

BRIDGE NO: BEL-70-2134N
 SFN: 0702889
 BRIDGE DESCRIPTION: I-70 OVER I-470 WEST TO I-70



CALCULATED BY: AMR
 CHECKED BY: JZ

DATE: 05/19/26
 DATE: 05/19/26

ESTIMATED QUANTITIES

ITEM	ITEM EXT.	DESCRIPTION																																																												
ITEM 201	11001	CLEARING AND GRUBBING, AS PER PLAN																																																												
Total Quantity = LS																																																														
ITEM 202	11203	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN																																																												
Total Quantity = LS																																																														
ITEM 202	22900	APPROACH SLAB REMOVED																																																												
Rear Area = 466.53 ft																																																														
Forward Area = 526.30 ft																																																														
Total Quantity = 111 sq yd																																																														
ITEM 202	23500	WEARING COURSE REMOVED																																																												
RearApproach Slab Area = 507.60 ft																																																														
ForwardApproach Slab Area = 566.30 ft																																																														
Total Quantity = 120 sq yd																																																														
ITEM 509	10000	EPOXY COATED STEEL REINFORCEMENT																																																												
Abutments = 643 lb																																																														
Superstructure = 501 lb																																																														
Total Quantity = 1144 lb																																																														
ITEM 509	20001	CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING REINFORCEMENT, AS PER PLAN																																																												
<table><tr><td>Abutments</td><td></td><td>Length</td><td>Number</td><td>Weight</td></tr><tr><td></td><td>#5 Railing Bars</td><td>2.495</td><td>24</td><td>62.45 LB</td></tr><tr><td></td><td>#6 Bars</td><td>3.417</td><td>33</td><td>169.37 LB</td></tr><tr><td></td><td>#8 Bars</td><td>3.3333</td><td>21</td><td>186.90 LB</td></tr><tr><td></td><td></td><td></td><td>Abutment Total =</td><td>418.72 LB</td></tr><tr><td>Superstructure</td><td></td><td>Length</td><td>Number</td><td>Weight</td></tr><tr><td></td><td>#4 Bars</td><td>3.5</td><td>48</td><td>112.22 LB</td></tr><tr><td></td><td>#5 Deck Bars</td><td>3.5</td><td>36</td><td>131.42 LB</td></tr><tr><td></td><td>#5 Railing Bars</td><td>3.5</td><td>18</td><td>65.71 LB</td></tr><tr><td></td><td>Transverse #6 Bars</td><td>3.5</td><td>84</td><td>441.59 LB</td></tr><tr><td></td><td></td><td></td><td>Superstructure Total</td><td>750.94 LB</td></tr><tr><td colspan="5">Total Quantity = 1170 LB</td></tr></table>			Abutments		Length	Number	Weight		#5 Railing Bars	2.495	24	62.45 LB		#6 Bars	3.417	33	169.37 LB		#8 Bars	3.3333	21	186.90 LB				Abutment Total =	418.72 LB	Superstructure		Length	Number	Weight		#4 Bars	3.5	48	112.22 LB		#5 Deck Bars	3.5	36	131.42 LB		#5 Railing Bars	3.5	18	65.71 LB		Transverse #6 Bars	3.5	84	441.59 LB				Superstructure Total	750.94 LB	Total Quantity = 1170 LB				
Abutments		Length	Number	Weight																																																										
	#5 Railing Bars	2.495	24	62.45 LB																																																										
	#6 Bars	3.417	33	169.37 LB																																																										
	#8 Bars	3.3333	21	186.90 LB																																																										
			Abutment Total =	418.72 LB																																																										
Superstructure		Length	Number	Weight																																																										
	#4 Bars	3.5	48	112.22 LB																																																										
	#5 Deck Bars	3.5	36	131.42 LB																																																										
	#5 Railing Bars	3.5	18	65.71 LB																																																										
	Transverse #6 Bars	3.5	84	441.59 LB																																																										
			Superstructure Total	750.94 LB																																																										
Total Quantity = 1170 LB																																																														
ITEM 510	10000	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT																																																												
Total Quantity = 29 each																																																														

