

BG



Project: JAC-788-0.90
Bridge: JAC-788-0090
Client: ODOT District 9

JAC-788-0090 Bridge Quantity Calculations

PID: 115771



Project: JAC-788-0.90
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QUANTITY COMPUTATIONS

Date: 6/12/24
By: GTB
Checked: GA
Date: 6/14/2024

DESCRIPTION: PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT
SPAN, AS PER PLAN

ITEM NO. 202E11201
QUANTITY 1
UNIT LS

Portions of Structure Removal:

Deck:

Deck Length = 42.00 ft
Deck Width = 27.00 ft

Deck area to be removed = 1134.00 SF

Cost per SF = \$ 31.37

Total cost = \$ 35,570

Lump
Sum = \$35,570

Say \$40,000

TOTAL = 1 LS



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: WEARING SURFACE REMOVED

ITEM NO. 202E23500
QUANTITY 126
UNIT SY

Deck

Length = 42.00 ft
Width = 27.00 ft

Approach Slab

Length = 0.00
Width = 0.00
No = 0.00

Area = 1134.00 SF
= 126.00 SY

TOTAL = 126 SY



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: COFFERDAMS AND EXCAVATION BRACING

ITEM NO. 503E11100
QUANTITY 1
UNIT LS

Total Cost = \$ 35,000

TOTAL = **1** LS



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: UNCLASSIFIED EXCAVATION

ITEM NO. 503E21100
QUANTITY 188
UNIT CY

Abutment	Width (FT)	Length (FT)	Avg Ht (FT)	Vol. (CF)	Vol. (CY)
Rear Abutment	6.00	44.00	9.00	2376.00	88.00
Forward Abutment	6.00	50.00	9.00	2700.00	100.00
Total Abuts=				188.00	

TOTAL = 188 CY



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: EPOXY COATED STEEL REINFORCEMENT

ITEM NO. 509E10000
QUANTITY 13908
UNIT LB

	Wt (LBS)
SUPERSTRUCTURE	6484
ABUTMEN	7424

Total = 13908

TOTAL = 13908 LB



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: CLASS QC2 CONCRETE, SUPERSTRUTURE

ITEM NO. 511E31610
QUANTITY 43
UNIT CY

Main Slab

		Width (FT)	Length (FT)	Thick. (FT)	Number	Vol (CY)
Area of the Deck	=	30.00	57.00	0.60		38.00
Diaphragm	=	1.50	30.00	1.27	2	4.22

Total **43** CY



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING

ITEM NO. 511E43510
QUANTITY 68
UNIT CY

Rear			Ht (FT)	Length (FT)	Width (FT)	Area (SF)	#	Vol (CY)
Abutment								
Stem	=		2.97	30.71	3.00		1	10.13
WW 1	=		2.64	5.65	2.50		1	1.38
WW 2 Flat	=		2.64	2.65	2.50		1	0.65
Inclined	=		2.01	3.00	2.50		1	0.56
Footing	=		3.00	42.00	4.00		1	18.67
							Total=	31.39

Forward			Ht (FT)	Length (FT)	Width (FT)	Area (SF)	#	Vol (CY)
Abutment								
Stem	=		3.46	30.71	3.00		1	11.81
WW flat	=		2.63	2.65	2.50		2	1.29
inclined	=		1.57	6.00	2.50		2	1.74
Footing	=		3.00	48.00	4.00		1	21.33
							Total=	36.17

Abutments Total = 67.55

Total **68** CY



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

ITEM NO. 512E10100
QUANTITY 70
UNIT SY

	Ht (FT)	Length (FT)	Width (FT)	Cad Area (SF)	#	Area (SY)
Rear Abutment Stem				104.32	1	11.59
Rear Left Wingwall (Top and Back)		6.22	3.00		1	2.07
Rear Left Wingwall (Side)		0.80	2.50		1	0.22
Rear Right Wingwall (Top and Back)		5.92	3.00		1	1.97
Rear Right Wingwall (Side)		1.60	2.50		1	0.44
Forward Abutment Stem				115.77	1	12.86
Forward Left Wingwall (Top and Back)		9.28	3.00		1	3.09
Forward Left Wingwall (Side)		2.04	2.50		1	0.57
Forward Right Wingwall (Top and Back)		9.29	3.00		1	3.10
Forward Right Wingwall (Side)		2.00	2.50		1	0.56
Abutments Total =						36.48
Deck	2.83	51.00			2	32.07
Deck Total						33.07

Total 70 SY



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: TYPE 2 WATERPROOFING

ITEM NO. 512E33000
QUANTITY 10
UNIT SY

	Ht (FT)	Length (FT)	Width (FT)	#	Area (SY)
RA Wing Horizontal Joint =		5.65	3.00	2	3.76
FA Wing Horizontal Joint =		8.65	3.00	2	5.76
				Total=	9.53

