

Feasibility Study for the Future of Rosemary Pool

APPENDIX G

Rosemary Pool - Alternative ONE

Cost Estimate

Description	Unit	2013 Cost	Quantity	Total (No OH&P)	Subtotals
DIVISION 2 - SITE WORK					
DEMOLITION					
Existing Pavement Removal	SY	\$10.00	5,000	\$50,000.00	
Drainage Structure Removal	EA	\$400.00	0	\$0.00	
Drainage Pipe Removal	LF	\$9.00	0	\$0.00	
Selective Building Demolition	AL	\$110,000.00	0	\$0.00	
Asbestos Abatement (roof materials potentially)	AL	\$50,000.00	1	\$50,000.00	
	Subtotal				\$100,000.00
GENERAL SITE WORK					
Clear and Grub Site	ACRE	\$10,500.00	0	\$0.00	
Remove and Reset Existing Drainage Structure Covers	LS	\$2,000.00	0	\$0.00	
Dewatering	LS	\$10,000.00	1	\$10,000.00	
Earth Excavation Site	CY	\$10.00	0	\$0.00	
Earth Excavation Haul & Dispose	CY	\$15.00	0	\$0.00	
Building + Pool Demolition	LS	\$40,000.00	1	\$40,000.00	
Tree Removal	ACRE	\$10,000.00	0	\$0.00	
Finish Grading	SY	\$1.00	7,000	\$7,000.00	
Loam	CY	\$38.00	1,000	\$38,000.00	
Seed	SY	\$4.00	3,500	\$14,000.00	
Granite Curb	LF	\$45.00	0	\$0.00	
Gravel Pavement Subbase	CY	\$38.00	0	\$0.00	
Bituminous Concrete (Hot Mix Asphalt)	TN	\$100.00	0	\$0.00	
Drainage System - Underground Leaching Chambers	LF	\$120.00	0	\$0.00	
Drainage System - Manhole	EA	\$3,000.00	4	\$12,000.00	
Drainage System - Catchbasin	EA	\$2,300.00	4	\$9,200.00	
Drainage System - Oil/Grit Separator	EA	\$8,000.00	1	\$8,000.00	
Drainage System - 12" RCP	LF	\$40.00	150	\$6,000.00	
Drainage System - 18" RCP	LF	\$70.00	60	\$4,200.00	
Drainage System - 24" RCP	LF	\$75.00	0	\$0.00	
Drainage System - 6" Perf. PVC Roof Drain System	LF	\$40.00	0	\$0.00	
Detention Pond - Drywell	EA	\$3,000.00	0	\$0.00	
Drainage System - Bioretention Basin	LS	\$25,000.00	2	\$50,000.00	
Drainage System - Connect to Existing System	LS	\$5,000.00	1	\$5,000.00	
Drainage System - Relocate Upper Drainage System	LS	\$40,000.00	0	\$0.00	
Water Distribution System - Domestic Tap	LS	\$4,000.00	0	\$0.00	
Water Distribution System - Fire Service Tap	LS	\$6,000.00	0	\$0.00	
Water Distribution System - 2" Copper	LF	\$35.00	0	\$0.00	
Water Distribution System - 8" DI Fire Service	LF	\$50.00	0	\$0.00	
Water Distribution System - Hydrant	EA	\$2,500.00	0	\$0.00	
Water Distribution System - Valves	EA	\$1,000.00	0	\$0.00	
Water Distribution System - Misc. Accessories	LS	\$10,000.00	0	\$0.00	
Electrical & Communication System	LF	\$50.00	0	\$0.00	
Electrical & Communication System	LS	\$30.00	0	\$0.00	
Retaining Walls (Parking)	CY	\$600.00	0	\$0.00	
Terraced Seating at Pool	CY	\$600.00	0	\$0.00	
Landscaping	LS	\$80,000.00	1	\$80,000.00	
Sedimentation Control	LF	\$11.50	4,500	\$51,750.00	
Bank Re-establishment	LF	\$450.00	800	\$360,000.00	
Misc Utility Concrete Pads	CY	\$300.00	0	\$0.00	
Main Entry / Signage / Gates / Side Walks	LS	\$7,500.00	1	\$7,500.00	
Timber Guardrail / Edge Treatment	LF	\$35.00	0	\$0.00	
Site Furnishings	LS	\$56,000.00	0	\$0.00	
	Subtotal				\$702,650.00
POOL SITE WORK					
Earth Excavation - Pool Shell	CY	\$30.00	0	\$0.00	
Earth Excavation Haul & Dispose	CY	\$13.00	0	\$0.00	
Finish Grading	SY	\$1.00	0	\$0.00	
	Subtotal				\$0.00
DIVISION 3 - CONCRETE					
CAST-IN-PLACE CONCRETE					
Building Retaining Walls for pedestrian access connections	CY	\$500.00	0	\$0.00	
Pool Concrete Shell	CY	\$450.00	0	\$0.00	
Misc Concrete Pit & Trenches	CY	\$540.00	0	\$0.00	
Pool Decking	SF	\$15.00	0	\$0.00	
	Subtotal				\$0.00
DIVISION 13 SPECIAL CONSTRUCTION					
POOL SYSTEMS					
Pool Pumps, Filter, & Equip.	LS	1	\$0.00	\$0.00	
Pool Emergency Shutoff	LS	1	\$0.00	\$0.00	
24" x 24" main drain assemblies	EA	4	\$0.00	\$0.00	
14" Sch 80 PVC Pool Drain Piping	LF	400	\$0.00	\$0.00	
Hydrostatic valves with sump box	EA	12	\$0.00	\$0.00	
8" Sch 80 PVC Pool Piping	LF	800	\$0.00	\$0.00	

