TOWN OF SUFFIELD

CONDITIONS ASSESSMENT & MASTER PLAN

A. WARD SPAULDING SCHOOL
MCALISTER INTERMEDIATE SCHOOL
SUFFIELD MIDDLE SCHOOL
SUFFIELD HIGH SCHOOL
TOWN HALL ANNEX
SENIOR CENTER
POLICE DEPARTMENT
FIRE DEPARTMENT 1 (HQ)
FIRE DEPARTMENT 2
FIRE DEPARTMENT 3
FIRE DEPARTMENT 4

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Tecton
ARCHITECTS

TABLE OF CONTENTS

INTRODUCTION **1**

Objectives 1.1

List of Buildings 1.2

Ranking Systems Defined 1.3

SUMMARY & ANALYSIS **2**

BUILDINGS & SITES **3**

A. Ward Spaulding School 3.1

McAlister Intermediate School 3.2

Suffield Middle School 3.3

Suffield High School 3.4

Town Hall Annex 3.5

Senior Center 3.6

Police Department 3.7

Fire Department 1 (HQ) 3.8

Fire Department 2 ..... 3.9

Fire Department 3 ..... 3.10

Fire Department 4 ..... 3.11

PROGRAMMING **4**

RECOMMENDATIONS **5**

Tecton ARCHITECTS

INTRODUCTION 1

INTRODUCTION

1. Introduction

1.1 Objectives

In January of 2021, Tecton Architects began work with The Town of Suffield, through its First Selectman, Superintendent of Schools, and Joint Facilities Committee to prepare a Municipal Facilities Master Plan for the Town. The intent of the plan was to assess the use and condition of select Municipal and Board of Education facilities and adjacent land to establish a priority, schedule, and budget for most effective use – modernization, replacement, or expansion – that would serve to create a framework for the Town's Capital Plan for the next ten years. Of the Town's twenty-four (24) currently owned/occupied buildings, eleven (11) were identified for inclusion in this study.

1.2 List of Buildings

BUILDING	ADDRESS	SQUARE FOOTAGE	ACREAGE	USE
A. Ward Spaulding Elementary School	945 Mountain Road	71,720	19.5	Education
McAlister Intermediate School	260 Mountain Road	71,925	32.4 (shared)	Education
Middle School	350 Mountain Road	128,233	32.4 (shared)	Education
High School	960 Sheldon Street	181,000	60.48	Education
Police Department	911 Mountain Road	8,955	2.69	Police/Public
Fire Department 1	73 Mountain Road	2,800	3.49	Fire/Public
Fire Department 2	9 Ratley Road	4,100	6.88	Fire/Public
Fire Department 3	3 Copperhill Road	3,388	1.08	Fire/Public
Fire Department 4	776 Thompsonville	2,427	3.46	Fire/Public
Senior Center	145 Bridge Street	11,701	3.27	Municipal
Town Hall Annex	97 Mountain Road	3,289	1.62	Municipal

The analysis of each of the programs and buildings consisted of a thorough review of prior studies and existing building documentation, a building walkthrough, data & document review (plans, reports, warranties, utility bills), a comprehensive and broad-based exiting conditions analysis, a functional, space needs and programmatic needs evaluation informed by various stakeholder focus group meetings, a robust community engagement process (surveys, building tours, Town-wide events, digital access to information), and the delineation of options with associated cost estimates and phasing plans that address current challenges and reflect Town and department goals for the future. In the existing conditions analysis that follows, each facility will be evaluated for condition of site features, exterior envelope, interior finishes, code compliance, building systems, functional requirements, and energy efficiency.

RANKING SYSTEMS DEFINED

1.3 Rankings System Defined

Ranking (range '1' to '5')
Via the site inspections and conditions assessments contained in the detailed report, the design team is providing a condition (or ranking) of various, select building physical components. An itemized course of action may be derived from this ranking as well as strategies and prioritization for maintenance of the facilities.

Vintage (year of construction)
Buildings that were constructed or renovated at different time periods (dates)are assigned a Vintage #. Elements of varying ages are evaluated separately. Vintage #'s for each facility are indicated on the vintage diagram & checklist.

Condition (range 'very poor' to 'very good')
Existing exterior and interior conditions of all building and site elements are determined by the following criteria for evaluation:

Ranking: 1 Very Poor [VP] An element is evaluated as Very Poor [VP] when:

- Requires prompt attention.
- May last and may need to be replaced in 0 to 5 years.
- The element is no longer performing its intended purpose.
- Deterioration or damage affects more than 50% of the element.
- May contribute to the failure or degradation of other building elements.
- Has a severe negative impact on the overall efficiency and/or fiscal sustainability of the facility.

Ranking: 2 Poor [P] An element is evaluated as Poor [P] when:

- May last and may need to be replaced in 5 to 10 years.
- The element may be approaching the end of its useful life.
- Deterioration or damage affects less than 50% of the element.
- May contribute to the failure or degradation of other building elements.
- Has a negative impact on the overall efficiency and/or fiscal sustainability of the facility.
- May last and may need to be replaced in 5 to 10 years.

Ranking: 3 Fair [F] An element is evaluated as Fair [F] when:

- May last and may need to be replaced in 10 to 15 years.
- The element is functioning as intended and is still within its useful life.
- Deterioration or damage affects less than 25% of the element.
- There are early signs of wear, failure or deterioration, but the element is structurally sound.
- Visible wear and tear is considered typical for a structure of this age and type.
- Has a little impact on the overall efficiency and/or fiscal sustainability of the facility.

Ranking: 4 Good [G] An element is evaluated as Good [G] when:

- May last and may need to be replaced in 15 to 20 years.
- The element is intact, sound and is functioning as intended, within its useful life.
- There are few or no cosmetic issues or imperfections.
- The element needs no repair other than minor / routine maintenance.
- Visible appearance is considered typical for a structure of this age and type.
- Has a no impact on the overall efficiency and/or fiscal sustainability of the facility.

Ranking: 5 Very Good [VG] An element is evaluated as Very Good [VG] when:

- Needs no attention and may last up to 25 years.
- The element is intact, sound and is functioning as intended, within its useful life.
- There are few or no cosmetic issues or imperfections.
- The element needs no repair other than minor / routine maintenance.
- Visible appearance is considered typical for a structure of this age and type.
- Has a positive impact on the overall efficiency and/or fiscal sustainability of the facility.

SUMMARY & ANALYSIS 2

INTRODUCTION

Following completion of our analysis, the condition of each of the buildings is as follows:

BUILDING	AGE/CONSTRUCTION	CONDITION
A. Ward Spaulding Elementary	1954 (67 years old) + add/	Needs Work
McAlister Intermediate School	1939 (82 years old) + add/	Needs Work
Middle School	1964 (57 years old) + add/	Poor
High School	2002 (19 years old)	Good
Police Department	1988 (33 years old)	Fair
Fire Department 1	1962 (61 years old)	Needs Work
Fire Department 2	2004 (17 years old)	Good
Fire Department 3	1985 (36 years old)	Fair
Fire Department 4	1975 (46 years old)	Fair
Senior Center	1950 (71 years old)	Good
Town Hall Annex	1976 (45 years old)	Poor

A Town-wide survey illustrated that Town residents most prefer an investment in their schools, followed by an investment in community resources. That same survey identified the Middle School as the Town building requiring the greatest improvement in order to address existing physical conditions or programmatic needs.

A survey of the Joint Facilities Committee aligned with these results: that the greatest need exists at the Middle School, followed by Fire Department 1. The Committee ranked both of these buildings as urgent from an overall conditions, program, and health/safety standpoint.

INTRODUCTION

Through extensive analysis of the existing conditions and programmatic needs, this study identifies that ***the greatest needs exist within the Middle School and Fire Department 1***, and therefore ranks them as Tier I (high priority) projects. Police Department and A. Ward Spaulding Elementary School are among the Tier II (moderate priority) projects.

In summary, the prioritization of each building is as follows:

(High Priority) Tier I – Tier II – Tier III (Low Priority)

BUILDING	AGE/CONSTRUCTION
A. Ward Spaulding Elementary School	Tier II
McAlister Intermediate School	Tier II
Middle School	Tier I
High School	Tier III
Police Department	Tier II
Fire Department 1	Tier I
Fire Department 2	Tier III
Fire Department 3	Tier III
Fire Department 4	Tier III
Senior Center	Tier III
Town Hall Annex	Tier II

The analysis outlined in subsequent pages is a cumulative and multi-factorial assessment of existing facility conditions completed by an integrated architectural and engineering team that in addition to the buildings themselves, also incorporates the collection and review of documentation, operational metrics, stakeholder feedback and input from the community at large. The resulting framework will consist of a long-term, phased implementation plan that comprehensively addresses Town needs. ***In summary, the greatest need exists at the Middle School, followed by Fire Department 1. Therefore, as a first and highest priority, it is the recommendation of this study that the Middle School campus be initially addressed, with a solution to Fire Department 1 planned in the next five years.***

SUMMARY & ANALYSIS

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

A. Ward Spaulding school consists of Pre-Kindergarten through 2nd grade students in the town of Suffield. The original building was built in 1954 and has received several additions and infill construction areas spanning from 1961 and 1988. The school sits close to Mountain Road on a large open site. Behind the school are athletic fields and a playground. A large open parking area resides Northwest of the building. Bruce Park sits past a line of trees to the Southwest.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

GRADE LEVEL	PK-2
STUDENTS	451
BUILDING AREA/SITE	71,406 SF / 19.5 acres
AGE/CONSTRUCTION	1954 (67), 1961 (60), 1985 (36), 1988 (33)

Building Condition: ***Fair***

- Overall, well built, durable and well maintained, recent upgrades to Pre-K classrooms, corridor floors, gymnasium & auditorium floors.
- Several components are past useful life ~ flooring, millwork, some toilet facilities, ceilings, doors, some hardware
- Modular construction clearly past useful life
- Several accessibility compliance issues related to floor clearances and reach at entranceways, sinks, and millwork
- Site security, parking, & boundary ongoing concern with limited to no outdoor classrooms
- Classrooms are good size, meet educational needs, ideally setup in neighborhood

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

McAlister Intermediate School houses 3rd grade through 5th grade students from the Town of Suffield. The original construction was built in 1939, with additions from 1956 and 1987. A modular building built in 1994 was placed to the Northeast of the main building but has since been removed.. The school sits centrally located on a large open site that is shared with the Middle School. A large open parking area resides on the West with some visitor spaces to the South along Mountain Road. To the north of the school are shared athletic fields.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

GRADE LEVEL	3-5
STUDENTS	466
BUILDING AREA/SITE	72,263 SF / 32.4 acres (shared)
AGE/CONSTRUCTION	1939 (83), 1956 (66), 1987 (35)

***Building Condition*: Fair**

- Site traffic, parking and perimeter security major concerns for site (pedestrian and vehicular safety), no defined receiving area.
- Play areas exposed, no definition of school boundary. Do not meet accessibility codes
- Many non-functioning or poorly functioning windows and exterior doors, persistent concerns and repairs and flashing/water infiltration issues.
- Overall, well built, durable original construction and well maintained. Many important investments & preventative maintenance (roofs, A/C, isolated room renovations)
- Many components (finishes, millwork, lockers) of original construction are past useful life and/or non accessible (ADA @ toilet rooms, ramp, doorways)
- Inconsistent construction of various room modifications over the years. Ventilation concerns in portions of buildings related to construction of additions and encapsulation
- Many toilet facilities are non accessible, in very poor condition, and/or nonfunctioning.
- Floor to floor noise transfer and acoustical concerns in original portion of the building.
- No automatic sprinkler system within building
- Classrooms are good size, meet educational needs, although limited flexibility for grade level "pods", considering mixed grade pods

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

Suffield Middle School serves the 6th grade to 8th grade population of The Town of Suffield. The majority of the building is part of the 1964 original vintage. In 1965 a Vocational Agricultural building was constructed to the Northeast and many small to medium additions were put on the building in 1972 which not only added programmed space around the building, but also connected the main building to the Vocational Agricultural building. The school is centrally located on a large open site at the corner of Mountain Road and Hill Street. A circular drive aisle and bus loop comes off Mountain Road and wraps around inside the half circular courtyard by the main entrance door. This loop connects to a large open parking area to the East which is shared with McAlister Intermediate School.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

GRADE LEVEL	6-8
STUDENTS	436
BUILDING AREA/SITE	128,489 SF / 32.4 acres (shared)
AGE/CONSTRUCTION	1964 (58), 1965 (57), 1972 (50)

***Building Condition*: Poor**

- Site conditions are poor and traffic flow is not ideal
- Consistent roof leaks, roof was replaced in phases by different contractors with various warranties
- Overall concern with building envelope although it has been well maintained
- Original building well built, but many areas poorly constructed.
- Observed significant inefficiencies due to additions/renovations over time including lack of daylight in educational spaces
- Majority of toilet cores are in poor condition due to age and use.
- While 2002 upgrades addressed some code issues, some accessibility compliance issues remain related to floor & push/pull clearances and reach requirements
- Most major mechanical systems are past or at the end of their useful life.
- Overall MEP systems need a complete overhaul.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

Suffield High school serves 9th grade through 12th grade students in the Town of Suffield. Area A consists of the main lobby space, Auditorium, Gymnasium and locker space, Administrative Offices, and some classrooms. Areas B and C are largely made up of classroom space. The High School sits along Sheldon Street on a large open site. A bus loop and a separate parent drop-off loop sit between the school and Sheldon Street. All athletic fields and the majority of site parking sit to the West of the building. A smaller visitor lot sits within the bus loop and some parking is available along the East drive aisle as well.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

GRADE LEVEL	9-12
STUDENTS	776
BUILDING AREA/SITE	204,016 SF / 60.48 acres
AGE/CONSTRUCTION	2002 (20), 2012 (10)

Building Condition: ***Fair***

- Site circulation concerns – separation of bus, parent, and student. Intersecting routes create confusion at arrival/dismissal.
- Under-utilized Courtyard Space. Gaps in perimeter roof flashing exposing building to loss of energy and wildlife
- Original roof designed with 15-year warranty
- Overall, interior spaces are well maintained, some areas of questionable quality of original construction, overall building has worn faster than anticipated
- Curling ceiling tiles leads team to be concerned about the HVAC balancing of the school.
- Fairly significant deterioration of furniture in areas, in some cases it is mismatched.
- Major Air Handling units 20 years old but failing at a high rate.
- Controls throughout are an issue.
- Overall ALL MEP systems are starting to get to the age where they will need some major maintenance.
- Desire to integrate more collaborative spaces, working toward this at media center
- Create Innovation Hub (Manufacturing), Career Center, Education & Health Service – Career & College Ready
- Reinvent antiquated program space (dark room area, computer, material lab)

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

The Town Hall Annex houses overflow offices from the Town Hall. The exterior is clad in brick veneer and vinyl siding. The main entrance is located on the North façade of the building facing Mountain Road and has additional man-doors located on all sides. Three overhead garage doors are located on the South side and exit into a rear parking lot. The Town Hall Annex is centrally located on a small open site with one entrance driveway on the North side. The rear of the site is heavily wooded with a large open parking area.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

BUILDING AREA/SITE	2,060 SF / 1.62 acres
AGE/CONSTRUCTION	1976 (46)

Building Condition: ***Fair***

- Cracking and deterioration at all concrete and asphalt site components
- General cleaning of exterior masonry and foundation walls needed
- Some exterior man-doors and garage doors need replacement or repair
- Ripped insulation lining throughout garage
- Minor deterioration of interior finishes
- No automatic sprinkler system within this building
- Need to identify possible future uses and/or if it should be discarded
- Potential for centralized storage location to serve town needs

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

In addition to the Senior Center function, the offices of Youth Services and Parks & Recreation are house within the Senior Center. The main entrance is located on the West façade. Additional entrances are located on all sides of the building. Two are located on the on the East side, another is located on the Northeast corner into the former chapel space, and two are in the North and South courtyards. Youth Services and Parks & Recreation reside in the two peninsulas flanking the South courtyard, they each have two private entrances respectively. The building sits centrally located on a large site surrounded by trees. Traffic flows one way starting at an entrance at the Northeast corner, travels clockwise around the building, and exits in the Northwest corner.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

BUILDING AREA/SITE	11,702 sf / 3.27 acres
AGE/CONSTRUCTION	1950 (72)

***Building Condition*: Good**

- Uneven brick patio in rear
- Cracking in pavement throughout
- Recent renovations were done in 2009
- Lack of gutters at large hip roof and main entrance causing water drainage issues and ice build up in Winter months
- Minor deterioration of interior finishes
- Youth Services and Parks & Rec do not have accessible entrances from exterior
- No Automatic Sprinkler System.
- Most MEP elements are in good condition.
- MEP systems will start to need more maintenance in the next 5-10 years.
- Youth Services current location remote from schools, must cross main road.
- Senior Center has adequate space to meet current programming needs

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

Original drawings indicate that the Police station is constructed of load-bearing masonry with wood roof trusses. The police station is in good condition overall relative to the age of the building. The main entrance is located on the North façade with one additional man-door located on the West and two on the South. The Sally Port overhead door is located on the West and two maintenance bays with overhead doors are located at the Southwest corner. The station sits on an open site surrounded by trees. The rear parking lot is fenced in with gates along the East and West of the building. There are two driveways that exit the North side of the site onto Mountain Road.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

BUILDING AREA/SITE	8,955 sf / 2.69 acres
AGE/CONSTRUCTION	1988 (34)

***Building Condition*: Fair**

- New paving and fence were recently installed
- Recommend preventative maintenance program to extend useful life.
- Minor snow build up and possible damming at roof valleys and uneven snowmelt due to super heating of garage spaces
- Accessibility upgrades required throughout
- Relatively minor cracking at multiple interior CMU walls, non structural issue.
- MEP Systems are all beyond useful life and need to be upgraded.
- Only one boiler with no redundancy
- No exhaust systems in garages which is required by current code.
- Undersized training space with access control vulnerabilities at training/lobby doors
- Prisoner Processing workflow; no padded cell, no ambulance access in Sally Port

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

FIre Station #1 serves as the headquarters for the Town of Suffield. The Apparatus Bay doors face North exiting onto Mountain Road. There are two man-doors located on the West façade and one located on the East, one has an exterior canopy and columns. One entrance is located on the South and has an exterior stair and more extensive canopy and railing system. The Fire Headquarters is located on the East side of the Town Hall. The apparatus bay apron exits the North of the site onto Mountain Road. Recent site renovations have added parking along the West and South side of the site.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

BUILDING AREA/SITE	4,200 sf / 3.49 acres
AGE/CONSTRUCTION	1962 (60)

***Building Condition*: Poor**

- Recent expansion to paved site area though differential settlement and cracking in existing concrete sidewalks has remained
- Minor rot repair and repainting at wood trim work, railings, and louvers
- Vinyl asbestos tile present in the building
- Wood fiber tile ceilings present throughout
- No accessible entrances and most plumbing fixtures are non-accessible
- All MEP Systems are old and past their useful life.
- No Public Lobby, Entry or restrooms
- Fitness equipment is currently in basement
- Insufficient Apparatus Space and bay storage, and lacking physical training elements
- Decontamination and SCBA requirements per NFPA standards

FIRE DEPARTMENT 2 - 9 RATLEY RD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

Fire Station #2 serves as a substation for the Town of Suffield. This is a newer station that is well built with adequate apparatus bay space. The building is in good to fair condition overall. The building sits on the east side of a large open site. The apparatus bay apron opens onto Ratley Road on the east side.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

BUILDING AREA/SITE	3,906 sf / 6.89 acres
AGE/CONSTRUCTION	2004 (18)

***Building Condition*: Good**

- Newer station, well built, good apparatus space, in relatively good condition
- Ice dams present at time of walkthrough, persistent issue for some time. May cause damage elsewhere if not properly addressed. Some signs of moisture infiltration are present on the interior
- Exterior materials are in good condition.
- All systems in good working condition but may require maintenance in the next 5-10 years
- Minor accessibility upgrades recommended
- Lack of storage space, hot/cold transition zone
- Suitable for on-call operations
- Apparatus space is adequate for substations

FIRE DEPARTMENT 3 - 3 COPPERHILL RD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

Fire Station #3 serves as a substation for the Town of Suffield. This station is a bit older but is in relatively good condition for its age. Apparatus Bay doors face east and exit onto Copper Hill Road. An exterior entrance can be found on the north façade with a small canopy. The building is centrally located on a wooded site with access from both Copper Hill Road and Mountain Road. All site parking is located to the north of the building.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

BUILDING AREA/SITE	3,256 sf / 1.08 acres
AGE/CONSTRUCTION	1985 (37)

***Building Condition*: Good**

- Poor site drainage causing hazardous conditions with ice, grading revisions
- Minor cracking at apparatus bay apron
- Anecdotal reference to storm water infiltrating tight tank
- Older building but in relatively good condition for its age
- Some signs of ice damming present
- Recommend preventative maintenance to extend useful life
- Suspected mold on apparatus bay ceiling, possible condensation buildup
- Minor accessibility upgrades recommended
- MEP systems are in acceptable working condition but are nearing the end of their useful life and may need replacement in 5-10 years
- Lack of storage space, hot/cold transition zone
- Suitable for on-call operations
- Apparatus space is adequate for substations

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE RD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

Fire Station #4 serves as a substation for the Town of Suffield and is in good condition relative to its age. The apparatus bay doors are on the South Façade located adjacent to the main entrance. Additional entrances are located on the East and West sides of the building. The building is centrally located on an open site with minimal trees. A few parking spaces are located along the apron but it appears most parking for the site is taken care of in the shared lot to the West. The apparatus bay apron exits South off the site onto Thompsonville Road.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

BUILDING AREA/SITE	2,702 sf / 3.46 acres
AGE/CONSTRUCTION	1975 (47)

***Building Condition*: Fair**

- Building is in good condition relative to its age.
- Improper fit of window air conditioning unit and staining of adjacent brick wall.
- Finishes in fair condition considering age of building
- Lack of tie-in or splash block at downspout causing soil erosion
- MEP systems are at the end of their useful life and should be replaced in the near future
- Minor accessibility upgrades recommended
- Lack of storage space, hot/cold transition zone
- Suitable for on-call operations
- Apparatus space is adequate for substations

BUILDINGS 3

A. WARD SPAULDING SCHOOL

945 MOUNTAIN RD, WEST SUFFIELD, CT

CONDITIONS ASSESSMENT & MASTER PLAN

Tecton ARCHITECTS

3.1


YOU CAN'T
CATCH
WHAT
YOU CAN'T
SEE

TABLE OF CONTENTS

INTRODUCTION ..... **A**

Summary & Analysis A1

DATA & RANKINGS ..... **B**

Building Data B1

Condition Rankings B2

EXISTING CONDITIONS NARRATIVE ..... **C**

Architectural *(Building & Structure)* C1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* C2

Site *(Civil, Landscape, Utilities)* C3

PHOTO LOG ..... **D**

Architectural *(Building & Structure)* D1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* D2

Site *(Civil, Landscape, Utilities)* D3

CAPITAL IMPROVEMENTS ..... **E**

Capital Improvements E1

INTRODUCTION A

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

A. INTRODUCTION

A.1 Summary and Analysis

A. Ward Spaulding school serves approximately 451 students in Pre-Kindergarten through 2nd grade, and is located on the Western side of Suffield. The original building was built in 1954 and has received several additions and infill construction areas spanning from 1961 to 1988. Refer to the vintage plan shown in figure A1.2 for a more accurate representation of the building areas. The school sits close to Mountain Road on a large open site. Behind the school are athletic fields and a playground. A large open parking area is located Northwest of the building. Bruce Park sits past a line of trees to the Southwest.

GRADE LEVEL	PK-2
STUDENTS	451
BUILDING AREA/SITE	71,406 SF / 19.5 acres
AGE/CONSTRUCTION	1945 (77), 1961 (61), 1985 (37), 1988 (34)

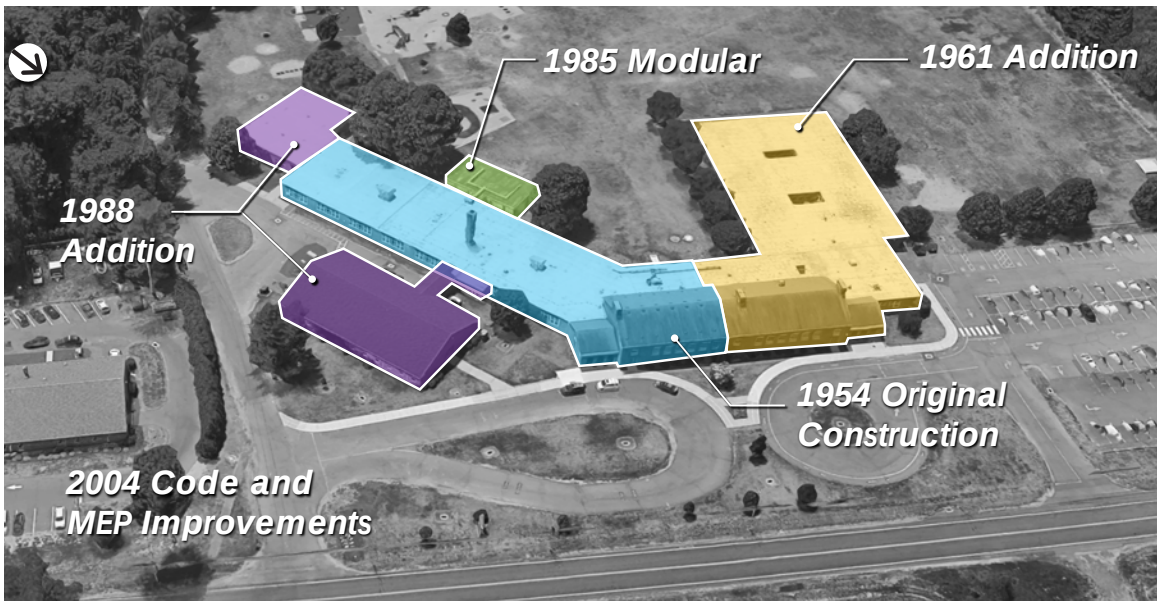
Building Condition: ***Fair***

- Overall, the school is well built, durable and well maintained, with recent upgrades to Pre-K classrooms, corridor floors, gymnasium and auditorium floors.
- Several components are past their useful life, including flooring, millwork, some toilet facilities, ceilings, doors, some hardware.
- Modular construction is clearly past its useful life.
- There are several accessibility compliance issues related to floor clearances and reach at entranceways, sinks, and millwork.
- Site security, parking, and boundary are of on-going concern with limited to no outdoor classrooms.
- Classrooms are good sized, meet educational needs and are ideally set up in a neighborhood format.

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT



A1. 1: Aerial View of Existing School and Property



A1. 2: Vintage Plan

DATA & RANKINGS B

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

B. DATA & RANKINGS

B.1 Building Data

The Facility:

Name:	**A. Ward Spaulding School**
Address:	**945 Mountain Rd**
Type / Use:	**Elementary School**

Total Building Area (SF):	71,406	**Original Construction:**	1954
Site Area (acres):	19.5	**Additions (dates):**	1961, 1985, 1988
Stories (above grade):	1	**Construction Type(s):**	2C
Building / Framing Materials:	Load-bearing Masonry/Steel	**Roof Types & Age:**	Membrane (2010, 2018) 2038 warranty
Split-level / ramps (interior):	No	**Heating (types):**	Hot Water
Stairs (interior):	To Stage Only	**Fuel Types:**	Natural Gas
Elevator:	Lift to Stage	**Cooling (centralized):**	Partial, Split A/C Units
Basement:	No	**Ventilation:**	Yes, via ERVs and AHUs
Mezzanine (finished)	No	**Electrical:**	208/120 volt, 3 ph, 4 wire 800 amp
Crawl Space / Tunnels:	Yes	**Generator:**	Yes, exact model not determined
Auxiliary Buildings:		**Fire Alarm:**	Notifier NFS-3030 Voice Capable
Full ADA Compliance:	No Clearances, Toilets, Classroom Sinks	**Sewer / Septic**	Sewer (Connected to High School)
		Municipal Water / Well	Municipal Water
		Sprinklered (full / partial):	N/A
School Data		**Parking Count:**	119
Enrollment(2020):	451		
Enrollment 10-yr:	419	**Meals:**	3 waves
Net Enrollment Change:	-32	**Meal Prep on site?:**	Yes
Location in Town:	Central	**Start Time:**	8:35
Grade Structure:	PK-2	**Dismissal:**	3:15
Pre-K?:	Yes	**Buses:**	22, 2 others
Athletic Fields:	Soccer Field (Full Size), (6) Youth Soccer fields, Baseball Field, (2) Playground Areas	**Additional Programs:**	No

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
2 Poor [P] May require attention in 2-5 years
3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1 - 1954**
V2 - 1961
V3 - 1985
V4 - 1988

Exterior		V4	V3	V2	V1	
Component	**Material(s)**	**Condition**				**Notes**
Roofing	Membrane roof	3	1	3	3	Installed 2010/18, warranty 20/30 years
	Asphalt Shingle Roof	3	-	3	3	No information provided, appears good
	Flashing / joints	3	1	3	3	
	Gutters / downspouts/scuppers	3	-	3	3	Cast iron boots rusting
	Fascia / trim	-	-	-	2	Paint spalling
Walls	Masonry (unpainted)	2	-	2	2	Efflorescence throughout
	Wood Plank	-	1	-	-	Classroom wing is past useful life
	Metal Panel	-	-	-	2	Dented and oil canning
	Joints (Building or expansion)	2	-	2	2	Masonry joint in poor condition
	Foundations – exposed concrete	3	3	2	2	Cracking at Kindergarten wing
Entrances	Entrance doors	3	-	2	2	Missing floor sweeps
	Hollow Metal Doors	3	3	2	2	Bases rusted throughout
	Soffits / Canopy	3	-	1	3	
	Exterior wood doors	-	-	2	2	Rotted at base
Windows	Aluminum	2	2	2	2	Replaced 2004, poorly caulked
	Masonry Window Sills	3	3	2	2	Stained throughout
	Window Screens (exterior)	2	2	2	2	N/A
Walkways / site stairs	Concrete Sidewalks			2		Cracking and chipping throughout
	Bituminous Concrete Sidewalks			1		ADA/Tripping Issues at classrooms
	Bituminous Concrete Curb			1		
Drives / parking lots	Bituminous Concrete Pavement			3		Scattered cracking
	Bituminous Concrete Pavement (Bus Loop and parent drop-off)			4		Recently replaced
	Pavement striping			3		Poor in areas not replaced
Landscaping	Lawn			1		Large bare spots, exposed fabric
	Plants			1		Plants along front walk appear dead
	Mulch beds			2		Mulch beds bare along from walk
	Trees			4		Trees appear healthy
Recreation	Soccer Field			4		Good field condition due to sprinklers
	Youth Soccer Fields			2		Poor field condition, bare spots
	Baseball Field			2		Poor field condition, bare spots
	Playground Areas			2		Poor field condition, bare spots
Other Structures	Vehicular signage			3		Leaning signage
	Catch basin tops			3		Minor chipping

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

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Vintage: **V1 - 1954**
V2 - 1961
V3 - 1985
V4 - 1988

Interior		V4	V3	V2	V1	
Component	**Material(s)**	**Condition**				**Notes**
Flooring	Concrete	3	-	2	2	Minor cracking
	Carpet	3	-	-	-	Good condition, Media Center
	Rubber	3	1	3	3	Corridors, installed over ACM tile
	Vinyl Asbestos Tile	-	-	1	1	Abatement or Encapsulation required
	Wood-Look Plank	-	-	4	4	Recently replaced, Gym/Aud.
	Ceramic Tile	3	-	1	1	Inconsistent, Recent upgrade PK
	Stage	-	-	-	2	N/A
	Quarry Tile	-	-	1	-	N/A
	Vinyl Composite Tile	2	1	2	2	Upgrade to VCT, worn over time
Walls Surfaces	Masonry (painted)	3	-	3	3	Recently painted
	Tile	3	-	1	1	Inconsistent upgrades and replacement
	Glazed Tile	-	-	1	1	Settlement cracking
	Gypsum board	-	1	-	-	N/A
Ceilings	Acoustic panel ceiling	2	1	2	2	Tile corners curling at corridors
	Acoustic ACM Tile	-	-	1	1	Abatement or Encapsulation required
Interior trim	Wood - Wall Base / Door / Window	-	-	2	2	Covered with vinyl base
	Wall Base – Vinyl	2	1	2	2	Green base starting to deteriorate
	Glazed tile	-	-	2	2	Minor chipping
Interior doors	Wood doors	1	1	1	1	Delaminating and deteriorating
	Hollow metal doors	2	1	2	2	N/A
	Hardware	2	1	2	2	ADA hardware issues
Built-ins	Casework	3	1	1	1	Does not meet ADA in 1961 addition
	Plastic Laminate Countertops	3	1	1	1	Plastic laminate delaminating
	Cubbies & Display Cases	3	1	1	1	Modest upgrades made throughout
Toilet Facilities	Fixtures	3	-	2	2	V2 received partial ADA upgrades
	Partitions	-	-	2	2	Recent upgrades made
	Accessories (dispensers, driers)	3	-	2	2	N/A
Athletics	Gymnasium floor / play surface	-	-	3	-	N/A
	Athletic equipment	-	-	2	-	N/A

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

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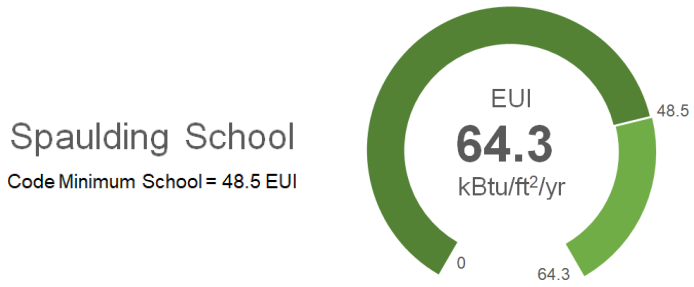
Vintage: **V1 - 1954**
V2 - 1961
V3 - 1985
V4 - 1988

Building Systems		V4	V3	V2	V1	
Component	**Material(s)**	**Condition**				**Notes**
Fire Protection	Alarms & Devices	-	-	-	4	In good working condition
	Fire suppression (infrastructure / devices)	-	-	-	-	N/A
Plumbing Systems	Infrastructure (pipes, drains, etc.)	1	1	1	1	Old in need of replacement
	Fixtures	2	2	2	2	Old in need of replacement
	Overall efficiency	2	2	2	2	Overall efficiency is poor
Mechanical / HVAC	Infrastructure (pipes, ducts, etc.)	1	1	1	1	Old in need of replacement
	Heating systems	1	1	1	1	Boilers past end of useful lives
	Cooling systems	2	2	2	2	Inefficient cooling system
	Fixtures & equipment (Interior)	2	2	2	2	At the end of their useful lives
	Fixtures & equipment (Exterior/Roof top)	2	2	2	2	At the end of their useful lives
	Overall efficiency	2	2	2	2	Overall efficiency is poor
Electrical (Service)	Infrastructure (panels, wiring, etc.)	2	2	2	2	Older Infrastructure is past end of life
	Service & distribution	3	3	3	3	2001 gear in serviceable condition
	Generator	3	3	3	3	In serviceable condition with useful life
	Other	-	-	-	-	N/A
Electrical Lighting	Infrastructure (panels, wiring, etc.)	2	2	2	2	Infrastructure in poor condition
	Fixtures (Interior)	2	2	2	2	Fixtures will need to be upgraded
	Efficiency (incl. natural & artificial light distr.)	2	2	2	2	Overall efficiency is poor
Security	Access Control	3	3	3	3	Building-wide System installed
	Cameras	2	2	2	2	Building-wide System installed

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

B. 2 Benchmarking

MECHANICAL, ELECTRICAL, FIRE PROTECTION, SECURITY			
SYSTEM	**EQUIPMENT LIFE EXPECTANCY**	**EQUIPMENT AGE**	**USEFUL LIFE PERCENTAGE**
Fire Protection System	40 Years	N/A	N/A
Plumbing Water Heater	25 Years	20 Years	80%
Plumbing Piping & Fixtures	40 Years	50 Years	125%
Mechanical Boiler Plant	40 Years	40 Years	100%
Mechanical Piping & Equipment	40 Years	50 Years	125%
Mechanical Air Conditioning	25 Years	10 Years	40%
Mechanical Controls	20 Years	N/A	N/A
Electrical Service & Distribution	40 Years	30 Years	75%
Electrical Lighting	30 Years	30 Years	100%
Electrical Generator	40 Years	30 Years	75%
Fire Alarm	20 Years	20 Years	100%



EXISTING CONDITIONS NARRATIVE C

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

C.1 Architectural

Construction:

A. Ward Spaulding school consists of the original building from 1954, a large addition to the West from 1961, a small classroom wing added to the South in 1985, and two smaller wings added in 1988 to the East. The original building is load bearing masonry and most of the additions are constructed of a steel superstructure with masonry infill. The roof structure is a mix of wood trusses and steel bar joists. The small classroom wing is a modular construction.

Recommendations:

Exterior:

EXTERIOR (GENERAL): The original building has two main entrances, both facing Northeast towards Mountain Road. The 1961 addition to the West has two egress exits facing Southwest and one on each of the other two exterior façades. Classrooms in this wing have large storefront windows systems, each with a door leading directly to the exterior. The 1985 modular construction has one egress point. The library and kindergarten wings, the 1988 additions, have two dedicated egress exits each.

WALLS: Exterior walls are brick veneer at all vintages except the modular classroom addition. In general, the veneer is in good to fair condition. Minimal efflorescence was noted in some locations which is a visual indication of moisture infiltration. Exterior metal wall panel exists above window systems at the original 1954 construction and is dented and oil-canning. Exposed concrete foundations are in fair condition. Minimal foundation cracking was noted at the corner of the original construction around the kindergarten wing. Wood plank siding clads the modular construction and is in fair to poor condition. The modular construction classroom wing is past its useful life and should be replaced with a permanent solution.

WINDOWS/DOORS/ENTRANCES: Replacement windows from 2004 were poorly caulked at heads, jambs, and sills on initial installation, allowing for the potential of moisture and air penetration. Although some issues were noted about the operability of windows, it was stated that it is significantly less severe than the other schools. Masonry windowsills appear to be heavily stained and require cleaning throughout. Base of exterior hollow metal doors are beginning to rust and should be sanded and re-painted. Exterior entry doors are missing floor sweeps which does not allow the door to properly seal when closed.

ROOF: The membrane roofing system at the kindergarten wing was replaced in 2010 and carries a 30-year warranty. Based on available information, it is assumed the extent of the 2018 roof replacement covers all remaining membrane roofs. This installation carries a 20-year warranty. No information has been provided on asphalt shingle roofing, but it appears to be in good condition. Wood soffits, rakes, and trim at areas of asphalt shingle roof are in fair to poor condition with large sections requiring repair and re-painting. Cast iron downspout boots connecting to subsurface drainage are rusting and should be replaced.

Interior:

INTERIOR SPACES (GENERAL): In general, interior spaces have been well maintained and are in fair condition despite some vintages not receiving any upgrades since original installation. All corridors have received an overlay of rubber flooring that is in good condition throughout. This floor was installed over existing hazardous material tile. Acoustic panel ceilings throughout are in fair condition with curling tiles throughout

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

corridors. Original wood doors are in fair to poor condition. They are beginning to show signs of their age, delaminating at the bottom and the finishes are deteriorating. Surface mounted conduit has been installed as retrofit at existing masonry interior walls throughout. This conduit is not aesthetically pleasing and is an additional opportunity for damage due to its age and use. Modest improvements have been made to cubbies and display cases throughout. Discarded or obsolete plumbing and conduit has been partially left over many years of renovations. Locations where this is exposed may be a potential hazard. Vinyl wall base where new rubber flooring has been installed is in good condition. Green vinyl wall base that was installed over existing wood base is in fair condition and is starting to deteriorate. Wood base, where exposed, seems to be in fair condition.

Long term, the asbestos containing tile should be abated or encapsulated.

TOILET FACILITIES: Toilet rooms throughout are in fair to good condition. It appears recent modifications have been made to toilet partitions and these are in good condition. Tile flooring in toilet rooms is in fair condition. Some deterioration was noted at grout joints and some areas were missing tiles. Isolated floor and wall tile repair has been done as needed but is not consistent and, in some cases, a different tile was used in the repair. Some toilets facilities, such as the ones in the 1961 addition, have received partial ADA compliance upgrades. Toilets in the Pre-K area are fully compliant. Glazed block walls are in fair to poor condition with some plumbing fixture modifications and settlement cracking at tile.

AUDITORIUM: The auditorium is in fair condition overall. The flooring was recently replaced with a newer wood-look plank flooring and is in fair to good condition. Block walls are in fair to good condition having recently been painted. The ceiling is an acoustic asbestos containing tile in poor condition with many tiles delaminating from the substrate or are missing completely. The doors to the auditorium are in fair to good condition. It appears new kickplates, frames, and hardware have been installed. The stage is from the original 1954 vintage and is in fair condition. Like McAlister, this auditorium also has an accessible chair lift on the North side of the stage that was inoperable at the time of the walkthrough.

GYMNASIUM: The gymnasium has the same wood-look plank flooring and is also in fair to good condition. The original acoustic ACM ceiling was replaced with a 2x4 acoustic panel ceiling. This ceiling is in fair condition with some missing, damaged, or stained tiles.

MODULARS: The modular construction classroom wing is past its useful life and should be replaced with a permanent solution.

CAFETERIA/SERVERY: The cafeteria is in fair condition overall. The acoustic panel ceiling is in fair to good condition. Tiles are free from staining but the corners are beginning to curl similar to the condition at the High School. Vinyl composite flooring in the cafeteria is in good condition. The quarry tile floors in the kitchen area are in good condition. The doors and frames into the servery are part of the original vintage and are starting to show signs of deterioration due to use and age.

MEDIA CENTER/ STEM WING (1988): Modest improvements have been made to the cubbies and display cases outside the Media Center which is located in one of the 1988 additions. The classrooms in this wing are in fair condition with millwork, sinks, flooring, and walls all being original to the 1988 vintage. These elements are beginning to show signs of age and deterioration due to use. Plastic laminate countertops and casework are showing signs of delamination from substrate due to use. The media center itself is considered fair condition overall for carpeting, ceilings, millwork, and painted portrait walls.

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

CLASSROOMS - 1961 ADDITION: Classrooms within the 1961 addition are in fair to poor condition overall. Inconsistent flooring upgrades can be seen throughout the 1961 vintage. Some areas have the original ACM floor tile which is cracked and delaminating. This floor tile is in fair to poor condition and should be abated or encapsulated. Other areas have been upgraded to vinyl composite tile and these areas are also in fair to poor condition. Ceilings throughout the 1961 vintage are in fair to poor condition with some visible staining. Millwork in this area does not meet ADA standards and is showing signs of age. This is especially noticeable around wet areas such as sinks. This casework is past it's useful life and should be replaced. Several modest modifications can be found in classrooms throughout for updated storage cubbies and coat hooks. This is not consistent, and all classrooms should be brought up to this level. The original wood base remaining in some areas is in poor condition and should be replaced. Ceramic tile wainscoting is in fair to poor condition and is showing signs of staining and/or deterioration due to age and use.

Code & Safety

ADA: Some toilet rooms have received accessibility upgrades to be considered fully compliant while others can only be considered partially compliant. Most sinks located within classrooms do not have the proper clearances below and are not considered ADA-compliant.

SAFETY: Some areas of asbestos containing materials are present within the building and should be abated or encapsulated. The ramps to exterior classroom doors cause uneven paving conditions and could be a potential tripping hazard. A few parking spaces are directly against the building façade and should have a buffer such as a sidewalk. There is a poor definition of school boundary, and the play areas are remote from building entrances and unprotected. This building is not sprinklered.

C.2 MEP

B.4 Plumbing/Fire Protection:

HOT WATER GENERATION: The buildings existing domestic hot water is generated via a natural gas water heater boiler then stored in an indirect storage tank. The water heater boiler has an input of 125 MBH and is manufactured by Utica (MGB-125J model number). The domestic hot water is stored in the indirect tank that is manufactured by Burnham. The water heater boiler and indirect storage tank are located next to each other in the mechanical room. Both pieces of equipment appear to be 15 to 20 years old and are nearing the end of their useful lives.

DOMESTIC WATER SERVICE: The existing building is currently served by a municipal domestic water service. This service is 4" when it enters the building and is located in the mechanical room. This service was renovated during the 1988 renovation and appears to be at the end of its useful life.

DOMESTIC WATER PIPING: Domestic water piping was observed to be a combination of copper and steel piping. The piping is original to the 1954 construction and 1961 and 1988 additions with some enhancements during renovations along the way. Overall the majority of the piping appears to be approximately 50 years old and at the end of its useful life.

PLUMBING FIXTURES: The plumbing fixtures in the building vary in age from different renovations to various

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

additions. The majority of plumbing fixtures are approximately 40 to 50 years old with the newest being around 20 years old. The older fixtures are passed their useful life.

SANITARY SERVICE: The building is served by a municipal sanitary system. A 3" sanitary is buried underground outside of the mechanical room. The sanitary service was renovated during the 1988 addition and is nearing the end of its useful life.

STORM SERVICE: The building currently uses a gutter system to collect and transfer all storm drainage. The roof is pitched to one side to lead the storm into the gutters. The gutters distribute the storm drainage onto the ground through the use of splash guards. The storm service appears to be in good working condition.

NATURAL GAS SERVICE: The building currently has a natural gas service that feeds a water heater, boilers, and the generator. The service is located outside and the piping and valves appear to be in good working condition.

FIRE PROTECTION: There is currently no fire protection sprinkler system within the building.

B.5 Mechanical:

HEATING SYSTEMS: The existing boiler plant consists of two natural gas cast iron boilers manufactured by H.B. Smith. Each boiler has an input of 2,400 MBH. The boilers were installed approximately 30 or more years ago and are at the end of their useful lives. There is a large abandoned cast iron boiler sitting next to the two boilers in use. This boiler appears to be original to the building and should be removed. Hot water is distributed throughout the building via a pair of base mounted pumps, these pumps distribute heating hot water from the boilers to the building heating equipment. The primary pump was installed during the 2004 renovation and is in fair working condition. The secondary pump was installed during the 1988 addition and is at the end of its useful life. A hot water heat exchanger located in the boiler room is in use to provide glycol to the hot water heating system. The heat exchanger was installed during the 2004 renovation and is in fair working condition.

HOT WATER PIPING: The hot water heating systems consists of Steel and Copper piping. This piping varies in age dating back to the original 1954 construction to the newest from the 2004 renovation. The majority of the piping is between 30 and 50 years old and at the end of its useful life.

TERMINAL UNITS: The building consists of hot water wall convectors, fin-tube radiation, and unit heaters to provide perimeter heat to various rooms. These pieces of mechanical equipment vary in age but are overall old and past their useful life expectancies. The majority of the classrooms and offices contain unit ventilators that provide heating to the space. The unit ventilators utilize hot water coils and the hot water from the boiler plant to provide heating. A majority of the unit ventilators were installed during the 2004 renovation while some date back to the 1980s. All of the unit ventilators are not working as efficiently as they should and are nearing the end of their useful lives. Most classrooms also contain a Mitsubishi wall mounted split AC unit for cooling. Each split unit has its own Mitsubishi condensing unit mounted on the wall exterior of the classroom. The split units vary from 5 to 10 years old and are in good working condition. The Cafeteria contains two Samsung wall mounted split AC units that provide cooling via condensing units located outside. The cafeteria has its own unit ventilator and perimeter hot water radiation to provide heat to the room. This equipment was installed during the 2004 renovation and is nearing the end of its useful life.

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

VENTILATION SYSTEMS: There are two energy recovery units on the roof that serve the science classrooms. The Energy recovery units provide ventilation and heating to the spaces they serve. Both ERV-1 and ERV-2 were installed during the 2004 renovation and are in good working condition. The unit ventilators throughout the building provide ventilation air to the spaces they serve. The unit ventilators are not working efficiently and are not ventilating properly, they are at the end of their useful lives and will need to be replaced. There is an existing air handling unit located on the roof that serves the Auditorium and Stage, and another existing air handling unit located on the roof that serves the Gymnasium. These air handling units provide heating, cooling, and ventilation air to their respective spaces. Both are approximately 30 or more years old and at the end of its useful life. There is a small existing rooftop unit located on the roof that serves the main office area. The rooftop unit provides heating, cooling, and ventilation air to the rooms, but is approximately 30 years old and at the end of its useful life. There are many exhaust fans throughout the building serving various spaces to take any exhaust air out of the building. These exhaust fans vary in age but a majority are very old and at the end of their useful lives. The Kitchen has an existing make-up air unit that provides outdoor air to the space to make-up for the exhaust air being pulled out through the use of the large exhaust hood. The make-up air unit is approximately 30 or more years old and at the end of its useful life.

COOLING SYSTEMS: Cooling is provided to the building through the various mechanical equipment mentioned above. There is no cooling plant in this building. The wall mounted split AC units provide cooling via refrigeration to the spaces they serve. The air handling units and rooftop unit also provide also provide some cooling to the spaces they serve. The overall cooling system varies in age and can be more efficiently done with the renovation of the mechanical equipment.

DUCTWORK: The ductwork throughout the building varies in age. The ductwork serves the exhaust fans, ERV's, air handling units, and rooftop unit. The ductwork installed during the 2004 renovation is still in good working condition. All other ductwork is approximately 30 to 50 years old and at the end of its useful life.

CONTROLS: The building does not have a Building Management System (BMS). The building contains electrical temperature sensors and controls in various room locations. The building also contains pneumatic controls for various pieces of equipment.

B.7 Electrical:

MAIN ELECTRIC SERVICE: The utility electric service originates within a transformer vault located inside the building adjacent to the main electric room.

The main electric service for the building is rated 800 Amps, 208/120 volts, 3-phase, 4-wire, and includes a service entrance cubicle with a main circuit breaker disconnect switch and utility company metering compartment that feeds into a Main Distribution Panel. This service equipment installation was manufactured in April, 2001. The service equipment is in good working condition and replacement parts for the Siemens equipment are readily available. Utility demand records indicate this service has peaked with approximately 200 amperes of continuous load therefore any proposed expansion on the existing 800 ampere service should not be an issue.

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

ELECTRICAL DISTRIBUTION: The electrical distribution consists of conduit and feeders from the main switchboard distribution sections to branch circuit panel boards located throughout the building. A 600 ampere auto transfer switch is provided for powering optional standby loads. Electrical distribution has two distinct vintages of equipment from 1992 and 2001. All of the older General Electric equipment should be removed from service and replaced with new, the Siemens equipment is in good condition and should continue in service.

GENERATOR: A pad mounted standby generator is located outside the main electric room. The exact capacity and operational history for this unit has not been determined. This system provides power to a 225 ampere auto transfer switch (ATS) that serves as the source of power for optional standby loads in the building. This generator should continue in service with proper preventative maintenance.

LIGHTING SYSTEMS: The interior lighting throughout the building consists of linear fluorescent systems incorporated into 2x4, 2x2, 1x4 recessed and surface mounted troffer light fixtures.

Exterior lighting has been upgraded to LED type floodlights and wall packs.

Emergency lighting systems for the building are provisioned through multiple systems with self-contained twin head battery units located throughout the building as stand-alone units. Exit signs are installed with integral batteries and chargers

Lighting control consists of wall mounted switches. Ceiling mounted occupancy sensors were incorporated into these controls.

FIRE ALARM SYSTEM: The fire alarm system in the building consist of a Notifier NFS-3030 fire alarm control panel, voice handset stations, remote annunciator panel, ADA compliant speaker/strobe units, ADA compliant strobe only units, manual fire alarm pull stations, smoke detectors, heat detectors, duct mounted smoke detectors with remote test switches, and sprinkler system flow and tamper switches. The fire alarm control panel is a newer upgrade with the majority of the peripheral devices from the former system integrated into the operation of the new control panel. This system covers the entire school and appears to be code compliant in coverage. This system is in good working condition.

COMMUNICATION SERVICES: Cable TV service is utilized in the building. Service cable enters the building and distributes through multiple amplifiers to distribution hubs throughout.

Single and Multi-mode fiber services are provided to the building.

Communication services enter the main telecomm room via multiple conduits brought in from the street.

MDF and IDF rooms are provisioned throughout the building at locations that promote the proper coverage to conform with network cabling distance limitations. Building horizontal cabling consists of some newer Cat 6 with older Cat 5 still in use. The MDF/IDF rooms should be reconstructed so that they are installed in dedicated facility rooms with proper grounding, UPS / clean power support and cooling systems.

Wireless access points are provisioned throughout and appear to be the Aerohive AP250 series.

Franklin Time clock and program equipment is provided in the building.

S2Netbox for access control is provided throughout.

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

Sonitrol security systems are provided throughout.

A MultiCom 2000 paging/music system with ceiling and wall mounted speakers is in use.

C.3 Site

SITE (GENERAL): A. Ward Spaulding Elementary school sits close to Mountain Road on a large open site. Behind the school are athletic fields and a playground. There are two entrances from Mountain Road, one on the East and one on the North. A large open parking area resides Northwest of the building. Bruce Park sits past a line of trees to the Southwest.

WALKWAYS/SITE STAIRS: In general concrete walks are in good to fair condition. Some cracking and chipping can be seen inconsistently throughout. A section along the bus loop appears to have been recently replaced. Bituminous concrete sidewalks ramp up to exterior classroom doors. This area is very uneven in its current state should be re-graded to not have ramps. These bituminous concrete sidewalks are in poor condition with cracking observed throughout.

ROADWAYS/PARKING: The main drive aisle and bus loop appears to be recently paved and is in good condition. The rest of the parking areas and drive aisles are in fair condition with some cracking. Concrete curbing is in fair to poor condition with major corrosion.

LANDSCAPING: Lawn surrounding the building is in fair to poor condition with many large bare spots that require reseeding. Black landscape fabric has been exposed at base of exterior wall. Landscape fabric should be replaced and covered with topsoil. Mulch beds along the front walk are bare and the plants in this area appear dead. Trees throughout the site appear healthy

ATHLETIC FIELDS: Athletic fields consist of the following: 1 full size soccer field, 6 Youth soccer fields, a baseball field, and 2 playground areas. This does not include fields within Bruce Park.

OTHER STRUCTURES: Yard drains throughout are in good to fair condition, minor edge chipping has started to show at catch basin tops. Metal bollards require repainting. Parking signage is beginning to lean and should be reset.

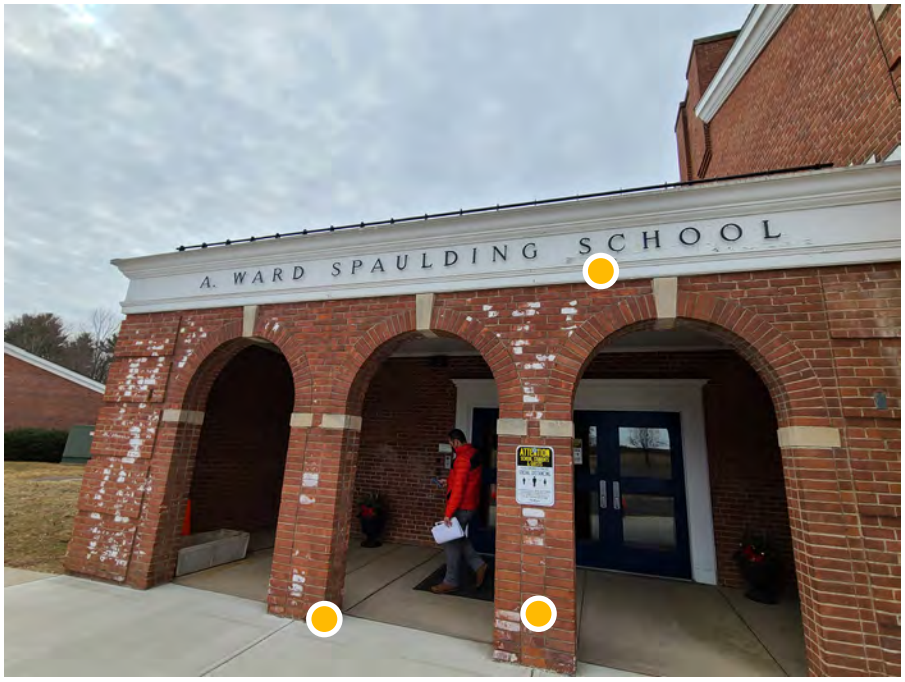
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A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

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A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT



D1. 1: View of south entrance with efflorescence due to water infiltration into and through the masonry wall.



D1. 2: Detail view of the masonry efflorescence (right), view to entry into STEM, art, music, media and specialized education area (left)

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D1. 3: Detailed view of courtyard/lightwell



D1. 4: Detail view of masonry arch with efflorescence and related deterioration at base of wall.

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D1. 5: View of original classroom wing (1954). Note deterioration of masonry joints and foundation wall at grade.



D1. 6: View of 1988 classroom wing addition, note window air conditioning unit with support post.

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D1. 7: Detail view of original 1954 classroom building with covered areaway in foreground.



D1. 8: Detail view of access doors into lower level mechanical room space. Note deterioration at based of wall and doors.

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D1. 9: Detail view of entrance into 1988 classroom addition. Note masonry spalling and efflorescence due to moisture infiltration into composite wall construction.



D1. 10: Detail view of trim detailing at 1988 addition along with spalling and deteriorated masonry composite wall.

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D1. 11: Detail view of wood fascia trim at 1988 addition.



D1. 12: Overall view of 1988 addition, note rain leaders connected to storm water collection system and retrofit wall mounted air conditioning units.

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D1. 13: View of entry into PK classroom addition (1988), note window mounted air conditioning unit.



D1. 14: Detail view of 1988 classroom addition with brick spalling and deterioration of masonry joints.

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D1. 15: Corner view of the modular classroom building with modified ramp entry shown (left). Note deterioration of T-111 siding.



D1. 16: Sidewall Exhaust Fans and Condensing Unit for Classroom Air Conditioning.

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D1. 17: Monument stone at original building. Note deterioration at base of masonry wall.



D1. 18: Detail view of the modular classroom building, note deterioration of siding and asphalt sidewalk in poor condition.

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D1. 19: Arch entry at south side of building with gravel walk shown beyond.



D1. 20: View of entry/exit into the music, STEM, art, specialized education and media center portion of the building with pad mounted transformer adjacent to corner of building.

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D1. 21: View of exterior doors to mechanical space, note the poor condition at base.



D1. 22: View of entry/exit into the music, STEM, art, specialized education and media center portion of the building.

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D1. 23: View of 1988 classroom wing addition exterior with window mounted air conditioning unit.



D1. 24: View of parking stall immediately adjacent to classroom space, between original 1954 building (left) and 1988 addition (right).

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D1. 25: View of typical classroom wing exterior with window mounted air conditioning unit.

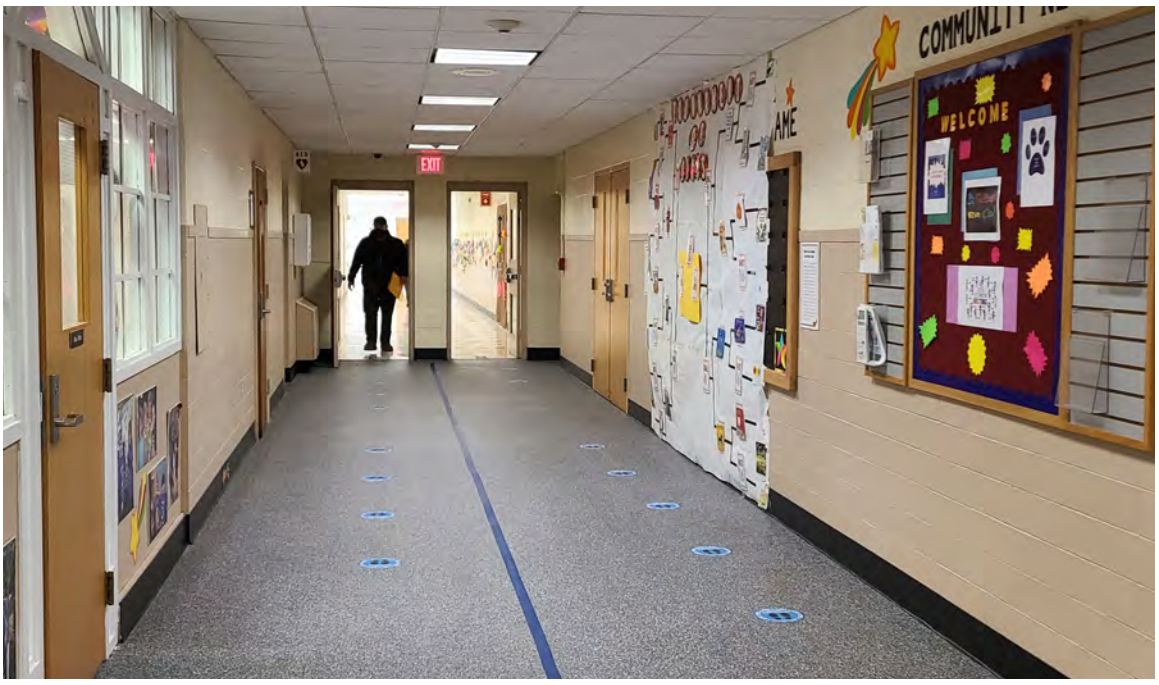


D1. 26: View of 1985 modular classroom building. Note deterioration of the T-111 siding and non compliant ADA access ramp.

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D1. 27: View of typical classroom (1961 Addition) with direct access to exterior. Note the condition of the asphalt pavement and the wall mounted condenser unit conflicting with the walk path.

