

Attachment 3.15a

Bridge Repair Quantities

BRIDGE REPAIR QUANTITIES

				<u>0292031</u> I-495 NBL & SBL Bridges over Scott's Run	<u>0295002</u> GW Parkway WBLEBL Bridge over I-495	<u>0295003</u> GW Parkway WBL Bridge over I-495	
Item Description	Specification ⁽¹⁾	Units	Quantity ⁽²⁾	Quantity	Quantity	Total Quantity	
Bridge Deck Grooving	404	SY	3,225			3,225	
Prepare and Spot Coat Existing Structure (STR. NOS. 2031, 5002, 5003)	411	SF	8,100	1,600		9,700 8,100	
Disposal of Material (STR. NOS. 2031, 5002, 5003)	411	LS	1	1	1	3 1	
Environmental Protection and Health and Safety (STR. NOS. 2031, 5002, 5003)	411	LS	1	1	1	3 1	
Crack Repair Type B	412	LF	-	300		300	
Embedded Galvanic Anodes	412	EA	1,334	1,490		2,824 1,334	
Patching Type B	412	SY	120	223 100		343 220	
Patching Type C	412	SY	24	66 20		90 44	
Deck Joint Elimination	412 See Notes	LF	393			393	
Jacking and Blocking Beam	412	EA		8		8	
Concrete Superstructure Surface Repair	412 See Notes	SY	5	85		90 5	
Anchor Bolt Replacement	412	EA	4			4	
Adhesive Based Joint Sealer (Class I) 1"	420 See Notes	LF		170		170	
Clean and Reseal Expansion Joint	404	LF		170		170	
Remove Asphalt Concrete Overlay	See Plans	SY	3,225			3,225	
Type A Milling 1"	425	SY	3,225			3,225	
Furnish VES Latex Modified Concrete (1 1/2" – 2")	425	CY	343			343	
Place VES Latex Modified Concrete	425	SY	3,225			3,225	

Superstructure

Execution Version

	Type A Hydro-Demolition 1/2"	425	SY	3,225		3,225
	Epoxy Overlay	431	SY		2,434	2,434
	Deck Drainage Assembly Replacement	See Plans	EA	-	8	8
	Beam End Repair	See Plans	EA		12	12
	Clean and Paint Bearings	411	EA	44		44
Substructure	Embedded Galvanic Anodes	412	EA	40	120	16040
	Concrete Substructure Surface Repair	412 See Notes	SY	10	3115	4115
	Crack Repair Type B	412	LF	300	360	660300
Miscellaneous	HR-1 Railing	See Plans	LF	-	16	16
	Railing Repair (Aluminum)	See Notes	LS		1	1
	Temporary Shield for Repair	See Plans	LS		1	1
	NBIS Access, Under Bridge (STR. NOS. 2031, 5002, 5003)	430	DAY	2	42	64
	Clean and Wash Abutments and Piers	See Notes	LS	1	1	31
	Remove Vegetation	See Notes	LS		1	1
	Unclog Deck Drains	See Notes	LS		1	1

Notes:

- (1) "See Notes" refers to the Bridge Repair General Notes included in Attachment 3.15a.
- (2) Additional notes on specified quantities:
 - a. Quantities for Bridge 0292031 includes repair items affecting the existing structure only, and does not include the proposed widening, streambed and embankment, or slope protection.
 - b. An average depth of VES LMC Overlay of 4" is assumed for the tabulated quantities. Actual depth to be determined by the Design-Builder based on existing asphalt overlay thickness per RFP Plan notes.
 - c. The Patching Type B and Patching Type C quantities are assumed to be 5% and 1% of the total deck area. Actual quantities shall be re-evaluated after removal of the existing asphalt overlay.

Type A Milling (1”), Type A Hydro-demolition (1/2”), Furnish (Very-Early-Strength Latex-Modified) Concrete (1 1/2”-2”) and Place (Very-Early-Strength Latex-Modified) Concrete Overlay shall be completed in accordance with the requirements of Section 425 of the Road and Bridge Specifications. The depths of milling and hydro-demolition noted above were established on the basis of concrete deck cover shown on the as built plans. The Design-Builder shall verify actual concrete deck cover using industry accepted sampling methods prior to commencement of milling operations. Milling of deck to within 3/4” of the top of top mat of reinforcing steel shall not be permitted.

Concrete Substructure Surface Repair shall be performed in accordance with the requirements of Section 412 of the Road and Bridge Specifications. The use of shotcrete will not be permitted.

Railing Repair (Aluminum) shall consist of replacing damaged railing elements and replacing missing nuts to match the as-built details. The Design-Builder may use recycled aluminum railing members of the repair with Engineer’s approval.

Clean and Wash Abutments and Piers shall consist of the removal of debris from abutments and piers followed by pressure washing of all exposed faces of abutments and piers to remove dust and contaminants. Worker protection and collection and discharge of debris and water generated from cleaning shall be in accordance with the contract requirements and shall be included in the cost of Clean and Wash Abutments and Piers.

Remove Vegetation shall consist of removing and disposing of trees, shrubs and vegetation noted in the most recent National Bridge Inspection Standards bridge inspection report for the structure. Debris shall be disposed of in accordance with the contract requirements.

Unclog Deck Drains shall consist of unclogging, cleaning and removal of debris from bridge drainage system. Worker protection and the collection and discharge of debris and water generated from cleaning shall be in accordance with contract requirements and shall be included in the cost of Unclog Deck Drains.