

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

SUNBURY - MT. GILEAD ROAD

S.H. (I.C.H.) 335 SEC'S A & B. & SUNBURY (Pt.)

DELAWARE COUNTY

BUREAU OF CONSTRUCTION

NET LENGTH OF PROJECT 27470 LIN. FT.
MORROW COUNTY

The Standard Specifications of The State of Ohio, Department of Highways, together with the "Supplemental Specifications for National Recovery Highway Funds Projects" in force on date of contract will govern this improvement.
I hereby approve these plans and declare that the making of this improvement will require the closing to traffic of the highway, and that detours will be provided as shown on the plans and estimates and certify that the right of way 60 ft wide is available for the construction, maintenance and repair of the above highway.

Approved Date _____
Resident District Deputy Director

Approved Date 1-14-33 *H. D. Schoonover*
Resident Division Deputy Director

Approved Date 1-15-33 *Edmer Sibley*
Deputy Director Bureau of Construction

Approved Date _____
Deputy Director Bureau of Maintenance

Approved Date _____
Deputy Director Bureau of Bridges

Approved Date 12-17-33 *H. Chapman*
Chief Engineer 1st Asst. Director

Approved Date 10-19-33 *W. M. Murrell*
Director of Highways

Recommended for Approval Date _____
District Engineer Bureau of Public Roads

Recommended for Approval Date _____
Chief Engineer Bureau of Public Roads

Approved Date _____
Chief of Bureau

CONVENTIONAL SIGNS

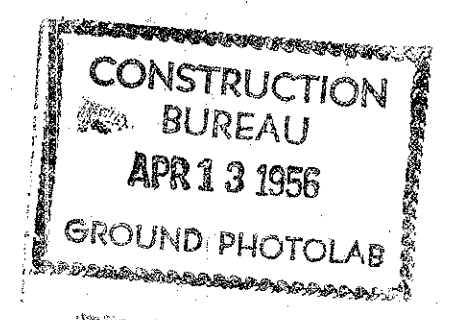
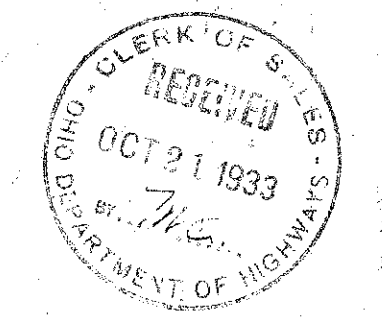
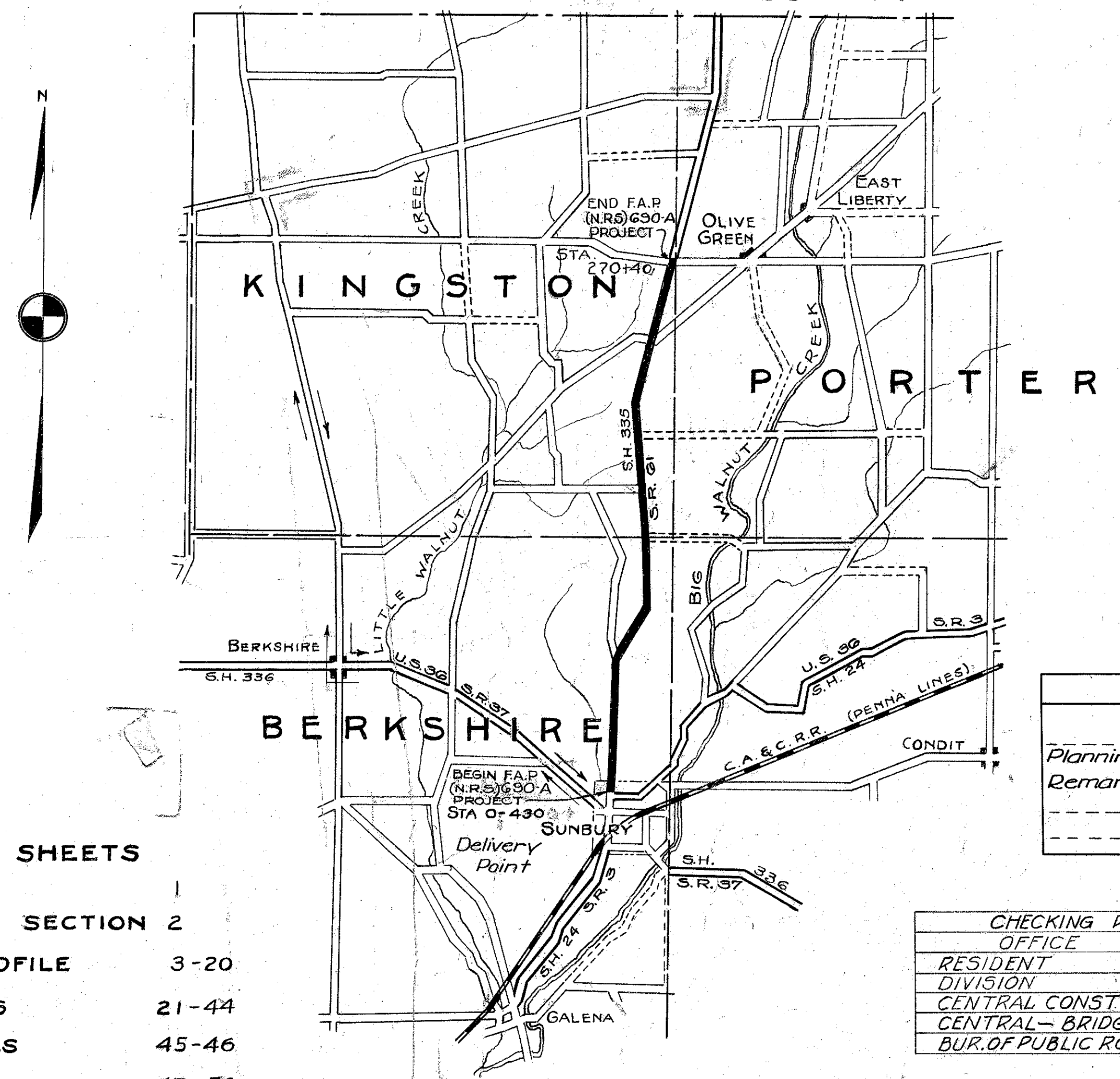
- County Line
- Township Line
- Section Line
- Property Line
- Center Line
- City or Village Line
- Fence
- Telephone or Telegraph
- Steam Railroad
- Guard Rail
- Drain Pipe - new
- Drain Pipe - old

Supplemental prints of Standard Drawings No's. [B-T-50-60] [I-OI No. 1] [I-OC-B-1-2-2-2] [BC-A] [SC-A] [S-27 PC. 1+2] [I-15-5-C] [G-7.07]

- PORTION TO BE IMPROVED
- DETOURS SHOWN THUS
- IMPROVED ROADS
- SCALES
- PLAN 1" = 50'
 - PROFILE VERTICAL 1" = 5'
 - PROFILE HORIZONTAL 1" = 50'
 - CROSS SECTION 1" = 5'

INDEX OF SHEETS

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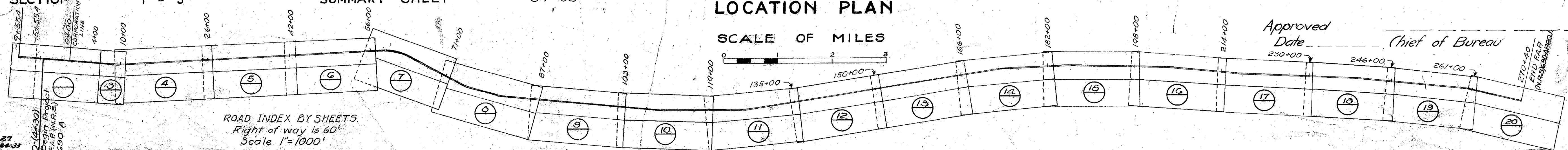
APPROVED

Planning Engineer Date

Remarks: -

CHECKING RECORD

OFFICE	BY	DATE
RESIDENT DIVISION	E.L.L.	7-11-33
CENTRAL CONST.	W.R.U.	10-10-33
CENTRAL - BRIDGES		
BUR. OF PUBLIC ROADS.		

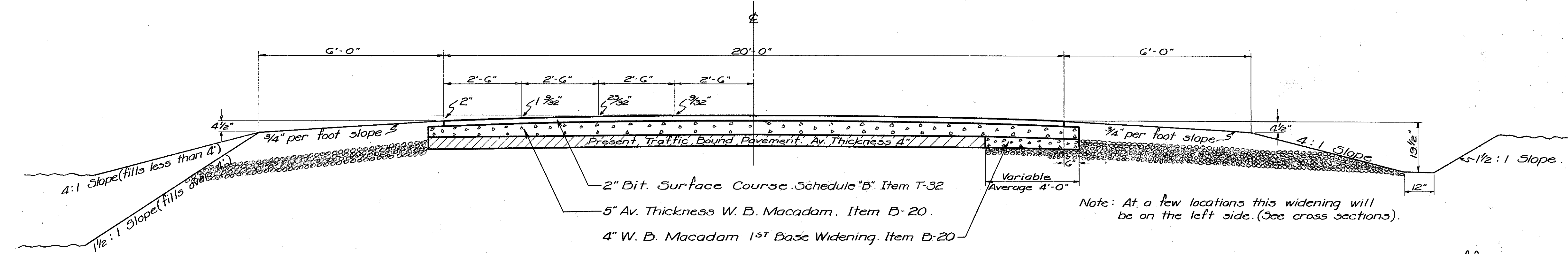


ROAD INDEX BY SHEETS
Right of way is 60'
Scale 1" = 1000'

OK For 1st to be Reopen with WTB Mac, New 5' W.B.M. Second Base, T-32 Surface Right P-SITS G.M. 7/14/33

TYPICAL SECTION

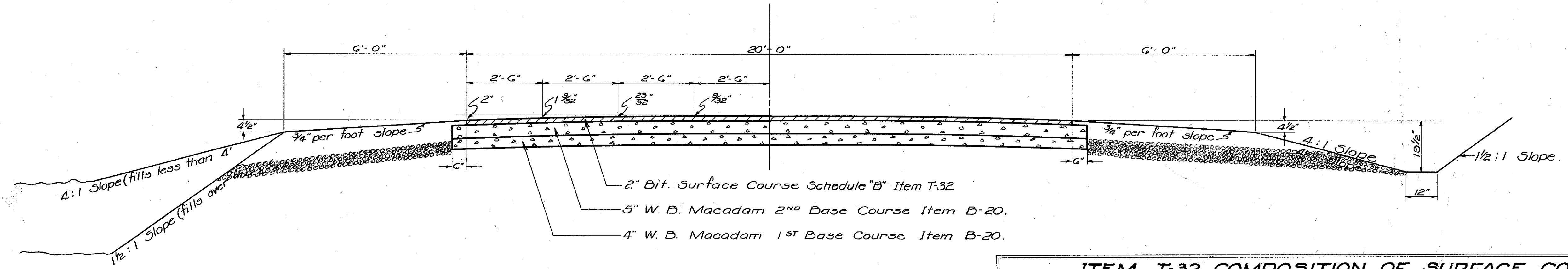
Type T-32



THIS SECTION TO BE USED FROM STA. 0+430 TO STA. 270+40 EXCEPT BETWEEN STATIONS INDICATED FOR FULL WIDTH NEW PAV'T.

Note:- Where the existing traffic bound pavement is broken up the old material shall be removed and replaced with 4" W. B. Macadam or where the old pavement is broken up for a length of 100' or more it shall be scarified and as much new material added as will be necessary to give the strength of a 4" base course. This work to be done where and as directed by the engineer. Payment for this work will be on a basis of "Tons of W. B. Macadam in place including removal or scarifying of existing material. Estimated 1500 Tons.

The surface of the waterbound macadam on which bituminous material is to be placed shall be primed with .3 gal. of C. T. (Sec. M-5.14) per sq. yd.



THIS SECTION WILL BE USED BETWEEN THE FOLLOWING STATIONS:-

NEW PAVEMENT		
STA. 0-400	To 0-350	= 50'
" 31+75	To 34+00	= 225'
" 57+00	To 64+75	= 775'
" 157+50	To 161+00	= 350'
" 177+50	To 180+05	= 255'
" 203+20	To 206+00	= 280'
" 247+60	To 250+75	= 315'
" 251+30	To 253+00	= 170'
" 264+00	To 267+00	= 300'
" 269+75	To 270+40	= 65'
" 237+50	To 240+00	= 250'
Total		= 3035'

Note:- No 2 Stone drains to be built either from edge of metal to side ditch or in sub grade from center to side ditch as and where directed by the engineer. Estimated 5000 lin. ft. Std. Dwg. No. B-T-50-60

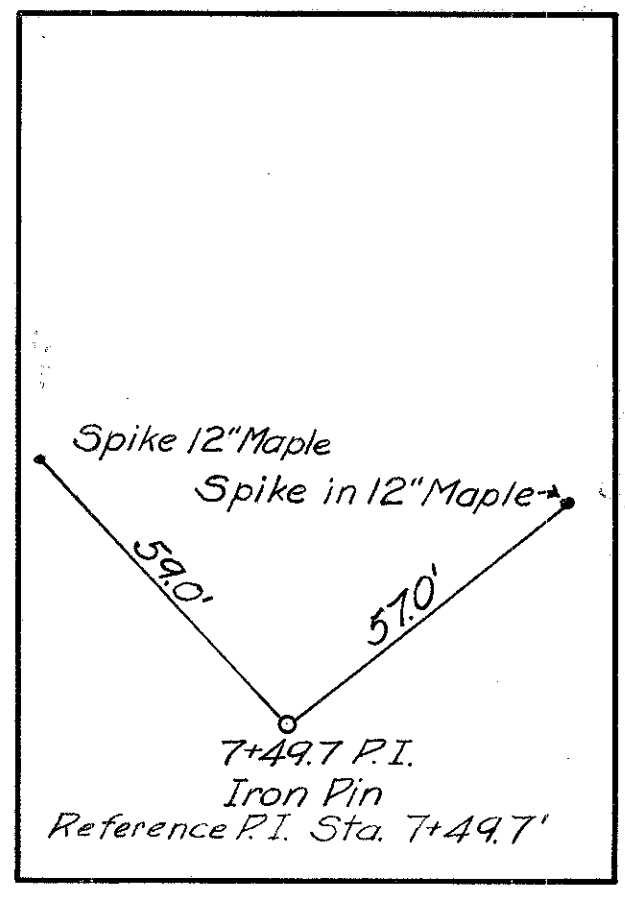
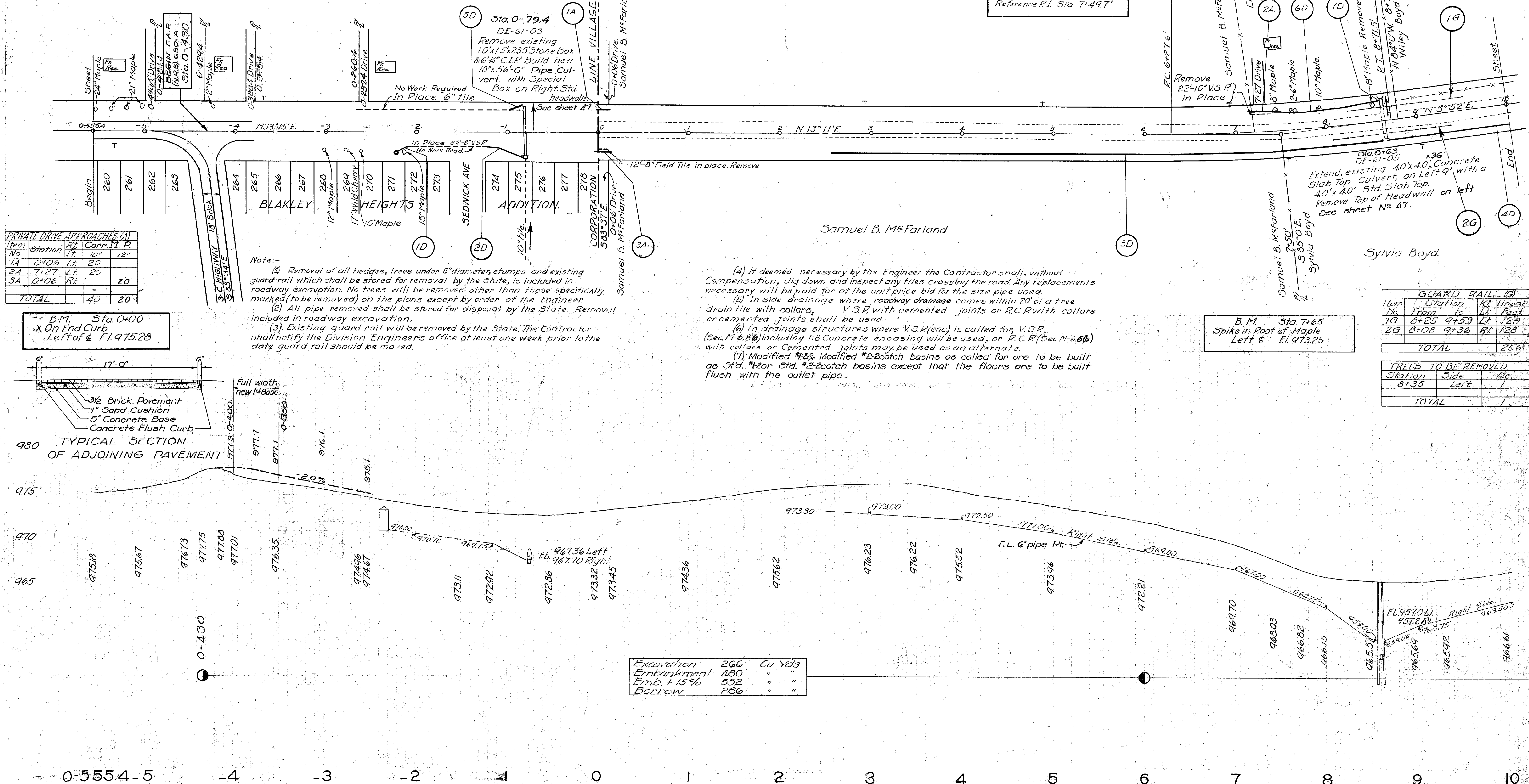
ITEM T-32 COMPOSITION OF SURFACE COURSE																	
Schedule	Approximate Compacted Depth of Seal Coats	ROAD MIX						SEAL COATS									
		Aggregate			Bituminous Material			Intermediate Seal		Final Seal							
		Amt. Lbs. per Sq. Yd.	Quality	Size	Kind	No. gal. per Sq. Yd.	Stone or Gravel	Slag	Bituminous Material	Cover Material	Bituminous Material	Cover Material					
B	2"	170	M-3.1 M-3.6	No. 34	M-3.6 A.C.B. M-5.7 A.E. M-5.13 M.T.	.97		0.30	M-5.2 H.O. M-5.12 H.T.	M-3.1 M-3.6 M-3.92	15 21	No. 40	0.25	M-3.6 A.C.B. M-5.7 A.E. M-5.13 M.T.	M-3.1 M-3.6 M-3.92	16 14 18	No. 6

† Bituminous material A.E. (Sec. M-5.7) shall not be used with slag in the road mix, but is permitted in the final seal coat.
* Aggregate sec M-3.92 to be used in schedules "C" and "D", Road Mix only.
Approximate estimated quantities are computed upon the basis of using Stone Sec. M-3.1 and bituminous material Sec. M-5.6

APPROVED
By: [Signature]
Date: 10/7/33

ROADWAY DRAINAGE (D)						
Item No.	Station	Rt.	Size	Material	Remarks	
1D	0+23	0-208	Kt.	20	Connect to Old Drain. Cement Joints.	
2D	0+18	0-78	Kt.	10	Connect to Old Drain & into Box at Culvert.	
3D	2+50	8+60	Rt.	60		
4D	8+65	10+00	Rt.	35		
5D	0+94	0-78	Lt.	16	Lay 16' new pipe in new location. Connect to Old Drain.	
6D	7+37	8+55	Lt.	118	Connect to Corr.M. Pipe at Culvert & at drive.	
7D	8+55	8+61	Lt.	6	Run through Barrel of Culvert.	
TOTAL				76160	118	6 1

TRAFFIC BOUND SIDE APPROACHES
 9 Side Road Approaches @ 8 Cu. Yds. = 72 Cu. Yds.
 78 Private Driveways @ 4 Cu. Yds. = 312 Cu. Yds.
 25 Mail Box Approaches @ 4 Cu. Yds. = 100 Cu. Yds.
Total = 484 Cu. Yds.



Δ = 7°19' L
 D = 5°
 T = 122.1'
 L = 243.9'
 E = 39'
 R = 1909.86'

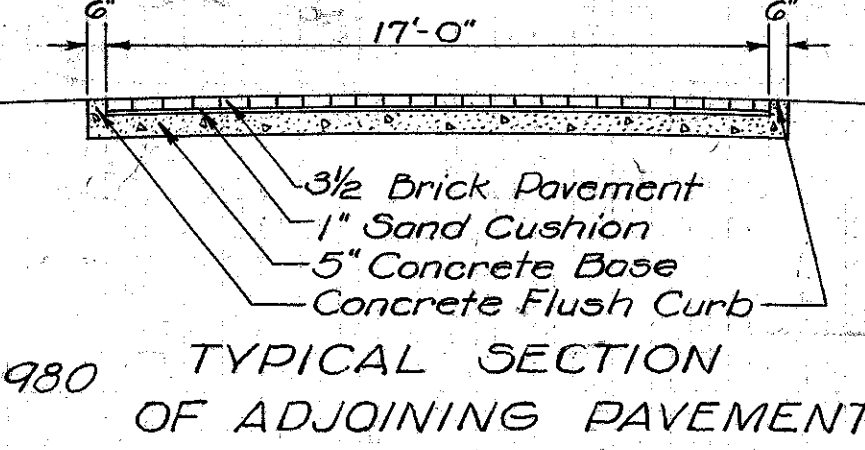
PRIVATE DRIVE APPROACHES (A)			
Item No.	Station	Rt.	Corr. I.I. P.
1A	0+06	Lt.	20
2A	7+27	Lt.	20
3A	0+06	Rt.	20
TOTAL			40 20

Note:-
 (1) Removal of all hedges, trees under 8" diameter, stumps and existing guard rail which shall be stored for removal by the State, is included in roadway excavation. No trees will be removed other than those specifically marked (to be removed) on the plans except by order of the Engineer.
 (2) All pipe removed shall be stored for disposal by the State. Removal included in roadway excavation.
 (3) Existing guard rail will be removed by the State. The Contractor shall notify the Division Engineer's office at least one week prior to the date guard rail should be moved.

(4) If deemed necessary by the Engineer the Contractor shall, without Compensation, dig down and inspect any files crossing the road. Any replacements necessary will be paid for at the unit price bid for the size pipe used.
 (5) In side drainage where roadway drainage comes within 20' of a tree drain tile with collars, V.S.P. with cemented joints or R.C.P. with collars or cemented joints shall be used.
 (6) In drainage structures where V.S.P. (enc) is called for, V.S.P. (Sec. M-6.86) including 1:8 Concrete encasing will be used, or R.C.P. (Sec. M-6.66) with collars or cemented joints may be used as an alternate.
 (7) Modified #1-2 & Modified #2-2 catch basins as called for are to be built as Std. #1-2 or Std. #2-2 catch basins except that the floors are to be built flush with the outlet pipe.

B.M. Sta. 0+00
 X On End Curb
 Left of E. 1.975.28

B.M. Sta. 7+65
 Spike in Root of Maple
 Left of E. 1.973.25

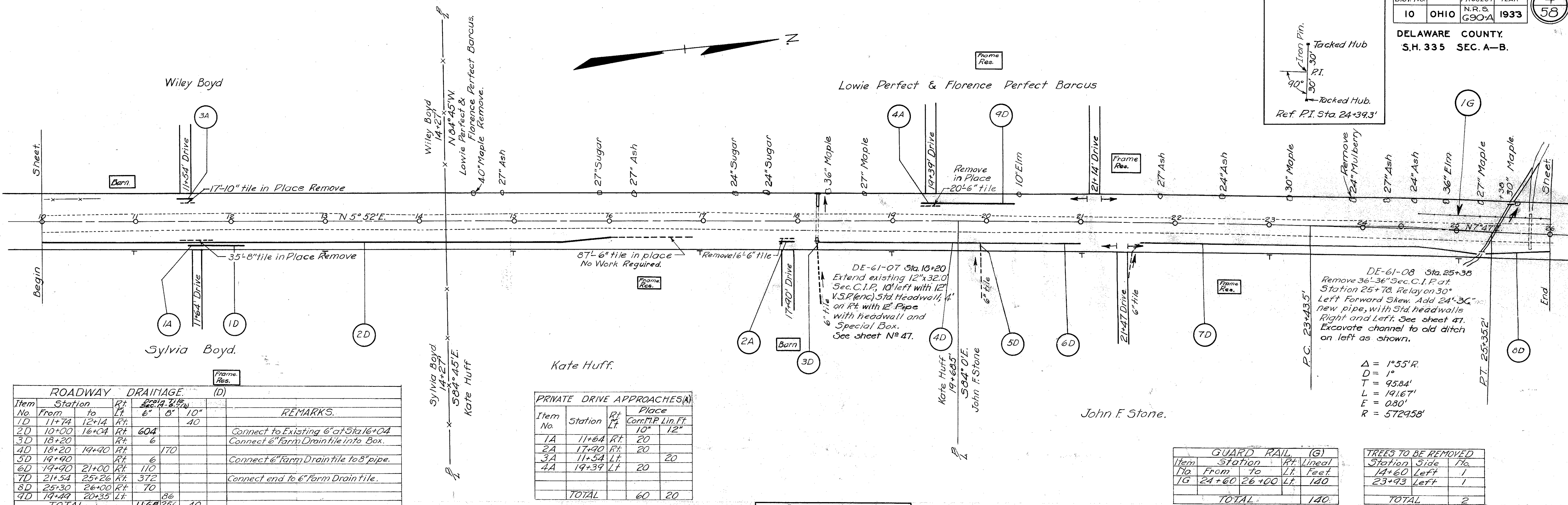


GUARD RAIL (D)				
Item No.	Station	Rt.	Lineal Feet	
1G	8+25	4+53	Lt.	128
2G	8+08	9+36	Rt.	128
TOTAL				256

TREES TO BE REMOVED		
Station	Side	No.
8+35	Left	1
TOTAL		1

Excavation	266	Cu. Yds
Embankment	480	" "
Emb. + 15%	552	" "
Borrow	286	" "

DELAWARE COUNTY.
S.H. 335 SEC. A-B.



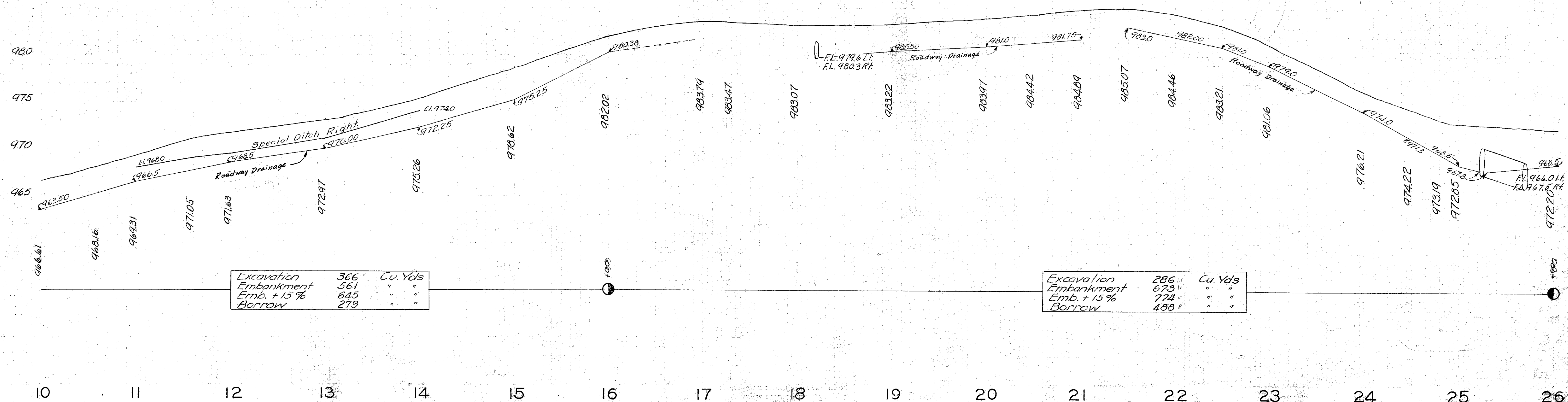
ROADWAY DRAINAGE (D)						REMARKS	
Item No.	Station From	Station to	Rt.	Size	Length		
1D	11+74	12+14	Rt.	6"	40		Connect to Existing 6" at Sta. 16+04
2D	10+00	16+04	Rt.	6"	604		Connect 6" Farm Drain tile into Box.
3D	18+20		Rt.	6"			
4D	18+20	19+90	Rt.	6"	170		Connect 6" Farm Drain tile to 8" pipe.
5D	19+40		Rt.	6"			
6D	19+90	21+00	Rt.	6"	110		Connect end to 6" Farm Drain tile.
7D	21+54	25+26	Rt.	6"	372		
8D	25+30	26+00	Rt.	6"	70		
9D	19+49	20+35	Lt.	6"	86		
TOTAL					1168	236	40

PRIVATE DRIVE APPROACHES (A)				
Item No.	Station	Rt.	Place	Comp. Lin. Ft.
1A	11+64	Rt.	20	12"
2A	17+90	Rt.	20	
3A	11+54	Lt.	20	20
4A	19+39	Lt.	20	
TOTAL			60	20

GUARD RAIL (G)				
Item No.	Station From	Station to	Rt.	Lineal Feet
1G	24+60	26+00	Lt.	140
TOTAL				140

TREES TO BE REMOVED		
Station	Side	No.
14+60	Left	1
23+93	Left	1
TOTAL		2

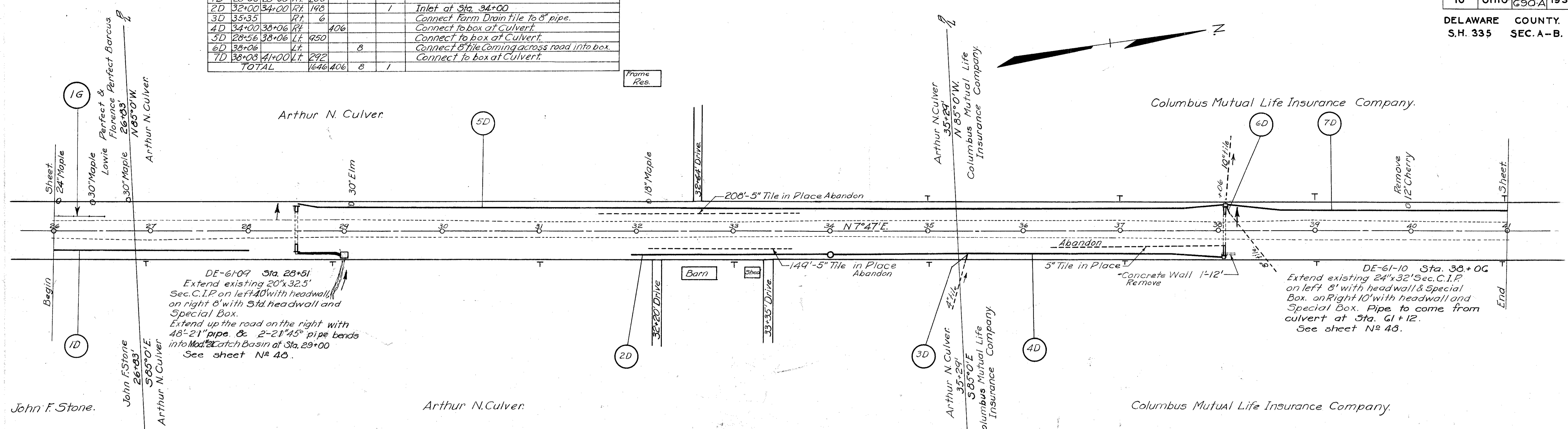
B.M. Sta. 18+35
Spike in Soft Maple
Left & El. 981.62



Excavation	366	Cu. Yds
Embankment	561	" "
Emb. + 15%	645	" "
Borrow	279	" "

Excavation	286	Cu. Yds
Embankment	673	" "
Emb. + 15%	774	" "
Borrow	483	" "

ROADWAY		DRAINAGE (D)		STANDARD		Remarks.	
Item No.	Station From To	Rt.	Lineal	10"	12" Inlet		
1D	26+00	28+00	RT.	200			
2D	32+00	34+00	RT.	198		Inlet at Sta. 34+00	
3D	35+35		RT.	6		Connect Farm Drain tile to 8" pipe.	
4D	34+00	38+06	RT.	406		Connect to box at Culvert.	
5D	28+56	38+06	LT.	950		Connect to box at Culvert.	
6D	38+06		LT.	8		Connect 8" tile coming across road into box.	
7D	38+08	41+00	LT.	292		Connect to box at Culvert.	
TOTAL				1646	406	8	1



DE-61-09 Sta. 28+51
Extend existing 20"x32.5"
Sec. C.I.P. on left 40' with headwall
on right 8' with Std. headwall and
Special Box.
Extend up the road on the right with
48"-21" pipe. & 2'-21" 45" pipe bends
into Mod. Catch Basin at Sta. 29+00
See sheet N^o 46.

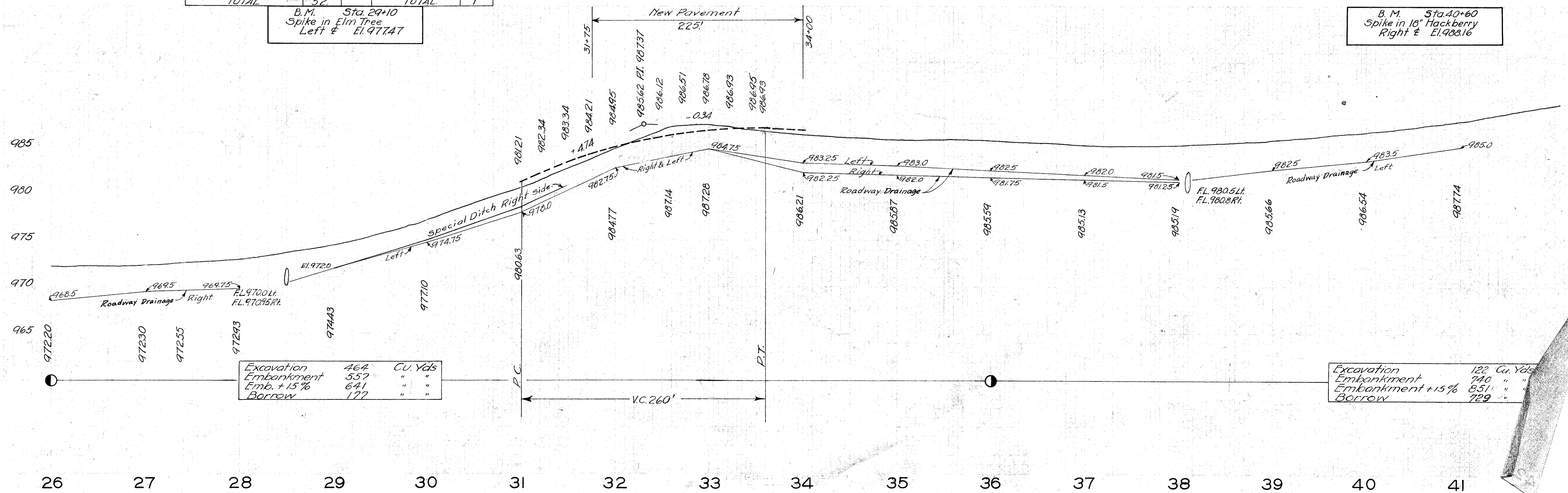
DE-61-10 Sta. 38+06
Extend existing 24"x32" Sec. C.I.P.
on left 8' with headwall & Special
Box. on Right 10' with headwall and
Special Box. Pipe to come from
culvert at Sta. 61+12.
See sheet N^o 46.

GUARD RAIL (G)				
Item No.	Station From To	Rt.	Lineal	Feet.
1G	26+00	26+52	LT.	52
TOTAL				52

TREES TO BE REMOVED		
Station	Side	No.
40+00	Left	1
TOTAL		1

B.M. Sta. 29+10
Spike in Elm Tree
Left & El. 977.47

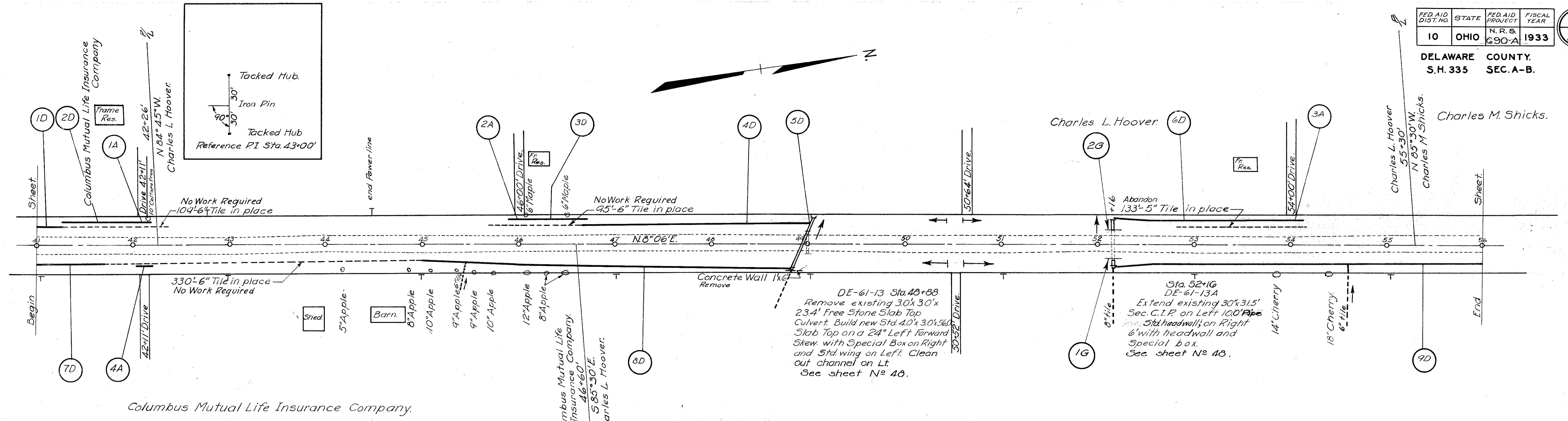
B.M. Sta. 40+60
Spike in 18" Hackberry
Right & El. 988.16



Excavation	464	CU. Yds
Embankment	557	" "
Emb. + 15%	641	" "
Borrow	122	" "

Excavation	122	CU. Yds
Embankment	740	" "
Emb. + 15%	851	" "
Borrow	729	" "

Charles M. Shicks.



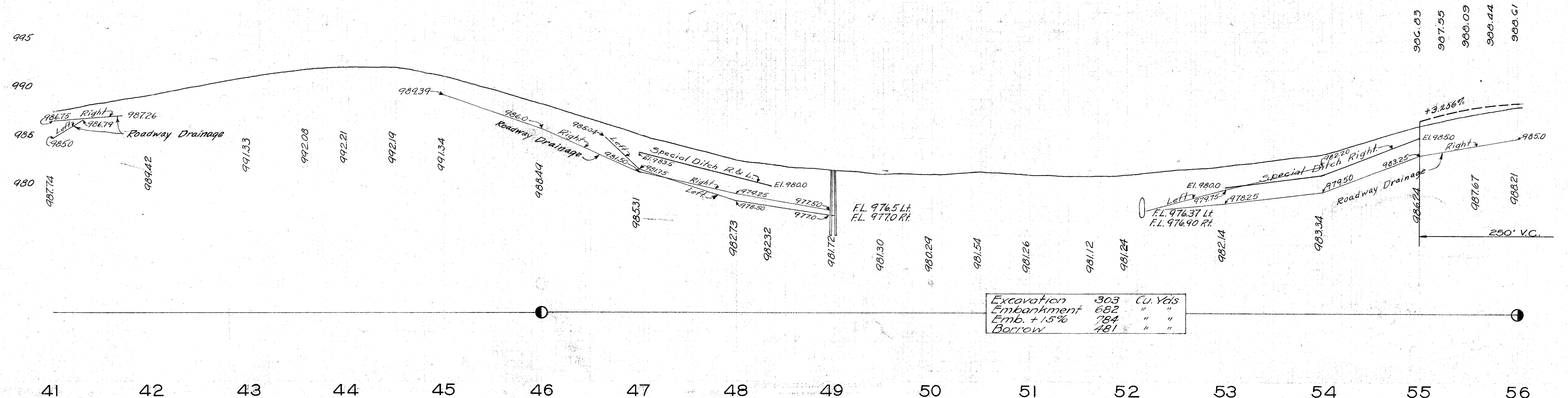
Columbus Mutual Life Insurance Company.

ROADWAY DRAINAGE (D)					
Item No.	Station	Rt.	Size	Corr. M.P.	REMARKS.
1D	41+00	Lt.	6"	28	Connect to Existing Pipe.
2D	41+28	Lt.	72		Connect to Corr. M. Pipe.
3D	46+10	Lt.	60		Connect to Corr. M. Pipe.
4D	46+64	Lt.	236		Connect to Existing Pipe & Corr. M.P. at culvert
5D	49+00	Lt.	6		Run through wing of Culvert.
6D	52+20	Lt.	170		
7D	41+00	Rt.	70		Connect to Existing Pipe.
8D	45+04	Rt.	372		Connect to Old Drain and Run into box at Culvert.
9D	52+8	Rt.	382		Connect to box at Culvert.
TOTAL			1088	302	

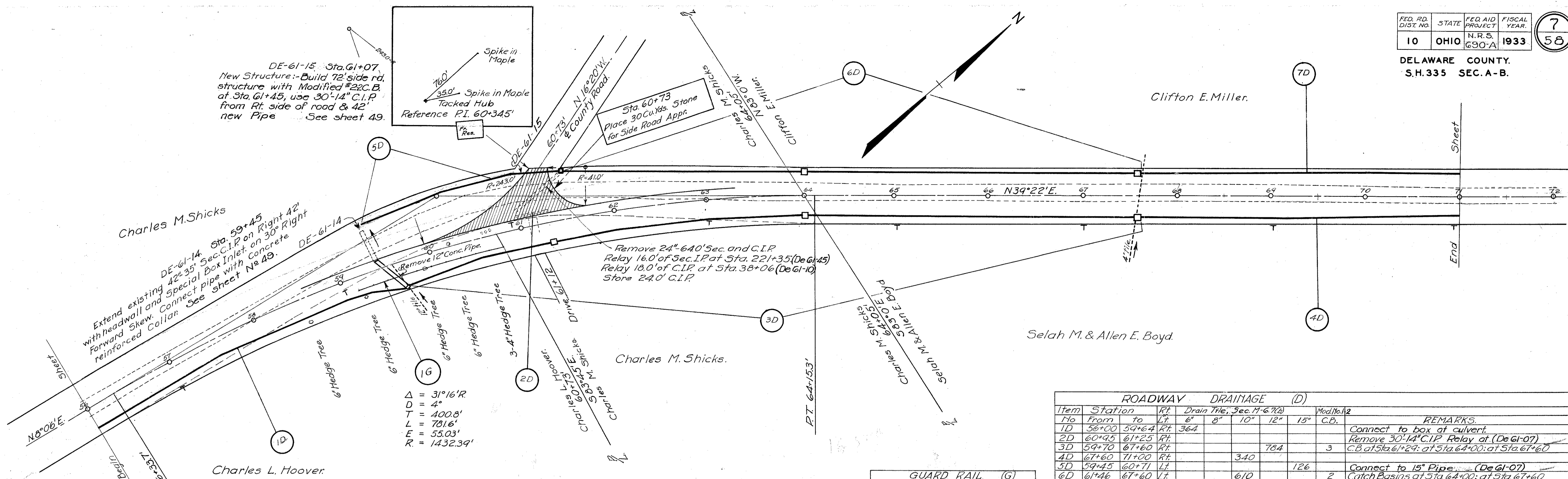
PRIVATE DRIVE APPROACHES (A)			
Item No.	Station	Rt.	Corr. M.P.
1A	42+11	Lt.	20
2A	46+00	Lt.	20
3A	54+00	Lt.	20
4A	42+11	Rt.	20
TOTAL			60

GUARD RAIL (G)				
Item No.	Station	Rt.	Lineal Feet	
1G	52+08	Rt.	16	
2G	52+08	Lt.	16	
TOTAL			32	

B.M. Sta. 53+03
Spike in 18" Sugar
Left & El. 983.35



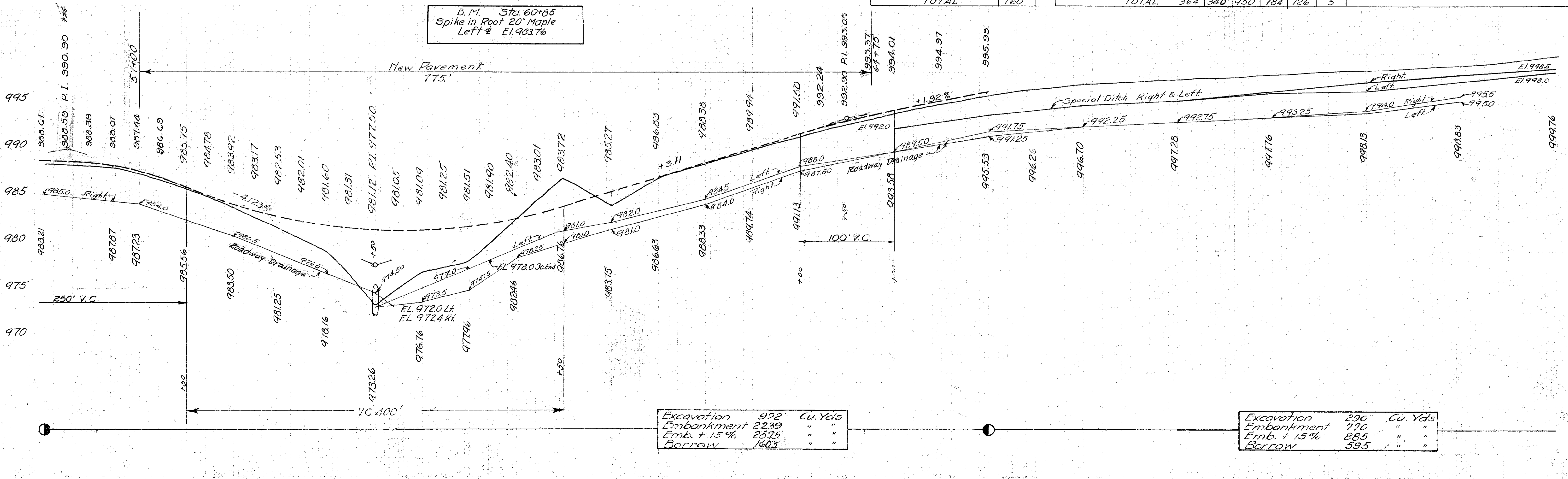
Excavation	303	Cu. Yds
Embankment	682	" "
Emb. + 15%	784	" "
Borrow	481	" "



$\Delta = 31^{\circ}16'R$
 $D = 4^{\circ}$
 $T = 100.8'$
 $L = 781.6'$
 $E = 55.03'$
 $R = 1432.39'$

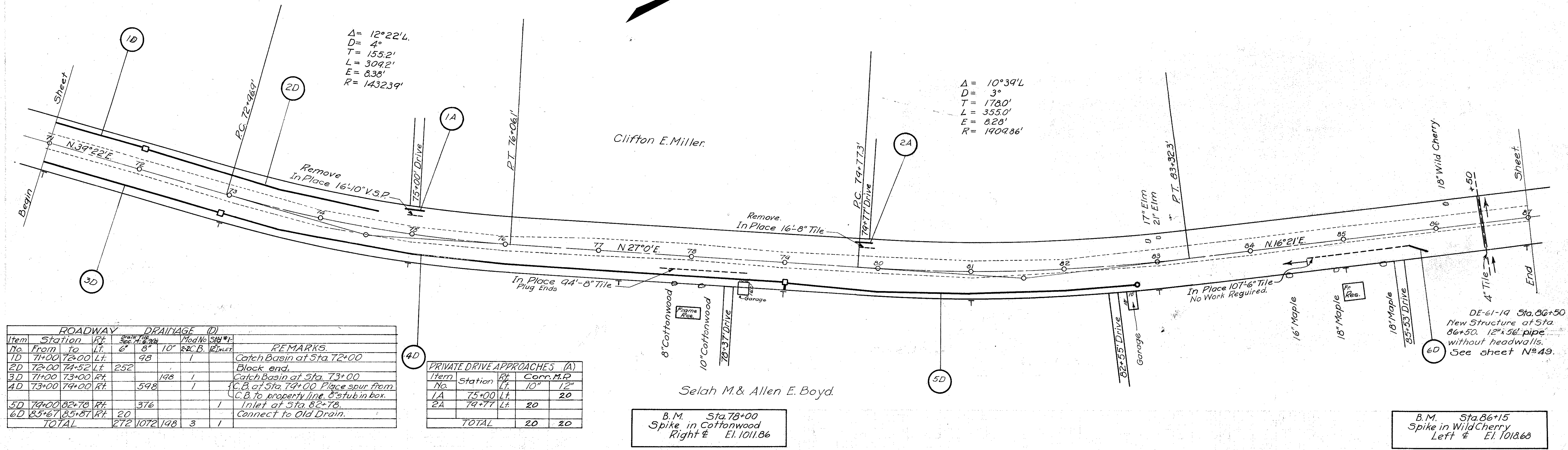
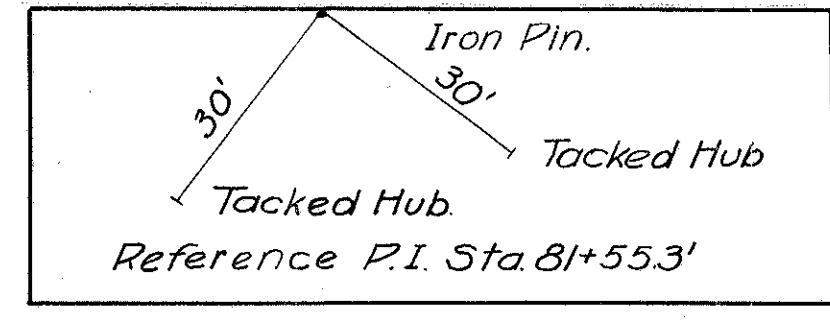
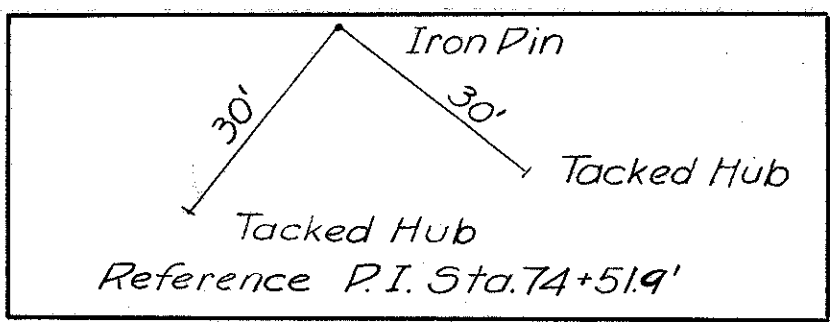
ROADWAY DRAINAGE (D)								
Item	Station	Rt.	Drain Tile, Sec. M-67(2)	Mod. No. 12	REMARKS			
No.	From	To	6" 8" 10" 12" 15"	C.D.				
1D	56+00	59+64	364		Connect to box at culvert.			
2D	60+95	61+25			Remove 30'-14" C.I.P. Relay at (De 61-07)			
3D	59+70	61+60		784	3	C.B. at Sta. 61+24; at Sta. 64+00; at Sta. 67+60		
4D	67+60	71+00		340				
5D	59+45	60+71			126	Connect to 15" Pipe (De 61-07)		
6D	61+46	67+60		610	2	Catch Basins at Sta. 64+00; at Sta. 67+60		
7D	67+60	71+00	340					
TOTAL			364	340	950	784	126	5

GUARD RAIL (G)			
Item	Station	Rt.	Lineal Feet
1G	59+16	60+76	160
TOTAL			160



Excavation	972	Cu. Yds
Embankment	2239	" "
Emb. + 15%	2575	" "
Borrow	1603	" "

Excavation	290	Cu. Yds
Embankment	770	" "
Emb. + 15%	885	" "
Borrow	595	" "



$\Delta = 12^\circ 22' L.$
 $D = 4'$
 $T = 155.2'$
 $L = 309.2'$
 $E = 8.38'$
 $R = 1432.39'$

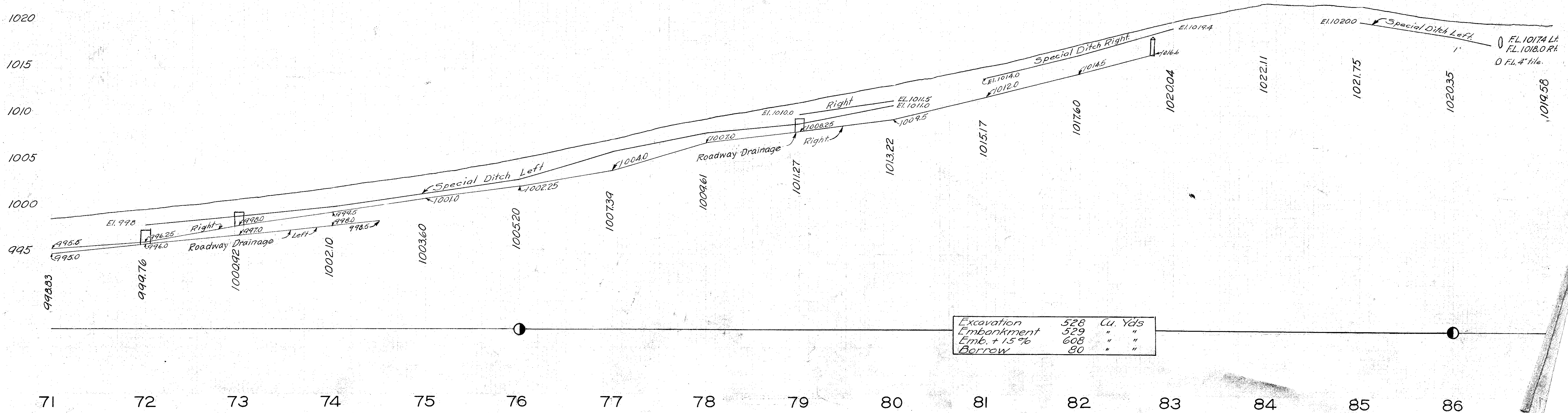
$\Delta = 10^\circ 39' L.$
 $D = 3'$
 $T = 178.0'$
 $L = 355.0'$
 $E = 8.28'$
 $R = 1409.86'$

ROADWAY		DRAINAGE (D)				REMARKS
Item No.	Station From To	Rt.	Sec. 6'	Sec. 8'	Sec. 10'	
1D	71+00	72+00	Lt.	98		Catch Basin at Sta. 72+00
2D	72+00	74+52	Lt.	252		Block end.
3D	71+00	73+00	Rt.		198	Catch Basin at Sta. 73+00
4D	73+00	74+00	Rt.		598	C.B. at Sta. 74+00 Place spur from C.B. to property line. 8" stub in box.
5D	74+00	82+78	Rt.		376	Inlet at Sta. 82+78.
6D	85+67	85+87	Rt.		20	Connect to Old Drain.
TOTAL				272	1072	198

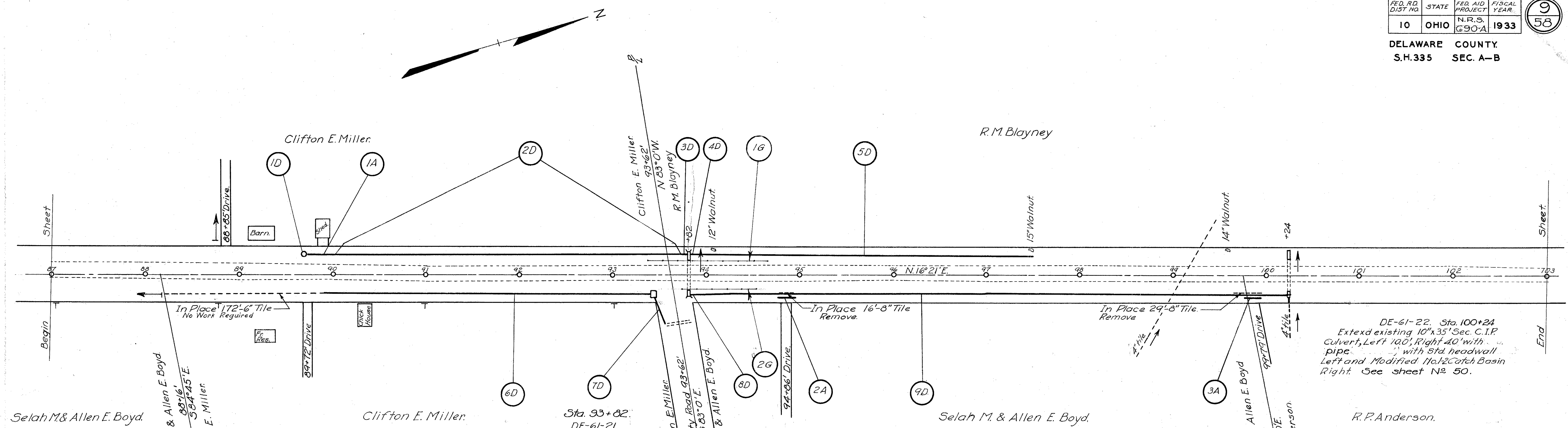
PRIVATE DRIVE APPROACHES (A)			
Item No.	Station	Rt.	Corr. M.P.
1A	75+00	Lt.	10"
2A	79+77	Lt.	12"
TOTAL			20

B.M. Sta. 78+00
Spike in Cottonwood
Right & El. 1011.86

B.M. Sta. 86+15
Spike in Wild Cherry
Left & El. 1018.68



Excavation	528	Cu. Yds
Embankment	529	" "
Emb. + 15%	608	" "
Borrow	80	" "



GUARD RAIL (G)			
Item No.	Station	Rt. Lt.	Lineal Feet
1G	93+38	94+66	Lt 128
2G	98+74	94+54	Rt 80
TOTAL			208

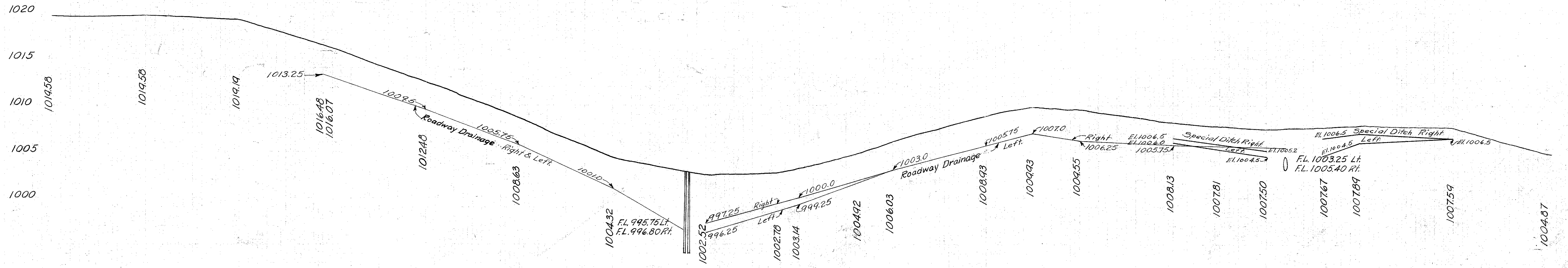
PRIVATE DRIVES APPROACHES (A)			
Item No.	Station	Rt. Lt.	Corr. M. P.
1A	89+90	Lt	20
2A	94+86	Rt	20
3A	99+79	Rt	20
TOTAL			60

Sta. 93+82.
DE-61-21
Extend existing 40'x45' x31.0' Concrete Box Culvert with 40'x40' Concrete Box on left 10' and on Right 7'. Remove & replace portions of existing walls. Remove Top of existing headwalls. See sheet N^o 49.

