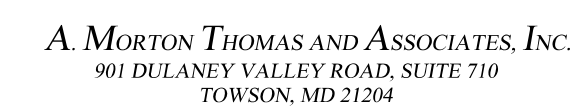
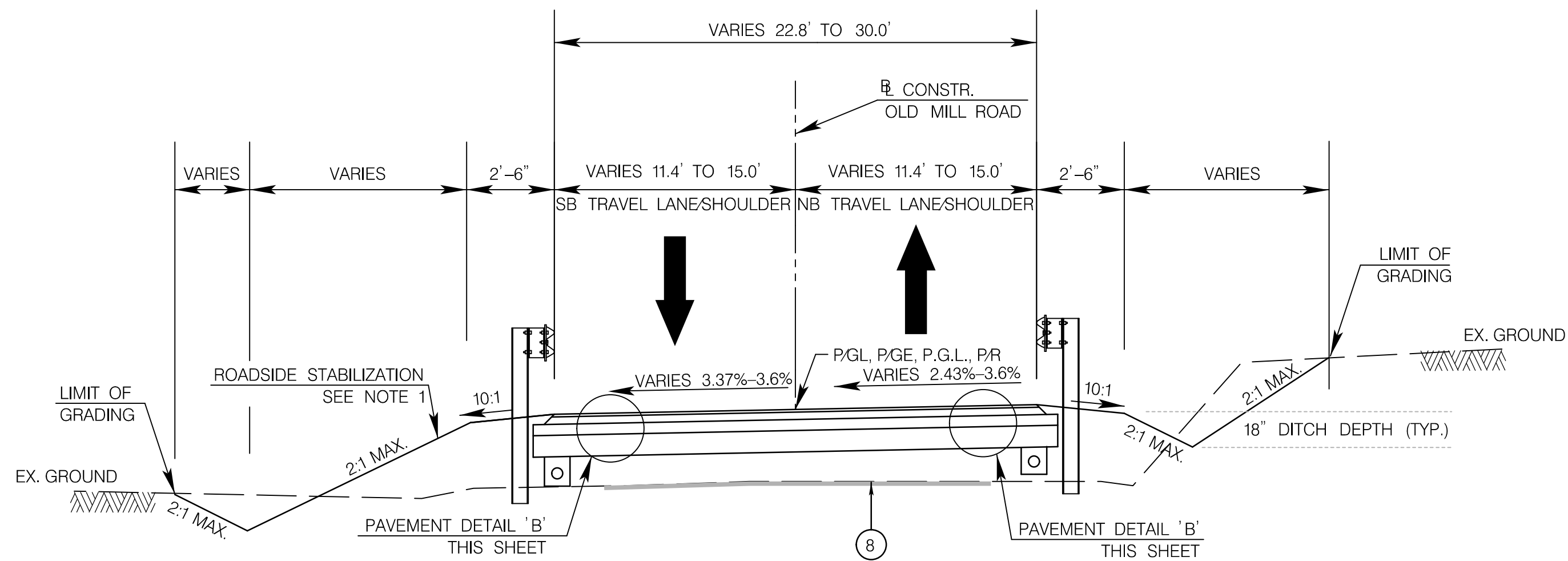


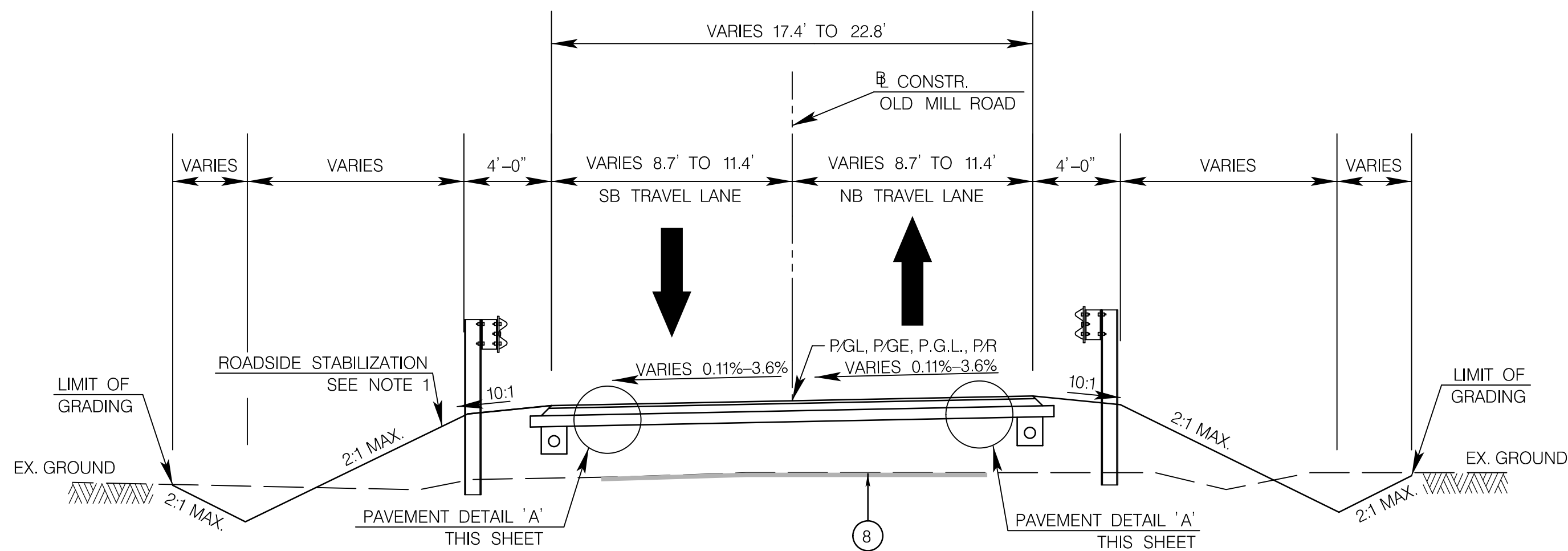
AASHTO	American Association of State Highway Transportation Officials	HDWL.....	Headwall	RW or RW.....	Right of Way
ADT.....	Average Daily Traffic	HERCP.....	Horizontal Elliptical Reinforced Concrete Pipe	RCP	Reinforced Concrete Pipe
AHD.....	Ahead	HP.....	High Point	RCPP	Reinforced Concrete Pressure Pipe
APPROX.....	Approximate	IN	Inch	R.Q.D.	Rock Quality Designation
B or BL	Baseline	I.S.T.....	Inlet Sediment Trap	R.M.	Rootmat
BK	Back /Book	INV.....	Invert	S	South
BIT.....	Bituminous	J.B.....	Junction Box	SAN.....	Sanitary Sewer
B.C.....	Bituminous Concrete	K	K Inlet	SB or SB	Southbound
B.M.....	Bench Mark	L	Length	S.D.....	Storm Drain
BOT.....	Bottom	LF	Linear Feet	S.D.D.	Surface Drain Ditch
C.C.....	Center of Curve	L.L.	Liquid Limit	SE	Super Elevation
CAP.....	Corrugated Aluminum Pipe	LP	Low Point	SF	Silt Fence
CAPA.....	Corrugated Aluminum Pipe Arch	L.P.	Light Pole	SF	Square Feet
CATV.....	Cable Television	LT.....	Left	SHT.....	Sheet
C.B.R.....	California Bearing Ratio	MAC.....	Macadam	SPP	Structural Steel Plate Pipe
C or CL	Centerline	M.C.....	Moisture Content	SPPA	Structural Steel Plate Pipe Arch
CL.....	Class	MAX.....	Maximum	S.P.T.....	Standard Penetration Testing
CLF.....	Chainlink Fence	M.D.D.....	Maximum Dry Content	SRP	Steel Spiral Rib Pipe – Aluminized Type 2
CMP.....	Corrugated Metal Pipe	MOD.....	Modified	SRPA	Steel Spiral Rib Pipe Arch – Aluminized Type 2
C.O.....	Cleanout	MIN.....	Minimum	SSD	Stopping Sight Distance
COMB.....	Combination	N.....	North	SSF	Super Silt Fence
CONC.....	Concrete	NB	Northbound	STD.....	Standard
CONSTR.....	Construction	NE	Northeast	STA.....	Station
COR.....	Corner	N.P.....	Non-Plastic	SO.....	Single Opening
CORR.....	Correction	O.C.....	On Center	SY	Square Yards
CPP-S.....	Corrugated Polyethylene Pipe – Type 'S'	OHE.....	Overhead Electric	SWM	Stormwater Management
CSP	Corrugated Steel Pipe – Aluminized Type 2	O.M.....	Optimum Moisture	T	Tangent
CSPA	Corrugated Steel Pipe Arch – Aluminized Type 2	PAV T.....	Pavement	T	Telephone
DC.....	Degree of Curve	PC	Point of Curvature	T.C.....	Top of Cover
D.H.V.....	Design Hourly Volume	PCC	Point of Compound Curvature	T.G.....	Top of Grade
D.I.....	Drop Inlet	P/C	Point of Crown	T or TL	Traverse Line
DIA.....	Diameter	P/G.E.....	Profile Grade Elevation	T.M.....	Top of Manhole
D.O.....	Double Opening	P.G.L.....	Profile Grade Line	TRAV.....	Traverse
E	East	P/GL.....	Profile Ground Line	TS	Temporary Swale
E	Electric	P/R	Point of Rotation	T.S.....	Top of Slab
E	External Distance	P.I.....	Plasticity Index	T.S.....	Topsoll
EA	Each	PI	Point of Intersection	TYP.....	Typical
EB	Eastbound	POC	Point On Curve	U.D.....	Under Drain
ELEV.....	Elevation	POT	Point On Tangent	U.G.....	Underground
ES.....	End Section	PPWP	Polyvinyl Chloride Profile Wall Pipe	U.P.....	Utility Pole
EX or EXIST.....	Existing	PROP	Proposed	USDA	United States Department of Agriculture
FT	Feet	PRC	Point of Reverse Curve	VCL	Vertical Clearance
F or FL	Flowline	PT	Point	V.C.L.....	Vertical Curve Length
F.B.D.....	Flat Bottom Ditch	PT	Point of Tangency	W	Water
F.H.....	Fire Hydrant	PVC	Point of Vertical Curve	W	West
FWD.....	Forward	PVC	Polyvinyl Chloride	WB	Westbound
G.....	Gas	PVI	Point of Vertical Intersection	WB.....	Wetland Buffer
G.V.....	Gas Valve	PVRC	Point of Vertical Reverse Curve	W.M.....	Water Meter
H.B.....	Handbox	PVT	Point of Vertical Tangency	W.S.....	Wrapped Steel
HDPE	High Density Polyethylene	R	Radius	WUS	Waters of the United States
		R.F.....	Rock Fragments	W.V.....	Water Valve
		RT	Right		

PROPOSED MEDIAN BARRIER		PROPOSED PIPE /CULVERT	
ELECTRICAL HAND BOX - SIGNALS		EXISTING PIPE /CULVERT	
FLOW LINE		EXISTING DROP INLET	
STATE, COUNTY OR CITY LINES		UTILITY POLE	
PROPOSED TRAFFIC BARRIER		WETLAND	
EXISTING TRAFFIC BARRIER		WETLAND BUFFER	
PROPOSED FENCE LINE		WATERS OF THE U.S.	
EXISTING FENCE LINE		HEDGE /TREE LINE	
PROPOSED RIGHT OF WAY LINE		BUSH /TREE	
EXISTING RIGHT OF WAY LINE		CONIFEROUS TREE	
EXISTING ROADWAY		GROUND ELEVATION	
RAILROAD		GRADE ELEVATION	
BASE LINE OR SURVEY LINE			
FIRE HYDRANT			
HISTORIC BOUNDARY			
WATERS OF THE U.S.			
BENCH MARK			
BASELINE OF CONSTRUCTION			

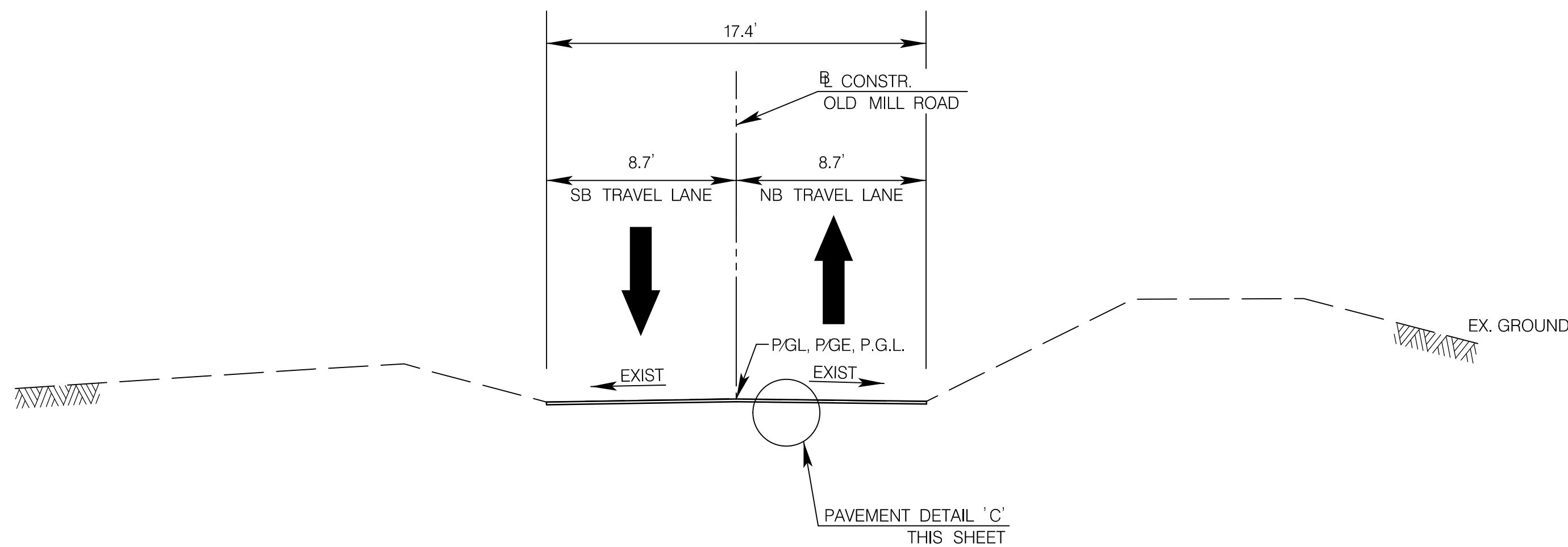




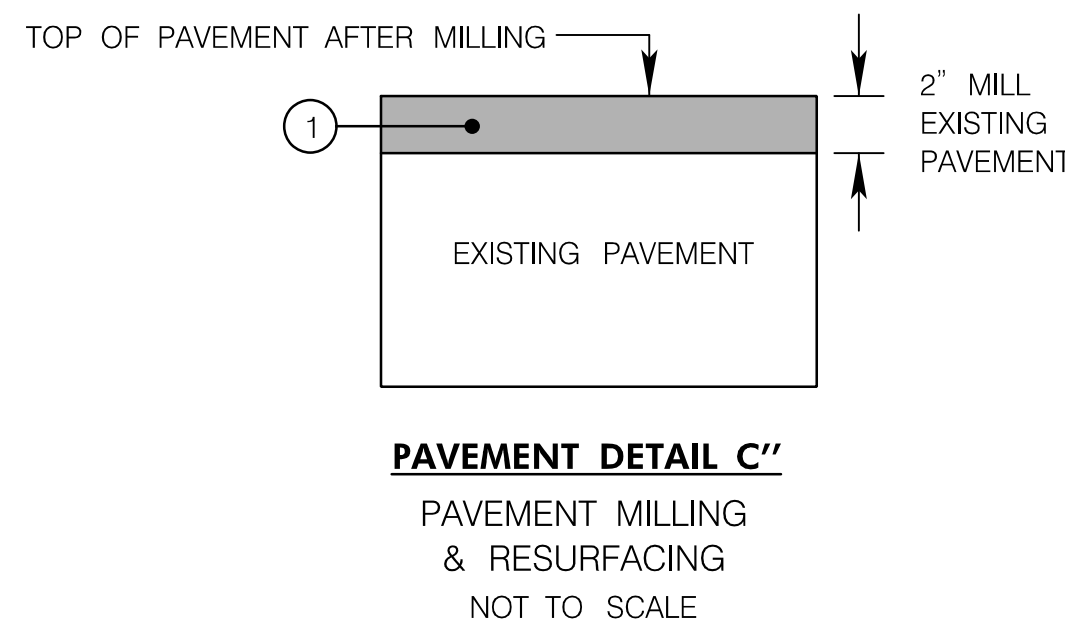
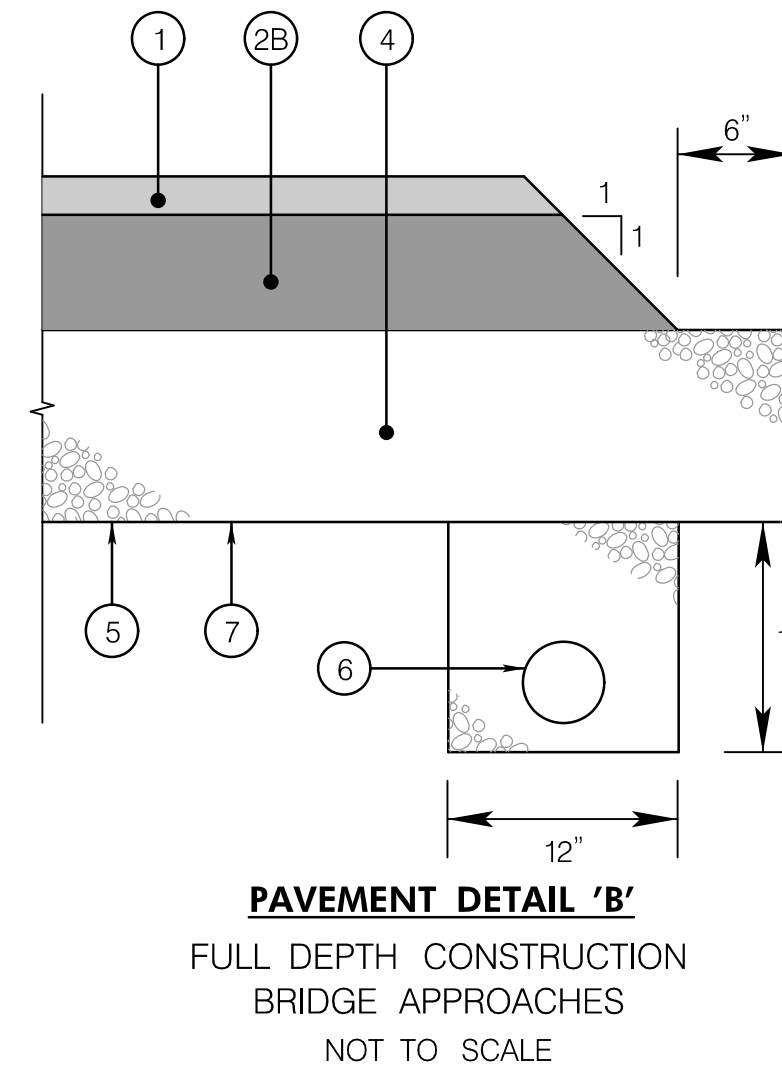
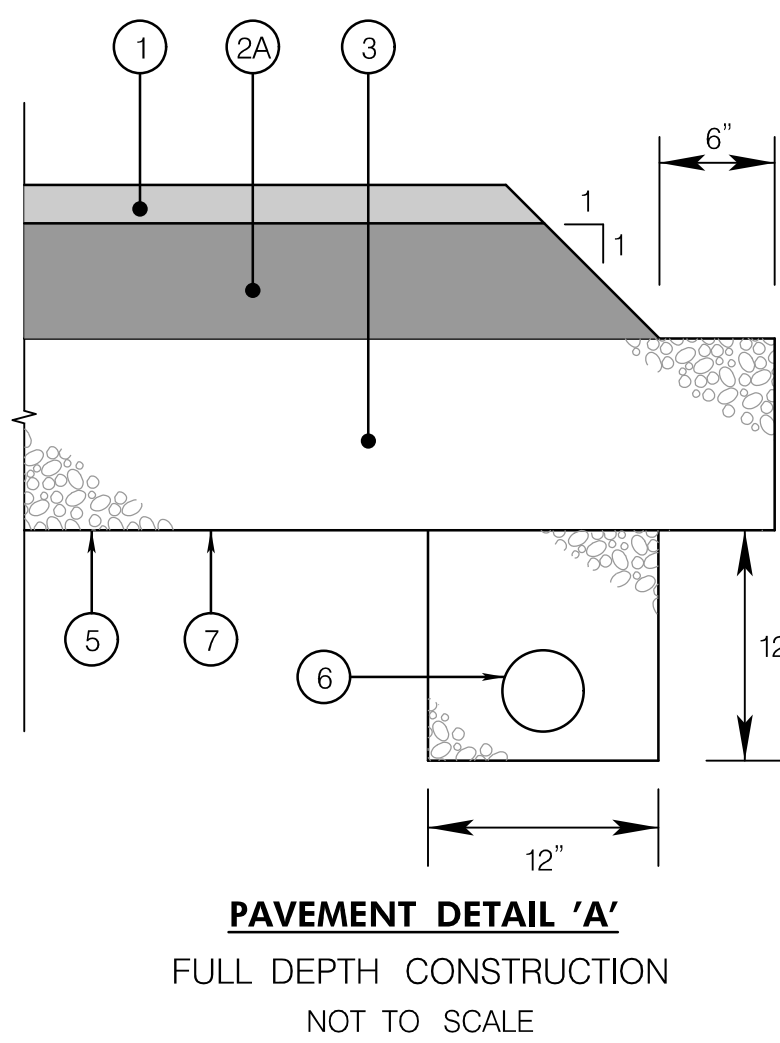
OLD MILL ROAD
FULL DEPTH PAVEMENT TYPICAL SECTION – BRIDGE APPROACHES – SUPERELEVATED
STA. 2+76.66 TO STA. 3+06.66
STA. 3+56.66 TO STA. 3+86.66



