

**AMT** A. MORTON THOMAS AND ASSOCIATES, INC.

**SHEET NOS. AND OTHER CLARIFICATIONS**  
BRIDGE PLANS S-1 TO S-14

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** A. MORTON THOMAS AND ASSOCIATES, INC.

**SHEET NOS. AND OTHER CLARIFICATIONS**  
ROADWAY PLANS TS-01, GS-01, PS-01, MT-01, SW-01, EN-01, ES-01

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: \_\_\_\_\_

**ENGINEER'S CERTIFICATION**  
HEREBY CERTIFY THAT THE PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH LOCAL ORDINANCES, COMAR 26.17.01.07 AND 2017 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (LATEST VERSION AND REVISIONS).

SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_

**DISTURBED AREA QUANTITY**

THE TOTAL AREA TO BE DISTURBED AS SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE APPROXIMATELY 21,675 SQUARE FEET, AND THE TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE APPROXIMATELY 80 CUBIC YARDS OF EXCAVATION AND APPROXIMATELY 1535 CUBIC YARDS OF FILL.

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

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**FREDERICK COUNTY MARYLAND**  
**DIVISION OF PUBLIC WORKS**  
**OFFICE OF TRANSPORTATION ENGINEERING**  
**BRIDGE REPLACEMENT**

**PRESTRESSED CONCRETE BEAM BRIDGE NO. F04-09**

**S.H.A. CONTRACT NO. - FR072B21**

**FREDERICK COUNTY PROJECT NO. - C6011.6011.01**

**FEDERAL AID PROJECT NO. - T.B.D.**

**OLD MILL ROAD OVER MARYLAND MIDLAND RAILROAD**

**GEOMETRIC DESIGN CRITERIA**

THIS PROJECT WAS DESIGNED IN ACCORDANCE WITH THE 2018 PUBLICATION OF AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS."

**STANDARD SPECIFICATIONS BOOK, BOOK OF STANDARDS AND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)**

ALL WORK ON THIS PROJECT SHALL CONFORM TO THE LATEST APPROVED MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION (MDOT SHA) "STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS" REVISIONS THEREOF OR ADDITIONS THERETO; THE SPECIAL PROVISIONS INCLUDED IN THE INVITATION FOR BIDS BOOK; THE ADMINISTRATION'S "BOOK OF STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES" AND THE LATEST ADOPTED MUTCD.

**RIGHT OF WAY**

RIGHT OF WAY LINES ON THESE PLANS DO NOT INCLUDE EASEMENTS. THEY ARE FOR ASSISTANCE IN INTERPRETING THE PLANS. THESE LINES DO NOT REPRESENT THE OFFICIAL PROPERTY ACQUISITION LINES. FOR OFFICIAL FEE SIMPLE RIGHT OF WAY AND EASEMENT INFORMATION, SEE APPROPRIATE RW PLATS NUMBERED 55-82 BRICKLAND HILLS.

MDE PERMIT NO. \_\_\_\_\_

**UTILITIES**

THE TYPE AND LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE FOR INFORMATION AND GUIDANCE ONLY. NO GUARANTEE IS MADE AS TO THE ACCURACY OF SAID LOCATIONS. CONTACT "MISS UTILITY" AT 1-800-257-7777 A MINIMUM OF 5 DAYS PRIOR TO START OF WORK.

**ADA COMPLIANCE**

THE DESIGN OF THIS PROJECT HAS INCORPORATED FACILITIES TO ACCOMMODATE PERSONS WITH DISABILITIES IN COMPLIANCE WITH STATE AND FEDERAL REQUIREMENTS.

**ENVIRONMENTAL INFORMATION**

ALL STORMWATER MANAGEMENT FACILITIES CONSTRUCTED FOR THIS CONTRACT SHALL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE MDOT SHA BEST MANAGEMENT PRACTICES (BMP) INSPECTION AND REMEDIATION PROGRAM.

**STANDARD STABILIZATION NOTE:**

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 DAYS (7) AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

**OWNERS / DEVELOPERS CERTIFICATION:**

I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I HEREBY AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY THE FREDERICK SOIL CONSERVATION DISTRICT PERSONNEL AND COOPERATIVE AGENCIES.

TRACY DIGGS, CHIEF  
FREDERICK COUNTY OFFICE OF TRANSPORTATION ENGINEERING  
355 MONTEVUE LANE, SUITE 200  
FREDERICK, MARYLAND 21702  
301-600-1959

**NOTICE TO BIDDERS:**

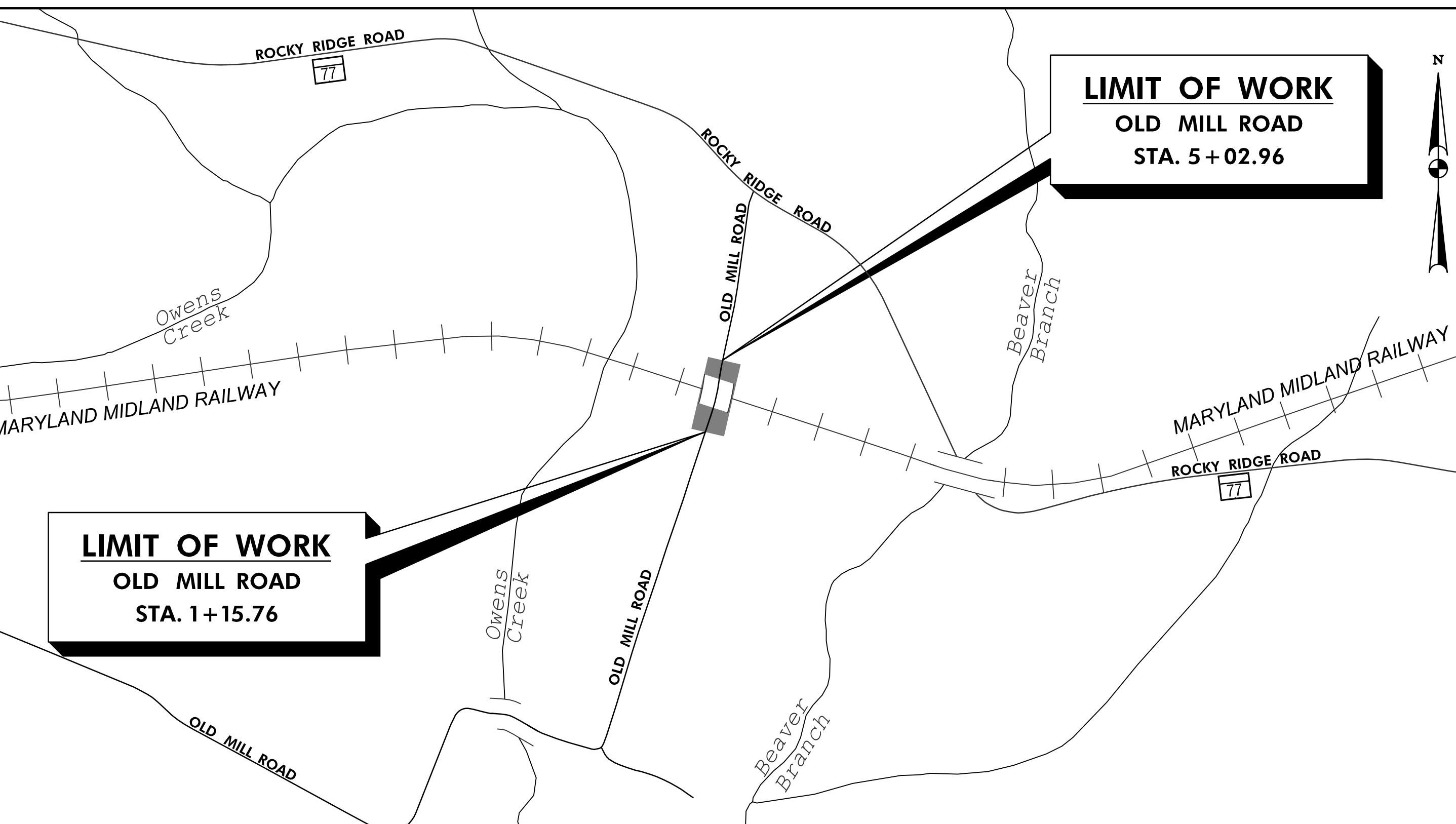
THE SPECIFICATIONS FOR THIS CONTRACT WILL BE THOSE OF THE MDOT SHA, TITLED "STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS", DATED JULY 2022, REVISIONS THERETO, AND THE SPECIAL PROVISIONS.

SEDIMENT AND EROSION CONTROL WILL BE STRICTLY ENFORCED DURING CONSTRUCTION BY ENVIRONMENTAL COMPLIANCE SECTION PHONE NO. 301-600-3507

THE GRADING LIMITS SHOWN ON THE PLANS ARE NOT TO BE EXCEEDED. CHANGES IN THE GRADING, EROSION AND SEDIMENT CONTROL PLAN, OR OTHER SEGMENT OF THE WORK MUST BE REVIEWED AND APPROVED BY THE FREDERICK COUNTY DIVISION OF PUBLIC WORKS.

THE FREDERICK COUNTY DIVISION OF PUBLIC WORKS SHALL ONLY BE RESPONSIBLE FOR THE COMPLETENESS OF DOCUMENTS OBTAINED DIRECTLY FROM FREDERICK COUNTY. FAILURE TO ATTACH ALL ADDENDA MAY CAUSE THE BID TO BE NON-RESPONSIVE.

IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR THAT THE STANDARD PLATES IN HIS/HER POSSESSION ARE THE LATEST REVISED MDOT SHA STANDARD PLATES AS OF THE DATE OF THE AWARD OF THIS PROJECT.



HORIZONTAL DATUM	NAD 83 /91
VERTICAL DATUM	NAVD 88

TRAFFIC DATA	
ROAD CLASSIFICATION	LOCAL
DESIGN SPEED	25 MPH
AVERAGE DAILY TRAFFIC (A.D.T.)	92 (2020)
PERCENT TRUCKS	1%

**LENGTH OF PROJECT:**  
**OLD MILL ROAD = 0.07 MILES**

SCALE: 1" = 500'  
500 0 500 1000 feet

**FREDERICK COUNTY, MARYLAND**  
DEVELOPMENT REVIEW ENGINEERING

APPROVED: \_\_\_\_\_  
DEVELOPMENT REVIEW CHIEF DATE

APPROVED: \_\_\_\_\_  
STORMWATER MANAGEMENT DATE

Reviewed in accordance with local County requirements. Frederick County assumes no liability for design and/or construction. Approval is valid for two (2) years after the last date shown above. The project must be under construction before the approval expiration to be considered active. Otherwise, resubmit of plans including applicable fees, must be made to Development Review for approval. Fees for resubmittal cannot be waived.

REV. #	DATE	REVISION DESCRIPTION	CONSULTANT DATE AND INITIAL	REVIEW DATE AND INITIAL
FILL IN THESE BLOCKS FOR REVISIONS ONLY				

**TT-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**

**TITLE SHEET**

DATE: OCTOBER 2023 SCALE: AS NOTED

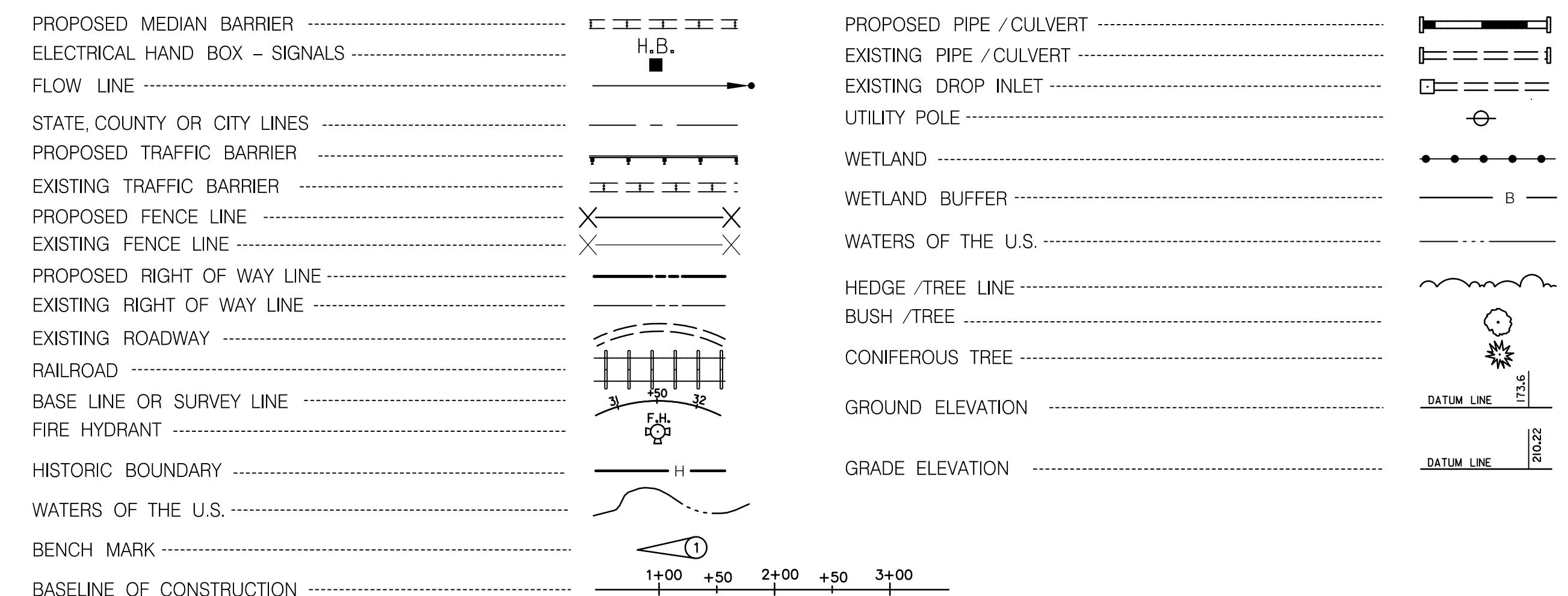
FREDERICK COUNTY PROJECT NO.: DWG. 1 OF 23  
F072B21

FREDERICK SOIL CONSERVATION DISTRICT	FREDERICK COUNTY DIVISION OF PUBLIC WORKS	FREDERICK COUNTY OFFICE OF TRANSPORTATION ENGINEERING
APPROVED BY: _____ DISTRICT MANAGER DATE: _____	APPROVED BY: _____ DIRECTOR DATE: _____	APPROVED BY: _____ CHIEF DATE: _____

## ABBREVIATIONS

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

## CONVENTIONAL SIGNS

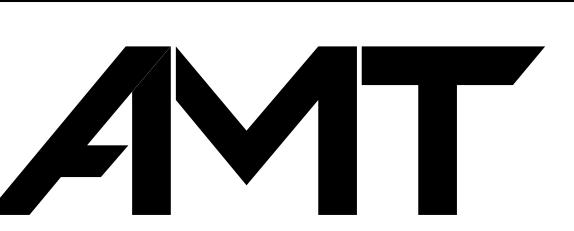


AB-01

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

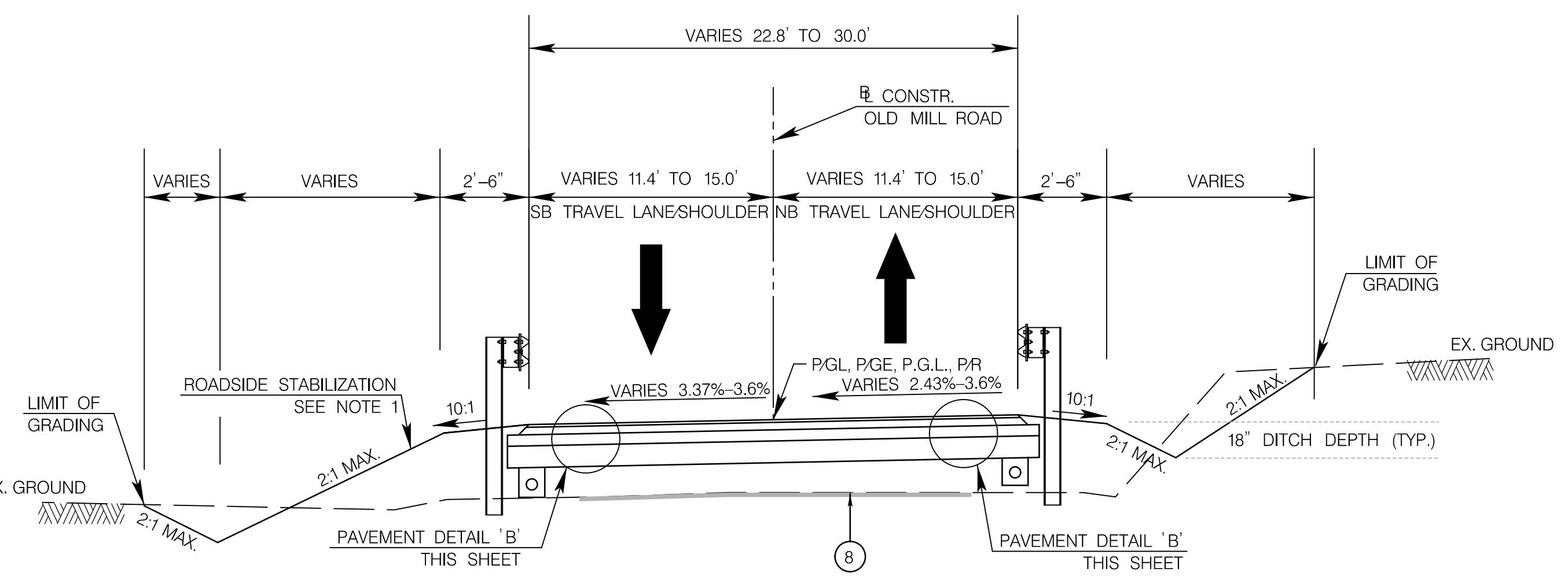
**BRIDGE REPLACEMENT**  
**BRIDGE NO. F04-09 ON OLD MILL ROAD**  
**OVER MARYLAND MIDLAND RAILROAD**

