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OU=Engineers, OU=Mechanicsburg, OU=Modjeski Users
OU=MODJESKI AND MASTERS, DC=mm, DC=Icl
Date: 2025.10.02 11:44:09-04'00'

MODJESKI & MASTERS, INC.
100 STERLING PKWY #302
MECHANICSBURG, PA
DANIEL MCCAFFREY, P.E. NO. 128207

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE OF TENN. CODE ANN. §62-2-306.

SHEET NAME

SHEET NO.

SIGNATURE SHEET.....SIG-3

ESTIMATED BRIDGE QUANTITIES AND NOTES.....2 (BR-132-128)

LAYOUT OF BRIDGE TO BE REPAIREDBR-132-129

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	79I240-M3-008	SIG-3

**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

SIGNATURE SHEET

GENERAL NOTES

SPECIFICATIONS & LOADING

CONSTRUCTION SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION (JANUARY 1, 2021 EDITION), AND THE 4TH EDITION (2017) AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS WITH INTERIMS.

DESIGN SPECIFICATIONS: 9th EDITION (2020) AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND THE 2nd EDITION (2011) AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN WITH INTERIMS

STEEL, CONCRETE, REINFORCING & FORMING

CONCRETE: TO BE CLASS A F'C = 3000 PSI EXCEPT AS NOTED OTHERWISE.

BRIDGE DECKS: CLASS X CONCRETE FOR BRIDGE DECKS SHALL BE IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS.

PAVEMENT AT BRIDGE ENDS:CLASS D CONCRETE IN PAVEMENT AT BRIDGE ENDS SHALL HAVE SURFACE AGGREGATE IN ACCORDANCE WITH ARTICLE 903.24 OF THE STANDARD SPECIFICATIONS.

HIGH EARLY STRENGTH CONCRETE: THE MIX IS TO MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, CLASS X. THE CEMENT CONTENT SHALL BE A MINIMUM OF 714 LBS. THE WATER-CEMENT RATIO SHALL BE A MAXIMUM OF 0.40. DESIGN AIR CONTENT SHALL BE 6% WITH ±2% ACCEPTANCE RANGE IN THE FIELD. SLUMP SHALL BE 3±1 INCHES. IF USING A TYPE A, F, OR G WATER REDUCER, THE SLUMP SHALL BE MAXIMUM OF 8 INCHES. NO FLY ASH REPLACEMENT WILL BE PERMITTED. THE MINIMUM 28 DAY COMPRESSIVE STRENGTH SHALL BE 3,500 PSI. TRAFFIC SHALL NOT BE PERMITTED ON ANY OF THE REPAIRED AREAS UNTIL TEST SPECIMENS ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AND THE CONCRETE HAS BEEN IN PLACE A MINIMUM OF TEN (10) DAYS.

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

BRIDGE DECK SURFACE FINISH: TO BE IN ACCORDANCE WITH METHOD 3 IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.

REINFORCING STEEL: SHALL BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE. SEE SECTIONS 604 AND 907 OF THE STANDARD SPECIFICATIONS.

NOTE: MECHANICAL BAR SPLICERS MUST BE ON THE TDOT QUALIFIED PRODUCTS LIST 27. THE BAR SPLICERS SHALL MEET AASHTO LRFD SPECIFICATIONS FOR MECHANICAL CONNECTION. WHEN EPOXY COATING IS REQUIRED, THE EXPOSED THREADS SHALL BE REPAIRED AFTER SPLICING ACCORDING TO SECTION 907 OF THE STANDARD SPECIFICATIONS. THE COST OF FURNISHING THE BAR SPLICERS, (AND EPOXY COATING WHEN REQUIRED) INCLUDING ALL LABOR AND MATERIALS NECESSARY FOR COMPLETE INSTALLATION, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE REINFORCING BARS, UNLESS NOTED OTHERWISE IN PLANS.

FOUNDATION ELEMENTS

FOUNDATION PREPARATION SEE SECTION 204 OF THE STANDARD SPECIFICATIONS.

MISCELLANEOUS GENERAL NOTES

SHOP DRAWINGS: REFER TO SECTION 105.02 OF THE STANDARD SPECIFICATIONS. IF USING PAPER COPIES, SHOP DRAWINGS ARE TO BE SENT TO THE BRIDGE REPAIR OFFICE IN THE DIVISION OF STRUCTURES, FOR ELECTRONIC SUBMITTALS, SEE SECTION 105.02 OF THE STANDARD SPECIFICATIONS. EACH SHOP DRAWING SHALL CONTAIN IN THE TITLE BLOCK THE FOLLOWING: THE STATE PROJECT NUMBER, COUNTY, BRIDGE NAME, BRIDGE NUMBER (OR STRUCTURE TYPE AND NUMBER), STATION, AND CONTRACT NUMBER. SHOP DRAWINGS WITH TITLE BLOCKS NOT INCLUDING THE FOREGOING IDENTIFICATION WILL BE RETURNED FOR CORRECTION BEFORE ANY REVIEWS FOR APPROVAL ARE CONDUCTED.

