

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

GEA-700-1.45

Troy Township
Geauga County

PROJECT DESCRIPTION
This project provides for the improvement of SR 700 by replacing the existing 31' bridge at SLM 1.45.

2002 SPECIFICATIONS
The standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement.

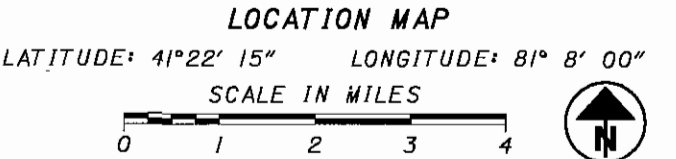
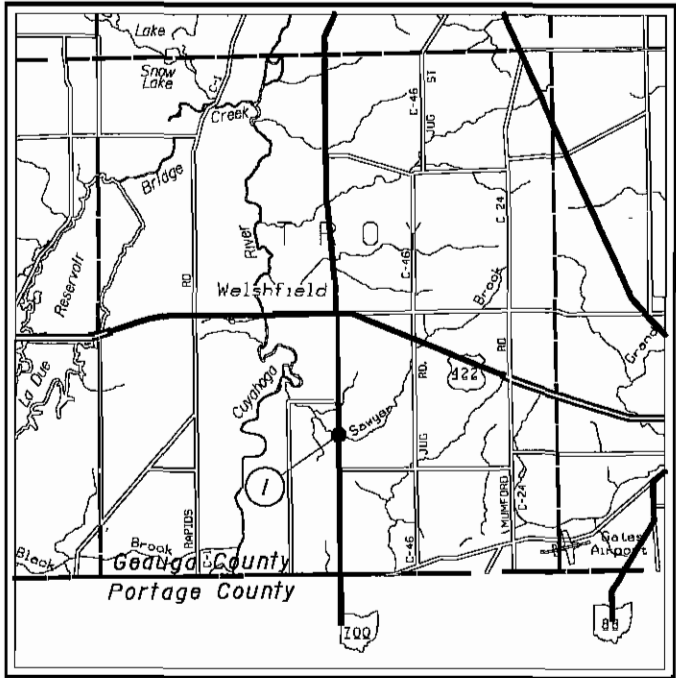
I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway except as noted on Sheet 5, and that provisions for the maintenance and safety of traffic will be as set forth in the plans and estimates.

NPDES PERMIT REQUIREMENTS
Project Earth Disturbed Area = 0.20 Acres
Estimated Contractor Earth Disturbed Area = 0.25 Acres
Notice of Intent Earth Disturbed Area = 4.90 Acres

Work Locations:
① GEA-700-1.45

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Portion To Be Improved
Interstate & Divided Highway
Undivided State & Federal Routes
Other Roads

DESIGN DESIGNATION
Current ADT (----)
Design Year ADT (----)
Design Hourly Volume (----)
Directional Distribution
Trucks (24 Hour B&C)
Design Speed
Legal Speed

Design Functional Classification--

DESIGN EXCEPTIONS
None Required

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

PLAN PREPARED BY:
Ohio Department of Transportation
District 12 Production
5500 Transportation Blvd
Garfield Heights, OH 44125
(216) 584-2102

