



Details: Stormwater pipe shows signs of heavy corrosion, scouring, and undercutting. Pipe is out of round.



Details: 48" metal pipe

General Information		Map
Project ID		
Street Name	223 Cedar Trail	
Site Visit Date	1/21/2016	
Road Classification	Minor road	
Project Notes		
Field Notes		
Design (Existing Site Features)		
Existing Road Laneage	2-13'	
Existing Shld Width (paved and grass) (feet)	1'	
Existing Side Slopes	2:1	
Existing Guardrail	None	
Depth fm Pavement to Top of Culvert (ft):	4'	
Pipe Type and Size	48" CMP	
Pipe Condition (1-5) (1 is new)	4-5	
Condition Notes: Rusty out bottoms, no headwalls. Streambed blowout on downstream side		
Pavement Type/Condition	Asphalt/Good	
Environmental Features		
Wetlands		
Ditches	Roadside drainage ditches	
State Waters		
Utilities (Visual Inspection)		
Electric	Unknown	
Cable	Unknown	
Phone	Unknown	
Gas	Unknown	
Water	Unknown	
Sewer		
Other		
Stage Construction Options		
Close Location to Traffic		
Maintain One Lane - No Temp Pavement		X
Maintain One Lane - Temp Pavement		
Stage Construction Notes:		
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Proposed Design		
Roadway Section	Typical	
Culvert Size & Material	48" round RCP with straight headwall	
Utility Relocations		
Guardrail Replacement		
Miscellaneous Features		
Planning Cost Estimate		
Type	Notes	Total
Design	Includes 10% of Construction Cost and surveying needs	\$8,928
Right of Way Cost	Project entirely in ROW	\$0
Utility Relocation Cost	None identified	\$0
Construction Cost		\$39,279
Environmental Permits	Assuming minimal environmental permitting required	\$10,000
Total Planning Estimate		\$58,206



Photo 1: Upstream end of culvert.



Photo 2: Downstream end of culvert looking North towards Cedar Trail.

Cedar Trail

Photo Date:

1/21/2016

Taken By:

David Gibbs

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Roadway Construction, Utility Relocation and ROW Quantity Calculations

Roadway Construction	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Pavement (SF)	\$ 0.73	\$ 4.87	156.00	\$ 874.43
Curb and Gutter (LF)	\$ 28.56	\$ 30.60	0.00	\$ -
Drain Inlet (EA)		\$ 3,000.00	0.00	\$ -
4" Sidewalk (SY)	\$ 13.56	\$ 36.90	0.00	\$ -
Guardrail (LF)	\$ 4.88	\$ 49.09	0.00	\$ -
End Anchorage (EA)		\$ 1,380.00	0.00	\$ -
Subtotal				\$ 874.43

Grading Complete (5% of Rwy Items & Drng Total \$) \$ 1,346.09

Roadway Total \$ 2,220.52

Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$ 10.38	115.56	\$ 1,199.47
48" CMP (LF)	\$ 24.60		52.00	\$ 1,279.20
48" RCP (LF)		\$ 193.20	52.00	\$ 10,046.40
Class A Conc (CY)		\$ 892.19	13.70	\$ 12,222.98
Steel (lb)		\$ 1.42	0.00	\$ -
Pipe Bedding (CY)		\$ 48.60	11.56	\$ 561.60
Trench Backfill (CY)		\$ 2.99	91.35	\$ 272.96
Trench Compaction (CY)		\$ 6.36	73.08	\$ 464.81

Drainage Total \$ 26,047.41

Signing and Marking	Installation Unit Cost	Amount	Total Cost
Permanent Striping (LF)	\$ 0.71		\$ -

Signing and Marking Total \$ -

Staging	Installation Unit Cost	Amount	Total Cost
Clearing and Grubbing (Acre)	\$ 10,260.00	0.08	\$ 769.50
Temporary Pavement			0
Temporary Drainage (Stream Diversion)	\$ 4,428.00	1.00	\$ 4,428.00

Staging Total \$ 5,197.50

Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	\$ 4.39	17.33	\$ 76.13
Temporary Grassing (AC)	\$ 855.60	0.00	\$ -
Type C Silt Fence (LF)	\$ 4.24	208.00	\$ 881.09
Check Dam Type C Silt Fence (LF)	\$ 6.79	208.00	\$ 1,412.74
Erosion Control Mats (SY)	\$ 1.87	0.00	\$ -
Landscape Mulch (SY)	\$ 3.58	0.00	\$ -
Perm Grassing (AC)	\$ 1,402.20	0.00	\$ -
Rip Rap Type 3 12" (SY)	\$ 60.98	8.00	\$ 487.87
Plastic Filter Fabric (SY)	\$ 5.72	8.00	\$ 45.79
4" Ditch Paving (SY)	\$ 54.65	0.00	\$ -

Erosion Control Total \$ 2,903.62

Construction Cost Total \$ 36,369.05

Traffic Control (8% of Construction Total \$) \$ 2,909.52

Construction Cost Grand Total \$ 39,278.58

Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Aerial	\$ 11.00	\$ 55.00	0.00	\$ -
Buried	\$ 16.50	\$ 82.50	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00	0.00	\$ -
Phone				
Aerial	\$ 11.00	\$ 27.50	0.00	\$ -
Buried	\$ 16.50	\$ 55.00	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00	0.00	\$ -
Cable				
Aerial	\$ 11.00	\$ 27.50	0.00	\$ -
Buried	\$ 16.50	\$ 55.00	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00	0.00	\$ -
Gas				
4" main	\$ 16.50	\$ 66.00	0.00	\$ -
Water				
8" main	\$ 16.50	\$ 93.50	0.00	\$ -
Sewer				
12" main	\$ 16.50	\$ 82.50	0.00	\$ -
Utility Relocation Total				\$ -

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement	\$ 4.00	\$ -	\$ -
ROW Total			\$ -