

1-8

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR
10	OHIO	67	

Detail of Curve  
Showing Extra Widening and Elevations

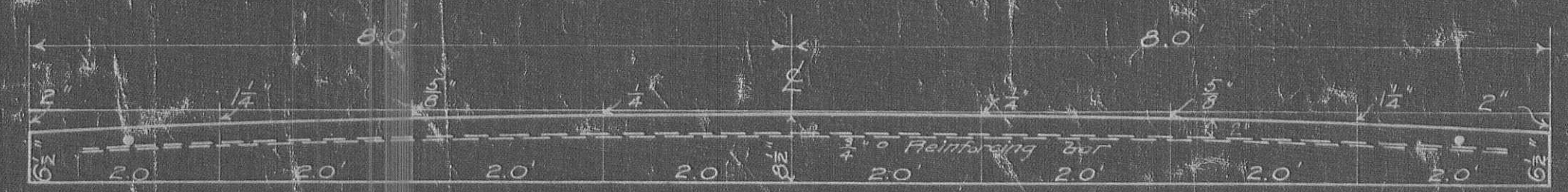


Detail of Curve  
Showing Extra Widening and Elevations

From Sta. 205+25 to 206+75 the concrete to be 6 inches thick, and to be a plain surface to bridge.



Section of Paving with Curb  
Sta. 207 to 235+35 and Sta. 275 to 305



Section of Paving without Curb  
Sta. 195 to 207 and 235+35 to 275

Pavement on bridge between Sta. 197+22 and Sta. 198+72 to be 5" thick at center and 3" at sides without reinforcement.

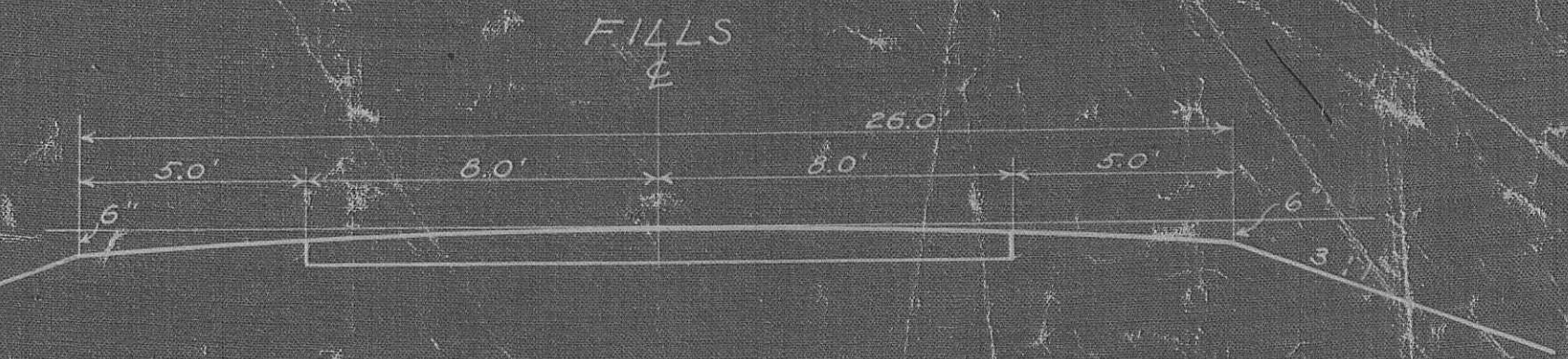
One cross bar each side of every joint.	Cross bars on tangents to be 15 feet long.	Longitudinal bars 12" from edge of paving.	
	At extra widths on curves, cross bars to extend to within 6 inches of each edge of paving.	2 cross bars every 30 feet.	
	End of longitudinal bars to be within 6" of each joint.	1/2" bars throughout.	All notices to have 6" lap.
		All reinforcing to be placed 2 inches below surface of concrete.	
		2" gap between ends of bars.	

Method of placing Reinforcing Bars

LAKE VIEW



CUTS  
Cross Sections Cuts & Fills  
Sta. 195 to 197 and 199 to 207



FILLS

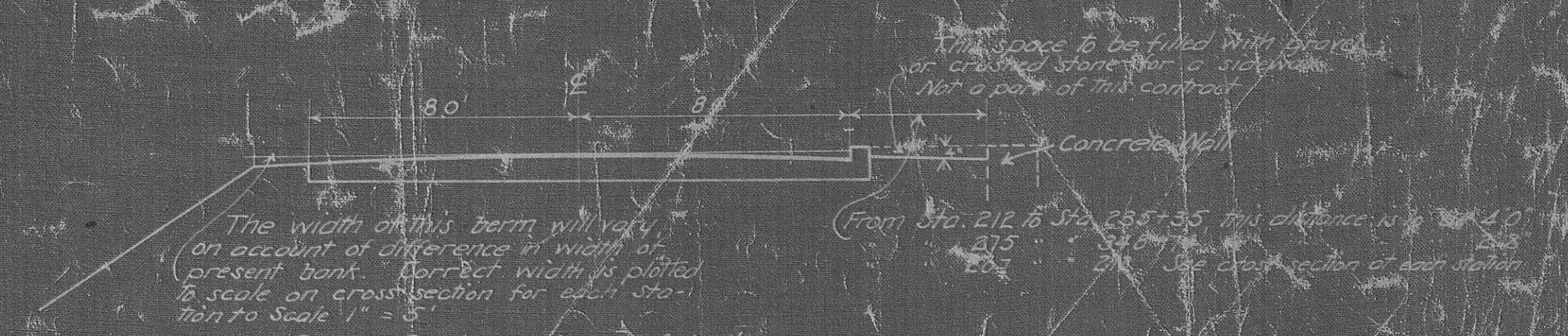


CUTS  
Cross Sections Cuts & Fills  
Sta. 235+35 to 275



FILLS

(From Sta. 235 to 270, the slopes are to be 1/2 horizontal to 1 vertical)

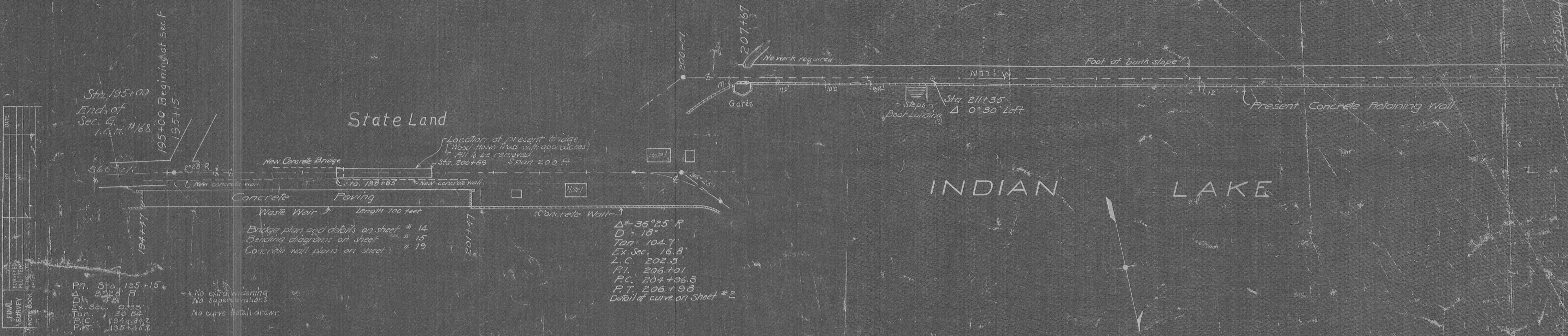


Cross section of bank of Indian Lake  
Sta. 212 to 235+35 and Sta. 275 to 305

The width of this berm will vary on account of difference in width of present bank. Correct width is plotted to scale on cross-section for each station to scale 1" = 5'

This space to be filled with broken or crushed stone or a similar material. Not a part of this contract.

From Sta. 212 to Sta. 235+35 this distance is to be 40' wide. See cross-section of each station.



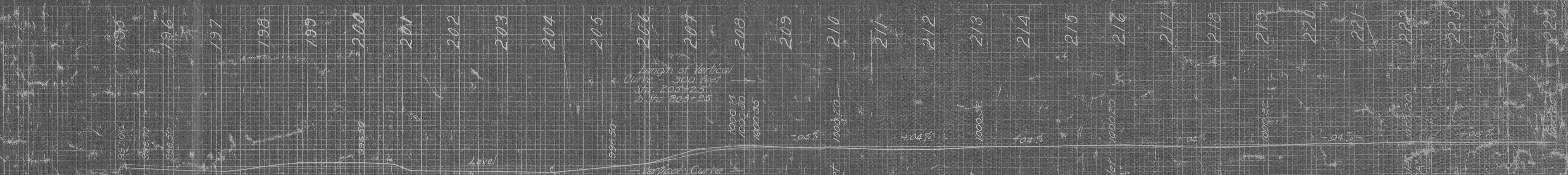
DATE \_\_\_\_\_  
BY \_\_\_\_\_  
SURVEYED \_\_\_\_\_  
PLOTTED \_\_\_\_\_  
NOTE BOOK NO. \_\_\_\_\_

P.M. Sta. 195+15  
2nd P.C.  
Ex. Sec. 0.55  
Tan. 30.54  
P.I. 195.84  
P.T. 196.47

No extra widening  
No super-elevations  
No curve detail drawn

Bridge plan and details on sheet \* 14  
Bending diagrams on sheet \* 15  
Concrete wall plans on sheet \* 19

Δ = 36°25' R  
D = 18'  
Tan = 104.7  
Ex. Sec. = 16.8'  
L.C. = 202.3  
P.I. = 206.101  
P.C. = 204+96.3  
P.T. = 206+98  
Detail of curve on sheet \* 2



Length of Vertical Curve = 300 feet  
Sta. P.O.B. = 195  
Sta. P.O.E. = 208+25

Level  
Vertical Curve  
For elevations see curve detail on sheet \* 2

B.M. 'X' chisel cut on top of wall at W. end of Waste Weir. E.L. 1000.09

Note: There are 100 cu. yds. of surplus material on Sec. G, which the contractor for this section is required to place in the fill between Sta. 195 and 200 of this section.

New Bridge from Sta. 197+72 to 198+72  
V.C. Len. 300 feet  
Elevations

Sta. 196+02 = 996.50	Sta. 198+12 = 997.50
192 = 96.74	192 = 97.45
192 = 96.74	192 = 97.28
192 = 97.00	199+02 = 97.00
197+22 = 97.00	192 = 94.72
192 = 97.45	192 = 96.50
192 = 97.50	192 = 96.50

Grade Elevations given are for crown of finished pavement

Surplus material to be used in widening bank

Sta. 195 to Sta. 202

1835 Cu. yds. Cut
700 " " from Sec. G
2535 Total Cut
3526 Cu. yds. Fill
3526 x 115% = 4170 Cu. yd.
Less 2535
Deficit = 1535

Which is to be obtained from borrow pits or from excavating river channel

414 Cut  
279 Fill

153 Cut  
8 Fill

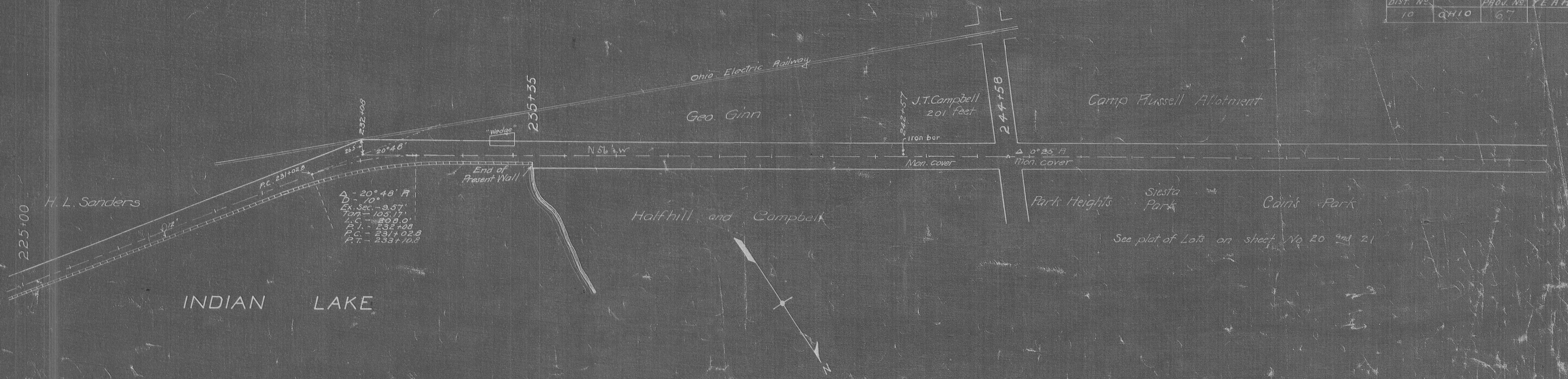
563 Cut  
19 Fill

ORIGINAL SURVEY NO. \_\_\_\_\_  
PLOTTED DATE \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR
10	OHIO	67	

BY	DATE
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NO.	DATE
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Extra Widening and Super-elevation of Concrete at Curve.  
 From Sta. 231+63 to Sta. 232+51, the concrete is to be 8" thick, and to be a plane from edge to edge.