OLD MILL ROAD
FULL DEPTH PAVEMENT TYPICAL SECTION – SUPERELEVATED
STA. 1+25.76 TO STA. 2+76.66
STA. 3+86.66 TO STA. 4+92.96



OLD MILL ROAD
RESURFACING TYPICAL SECTION – NORMAL
STA. 1+15.76 TO STA. 1+25.76
STA. 4+92.96 TO STA. 5+02.96



TYPICAL SECTION NOTES

- ROADSIDE STABILIZATION:
 - PLACE 4" TOPSOIL AND PERFORM TURFGRASS ESTABLISHMENT ON ALL DISTURBED ROADSIDE AND SLOPE AREAS FLATTER THAN 2:1.
 - PLACE 2" TOPSOIL AND PERFORM TURFGRASS ESTABLISHMENT WITH TYPE A SOIL STABILIZATION MATTING ON 2:1 SLOPES OR GREATER, PER MD-389.06 AND MD-389.07.
- FOR BRIDGE TYPICAL SECTIONS, PLEASE REFER TO DWG. S-13, SHEET 22 OF THIS PLAN SET.
- FOR LOCATIONS OF GUARDRAIL, PLEASE REFER TO DWG. PS-01, SHEET 5 OF THIS PLAN SET.

PAVEMENT LEGEND

- 2" SUPERPAVE ASPHALT MIX 9.5MM FOR SURFACE, PG 64S-22, LEVEL 2
- 4" SUPERPAVE ASPHALT MIX 19.0MM FOR BASE, PG 64S-22, LEVEL 2 (ONE 4" LIFT)
- 8" SUPERPAVE ASPHALT MIX 19.0MM FOR BASE, PG 64S-22, LEVEL 2 (TWO 4" LIFTS)
- 6" BASE COURSE USING GRADED AGGREGATE BASE
- 24" BASE COURSE USING GRADED AGGREGATE BASE (FOUR 6" LIFTS)
- LIMIT OF CLASS 1 EXCAVATION
- 6" PERFORATED CIRCULAR PIPE LONGITUDINAL UNDERDRAIN AS PER STANDARD MD 387.11
- TOP OF SUBGRADE
- 1" MILLING OF EXISTING PAVEMENT

PAVEMENT DETAIL NOTES

- IF NECESSARY, USE HOT MIX ASPHALT SUPERPAVE 9.5MM FOR WEDGELEVEL, PG64-22, LEVEL 2. (1" MIN., 2" MAX. LIFT).
- UNDERDRAIN SHALL BE WRAPPED IN CLASS SD TYPE II GEOTEXTILE ON SIDES AND BOTTOM ONLY. SEE PLAN SHEET, PS-01, FOR SPECIFIC LOCATIONS. MOVE LONGITUDINAL UNDERDRAIN AS DIRECTED BY THE ENGINEER IF CONFLICT WITH ANY W-BEAM POST. PLACEMENT OF LONGITUDINAL UNDERDRAINS SHALL BE IN CONFORMANCE WITH SECTION 306 OF THE LATEST APPROVED MDOT SHA "STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS" AND PAGE 35 OF THE FREDERICK COUNTY SUPPLEMENT TO THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I & II. ALL LONGITUDINAL UNDERDRAINS SHALL BE OUTLETTED AT LOW POINTS.
- CONTRACTOR SHALL SAW CUT THROUGH EXISTING ASPHALT PAVEMENT ONLY. ONLY EXCAVATE EXISTING ROADWAY AS REQUIRED TO INSTALL PROPOSED PAVEMENT. PAYMENT FOR SAW CUTS WILL NOT BE MEASURED BUT WILL BE CONSIDERED INCIDENTAL TO ROADWAY EXCAVATION.

TS-01

FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF ENGINEERING AND CONSTRUCTION MANAGEMENT
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

BRIDGE REPLACEMENT
BRIDGE NO. F04-09 ON OLD MILL ROAD
OVER MARYLAND MIDLAND RAILROAD

TYPICAL SECTIONS
AND PAVEMENT DETAILS

DATE: OCTOBER 2023 SCALE: AS NOTED

FREDERICK COUNTY PROJECT NO.: FR072B21 DWG. 3 OF 23

AMT

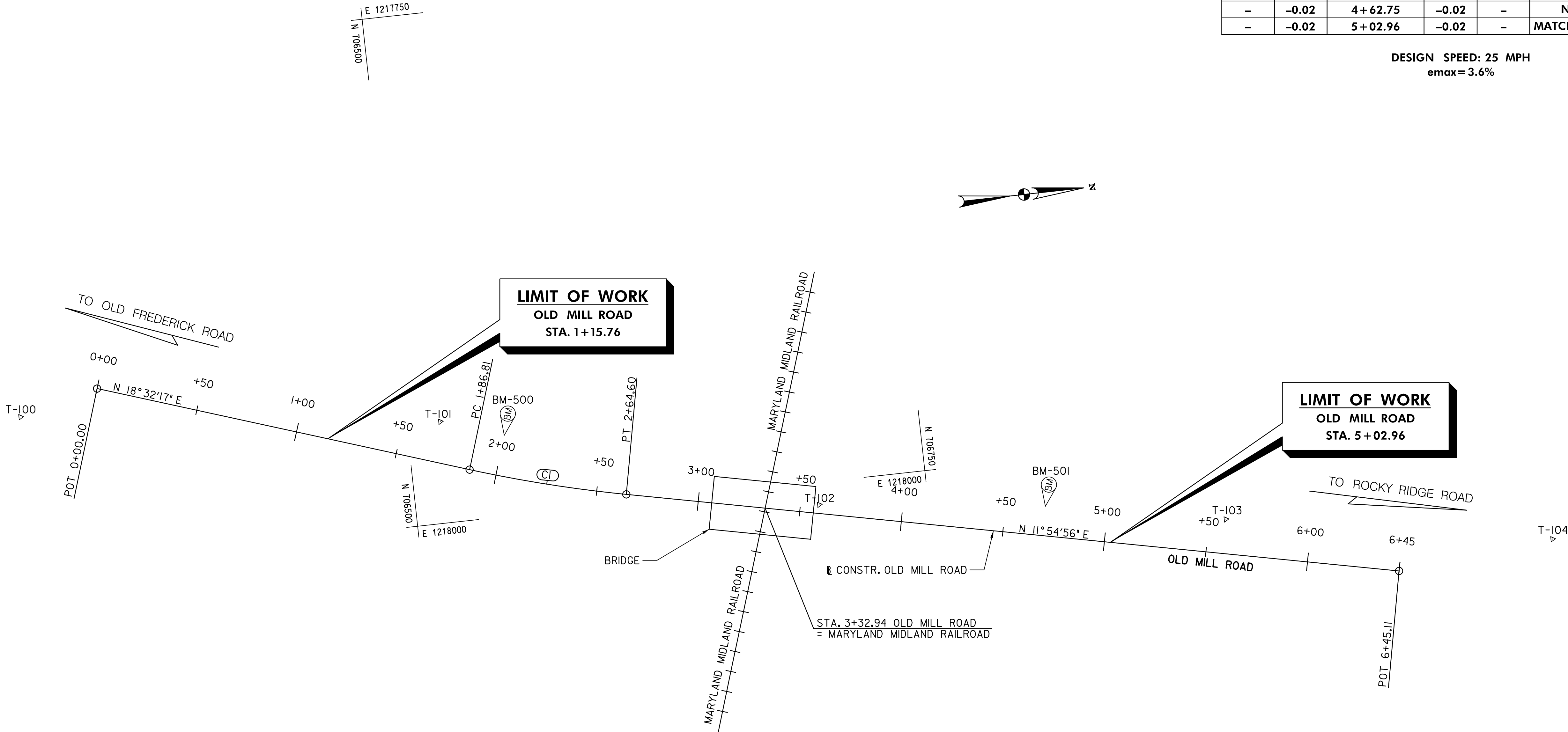
A. MORTON THOMAS AND ASSOCIATES, INC.
901 DULANEY VALLEY ROAD, SUITE 710
TOWSON, MD 21204

BASELINE CONTROL COORDINATES						
BASELINE	CURVE	POINT NO.	STATION	NORTH	EAST	BEARING
OLD MILL ROAD	C-1	POT	0+00.00	706351.1971	1217915.7941	N 18° 32' 17" E
		PC	1+86.81	706528.3137	1217975.1869	
		PI	2+25.75	706565.2307	1217987.5663	
		PT	2+64.60	706603.3291	1217995.6057	
		POT	6+45.11	706975.6420	1218074.1693	N 11° 54' 56" E

CURVE DATA						
CURVE	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
C-1	6° 37' 21"	8° 30' 49"	673.00'	38.9374'	77.7881'	1.1254'

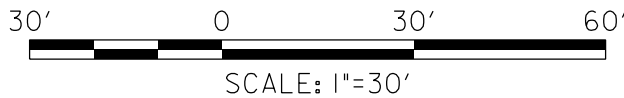
OLD MILL ROAD					
P/R					
A	B		C	D	
SHOULDER		LANE	LANE	SHOULDER	
A	B	STATION	C	D	REMARKS
-	-0.0011	1+25.00	-0.0011	-	MATCH EXISTING X.SLOPE
-	-0.02	1+40.78	0.00	-	LEVEL CROWN
-	-0.02	1+75.66	0.02	-	REVERSE CROWN
-	-0.036	2+02.76	0.036	-	BEGIN SUPER
-0.036	-0.036	2+71.66	0.036	0.036	BEGIN SHOULDER
-0.036	-0.036	3+66.66	0.036	0.036	END SUPER
-0.0212	-0.0212	3+91.66	0.0212	0.0212	END SHOULDER
-	-0.02	3+93.76	0.02	-	REVERSE CROWN
-	-0.02	4+28.43	0.00	-	LEVEL CROWN
-	-0.02	4+62.75	-0.02	-	NORMAL CROWN
-	-0.02	5+02.96	-0.02	-	MATCH EXISTING X.SLOPE

DESIGN SPEED: 25 MPH
emax= 3.6%



TRAVERSE POINTS			
POINT NO.	NORTH	EAST	ELEVATION
T-100	706312.3536	1217925.5694	392.24
T-101	706516.5706	1217950.2082	385.34
T-102	706696.6917	1218010.9205	377.95
T-103	706894.0171	1218039.7205	393.27
T-104	707052.0602	1218066.8139	397.39

BENCHMARKS			
POINT NO.	NORTH	EAST	ELEVATION
BM-500	706547.0303	1217960.3799	384.70
BM-501	706806.9571	1218023.9378	388.31



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OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

BRIDGE REPLACEMENT
BRIDGE NO. F04-09 ON OLD MILL ROAD
OVER MARYLAND MIDLAND RAILROAD

GEOMETRIC LAYOUT
SUPERELEVATION

DATE: OCTOBER 2023 SCALE: AS NOTED

FREDERICK COUNTY PROJECT NO.: FR072B21 DWG. 4 OF 23

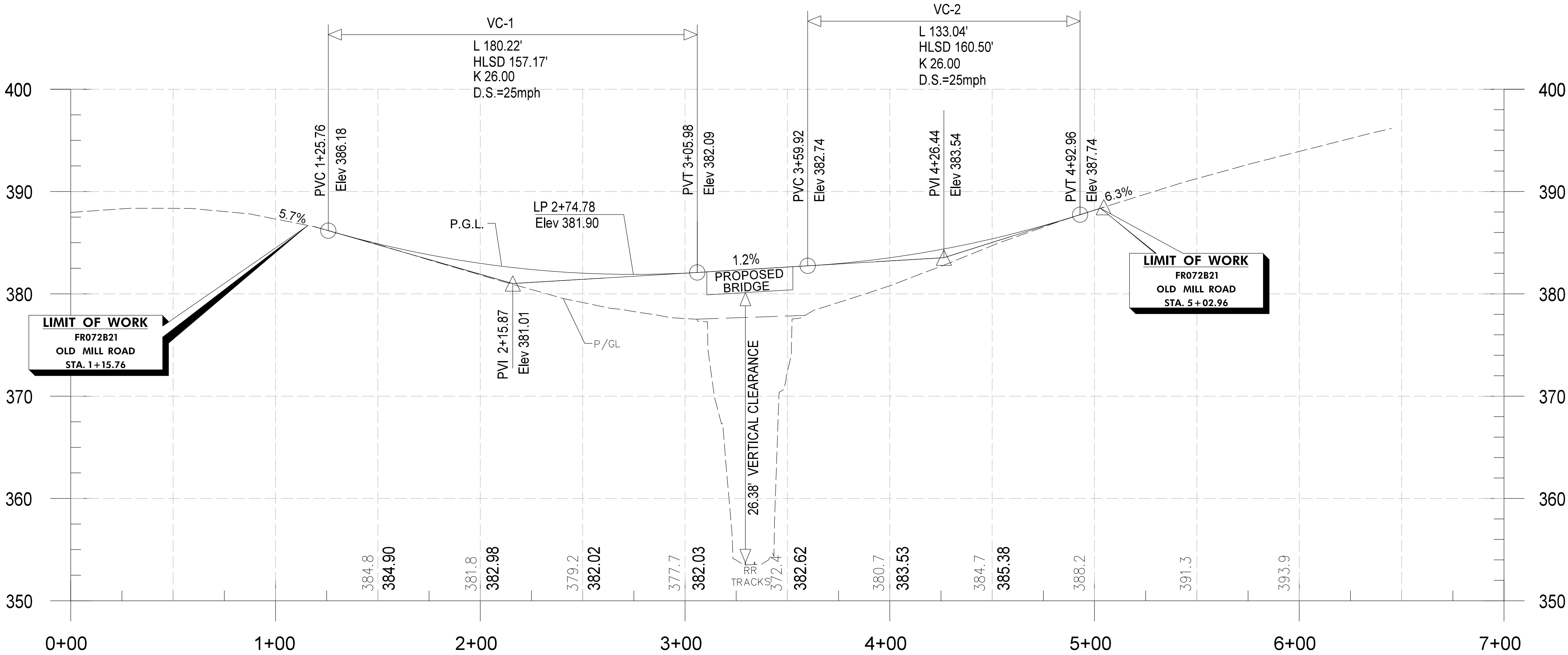
CURVE DATA						
CURVE	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
C-1	6°37'21"	8°30'49"	673.00'	38.9374'	77.7881'	1.1254'

TYPE C TRAFFIC BARRIER END TREATMENT	
STA. 1+97 TO 2+11, 13' RT (MD-605.03)	1 EA
STA. 4+48 TO 4+62, 13' LT (MD-605.03)	1 EA
TYPE K TRAFFIC BARRIER END TREATMENT	
STA. 1+98 TO 2+12, 13' LT (MD-605.10)	1 EA
STA. 4+47 TO 4+61, 13' RT (MD-605.10)	1 EA
W BEAM SINGLE FACE TRAFFIC BARRIER (8 FOOT POSTS)	
STA. 2+11 - 2+50, 13' RT (MD-605.22)	39 LF
STA. 2+12 - 2+51, 13' LT (MD-605.22)	39 LF
STA. 4+09 - 4+48, 13' LT (MD-605.22)	39 LF
STA. 4+08 - 4+47, 13' RT (MD-605.22)	39 LF
TRAFFIC BARRIER END SECTION / ANCHORAGE	
W BEAM ANCHORAGE (MD-605.41) STA. 2+89 13' LT.	1 EA
W BEAM ANCHORAGE (MD-605.41) STA. 2+88 13' RT.	1 EA
W BEAM ANCHORAGE (MD-605.41) STA. 3+71 13' LT.	1 EA
W BEAM ANCHORAGE (MD-605.41) STA. 3+70 13' RT.	1 EA

ROADWAY LEGEND	
	BRIDGE
	BRIDGE APPROACH
	FULL DEPTH PAVEMENT
	MILL AND RESURFACE PAVEMENT

RECORDS INDICATE THAT THERE ARE NO EXISTING UTILITIES WITHIN THE PROJECT AREA. FREDERICK COUNTY AND THE DESIGN ENGINEER DO NOT WARRANT OR GUARANTEE CORRECTNESS OR COMPLETENESS OF INFORMATION SHOWN. CONTRACTOR IS RESPONSIBLE FOR CONTACTING MISS UTILITY AT 1-800-257-7777 FOR VERIFYING LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK. ANY DAMAGE TO EXISTING UTILITIES DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.

