

***Old Lyme Town Hall Renovation and Expansion
Major Building Systems***

Energy Conservation Features

- Installing a 10KW photovoltaic solar power system (back ell of the existing building)
- Reducing air loss by installing new windows in the existing building. Installing weather stripping on all new exterior doors
- Reducing solar gain with low-emittance glass in new windows & exterior doors
- Tailoring the number of lighting fixtures to the established standards for lighting in the existing building (per CL&P study, 2005). Reusing the fixtures purchased in 2005
- Installing energy efficient 32 watt fluorescent lamps; intend to move to 28 watt when they become commercially available (no loss of light).
- Setting power requirements to take advantage of the offsetting peak demand between the office areas (peak during daytime) and the Meeting Hall (peak during evening)
- Installing R-38 insulation in all new roofs & R-19 insulation in exterior walls in the additions
- New more energy efficient heating, ventilating & air conditioning equipment. Installing a slow speed elevator to reduce energy consumption.
- Reusing an existing building instead of tearing it down, is a major energy-saving strategy

Environmental Conservation Features

- Shielding parking area lighting
- Roof gutters on the front of the building will be drained into 5 dry wells. Roof gutters on the back & parking lot run off will be drained into a storm detention system.
- Installing a new storm water detention system to reduce the storm discharge rate into wetlands & to siphon off parking lot oil throughout the year.
- Planting buffer plants between the parking area & the wetlands
- Minimizing the need for water by planting fewer plants
- Recycling construction material, e.g., reusing grounded existing pavement as base for the new pavement, reusing excavated earth instead of disposing it and acquiring new material
- Specifying low water plumbing fixtures & energy efficient appliances

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Handicapped-Accessibility Improvements (compliance with the Americans with Disabilities Act)

- Elevator providing handicapped-access to all floors
- Handicapped-accessible bathrooms on the lower level, first and second floors
- Two handicapped parking spaces, 50' from the lower level entrance
- Handicapped-accessible exterior entry doors. The existing front doors are already handicapped-accessible
- Handicapped-compliant ramp between lower level floors (existing & new South addition)
- All interior doors will be wide enough to accommodate wheel chairs
- No protruding lights or signs that may create a hazard for the sight-impaired

Replacement/Upgrading of Mechanical and Electrical Existing Systems

- *Heating and Air Conditioning:* New heating & air conditioning system thorough-out. Replace current boiler with a primary boiler and a smaller backup boiler
- *Windows:* Windows in the existing portion of the building will be replaced
- *Plumbing:* New plumbing is being installed because the existing bathrooms are being replaced to meet handicapped-access standards
- *Existing Roof:* The new gable roof (sloped to accommodate photovoltaic power system) will replace the flat roof over the ell of the existing building. The North addition's second floor will cover the flat roof over the Town Clerk's vault.
- *Septic System:* Our building officials and the professional engineers agree that the current septic system will meet the needs of the expanded Town Hall.
- *Lighting Fixtures:* Many lighting fixtures in the offices & hallways of the existing building were upgraded in 2005 per CL&P recommendations. These newer fixtures and the local wiring will not be replaced. New lighting fixtures and local wiring will be installed in areas where there is a need as well as in the new construction.
- *Service & Distribution Gear:* A more efficient 3-phase electrical system will replace the existing single-phase electrical system.
- *Emergency Power:* An 80KW emergency generator will replace the 10KW unit and will enable the entire Town Hall to operate during an extended emergency.