Rosemary Pool - Alternative ONE
Cost Estimate

Description	Unit	2013 Cost	Quantity	Total (No OH&P)	Subtotals
UV treatment assembly	EA	1	\$0.00	\$0.00	
Subtotal					\$0.00
DIVISION 15 MECHANICAL					
FIRE PROTECTION Fire Protection System	SF	\$5.00	0	\$0.00	
PLUMBING Plumbing System	SF	\$12.00	0	\$0.00	
HVAC EQUIPMENT HVAC System	SF	\$20.00	0	\$0.00	
Subtotal					\$0.00
DIVISION 16 ELECTRICAL					
ELECTRICAL Electrical System	SF	\$25.00	0	\$0.00	
Subtotal					\$0.00
DIVISIONS 3-12 COMPILED					
General Building Renovations	SF	\$100.00	0	\$0.00	
Subtotal					\$0.00
Pool + Buildings Subtotal:				\$0	
General Conditions (7.5%):				\$0	
Overhead & Profit (5%):				\$0	
Insurance & Bonds (2%):				\$0	
Subtotal:				\$0	
Site Work:				\$802,650	
Site Work Overhead & Profit (10%):				\$80,265	
Site Work Insurance & Bonds (3%):				\$26,487	
Building / Site / Equipment Subtotal:				\$909,402	
Contingency (20%):				\$181,880	
TOTAL CONSTRUCTION COST:				\$1,091,283	
SOFT COSTS				\$327,385	30.00%
A&E Fees (design, bid, const.)					
A&E Special Services					
Owner's Project Manager Fees					
Temporary Facilities					
Printing Cost - Advertisement					
Commissioning					
Abatement					
				\$1,418,668	2013
ESCALATION at 5.8% per year				\$1,500,951	2014
				\$1,588,006	2015
				\$1,680,110	2016
				\$1,777,556	2017
				\$1,880,655	2018

