-0"	35
Total				637



LONGITUDINAL SECTION



CROSS SECTIONS
Scale 1" = 5'



CULVERT DATA

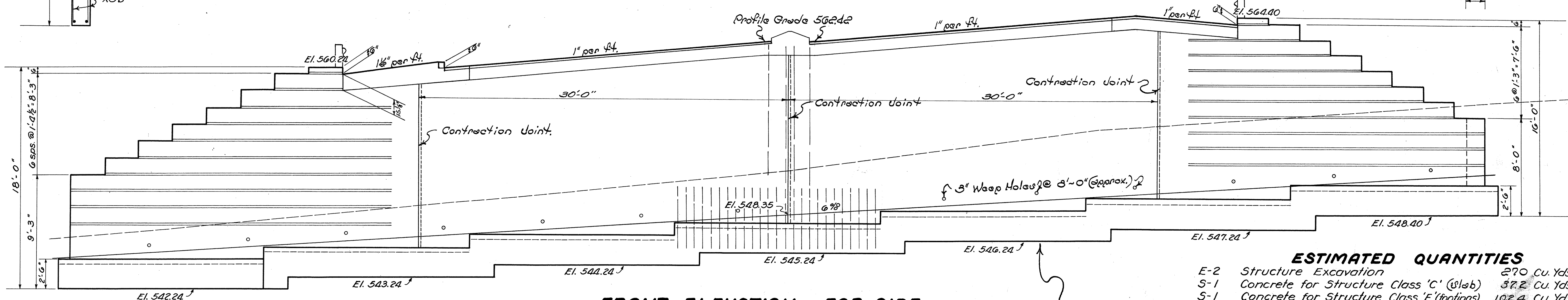
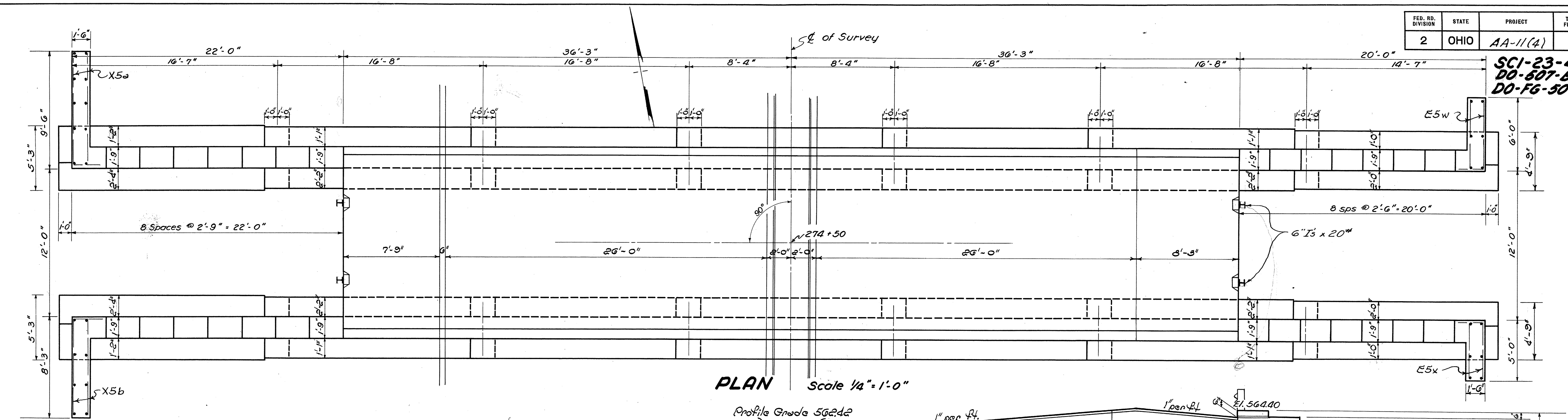
TYPE: ~ Pipe Culvert 1/4" Dring. No. 1-27 R.C. RW 45, SP-48
 SIZE: ~ 34" x 150"
 WORK REQUIRED: ~ Install Culvert, Retaining Wall and Headwalls as per plan.

ESTIMATED QUANTITIES

Item	Quantity	Unit	Description
E-2	175	Cu.Yd.	Excavation for structure
U-1	72	Cu.Yd.	Concrete class "B"
U-4	637	Lb.	Reinforcing steel
U-27	150	Lin.Ft.	34" Pipe for roadway, Culvert Sec. M-C-G-C or Sec. M-C-G-L 10 gage 4.8 gage Unstuffed
U-29	10	Cu.Yd.	Porous Backfill

1-28-53
R.W.
Designed
Traced
Checked

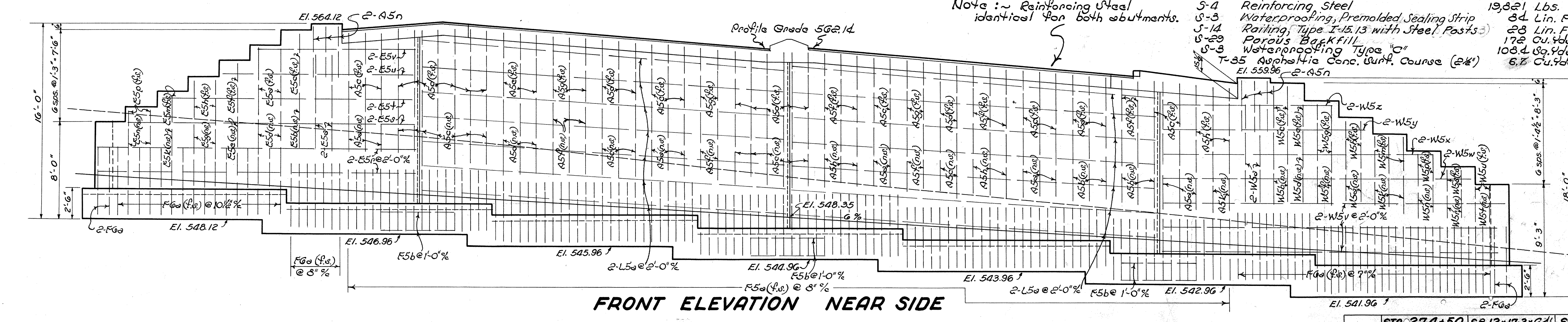
SCI-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B



ESTIMATED QUANTITIES

E-2	Structure Excavation	270 Cu. Yds.
S-1	Concrete for Structure Class 'C' (Slab)	37.2 Cu. Yds.
S-1	Concrete for Structure Class 'E' (Roofings)	102.4 Cu. Yds.
S-1	Concrete for Structure Class 'E' Walls	196.2 Cu. Yds.
S-4	Reinforcing Steel	19,321 Lbs.
S-3	Waterproofing, Premolded Sealing Strip	84 Lin. Ft.
S-14	Railing, Type I-15.13 with Steel Posts	28 Lin. Ft.
S-29	Porous Backfill	172 Cu. Yds.
S-3	Waterproofing Type 'C'	108.4 Sq. Yds.
T-35	Asphaltic Conc. Surf. Course (2 1/2")	6.7 Cu. Yds.

Note: ~ Reinforcing steel identical for both abutments.

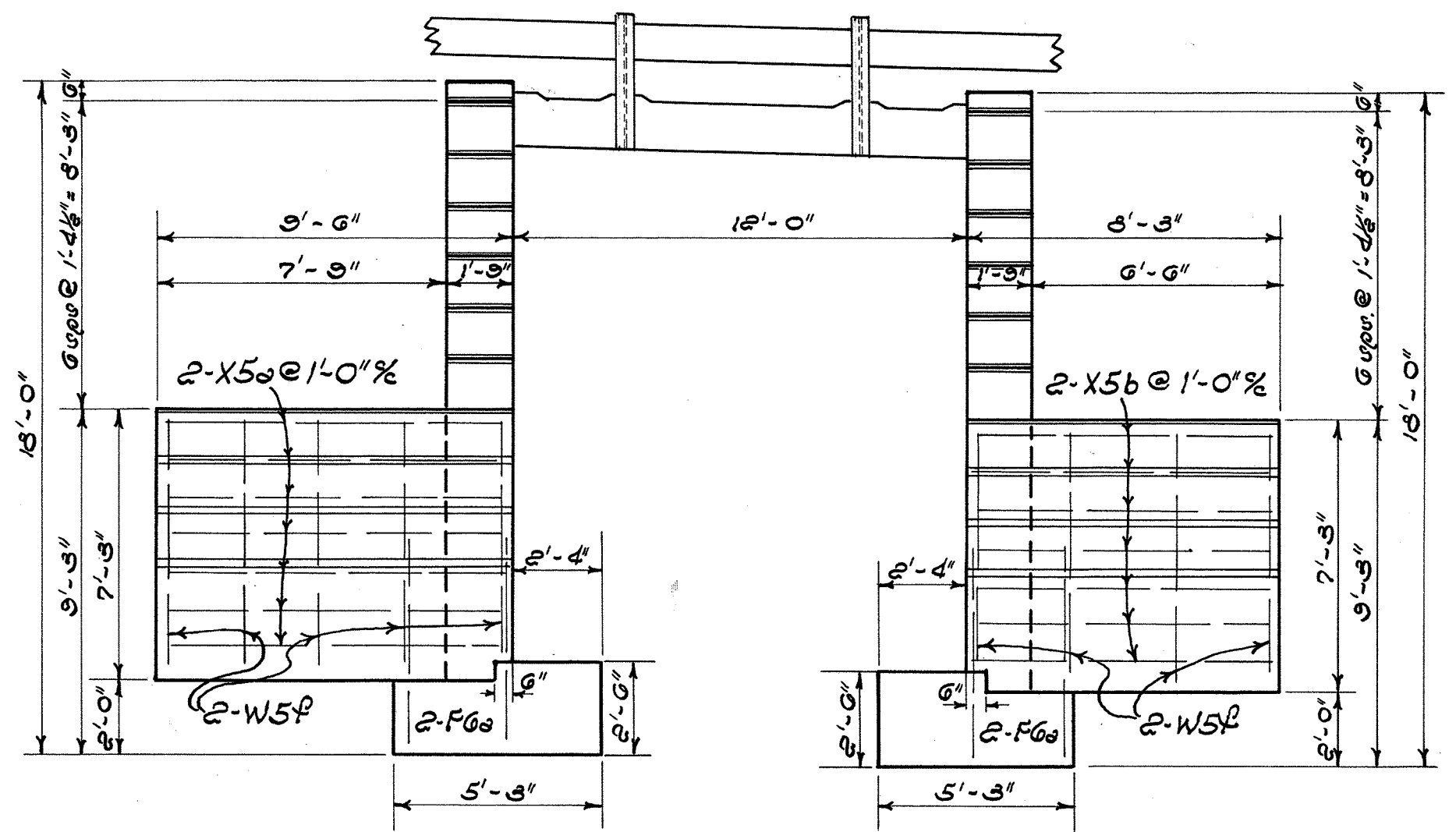


Designed	N.D.R.W.	2-16-53
Traced		
Checked		

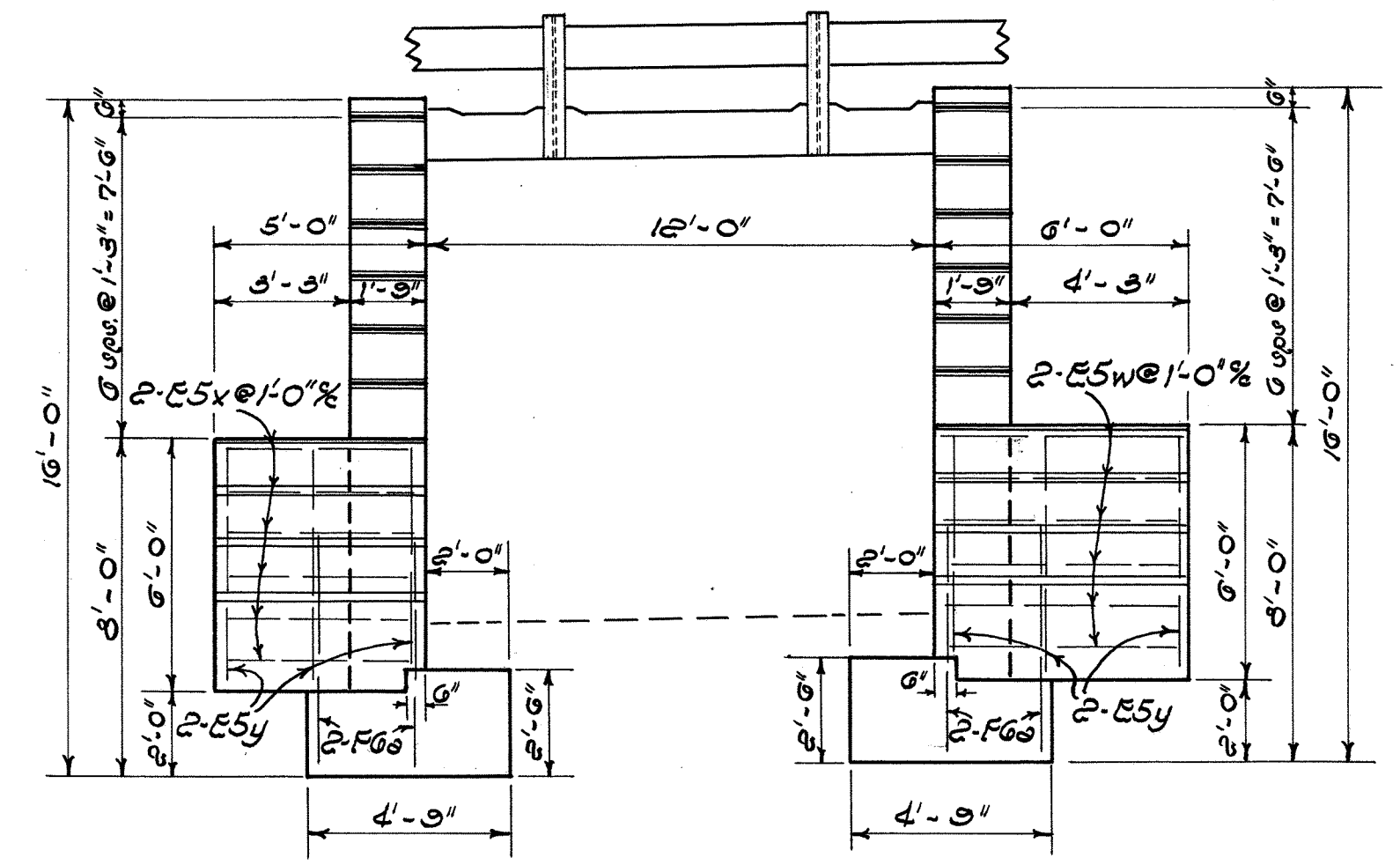
REINFORCING STEEL LIST

Mark	Shape	No.	Length	Wt.	Bending Diagrams	Mark	Shape	No.	Length	Wt.
F5a	Bent	216	5'-9"	129.5		W5z	U4rt.	4	14'-0"	58
F6a	Bent	134	6'-4"	127.5		X5a	Bent	14	9'-10"	144
F5b	U4rt.	60	6'-0"	37.5		X5b	Bent	14	8'-7"	12.5
A5a	U4rt.	34	13'-9"	48.8		E5a	U4rt.	12	12'-0"	150
A5b	U4rt.	6	13'-3"	8.3		E5b	U4rt.	22	13'-11"	29
A5c	U4rt.	64	14'-3"	95.1		E5c	U4rt.	22	14'-5"	30
A5d	U4rt.	42	14'-9"	64.6		E5d	U4rt.	4	11'-6"	4.8
A5e	U4rt.	6	15'-3"	9.5		E5e	U4rt.	22	10'-3"	27
A5f	U4rt.	30	12'-6"	45.4		E5f	U4rt.	22	10'-9"	28
A5g	U4rt.	14	15'-0"	21.9		E5g	U4rt.	4	9'-0"	3.3
A5h	U4rt.	24	14'-0"	35.0		E5h	U4rt.	4	9'-0"	4.0
A5k	U4rt.	4	13'-6"	5.6		E5k	U4rt.	2	7'-9"	1.6
A5n	U4rt.	24	4'-0"	10.0		E5m	U4rt.	2	8'-3"	1.7
L5a	U4rt.	56	23'-6"	172.3		E5n	U4rt.	4	9'-6"	2.7
W5a	U4rt.	12	12'-0"	15.0		E5o	U4rt.	4	7'-0"	2.9
W5b	U4rt.	4	13'-9"	5.7	E5p	U4rt.	3	25'-9"	21.5	
W5c	U4rt.	4	14'-3"	5.9	E5q	U4rt.	4	23'-3"	9.7	
W5d	U4rt.	2	12'-4 1/2"	2.9	E5r	U4rt.	4	15'-9"	6.6	
W5e	U4rt.	2	12'-10 1/2"	2.7	E5s	U4rt.	4	13'-3"	5.5	
W5f	U4rt.	4	13'-4 1/2"	3.6	E5w	Bent	12	6'-4"	7.9	
W5g	U4rt.	4	13'-10 1/2"	5.8	E5x	Bent	12	5'-4"	6.7	
W5h	U4rt.	4	12'-6"	3.2	E5y	U4rt.	12	5'-3"	6.6	
W5k	U4rt.	6	10'-7 1/2"	6.6						
W5m	U4rt.	6	11'-1 1/2"	7.0						
W5n	U4rt.	4	9'-3"	3.9						
W5p	U4rt.	4	9'-9"	4.1						
W5r	U4rt.	4	7'-10 1/2"	3.3						
W5s	U4rt.	4	8'-4 1/2"	3.5						
W5t	U4rt.	22	6'-6"	14.9						
W5u	U4rt.	4	7'-0"	2.9						
W5v	U4rt.	12	27'-9"	34.7						
W5w	U4rt.	4	25'-0"	10.4						
W5x	U4rt.	4	22'-3"	9.3						
W5y	U4rt.	4	16'-9"	7.0						
									Totals	19,321

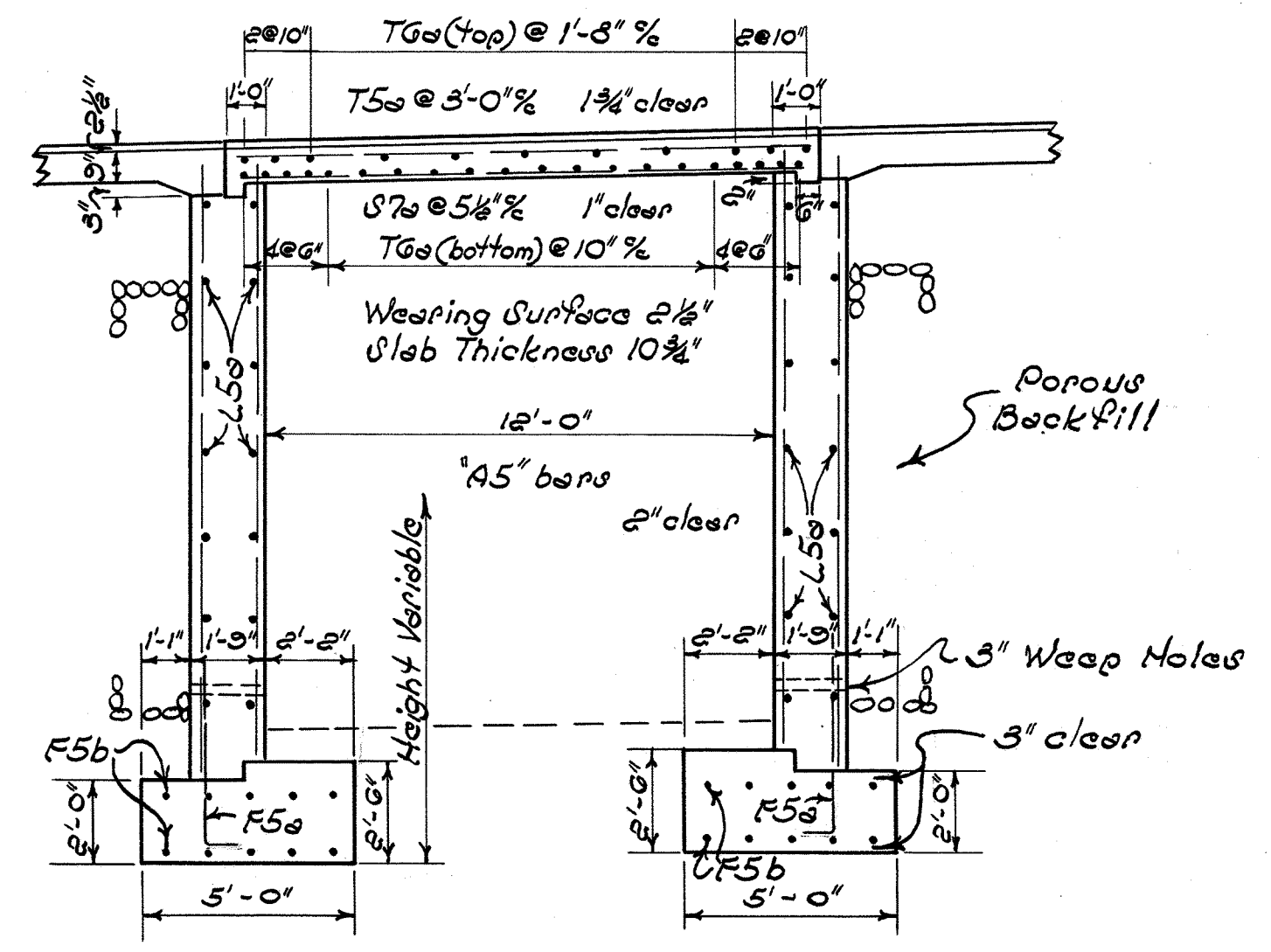
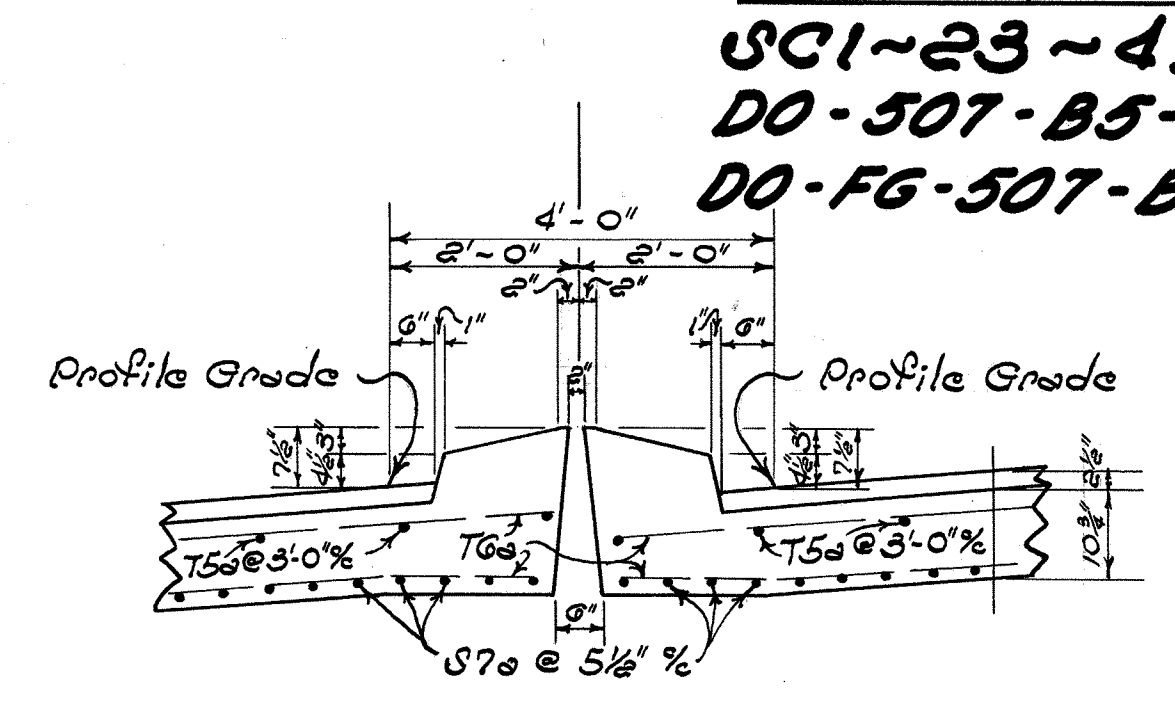
Note: ~ In the reinforcing steel bar marks, the number following the letter is the bar number which indicates the size of the bar. All reinforcing steel is 2" clear unless otherwise noted.



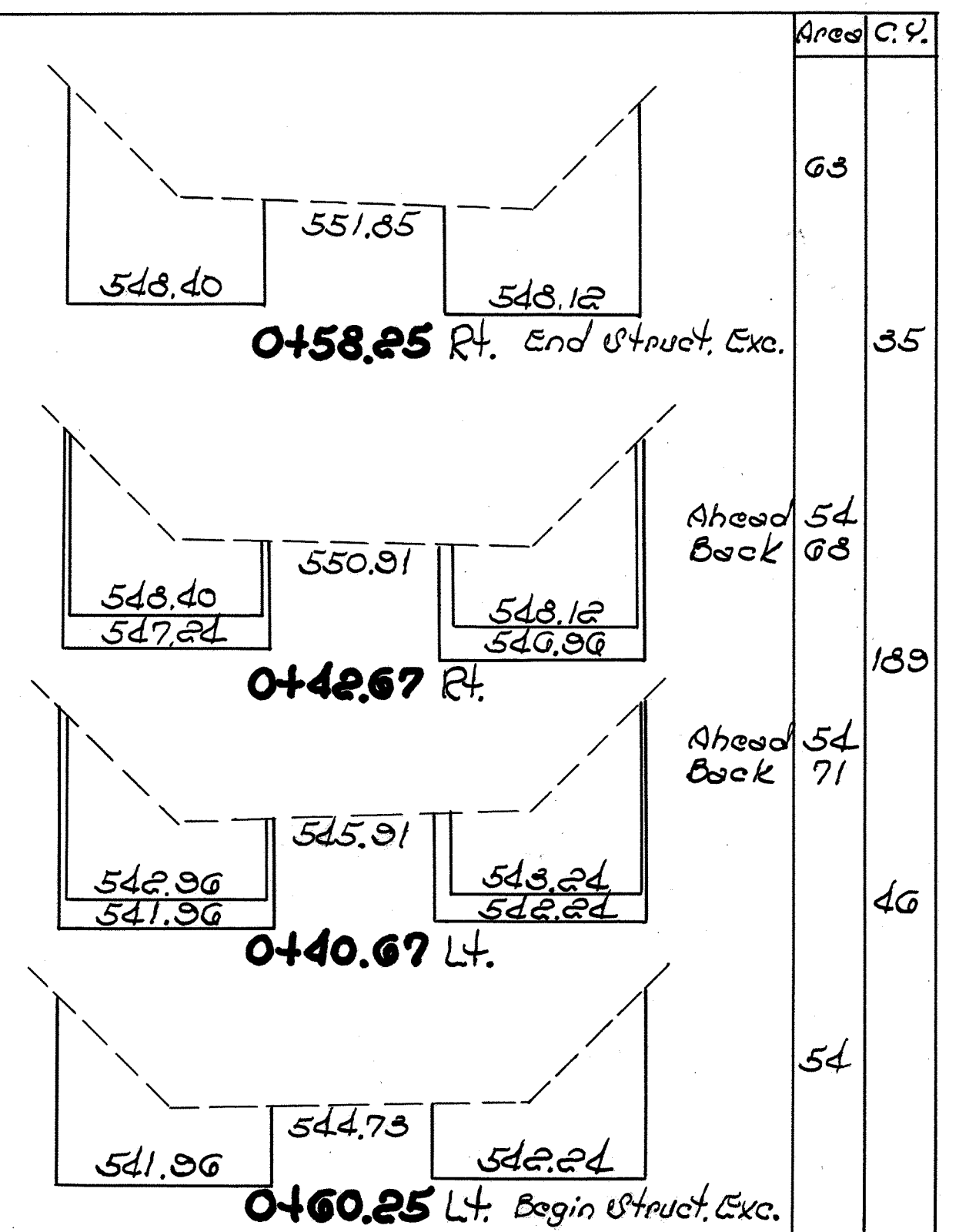
ELEVATION OF WEST OR LEFT END



ELEVATION OF EAST OR RIGHT END



SECTION A-A



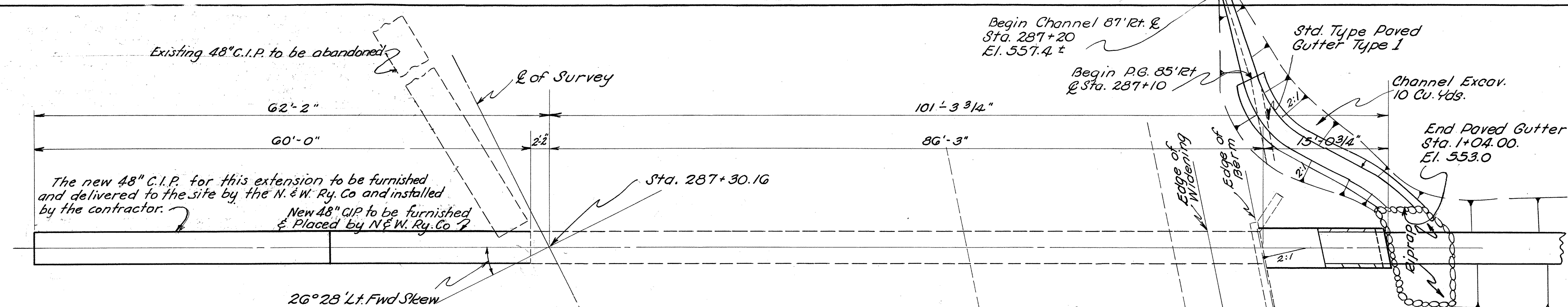
CROSS SECTIONS

BRIDGE DATA

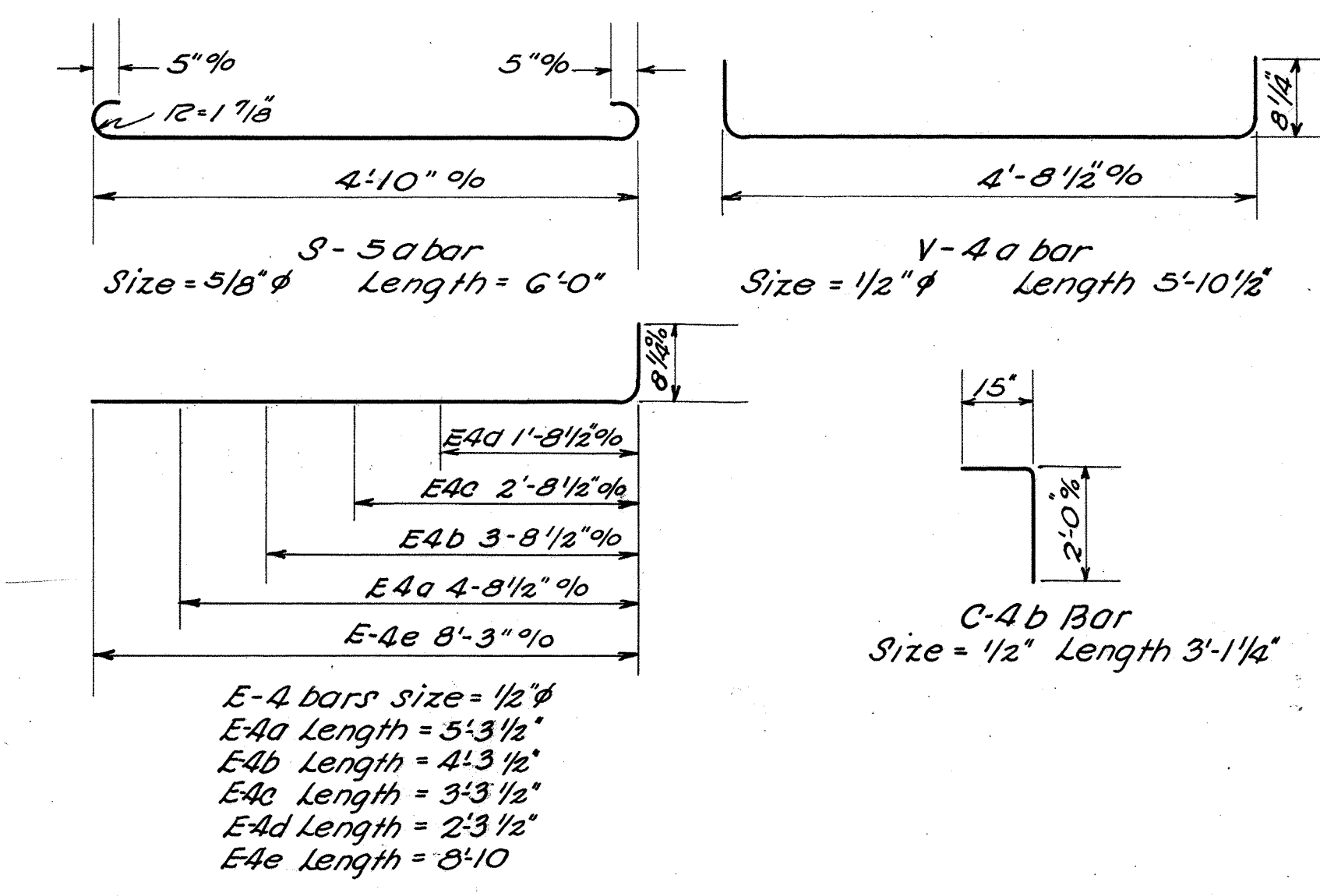
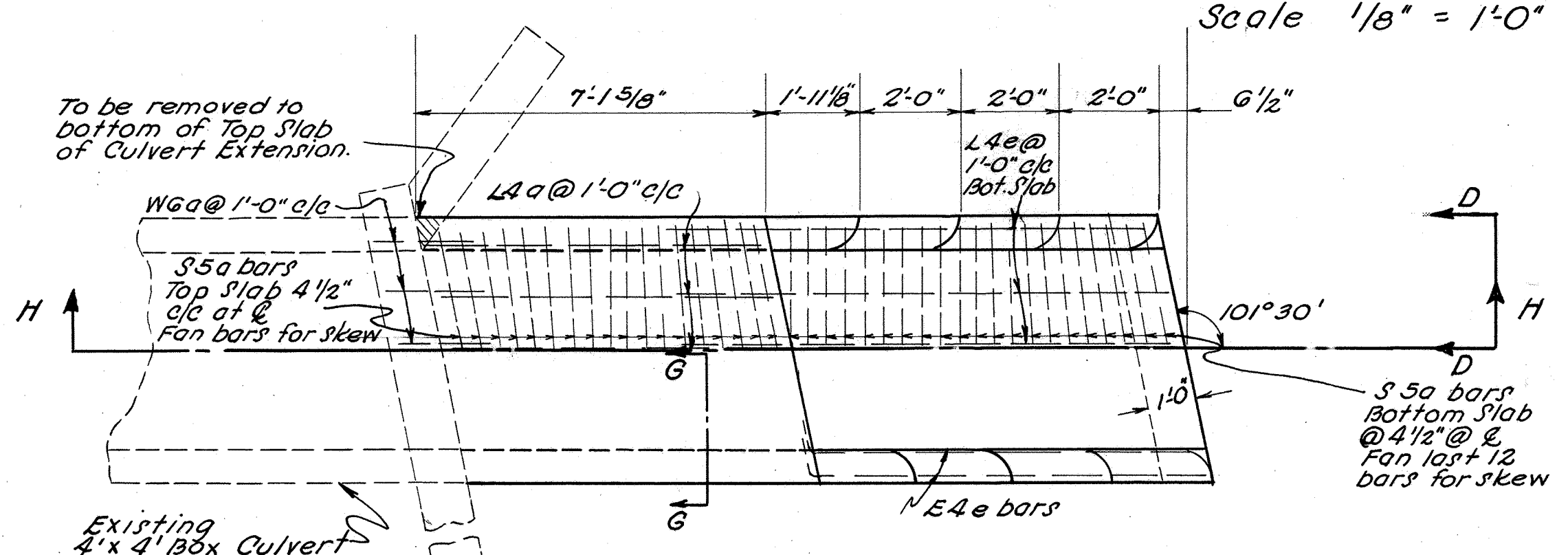
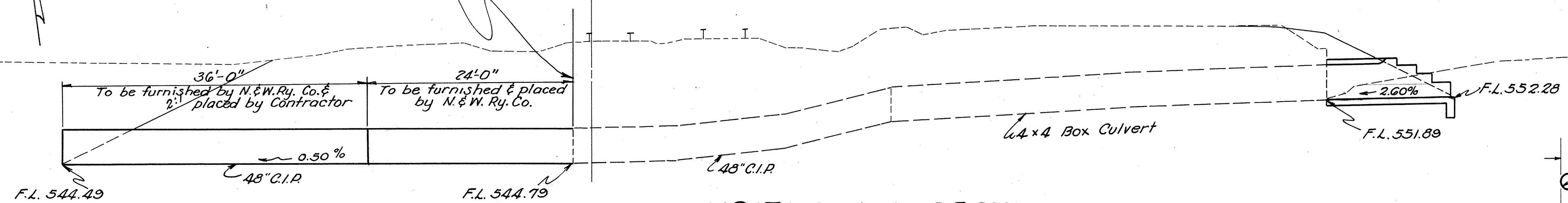
TYPE: ~ Slab Bridge U4rt. Drawg. No. U.B.-1-47
 SIZE: ~ Span 12' Height 13'-10" Roadway 64' Loading U-20-46
 WORK REQUIRED: ~ Build new structure as per plan.
 This structure is to be used as an underpass

SCI-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B

Mark	Shape	Number	Length	Weight
S-5a	Bent	57	6'-0"	357
L-4a	Strt.	16	7'-0"	75
L-4b	Strt.	2	3'-9"	8
L-4c	Strt.	2	7'-9"	10
L-4d	Strt.	7	9'-9"	46
V-4a	Bent	14	5'-10 1/2"	54
E-4a	Bent	4	5'-3 1/2"	14
E-4b	Bent	4	4'-3 1/2"	12
E-4c	Bent	4	3'-3 1/2"	9
E-4d	Bent	4	2'-3 1/2"	6
E-4e	Bent	4	8'-10"	24
C-4a	Strt.	1	4'-10"	3
C-4b	Bent	6	3'-1 1/4"	12
W-6a	Strt.	16	2'-0"	48



NOTE:
N. & W. Railway Co. shall provide shoring for tracks where work specified endangers the safe operation of the railroad. This work is at railroad expense.

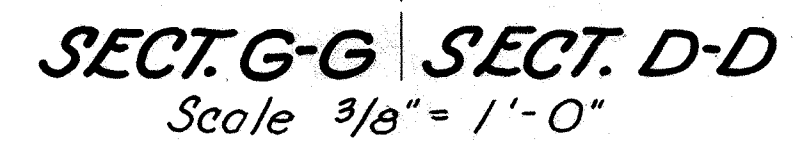
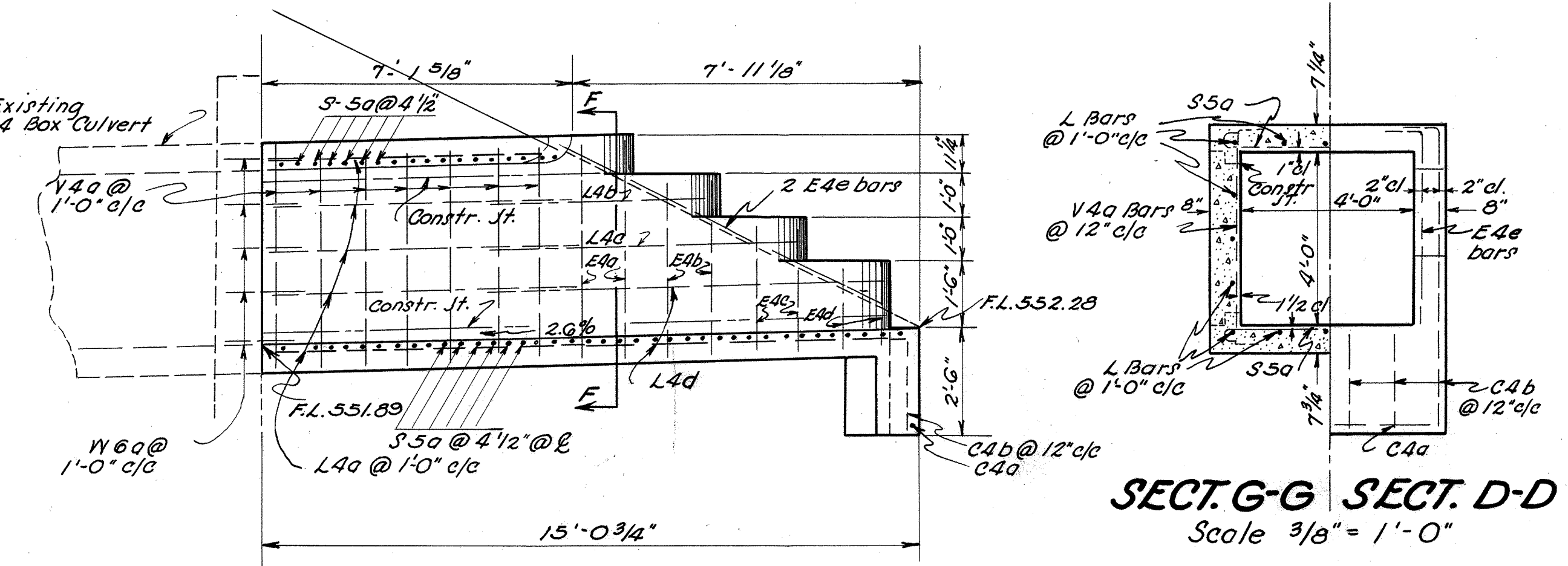
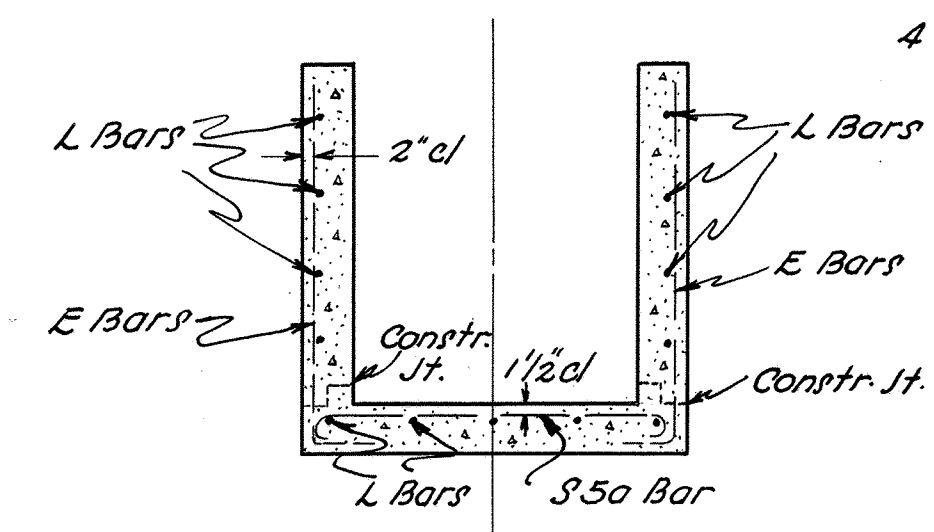


CULVERT DATA
TYPE: Concrete Box Culvert, Std. Drwg. No. SBC-45, Sheets 1 & 2 and Pipe Culvert, Std. Drwg. No. S-27 P.C.3
SIZE: 4'x4'x66.4 Concrete Box Culvert and 48"x 37.1 C.I.P. Pipe Culvert Total Length = 163.5' Drainage Area = 160 Acres (180 cfs - 5 yr.)
WORK REQUIRED: Extend Existing Concrete Box Culv. on Rt. with new Conc. Box and on Lt. with 48" C.I.P. and pave inlet & outlet channels as detailed on Sheet No. 21

ESTIMATED QUANTITIES

E-2	Excavation for Structures	3	Cu. Yds.
E-3	Channel Excavation (includes 10 Cu. Yd. @ inlet)	102	Cu. Yds.
S-27	48" Cast Iron Pipe for Roadway Culvert; Installed Only As Per Plan	300.6	Cu. Yds.
		36	Lin. Ft.
S-1	Concrete for Structures Class "C"	54	Cu. Yds.
S-4	Reinforcing Steel	678	Lbs.
S-22	Removal of Portions of Existing Structure	0.1	Cu. Yds.
I-10	Riprap as per plan	439	Sq. Yds.
I-14	Paved Gutter Type 1	25	Lin. Ft.
I-10	Riprap	11	Sq. Yds.

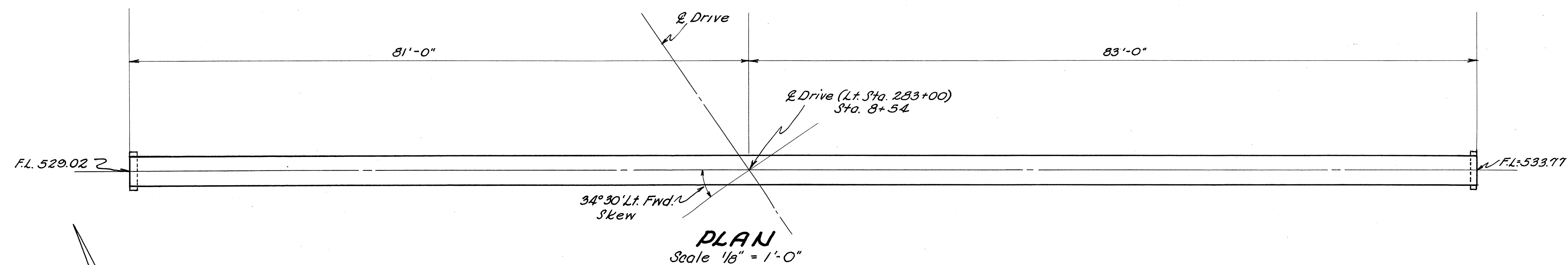
* For Channel Details, See Sheet No. 21



FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	AA-11(4)	

34
98

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DO-507-B5-B
DO-F6-507-B-5-B

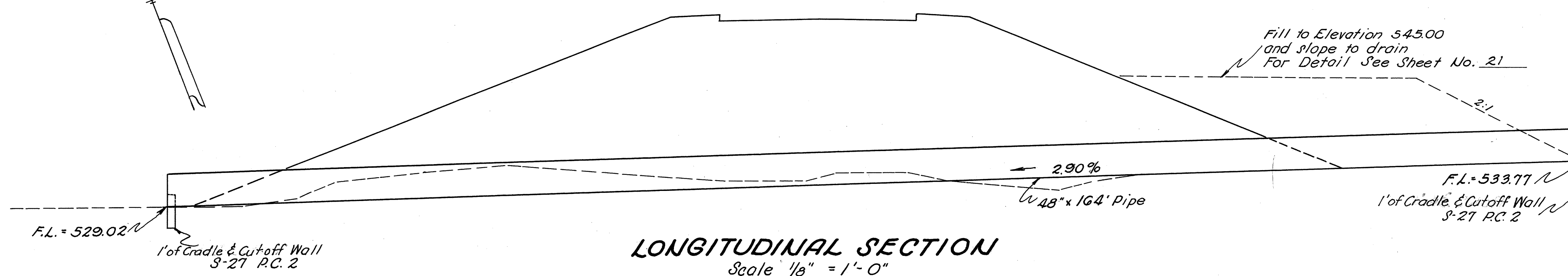


CULVERT DATA

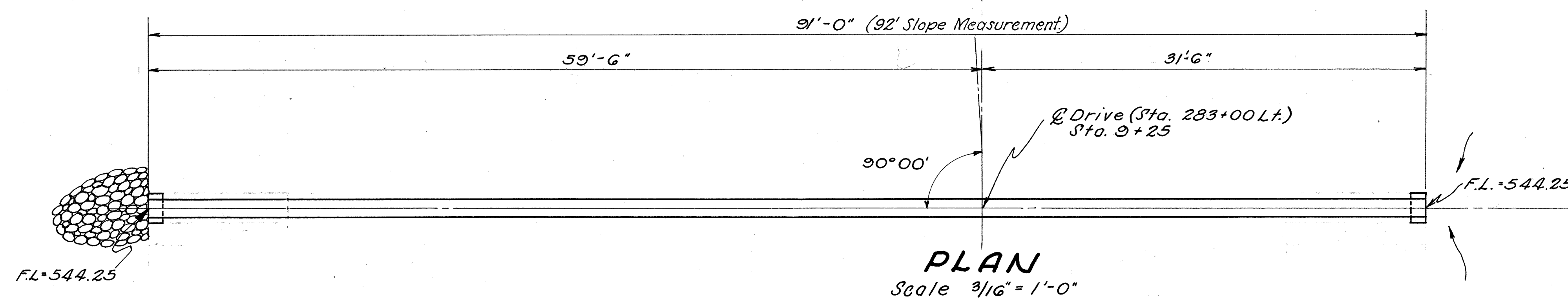
TYPE: Pipe Culvert Std. Drwg. S-27 P.C. 2 & 3
 SIZE: 48" x 164' Drainage Area = 160 Acres (180 cfs - 5 yr)
 WORK REQUIRED: Install pipe and place cutoff walls at inlet and outlet ends as detailed.

ESTIMATED QUANTITIES

E-2 Excavation for Structures 40 Cu. Yds.
 S-27 48" Pipe for Roadway Culverts 164 Lin. Ft.
 S-1 Concrete for Cutoff Walls (Class "E") 1.2 Cu. Yds.



5	Sta. 8+54 on Drive Lt. Sta. 283+00	P.C. 48" x 164'	SCI-23-
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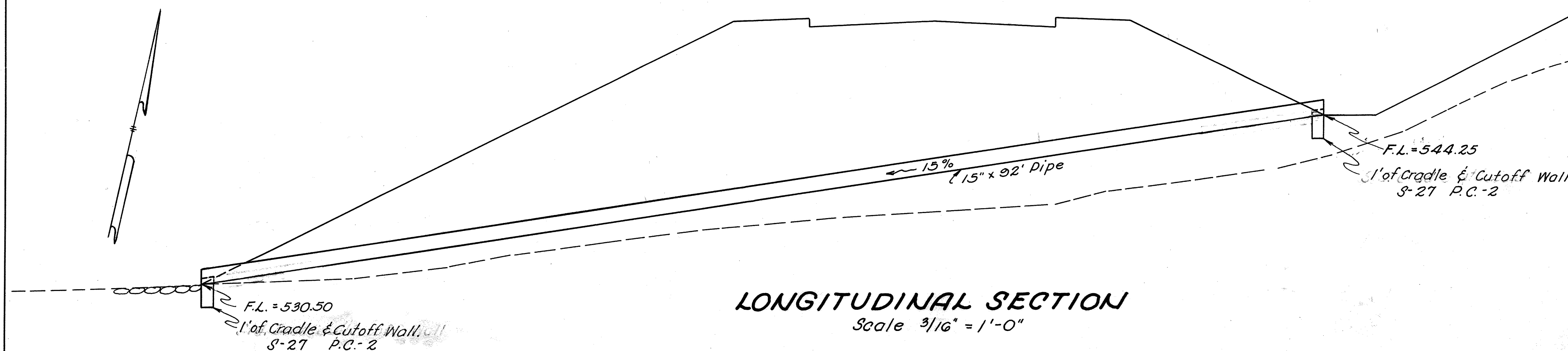


CULVERT DATA

TYPE: Pipe Culvert S-27 P.C. 2 & 3
 SIZE: 15" x 92'
 WORK REQUIRED: Install pipe and construct cutoff wall at inlet and outlet ends and riprap outlet end as detailed.

ESTIMATED QUANTITIES

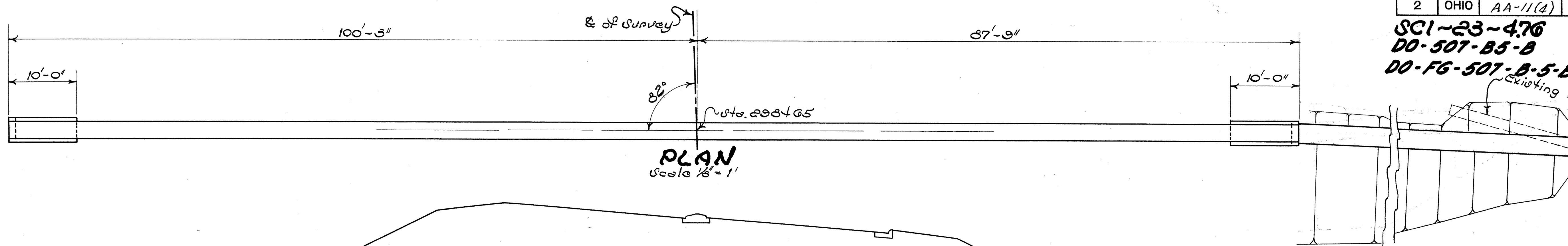
S-1 Concrete for Cutoff Wall (Class "E") 0.4 Cu. Yds.
 S-27 Pipe for Roadway Culverts 15" 92 Lin. Ft.
 I-10 Riprap Type "A" Grouted 3 Cu. Yds.



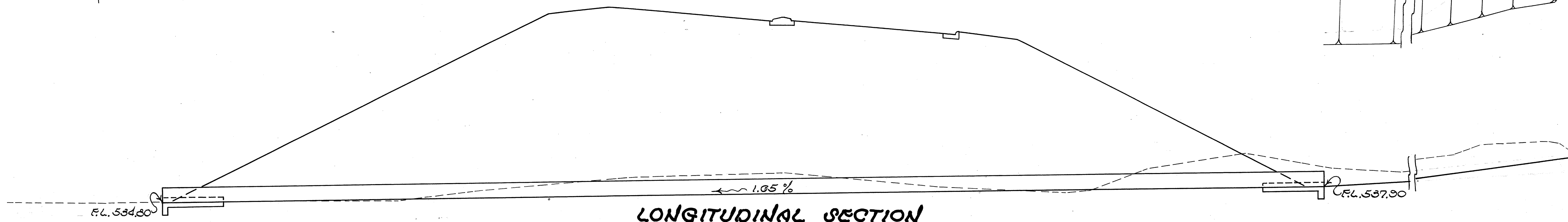
6	Sta. 9+25 on Drive Lt. Sta. 283+00	P.C. 15" x 92'	SCI-23-
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SCI-23-476
DO-507-B5-B
DO-FG-507-B-5-B

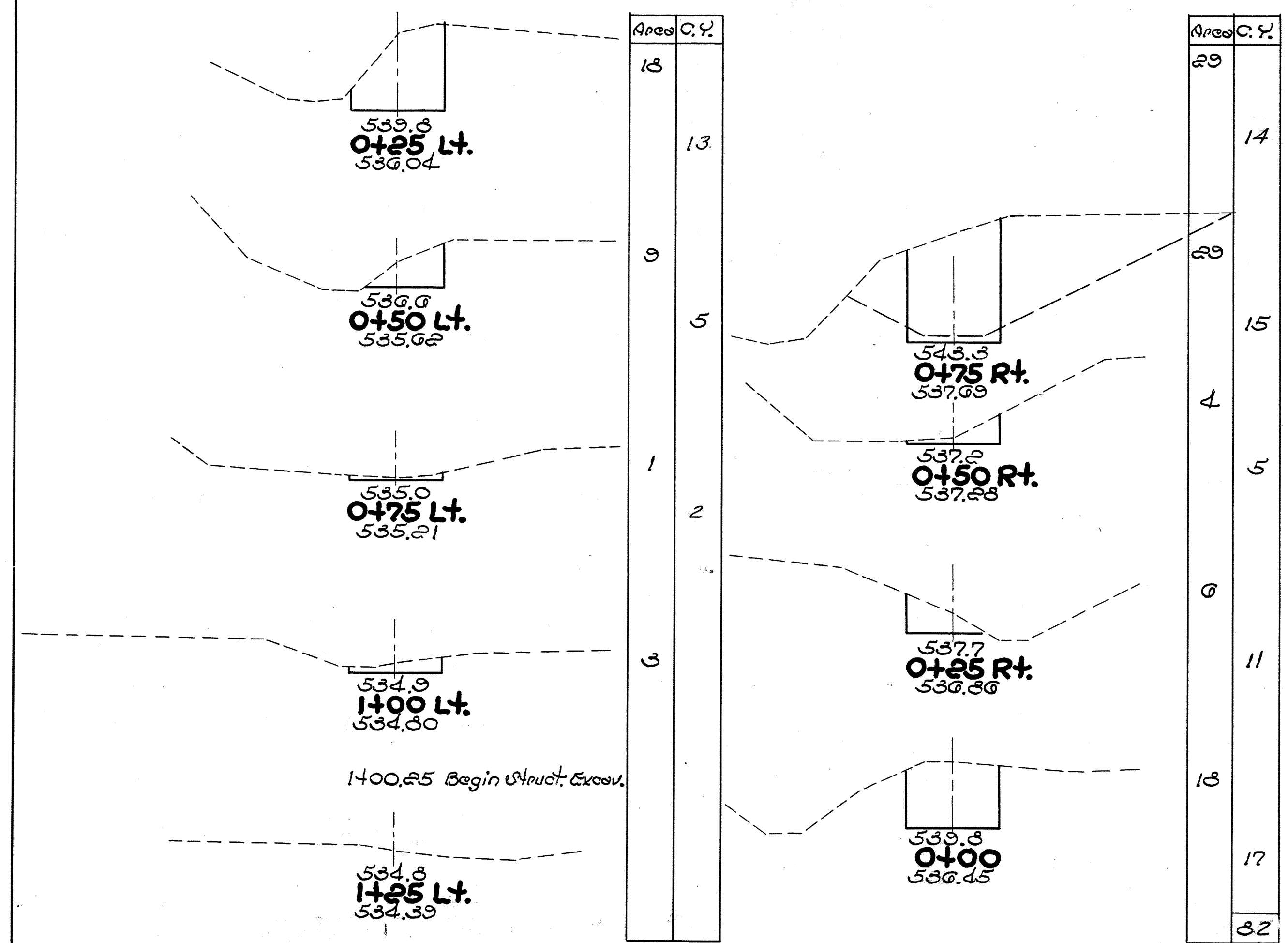
Existing 18" Pipe



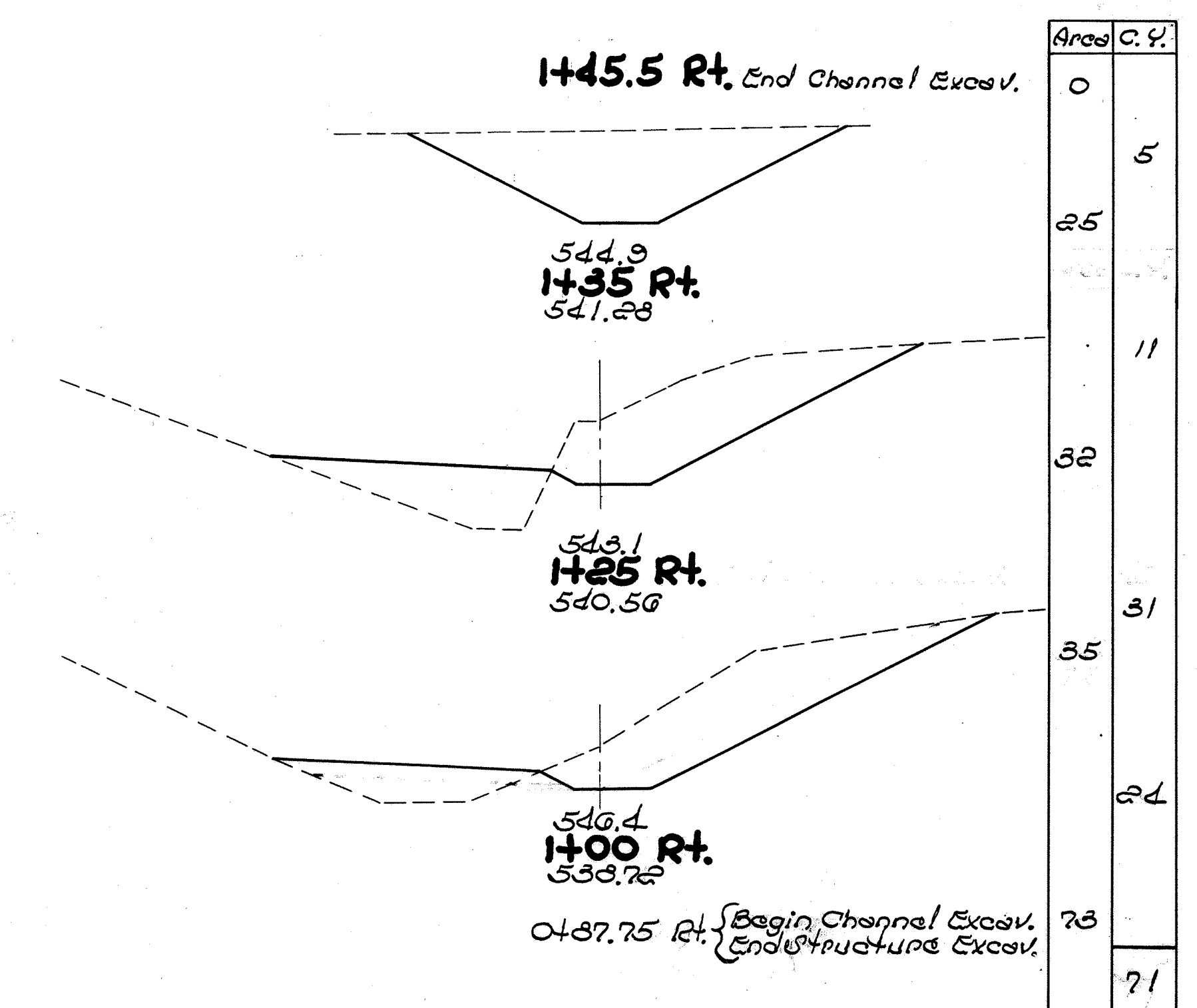
PLAN
Scale 1/8" = 1'



LONGITUDINAL SECTION



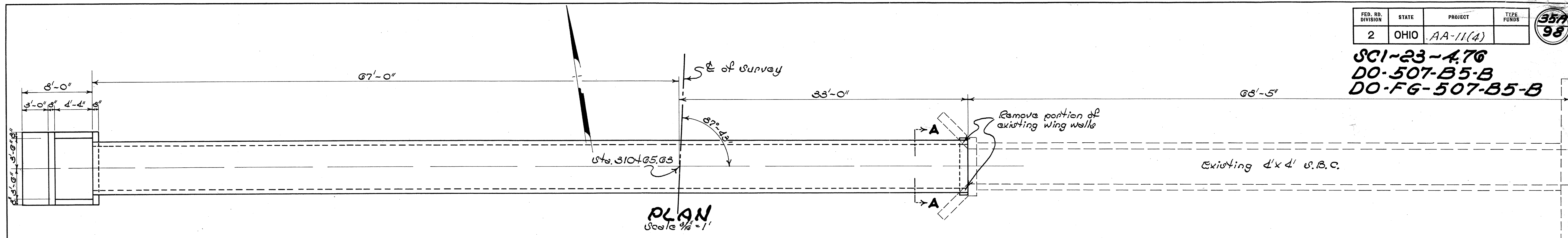
CROSS SECTIONS
Scale 1" = 5'



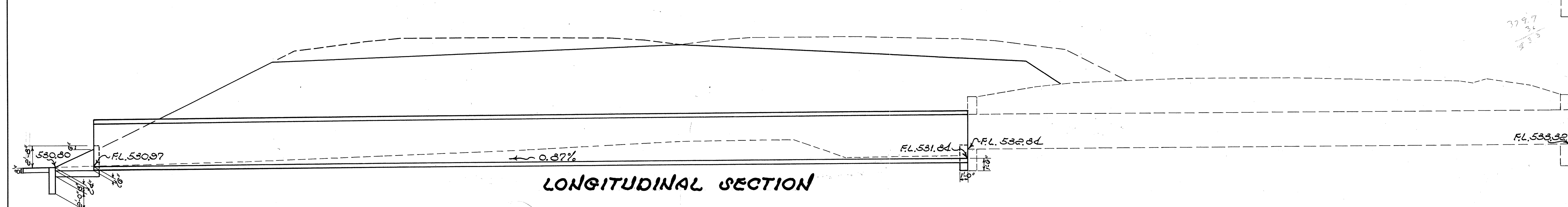
CULVERT DATA
TYPE :- Pipe Culvert Std. Drawg. N2.0-27 P.C. 2 & 3
SIZE :- 30" X 188" Drainage Area 13 Ac. 32 c.f.s. - 25 yd.
WORK REQUIRED :- Install new structure as per plan. Excavate inlet channel. Remove Existing 18" Pipe.