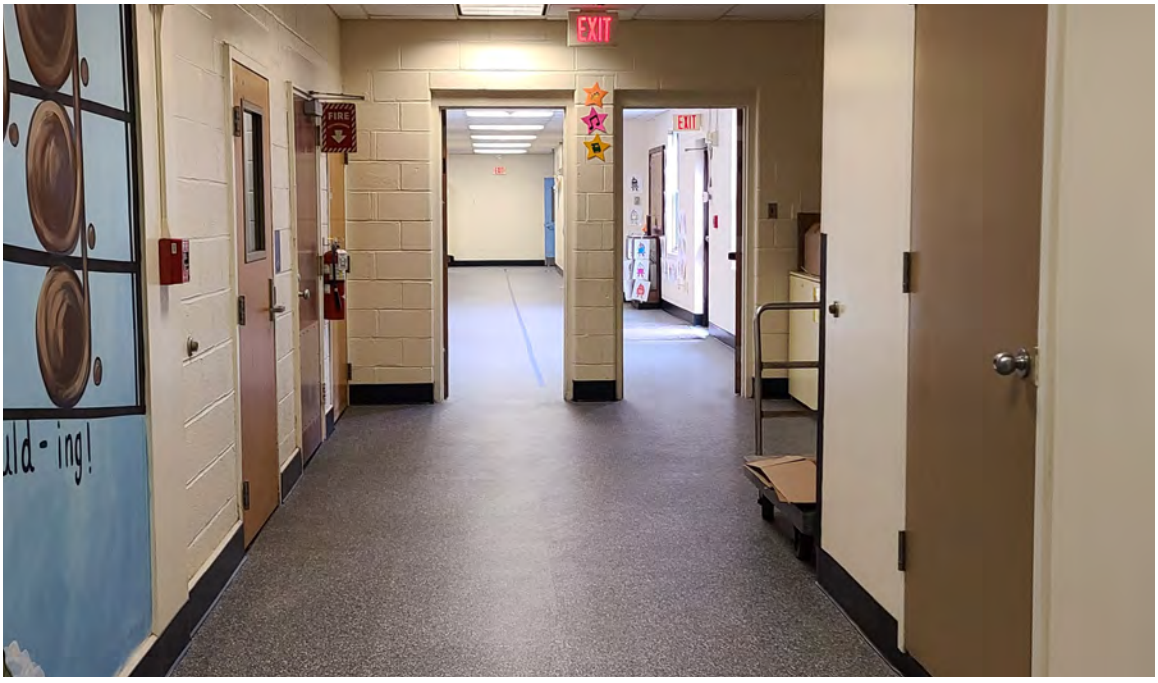


D1. 28: View of typical main corridor with flooring overlay.

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D1. 29: Fluorescent Light, Smoke Detector and Speaker within Ceiling.



D1. 30: View of connecting corridor to specialized eduction, media, art, music and STEM.

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D1. 31: Original toilet room with new toilet partitions.



D1. 32: Modified toilet stall to accommodate ADA requirements.

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D1. 33: Wall Mounted Lavatories.



D1. 34: Typical classroom with original millwork/cabinetry (1954 building).

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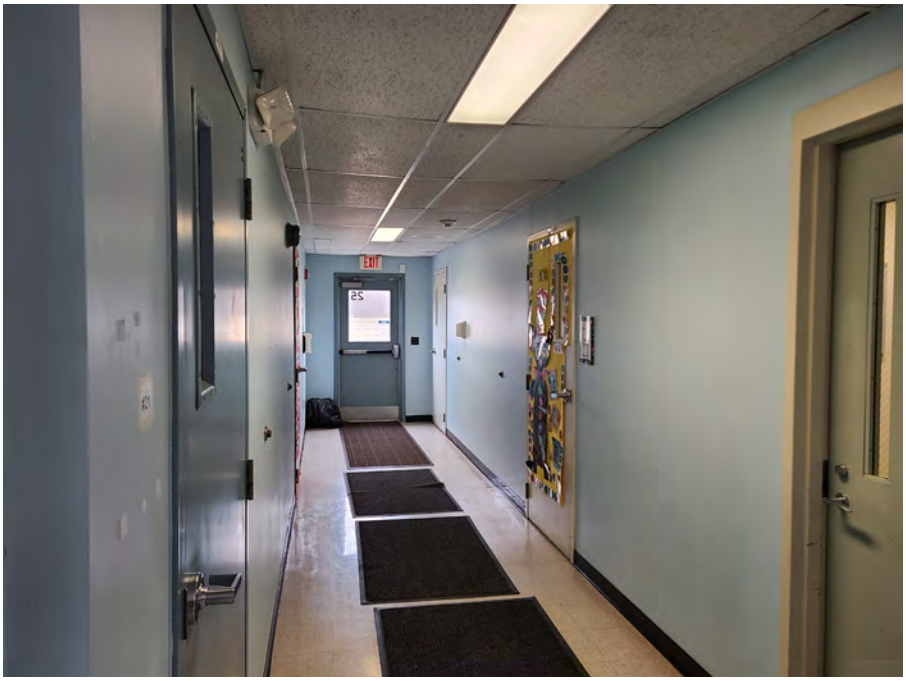


D1. 35: Typical flooring transition between Kindergarten classrooms and corridor.
Note: Possible VAT (vinyl asbestos tile).



D1. 36: Typical flooring transition between Kindergarten classrooms and corridor.
Note: Possible VAT (vinyl asbestos tile).

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D1. 37: View of connecting corridor through and into the modular classroom building (1985)



D1. 38: Renovated toilet rooms in the PK wing (1988 Addition)

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D1. 39: View of renovated sink, millwork and drinking fountain in PK classrooms.

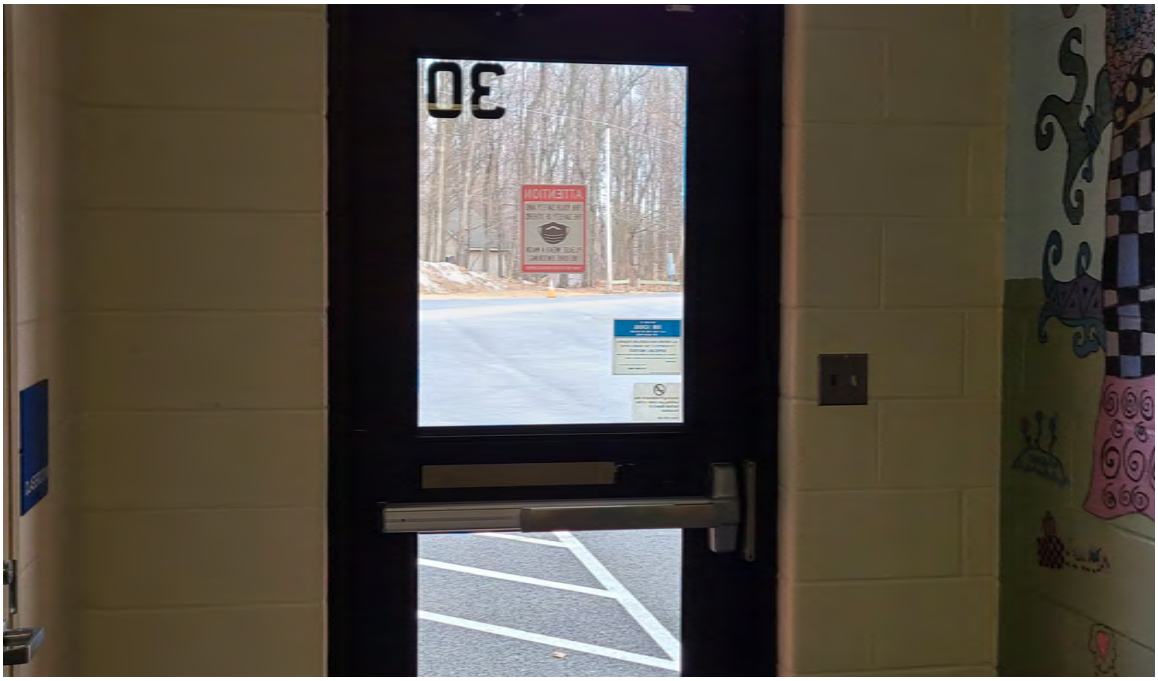


D1. 4 View of teachers station in music room.:

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D1. 41: View of music room with unit ventilator (center/left), window mounted fan for fresh air, and mini split unit (top left).



D1. 42: View of entry/exit door from music/art area into the south parking area (1988 Addition).

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D1. 43: View of custom built casework in STEM corridor.

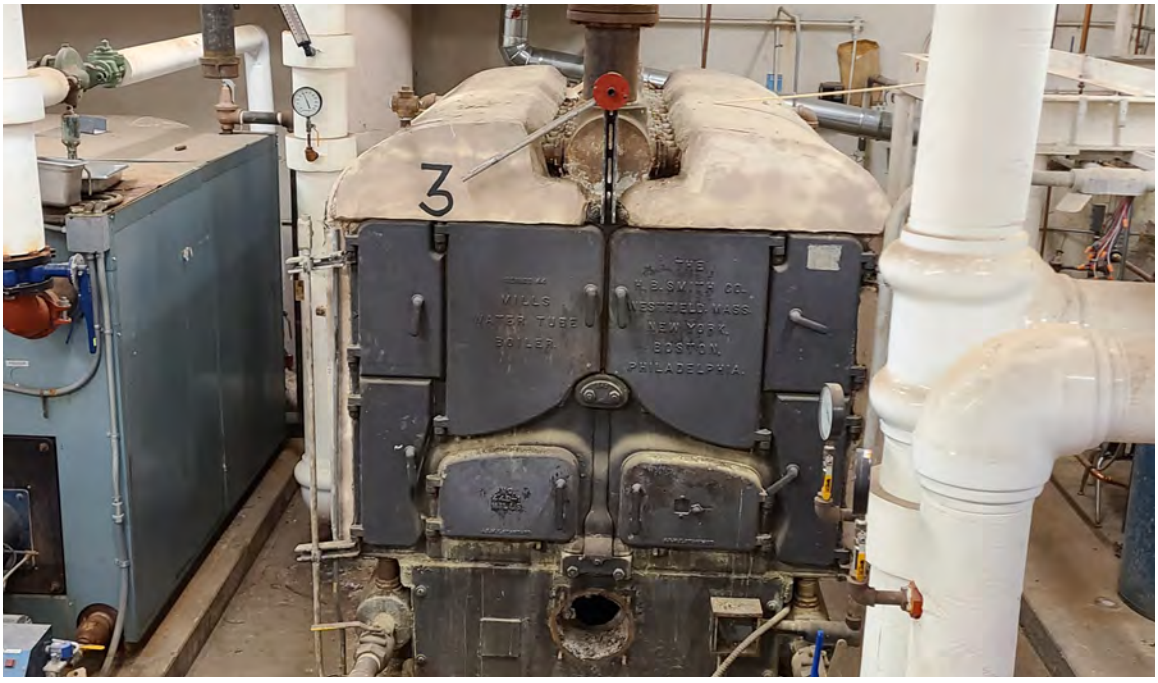


D1. 44: View of entry door into STEM/Media Center portion of the building.

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D1. 45: View of media center.



D1. 46: Abandoned Old Cast Iron Boiler in Mechanical Room.

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D1. 47: View of the auditorium towards stage.

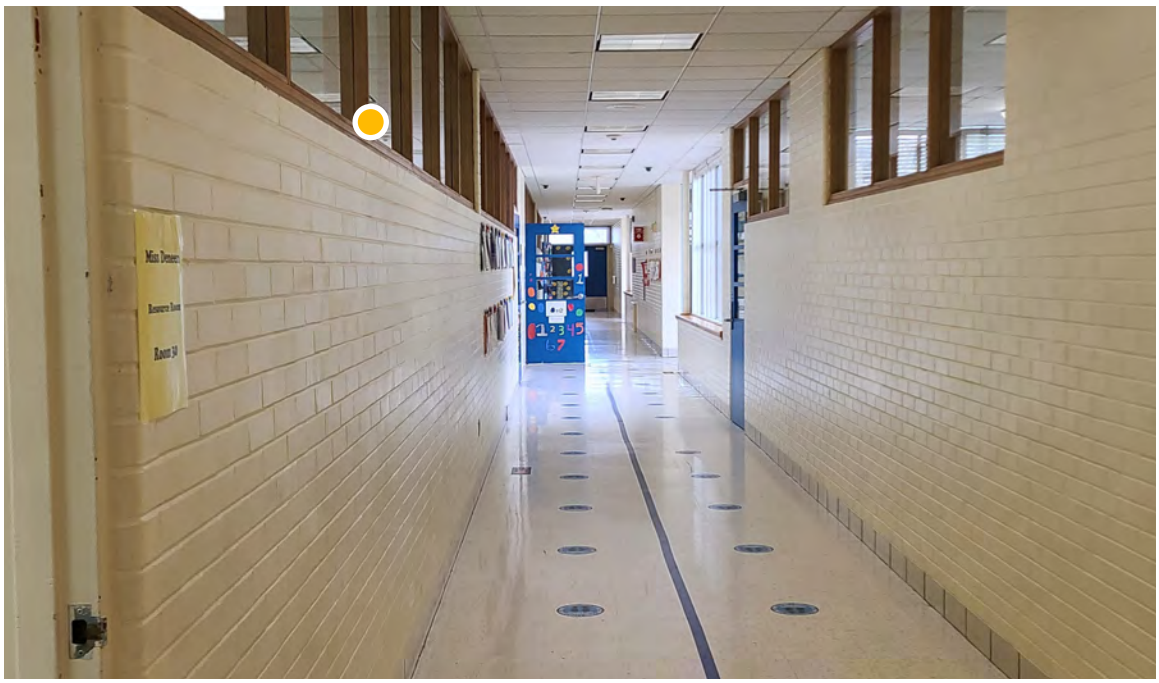


D1. 48: View of gymnasium towards north entry. Note modification to ceiling opening to allow for basketball hoop.

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D1. 49: View of lay in tile ceiling in the gymnasium. Several missing or damaged tile, note the cupping of the tile edges due to possible humidity control.



D1. 50: View of typical corridor in the 1961 addition with clerestory glass into hallway from classrooms.

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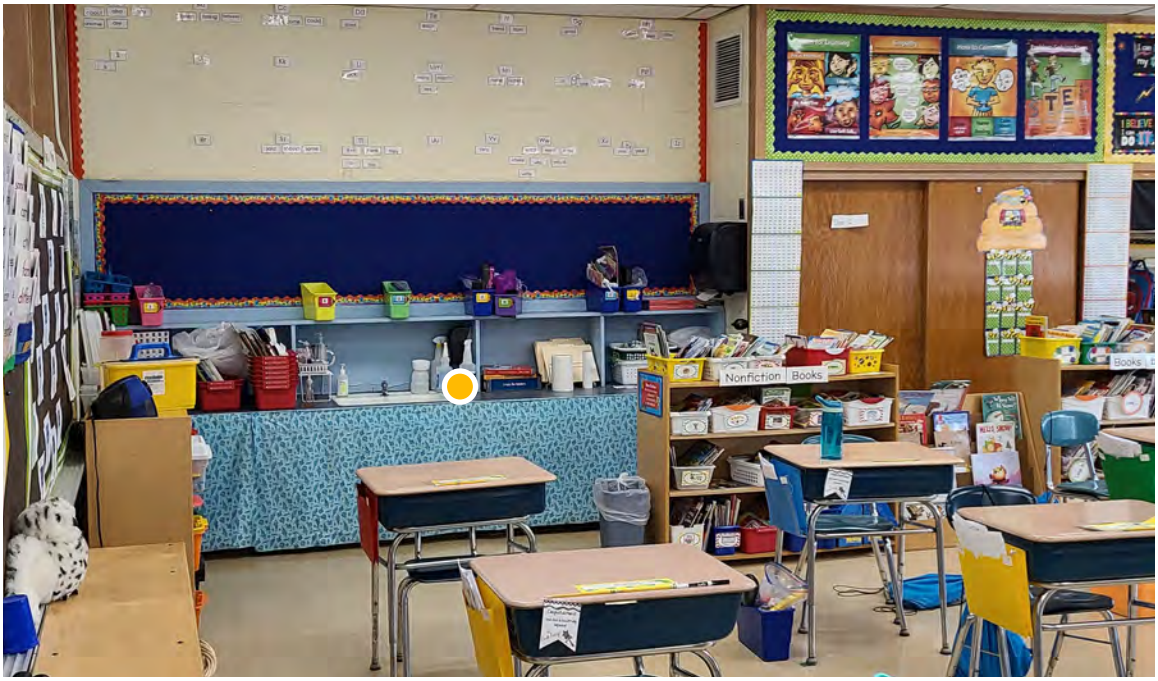


D1. 51: View of the cafeteria.



D1. 52: View of typical classroom with flooring replacement (limited classrooms in the 1961 building).

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D1. 53: View of typical classroom with original millwork and cabinets beyond, note non-compliant sink.



D1. 54: View of typical corridor in the 1961 classroom wing.

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D1. 55: Typical original bathroom floor tile with patched area.



D1. 56: Typical original bathroom with modified toilet location for ADA accessibility. Missing rear grab bar. Note the patched tile work on both wall and floor.

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D1. 57: Flooring transition between typical classroom and corridor. Flooring overlay at the corridor.



D1. 58: View of typical classroom with flooring replacement. Note original millwork/ cabinetry with inaccessible sink.

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D1. 59: View of typical classroom with linear shelving in front of perimeter radiation along exterior wall. Note patched VAT (Vinyl asbestos tile) flooring.

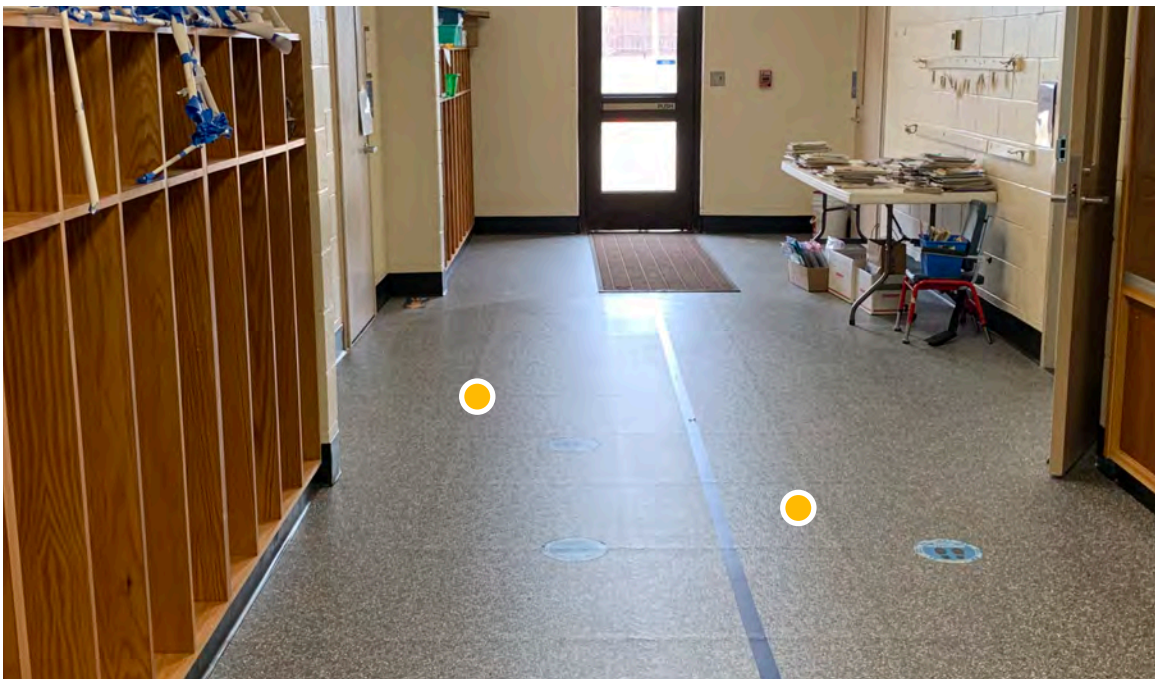


D1. 60: View of typical classroom with original VAT (Vinyl asbestos tile) and millwork. Note: age and condition of cabinetry.

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D1. 61: View of media center with linear shelving and a unit ventilator mounted to exterior wall.

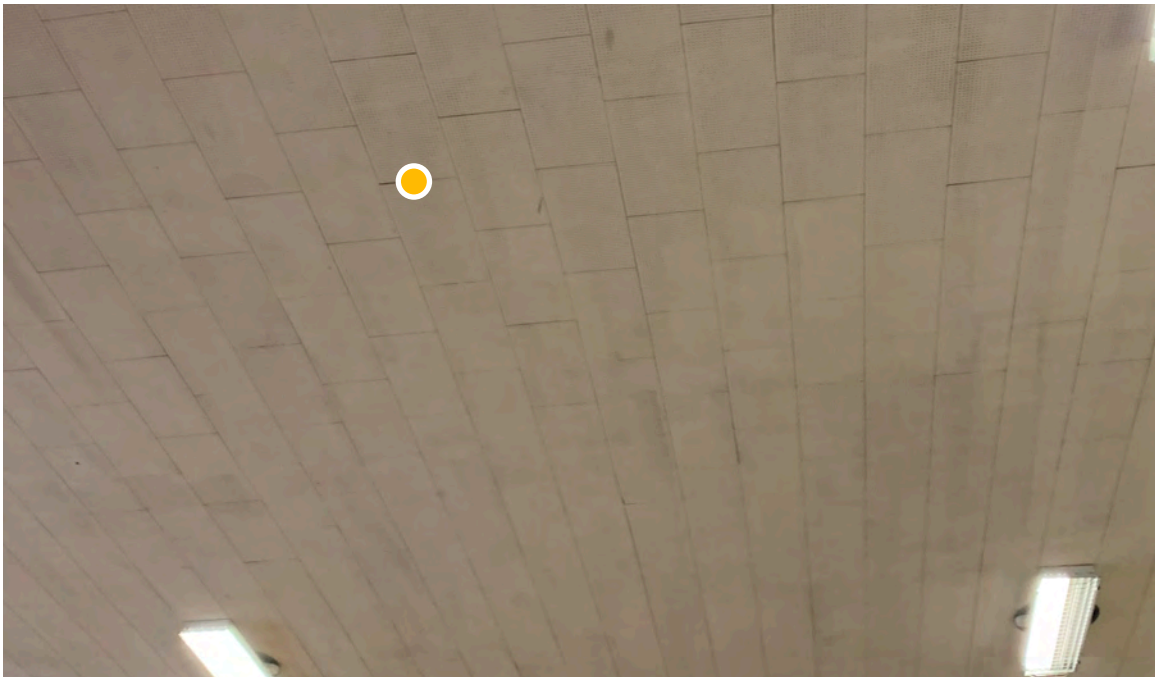


D1. 62: View of flooring retrofit over existing possible VAT (vinyl asbestos tile). Note seaming telegraphing through surface.

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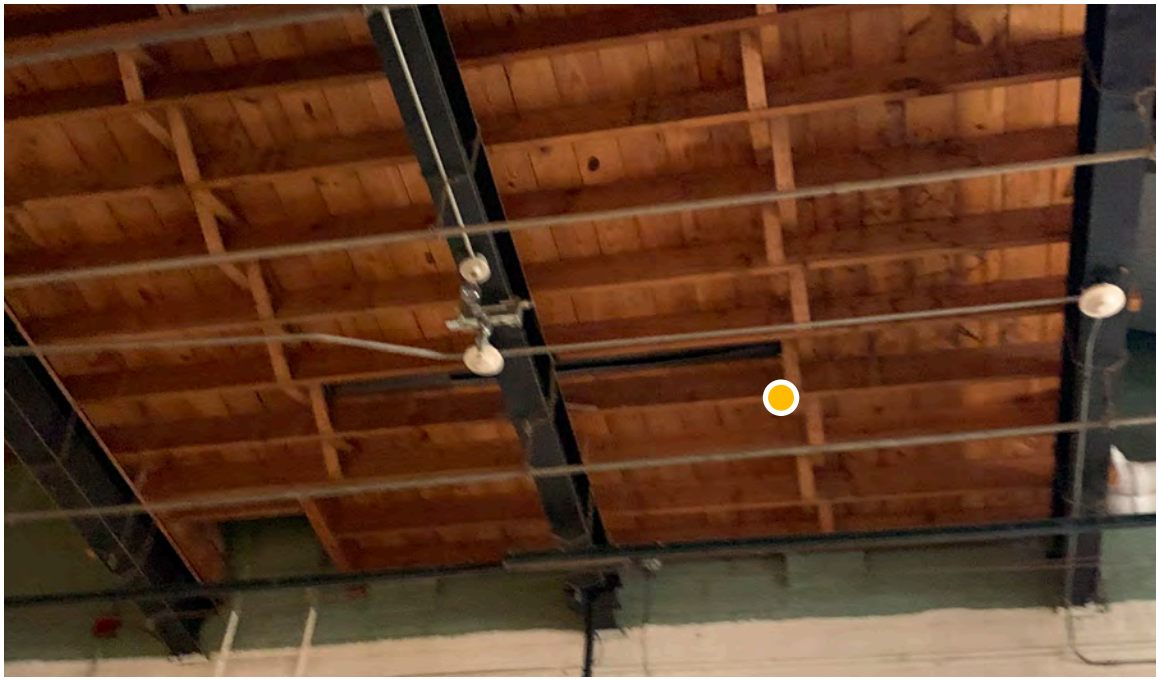


D1. 63:



D1. 64: View of possible ACM (with adhesive hazardous material)ceiling system with surface mounted lighting

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D1. 65: View of combustible catwalk construction above existing stage.



D1. 66: View of OT/PT, specialized educational space.

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D1. 67: View of kitchen work table with original equipment beyond.

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D2. 1: Abandoned Old Cast Iron Boiler in Mechanical Room.



D2. 2: Access Control System Head End.

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D2. 3: Automatic Transfer Switch.

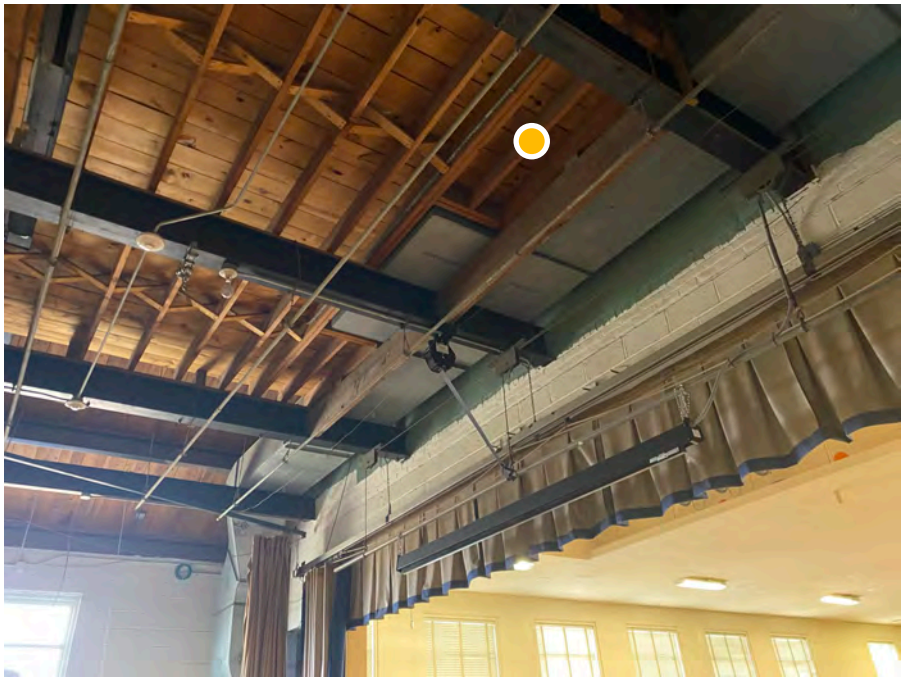


D2. 4: Burnham Indirect Domestic Hot Water Storage Tank.

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D2. 5: View of cafeteria lighting and courtyard beyond.



D2. 6: View of stage opening with combustible roof construction above. Ductwork Serving Auditorium in Poor Condition

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D2. 7: Electric Distribution - First Generation.



D2. 8: Electric Distribution - Second Generation.

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D2. 9: Electric Distribution - Third Generation.



D2. 10: Electric Main Distribution Switchboard.

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D2. 11: Electric Service Main Switch.

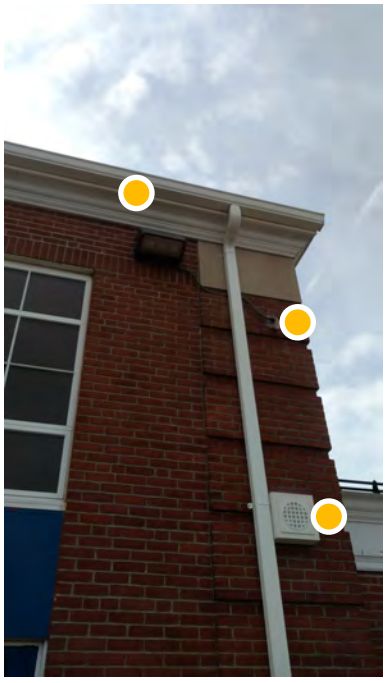


D2. 12: Exhaust Fans Serving Labs.

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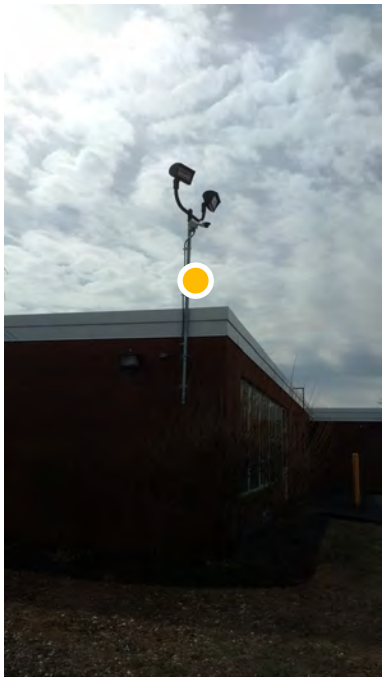


D2. 13: Exit Signage and Corridor Lighting.



D2. 14: View at exterior corner of gymnasium depicting roof leader, PA system and security camera retrofits.

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D2. 15: Wall mounted exterior parking lot flood lighting.



D2. 16: Fire Alarm Control Panel.

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D2. 17: Fujitsu Split Unit Serving IDF Room.

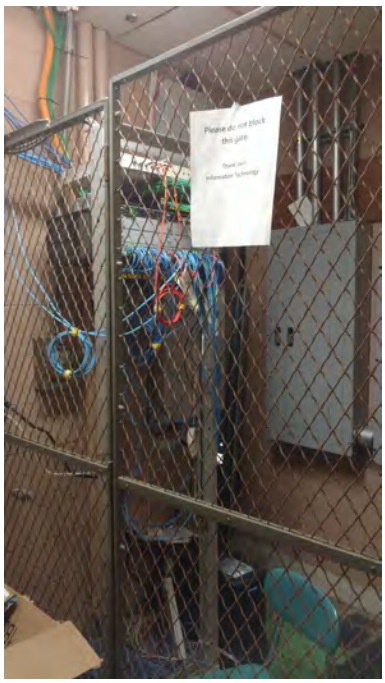


D2. 18: View of paved parking area adjacent to classroom space (media center and connecting corridor beyond).

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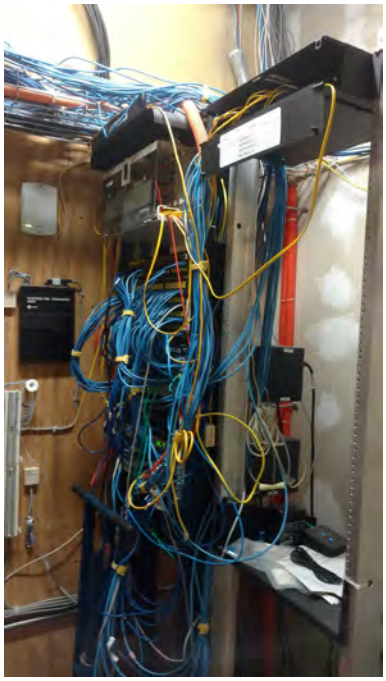


D2. 19: Hot Water Pumps in poor condition.



D2. 20: IDF Data Network Rack.

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D2. 21: Main Data Rack.



D2. 22: Mechanical and Plumbing Piping in poor condition.

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D2. 23: Mitsubishi Condensing Unit Serving Classroom Split Units.



D2. 24: View of sanitary sewer clean out.

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D2. 25: Natural Gas Service in Good Condition.



D2. 26: View of elevated perimeter radiation (heating) in poor condition adjacent to student

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D2. 27: Old Stage Power Panels.

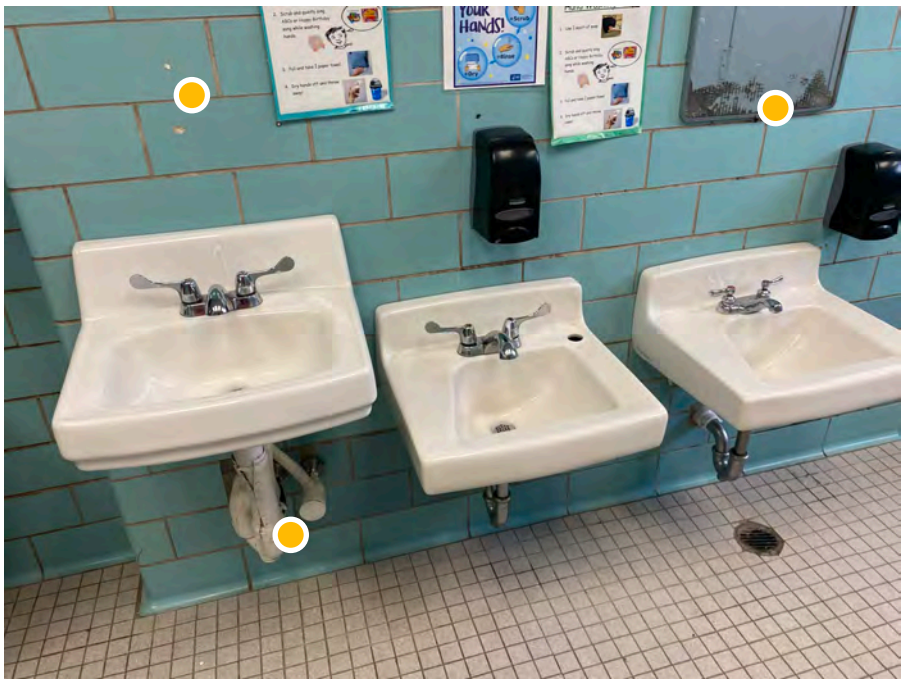


D2. 28: Older Cat 5 Network Infrastructure.

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D2. 29: Plumbing Fixtures in Fair Working Condition.



D2. 30: View of typical toilet room with original wall and floor tile. ADA adjustments made to one site for floor clearance. Wrap protection in poor condition. No accessible mirror or soap dispenser.

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D2. 31: Row of Condensing Units Serving Split Units in Each Classroom.



D2. 32: Samsung Split Unit Serving Cafeteria.

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D2. 33: Smith Natural Gas Cast Iron Hot Water Boilers in poor condition.



D2. 34: Standby Generator.

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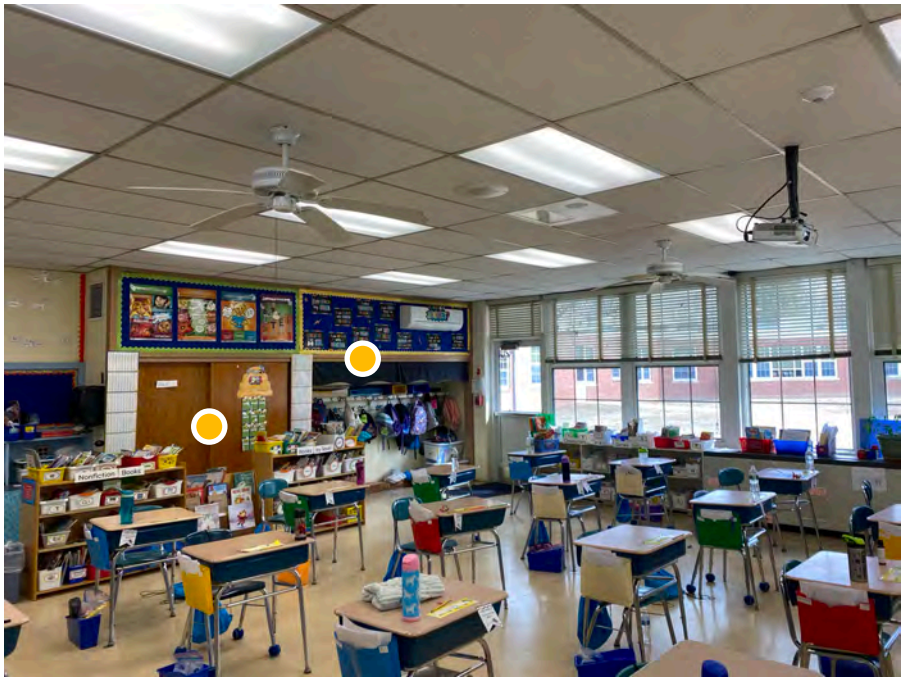


D2. 35: Telephone Service Entrance.



D2. 36: View of typical classroom with original floor and millwork.

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D2. 37: View of typical classroom with storage "cubby" and closed storage beyond.



D2. 38: Typical Split Unit Serving a Classroom.

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D2: 39: View of typical grade 1 classroom with unit ventilator at exterior wall.



D2. 40: Utica Natural Gas Domestic Hot Water Heater.

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D2. 41: View of original door bell, key fob and air phone (camera and door control access system).

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D3. 1: View of cafeteria (right) and gymnasium beyond (left/center).



D3. 2: View of cafeteria. Wall mounted parking lot lighting (right).

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D3. 3: View of parent drop off circle (right) and window mounted air conditions unit with cover and support post (left).



D3. 4: View of parking area at PK drop off.

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D3. 5: Typical access doors at north side of building (Grade 1 & 2 classrooms).



D3. 6: Detail view of typical access doors at north side of building (Grade 1 & 2 classrooms).

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D3. 7: View of modular classroom building (left) and typical condition of exterior of classroom wing.



D3. 8: Typical condition of grass areas throughout site. Unconventional location and construction of yard drain.

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D3. 9: View of PK drop off parking area, wall mounted condenser units, and dumpster area (foreground).



D3. 10: View of concrete sidewalk to classroom building. Detail view (right) of concrete foundation wall settlement and/or deterioration.

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D3. 11: View of asphalt / concrete sidewalk to pre-kindergarten classrooms.



D3. 12: View of modular classroom building (center) and wall mounted condenser unit (right).

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D3. 13: View of Administration area (center) with modular classroom building (right).



D3. 14: View of repaired/paving replacement at main entrance drive. Storm water collection system as originally installed.

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D3. 15: View of patched and repaired parking lot with limited striping. Accessible parking signage does not currently meet code.



D3. 16: View of deteriorated cast in place concrete curb, no ADA tactile warning strip at transition in grade/materials.

CAPITAL IMPROVEMENTS E

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, SUFFIELD, CT

A.W. Spaulding Elementary School - ROM Summary											Building Area: 71,406				CIP Prioritization					
SYSTEM / LINE ITEM DESCRIPTION	Amount	Unit	Unit Price	Current Replacement Cost	General Conditions	Bonds, Ins., Permit	(Unforeseen Conditions)	Temporary Facilities and Controls	Subtotal - Line Item	Line Item Contingency + Approx. Soft Costs (Design, printing, advertising, etc.)	Projected Line Item Cost	Escalation, Market Premium	Projected Line Item Cost W/Premium	REMARKS	Priority Ranking	Immediate	1-3 Years	3-5 Years	5-10 Years	10+ Years
					10%	1.5%	7.5%	5.0%		12.5%		20%			0.0%	0.0%	7.2%	16.8%	31.8%	56.6%
Site Improvements															#	1	2	3	4	5
Repaving of existing drives	5,258	SY	$55	$ 289,202	$ 28,920	$ 4,338	$ 21,690	$ 14,460	$ 358,611	$ 44,826	$ 403,437	$ 80,687	$ 484,125	excludes Bruce Park(note, includes recently completed areas). Maintain base, strip and reuse aggregate						
Repaving of existing parking areas	6,493	SY	$45	$ 292,200	$ 29,220	$ 4,383	$ 21,915	$ 14,610	$ 362,328	$ 45,291	$ 407,619	$ 81,524	$ 489,143	excludes Bruce Park(note, includes recently completed areas). Maintain base, strip and reuse aggregate (inc. play)						
Granite curbing	2,139	LF	$50	$ 106,950	$ 10,695	$ 1,604	$ 8,021	$ 5,348	$ 132,618	$ 16,577	$ 149,195	$ 29,839	$ 179,034							
Concrete sidewalks	8,417	SF	$14	$ 117,838	$ 11,784	$ 1,768	$ 8,838	$ 5,892	$ 146,119	$ 18,265	$ 164,384	$ 32,877	$ 197,261	Reuse of base material						
Bituminous sidewalks	521	SY	$45	$ 23,440	$ 2,344	$ 352	$ 1,758	$ 1,172	$ 29,066	$ 3,633	$ 32,699	$ 6,540	$ 39,239	Reuse of base material						
Storm water drainage	71,406	SF	$10	$ 714,060	$ 71,406	$ 10,711	$ 53,555	$ 35,703	$ 885,434	$110,679	$ 996,114	$ 199,223	$ 1,195,336	Assumes replacement and subsurface retention to meet current requirements						
Parking lot lighting	30	EA	$5,500	$ 165,000	$ 16,500	$ 2,475	$ 12,375	$ 8,250	$ 204,600	$ 25,575	$ 230,175	$ 46,035	$ 276,210							
Play area surface	2,601	SY	$65	$ 169,094	$ 16,909	$ 2,536	$ 12,682	$ 8,455	$ 209,676	$ 26,210	$ 235,886	$ 47,177	$ 283,063	Includes subsurface drainage and base						
Bollard/Ground lighting	20	EA	$3,500	$ 70,000	$ 7,000	$ 1,050	$ 5,250	$ 3,500	$ 86,800	$ 10,850	$ 97,650	$ 19,530	$ 117,180							
Playground Equipment	4	EA	$65,000	$ 260,000	$ 26,000	$ 3,900	$ 19,500	$ 13,000	$ 322,400	$ 40,300	$ 362,700	$ 72,540	$ 435,240	Age appropriate play area with universal ADA access						
Fencing (4 ft vinyl coated chain link)	1,252	LF	$65	$ 81,380	$ 8,138	$ 1,221	$ 6,104	$ 4,069	$ 100,911	$ 12,614	$ 113,525	$ 22,705	$ 136,230	At PK area, possible separation of site from Bruce Park						
Exterior Improvements				$ -					$ -	$ -	$ -									
Brick Repair/Repointing	71,406	SF	$8	$ 571,248	$ 57,125	$ 8,569	$ 42,844	$ 28,562	$ 708,348	$ 88,543	$ 796,891	$ 159,378	$ 956,269							
Window Replacement	5,118	SF	$75	$ 383,850	$ 38,385	$ 5,758	$ 28,789	$ 19,193	$ 475,974	$ 59,497	$ 535,471	$ 107,094	$ 642,565							
Security Window Film (Allowance)	5,118	SF	$15	$ 76,770	$ 7,677	$ 1,152	$ 5,758	$ 3,839	$ 95,195	$ 11,899	$ 107,094	$ 21,419	$ 128,513							
Caulking & Sealant Replacement	71,406	SF	$2	$ 142,812	$ 14,281	$ 2,142	$ 10,711	$ 7,141	$ 177,087	$ 22,136	$ 199,223	$ 39,845	$ 239,067							
Exterior Doors	42	EA	$3,500	$ 147,000	$ 14,700	$ 2,205	$ 11,025	$ 7,350	$ 182,280	$ 22,785	$ 205,065	$ 41,013	$ 246,078							
Patch, repair, paint trim	71,406	SF	$2	$ 142,812	$ 14,281	$ 2,142	$ 10,711	$ 7,141	$ 177,087	$ 22,136	$ 199,223	$ 39,845	$ 239,067							
Soffit, canopy repair/refinish	3,344	SF	$15	$ 50,160	$ 5,016	$ 752	$ 3,762	$ 2,508	$ 62,198	$ 7,775	$ 69,973	$ 13,995	$ 83,968							
Roof Replacement	71,406	SF	$28	$ 1,999,368	$ 199,937	$ 29,991	$ 149,953	$ 99,968	$ 2,479,216	$309,902	$ 2,789,118	$ 557,824	$ 3,346,942							
Interior Improvements				$ -					$ -	$ -	$ -									
Door, frame, and hardware replacement	146	EA	$1,750	$ 255,500	$ 25,550	$ 3,833	$ 19,163	$ 12,775	$ 316,820	$ 39,603	$ 356,423	$ 71,285	$ 427,707	does not include security hardware or devices, removal of existing						
Reconfiguration of door for ADA	19	EA	$5,000	$ 95,000	$ 9,500	$ 1,425	$ 7,125	$ 4,750	$ 117,800	$ 14,725	$ 132,525	$ 26,505	$ 159,030	reconfiguration of walls for push/pull clearance						
Flooring	71,406	SF	$15	$ 1,071,090	$ 107,109	$ 16,066	$ 80,332	$ 53,555	$ 1,328,152	$166,019	$ 1,494,171	$ 298,834	$ 1,793,005	assumes basic tile flooring, remove and dispose of old						
Ceilings	71,406	SF	$11	$ 785,466	$ 78,547	$ 11,782	$ 58,910	$ 39,273	$ 973,978	$121,747	$ 1,095,725	$ 219,145	$ 1,314,870	assumes lay in tile ceiling, remove and dispose of old						
Toilet Room reconfiguration/renovation	2,053	SF	$325	$ 667,225	$ 66,723	$ 10,008	$ 50,042	$ 33,361	$ 827,359	$103,420	$ 930,779	$ 186,156	$ 1,116,935	does not include fixtures or plumbing costs, does not include PK (recently renovated)						
Millwork	1,041	LF	$650	$ 676,650	$ 67,665	$ 10,150	$ 50,749	$ 33,833	$ 839,046	$104,881	$ 943,927	$ 188,785	$ 1,132,712	removal of existing, high and low PLAM cabinets with solid surface countertops, does not include PK						
Caulking and Painting	71,406	SF	$6.5	$ 464,139	$ 46,414	$ 6,962	$ 34,810	$ 23,207	$ 575,532	$ 71,942	$ 647,474	$ 129,495	$ 776,969							
Interior glazing	1,497	SF	$50	$ 74,850	$ 7,485	$ 1,123	$ 5,614	$ 3,743	$ 92,814	$ 11,602	$ 104,416	$ 20,883	$ 125,299							
Drinking Fountain replacements	8	EA	$6,500	$ 52,000	$ 5,200	$ 780	$ 3,900	$ 2,600	$ 64,480	$ 8,060	$ 72,540	$ 14,508	$ 87,048							
Chair lift (ADA Accessibility)	1	EA	$65,000	$ 65,000	$ 6,500	$ 975	$ 4,875	$ 3,250	$ 80,600	$ 10,075	$ 90,675	$ 18,135	$ 108,810							
Elevator	0	STOP	$65,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -							
Misc - Kitchen Equipment	71,406	SF	$7	$ 464,139	$ 46,414	$ 6,962	$ 34,810	$ 23,207	$ 575,532	$ 71,942	$ 647,474	$ 129,495	$ 776,969							
Division 21 - Fire Protection				$ -					$ -	$ -	$ -									
Fire Protection Distribution System	71,406	SF	$8	$ 571,248	$ 57,125	$ 8,569	$ 42,844	$ 28,562	$ 708,348	$ 88,543	$ 796,891	$ 159,378	$ 956,269	Building does not contain a fire protection system.						
Fire Pump	71,406	SF	$1.5	$ 107,109	$ 10,711	$ 1,607	$ 8,033	$ 5,355	$ 132,815	$ 16,602	$ 149,417	$ 29,883	$ 179,300	Building does not contain a fire pump.						
Division 22 - Plumbing				$ -					$ -	$ -	$ -									
Water Distribution and Drainage Systems	71,406	SF	$10	$ 714,060	$ 71,406	$ 10,711	$ 53,555	$ 35,703	$ 885,434	$110,679	$ 996,114	$ 199,223	$ 1,195,336	Piping original to 1954 construction and 1961/ 1988 additions, will need to be updated.						
Plumbing Fixtures / Equipment	71,406	SF	$5	$ 357,030	$ 35,703	$ 5,355	$ 26,777	$ 17,852	$ 442,717	$ 55,340	$ 498,057	$ 99,611	$ 597,668	Replacement of all plumbing fixtures throughout the building.						
Water Heaters	71,406	SF	$1.5	$ 107,109	$ 10,711	$ 1,607	$ 8,033	$ 5,355	$ 132,815	$ 16,602	$ 149,417	$ 29,883	$ 179,300	Water heater is nearing the end of its useful life.						
Misc ~ Sanitary Slab Cutting, Floor Repair, Trenching	71,406	SF	$5	$ 357,030	$ 35,703	$ 5,355	$ 26,777	$ 17,852	$ 442,717	$ 55,340	$ 498,057	$ 99,611	$ 597,668							
Division 23 - Mechanical				$ -					$ -	$ -	$ -									
Heating Plant (Boilers, Pumps, etc.)	71,406	SF	$5	$ 357,030	$ 35,703	$ 5,355	$ 26,777	$ 17,852	$ 442,717	$ 55,340	$ 498,057	$ 99,611	$ 597,668	The existing heating plant equipment varies in age. The boilers are at the end of their useful lives. The pumps and heat exchangers are approaching the end of their useful lives in 5-10 years.						
Terminal Units	71,406	SF	$5	$ 357,030	$ 35,703	$ 5,355	$ 26,777	$ 17,852	$ 442,717	$ 55,340	$ 498,057	$ 99,611	$ 597,668	Heating and ventilating units, unit heaters, baseboard, and associated piping of various vintages is at or past the end of its useful life.						
Air Handling Systems	71,406	SF	$7	$ 499,842	$ 49,984	$ 7,498	$ 37,488	$ 24,992	$ 619,804	$ 77,476	$ 697,280	$ 139,456	$ 836,736	Air handling systems, ductwork, and exhaust fans of various vintages are approaching the end of their useful life.						
Control Systems	71,406	SF	$8	$ 571,248	$ 57,125	$ 8,569	$ 42,844	$ 28,562	$ 708,348	$ 88,543	$ 796,891	$ 159,378	$ 956,269	The building does not contain a BMS but does contain pneumatic controls for various equipment. All other devices controlled by standalone controls of varying vintages.						
Air Conditioning	71,406	SF	$5	$ 357,030	$ 35,703	$ 5,355	$ 26,777	$ 17,852	$ 442,717	$ 55,340	$ 498,057	$ 99,611	$ 597,668	The building does not contain a central air conditiong plant, cooling is accomplished through the air handling systems and terminal units.						
HVAC Modernization Premium	71,406	SF	$40	$ 2,856,240	$ 285,624	$ 42,844	$ 214,218	$ 142,812	$ 3,541,738	$442,717	$ 3,984,455	$ 796,891	$ 4,781,346	Costs above are to replace systems as is. Current system is not up to current CT School design standards.						
Division 26 - Electrical				$ -					$ -	$ -	$ -									
Electrical Service / Distribution	71,406	SF	$25	$ 1,785,150	$ 178,515	$ 26,777	$ 133,886	$ 89,258	$ 2,213,586	$276,698	$ 2,490,284	$ 498,057	$ 2,988,341	Service equipment installed in 2001 appears to to be in good working condition and adequately sized for the current use. Older equipment from 1991 exists in the building that should be considered for replacement.						
Generator	71,406	SF	$1.5	$ 107,109	$ 10,711	$ 1,607	$ 8,033	$ 5,355	$ 132,815	$ 16,602	$ 149,417	$ 29,883	$ 179,300	Generator with approximately 60 kW of capacity.						
Lighting - General	71,406	SF	$8	$ 571,248	$ 57,125	$ 8,569	$ 42,844	$ 28,562	$ 708,348	$ 88,543	$ 796,891	$ 159,378	$ 956,269	Linear fluorescent systems installed in 1x4, 2x4 and 2x2 fixtures. Exterior fixtures upgraded to LED type.						
Fire Alarm System	71,406	SF	$7.0	$ 499,842	$ 49,984	$ 7,498	$ 37,488	$ 24,992	$ 619,804	$ 77,476	$ 697,280	$ 139,456	$ 836,736	Fire alarm system is code compliant with voice-capable equipment. System is in serviceable condition and dates to 2005.						
Technology Infrastructure	71,406	SF	$12	$ 856,872	$ 85,687	$ 12,853	$ 64,265	$ 42,844	$ 1,062,521	$132,815	$ 1,195,336	$ 239,067	$ 1,434,404							
Security Alarms and control devices	71,406	SF	$5.0	$ 357,030	$ 35,703	$ 5,355	$ 26,777	$ 17,852	$ 442,717	$ 55,340	$ 498,057	$ 99,611	$ 597,668							
Subtotal for CIP Items				**$ 21,863,500**					**$ 27,110,740**		**$ 30,499,583**	**$ 6,099,917**	**$ 36,599,499**							
Cost Per Square Foot				**$ 306.19**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 379.67**	**$ -**	**$ 427.13**	**$ 85.43**	**$ 512.55**							

Building Vintage Summary			
Building Vintage	**Area**		**% to Ttl**
Building Vintage ~ 1954	28,318	V1	39.66%
Building Vintage ~ 1961	27,441	V2	38.43%
Building Vintage ~ 1985	1,910	V3	2.67%
Building Vintage ~ 1988	13,737	V4	19.24%
	71,406		100.00%

MCALISTER INTERMEDIATE

83 MOUNTAIN ROAD, SUFFIELD, CT

CONDITIONS ASSESSMENT & MASTER PLAN

Tecton ARCHITECTS

3.2



TABLE OF CONTENTS

INTRODUCTION ..... **A**

Summary & Analysis A1

DATA & RANKINGS ..... **B**

Building Data B1

Condition Rankings B2

EXISTING CONDITIONS NARRATIVE ..... **C**

Architectural *(Building & Structure)* C1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* C2

Site *(Civil, Landscape, Utilities)* C3

PHOTO LOG ..... **D**

Architectural *(Building & Structure)* D1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* D2

Site *(Civil, Landscape, Utilities)* D3

CAPITAL IMPROVEMENTS ..... **E**

Capital Improvements E1

INTRODUCTION A

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

McAlister Intermediate School houses 3rd grade through 5th grade students from the Town of Suffield. The original construction was built in 1939, with additions from 1956 and 1987. A modular building built in 1994 was placed to the Northeast of the main building but has since been removed.. The school sits centrally located on a large open site that is shared with the Middle School. A large open parking area resides on the West with some visitor spaces to the South along Mountain Road. To the north of the school are shared athletic fields.

