

QUANTITY CALCULATIONS	MADE BY: DFK	DATE: 3/12/24	ITEM NUMBER: 510E10000
	CHECKED BY: WER	DATE: 3/19/24	PAGE NUMBER: 4



PID NO. 111186 PROJECT SUM-480-07.45 L/R STRUCTURE SUM-480-07.45 LEFT
 ITEM NAME DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT PAY UNIT EACH


DESCRIPTION										SUB TOTAL	TOTAL	
Abutments												
Rear Abutment:												
	Number of Dowel Bars	Number of Dowel Holes per Bar			Total No. of Dowels							
	110	1			110						110	
Forward Abutment:												
	Number of Dowel Bars	Number of Dowel Holes per Bar			Total No. of Dowels							
	106	1			106						106	
TOTAL										216	216	

QUANTITY CALCULATIONS	MADE BY: DFK	DATE: 3/12/24	ITEM NUMBER: 511E44110
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PID NO. 111186 PROJECT SUM-480-07.45 L/R STRUCTURE SUM-480-07.45 LEFT
 ITEM NAME CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING PAY UNIT CY

DESCRIPTION								SUB TOTAL	TOTAL
Rear Abutment									
Stem									
		Stem Joint Elev =	1035.95	ft					
		Top of Footing Elev =	1034.23	ft					
		Ht =	1.72	ft	Vol =	259.93	CF		
		Plan Area =	151.12	sf	Vol =	10	CY	10.0	
Forward Abutment									
Stem									
		Stem Joint Elev =	1037.35	ft					
		Top of Footing Elev =	1035.56	ft					
		Ht =	1.79	ft	Vol =	270.50	CF		
		Plan Area =	151.12	sf	Vol =	11	CY	11.0	
TOTAL								21	21

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PID NO. 111186 PROJECT SUM-480-07.45 L/R STRUCTURE SUM-480-07.45 LEFT
 ITEM NAME SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) PAY UNIT SY

DESCRIPTION						SUB TOTAL	TOTAL
Rear Abutment							
Stem							
T/ Abut Stem Elev.	T/Ground Elev.	Length (ft)	Area (ft^2)	Area (YD^2)			
1038.07	1035.45	50.0	130.75	15.00		15.00	
(Conservatively using max. Abut Stem height across entire length)							
Stem Sides							
Height (ft)	Left Length (ft)	Right Length (ft)	Area (ft^2)	Area (YD^2)			
2.62	4.3	3.0	18.99	3.00		3.00	
Forward Abutment							
Stem							
T/ Abut Stem Elev.	T/Ground Elev.	Length (ft)	Area (ft^2)	Area (YD^2)			
1039.43	1036.85	50.0	128.75	15.00		15.00	
(Conservatively using max. Abut Stem height across entire length)							
Stem Sides							
Height (ft)	Left Length (ft)	Right Length (ft)	Area (ft^2)	Area (YD^2)			
2.58	4.3	3.0	18.70	3.00		3.00	
TOTAL						36	36

QUANTITY
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PID NO. 111186 PROJECT SUM-480-07.45 L/R STRUCTURE SUM-480-07.45 LEFT
 ITEM NAME TYPE 2 WATERPROOFING PAY UNIT SY

DESCRIPTION								SUB TOTAL	TOTAL
Waterproofing at Abutment Corners									
Location	Bot. Appr. Slab EL.	Top Foot EL.	Area (yd^2)	Number of Locations					
R.A. Left	1037.08	1034.23	0.95	4.00			3.79		
F.A. Left	1038.48	1035.56	0.97	4.00			3.89		
TOTAL								8	8

QUANTITY
CALCULATIONS

MADE BY: DFK	DATE: 3/12/24	ITEM NUMBER: 512E74000
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PID NO. 111186 PROJECT SUM-480-07.45 L/R STRUCTURE SUM-480-07.45 LEFT
 ITEM NAME REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES PAY UNIT SY

DESCRIPTION							SUB TOTAL	TOTAL
Rear Abutment								
Stem								
T/ Abut Stem Elev.	T/Ground Elev.	Length (ft)	Area (ft^2)	Area (YD^2)				
1038.07	1035.45	50.0	130.75	15.00		15.00		
(Conservatively using max. Abut Stem height across entire length)								
Stem Sides								
Height (ft)	Left Length (ft)	Right Length (ft)	Area (ft^2)	Area (YD^2)				
2.62	4.3	3.0	18.99	3.00		3.00		
Forward Abutment								
Stem								
T/ Abut Stem Elev.	T/Ground Elev.	Length (ft)	Area (ft^2)	Area (YD^2)				
1039.43	1036.85	50.0	128.75	15.00		15.00		
(Conservatively using max. Abut Stem height across entire length)								
Stem Sides								
Height (ft)	Left Length (ft)	Right Length (ft)	Area (ft^2)	Area (YD^2)				
2.58	4.3	3.0	18.70	3.00		3.00		
TOTAL							36	36

