



Department of Permitting  
Environmental Review  
35030 SE Douglas Str, Suite 210  
Snoqualmie, WA 98065-9266  
206-296-6600 TTY Relay: 711

**Critical Areas Mitigation  
Bond Quantity Worksheet**

C24 09/09/2015  
Is-wks-sensareaBQ.xls  
Is-wks-sensareaBQ.pdf

**Project Name:** Mercer Island Yang **Date:** 5-Mar-19 **Prepared by:** Kahlo, Ryan

**Project Number:** **Project Description:** Watercourse Buffer Averaging

**Location:** 6660 East Mercer Way, Mercer Island, WA **Applicant:** Steve and Sophie Yang **Phone:** 206-406-6954

**PLANT MATERIALS (includes labor cost for plant installation)**

Type	Unit Price	Unit	Quantity	Description	Cost
PLANTS: Potted, 4" diameter, medium	\$5.00	Each	729.00		\$ 3,645.00
PLANTS: Container, 1 gallon, medium soil	\$11.50	Each	342.00		\$ 3,933.00
PLANTS: Container, 2 gallon, medium soil	\$20.00	Each			\$ -
PLANTS: Container, 5 gallon, medium soil	\$36.00	Each			\$ -
PLANTS: Seeding, by hand	\$0.50	SY			\$ -
PLANTS: Slips (willow, red-osier)	\$2.00	Each			\$ -
PLANTS: Stakes (willow)	\$2.00	Each			\$ -
PLANTS: Stakes (willow)	\$2.00	Each			\$ -
PLANTS: Flats/plugs	\$2.00	Each			\$ -
<b>TOTAL</b>					<b>\$ 7,578.00</b>

**INSTALLATION COSTS ( LABOR, EQUIPMENT, & OVERHEAD)**

Type	Unit Price	Unit	Quantity	Description	Cost
Compost, vegetable, delivered and spread	\$37.88	CY	45.00		\$ 1,704.60
Decompacting till/hardpan, medium, to 6" depth	\$1.57	CY	45.00		\$ 70.65
Decompacting till/hardpan, medium, to 12" depth	\$1.57	CY			\$ -
Hydroseeding	\$0.51	SY			\$ -
Labor, general (landscaping other than plant installation)	\$40.00	HR			\$ -
Labor, general (construction)	\$40.00	HR			\$ -
Labor: Consultant, supervising	\$55.00	HR			\$ -
Labor: Consultant, on-site re-design	\$95.00	HR			\$ -
Rental of decompacting machinery & operator	\$70.00	HR	6.00		\$ 420.00
Sand, coarse builder's, delivered and spread	\$42.00	CY			\$ -
Staking material (set per tree)	\$7.00	Each			\$ -
Surveying, line & grade	\$250.00	HR			\$ -
Surveying, topographical	\$250.00	HR			\$ -
Watering, 1" of water, 50' soaker hose	\$3.62	MSF			\$ -
Irrigation - temporary	\$3,000.00	Acre	0.10		\$ 300.00
Irrigation - buried	\$4,500.00	Acre			\$ -
Tilling topsoil, disk harrow, 20hp tractor, 4'-6" deep	\$1.02	SY			\$ -
<b>TOTAL</b>					<b>\$ 2,495.25</b>

**HABITAT STRUCTURES\***

ITEMS	Unit Cost	Unit	Quantity	Description	Cost
Fascines (willow)	\$ 2.00	Each			\$ -
Logs (cedar), w/ root wads, 16"-24" diam., 30' long	\$1,000.00	Each			\$ -
Logs (cedar) w/o root wads, 16"-24" diam., 30'	\$400.00	Each			\$ -
Logs, w/o root wads, 16"-24" diam., 30' long	\$245.00	Each			\$ -
Logs w/ root wads, 16"-24" diam., 30' long	\$460.00	Each			\$ -
Rocks, one-man	\$60.00	Each			\$ -
Rocks, two-man	\$120.00	Each			\$ -
Root wads	\$163.00	Each			\$ -
Spawning gravel, type A	\$22.00	CY			\$ -
Weir - log	\$1,500.00	Each			\$ -
Weir - adjustable	\$2,000.00	Each			\$ -
Woody debris, large	\$163.00	Each			\$ -
Snags - anchored	\$400.00	Each			\$ -
Snags - on site	\$50.00	Each			\$ -
Snags - imported	\$800.00	Each			\$ -
<small>* All costs include delivery and installation</small>					
<b>TOTAL</b>					<b>\$ -</b>

