

## BURGESS & NIPLE COMPUTATION SHEET

BRIDGE NO.: BUT-04-2317  
 SUBJECT: Stage 2 Estimated Quantities

SFN: 900397

PREPARED BY: SJA      Date: 9/12/21  
 CHECKED BY: MAB      Date: 9/12/21  
 XAC                      3/1/22

**Item 203: POTIONS OF STRUCTURE REMOVED OVER 20 FOOT SPAN, AS PER PLAN**

Existing Pier Cap            50 CY x \$500 = \$25,000

Total 1 LS

**Item Special 53000200 STRUCTURES, MISC.: TEMPORARY CONSTRUCTIN SITE ACCESS**

Cost to Build Causeway	No.	Length	Total	Unit Cost	Cost	
7 - 63"x98" Pipes	7	165	1155	\$175	\$202,125	Total <span style="border: 1px solid black; padding: 2px;">1</span> LS
(611E53501)			Vol. (CY)			
Granular Fill			11990	\$25	\$299,750	
			Total =	\$501,875	Use \$500,000	

**Item 509: Epoxy Coated Reinforcing Steel**

	Total	
		Total <span style="border: 1px solid black; padding: 2px;">4920</span> LBS
Actual Reinforcing =	4920	

**Item 509: Reinforcing Steel, Replacement of Existing Reinforcing Steel, APP**

Total 100 LBS

**Item 510: Dowel Holes with Nonshrink nonmetallic grout**

Use 20 for misc. pier patching

Total 20 EA

**Item 511: Class QC1 Concrete, Pier Cap**

	Area			
	(Cadd)	Thickness	Vol. (CY)	
Left Cap	207.83	3.5	26.94	
Right Cap	206.47	3.5	26.76	
		Total =	53.71	Total <span style="border: 1px solid black; padding: 2px;">54</span> CY

**Item 512: Sealing of Concrete Surfaces (epoxy-urethane)**

Item 519 Patching            236    SF            -    **Item 512: Special - urethane top coat sealer**            36    =    200

Pier 4 Cap

	Area			
	(Cadd)	No. of Faces	Area (SF)	
Left Cap	207.83	2	415.66	
Right Cap	206.47	2	412.94	
	Length	Width	Area (SF)	
Left Side	11.3	3.5	39.55	
Right Side	11.7	3.5	40.95	Total <span style="border: 1px solid black; padding: 2px;">133</span> SY

Left Side	11.7	3.5	40.95
Right Side	11.3	3.5	39.55
	Total (SF) =		989.6

---

**Item 512: Concrete repair by epoxy injection , as per plan**

Pier 3	10	FT	
Pier 5	3	FT	
Pier 6	2	FT	
Pier 7	17	FT	
Total (Ft)	48	(increased by 50%)	Total <span style="border: 1px solid black; padding: 2px;">48</span> Ft

---

**Item 512: Special - urethane top coat sealer**

Pier 1 South	4	SF	
Pier 1 North	1	SF	
Pier 2 South	2	SF	
Pier 2 North	1	SF	
Pier 3 South	9.5	SF	
Pier 3 North	3	SF	
Pier 7 South	3.5	SF	
Total (SF)	36	(increased by 50%)	Total <span style="border: 1px solid black; padding: 2px;">4</span> SY

---

**Item 514: SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL**

Area of beams	573.12	SF	554.66688	
4x4 End Crossframe angles	387.0958	SF	315	Total <span style="border: 1px solid black; padding: 2px;">1122</span> SF
18"x18" Gusset Plates	162	SF	81	

---

**Item 514: FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT**

Total 1122 SF

---

**Item 514: FIELD PAINTING OF EXISTING STRUCTURAL STEEL, INTERMEDIATE COAT**

Total 1122 SF

---

**Item 514: FIELD PAINTING OF EXISTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN**

Total 1122 SF

---

**Item 514: GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL**

PROVIDE 1 MINUTE PER LINEAR FT. OF THE BEAMS TO BE COATED

Total 2 MNHR

LENGTH OF BEAM TO BE PAINTED = 64

---

**Item 514: FINAL INSPECTION REPAIR**

1 INSPECTION PER 150 FT. OF BEAM TO BE COATED

Total 1 EACH

LENGTH OF BEAM TO BE PAINTED =

64

---

**Item 516: Elastomeric Bearing with Internal Laminates and Load Plate (Neoprene), as per plan**

Pier 4 = 4 girders x 2 piers x 2 bearing lines

Total 16 EA

---

**Item 516: Jacking and Temporary Support of Superstructure, as per plan**

Use \$10,000

Total 1 LS

---

**Item 519: Special - composite fiber wrap system**

Same as Urethane top coat sealer

Total 36 SF

---

**Item 519: Patching Concrete Structure, APP**

Pier 1 South	8 SF	Pier 4 South	21 SF
Pier 1 North	3.3 SF	Pier 4 North	0 SF
Pier 2 South	4 SF	Pier 5 South	13.3 SF
Pier 2 North	12 SF	Pier 5 North	8.5 SF
Pier 3 South	15.5 SF	Pier 6 North	23.4 SF
Pier 3 North	12.5 SF	Pier 6 South	16.6 SF
Field Measured Quantity =	55.3 SF	Field Measured Quantity =	82.8 SF
Pier 7 South	14 SF		
Pier 7 North	4.6 SF		
Field Measured Quantity =	18.6 SF		

Total= 235.05 SF (increase by 50%)

Total 236 SF

---

**Item 530: Special - Structure (Temporary Support for Girders at Pier 4)**

Total= 1 Each

Total 1 EACH

Use \$50,000