B.M. Sta. 93+50
Spike in 36" Elm
Right & El. 1003.31

ROADWAY DRAINAGE (D)									
Item No.	Station	Rt. Lt.	From	To	Corr. M. P.	MOD. NO.	STD. NO.	INLET	REMARKS
1D	89+80	Lt.						1	Side Ditch Inlet Curve Top
2D	90+00	Lt.		93+74					Connect to Corr. M. Pipe on both end.
3D	93+74	Lt.		93+80					Run through barrel of Culvert.
4D	93+84	Lt.		93+90					Run through barrel of Culvert.
5D	93+90	Lt.		97+50					Connect to Corr. M. Pipe at Culvert.
6D	89+40	Rt.		93+40				1	Connect to Old Drain. New Catch Basin at Sta. 93+40
7D	93+40	Rt.							Drain to Culvert on Side Road East.
8D	93+84	Rt.		93+90					Run through barrel of Culvert.
9D	93+90	Rt.		100+22					Connect to Corr. M. Pipe at Culvert. Run into C.B.
TOTAL			1342	404	12	6	1	1	

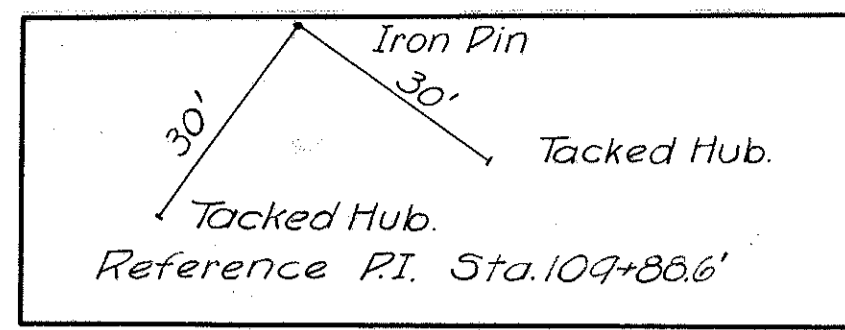
B.M. Sta. 100+90
Spike in 24" Maple
30' Right & El. 1010.79



Excavation	534	Cu. Yds
Embankment	504	" "
Emb. + 15%	580	" "
Borrow	46	" "

Excavation	541	Cu. Yds
Embankment	738	" "
Emb. + 15%	849	" "
Borrow	308	" "

ROADWAY DRAINAGE (D)									
Item No.	Station	Rt.	From	To	LT	MOD. NO.	REMARKS		
1D	105+16	105+24	Lt.			8	Run through Wing of Culvert		
2D	105+24	116+00	Lt.		1076		Connect to pipe running thru Culvert.		
3D	105+34	105+42	Rt.			8	Run through barrel of Culvert.		
4D	105+42	110+24	Rt.		480	1	Connect to pipe at Culvert. Connect to Catch Basin at 110+28. Connect Farm Drain tile to 15" at Sta. 109+00		
5D	110+24	119+00	Rt.		876				
TOTAL					1432	480	8	8	1



FED. AID DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO	G90-A	1933

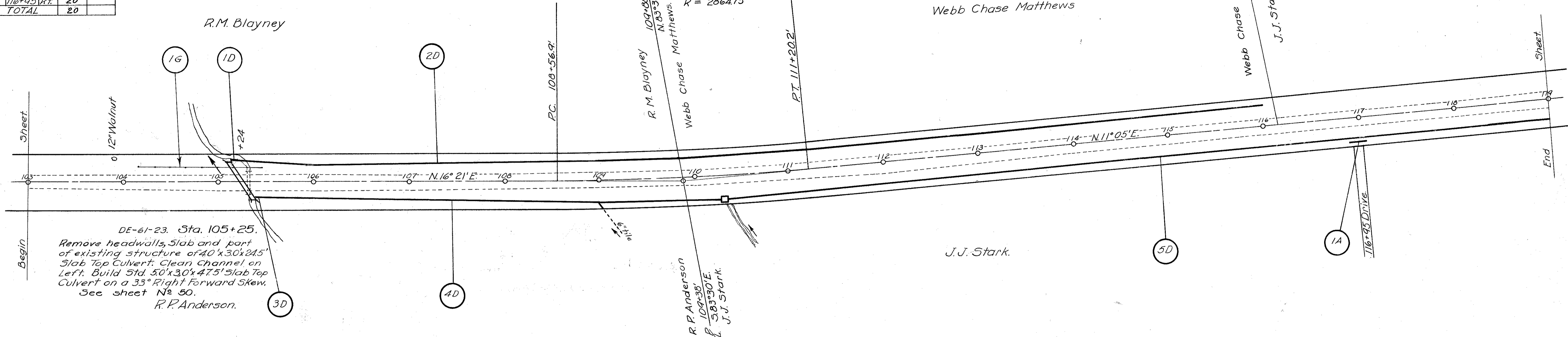
DELAWARE COUNTY
S.H. 335 SEC. A-B.

10
58

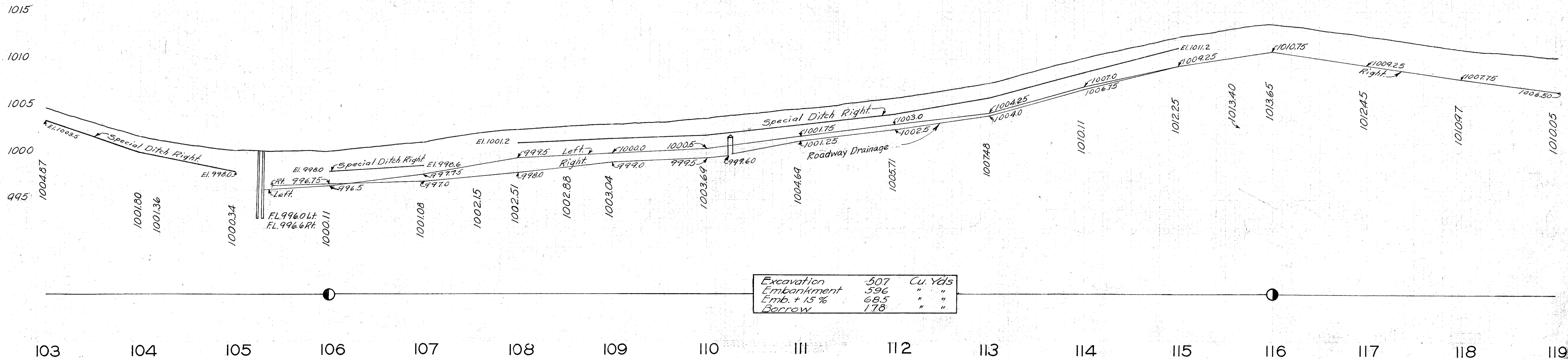
PRIVATE DRIVE APPROACHES (A)			
Item No.	Station	Rt.	Corr. M.P.
1A	116+95	Rt.	20
TOTAL			20

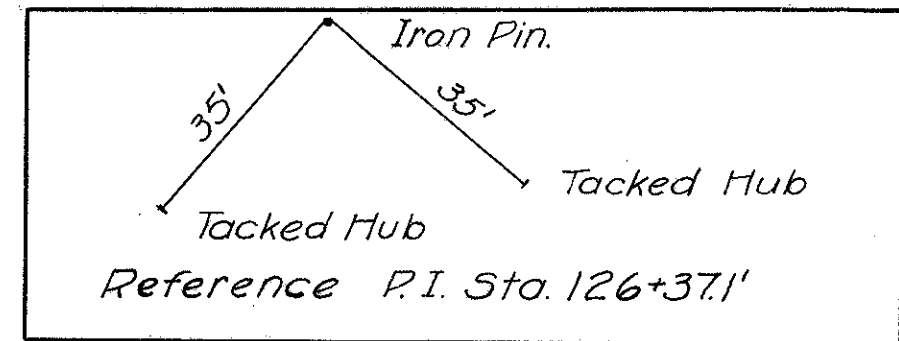
GUARD RAIL (G)			
Item No.	Station	Rt.	Lineal Feet
1G	104+16	105+44	128
TOTAL			128

$\Delta = 5^{\circ}16' L$
 $D = 2^{\circ}$
 $T = 131.76'$
 $L = 263.34'$
 $E = 3.03'$
 $R = 2864.75'$

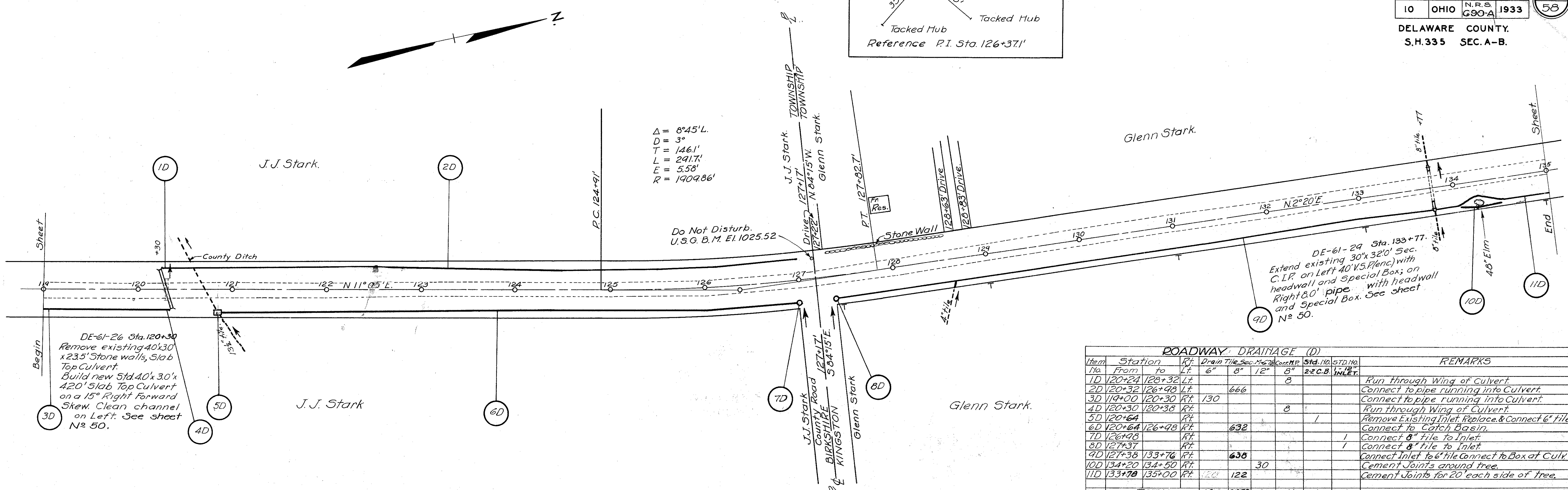


DE-61-23. Sta. 105+25.
 Remove headwalls, Slab and part of existing structure of 40'x30'x24.5' Slab Top Culvert. Clean channel on Left. Build Std. 50'x30'x47.5' Slab Top Culvert on a 33° Right Forward Skew. See sheet N# 50.
 R.P. Anderson.





$\Delta = 6^{\circ}45' L.$
 $D = 3'$
 $T = 146.1'$
 $L = 291.7'$
 $E = 5.58'$
 $R = 1909.86'$



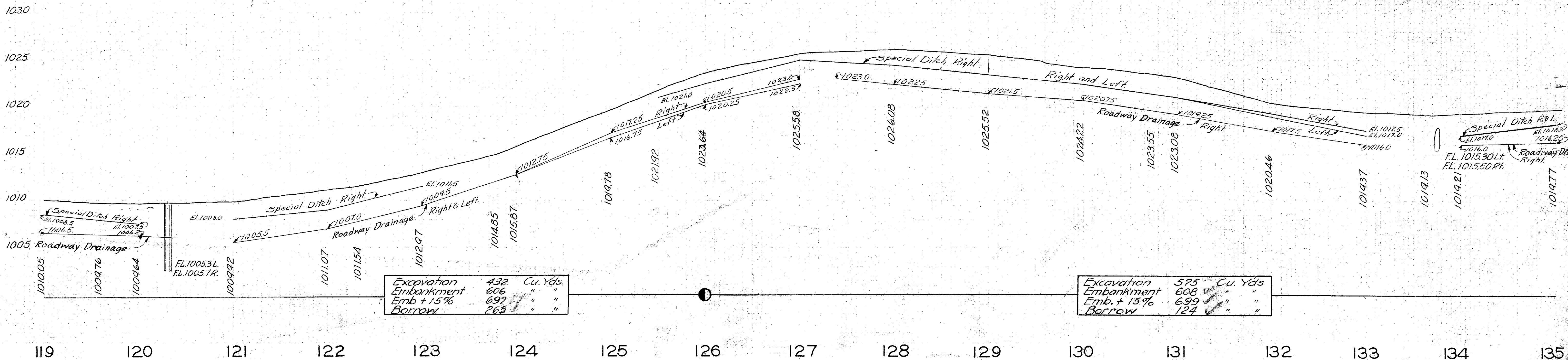
DE-61-26 Sta. 120+30
 Remove existing 40'x30' x 23.5' Stone walls, Slab Top Culvert.
 Build new Std. 40'x30' x 42.0' Slab Top Culvert on a 15° Right Forward Skew. Clean channel on Left. See sheet No 50.

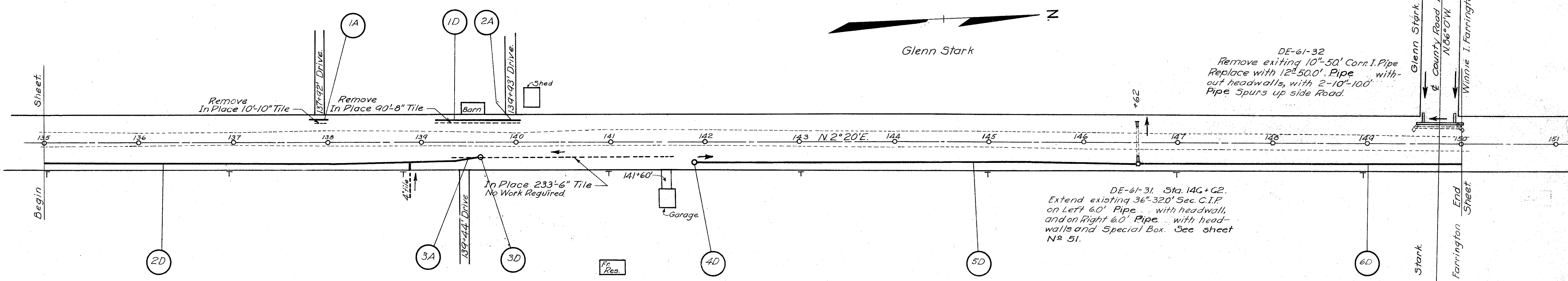
DE-61-29 Sta. 133+77.
 Extend existing 30'x32' Sec. C.I.P. on Left 40' V.S. Pipe with headwall and Special Box; on Right 8.0' pipe with headwall and Special Box. See sheet No 50.

ROADWAY DRAINAGE (D)										
Item No.	Station From	Station to	Rt.	Drain Tile Sec.	Comp. MP	Std. No.	STD. No.	REMARKS		
1D	120+24	128+32	Lt.	6"		8	2-2 C.B.	Inlet	Run through Wing of Culvert.	
2D	120+32	126+98	Lt.	666					Connect to pipe running into Culvert.	
3D	114+00	120+30	Rt.	130					Connect to pipe running into Culvert.	
4D	120+30	120+38	Rt.			8			Run through Wing of Culvert.	
5D	120+64	126+98	Rt.	632			1		Remove Existing Inlet. Replace & Connect 6' tile.	
6D	126+98	126+98	Rt.						Connect to Catch Basin.	
7D	126+98	126+98	Rt.					1	Connect 8" file to Inlet.	
8D	127+37	127+37	Rt.					1	Connect 8" file to Inlet.	
9D	127+38	133+76	Rt.	638					Connect Inlet to 6' tile Connect to Box at Culv.	
10D	134+20	134+50	Rt.			30			Cement Joints around tree.	
11D	133+78	135+00	Rt.	122					Cement Joints for 20' each side of tree.	
TOTAL				130	2050	30	16	1	2	

B.M. Sta. 120+30
 S.E. Cor. Conc. Water Trough
 Left of & El. 1008.87

U.S.G.B.M. Sta. 127+16
 26' Left of & El. 1025.52





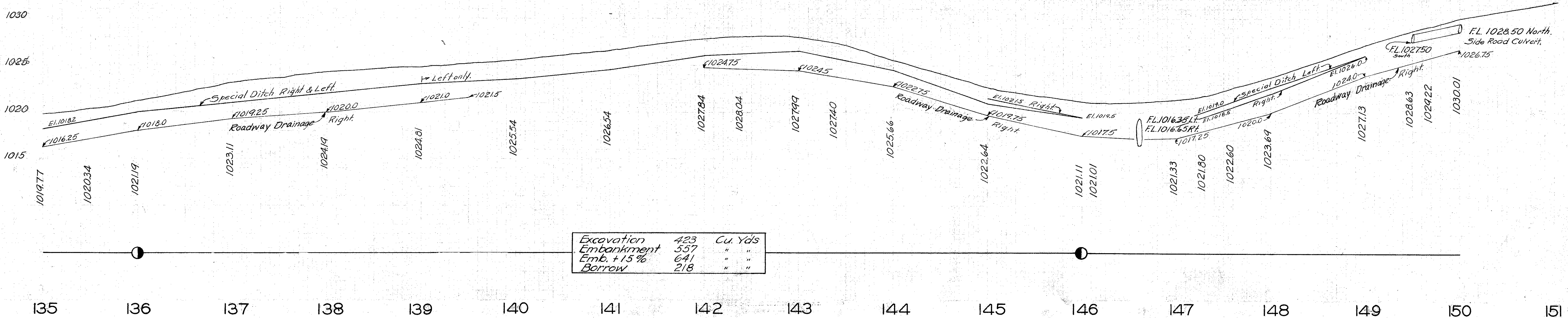
PRIVATE DRIVE APPROACHES (A)

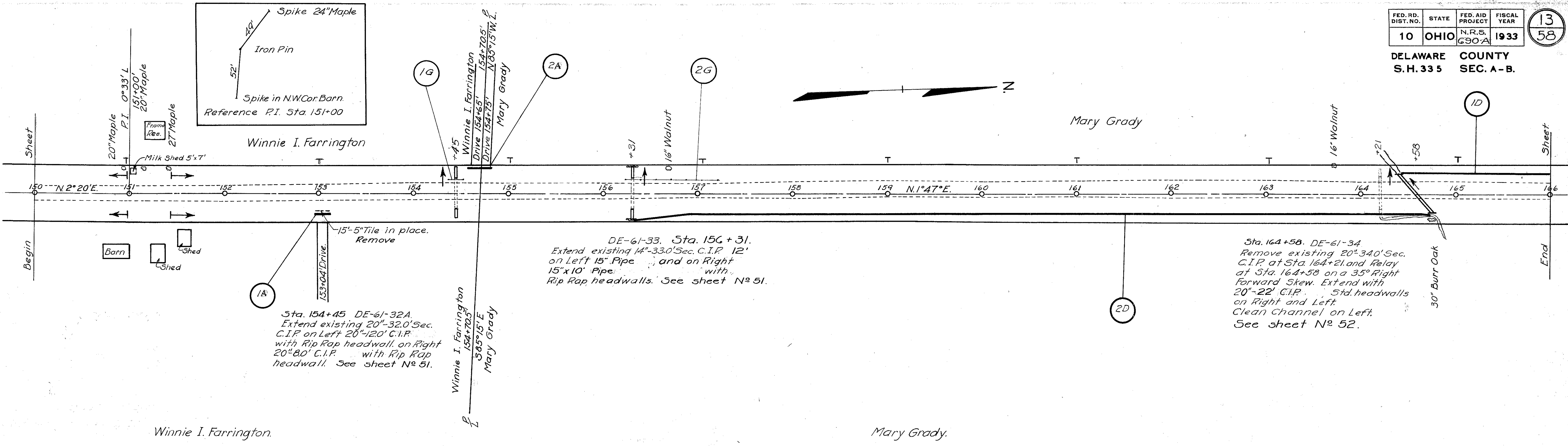
Item No.	Station	Rt.	Corr.	M.P.
1A	137+92	LT.	8"	20
2A	139+93	LT.	20	
3A	139+44	RT.	20	
TOTAL			20	40

ROADWAY DRAINAGE (D)

Item No.	Station From	Station To	Rt.	Drain Tile	Sec. M. & F.	STD. NO.	REMARKS.
1D	139+14	139+84	LT.	6" 8"	70	INLET	
2D	135+00	139+34	RT.	434			Connect to Old Drain: Connect farm tile at Sta. 138+92
3D	139+55		RT.			1	Connect existing 6" tile.
4D	141+90		RT.			1	
5D	141+90	146+60	RT.	470			Run into Box at Culvert.
6D	146+62	150+00	RT.	338			Run into Box at Culvert.
TOTAL				338	904	70	2

B.M. Sta. 139+25
x on top of stone foundation
S.E. Corner Barn.
30' Left of & El. 1025.58





Winnie I. Farrington.

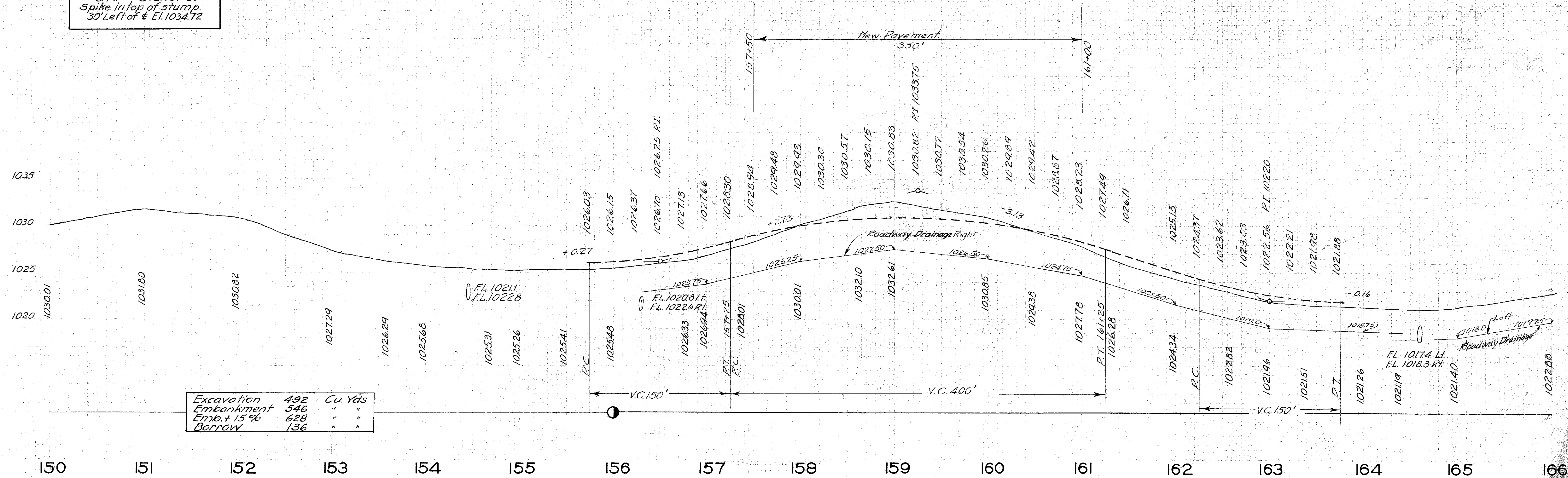
Mary Grady.

Item No.	Station	Rt.	Corr.	M. P.
1A	153+04	Rt.	20	
2A	154+70	Lt.	24	
TOTAL			44	

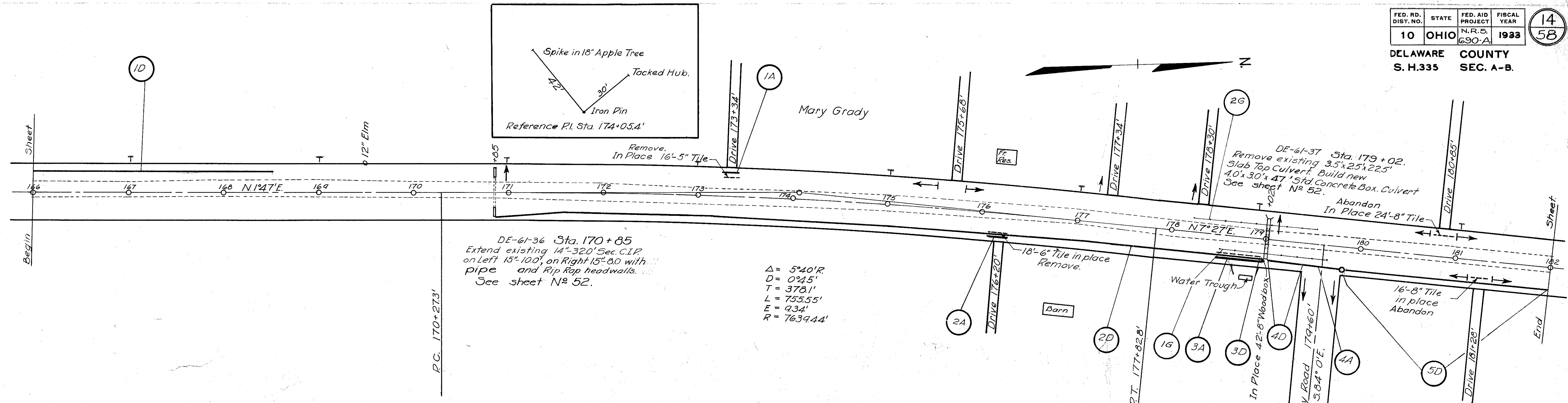
Item No.	Station	Rt.	Dt.	Sec.	M. P.	REMARKS
1D	164+40	Lt.	160	6"	8"	
2D	156+34	Rt.	842			
TOTAL			1002			

Item No.	Station	Rt.	Lineal Feet
1G	154+37	Lt.	16
2G	156+24	Lt.	96
TOTAL			112

B.M. Sta. 151+30
Spike in top of stump.
30' Left of # E1.1034.72



Excavation	492	Cu. Yds
Embankment	546	" "
Emb. + 15%	628	" "
Borrow	136	" "



DE-61-36 Sta. 170+85
Extend existing 14"-320' Sec. C.I.P. on Left 15'-10.0', on Right 15'-8.0' with pipe and Rip Rap headwalls. See sheet No 52.

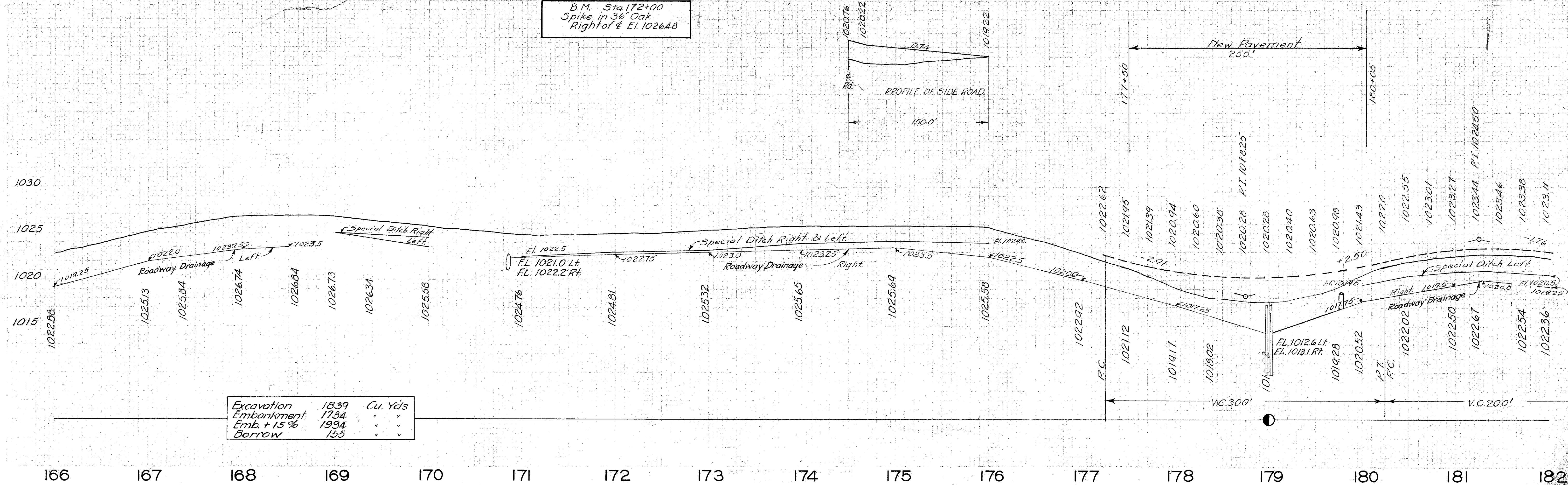
$\Delta = 5^{\circ}40'R$
 $D = 0^{\circ}45'$
 $T = 378.1'$
 $L = 755.55'$
 $E = 934'$
 $R = 7639.44'$

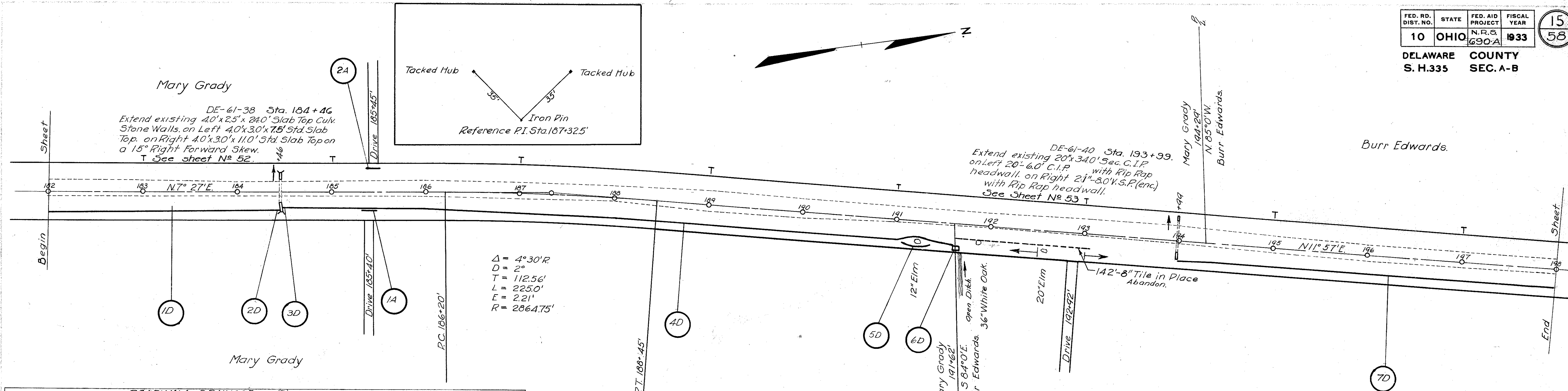
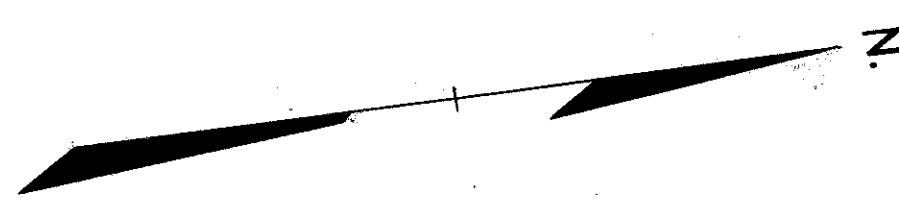
ROADWAY DRAINAGE (D)							REMARKS
Item No.	Station From	Station To	Rt.	D.T. Sec.	11-6" Cor. M.P.	STD. No.	
1D	166+00	168+50	Lt.	250	8"	INLET	
2D	170+86	178+94	Rt.	808			
3D	178+44	179+00	Rt.		6		Run through Barrel of Culvert.
4D	179+04	179+40	Rt.		30	6	6" Cor. M.P. thru Barrel of Culvert.
5D	179+80	182+00	Rt.	220		1	Inlet at Sta. 179+80
TOTAL				1278	30	12	1

PRIVATE DRIVE APPROACHES (A)			
Item No.	Station	Rt.	Corr. M.P.
1A	173+34	Lt.	20
2A	176+20	Rt.	20
3A	178+75	Rt.	40
4A	179+60	Rt.	40
TOTAL			120

GUARD RAIL (G)			
Item No.	Station From	Station To	Rt.
1G	178+52	179+64	Rt.
2G	178+24	179+52	Lt.
TOTAL			240

B.M. Sta. 172+00
Spike in 36' Oak
Right of & El. 102648





Mary Grady
DE-61-38 Sta. 184+46
Extend existing 40'x25'x240' Slab Top Culv. Stone Walls, on Left 40'x30'x110' Slab Top, on Right 40'x30'x110' Slab Top on a 15° Right Forward Skew.
T See sheet N° 52.

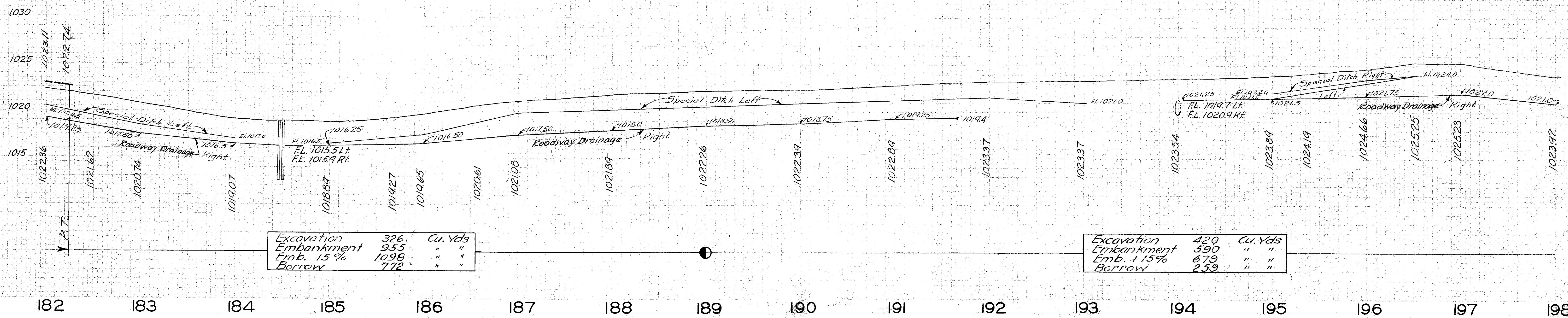
DE-61-40 Sta. 193+99.
Extend existing 20'x340' Sec. C.I.P. on Left 20'-6.0' C.I.P. with Rip Rap headwall, on Right 21'-8.0' V.S.P. (enc.) with Rip Rap headwall.
See Sheet N° 53 T

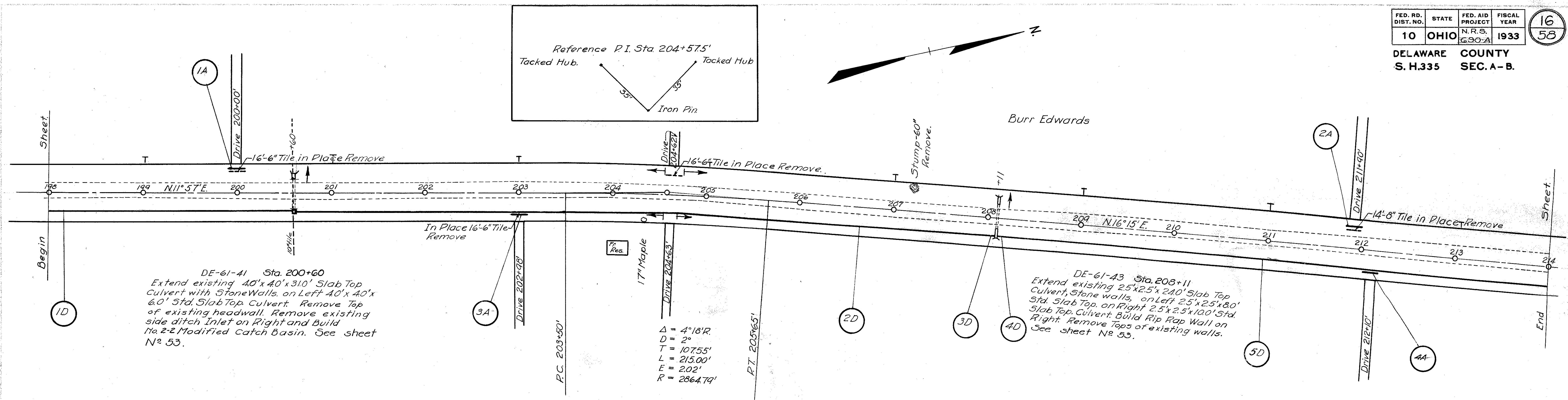
$\Delta = 4^{\circ}30'R$
 $D = 2^{\circ}$
 $T = 112.56'$
 $L = 225.0'$
 $E = 2.21'$
 $R = 2864.75'$

ROADWAY DRAINAGE (D)							REMARKS	
Item No.	Station From	Station to	Rt.	Drain Tile Sec. H-67(R)	Corr. M.P.	Mod. No.		
1D	182+00	184+40	Rt.	240				
2D	184+40	184+46	Rt.		6		Run through Barrel of Culvert.	
3D	184+50	184+56	Rt.		8		Run through barrel of Culvert.	
4D	184+56	191+60	Rt.		70A		Connect to pipe into Culv. Cement Joints Sta. 191+15	
5D	191+10	191+40	Rt.		30		Cement Joints. (Continuation of open ditch)	
6D	191+60		Rt.				Side inlets North and East Sides.	
7D	194+00	198+00	Rt.	400				
TOTAL				640	734	6	8	1

PRIVATE DRIVE APPROACHES (A)			
Item No.	Station	Rt.	Corr. M.P.
1A	185+40	Lt.	20
2A	185+45	Lt.	20
TOTAL			

B.M. Sta. 191+90
Spike in root of Oak.
Right of E. El. 1025.17

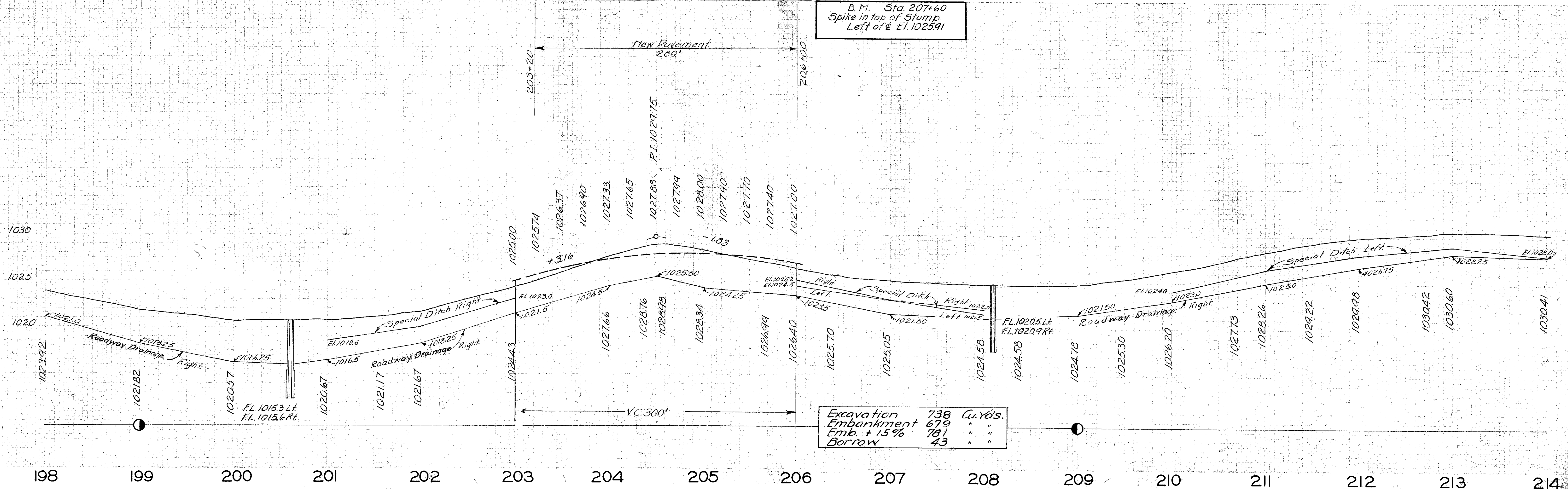


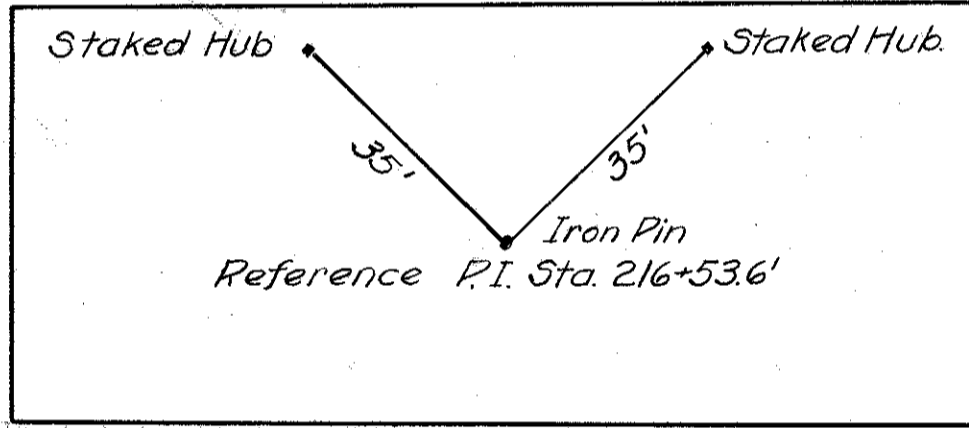
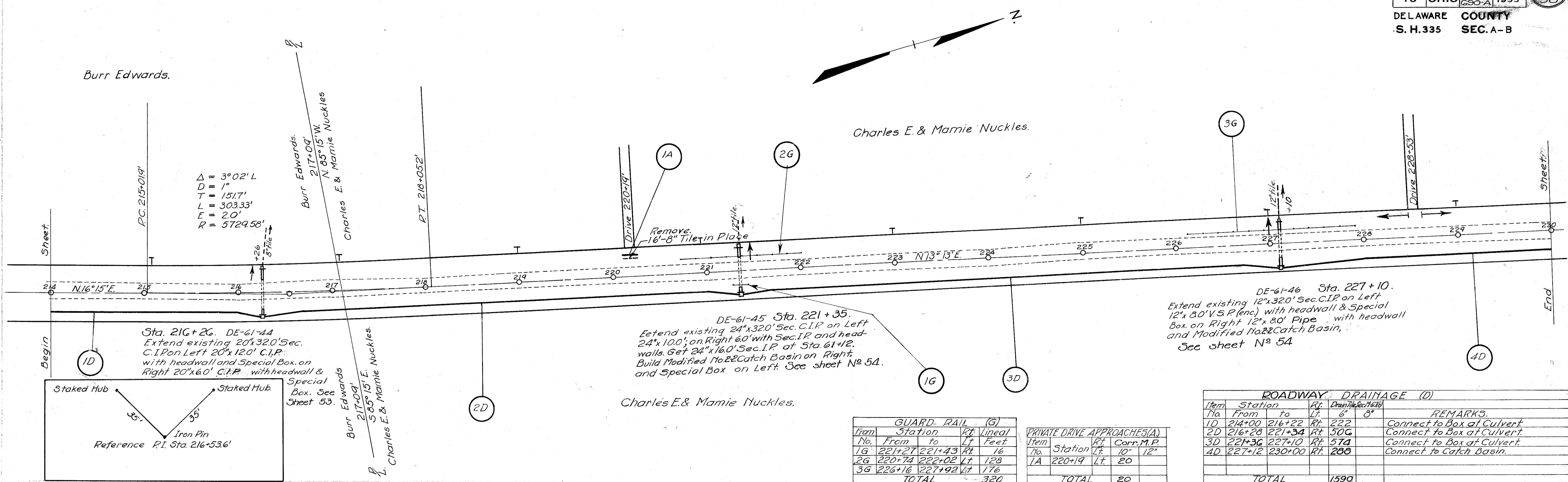


ROADWAY DRAINAGE (D)						
Item No.	Station From	Station to	Rt.	DT, Sec. 16.70	Corr. M.P.	MOD. NO.
1D	198+00	200+60	Rt.	260	8"	8"
2D	200+60	208+04	Rt.	744		
3D	208+04	208+10	Rt.		6"	
4D	208+12	208+18	Rt.		6"	
5D	208+18	214+00	Rt.	582		
TOTAL				1586		12

PRIVATE DRIVE APPROACHES (A)				
Item No.	Station	Rt.	Corr. M.P.	10"
1A	200+00	Lt.		20
2A	211+90	Lt.		20
3A	202+98	Rt.		20
4A	212+10	Rt.		20
TOTAL				60

TREES TO BE REMOVED		
Station	Side	No.
207+20	Left	1
TOTAL		1



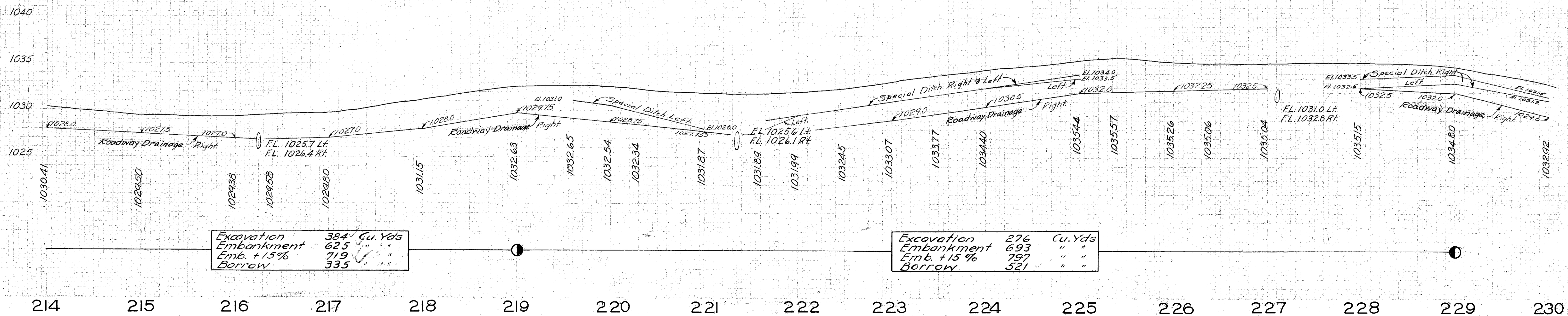


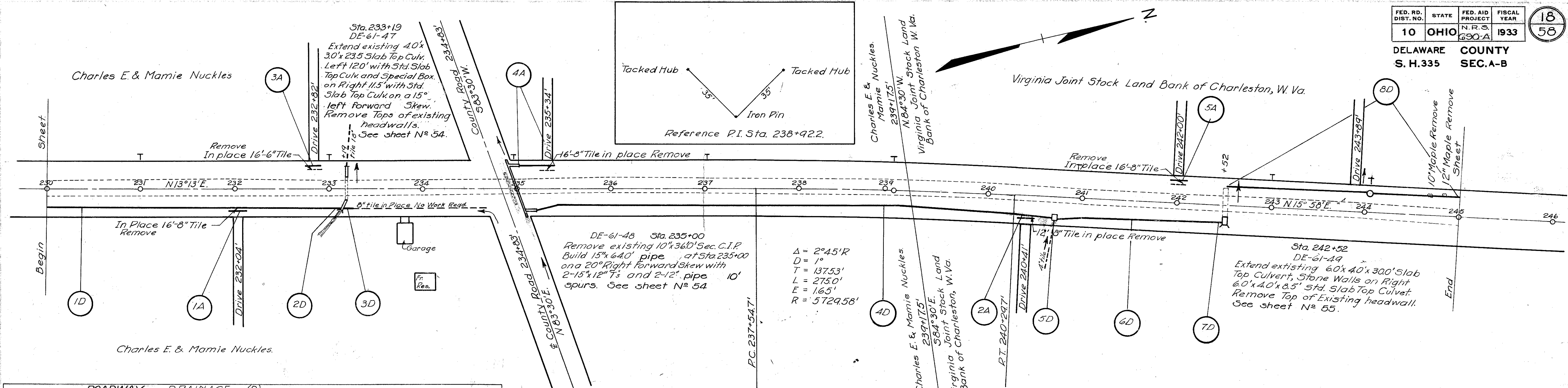
B.M. Sta. 222+20
Spike in Telephone Pole
Left of & El. 1032.91

Item No.	Station From	Station To	Rt. Lt.	Lineal Feet
1G	221+27	221+43	Rt.	16
2G	220+74	222+02	Lt.	128
3G	226+16	227+92	Lt.	176
TOTAL 320				

Item No.	Station	Rt. Lt.	Corr. M.P.
1A	220+19	Lt.	20
TOTAL 20			

Item No.	Station From	Station To	Rt. Lt.	Drain (Sec. Feet)	REMARKS
1D	214+00	216+22	Rt.	222	Connect to Box at Culvert
2D	216+28	221+34	Rt.	506	Connect to Box at Culvert
3D	221+36	227+10	Rt.	574	Connect to Box at Culvert
4D	227+12	230+00	Rt.	288	Connect to Catch Basin
TOTAL 1590					



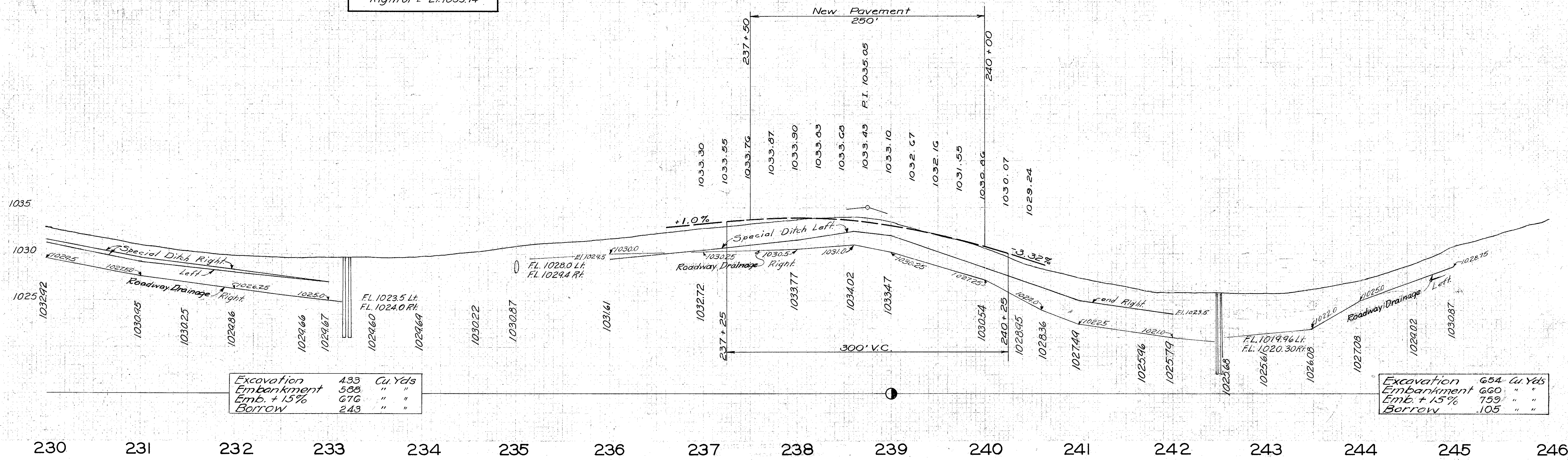


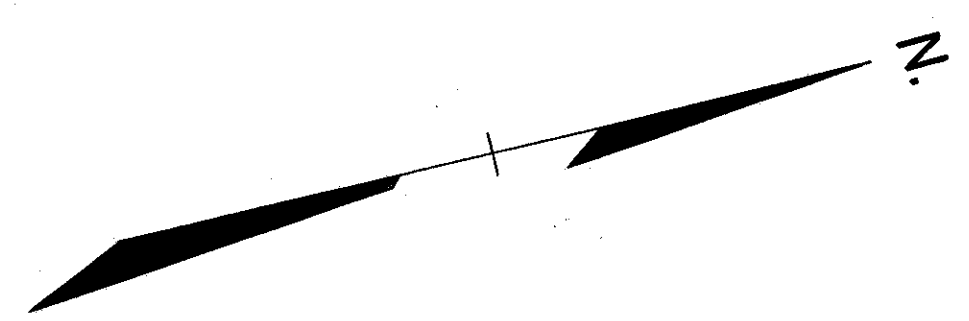
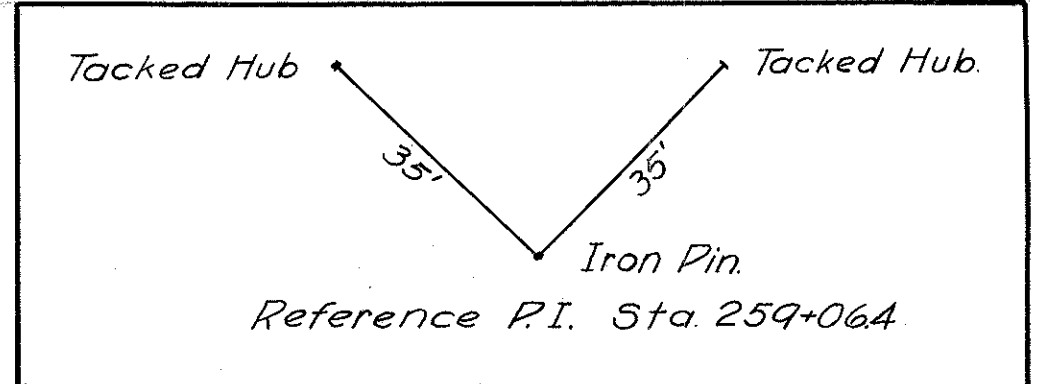
ROADWAY DRAINAGE (D)											
Item No.	Station From	Station To	Rt.	Drain Tile	Sec. #	Corr. M.P.	MOD.	STD. NO.	REMARKS		
1D	230+00	233+10	Rt.	6"	3/10				Run through Barrel of Culvert		
2D	233+10	233+16	Rt.			6			Run through Barrel of Culvert		
3D	233+19	233+27	Rt.			6			Conn. to DE-61-48 & C.B. at sta. 240+71		
4D	235+15	240+70	Rt.		55.5				Connect 4" Farm Tile into Catch Basin.		
5D	240+71		Rt.					1	Conn. to C.B. & Corr. M.P. at culvert.		
6D	240+72	242+44	Rt.			172			Run through Barrel of Culvert.		
7D	242+44	242+50	Rt.					6	Inlet at Sta. 244+00		
8D	242+60	245+00	Lt.			238					
TOTAL				865	238	172	6	6	6	1	1

PRIVATE DRIVE APPROACHES (A)			
Item No.	Station	Rt.	Corr. M.P.
1A	232+04	Rt.	20
2A	240+41	Rt.	20
3A	232+62	Lt.	20
4A	235+34	Lt.	40
5A	242+00	Lt.	20
TOTAL		80	40

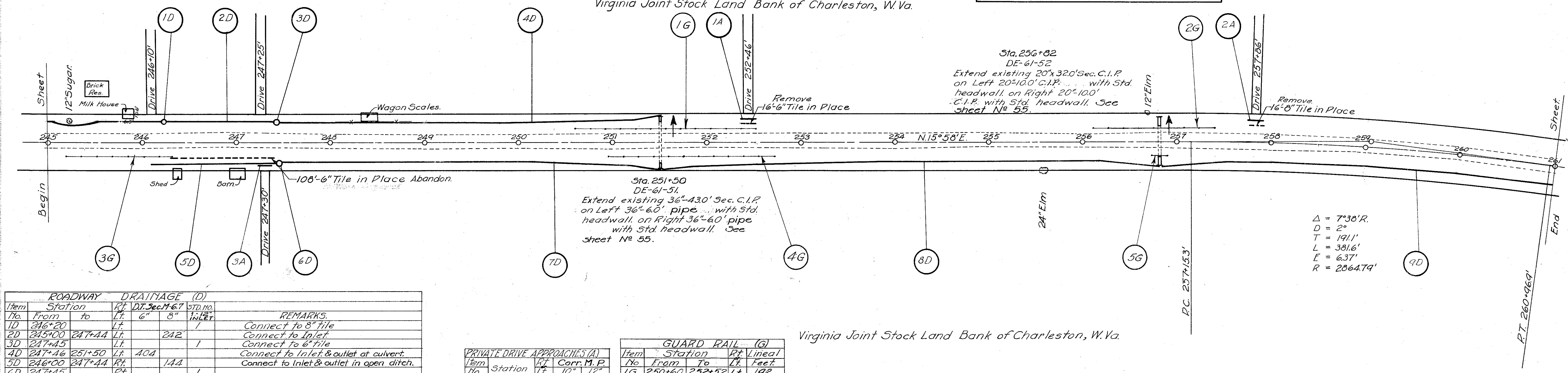
TREES TO BE REMOVED		
Station	Side	Tk
244+70	Left	1
244+85	Left	1
TOTAL		2

B.M. Sta. 234+60
Spike in Pine Tree
Right of & El. 1033.74





Virginia Joint Stock Land Bank of Charleston, W. Va.



Δ = 7°38'R.
D = 2°
T = 1911'
L = 3816'
E = 637'
R = 2864.79'

ROADWAY DRAINAGE (D)					
Item No.	Station From	Station To	Rt.	DI. Sec. 6"	STD. NO.
1D	246+20		Lt.	8"	1
2D	245+00	247+44	Lt.	8"	242
3D	247+45		Lt.	6"	1
4D	247+46	251+50	Lt.	40A	
5D	246+00	247+44	Rt.	14A	
6D	247+45		Rt.		1
7D	247+46	251+50	Rt.	40A	
8D	251+54	256+80	Rt.	52B	
9D	256+84	261+00	Rt.	A1A	
TOTAL				1748	386

REMARKS:
 1D Connect to 8" tile
 2D Connect to Inlet
 3D Connect to 6" tile
 4D Connect to inlet & outlet at culvert.
 5D Connect to inlet & outlet in open ditch.
 6D Connect to inlet & outlet at culvert.
 7D Cement joints 20 each side tree, Sta 255+55

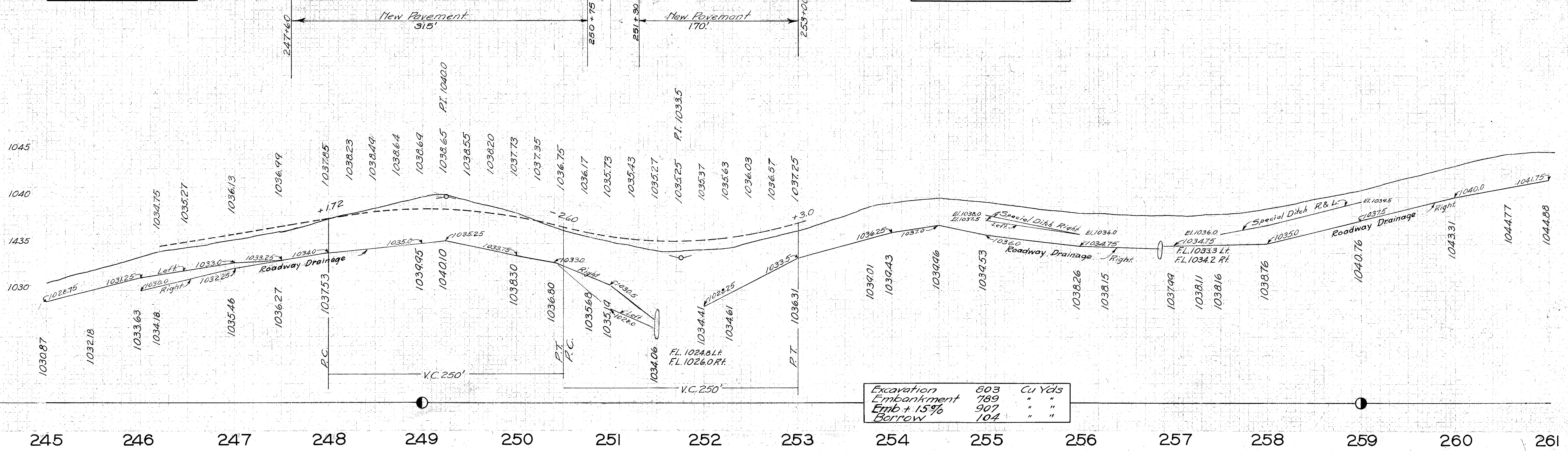
PRIVATE DRIVE APPROACHES (A)			
Item No.	Station	Rt.	Corr. M.P.
1A	252+46	Lt.	20
2A	257+86	Lt.	20
3A	247+30	Rt.	20
TOTAL			40

GUARD RAIL (G)			
Item No.	Station From	Station To	Lineal Feet
1G	250+60	252+52	192
2G	256+12	257+40	128
3G	245+20	246+32	112
4G	250+96	252+72	176
5G	256+74	256+40	16
TOTAL			624

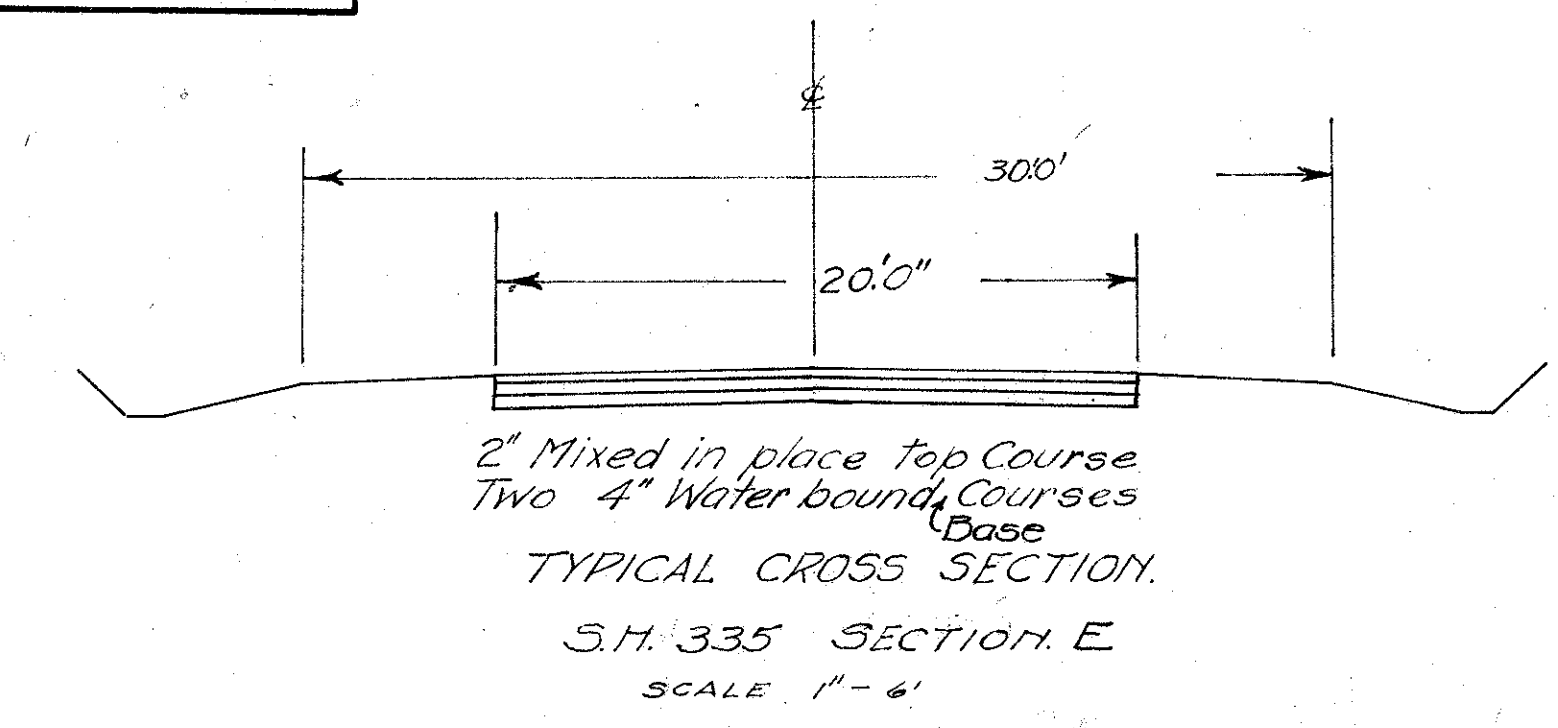
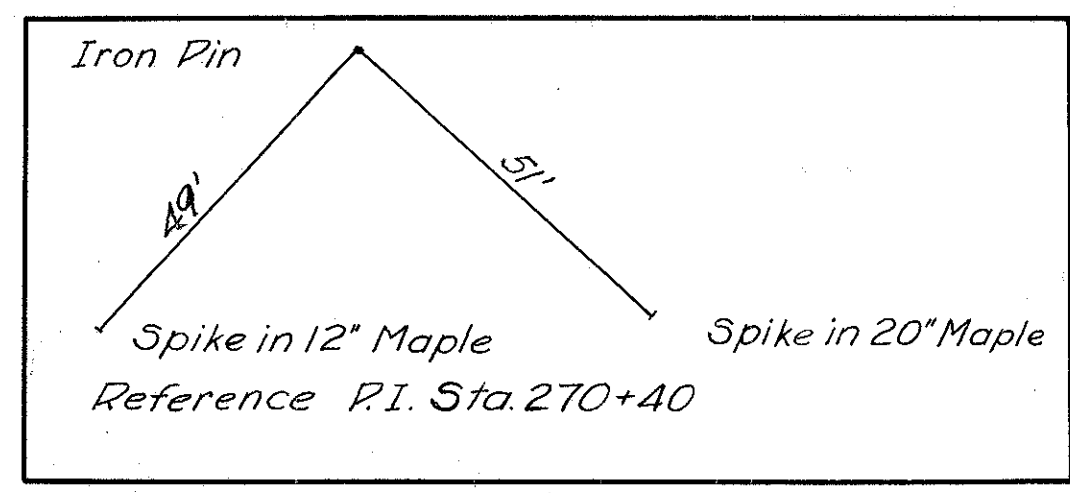
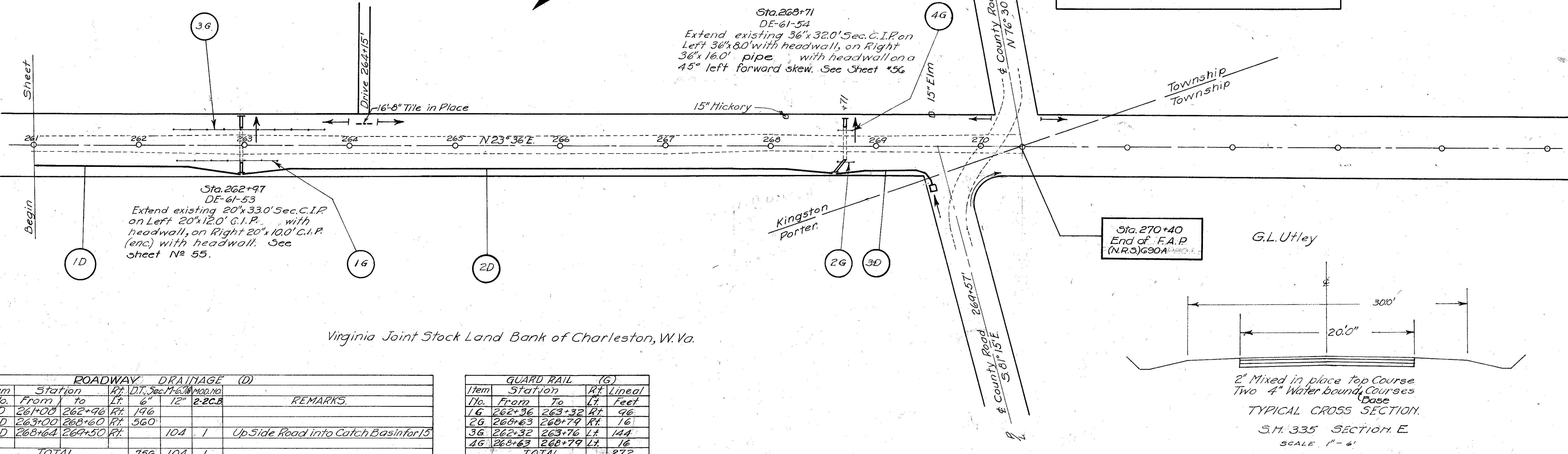
Virginia Joint Stock Land Bank of Charleston, W. Va.

