

WORKING DRAFT  
Belmont DPW Fuel System Cost Estimate  
5/12/2022

CONSTRUCTION								
Item	Qty	Unit	Unit Cost	Option 1: 4,000 gal Diesel and 4,000 gal Gasoline Split UST	Option 2: 4,000 gal Diesel and 2,000 gal Gasoline Split UST	Option 3: 4,000 gal Diesel AST and 4,000 gal Gasoline Split AST	Option 4: 4,000 gal Diesel and 2,000 gal Gasoline Split AST	Source
<b>UST Fuel System</b>								
Fuel System EQ (Tanks, Dispensers, Pumps, Tank monitor, Fuel Mgt, etc.)	--	--	--	\$ 180,000	\$ 165,000	\$ 160,000	\$ 150,000	Estimate from John W. Kennedy Co. May 2022
Reinforced Concrete Tank Pad, Drive Pad & Dispenser Island	--	--	--	\$ 130,000	\$ 130,000	\$ 140,000	\$ 130,000	Estimate from Sudbury Fuel System
Concrete & Compaction Testing	--	--	--	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	Estimate From PMLP Fuel System Bids
Freight Misc. Accessories	--	--	--	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	Allowance
Fire Suppression System	--	--	--	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	Estimate from Needham Fuel System Bids
Canopy	--	--	--	\$ -	\$ -	\$ 123,000	\$ 109,000	Estimate from PMLP Fuel System Bids
Fuel System Piping, Tank Top Fittings	--	--	--	\$ 75,000	\$ 75,000	\$ 24,000	\$ 24,000	Estimate from LPVEC and PMLP Fuel Systems
Fuel System Bollards	--	--	--	\$ 5,000	\$ 5,000	\$ 17,000	\$ 17,000	Allowance
Tank Setting with Crane	--	--	--	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	Estimate From PMLP Fuel System Bids
Permits	--	--	--	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	Estimate From PMLP Fuel System Bids
Fuel System Electrical Work (Power & Data Wiring, Conduits, etc.)	--	--	--	\$ 48,000	\$ 48,000	\$ 51,000	\$ 51,000	Estimate from LPVEC Fuel System
Fuel System Testing and Closeout	--	--	--	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	Estimate From PMLP Fuel System Bids
<b>Fuel System Components Subtotal</b>				<b>\$ 508,000</b>	<b>\$ 493,000</b>	<b>\$ 585,000</b>	<b>\$ 551,000</b>	Does not include OH&P
<b>Site Work</b>								
Finish Grading	--	--	--	\$ 4,000	\$ 4,000	\$ 2,000	\$ 2,000	Allowance
Paving	--	--	--	\$ 30,000	\$ 30,000	\$ 15,000	\$ 15,000	Assumes areas ranging from 20-30 ft around conc. pads repaired with 5 inch thick pavement at \$110 per ton
Duct Bank Concrete	--	--	--	\$ 15,000	\$ 15,000	\$ 4,000	\$ 4,000	Allowance
Site Controls - Temp. fencing, Erosion Controls	1	LS	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	Engineer's estimate
Submittals	1	LS	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	Engineer's estimate
UST Removal and Disposal	4	per Day	\$ 3,500	\$ 14,000	\$ 14,000	\$ 14,000	\$ 14,000	Assumes two laborers and excavator and operator for four 10-hour days
Removal and Disposal of Dispenser & Shed	1	LS	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	Allowance
Confirmatory Soil Sampling	11	per Sample	\$ 330	\$ 3,630	\$ 3,630	\$ 3,630	\$ 3,630	Assumes 11 samples to be taken
Transportation & Disposal of Non-Impacted Material	870	per Tons	\$ 45	\$ 39,150	\$ 39,150	\$ 39,150	\$ 39,150	Assumed 30% of areas is non-impacted
Transportation & Disposal of Impacted Material: In-State	1450	per Tons	\$ 65	\$ 94,250	\$ 94,250	\$ 94,250	\$ 94,250	Removal of geotechnically unsuitable materials and petroleum-impacted material. Assume of 50%, listed quantity requires in-state disposal.
