

MAR 17 1982

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

FED. RD. DIVISION	STATE	PROJECT	1
2	OHIO	STATE	58

LAWRENCE COUNTY
LAW-243-6.09

LAW - 243 - 6.09

PERRY TOWNSHIP

LAWRENCE COUNTY

DESIGN DESIGNATION

Current A.D.T. (1964)	660
Design Year A.D.T. (1988)	1169
D.H.V.	175
D. (directional distribution)	60%
T. (percent B&C Trucks)	6.1%
V. (design speed)	40M.P.H.

CONVENTIONAL SIGNS

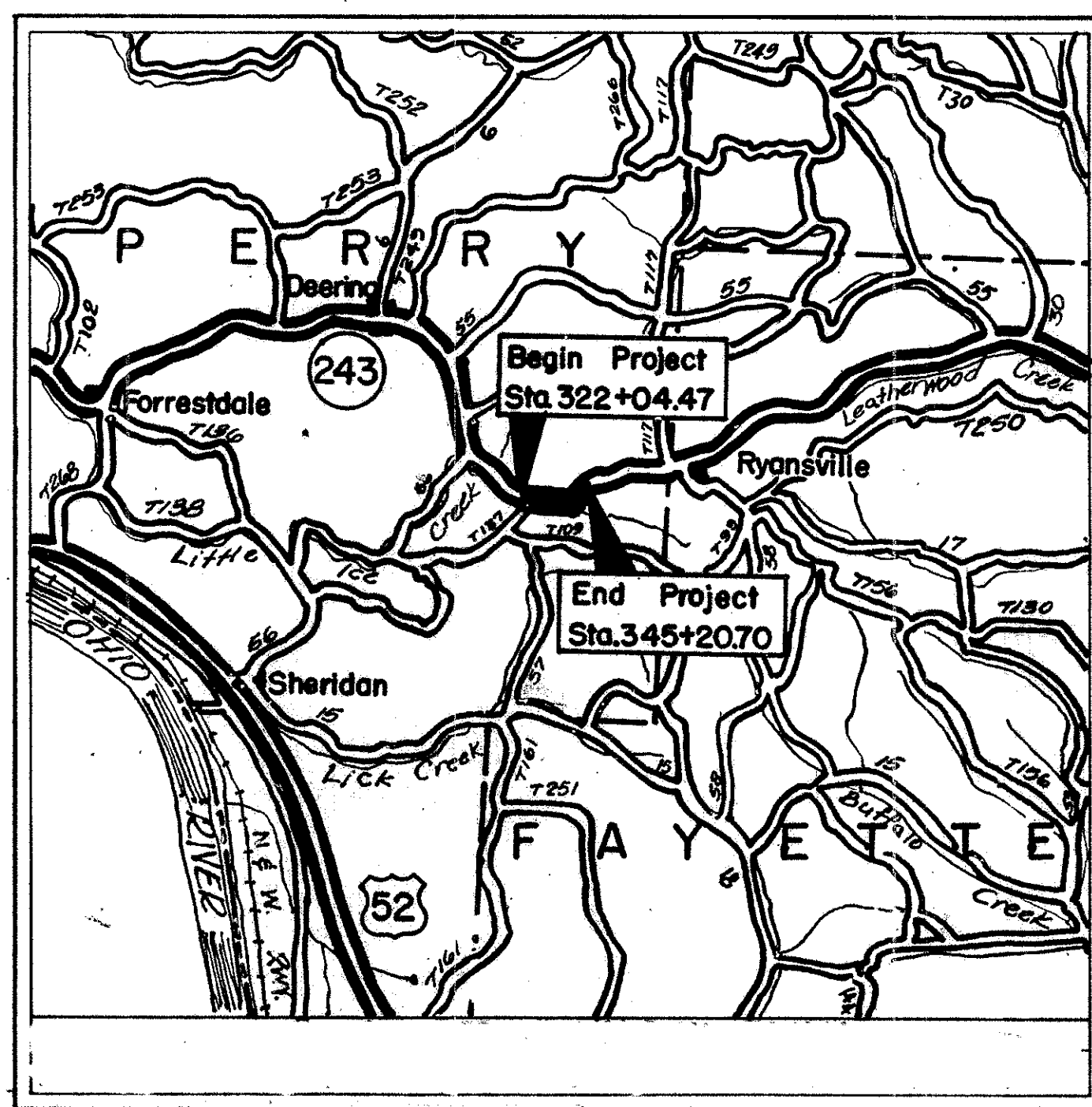
State Line	_____
County Line	_____
Township Line	_____
Section Line	_____
Center Line	_____
Corporation Line	_____
Limited Access and Right-of-Way	_____
Limited Access Only	_____
Right of Way Only	_____
Existing Right-of-Way	_____
Fence Line	_____
Guard Rail (existing)	_____
Guard Rail (proposed)	_____
Property Line	_____
Railroad	_____
Power Poles	_____
Telephone Poles	_____
Trees or Stumps (existing)	_____

INDEX OF SHEETS

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LINE DATA

Begin Project	Sta. 322+04.47
End Project	Sta. 345+20.70
Net Length of Project	2,316.23 Lin. Ft. or 0.438 Mile.
Begin Work	Sta. 320+00
End Work	Sta. 347+75
Gross Length of Work	2,775.00 Lin. Ft. or 0.525 Mile.



LOCATION MAP

SCALE OF MILES



Portion to be improved	_____
State Roads	_____
Other Roads	_____

SCALES

Plan	50' 0 50'
Profile: Horizontal	50' 0 50'
Profile: Vertical	10' 0 10'

1967 SPECIFICATIONS

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

The right-of-way for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway and that provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

Approved W. J. R. Runk
Date 11-17-67 Division Deputy Director

Approved C. H. Altwater
Date 2-29-68 Engineer of Bridges

Approved R. E. Galt
Date 2-29-68 Engineer of Location & Design

Approved R. E. Shultz
Date 2-29-68 Deputy Director of Design & Construction

Approved T. H. Board
Date 3-19-68 Deputy Director of Right of Way

No RR
40'±
1-24-69

Approved Thomas M. Major
Date 3-20-68 Deputy Director of Planning & Programming

Approved S. W. Wilson
Date 3-20-68 First Assistant Director

Approved R. E. Masteter
Date 3-20-68 Director of Highways

Revised As-Built

Supplemental Prints of Standard Construction Drawings

BP-5	6-1-65	MC-3	5-1-66	L-1	6-1-65
BP-6	6-1-65	MC-4	6-1-65		
CB-2-2A & B	6-1-65	SB-1-64	SH, 1&2	11-8-65	
GR-1	1-1-67	AS-1-67		1-11-68	
GR-2 A	1-1-67	MC-5		6-1-65	
HW-E	6-1-65	MC-8		12-1-67	
MC-1	10-1-67	BP-3		1-10-67	

Supplemental Specifications

808	1-13-67
825	12-19-67
1001	3-21-66

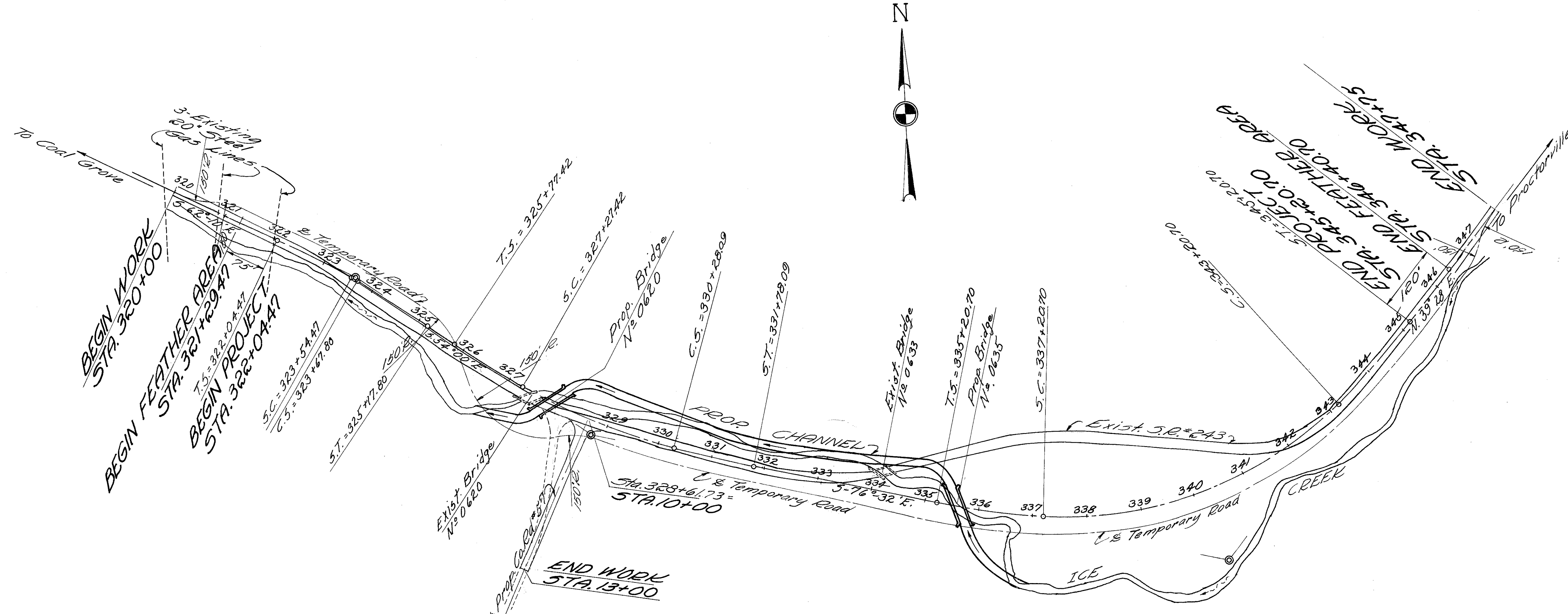
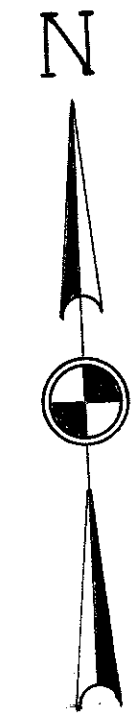
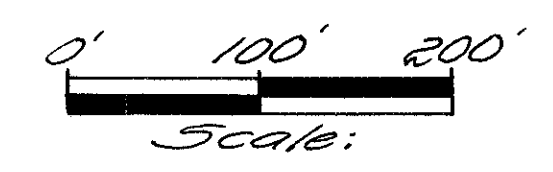
File No.	Lawrence County	LAW-243-6.09
Date of Letting		19
Contract No.		

SCHEMATIC PLAN

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

2
58

LAW. 243-6.09



PROP. CURVE DATA

Spiral	Circular
PI. = Sta. 323+61.33	$\Delta = 0^\circ-40'$
$\Delta = 8^\circ-10'$ RT.	$D_c = 5'$
$D_c = 5'$	$R = 1145.92'$
$L_s = 150'$	$L = 13.83'$
$T_s = 156.86'$	
$E_s = 3.73'$	
$X_c = 149.94'$	
$Y_c = 3.27'$	
$\theta_s = 3.75'$	

PROP. CURVE DATA

Spiral	Circular
PI. = Sta. 328+80.86	$\Delta = 15^\circ-02'$
$\Delta = 22^\circ = 32'$ LT.	$D_c = 5'$
$D_c = 5'$	$R = 1145.92'$
$L_s = 150'$	$L_c = 300.67'$
$T_s = 303.44'$	
$E_s = 23.33'$	
$X_c = 149.94'$	
$Y_c = 3.27'$	
$\theta_s = 3.75'$	

PROP. CURVE DATA

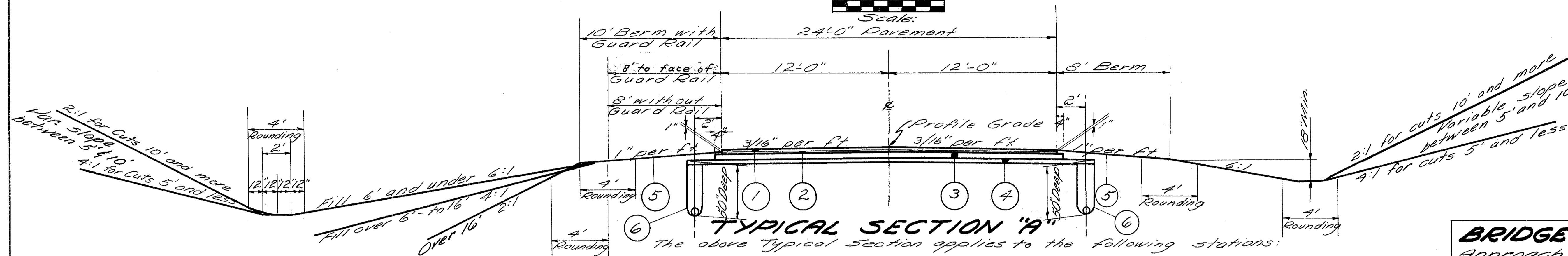
Spiral	Circular
PI. = Sta. 340+69.62	$\Delta = 48^\circ-0'$
$\Delta = 64^\circ-00'$ LT.	$D_c = 8'$
$D_c = 8'$	$R = 716.20'$
$L_s = 200'$	$L_c = 600.00'$
$T_s = 548.92'$	
$E_s = 131.1'$	
$X_c = 199.61'$	
$Y_c = 9.30'$	
$\theta_s = 8.0'$	

TYPICAL SECTIONS

404 on 301



Scale:



TYPICAL SECTION "A"

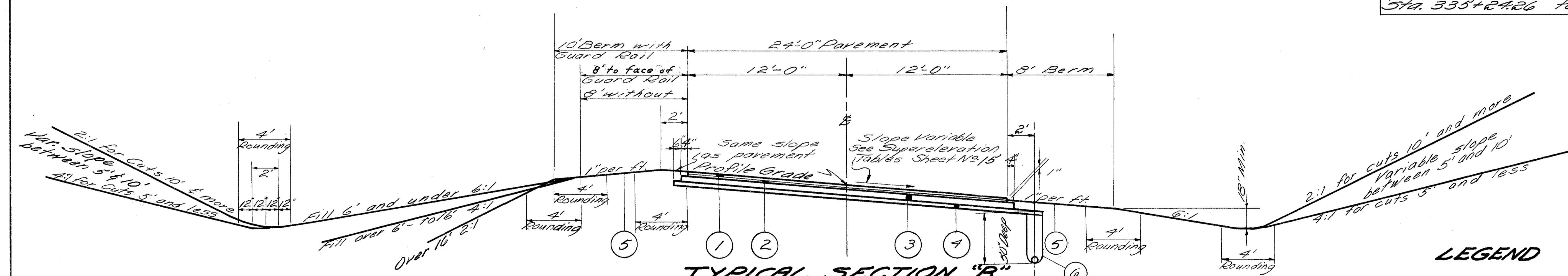
The above Typical Section applies to the following stations:

Sta. 325+17.80 to Sta. 325+77.42 = 59.62 Lin. Ft.
Sta. 331+78.09 to Sta. 335+20.70 = 342.61 Lin. Ft.
Total = 402.23 Lin. Ft.

