

THE NORWICH HISTORIC DISTRICT COMMISSION

CERTIFICATE OF APPROPRIATENESS: APPLICATION

COA # _____

SECTION I Property Owner

Historic Property Owner: United Community & Family Services

Property Owner's Authorized Representative: Jennifer Granger

Historic Property Address: 34 East Town Street, Norwich, CT 06360

Owner Telephone: (860) 822-4143 Date: 03/04/2020

Owner Email: jgranger@ucfs.org

SECTION II Property Modification Category

Check one or more of the following:

- | | | | | |
|--------------|--------------------------|----------------|--------------------------|---|
| Demolition | <input type="checkbox"/> | Restoration | <input type="checkbox"/> | |
| Preservation | <input type="checkbox"/> | Reconstruction | <input type="checkbox"/> | New Construction <input type="checkbox"/> |

Check one or more of the following:

- | | | | | |
|---------|--------------------------|-----------|--------------------------|---|
| Roofing | <input type="checkbox"/> | Windows | <input type="checkbox"/> | Other <input checked="" type="checkbox"/> |
| Masonry | <input type="checkbox"/> | Perimeter | <input type="checkbox"/> | Fixtures <input type="checkbox"/> |
| Signage | <input type="checkbox"/> | Skylights | <input type="checkbox"/> | Chimney <input type="checkbox"/> |

SECTION III Inclusions

Please include photograph of the property from the street (regardless of the location of the actual work). Photograph of the specific work to be performed. Catalog sheets or descriptions of specific materials to be used, including but not limited to lumber material, metal materials, construction materials, finishes, fasteners (note that vinyl, plastic, fiberglass, aluminum or similar materials are not likely to be approved) If matching another approved feature in the neighborhood (for example, fencing), provide a photo of matching installation. You may add this information as an attachment or addendum to your COA application.

SECTION VI Signature

Applicant Signature *Jennifer Granger* Date 3/6/2020

Submit: hdc@cityofnorwich.org via email. The Commission checks this email account daily Monday-Friday. Please submit your COA by the first Monday of the month. The Commission normally meets the third Wednesday of the month.

**Energy Efficiency-HVAC Project
General Administration Building-34 East Town Street, Norwich**

The Governor Samuel Huntington House is located at 34 East Town Street in Norwich on a 2.16 acre plot with a barn and two small shed outbuildings. The building was built in 1783 as the home of Governor Huntington, a jurist and statesman who served as a delegate to the Continental Congress and signer of the Declaration of Independence and the Articles of Confederation and who later served as Chief State Justice and the 18th Governor of Connecticut. The building has been owned and occupied by UCFS since 1982 and currently houses our administrative offices.

On September 13, 2017, UCFS signed a contract with Nelson Edwards Company Architects, LLC from Branford, CT to develop an energy upgrade study for the Governor Huntington House. A portion of the cost of this study was funded through a State Historic Preservation Technical Assistance Grant (HPTAG). This grant allowed for a review of needed energy upgrades that could be done while maintaining the historic integrity of the House and also provided the opportunity to examine ways in which the historic appearance of the building could be improved. UCFS and the Norwich Historical Society received a copy of the detailed report on December 22, 2017.

The impetus for this study was the identified need to upgrade the energy efficiency and climate control systems within the building while simultaneously protecting the building's historic structure and improving the historic appearance. The study identified and documented existing conditions related to indoor climate control and suggested a phased approach for energy improvements that improve thermal performance in a manner appropriate for a historic building.

Existing environmental systems in the building are not ideal, as indicated by the usage of individual window air condition units and space heaters. The current system also fails to control high summer humidity levels which are bad for historic buildings.

Additional minor projects that were recommended as part of this project that have been completed include the following: installing insulation in the attic and roof areas, weather stripping doors, and installing interior storms at door sidelights and transoms.

Field studies of this building showed that moisture movement is a major player in the building's preservation needs as well as its energy use. On the day of the evaluation the moisture meter measurements in the basement flooring and walls below grade found its masonry concrete flooring to be saturated with moisture vapor. This means that there is no vapor barrier under the concrete foundation flooring or behind the mortared stone foundation walls. Similarly,

moisture meter measurements on the walls of the upper floors found elevated levels of moisture vapor within their materials. From an energy efficiency standpoint, the excessive migration of moisture into the building from the basement causes unwanted additional work for the HVAC system to remove it from the building interior spaces environment.