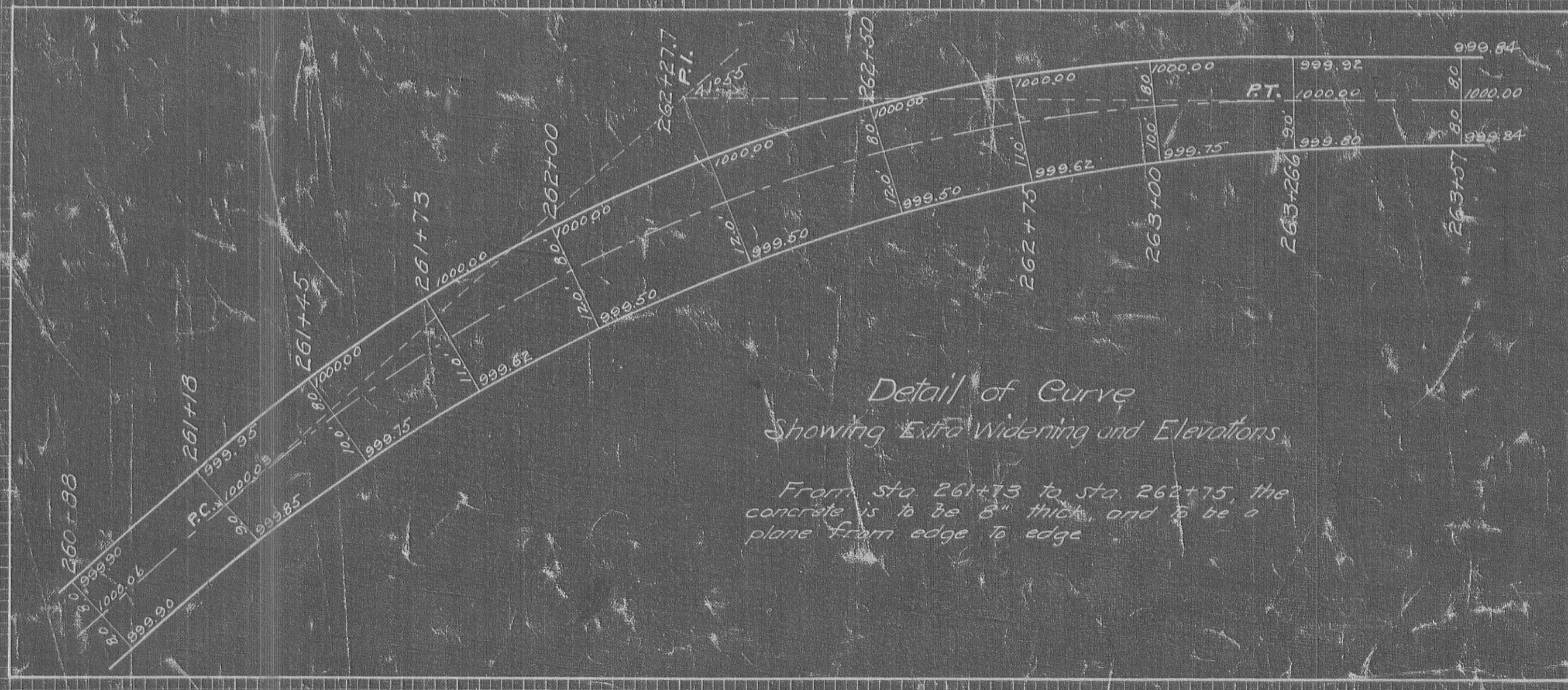
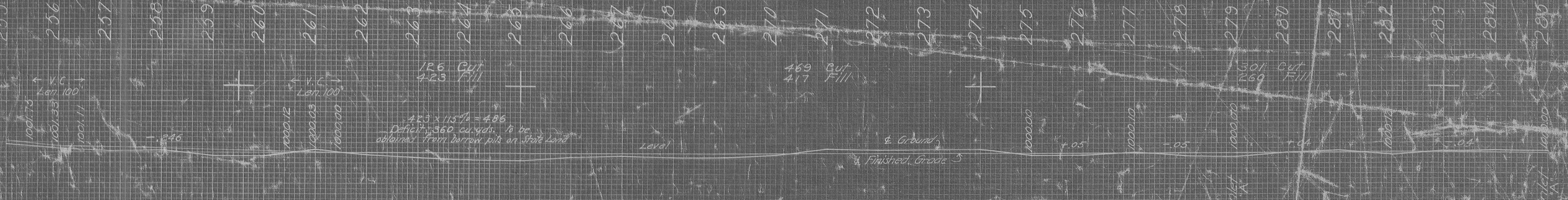
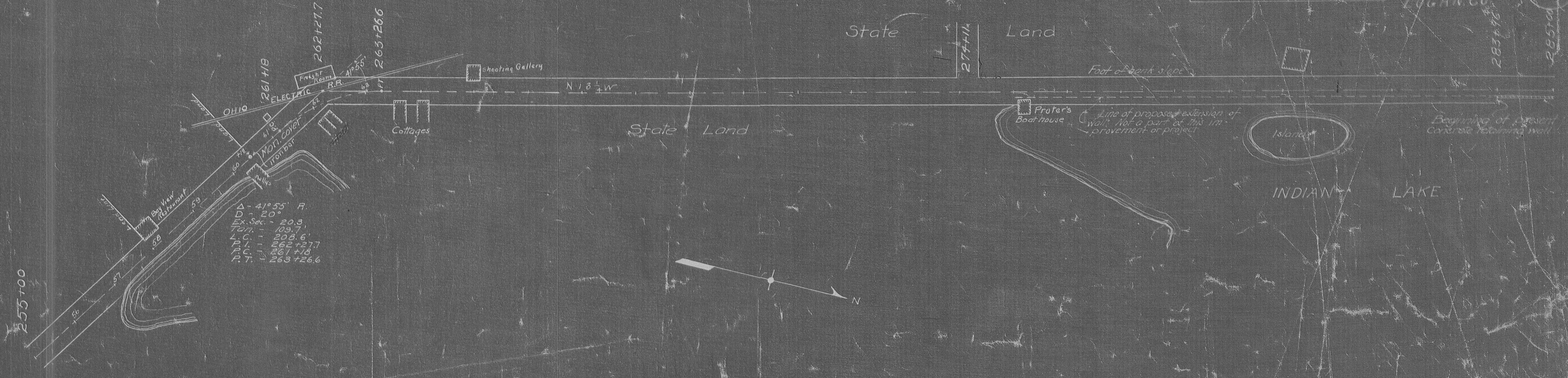
STATE ROAD DIST. NO. 10 STATE OHIO ROAD NO. 65

ICR-168 SEC-F LOGAN CO.

283+75 285+100

FINAL SURVEY BY DATE  
 SURVEY PLANNED BY DATE  
 NOTE BOOK NO. 1183

ORIGINAL SURVEY BY DATE  
 SURVEY PLANNED BY DATE  
 NOTE BOOK NO. 1183



Grade Elevations given are for crown of finished pavement

B.M. Top Wall Sta. 284 Elev. 1000.00

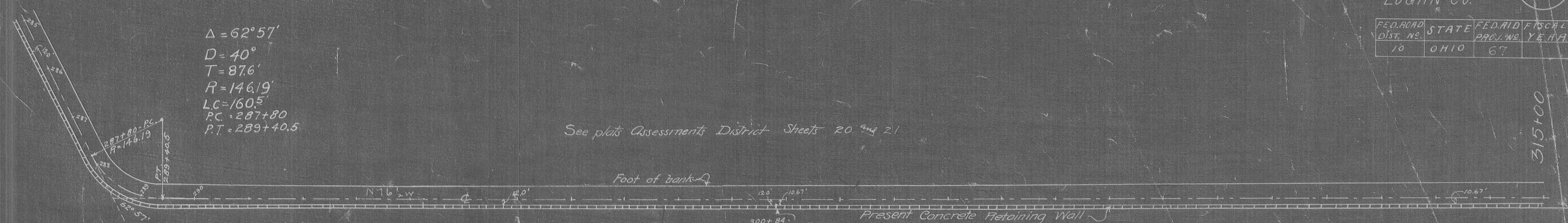
I.C.H. 168  
 SEC.-F  
 LOGAN CO.

6  
 21

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR
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$\Delta = 62^{\circ}57'$   
 $D = 40'$   
 $T = 87.6'$   
 $R = 146.19'$   
 $LC = 160.5'$   
 $PC = 287+80$   
 $PT = 289+40.5$

See plots Assessments District Sheets 20 and 21



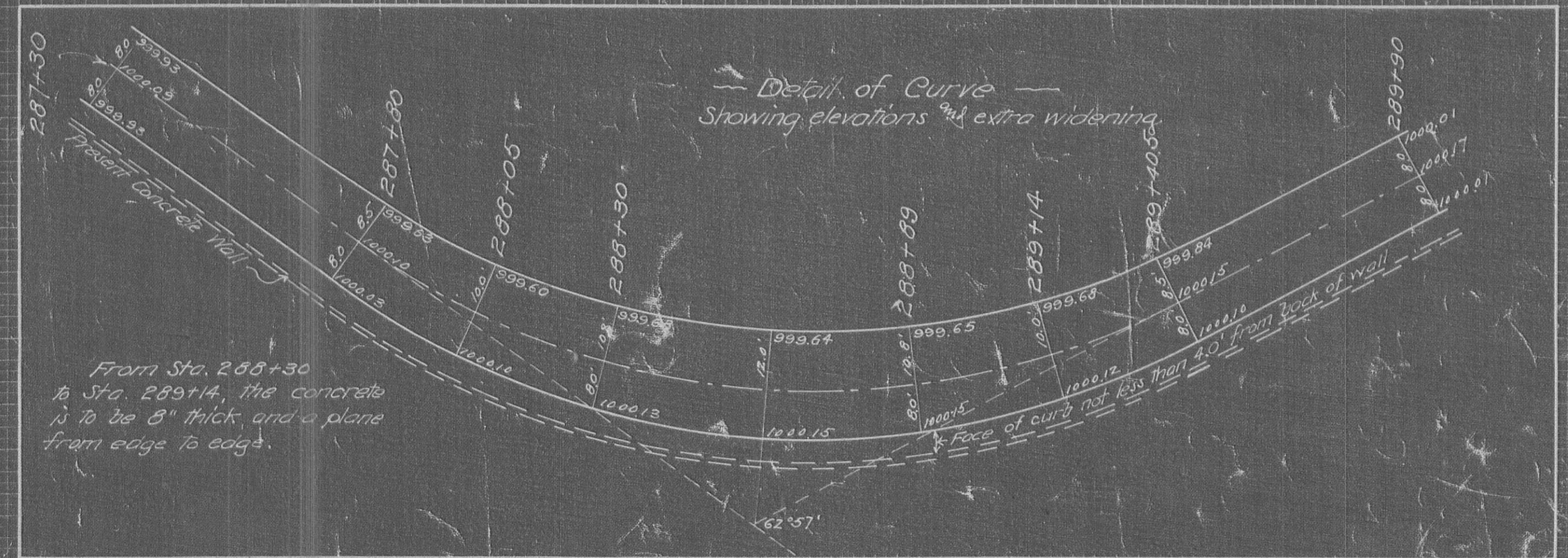
INDIAN LAKE

Station	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315
Ground	1000.00	1000.18	1000.20	1000.18	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	
Finished Grade	1000.00	1000.18	1000.20	1000.18	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	999.70	999.58	
Cut/Fill			323 Cut 62 Fill												78 Cut 57 Fill																
Notes	Inlet A								Inlet A																						

Grade Elevations given are for crown of finished pavement

B.M. Top wall  
 Sta. 300  
 Elevation 999.74

$517 \times 115' = 595$  Cu Yds.  
 Deficit 517 Cu Yds.  
 This deficit will be deposited along the roadway by the stab dredge



From Sta. 288+30 to Sta. 289+14, the concrete is to be 8" thick, and a plane from edge to edge.