**EROSION CONTROL**

ITEMS	Unit Cost	Unit	Quantity	Description	Cost
Backfill and Compaction-embankment	\$ 4.89	CY			\$ -
Crushed surfacing, 1 1/4" minus	\$30.00	CY			\$ -
Ditching	\$7.03	CY			\$ -
Excavation, bulk	\$4.00	CY			\$ -
Fence, silt	\$1.60	LF	73.00		\$ 116.80
Jute Mesh	\$1.26	SY			\$ -
Mulch, by hand, straw, 2" deep	\$1.27	SY			\$ -
Mulch, by hand, wood chips, 2" deep	\$3.25	SY	134.00		\$ 435.50
Mulch, by machine, straw, 1" deep	\$0.32	SY			\$ -
Piping, temporary, CPP, 6"	\$9.30	LF			\$ -
Piping, temporary, CPP, 8"	\$14.00	LF			\$ -
Piping, temporary, CPP, 12"	\$18.00	LF			\$ -
Plastic covering, 6mm thick, sandbagged	\$2.00	SY			\$ -
Rip Rap, machine placed, slopes	\$33.98	CY			\$ -
Rock Constr. Entrance 100x15x1'	\$3,000.00	Each			\$ -
Rock Constr. Entrance 50'x15x1'	\$1,500.00	Each			\$ -
Sediment pond riser assembly	\$1,695.11	Each			\$ -
Sediment trap, 5' high berm	\$15.57	LF			\$ -
Sediment trap, 5' high berm w/spillway incl. riprapp	\$59.60	LF			\$ -
Sodding, 1" deep, level ground	\$5.24	SY			\$ -
Sodding, 1" deep, sloped ground	\$6.48	SY			\$ -
Straw bales, place and remove	\$600.00	TON			\$ -
Hauling and disposal	\$20.00	CY			\$ -
Topsoil, delivered and spread	\$35.73	CY			\$ -
<b>TOTAL</b>					<b>\$ 552.30</b>

GENERAL ITEMS					
ITEMS	Unit Cost	Unit			Cost
Fencing, chain link, 6' high	\$18.89	LF			\$ -
Fencing, chain link, corner posts	\$111.17	Each			\$ -
Fencing, chain link, gate	\$277.63	Each			\$ -
Fencing, split rail, 3' high (2-rail)	\$10.54	LF			\$ -
Fencing, temporary (NGPE)	\$1.20	LF			\$ -
Signs, sensitive area boundary (inc. backing, post, install)	\$28.50	Each			\$ -
				<b>TOTAL</b>	<b>\$ -</b>
<b>OTHER</b>				<i>(Construction Cost Subtotal)</i>	<b>\$ 10,625.55</b>
ITEMS	Percentage of Construction	Unit			Cost
Mobilization	10%	1			\$ 1,062.56
Contingency	30%	1			\$ 3,187.67
				<b>TOTAL</b>	<b>\$ 4,250.22</b>
<p><b>MAINTENANCE AND MONITORING</b></p> <p>NOTE: Projects with multiple permit requirements may be required to have longer monitoring and maintenance terms. This will be evaluated on a case-by-case basis for development applications. Monitoring and maintenance ranges may be assessed anywhere from 5 to 10 years.</p>					
<b>Maintenance, annual (by owner or consultant)</b>					
Less than 1,000 sq.ft. and buffer mitigation only	\$ 1.08	SF		(3 X SF total for 3 annual events; Includes monitoring)	\$ -
Less than 1,000 sq.ft. with wetland or aquatic area mitigation	\$ 1.35	SF		(3 X SF total for 3 annual events; Includes monitoring)	\$ -
Larger than 1,000 sq. ft. but less than 5,000 sq.ft. of buffer mitigation	\$ 180.00	EACH	5.00	(4hr @ \$45/hr)	\$ 900.00
Larger than 1,000 sq. ft. but less than 5,000 sq.ft. of wetland or aquatic area mitigation	\$ 270.00	EACH		(6hr @ \$45/hr)	\$ -
Larger than 5,000 sq.ft. but < 1 acre -buffer mitigation only	\$ 360.00	EACH		(8 hrs @ 45/hr)	\$ -
Larger than 5,000 sq.ft. but < 1 acre with wetland or aquatic area mitigation	\$ 450.00	EACH		(10 hrs @ \$45/hr)	\$ -
Larger than 1 acre but < 5 acres - buffer and / or wetland or aquatic area mitigation	\$ 1,600.00	DAY		(WEC crew)	\$ -
Larger than 5 acres - buffer and / or wetland or aquatic area mitigation	\$ 2,000.00	DAY		(1.25 X WEC crew)	\$ -
<b>Monitoring, annual (by owner or consultant)</b>					
Larger than 1,000 sq.ft. but less than 5,000 wetland or buffer mitigation	\$ 720.00	EACH	5.00	(8 hrs @ 90/hr)	\$ 3,600.00
Larger than 5,000 sq.ft. but < 1 acre with wetland or aquatic area impacts	\$ 900.00	EACH		(10 hrs @ \$90/hr)	\$ -
Larger than 1 acre but < 5 acres - buffer and / or wetland or aquatic area impacts	\$ 1,440.00	DAY		(16 hrs @ \$90/hr)	\$ -
Larger than 5 acres - buffer and / or wetland or aquatic area impacts	\$ 2,160.00	DAY		(24 hrs @ \$90/hr)	\$ -
				<b>TOTAL</b>	<b>\$ 4,500.00</b>
<b>Total</b>					<b>\$19,375.77</b>