**ABBREVIATIONS AND LEGEND**



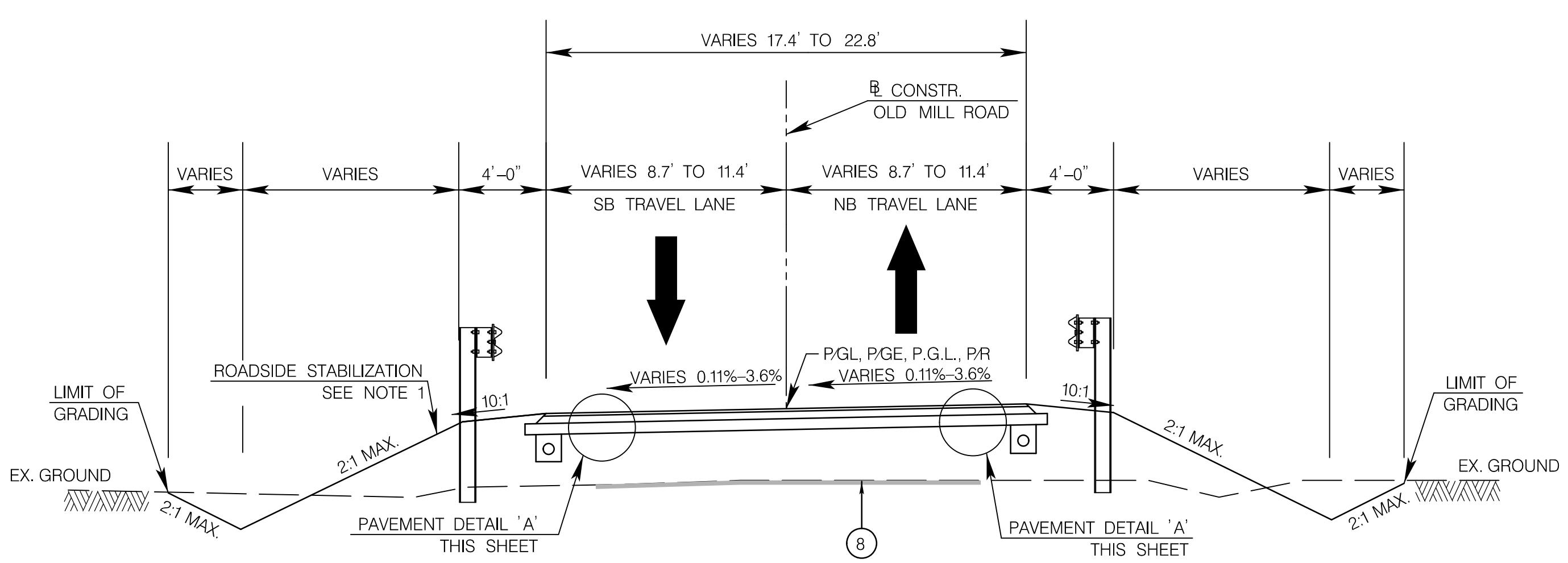
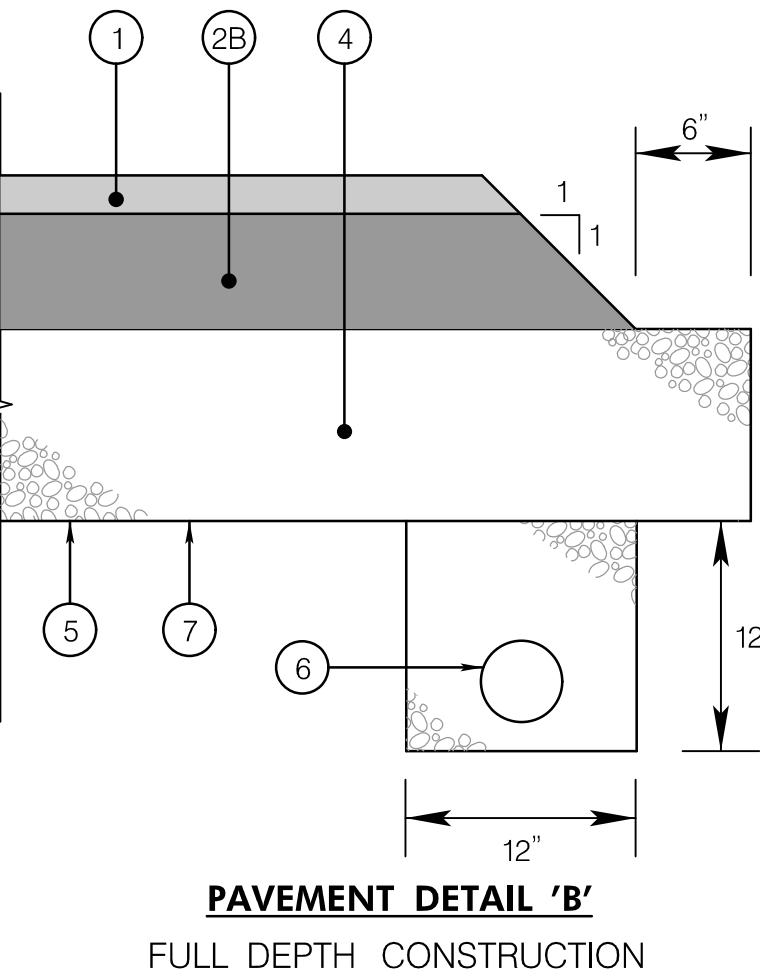
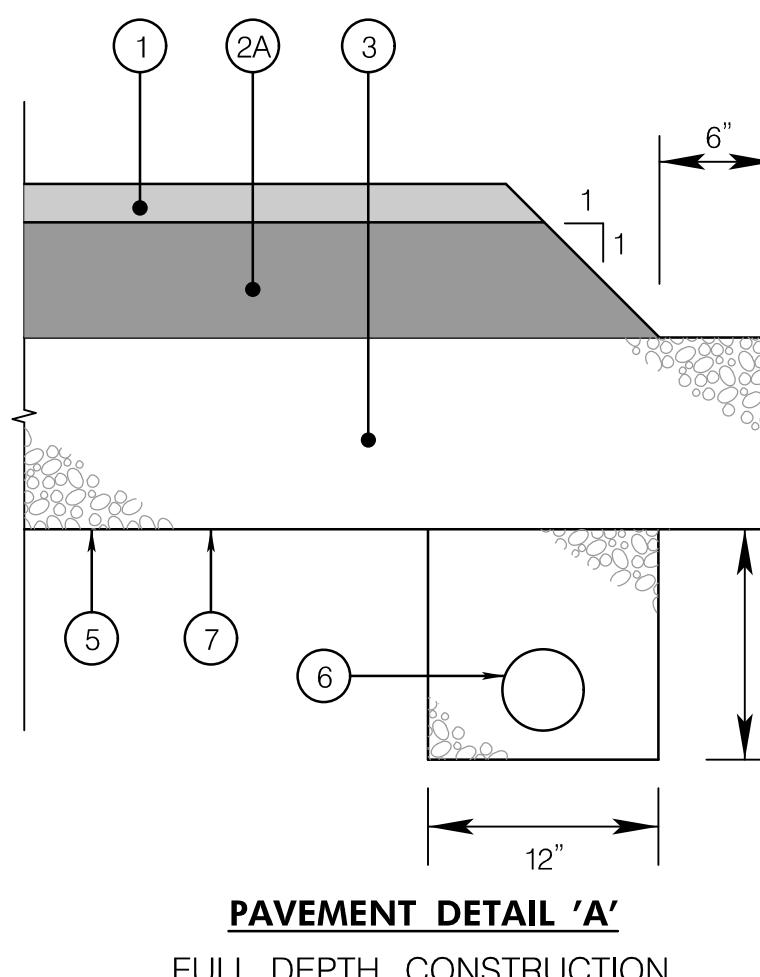
A. MORTON THOMAS AND ASSOCIATES, INC.  
901 DULANEY VALLEY ROAD, SUITE 710  
TOWSON, MD 21204

DATE: OCTOBER 2023  
SCALE: AS NOTED  
FREDERICK COUNTY PROJECT NO.: F04-09  
DWG. 2 OF 23



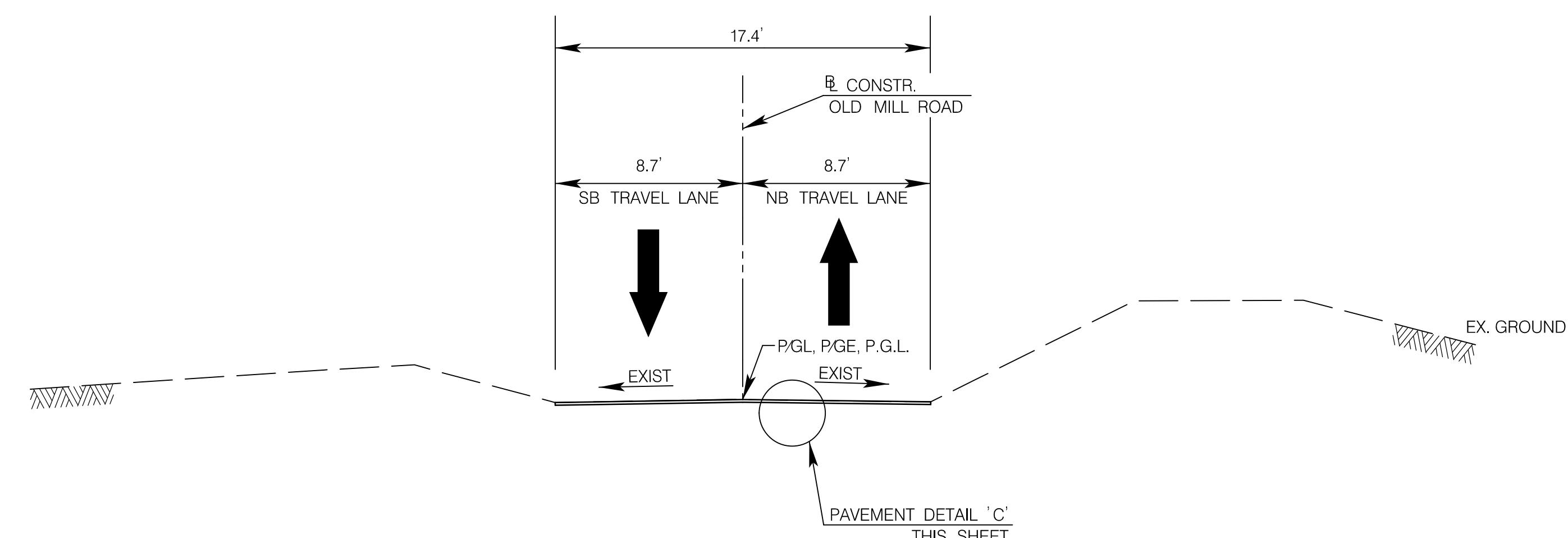
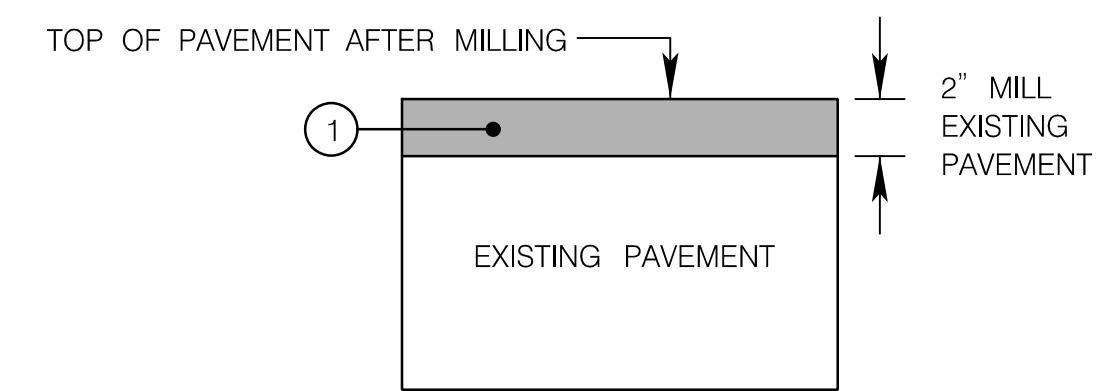
**OLD MILL ROAD**  
**FULL DEPTH PAVEMENT TYPICAL SECTION – BRIDGE APPROACHES – SUPERELEVATED**

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**

1. **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.
2. FOR BRIDGE TYPICAL SECTIONS, PLEASE REFER TO DWG. S-13, SHEET 22 OF THIS PLAN SET.
3. FOR LOCATIONS OF GUARDRAIL, PLEASE REFER TO DWG. PS-01, SHEET 5 OF THIS PLAN SET.

**PAVEMENT LEGEND**

- (1) 2" SUPERPAVE ASPHALT MIX 9.5MM FOR SURFACE, PG 64S-22, LEVEL 2
- (2A) 4" SUPERPAVE ASPHALT MIX 19.0MM FOR BASE, PG 64S-22, LEVEL 2 (ONE 4" LIFT)
- (2B) 8" SUPERPAVE ASPHALT MIX 19.0MM FOR BASE, PG 64S-22, LEVEL 2 (TWO 4" LIFTS)
- (3) 6" BASE COURSE USING GRADED AGGREGATE BASE
- (4) 24" BASE COURSE USING GRADED AGGREGATE BASE (FOUR 6" LIFTS)
- (5) LIMIT OF CLASS 1 EXCAVATION
- (6) 6" PERFORATED CIRCULAR PIPE LONGITUDINAL UNDERDRAIN AS PER STANDARD MD 387.11
- (7) TOP OF SUBGRADE
- (8) 1" MILLING OF EXISTING PAVEMENT

**PAVEMENT DETAIL NOTES**

4. IF NECESSARY, USE HOT MIX ASPHALT SUPERPAVE 9.5MM FOR WEDGE-LEVEL PG64-22, LEVEL 2. (1" MIN, 2" MAX. LIFT).
5. 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.
6. 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**

**AMT**

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

DATE: OCTOBER 2023 SCALE: AS NOTED

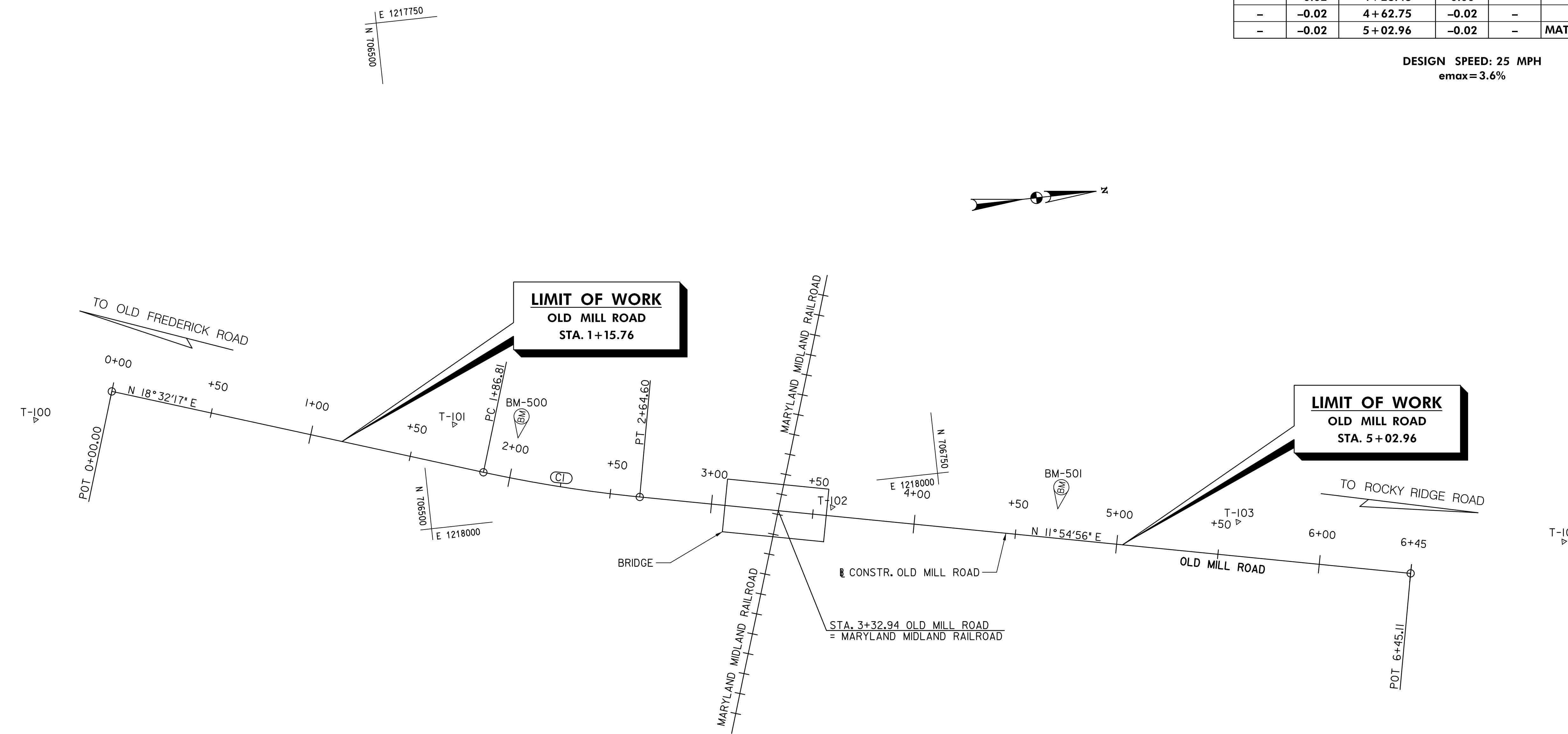
FREDERICK COUNTY PROJECT NO.: DWG. 3 OF 23 F072B21