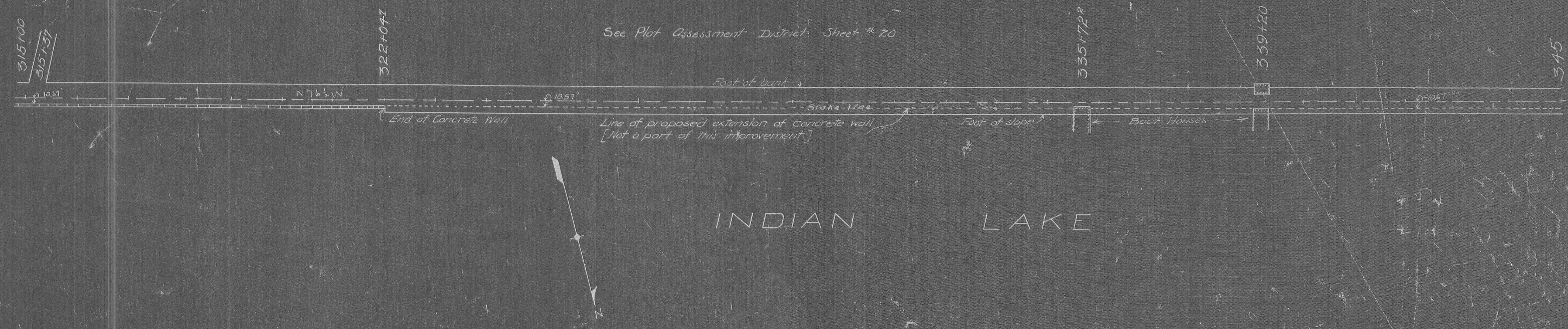
ORIGINAL SURVEY	PLOTTED	DATE
SURVEY	TEMPLATE	
NOTE BOOK	AFAS	
NO.	DATE	

ICH 168  
 SEC. - E.  
 LOGAN CO.

7  
 21

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR
10	OHIO	67	

FINAL SURVEY	DATE
SURVEY PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



ORIGINAL SURVEY	DATE
SURVEY PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

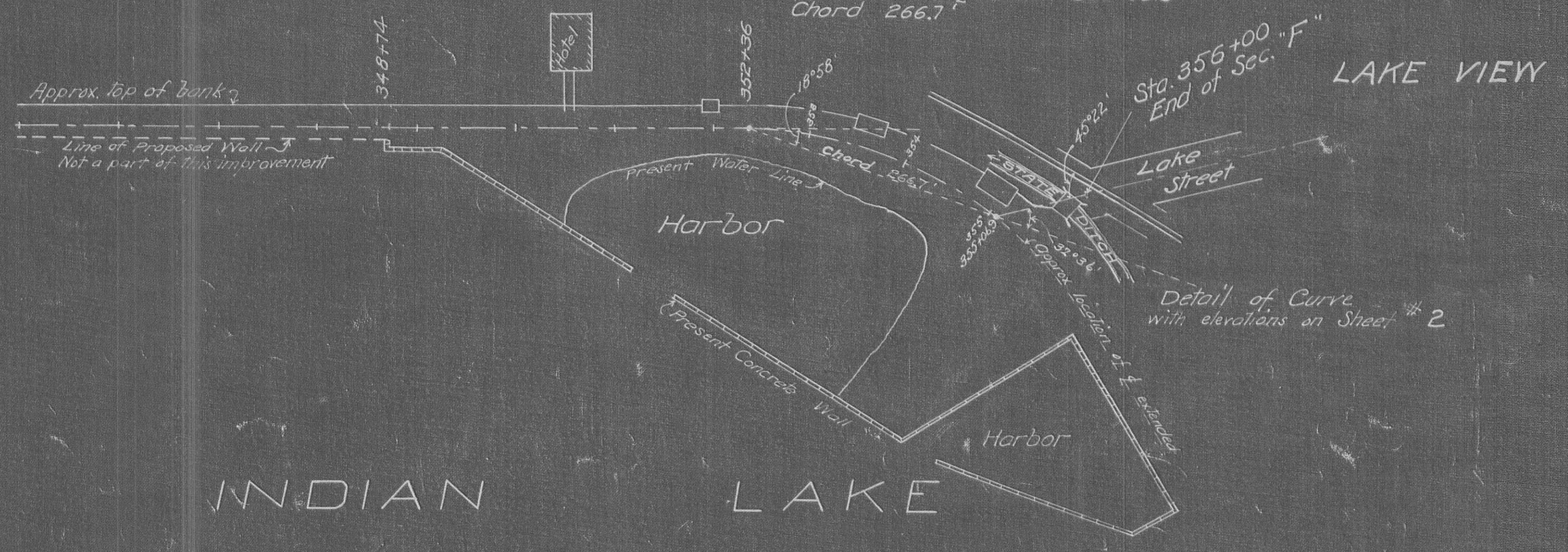


ICH 168  
 SEC-F  
 LOGAN CO.

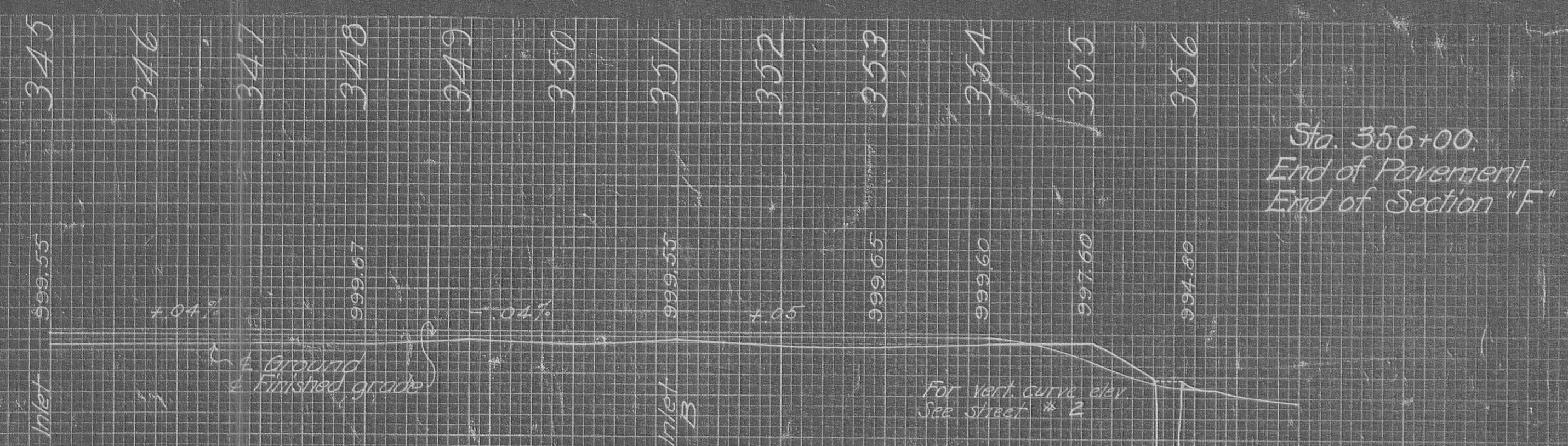
3  
 21

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR
10	OHIO	67	

$\Delta$  37° 56'  
 D 14'  
 L.C. 270.93'  
 P.C. 352+36  
 Intersection with  $\frac{1}{2}$  Lake St. - 355+06.9  
 Chord 266.7



INDIAN LAKE



Grade Elevations given are for crown of finished pavement.

B.M. Top of concrete wall at Sta. 345+74. El. 999.68

475 Cut  
 125 Fill

Surplus material to be used in backfill over bridge, and in widening bank

DATE	BY

FINAL SURVEY  
 SURVEYED BY  
 CHECKED BY  
 NOTE BOOK NO.

DATE	BY

ORIGINAL SURVEY  
 SURVEYED BY  
 CHECKED BY  
 NOTE BOOK NO.

Cuts  
Cross Sec. Cu. Yd.

Fills  
Cross Sec. Cu. Yd.

Cuts  
Cross Sec. Cu. Yd.

Fills  
Cross Sec. Cu. Yd.

Cuts  
Cross Sec. Cu. Yd.

FED. ROAD DIST. NO. 10 STATE OHIO FEDERAL FISCAL PROJ. NO. 67 YEAR

I.C.H-168  
SEC-F  
LOGAN CO.

9  
21

Fills  
Cross Sec. Cu. Yd.

207

50 124

216

14 48

225

14 44

206

17 44

11 30

215

12 35

224

10 41

205

7 20

5 37

214

7 20

223

12 44

204

4 11

15 83

213

8 22

222

12 46

203

2 7

30 109

212

4 13

221

15 41

202

2

29 152

211

9 22

220

9 30

201

Additional cross sections from Sta. 197+22 to Sta. 200+69 may be found on sheet # 13

