STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS
REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15	DATED (REVISED)	1/20/23
AS-2-15	DATED (REVISED)	7/21/23
PSID-1-13	DATED (REVISED)	1/20/23
SBR-1-20	DATED (REVISED)	7/21/23
SICD-2-14	DATED (REVISED)	1/15/21

DESIGN SPECIFICATIONS
THIS STRUCTURE CONFORMS TO THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

OPERATIONAL IMPORTANCE
A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING
DESIGN LOADING INCLUDES:
- VEHICULAR LIVE LOAD: HL-93
- FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SF

DESIGN DATA
CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE CLASS QC5, WITH 3/8" MAX. AGGREGATE SIZE - COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFT)

CONCRETE REINFORCEMENT:
EPOXY COATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI (DECK, ABUTMENTS, DIAPHRAGMS, APPROACH SLAB)

GFRP REINFORCEMENT (BRIDGE RAILING)

STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI

CONCRETE FOR PRESTRESSED BEAMS:
COMPRESSIVE STRENGTH (FINAL) - 7.5 KSI
COMPRESSIVE STRENGTH (RELEASE) - 6.5 KSI

WELDED WIRE FABRIC:
YIELD STRENGTH - 70 KSI

PRESTRESSING STRAND:
AREA = 0.217 SQ.IN.
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

MONOLITHIC WEARING SURFACE
MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

MAINTENANCE OF TRAFFIC
FOR MAINTENANCE OF TRAFFIC NOTES AND DETAILS, SEE ROADWAY PLANS

ROCK-SOCKETED SHAFTS
THE MAXIMUM FACTORED LOAD TO BE SUPPORTED BY EACH DRILLED SHAFT IS 278 KIPS AT THE ABUTMENTS. THIS LOAD IS RESISTED ENTIRELY BY TIP RESISTANCE. AT THE REAR ABUTMENT, THE FACTORED TIP RESISTANCE IS 8,129 KIPS. AT THE FORWARD ABUTMENT, THE FACTORED TIP RESISTANCE IS 11,113 KIPS.

DECK PLACEMENT DESIGN ASSUMPTIONS
THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.46 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65"

ITEM 202, STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
THIS ITEM SHALL INCLUDE REMOVAL OF THE EXISTING STRUCTURE IN ACCORDANCE WITH ITEM 202 WHEN NO LONGER NEEDED FOR MAINTENANCE OF TRAFFIC. THE USE OF EXPLOSIVES AND HEADACHE BALLS WILL NOT BE PERMITTED. THE USE OF HOE-RAMS WILL NOT BE PERMITTED WITHIN 3'-0" OF THE FULL DEPTH CUT LINE DURING PHASE 1 REMOVAL. THE USE OF HOE-RAMS IS NOT RESTRICTED DURING PHASE 2 REMOVAL. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

THE EXISTING ABUTMENT CAPS SHALL BE REMOVED ENTIRELY AND THE EXISTING ABUTMENT COLUMNS LEFT IN PLACE.

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN
UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH 503 EXCEPT THAT BACKFILL MATERIAL PLACED BEHIND THE ABUTMENTS SHALL BE 703.17 MATERIAL PLACED IN 6 INCH LIFTS AS PER C&MS 304.05.

ITEM 503, COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN
THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATIONS. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING. THE DEPARTMENT WILL NOT MAKE ADDITIONAL PAYMENT FOR PROVIDING AN ALTERNATE DESIGN.

ABBREVIATIONS
ABUT. - ABUTMENT
APPR. - APPROACH
APPRX. - APPROXIMATE
ADT - AVERAGE DAILY TRAFFIC
ADTT - AVERAGE DAILY TRUCK TRAFFIC
BRG. - BEARING
BM - BENCHMARK
BTWN. - BETWEEN
BOT. - BOTTOM
C/C - CENTER-TO-CENTER
℄ - CENTERLINE
C.J. - CONSTRUCTION JOINT
CPP - CORRUGATED PLASTIC PIPE
CLR. - CLEAR
CMS OR C&MS - CONSTRUCTION AND MATERIAL SPECIFICATIONS
CONST. - CONSTRUCTION
CFS - CUBIC FEET PER SECOND
Ø - DIAMETER
DWG. - DRAWING
E.F. - EACH FACE
EL. OR ELEV. - ELEVATION
EMBED. - EMBEDMENT
EQ. - EQUAL
EX. - EXISTING
EXP. - EXPANSION
F.A. - FORWARD ABUTMENT
F.F. - FAR FACE
℄ - FLOWLINE
FT. - FOOT
FWD. - FORWARD
FWS - FUTURE WEARING SURFACE
GFRP - GLASS FIBER REINFORCED POLYMER
HW - HIGHWATER
JT. - JOINT
LF - LEFT FORWARD
LT. - LEFT
M.C. - MECHANICAL CONNECTOR
MAX. - MAXIMUM
MGS - MIDWEST GUARDRAIL SYSTEM
MIN. - MINIMUM
N.F. - NEAR FACE
NPCPP - NON-PERFORATED CORRUGATED POLYETHYLENE PIPE
NO. - NUMBER
OHWM - ORDINARY HIGH WATER MARK
O/O - OUT-TO-OUT
PCPP - PERFORATED CORRUGATED POLYETHYLENE PIPE
PEJF - PREFORMED EXPANSION JOINT FILLER
Q - FLOW
R.A. - REAR ABUTMENT
R - RADIUS
REQ'D - REQUIRED
RT. - RIGHT
SER. - SERIES
SPA. - SPACES
SF - SQUARE FEET
STA. - STATION
STD. - STANDARD
T/R - TOP OF ROCK
T.O.S. - TOE OF SLOPE
T/T - TOE-TO-TOE
TYP. - TYPICAL
U.N.O. - UNLESS NOTED OTHERWISE
V - VELOCITY
VPI - VERTICAL POINT OF INTERSECTION
WWR - WELDED WIRE REINFORCEMENT

GENERAL NOTES
BRIDGE NO. GEA-00322-19.410
OVER SOUTH BRANCH PHELPS CREEK

SFN 2801508
DESIGN AGENCY fishbeck
DESIGNER BMG | CHECKER TLC
REVIEWER JBD 04/17/24
PROJECT ID 115823
SUBSET S.03 | TOTAL 28
SHEET P.33 | TOTAL 69

GEA-322-19.410

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/29/2024 TIME: 9:57:01 AM USER: bgarrison
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