CONST. NO.	19005-3161-44	
PROJECT NO.	YEAR	SHEET NO.
BH-I-40-4(86)	2015	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	2-19-15	GSP	UPDATED ITEM NUMBER

ESTIMATED BRIDGE QUANTITIES

FOOTNOTE	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTALS	SUPERSTRUCTURE	ABUTMENT NO. 1	ABUTMENT NO. 2
(1)	202-04.03	REMOVAL OF STRUCTURES (PARTIAL, BRIDGE NO. 19-I0040-16.88)	LS.	1			
(2)	602-02.12	STRUCTURAL STEEL (SHIMS - JO JOHNSTON BRIDGE NO. 19-I0040-16.75)	LS.	1			
(3)	604-03.04	PAVEMENT @ BRIDGE ENDS	S.Y.	499		247	252
(4)	604-03.07	CLASS A CONCRETE (HIGH EARLY STRENGTH)	C.Y.	6		3	3
(5)	604-03.09	CLASS D CONCRETE (BRIDGE DECK)	C.Y.	52	52		
(6)	604-04.02	APPLIED TEXTURE FINISH (EXISTING STRUCTURES)	S.Y.	1333	1169	82	82
(7)	604-04.41	THREE STAR STATE EMBLEM	EACH	4	4		
(8)	604-05.32	BRIDGE DECK GRINDING AND GROOVING	S.Y.	1631	1631		
(9)	604-07.05	RETAINING WALL NO. 5 (@ ABUTMENT NO. 1)	S.F.	6850		6850	
(10)	604-07.06	RETAINING WALL NO. 6 (@ ABUTMENT NO. 2)	S.F.	5817			5817
(11)	604-10.42	CONCRETE	C.F.	200		100	100
(12)	604-10.14	REMOVE EXISTING WEARING SURFACE	LS.	1			
(13)	604-10.18	REINFORCING STEEL (REPAIRS)	LB.	13053	12033	510	510
(14)	604-10.54	CONCRETE REPAIRS	S.F.	10		5	5
(15)	615-02.05	PRESTRESSED CONCRETE BOX BEAM (33" X 36")	L.F.	1165	1165		
(16)	615-04.01	FULL DEPTH PRCST/PRSTRSSD TYPE I DECK PANELS	S.Y.	799	799		
(17)	615-04.10	NON-SHRINK GROUT	C.F.	1415	1415		
(18)	615-04.30	PRECAST BRIDGE ABUTMENT WALL	C.Y.	80		40	40
(19)	617-01	BRIDGE DECK SEALANT	S.Y.	1631	1631		
(20)	617-02	BRIDGE DECK CRACK SEALING	L.F.	10145	10145		
(21)	617-05	SEALANT (HMWM)	GAL	51	51		
(22)	620-05.01	CONC PARAPET SINGLE SLOPE (STD-1-1SS)	L.F.	133	133		
(23)	711-02.06	REINFORCED CONCRETE MEDIAN BARRIER (STD-1-3SS)	L.F.	68	68		
(24)	714-01.04	STRUCTURAL LIGHTING (BRIDGE NO. 19I0040-16.88)	LS.	1			

FOOTNOTES

(1) ITEM INCLUDES REMOVAL OF EXISTING BRIDGE SUPERSTRUCTURE, PARTIAL REMOVAL OF ABUTMENTS AND WINGWALLS AND OTHER AREAS DESIGNATED IN THE PLANS. ALSO INCLUDES REMOVAL AND DISPOSAL OF WASTE FROM EXISTING BEAMS PRODUCED DUE TO ANY CUTTING REQUIRED FOR CHOSEN DEMOLITION METHOD. ITEM ALSO INCLUDES ANY BRACING THAT MAY BE REQUIRED TO SUPPORT PORTIONS OF THE SUPERSTRUCTURE AND SUBSTRUCTURE DURING THE EXECUTION OF THE PROJECT AND ALSO INCLUDES ALL FORMWORK REQUIRED SO THAT NO DEBRIS IS ALLOWED TO FALL ONTO THE ROADWAY BELOW. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

(2) ITEM INCLUDES STRUCTURAL STEEL FOR SHIM STACK PLATES BETWEEN RISER BLOCK AND ½" BEARINGS PADS. APPROX. WEIGHT OF STRUCTURAL STEEL IS 13,465 lbs.

(3) PAVEMENT AT BRIDGE ENDS SHALL BE PRECAST AND REINFORCED AS SHOWN IN THE PLANS. CLOSURE POUR JOINT MATERIAL SHALL BE PATCHING MORTAR SIMILAR TO SYSTEM USED ON SUPERSTRUCTURE UNITS AND IS INCLUDED IN UNIT PRICE FOR PAVEMENT @ BRIDGE ENDS. ALSO INCLUDED IS 3350 SY BIAXIAL GEOTEXTILE FOR REPLACEMENT OF SLEEPER SLAB.