The building is presently heated by perimeter baseboard hot water supplied by an oil fired hot water boiler. For temperature control, the building is divided into four zones of thermostatic heating. Each of the two occupied floors is split in half, with each having its own thermostat. As a result, several different occupant offices must share the same thermostat even though their individual spaces have different heating needs due to room orientation or exposure or individual occupant preferences. There is no winter humidity control system.

The building is presently air conditioned by the use of window air conditioners. Each summer the staff takes each of the individual window air conditioners from their stored space in the basement and install them in each office space window. Only one air conditioning unit is left in place all year round-this is because it is too hard to remove and put back in each year.

There are also two split system direct expansion (Dx) air conditioners in the building. These however, are used for cooling electronic IT, phone and computer data server equipment cooling equipment needs. There is no summer humidity control system.

A request for proposals was developed and awarded to the lowest qualified bidder, JEM Technical Services, LLC. The scope of work includes the installation of air conditioning and heating system for the General Administration Building. The system will be divided into 8 zones. One office shall be served by a ductless wall unit. The remaining areas will be served by ducted air handlers. Units serving the 2nd floor shall be located in the attic and ducted down to ceiling supply diffusers. First floor units shall be located in the basement and ducted up to floor registers. Four condensate drains shall be run to outdoors. A new sub panel will be installed to accommodate the new A/C equipment. Please note that the new system will qualify for Cool Choice Rebates from Norwich Public Utilities per Devin Schleidt.

The only work that will be visible from the exterior of the building includes a small concrete pad with 4 multi-zone Mitsubishi heat pump condensing units. These will be placed on the southwest side of the building and will not be visible from East Town Street. The dimensions of the condensing units are as follows: 37 ½ w x 13d x 41 ¼ h. Shrubbery will be planted around the condensing units.

In December 2018, UCFS received \$91,580.99 from Norwich Public Utilities (through the Neighborhood Assistance Act) to support this energy efficiency project. Again in January 2020, UCFS received \$56,342.84 from Norwich Public Utilities (through the Neighborhood Assistance Act) to complete this project as well as assist with phase two of this plan, the replacement of 70 windows.

Throughout this project representatives from UCFS have been in contact with Regan Minor and Bill Champagne to ensure that this project not only respects the historical statue of the building but also protects the building by upgrading the much needed HVAC system.



FIGURE I. NORTH ELEVATION



FIGURE 3. SOUTH ELEVATION

Location of Condensing Units



FIGURE 4. WEST ELEVATION

Condensing Units

Infiltration of unconditioned air through door



Basement concrete floor is major moisture contributor



FIGURE 23. SUPPLEMENTAL HEATING UNITS STORED OFF SEASON IN BASEMENT.



FIGURE 24. WINDOW AIR CONDITIONER UNITS STORED OFF SEASON IN BASEMENT.

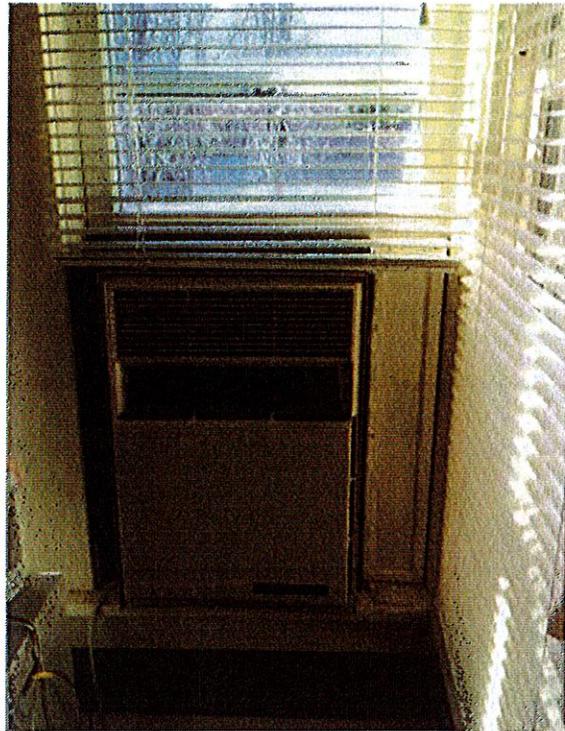


FIGURE 25. THIS AC UNIT STAYS INSTALLED YEAR ROUND BECAUSE IT IS AWKWARD TO REMOVE AND REINSTALL EACH SEASON.

