

# **Appendix E:**

## **Conceptual Engineer's Estimate**

Shotgun Cove Road Extension  
Mile 2.0 to 4.5  
Conceptual Engineer's Estimate  
**Low Option**

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL COST
201(3B)	CLEARING AND GRUBBING	LUMP SUM	ALL REQUIRED	\$ 600,000	\$ 600,000
203(3)	UNCLASSIFIED EXCAVATION	CUBIC YARD	156,000	\$ 20	\$ 3,120,000
203(11)	DITCHLINE/SUBGRADE BLASTING	SQUARE YARD	95,000	\$ 15	\$ 1,425,000
203(17A)	ROCKFALL MITIGATION - WIRE MESH	CONTINGENT SUM	ALL REQUIRED	\$ 50,000	\$ 50,000
203(19)	TRENCH BLASTING FOR SEWER/WATER UTILITIES	LINEAR FOOT	13,500	\$ 15	\$ 202,500
301(2)	AGGREGATE BASE COURSE, GRADING D-1	CUBIC YARD	8,500	\$ 40	\$ 340,000
602(3)	STRUCTURAL PLATE ARCH 12'-0" SPAN, 5'-0" RISE, 12 GAGE	LINEAR FOOT	240	\$ 1,100	\$ 264,000
602(3)	STRUCTURAL PLATE ARCH 50'-0" SPAN	LUMP SUM	ALL REQUIRED	\$ 550,000	\$ 550,000
603(1-72)	72-INCH CORRUGATED STEEL PIPE	LINEAR FOOT	550	\$ 500	\$ 275,000
603(17-36)	36-INCH PIPE	LINEAR FOOT	1,530	\$ 100	\$ 153,000
603(20-36)	END SECTION FOR 36-INCH PIPE	EACH	110	\$ 800	\$ 88,000
603(20-72)	END SECTION FOR 72-INCH PIPE	EACH	22	\$ 3,300	\$ 72,600
606(1)	W-BEAM GUARDRAIL	LINEAR FOOT	5,700	\$ 30	\$ 171,000
606(13)	PARALLEL GUARDRAIL TERMINAL	EACH	44	\$ 5,500	\$ 242,000
611(1A)	RIPRAP, CLASS I	CUBIC YARD	5,200	\$ 100	\$ 520,000
615(1)	STANDARD SIGN	SQUARE FOOT	270	\$ 160	\$ 43,200
618(1)	SEEDING	ACRE	6	\$ 7,500	\$ 45,000
620(1)	TOPSOIL	SQUARE YARD	28,000	\$ 6	\$ 168,000
630(1)	GEOTEXTILE, SEPARATION	SQUARE YARD	6,900	\$ 3	\$ 20,700
636(1)	GABION RETAINING WALLS	CUBIC YARD	17,500	\$ 200	\$ 3,500,000
639(1)	RESIDENCE DRIVEWAY	EACH	60	\$ 4,000	\$ 240,000
639(3)	PUBLIC APPROACH	EACH	10	\$ 8,000	\$ 80,000
640(1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED	\$ 800,000	\$ 800,000
641(1)	EROSION AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED	\$ 50,000	\$ 50,000
641(3)	TEMPORARY EROSION AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED	\$ 150,000	\$ 150,000
643(2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED	\$ 1,500	\$ 1,500
643(3)	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQUIRED	\$ 1,500	\$ 1,500
643(15)	FLAGGING	CONTINGENT SUM	ALL REQUIRED	\$ 1,500	\$ 1,500
643(25)	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQUIRED	\$ 1,500	\$ 1,500
644(1)	FIELD OFFICE	LUMP SUM	ALL REQUIRED	\$ 50,000	\$ 50,000
CONSTRUCTION SUBTOTAL:				\$	13,200,000
DESIGN CONTINGENCY, CONSTRUCTION CONTINGENCY, CONSTRUCTION MANAGEMENT (50%):				\$	6,600,000
CONSTRUCTION TOTAL:				\$	19,800,000

PLANNING: \$ 1,250,000  
COMPLIANCE: \$ 750,000  
PERMITTING: \$ 625,000  
DESIGN AND PRELIMINARY WORK: \$ 1,875,000  
  
**TOTAL ESTIMATED PROJECT COST: \$ 24,300,000**

Shotgun Cove Road Extension  
Mile 2.0 to 4.5  
Conceptual Engineer's Estimate  
**High Option**