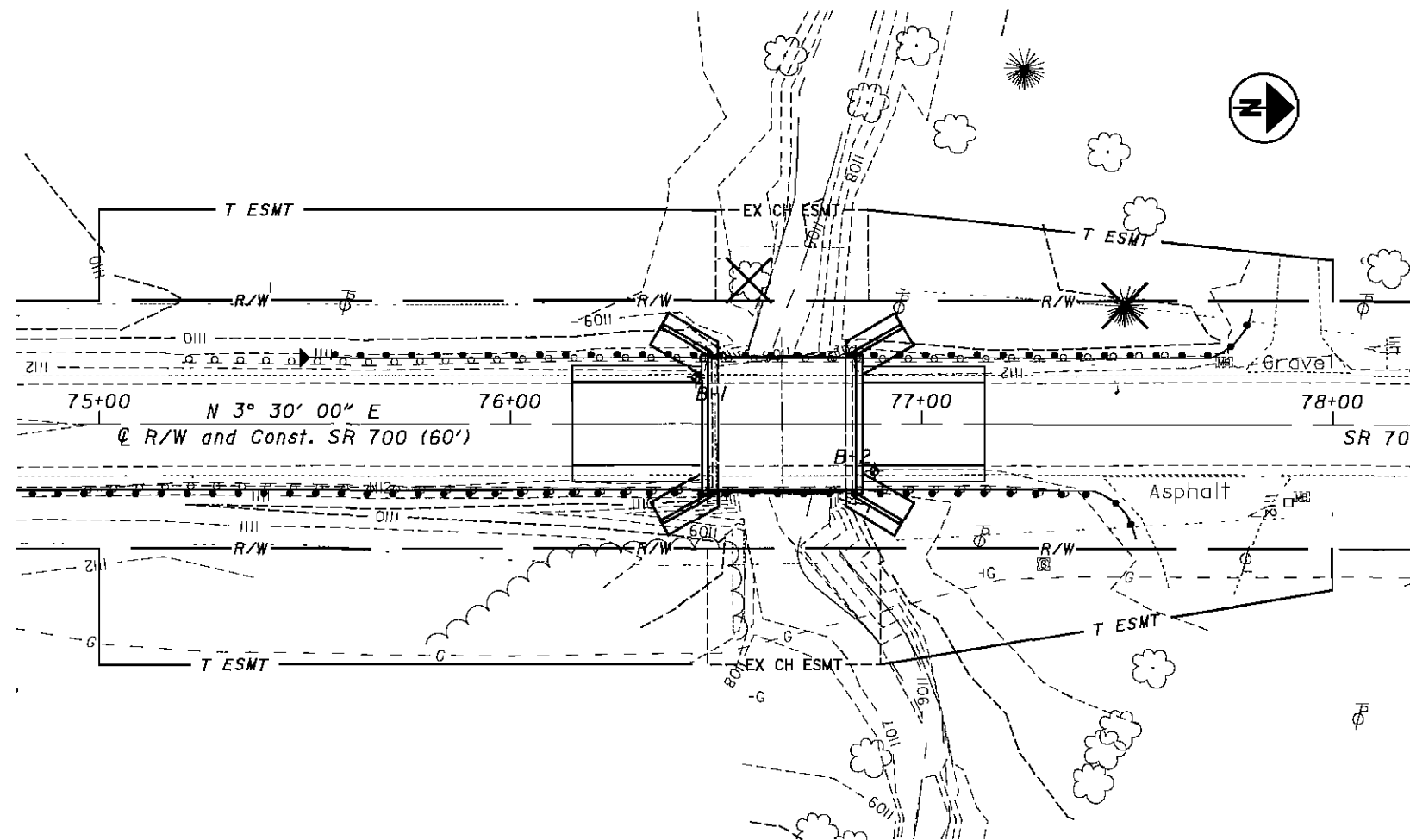
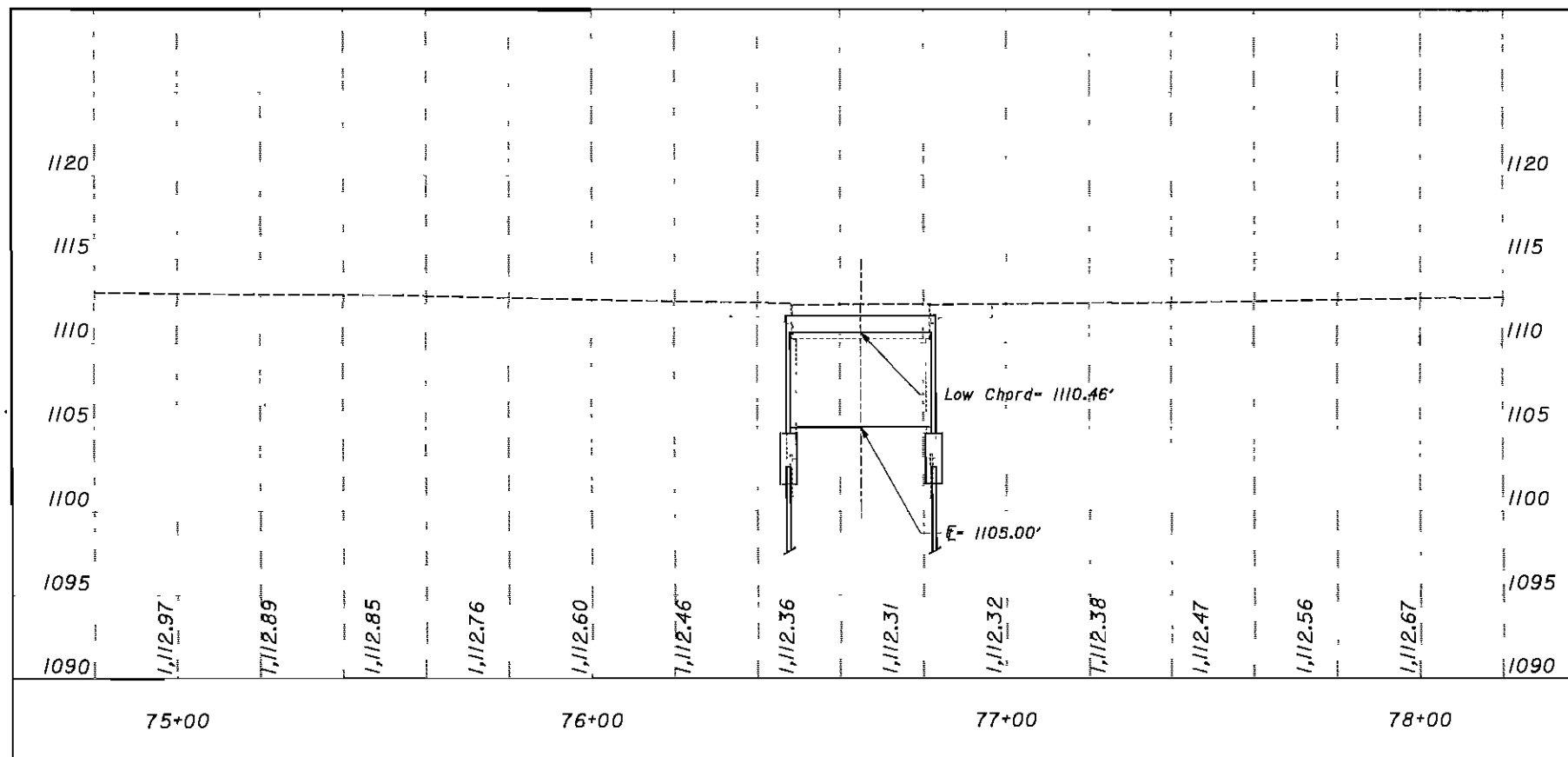
Engineer's Seal:
STATE OF OHIO
Brian M. Blayney
E-62177
REGISTERED PROFESSIONAL ENGINEER
SIGNED: [Signature]
DATE: 11-10-04

Standard Construction Drawings						Special Provisions	Supplemental Specifications
MT-97.10	4/19/02	BP-3.1	7/16/04	DM-1.4	7/19/02	NWP #3	
MT-97.11	4/19/02			DM-4.3	7/19/02	Waterway Permits--	832 4/17/04
MT-101.60	10/18/02	CB-1.2	7/19/02	DM-4.4	7/19/02	1/9/04	833 2/12/03
MT-105.10	10/18/02					Soil Borings--	864 7/11/00
MT-105.11	10/18/02	MH-1.1	7/19/02			9/28/04	908 4/18/03
						Asbestos Abatement---	
						12/3/04	
		GR-1.1	7/16/04	DBR-2-73	7/19/02		
		GR-2.1	1/16/04				
		GR-3.4	4/18/03	DS-1-92	7/18/03		
		GR-4.2	10/17/03				
TC-41.20	1/19/01						
TC-41.40	7/16/04						
TC-42.20	7/16/04						
TC-52.10	4/20/01						
TC-52.20	4/20/01						

Approved [Signature] District Deputy Director
Date 10/10/04
Approved [Signature] Director, Department of Transportation
Date 12-17-04

GEA - SR 700-1.45
050135 PID - 75179
Dist 12 2/23/2005

Federal/Project No.	Non-Federal
PID No.	75179
Construction Project No.	
Railroad Involvement	None
GEA-700-1.45	
1/24	



