



INNOVATIVE ENGINEERING
SERVICES, LLC

AN INTEGRATED ENGINEERING + DESIGN FIRM

Jonathan Trumbull Library

Lebanon, CT

MEPFP Design Narrative for The Jonathan Trumbull Library

September 30, 2020

Prepared for:

Jacunski Humes Architects, LLC

Prepared by:

Innovative Engineering Services, LLC

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IES Project No.: 20089

FIRE PROTECTION

- There are no fire protection or sprinkler systems in the scope of work.

PLUMBING

- The domestic water service to the building shall be from the existing well. Not responsible for condition, or capacity, of existing well or associated existing equipment.
- Domestic cold water system shall originate from the mechanical room and distributed throughout the Library.
- Domestic hot water system shall consist of one (1) electric hot water heater with an 40 gallon storage capacity and all safeties and controls. A Hot water recirculation loop shall be provided from furthest fixture locations back to the tanks to maintain a minimum of 110-degree domestic water to all the fixtures. An in-line recirculation pump, all safeties and controls will be included.
- All of the building's waste and sanitary shall be collected from the plumbing fixtures and brought below grade to a 4" sanitary main and exit the northwest end of the building to a new septic system (designed by civil engineer). The sanitary piping system is assumed to be a gravity drainage system and no sewage pumping system will be required. Sanitary pipe design shall terminate 5 feet outside the building envelope. Continuation of the sanitary pipe shall be designed by the Civil Engineer. Vent piping will be terminated up through the roof.
- Plumbing fixtures throughout the Library shall be of white virtuous china material and meet all ADA requirements. Water Closets shall be floor mounted, tank type. Urinals will be wall hung, flush valve type. Lavatories shall be wall hung with manual handles operation.
- Kitchen sink will be stainless steel counter sink with manual faucet and sprayer.
- Janitor sink shall be floor mounted with wall mounted faucet and vacuum breaker.
- Drinking Fountains shall meet ADA requirements and there shall be an integral bottled water filling station.
- All hot and cold water piping distribution shall be type L copper construction with soldered fittings. Pro press fittings shall be accepted. PEX piping will be considered.

MECHANICAL

- Ventilation throughout the building will be achieved by a mechanical ventilation system comprised of one (1) Energy Recovery Unit (ERV) located in the attic mechanical room sized for the entire building. The associated supply and exhaust distribution ductwork, Registers, Grilles and Diffusers, intake and exhaust air terminations (louver/roof caps), electric reheat coil and all associated controls will be included.

- Exhaust air systems for the restrooms and other miscellaneous spaces will be handled by a combination of the Energy Recovery Unit (ERV) and rooftop exhaust fan(s). Exhaust grilles and ductwork to support the ventilation will be included.
- Heating and air conditioning systems for the Jonathan Trumbull Library shall be comprised of two (2) Variable Refrigerant (VRF) systems. One VRF system will serve the Basement Level areas and the other VRF system will serve the main level Library area. There will be two (2) outdoor heat pump Condensing Units (CU's) and multiple indoor fan coil units (a combination of recessed ceiling cassette, wall mounted ductless and concealed ducted type) throughout the spaces. Refrigeration piping circuits will transfer the heating/cooling to the spaces.
- The VRF systems will be capable of simultaneous heating and cooling functions. The VRF system will include de-humidification.
- Miscellaneous electric wall heaters will be located at Entry locations and vestibules.
- New automatic temperature control system to support the HVAC systems will be included.

ELECTRICAL

- Electrical service to the building will originate from the street through the existing local utility company's point of connection (Utility pole number 39). We will coordinate with the local utility company.
- We will update the existing electrical service within the building to serve the new and remodeled space. Electrical service for this building will consist of a 600 ampere Service entrance cabinet (rated 208Y/120 Volt, 3 phase, 4 wire) inside the building at the main mechanical/electrical room on the library's lower level. Utility meter for this service will be located in the main electrical room.
- The electrical distribution system throughout the space will support the general lighting and receptacles, mechanical equipment, and other miscellaneous equipment.
- Fire alarm system will consist of a main control panel located in the lower level mechanical/electrical room as well as an annunciator at the main building entryway. Speaker/strobe notification devices will be located throughout the building. Smoke detectors will be located throughout the building with duct smoke detectors for supply ducts greater than 2000 CFM. Manual pull stations will be located at each egress door. Additional pull stations shall be provided as required where the travel distance to a pull station is greater than 200 feet. System components will not be proprietary.
- Interior Lighting: High efficiency LED light fixtures will be provided throughout the building and controlled through occupancy and/or vacancy sensors.

