

Prep Work

All existing infrastructure needs to be removed prior to installation. Items to be removed include two fuel pumps, a fuel island, two 10,000 gallon underground tanks, one Petro Vend K 800 fuel island terminal, and all electrical wiring up to and including inside of the building.

All state regulations shall be followed under the Maine Department of Environmental Protection Chapter 691, *Rules for Underground Oil Storage Facilities*.

Tanks & Pumps

Two tanks will be needed for this project. Tank one will be for diesel fuel and have a capacity of 12,000 gallons. Tank two will be for gasoline and have a capacity of 10,000 gallons. Both tanks must be double wall jacketed, and be anchored with concrete and tie straps in the ground.

The diesel tank shall be equipped with a 1.5 HP submersible turbine pump (STP). The gasoline tank shall be equipped with a ¾ HP STP. Both tanks shall have continuous electronic monitoring of the interstitial space, automatic tank gauging, overfill prevention valves, and 15-gallon spill buckets at the fill pipes.

Piping & Sumps

Piping from the tanks to the dispensers at the island shall be 1.5" double wall flexible piping. Piping shall be installed from tank top piping sumps on the top of each tank to dispenser sumps beneath each dispenser at the island. Product piping shall be installed within 4" corrugated "chase" piping and shall be equipped with electronic line leak detection. Each sump shall be equipped with continuous electronic monitoring.

Dispensers

Two mechanical dispensers will be needed as follows:

Dispenser one shall be for a single product (diesel fuel) and equipped with two separate hoses 1" x 20' long. All appropriate hanging hardware shall be provided including breakaways, swivels, and nozzles. This dispenser shall be considered high flow. This dispenser must also have a retractor for the hoses.

Dispenser two shall be for dual product (gasoline) and (diesel fuel) and equipped with two separate hoses ¾" x 14' long. All appropriate hanging hardware shall be provided including breakaways, swivels, and nozzles.

Both dispensers must include a filter system and be capable of working with our Petro Vend K 800 system which now operates on a pulse system.

Concrete Islands

A 4' x 6' concrete island shall be provided for each dispenser with a light pole with LED fixtures and U-shaped bollard on the north and south ends of the fuel island area. Both islands will have the dispensing unit on the inner portion of the island approximately 15 feet from center of dispenser to center of dispenser. A third island approximately 4' x 6' shall be put directly in the center between the two other islands. This island will need power for lighting and the Petro Vend K 800 terminal. The public works department will construct a building on top of this island at a future date. A sketch will be available upon request.

Electrical

New wiring shall be installed from the electrical panel to the appropriate project location. Each STP shall be equipped with a control box with switch and lock-out. An emergency shut off valve for the dispensers and STPs shall be located at the entrance to the public works building. Electronic monitoring of the tanks and piping shall be provided using a Veeder Root monitoring console.

All Veeder Root systems and Petro Vend K 800 systems shall include wiring to the upstairs office in the building.

Asphalt/Concrete

An 8-inch concrete pad reinforced with 1 ft.² #5 rebar shall be installed on top of the tanks with a footprint of 1 foot wider on all sides.

The public works department shall be responsible for all asphalt replacement that was removed during the project. This will include the trenches to the building. Final grade of backfill should be within 3 inches of finished grade.