APPENDIX G

CONCEPT LEVEL COST ESTIMATES

Oxon Run Stream Resto. ... Concept Development
Cost Estimate for Oxon Reach 2

STREAM RESTORATION						
Item	Commodity	Unit of Measure	Quantity	Unit Price	Total Price	Notes
BASE CONSTRUCTION COSTS - STREAM RESTORATION						
1	Class 5 Excavation	CY	6500	$ 15.00	$ 97,500.00	Potentially wet stream channel material
2	Cross Vanes	LF	725	$ 80.00	$ 58,000.00	
3	Riffle Crest Control	LF	275	$ 80.00	$ 22,000.00	
4	J-Hooks	LF	325	$ 80.00	$ 26,000.00	
5	Topsoil	CY	880	$ 50.00	$ 44,000.00	
6	Seeding	SY	9500	$ 1.25	$ 11,900.00	
7	Planting Plan (Trees & Shrubs)	SY	9500	$ 2.25	$ 21,400.00	
8	Bioengineering Bank Stabilization	LF	1235	$ 10.00	$ 12,400.00	
	Total Base Construction Costs				$ 293,200.00	
CONSTRUCTION OPERATIONS - STEAM RESTORATION						
1	Mobilization	LS	1	$ 14,700.00	$ 14,700.00	5% of Base Construction
2	Construction Stakeout	LS	1	$ 11,700.00	$ 11,700.00	4% of Base Construction
3	Clearing and Grubbing	LS	1	$ 11,700.00	$ 11,700.00	4% of Base Construction
4	Erosion and Sediment Control	LS	1	$ 20,500.00	$ 20,500.00	7% of Base Construction
5	Maintenance of Streamflow	LS	1	$ 17,600.00	$ 17,600.00	6% of Base Construction
6	Contingency	LS	1	$ 44,000.00	$ 44,000.00	15% of Base Construction
	Total Construction Operations				$ 120,200.00	
DESIGN AND CONSTRUCTION MANAGEMENT - STEAM RESTORATION						
1	Design and Engineering	LS	1	$ 57,900.00	$ 57,900.00	14% of Base Construction and Construction Operation Costs
2	Surveying/Mapping	LS	1	$ 15,000.00	$ 15,000.00	
3	Geotechnical Investigations	LS	1	$ 7,500.00	$ 7,500.00	
4	Permitting	LS	1	$ -	$ -	Permitting perfomred by District
5	Contracting	LS	1	$ 8,300.00	$ 8,300.00	2% of Base Construction and Construction Operation Costs
6	Constuction Inspection/Management	LS	1	$ 41,300.00	$ 41,300.00	10% of Base Construction and Construction Operation Costs
	Total Design and Construction Management				$ 130,000.00	
TOTAL STREAM RESTORATION					**$ 543,400.00**	

Oxon Run Stream Resto. n Concept Development
Cost Estimate for Oxon Reach 2

STORMWATER RETROFIT						
Item	Commodity	Unit of Measure	Quantity	Unit Price	Total Price	Notes
1	Base Construction	LS	1	$ 67,500.00	$ 67,500.00	Based on cost breakdown for concept SWM plans.
CONSTRUCTION OPERATIONS - STORMWATER RETROFIT						
1	Mobilization	LS	1	$ 2,700.00	$ 2,700.00	4% of Base Construction
2	Construction Stakeout	LS	1	$ 2,700.00	$ 2,700.00	4% of Base Construction
3	Clearing and Grubbing	LS	1	$ 4,700.00	$ 4,700.00	7% of Base Construction
4	Erosion and Sediment Control	LS	1	$ 4,100.00	$ 4,100.00	6% of Base Construction
	Total Construction Operations - Stormwater Retrofit				$ 14,200.00	
DESIGN AND CONSTRUCTION MANAGEMENT - STORMWATER RETROFIT						
1	Design and Engineering	LS	1	$ 12,300.00	$ 12,300.00	15% of Base Construction and Construction Operation Costs
2	Contracting	LS	1	$ 4,100.00	$ 4,100.00	5% of Base Construction and Construction Operation Costs
3	Constuction Inspection/Management	LS	1	$ 8,200.00	$ 8,200.00	10% of Base Construction and Construction Operation Costs
	Total Design and Construction Management - Stormwater Retrofit				$ 24,600.00	
TOTAL STORMWATER RETROFIT					**$ 106,300.00**	

