

REV. NO.	DESCRIPTION	REVISIONS	DATE
△	REV ENVIRONMENTAL MITIGATION NOTES		10/18/17

**BRIDGE "C" GENERAL NOTES CONT'D:**

**CONCRETE INTERMEDIATE DIAPHRAGMS:**

ONCE THE CONCRETE HAS BEEN PLACED FOR THE CONCRETE INTERMEDIATE DIAPHRAGMS, WAIT A MINIMUM OF 24 HOURS BEFORE REMOVING THE SIDE FORMS. DO NOT REMOVE THE BOTTOM FORM FOR A MINIMUM OF 3 DAYS, OR AT THE DISCRETION OF THE ENGINEER. THIS TIME MAY BE SHORTENED IF THE CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH. DO NOT PLACE CONCRETE FOR THE DECK SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL THE CONCRETE IN THE DIAPHRAGMS HAS BEEN IN PLACE FOR A MINIMUM OF 10 DAYS, OR AT THE DISCRETION OF THE ENGINEER. THIS TIME MAY BE SHORTENED IF THE CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH.

**DECK HAUNCHES:**

PLAN QUANTITY FOR CLASS AA CONCRETE INCLUDES 13.6 CUBIC YARDS FOR THE HAUNCHES OVER THE BEAMS.

**PENETRATING WATER REPELLENT SURFACE TREATMENT:**

A PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES OF THE BRIDGE:

- A. EDGES AND UNDERSIDE CANTILEVER PORTION OF THE BRIDGE DECK.
- B. THE OUTER FACE AND BOTTOM OF THE EXTERIOR P.C. BEAMS
- C. THE ROADWAY FACE, INSIDE FACES OF POSTS AND TOP OF THE CONCRETE TRAFFIC RAILS.
- D. TOP, SIDES AND ENDS OF PIER CAPS.
- E. THE ENDS AND FRONT FACE BETWEEN THE EXTERIOR BEAMS AND THE OUTER EDGES OF THE END DIAPHRAGMS AT ABUTMENTS.

**SEALING BRIDGE DECK CONSTRUCTION JOINTS:**

THE LONGITUDINAL CONSTRUCTION JOINT AND THE CONSTRUCTION JOINT BETWEEN THE APPROACH SLAB AND THE END OF THE DECK SLAB SHALL BE SAWED AND SEALED IN ACCORDANCE WITH SECTION 504.04 OF THE STANDARD SPECIFICATIONS. THE JOINT SHALL BE SEALED WITH SELF LEVELING JOINT SEALANT. ALL COST ASSOCIATED WITH SAWING AND SEALING THE JOINTS INCLUDING MATERIALS, LABOR AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE FOR OTHER ITEMS OF WORK AS DIRECTED BY SECTION 504.05 OF THE STANDARD SPECIFICATIONS.

ALL OTHER TRANSVERSE CONSTRUCTION JOINTS INCLUDING THE CONSTRUCTION OF JOINTS AT CLOSURE POURS SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE (HMWM) IN ACCORDANCE WITH THE SPECIAL PROVISION "CONCRETE SURFACE REPAIR BY SEALING," SECTION 523 OF THE STANDARD SPECIFICATION. ALL COST TO SEAL THESE JOINTS INCLUDING THE COST OF CRACK PREPARATION, HMWM, RESIN, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE PER LINEAR FOOT OF "SEALER CRACK PREPARATION" AND THE UNIT PRICE BID PER GALLON OF "SEALER RESIN."

**APPROACH SLAB:**

CLASS AA CONCRETE SHALL BE USED IN APPROACH SLAB. THE QUANTITY GIVEN IS BASED ON ACTUAL SQUARE YARDS OF THE APPROACH SLABS. ALL COST OF CONCRETE, REINFORCING STEEL, RAPID CURE JOINT SEALANT (BETWEEN APPROACH SLAB AND WINGS), EXCAVATION, LABOR, EQUIPMENT AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "APPROACH SLAB."

**RIPRAP:**

A 24" THICK LAYER OF TYPE 1-A PLAIN RIPRAP WITH A 6" THICK LAYER OF TYPE 1-A FILTER BLANKET SHALL BE PLACED AT THE ABUTMENTS AS SHOWN IN THE PLANS. THE FILTER BLANKET SHALL BE PLACED IN ONE LAYER. THE RIPRAP AND FILTER BLANKET SHALL BE PLACED IN SUCH A WAY AS TO NOT IMPEDE THE FLOW IN A MANNER APPROVED BY THE ENGINEER.