ROADWAY PLAN



OLD MILL ROAD PROFILE
HORIZ. SCALE: 1"=30'
VERT. SCALE: 1"=5'



PS-01

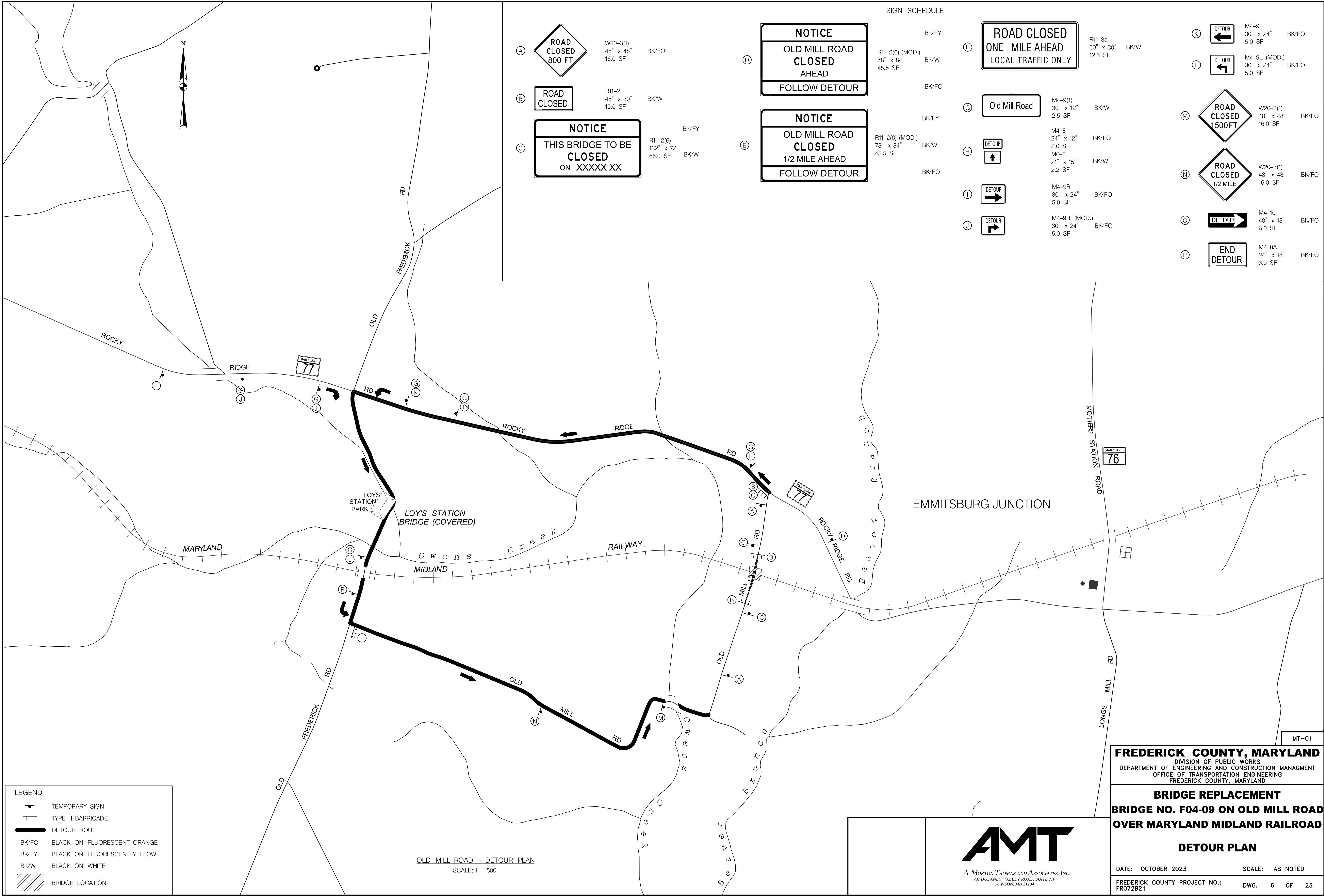
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FREDERICK COUNTY, MARYLAND

BRIDGE REPLACEMENT
BRIDGE NO. F04-09 ON OLD MILL ROAD
OVER MARYLAND MIDLAND RAILROAD

ROADWAY PLAN AND PROFILE

DATE: OCTOBER 2023 SCALE: AS NOTED

FREDERICK COUNTY PROJECT NO.: FR072B21 DWG. 5 OF 23



LEGEND

- TEMPORARY SIGN
- TYPE III BARRICADE
- DETOUR ROUTE
- BK/FO BLACK ON FLUORESCENT ORANGE
- BK/FY BLACK ON FLUORESCENT YELLOW
- BK/W BLACK ON WHITE
- BRIDGE LOCATION

OLD MILL ROAD – DETOUR PLAN
SCALE: 1" = 500'

SIGN SCHEDULE	
<p>(A) ROAD CLOSED 800 FT W20-3(1) 48" x 48" 16.0 SF BK/FO</p>	<p>(B) ROAD CLOSED R11-2 48" x 30" 10.0 SF BK/W</p>
<p>(C) NOTICE THIS BRIDGE TO BE CLOSED ON XXXXX XX R11-2(6) 132" x 72" 66.0 SF BK/W</p>	
<p>(D) NOTICE OLD MILL ROAD CLOSED AHEAD FOLLOW DETOUR R11-2(6) (MOD.) 78" x 84" 45.5 SF BK/W</p>	
<p>(E) NOTICE OLD MILL ROAD CLOSED 1/2 MILE AHEAD FOLLOW DETOUR R11-2(6) (MOD.) 78" x 84" 45.5 SF BK/W</p>	
<p>(F) ROAD CLOSED ONE MILE AHEAD LOCAL TRAFFIC ONLY R11-3a 60" x 30" 12.5 SF BK/W</p>	
<p>(G) Old Mill Road M4-9(1) 30" x 12" 2.5 SF BK/W</p>	
<p>(H) DETOUR M4-8 24" x 12" 2.0 SF BK/FO</p>	
<p>(I) DETOUR M6-3 21" x 15" 2.2 SF BK/W</p>	
<p>(J) DETOUR M4-9R 30" x 24" 5.0 SF BK/FO</p>	
<p>(K) DETOUR M4-9L 30" x 24" 5.0 SF BK/FO</p>	
<p>(L) DETOUR M4-9L (MOD.) 30" x 24" 5.0 SF BK/FO</p>	
<p>(M) ROAD CLOSED 1500 FT W20-3(1) 48" x 48" 16.0 SF BK/FO</p>	
<p>(N) ROAD CLOSED 1/2 MILE W20-3(1) 48" x 48" 16.0 SF BK/FO</p>	
<p>(O) DETOUR M4-10 48" x 18" 6.0 SF BK/FO</p>	
<p>(P) END DETOUR M4-8A 24" x 18" 3.0 SF BK/FO</p>	

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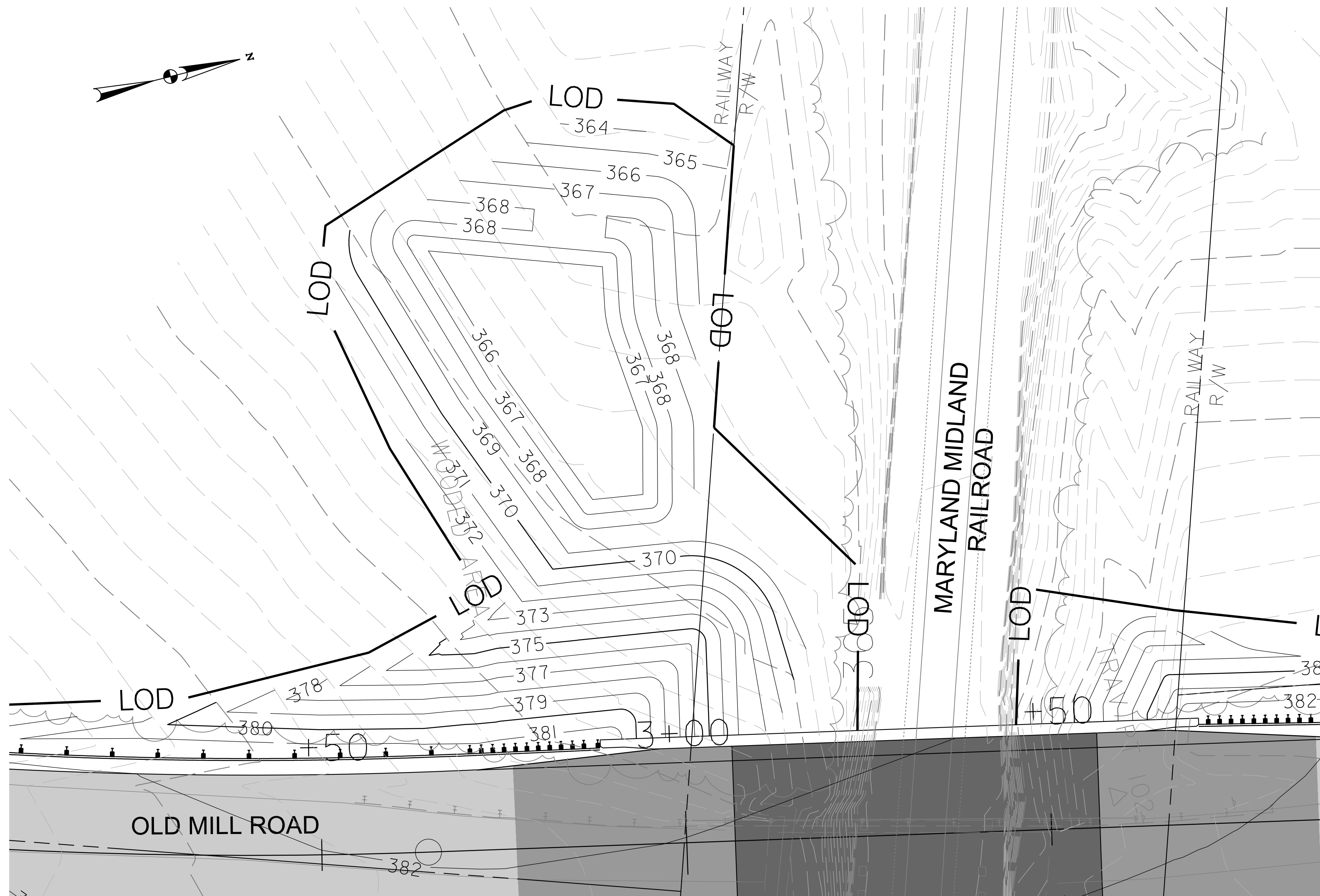
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BRIDGE REPLACEMENT
BRIDGE NO. F04-09 ON OLD MILL ROAD
OVER MARYLAND MIDLAND RAILROAD

DETOUR PLAN

DATE: OCTOBER 2023 SCALE: AS NOTED

FREDERICK COUNTY PROJECT NO.: FR072B21 DWG. 6 OF 23



PLAN VIEW – MICRO-BIORETENTION FACILITY MBR-1

SWM FACILITY ANALYSIS

FACILITY NAME:	MBR-1
DRAINAGE AREA:	0.21 ac
RCN:	92
Tc:	0.17 hr
TARGET Pe:	2.0 in
TARGET ESDv:	1,173 cf
PROVIDED Pe:	1.58 in
PROVIDED ESDv:	836 cf
IMPERVIOUS AREA TREATED:	0.17 ac

NOTES:



SEDIMENT CONTROL/ STORM WATER MANAGEMENT REQUIRED INSPECTIONS

YOU MUST NOTIFY THE SEDIMENT CONTROL AND STORMWATER MANAGEMENT OFFICE AT 301-694-1679 BEFORE 9:00 A.M- 24 HOURS PRIOR TO THE REQUIRED INSPECTION. FAILURE TO NOTIFY THIS OFFICE WILL RESULT IN A STOP WORK ORDER OR OTHER PENEALTIES AS OUTLINED IN FREDERICK COUNTY CODES.

*****NOTICE*****
THIS LIST IS FOR SEQUENCE OF CONSTRUCTION ONLY. THIS OFFICE ASSUMES NO RESPONSIBILITY OR LIABILITY FOR IMPROPER INSTALLATION OF ANY ITEM ON THIS CHECKLIST. THIS OFFICE RECOMMENDS THAT A PROFESSIONAL ENGINEER BE PRESENT FOR EACH OF THE REQUIRED INSPECTIONS.

TYPE OF INSPECTION	MISC. COMMENTS /INITIALS
1. PRECONSTRUCTION MEETING	
2. COMPLETION OF SEDIMENT CONYTROL MEASURE (IF USING BASIN SEE #6 BELOW)	
3. PRIOR TO MODIFICATION OR REMOVAL OF SED. CONTRL.	
4. INFILTRATION SYSTEMS A. SITE READINESS PER SEQUENCE OF CONSTRUCTION B. INFILTRATION AREA. PROTECTED FROM SESIMENTATION C. DIMENSIONS D. FILTRATING MATERIAL E. FILL MATERIAL F. SIZE, PLACEMENT, TYPE OF PIPING G. OBSERVATION WELL H. COVER/STABILIZATION	
5. OPEN CHANNEL FLOW ATTENUATION A. SITE READINESS PER SEQUENCE OF CONSTRUCTION B. CROSS SECTION CONFORMANCE C. MATERIAL (TYPE/SIZE) D. STABILIZATION	
6. RENTENTION/DETENTION STRUCTURES (BASIN/PONDS) A. SUBGRADE PREPARARTION 1. CORE TRENCH 2. SUITABLE MATERIAL/ COMPACTION B. EMBANKMENT CONSTRUCTION 1. SUITABLE MATERIAL/COMPACTION 2. SLOPE GRADE 3. DIMENSIONS C. BARREL AND RISER ASSEMBLY 1. CORRECT MATERIAL ONSITE 2. SIZING 3. ANTI-SEEP COLLARS 4. ANTI-FLOTATION DEVICE 5. CONCRETE CRADLE (RCP ONLY) 6. INSTALLATION /BAXKFILL/COMPACTION D. CONCRETE STRUCTURES 1. FOOTER DEMINSONS 2. REINFORCING MATERIAL (TYPE, SIZE,PLACEMENT) 3. WEIR POUR/MATERIAL/SLUMP TEST 4. FORM STRIP AND FINISHING E. IMPOUNDING AREA 1. LOW FLOW CHANNELS/STABILIZATION 2. DEWATERING DEVICE 3. EMERGENCY SPILLWAY 4. EXTENDED DETENTION DEVICE F. OUTFALL AREA (LEVEL SPREADER,RIPRAP CHANNEL, ECT., G. VEGETATIVE STABILIZATION H. MISCELLANEOUS	

SW-01

FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF ENGINEERING AND CONSTRUCTION MANAGMENT
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

BRIDGE REPLACEMENT
BRIDGE NO. F04-09 ON OLD MILL ROAD
OVER MARYLAND MIDLAND RAILROAD

STORMWATER
MANAGEMENT PLAN

DATE: OCTOBER 2023 SCALE: AS NOTED

FREDERICK COUNTY PROJECT NO.: FR072B21 DWG. 7 OF 23

AMT

A. MORTON THOMAS AND ASSOCIATES, INC.
901 DULANEY VALLEY ROAD, SUITE 710
TOWSON, MD 21204

EROSION AND SEDIMENT CONTROL – GENERAL NOTES

FREDERICK COUNTY STANDARD SEDIMENT & EROSION CONTROL NOTES

- ALL EROSION/SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" AS APPROVED BY THE COUNTY.
- ALL DISTURBED AREAS NOT UNDER ACTIVE GRADING TO BE SEEDED WITHIN 7 DAYS OF INITIAL GRADING. FOR TEMPORARY SEEDING SPECIFICATIONS SEE SECTION B1, "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" PUBLISHED JOINTLY BY WATER MANAGEMENT ADMINISTRATION, SOIL CONSERVATION SERVICE AND STATE SOIL CONSERVATION COMMITTEE.
- ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AT THE INITIATION OF GRADING.
- ALL STORM DRAIN AND SANITARY SEWER LINES NOT IN PAVED AREAS AND NOT SUBJECT TO ACTIVE GRADING ARE TO BE MULCHED & SEEDED WITHIN 7 DAYS OF INITIAL BACKFILL.
- ELECTRIC POWER, TELEPHONE AND GAS LINES NOT IN ACTIVE GRADING AREAS ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 7 DAYS AFTER INITIAL BACKFILL.
- ALL EARTH BERMS AND SEDIMENT DAMS ARE TO BE MULCHED AND SEEDED (SEE STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION) WITHIN 7 DAYS AFTER GRADING. ALL SOIL STOCKPILES ARE TO BE MULCHED AND SEEDED WITHIN 7 DAYS.
- DURING CONSTRUCTION, ALL SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED AFTER EACH RAINFALL AND REPAIRED IF NECESSARY. SEDIMENT TO BE REMOVED TO A SUITABLE DISPOSAL AREA AND STABILIZED WITH PERMANENT VEGETATIVE COVER. (SEE SECTION B OF "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" PUBLISHED JOINTLY BY WATER MANAGEMENT ADMINISTRATION, SOIL CONSERVATION SERVICE, AND STATE SOIL CONSERVATION COMMITTEE.).
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SEDIMENT EROSION CONTROL MEASURES UNTIL DISTURBED AREAS ARE STABILIZED.
- AFTER FINE GRADING, ALL DISTURBED AREAS ARE TO BE PERMANENTLY MULCHED AND SEEDED (SEE STANDARDS B-4-1 AND B-4-4).
- NO SLOPE SHALL BE GREATER THAN 2:1.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS WHICH ARE SHOWN ON THE PLAN AND AREA CURRENTLY BEING USED FOR MATERIAL STORAGE OR FOR THOSE AREAS ON WHICH ACTUAL CONSTRUCTION ACTIVITIES ARE CURRENTLY BEING PERFORMED. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE THAT STABILIZED AREAS CONTINUOUSLY MEET THE APPROPRIATE REQUIREMENTS OF THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL".
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN CONTINUOUS COMPLIANCE WITH THE LATEST VERSION OF THE MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
- ALL UTILITIES, SUCH AS; STORM DRAIN, PUBLIC WATER, SANITARY SEWER, ELECTRIC POWER, TELEPHONE, CABLE AND GAS LINES, THAT ARE NOT IN PAVED AREAS AND ARE NOT UNDERGOING ACTIVE GRADING SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 3 DAYS OF INITIAL DISTURBANCE.
- THE OWNER DEVELOPER OR THEIR DESIGNATE IS RESPONSIBLE FOR CONDUCTING ROUTINE MAINTENANCE. THE SITE AND CONTROLS SHOULD BE INSPECTED WEEKLY AND THE NEXT DAY AFTER EACH RAIN EVENT**. ANY ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN A SUITABLE AREA AND SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED.