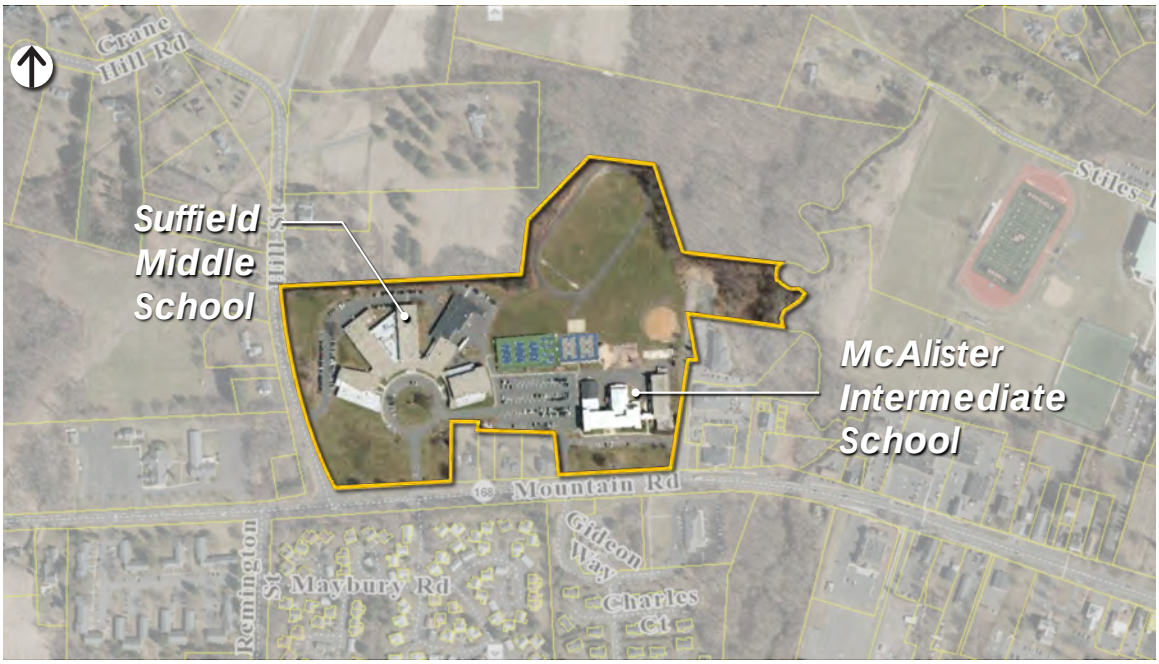
Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

GRADE LEVEL	3-5
STUDENTS	466
BUILDING AREA/SITE	72,263 SF / 32.4 acres (shared)
AGE/CONSTRUCTION	1939 (83), 1956 (66), 1987 (35)

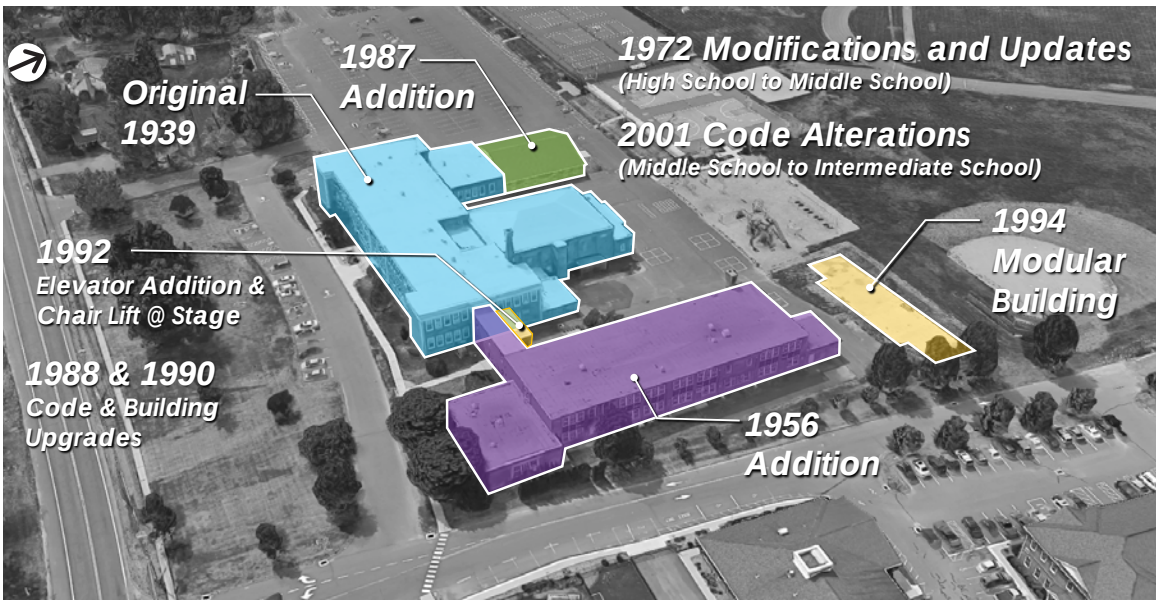
***Building Condition*: Fair**

- Site traffic, parking and perimeter security major concerns for site (pedestrian and vehicular safety), no defined receiving area.
- Play areas exposed, no definition of school boundary. Do not meet accessibility codes
- Many non-functioning or poorly functioning windows and exterior doors, persistent concerns and repairs and flashing/water infiltration issues.
- Overall, well built, durable original construction and well maintained. Many important investments & preventative maintenance (roofs, A/C, isolated room renovations)
- Many components (finishes, millwork, lockers) of original construction are past useful life and/or non accessible (ADA @ toilet rooms, ramp, doorways)
- Inconsistent construction of various room modifications over the years. Ventilation concerns in portions of buildings related to construction of additions and encapsulation
- Many toilet facilities are non accessible, in very poor condition, and/or non-functioning.
- Floor to floor noise transfer and acoustical concerns in original portion of the building.
- No automatic sprinkler system within building
- Classrooms are good size, meet educational needs, although limited flexibility for grade level "pods", considering mixed grade pods

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



A1. 1: Aerial View of Existing School and Property



A1. 2: Vintage Plan

DATA & RANKINGS B

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

B. DATA & RANKINGS

B.1 Building Data

The Facility:

Name:	**McAlister Intermediate School**		
Address:	**83 Mountain Rd**		
Type / Use:	**Intermediate School**		
Total Building Area (SF):	72, 263	**Original Construction:**	1939
Site Area (acres):	32.4 (Shared)	**Additions (dates):**	1956, 1987, 1994 (Out-Building)
Stories (above grade):	2	**Construction Type(s):**	
Building / Framing Materials:	Brick/Masonry	**Roof Types & Age:**	Membrane(2001, 2019) Asphalt Shingles(2014) 2021 (partial) warranty
Split-level / ramps (interior):	Yes	**Heating (types):**	Hot Water
Stairs (interior):	Yes	**Fuel Types:**	Natural Gas
Elevator:	Yes and Lift to Stage	**Cooling (centralized):**	Partial, Split A/C Units
Basement:	Yes	**Ventilation:**	Yes, via unit ventilators and AHUs
Mezzanine (finished)	No	**Electrical:**	208/120 volt, 3 ph, 4 wire 1000 amp
Crawl Space / Tunnels:	Yes	**Generator:**	No
Auxiliary Buildings:		**Fire Alarm:**	Notifier System with horn/strobes
Full ADA Compliance:	No Some non-ADA toilets	**Sewer / Septic**	Sewer
		Municipal Water / Well	Municipal Water
		Sprinklered (full / partial):	N/A
School Data		**Parking Count:**	220, (200 in shared lot)
Enrollment(2020):	392		
Enrollment 10-yr:	365	**Meals:**	3 waves
Net Enrollment Change:	-27	**Meal Prep on site?:**	Yes
Location in Town:	Central	**Start Time:**	8:35
Grade Structure:	3-5	**Dismissal:**	3:15
Pre-K?:	No	**Buses:**	22, 2 others
Athletic Fields:	(3) Tennis Courts, (2) Basketball Courts, Baseball Field, Soccer Field, Track and Field area Playground (All Shared)	**Additional Programs:**	No

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
2 Poor [P] May require attention in 2-5 years
3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Exterior		V4	V3	V2	V1	
Component	**Material(s)**	**Condition**				**Notes**
Roofing	Membrane roof	3	3	1	3	Former 8th grade wing, out of warranty
	Asphalt Shingle Roof	-	3	-	-	Installed 2014, 20 year warranty
	Flashing / joints	3	3	2	3	N/A
	Gutters / downspouts/scuppers	3	3	2	3	Some damaged downspouts
	Parapet Caps	3	-	2	3	Some staining
Walls	Masonry (unpainted)	3	3	3	2	Some staining, recently repointed
	Masonry, Raised planters	-	-	2	-	Efflorescence
	Metal Panel	-	-	2	-	Oil-canning on a few panels
	Joints (Building or expansion)	3	3	2	2	N/A
	Foundations – exposed concrete	3	3	2	2	N/A
Entrances	Entrance doors	-	2	2	3	Aluminum doors dented at base
	Hollow Metal Doors	-	2	2	3	Missing weatherstripping, rusted bases
	Soffits / Canopy	-	2	2	3	Rusted fasteners
Windows	Aluminum	1	1	1	1	Poorly caulked, difficult to open
	Window Screens (exterior)	2	2	2	2	N/A
Walkways / site stairs	Sidewalks	1				Differential settlement at brick pavers
	Bituminous concrete curb	3				Snowplow damage at all curbing
Drives / parking lots	Bituminous concrete pavement	2				Cracking throughout
	Pavement striping	3				N/A
Landscaping	Lawn	3				Re-seeding of lawns
	Plants	4				N/A
	Mulch beds	4				N/A
	Trees	4				N/A
Recreation	Tennis Courts (Shared with SMS)	2				N/A
	Basketball Courts (Shared with SMS)	2				N/A
	Playground (Shared with SMS)	2				N/A
Other Structures	Vehicular signage	3				Leaning signage
	Catch basin tops	3				Some recently replaced
	Gazebo	4				N/A

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

B.2 Condition Rankings

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Vintage: **V1** **V2** **V3** **V4**

Interior		V4	V3	V2	V1	
Component	**Material(s)**	**Condition**				**Notes**
Flooring	Concrete (unpainted)	3	3	2	2	Minor cracking
	Vinyl Composite Tile	-	2	2	2	N/A
	Walk-off mat	-	2	1	1	Mats missing, infilled with plywood
	Quarry Tile	-	-	2	-	N/A
	Ceramic Tile	-	-	1	1	Some replacement tiles do not match
	Rubber Stair Treads	-	-	1	1	Missing sections, poor condition
	Floor transitions	-	2	1	1	Extremely worn
Walls Surfaces	Masonry (painted)	-	3	2	2	Spalling paint
	Gypsum board	-	3	2	2	Minor unfilled holes and cracking
	Tile	-	-	1	1	Some missing tile
Ceilings	Gypsum board ceilings / soffits	-	-	2	2	N/A
	Acoustic panel ceiling	-	3	3	2	Some staining
	Plaster ceiling	-	-	-	1	Spalling and cracking due to moisture
	Asbestos Tile	-	-	1	1	Encapsulate or Abate
Interior trim	Wall Base - Vinyl	-	3	3	3	N/A
	Wall Base – Tile	-	-	2	1	Missing base tiles
Interior doors	Wood doors	1	2	2	2	Some spot retrofits
	Wood doors (gymnasium)	-	-	-	1	Poor condition, specifically at bases
	Hollow metal doors	-	2	2	2	Combo of new and original doors
	Hardware	-	2	2	2	Combo of new and original doors
Built-ins	Casework	-	2	2	1	Non-accessible sinks, PL worn
	Countertops	-	2	2	1	Plastic laminate worn
Toilet Facilities	Fixtures	-	-	1	1	Non-accessible & out-of-service fixtures
	Partitions	-	-	2	2	Minor rusting at urinals
	Accessories (dispensers, driers)	-	-	2	2	N/A
Athletics	Gymnasium floor (wood plank)	-	-	-	1	Refinished multiple times, not maintained
	Athletic equipment	-	-	-	2	
	Moveable Partition	-	-	-	2	Functioning, showing wear
	Bleacher Seating	-	-	-	1	Hazard to students
	Stage lift	-	-	-	1	Non-functioning

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

B.2 Condition Rankings

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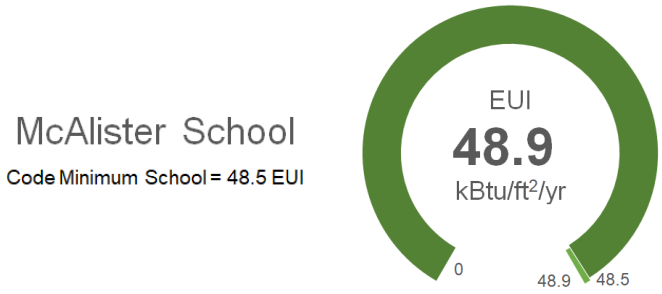
Vintage: **V1** **V2** **V3** **V4**

Building Systems		V4	V3	V2	V1	
Component	**Material(s)**	**Condition**				**Notes**
Fire Protection	Fire Alarm System & Devices	1	1	1	1	Fire alarm does not meet current code
	Fire suppression (infrastructure / devices)	-	-	-	-	N/A
Plumbing Systems	Infrastructure (pipes, drains, etc.)	1	1	1	1	Past the end of its useful life
	Fixtures	2	2	2	2	At the end of its useful life
	Overall efficiency	2	2	2	2	Water heater is in fair condition
Mechanical / HVAC	Infrastructure (pipes, ducts, etc.)	1	1	1	1	Past the end of its useful life
	Heating systems	1	1	1	1	Past the end of its useful life
	Cooling systems	3	3	3	3	Newer but not very efficient
	Fixtures & equipment (Interior)	2	2	2	2	At the end of their useful lives
	Fixtures & equipment (Exterior/Roof top)	2	2	2	2	At the end of their useful lives
	Overall efficiency	2	2	2	2	Overall efficiency is poor
Electrical (Service)	Infrastructure (panels, wiring, etc.)	2	2	2	2	In fair condition
	Service & distribution	2	2	2	2	In fair condition
	Generator	-	-	-	-	N/A
	Other	-	-	-	-	N/A
Electrical Lighting	Infrastructure (panels, wiring, etc.)	2	2	2	2	In good condition but at end of life
	Fixtures (Interior)	2	2	2	2	Fluorescent systems should be replaced
	Efficiency (incl. natural & artificial light distr.)	2	2	2	2	Replace w/ LEDs for efficiency
Security	Access Control	3	3	3	3	Functional with minimal doors covered
	Cameras	3	3	3	3	Exterior units in place

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

B. 2 Benchmarking

MECHANICAL, ELECTRICAL, FIRE PROTECTION, SECURITY			
SYSTEM	**EQUIPMENT LIFE EXPECTANCY**	**EQUIPMENT AGE**	**USEFUL LIFE PERCENTAGE**
Fire Protection System	40 Years	N/A	N/A
Plumbing Water Heater	25 Years	10 Years	40%
Plumbing Piping & Fixtures	40 Years	50 Years	125%
Mechanical Boiler Plant	40 Years	40 Years	100%
Mechanical Piping & Equipment	40 Years	40 Years	105%
Mechanical Air Conditioning	25 Years	10 Years	40%
Mechanical Controls	20 Years	N/A	N/A
Electrical Service & Distribution	40 Years	25 Years	63%
Electrical Lighting	30 Years	40 Years	133%
Electrical Generator	40 Years	25 Years	62%
Fire Alarm	20 Years	20 Years	100%



EXISTING CONDITIONS NARRATIVE C

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

C.1 Architectural

Construction:

The original construction from 1939, the 1956 addition, and the 1987 addition are all constructed from load bearing masonry. A modular building built in 1994 was placed to the Northeast of the main building but has since been removed but the concrete pad remains.

Exterior:

EXTERIOR (GENERAL): The main entrance to McAlister Intermediate School faces South and is part of the original 1939 building with an additional entrance facing the parking area on the West. The 1956 addition has one entrance on the North side and two doors into the Kitchen/Cafeteria on the West. One additional entrance is located on the North side of the 1987 addition.

WALLS: Raised planter beds engaging the building at the 1956 addition along the East wall are showing signs of efflorescence, signaling possible moisture infiltration. Exterior masonry is in good to fair condition at all vintages and was recently repointed. Some staining was observed at parapet caps and should be corrected throughout.

WINDOWS/DOORS/ENTRANCES: Replacement windows from 2004 were poorly caulked at heads, jambs, and sills on initial installation, allowing for the potential of moisture and air penetration. Many windows are poorly functioning or have stopped being operable completely. Hollow metal exterior doors are missing weatherstripping and have begun to rust at the base of frames and doors. The canopy located at the rear of the 1956 addition is in fair condition, but fasteners are beginning to rust.

ROOF: The majority of the membrane roof was recently replaced in 2019 and carries a 30-year warranty. A smaller section over the 1956 vintage was replaced in 2001 and only carried a 20-year warranty. The asphalt shingle roof over the 1987 addition was replaced in 2014 and carries a 20+ year warranty. Facilities mentioned there are concerns with the piece-meal roof replacements by different contractors and many different warranty terms. Some downspouts have been damaged and should be repaired.

Interior:

INTERIOR SPACES (GENERAL): Plastic laminate casework installed throughout the school is beginning to show signs of deterioration and there are concerns with longevity. Some of the older unit ventilators are missing cover plates or trim, leaving equipment and sharp edges exposed to students and staff. The flooring in the 1939 vintage portion of the building is a wood plank. While this flooring has been replaced in some areas, it has remained in some closets, storage rooms, and offices. The remaining original flooring has not been well maintained and is in poor condition and beyond repair. Former walk-off mats at exterior doors in the 1956 addition have been infilled with plywood as a make-shift solution and should be properly infilled and matched to adjacent flooring material. Flooring transitions, specifically marble thresholds at toilet rooms, are in poor condition. Surface mounted conduit has been installed as retrofit at existing masonry interior walls throughout. This conduit is not aesthetically pleasing and is an additional opportunity for damage due to its age and use. Vinyl composite tile flooring is in poor condition throughout and should be replaced. Acoustic panel ceilings are in fair to good condition with some minor staining noted throughout. Despite scattered retrofits throughout, interior doors are in poor condition.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

TOILET FACILITIES: Toilet partitions throughout are in fair condition with minor rusting and scratches. Inconsistent renovations leave some spaces fully ADA compliant while others are only partially compliant or non-compliant. Toilet rooms have not been renovated consistently and show signs of wear with missing or mismatched tile, out of service fixtures and rusting hollow metal doors and frames.

CAFETERIA: The cafeteria and servery area is generally in good to fair condition. It is part of the 1956 vintage and has vinyl composite tile floors and acoustic panel ceilings. The walls are gypsum board with painted murals. The servery has the same ceiling and quarry tile floors, all in good condition.

MEDIA CENTER: Also part of the 1956 addition, the Media Center looks to have received recent upgrades with acoustic panel ceilings and carpet, both in good condition.

NURSES AREA/OFFICE: The Nurses' area and Administrative Offices appear to have undergone recent renovations. The original millwork remained but was painted. It appears the carpet, lighting, and ceilings were all replaced as a part of this renovation and are in good condition.

GYMNASIUM: The gymnasium has original wood plank floors that have been refinished multiple times over their life. They are in fair to poor condition and should be repaired or replaced. The moveable partition that can be used to separate the gym into two sides is in fair condition. During walkthroughs this partition was still functioning and showed no signs of heavy use. The existing wooden bleachers, appearing to be original to the structure, are in poor condition and should be replaced. The ceiling in the gymnasium looks to be a possibly asbestos containing acoustic tile. Some tiles are missing and/or damaged causing potential concern. The wall material within the Gymnasium is painted masonry, which is spalling, indicating moisture infiltration through the wall. Wood doors and frames leading to adjacent storage rooms are in poor condition, particularly at the base. These storage rooms have extremely low plaster ceilings that are cracking and spalling due to moisture infiltration. The stage within the gymnasium space has a lift which was not functioning at the time of the walkthrough. This area has a plaster ceiling in poor condition with spalling and delamination. In addition, there are also large openings in the ceiling plane due to plumbing and electrical modifications. The vestibule which leads outside from the gymnasium is in fair condition. Some ceiling tiles are bending and stained which indicates possible moisture presence at some point.

STAIRS: Rubber treads and risers at all interior stairs are in fair to poor condition and should be replaced.

CORRIDORS: In general, corridors throughout the building are in fair condition with damaged vinyl floor tiles that have been patched with mis-matched tiles and damaged/patched masonry intermittently. These tiles should be removed and replaced with tiles that match adjacent floor material.

Code & Safety

ADA: Partial renovations were completed with a goal of working towards ADA compliance. The following is recommended for full compliance; that all remaining toilet rooms receive upgrades to necessary clearances, baffles or pipe insulation below sinks, and installation of compliant faucet controls. Most classrooms with sinks do not meet below-sink ADA clear space compliance requirements. Single leaf doors from corridors into classrooms do not appear to have necessary push/pull clearances to be considered ADA-compliant. Some marble thresholds do not meet current ADA standards for changes in level. Playground area does not meet accessibility codes.

SAFETY: Abandoned left-in-place piping systems and/or conduit has created unsafe conditions particularly in mechanical rooms. Existing wood bleachers in the gymnasium are a potential safety

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

hazard. The playground area is exposed to the rear of the site and there is no clear definition of a school boundary. There is no defined receiving area leaving deliveries unprotected in the gymnasium lobby. This building is not sprinklered.

C.2 MEP

B.4 Plumbing/Fire Protection:

HOT WATER GENERATION: The buildings existing domestic hot water is generated via a natural gas water heater storage tank. The water heater has an input of 199.9 MBH and can hold 100 gallons of water. It is manufactured by State Ultra Force and is located in the mechanical room. The water heater is approximately 10 years old and is in good working condition.

DOMESTIC WATER SERVICE: The existing building is currently served by a municipal domestic water service located in mechanical room. The service appears to be nearing the end of its useful life.

DOMESTIC WATER PIPING: Domestic water piping was observed to be a combination of copper and steel piping. The piping is original to the 1939 construction and 1956 and 1987 additions with some enhancements during renovations along the way. Overall the majority of the piping appears to be approximately 50 years old and at the end of its useful life.

PLUMBING FIXTURES: The plumbing fixtures in the building vary in age from different renovations to various additions. The majority of plumbing fixtures are approximately 40 to 50 years old with the newest being around 20 years old. Many of the plumbing fixtures are failing and non-compliant with code, they are at the end of their useful lives and will need to be replaced.

SANITARY SERVICE: The building is served by the municipal sanitary service and appears to be in fair working condition.

STORM SERVICE: The building currently uses a gutter system to collect and transfer all storm drainage. The roof is pitched on either side to lead the storm into the gutters. The gutters distribute the storm drainage onto the ground through the use of splash guards. The storm service appears to be in good working condition.

NATURAL GAS SERVICE: The building currently has a natural gas service that feeds the water heater and boilers. There are also two AmeriGas propane gas storage tanks located outside on a concrete slab that serves the kitchen equipment. The gas service and piping is in fair working condition.

FIRE PROJECTION: There is currently no fire protection sprinkler system within the building.

B.5 Mechanical:

HEATING SYSTEMS: The existing boiler plant consists of two natural gas boilers located in the mechanical room. One boiler is an Aerco Benchmark natural gas hot water condensing boiler. It is about 10 years old and is in good working condition. The second boiler is a cast iron natural gas boiler with a capacity of 2636 MBH. It is manufactured by H.B. Smith and is approximately 30 to 40 years old and nearing the end of its useful life. Hot water is distributed throughout the building via three base mounted pumps, these pumps distribute heating hot water from the boilers to the building heating equipment. The three pumps are manufactured by Bell & Gossett and were installed during the 1992 renovation. Two of the pumps are

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

primarily flowing towards opposite wings of the building while the third pump is on standby. The pumps are about 30 years old and nearing the end of their useful lives.

HOT WATER PIPING: The hot water heating systems consists of Steel and Copper piping. This piping varies in age dating back to the original 1939 construction. The majority of the piping is between 30 and 50 years old and at the end of its useful life.

TERMINAL UNITS: The building consists of hot water wall convectors, fin-tube radiation, and unit heaters to provide perimeter heat to various rooms. These pieces of mechanical equipment vary in age but are overall old and past their useful life expectancies. The classrooms, offices, and cafeteria contain unit ventilators that provide heating to the space. The unit ventilators utilize hot water coils and the hot water from the boiler plant to provide heating. The unit ventilators vary in age with a majority of them being installed during the 1992 renovation. All of the unit ventilators are not working as efficiently as they should and are at the end of their useful lives. Most classrooms also contain a Mitsubishi wall mounted split AC unit for cooling. Each split unit has its own Mitsubishi condensing unit mounted on the ground or roof exterior of the classroom. The split units vary from 5 to 10 years old and are in good working condition.

VENTILATION SYSTEMS: The unit ventilators throughout the building provide ventilation air to the spaces they serve. The unit ventilators are not working efficiently and are not ventilating properly, they are at the end of their useful lives and will need to be replaced. There are five existing heating and ventilating units throughout the building. One serves the Boys Locker Room, one serves the Girls Locker Room, one serves the Kitchen, and two serve the Gymnasium. The heating and ventilating unit that serves the Kitchen was installed during the 1992 renovation. This unit provides heating and the make-up ventilation air to the Kitchen if the exhaust hood is running. It is approximately 30 years old and at the end of its useful life. The four other heating and ventilating units were renovated from steam coils to hot water heating coils during the 1992 renovations. These four units provide heating and ventilation to the rooms they serve, but are approximately 40 to 50 years old and past the end of their useful lives. There is a vertical direct expansion cooling and hot water heating air handling unit located in a closet indoors. The unit has its own condensing unit located outside and provides heating and cooling to the space it serves. The unit appears to be 15 to 20 years old and is in fair working condition. A majority of the rooms throughout the building contain an exhaust fan that takes all of the exhaust air out of the building. The exhaust fans vary in age but a majority were worked on during the 1992 renovation. The exhaust fans are approximately 30 to 50 years old and at the end of their useful lives.

COOLING SYSTEMS: Cooling is provided to the building through the various mechanical equipment mentioned above. There is no cooling plant in this building. The wall mounted split AC units provide cooling via refrigeration to the spaces they serve. Some of the unit ventilators also provide cooling to the spaces they serve. The overall cooling system varies in age and can be more efficiently done with the renovation of the mechanical equipment.

DUCTWORK: The ductwork throughout the building varies in age. The ductwork serves the heating and ventilating units as well as the exhaust fans. All of the ductwork is approximately 30 to 50 years old and at the end of its useful life.

CONTROLS: The building does not have a Building Management System (BMS). The building contains electrical temperature sensors and controls in various room locations.

B.4 Electrical:

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

MAIN ELECTRIC SERVICE: The main electric service originates from a utility company pad mounted transformer. The service then runs underground to the main switchboard located in the basement of the building.

The main electric service to the building is rated 1,000 Amps, 208/120 volts, 3-phase, 4-wire, and includes a main disconnect switch combined with a utility company metering compartment. The service and equipment are in good working condition.

ELECTRICAL DISTRIBUTION: The electrical distribution consists of conduit and feeders from the main distribution panels to branch circuit panel boards located throughout the building. The service entrance switch is a newer Square D co. QED2 combination main circuit breaker and utility metering cabinet. The main distribution panels are heavy duty distribution panels also manufactured by Square D Company. The next level of branch circuit panels are manufactured by General Electric and look to be approximately 20 years old. The panels are suitable to continue in service.

GENERATOR: The building currently does not have a standby generator.

LIGHTING SYSTEMS: The lighting throughout the building consists of linear fluorescent systems provided in 2x4 and 2x2 recessed parabolic troffers, recessed 1x4 acrylic prismatic fixtures in classrooms, surface mounted 1x4 linear fixtures. The fixtures were installed though the various years of construction. The gymnasium has been recently retrofit with better performing high output fixtures.

Emergency lighting for the building is provided by self-contained twin head battery powered emergency lighting units.

Lighting control consists of wall mounted switches. Some of these switches have been replaced with in wall occupancy sensors with ceiling mounted occupancy sensors.

FIRE ALARM SYSTEM: The fire alarm system in the building consist of a Notifier fire alarm control panel, horn/strobe annunciating units, manual fire alarm pull stations, smoke detectors, heat detectors, duct mounted smoke detectors with remote test switches. The system features a horn/strobe style annunciation system and is now obsolete per new code requirements and must be voice message capable. The system can continue in service grandfathered under the former code for the existing building.

COMMUNICATION SERVICES: Cable TV service is utilized in the building. Service cable enters the building on the east side via the underground cable.

T1 communication equipment exists at the MDF service backboard.

Fiber service interconnects the Annex Office building with the Town Hall building via a 12 strand multi-mode and a 6 strand single mode.

Communication service entrances exist within the basement area for copper voice and fiber infrastructure. One MDF data rack is provisioned within the basement located in the radio equipment area. The rack consists of a 2 post rack with fiber patch panels and network switches. The buildings internal network drops land directly on the network switches without being cross-connected through a patch panel. Network data and voice outlets exist within the building but are minimal provisions at best as there are 18 active drops. Wireless access points are provisioned throughout and appear to be the

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

Aerohive AP250 series.

25 Pair copper cabling for voice communications appear to extend to or from the highway building.

12 pair copper cabling for voice communications appears to be extended from the town hall phone room.

Ceiling speakers were observed throughout the space but it was not clear what could have been sourcing audio to these speakers. The system featured wall mounted volume controls in various locations.

Lightspeed sound reinforcement systems are installed throughout most of the classrooms.

C.3 Site

SITE (GENERAL): McAlister Intermediate School sits centrally located on a large open site that is shared with the Middle School. A large open parking area resides on the West with some visitor spaces to the South along Mountain Road. To the north of the school are shared athletic fields.

WALKWAYS/SITE STAIRS: A concrete sidewalk extends the South façade of the building. At one of the bisecting sidewalks, the corners have been infilled with brick. The brick infills have started to sink and cause a potential tripping hazard.

ROADWAYS/PARKING: Parking and drive aisles are in fair to poor condition overall. Cracking can be seen throughout all bituminous concrete parking areas, drive aisles, and open non-drivable paved areas. Snowplow damage can be seen at all bituminous concrete curbing. Parking striping is in good to fair condition throughout. Site vehicular and pedestrian traffic flow is a concern on site and should be improved.

LANDSCAPING: Trees and plants around the site and in raised planting beds appear to be healthy. Grass requires re-seeding to infill patchy areas. A large gravel area exists to the East of the building. It is unclear if this has a specific purpose, but some patchy grass has started to grow here. If unused, gravel should be removed and this area should be filled in and seeded.

ATHLETIC FIELDS: Athletic fields consist of the following: 3 Tennis Courts, 2 basketball courts, a baseball field, a soccer field, and a track and field area. There is also a playground just outside the rear entrance to the school. Playground equipment appears to be in good condition. These fields and playgrounds are shared with the Middle School.

OTHER STRUCTURES: Parking signage is beginning to lean. It appears a new catch basin was recently added in the North courtyard with fresh pavement surrounding it. A gazebo is located in close proximity to the playground.

PHOTO LOG D

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McALISTER INTERMEDIATE SCHOOL

EXISTING FLOOR PLAN



9.15.2021

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

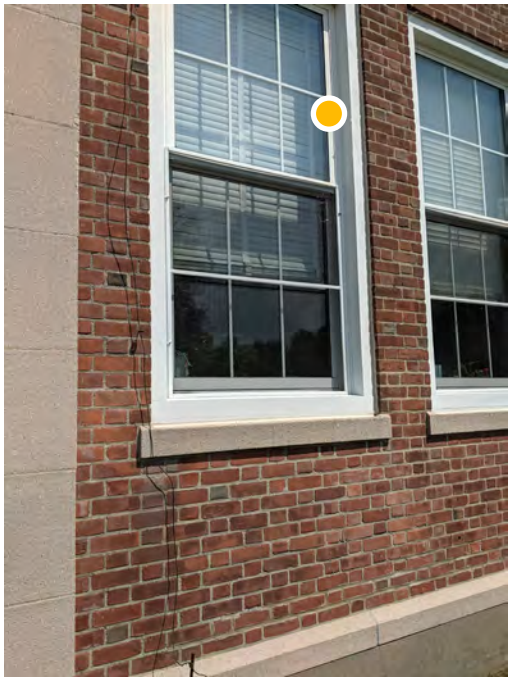


D1. 1: View of temporary roof that was once connected to the modular building (1994).



D1. 2: View to the south with 1987 addition to left and original 1939 building on right.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 3: Detailed view of window and masonry at original 1939 building.

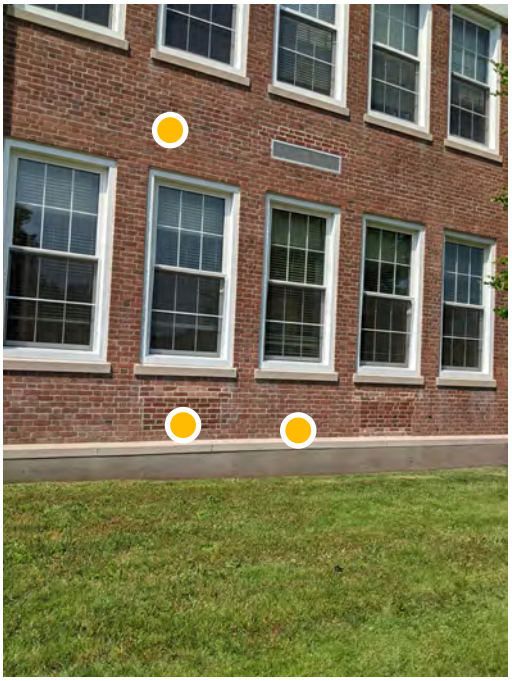


D1. 4: View of south façade of original 1939 building, note modifications for wall mounted air conditioning unit.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 5: Detail view of main entry and site modifications to the original 1939 building.



D1. 6: Detail view of the south façade of original 1939 building depicting masonry repairs and infill over the years.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 7: Detail view of the south façade of 1956 addition, note the efflorescence on the masonry due to moisture infiltration into the composite wall construction.



D1. 8: Detail view of the east façade of the 1956 addition, note modifications for mechanical equipment piping.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 9: Detail view of mechanical and storage space adjacent to gymnasium, part of the original 1939 building. Note poor condition of asphalt access ways and overall masonry wall.



D1. 10: Detail view of north side of original 1939 building, note masonry repairs and overall deterioration of masonry façade and jointing.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

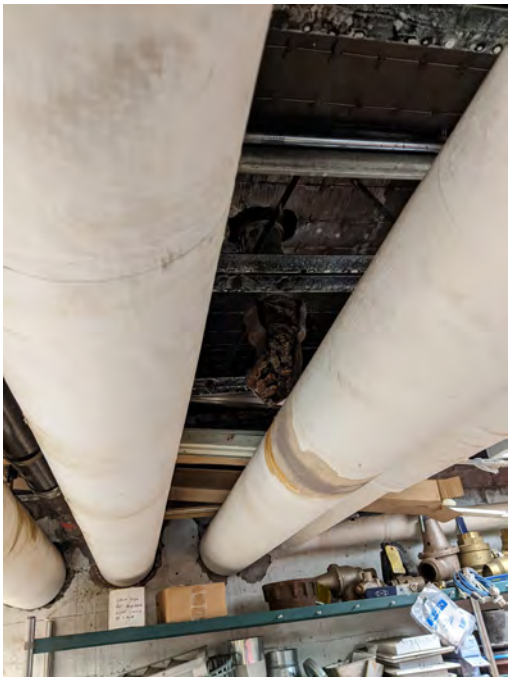


D1. 11: View of north entrance to the gymnasium area.



D1. 12: View to entry/egress doors into the 1987 addition, north façade. Note wall mounted air conditioning and parking lot lighting modifications.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 13: Existing Piping.

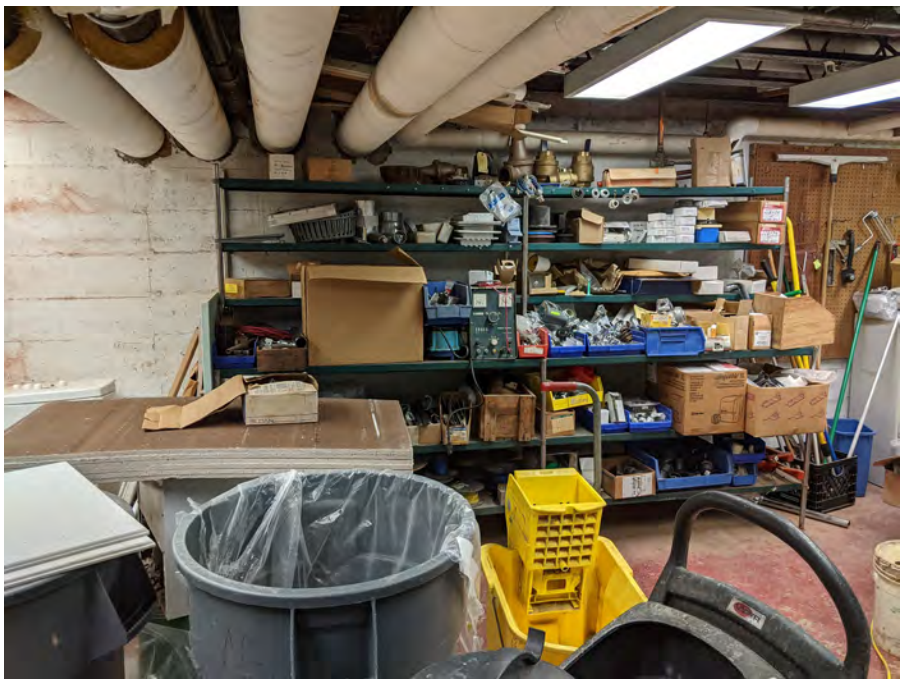


D1. 14: Basement Electric Room.

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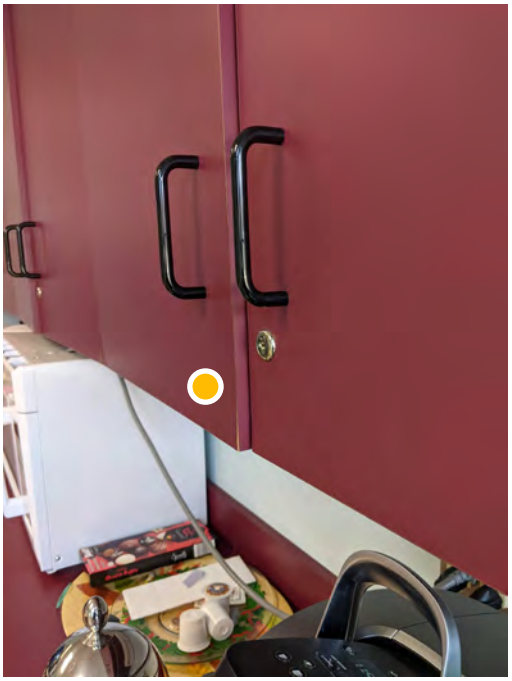


D1. 15: Detail view of the concrete equipment curbs in the lower level mechanical space.



D1. 16: View of materials storage in the lower level mechanical space of the original 1939 building.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 17: Detail view of recent millwork / cabinetry upgrades to the media center. Note poor construction and failing hinges.

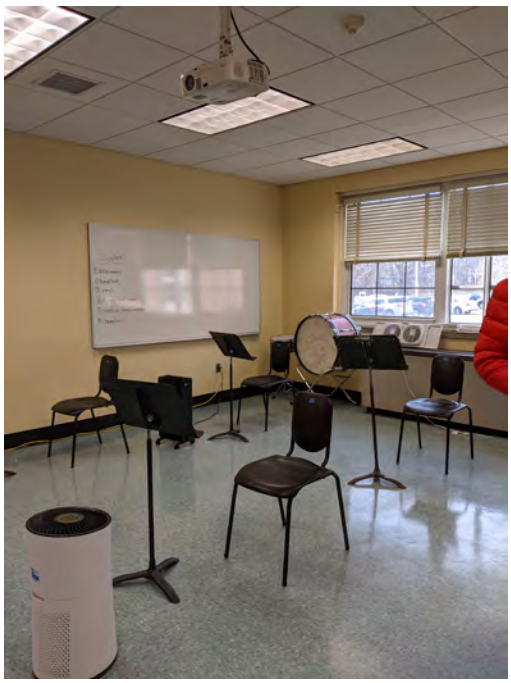


D1. 18: Detail view of recent millwork / cabinetry upgrades to the media center. Note poor construction and failing hinges.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 19: Detail view of floor access panel to utility tunnels in the 1956 addition. Confined space with original piping.



D1. 20: View of recent upgrades to the music room in the 1956 addition.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

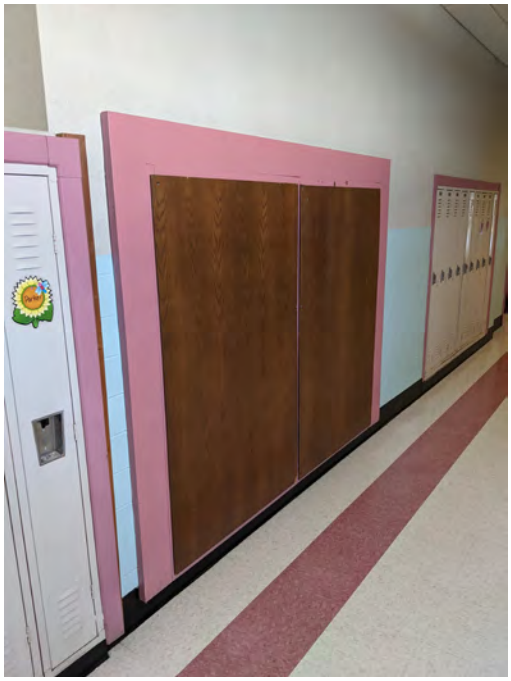


D1. 21: Detail view of inaccessible sink unit in the art room

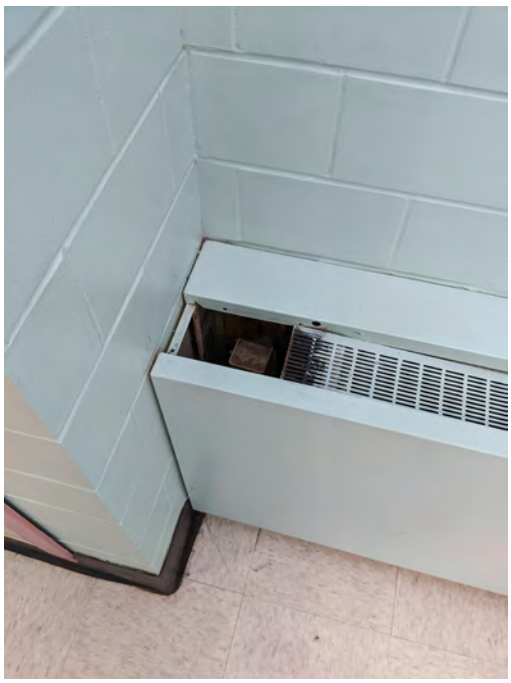


D1. 22: Detail view of inaccessible art room sink. Note the age and poor condition of the millwork and adjacent flooring.

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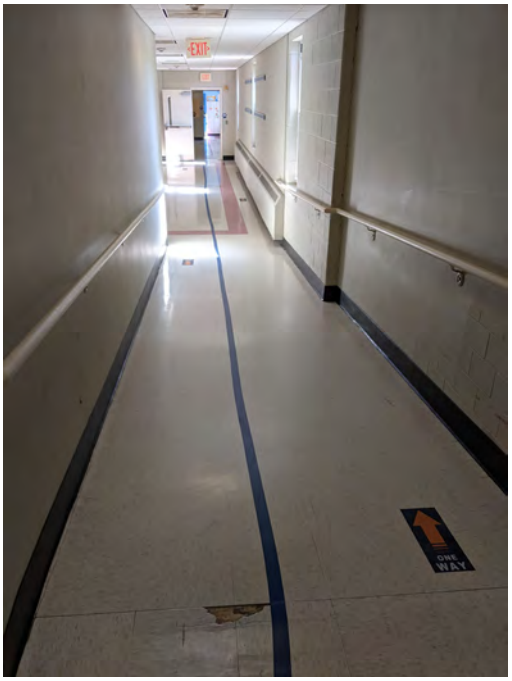


D1. 23: View of wood infill panels at upper level of the original 1939 building. This area has been modified several times over the years, rendering portions of the space unusable.

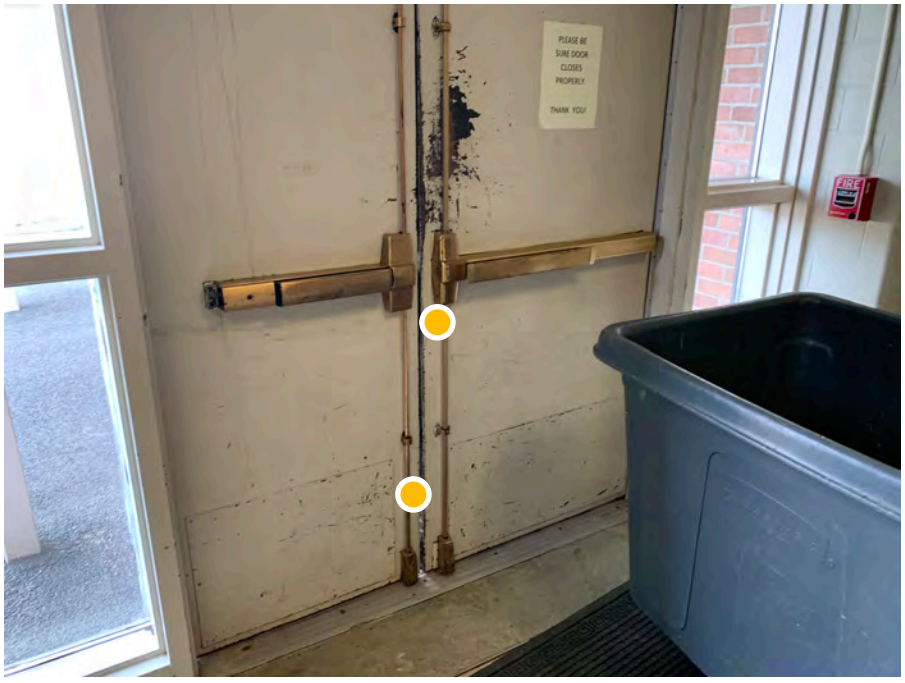


D1. 24: Existing Baseboard Missing Part of the Cover.
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D1. 25: View of connecting corridor and ramp from the 1956 addition to the original 1939 building.



D1. 26: Detail view of typical exterior double door assemble. Note the overall poor condition and gaps in the perimeter.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 27: Existing Unit Ventilator.



D1. 28: Overall view of gymnasium in original 1939 building, space has seen limited improvements over the years, note ceiling mounted heating unit and original ACM ceiling tiles.

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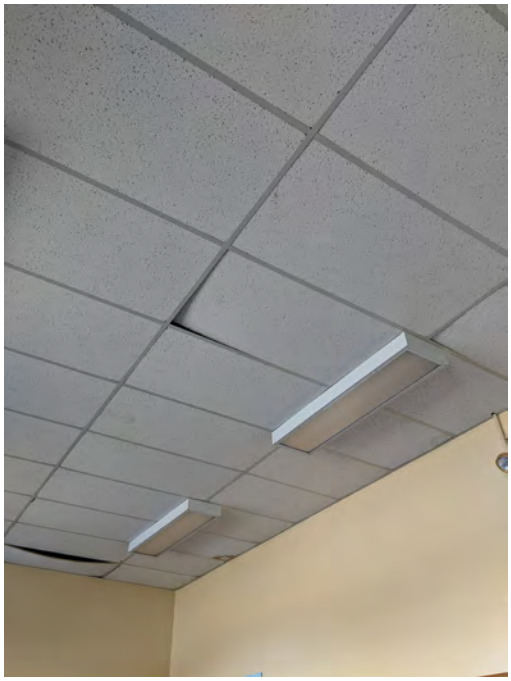


D1. 29: View towards stage in gymnasium/auditorium.



D1. 30: View of accessibility lift to stage. Note, this equipment did not function at time of walkthrough, no ADA access is provided.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 31: Detail view of typical space in original 1939 building, ceiling depicts bowing tiles indicating moisture/humidity control challenges within the space.



D1. 32: Detail view of deteriorated wood flooring transition.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 33: View of typical bathroom space, note non functioning fixtures, broken and/or deteriorated toilet partitions, and buckets to prevent sink leaks. Also note indication of previous modifications to space via the different floor tiles.

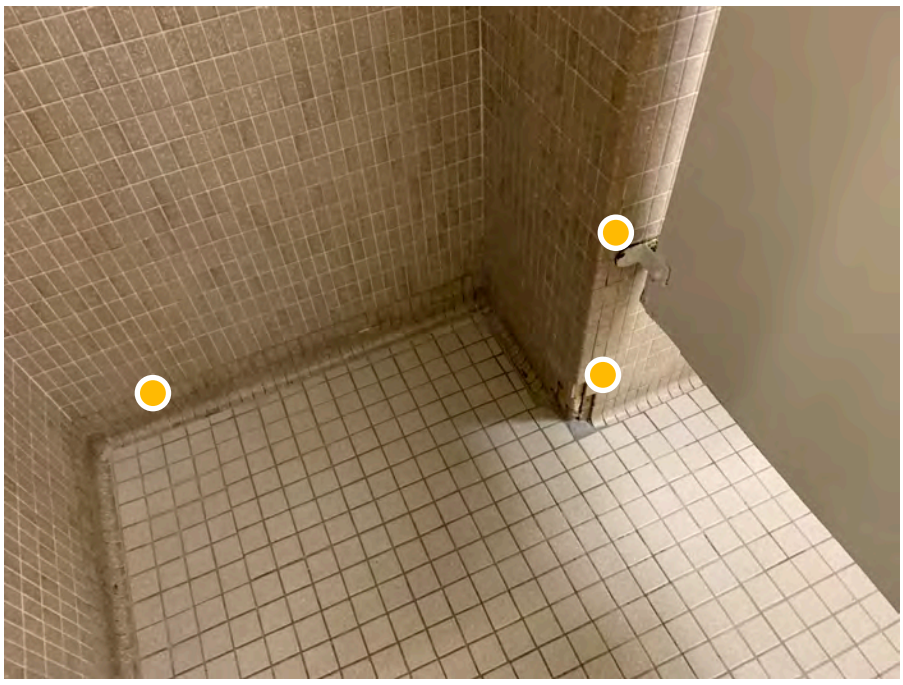


D1. 34: Typical VCT flooring in corridors, note the deterioration, missing and/or broken tile at the expansion joints between building additions.

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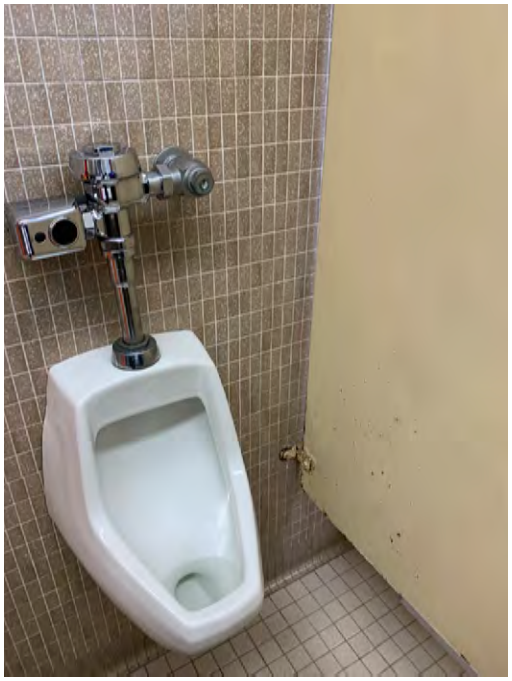


D1. 35: Typical classroom corridor with metal lockers and unit cabinet heater (poor condition overall)



D1. 36: Detail view of typical bathroom depicting missing and/or broken floor and wall tiles along with retrofit or painted toilet partitions.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 37: Detail view of replacement fixture in bathroom.



D1. 38: Existing Kitchen Hood

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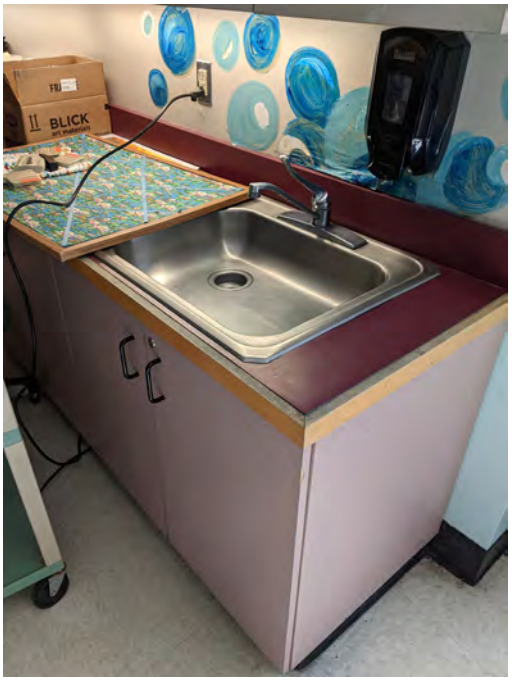


D1. 39: View of media center.

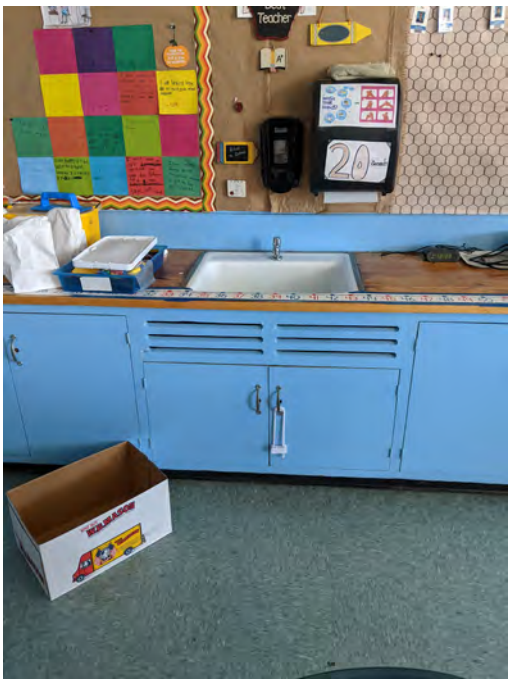


D1. 40: View of media center with recent FF&E (furniture, fixtures, and equipment) upgrades.

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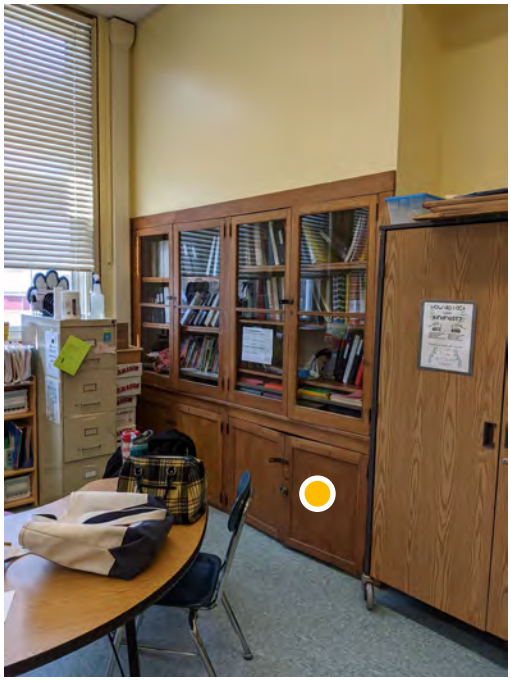


D1. 41: Detail view of art room sink.

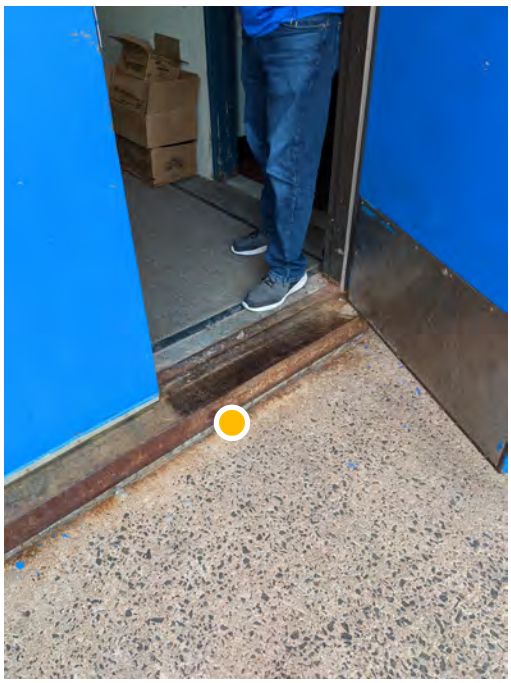


D1. 42: View of original millwork and sink in typical classrooms, 1956 addition.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

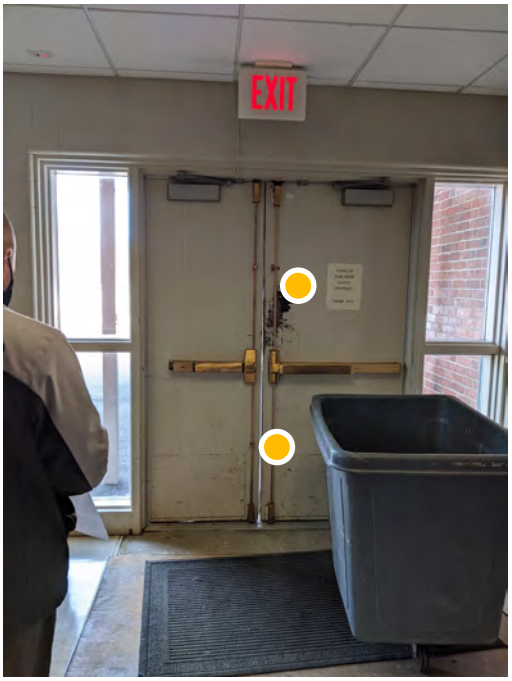


D1. 43: View of typical built in cabinetry in the original 1939 building.

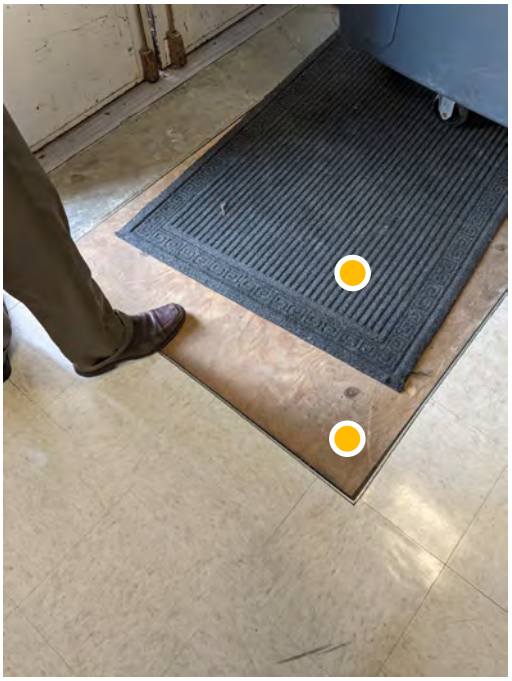


D1. 44: Loading/receiving door access, note step up into building making delivery and access difficult.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 45: Typical exterior double door assembly, note the gap between the door slabs and the overall poor condition of the assembly.

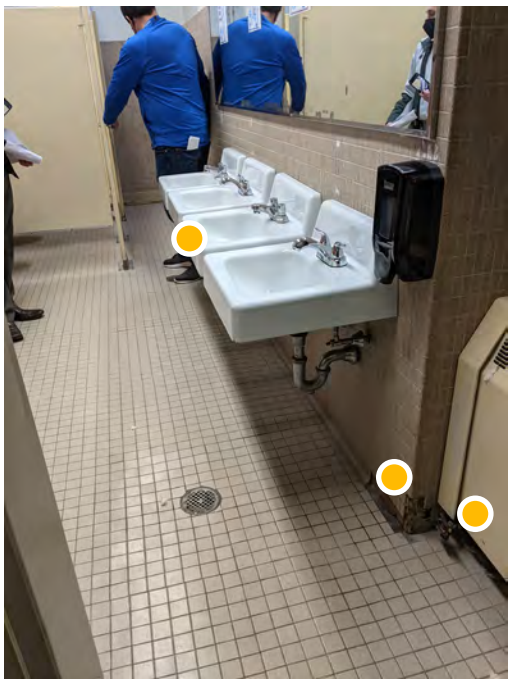


D1. 46: Plywood infill panel retrofit with partial walk off mat, in front of egress door in 1956 addition.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

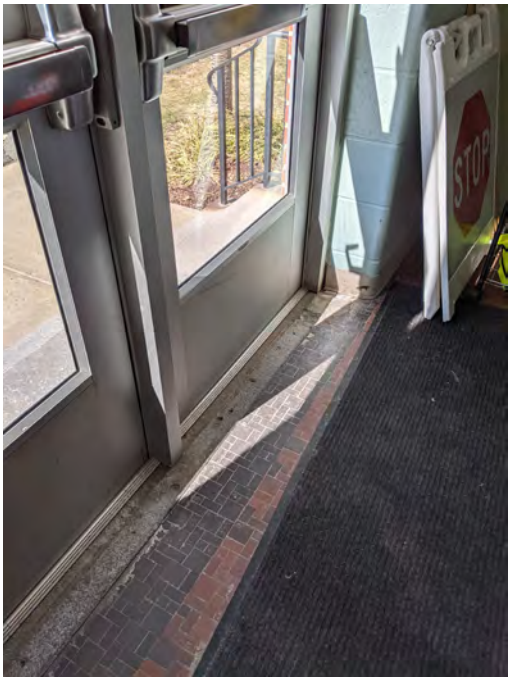


D1. 47: Existing Surface Mounted Speaker for Public Address System.



D1. 48: View of typical bathroom, note condition of floor and wall tile, non accessible sink units, inaccessible toilet partition compartments and the exposed unit cabinet heater.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 49: Detail view of typical sill at exterior door.

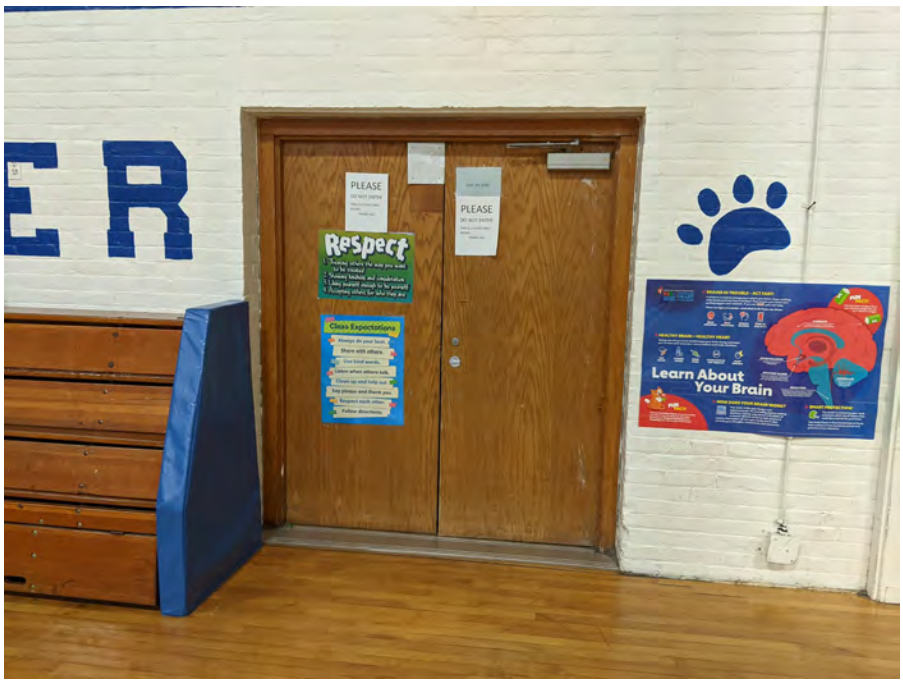


D1. 50: Janitorial/Custodian support space in original 1939 building.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 51: Detail view of existing wood bleachers.

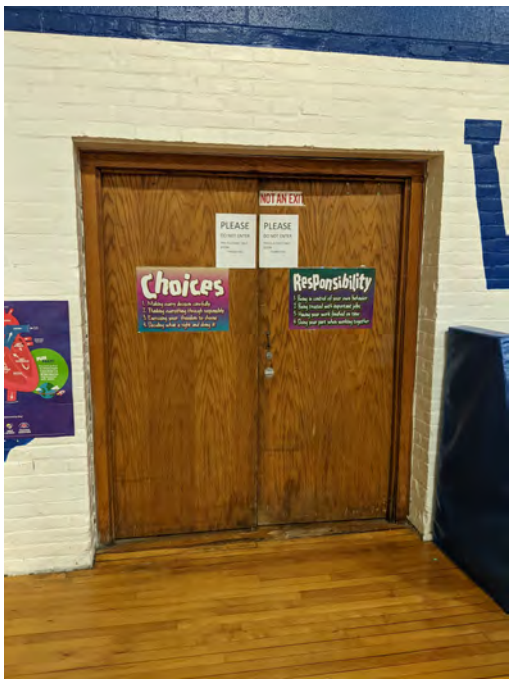


D1. 52: Typical storage room doors adjacent to existing gymnasium/Auditorium in original 1939 building.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 53: Detail view of folding partition (electronically operated), functions without emergency stop. Also note existing piping and conduit at intersecting wall.



D1. 54: View of typical storage room doors from gymnasium, note the poor overall condition.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

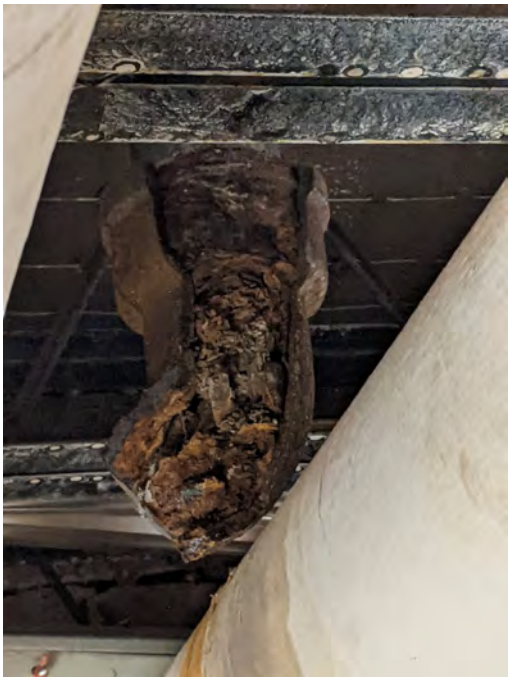


D1. 55: Toilet reconfiguration in original 1939 building does not allow for proper access and/or compliance with accessibility codes.



D1. 56: Detail view of inoperable accessibility lift to stage.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

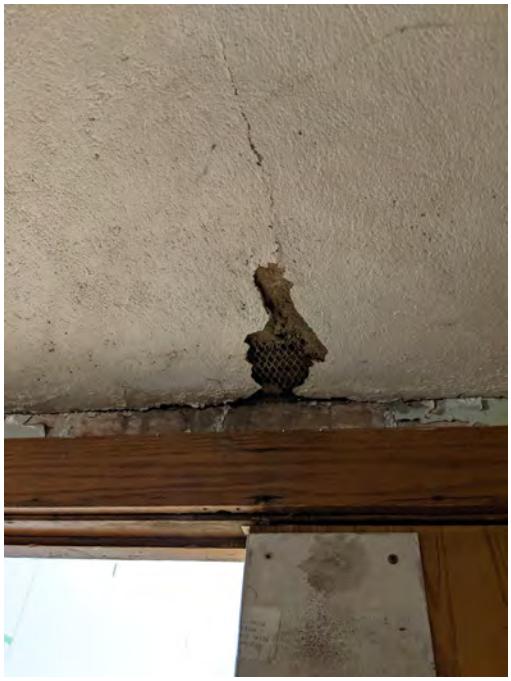


D1. 57: Abandoned Floor Drain.