**SPECIAL ENVIRONMENTAL NOTE FOR ARCHEOLOGICAL:**

WHENEVER ENCOUNTERING ARCHEOLOGICAL REMAINS DURING THE EXCAVATION OF AN APPROVED OFF-SITE FACILITY OR ON THE PROJECT SITE. THE CONTRACTOR SHALL IMMEDIATELY CEASE THE OPERATION IN THE NOTED AREA OF CONCERN AND NOTIFY THE TRIBAL PROJECT OFFICER AND THE ENGINEER WHO WILL CONTACT THE PROPER AUTHORITIES FOR AN EVALUATION.

**ENVIRONMENTAL MITIGATION:**

AMERICAN BURYING BEETLE NOTE: THE AMERICAN BURYING BEETLE IS A LARGE CARRION BURYING BEETLE THAT OCCURS WITHIN THE ACTION AREA. NO ARTIFICIAL LIGHTING SHALL BE USED DURING CONSTRUCTION. CARCASSES AND ALL FOOD TRASH SHALL BE REMOVED FROM THE PERMANENT AND TEMPORARY RIGHT-OF-WAY THROUGHOUT PROJECT ACTIVITIES. FOLLOWING CONSTRUCTION, TOPSOIL SHALL BE PLACED ON TOP OF ALL AREAS OF GROUND DISTURBANCE, PRIOR TO RE-VEGETATION.

MIGRATORY BIRD: MIGRATORY BIRDS ARE PROTECTED BY THE FEDERAL MIGRATORY BIRD TREATY ACT. MANY BIRDS COMMONLY USE BRIDGES AND CULVERTS FOR NESTING. THE NESTING SEASON FOR MOST MIGRATORY BIRD SPECIES EXTENDS FROM APRIL 1 TO AUGUST 31. MIGRATORY BIRD NESTING USE OF THE STRUCTURE AT STA. 1034+57.18 INVOLVED WITH THIS PROJECT WAS OBSERVED. PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION OF THE EXISTING BRIDGE/STRUCTURES SHALL BE CONDUCTED BETWEEN SEPTEMBER 1, AND MARCH 31, WHEN MIGRATORY BIRD NESTS ARE NOT OCCUPIED. IF PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION CANNOT BE COMPLETED BETWEEN SEPTEMBER 1 AND MARCH 31, THE BRIDGE SHALL BE PROTECTED FROM NEW NEST ESTABLISHMENT PRIOR TO APRIL 1, BY MEANS THAT DO NOT RESULT IN BIRD DEATH OR INJURY. OPTIONS INCLUDE THE EXCLUSION OF ADULT BIRDS FROM SUITABLE NEST SITES ON OR WITHIN A STRUCTURE BY THE PLACEMENT OF WEATHER-RESISTANT POLYPROPYLENE NETTING WITH 0.25-INCH OR SMALLER OPENINGS, PRIOR TO APRIL 1. METHODS OTHER THAN NETTING MUST BE PRE-APPROVED BY THE ODOT BIOLOGIST.

ALTHOUGH NO NESTS WERE OBSERVED ON ALL OTHER STRUCTURES, THE BIRDS MAY OCCUPY THE STRUCTURES IN THE FUTURE. THE RESIDENT ENGINEER SHALL CONTACT THE ODOT BIOLOGIST AT 405-521-2515 IF ANY BIRD USE OF THE EXISTING STRUCTURES IS OBSERVED. IF BIRDS ARE OBSERVED THEN PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION OF THE EXISTING BRIDGE/STRUCTURES SHALL BE CONDUCTED BETWEEN SEPTEMBER 1, AND MARCH 31, WHEN MIGRATORY BIRD NESTS ARE NOT OCCUPIED.

PAY QUANTITIES			
0200 BRIDGE A - REMOVAL OF EXISTING BRIDGE STRUCTURE		J/P NO 24261(04)	
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
619 (D) 1397	REMOVAL OF EXISTING BRIDGE STRUCTURE	LSUM	1.00

PAY QUANTITIES			
0201 BRIDGE B - 3-CELL (10' X 10' X 218') RCB		J/P NO 24261(04)	
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
202 (A) 1301	UNCLASSIFIED EXCAVATION	(BR-1) CY	2,340.0
501 (A) 1306	STRUCTURAL EXCAVATION UNCLASSIFIED	(BR-1) CY	415.0
509 (A) 1326	CLASS AA CONCRETE	(BR-1) CY	826.9
511 (A) 1332	REINFORCING STEEL	(BR-1) LB	129,200.0
514 (A) 6011	PILES, FURNISHED (HP 12X53)	LF	2,130.0
514 (B) 6294	PILES, DRIVEN (HP 12X53)	LF	2,130.0
514 (L) 6220	PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	1
619 (B) 2500	REMOVAL OF BRIDGE ITEMS	LSUM	1