Total 10 SY



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE
MEMBERS, LEVEL 1, CB21-36, BEAM LENGTH = 55'

ITEM NO. 515E12040
QUANTITY 10
UNIT EACH

Total = **No of Beams**
10

Total **10** EACH



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: 2" PREFORMED EXPANSION JOINT FILLER

ITEM NO. 516E13900
QUANTITY 27
UNIT SF

	No	Length (ft)	Height (ft)	Area (SF)
Rear Abutment	2	2.50	2.63	13.15
Forward Abutment	2	2.50	2.63	13.15
Total =				26.30

Total **27** SF



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: SEMI INTEGRAL ABUTMENT EXPANSION JOINT SEAL

ITEM NO. 516E14020
QUANTITY 71
UNIT FT

	Length (ft)	#	Total (ft)
Horizontal Joint - Rear Abutment	30.00	1	30.00
Horizontal Joint - Forward Abutment	30.00	1	30.00
Vertical Joint - Rear Abutment	2.63	2	5.26
Vertical Joint - Forward Abutment	2.63	2	5.26
Total=			70.52

Total **71** FT



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD
PLATE (NEOPRENE) (8"X9"X1.71")

ITEM NO. 516E44000
QUANTITY 40
UNIT EACH

	No
Rear Abutment	20
Forward Abutment	20
Total =	40

Total 40 EACH



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: RAILING (THREE STEEL TUBE BRIDGE RAILING)

ITEM NO. 517E70100
QUANTITY 131
UNIT FT

	Length (ft)	#	Total (ft)
Left Side	65.44	1	65.44
Right Side	65.44	1	65.44
Total=			130.88

Total **131** FT



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: POROUS BACKFILL WITH GEOTEXTILE FABRIC

ITEM NO. 518E21200
QUANTITY 52
UNIT CY

	Width (FT)	Length (FT)	Height (FT)	#	VOL (CY)
Rear Abutment and Wingwalls	2.00	42.00	7.75	1	24.11
Forward Abutment and Wingwalls	2.00	48.00	7.75	1	27.56
Total =					51.67

Total **52** CY



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: SPECIAL - STEEL DRIP STRIP

ITEM NO. 518E22300
QUANTITY 68
UNIT FT

	Length (ft)	#	Total (ft)
Right Side	51.50	1	51.50
# Posts	Sides	Length	Total
8	1	2.00	16.00
		Total=	67.50

Total **68** FT



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: 6" DIA. PERFORATED CORRUGATED PLASTIC PIPE

ITEM NO. 518E40000
QUANTITY 90
UNIT FT

	Len (ft)	
Rear Abutment	42.00	(Including the wingwalls)
Forward Abutment	48.00	(Including the wingwalls)
Total =	90.00	

Total 90 FT



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN

ITEM NO. 518E40011
QUANTITY 36
UNIT FT

	Len (ft)	#	Total (FT)
Abutments	9.00	4	36.00

Total 36 FT



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: DRILLED SHAFTS, 30" DIAMETER, INTO BEDROCK

ITEM NO. 524E94604
QUANTITY 65
UNIT FT

	Len (ft)	#	Total (FT)
R.A.	6.40	5	32.00
F.A.	6.50	5	32.50
		Total =	64.50

Total 65 FT



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: DRILLED SHAFTS, 36" DIAMETER, ABOVE BEDROCK

ITEM NO. 524E94702
QUANTITY 301
UNIT FT

	Len (ft)	#	Total (FT)
R.A.	29.92	5	149.60
F.A.	30.19	5	150.95
		Total =	300.55

Total **301** FT



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: REINFORCED CONCRETE APPROACH SLABS (T=13")

ITEM NO. 526E15000
QUANTITY 134
UNIT SY

Length (ft)	Width (ft)	#	Total (SF)	Total (SY)
20.00	30.00	2	1200.00	133.33

Total 134 SY



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: TYPE A INSTALLATION

ITEM NO. 526E90010
QUANTITY 60
UNIT FT

Length (ft)	#	Total (FT)
30.00	2	60.00

Total **60** FT



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: STRUCTURE GROUNDING SYSTEM

ITEM NO. 625E33000
QUANTITY 1
UNIT EACH

Total 1 EACH



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QUANTITY COMPUTATIONS

Date: 6/12/24
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DESCRIPTION: THERMAL INTEGRITY PROFILING (TIP) TEST

ITEM NO. 894E10000
QUANTITY 2
UNIT EACH

Total **2** EACH