ESTIMATED QUANTITIES			
Item	Quantity	Unit	Description
E-2	32	Cu.Yd.	Excavation for structure
E-3	35	Cu.Yd.	Channel Excavation
U-1	2.7	Cu.Yd.	Concrete Class "C" for Curbles & Cut-off walls
U-27	133	Lin.Ft.	30" Pipe for Roadway Culvert (12 gage)
E-16	20	Lin.Ft.	Pipe Removed and Disposed of over 15'

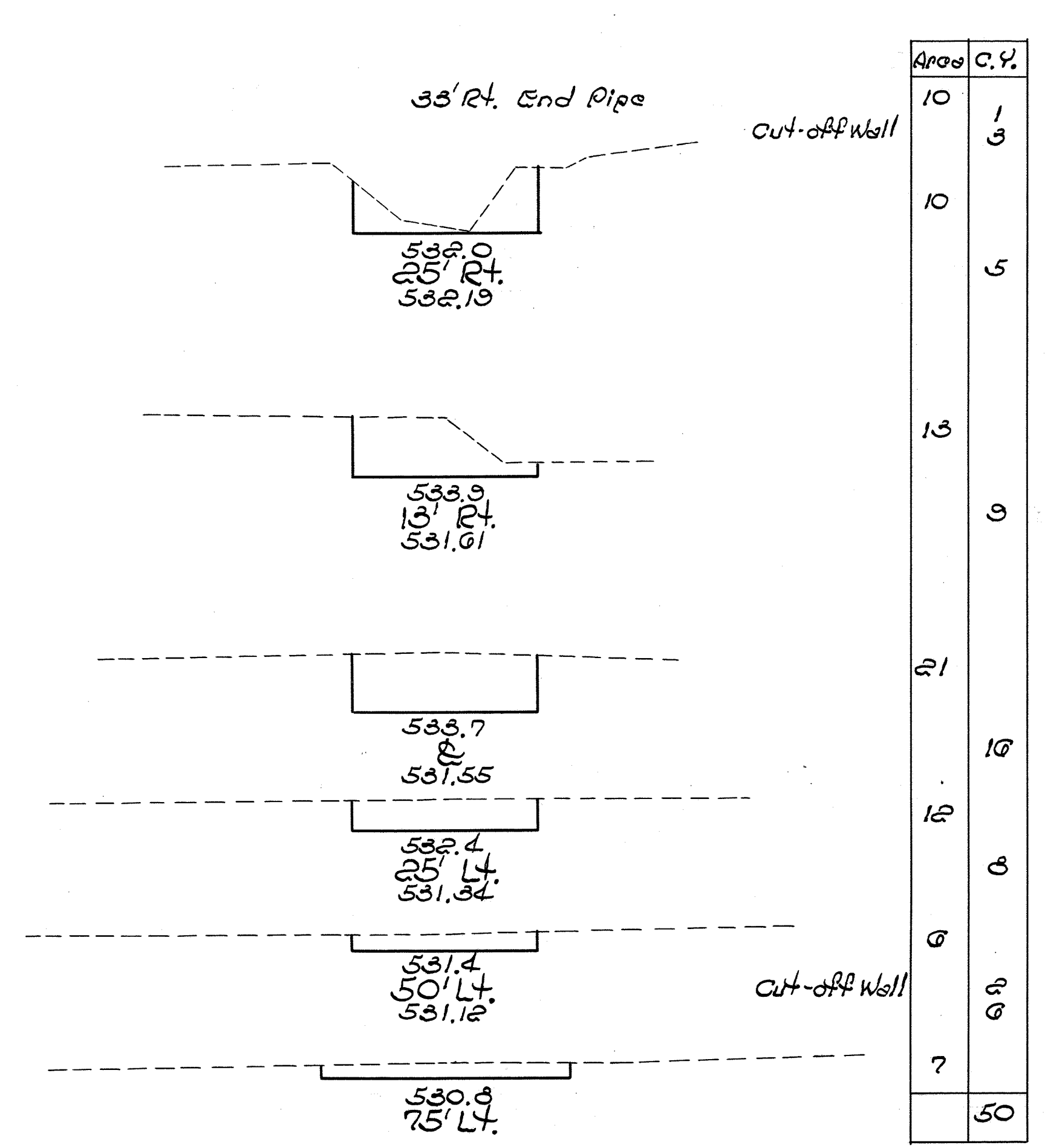
SC1-23-4.76
DO-507-B5-B
DO-FG-507-B5-B



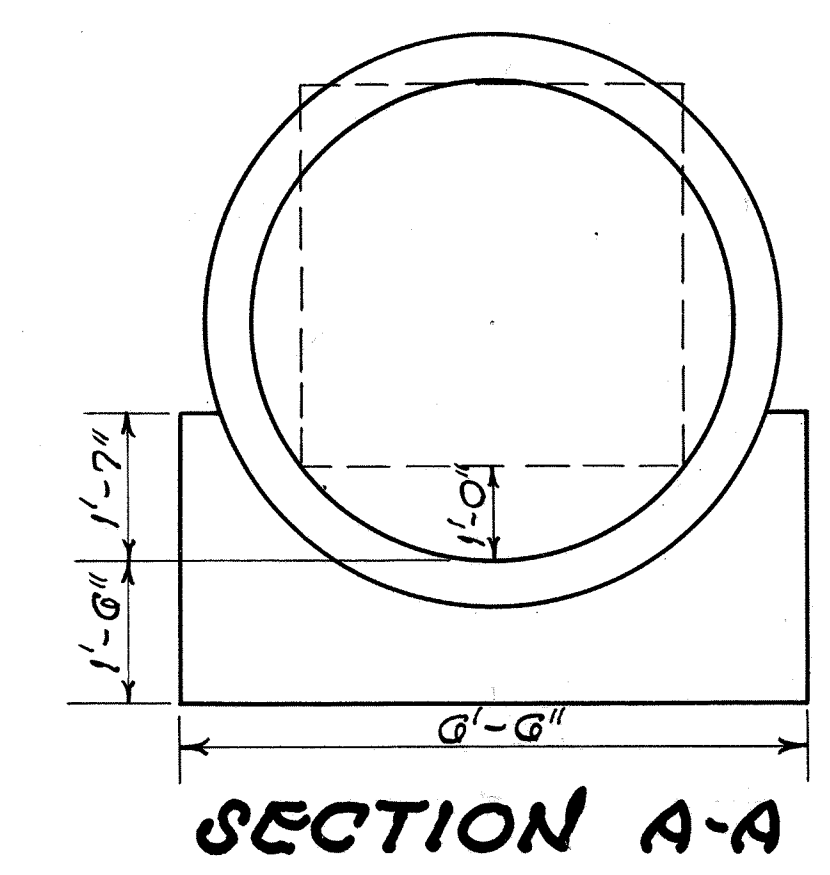
PLAN
Scale 3/16" = 1'



LONGITUDINAL SECTION



CROSS SECTIONS
Scale 1" = 5'

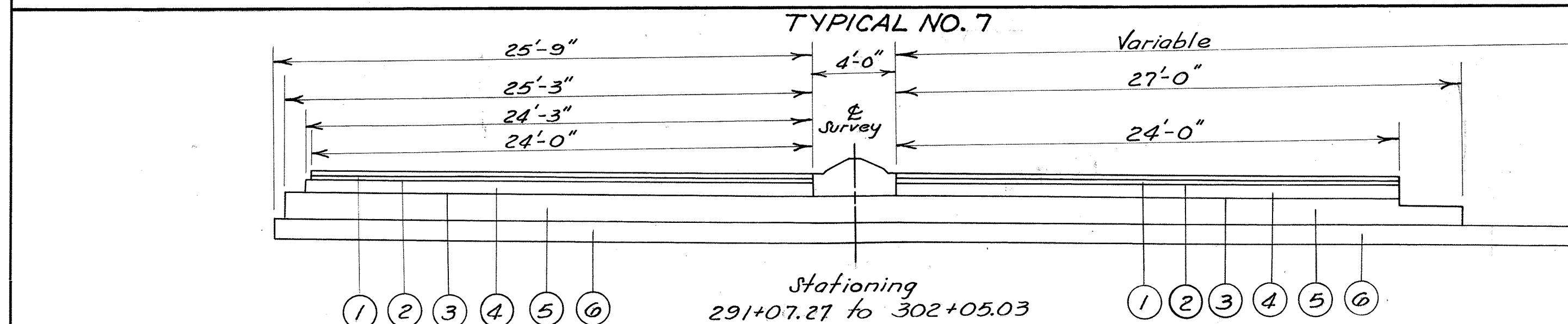
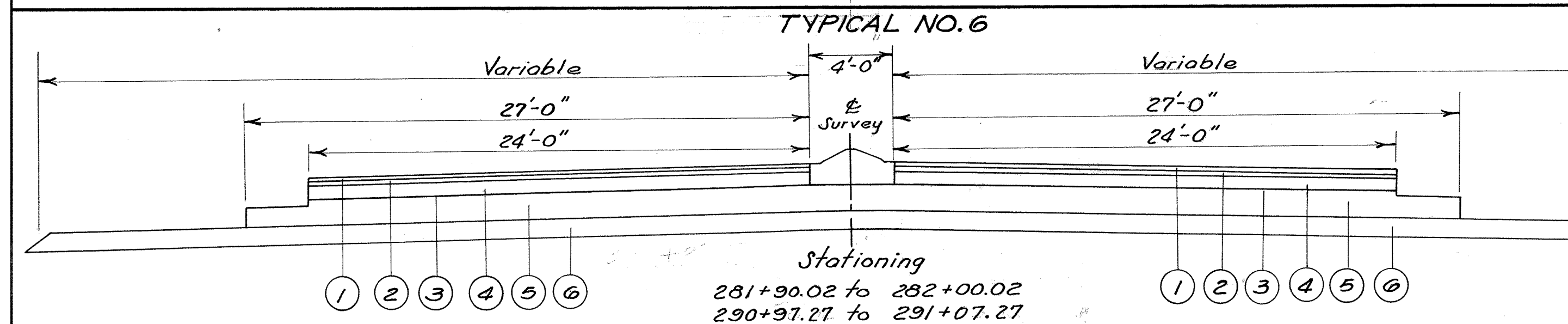
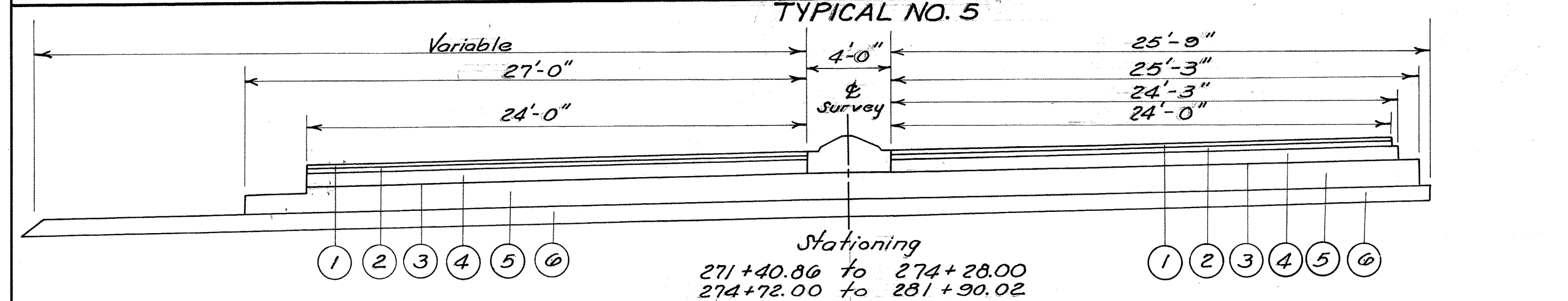
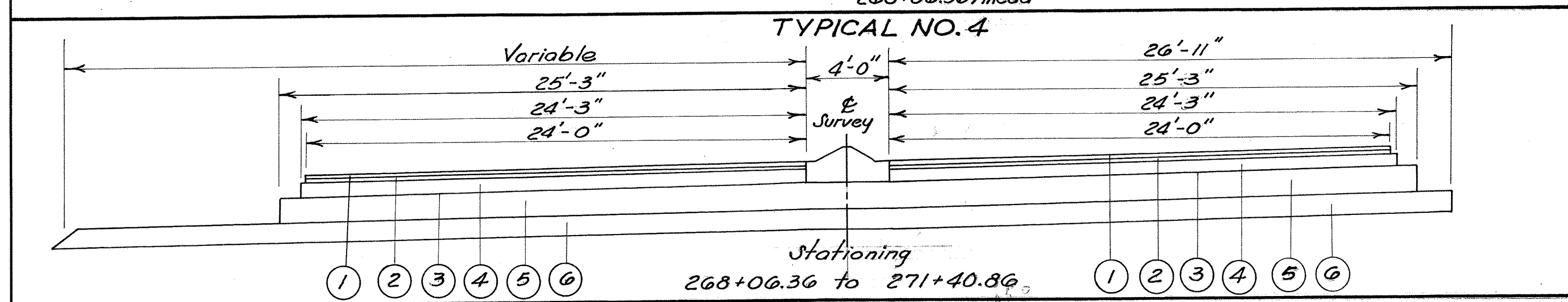
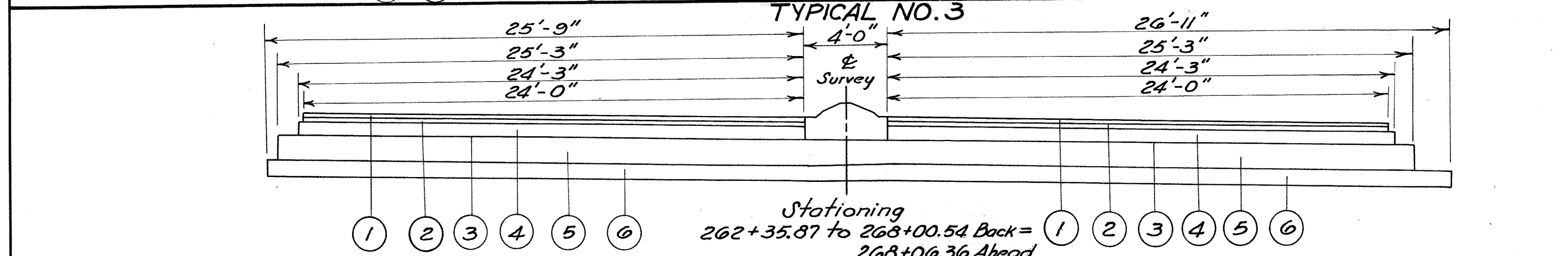
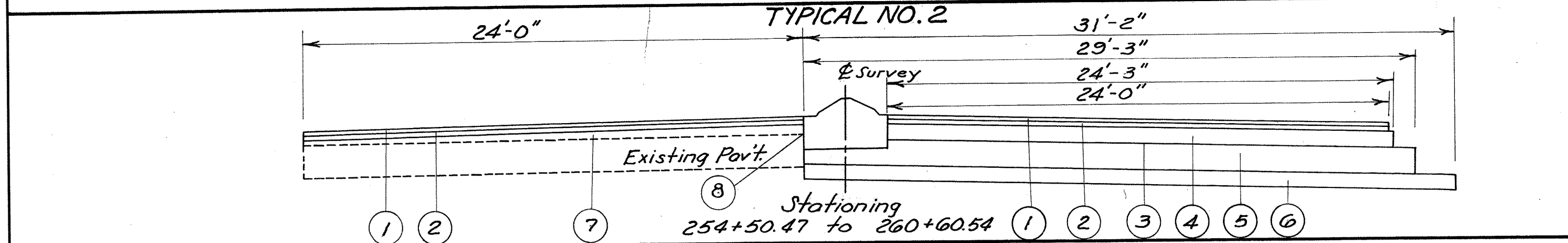
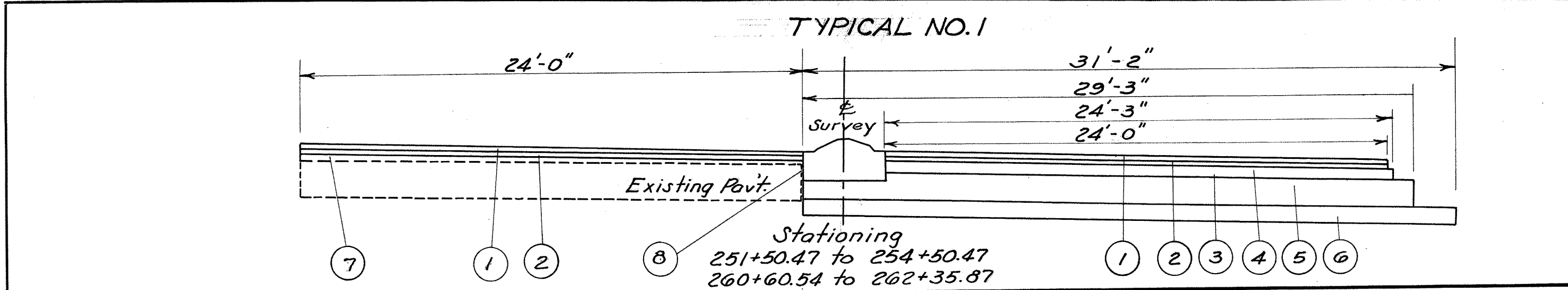
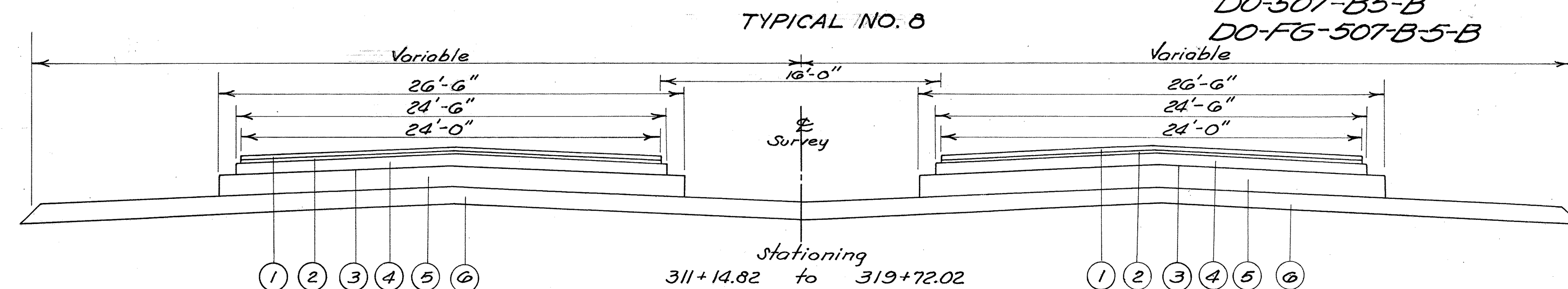


SECTION A-A

CULVERT DATA
TYPE: ~ Pipe Culvert
SIZE: ~ 60" x 100"
WORK REQUIRED: ~ Extend existing culvert as per plan.

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
E-2	50	Cu. Yd.	Excavation for structure
U-1	3.6	Cu. Yd.	Concrete Class E for Headwall of cut-off wall
U-27	100	Lin. Ft.	60" Pipe for Roadway Culvert
U-22	0.5	Cu. Yd.	Removal of Portion of Existing Structure

SCI-23-4.76
DO-507-B5-B
DO-F6-507-B5-B



- ① T-35 1 1/2" Asphaltic Concrete Surface Course Type "A" (70-80)
- ② B-35 1 1/2" Min. Asphaltic Concrete Leveling Course
- ③ T-30 Bituminous Prime Coat Sec. M 5.7-Rt-2 or 3 applied uniformly over the SS-5 Base Course at the rate of 0.35 Gal. per sq. yd.
- ④ B-35 3" Asphaltic Concrete Base Course
- ⑤ SS-5 11" Classified Embankment Material as per plan using crusher run limestone or slag. Material to be placed in layers not to exceed 4" compacted depth.
- ⑥ I-22 6" Sub-base Grading "A" or "B"
- ⑦ B-35 Asphaltic Concrete Leveling Course for crown correction & additional superelevation to be placed in courses not to exceed 3" compacted depth.
- ⑧ B-35 Sealing vertical face of Existing Pavement.

Typical	Length Ft.	QUANTITIES							
		① T-35 Sq. Yds.	② B-35 Sq. Yds.	③ T-30 Sq. Yds.	④ B-35 Sq. Yds.	⑤ SS-5 Sq. Yds.	⑥ I-22 Sq. Yds.	⑦ B-35 Cu. Yds.	⑧ Sealing Lin. Ft.
1	475.33	2535.1	2535.1	1544.9	1280.8	1333.6	1646.1	53.0	475.33
1	475.33					211.3*			
2	610.07	3253.7	3253.7	1982.7	1643.8	1711.6	2112.7	63.4	610.07
2	610.07					271.1*			
3	564.67	3011.6	3011.6	3419.4	3042.9	3419.4	3555.5		
4	334.50	1784.0	1784.0	2025.6	1802.6	2025.6	2474.8		
5	415.14	2214.1	2214.1	2594.6	2225.6	2456.2	3226.9		
5	415.14					136.4†			
8	857.20	4571.7	4571.7	5098.0	4667.0	5098.0	8953.0		
TOTAL DO-507 B5-B	17,370.2	17,370.2	17,370.2	16,615.2	14,662.7	16,615.2	21,363.0	116.4	1085.4
5	590.02	3146.8	3146.8	3687.6	3163.2	3491.0	4586.5		
5	590.02					196.6†			
6	20.00	106.7	106.7	128.9	106.7	115.6	184.4		
6	20.00					13.3†			
7	1097.76	5861.4	5861.4	6868.0	5891.9	6502.5	8542.9		
7	1097.76					366.3†			
TOTAL DO-F6-507 B5-B	9,114.9	9,114.9	9,114.9	10,685.3	9,161.8	10,685.3	13,313.8		
Totals	26,485.0	26,485.0	26,485.0	27,300.5	23,824.5	27,300.5	35,282.8	116.4	1085.4

* Variable thickness areas under Median (3 1/2")

† Variable thickness areas under curb & gutter (7 1/2")

CALCULATIONS

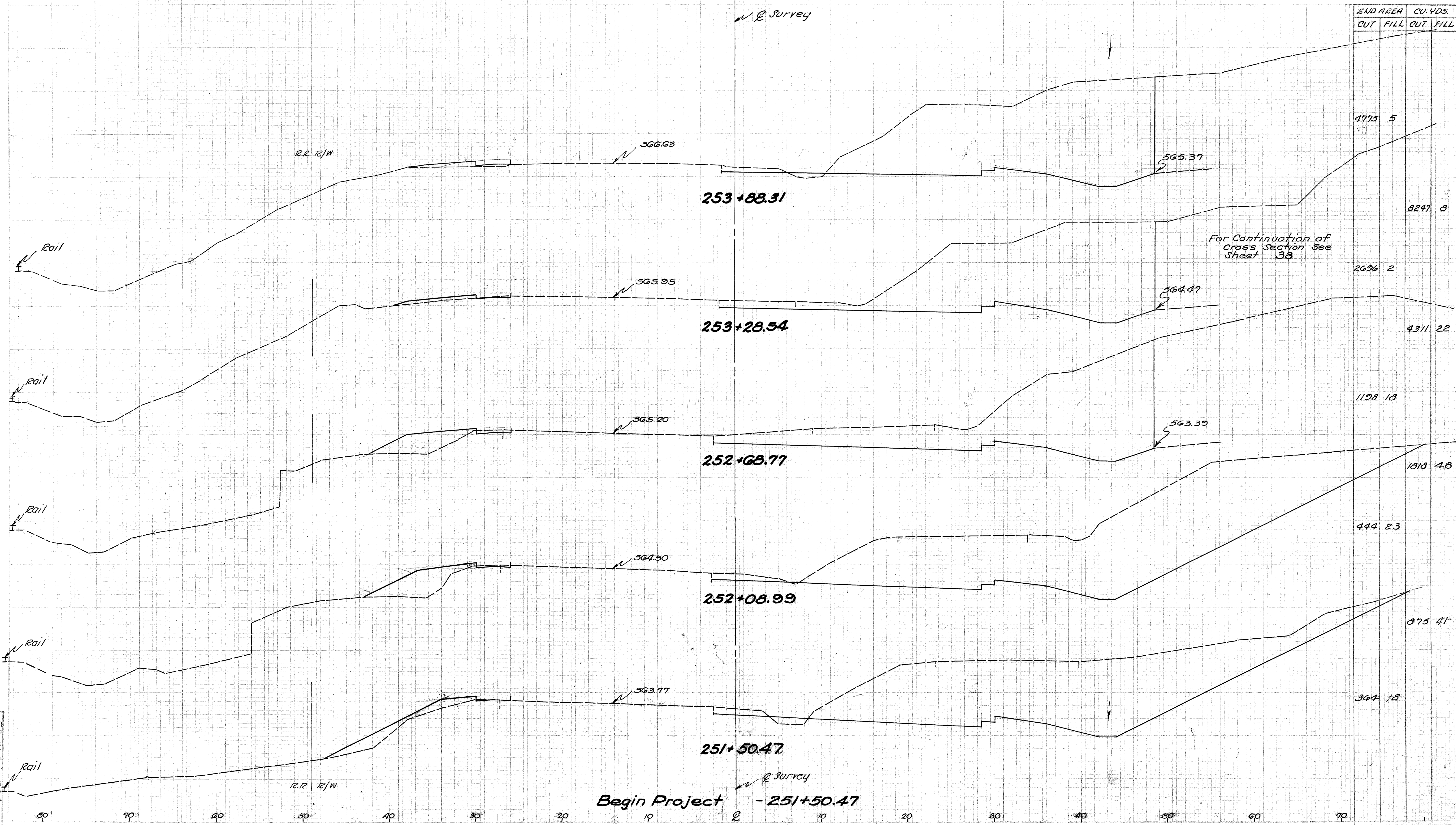
DO-507 B5-B		DO-F6-507 B5-B			
T-35 Asphaltic Concrete Surface Course "A"	1 1/2" - 17,370.2 + 158.3 (Median Area) x .0347	608.2 Cu. Yds.	T-35 Asphaltic Concrete Surface Course "A"	1 1/2" - 9,114.8 x .0347	316.3 Cu. Yds.
B-35 Asphaltic Concrete Leveling Course	1 1/2" - 17,370.2 + 158.3 x .0347	608.2 Cu. Yds.	B-35 Asphaltic Concrete Leveling Course	1 1/2" - 9,114.8 x .0347	316.3 Cu. Yds.
B-35 Asphaltic Concrete Base Course	3" - 14,662.7 + 158.3 x .0833	1234.6 Cu. Yds.	B-35 Asphaltic Concrete Base Course	3" - 9,161.8 x .0833	763.2 Cu. Yds.
T-30 Bituminous Prime Coat	1/2" Extra (1085.4 x 24' x 2) x .0139	709.8 Cu. Yds.	T-30 Bituminous Prime Coat	1/2" - 9,114.8 x .0347	316.3 Cu. Yds.
SS-5 Classified Embankment Material	16,615.2 x 0.35	5815 Gal.	SS-5 Classified Embankment Material	10,685.3 x 0.35	3740 Gal.
I-22 Sub-base Material, Grading "A" or "B"	16,615.2 x .3056	5078 Cu. Yds.	I-22 Sub-base Material, Grading "A" or "B"	10,685.3 x .3056	3265 Cu. Yds.
E-11 Water	[(6611.3 x 5) + (6184 x 8) + (1067 x 8) + (4617 x 8)] ÷ 1000	425 M. Gal.	E-11 Water	[(125,378 x 5) + (4018 x 8) + (813 x 8) + (2956 x 8)] ÷ 1000	1040 M. Gal.
L-9 Commercial Fertilizer	(67,260 + 620) x .00045	6.11 Tons	L-9 Commercial Fertilizer	(46,887 + 319) x .00045	4.28 Tons
L-9 Agricultural Ground Limestone	67,880 x .00045	30.55 Tons	L-9 Agricultural Ground Limestone	47,206 x .00045	21.28 Tons

For Detail of Transition & Quantities, See Sheet No. 15

Stationing 302+05.03 to 311+14.82

Designed F.F.
Checked J.D.
Reviewed

SCI-23-4.76
DO-507-B5-B
DO-F6-507-B-5-B

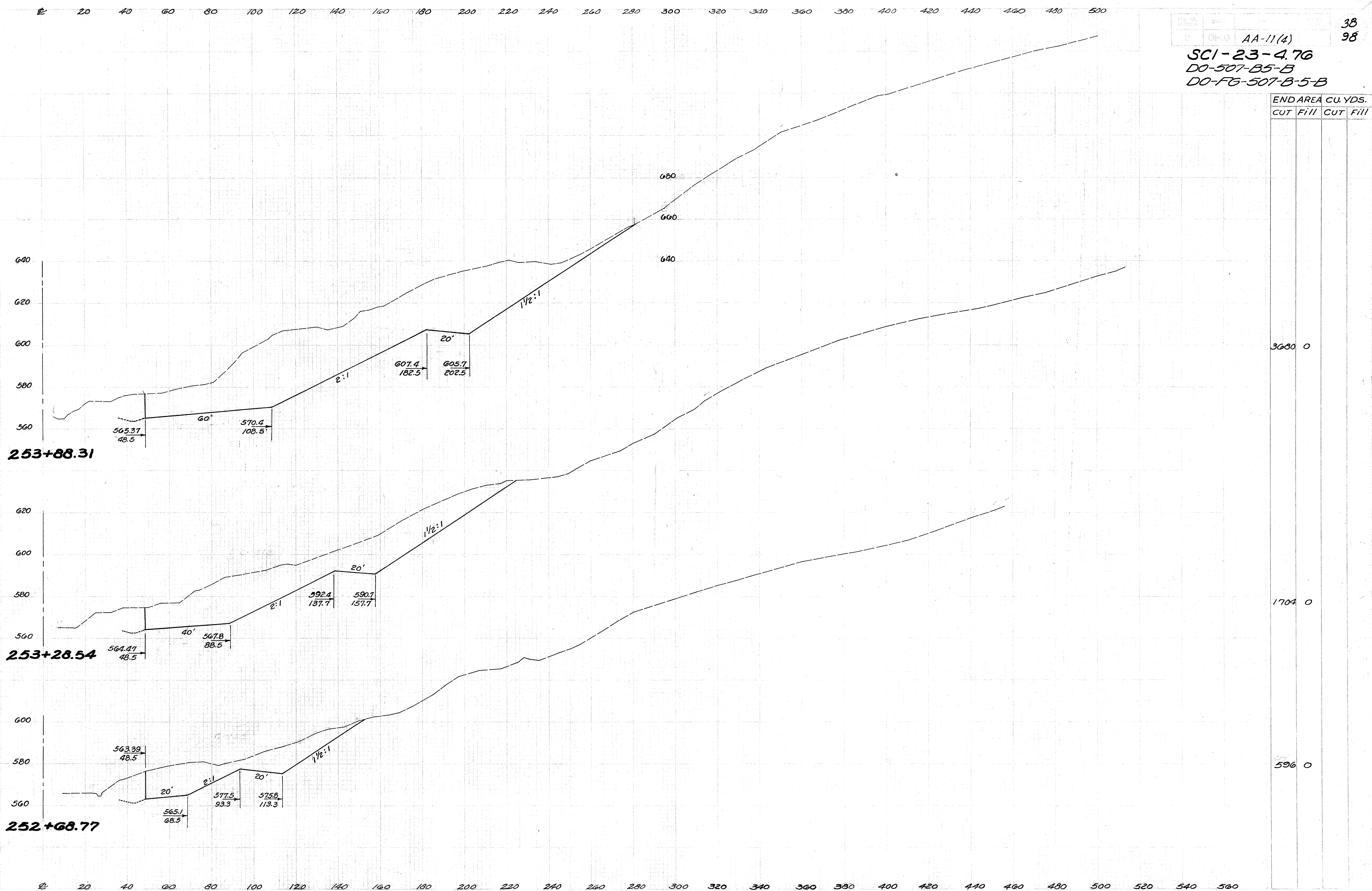


END AREA		CU. YDS.	
OUT	FILL	OUT	FILL
4775	5		
		8247	8
2696	2		
		4311	22
		1198	18
		1818	4.8
		444	2.3
		875	4.1
		364	1.8

Led J.D. 10/24/52
 Checked N.D. 01/29/52
 Drawn by J.D. 11/17/52
 APPROVED J.D. 11-18-53

Begin Project - 251+50.47

251+50.47 - 253+88.31



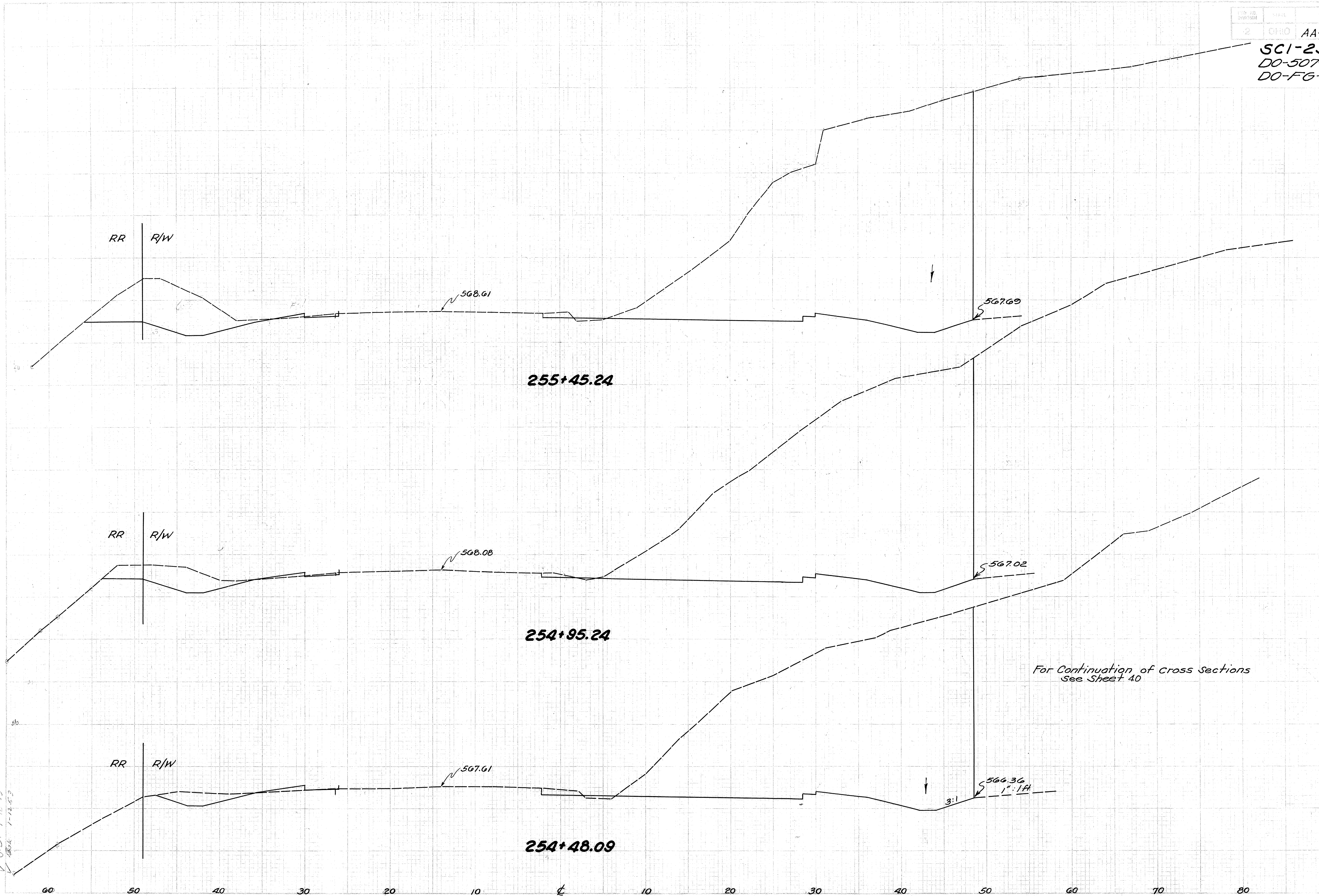
END AREA CU. YDS.	
CUT	FILL
	3680 0
	1704 0
	596 0

252+68.77 ~ 253+88.31

Plotted	Checked	Template	Distance	Area

SCI-23-4.76
DO-507-B5-B
DO-F6-507-B5-B

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL



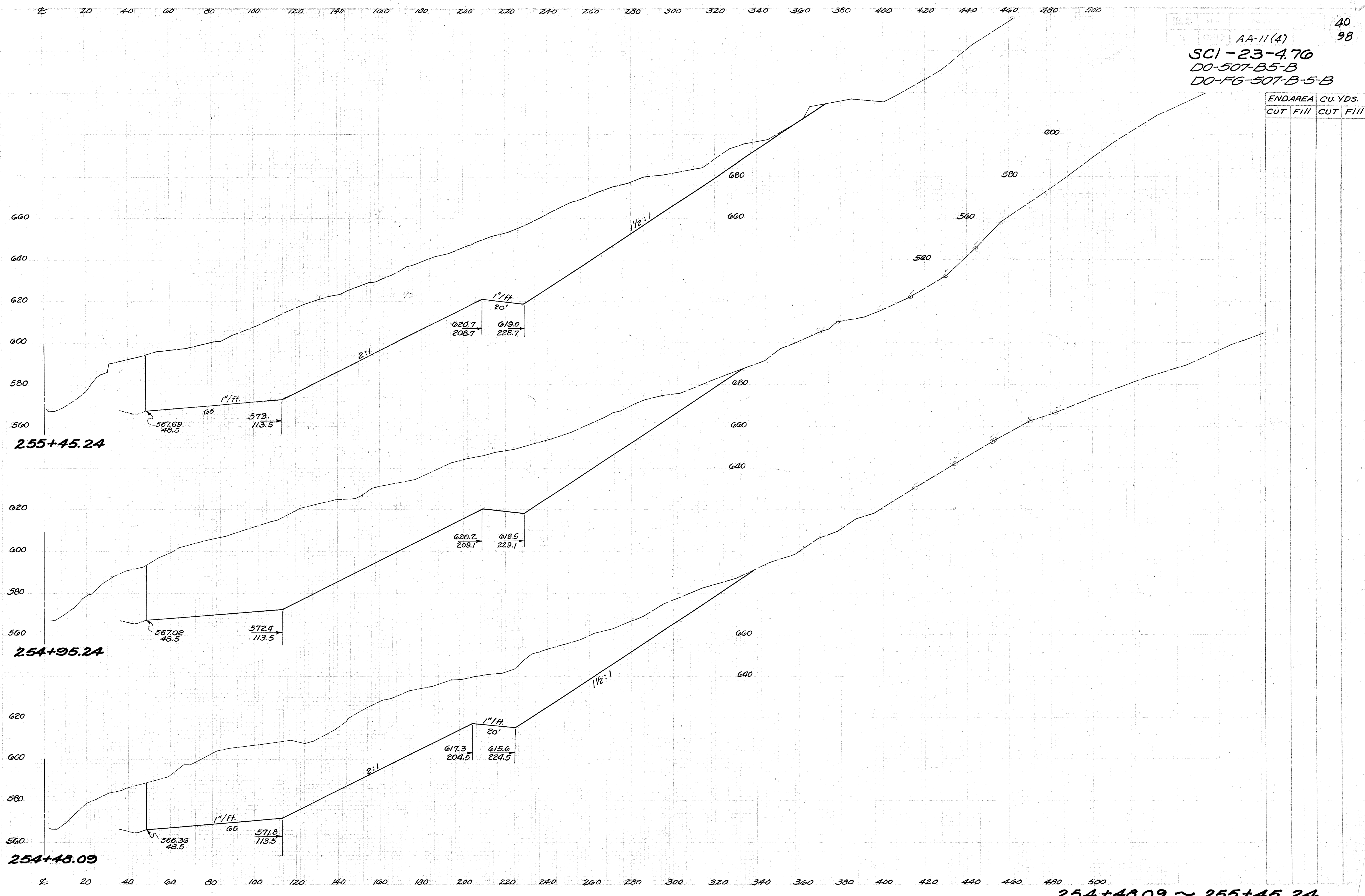
9339	2		
16727	3		
8727	1		
14382	4		
7744	4		
13837	10		

For Continuation of Cross Sections
See Sheet 40

Plotted 12-4-52
Checked 12-11-52
Per. site
S. K. G. B.
1-12-53
D. J. D.
1-12-53

AA-11(4)
SCI-23-4.70
DO-507-B5-B
DO-FG-507-B5-B

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

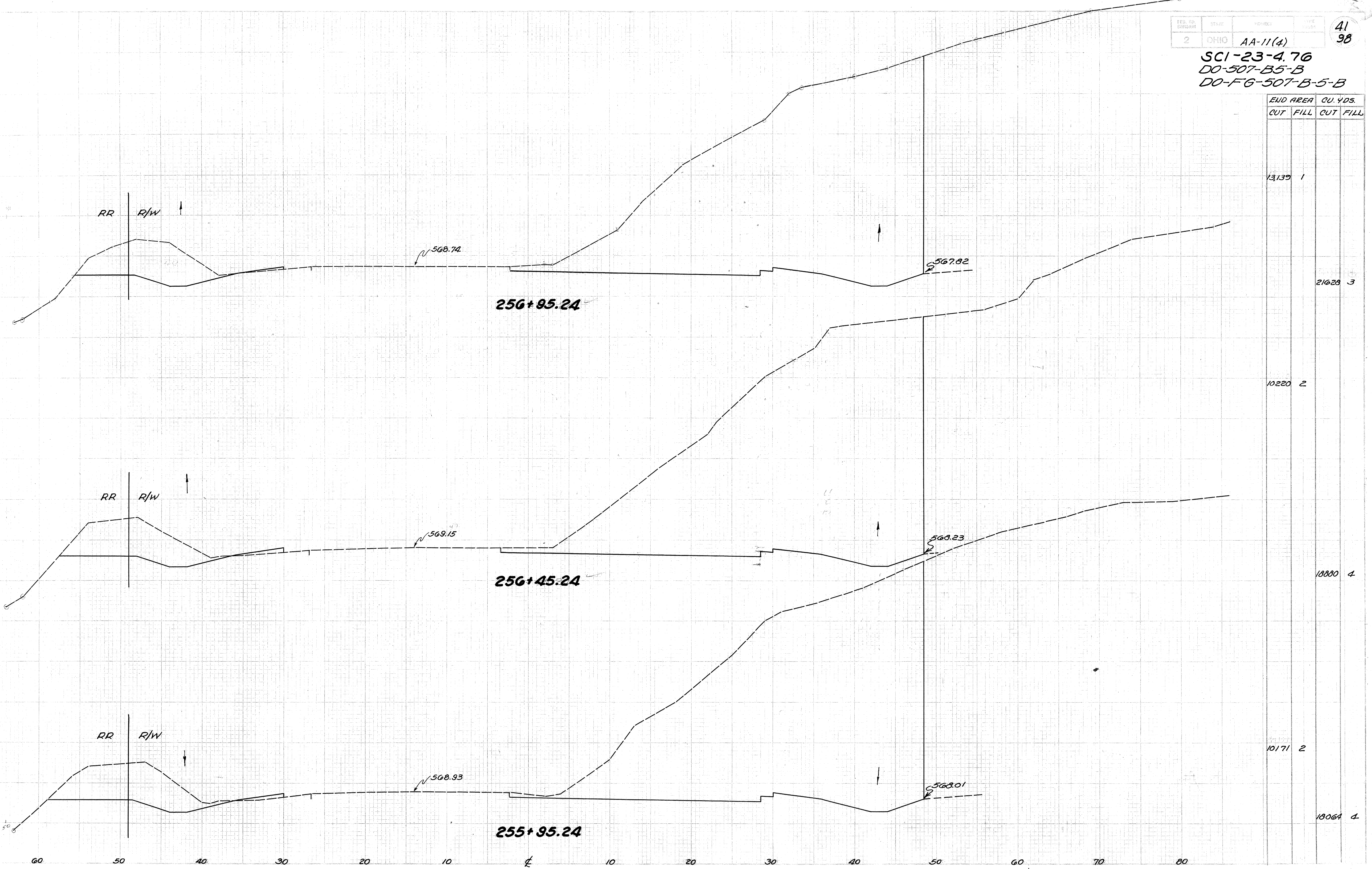


254+48.09 ~ 255+45.24

Checked	JD	1-9-53
Prepared	JD	1-12-53
Area	JD	1-27-53

SCI-23-4.76
 D0-507-B5-B
 D0-F6-507-B-5-B

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL



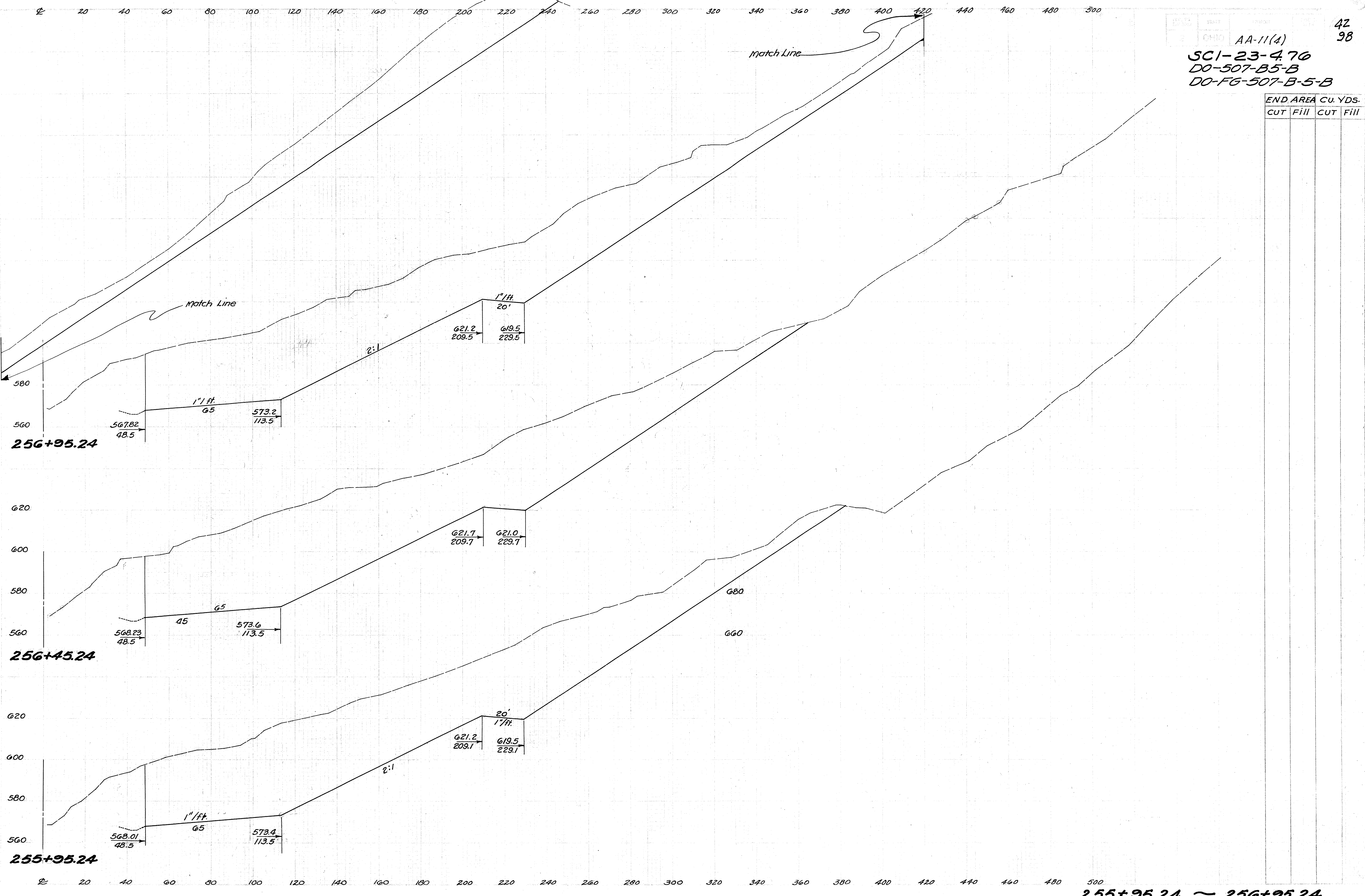
13139	1	21628	3
10220	2		
		18880	4
10171	2		
		18064	4

ND
 12-4-52
 R/W
 12-4-52
 F.L.B.
 J.W.D.

255 + 95.24 - 256 + 95.24

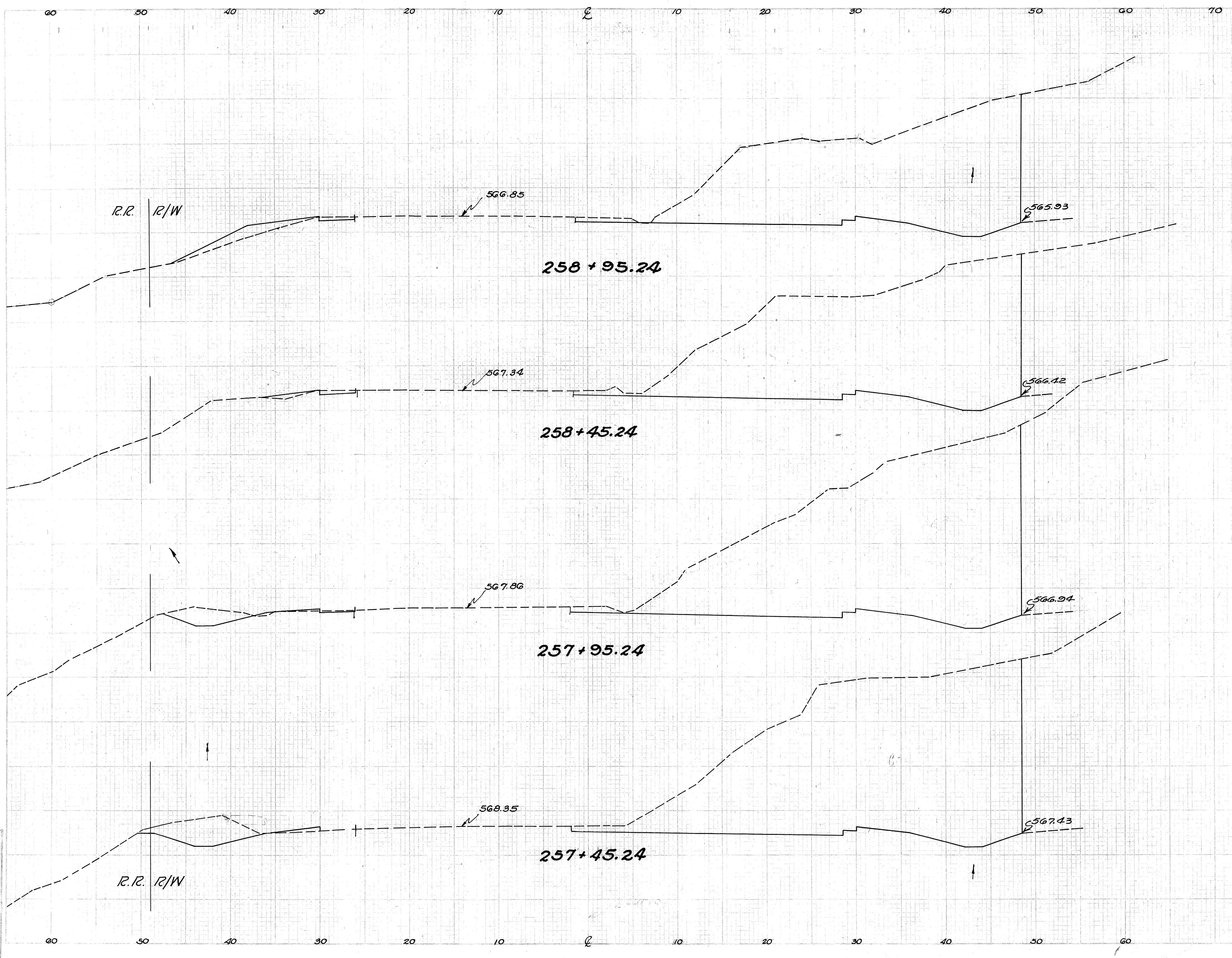
AA-11(4)
SCI-23-470
DO-507-B5-B
DO-FG-507-B-5-B

END AREA CU. YDS.			
CUT		FILL	



255+95.24 ~ 256+95.24

SCI-23-4.76
DO-507-B5-B
DO-F6-507-B-5-B



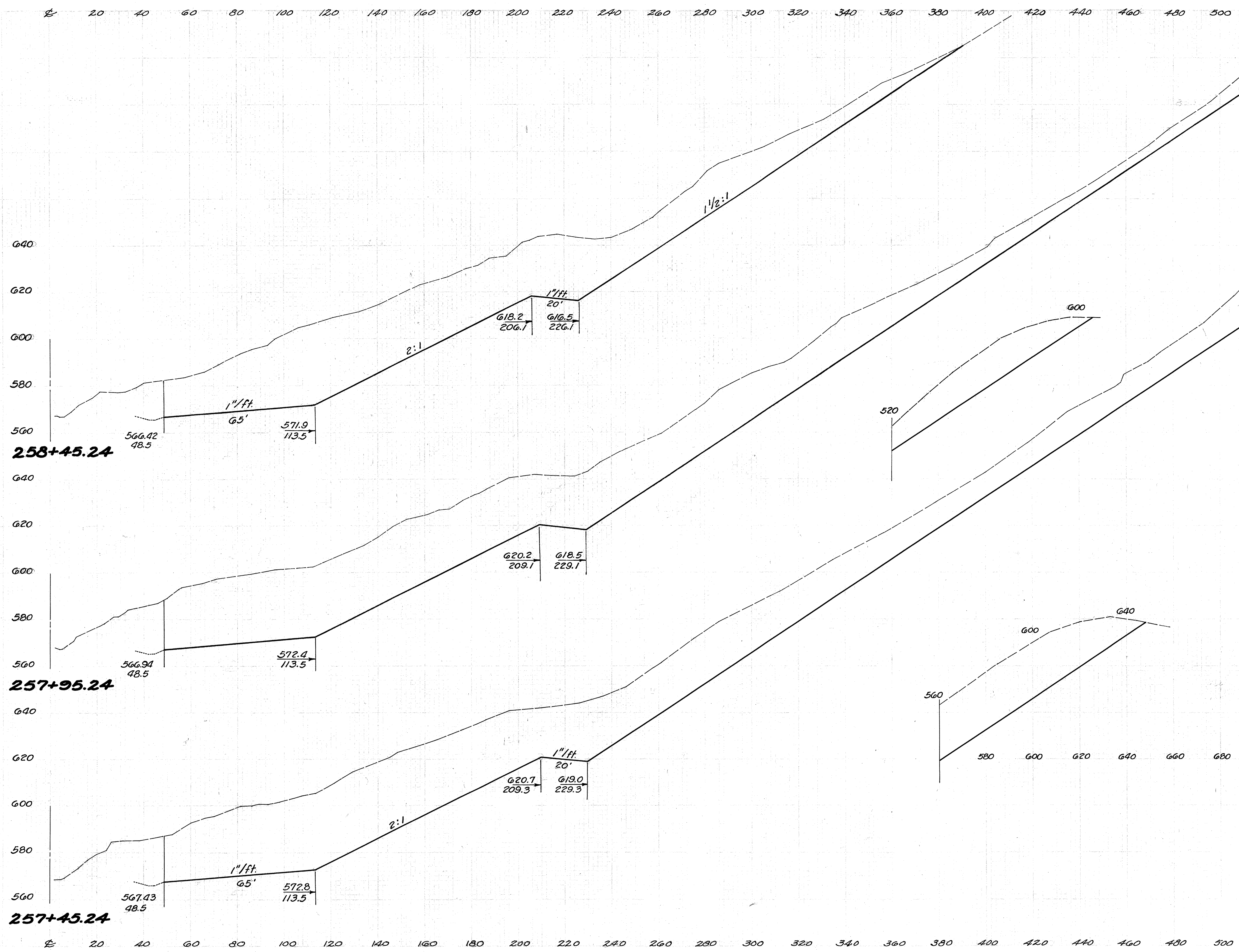
ELEVATION	EUD AREA		CU. YDS.	
	CUT	FILL	CUT	FILL
5613		11		
11624		12		
7017		2		
15885		3		
10139		1		
21978		3		
13598		2		
24756		3		

257+45.24 - 258+95.24

Plotted: F.P. 11
Checked: A.H. 11
Date: 11/15/57
Scale: 1" = 40'
Notes:

AA-11(4)
 SCI-23-4.76
 DO-507-B5-B
 DO-F6-507-B-5-B

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL



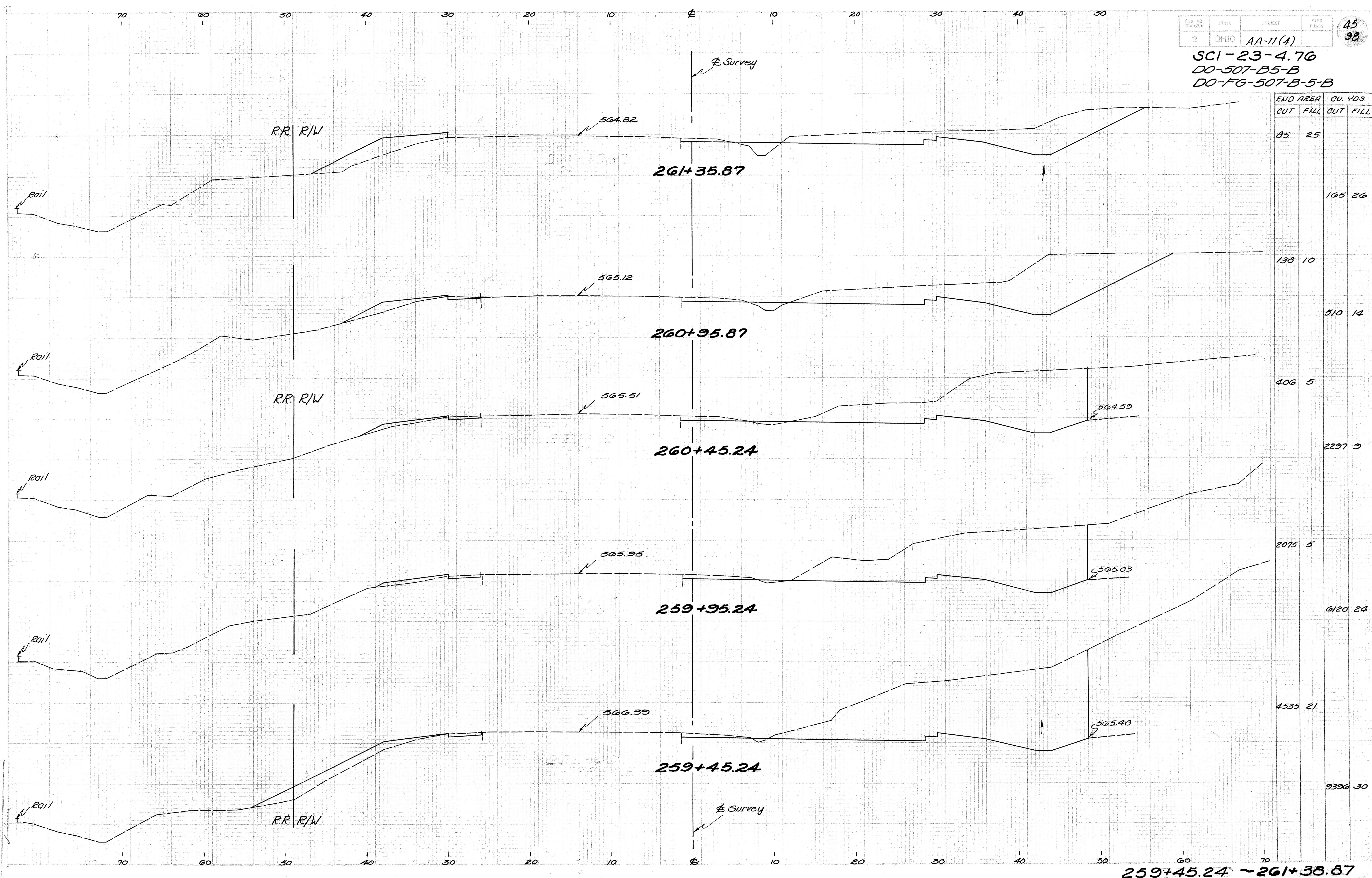
258+45.24

257+95.24

257+45.24

257+45.24 ~ 258+45.24

SCI-23-4.76
 DO-507-B5-B
 DO-FG-507-B-5-B



END AREA		CU. YDS	
CUT	FILL	CUT	FILL
85	25		
		165	26
138	10		
		510	14
406	5		
		2297	9
2075	5		
		6120	24
4535	21		
		9396	30

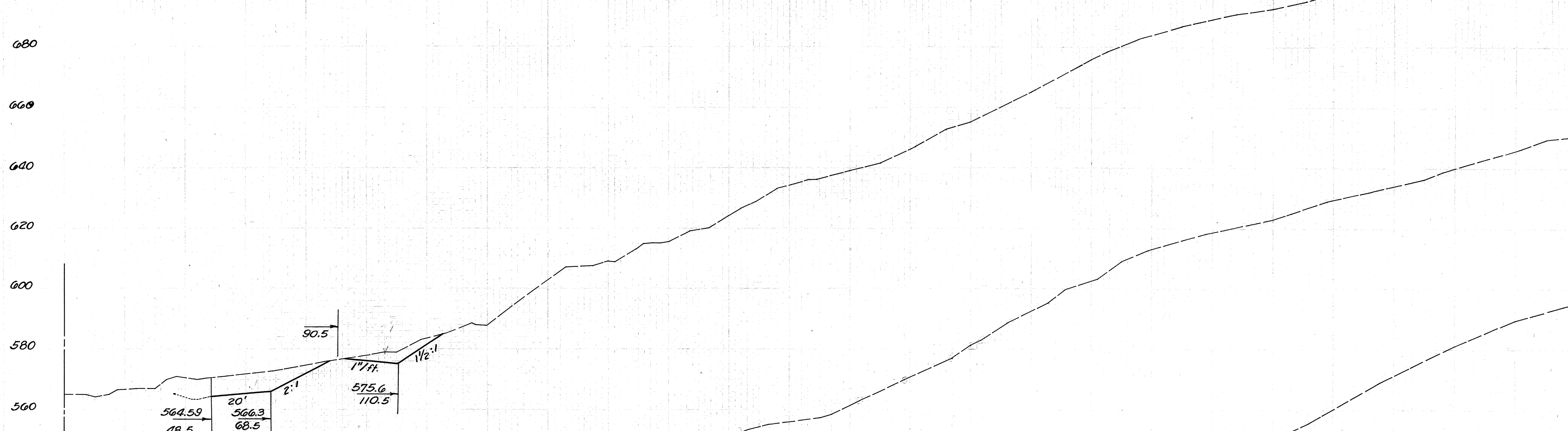
Plotted	Checked	Revised	Approved

259+45.24 ~ 261+38.87

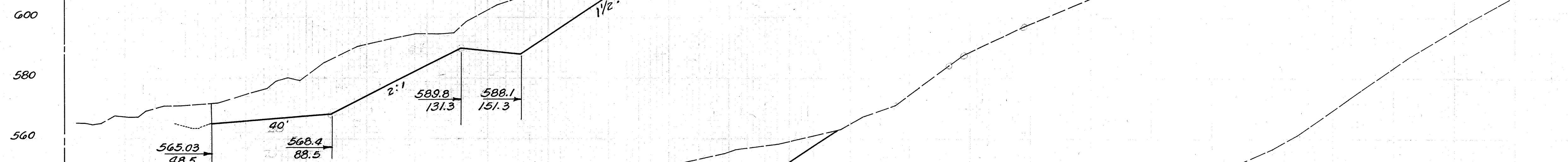
AA-11(4)
SCI-23-4.76
D0-507-B5-B
D0-F6-507-B-5-B

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

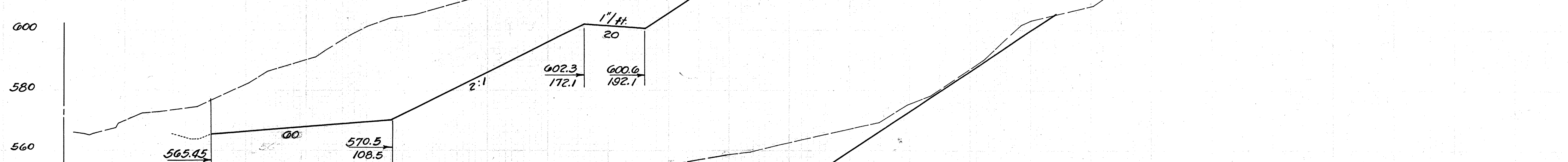
700 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



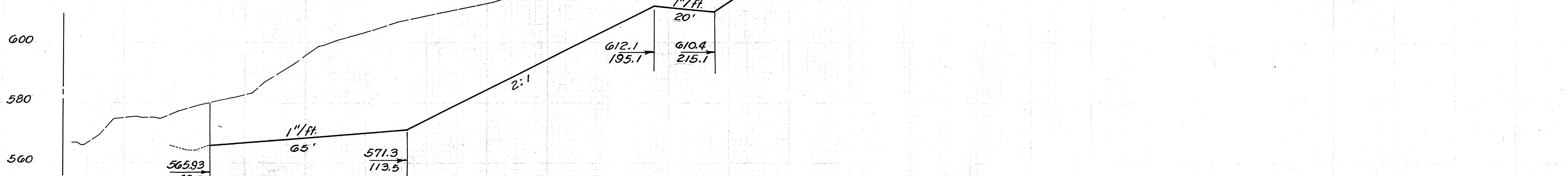
260+45.24



259+95.24



259+45.24



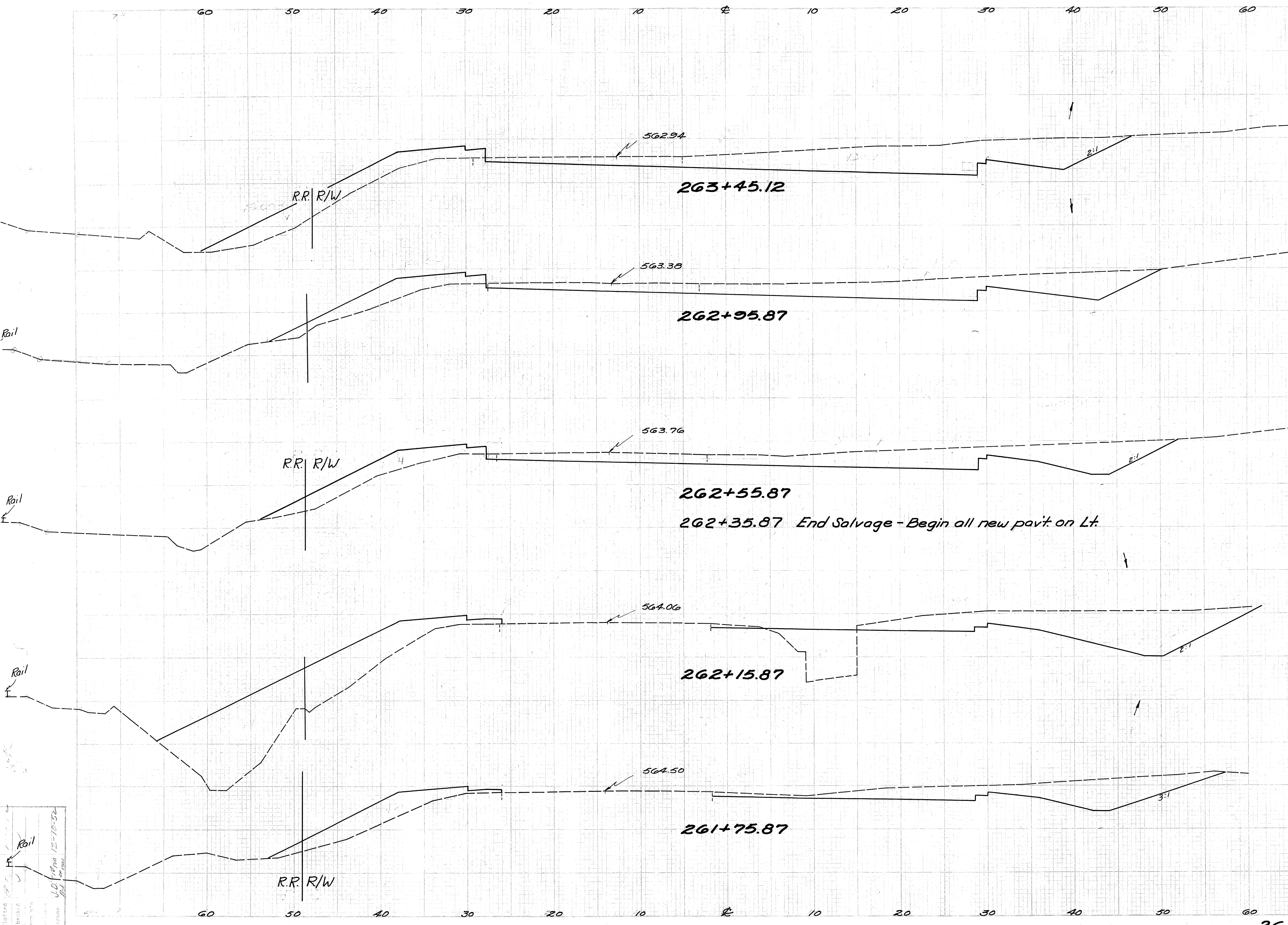
258+95.24

20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

258+95.24 ~ 260+45.24

Cal. Insect J.D.