**ANY PROJECT THAT HAS A STATE ISSUED N.O.I. PERMIT DOCUMENT EACH INSPECTION AND MAINTAIN AN INSPECTION LOG (PLEASE SEE NOI FOR DETAILS).

NOTES FOR UTILITY WORK

- DISTURBANCE OUTSIDE THE LIMIT OF DISTURBANCE CANNOT EXCEED 5,000 SQUARE FEET.
- PLACE ALL EXCAVATED MATERIAL ON THE HIGH SIDE OF THE TRENCH.
- ONLY COMPLETE AS MUCH WORK AS CAN BE DONE IN ONE DAY SO BACKFILLING, FINAL GRADING, SEEDING, AND MULCHING CAN OCCUR.
- ANY SEDIMENT CONTROL MEASURES DISTURBED BY CONSTRUCTION SHALL BE REPAIRED THE SAME DAY.

NOTES FOR SECONDARY UTILITY WORK

- DISTURBANCE FROM SECONDARY UTILITIES SUCH AS PHONE, CABLE, ELECTRIC CABLE, T.V. CABLE, ETC. SHALL BE THE SUBCONTRACTORS RESPONSIBILITY. THE WORK AREA SHALL BE RETURNED TO EXISTING GRADE. SEED AND MULCH THE DISTURBED AREA FROM THE INSTALLATION OR RELOCATION OF ANY LINES OR CONDUIT.
- THE SUBCONTRACTORS SHALL BE RESPONSIBLE FOR THE REINSTALLATION OR REPAIR OF ANY SILT FENCE OR SEDIMENT CONTROLS MEASURES THAT WERE DAMAGED OR MOVED DURING THE INSTALLATION OR RELOCATION OF ANY LINES OR CONDUIT.

TREE PROTECTION NOTES

- THE CONTRACTOR SHALL NOT REMOVE OR INTENTIONALLY DAMAGE ANY TREES NOT MARKED FOR REMOVAL.
- THE CONTRACTOR SHALL AVOID AND MINIMIZE PASSAGE OF HEAVY CONSTRUCTION EQUIPMENT WITHIN THE TREE DRIP LINE.
- THE CONTRACTOR SHALL FINE GRADE AROUND TREES WITH SMALL EQUIPMENT OR HAND GRADE ONLY.
- THE CONTRACTOR SHALL INSTALL TREE PROTECTION FENCING AND PLANKING AS REQUIRED BY THE COUNTY INSPECTOR.

- ALL TREES WITHIN THE LIMIT OF DISTURBANCE NOT DESIGNATED FOR REMOVAL SHALL BE PROTECTED AS PER THE TREE PROTECTION AND PLANNING DETAILS. TREE PLANKING SHALL BE UTILIZED FOR TREES THAT ARE DIRECTLY ADJACENT TO OR HAVE THE POTENTIAL TO BE DAMAGED BY MACHINERY THAT IS IN CLOSE OPERATION. TREE PROTECTION FENCING SHALL BE USED FOR TREES WHERE THERE IS NECESSARY ROOM TO AVOID DURING CONSTRUCTION.

STANDARD SYMBOLS

AT-GRADE INLET PROTECTION		ROCK OUTLET PROTECTION II	
BAFFLE BOARDS		ROCK OUTLET PROTECTION III	
CATCH BASIN INSERT		SILT FENCE	
CLEAR WATER DIVERSION PIPE	 <small>NOTE: DESIGNATION CWD-12 REFERS TO CLEAR WATER DIVERSION WITH 12 INCH PIPE.</small>	SILT FENCE ON PAVEMENT	
COMBINATION INLET PROTECTION		SOD	
CURB INLET PROTECTION		STABILIZED CONSTRUCTION ENTRANCE	
DIVERSION FENCE		STANDARD INLET PROTECTION	
EARTH DIKE	 <small>PLACE DESIGNATION (A-1, B-2, ETC.) ON FLOW CHANNEL SIDE OF DIKE.</small>	STOCKPILE AREA	
EMERGENCY SPILLWAY		STONE CHECK DAM	
FILTER BAG		STONE/RIPRAP OUTLET SEDIMENT TRAP ST II	
FILTER BERM		SUBSURFACE DRAINS	
FILTER LOG	 <small>NOTE: DESIGNATION FL-18 REFERS TO FILTER LOG WITH 18 INCH DIAMETER.</small>	SUMP PIT	
GABION INFLOW PROTECTION		SUPER SILT FENCE	
GABION INLET PROTECTION		TEMPORARY ACCESS CULVERT	
LIMIT OF DISTURBANCE		TEMPORARY ASPHALT BERM	
MEDIAN INLET PROTECTION		TEMPORARY BARRIER DIVERSION	
MEDIAN SUMP INLET PROTECTION		TEMPORARY GABION OUTLET STRUCTURE	
MOUNTABLE BERM		TEMPORARY SOIL STABILIZATION MATTING-TYPE A	
PERIMETER DIKE/SWALE		TEMPORARY SOIL STABILIZATION MATTING-TYPE E	
PERMANENT SOIL STABILIZATION MATTING-TYPE B		TEMPORARY SOIL STABILIZATION MATTING-TYPE D	
PERMANENT SOIL STABILIZATION MATTING-TYPE C		TEMPORARY STONE OUTLET STRUCTURE	
PIPE OUTLET SEDIMENT TRAP ST I		TEMPORARY SWALE	 <small>PLACE DESIGNATION (A-1, B-2, ETC.) ON FLOW CHANNEL SIDE OF SWALE.</small>
PIPE SLOPE DRAIN	 <small>NOTE: DESIGNATION PSD-12 REFERS TO PIPE SLOPE DRAIN WITH 12 IN PIPE.</small>	WASH RACK OPTION	
PLUNGE POOL		CHESAPEAKE BAY CRITICAL AREA	
PORTABLE SEDIMENT TANK		DRAINAGE BOUNDARY	
REMOVABLE PUMPING STATION		EXISTING CONTOURS	
RIPRAP INFLOW PROTECTION		PROPOSED CONTOURS	
RIPRAP OUTLET SEDIMENT TRAP ST III		TREE PROTECTION FENCE	
ROCK OUTLET PROTECTION I		WETLAND	
		WETLAND BUFFER	
		100-YEAR FLOODPLAIN	

DESIGN CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, THE 2000 MARYLAND STORMWATER MANUAL, VOLUMES I & II, INCLUDING SUPPLEMENTS, THE ENVIRONMENT ARTICLE SECTIONS 4-101 THROUGH 116 AND SECTIONS 4-201 AND 215, AND THE CODE OF MARYLAND REGULATIONS (COMAR) 26.17.01 AND COMAR 26.17.02 FOR EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT, RESPECTIVELY.

NAME _____ SIGNATURE _____

MARYLAND REGISTRATION NUMBER, P.E., R.L.S. OR R.L.A. (circle)

DATE _____

"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. _____, EXPIRATION DATE: _____."

SEQUENCE OF CONSTRUCTION

THE CONTRACTOR SHALL NOTIFY FREDERICK SOIL CONSERVATION DISTRICT (301-695-2803 EXT 3) AND THE FREDERICK COUNTY ENVIRONMENTAL COMPLIANCE SECTION (301-600-3507) AT LEAST TWO (2) WEEKS PRIOR TO THE START OF CONSTRUCTION TO SCHEDULE AN ON-SITE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL PROVIDE THE NAME OF THE PERSON ON THE SITE WHO IS RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES AND A COPY OF THEIR GREEN CARD TO THE COUNTY SEDIMENT CONTROL INSPECTOR AT THE PRE-CONSTRUCTION MEETING.

- DETOUR TRAFFIC AS SHOWN ON MAINTENANCE OF TRAFFIC PLANS AND AS PER SHA STANDARDS.
- ESTABLISH THE LOD.
- INSTALL PERIMETER CONTROLS (SILT FENCE) PRIOR TO BEGINNING ANY WORK.
- EXCAVATE FOR WINGWALL FOOTINGS AND ABUTMENTS.
- FORM, TIE REBAR, POUR CONCRETE FOR FOOTINGS AND ABUTMENTS.
- CURE CONCRETE FOR A MINIMUM OF SEVEN (7) DAYS. (SHA 420.03.08.)
- COMPLETE INSTALLATION OF BRIDGE BEAMS, CONCRETE OVERLAY, AND PARAPETS.
- MILL EXISTING PAVEMENT AS SHOWN ON SHEET TS-01 AND CONSTRUCT ROADWAY EMBANKMENTS AND DRAINAGE FEATURES.
- ONCE THE UPSTREAM AREAS THAT DRAIN INTO THE SWM FACILITY ARE STABILIZED, THE CONTRACTOR MAY CONSTRUCT THE BIORETENTION FACILITY. THE CONTRACTOR SHALL TAKE EXTREME CAUTION NOT TO ALLOW DISTURBED AREAS TO DRAIN INTO THE FACILITY.
- FINALIZE ROADWAY GRADING, MILL EXISTING PAVEMENT AT NORTH AND SOUTH TIE-INS, CONSTRUCT FULL DEPTH PAVEMENT, PLACE SURFACE COURSE, AND INSTALL W-BEAM TRAFFIC BARRIER.
- UPON COMPLETION OF THE CONSTRUCTION, PERMANENTLY STABILIZE AREAS WITH TOPSOIL AND TURFGRASS ESTABLISHMENT.
- APPLY PAVEMENT MARKINGS.
- WITH THE SEDIMENT AND EROSION CONTROL INSPECTOR'S APPROVAL, REMOVE THE EROSION AND SEDIMENT CONTROL MEASURES.
- ANY AREAS DISTURBED DURING THE REMOVAL OF THE ESC MEASURES SHALL BE IMMEDIATELY STABILIZED.

NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED OVERNIGHT UNLESS THE RUNOFF IS DIRECTED TO AN MDE APPROVED SEDIMENT CONTROL DEVICE.

NOTE TO CONTRACTOR: STAGING AND STORAGE AREAS ARE TO BE IDENTIFIED AND LOCATED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NRCS AND COUNTY APPROVAL OF THESE AREAS. ANY AGREEMENTS WITH PRIVATE PROPERTY OWNERS FOR STAGING AND STORAGE SHALL BE FORWARDED TO THE COUNTY.

NOTE TO CONTRACTOR: EROSION AND SEDIMENT CONTROL SHALL BE STRICTLY ENFORCED.

EN-01

FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF ENGINEERING AND CONSTRUCTION MANAGEMENT
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

BRIDGE REPLACEMENT
BRIDGE NO. F04-09 ON OLD MILL ROAD
OVER MARYLAND MIDLAND RAILROAD

EROSION AND SEDIMENT
CONTROL NOTES

DATE: OCTOBER 2023

SCALE: AS NOTED

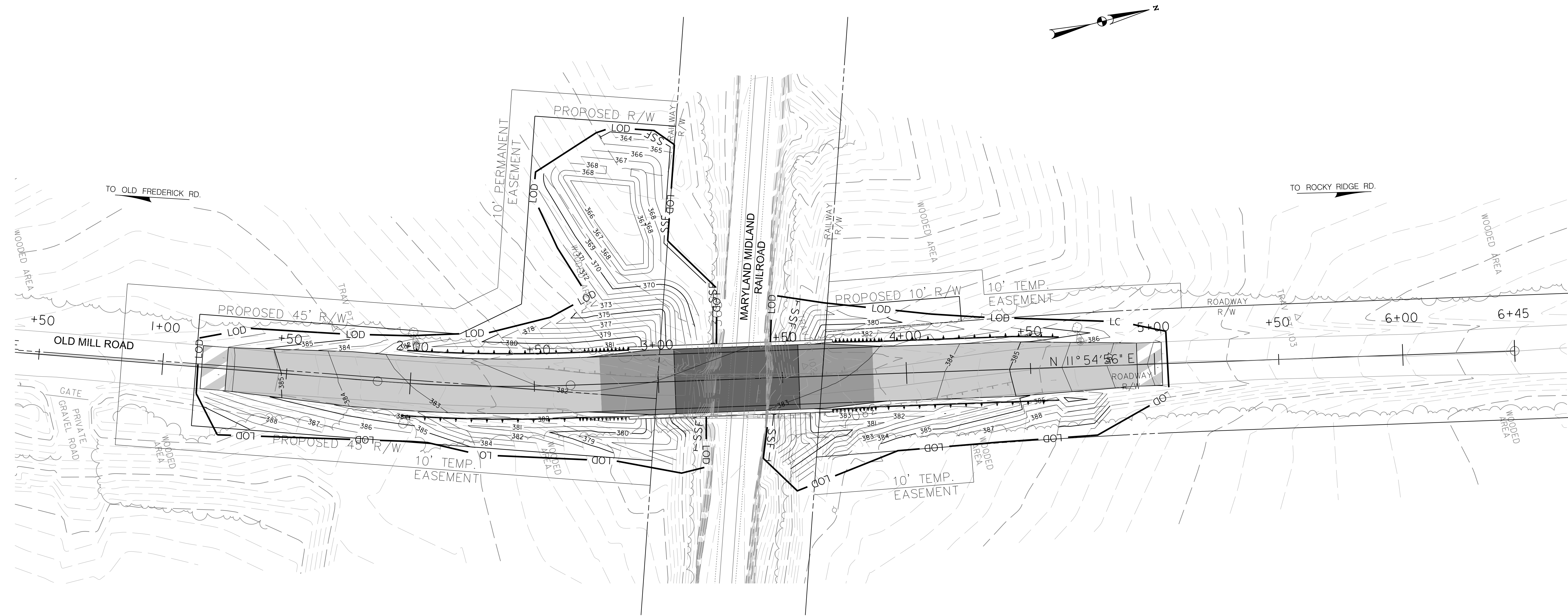
FREDERICK COUNTY PROJECT NO.: FR072B21

DWG. 8 OF 23

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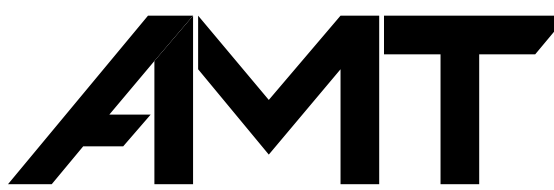
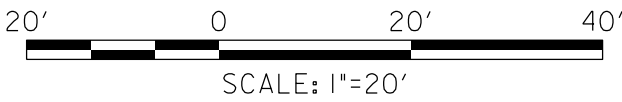
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TOWSON, MD 21204

SCD APPROVAL FOR SEDIMENT AND EROSION CONTROL IS CONTINGENT UPON ISSUANCE OF ALL APPLICABLE REGULATORY PERMITS.



LEGEND

	BRIDGE		SSF		SUPER SILT FENCE
	BRIDGE APPROACH		LOD		LIMIT OF DISTURBANCE
	FULL DEPTH PAVEMENT				
	MILL AND RESURFACE PAVEMENT				



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ES-01

FREDERICK COUNTY, MARYLAND

DIVISION OF PUBLIC WORKS

DEPARTMENT OF ENGINEERING AND CONSTRUCTION MANAGMENT

OFFICE OF TRANSPORTATION ENGINEERING

FREDERICK COUNTY, MARYLAND

BRIDGE REPLACEMENT

BRIDGE NO. F04-09 ON OLD MILL ROAD

OVER MARYLAND MIDLAND RAILROAD

EROSION AND SEDIMENT

CONTROL PLAN

DATE: OCTOBER 2023

SCALE: AS NOTED

FREDERICK COUNTY PROJECT NO.: FR072B21

DWG. 9 OF 23

GENERAL NOTES

SPECIFICATIONS: MDOT SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS LATEST VERSION.

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS LATEST REFERENCE.

LOADING: HL-93 WITH PROVISIONS FOR FUTURE 2" WEARING SURFACE AND 15 LBS/SQ. FT. FOR USE OF STEEL BRIDGE DECK FORMS WHICH REMAIN IN PLACE.

LOAD RESTRICTIONS: THERE ARE RESTRICTIONS FOR PLACING EQUIPMENT AND MATERIALS ON EXISTING AND NEW STRUCTURE(S). REFER TO SECTION TC 6.14.

CONCRETE: CONCRETE COMPRESSIVE STRENGTH FOR DESIGN SHALL BE:

f'c = 3,000 PSI FOR ELEMENTS USING MIX NO. 3
f'c = 4,000 PSI FOR ELEMENTS USING MIX NO. 6

ALL CONCRETE FOR ABUTMENT BACKWALLS, PARAPET AT ABUTMENT WING WALLS, AND ENTIRE SUPERSTRUCTURE, SHALL BE MIX NO. 6 (4500 PSI) CONTAINING SYNTHETIC MICRO FIBERS (SEE SECTION 902.15.01).

ALL OTHER STRUCTURE CONCRETE EXCEPT PRESTRESSED CONCRETE SHALL BE MIX NO. 3 (3,500 PSI).

PRESTRESSED CONCRETE: CONCRETE COMPRESSIVE STRENGTH FOR DESIGN SHALL BE f'c = 7,000 PSI WHILE THE MINIMUM COMPRESSIVE STRENGTH AT TRANSFER SHALL BE f'ci = 5,950 PSI.

ALL PRESTRESSED CONCRETE SHALL BE SELF- CONSOLIDATING WITH A 28-DAY COMPRESSIVE STRENGTH OF f'c = 8,000 PSI.

REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60, WITH A YIELD STRENGTH FOR DESIGN OF fy = 60,000 PSI.

ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS.

REINFORCING STEEL SHALL BE EPOXY COATED WHEN NOTED WITH AN EP IN THE PLANS.

MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE 2" EXCEPT FOR THE FOLLOWING LOCATIONS:

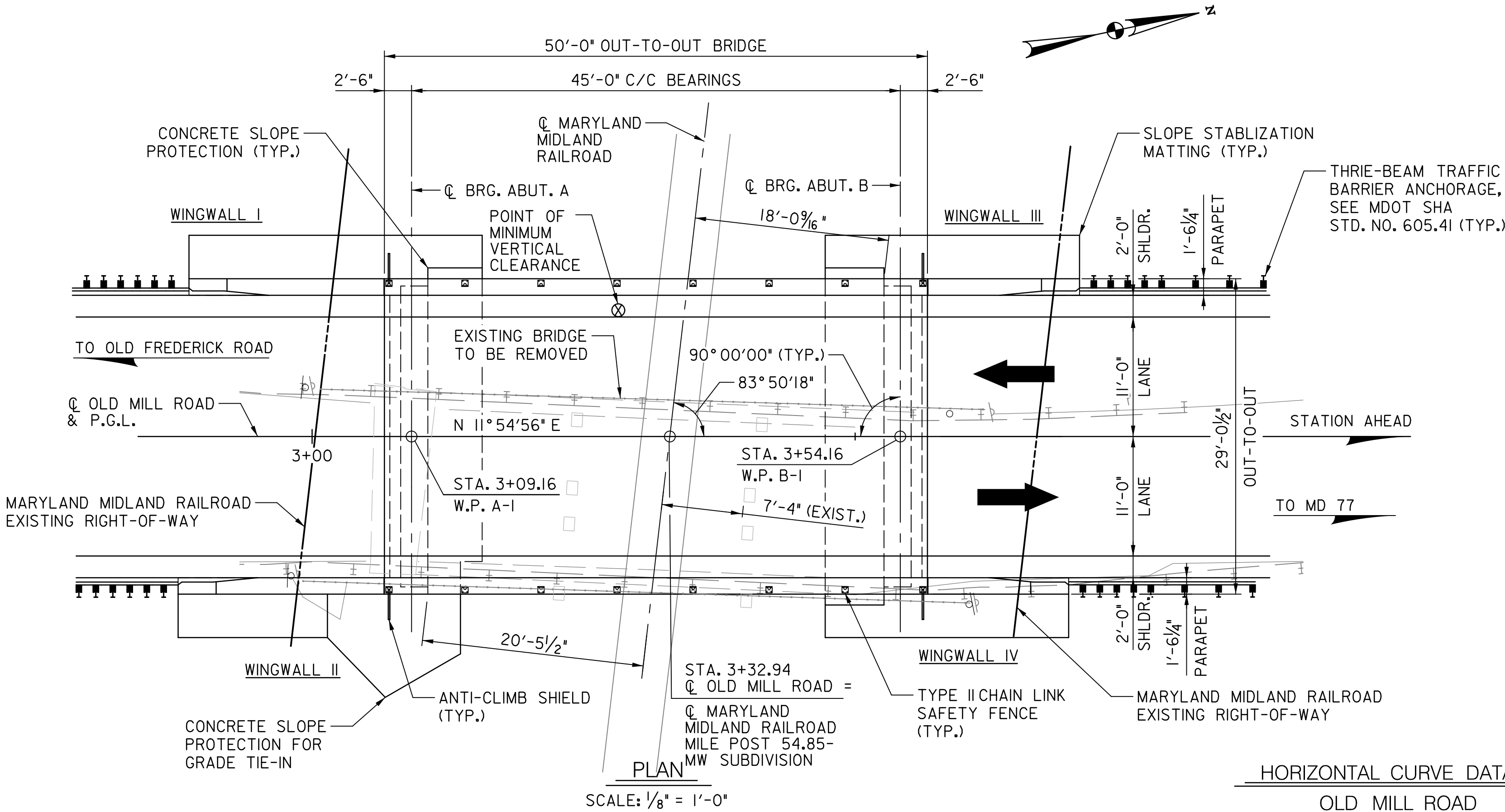
LOCATION	CLEAR COVER
BOTTOM AND SIDES OF ALL FOOTINGS.	3 IN.
BOTTOM FLANGE OF PRESTRESSED CONCRETE GIRDERS	2 1/2 IN.
TOP OF BRIDGE DECK SLAB	1 IN.
BOTTOM OF BRIDGE DECK SLAB	1 IN.

FOR TIES AND STIRRUPS, STANDARD ACBENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACBENDING TOLERANCES.

PRETENSIONING STEEL: PRETENSIONING STEEL SHALL CONSIST OF 1/2" DIAMETER 7-WIRE BRIGHT LOW RELAXATION STRANDS CONFORMING TO THE REQUIREMENTS OF M 203 GRADE 270. EACH STRAND SHALL BE PRETENSIONED TO 31,000 LB (0.75 fpu), HAVE AN ULTIMATE STRENGTH OF 41,300 LB (fpu), AND A YIELD STRENGTH OF 37,200 LB (0.90 fpu).

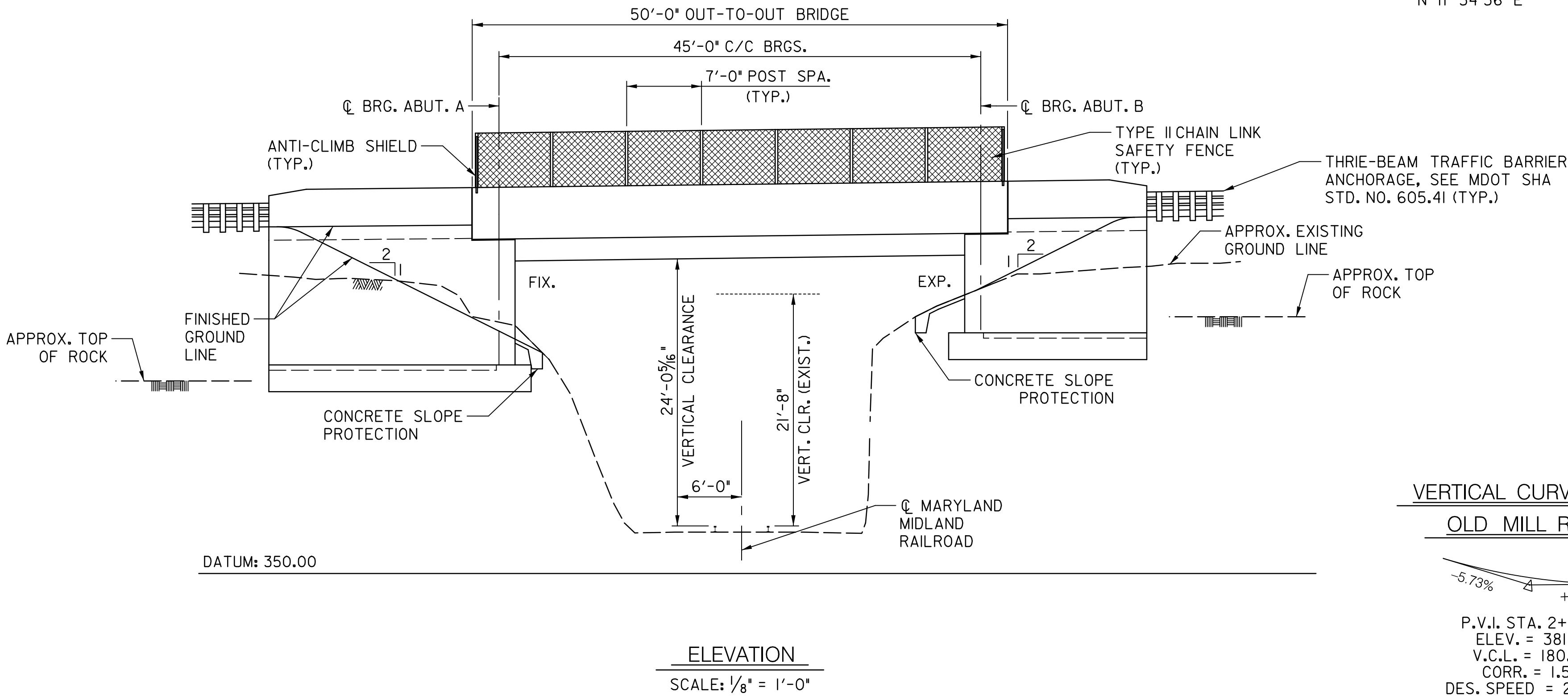
EXISTING STRUCTURES: ALL DIMENSIONS AFFECTED BY THE GEOMETRY AND/OR LOCATION OF THE STRUCTURE(S): EXISTING STRUCTURE(S) SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR BEFORE ANY MATERIAL IS ORDERED OR FABRICATED OR CONSTRUCTION BEGINS.

EXISTING BRIDGE PIERS SHALL BE REMOVED TO A MINIMUM OF 3'-0" BELOW THE FINISHED GRADE OR AS DIRECTED BY THE RAILROAD.

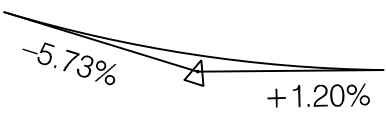


HORIZONTAL CURVE DATA -
OLD MILL ROAD

P.C. STA. 2+64.60 TO P.T. STA. 6+45.11
N 11°54'56" E

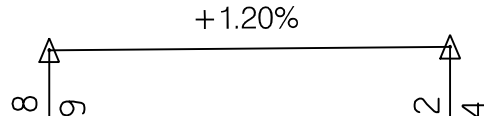


VERTICAL CURVE DATA
OLD MILL ROAD



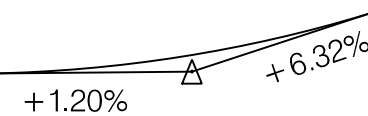
P.V.I. STA. 2+15.87
ELEV. = 381.01
V.C.L. = 180.22'
CORR. = 1.56'
DES. SPEED = 25 MPH

VERTICAL CURVE DATA
OLD MILL ROAD



STA. 3+05.98
ELEV. 382.09
STA. 3+59.92
ELEV. 382.74

VERTICAL CURVE DATA
OLD MILL ROAD



P.V.I. STA. 4+26.44
ELEV. = 383.54
V.C.L. = 133.04
CORR. = 0.85'
DES. SPEED = 25 MPH

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

MD LICENSE NO. _____ EXPIRATION DATE: _____

AMT

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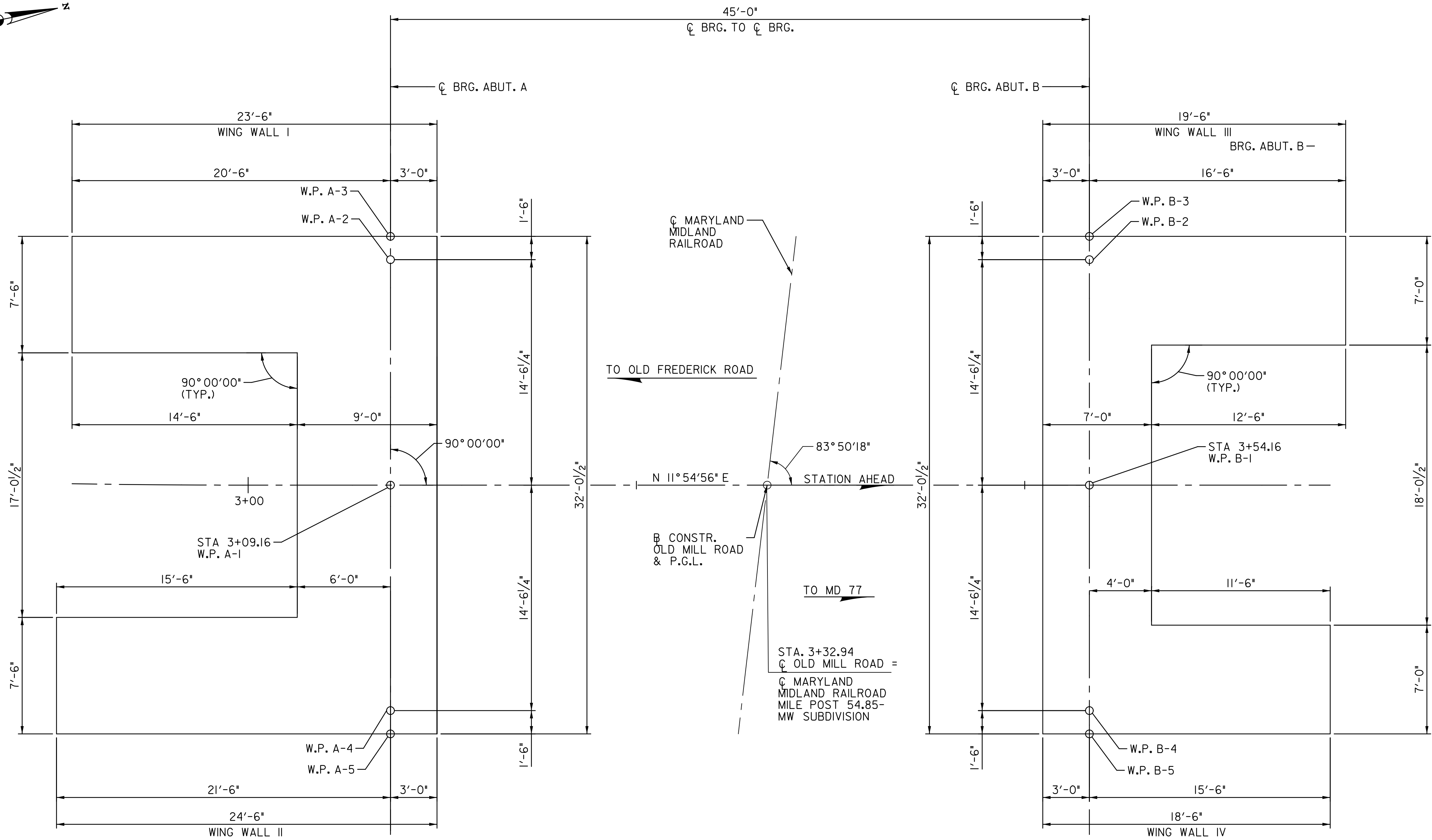
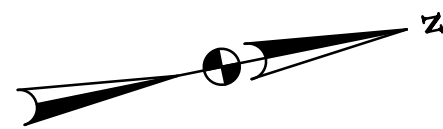
FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF ENGINEERING AND CONSTRUCTION MANAGEMENT
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

BRIDGE NO. F04-09
OLD MILL ROAD OVER
MARYLAND MIDLAND RAILROAD

GENERAL PLAN
AND ELEVATION

DATE: OCTOBER 2023 SCALE: AS-NOTED

FREDERICK COUNTY PROJECT NO.: C6011.6011.01 DWG. 10 OF 23



GEOMETRIC LAYOUT

SCALE: 1/4" = 1'-0"

WORKING POINT	STATION	OFFSET	NORTHING	EASTING
A-1	3+09.16	0.00'	706646.9315	1218004.8064
A-2	3+09.16	14.52' LT.	706649.9295	1217990.5984
A-3	3+09.16	16.02' LT.	706650.2392	1217989.1308
A-4	3+09.16	14.52' RT.	706643.9334	1218019.0144
A-5	3+09.16	16.02' RT.	706643.6237	1218020.4820
B-1	3+54.16	0.00'	706690.9619	1218014.0975
B-2	3+54.16	14.52' LT.	706693.9599	1217999.8895
B-3	3+54.16	16.02' LT.	706694.2696	1217998.4218
B-4	3+54.16	14.52' RT.	706687.9638	1218028.3054
B-5	3+54.16	16.02' RT.	706687.6541	1218029.7731



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FOUNDATION NOTES:

1. REMOVE THE EXISTING STRUCTURE AND ITS FOUNDATION THAT INTERFERE WITH THE PROPOSED ABUTMENTS AND WINGWALLS IN THEIR ENTIRETY BELOW THE PROPOSED SUBSTRUCTURES. EXCAVATIONS TO REMOVE EXISTING FOUNDATIONS THAT EXTEND BELOW THE PROPOSED BOTTOM OF FOOTING ELEVATION SHOULD BE BACKFILLED WITH PLAIN NON-REINFORCED CONCRETE MIX NO. 1, IN ACCORDANCE WITH SECTION 420.03.04(a).
2. FOUNDATION SUBGRADE MUST BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER. NOTIFY THE GEOTECHNICAL ENGINEER OF A TENTATIVE SCHEDULE FOR THE INSPECTION OF FOUNDATION EXCAVATION AT LEAST SEVEN (7) CALENDAR DAYS BEFORE THE NEED FOR INSPECTION IS ANTICIPATED. NOTIFY THE GEOTECHNICAL ENGINEER OF A FIRM DATE AND TIME AT LEAST 48 HOURS BEFORE THE REQUESTED DATE AND TIME OF INSPECTION OF AN EXCAVATION BUT GIVE THE NOTICE BETWEEN THE START OF WEEK ON MONDAY AND NOON OF THE FOLLOWING FRIDAY. DO NOT SCHEDULE AN INSPECTION OF A FOUNDATION ON SATURDAY, SUNDAY, OR HOLIDAYS WITHOUT THE APPROVAL OF THE GEOTECHNICAL ENGINEER.
3. THE ENGINEER SHALL VISUALLY INSPECT THE BEARING MATERIAL AT THE BOTTOM OF FOOTING ELEVATION FOR ABUTMENTS AND WINGWALLS. IF SOIL OR SOFT WEATHERED BEDROCK IS ENCOUNTERED, OVER EXCAVATE AND BACKFILL WITH PLAIN NON-REINFORCED CONCRETE MIX NO. 1 IN ACCORDANCE WITH SECTION 420.03.04(a), SECTION 420.03.04(b), AND SECTION 902. BEDROCK EXCAVATION IS ANTICIPATED TO ACHIEVE THE PROPER FOUNDATION ELEVATIONS.
4. SPREAD FOOTING SHALL BE KEYED A MINIMUM OF 1 FOOT INTO SOUND BEDROCK.
5. BLASTING IS NOT PERMITTED TO BE USED AS A METHOD OF EXCAVATION.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF ALL TEMPORARY EXCAVATION SLOPES. DIRECT SURFACE RUNOFF AWAY FROM THE EXCAVATION. PERFORM ALL EXCAVATIONS IN ACCORDANCE WITH OSHA REQUIREMENTS.
7. THE FOUNDATIONS HAVE BEEN DESIGNED BASED ON STRENGTH LIMIT STATE OR NOMINAL BEARING RESISTANCE.