BASELINE CONTROL COORDINATES					
BASELINE	CURVE	POINT NO.	STATION	NORTH	EAST
OLD MILL ROAD	C-I	POT	0+00.00	706351.1971	I217915.7941
		PC	1+86.81	706528.3137	I217975.1869
		PI	2+25.75	706565.2307	I217987.5663
		PT	2+64.60	706603.3291	I217995.6057
		POT	6+45.11	706975.6420	I218074.1693

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

OLD MILL ROAD					
P/R		SHOULDER		LANE	
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	I217925.5694	392.24
T-101	706516.5706	I217950.2082	385.34
T-102	706696.6917	I218010.9205	377.95
T-103	706894.0171	I218039.7205	393.27
T-104	707052.0602	I218066.8139	397.39

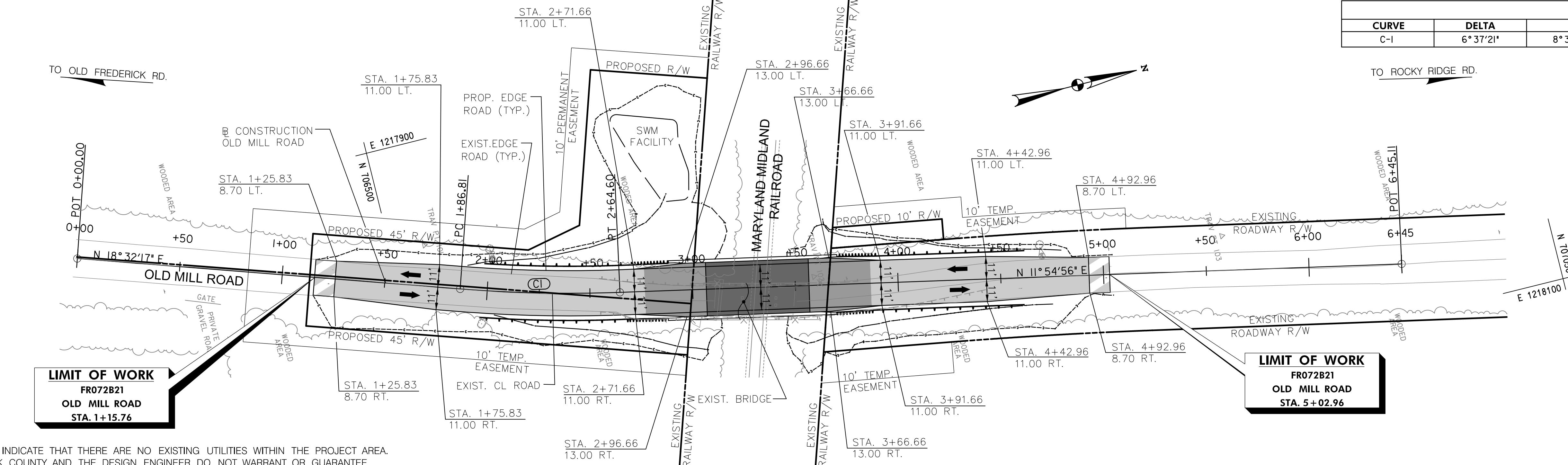
BENCHMARKS			
POINT NO.	NORTH	EAST	ELEVATION
BM-500	706547.0303	I217960.3799	384.70
BM-501	706806.9571	I218023.9378	388.31

30' 0 30' 60'  
SCALE: 1"=30'

**AMT**

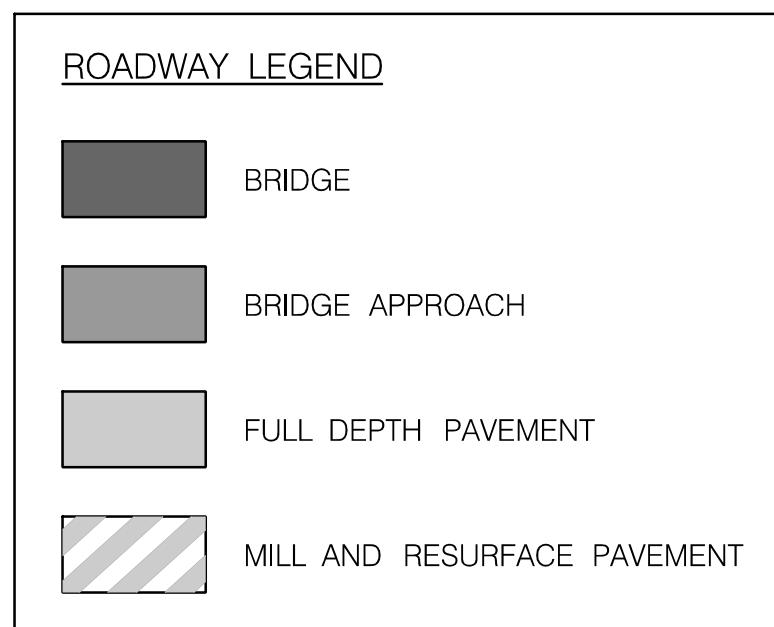
A. MORTON THOMAS AND ASSOCIATES, INC.  
901 DULANEY VALLEY ROAD, SUITE 710  
TOWSON, MD 21204

GS-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**  
**GEOMETRIC LAYOUT SUPERELEVATION**  
DATE: OCTOBER 2023 SCALE: AS NOTED  
FREDERICK COUNTY PROJECT NO.: F072B21 DWG. 4 OF 23

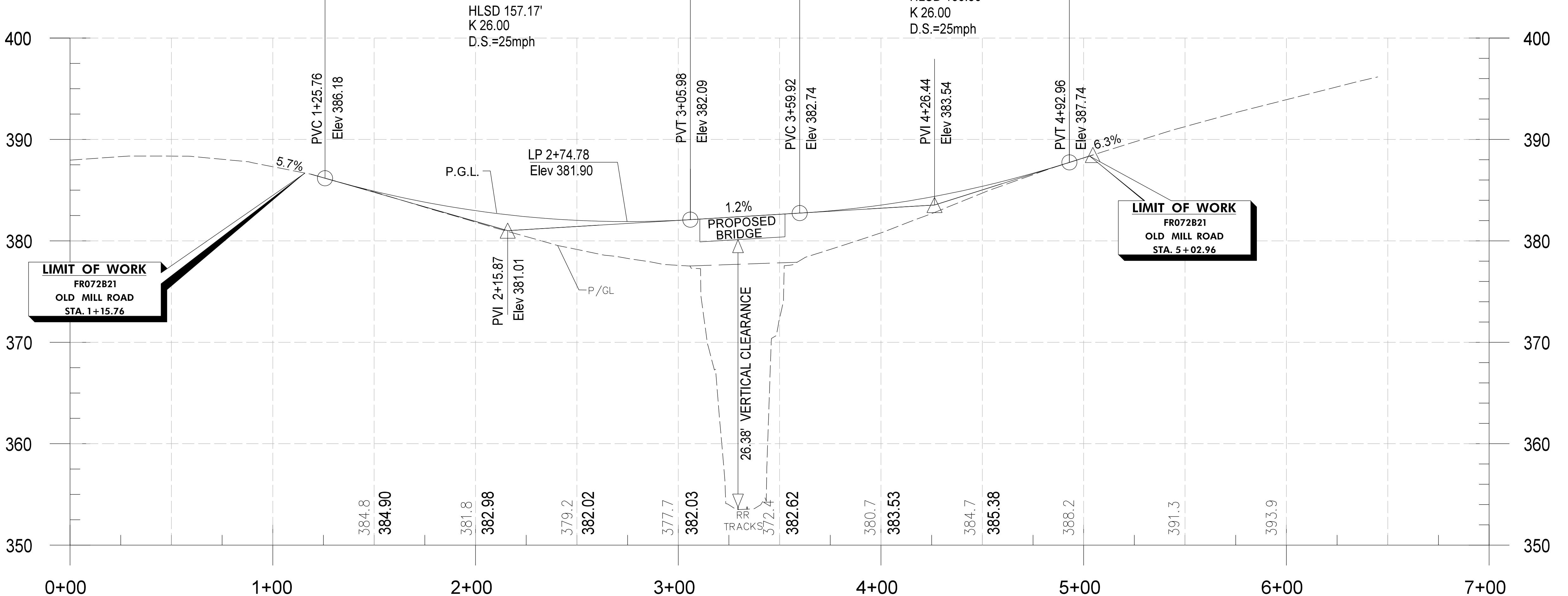


CURVE DATA					
CURVE	DELTA	Dc	RADIUS	TANGENT	LENGTH
C-I	6° 37'21"	8° 30'49"	673.00'	38.9374'	77.7881'
					1.1254'

TYPE C TRAFFIC BARRIER END TREATMENT	
STA. 1+97 TO 2+11, 13' RT (MD-605.03)	IEA
STA. 4+48 TO 4+62, 13' LT (MD-605.03)	IEA
TYPE K TRAFFIC BARRIER END TREATMENT	
STA. 1+98 TO 2+12, 13' LT (MD-605.10)	IEA
STA. 4+47 TO 4+61, 13' RT (MD-605.10)	IEA
W BEAM SINGLE FACE TRAFFIC BARRIER (8 FOOT POSTS)	
STA. 2+11 - 2+50, 13' RT (MD-605.22)	39 LF
STA. 2+45 - 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.	IEA
W BEAM ANCHORAGE (MD-605.41) STA. 2+88 13' RT.	IEA
W BEAM ANCHORAGE (MD-605.41) STA. 3+71 13' LT.	IEA
W BEAM ANCHORAGE (MD-605.41) STA. 3+70 13' RT.	IEA



ROADWAY PLAN



OLD MILL ROAD PROFILE

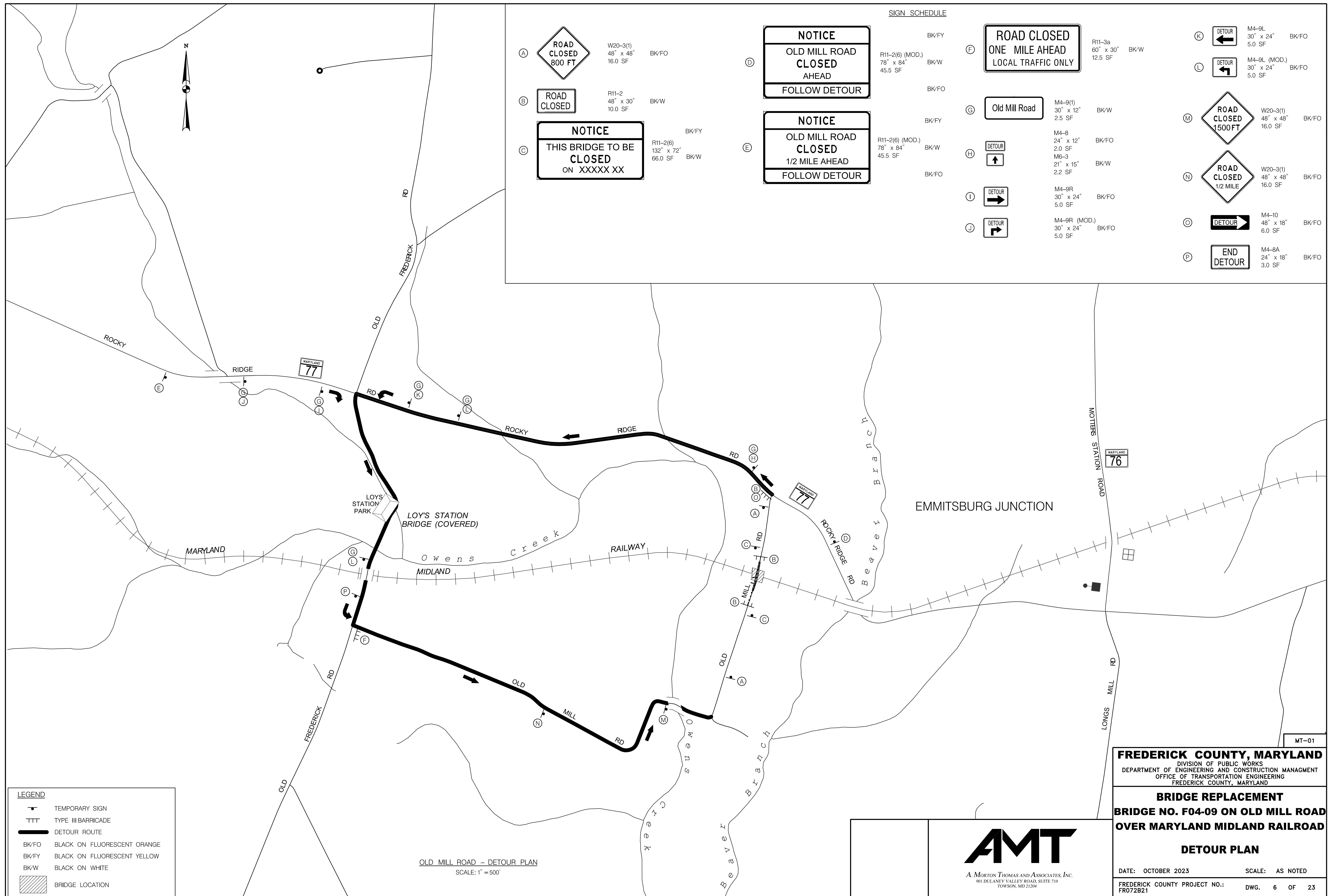
HORIZ. SCALE: 1"=30'  
VERT. SCALE: 1"=5'

30' 0' 30' 60'  
SCALE: 1"=30'

AMT

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

PS-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**  
**ROADWAY PLAN AND PROFILE**  
 DATE: OCTOBER 2023  
 SCALE: AS NOTED  
 FREDERICK COUNTY PROJECT NO.: F072B21  
 DWG. 5 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 PENALTIES 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 CONTROL MEASURE (IF USING BASIN SEE #6 BELOW)	
3. PRIOR TO MODIFICATION OR REMOVAL OF SED. CONTRL	
4. INFILTRATION SYSTEMS <ul style="list-style-type: none"> <li>A. SITE READINESS PER SEQUENCE OF CONSTRUCTION</li> <li>B. INFILTRATION AREA. PROTECTED FROM SEDIMENTATION</li> <li>C. DIMENSIONS</li> <li>D. FILTRATING MATERIAL</li> <li>E. FILL MATERIAL</li> <li>F. SIZE, PLACEMENT, TYPE OF PIPING</li> <li>G. OBSERVATION WELL</li> <li>H. COVER/STABILIZATION</li> </ul>	
5. OPEN CHANNEL FLOW ATTENUATION <ul style="list-style-type: none"> <li>A. SITE READINESS PER SEQUENCE OF CONSTRUCTION</li> <li>B. CROSS SECTION CONFORMANCE</li> <li>C. MATERIAL (TYPE/SIZE)</li> <li>D. STABILIZATION</li> </ul>	
6. RETENTION/DETENTION STRUCTURES (BASIN/PONDS) <ul style="list-style-type: none"> <li>A. SUBGRADE PREPARATION               <ul style="list-style-type: none"> <li>1. CORE TRENCH</li> <li>2. SUITABLE MATERIAL/ COMPACTION</li> </ul> </li> <li>B. EMBANKMENT CONSTRUCTION               <ul style="list-style-type: none"> <li>1. SUITABLE MATERIAL/COMPACTIION</li> <li>2. SLOPE GRADE</li> <li>3. DIMENSIONS</li> </ul> </li> <li>C. BARRELAND RISER ASSEMBLY               <ul style="list-style-type: none"> <li>1. CORRECT MATERIAL ONSITE</li> <li>2. SIZING</li> <li>3. ANTI-SEEP COLLARS</li> <li>4. ANTI-FLOTATION DEVICE</li> <li>5. CONCRETE CRADLE (RCP ONLY)</li> <li>6. INSTALLATION /BACKFILL/COMPACTIION</li> </ul> </li> <li>D. CONCRETE STRUCTURES               <ul style="list-style-type: none"> <li>1. FOOTER DEMINONS</li> <li>2. REINFORCING MATERIAL (TYPE, SIZE,PLACEMENT)</li> <li>3. WEIR POUR/MATERIAL/SLUMP TEST</li> <li>4. FORM STRIP AND FINISHING</li> </ul> </li> <li>E. IMPOUNDING AREA               <ul style="list-style-type: none"> <li>1. LOW FLOW CHANNELS/STABILIZATION</li> <li>2. DEWATERING DEVICE</li> <li>3. EMERGENCY SPILLWAY</li> <li>4. EXTENDED DETENTION DEVICE</li> </ul> </li> <li>F. OUTFALL AREA (LEVEL SPREADER, RIPRAP, CHANNEL, ECT..)</li> <li>G. VEGETATIVE STABILIZATION</li> <li>H. MISCELLANEOUS</li> </ul>	

10' 0 10' 20'  
SCALE: 1"=10'