198

See sheet 13

210

9 39

219

7 15

197

82 246

209

12 69

218

1 15

196

51 193

208

25 139

217

7 39

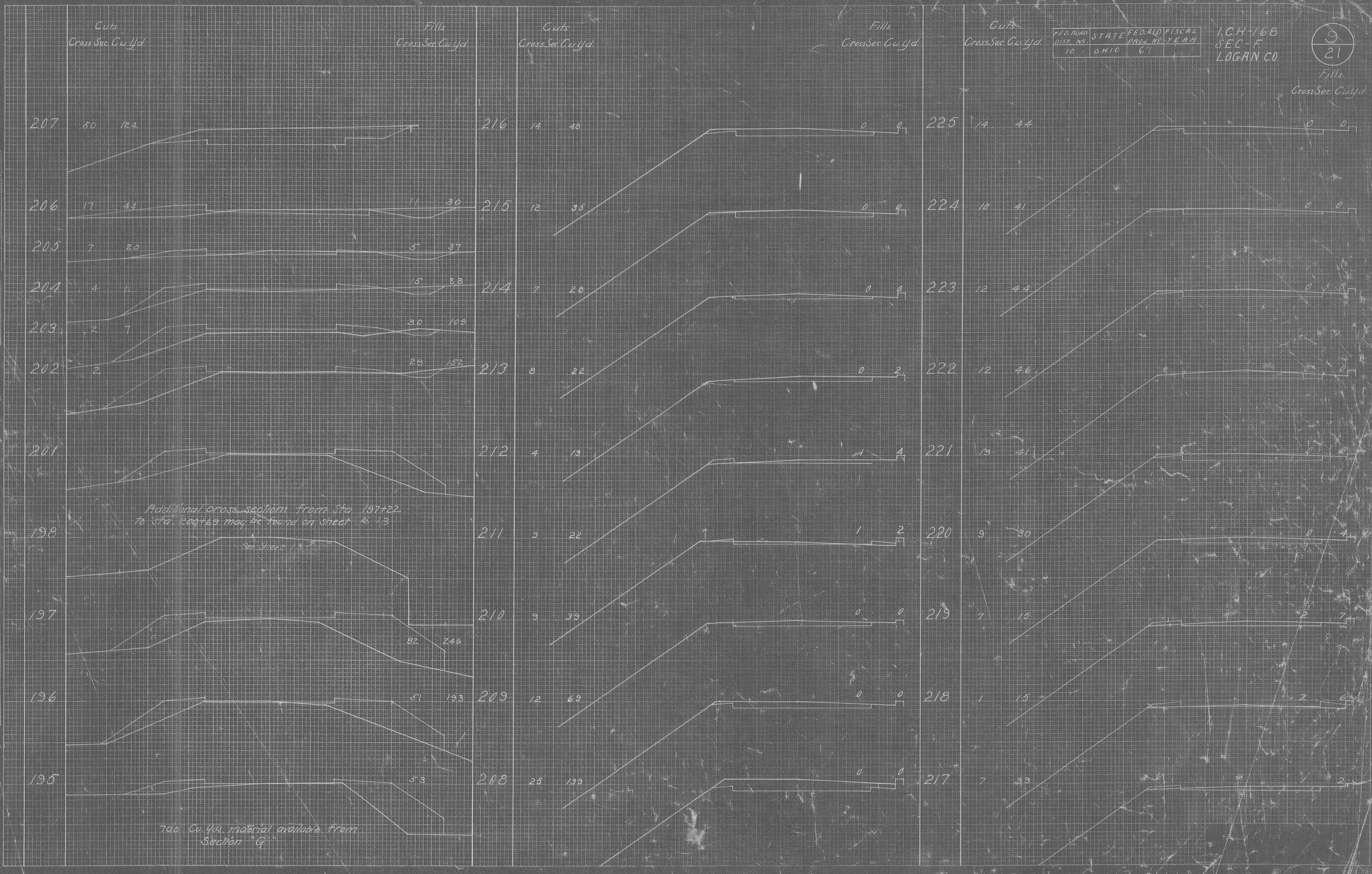
195

53

700 Cu. Yds. material available from Section "G"

DATE  
BY  
FINAL SURVEY NO.  
SURVEY PLOTTED  
NOTE BOOK NO.  
AREAS CHECKED

DATE  
BY  
ORIGINAL SURVEY NO.  
SURVEY PLOTTED  
NOTE BOOK NO.  
AREAS CHECKED





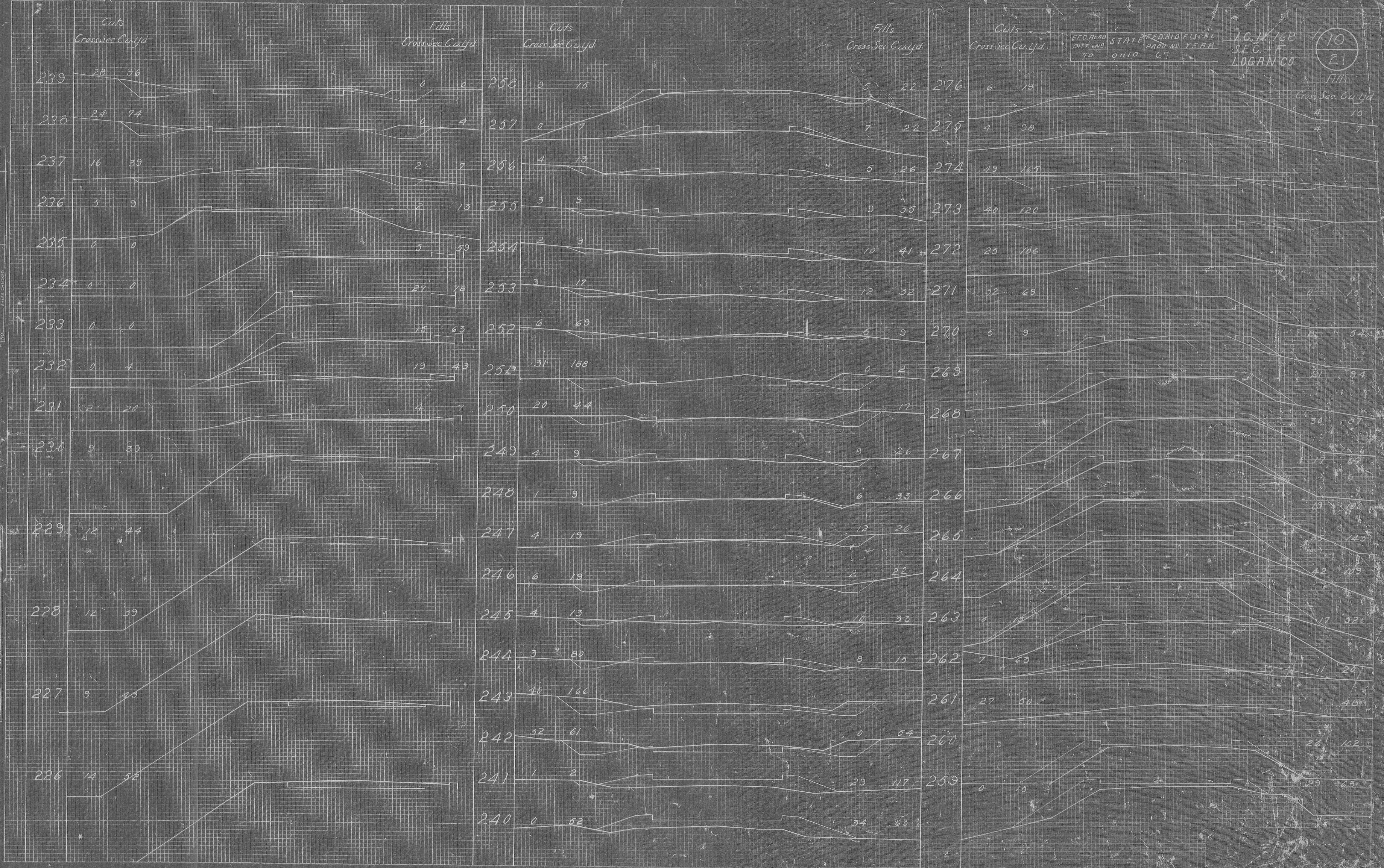
BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_  
 PLOTTED: \_\_\_\_\_  
 TEMPLATE: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 AREAS CHECKED: \_\_\_\_\_  
 NO. \_\_\_\_\_

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_  
 PLOTTED: \_\_\_\_\_  
 TEMPLATE: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 AREAS CHECKED: \_\_\_\_\_  
 NO. \_\_\_\_\_

FED. ROAD DIST. NO. 10 STATE OHIO FEDERAL FISCAL YEAR 67

I.C.H. 168  
 SEC. F  
 LOGAN CO.

10  
 21



Fills  
 Cross-Section

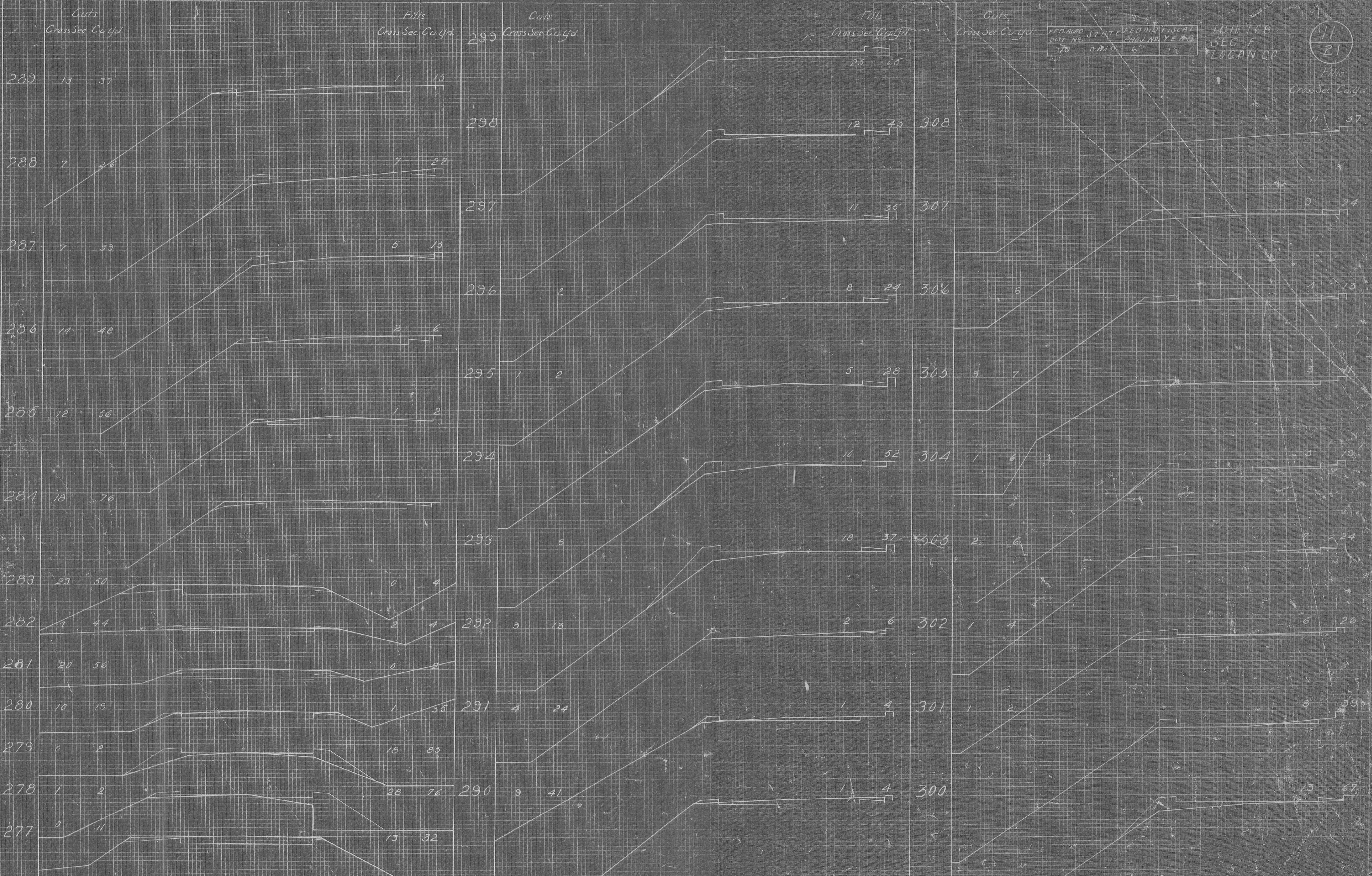
FINAL SURVEY  
 SURVEYED  
 PLOTTED  
 AREA CHECKED  
 NO.

ORIGINAL SURVEY  
 SUBMITTED  
 TEMPLATE  
 NOTE BOOK  
 AREA CHECKED  
 NO.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR
70	OHIO	67	73

K.C.H. 168  
 SEC. F  
 LOGAN CO.

11  
 21



DATE  
BY  
FINAL SURVEY  
NOTE BOOK  
NO.

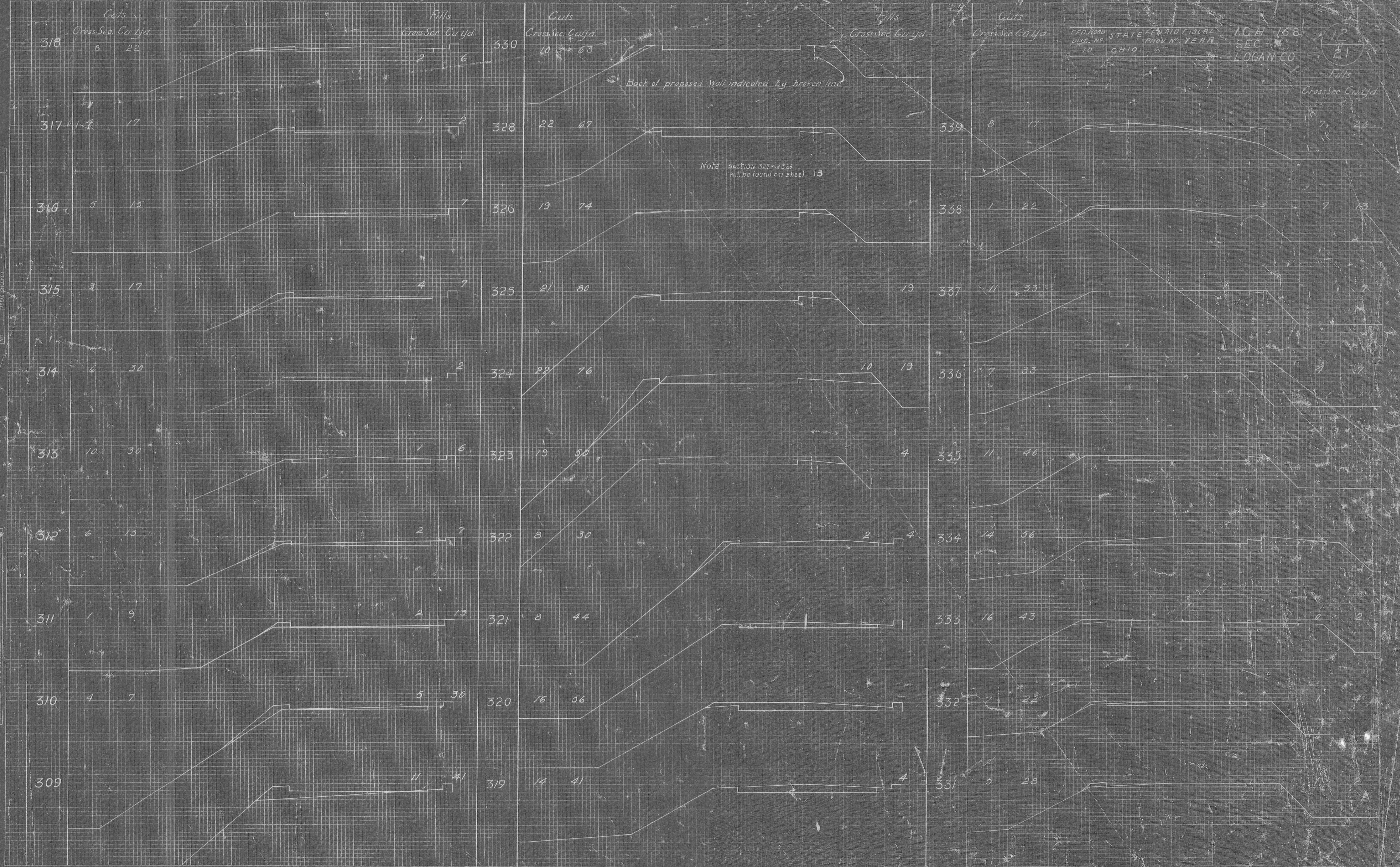
DATE  
BY  
ORIGINAL SURVEY  
NOTE BOOK  
NO.