Note: For underdrain elevations see cross sections

BRIDGE No. LAW. 243-0620
Approach Slabs & Bridge Limits
Sta. 327+51.56 to Sta. 328+22.44

BRIDGE No. LAW. 243-0635
Approach Slabs & Bridge Limits
Sta. 335+24.26 to Sta. 335+95.14



TYPICAL SECTION "B"

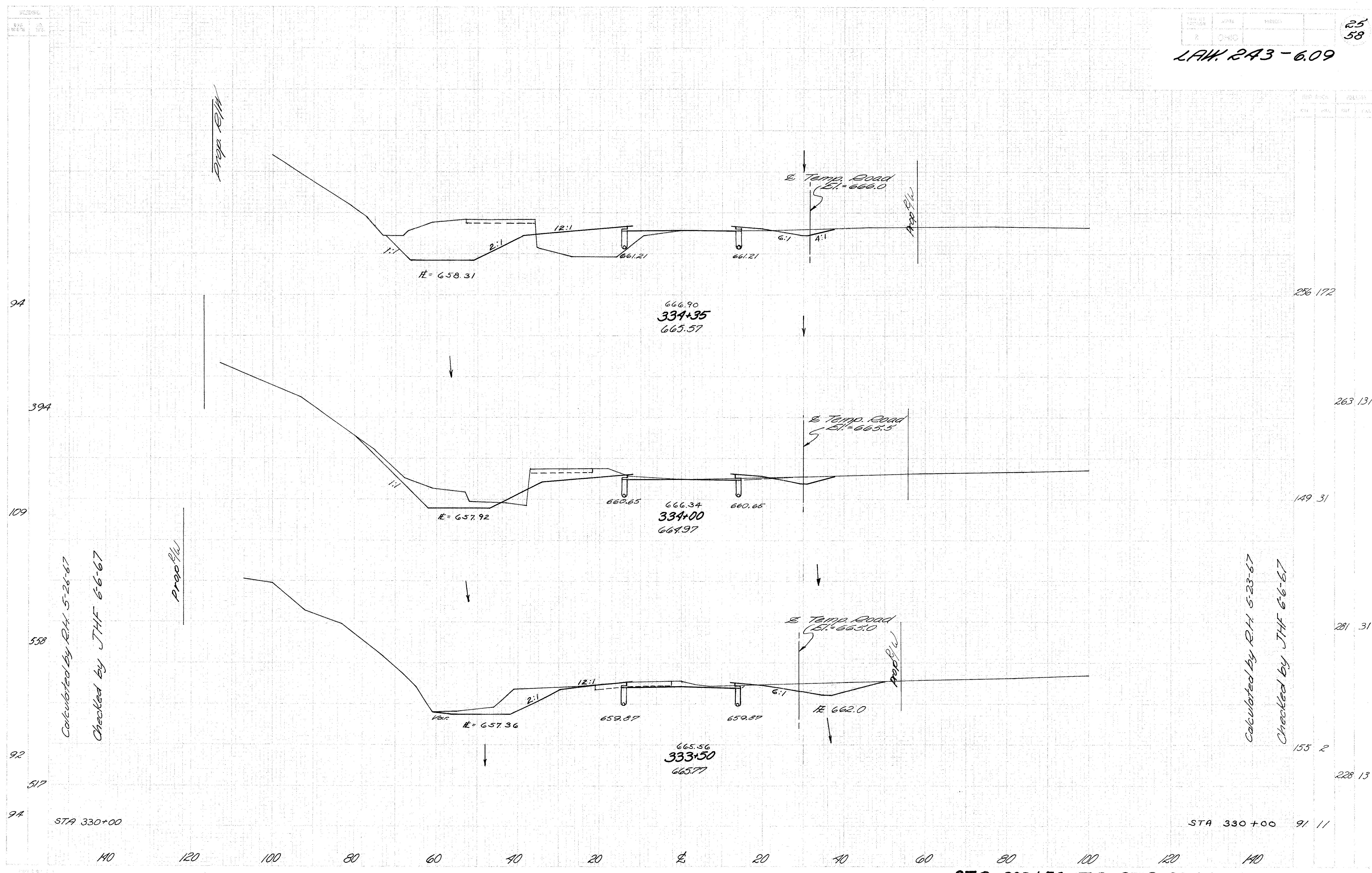
The above Typical Section applies to the following Stations:

Sta. 322+04.47 to Sta. 325+17.80 = 313.33 Lin. Ft.
Sta. 325+77.42 to Sta. 327+51.56 = 174.14 Lin. Ft.
Sta. 328+22.44 to Sta. 331+78.09 = 355.65 Lin. Ft.
Sta. 335+20.70 to Sta. 335+24.26 = 3.56 Lin. Ft.
Sta. 335+95.14 to Sta. 345+20.70 = 925.56 Lin. Ft.
Total = 1772.24 Lin. Ft.

LEGEND

Item	Description
①	404 1" Asphalt Concrete (85-100)
②	402 1 1/4" Asphalt Concrete (85-100)
③	301 4" Bituminous Aggregate Base - 702.01 (85-100); or 702.09 RT 10
④	310 4" Subbase
⑤	659 Seeding and Mulching (See General Notes)
⑥	605 6" Deep pipe underdrains (unless otherwise shown on plans)

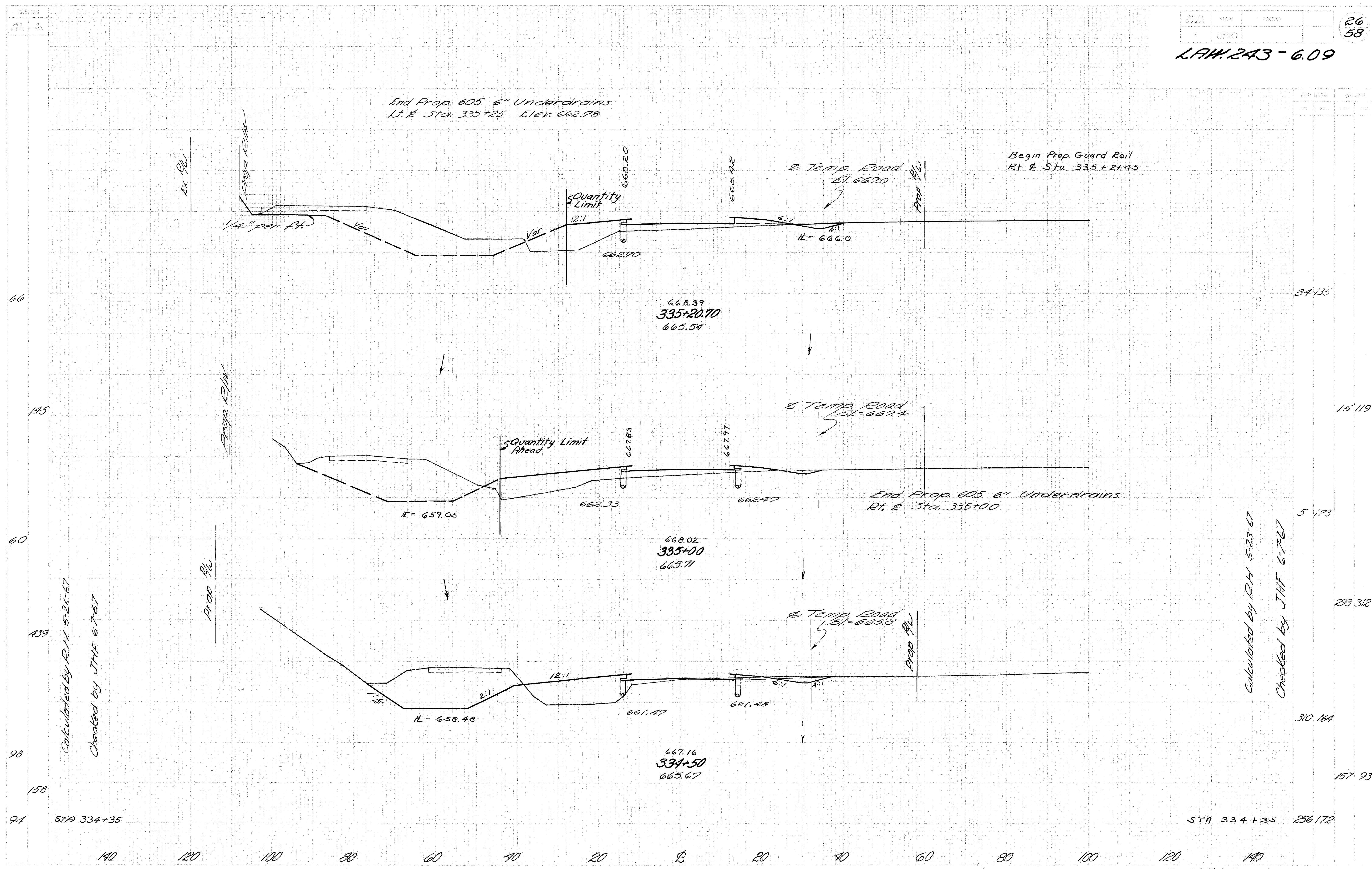
Drawn	Traced	Checked
D.D.B.	R.H.	J.V.
6-7-67	6-9-67	6-12-67



Calculated by R.H. 5-26-67
Checked by J.H.F. 6-6-67

Calculated by R.H. 5-23-67
Checked by J.H.F. 6-6-67

STA. 333+50 TO STA. 334+35



End Prop. 605 6" Underdrains
Lt. & Sta. 335+25 Elev. 662.78

Begin Prop. Guard Rail
Rt. & Sta. 335+21.45

Temp. Road
Elev. 662.0

Temp. Road
Elev. 662.4

Temp. Road
Elev. 663.3

End Prop. 605 6" Underdrains
Rt. & Sta. 335+00

Calculated by R.H. 5-26-67
Checked by J.H.F. 6-7-67

Calculated by R.H. 5-23-67
Checked by J.H.F. 6-7-67

STA. 334+50 TO STA. 335+20.70

94 STA 334+35

STA 334+35 256172

34135

15119

5173

293312

310164

15793

66

145

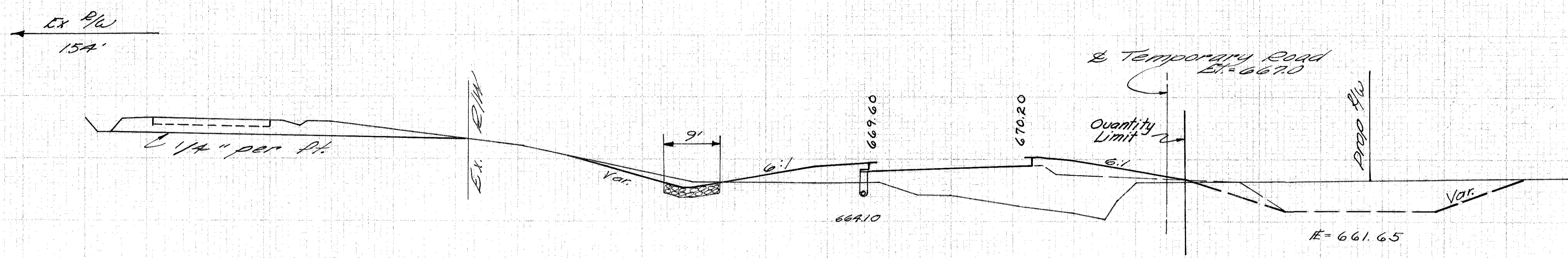
60

439

98

158

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140



Begin Prop. 9' Dumped Rock
 Channel Protection Lt. & Sta.
 335+53
 Prop. Underdrain Outlet
 43' Lt. 335+49 blk. = 663.5

669.90
 336+00.70
 664.09

BRIDGE LIMIT STA 335+70.14

BRIDGE LIMIT STA 335+49.26

Sta. 335+70.14 Ahead	127.308
Sta. 335+70.14 Back	17.0
Sta. 335+67 Ahead	17.0
Sta. 335+67 Back	25.0
Add for Payment Re- moval between the Bridge Limits	53.0
Sta. 335+53 Ahead	25.0
Sta. 335+53 Back	8.0
Sta. 335+49.26 Ahead	8.0
Sta. 335+49.26 Back	34.135

Ahead Sta. 335+70.14
 Back Sta. 335+70.14

Ahead Sta. 335+67
 Back Sta. 335+67

Ahead Sta. 335+53
 Back Sta. 335+53
 Add for Erosion Protection after
 Pavement Removal between
 the Bridge Limits

Ahead Sta. 335+49.26
 Back Sta. 335+49.26

STA 335+20.70

STA 335+20.70 34.135

STA. 335+60.70 TO STA. 336+00.70

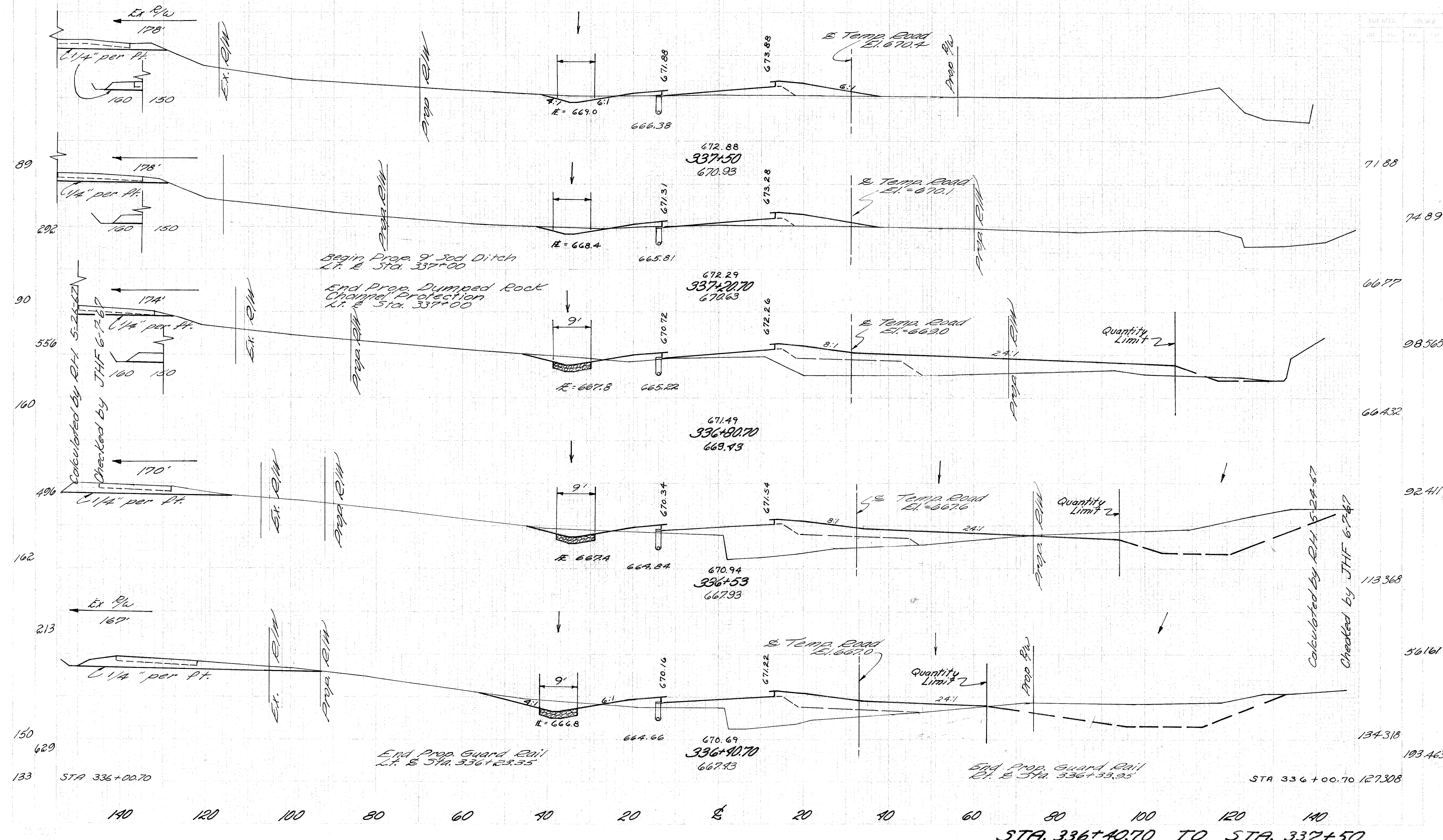
133
 450
 133
 44
 12
 26
 70
 109
 70
 44
 80
 15
 26
 60
 210
 66

127.308
 144.349
 127.308
 17.0
 2.0
 17.0
 25.0
 53.0
 13.0
 25.0
 8.0
 1.0
 8.0
 34.135
 36.143

