



507E00150 STEEL PILES HP10X42, DRIVEN

UNITS = FT

Rear Abutment

Ftg Elev. =	580.72	FT
Top of Rock =	545.1	FT
Embedment =	2	FT
Pile Cutoff Elev =	582.72	
Estimated Length =	40.00	FT
Estimated - Actual	2.38	
Order Length =	40.00	FT
Number =	10	
Total Length =	400	FT

From B-005-0-21 boring log

Rounded up to the nearest 5 feet.
 Rounding to check if it is less than 1'
 Check if rounding is less than 1'. If so then increase to the next 5' interval

Fwd Abutment

Ftg Elev. =	579.21	FT
Top of Rock =	541.80	FT
Embedment =	2.00	FT
Pile Cutoff Elev =	581.21	
Estimated Length =	40.00	FT
Estimated - Actual	0.59	
Order Length =	45.00	FT
Number =	10	
Total Length =	450	FT

From B-006-0-21 boring log

Rounded up to the nearest 5 feet.
 Rounding to check if it is less than 1'
 Check if rounding is less than 1'. If so then increase to the next 5' interval

Total Length = 400 FT + 450 FT = 850 FT

507E00100 STEEL PILES HP10X42, FURNISHED

UNITS = FT

Rear Abutment

Estimated Length =	45.000	FT
Number =	10	
Total Length =	450	FT

5' longer than driven length. See calculations above

Fwd Abutment

Estimated Length =	50.000	FT
Number =	10	
Total Length =	500	FT

5' longer than driven length. See calculations above.

Total Length = 450 FT + 500 FT = 950 FT



511E33418 CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE UNITS = CY

Rear Abutment Diaphragm

Area = 239.00 SF
 Thickness = 3.33 FT

Beam Subtraction

Combined Area = 32.88 SF
 Depth = 2.33 FT

Volume = (239 sft x 3.33 ft - 32.875 sft x 2.33 ft) / 27 = 26.64 CY

Forward Abutment Diaphragm

Area = 238.70 SF
 Thickness = 3.33 FT

Beam Subtraction

Combined Area = 32.88 SF
 Depth = 2.33 FT

Volume = (238.7 SF x 3.33 FT - 32.875 SF x 2.33 FT) / 27 = 26.60 CY

Total = 54 CY

511E34446 CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK UNITS = CY

Bridge Deck

Area = 3985 SF
 Thickness = 8.5 IN

CAD area (3985 sft x 8.5 in / 12) / 27 = 104.54 CY

Beam Haunches

Average Height = 4.00 IN
 Number = 6.00 EA
 Length = 80.67 FT
 Width = 1.67 FT

From Slab & Screed Calculations
 (4in / 12 x 6 each x 80.67 ft x 1.667 ft) / 27 = 9.96 CY

Above Abutment Diaphragms

Length = 46.35 FT
 Thickness = 6.5 IN
 Min Width = 2.83 FT
 Min Width = 3.83 FT

(2 x 46.35 ft x (6.5 in / 12) x 0.5 x (2.83 + 3.83)) / 27 = 6.19 CY

Total = 121 CY



JOB: WOO-65-23.39 (PID 107711) SHEET NO. 3 of 14
SUBJECT: Final Estimated Quantities FILE NO. 200-12914-21002
COMP. BY: NFS DATE: 7/11/24 CHK. BY: DTC DATE: 2/7/25

511E51512

CLASS QC2 CONCRETE WITH QC/QA, SIDEWALK

UNITS = CY

Right Sidewalk only
Area = 10.14 SF
Length = 86.40 FT
Volume = 32.45 CY

Measured in ORD
Measured in ORD

Total = 33 CY



511E43512 CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING UNITS = CY

Rear Abutment Footing

Area = 464.49 SF
Thickness = 3.33 FT
Volume = 464.49 SF x 3.33 FT / 27 = 57.29 CY