FACTORED BEARING RESISTANCE = 11.8 KSF

RESISTANCE FACTOR = 0.45

NOMINAL BEARING RESISTANCE = 26.2 KSF

SERVICE BEARING RESISTANCE = 26.2 KSF

S-02

FREDERICK COUNTY, MARYLAND

DIVISION OF PUBLIC WORKS
DEPARTMENT OF ENGINEERING AND CONSTRUCTION MANAGMENT
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

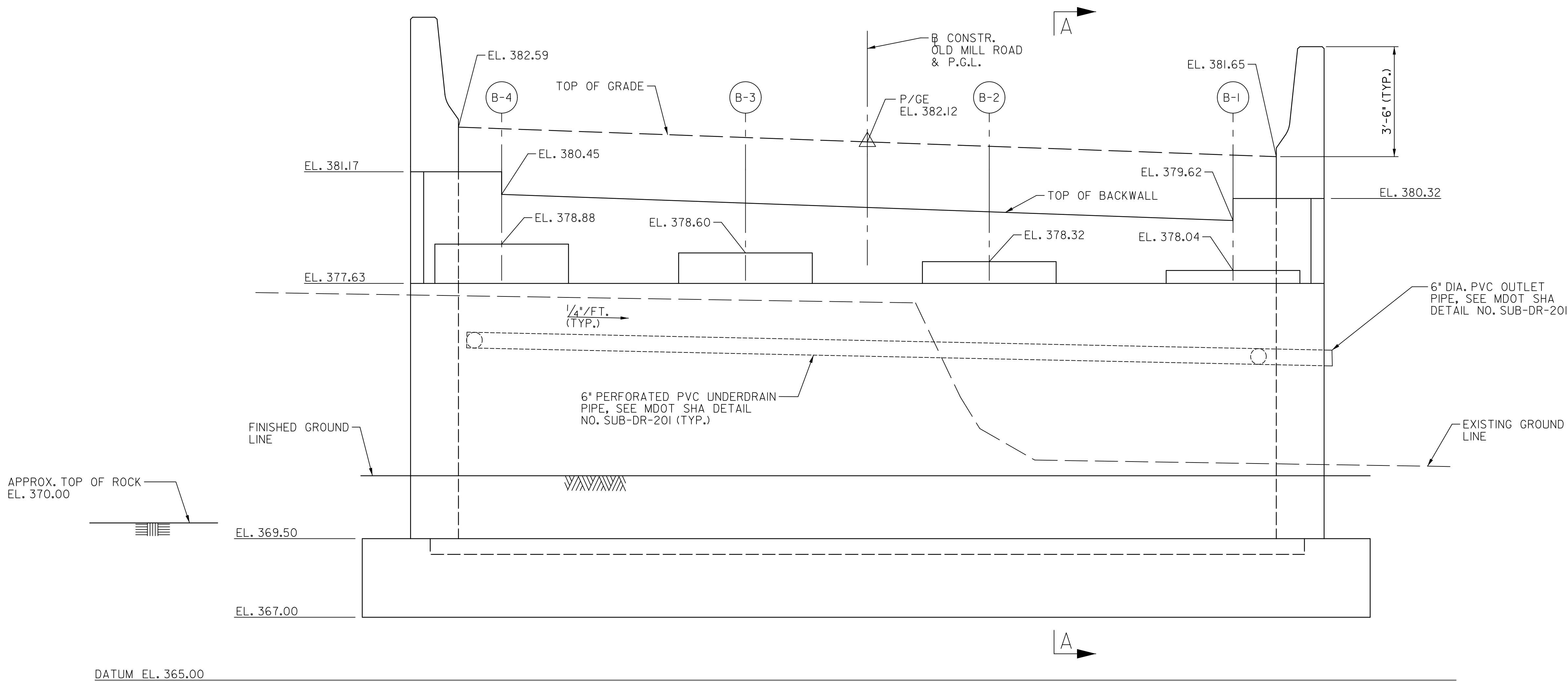
BRIDGE NO. F04-09
OLD MILL ROAD OVER
MARLYAND MIDLAND RAILROAD
GEOMETRIC AND FOOTING LAYOUT

DATE: OCTOBER 2023

SCALE: AS-NOTED

FREDERICK COUNTY PROJECT NO.:
C6011.6011.01

DWG. 11 OF 23



ELEVATION - ABUTMENT A
SCALE: 1/2" = 1'-0"

- NOTES:
- FOR SECTION A-A SEE SHEET S-05.
 - FOR WINGWALL DETAILS, SEE SHEET S-06 & S-07.
 - ABUTMENT SEAT ELEVATIONS, BACKWALL ELEVATIONS, AND TOP OF GRADE ELEVATIONS ARE GIVEN AT THE FRONT FACE OF BACKWALL.
 - PEDESTAL ELEVATIONS ARE GIVEN AT THE CENTERLINE OF BEARING.

S-04

FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF ENGINEERING AND CONSTRUCTION MANAGMENT
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

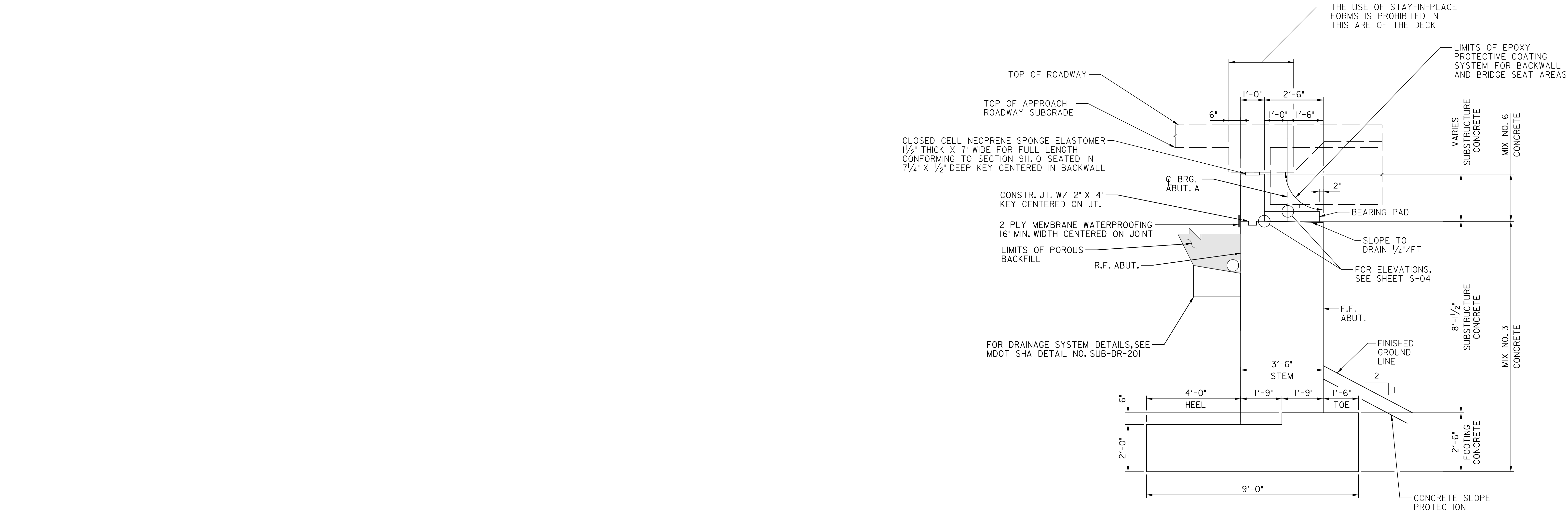
BRIDGE NO. F04-09
OLD MILL ROAD OVER
MARLYAND MIDLAND RAILROAD
ABUTMENT A - ELEVATION

DATE: OCTOBER 2023 SCALE: AS-NOTED

FREDERICK COUNTY PROJECT NO.: C6011.6011.01 DWG. 13 OF 23

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SECTION A-A – DIMENSIONS
SCALE: 1/2" = 1'-0"

NOTES:
1. FOR THE LOCATION OF SECTION A-A, SEE SHEET S-04.

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S-05

FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF ENGINEERING AND CONSTRUCTION MANAGMENT
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

BRIDGE NO. F04-09
OLD MILL ROAD OVER
MARLYAND MIDLAND RAILROAD
ABUTMENT A - SECTION

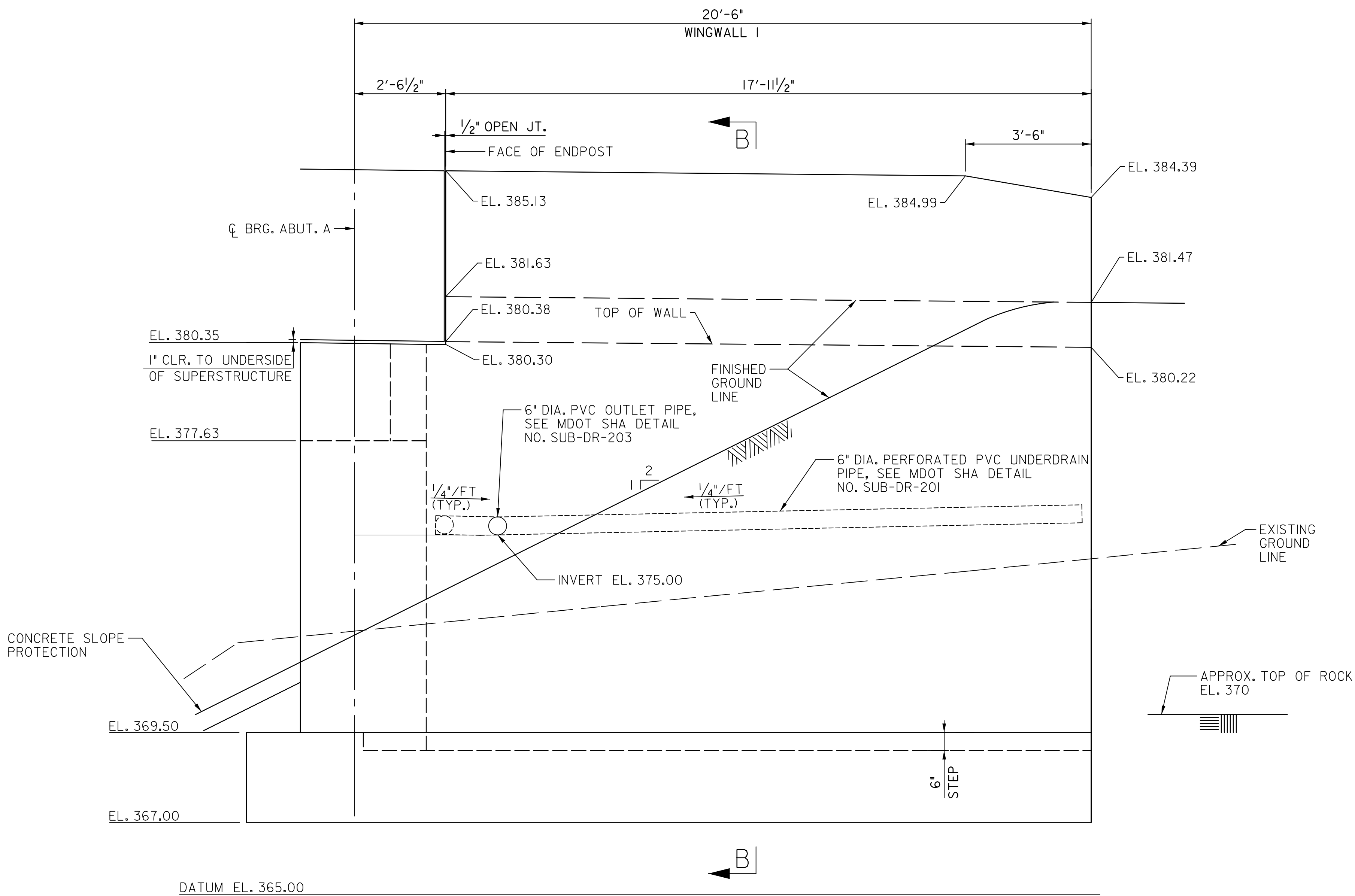
DATE: OCTOBER 2023

SCALE: AS-NOTED

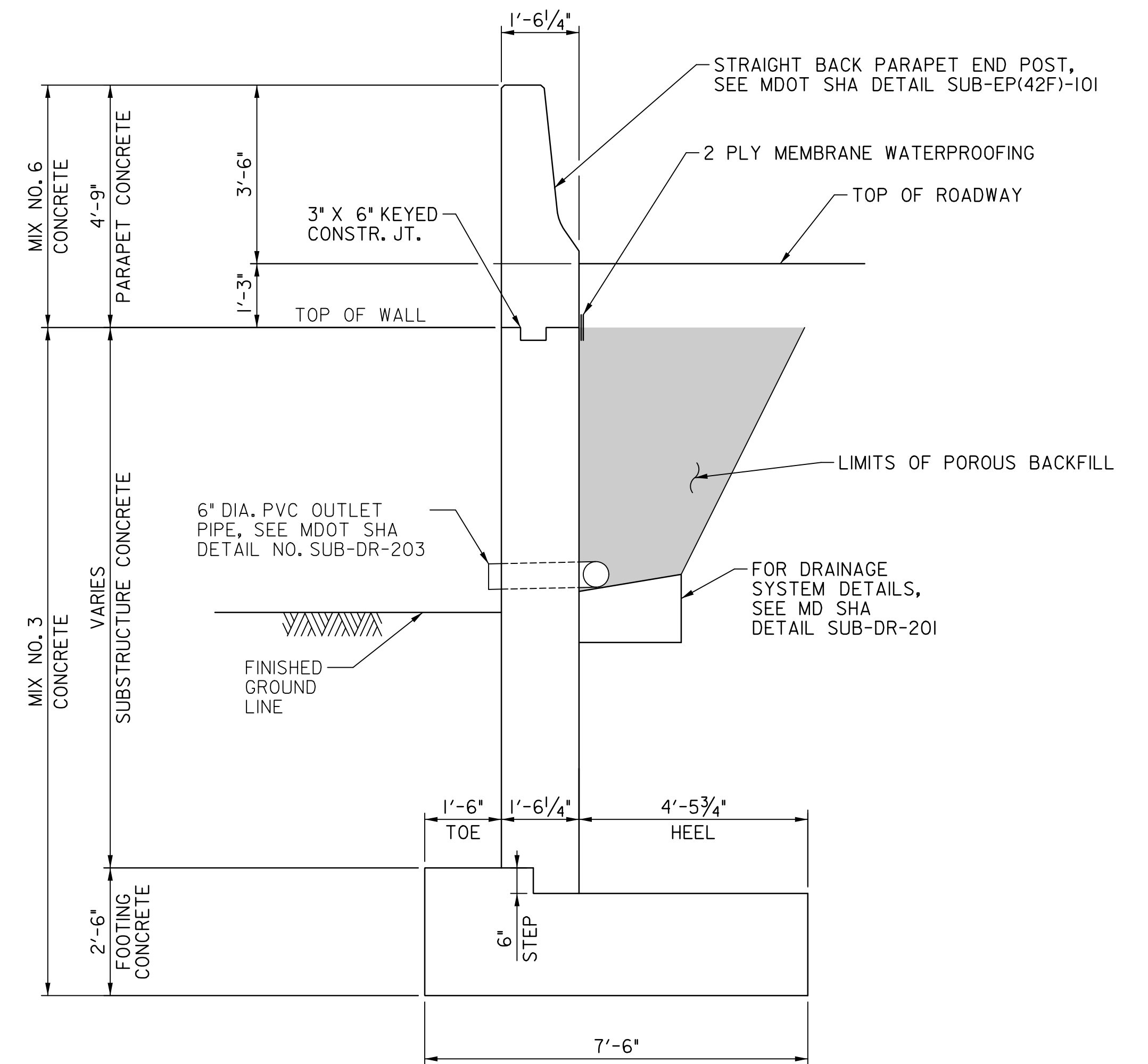
FREDERICK COUNTY PROJECT NO.:

DWG. 14 OF 23

C6011.6011.01



ELEVATION - WINGWALL I
SCALE: 1/2" = 1'-0"



SECTION B-B
SCALE: 1/2" = 1'-0"

S-06

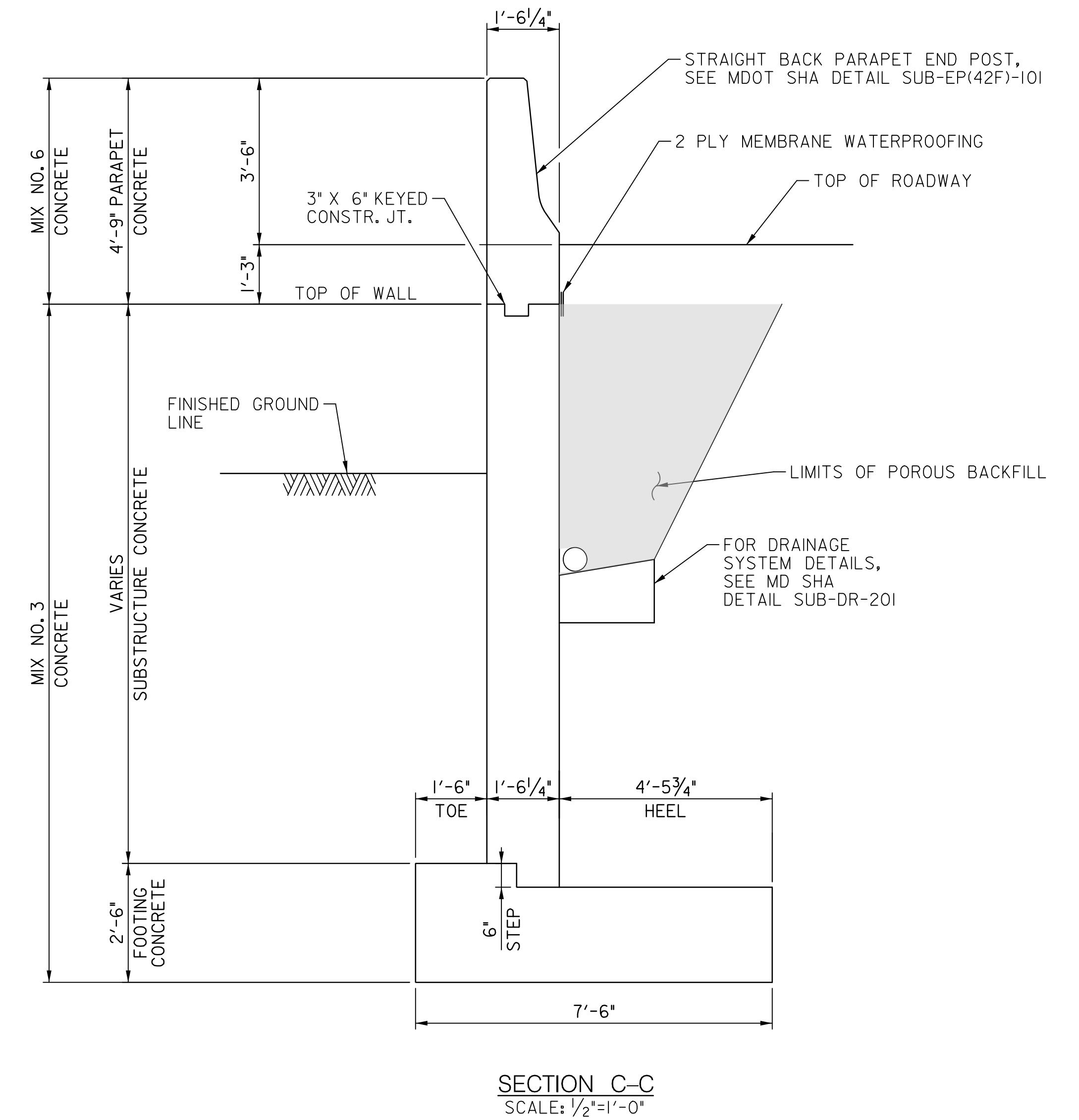
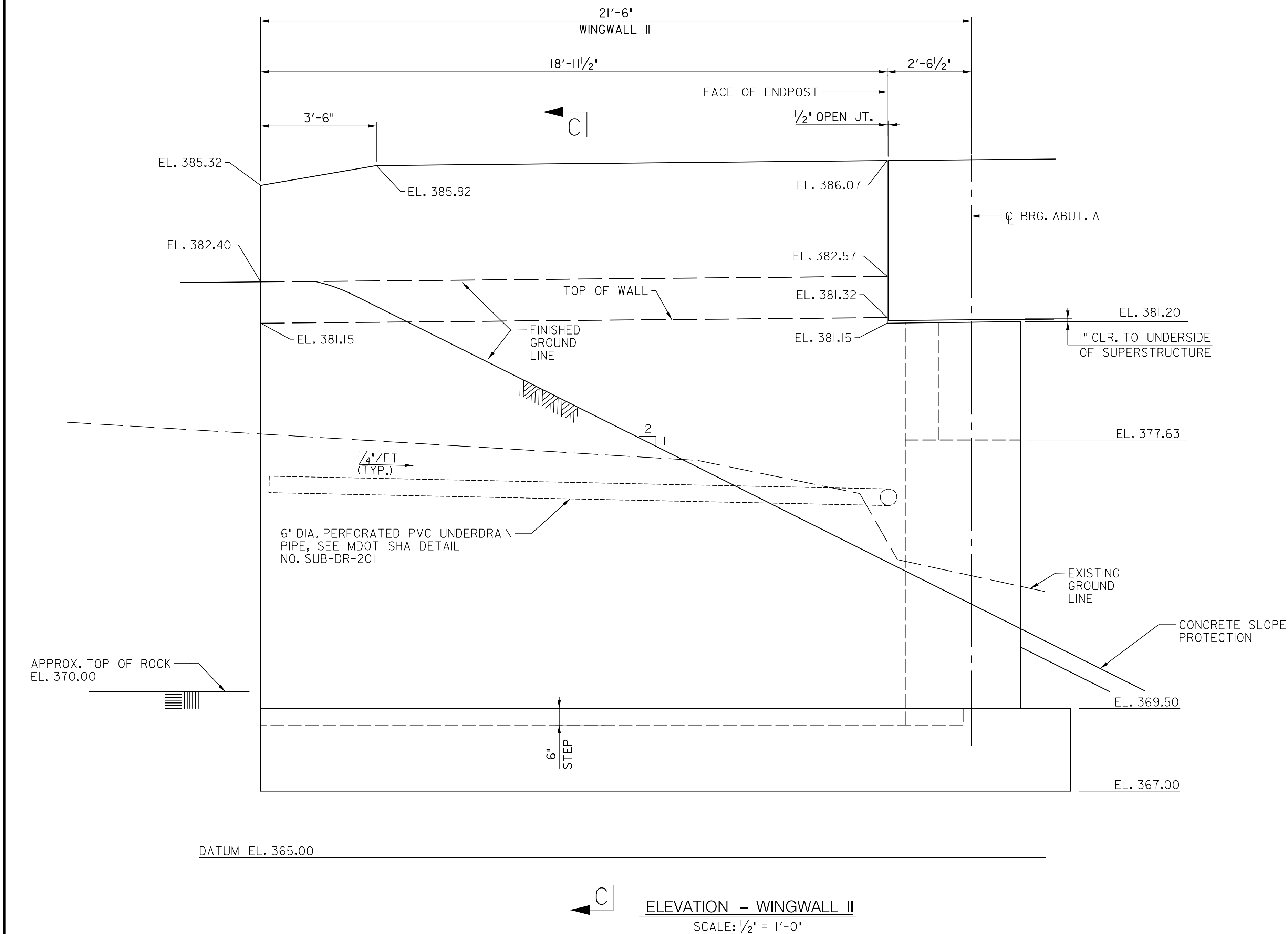
FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF ENGINEERING AND CONSTRUCTION MANAGEMENT
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