QUANTITY CALCULATIONS	MADE BY: DFK	DATE: 3/12/24	ITEM NUMBER: 516E13200
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PID NO. 111186 PROJECT SUM-480-07.45 L/R STRUCTURE SUM-480-07.45 LEFT

ITEM NAME 1/2" PREFORMED EXPANSION JOINT FILLER PAY UNIT SF

DESCRIPTION							SUB TOTAL	TOTAL
Rear Abutment								
Abutment Joint Seal								
				Total Length =	50.00	ft.		
				Width =	0.833	ft.		
				Total =	41.667	SF	42	
Forward Abutment								
Abutment Joint Seal								
				Total Length =	50.00	ft.		
				Width =	0.833	ft.		
				Total =	41.667	SF	42	
TOTAL							84	84

QUANTITY CALCULATIONS	MADE BY: DFK	DATE: 3/12/24	ITEM NUMBER: 516E13600
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PID NO. 111186 PROJECT SUM-480-07.45 L/R STRUCTURE SUM-480-07.45 LEFT
 ITEM NAME 1" PREFORMED EXPANSION JOINT FILLER PAY UNIT SF

DESCRIPTION								SUB TOTAL	TOTAL
Rear Abutment									
Abutment Joint Seal				Total Length =	50.00	ft.			
				Width =	0.833	ft.			
				Total =	41.667	SF	42		
Forward Abutment									
Abutment Joint Seal				Total Length =	50.00	ft.			
				Width =	0.833	ft.			
				Total =	41.667	SF	42		
TOTAL								84	84

QUANTITY CALCULATIONS	MADE BY: DFK	DATE: 3/12/24	ITEM NUMBER: 518E21200
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PID NO. 111186 PROJECT SUM-480-07.45 L/R STRUCTURE SUM-480-07.45 LEFT
 ITEM NAME POROUS BACKFILL WITH GEOTEXTILE FABRIC PAY UNIT CY

DESCRIPTION							SUB TOTAL	TOTAL
Abutments								
(Height = Bot App. Slab - Bottom Of Footing)								
Height (ft)	Width (ft)	Length (ft)	Volume (ft^3)	Volume (yd^3)		No. of Abuts		
5.85	2.0	48.0	561.12	20.8		2	41.60	
Wingwalls								
(Height = Bot App. Slab - Top Of Footing)								
Height (ft)	Avg. Width (ft)	Length (ft)	Volume (ft^3)	Volume (yd^3)		No. of Wingwalls		
5.80	2.0	4.5	52.20	2.0		4	8.00	
TOTAL							50	50

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MADE BY: DFK	DATE: 3/12/24	ITEM NUMBER: 518E40000
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PID NO. 111186 PROJECT SUM-480-07.45 L/R STRUCTURE SUM-480-07.45 LEFT
 ITEM NAME 6" PERFORATED CORRUGATED PLASTIC PIPE PAY UNIT FT

DESCRIPTION										SUB TOTAL	TOTAL
At Abutments											
	Length		No. of								
	Ft		Abuts								
	55		2							110	
TOTAL										110	110

QUANTITY	MADE BY: DFK	DATE: 3/12/24	ITEM NUMBER: 519E11101
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PID NO. 111186 PROJECT SUM-480-07.45 L/R STRUCTURE SUM-480-07.45 LEFT
 ITEM NAME PATCHING CONCRETE STRUCTURE, AS PER PLAN PAY UNIT SF

DESCRIPTION								SUB TOTAL	TOTAL
Piers:									
North Pier, North Face:									
Measured Area* (ft^2)	Est. Area. (ft^2)								
16.6	19.1						19.05		
Measured Area = ((78"x15")+(38"x32"))/144 = 16.6 sf.									
Estimated Area = Measured Area x 1.15									
North Pier, South Face:									
Measured Area* (ft^2)	Est. Area. (ft^2)								
28.3	32.6						32.57		
Measured Area = ((28"x23")+(27"x15")+(23"x35")+(28"x46")+(36"x18")+(32"x9"))/144 = 28.3 sf.									
Estimated Area = Measured Area x 1.15									
TOTAL							51.6	52	

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PID NO. 111186 PROJECT SUM-480-07.45 L/R STRUCTURE SUM-480-07.45 LEFT

ITEM NAME CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN PAY UNIT SY

DESCRIPTION							SUB TOTAL	TOTAL
Crushed Aggregate Slope Protection								
Assume top 3' of slope protection will be disturbed								
Width (ft.)	Length (ft.)	Area (sq. ft.)	Area (sq. yd.)	No. of Abutments				
50.00	3.00	150.00	16.67	2		33.33		
TOTAL							34	34