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

Calculated by R.H. 5-26-67
 Checked by JHF 6-7-67

Calculated by R.H. 5-23-67
 Checked by JHF 6-7-67



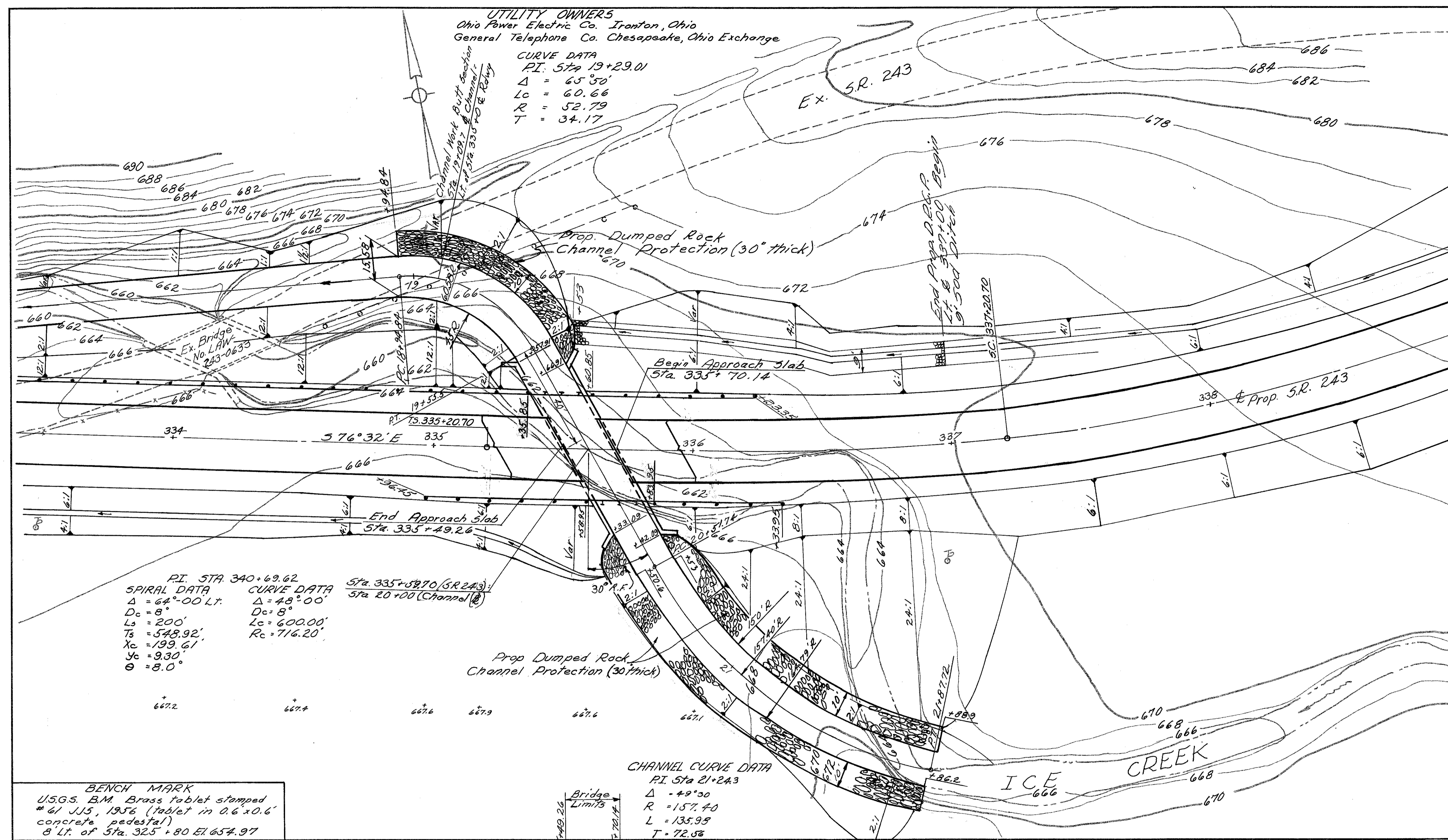
UTILITY OWNERS
Ohio Power Electric Co. Ironton, Ohio
General Telephone Co. Chesapeake, Ohio Exchange

CURVE DATA
P.I. Sta 19+29.01
 $\Delta = 65^{\circ}30'$
Lc = 60.66
R = 52.79
T = 34.17

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

49
58

LAW-243 - 6.09
4.7 ± Miles Northeast of Coal Grove



P.I. STA 340+69.62
SPIRAL DATA
 $\Delta = 64^{\circ}00'LT.$
Dc = 8'
Ls = 200'
Ts = 548.92'
Xc = 199.61'
Yc = 9.30'
 $\theta = 8.0^{\circ}$

CURVE DATA
 $\Delta = 48^{\circ}00'$
Dc = 8'
Lc = 600.00'
Rc = 716.20'

Sta 335+59.70 (S.R. 243)
Sta 20+00 (Channel @)

CHANNEL CURVE DATA
P.I. Sta 21+24.3
 $\Delta = 49^{\circ}30'$
R = 157.40
L = 135.95
T = 72.53

BENCH MARK
USGS. B.M. Brass tablet stamped
61 JJ5, 1956 (tablet in 0.6 x 0.6' concrete pedestal)
8 Lt. of Sta. 325+80 El. 654.97

EXISTING BRIDGE DATA
BRIDGE NO. LAW-243-0633

Type	Conc. Slab Girder
Span	25'-7"
Rdwy	16'-1"
Skew	40° R.F.
Suff. Rating	37
Cond't.	Critical
Reduct.	50%
Abut.	Stone & Conc.

DRAINAGE AREA = 0.88 Sq. Mi.

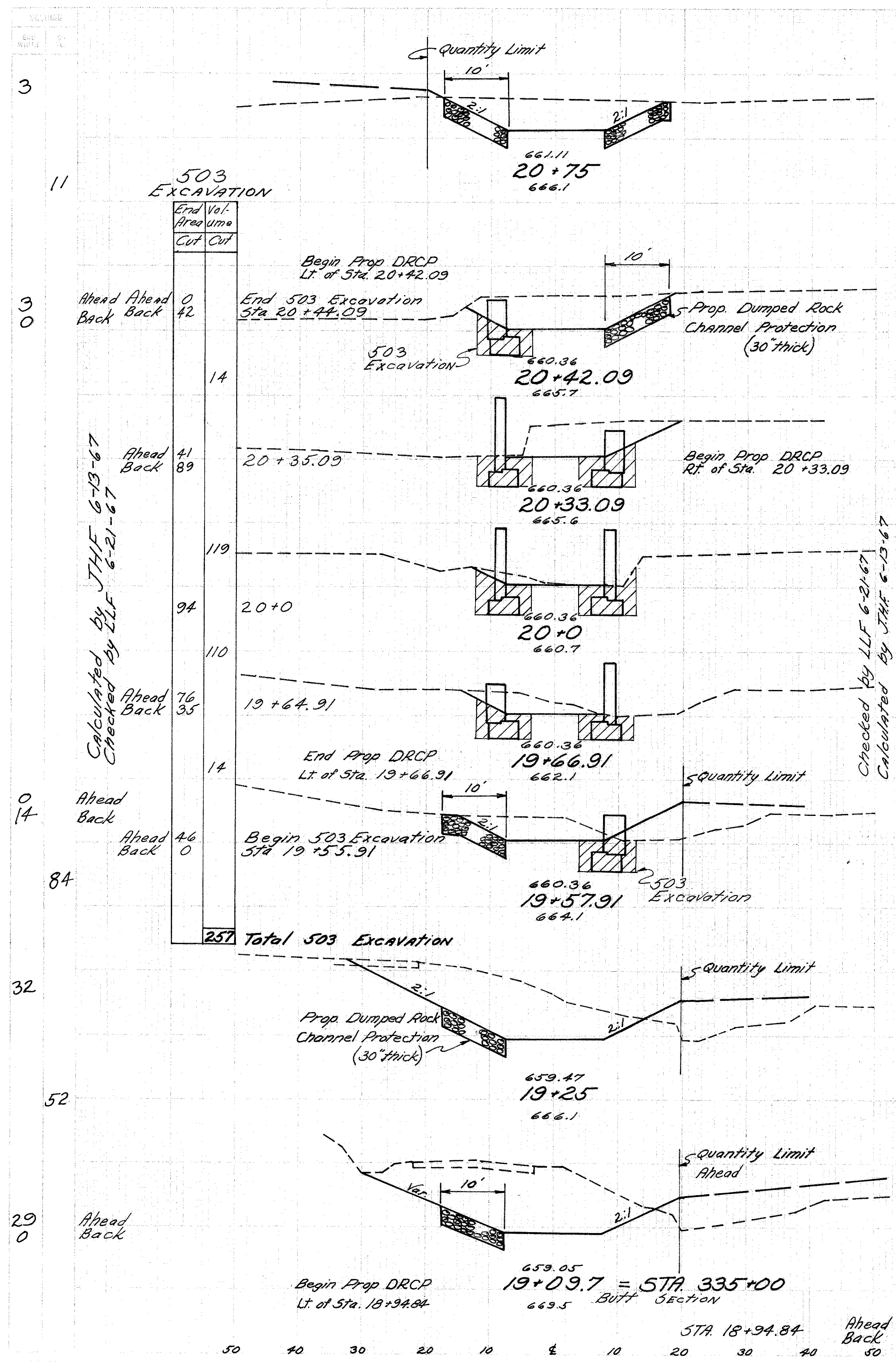
PROPOSED BRIDGE DATA

TYPE: Single Span Slab with reinforced Concrete Substructure
SPAN: 18'-0" w/ Abutments
ROADWAY: 40'-0" w/ Guard Rail
LOAD FREQUENCY: CF-130(57)
WEARING SURFACE: 1" Mono. Conc.
SKEW: 30° Right Forward
APPROACH SLABS: AS-1-67 (25' long)
ALIGNMENT: Spiral

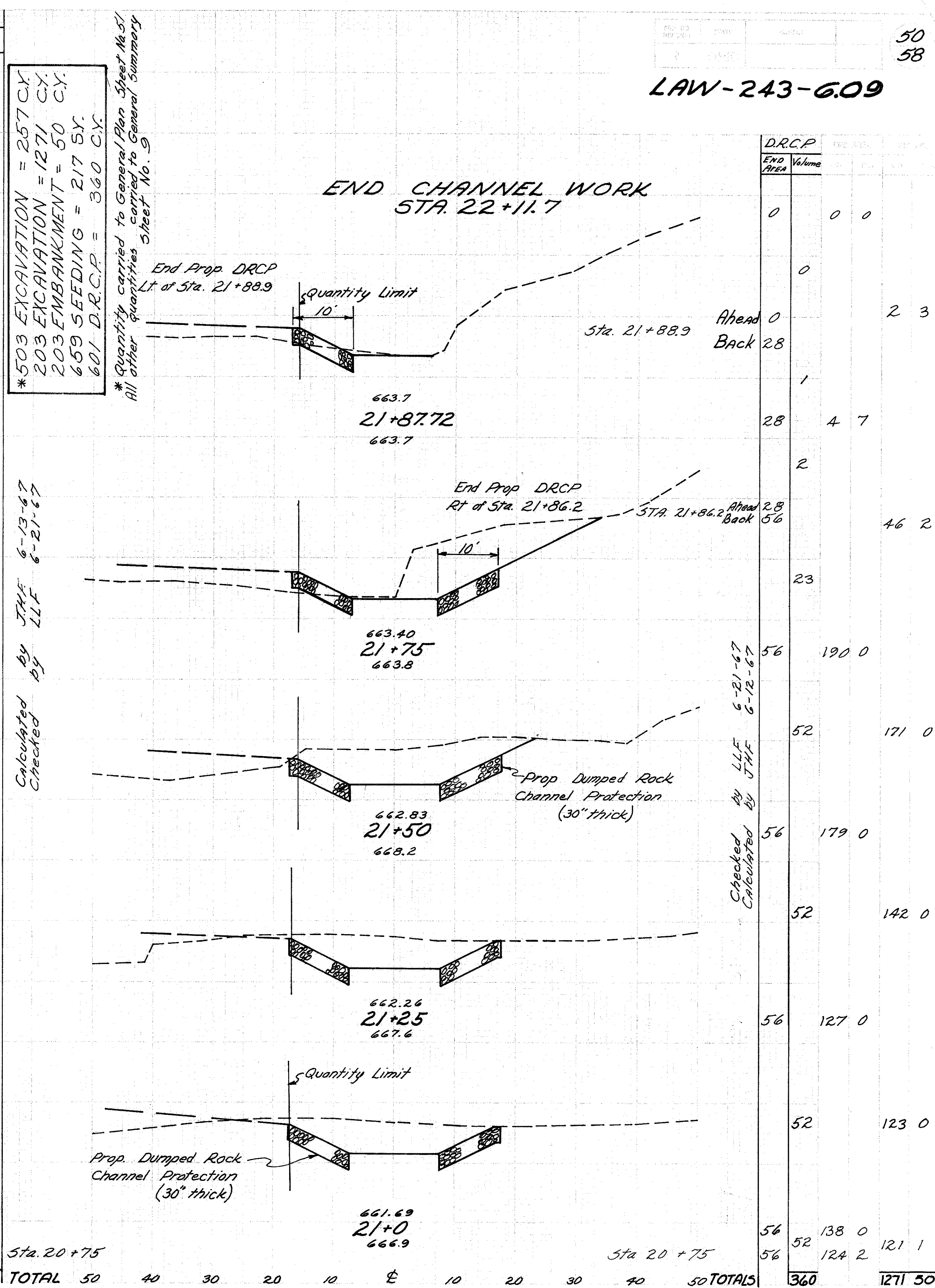
SITE PLAN
STRUCTURE NO LAW-243-0635
S.R. 243 over ICE CREEK
LAWRENCE COUNTY STA. 335+49.26
SCALE _____ to STA. 335+70.14

665.94	666.34	666.74	667.16	667.20	667.58	668.02	668.39	668.75	Sta. 335+49.26	669.03	669.13	Sta. 335+70.14	669.57	669.90	670.29	670.69	670.94	671.09	671.49	671.89	672.29	672.38	672.88	673.38	673.88	674.38	674.88	675.38
680				400 V.C.					El. 666.31 Highest Water known																		680	

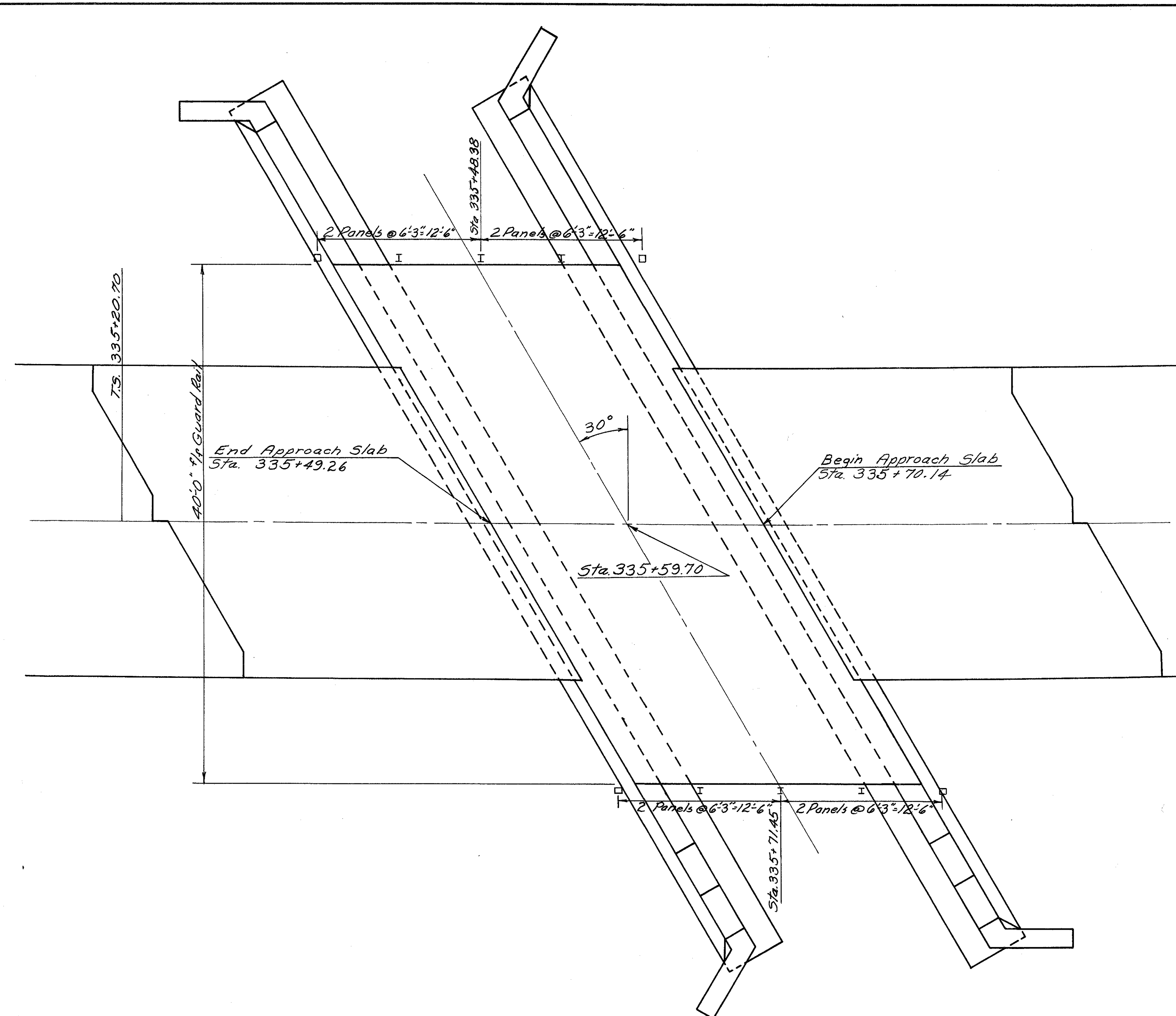
PRES. TOPOGRAPHY SURVEYED	PROPOSED WORK DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
LLF	LLF	LLF	LLF		



D.R.C.P.	END AREA		VOLUME		SEEDING	
	END AREA	Volume	CUT	FILL	CUT	FILL
56	124	2				
51	152	1				
28	126	0			0	
5	38	0		15		
0	100	0				
0	69	0	21			
0	13	0				
0	33	0		40		
0	41	0				
5	17	6		8		
28	64	38			11	
34	194	31				
28	265	13				
16	163	6				
28	320	8			4	
15						
28					3	
0						
217	TOTAL	50	40	30	20	10