**AMT**

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

SW-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**  
**STORMWATER MANAGEMENT PLAN**  
 DATE: OCTOBER 2023  
 SCALE: AS NOTED  
 FREDERICK COUNTY PROJECT NO.: FRO72B21  
 DWG. 7 OF 23

# EROSION AND SEDIMENT CONTROL – GENERAL NOTES

## STANDARD SYMBOLS

### 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

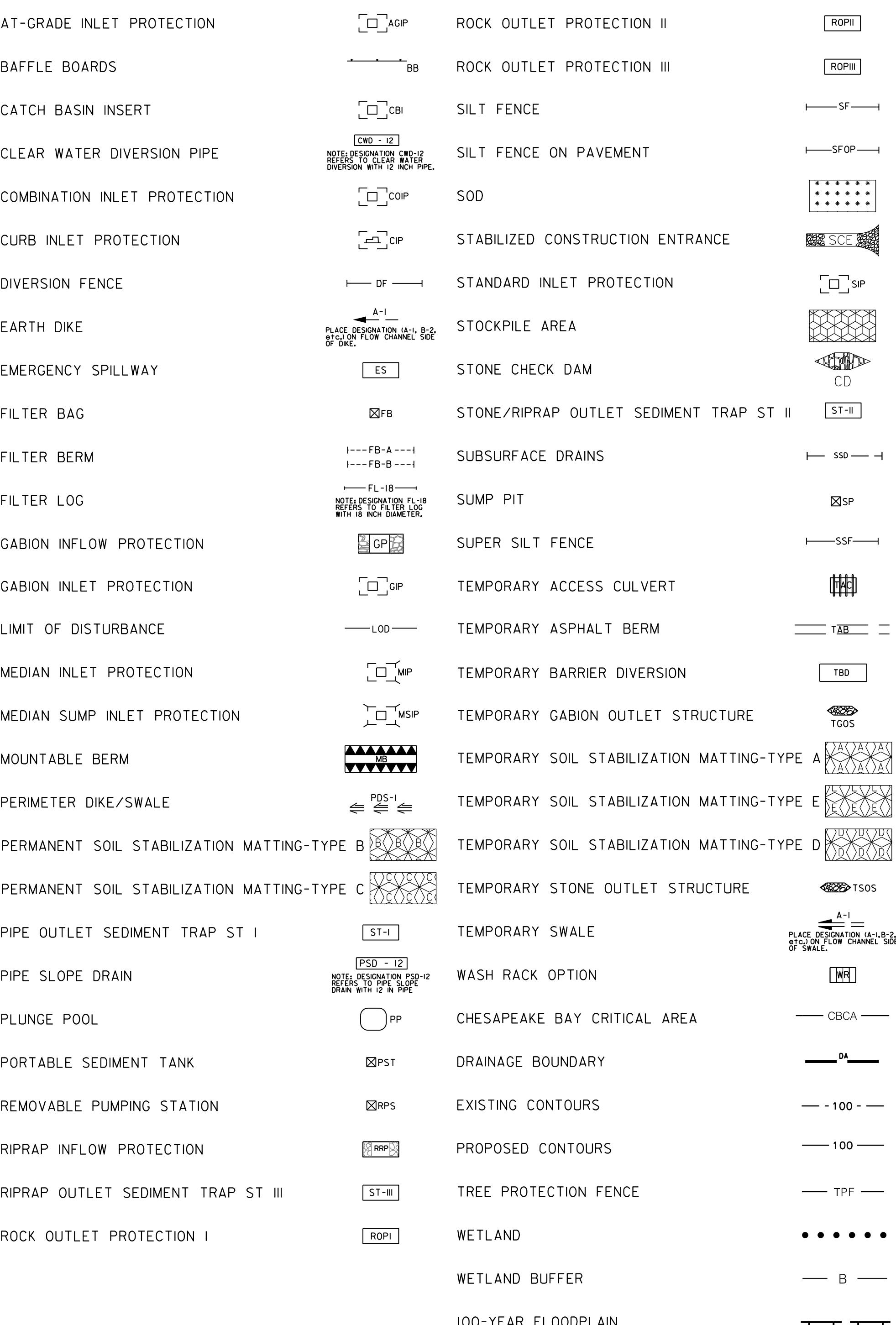
- DISTURBANCE OUTSIDE THE LIMIT OF DISTURBANCE CANNOT EXCEED 5,000 SQUARE FEET.
- PLACE ALL EXCAVATED MATERIAL ON THE HIGH SIDE OF THE TRENCH.
- ONLY COMPLETE AS MUCH WORK AS CAN BE DONE IN ONE DAY SO BACKFILLING, FINAL GRADING, SEEDING, AND MULCHING CAN OCCUR.
- ANY SEDIMENT CONTROL MEASURES DISTURBED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



### DESIGN CERTIFICATION

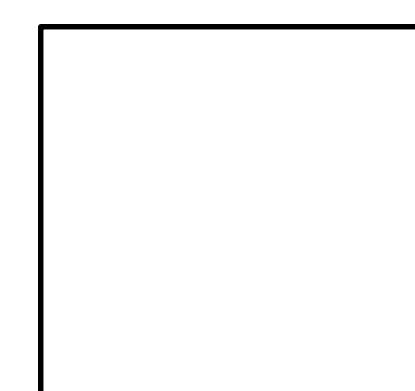
I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, THE 2000 MARYLAND STORMWATER MANUAL, VOLUMES I & II, INCLUDING SUPPLEMENTS, THE ENVIRONMENT ARTICLE SECTIONS 4-101 THROUGH 116 AND SECTIONS 4-201 AND 215, 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 \_\_\_\_\_  
MARYLAND, REGISTRATION NUMBER.  
P.E., R.L.S. OR R.L.A. (circle)

SIGNATURE \_\_\_\_\_  
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: \_\_\_\_\_.

FREDERICK SOIL CONSERVATION DISTRICT  
Approved By \_\_\_\_\_ District Manager \_\_\_\_\_  
Date \_\_\_\_\_



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

**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.

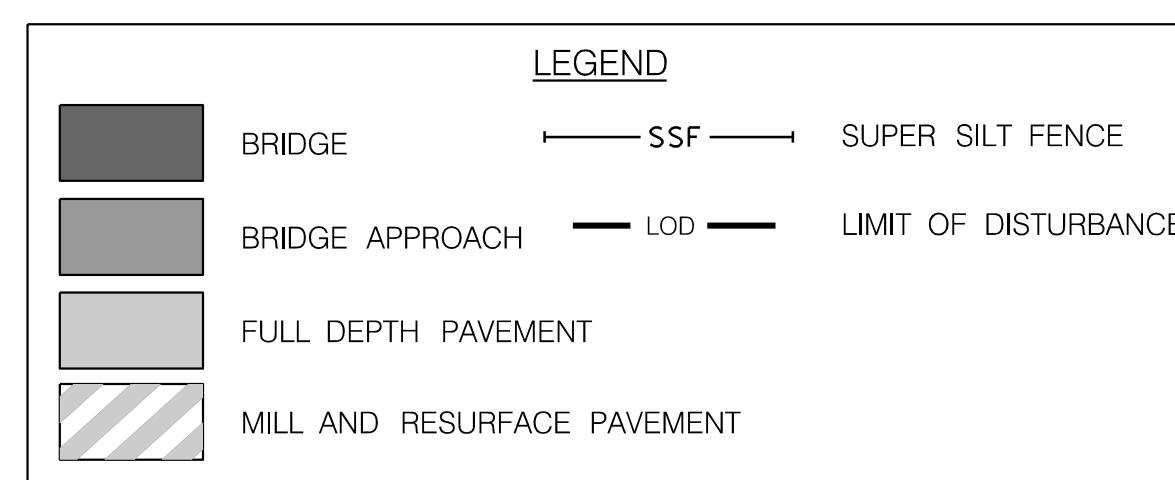
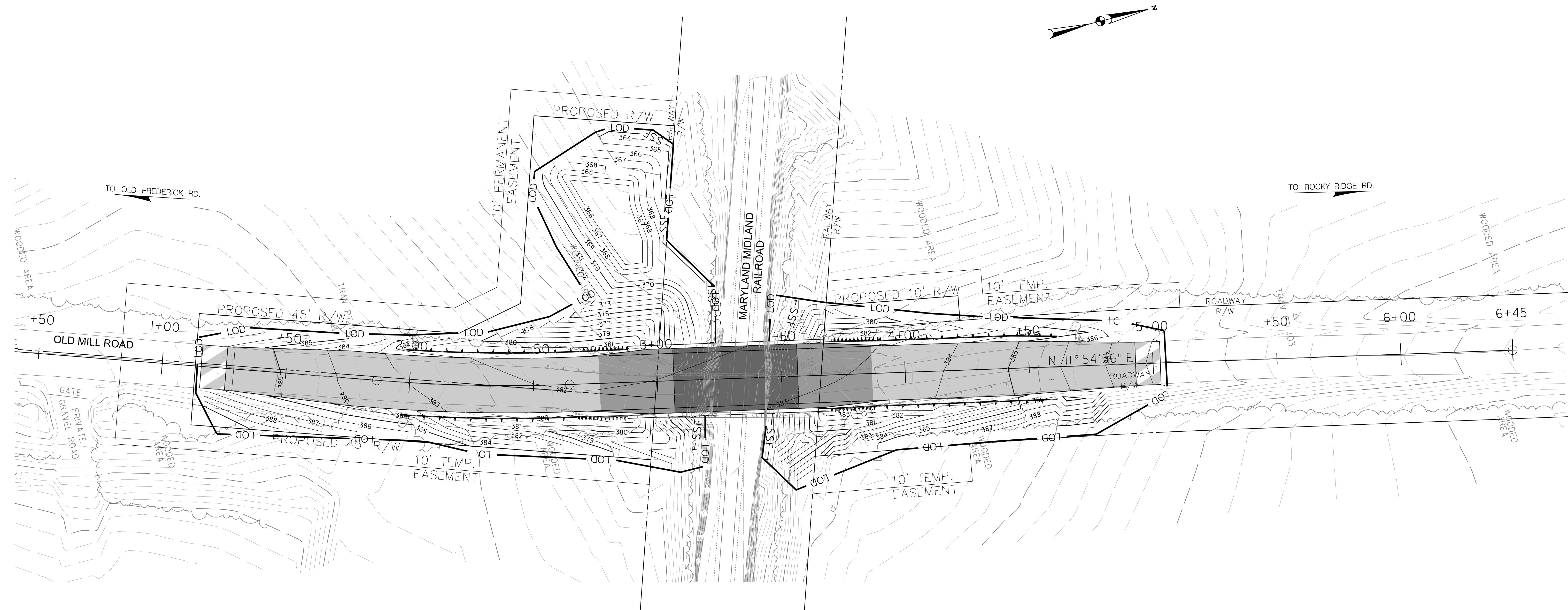
EN-01

**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.: FRT02B21  
DWG. 8 OF 23

FREDERICK SOIL CONSERVATION DISTRICT  
APPROVED BY: \_\_\_\_\_  
DISTRICT MANAGER  
DATE: \_\_\_\_\_

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



20' 0 20' 40'  
SCALE: 1:20'

**AMT**

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

**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 PLAN**

DATE: OCTOBER 2023  
SCALE: AS NOTED

FREDERICK COUNTY PROJECT NO.: FRO72B21  
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.O).

ALL OTHER STRUCTURE CONCRETE EXCEPT PRESTRESSED CONCRETE SHALL BE MIX NO. 3 (3,500 PSI). CONCRETE COMPRESSIVE STRENGTH FOR DESIGN SHALL BE  $f'_c = 7,000$  PSI WHILE THE MINIMUM COMPRESSIVE STRENGTH AT TRANSFER SHALL BE  $f'_c = 5,950$  PSI.

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

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

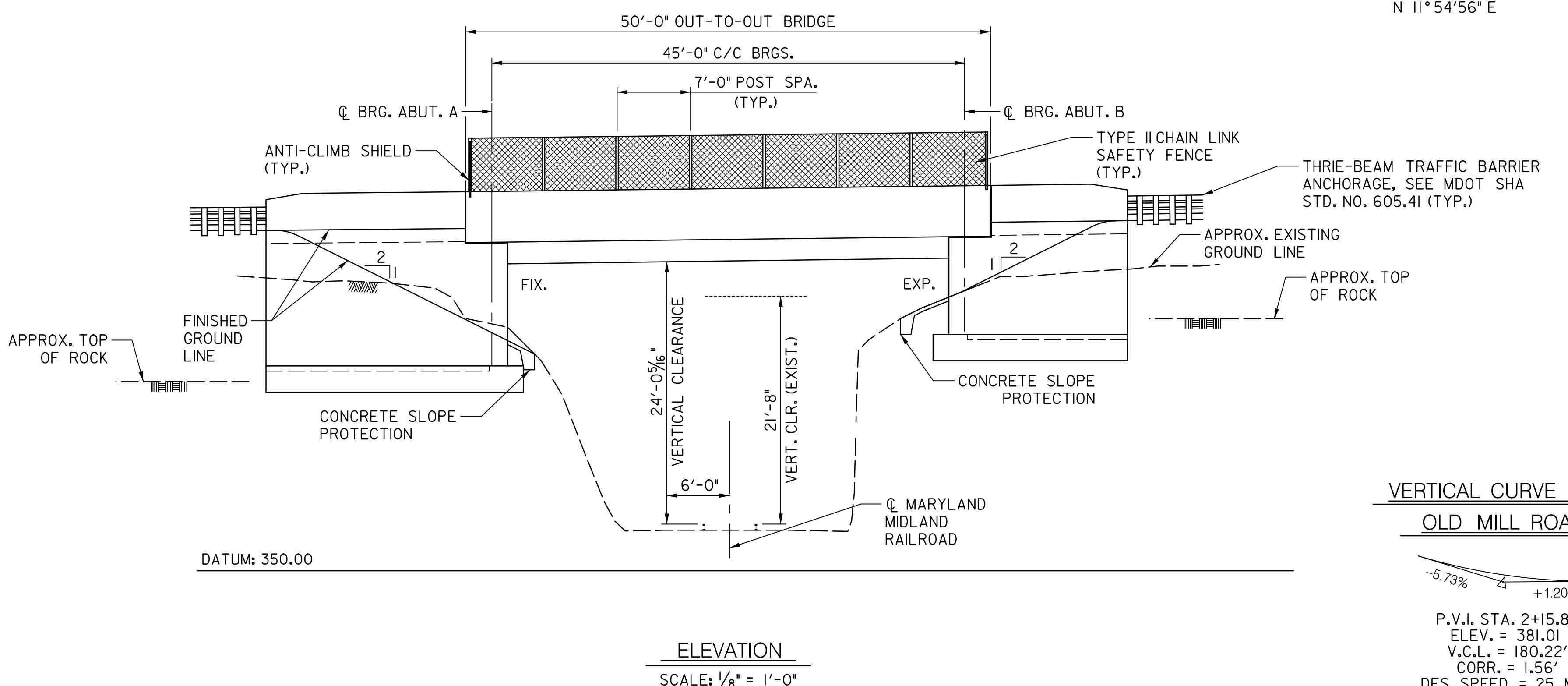
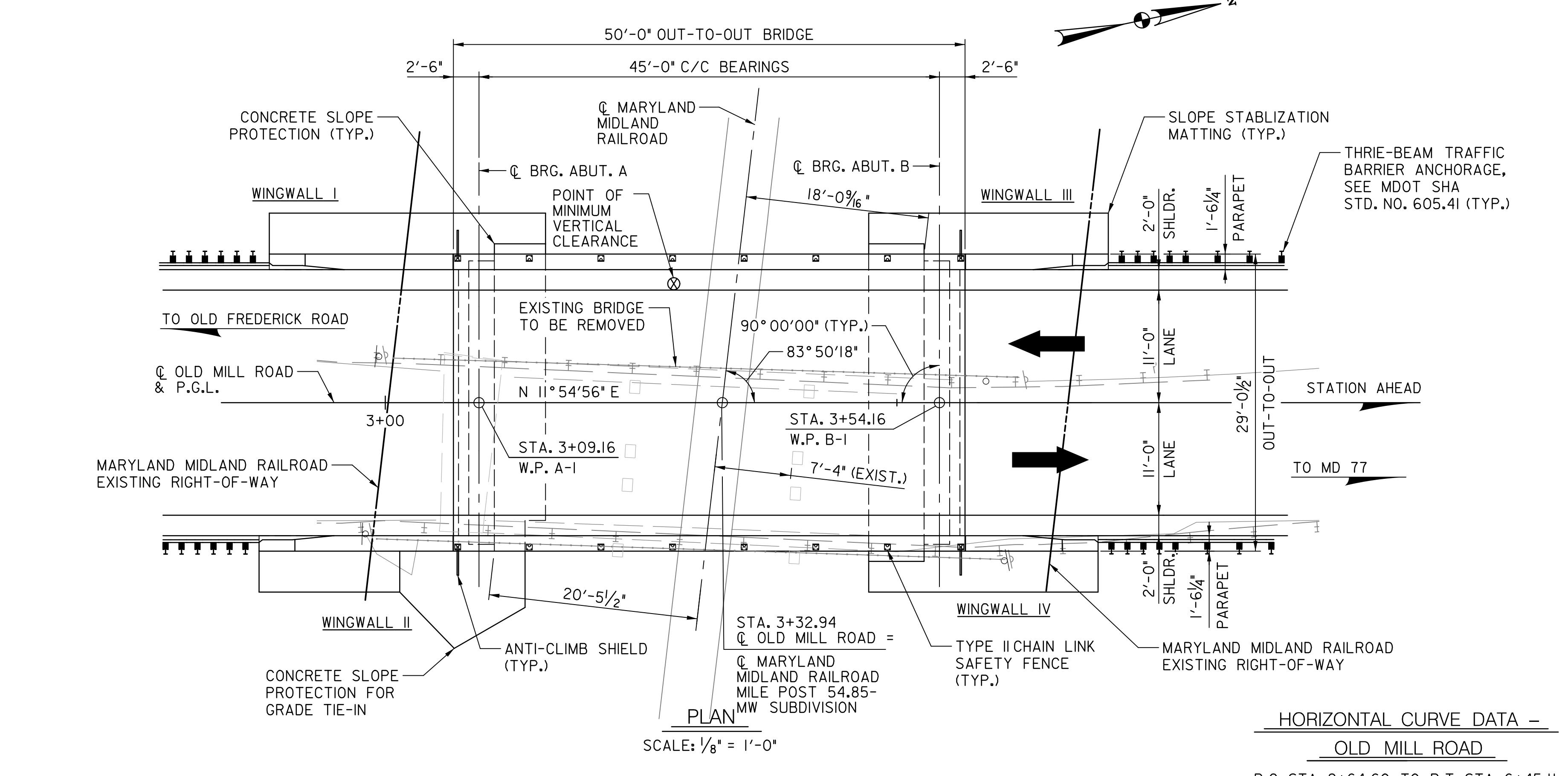
LOCATION	CLEAR COVER
BOTTOM AND SIDES OF ALL FOOTINGS.	3 IN.
BOTTOM FLANGE OF PRESTRESSED CONCRETE GIRDERS	2 1/2 IN.
TOP OF BRIDGE DECK SLAB	1 IN.