ITEM 511	34444	CLASS QC2 CONCRETE, BRIDGE DECK		
Plan Area = 204.68 sq ft				
Thickness = 0.98 ft				
Total Quantity = 8 cu yd				
ITEM 511	34448	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)		
Parapet Area = 3.93 ft				
Parapet Length WW1 & Deck= 6.69 ft				
Parapet Length WW2 & Deck= 6.21 ft				
Parapet Length WW3 & Deck= 4.81 ft				
Parapet Length WW4 & Deck= 6.25 ft				
Total Quantity = 4 cu yd				
ITEM 511	45710	CLASS QC1 CONCRETE, ABUTMENT		
Backwalls				
	R.A.	Plan Area	Average Height	Volume
		48.81 sq ft	1.56 ft	76.27 ft^3
Wingwall				
		Area	Thickness	Volume
		29.89 sq ft	1.75 ft	52.31 ft^3
	F.A.	47.25 sq ft	1.56 ft	73.83 ft^3
Total Quantity = 8 cu yd				
ITEM 512	10100	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		
Superstructure				
	Parapets	Perimeter	Length	Area
		6.86 ft	205.60 ft	2820.83 sq ft
	Left Overhang	2.08 ft	205.60 ft	427.31 sq ft
	Right Overhang	2.46 ft	205.60 ft	504.92 sq ft
Superstructure Total = 417 sq yd				
Piers				
	Columns	Perimeter	Average Height	Area
		9.42 sq ft	16.75	631.46 sq ft
	Caps	Perimeter	Length	Area
		10.67 ft	35.33 ft	753.72 sq ft
Pier Total = 154 sq yd				
Abutments				
	Wingwall 1	Height	Length	Area
		9.35 ft	6.00 ft	56.07 sq ft
	Face and Seat	Perimeter	Length	Area
		7.80 ft	72.36 ft	564.41 sq ft
	Wingwalls 2,3,4 and Parapet	9.86 ft	48.00 ft	473.28 sq ft
Abutment Total = 122 sq yd				
Total Quantity = 693 sq yd				

ITEM 512	10300	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN			
Area					
Deck 5382.88 ft					
Total Quantity = 598 sq yd					
ITEM 512	74000	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES			
Parapets = 313 sq yd					
Total Quantity = 313 sq yd					
ITEM 513	21501	REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN			
Length of L4x4x1/2 per Bay = 23.93 ft					
Volume					
Web Plate 0.04 ft^3					
Number of Locations = 3					
Total Quantity = 1041 lb					
ITEM 514	00050	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			
Perimeter Length Number Total Area					
WF36x194 9.11 ft 206.41 ft 4 7520.20 sq ft					
L3x3x5/16 1.00 ft 26.67 ft 48 1280.02 sq ft					
L4x4x1/2 1.33 ft 23.93 ft 6 191.25 sq ft					
Total Quantity = 8991 sq ft					
ITEM 514	00056	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			
Total Quantity = 8991 sq ft					
ITEM 514	00060	FIELD PAINTING EXISTING STRUCTURAL STEEL, INTERMEDIATE COAT			
Total Quantity = 8991 sq ft					
ITEM 514	00066	FIELD PAINTING EXISTING STRUCTURAL STEEL, FINISH COAT			
Total Quantity = 8991 sq ft					

ITEM 514	00504	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL
Total Quantity = 14 mnhr		
ITEM 514	10000	FINAL INSPECTION REPAIR
Total Quantity = 4 each		
ITEM 516	11210	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL
Length Rear 35.42 ft Forward 34.87 ft		
Total Quantity = 70 ft		
ITEM 516	13600	1" PREFORMED EXPANSION JOINT FILLER
Length Rear Approach Slab = 18.48 ft Forward Approach Slab = 25.42 ft Thickness = 1.08 ft		
Total Quantity = 48 sq ft		
ITEM 516	46200	BEARING DEVICE, ROCKER
Total Quantity = 8 each		
ITEM 516	47001	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
Total Quantity = LS		
ITEM 519	10000	PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE
Total Quantity = 71 sq yd		
ITEM 526	15000	REINFORCED CONCRETE APPROACH SLABS (T = 13")
Rear Area = 460.97 sq ft Forward Area 523.02 sq ft		
Total Quantity = 110 sq yd		
ITEM 526	90010	TYPE A INSTALLATION
Total Quantity = 65 ft		