D.R.C.P.	END AREA		VOLUME		SEEDING	
	END AREA	Volume	CUT	FILL	CUT	FILL
0	0	0				
0	0	0				
0	0	0				
1	28	4	7			
28	47					
2						
0	28	46	2			
23						
56	190	0				
52	171	0				
56	179	0				
52	142	0				
56	127	0				
52	123	0				
56	138	0				
56	124	2				
360	TOTALS	1271	50	40	30	20



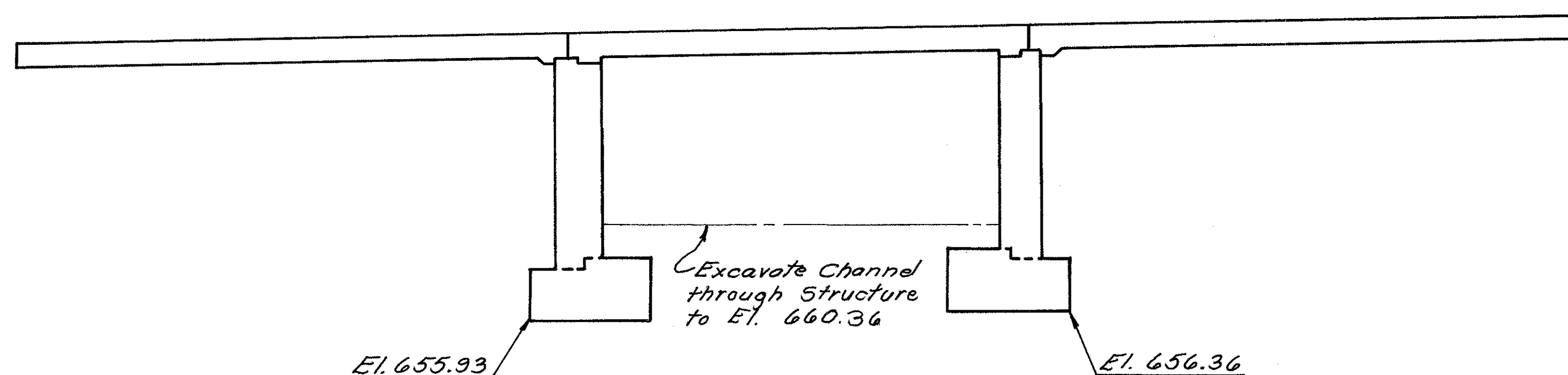
ESTIMATED QUANTITIES							
ITEM	TOTAL	UNIT	DESCRIPTION	ABUT.	SUPERSTR.	GEN. L.	Revised As-Built
202	Lump	Sum	Existing Structure Removed			Lump	
*503	257	C.Y.	Unclassified Excavation	257			5-165 192
503	Lump	Sum	Cofferdams, Cribbs & Sheeting			Lump	
509	11,731	Lbs.	Reinforcing Steel	4,069	7,662		
511	36.1	C.Y.	Class "C" Conc., Superstructure		36.1		
511	96.3	C.Y.	Class "E" Conc., Abutment Walls	96.3			
511	70.5	C.Y.	Class "E" Conc., Footings	70.5			
516	11	S.F.	1/2" Preformed Expansion Joint Filler		11		
517	41.76	L.F.	Railing (Type Deep Beam with Steel Posts & Bolts)		41.76		
518	64	C.Y.	Porous Backfill	64			
808	36		Water-reducing, set-retarding Admixture		36		6-2-36
825	122	S.Y.	Concrete Surface Treatment	17	105		

GENERAL NOTES

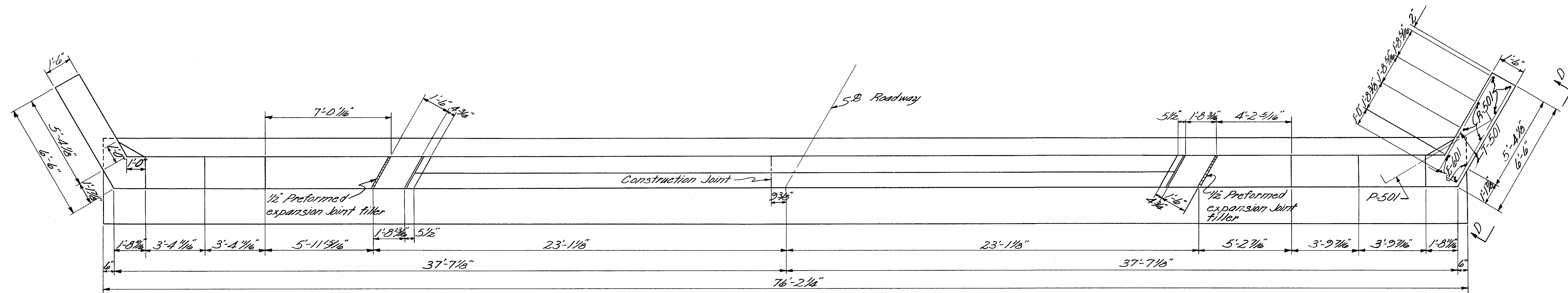
STANDARD CONSTRUCTION DRAWINGS: SB-1-64 Dated 11-8-65
AS-1-67 Dated 1-11-68
GR-2 A Dated 1-1-67

SUPPLEMENTAL SPECIFICATIONS: No. 808 Dated 1-13-67
No. 825 Dated 12-19-67

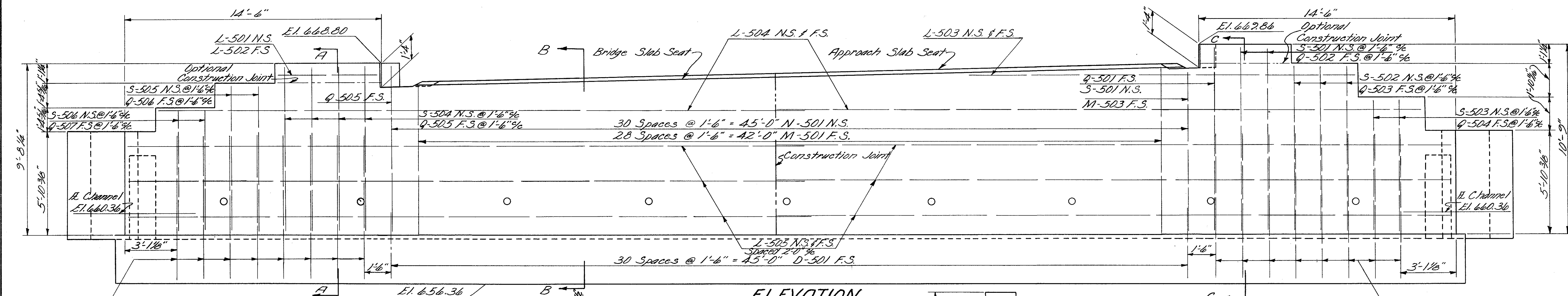
* Carried from Sheet No. 50



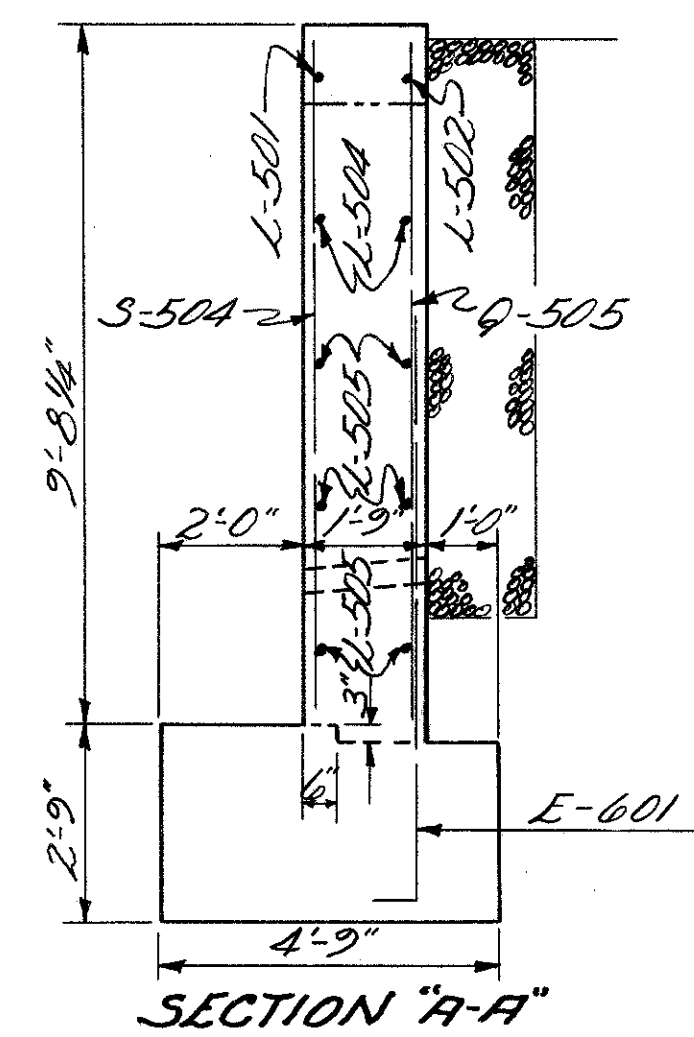
GENERAL PLAN & ELEVATION NOTES & ESTIMATED QUANTITIES					
STRUCTURE NO. LAW-243-0635					
S.R. 243 over ICE CREEK					
LAWRENCE COUNTY STA. 335+49.26					
SCALE 0 5' 10' to STA. 335+70.14					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
LLF	LLF	JHF			