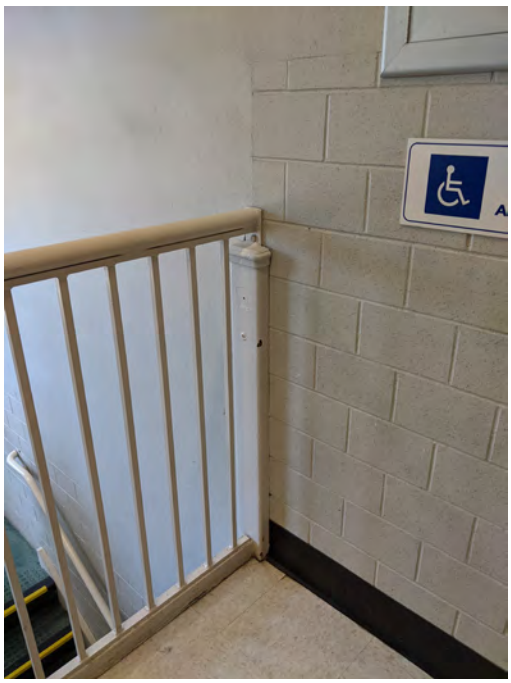


D1. 58: Detail view of typical poor condition of the rubber treads and risers at the stairs.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

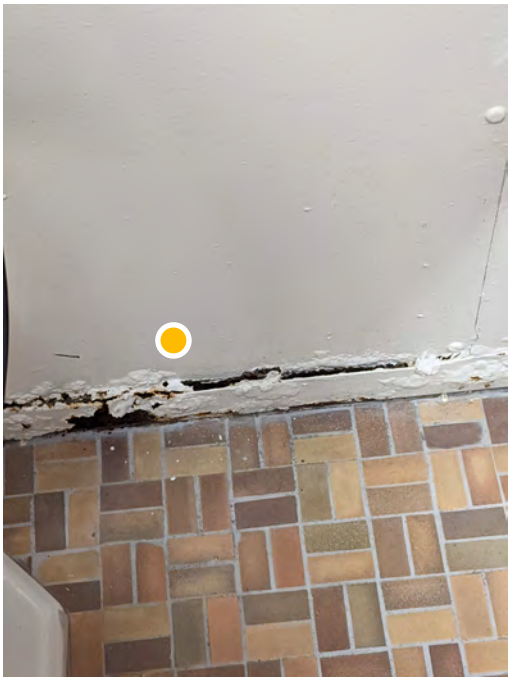


D1. 59: Detail view of the poor condition of the original ceilings in portion of the support spaces in the original 1939 building.

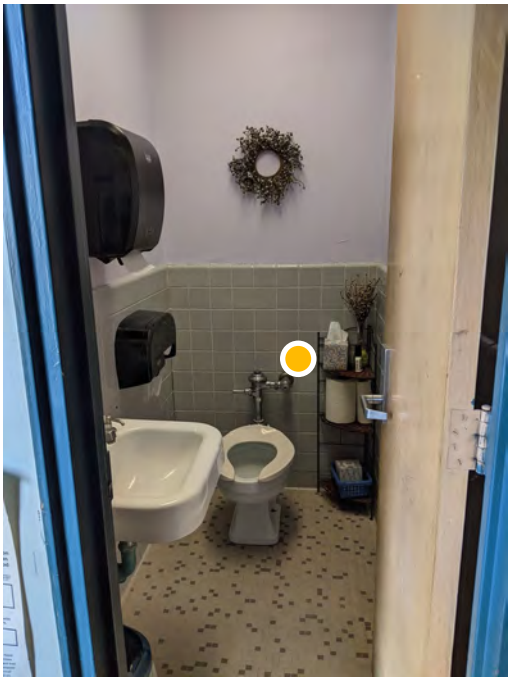


D1. 60: View of the area of refuge at the upper level of the original 1939 building.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 61: Detail view of the condition of the toilet partitions in a typical bathroom in the original 1939 building.

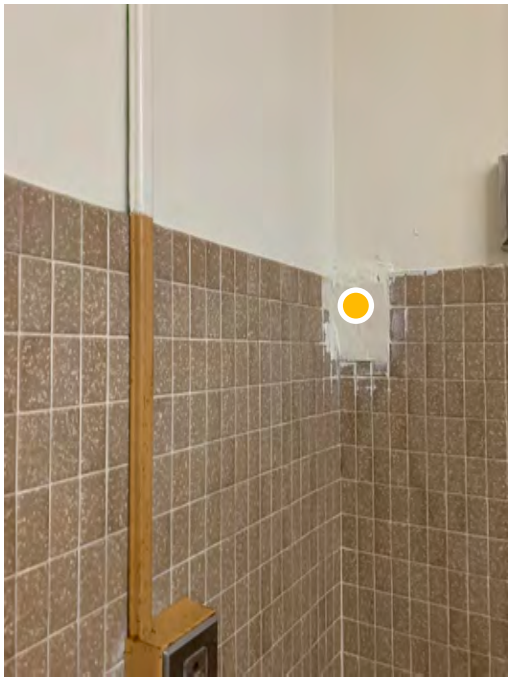


D1. 62: View of single use toilet room, does not comply with current accessibility codes(no grab bars, floor clearances, sink/reach, etc.).

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 63: View of typical bathroom assembly with some non functioning fixtures.

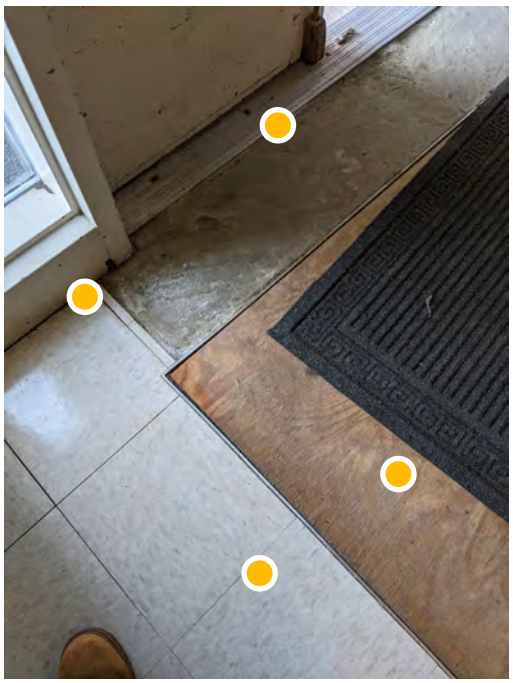


D1. 64: Detail view of the wall tile repairs, various conditions throughout the bathroom spaces.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D1. 65: View of typical bathroom depicting various tile repairs/replacement, does not comply with current accessibility codes.



D1. 66: View of typical bathroom depicting various tile repairs/replacement, does not comply with current accessibility codes.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D2. 1: Aerco Natural Gas Condensing Boiler in good condition.



D2. 2: AmeriGas Propane Tanks Serving Kitchen Equipment.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D2. 3: Area of Rescue Assistance System.



D2. 4: View of typical classroom with antiquated and inefficient fluorescent lighting surface mounted to ceiling.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D2. 5: Electrical Branch Circuit Panels.



D2. 6: Electrical Main Distribution Panel #1.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D2. 7: Electrical Main Distribution Panel #2.



D2. 8: Electrical Main Distribution Panel #3.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D2. 9: Electrical Main Service Switch.



D2. 10: Detail view of dumpster area (left) and wall mounted exhaust hood (right) in 1956 addition.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D2. 11: Fire Alarm Control Panel.



D2. 12: Fire Alarm HornStrobe.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D2. 13: Fire Alarm Speaker Strobe with RTU Test Switches.

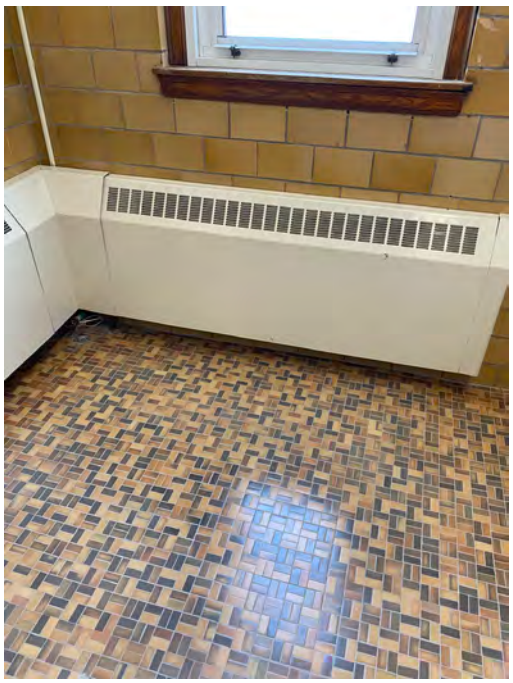


D2. 14: H.B. Smith Natural Gas Boiler in Poor Working Condition.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D2. 15: Heating and Ventilating Unit Serving Gymnasium.



D2. 16: Hot Water Fin Tube Radiation in poor working condition.

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D2. 17: Hot Water Piping in poor condition.



D2. 18: Hot Water Supply Pumps in poor condition.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D2. 19: Hot Water Unit Heater Serving Kitchen.



D2. 20: Hot Water Unit Heater in Poor Condition.

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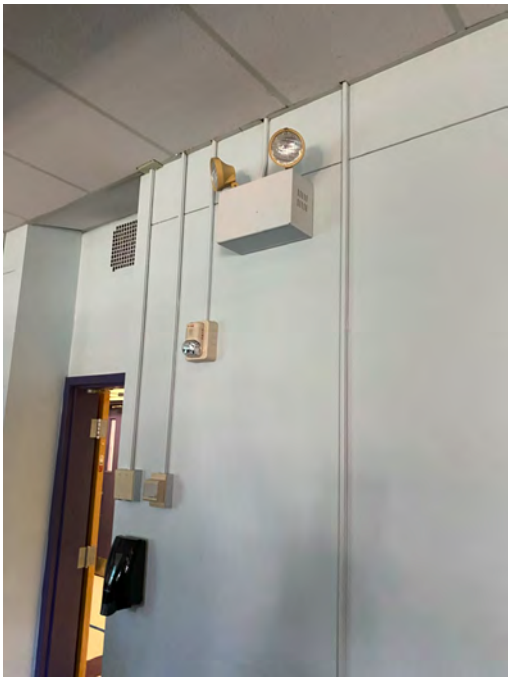


D2. 21: Detail view of exposed piping retrofits within an existing educational space.



D2. 22: View of cafeteria.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

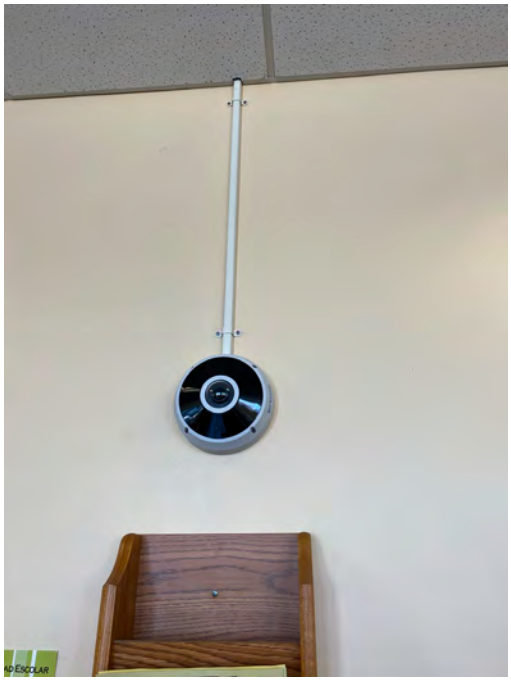


D2. 23: View of typical modifications/retrofit to accommodate emergency lighting, fire alarm and temperature controls in 1956 addition.



D2. 24: View of second floor of 1956 addition depicting locker retrofit surrounds and modified/upgraded ceiling.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

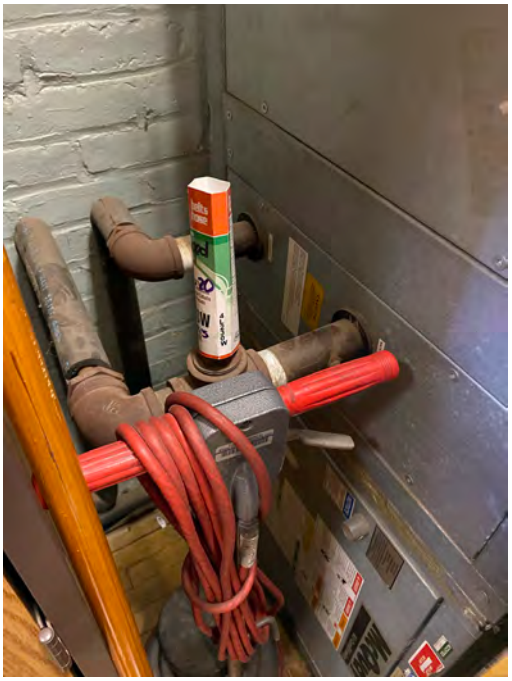


D2. 25: Detail view of retrofitted camera/security system.



D2. 26: Detail view of the kiln room.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D2. 27: McQuay Heating and Ventilating Unit.



D2. 28: Detail view of poor condition of typical cabinet heaters throughout the building. McQuay Hot Water Convector Needs Replacement.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D2. 29: Mitsubishi Split Unit in Classroom.



D2. 30: Natural Gas Domestic Hot Water Heater.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D2. 31: Old Electrical Distribution.



D2. 32: Old Hot Water Convector needs replacement.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D2. 33: Detail view of retrofit plumbing fixtures, does not comply with current accessibility codes

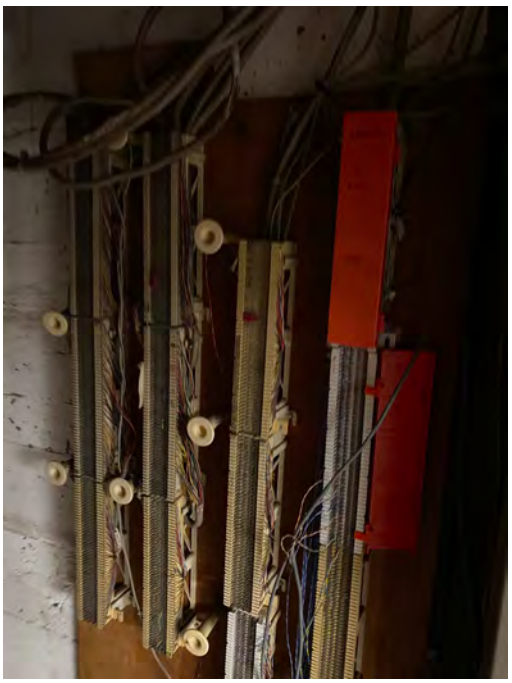


D2. 34: View of the east façade of the 1956 addition depicting the ground mounted condenser units and poor condition of asphalt pads.

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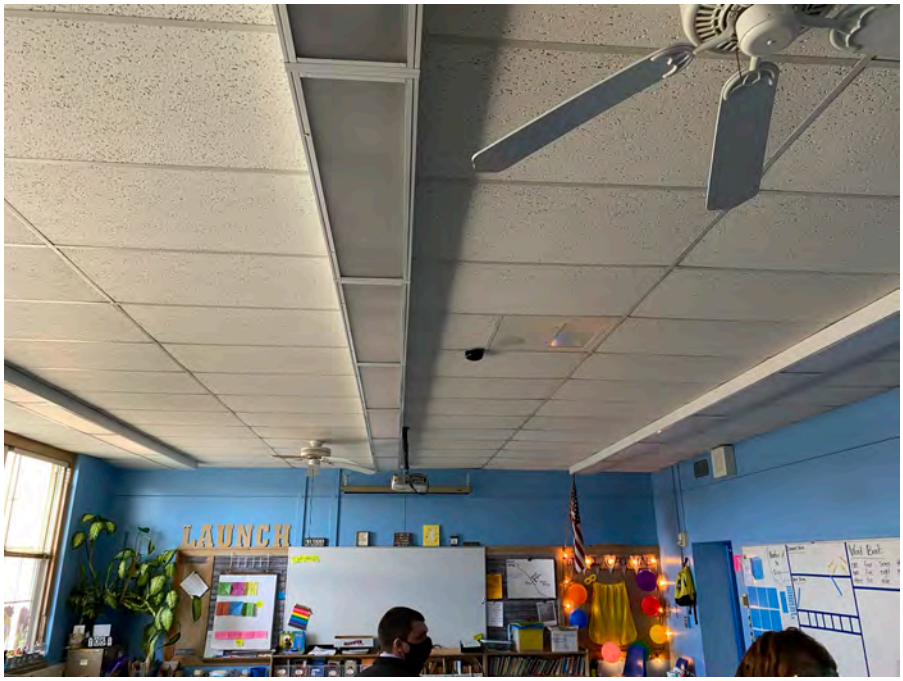


D2. 35: Detail view of retrofit security cameras.



D2. 36: Telephone Distribution.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D2. 37: View of typical classroom ceiling with inefficient fluorescent lighting surface mounted to ceiling.



D2. 38: Detail view of typical unit ventilator in educational spaces.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D2. 39: Detail view of typical unit ventilator in educational spaces.



D2. 40: Wireless Access Point.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D3. 1: View of dumpster enclosure, east side of the site.



D3. 2: View of concrete pad, location of former modular building.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D3. 3: Detail view of the overall poor condition of the asphalt paving at the south side of the site.



D3. 4: Detail view of the overall poor condition of the asphalt paving and its relationship to the storm drain/collection system.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D3. 5: Detail view of the overall poor condition of the asphalt curbing at the west side of the site.



D3. 6: Detail view of the visitor parking area on the south side of the site.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D3. 7: Detail view of the concrete pavers in poor condition overall and requiring replacement.



D3. 8: Detail view of the overall poor condition of the asphalt paving, curbing and signage.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D3. 9: Detail view of the overall poor condition of the asphalt sidewalk and gravel area on the east side of the site.



D3. 10: Typical condition of asphalt paving overall due to age/condition and possibly poor drainage.

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT



D3. 11: Detail view of the loading receiving area and patch/repairs to the existing storm basin.

CAPITAL IMPROVEMENTS E

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

MCALISTER INTERMEDIATE SCHOOL - 83 MOUNTAIN RD, SUFFIELD, CT

McAlister Intermediate School - ROM Summary												Building Area: 72,263				CIP Prioritization						
SYSTEM / LINE ITEM DESCRIPTION	Amount	Unit	Unit Price	Current Replacement Cost	General Conditions	Bonds, Ins., Permit	(Unforeseen Conditions)	Temporary Facilities and Controls	Subtotal - Line Item	Line Item Contingency + Approx. Soft Costs (Design, pinting, advertising, etc.)	Projected Line Item Cost	Escalation, Market Premium	Projected Line Item Cost W/Premium	REMARKS	Priority	Immediate	1-3 Years	3-5 Years	5-10 Years	10+ Years	Comments
					10%	1.5%	7.5%	5.0%		12.5%		20%				0.0%	7.2%	16.8%	31.8%	56.6%	
Site Improvements																					
Repaving of existing drives	6,272	SY	$55	$ 344,972	$ 34,497	$ 5,175	$ 25,873	$ 17,249	$ 427,766	$ 53,471	$ 481,236	$ 96,247	$ 577,484	Splits allocation between MIS & SMS. Maintain base, strip and reuse aggregate							
Repaving of existing parking areas	3,224	SY	$45	$ 145,063	$ 14,506	$ 2,176	$ 10,880	$ 7,253	$ 179,878	$ 22,485	$ 202,362	$ 40,472	$ 242,835	Splits allocation between MIS & SMS. Maintain base, strip and reuse aggregate							
Granite curbing	3,600	LF	$50	$ 180,000	$ 18,000	$ 2,700	$ 13,500	$ 9,000	$ 223,200	$ 27,900	$ 251,100	$ 50,220	$ 301,320	Splits allocation between MIS & SMS. Main drives and parking perimeter							
Concrete sidewalks	3,628	SF	$14	$ 50,792	$ 5,079	$ 762	$ 3,809	$ 2,540	$ 62,982	$ 7,873	$ 70,855	$ 14,171	$ 85,026	Reuse of base material, replace existing only, no expansion							
Bituminous sidewalks	2,778	SY	$45	$ 125,000	$ 12,500	$ 1,875	$ 9,375	$ 6,250	$ 155,000	$ 19,375	$ 174,375	$ 34,875	$ 209,250	None							
Storm water drainage	72,263	SF	$10	$ 722,630	$ 72,263	$ 10,839	$ 54,197	$ 36,132	$ 896,061	$ 112,008	$ 1,008,069	$ 201,614	$ 1,209,683	Assumes replacement and subsurface retention to meet current requirements, new catch basins and piping							
Parking lot lighting	5	EA	$5,500	$ 27,500	$ 2,750	$ 413	$ 2,063	$ 1,375	$ 34,100	$ 4,263	$ 38,363	$ 7,673	$ 46,035	Limited site lighting exists, recommended							
Play area surface	1,153	SY	$65	$ 74,938	$ 7,494	$ 1,124	$ 5,620	$ 3,747	$ 92,923	$ 11,615	$ 104,538	$ 20,908	$ 125,446	Includes subsurface drainage and base, new universally accessible play surface with subsurface drainage							
Bollard/Ground lighting	10	EA	$3,500	$ 35,000	$ 3,500	$ 525	$ 2,625	$ 1,750	$ 43,400	$ 5,425	$ 48,825	$ 9,765	$ 58,590	Limited bollard lighting exists, recommended							
Playground Equipment	2	EA	$65,000	$ 130,000	$ 13,000	$ 1,950	$ 9,750	$ 6,500	$ 161,200	$ 20,150	$ 181,350	$ 36,270	$ 217,620	Age appropriate play area with universal ADA access							
Fencing (4 ft vinyl coated chain link)	1,200	LF	$65	$ 78,000	$ 7,800	$ 1,170	$ 5,850	$ 3,900	$ 96,720	$ 12,090	$ 108,810	$ 21,762	$ 130,572	East and south side of site to provide some level of separation at perimeter of site							
Basketball Court	1,751	SY	$115	$ 201,352	$ 20,135	$ 3,020	$ 15,101	$ 10,068	$ 249,677	$ 31,210	$ 280,886	$ 56,177	$ 337,064	Replace existing							
Tennis Court	3,050	SF	$115	$ 350,788	$ 35,079	$ 5,262	$ 26,309	$ 17,539	$ 434,978	$ 54,372	$ 489,350	$ 97,870	$ 587,220	Replace existing							
Exterior Improvements				$ -					$ -	$ -	$ -										
Brick Repair/Repointing	72,263	SF	$8	$ 578,104	$ 57,810	$ 8,672	$ 43,358	$ 28,905	$ 716,849	$ 89,606	$ 806,455	$ 161,291	$ 967,746	replacement of spalling brick, retooling of joints, and sealer							
Window Replacement	8,282	SF	$75	$ 621,131	$ 62,113	$ 9,317	$ 46,585	$ 31,057	$ 770,203	$ 96,275	$ 866,478	$ 173,296	$ 1,039,774	replacement of existing							
Security Window Film (Allowance)	4,141	SF	$15	$ 62,113	$ 6,211	$ 932	$ 4,658	$ 3,106	$ 77,020	$ 9,628	$ 86,648	$ 17,330	$ 103,977	as per CT state standards for school safety and infrastructure guidelines, first level only							
Caulking & Sealant Replacement	72,263	SF	$2	$ 144,526	$ 14,453	$ 2,168	$ 10,839	$ 7,226	$ 179,212	$ 22,402	$ 201,614	$ 40,323	$ 241,937	backer rod and sealant replacement - all joints							
Exterior Doors	31	EA	$3,500	$ 108,500	$ 10,850	$ 1,628	$ 8,138	$ 5,425	$ 134,540	$ 16,818	$ 151,358	$ 30,272	$ 181,629	replace with new hollow metal door and frames							
Patch, repair, paint trim	72,263	SF	$2	$ 144,526	$ 14,453	$ 2,168	$ 10,839	$ 7,226	$ 179,212	$ 22,402	$ 201,614	$ 40,323	$ 241,937	fascia and trim replacement							
Soffit, canopy repair/refinish	250	SF	$15	$ 3,750	$ 375	$ 56	$ 281	$ 188	$ 4,650	$ 581	$ 5,231	$ 1,046	$ 6,278	limited areas							
Roof Replacement	45,453	SF	$28	$ 1,272,684	$ 127,268	$ 19,090	$ 95,451	$ 63,634	$ 1,578,128	$ 197,266	$ 1,775,394	$ 355,079	$ 2,130,473	replace in kind, new insulation to meet current energy code							
Interior Improvements				$ -					$ -	$ -	$ -										
Door, frame, and hardware replacement	156	EA	$1,750	$ 273,000	$ 27,300	$ 4,095	$ 20,475	$ 13,650	$ 338,520	$ 42,315	$ 380,835	$ 76,167	$ 457,002	does not include security hardware or devices, removal of existing							
Reconfiguration of door for ADA	35	EA	$5,000	$ 175,000	$ 17,500	$ 2,625	$ 13,125	$ 8,750	$ 217,000	$ 27,125	$ 244,125	$ 48,825	$ 292,950	reconfiguration of walls for push/pull clearance							
Flooring	68,713	SF	$15	$ 1,030,695	$ 103,070	$ 15,460	$ 77,302	$ 51,535	$ 1,278,062	$ 159,758	$ 1,437,820	$ 287,564	$ 1,725,383	assumes basic tile flooring, remove and dispose of old							
Gymnasium Flooring Replacement	3,550	SF	$18	$ 63,900	$ 6,390	$ 959	$ 4,793	$ 3,195	$ 79,236	$ 9,905	$ 89,141	$ 17,828	$ 106,969								
Ceilings	72,263	SF	$11	$ 794,893	$ 79,489	$ 11,923	$ 59,617	$ 39,745	$ 985,667	$ 123,208	$ 1,108,876	$ 221,775	$ 1,330,651	assumes lay in tile ceiling, remove and dispose of old							
Toilet Room reconfiguration/renovation	2,427	SF	$325	$ 788,775	$ 78,878	$ 11,832	$ 59,158	$ 39,439	$ 978,081	$ 122,260	$ 1,100,341	$ 220,068	$ 1,320,409	does not include fixtures or plumbing costs, does not include PK (recently renovated)							
Millwork	771	LF	$650.0	$ 501,150	$ 50,115	$ 7,517	$ 37,586	$ 25,058	$ 621,426	$ 77,678	$ 699,104	$ 139,821	$ 838,925	removal of existing, high and low PLAM cabinets with solid surface countertops, does not include PK							
Caulking and Painting	72,263	SF	$7	$ 469,710	$ 46,971	$ 7,046	$ 35,228	$ 23,485	$ 582,440	$ 72,805	$ 655,245	$ 131,049	$ 786,294	allocation for all walls							
Interior glazing	250	SF	$50	$ 12,500	$ 1,250	$ 188	$ 938	$ 625	$ 15,500	$ 1,938	$ 17,438	$ 3,488	$ 20,925	limited to admin area only							
Drinking Fountain replacements	8	EA	$6,500	$ 52,000	$ 5,200	$ 780	$ 3,900	$ 2,600	$ 64,480	$ 8,060	$ 72,540	$ 14,508	$ 87,048	equally distributed throughout school							
Chair lift (ADA Accessibility)	1	EA	$65,000	$ 65,000	$ 6,500	$ 975	$ 4,875	$ 3,250	$ 80,600	$ 10,075	$ 90,675	$ 18,135	$ 108,810	at stage							
Elevator	2	STOP	$65,000	$ 130,000	$ 13,000	$ 1,950	$ 9,750	$ 6,500	$ 161,200	$ 20,150	$ 181,350	$ 36,270	$ 217,620								
Misc - Kitchen Equipment	72,263	SF	$7	$ 469,710	$ 46,971	$ 7,046	$ 35,228	$ 23,485	$ 582,440	$ 72,805	$ 655,245	$ 131,049	$ 786,294	complete replacement of equipment, freezer, cooler							
Refinish of existing built in millwork	72,263	SF	$2	$ 144,526	$ 14,453	$ 2,168	$ 10,839	$ 7,226	$ 179,212	$ 22,402	$ 201,614	$ 40,323	$ 241,937								
Division 21 - Fire Protection				$ -					$ -	$ -	$ -										
Fire Protection Distribution System	72,263	SF	$8	$ 578,104	$ 57,810	$ 8,672	$ 43,358	$ 28,905	$ 716,849	$ 89,606	$ 806,455	$ 161,291	$ 967,746	Building does not contain a fire protection system.							
Fire Pump	72,263	SF	$1.5	$ 108,395	$ 10,839	$ 1,626	$ 8,130	$ 5,420	$ 134,409	$ 16,801	$ 151,210	$ 30,242	$ 181,452	Building does not contain a fire pump.							
Division 22 - Plumbing				$ -					$ -	$ -	$ -										
Water Distribution and Drainage Systems	72,263	SF	$10	$ 722,630	$ 72,263	$ 10,839	$ 54,197	$ 36,132	$ 896,061	$ 112,008	$ 1,008,069	$ 201,614	$ 1,209,683	The piping varies in age throughout the building, a majority is very old and past the end of its useful life.							
Plumbing Fixtures / Equipment	72,263	SF	$5	$ 361,315	$ 36,132	$ 5,420	$ 27,099	$ 18,066	$ 448,031	$ 56,004	$ 504,034	$ 100,807	$ 604,841	Replacement of all plumbing fixtures throughout the building.							
Water Heaters	72,263	SF	$1.5	$ 108,395	$ 10,839	$ 1,626	$ 8,130	$ 5,420	$ 134,409	$ 16,801	$ 151,210	$ 30,242	$ 181,452	Water heaters are newer and in good working condition							
Misc ~ Sanitary Slab Cutting, Floor Repair, Trenching	72,263	SF	$5	$ 361,315	$ 36,132	$ 5,420	$ 27,099	$ 18,066	$ 448,031	$ 56,004	$ 504,034	$ 100,807	$ 604,841	Water heaters are newer and in good working condition							
Division 23 - Mechanical				$ -					$ -	$ -	$ -										
Heating Plant (Boilers, Pumps, etc.)	72,263	SF	$5	$ 361,315	$ 36,132	$ 5,420	$ 27,099	$ 18,066	$ 448,031	$ 56,004	$ 504,034	$ 100,807	$ 604,841	Aerco boiler is newer and will need to be replaced in 10+ years. H.B. Smith boiler and all associated heating plant pumps and piping are old and at the end of their useful lives.							
Terminal Units	72,263	SF	$5	$ 361,315	$ 36,132	$ 5,420	$ 27,099	$ 18,066	$ 448,031	$ 56,004	$ 504,034	$ 100,807	$ 604,841	All convectors, unit heaters, fin tube radiation, and unit ventilators are nearing or past the end of their useful lives.							
Air Handling Systems	72,263	SF	$7	$ 505,841	$ 50,584	$ 7,588	$ 37,938	$ 25,292	$ 627,243	$ 78,405	$ 705,648	$ 141,130	$ 846,778	Air handling systems, ductwork, and exhaust fans of various vintages are at or past the end of their useful life.							
Control Systems	72,263	SF	$8	$ 578,104	$ 57,810	$ 8,672	$ 43,358	$ 28,905	$ 716,849	$ 89,606	$ 806,455	$ 161,291	$ 967,746	The building does not contain a BMS, all other devices controlled by standalone controls of varying vintages.							
Air Conditioning	72,263	SF	$5	$ 361,315	$ 36,132	$ 5,420	$ 27,099	$ 18,066	$ 448,031	$ 56,004	$ 504,034	$ 100,807	$ 604,841	There is no cooling plant within this building. Cooling is accomplished through various terminal and air handling units that are past or near the end of their useful lives.							
HVAC Modernization Premium	72,263	SF	$40	$ 2,890,520	$ 289,052	$ 43,358	$ 216,789	$ 144,526	$ 3,584,245	$ 448,031	$ 4,032,275	$ 806,455	$ 4,838,730	Costs abover are to replace systems as is. Current system is not up to current CT School design standards.							
Division 26 - Electrical				$ -					$ -	$ -	$ -										
Electrical Service / Distribution	72,263	SF	$25	$ 1,806,575	$ 180,658	$ 27,099	$ 135,493	$ 90,329	$ 2,240,153	$ 280,019	$ 2,520,172	$ 504,034	$ 3,024,207	Original service appears to to be in good working condition.							
Generator	72,263	SF	$1.5	$ 108,395	$ 10,839	$ 1,626	$ 8,130	$ 5,420	$ 134,409	$ 16,801	$ 151,210	$ 30,242	$ 181,452	Building does not have a generator.							
Lighting - General	72,263	SF	$8.0	$ 578,104	$ 57,810	$ 8,672	$ 43,358	$ 28,905	$ 716,849	$ 89,606	$ 806,455	$ 161,291	$ 967,746	Fluorescent systems are dated and should be replaced.							
Fire Alarm System	72,263	SF	$7	$ 505,841	$ 50,584	$ 7,588	$ 37,938	$ 25,292	$ 627,243	$ 78,405	$ 705,648	$ 141,130	$ 846,778	Fire alarm system does not meet current code for Group E facilities. Voice capable systems are now required. The system can continue as a grandfathered system.							
Technology Infrastructure	72,263	SF	$12	$ 867,156	$ 86,716	$ 13,007	$ 65,037	$ 43,358	$ 1,075,273	$ 134,409	$ 1,209,683	$ 241,937	$ 1,451,619								
Security Alarms and control devices	72,263	SF	$5	$ 361,315	$ 36,132	$ 5,420	$ 27,099	$ 18,066	$ 448,031	$ 56,004	$ 504,034	$ 100,807	$ 604,841								
Subtotal for CIP Items				**$ 21,898,176**					**$ 27,153,738**		**$ 30,547,955**	**$ 6,109,591**	**$ 36,657,547**								
Cost Per Square Foot				**$ 303.03**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 375.76**	**$ -**	**$ 422.73**	**$ 84.55**	**$ 507.28**								

Building Vintage Summary			
Building Vintage	Area		% to Ttl
Building Vintage ~ 1939	41,372	V1	57.25%
Building Vintage ~ 1956	26,430	V2	36.57%
Building Vintage ~ 1987	3,983	V3	5.51%
Building Vintage ~ 1992	478	V4	0.66%
	72,263		100.00%

SUFFIED MIDDLE SCHOOL

350 MOUNTAIN ROAD, SUFFIELD, CT

CONDITIONS ASSESSMENT & MASTER PLAN

Tecton ARCHITECTS

3.3



TABLE OF CONTENTS

INTRODUCTION ..... **A**

Summary & Analysis A1

DATA & RANKINGS ..... **B**

Building Data B1

Condition Rankings B2

EXISTING CONDITIONS NARRATIVE ..... **C**

Architectural *(Building & Structure)* C1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* C2

Site *(Civil, Landscape, Utilities)* C3

PHOTO LOG ..... **D**

Architectural *(Building & Structure)* D1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* D2

Site *(Civil, Landscape, Utilities)* D3

CAPITAL IMPROVEMENTS ..... **E**

Capital Improvements E1

INTRODUCTION A

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

Suffield Middle School serves the 6th grade to 8th grade population of The Town of Suffield. The majority of the building is part of the 1964 original vintage. In 1965 a Vocational Agricultural building was constructed to the Northeast and many small to medium additions were put on the building in 1972 which not only added programmed space around the building, but also connected the main building to the Vocational Agricultural building. The school is centrally located on a large open site at the corner of Mountain Road and Hill Street. A circular drive aisle and bus loop comes off Mountain Road and wraps around inside the half circular courtyard by the main entrance door. This loop connects to a large open parking area to the East which is shared with McAlister Intermediate School.

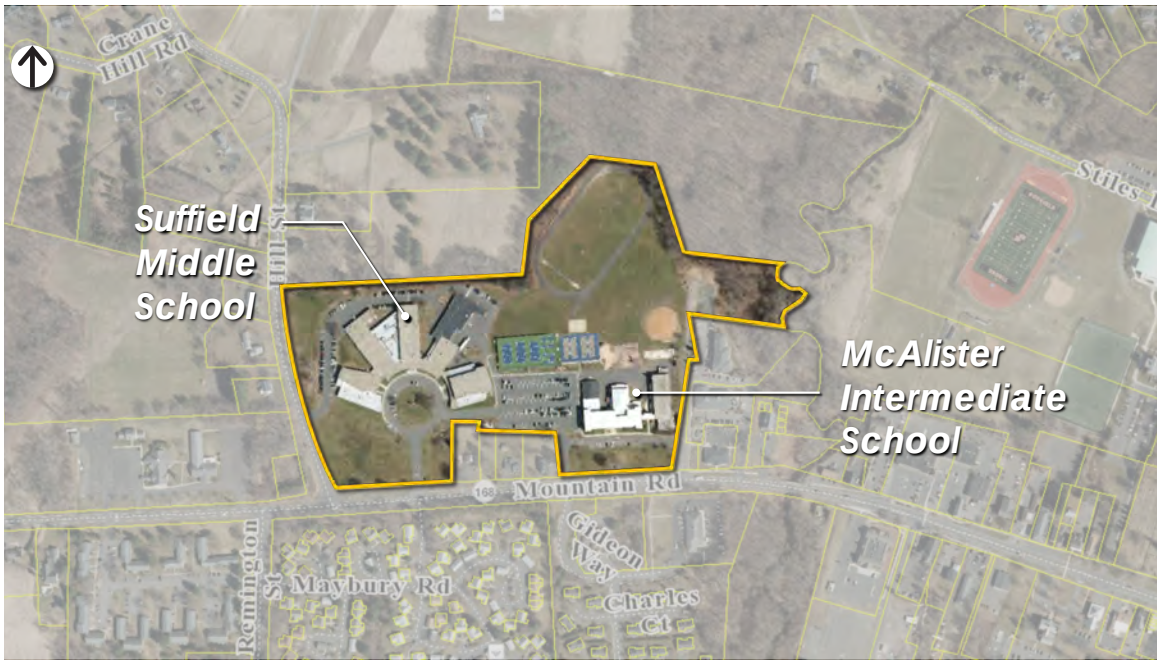
Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

GRADE LEVEL	6-8
STUDENTS	436
BUILDING AREA/SITE	128,489 SF / 32.4 acres (shared)
AGE/CONSTRUCTION	1964 (58), 1965 (57), 1972 (50)

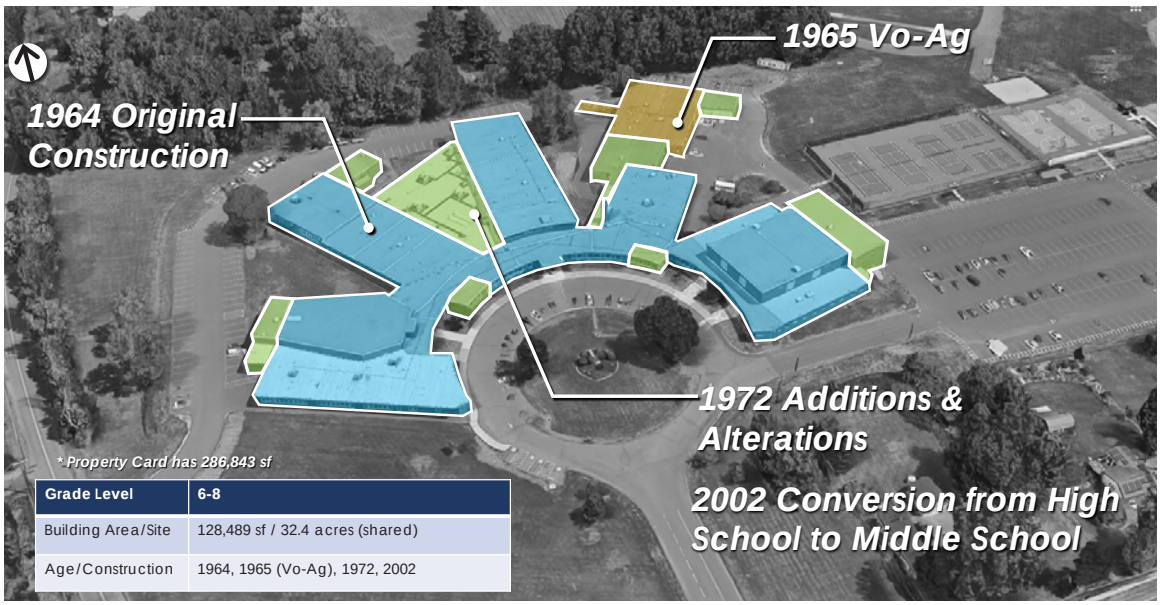
***Building Condition*: Poor**

- Site conditions are poor and traffic flow is not ideal
- Consistent roof leaks, roof was replaced in phases by different contractors with various warranties
- Overall concern with building envelope although it has been well maintained
- Original building well built, but many areas poorly constructed.
- Observed significant inefficiencies due to additions/renovations over time including lack of daylight in educational spaces
- Majority of toilet cores are in poor condition due to age and use.
- While 2002 upgrades addressed some code issues, some accessibility compliance issues remain related to floor & push/pull clearances and reach requirements
- Most major mechanical systems are past or at the end of their useful life.
- Overall MEP systems need a complete overhaul.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



A1. 1: Aerial View of Existing School and Property



A1. 2: Vintage Plan

DATA & RANKINGS B

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

B. DATA & RANKINGS

B.1 Building Data

The Facility:

Name:	**Suffield Middle School**		
Address:	**350 Mountain Rd**		
Type / Use:	**Middle School**		
Total Building Area (SF):	128,489	**Original Construction:**	1964
Site Area (acres):	32.4 (Shared)	**Additions (dates):**	1965, 1972
Stories (above grade):	2	**Construction Type(s):**	
Building / Framing Materials:	Steel/Masonry/Modular	**Roof Types & Age:**	Modified Bitumen(2006-2014) 2031 (partial) warranty
Split-level / ramps (interior):	Yes	**Heating (types):**	Hot Water
Stairs (interior):	Yes	**Fuel Types:**	Natural Gas
Elevator:	Yes	**Cooling (centralized):**	Non-Central, via indoor and outdoor units
Basement:	No	**Ventilation:**	Yes, via PTAC units and RTUs
Mezzanine (finished)	No	**Electrical:**	208/120 volt, 3 ph, 4 wire 2500 amp
Crawl Space / Tunnels:	No	**Generator:**	Yes, exact model not determined
Auxiliary Buildings:		**Fire Alarm:**	Notifier NFS-3030 Voice Capable
Full ADA Compliance:	No	**Sewer / Septic**	Sewer
	Clearances, Toilets, Classroom Sinks	**Municipal Water / Well**	Municipal Water
		Sprinklered (full / partial):	Yes, full coverage
School Data		**Parking Count:**	340, (200 in shared lot)
Enrollment(2020):	436		
Enrollment 10-yr:	359	**Meals:**	3 waves
Net Enrollment Change:	-77	**Meal Prep on site?:**	Yes
Location in Town:	Central	**Start Time:**	7:40
Grade Structure:	6-8	**Dismissal:**	2:20
Pre-K?:	No	**Buses:**	22, 2 others
Athletic Fields:	(3) Tennis Courts, (2) Basketball Courts, Baseball Field, Soccer Field, Track and Field area Playground (All Shared)	**Additional Programs:**	No

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
2 Poor [P] May require attention in 2-5 years
3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Exterior

Component	Material(s)	Condition V4	Condition V3	Condition V2	Condition V1	Notes
Roofing	Modified bitumen roof	-	2	-	2	Installed 2006-2014, roof leaks present
	Membrane Roof	-	3	3	-	
	Flashing / joints	-	2	2	2	No issues seen, but roof leaks present
	Gutters / downspouts/scuppers	-	2	2	2	Roof drains mismatched and rusted
	Parapet Caps	-	2	2	2	Separated from building, rusting
Walls	Masonry (unpainted)	-	2	2	2	General cleaning/repointing required
	Joints (Building or expansion)	-	2	2	2	Mix of mortar/caulk/missing completely
	Foundations – exposed concrete	-	2	2	2	Spalling concrete
Entrances	Entrance doors	-	3	3	3	Mostly replaced throughout
	Overhead doors	-	-	3	3	Mostly replaced
	Exterior Hollow Metal Doors	-	2	2	2	Rusted at bases due to interior cleaning
Windows	Aluminum	-	2	2	2	Installed early 2000's, hard to open
	Masonry Windowsill	-	3	2	2	Some replaced
	Loose Lintels	-	2	2	1	Signs of deterioration
	Window Screens (exterior)	-	2	2	2	Holes and damage throughout
Walkways / site stairs	Concrete sidewalks		3			Minor cracking, organic growth
	Bituminous concrete sidewalks		2			Minor cracking, organic growth
	Bituminous concrete curb		2			Snowplow damage
Drives / parking lots	Bituminous concrete pavement		2			Cracking throughout
	Pavement striping		3			Striping fading throughout
Landscaping	Lawn		3			Patchy areas
	Plants		2			Some dying plants
	Trees		3			N/A
Recreation	Tennis Courts (Shared with McAlister)		2			N/A
	Basketball Courts (Shared with McAlister)		2			N/A
	Playground (Shared with McAlister)		2			N/A
Other Structures	Vehicular signage		2			N/A
	Catch basin tops		2			Some cracking around basins
	Catch basin structures		2			Drainage issues at West side of site
	Memorial Bench		3			N/A

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

B.2 Condition Rankings

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Vintage: **V1** **V2** **V3** **V4**

Interior		V4	V3	V2	V1	
Component	**Material(s)**	**Condition**				**Notes**
Flooring	Concrete (Epoxy coated)	-	3	2	2	Finishing peeling from concrete
	Concrete (Exposed)	-	3	2	2	N/A
	Vinyl Composite Tile	-	2	2	2	Missing or delaminated tiles
	Vinyl Asbestos Tile	-	-	1	1	Abatement or Encapsulation required
	Wood Plank Stage	-	-	-	2	Signs of wear and tear
	Carpet	-	2	2	2	Some areas of severe wear and tear
	Quarry Tile	-	-	-	2	N/A
	Ceramic Tile	-	2	2	1	Damaged throughout
Walls Surfaces	Masonry (painted)	-	2	2	2	Paint touch-up required
	Masonry (unpainted)	-	-	2	2	Repair needed from previous equipment
	Gypsum Board	-	2	2	2	V3 contains modular wall system
	Glazed Block	-	-	2	1	Settlement cracking and deterioration
	Modular	-	1	-	-	Should be replaced with permanent
	Ceramic Tile	-	2	2	1	Damaged throughout
Ceilings	Gypsum board ceilings / soffits	-	2	2	2	Spalling and unrepaired penetrations
	Acoustic panel ceiling	-	2	2	2	Some missing, damaged, or stained
	Acoustic panel ceiling (moisture & grease)	-	-	-	2	Initially installed, replaced with standard
Interior trim	Wood - Door / Window	-	2	2	2	N/A
	Wall Base – Vinyl / Ceramic Tile	-	2	2	2	N/A
Interior doors	Wood doors	-	2	2	1	Delaminating
	Hollow metal doors	-	2	2	2	N/A
	Hardware	-	2	2	2	N/A
Built-ins	Plastic Laminate Casework	-	2	2	1	V1 contains wood casework
	Countertops	-	2	2	2	Deteriorating surfaces
	Auditorium Seating	-	-	-	2	Missing or broken seat components
Toilet Facilities	Fixtures	-	2	2	1	Non-accessible fixtures
	Partitions	-	2	2	1	Many portions damaged from use
	Accessories (dispensers, driers)	-	2	2	1	N/A
Athletics	Gymnasium floor / play surface	-	-	2	2	Repair/refinish or replace
	Athletic equipment	-	-	2	2	Dated equipment
	Bleacher Seating	-	-	-	4	Recently replaced
	Lockers	-	-	1	1	Dated equipment

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

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Vintage: **V1** **V2** **V3** **V4**

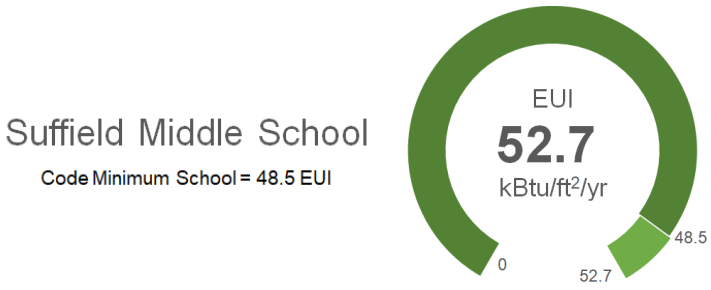
Building Systems

Component	Material(s)	Condition V4	V3	V2	V1	Notes
Fire Protection	Alarms & Devices	-	4	4	4	In good working condition
	Fire suppression (infrastructure / devices)	-	4	4	4	In good working condition
Plumbing Systems	Infrastructure (pipes, drains, etc.)	-	2	2	2	Infrastructure needs to be updated
	Fixtures	-	2	2	2	Fixtures need replacement
	Overall efficiency	-	2	2	2	Overall efficiency is poor
Mechanical / HVAC	Infrastructure (pipes, ducts, etc.)	-	2	2	2	Infrastructure needs to be updated
	Heating systems	-	2	2	2	Boilers will need to be replaced
	Cooling systems	-	2	2	2	In poor working condition
	Fixtures & equipment (Interior)	-	1	1	1	Some equipment not working
	Fixtures & equipment (Exterior/Roof top)	-	2	2	2	In poor working condition
	Overall efficiency	-	2	2	2	Overall efficiency is poor
Electrical (Service)	Infrastructure (panels, wiring, etc.)	-	3	3	3	Infrastructure in good condition
	Service & distribution	-	3	3	3	Mix of new and old equipment
	Generator	-	2	2	2	Generator in serviceable condition
	Other	-	-	-	-	N/A
Electrical Lighting	Infrastructure (panels, wiring, etc.)	-	3	3	3	Infrastructure in fair condition
	Fixtures (Interior)	-	3	3	3	Many Fluorescent fixtures throughout
	Efficiency (incl. natural & artificial light distr.)	-	3	3	3	Only a few LED retrofits
Security	Access Control	-	2	2	2	Systems installed at various locations
	Cameras	-	2	2	2	Systems installed at various locations

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

B. 2 Benchmarking

MECHANICAL, ELECTRICAL, FIRE PROTECTION, SECURITY			
SYSTEM	**EQUIPMENT LIFE EXPECTANCY**	**EQUIPMENT AGE**	**USEFUL LIFE PERCENTAGE**
Fire Protection System	40 Years	20 Years	50%
Plumbing Water Heater	25 Years	25 Years	100%
Plumbing Piping & Fixtures	40 Years	40 Years	100%
Mechanical Boiler Plant	40 Years	25 Years	63%
Mechanical Piping & Equipment	40 Years	40 Years	100%
Mechanical Air Conditioning	25 Years	10 Years	40%
Mechanical Controls	20 Years	5 Years	25%
Electrical Service & Distribution	40 Years	20 Years	50%
Electrical Lighting	30 Years	30 Years	100%
Electrical Generator	40 Years	30 Years	75%
Fire Alarm	20 Years	25 Years	125%



EXISTING CONDITIONS NARRATIVE C

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

C.1 Architectural

Construction:

The majority of the building is part of the 1964 original vintage which is constructed from masonry and a steel superstructure. In 1965 a Vocational Agricultural building was constructed to the Northeast of a similar construction type. Many small to medium additions were put on the building in 1972 which not only added programmed space around the building, but also connected the main building to the Vocational Agricultural building. While most of these additions were of similar construction type, The connector between the two buildings and the infill between B-Wing and C-Wing were a modular construction. No structural issues were observed on initial walkthroughs.

The wings in this building are labeled A through F moving clockwise around the main entrance.

A Wing - Auditorium and supporting spaces, Music/Chorus Classrooms, Central Office Suite

B Wing – Classrooms, Auto Shop. Wood Shop

C Wing - Classrooms, Media Center

D Wing - Main Entrance, Curved corridor, Cafeteria/Servery, Mechanical spaces

E Wing - Storage, IT

F Wing - Gymnasium/Lockers

Exterior:

EXTERIOR (GENERAL): The main entrance faces South towards Mountain Road within the curved courtyard. Each wing has at least 3 additional entrances/egress exits and there are overhead garage doors on the backside of the building in B-Wing and E-Wing.

WALLS: Exterior walls are in fair condition overall. Masonry is in fair condition, requiring repointing and repair mostly at corners and roofs due to moisture infiltration. A former greenhouse, now just a raised exterior planter, sits at the North side of the building. When demolished, roof flashing was left and is still engaged in the exterior wall. This has potential to allow for moisture infiltration and should be removed. Brick staining and efflorescence was observed around the entire exterior envelope. Building joints are in fair to poor condition with a mix of mortar, caulk, and some areas with nothing at all. Exposed foundation walls are spalling and require repair.

WINDOWS/DOORS/ENTRANCES: The main entrance storefront system and interior vestibule doors are in good condition. Windows replaced in 2000 are in fair condition. Masonry window sills are in good to fair condition. Some appear to be much newer than the rest, notably in the Southeast corner of the building. Loose lintels at all exterior windows, man-doors, and overhead doors are rusting and require repair and re-painting to extend their useful life. This is a priority to maintain structural integrity. Overhead garage doors in the 1965 Vocational Agricultural building are in fair condition. Temporary solution of using paper to block view into viewports should be replaced with a more permanent solution. Exterior hollow metal doors are in good condition, almost no rusting was observed.

ROOF: Roofs throughout are a modified bitumen roofing system. They are in fair to poor condition

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

throughout and all have been replaced between the years 2006 to 2014 and carrying 20 or 30-year warranties. Facilities mentioned there are consistent roof leaks and are concerned with the piece-meal roof replacements by different contractors and many different warranty terms. Roof drains are in fair to poor condition. Most of the roof drains are an older style and are heavily rusted. All roof drains should be replaced when modified bitumen roofs are replaced. Metal parapet caps and coping are in fair to poor condition. Parapets at F-wing are beginning to rust and have separated from the building, leaving space for insect and wildlife infiltration, while other sections are beginning to show heavy rust, particularly on the Southeast corner of the building.

Interior:

INTERIOR SPACES (GENERAL): Overall, the building and all additional vintages have been well maintained. The original building was well-built but some of the other vintages are poorly constructed. Interior spaces are in fair condition throughout including walls, ceilings, and floors. Interior partitions are brick/block or gypsum board, and ceilings are typically acoustic panel. Various additions over the years have reduced or eliminated natural daylight into education spaces, creating poor conditions for educating students.

TOILET FACILITIES (GENERAL): Toilet rooms in the original construction are in poor condition and have received minimal updates. This is especially evident for the toilets by the gymnasium. Floor tile is damaged throughout. Where repairs or plumbing fixture replacement has occurred, the tile does not match adjacent material. Areas of glazed block walls are showing sign of deterioration and isolated settlement cracking. Exposed piping has severe damage to insulation due to its exposure in an unsupervised area. Temporary wood chase enclosures should be replaced with a permanent solution. Toilet room ceilings are generally in poor condition with many damaged, missing, or stained tiles. The women's toilet facility near the gymnasium is in similar condition to the men's but has received some modest upgrades to toilet partitions.

STAIRS(GENERAL): Treads and risers are in fair condition throughout. Guardrails and handrails appear to comply with current code and are in fair condition.

A-WING (GENERAL): The A wing classrooms, Auditorium and Central Office Suite are all part of the original 1964 vintage. A small section of storage space and practice rooms behind the stage were added in the 1972 additions and renovations project. The Music and Chorus rooms are in fair condition overall. These spaces have vinyl composite tile and block tile walls, both of which are in fair condition. There is limited to no acoustical treatment in designated music rooms and should be installed.

CENTRAL OFFICE SUITE(A-WING): The Central Office Suite appears to have undergone recent renovations and is in fair to good condition overall. Limited access was given to this space during initial walkthroughs.

AUDITORIUM (A-WING): The auditorium is in fair condition overall. The exposed concrete slab beneath the seating is in fair condition with no visual signs of deterioration. Carpet installed in this area is in poor condition due to use and age and should be replaced. Concrete masonry unit walls are in fair condition with no visual signs of cracking. The acoustic panel ceiling in the auditorium is in fair condition overall with minimal staining on tiles adjacent to ceiling-mounted diffusers. Auditorium seating is in fair to poor condition with several chairs not functioning or missing components of the seat assembly. Stage area and support spaces are in fair to poor condition overall. Flooring material in support spaces

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

is a combination of 8" x 8" asbestos containing material tile and exposed concrete. The ACM tile is showing signs of delamination and cracking and should be encapsulated or abated. The wood plank stage is in fair condition but is starting to show signs of deterioration due to age and use.

B-WING CLASSROOMS: The classrooms throughout the B-Wing are also from the 1964 construction although some updates have been made. Flooring in this area is vinyl composite tile and is in fair to good condition. The acoustic panel ceilings are in fair condition with some sagging. Exposed brick walls in the corridors are in good to fair condition with some small holes from previously hung items. Glazed concrete masonry unit walls within the classrooms are in good condition. The Wood Shop and former Auto shop are at the end of B-Wing. The auto shop is now used as storage with exposed structure in good condition. Mesh partitions have been added to create separate storage compartments and these are in good condition as well. The Wood shop still operates as a functioning wood shop. Overhead garage doors in these spaces are in fair condition. Classrooms in B-Wing have open structure and exposed concrete floors in similar condition to the wood and auto shops.

C-WING CLASSROOMS: This wing is the only space in the building that has a second story. Lockers in C-Wing appear to be original to the building and are in fair to poor condition. Corridors in this wing have a mixture of original 8" x 8" asbestos containing material tile and replacement vinyl composite tile. Inconsistent updates have left some classrooms with hazardous materials that should be abated or encapsulated. Ceilings appear to be in fair condition and are believed to be installed as part of the 2002 conversion from High School to Middle School. Science classrooms are in fair condition overall, also believed to have been part of the 2002 conversion. Doors, hardware, and frames are in fair to good condition throughout this wing. Some deterioration was observed on plastic laminate casework. The rear stair in C-Wing is in fair to good condition overall. The infill addition between B-Wing and C-Wing is a modular construction that has very poor sound isolation between educational spaces and should be addressed. Wood doors in this area are starting to delaminate and should be replaced. Scattered instances of millwork within this area have been replaced and are in good condition. The rest is original to the 1972 addition and should be brought up to current standards.

C WING TOILET FACILITIES: The toilet facilities within C-Wing are in fair condition overall. Glazed block walls have been painted over and are in fair to poor condition with some areas flaking and peeling from the subsurface. This is especially evident at the base of walls and behind fixtures. Toilet partitions are in fair to good condition. Toilet rooms have exposed piping with missing or damaged insulation. Some areas of missing or damaged block and/or access panels have been temporarily covered in plywood. These conditions required repair or a more permanent solution.

MEDIA CENTER (C-WING): It appears that recent updates have been made in the Media Center to floors, ceilings, and wall finishes. These elements are all in fair to good condition.

CAFETERIA/SERVERY(D-WING): The Cafeteria and Servery are in fair condition overall. Like McAlister, surface mounted conduit has been installed as retrofit at existing masonry interior walls. This conduit is not aesthetically pleasing and is an additional opportunity for damage due to its age and use. Ceilings are in fair condition with some observed missing and/or damaged tiles. The doors into the Servery are in fair to good condition. The kitchen dry storage rooms are in poor condition due to age and use. Vinyl tile floor has missing tile and/or delaminated or cracked tiles. Hollow metal doors leading to the exterior are showing signs of deterioration at the base due to moisture, use, and cleaning. Servery and Kitchen ceilings are in poor condition. Moisture and grease resistant tiles appear to have been installed initially but over time replacement tiles have been normal acoustic panels. Quarry tile floors are in fair condition. Glazed masonry walls are in fair condition with some damage due to use and age.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

ADMIN SUITE(D-WING): The Administrative Suite is in good condition overall. It appears to have received recent upgrades. The carpet, painted masonry and gypsum board walls, and tile ceilings are all in fair to good condition.

E-WING: E-Wing is broken out into the original Vocational Agricultural building and the infill that connects it back to D-Wing. The 1965 Vocational Agricultural spaces were housed in a standalone building until the 1972 additions added a modular construction infill. The infill construction has very poor sound isolation between educational spaces and should be addressed. Millwork is seen significantly less throughout this wing and what does exist is in poor condition. Windows installed in this area were poorly caulked at heads, jambs, and sills on initial installation, allowing for the potential of moisture and air penetration. Corridors in the modular construction have some scattered areas of exposed slabs, cracked tiles, and replacement tile pieces that do not match adjacent materials. The West side of the 1965 Vocational Agricultural building has been renovated to an IT department. This area is in fair to good condition overall. Limited access was given to review this area during the walkthrough. The east side of this building houses limited programmed space and is primarily used as storage. This area is in fair to poor condition overall and has received limited finish upgrades since its original construction in 1965. The corridors in E-Wing are believed to be ACM floor tile, likely original to the structure, and should be abated or encapsulated.

E-WING TOILET FACILITIES: Toilet facilities in E-Wing are in fair condition overall with ceramic floor tile and painted masonry walls. Toilet partitions, possibly original to the structure, are in poor condition and need replacement. Severe damage and deterioration were observed at wall mounted heating units due to age, use, and proximity to plumbing fixtures. The ceiling in this area is in fair condition.

GYMNASIUM (F-WING): The gymnasium and support spaces are original to the 1964 construction and are in fair to poor condition overall. The original wood plank floors are in poor condition and in need of significant repair or replacement. Walls in this space are a combination of masonry and acoustic masonry and are in fair condition. There are two roll up curtains that are in fair to good condition and were functioning at the time of the walkthrough. Bleachers appear to have been recently replaced, are in fair to good condition, and are operable according to facilities at the time of our walkthrough. Former shower and lockers areas are functionally obsolete and in poor condition overall. These showers are currently being used as storage space that is openly accessible to students. Toilet facilities are in fair to poor condition overall. Glazed block walls are showing signs of deterioration and isolated settlement cracking. Metal toilet partitions are in poor condition and should be replaced. Lockers appear to be in fair condition and overall functioning. Locker room ceilings show signs of spalling or instances of penetrations that have not been repaired or infilled. Tile flooring has missing or damaged tile throughout. Boys locker room has severe damage due to moisture infiltration from mechanical equipment or the environment. Facilities has constructed wood changing areas adjacent to lockers that are in fair condition overall.

Code & Safety

ADA: While the 2002 upgrades addressed some code and accessibility compliance issues, many remain related to floor and push/pull clearances. In general, toilet facilities have not received upgrades to work towards ADA compliance. An elevator does exist that goes up to the second story space in C-Wing. Some classrooms within this wing have received casework updates but others remain non-compliant. Modest ADA-compliant modifications have been made to toilet facilities within C-Wing, but they are not consistent. Several ramps exist in E-Wing that are not ADA compliant. These currently

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

serve storage space but will need to be made compliant to use this as programmed space. E-Wing also contains non-accessible toilet facilities. Door and floor clearances are not in compliance. The majority of toilets in F-Wing are also non-accessible.