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

PRETENSIONING STEEL: PRETENSIONING STEEL SHALL CONSIST OF  $1/2$  IN. 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 f<sub>pu</sub>), HAVE AN ULTIMATE STRENGTH OF 41,300 LB (f<sub>pu</sub>), AND A YIELD STRENGTH OF 37,200 LB (0.90 f<sub>pu</sub>).

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.



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: \_\_\_\_\_

**S-01**  
**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**

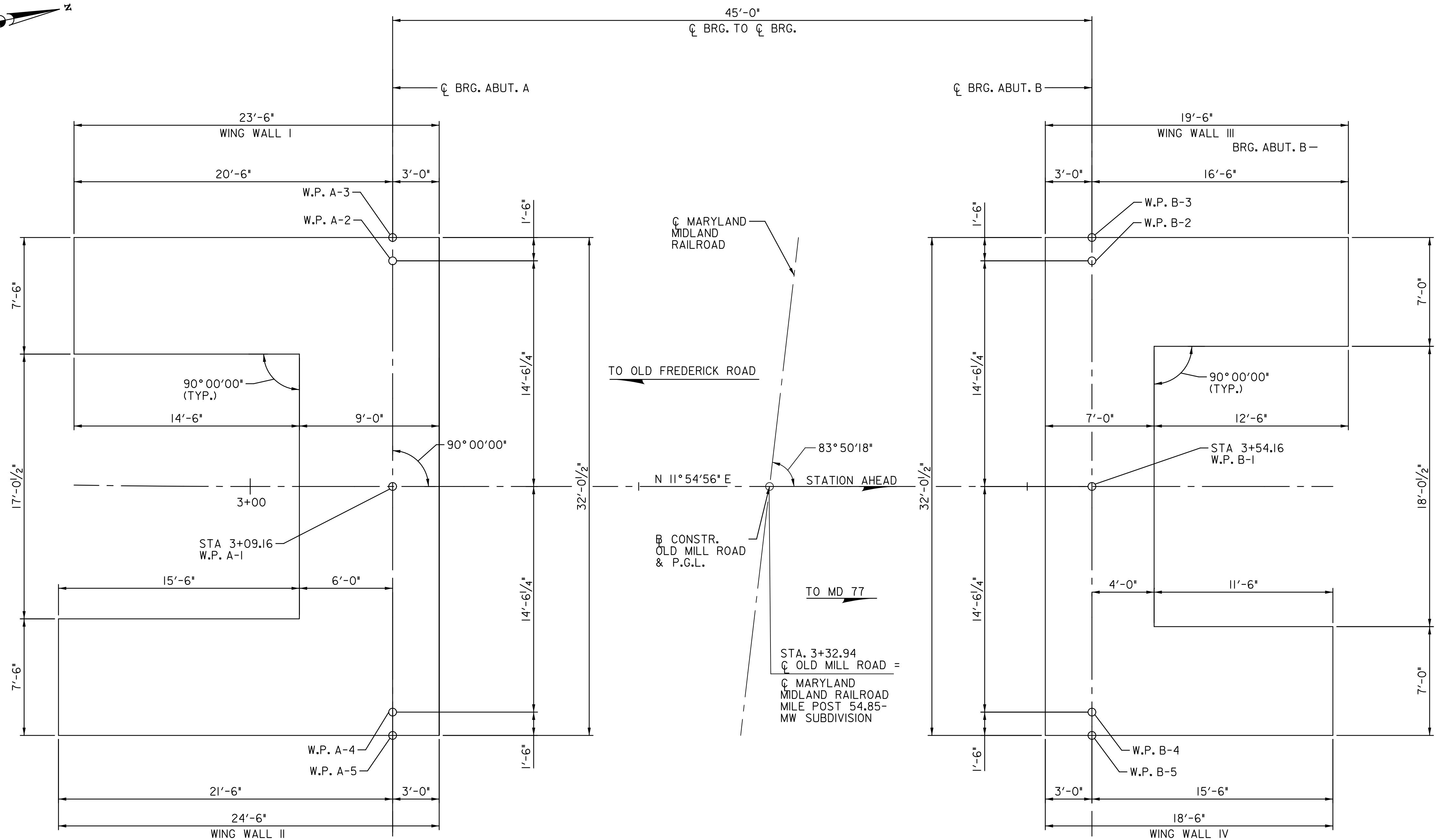
**MARYLAND MIDLAND RAILROAD**

**GENERAL PLAN  
AND ELEVATION**

DATE: OCTOBER 2023  
SCALE: AS-NOTED

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

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

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. I, 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. I 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.

3-02

**FREDERICK COUNTY, MARYLAND**  
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FREDERICK COUNTY, MARYLAND

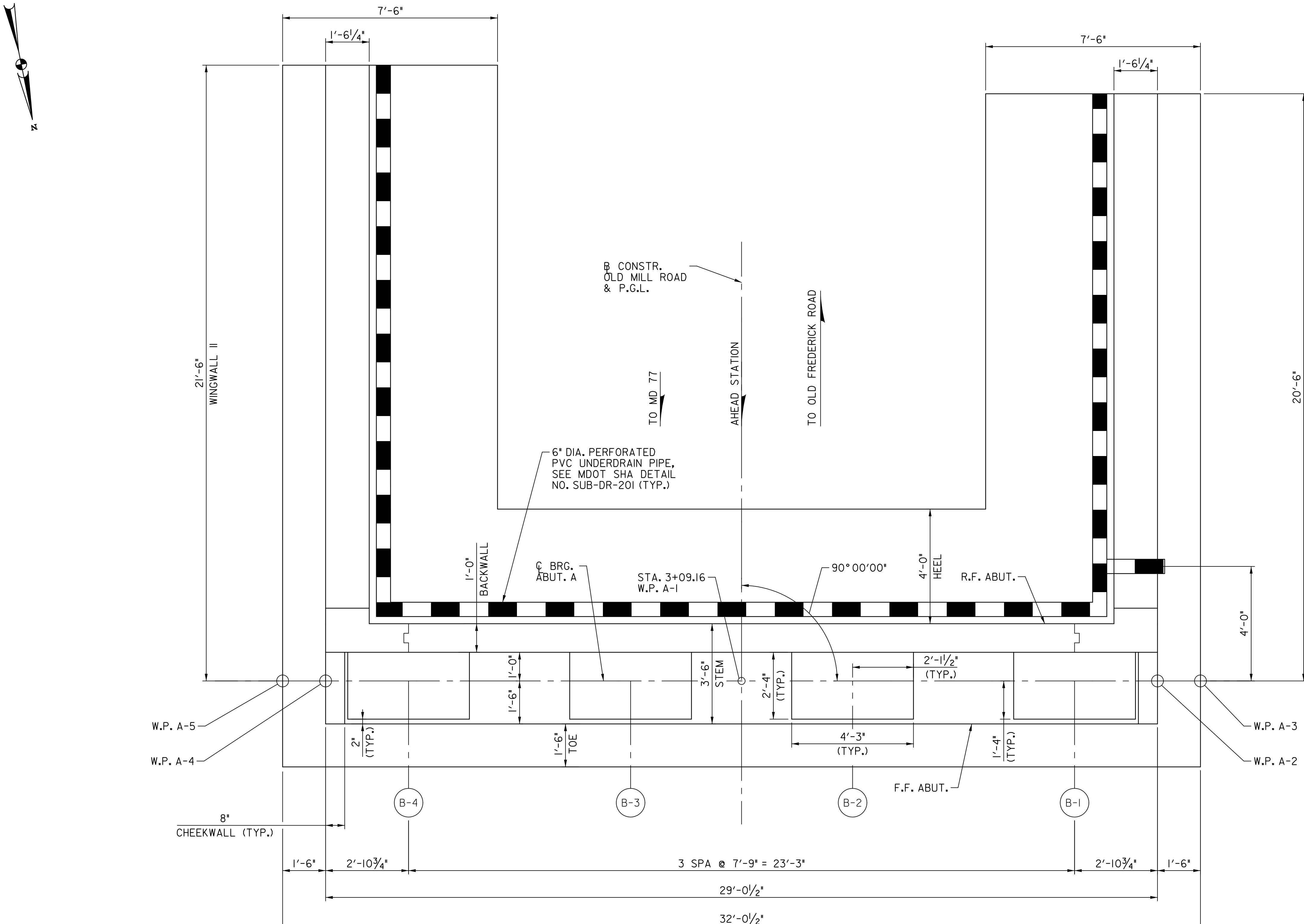
**BRIDGE NO. F04-09  
OLD MILL ROAD OVER  
RYLAND MIDLAND RAILROAD**

# GEOMETRIC AND FOOTING LAYOUT

The logo consists of the letters 'AMT' in a bold, black, sans-serif font. A smaller, slanted 'A' is positioned to the left of the 'M'. The letters are outlined in black and filled with a solid black color.

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

DATE: OCTOBER 2023 SCALE: AS-NOTED  
FREDERICK COUNTY PROJECT NO.: DWG. 11-05-23



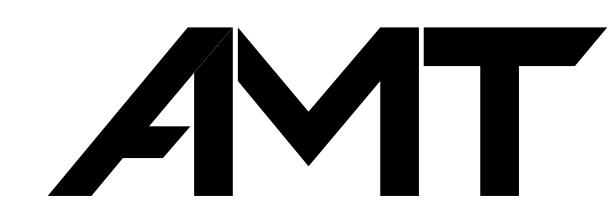
PLAN - ABUTMENT A

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

**FREDERICK COUNTY, MARYLAND**  
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 OFFICE OF TRANSPORTATION ENGINEERING  
 FREDERICK COUNTY, MARYLAND

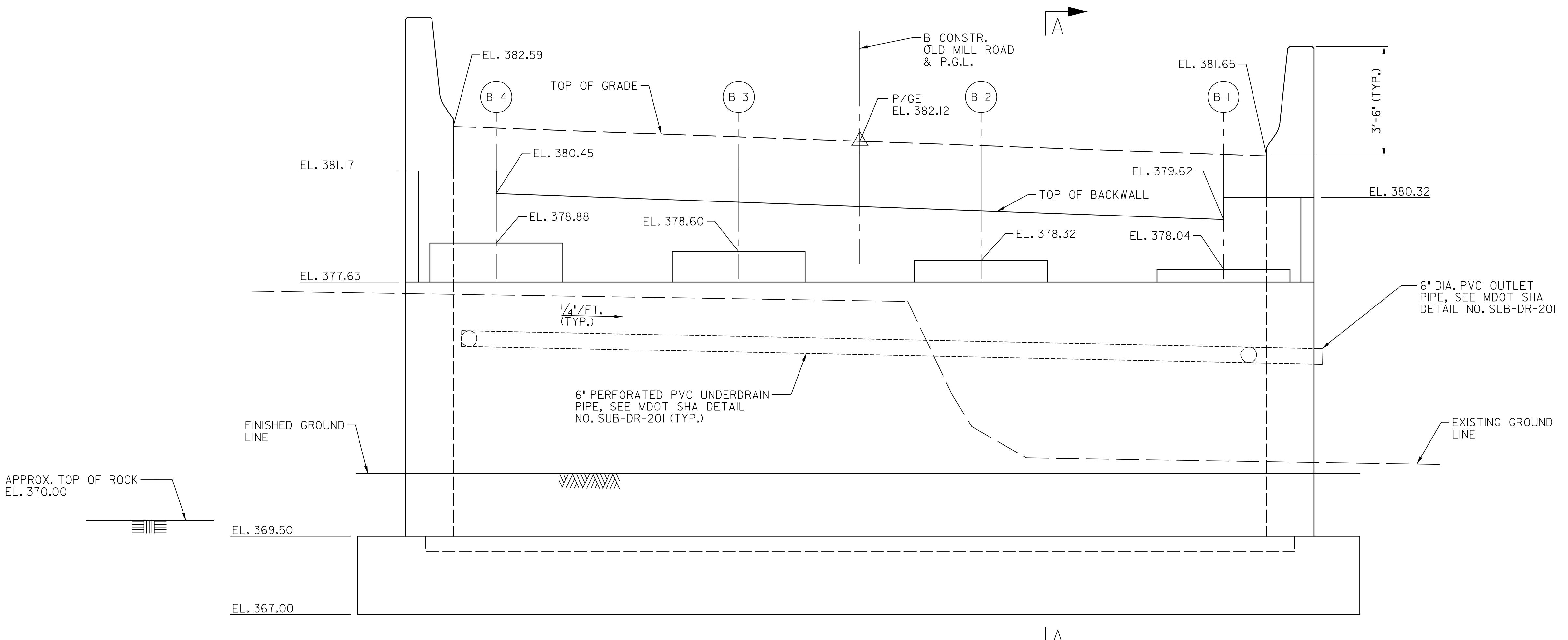
**BRIDGE NO. F04-09**  
**OLD MILL ROAD OVER**  
**MARYLAND MIDLAND RAILROAD**

**ABUTMENT A - PLAN**



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

DATE: OCTOBER 2023  
 SCALE:  
 FREDERICK COUNTY PROJECT NO.: C6011.6011.01  
 DWG. 12 OF 23



ELEVATION - ABUTMENT A

SCALE:  $1/2'' = 1'-0''$

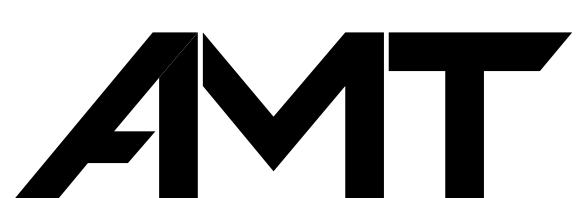
**NOTES:**

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

S-04

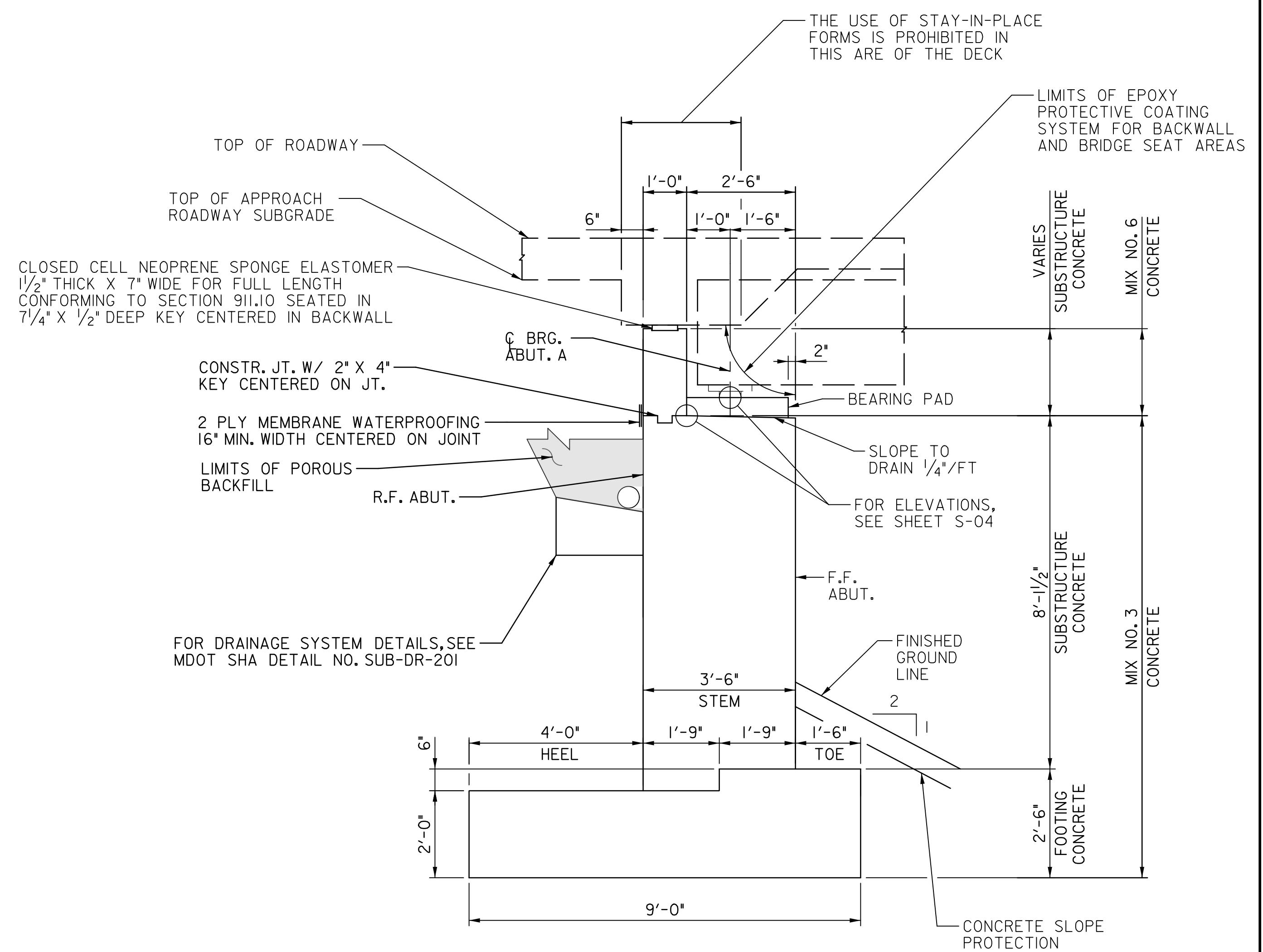
**FREDERICK COUNTY, MARYLAND**  
DIVISION OF PUBLIC WORKS  
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OFFICE OF TRANSPORTATION ENGINEERING  
FREDERICK COUNTY, MARYLAND