FED. ROAD DIS. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR
10	OHIO	67	

1068  
SEC 7  
LOGAN CO

12  
21

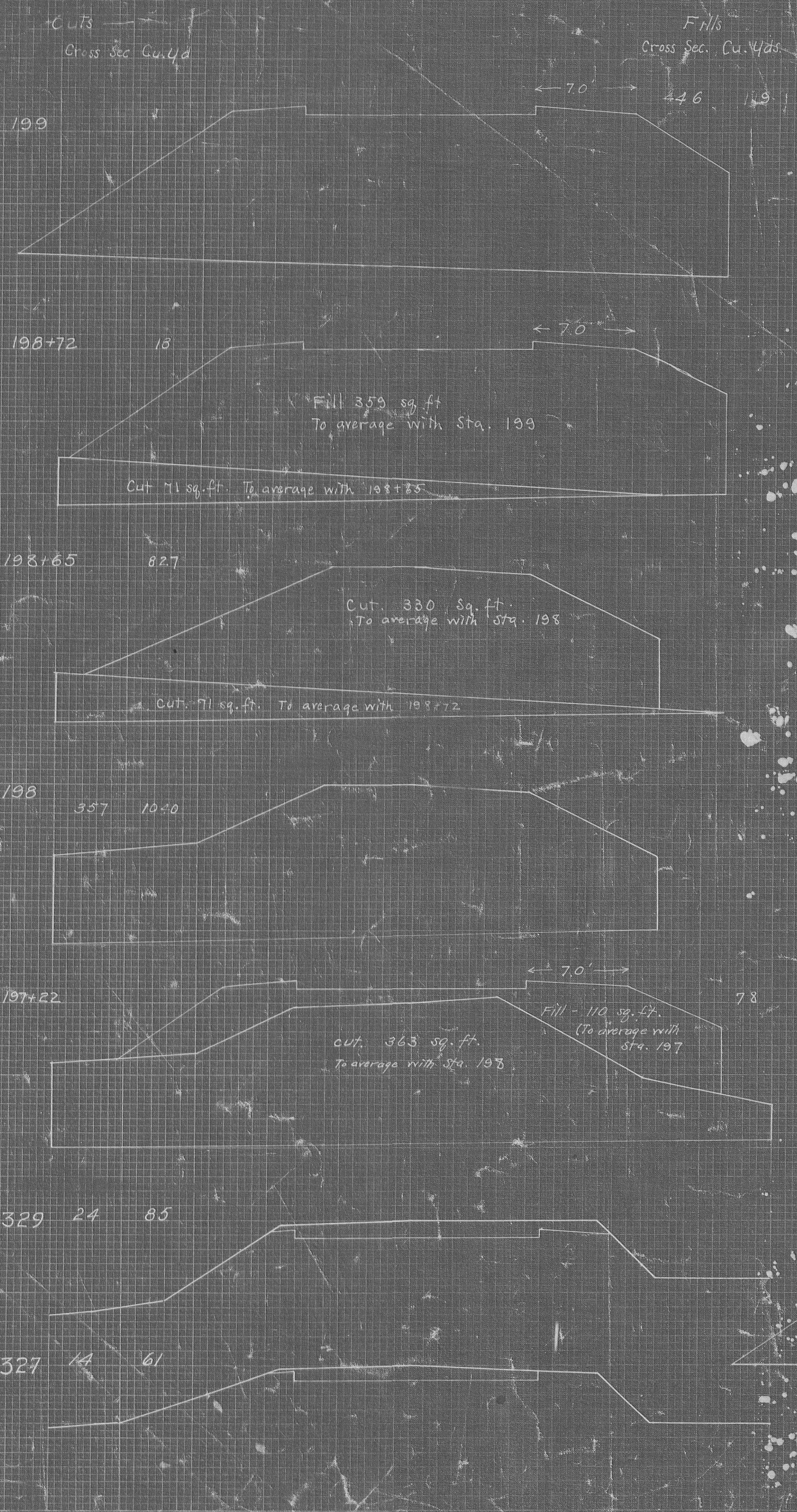
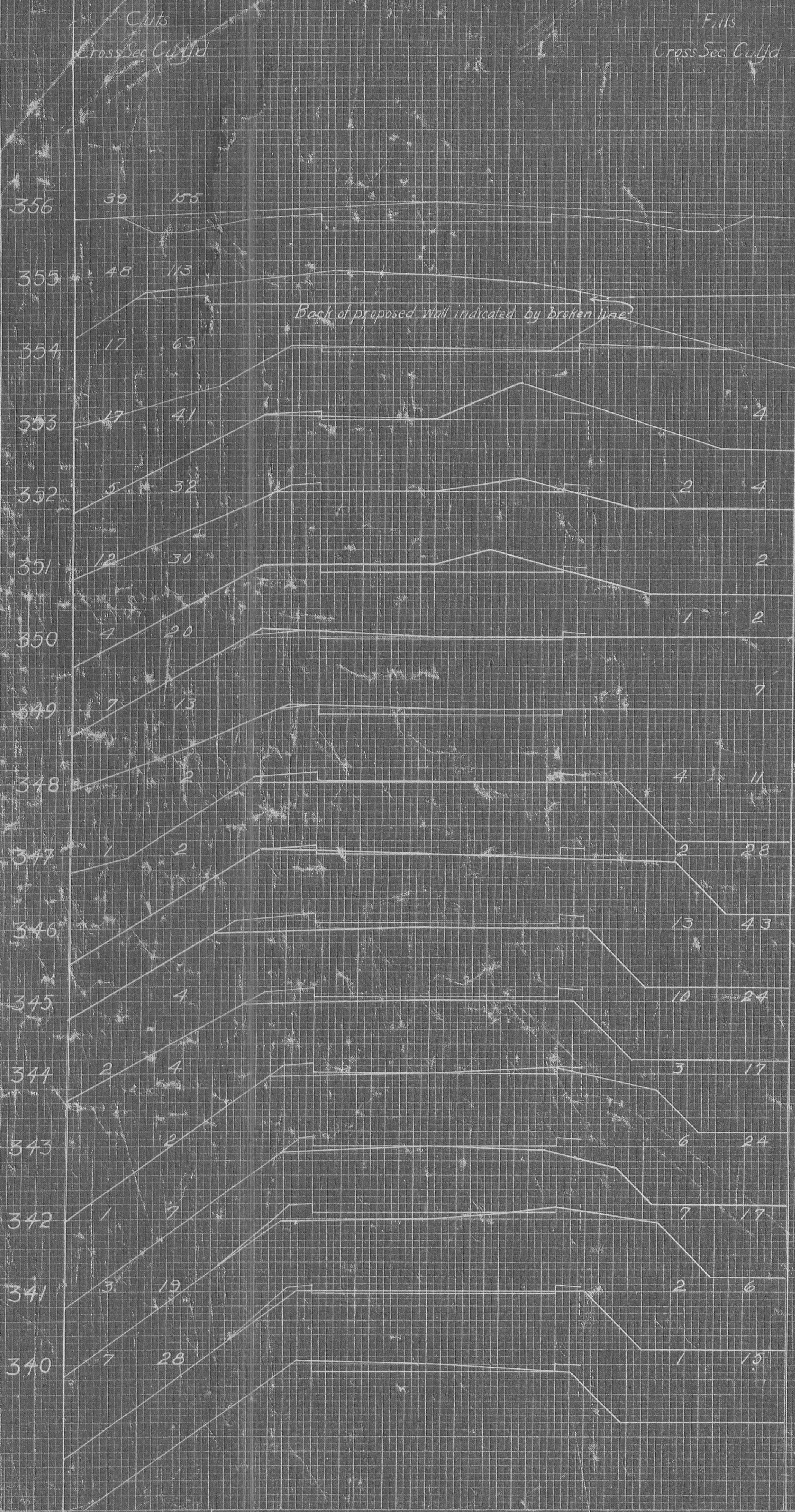
Fills  
Cross Sec. Cu. Yd.



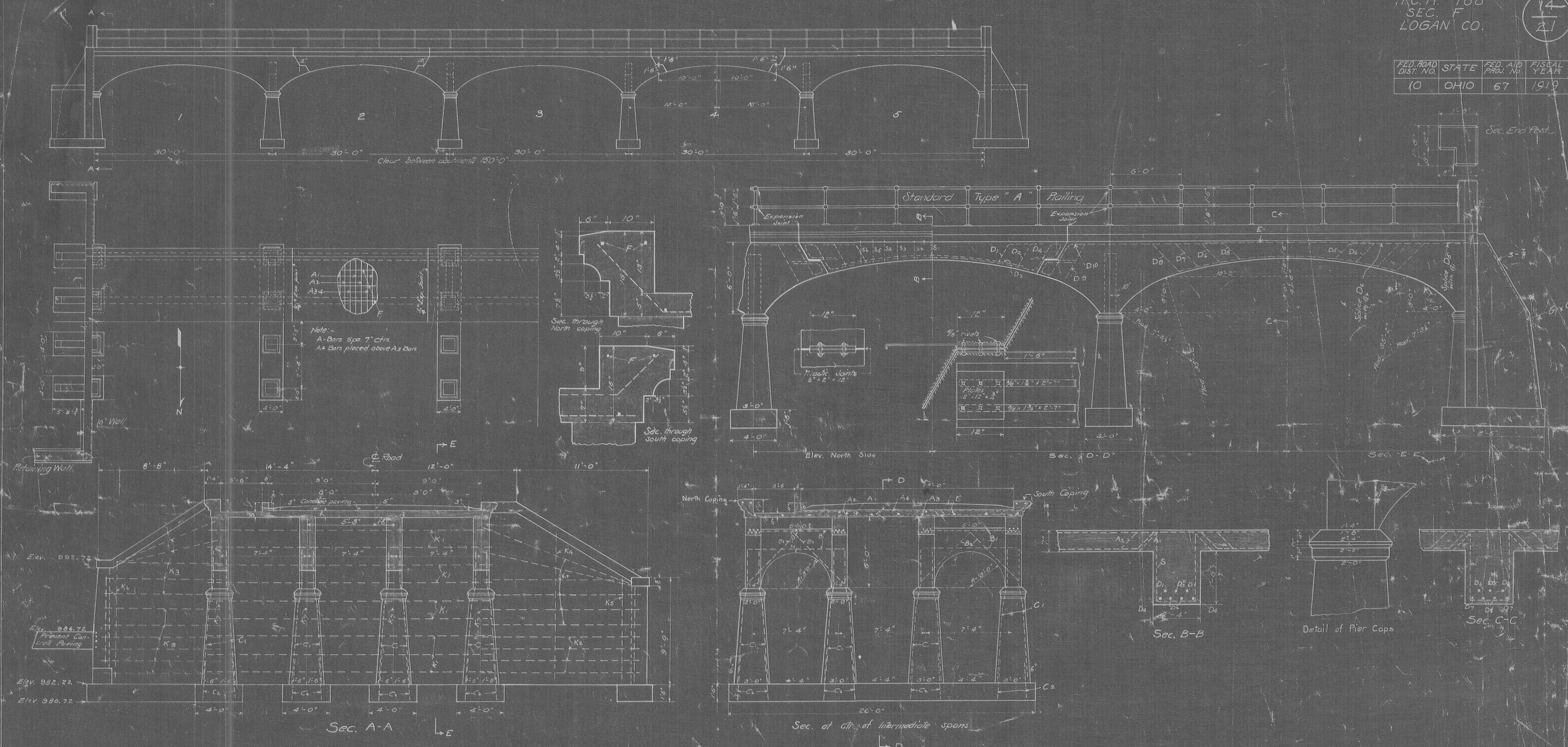
FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR
10	OHIO	67	1919