SAFETY: Lack of appropriate storage space around the gymnasium has led to former shower areas being used as storage. These areas are open to student traffic and could be a hazard if students were to access stored items. Existing ramps around shop classrooms are very steep with a door directly at the bottom. Some abatement has been completed throughout the building.

C.2 MEP

B.4 Plumbing/Fire Protection:

HOT WATER GENERATION: The buildings existing domestic hot water is generated via multiple natural gas and electric water heaters throughout. The water heaters vary in age and size, and are located in different rooms throughout the building. Some of the water heaters are newer and in good working condition, some are a bit older and nearing the end of their useful lives.

DOMESTIC WATER SERVICE: The existing building is currently served by a municipal domestic water service. The service looks to be original to the 1965 construction with some valve replacement and appears to be in fair condition.

DOMESTIC WATER PIPING: Domestic water piping was observed to be a combination of copper and steel piping. The piping is original to the 1965 construction with some enhancements during renovations along the way. Overall the majority of the piping appears to be approximately 50 years old and at the end of its useful life.

PLUMBING FIXTURES: The plumbing fixtures in the building vary in age from different renovations. The majority of plumbing fixtures are approximately 40 to 50 years old with the newest being around 20 years old. Many of the plumbing fixtures are failing and at the end of their useful lives.

SANITARY SERVICE: The building is served by a municipal sanitary service. The service appears to be original to the construction and is in fair working condition.

STORM SERVICE: There is a roof drain system on the roof that serves as the storm service. The rain travels down through the storm piping to the storm main in the street.

NATURAL GAS SERVICE: There is a natural gas service located outside of the building. The service and piping appear to have been updated and are in good working condition.

FIRE PROTECTION: The building contains a fire protection service. The building is fully sprinkled and the fire protection system appears to be in acceptable condition.

B.5 Mechanical:

HEATING SYSTEMS: The existing boiler plant consists of two natural gas cast iron boilers located in the mechanical room. The boilers are manufactured by Smith and have an output of 3,567 MBH. The boilers are approximately 40 years old and at the end of their useful lives. Hot water is distributed throughout the building via a pair of base mounted pumps, these pumps distribute heating hot water from the boilers to the building heating equipment. The pumps are approximately 40 years old and at the end of their useful lives.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

HOT WATER PIPING: The hot water heating systems consists of Steel and Copper piping. This piping varies in age dating back to the original 1965 construction. Some of the piping was updated during the 2002 renovation, and that piping is in fair condition. The rest of the piping is between 30 and 50 years old and at the end of its useful life.

TERMINAL UNITS: The building consists of hot water wall convectors, fin-tube radiation, and unit heaters to provide perimeter heat to various rooms. These pieces of mechanical equipment vary in age but are overall old and past their useful life expectancies. A majority of the classrooms and offices contain a unit ventilator or a packaged terminal air conditioner (PTAC) unit. The unit ventilators and PTAC units utilize hot water coils and the hot water coming from the boiler plant to provide heating. All of the PTAC units and only some of the unit ventilators utilize a refrigeration coil to provide cooling. Each unit ventilator that provides cooling has its own condensing unit that sits outside of the building. The unit ventilators, PTAC units, and condensing units were installed during the 2002 renovation and are nearing the end of their useful lives. There are seven hot water variable air volume (VAV) boxes located in the staff office area of the building. Each VAV box provides hot water reheat and air volume variation to the air distributed by rooftop unit (RTU)-5. The VAV boxes were installed in 2002 and are nearing the end of their useful lives. A hot water fan coil unit provides heating to Lobby D110. The fan coil unit was installed during the 2002 renovation and is nearing the end of its useful life.

VENTILATION SYSTEMS: The unit ventilators and PTAC units throughout the building provide ventilation air to the spaces they serve. The unit ventilators and PTAC units are not working efficiently and are not ventilating properly, they are at the end of their useful lives and will need to be replaced. There are six rooftop units that provide heating, cooling, and ventilation to the spaces they serve. All six units were installed in 2002 and are nearing the end of their useful lives. There are eight air handling units located within the building, six serve the Gymnasium and two serve the Locker Rooms. Each air handling unit provides heating, cooling, and ventilation air to the rooms they serve. All eight air handling units are approximately 40 to 50 years old and are past their useful lives. The kitchen contains a make-up air unit that provides outdoor to the space whenever the exhaust hood is in use. The make-up air unit is approximately 40 to 50 years old and past its useful life. A majority of the rooms throughout the building contain an exhaust fan that takes all of the exhaust air out of the building. The exhaust fans vary in age but most of them were installed during the 2002 renovation. The exhaust fans are approximately 20 years old and at the end of their useful lives

COOLING SYSTEMS: Cooling is provided to the building through the various mechanical equipment mentioned above. There is no cooling plant in this building. The PTAC units and some of the unit ventilators provide cooling to the classrooms and offices through a direct expansion coil located inside of the units. The unit ventilators each have their own condensing unit located outside or on the roof to provide refrigerant to the coil while the PTAC's contain that within the unit itself. The six rooftop units provide cooling to the spaces they serve through a direct expansion coil within the unit itself as well. There are two computer room air conditioning units that supply cooling to each computer room respectively. These air conditioning units were installed in 2002 and are nearing the end of their useful lives. The condensing units that provide the refrigeration for cooling to all of the mechanical equipment appear to be 20 to 40 years old and are at the end of their useful lives. The existing air handling units serving the Gymnasium and Locker Rooms provide outdoor air cooling to their respective spaces as well.

DUCTWORK: The ductwork throughout the building varies in age. The ductwork serves the rooftop units, air handling units, exhaust fans, computer room air conditioning units, and the make-up air unit. A majority of the ductwork was installed in 2002 and is now nearing the end of its useful life. All other ductwork is

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

approximately 50 years old and past its useful life.

CONTROLS: The building does not have a Building Management System (BMS). The building contains electrical temperature sensors and controls in various room locations.

B.7 Electrical:

MAIN ELECTRIC SERVICE: The utility electric service originates within a transformer vault located inside the building adjacent to the main electric room.

The main electric service for the building is rated 2,500 Amps, 208/120 volts, 3-phase, 4-wire, and includes a service switchboard with a main circuit breaker disconnect switch, utility company metering compartment, and (3) distribution sections. This service and main switchboard were installed in the 2002 renovation/conversion. The service equipment is in good working condition and replacement parts for the GE Spectra Series equipment are readily available. Utility demand records indicate this service has peaked with approximately 800 amperes of continuous load therefore any proposed expansion on the existing 2500 ampere service should not be an issue.

ELECTRICAL DISTRIBUTION: The electrical distribution consists of conduit and feeders from the main switchboard distribution sections to branch circuit panel boards located throughout the building. A 600 ampere auto transfer switch is provided for powering optional standby loads.

GENERATOR: A pad mounted gas fired standby generator is located outside the main electric room. The exact capacity and operational history for this unit has not been determined. This system provides power to a 600 ampere auto transfer switch (ATS) that serves as the source of power for optional standby loads in the building. This generator is beyond useful life but can continue in service with proper preventative maintenance.

LIGHTING SYSTEMS: The interior lighting throughout the building consists of linear fluorescent systems incorporated into 2x4, 2x2, 1x4 recessed and surface mounted troffer light fixtures. The fixtures were installed as part of the renovation and expansion project in 2002.

Exterior lighting has been upgraded to LED type floodlights and wall packs.

Emergency lighting systems for the building are provisioned through multiple systems:

a. Two Standard Time emergency inverter / battery backed systems provide served from an emergency branch circuit served off of the emergency generator. These systems appear to be operational but are extremely old and well beyond useful life.

b. Self-contained twin head battery units are scattered throughout the buildings stand-alone units or twin heads incorporated into exit sign assemblies.

c. Exit signs are installed with integral batteries and chargers.

Lighting control consists of wall mounted switches. Ceiling mounted occupancy sensors were incorporated into various rooms throughout the building.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

FIRE ALARM SYSTEM: The fire alarm system in the building consist of a Notifier NFS-3030 fire alarm control panel, voice handset stations, remote annunciator panel, ADA compliant speaker/strobe units, ADA compliant strobe only units, manual fire alarm pull stations, smoke detectors, heat detectors, duct mounted smoke detectors with remote test switches, and sprinkler system flow and tamper switches. The fire alarm control panel is a newer upgrade with the majority of the peripheral devices from the former system integrated into the operation of the new control panel. This system covers the entire school and appears to be code compliant in coverage. This system is in good working condition.

COMMUNICATION SERVICES: Cable TV service is utilized in the building. Service cable enters the building and distributes through multiple amplifiers to distribution hubs throughout.

Fiber service is provided to the building and distributed throughout.

Communication services enter the main telecomm room via multiple 4" conduits brought in from the street.

MDF and IDF rooms are provisioned throughout the building at locations that promote the proper coverage to conform with network cabling distance limitations. Building horizontal cabling is Cat 6 with PoE type network switches installed on two post racks. The rooms are appropriately outfitted with grounding and bonding, basket tray rack and dedicated cooling systems.

Wireless access points are provisioned throughout and appear to be the Aerohive AP250 series.

Franklin Time clock and program equipment is provided in the building.

Infinias access control for security is provided throughout.

Avigilon camera equipment in use at the facility.

Ceiling and wall mounted speakers are provided throughout for general paging.

C.3 Site

SITE (GENERAL): Suffield Middle School its centrally located on a large open site at the corner of Mountain Road and Hill Street. A circular drive aisle and bus loop comes off Mountain Road and wraps around inside the half circular courtyard by the main entrance door. This loop connects to a large open parking area to the East which is shared with McAlister Intermediate School. A secondary drive aisle loop connects this parking area around the back of the school and exits onto Hill Street. Additional parking is located along either side of this secondary loop. To the East of the Middle School are shared athletic fields. Site traffic flow, parking, and security are a major concern on this site. Unsecured perimeter access is also a security issue.

WALKWAYS/SITE STAIRS: Concrete sidewalks are in fair condition with some control joints containing organic growth. Concrete sidewalk at curb cuts appears to be much newer than adjacent walkways. Bituminous concrete sidewalks along the rear of the building are in fair to poor condition. Cracking can be seen throughout with organic growth coming through.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

ROADWAYS/PARKING: Painted concrete and bituminous concrete curbs are in fair condition with snowplow damaged observed around the front loop. Drive aisle and parking around this loop are cracking and in fair condition. Concrete aprons to rear garage doors show heavy cracking and are in poor condition. The bus loop is too small for modern buses and there is not enough dedicated parking at the Middle School.

LANDSCAPING: Lawns throughout are in fair to good condition with minimal patches of missing grass. Rock garden along exterior wall at the front sidewalk is in good condition, however, some plants appear to be dying and routine maintenance is recommended.

ATHLETIC FIELDS: Athletic fields consist of the following: 3 Tennis Courts, 2 basketball courts, a baseball field, a soccer field, and a track and field area. There is also a playground just outside the rear entrance to the school. Playground equipment appears to be in good condition. These fields and playgrounds are shared with the McAlister Intermediate School. Although on a shared site, the fields are remote from the Middle School and there are limited outdoor opportunities for education.

OTHER STRUCTURES: Cracks travel down sloped asphalt drive aisles to catch basins. Asphalt is cracked and depressed around the catch basin tops with organic growth coming through. A known drainage issue was expressed by facilities at the time of the walkthrough. The catch basin tops are in fair condition with some chipped edges beginning to show. Concrete memorial bench near main entrance is in good condition. Limited areas exist for snow storage.

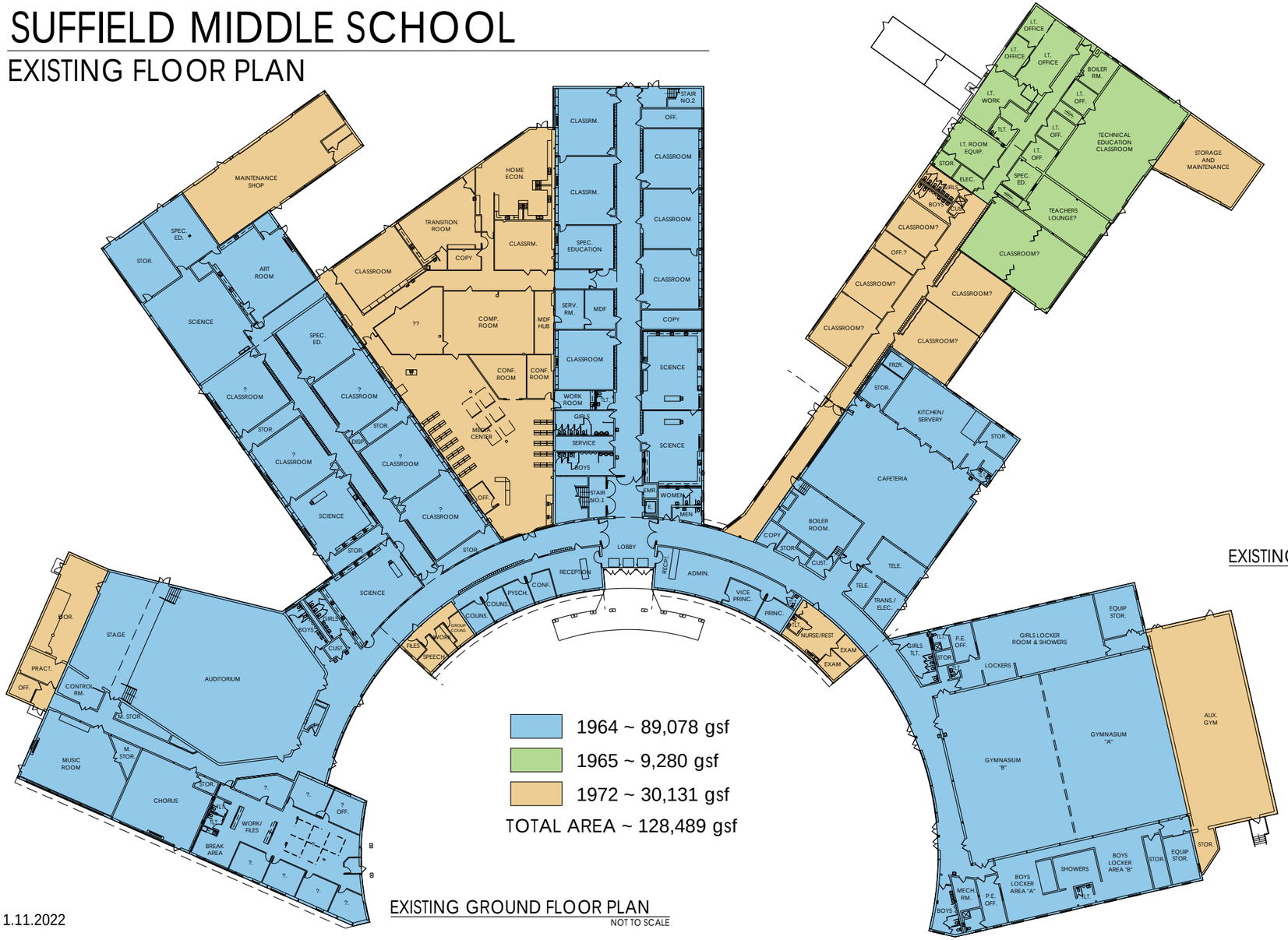
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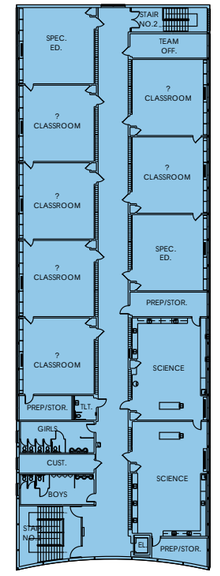
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SUFFIELD MIDDLE SCHOOL

EXISTING FLOOR PLAN



EXISTING GROUND FLOOR PLAN
NOT TO SCALE



EXISTING UPPER FLOOR PLAN
NOT TO SCALE

1.11.2022

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 1: Detail view of window opening in original 1964 building.



D1. 2: Detail view of loading/receiving area at cafeteria.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 3: View of garage doors into 1965 Vo-ag addition (left) and 1972 addition (right). Currently used for facilities.



D1. 4: View toward original Vo-ag 1965 addition, now renovated tech room.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 5: View of typical exterior wall in 1965 Vo-ag addition. Note spalling concrete foundation wall



D1. 6: Detail view of 1965 Vo-ag addition, note deteriorating steel lintels above windows and spalling concrete foundation wall below.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 7: View of 1972 stage storage addition



D1. 8: View of 1972 addition roof in foreground with original 1964 two story classroom wing beyond.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

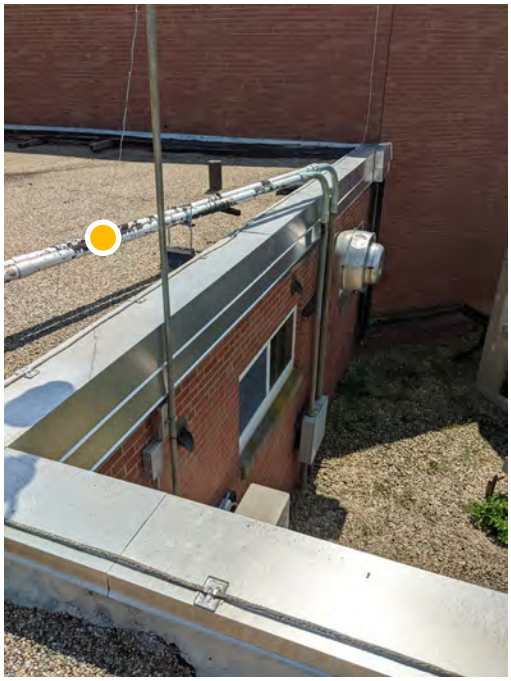


D1. 9: View of 1972 addition roof (left) with original 1964 two story classroom wing beyond.



D1. 10: View of built up roofing with double roof drain, note portions of the roof have exposed built up with limited gravel protection.

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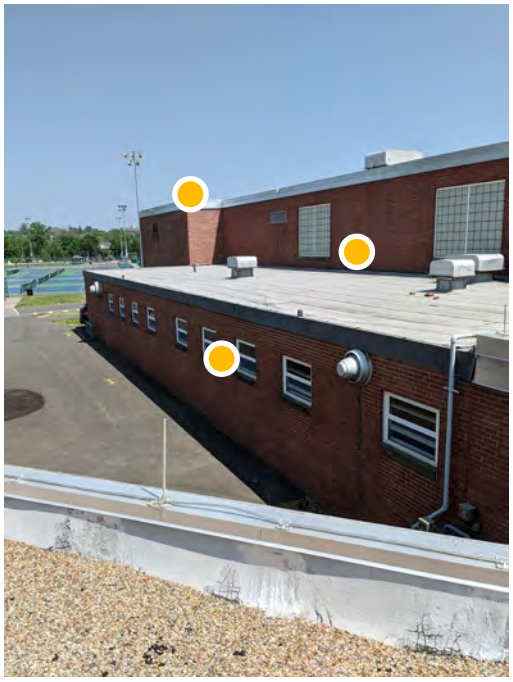


D1. 11: View of original 1964 construction with surface mounted electrical conduits, roof mounted, into original electrical room.

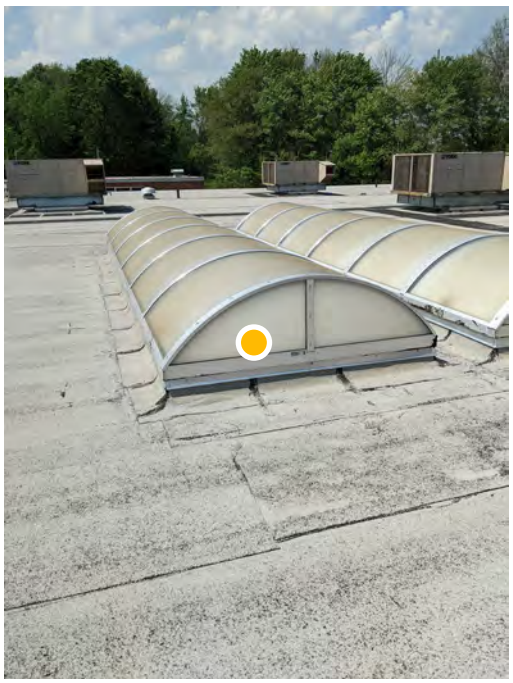


D1. 12: Detail view of original 1964 construction, two story portion, with surface mounted electrical conduits, roof mounted, into original electrical room.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 13: View of original 1964 gymnasium foreground with 1972 auxiliary gym addition in background.

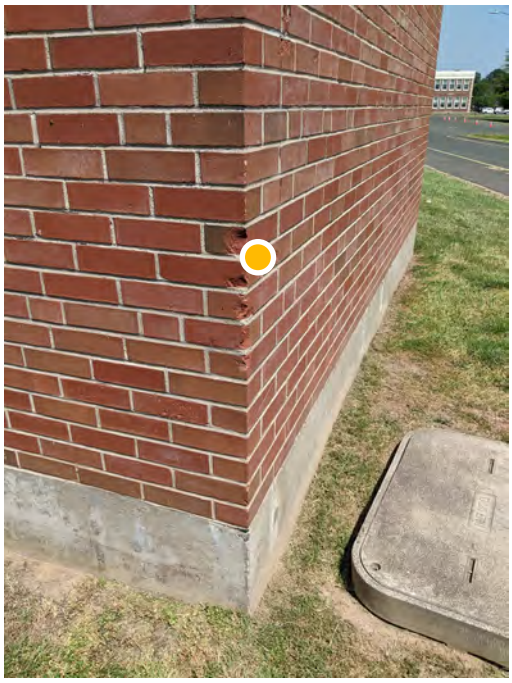


D1. 14: Roof mounted barrel vault skylights into media center, part of the 1972 additions and modifications.

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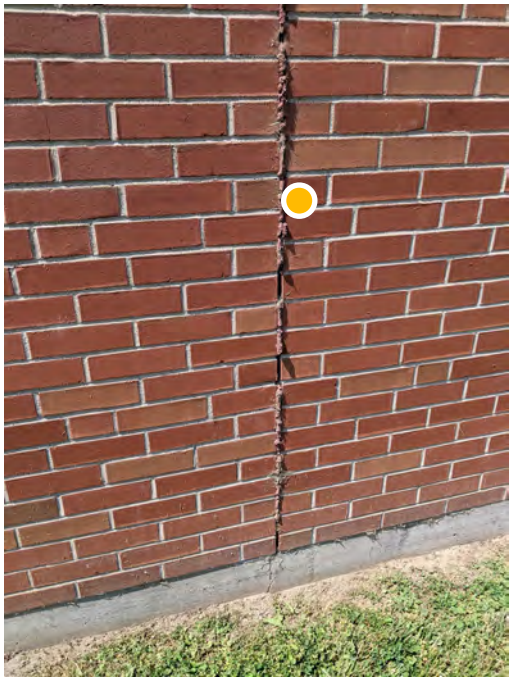


D1. 15: View of entry to gymnasium portion of the building, original 1964 with window modifications in 2002.

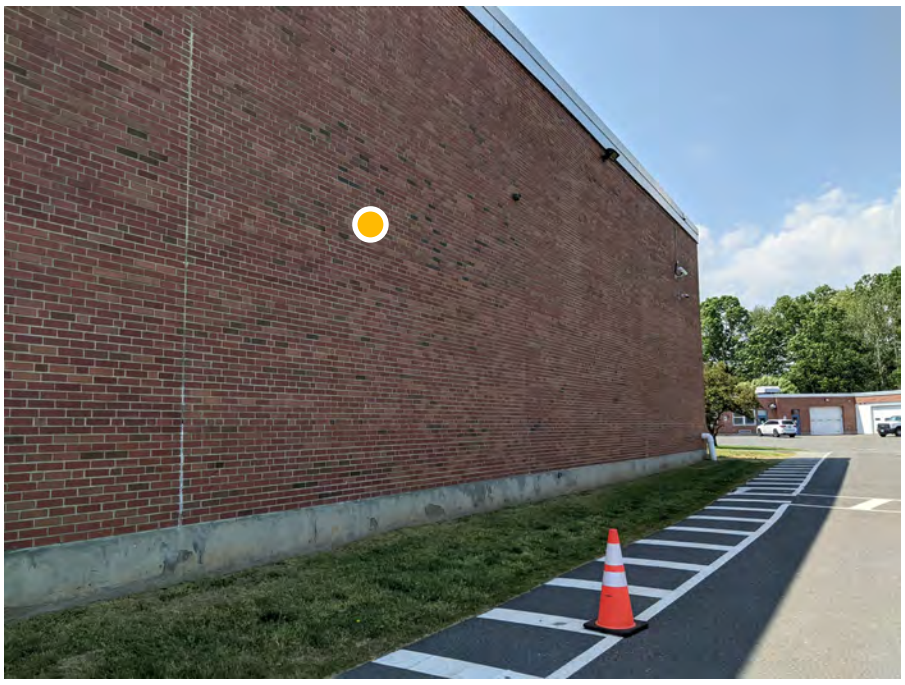


D1. 16: Detail view of the overall condition of the composite masonry wall, part of the original 1964 building.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 17: Detail view of typical expansion joint in poor condition overall.



D1. 18: View of the east wall of the 1972 auxiliary gymnasium.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

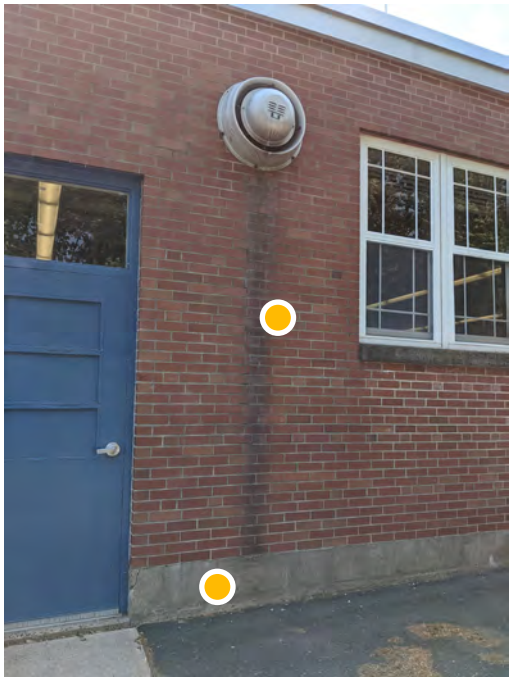


D1. 19: View of 1972 auxiliary gym (left) and original 1964 construction (right).



D1. 20: Overall view of the original cafeteria in the 1964 building (left) and the Vo-ag addition (right) in 1965.

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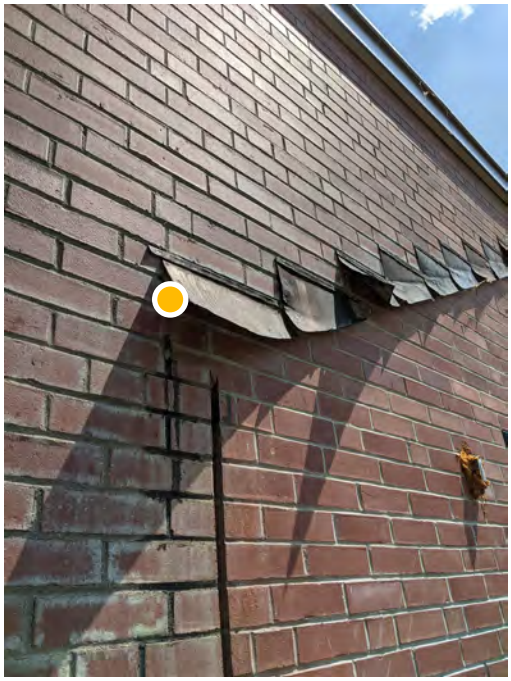


D1. 21: Detail view of the original building facade. Note the overall fair condition of the masonry, jointing and the exposed concrete foundation wall.



D1. 22: View of the former greenhouse area of the 1965 Vo-ag addition, overall area in poor condition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 23: Detail view of the step flashing that remains from the former greenhouse, part of the 1965 Vo-ag addition.



D1. 24: Overall view of the two story classroom portion of the middle school, original construction 1964.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 25: View of 1972 addition (left) and original construction from 1964 (right). Interior program contains maintenance shop and specialized education.

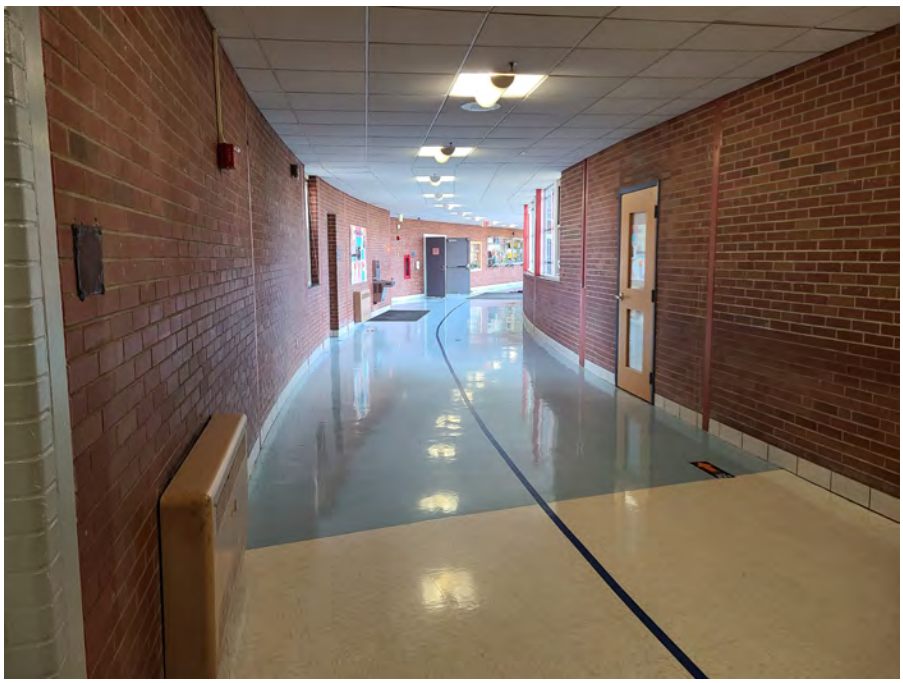


D1. 26: View of single story classroom wing, original construction 1964.

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D1. 27: View of existing cafeteria.

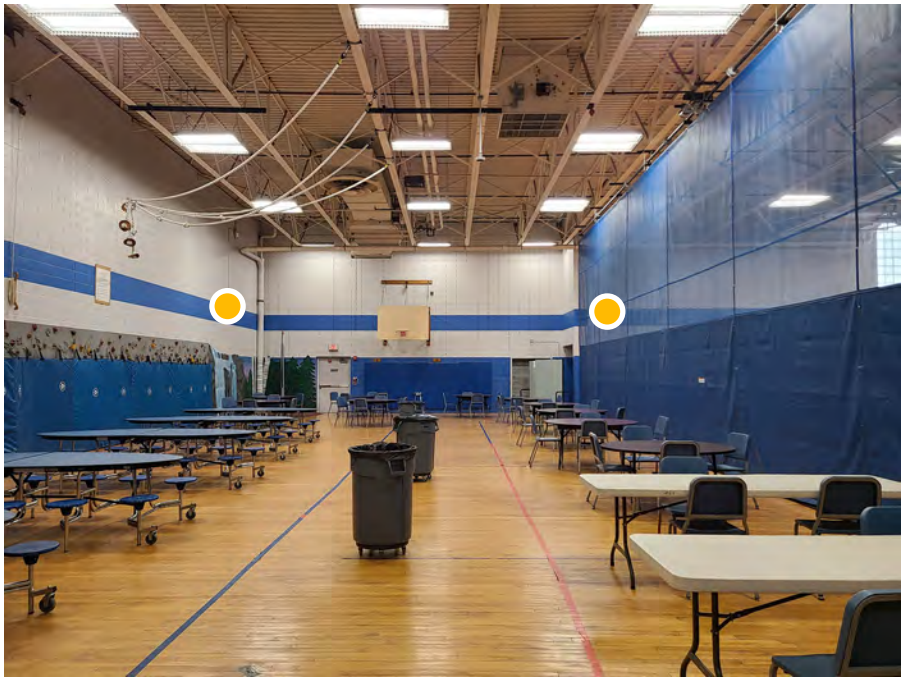


D1. 28: View of curved main connector hallway.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

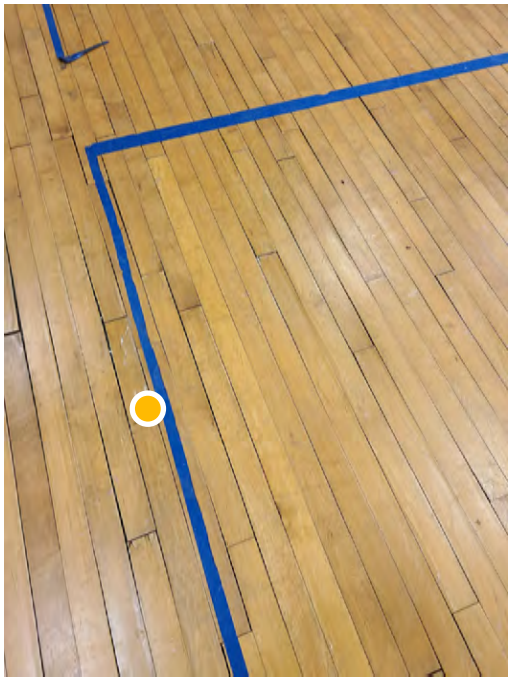


D1. 29: View of curved main connector hallway.



D1. 30: View of auxiliary gymnasium.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 31: Detail view of existing wood flooring in gymnasium.

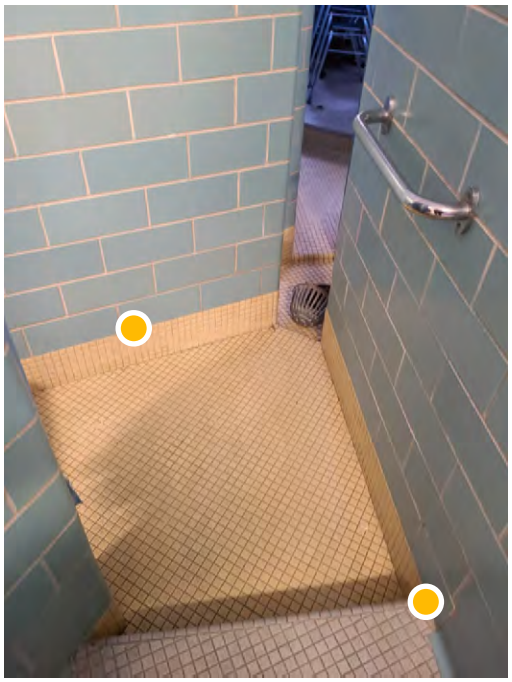


D1. 32: Detail view of building expansion joint between existing wood flooring in gymnasium (1964) and auxiliary gymnasium (1972).

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

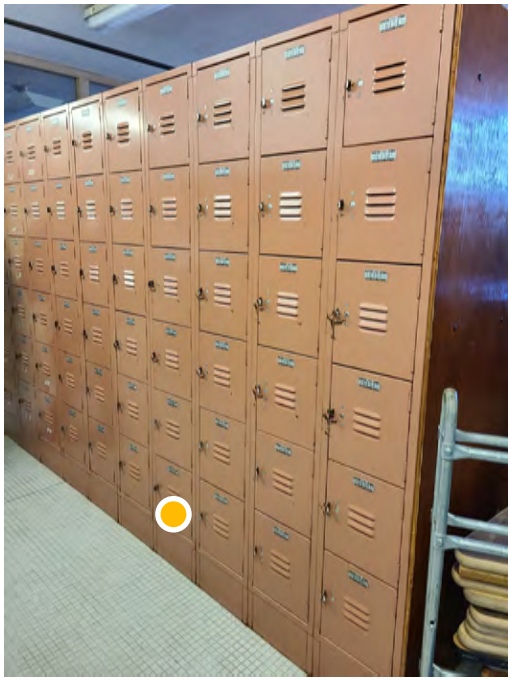


D1. 33: View of former girls locker and shower area located in original 1964 construction.



D1. 34: View of girls shower stall in original building, no longer utilized and does not meet current accessibility codes.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 35: View of lockers in girls locker room.

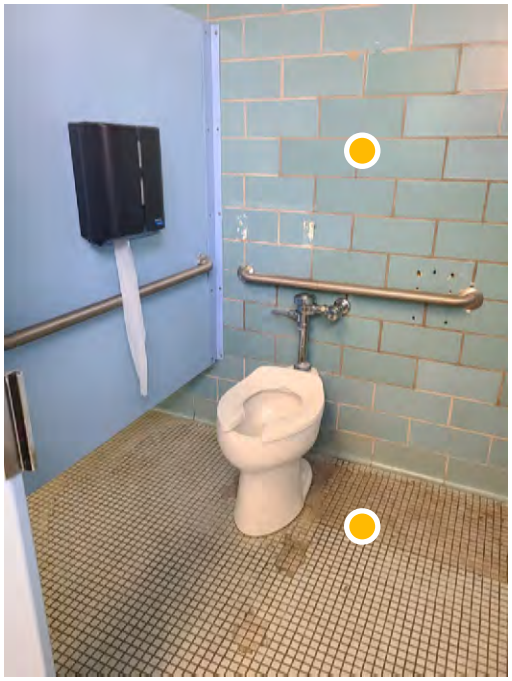


D1. 36: Detail view of toilet configuration adjacent to girls locker room, does not meet current accessibility codes.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

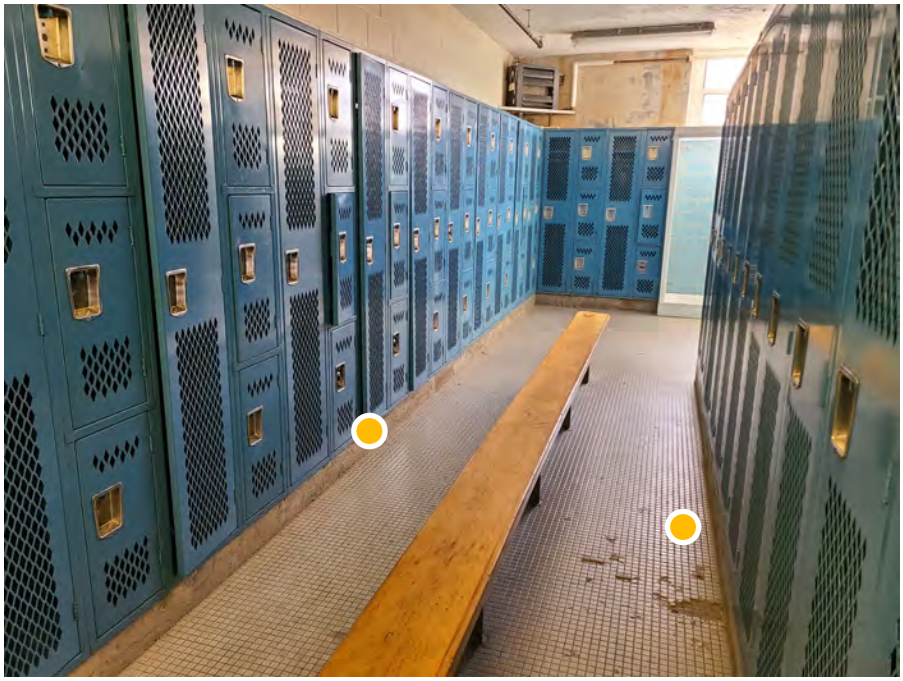


D1. 37: View of connecting corridor adjacent to main gymnasium in the original building.



D1. 38: Detail view of existing toilet reconfiguration in toilet rooms adjacent to gymnasium, note condition and repairs/patches on floors and walls.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 39: Detail view of boys locker room area, does not meet current accessibility codes.

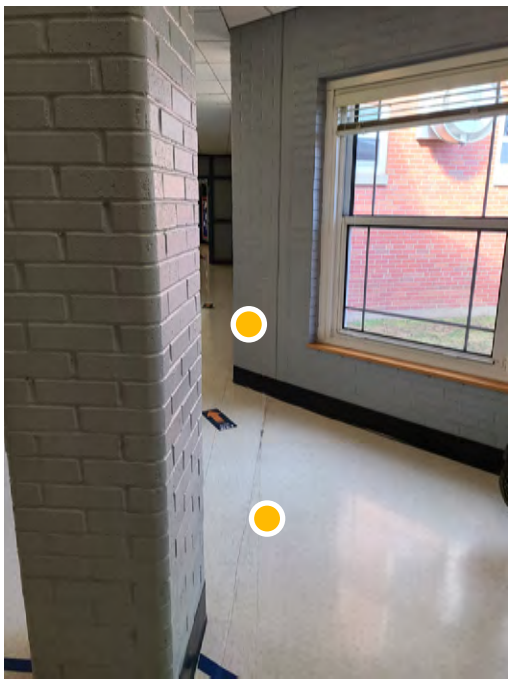


D1. 40: Detail view of changing area retrofit in boys locker room, note poor condition of walls, ceilings, and exposed equipment and piping (original to the building).

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

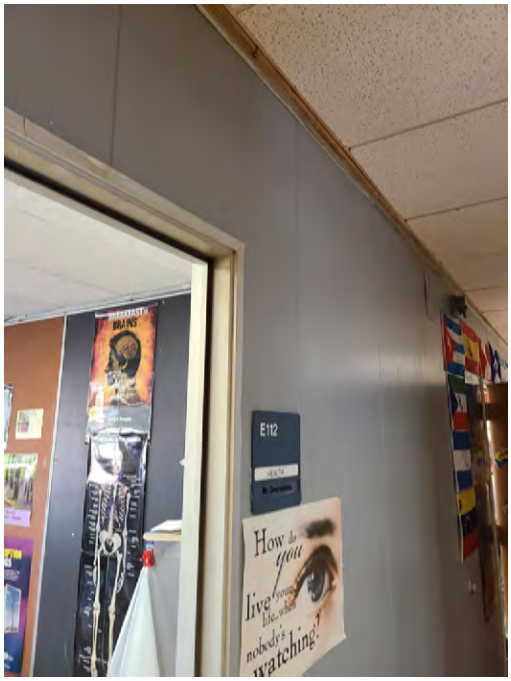


D1. 41: Detail view of changing area retrofit in boys locker room, note poor condition of walls, ceilings, and exposed equipment and piping (original to the building).



D1. 42: 1972 corridor addition to original 1964 construction.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

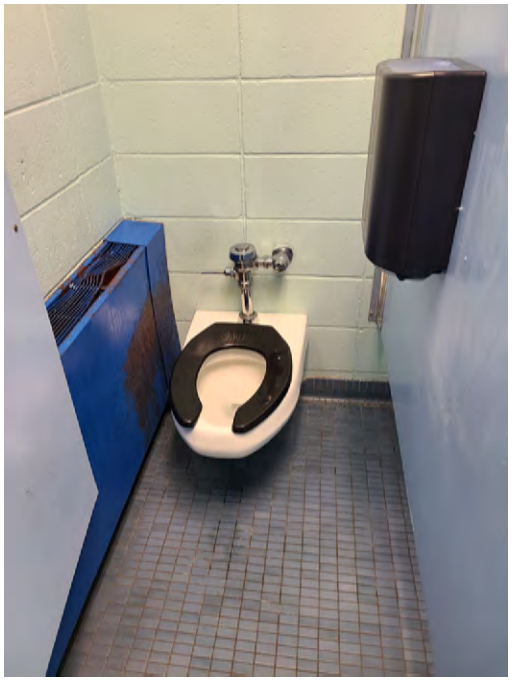


D1. 43: Detail view of modular wall construction in the 1972 addition

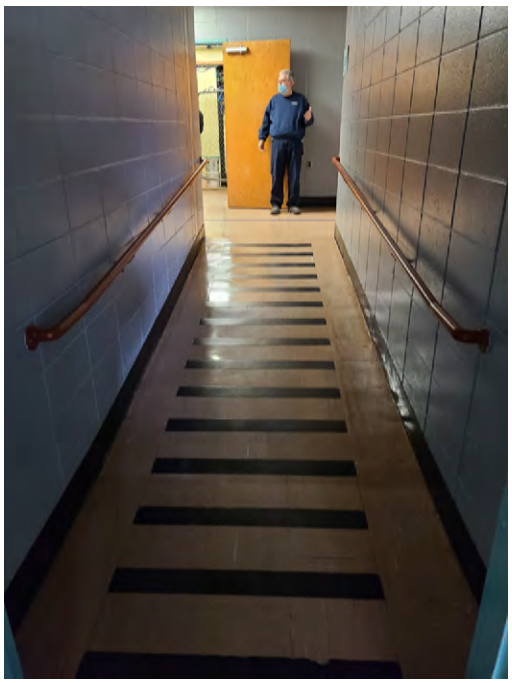


D1. 44: View of typical door into classroom as a part of the modular wall construction (1972 addition).

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

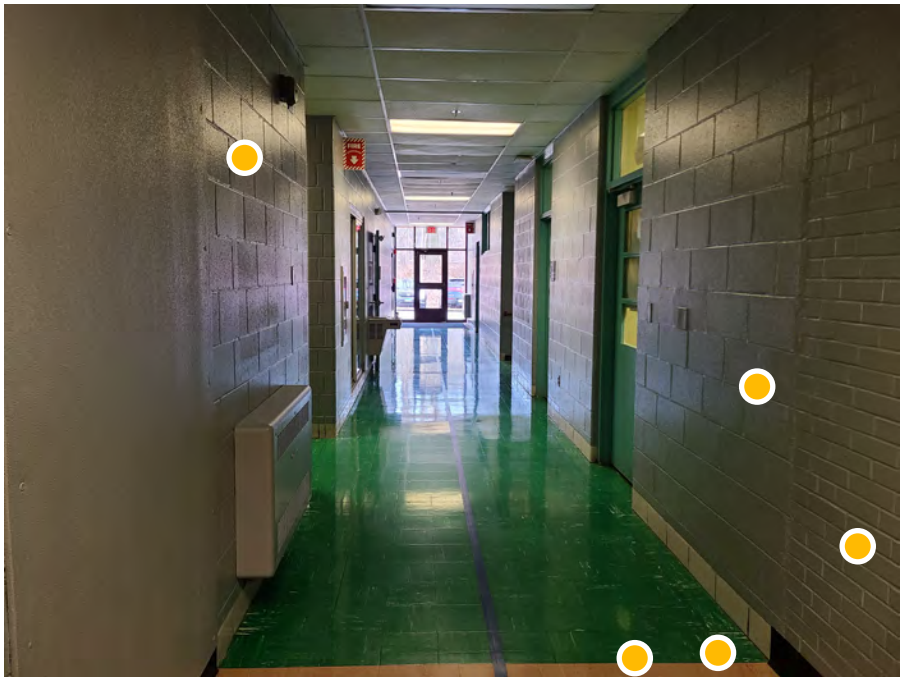


D1. 45: Detail view of unit cabinet heater adjacent to plumbing fixture retrofit, does not meet current accessibility codes.

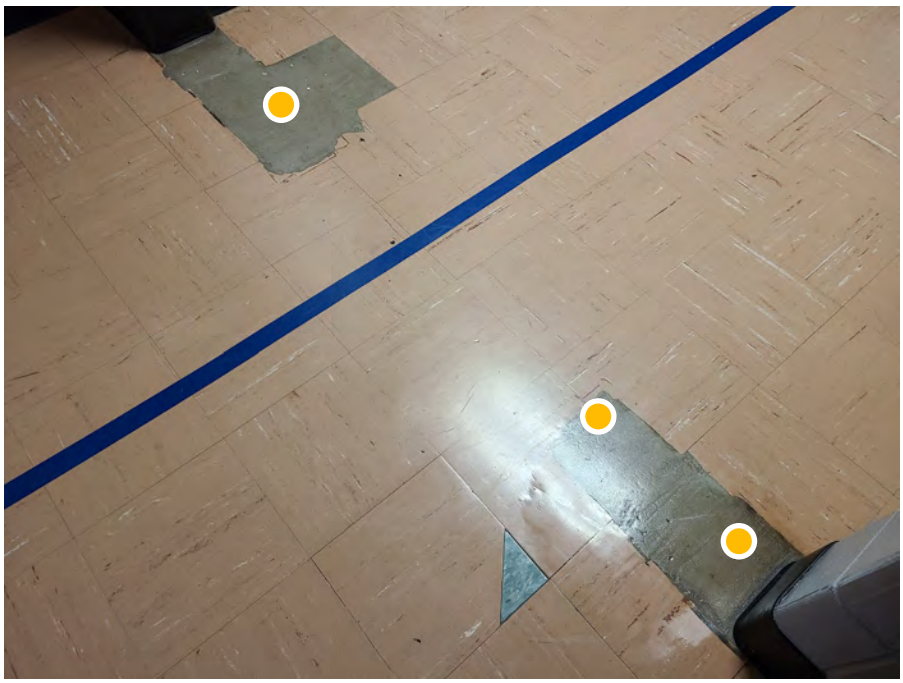


D1. 46: Detail view of ramp into former teachers lounge area, does not meet current accessibility codes.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

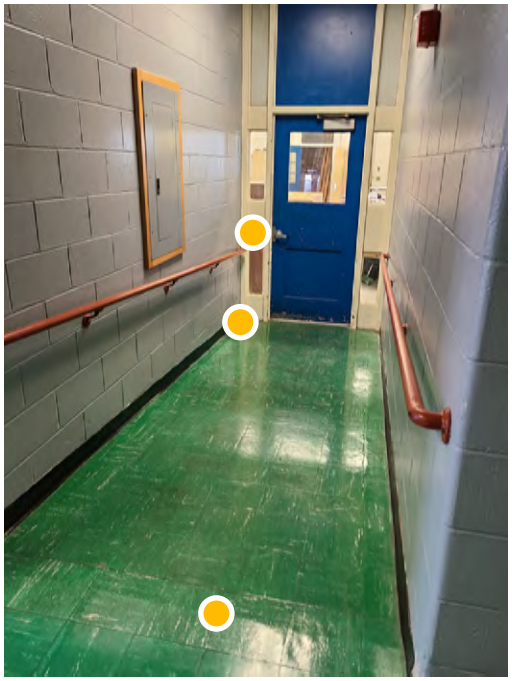


D1. 47: View of connecting corridor between 1972 addition and 1965 Vo-ag addition, VAT flooring and combination of various types of wall construction.



D1. 48: Detail view of flooring patch/retrofit, possible vinyl asbestos tile original to building.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 49: Detail view of inaccessible ramp at entry to tech educational classroom, does not meet current accessibility codes.

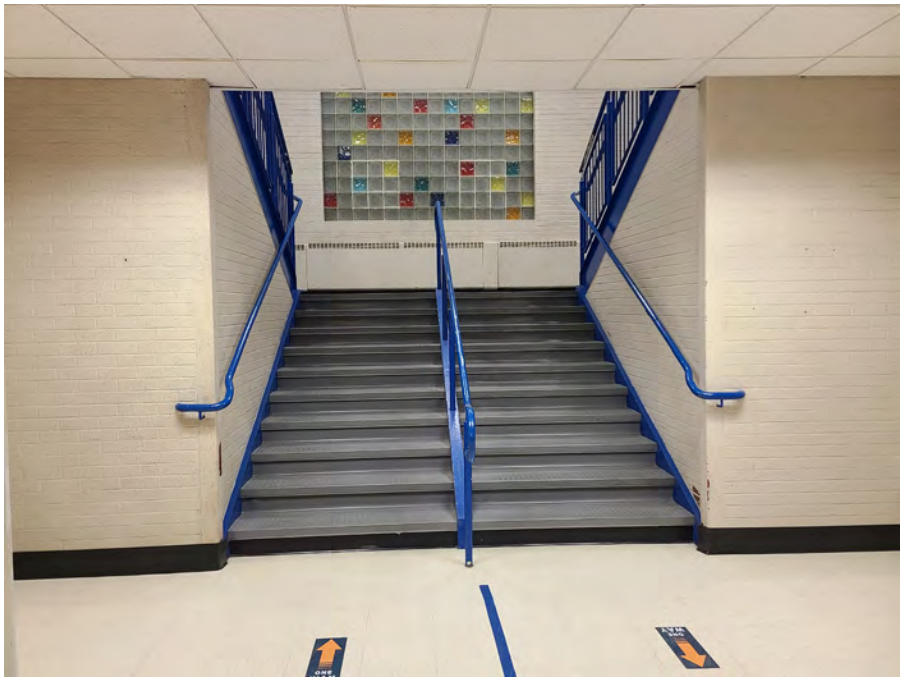


D1. 50: Flooring transition retrofit and/or removal of transition altogether.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 51: Detail view of dry storage support space for the cafeteria, note the poor condition of the door, door frame and flooring.

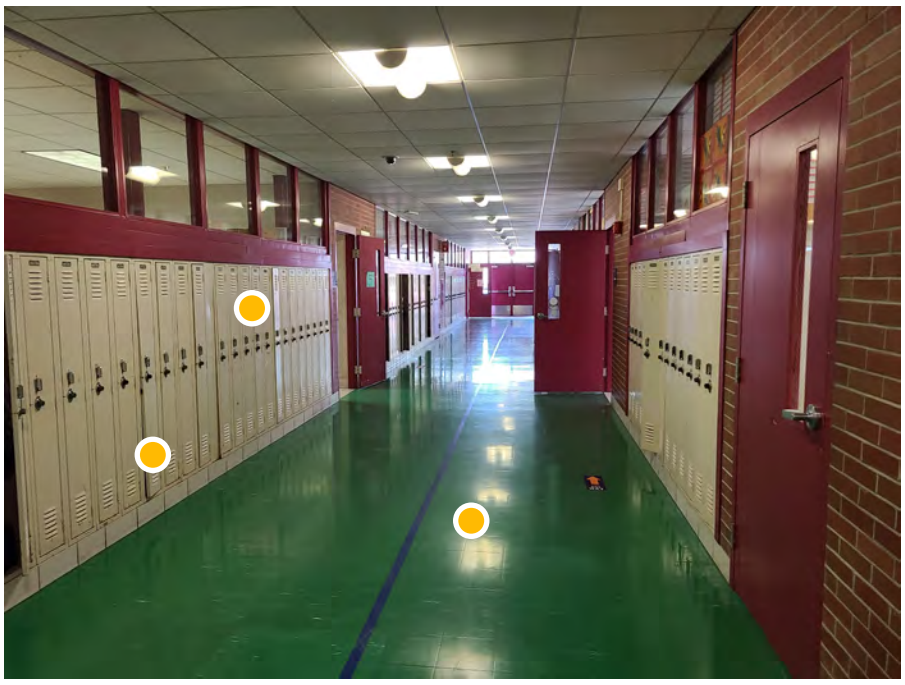


D1. 52: Stairway entry in the original 1964 building to second floor classrooms.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 53: Typical bathrooom retrofit in original two story classroom portion of the building, note the condition of the walls and floors

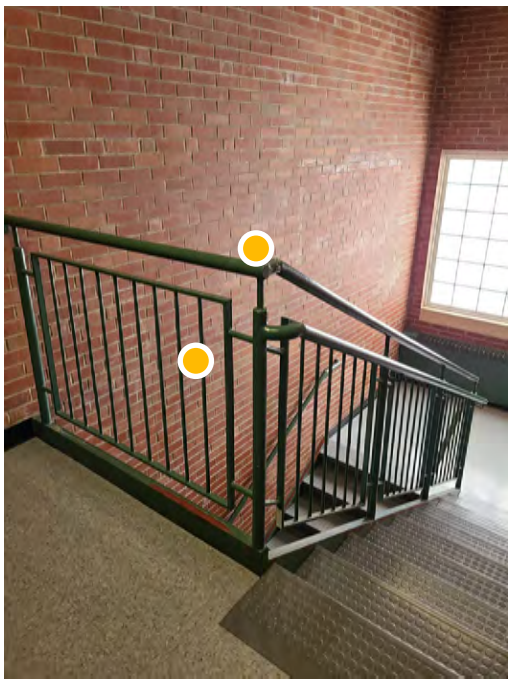


D1. 54: View of second floor classroom corridor, note possible vinyl asbestos tile flooring and overall condition of original lockers.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 55: Typical entry door into classrooms



D1. 56: Detail view of egress stair and guard retrofit.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

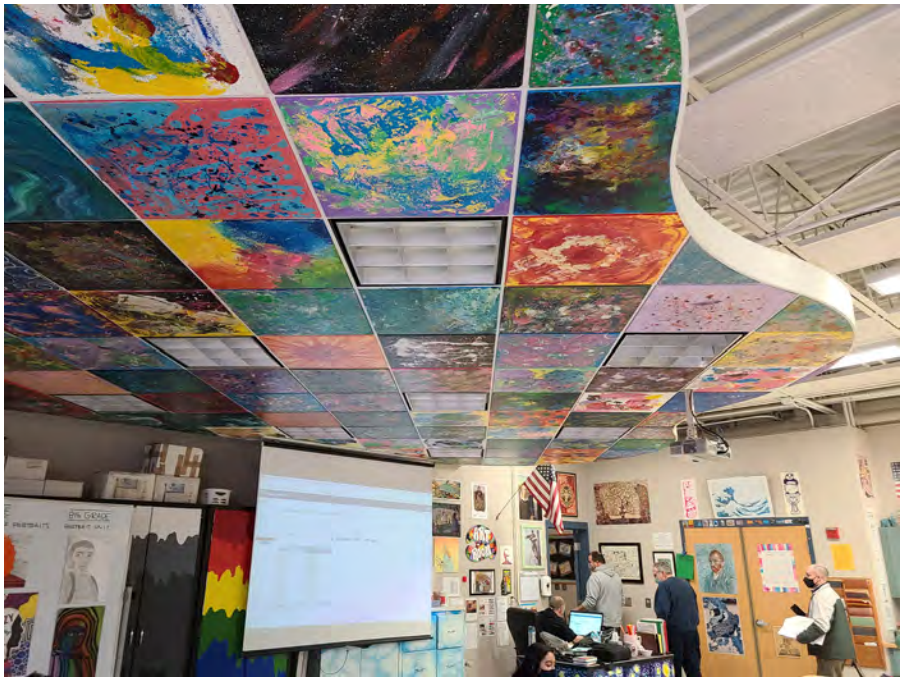


D1. 57: Detail view of egress stair and guard retrofit.



D1. 58: View of 1972 connecting corridor with modular wall construction, note condition of door and hardware.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

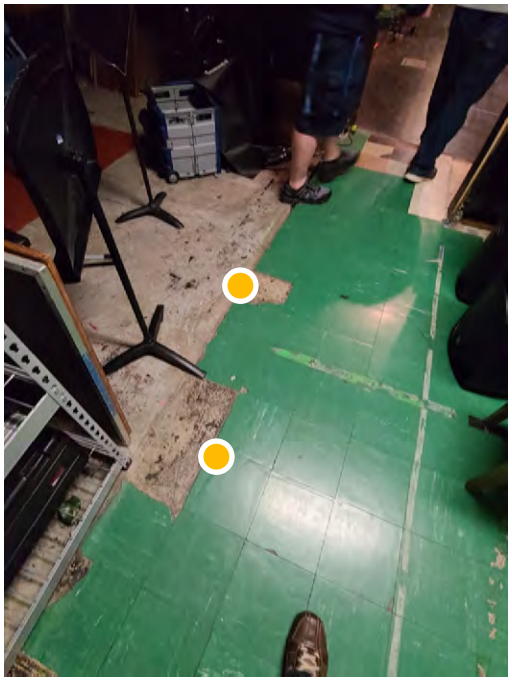


D1. 59: View of art room ceiling retrofit and modifications.

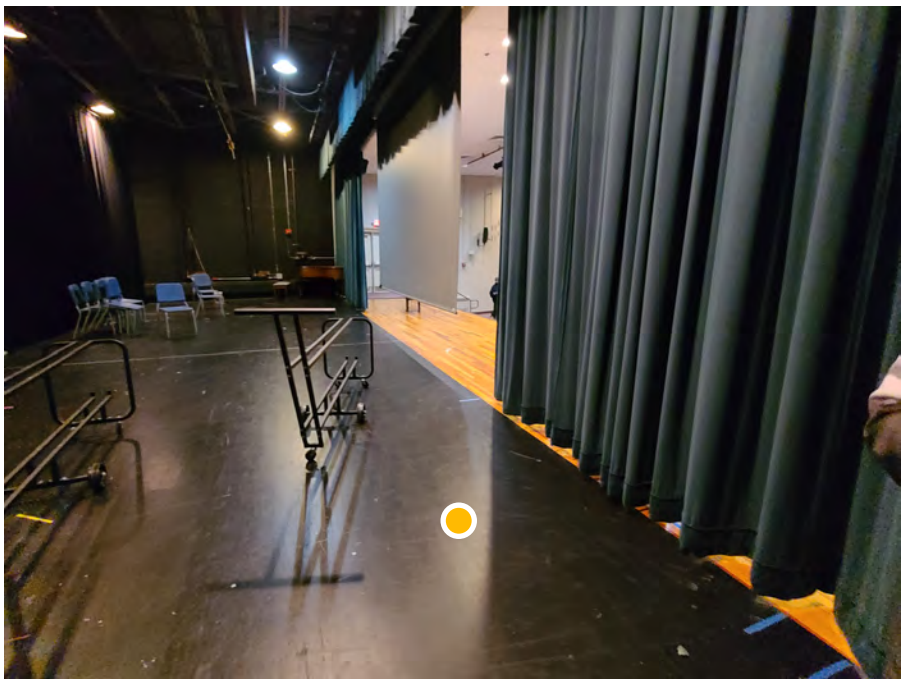


D1. 60: Detail view of toilet fixture reconfiguration to meet accessibility codes, note floor patching and repairs

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

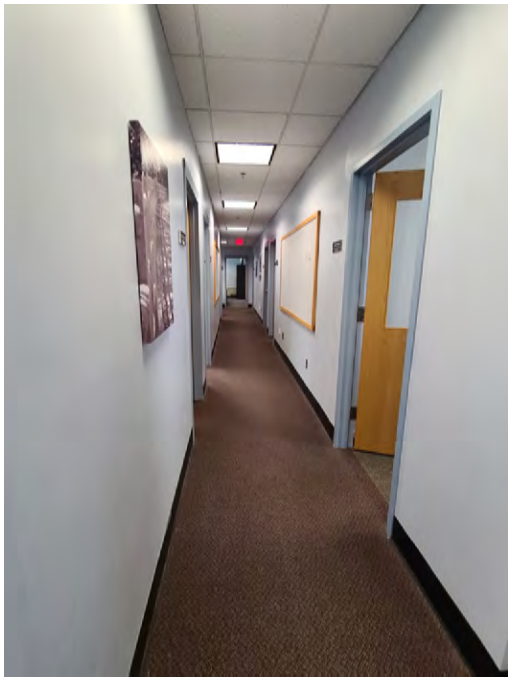


D1. 61: Detail view of IT storage and server room with VAT flooring retrofits.