- Exterior/Site Lighting: Exterior building mounted light fixtures will be provided at means of egress to meet code requirements. Exterior lighting will be automatically controlled by time clock and photocell.
- Emergency Lighting: Emergency lighting will be provided in all egress paths including corridors, vestibules, etc. Selected emergency fixtures will be powered from an integral battery pack inside the fixture.
- Emergency exit signs will be provided above each egress door, and at each change in direction on all floors.
- New security raceway system that will include conduits, back boxes, and pull strings. The cables, wiring, modules, wall plates and head-end equipment will not be designed nor specified by our firm.
- The new telephone/data/cable system will include conduits, back boxes, cables, modules, and wall plates. Telephones and head-end equipment will not be designed nor specified by our firm.
- No emergency generator/transfer switch is incorporated into the design.

End of Narrative



September 30, 2020

Mr. Kevin Cwikla, First Selectman
Town of Lebanon
579 Exeter Road
Lebanon, CT 062489

RE: Jonathan Trumbull Library Project
520 Exeter Road, Lebanon, CT

Dear Mr. Cwikla,

Yantic River Consultants, LLC was contracted by the Library Building Committee to provide consultant engineering and archaeological related services for the Jonathan Trumbull Library (JTL) project. Our services will consist of preliminary research, data compilation and field review in collaboration with Raber Associates to establish a future archaeological reconnaissance survey and investigation program of the Library Parcel. A summary of our preliminary services are listed below:

1. Coordination with the Building Committee and project consultants,
2. Coordination with SHPO re: archaeological requirements/expectations, and collection of information on any reported sites in vicinity other than Alden Tavern,
3. Preparation of mapping to show SHPO project areas, existing and demolished features/structures, and proposed features,
4. Meeting/coordination with Lebanon Historical Society,
5. Review of expected soil types, and soil testing with 3.5"-diameter bucket auger to identify archaeologically sensitive strata within horizontal/vertical project limits, and
6. Preparation of a brief archaeological assessment memo outlining existing information and further steps needed to address SHPO concerns/regulations, most likely a reconnaissance survey.

The services described above are part of the “archaeological investigations in collaboration with the Historical Society under the supervision of a qualified archaeologist” described in Section 4.1(r) of the *Declaration of Conservation and Preservation Restrictions and Covenants for the Library Parcel*, which require notice in accordance with Section 9.0(a). We request that the Town provide written notice to the Lebanon Historical Society of our work in accordance with Section 9.0(a) at your earliest convenience.

Please note that Michael Raber and I met with the Lebanon Historical Society on September 29th to discuss our work. The members in attendance tentatively approved of our services pending the submission of written notice. They also indicated that they would waive the 45-day review period to allow our work to commence in October.

Mr. Kevin Cwikla, First Selectman
September 30, 2020

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Should you have any questions or need additional information, please don't hesitate to contact me at (860) 367-7264 or via email brandon@yrc-ne.com.

Sincerely,



Brandon Handfield, PE
Civil Engineer

Cc: Mr. James Russo, Chairman, Library Building Committee
Bernard Dennler III, Administrative Assistant

Lebanon Historical Society

MUSEUM & VISITORS CENTER

October 2, 2020

Mr. Kevin Cwikla, First Selectman
Town of Lebanon
579 Exeter Road
Lebanon, CT 06249

RE: Johnathan Trumbull Library Project
520 Exeter Road, Lebanon, CT

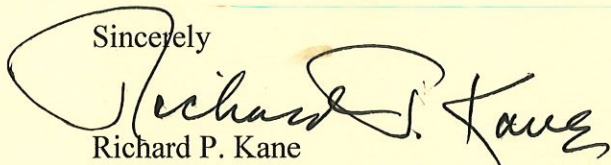
Kevin,

The Lebanon Historical Society approves the archaeology tasks for which Yantic River Consulting, LLC has been contracted to perform on the Library parcel on the historic Lebanon Green. Our approval is based on our understanding there will be no topographical alterations to the parcel as a result of these actions.

We believe the actions outlined in the YRC letter to you dated September 30, 2020 re consistent with the 'Declaration of Conservation and Preservation Restrictions and Covenants for the library Parcel'.

One minor clarification to the document provided to you by Yantic River Consulting, LLC; LHS is not waiving the 45 day notice period, we are providing approval immediately following notification to LHS by the Town per your email of October 1, 2020 such that YRC may begin ASAP per their request.

Sincerely



Richard P. Kane
President, Lebanon Historical Society