Transportation & Disposal of Impacted Material: Out-of-state	580	per Tons	\$ 145	\$ 84,100	\$ 84,100	\$ 84,100	\$ 84,100	Removal of geotechnically unsuitable materials and petroleum-impacted material. Assume 20% tons of excavated materials are impacted and require out-of-state recycling/disposal.
Soil Excavation and Management	5	per Day	\$ 3,500	\$ 24,500	\$ 17,500	\$ 24,500	\$ 17,500	Assumes two laborers and excavator and operator for five to seven 10-hour days.
Backfill & Compaction with Dense Graded Crushed Stone	1700	per CY	\$ 50	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	Replacement backfill of excavated materials and UST volume - price from estimator.
<b>DPW Site Work Subtotal</b>				<b>\$ 433,630</b>	<b>\$ 426,630</b>	<b>\$ 405,630</b>	<b>\$ 398,630</b>	Does not include OH&P
<b>Subtotal Construction Cost</b>				<b>\$ 941,630</b>	<b>\$ 919,630</b>	<b>\$ 990,630</b>	<b>\$ 949,630</b>	
<b>MARK UPS</b>								
Insurance and Bonds (4%)				\$ 37,665	\$ 36,785	\$ 39,625	\$ 37,985	
General Conditions (5%)				\$ 48,965	\$ 47,821	\$ 51,513	\$ 49,381	
Overhead and Profit (10%)				\$ 102,826	\$ 100,424	\$ 108,177	\$ 103,700	
Design and Estimating Contingency (10%)				\$ 113,109	\$ 110,466	\$ 118,994	\$ 114,070	
<b>Subtotal of Mark Ups</b>				<b>\$ 302,565</b>	<b>\$ 295,496</b>	<b>\$ 318,309</b>	<b>\$ 305,135</b>	
<b>Subtotal Construction Cost with Mark Ups</b>				<b>\$ 1,244,195</b>	<b>\$ 1,215,126</b>	<b>\$ 1,308,939</b>	<b>\$ 1,254,765</b>	Excludes Construction Contingency
<b>10% Construction Contingency</b>				<b>\$ 124,419</b>	<b>\$ 121,513</b>	<b>\$ 130,894</b>	<b>\$ 125,477</b>	Allowance for unexpected items that may come up during construction
<b>TOTAL CONSTRUCTION COST ESTIMATE WITH CONTINGENCY</b>				<b>\$ 1,368,614</b>	<b>\$ 1,336,638</b>	<b>\$ 1,439,833</b>	<b>\$ 1,380,242</b>	
<b>MARKET VOLATILITY DUE TO COVID (20%)</b>				<b>\$ 188,326</b>	<b>\$ 183,926</b>	<b>\$ 198,126</b>	<b>\$ 189,926</b>	
<b>ANNUAL INFLATION ADJUSTMENT (10% PER YEAR)</b>				<b>\$ 188,326</b>	<b>\$ 183,926</b>	<b>\$ 99,063</b>	<b>\$ 94,963</b>	AST system assumes 2023 construction and UST system assumes 2024
<b>ADJUSTED TOTAL CONSTRUCTION COSTS</b>				<b>\$ 1,745,266</b>	<b>\$ 1,704,490</b>	<b>\$ 1,737,022</b>	<b>\$ 1,665,131</b>	
<b>DESIGN AND CONSTRUCTION ADMINISTRATION</b>								
<b>Item</b>								
Design Fees				\$ 76,500	\$ 76,500	\$ 76,500	\$ 76,500	Includes optional geotechnical assessment for canopy.
Bidding Fees				\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500	
Construction Administration Fees				\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	
<b>Total Design, Permitting, Special Services, Const. Admin.</b>				<b>\$ 139,000</b>	<b>\$ 139,000</b>	<b>\$ 139,000</b>	<b>\$ 139,000</b>	Excludes completed design services or previously funded tasks.
<b>Owners Contingency</b>				<b>\$ 20,000</b>	<b>\$ 20,000</b>	<b>\$ 20,000</b>	<b>\$ 20,000</b>	For potential additional testing/engineering/environmental services.
<b>Total Project Cost</b>				<b>\$1,904,266</b>	<b>\$1,863,490</b>	<b>\$1,896,022</b>	<b>\$1,824,131</b>	Includes Covid Mark up

## Notes/Assumptions:

1. Preliminary cost estimate assumes all work performed by the end of 2023, unless otherwise noted.
2. Costs assume there are no WBE/MBE requirements.
3. Unit costs are based on unit pricing of competitively bid projects and on estimates received from vendors or installers.