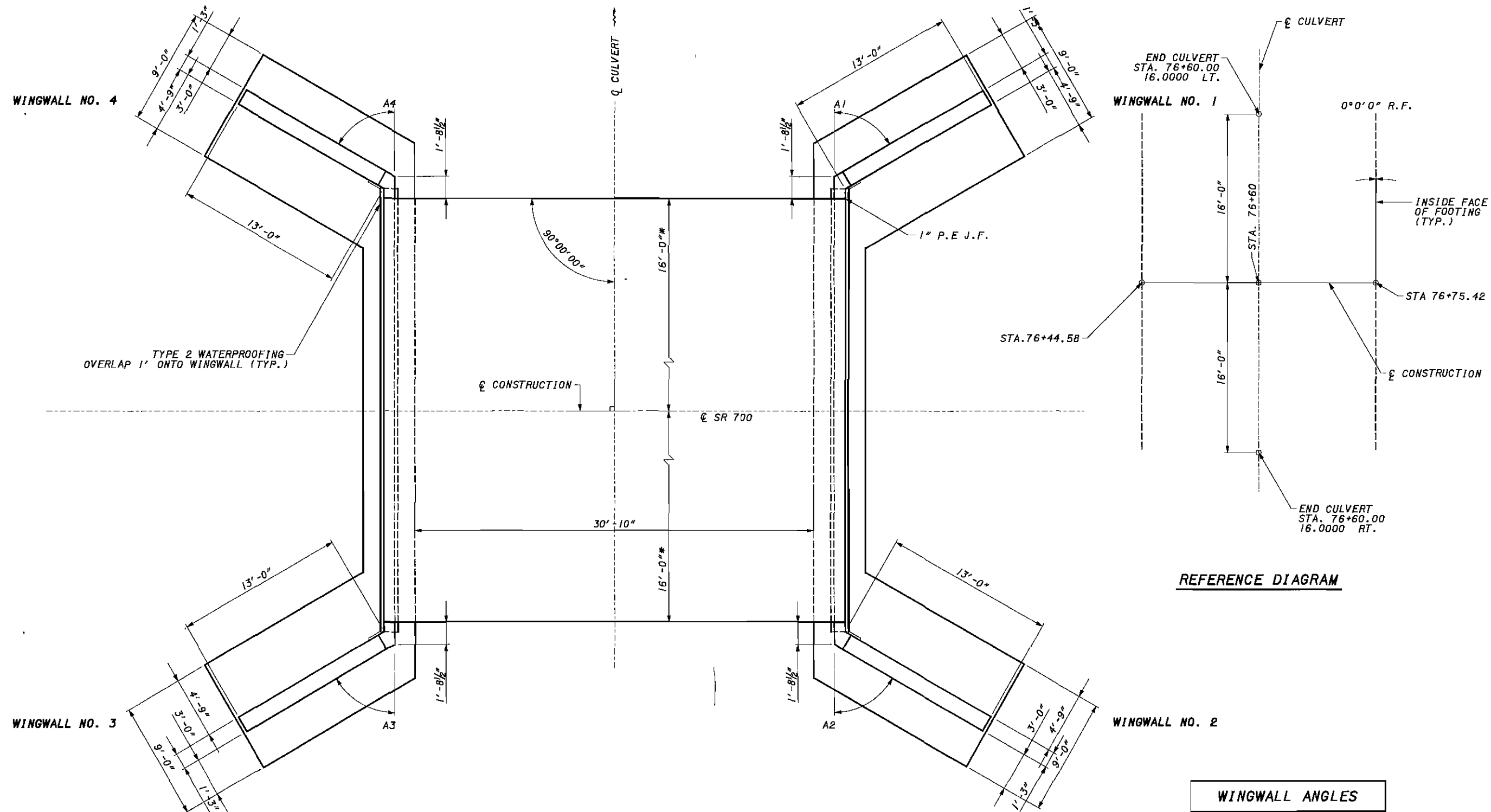
Hydraulic Data	
Drainage Area: 2.03 Sq Miles	
Existing Waterway Opening: 173 Sq Ft	
Proposed Waterway Opening: 198 Sq Ft	
Q25= 645 CFS	Q100= 907 CFS
V25= 5.35 FPS	V100= 6.25 FPS
HW25= 1110.96'	HW100= 1112.04'

Existing Structure	
Type: Concrete Slab on Gravity Wall Abutment	
Span: 31'-0"	
Roadway: 16'-0"	
Alignment: Tangent	
Approach Slab: 15'-0" AS-4-47	
Superelevation: None	
Date Built: 1954	
Structure File No.: 2802341	
Skew: None	
Condition: Poor	
Loading: S-15-46	

Proposed Structure	
Type: Precast Reinforced Concrete Flat-Topped	
Three-Sided Arch	
Span: 34'-0"	
Roadway: 16'-0"	
Alignment: Tangent	
Approach Slab: None	
Superelevation: None	
Structure File No.: 2802368	
Skew: 0°	
Loading: HS-25-44 and Military Alternate,	
60 PSF Future Wearing Surface	

Foundation Data	
Estimated Pile Lengths for Proposed 12" CIP Piles:	
Abutments -45'-0"	