Rear Abutment Wingwalls

Left WW Area = 90.11 SF
Right WW Area = 71.27 SF
Thickness = 2.50 FT
Volume = (90.11 SF + 71.27 SF) x 2.5 FT / 27 = 14.94 CY

Forward Abutment Footing

Area = 487.07 SF
Thickness = 3.33 FT
Volume = (487.07 SF x 3.33 FT) / 27 = 60.07 CY

Forward Abutment Wingwalls

Left WW Area = 92.91 SF
Right WW Area = 72.29 SF
Thickness = 2.50 FT
Volume = (92.91 SF + 72.29 SF) x 2.5 FT / 27 = 15.30 CY

Total = 57.29 CY + 14.94 CY + 60.07 CY + 15.30 = 148 CY



512E10100 SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) UNITS = SY

Substructure

Rear Abutment

Right WW

Far Face =	8.12	SF (measured in CAD)
Near Face =	113.63	SF (measured in CAD)
Top =	43.78	SF
End Face =	8.90	SF
Horiz Face =	13.52	SF

Left WW

Far Face =	6.25	SF (measured in CAD)
Near Face =	98.74	SF (measured in CAD)
Top & Inside =	48.63	SF
End Face =	5.93	SF
Horiz Face =	10.41	SF

Below Beam Seat

	82.50	SF (measured in CAD)
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Total R.A. = 440 SF

Forward Abutment

Left WW

Far Face =	6.50	SF (measured in CAD)
Near Face =	107.24	SF (measured in CAD)
Top & Inside =	50.03	SF
End Face =	6.33	SF
Horiz Face =	10.83	SF

Right WW

Far Face =	8.20	SF (measured in CAD)
Near Face =	116.81	SF (measured in CAD)
Top =	44.80	SF
End Face =	9.25	SF
Horiz Face =	13.89	SF

Below Beam Seat

	92.85	SF (measured in CAD)
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Total F.A. = 467 SF

Total = (440 SF + 467 SF) / 9 = 101 SY

Superstructure

Left Barrier & Fascia

Perimeter =	15.46	FT
Length =	87.39	FT
Area =	1351	SF

Right Barrier & Fascia

Perimeter =	17.93	FT
Length =	87.39	FT
Area =	1567	SF

Add for BR-2 Barrier End Sections

Face Area =	15.46	SF (measured in CAD)
Top & End Perim. =	9.14	FT
Width =	1.00	FT

Locations

	8	EA
	4	EA

Area

Face	123.68	SF
Top & End	36.56	SF
Total =	160	SF

Rear Abutment Diaphragm Face

	206.34	SF (measured in CAD)
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Forward Abutment Diaphragm Face

	206.33	SF (measured in CAD)
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(1351 SF + 1567 SF + 160 SF + 206.34 SF + 206.33 SF) / 9 = 388 SY

OVERALL TOTAL = 489 SY



512E10050 SEALING OF CONCRETE SURFACES (NON-EPOXY)

UNITS = SY

Sidewalk

Perimeter = 12.51 FT
Length = 140.29 FT

Total = (12.51 FT x 140.29 FT) / 9 = 195 SY

512E33000 TYPE 2 WATERPROOFING

UNITS = SY

Rear Abut
Rear Right Length = 16.23 FT
Rear Left Length = 12.50 FT
Forward Left Length = 13.00 FT
Forward Right Length = 16.40 FT
3.00 FT

Total = (16.23 FT + 12.5 FT + 13 FT + 16.4 FT) x 3 FT / 9 = 20 SY



515E15020 DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 UNITS = EACH

Number = 6
 Length = 85.33 feet

	HAM-IR 75	HAM-IR 75-12.60	HAM-IR 75-12.60
Avg. Bid Price =	\$ 27,465	\$ 30,685	\$ 30,705
Beam Length =	93.375	111.250	111.875 feet
Unit Cost =	\$ 294.13	\$ 275.82	\$ 274.46
Avg. Unit Cost =	\$ 281.47		