Station	258+95.24	259+45.24	259+95.24	260+45.24
Cut				
Fill				
Total				



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
149	60		
		13	0
		250	87
125	35		
		190	58
131	43		
		94	94
		93	95
122	212		
		155	188
87	42		
		127	50

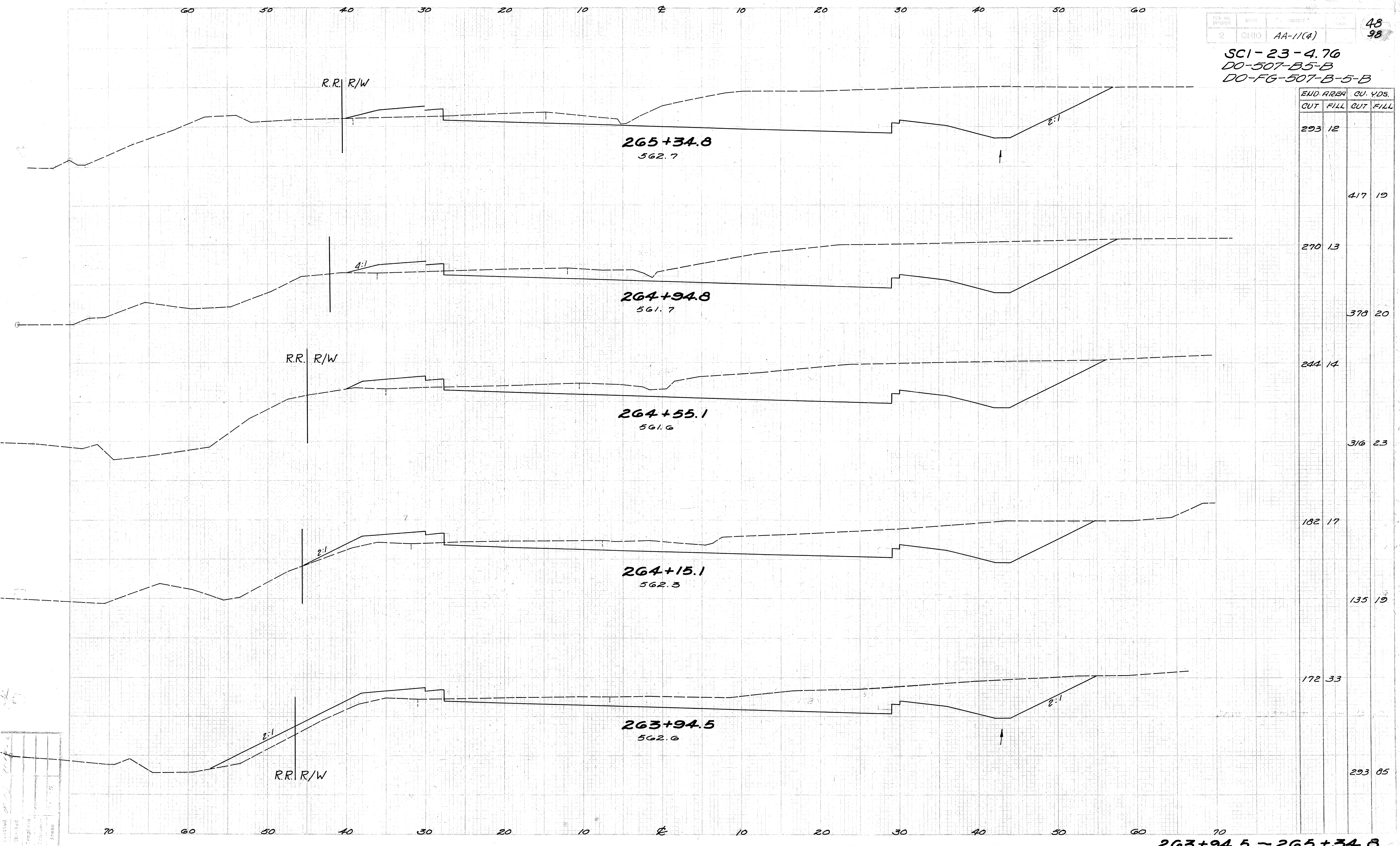
Drive Rt. 263+52.2

262+35.87

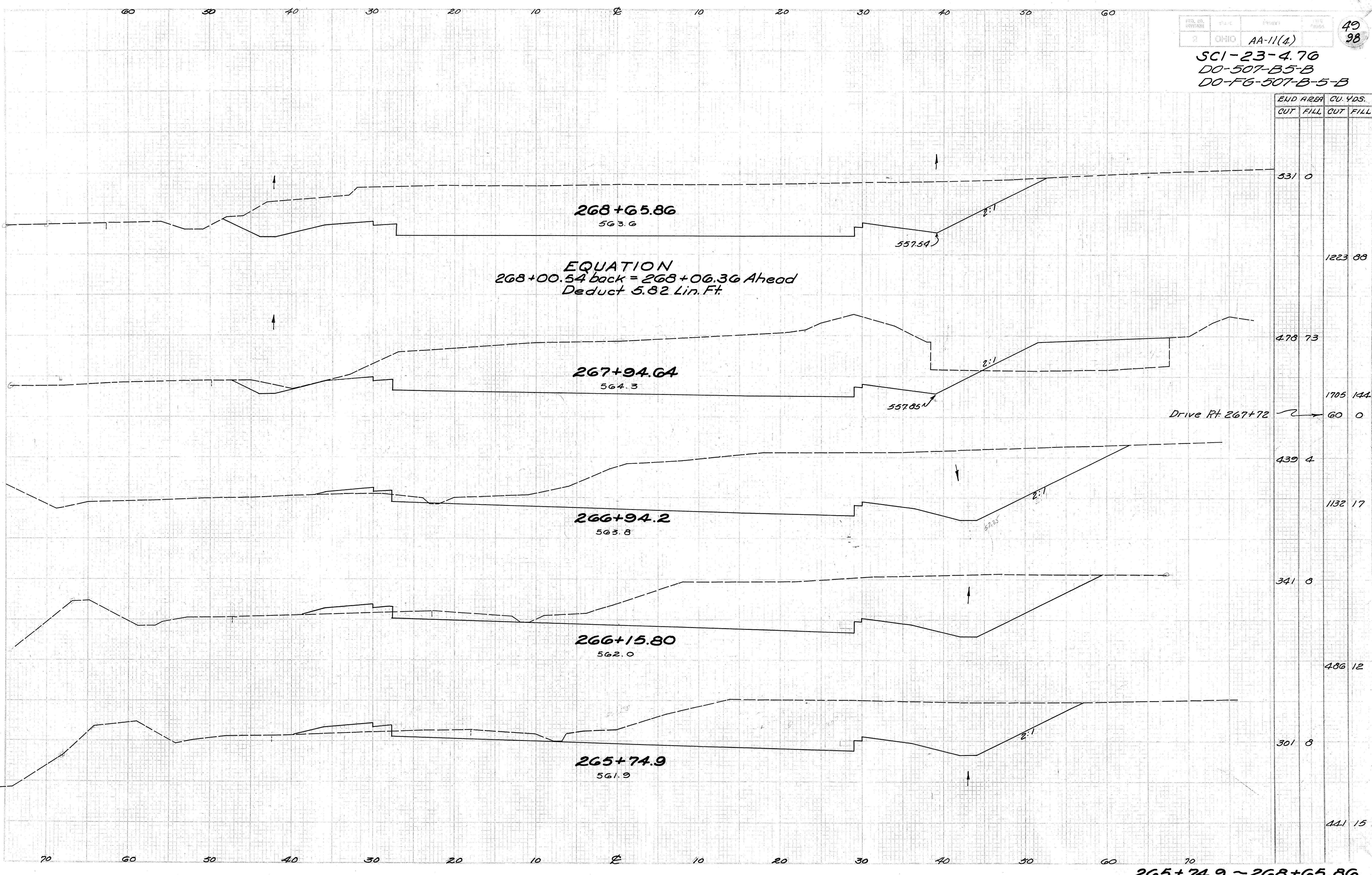
261+75.87 - 263+45.12

Plotted by J.C. 12-10-52
 Checked by J.C.
 Date 12-10-52
 Scale 1" = 40'

SCI-23-4.76
 DO-507-B5-B
 DO-FG-507-B-5-B



263+94.5 ~ 265+34.8



EQUATION
 268+00.54 back = 268+06.36 Ahead
 Deduct 5.82 Lin. Ft.

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

531	0		
		1223	00
478	73		
		1705	144
		60	0
439	4		
		1132	17
341	8		
		486	12
301	8		
		441	15

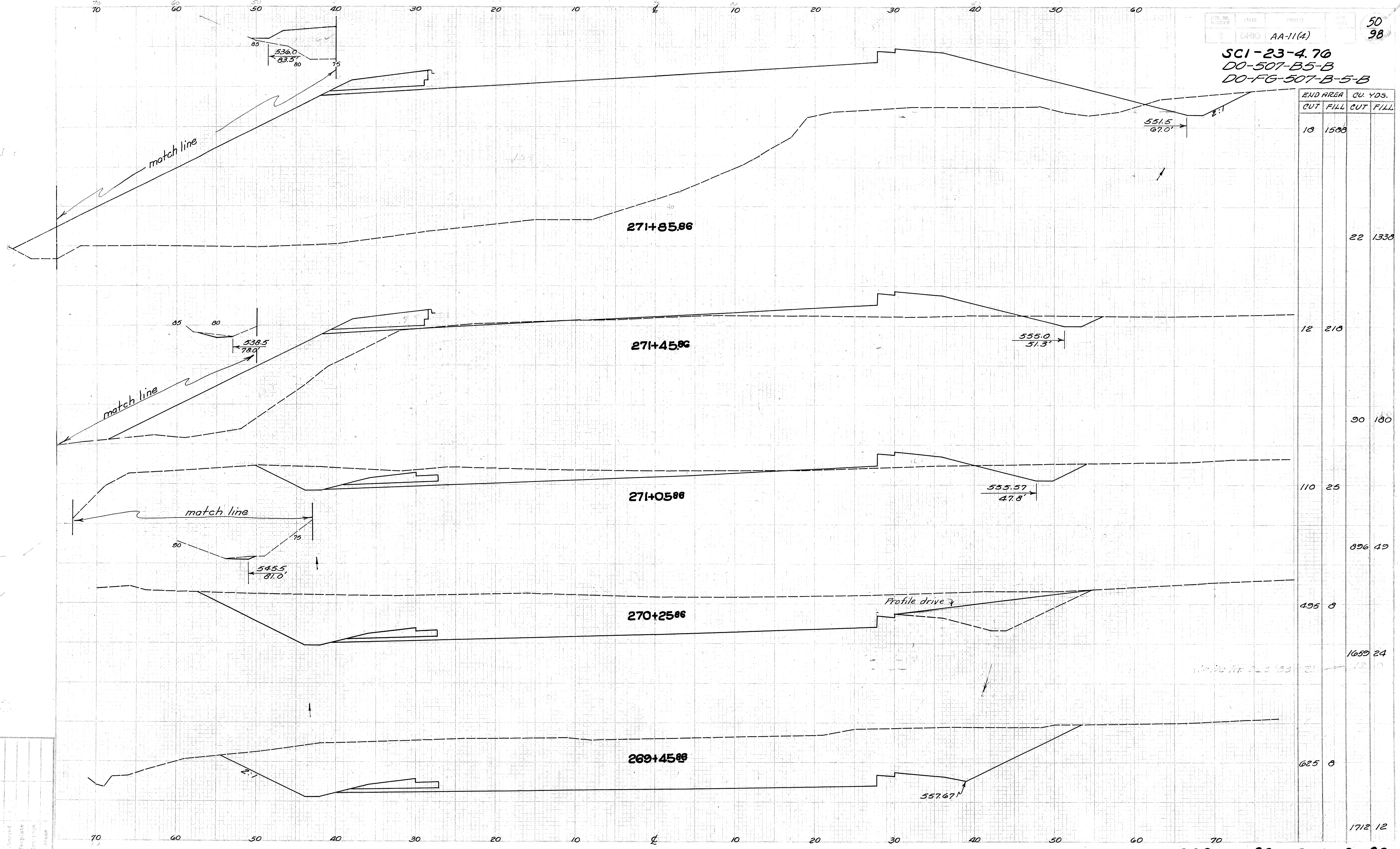
Drive Rt. 267+72

265+74.9 ~ 268+65.86

Plotted	
Checked	
Computed	
Drawn	
AT&T	

SCI-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL



18	1508		
		22	1330
12	210		
		90	180
110	25		
		896	49
495	0		
		1659	24
625	0		
		1712	12

269+45.86 - 271+85.86

Plotted	
Checked	
Revised	
Approved	

SCI-23-4.70
 DO-507-B5-B
 DO-F6-507-B-5-B

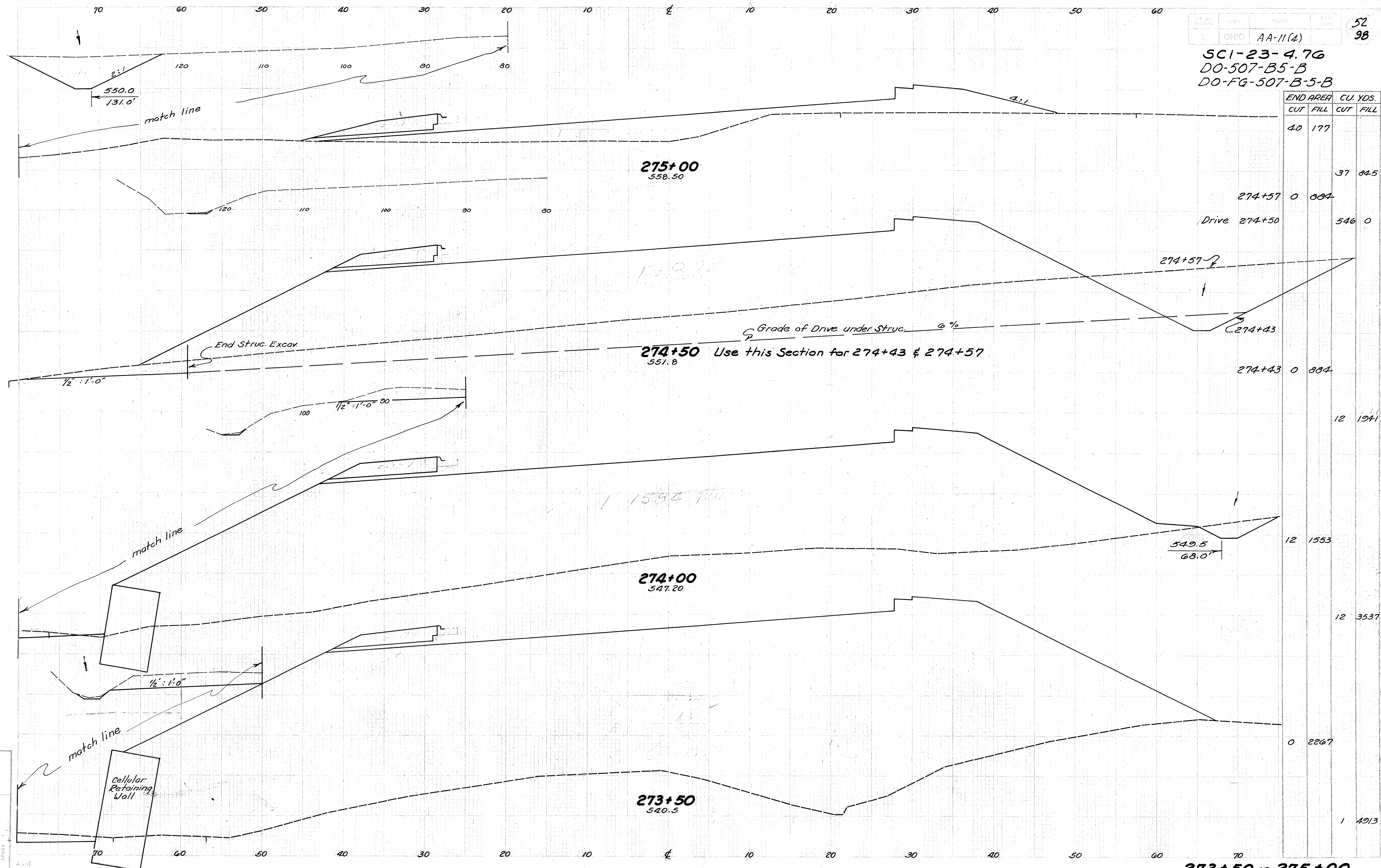
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL



Plotted	Checked	Drawn	Reviewed

272+25.86 ~ 273+00

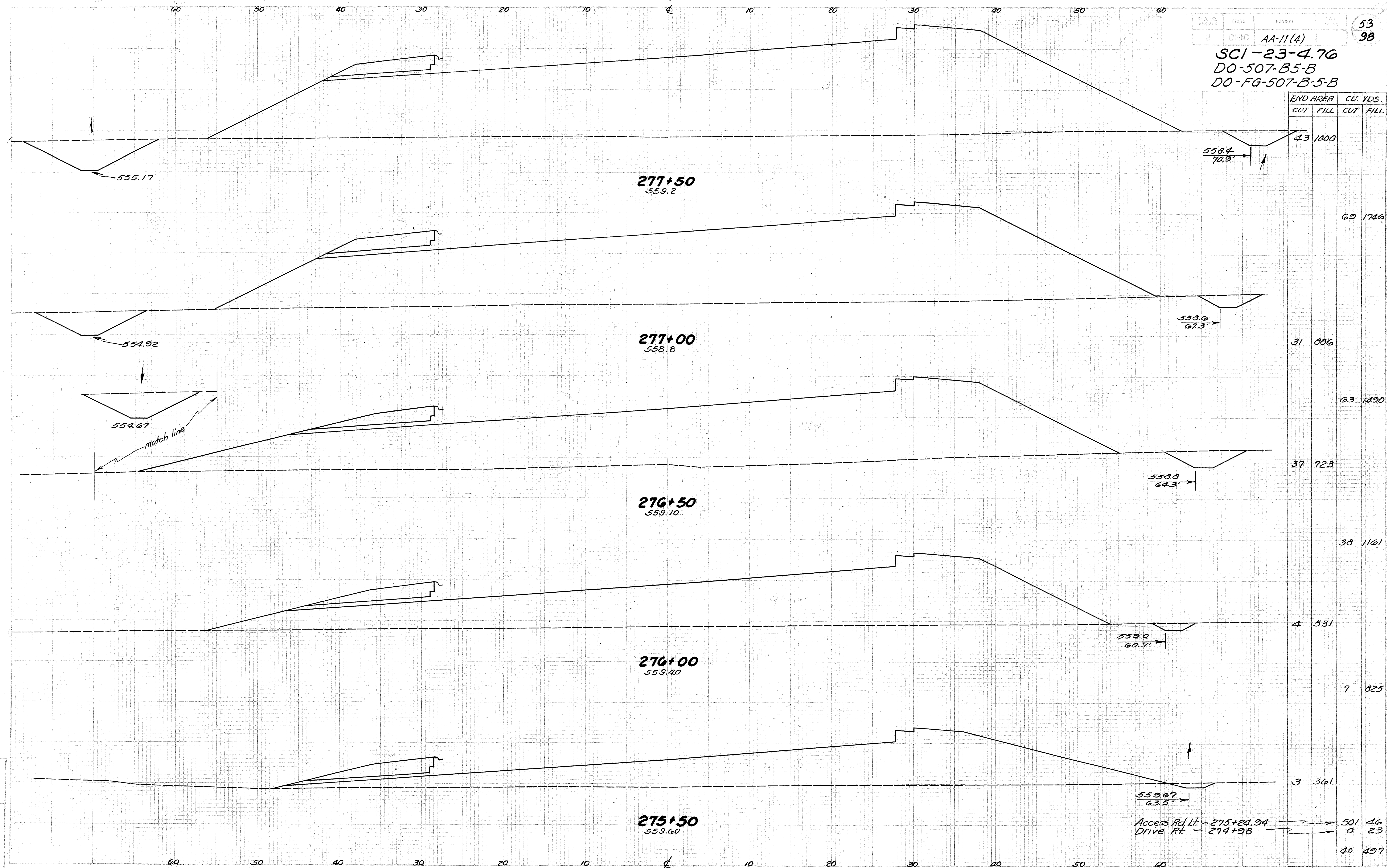
OHIO AA-11(4)
 SCI-23-4.76
 DO-507-B5-B
 DO-FG-507-B-5-B



STATION	END AREA		CU. YDS.	
	CUT	FILL	CUT	FILL
275+00	40	177		
274+57	0	884	37	845
Drive 274+50			546	0
274+43	0	884		
274+43	0	884	12	1941
274+00	12	1553		
274+00	12	3537		
273+50	0	2267	1	4913

273+50 - 275+00

SCI-23-4.76
DO-507-B5-B
DO-FG-507-B5-B

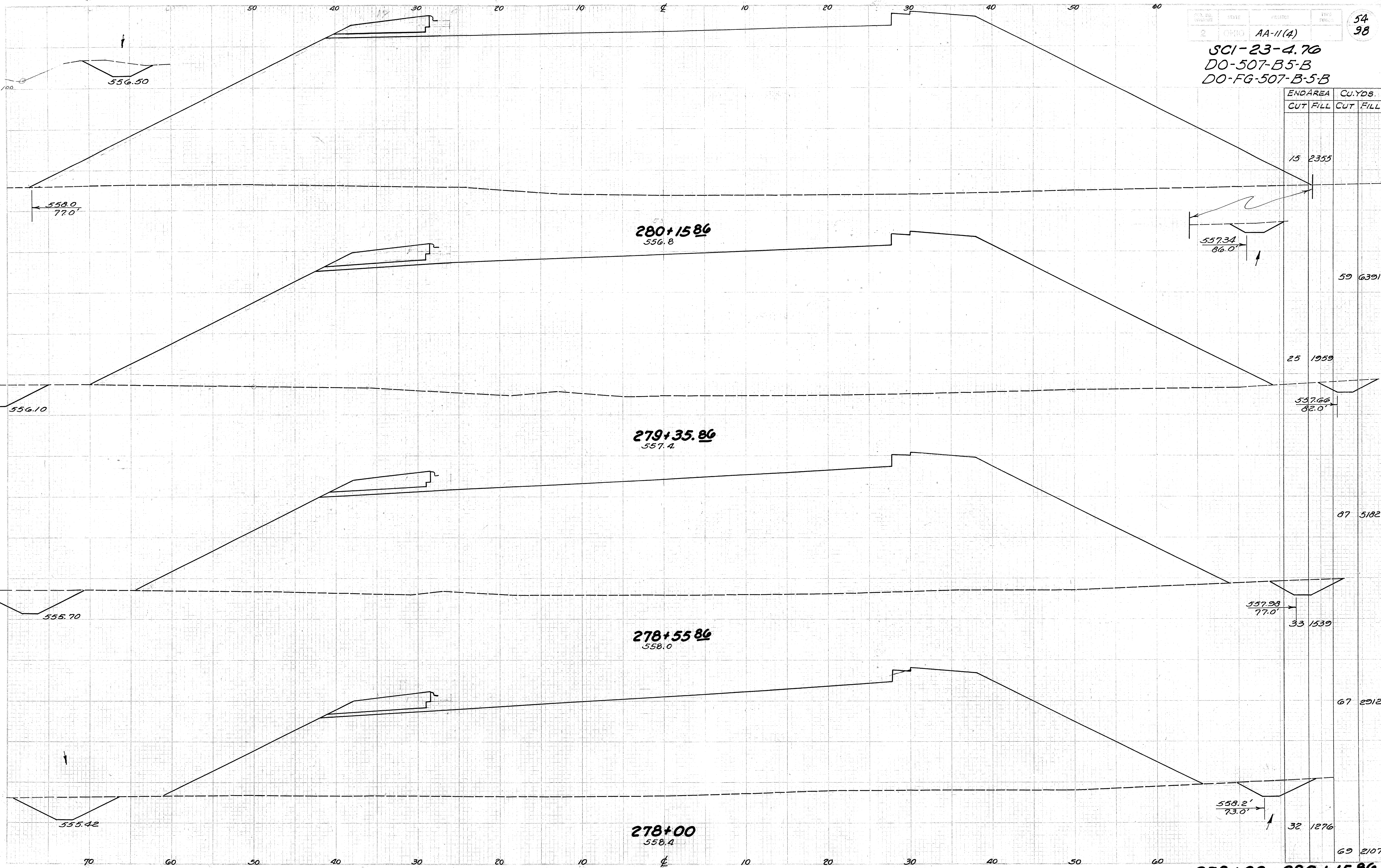


END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
4.3	1000		
		69	1746
31	886		
		63	1490
37	723		
		38	1161
4	531		
		7	825
3	361		
		50	16
		0	23
		40	497

Access Rd Lt - 275+24.94
Drive Rt - 274+98

275+50 - 277+50

SCI-23-4.70
 DO-507-B5-B
 DO-FG-507-B5-B



STATION	END AREA		CU. YDS.	
	CUT	FILL	CUT	FILL
15			2355	
25			1959	
29			6391	
33			1539	
37			5182	
67			2912	
69			2107	

278+00-280+15.86

Checked	____
Designed	____
Drawn	____
Engineer	____
Year	____

BRIDGE

55
98

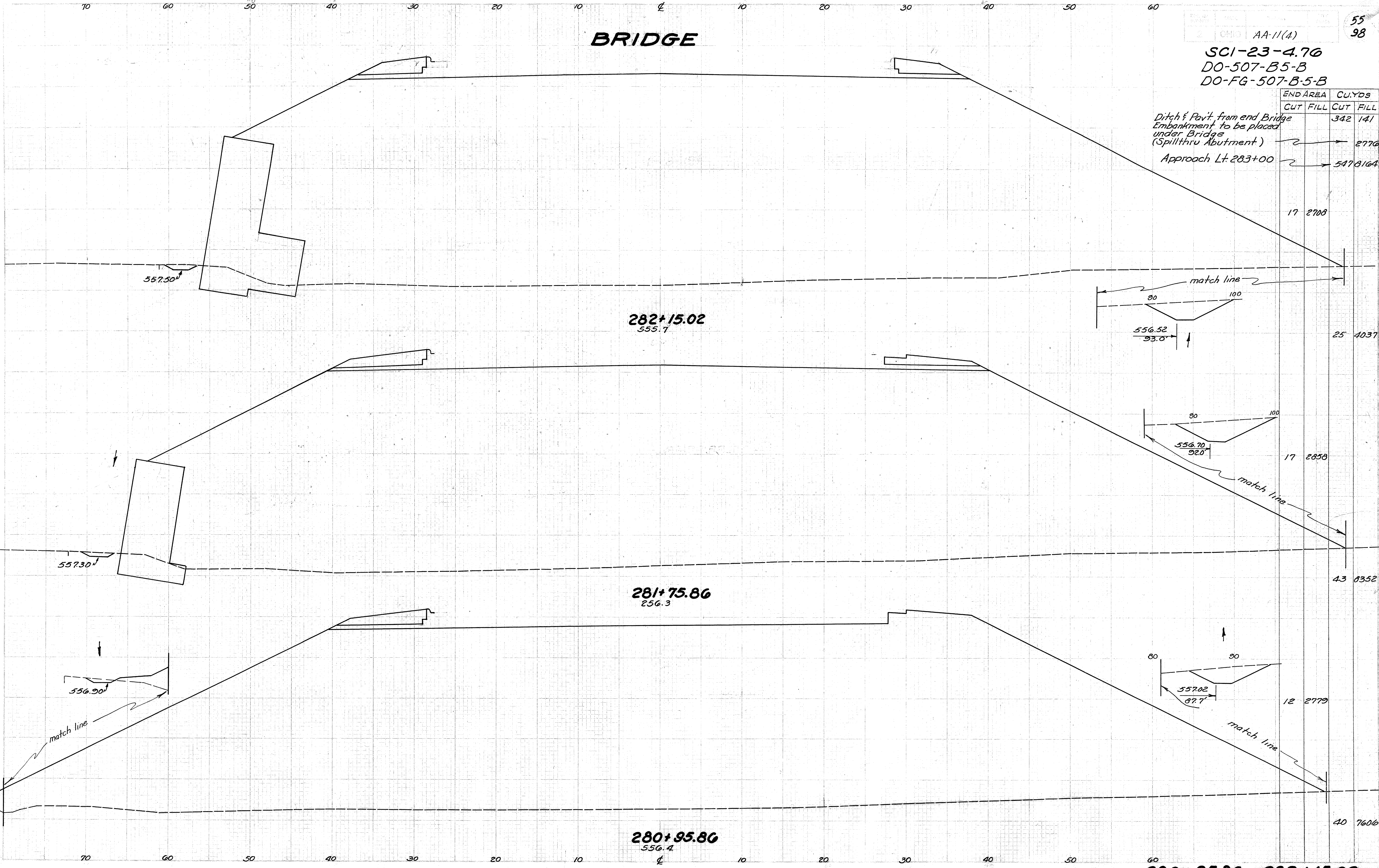
AA-11(4)

SCI-23-4.70
DO-507-B5-B
DO-FG-507-B5-B

END AREA		CU. YDS	
CUT	FILL	CUT	FILL
		342	141

*Ditch & Pavt from end Bridge
Embankment to be placed
under Bridge
(Spillthru Abutment)*

Approach Lt+ 283+00



282+15.02
555.7

281+75.86
256.3

280+95.86
556.4

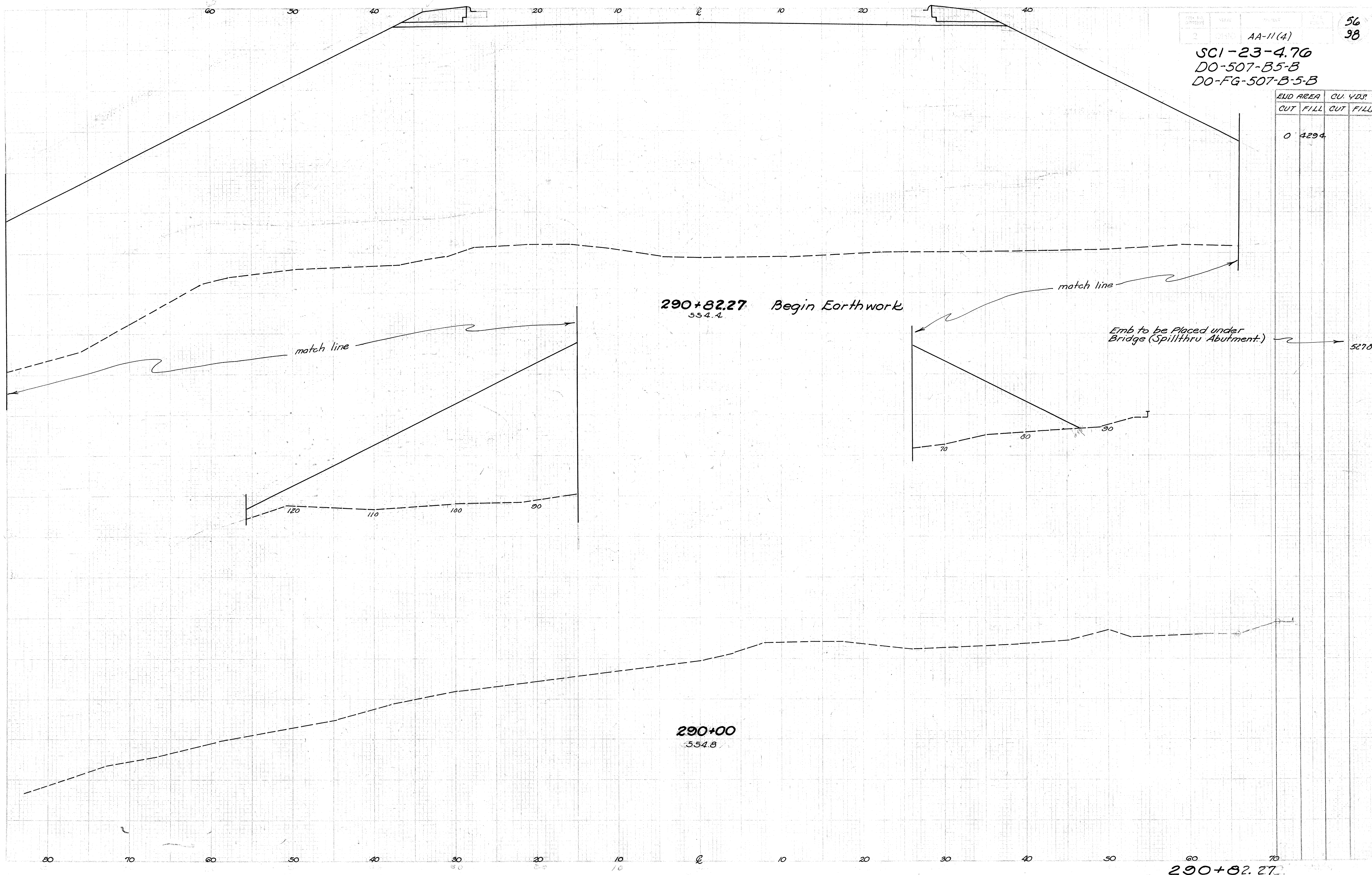
280+95.86 - 282+15.02

Plotted	CHK	DATE
Checked	NAS	DATE
Template		
Drawn		
Areas		

AA-11(4)
SCI-23-4.76
 DO-507-B5-B
 DO-FG-507-B-5-B

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

0	4294		
---	------	--	--



290+82.27
554.4 *Begin Earthwork*

match line

match line

Emb to be Placed under Bridge (Spillthru Abutment.)

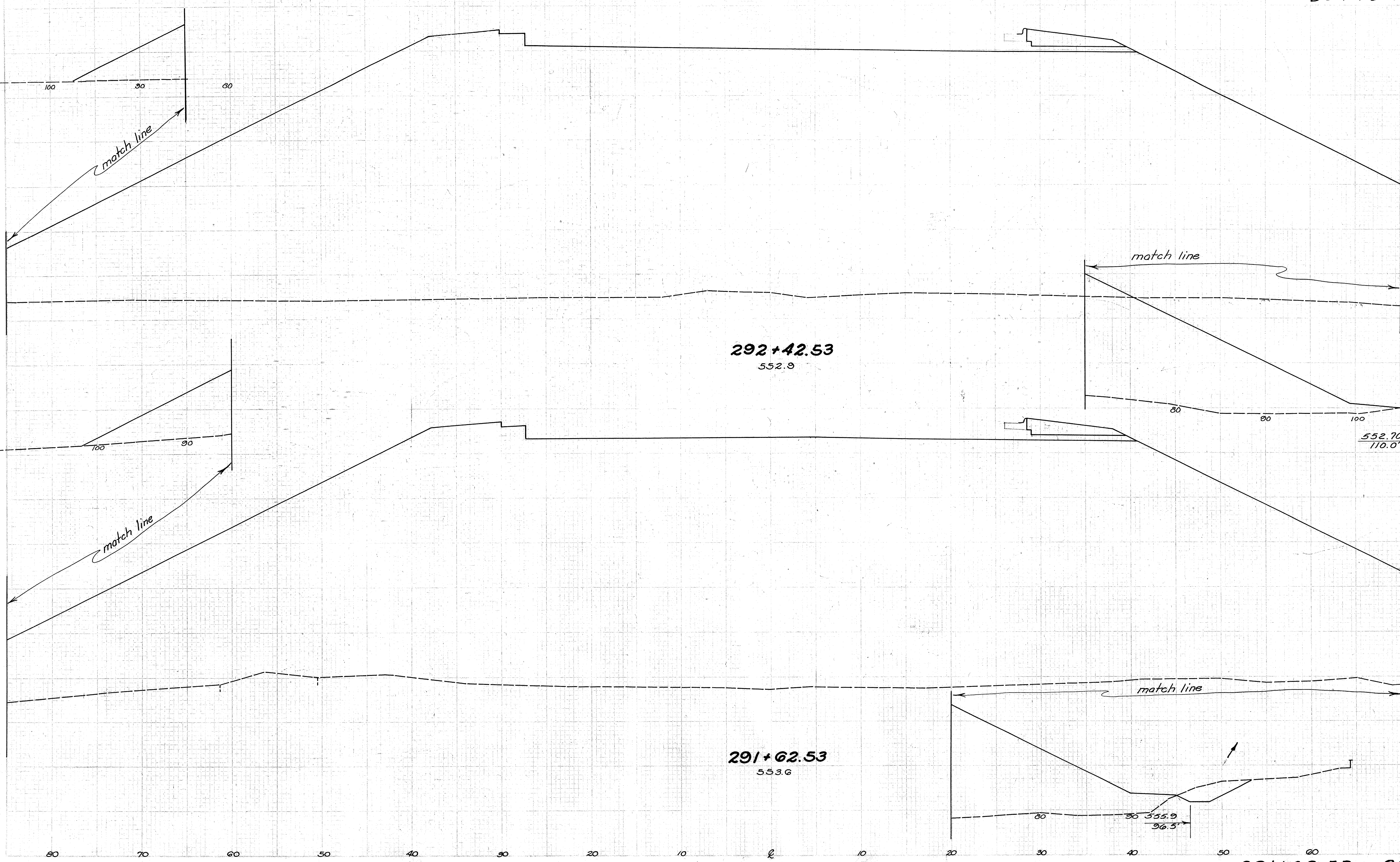
5278

290+00
554.8

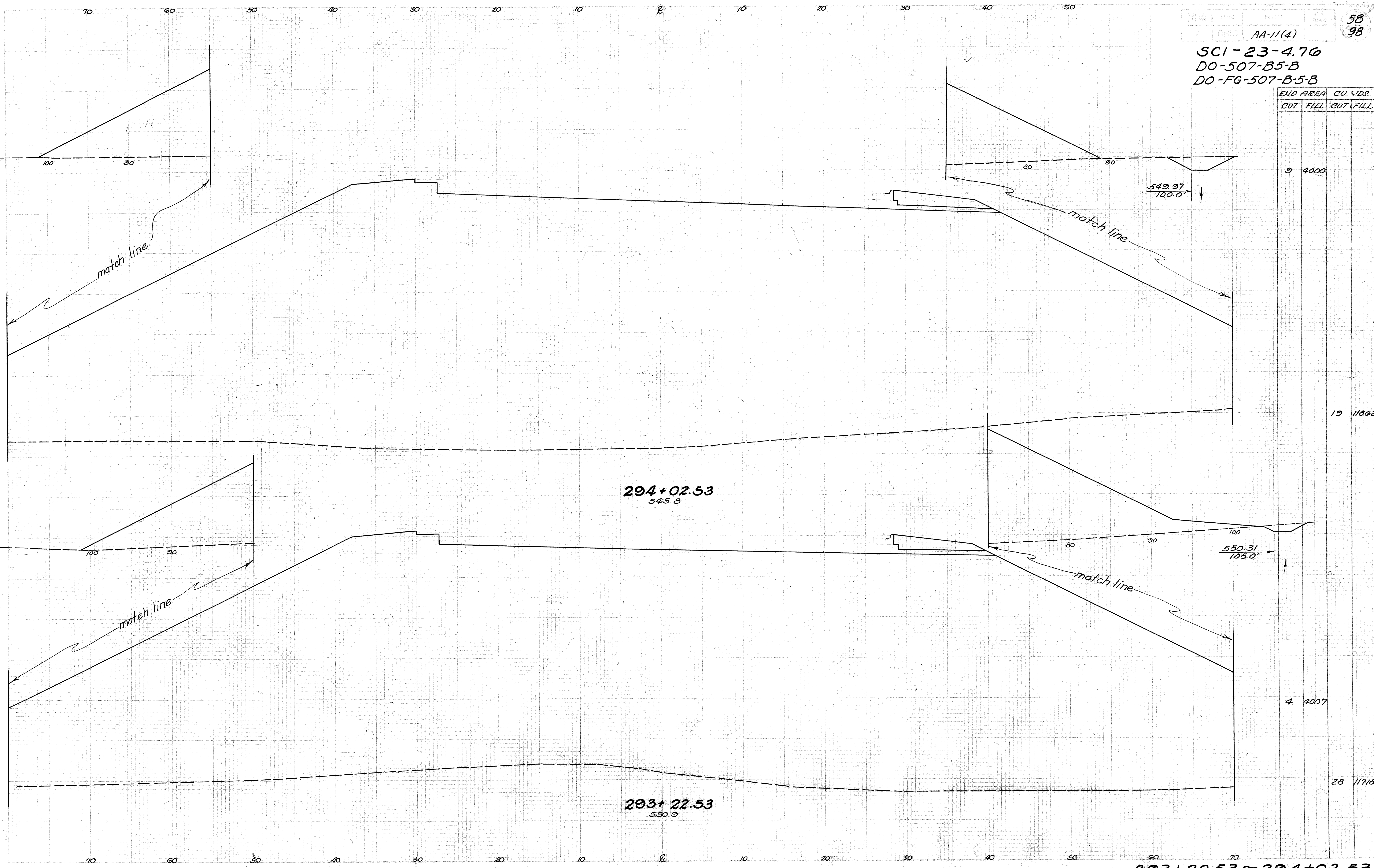
290+82.27

AA-11(4)
SCI-23-4.76
DO-507-B5-B
DO-FG-507-B5-B

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
15		3903	
37		11413	
10		3801	
15		12219	



SCI-23-4.70
DO-507-B5-B
DO-FG-507-B5-B



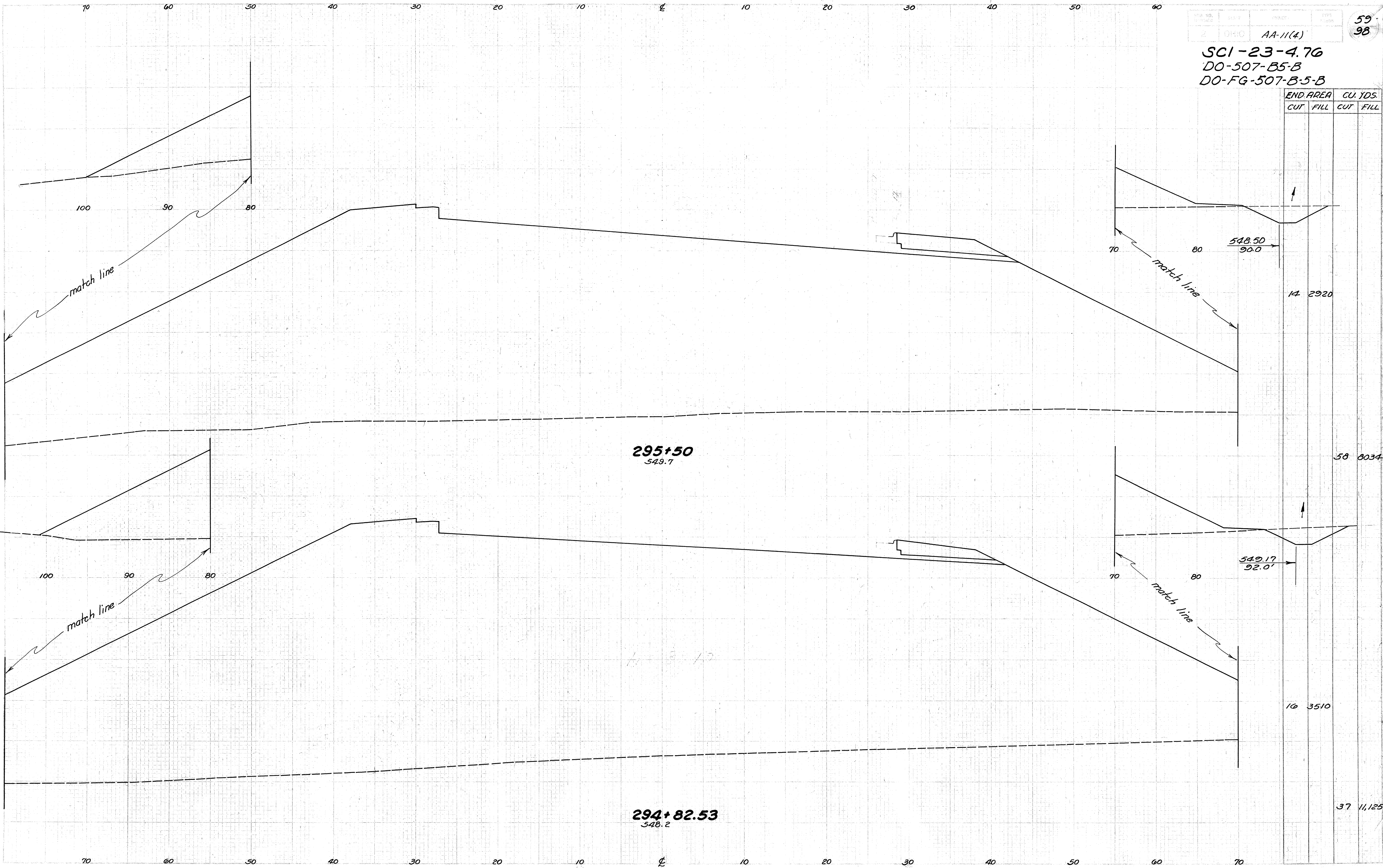
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL

3	4000		
13	11862		
4	4007		
28	11718		

293+22.53 ~ 294+02.53

SCI-23-4.76
 DO-507-B5-B
 DO-FG-507-B5-B

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
14	2920		
58	8034		
16	3510		
37	11,125		



295+50
549.7

294+82.53
548.2

548.50
90.0

549.17
92.0

70 80

70

80

14 2920

58 8034

16 3510

37 11,125

294+82.53 ~ 295+50

100 90 80

100 90 80

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

match line

match line

match line

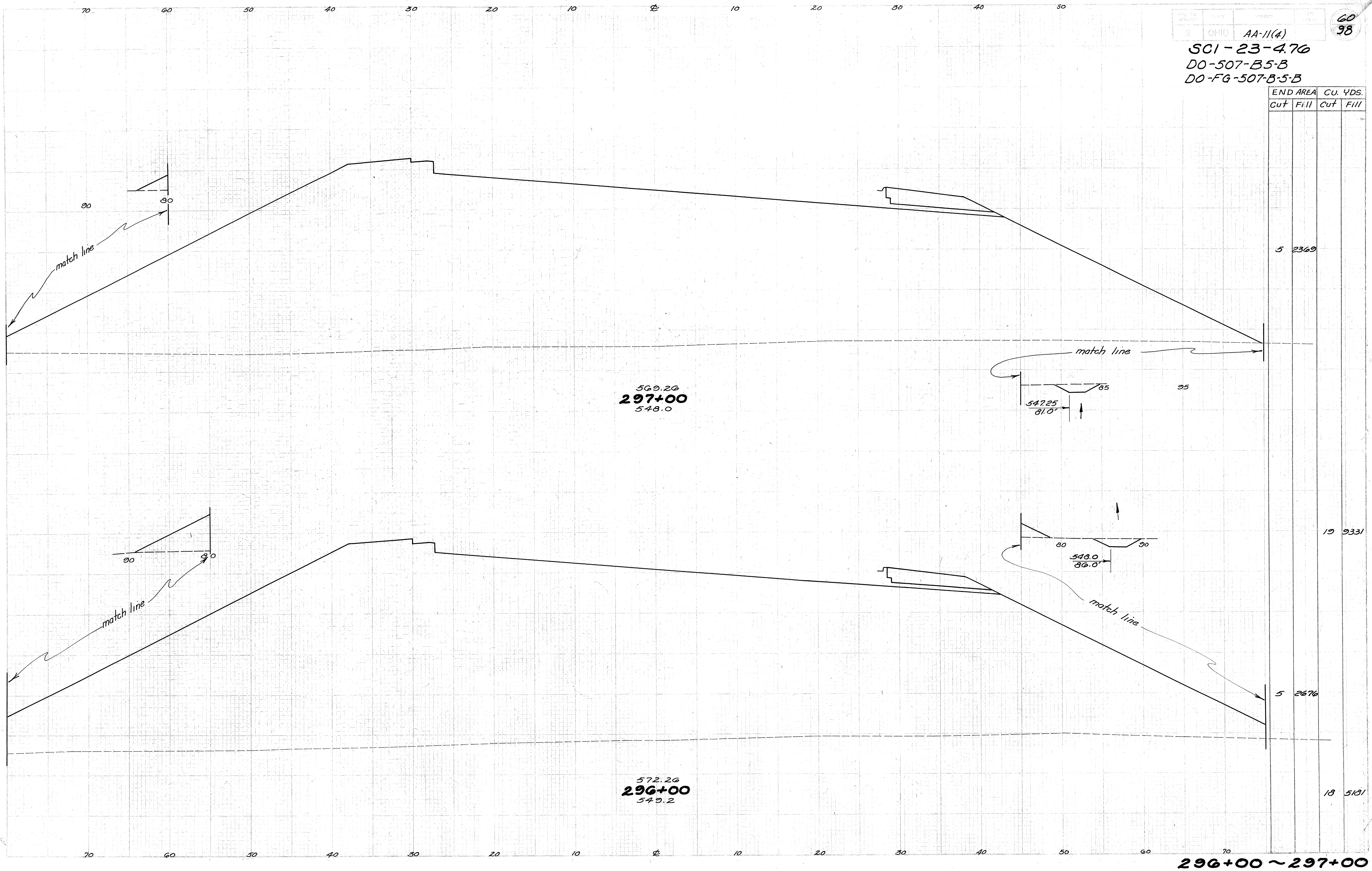
match line

old J.D. 1-14-52

2 OHIO AA-11(4)
 SCI-23-4.70
 DO-507-B5-B
 DO-FG-507-B5-B

60
98

END AREA		CU. YDS.	
Cut	Fill	Cut	Fill



569.20
297+00
 548.0

572.26
296+00
 549.2

5 2369

19 9331

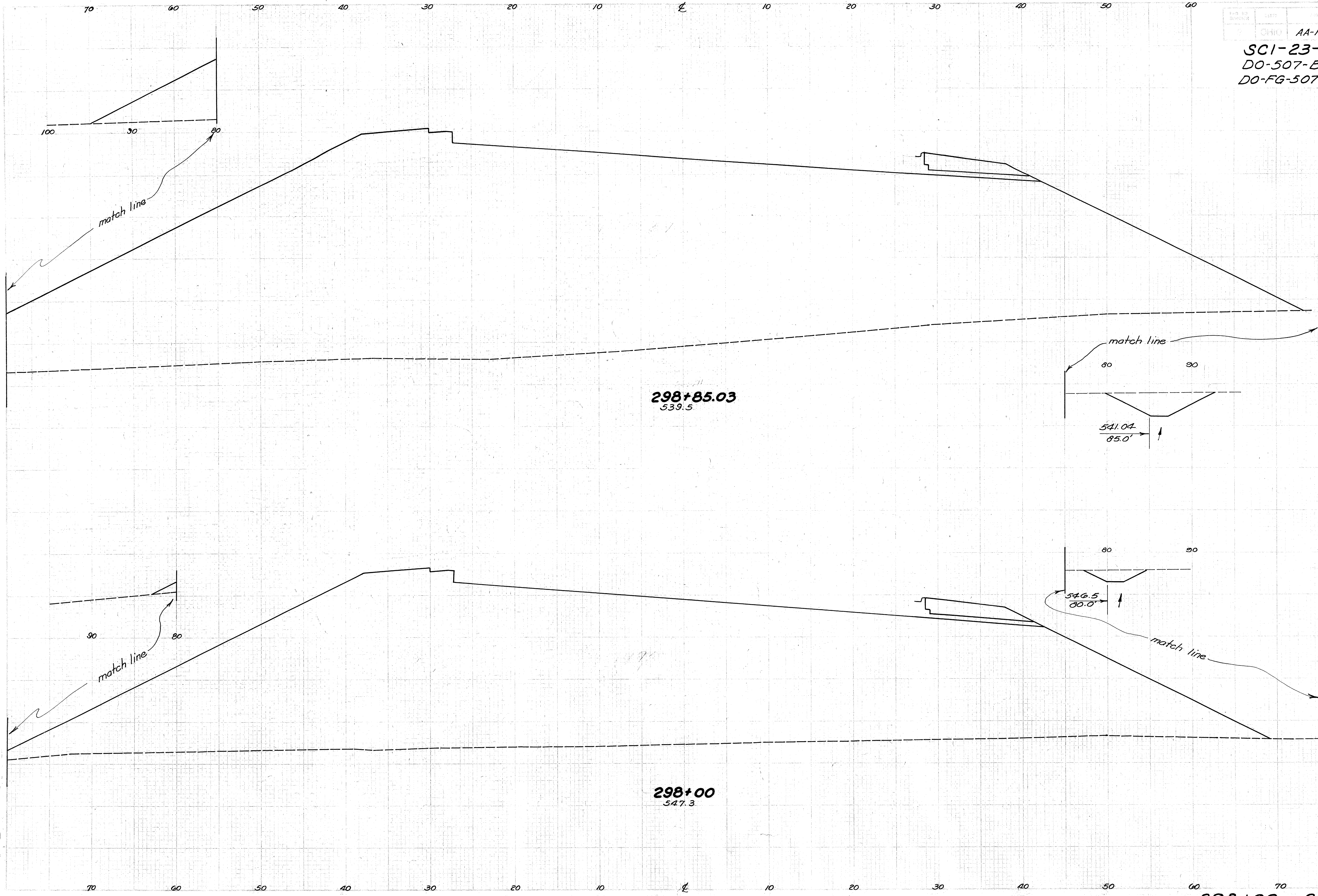
5 2676

18 5181

296+00 ~ 297+00

17/1/80
 297+00
 296+00

AA-11(4)
SCI-23-4.76
 DO-507-B5-B
 DO-FG-507-B5-B



END AREA	CU. YDS.	
	CUT	FILL
21		2777
44		7542
7		2013
22		8115

298+85.03
539.5

541.04
85.0'

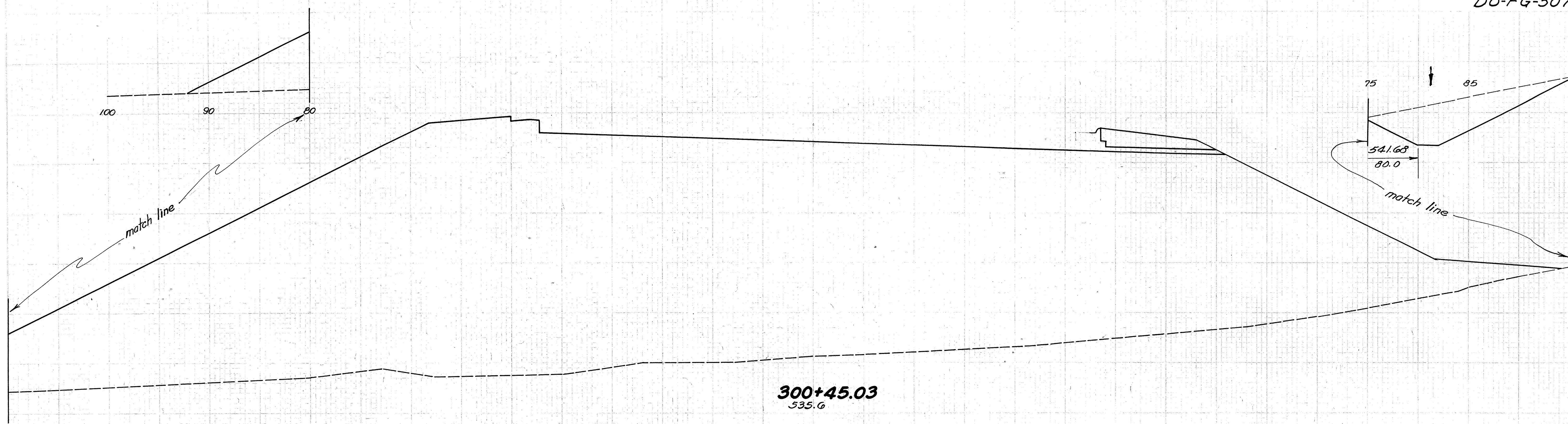
298+00
547.3

546.5
80.0'

298+00 ~ 298+85.03

SCI-23-4.76
DO-507-B-5-B
DO-FG-507-B-5-B

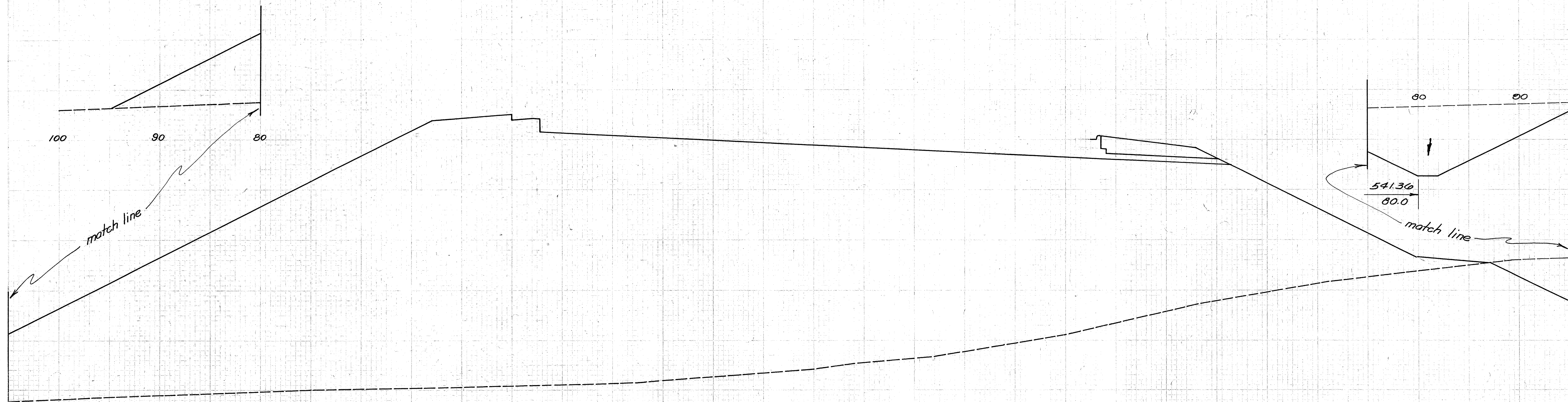
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL



49	2642		
----	------	--	--

300+45.03
535.6

241 7777



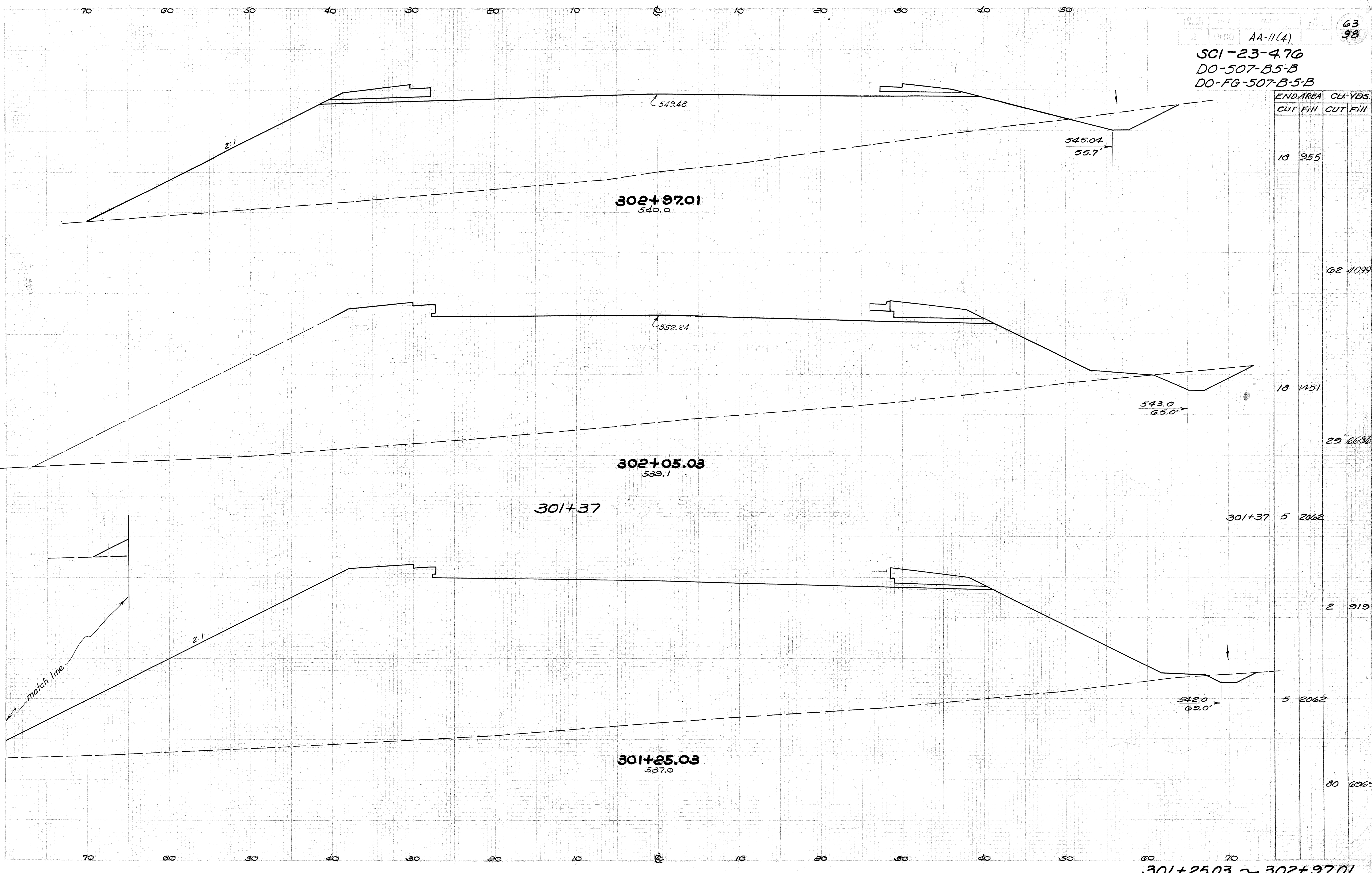
114	2608		
-----	------	--	--

299+65.03
537.1

200 7977

299+65.03 ~ 300+45.03

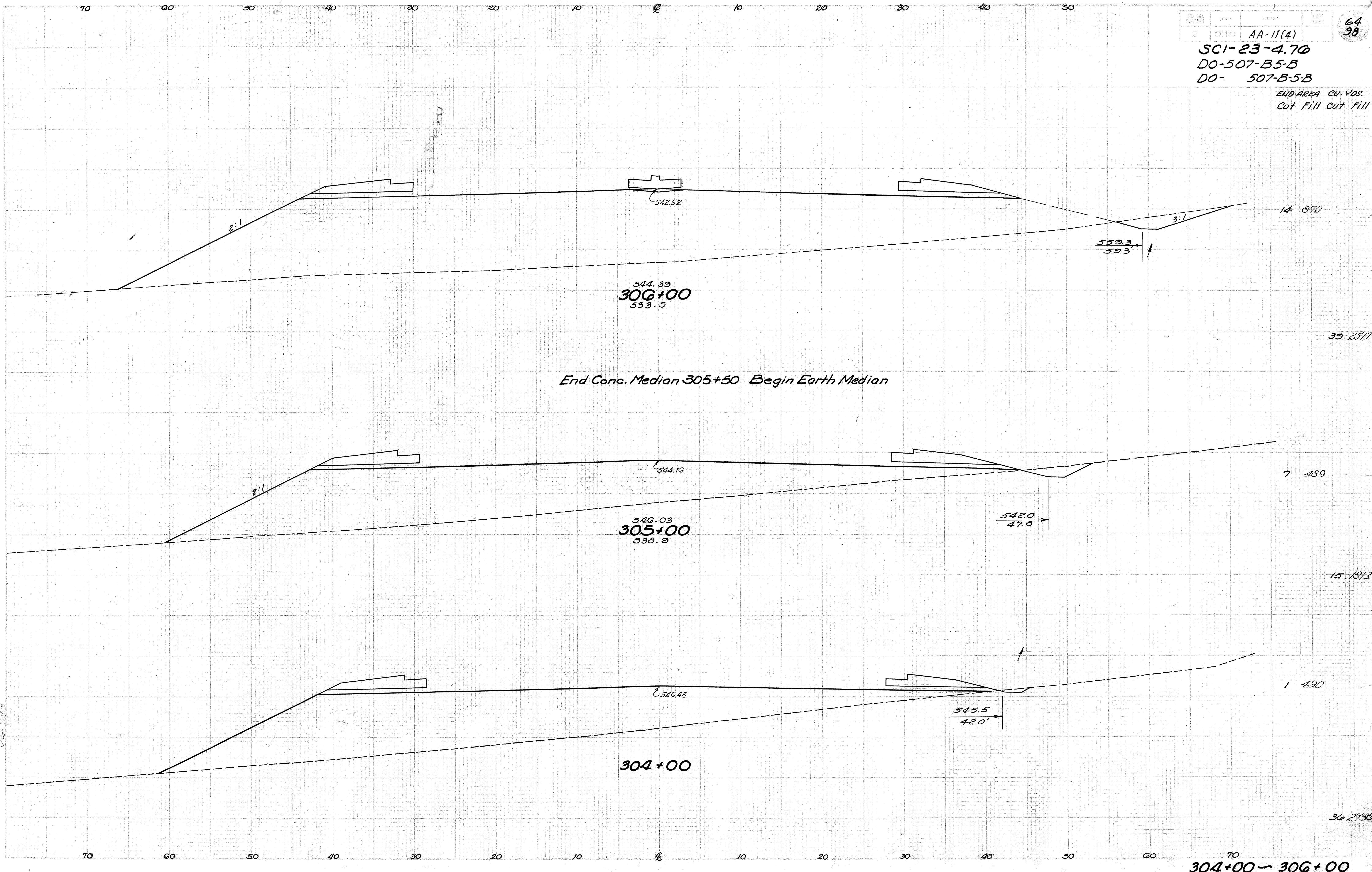
SCI-23-4.76
DO-507-B5-B
DO-FG-507-B5-B



END AREA	CU-YDS.	
	CUT	FILL
18	955	
62	4099	
18	1451	
29	6686	
301+37	5	2062
2	919	
5	2062	
80	6269	

301+25.03 ~ 302+97.01

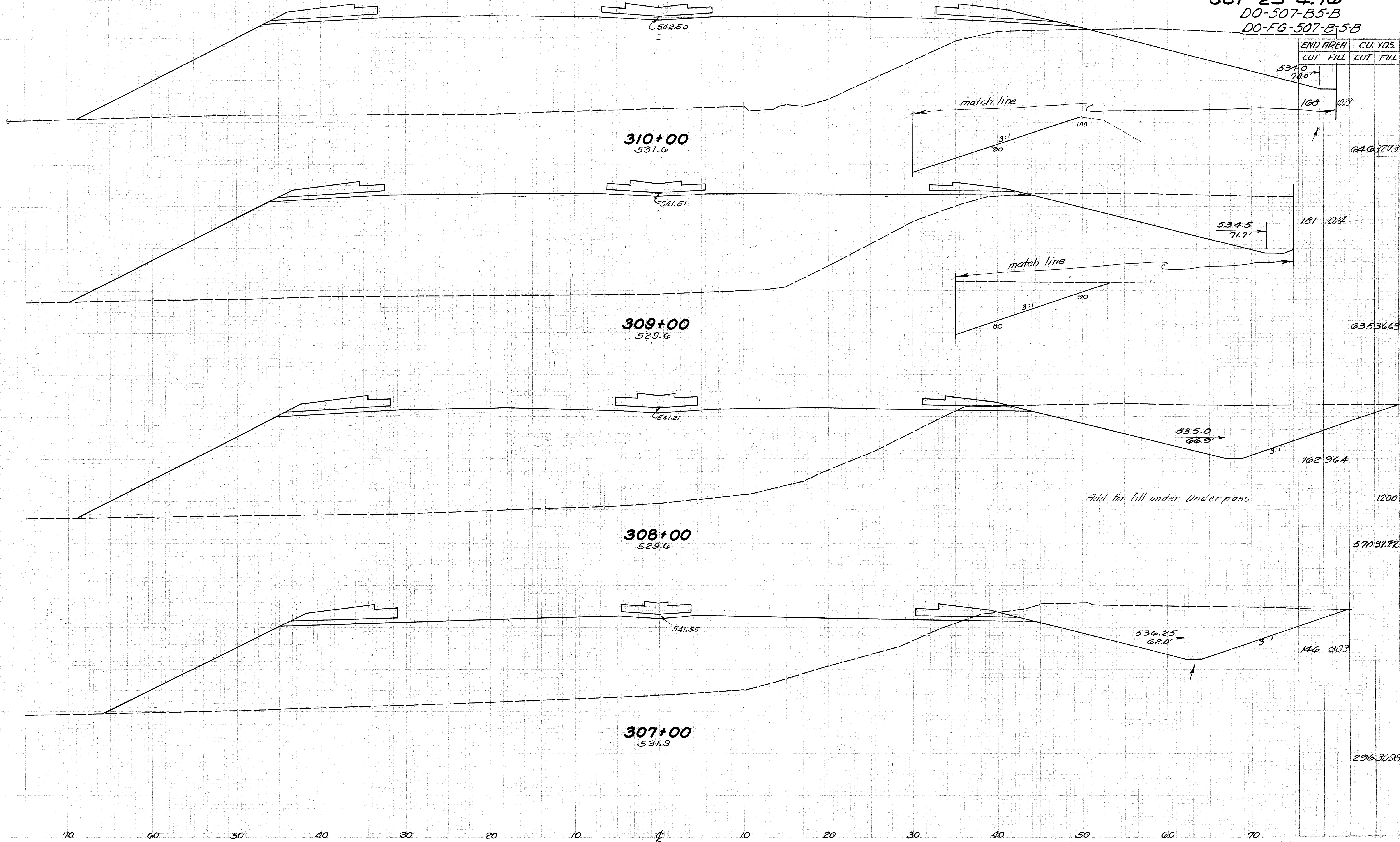
1-2-53



J.D. 1-7-53
 AA 1/4/53
 Date 1/1/53

SCI-23-4.70
 DO-507-B5-B
 DO-FG-507-B-5-B

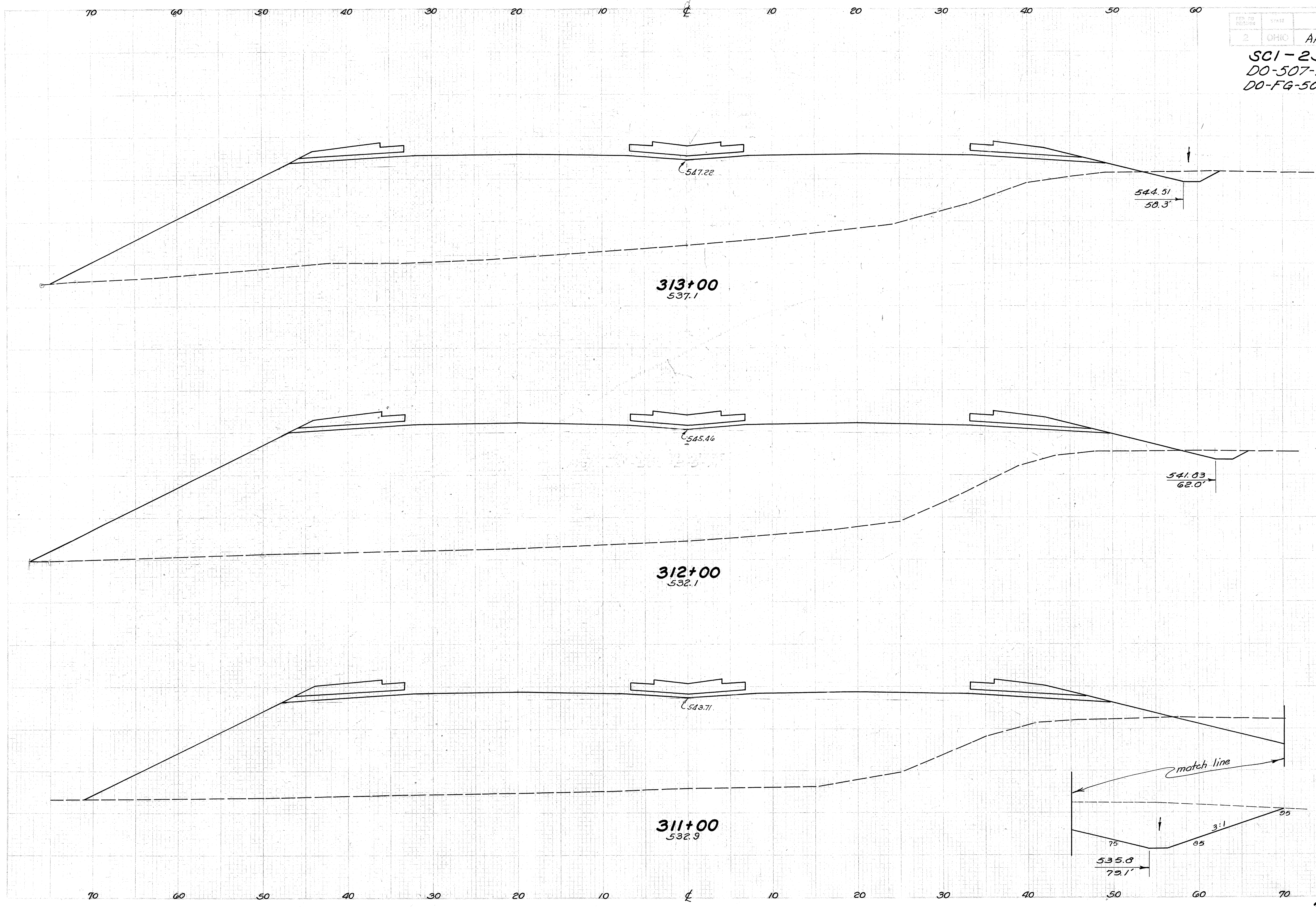
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
168	102	6463773	
181	104	6353663	
162	964	5703272	1200
146	803	2963098	

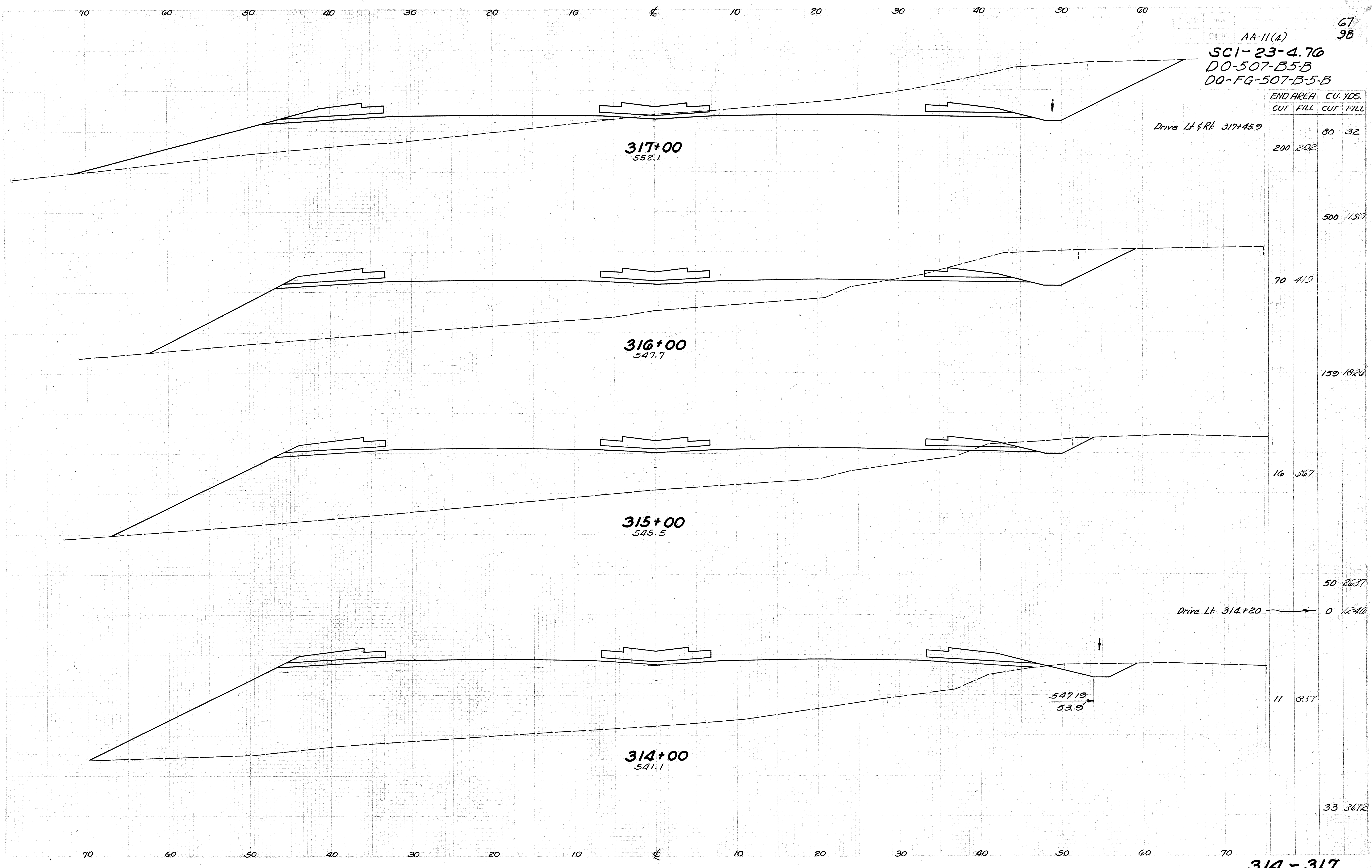
SCI-23-4.76
 DO-507-B5-B
 DO-FG-507-B-5-B

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL



7	1120		
24	4737		
6	1432		
213	4719		
109	1116		
513	3961		

AA-11(4)
SC1-23-4.70
 DO-507-B5-B
 DO-FG-507-B5-B

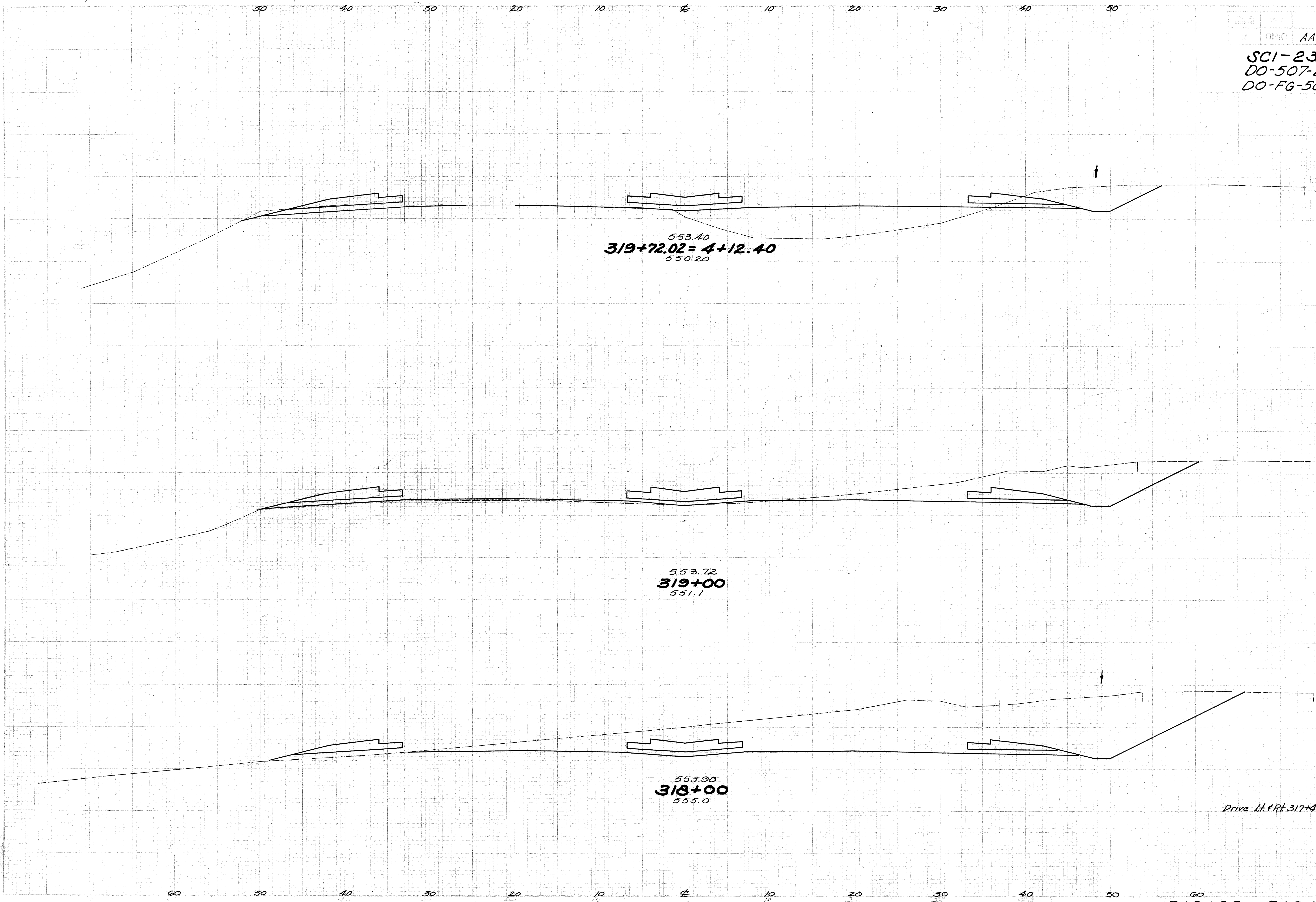


END AREA	CU. YDS.	
	CUT	FILL
200	202	80 32
70	419	500 1150
16	367	159 1826
50	2637	0 1240
11	857	547.19 53.0
33	3672	

Plotted	AC
Checked	1-7-53
Complete	
Detailed	
Area	

SCI-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL



553.40
319+72.02 = 4+12.40
550.20

553.72
319+00
551.1

553.98
318+00
555.0

50 131

223 224

117 37

1111 120

383 32

Drive Lt & Rt 317+45.9

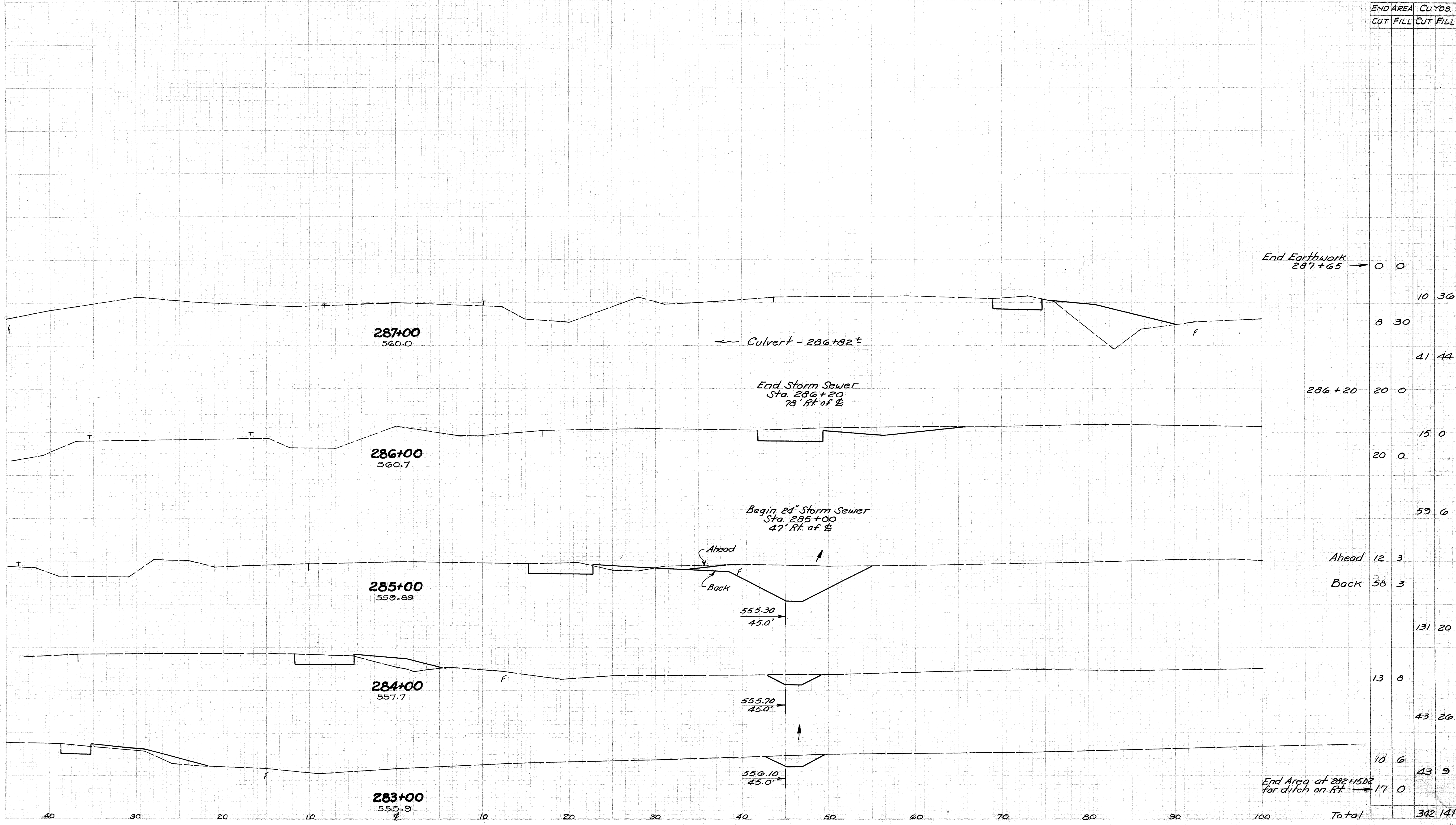
80 32

1080 433

318+00 ~ 319+72.02

Plotted	1/11/52
Checked	S.W. E.
Template	1/11/52
Revised	
Areas	

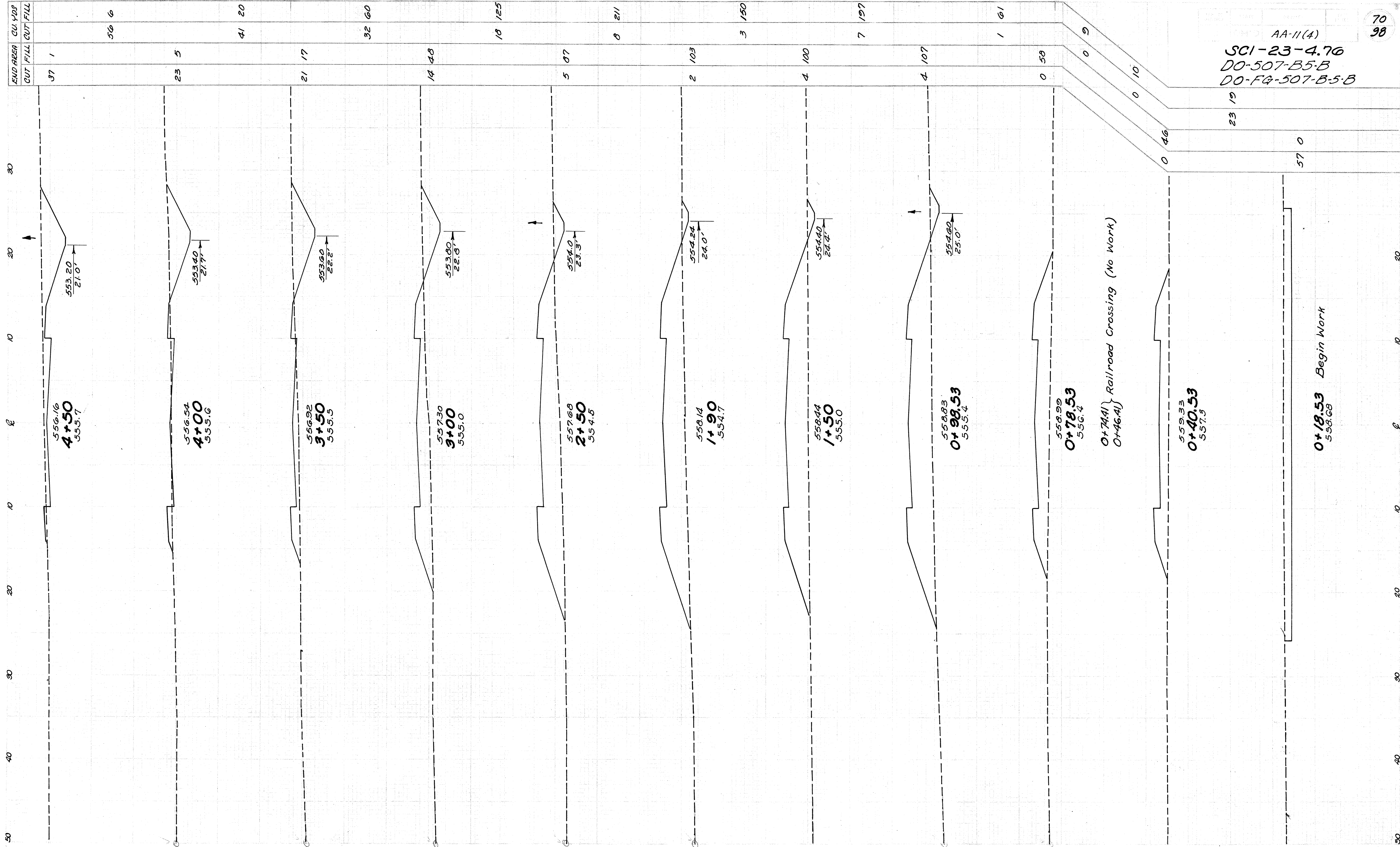
SCI-23-4.76
 DO-507-B5-B
 DO-FG-507-B5-B



END AREA		CU.YDS.	
CUT	FILL	CUT	FILL

End Earthwork	287+65	0	0		
		8	30	10	36
				41	44
	286+20	20	0		
		20	0	15	0
				59	6
Ahead		12	3		
Back		58	3		
				131	20
		13	8		
				43	26
		10	6		
				43	9
	End Area at 282+150.2 for ditch on Rt	17	0		
Total				342	141

Plotted	G.W.F.	1-20-53
Checked	G.W.F.	1-21-53
Template		
Drainage		
Areas		



END AREA	CU YDS
CUT	FILL

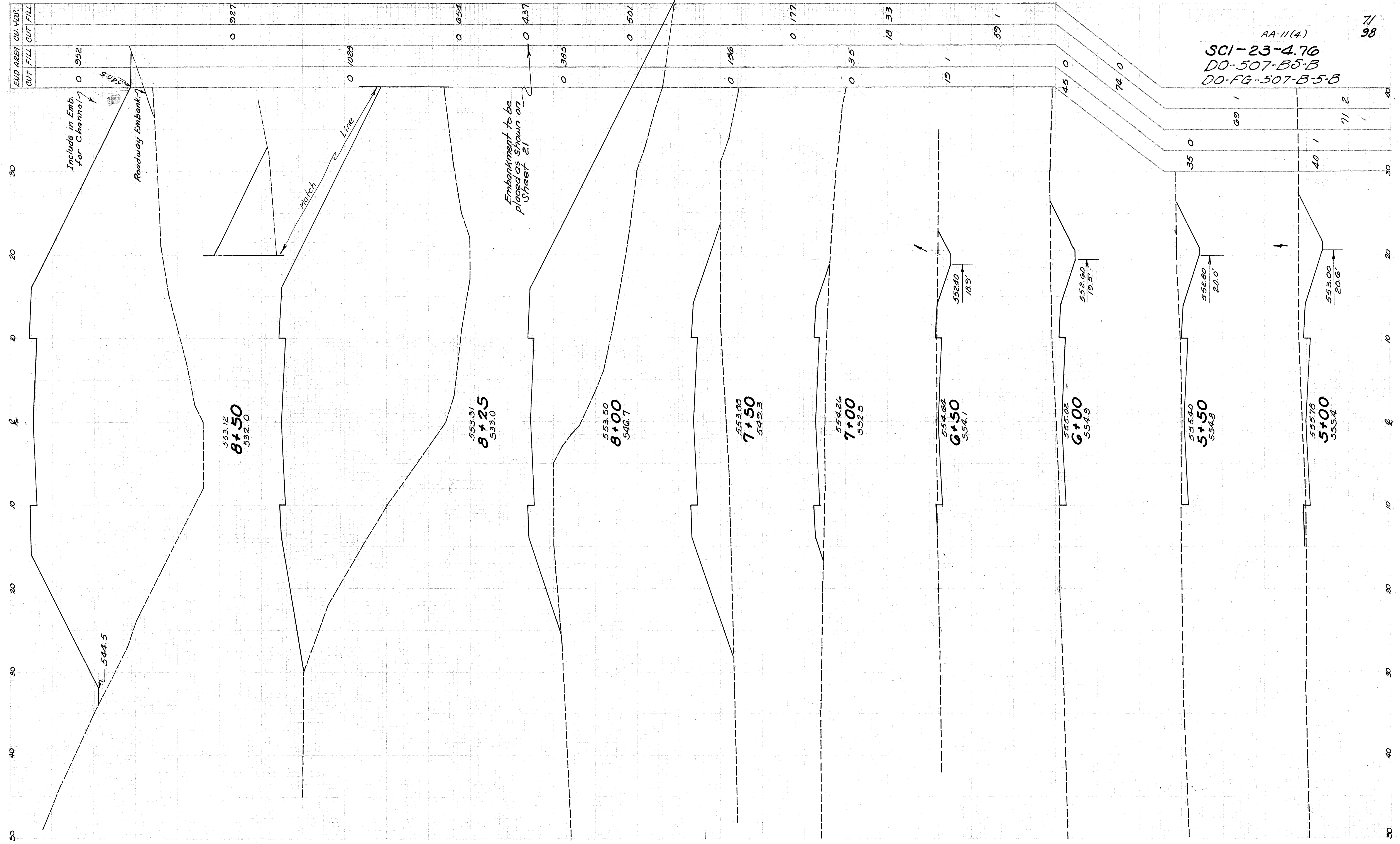
37	1	56	6	41	20	32	60	18	125	8	211	3	150	7	197	1	61	0	58	0	9	0	10	0	46	57	0
----	---	----	---	----	----	----	----	----	-----	---	-----	---	-----	---	-----	---	----	---	----	---	---	---	----	---	----	----	---

AA-11(4)
 SCI-23-4.76
 DO-507-B5-B
 DO-FG-507-B-5-B

70
98

RD. APPROACH 283+00 LT.

AREAS UNDER 0.5



RD. APPROACH 283+00 LT.

AA-11(4)
 SCI-23-4.76
 D0-507-B5-B
 D0-FG-507-B-5-B

71
98



11+10 END WORK

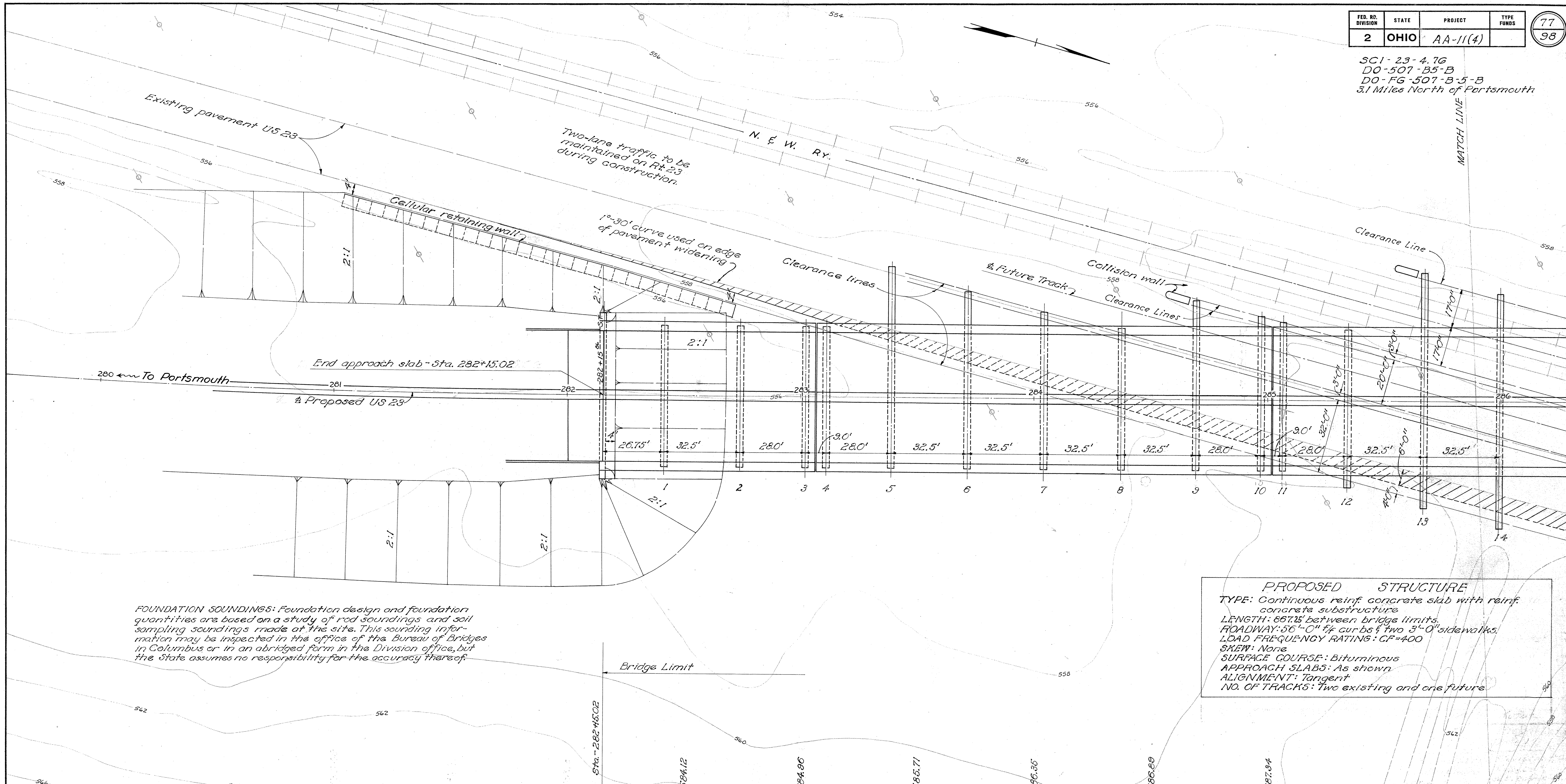
RD. APPROACH 283+00 LT

AA-11(4)
 SCI-23-4.70
 DO-507-B5-B
 DO-FG-507-B5-B

72
98

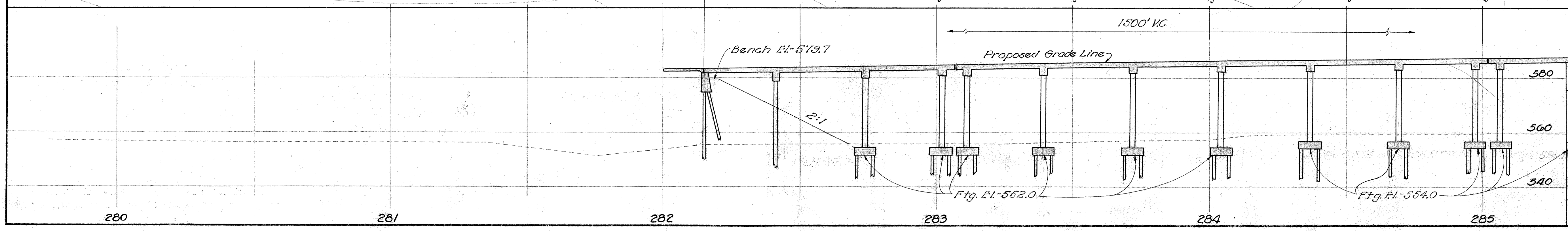
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	AA-11(4)	77 98

SC1-23-4.7G
 DO-507-B5-B
 DO-FG-507-B5-B
 3.1 Miles North of Portsmouth



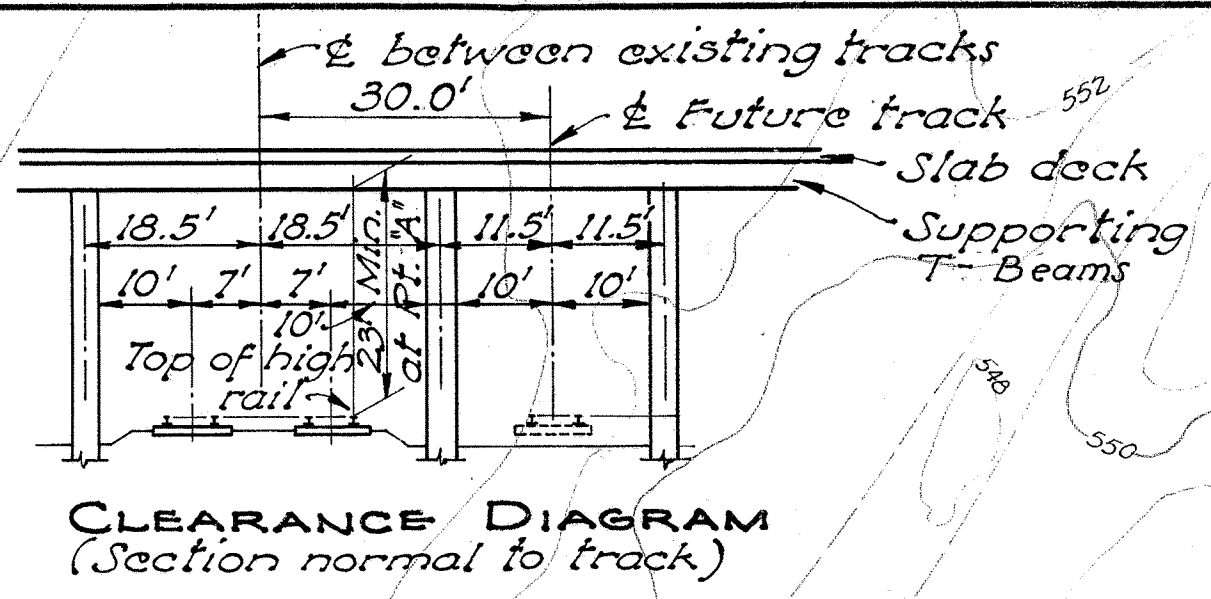
FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of rod soundings and soil sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in an abridged form in the Division office, but the State assumes no responsibility for the accuracy thereof.

PROPOSED STRUCTURE
 TYPE: Continuous reinf. concrete slab with reinf. concrete substructure.
 LENGTH: 667.25' between bridge limits.
 ROADWAY: 56'-0" f/c curbs & two 3'-0" sidewalks.
 LOAD FREQUENCY RATING: CF=400
 SKEW: None
 SURFACE COURSE: Bituminous
 APPROACH SLABS: As shown
 ALIGNMENT: Tangent
 NO. OF TRACKS: Two existing and one future.



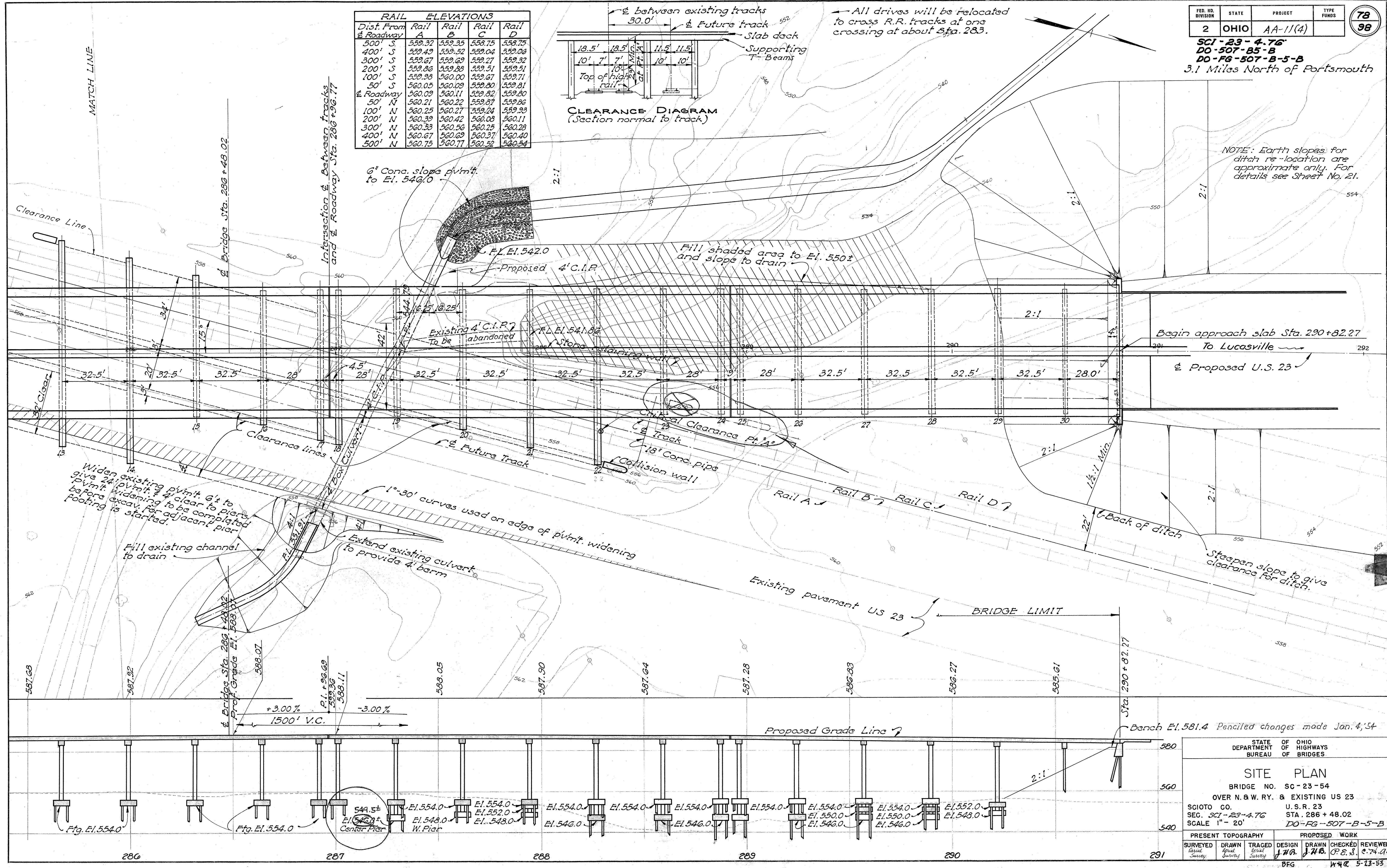
STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES			
SITE PLAN			
BRIDGE NO. SC-23-54			
OVER N.&W.R.R. & EXISTING US 23			
SCIOTO CO.	U. S. R. 23		
SEC. SC1-23-4.7G	STA. 286+48.02		
SCALE 1" = 20'	DO-FG-507-B-5-B		
PRESENT TOPOGRAPHY		PROPOSED WORK	
SURVEYED	DRAWN	TRACED	DESIGN
General Survey	General Survey	General Survey	General Survey
	J. H. B.	J. H. B.	P. E. S.
			W. H. S.
BFG			
5-13-55			

Dist. From & Roadway	RAIL ELEVATIONS			
	Rail A	Rail B	Rail C	Rail D
500' S	559.32	559.35	558.75	558.75
400' S	559.49	559.52	559.04	559.08
300' S	559.67	559.69	559.27	559.32
200' S	559.86	559.88	559.51	559.51
100' S	559.98	560.00	559.67	559.71
50' S	560.05	560.09	559.80	559.81
& Roadway	560.09	560.11	559.82	559.80
50' N	560.21	560.22	559.87	559.86
100' N	560.25	560.27	559.94	559.93
200' N	560.39	560.42	560.08	560.11
300' N	560.33	560.56	560.25	560.28
400' N	560.67	560.69	560.37	560.40
500' N	560.75	560.77	560.52	560.54



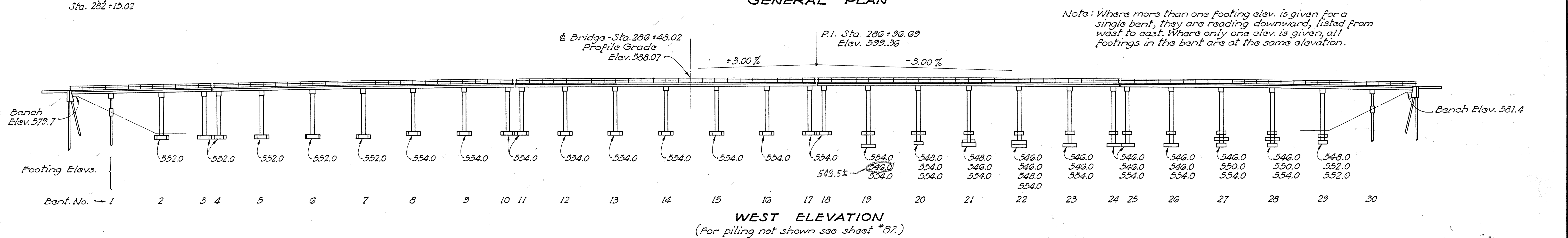
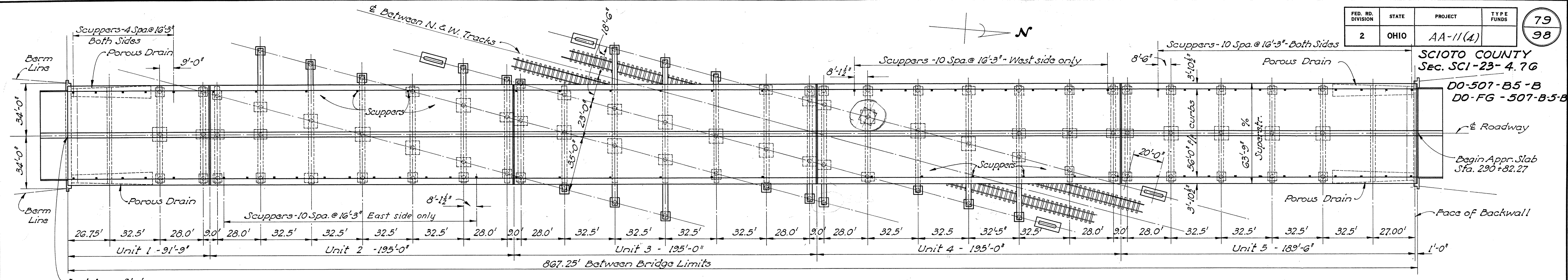
All drives will be relocated to cross R.R. tracks at one crossing at about Sta. 283.

NOTE: Earth slopes for ditch re-location are approximate only. For details see Sheet No. 21.



STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES			
SITE PLAN			
BRIDGE NO. SC-23-54 OVER N. & W. RY. & EXISTING US 23			
SCIOTO CO.	U. S. R. 23		
SEC. SC-23-4.76	STA. 286 + 48.02		
SCALE 1" = 20'	DO-FG-507-B-5-B		
PRESENT TOPOGRAPHY	PROPOSED WORK		
SURVEYED Lateral Survey	DRAWN April Survey	TRACED Lateral Survey	DESIGN J. H. B.
		DRAWN J. H. B.	CHECKED P. E. S.
			REVIEWED C. W. A.
BFG W 40 5-23-53			

SCIOTO COUNTY
 Sec. SCI-23-4.7G
 DO-507-B5-B
 DO-FG-507-B5-B



ESTIMATED QUANTITIES																															Collision Walls	General	As Built									
Item	Total	Unit	Description	Superstr.	S.Abut.	N.Abut.	Bent 1	Bent 2	Bent 3	Bent 4	Bent 5	Bent 6	Bent 7	Bent 8	Bent 9	Bent 10	Bent 11	Bent 12	Bent 13	Bent 14	Bent 15	Bent 16	Bent 17	Bent 18	Bent 19	Bent 20	Bent 21	Bent 22	Bent 23	Bent 24	Bent 25	Bent 26	Bent 27	Bent 28	Bent 29	Bent 30						
E-2	LumpSum	Lump	Cofferdams, cribs and sheeting																																							
E-2	1600	Cu.yd.	Unclassified excavation		49	49		37	37	37	60	57	54	40	62	43	43	53	73	73	51	53	68	68	89	42	64	58	32	31	34	39	41	39	39		85	Lump	±320	1920		
S-1	3970	Cu.yd.	Class "C" concrete, superstructure and bent caps	3970																																						
S-1	460	Cu.yd.	Class "C" concrete, bent columns					13.8	14.0	14.1	19.1	14.7	14.7	13.8	18.7	14.2	14.2	14.3	19.2	19.3	14.6	14.6	19.5	19.5	16.0	15.7	17.1	23.3	17.2	17.2	17.1	17.0	16.0	15.8	15.3							
S-1	142	Cu.yd.	Class "E" concrete, abutments & collision walls		47	50																																				
S-1	433	Cu.yd.	Class "E" concrete, footings					13.7	11.0	11.0	16.1	15.0	13.7	15.0	18.5	11.3	11.3	15.0	18.5	18.5	13.7	15.0	16.1	16.1	15.0	13.7	15.0	16.1	11.3	11.0	11.0	13.7	13.7	13.7	13.7							
S-3	5106	Sq.yd.	Type "C" waterproofing	5106																																						
S-4	4,977,324	Lbs.	Reinforcing steel	889,333	4333	4845		4530	8254	8269	6628	5005	4932	4839	6954	8004	8020	5438	6755	6520	4885	5263	9422	9422	5622	5130	5584	7310	5135	6344	6344	5268	5226	5019	4883		2263	1470	±3130	1,080,454		
S-7	6,800	Lbs.	Blast plates (Including all painting)	6,800																																						
S-7	24,400	Lbs.	Structural steel expansion jts., scuppers (incl. all painting)	24,400																																						
S-9	130	Sq.ft.	1/8" Asbestos coated with graphite			130																																				
S-9	228	Sq.ft.	1/2" Premolded expansion joint filler		10	8		7	7	7	9	7	7	7	9	7	7	7	9	9	7	7	9	9	7	7	7	9	7	7	7	7	7	7	7							
S-9	47	Sq.ft.	1" Premolded expansion joint filler		47																																					
S-14	1733	Lin.ft.	Railing (Steel with steel posts)	1733																																						
S-16	LumpSum	Lump	First test pile (12" or 14")																																							
S-17	LumpSum	Lump	First pile test load (12" cast-in-place)																																							
S-17	1	Each	Subsequent pile test load (12" cast-in-place)																																							
S-18	18,760	Lin.ft.	Reinforced concrete piling, 12" cast-in-place		210	210		490	490	490	730	640	660	730	500	500	660	820	810	680	710	810	810	690	710	760	840	590	550	550	630	630	630	630		490						
S-18	960	Lin.ft.	Reinforced concrete piling, 14" cast-in-place				490																																			
S-29	1723	Lin.ft.	Subdrainage for wearing surface course																																							
S-29	792	Lin.ft.	6" Wrought Iron pipe, including specials								27	35	41	31	28	35				53	63	78	78	61	57			27	36	44	41	30	27									
S-29	90	Cu.yd.	Porous drains																																							
T-35	352	Cu.yd.	Asphaltic concrete surface course, Type "A" or "C"	352																																						
T-10	4.6	Cu.yd.	Crushed aggregate																																							

Pencil change made Jan. 4, '54

STATE OF OHIO
 DEPARTMENT OF HIGHWAYS
 BUREAU OF BRIDGES AND RAILROAD CROSSINGS

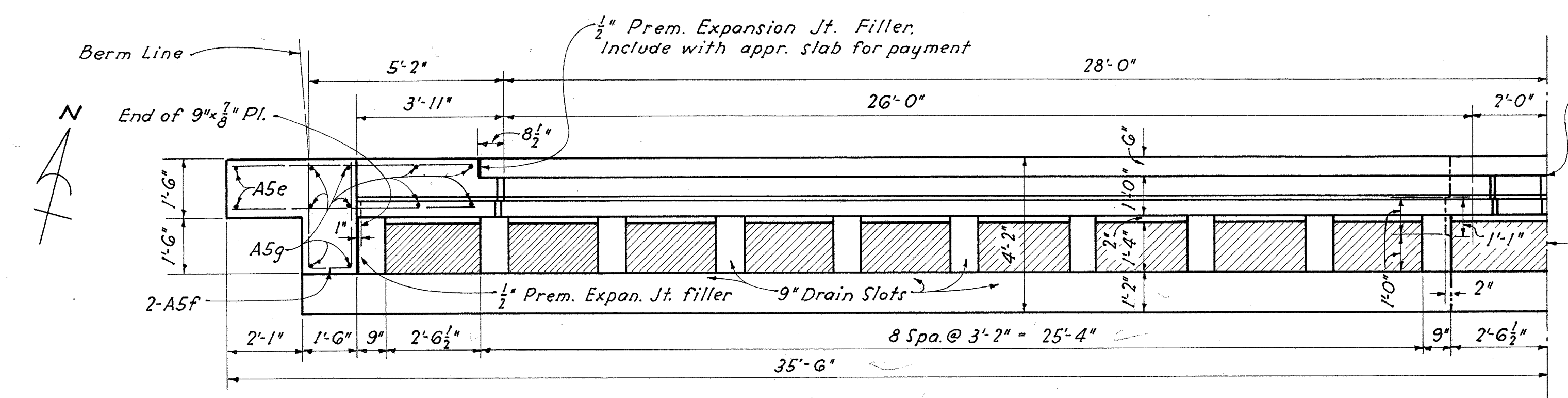
**GENERAL PLAN, ELEVATION
 AND ESTIMATED QUANTITIES
 BRIDGE NO. SC-23-54
 OVER N. & W. RY. & EXISTING U.S. 23**

SCIOTO COUNTY STA. 286+48.02
 Sec. SCI-23-4.7G DO-FG-507-B-5-B

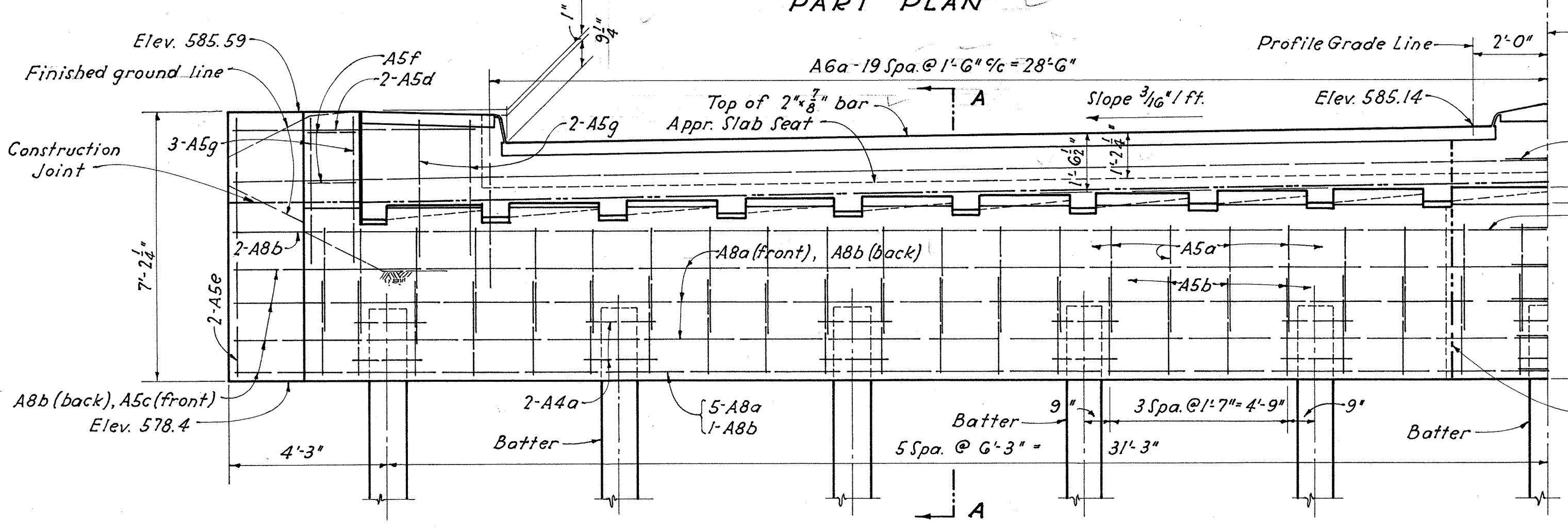
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Ray	Ray	James	Chd CFB	BFG	5-13-53	

Revised As-Built PG. 9/23/55

SCI-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B

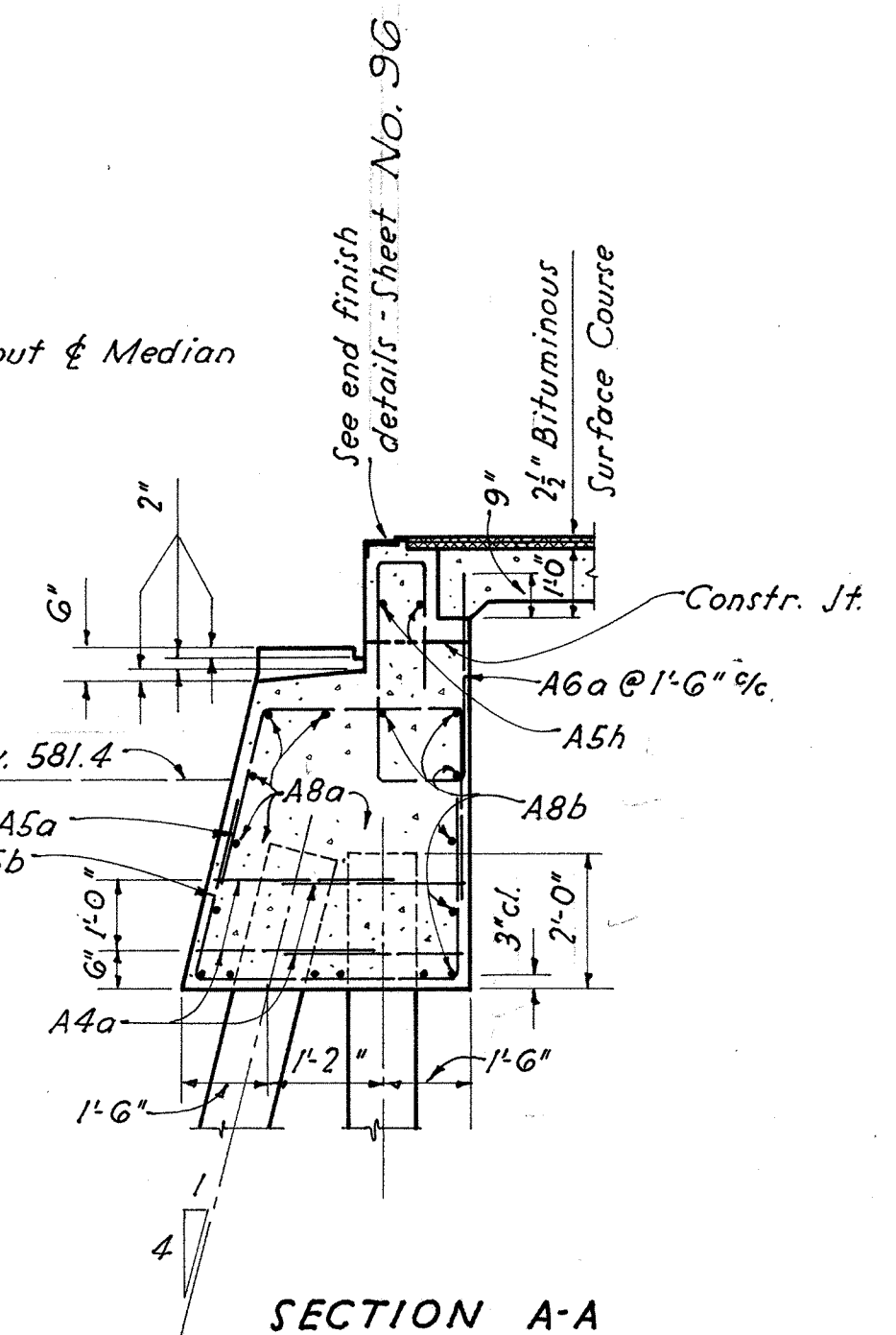


PART PLAN



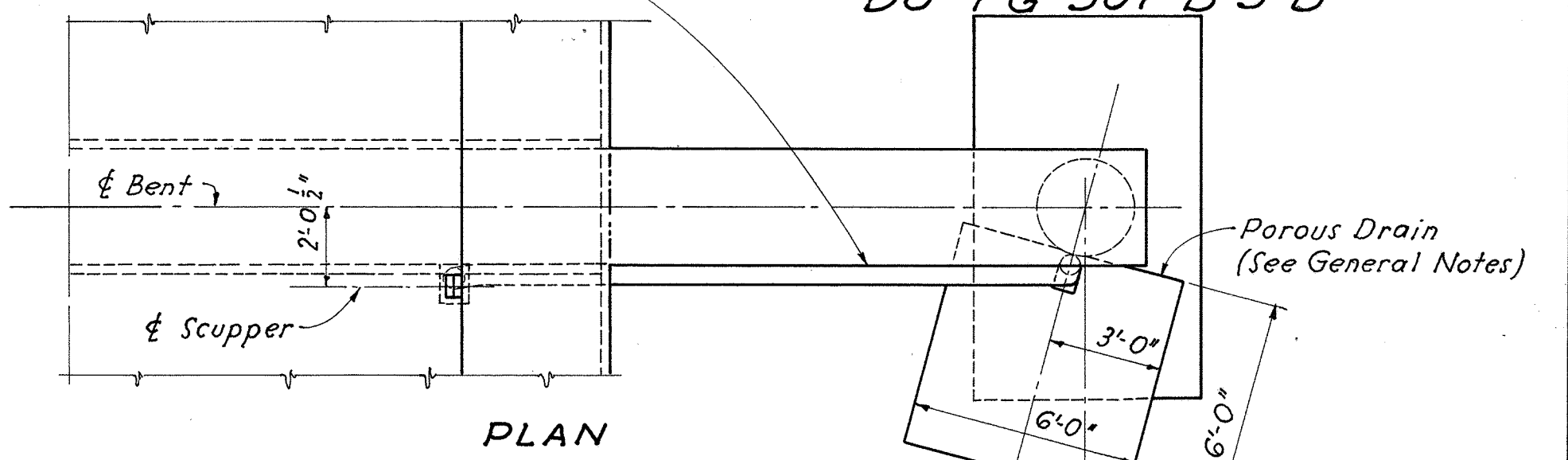
PART ELEVATION - NORTH ABUTMENT

Note: Shaded areas in plan shall be finished with a steel trowel. Particular care shall be taken to provide plane surfaces for bearing areas. Provide two layers of 1/8" sheet asbestos on bearing areas.