Rosemary Pool - Alternative TWO

Cost Estimate

Description	Unit	2013 Cost	Quantity	Total (No OH&P)	Subtotal
DIVISION 2 - SITE WORK					
DEMOLITION					
Existing Pavement Removal	SY	\$10.00	5,000	\$50,000.00	
Drainage Structure Removal	EA	\$400.00	10	\$4,000.00	
Drainage Pipe Removal	LF	\$9.00	500	\$4,500.00	
Selective Building Demolition	AL	\$110,000.00	1	\$110,000.00	
Asbestos Abatement (roof materials potentially)	AL	\$50,000.00	1	\$50,000.00	
	Subtotal				\$218,500.00
GENERAL SITE WORK					
Clear and Grub Site	ACRE	\$10,500.00	2	\$15,750.00	
Remove and Reset Existing Drainage Structure Covers	LS	\$2,000.00	8	\$16,000.00	
Dewatering	LS	\$50,000.00	1	\$50,000.00	
Earth Excavation Site	CY	\$10.00	8,000	\$80,000.00	
Earth Excavation Haul & Dispose	CY	\$15.00	1,000	\$15,000.00	
Boulder Excavation & Disposal	CY	\$200.00	150	\$30,000.00	
Tree Removal	ACRE	\$10,000.00	1	\$5,000.00	
Finish Grading	SY	\$1.00	5,000	\$5,000.00	
Loam	CY	\$38.00	1,200	\$45,600.00	
Seed	SY	\$4.00	1,400	\$5,600.00	
Granite Curb	LF	\$45.00	900	\$40,500.00	
Gravel Pavement Subbase	CY	\$38.00	1,000	\$38,000.00	
Bituminous Concrete (Hot Mix Asphalt)	TN	\$100.00	400	\$40,000.00	
Drainage System - Underground Leaching Chambers	LF	\$120.00	800	\$96,000.00	
Drainage System - Manhole	EA	\$3,000.00	7	\$21,000.00	
Drainage System - Catchbasin	EA	\$2,300.00	8	\$18,400.00	
Drainage System - Oil/Grit Separator	EA	\$8,000.00	3	\$24,000.00	
Drainage System - 12" RCP	LF	\$40.00	450	\$18,000.00	
Drainage System - 18" RCP	LF	\$70.00	120	\$8,400.00	
Drainage System - 24" RCP	LF	\$75.00	100	\$7,500.00	
Drainage System - 6" Perf. PVC Roof Drain System	LF	\$40.00	300	\$12,000.00	
Detention Pond - Drywell	EA	\$3,000.00	10	\$30,000.00	
Drainage System - Bioretention Basin	LS	\$25,000.00	2	\$50,000.00	
Drainage System - Connect to Existing System	LS	\$5,000.00	1	\$5,000.00	
Drainage System - Relocate Upper Drainage System	LS	\$40,000.00	1	\$40,000.00	
Water Distribution System - Domestic Tap	LS	\$4,000.00	0	\$0.00	
Water Distribution System - Fire Service Tap	LS	\$6,000.00	1	\$6,000.00	
Water Distribution System - 2" Copper	LF	\$35.00	400	\$14,000.00	
Water Distribution System - 8" DI Fire Service	LF	\$50.00	400	\$20,000.00	
Water Distribution System - Hydrant	EA	\$2,500.00	1	\$2,500.00	
Water Distribution System - Valves	EA	\$1,000.00	8	\$8,000.00	
Water Distribution System - Misc. Accessories	LS	\$10,000.00	1	\$10,000.00	
Electrical & Communication System	LF	\$50.00	400	\$20,000.00	
Electrical & Communication System	LS	\$30.00	800	\$24,000.00	
Retaining Walls (Parking)	CY	\$600.00	200	\$120,000.00	
Terraced Seating at Pool	CY	\$600.00	250	\$150,000.00	
Landscaping	LS	\$150,000.00	1	\$150,000.00	
Sedimentation Control	LF	\$11.50	4,500	\$51,750.00	
Bank Re-establishment	LF	\$450.00	450	\$202,500.00	
Misc Utility Concrete Pads	CY	\$300.00	10	\$3,000.00	
Main Entry / Signage / Gates / Side Walks	LS	\$7,500.00	1	\$7,500.00	
Timber Guardrail / Edge Treatment	LF	\$35.00	1,200	\$42,000.00	
Site Furnishings	LS	\$75,000.00	1	\$75,000.00	
	Subtotal				\$1,623,000.00
POOL SITE WORK					
Earth Excavation - Pool Shell	CY	\$30.00	300	\$9,000.00	
Earth Excavation Haul & Dispose	CY	\$13.00	300	\$3,900.00	
Finish Grading	SY	\$1.00	5,000	\$5,000.00	
	Subtotal				\$17,900.00
DIVISION 3 - CONCRETE					
CAST-IN-PLACE CONCRETE					
Building Retaining Walls for pedestrian access connections	CY	\$500.00	350	\$175,000.00	
Pool Concrete Shell	CY	\$450.00	900	\$405,000.00	
Misc Concrete Pit & Trenches	CY	\$540.00	25	\$13,500.00	
Pool Decking	SF	\$15.00	4,000	\$60,000.00	
	Subtotal				\$653,500.00
DIVISION 13 SPECIAL CONSTRUCTION					
POOL SYSTEMS					
Pool Pumps, Filter, & Equip.	LS	1	\$185,000.00	\$ 185,000	
Pool Emergency Shutoff	LS	1	\$15,000.00	\$ 15,000	
24" x 24" main drain assemblies	EA	4	\$2,500.00	\$ 10,000	
14" Sch 80 PVC Pool Drain Piping	LF	400	\$120.00	\$ 48,000	
Hydrostatic valves with sump box	EA	12	\$1,200.00	\$ 14,400	
8" Sch 80 PVC Pool Piping	LF	800	\$85.00	\$ 68,000	

