

Project: 2018-0405
PID No. 96959
SCI-73-1184

Submittal: Final
Date: Nov 4, 2019
By: CAB
Checked: CLP

Bridge Quantity Calculations

ITEM 202E11003 STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (LS)

LUMP SUM

TOTAL LUMP

ITEM 202E22900 APPROACH SLAB REMOVED (SY)

2 X 15.00 X 24.00 = 720.00 SQ. FT. /9= 80.00 SQ. YD.

TOTAL 80 SQ. YD.

ITEM 202E23500 WEARING COURSE REMOVED (SY)

105.50 X 36.00 = 3798.00 SQ. FT. /9= 422.00 SQ. YD.

TOTAL 422 SQ. YD.

ITEM 503E11101 COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (LS)

LUMP SUM

TOTAL LUMP

ITEM 503E21301 UNCLASSIFIED EXCAVATION, AS PER PLAN (LS)

LUMP SUM

TOTAL LUMP



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ITEM 505E11100 PILE DRIVING EQUIPMENT MOBILIZATION (LS)

LUMP SUM

TOTAL LUMP

ITEM 507E00100 STEEL PILES HP10X42, FURNISHED (FT)

RA	16	X	35	=	560	L.F.
FA	16	X	30	=	<u>480</u>	L.F.
					1040	

TOTAL 1040 FT

ITEM 507E00150 STEEL PILES HP10X42, DRIVEN (FT)

RA	16	X	30	=	480	L.F.
FA	16	X	25	=	<u>400</u>	L.F.
					880	

TOTAL 880 FT

ITEM 509E10000 EPOXY COATED REINFORCING STEEL (LB)

ABUT	11063	
SUP	<u>31080</u>	
	42143	POUND

TOTAL 42143 POUND

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ITEM 511E21522 CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE (CY)

0.71	X	36.00	X	85.50	=	2180.15	CU. FT.
0.10	X	16.33	X	85.50	=	145.42	CU. FT.
0.33	X	16.33	X	85.50	=	460.75	CU. FT.
0.79	X	2.92	X	85.50	=	197.42	CU. FT.
5.99	X	3.67	X	39.25	=	861.35	CU. FT.
5.99	X	3.67	X	39.58	=	868.59	CU. FT.
-0.50	X	1.25	X	36.05	=	-22.53	CU. FT.
-0.50	X	1.25	X	36.05	=	-22.53	CU. FT.
1.00	X	0.42	X	36.05	=	15.02	CU. FT.
-2.40	X	3.33	X	3.67	=	-29.33	CU. FT.
-2.40	X	3.33	X	3.67	=	-29.33	CU. FT.
-8.00	X	2.67	X	6.77	=	-144.31	CU. FT.
						<u>4480.67</u>	
							/27= 165.95
						<u>TOTAL</u>	<u>166 CU.YD.</u>

ITEM 511E33500 SEMI-INTEGRAL DIAPHRAGM GUIDE (EACH)

RA	1.00	=	1.00	EACH
FA	1.00	=	1.00	EACH
			<u>2.00</u>	
			<u>TOTAL</u>	<u>2 EACH</u>



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ITEM		511E43512 CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING (CY)						
RA	3.00	X	6.00	X	70.00	=	1260.00	CU. FT.
RA	3.08	X	3.67	X	21.67	=	244.84	CU. FT.
RA	3.87	X	3.67	X	8.00	=	113.62	CU. FT.
RA	4.65	X	3.67	X	3.00	=	51.20	CU. FT.
RA	4.26	X	3.67	X	6.67	=	104.23	CU. FT.
RA	5.03	X	3.67	X	6.67	=	123.07	CU. FT.
RA	5.41	X	3.67	X	24.00	=	476.25	CU. FT.
RA	3.08	X	3.67	X	12.31	=	138.81	CU. FT.
RA	-0.97	X	3.67	X	0.97	=	-3.45	CU. FT.
RA	6.15	X	3.67	X	3.50	=	78.93	CU. FT.
RA	3.57	X	3.67	X	9.00	=	117.82	CU. FT.
RA	5.82	X	3.67	X	3.67	=	78.26	CU. FT.
FA	3.00	X	6.00	X	70.00	=	1260.00	CU. FT.
FA	3.12	X	3.67	X	21.80	=	249.58	CU. FT.
FA	3.91	X	3.67	X	7.83	=	112.40	CU. FT.
FA	4.30	X	3.67	X	6.67	=	105.09	CU. FT.
FA	4.68	X	3.67	X	3.00	=	51.53	CU. FT.
FA	5.06	X	3.67	X	6.67	=	123.69	CU. FT.
FA	5.43	X	3.67	X	24.04	=	479.00	CU. FT.
FA	3.58	X	3.67	X	9.00	=	118.15	CU. FT.
FA	5.83	X	3.67	X	3.67	=	78.40	CU. FT.
FA	3.07	X	3.67	X	12.31	=	138.70	CU. FT.
FA	-0.97	X	3.67	X	0.97	=	-3.45	CU. FT.
FA	6.14	X	3.67	X	3.50	=	78.80	CU. FT.
							<u>5575.47</u>	
								/27= 206.50
							TOTAL	206 CU.YD.



