

DECK SLAB CONCRETE QUANTITY

THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES AN AVERAGE HAUNCH THICKNESS OF 3" AND NO HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THERE IS NO ALLOWABLE TOLERANCE FOR HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE.

THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS, THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.23.

ITEM 513 STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN

ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN: ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PREQUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.06 OR SUPPLY THE ENGINEER WITH "AS-BUILT" DRAWINGS MEETING 513.06 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITH THE FINAL AS-BUILT CONDITION. IF NECESSARY, THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE "AS-BUILT" DRAWINGS AND THE DELIVERED MATERIALS, SUPPLY A COPY OF THE DRAWINGS, STAMPED AND DATED, ALONG WITH MICROFILM, TO THE OFFICE OF STRUCTURAL ENGINEERING FOR RECORD PURPOSES. THE FOLLOWING MEMBERS ARE INCLUDED IN THIS ITEM: STIFFENER PLATES AND END CROSSFRAMES.

ITEM 526 REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN

FURNISH APPROACH SLABS CONFORMING TO CMS 526. THE ACCEPTED QUANTITIES SHALL INCLUDE: CONCRETE, CURBS, REINFORCING STEEL, JOINT FILLERS, JOINT SEALS, WATERPROOFING, AND ANY OTHER INCIDENTALS SHOWN ON THE APPROACH SLAB DETAIL SHEETS. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS.

ITEM 516 - BEARING DEVICE, MISC: SLIDING PLATES

THIS WORK CONSISTS OF THE INSTALLATION OF NEW SLIDING PLATES AT THE REAR AND FORWARD ABUTMENTS. THE PROVISIONS OF ITEM 516 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES AND DETAILS.

THE CONTRACTOR MUST INSTALL ALL SLIDING PLATES AT THE ABUTMENT BEFORE ATTACHING THE END CROSS FRAMES AND EXPANSION JOINT ARMORS.

DOWEL HOLES FOR THE NEW ANCHOR BARS SHALL INCLUDE NONSHRINK NONMETALLIC GROUT AND FOLLOW THE PROVISIONS FOR 510 IN THE C&MS.

PHOSPHOR BRONZE PLATE:
CAST PHOSPHOR BRONZE PLATE SHALL CONFORM TO 711.16 OF C&MS

STEEL:
PLATES AND ANCHOR BARS SHALL CONFORM TO ASTM DESIGNATION A709 GR. 50

SHEET LEAD:
A MAXIMUM OF TWO (2) SHEETS OF LEAD MAY BE USED AS DIRECTED BY THE ENGINEER FOR SHIMMING PURPOSES. ANY ADDITIONAL 1'-0" X 1/8" X 1'-5 3/4" SHEET LEAD USED FOR SHIMMING PURPOSES ARE CONSIDERED INCIDENTAL TO THE INSTALLATION OF ITEM 516 BEARING DEVICE, MISC: SLIDING PLATE

ALL WORK REQUIRED TO PERFORM THE ABOVE WORK AND DETAILS SHALL BE PAID AT THE UNIT PRICE FOR ITEM 516 BEARING PAD, MISC: SLIDING PLATES

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING MATERIALS FROM BEHIND THE EXISTING BACKWALL IN ORDER TO PREFORM ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN. LIMITS OF THIS EXCAVATION SHALL BE LIMITED BETWEEN THE EXISTING WINGWALLS AND EXTEND TO THE END OF THE PROPOSED APPROACH SLABS AS DETAILED.

THE BACKFILL MATERIAL FOR ALL EXCAVATION BEHIND THE ABUTMENTS AND UNDER THE APPROACH SLABS SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM, TYPE 1 SHALL CONFORM TO CMS SECTION 613 AND BE PLACED WITHIN THE LIMITS OF THE APPROACH SLABS AND IT MAY ALSO BE USED TO CONSTRUCT THE SLOPES IN THIS SAME AREA AS LONG AS IT IS COVERED WITH ONE FOOT OF SOIL TO MATCH EXISTING GRADE. THE AREA FOR THE POROUS BACKFILL WITH GEOTEXTILE FABRIC SHALL BE FORMED PRIOR TO THE PLACEMENT OF THE LSM, TYPE 1 BACKFILL AND PLACEMENT OF THE GEOTEXTILE FABRIC SHALL BE PLACED AFTER THE LSM HAS CURED AND THE FORMS HAVE BEEN REMOVED.

PAYMENT TO PERFORM ALL THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURE TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING AND SET THE PROPOSED BEARINGS AT EACH ABUTMENT. IT WILL ALSO BE USED TO TEMPORARILY SUPPORT ANY BEAMS WHICH MAY HAVE BEARINGS UNDERMINED WHILE PERFORMING ITEM 519- PATCHING CONCRETE STRUCTURE.

ALL PLANNED JACKING OPERATIONS FOR THIS PROJECT SHALL OCCUR PRIOR TO PLACEMENT OF THE PROPOSED DECK.