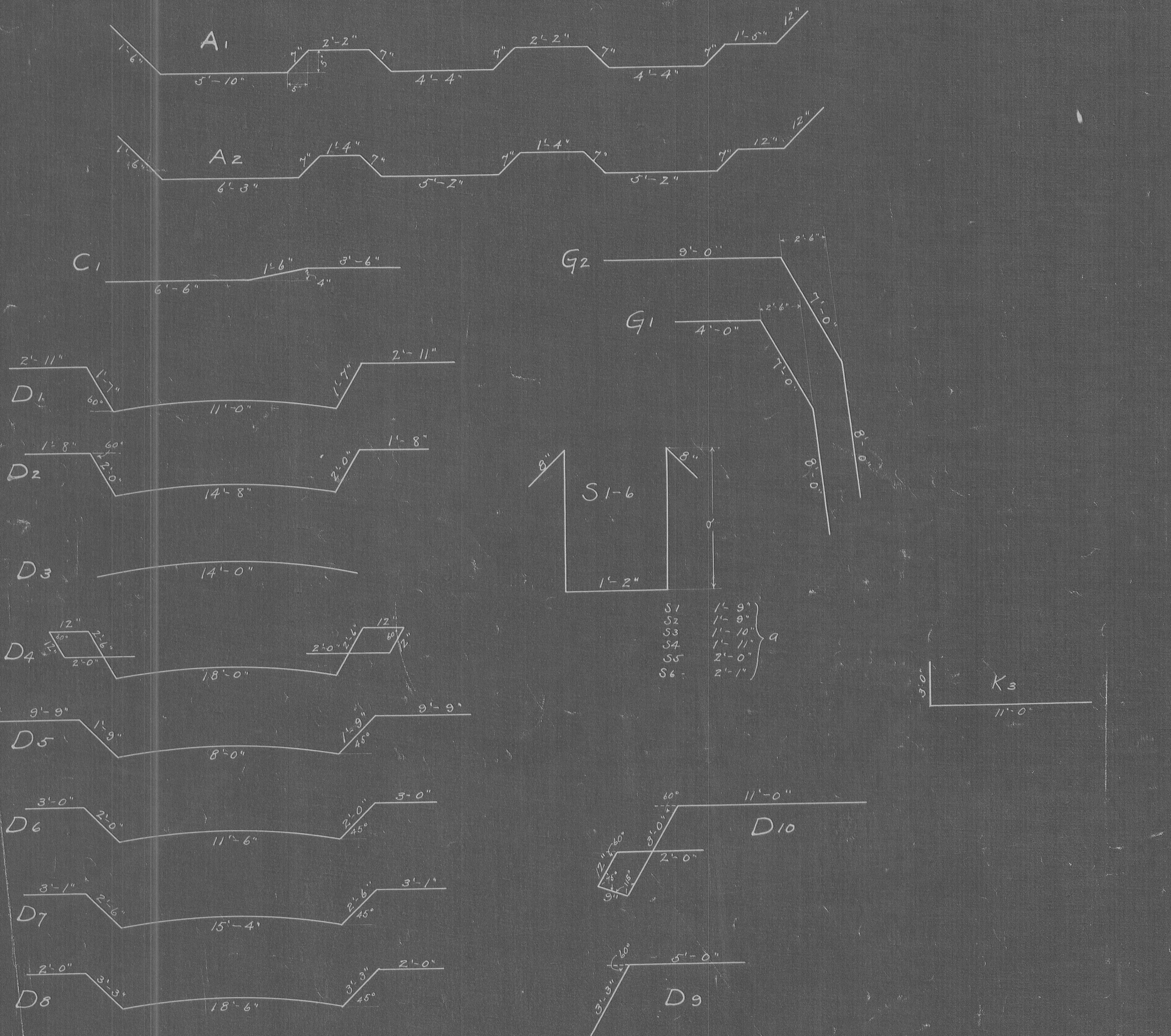
**ESTIMATE OF QUANTITIES**

Excavation	250 cu. yds
Concrete 1-2-4	173
Concrete 1-2-5	110
Concrete 1-3-6	44
Paint Steel	31600 lbs
Structural Steel	1350
Pipe Railing	300 lin. ft.
Stone Paving	830 sq. yds
Gravel Walk	67

Note—  
Old Bridge to be torn down  
and left to the disposal of the State.

**BRIDGE AT  
WASTE WEIR**  
Sta. 197+22 to Sta. 198+72

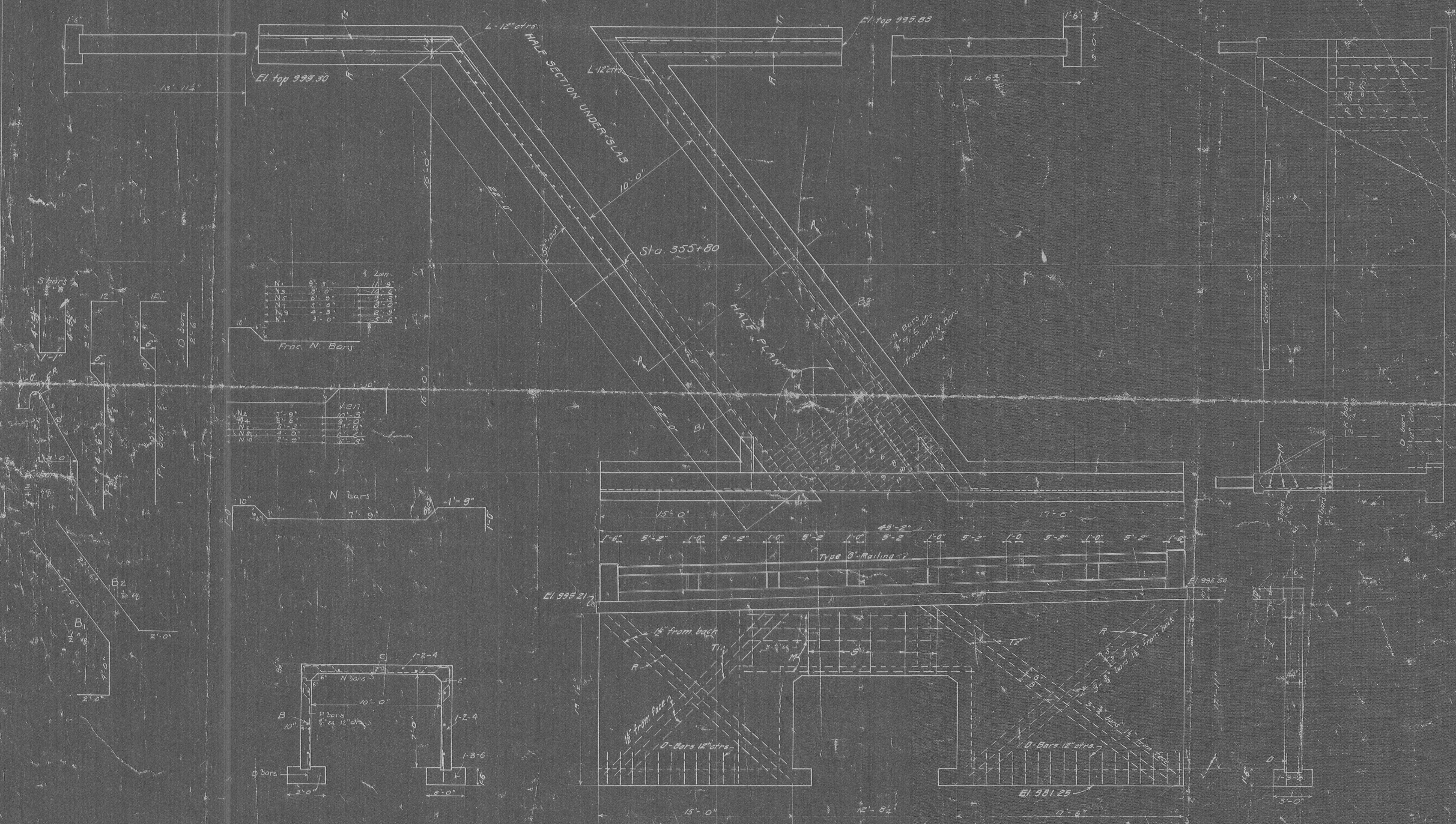
Fed. Flood Dist. No	State	Fed. Aid. Proj. No	Fiscal Year
10	OHIO	67	



Mark	Location	No.	Size	Length	
A1	Slab	87	5/8	25'-8"	Bent
A2	"	87	5/8	25'-8"	"
A3	"	87	5/8	23'-0"	Straight
A4	"	87	5/8	19'-0"	"
B1	Struts	32	3/4	8'-6"	"
B2	"	32	3/4	6'-0"	"
C1	Piers	80	1"	11'-6"	Bent
C2	"	80	1"	4'-0"	Straight
D1	Girders	16	7/8	20'-0"	Bent
D2	"	16	7/8	22'-0"	"
D3	"	8	7/8	14'-0"	"
D4	"	16	7/8	31'-0"	"
D5	"	12	7/8	31'-0"	"
D6	"	24	7/8	21'-6"	"
D7	"	24	7/8	26'-6"	"
D8	"	24	7/8	29'-0"	"
D9	"	16	7/8	8'-3"	"
D10	"	32	7/8	17'-3"	"
E1	"	24	3/4	14'-0"	Straight
S1	"	20	1/2	6'-0"	Bent
S2	"	40	1/2	6'-0"	"
S3	"	40	1/2	6'-2"	"
S4	"	40	1/2	6'-4"	"
S5	"	16	1/2	6'-6"	"
S6	"	16	1/2	6'-8"	"
G1	Abutments	8	7/8	19'-0"	"
G2	"	16	7/8	24'-0"	"
F	Slabs and Curbs	20	1/2	32'-0"	Straight
H	Abut. Footers	24	7/8	4'-0"	"
K1	Abut. Breast Walls	18	1/2	24'-0"	"
K2	"	24	1/2	14'-0"	"
K3	"	22	1/2	14'-0"	Bent
K4	"	2	1/2	12'-0"	Straight
K5	"	4	1/2	8'-6"	"
K6	"	2	1/2	9'-6"	"
K7	"	8	1/2	13'-0"	"

STEEL DETAILS  
 FOR BRIDGE AT WASTE WEIR

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year
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Mark	Location	No.	Size	Length	Shape
B1	Abutment	6	1/2"	23'-4"	Bent
B2	"	16	1/2"	24'-6"	"
D	"	156	1/2"	2'-6"	Str.
P	"	44	1/2"	9'-0"	Bent
P2	"	44	1/2"	9'-0"	"
K	"	8	1/2"	12'-0"	"
L	"	24	1/2"	18'-0"	"
F	"	12	1/2"	18'-0"	Str.
T1	"	6	1/2"	17'-0"	"
T2	"	6	1/2"	21'-0"	"
M	Girder	12	1/2"	18'-0"	"
S	"	10	1/2"	10'-0"	Bent
C	3/4"	6	1/2"	23'-0"	Str.
N	"	21	1/2"	13'-9"	Bent
N1	"	2	1/2"	11'-9"	"
N2	"	2	1/2"	10'-3"	"
N3	"	2	1/2"	10'-6"	"
N4	"	2	1/2"	9'-2"	"
N5	"	2	1/2"	9'-3"	"
N6	"	2	1/2"	7'-9"	"
N7	"	2	1/2"	8'-0"	"
N8	"	2	1/2"	6'-4"	"
N9	"	2	1/2"	6'-4"	"
N10	"	2	1/2"	5'-8"	"
N11	"	2	1/2"	8'-6"	"

BRIDGE OVER  
 STATE DITCH  
 AT LAKE VIEW  
 Sta. 355+80

Estimate of Quantities

Excavation	250 Cu. Yds.
Concrete	12.4
Reinf. Steel	26
Railing Type "B"	5280 lbs.
	98.3 Lin. Ft.

