Appendix A: Cost Estimates

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NOTES BY: DATE : 11/05/2018 CHECK BY: JMH DATE :12/26/2018

STORMWATER MANAGEMENT PROGRAM **COST SUMMARY**

Item No.	DESCRIPTION	QUA	NTITY	UNIT PRICE	AMOUNT
1	STREAM RESTORATION CONSTRUCTION AND O&M CONTRACT	1	LS	\$1,920,000.00	\$1,920,000.00
2	STREAM REST SURVEY, DESIGN, PERMITTING, BIDDING, ETC.	1	LS	\$452,000.00	\$452,000.00
3	OTHER COSTS AND MCMS (UNTIL 2023)	1	LS	\$418,060.62	\$418,000.00

TOTAL \$2,790,000.00

CALL \$2,790,000.00



STREAM RESTORATION - CONSTRUCTION COST ESTIMATE 5,500 LF STREAM RESTORATION

CONSTRUCTION COSTS

DESCRIPTION	QUAN	TITY	UNIT PRICE	AMOUNT
MOBILIZATION/DEMOBILIZATION	1	LS	\$62,000.00	\$62,000.00
MAINTENANCE AND PROTECTION OF TRAFFIC	1	LS	\$37,000.00	\$37,000.00
UTILITY COORDINATION	1	LS	\$25,000.00	\$25,000.00
SANDBAG COFFER DAM	2	EA	\$3,000.00	\$6,000.00
BYPASS PUMPING	1	EA	\$7,200.00	\$7,200.00
CLASS 2 EXCAVATION	10,120	CY	\$22.00	\$222,640.00
SELECT TREE REMOVAL (CLEARING/GRUBBING)	50	EA	\$800.00	\$40,000.00
TILL EXISTING SOIL, 10" DEPTH	42,800	SY	\$2.70	\$115,560.00
MULCH CONTROLLED NETTING (COCONUT COIR)	11,000	SY	\$2.40	\$26,400.00
EROSION CONTROL MATTING (SHORT TERM)	31,800	SY	\$1.80	\$57,240.00
PLACING STOCKPILED TOPSOIL	1,360	CY	\$24.00	\$32,640.00
TREE OR SHRUB PLANTING	4,900	EA	\$46.00	\$225,400.00
SEEDING AND SOIL SUPPLEMENTS - FORMULA RIP, INCLUDING MULCH	740	LB	\$130.00	\$96,200.00
SEEDING AND SOIL SUPPLEMENTS - FORMULA D, INCLUDING MULCH	460	LB	\$20.00	\$9,200.00
TEMPORARY PROTECTIVE FENCING	11,000	LF	\$6.00	\$66,000.00
COMPOST FILTER SOCK, 18" DIAMETER	11,000	LF	\$8.00	\$88,000.00
ROCK CONSTRUCTION ENTRANCE	5	EA	\$2,200.00	\$11,000.00
GRANULAR MATERIAL (ACCESS ROAD)	4,300	SY	\$7.00	\$30,100.00
ROCK, CLASS R-6	1,100	CY	\$110.00	\$121,000.00
GEOTEXTILE, CLASS 4, TYPE A	1,225	SY	\$2.50	\$3,062.50
ROCK, CLASS R-4	1,225 Constructio	CY	\$60.00	\$73,500.00 \$1,355,142.50
	MOBILIZATION/DEMOBILIZATION MAINTENANCE AND PROTECTION OF TRAFFIC UTILITY COORDINATION SANDBAG COFFER DAM BYPASS PUMPING CLASS 2 EXCAVATION SELECT TREE REMOVAL (CLEARING/GRUBBING) TILL EXISTING SOIL, 10" DEPTH MULCH CONTROLLED NETTING (COCONUT COIR) EROSION CONTROL MATTING (SHORT TERM) PLACING STOCKPILED TOPSOIL TREE OR SHRUB PLANTING SEEDING AND SOIL SUPPLEMENTS - FORMULA RIP, INCLUDING MULCH SEEDING AND SOIL SUPPLEMENTS - FORMULA D, INCLUDING MULCH