

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

- AS-1-15 DATED/REVISED 01-20-23
- AS-2-15 DATED/REVISED 01-20-23
- DS-1-92 DATED/REVISED 07-15-22
- PSBD-2-07 DATED/REVISED 07-20-18
- TST-2-21 DATED/REVISED 07-16-21

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017 , AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN LOADING

DESIGN LOADING: HL93 (SUPERSTRUCTURE)
HS20-44 AND THE ALTERNATE MILITARY LOADING
(EXISTING SUBSTRUCTURE)

FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ.FT.

DESIGN DATA

- CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI
(SUPERSTRUCTURE)
- CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI
(SUBSTRUCTURE)
- REINFORCING STEEL - ASTM A615 OR A996 GRADE 60, MINIMUM
YIELD STRENGTH 60 KSI

CONCRETE FOR PRESTRESSED BEAMS:
COMPRESSIVE STRENGTH (FINAL) - 7.0 KSI
COMPRESSIVE STRENGTH (RELEASE) - 5.0 KSI
PRESTRESSING STRAND:
AREA = 0.167 SQ.IN.
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

SCOUR ELEVATIONS:

	REAR ABUTMENT	FORWARD ABUTMENT
DESIGN FLOOD	738.74	738.74

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL

STEEL DRIP STRIP

2.5" CONCRETE COVER

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 0.95 KIPS FOR A TOTAL MACHINE LOAD OF 7.6 KIPS.

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

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF

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

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN:

UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH 503 EXCEPT THAT THE BACKFILL MATERIAL PLACED BEHIND THE ABUTMENTS SHALL BE 703.17 MATERIAL PLACED IN 6" LIFTS AS PER 304.05.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN: THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05. THIS WORK CONSISTS OF: 501.05.

- A. REMOVAL OF EXISTING REINFORCED CONCRETE BRIDGE DECK, APPROACH SLABS, WEARING SURFACE, AND STEEL RAILINGS.
- B. THE EXISTING BRIDGE ABUTMENTS MAY REMAIN IN PLACE DURING CONSTRUCTION TO FUNCTION AS SHORING WHILE THE PROPOSED ABUTMENTS ARE BEING CONSTRUCTED. ONCE CONSTRUCTION OF THE PROPOSED ABUTMENTS ARE COMPLETE, THE EXISTING ABUTMENTS WILL BE REMOVED TO THE TOP OF FOOTING AT AN APPROXIMATE ELEVATION OF 738.55± AT THE REAR ABUTMENT AND 738.35± AT THE FORWARD ABUTMENT.

CUT LINE CONSTRUCTION JOINT PREPARATION

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.



EXISTING STRUCTURE VERIFICATION

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

FRICTION PILES

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE (UBV) IS 231 KIPS PER PILE FOR THE ABUTMENT PILES.

ABUTMENT PILES:
REAR : 17 - 14" C.I.P. REINFORCED CONCRETE PILES 50 FEET LONG, ORDER LENGTH
FWD : 17 - 14" C.I.P. REINFORCED CONCRETE PILES 55 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEMS

BEARING PAD SHIMS:

PLACE 1/8" THICK PREFORMED BEARING PAD SHIMS, PLAN AREA 6 INCHES BY 9 INCHES, UNDER THE ELASTOMERIC BEARING PADS WHERE REQUIRED FOR PROPER BEARING. FURNISH TWO SHIMS PER BEAM. THE DEPARTMENT WILL MEASURE THIS ITEM BY THE TOTAL NUMBER SUPPLIED. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516 - 1/8" PREFORMED BEARING PADS. ANY UNUSED SHIMS WILL BECOME THE PROPERTY OF THE STATE. ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

ITEM 515, PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB27-48, AS PER PLAN

THE CB27x48 FASCIA BEAMS SHALL BE CAST WITH INSERTS FOR THE ANCHOR RODS FOR THE TST-2-21 RAILING ASSEMBLY AT THE LOCATIONS SHOWN IN THESE PLANS.

ENVIRONMENTAL COMMITMENTS

DUE TO THE KNOWN PRESENCE OF CLIFF SWALLOWS AND THEIR NESTS WITHIN THE PROJECT AREA, ODOT SHALL REMOVE ALL BIRD NESTS ON THE SUB STRUCTURE OF THE BRIDGE BETWEEN OCTOBER 1 AND MARCH 1 AND KEEP NESTING BIRDS OFF UNTIL CONSTRUCTION BEGINS. THE CONTRACTOR SHALL NOT HARM OR KILL ANY BIRDS. IF ANY BIRD NEST IS FOUND ON THE BRIDGE WITHIN THE PROJECT WORK LIMITS, CREWS SHALL WAIT UNTIL THE SPECIES HAS MOVED OFF THE PROJECT SITE UNHARMED BEFORE WORK CAN CONTINUE.

NO WORK SHALL BE PERFORMED PRIOR TO JUNE OR AFTER OCTOBER TO AVOID PEAK FLOW EVENTS DURING CONSTRUCTION.

ABBREVIATIONS:
THE FOLLOWING ABBREVIATIONS HAVE BEEN USED THROUGHOUT THESE PLANS TO INDICATE THE DESIGNATIONS CONTAINED IN THE LEGEND BELOW:

- ABUT. - ABUTMENT
- BRG. - BEARING
- BOT. - BOTTOM
- C/C - CENTER TO CENTER
- ℄ - CENTERLINE
- C.J. - CONSTRUCTION JOINT
- CLR. - CLEAR
- CMS - CONSTRUCTION AND MATERIAL SPECIFICATIONS
- DIA. - DIAMETER
- EA. - EACH
- E.F. - EACH FACE
- EL. - ELEVATION
- EQ. - EQUAL
- EXIST. - EXISTING
- EXP. - EXPANSION
- F.A. - FORWARD ABUTMENT
- F.F. - FAR FACE
- FWD. - FORWARD
- MAX. - MAXIMUM
- MIN. - MINIMUM
- N.F. - NEAR FACE
- PEJF - PREFORMED EXPANSION JOINT FILLER
- PROP. - PROPOSED
- R.A. - REAR ABUTMENT
- R/W - RIGHT OF WAY
- SER. - SERIES
- SPA. - SPACING/SPACES
- STA. - STATION
- STR. - STRAIGHT
- T&B - TOP AND BOTTOM
- TYP. - TYPICAL
- VAR. - VARIES

SFN	
2601567	
DESIGN AGENCY	
DESIGNER	CHECKER
NMS	DJG
REVIEWER	
05/11/25	
PROJECT ID	
102931	
SUBSET	TOTAL
2	14
SHEET	TOTAL
P.12	29