RIP-RAP: MACHINED RIP-RAP SHALL BE CLASS A-1 IN ACCORDANCE WITH SECTION 709 OF THE STANDARD SPECIFICATIONS AND SHALL BE MEASURED AND PAID FOR UNDER BRIDGE ITEM NO.709-05.06.

REQUIREMENTS AND RESTRICTIONS FOR PHASE CONSTRUCTION

- A. THE PHASE CONSTRUCTION SEQUENCE MAY PROHIBIT THE EXTRACTION OF SOME SHEET PILING. ALL COSTS ASSOCIATED WITH SHEET PILING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.
- B. NO SHEET PILES OR BEARING PILES MAY BE DRIVEN FROM THE EXISTING OR PROPOSED STRUCTURE.
- C. THE NUMBER AND WIDTH OF TRAFFIC LANES SHOWN IN THE TRAFFIC CONTROL PLANS SHALL BE MAINTAINED AT ALL TIMES.

DEMOLITION: THE CONTRACTOR SHALL TAKE SPECIAL CARE TO PROTECT ANY PARTS OF THE STRUCTURE THAT ARE NOT TO BE REMOVED SPECIFICALLY. FOR FULL DEPTH SLAB REMOVAL, EXCEPT OVER BEAMS, THE MAXIMUM HAMMER SIZE IS 90 POUND CLASS. FOR PARTIAL DEPTH SLAB REMOVAL AND ANY WORK OVER THE BEAMS, THE MAXIMUM HAMMER SIZE IS 60 POUND CLASS; CHIPPING HAMMERS OF THE 15 POUND CLASS SHALL BE USED TO REMOVE CONCRETE FROM BENEATH ANY REINFORCING STEEL. SAWING OR CUTTING OF THE CONCRETE IS ACCEPTABLE AS LONG AS ANY SPECIFIED PROJECTION OF THE EXISTING REINFORCING STEEL IS MAINTAINED. EXPANSION JOINT REMOVAL SHALL FOLLOW THE SAME RESTRICTIONS AS FULL DEPTH SLAB REMOVAL. ALL DEVICES PROPOSED FOR CONCRETE DEMOLITION SHALL MEET THE APPROVAL OF THE ENGINEER.

THE CONTRACTOR IS NOT ALLOWED TO USE A HYDRAULIC RAM MOUNTED ON A BACKHOE (COMMONLY CALLED A HOE RAM), MINI EXCAVATOR, OR OTHER EQUIPMENT FOR ANY CONCRETE REMOVAL.

QUICK-SET PATCHING MATERIAL:QUICK-SET PATCHING MATERIAL SHALL BE A POLYMER MODIFIED CEMENTITIOUS PATCHING MATERIAL. SEE TDOT QUALIFIED PRODUCTS LIST 13.009 POLY MOD CEMENT STRUCT PATCH VERT & OVER FOR ACCEPTABLE PATCHING MATERIALS.

CONST. NO.:

PROJECT NO.		YEAR	SHEET NO.
79I240-M3-008		2025	2
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	09-05-2025	DEM	REVISED FOOTNOTE 3
2	09-26-2025	DEM	REVISED ITEM NOS AND FOOTNOTES
	- -		
	- -		
	- -		

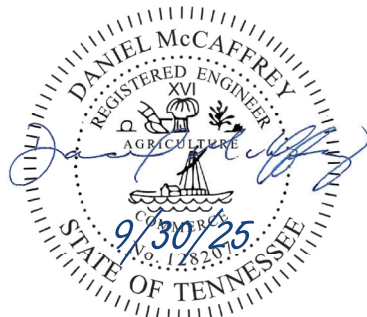
BRIDGE REPAIR QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
(1)	203-04.01	PLACING AND SPREADING SOIL FOR LANDSCAPING	CY	14
(2)	502-01.02	CLEANING JOINTS	LF	87
	604-03.02	STEEL BAR REINFORCEMENT (WALL)	LB	38
(3)	604-03.07	CLASS A CONCRETE (WALL)	CY	1
(4)	604-04.03	BRIDGE END DRAINS (2'x8')	EACH	2
(5)	604-10.44	EXPANSION JOINT REPAIRS	LF	44
	604-10.50	BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB)	SY	1
(6)	610-10.45	DECK DRAINS (CLEAN)	EACH	17
	617-04.01	TYPE 1 THIN EPOXY OVERLAY (EPOXY-URETHANE)	SY	11059
	709-02.01	RUBBLE STONE RIP-RAP (GROUTED)	CY	1
	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	71
	740-10.04	GEOTEXTILE (TYPE IV)	SY	108
(7)	803-01	SODDING (NEW SOD)	SY	40