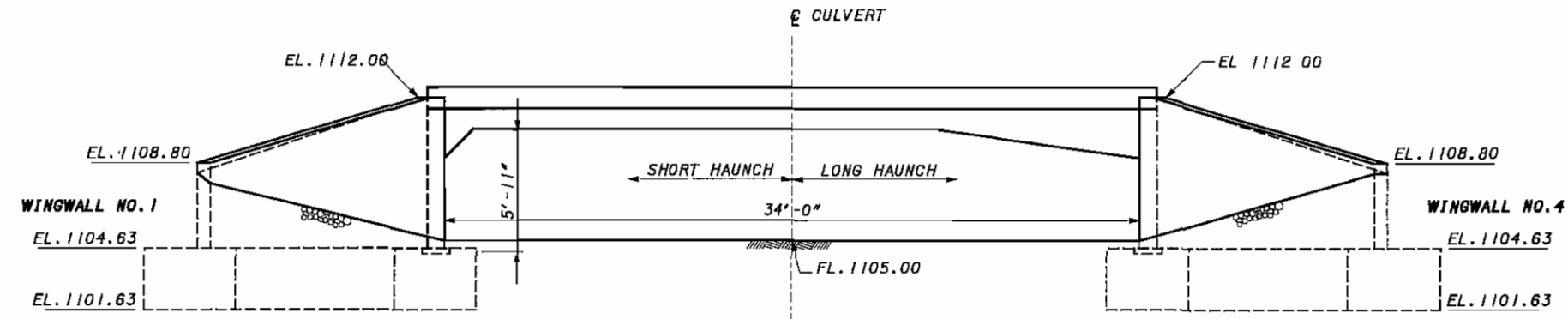
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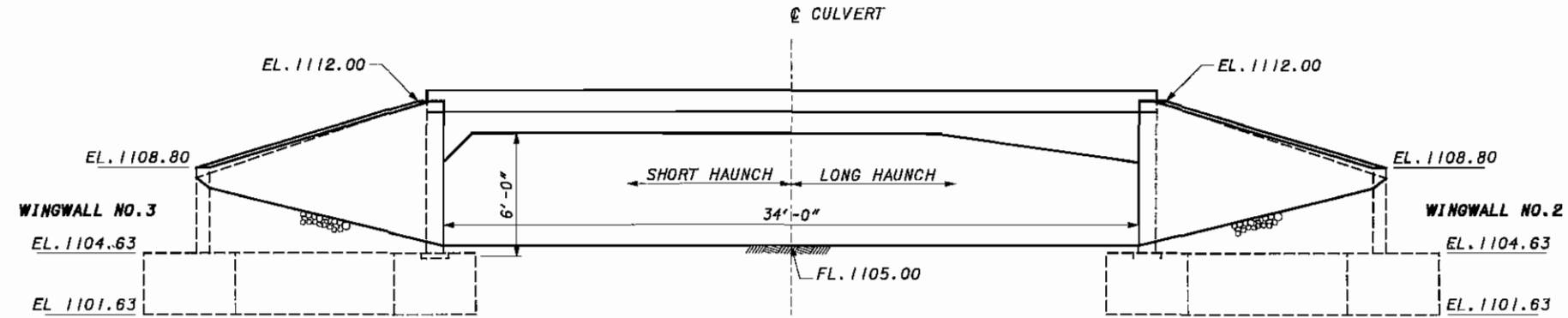
WINGWALL ANGLES	
A1	60°0'0"
A2	60°0'0"
A3	60°0'0"
A4	60°0'0"

CULVERT & WINGWALL LAYOUT
 SEE TABLE, THIS SHEET FOR VALUES OF A1, A2, A3, A4
 * PLUS FIT-UP

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INLET ELEVATION

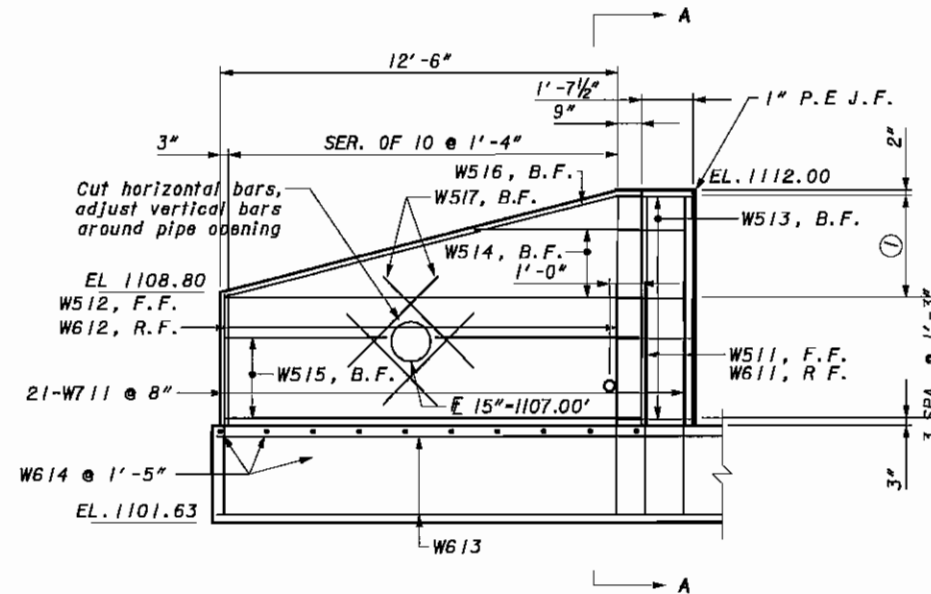


OUTLET ELEVATION

DESIGNED ADP CHECKED	DRAWN ADP	REVIEWED BMB	DATE 7/28/04	DESIGN AGENCY ODOT D-12 Production
			STRUCTURE FILE NUMBER 2802368	
Structure Details GEA-700-1.45 SR 700 over Sawyer Brook				
GEA-700-1.45			4 / 9	17 / 24

