Mechanical and Electrical Systems
Existing Conditions Narrative

Youth & Family Services
Madison, Connecticut

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Prepared By
Consulting Engineering Services, Inc.
811 Middle Street, Middletown, Connecticut 06457
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 1" domestic water main fed from Connecticut Water Company. This water service currently serves all of the building's domestic water needs.
2. Natural Gas:
   a. Existing Natural Gas Service: The 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: Building is served primarily by gutters.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:
   a. In general, fixtures are in good condition.
   b. The water closets are floor mounted; tank type, vitreous china.
   c. The lavatories are vitreous china.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The domestic hot water is generated by an electric water heater which is in good condition. The water heater is located in the basement.

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

1. The building is served by a single forced air, heating and air conditioning unit located in the basement.

2. The forced air unit has features as follows:
    a. Provides mechanical ventilation to the spaces.
    b. Natural gas fired for heat.
    c. A/C is accomplished through a split system compressor/condenser located outside at grade.
    d. Unit is ducted in the basement to floor grilles at the floor above.
3. Temperature controls are local, stand alone electric type.

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 distribution panel, rated at 400 amperes, 240 volts, 1 phase. This service equipment consists of a 400amp main disconnect switch, distribution section and metering per utility company requirements. The service equipment is located in the basement and is in fair condition.

2. Lighting, in general, consists of fixtures with T8 fluorescent lamps.
3. Site lighting has fair to good coverage with pole mounted and building mounted fixtures.
4. There is no fire alarm system.
5. Emergency lighting is handled by 2-head emergency lighting fixtures with integral battery packs.

E. ***MEP SYSTEMS CONCLUSION***

The MEP systems are in good condition and there are no immediate recommendations to replace or upgrade MEP systems in the near future. Minor recommendations include adding a DDC panel for general temperature control and alarming and adding lighting controls for energy savings. No costs were generated for this option.