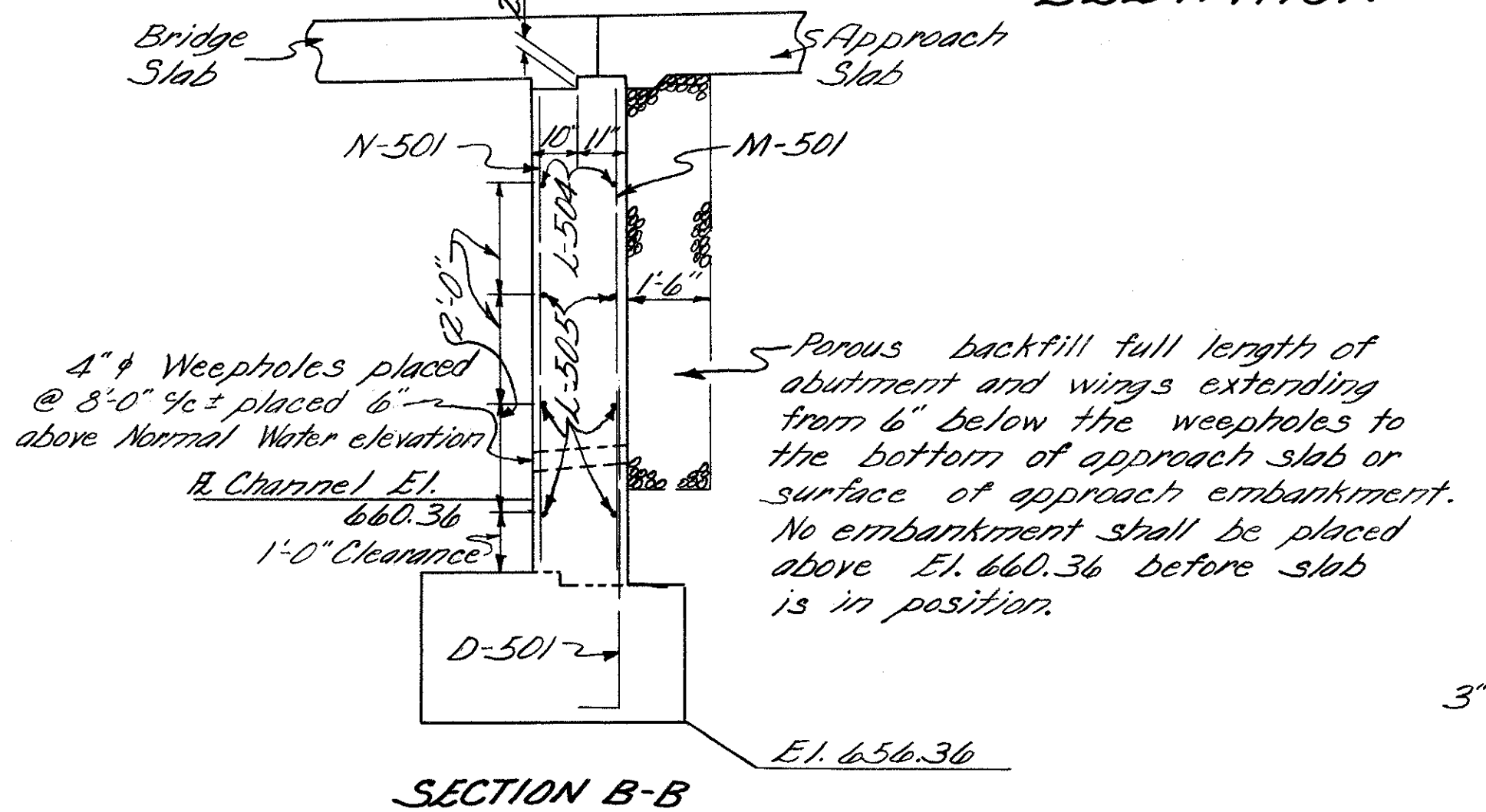
PLAN



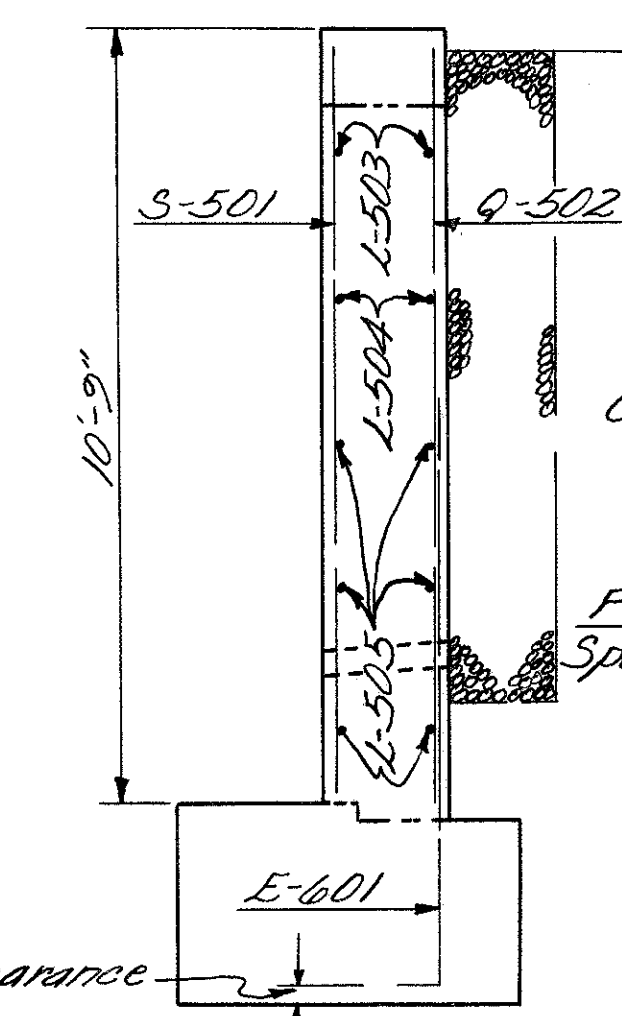
ELEVATION



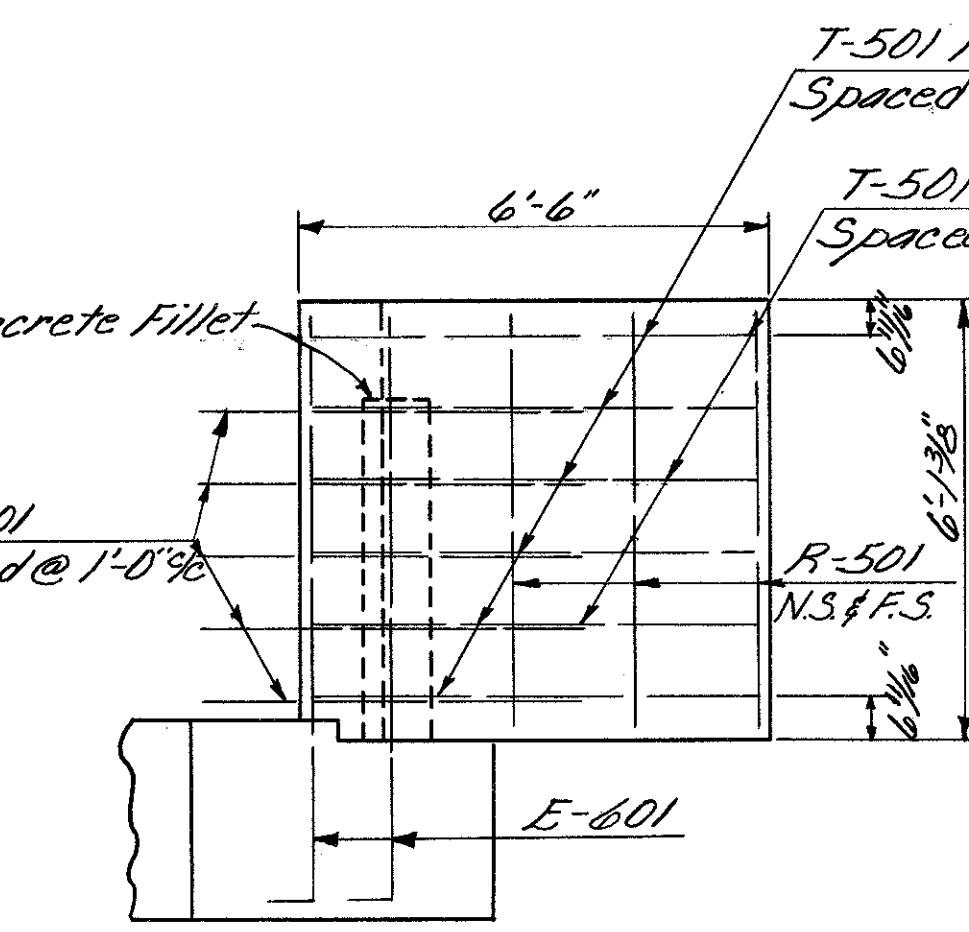
SECTION A-A



SECTION B-B



SECTION C-C



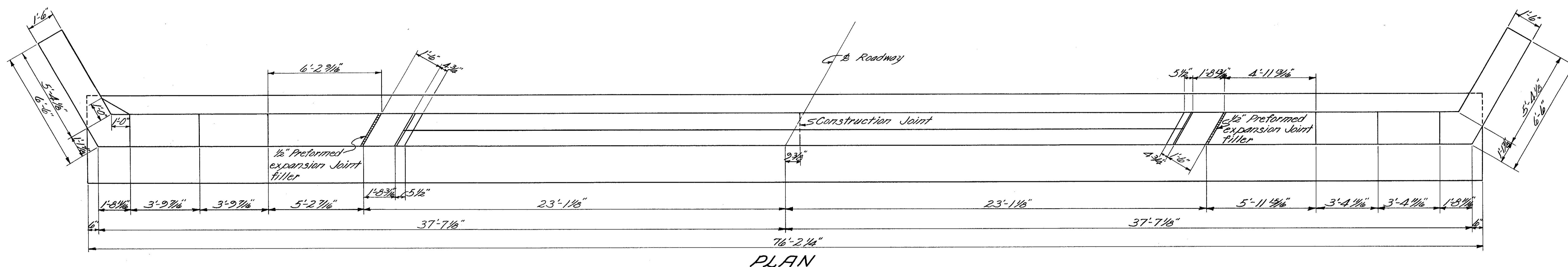
SECTION D-D

4" ϕ Weepholes placed @ 8'-0" ϕ ± placed 6" above Normal Water elevation
 B. Channel El. 660.36
 1'-0" Clearance

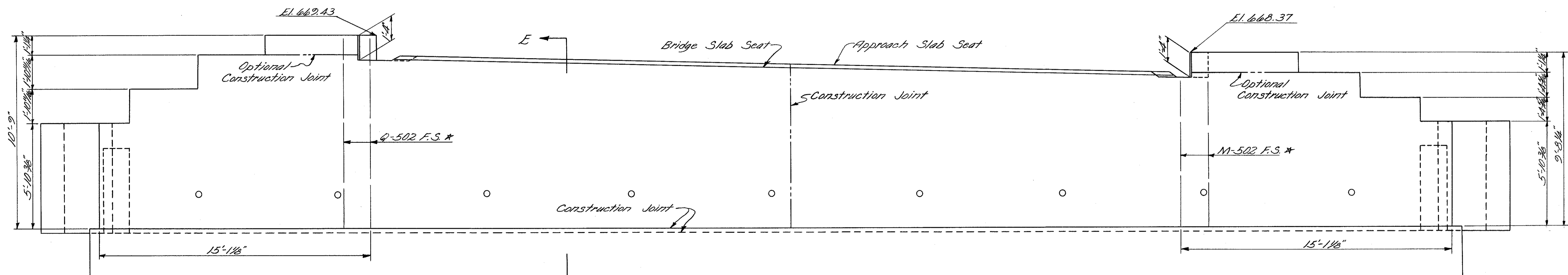
Porous backfill full length of abutment and wings extending from 6" below the weepholes to the bottom of approach slab or surface of approach embankment.
 No embankment shall be placed above El. 660.36 before slab is in position.

FORWARD ABUTMENT DETAILS
 STRUCTURE No. LAW-243-D635
 SR 243 OVER ICE CREEK
 LAWRENCE COUNTY STA. 335+49.26
 SCALE 0" = 1' 2" = 3" To STA. 335+70.14

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	REVISED
LLF	LLF	JLB			



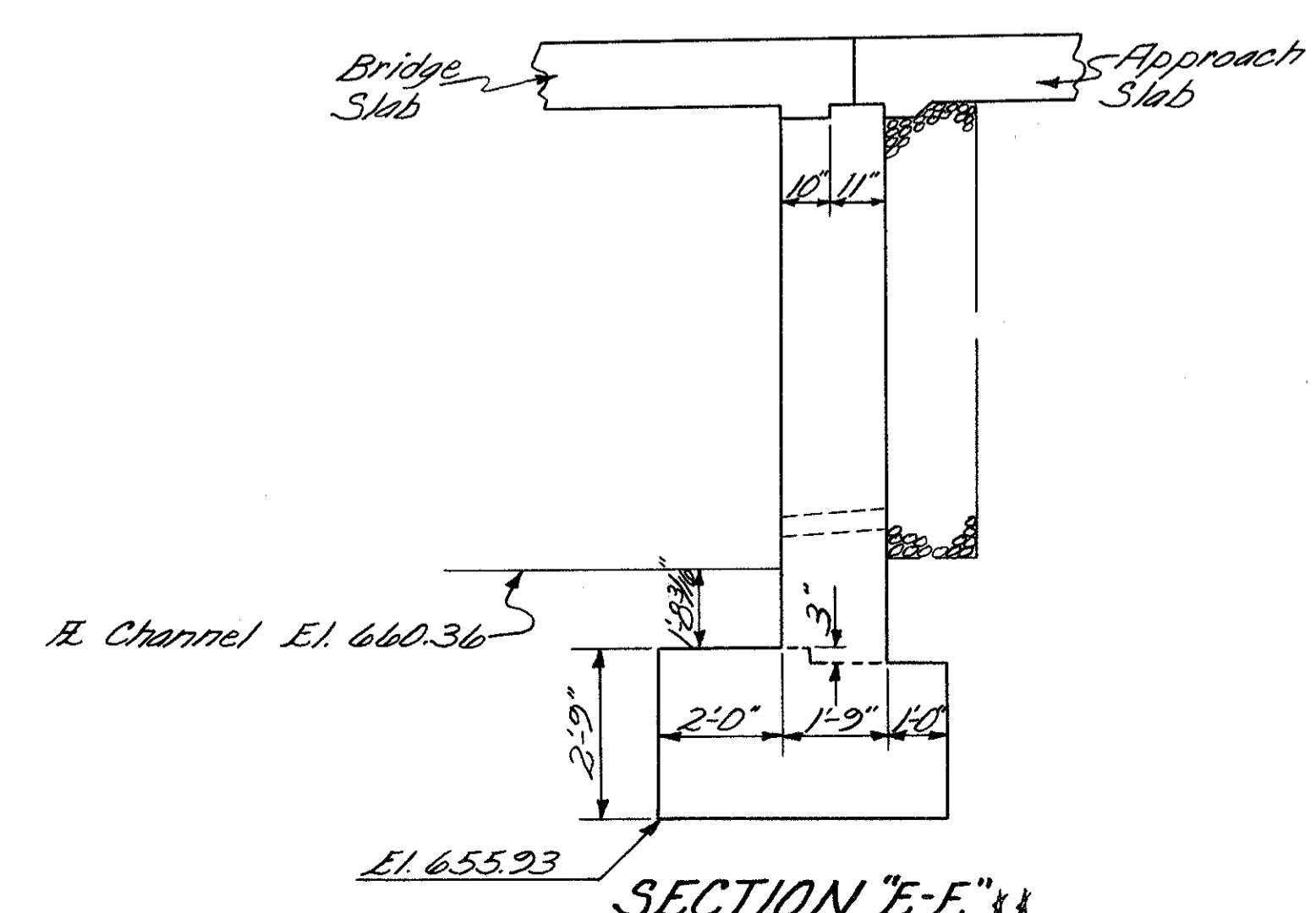
PLAN



ELEVATION

NOTE: * Bars M-502 & Q-502 are located as shown in the above drawing on the Rear Abutment. Bars on the Forward Abutment at this location are shown on the Forward Abutment details. All other steel in the Rear Abutment is the same spacing, location & size as shown on the Forward Abutment details.

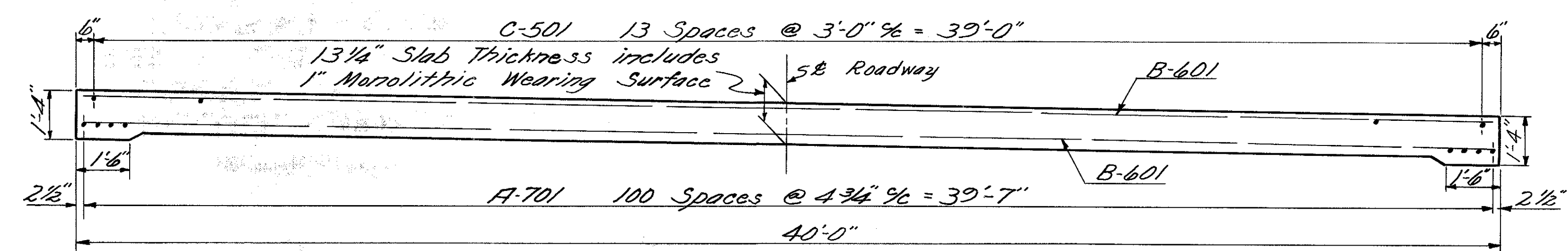
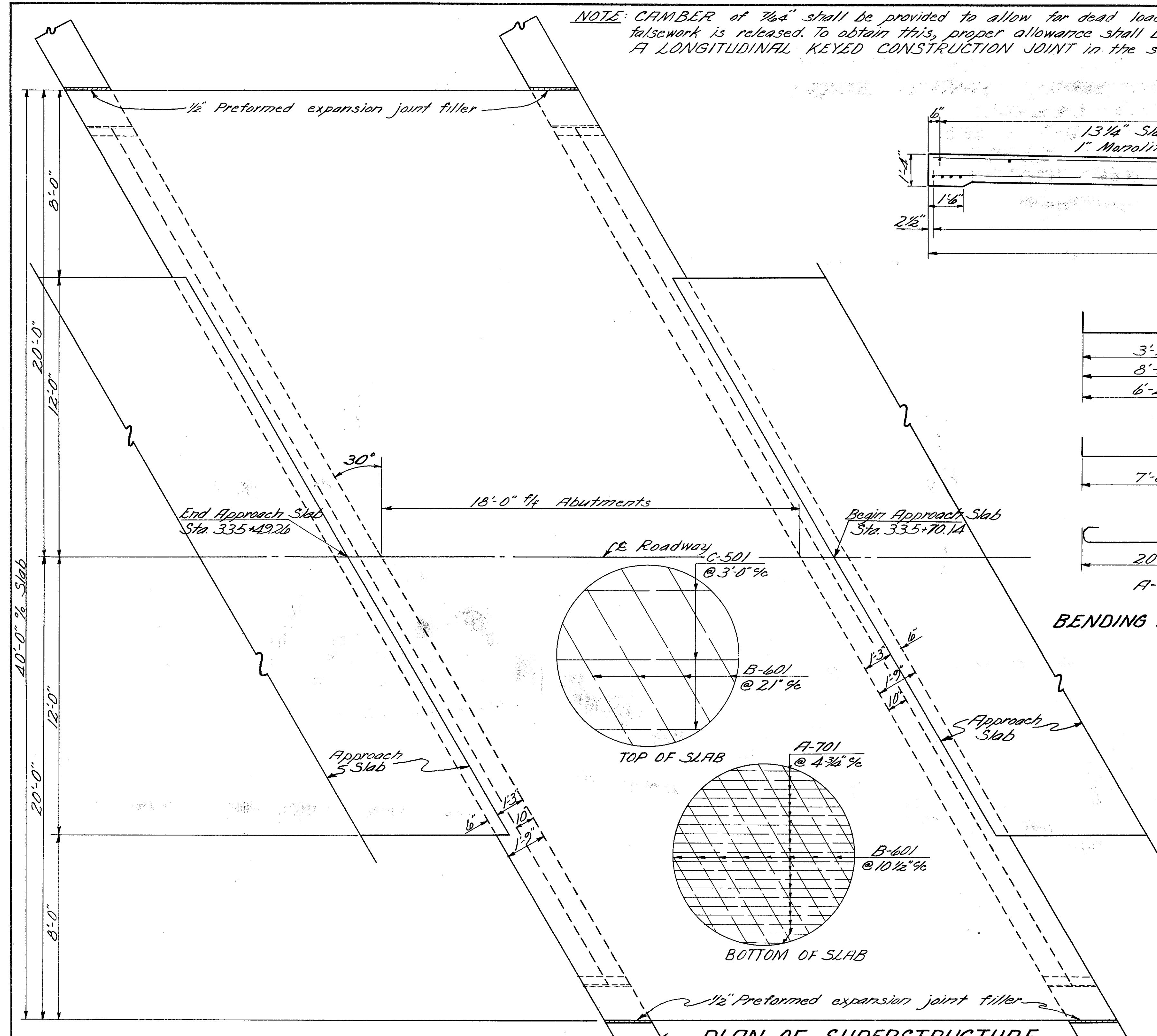
** Section "E-E" (This sheet is the same design as Section "B-B" on the Forward Abutment details. The only difference is in Elevations, and the distance from top of footer to the flow line. The Abutment & Footer design is identical)



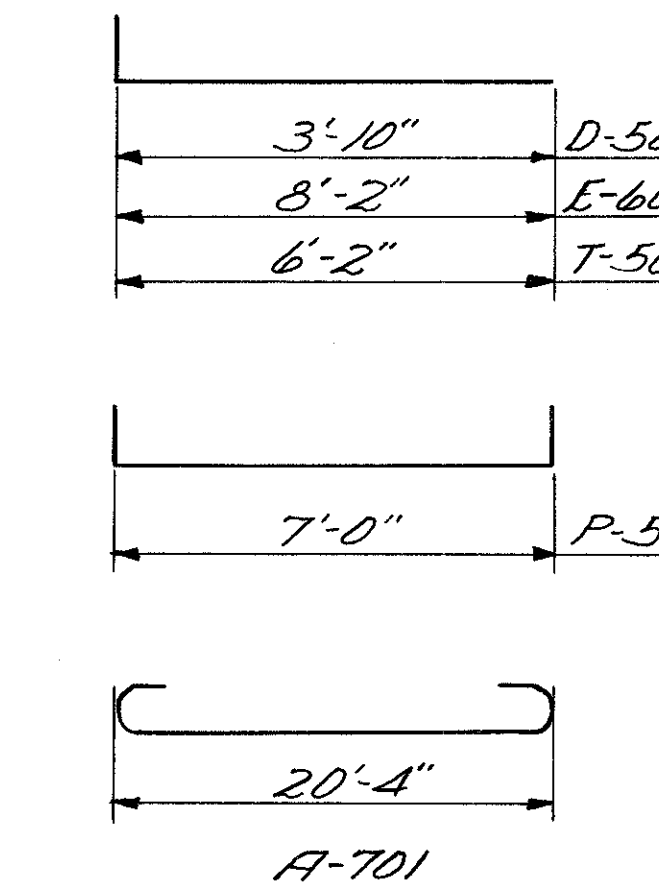
SECTION "E-E"

REAR ABUTMENT DETAILS					
STRUCTURE No. LAW-243-06.35					
SR 243 Over ICE CREEK					
LAWRENCE COUNTY STA. 335+49.26					
SCALE 0' 1' 2' 3' to STA. 335+70.14					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	REVISED
LL.F.	LL.F.	J.L.G.			