TEMPORARY PROTECTIVE FENCING COMPOST FILTER SOCK, 18" DIAMETER ROCK CONSTRUCTION ENTRANCE GRANULAR MATERIAL (ACCESS ROAD) ROCK, CLASS R-6 GEOTEXTILE, CLASS 4, TYPE A	MOBILIZATION/DEMOBILIZATION 1 MAINTENANCE AND PROTECTION OF TRAFFIC 1 UTILITY COORDINATION 1 SANDBAG COFFER DAM 2 BYPASS PUMPING 1 CLASS 2 EXCAVATION 10,120 SELECT TREE REMOVAL (CLEARING/GRUBBING) 50 TILL EXISTING SOIL, 10" DEPTH 42,800 MULCH CONTROLLED NETTING (COCONUT COIR) 11,000 EROSION CONTROL MATTING (SHORT TERM) 31,800 PLACING STOCKPILED TOPSOIL 1,360 TREE OR SHRUB PLANTING 4,900 SEEDING AND SOIL SUPPLEMENTS - FORMULA RIP, INCLUDING MULCH 740 SEEDING AND SOIL SUPPLEMENTS - FORMULA D, INCLUDING MULCH 460 TEMPORARY PROTECTIVE FENCING 11,000 COMPOST FILTER SOCK, 18" DIAMETER 11,000 ROCK CONSTRUCTION ENTRANCE 5 GRANULAR MATERIAL (ACCESS ROAD) 4,300 ROCK, CLASS R-6 1,100 GEOTEXTILE, CLASS 4, TYPE A 1,225	MOBILIZATION/DEMOBILIZATION 1 LS MAINTENANCE AND PROTECTION OF TRAFFIC 1 LS UTILITY COORDINATION 1 LS SANDBAG COFFER DAM 2 EA BYPASS PUMPING 1 EA CLASS 2 EXCAVATION 10,120 CY SELECT TREE REMOVAL (CLEARING/GRUBBING) 50 EA TILL EXISTING SOIL, 10" DEPTH 42,800 SY MULCH CONTROLLED NETTING (COCONUT COIR) 11,000 SY EROSION CONTROL MATTING (SHORT TERM) 31,800 SY PLACING STOCKPILED TOPSOIL 1,360 CY TREE OR SHRUB PLANTING 4,900 EA SEEDING AND SOIL SUPPLEMENTS - FORMULA RIP, INCLUDING MULCH 740 LB SEEDING AND SOIL SUPPLEMENTS - FORMULA D, INCLUDING MULCH 460 LB TEMPORARY PROTECTIVE FENCING 11,000 LF COMPOST FILTER SOCK, 18" DIAMETER 11,000 LF ROCK CONSTRUCTION ENTRANCE 5 EA GRANULAR MATERIAL (ACCESS ROAD) 4,300 SY ROCK, CLASS R-6 1,100 CY GEOTEXTILE, CLASS 4, TYPE A 1,225 SY	MOBILIZATION/DEMOBILIZATION 1 LS \$62,000.00 MAINTENANCE AND PROTECTION OF TRAFFIC 1 LS \$37,000.00 UTILITY COORDINATION 1 LS \$25,000.00 SANDBAG COFFER DAM 2 EA \$3,000.00 BYPASS PUMPING 1 EA \$7,200.00 CLASS 2 EXCAVATION 10,120 CY \$22.00 SELECT TREE REMOVAL (CLEARING/GRUBBING) 50 EA \$800.00 TILL EXISTING SOIL, 10" DEPTH 42,800 SY \$2.70 MULCH CONTROLLED NETTING (COCONUT COIR) 11,000 SY \$2.40 EROSION CONTROL MATTING (SHORT TERM) 31,800 SY \$1.80 PLACING STOCKPILED TOPSOIL 1,360 CY \$24.00 TREE OR SHRUB PLANTING 4,900 EA \$46.00 SEEDING AND SOIL SUPPLEMENTS - FORMULA RIP, INCLUDING MULCH 740 LB \$130.00 SEEDING AND SOIL SUPPLEMENTS - FORMULA D, INCLUDING MULCH 460 LB \$20.00 TEMPORARY PROTECTIVE FENCING 11,000 LF \$6.00