I. C. H. 168  
 Sec. F  
 Logan Co.

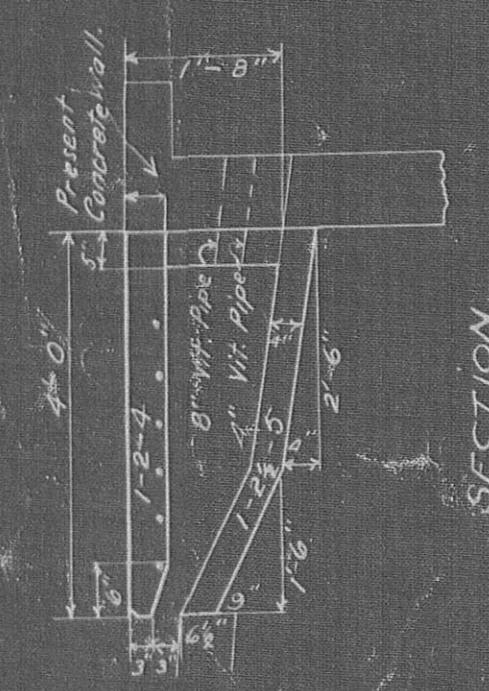
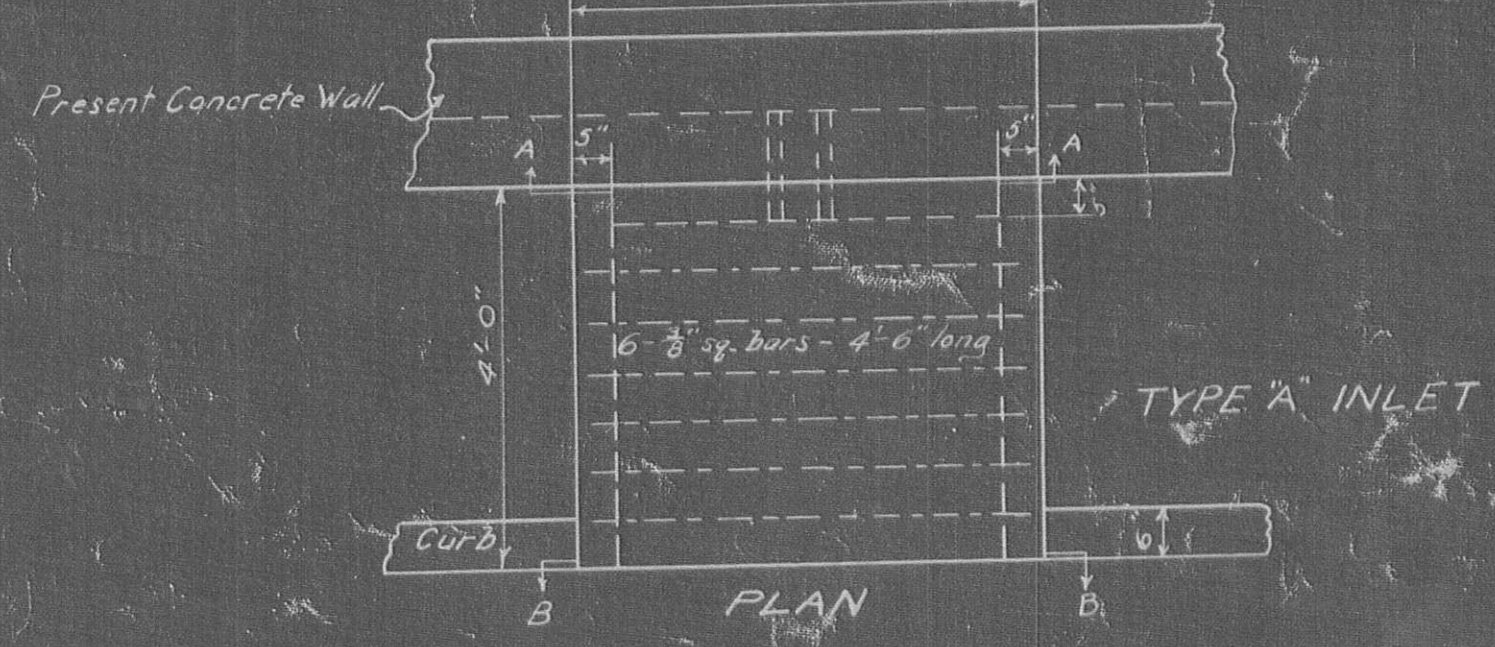
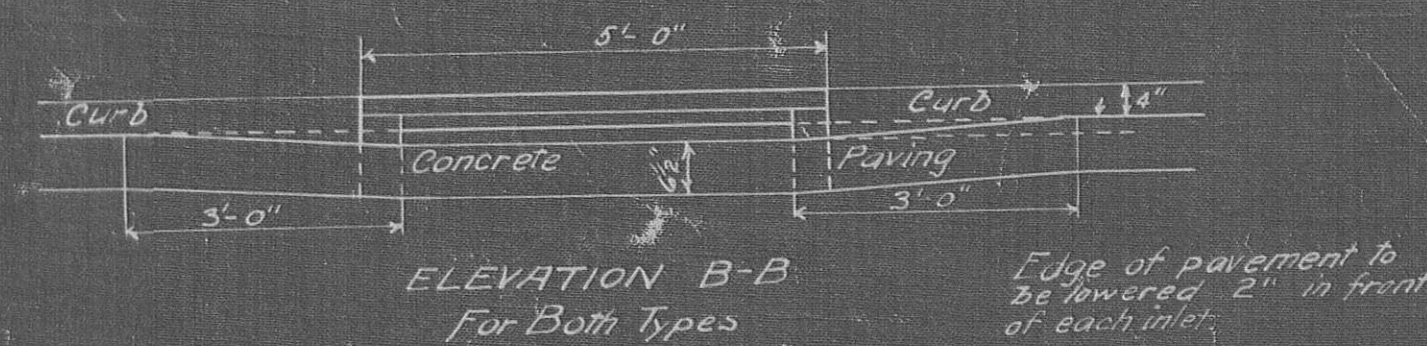
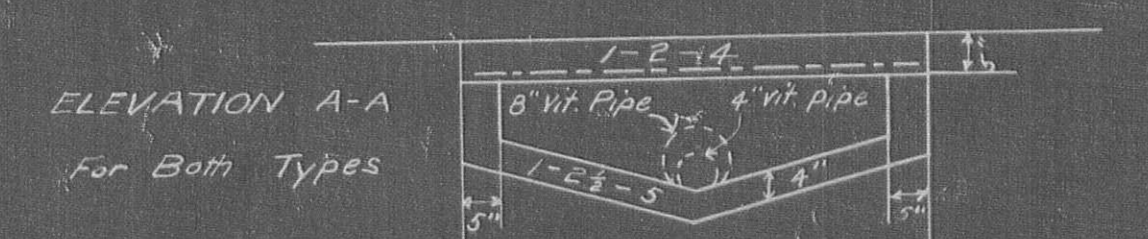
17  
 21

Fed. Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year
10	OHIO	67	

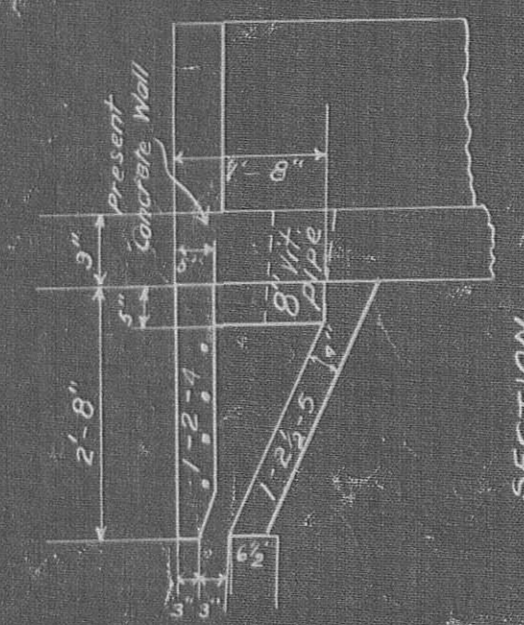
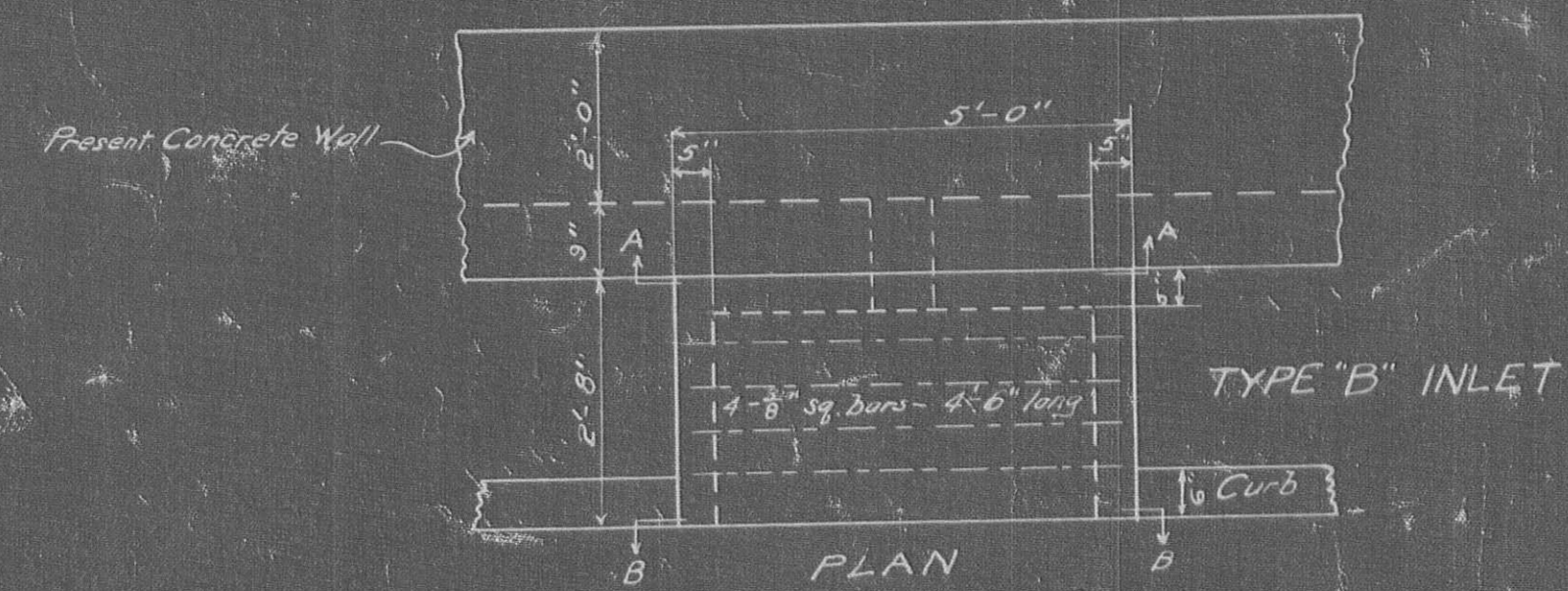
SUMMARY OF QUANTITIES													
STRUCTURE OVER 20 FT SPAN													
STATION	TYPE	SIZE	Excavation Cu. Yd.	Concrete			Steel		Railing	Railing	Paving	Gravel	Remarks
				1-2-4 Cu. Yd.	1-2½-5 Cu. Yd.	1-3-6 Cu. Yd.	Reinf. Lb.	Structural Lb.	Type C Lin. Ft.	Type A Lin. Ft.	Stone Sq. Yd.	Walk Sq. Yd.	
197+97	Conc. Arch	5-30' Spans	250	173	110	44	31600	1350		300	830	67	See plan on sheet No. 14
TOTAL QUANTITIES:			250	173	110	44	31600	1350		300	830	67	
STRUCTURE UNDER 20 FT SPAN													
355+80	Slab Top	10 FT x 5½ FT	250	79		26	5280		90.5				See plan on sheet No. 16
TOTAL QUANTITIES:			250	79		26	5280		90.5				
GRAND TOTAL QUANTITIES:			500	252	110	70	36880	1350	90.5	300	830	67	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR
10	OHIO	67	