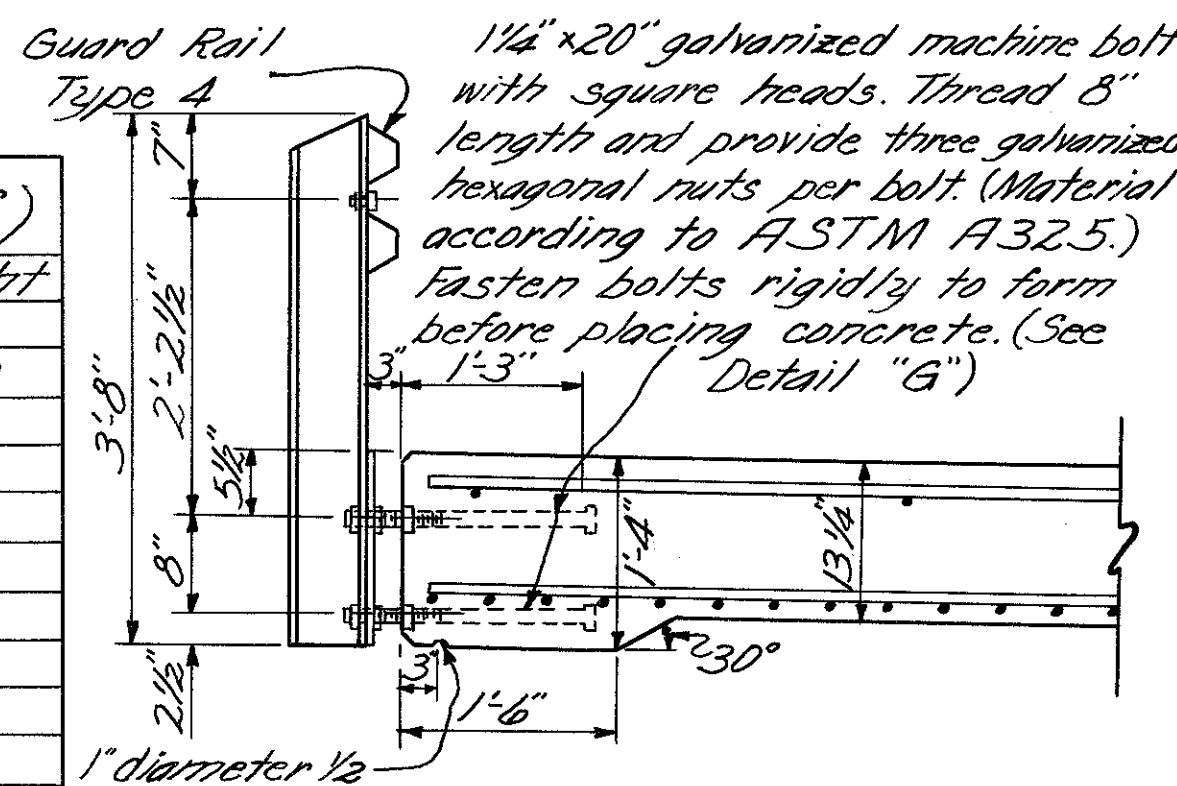
NOTE: CAMBER of 7/16" shall be provided to allow for dead load deflection. This is the amount required before the falsework is released. To obtain this, proper allowance shall be made for the deflection of the falsework members. A LONGITUDINAL KEYPED CONSTRUCTION JOINT in the slab, preferably at or near $\frac{1}{2}$ slab, will be permitted to facilitate construction.



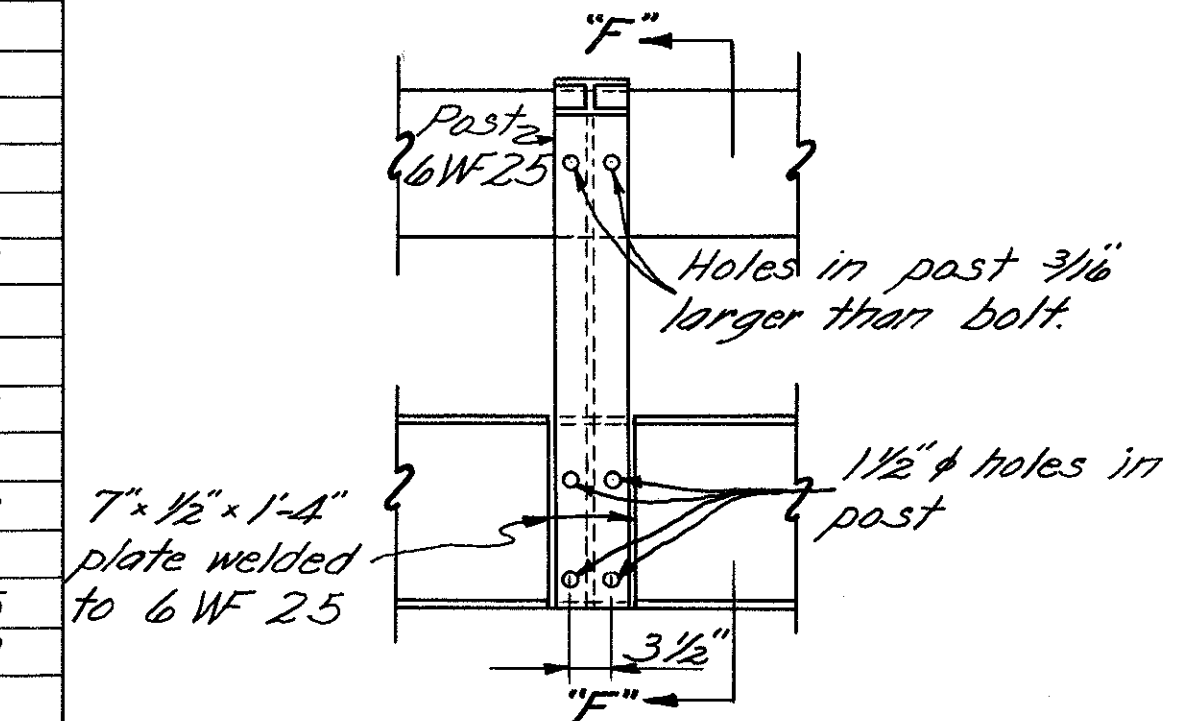
TRANSVERSE SECTION



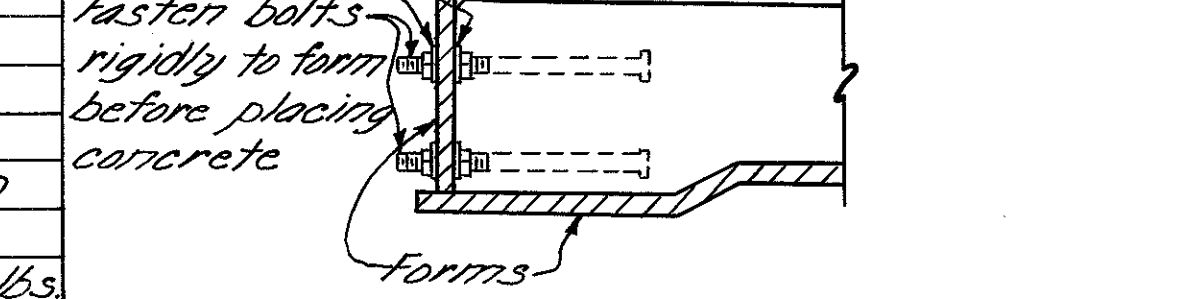
REINFORCING STEEL (ABUTMENTS)						
Mark	Size	Shape	Spacing	No. Reqd.	Length	Weight
D-501	3/8"	Bent	1'-6" @	62	4'-4"	280
E-601	3/8"	Bent	As Shn	48	8'-10"	637
L-501	3/8"	Str.	As Shn	2	5'-7"	12
L-502	3/8"	As Shn		2	6'-8"	14
L-503	3/8"	As Shn		4	2'-10"	91
L-504	3/8"	As Shn		8	3'-6"	305
L-505	3/8"	2'-0" @		24	38'-2"	955
M-501	3/8"		1'-6" @	2	8'-5 3/4" to 9'-0 3/4" 2/16 Iner.	272
M-502	3/8"		As Shn	2	8'-3"	17
M-503	3/8"		As Shn	1	9'-4"	10
N-501	3/8"	Str.	1'-6" @	2	7'-11 3/4" to 9'-0 3/4" 2/16 Iner.	274
P-501	3/8"	Bent	1'-0" @	20	8'-0"	167
Q-501	3/8"	Str.	As Shn	1	9'-4"	10
Q-502	3/8"	As Shn		6	10'-8"	67
Q-503	3/8"	As Shn		6	9'-6"	59
Q-504	3/8"	As Shn		4	7'-8"	32
Q-505	3/8"	As Shn		8	9'-7"	80
Q-506	3/8"	As Shn		4	8'-6"	35
Q-507	3/8"	As Shn		4	7'-1"	30
R-501	3/8"		As Shn	24	5'-9"	144
S-501	3/8"		As Shn	6	10'-5"	65
S-502	3/8"		As Shn	6	9'-3"	58
S-503	3/8"		As Shn	4	7'-5"	31
S-504	3/8"		As Shn	8	9'-4"	78
S-505	3/8"		As Shn	4	8'-3"	34
S-506	3/8"	Str.	As Shn	4	6'-10"	29
T-501	3/8"	Bent	As Shn	36	6'-8"	250
Total Abutment Reinforcing Steel = 4,036 lbs.						



SECTION "F-F" SHOWING EDGE BEAM & GUARD RAIL No Scale



RAILING ELEVATION No Scale Steel washers (need not be galvanized) shall be removed with forms.



DETAIL "G" No Scale

REINFORCING STEEL (SUPERSTRUCTURE)						
Mark	Size	Shape	Spacing	No. Reqd.	Length	Weight
C-501	3/8"	Str.	3'-0" @	14	20'-4"	227
B-601	3/8"	Str.	As Shn	41	45'-10"	2,823
A-701	7/8"	Bent	4 3/4" @	101	22'-0"	4,542
Total Superstructure Reinforcing Steel = 7,662 lbs.						

REPLACEMENT BARS						
Mark	Size	Shape	Spacing	No. Reqd.	Length	Weight
RE-501	3/8"	Str.		1	6'-1"	
RE-601	3/8"	Str.		1	6'-7"	
RE-701	7/8"	Str.		1	7'-0"	

SUPERSTRUCTURE DETAILS
 STRUCTURE NO. LAW-243-0635
 SR. 243 Over ICE CREEK

LAWRENCE COUNTY STA. 335+49.26 TO STA. 335+70.14
 SCALE 1" = 2'-0"

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	REVISED
LLF	LLF	JLG			

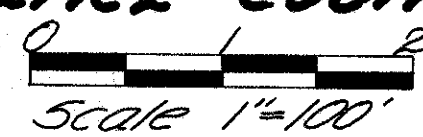
LONGITUDINAL SECTION ALONG & ROADWAY

NOTE: B-601 BARS may be furnished in the length as shown or in pairs of equal length, lapped thirty diameters at the $\frac{1}{2}$ roadway; or they may be furnished in pairs of different length in order to place the lap beyond a longitudinal construction joint at the $\frac{1}{2}$ roadway, at the option of the Contractor. Determination of the pay quantity will be according to the number & length of bars as shown hereon.

All transverse bars are B-601. Measure spacing of transverse bars along $\frac{1}{2}$ Roadway

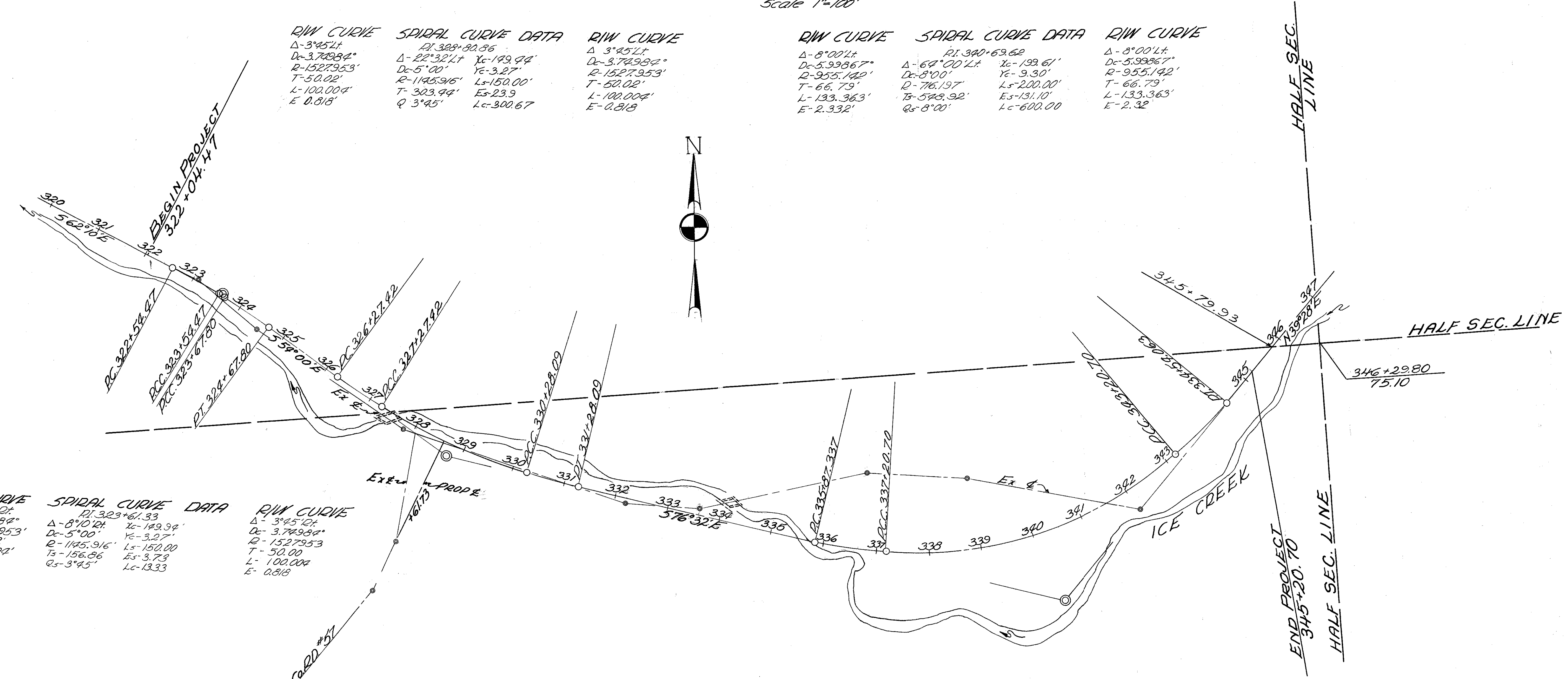
LOCATION PLAN

STATE OF OHIO DEPARTMENT OF HIGHWAYS
LAW 243-6.09
SEC 9, T-2, R-17
PERRY TWP.
LAWRENCE COUNTY



Recorded in Lawrence County Record
of Plats, Book _____ Page _____
Date _____

RIW CURVE Δ -3°45'LT D_c -3.74984' R -1527.953' T -50.02' L -100.004' E -0.818'	SPIRAL CURVE DATA PI 328+80.86 Δ -22°32'LT D_c -5'00' R -1145.916' T -303.94' Q 3°45' X_c -199.94' Y_c -3.27' L_s -150.00' E_s -23.9' L_c -300.67'	RIW CURVE Δ 3°45'LT D_c -3.74984' R -1527.953' T -50.02' L -100.004' E -0.818'	RIW CURVE Δ -8°00'LT D_c -5.99867' R -955.142' T -66.79' L -133.363' E -2.332'	SPIRAL CURVE DATA PI 340+69.62 Δ -64°00'LT D_c -8'00' R -76.197' T -548.92' Q_s 8'00' X_c -199.61' Y_c -9.30' L_s -200.00' E_s -131.10' L_c -600.00'	RIW CURVE Δ -8°00'LT D_c -5.99867' R -955.142' T -66.79' L -133.363' E -2.332'
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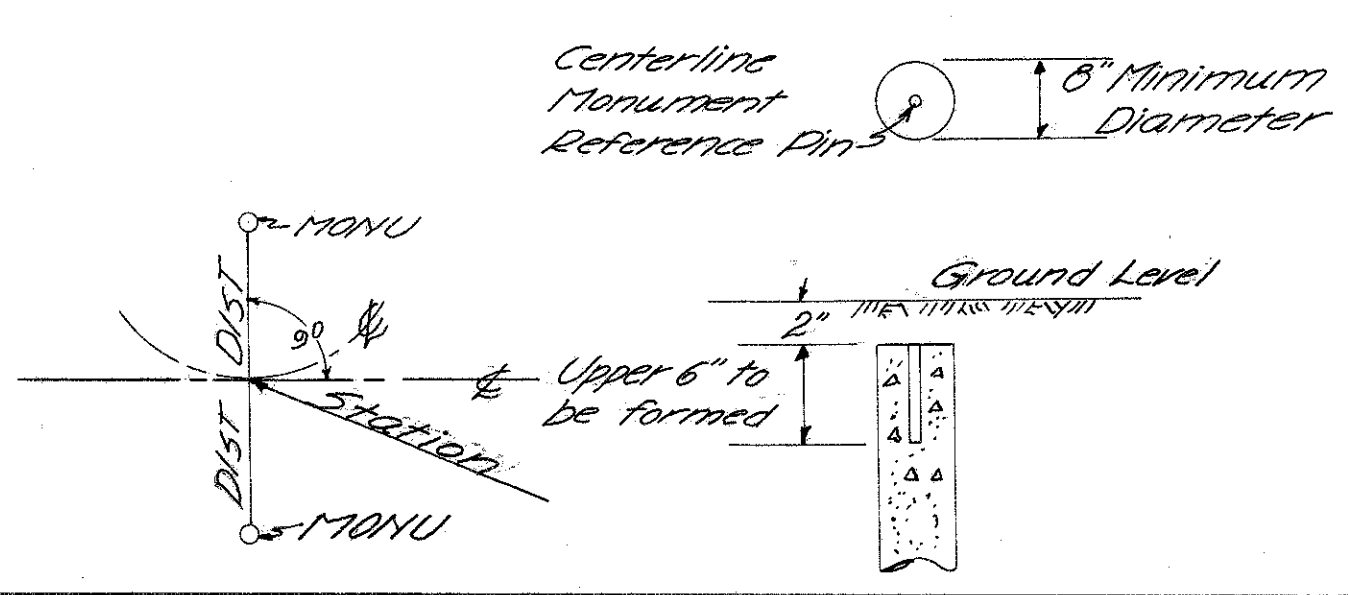