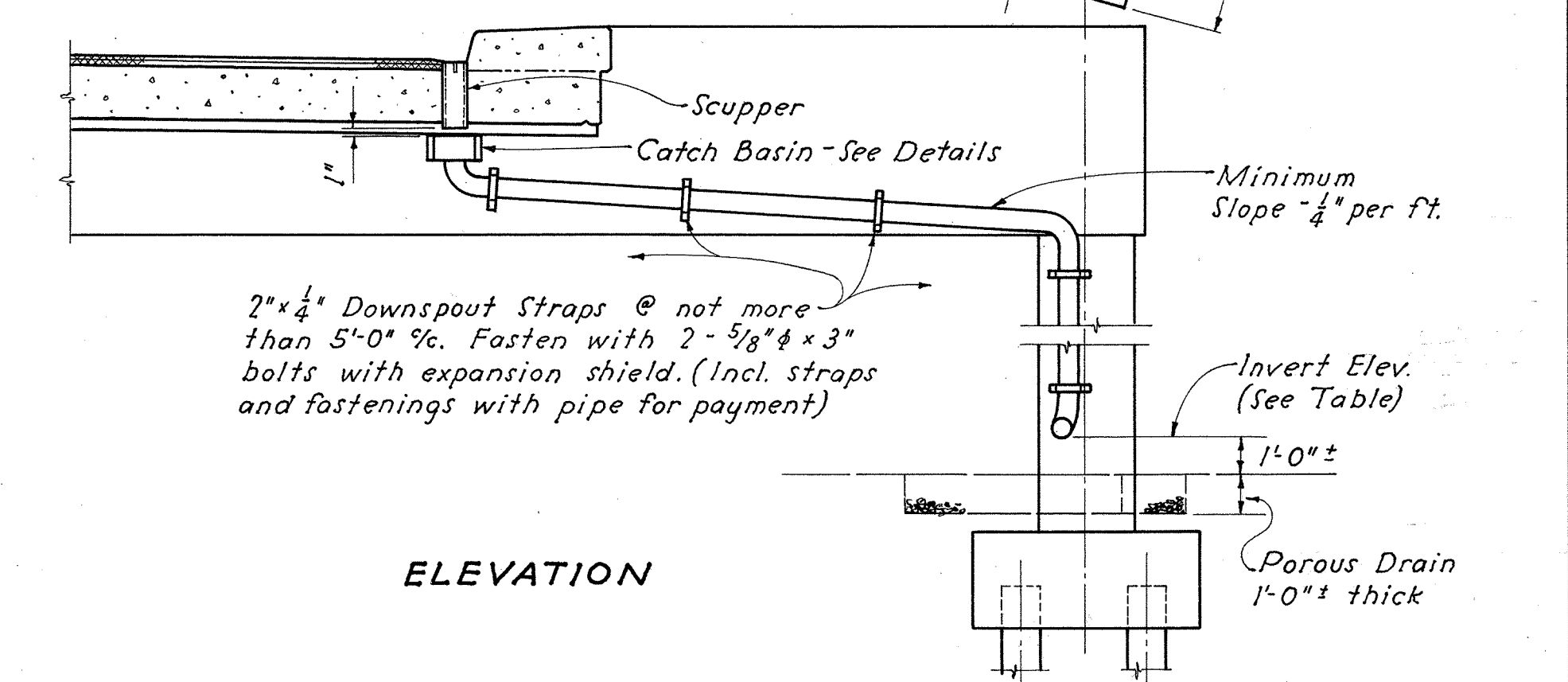


SECTION A-A

6" Wrought Iron pipe (Std.) assembled with welded joints, Victaulic couplings or approved equivalent

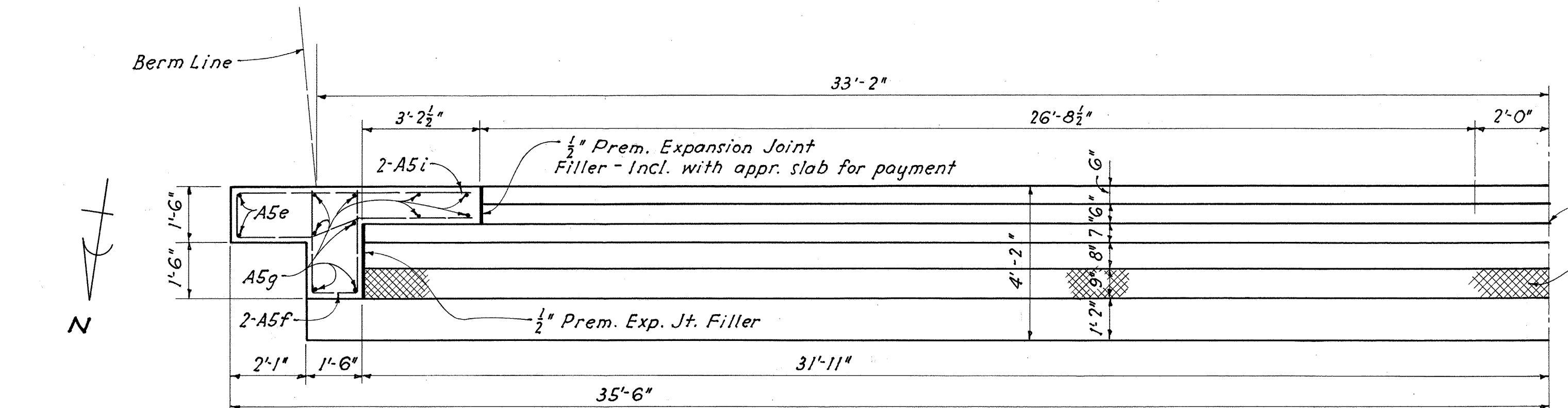


PLAN

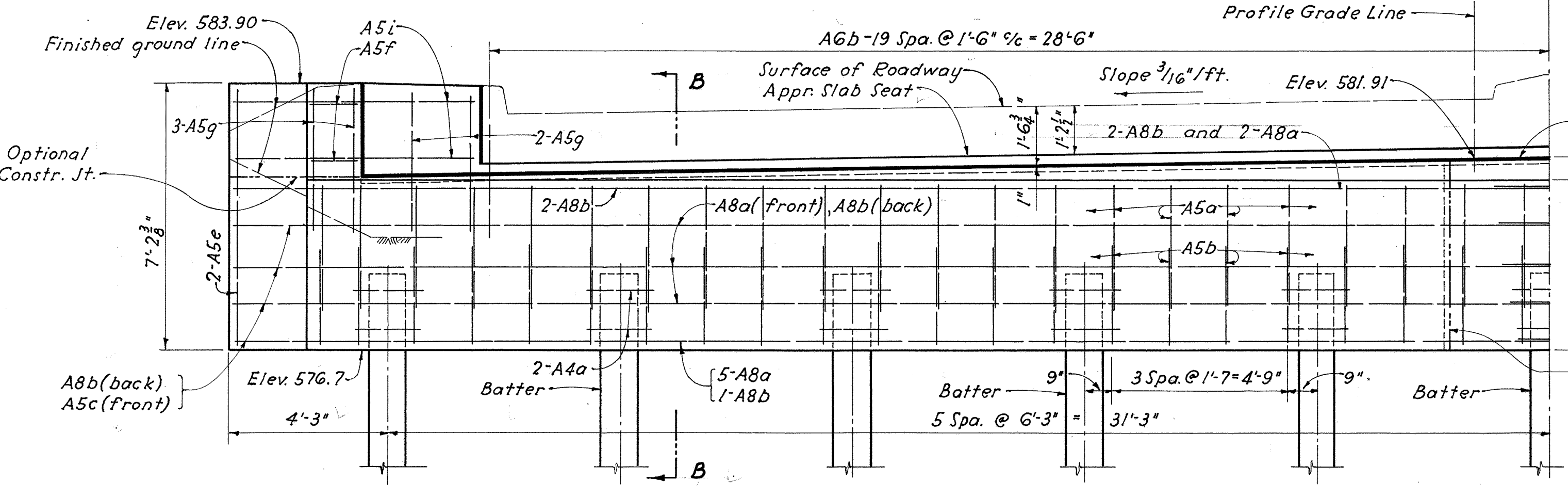


ELEVATION

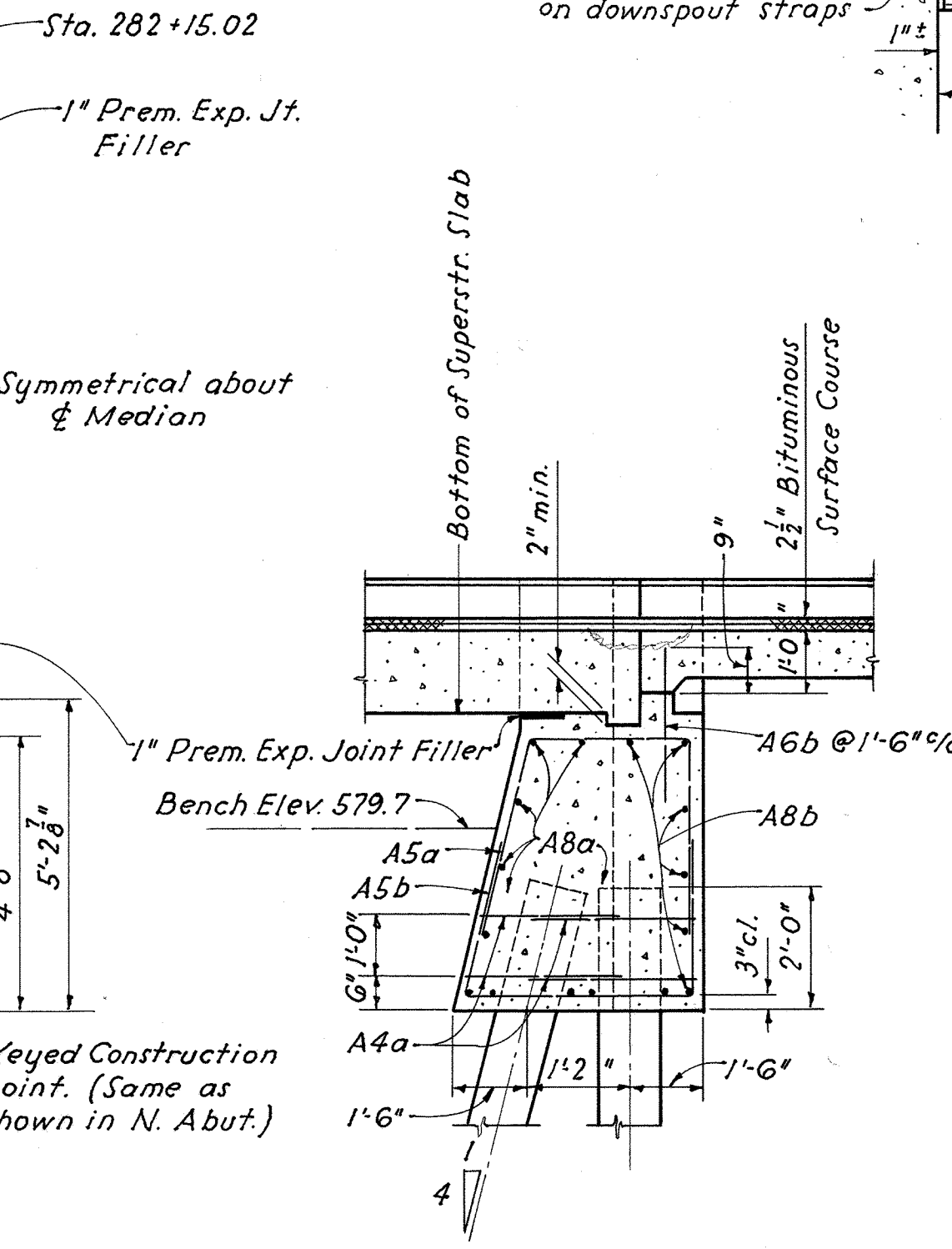
TYPICAL DOWNSPOUT ARRANGEMENT



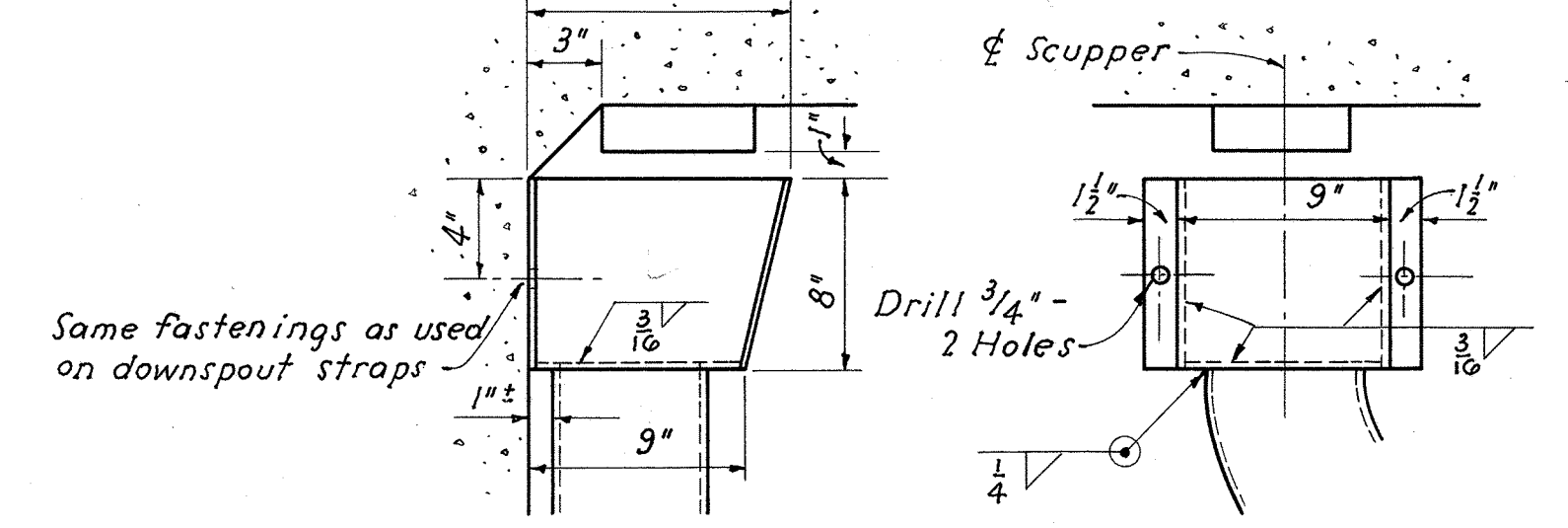
PART PLAN



PART ELEVATION - SOUTH ABUTMENT



SECTION B-B



DETAILS OF CATCH BASIN

DOWNSPOUT SCHEDULE		
Bent	West Gutter	East Gutter
4	559.0, 1, S*	None
5	559.0, 2, S	None
6	559.0, 1, S	None
7	559.0, 1, S	None
8	559.0, 1, S	None
9	559.0, 2, S	None
10	None	None
11	559.0, 1, S	561.0, 3, S
12	559.0, 1, S	561.0, 3, S
13	561.0, 2, S	561.0, 4, S
14	559.0, 1, S	561.0, 3, S
15	559.0, 1, S	561.0, 3, S
16	559.0, 1, S	561.0, 3, S
17	None	None
18	None	None
19	None	558.5, 3, N
20	None	558.5, 3, N
21	None	558.5, 3, N
22	None	556.0, 3, N
23	None	558.5, 3, N
24	None	559.0, 3, N

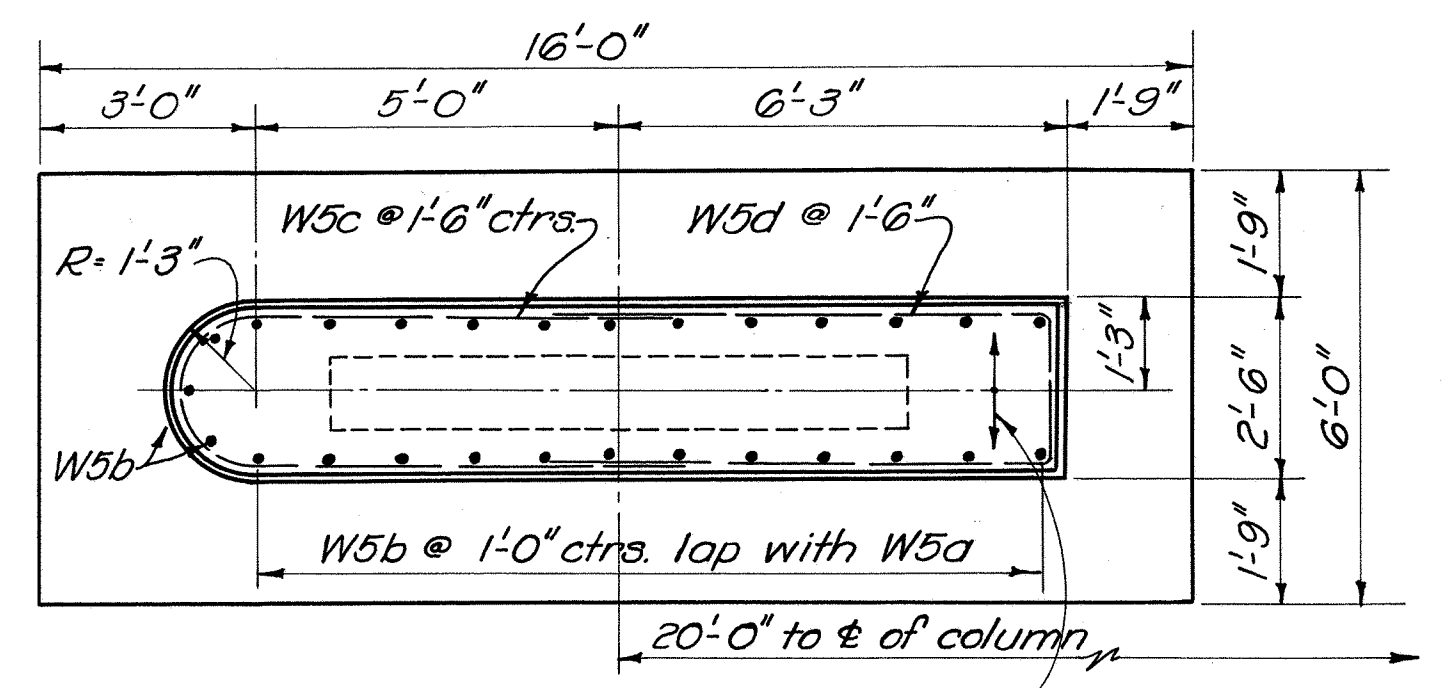
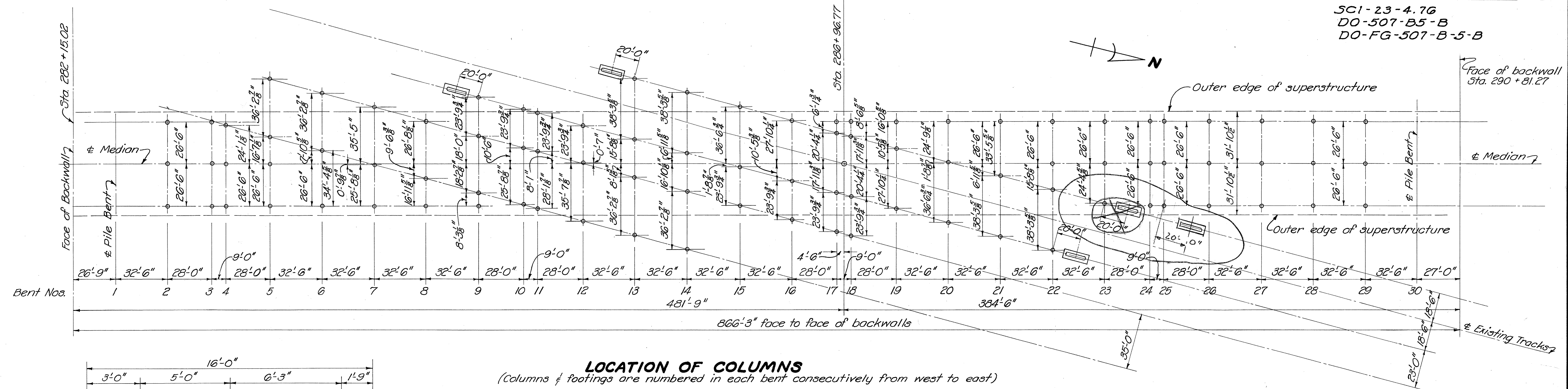
*Key: First no. is invert elev. second no. is column on which downspout is mounted. Columns are numbered in each bent consecutively from West to East and the letter indicates the side of col. on which downspout is fastened. N is north; and S is south.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

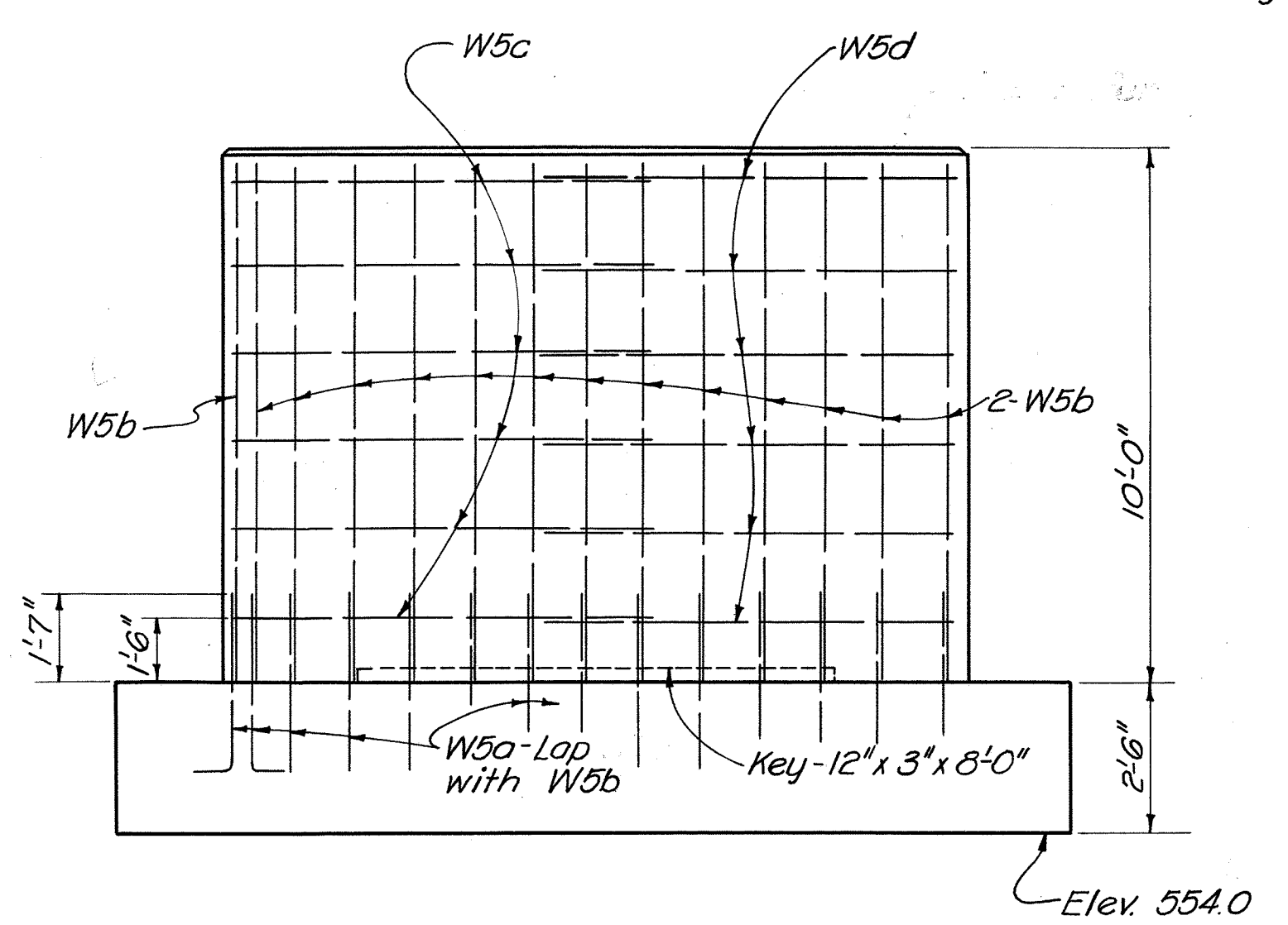
ABUTMENT AND DOWNSPOUT DETAILS
BRIDGE NO. SC-23-54
OVER N. & W. RY. & EXISTING U.S. 23
SCIOTO COUNTY DO-FG-507-B-5-B
SEC. SCI-23-4.76 STA. 286+48.02

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Ray	Roy	Ray	CFB	WAC	5-13-55	

SCI-23-4.7G
DO-507-B5-B
DO-FG-507-B-5-B



PLAN



ELEVATION COLLISION WALL

(See plan location of columns above for location)

LOCATION OF COLUMNS
(Columns & footings are numbered in each bent consecutively from west to east)

REFERENCE shall be made to Standard Drawing P-1-49, dated 7-27-49.

MAINTENANCE OF TRAFFIC: The Contractor shall plan and conduct construction operations so as to provide a 20'-0" roadway for maintenance of 2 lanes of traffic at all times on existing U.S. 23. A minimum vertical clearance of 13'-6" above the roadway surface shall be maintained for both traffic lanes, and the Contractor shall safeguard the traveling public on U.S. 23 by providing platforms, nets or other suitable protection above the traveled lanes.

RAILROAD CLEARANCES DURING CONSTRUCTION: The Contractor shall provide and maintain at all times a vertical clearance of 19 ft. from top of rails and a horizontal clearance of 8 ft. from the centerline of the existing tracks.

SHEETING & BRACING: Before construction is begun, plans of sheeting and bracing to be used adjacent to tracks for pier footing excavation, shall be submitted to the Director of Highways for approval by the Department of Highways and N. & W. Ry. Co.

SPECIAL PROVISION is hereby made as follows: After the Contractor has completed all excavation and backfill adjacent to the tracks in compliance with Sections E-2.04 and 2.05 of the Construction and Material Specifications and subject to the supervision of the railway company, nothing in Sections E-2.04, E-2.07 or G-8.07 shall be construed to hold the Contractor liable for aligning and re-surfacing the tracks.

PILING shall be 14" cast-in-place reinforced concrete for Bents 1 and 30, and 12" cast-in-place reinforced concrete for all of the other bents and for the abutments. The piles for Bents 1 and 30 shall be governed by Standard Drawing P-1-49 except that the encasement shall extend 2'-0" above and 2'-6" below the ground line. The piles shall be driven to a minimum bearing capacity of 25 tons for the abutment piles and 35 tons for the piles in the bents.

PILE PENETRATION AT C.I. PIPE: Before construction is begun, the Contractor's proposed method of driving piles down through the position of the abandoned 4 ft. cast iron pipe below the middle footing of Bent No. 20 shall be submitted to the Director of Highways for approval by the Department of Highways and N. & W. Ry. Co.

GENERAL NOTES

PILE TEST LOADS: The first pile test load shall be applied on a pile in one of the bents, where directed by the Engineer. A subsequent test load shall be applied if and where directed by the Engineer. The Engineer may direct the subsequent load to be applied on the same pile as the first or on another pile in the same footing or in a different footing. The maximum amount of load required shall be equal to 3R unless the "yield point" is reached at a lesser tonnage.

EXCAVATION QUANTITY includes the removal of fill material between top of earth bench and bottom of abutment crossbeam and the removal of fill material between El. 550.0 and the bottom of bent footings set in fill.

WELDING of structural steel shall be Class "A" except as otherwise shown. Any welds shown as field welds may, at the option of the Contractor, be made in the shop.

PAINTING, both shop and field, shall be according to Item 3-8 except that the paint shall be applied by brushing. Spray application will not be permitted.

CONSTRUCTION JOINTS IN SUPERSTRUCTURE SLAB: Transverse construction joints shall be placed near the center of spans except that no construction joint shall be placed in the end spans of the units.

SURFACE FINISH OF CONCRETE: Curb faces and fascias of deck shall be given a rubbed surface finish. All other exposed surfaces shall be governed by the provisions of Item 5-1.

REINFORCING STEEL COVER: All main reinforcing steel shall be 2" clear from the surface of the concrete except main steel in the bent caps which span the railroad tracks shall have a vertical clearance of 3", and except where clearance is otherwise indicated. Vertical clearance between layers of bars in bent caps shall be 2".

2 1/2" ASPHALTIC CONCRETE SURFACE COURSE, Item T-35, laid in two 1 1/4" courses, shall be provided.

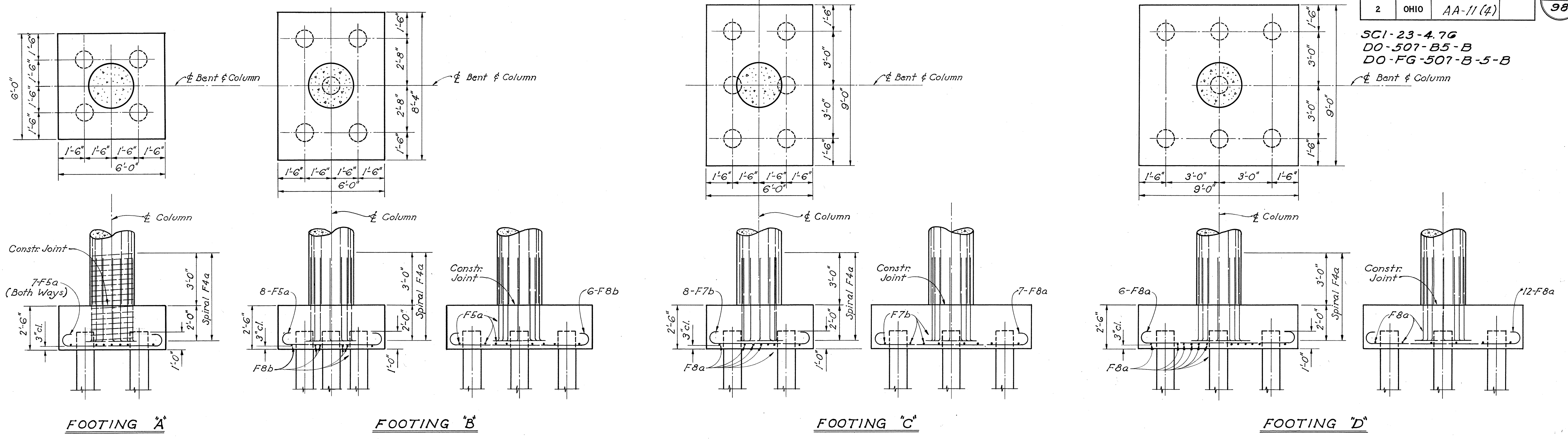
CAPPED PILE ABUTMENTS: All earth fill around the abutments shall be made full height of earth bench. Excavation shall then be made for abutment cap, after which piling shall be driven.

POROUS DRAINS, extending from face of abutment down to Elev. 553.0 ± at northwest corner and to Elev. 550.0 ± at other three corners shall be placed on and flush with embankment slopes. The drains shall be 8 ft. wide at the low end, tapering to 5 ft. wide at face of abutment, and 1 ft. thick. They shall be centered under the scuppers, and be composed of No. 1 or No. 12 gravel, stone or slag. Construction procedure shall conform essentially to Item I-9. Trench excavation shall be included for payment with the price per cu. yd. bid for "porous drains". The above provisions regarding material and payment shall also apply to porous drains which are to be placed under all downspouts.

Penciled changes made Jan. 4, '54 & Jan. 8, '54

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES AND RAILROAD CROSSINGS						
COLUMN LOCATIONS, COLLISION WALL DETAILS & GENERAL NOTES						
BRIDGE No. SC-23-54						
OVER N. & W. RY. & EXISTING U.S. 23						
SCIOTO COUNTY DO-FG-507-B-5-B						
SEC. SCI-23-4.7G STA. 286+48.02						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Jew	Jew	NEY	CD	WHR	5-12-53	

SCI-23-4.7G
DO-507-B5-B
DO-FG-507-B-5-B
Bent & Column

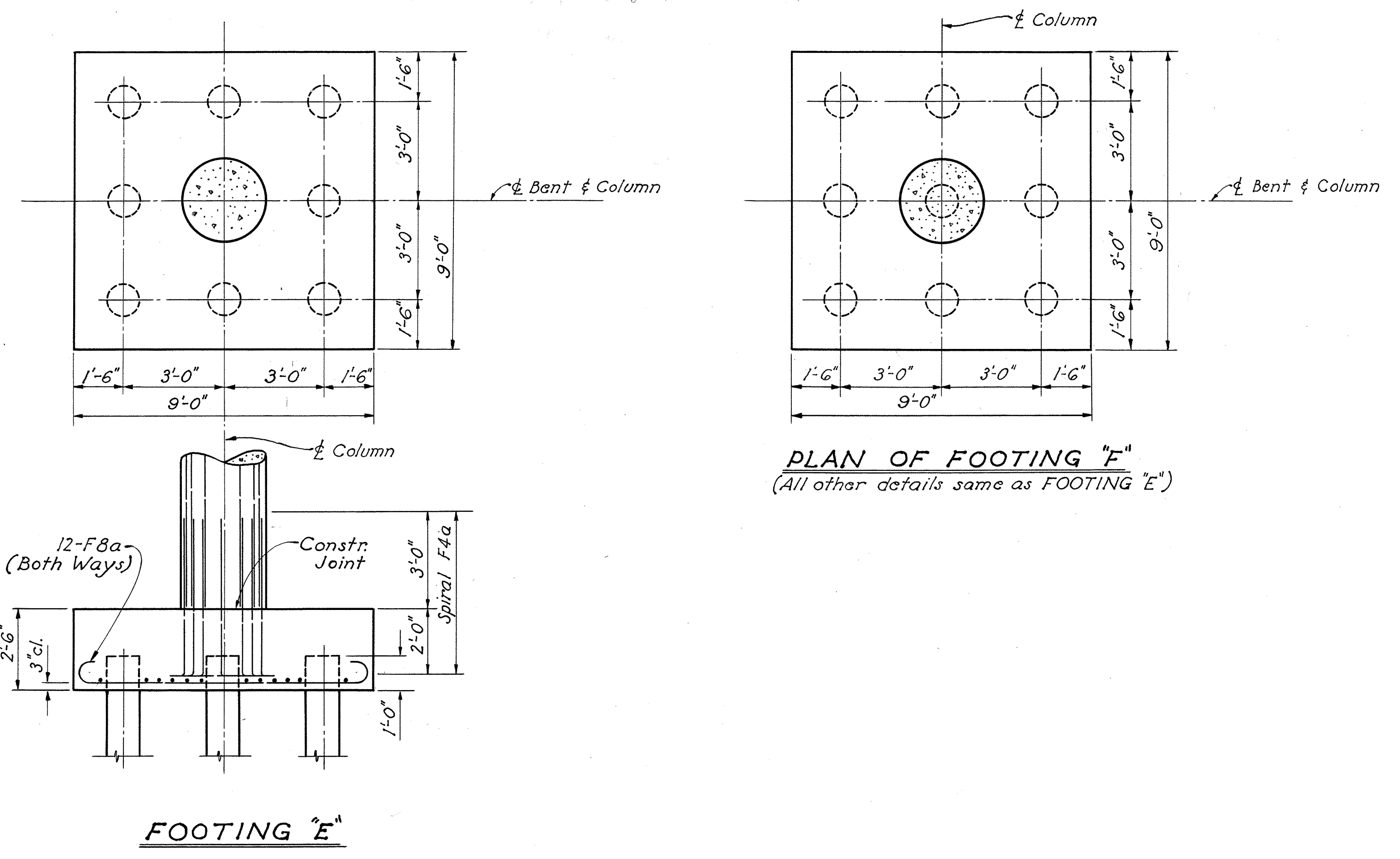


FOOTING A

FOOTING B

FOOTING C

FOOTING D



FOOTING E

PLAN OF FOOTING "F"
(All other details same as FOOTING "E")

ESTIMATED AVERAGE LENGTHS OF PILES

Substructure Unit	Footing Number			
	1	2	3	4
South Abutment	19'			
Bent 1	41'			
Bent 2	32'	33'	33'	
Bent 3	35'	38'	41'	
Bent 4	35'	38'	41'	
Bent 5	36'	36'	36'	38'
Bent 6	36'	36'	35'	
Bent 7	38'	36'	32'	
Bent 8	39'	37'	34'	
Bent 9	40'	39'	30'	30'
Bent 10	40'	39'	26'	
Bent 11	40'	39'	26'	
Bent 12	40'	40'	25'	
Bent 13	41'	40'	40'	24'
Bent 14	41'	40'	39'	24'
Bent 15	42'	39'	39'	
Bent 16	42'	39'	38'	
Bent 17	42'	42'	39'	38'
Bent 18	42'	42'	39'	38'
Bent 19	42'	41'	39'	
Bent 20	42'	42'	42'	
Bent 21	42'	42'	42'	
Bent 22	42'	42'	42'	42'
Bent 23	42'	42'	42'	
Bent 24	42'	42'	42'	
Bent 25	42'	42'	42'	
Bent 26	42'	42'	42'	
Bent 27	42'	42'	42'	
Bent 28	42'	42'	42'	
Bent 29	42'	42'	42'	
Bent 30	41'			
North Abutment	19'			

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

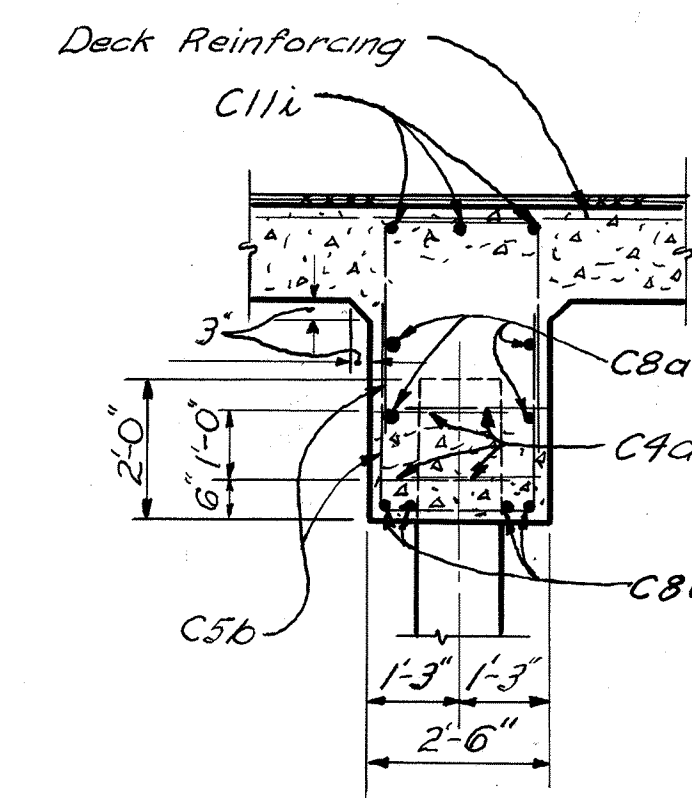
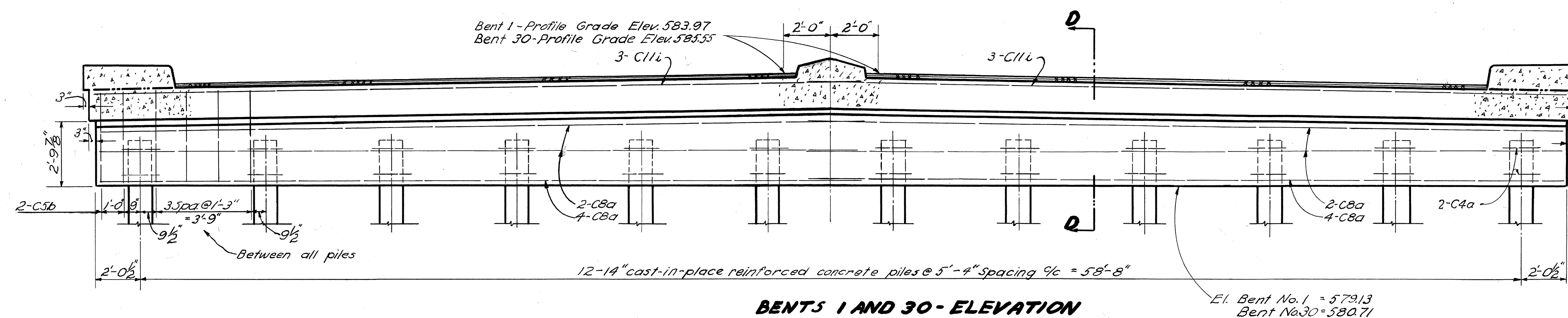
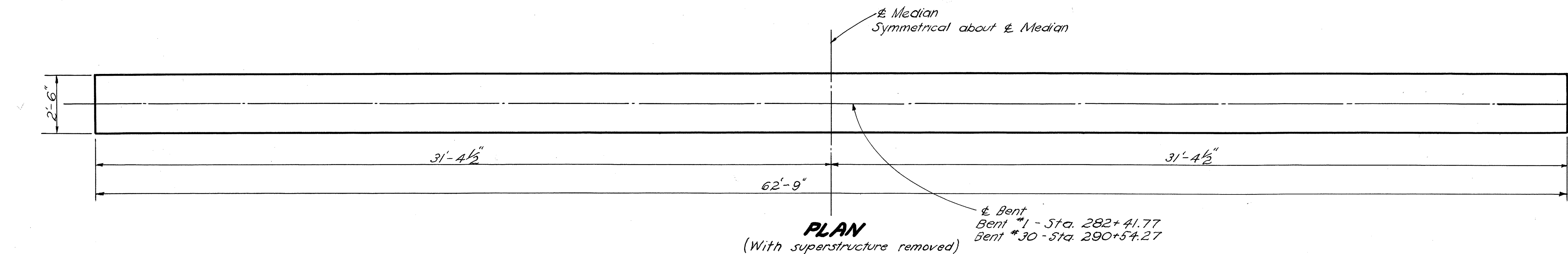
**FOOTING DETAILS AND
PILING DATA**
BRIDGE NO. SC-23-54
OVER N&W RY. AND EXISTING U.S. 23
SCIOTO COUNTY DO-FG-507-B-5-B
SEC. SCI-23-4.7G STA. 286+4.02

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Ray	Ray	D.H.S.	B.D.	BFG	5-23-53	

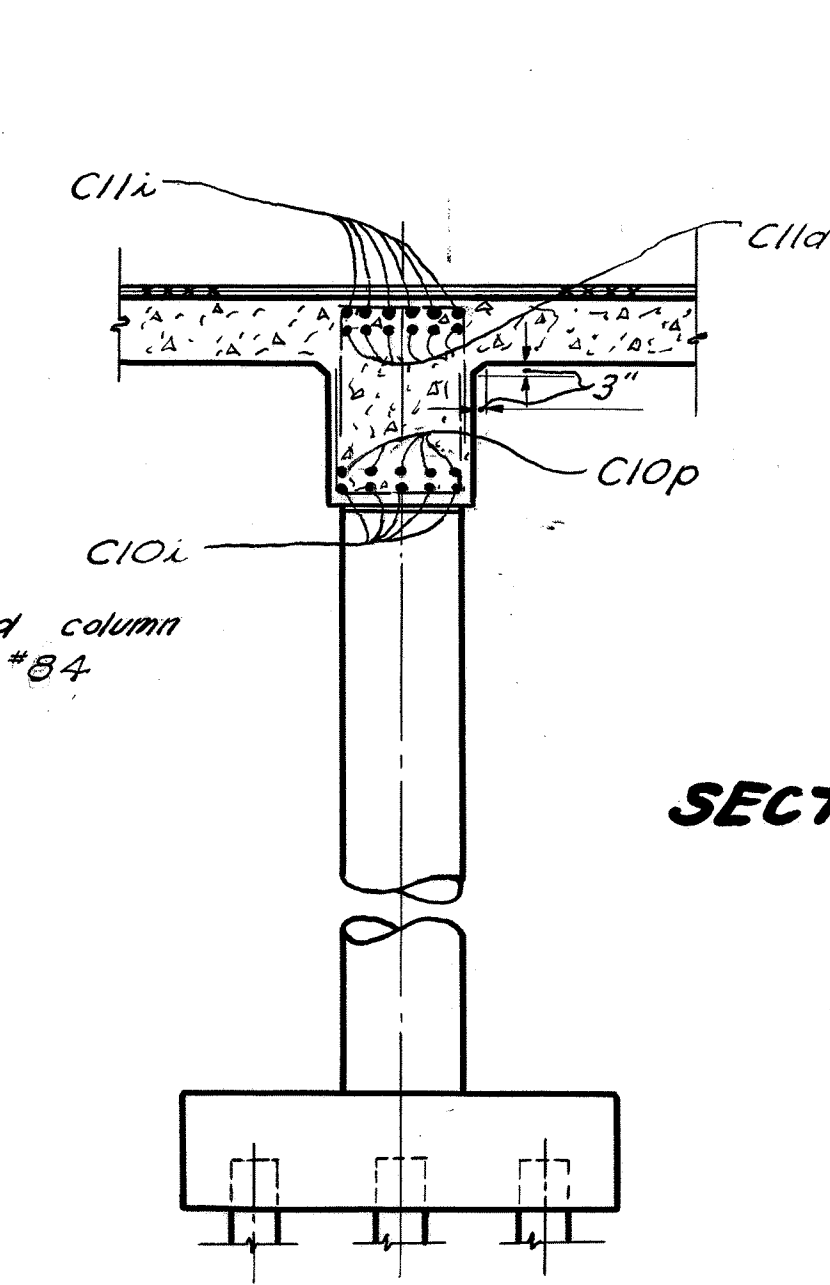
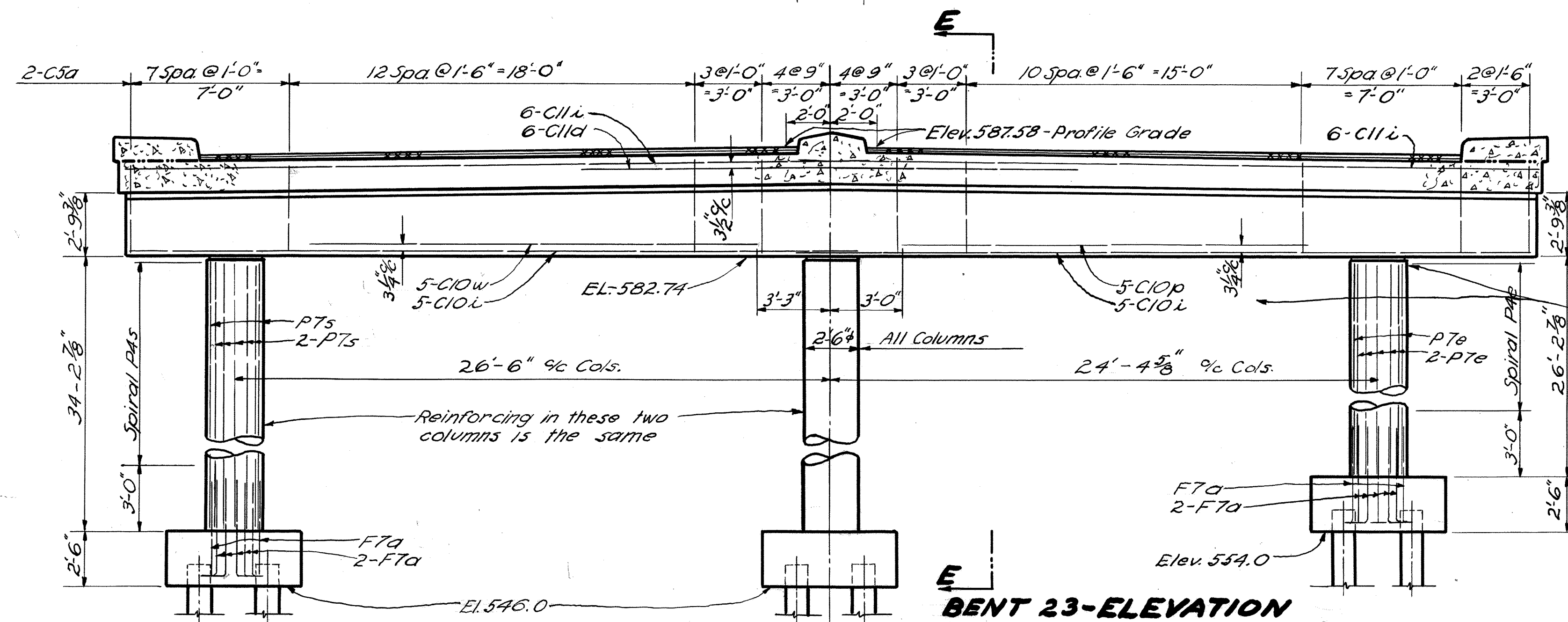
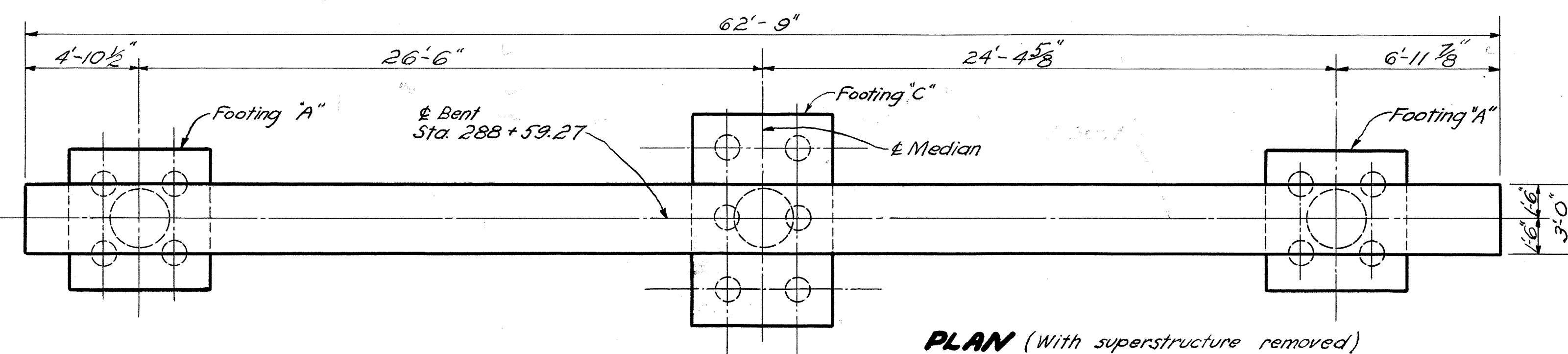
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	AA-11(4)	

83
98

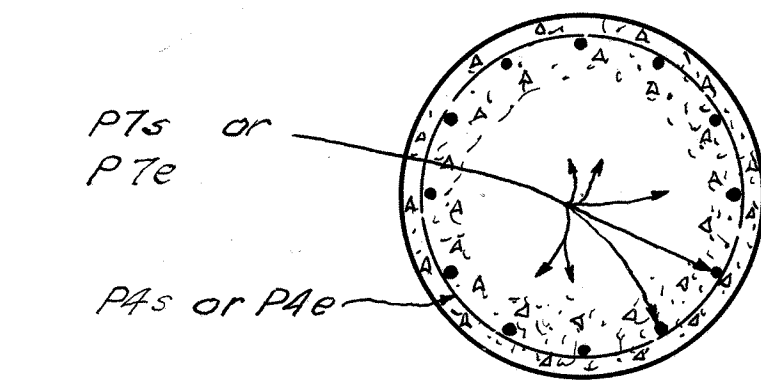
SCI-23-4.7G
DO-507-B5-B
DO-FG-507-B-5-B



SECTION D-D



SECTION E-E



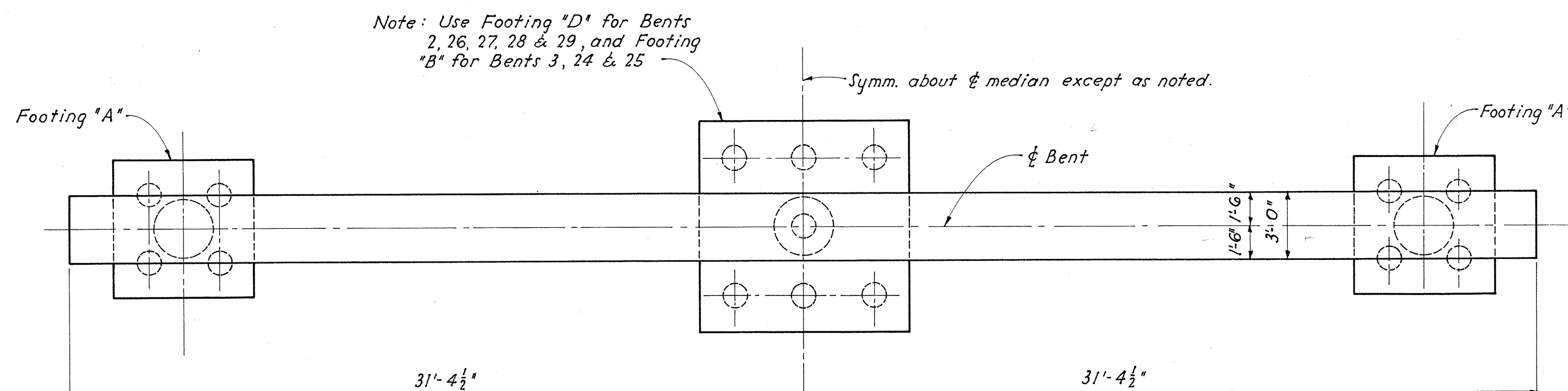
SECTION THRU COLUMNS

For FOOTING DETAILS see sheet 82.

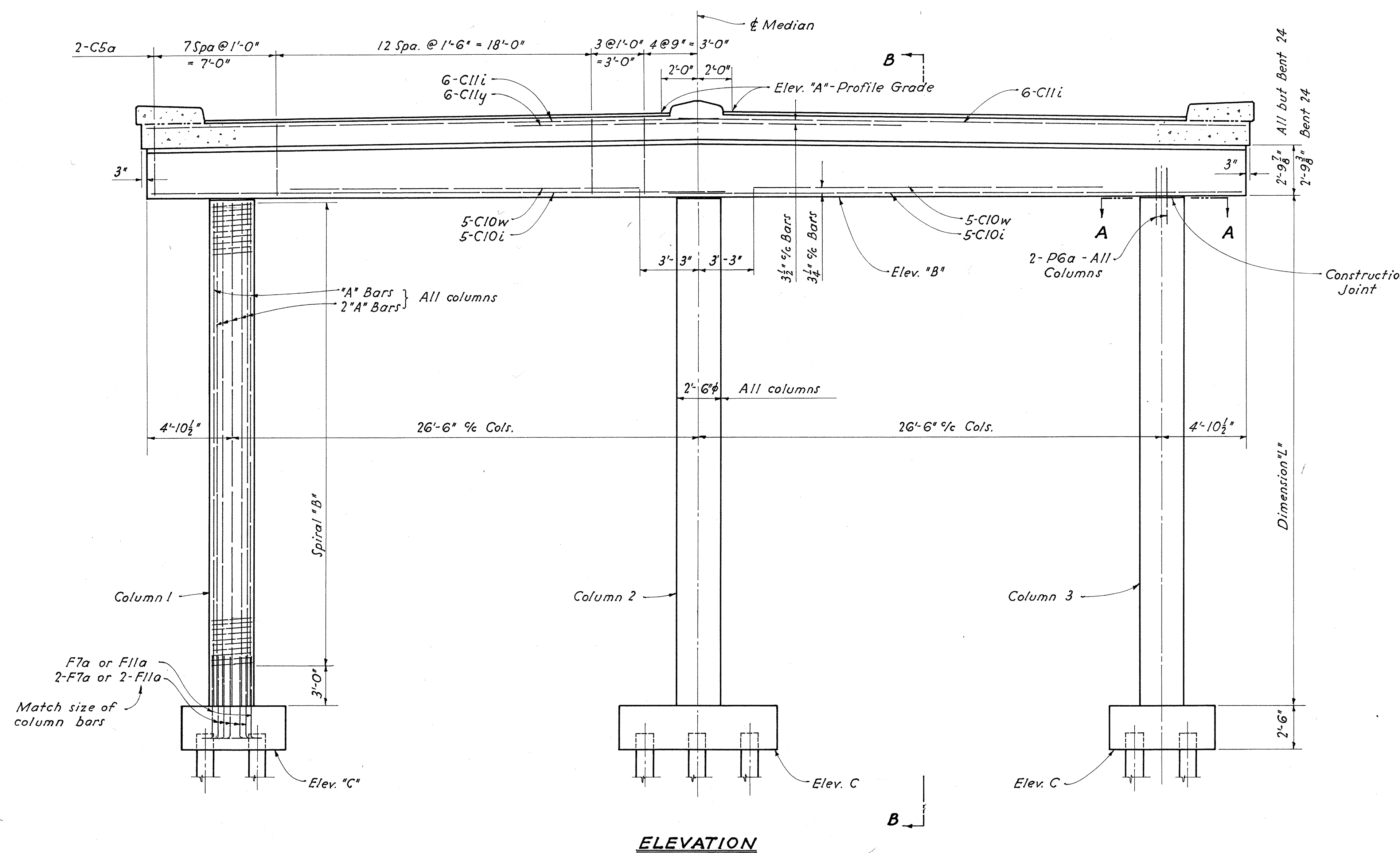
STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES AND RAILROAD CROSSINGS						
BENTS 1, 30 AND 23						
BRIDGE NO. SC-23-54 OVER N.W. RY. & EXISTING U.S. 23 SCIOTO COUNTY DO-FG-507-B-5-B SEC. SCI-23-4.7G STA-286+48.02						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Ray	JEM	LJE	BFB	WHR	5-13-55	

SCI-23-4.7G
DO-507-B5-B
DO-FG-507-B-5-B

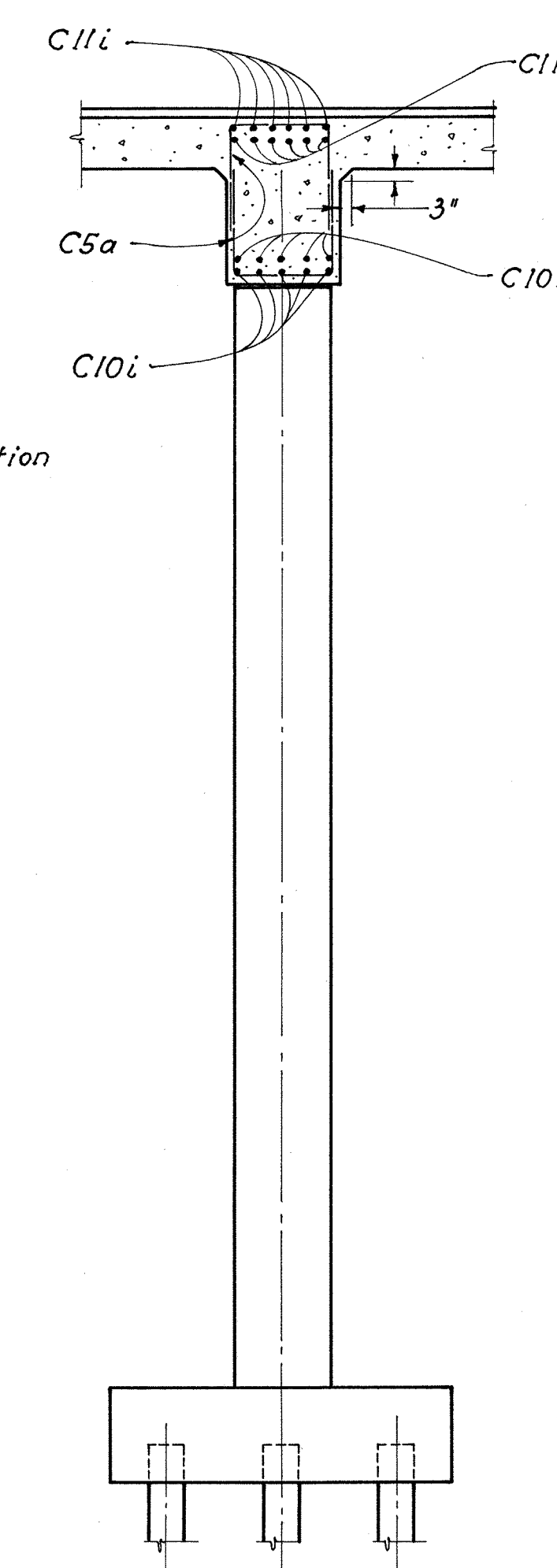
BENT NO	DIMENSION "L"			ELEVATIONS			Station @ Bent
	Column No.			"A"	"B"	"C" - Column No.	
	1	2	3	1	2	3	
2	25'-2 $\frac{3}{8}$ "	25'-2 $\frac{3}{8}$ "	25'-2 $\frac{3}{8}$ "	584.54	579.70	552.00 552.00 552.00	282 + 74.27
3	25'-7 $\frac{7}{8}$ "	25'-7 $\frac{7}{8}$ "	25'-7 $\frac{7}{8}$ "	585.00	580.16	552.00 552.00 552.00	283 + 02.27
24	34'-0 $\frac{1}{2}$ "	34'-0 $\frac{1}{2}$ "	26'-0 $\frac{1}{2}$ "	587.38	582.54	546.00 546.00 554.00	288 + 87.27
25	33'-11 $\frac{5}{8}$ "	33'-11 $\frac{5}{8}$ "	25'-0 $\frac{3}{4}$ "	587.31	582.47	546.00 546.00 554.00	288 + 96.27
26	33'-8 $\frac{7}{8}$ "	33'-8 $\frac{7}{8}$ "	25'-8 $\frac{7}{8}$ "	587.08	582.24	546.00 546.00 554.00	289 + 24.27
27	33'-5"	29'-5"	29'-5"	586.76	581.92	546.00 550.00 554.00	289 + 56.77
28	33'-0 $\frac{3}{4}$ "	29'-0 $\frac{3}{4}$ "	25'-0 $\frac{3}{4}$ "	586.40	581.56	546.00 550.00 554.00	289 + 89.27
29	30'-7 $\frac{7}{8}$ "	26'-7 $\frac{7}{8}$ "	26'-7 $\frac{7}{8}$ "	586.00	581.16	548.00 552.00 552.00	290 + 21.77



PLAN (with superstructure removed)

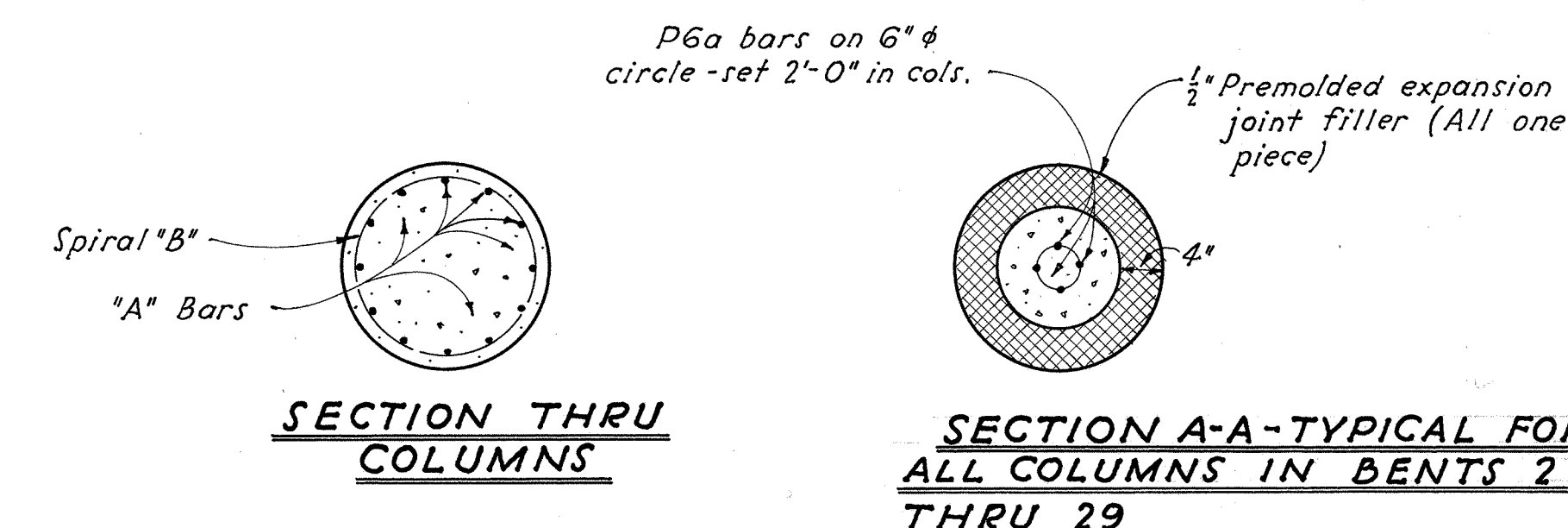


ELEVATION



SECTION B-B

BENT NO.	REINFORCING STEEL					
	"A" Bars - Column No.			Spirals "B" - Column No.		
	1	2	3	1	2	3
2	P7b	P7b	P7b	P4a	P4a	P4a
3	P11a	P11a	P11a	P4b	P4b	P4b
24	P7r	P7r	P11c	P4s	P4s	P4d
25	P7r	P7r	P11c	P4s	P4s	P4d
26	P7p	P7p	P7c	P4r	P4r	P4c
27	P7o	P7k	P7k	P4p	P4k	P4k
28	P7n	P7j	P7a	P4o	P4h	P4a
29	P7l	P7g	P7g	P4m	P4f	P4f



P6a bars on 6" ϕ circle - set 2'-0" in cols.
1/2" Premolded expansion joint filler (All one piece)

SECTION THRU COLUMNS

SECTION A-A-TYPICAL FOR ALL COLUMNS IN BENTS 2 THRU 29

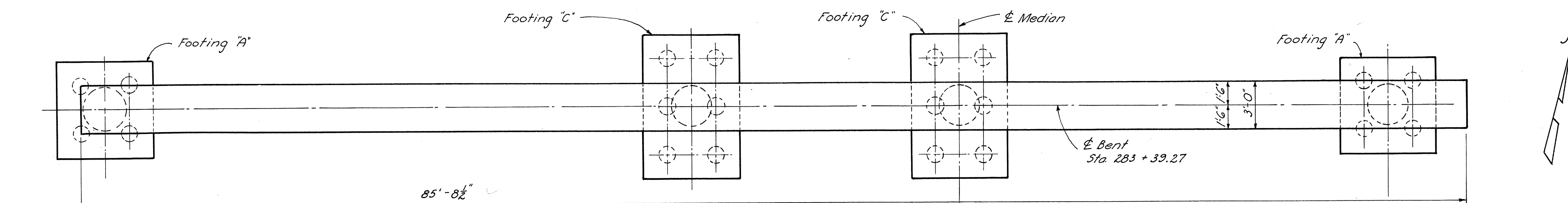
For FOOTING DETAILS see sheet 82

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES AND RAILROAD CROSSINGS						
BENTS 2, 3, 24, 25, 26, 27, 28 & 29						
BRIDGE NO. SC-23-54 OVER N. & W. RY. AND EXISTING U.S. 23						
SCIOTO COUNTY SEC. SCI-23-4.7G				DO-FG-507-B-5-B STA. 286 + 48.02		
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Ray	Ray	Ray	CFB	WNC	5-23-53	

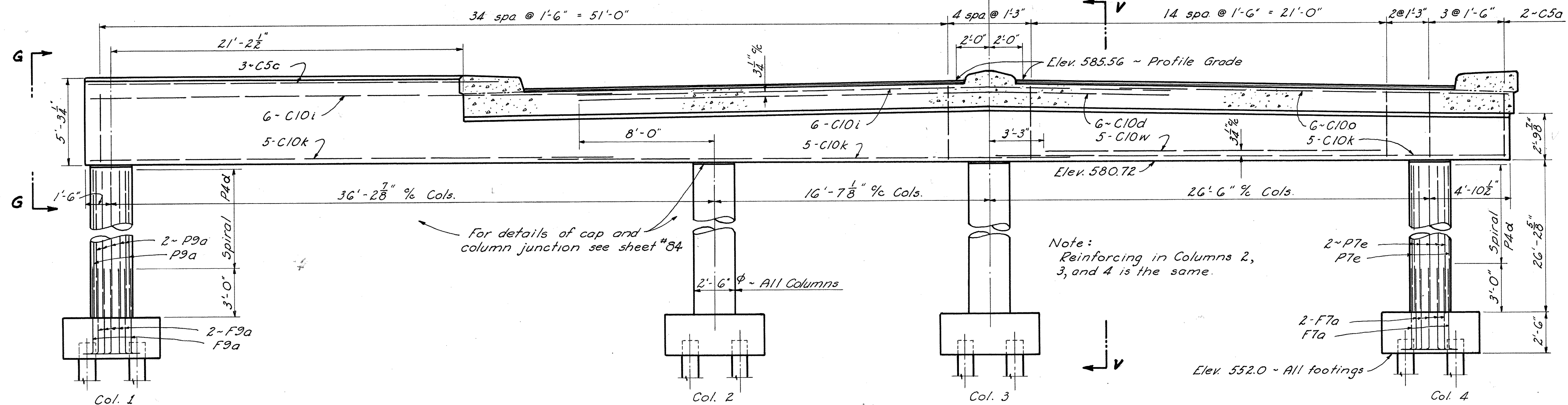
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	AA-11(A)	

86
98

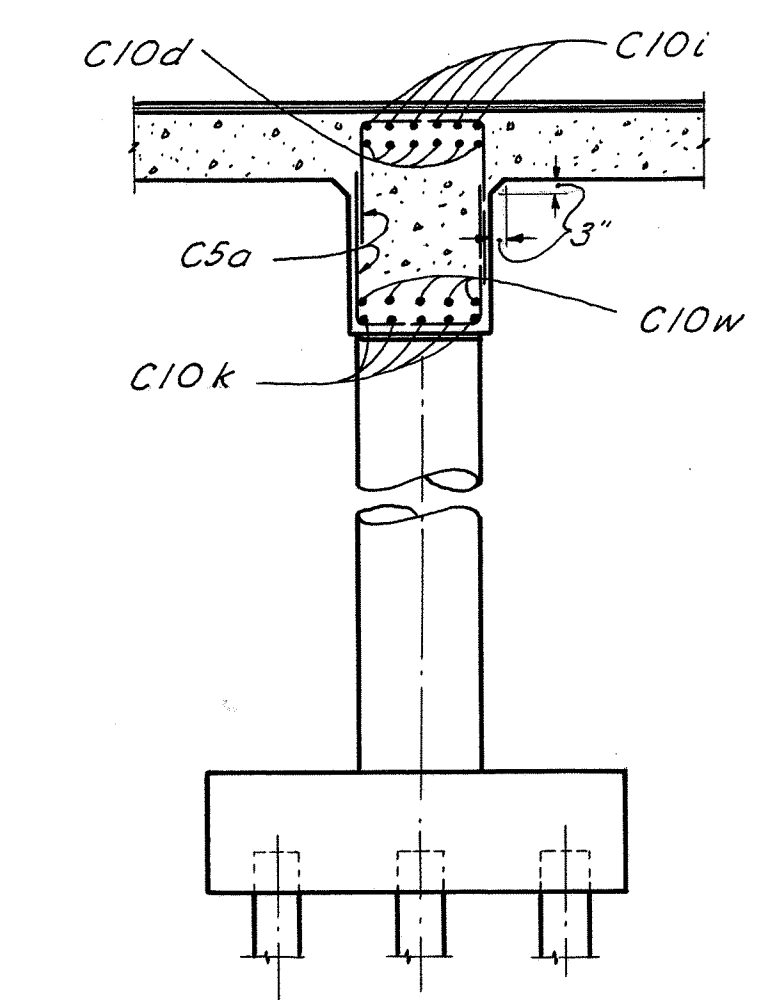
SCI-23-4.7G
DO-507-B5-B
DO-FG-507-B-5-B



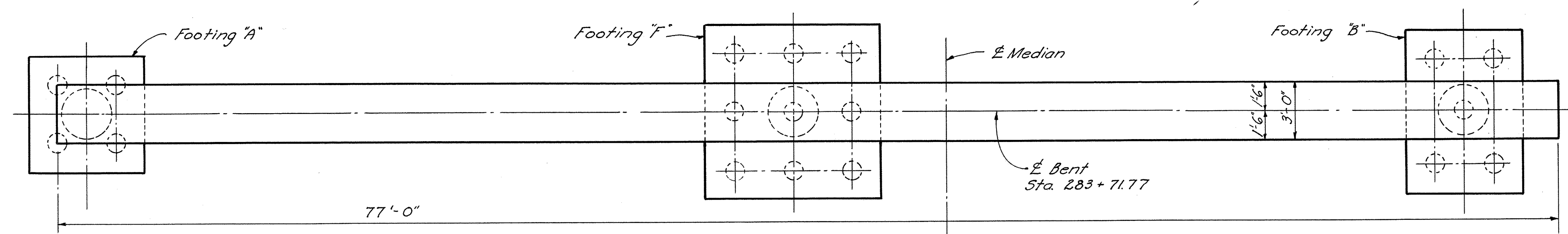
PLAN (With superstructure removed)