Town of Needham
Rosemary Pool - Alternative TWO
Cost Estimate

Description	Unit	2013 Cost	Quantity	Total (No OH&P)	Subtotal
UV treatment assembly	EA	1	\$45,000.00	\$ 45,000	
Subtotal					\$385,400.00
DIVISION 15 MECHANICAL					
FIRE PROTECTION Fire Protection System	SF	\$5.00	0	\$0.00	
PLUMBING Plumbing System	SF	\$12.00	600	\$7,200.00	
HVAC EQUIPMENT HVAC System	SF	\$20.00	0	\$0.00	
Subtotal					\$7,200.00
DIVISION 16 ELECTRICAL					
ELECTRICAL Electrical System	SF	\$25.00	1,200	\$30,000.00	
Subtotal					\$30,000.00
DIVISION 3-12 COMPILED					
General Building Renovations	SF	\$150.00	900	\$135,000.00	
Subtotal					\$135,000.00
Pool + Buildings Subtotal:				\$1,211,100	
General Conditions (7.5%):				\$90,833	
Overhead & Profit (5%):				\$65,097	
Insurance & Bonds (2%):				\$27,341	
Subtotal:				\$1,394,370	
Site Work:				\$1,859,400	
Site Work Overhead & Profit (10%):				\$185,940	
Site Work Insurance & Bonds (3%):				\$61,360	
Building / Site Subtotal:				\$3,501,070	
Contingency (20%):				\$700,214	
TOTAL CONSTRUCTION COST:				\$4,201,284	
SOFT COSTS				\$1,260,385	30.00%
A&E Fees (design, bid, const.) A&E Special Services Owner's Project Manager Fees Temporary Facilities Printing Cost - Advertisement Commissioning Abatement				\$5,461,669	2013
ESCALATION at 5.8% per year				\$5,778,446	2014
				\$6,113,596	2015
				\$6,468,184	2016
				\$6,843,339	2017
				\$7,240,253	2018