(4) NOTE: CLASS "A" CONCRETE IS FOR CONSTRUCTION OF THE BARRIER AND MEDIAN BARRIERS RAILS AND MODIFICATIONS TO THE EXISTING BENTS. F'c = 3,000 PSI IS REQUIRED. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.

(5) CLASS "D" CONCRETE IS TO BE USED FOR FOR CAST-IN-PLACE CANTILEVER AND MEDIAN PORTIONS OF SUPERSTRUCTURE.

(6) FOR NOTES AND LIMITS OF TEXTURE COATING, SEE DETAIL THIS SHEET.

(7) COST INCLUDES ALL INCIDENTALS, LABOR AND MATERIALS FOR THE COMPLETE INSTALLATION AND FINISHING OF THIS ITEM. LOCATION TO BE ON THE BACK OF THE BRIDGERAIL WITH THE EXACT LOCATION DESIGNATED BY THE ENGINEER IN THE FIELD.

(8) ITEM INCLUDES DIAMOND GRINDING OF THE DECK SURFACE TO REMOVE UNEVEN AREAS BETWEEN DECK PANELS AND AREAS OF EXCESSIVE NON-SHRINK GROUT SPILLAGE. GRINDING SHOULD BE LIMITED TO REMOVAL OF IDENTIFIED AREAS AND NOT OF EXCESSIVE AMOUNTS OF THE DECK. ANY DAMAGE TO THE DECK CAUSED BY GRINDING ACTIVITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. GROOVING OF THE DECK IS **NOT** REQUIRED.

(9) SEE RETAINING WALL 5 (ROADWAY SHEET 2T) FOR ADDITIONAL NOTES AND DETAILS.

(10) SEE RETAINING WALL 6 (ROADWAY SHEET 2U) FOR ADDITIONAL NOTES AND DETAILS.

(11) THIS ITEM IS DESIGNATED FOR MODIFICATIONS TO THE RISER BLOCKS ON THE SUBSTRUCTURES. COST INCLUDES REMOVAL OF EXISTING BENT CAP TO A DEPTH OF 6" BELOW THE TOP SURFACE, 4X4 W2.9/W2.9 WWF AND CLASS A CONCRETE. SEE DRAWING BR-119-45 FOR RELATED DETAILS.

(12) AVERAGE DEPTH OF EXISTING ASPHALT IS 3½" ON SBL AND 4" ON NBL.

(13) MECHANICAL BAR SPLICERS: MUST BE ON THE APPROVED LIST MAINTAINED BY THE DIVISION OF MATERIALS AND TESTS. THE BAR SPLICER SHALL MEET AASHTO STANDARD SPECIFICATIONS FOR MECHANICAL CONNECTION. WHEN EPOXY COATING IS REQUIRED, THE EXPOSED THREADS SHALL BE REPAIRED AFTER SPLICING ACCORDING TO THE STANDARD SPECIFICATIONS, SECTION 907. THE COST OF FURNISHING THE BAR SPLICERS, EPOXY COATING INCLUDING ALL LABOR AND MATERIALS NECESSARY FOR COMPLETE INSTALLATION, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NO. 604-10.18, LBS.

(14) THIS ITEM IS DESIGNATED FOR ANY SURFACE SPALL OR CRACK REPAIRS ON THE EXISTING SUBSTRUCTURE UNITS. IT MAY BE INCREASED, DECREASED OR ELIMINATED BY THE ENGINEER. SEE DRAWING BR-119-45 FOR DETAILS.

(15) COST OF ELASTOMERIC PADS AND RUBBER BONDING CEMENT TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NO. 615-02.17. FOR PAD DETAILS SEE DETAILS ON ABUTMENT END-BLOCK DETAIL SHEETS.

(16) INCLUDES ALL COSTS FOR SUPPLYING AND INSTALLING FULL DEPTH PRECAST PRESTRESSED CONCRETE DECK PANELS INCLUDING CONCRETE, STEEL BAR REINFORCING, PRESTRESSING STRANDS, SPLICE BARS, BACKER RODS, BITUMINOUS FIBERBOARD, HAUNCH FORMS, SPACERS, SHIMS & ADHESIVE AND LIFTING HARDWARE. QUANTITIES BASED ON PANEL CONCRETE SURFACE AREAS AND DIMENSIONS SHOWN IN DECK PANEL DRAWINGS. AVERAGE PANEL CONSIST OF 10 LB/SY PRESTRESSING STRAND AND 50 LB/SY REBAR.

(17) ITEM TO BE USED FOR CLOSURE POURS, FILLING VOIDS UNDER PRECAST END-BLOCKS AND OTHER GROUTING APPLICATIONS AS DESIGNATED IN THE PLANS. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.