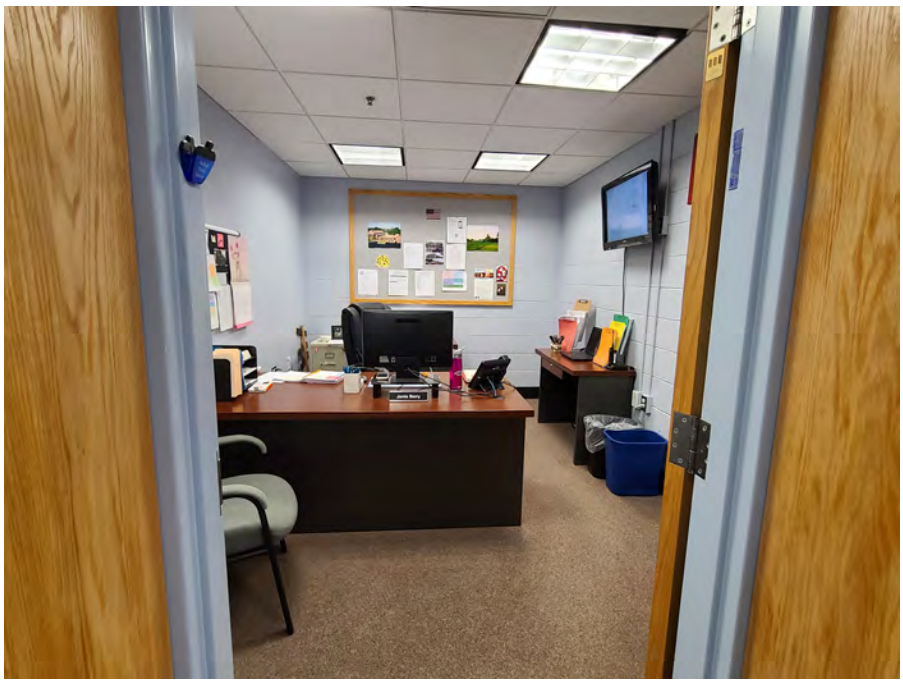


D1. 62: View of stage area and curtains, part of original 1964 construction.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 63: Detail view of corridor in central office administration retrofit.

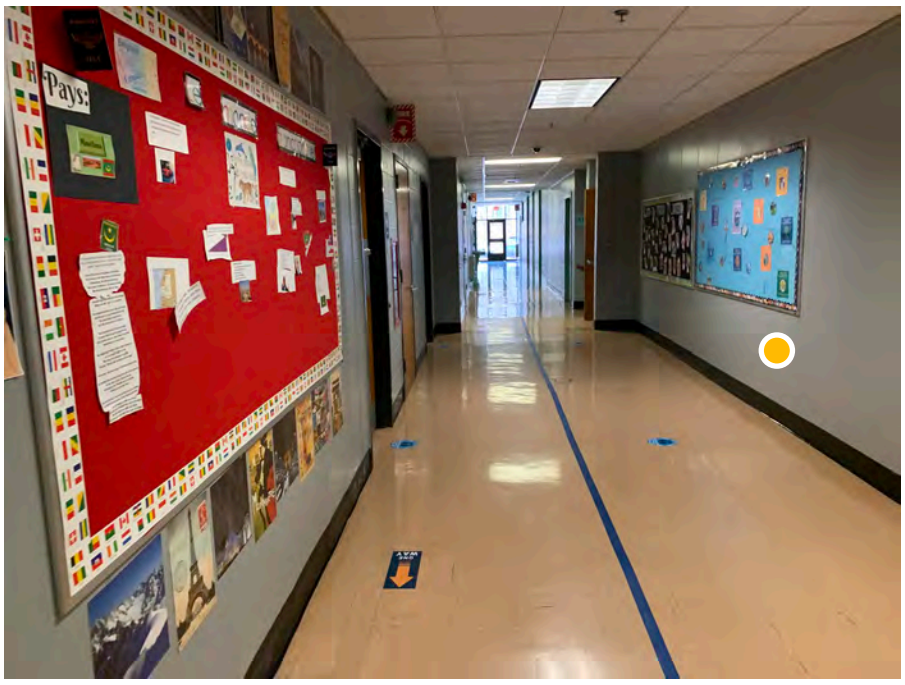


D1. 64: Detail view of typical office in IT office and administration retrofit.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

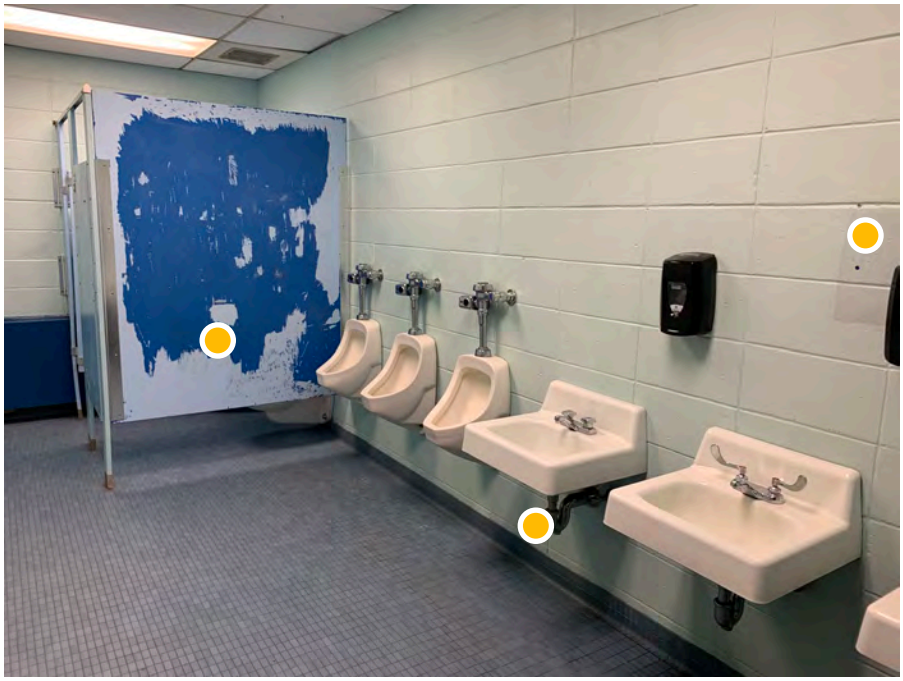


D1. 65: Detail view of custodial / storage room, note condition of exterior door.



D1. 66: View of typical corridor in 1972 addition, note the modular wall construction.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

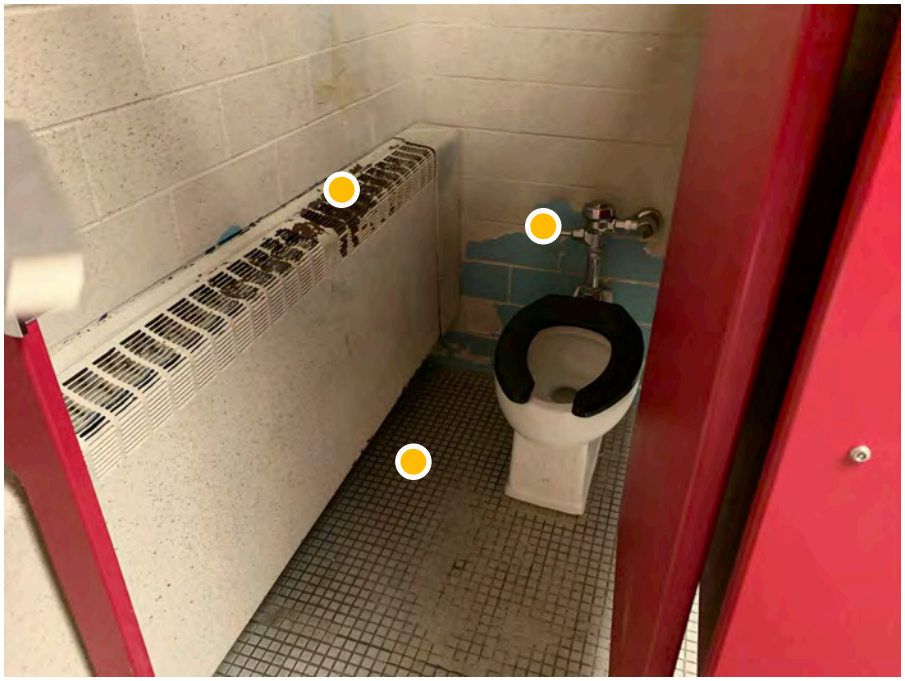


D1. 67: Typical bathrooom retrofit in original building, note the condition of the metal toilet partitions, does not meet current accessibility codes.

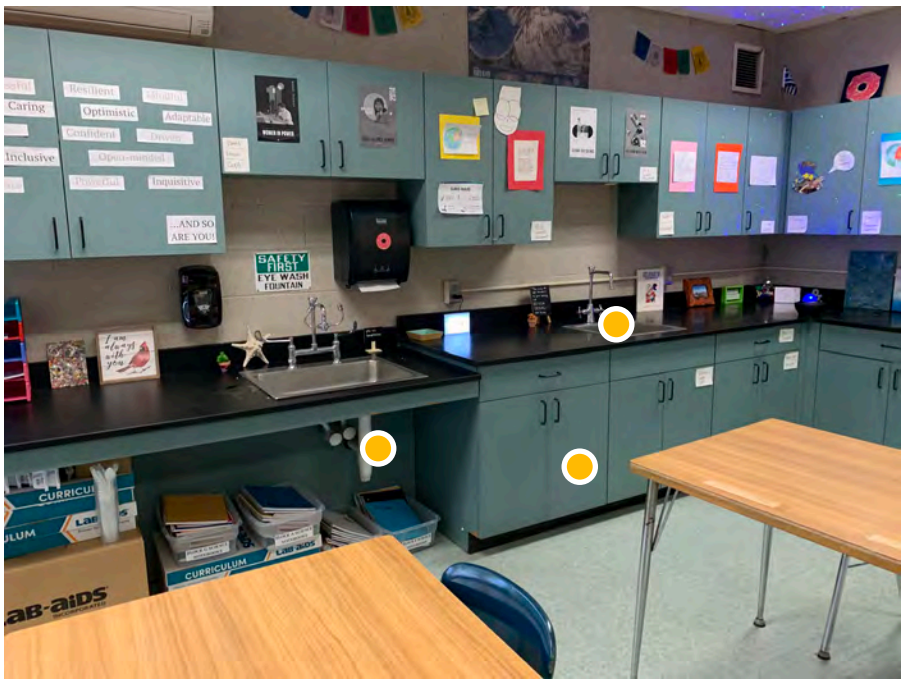


D1. 68: Typical bathrooom retrofit in original building of the building, note the condition of the walls.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 69: Detail view of unit cabinet heater adjacent to plumbing fixture retrofit, does not meet current accessibility codes.

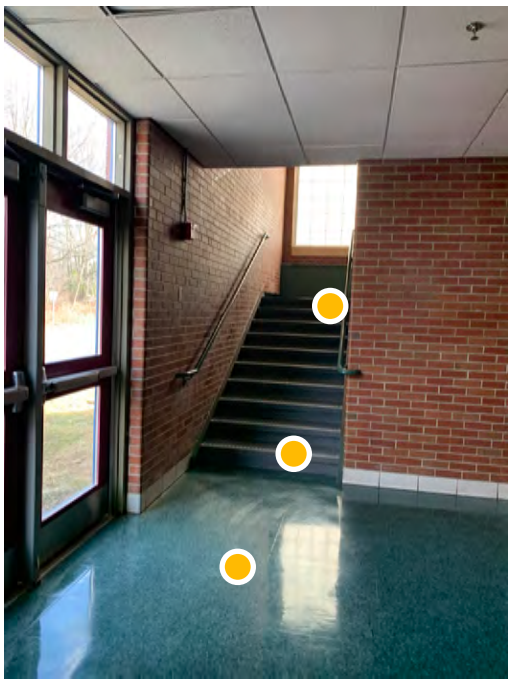


D1. 70: View of science classroom modifications and upgrades 2002

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 71: View of typical corridor in original 1964 building.



D1. 72: View of retrofit and upgrades to the north egress stair in original building

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

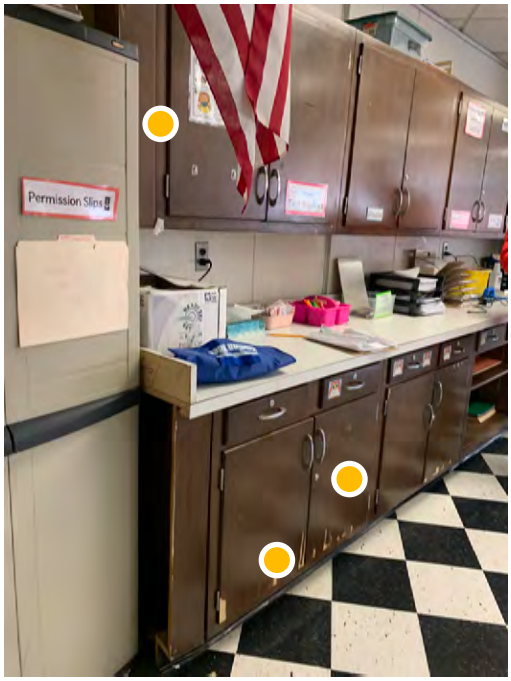


D1. 73: Typical bathrooom retrofit in original building, note the conditionof the patched/retrofit floors, does not meet all current accessibility codes.



D1. 74: View of home economic/life skills room with original cabinetry and millwork (left) and modest upgrades beyond, does not meet all current accessibility codes.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 75: View of home economic/life skills room with original cabinetry and millwork in poor condition, original to 1972 addition.



D1. 76: View of maintenance shop storage area.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 77: View of corridor in original 1964 building.



D1. 78: View of curved connecting corridor in original 1964 building.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

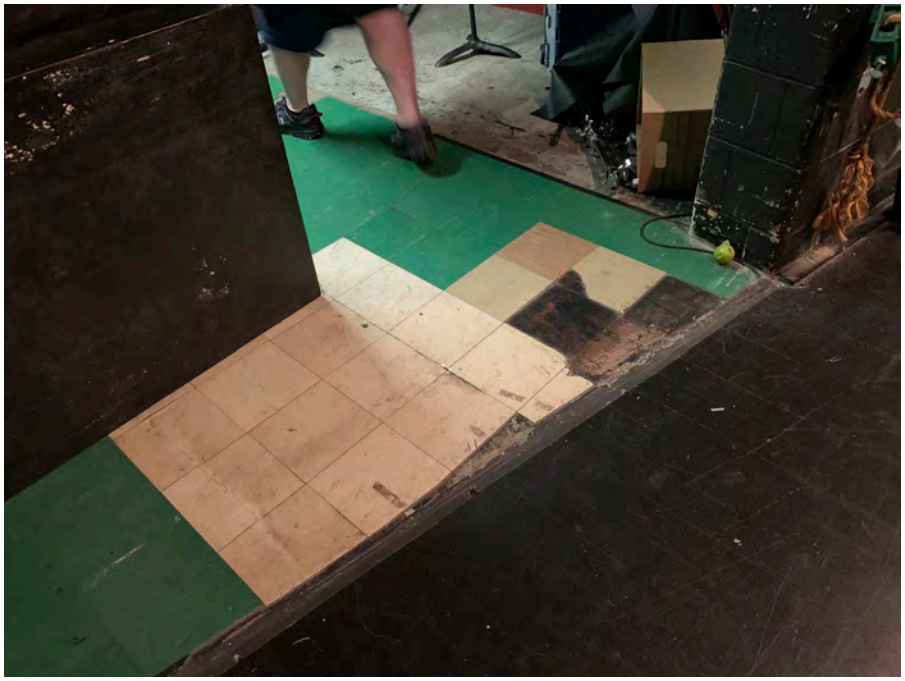


D1. 79: View of existing auditorium, original 1964 construction.



D1. 80: View of existing band/chorus room.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 81: Detail view of patched/retrofit flooring at stage/storage areas, note condition of floor and possible VAT flooring.



D1. 82: View of the media center, infill addition 1972.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D1. 83: Detailed view of blind system under the existing barrel vault skylight, 1972 infill addition

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 1: Access Control Equipment.



D2. 2: Air Handling Unit Serving Girls Locker Room in Poor Condition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 3: Air Handling Unit Serving a Locker Room in Poor Condition.

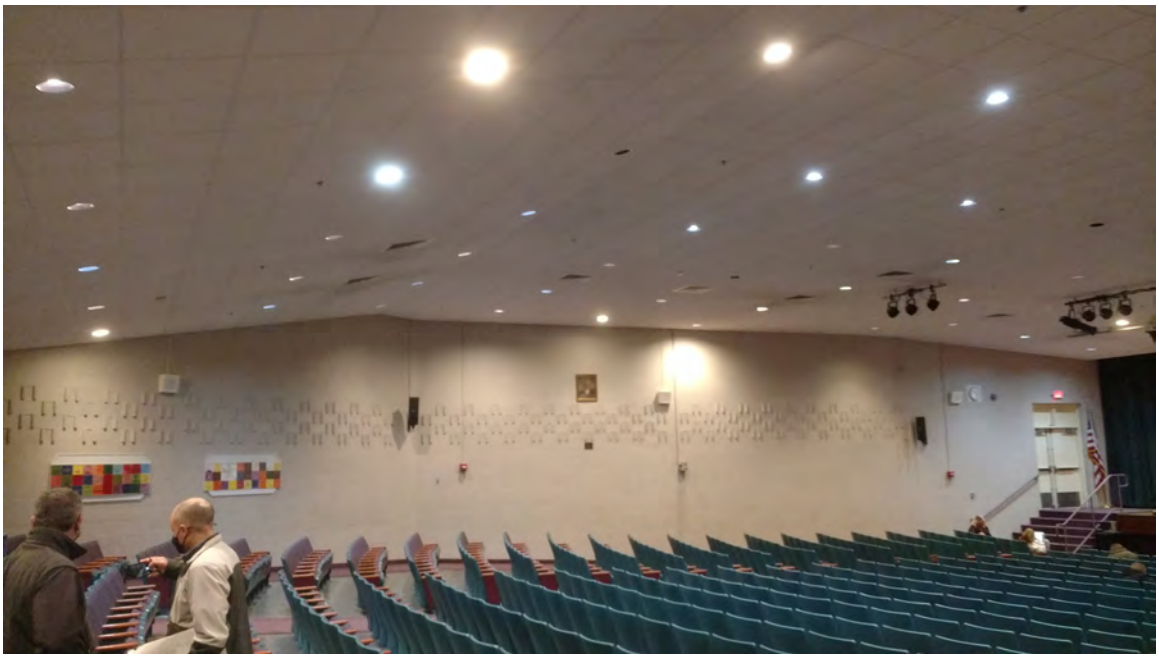


D2. 4: American Standard Rooftop Unit in Poor Condition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 5: Area of Rescue Assistance Intercom.



D2. 6: Auditorium Electrical Lighting Fixtures and Equipment.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 7: Condensig Units and Wall Mounted Exhaust Fans Outside in Fair Condition.



D2. 8: Domestic Water Heater in Poor Condition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 9: Domestic Water Piping in Very Poor Condition.



D2. 10: Domestic Water Service and Meter.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 11: Domestic Water Thermostatic Mixing Valve.



D2. 12: Electrical Automatic Transfer Switch.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 13: Electrical Branch Circuit Panels.



D2. 14: Electrical Generator Remote Battery Charger.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 15: Electrical Kitchen Branch Circuit Panel.



D2. 16: Electrical Main Service Switchboard.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 17: Electrical Meter.



D2. 18: Electrical Stage Power and Control.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 19: Electrical Standby Power Distribution Panel.



D2. 20: Emergency Lighting Inverter System #1.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 21: Exhaust Fans and Condensing Units on Roof.



D2. 22: Exterior LED Wallpack Lighting.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

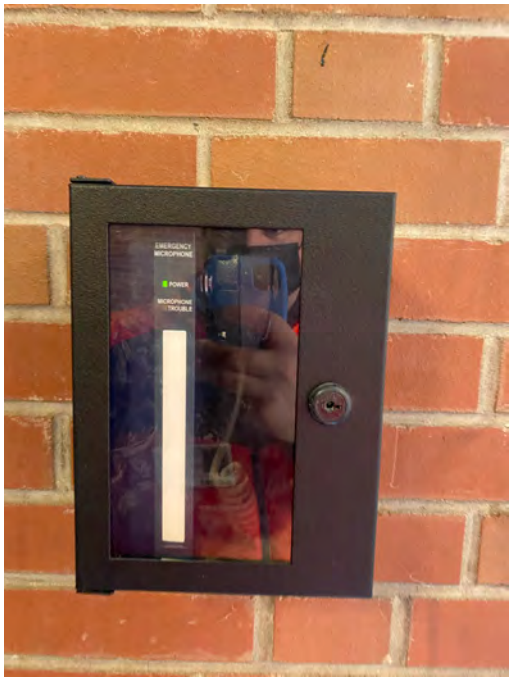


D2. 23: Exterior Security Camera.

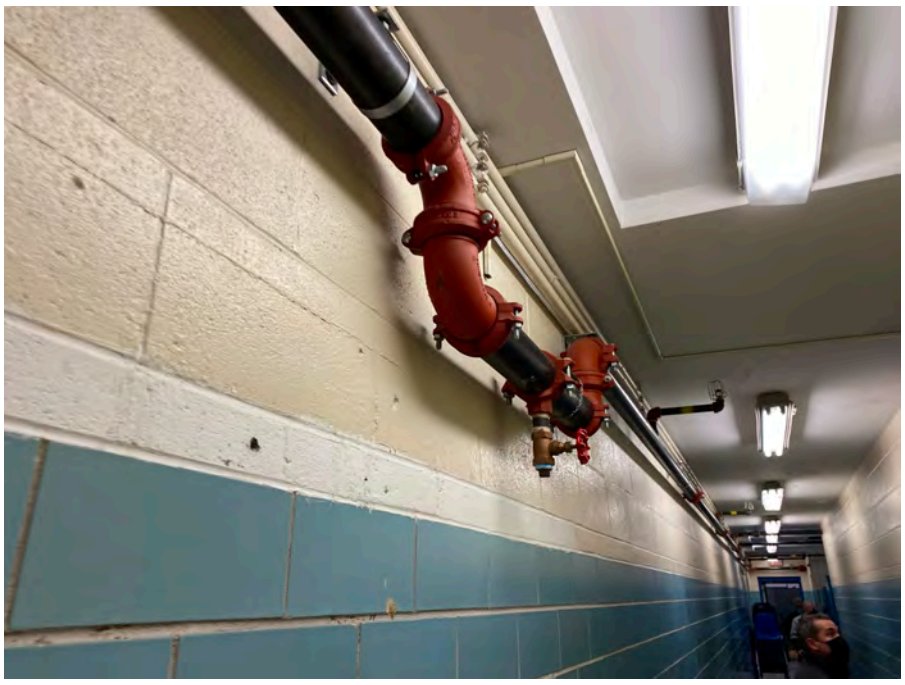


D2. 24: Fire Alarm Control Panel.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 25: Fire Alarm Remote Voice Command Center.

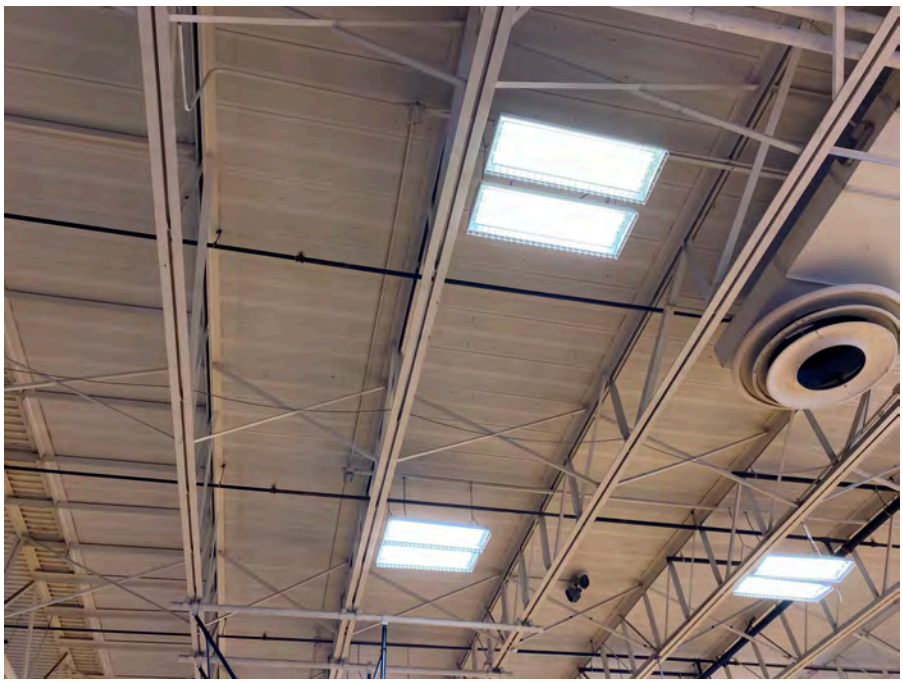


D2. 26: Fire Protection Piping and Sprinkler Heads in Fair Condition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 27: Gymnasium Air Handler and Ductwork in Poor Condition.



D2. 28: Gymnasium Fire Protection Pipes and Sprinklers in Good Condition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 29: View of auxillary gym 1972 (center/left) and roll up curtain (right)



D2. 30: Detail view of mechanical equipment connections, fire protection system alarms and overflow drains on north side of 1972 stage storage addition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 31: Hot Water Boiler and Burner in Mechnaical Room.

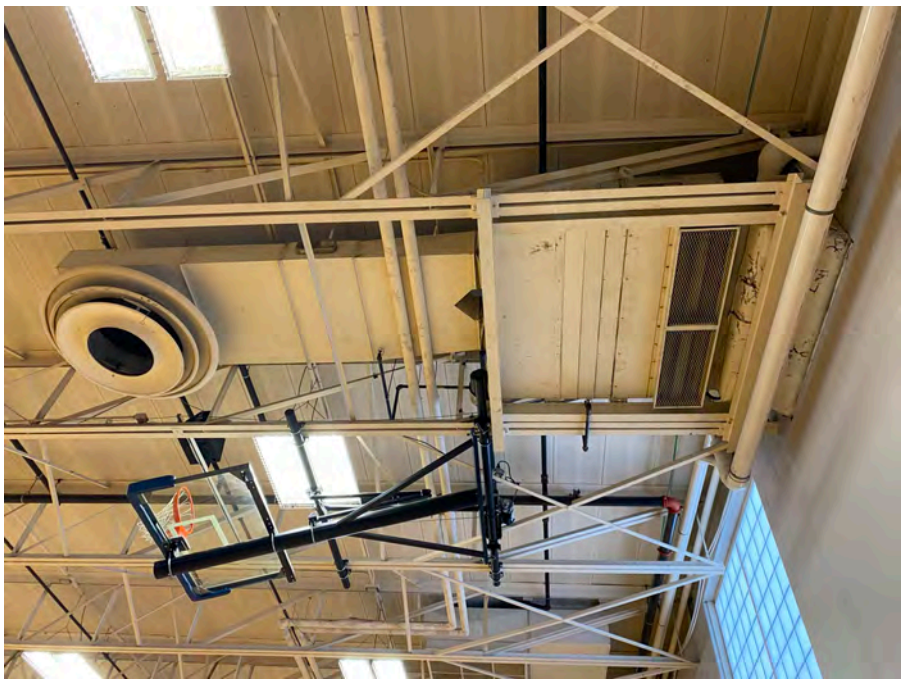


D2. 32: Boys toilet room with exposed heating pipes to unit cabinet heater, adjacent to gymnasium, original construction 1964.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 33: Hot Water Convector in Poor Condition.



D2. 34: Hot Water Piping in Gymnasium in Poor Condition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

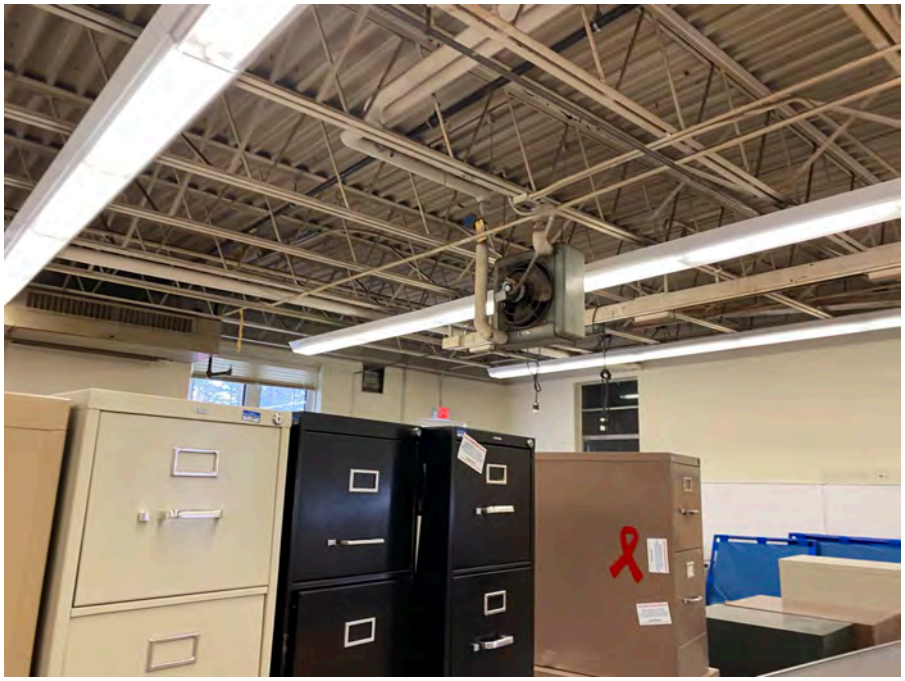


D2. 35: Hot Water Piping in Poor Condition.



D2. 36: Hot Water Pumpms in Poor Condition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

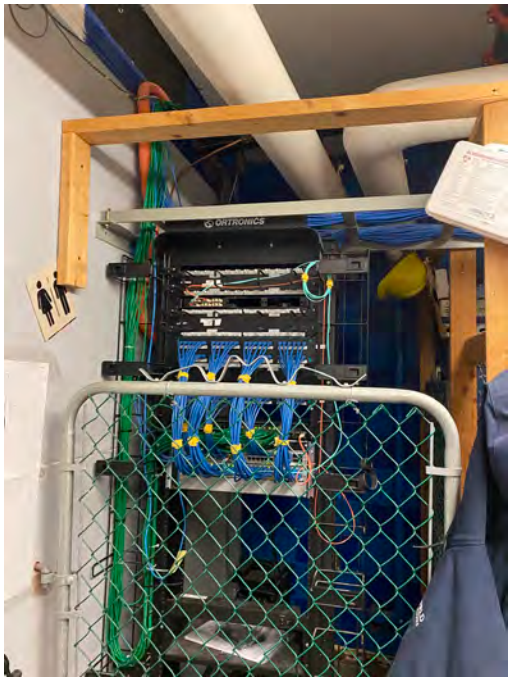


D2. 37: Hot Water Unit Heater and Piping in Poor Condition.



D2. 38: Hot Water Unit Heater in Fair Condition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 39: IDF Data Rack #2.



D2. 40: IDF Data Rack #2.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 41: View of existing cafeteria, original construction 1964.



D2. 42: View of entry vestibule area adjacent to the gymnasium, original construction 1964.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

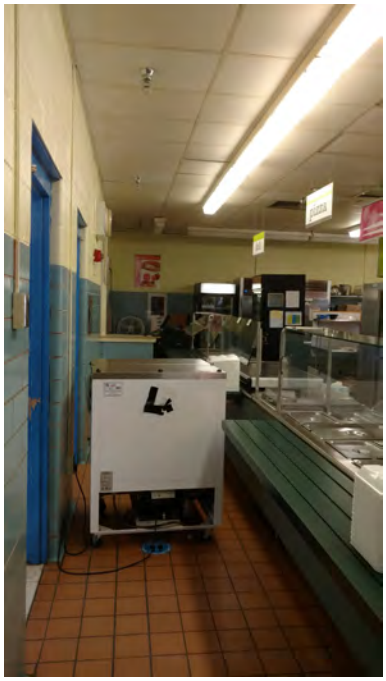


D2. 43: View of connecting corridor in the 1972 addition.



D2. 44: General view of the media center, 1972 infill addition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



- D2. 45: Detail view of the kitchen / servery line. Kitchen Lighting with Linear Fluorescent.



- D2. 46: MDF Data Rack.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 47: McQuay Condensing Unit in Poor Condition.



D2. 48: Natural Gas Domestic Hot Water Tank in Mechanical Room.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

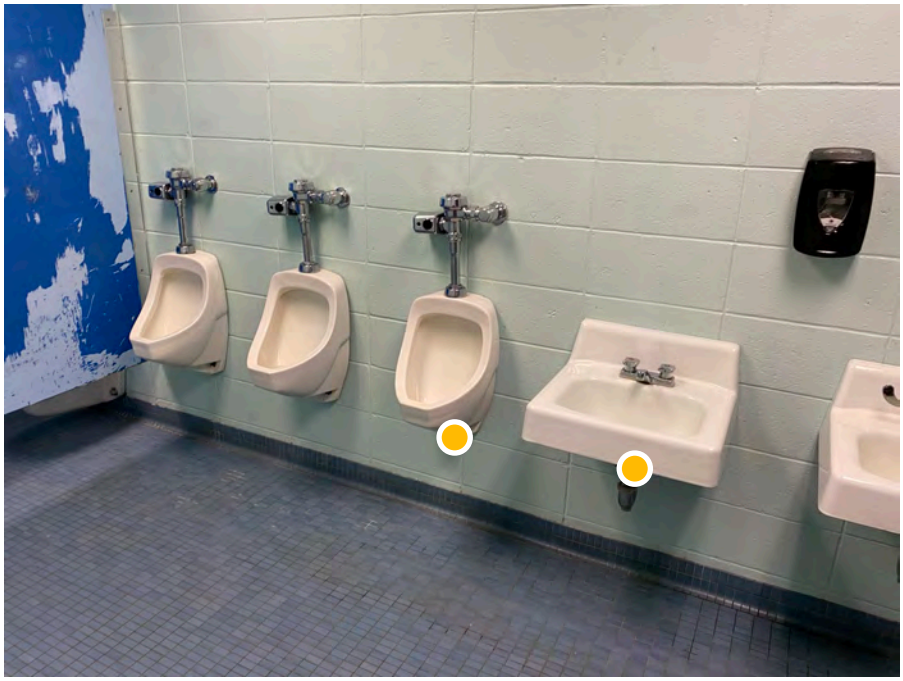


D2. 49: Natural Gas Service.

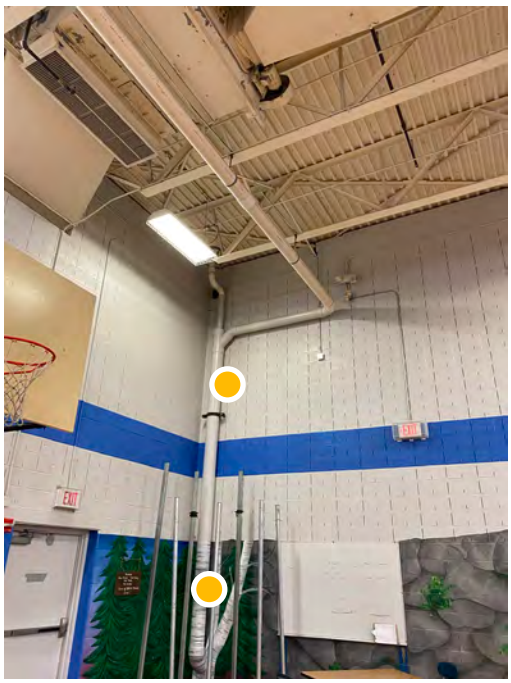


D2. 50: Old School Fire Alarm.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

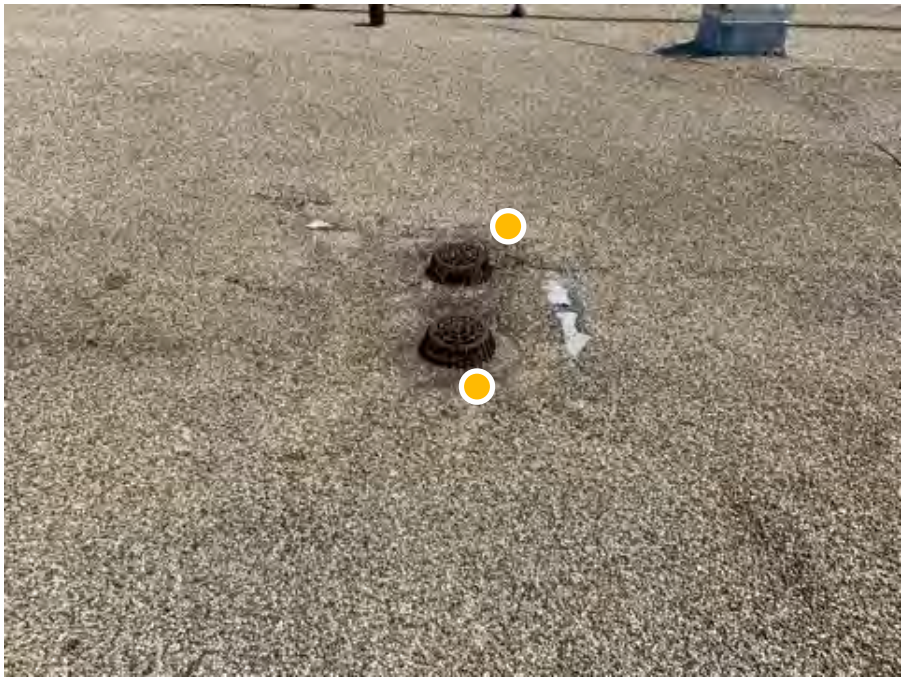


D2. 51: Detail view of fixture replacement retrofit, does not meet all current accessibility codes.



D2. 52: detail view of exposed piping in auxiliary gymnasium.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 53: View of typical roof drain.

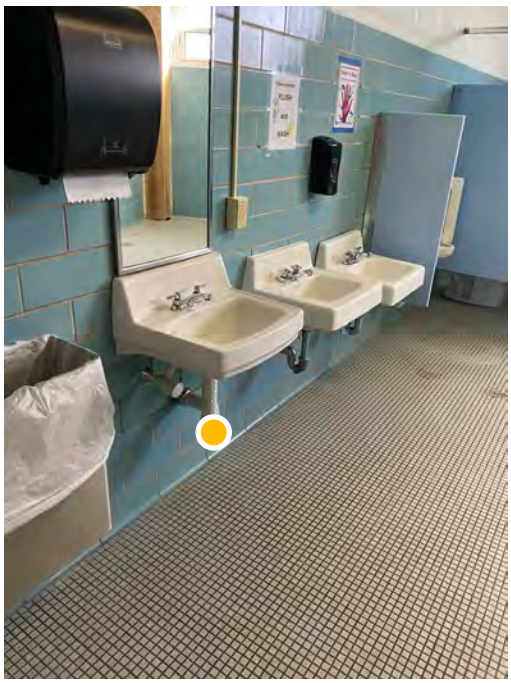


D2. 54: Roof Mounted Condensing Unit in Poor Condition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 55: Roof Mounted Exhaust Fans in Poor Condition.



D2. 56: Detail view of sink retrofit for accessibility compliance.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 57: Small Trane Unit in Poor Condition.



D2. 58: Storm Piping from Roof Drain in Fair Condition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 59: Telephone Service Distribution.



D2. 60: Typical Classroom Speaker.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 61: View of typical classroom with unit ventilator and perimeter radiation units at exterior wall.



D2. 62: Typical PTAC Unit in Poor Condition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 63: View of typical classroom with unit ventilator and perimeter radiation units at exterior wall, note the fan to compensate for additional air circulation.



D2. 64: Typical York Rooftop Unit in Poor Condition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 65: Unit Ventilator and PTAC Unit Outdoor Air Intakes Along Wall.



D2. 66: Various Mechanical Equipment on Roof in Poor Working Condition.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D2. 67: Wall Mounted Split Unit For Cooling in IDF Room.



D2. 68: Wireless Access Point.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

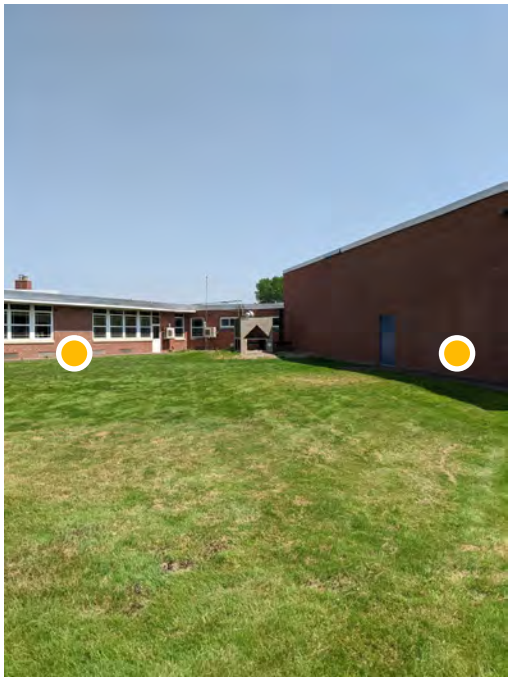


D3. 1: View of dumster area along with generator, note no protection around ground mounted generator.



D3. 2: View of former greenhouse foundation wall in foreground, two story classroom wing shown beyond.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D3. 3: View of courtyard between existing auditorium and classroom wing.



D3. 4: View of courtyard between existing auditorium and classroom wing.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT



D3. 5: View of main entry and administration offices to middle school, note the poor condition of asphalt drive and parking in the foreground.

CAPITAL IMPROVEMENTS E

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

Suffield Middle School - ROM Summary														Building Area: 128,489				CIP Prioritization				
SYSTEM / LINE ITEM DESCRIPTION	Amount	Unit	Unit Price	Current Replacement Cost	General Conditions	Bonds, Ins., Permit	(Unforeseen Conditions)	Temporary Facilities and Controls	Subtotal - Line Item	Line Item Contingency + Approx. Soft Costs (Design, printing, advertising, etc.)	Projected Line Item Cost	Escalation, Market Premium	Projected Line Item Cost W/Premium	REMARKS	Immediate	1-3 Years	3-5 Years	5-10 Years	10+ Years
					10%	1.5%	7.5%	5.0%		12.5%		20%			0.0%	7.2%	16.8%	31.8%	56.6%
Site Improvements																				
Repaving of existing drives	6,272	SY	$55	$ 344,972	$ 34,497	$ 5,175	$ 25,873	$ 17,249	$ 427,766	$ 53,471	$ 481,236	$ 96,247	$ 577,484	Splits allocation between MIS & SMS. Maintain base, strip and reuse aggregate					
Repaving of existing parking areas	3,224	SY	$45	$ 145,063	$ 14,506	$ 2,176	$ 10,880	$ 7,253	$ 179,878	$ 22,485	$ 202,362	$ 40,472	$ 242,835	Splits allocation between MIS & SMS. Maintain base, strip and reuse aggregate					
Granite curbing	3,600	LF	$50	$ 180,000	$ 18,000	$ 2,700	$ 13,500	$ 9,000	$ 223,200	$ 27,900	$ 251,100	$ 50,220	$ 301,320	Splits allocation between MIS & SMS. Main drives and parking perimeter					
Concrete sidewalks	5,767	SF	$14	$ 80,738	$ 8,074	$ 1,211	$ 6,055	$ 4,037	$ 100,115	$ 12,514	$ 112,630	$ 22,526	$ 135,155	Reuse of base material, replace existing only, no expansion					
Bituminous sidewalks	2,778	SY	$45	$ 125,000	$ 12,500	$ 1,875	$ 9,375	$ 6,250	$ 155,000	$ 19,375	$ 174,375	$ 34,875	$ 209,250	None					
Storm water drainage	128,489	SF	$10	$ 1,284,890	$ 128,489	$ 19,273	$ 96,367	$ 64,245	$ 1,593,264	$ 199,158	$ 1,792,422	$ 358,484	$ 2,150,906	Assumes replacement and subsurface retention to meet current requirements, new catch basins and piping					
Parking lot lighting	5	EA	$5,500	$ 27,500	$ 2,750	$ 413	$ 2,063	$ 1,375	$ 34,100	$ 4,263	$ 38,363	$ 7,673	$ 46,035	Limited site lighting exists, recommended					
Play area surface	0	SY	$65	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	Includes subsurface drainage and base, new universally accessible play surface with subsurface drainage					
Bollard/Ground lighting	10	EA	$3,500	$ 35,000	$ 3,500	$ 525	$ 2,625	$ 1,750	$ 43,400	$ 5,425	$ 48,825	$ 9,765	$ 58,590	Limited bollard lighting exists, recommended					
Playground Equipment	0	EA	$65,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	Age appropriate play area with universal ADA access					
Fencing (4 ft vinyl coated chain link)	0	LF	$65	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	East and south side of site to provide some level of separation at perimeter of site					
Exterior Improvements				$ -					$ -	$ -	$ -								
Brick Repair/Repointing	128,489	SF	$8	$ 1,027,912	$ 102,791	$ 15,419	$ 77,093	$ 51,396	$ 1,274,611	$ 159,326	$ 1,433,937	$ 286,787	$ 1,720,725	replacement of spalling brick, retooling of joints, and sealer					
Window Replacement	11,836	SF	$75	$ 887,700	$ 88,770	$ 13,316	$ 66,578	$ 44,385	$ 1,100,748	$ 137,594	$ 1,238,342	$ 247,668	$ 1,486,010	replacement of existing					
Security Window Film (Allowance)	7,891	SF	$15	$ 118,360	$ 11,836	$ 1,775	$ 8,877	$ 5,918	$ 146,766	$ 18,346	$ 165,112	$ 33,022	$ 198,135	as per CT state standards for school safety and infrastructure guidelines, first level only					
Caulking & Sealant Replacement	128,489	SF	$2	$ 256,978	$ 25,698	$ 3,855	$ 19,273	$ 12,849	$ 318,653	$ 39,832	$ 358,484	$ 71,697	$ 430,181	backer rod and sealant replacement - all joints					
Exterior Doors	29	EA	$3,500	$ 101,500	$ 10,150	$ 1,523	$ 7,613	$ 5,075	$ 125,860	$ 15,733	$ 141,593	$ 28,319	$ 169,911	replace with new hollow metal door and frames					
Patch, repair, paint trim	128,489	SF	$2	$ 256,978	$ 25,698	$ 3,855	$ 19,273	$ 12,849	$ 318,653	$ 39,832	$ 358,484	$ 71,697	$ 430,181	fascia and trim replacement					
Soffit, canopy repair/refinish	3,738	SF	$15	$ 56,070	$ 5,607	$ 841	$ 4,205	$ 2,804	$ 69,527	$ 8,691	$ 78,218	$ 15,644	$ 93,861	limited areas					
Roof Replacement	128,489	SF	$28	$ 3,597,692	$ 359,769	$ 53,965	$ 269,827	$ 179,885	$ 4,461,138	$ 557,642	$ 5,018,780	$ 1,003,756	$ 6,022,536	replace in kind, new insulation to meet current energy code					
Interior Improvements				$ -					$ -	$ -	$ -								
Door, frame, and hardware replacement	186	EA	$1,750	$ 325,500	$ 32,550	$ 4,883	$ 24,413	$ 16,275	$ 403,620	$ 50,453	$ 454,073	$ 90,815	$ 544,887	does not include security hardware or devices, removal of existing					
Reconfiguration of door for ADA	51	EA	$5,000	$ 255,000	$ 25,500	$ 3,825	$ 19,125	$ 12,750	$ 316,200	$ 39,525	$ 355,725	$ 71,145	$ 426,870	reconfiguration of walls for push/pull clearance					
Flooring	120,389	SF	$15	$ 1,805,835	$ 180,584	$ 27,088	$ 135,438	$ 90,292	$ 2,239,235	$ 279,904	$ 2,519,140	$ 503,828	$ 3,022,968	assumes basic tile flooring, remove and dispose of old					
Gymnasium Flooring Replacement	8,100	SF	$18	$ 145,800	$ 14,580	$ 2,187	$ 10,935	$ 7,290	$ 180,792	$ 22,599	$ 203,391	$ 40,678	$ 244,069	assumes basic tile flooring, remove and dispose of old					
Ceilings	128,489	SF	$11	$ 1,413,379	$ 141,338	$ 21,201	$ 106,003	$ 70,669	$ 1,752,590	$ 219,074	$ 1,971,664	$ 394,333	$ 2,365,996	assumes lay in tile ceiling, remove and dispose of old					
Toilet Room reconfiguration/renovation	3,463	SF	$325	$ 1,125,475	$ 112,548	$ 16,882	$ 84,411	$ 56,274	$ 1,395,589	$ 174,449	$ 1,570,038	$ 314,008	$ 1,884,045	does not include fixtures or plumbing costs, does not include PK (recently renovated)					
Millwork	1,407	LF	$650	$ 914,550	$ 91,455	$ 13,718	$ 68,591	$ 45,728	$ 1,134,042	$ 141,755	$ 1,275,797	$ 255,159	$ 1,530,957	removal of existing, high and low PLAM cabinets with solid surface countertops, does not include PK					
Caulking and Painting	128,489	SF	$6.5	$ 835,179	$ 83,518	$ 12,528	$ 62,638	$ 41,759	$ 1,035,621	$ 129,453	$ 1,165,074	$ 233,015	$ 1,398,089	allocation for all walls					
Interior glazing	550	SF	$50	$ 27,500	$ 2,750	$ 413	$ 2,063	$ 1,375	$ 34,100	$ 4,263	$ 38,363	$ 7,673	$ 46,035						
Drinking Fountain replacements	7	EA	$6,500	$ 45,500	$ 4,550	$ 683	$ 3,413	$ 2,275	$ 56,420	$ 7,053	$ 63,473	$ 12,695	$ 76,167	equally distributed throughout school					
Chair lift (ADA Accessibility)		EA	$65,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	Accessible route to stage is already provided					
Elevator	2	STOP	$65,000	$ 130,000	$ 13,000	$ 1,950	$ 9,750	$ 6,500	$ 161,200	$ 20,150	$ 181,350	$ 36,270	$ 217,620						
Misc - Kitchen Equipment	128,489	SF	$7	$ 835,179	$ 83,518	$ 12,528	$ 62,638	$ 41,759	$ 1,035,621	$ 129,453	$ 1,165,074	$ 233,015	$ 1,398,089	complete replacement of equipment, freezer, cooler					
Division 21 - Fire Protection				$ -					$ -	$ -	$ -								
Fire Protection Distribution System	128,489	SF	$8	$ 1,027,912	$ 102,791	$ 15,419	$ 77,093	$ 51,396	$ 1,274,611	$ 159,326	$ 1,433,937	$ 286,787	$ 1,720,725	Replacement of entire fire protection system.					
Fire Pump	128,489	SF	$1.50	$ 192,734	$ 19,273	$ 2,891	$ 14,455	$ 9,637	$ 238,990	$ 29,874	$ 268,863	$ 53,773	$ 322,636	Building does not contain a fire pump.					
Division 22 - Plumbing				$ -					$ -	$ -	$ -								
Water Distribution and Drainage Systems	128,489	SF	$10	$ 1,284,890	$ 128,489	$ 19,273	$ 96,367	$ 64,245	$ 1,593,264	$ 199,158	$ 1,792,422	$ 358,484	$ 2,150,906	A majority of the piping in original to the 1964 construction and past the end of its useful life.					
Plumbing Fixtures / Equipment	128,489	SF	$5	$ 642,445	$ 64,245	$ 9,637	$ 48,183	$ 32,122	$ 796,632	$ 99,579	$ 896,211	$ 179,242	$ 1,075,453	Replacement of all plumbing fixtures throughout the building.					
Water Heaters	128,489	SF	$1.50	$ 192,734	$ 19,273	$ 2,891	$ 14,455	$ 9,637	$ 238,990	$ 29,874	$ 268,863	$ 53,773	$ 322,636	Water heaters vary in age throughout. Newer water heaters are approaching the end of their useful lives in 5-10 years. Older water heaters are past the end of their udeful lives.					
Misc ~ Sanitary Slab Cutting, Floor Repair, Trenching	128,489	SF	$5	$ 642,445	$ 64,245	$ 9,637	$ 48,183	$ 32,122	$ 796,632	$ 99,579	$ 896,211	$ 179,242	$ 1,075,453						
Division 23 - Mechanical				$ -					$ -	$ -	$ -								
Heating Plant (Boilers, Pumps, etc.)	128,489	SF	$5	$ 642,445	$ 64,245	$ 9,637	$ 48,183	$ 32,122	$ 796,632	$ 99,579	$ 896,211	$ 179,242	$ 1,075,453	All heating plant equipment is approaching the end of its useful life.					
Terminal Units	128,489	SF	$5	$ 642,445	$ 64,245	$ 9,637	$ 48,183	$ 32,122	$ 796,632	$ 99,579	$ 896,211	$ 179,242	$ 1,075,453	Convectors, unit heaters, fin tube radiation, PTAC units unit ventilators, and variable air volume boxes are all approaching the end of their useful lives.					
Air Handling Systems	128,489	SF	$7	$ 899,423	$ 89,942	$ 13,491	$ 67,457	$ 44,971	$ 1,115,285	$ 139,411	$ 1,254,695	$ 250,939	$ 1,505,634	Air handling systems, ductwork, and exhaust fans of various vintages are approaching the end of their useful lives.					
Control Systems	128,489	SF	$8	$ 1,027,912	$ 102,791	$ 15,419	$ 77,093	$ 51,396	$ 1,274,611	$ 159,326	$ 1,433,937	$ 286,787	$ 1,720,725	BMS does not work properly, needs to be replaced/ repaired.					
Air Conditioning	128,489	SF	$5	$ 642,445	$ 64,245	$ 9,637	$ 48,183	$ 32,122	$ 796,632	$ 99,579	$ 896,211	$ 179,242	$ 1,075,453	There is no central air conditioning plant within this building. Cooling is provided the air handling systems, PTAC units, and unit ventilators.					
HVAC Modernization Premium	128,489	SF	$40	$ 5,139,560	$ 513,956	$ 77,093	$ 385,467	$ 256,978	$ 6,373,054	$ 796,632	$ 7,169,686	$ 1,433,937	$ 8,603,623	Costs abover are to replace systems as is. Current system is not up to current CT School design standards.					
Division 26 - Electrical				$ -					$ -	$ -	$ -								
Electrical Service / Distribution	128,489	SF	$25	$ 3,212,225	$ 321,223	$ 48,183	$ 240,917	$ 160,611	$ 3,983,159	$ 497,895	$ 4,481,054	$ 896,211	$ 5,377,265	Electric service appears to to be in good working condtion.					
Generator	128,489	SF	$1.5	$ 192,734	$ 19,273	$ 2,891	$ 14,455	$ 9,637	$ 238,990	$ 29,874	$ 268,863	$ 53,773	$ 322,636	Generator is in serviceable condition.					
Lighting - General	128,489	SF	$8	$ 1,027,912	$ 102,791	$ 15,419	$ 77,093	$ 51,396	$ 1,274,611	$ 159,326	$ 1,433,937	$ 286,787	$ 1,720,725	Fluorescent fixtures installed with some retrofit with LED bulbs.					
Fire Alarm System	128,489	SF	$7	$ 899,423	$ 89,942	$ 13,491	$ 67,457	$ 44,971	$ 1,115,285	$ 139,411	$ 1,254,695	$ 250,939	$ 1,505,634	Fire alarm system is in good condition. System is voice-capable.					
Technology Infrastructure	128,489	SF	$12	$ 1,541,868	$ 154,187	$ 23,128	$ 115,640	$ 77,093	$ 1,911,916	$ 238,990	$ 2,150,906	$ 430,181	$ 2,581,087						
Security Alarms and control devices	128,489	SF	$5	$ 642,445	$ 64,245	$ 9,637	$ 48,183	$ 32,122	$ 796,632	$ 99,579	$ 896,211	$ 179,242	$ 1,075,453						
Subtotal for CIP Items				**$ 36,879,244**					**$ 45,730,263**		**$ 51,446,546**	**$ 10,289,309**	**$ 61,735,855**						
Cost Per Square Foot				**$ 287.02**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 355.91**	**$ -**	**$ 400.40**	**$ 80.08**	**$ 480.48**						

Building Vintage Summary			
Building Vintage	**Area**		**% to Ttl**
Building Vintage ~ 1964	89,078	V1	69.33%
Building Vintage ~ 1965	9,280	V2	7.22%
Building Vintage ~ 1972	30,131	V3	23.45%
	128,489		100.00%

SUFFIELD HIGH SCHOOL

1060 SHELDON STREET, SUFFIELD, CT

CONDITIONS ASSESSMENT & MASTER PLAN

Tecton ARCHITECTS

3.4



TABLE OF CONTENTS

INTRODUCTION ..... **A**

Summary & Analysis A1

DATA & RANKINGS ..... **B**

Building Data B1

Condition Rankings B2

EXISTING CONDITIONS NARRATIVE ..... **C**

Architectural *(Building & Structure)* C1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* C2

Site *(Civil, Landscape, Utilities)* C3

PHOTO LOG ..... **D**

Architectural *(Building & Structure)* D1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* D2

Site *(Civil, Landscape, Utilities)* D3

CAPITAL IMPROVEMENTS ..... **E**

Capital Improvements E1

INTRODUCTION A

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD , CT

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

Suffield High school serves 9th grade through 12th grade students in the Town of Suffield. Area A consists of the main lobby space, Auditorium, Gymnasium and locker space, Administrative Offices, and some classrooms. Areas B and C are largely made up of classroom space. The High School sits along Sheldon Street on a large open site. A bus loop and a separate parent drop-off loop sit between the school and Sheldon Street. All athletic fields and the majority of site parking sit to the West of the building. A smaller visitor lot sits within the bus loop and some parking is available along the East drive aisle as well.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

GRADE LEVEL	9-12
STUDENTS	776
BUILDING AREA/SITE	204,016 SF / 60.48 acres
AGE/CONSTRUCTION	2002 (20), 2012 (10)

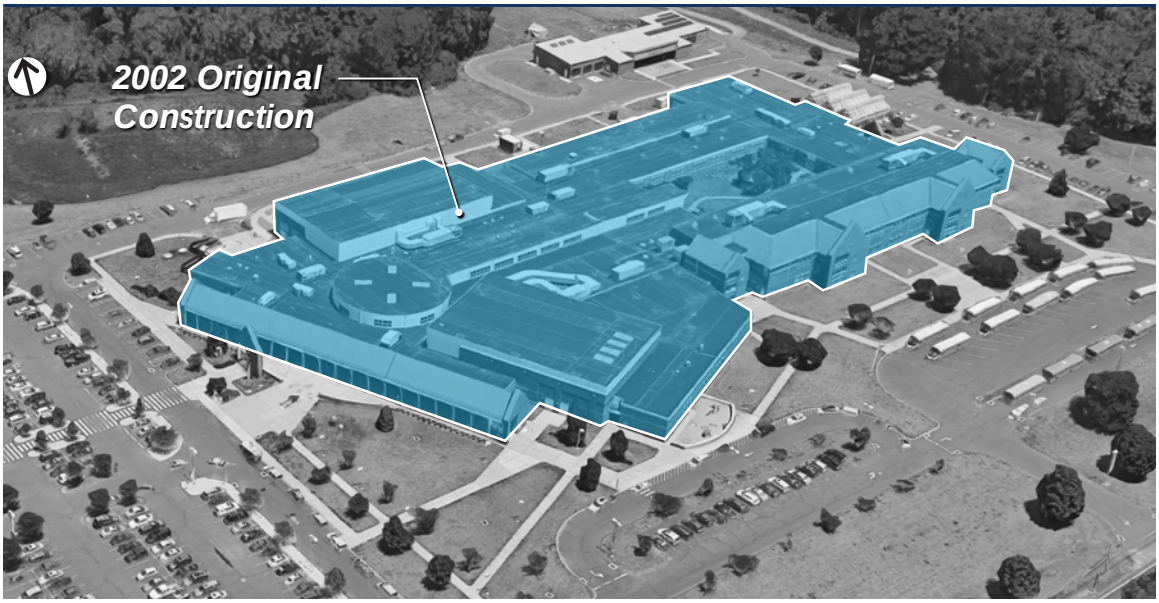
***Building Condition*: Fair**

- Site circulation concerns – separation of bus, parent, and student. Intersecting routes create confusion at arrival/dismissal.
- Under-utilized Courtyard Space. Gaps in perimeter roof flashing exposing building to loss of energy and wildlife
- Original roof designed with 15-year warranty
- Overall, interior spaces are well maintained, some areas of questionable quality of original construction, overall building has worn faster than anticipated
- Curling ceiling tiles leads team to be concerned about the HVAC balancing of the school.
- Fairly significant deterioration of furniture in areas, in some cases it is mismatched.
- Major Air Handling units 20 years old but failing at a high rate.
- Controls throughout are an issue.
- Overall ALL MEP systems are starting to get to the age where they will need some major maintenance.
- Desire to integrate more collaborative spaces, working toward this at media center
- Create Innovation Hub (Manufacturing), Career Center, Education & Health Service – Career & College Ready
- Reinvent antiquated program space (dark room area, computer, material lab)