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



A. MORTON THOMAS AND ASSOCIATES, INC.  
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TOWSON, MD 21204

DATE: OCTOBER 2023  
SCALE: AS-NOTED  
FREDERICK COUNTY PROJECT NO.: C6011.6011.01  
DWG. 13 OF 23



## SECTION A-A – DIMENSIONS

SCALE:  $\frac{1}{2}$ " = 1'-0"

I. FOR THE LOCATION OF SECTION A-A, SEE SHEET S-04.

S-05

**FREDERICK COUNTY, MARYLAND**  
DIVISION OF PUBLIC WORKS  
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FREDERICK COUNTY, MARYLAND

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

## **ABUTMENT A - SECTION**



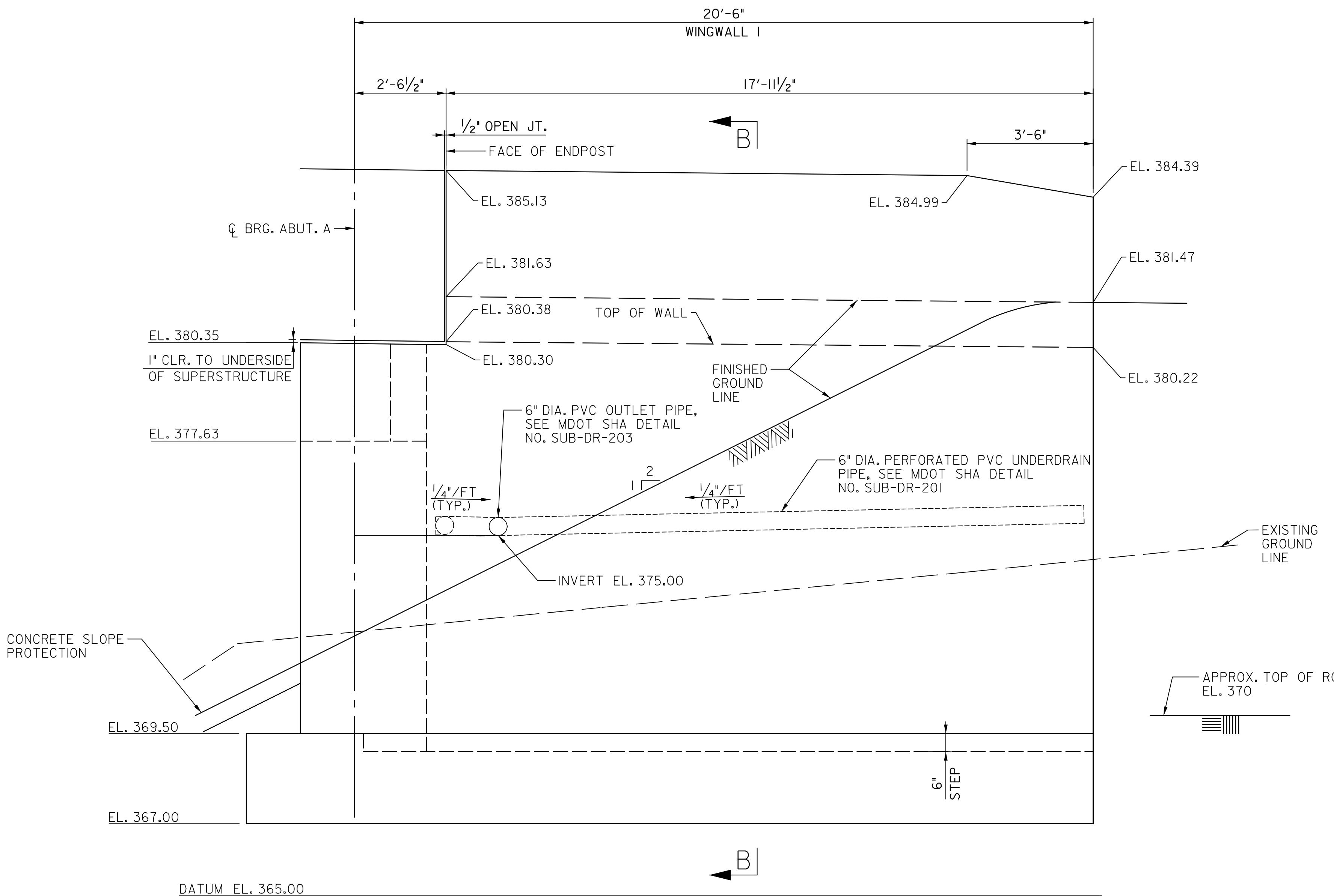
**A. MORTON THOMAS AND ASSOCIATES, INC.**  
901 DULANEY VALLEY ROAD, SUITE 710  
TOWSON, MD 21204

DATE: OCTOBER 2023

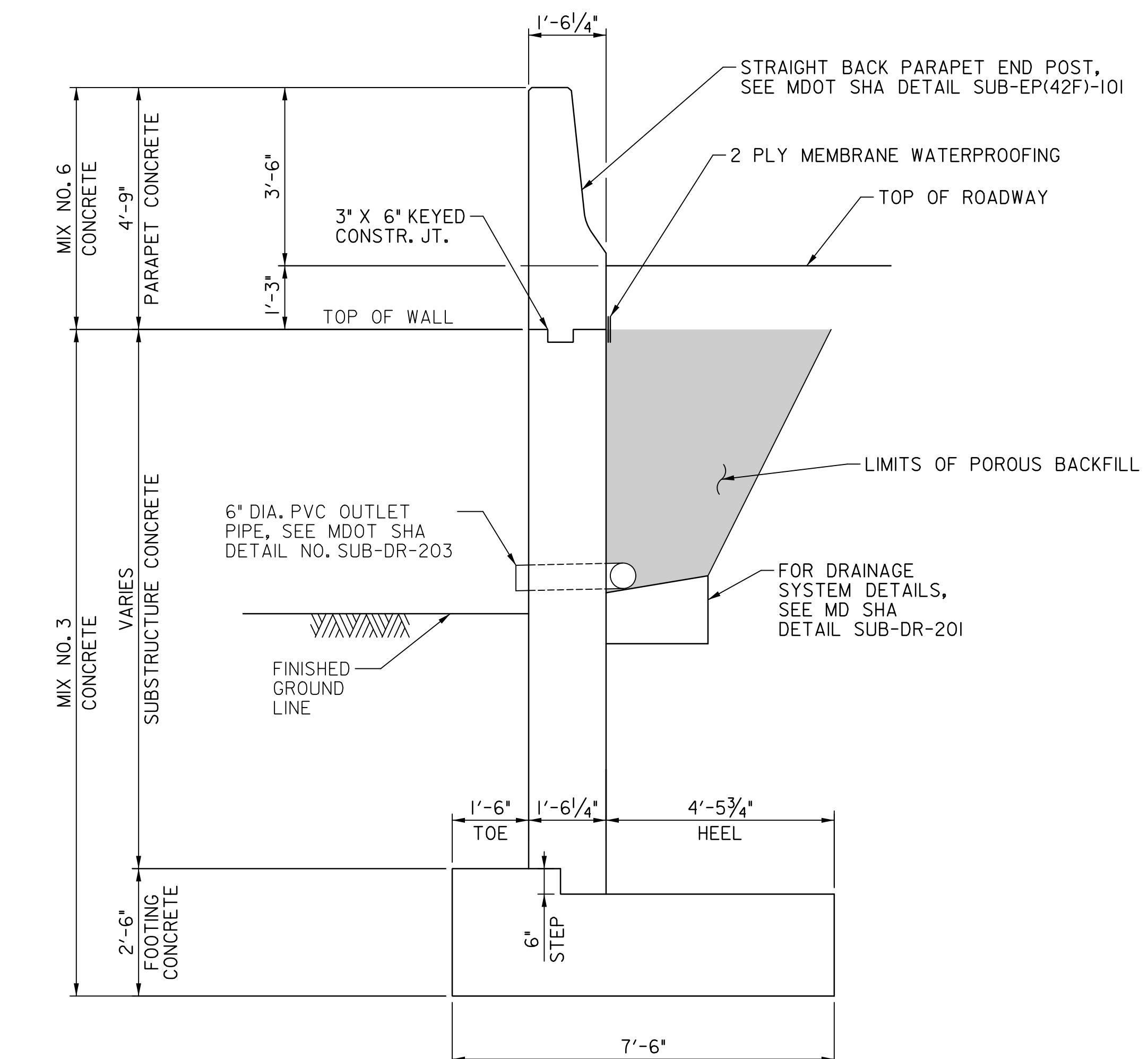
**SCALE: AS-NOTED**

**FREDERICK COUNTY PROJECT NO.:**

DWG 14 QF 23



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



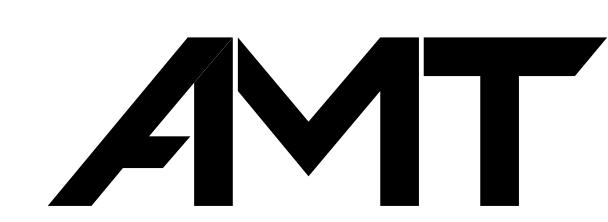
SECTION A-A  
SCALE: 1/2" = 1'-0"

S-06

**FREDERICK COUNTY, MARYLAND**  
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OFFICE OF TRANSPORTATION ENGINEERING  
FREDERICK COUNTY, MARYLAND

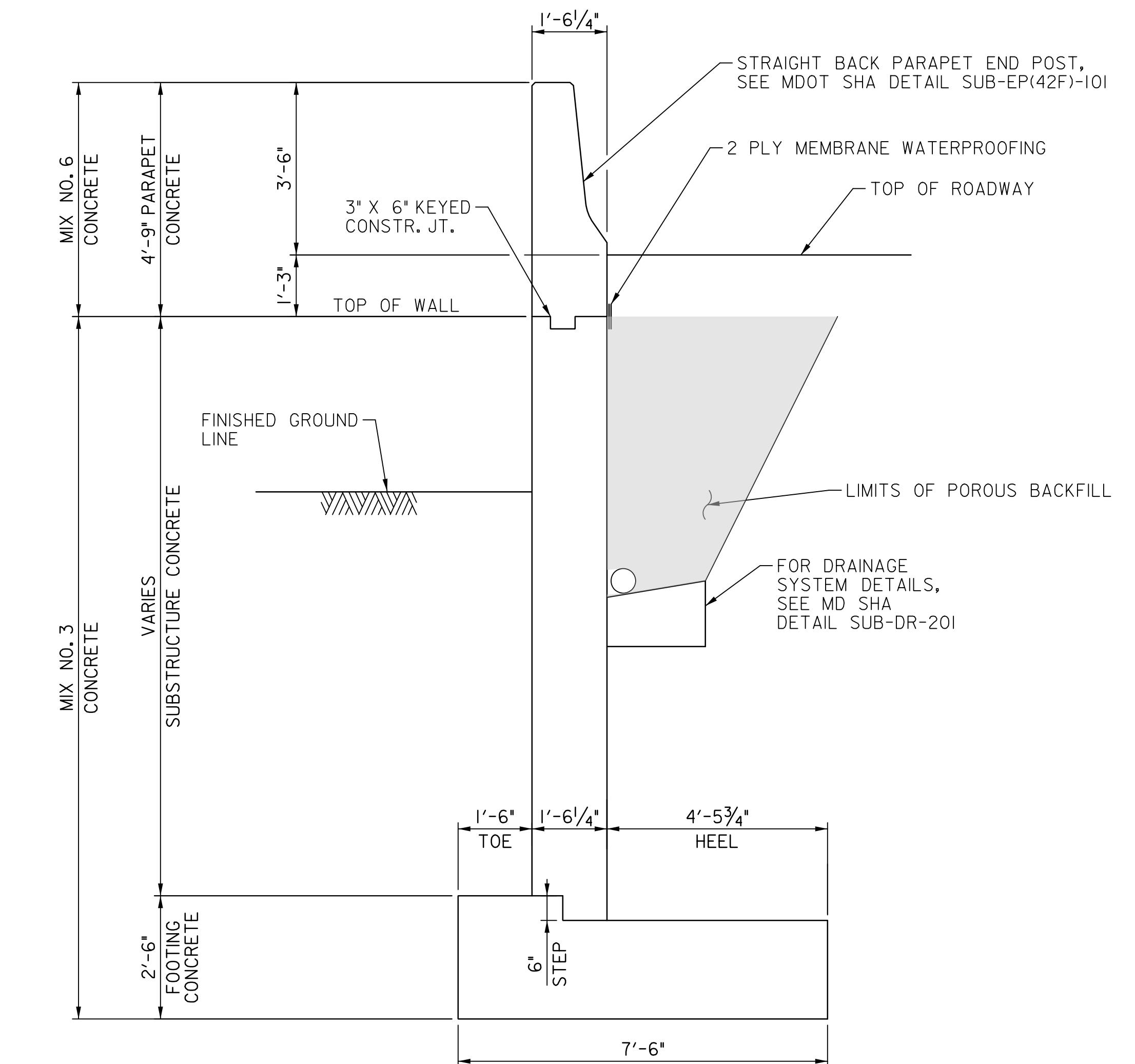
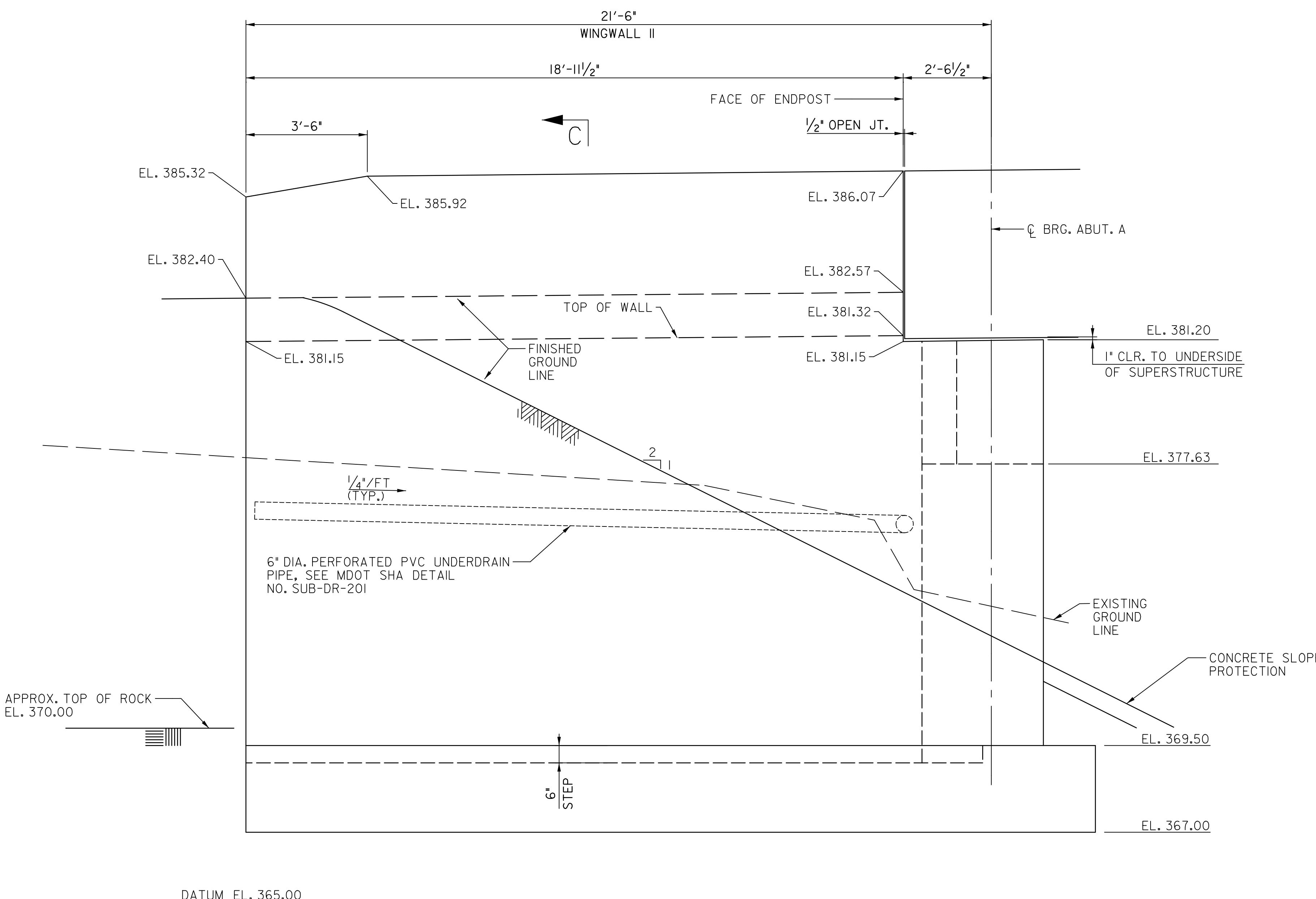
**BRIDGE NO. F04-09**  
**OLD MILL ROAD OVER**  
**MARYLAND MIDLAND RAILROAD**

