PROJECT NO.	YEAR	SHEET NO.
47005-4158-04	2014	2

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

GENERAL NOTES:

SPECIFICATIONS:

STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, TENNESSEE DEPARTMENT OF TRANSPORTATION, (MARCH 1, 2006 EDITION)

LOADING:

HS20-44 LIVE LOADING, SEISMIC ZONE B ACCELERATION COEFFICIENT Z=0.10

DESIGN SPECIFICATIONS:

AASHTO STANDARD SPECIFICATIONS, 17TH EDITION WITH ADDENDA.

CONCRETE:

TO BE CLASS "A" (CAST IN PLACE), f'c=3,000 psi, EXCEPT AS NOTED OTHERWISE.

CONCRETE CURING

ALL CONCRETE IN REPAIR AREAS SHALL BE CURED ACCORDING TO THE STANDARD SPECIFICATIONS.

REINFORCING STEEL:

SHALL BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE (EPOXY COAT ALL SLAB STEEL). SEE SECTION 604 & 907 OF THE STANDARD SPECIFICATIONS.

NOTE:

THE CONTRACTOR SHALL PROVIDE 100% CONVENTIONAL FALL PROTECTION FOR WORKERS INSTALLING DECKING ABOVE 15 FEET.

GROUTED BARS IN DRILLED HOLES:

HORIZONTALLY DRILLED HOLES SHALL BE DRILLED ½" IN DIAMETER LARGER THAN THE BAR, CLEANED, PACKED WITH NON-SHRINK GROUT, AND THE BAR ROTATED (NOT DRIVEN) TO ITS SEAT. VERTICALLY DRILLED HOLES SHALL BE DRILLED ¼' IN DIAMETER LARGER THAN THE BAR, CLEANED, PACKED WITH EPOXY GROUT, AND THE BAR SHALL BE DRIVEN TO ITS SEAT. ALL GROUTING MATERIAL SHALL BE APPROVED BY TDOT MATERIALS AND TESTS.

FALSEWORK OVER TRAFFIC:

SEE SECTION 604.06 OF THE STANDARD SPECIFICATIONS.

REQUIREMENTS AND RESTRICTIONS FOR PHASE CONSTRUCTION:

ONE 14'-0" TRAFFIC LANE SHALL BE MAINTAINED AT ALL TIMES ON THE EXISTING BRIDGE AND A WIDE LOAD DETOUR PROVIDED. MAY REQUIRE TEMPORARY CLOSURE, LATE NIGHT OR NON-PEAK HOURS TO COMPLETE ASPHALT REMOVAL AND OVERLAY PLACEMENT. AT LEAST ONE 16'-0" TRAFFIC LANE SHALL BE MAINTAINED AT ALL TIMES ON I-275 SBL AND I-275 NBL.

FORMS AND FALSEWORK:

ALL CONCRETE FORM WORK AND FALSEWORK SHALL BE REMOVED AFTER REPAIRS ARE COMPLETED. COST OF FORMS, FALSEWORK, AND THEIR REMOVAL SHALL BE INCLUDED IN OTHER ITEMS BID ON. THIS WORK SHALL BE COMPLETED BEFORE FINAL PAYMENT IS APPROVED.

FINISHING CONCRETE SURFACES:

CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.21 OF THE TENNESSEE STANDARD SPECIFICATIONS. A CLASS I FINISH FOLLOWED BY AN APPLIED TEXTURE FINISH SHALL BE USED IN LIEU OF A CLASS II FINISH. NO TEXTURE COATING SHALL BE APPLIED PRIOR TO COMPLETION OF PAVING AND HAULING OPERATIONS AT THE BRIDGE SITE. SEE DETAILS, THIS SHEET.