Town of Needham
Rosemary Pool - Alternative THREE
Cost Estimate

Description	Unit	2013 Cost	Quantity	Total (No OH&P)	Subtotal
DIVISION 2 - SITE WORK					
DEMOLITION					
Existing Pavement Removal	SY	\$10.00	5,000	\$50,000.00	
Drainage Structure Removal	EA	\$400.00	10	\$4,000.00	
Drainage Pipe Removal	LF	\$9.00	500	\$4,500.00	
Selective Building Demolition	AL	\$190,000.00	1	\$190,000.00	
Asbestos Abatement (roof materials potentially)	AL	\$50,000.00	1	\$50,000.00	
Subtotal					\$298,500.00
GENERAL SITE WORK					
Clear and Grub Site	ACRE	\$10,500.00	1	\$10,500.00	
Curb Removed and Stacked	LF	\$5.00	0	\$0.00	
Remove and Reset Existing Drainage Structure Covers	LS	\$2,000.00	8	\$16,000.00	
Dewatering	LS	\$50,000.00	1	\$50,000.00	
Earth Excavation Site	CY	\$10.00	10,000	\$100,000.00	
Earth Excavation Haul & Dispose	CY	\$15.00	5,000	\$75,000.00	
Boulder Excavation & Disposal	CY	\$200.00	150	\$30,000.00	
Tree Removal	ACRE	\$10,000.00	0	\$2,500.00	
Finish Grading	SY	\$1.00	8,000	\$8,000.00	
Loam	CY	\$38.00	1,500	\$57,000.00	
Seed	SY	\$4.00	2,700	\$10,800.00	
Granite Curb	LF	\$45.00	1,200	\$54,000.00	
Gravel Borrow Backfill - Around building for future build out	CY	\$30.00	500	\$15,000.00	
Earthwork & Compaction for future Natatorium	CY	\$75.00	4,500	\$337,500.00	
Gravel Pavement Subbase	CY	\$38.00	1,200	\$45,600.00	
Bituminous Concrete (Hot Mix Asphalt)	TN	\$100.00	500	\$50,000.00	
Drainage System - Underground Leaching Chambers	LF	\$120.00	600	\$72,000.00	
Drainage System - Manhole	EA	\$3,000.00	7	\$21,000.00	
Drainage System - Catchbasin	EA	\$2,300.00	8	\$18,400.00	
Drainage System - Oil/Grit Separator	EA	\$8,000.00	3	\$24,000.00	
Drainage System - 12" RCP	LF	\$40.00	450	\$18,000.00	
Drainage System - 18" RCP	LF	\$70.00	120	\$8,400.00	
Drainage System - 24" RCP	LF	\$75.00	100	\$7,500.00	
Drainage System - 6" Perf. PVC Roof Drain System	LF	\$40.00	300	\$12,000.00	
Detention Pond - Drywell	EA	\$3,000.00	8	\$24,000.00	
Drainage System - Bioretention Basin	LS	\$25,000.00	2	\$50,000.00	
Drainage System - Connect to Existing System	LS	\$5,000.00	1	\$5,000.00	
Drainage System - Relocate Upper Drainage System	LS	\$40,000.00	1	\$40,000.00	
Water Distribution System - Domestic Tap	LS	\$4,000.00	0	\$0.00	
Water Distribution System - Fire Service Tap	LS	\$6,000.00	1	\$6,000.00	
Water Distribution System - 2" Copper	LF	\$35.00	400	\$14,000.00	
Water Distribution System - 8" DI Fire Service	LF	\$50.00	400	\$20,000.00	
Water Distribution System - Hydrant	EA	\$2,500.00	1	\$2,500.00	
Water Distribution System - Valves	EA	\$1,000.00	8	\$8,000.00	
Water Distribution System - Misc. Accessories	LS	\$10,000.00	1	\$10,000.00	
Electrical & Communication System	LF	\$50.00	0	\$0.00	
Electrical & Communication System	LS	\$30.00	1,200	\$36,000.00	
Retaining Walls (Parking)	CY	\$600.00	350	\$210,000.00	
Terraced Seating at Pool	CY	\$600.00	350	\$210,000.00	
Landscaping	LS	\$200,000.00	1	\$200,000.00	
Sedimentation Control	LF	\$11.50	4,500	\$51,750.00	
Misc Utility Concrete Pads	CY	\$300.00	10	\$3,000.00	
Main Entry / Signage / Gates / Side Walks	LS	\$7,500.00	1	\$7,500.00	
Timber Guardrail / Edge Treatment	LF	\$35.00	1,200	\$42,000.00	
Site Furnishings	LS	\$75,000.00	1	\$75,000.00	
Subtotal					\$2,057,950.00
POOL SITE WORK					
Earth Excavation - Pool Shell	CY	\$30.00	500	\$15,000.00	
Earth Excavation Haul & Dispose	CY	\$13.00	300	\$3,900.00	
Structural Aggregate Backfill	CY	\$40.00	500	\$20,000.00	
Finish Grading	SY	\$1.00	1,200	\$1,200.00	
Subtotal					\$40,100.00
DIVISION 3 - CONCRETE					
CAST-IN-PLACE CONCRETE					
Building Retaining Walls for pedestrian access connections	CY	\$500.00	120	\$60,000.00	
Retaining Walls for vehicular access and terracing	CY	\$650.00	300	\$195,000.00	
Pool Concrete Shell	CY	\$500.00	1,500	\$750,000.00	
Misc Concrete Pit & Trenches	CY	\$540.00	25	\$13,500.00	
Pool Decking	SF	\$15.00	5,000	\$75,000.00	
Subtotal					\$1,093,500.00
DIVISION 13 - SPECIAL CONSTRUCTION					
POOL SYSTEMS					