B.M. Sta. 245+00
Spike in Maple
Left of & El. 1034.11

B.M. Sta. 255+60
Spike in root of 30" Maple
Right of & El. 1040.29



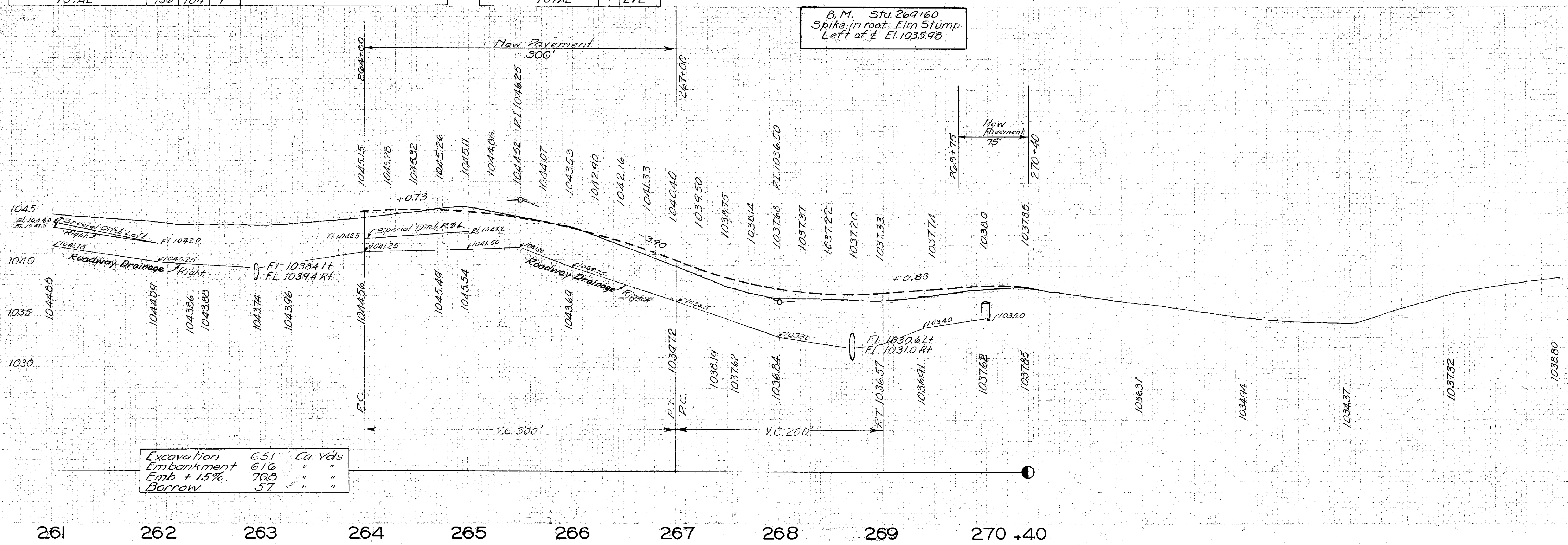
Virginia Joint Stock Land Bank of Charleston, W. Va.



Virginia Joint Stock Land Bank of Charleston, W. Va.

ROADWAY		DRAINAGE (D)			REMARKS
Item No.	Station From to	Rt.	D.I. Sec. M. 6. 100. 10.	MOD. NO.	
1D	261+00 to 262+96	Rt.	196	12"	2-2C.B.
2D	263+00 to 268+60	Rt.	560		
3D	268+64 to 269+50	Rt.	104	1	Up Side Road into Catch Basin for 15'
TOTAL			756	104	1

GUARD RAIL (G)		Rt.	Lineal Feet
Item No.	Station From To		
1G	262+36 to 263+32	Rt.	96
2G	268+63 to 268+79	Rt.	16
3G	262+32 to 263+76	Lt.	144
4G	268+63 to 268+79	Lt.	16
TOTAL			272

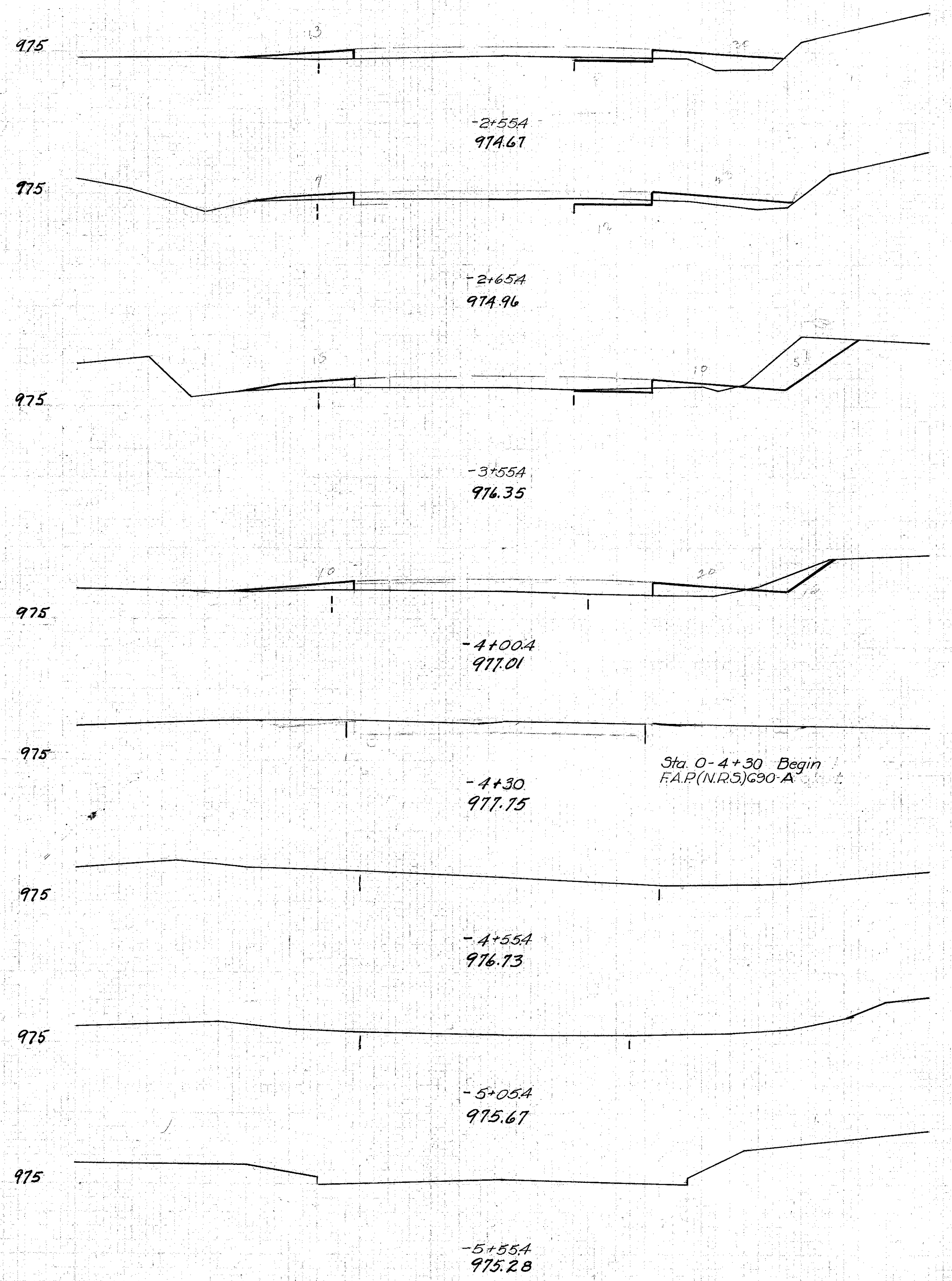


30 25 20 15 10 5 0 5 10 15 20 25 30

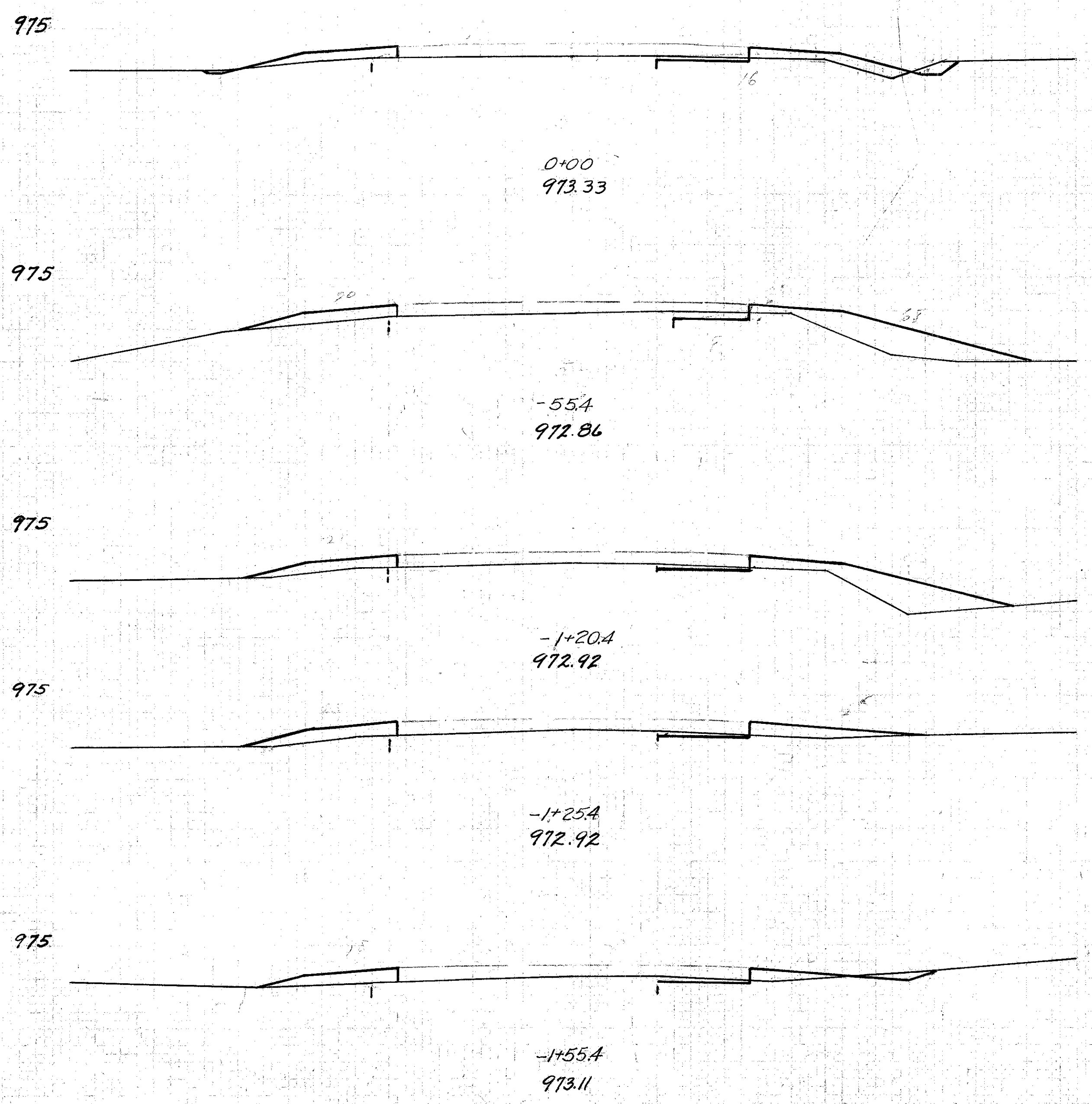
30 25 20 15 10 5 0 5 10 15 20 25 30

FED. RD. DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR	21 58
10	OHIO	N. R. S. 690-A	1933	

DELAWARE COUNTY
S. H. 335 SEC. SUNBURY



END AREA	CU. YDS	
CUT	FILL	
2	11	
		1 4
3	8	
		27 23
13	6	
		14 12
4	8	
		1 5
0	0	



END AREA	CU. YDS	
CUT	FILL	
5	9	
		6 32
2	22	
		4 52
1	21	
		0 3
1	11	
		2 10
2	7	
		7 33

30 25 20 15 10 5 0 5 10 15 20 25 30

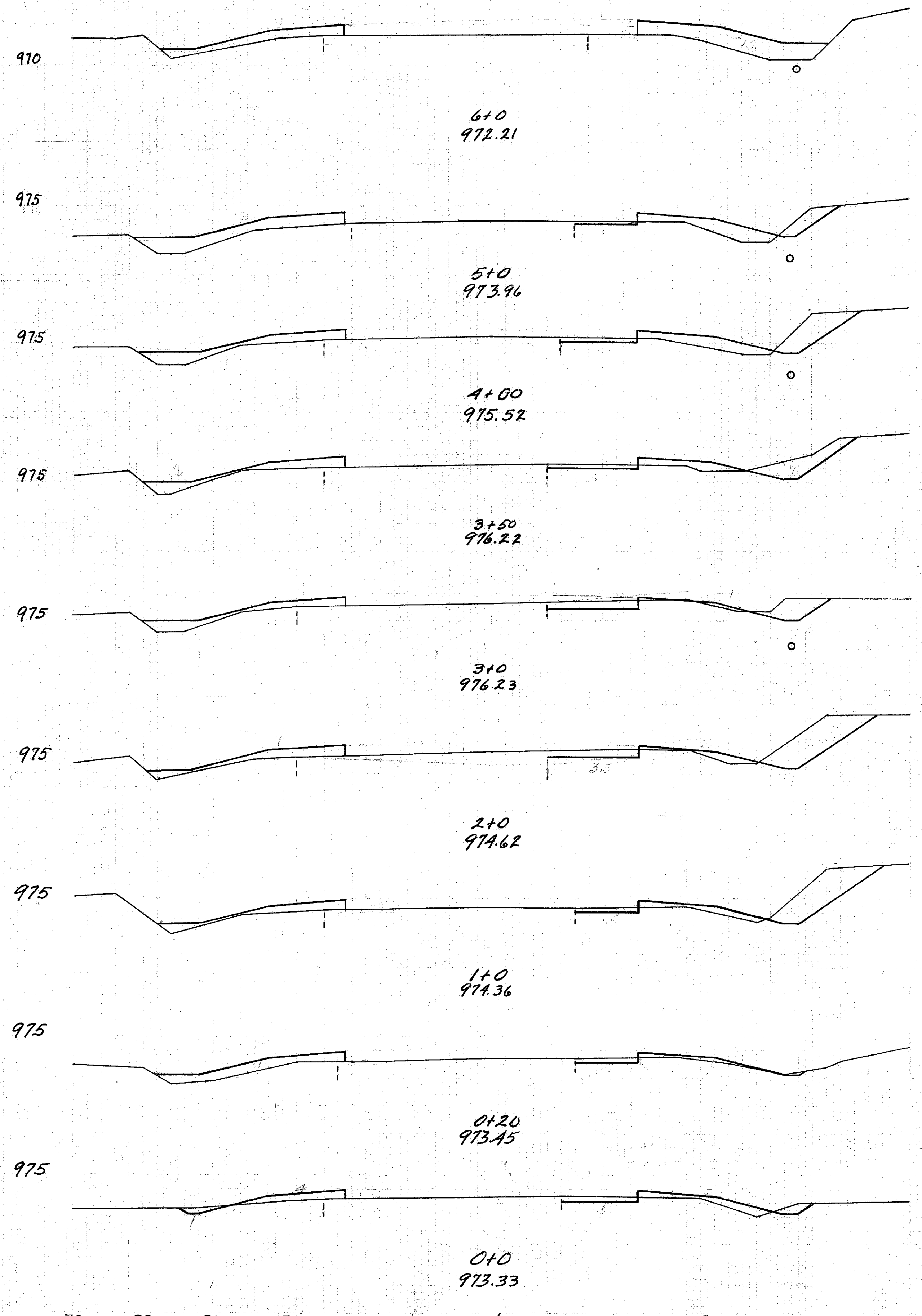
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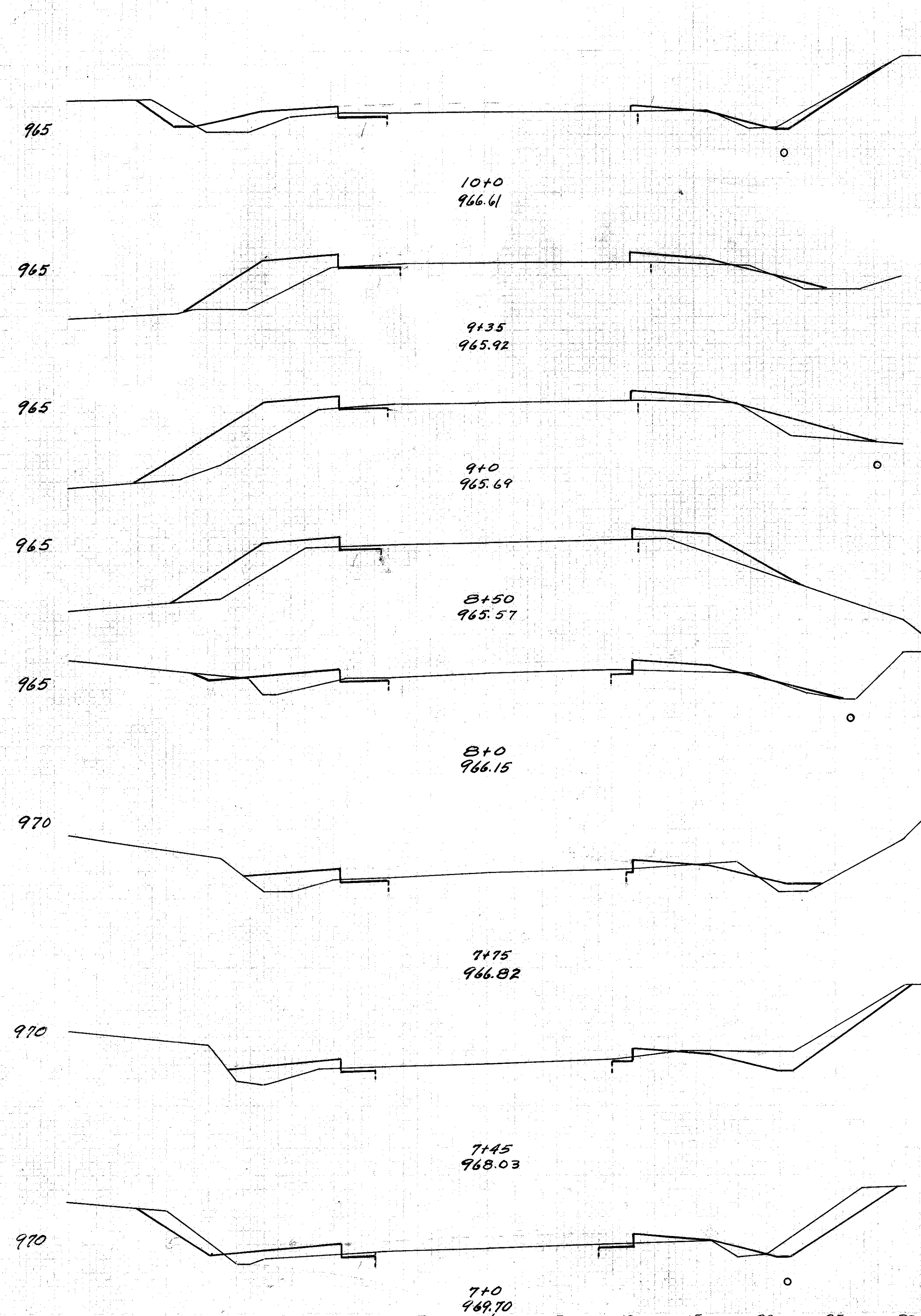
FED. RD. DIST. NO.	STATE	FED. AID PROJECT N.R.S.	FISCAL YEAR	22 58
10	OHIO	690-A	1933	

DELAWARE COUNTY
S.H. 335 SEC.S A.&B.



END AREA		CU. YD'S	
CUT	FILL	CUT	FILL
0	24	9	83
5	21	28	72
10	18	18	28
9	12	16	18
8	8	44	32
16	9	59	35
16	10	27	31
2	11	3	7
5	9		

Excavation 266 Cu Yds
Embankment 480
Embankment 15% 552
Borrow 286



END AREA		CU. YDS	
CUT	FILL	CUT	FILL
8	9	12	42
2	26	2	43
1	40	2	60
1	25	3	35
2	13	2	11
3	10	10	11
15	9	28	16
18	10	33	63

30 25 20 15 10 5 0 5 10 15 20 25 30

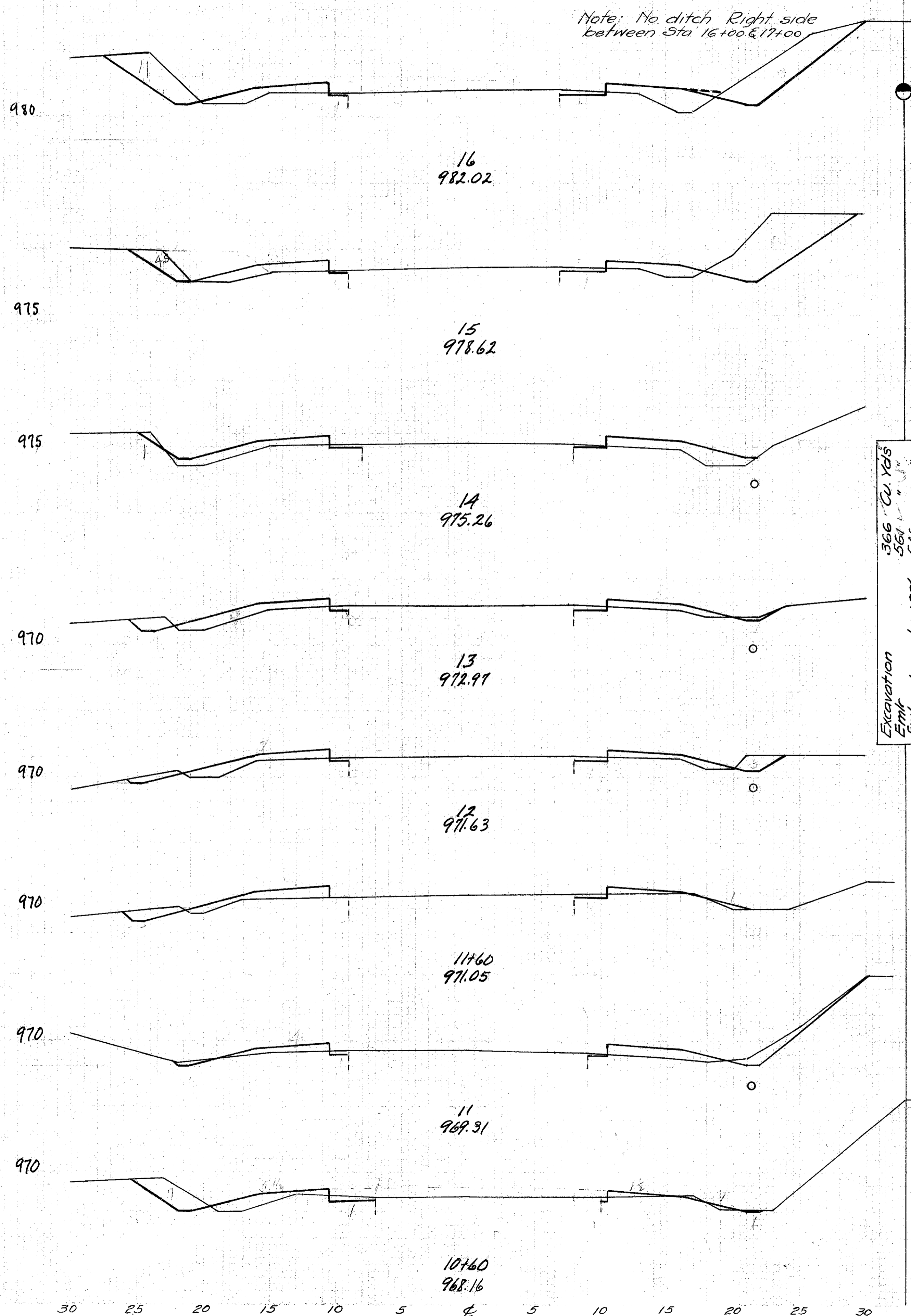
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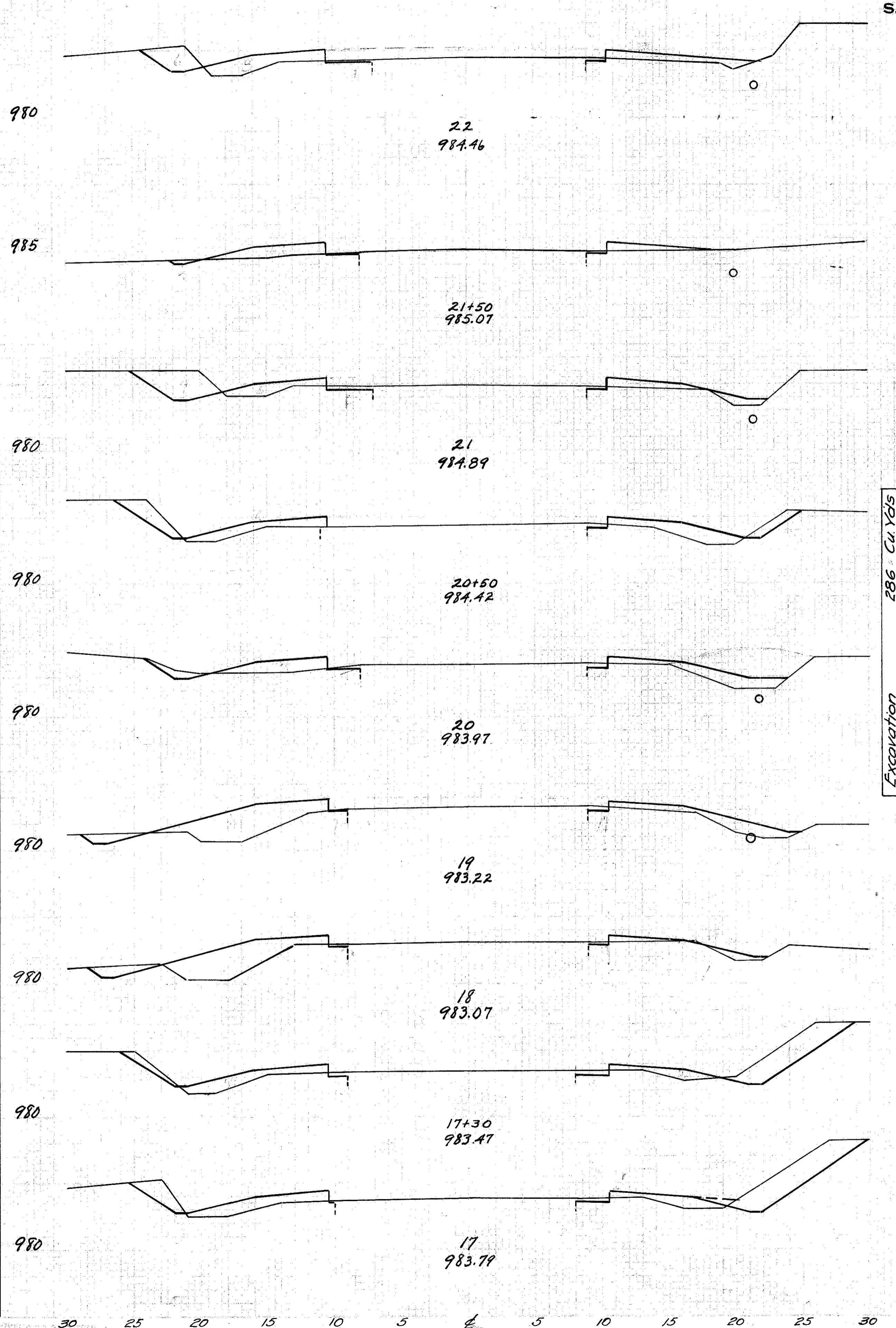
FED. RD. DIST. NO.	STATE	FED. AID PROJECT N.R.S.	FISCAL YEAR	23 58
10	OHIO	690A	1933	

DELAWARE COUNTY
S. H. 335 SEC. S A. & B.



END AREA		CU. YDS	
CUT	FILL	CUT	FILL
13	14		
31	14		
		119	50
33	13		
		67	56
3	17		
		15	57
5	14		
		22	46
7	11		
		8	16
4	11		
		12	23
7	10		
		12	13
9	8		
		19	19

Excavation 566 Cu. Yds
Embankment + 15% 561 " " " "
Borrow 219 " " " "



END AREA		CU. YDS	
CUT	FILL	CUT	FILL
7	11		
		8	19
1	9		
		11	19
11	11		
		18	24
8	15		
		11	28
4	15		
		13	80
3	28		
		13	93
4	22		
		25	43
15	11		
		18	13
18	12		
5	13		
		33	50

Excavation 286 Cu. Yds
Embankment 673 " " " "
Borrow 774 " " " "

30 25 20 15 10 5 0 5 10 15 20 25 30

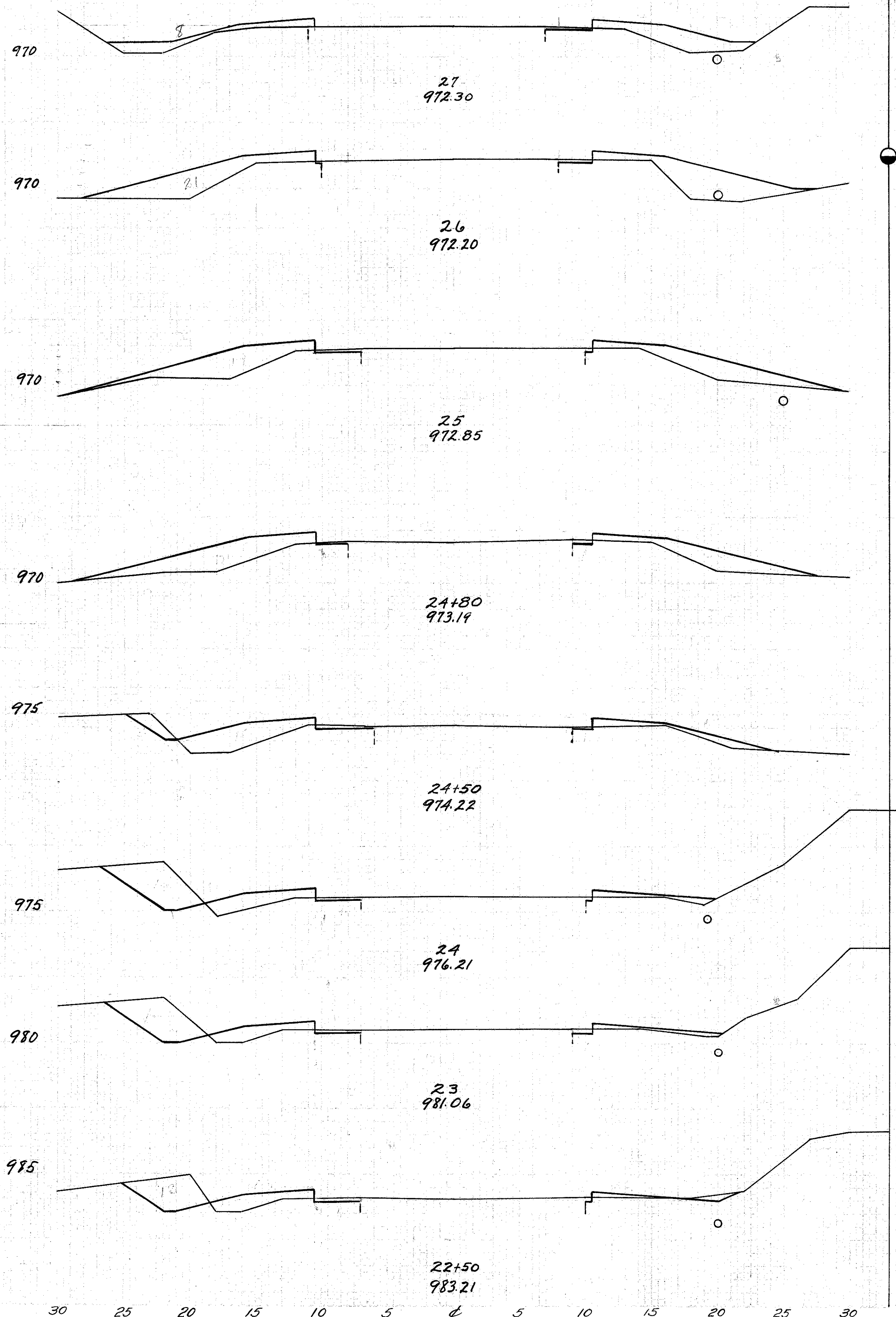
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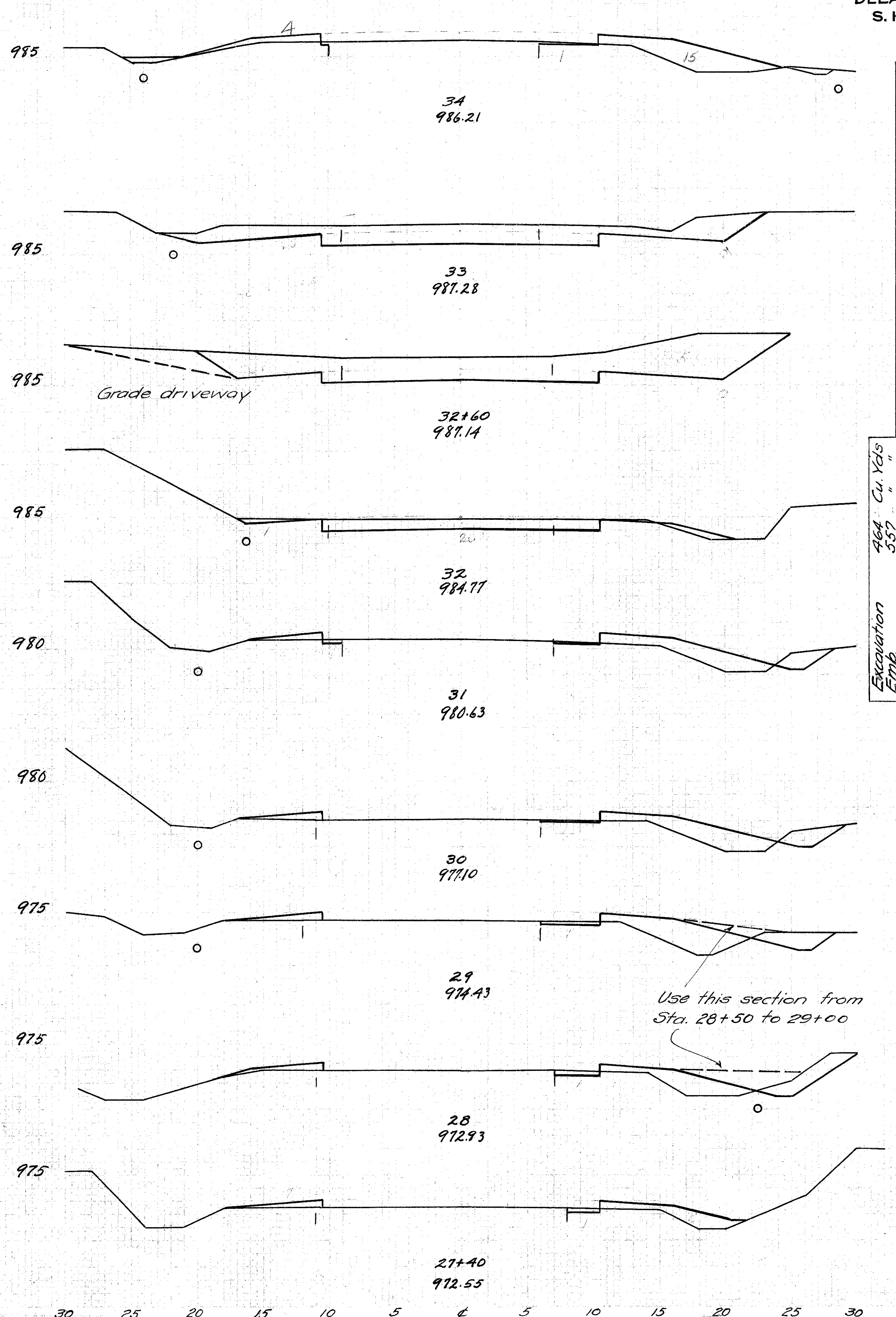
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FED. RD. DIST. NO.	STATE	FED. AID PROJECT N.R.S.	FISCAL YEAR	24 58
10	OHIO	690-A	1933	

DELAWARE COUNTY
S. H. 335 SECS A. & B.



END AREA	CUT	FILL	CUT	FILL
1	20			
4	113			
1	41			
4	143			
1	36			
1	26			
2	35			
4	31			
5	21			
20	31			
16	12			
59	39			
16	9			
28	16			
14	8			
20	18			



END AREA	CUT	FILL	CUT	FILL
2	19			
				102 35
53	0			
				103 0
			4	for drive
86	0			
				119 3
21	3			
				48 33
5	15			
				19 57
5	16			
				22 61
7	17			
1	21			
				2 41
1	23			
8	14			
				15 26
8	14			
				11 28
2	11			
				2 23

Excavation
Emb + 15%
Borrow

464
557
641
177

Cu Yds
" "
" "
" "

Use this section from
Sta. 28+50 to 29+00

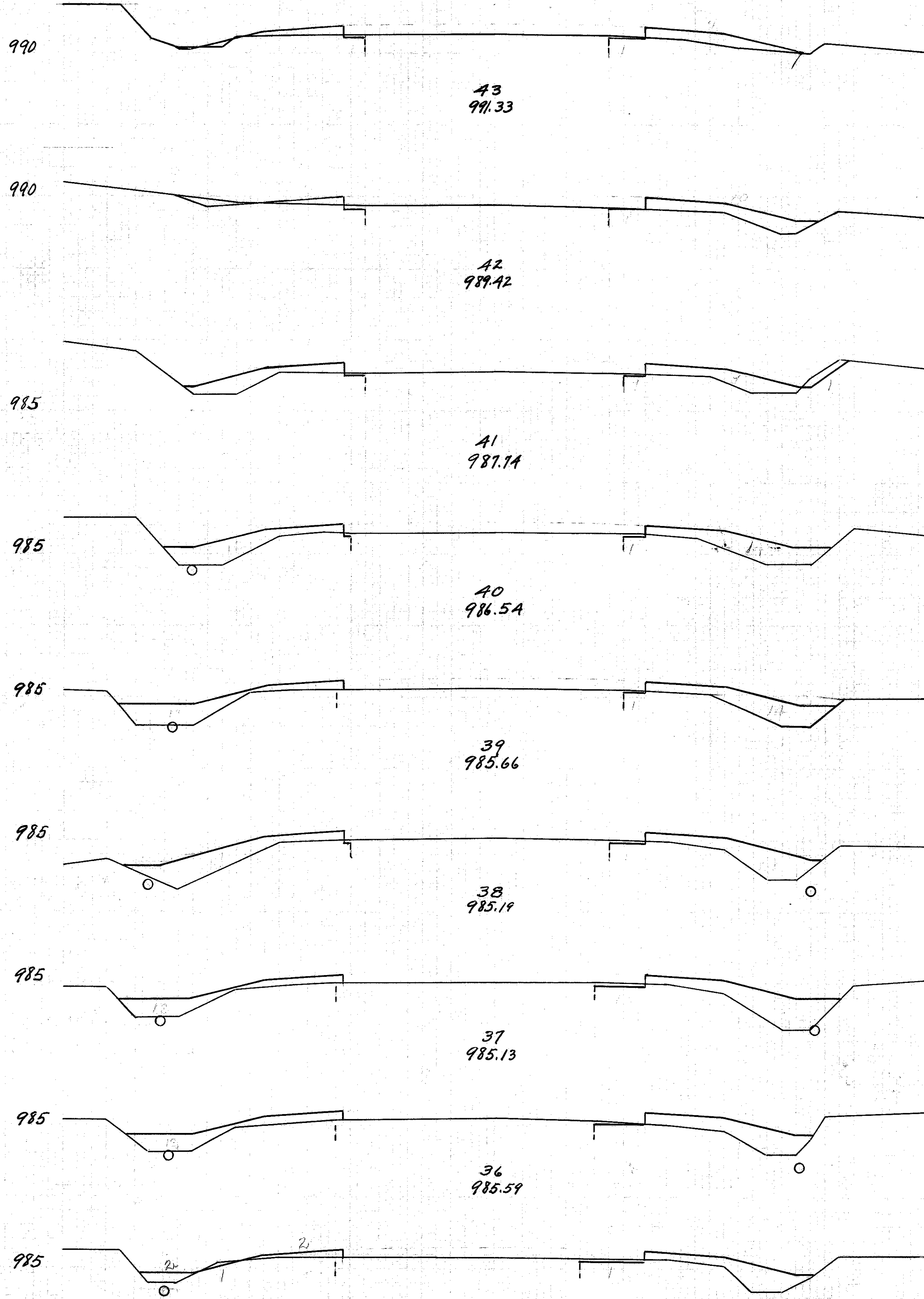
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30 25 20 15 10 5 0 5 10 15 20 25 30

FED. RD. DIST. NO.	STATE	FED. AID PROJECT N.R.S.	FISCAL YEAR
10	OHIO	G30-A	1933

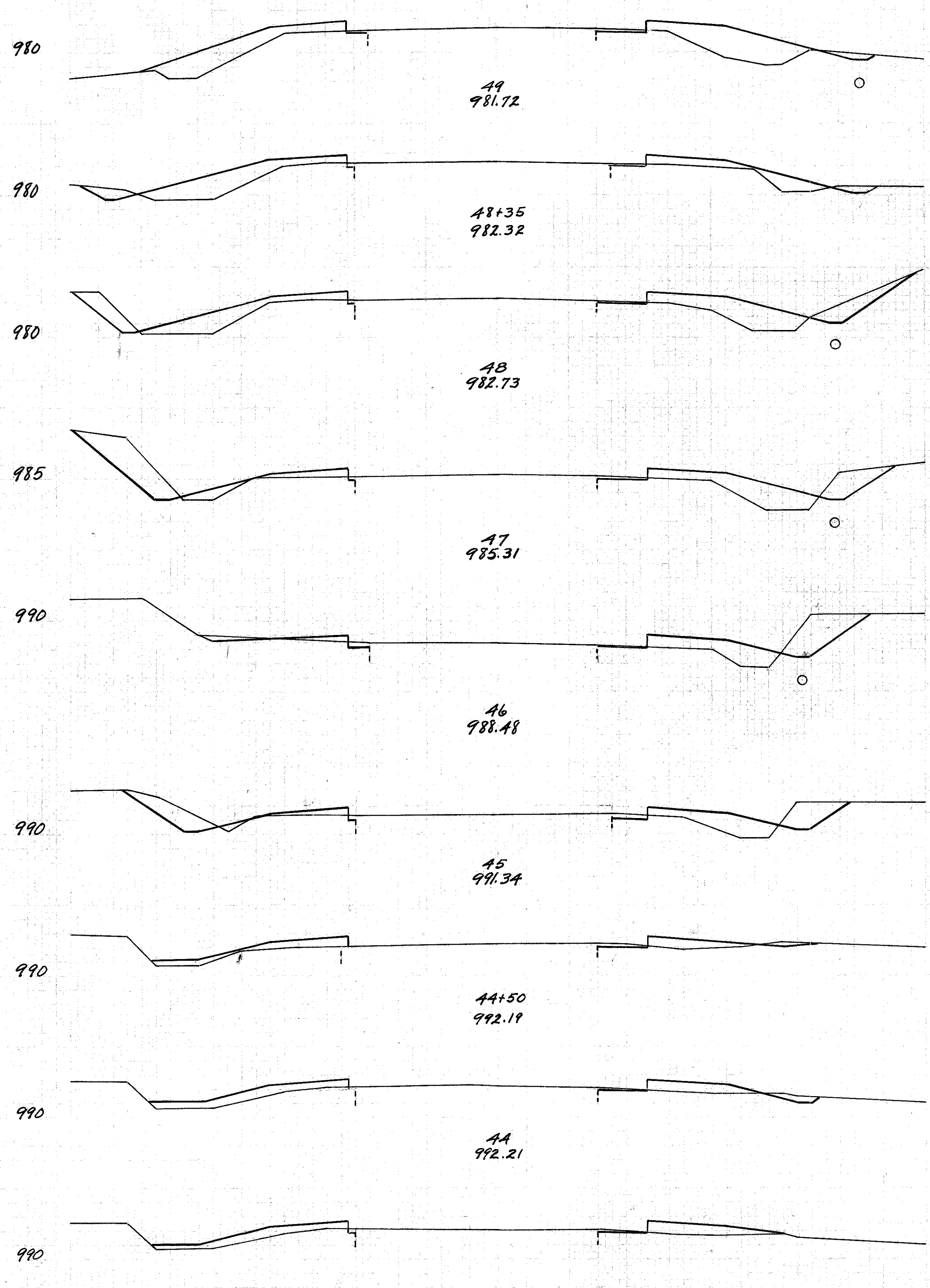
25
58

DELAWARE COUNTY
S. H. 335 SECS A & B.



END AREA	CU YDS	
	CUT	FILL
3	11	
	13	43
4	12	
	13	54
3	17	
	7	80
1	26	
	4	98
1	27	
	4	107
1	31	
	4	111
1	29	
	4	100
1	25	
	6	74
2	15	
	7	63

Excavation 122 Cu. Yds
Emo. 740
L.F.M. + 15% 851
Bottom 729



END AREA	CU YDS	
	CUT	FILL
3	32	
	8	64
4	21	
	10	30
11	26	
	57	83
20	19	
	59	54
12	10	
	48	41
14	12	
	15	23
2	13	
	4	30
2	19	
	2	24
1	13	
	4	29

30 25 20 15 10 5 0 5 10 15 20 25 30

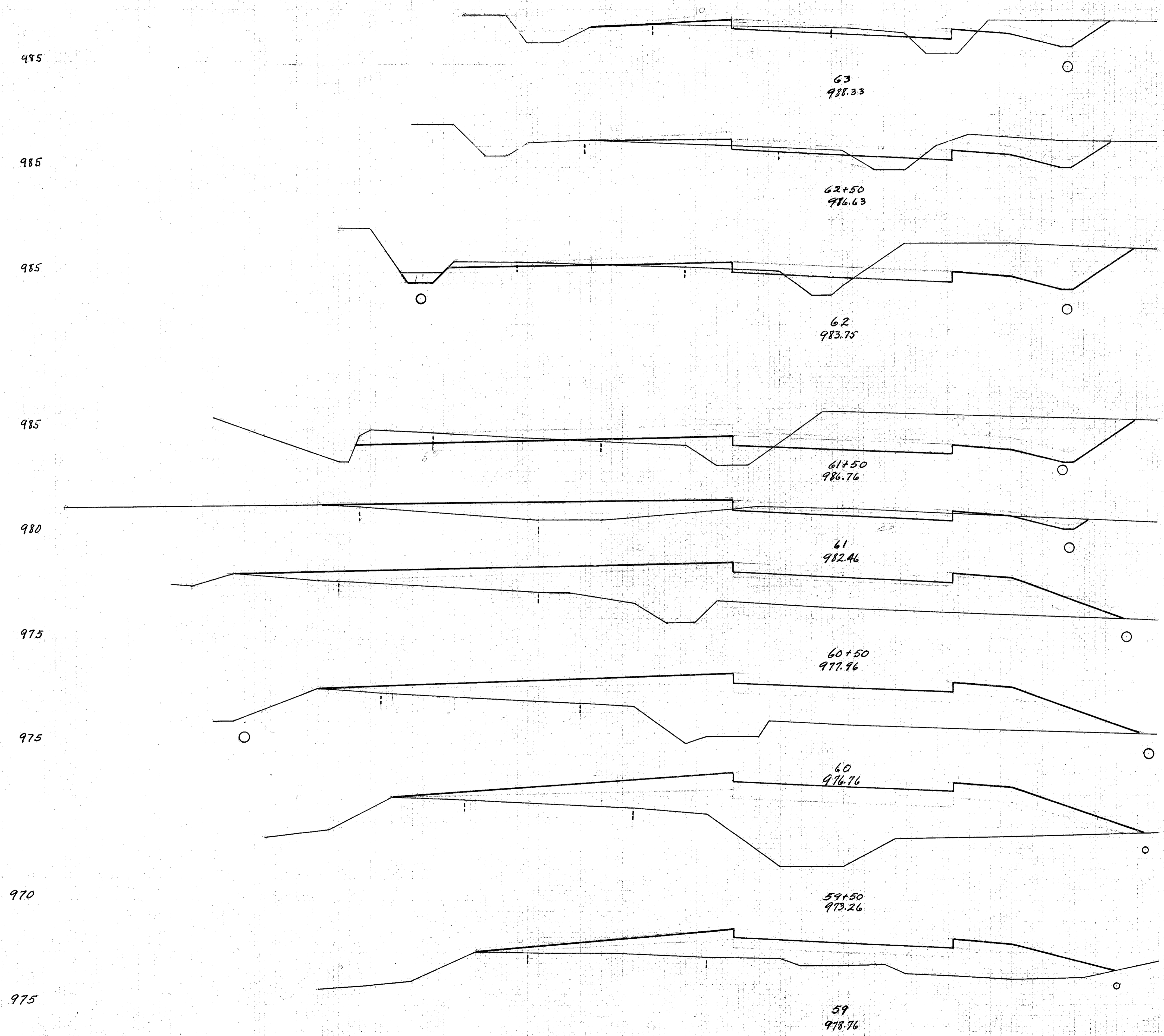
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70 65 60 55 50 45 40 35 30 25 20 15 10 5 4 5 10 15 20 25 30

FED. RD. DIST. NO.	STATE	FED. AID PROJECT N. R. S.	FISCAL YEAR
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58

DELAWARE COUNTY
S. H. 335 SECS A. & B.



END AREA	CU. YDS	
	CUT	FILL
27	11	
		57 19
34	9	
		108 20
83	12	
		185 29
117	19	
		123 61
16	47	
		15 237
0	209	
		0 403
0	226	
		0 446
0	256	
		0 343
0	115	
		74 125

70 65 60 55 50 45 40 35 30 25 20 15 10 5 4 5 10 15 20 25 30

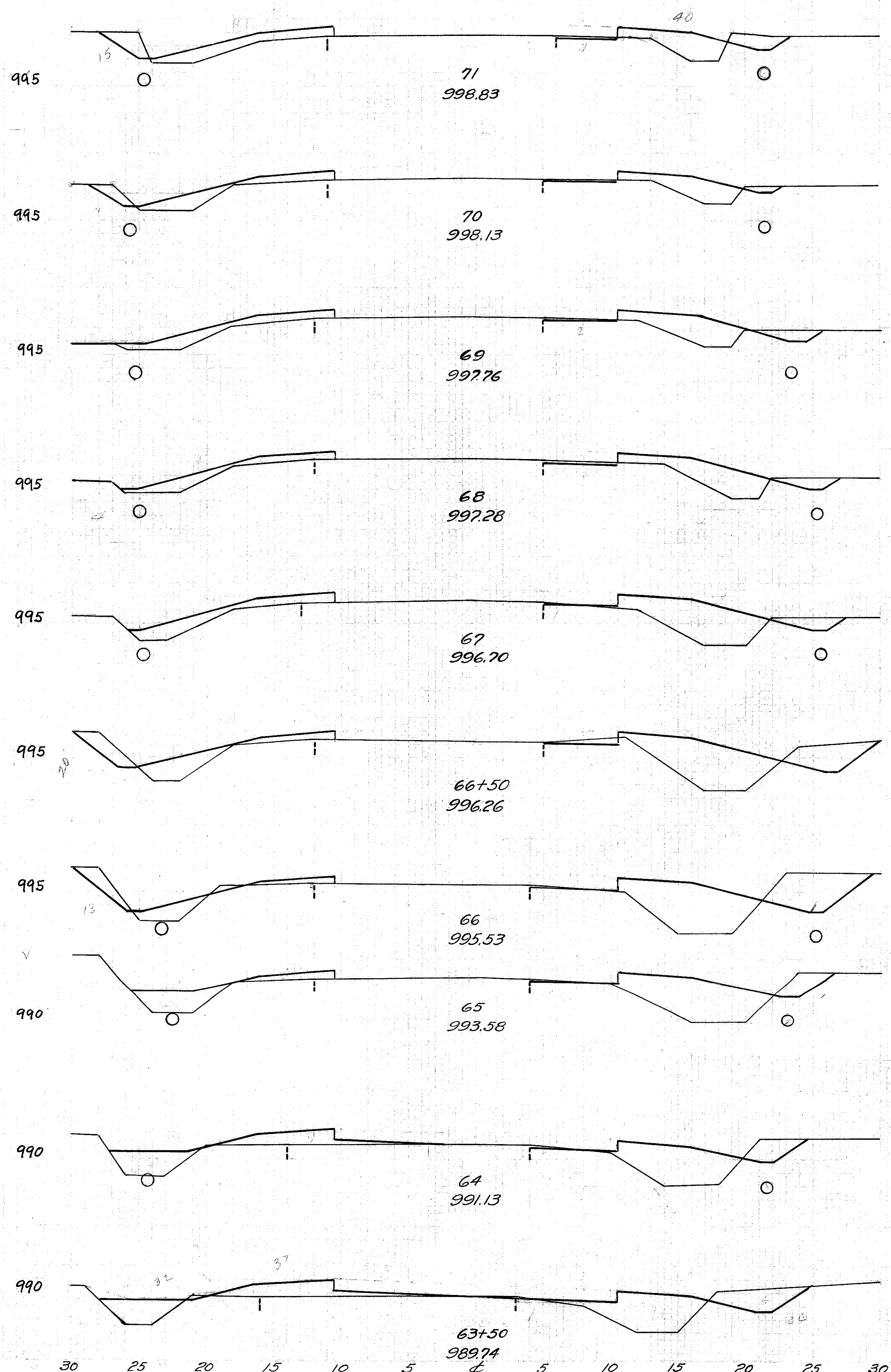
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FED. RD. DIST. NO.	STATE	FED. AID PROJECT N.R.S.	FISCAL YEAR
10	OHIO	G90-A	1933

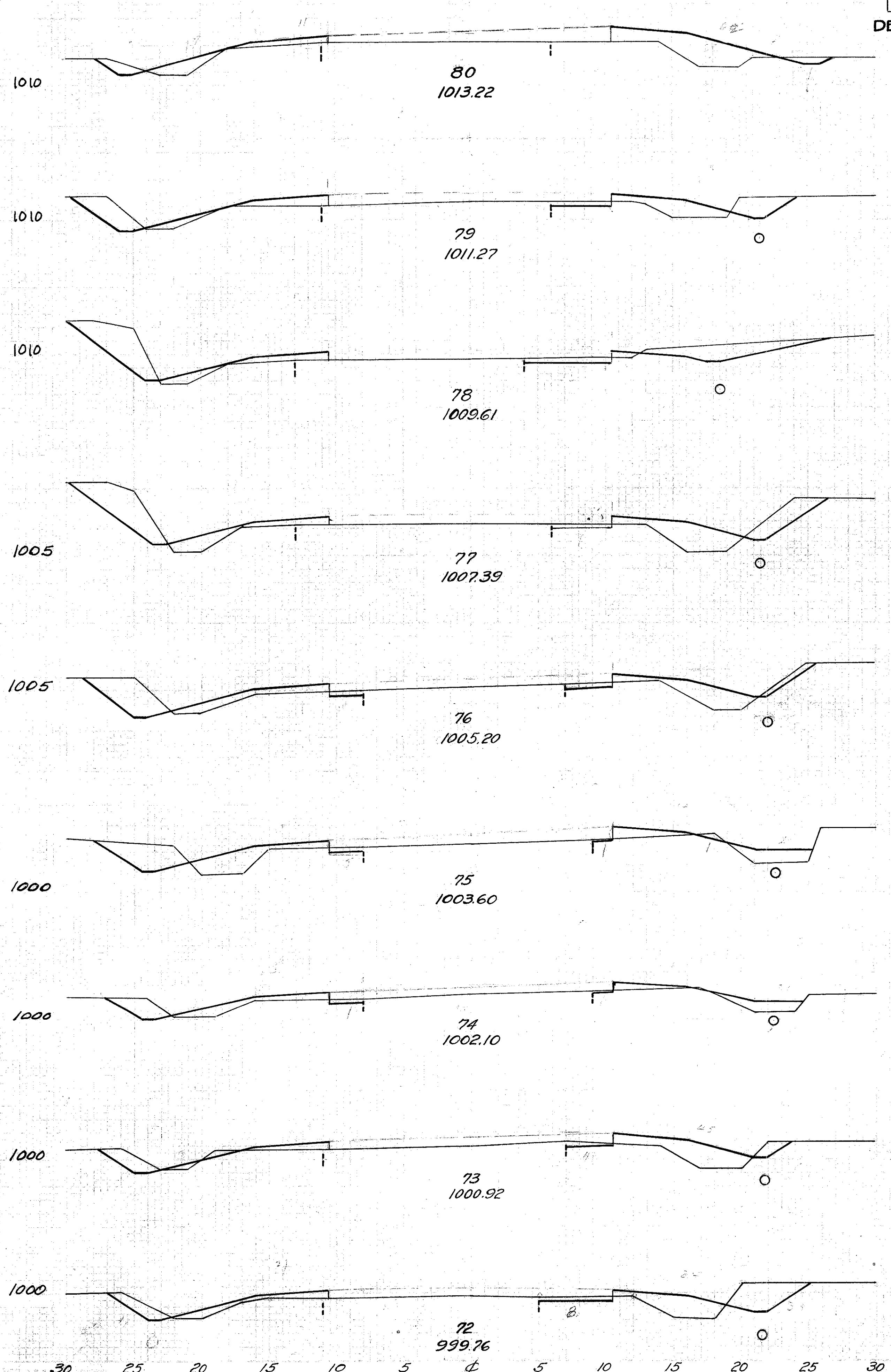
28
58

DELAWARE COUNTY
S. H. 335 SEC. 3 A & B.