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL COST
201(3B)	CLEARING AND GRUBBING	LUMP SUM	ALL REQUIRED	\$ 600,000	\$ 600,000
203(3)	UNCLASSIFIED EXCAVATION	CUBIC YARD	161,000	\$ 20	\$ 3,220,000
203(11)	DITCHLINE/SUBGRADE BLASTING	SQUARE YARD	95,000	\$ 15	\$ 1,425,000
203(17A)	ROCKFALL MITIGATION - WIRE MESH	CONTINGENT SUM	ALL REQUIRED	\$ 50,000	\$ 50,000
203(19)	TRENCH BLASTING FOR SEWER/WATER UTILITIES	LINEAR FOOT	13,000	\$ 15	\$ 195,000
301(2)	AGGREGATE BASE COURSE, GRADING D-1	CUBIC YARD	8,200	\$ 40	\$ 328,000
602(3)	STRUCTURAL PLATE ARCH 12'-0" SPAN, 5'-0" RISE, 12 GAGE	LINEAR FOOT	260	\$ 1,100	\$ 286,000
602(3)	STRUCTURAL PLATE ARCH 30'-0" SPAN	LUMP SUM	ALL REQUIRED	\$ 400,000	\$ 400,000
603(1-72)	72-INCH CORRUGATED STEEL PIPE	LINEAR FOOT	330	\$ 500	\$ 165,000
603(17-36)	36-INCH PIPE	LINEAR FOOT	1,620	\$ 100	\$ 162,000
603(20-36)	END SECTION FOR 36-INCH PIPE	EACH	116	\$ 800	\$ 92,800
603(20-72)	END SECTION FOR 72-INCH PIPE	EACH	14	\$ 3,300	\$ 46,200
606(1)	W-BEAM GUARDRAIL	LINEAR FOOT	7,000	\$ 30	\$ 210,000
606(13)	PARALLEL GUARDRAIL TERMINAL	EACH	28	\$ 5,500	\$ 154,000
611(1A)	RIPRAP, CLASS I	CUBIC YARD	3,800	\$ 100	\$ 380,000
615(1)	STANDARD SIGN	SQUARE FOOT	260	\$ 160	\$ 41,600
618(1)	SEEDING	ACRE	7	\$ 7,500	\$ 52,500
620(1)	TOPSOIL	SQUARE YARD	32,000	\$ 6	\$ 192,000
630(1)	GEOTEXTILE, SEPARATION	SQUARE YARD	9,100	\$ 3	\$ 27,300
636(1)	GABION RETAINING WALLS	CUBIC YARD	23,100	\$ 200	\$ 4,620,000
639(1)	RESIDENCE DRIVEWAY	EACH	33	\$ 4,000	\$ 132,000
639(3)	PUBLIC APPROACH	EACH	10	\$ 8,000	\$ 80,000
640(1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED	\$ 800,000	\$ 800,000
641(1)	EROSION AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED	\$ 50,000	\$ 50,000
641(3)	TEMPORARY EROSION AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED	\$ 150,000	\$ 150,000
643(2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED	\$ 1,500	\$ 1,500
643(3)	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQUIRED	\$ 1,500	\$ 1,500
643(15)	FLAGGING	CONTINGENT SUM	ALL REQUIRED	\$ 1,500	\$ 1,500
643(25)	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQUIRED	\$ 1,500	\$ 1,500
644(1)	FIELD OFFICE	LUMP SUM	ALL REQUIRED	\$ 50,000	\$ 50,000
CONSTRUCTION SUBTOTAL:				\$	13,900,000
DESIGN CONTINGENCY, CONSTRUCTION CONTINGENCY, CONSTRUCTION MANAGEMENT (50%):				\$	7,000,000
CONSTRUCTION TOTAL:				\$	20,900,000

PLANNING: \$ 1,250,000  
 COMPLIANCE: \$ 750,000  
 PERMITTING: \$ 625,000  
 DESIGN AND PRELIMINARY WORK: \$ 1,875,000  
  
**TOTAL ESTIMATED PROJECT COST: \$ 25,400,000**