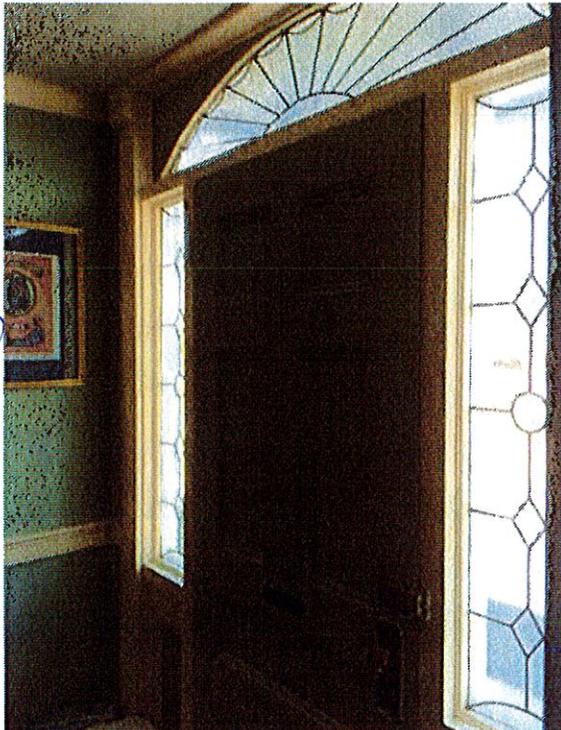
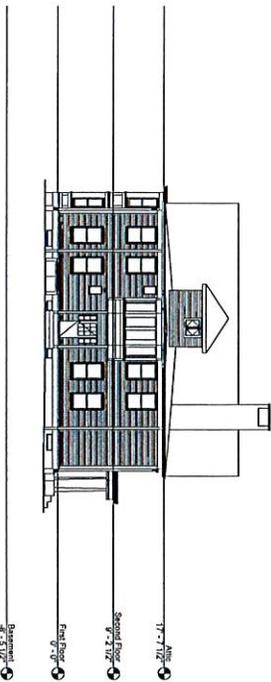
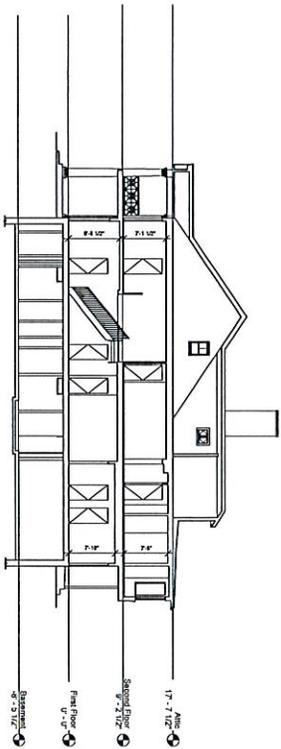


FIGURE 26. DOOR AT EAST ELEVATION. THERMAL PERFORMANCE OF SIDELIGHTS AND TRANSOM WILL IMPROVE WITH INTERIOR REMOVABLE STORM WINDOWS.

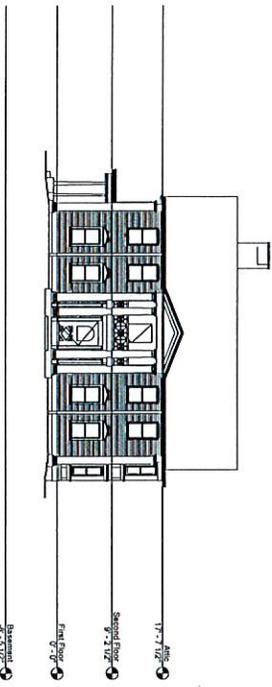
Interior Storm Windows installed

34 E Town St
Norwalk, CT 06850

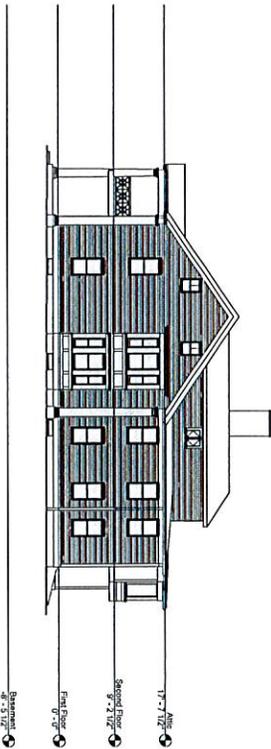
Section 1
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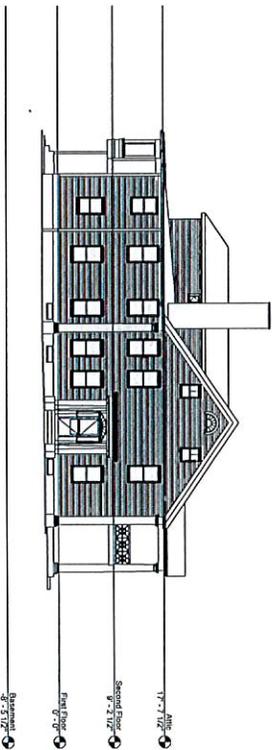
Section 2
1/8" = 1'-0"