Excavation 290 Cu. Yds
Emb. 770 " "
Emb. + 15% 885 " "
Borrow 395 " "

END AREA	CU YDS	
	CUT	FILL
8	20	
4	19	
4	22	
4	23	
13	109	
3	36	
17	68	
15	37	
32	67	
19	35	
45	145	
5	43	
19	146	
5	36	
13	67	
9	36	
33	44	



END AREA	CU YDS	
	CUT	FILL
4	23	
13	12	32 65
25	5	70 32
		83 44
20	19	
		65 67
15	17	
		48 67
11	19	
		32 61
6	14	
		22 52
6	14	
		35 52
13	14	
		39 63

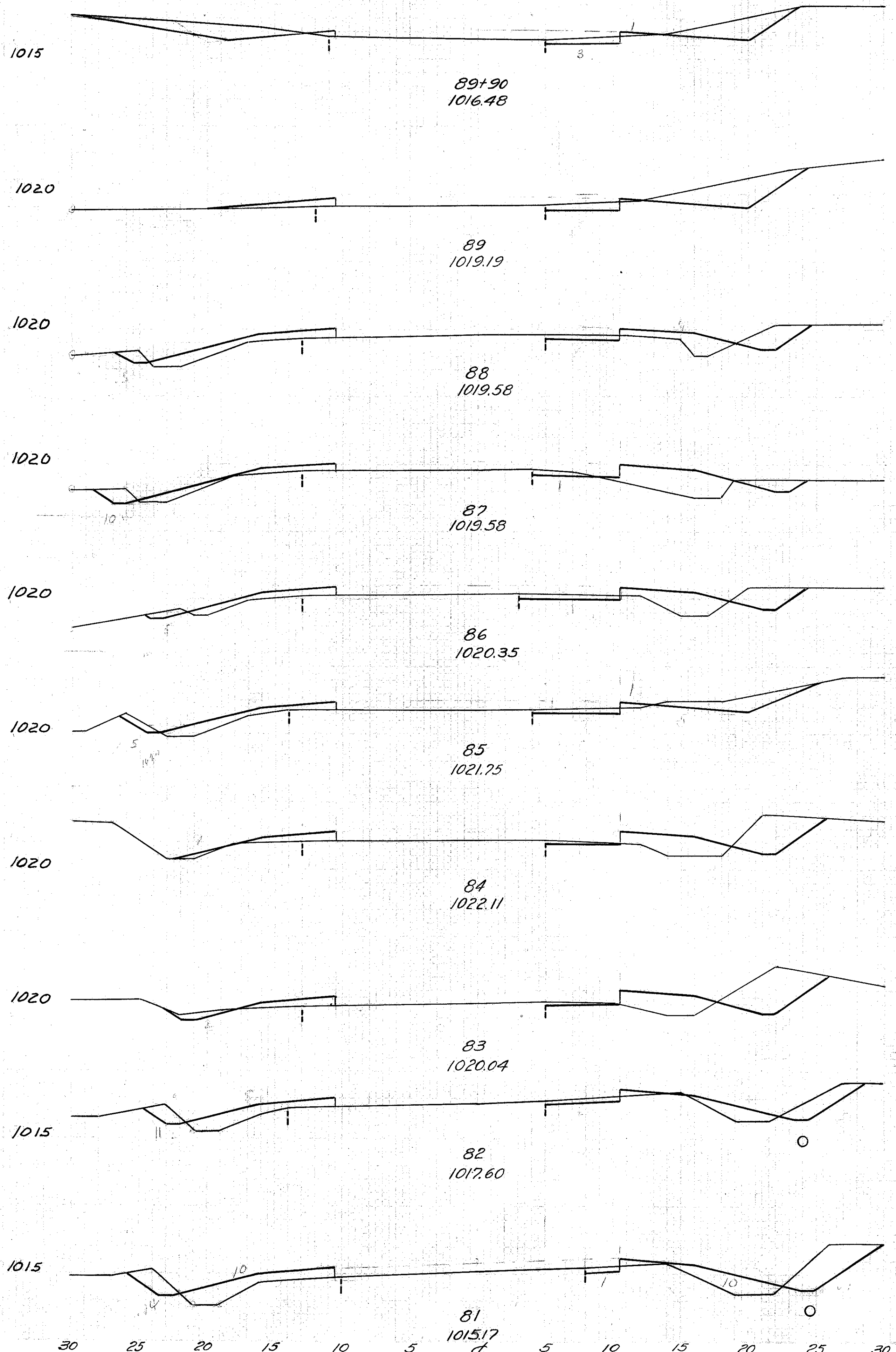
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30 25 20 15 10 5 4 5 10 15 20 25 30

30 25 20 15 10 5 4 5 10 15 20 25 30

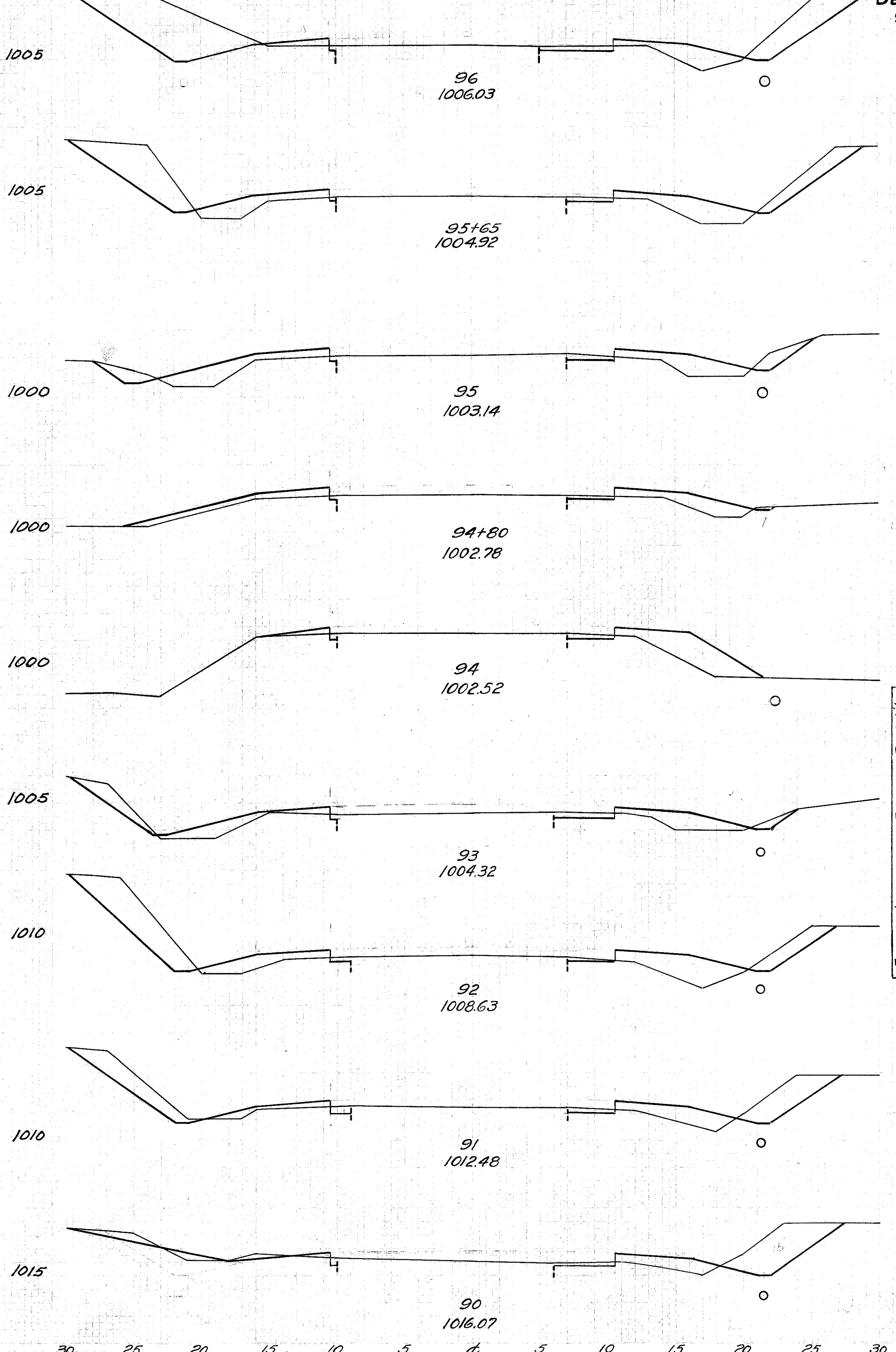
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DELAWARE COUNTY
S. H. 335 SEC. S A. & B.



END AREA		CU. YDS	
CUT	FILL	CUT	FILL
19	2		
		60	8
17	3		
		46	37
8	17		
		26	65
6	18		
		30	59
10	14		
		39	41
11	8		
		44	37
13	12		
		56	44
17	12		
		52	52
11	16		
		50	67
16	20		
		37	80

Excavation 538 Cu. Yds
Embankment 538 " "
Emb. + 15% 608 " "
Borrow 80



END AREA		CU. YDS	
CUT	FILL	CUT	FILL
50	9		
		50	18
27	18		
		42	46
8	20		
		4	13
2	16		
		4	47
1	16		
		19	59
9	16		
		69	63
28	18		
		96	54
24	11		
		81	33
20	7		
		7	2

Excavation 534 Cu. Yds
Embankment 504 " "
Emb. + 15% 580 " "
Borrow 46

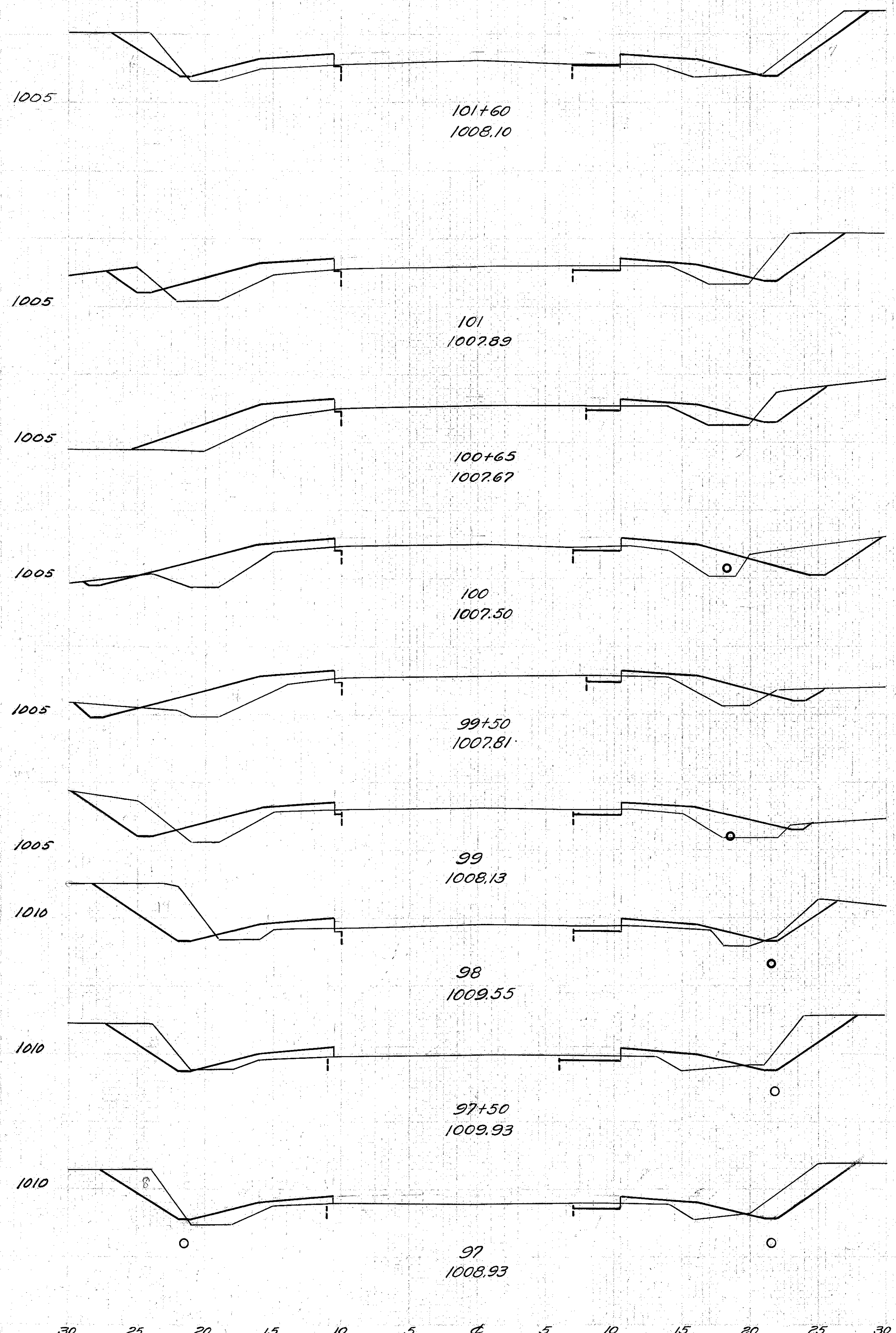
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FED. RD. DIST. NO.	STATE	FED. AID PROJECT N.R.S. G30-A	FISCAL YEAR
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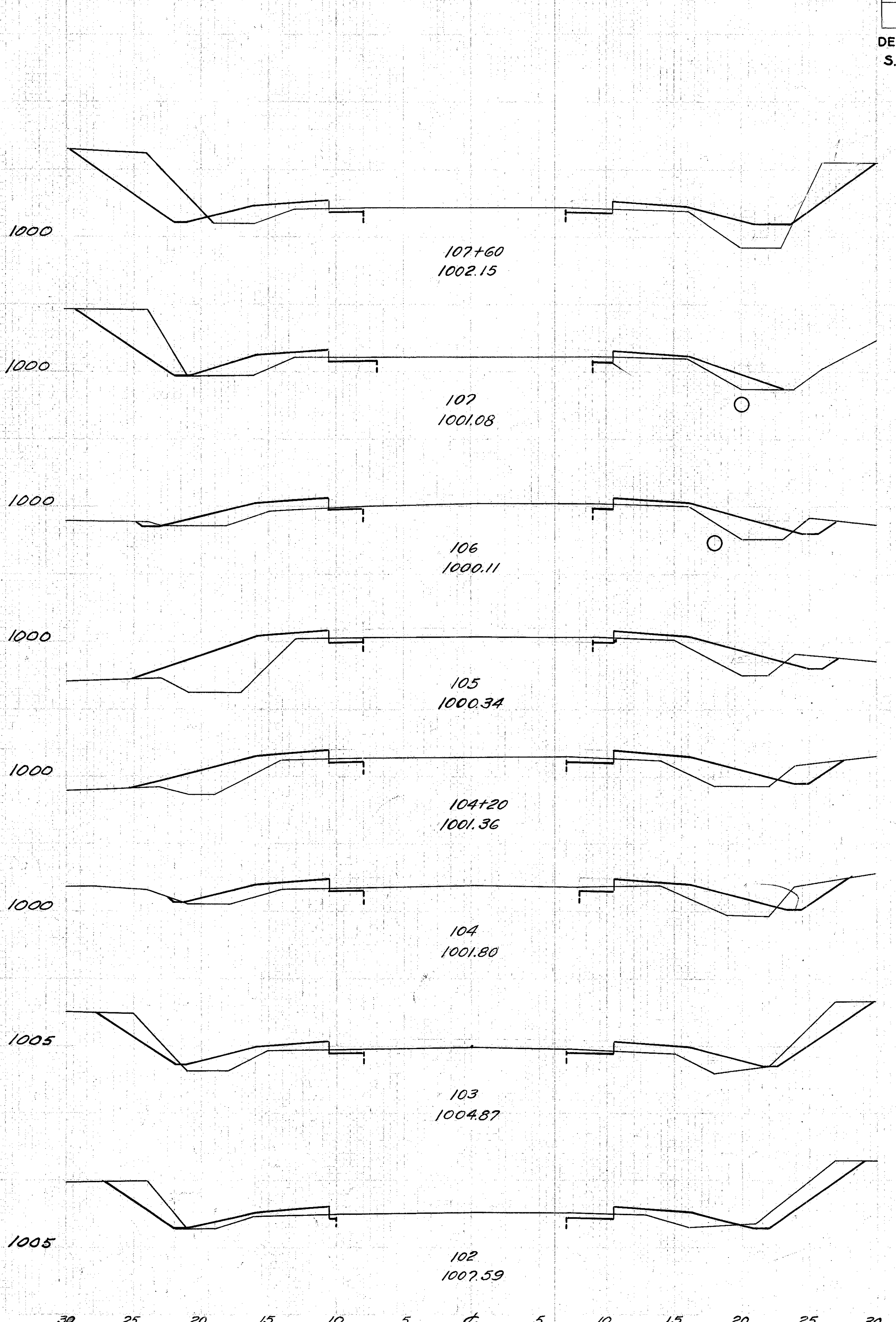
DELAWARE COUNTY.
S.H. 335 SEC. A-B.



END AREA	CU. YDS	
	CUT	FILL
13	18	
31	44	
15	22	
14	30	
7	24	
26	61	
15	27	
19	50	
6	27	
17	45	
12	21	
67	61	
24	12	
41	23	
20	13	
35	23	
18	12	
126	39	

Excavation
Embankment + 15%
Borrow

541 Cu. Yds
338 " "
849 " "
308 " "



END AREA	CU. YDS	
	CUT	FILL
33	22	
		56 39
18	13	
		41 61
4	20	
		11 111
2	40	
		12 99
6	27	
		5 17
8	18	
		46 63
17	16	
		67 50
19	11	
		24 22

30 25 20 15 10 5 0 5 10 15 20 25 30

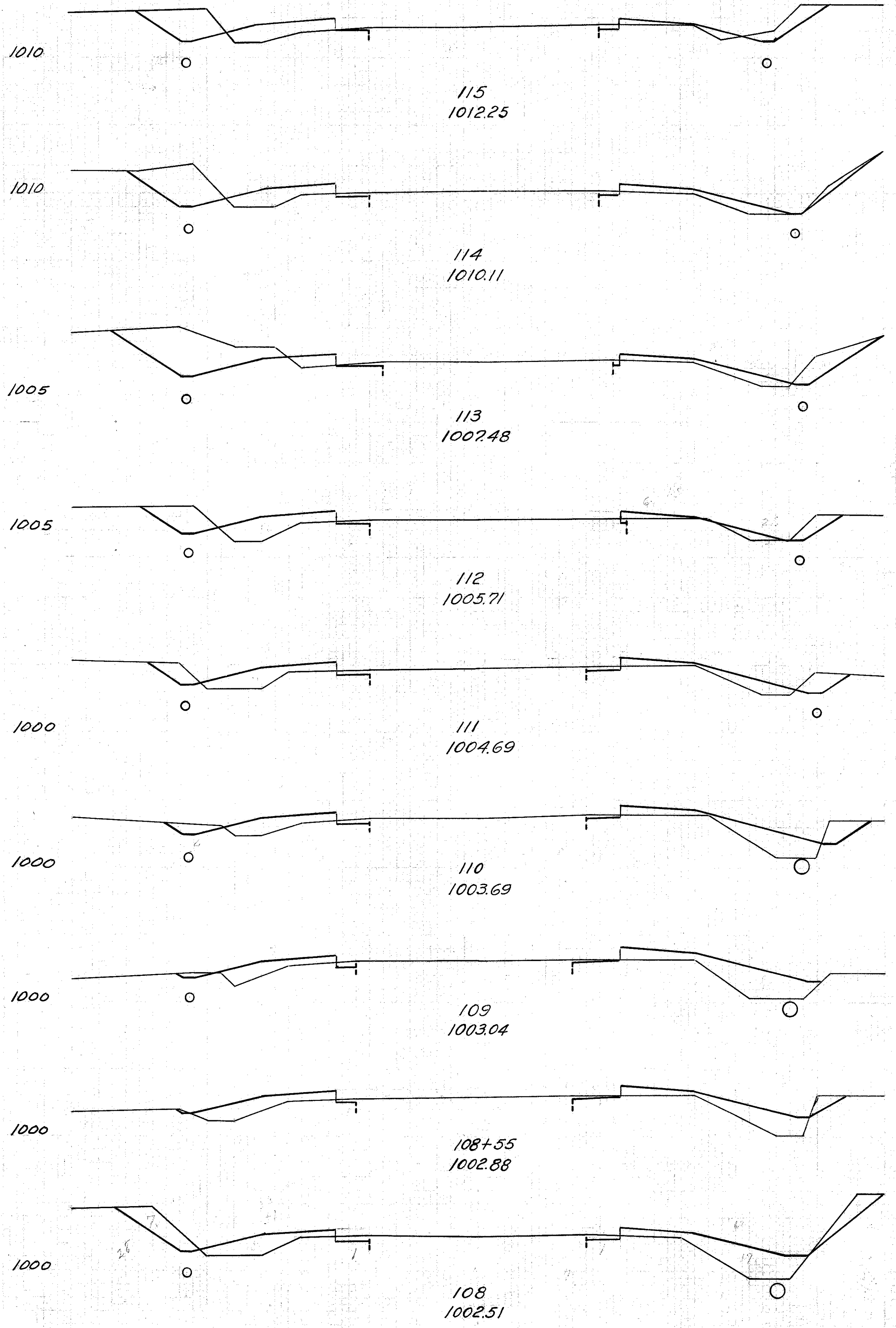
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30 25 20 15 10 5 4 5 10 15 20 25 30

30 25 20 15 10 5 4 5 10 15 20 25 30

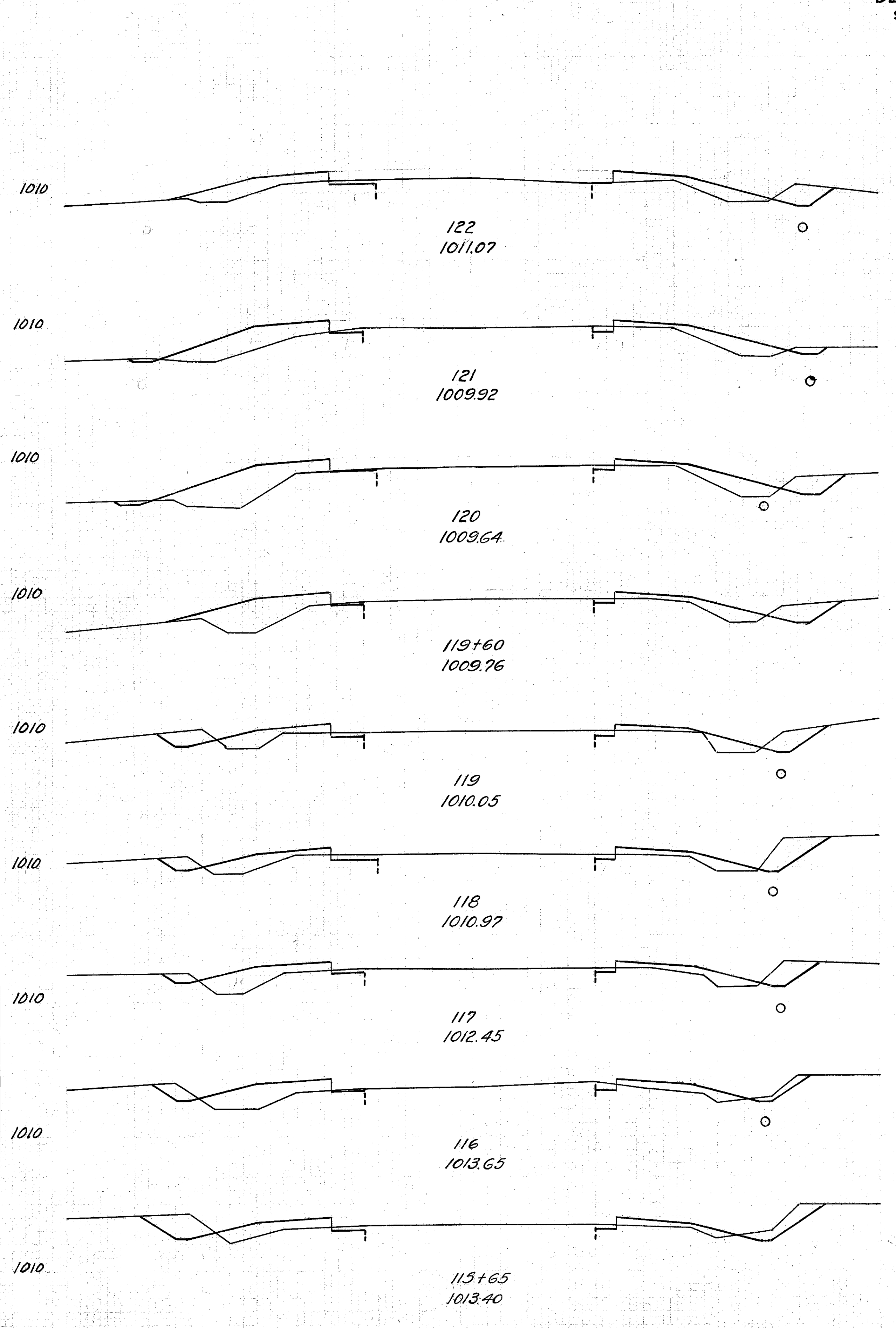
FED. RD. DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR	31 58
10	OHIO	N.R.S. 630-A	1933	

DELAWARE COUNTY
S. H. 335 SEC'S A.&B.



507 Cu. Yds
 596 " " "
 633 " " "
 178 " " "
 Excavation
 Embankment + 15%
 BOTTOM

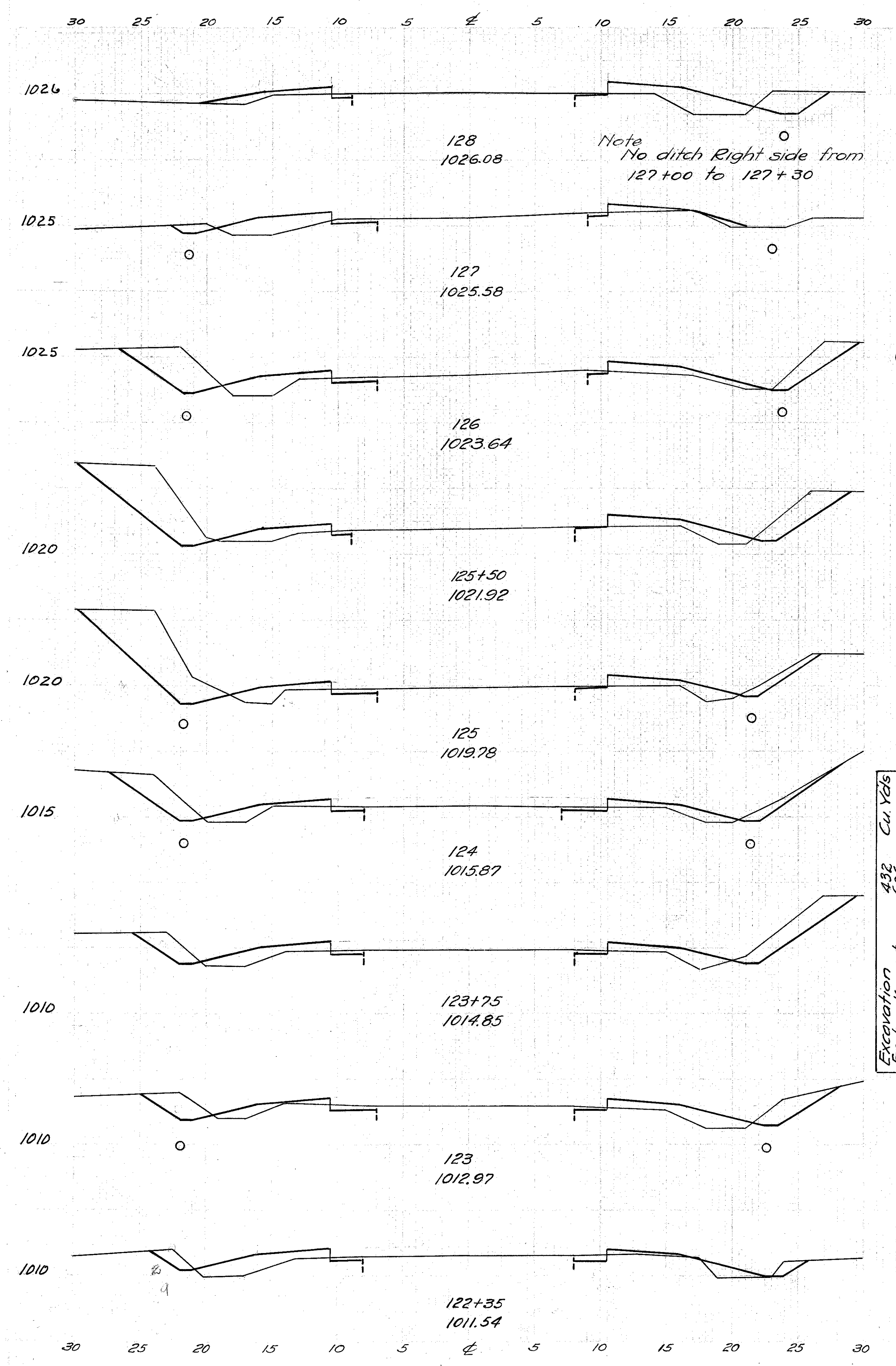
END AREA		CU. YDS	
CUT	FILL	CUT	FILL
17	11		
		59	44
15	13		
		83	39
30	8		
		76	41
11	14		
		39	54
10	15		
		33	65
8	20		
		19	85
2	26		
		4	40
3	22		
		16	48
13	25		
		34	35



END AREA		CU. YDS	
CUT	FILL	CUT	FILL
5	17		
		13	78
2	24		
		13	98
5	29		
		8	39
6	23		
		16	39
8	12		
		33	46
10	13		
		30	54
6	16		
		22	59
6	16		
		12	18
12	11		
		35	27

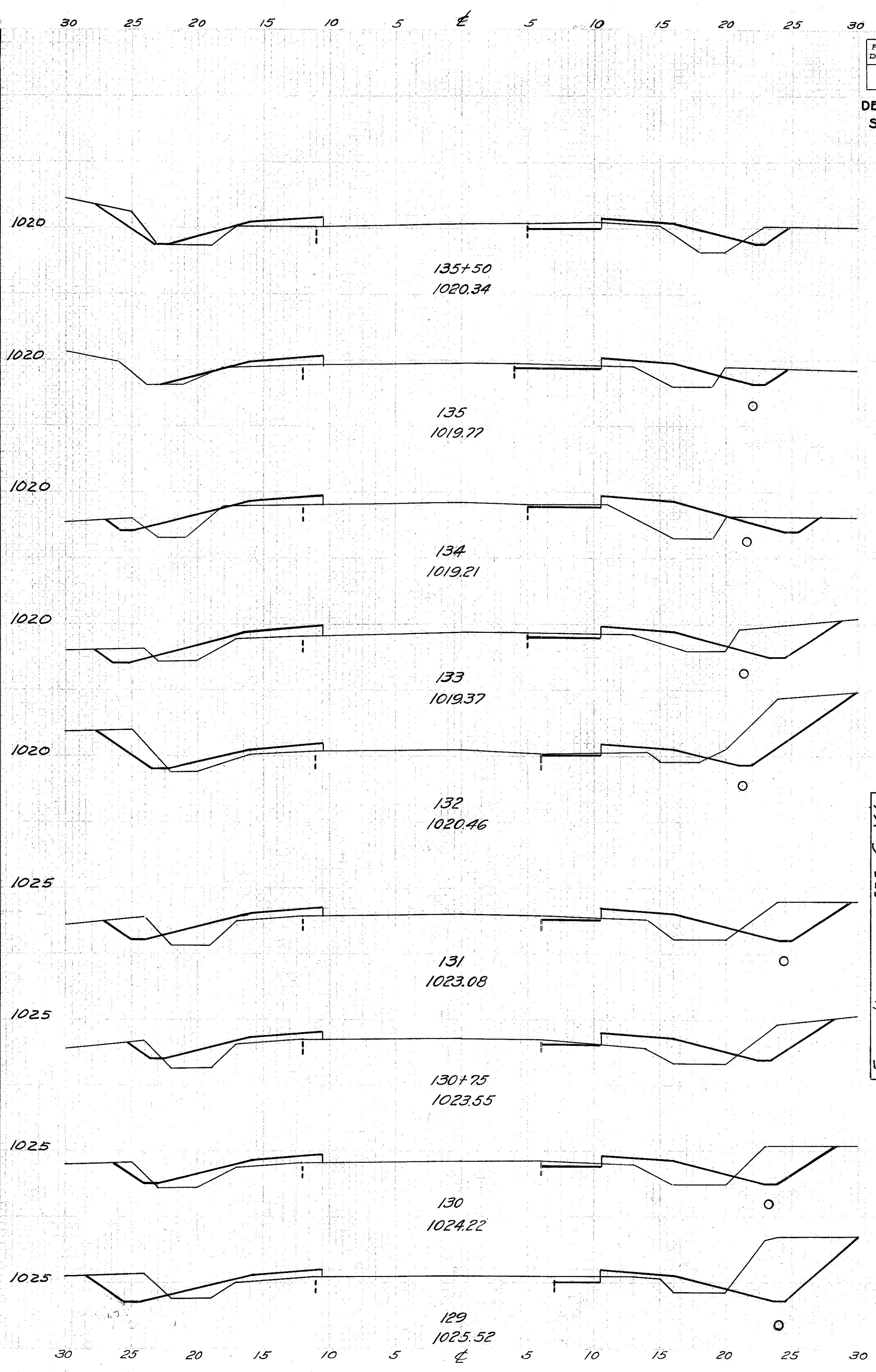
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30 25 20 15 10 5 4 5 10 15 20 25 30



END AREA		CU YDS	
CUT	FILL	CUT	FILL
8	16		
		20	50
3	11		
		46	46
22	14		
		53	26
35	14		
		65	24
35	12		
		91	43
14	11		
		15	11
18	13		
		44	36
14	13		
		23	33
5	14		
		6	20

Excavation 432
 Embankment 606
 Emb. + 15% 697
 Borrow 265



END AREA		CU YDS	
CUT	FILL	CUT	FILL
9	15		
		14	27
6	14		
		24	72
7	25		
		44	76
17	16		
		87	52
30	12		
		90	61
19	21		
		14	19
11	21		
		36	56
15	19		
		96	61
37	14		
		83	56

Excavation 575
 Embankment 608
 Emb. + 15% 699
 Borrow 124

DELAWARE COUNTY.
 S.H.335 SEC. A-B

FED. RD. DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
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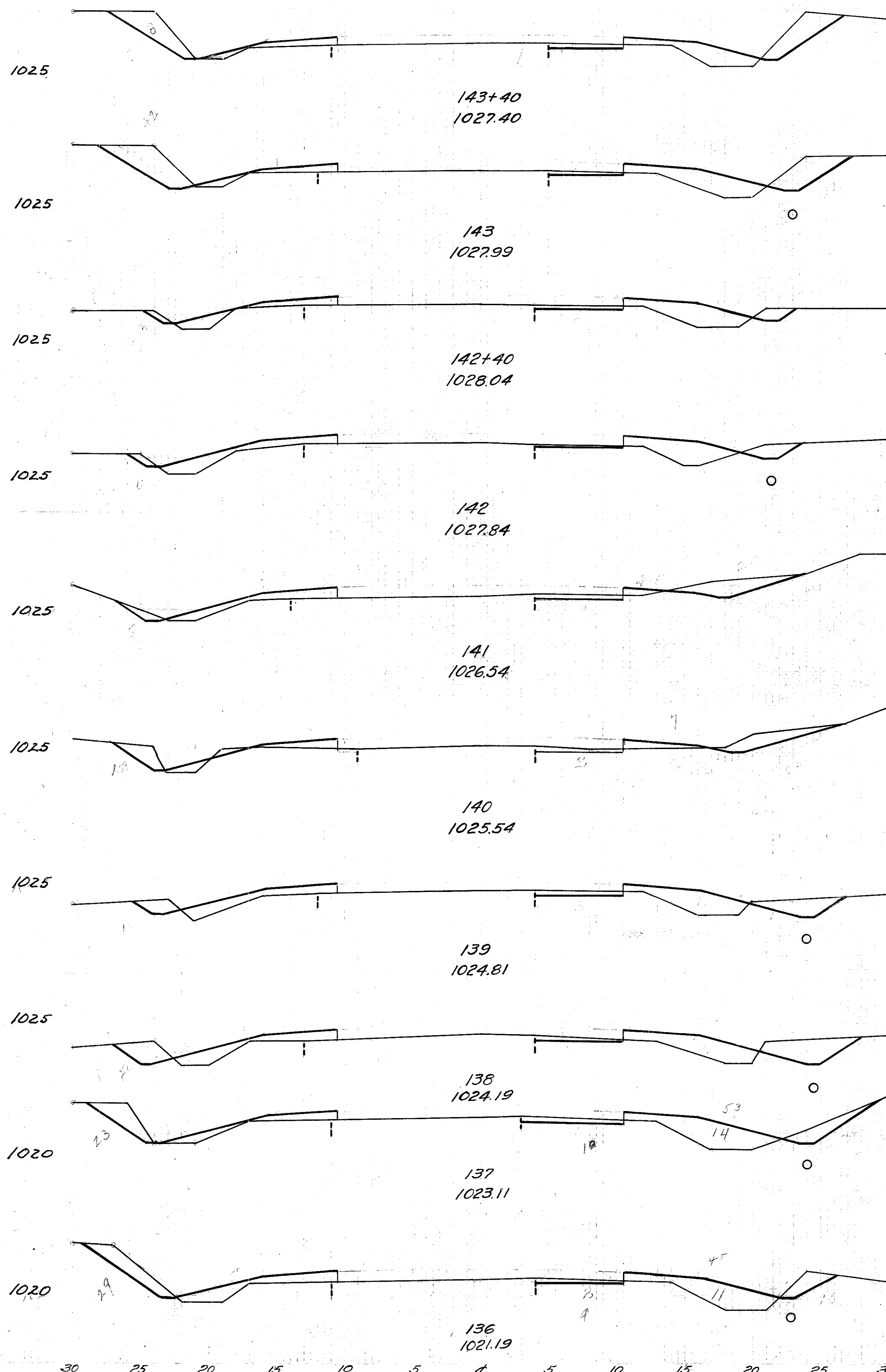
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30 25 20 15 10 5 0 5 10 15 20 25 30

FED. RD. DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO	N. R. S. G90-A	1933

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58

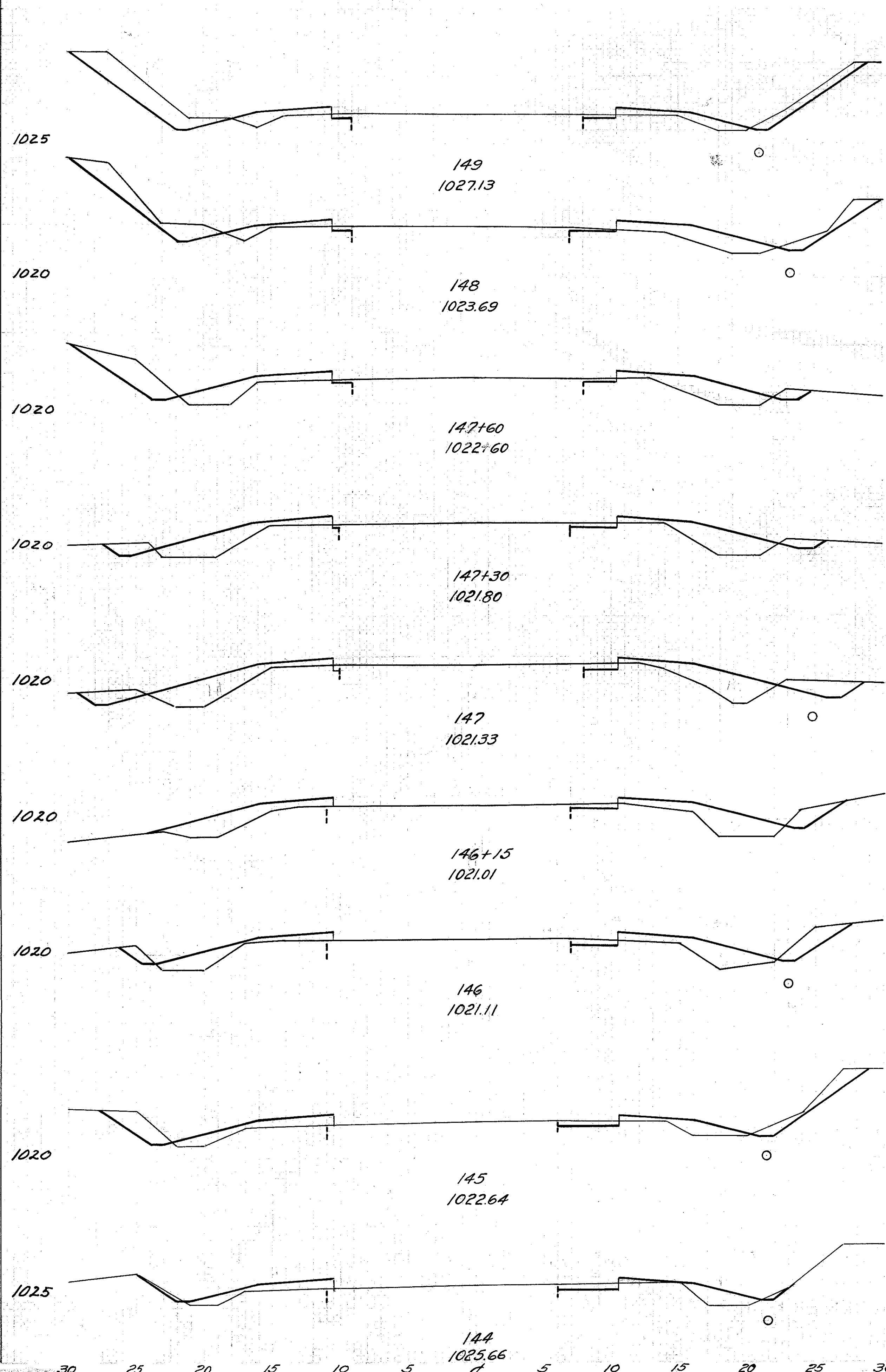
DELAWARE COUNTY
S.H.335 SEC. A-B.



END AREA	CU. YDS	
	CUT	FILL
18	12	
27	20	
19	15	
26	36	
4	17	
7	27	
5	19	
30	54	
11	10	
41	30	
11	6	
41	44	
11	18	
50	70	
16	20	
54	72	
13	19	
50	72	
14	20	
21	32	

Excavation
Embankment
Lim. + 15%
Bottom

423 Cu. Yds
537
641
218



END AREA	CU. YDS	
	CUT	FILL
23	10	
		76 44
18	14	
		22 26
12	21	
		10 25
6	24	
		8 28
9	26	
		20 80
4	25	
		3 12
7	19	
		40 59
14	13	
		33 46
4	12	
		24 27

30 25 20 15 10 5 0 5 10 15 20 25 30

30 25 20 15 10 5 0 5 10 15 20 25 30

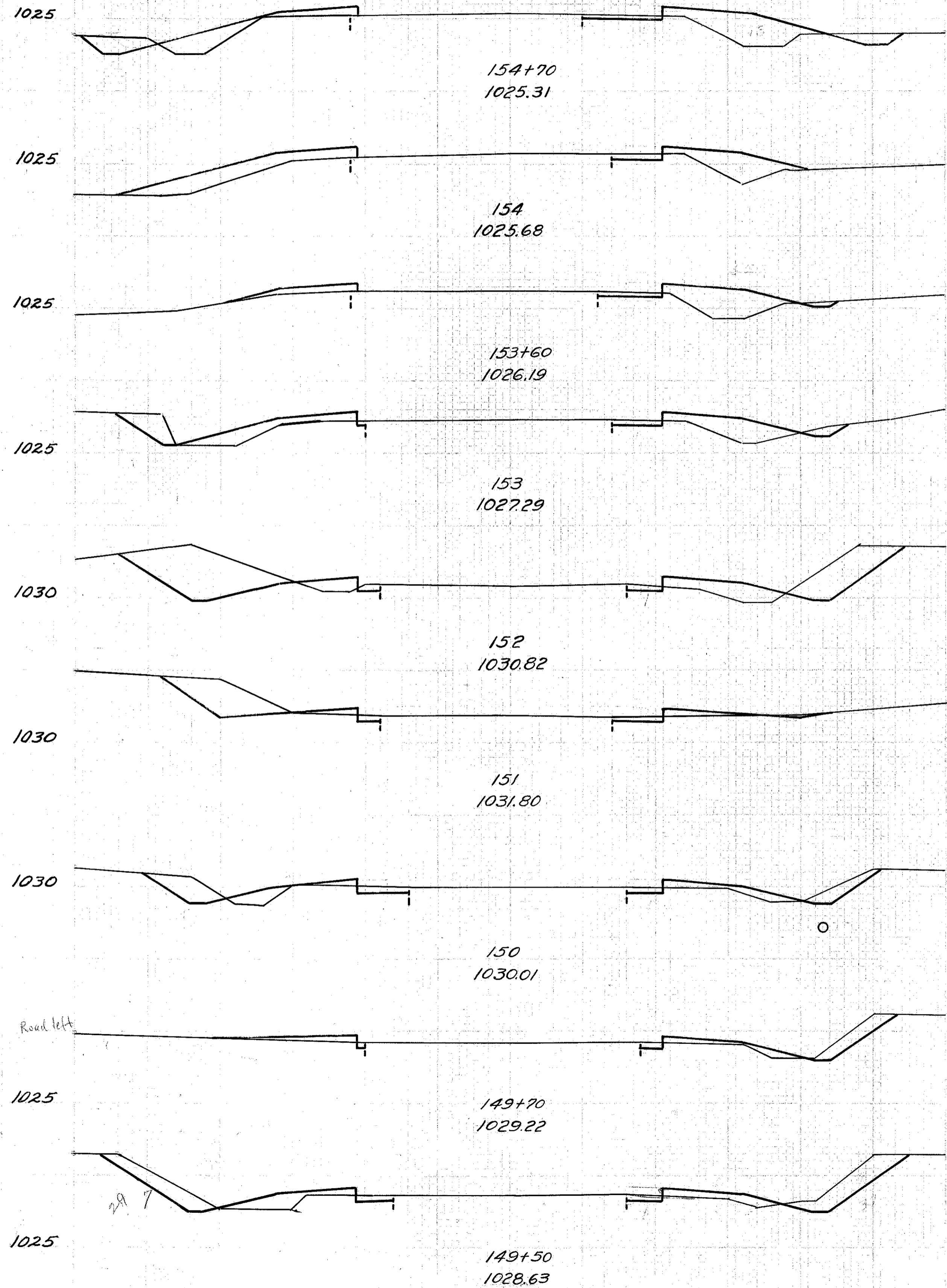
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30 25 20 15 10 5 0 5 10 15 20 25 30

FED. RD. DIST. NO.	STATE	FED. AID PROJECT N.R.S.	FISCAL YEAR
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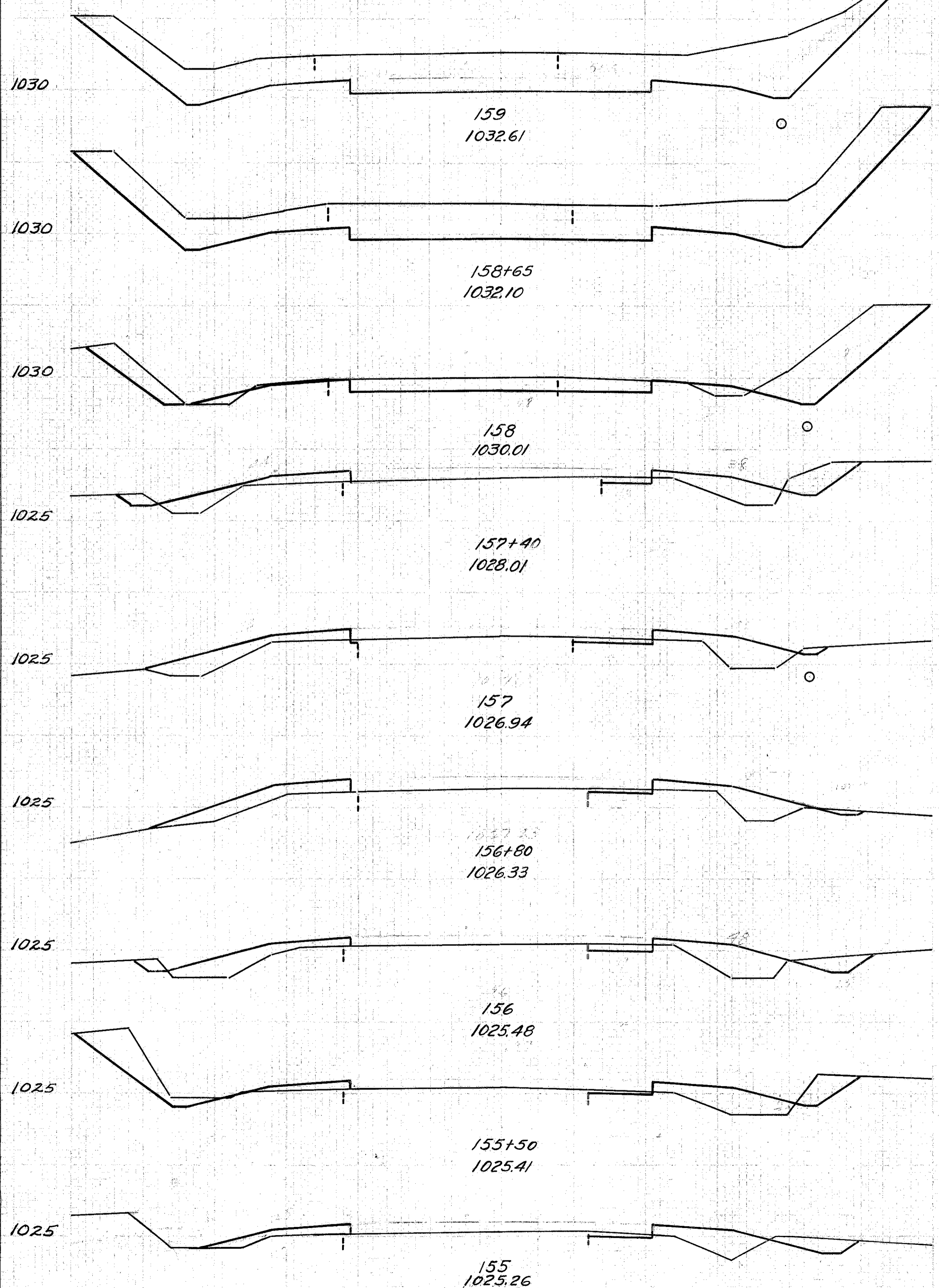
34
58

DELAWARE COUNTY,
S.H. 335 SEC. A-B



END AREA	CU. YDS
CUT	FILL
8	22
12	60
1	24
2	29
2	15
10	36
7	17
81	50
37	10
93	22
13	2
44	19
11	8
9	6
6	3
9	4
18	10
38	19

492 Cu. Yds
546 " "
628 " "
156 Borrow



END AREA	CU. YDS
CUT	FILL
139	0
	181
140	0
	239
58	3
	75
9	21
	9
3	25
	2
2	23
	13
7	24
	24
19	15
	23
6	16
	8
	21

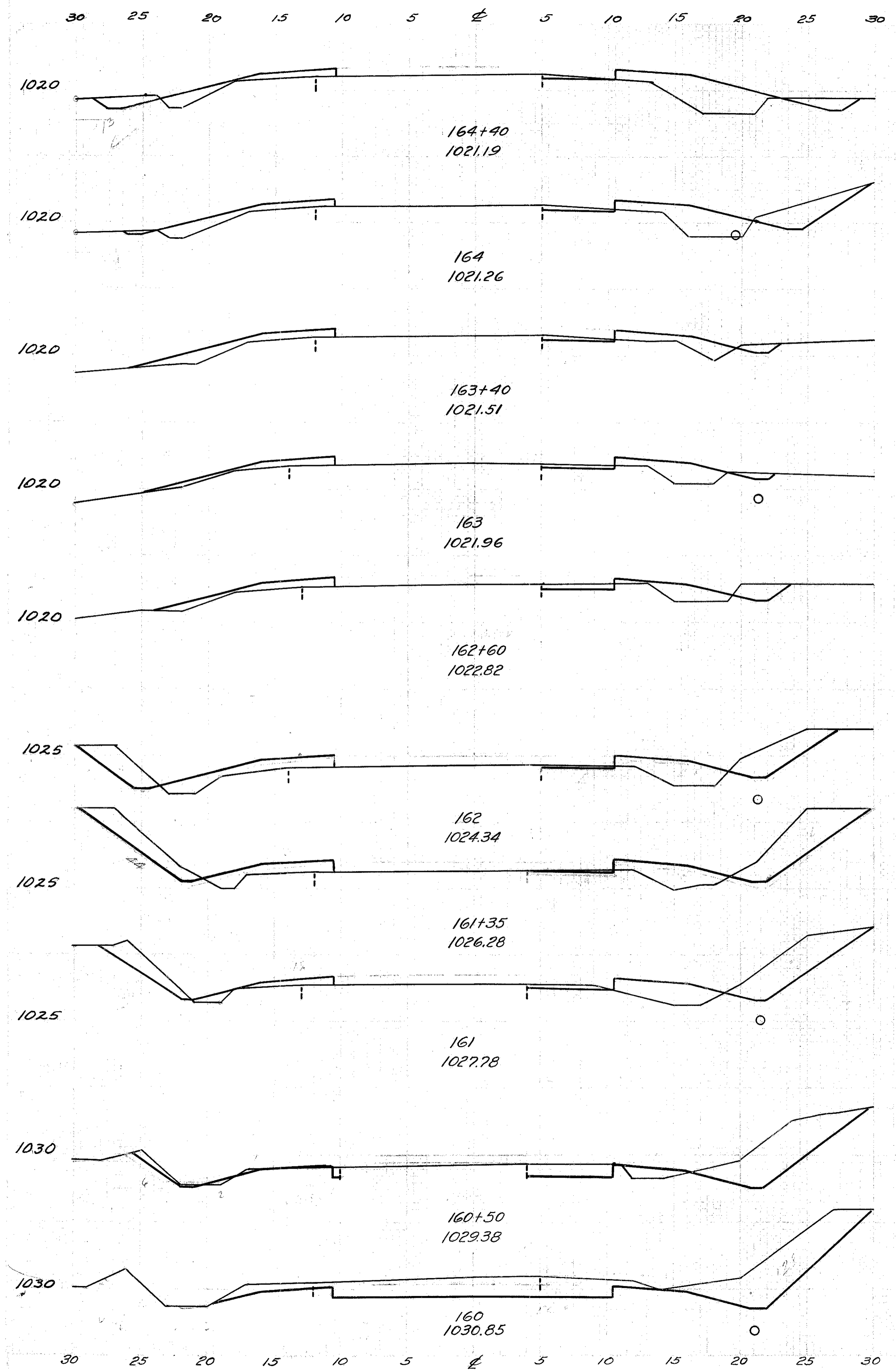
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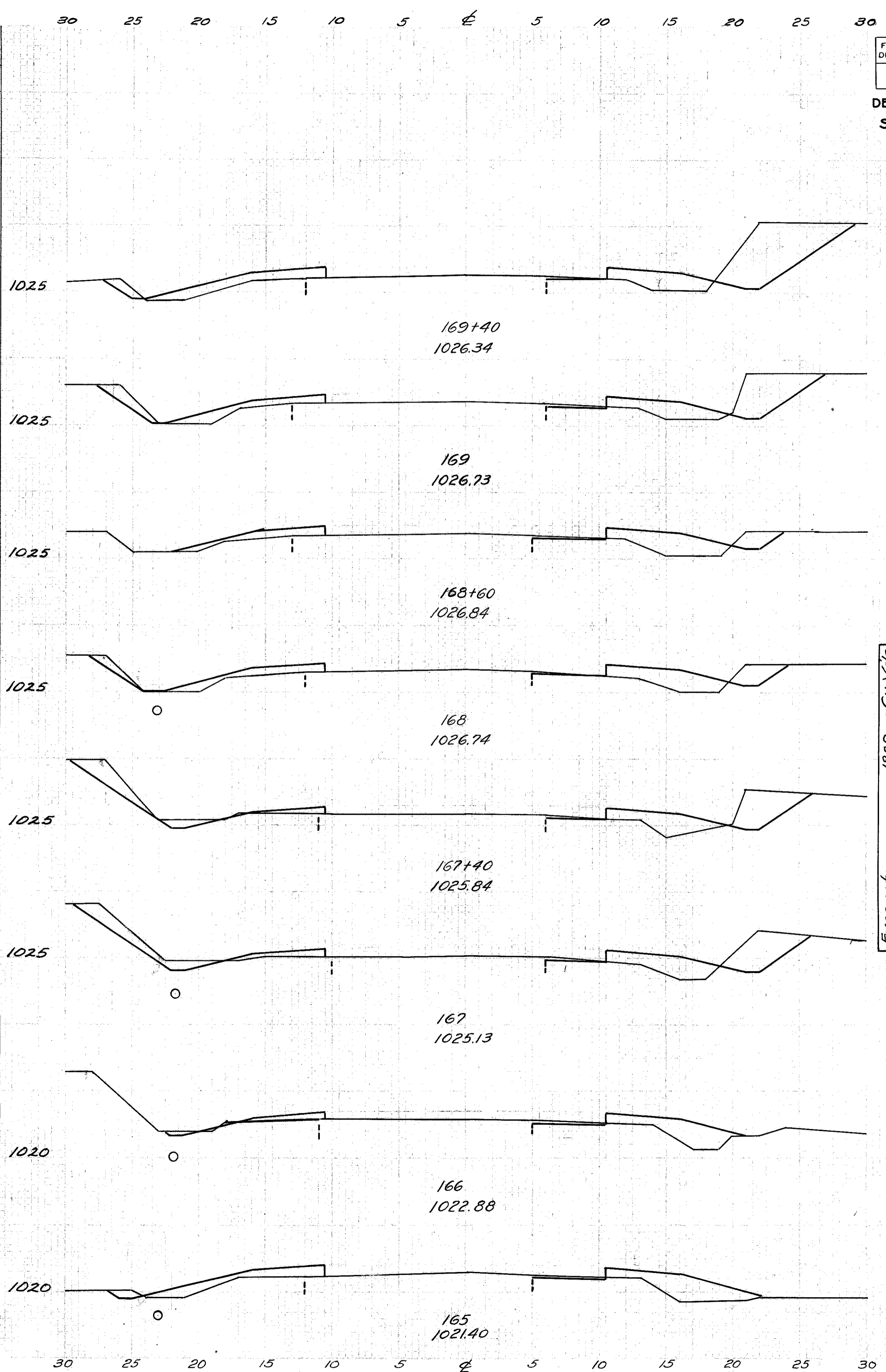
FED. RD. DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
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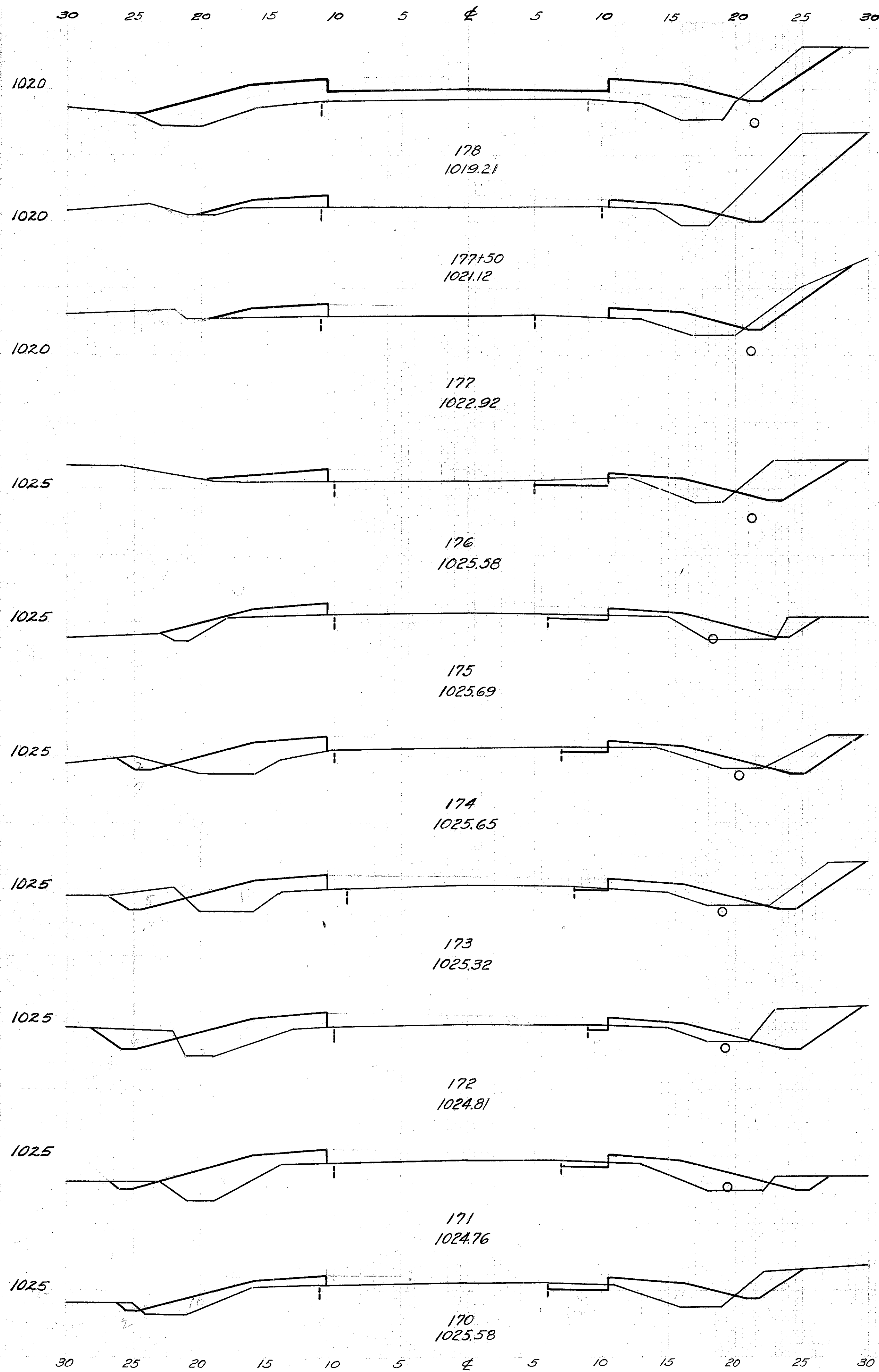
END AREA		CU. YDS	
CUT	FILL	CUT	FILL
8	26		
		16	36
13	22		
		18	42
3	16		
		4	24
2	16		
		6	22
6	14		
		30	40
21	22		
		64	48
32	18		
		40	21
29	15		
		57	17
33	4		
		95	4
69	0		
		385	0