BRIDGE NO. F04-09
OLD MILL ROAD OVER
MARLYAND MIDLAND RAILROAD
ABUTMENT A - WINGWALL I

DATE: OCTOBER 2023
FREDERICK COUNTY PROJECT NO.: C6011.6011.01
DWG. 15 OF 23
SCALE: AS-NOTED

AMT

A. MORTON THOMAS AND ASSOCIATES, INC.
901 DULANEY VALLEY ROAD, SUITE 710
TOWSON, MD 21204



S-07

FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF ENGINEERING AND CONSTRUCTION MANAGEMENT
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

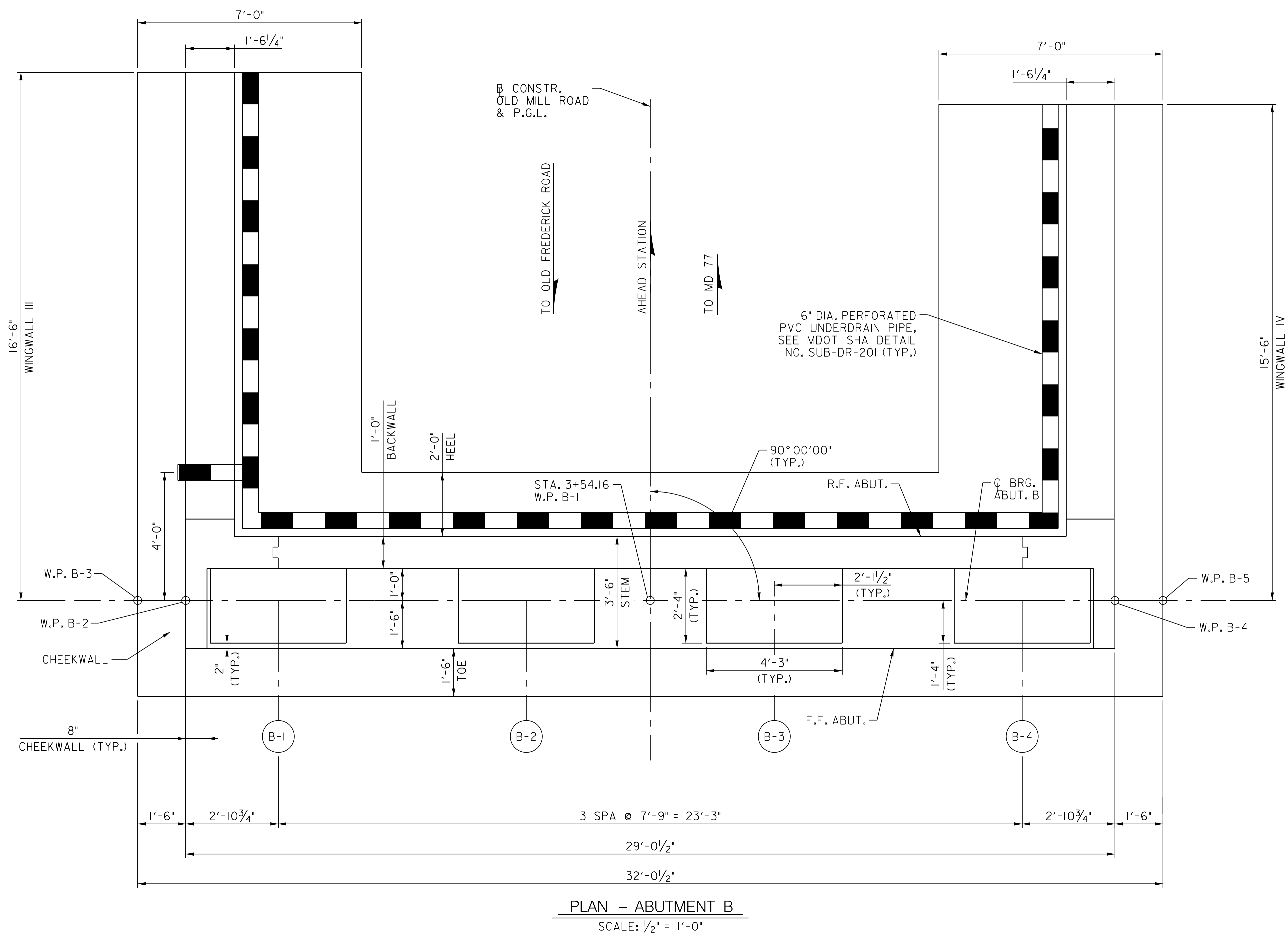
BRIDGE NO. F04-09
OLD MILL ROAD OVER
MARLYAND MIDLAND RAILROAD
ABUTMENT A - WINGWALL II

DATE: OCTOBER 2023 SCALE: AS-NOTED

FREDERICK COUNTY PROJECT NO.: C6011.6011.01 DWG. 16 OF 23

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TOWSON, MD 21204



S-08

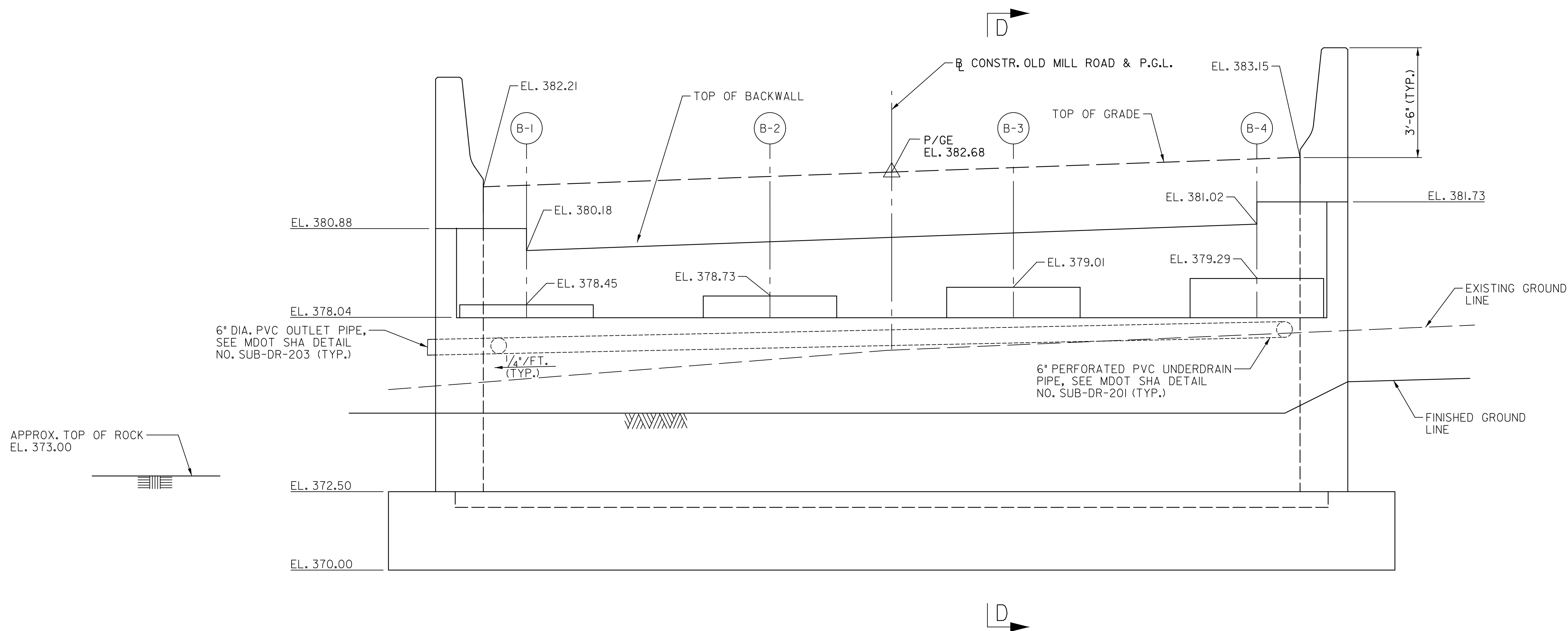
FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF ENGINEERING AND CONSTRUCTION MANAGEMENT
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

BRIDGE NO. F04-09
OLD MILL ROAD OVER
MARLYAND MIDLAND RAILROAD
ABUTMENT B - PLAN

DATE: OCTOBER 2023	SCALE: AS-NOTED
FREDERICK COUNTY PROJECT NO.: C6011.6011.01	DWG. 17 OF 23



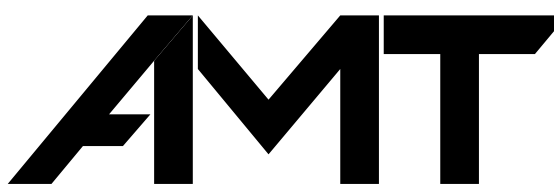
A. MORTON THOMAS AND ASSOCIATES, INC.
901 DULANEY VALLEY ROAD, SUITE 710
TOWSON, MD 21204



- NOTES:
- FOR SECTION D-D SEE SHEET S-10.
 - FOR WINGWALL DETAILS, SEE SHEET S-11 & S-12.
 - ABUTMENT SEAT ELEVATIONS, BACKWALL ELEVATIONS, AND TOP OF GRADE ELVATIONS ARE GIVEN AT THE FRONT FACE OF BACKWALL.
 - PEDESTAL ELEVATIONS ARE GIVEN AT THE CENTERLINE OF BEARING.

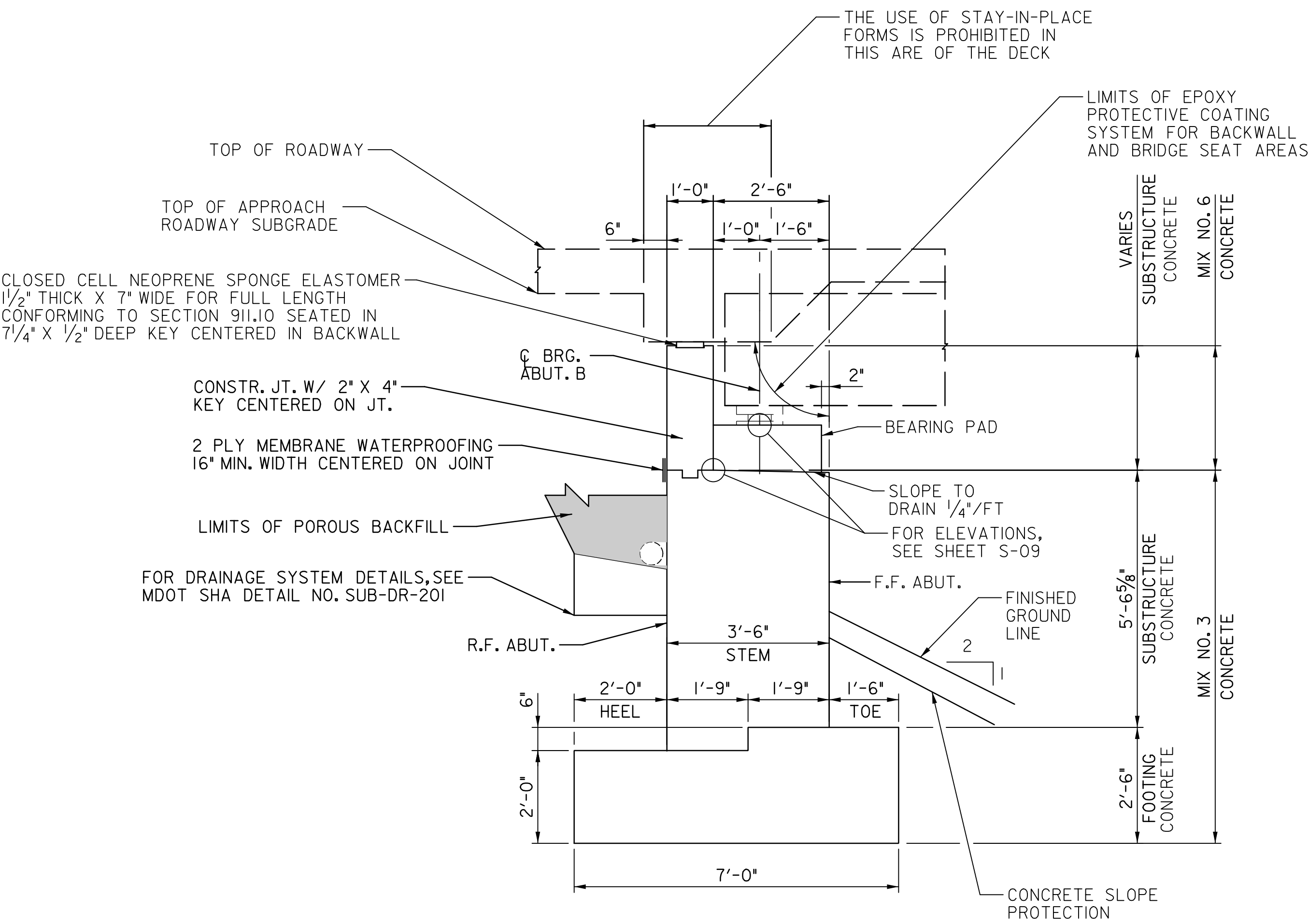
DATUM EL. 365.00

ELEVATION – ABUTMENT B
SCALE: 1/2" = 1'-0"



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TOWSON, MD 21204

S-09	
FREDERICK COUNTY, MARYLAND DIVISION OF PUBLIC WORKS DEPARTMENT OF ENGINEERING AND CONSTRUCTION MANAGMENT OFFICE OF TRANSPORTATION ENGINEERING FREDERICK COUNTY, MARYLAND	
BRIDGE NO. F04-09 OLD MILL ROAD OVER MARLYAND MIDLAND RAILROAD ABUTMENT B - ELEVATION	
DATE: OCTOBER 2023	SCALE: AS-NOTED
FREDERICK COUNTY PROJECT NO.: C6011.6011.01	DWG. 18 OF 23



SECTION D-D – DIMENSIONS
SCALE: 1/2" = 1'-0"

NOTES:
1. FOR THE LOCATION OF SECTION D-D, SEE SHEET S-09.