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ITEM		512E10100 SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) (SY)									
RA	1.00	X	8.26	+	1.00	X	6.82	=	15.08		SQ. FT.
	1.00	X	468.83	+	3.67	X	15.93	=	527.29		SQ. FT.
	3.67	X	3.50	+	3.67	X	3.67	=	26.31		SQ. FT.
	3.67	X	10.06	-	4.00	X	6.77	=	9.84		SQ. FT.
	3.67	X	2.30					=	8.44		SQ. FT.
									586.97	/9=	65.22 SQ.YD.
FA	1.00	X	6.06	+	1.00	X	8.95	=	15.01		SQ. FT.
	1.00	X	444.02	+	3.67	X	10.06	=	480.94		SQ. FT.
	3.67	X	3.67	+	3.67	X	15.93	=	71.93		SQ. FT.
	3.67	X	3.50	+	2.35	X	3.67	=	21.47		SQ. FT.
									589.35	/9=	65.48 SQ.YD.
Sup	0.46	+	3.33	+	0.46	+	1.30	+	0.24		
	1.88	+	0.35	+	1.48	+	2.96	=	12.45		
	2	X	85.50	X	12.45	=	2129.43	SQ.FT.	/9=	236.60	SQ.YD.
											<u>367.31</u> SQ. YD.
									TOTAL		367 SQ.YD.

ITEM		512E33000 TYPE 2 WATERPROOFING (SY)									
RA	8.98	X	45.51	+	7.00	X	14.87	=	512.77		SQ. FT.
	5.65	X	9.61	+	3.00	X	70.00	=	264.30		SQ. FT.
									777.07	/9=	86.34 SQ.YD.
FA	7.51	X	45.51	+	5.70	X	9.64	=	396.73		SQ. FT.
	7.01	X	14.88	+	3.00	X	70.00	=	314.31		SQ. FT.
									711.04	/9=	79.00 SQ.YD.
											<u>165.34</u> SQ. YD.
									TOTAL		165 SQ.YD.

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ITEM 515E15090 DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE WF48-49 (EACH)

$$1 \times 4 = 4 \text{ EACH}$$

TOTAL 4 EACH

ITEM 515E20000 INTERMEDIATE DIAPHRAGMS (EACH)

$$3 \times 3 = 9 \text{ EACH}$$

TOTAL 9 EACH

ITEM 516E13900 2" PREFORMED EXPANSION JOINT FILLER (SF)

RA	5.82	X	3.67	+	6.15	X	3.67	=	43.93	SQ. FT.
	2.00	X	3.67	+	2.77	X	3.67	=	17.51	
	3.00	X	3.67					=	11.01	
FA	5.82	X	3.67	+	6.14	X	3.67	=	43.89	SQ. FT.
	2.00	X	3.67	+	2.77	X	3.67	=	17.51	
	3.00	X	3.67					=	11.01	
									144.85	

TOTAL 145 SQ. FT.

ITEM 516E14020 SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL (FT)

RA	45.53	+	7.13	+	6.80	=	59.46	FT.
FA	45.28	+	7.05	+	6.74	=	59.07	FT.
							118.53	

TOTAL 119.00 FT.

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ITEM 516E44101 ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (EACH)

RA	1	X	4	=	4	EACH
FA	1	X	4	=	<u>4</u>	EACH
					8	EACH

TOTAL 8 EACH

ITEM 517E70000 RAILING (TWIN STEEL TUBE) (FT)

87.50 + 87.50 + 4.9167 + 4.9167 = 184.83 FT

TOTAL 184.83 FT

ITEM 518E21200 POROUS BACKFILL WITH GEOTEXTILE FABRIC (CY)

RA	9.0	X	2.00	X	45.51	=	817.36	CU. FT.	
RA	7.0	X	2.00	X	14.87	=	208.18	CU. FT.	
RA	5.7	X	2.00	X	9.61	=	<u>108.59</u>	CU. FT.	
							1134.13	CU. FT.	/27 42.00 CU. YD.
FA	9.0	X	2.00	X	45.51	=	820.09	CU. FT.	
FA	5.7	X	2.00	X	9.64	=	109.90	CU. FT.	
FA	7.0	X	2.00	X	14.88	=	<u>208.55</u>	CU. FT.	
							1138.53	CU. FT.	/27 42.17 CU. YD.

84.17 CU. YD.

TOTAL 84 CU. YD.

ITEM 518E22300 SPECIAL - STEEL DRIP STRIP (FT)

[(2 X 85.53)+(26 X 1.5)]= 210.06 FT.

TOTAL 210 FT

ITEM 518E40000 6" PERFORATED CORRUGATED PLASTIC PIPE (FT)

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RA	71.00	FT.
FA	<u>71.00</u>	FT.
	142.00	FT.

TOTAL 142 FT

ITEM 518E40010 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS (FT)

RA	18.00	FT.	FT.
FA	<u>18.00</u>	FT.	FT.
	36.00	FT.	FT.

TOTAL 36 FT

ITEM 526E25000 REINFORCED CONCRETE APPROACH SLABS (T=15") (SY)

2 X 36.00 X 25.00 = 1800.00 SQ. FT. /9= 200.00 SQ. YD.

TOTAL 200 SQ.YD.

ITEM 526E90010 TYPE A INSTALLATION (FT)

36.11 + 37.84 = 73.95 FT.

TOTAL 74 FT.
