Mechanical and Electrical Systems
Existing Conditions Narrative

Bauer Classroom Building
Madison, Connecticut

3/11/10

Prepared By
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CES Project No. 29066.00

A. ***PLUMBING NARRATIVE***

APPLICABLE CODES AND STANDARDS

The plumbing systems will be reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. 2005 Connecticut State Building Code
2. 2005 Connecticut State Fire Safety Code
3. 2003 International Building Code(IBC)
4. 2003 International Plumbing Code
5. 2003 International Energy Conservation Code
6. NFPA, Latest Version
7. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:
   a. Existing Domestic Water Service: The building is currently served by a buried domestic water branch from the Bauer Farmhouse.
2. Natural Gas:
   a. Existing Natural Gas Service: The Classroom Building is currently served by natural gas fed from the local utility's distribution system.
3. Sanitary:
   a. Existing Sanitary Service: The building's sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the building. The sanitary waste piping discharges to a septic tank and leaching field.
4. Storm:
   a. Existing Storm System: The buildings is served by gutters.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:
   a. In general, fixtures at the Classroom Building are relatively new and in good condition.
   b. Water closets at the Classroom Building are floor mounted; tank type, vitreous china.
   c. Lavatories at the Classroom Building are vitreous china with single lever faucets.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The water heater is electric and is relatively new and in good condition.

B. ***FIRE PROTECTION NARRATIVE***

FIRE PROTECTION SERVICE

1. There is no central fire protection system (sprinklers) currently at the facility.

C. ***MECHANICAL NARRATIVE***

APPLICABLE CODES AND STANDARDS

The mechanical systems will be reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. 2005 Connecticut State Building Code
2. 2005 Connecticut State Fire Safety Code
3. 2003 International Building Code(IBC)
4. 2003 International Mechanical Code
5. 2003 International Energy Conservation Code
6. NFPA, Latest Version
7. ASHRAE 90.1

EXISTING SYSTEMS

a. Boiler Plant: The building is heated by a hot water boiler with fin-tube radiation in individual rooms. Boiler is a Utica natural gas boiler.

1. Air Conditioning: There are no A/C systems in either building.
2. Ventilation is provided via natural ventilation (operable widows) for fresh air.
3. The temperature control systems are local electric controls. There are no DDC control systems.

D. ***ELECTRICAL NARRATIVE***

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems will be reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. 2005 Connecticut State Building Code
2. 2005 Connecticut State Fire Safety Code
3. 2003 International Building Code(IBC)
4. 2003 International Energy Conservation Code
5. 2005 National Electrical Code, NFPA 70 (NEC)
6. Illuminating Engineering Society Lighting Handbook (IESNA), 9th Edition
7. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a 240/120volts, 1 phase panel. This panel is fed underground from a distribution panel located in the basement of the Bauer Farmhouse.
2. Lighting, in general, consists of fixtures with T8 fluorescent lamps
3. Fire alarm: There is no fire alarm system in the building.
4. Emergency lighting at the Classroom Building is handled by 2-head emergency lighting fixtures with integral battery packs.

E. ***MEP SYSTEMS CONCLUSION***

In general, the MEP systems are in fair to good condition. Miscellaneous recommendations regarding improvements are as listed below. No costs were generated for these options.

1. Install DDC temp sensors for remote monitoring.