

Town of Needham
New Salt Shed Project
Cost Estimate
4-Oct-12

Base Program - 3500 Ton Capacity, Reduced Pavement, Three Walls Concrete

Main Building with Drive-thru Canopy: 12,005 SF
Lean-to Canopy: 0 SF (2,400 SF Bid Alt. No. 1)
Detached Canopy: 0 SF
Modular Operations Building: 0 SF
Total: 12,005 SF

Description	Unit	2012 Cost	Hi-Arch Gambrel	Total (No OH&P)
DIVISION 2 - SITE WORK				
<u>GENERAL SITE WORK</u>				
Site Clearing	LS	\$8,000.00	1	\$8,000
Curb Removed and Stacked	LF	\$5.00	0	\$0
Dewatering	LS	\$5,000.00	1	\$5,000
General Earth Excavation Site	CY	\$5.00	2,500	\$12,500
Grading - cut material	CY	\$5.00	607	\$3,035
Grading - fill material	CY	\$5.00	733	\$3,665
Ledge Removal	CY	\$50.00	150	\$7,500
Tree Removal	LS	\$2,500.00	1	\$2,500
Stump Removal	EA	\$400.00	1	\$400
Finish Grading	SY	\$1.00	5,600	\$5,600
Cast-in-Place Concrete Material Storage Bins	CY	\$500.00	0	\$0
Wood Framed Cover Over Storage Bins	SF	\$10.00	0	\$0
Loam	CY	\$38.00	0	\$0
Seed	SY	\$4.00	0	\$0
Granite Curb	LF	\$38.00	270	\$10,260
Heavy Stone	CY	\$38.00	23	\$855
Gravel Road	CY	\$38.00	610	\$23,180
Gravel Road Geotextile Fabric	SY	\$2.50	1,833	\$4,583
Gravel Pavement Subbase	CY	\$38.00	985	\$37,430
Bituminous Concrete (Hot Mix Asphalt = SY*.056*5 in)	TN	\$70.00	827	\$57,890
Misc. Storm Water Improvements	AL	\$10,000.00	1	\$10,000
Drainage System - Underground Leaching Chambers	LF	\$60.00	0	\$0
Drainage System - Manhole	EA	\$3,000.00	0	\$0
Drainage System - Catchbasin	EA	\$2,300.00	0	\$0
Drainage System - Oil/Grit Separator	EA	\$8,000.00	0	\$0
Drainage System - 12" RCP	LF	\$40.00	50	\$2,000
Drainage System - 15" RCP	LF	\$60.00	0	\$0
Drainage System - Detention Pond Expansion	AL	\$10,000.00	1	\$10,000
Drainage System - 24" RCP	LF	\$75.00	0	\$0
Drainage System - 6" Perf. PVC Roof Drain System	LF	\$40.00	0	\$0
Drainage System - Connect to Existing System	LS	\$5,000.00	0	\$0
Drainage System - Clean Existing Plugged System	LS	\$3,000.00	0	\$0
Drainage System - Relocate Upper Drainage System	LS	\$40,000.00	0	\$0
Water Distribution System - Domestic Tap	LS	\$4,000.00	0	\$0
Water Distribution System - Fire Service Tap	LS	\$6,000.00	0	\$0
Water Distribution System - 2" Water Service	LF	\$35.00	0	\$0
Water Distribution System - 8" DI Fire Service	LF	\$50.00	0	\$0
Water Distribution System - Hydrant	EA	\$2,500.00	0	\$0
Water Distribution System - Valves	EA	\$1,000.00	0	\$0
Water Distribution System - Replace Existing Service	LF	\$100.00	0	\$0
Water Distribution System - Misc. Accessories	LS	\$5,000.00	0	\$0
Electrical & Communication System	LF	\$50.00	325	\$16,250
Allowance for Misc. Electrical	LS	\$2,500.00	1	\$2,500
Sanitary Sewer Manhole	EA	\$3,000.00	0	\$0
Sanitary Sewer Oil/Sand Trap	EA	\$5,000.00	0	\$0
8" PVC Sanitary Sewer Service	LF	\$35.00	0	\$0
Tight Tank System	EA	\$15,000.00	0	\$0
Tight Tank Monitoring System	LS	\$10,000.00	0	\$0
Bollards	EA	\$580.00	12	\$6,960
Retaining Walls	CY	\$415.00	125	\$51,875
Retaining wall foundation excavation	CY	\$18.00	466	\$8,388
Retaining wall crushed stone	CY	\$38.00	80	\$3,040
Rip Rap Swale	LF	\$40.00	160	\$6,400
Grass Swale	LF	\$25.00	300	\$7,500
Sedimentation Control	LF	\$10.00	300	\$3,000
Chain Link Fence	LF	\$24.00	0	\$0
Chain Link Fence Gate	LF	\$120.00	0	\$0
Misc Utility Concrete Pads	CY	\$300.00	0	\$0
Main Entry / Approach Concrete Slabs / Side Walks	CY	\$300.00	0	\$0
Timber Guardrail	LF	\$24.00	0	\$0
Site Lighting	LS	\$15,000.00	0	\$0
DIVISION 2 - BUILDING SITE WORK				
Earth Excavation - Bldg Foundations	CY	\$14.00	1,510	\$21,140
Backfill Building Foundations	CY	\$5.00	755	\$3,775