RIW CURVE Δ -3°45'LT D_c -3.74984' R -1527.953' T -50.02' L -100.004' E -0.818'	SPIRAL CURVE DATA PI 323+61.33 Δ -8°10'LT D_c -5'00' R -1145.916' T -156.86' Q_s 3°45' X_c -199.94' Y_c -3.27' L_s -150.00' E_s -3.73' L_c -13.33'	RIW CURVE Δ -3°45'LT D_c -3.74984' R -1527.953' T -50.02' L -100.004' E -0.818'	
---	---	---	--

REFERENCE MONUMENTS TO BE SET AFTER CONSTRUCTION

STATION	Dist. FT. ±		STATION	Dist. FT. ±	
	LT	RT		LT	RT
321+00	19	19	337+20.70	19	19
322+54.47			343+20.70		
323+54.47			344+54.063		
324+67.8			346+00		
326+27.42					
327+27.42					
330+28.09					
331+28.09					
335+87.337					

Detail for Setting Monuments



I Hereby Certify That This Plat is a True Delineation of a Survey Made By The Ohio Department of Highways
 DATE Aug 28, 1967
Thomas H. Murphy PS 2220

R/W PLAN
LAW 293-6.09
LAWRENCE COUNTY

10 OWNERS
17 PARCELS
1 STRUCTURE

SUMMARY of ADDITIONAL R/W REQUIRED

PARCEL No	OWNER	FUN D	Deed Record		Deed Area	To Be Acquired				Residue		Sheet No	REMARKS
			Book	Page		Net Take	Pro. in Take	Gross Take	Total Pro. Bldg	Lt.	Rt.		
1	Derry Brammer & Freda Brammer		253,261	564,407	25.11 Ac.	0.15 Ac.	0.23 Ac.	0.38 Ac.				3	
1x						0.04 Ac.		0.04 Ac.				3	
2	William Swartzwelder & Olevia Swartzwelder		157	186	30 Ac.	0.30 Ac.	0.18 Ac.	0.48 Ac.				3	
3	Delbert M. Wheeler		181	342	53.40 Ac.	0.49 Ac.	0.34 Ac.	0.78 Ac.	0.34 Ac.		52.62 Ac.	3	
4	Lawrence J. Porter & Dorothy A. Porter		272	595	5 Ac.	0.56 Ac.	0.41 Ac.	0.97 Ac.	0.41 Ac.	yes	4.03 Ac.	3	
4x						0.03 Ac.		0.03 Ac.				3	
4T						0.02 Ac.		0.02 Ac.				3	To Remove 1.5x BIK Bldg
5	Dorthea Dean		169,203	2,191	1 Ac.	0.21 Ac.	0.28 Ac.	0.49 Ac.				3	
6	Ralph E. Dean		225	463	0.50 Ac.	0.04 Ac.	0.06 Ac.	0.10 Ac.	0.06 Ac.		0.40 Ac.	3	
7	John W. Jordan & Marian Jordan		238	364	1.43 Ac.	0.09 Ac.	0.19 Ac.	0.28 Ac.	0.19 Ac.		1.15 Ac.	3	
8	Harry Swartzwelder		163	442	84 Ac.	3.63 Ac.	1.72 Ac.	5.35 Ac.	1.72 Ac.			3,4	
8x						0.04 Ac.		0.04 Ac.				3	
8Y						0.48 Ac.		0.48 Ac.				4	
8T						0.05 Ac.		0.05 Ac.				4	To Const. Dr. & Dress Slopes
9	Derry Brammer & Freda Brammer		258	442	44.5 Ac.	0.03 Ac.	0.04 Ac.	0.07 Ac.	0.04 Ac.			4	
10	Ralph Broughton & Jane Broughton		302	552	0.63 Ac.	0.17 Ac.	0.24 Ac.	0.41 Ac.				4	
11	Billy Ray Jordan		277	152	150 Ac.	0.10 Ac.	0.00 Ac.	0.10 Ac.			1.40 Ac.	4	

STATE

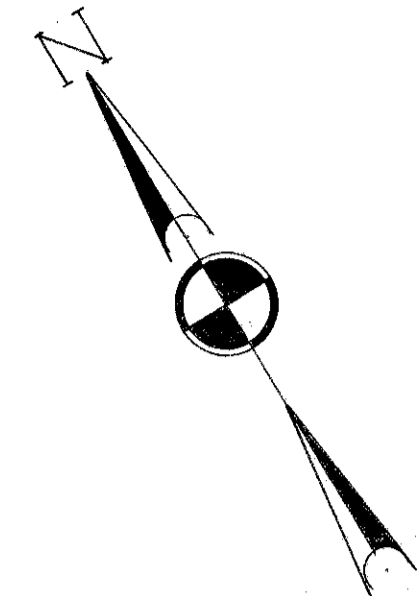
UTILITIES
 OHIO POWER Co.
 GENERAL TELEPHONE Co.
 GAS OHIO Fuel Gas Co.

DERRY TWP.
 SEC. 9 T2 R17

R/W CURVE DATA	SPIRAL CURVE DATA	R/W CURVE DATA
Δ 3°45'	PI STA 328+80.86	Δ 3°45'
Dc 3.74984°	Δ 22°32'17"	Dc 3.74984°
R 1527.953'	Dc 5°00'	R 1527.953'
T 50.02'	R 1145.916'	T 50.02'
L 100.004'	Ts 303.44'	L 100.004'
E 0.818'	Qs 3°45'	E 0.818'
	Lc 300.67'	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

**R/W PLAN
 LAW 243-6.09
 LAWRENCE COUNTY**



Ex. CURVE DATA
 Δ - 239°05' Lt
 Dc - 432.427°
 R - 1324.275'
 T - 53.78'
 L - 107.507'
 E - 109'

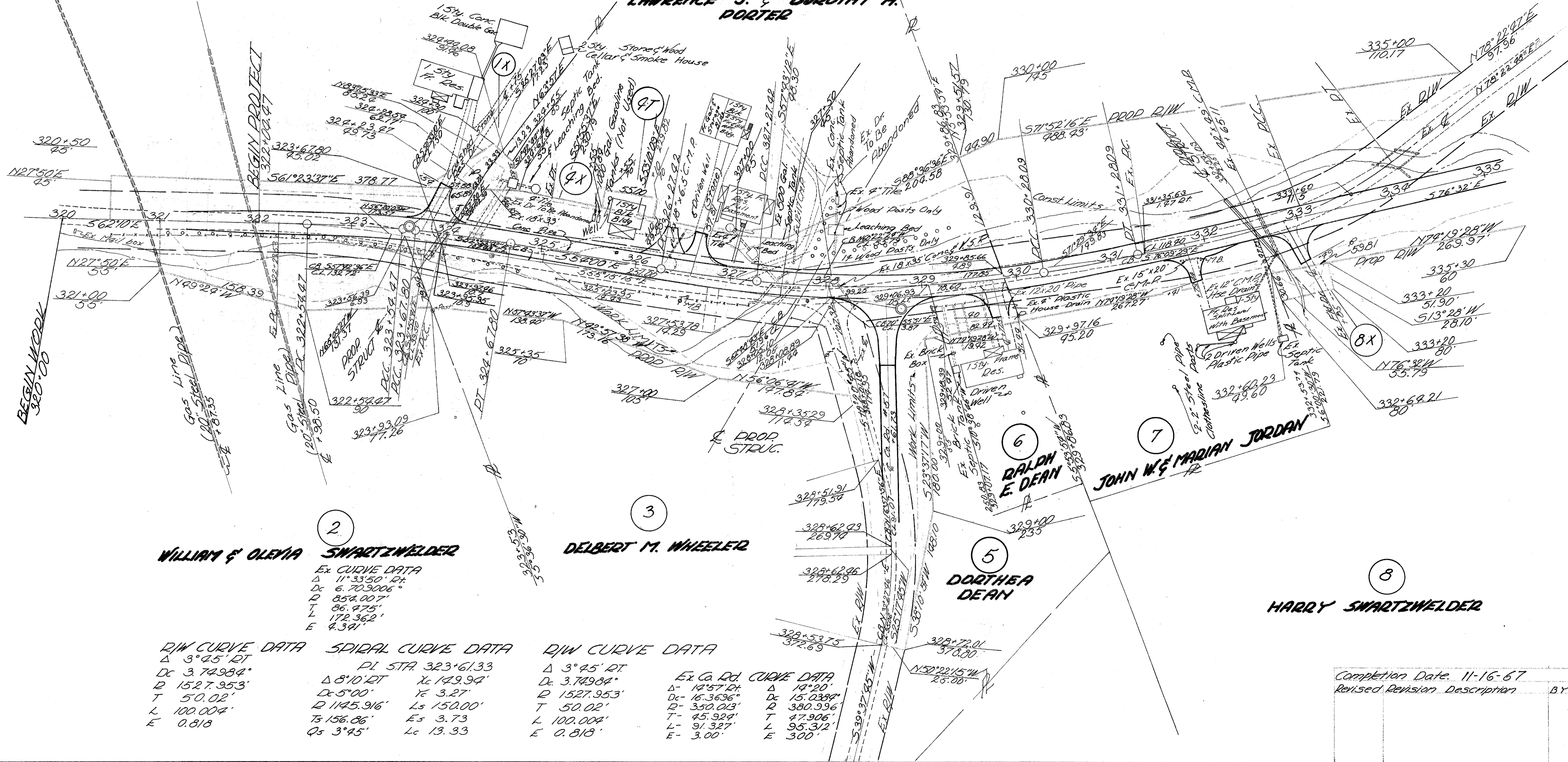
Ex. CURVE DATA
 Δ - 16°47'19" Lt
 Dc - 29.0068°
 R - 197.525'
 T - 28.179'
 L - 55.982'
 E - 2.00'

Ex. CURVE DATA
 Δ - 13°25'48" Lt Δ - 16°
 Dc - 7.87173° Dc - 15.3417°
 R - 727.868' R - 373.465'
 T - 85.639' T - 59.806'
 L - 170.610' L - 109.835'
 E - 5' E - 4'

1
PERRY & FREDA BRAMMER

4
LAWRENCE J. & DOROTHY A. PORTER

8
HARRY SWARTZWELDER



2
WILLIAM & OLENA SWARTZWELDER

3
DELBERT M. WHEELER

5
DOROTHEA DEAN

6
RALPH E. DEAN

8
HARRY SWARTZWELDER

R/W CURVE DATA	SPIRAL CURVE DATA	R/W CURVE DATA
Δ 3°45' RT	PI STA 323+61.33	Δ 3°45' RT
Dc 3.74984°	Δ 8°10' RT	Dc 3.74984°
R 1527.953'	Dc 5°00'	R 1527.953'
T 50.02'	R 1145.916'	T 50.02'
L 100.004'	Ls 150.00'	L 100.004'
E 0.818'	Ts 156.86'	E 0.818'
	Qs 3°45'	
	Lc 13.33'	

Ex. CURVE DATA
 Δ - 14°57' RT
 Dc - 16.3636°
 R - 350.013'
 T - 45.924'
 L - 91.327'
 E - 3.00'

Completion Date: 11-16-67
 Revised Revision Description BY

R/W CURVE DATA
 Δ 8°00'
 D_c 5.39867'
 R 955.142'
 T 66.79'
 L 133.363'
 E 2.332'

SPIDAL CURVE DATA
 PI STA. 340+69.62
 Δ 64°00' LT
 D_c 8°00'
 R 716.197'
 T_s 548.92'
 Q 8°00'

R/W CURVE DATA
 Δ 8°00'
 D_c 5.39867'
 R 955.142'
 T 66.79'
 L 133.363'
 E 2.332'

EX. CURVE DATA
 Δ 60°10'55" LT
 D_c 20.7546'
 R 276.063'
 T 159.969'
 L 289.969'
 E 43.00'

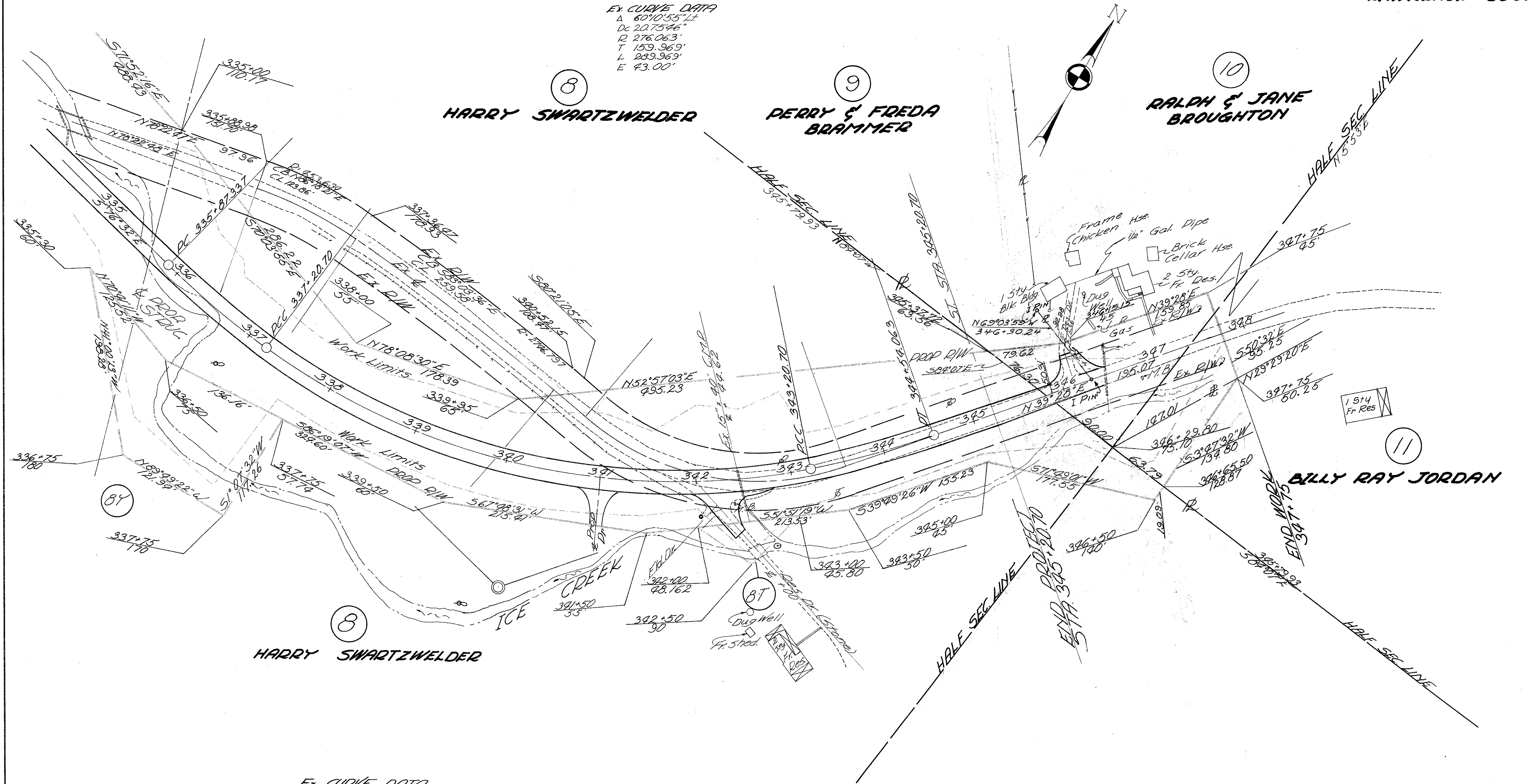
PERRY TWP.
 SEC-9 T-2 R-17

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

R/W PLAN
LAW 243-6.09
LAWRENCE COUNTY

58
58

4
4



EX. CURVE DATA
 Δ 15°41'07" RT
 D_c 13.5208'
 R 423.639'
 T 58.351'
 L 115.974'
 E 4'

Δ 5°25' RT
 D_c 2.1089'
 R 2716.797'
 T 18.517'
 L 26.848'
 E 3.038'

Completion Date	11-16-67	BY	
Revised	2/28/68	Changed R Location	BRB
		Par's 9&10	
Revised	3/12/68	Changed R Location	BRB
		Par's 9&10	

GENERAL INFORMATION

INTRODUCTION

THE PROJECT CONSISTS OF THE LINE AND GRADE IMPROVEMENT OF 2400 FEET OF SR 243 EAST OF COAL GROVE, BEGINNING ON SR 243, 600 FEET WEST OF COUNTY ROAD 57, AND EXTENDING EASTWARD.