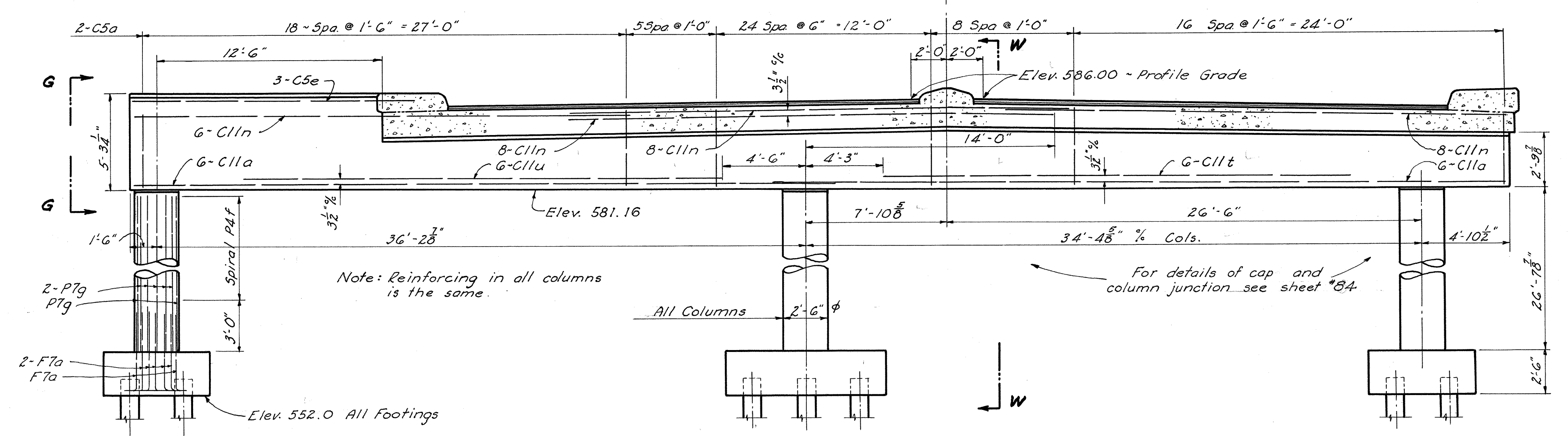
BENT 5 ELEVATION



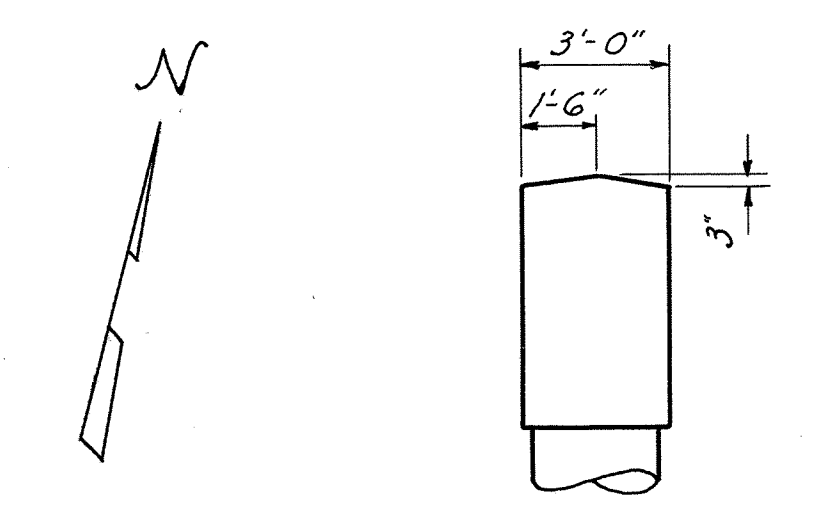
SECTION V-V



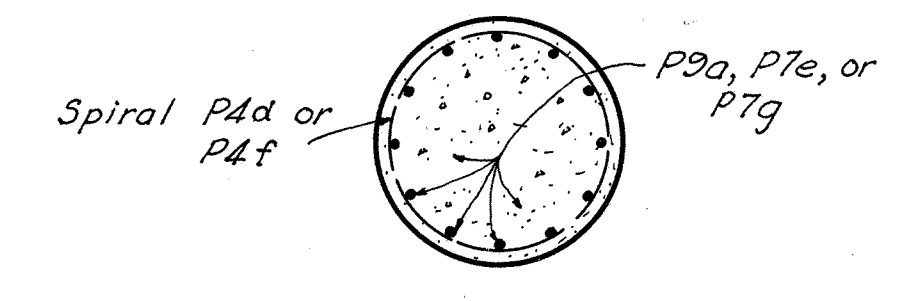
PLAN (With superstructure removed)



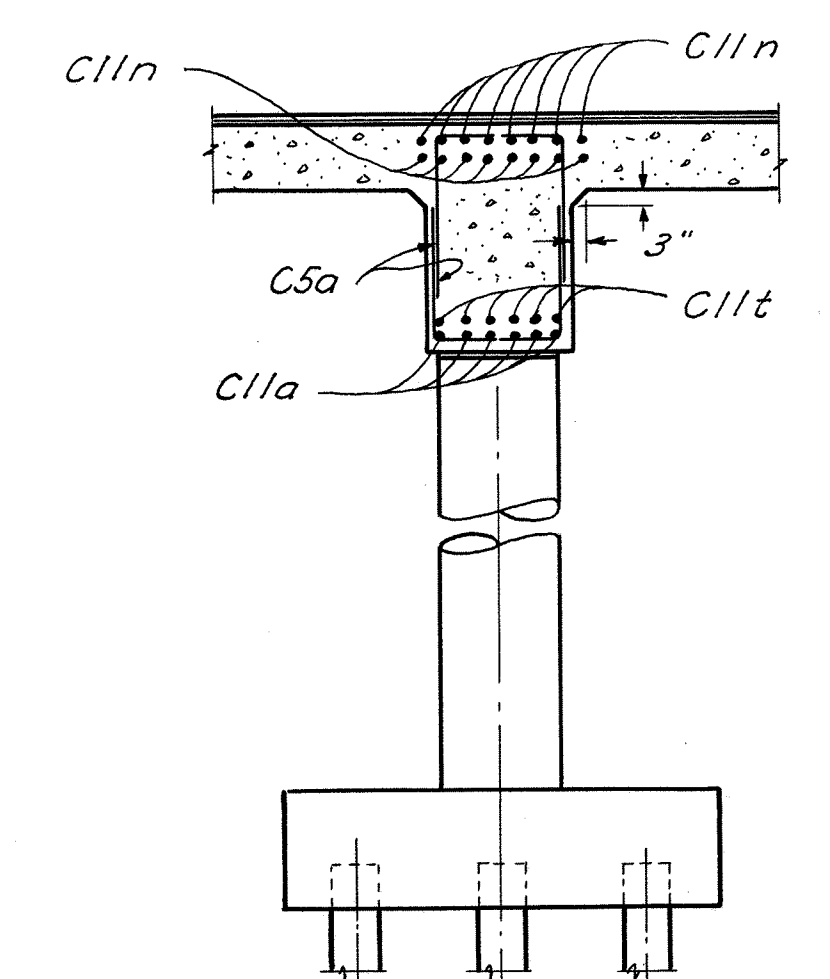
BENT 6 ELEVATION



SECTION G-G



SECTION THRU COLUMNS



SECTION W-W

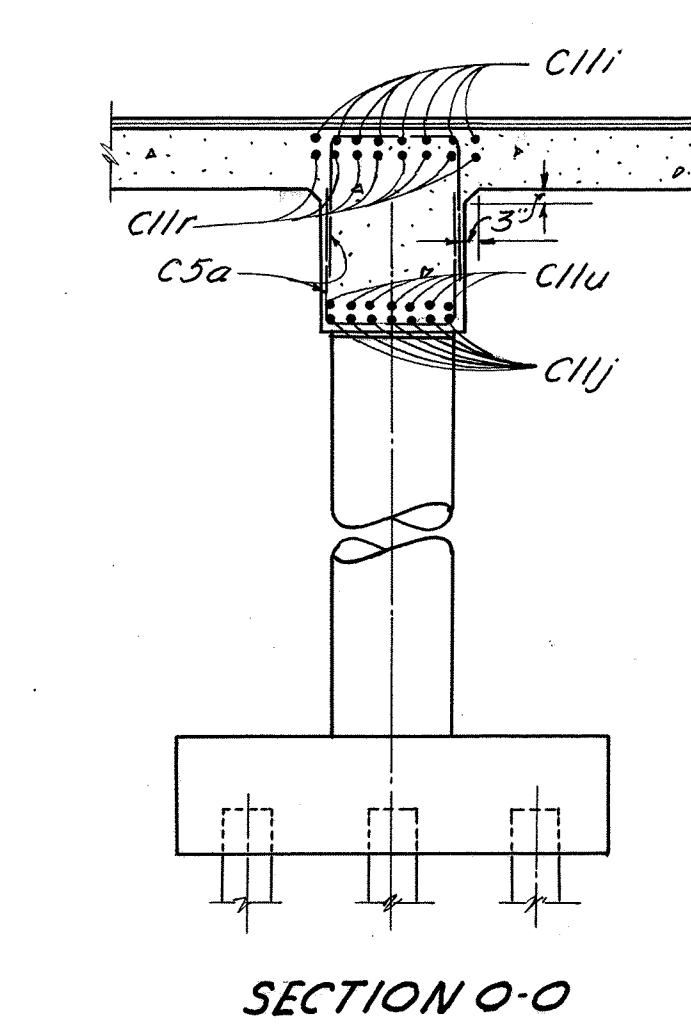
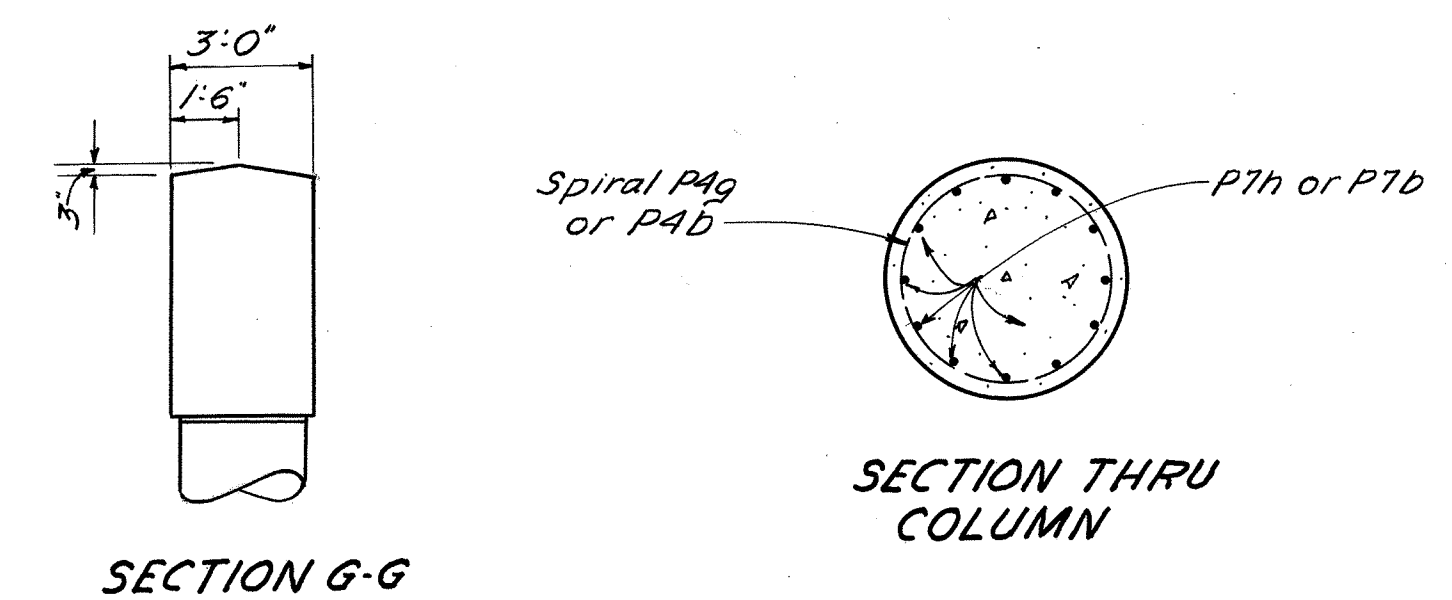
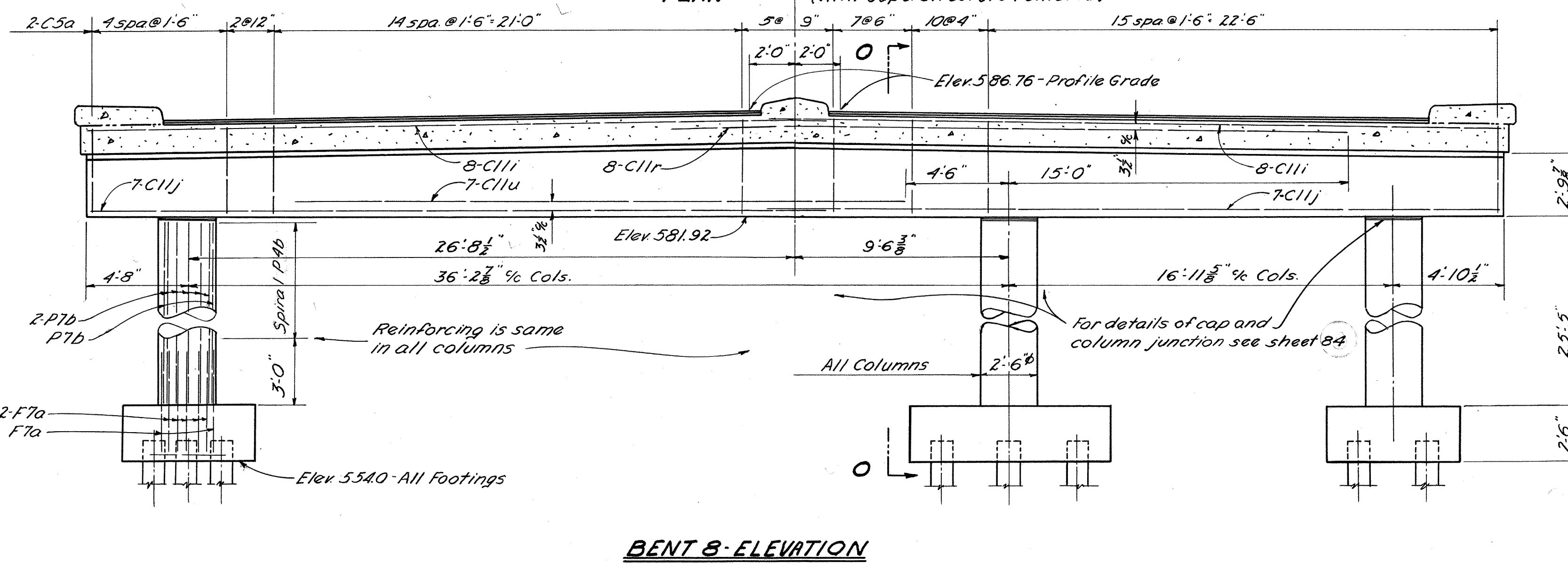
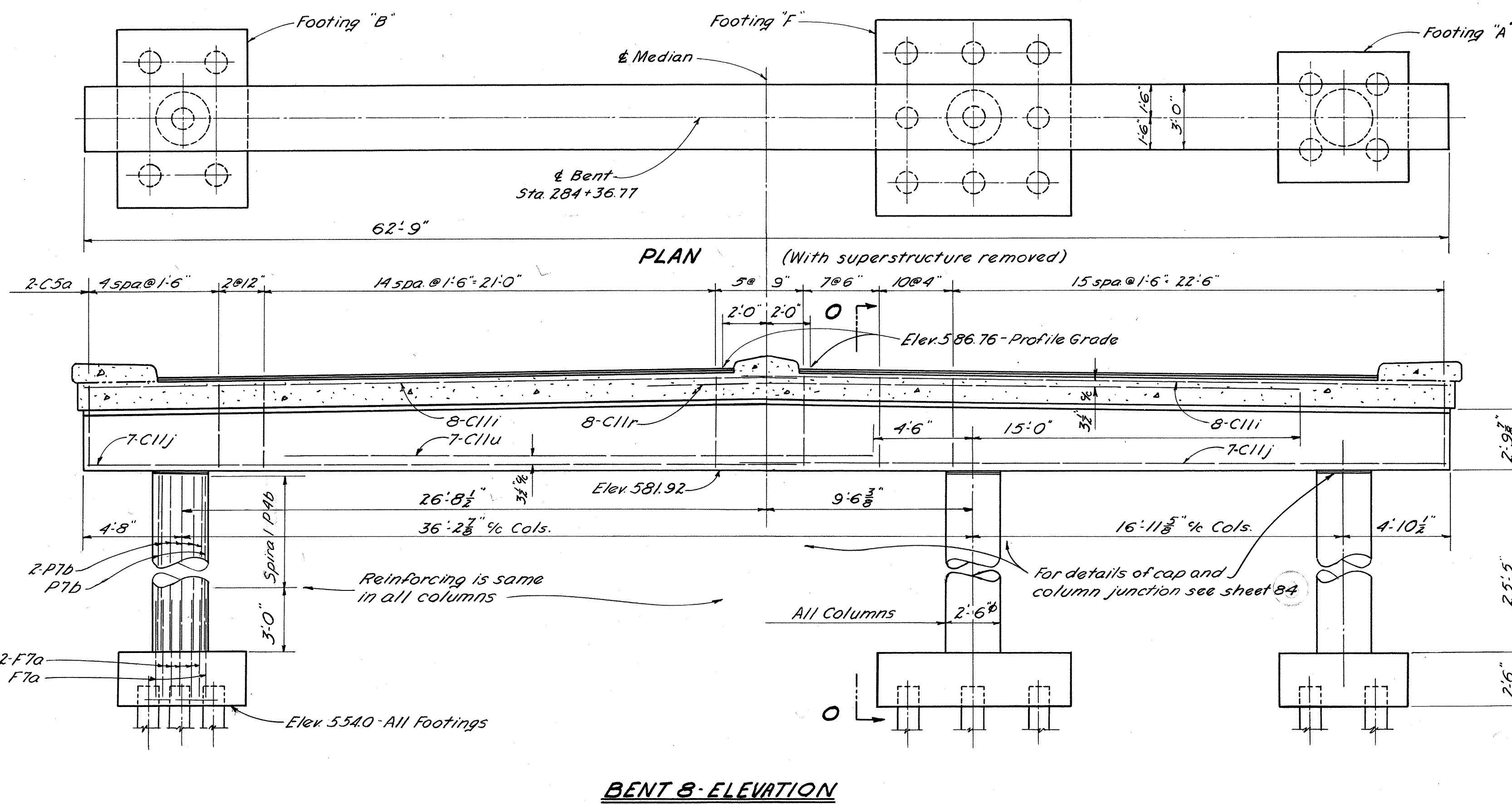
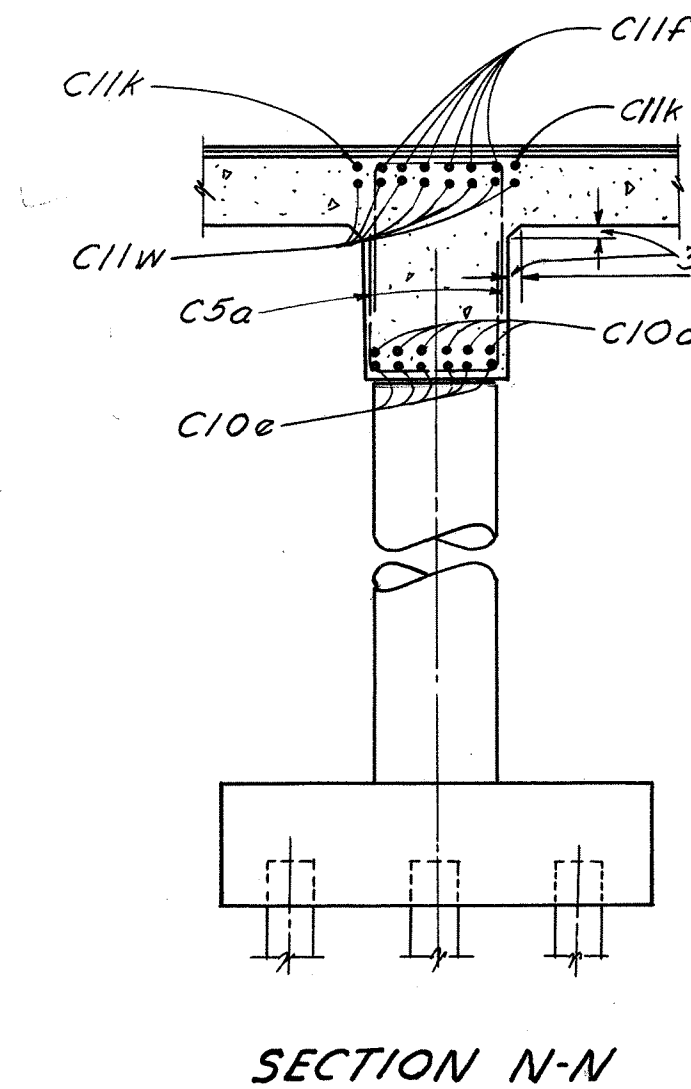
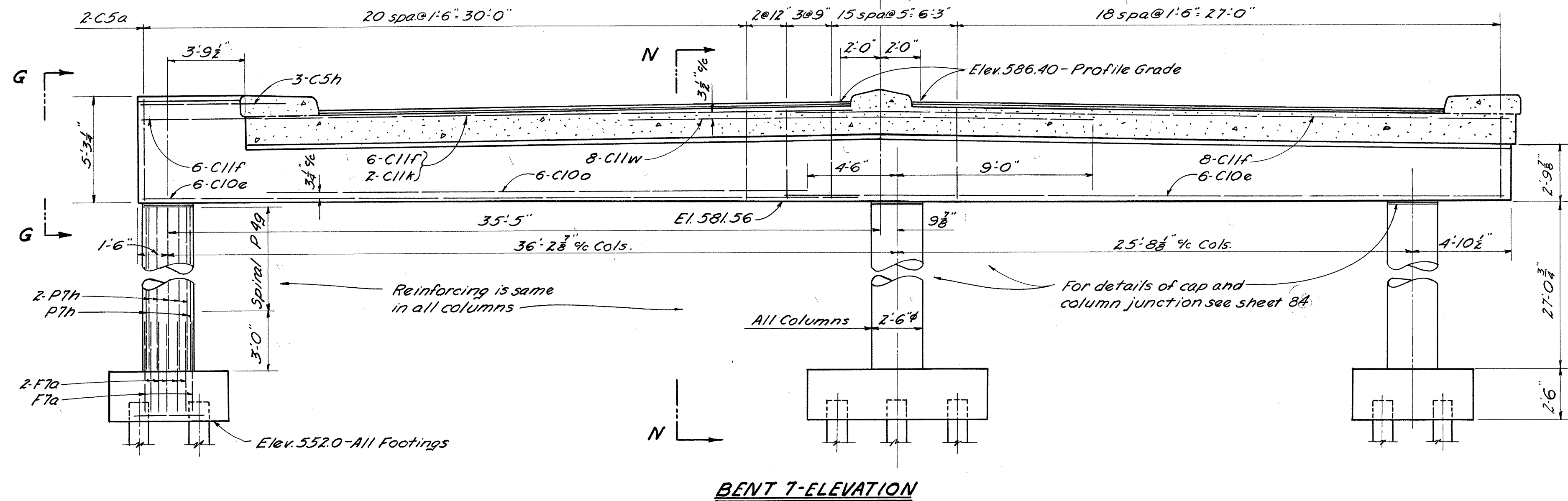
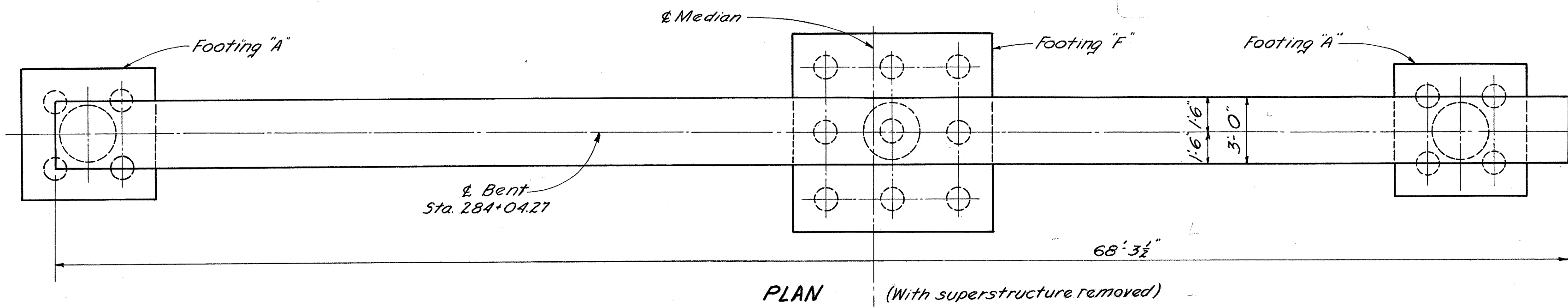
See FOOTING DETAILS on sheet 82.

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES AND RAILROAD CROSSINGS					
BENTS 5 AND 6					
BRIDGE NO. SC-23-54					
OVER N.W.R.Y. & EXISTING U.S. 23					
SCIOTO COUNTY DO-FG-507-B-5-B					
SEC. SCI-23-4.7G STA 286+48.02					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
Ray	Ray	R.G.	ball	BFG	5-13-53

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	AA-11(A)	

87
98

SC1-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B



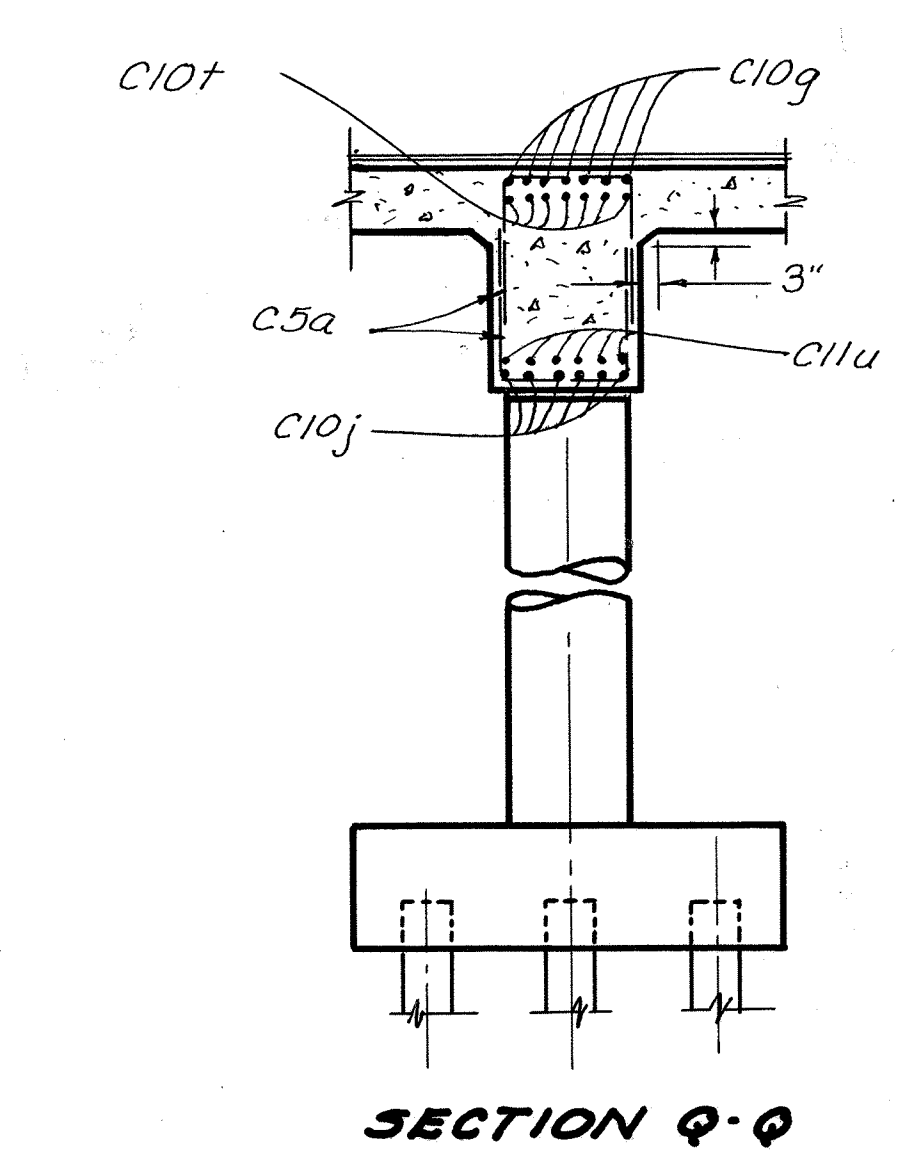
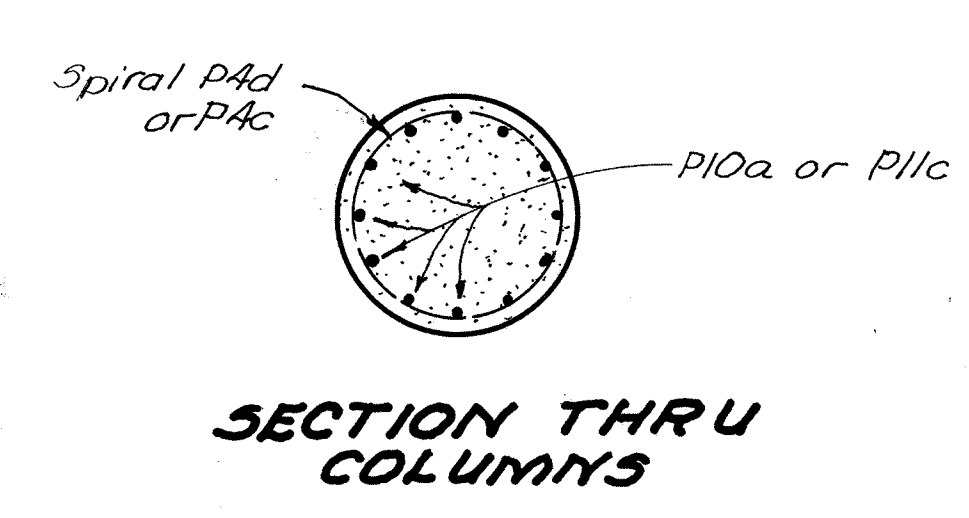
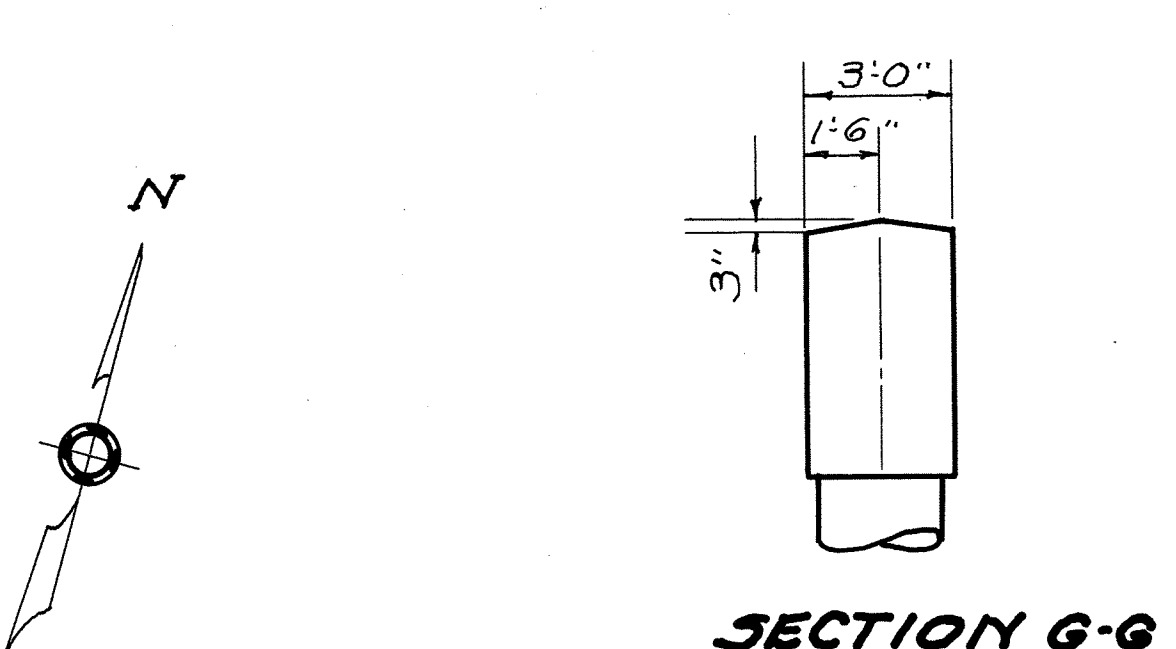
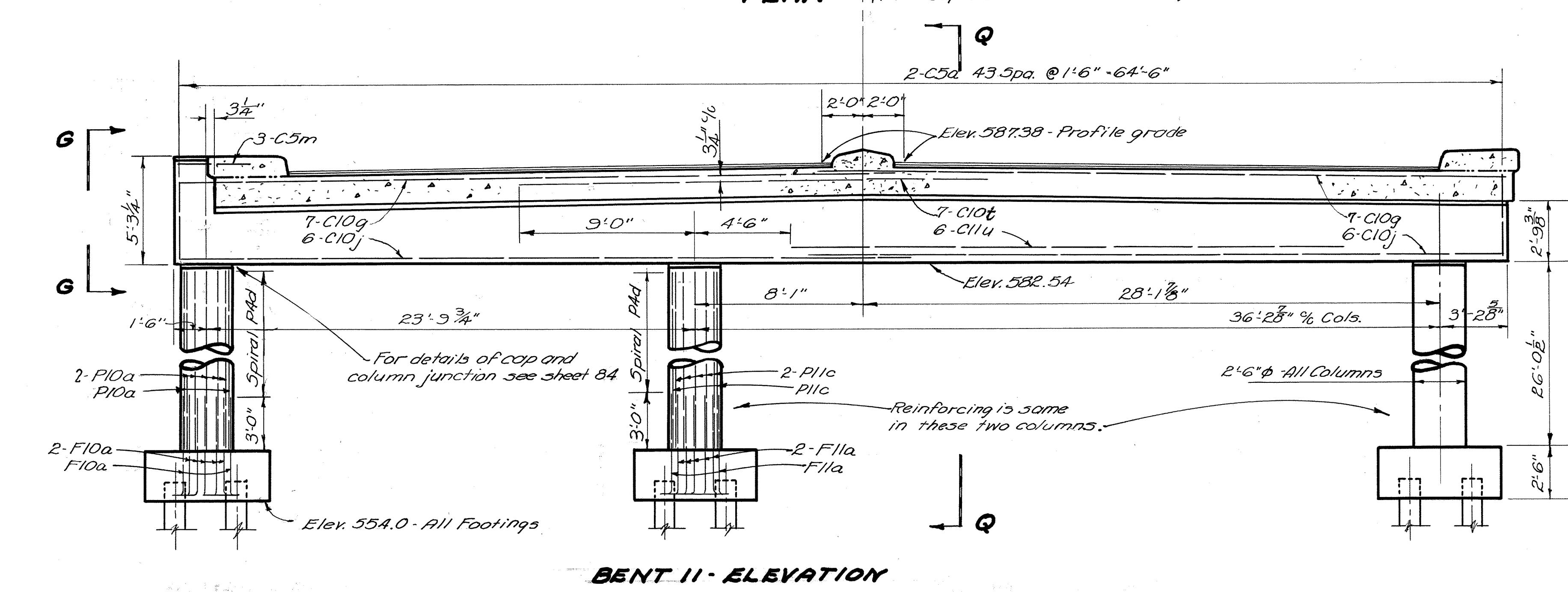
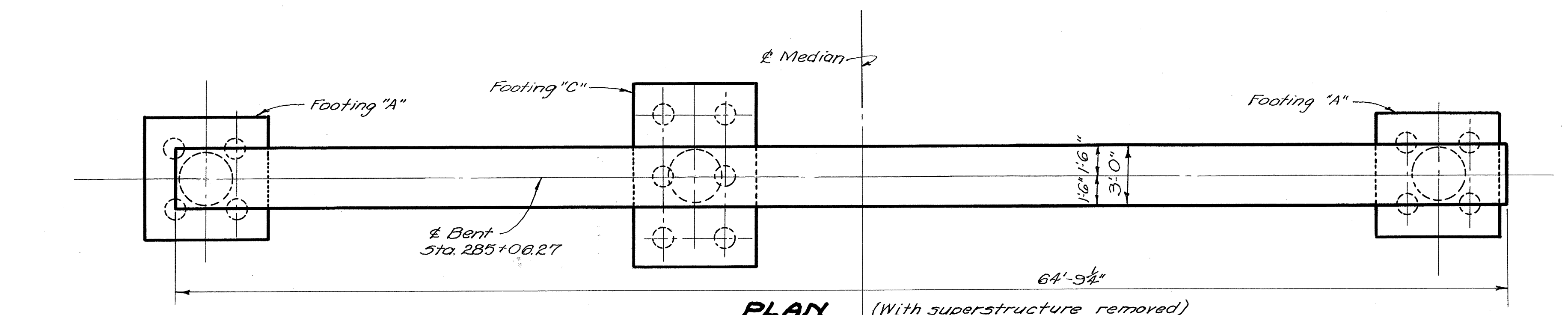
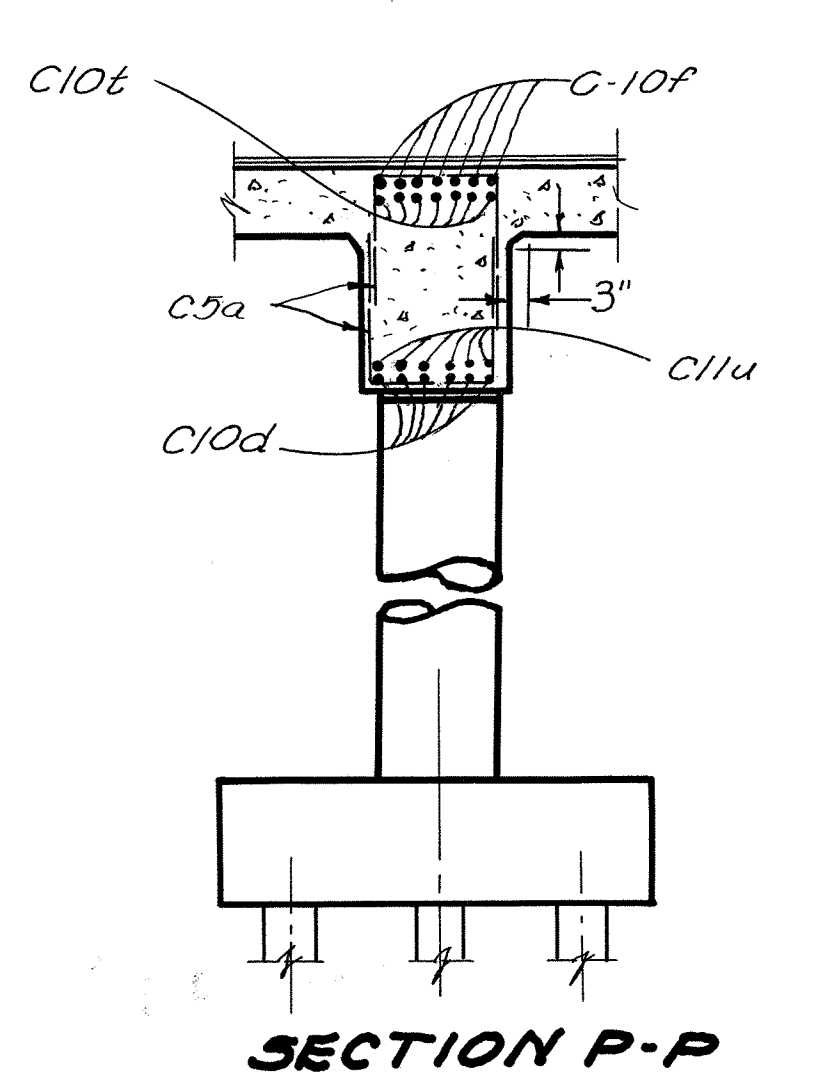
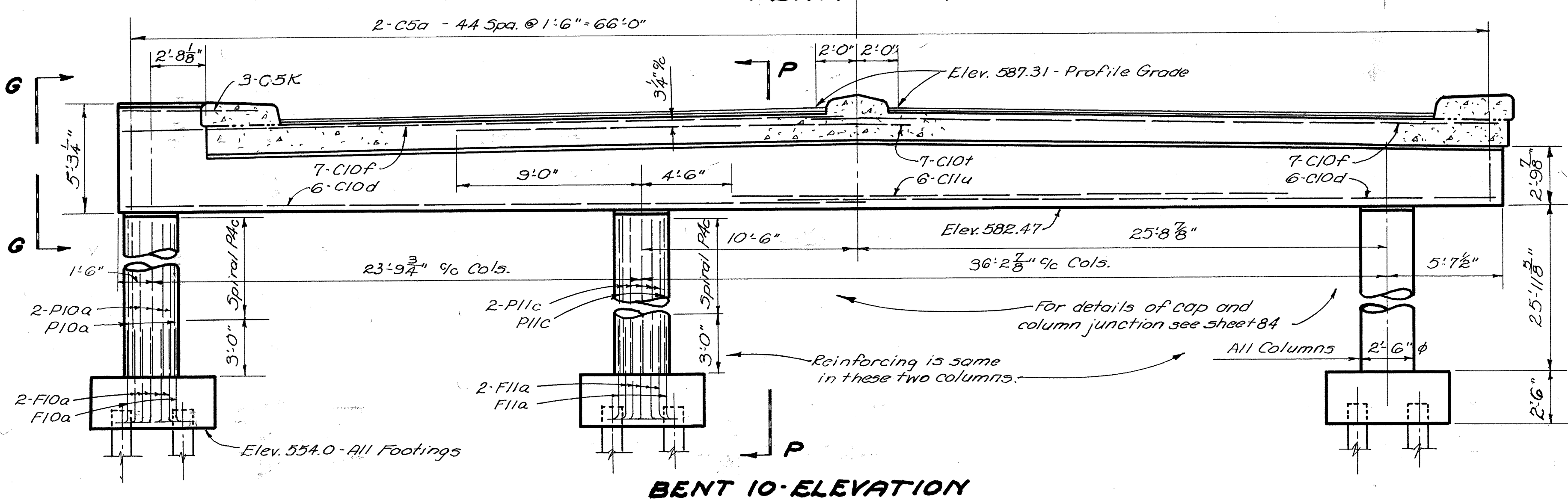
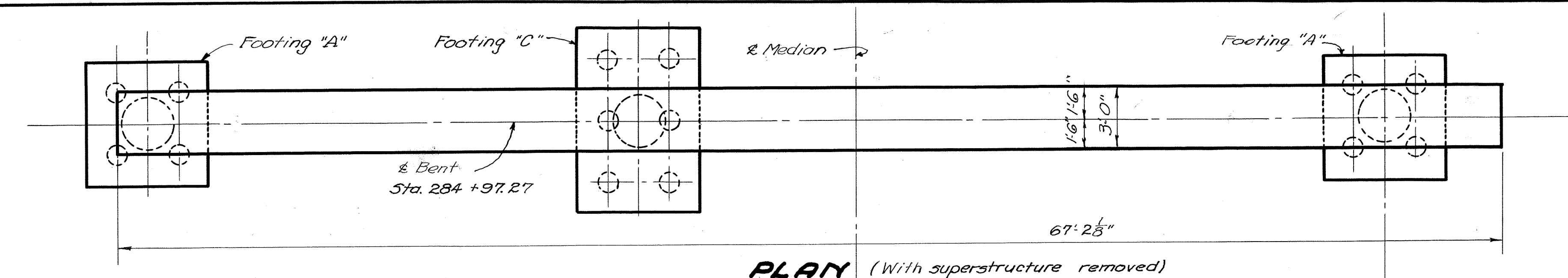
See FOOTING DETAILS on sheet 82

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES AND RAILROAD CROSSINGS						
BENTS 7 AND 8						
BRIDGE NO. SC-23-54						
OVER N.E.W. RY. & EXISTING U.S. 23						
SCIOTO COUNTY			DO-FG-507-B-5-B			
SEC. SC1-23-4.76			STA. 286+48.02			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Ray	Ray	REK	<i>[Signature]</i>	WAC	5-25-53	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	AA-11(4)	

88
98

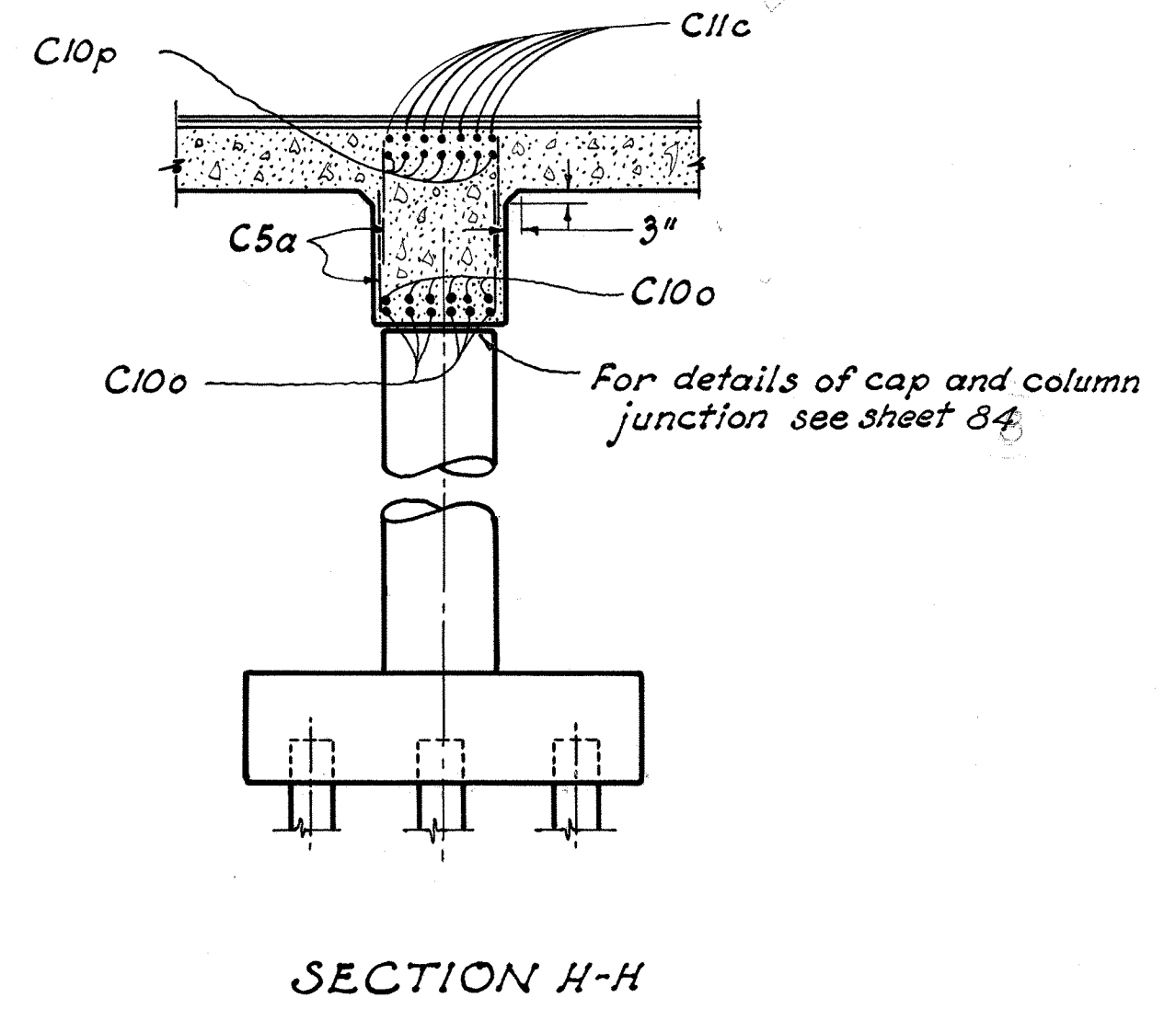
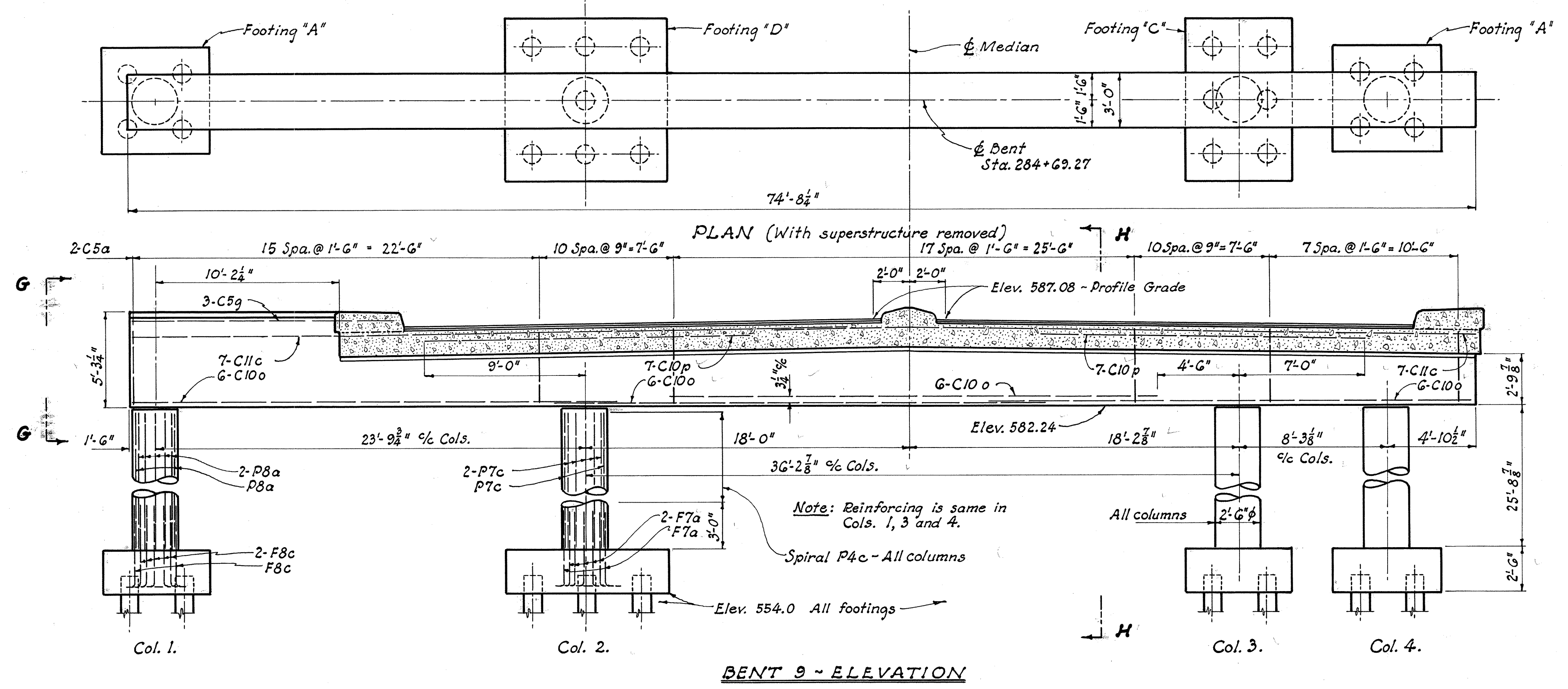
SCI-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B



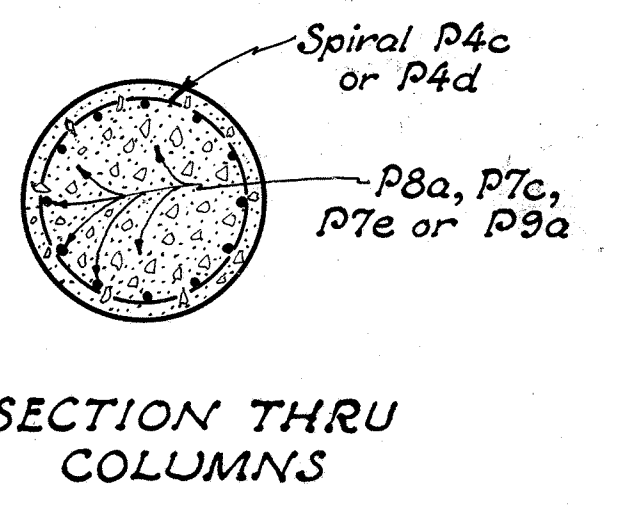
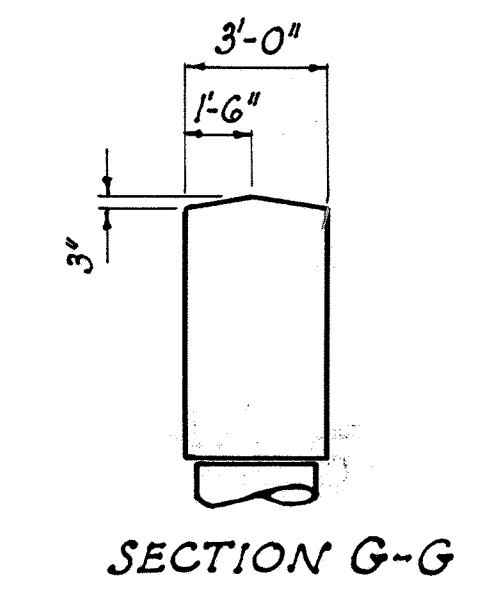
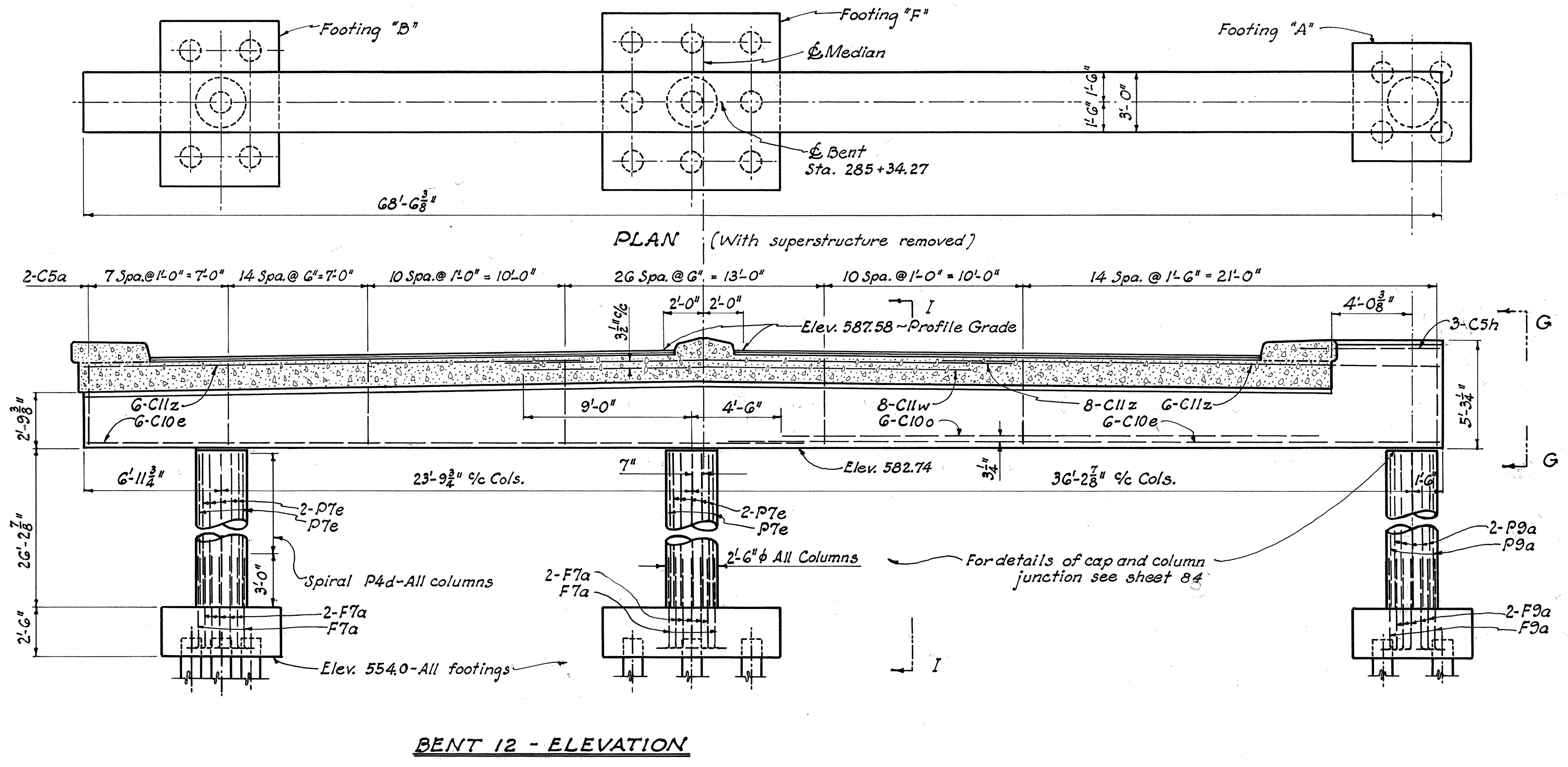
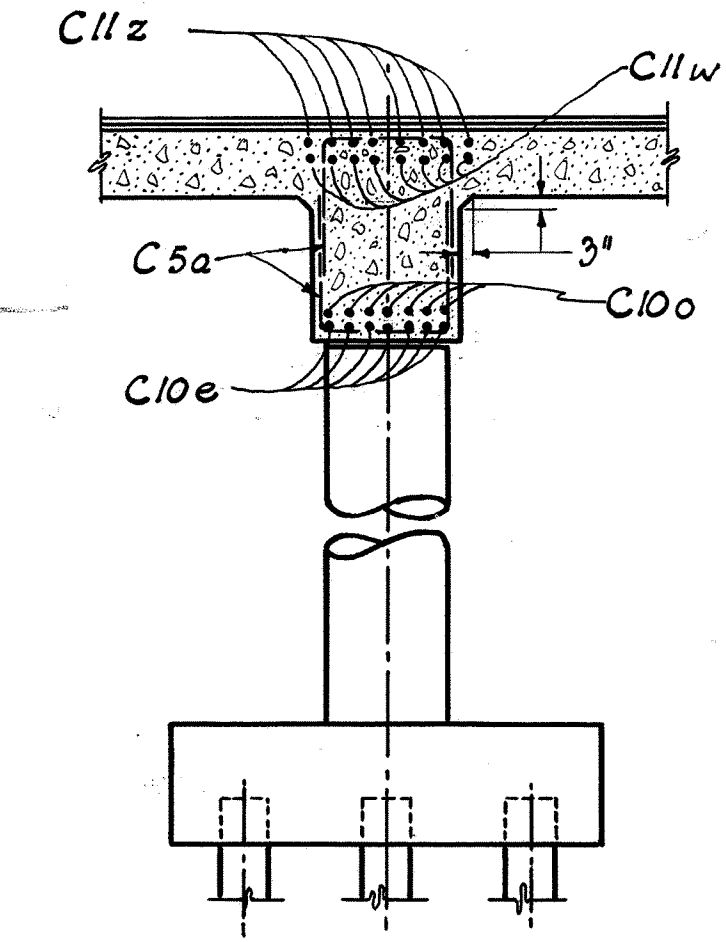
See FOOTING DETAILS on sheet 82

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES AND RAILROAD CROSSINGS					
BENTS 10 AND 11					
BRIDGE No SC-23-54					
OVER NEW RY. & EXISTING U.S. 23					
SCIOTO COUNTY DO-FG-507-B-5-B					
SEC. 5C1-23-4.76 Sta. 286+48.02					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
Ray	Ray	RHN	WRC	WRC	5-23-53

SCI-23-4.7G
DO-507-B5-B
DO-FG-507-B-5-B



Note: Place all C11w & C11z bars inside C5a ties where only G are required

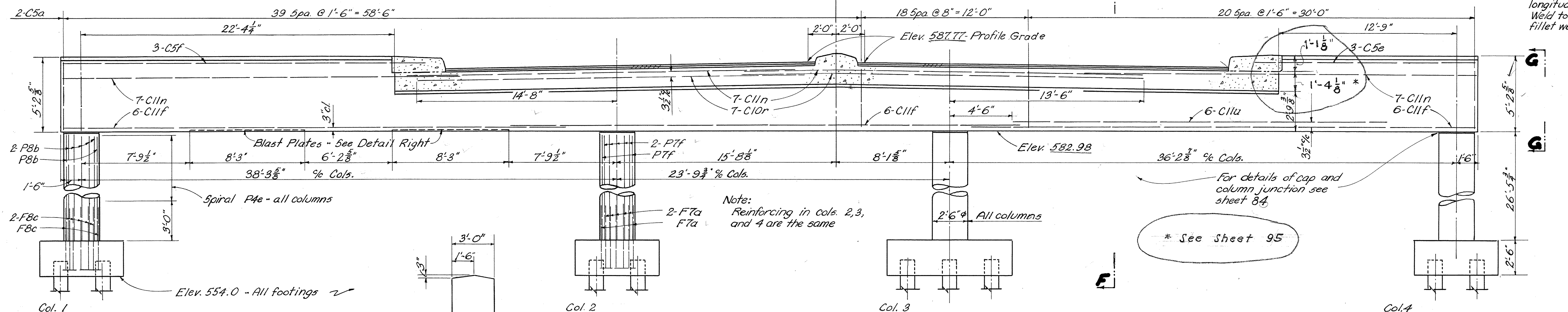
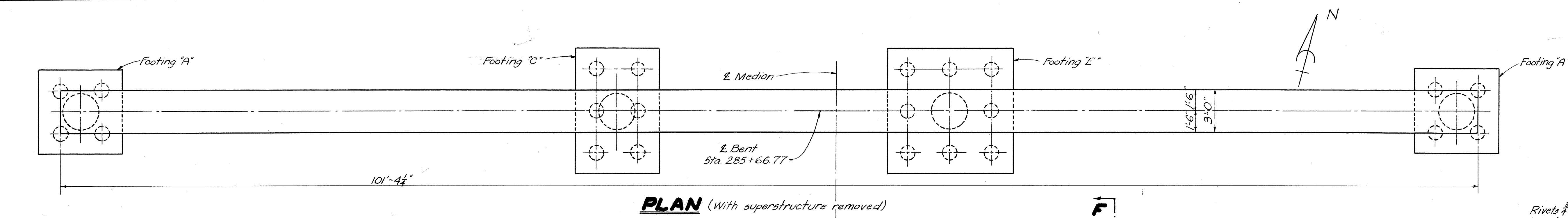


For FOOTING DETAILS see sheet 82

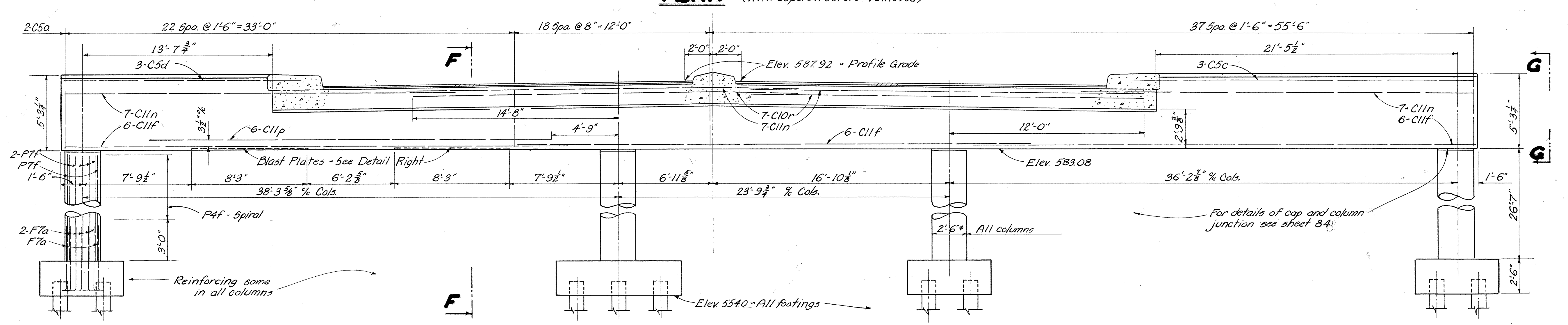
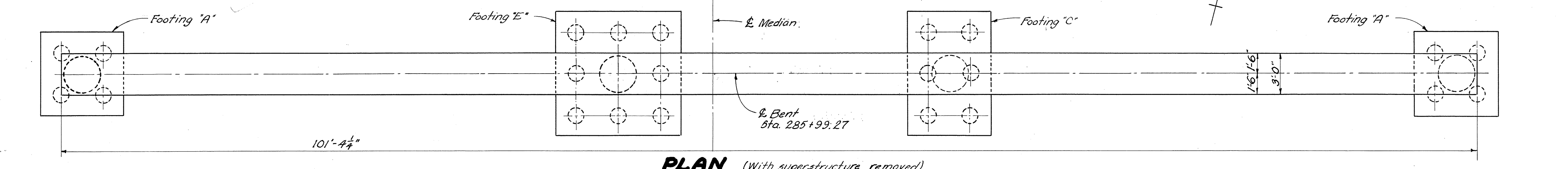
STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES AND RAILROAD CROSSINGS					
BENTS 9 AND 12					
BRIDGE NO. SC-23-54 OVER N. & W. RY. & EXISTING U.S. 23 SCIOTO COUNTY DO-FG-507-B-5-B SEC. SCI-23-4.7G STA. 286+48.02					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
Ray	Ray	LIBERLY	lib	WNC	5-23-55