PAY QUANTITIES			
0202 BRIDGE C - 70'-80'-70' SPANS X 40' CLR RDY WITH TR-4 RAILS		J/P NO 24261(04)	
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
501 (B) 1307	SUBSTRUCTURE EXCAVATION COMMON	(BR-1) CY	90.0
501 (G) 6309	CLSM BACKFILL	(BR-1) CY	200.0
503 (A) 1313	PRESTRESSED CONCRETE BEAMS (TYPE IV)	(BR-1) LF	877.0
504 (A) 1304	APPROACH SLAB	(BR-1) SY	224.8
504 (B) 1305	SAW-CUT GROOVING	SY	1202.4
504 (D) 6245	CONCRETE RAIL (TR4)	(BR-1) LF	537.0
506 (A) 1322	STRUCTURAL STEEL	(BR-1) LB	1,050.0
507 (A) 6172	WEATHERING STEEL FIXED BEARING ASSEMBLY	(BR-1) EA	8.0
507 (B) 6174	STAINLESS STEEL EXPANSION BEARING ASSEMBLY	(BR-1) EA	16.0
507 (C) 6282	ELASTOMERIC BEARING PADS	(BR-1) EA	16.0
509 (A) 1326	CLASS AA CONCRETE	(BR-1) CY	298.7
509 (B) 1328	CLASS A CONCRETE	(BR-1) CY	138.7
511 (A) 1332	REINFORCING STEEL	(BR-1) LB	800.0
511 (B) 6010	EPOXY COATED REINFORCING STEEL	(BR-1) LB	118,350.0
514 (A) 6010	PILES, FURNISHED (HP 10X42)	LF	464.0
514 (B) 6292	PILES, DRIVEN (HP 10X42)	LF	464.0
514 (L) 6220	PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	1
515 (A) 6013	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1) SY	1,012.0
516 (A) 6096	DRILLED SHAFTS 60" DIAMETER	LF	110.0
516 (C) 6200	CROSSHOLE SONIC LOGGING	EA	1
523 (A) 6550	SEALER CRACK PREPARATION	(BR-1) LF	163.0
523 (B) 6560	SEALER RESIN	(BR-1) GAL	1.8
601 (B) 1353	TYPE I-A PLAIN RIPRAP	TON	4,920.0
601 (C) 1355	TYPE I-A FILTER BLANKET	TON	680.0
613 (H) 6204	6" PERFORATED PIPE UNDERDRAIN ROUND	(BR-1) LF	84.0
613 (I) 6207	6" NON-PERF. PIPE UNDERDRAIN RND.	LF	72.0
619 (D) 1397	REMOVAL OF EXISTING BRIDGE STRUCTURE	LSUM	1.0

PAY QUANTITIES			
0600 STAKING		J/P NO 24261(04)	
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
642 (B) 0096	CONSTRUCTION STAKING LEVEL II	(S-1) LSUM	1.00

PAY QUANTITIES			
0640 CONSTRUCTION		J/P NO 24261(04)	
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
220 2800	SWPPP DOCUMENTATION AND MANAGEMENT	LSUM	1.00
640 (A) 1398	FIELD OFFICE	(S-2) EA	1.00
641 1399	MOBILIZATION	LSUM	1.00

**(BR-1):**

PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITIES IN ACCORDANCE WITH SECTION 109.01(B) OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

**S-1**

ESTABLISHMENT OF HORIZONTAL AND VERTICAL CONTROL, INCLUDING THE SETTING OF BENCHMARKS, AND THE STAKING OF RIGHT-OF-WAY WILL BE INCLUDED IN THE PRICE BID FOR STAKING.

**S-2**

FIELD OFFICE IS TO BE EQUIPPED WITH TWO TELECOMMUNICATION PHONE LINES. BOTH HAVING LONG DISTANCE RESTRICTED. COST FOR INSTALLATION AND MONTHLY SERVICE TO BE INCLUDE IN THE FIELD OFFICE.

SH-99 OVER BIRCH CREEK		OSAGE COUNTY		Design	RJM	4/12
BRIDGE PAY QUANTITIES (BRIDGE)				Detail	RJM	4/12
				Check	SBH	4/12
NO. 5730 1228X				Squad	....	
NBI 30315				Eng.	....	
<b>STATE OF OKLAHOMA</b>		DEPARTMENT OF TRANSPORTATION		JOB PIECE NO. 24261(04)		
						SHEET NO. 5

Plotted By: ndm Date:10/18/2017 3:00:46 PM  
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