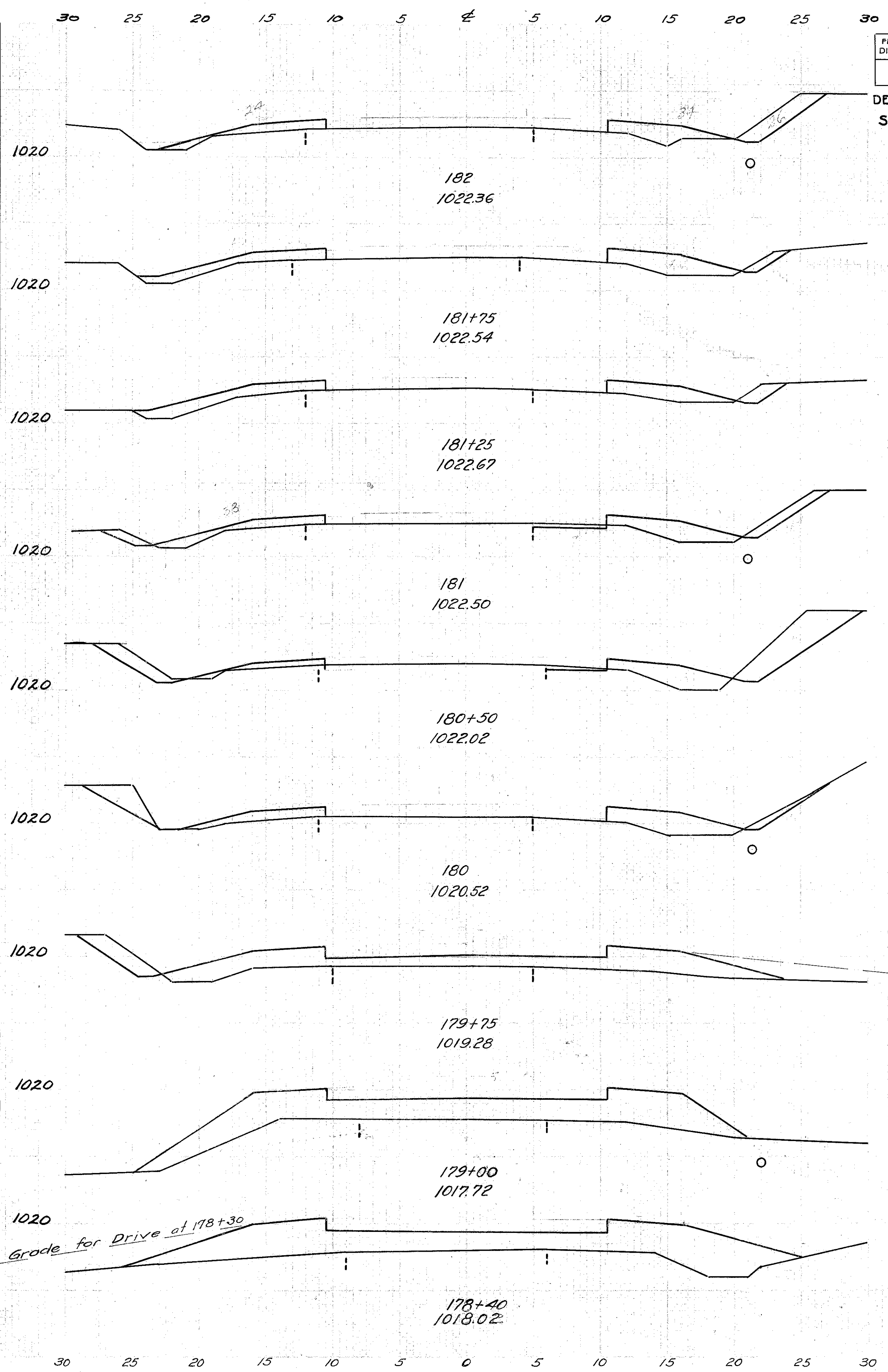
END AREA		CU. YDS	
CUT	FILL	CUT	FILL
		29	19
			35
		18	16
			16
		4	18
			12
		7	18
			30
		20	10
			29
		19	13
			41
		3	13
			9
		2	23
			11
			54

Excavation
Embankment
Emb. + 15%
Borrow

1839
1734
1994
1955



END AREA		CU YDS	
CUT	FILL	CUT	FILL
10	60		
		35	68
28	13		
		32	26
6	15		
		43	56
17	15		
		39	61
4	18		
		30	80
12	25		
		50	91
15	24		
		69	85
22	22		
		52	100
6	32		
		24	98
7	21		
		40	44



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END AREA		CU YDS	
CUT	FILL	CUT	FILL
7	15		
		4	17
2	21		
		5	38
3	20		
		5	17
8	18		
		30	31
24	15		
		31	32
9	19		
		7	31
7	49		
		10	185
0	84		
		0	196
0	92		
		8	113

113 Extra Yardage for Side Road Approach

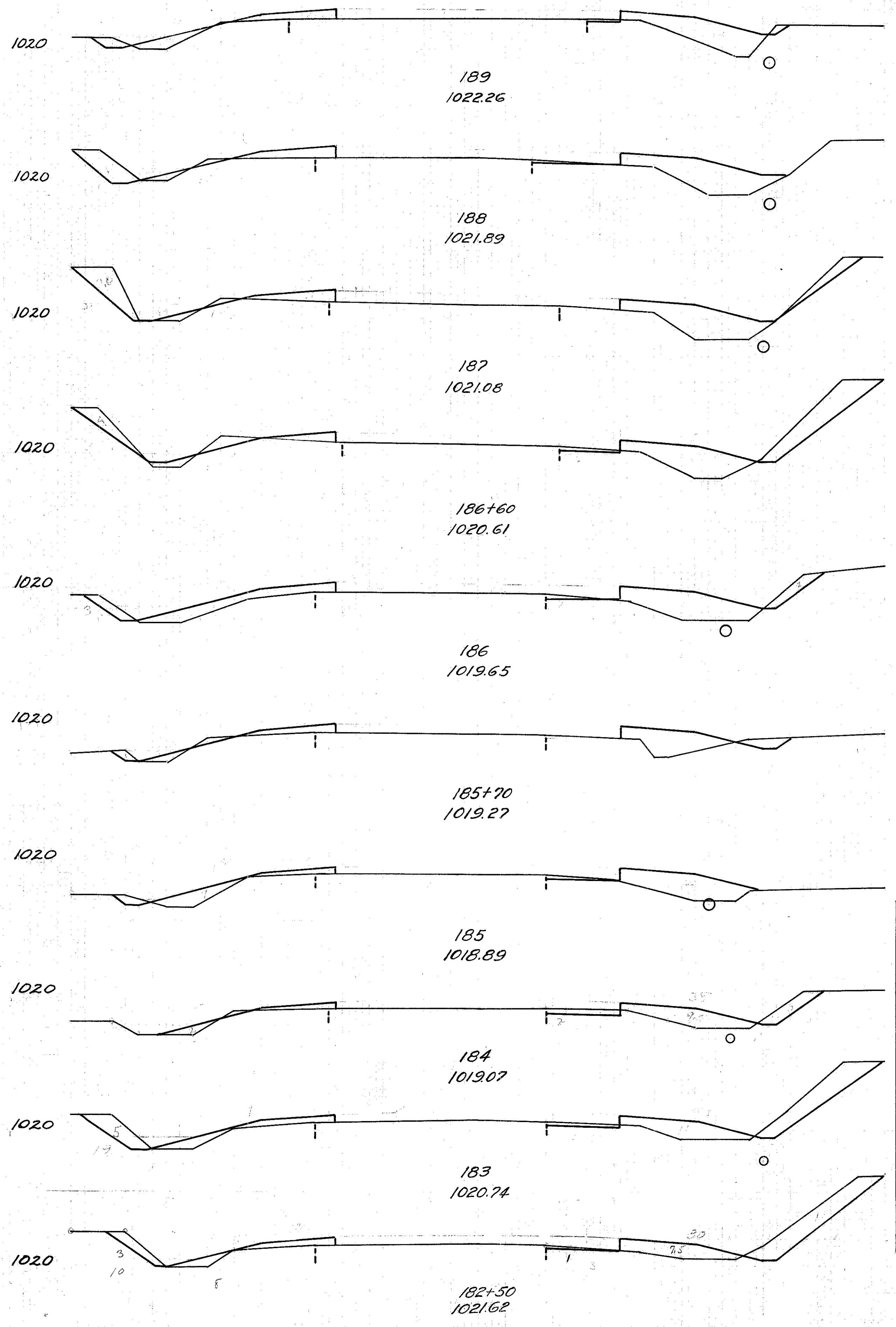
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30 25 20 15 10 5 0 5 10 15 20 25 30

FED. RD. DIST. NO.	STATE	FED. AID PROJECT N. R. IS.	FISCAL YEAR
10	OHIO	690-A	1933

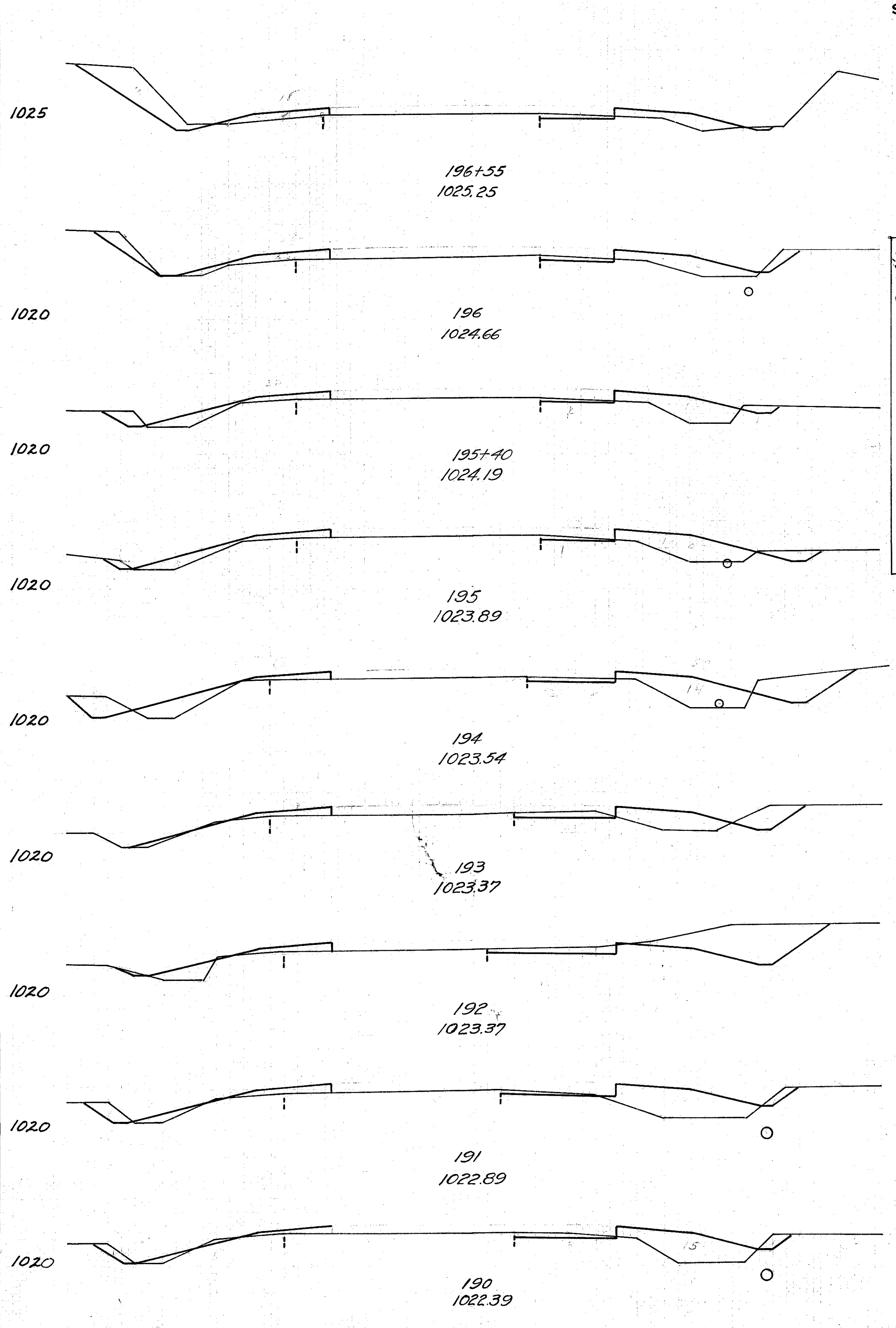
37
58

DELAWARE COUNTY
S. H. 335 SEC. A-B



END AREA	CU YDS	
	CUT	FILL
2	21	
17	83	
7	24	
33	83	
11	21	
24	29	
21	18	
30	50	
6	27	
6	24	
4	15	
8	47	
2	21	
13	63	
5	13	
44	57	
19	18	
35	29	
19	13	
24	26	

Excavation
Embankment
Embankment + 15%
Borrow



END AREA	CU YDS	
	CUT	FILL
15	10	
		22 24
7	14	
		13 36
5	18	
		7 29
4	21	
		39 82
17	23	
		46 65
8	12	
		61 35
25	7	
		56 57
5	24	
		20 78
6	18	
		15 72

Excavation
Embankment
Embankment + 15%
Borrow

420
590
679
259

30 25 20 15 10 5 0 5 10 15 20 25 30

30 25 20 15 10 5 0 5 10 15 20 25 30

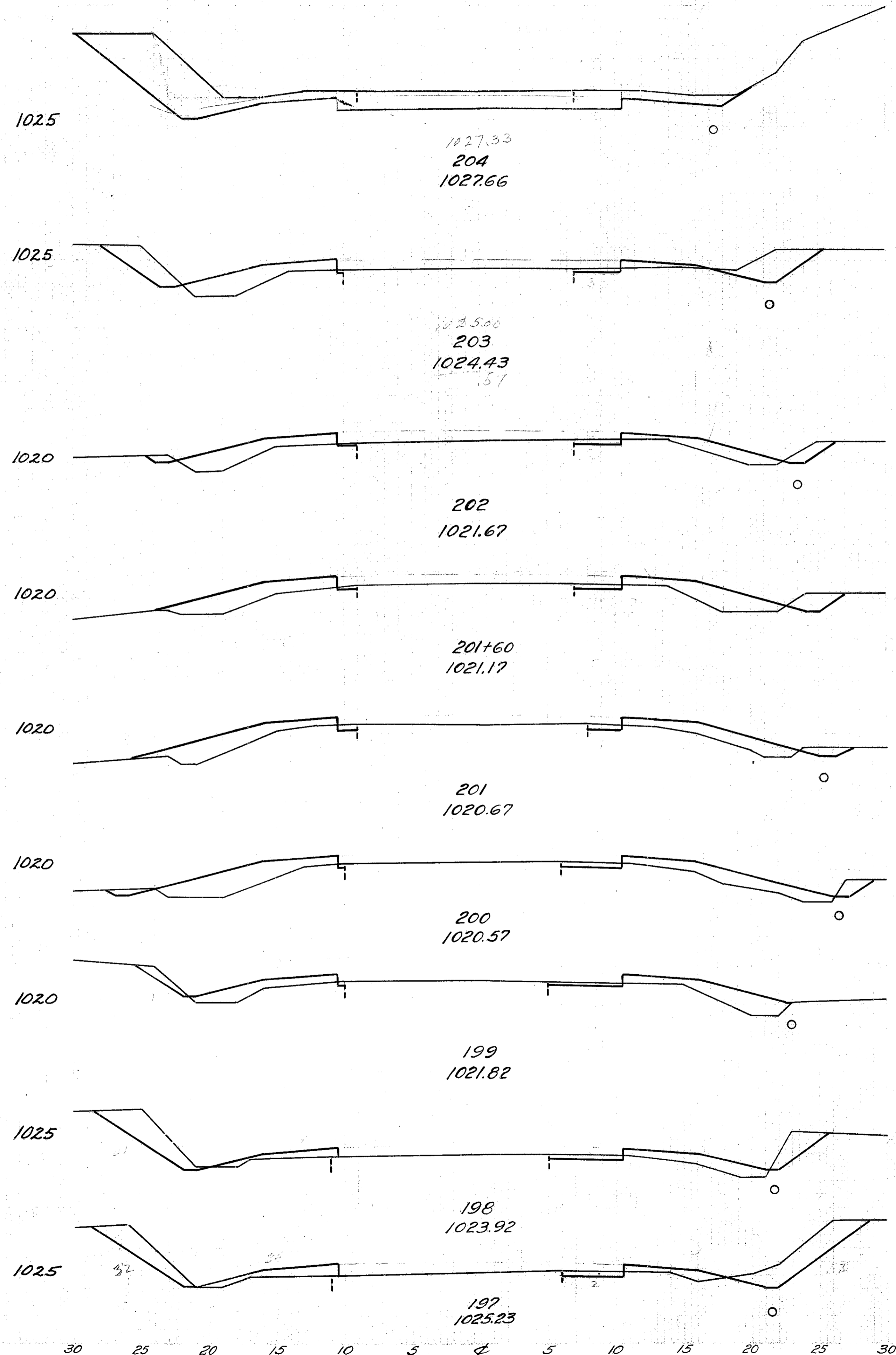
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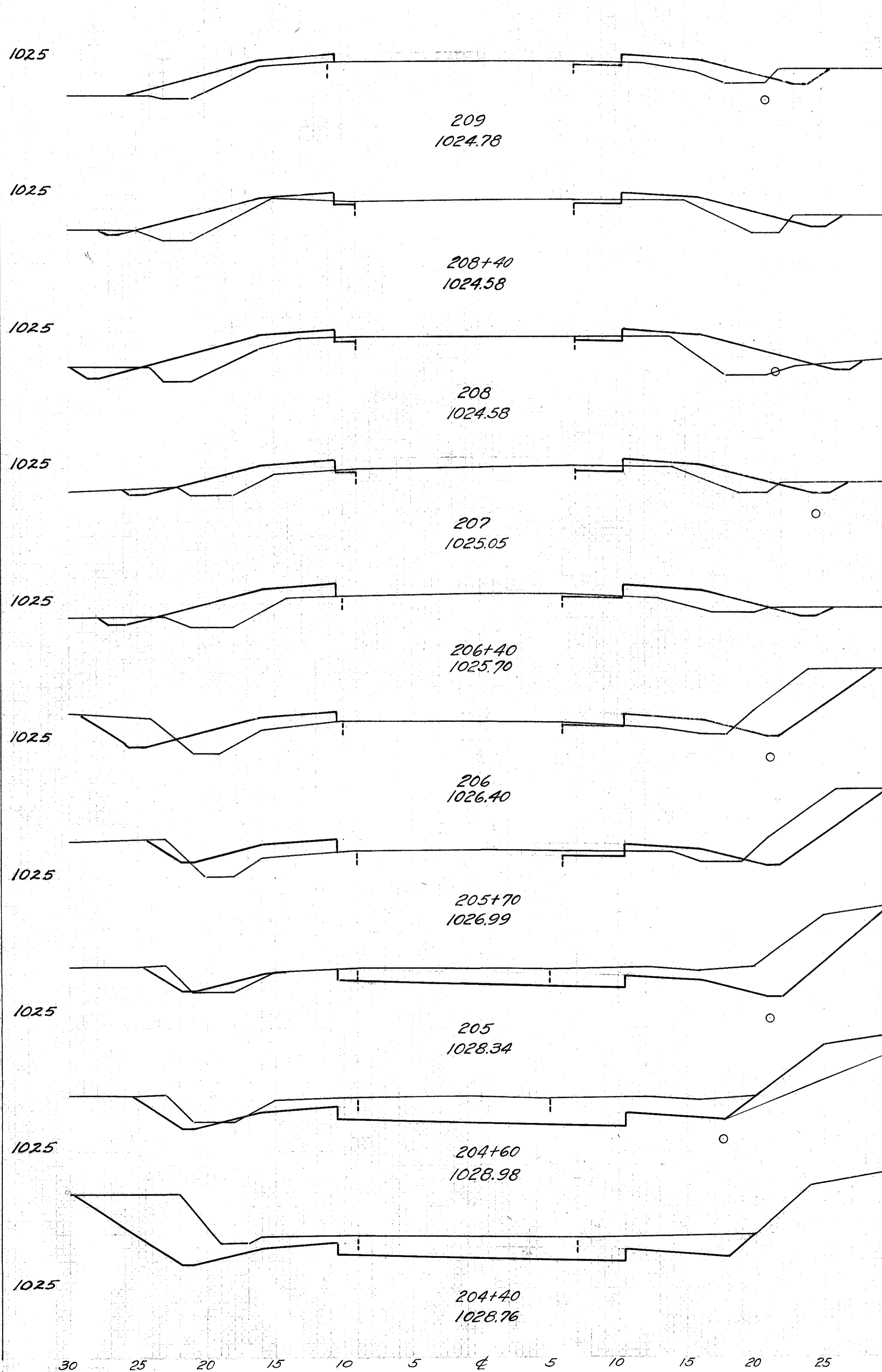
FED. RD. DIST. NO.	STATE	FED. AID PROJECT N. R. S.	FISCAL YEAR
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DELAWARE COUNTY
S. H. 335 SEC. A-B



END AREA		CU. YDS	
CUT	FILL	CUT	FILL
73	0		
169	30		
18	16		
41	65		
4	19		
7	33		
5	25		
9	56		
3	25		
15	100		
5	29		
17	85		
4	17		
37	54		
16	12		
72	41		
23	10		
32	17		



END AREA		CU. YDS	
CUT	FILL	CUT	FILL
4	21		
		9	50
4	24		
		7	39
5	29		
		18	91
5	20		
		10	53
4	28		
		27	35
32	19		
31	18		
24	14		
		112	22
62	3		
		91	2
		10	
60	0		
		52	0
80	0		
		113	0

Excavation
Embankment
Emb + 15%
Borrow

738
679
791
743

Cu. Yds
" " " "

For Drive Right

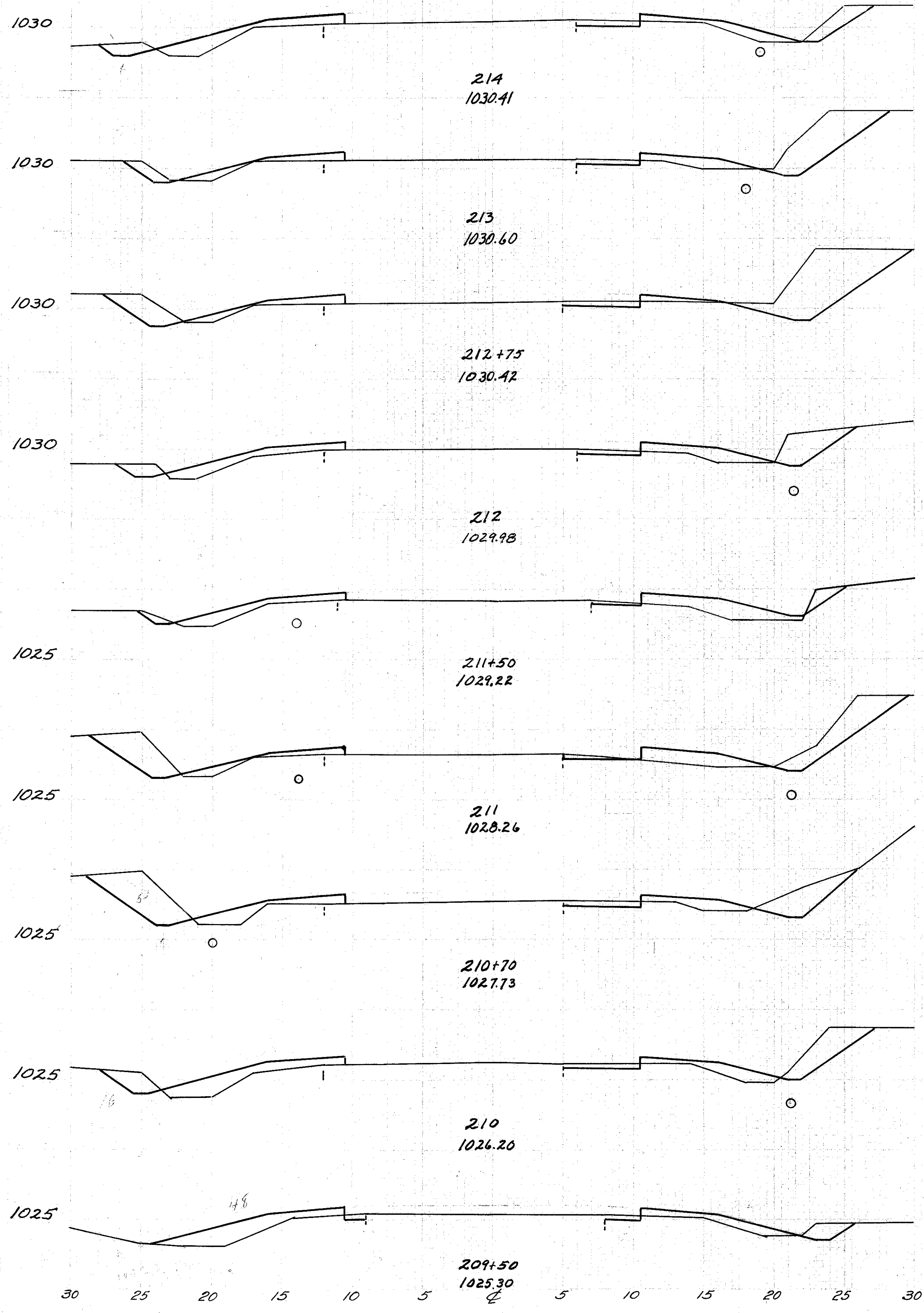
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30 25 20 15 10 5 0 5 10 15 20 25 30

FED. RD. DIST. NO.	STATE	FED. AID PROJECT N.R.S. G90-A	FISCAL YEAR
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DELAWARE COUNTY
S.H.335 SEC.A-B

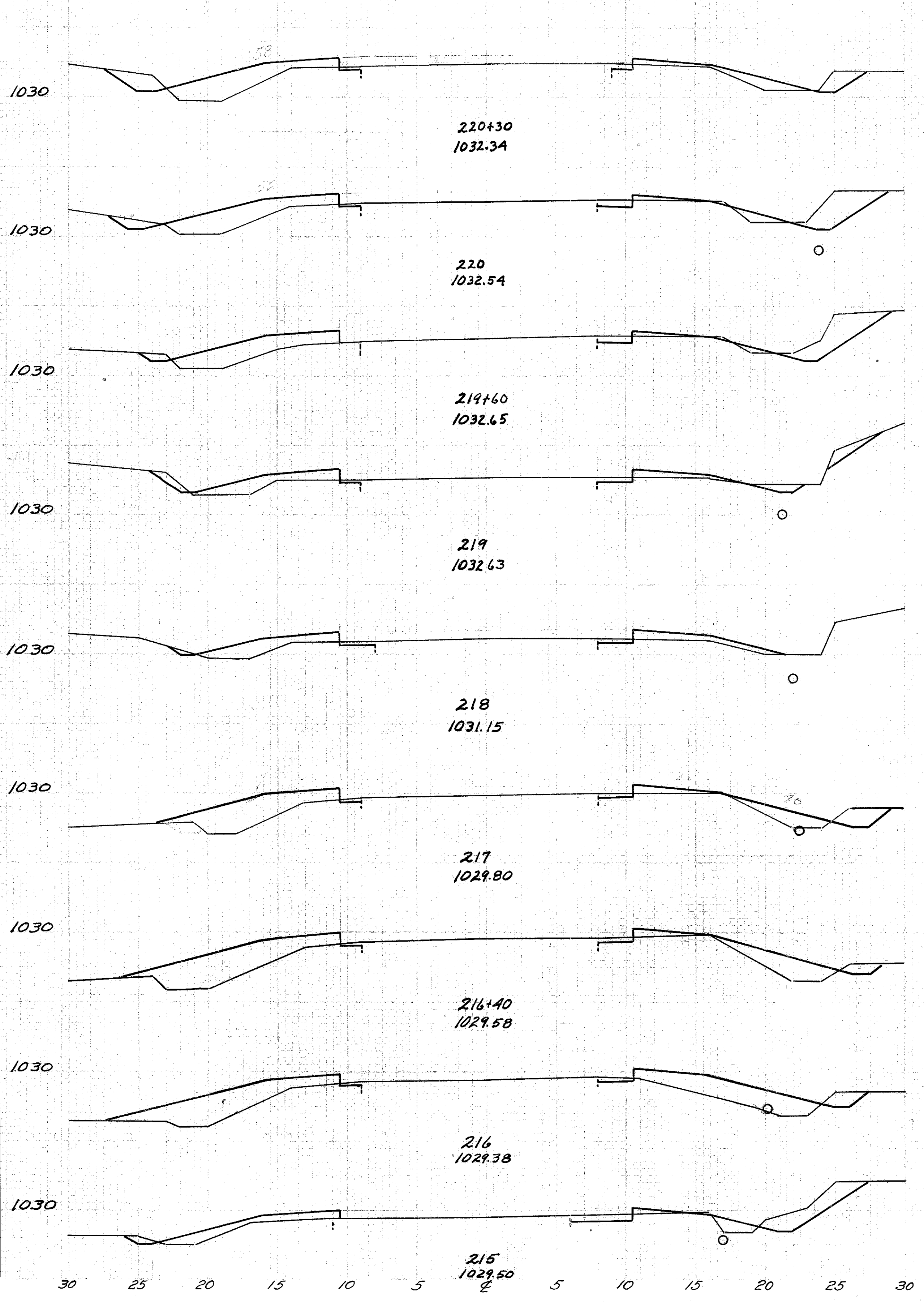


Excavation
Embankment
Limb. + 15%
BORROW

384
225
219
335

Cu. Yds

END AREA	CUT	FILL	CUT	FILL	CU. YDS.
8	16				
		52	48		1030
20	10				
		25	8		1030
34	7				
		64	29		1030
12	14				
		15	29		1030
4	17				
		26	26		1030
24	11				
		27	12		1030
24	11				
		51	35		1030
15	16				
		18	32		1030
4	18				
		8	36		1030



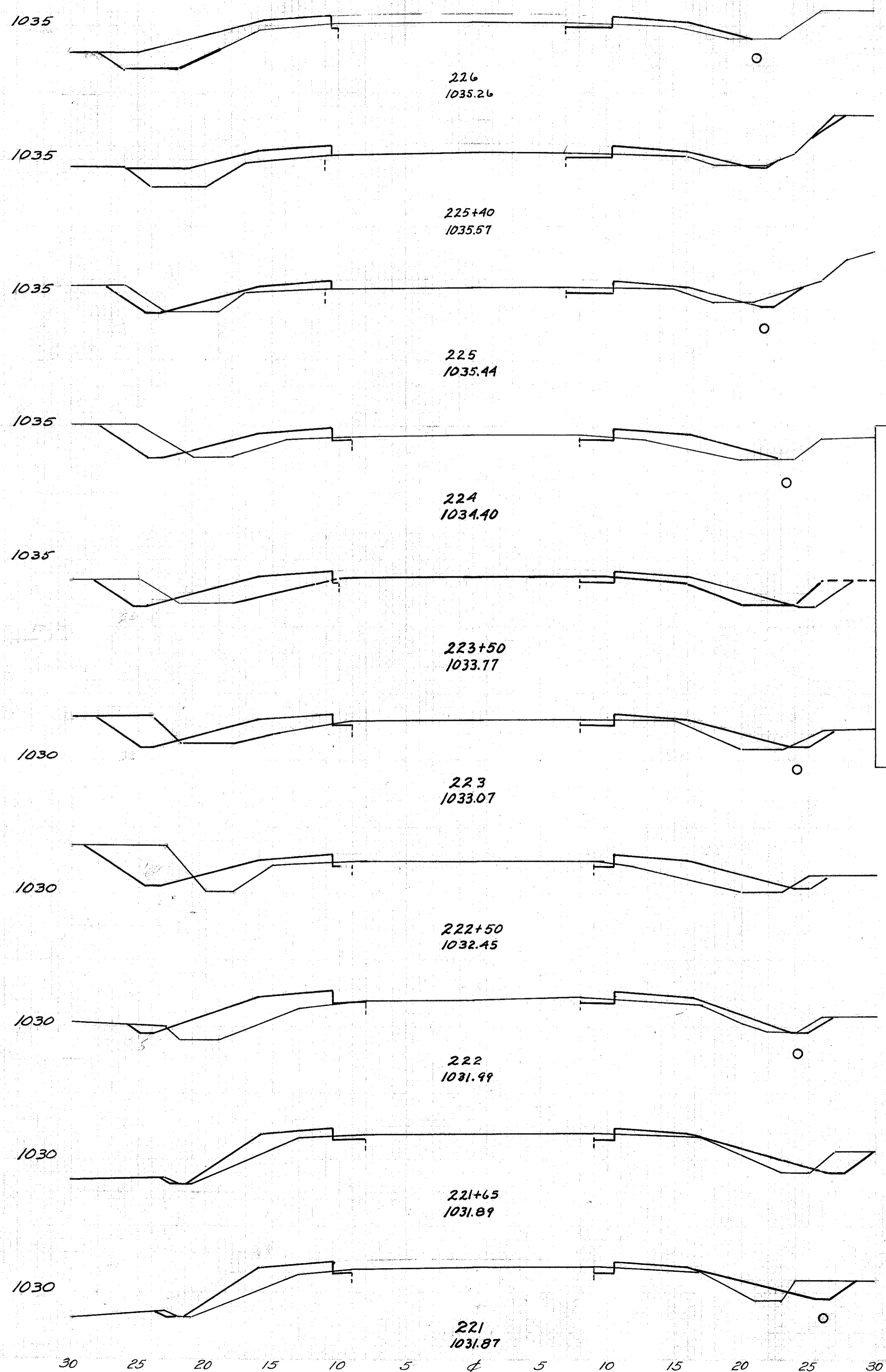
END AREA	CUT	FILL	CUT	FILL	CU. YDS.
8	20				
				11	21
12	17				
				18	24
12	16				
				20	29
6	10				
				13	41
1	12				
				11	69
5	25				
				9	66
3	34				
				4	53
3	38				
				26	91
11	11				
				35	50

30 25 20 15 10 5 0 5 10 15 20 25 30

30 25 20 15 10 5 0 5 10 15 20 25 30

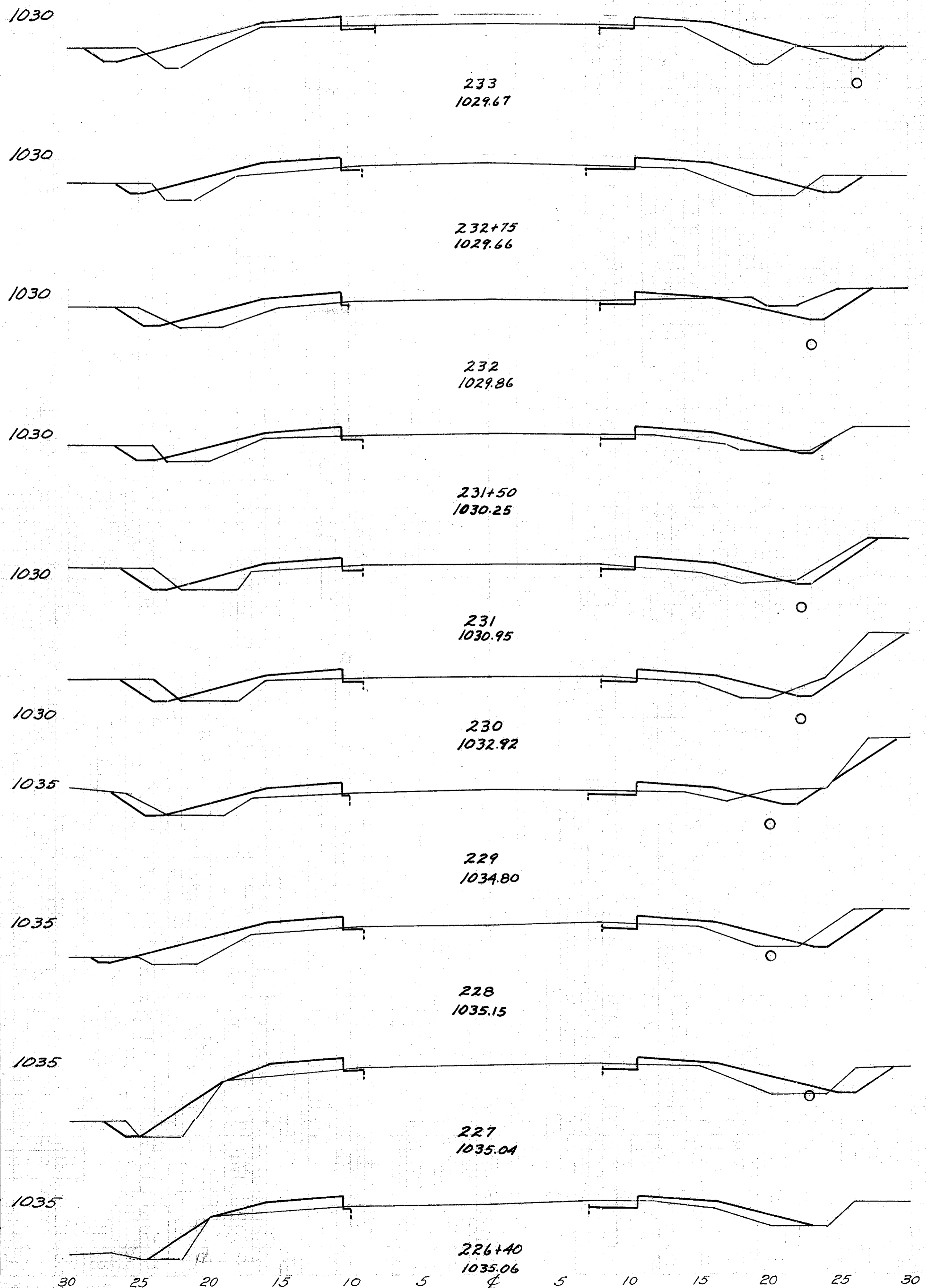
FED. RD. DIST. NO.	STATE	FED. AID PROJECT N. R. S.	FISCAL YEAR	40 58
10	OHIO	G90-A	1933	

DELAWARE COUNTY
S. H. 335 SEC'S A. & B.



STATION	END AREA		CU. YDS.	
	CUT	FILL	CUT	FILL
1035	1	25		
1035	2	50		
1035	1	20		
1035	6	23		
1035	7	11		
1035	30	54		
1035	9	18		
1035	18	36		
1035	11	21		
1035	20	38		
1030	11	20		
1030	26	40		
1030	17	23		
1030	18	44		
1030	2	25		
1030	5	26		
1030	6	15		
1030	12	41		
1030	5	19		
1030	17	51		

Excavation
 Embankment
 15%
 Borrow



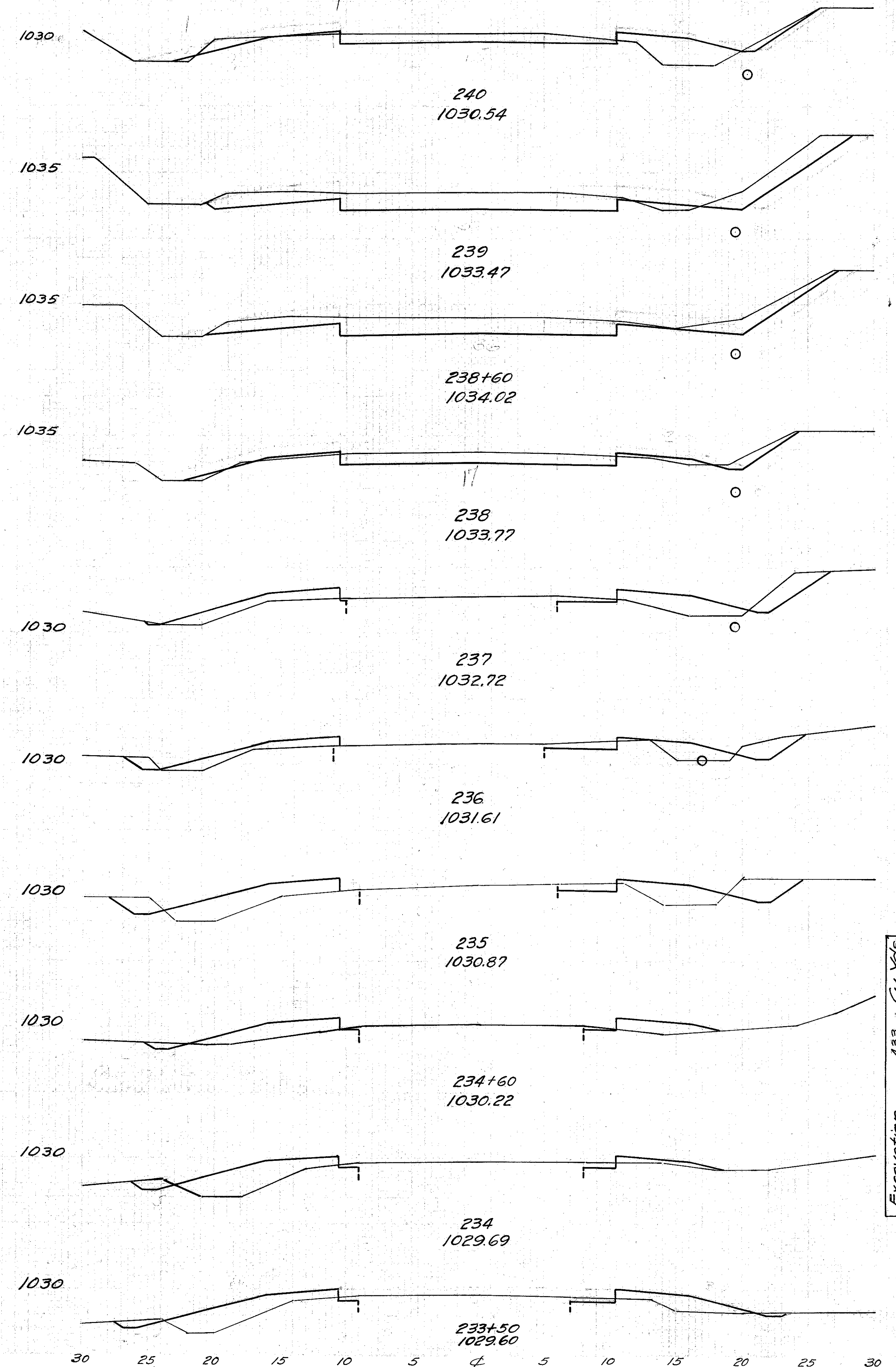
STATION	END AREA		CU. YDS.	
	CUT	FILL	CUT	FILL
1030	9	25		
1030	7	23		
1030	6	25		
1030	25	53		
1030	12	13		
1030	15	25		
1030	4	14		
1030	12	27		
1030	9	15		
1030	41	57		
1030	13	16		
1030	43	54		
1035	10	13		
1035	33	67		
1035	8	23		
1035	28	78		
1035	7	19		
1035	10	40		
1035	2	17		
1035	2	31		

30 25 20 15 10 5 0 5 10 15 20 25 30

30 25 20 15 10 5 0 5 10 15 20 25 30

FED. RD. DIST. NO.	STATE	FED. AID PROJECT N.R.S.	FISCAL YEAR	41 58
10	OHIO	G30-A	1933	

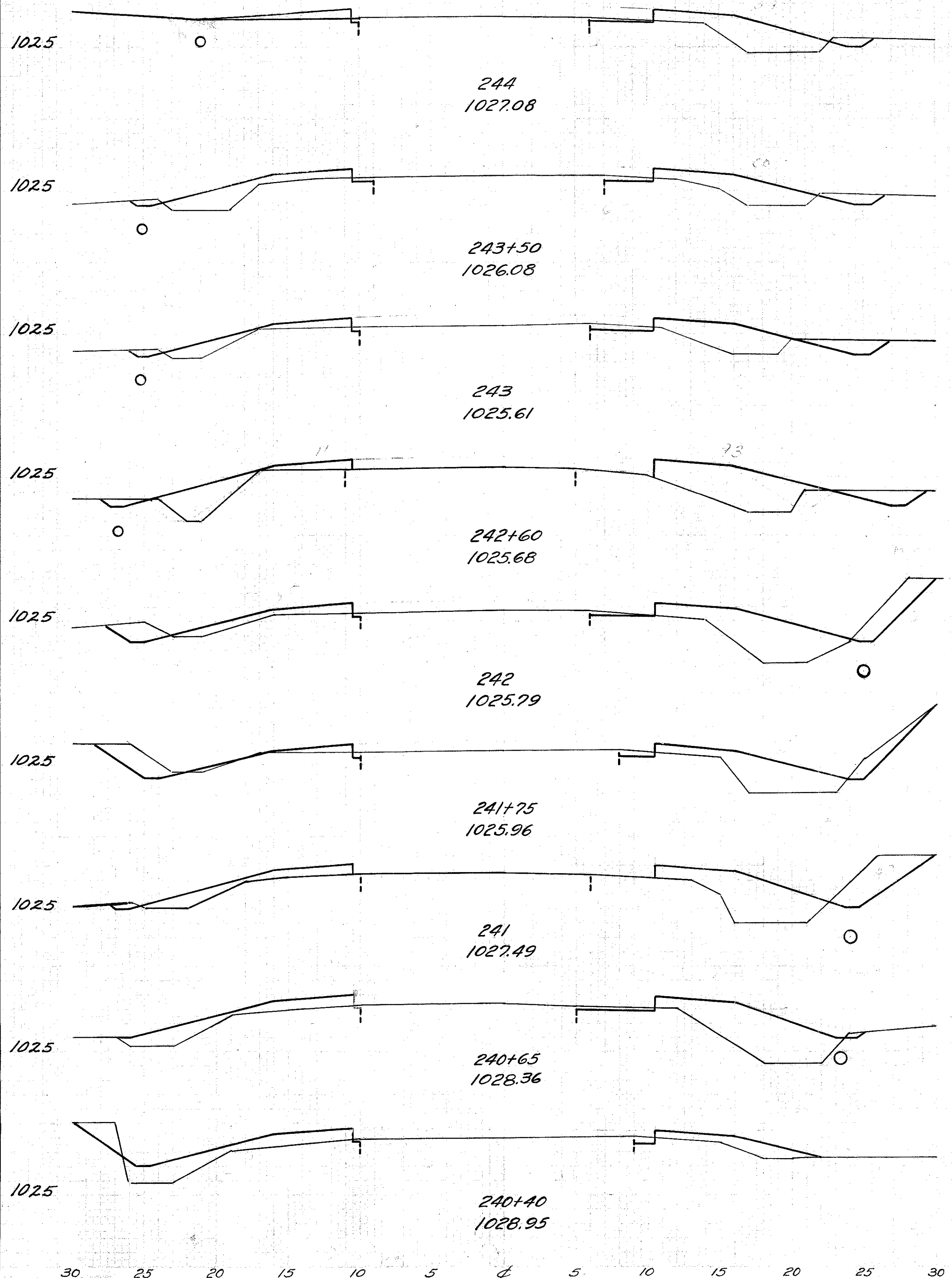
DELAWARE COUNTY
S. H. 335 SEC'S A.&B.



END AREA	CU. YDS	
	CUT	FILL
20	16	
	130	33
50	2	
	70	2
44	0	
	72	4
21	4	
	54	44
8	20	
	28	63
7	14	
	35	76
12	27	
	10	33
1	17	
	4	42
3	21	
	6	41
3	23	
	11	44

Excavation
Embankment
Emb. + 15%
Borrow

433 - Cu. Yds
388 " "
676 " "
243 " "



END AREA	CU. YDS	
	CUT	FILL
3	18	
		7 39
4	24	
		9 43
6	22	
		8 43
5	36	
		20 77
13	33	
		11 25
11	21	
		33 75
13	33	
		10 48
2	41	
		3 29
5	22	
		13 28

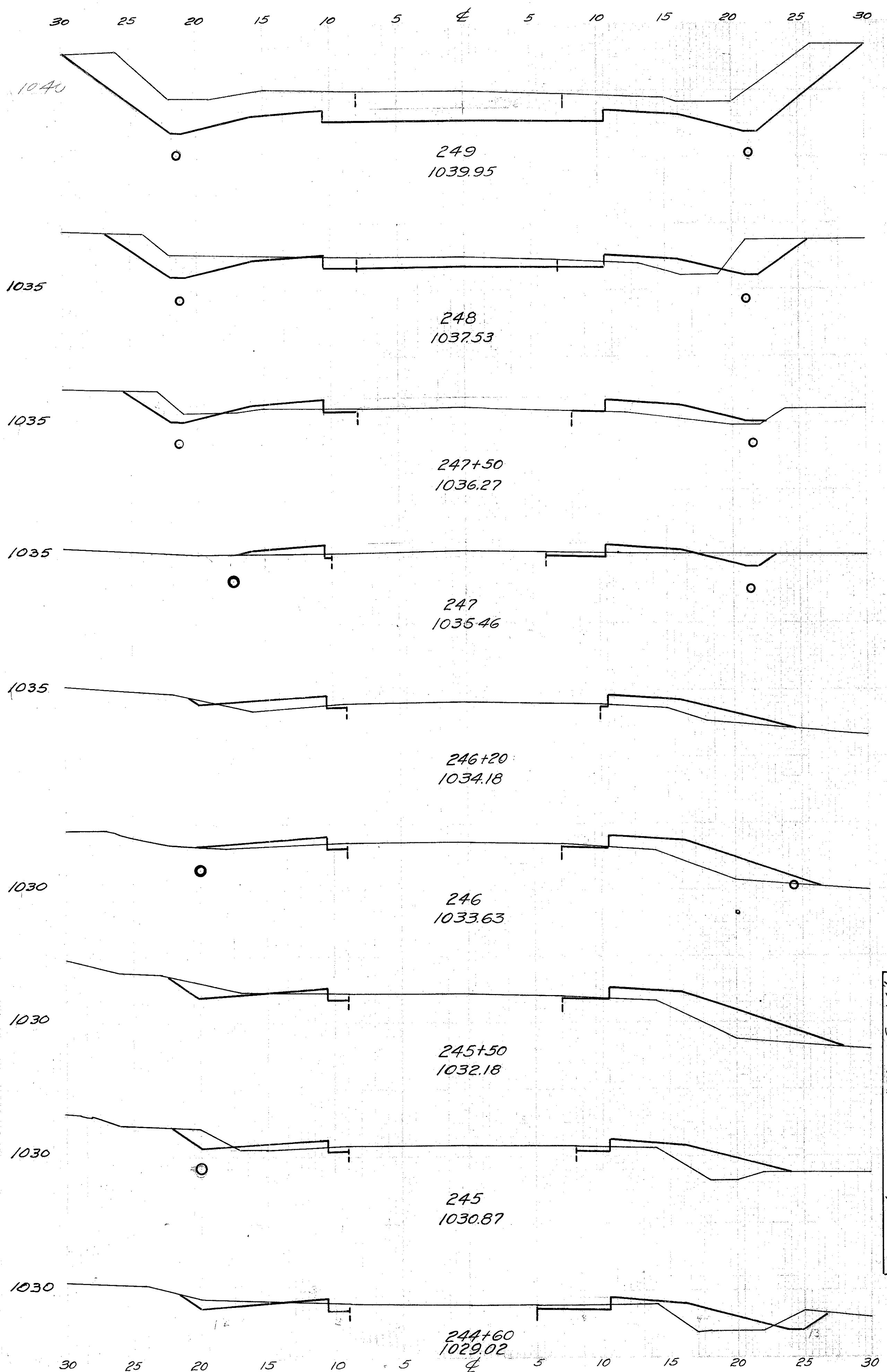
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30 25 20 15 10 5 0 5 10 15 20 25 30

FED. RD. DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO	N.R.S. 690-A	1933

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58

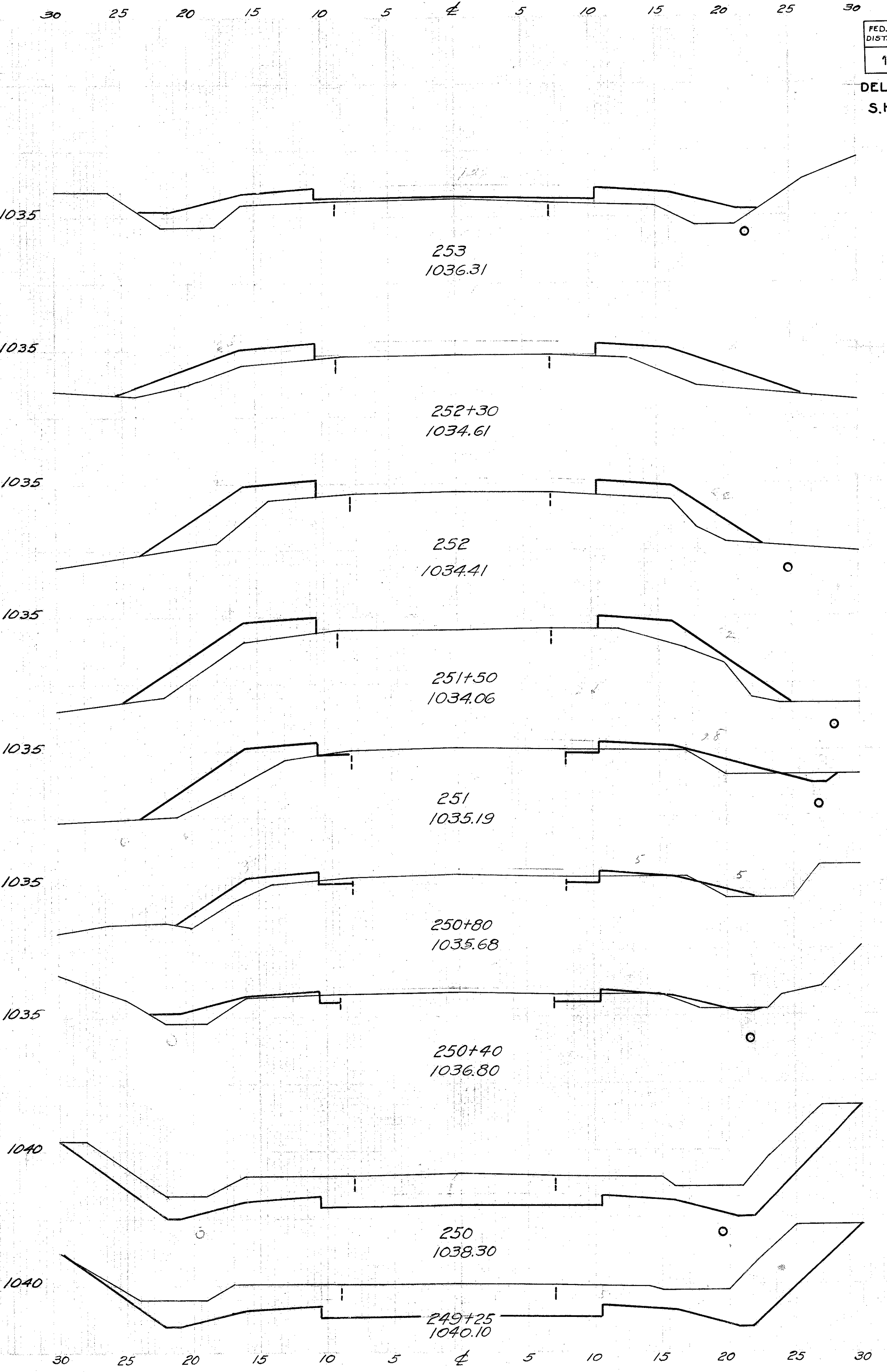
DELAWARE COUNTY.
S.H. 335 SEC. A-B



END AREA	CU. YDS	
	CUT	FILL
124	0	
304	11	
40	6	
43	17	
6	12	
10	16	
5	5	
9	31	
1	16	
1	14	
1	21	
6	41	
5	23	
9	37	
5	17	
10	21	
9	11	
13	32	

Excavation
Embankment
Emb. + 15%
Borrow

634
660
759
105



END AREA	CU. YDS	
	CUT	FILL
0	36	
		0 92
0	35	
		0 41
0	38	
		0 69
0	36	
		3 59
3	28	
		2 15
2	12	
		4 16
3	10	
		90 7
119	0	
		344 0
129	0	
		117 0

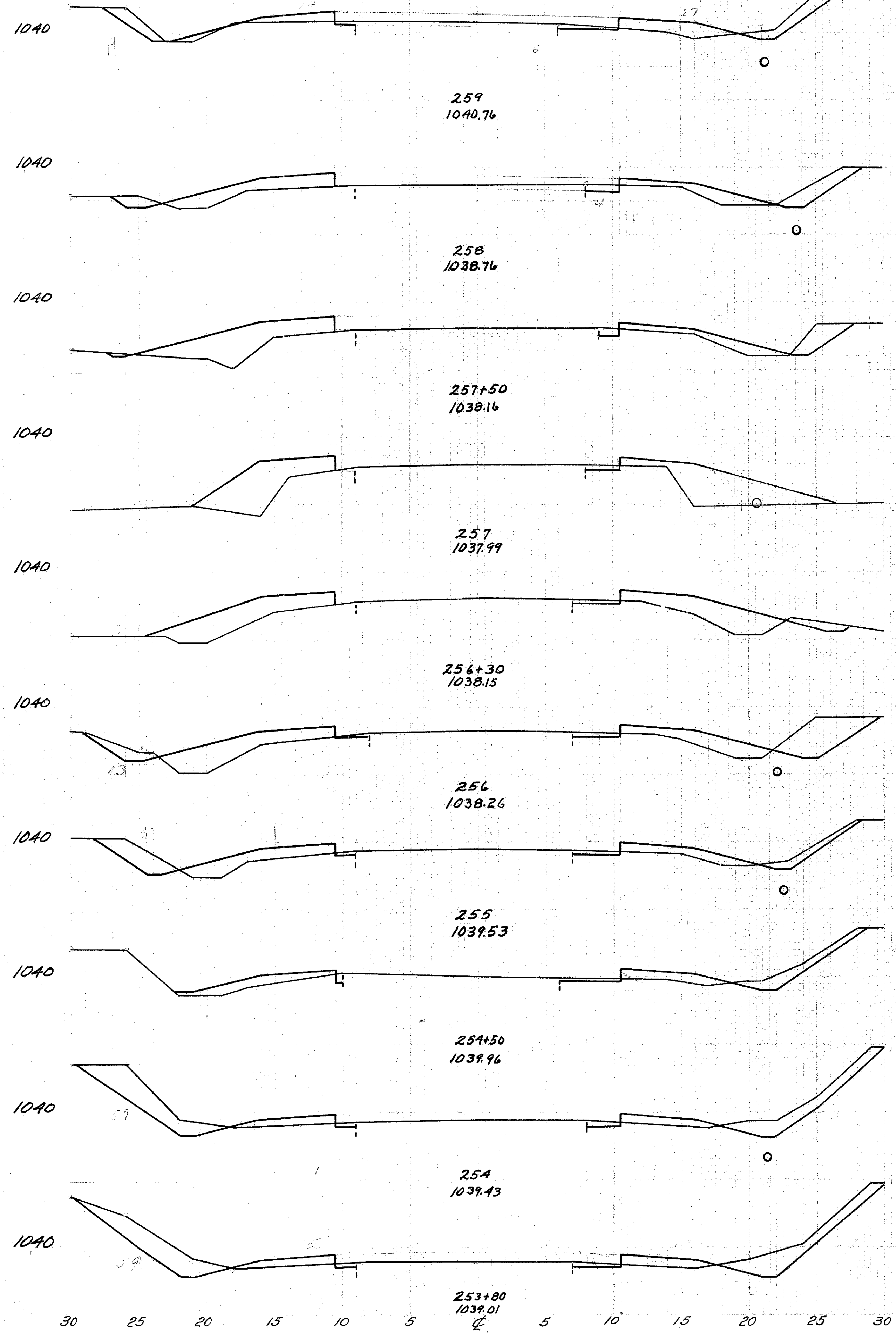
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30 25 20 15 10 5 0 5 10 15 20 25 30

FED. RD. DIST. NO.	STATE	FED. AID PROJECT N. R. S.	FISCAL YEAR
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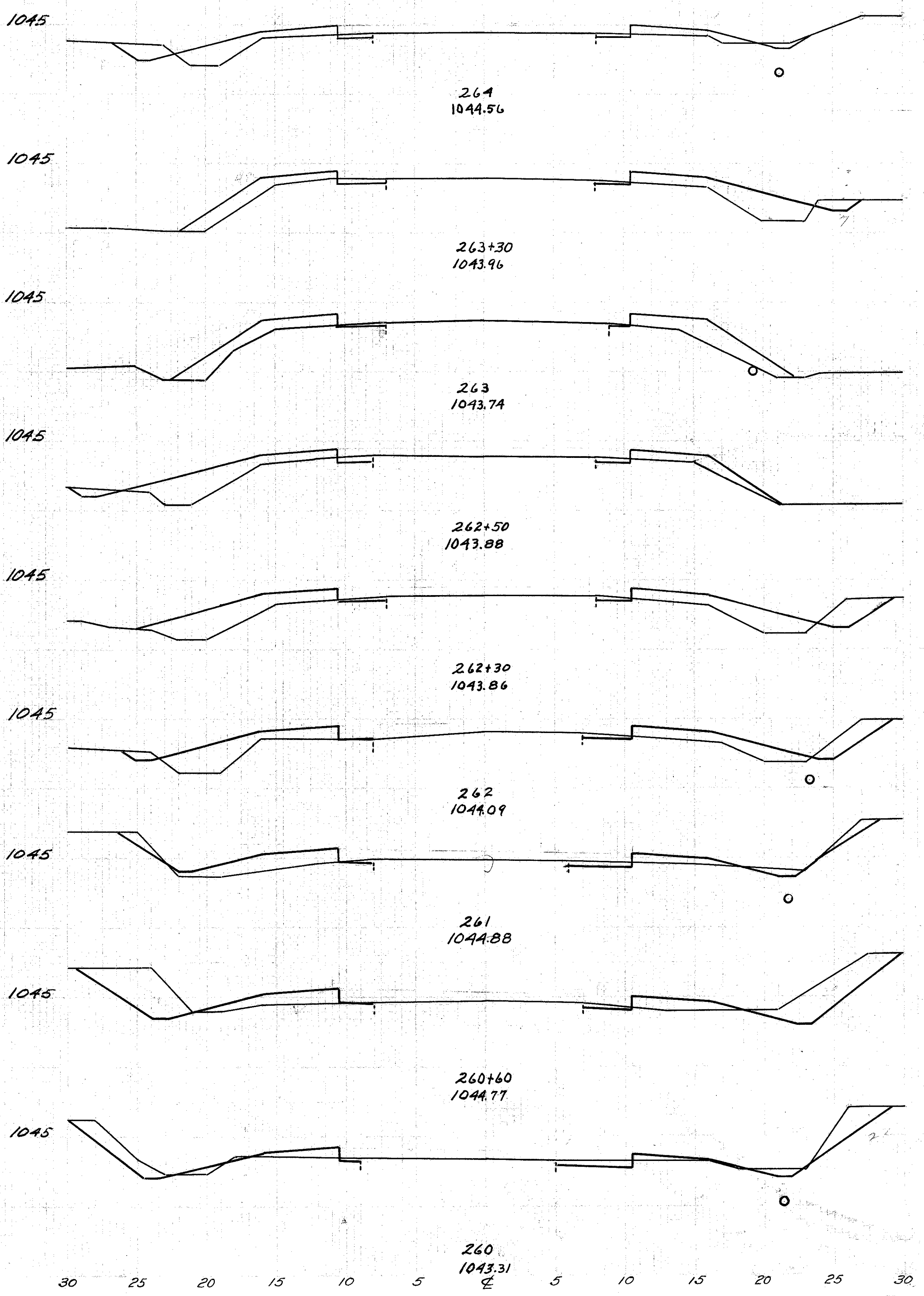
43
58