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	AA-11(A)	90 98

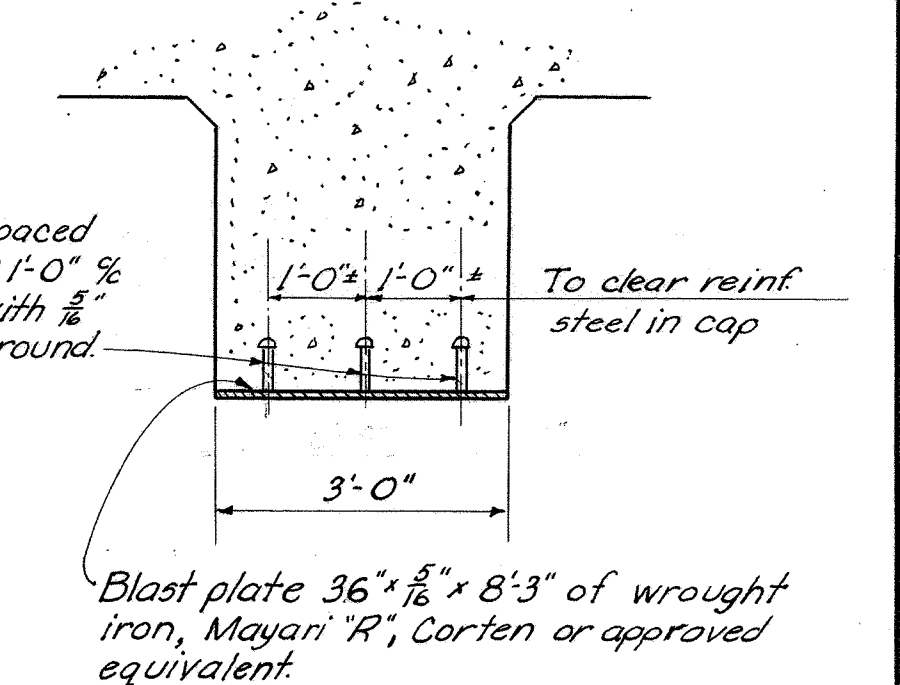
SCI-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B



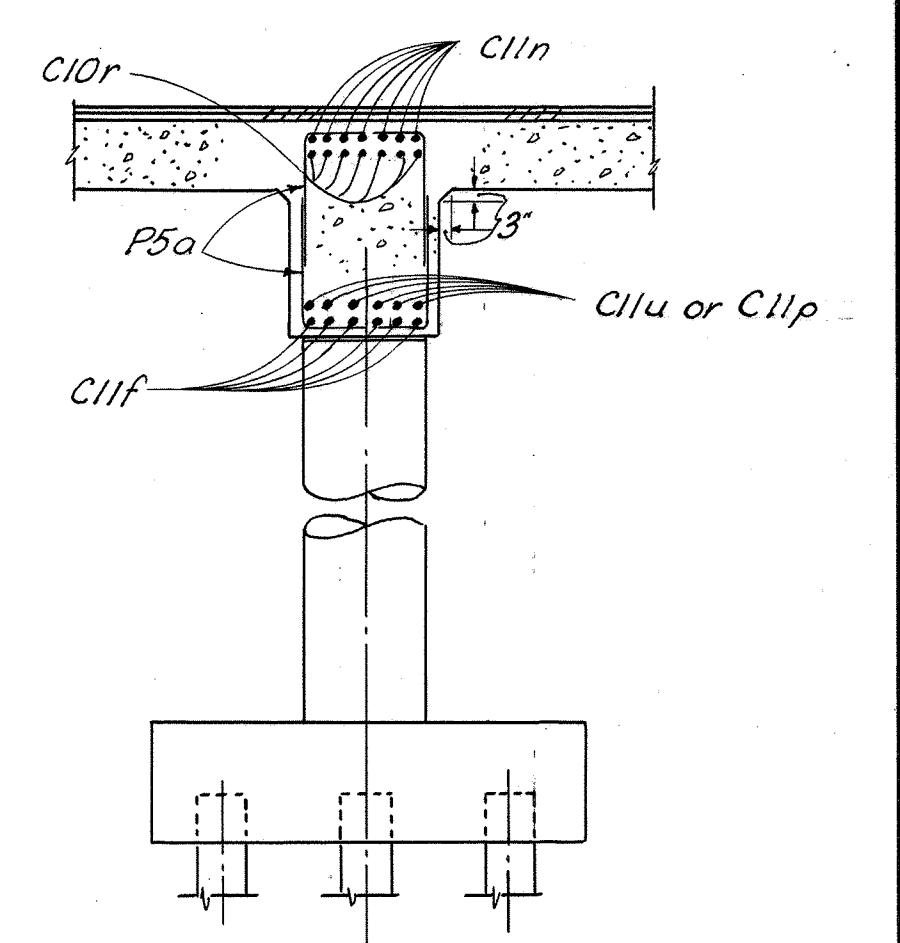
BENT NO. 13-ELEVATION



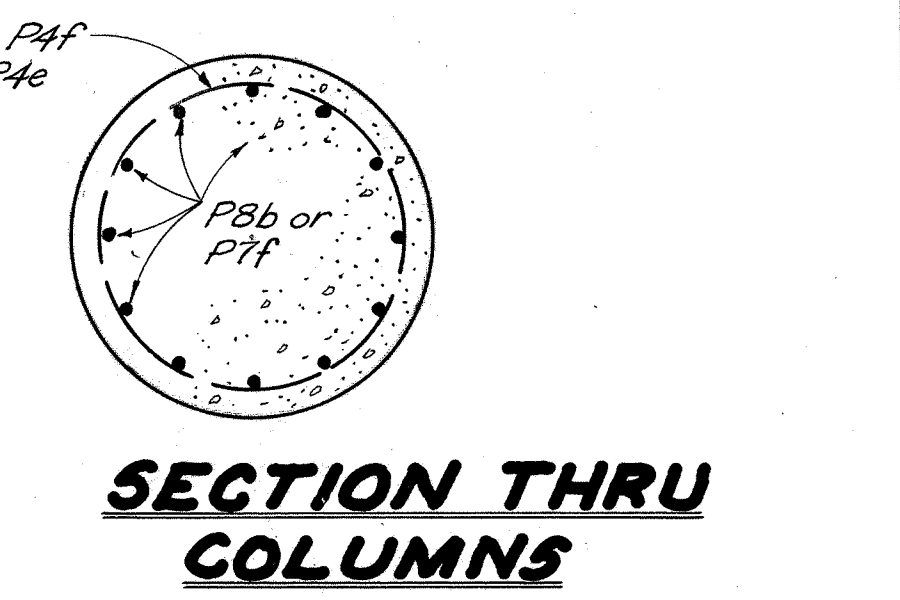
BENT NO. 14-ELEVATION



DETAILS OF BLAST PROTECTION



SECTION F-F



SECTION THRU COLUMNS

For FOOTING DETAILS see sheet 82.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

BENTS 13 AND 14
BRIDGE NO. 5C-23-54
OVER N.E.W. RY. & EXISTING U.S. 23

SCIOTO COUNTY DO-FG-507-B-5-B
SEC. 5C1-23-4.76 STA. 286+48.02

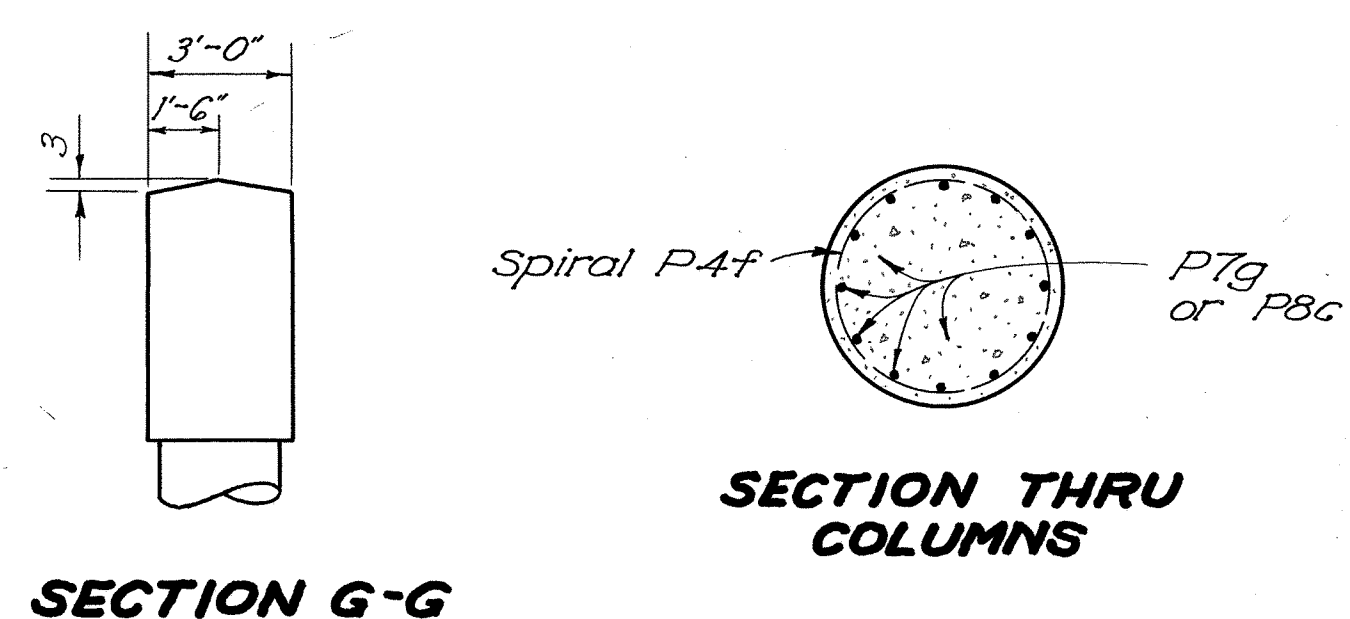
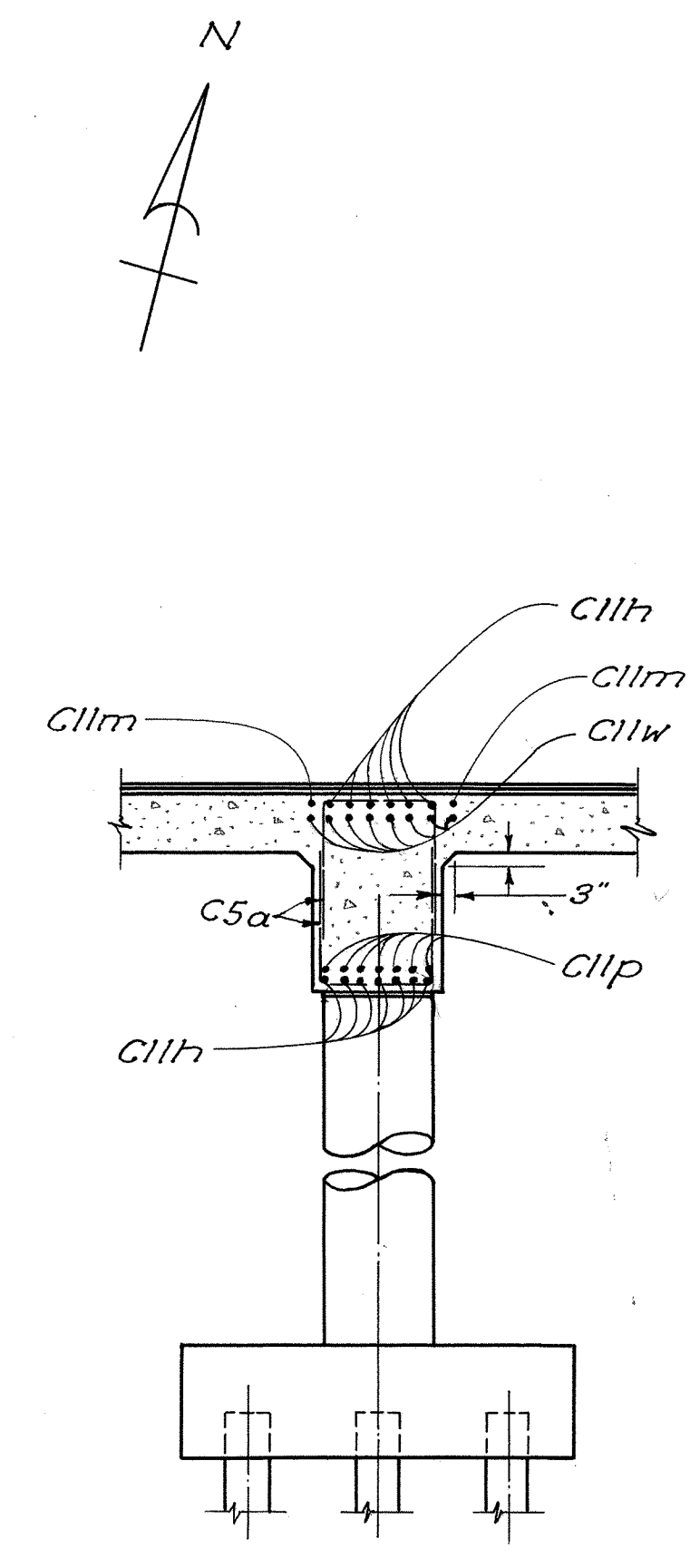
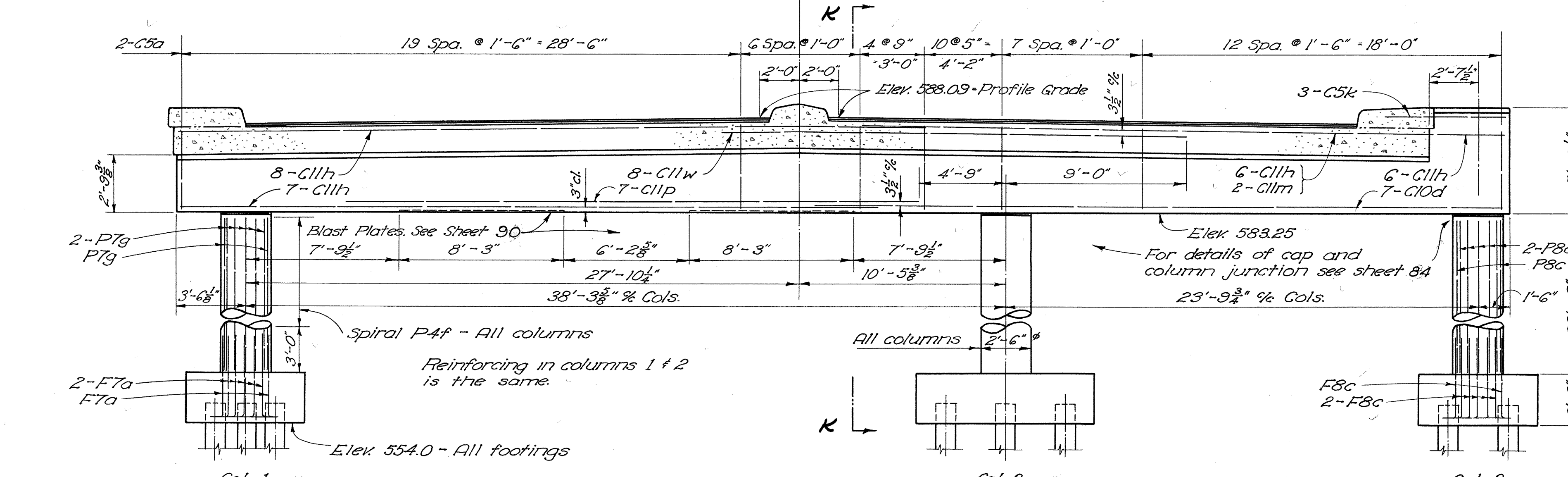
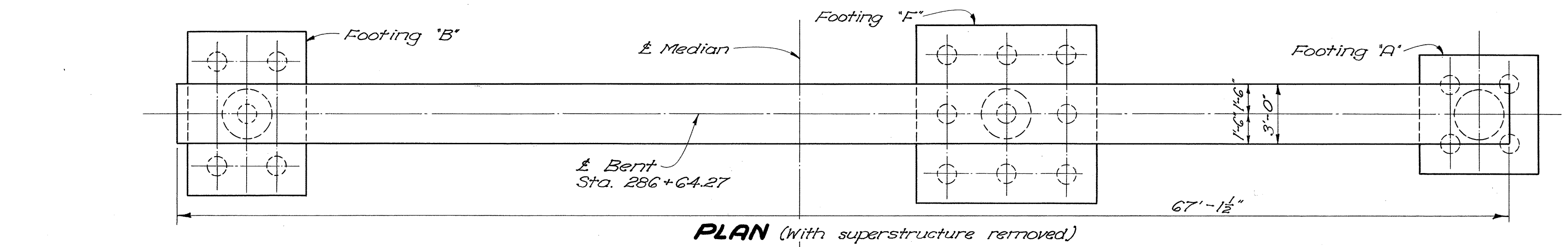
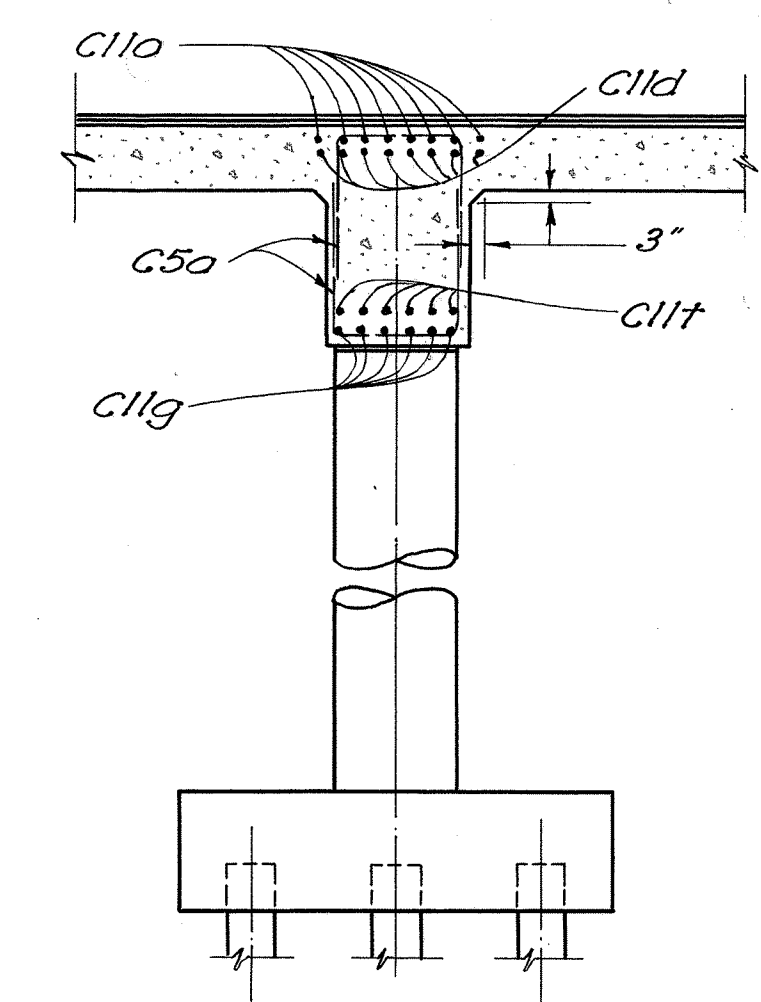
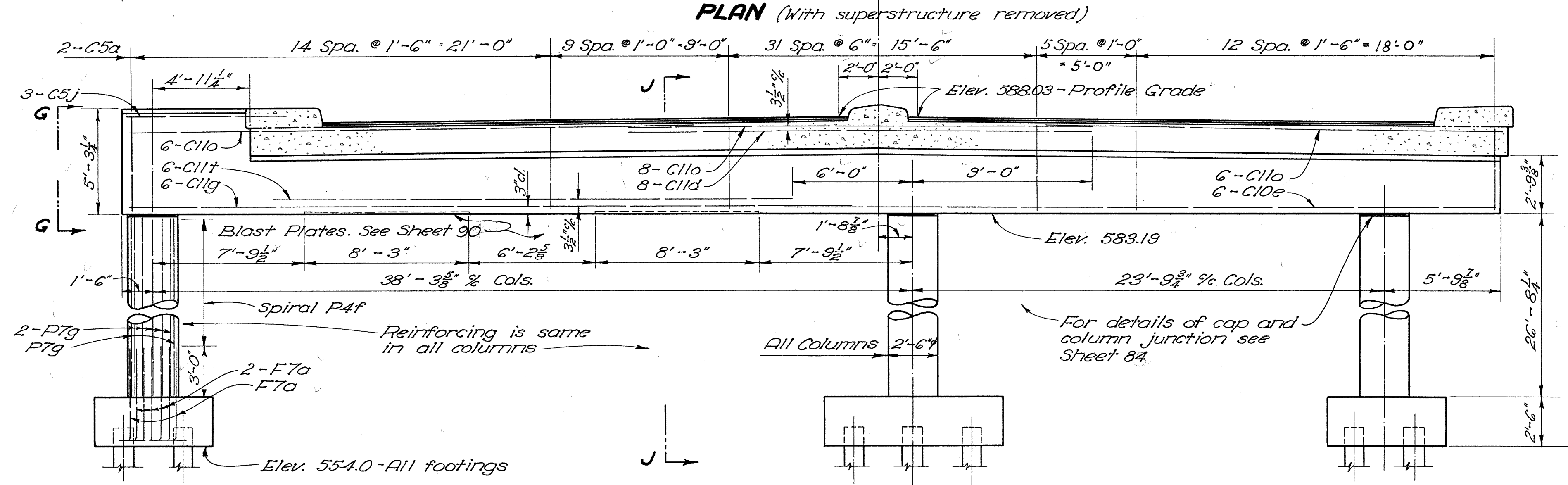
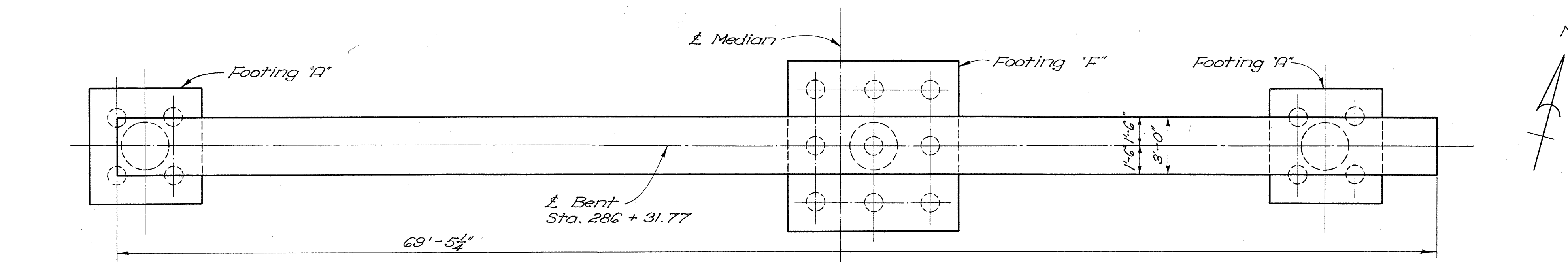
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Ray	D.H.S.	R.H.L.	[Signature]	W.H.C.	5-13-53	

PENCIL REV. JUNE 7, 1954

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	AA-11(4)	

91
98

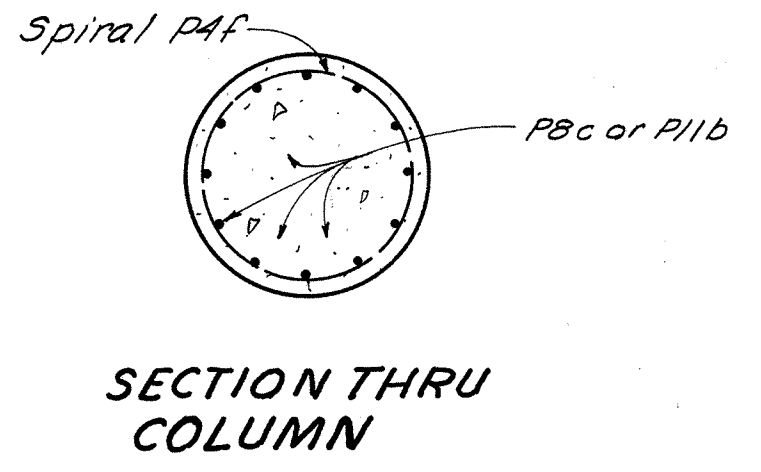
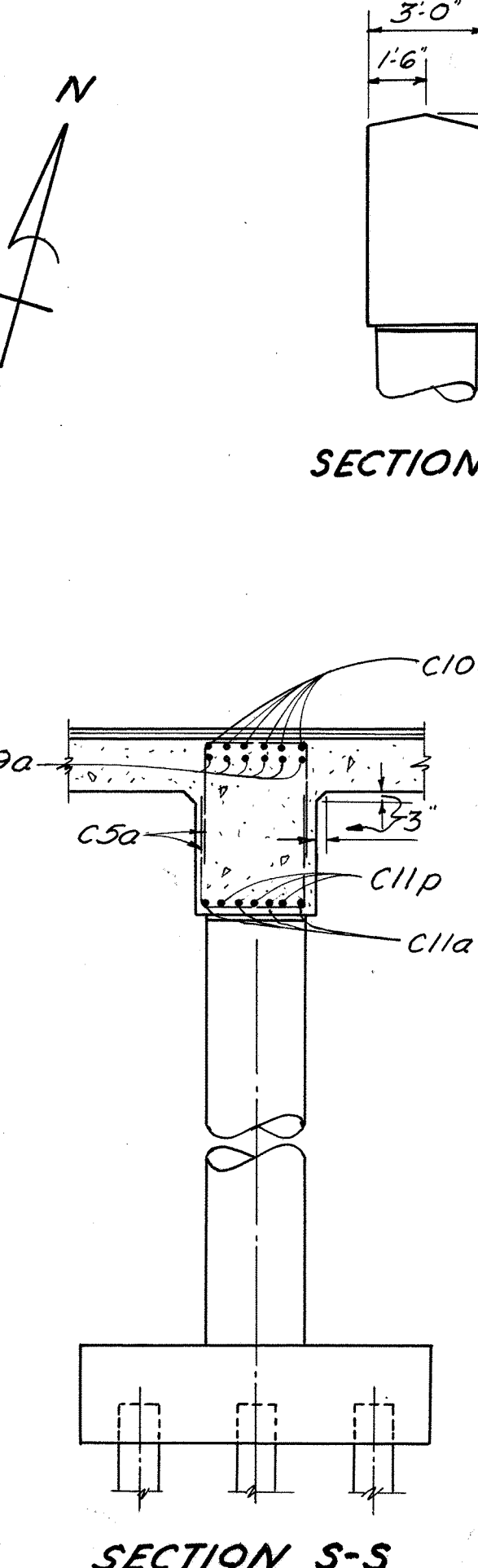
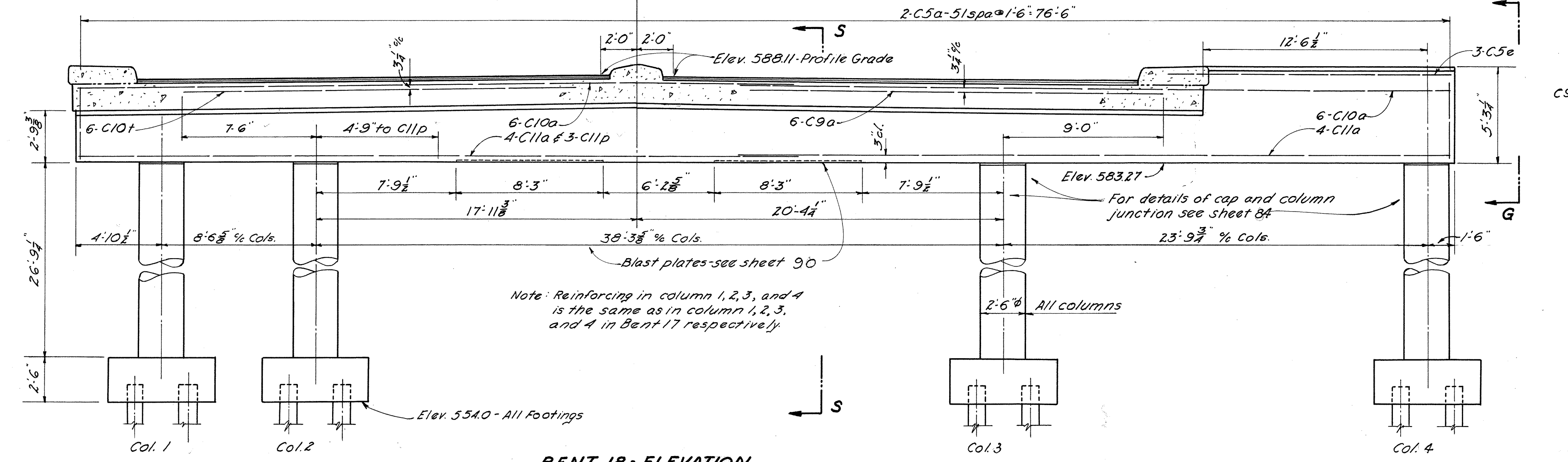
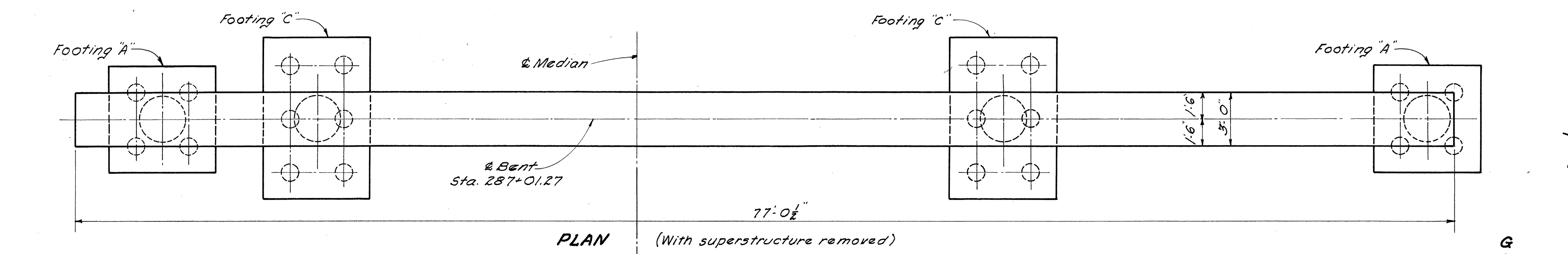
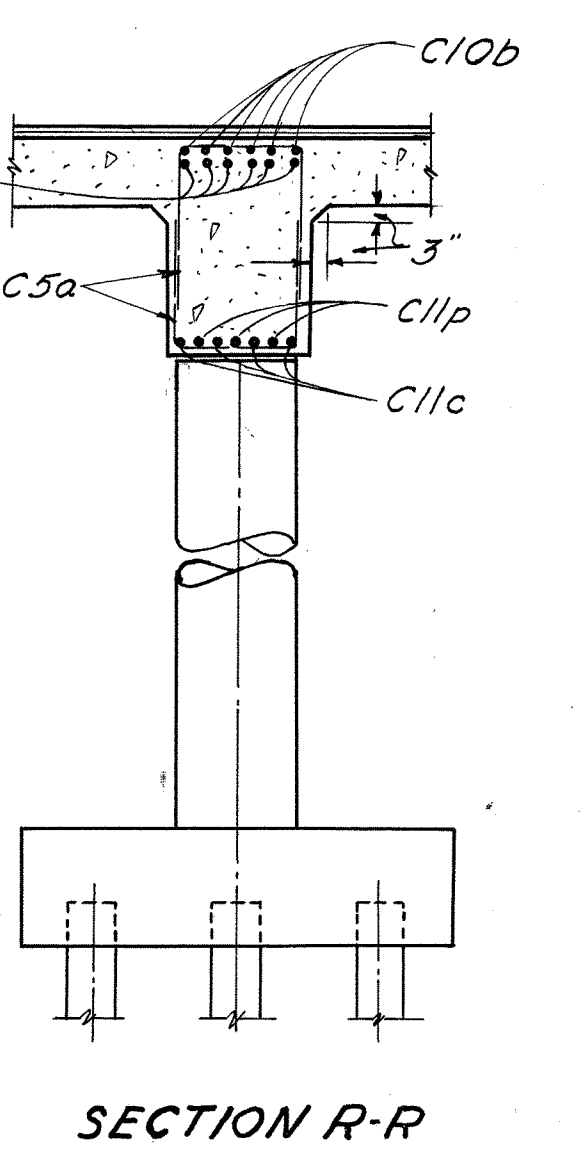
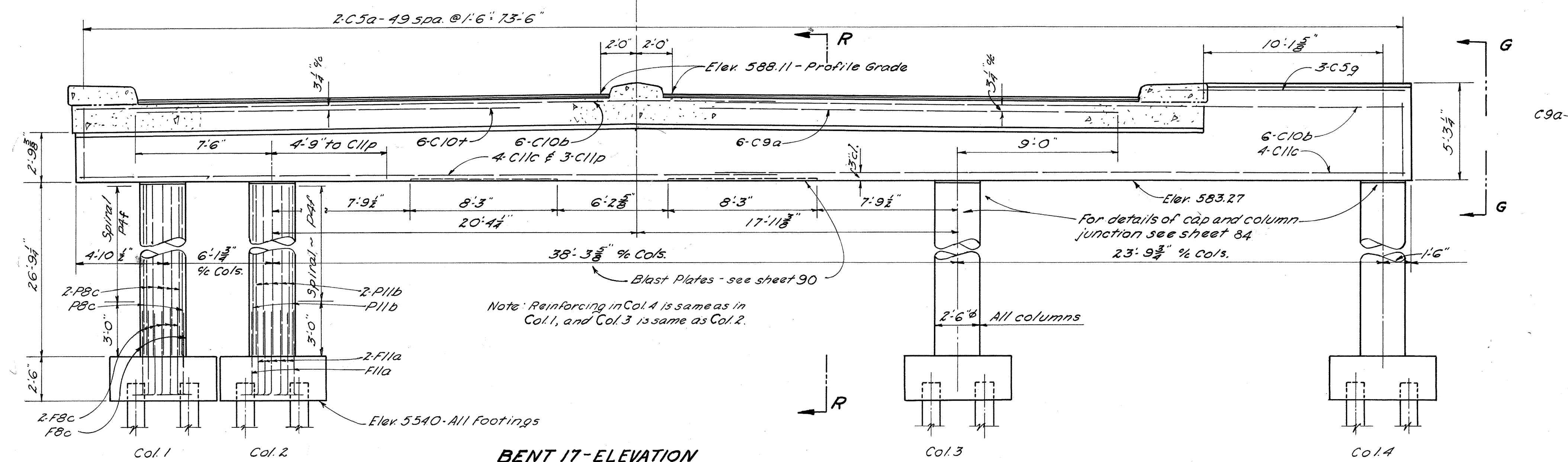
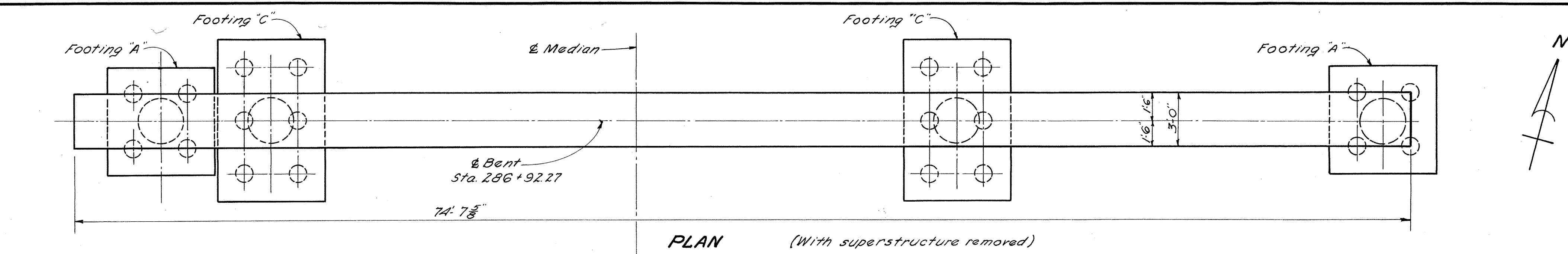
SC1-23-4.7G
DO-507-B5-B
DO-FG-507-B-5-B



For FOOTING DETAILS see sheet 82

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES AND RAILROAD CROSSINGS						
BENTS 15 AND 16						
BRIDGE No. SC-23-54						
over N. & W. RY. & EXISTING U.S. 23						
Scioto County			DO-FG-507-B-5-B			
Sec. SC1-23-4.7G			Sta. 286 + 48.02			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Ray	Ray	JNP	bell	BFG	11/4/52	5-23-53

SCI-23-4.7G
DO-507-B5-B
DO-FG-507-B-5-B



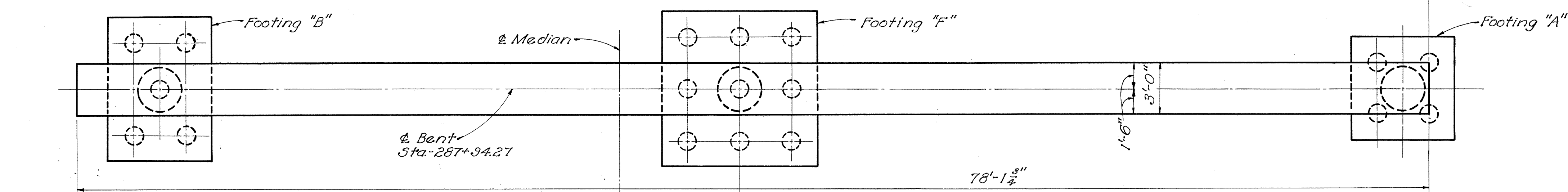
See FOOTING DETAILS on sheet 82

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES AND RAILROAD CROSSINGS						
BENTS 17 AND 18						
BRIDGE NO. SC-23-54 OVER N.&W. RY. & EXISTING U.S. 23						
SCIOTO COUNTY DO-FG-507-B-5-B SEC. SCI-23-4.7G STA. 286+48.02						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Ray	Ray	REK	W4C	W4C	5-13-53	

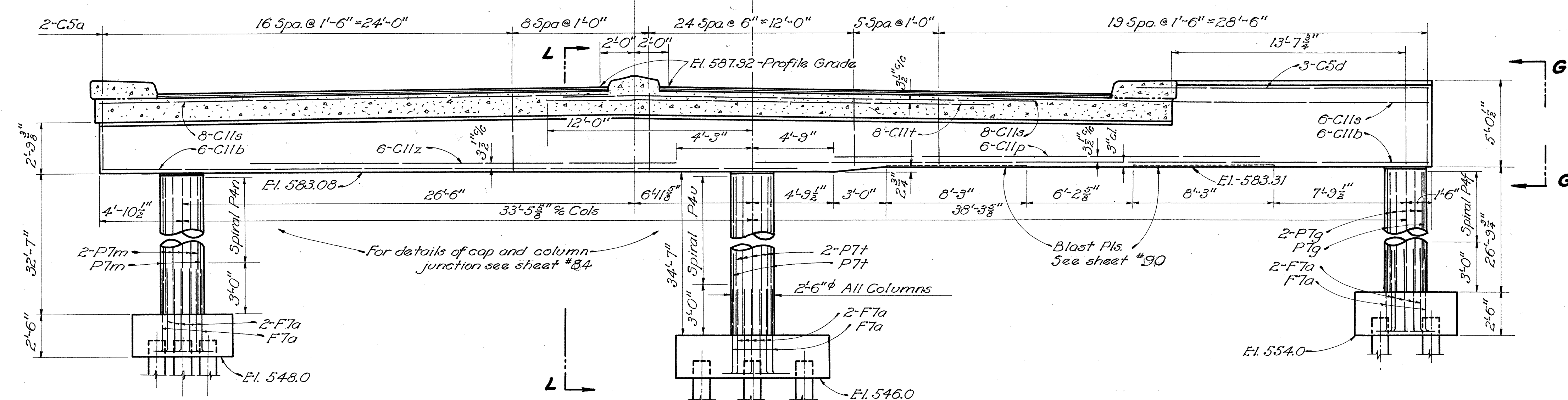
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	AA-11(A)	

94
98

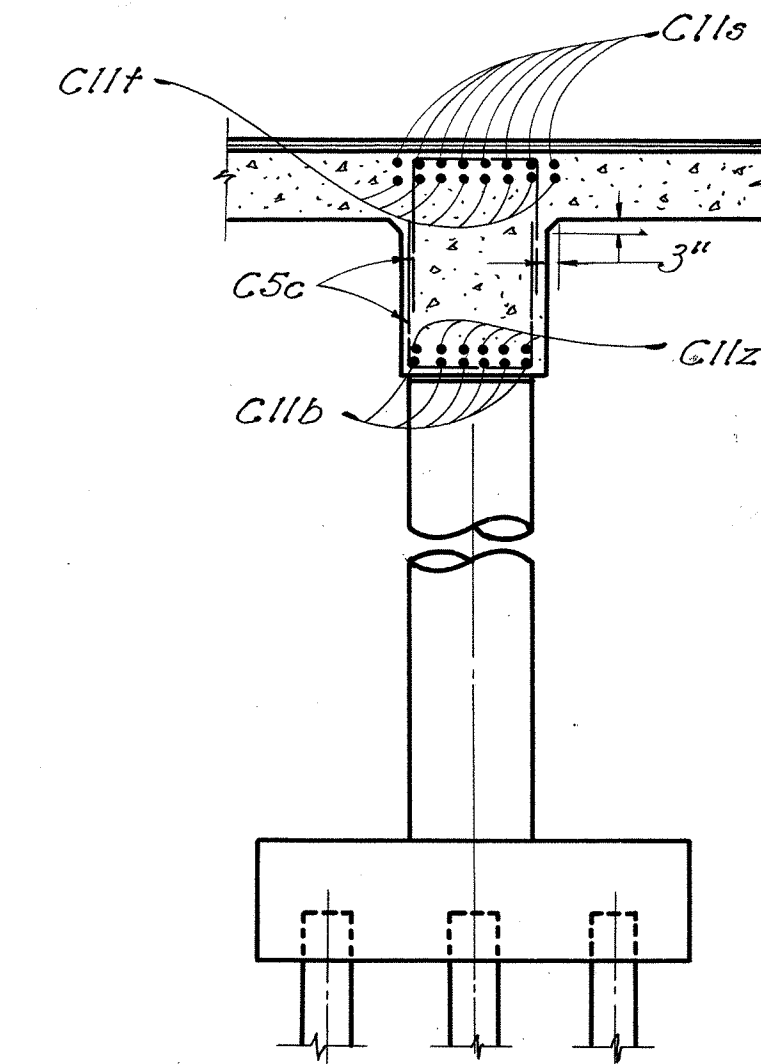
SCI-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B



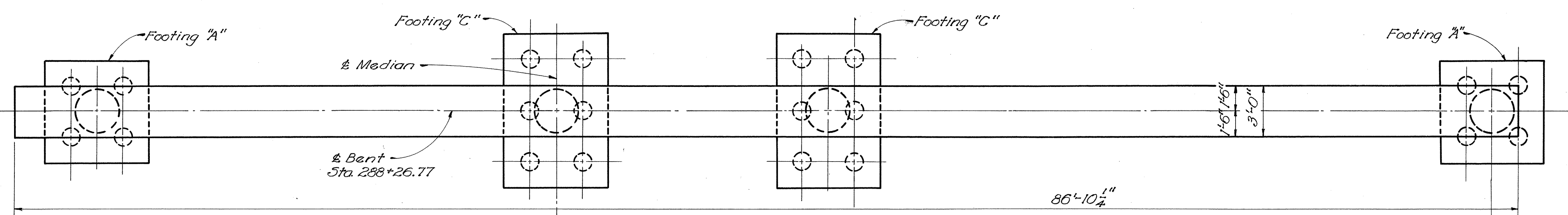
PLAN (With superstructure removed)



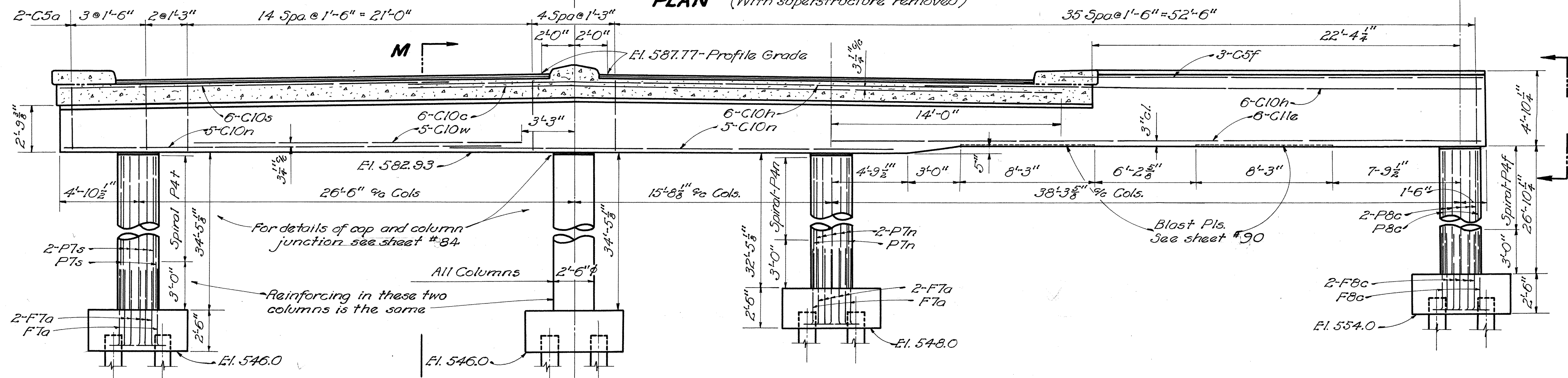
BENT 21-ELEVATION



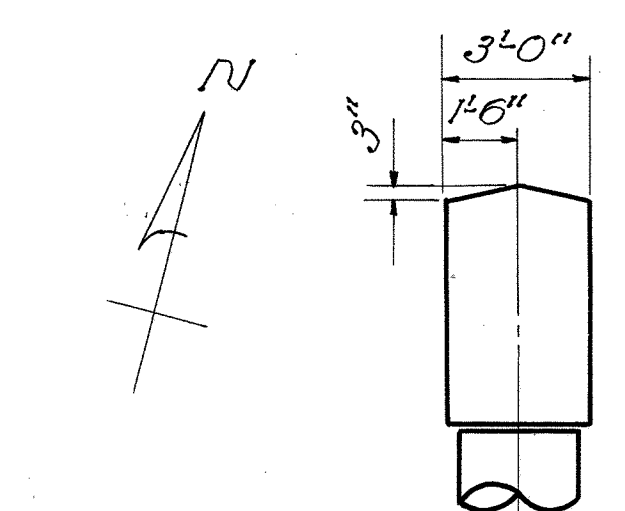
SECTION L-L



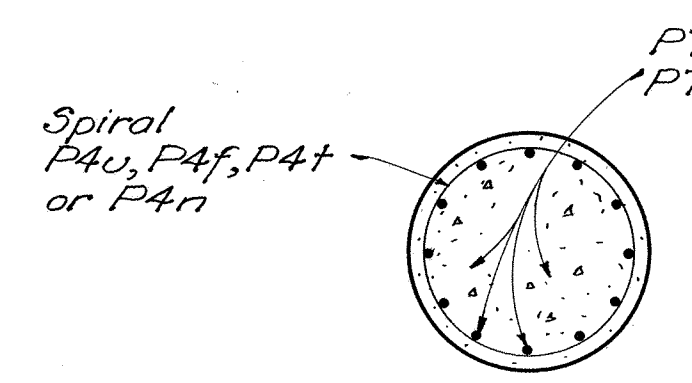
PLAN (With superstructure removed)



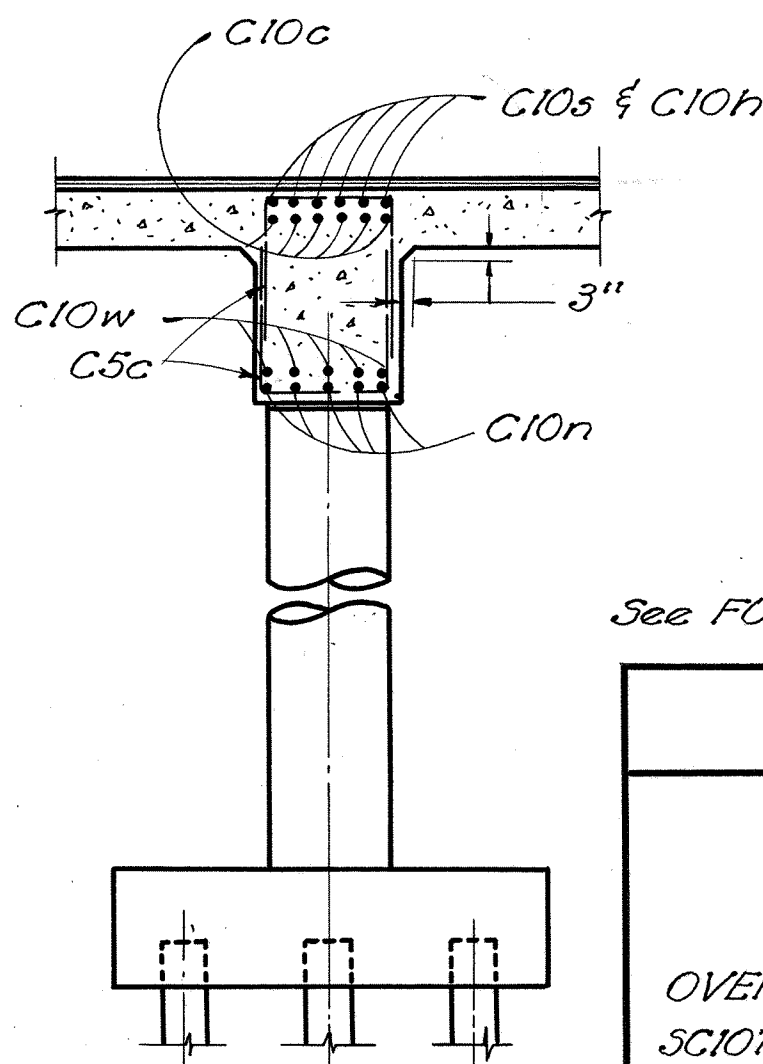
BENT 22 - ELEVATION



SECTION G-G



SECTION THRU COLUMN

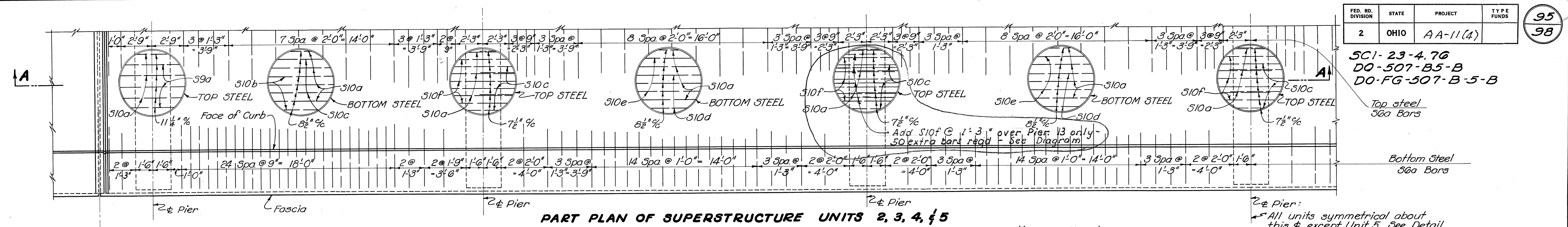


SECTION M-M

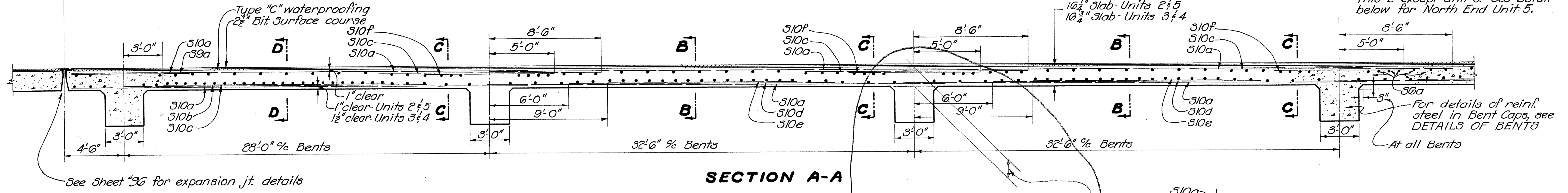
See FOOTING DETAILS on sheet #82

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES AND RAILROAD CROSSINGS					
BENTS 21 AND 22					
BRIDGE NO. 5C-23-54 OVER N. & W. R.Y. & EXISTING U.S. 23					
SCIOTO COUNTY SEC. 5C1-23-4.76			DO-FG-507-B-5-B STA. 286+48.02		
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
Ray	Ray	JF	CLB	WNR	5-13-53

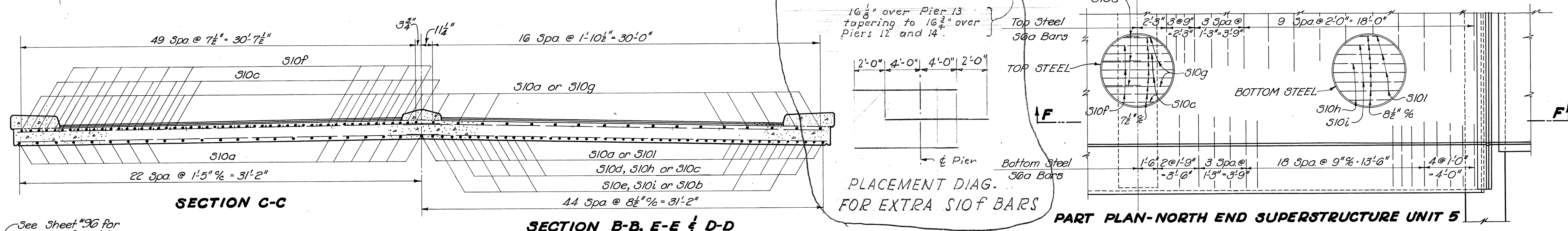
SC1-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B



PART PLAN OF SUPERSTRUCTURE UNITS 2, 3, 4, & 5

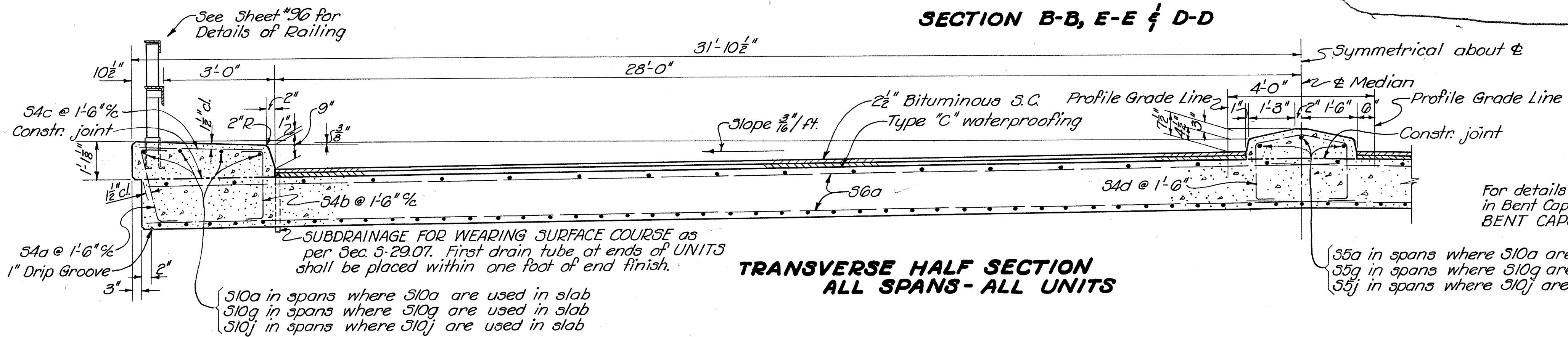


SECTION A-A

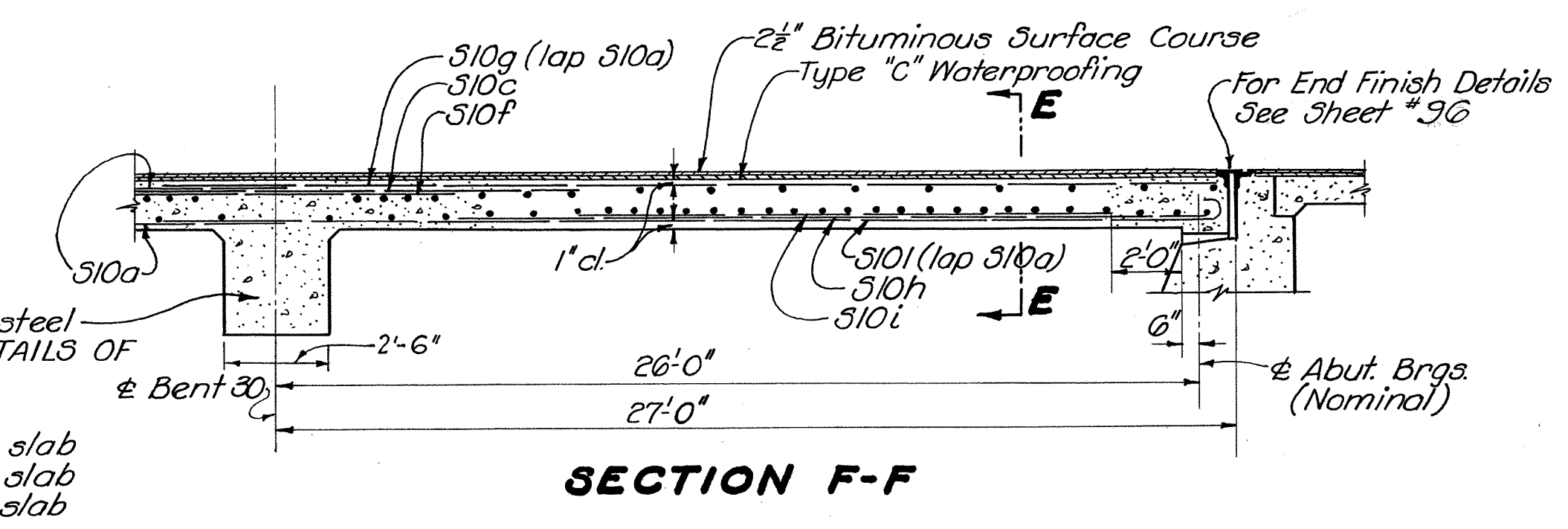


SECTION B-B, E-E & D-D

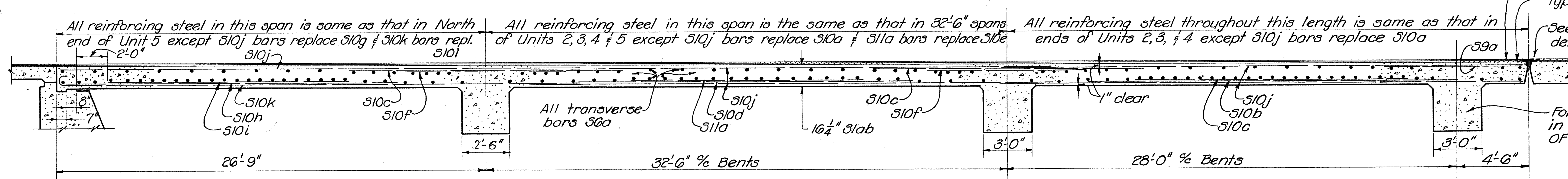
PART PLAN-NORTH END SUPERSTRUCTURE UNIT 5



TRANSVERSE HALF SECTION ALL SPANS-ALL UNITS



SECTION F-F



LONGITUDINAL SECTION THRU SUPERSTRUCTURE UNIT 1

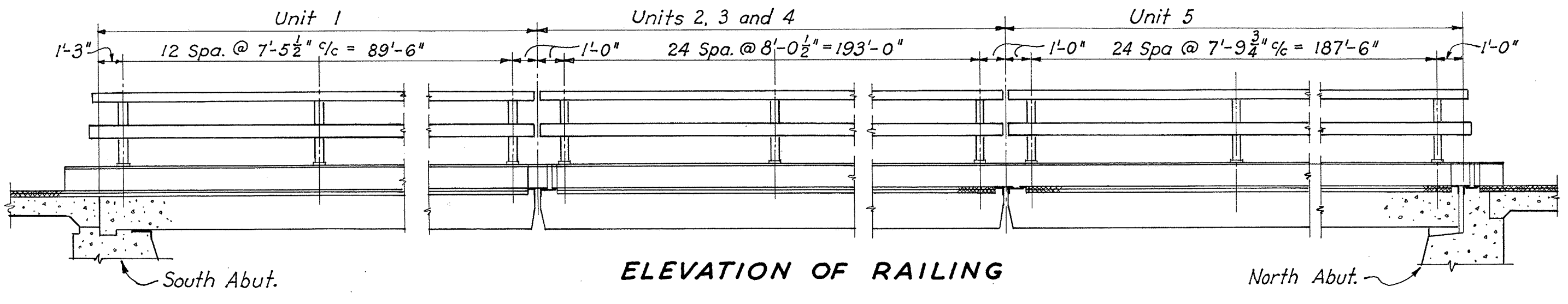
PENCIL REV. JUNE 7, 1954

Note: Lap #10 bars 3'-2" minimum

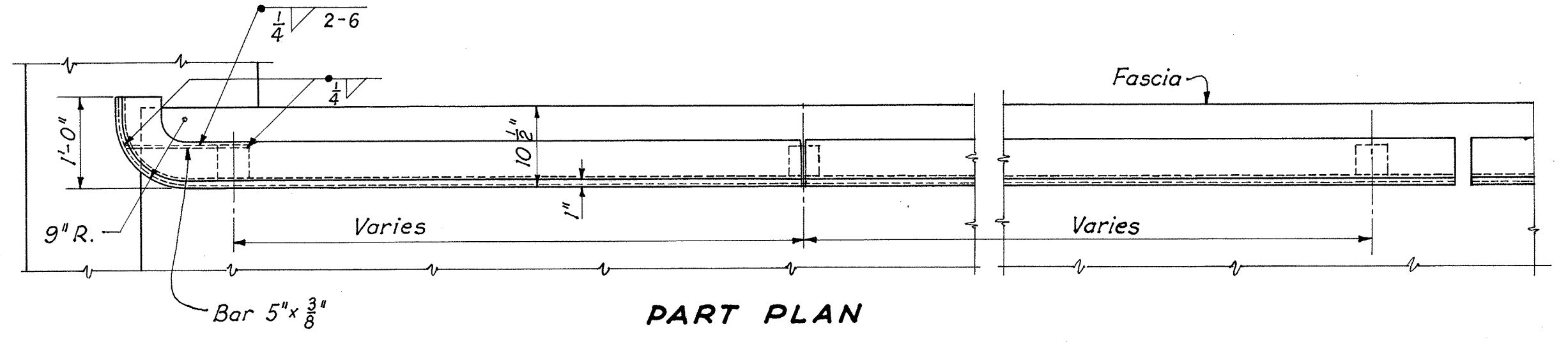
STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES AND RAILROAD CROSSINGS			
SUPERSTRUCTURE DETAILS			
BRIDGE NO. SC-23-54 OVER N. & W. RY. & EXISTING U.S. 23			
SCIOTO COUNTY		DO-FG-507-B-5-B	
SEC. SC1-23-4.76		STA. 230 + 48.02	
DESIGNED	DRAWN	TRACED	CHECKED
Ray	Ray	NEY	CFB
REVIEWED	DATE	REVISED	
WFC	5-13-53		

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	AA-11(4)	96 98

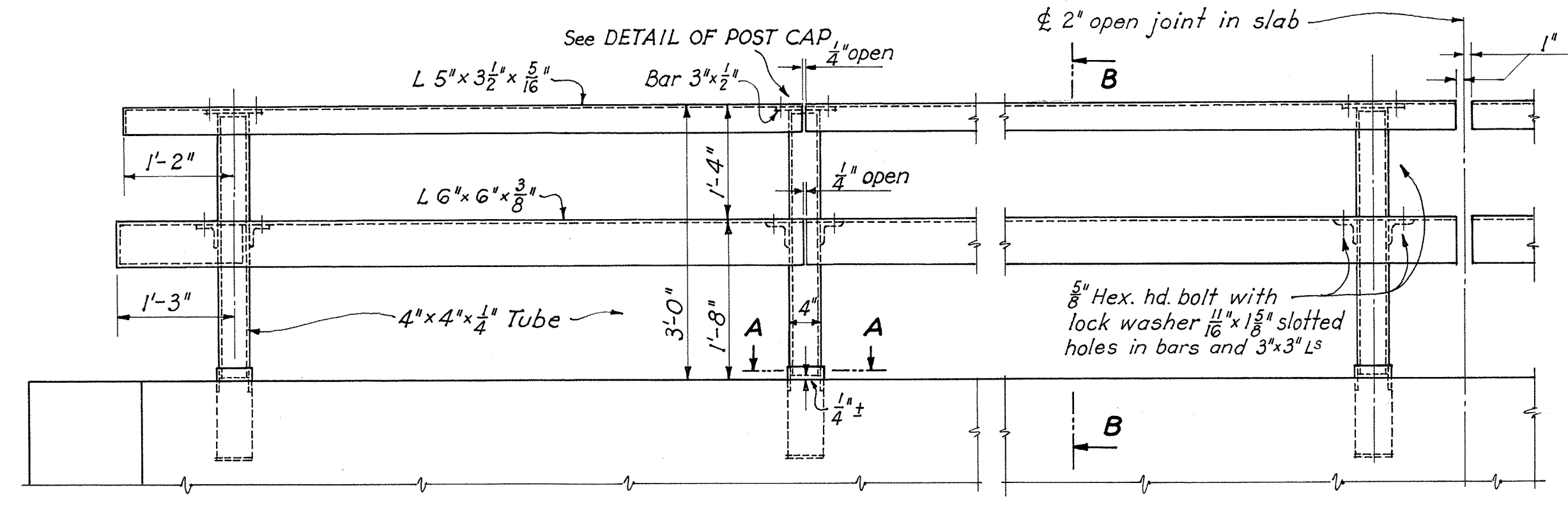
SCI-23-4.7G
DO-507-B5-B
DO-FG-507-B-5-B



ELEVATION OF RAILING



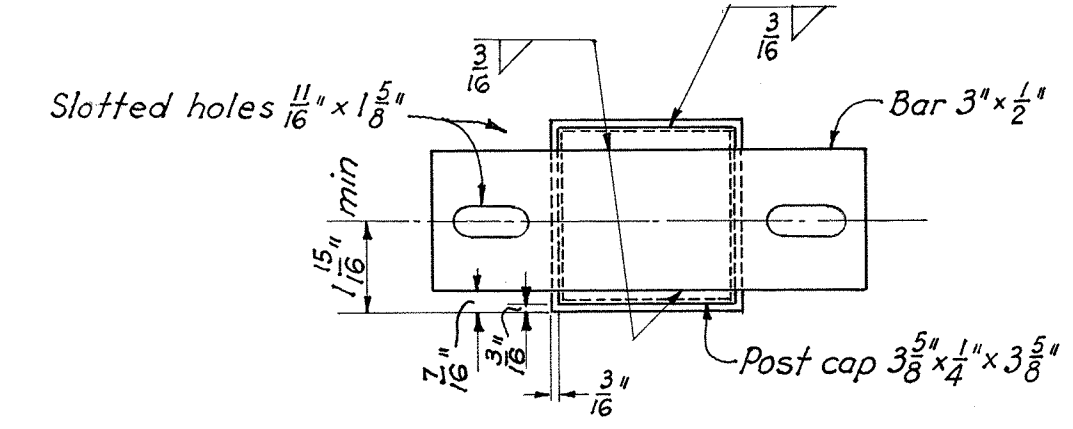
PART PLAN



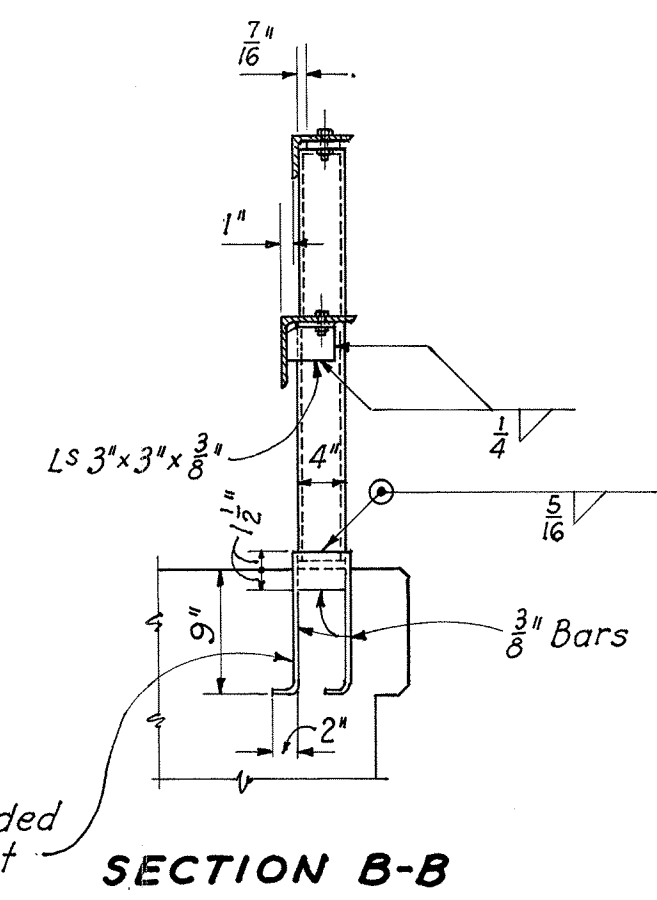
RAILING DETAILS

Railing angles shall be continuous for two or three panels lengths; joints in top and bottom rail shall be staggered.