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



A1. 1: Aerial View of Existing School and Property



A1. 2: Vintage Plan

DATA & RANKINGS B

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD , CT

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

B. DATA & RANKINGS

B.1 Building Data

The Facility:

Name:	**Suffield High School**
Address:	**1060 Sheldon St**
Type / Use:	**High School**

Total Building Area (SF):	204,016	**Original Construction:**	2002
Site Area (acres):	60.48	**Additions (dates):**	2012 (out building)
Stories (above grade):	2	**Construction Type(s):**	1B/2C
Building / Framing Materials:	Steel	**Roof Types & Age:**	Membrane/Asphalt
			Shingles/Metal(2002)
			2017 warranty
Split-level / ramps (interior):	Yes	**Heating (types):**	Hot Water, Hydronic Heat
Stairs (interior):	Yes	**Fuel Types:**	Propane and Oil
Elevator:	Yes	**Cooling (centralized):**	Central, via rooftop units
Basement:	No	**Ventilation:**	Yes, via rooftop units (RTU)
Mezzanine (finished)	No	**Electrical:**	480/277 volt, 3-ph, 4-wire 3000 amp
Crawl Space / Tunnels:	No	**Generator:**	(1) Caterpillar C9, (1) Cummins C30NG
Auxiliary Buildings:		**Fire Alarm:**	Edwards EST3 Voice Capable
Full ADA Compliance:	Yes	**Sewer / Septic**	Sewer
	N/A	**Municipal Water / Well**	Municipal Water
		Sprinklered (full / partial):	Yes, full coverage
School Data		**Parking Count:**	430
Enrollment(2020):	776		
Enrollment 10-yr:	573	**Meals:**	3 waves
Net Enrollment Change:	-203	**Meal Prep on site?:**	Yes
Location in Town:	Central	**Start Time:**	7:25
Grade Structure:	9-12	**Dismissal:**	2:05
Pre-K?:	No (Daycare may return)	**Buses:**	22, 4-5 others
Athletic Fields:	Softball, Baseball, (2) Multiuse	**Additional Programs:**	Agricultural Science
	Fields, Running Track, Field Event		
	Areas, (2) Basketball Courts, (7)		
	Tennis Courts		

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
2 Poor [P] May require attention in 2-5 years
3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1**
V2
V3
V4

Exterior

V4 V3 V2 **V1**

Component	Material(s)	Condition				Notes
Roofing	Membrane roof	-	-	-	3	Installed 2002, 15 year warranty
	Metal Roof	-	-	-	3	Installed 2002, 20 year warranty
	Asphalt Shingle Roof	-	-	-	4	No data
	Flashing / joints	-	-	-	4	N/A
	Gutters / downspouts/scuppers	-	-	-	4	N/A
	Fascia / trim	-	-	-	3	Courtyard fascia loose, birds nesting
	Skylights	-	-	-	4	N/A
Walls	Masonry (unpainted)	-	-	-	3	Staining below windows, CMU poor
	Metal Panel	-	-	-	3	Dented due to thru-bolts
	Joints (Building or expansion)	-	-	-	3	N/A
	Wall mounted fixtures	-	-	-	4	N/A
	Foundations – exposed concrete	-	-	-	4	N/A
Entrances	Entrance doors	-	-	-	3	Hollow metal doors require re-painting
	Overhead doors	-	-	-	3	N/A
	Soffits / Canopy	-	-	-	3	N/A
Windows	Aluminum	-	-	-	3	N/A
	Window Screens (exterior)	-	-	-	3	N/A
Walkways / site stairs	Sidewalks	-	-	-	2	Some cracking at entrance
	Bituminous concrete curb	-	-	-	3	N/A
Drives / parking lots	Bituminous concrete pavement	-	-	-	3	N/A
	Pavement striping	-	-	-	3	N/A
Landscaping	Lawn	-	-	-	3	N/A
	Plants	-	-	-	3	N/A
	Mulch beds	-	-	-	3	N/A
	Trees	-	-	-	3	N/A
Recreation	Soccer Field	-	-	-	4	N/A
	Football/Soccer Field	-	-	-	4	N/A
	Track	-	-	-	4	N/A
	Softball Field	-	-	-	4	N/A
	Baseball Field	-	-	-	4	N/A
	Tennis Courts	-	-	-	4	N/A
	Basketball Courts	-	-	-	4	N/A
Other Structures	Site lighting – poles and fixtures	-	-	-	4	N/A
	Vehicular signage	-	-	-	4	N/A
	Catch basin tops	-	-	-	3	Some cracking at concrete
	Catch basin structures	-	-	-	3	N/A

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
2 Poor [P] May require attention in 2-5 years
3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Interior

Component	Material(s)	Condition V4	V3	V2	V1	Notes
Flooring	Concrete (unpainted)	-	-	-	2	Cracking at exposed concrete
	Ceramic Tile	-	-	-	3	Minor chipping at locker rooms
	Vinyl composite tile	-	-	-	1	Adhesive bubbling through flooring
Walls Surfaces	Masonry (painted)	-	-	-	3	Minor cracking throughout
	Gypsum board	-	-	-	4	N/A
	Tile	-	-	-	4	N/A
Ceilings	Gypsum board ceilings / soffits	-	-	-	3	Some cracking at soffits
	Acoustic panel ceiling	-	-	-	4	N/A
Interior trim	Wood - Wall Base / Door / Window	-	-	-	4	N/A
	Wall Base – Vinyl	-	-	-	4	N/A
Interior doors	Wood doors	-	-	-	4	N/A
	Hollow metal doors	-	-	-	3	Exterior HM doors beginning to rust
	Hardware	-	-	-	4	N/A
Built-ins	Benches (composite wood)	-	-	-	4	N/A
	Casework	-	-	-	2	Accelerated wear / melamine peeling
	Countertops	-	-	-	3	Accelerated wear
Toilet Facilities	Fixtures	-	-	-	4	N/A
	Partitions	-	-	-	2	Accelerated wear throughout
	Accessories (dispensers, driers)	-	-	-	4	N/A
Athletics	Gymnasium floor / play surface	-	-	-	4	N/A
	Athletic equipment	-	-	-	4	N/A
	Bleacher Seating	-	-	-	4	N/A
	Lockers	-	-	-	4	N/A

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

B.2 Condition Rankings

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Vintage: **V1** **V2** **V3** **V4**

Building Systems

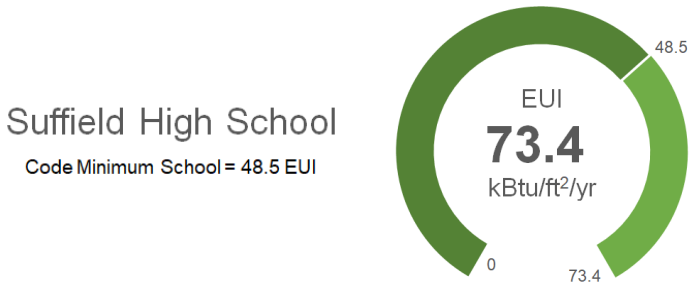
V4 V3 V2 **V1**

Component	Material(s)	Condition				Notes
Fire Protection	Alarms & Devices	-	-	-	4	In good working condition
	Fire suppression (infrastructure / devices)	-	-	-	4	In good working condition
Plumbing Systems	Infrastructure (pipes, drains, etc.)	-	-	-	4	Infrastructure in good condition
	Fixtures	-	-	-	2	Fixtures beginning to fail
	Overall efficiency	-	-	-	3	Overall efficiency is fair
Mechanical / HVAC	Infrastructure (pipes, ducts, etc.)	-	-	-	4	Infrastructure is in good condition
	Heating systems	-	-	-	4	Boilers are in good condition
	Cooling systems	-	-	-	3	Working but nearing end of life
	Fixtures & equipment (Interior)	-	-	-	3	In fair working condition
	Fixtures & equipment (Exterior/Roof top)	-	-	-	3	In fair working condition
	Overall efficiency	-	-	-	3	Overall efficiency is fair
Electrical (Service)	Infrastructure (panels, wiring, etc.)	-	-	-	3	Infrastructure is in good condition
	Service & distribution	-	-	-	3	In good working condition
	Generator	-	-	-	3	In good working condition
	Other	-	-	-	-	N/A
Electrical Lighting	Infrastructure (panels, wiring, etc.)	-	-	-	3	Infrastructure is in good condition
	Fixtures (Interior)	-	-	-	3	Fixtures in good working condition
	Efficiency (incl. natural & artificial light distr.)	-	-	-	3	LED retrofit lights in some areas
Security	Access Control	-	-	-	3	Building-wide System installed
	Cameras	-	-	-	3	Building-wide System installed

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

B. 2 Benchmarking

MECHANICAL, ELECTRICAL, FIRE PROTECTION, SECURITY			
SYSTEM	**EQUIPMENT LIFE EXPECTANCY**	**EQUIPMENT AGE**	**USEFUL LIFE PERCENTAGE**
Fire Protection System	40 Years	20 Years	50%
Plumbing Water Heater	25 Years	20 Years	80%
Plumbing Piping & Fixtures	40 Years	20 Years	50%
Mechanical Boiler Plant	40 Years	20 Years	50%
Mechanical Piping & Equipment	40 Years	20 Years	50%
Mechanical Air Conditioning	25 Years	20 Years	80%
Mechanical Controls	20 Years	20 Years	100%
Electrical Service & Distribution	40 Years	20 Years	50%
Electrical Lighting	30 Years	2 Years	7%
Electrical Generator	40 Years	20 Years	55%
Fire Alarm	20 Years	20 Years	100%



EXISTING CONDITIONS NARRATIVE C

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD , CT

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

C.1 Architectural

Construction:

There are three construction types present at Suffield High School, all separated by fire walls. Area A is type 1B construction and consists of the main lobby space, Auditorium, Gymnasium and locker space, Administrative Offices, and some classrooms. Areas B and C are both type 2C construction and are largely made up of classroom space.

Exterior:

EXTERIOR (GENERAL): The main entrance to the High School is located on the West façade with supplementary entrances located on all sides. An overhead garage door into the Agricultural Lab is located on the North façade. The exterior envelope is in good condition and has been well maintained but preventative maintenance, such as cleaning masonry, re-sealing windows, and re-caulking building joints, is recommended to extend the life of the building.

WALLS: The masonry façade is in good condition throughout. Some staining was observed below storefront window systems. The formed metal panel wall system that extends above flat roofs at the gymnasium has been dented due to a thru-bolt condition that is suspected to be the attachment point for the scoreboard on the interior. This attachment condition should be corrected, and the formed metal panel replaced. A low wall extending off the Northwest corner of the exterior is showing signs of efflorescence and moisture infiltration.

WINDOWS/DOORS/ENTRANCES: Windows, Doors, and entrances throughout the building are in good to fair condition. Exterior hollow metal doors and frames are beginning to rust at base and should be sanded and re-painted. Windows are difficult to open and are getting worse each school year.

ROOF: Membrane and metal roofs were both installed during initial construction in 2002. Although all roof systems appear to be in good condition, it should be noted that the membrane roof appears to have only carried a 15-year warranty and the metal roof carried a 20-year warranty. Metal fascia around the roof edge is in good condition. It was noted anecdotally that the fascia within the interior courtyard has begun to separate from the wall, leaving space for insect and wildlife infiltration.

Interior:

INTERIOR SPACES (GENERAL): Overall, the interior of the High School has been well maintained with some areas of questionable quality of original construction. Accelerated wear and tear has been noted on a lot of interior finishes including furniture, flooring, and ceilings, and casework. Corridor flooring is vinyl composite tile which can be considered fair to poor condition. An issue was observed consistently that this flooring has large cracks that appear to span between structural columns. In addition to cracking, adhesive consistently bubbles up from the cracks causing an unnecessary routine maintenance item. It is believed that water is penetrating the slab on grade and reacting with the water-based adhesive on the tile. Further investigation would need to be completed to determine extent of slab cracking below. Ceilings throughout the building are generally a mix between two types of acoustic panel ceilings. Any spaces with a tegular edge tile can be considered good condition. Locations with square edge tiles appear to consistently show signs of curling at tile corners. This leads the team to believe an HVAC balancing issue is present. Plastic laminate casework can be found throughout the facility and is in fair to poor condition. Rubber stair treads throughout have

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

experienced advanced wear and tear and should be replaced. Original doors, hardware, finishes are beginning to show signs of age and deterioration throughout.

TOILET/LOCKER FACILITIES: Toilet partitions are in poor condition throughout due to vandalism. It is recommended these be replaced with an abuse resistant partition system attached at both the floor and ceiling. Floor tile in the locker room is beginning to chip and should be repaired. Lavatories and toilets are in good condition.

MEDIA CENTER: The media center consists of carpet and vinyl plank flooring. The carpet is in good condition, but the vinyl wood-look flooring is experiencing the same water penetration/adhesive issues as the vinyl composite tile elsewhere.

AUDITORIUM: Stage and backdrop curtain are in poor condition. The wood flooring on the stage requires refinishing. The backdrop is torn and should be repaired or replaced.

INSTRUMENT REHEARSAL ROOM: Exposed ductwork in this space is in good condition but requires re-painting.

KITCHEN: Commercial kitchen equipment, tile flooring, and acoustic panel ceilings are in good condition. A select few ceilings tiles are beginning to sag and should be replaced.

AQUACULTURE CLASSROOM: Exposed concrete floor is spalling and requires repair.

GYMNASIUM: Gymnasium flooring, athletic equipment, folding partition, and bleachers are all in good condition.

Code & Safety

ADA: The building was built in 2002 and is up to current ADA standards.

SAFETY: Worn rubber stair treads could be a potential tripping hazard. Differential settlement at bollards could be a tripping hazard.

C.2 MEP

B.4 Plumbing/Fire Protection:

HOT WATER GENERATION: The buildings existing domestic hot water is generated via three water heaters located in the mechanical room. The 265 gallon water heaters are manufactured by Lochinvar and contain a gas-fired indirect heating coil. Each water heater has its own accumulator and expansion tank for water storage. The water heaters and tanks were installed during the original 2002 construction and are nearing the end of their useful lives.

DOMESTIC WATER SERVICE: The existing building is currently served by a municipal domestic water service the water service is 4 inches when it enters the building and is located inside the mechanical room. The water service was installed in 2002 and is in fair working condition.

DOMESTIC WATER PIPING: Domestic water piping was observed to be a combination of copper and

steel piping. The piping is original to the 2002 construction of the building. The piping is approximately 20 years and in fair working condition.

PLUMBING FIXTURES: All plumbing fixtures in the building are original to the 2002 construction. The plumbing fixtures are approximately 20 years old and are beginning to fail at a high rate. Many of the plumbing fixtures are at the end of their useful lives and will need to be replaced throughout.

SANITARY SERVICE: The building is served by the town sewer system. There are multiple 6 inch sanitary lines that exit the building underground to run into the sewer system. The sanitary service was installed during the 2002 construction and is in good working condition.

STORM SERVICE: There is a complete roof drain to piping storm service within the building. The storm piping exits the building in multiple locations at a 10 inch pipe size. The storm service was installed during the 2002 construction and is in good working condition.

PROPANE GAS SERVICE: The building currently has a propane gas service that feeds the generator. The 1000 gallon propane gas tank is located outside on the ground. The propane tank appears to be original to the building and is in fair working condition.

OIL SERVICE: An underground oil tank is used to provide oil to the boilers in the mechanical room. The oil service was installed in 2002 and is in fair working condition.

FIRE PROJECTION: This building contains a full fire protection sprinkler system. The 10 inch fire service main is located in the mechanical room. The fire service main was installed during the 2002 construction and is in good working condition.

B.5 Mechanical:

HEATING SYSTEMS: The existing boiler plant consists of three oil fueled cast iron boilers located in the mechanical room. The boilers are manufactured by Weil McLain and have an output of 6,390 MBH. The boilers were installed in 2002 and are nearing the end of their useful lives. Hot water is distributed throughout the building via a three in-line pumps and a pair of base mounted pumps. The three in-line pumps serve each boiler respectively as the hot water bypasses or runs through the pair of base mounted pumps before being distributed throughout the building. The pumps were installed in 2002 and are nearing the end of their useful lives.

HOT WATER PIPING: The hot water heating systems consists of Steel and Copper piping. The piping is original to the 2002 construction and is in good working condition.

TERMINAL UNITS: The building consists of hot water wall convectors, fin-tube radiation, unit heaters, and radiant panels to provide perimeter heat to various rooms. These pieces of mechanical equipment are original to the 2002 construction and nearing the end of their useful lives. There are four Mitsubishi wall mounted split AC units. These split AC units provide cooling to various rooms throughout the building. Each split unit has its own condensing unit that is located outside of the building. The split AC units and condensing units were installed in 2002 and are nearing the end of their useful lives.

VENTILATION SYSTEMS: The building contains 17 rooftop units. Thirteen of the rooftop units are complete packaged units that provide the spaces they serve with heating, cooling, and ventilation air. Two of the rooftop units have their own condensing units to provide cooling to the system. One of the

rooftop units is a full energy recovery unit that serves the Animal Area and another does not provide any cooling. All of the rooftop units were installed in 2002 and are beginning to fail at a high rate. A make-up air unit provides outdoor air ventilation to the Kitchen when it is needed. The rooftop units and make-up air unit are nearing the end of their useful lives and will need to be replaced. A majority of the rooms throughout the building contain an exhaust fan that takes all of the exhaust air out of the building. The exhaust fans were installed during the 2002 construction and are nearing the end of their useful lives. There are three ventilators that are installed on the roof that provide outdoor air ventilation to the rooms they serve. The ventilators were installed in 2002 and are nearing the end of their useful lives.

COOLING SYSTEMS: Cooling is provided to the building through the various mechanical equipment mentioned above. There is no cooling plant in this building. The wall mounted split AC units provide cooling via the condensing unit to the rooms they serve. All of the packaged rooftop units are able to provide cooling to all of the rooms they serve. The cooling system in this building is not as efficient as it can be and a renovation to the existing equipment is necessary to make that happen.

DUCTWORK: The ductwork throughout the building was installed during the 2002 construction. The ductwork serves the rooftop units, make-up air unit, and exhaust fans. The ductwork is 20 years old and appears to be in poor condition. The rooftop ductwork is at the end of its useful life and will need to be replaced.

CONTROLS: The building does not have a Building Management System (BMS). The building contains electrical temperature sensors and controls in various room locations.

B.7 Electrical:

MAIN ELECTRIC SERVICE: The main electric service originates from a utility company pole. The service runs from the utility pole to a utility company owned, pad mounted transformer located adjacent to the building. The service then runs underground to the main switchboard located in the basement of the building.

The main electric service to the building is rated 3,000 Amps, 480 volts, 3-phase, 4-wire, and includes a main disconnect switch, utility company metering compartment, and distribution sections. This service and main switchboard were installed in the 2006 addition. This service and equipment are in good working condition.

ELECTRICAL DISTRIBUTION: The electrical distribution consists of conduit and feeders from the main distribution panels to branch circuit panel boards located throughout the building. The electrical distribution and equipment have been installed over the various years of construction. The building had a new electric service installed in 2006 and this new service back feeds the exiting service installed in the 1968 renovation. The equipment and wiring that was installed in the 1968 renovation are past their useful life. In the 2006 renovation new wiring was provided in that area of the building are in good working condition.

GENERATOR: The building currently has two generators. The first generator is a 30 kW gaseous fired generator. This generator serves as the backup for Panel SB-LPP-1-6A via a 100 ampere Zenith ZTG auto transfer switch (ATS). This generator is a Cummins C30NG with approximately 132 hours of operation. This generator is in good working condition. The second generator is a 250 kW diesel fired standby

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

generator and is located outside the main electric room. This generator is a Caterpillar C9 and provides 300 amperes of capacity to support standby power (SB) and also 225 amperes of capacity to life safety (LS) select loads within the building. This generator is in good working condition. Both generators are very suitable for continued operation with an appropriate preventative maintenance program.

LIGHTING SYSTEMS: The lighting throughout the building consists of 2x4, 2x2 and 1x4 LED troffers. Many of the fixtures appeared to be recently replaced with LED fixtures complete with integral wireless occupancy sensor controls. The gymnasium fixtures have been replaced with linear style high output LED fixtures that promote a proper amount of illumination for the intended use.

Many areas feature wall sconce, pendant cylinder, recessed cylinder, and downlights of various sizes that appear to be part of the 2002 installation. Increased performance and lower energy consumption can be realized with entertaining these fixtures with viable LED replacements. These fixtures can continue in service with proper maintenance.

Emergency lighting for the building is served from emergency branch circuits that are served off of the emergency life safety branch (LS) distribution served from the 250 kW generator.

Lighting control consists of wall mounted toggle switches, key operated toggle switches for local control, low voltage dimming stations were provided to promote control of new replacement LED lighting.

Auditorium egress lighting is provided through steplights provided at the end of every third row of seating.

FIRE ALARM SYSTEM: The fire alarm system in the building consists of a distributed system of Edwards EST3 fire alarm control panels that are networked to provide addressable operation with voice evacuation capabilities to the entire building. The system incorporates a fire command station and remote annunciator panel in the main vestibule, ADA compliant speaker/strobe units, ADA compliant strobe only units, manual fire alarm pull stations, smoke detectors, heat detectors, duct mounted smoke detectors with remote test switches, and sprinkler system flow and tamper switches. The fire alarm control panels are undergoing upgrades to many of the control panels as was observed on site during 3/2021 walk-throughs. The peripheral devices are older from the original system installation in 2002 but should integrate without issue with the new control panels. This system when fully upgraded will greatly extend the system useful life.

COMMUNICATION SERVICES: Cable TV service is utilized in the building. Service cable enters the building and distributes through multiple amplifiers to distribution hubs throughout.

T1 communication equipment exists at the MDF service backboard.

Fiber service is provided to the building and distributed throughout.

Communication services enter the main telecomm room via multiple 4" conduits brought in from the street.

MDF and IDF rooms are provisioned throughout the building at locations that promote the proper coverage to conform with network cabling distance limitations. Building horizontal cabling is Cat 6

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

with PoE type network switches installed on two post racks. The rooms are appropriately outfitted with grounding and bonding, basket tray rack and dedicated cooling systems.

Wireless access points are provisioned throughout and appear to be the Aerohive AP250 series.

Sapling clock and program equipment is provided in the building.

Access Control for security is provided throughout.

Ceiling and wall mounted speakers are provided throughout for general paging.

MISCELLANEOUS SYSTEMS: Area of Rescue Assistance Communications are provided to two locations in the building via a Cornell two-way communication system.

C.3 Site

SITE (GENERAL): The High School sits along Sheldon Street on a large open site. A bus loop and a separate parent drop-off loop sit between the school and Sheldon Street. All athletic fields and the majority of site parking sit to the West of the building. A smaller visitor lot sits within the bus loop and some parking is available along the East drive aisle as well. An addition Agricultural building was constructed Northeast of the High School on the same site. A walled-in playground sits at the Southwest corner near the bus loop and a greenhouse, accessible from inside, is located at the Northeast corner. The East side of the building has an inner courtyard with access from the Media Center and the East corridor.

WALKWAYS/SITE STAIRS: Concrete sidewalks around the site are generally in fair condition. Some signs of deterioration, such as cracking and spalling, are beginning to appear in several locations and should be repaired to extend the life of the sidewalks. This is most notable at the main entry, which experiences the heaviest foot traffic. Organic growth was noted at control joints throughout entire concrete sidewalk system.

ROADWAYS/PARKING: Parking, Drive aisles, and parking striping around the site are in fair condition. It was noted that traffic flow between the bus loop, student parking, and parent drop-off loop has been an issue and should be revised to remove route overlap. Severe differential settlement was observed at exterior bollards at rear overhead doors; this could be an indication of poor soil conditions or moisture infiltration.

LANDSCAPING: Landscaping around the site is in good condition.

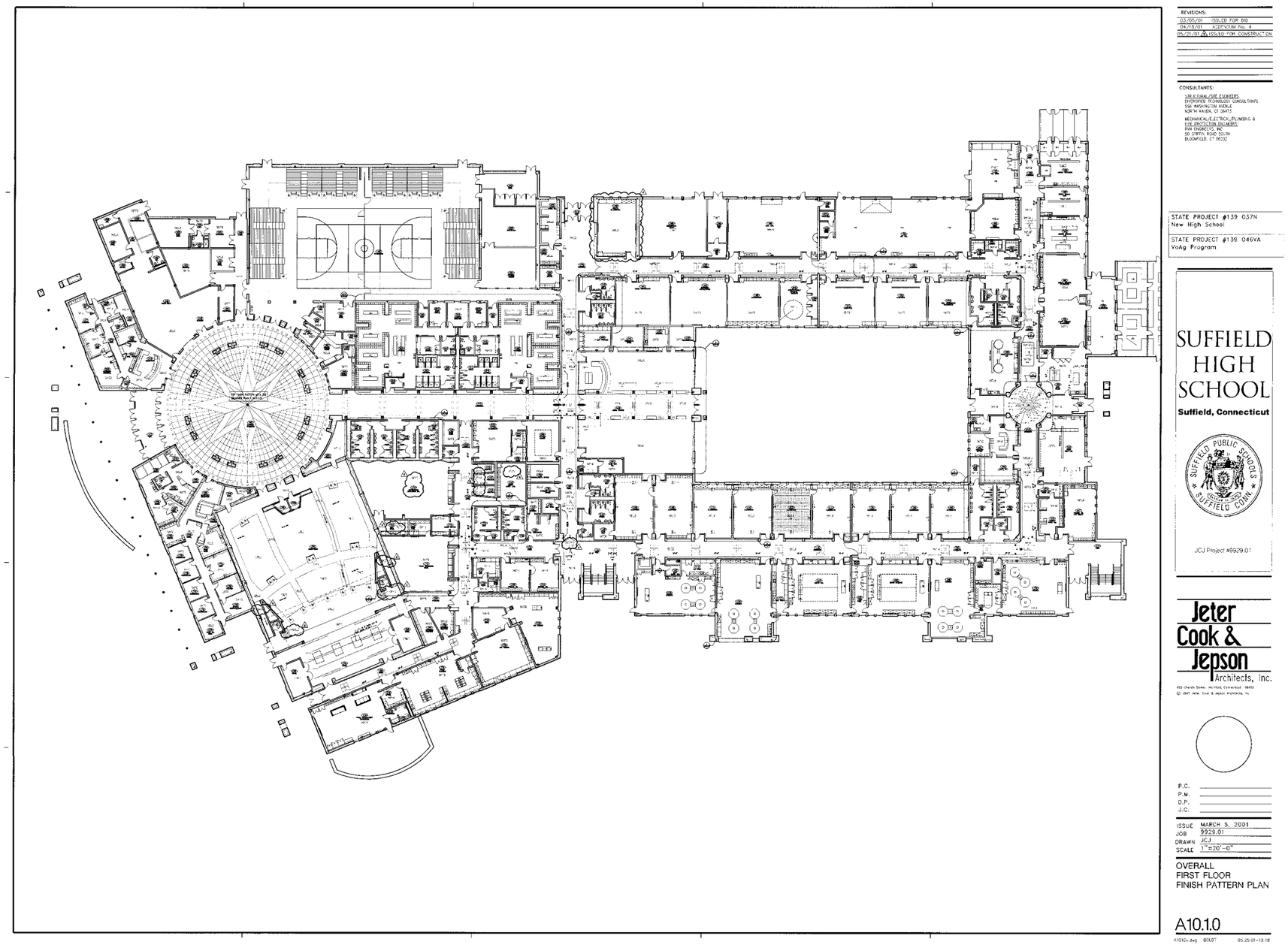
ATHLETIC FIELDS: Athletic fields consist of the following: Baseball Field, Softball Field, Multi-use Field 1, Multi-use Field 2 with surrounding running track and field event areas, two Basketball Courts, seven Tennis Courts, and a trail that connects to Bruce Park. Some stadium seating is provided at both Multi-use Fields. All athletic fields are in good condition. A concrete pad was poured at time of construction but no permanent bleachers were installed at the track.

OTHER STRUCTURES: A vocational Agriscience building, built in 2012, resides on the Northeast corner of the site. This building was not visited by the design team. Ground mounted lighting throughout the site are broken or non-functioning and need to be replaced

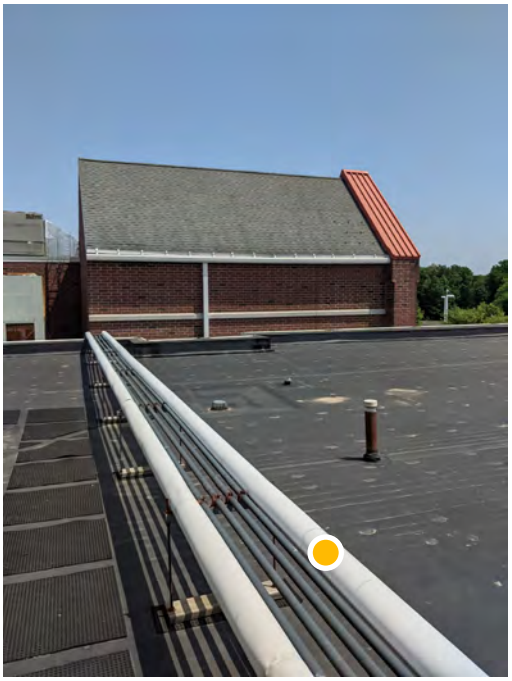
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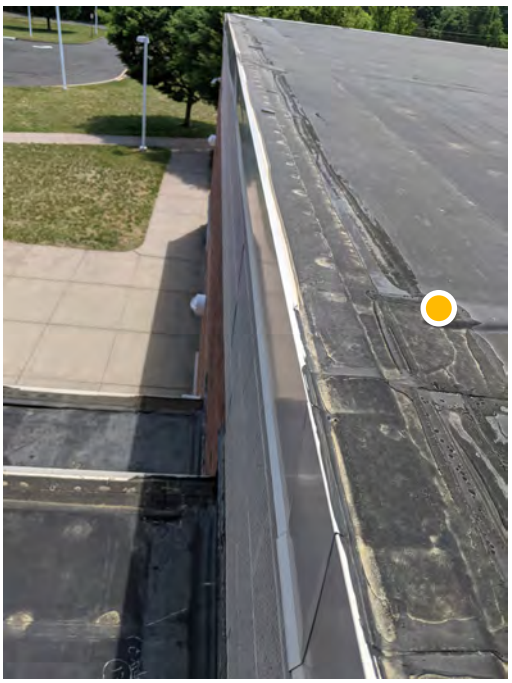
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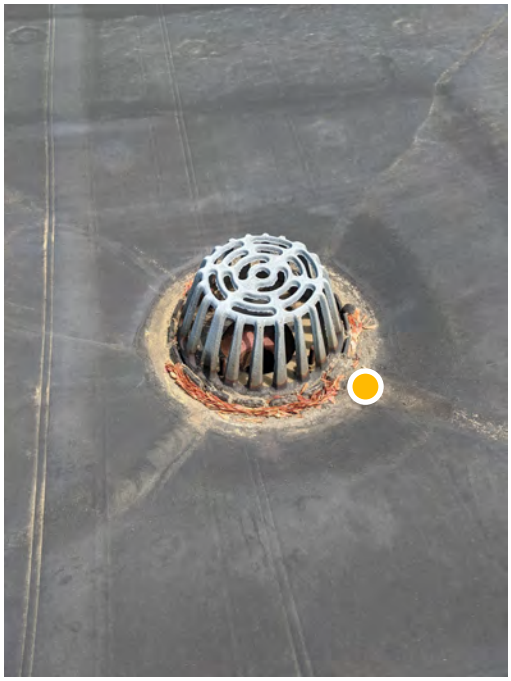


D1. 1: View of roof top utilities and conduit rack mounted on existing membrane roofing



D1. 2: Roof edge detail at membrane roofing, note signs of deterioration at roof flashing / metal fascia intersection.

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D1. 3: Detail view of typical roof drain

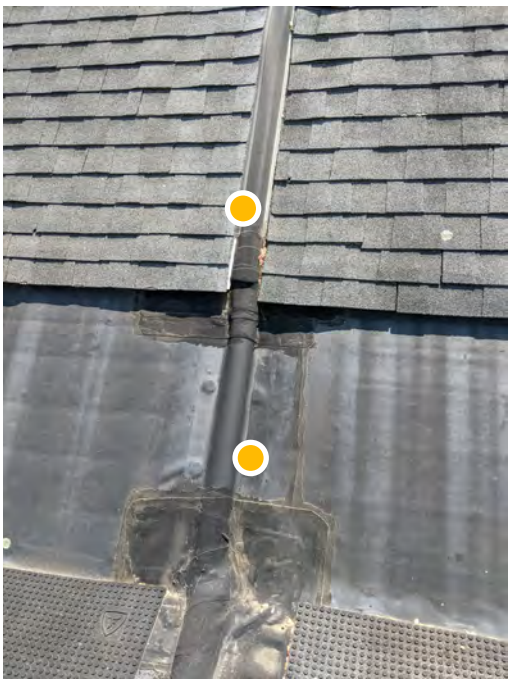


D1. 4: Detail view of masonry wall weep holes and roof to wall counter flashing, in good condition overall

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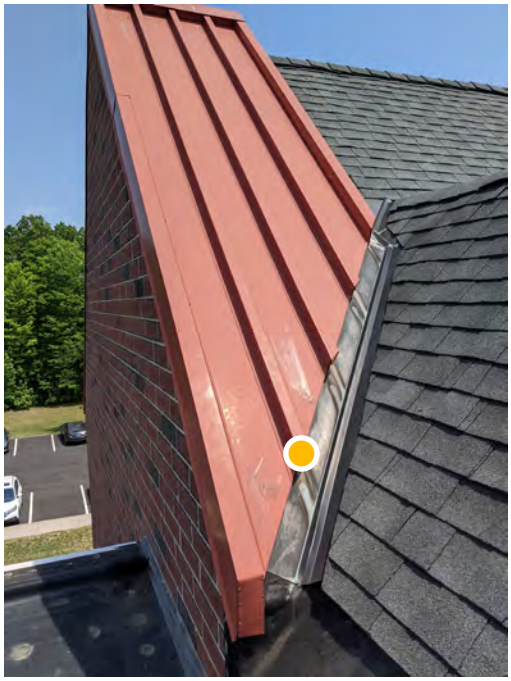


D1. 5: Typical valley flashing at asphalt shingle roof in fair to good condition overall

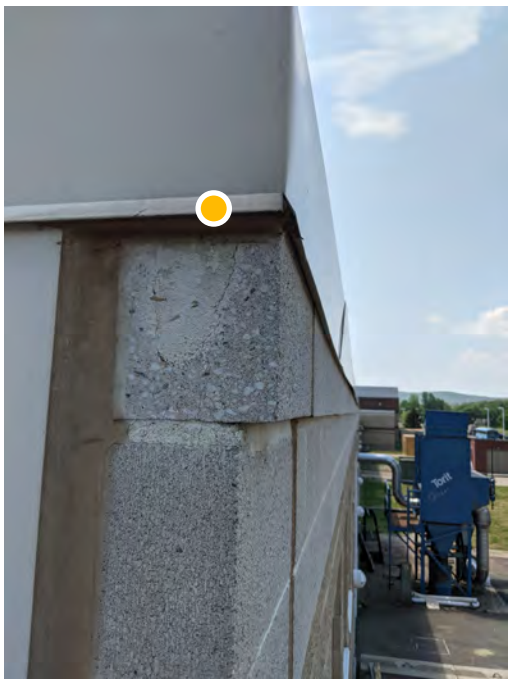


D1. 6: Typical roof expansion joint at membrane roofing and asphalt shed roof

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D1. 7: Detail at standing seam metal accent roof

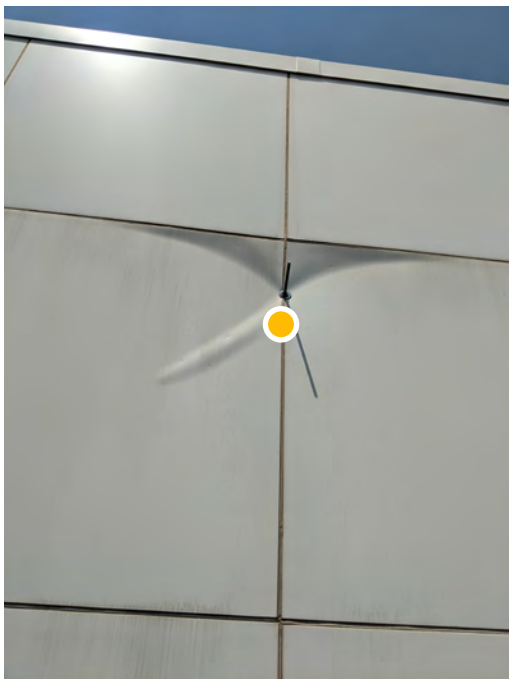


D1. 8: Detail view of metal roof fascia at block wall, note the gap between face of wall and flashing, allows for pests and weather to penetrate the exterior envelope

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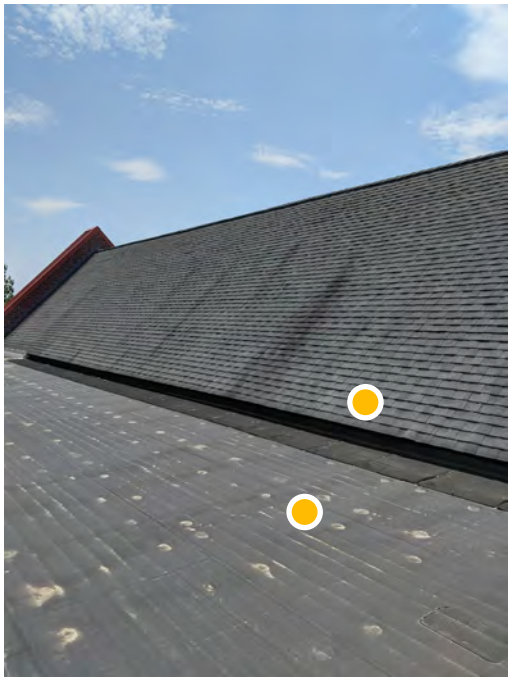


D1. 9: Detail at roof scupper detail, note no splash block to prevent deterioration at membrane roof

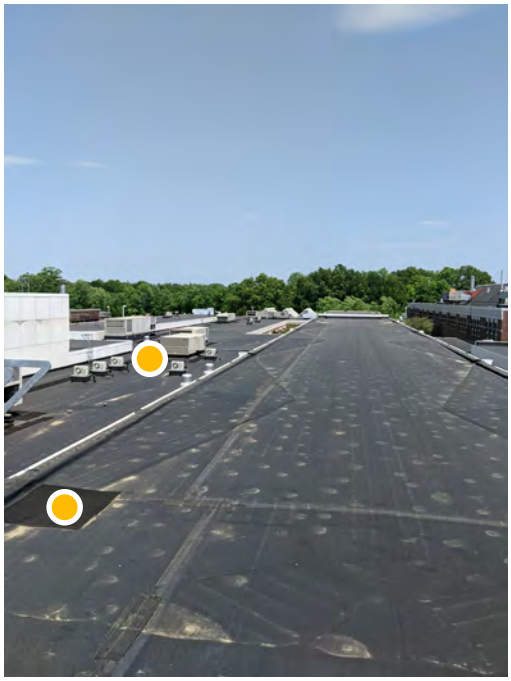


D1. 10: Detail view of metal paneling, note caulk joint deterioration throughout paneling

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 11: Overall membrane roof in foreground with asphalt shed roof beyond, note substrate telegraphing through membrane, indication of nearing its end of useful life

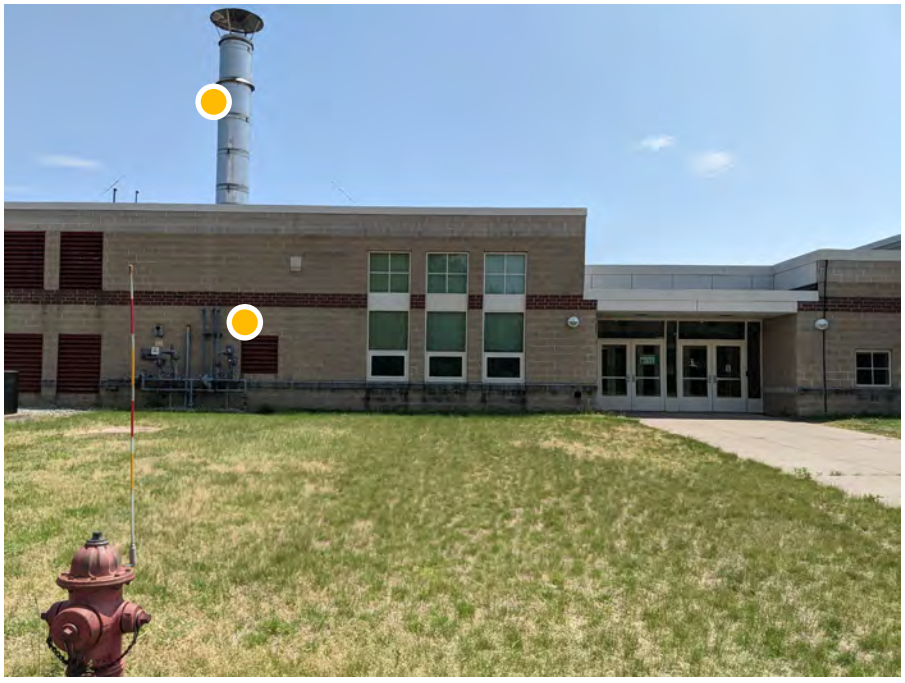


D1. 12: Overall view of membrane roof with misc. roof top equipment

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 13: Detail view of exterior masonry wall construction with concrete block articulation, note control joint



D1. 14: View of utility service entrance to building, north façade

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D1. 15: North façade of existing school depicting signs of moisture infiltration and concrete block deterioration



D1. 16: View to agriscience building

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

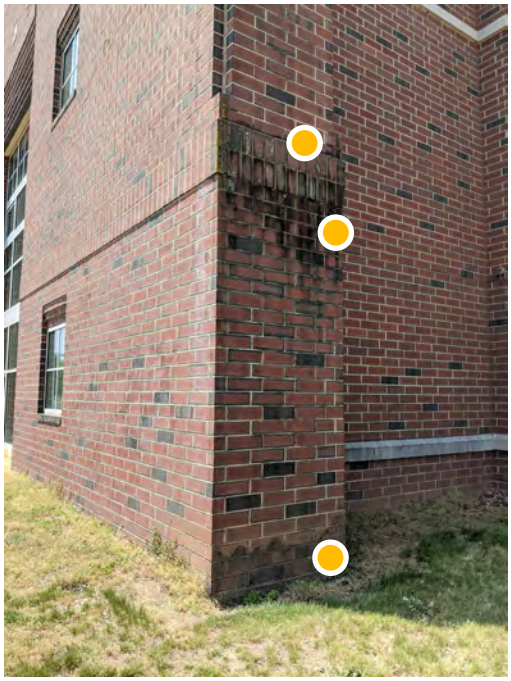


D1. 17: View of greenhouse in fair to poor condition overall



D1. 18: View of egress stairwell (right) and two story typical classroom wing (left).

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 19: Detail view of two story masonry façade depicting masonry deterioration, spalling, and signs of moisture infiltration



D1. 20: Overall view of two story classroom wing, with existing concrete sidewalk in foreground, in fair condition overall

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 21: View of egress stairwell (center) and flanking egress doors (left/right)



D1. 22: Signs of efflorescence at entry canopy possible due to moisture infiltration into the masonry cavity.

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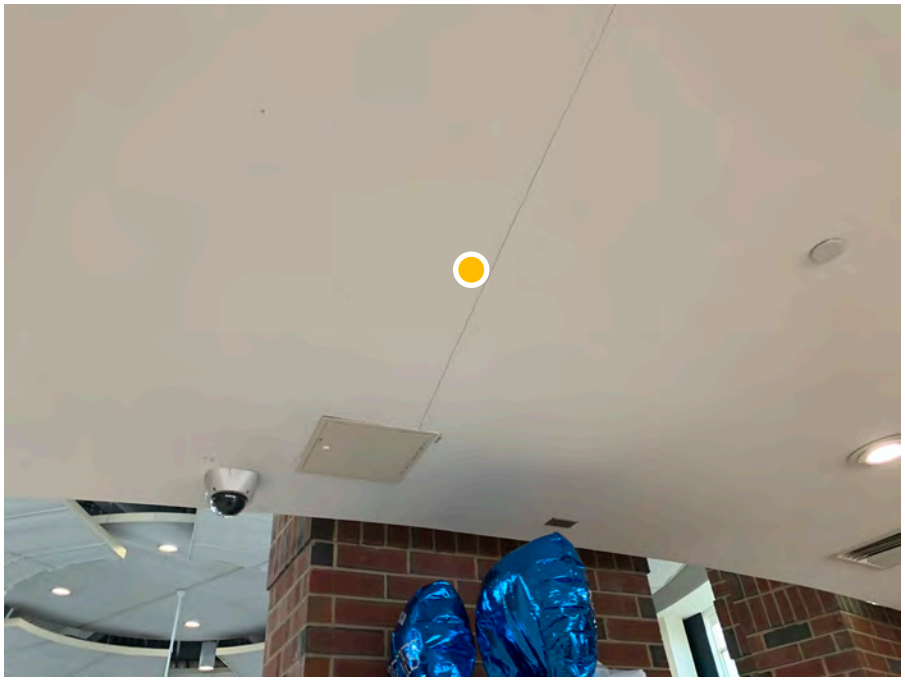


D1. 23: View of existing cafeteria



D1. 24: View of building plaque

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

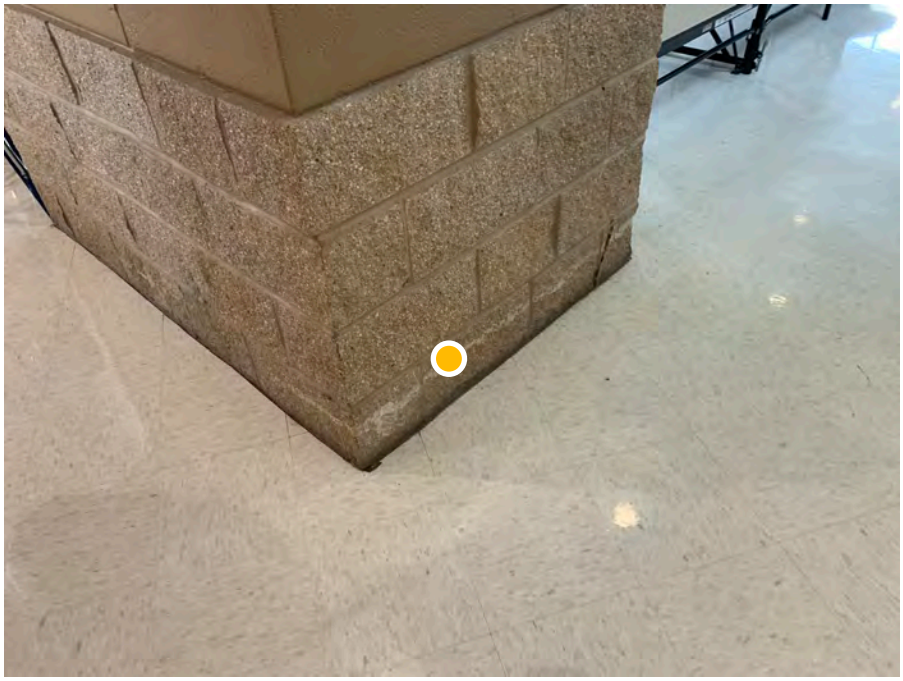


D1. 25: View of gypsum board ceiling around perimeter of cafeteria, note shrinkage cracking throughout ceiling.



D1. 26: View of VCT flooring at main entry/cafeteria, note the stress cracks along the walkway

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

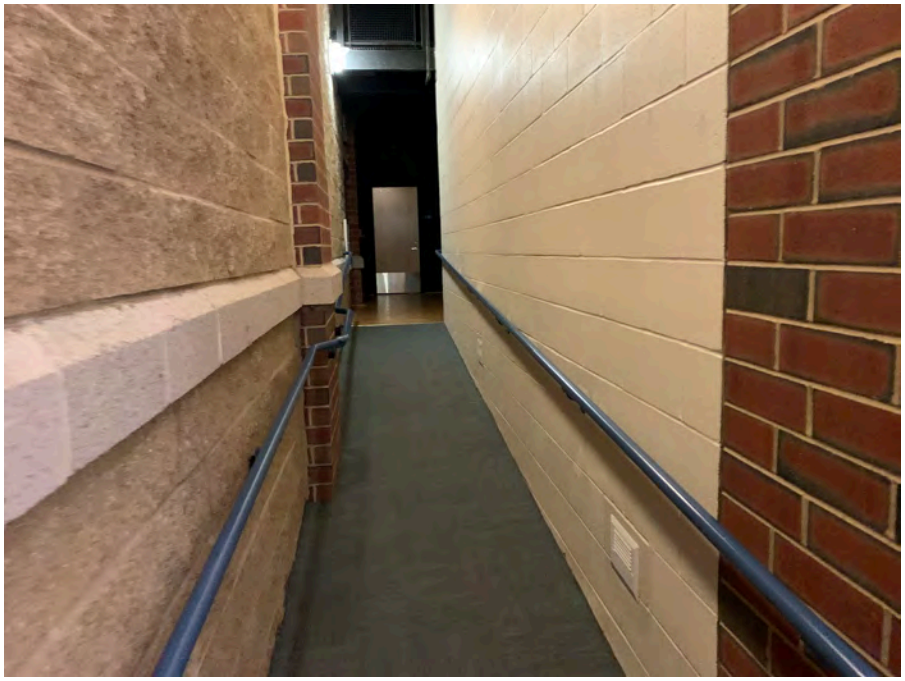


D1. 27: Detail view of split faced concrete pilaster base.



D1. 28: View of Auditorium

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 29: View of accessible ramp to stage from Auditorium seating.

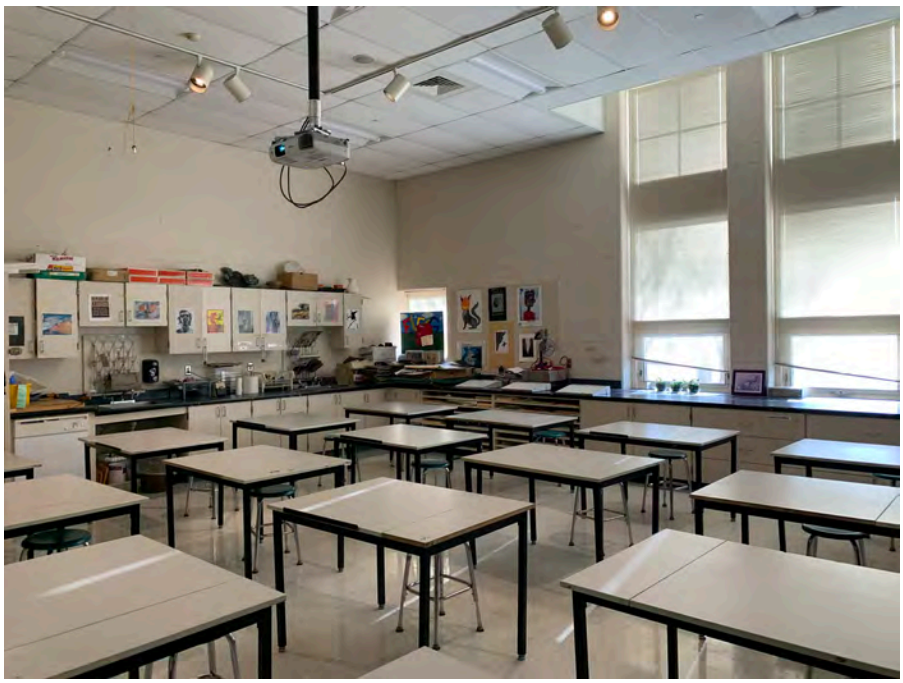


D1. 30: Detail view of ceiling mounted projection screen at stage, note multiple tears in screen.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

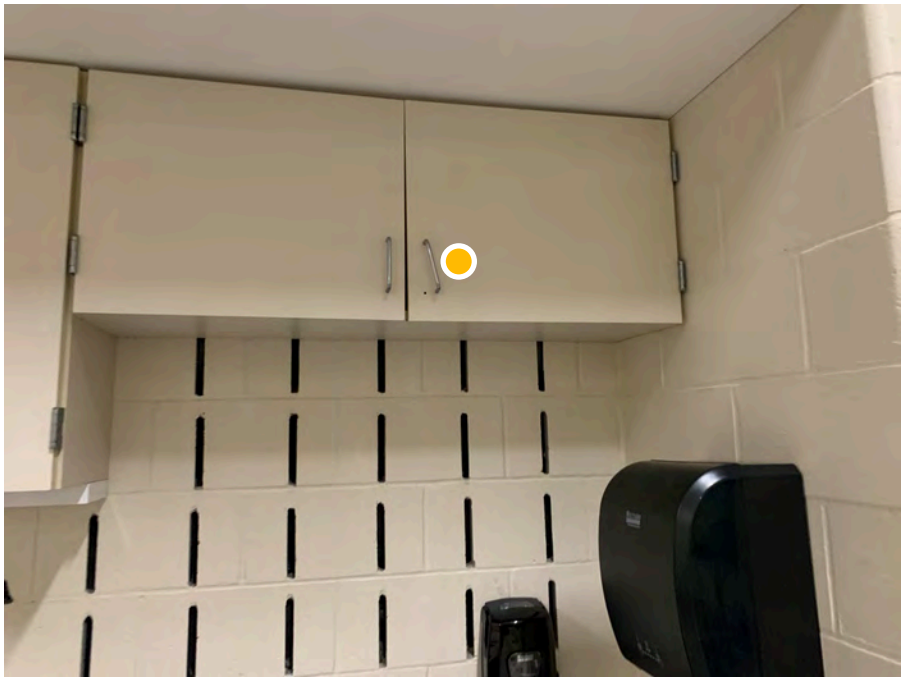


D1. 31: View of home economics/life skills classroom, note limited to no accessible teaching stations.



D1. 32: View of art room

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

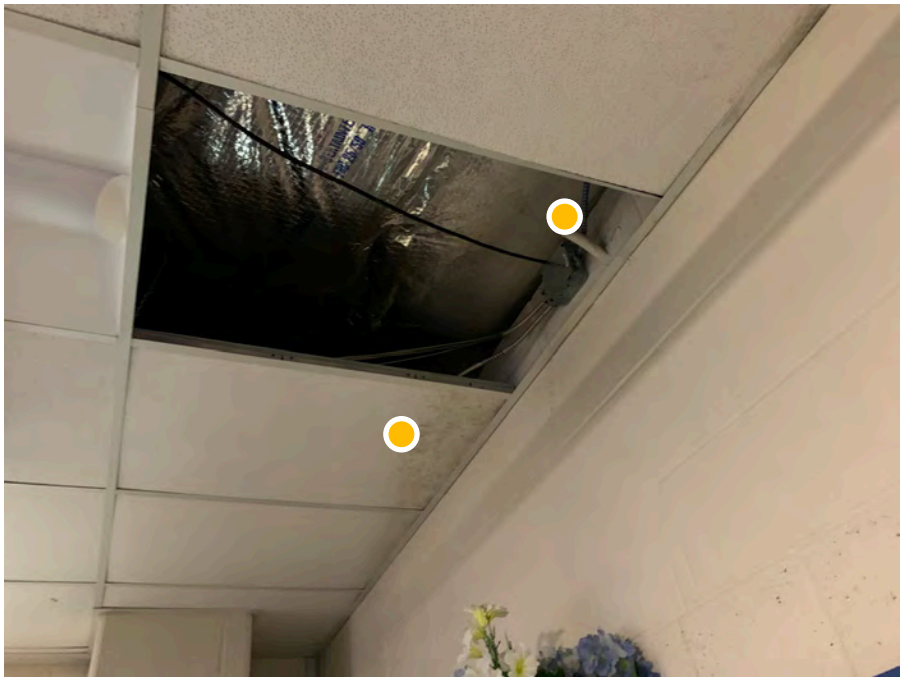


D1. 33: Detail view of storage room with damaged cabinetry



D1. 34: Detail view of the VCT flooring with stress cracks and indications of settlement in multiple locations.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

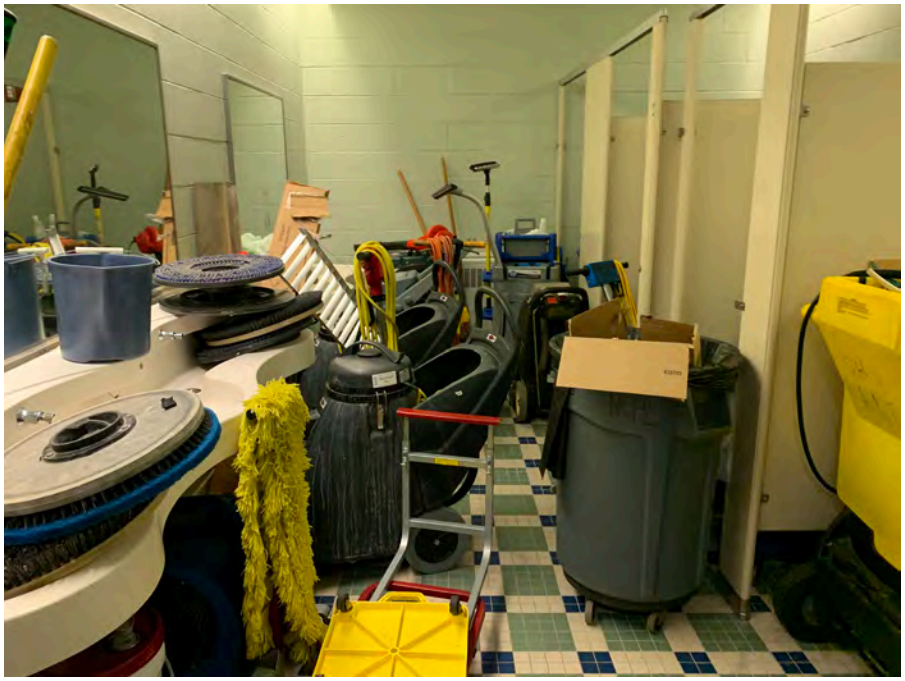


D1. 35: Above ceiling moisture concerns were identified in a few storage areas and classrooms, note indication of containments on ceiling tiles

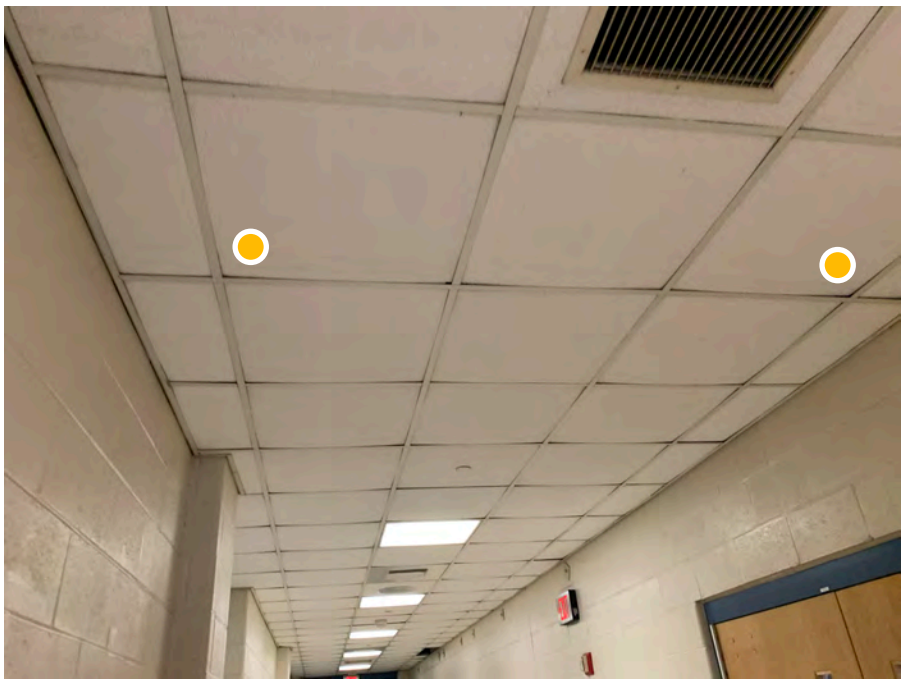


D1. 36: View of typical boys/mens toilet room, note overall poor quality of construction and condition of CMU wet wall

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

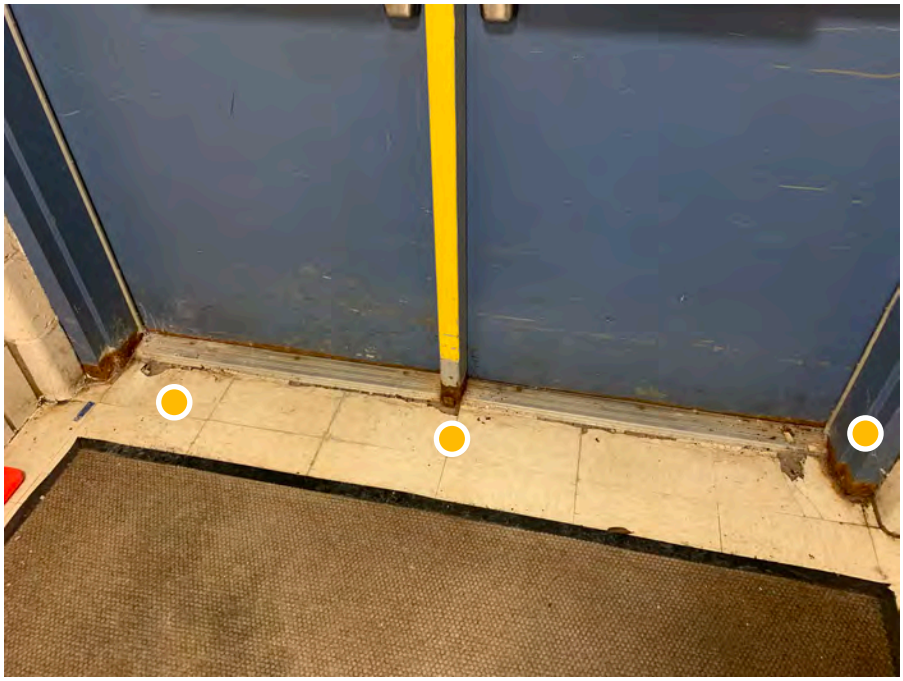


D1. 37: Secondary bathroom adjacent to auditorium currently utilized as storage room.