DELAWARE COUNTY.
S.H. 335 SEC. A-B



END AREA	CUT	FILL	CUT	FILL
13	10			
	41	52		
9	18			
	14	43		
6	28			
	7	66		
2	43			
	2	101		
3	35			
	11	33		
17	25			
	52	78		
11	17			
	17	27		
7	12			
	31	19		
26	8			
	20	6		
29	8			
	43	65		

Excavation 503 Cu. Yds
Embankment 289 " "
Lim. + 15% 507 " "
Borrow 104



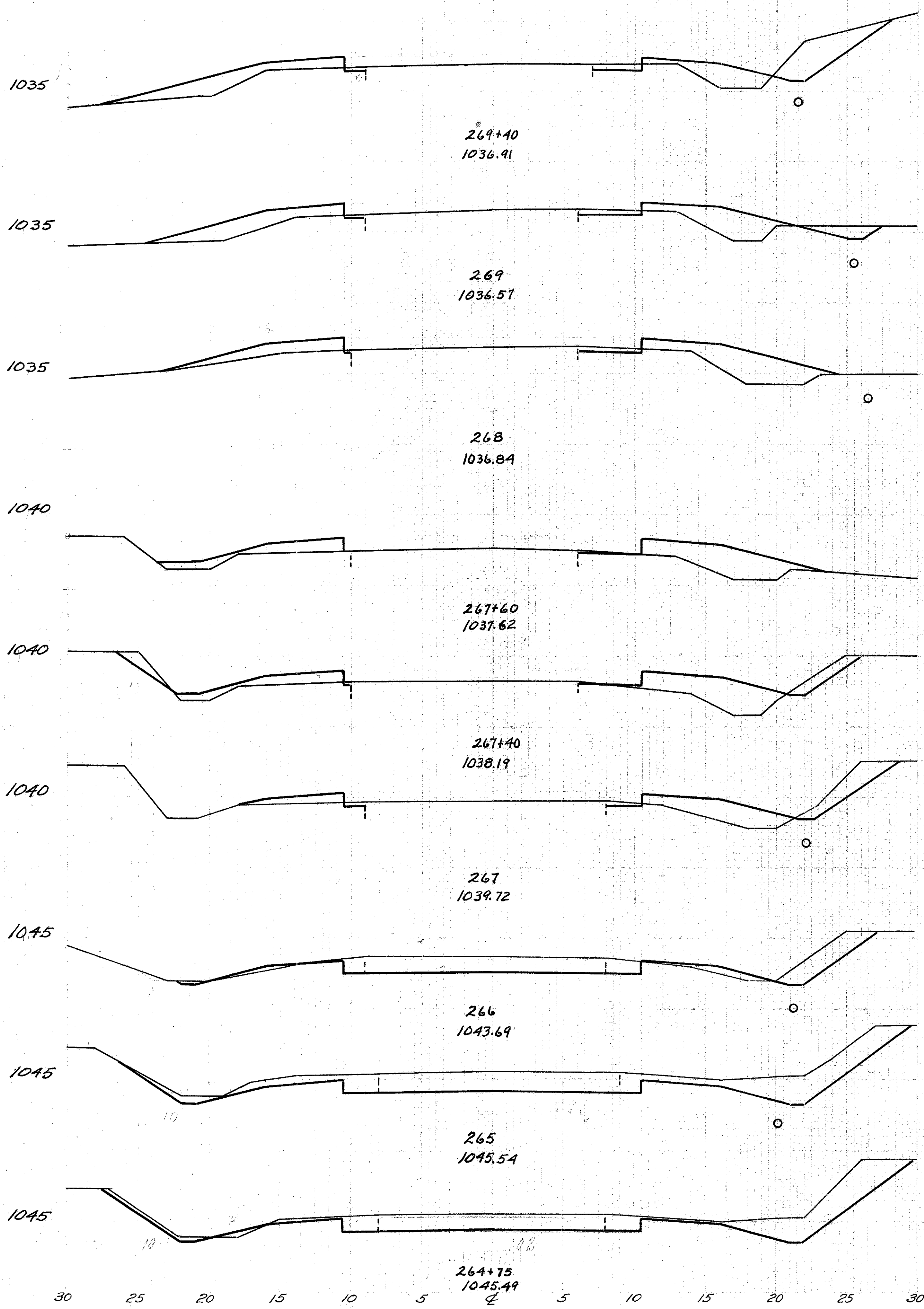
END AREA	CUT	FILL	CUT	FILL
5	14			
		12	51	
4	25			
		2	28	
0	26			
		4	45	
4	23			
		4	20	
8	31			
		9	31	
8	24			
		24	68	
5	13			
		29	19	
34	13			
		57	21	
17	6			
		56	30	

30 25 20 15 10 5 0 5 10 15 20 25 30

30 25 20 15 10 5 0 5 10 15 20 25 30

30 25 20 15 10 5 4 5 10 15 20 25 30

Note
No ditch Right side
from 269+75 to end

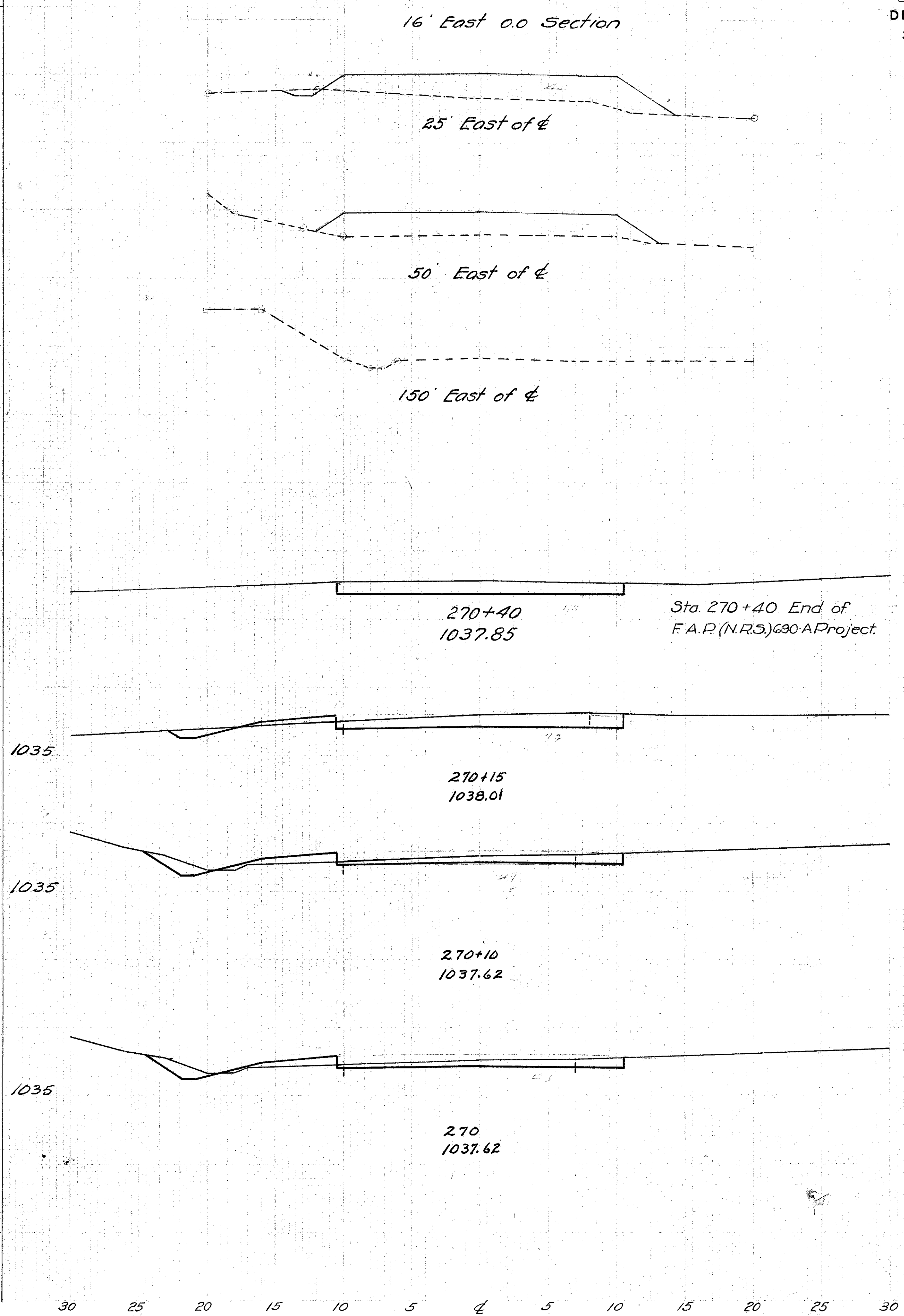


END AREA		C.U. YDS.	
CUT	FILL	CUT	FILL
15	22		
		15	34
5	24		
		13	91
2	25		
		2	37
0	25		
		2	18
6	23		
		10	29
8	16		
		70	37
30	4		
		161	7
57	0		
		49	0
48	1		
		74	21

Excavation 657 Cu
Embankment 616
Emb. + 15% 708
Borrow 57

30 25 20 15 10 5 4 5 10 15 20 25 30

CROSS SECTIONS OF SIDE ROAD STA 179+60



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END AREA		C.U. YDS.	
CUT	FILL	CUT	FILL
44	5		
		38	
38			
		70	
00			
		113	
18	0		
		18	0
20	2		
		3	0
15	4		
		5	1
14	3		
		32	28

DELAWARE COUNTY
S.H. 335 SEC. A-B.

SUPERELEVATION TABLES

P.C. 6+27.6		D = 3°00' L.		P.T. 8+71.5		Super Elev.
Left		Center		Right		
Edge Pav't	Width	Station	Grade	Width	Edge Pav't	
		5+27.6				0.00
		5+50				0.11
		5+75				0.22
		6+00				0.35
		6+27.6				0.48
		6+50				0.58
		6+77.6				0.72
		7+00				0.72
		7+25				0.72
		7+50				0.72
		7+75				0.72
		8+00				0.72
		8+21.5				0.72
		8+25				0.70
		8+50				0.58
		8+71.5				0.48
		9+00				0.34
		9+25				0.24
		9+50				0.10
		9+71.5				0.00

SUPERELEVATION TABLES

P.C. 56+33.7		D = 4°00' R.		P.T. 64+15.3		Super Elev.
Left		Center		Right		
Edge Pav't	Width	Station	Grade	Width	Edge Pav't	
		55+33.7				0.00
		55+50				0.09
		55+75				0.25
		56+00				0.40
		56+25				0.55
		56+33.7				0.60
		56+50				0.70
		56+75				0.85
		56+83.7				0.90
		57+00				
		57+25				
		57+50				
		57+75				
		58+00				
		58+25				
		58+50				
		58+75				
		59+00				
		59+25				
		59+50				
		59+75				
		60+00				
		60+25				
		60+50				
		60+75				
		61+00				
		61+25				
		61+50				
		61+75				
		62+00				
		62+25				
		62+50				
		62+75				
		63+00				
		63+25				
		63+50				
		63+65.3				0.90
		63+75				0.84
		64+00				0.69
		64+15.3				0.60
		64+25				0.54
		64+50				0.39
		64+75				0.24
		65+00				0.09
	10'	65+15.3		10'		0.00

SUPERELEVATION TABLES

P.C. 72+96.9		D = 4°00' L.		P.T. 76+06.1		Super Elev.
Left		Center		Right		
Edge Pav't	Width	Station	Grade	Width	Edge Pav't	
		71+96.9				0.00
		72+00				0.02
		72+25				0.17
		72+50				0.32
		72+75				0.47
		72+96.9				0.60
		73+00				0.62
		73+25				0.77
		73+46.9				0.90
		73+50				
		73+75				
		74+00				
		74+25				
		74+50				
		74+75				
		75+00				
		75+25				
		75+50				
		75+56.1				0.90
		75+75				0.79
		76+00				0.64
		76+06.1				0.60
		76+25				0.49
		76+50				0.34
		76+75				0.19
		77+00				0.04
		77+06.1				0.00

SUPERELEVATION TABLES

P.C. 108+56.9		D = 2°00' L.		P.T. 111+20.2		Super Elev.
Left		Center		Right		
Edge Pav't	Width	Station	Grade	Width	Edge Pav't	
		107+56.9				0.00
		107+75				0.06
		108+00				0.16
		108+25				0.25
		108+50				0.34
		108+56.9				0.36
		108+75				0.42
		109+00				0.51
		109+06.9				0.54
		109+25				
		109+50				
		109+75				
		110+00				
		110+25				
		110+50				
		110+70.2				0.54
		110+75				0.52
		111+00				0.42
		111+20.2				0.36
		111+25				0.34
		111+50				0.25
		111+75				0.16
		112+00				0.07
		112+20.2				0.00

SUPERELEVATION TABLES

P.C. 23+43.5		D = 1°00' R.		P.T. 25+35.2		Super Elev.
Left		Center		Right		
Edge Pav't	Width	Station	Grade	Width	Edge Pav't	
		22+43.5				
		22+50				
		22+75				
		23+00				
		23+25				
		23+43.5				
		23+50				
		23+75				
		23+93.5				
		24+00				
		24+25				
		24+50				
		24+75				
		24+85.2				
		25+00				
		25+25				
		25+35.2				
		25+50				
		25+75				
		26+00				
		26+25				
		26+35.2				

SUPERELEVATION TABLES

P.C. 79+77.3		D = 3°00' L.		P.T. 83+32.3		Super Elev.
Left		Center		Right		
Edge Pav't	Width	Station	Grade	Width	Edge Pav't	
		78+77.3				0.00
		79+00				0.11
		79+25				0.22
		79+50				0.35
		79+77.3				0.48
		80+00				0.59
		80+27.3				0.72
		80+50				
		80+75				
		81+00				
		81+25				
		81+50				
		81+75				
		82+00				
		82+25				
		82+50				
		82+75				
		82+82.3				0.72
		83+00				0.63
		83+25				0.51
		83+32.3				0.48
		83+50				0.39
		83+75				0.27
		84+00				0.15
		84+25				0.03
		84+32.3				0.00

SUPERELEVATION TABLES

P.C. 124+91		D = 3°00' L.		P.T. 127+82.7		Super Elev.
Left		Center		Right		
Edge Pav't	Width	Station	Grade	Width	Edge Pav't	
		123+91				0.00
		124+00				0.04
		124+25				0.16
		124+50				0.28
		124+75				0.40
		124+91				0.48
		125+00				0.52
		125+25				0.64
		125+41				0.72
		125+50				
		125+75				
		126+00				
		126+25				
		126+50				
		126+75				
		127+00				
		127+25				
		127+32.7				0.72
		127+50				0.64
		127+75				0.52
		127+82.7				0.48
		128+00				0.40
		128+25				0.28
		128+50				0.16
		128+75				0.04
		128+82.7				0.00

SUPERELEVATION TABLES

P.C. 170+27.3		D = 0°45' R.		P.T. 177+82.8	
Super Elev.	Left Edge Pavt	Width	Station	Grade	Width Edge Pavt
0.00			169+27.3		
0.04			169+50		
0.08			169+75		
0.13			170+00		
0.18			170+27.3		
0.22			170+50		
0.27			170+77.3		
			171+00		
			171+25		
			171+50		
			171+75		
			172+00		
			172+25		
			172+50		
			172+75		
			173+00		
			173+25		
			173+50		
			173+75		
			174+00		
			174+25		
			174+50		
			174+75		
			175+00		
			175+25		
			175+50		
			175+75		
			176+00		
			176+25		
			176+50		
			176+75		
			177+00		
			177+25		
0.27			177+32.8		
0.24			177+50		
0.20			177+75		
0.18			177+82.8		
0.15			178+00		
0.10			178+25		
0.06			178+50		
0.01			178+75		
0.00			178+82.8		

SUPERELEVATION TABLES

P.C. 186+20		D = 2°00' R.		P.T. 188+45	
Super Elev.	Left Edge Pavt	Width	Station	Grade	Width Edge Pavt
0.00			185+20		
0.02			185+25		
0.11			185+50		
0.20			185+75		
0.29			186+00		
0.36			186+20		
0.38			186+25		
0.45			186+50		
0.54			186+70		
			186+75		
			187+00		
			187+25		
			187+50		
			187+75		
0.54			187+95		
0.52			188+00		
0.43			188+25		
0.36			188+45		
0.34			188+50		
0.25			188+75		
0.16			189+00		
0.07			189+25		
0.00			189+45		

SUPERELEVATION TABLES

P.C. 203+50		D = 2°00' R.		P.T. 205+65	
Super Elev.	Left Edge Pavt	Width	Station	Grade	Width Edge Pavt
0.00			202+50		
0.09			202+75		
0.18			203+00		
0.27			203+25		
0.36			203+50		
0.45			203+75		
0.54			204+00		
			204+25		
			204+50		
			204+75		
			205+00		
0.54			205+15		
0.50			205+25		
0.41			205+50		
0.36			205+65		
0.32			205+75		
0.23			206+00		
0.14			206+25		
0.05			206+50		
0.00			206+65		

SUPERELEVATION TABLES

P.C. 215+01.9		D = 1°00' L.		P.T. 218+03.2	
Super Elev.	Left Edge Pavt	Width	Station	Grade	Width Edge Pavt
			214+01.9		
			214+25		
			214+50		
			214+75		
			215+00		
			215+01.9		
			215+25		
			215+51.9		
			215+75		
			216+00		
			216+25		
			216+50		
			216+75		
			217+00		
			217+25		
			217+50		
			217+55.2		
			217+75		
			218+00		
			218+05.2		
			218+25		
			218+50		
			218+75		
			219+00		
			219+05.2		

SUPERELEVATION TABLES

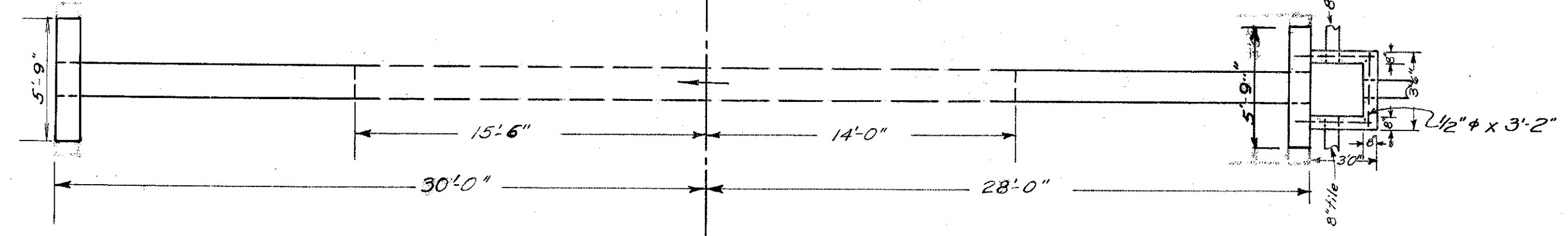
P.C. 237+54.7		D = 1°00' R.		P.T. 240+29.7	
Super Elev.	Left Edge Pavt	Width	Station	Grade	Width Edge Pavt
0.00			236+54.7		
0.05			236+75		
0.11			237+00		
0.17			237+25		
0.23			237+50		
0.24			237+54.7		
0.29			237+75		
0.34			238+00		
0.36			238+04.7		
			238+25		
			238+50		
			238+75		
			239+00		
			239+25		
			239+50		
			239+75		
0.36			239+79.7		
0.31			240+00		
0.25			240+25		
0.24			240+29.7		
0.19			240+50		
0.13			240+75		
0.07			241+00		
0.01			241+25		
0.00			241+29.7		

SUPERELEVATION TABLES

P.C. 257+15.3		D = 2°00' R.		P.T. 260+96.9	
Super Elev.	Left Edge Pavt	Width	Station	Grade	Width Edge Pavt
0.00			256+15.3		
0.03			256+25		
0.12			256+50		
0.21			256+75		
0.30			257+00		
0.36			257+15.3		
0.39			257+25		
0.48			257+50		
0.54			257+65.3		
			257+75		
			258+00		
			258+25		
			258+50		
			258+75		
			259+00		
			259+25		
			259+50		
			259+75		
			260+00		
			260+25		
0.54			260+46.9		
0.54			260+50		
0.44			260+75		
0.36			260+96.9		
0.35			261+00		
0.26			261+25		
0.17			261+50		
0.08			261+75		
0.00			261+96.9		

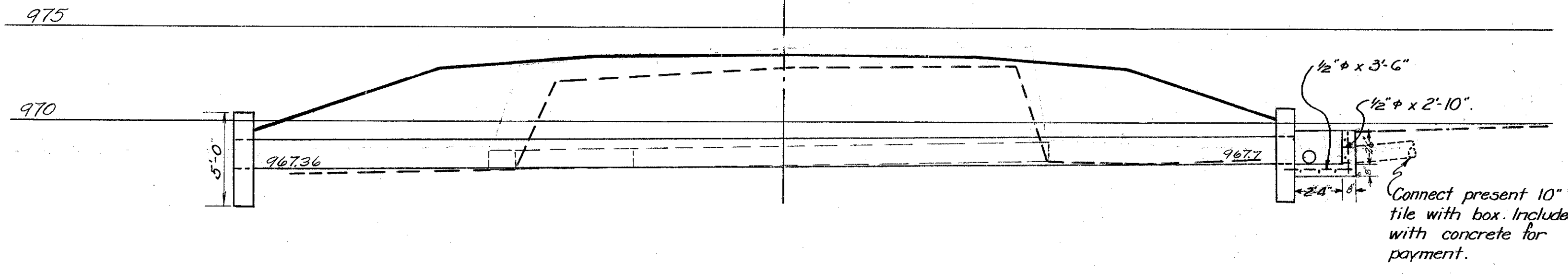
Station 0+79.4
Drainage Structure
DE-61-03

Reinf. Steel For Box
2 - 1/2" bars 2'-10" long
6 - 1/2" bars 3'-6" long
5 - 1/2" bars 3'-2 1/4" long



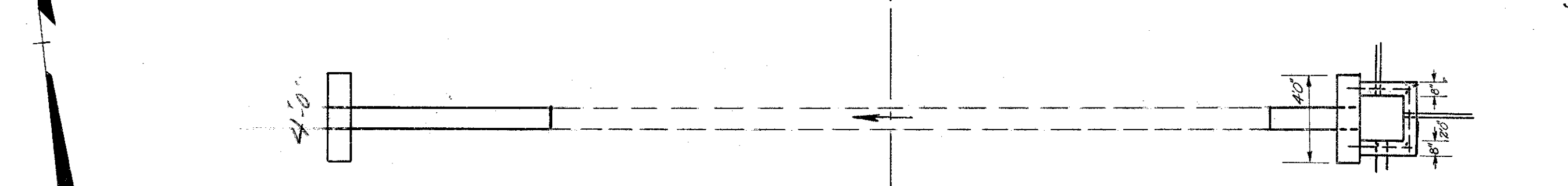
CULVERT DATA
Type - Pipe Culvert. Standard Drawings S-27-PC-1&2.
Size 18" x 58".
Work reqd. Remove existing 1 x 1.5 x 23.5 stone box and 6' of 16" Sectional Iron Pipe.
Build Standard 18" x 58" pipe culvert with standard headwalls and special concrete box on right.

ESTIMATE OF QUANTITIES
Excavation 35 Cu. Yds.
18" Pipe, R.C.P.(b) 58 Lin. Ft.
Concrete 1: 5.5 (Headwalls) 2.0 Cu. Yds.
" 1: 5.5 (Special Box) .8 " "
Reinf. Steel (Headwalls) 52 lbs.
" (Special Box) 29 "



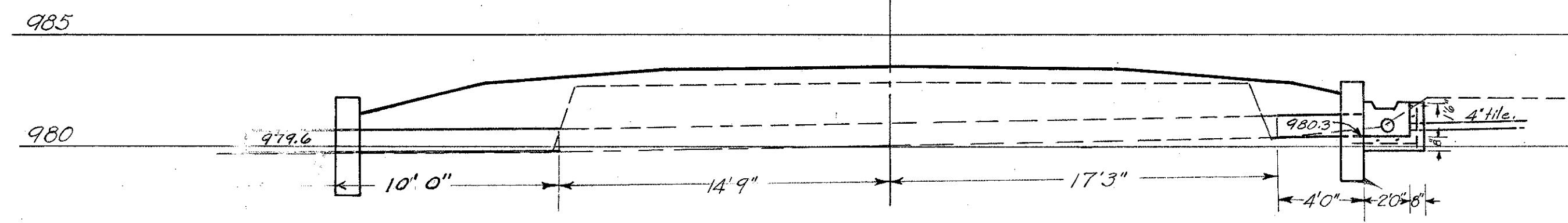
Station 18+20
Drainage Structure
DE-61-07

Reinf. Steel For Box
2 - 1/2" x 1'-10" long.
5 - 1/2" x 2'-8" long.



CULVERT DATA
Type Pipe. Std. Dwg. S-27-PC-1&2.
Size 12" x 14" Extensions.
Work reqd. Extend existing 12" x 32" Sectional Iron Pipe 10' Left and 4' Right with 12" pipe and Std. Headwalls Right and Left.
Build Special concrete box on Right with 3 tile stubs, included with concrete for payment.

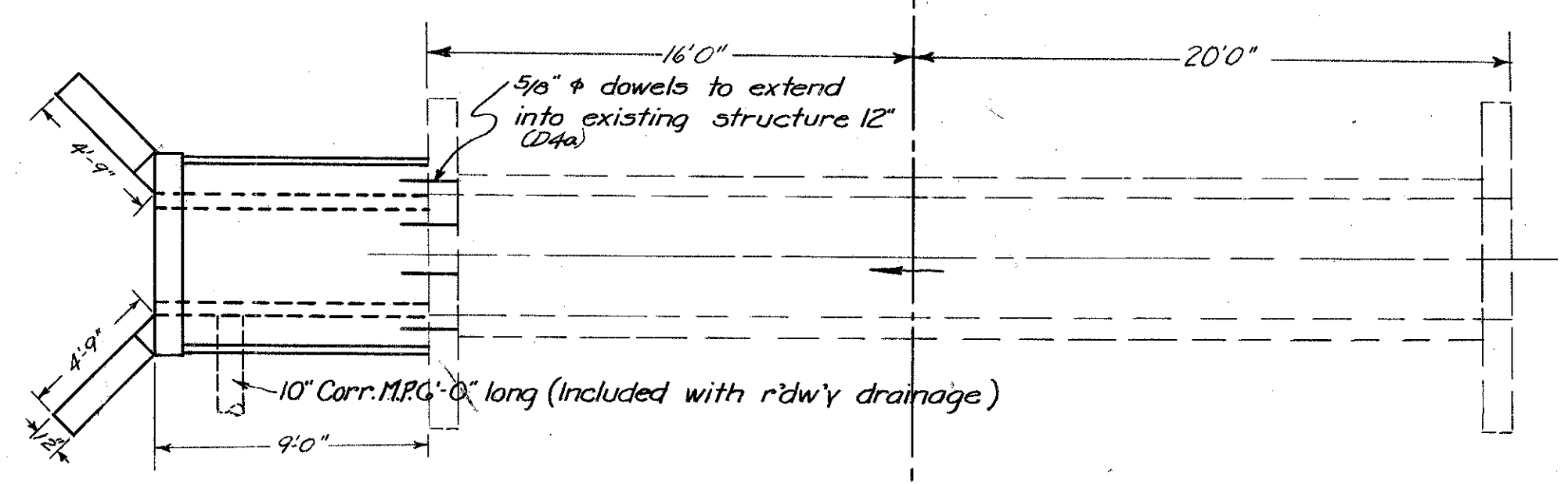
ESTIMATE OF QUANTITIES
Excavation 5 Cu. Yds.
12" Pipe, R.C.P.(b) 14 Lin. Ft.
Concrete 1: 5.5 (Headwalls) 1.3 Cu. Yds.
Concrete 1: 5.5 (Special Box) 0.5 " "
Reinf. Steel (Headwalls) 40 lbs.
" (Special Box) 12 "



Station 8+63
Drainage Structure
DE-61-05

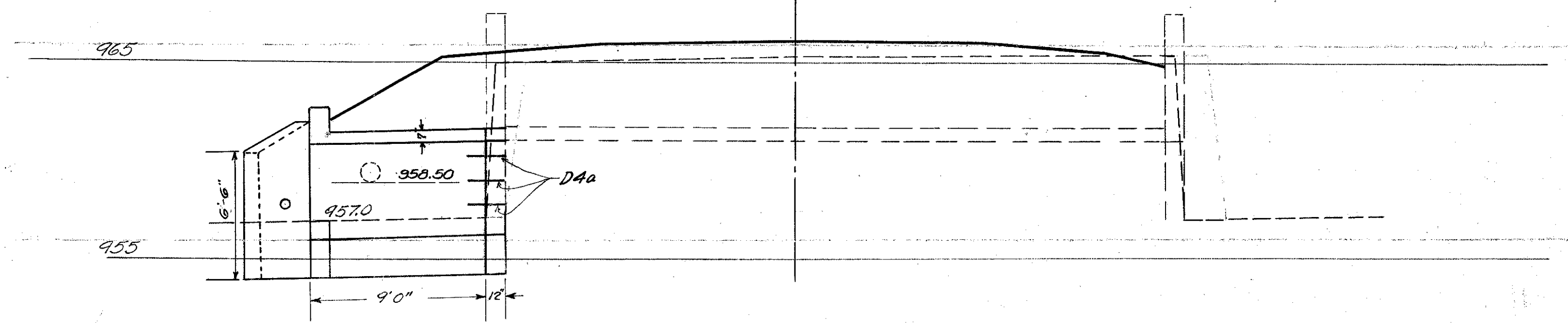
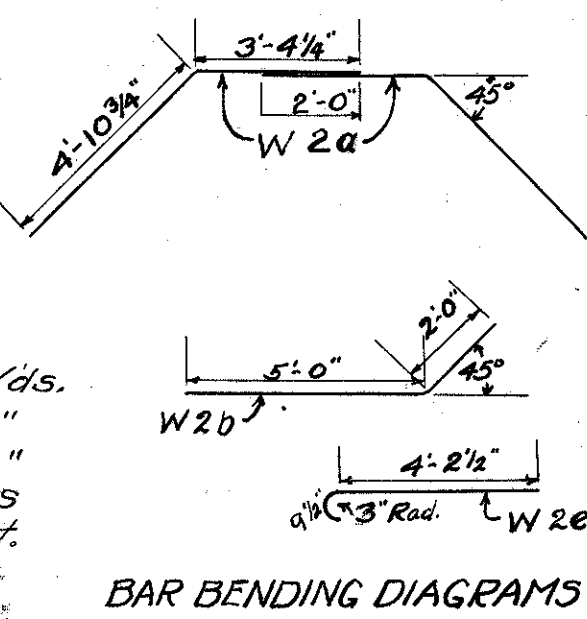
STEEL LIST

Mark	Size	Shape	No.	Spac.	Length	Weight
3Aa	3/8"	Str.	22	5"	5'-6"	126
T2a	1/2"	"	14	12"	8'-9"	82
W2a	1/2"	Bent	10	"	7'-0"	94
W2b	1/2"	"	8	"	7'-0"	37
W2c	1/2"	Str.	6	"	6'-6"	26
W2d	1/2"	"	2	"	6'-6"	11
W2e	1/2"	Bent	8	"	7'-0"	37
D4a	3/8"	Str.	8	"	2'-0"	17
TOTAL						485



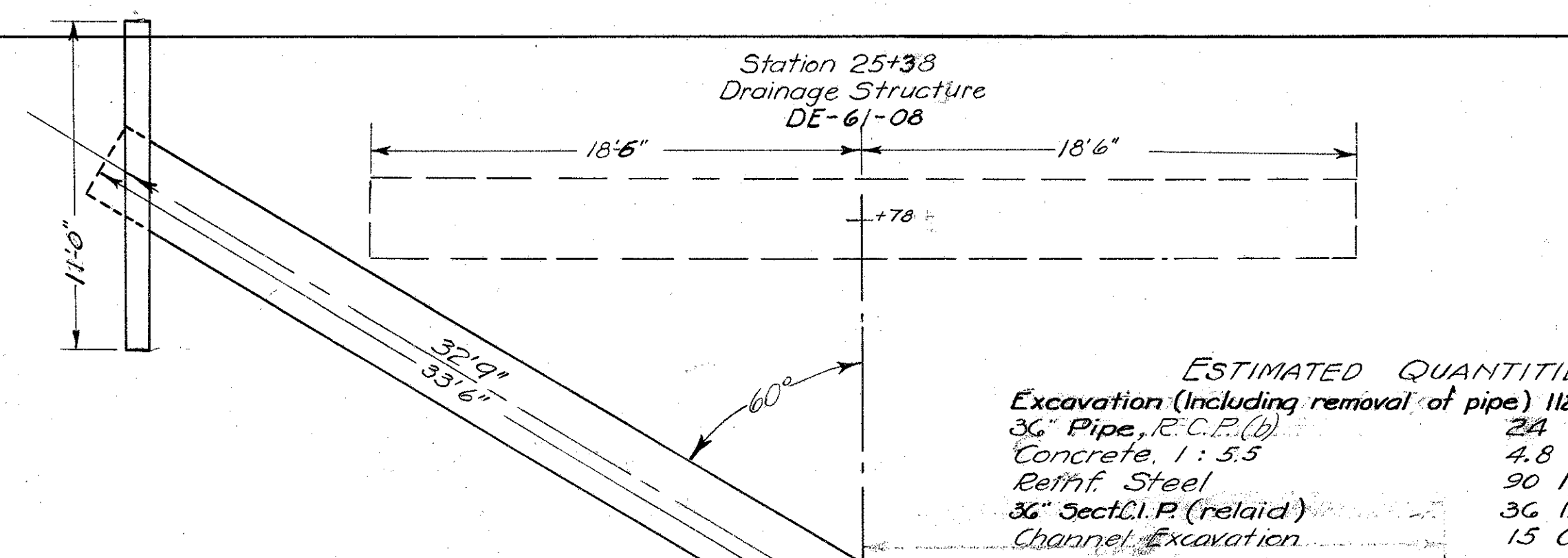
CULVERT DATA
Type Standard Slab Top Extension Std. Drawing S.C.-A.
Size 4' x 4' x 9".
Work reqd. remove top of headwall of existing culvert.
Build Standard 4' x 4' x 9" Slab Top Culvert ext'n.

ESTIMATED QUANTITIES
Excavation 15 Cu. Yds.
Concrete 1: 6.5 (Footers) 2.5 " "
Concrete 1: 5.5 83 " "
Reinf. Steel 485 lbs.
Dowel Holes 8 lin. ft.

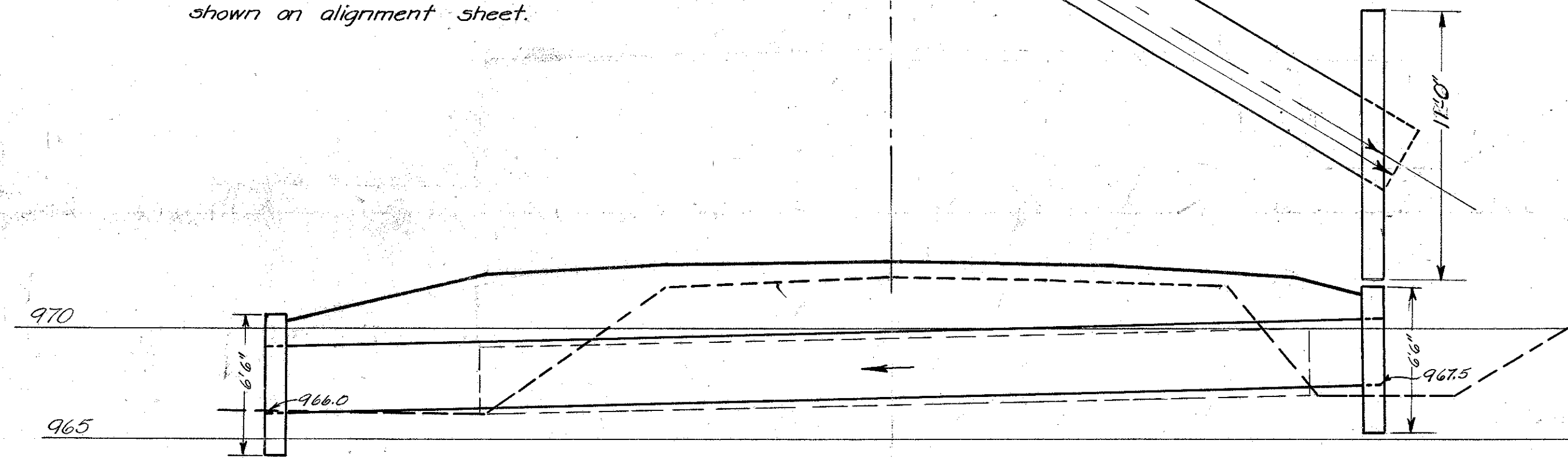


Station 25+38
Drainage Structure
DE-61-08

ESTIMATED QUANTITIES
Excavation (including removal of pipe) 112 Cu. Yds.
36" Pipe, R.C.P.(b) 24 lin. ft.
Concrete, 1: 5.5 4.8 cu. yds.
Reinf. Steel 90 lbs.
36" Sect. I.P. (relaid) 36 lin. ft.
Channel Excavation 15 Cu. Yds.

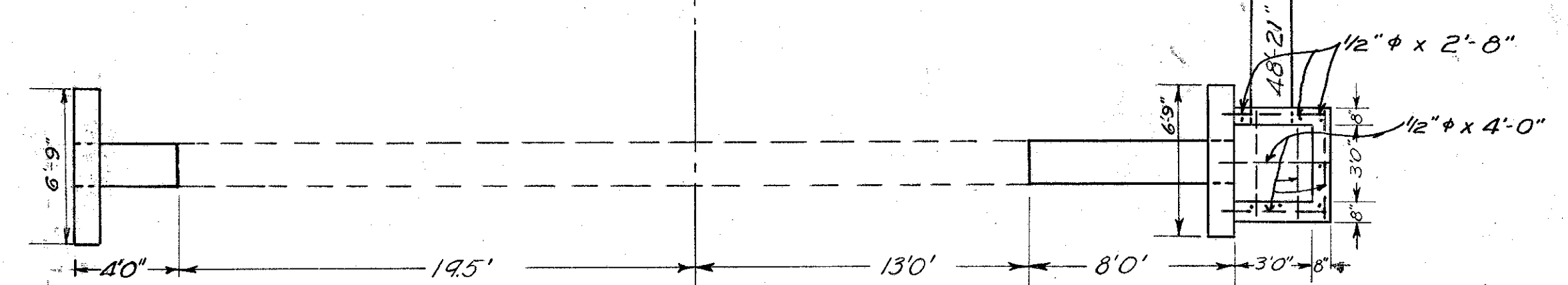


CULVERT DATA
Type - Pipe Culvert
Standard Drawings S-27-PC-1&2
Size 36" x 60"
Work reqd. Remove existing pipe at Sta 25+78 and relay at Sta 25+38 and extend with Pipe 36" x 24' and Standard headwalls, on the 30' Left forward skew. Cut new channel on Left, as shown on alignment sheet.



Station 28+51
Drainage Structure
DE-61-09

Sta. 29+00
Mod. #22 C.B.



CULVERT DATA

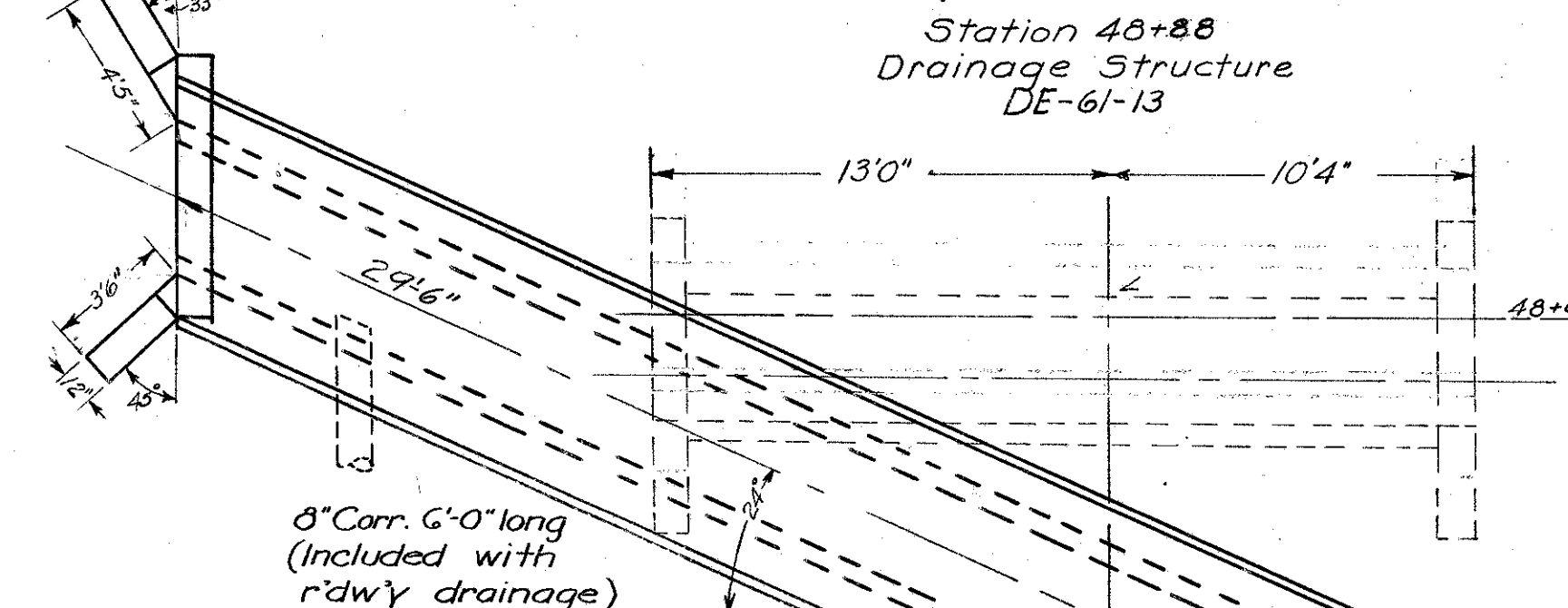
Type - Pipe Culvert, Std Drawings 5-27-PC-1&2.
Size, 21" x 12" Extensions
Work reqd, Extend existing 20" x 32' Sectional C.I.P. with 20" C.I.P. 4' Left, 8' Right & Std headwalls
Build Special box on Right and 48' & 2-45° Pipe Bends from box to Sta. 29, with Mod. #22 Catch Basin at Sta. 29+00

ESTIMATED QUANTITIES

Excavation	30 Cu. Yds
20" C.I.P., Sec. M-6.2(a)	12 Lin. Ft
21" Corr. M.P., Sec. M-6.4 (b-3)	48 "
21" V.S.P., Sec. M-6.8(a) 45° bends	2 "
Concrete 1:5.5 (Headwalls)	24 Cu. Yds
Concrete 1:5.5 (Special box)	1.0 "
Reinf. Steel (Headwalls)	59 lbs.
Reinf. Steel (Special box)	37 "
Mod. #22 C.B.	1

Reinf. Steel For Box
7 - 1/2" φ x 2'-8" long.
9 - 1/2" φ x 4'-0" long

Sta. 29+00.



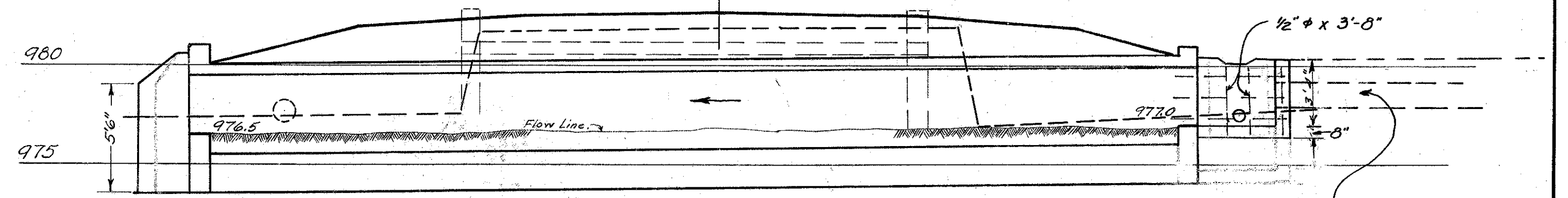
CULVERT DATA

Type, Std Slab Top Culvert Std Dwgs S.C-A.
Size 4' x 3' x 56"
Work reqd. Remove headwalls, slab and part of existing culvert, payment included in excavation.
Build Std 4' x 3' concrete Slab Top Culvert with Std wings on Left and Special Box on Right
Clean channel on Left.

ESTIMATE OF QUANTITIES

Excavation	180 Cu. Yds
Concrete 1: 6.5 (Footers)	15.1 "
Concrete 1: 5.5	29.0 "
Reinf. Steel	1892 lbs.
Channel Excavation	10 Cu. Yds.

Reinf. Steel For Box
8 - 1/2" φ x 3'-8" long.
5 - 1/2" φ x 6'-0" long
8 - 1/2" φ x 5'-6" long



Connect Existing 12" tile with inlet Incl. with concrete for payment.

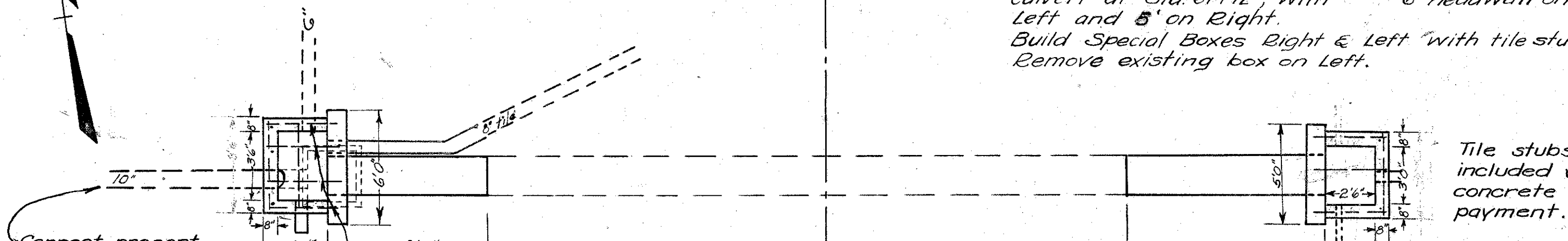
Station 33+06
Drainage Structure
DE-61-10

CULVERT DATA
Type, C.I.P. Standard Drawings 5-27-PC-1&2
Size 24" x 18" Extensions
Work reqd, Extend existing 24" x 32' Sectional C.I.P. 8' Right & 10' Left, with C.I.P. obtained from culvert at Sta. 61+12, with 6' headwall on Left and 8' on Right.
Build Special Boxes Right & Left with tile stubs.
Remove existing box on Left.

ESTIMATED QUANTITIES

Excavation (incl. removal of exist. box)	18 Cu. Yds.
24" C.I.P. relaid	18 Lin. Ft.
Concrete 1:5.5 (Headwalls)	2.0 Cu. Yds
(Special Boxes)	2.0 "
Reinf. Steel (Headwalls)	35 lbs.
(Special Boxes)	54 "

Tile stubs to be included with concrete for payment.



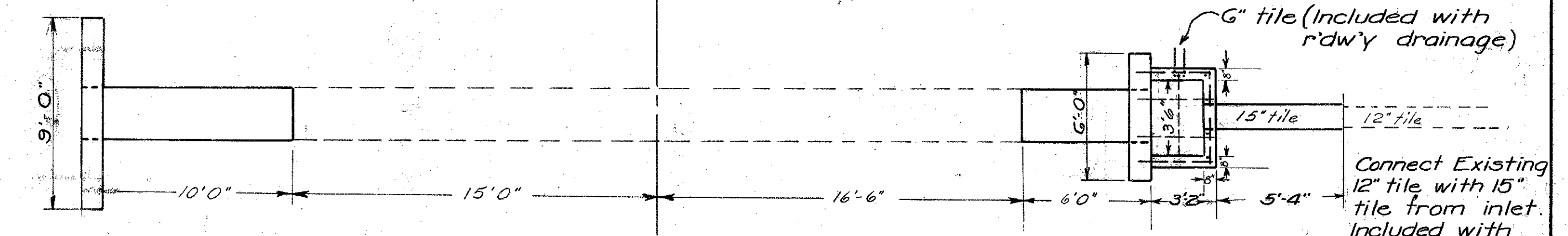
Connect present 10" tile with box Included with conc. for payment.

Reinf. Steel for Box
3 - 1/2" φ x 3'-3" long.
3 - 1/2" φ x 4'-0" "
6 - 1/2" φ x 3'-6" "
3 - 1/2" φ x 1'-0" for grate at inlet at 10" tile

Reinf. Steel For Box
7 - 1/2" φ bars 3'-6" long
3 - " " 4'-0" "

Station 52+16
Drainage Structure
DE-61-13A

4 - 1/2" φ x 3'-3" long
6 - 1/2" φ x 3'-6" long
3 - 1/2" φ x 4'-6" long



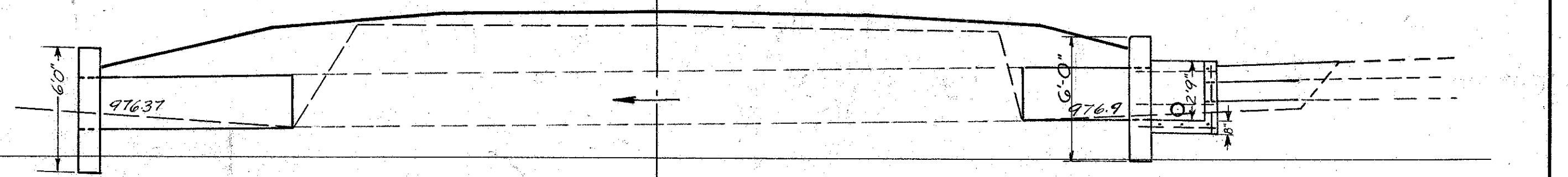
Connect Existing 12" tile with 15" tile from inlet. Included with conc. for paymt.

CULVERT DATA

Type - Pipe, Std. Dwg. 5-27-PC-1&2.
Size - 30" x 16" extensions
Work reqd, Extend existing 30" x 31' Sectional I.P. culvert 10' Left and 6' Right with 30" Pipe with Special Box on Right with 2 tile stubs.
Build Headwalls on Right and Left (Std. except for length).
Clean channel on Left.

ESTIMATED QUANTITIES

Excavation	15 Cu. Yds
30" Pipe, R.C.P.(b)	16 Lin. Ft.
Concrete 1: 5.5 (Headwalls)	3.00 Cu. Yds
Concrete 1: 5.5 (Special Box)	1.0 "
Reinf. Steel (Headwalls)	65 lbs.
(Special Box)	32 "
Channel Excavation	10 Cu. Yds.



DELAWARE COUNTY.
S.H.335 SEC. A-B.

Station 59+45
Drainage Structure
DE-61-14

CULVERT DATA
TYPE - Pipe, Std. Dwg. 5-27-PC-1&2
SIZE - 42" x 42" Extension
WORK REQD. Extend existing 42" x 35' sectional C.I.P. Culvert Right on a 30° Right forward skew with 42" x 42" Pipe

Culvert and Std Headwall & Special Box on Right, connect to existing pipe with concrete collar.

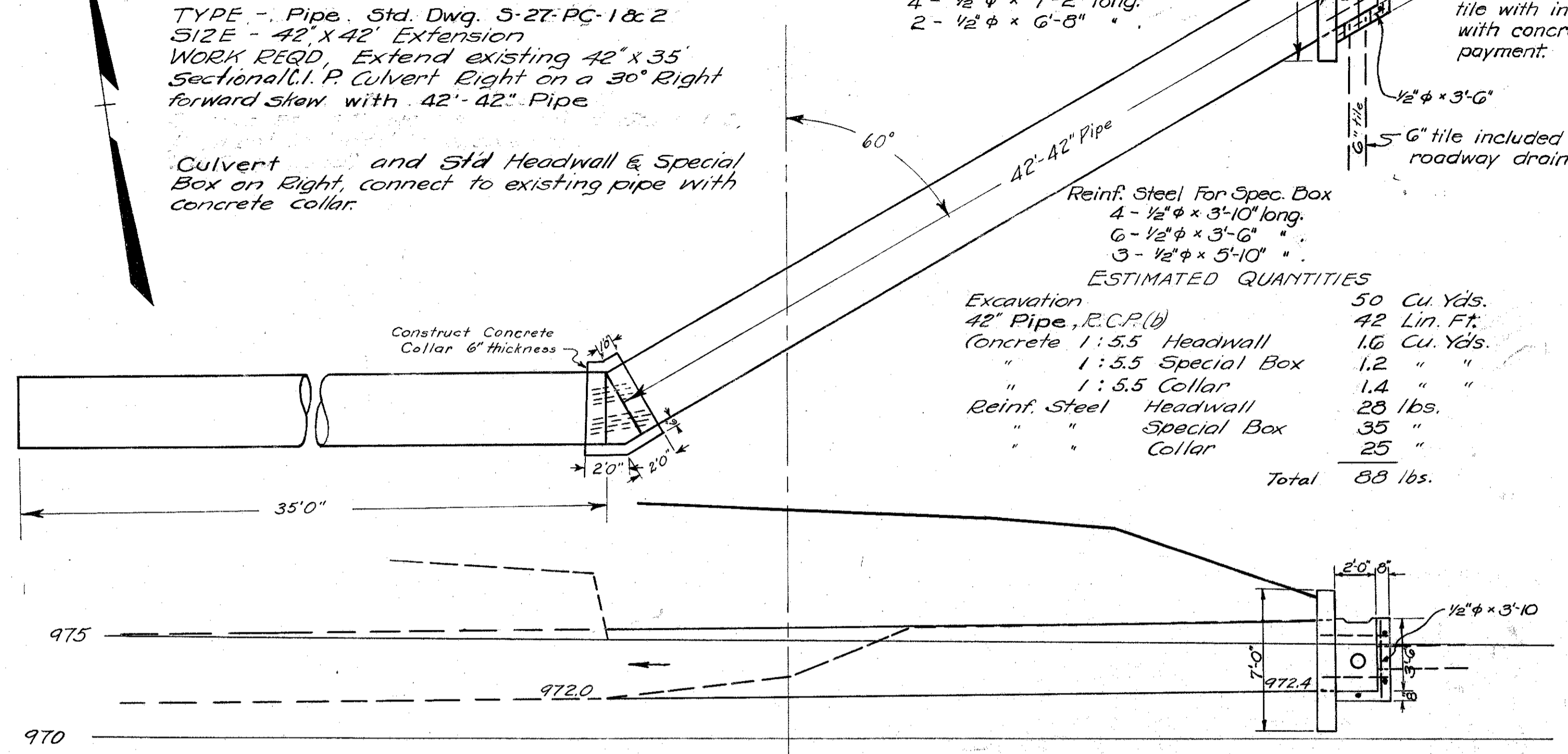
Reinf. Steel For Collar
4 - 1/2" φ x 1'-10" long.
8 - 1/2" φ x 2'-2" "
4 - 1/2" φ x 3'-0" "
Reinf. Steel For Hdwl.
4 - 1/2" φ x 7'-2" long.
2 - 1/2" φ x 6'-8" "

Reinf. Steel For Spec. Box
4 - 1/2" φ x 3'-10" long.
6 - 1/2" φ x 3'-6" "
3 - 1/2" φ x 5'-10" "

ESTIMATED QUANTITIES

Excavation	50 Cu. Yds.
42" Pipe, R.C.P.(b)	42 Lin. Ft.
Concrete 1:5.5 Headwall	1.6 Cu. Yds.
" 1:5.5 Special Box	1.2 "
" 1:5.5 Collar	1.4 "
Reinf. Steel Headwall	28 lbs.
" Special Box	35 "
" Collar	25 "
Total	88 lbs.

Connect existing 12" tile with inlet, incl. with concrete for payment.
1/2" φ x 3'-6"



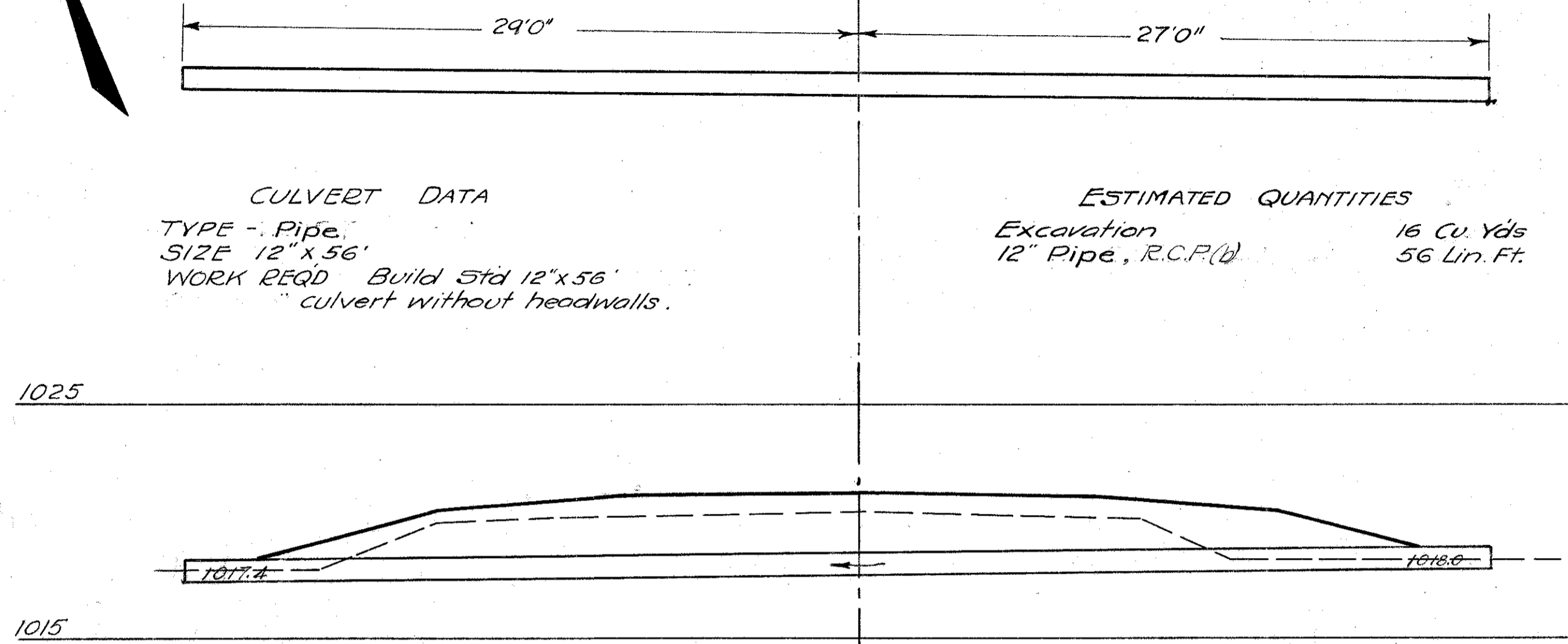
Station 86+50
Drainage Structure
DE-61-19

CULVERT DATA

TYPE - Pipe
SIZE 12" x 56"
WORK REQD. Build Std 12" x 56" culvert without headwalls.