Town of Needham
Rosemary Pool - Alternative THREE
Cost Estimate

Description	Unit	2013 Cost	Quantity	Total (No OH&P)	Subtotal
Pool Pumps, Filter, & Equip.	LS	1	\$225,000.00	\$ 225,000	
Pool Emergency Shutoff	LS	1	\$15,000.00	\$ 15,000	
24" x 24" main drain assemblies	EA	4	\$2,500.00	\$ 10,000	
14" Sch 80 PVC Pool Drain Piping	LF	500	\$120.00	\$ 60,000	
Hydrostatic valves with sump box	EA	14	\$1,200.00	\$ 16,800	
8" Sch 80 PVC Pool Piping	LF	1,200	\$85.00	\$ 102,000	
UV treatment assembly	EA	1	\$45,000.00	\$ 45,000	
Subtotal					\$473,800.00
DIVISION 15 - MECHANICAL					
FIRE PROTECTION Fire Protection System	SF	\$5.00	1,200	\$6,000.00	
PLUMBING Plumbing System	SF	\$12.00	1,200	\$14,400.00	
HVAC EQUIPMENT HVAC System	SF	\$20.00	1,200	\$24,000.00	
Subtotal					\$44,400.00
DIVISION 16 - ELECTRICAL					
ELECTRICAL Electrical System	SF	\$25.00	1,200	\$30,000.00	
Subtotal					\$30,000.00
DIVISION 2-12 COMPILED					
General Building Renovations	SF	\$100.00	1,200	\$120,000.00	
Subtotal					\$120,000.00
Pool + Buildings Subtotal:				\$1,761,700	
General Conditions (7.5%):				\$132,128	
Overhead & Profit (5%):				\$94,691	
Insurance & Bonds (2%):				\$39,770	
Subtotal:				\$2,028,289	
Site Work:				\$2,396,550	
Site Work Overhead & Profit (10%):				\$239,655	
Site Work Insurance & Bonds (3%):				\$79,086	
Building / Site Subtotal:				\$4,743,580	
Contingency (20%):				\$948,716	
TOTAL CONSTRUCTION COST:				\$5,692,296	
SOFT COSTS				\$1,707,689	30.00%
A&E Fees (design, bid, const.) A&E Special Services Owner's Project Manager Fees Temporary Facilities Printing Cost - Advertisement Commissioning Abatement				\$7,399,985.43	2013
ESCALATION at 5.8% per year				\$7,829,184.58	2014
				\$8,283,277.29	2015
				\$8,763,707.37	2016
				\$9,272,002.40	2017
				\$9,809,778.54	2018