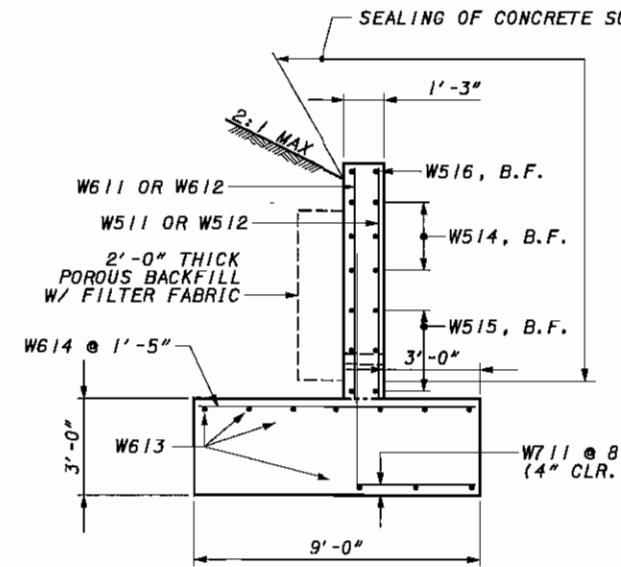
LEGEND

F.F. - FRONT FACE
R.F. - REAR FACE
B.F. - BOTH FACES

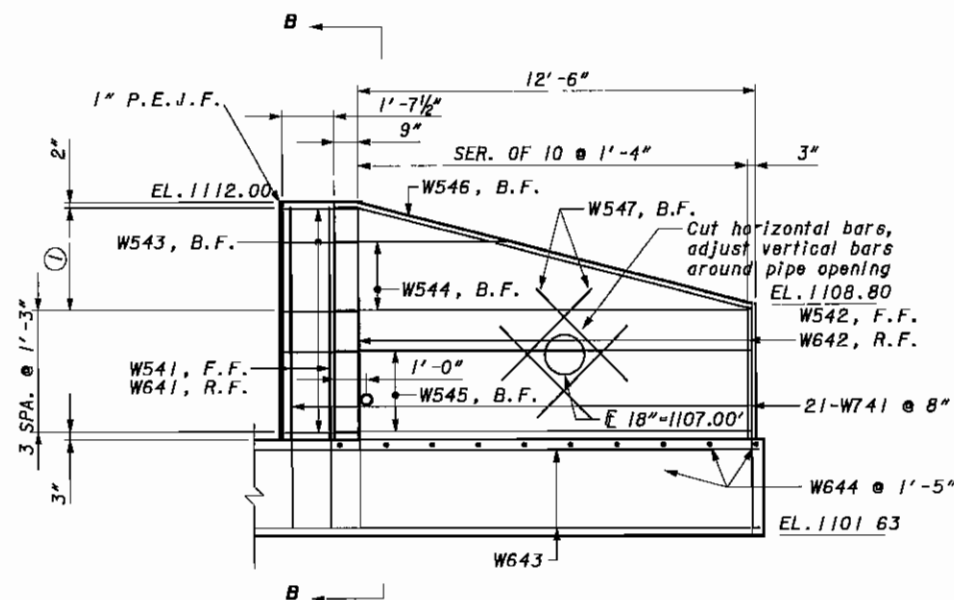


WINGWALL 1 ELEVATION

① 3 SPA. @ 1'-1"

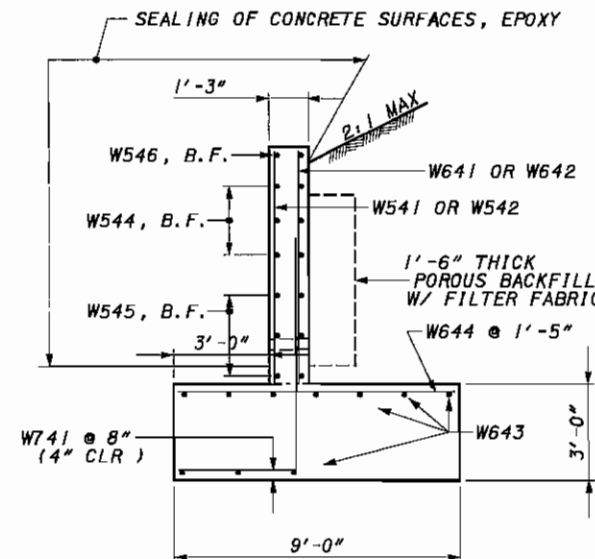


SECTION A-A



WINGWALL 4 ELEVATION

① 3 SPA. @ 1'-1"



SECTION B-B

NOTES:

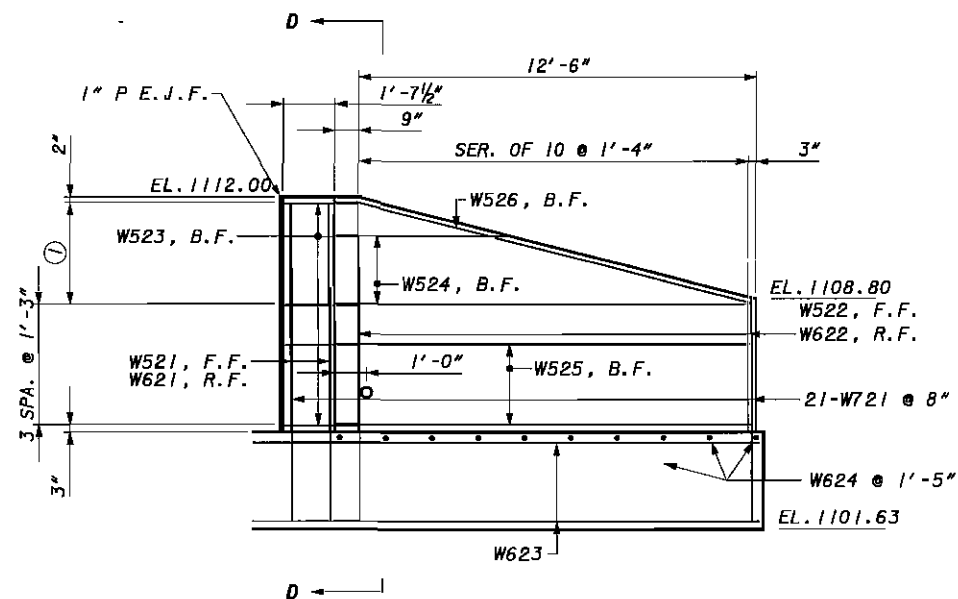
ITEM 518, POROUS BACKFILL WITH FILTER FABRIC
1'-6" THICK SHALL BE PLACED BEHIND THE WINGWALLS ONLY AND SHALL EXTEND 12" BELOW THE EMBANKMENT SURFACE. GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND REPLACED EXCAVATION ADJACENT TO THE STRUCTURE. IT SHALL TURN UNDER THE BOTTOM OF THE POROUS BACKFILL AND RETURN 6" ABOVE THE TOP ELEVATION OF THE WEEPHOLE.

1" PREFORMED EXPANSION JOINT FILLER SHALL BE EXTENDED FROM TOP OF FOOTING TO TOP OF WALL.

12" C.I.P. PILES NOT SHOWN FOR CLARITY SEE SHEET 8/9.

