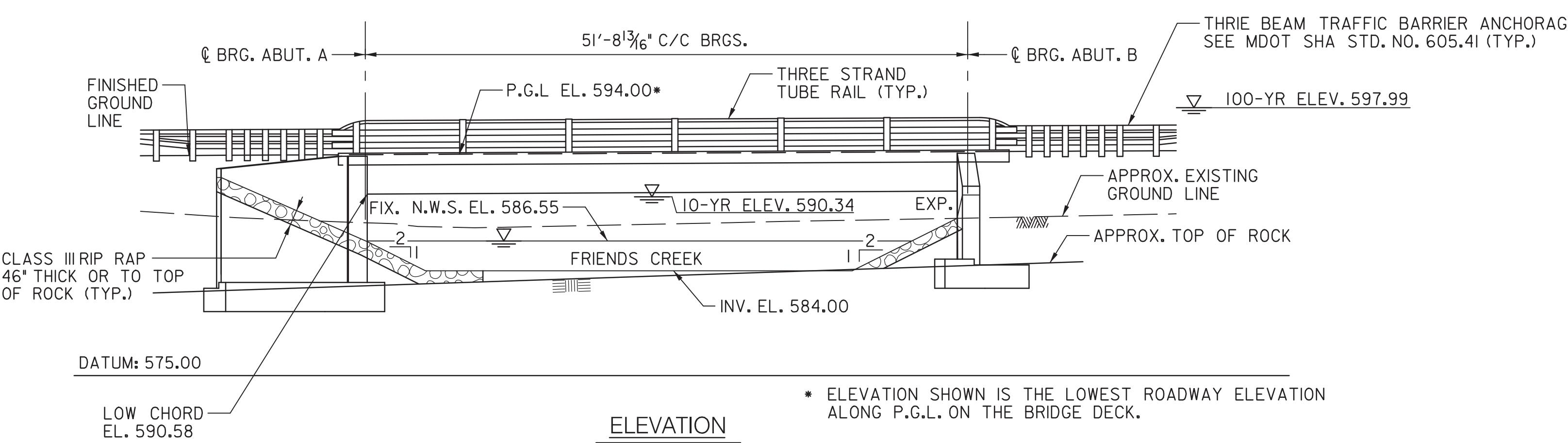


PLAN
SCALE: $1/8" = 1'-0"$



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

VERTICAL CURVE DATA—
HORNETS NEST ROAD

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

VERTICAL GRADE DATA—
HORNETS NEST ROAD

STA. 2+55.00 +0.50%
ELEV. 593.88
STA. 3+65.00 +0.50%
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

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:
 $f'c = 3,000$ PSI FOR ELEMENTS USING MIX NO. 3
 $f'c = 4,000$ PSI FOR 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 $f'c_{tl} = 5,950$ 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 $f_y = 60,000$ 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.

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 ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING 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

HORIZONTAL CURVE DATA —
HORNETS NEST ROAD

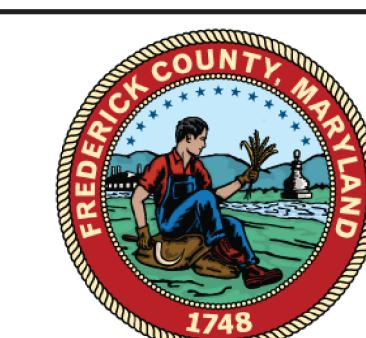
HORIZONTAL CURVE DATA —
HORNETS NEST ROAD

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

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

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

SHEET S-01



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 NA CONTRACT NO. RFP 16-019A

DESIGNED BY GCD COUNTY FREDERICK

DRAWN BY JRM LOGMILE XXXX - XXXX

CHECKED BY KAR



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

SHEET NO. 6 OF 32