Town of Needham
Rosemary Pool - Alternative FOUR
Cost Estimate

Description	Unit	2013 Cost	Quantity	Total (No OH&P)	
DIVISION 2 - SITE WORK					
DEMOLITION					
Existing Pavement Removal	SY	\$10.00	5,000	\$50,000.00	
Drainage Structure Removal	EA	\$400.00	10	\$4,000.00	
Drainage Pipe Removal	LF	\$9.00	500	\$4,500.00	
Selective Building Demolition	AL	\$220,000.00	1	\$220,000.00	
Asbestos Abatement (roof materials potentially)	AL	\$50,000.00	1	\$50,000.00	
Subtotal					\$328,500.00
GENERAL SITE WORK					
Clear and Grub Site	ACRE	\$10,500.00	2	\$21,000.00	
Curb Removed and Stacked	LF	\$5.00	0	\$0.00	
Remove and Reset Existing Drainage Structure Covers	LS	\$2,000.00	8	\$16,000.00	
Dewatering	LS	\$50,000.00	1	\$50,000.00	
Earth Excavation Site	CY	\$10.00	40,000	\$400,000.00	
Earth Excavation Haul & Dispose	CY	\$15.00	20,000	\$300,000.00	
Boulder Excavation & Disposal	CY	\$200.00	150	\$30,000.00	
Tree Removal	ACRE	\$10,000.00	1	\$10,000.00	
Finish Grading	SY	\$1.00	40,000	\$40,000.00	
Loam	CY	\$38.00	1,500	\$57,000.00	
Seed	SY	\$4.00	2,700	\$10,800.00	
Granite Curb	LF	\$45.00	1,800	\$81,000.00	
Gravel Borrow Backfill - Around building for future build out	CY	\$30.00	500	\$15,000.00	
Earthwork & Compaction for future Natatorium	CY	\$75.00	4,500	\$337,500.00	
Gravel Pavement Subbase	CY	\$38.00	1,900	\$72,200.00	
Bituminous Concrete (Hot Mix Asphalt)	TN	\$100.00	750	\$75,000.00	
Drainage System - Underground Leaching Chambers	LF	\$120.00	800	\$96,000.00	
Drainage System - Manhole	EA	\$3,000.00	7	\$21,000.00	
Drainage System - Catchbasin	EA	\$2,300.00	8	\$18,400.00	
Drainage System - Oil/Grit Separator	EA	\$8,000.00	3	\$24,000.00	
Drainage System - 12" RCP	LF	\$40.00	450	\$18,000.00	
Drainage System - 18" RCP	LF	\$70.00	120	\$8,400.00	
Drainage System - 24" RCP	LF	\$75.00	100	\$7,500.00	
Drainage System - 6" Perf. PVC Roof Drain System	LF	\$40.00	300	\$12,000.00	
Detention Pond - Drywell	EA	\$3,000.00	6	\$18,000.00	
Drainage System - Bioretention Basin	LS	\$25,000.00	1	\$25,000.00	
Drainage System - Connect to Existing System	LS	\$5,000.00	1	\$5,000.00	
Drainage System - Relocate Upper Drainage System	LS	\$180,000.00	1	\$180,000.00	
Water Distribution System - Domestic Tap	LS	\$4,000.00	0	\$0.00	
Water Distribution System - Fire Service Tap	LS	\$6,000.00	1	\$6,000.00	
Water Distribution System - 2" Copper	LF	\$35.00	400	\$14,000.00	
Water Distribution System - 8" DI Fire Service	LF	\$50.00	400	\$20,000.00	
Water Distribution System - Hydrant	EA	\$2,500.00	1	\$2,500.00	
Water Distribution System - Valves	EA	\$1,000.00	8	\$8,000.00	
Water Distribution System - Misc. Accessories	LS	\$10,000.00	1	\$10,000.00	
Electrical & Communication System	LF	\$50.00	400	\$20,000.00	
Electrical & Communication System	LS	\$30.00	1,600	\$48,000.00	
Retaining Walls (Parking)	CY	\$600.00	430	\$258,000.00	
Terraced Seating at Pool	CY	\$600.00	250	\$150,000.00	
Landscaping	LS	\$150,000.00	1	\$150,000.00	
Sedimentation Control	LF	\$11.50	4,500	\$51,750.00	
Misc Utility Concrete Pads	CY	\$300.00	10	\$3,000.00	
Main Entry / Signage / Gates / Side Walks	LS	\$7,500.00	1	\$7,500.00	
Timber Guardrail / Edge Treatment	LF	\$35.00	1,200	\$42,000.00	
Site Furnishings	LS	\$56,000.00	1	\$56,000.00	
Subtotal					\$2,795,550.00
FILTER BUILDING + POOL SITE WORK					
Earth Excavation - Bldg Foundations	CY	\$30.00	100	\$3,000.00	
Earth Excavation - Pool Shell	CY	\$30.00	1,200	\$36,000.00	
Earth Excavation Haul & Dispose	CY	\$13.00	600	\$7,800.00	
Excavate for Surge Tank	CY	\$30.00	50	\$1,500.00	
Structural Aggregate Backfill	CY	\$40.00	300	\$12,000.00	
Backfill Building Foundations	CY	\$5.00	90	\$450.00	
Finish Grading	SY	\$1.00	1,200	\$1,200.00	
Subtotal					\$61,950.00
DIVISION 3 - CONCRETE					
CAST-IN-PLACE CONCRETE					
Building Retaining Walls for pedestrian access connections	CY	\$500.00	120	\$60,000.00	
CIP Retaining Walls for terraced parking	CY	\$650.00	280	\$182,000.00	
Slab-on-Grade / Shallow Foundations	SF	\$20.00	500	\$10,000.00	
Pool Concrete Shell	CY	\$600.00	1,500	\$900,000.00	
Filter Building Concrete Slab	CY	\$540.00	10	\$5,400.00	
Misc Concrete Pit & Trenches	CY	\$540.00	25	\$13,500.00	
Precast Concrete Wall Panel System (Wall Type M2)	SF	\$30.00	800	\$24,000.00	
Pool Decking	SF	\$15.00	4,000	\$60,000.00	
Subtotal					\$1,254,900.00
DIVISION 13 - SPECIAL CONSTRUCTION					
POOL SYSTEMS					
Pool Pumps, Filter, & Equip.	LS	1	\$225,000.00	\$ 225,000	
Pool Emergency Shutoff	LS	1	\$15,000.00	\$ 15,000	