**ABUTMENT A - WINGWALL I**



A. MORTON THOMAS AND ASSOCIATES, INC.  
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FREDERICK COUNTY PROJECT NO.: C6011.6011.01  
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DATUM EL. 365.00

 ELEVATION - WINGWALL  
SCALE:  $1/2'' = 1'-0''$

SECTION C-C

S-07

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

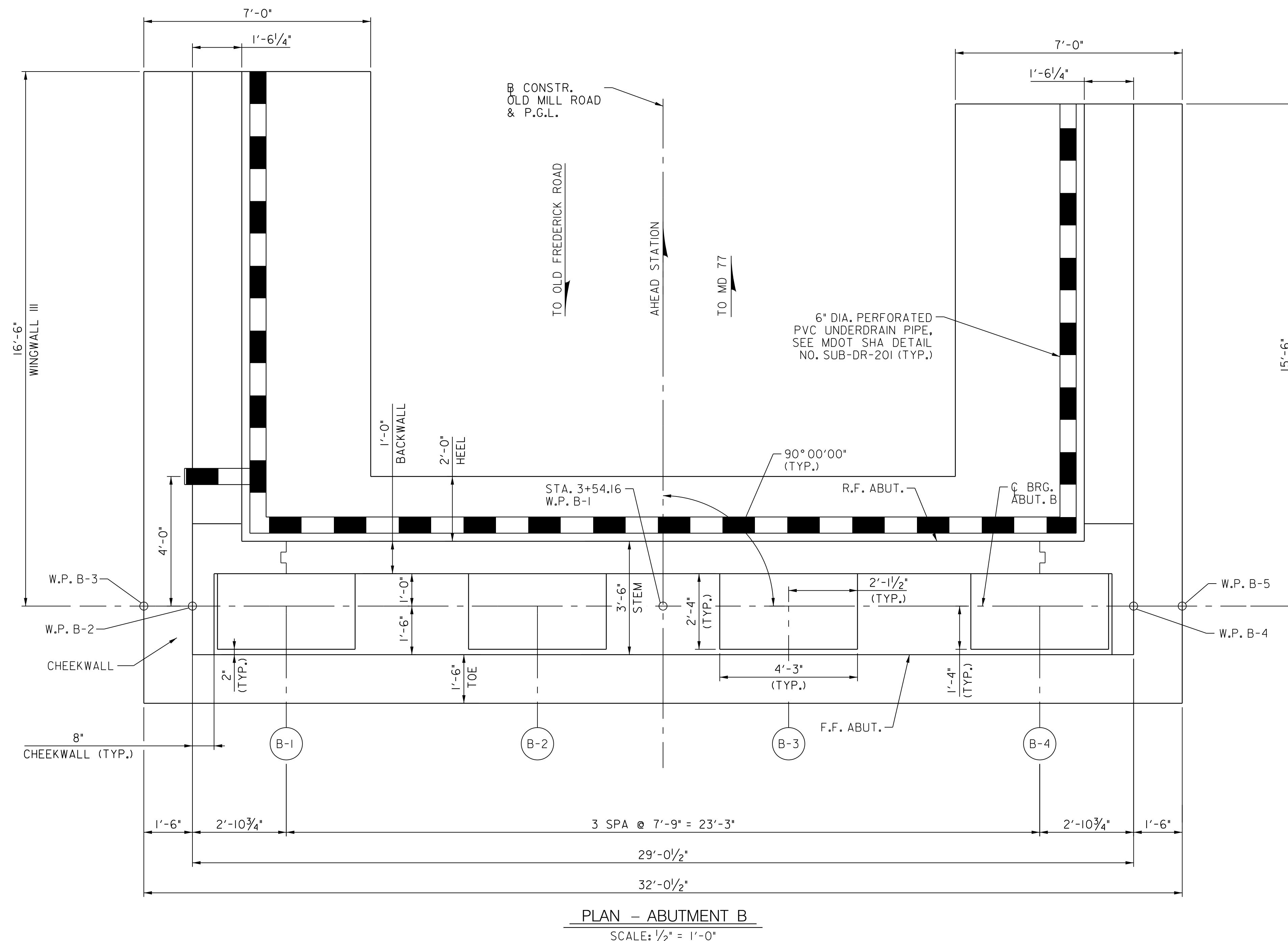
**BRIDGE NO. F04-09  
OLD MILL ROAD OVER  
MARLBYAND MIDLAND RAILROAD**

## **ABUTMENT A - WINGWALL II**

The logo for FMI (Florida Municipal Investors) is displayed. It consists of a stylized, blocky letter 'F' on the left, followed by the letters 'MI' in a bold, sans-serif font. To the right of 'MI' are two vertical bars of equal height, creating a graphic that looks like a building or a window frame.

**A. MORTON THOMAS AND ASSOCIATES, INC.**  
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N



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**

**MARYLAND MIDLAND RAILROAD**

**ABUTMENT B - PLAN**

**AMT**

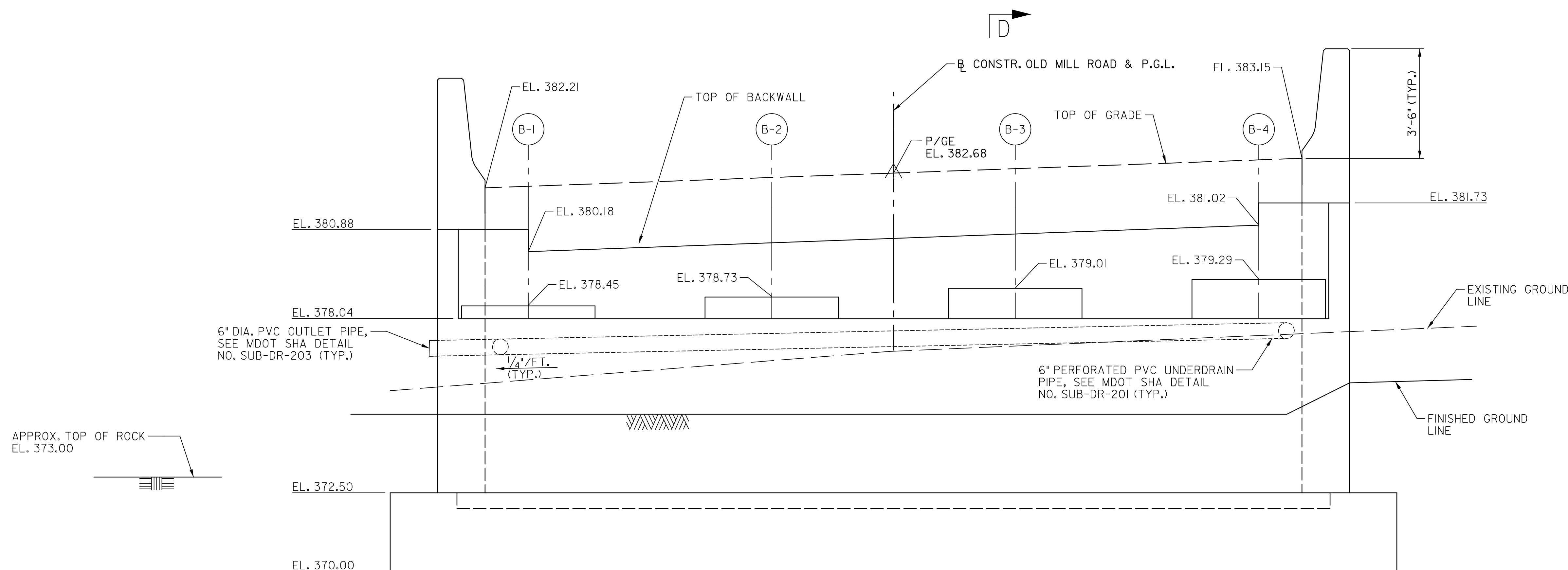
A. MORTON THOMAS AND ASSOCIATES, INC.  
901 DULANEY VALLEY ROAD, SUITE 710  
TOWSON, MD 21204

DATE: OCTOBER 2023

SCALE: AS-NOTED

FREDERICK COUNTY PROJECT NO.: C6011.6011.01

DWG. 17 OF 23



**NOTES:**

1. FOR SECTION D-D SEE SHEET S-10.
2. FOR WINGWALL DETAILS, SEE SHEET S-II & S-12.
3. ABUTMENT SEAT ELEVATIONS, BACKWALL ELEVATIONS, AND TOP OF GRADE ELEVATIONS ARE GIVEN AT THE FRONT FACE OF BACKWALL.
4. PEDESTAL ELEVATIONS ARE GIVEN AT THE CENTERLINE OF BEARING.

DATUM EL. 365.00

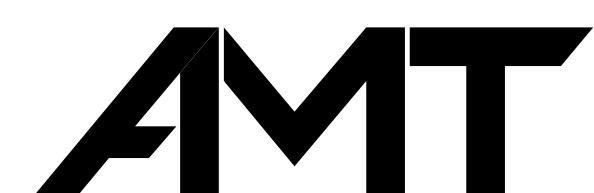
ELEVATION - ABUTMENT B  
SCALE:  $1/2" = 1'-0"$

S-09

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

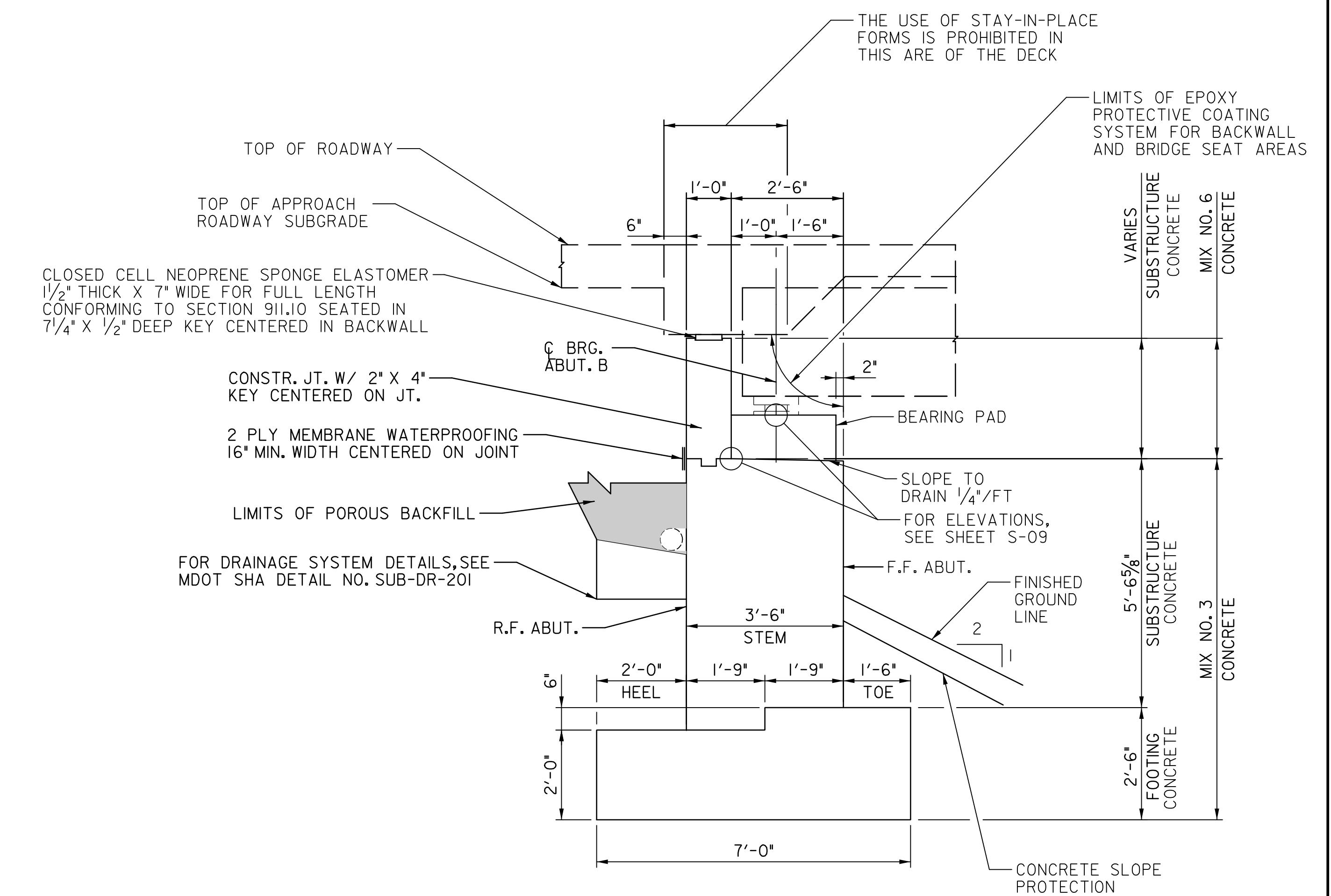
**BRIDGE NO. F04-09**  
**OLD MILL ROAD OVER**  
**MARYLAND MIDLAND RAILROAD**

**ABUTMENT B - ELEVATION**



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

DATE: OCTOBER 2023  
SCALE: AS-NOTED  
FREDERICK COUNTY PROJECT NO.: C6011.6011.01  
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SECTION D-D – DIMENSIONS  
SCALE:  $\frac{1}{2}$ " = 1'-0"

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

S-10

**FREDERICK COUNTY, MARYLAND**  
DIVISION OF PUBLIC WORKS  
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FREDERICK COUNTY, MARYLAND

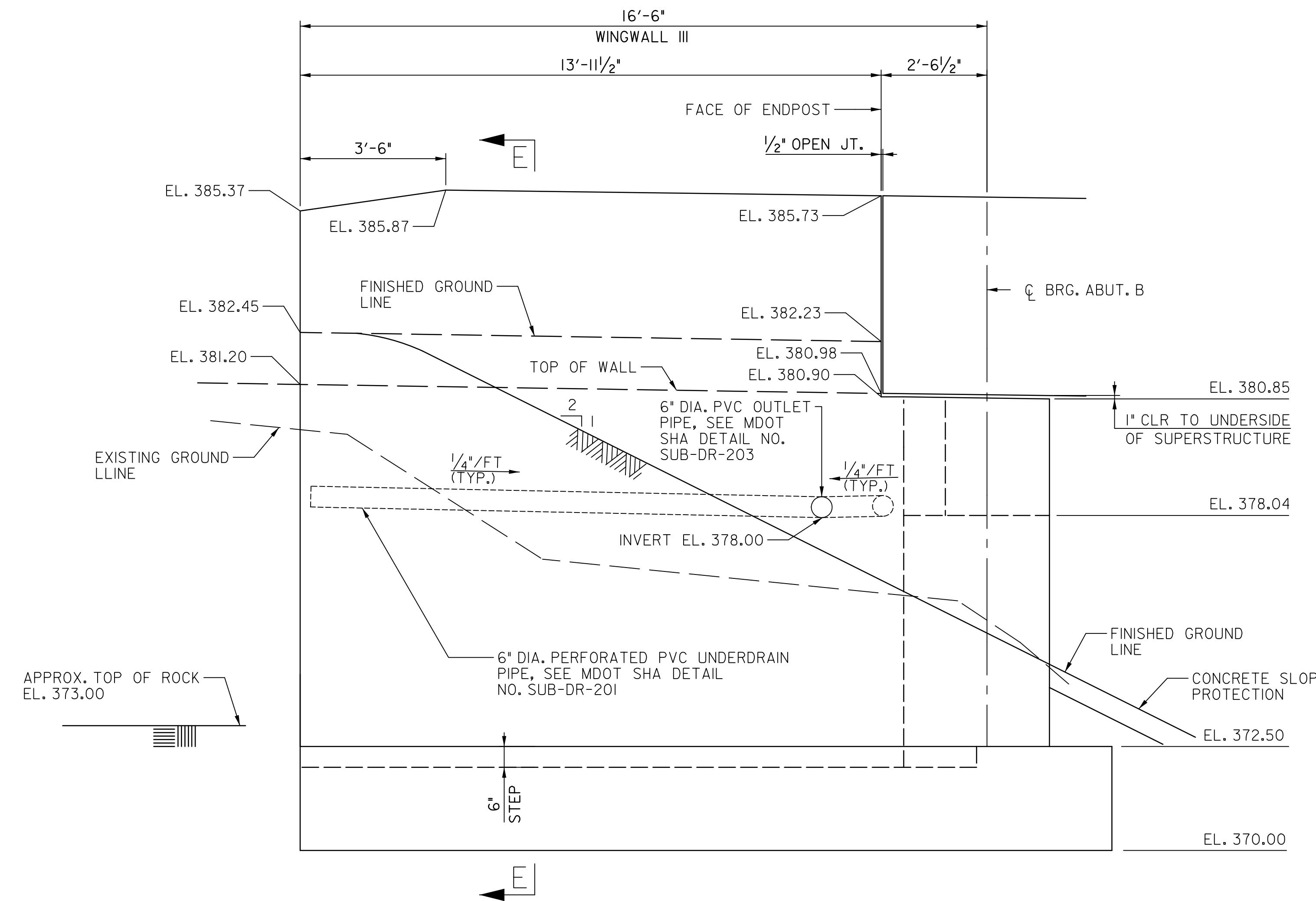
**BRIDGE NO. F04-09**  
**OLD MILL ROAD OVER**  
**MARYLAND MIDLAND RAILROAD**