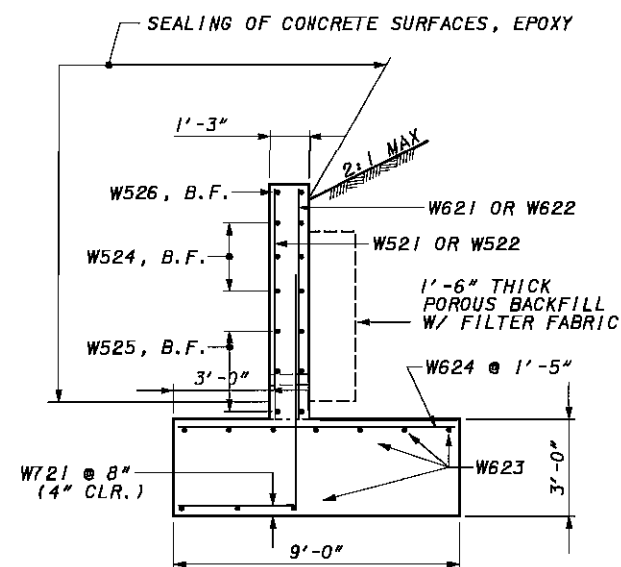
LEGEND

F.F. - FRONT FACE
R.F. - REAR FACE
B.F. - BOTH FACES

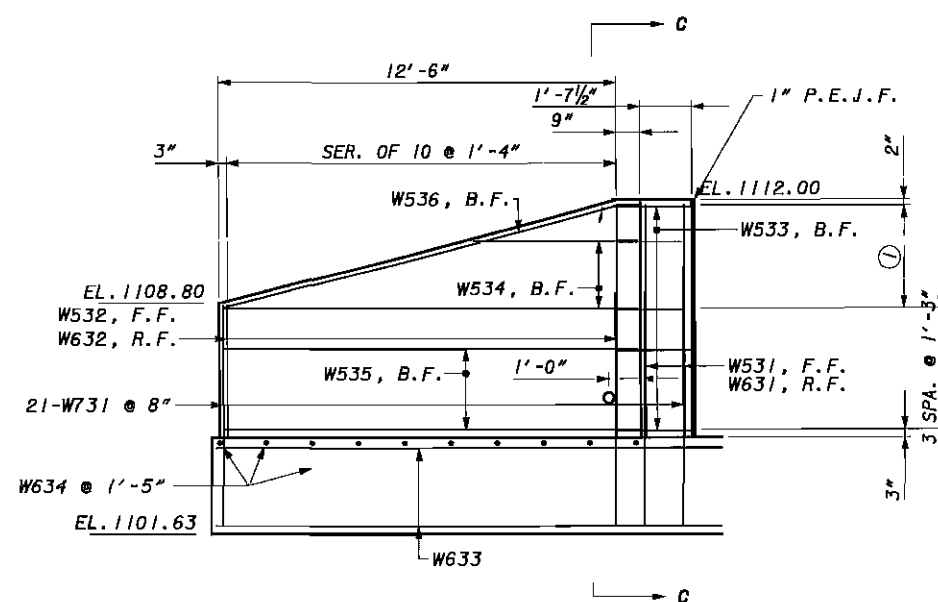


WINGWALL 2 ELEVATION

① 3 SPA. @ 1'-1"

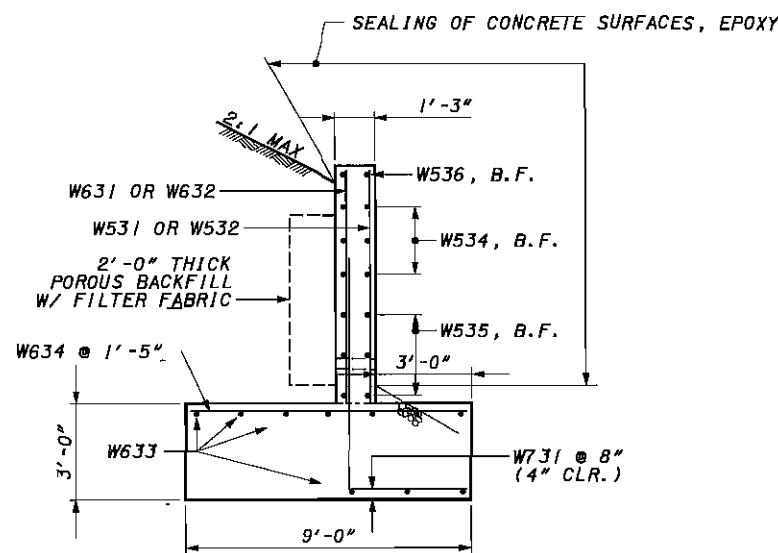


SECTION D-D

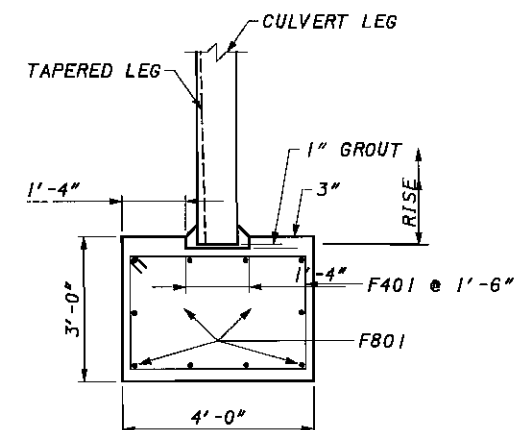


WINGWALL 3 ELEVATION

① 3 SPA. @ 1'-1"