Town of Needham
Rosemary Pool - Alternative FOUR
Cost Estimate

Description	Unit	2013 Cost	Quantity	Total (No OH&P)	
I-Beam for pump winch & winch	EA	1	\$5,000.00	\$ 5,000	
24" x 24" main drain assemblies	EA	4	\$2,500.00	\$ 10,000	
14" Sch 80 PVC Pool Drain Piping	LF	500	\$120.00	\$ 60,000	
Hydrostatic valves with sump box	EA	14	\$1,200.00	\$ 16,800	
8" Sch 80 PVC Pool Piping	LF	1,200	\$85.00	\$ 102,000	
UV treatment assembly	EA	1	\$45,000.00	\$ 45,000	
Subtotal					\$478,800.00
DIVISION 15 - MECHANICAL					
FIRE PROTECTION Fire Protection System	SF	\$5.00	2,500	\$12,500.00	
PLUMBING Plumbing System	SF	\$12.00	2,500	\$30,000.00	
HVAC EQUIPMENT HVAC System	SF	\$20.00	2,500	\$50,000.00	
Subtotal					\$92,500.00
DIVISION 16 - ELECTRICAL					
ELECTRICAL Electrical System	SF	\$25.00	2,500	\$62,500.00	
Subtotal					\$62,500.00
DIVISION 3-12 COMPILED					
Building Renovations - moving bathhouse programming to first floor	SF	\$250.00	2,500	\$625,000.00	
Subtotal					\$625,000.00
Pool + Buildings Subtotal:				\$2,513,700	
General Conditions (7.5%):				\$188,528	
Overhead & Profit (5%):				\$135,111	
Insurance & Bonds (2%):				\$56,747	
Subtotal:				\$2,894,086	
Site Work:				\$3,186,000	
Site Work Overhead & Profit (10%):				\$318,600	
Site Work Insurance & Bonds (3%):				\$105,138	
Subtotal:				\$3,609,738	
Building / Site Subtotal:				\$6,503,824	
Contingency (20%):				\$1,300,765	
TOTAL CONSTRUCTION COST:				\$9,105,353	
SOFT COSTS				\$2,731,606	30.00%
A&E Fees (design, bid, const.)				\$11,836,959.05	2013
A&E Special Services					
Owner's Project Manager Fees					
Temporary Facilities					
Printing Cost - Advertisement					
Commissioning					
Abatement					
ESCALATION at 5.8% per year				\$12,523,502.67	2014
				\$13,249,865.83	2015
				\$14,018,358.05	2016
				\$14,831,422.81	2017
				\$15,691,645.34	2018