S-10

FREDERICK COUNTY, MARYLAND

DIVISION OF PUBLIC WORKS
DEPARTMENT OF ENGINEERING AND CONSTRUCTION MANAGMENT
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

BRIDGE NO. F04-09
OLD MILL ROAD OVER
MARLYAND MIDLAND RAILROAD

ABUTMENT B - SECTION

DATE: OCTOBER 2023

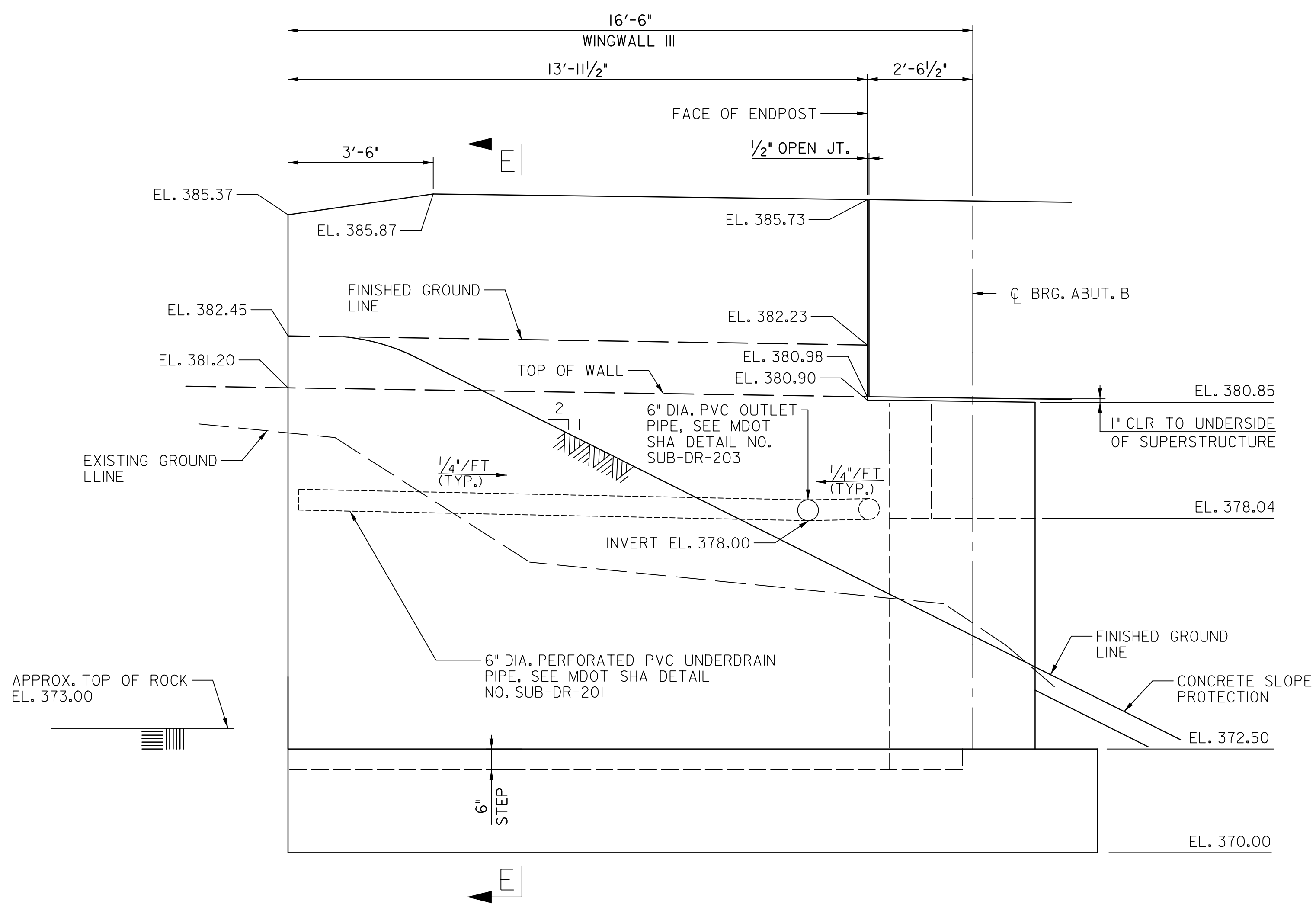
SCALE: AS-NOTED

FREDERICK COUNTY PROJECT NO.:
C6011.6011.01

DWG. 19 OF 23

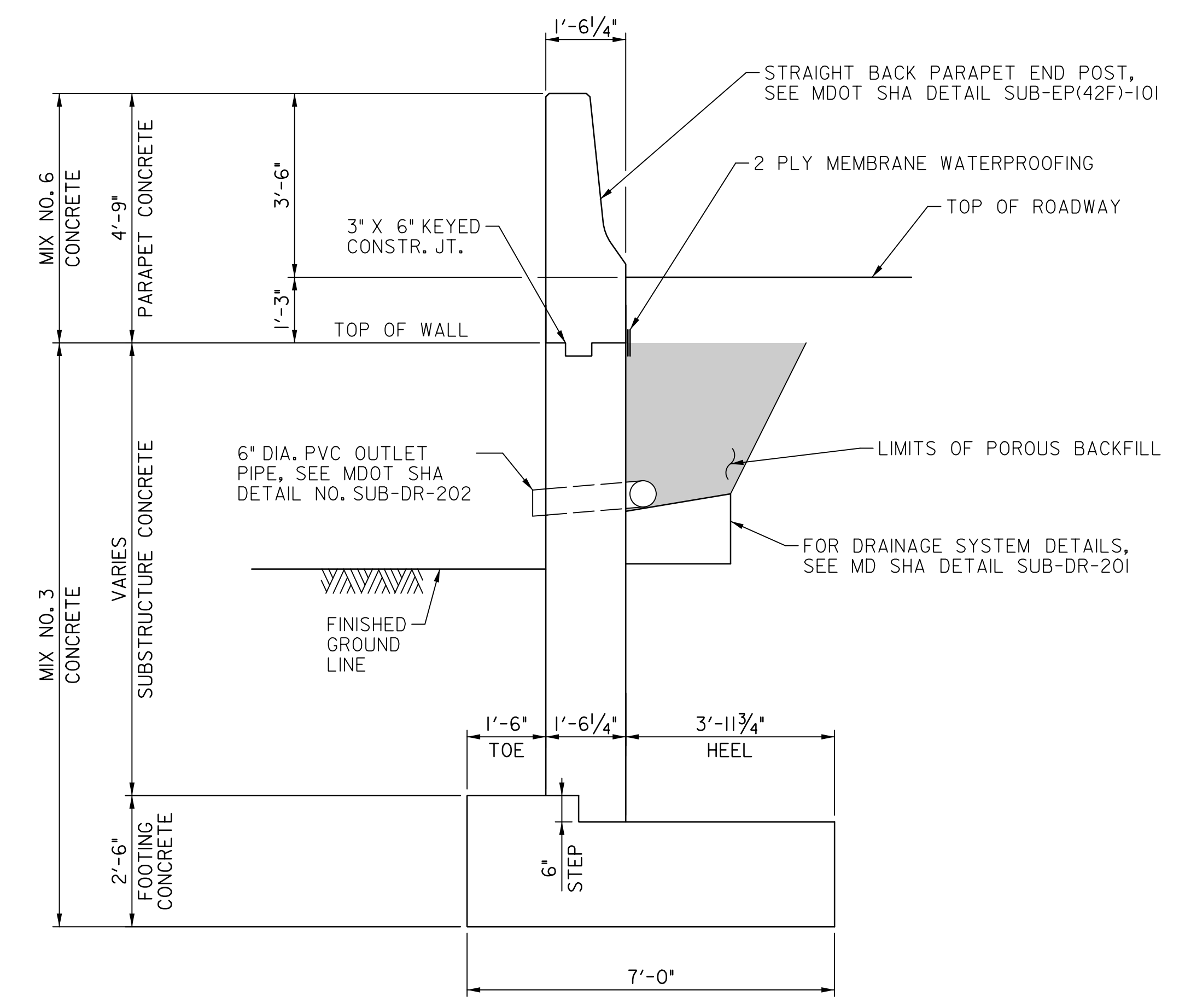
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TOWSON, MD 21204



ELEVATION - WINGWALL III
SCALE: 1/2" = 1'-0"

DATUM EL. 365.00



SECTION E-E
SCALE: 1/2" = 1'-0"

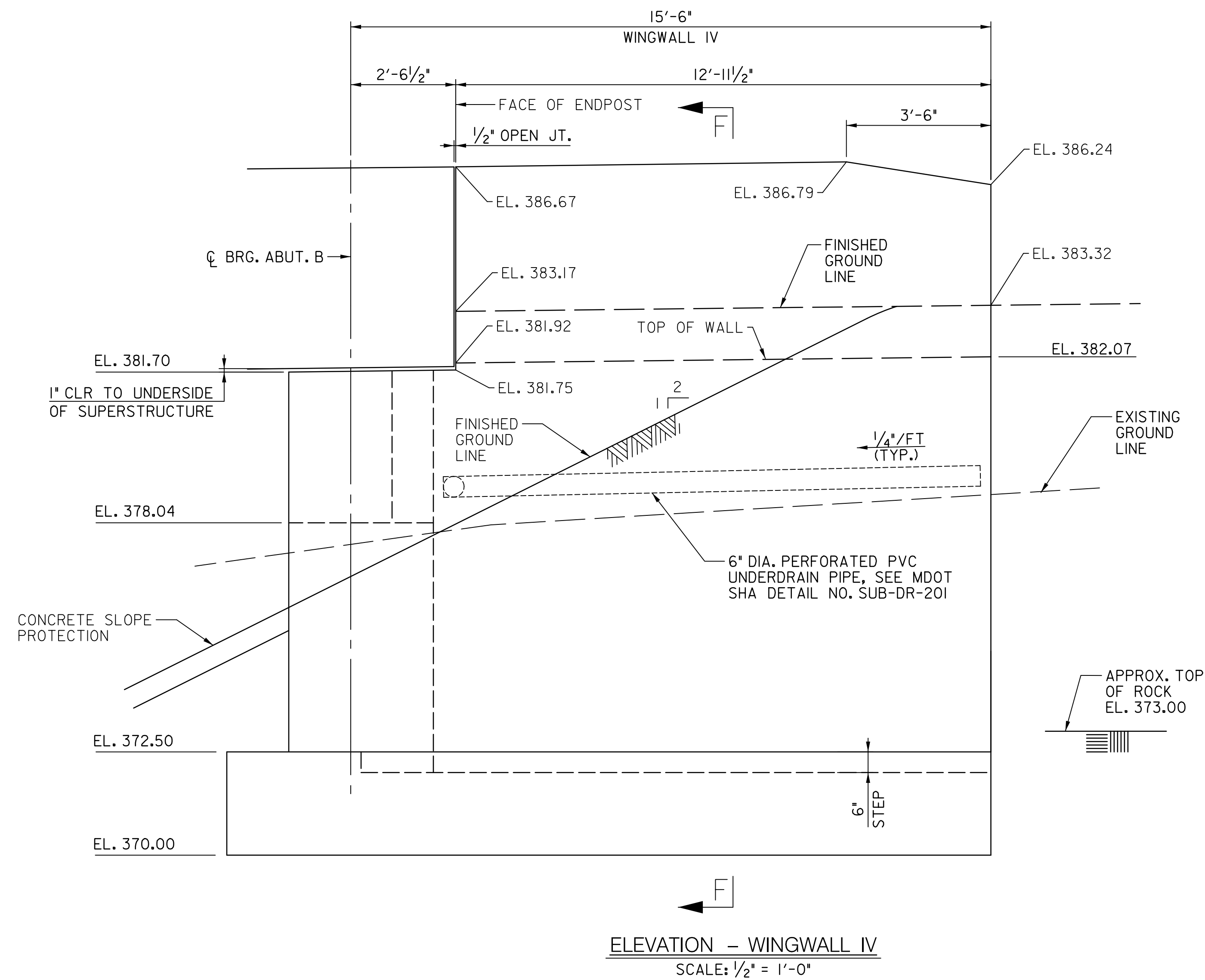
S-11

FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF ENGINEERING AND CONSTRUCTION MANAGMENT
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

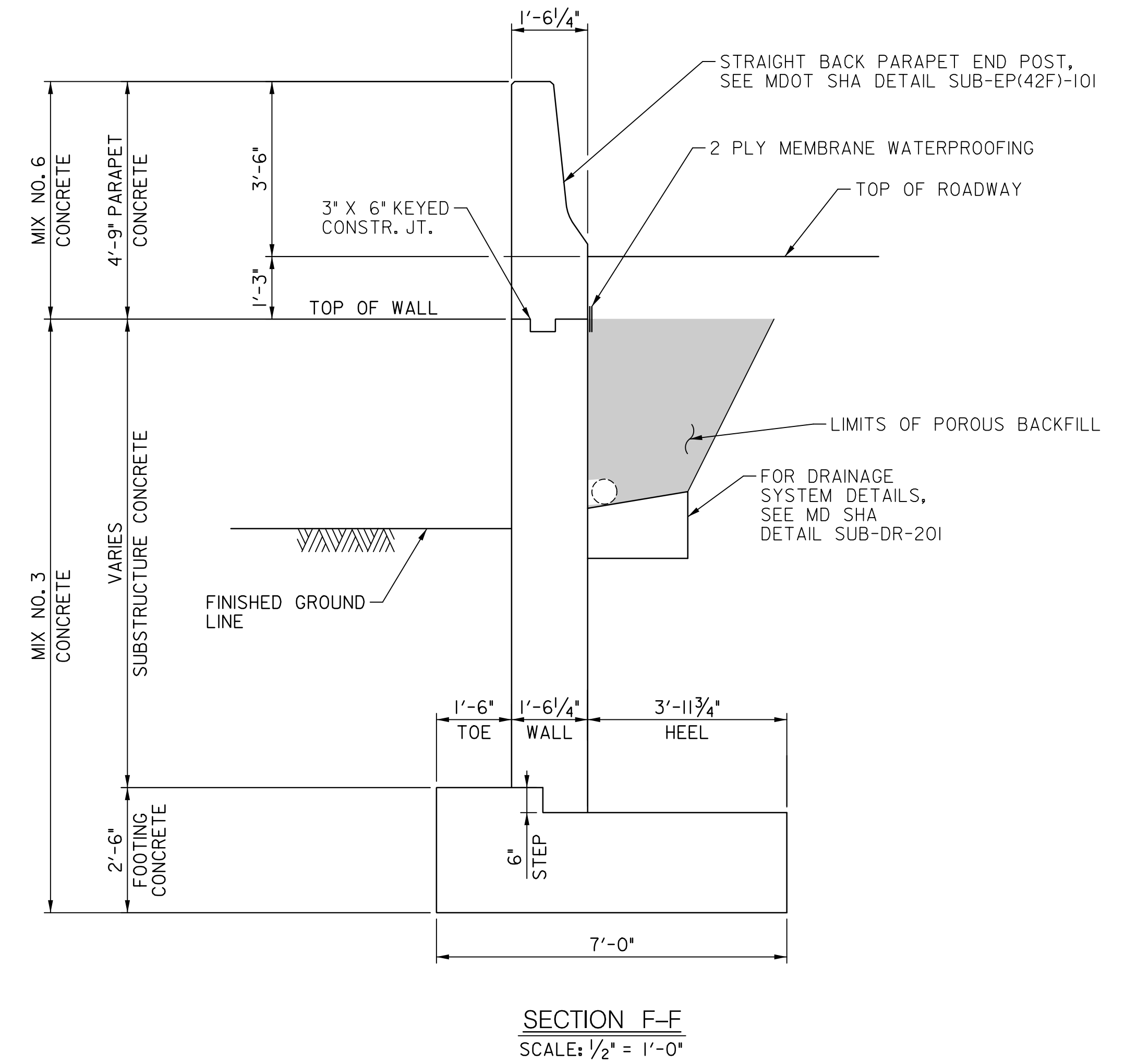
BRIDGE NO. F04-09
OLD MILL ROAD OVER
MARLYAND MIDLAND RAILROAD
ABUTMENT B - WINGWALL III

DATE: OCTOBER 2023 SCALE: AS-NOTED
FREDERICK COUNTY PROJECT NO.: C6011.6011.01 DWG. 20 OF 23

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DATUM EL. 365.00



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FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF ENGINEERING AND CONSTRUCTION MANAGMENT
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

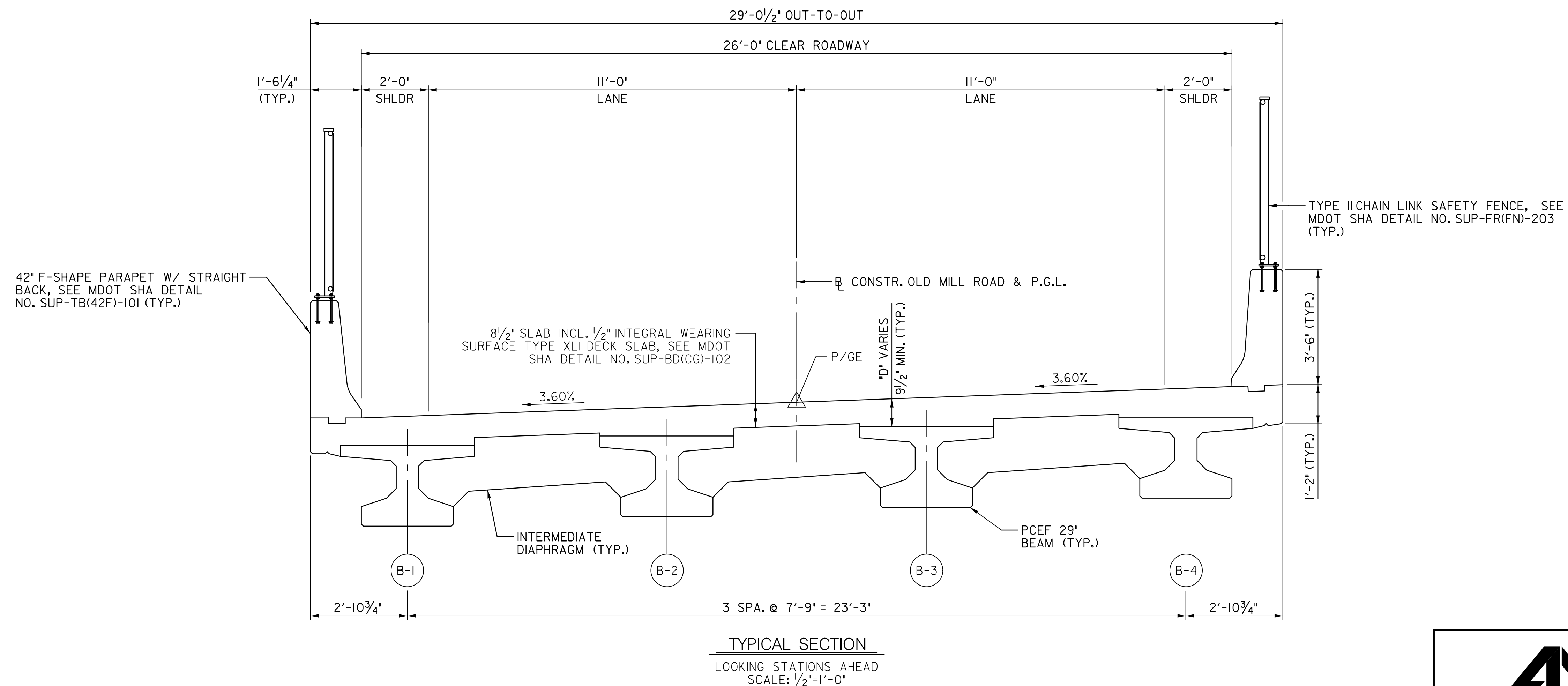
BRIDGE NO. F04-09
OLD MILL ROAD OVER
MARLYAND MIDLAND RAILROAD
ABUTMENT B - WINGWALL IV

DATE: OCTOBER 2023 SCALE: AS-NOTED

FREDERICK COUNTY PROJECT NO.: C6011.6011.01 DWG. 21 OF 23

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A. MORTON THOMAS AND ASSOCIATES, INC.
901 DULANEY VALLEY ROAD, SUITE 710
TOWSON, MD 21204



NOTES:

1. SLIP FORMING OF PARAPETS WILL BE PERMITTED.

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FREDERICK COUNTY, MARYLAND
 DIVISION OF PUBLIC WORKS
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 OFFICE OF TRANSPORTATION ENGINEERING
 FREDERICK COUNTY, MARYLAND

BRIDGE NO. F04-09
OLD MILL ROAD OVER
MARLYAND MIDLAND RAILROAD

TYPICAL SECTION

DATE: OCTOBER 2023 SCALE: AS-NOTED

FREDERICK COUNTY PROJECT NO.: C6011.6011.01 DWG. 22 OF 23

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 TOWSON, MD 21204