ESTIMATED QUANTITIES

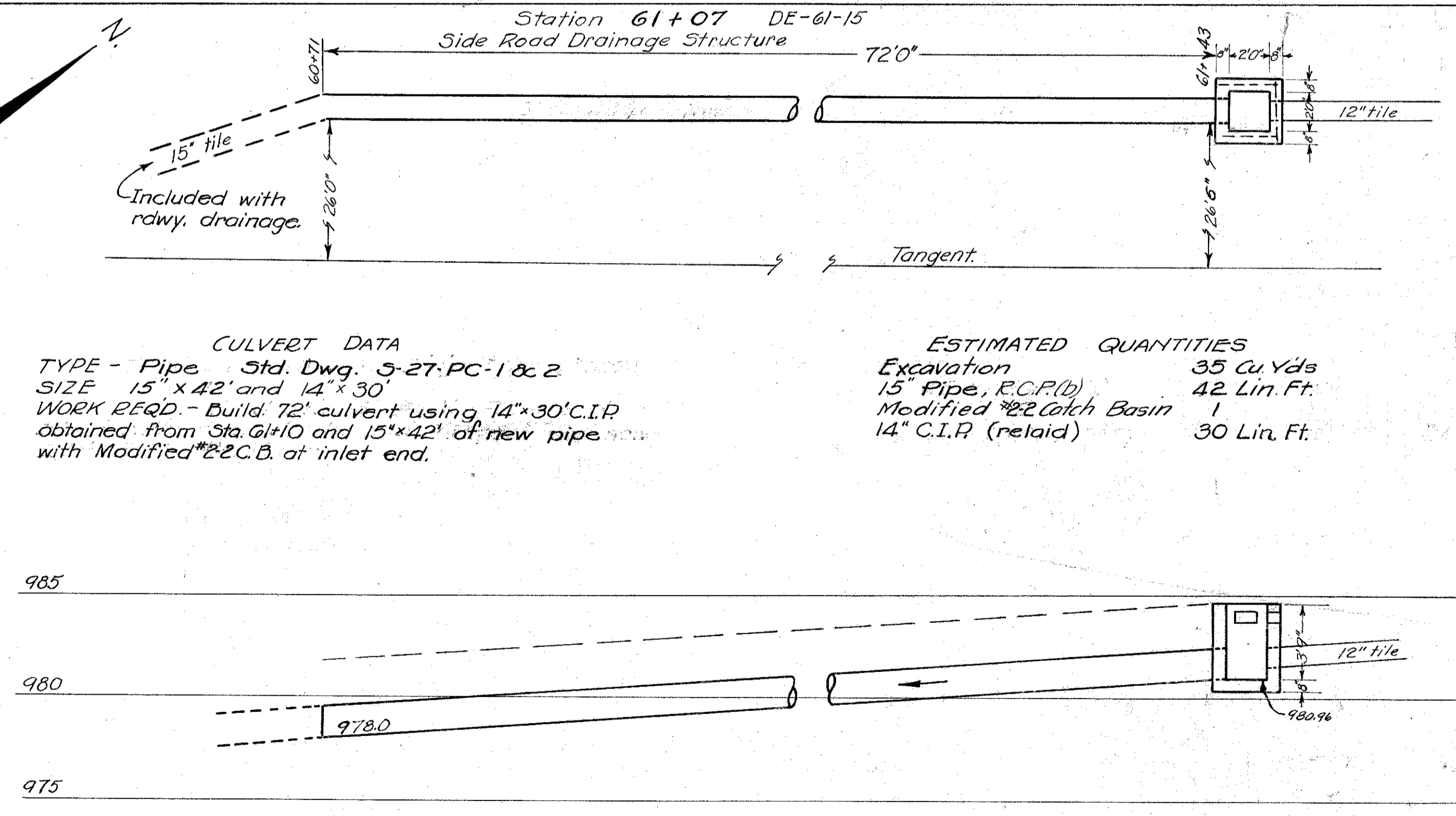
Excavation	16 Cu. Yds.
12" Pipe, R.C.P.(b)	56 Lin. Ft.



Station 61+07 DE-61-15
Side Road Drainage Structure

CULVERT DATA
TYPE - Pipe, Std. Dwg. 5-27-PC-1&2
SIZE 15" x 42" and 14" x 30"
WORK REQD. - Build 72' culvert using 14" x 30" C.I.P. obtained from Sta. 61+10 and 15" x 42" of new pipe with Modified #2 C.B. at inlet end.

ESTIMATED QUANTITIES
Excavation 35 Cu. Yds.
15" Pipe, R.C.P.(b) 42 Lin. Ft.
Modified #2 Catch Basin 1
14" C.I.P. (relaid) 30 Lin. Ft.

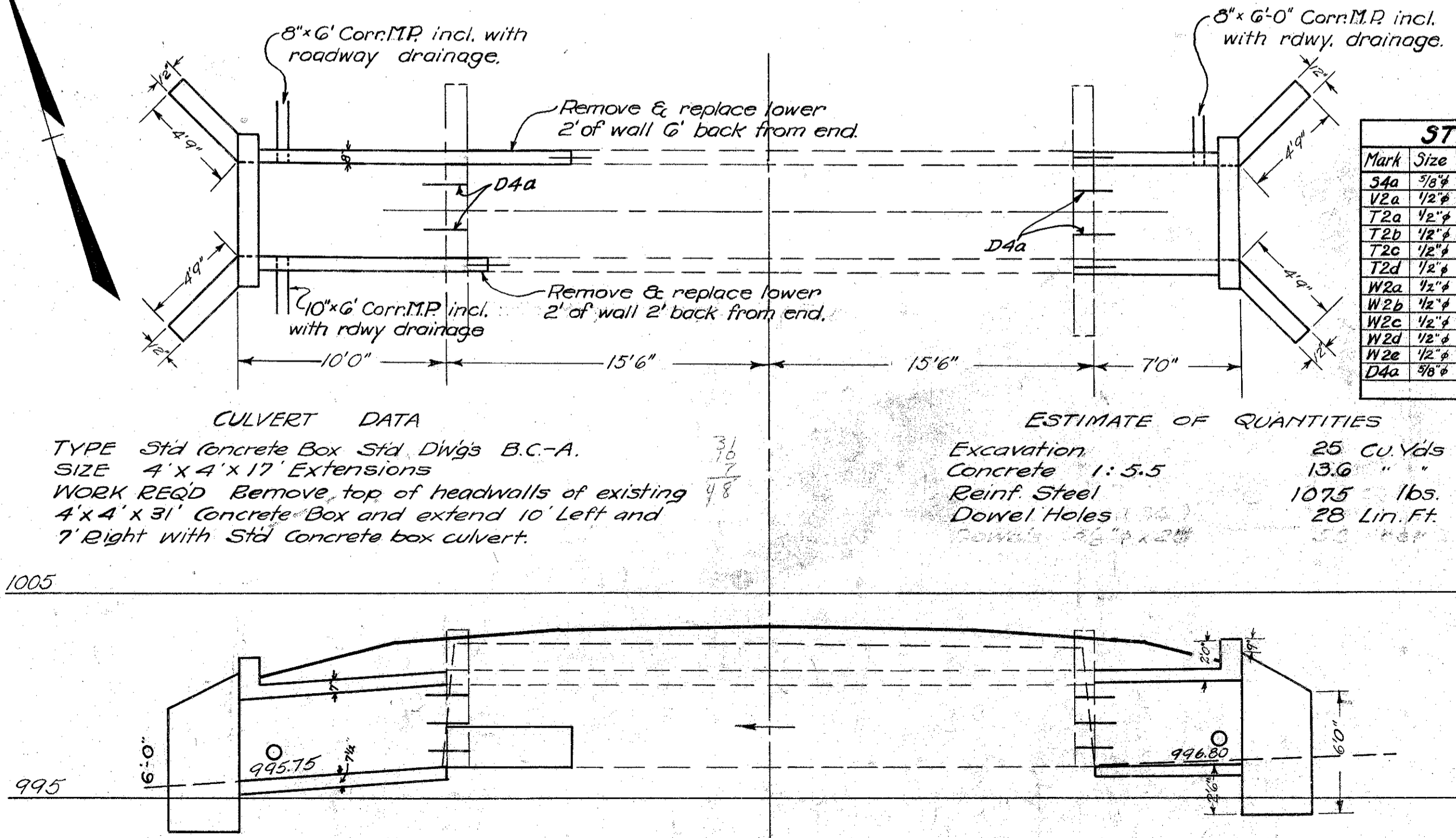


Station 93+82
Drainage Structure
DE-61-21

CULVERT DATA
TYPE Std Concrete Box Std Dwg's B.C.-A.
SIZE 4' x 4' x 17' Extensions
WORK REQD. Remove top of headwalls of existing 4' x 4' x 31' concrete box and extend 10' Left and 7' Right with Std Concrete box culvert.

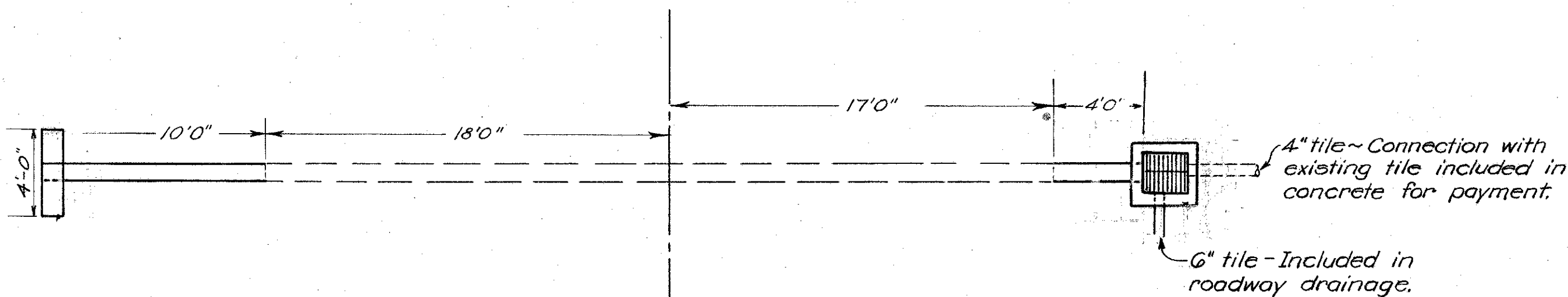
ESTIMATE OF QUANTITIES
Excavation 25 Cu. Yds.
Concrete 1:5.5 13.6 "
Reinf. Steel 1075 lbs.
Dowel Holes 28 Lin. Ft.

Mark	Size	Shape	No.	Length	Spec.	Wt.
S4a	3/8"	Straight	80	5'-1"	5	424
V2a	1/2"	Straight	34	5'-1"	1-0	115
T2a	1/2"	Straight	12	9'-9"	1-0	78
T2b	1/2"	Straight	16	6'-9"	1-0	72
T2c	1/2"	Straight	2	11'-9"	1-0	21
W2a	1/2"	Bent	16	6'-9"		94
W2b	1/2"	Bent	16	7'-0"		75
W2c	1/2"	Straight	12	6'-0"		43
W2d	1/2"	Straight	4	6'-0"		21
W2e	1/2"	Bent	16	5'-0"		53
D4a	3/8"	Straight	28	2'-0"		58
TOTAL						1075



Note: Use Std. Dwg's B.C.-A.
40' x 30' for reinforcing Steel in Top & Bottom and
50' x 40' for reinforcing Steel in Sides & Wings.

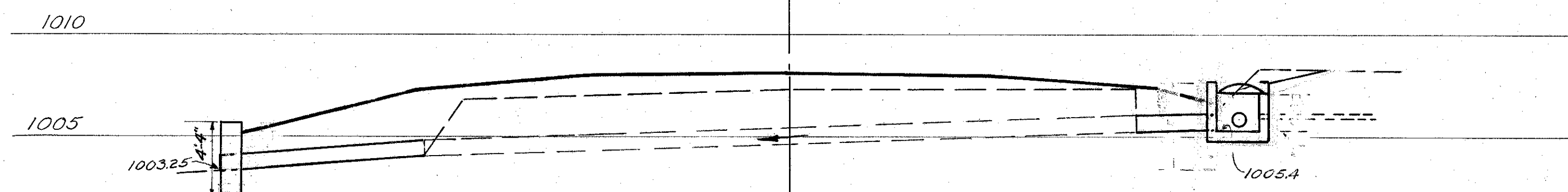
Station 100+24
Drainage Structure
DE-61-22



CULVERT DATA
TYPE - Pipe Std. Dwg. S-27-PC-1 & 2.
SIZE 10" x 14" extensions
WORK REQD. Extend existing 10" x 35' Sectional C.I.P. culvert Left 10' Right 4' with 10" Pipe with Std. Headwall Left & Modified #1-2 Catch Basin Right

ESTIMATE OF QUANTITIES

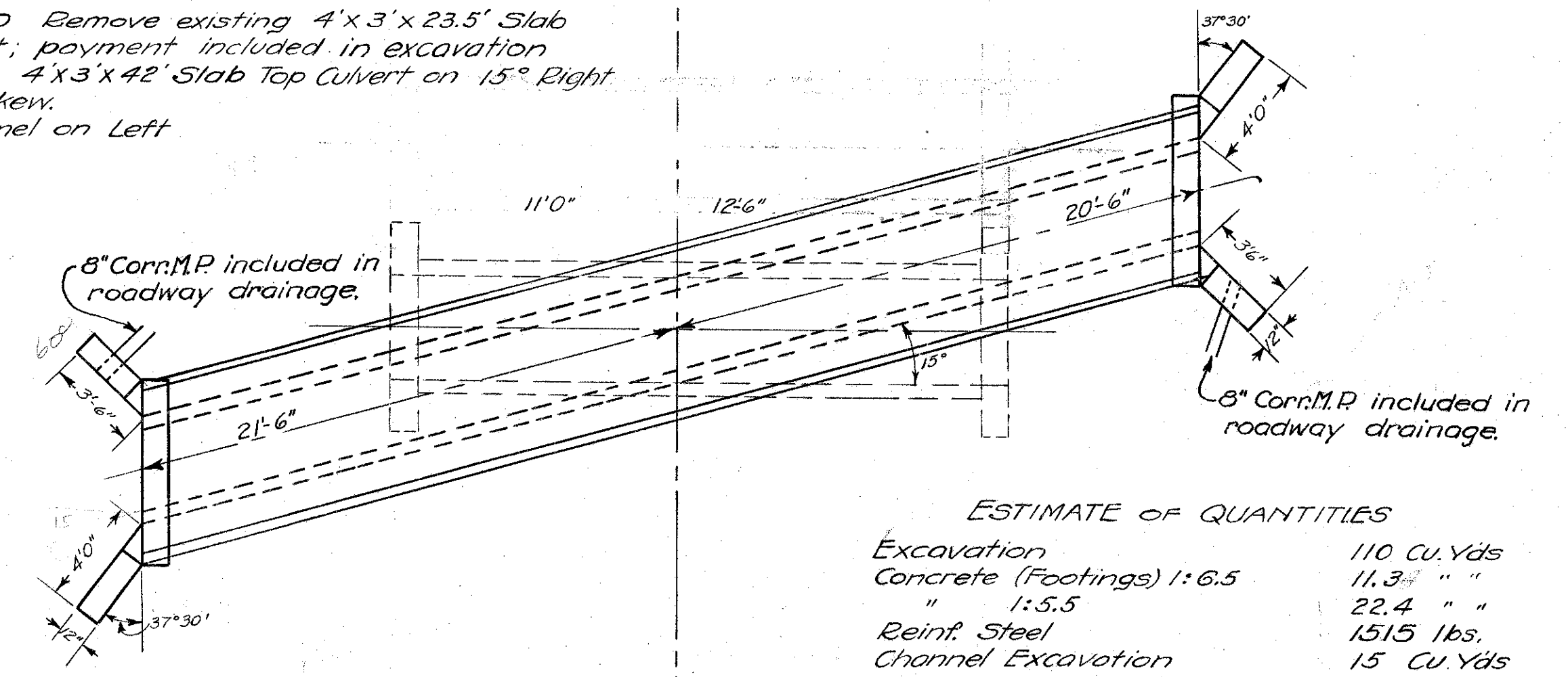
Excavation	10 Cu. Yds
10" Pipe, R.C.P. (b)	14 Lin. Ft
Concrete 1:5.5	0.7 Cu. Yds
Reinf. Steel	20
Modified #1-2 Catch Basin	1



Station 120+30
Drainage Structure
DE-61-26

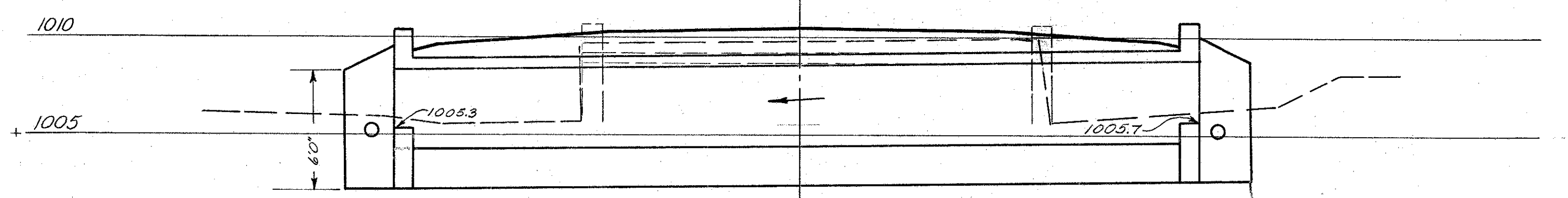
DELAWARE COUNTY.
S.H. 335 SEC. A-B.

CULVERT DATA
TYPE, Standard Slab Top Culvert Std Dwg S.C-A.
SIZE 4' x 3' x 42'
WORK REQD. Remove existing 4' x 3' x 23.5' Slab Top Culvert; payment included in excavation
Build Std. 4' x 3' x 42' Slab Top Culvert on 15° Right forward skew.
Clean channel on Left

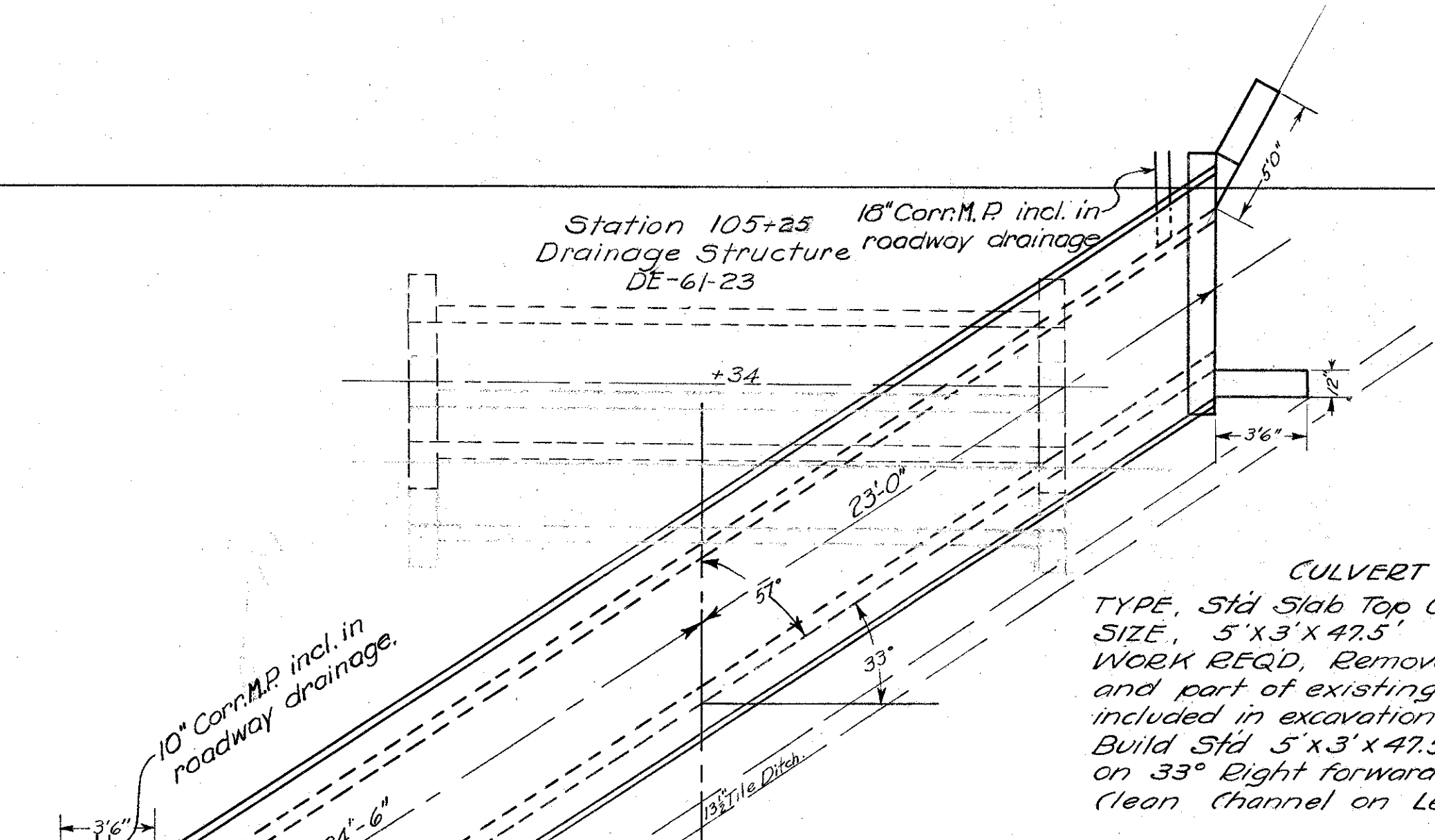


ESTIMATE OF QUANTITIES

Excavation	110 Cu. Yds
Concrete (Footings) 1:6.5	11.3 "
" 1:5.5	22.4 "
Reinf. Steel	1515 lbs.
Channel Excavation	15 Cu. Yds



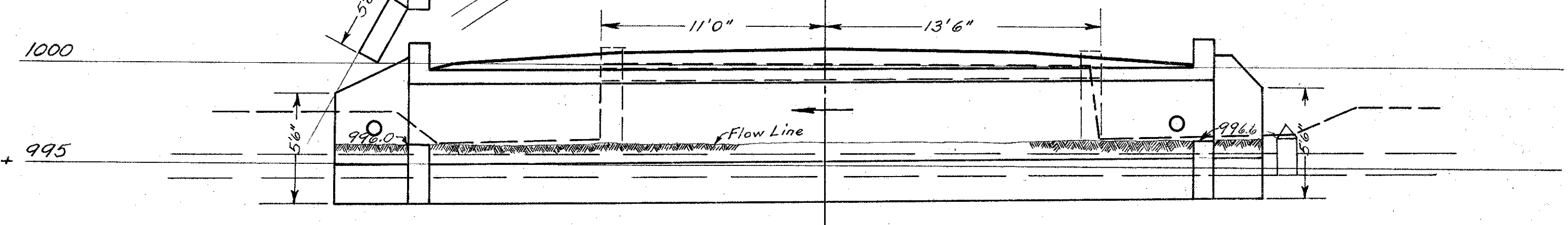
Station 105+25
Drainage Structure
DE-61-23



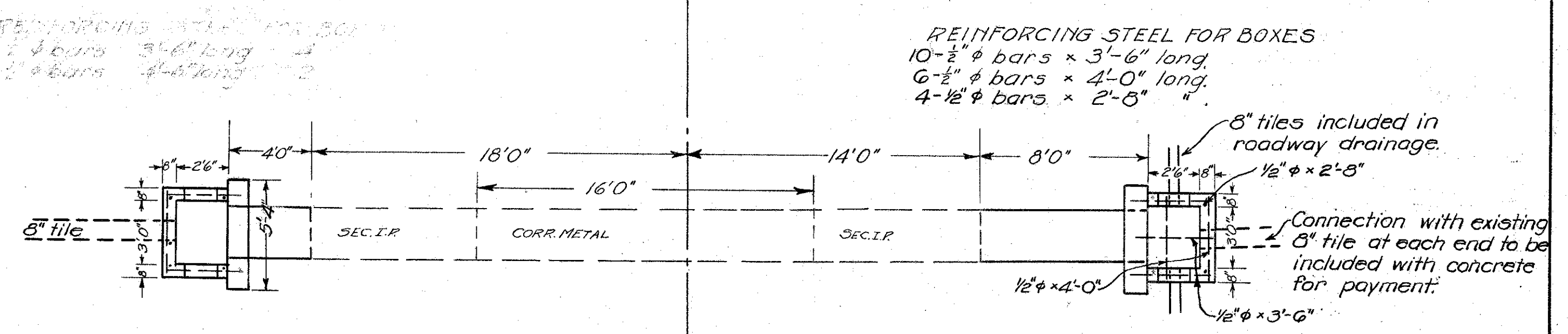
CULVERT DATA
TYPE, Std. Slab Top Culvert Std Dwg S.C-A.
SIZE, 5' x 3' x 47.5'
WORK REQD. Remove headwalls slab and part of existing structure; payment included in excavation.
Build Std. 5' x 3' x 47.5' Slab Top Culvert on 33° Right forward skew.
Clean channel on Left.

ESTIMATE OF QUANTITIES

Excavation	90 Cu. Yds
Concrete, (Footings) 1:6.5	12.8 "
" 1:5.5	26.7 "
Reinf. Steel	1946 lbs.
Channel Excavation	15 Cu. Yds.



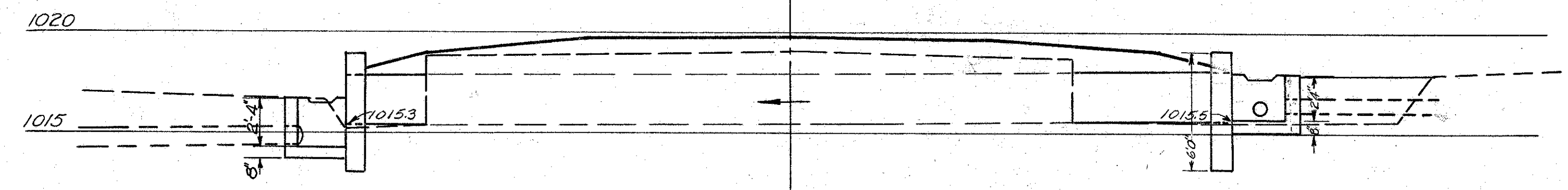
Station 133+77
Drainage Structure
DE-61-29



CULVERT DATA
TYPE - Pipe Std. Dwg. S-27-PC-1 & 2.
SIZE 30" x 12" Extensions
WORK REQD. Extend existing 30" x 32' Sectional C.I.P. culvert 4' Left and 8' Right with 30" pipe and Headwalls.
Build two Special Boxes
Three pieces 1/2" φ bars 18" long for grate over outlet tile

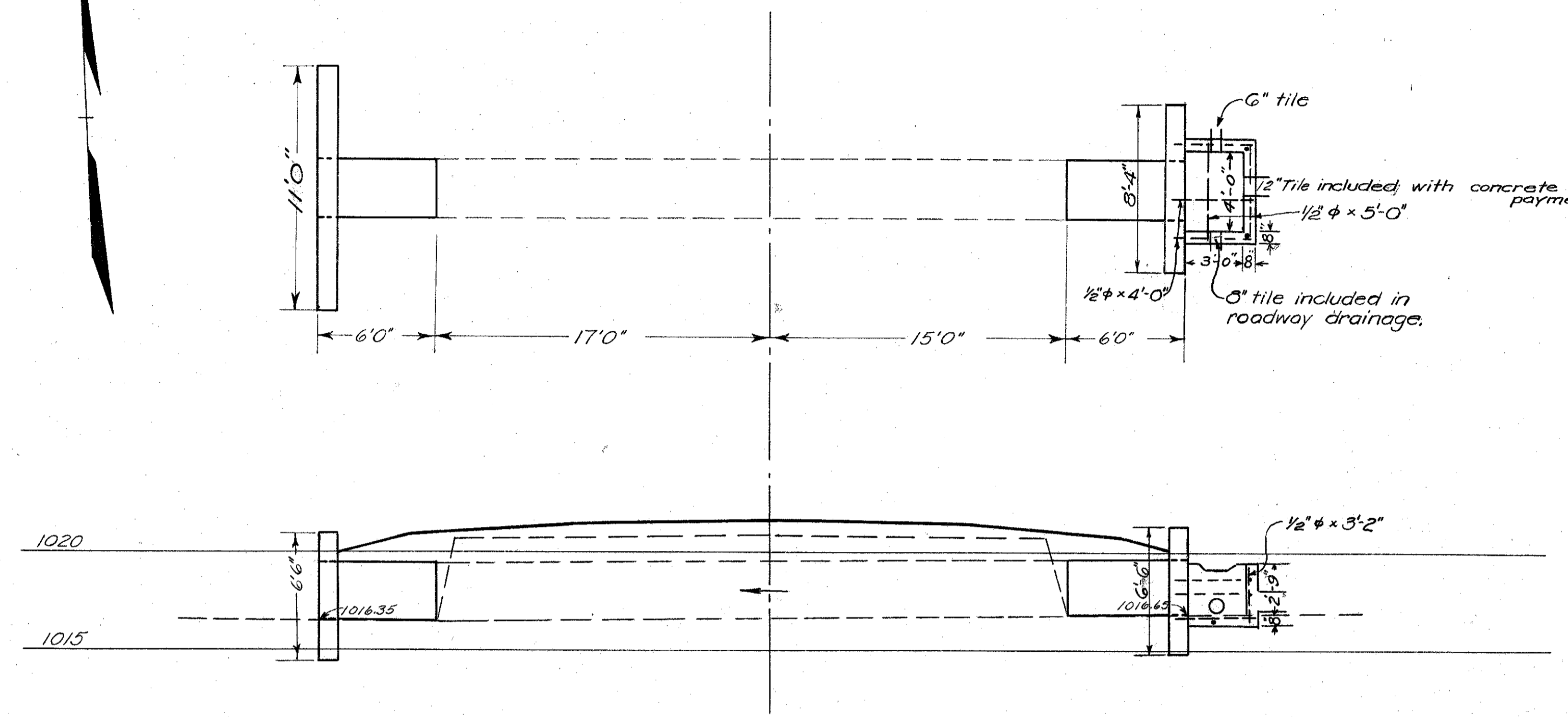
ESTIMATE OF QUANTITIES

Excavation	10 Cu. Yds
Concrete 1:5.5 (Headwalls)	1.6 "
" (Special Boxes)	1.8 "
Reinf. Steel (Headwalls)	63 lbs
" (Special Boxes)	26 "
30" Pipe, R.C.P. (b)	12 lin. ft.



Station 146+62
Drainage Structure
DE-61-31

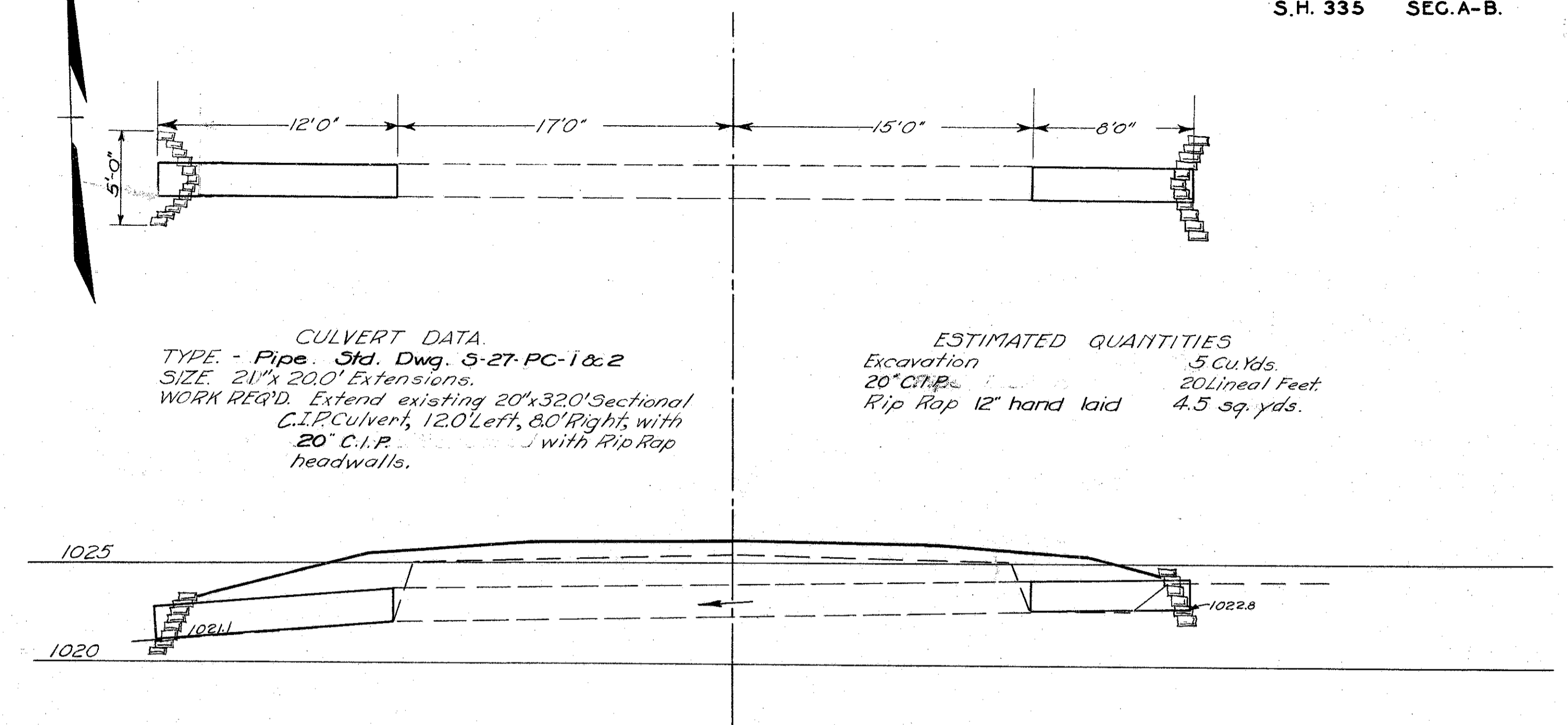
REINF. STEEL FOR SPEC. BOX
3- 1/2" φ bars x 5'-0" long.
2- 1/2" φ " x 3'-2" "
5- 1/2" φ " x 4'-0" "



CULVERT DATA
TYPE - Pipe Std. Dwg. 3-27-PC-1 & 2.
SIZE - 36" x 12.0' Extensions.
WORK REQ'D. Extend existing 36" x 32.0' Sectional I.P. Culvert 6.0' Left, 6.0' Right, with 36" pipe, with Std. headwall on left and special headwall and special box on right.

ESTIMATED QUANTITIES
Excavation 10 Cu. Yds.
36" pipe, R.C.P. (b) 12 Lineal Feet
Concrete (1-5 1/2") 4.2 Cu. Yds.
Reinforcing Steel - H. Walls 81 lbs.
" " "Special Box 28" " "
Concrete 1:5.5 1.1 Cu. Yds.

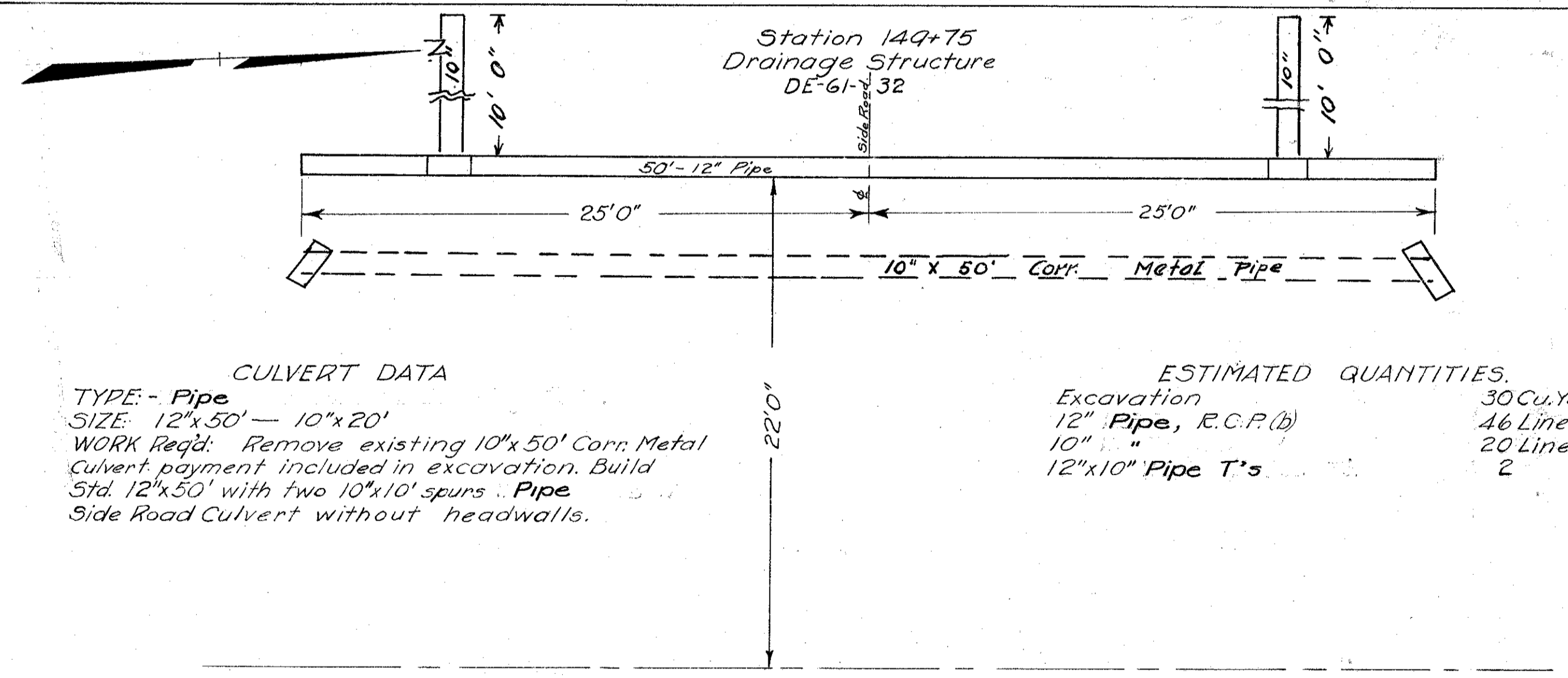
Station 154+45
Drainage Structure
DE-61-32A



CULVERT DATA
TYPE - Pipe Std. Dwg. 3-27-PC-1 & 2
SIZE - 21" x 20.0' Extensions.
WORK REQ'D. Extend existing 20" x 32.0' Sectional C.I.P. Culvert, 12.0' Left, 8.0' Right, with 20" C.I.P. with Rip Rap headwalls.

ESTIMATED QUANTITIES
Excavation 5 Cu. Yds.
20" C.I.P. 20 Lineal Feet
Rip Rap 12" hand laid 4.5 sq. yds.

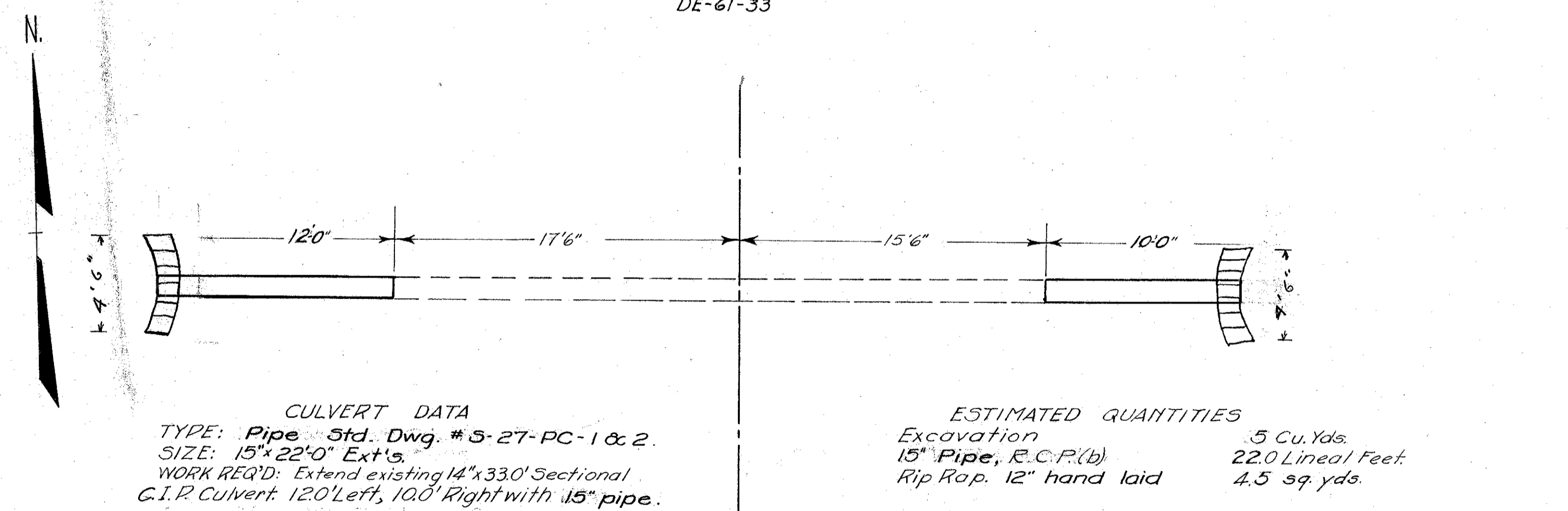
Station 149+75
Drainage Structure
DE-61-32



CULVERT DATA
TYPE - Pipe
SIZE - 12" x 50' - 10" x 20'
WORK REQ'D. Remove existing 10" x 50' Corr. Metal Culvert payment included in excavation. Build Std. 12" x 50' with two 10" x 10' spurs. Pipe Side Road Culvert without headwalls.

ESTIMATED QUANTITIES
Excavation 30 Cu. Yds.
12" Pipe, R.C.P. (b) 46 Lineal Feet
10" " " 20 Lineal Feet
12" x 10" Pipe T's 2

Station 156+31
Drainage Structure
DE-61-33



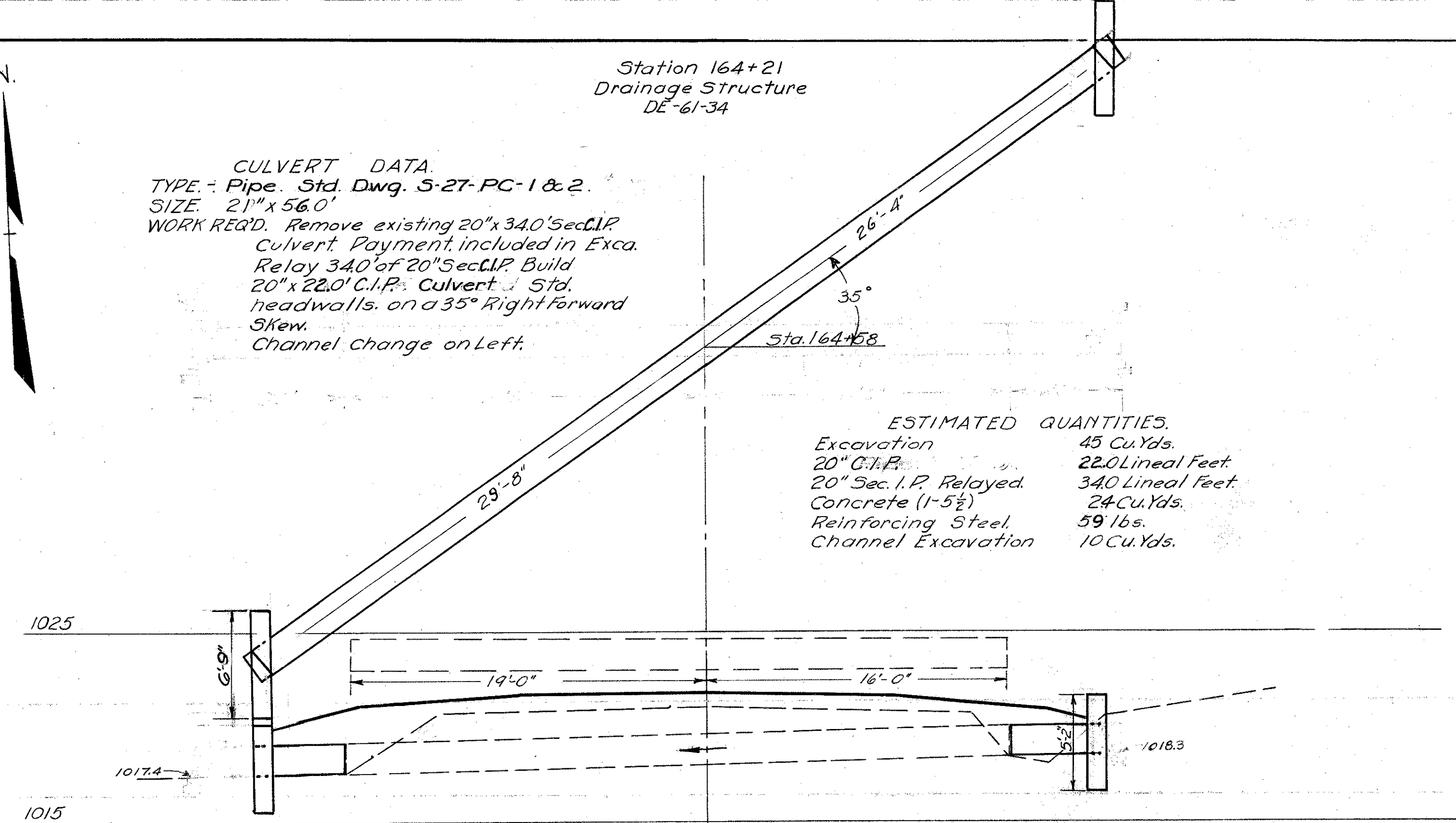
CULVERT DATA
TYPE - Pipe Std. Dwg. # 3-27-PC-1 & 2.
SIZE - 15" x 22'0" Ext's.
WORK REQ'D. Extend existing 14" x 33.0' Sectional C.I.P. Culvert, 12.0' Left, 10.0' Right with 15" pipe.

ESTIMATED QUANTITIES
Excavation 5 Cu. Yds.
15" Pipe, R.C.P. (b) 22.0 Lineal Feet
Rip Rap 12" hand laid 4.5 sq. yds.

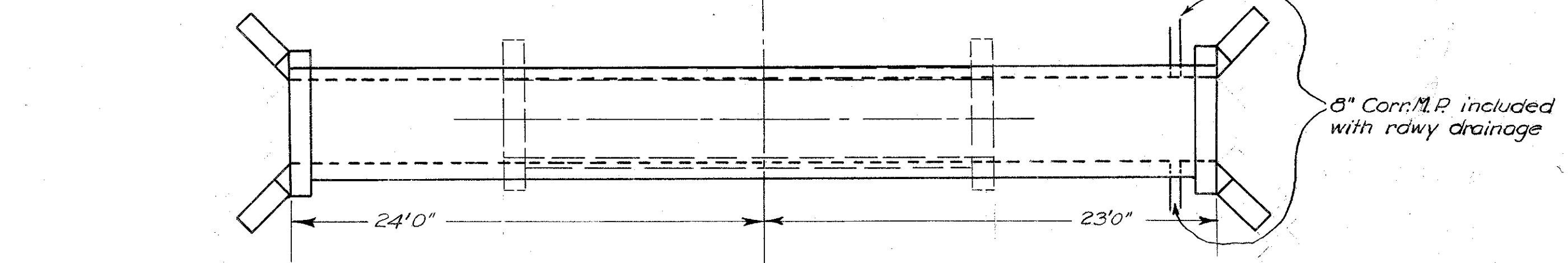
Station 164+21
Drainage Structure
DE-61-34

CULVERT DATA.
TYPE: Pipe. Std. Dwg. S-27-PC-1 & 2.
SIZE: 21" x 56.0"
WORK REQ'D. Remove existing 20" x 34.0' Sec. I.P. Culvert. Payment included in Exca. Relay 34.0' of 20" Sec. I.P. Build 20" x 22.0' C.I.P. Culvert. Std. headwalls. on a 35° Right forward Skew. Channel change on Left.

ESTIMATED QUANTITIES.
Excavation 45 Cu.Yds.
20" C.I.P. 22.0 Lineal Feet.
20" Sec. I.P. Relayed 34.0 Lineal Feet.
Concrete (1-5½) 24 Cu.Yds.
Reinforcing Steel 59 lbs.
Channel Excavation 10 Cu.Yds.

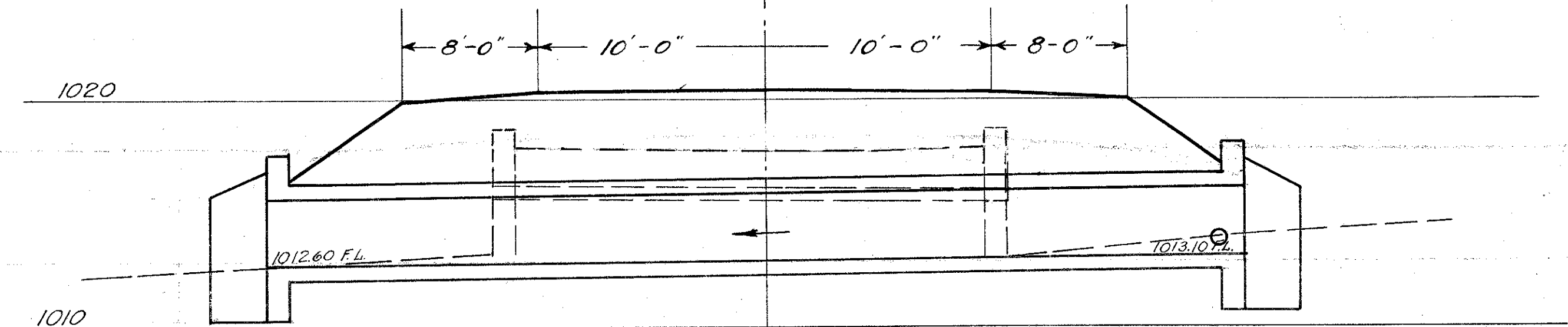


Station 174+02
Drainage Structure
DE-61-37



CULVERT DATA.
TYPE: Concrete Box Std. Drawings BC-A.
SIZE: 40' x 3.0' x 4.70'
WORK REQ'D. Remove existing 3.5' x 2.5' x 22.5' Slab Top Culk. Payment included in excavation. Build Std. 40' x 3.0' x 4.70' Concrete Box.

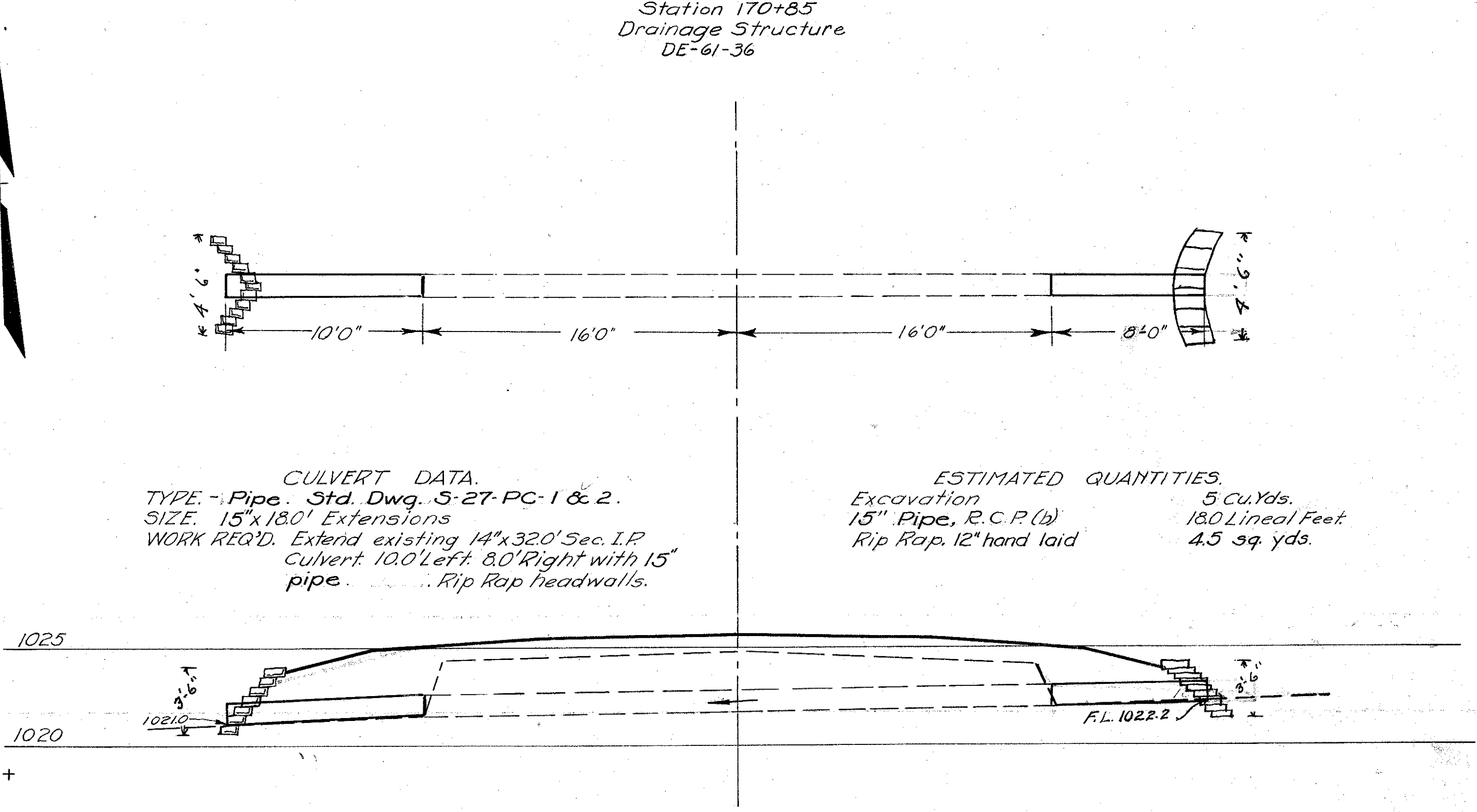
ESTIMATED QUANTITIES.
Excavation 65 Cu.Yds.
Concrete (1-5½) 23.3 Cu.Yds.
Reinforcing Steel 2100 lbs.



Station 170+85
Drainage Structure
DE-61-36

CULVERT DATA.
TYPE: Pipe. Std. Dwg. S-27-PC-1 & 2.
SIZE: 15" x 18.0' Extensions
WORK REQ'D. Extend existing 14" x 32.0' Sec. I.P. Culvert. 10.0' Left. 8.0' Right with 15" pipe. Rip Rap headwalls.

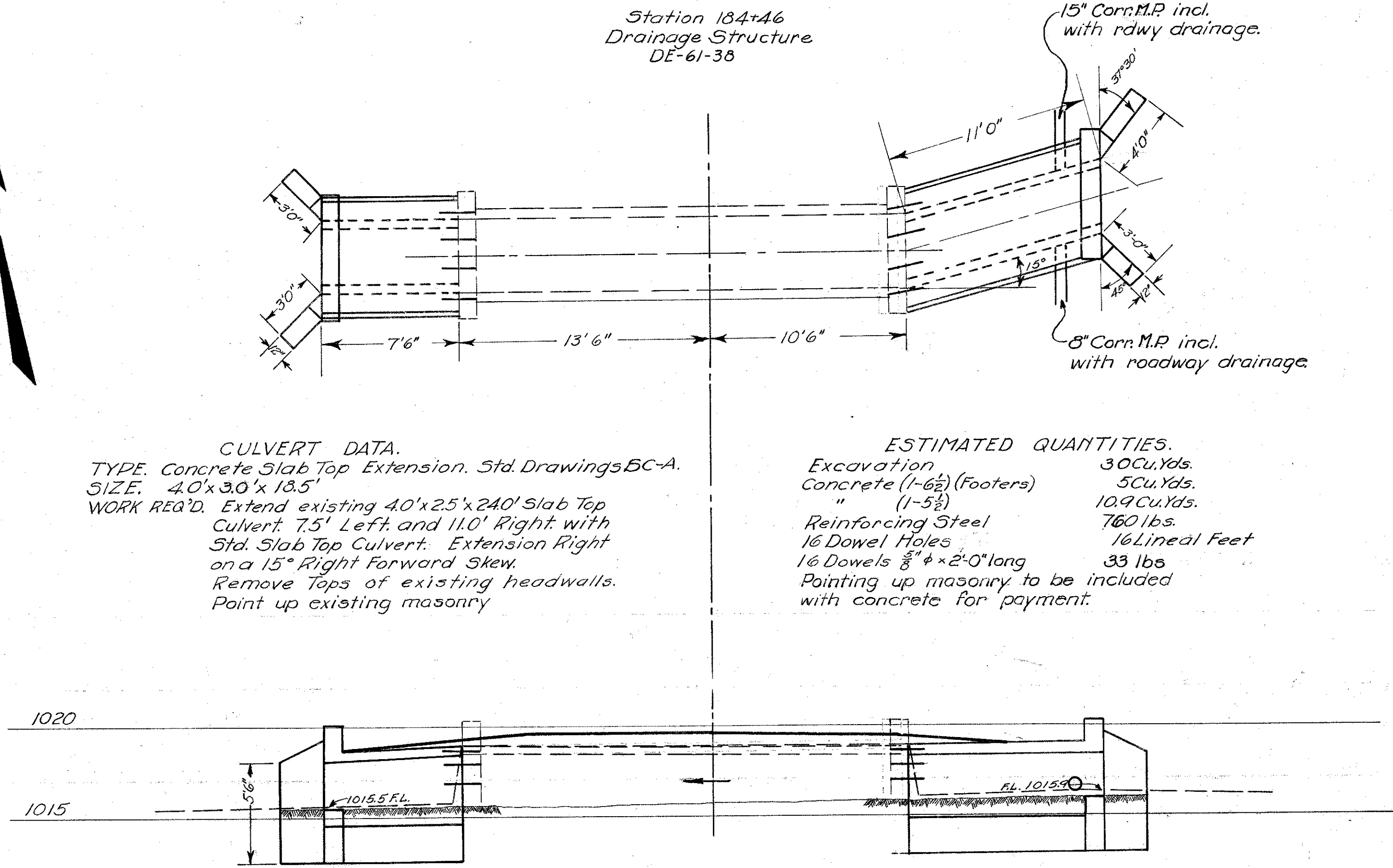
ESTIMATED QUANTITIES.
Excavation 5 Cu.Yds.
15" Pipe, R.C.P. (b) 18.0 Lineal Feet.
Rip Rap, 12" hand laid 4.5 sq. yds.



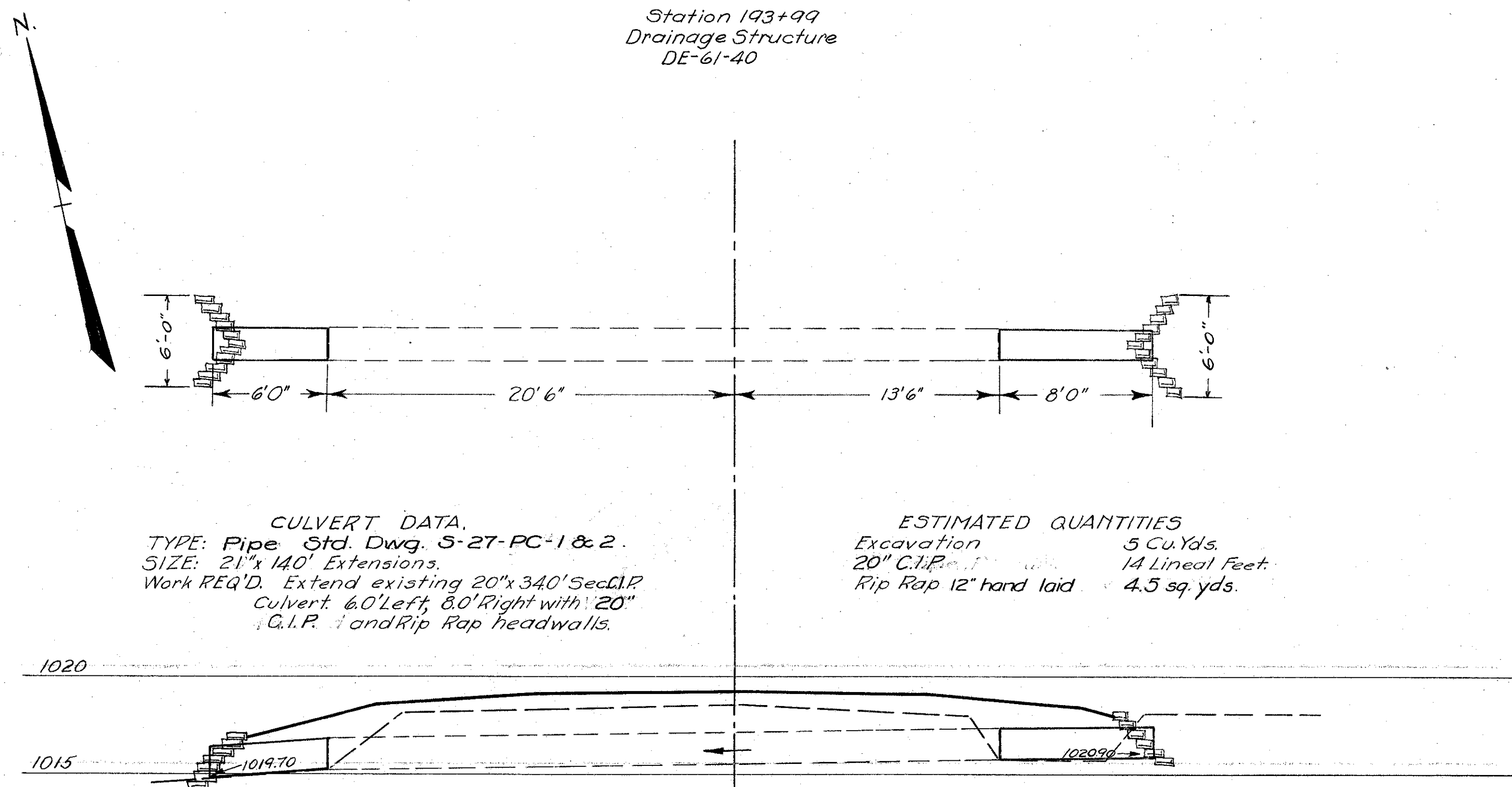
Station 184+46
Drainage Structure
DE-61-38

CULVERT DATA.
TYPE: Concrete Slab Top Extension. Std. Drawings BC-A.
SIZE: 4.0' x 3.0' x 18.5'
WORK REQ'D. Extend existing 4.0' x 2.5' x 24.0' Slab Top Culvert. 7.5' Left and 11.0' Right with Std. Slab Top Culvert. Extension Right on a 15° Right Forward Skew. Remove Tops of existing headwalls. Point up existing masonry.

ESTIMATED QUANTITIES.
Excavation 30 Cu.Yds.
Concrete (1-6½) (footers) 5 Cu.Yds.
" (1-5½) 10.9 Cu.Yds.
Reinforcing Steel 760 lbs.
16 Dowel Holes 16 Lineal Feet
16 Dowels 3/8" x 2'-0" long 33 lbs
Pointing up masonry to be included with concrete for payment.



Station 193+99
Drainage Structure
DE-61-40



CULVERT DATA.
TYPE: Pipe Std. Dwg. S-27-PC-1 & 2.
SIZE: 21" x 140' Extensions.
WORK REQ'D. Extend existing 20" x 340' Sec. I.P. Culvert 6'0" Left, 8'0" Right with 20" C.I.P. and Rip Rap headwalls.