**ABUTMENT B - SECTION**



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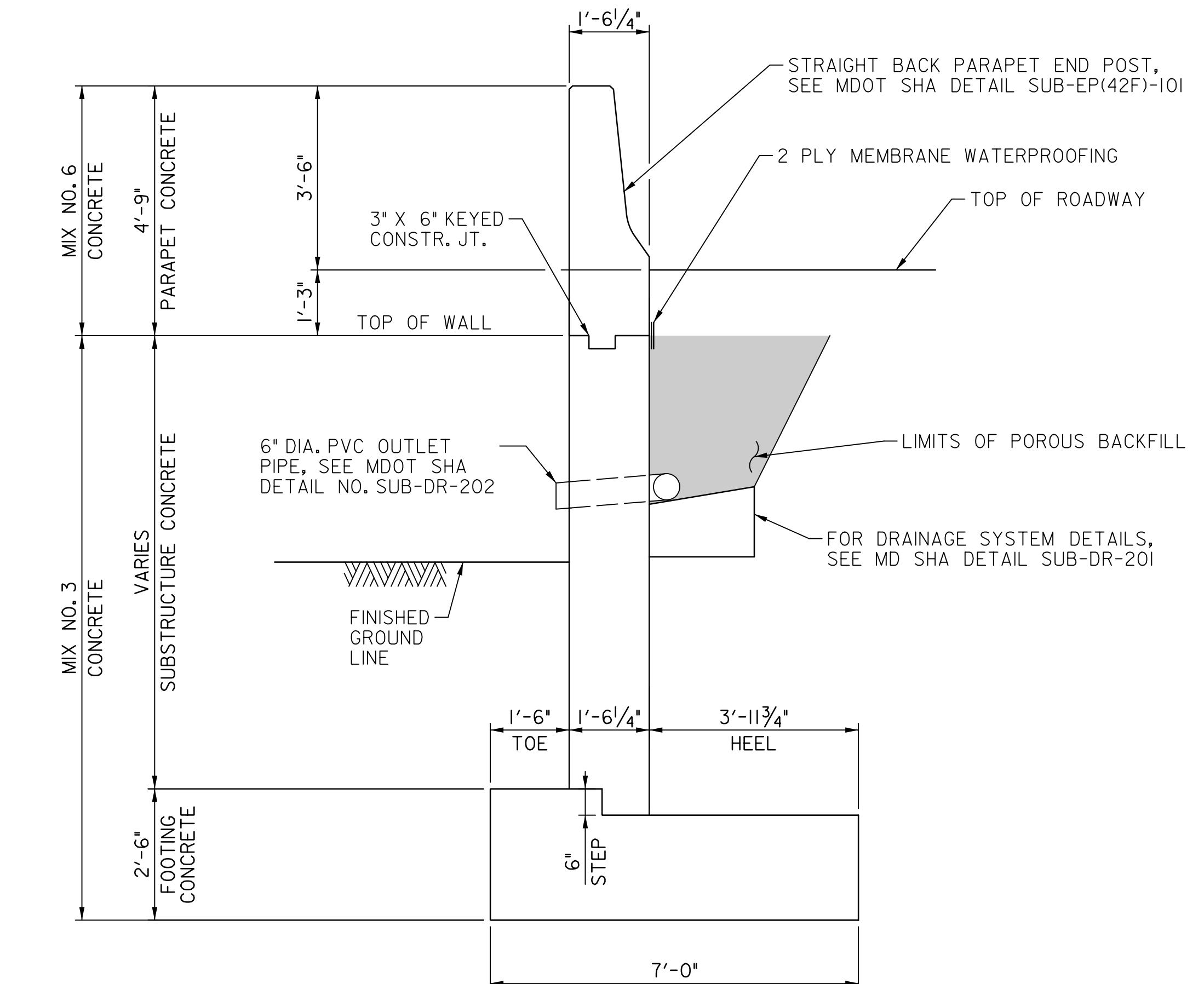
DATE: OCTOBER 2023  
SCALE: AS-NOTED  
FREDERICK COUNTY PROJECT NO.: C6011.6011.01  
DWG. 19 OF 23



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  
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FREDERICK COUNTY, MARYLAND

**BRIDGE NO. F04-09**

**OLD MILL ROAD OVER**

**MARYLAND MIDLAND RAILROAD**

**ABUTMENT B - WINGWALL III**

**AMT**

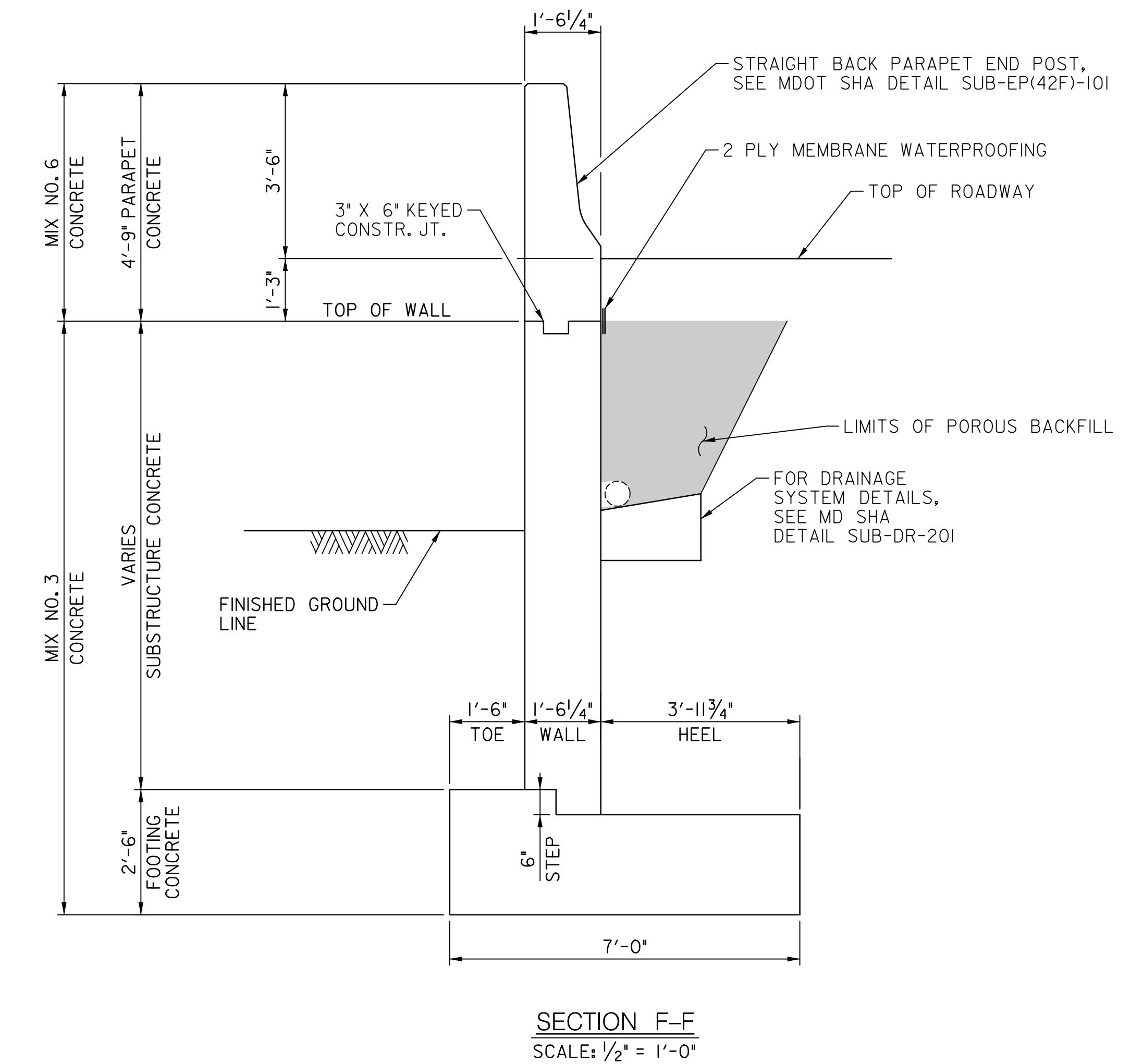
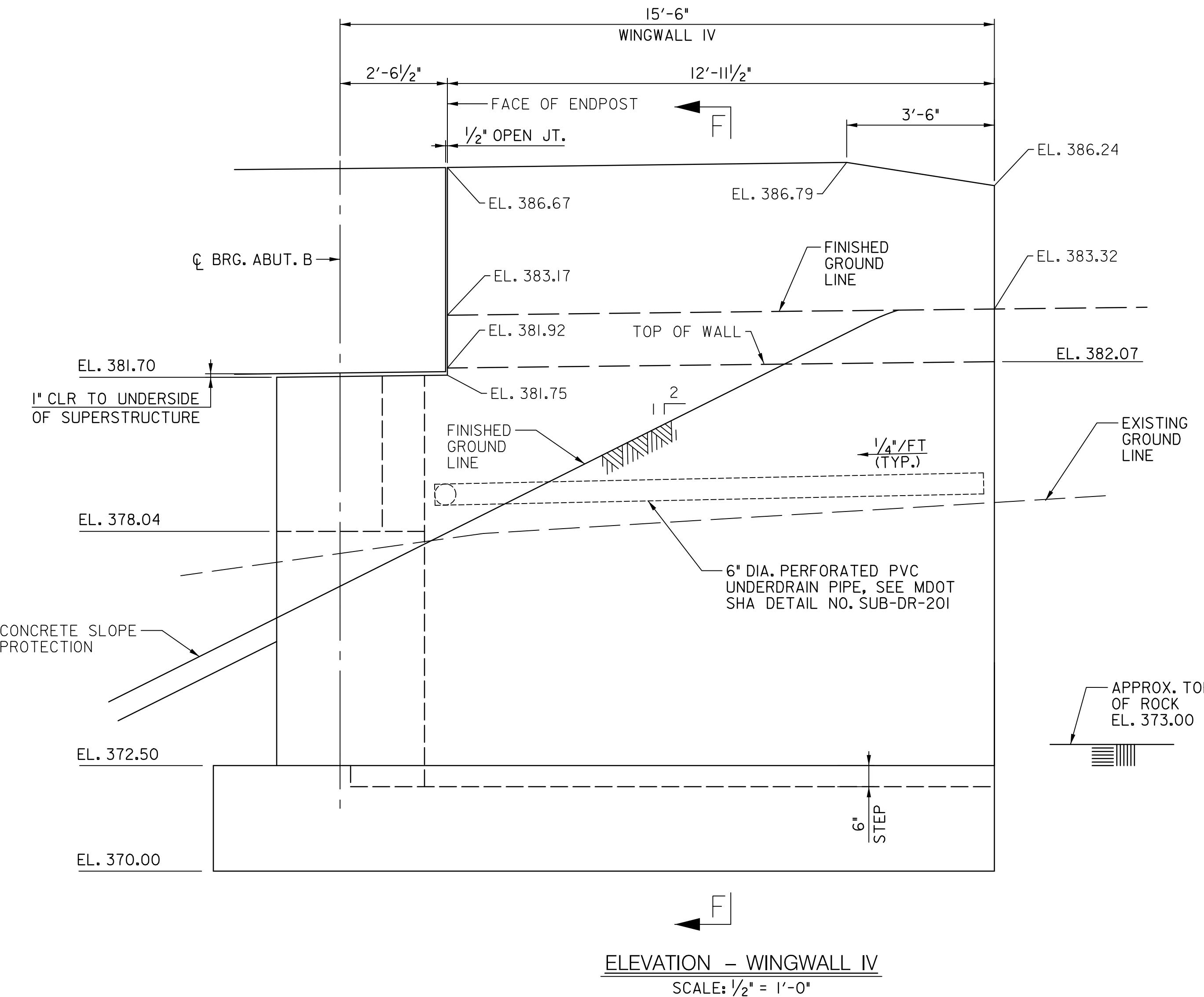
A. MORTON THOMAS AND ASSOCIATES, INC.  
901 DULANEY VALLEY ROAD, SUITE 710  
TOWSON, MD 21204

DATE: OCTOBER 2023

SCALE: AS-NOTED

FREDERICK COUNTY PROJECT NO.: C6011.6011.01

DWG. 20 OF 23



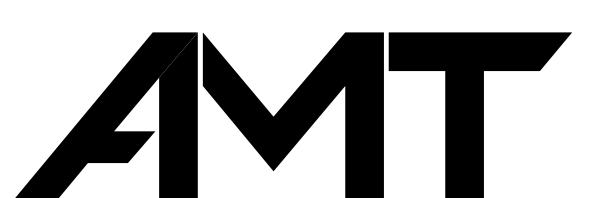
DATUM EL. 365.00

S-12

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

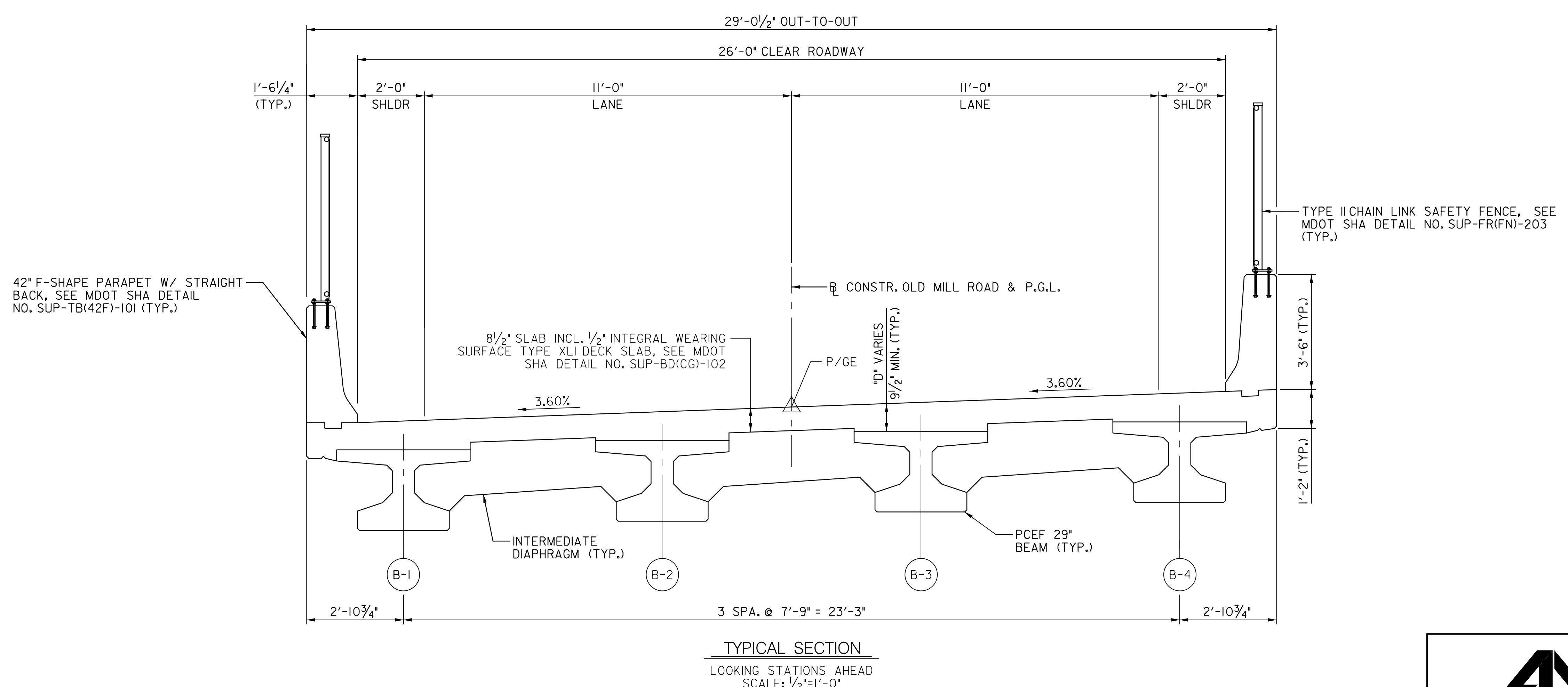
**BRIDGE NO. F04-09**  
**OLD MILL ROAD OVER**  
**MARYLAND MIDLAND RAILROAD**

**ABUTMENT B - WINGWALL IV**



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TOWSON, MD 21204

DATE: OCTOBER 2023  
SCALE: AS-NOTED  
FREDERICK COUNTY PROJECT NO.: C6011.6011.01  
DWG. 21 OF 23



NOTES:

I. SLIP FORMING OF PARAPETS WILL BE PERMITTED.

S-13

**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**

## **TYPICAL SECTION**

# AMT

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

DATE: OCTOBER 2023 SCALE: AS-NOTED

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FREDERICK COUNTY PROJECT NO.: DWG 22 OF 23