Section 3
1/8" = 1'-0"



Section 4
1/8" = 1'-0"



Section 5
1/8" = 1'-0"



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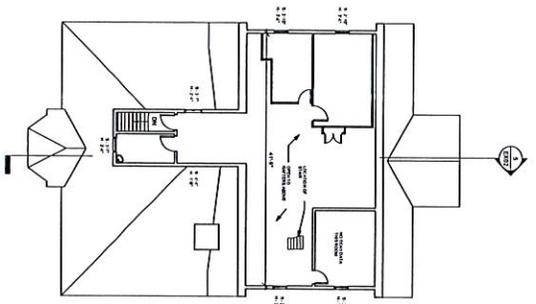
- Disclaimer:**
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Revision Number	Revision Schedule	Revision Description	Date

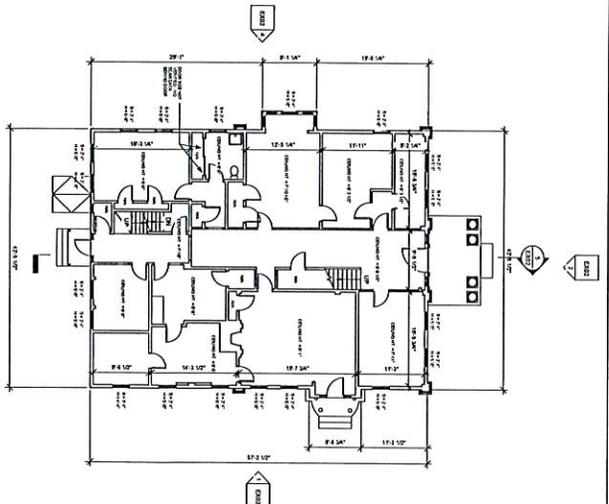
Existing Exterior
Elevations/Section

Date: 11/14/2017
Scale: 1/8" = 1'-0"
Drawn By: ECS

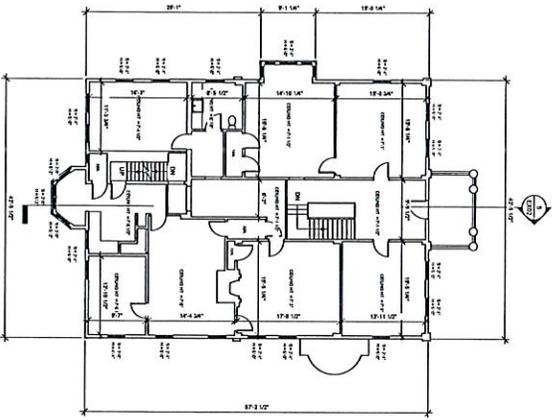
EX02



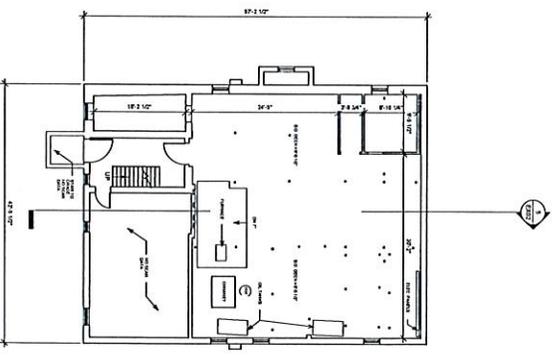
② Second Floor
1/8" = 1'-0"



③ Basement
1/8" = 1'-0"



④ First Floor
1/8" = 1'-0"



⑤ Second Floor
1/8" = 1'-0"

34 E Town St
Norwalk, CT 06850

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**Existing Conditions, Surveys and
Measurements**
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experienced surveyors.

Revisions Schedule

Revision Number	Description	Revision Date
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Existing Floor
Plans

Sheet: 11/14/2017
Scale: 1/8" = 1'-0"
Project No: EC3
EX01