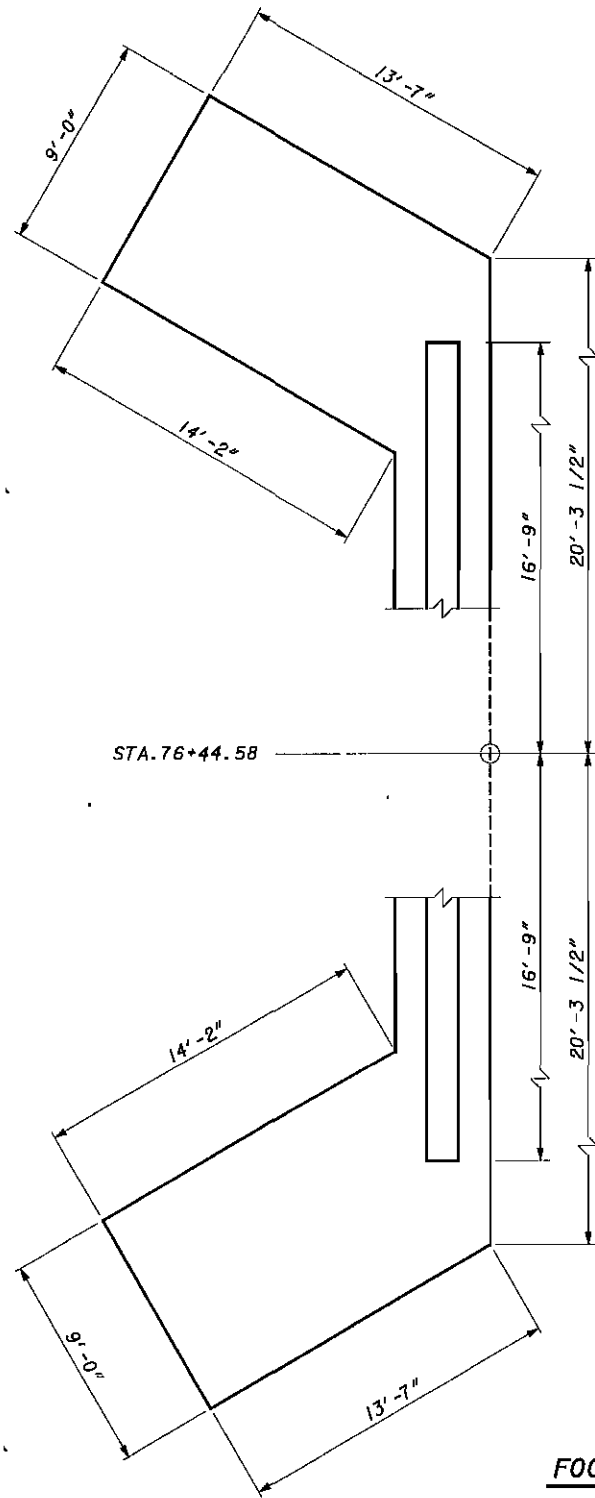
SECTION C-C



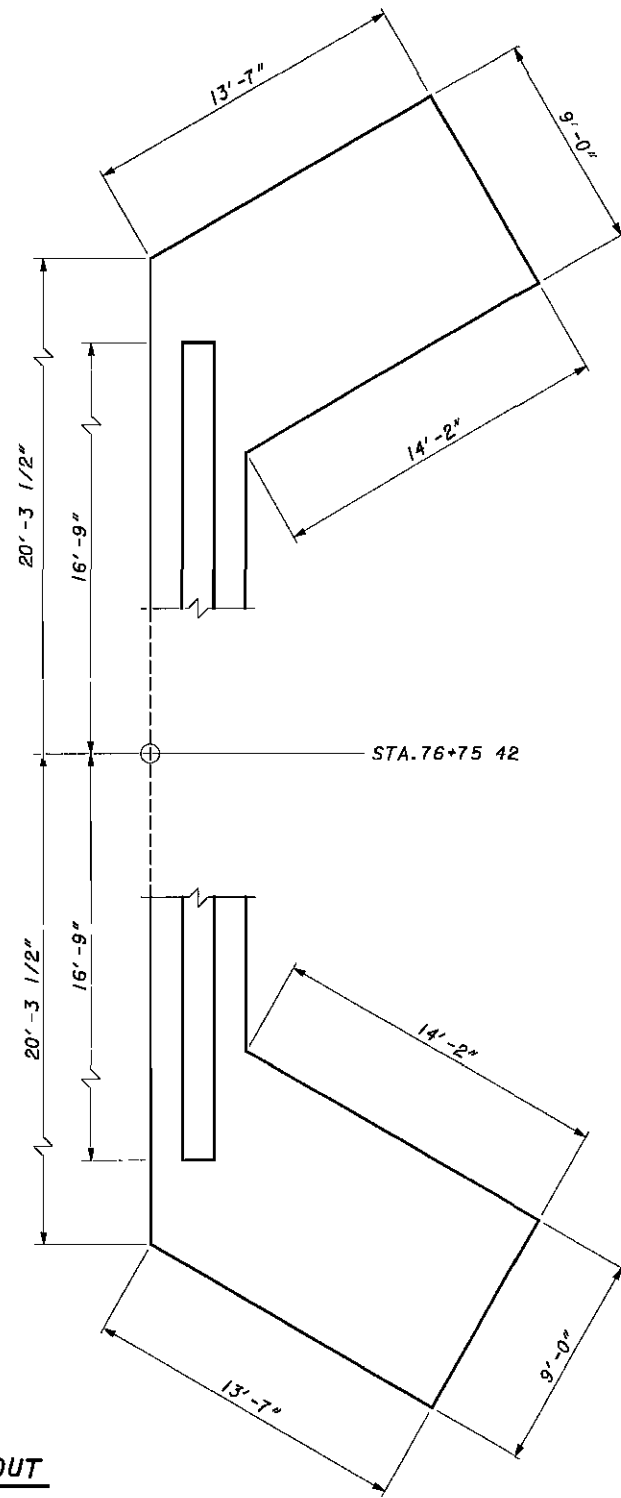
SECTION F-F

SEE SHEET 7/8 FOR LOCATION OF SECTION F-F.