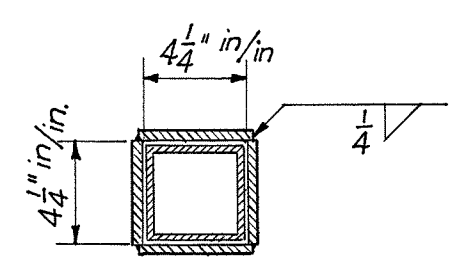
Post anchors are included with railing for payment



DETAIL OF POST CAP

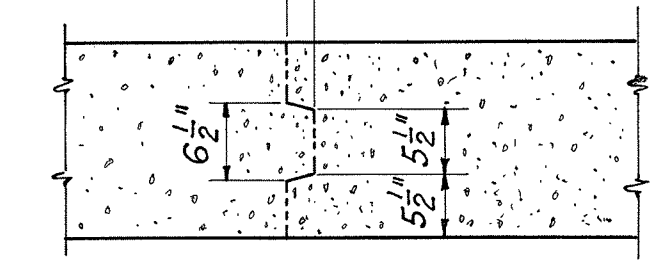


SECTION B-B

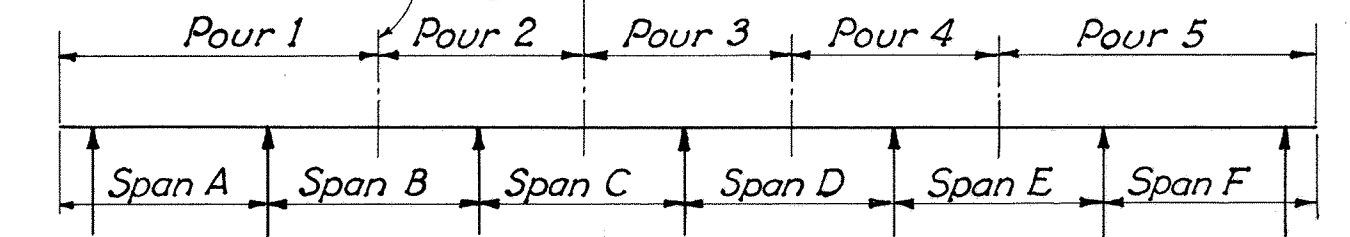


SECTION A-A

DETAILS OF CONSTRUCTION JOINT IN SUPERSTRUCTURE SLAB



Constr. Joints at or near centerline of spans



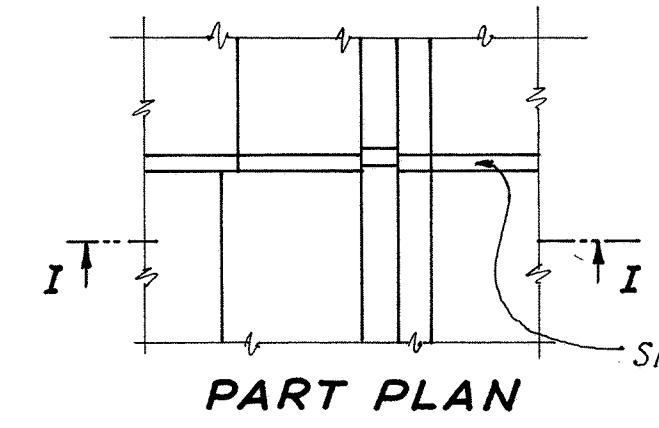
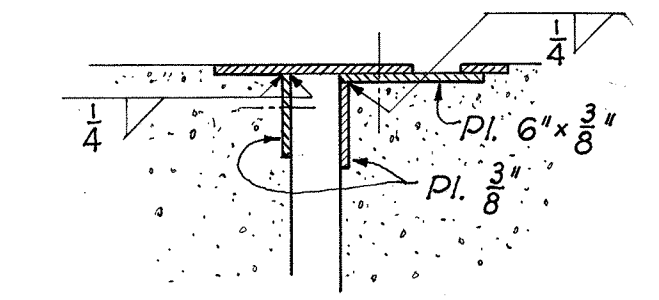
FOR UNITS 2, 3, 4 and 5
Complete forms and falsework for Spans A, B & C before completing pour 1; for Span D, before pour 2 is placed; for Span E before pour 3 is placed; for Span F, before pour 4 is placed. Forms and falsework may be removed from Span A when concrete in pour 2 has met curing requirements of Sec. S-0.01; from Span B when pour 3 meets requirements; from Span C when pour 4 meets requirements; from Span D when pour 5 meets the requirements, and from the remainder when curing requirement have been met.

ALTERNATE DECK POURING PROCEDURE (REQUIRING MINIMUM FORM MATERIAL)

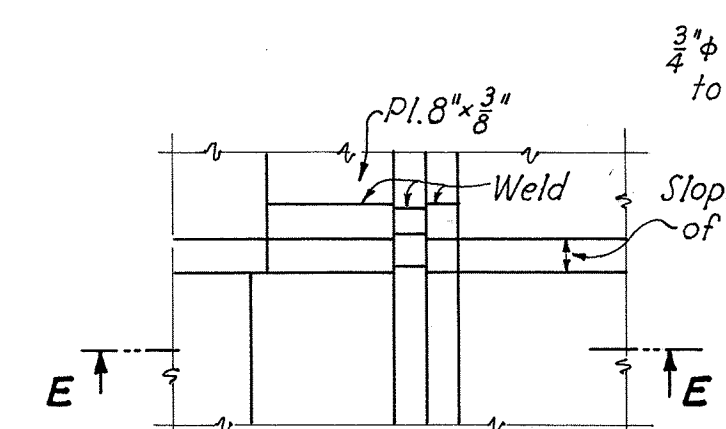
For Unit 1 construction joint shall be placed at or near centerline of the 32.5' span.

MEDIAN EXPANSION DEVICE

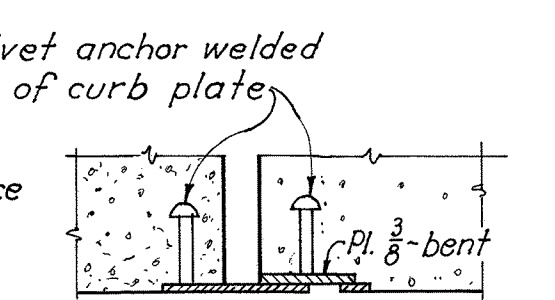
Note: See Curb Expansion Device for Dimensions & Details not shown.



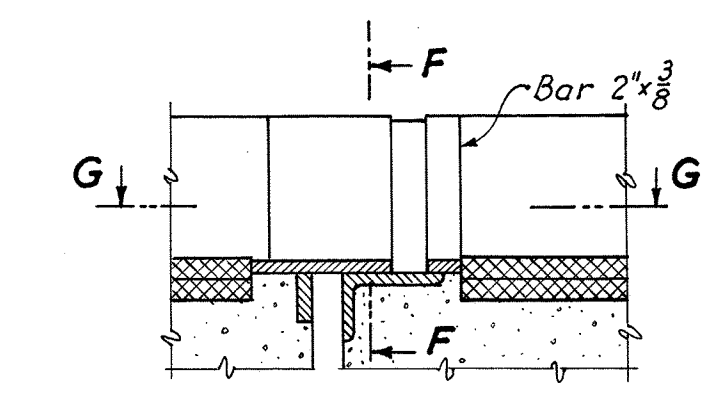
PART PLAN



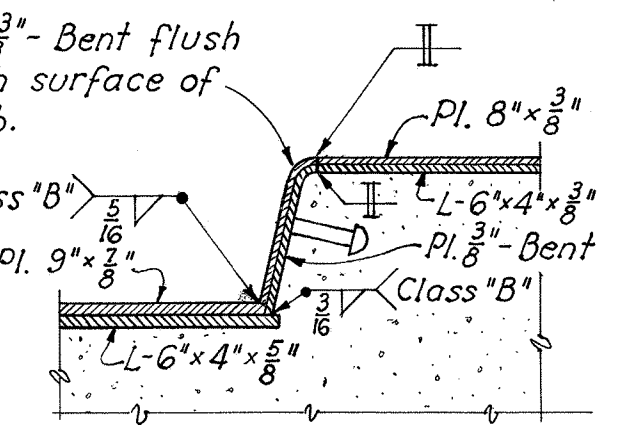
SECTION E-E



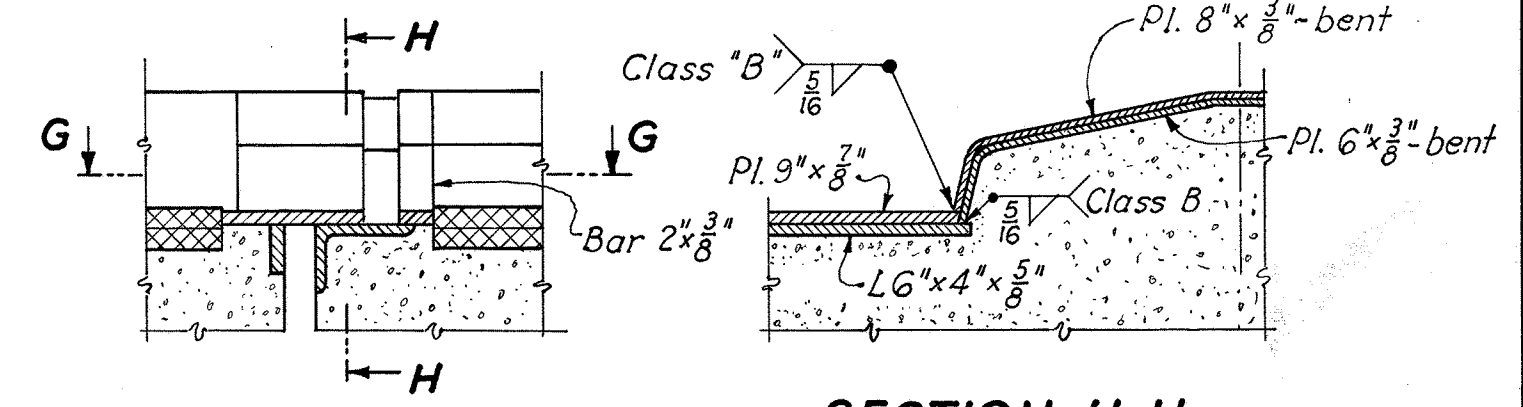
SECTION G-G



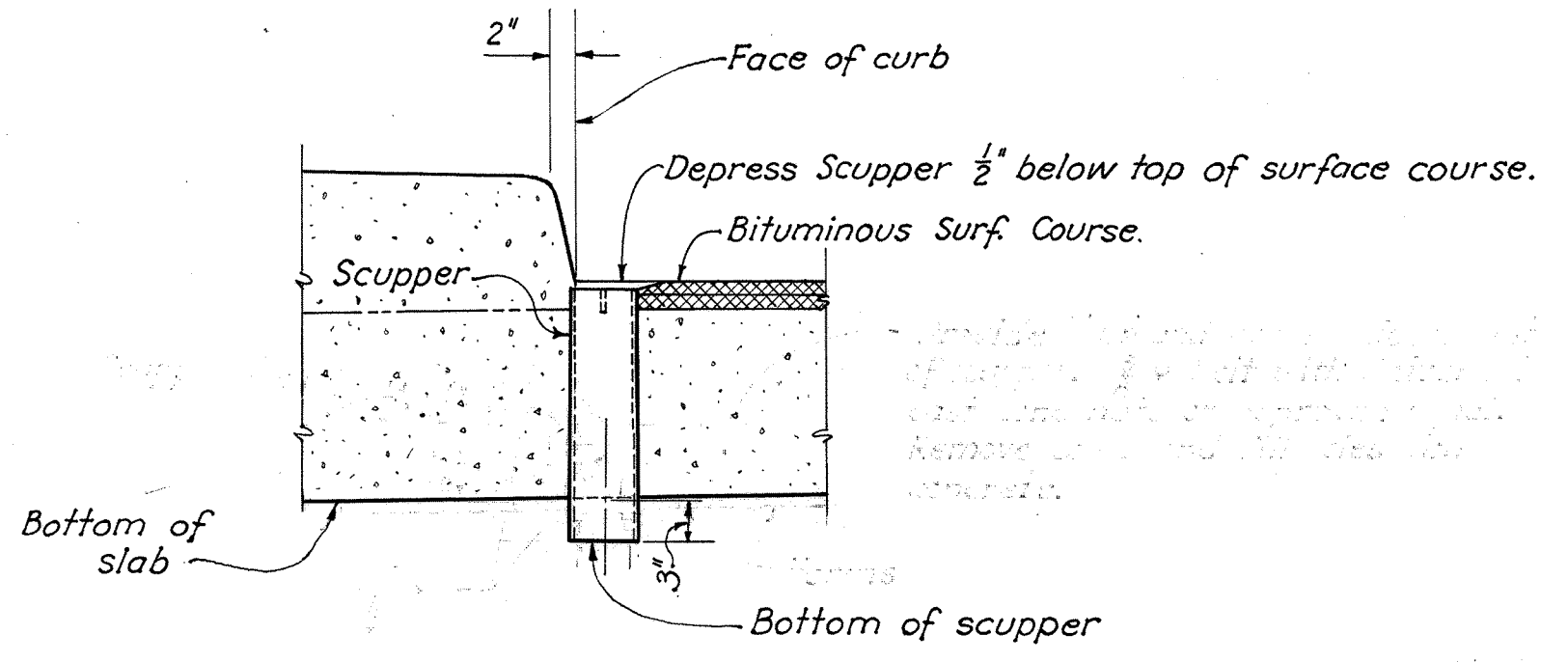
SECTION F-F



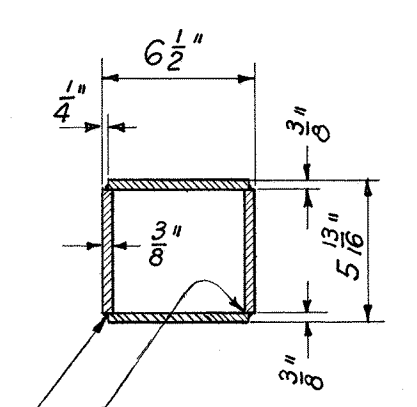
SECTION H-H



MEDIAN PLATE DETAILS



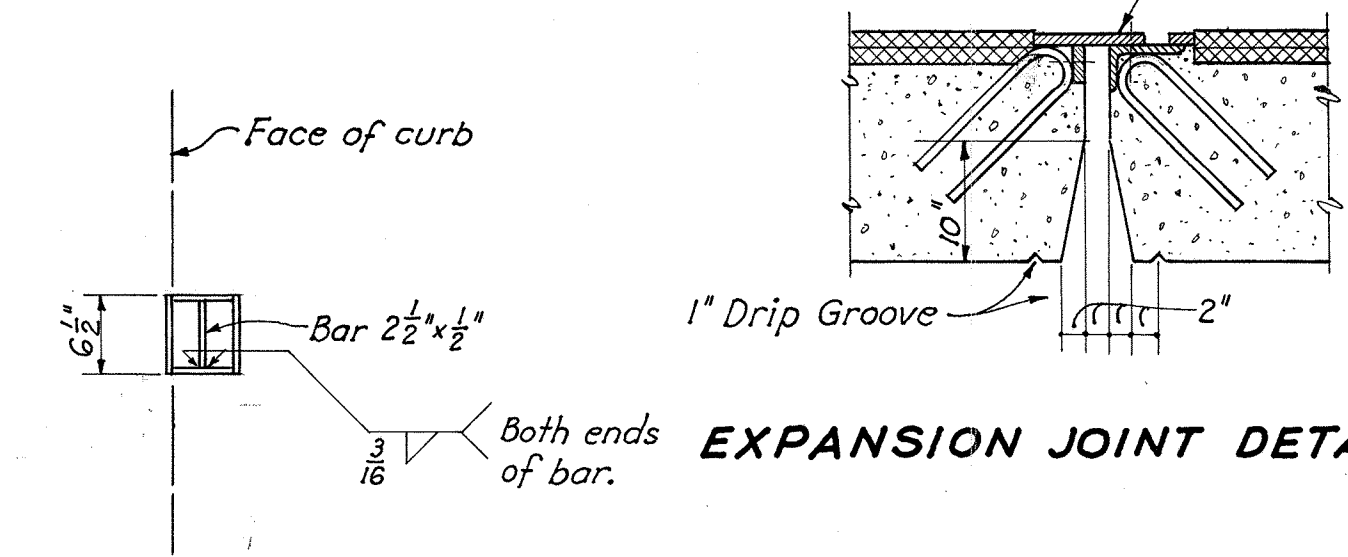
DETAIL AT SCUPPER



SECTION THRU SCUPPER

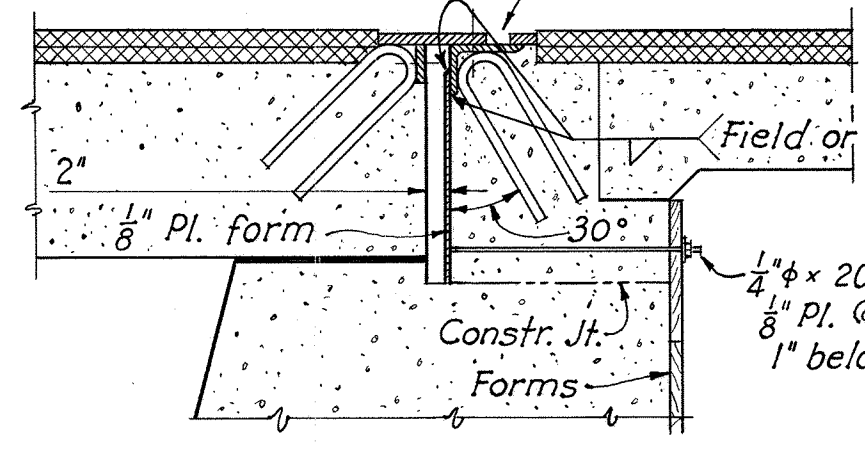
GUTTER AND SCUPPER DETAILS

EXPANSION JOINT DETAILS



PLAN OF SCUPPER

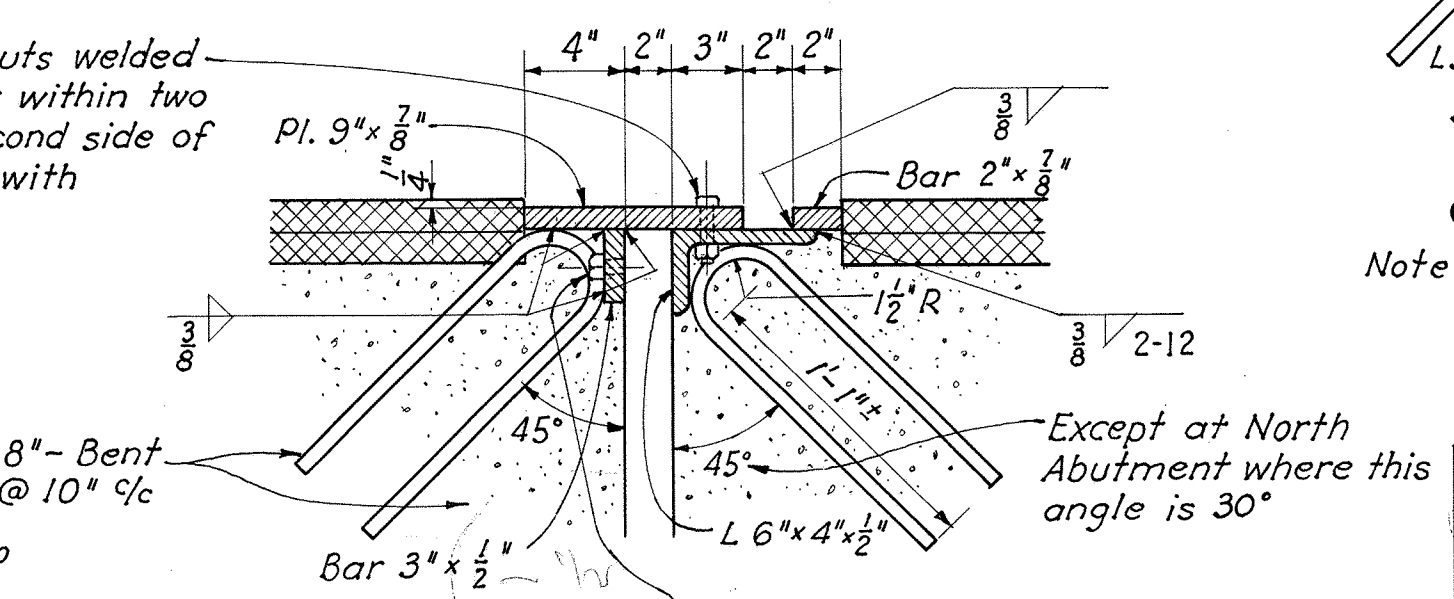
ROADWAY EXPANSION DEVICE



N. ABUT. END FINISH DETAILS

CURB PLATE DETAILS

5/8" x 2" Bolts @ 2'-0" ± % with nuts welded to lower angle. Remove bolts within two hours after concreting on second side of expansion device. Fill holes with bituminous material.



ROADWAY EXPANSION DEVICE

Drill and weld 5/8" nut to bar @ 1'-3" ± % to bolt expansion device to form during the placing of concrete on first side of expansion device.

CURB EXPANSION DEVICE

Note: Provide same bolts for construction as on Roadway Expansion Device.

SUPERSTRUCTURE DETAILS

BRIDGE NO. SC-23-54
OVER N. & W. RY. & EXISTING U.S. 23

SCIOTO COUNTY DO-FG-507-B-5-B
SEC. SCI-23-4.7G STA. 286+48.02

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Ray	Ray	J.V.G.	W.H.C.	W.H.C.	5-25-53	

SC1-23-4.76
DO-507-B5-B
DO-FG-507-B-5-B

REINFORCING STEEL LIST FOR SUPERSTRUCTURE AND ABUTMENTS

Superstructure					Superstructure, Caps					Superstructure, Caps					Abutments								
Mark	No.	Length	Weight	Slip	Mark	No.	Length	Weight	Slip	Mark	No.	Length	Weight	Slip	Mark	No.	Length	Weight	Slip	No. in Abutments			
																				North		South	
S11a	22	14'-6"	1,695	S	C11a	20	40'-2"	4,268	S	C10a	12	40'-2"	2,074	S	A8a	40	34'-6"	3,685	S		20	20	
<i>Superstructure</i>					<i>Superstructure, Caps</i>					<i>Superstructure, Caps</i>					<i>Abutments</i>								
S10a	2001	35'-1"	302,078	S	C11b	12	40'-8"	2,593	S	C10b	12	38'-11"	2,010	S	A8b	24	36'-7"	2,344	S		12	12	
S10b	176	23'-0"	17,419	S	C11c	22	39'-2"	4,578	S	C10c	6	39'-10"	1,028	S	A6a	39	8'-7"	503	B			39	
S10c	324	17'-0"	67,592	S	C11d	14	22'-0"	1,636	S	C10d	25	35'-0"	3,765	S	A6b	39	2'-3"	132	S			39	
S10d	374	20'-6"	32,991	S	C11e	6	39'-8"	1,265	S	C10e	30	35'-7"	4,593	S	A5a	88	8'-1"	742	B	4.4	4.4		
S10e	352	14'-6"	21,963	S	C11f	50	36'-0"	3,563	S	C10f	14	35'-3"	2,124	S	A5b	88	9'-2"	841	B	4.4	4.4		
S10f	726	10'-0"	31,240	S	C11g	26	36'-4"	5,019	S	C10g	20	34'-0"	2,926	S	A5c	16	3'-6"	59	S		8	8	
S10g	42	29'-4"	5,301	S	C11h	21	35'-4"	3,942	S	C10h	12	34'-7"	1,786	S	A5d	4	6'-5"	27	S		4	4	
S10h	44	21'-0"	3,976	S	C11i	164	33'-3"	28,972	S	C10i	112	32'-10"	13,824	S	A5e	8	6'-10"	57	S	4	4		
S10i	44	18'-0"	3,408	S	C11j	28	33'-0"	4,910	S	C10j	12	33'-10"	1,747	S	A5f	8	6'-2"	51	B	4	4		
S10j	216	32'-8"	30,362	S	C11k	2	30'-8"	326	S	C10k	15	30'-7"	1,974	S	A5g	40	4'-0"	167	S	20	20		
S10k	45	33'-11"	6,567	B	C11l	86	28'-0"	12,794	S	C10l	10	25'-0"	1,076	S	A5h	4	36'-2"	151	S		4		
S10l	45	30'-6"	5,906	B	C11m	2	31'-3"	332	S	C10m	42	27'-0"	4,880	S	A5i	4	13'-8"	57	B		4		
S9a	264	9'-0"	8,078	S	C11n	20	25'-6"	2,710	S	C10n	24	18'-0"	1,859	S	A4a	88	6'-6"	382	B	4.4	4.4		
S6a	2536	32'-5"	124,451	S	C11p	38	28'-10"	5,821	S	C10o	28	27'-7"	3,323	S	<i>Collision Walls</i>								
S5a	69	33'-8"	2,423	S	C11r	10	30'-0"	1,594	S	C10p	6	24'-0"	620	S	W5a	108	3'-10"	432	B				
S5g	3	28'-4"	89	S	C11s	22	28'-5"	3,322	S	C10q	26	22'-0"	2,461	S	W5b	108	9'-8"	1,089	S				
S5j	9	31'-5"	295	S	C11t	20	26'-0"	2,763	S	C10r	6	22'-0"	2,461	S	W5c	24	14'-9"	369	B				
S4a	1156	3'-4"	2,574	B	C11u	31	27'-3"	4,488	S	C10s	6	24'-0"	620	S	W5d	24	14'-11"	373	B				
S4b	1156	3'-3"	2,510	B	C11v	16	23'-0"	1,955	S	C10t	26	22'-0"	2,461	S	<i>Replacement Steel</i>								
S4c	1156	3'-4"	2,574	B	C11w	8	27'-9"	1,179	S	C10u	100	20'-0"	8,606	S	RE11	8	7'-6"	319	S				
S4d	576	6'-10"	2,638	B	C11x	8	27'-9"	1,179	S	C10v	12	23'-3"	949	S	RE10	30	7'-2"	925	S				
					C11y	62	24'-0"	7,906	S	C9a	12	23'-3"	949	S	RE9	1	6'-10"	23	S				
					C11z	26	25'-3"	3,488	S	C8a	32	32'-6"	2,777	S	RE8	2	6'-6"	35	S				
										C5a	3300	8'-4"	28,682	B	RE7	3	6'-2"	38	S				
										C5b	192	7'-11"	1,585	B	RE6	7	5'-11"	62	S				
										C5c	6	24'-6"	153	S	RE5	3	5'-7"	17	S				
										C5d	6	17'-0"	106	S	RE4	1	5'-3"	4	S				
										C5e	9	15'-9"	148	S	RE4s	3	10 1/2"	47	3				
										C5f	6	25'-6"	160	S	(Spiral)								
										C5g	6	13'-6"	84	S	<i>Turns</i>								
										C5h	6	7'-0"	44	S									
										C5j	6	8'-0"	50	S									
										C5k	6	6'-0"	38	S									
										C5m	3	3'-6"	11	S									
										C4a	96	5'-0"	321	B									

In the reinforcing steel bar marks, the numeral following the first letter is the Bar Number which indicates the size of the bar.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

REINFORCING STEEL LIST FOR SUPERSTRUCTURE AND ABUTMENTS

BRIDGE No. SC-23-54
over N. & W. RY. & EXISTING U.S. 2
Scioto County DO-FG-507-B-5-B
Sec. SC1-23-4.76 Sta. 286+48.0

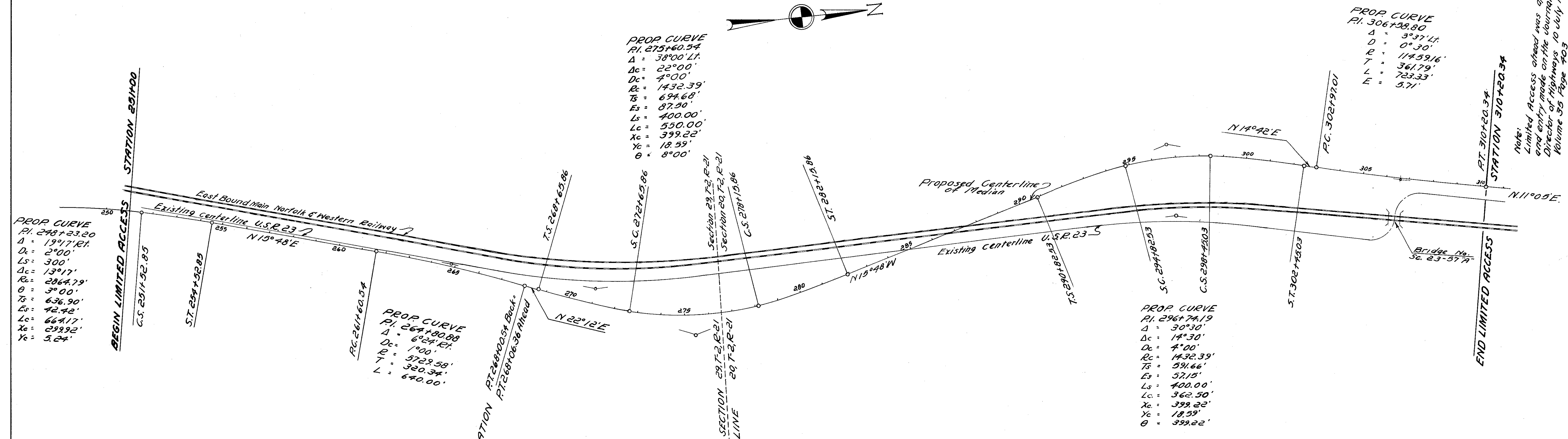
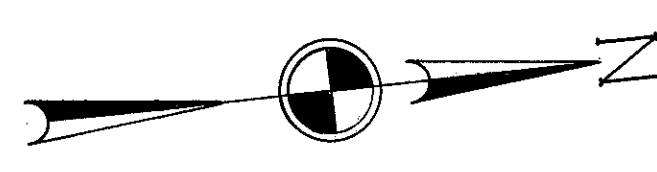
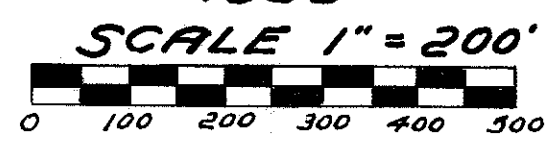
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
Roy	Roy	J.P.	ladd	W.H.C.	5-25-53

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

This improvement between Station 251+00 and Station 310+20.34 has been declared a limited access highway or freeway by action of the Director of Highways, recorded in Volume 38, Page 92, of the Director's Journal, in accordance with the provisions of Section 1178-21, General Code of Ohio and dated March 2, 1953.

SC1.23-4,48

ACCESS LIMITED
LOCATION PLAN
 STATE OF OHIO DEPARTMENT OF HIGHWAYS
 STATE ROUTE U.S. No. 23
 SECTION 4.48
 SCIOTO COUNTY
 CLAY TOWNSHIP
 SEC'S. 20 & 29, T-2, R-21
 1953



PROP CURVE
 PI. 248+23.20
 Δ = 19°17'18"
 Dc = 2°00'
 Ls = 300'
 Δc = 13°17'
 R = 2864.79'
 θ = 3°00'
 Ts = 636.90'
 Es = 42.42'
 Lc = 664.17'
 Xc = 299.92'
 Yc = 5.24'

PROP CURVE
 PI. 275+60.54
 Δ = 38°00'14"
 Dc = 22°00'
 Δc = 4°00'
 R = 1432.39'
 Ts = 694.68'
 Es = 87.90'
 Ls = 400.00'
 Lc = 550.00'
 Xc = 399.22'
 Yc = 18.59'
 θ = 8°00'

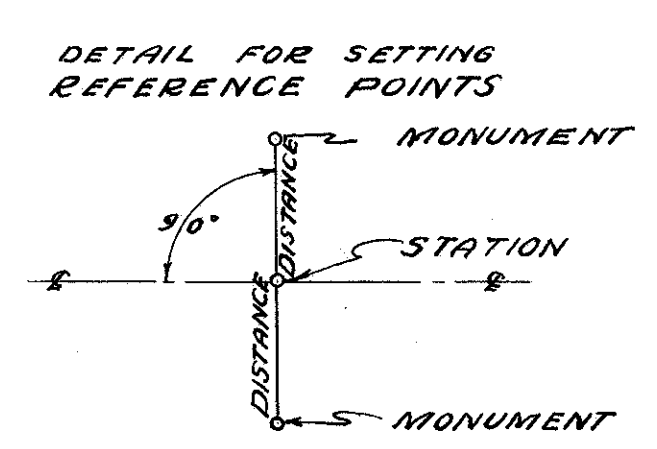
PROP CURVE
 PI. 306+28.80
 Δ = 3°37'14"
 Dc = 0°30'
 R = 11459.16'
 T = 361.79'
 L = 723.33'
 E = 5.71'

PROP CURVE
 PI. 264+80.88
 Δ = 6°24'18"
 Dc = 1°00'
 R = 5729.58'
 T = 320.34'
 L = 640.00'

PROP CURVE
 PI. 296+74.19
 Δ = 30°30'
 Dc = 14°30'
 Δc = 4°00'
 R = 1432.39'
 Ts = 591.66'
 Es = 57.15'
 Ls = 400.00'
 Lc = 362.50'
 Xc = 399.22'
 Yc = 18.59'
 θ = 399.22'

REFERENCE POINTS TO BE SET AFTER CONSTRUCTION

STATION	DIST. FROM E. LEFT	DIST. FROM W. RIGHT	STATION	DIST. FROM E. LEFT	DIST. FROM W. RIGHT	STATION	DIST. FROM E. LEFT	DIST. FROM W. RIGHT
251+00	38'	34'	268+65.86	35'	35'	290+82.53	33'	33'
251+52.85	38'	34'	270+00	35'	35'	294+82.53	37'	37'
254+52.85	35'	35'	272+62.86	37'	37'	298+43.03	37'	37'
260+00	38'	34'	275+00	35'	35'	302+43.03	37'	37'
261+60.54	37'	35'	278+45.86	37'	37'	302+97.01	37'	37'
267+00	35'	35'	280+00	37'	37'	305+00	37'	37'
268+00.54 Back Equation 268+06.36 Ahead	30'	35'	282+5.86	33'	33'	310+20.34	43'	41'
			285+00					



I hereby certify that this Plat is a true delineation of a survey made by the Ohio Department of Highways.
 Date: Jan. 21, 1953 Joseph H. Doyle
 Division Engineer
 Division 9 (P.E. 1209)

Note:
 Limited Access ahead was approved and entry made on the Journal of the Director of Highways 10 July 1950 Volume 35 Page 403

UTILITIES

- ⊕ Ohio Consolidated Telephone Company - Portsmouth, Ohio
- ⊕ Ohio Power Company - Canton, Ohio
- ⊕ Norfolk and Western Railway Company - Roanoke, Virginia (Telegraph System)

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

74
98

SCI.~23-4.76
RIW PLAN
LIMITED ACCESS

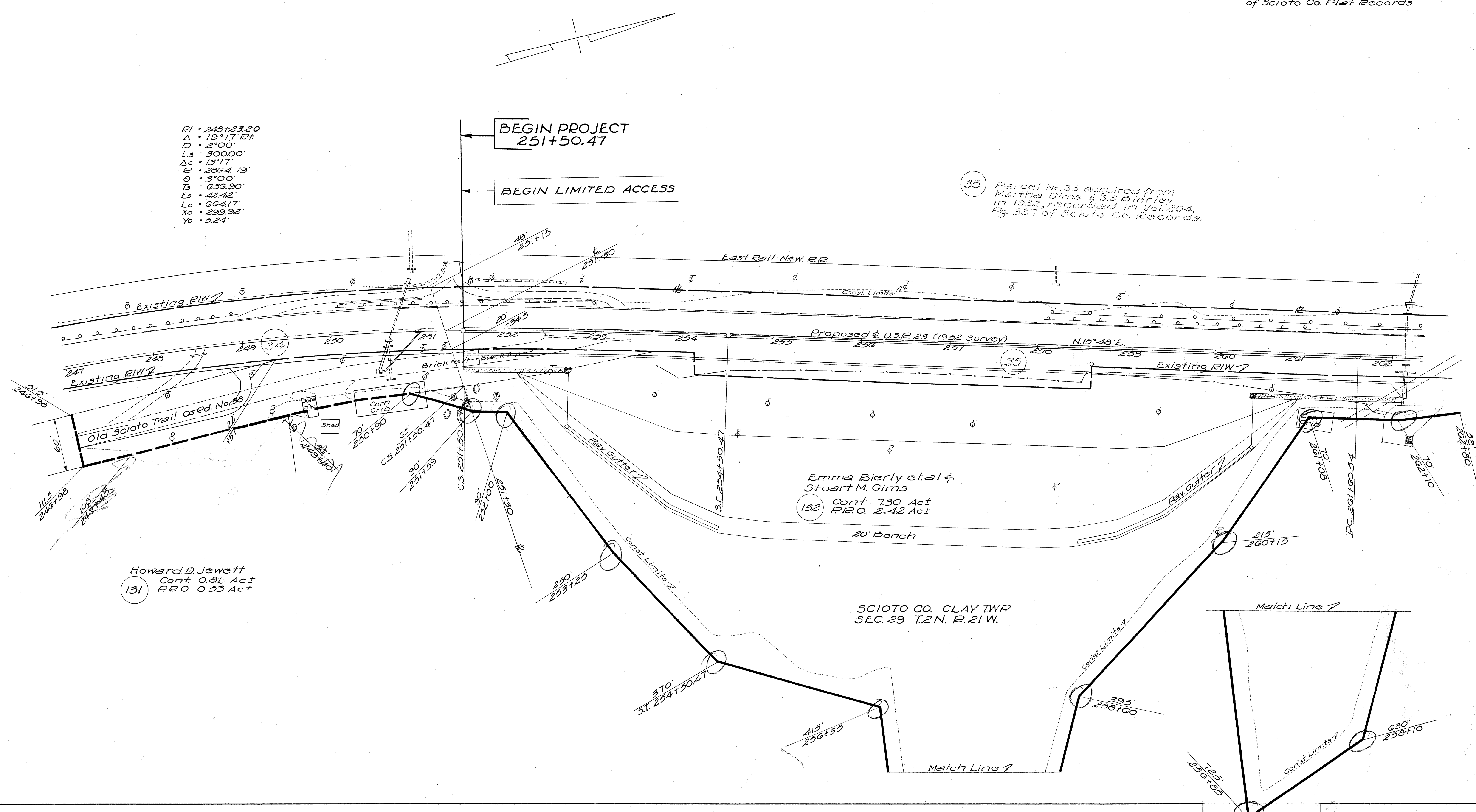
Note:
Location Plan recorded
in Plat Book 2, Page 22
of Scioto Co. Plat Records

PI. = 248+23.20
Δ = 19°17' E.
D = 2°00'
Ls = 300.00'
Δc = 15°17'
E = 2964.79'
S = 3°00'
Ts = 636.90'
Es = 42.42'
Lc = 664.17'
Xc = 299.92'
Yc = 5.24'

BEGIN PROJECT
251+50.47

BEGIN LIMITED ACCESS

35 Parcel No. 35 acquired from
Martha Gims & S.S. Bierley
in 1932, recorded in Vol. 204,
Pg. 327 of Scioto Co. Records.



Clay Twp. Scioto Co.
Sec. 29 T2 R21

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

75
38

SCI-23-476
R/W PLAN
LIMITED ACCESS
Revised April 03 1945

Emma Bierly et al. &
Stuart M. Gims

132 LA Cont. 7.30 Act
P.R.O. 2.42 Act

R1= 264180.88
Δ = 6°24' Rt.
D = 1°00'
R = 5729.58'
T = 320.34'
L = 640.00'

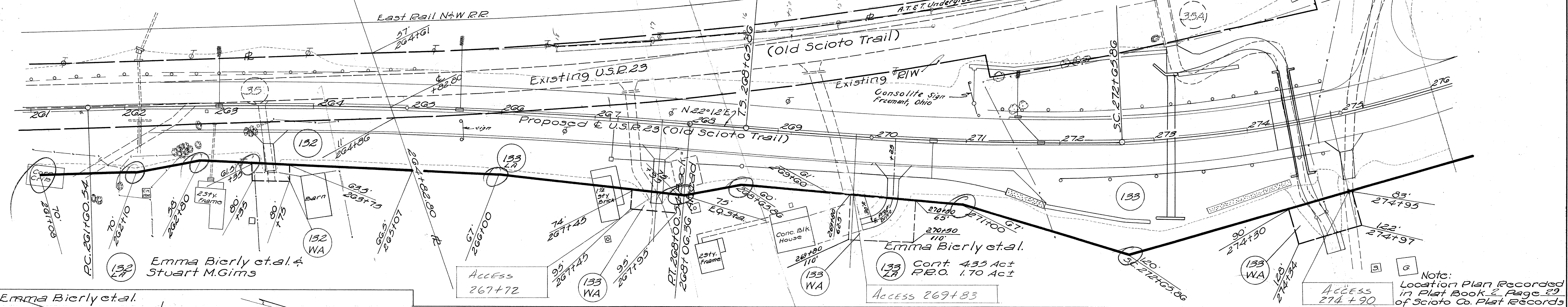
Emma Bierly et al.

133 LA Cont. 4.35 Act
P.R.O. 1.70 Act

Parcel No. 35A acquired from
S.S. Bierley in 1932, recorded
in Vol. 204, Pg. 309 of Scioto
Co. Records.

R1 = 275160.54
Δ = 38°00' Lt.
Dc = 22°00'
Dc = 4°00'
Rc = 1432.39'
Ts = 694.68'
Es = 87.50'
Ls = 400.00'
Lc = 550.00'
Xc = 399.22'
Yc = 13.39'
Os = 8°00'

Access
275+24.94



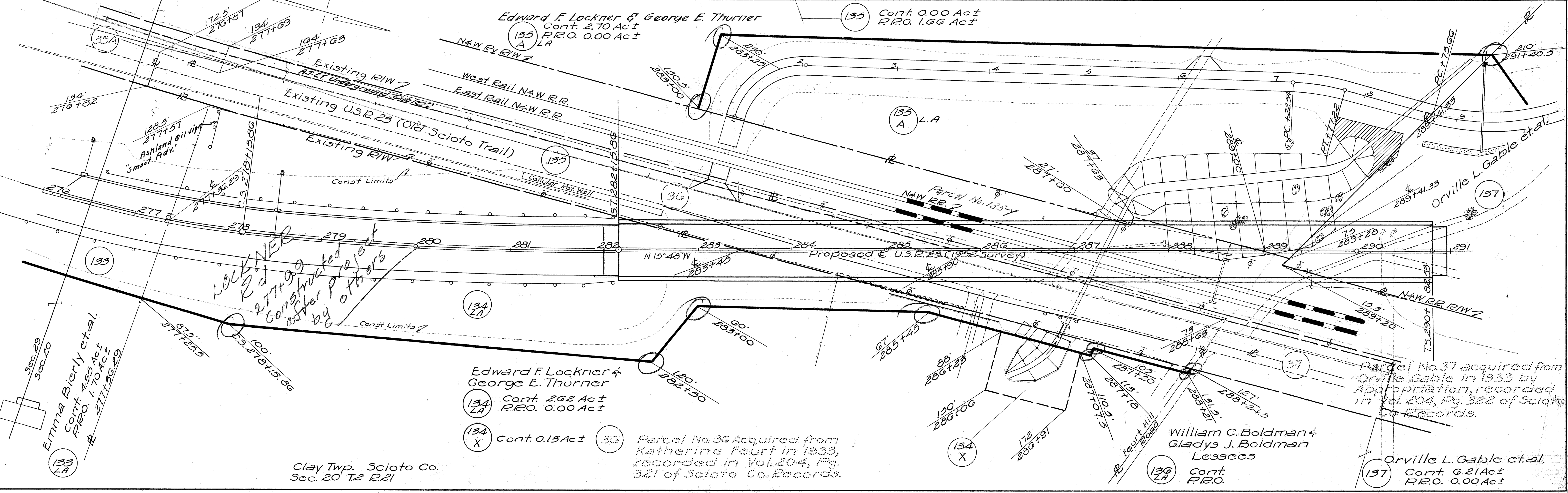
Note:
Location Plan Recorded
in Plat Book 2, Page 29
of Scioto Co. Plat Records

Emma Bierly et al.

Edward F. Lockner & George E. Thurner

135 LA Cont. 2.70 Act
P.R.O. 0.00 Act

135 Cont. 0.00 Act
P.R.O. 1.66 Act



Parcel No. 37 acquired from
Orville L. Gable in 1933 by
Appropriation, recorded
in Vol. 204, Pg. 322 of Scioto
Co. Records.

William C. Boldman &
Gladys J. Boldman
Lessors

139 LA Cont.
P.R.O.

Orville L. Gable et al.
137 Cont. 6.21 Act
P.R.O. 0.00 Act

Clay Twp. Scioto Co.
Sec. 20 T2 R21

Edward F. Lockner &
George E. Thurner

134 LA Cont. 2.62 Act
P.R.O. 0.00 Act

134 X Cont. 0.13 Act

Parcel No. 36 Acquired from
Katherine Feurt in 1933,
recorded in Vol. 204, Pg.
321 of Scioto Co. Records.

LOCKNER
Rd
277+90
Constructed by
others
after project
by G.E.

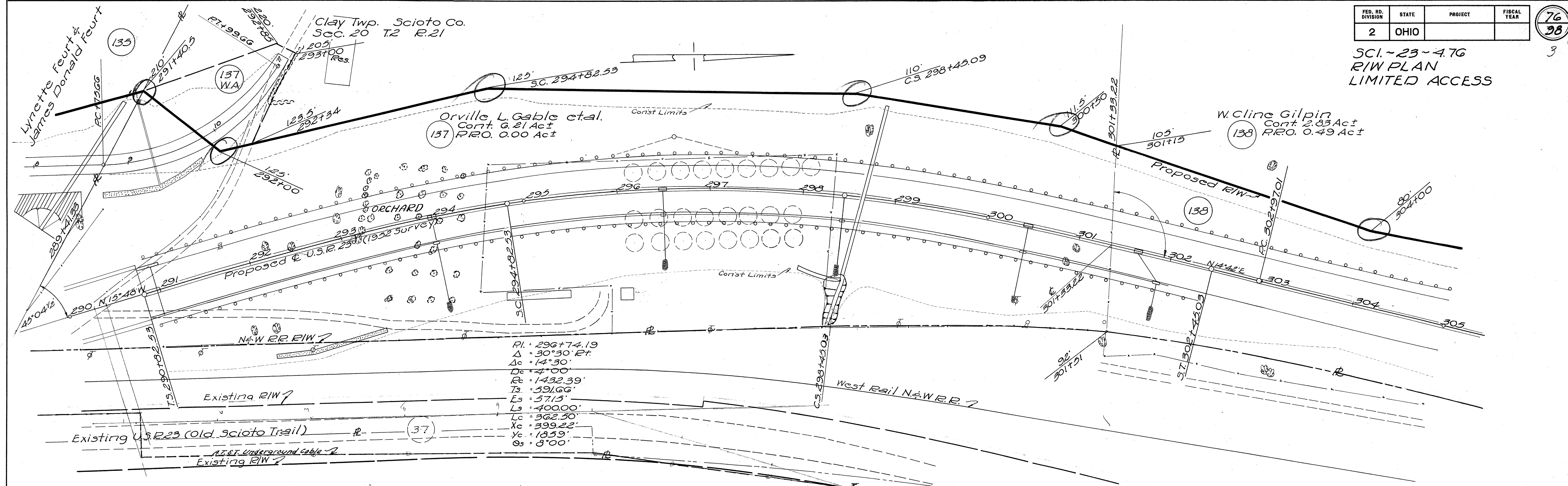
Emma Bierly et al.
Cont. 4.35 Act
P.R.O. 1.70 Act
R 277+36.29

133 LA

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

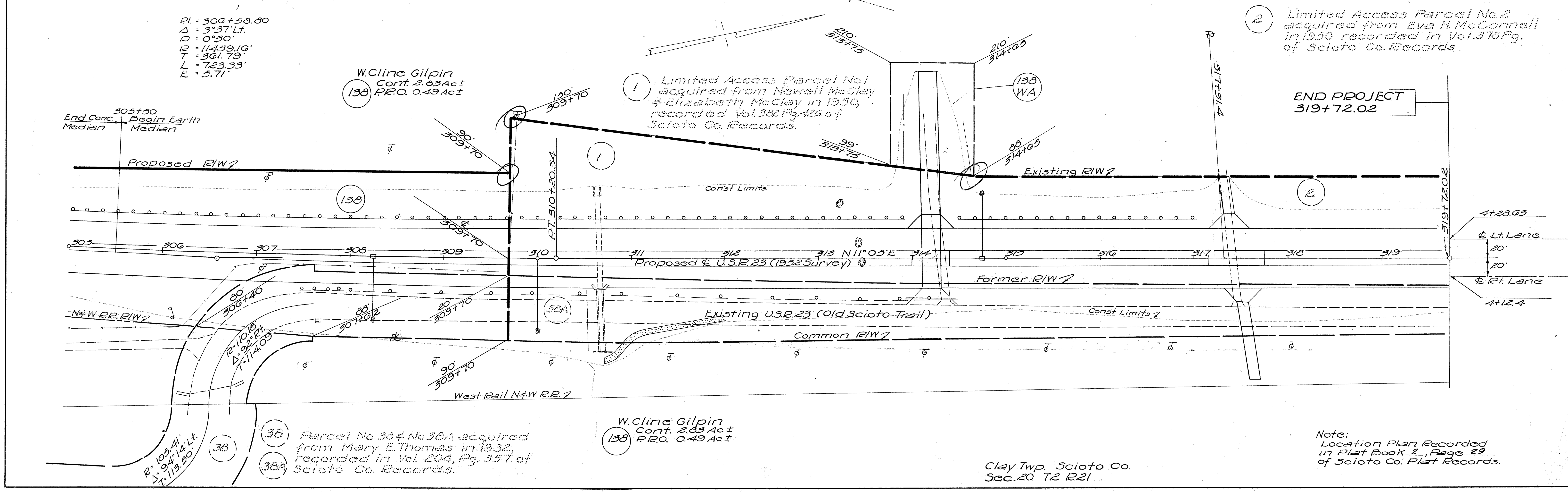
76
98

SCI-23-4.76
RIW PLAN
LIMITED ACCESS



$PI = 296+74.19$
 $\Delta = 30^{\circ}30' E$
 $D = 14.30'$
 $R = 4.00'$
 $R = 1432.39'$
 $Ts = 591.66'$
 $Es = 571.5'$
 $Ls = 400.00'$
 $Lc = 362.50'$
 $Xc = 399.22'$
 $Yc = 183.59'$
 $Os = 5^{\circ}00'$

$PI = 306+56.80$
 $\Delta = 3^{\circ}37' Lt.$
 $D = 0^{\circ}30'$
 $R = 11459.16'$
 $T = 361.79'$
 $L = 723.33'$
 $E = 5.71'$



W. Cline Gilpin
 Cont. 2.83 Act
 P.R.O. 0.49 Act
 138

Parcel No. 384 & No. 38A acquired
 from Mary E. Thomas in 1932,
 recorded in Vol. 204, Pg. 357 of
 Scioto Co. Records.
 384
 38A

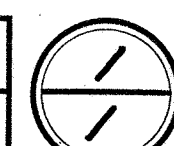
Limited Access Parcel No. 2
 acquired from Eva H. McConnell
 in 1950 recorded in Vol. 376 Pg.
 of Scioto Co. Records.

END PROJECT
 319+72.02

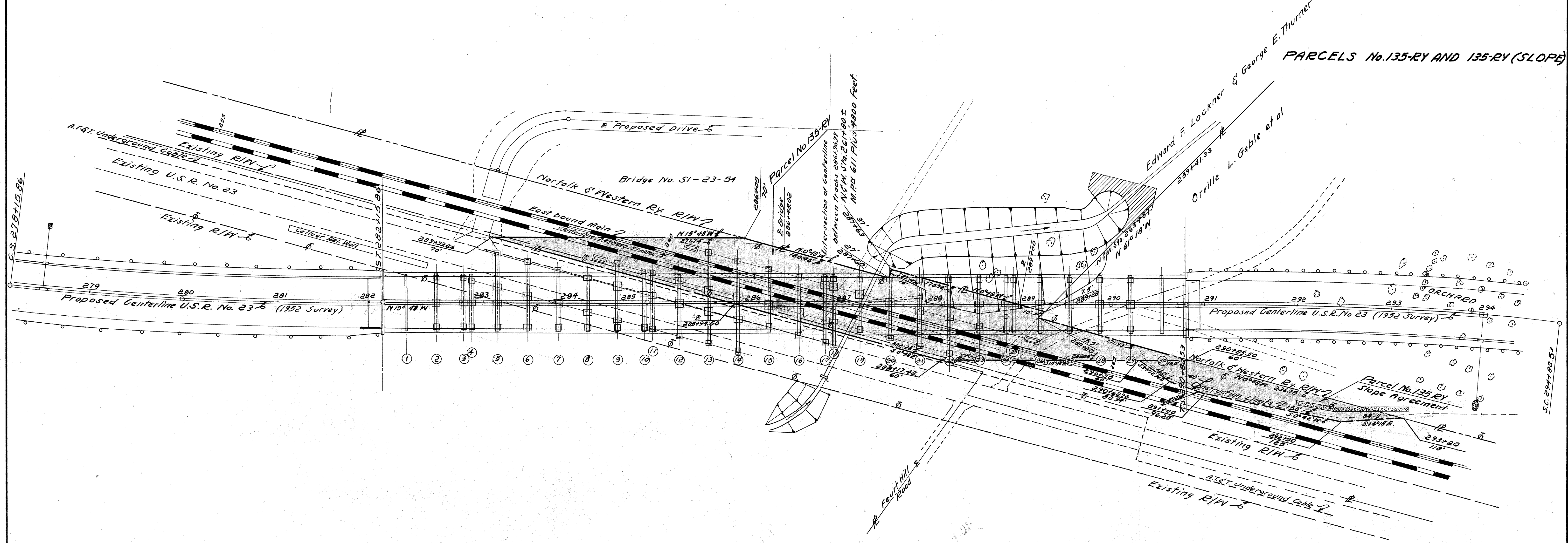
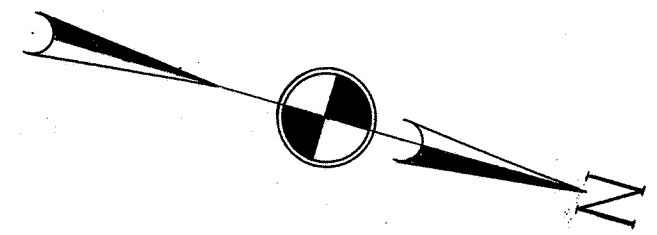
Note:
 Location Plan Recorded
 in Plat Book 2, Page 29
 of Scioto Co. Plat Records.

Clay Twp. Scioto Co.
 Sec. 20 T2 R21

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		



RIGHT OF WAY PLAN
 NORFOLK AND WESTERN RAILWAY COMPANY
 (STATE) U.S. ROUTE No. 23, SECTION 4.76
 SCIOTO COUNTY, CLAY TOWNSHIP
 SECTION 20, TOWN 2, RANGE 21
 GRADE SEPARATION STRUCTURE No. SI-23-54
 FEDERAL AID PROJECT No. AF-626(10)
 BRIDGE CARRYING (STATE) U.S. ROUTE No. 23
 OVER THE TRACKS AND RIGHT OF WAY OF THE
 NORFOLK AND WESTERN RAILWAY COMPANY
 Scale 1" = 50'



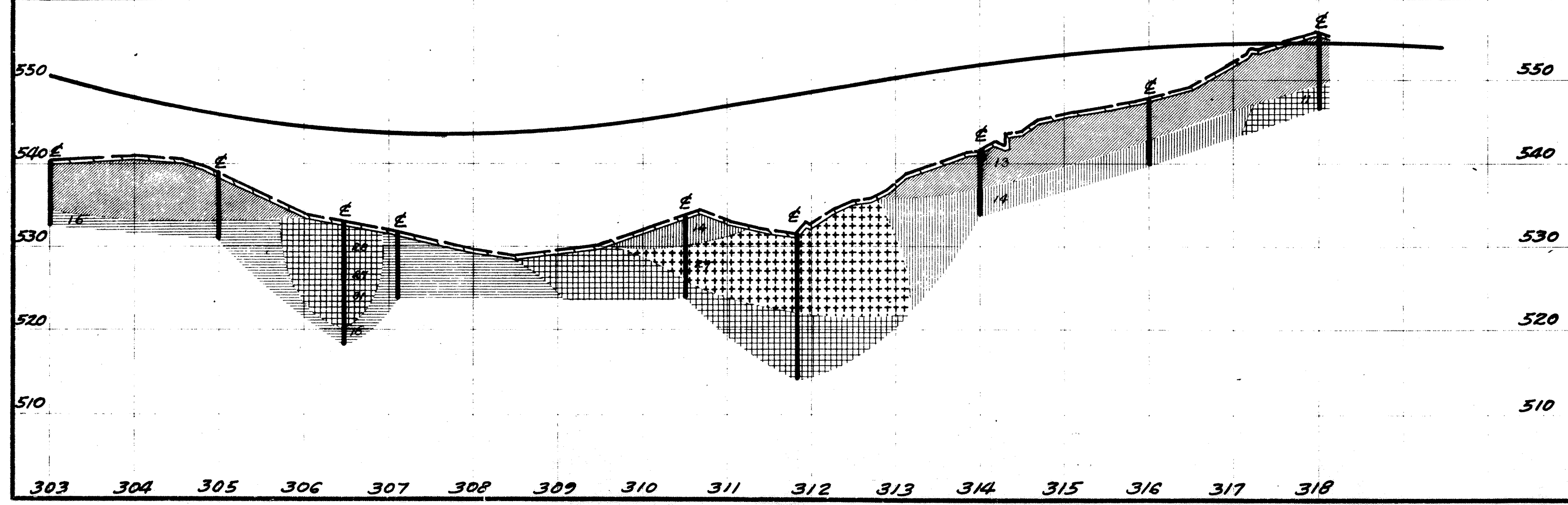
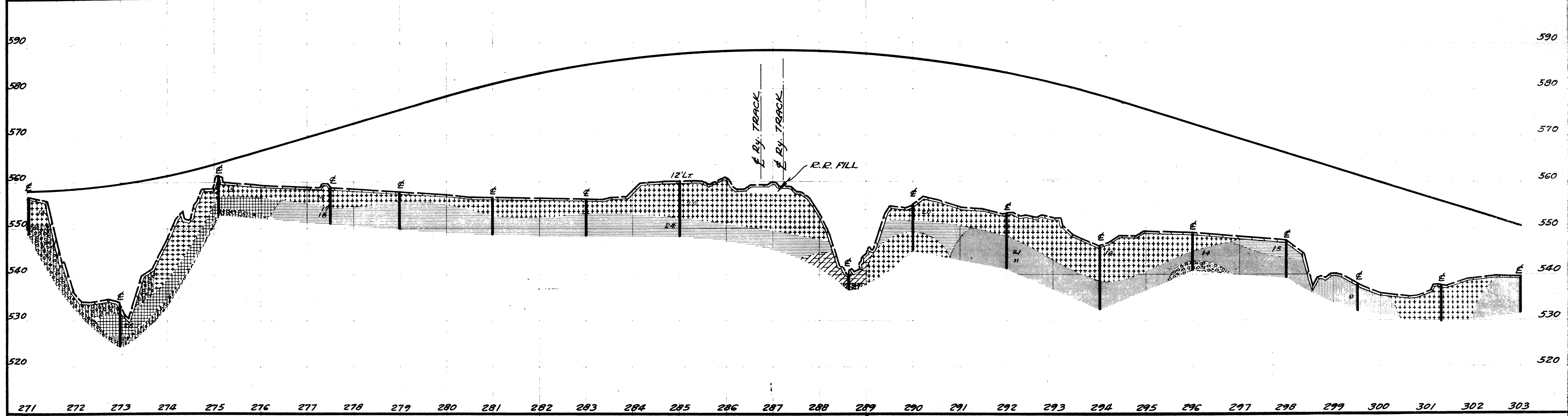
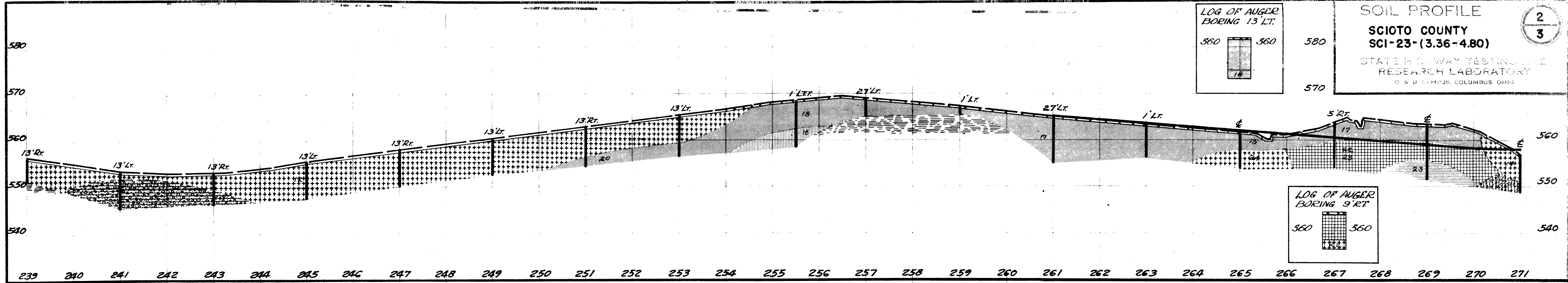
NOTED:
 1. THE CUTTING EDGE WALL IS TO BE CONSTRUCTED AT THE
 14' FROM THE CENTERLINE OF THE BRIDGE STRUCTURE.

LOG OF AUGER
BORING 13' LT.

SOIL PROFILE
SCIOTO COUNTY
SCI-23-(3.36-4.80)

2
3

STATE HIGHWAY TESTING AND
RESEARCH LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO



SOIL PROFILE

SCIOTO COUNTY
SCI-23-(3.36-4.80)

STATE HIGHWAY TESTING AND
RESEARCH LABORATORY
O S U CAMPUS COLUMBUS, OHIO

3
3