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DIVISION 3 - CONCRETE				
03300 CAST-IN-PLACE CONCRETE				
Building Foundation/Columns (included in buiding estimate)	CY	\$500.00	0	\$0
08100 DOORS AND FRAMES				
Personnel Doors - Door, Frame, and Hardware Wood	EA	\$1,600.00	0	\$0
Personnel Doors - Dr, Frame, and Hardware Metal	EA	\$1,400.00	0	\$0
Added Cost for Door Lites	LS	\$1,000.00	0	\$0
DIVISION 11 EQUIPMENT				
Brine Distribution System Upgrade	AL	\$15,000.00	1	\$15,000
Relocate existing brine system	AL	\$5,000.00	0	\$0
DIVISION 13 SPECIAL CONSTRUCTION				
Pre-Engineered Building including Drive-thru (Hi-Arch Gambrel)	LS	\$651,000.00	1	\$651,000
Wood Wall Savings (\$400/ft of wall X 265')	LS	-\$24,000.00	0	\$0
Pre-Engineered Building, Canopies on both Sides (Fabric Structure)	LS	\$450,000.00	0	\$0
Modular Building	LS	\$99,418.00	0	\$0
Canopy Lean-to (Hi-Arch Gambrel)	SF	\$21.50	0	\$0
Detached Canopy (Hi-Arch Gambrel)	SF	\$21.50	0	\$0
Detached Canopy (Fabric Structure)	SF	\$12.00	0	\$0
15700 HVAC EQUIPMENT				
Ventilation	AL	\$15,250.00	1	\$15,250
DIVISION 16 ELECTRICAL				
16000 ELECTRICAL				
Misc. Electric and Site Lighting	AL	\$7,000.00	1	\$16,450
Building Subtotal:				\$722,615
Cost per SF:				
General Conditions (7.5%):				\$54,196
Overhead & Profit (5%):				\$38,841
Insurance & Bonds (2%):				\$16,313
Subtotal:				\$831,965
Cost per SF:				\$69
Site Work:				\$310,311
Site Work Overhead & Profit (10%):				\$31,031
Site Work Insurance & Bonds (3%):				\$10,240
Building / Site / Equipment Subtotal:				\$1,183,547

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Description	Unit	2012 Cost	Hi-Arch Gambrel	Total (No OH&P)
Owner's Soft Cost				
Contingency (15%)				\$177,532
Escalation 2012 - 2013 (3%):				\$40,832
Construction Cost With Contingency and Escalation		\$1,401,911		
A&E Fees for Building, RAPs and Canopy (design, bid, const. admin., permitting, survey)				\$195,000
TOTAL BASE PROGRAM COST (3500 Ton Capacity):				\$1,596,911

ADDITIONAL PROGRAM COMPONENTS:				
Deep Foundation System (RAP)	LS	\$220,089	1	\$220,089
TOTAL PROGRAM WITH RAPs				\$1,817,000
Bid Alt. No. 1 - 30'X80' Canopy with RAPs	SF	\$40	2400	\$96,000
Chapter 90 Funds	TOTAL PROGRAM WITH RAPs and CANOPY			\$1,913,000
Env. Remediation (price range \$165K - \$400K)	AL	\$400,000	1	\$400,000
TOTAL PROGRAM COST WITH RAPs, CANOPY, and ENVIRONMENTAL:				\$2,313,000

Town Funds

Base Building Notes:

1. Estimate is conceptual only for initial planning purposes, and will be verified during the design stage.
2. A&E Fees are conceptual estimates only and will be verified once program/scope has been finalized.
3. Only the approach aprons to/from the salt shed/loading bay are assumed to be paved plus some gravel road improvements.
4. North, east and south walls of the salt shed are assumed to be concrete, the west wall is a wood wall.
5. Building estimate is in +/- 5% range per building manufacturer.
6. If the height exemption is not obtained an additional \$42,000 will be required to modify the building design and site grading to meet the 40' zoning height limitation.
7. If the sprinkler waiver is not obtained an additional \$142,000 will be needed to add sprinklers to the base building, plus another \$25,000 if the canopy is required to have sprinklers, for a total of \$167,000.
8. Sprinkler system cost assumes there is 50-60 PSI water pressure available at nearby hydrant for water supply, to be verified by the Town.

Environmental Notes:

9. The high end of the environmental remediation cost is being used for budgeting purposes. Environmental work will include performing environmental assessment/design, preparing DEP documentation, site preparation, off-site disposal of impacted soils, and/or capping of soils in place per DEP requirements.
10. Assumes Town will relocate/dispose of excess non-contaminated fill materials generated during construction under base program, and will provide structural fill as discussed at working group meetings. It is recommended that Town fill be mixed with silt-free gravel material at a 50:50 ratio to meet structural fill requirements and to facilitate compaction.