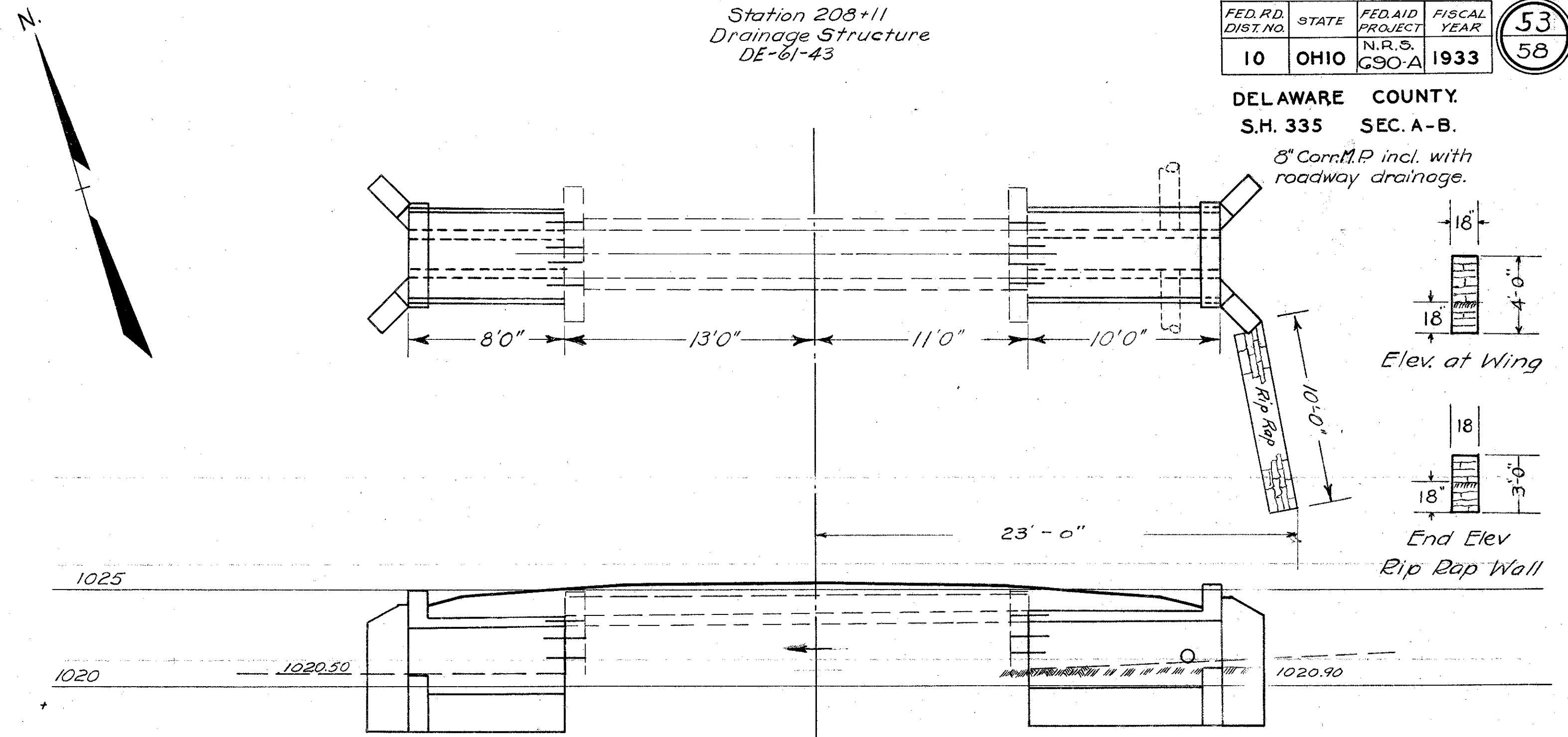
ESTIMATED QUANTITIES
Excavation 5 Cu.Yds.
20" C.I.P. 14 Lineal Feet.
Rip Rap 12" hand laid 4.5 sq. yds.

Station 208+11
Drainage Structure
DE-61-43

FED. RD. DIST. NO.	STATE	FED. AID PROJECT N.R.S.	FISCAL YEAR	53 58
10	OHIO	G90-A	1933	

DELAWARE COUNTY
S.H. 335 SEC. A-B.

8" Cornt.M.P. incl. with roadway drainage.

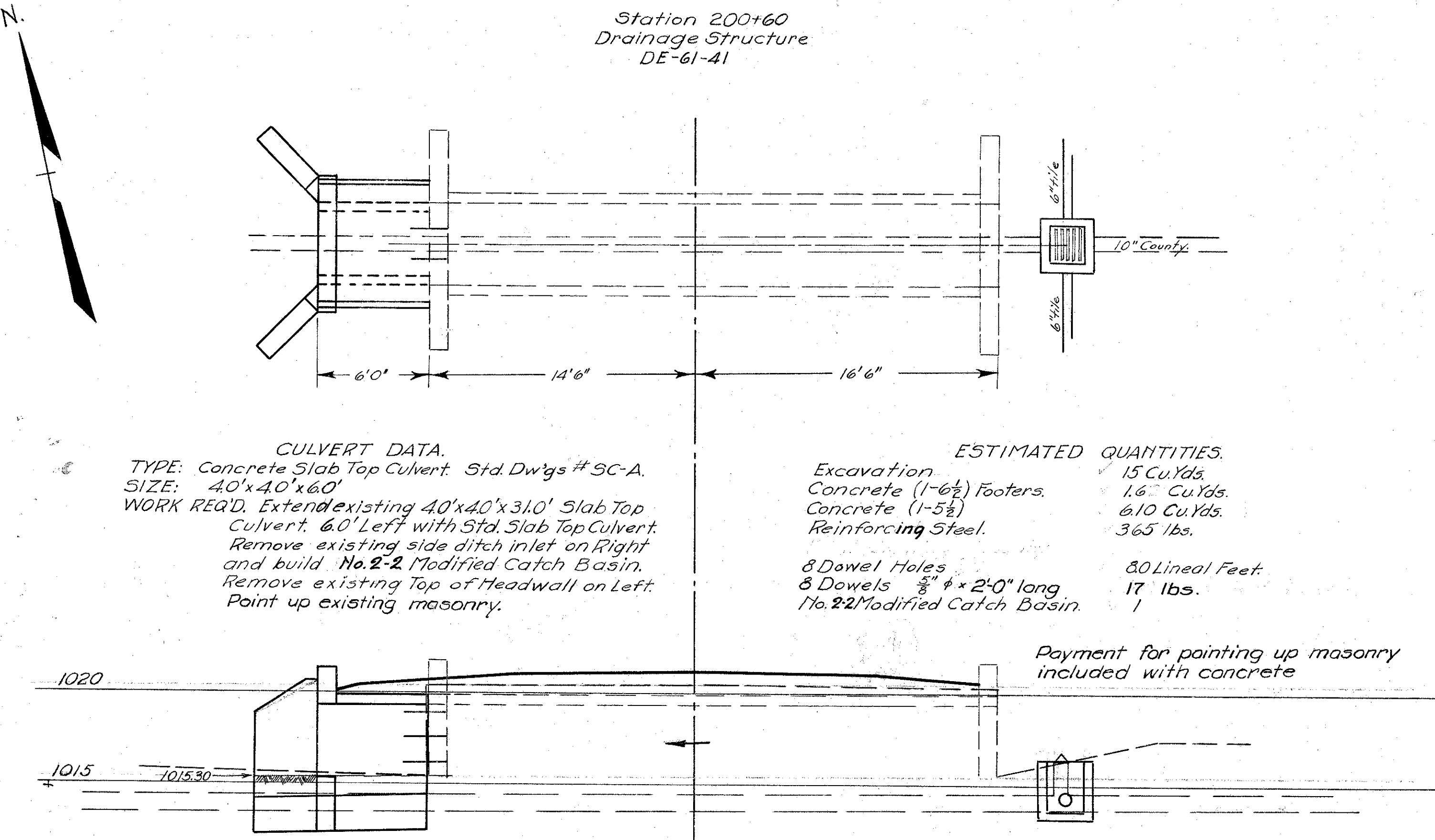


CULVERT DATA.
TYPE: Concrete Slab Top Culvert. Std. Dw'gs SC-A.
SIZE: 25" x 25" x 18.0' Extensions.
WORK REQ'D. Extend existing 25" x 25" x 240' Slab Top Culvert on the Left 8.0', Right 10.0' with Std. Slab top Culvert. Build Rip Rap wall on Right. Remove Tops of existing Headwalls. Point up existing masonry.

CULVERT DATA.
Excavation 30 Cu.Yds.
Concrete (1-6 1/2) Footers. 4.9 Cu.Yds.
" (1-5 1/2) 4.5 Cu.Yds.
Reinforcing Steel 624 lbs.
Rip Rap wall 18" hand laid 4 sq. yds.

12 Dowel Holes 12 Lineal Feet
12 Dowels 3/8" x 2 25 lbs.
Payment for pointing up existing masonry included with concrete.

Station 200+60
Drainage Structure
DE-61-41

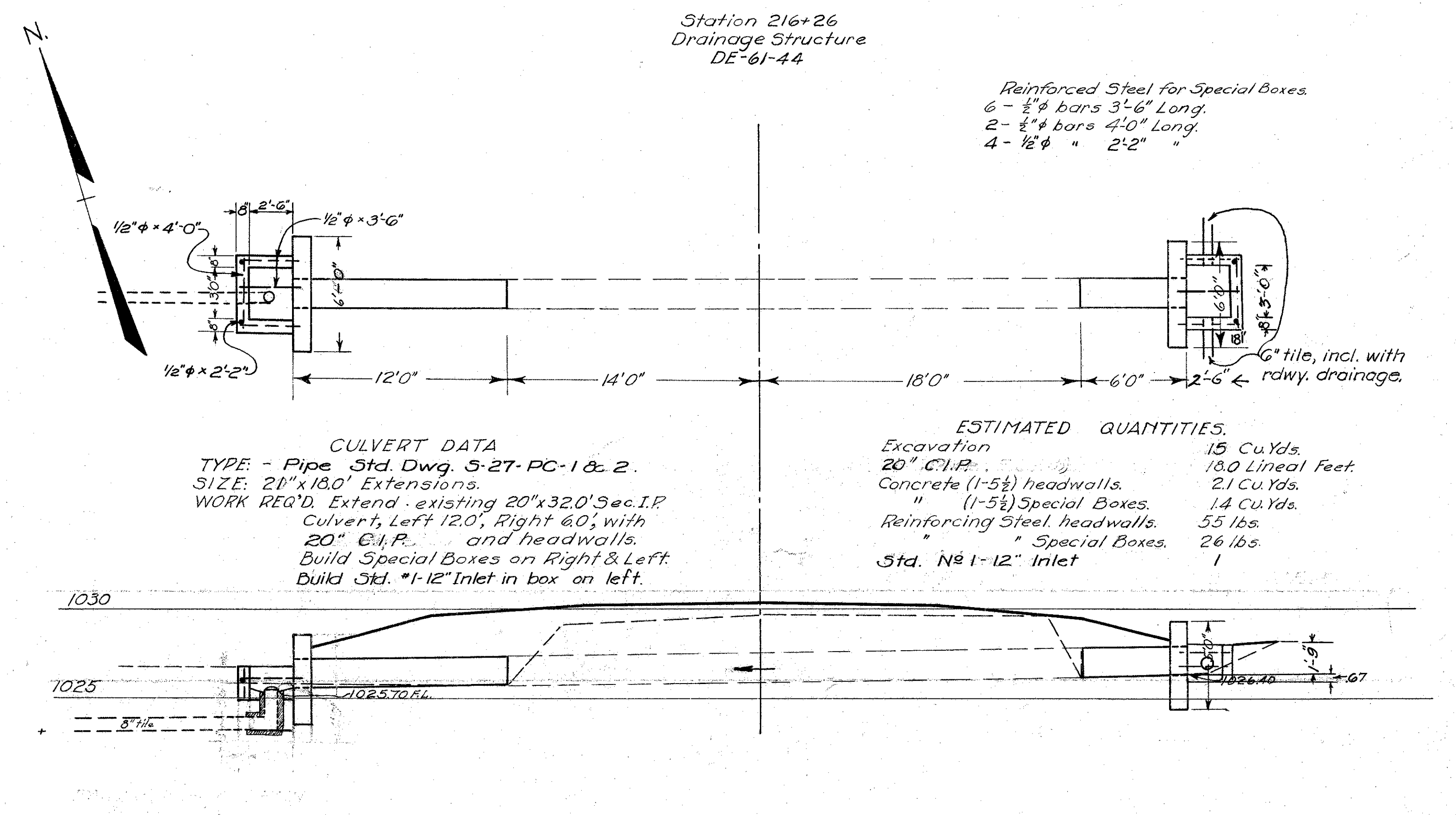


CULVERT DATA.
TYPE: Concrete Slab Top Culvert. Std. Dw'gs # SC-A.
SIZE: 40" x 40" x 60'
WORK REQ'D. Extend existing 40" x 40" x 31.0' Slab Top Culvert. 6'0" Left with Std. Slab Top Culvert. Remove existing side ditch inlet on Right and build No. 2-2 Modified Catch Basin. Remove existing Top of Headwall on Left. Point up existing masonry.

ESTIMATED QUANTITIES.
Excavation 15 Cu.Yds.
Concrete (1-6 1/2) Footers. 1.6 Cu.Yds.
Concrete (1-5 1/2) 6.10 Cu.Yds.
Reinforcing Steel. 365 lbs.
8 Dowel Holes 80 Lineal Feet.
8 Dowels 3/8" x 2'0" long 17 lbs.
No. 2 Modified Catch Basin 1

Payment for pointing up masonry included with concrete

Station 216+26
Drainage Structure
DE-61-44



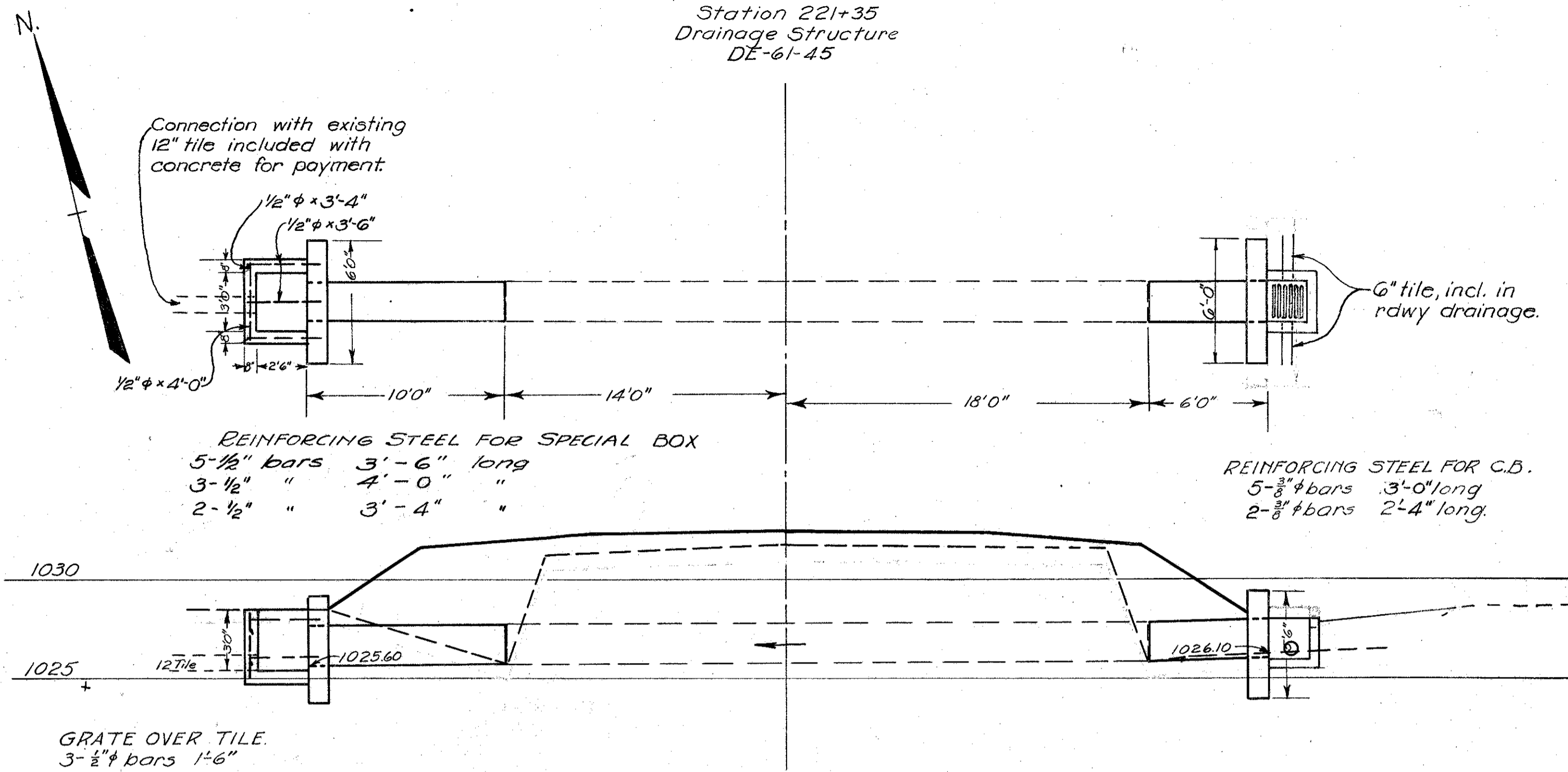
CULVERT DATA
TYPE: Pipe Std. Dwg. S-27-PC-1 & 2.
SIZE: 21" x 18.0' Extensions.
WORK REQ'D. Extend existing 20" x 320' Sec. I.P. Culvert, Left 12.0', Right 6.0', with 20" C.I.P. and headwalls. Build Special Boxes on Right & Left. Build Std. #1-12" Inlet in box on left.

ESTIMATED QUANTITIES.
Excavation 15 Cu.Yds.
20" C.I.P. 18.0 Lineal Feet.
Concrete (1-5 1/2) headwalls. 2.1 Cu.Yds.
" (1-5 1/2) Special Boxes. 1.4 Cu.Yds.
Reinforcing Steel, headwalls. 55 lbs.
" Special Boxes. 26 lbs.
Std. No. 1-12" Inlet 1

Reinforced Steel for Special Boxes.
6 - 3/8" bars 3'-6" Long.
2 - 3/8" bars 4'-0" Long.
4 - 1/2" bars 2'-2" "

6" tile, incl. with rdwy. drainage.

Station 221+35
Drainage Structure
DE-61-45



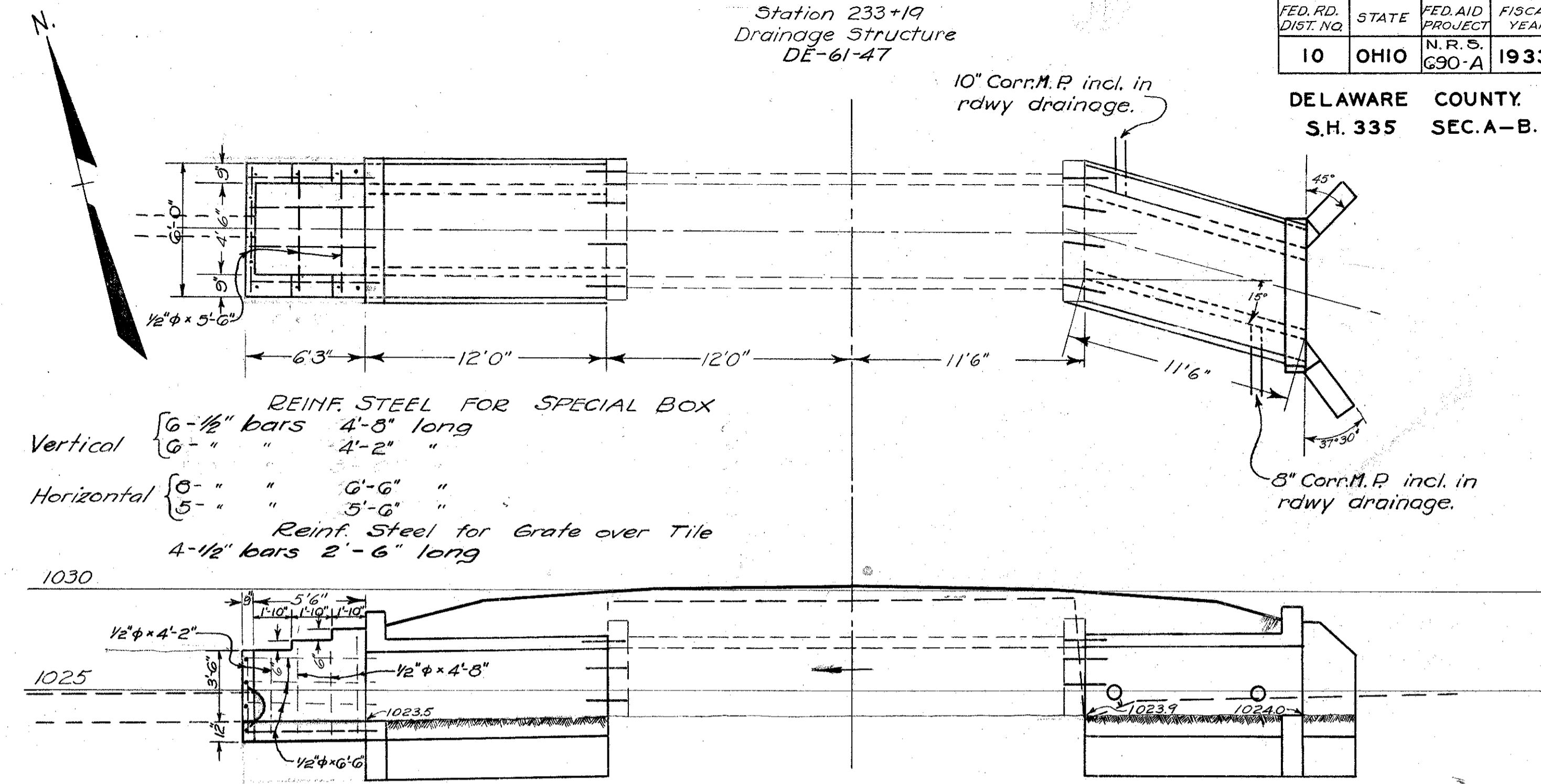
CULVERT DATA

TYPE, Sectional C.I.P. Std Dwg. S-27-PC-1 & 2; I-B.C.B. 2-2
SIZE 24" x 16" Extensions
WORK REQD. Extend existing 24" x 32' Sectional C.I.P. culvert Left 10' Right 6' with Sectional C.I.P. and Headwalls. Get 24" x 16' Sectional C.I.P. at Sta. 61+12.
Build, Modified #2 Catch Basin on Right and Special Box on Left.

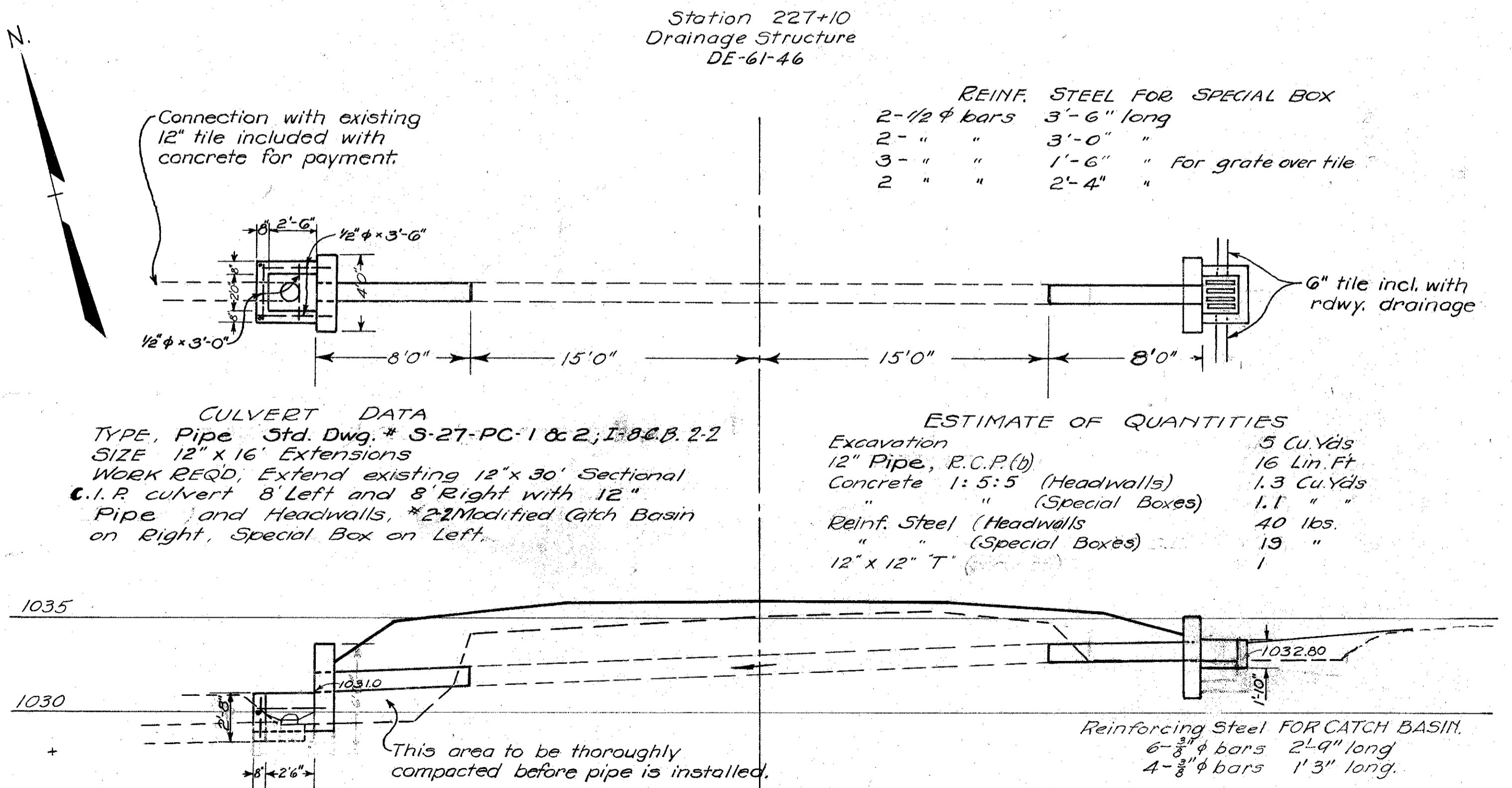
ESTIMATE OF QUANTITIES

Excavation	15 Cu. Yds.
24" Sectional I. P. take-up & relay	16' Lin. Ft.
Concrete 1:5.5 (Headwalls)	2.3 Cu. Yds.
" 1:5.5 (Special Boxes)	1.6 " "
Reinf. Steel (Headwalls)	56 lbs.
" Special Boxes	43 lbs.
Grate for #2 Catch Basin	1

Station 233+19
Drainage Structure
DE-61-47



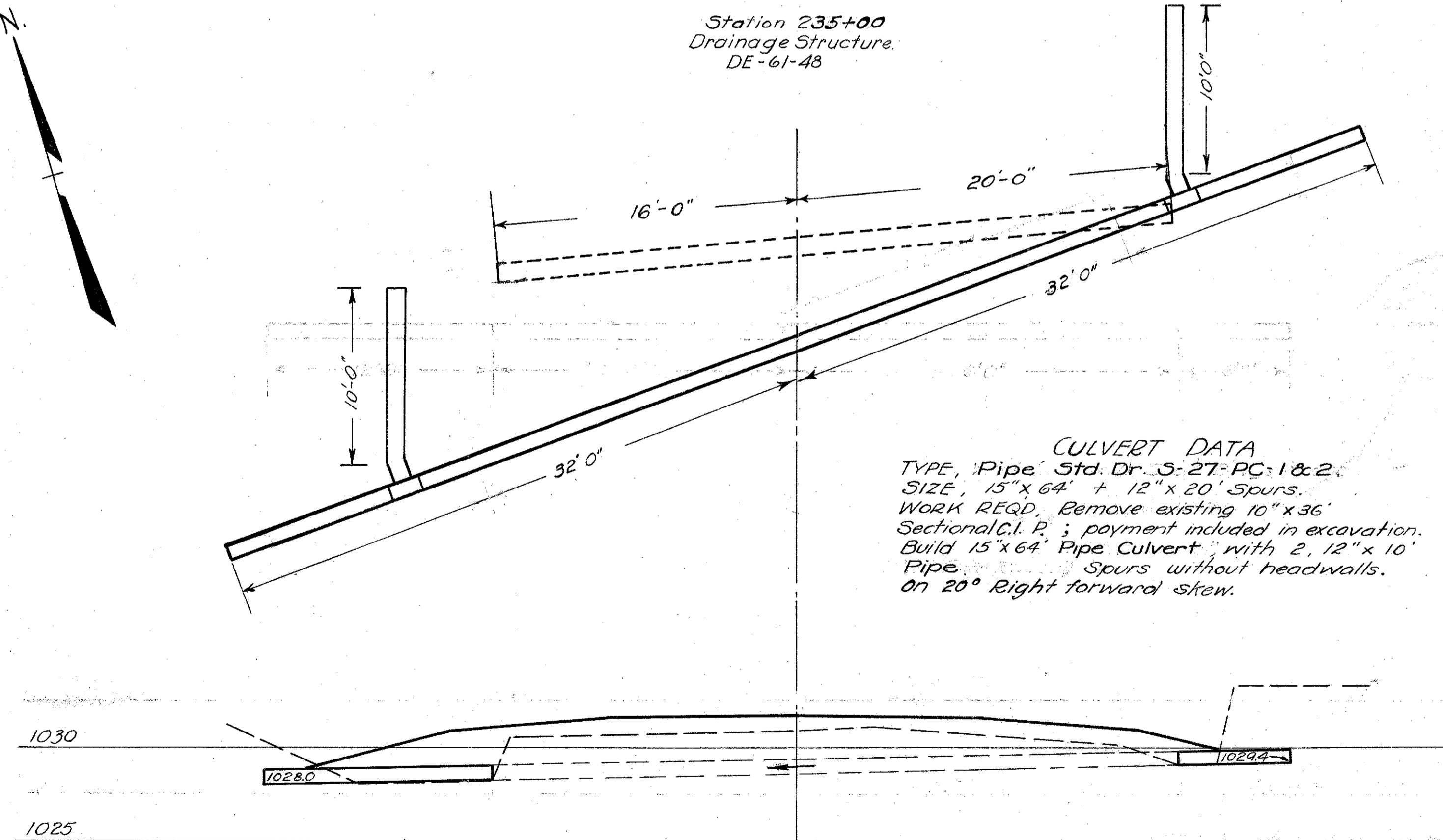
Station 227+10
Drainage Structure
DE-61-46



CULVERT DATA

TYPE, Pipe Std. Dwg. S-27-PC-1 & 2; I-B.C.B. 2-2
SIZE 12" x 16" Extensions
WORK REQD. Extend existing 12" x 30' Sectional C.I.P. culvert 8' Left and 8' Right with 12" Pipe and Headwalls. #2 Modified Catch Basin on Right, Special Box on Left.

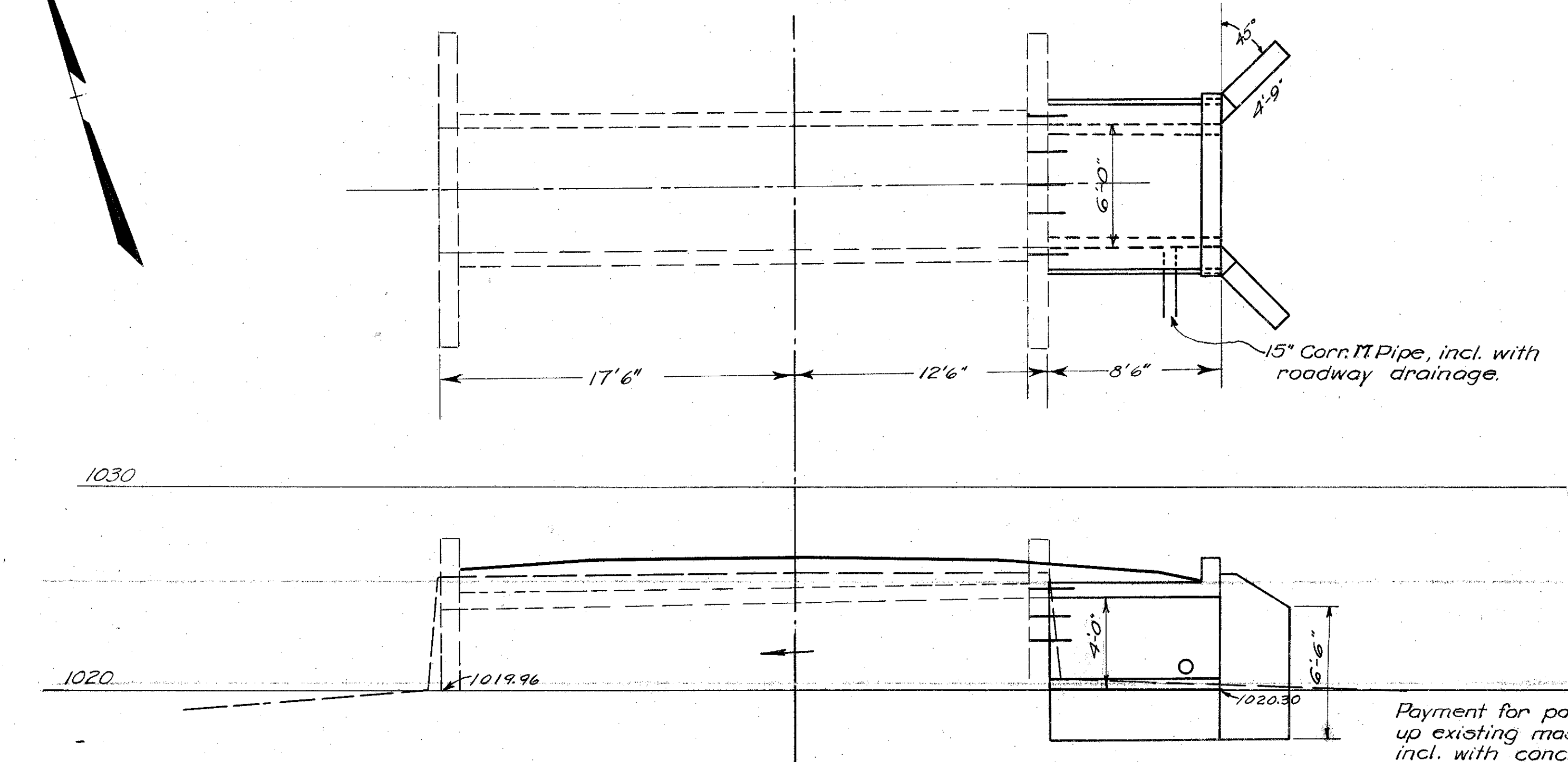
Station 235+00
Drainage Structure
DE-61-48



ESTIMATE OF QUANTITIES

Excavation	40 Cu. Yds.
15" Pipe, R.C.P.(b)	60 Lin. Ft.
12" " "	20 " "
15" x 12" T	2 " "

Station 242+52
Drainage Structure
DE-61-49



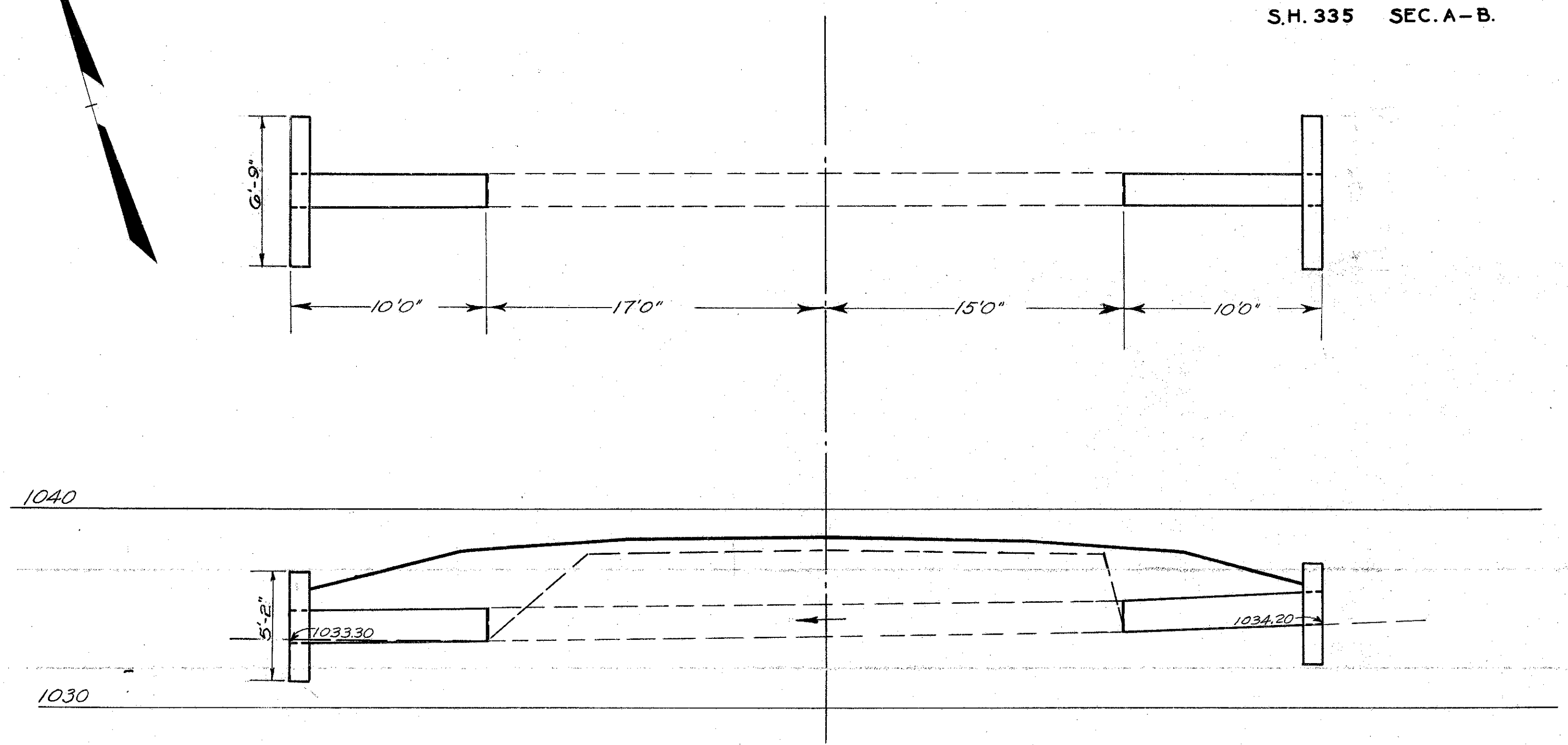
CULVERT DATA
TYPE: Slab Top Culvert Std. Drawings SC-A.
SIZE: 60"x40"x8.5' Extension.
WORK REQ'D. Extend existing 60"x40"x300' Slab Top Culvert on the right, 8.5' with Concrete Slab Top Culvert.
Remove Top of existing Headwall on Right.
Paint up existing masonry.

ESTIMATED QUANTITIES
Excavation 15 Cu. Yds.
Concrete (1-6 1/2') (Footers) 2.3 Cu. Yds.
" (1-5 1/2') 8.3 Cu. Yds.
Reinforcing Steel 548 lbs.
9 Dowel Holes 9 Lineal Feet.
9 Dowels 3/4" x 2' 19 Lbs.

Station 256+82
Drainage Structure
DE-61-52

FED. RD. DIST. NO.	STATE	FED. AID PROJECT N.R.S.	FISCAL YEAR	55 58
10	OHIO	G30-A	1933	

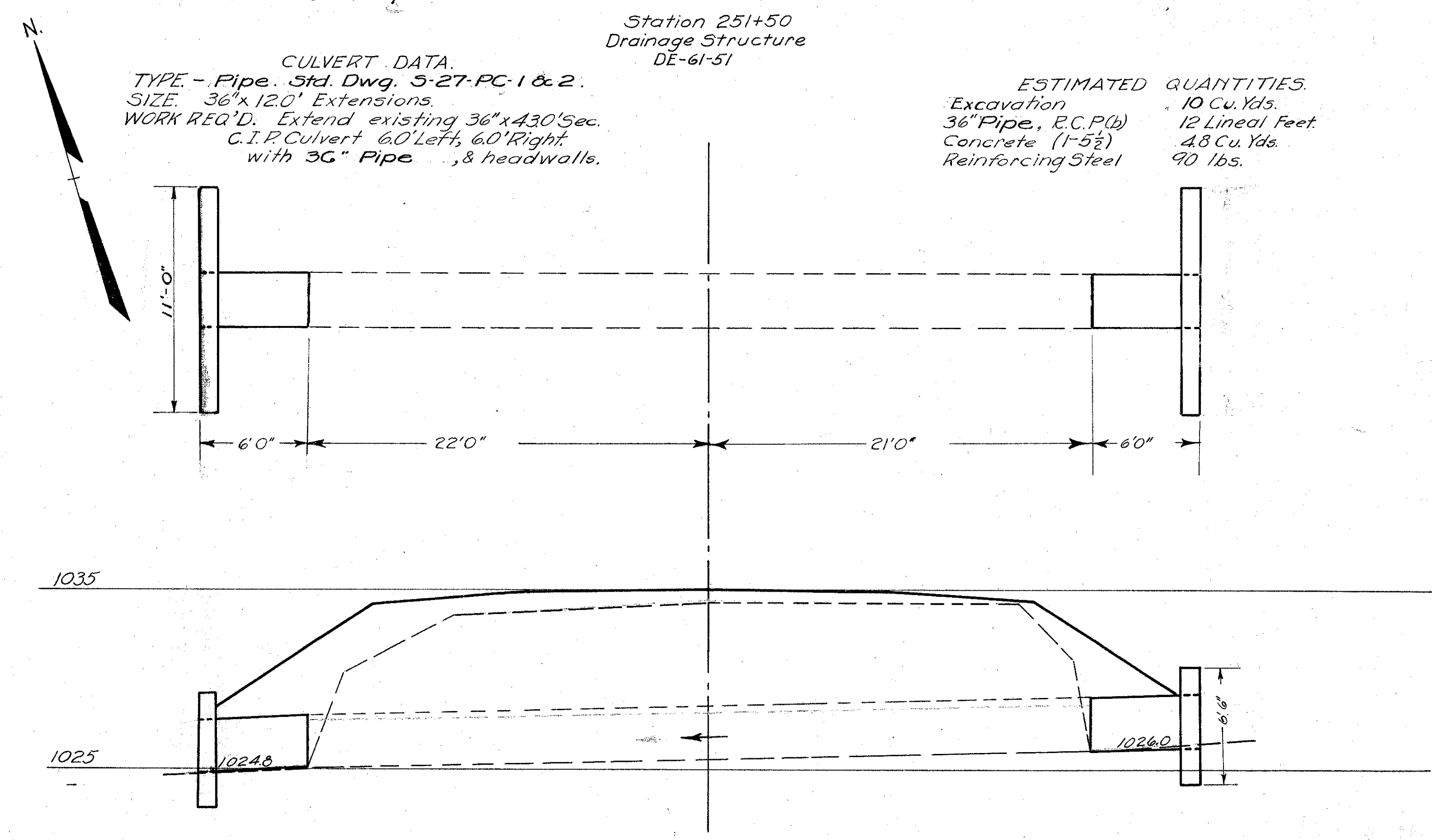
DELAWARE COUNTY.
S.H. 335 SEC. A-B.



CULVERT DATA
TYPE: Pipe Std. Dwg. 5-27-PC-1 & 2
SIZE: 21"x20.0' Extensions.
WORK REQ'D. Extend existing 20"x320' Sec. C.I.P. Culvert, 10.0' Left, 10.0' Right with 20" C.I.P. and headwalls.

ESTIMATED QUANTITIES
Excavation 10 Cu. Yds.
20" C.I.P. 20 Lineal Feet
Concrete (1-5 1/2') 24 Cu. Yds.
Reinforcing Steel 59 lbs.

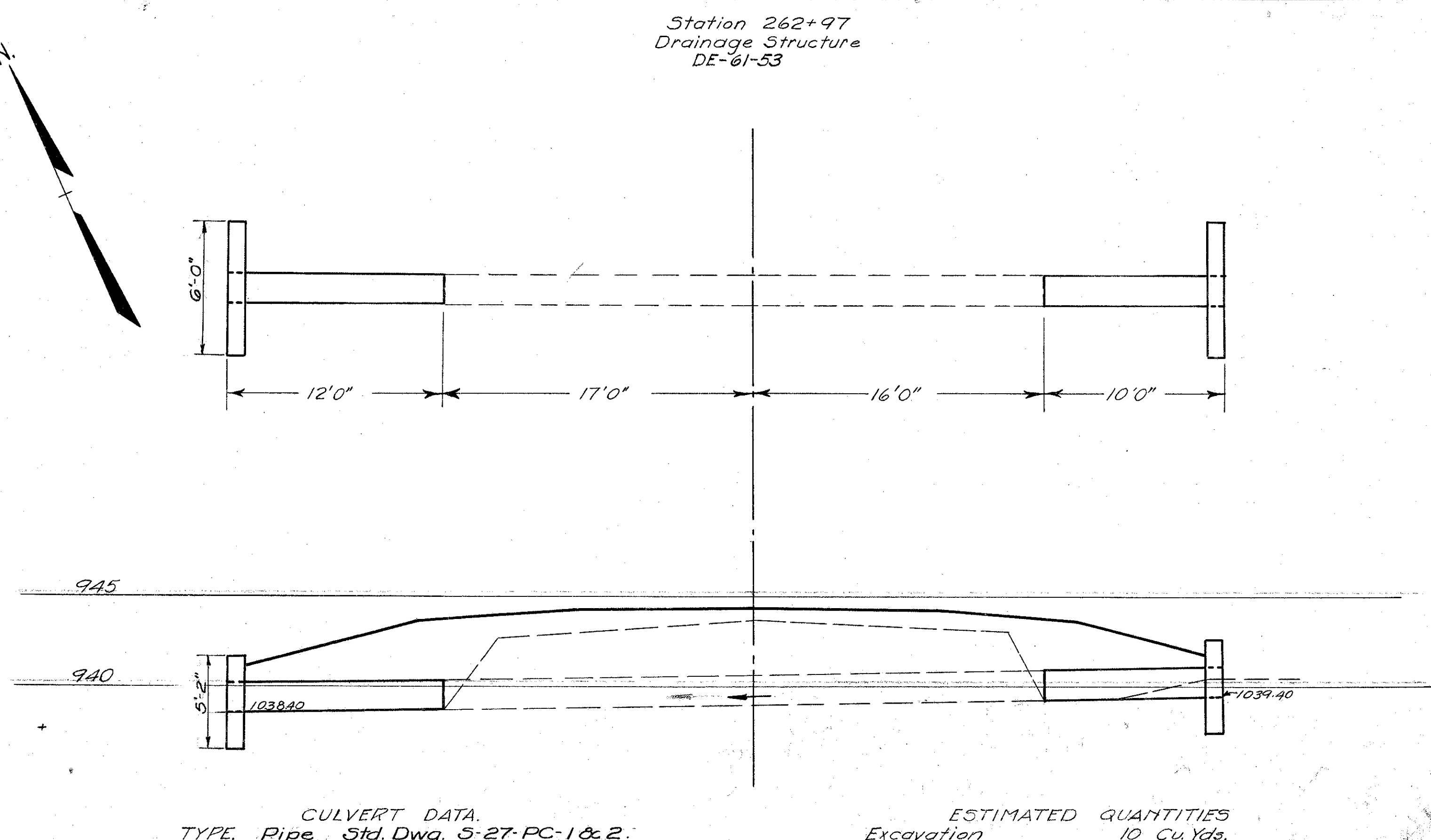
Station 251+50
Drainage Structure
DE-61-51



CULVERT DATA
TYPE: Pipe Std. Dwg. 5-27-PC-1 & 2.
SIZE: 36"x120' Extensions.
WORK REQ'D. Extend existing 36"x430' Sec. C.I.P. Culvert, 60' Left, 60' Right, with 36" Pipe and headwalls.

ESTIMATED QUANTITIES
Excavation 10 Cu. Yds.
36" Pipe, R.C.P.(b) 12 Lineal Feet.
Concrete (1-5 1/2') 48 Cu. Yds.
Reinforcing Steel 90 lbs.

Station 262+97
Drainage Structure
DE-61-53



CULVERT DATA
TYPE: Pipe Std. Dwg. 5-27-PC-1 & 2.
SIZE: 21"x22.0' Extensions.
WORK REQ'D. Extend existing 20"x330' Sectional C.I.P. Culvert, 12.0' Left, 10.0' Right with 20" C.I.P. and headwalls.

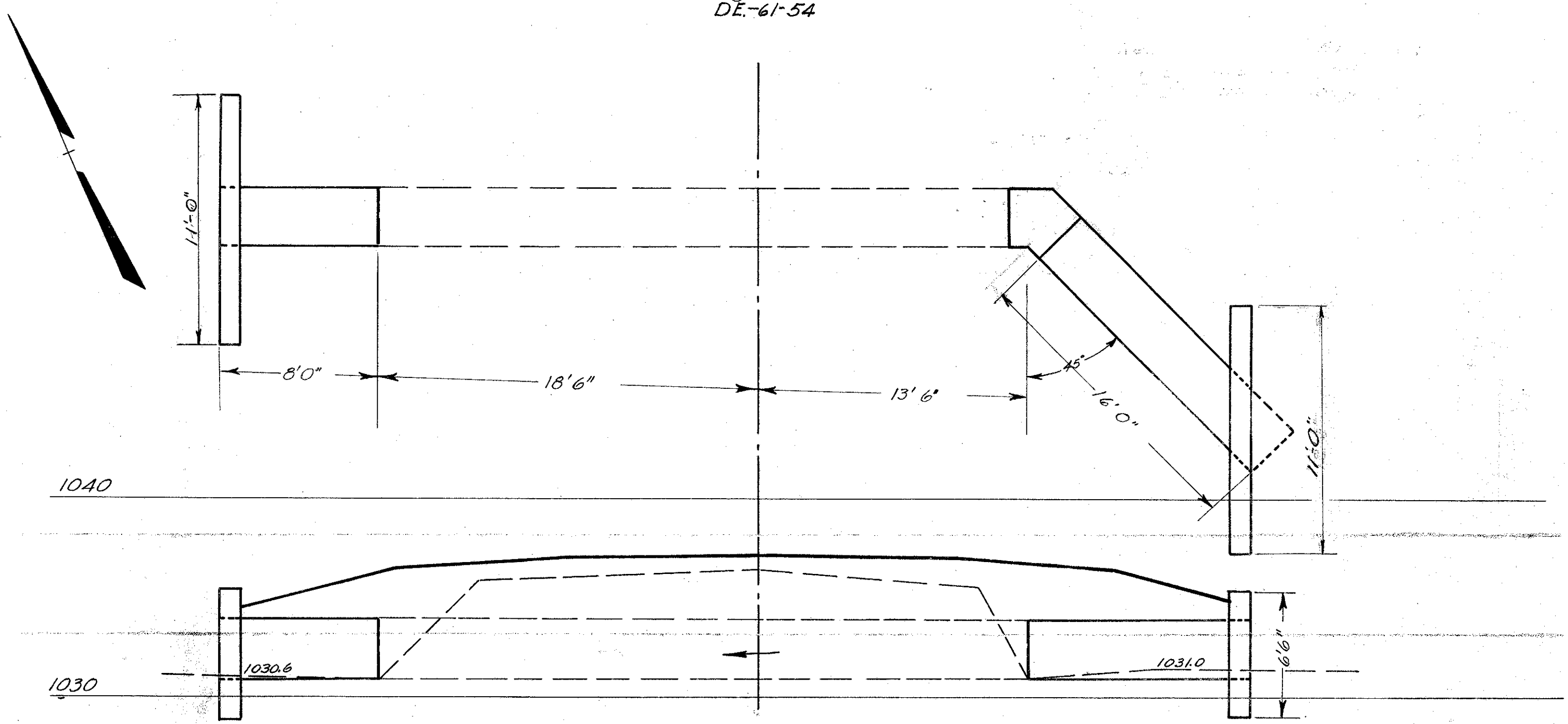
ESTIMATED QUANTITIES
Excavation 10 Cu. Yds.
20" C.I.P. 22.0 Lineal Feet
Concrete (1-5 1/2') 24 Cu. Yds.
Reinforcing Steel 59 lbs.

Station 268+71
 Drainage Structure
 DE-61-54

FED. RD. DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO	N.R.S. G.90-A	1933

56
58

DELAWARE COUNTY
 S.H. 335 SEC. A-B



CULVERT DATA.
 TYPE - Pipe, Std. Dwg. S-27-PC-1 & 2.
 SIZE - 36" x 240' Extensions.
 WORK REQ'D. Extend existing 36" x 320' Sectional C.I.P. Culvert. Left 8.0'. Right 16.0'. with 36" pipe. Std. headwalls. Right Extension on a 45° Lt. Forward Skew.

ESTIMATED QUANTITIES.
 Excavation. 20 Cu.Yds.
 36" Pipe, R.C.P.(b) 240 Lineal Feet
 Concrete (1-5 1/2) 4.8 Cu. Yds.
 Reinforcing Steel 90 lbs.
 45° Bend 1 only

SUMMARY OF QUANTITIES CONT'D

Sheet No.	ROADWAY		DRAINAGE										Std #1-12" Inlet	Mod. N#1-2 C.B.	Mod. N#2-2 C.B.	Std N#2-2 C.B.	
	From Sta.	To Sta.	Pipe, lin. ft.					Corr.M.P. lin. ft.									
			6"	8"	10"	12"	15"	8"	10"	12"	15"	18"					
3	0+430	10+00	761	60	113												
4	10+00	26+00	1168	256	40												
5	26+00	41+00	1646	406													
6	41+00	56+00	1088		302												
7	56+00	71+00	364	340	950	784	126										
8	71+00	87+00	272	1072	198												
9	87+00	103+00	1342	404													
10	103+00	119+00	1952														
11	119+00	135+00	130	2070		30											
12	135+00	150+00	335	904	70												
13	150+00	166+00	1002														
14	166+00	182+00	1278		30												
15	182+00	198+00	640			734											
16	198+00	214+00	1586														
17	214+00	230+00	1590														
18	230+00	245+00	865	238		172											
19	245+00	261+00	1748	336													
20	261+00	270+40	756			104											
Totals			18,430	6,136	1,708	1,824	606	70	34		14	8	13	6	7	1	

EARTHWORKS					
From Sta.	To Sta.	Excav.	Emb.	Emb%15%	Borrow
0-430	6+00	266	480	552	286
6+00	16+00	366	561	645	273
16+00	26+00	286	673	774	483
26+00	36+00	464	557	641	177
36+00	46+00	122	740	851	729
46+00	56+00	303	682	784	481
56+00	66+00	972	2239	2575	1603
66+00	76+00	290	770	885	595
76+00	86+00	528	529	608	80
86+00	96+00	534	504	580	46
96+00	106+00	541	738	849	308
106+00	116+00	507	596	685	178
116+00	126+00	432	606	697	265
126+00	136+00	575	608	699	124
136+00	146+00	423	557	641	218
146+00	156+00	492	546	628	136
156+00	179+00	1839	1734	1994	155
179+00	189+00	326	355	1098	772
189+00	199+00	420	590	679	259
199+00	209+00	738	679	781	43
209+00	219+00	384	625	719	335
219+00	229+00	276	693	797	521
229+00	239+00	433	588	676	243
239+00	249+00	654	660	759	105
249+00	259+00	803	789	907	104
259+00	270+40	651	616	708	57
Totals		13,625	19,315	22,212	8,587

DRIVEWAY PIPE					
Sh. N#	From Sta.	To Sta.	Corr.M.P. (lin. ft.)		
			8"	10"	12"
3	0-430	10+00		40	20
4	10+00	26+00		60	20
6	41+00	56+00		60	20
8	71+00	87+00		20	20
9	87+00	103+00		60	
10	103+00	119+00		20	
12	135+00	150+00	20	40	
13	150+00	166+00		44	
14	166+00	182+00		120	
15	182+00	198+00			40
16	198+00	214+00		60	20
17	214+00	230+00		20	
18	230+00	245+00		60	40
19	245+00	261+00		40	20
Totals			20	664	200

TREES TO BE REMOVED			
N#	From Sta.	To Sta.	Trees
3	0-430	10+00	1
4	10+00	26+00	2
5	26+00	41+00	1
16	198+00	214+00	1
18	230+00	245+00	2
Total			7

PAVEMENT CALCULATIONS	
Begin. of Project	Sta. 0+430
End "	Sta. 270+40
Net length of Project	27,470.0 lin. ft.
4" W. B. MACADAM 1st BASE	
Net length	27,470.0 lin. ft.
21' width (See typical section)	3035.0 " = 7,082 Sq. Yds.
4" av. width widening	24,435.0 " = 10,860 " "
Total	17,942 " "
@ .0575 tons per inch per sq. yd.	= 4,127 Tons
Extra amt estimated as necessary to replace and strengthen old base = 1,500 Tons	
Total W. B. Macadam for 1st. Base	5,627 " "
5" W. B. MACADAM 2nd BASE	
Net Length	27,470.0 lin. ft.
@ 21' width	64,097 sq. yds.
T-32 SURFACE COURSE Schedule "B"	
Net Length	27,470.0 lin. ft.
@ 20' width	61,044 sq. yds.
Prime coat (C.T.) @ 0.3 gal. per sq. yd. =	18,313 gal.
#34 aggregate @ 170# per sq. yd. =	4,324 cu. yds.
Bit. Material for Road Mix @ .97 gal. per sq. yd. =	59,213 gal.
Bit. Material for Interm. seal @ 0.3 gal. per sq. yd. = 18,313 "	
#46 agg. for Interm. seal @ 18 lbs. per sq. yd. =	458 cu. yds.
Bit. Material for Final seal @ 0.25 gal. per sq. yd. =	15,261 gal.
#6 aggregate for Final seal @ 16 lbs. per sq. yd. =	407 cu. yds.

TRAFFIC BOUND SIDE APPROACHES	
9 side rd. approaches @ 8 cu. yds. =	72 cu. yds.
78 private drives @ 4 " " =	312 " "
25 mail box approx @ 4 " " =	100 " "
Sta. 60+73 side rd. approach =	30 " "
Total	514 " "

GUARD RAIL Type 5-C	
Sheet No.	Lin. Ft.
3	256
4	140
5	52
6	32
7	160
9	208
10	128
13	112
14	240
17	320
19	624
20	272
TOTAL	2544

FINAL SUMMARY		
ROADWAY		
13,625	cu. yds.	Roadway Excavation (Unclassified) E-1
8,587	" "	Borrow (Contractor to furnish) E-4
27,470	lin. ft.	Finishing slopes, shoulders and ditches E-5
7		Trees removed & disposed of E-9
20	lin. ft.	8" Corr. M.P. (Sec. M-6.4)(b-3) for Driveways I-1
664	" " 10"	-do- I-1
200	" " 12"	-do- I-1
514	cu. yds.	Aggregate Traffic Bound Side Approaches I-7
18,438	lin. ft.	6" D.T. Sec. M-6.7(b) Roadway Drainage (with covering material) I-3
6,136	lin. ft.	8" -do- I-3
1,708	lin. ft.	10" -do- I-3
1,824	" " 12"	-do- I-3
606	" " 15"	-do- I-3
70	" " 8" Corr. M.P. (Sec. M-6.4)(b-3) for Roadway Drainage	I-3
34	" " 10"	-do- I-3
14	" " 15"	-do- I-3
8	" " 18"	-do- I-3
48	" " 21"	-do- I-3
2	20'-45° Bends, V.S.P. Sec. M-6.8(a)	I-5
13	Std. N# 1-12" Inlets	I-8
6	Std. N# 1-2 Catch Basin (modified)	I-8
1	" N# 2-2 " " (modified)	I-8
7	" N# 2-2 " " (modified)	I-8
5000	lin. ft.	Stone Underdrain (French Drain) N# 2 10"x8" I-9
2544	lin. ft.	Guard Rail, Type 5-C I-15
PAVEMENT		
5627	tons	W. B. Mac. Base Course including removal or scarifying of existing material where directed. B-20
64,097	sq. yds.	5" W. B. Mac. Base Course. B-20
18,313	gals.	Bit. Prime Coat, C.T. Sec. M-5.14 T-30
4,324	cu. yds.	Road Mix Aggregate #34 (Schedule B) T-32
458	" "	Intermediate Cover Aggregate T-32
407	" "	Final Seal Cover Aggregate T-32
59,213	gals.	Road Mix Bit. Material T-32
18,313	" "	Intermediate Seal Bit. Material T-32
15,261	" "	Final Seal Bit. Material T-32
STRUCTURES UNDER 20' SPAN		
1191	cu. yds.	Excav. for Structures (unclassified) E-2
75	" "	Channel Excavation E-3
235.3	" "	Concrete 1:5 1/2 mix S-1
61.9	" "	" " for footings (1:6 1/2 mix) S-1
13,752	lbs.	Reinforcing Steel. S-4
34	lin. ft.	10" Pipe for Roadway Culverts, R.C.P. Sec. M-6.6(b) 5-27
152	" " 12"	-do- 5-27
142	" " 15"	-do- 5-27
58	" " 18"	-do- 5-27
128	" " 20" Pipe for Roadway Culverts, C.I.P. Sec. M-6.2 (A-1)	5-27
28	" " 30" Pipe for Roadway Culverts, R.C.P. Sec. M-6.6 (b)	5-27
72	" " 36"	-do- 5-27
42	" " 42"	-do- 5-27
2	12" x 10" Tees, pipe specials	I-5
1	12" x 12" Tee	-do- I-5
2	15" x 12" Tees	-do- I-5
1	36"-45° Bend	-do- I-5
30	lin. ft. 14" Sect. C.I.P. relaid	I-6
34	" " 20"	-do- I-6
34	" " 24"	-do- I-6
1	Std. #1-12" Inlet	I-8
1	" #1-2 Catch Basin (modified)	I-8
3	" #2-2 Catch Basins (modified)	I-8
2	" #2-2 Catch Basin Tops	I-8
18	sq. yds. 12" Hand Laid Rip Rap	I-10
4	" " 18" " " " "	I-10
81	lin. ft. Dowel Holes	5-23
36	" " 36" Sect. C.I.P. relaid	I-6
Lump	" "	Point up existing masonry 5-20