OPERATION AND MAINTENANCE ACTIVITIES INCOROPORATED INTO CONSTRUCTION CONTRACT

YEAR NO.	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
2021	REMOVE NUISANCE AND INVASIVE SPECIES	4	TRIPS	\$5,000.00	\$20,000.00
2021	REPLACE DEAD PLANTINGS	245	EA	\$460.00	\$112,700.00
2022	REMOVE NUISANCE AND INVASIVE SPECIES	2	TRIPS	\$5,150.00	\$10,300.00
2022	REPLACE DEAD PLANTINGS	12	EA	\$473.80	\$5,804.05
2023	REMOVE NUISANCE AND INVASIVE SPECIES	1	TRIPS	\$5,304.50	\$5,304.50

O&M Sub-total \$154,108.55

\$1,509,251.05 Contract Subtotal \$301,850.21 Contingency 20% \pm \$1,811,101.26 Subtotal \$111,992.25

Inflation (Assuming 2020 Build Year at 3% per Year) TOTAL ESTIMATED CONSTRUCTION COST

> CALL \$1,920,000.00

\$1,923,093.51



${\bf STREAM\ RESTORATION\ -SURVEY, DESIGN, PERMITTING, BIDDING, AND\ CONSTRUCTION\ SERVICES}$

5,500 LF STREAM RESTORATION, 2020 BUILD YEAR

ITEM NO.	DESCRIPTION	PERCENTAGE OF CONSTRUCTION COST	CONST COST	AMOUNT
1	SURVEY	2.3%	\$1,920,000.00	\$44,000.00
2	DESIGN	13.0%	\$1,920,000.00	\$250,000.00
3	PERMITTING	2.6%	\$1,920,000.00	\$50,000.00
4	BID PHASE SERVICES	0.8%	\$1,920,000.00	\$16,000.00
5	CONSTRUCTION PHASE SERVICES	3.2%	\$1,920,000.00	\$62,000.00
6	AS BUILT SURVEY	1.6%	\$1,920,000.00	\$30,000.00

SURVEY, DESIGN, PERMITTING, BIDDING, CONSTRUCTION, AND AS-BUILT SUM \$452,000.00

CALL \$452,000.00



OTHER COSTS AND MCMS

MCM No.	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	PUBLIC MEETING ADVERTISEMENT AND PRINTED MATERIALS	1	EA	\$500.00	\$500.00
2	PUBLIC INVOLVEMENT AND PARTICIPATION	1	LS	\$0.00	\$0.00
3	OUTFALL INSPECTIONS	1	LS	\$22,530.00	\$22,530.00
4	CONSTRUCTION SITE RUNOFF CONTROL	1	LS	\$0.00	\$0.00
5	POST-CONSTRUCTION SWM MANAGEMENT	1	LS	\$0.00	\$0.00
6	PREPARE AND CONDUCT TRAINING SESSION	20	HRS	\$150.00	\$3,000.00
OTHER	MS4 ADMINISTRATOR POSITION	1	LS	\$71,000.00	\$71,000.00

OTHER COSTS AND MCMS TOTAL YEAR 2019 \$97,030.00

OTHER COSTS AND MCMS TOTAL YEAR 2020 \$76,735.00

OTHER COSTS AND MCMS TOTAL YEAR 2021 \$79,037.05

OTHER COSTS AND MCMS TOTAL YEAR 2022 \$81,408.16

OTHER COSTS AND MCMS TOTAL YEAR 2023 \$83,850.41

Sum \$418,060.62

CALL \$418,000.00