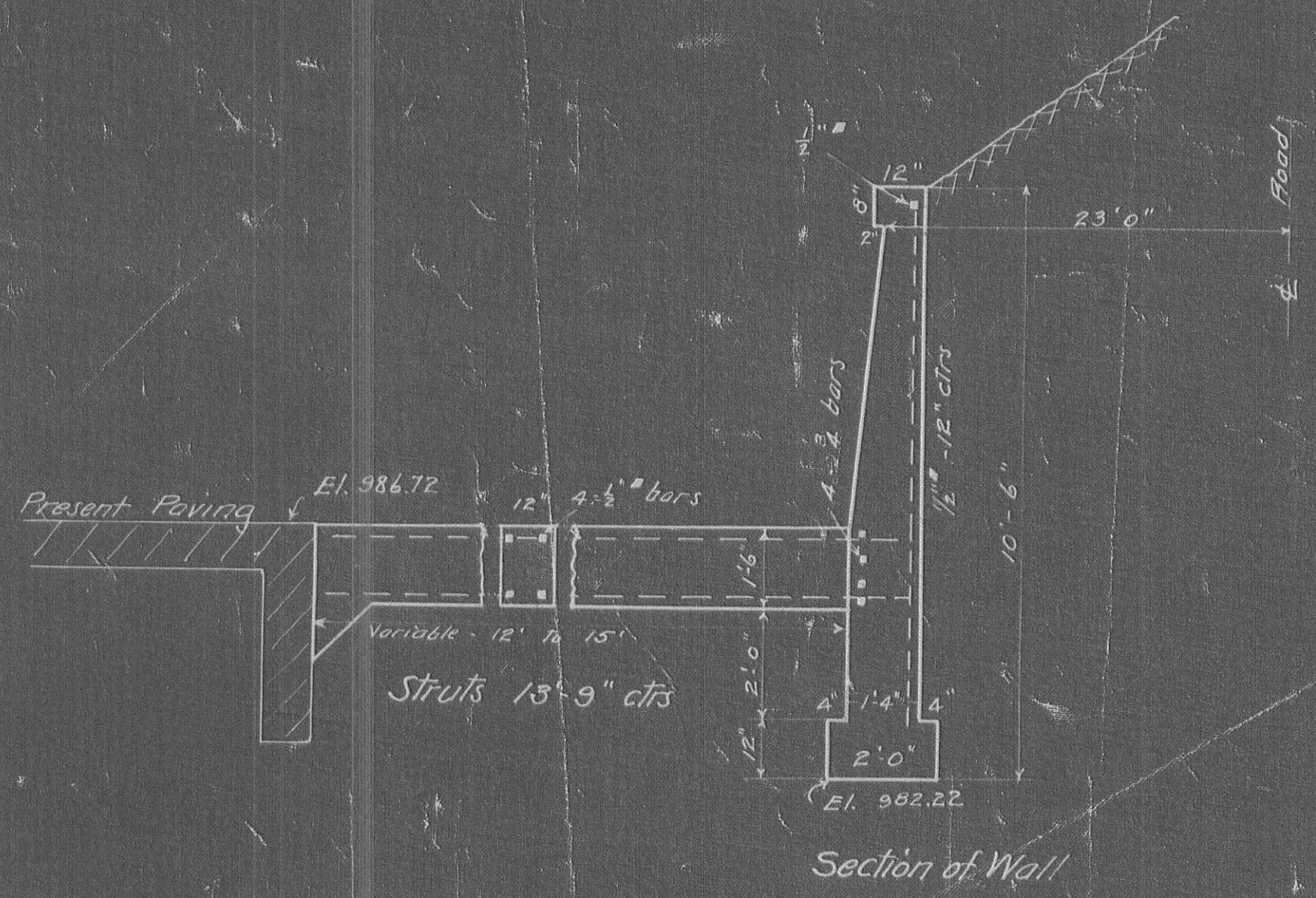
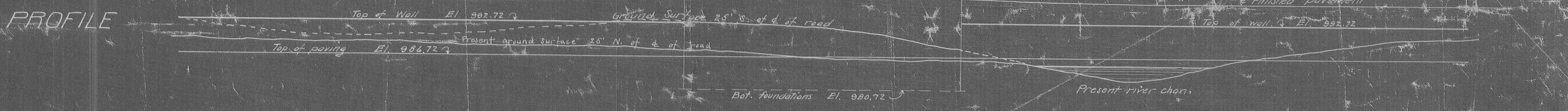
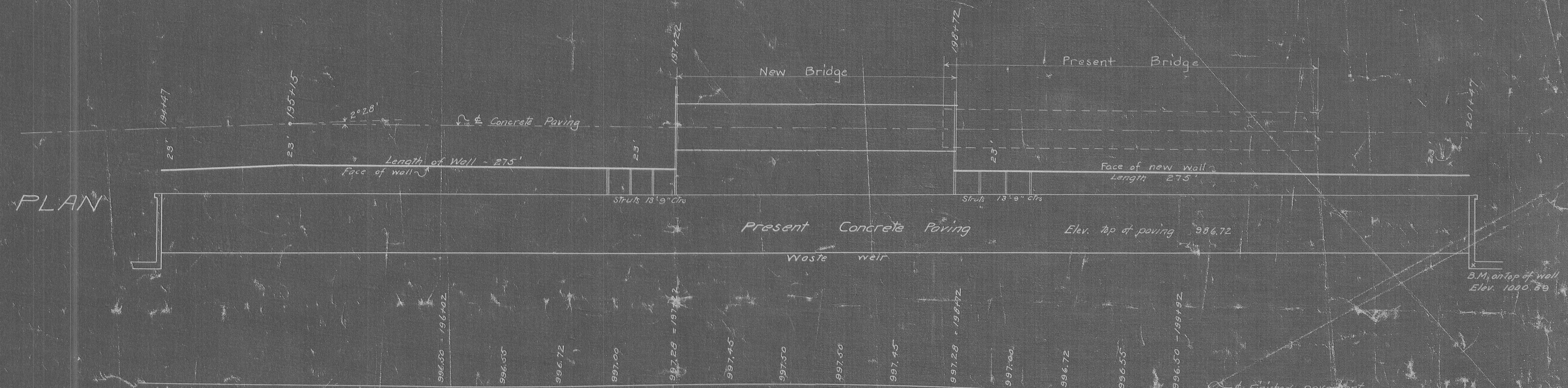
Type "A" inlet to be used from Sta. 207 to Sta. 235 and from Sta. 275 to Sta. 300+83.  
 Openings to be cut through the present wall to receive the 4" vit. pipe and the pipe to be sealed in with 1/2 cement mortar, except that from Sta. 283+96 to Sta. 300+83, connection may be made with the present 4" vit. pipes which extend through the wall.



Openings to be cut through present wall to receive the 8" vit. pipe. The pipe to be sealed in with cement mortar.  
 Type "B" inlet to be used from Sta. 300+83 to Sta. 353.

STORM WATER INLET  
 SCALE 1/4" = 1'

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10	OHIO	67	



Quantities

Excavation	215 cu. yds
Concrete 1-2 1/2-5	317.5 cu. yds
Reinf. Steel	11755 lbs.

Steel List

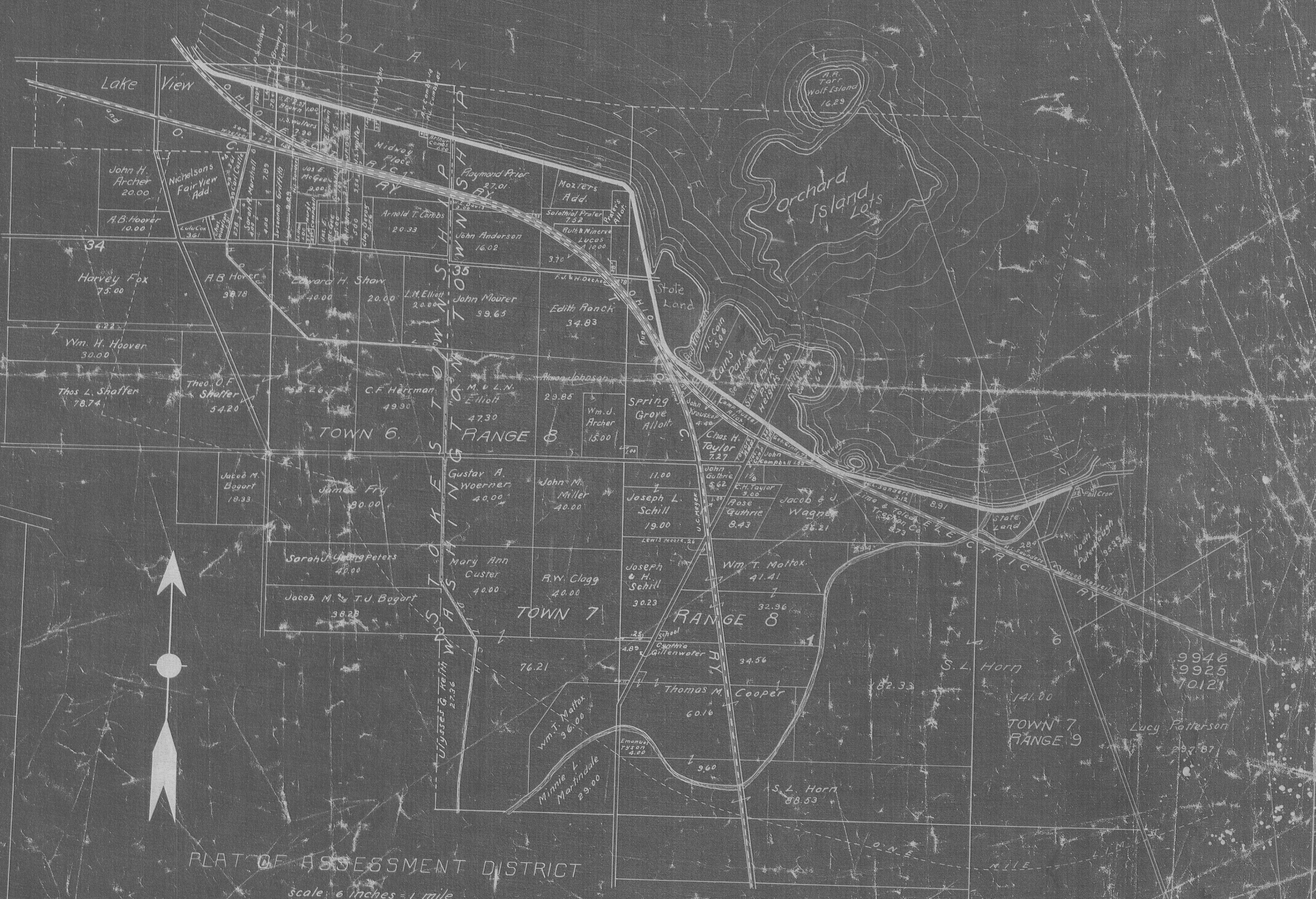
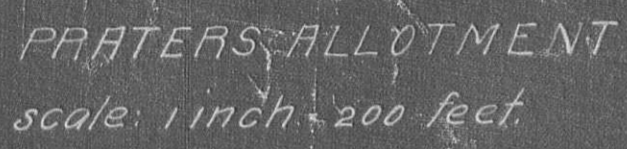
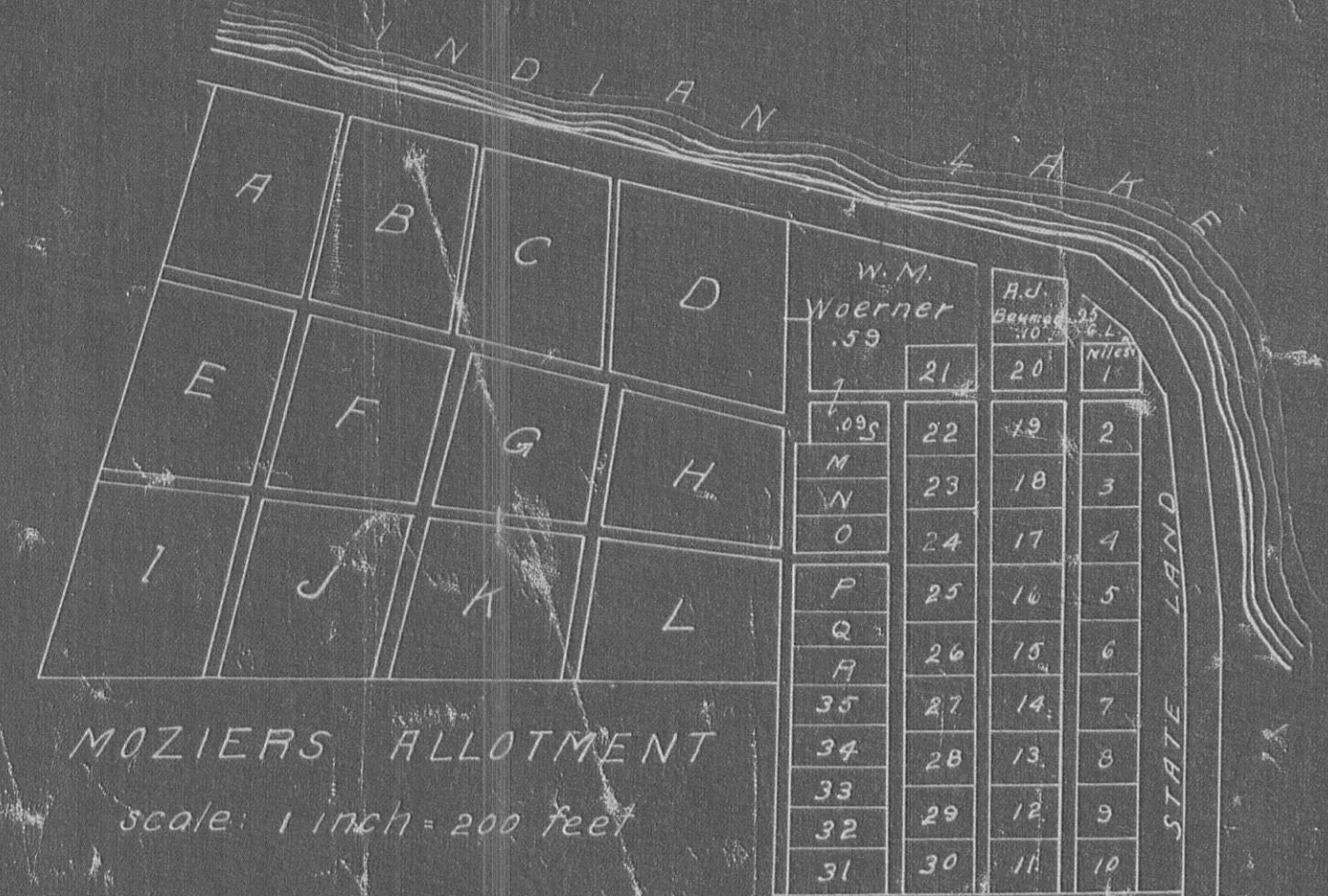
168 bars	1/2" #	14'-6"
560 "	3/4" #	10'-0"
20 "	1" #	29'-0"
80 "	1 1/4" #	29'-0"

LOCATION PLAN  
 BRIDGE AND CONCRETE WALL  
 AT WASTE WEIR

OH 168  
 DEC. F  
 LOGAN CO.

20  
 21

FED. ROAD DIST. NO. STATE FED. AID FISCAL YEAR  
 OHIO 27





ORCHARD ISLAND