SPECIAL NOTE FOR UTILITIES:

CARE SHALL BE TAKEN WHILE REMOVING AND REPAIRING BRIDGE COMPONENTS SO AS NOT TO DISTURB OR DAMAGE ANY UTILITIES

DEMOLITION:

THE CONTRACTOR SHALL TAKE SPECIAL CARE TO PROTECT ANY PARTS OF THE STRUCTURE THAT ARE NOT TO BE REMOVED SPECIFICALLY. THE CONTRACTOR IS NOT ALLOWED TO USE A HYDRAULIC RAM MOUNTED ON A BACKHOE (COMMONLY CALLED A HOE RAM) OR OTHER SIMILARLY HEAVY EQUIPMENT FOR CONCRETE REMOVAL. PNEUMATIC HAMMERS MAY BE USED, AS SPECIFIED, TO REMOVE UNSOUND CONCRETE. SAWING OR CUTTING OF THE CONCRETE IS ACCEPTABLE SO LONG AS ANY SPECIFIED PROJECTION OF THE EXISTING REINFORCEMENT IS MAINTAINED. ALL DEVICES PROPOSED FOR CONCRETE DEMOLITION SHALL MEET THE APPROVAL OF THE ENGINEER.

CLEANING AND PAINTING OF BEARINGS:

ALL STEEL BEARINGS SHALL BE CLEANED IN ACCORDANCE WITH TENNESSEE STANDARD SPECIFICATIONS SECTION 603.05(A). HAND OR POWER TOOL CLEANING SHALL REMOVE ALL RUST, SCALE, LOOSE PAINT AND DIRT. AFTER CLEANING, THE BEARINGS SHALL BE PAINTED WITH AN APPROVED EPOXY MASTIC PAINT APPLIED AT A MINIMUM DRY FILM THICKNESS OF 4.0 MILS. THE COLOR OF THE EPOXY MASTIC SHALL BE GREY.

SEE THE TENNESSEE DEPARTMENT OF TRANSPORTATION'S QUALIFIED PRODUCTS LIST FOR ACCEPTABLE BRANDS OF EPOXY MASTIC. ALL PRODUCTS USED, INCLUDING THINNERS, MUST BE SUPPLIED BY THE SAME MANUFACTURER.

THE COATING APPLICATOR SHALL FOLLOW THE MANUFACTURER'S PRINTED INSTRUCTIONS AND SHALL HAVE THESE INSTRUCTIONS ON SITE DURING THE COURSE OF THE WORK.

CONTAINMENT AND DISPOSAL:

ACCORDING TO OUR RECORDS THE EXISTING PAINT SYSTEM CONTAINS LEAD AND/OR CHROMATE. THE CONTRACTOR SHALL CONTAIN AND DISPOSE OF ALL PAINT REMOVAL WASTE IN ACCORDANCE WITH SECTION 603.13.

SPECIAL NOTES TO CONTRACTOR:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION. DESIGN CALCULATIONS AND DETAILS OF THE TEMPORARY SUPPORT SYSTEM OR FALSE WORK REQUIRED SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND SHALL MEET WITH THE FULL SATISFACTION OF THE ENGINEER BEFORE ANY DEMOLITION IS BEGUN. COST OF LABOR AND MATERIALS FOR STABILIZATION OF THE STRUCTURE SHALL BE INCLUDED IN ITEM NO. 602-10.05, BRACING REPAIRS, L.S.

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND QUANTITIES BEFORE ORDERING ANY MATERIALS.

WORKER PROTECTION:

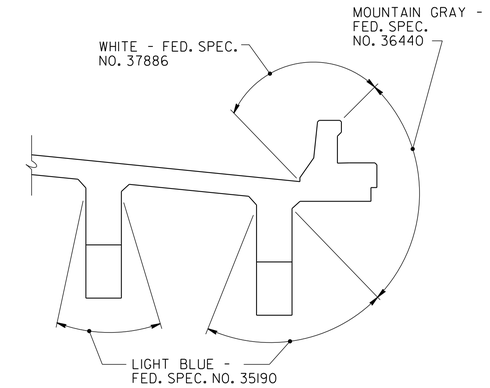
OUR MAINTENANCE RECORDS INDICATE THAT THIS BRIDGE WAS ORIGINALLY PAINTED WITH MATERIALS CONTAINING LEAD AND/OR CHROMATES AND OVER COATED WITH UNIVERSAL PRIMER AND HIGH BUILD ALIPHATIC POLYURETHANE TOP COAT. THE CONTRACTOR SHALL BE REQUIRED TO TAKE ALL MANDATORY SAFEGUARDS PRESCRIBED BY THE STATE AND FEDERAL LAW FOR BOTH THE WORKER'S PROTECTIONS AND HAZARDOUS MATERIALS DISPOSAL.

