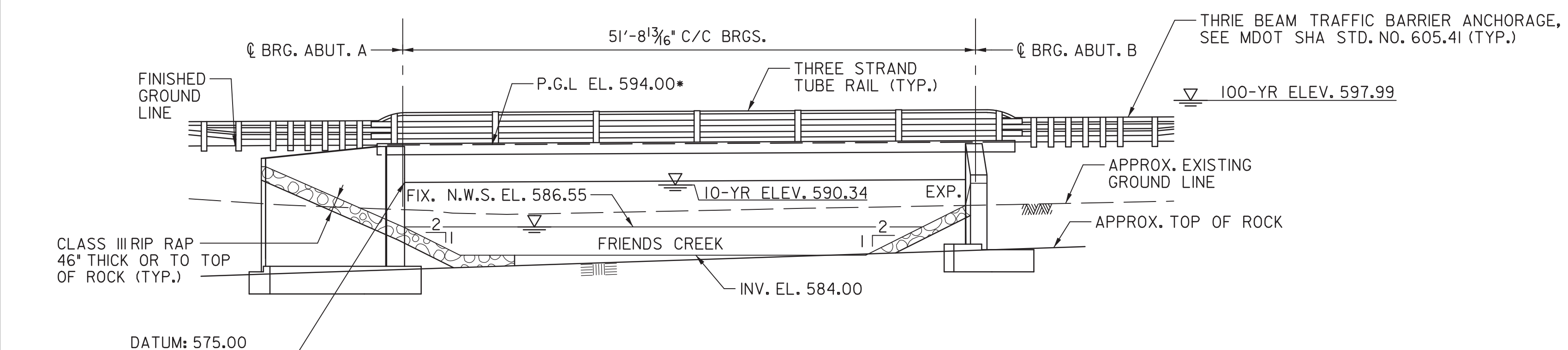


PLAN
SCALE: 1/8" = 1'-0"



ELEVATION
SCALE: 1/8" = 1'-0"

VERTICAL CURVE DATA - HORNETS NEST ROAD

P.V.I. STA. 1+90.10
ELEV. = 593.55
V.C.L. = 130.00'
CORR. = +0.55'
S/E = VARIES
DES. SPEED = 25 MPH

-2.91% +0.50%

VERTICAL GRADE DATA - HORNETS NEST ROAD

STA. 2+55.10 ELEV. 593.88
+0.50%
STA. 3+65.00 ELEV. 594.43

VERTICAL CURVE DATA - HORNETS NEST ROAD

P.V.I. STA. 4+15.00
ELEV. = 594.68
V.C.L. = 100.00'
CORR. = +2.20'
S/E = VARIES
DES. SPEED = 25 MPH

+0.50% +18.10%

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: _____

GENERAL NOTES

- SPECIFICATIONS: MDOT SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED JULY 2019.
- DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, DATED 2017.
- LOADING: HL-93
- 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 PSIFOR ELEMENTS USING MIX NO. 3
f'c = 4,000 PSIFOR ELEMENTS USING MIX NO. 6
- ALL CONCRETE FOR SUPERSTRUCTURE OVERLAY AND END PORTION OF SLAB SHALL BE MIX NO. 8 CONCRETE (4,000 PSI) CONTAINING SYNTHETIC FIBERS (SEE SECTION 902.15).
- ALL CONCRETE FOR CURBS SHALL BE MIX NO. 6 (4,500 PSI) CONTAINING SYNTHETIC FIBERS (SEE SECTION 902.15)
- 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.
- THE FOLLOWING REINFORCEMENT SHALL BE EPOXY COATED:
ABUTMENT BRIDGE SEATS
CURBS
PRESTRESSED CONCRETE SLABS
CONCRETE OVERLAY
- MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE 2" EXCEPT FOR THE FOLLOWING LOCATIONS:
- | LOCATION | CLEAR COVER |
|--|-------------|
| BOTTOM AND SIDES OF ALL FOOTINGS.
BOTTOM OF PRESTRESSED CONCRETE SLABS. | 3 IN. |
- FOR TIES AND STIRRUPS, STANDARD ACIBENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACIBENDING 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.

HORIZONTAL CURVE DATA - HORNETS NEST ROAD

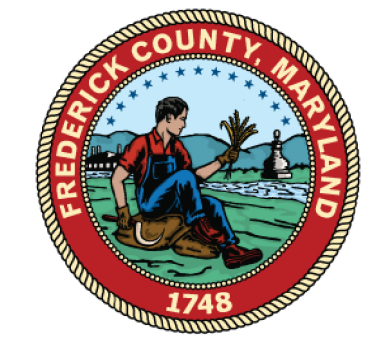
P.I. STA. = 2+07.70
Δ = 29° 12' 37" RT.
D = 24° 48' 12"
R = 231.00'
T = 60.19'
L = 117.77'
E = 7.71'
S/E = VARIES
DES. SPEED = 25 MPH

HORIZONTAL CURVE DATA - HORNETS NEST ROAD

P.T. STA. 2+65.28 TO P.C. STA. 3+78.65
N 12° 55' 46" E

HORIZONTAL CURVE DATA - HORNETS NEST ROAD

P.I. STA. = 4+12.79
Δ = 25° 58' 53" RT.
D = 38° 42' 48"
R = 148.00'
T = 34.14'
L = 67.11'
E = 3.89'
S/E = VARIES
DES. SPEED = 25 MPH



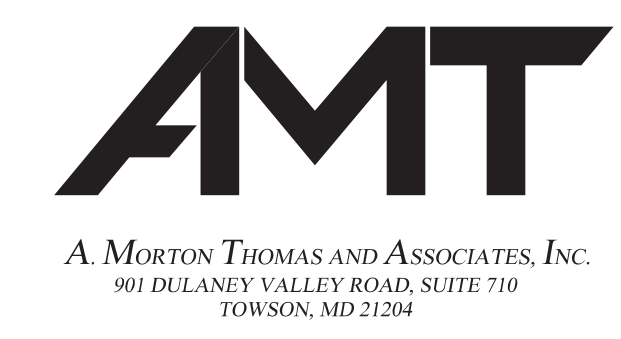
BRIDGE REPLACEMENT
PRESTRESSED CONCRETE BEAM
BRIDGE NO. F05-22
ON HORNETS NEST ROAD
OVER FRIENDS CREEK

GENERAL PLAN AND ELEVATION

SCALE AS-NOTED ADVERTISED DATE: N/A CONTRACT NO.: RFP 16-019A

DESIGNED BY: GCD COUNTY: FREDERICK
DRAWN BY: JRM LOGMILE: XXXX - XXXX
CHECKED BY: KAR

SHEET NO. 6 OF 32



BY: jpiro