PROPOSED GRADE INDICATES MAXIMUM 12-FOOT CUTS AND 8-FOOT FILLS, AND MAXIMUM 11-FOOT CHANNEL EXCAVATION FOR LITTLE ICE CREEK.

GEOLOGY AND OBSERVATIONS OF THE PROJECT

THE ALIGNMENT TRAVERSES THE VALLEY FLOOR OF LITTLE ICE CREEK, ON THE DISSECTED ALLEGHENY PLATEAU. IN AN AREA WHERE SHALLOW TO MODERATELY DEEP ALLUVIUM AND RESIDUAL SOILS (ON THE VALLEY WALLS) OVERLIE SHALES, INDURATED CLAYS, AND SANDSTONES, OF THE ALLEGHENY FORMATION, PENNSYLVANIAN AGE. ROCK EXPOSURES WERE NOTED AND MEASURED IN THE VALLEY WALL AND STREAM BOTTOM.

EXPLORATION

BORINGS WERE MADE BY MEANS OF TRUCK-MOUNTED MECHANICAL SOIL AUGER ON JUNE 21 AND 22, 1967.

INVESTIGATIONAL FINDINGS

MATERIALS OCCURRING IMMEDIATELY BELOW PROPOSED GRADE CONSIST OF SILT CLAYS (A-6a), SANDY SILTS (A-4a), AND SANDY GRAVELS (A-2-4 AND A-2-6), HAVING MOISTURE CONTENTS BELOW THE PLASTIC RANGE, ALTHOUGH A WET SANDY SILT WAS ENCOUNTERED AT STATION 332+00.

SHALE BEDROCK IS ANTICIPATED IN THE DITCHES, BACKSLOPES AND PARTS OF THE CHANNEL EXCAVATIONS IN AREAS DEFINED BY THE FOLLOWING STATIONS:

329+50 TO 335+70 - SHALE AND SANDSTONE AT FLOWLINE AND LOWER PORTIONS OF THE LEFT BACKSLOPE; SHALE IN THE MID AND UPPER PORTIONS OF THE BACKSLOPE.

342+00 TO 343+30 - SHALE IN THE LEFT DITCH AND BACKSLOPE.

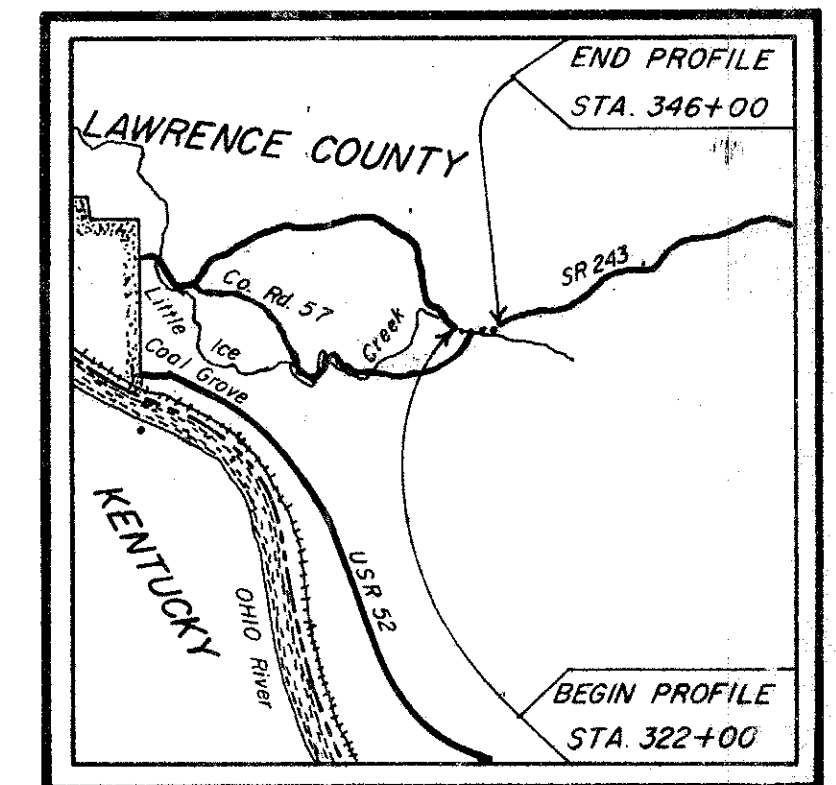
LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS— 36 SAMPLES TESTED

DESCRIPTION	H. R. B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED	
GRAVEL WITH SAND	A-1-b(0)	A-1-b	52	16	16	7	9	24	6	13	1	
STONE FRAGMENTS WITH SAND AND SILT	A-2-4(0)	A-2-4	54	10	13	12	11	28	8	12	2	
STONE FRAGMENTS WITH SAND, SILT, AND CLAY	A-2-6(1)	A-2-6	47	12	11	11	19	37	15	13	5	
SANDY SILT	A-4a(3)	A-4a	17	11	20	27	25	30	8	17	8	
SILT AND CLAY	A-6a(7)	A-6a	15	9	14	30	32	35	13	15	14	
SILTY CLAY	A-6b(5)	A-6b	30	10	13	17	30	40	17	15	1	
CLAY	A-7-6(11)	A-7-6	0	1	6	38	55	43	15	21	2	
INDURATED CLAY			VISUAL CLASSIFICATION									—
SHALE			VISUAL CLASSIFICATION									3
SANDSTONE			VISUAL CLASSIFICATION									—
SOD AND/OR TOPSOIL=1" APPROXIMATE DEPTH.												● WATER CONTENT NEARLY EQUAL TO OR GREATER THAN LIQUID LIMIT.
AUGER BORING-PLAN VIEW.												— FREE WATER.
AUGER BORING PLOTTED TO VERTICAL SCALE ONLY.												▬ INDICATES BROKEN ROCK INTERVAL.
NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT, E.G. 15												

SOIL PROFILE
LAWRENCE COUNTY
LAW-243-6.09

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

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



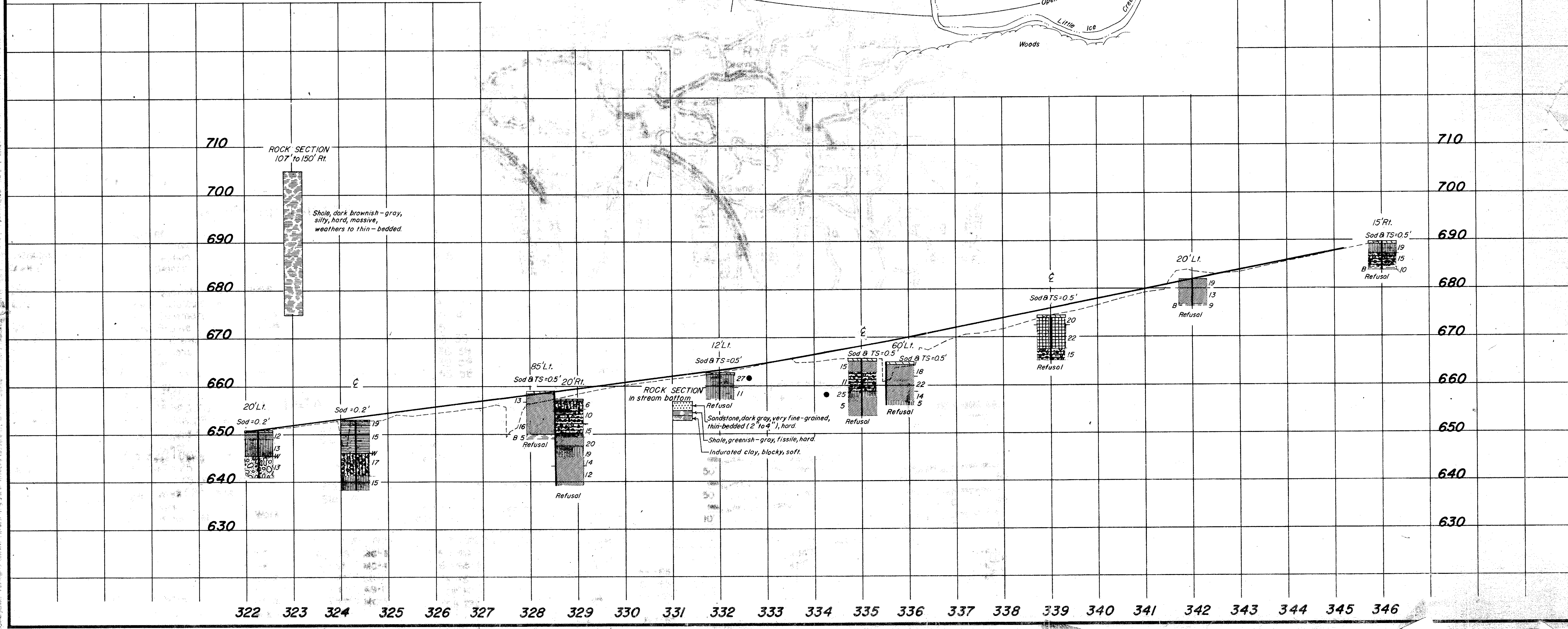
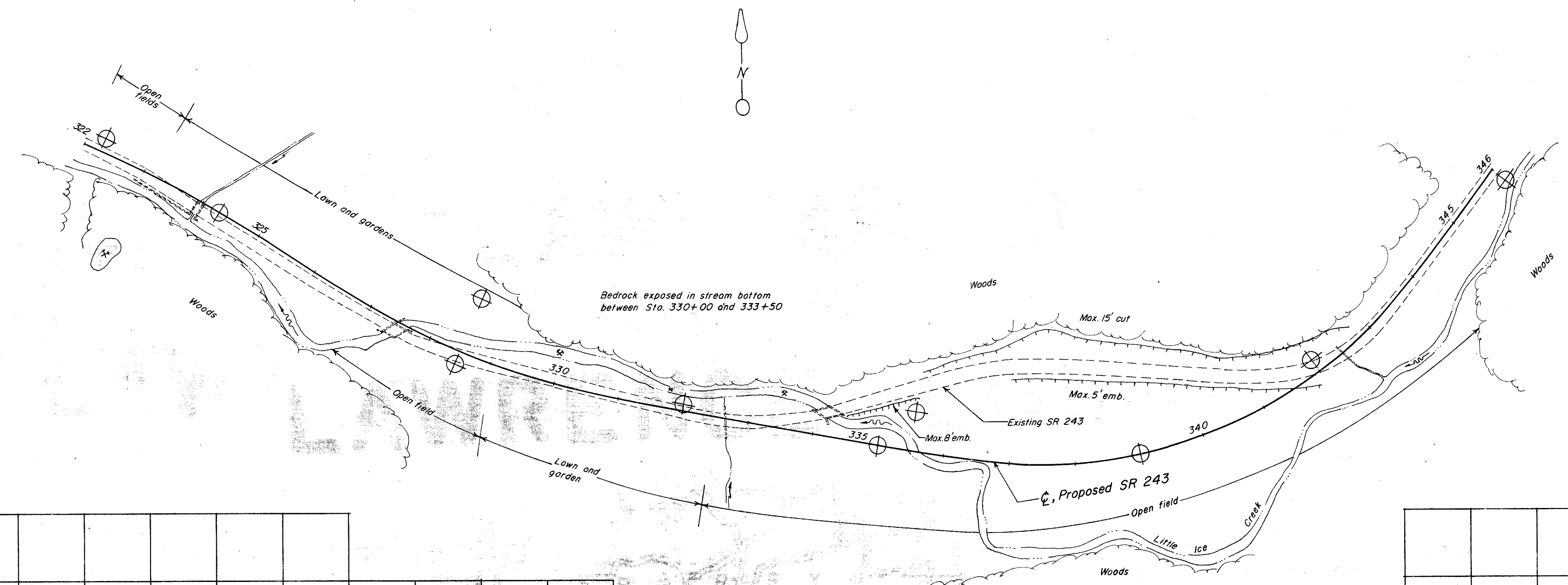
LOCATION MAP

Recon - J.F.S.-5/18/67
Drilling - J.A.G.-6/21,22,1967
Drafting - D.E.M.-G.P.W.-

SUMMARY OF SOIL TEST DATA

*DENOTES SAMPLE TAKEN AT OR NEAR GRADE.

STATION & OFFSET	DEPTH		% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHIL CLASS.
	FROM	TO									
322+25 20' Lt	0.2-2.0	13	23	18	21	25	37	14	12	13	A-6a*
	2.0-5.5	28	17	16	14	28	35	10	13	13	A-4a*
	5.5-10.0	52	16	16	7	9	24	6	13	13	A-1-b
324+30 CL	0.2-1.0	21	6	14	28	31	37	14	19	15	A-6a*
	1.0-7.0	30	10	13	17	30	40	17	15	17	A-6b*
	7.0-12.0	28	12	21	22	17	23	4	15	17	A-2-4
328+50 85' Lt	0.5-2.5	0	6	10	36	43	37	14	13	16	A-6a
	2.5-9.0	21	17	20	15	27	36	14	16	16	A-6a
	9.0-10.0	(62)	4	5	17	12	28	6	5	5	VISUAL
328+50 20' Rt	0.3-2.0	37	14	19	17	14	26	7	6	10	A-2-4*
	2.0-5.0	47	12	12	12	17	35	15	10	10	A-2-6
	5.0-8.0	41	16	14	10	19	37	16	15	15	A-2-6
	8.0-10.0	17	0	3	44	36	33	10	20	10	A-6a
	10.0-12.0	6	13	24	29	28	30	8	19	14	A-4a
	12.0-14.0	0	1	8	45	46	35	12	14	14	A-6a
332+00 12' Lt	0.5-3.0	0	6	22	41	31	28	8	27	11	A-4a*
	3.0-5.5	26	8	15	23	22	32	9	11	11	A-4a
335+00 CL	0.5-3.0	14	6	25	38	17	34	11	15	11	A-6a
	3.0-7.0	50	11	11	9	19	34	11	11	11	A-2-6
	7.0-8.0	8	16	30	22	24	27	8	25	14	A-4a
	8.0-12.0	10	13	22	28	27	26	14	5	14	A-6a
335+50 60' Lt	0.5-3.0	5	4	9	42	40	36	11	18	11	A-6a
	3.0-6.0	14	18	25	18	25	32	11	22	11	A-6a
	6.0-8.0	19	19	17	24	21	35	11	14	11	A-6a
	8.0-9.0	43	3	10	25	19	32	10	5	10	A-4a
339+00 CL	0.5-2.0	0	2	5	32	61	44	15	20	15	A-7-6*
	2.0-7.0	0	0	7	43	50	42	15	22	15	A-7-6
	7.0-9.5	47	10	11	13	19	40	16	15	15	A-2-6
342+30 20' Lt	0.0-2.0	16	6	6	33	39	36	14	19	11	A-6a*
	2.0-5.0	41	0	13	15	23	36	11	13	11	A-6a
	5.0-5.5	(56)	11	7	13	15	31	11	9	9	VISUAL
346+00 15' Rt	0.5-2.5	0	8	23	38	31	31	9	19	15	A-4a*
	2.5-5.5	51	11	0	0	20	36	13	15	15	A-2-6*
	5.5-6.0	(45)	5	6	24	20	-	-	10	10	VISUAL
GRAY BROKEN SHALE											



ROCK SECTION
107' to 150' Rt.

Shale, dark brownish-gray,
silty, hard, massive,
weathers to thin-bedded.

ROCK SECTION
in stream bottom

Sandstone, dark gray, very fine-grained,
thin-bedded (2" to 4"), hard.
Shale, greenish-gray, fissile, hard.
Indurated clay, blocky, soft.

LAW-243-6.09

L-7