QUICK SET PATCHING MATERIAL:

QUICK-SET PATCHING MATERIAL SHALL BE A POLYMER MODIFIED CEMENTIOUS MATERIAL. SEE TDOT QUALIFIED PRODUCTS LIST 13, SECTION B.6, FOR ACCEPTABLE MATERIALS.

SEASONAL LIMITATIONS NOTE:

THE SWALLOW NESTS CANNOT BE DISTURBED WHILE EGGS OR YOUNG ARE PRESENT IN THE NEST. THE APPROXIMATE DATE FOR NESTING ACTIVITIES BEGINNING IS MAY 1 AND THE FLEDGLING FOR THE CLIFF SWALLOW IS JULY, 15. NOTE THAT THESE ARE APPROXIMATE DATES AND NESTING COULD OCCUR EARLIER AND LAST UNTIL LATER. THE DATES ARE FOR GUIDANCE ONLY AND THE EMPHASIS IS ON THE PRESENCE OR ABSENCE OF EGGS OR YOUNG, NOT THE DATES. THE CONTRACTOR CANNOT DISTURB THE SWALLOWS OR NESTS AS LONG AS EGGS AND/OR YOUNG ARE PRESENT. THE USFWS HAS GIVEN THE DATE OF JULY 15 AS THE TYPICAL TIME WHEN YOUNG SHOULD BE LEAVING THE NEST. HOWEVER, THIS DATE COULD BE UP TO A MONTH OR MORE LATER DEPENDING ON WHEN THE SWALLOWS ACTUALLY LAY THEIR EGGS. IF THE BIRDS ARE PRESENT AND EGGS OR YOUNG ARE IN THE NEST, THEY ARE NOT TO BE DISTURBED UNTIL THE YOUNG LEAVE THE NESTS. IF WORK BEGINS PRIOR TO THE BIRDS NESTING, THE CONTRACTOR CAN REMOVE THE NESTS AND TAKE MEASURES TO PREVENT THE SWALLOWS FROM BUILDINGS NESTS AND WORK THROUGHOUT THE NESTING SEASON. THIS COULD BE INSTALLATION OF NETTING, TARPS OR JUST HAVING SOMEBODY AVAILABLE TO REMOVE THE NESTS BEFORE THE BIRDS CAN LAY EGGS IN THEM.



APPLIED TEXTURE FINISH

(STATE ROUTE 9 OVER INTERSTATE 275)
SYMMETRICAL ABOUT ℄ BRIDGE

TEXTURE FINISH NOTES

IN ADDITION TO SURFACES SHOWN, ALL EXPOSED CONCRETE SURFACES ON THE BENTS, ABUTMENTS, AND WINGWALLS, ARE TO RECEIVE AN APPLIED TEXTURE FINISH, MOUNTAIN GREY, (FED. SPEC. NO. 36440). THE MEDIAN BARRIER WALL (ON UNDER ROUTE) IS TO RECEIVE AN APPLIED TEXTURE FINISH, WHITE, (FED. SPEC. NO. 37886).

COST OF TEXTURE COATING SHALL BE INCLUDED IN ITEM NO. 604-04.02.

THE CONTRACTOR SHALL USE CONTAINMENT SCREENS OR OTHER MEASURES AS NECESSARY TO PREVENT ANY TEXTURE COATING FROM ENTERING THE ENVIRONMENT. CONTAINMENT MEASURES SHALL BE APPROVED BY THE ENGINEER AND COST SHALL BE INCLUDED IN ITEMS BID ON.

THE EXISTING SURFACES THAT ARE TO RECEIVE A TEXTURE FINISH SHALL BE FREE OF ALL FLAKING TEXTURE COATING, RUST, DIRT, OIL, AND OTHER FOREIGN SUBSTANCES PRIOR TO THE APPLICATION OF THE TEXTURE FINISH. THE SURFACE SHALL BE CLEANED TO THE COMPLETE SATISFACTION OF THE ENGINEER USING A HIGH PRESSURE WASH. COST TO BE INCLUDED IN ITEM NO. 604-04.02.

THE WASH WATER IS TO BE FILTERED AND PAINT CHIPS AND DEBRIS COLLECTED PRIOR TO RELEASE OF WATER.