IF UNFORSEEN NEED EXISTS AFTER PLACEMENT OF THE PROPOSED DECK, THE FOLLOWING SPECIFICATIONS SHALL APPLY.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

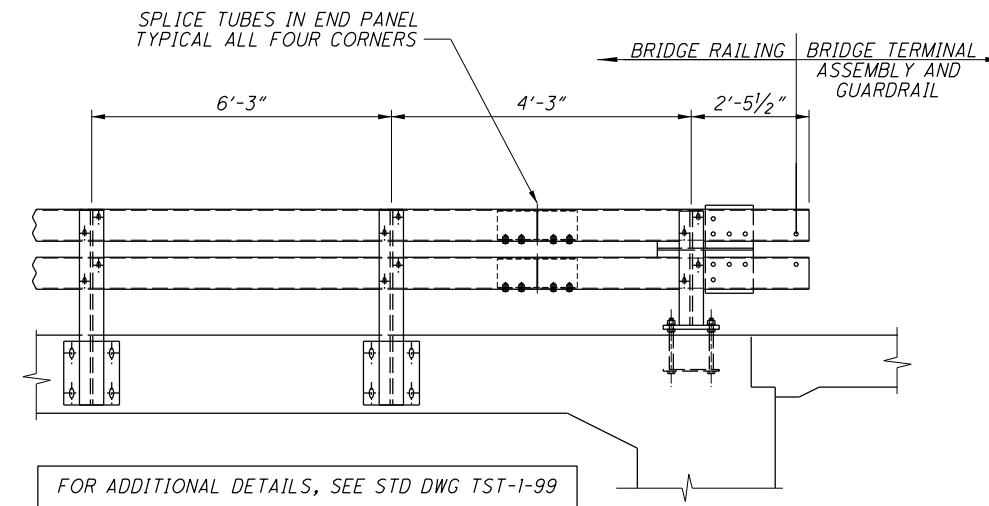
STEEL NOTCH TOUGHNESS REQUIREMENT (CHARPY V-NOTCH)

CVN: WHERE A SHAPE OR MATERIAL IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS SPECIFIED IN 711.01.

ITEM 517 RAILING (TWIN STEEL TUBE), AS PER PLAN

PLACE TUBE SPLICES IN THE TOP AND BOTTOM RAIL IN THE END PANEL AT EACH CORNER OF THE BRIDGE. PLACE ALL OTHER SPLICES ACCORDING TO STD DWG TST-1-99.

POUR CONCRETE FOR THE SECTION OF WINGWALL SURROUNDING THE END POSTS AFTER THE REST OF THE BRIDGE RAILING HAS BEEN CONSTRUCTED. SEE STD DWG TST-1-99 FOR CONSTRUCTION JOINT LOCATION.



ITEM 511 CLASS OC2 CONCRETE WITH OC/OA, SUPERSTRUCTURE, AS PER PLAN

IN ADDITION TO ALL OTHER REQUIREMENTS FOR ITEM 511, ALL VERTICAL HAUNCH BRACKETS DESIGNED TO STAY IN PLACE AFTER CONCRETE IS POURED SHALL BE GALVANIZED. SEE C&MS 711.02 FOR GALVANIZATION REQUIREMENTS.

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DESIGN AGENCY		OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
REVIEWED TAG	DATE	STRUCTURE FILE NUMBER	
JKS	09/10/19	4501594	
DRAWN		REVISION	
JKS		XXX	
DESIGNED		CHECKED	
JKS		TAG	
BRIDGE NOTES			
BRIDGE NO. LIC-37-0379			
OVER RACCOON CREEK			
LIC-37-3.78		PID No. 98263	
3/25		22 44	

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SUPER.	ABUT.	PIER	GENERAL	PARTICIPATION		ALT. (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
				01/BRO/BR								
STRUCTURE OVER 20 FOOT SPAN (BRIDGE NO. LIC-37-0379)												
160				160			202	11301	160	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, SUPERSTRUCTURE (CONCRETE)	2/25
	35			35			202	11301	35	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN, SUBSTRUCTURE (CONCRETE)	2/25
			223	223			202	22900	223	SY	APPROACH SLAB REMOVED	
244				244			202	38500	244	FT	BRIDGE RAILING REMOVED	
LS				LS			202	98000	LS		REMOVAL MISC.: EXISTING END CROSSFRAMES	2/25
	10			10			202	98100	10	EACH	REMOVAL MISC.: BEARINGS	2/25
			LS	LS			503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN	3/25
		304		304			SPECIAL	507E71200	304	FT	PILE ENCASEMENT	11/25
41,212	5,698			46,910			509	10000	46,910	LB	EPOXY COATED REINFORCING STEEL	
	204			204			510	10000	204	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
144				144			511	21523	144	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN	3/25
	40			40			511	50210	40	CY	CLASS QC1 CONCRETE, SUBSTRUCTURE	
				145			512	10050	145	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
3,658				3,658			513	10201	3,658	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	3/25
1,950				1,950			513	20000	1,950	EACH	WELDED STUD SHEAR CONNECTORS	
5,769				5,769			514	00050	5,769	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
5,769				5,769			514	00056	5,769	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
5,769				5,769			514	00060	5,769	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
5,769				5,769			514	00066	5,769	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
10				10			514	00504	10	MNHR	GRINDING FINES, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
7				7			514	10000	7	EACH	FINAL INSPECTION REPAIR	
86				86			516	11210	86	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	
	10		86	86			516	31011	86	FT	2" DEEP JOINT SEALER, AS PER PLAN	2/25
			LS	LS			516	46900	10	EACH	BEARING DEVICE, MISC.: SLIDING PLATES	3/25
				LS			516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	3/25
252				252			517	70001	252	FT	RAILING (TWIN STEEL TUBE), AS PER PLAN	3/25
	36			36			518	21200	36	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
294				294			SPECIAL	518E22300	294	FT	STEEL DRIP STRIP	
	118			118			518	40000	118	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
	60			60			518	40010	60	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
			223	223			526	25011	223	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN	24-25/25

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DATE	09/10/19
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4501594	
BRIDGE SUMMARY	
BRIDGE NO. LIC-37-0379	
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4 / 25	
23	
44	