COST SUMMARY			
		Total Cost	Cost Per Lineal Foot
	Stream Restoration Base Construction	$ 293,200.00	$ 162.89
	Stream Restoration Construction Operations	$ 120,200.00	$ 66.78
	Total Stream Restoration Construction	$ 413,400.00	$ 229.67
	Stream Restoration Design & Construction Management	$ 130,000.00	$ 72.22
	Total Stream Restoration Design and Construction	$ 543,400.00	$ 301.89
	Stormwater Retrofit Base Construction	$ 67,500.00	$ 37.50
	Stormwater Retrofit Construction Operations	$ 14,200.00	$ 7.89
	Total Stormwater Retrofit Construction	$ 81,700.00	$ 45.39
	Stormwater Retrofit Design & Construction Management	$ 24,600.00	$ 13.67
	Total Stormwater Retrofit Design and Construction	$ 106,300.00	$ 59.06
TOTAL STREAM RESTORATION AND STORMWATER RETROFIT		$ 649,700.00	$ 360.94

Oxon Run Stream Resto[illegible] Concept Development
Cost Estimate for Oxon Reach 9B

STREAM RESTORATION						
Item	Commodity	Unit of Measure	Quantity	Unit Price	Total Price	Notes
BASE CONSTRUCTION COSTS - STREAM RESTORATION						
1	Class 5 Excavation	CY	28000	$ 12.00	$ 336,000.00	Potentially wet stream channel material
2	Cross Vanes	LF	1300	$ 80.00	$ 104,000.00	
3	Riffle Crest Control	LF	430	$ 80.00	$ 34,400.00	
4	J-Hooks	LF	200	$ 80.00	$ 16,000.00	
5	Channel Gravel	CY	1040	$ 50.00	$ 52,000.00	
6	Seeding	SY	15000	$ 1.25	$ 18,800.00	
7	Planting Plan (Trees & Shrubs)	SY	15000	$ 2.25	$ 33,800.00	
8	Bioengineering Bank Stabilization	LF	1240	$ 10.00	$ 12,400.00	
	Total Base Construction Costs				$ 607,400.00	
CONSTRUCTION OPERATIONS - STEAM RESTORATION						
1	Mobilization	LS	1	$ 24,300.00	$ 24,300.00	4% of Base Construction
2	Construction Stakeout	LS	1	$ 18,200.00	$ 18,200.00	3% of Base Construction
3	Clearing and Grubbing	LS	1	$ 6,100.00	$ 6,100.00	1% of Base Construction
4	Erosion and Sediment Control	LS	1	$ 36,400.00	$ 36,400.00	6% of Base Construction
5	Maintenance of Streamflow	LS	1	$ 24,300.00	$ 24,300.00	4% of Base Construction
6	Contingency	LS	1	$ 91,100.00	$ 91,100.00	15% of Base Construction
	Total Construction Operations				$ 200,400.00	
DESIGN AND CONSTRUCTION MANAGEMENT - STEAM RESTORATION						
1	Design and Engineering	LS	1	$ 113,100.00	$ 113,100.00	14% of Base Construction and Construction Operation Costs
2	Surveying/Mapping	LS	1	$ 15,000.00	$ 15,000.00	
3	Geotechnical Investigations	LS	1	$ 7,500.00	$ 7,500.00	
4	Permitting	LS	1	$ -	$ -	Permitting perfomred by District
5	Contracting	LS	1	$ 16,200.00	$ 16,200.00	2% of Base Construction and Construction Operation Costs
6	Constuction Inspection/Management	LS	1	$ 80,800.00	$ 80,800.00	10% of Base Construction and Construction Operation Costs
	Total Design and Construction Management				$ 232,600.00	
TOTAL STREAM RESTORATION					**$ 1,040,400.00**	

REMOVAL OF CONCRETE CHANNEL						
Item	Commodity	Unit of Measure	Quantity	Unit Price	Total Price	Notes
1	Removal of Concrete Channel	CY	2800	$ 80.00	$ 224,000.00	May be bid separately to reduce costs.

Oxon Run Stream Resto[illegible] Concept Development
Cost Estimate for Oxon Reach 9B