FOOTNOTES

(1)	ASSUMES 1.4 CY PER LOCATION BELOW INDICATED BRIDGE DECK DRAINS
(2)	INCLUDES COST OF ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO CLEAN MODULAR JOINTS
(3)	INCLUDES COST OF ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO FORM AND PLACE WALL, INCLUDING EXCAVATION, BACKFILLING, AND SURFACE RESTORATION
(4)	INCLUDES COST OF ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO CLEAN BRIDGE END DRAINS
(5)	INCLUDES COST OF ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO REPLACE EXPANSION JOINT IN PAVEMENT AT BRIDGE ENDS.
(6)	INCLUDES COST OF ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO CLEAN BRIDGE DECK DRAINS
(7)	ASSUMES 4 SY PER LOCATION BELOW INDICATED BRIDGE DECK DRAINS

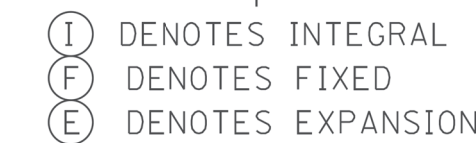
SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ESTIMATED BRIDGE QUANTITES AND NOTES
RAMP F OVER INTERSTATE 40, INTERSTATE 240 NB
STATE ROUTE 1, AND DIRECTIONAL RAMPS
BRIDGE NO. 79-I0040-1390 R
FED. I.D. NO. 79I00400167
SHELBY COUNTY
2025



PIN NO.: 135708.00
DESIGN BY: FAA DATE: 07/02/2025
DRAWN BY: BRR DATE: 07/02/2025
SUPERVISED BY: DEM DATE: 07/02/2025
CHECKED BY: HK DATE: 07/02/2025



VCL 3 DENOTES INTERSTATE 40 VERT. CL.
16'-6" MIN. - 69'-6" ACTUAL

VCL 4 DENOTES I-240 NB RAMP VERT. CL.
16'-6" MIN. - 45'-8" ACTUAL

VCL 5 DENOTES I-240 SB RAMP VERT. CL.
16'-6" MIN. - 16'-6" ACTUAL

VCL 6 DENOTES RAMP VERT. CL.
16'-6" MIN. - 42'-5" ACTUAL



1. PROVIDE TRAFFIC CONTROL AS INDICATED.
2. PERFORM PARTIAL-DEPTH DECK REPAIRS.
3. INSTALL TYPE 1 THIN EPOXY DECK OVERLAY.
4. RECONSTRUCT APPROACH ROADWAY AND BACKFILL AS INDICATED.
5. ADD SOIL, SOD, AND RIP-RAP AT EMBANKMENT WASHING LOCATIONS.
6. ADD RIP-RAP DITCH ADJACENT TO WINGWALLS.
7. REPAIR IMPACT DAMAGE AT SOUTHEAST WINGWALL.
8. CLEAN BRIDGE DECK DRAINS.
9. CLEAN BRIDGE END DRAINS.
10. CLEAN MODULAR JOINTS.
11. REPLACE PABE EXPANSION JOINT AT BEGINNING OF BRIDGE.

A = RECONSTRUCT BACKFILL AND APPROACH ROADWAY
(SEE ROADWAY PLANS FOR DETAILS AND QUANTITIES)
B = ADDRESS EMBANKMENT WASHING LOCATIONS
C = ADD RIP-RAP DITCH ADJACENT TO WINGWALL
D = REPAIR BASE OF SOUTHEAST WINGWALL AT IMPACT DAMAGE
E = CLEAN BRIDGE END DRAINS
F = CLEAN BRIDGE DECK DRAINS
G = CLEAN MODULAR JOINTS
H = PABE EXPANSION JOINT REPLACEMENT

BR-132-129



PIN NO.:	135708.00	
DESIGN BY:	FAA	DATE: 07/02/2025
DRAWN BY:	BRR	DATE: 07/02/2025
SUPERVISED BY:	DEM	DATE: 07/02/2025
CHECKED BY:	HK	DATE: 07/02/2025