Cost per Beam = \$ 24,018

6 EACH

515E20000 INTERMEDIATE DIAPHRAGMS UNITS = EACH

Number of Rows = 3
 Number of Bays = 5

15 EACH



516E14014 **INTEGRAL ABUTMENT EXPANSION JOINT SEAL**

UNITS = FT

Rear Abutment
Length = 61.81 feet

Fwd Abutment
Length = 61.93 feet

124 FT

516E44100 **ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE**

UNITS = EACH

(NEOPRENE)

Number of Beams = 6
Number of Supports = 2

12 EACH



516E13200 **1/2" PREFORMED EXPANSION JOINT FILLER** **UNITS = SF**

Rear Abutment
Length = 46.12 feet
Width = 1.00 feet

Forward abutment
Length = 46.50 feet
Width = 1.00 feet

Total = 46.12 ft x 1 ft + 46.5 ft x 1 ft = **93** SF

516E13600 **1" PREFORMED EXPANSION JOINT FILLER** **UNITS = SF**

Rear abutment
Length = 46.12 feet
Width = 1.00 feet

Forward abutment
Length = 46.50 feet
Width = 1.00 feet

Rear Approach
Length = 1.50 ft
Height = 1.25 ft

Fwd Approach
Length = 1.50 ft
Height = 1.25 ft

Total = (46.12 ft x 1 ft) + (46.5 ft x 1 ft) + (1.5 ft x 1.25 ft) + (1.5 ft x 1.25 ft) = **97** SF

516E13900 **2" PREFORMED EXPANSION JOINT FILLER** **UNITS = SF**

Rear Left Height = 6.55 feet
Rear Right Height = 7.18 feet
Forward Left Height = 6.51 feet
Forward Right Height = 7.17 feet
Width = 3.33 feet

Total = (6.55 ft + 7.18 ft + 6.51 ft + 7.17 ft) x 3.33 ft = **92** SF



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517E75121

RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING), AS
PER PLAN

UNITS = FT

One Side of Railing
Length = FT

Total = 2 X 87.4 FT = FT



518E40000 6" PERFORATED CORRUGATED PLASTIC PIPE UNITS = FT

Rear Abutment
Length = 75.50 FT

Fwd Abutment
Length = 76.50 FT

152 FT

518E40010 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS UNITS = FT

Rear Abutment
Length = 28.90 FT

Fwd Abutment
Length = 28.90 FT

58 FT

518E21200 POROUS BACKFILL WITH GEOTEXTILE FABRIC UNITS = CY

Rear Abutment
Area = 835.12 SF
Thickness = 2.00 FT

Forward Abutment
Area = 857.47 SF
Thickness = 2.00 FT

Total = (835.12 sft x 2 ft + 857.47 sft x 2 ft) / 27 = 126 CY



526E25010 **REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")** **UNITS = SY**

Rear Approach Slab

Area = 1110.88 sft

Fwd Approach Slab

Area = 1109.22 sft

Total Area = 1110.88 sft + 1109.22 sft / 9 =

247 SY

526E90010 **TYPE A INSTALLATION** **UNITS = FT**

Rear Approach Slab

Length = 43.50 feet

Fwd Approach Slab

Length = 43.50 feet

87 FT

846E00110 **POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM** **UNITS = CF**

One Approach Slab

Length = 43.50 feet

Width = 20 inches

Thickness = 3 inches

Total Volume = 2 x 43.5 ft x (20 in x 3 in) / 144 =

37 CF



JOB: WOO-65-23.39 (PID 107711) SHEET NO. 13 of 14
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530E13000

SPECIAL - FORM LINER

UNITS = SF

One Barrier Face

Area = 146 SF

Number of Faces = 3

No Form Liner on LT Barrier Outside Face

Total = 3 X 146 SF =

438 SF



601E32110

ROCK CHANNEL PROTECTION, TYPE B WITH AGGREGATE FILTER

UNITS = CY

Upstream

Area = 4952 SF

Thickness = 2.5 FT

Slope Factor = 1.1181

Total = (2.5FT X 4952 SF X 1.1181) / 27 =

513

CY