

ITEM #	DESCRIPTION	QUANTITY	UNIT
202E11201	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	LS	LS
503E21300	UNCLASSIFIED EXCAVATION	LS	LS
509E10000	EPOXY COATED REINFORCING STEEL	9,079	LB
511E46510	CLASS QC1 CONCRETE, FOOTING	27	CY
511E46610	CLASS QC1 CONCRETE, HEADWALL	18	CY
511E50210	CLASS QC1 CONCRETE, SUBSTRUCTURE	17	CY
512E10100	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	41	SY
512E33000	TYPE 2 WATERPROOFING	437	SY
516E13600	1" PREFORMED EXPANSION JOINT FILLER	13	SF
518E21200	POROUS BACKFILL WITH GEOTEXTILE FABRIC	21	CY
601E32100	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	84	CY
611E53100	43" X 68" CONDUIT, TYPE A, 706.04	21	FT
611E94726	7' X 4' CONDUIT, TYPE A, 706.05	185	FT
611E99690	MANHOLE, MISC.: FRAME, COVER, GRADE RINGS, STEPS	1	EA

503E21300	UNCLASSIFIED EXCAVATION	LS	LS
------------------	--------------------------------	-----------	-----------

SOUTH HEADWALL:

LENGTH: **26.74** FT ~average of sum of each side of footing
 WIDTH: **6.50** FT ~footing width + 1' each side
 HEIGHT: **4.99** FT ~approx. avg. elev. from ex. ground (791.5) to bot. footing elev. (786.51)
 # LOCATIONS: **1.00** EA
 VOLUME: **32.12** CY

NORTH HEADWALL:

LENGTH: **43.24** FT ~average of sum of each side of footing
 WIDTH: **8.00** FT ~footing width + 1' each side
 HEIGHT: **5.33** FT ~approx. avg. elev. from ex. ground (791.0) to bot. footing elev. (785.67)
 # LOCATIONS: **1.00** EA
 VOLUME: **68.29** CY

Unclassified excavation included with box and elliptical pipe items.

There is an existing junction box in location of proposed junction box. Excavation required for removal.

Adding 10% contingency to account for above.

CONTINGENCY: **10.00** %

TOTAL:	111.00	CY
---------------	---------------	-----------

UNIT COST: **\$50** /CY

TOTAL:	\$6,000
---------------	----------------

509E10000	EPOXY COATED REINFORCING STEEL	9079	LB
------------------	---------------------------------------	-------------	-----------

SOUTH HEADWALL:

1218.00 LB (FROM PLANS)

NORTH HEADWALL:

2170.00 LB (FROM PLANS)

JUNCTION CHAMBER:

5691.00 LB (FROM PLANS)

TOTAL:	9079.00	LB
---------------	----------------	-----------

511E46510 CLASS QC1 CONCRETE, FOOTING	27	CY
--	-----------	-----------

SOUTH HEADWALL:

FOOTING AREA:	121.00	SF	(FROM MICROSTATION)
FOOTING DEPTH:	1.50	FT	
CULV. NOTCH AREA:	12.00	SF	(FROM MICROSTATION - APPROX.)
CULV. NOTCH DEPTH:	0.67	FT	
SHEAR KEY AREA:	28.00	SF	(FROM MICROSTATION)
SHEAR KEY DEPTH:	2.50	FT	
VOLUME:	9.61	CY	

NORTH HEADWALL:

FOOTING AREA:	260.00	SF	(FROM MICROSTATION)
FOOTING DEPTH:	1.50	FT	
CULV. NOTCH AREA:	22.00	SF	(FROM MICROSTATION - APPROX.)
CULV. NOTCH DEPTH:	0.50	FT	
SHEAR KEY AREA:	62.00	SF	(FROM MICROSTATION)
SHEAR KEY DEPTH:	1.00	FT	
VOLUME:	17.15	CY	

TOTAL:	27	CY
---------------	-----------	-----------

511E46610 CLASS QC1 CONCRETE, HEADWALL	18	CY
---	-----------	-----------

SOUTH HEADWALL:

LEFT WING L:	10.00	FT	
LEFT WING AVE. H:	5.67	FT	
LEFT WING TH:	1.00	FT	
RIGHT WING L:	7.50	FT	
RIGHT WING AVE. H:	5.17	FT	
RIGHT WING TH:	1.00	FT	
SLOPE WALL AREA:	8.33	SF	(FROM MICROSTATION)
SLOPE WALL DEPTH:	1.00	FT	
VOLUME:	3.84	CY	

NORTH HEADWALL:

LEFT WING L:	20.50	FT	
LEFT WING AVE. H:	7.83	FT	
LEFT WING TH:	1.50	FT	
STRAIGHT AREA:	85.60	SF	(FROM MICROSTATION)
STRAIGHT TH:	1.50	FT	
VOLUME:	13.67	CY	

TOTAL:	18	CY
---------------	-----------	-----------

511E50210 CLASS QC1 CONCRETE, SUBSTRUCTURE	17	CY
---	-----------	-----------

JUNCTION CHAMBER:

TYP. THICKNESS:	1.00	FT	
TOP SLAB AREA:	154.50	SF	(FROM MICROSTATION MINUS MANHOLE)
BOTTOM SLAB AREA:	149.00	SF	(FROM MICROSTATION - APPROX.)
WALL HEIGHT - SLABS:	4.75	FT	
WALL AVE. PERIMETER:	47.75	FT	(FROM MICROSTATION)
BOX AREA:	44.50	SF	(FROM MICROSTATION)
2" ELLIPTICAL AREA:	48.00	SF	(FROM MICROSTATION)
12" PIPE AREA:	2.00	SF	(FROM MICROSTATION - APPROX.)
VOLUME:	16.14	CY	

TOTAL:	17	CY
---------------	-----------	-----------

512E10100 SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	41	SY
--	-----------	-----------

SOUTH HEADWALL:

L WING L:	10.00	FT	
L WING AVE. PERIM.:	4.38	FT	
R WING L:	7.50	FT	
R WING AVE. PERIM.:	4.38	FT	
BOX FACE AREA:	12.00	SF	(FROM MICROSTATION)
SLOPE WALL LENGTH:	8.33	FT	
SLOPE WALL PERIM.:	2.50	FT	
AREA:	12.15	SY	

NORTH HEADWALL:

L WING L:	20.50	FT	
L WING AVE. PERIM.:	6.13	FT	
STRAIGHT AREA:	85.60	SF	(FROM PREVIOUS)
STRAIGHT L:	21.75	FT	
STRAIGHT TOP/BACK P:	2.00	FT	
AREA:	28.30	SY	

TOTAL:	41	SY
---------------	-----------	-----------

512E33000	TYPE 2 WATERPROOFING	437	SY
------------------	-----------------------------	------------	-----------

PRECAST BOX CULVERT:

BOX HEIGHT: **5.33** FT
BOX WIDTH + 2 FT: **10.33** FT
BOX LENGTH + 4 FT: **187.00** FT (FROM MICROSTATION)
AREA: **436.31** SY

TOTAL:	437	SY
---------------	------------	-----------

516E13600	1" PREFORMED EXPANSION JOINT FILLER	13	SF
------------------	--	-----------	-----------

SOUTH HEADWALL:

LOCATIONS: **2.00** EA
HEIGHT: **6.33** FT
WALL THICKNESS: **1.00** FT
AREA: **12.66** SF

TOTAL:	13	SF
---------------	-----------	-----------

518E21200	POROUS BACKFILL WITH GEOTEXTILE FABRIC	21	CY
------------------	---	-----------	-----------

SOUTH HEADWALL:

BACKFILL THICKNESS: **2.00** FT
LEFT WING L: **10.00** FT
LEFT WING AVE. H: **4.67** FT (HEIGHT OF POROUS BACKFILL)
RIGHT WING L: **7.50** FT
RIGHT WING AVE. H: **4.17** FT (HEIGHT OF POROUS BACKFILL)
VOLUME: **5.77** CY

NORTH HEADWALL:

BACKFILL THICKNESS: **2.00** FT
LEFT WING L: **20.50** FT
LEFT WING AVE. H: **6.83** FT (HEIGHT OF POROUS BACKFILL)
STRAIGHT AREA: **61.60** SF (FROM MICROSTATION - FOR POROUS BACKFILL)
VOLUME: **14.93** CY

TOTAL:	21	CY
---------------	-----------	-----------

611E53100	43" X 68" CONDUIT, TYPE A, 706.04	21	FT
------------------	--	-----------	-----------

RCP TWIN ELLIPTICALS:

SOUTH PIPE L: **14.00** FT (FROM MICROSTATION)
NORTH PIPE L: **7.00** FT (FROM MICROSTATION)
TOTAL LENGTH: **21.00** FT

TOTAL:	21	FT
---------------	-----------	-----------

611E94726	7' X 4' CONDUIT, TYPE A, 706.05	185	FT
------------------	--	------------	-----------

PRECAST BOX CULVERT:

BOX LENGTH: **185.00** FT (FROM MICROSTATION)
TOTAL LENGTH: **185.00** FT

TOTAL:	185	FT
---------------	------------	-----------