STORMWATER RETROFIT						
Item	Commodity	Unit of Measure	Quantity	Unit Price	Total Price	Notes
1	Base Construction	LS	1	$ 130,700.00	$ 130,700.00	Based on cost breakdown for concept SWM plans.
CONSTRUCTION OPERATIONS - STORMWATER RETROFIT						
1	Mobilization	LS	1	$ 24,300.00	$ 24,300.00	4% of Base Construction
2	Construction Stakeout	LS	1	$ 12,100.00	$ 12,100.00	2% of Base Construction
3	Clearing and Grubbing	LS	1	$ 3,000.00	$ 3,000.00	0.5% of Base Construction
4	Erosion and Sediment Control	LS	1	$ 36,400.00	$ 36,400.00	6% of Base Construction
	Total Construction Operations - Stormwater Retrofit				$ 75,800.00	
DESIGN AND CONSTRUCTION MANAGEMENT - STORMWATER RETROFIT						
1	Design and Engineering	LS	1	$ 31,000.00	$ 31,000.00	15% of Base Construction and Construction Operation Costs
2	Contracting	LS	1	$ 10,300.00	$ 10,300.00	5% of Base Construction and Construction Operation Costs
3	Constuction Inspection/Management	LS	1	$ 20,700.00	$ 20,700.00	10% of Base Construction and Construction Operation Costs
	Total Design and Construction Management - Stormwater Retrofit				$ 62,000.00	
TOTAL STORMWATER RETROFIT					**$ 268,500.00**	

COST SUMMARY			
		Total Cost	Cost Per Lineal Foot
	Stream Restoration Base Construction	$ 607,400.00	$ 227.92
	Stream Restoration Construction Operations	$ 200,400.00	$ 75.20
	Total Stream Restoration Construction	$ 807,800.00	$ 303.11
	Stream Restoration Design & Construction Management	$ 232,600.00	$ 87.28
	Concrete Channel Removal	$ 224,000.00	$ 84.05
	Total Stream Restoration Design and Construction	$ 1,264,400.00	$ 474.45
	Stormwater Retrofit Base Construction	$ 130,700.00	$ 49.04
	Stormwater Retrofit Construction Operations	$ 75,800.00	$ 28.44
	Total Stormwater Retrofit Construction	$ 206,500.00	$ 77.49
	Stormwater Retrofit Design & Construction Management	$ 62,000.00	$ 23.26
	Total Stormwater Retrofit Design and Construction	$ 268,500.00	$ 100.75
TOTAL STREAM RESTORATION AND STORMWATER RETROFIT		$ 1,532,900.00	$ 575.20

Oxon Run Stream Res n Concept Development
Extrapolated Cost Estimate for Oxon Run Main Stem in District of Columbia

Reach	Length	Restored Length (+10%)	Type	Constuction Unit Cost ($/LF)	Total Construction Cost	Design & Construction Management Unit Cost ($ / LF)	Design & Construction Management Costs	Total Stream Restoration Project Cost	Stormwater Retrofit Unit Cost	Stormwater Retrofit Project Costs ($ / LF)
OR-1	460	506	Wooded	$ 229.67	$ 116,200.00	$ 72.22	$ 36,500.00	$ 152,700.00	$ 45.39	$ 23,000.00
OR-2	1,796	1,976	Wooded	$ 229.67	$ 453,700.00	$ 72.22	$ 142,700.00	$ 596,400.00	$ 45.39	$ 89,700.00
OR-3	460	506	Wooded	$ 229.67	$ 116,200.00	$ 72.22	$ 36,500.00	$ 152,700.00	$ 45.39	$ 23,000.00
OR-4	550	605	Wooded	$ 229.67	$ 138,900.00	$ 72.22	$ 43,700.00	$ 182,600.00	$ 45.39	$ 27,500.00
OR-5	385	424	Wooded	$ 229.67	$ 97,300.00	$ 72.22	$ 30,600.00	$ 127,900.00	$ 45.39	$ 19,200.00
OR-6	370	407	Wooded	$ 229.67	$ 93,500.00	$ 72.22	$ 29,400.00	$ 122,900.00	$ 45.39	$ 18,500.00
OR-7	320	352	Wooded	$ 229.67	$ 80,800.00	$ 72.22	$ 25,400.00	$ 106,200.00	$ 45.39	$ 16,000.00
OR-8	779	857	Wooded	$ 229.67	$ 196,800.00	$ 72.22	$ 61,900.00	$ 258,700.00	$ 45.39	$ 38,900.00
OR-9	7,920	9,504	Channelized	$ 387.17	$ 3,679,600.00	$ 87.28	$ 829,500.00	$ 4,509,100.00	$ 77.49	$ 736,400.00
OR-10	1,200	1,320	Lower	$ 229.67	$ 303,200.00	$ 72.22	$ 95,300.00	$ 398,500.00	$ 45.39	$ 59,900.00
OR-11	320	352	Lower	$ 229.67	$ 80,800.00	$ 72.22	$ 25,400.00	$ 106,200.00	$ 45.39	$ 16,000.00
OR-12	523	575	Lower	$ 229.67	$ 132,100.00	$ 72.22	$ 41,500.00	$ 173,600.00	$ 45.39	$ 26,100.00
		Total All Reaches			$ 5,489,000.00		$ 1,399,000.00	$ 6,888,000.00		$ 1,094,000.00