(18) INCLUDES ALL COSTS FOR SUPPLYING AND INSTALLING PRECAST ABUTMENT WALL ELEMENTS INCLUDING CLASS "A" CONCRETE, STEEL BAR REINFORCING, BACKER RODS, BITUMINOUS FIBERBOARD, FORMS, SPACERS, SHIMS & ADHESIVE AND LIFTING HARDWARE. QUANTITIES ARE BASED ON PRECAST DIMENSIONS SHOWN IN THE CONTRACT DRAWINGS. AVERAGE REINFORCEMENT IS ESTIMATED AT 300 LBS/CY.

(19) BRIDGE DECK SEALANT TO BE APPLIED TO MANUFACTURE'S SPECIFICATIONS. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.

(20) INCLUDES ALL COSTS FOR INSTALLING BRIDGE DECK CRACK SEALER (HMWM) INCLUDING CRACK PREPARATION, CLEANING LABOR AND MISCELLANEOUS MATERIALS TO SEAL ALL TRANSVERSE AND LONGITUDINAL CONSTRUCTION JOINTS.

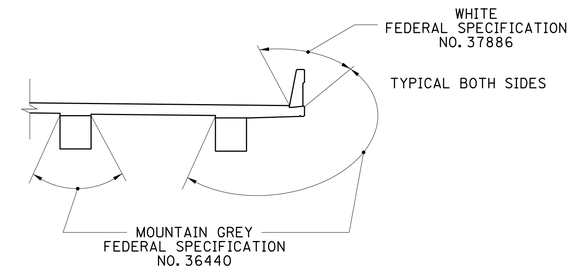
(21) INCLUDES ALL COSTS FOR FURNISHING THE SEALER (HMWM) FOR SEALING CRACKS. QUANTITY BASED ON APPLICATION RATE OF 200 L.F. PER GALLON. SEALER SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION 604CR.

(22) ITEM INCLUDES LABOR AND MATERIALS TO CONSTRUCT BRIDGERAIL PER STANDARD STD-1-1SS AND TO FORM AND CAST ONE (1) LIGHT STANDARD AS SHOWN ON STD-8-2SS AND LOCATED ON DRAWING BR-119-125.

(23) COST OF TEXTURE COATING MEDIAN BARRIER IS INCLUDED IN THE COST OF THE MEDIAN BARRIER RAIL. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.

(24) SEE STD-8-2SS FOR LIGHT SUPPORT DETAILS (ONE REQUIRED) AND ITEMS INCLUDED IN PAY ITEM. SEE LIGHTING PLANS FOR ADDITIONAL DETAILS AND REQUIREMENTS.

(25) COST OF CORRUGATED METAL PIPES, DRILLING AND EPOXY GROUTING DOWEL BARS AND ANCHOR BOLTS FOR PAVEMENT AT BRIDGE ENDS AND SUPERSTRUCTURE UNITS AND OTHER INCIDENTAL ITEMS SHALL BE INCLUDED IN OTHER ITEMS BID ON.



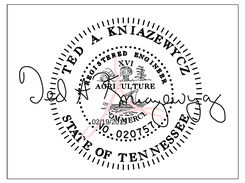
LIMITS OF TEXTURE FINISH

NOTE: IN ADDITION TO PORTIONS SHOWN IN THE TEXTURE FINISH SKETCH, THE ABUTMENTS / BENTS ARE TO RECEIVE AN APPLIED TEXTURE FINISH.

NOTE: BEFORE APPLYING ANY TEXTURE FINISH, ALL SURFACES SHALL BE COMPLETELY CLEANED OF ALL DEBRIS AND FOREIGN MATERIALS.

NOTE: THE CONTRACTOR SHALL USE CONTAINMENT SCREENS OR OTHER MEASURES 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 NO.

NOTE: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.22 OF THE TENNESSEE STANDARD SPECIFICATION. A CLASS I FINISH FOLLOWED BY AN APPLIED TEXTURE FINISH SHALL BE USED IN LIEU OF A CLASS II FINISH. THE COLOR OF THE FINISH SHALL BE SIMILAR TO MOUNTAIN GRAY, FEDERAL SPECIFICATION NO. 36440, FEDERAL COLOR STANDARD NO. 595A, EXCEPT THAT THE INSIDE FACE AND TOP OF THE PARAPET SHALL BE WHITE, FEDERAL SPECIFICATION NO. 37886. A COLOR SAMPLE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE APPLIED TEXTURE FINISH SHALL BE MEASURED AND PAID FOR UNDER ITEM 604-04.02.



BRIDGE NO. 4

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED
BRIDGE QUANTITIES
I-40
OVER
JO JOHNSTON AVE.
BR. NO. 19-I0040-16.88
DAVIDSON COUNTY
2015

BR-119-126

DESIGNED BY GRESHAM SMITH & PARTNERS DATE 2/09/2015
DRAWN BY R. PALMER DATE 1/2015
SUPERVISED BY T. KNIAZEWYCZ DATE 1/2015
CHECKED BY T. KNIAZEWYCZ DATE 2/2015

GRESHAM SMITH AND PARTNERS

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2/19/2015
PRF