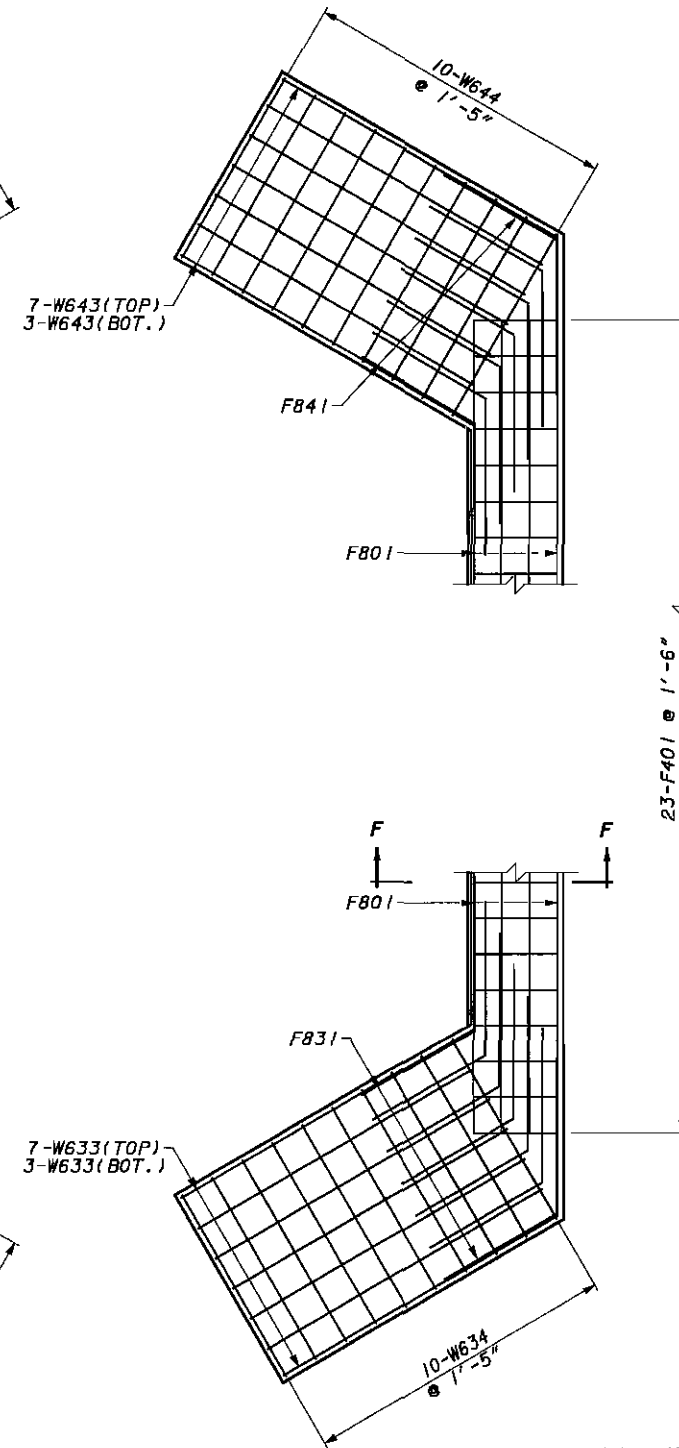
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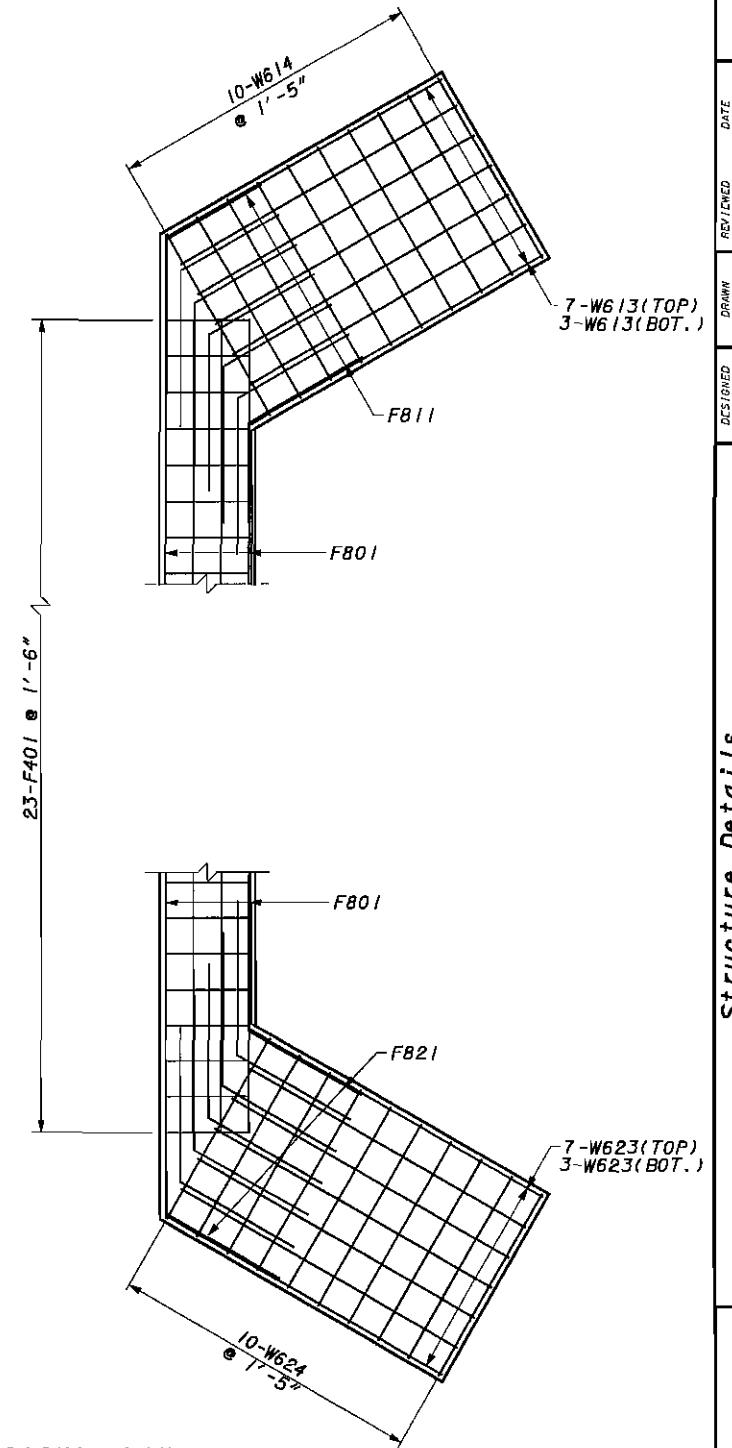
FOOTING LAYOUT



WORK POINTS		
LOCATION	STATION	OFFSET
1	76+75.42	20.2622 (L)
2	76+75.42	20.2622 (R)
3	76+44.58	20.2622 (L)
4	76+44.58	20.2622 (R)



FOOTING REINFORCING PLAN
SEE SHEET 6/8 FOR SECTION F-F



GEA-700-1.45

Structure Details
GEA-700-1.45
SR 700 over Sawyer Brook

DESIGNED	ADP	CHECKED	
DRAWN	ADP	REVISED	
REVIEWED	BWB	DATE	7/28/04
STRUCTURE FILE NUMBER	2802368		

DESIGN AGENCY
ODOT D-12 Production

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