ESTIMATED BRIDGE QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
(1)	202-04.01	REMOVAL OF STRUCTURES (BRIDGE NO. 47-SR009-07.18)	LS	1
(2)	602-10.05	BRACING REPAIRS	LS	1
(3)	603-02.01	REPAINTING EXISTING STEEL STRUCTURES (BRIDGE NO. 47-SR009-07.18) (BEARINGS)	LS	1
(4)	603-05.20	CONTAINMENT & DISPOSAL OF WASTE (BRIDGE NO. 47-SR009-07.18)	LS	1
	604-04.02	APPLIED TEXTURE FINISH (EXISTING STRUCTURES)	S.Y.	2,570
	604-10.02	CONCRETE REPAIRS	C.Y.	8
(5) *	604-10.05	CONCRETE	S.F.	55
(6)	604-10.14	REMOVE EXISTING WEARING SURFACE	LS	1
	604-10.18	REINFORCING STEEL (REPAIRS)	LB.	1136
(7)	604-10.29	CONCRETE SLOPE PAVING REPAIRS	S.Y.	2
*	604-10.30	BRIDGE DECK REPAIRS (FULL DEPTH OF SLAB)	S.Y.	100
	604-10.44	EXPANSION JOINT REPAIRS	L.F.	90
*	604-10.50	BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB)	S.Y.	200
(8) *	604-10.54	CONCRETE REPAIRS	S.F.	55
	604-10.58	EPOXY INJECTION (INJECTION)	GAL.	2
	604-10.62	EPOXY INJECTION REPAIRS (COMPLETE AND IN PLACE)	L.F.	31
	617-01	BRIDGE DECK SEALANT	S.Y.	1044

* DENOTES: ITEM SHALL BE BID AS CONTINGENCY AND MAY BE INCREASED, DECREASED, OR ELIMINATED AS DIRECTED BY THE ENGINEER.

FOOTNOTES:

(1) INCLUDES ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE REMOVAL AND DISPOSAL OF DIAPHRAGMS AT BENT NOS. 1 AND 4 AND DAMAGED PORTIONS OF THE MEDIAN BARRIER AS INDICATED IN THE PLANS.

(2) INCLUDES ALL NECESSARY TEMPORARY SUPPORT OF THE STRUCTURE FOR THE DURATION OF THE PROJECT. BRACING PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

(3) INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR THE SURFACE PREPARATION AND PAINTING OF STEEL BEARING DEVICES AT BENTS AND ABUTMENTS. SEE CLEANING AND PAINTING OF BEARINGS GENERAL NOTES.

(4) INCLUDES CONTAINMENT AND DISPOSAL OF ALL WASTE GENERATED DURING CLEANING AND PAINTING OF STEEL BEARINGS AT BENTS AND ABUTMENTS. SEE CLEANING AND PAINTING OF BEARINGS GENERAL NOTES .

(5) INCLUDES ALL LABOR AND MATERIALS TO PLACE HIGH EARLY STRENGTH CONCRETE FOR REPAIR AREAS NOTED IN THE PLANS.

(6) INCLUDES REMOVAL AND DISPOSAL OF ASPHALT FROM SURFACE OF BRIDGE ONLY. (AVERAGE DEPTH = 4¼").

(7) INCLUDES ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO REPAIR THE BROKEN CONCRETE SLOPE PAVEMENT AT ABUTMENT NO. 1 AS NOTED IN THE PLANS.

(8) INCLUDES ALL LABOR AND MATERIALS TO PLACE A POLYMER MODIFIED CEMENTITIOUS STRUCTURAL PATCHING MATERIAL FOR REPAIR AREAS NOTED IN PLANS.

JUSTIN T. ECKEL
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 110791
4-29-2014
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND
ESTIMATED BRIDGE QUANTITIES
STATE ROUTE 9 OVER
INTERSTATE 275
BRIDGE NO. 47-SR009-07.18
KNOX COUNTY
2014

DESIGNED BY	M. JONES	DATE	10/13
DRAWN BY	M. JONES	DATE	10/13
SUPERVISED BY	L. BILBREY	DATE	10/13
CHECKED BY	J. ECKEL	DATE	10/13

4/30/2014
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