D1. 38: Typical corridor ceiling indicate possible presence of humidity and/or moisture control concerns within overall building, due to the cupped edges of the ceiling tiles

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 39: Detail view of exterior door, frame, and sill - all in fairly poor condition overall, signs of deterioration possibly due to moisture



D1. 40: Overall view of existing gymnasium.

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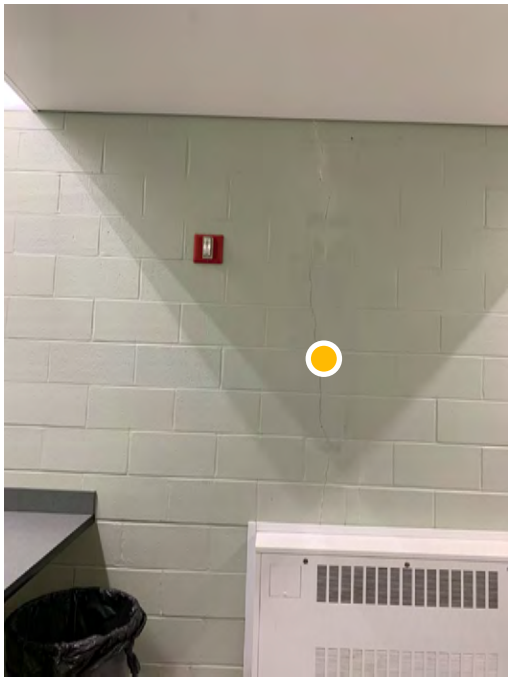


D1. 41: Overall view of weight/fitness room



D1. 42: View of locker/changing room, note modifications/removal of original drinking fountain.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 43: Detail view of hairline stress fracture in CMU block wall construction, likely due to settlement.

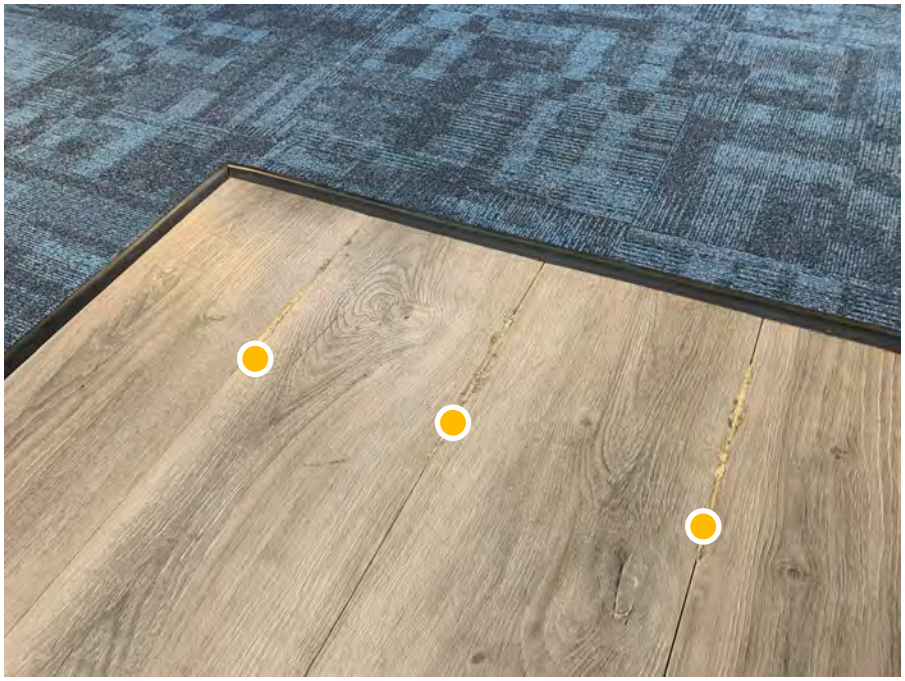


D1. 44: Detail view of tile repairs and/or damage at toilet room

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1.45: View of media center



D1. 46: Detail view of recent vinyl plank floor tile replacement, note evidence of adhesive at tile joints. The likely cause of this occurrence is moisture migration through the slab breaking down the water based adhesive utilized during the tile install. A moisture vapor reduction system should be applied prior to any flooring replacement program

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

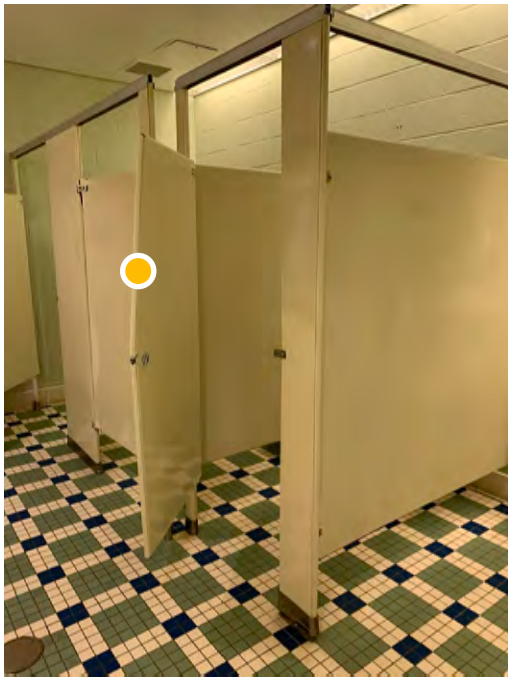


D1. 47: Detail view of exposed spiral ductwork, note deterioration of paint finish



D1. 48: Detail view of VCT flooring replacement, note adhesive at seams of tiles, masking tape utilize to mitigate this condition. . The likely cause of this occurrence is moisture migration through the slab breaking down the water based adhesive utilized during the tile install. A moisture vapor reduction system should be applied prior to any flooring replacement program

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 49: Detail view of typical toilet room, note damaged metal toilet partition.



D1. 50: Detail view of typical toilet room, note damaged metal toilet partition.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

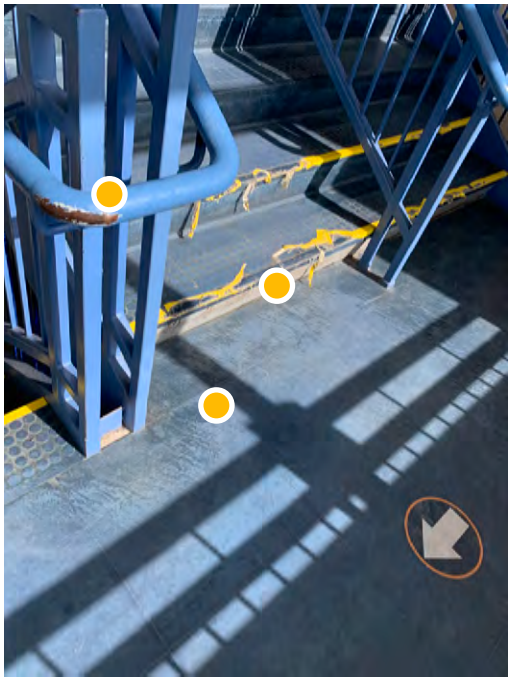


D1. 51: Detail view of typical classroom corridor and entry alcove, note condition of gypsum soffit, damage due to expansion/contraction and possible moisture.



D1. 52: Detail view of the rubber treads and risers at egress stairwell, note poor age/ condition due to continual use.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

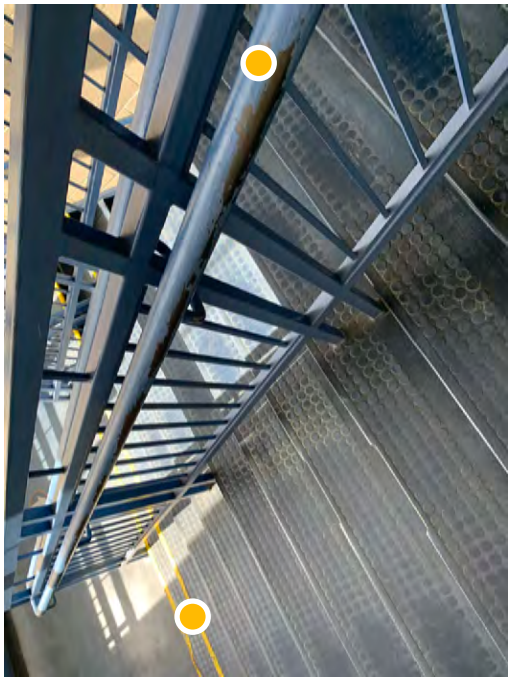


D1. 53: Detail view of the rubber treads/risers and painted steel handrail/guard at egress stairwell, note poor age/condition due to continual use.



D1. 54: Typical corridor ceiling indicate possible presence of humidity and/or moisture control concerns within overall building, due to the cupped edges of the ceiling tiles

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 55: Detail view of the rubber treads/risers and painted steel handrail/guard at egress stairwell, note poor age/condition due to continual use.



D1. 56: View of Food Tech lab room

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 57: View of Aqua Culture lab room, note overall poor condition of floor

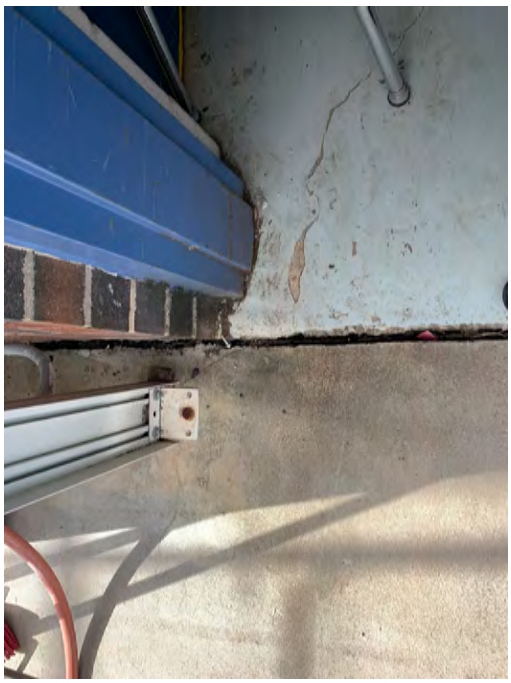


D1. 58: View of Aqua Culture lab room

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 59: View of greenhouse



D1. 60: Detail view of greenhouse/building intersection, note gap in expansion joint and condition of greenhouse frame system

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

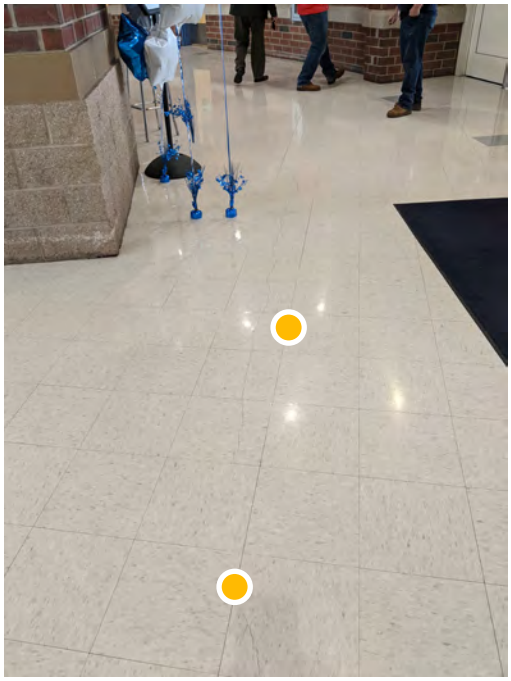


D1. 61: Detail view of VCT flooring with definitive linear deterioration likely due to lack of floor expansion joint

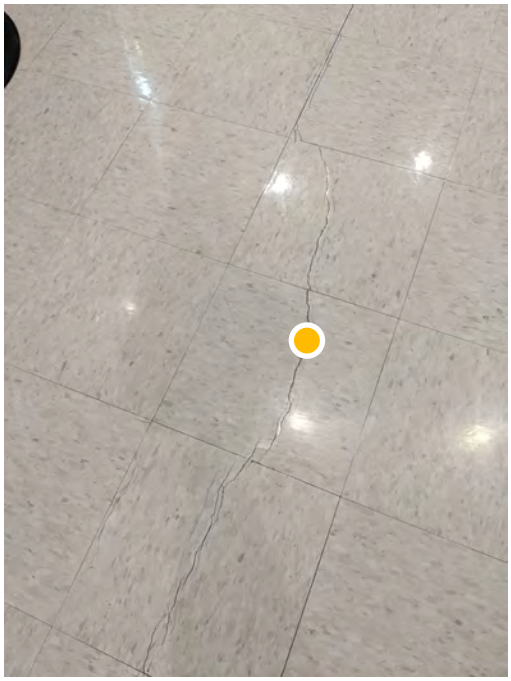


D1. 62: View of main entry into the building.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 63: View of VCT flooring at main entry/cafeteria, note the stress cracks along the walkway, lack of proper slab expansion/contraction joints likely cause



D1. 64: View of VCT flooring at main entry/cafeteria, note the stress cracks along the walkway, lack of proper slab expansion/contraction joints likely cause

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 65: Overall view of existing Auditorium

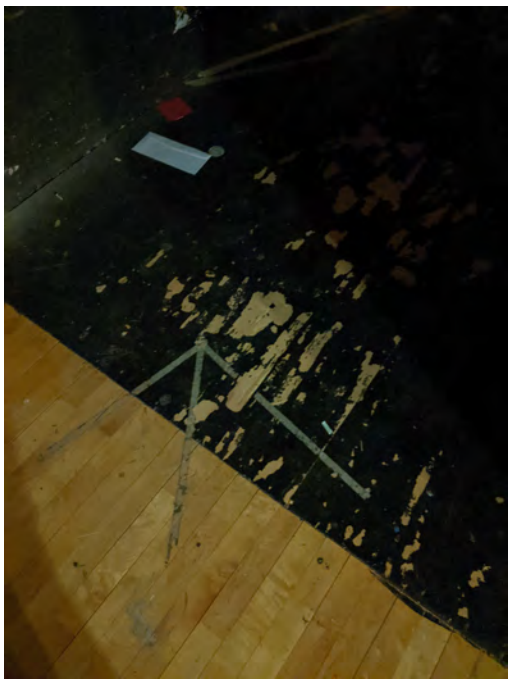


D1. 66: Detail view of accessible ramp to stage area

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

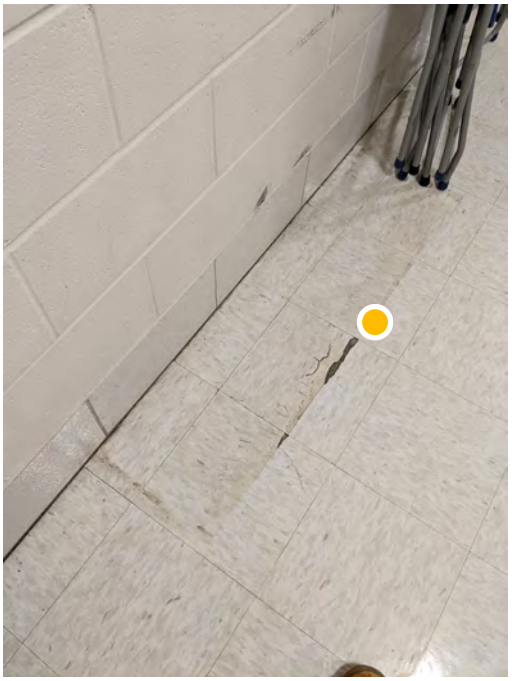


D1. 67: Detail view of new carpet installation at access way to ramp, note seaming of joints not fully adhered to existing slab.



D1. 68: Detail view of stage flooring, note overall deterioration due to age and use.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

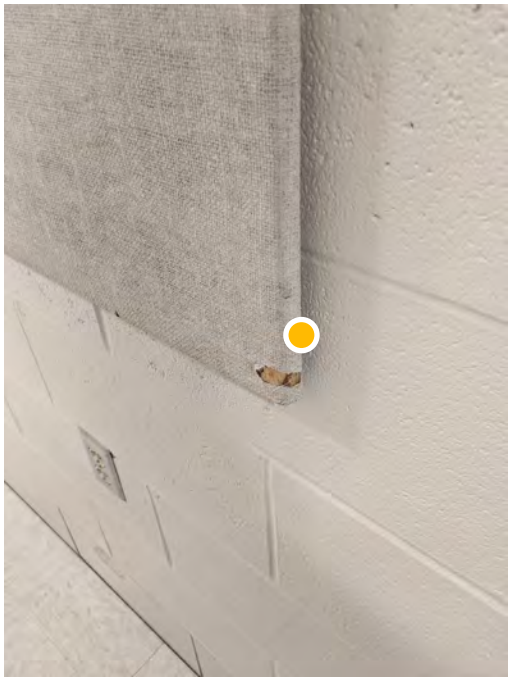


D1. 69: Detail view of VCT flooring deterioration likely due to slab settlement



D1. 70: Detail view of stress fractures in the CMU block wall likely due to building settlement.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

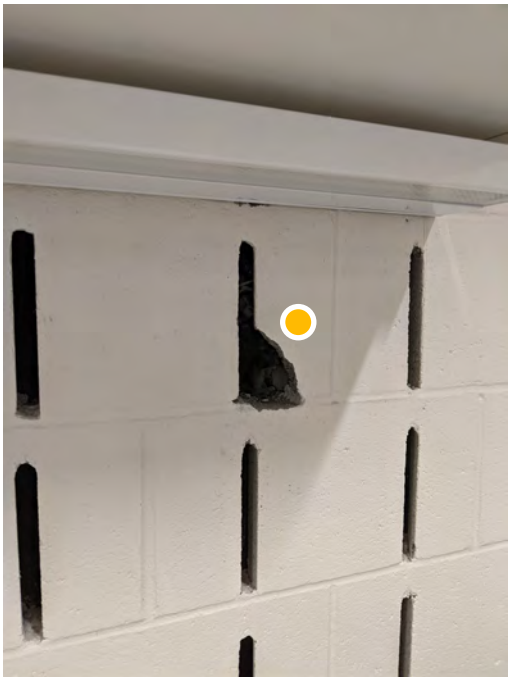


D1. 71: Detail view of damaged acoustical wall panel at band/chorus area.



D1. 72: Overall view of band/chorus room area.

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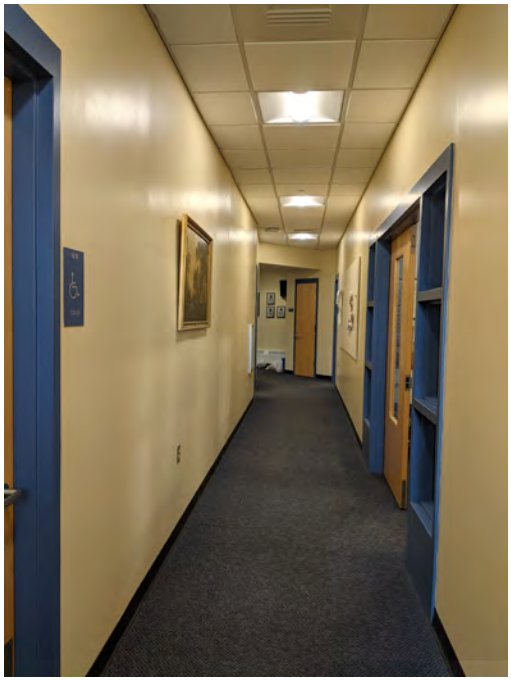


D1. 73: Detail view of damages acoustical CMU block at band/chorus room area.

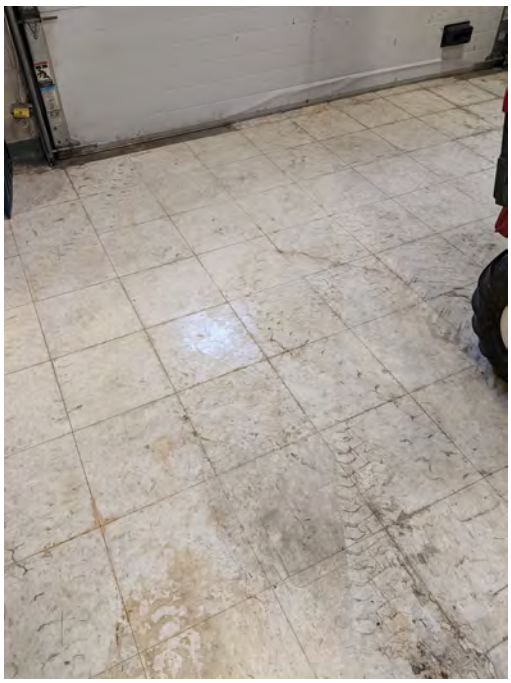


D1. 74: Detail view of poorly constructed CMU wall, part of original construction.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

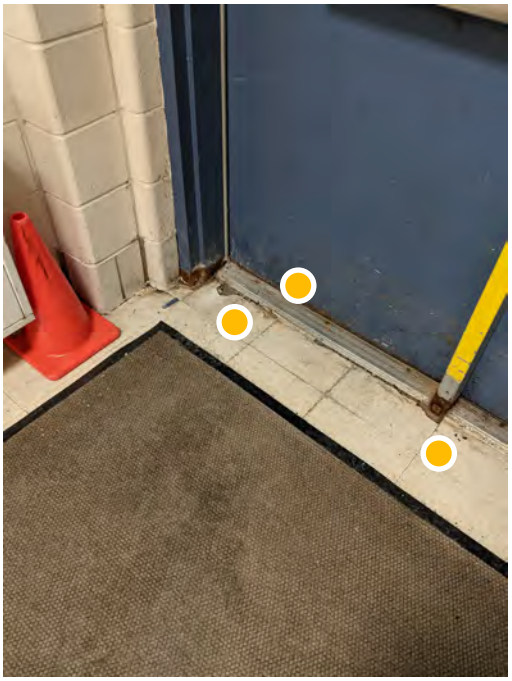


D1. 75: Detail view of administrative area corridor and offices.

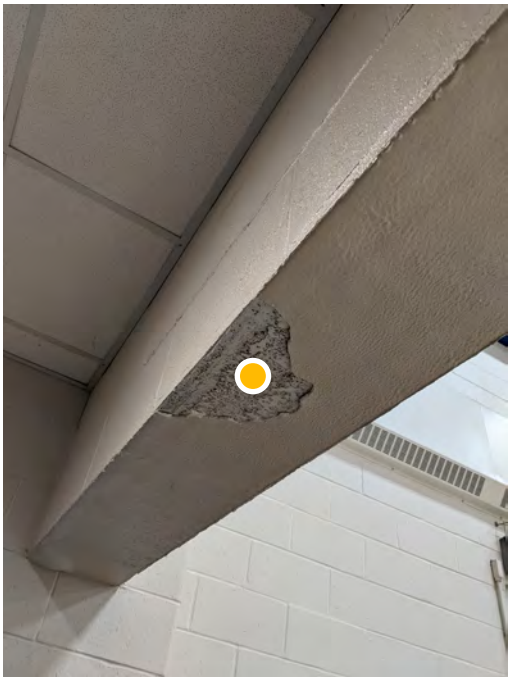


D1. 76: Detail view of VCT flooring in maintenance / custodial area.

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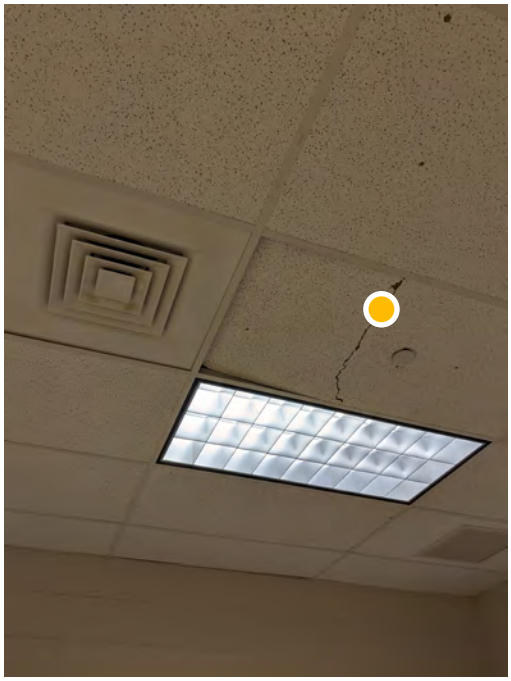


D1. 77: Detail view of typical exterior metal door and frame, note poor condition at based of frame and door likely due to moisture.

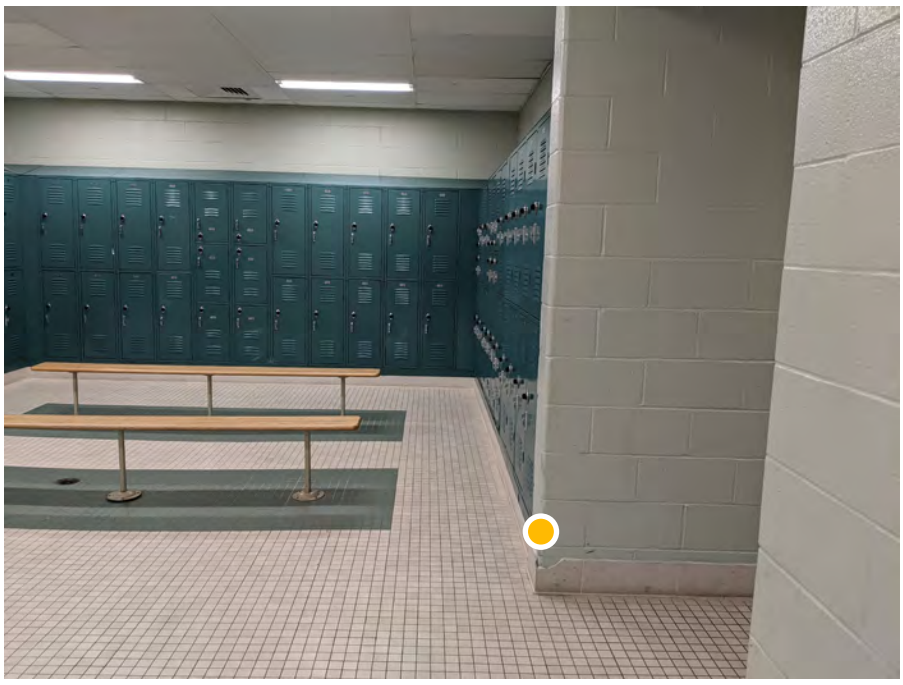


D1. 78: Soffit plaster deterioration, likely due to deflection of steel carrying beam

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 79: Detail view of typical damaged ceiling tiles throughout building, various locations.



D1. 80: Detail view of locker rooms, note deterioration/damage to tile wall base.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

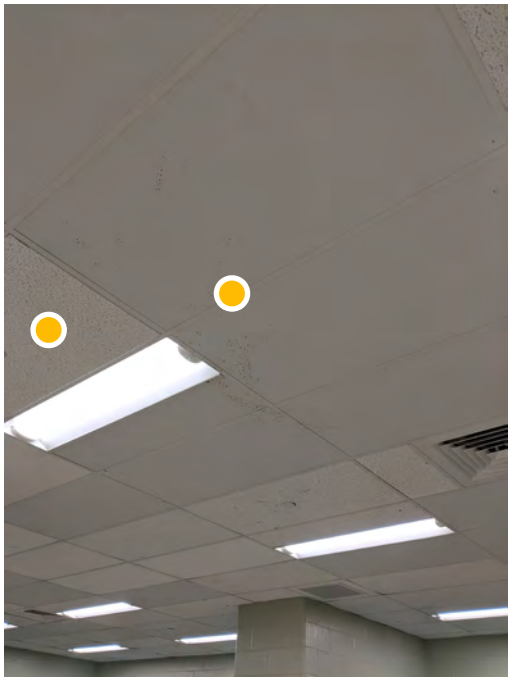


D1. 81: View of benches in locker room

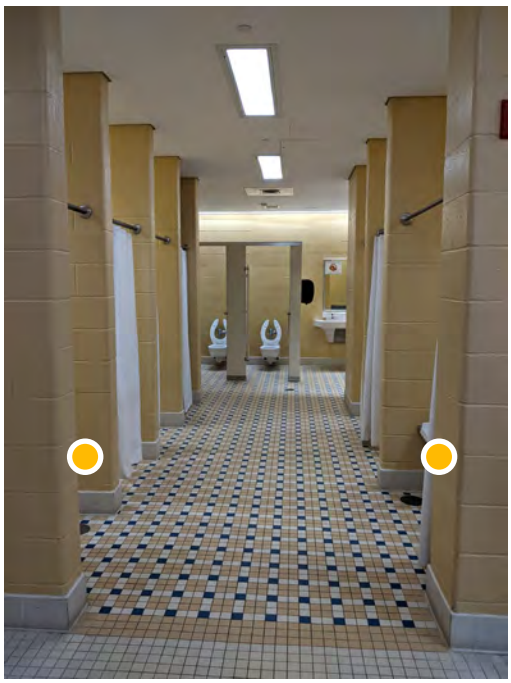


D1. 82: Detail view of soffit repair in locker room areas, damaged due to use.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

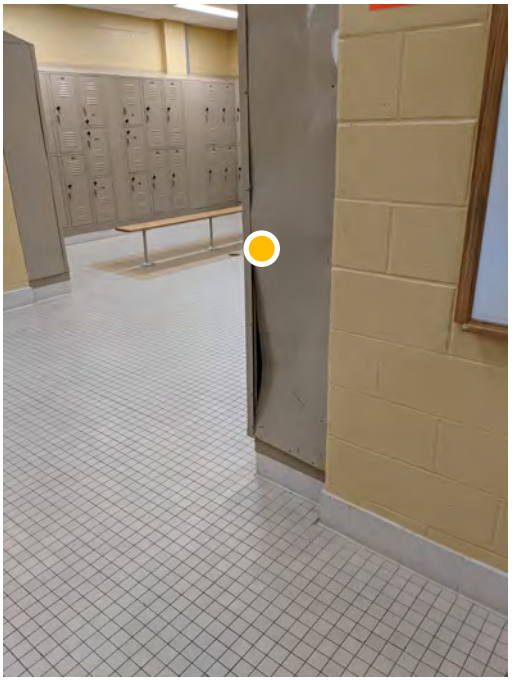


D1. 83: Sporadic ceiling tile replacement in locker area due to damage over time.



D1. 84: View of show area adjacent to locker rooms, individual shower stalls (left and right of photo)

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

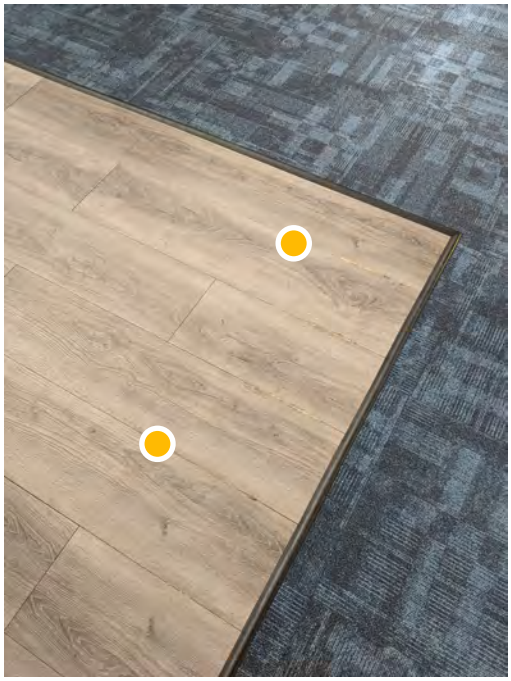


D1. 85: Detail view of damaged locker unit



D1. 86: Overall view of media center.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 87: Detail view of recent vinyl plank floor tile replacement, note evidence of adhesive at tile joints. The likely cause of this occurrence is moisture migration through the slab breaking down the water based adhesive utilized during the tile install. A moisture vapor reduction system should be applied prior to any flooring replacement program

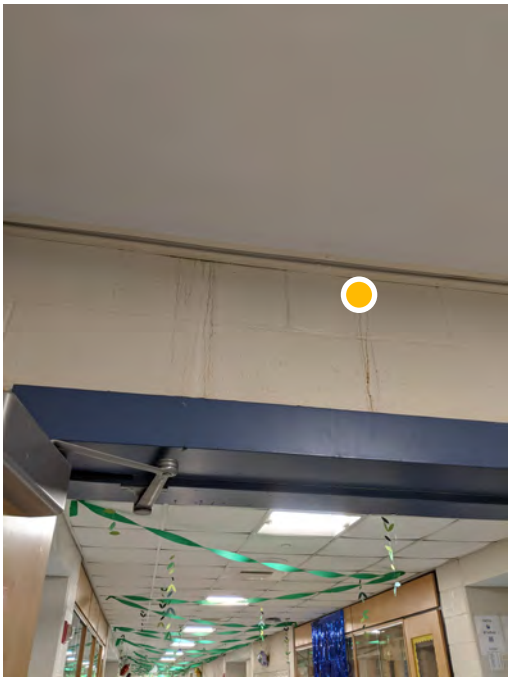


D1. 88: Detail view of deteriorated wall cabinet heater

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 89: View of science labs

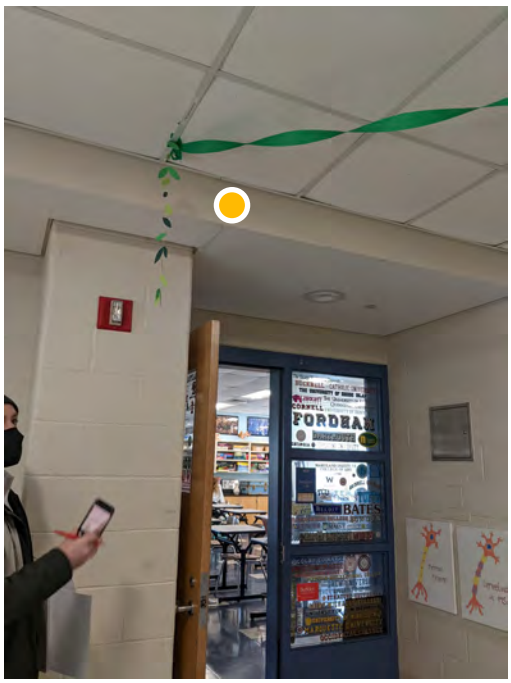


D1. 90: Detail view of head condition at corridor doors, note visual signs of moisture/ leaking.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 91: Detail view of VCT floor replacement, note evidence "bubbling" in portions of the tile. The likely cause of this occurrence is moisture migration through the slab breaking down the water based adhesive utilized during the tile install. A moisture vapor reduction system should be applied prior to any flooring replacement program



D1. 92: Typical classroom entrance alcove, note shrinkage cracking at gypsum soffit.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

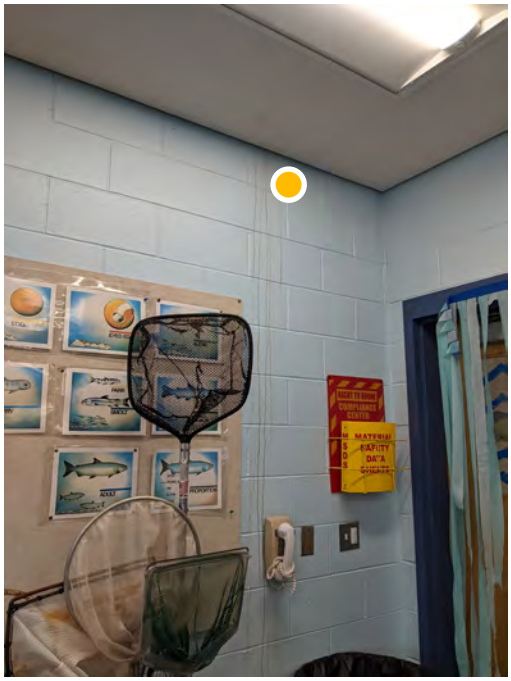


D1. 93: View of Food Tech lab room



D1. 94: View of lab room

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 95: Detail view of CMU wall with indication of moisture infiltration or leak above gypsum ceiling

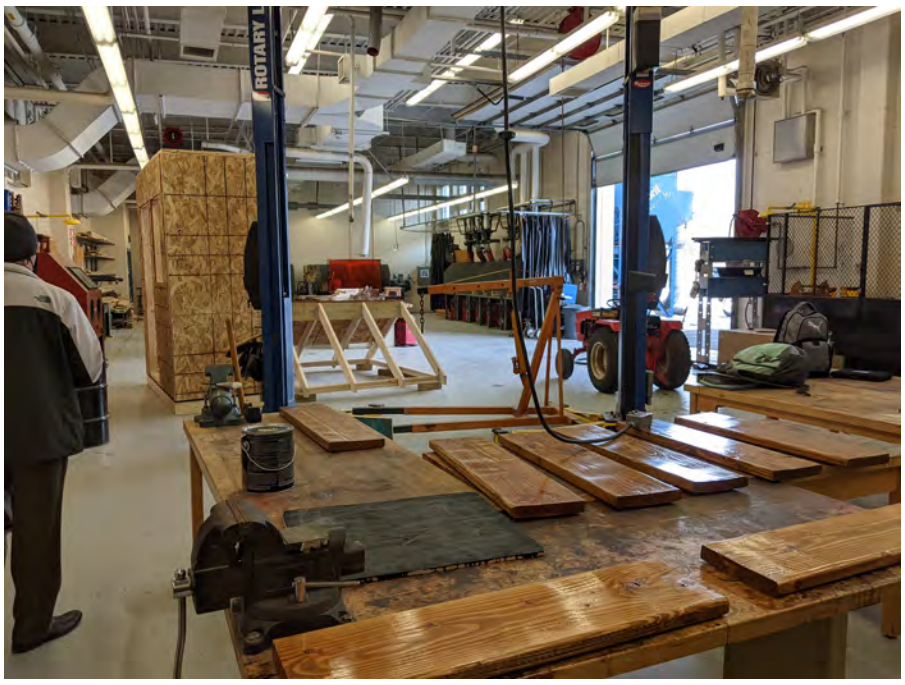


D1. 96: Detail view of flooring and trench drain at animal science suite

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

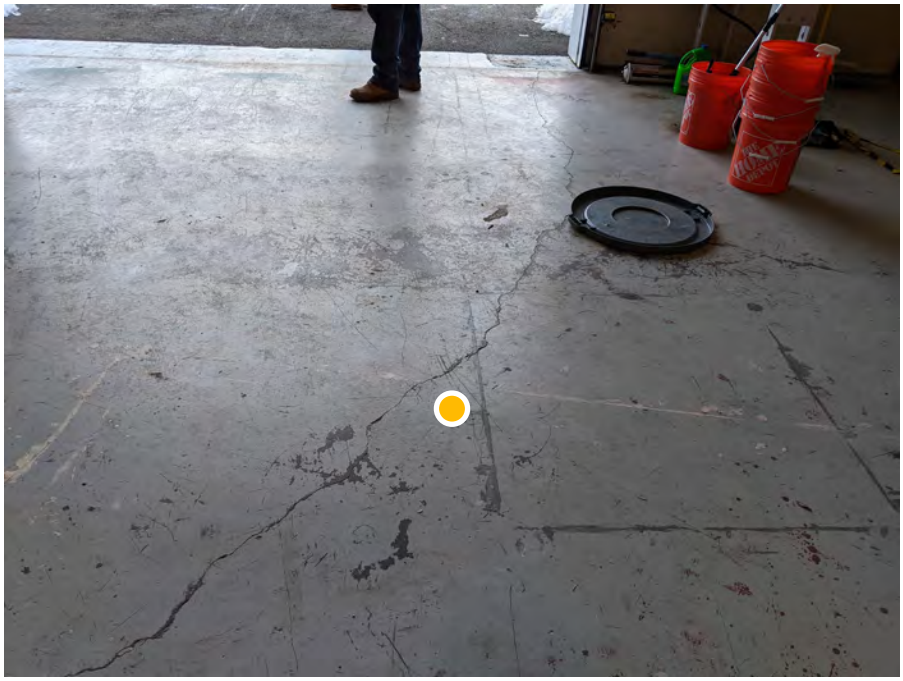


D1. 97: Detail view of flooring and trench drain at animal science suite



D1. 98: Overall view of wood shop

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

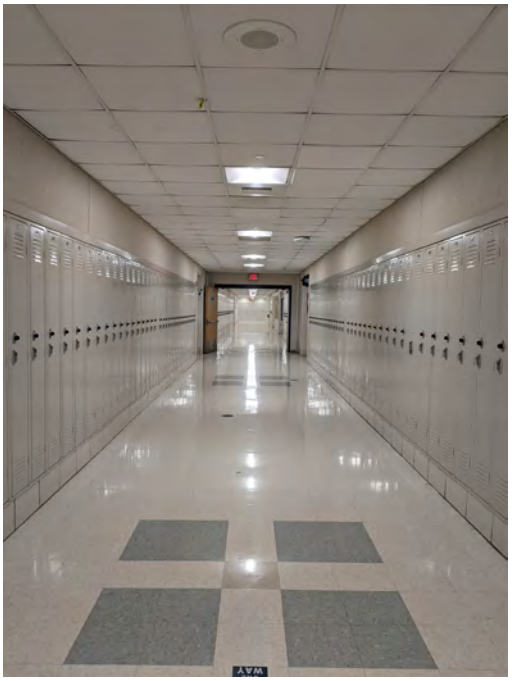


D1. 99: Detail view of concrete slab cracking/deterioration likely caused by settlement and/or shrinkage.



D1. 100: Detail view of concrete slab cracking/deterioration likely caused by settlement and/or shrinkage.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 101: View of typical classroom corridor



D1. 102: View of mechanical room with floor drain (center) for condensate & drain lines.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

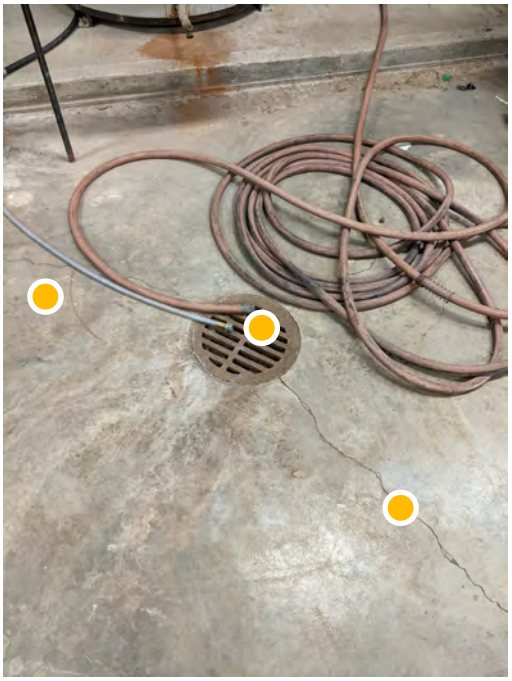


D1. 103: Detail view of floor trenching in mechanical / boiler room, note concrete slab cracking likely due to expansion/contraction

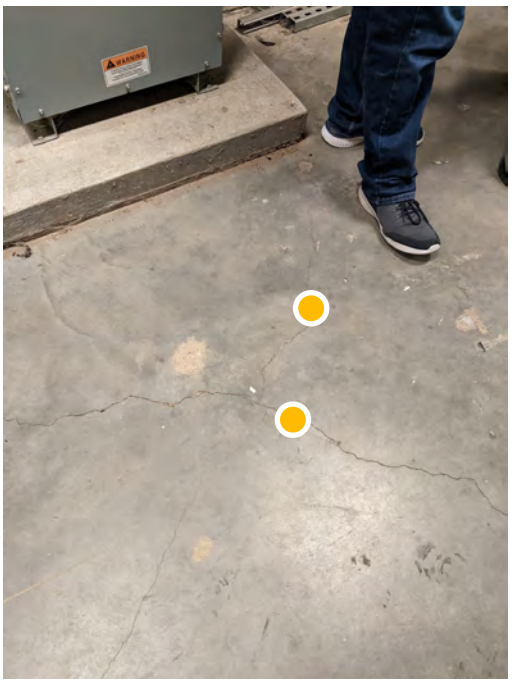


D1. 104: Detail view of floor trenching in mechanical / boiler room, note concrete slab cracking likely due to expansion/contraction

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 105: Detail view of floor drain in mechanical / boiler room, note concrete slab cracking likely due to expansion/contraction

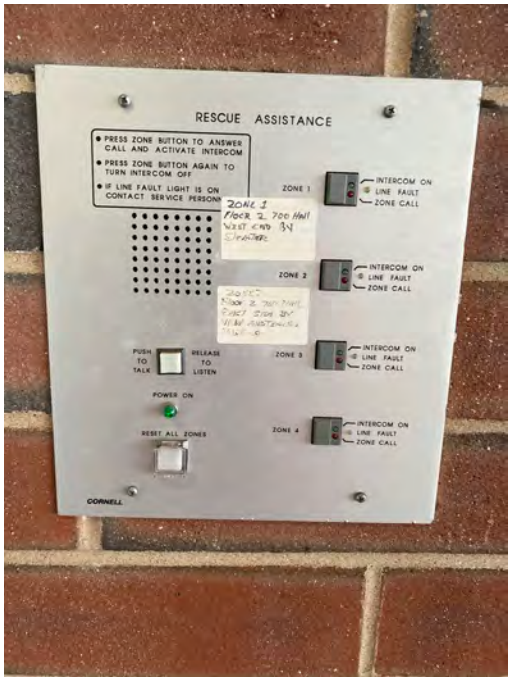


D1. 106: Detail view of floor drain in mechanical / boiler room, note concrete slab cracking likely due to expansion/contraction

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 107: Access Control

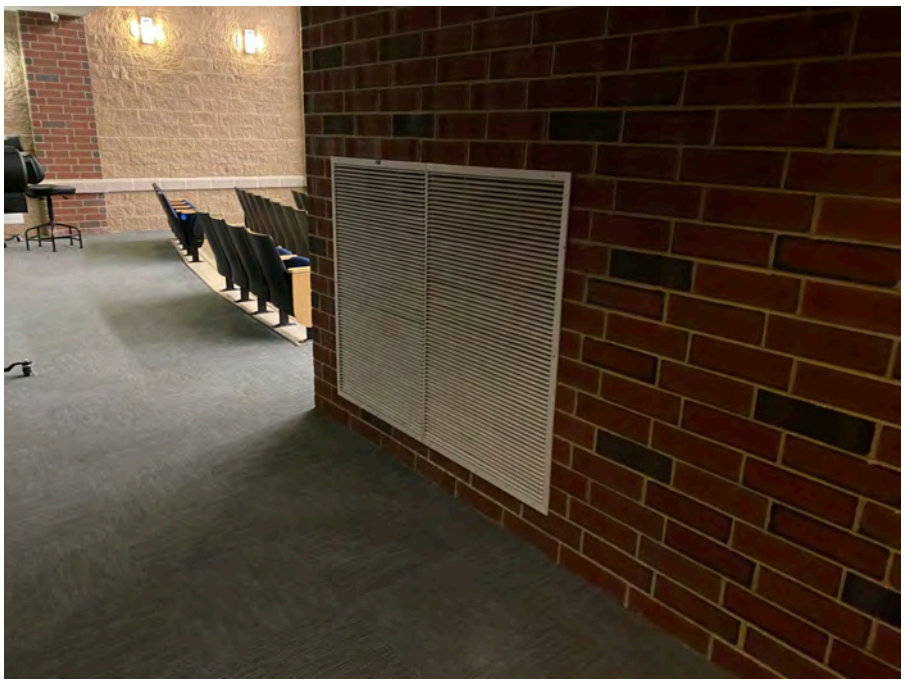


D1. 108: Area of Rescue Assistance Control Panel

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D1. 109: Auditorium Lighting Systems



D1. 110: Auditorium Return Air Grilles

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

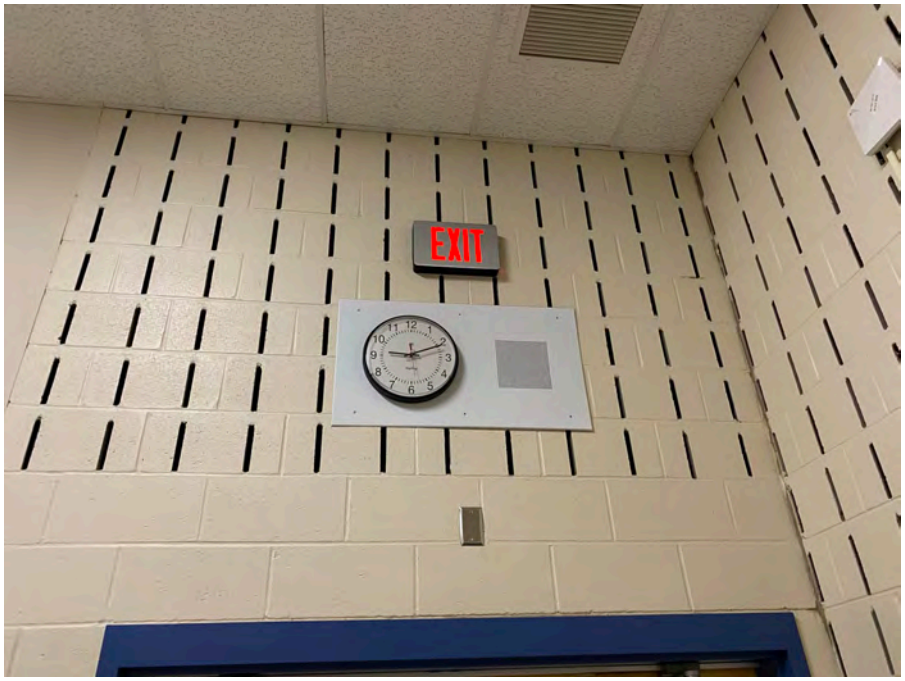


D1. 111: Branch Circuit Electrical Distribution

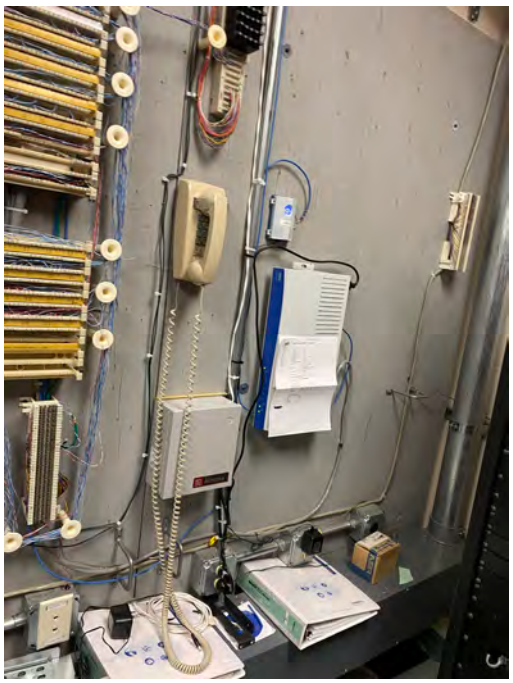


D1. 112: Cable Broadband Distribution Amplifiers

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 1: Clock and Paging System



D2. 2: Communications Infrastructure

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 3: Communications Service Entrance Backboard



D2. 4: Electrical Distribution Transformers

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 5: Electrical Lighting Control Station



D2. 6: Electrical Lighting Fixtures in Library

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 7: Electrical Main Service Switchboard



D2. 8: Electrical Meter

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 9: Electrical Recessed Downlighting



D2. 10: Exhaust Fans on Roof in Good Condition

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

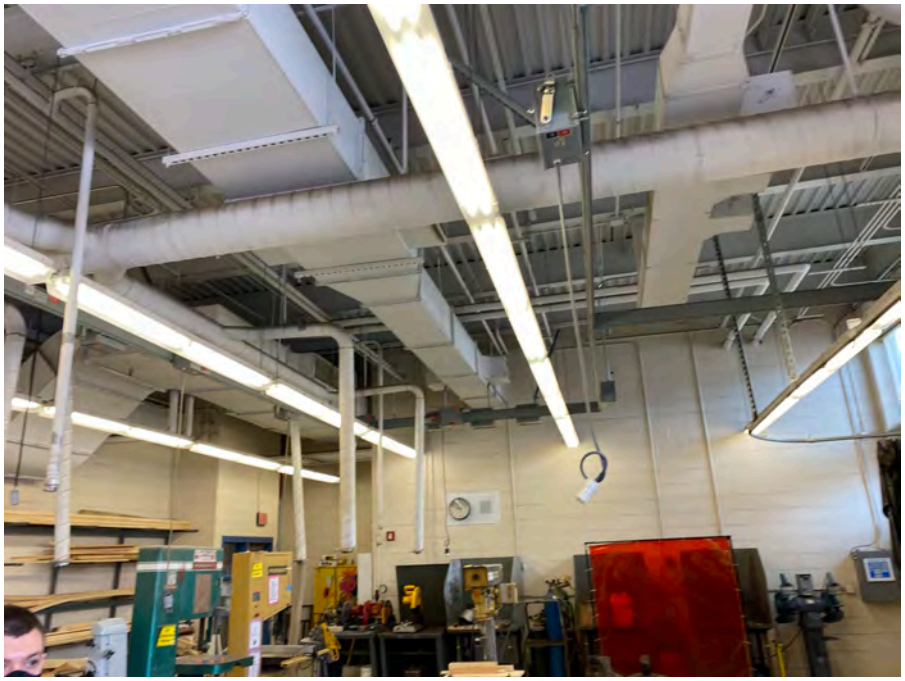


D2. 11: Exhaust Fans, Rooftop Units, and Condensing Units on Roof

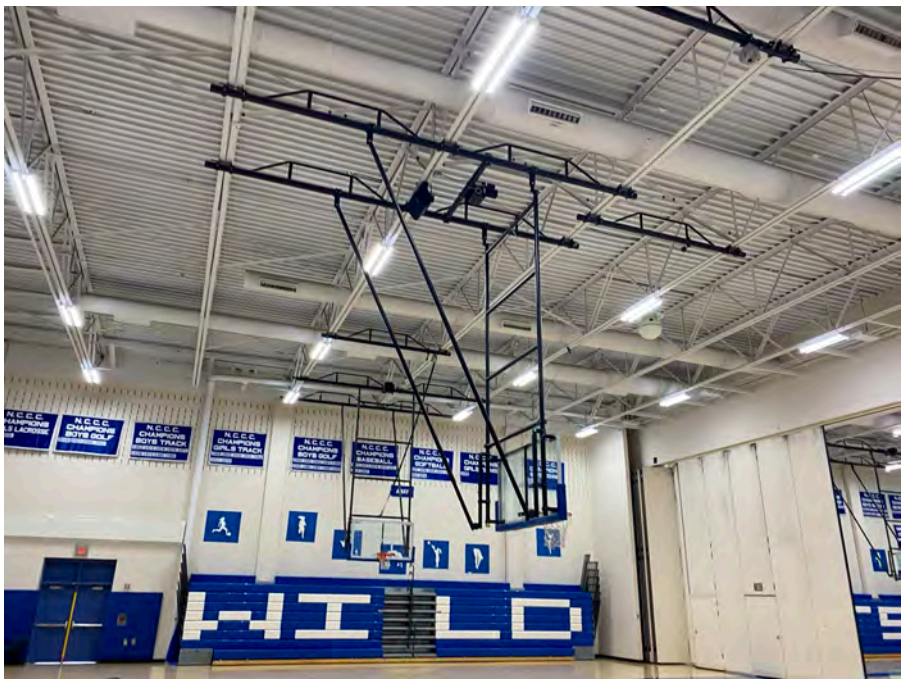


D2. 12: Exposed Ductwork in Good Condition

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 13: Exposed Ductwork in Shop in Good Condition



D2. 14: Exposed Gymnasium Ductwork in Good Condition

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 15: View of media center



D2. 16: Exterior view of building, adjacent fenced early childhood play area (right).

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 17: Fire Alarm Control Panel (Remote)



D2. 18: Fire Alarm Head End

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 19: Fire Alarm Remote Annunciator



D2. 20: Fire protection Main and Pump

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 21: Fire protection Service in Mechanical Room

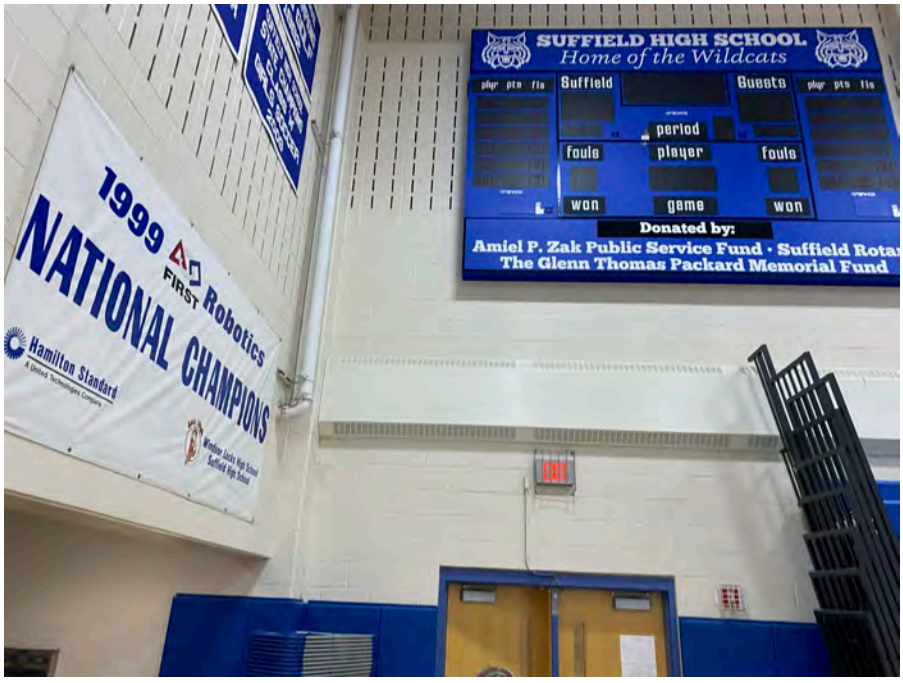


D2. 22: Fuel Oil Tank Located Outside

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 23: Gas and Oil Service



D2. 24: Hot Water Fin Tube in Gymnasium

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

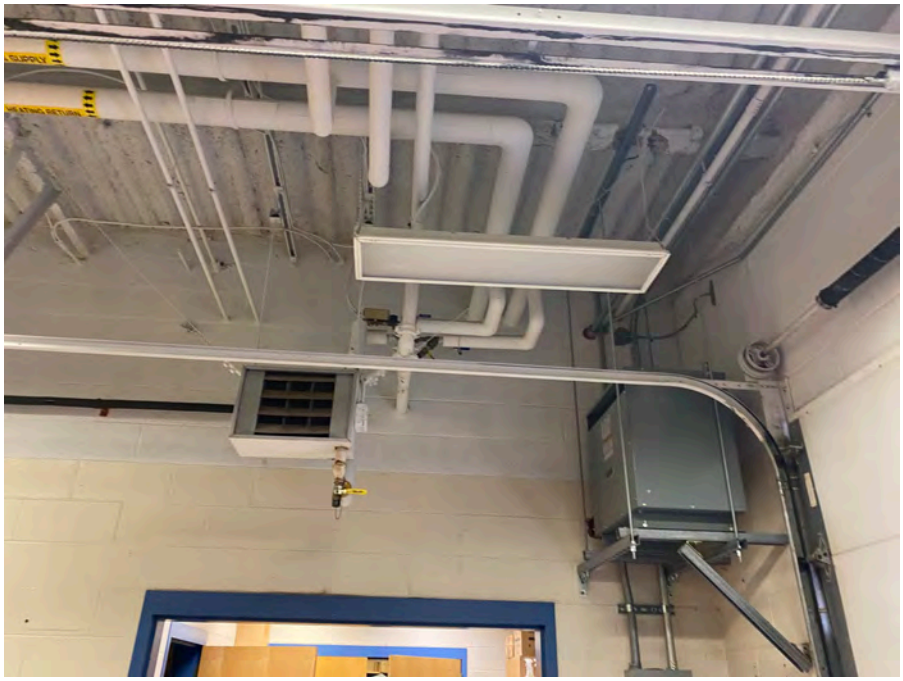


D2. 25: Hot Water Piping in Good Condition

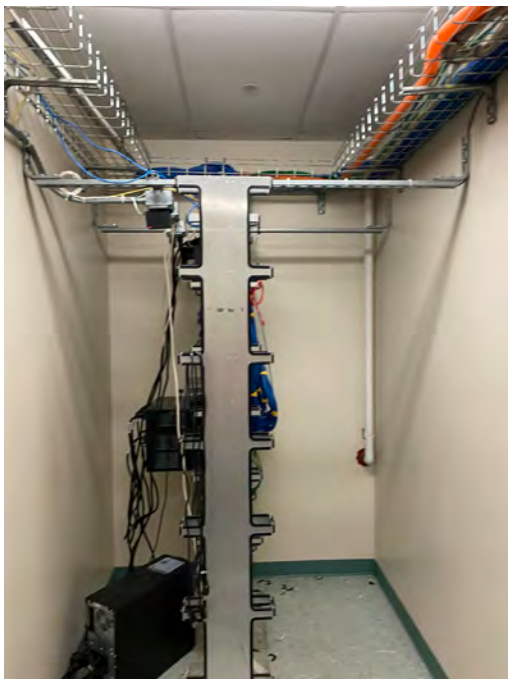


D2. 26: Hot Water Pumps in Poor Condition

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 27: Hot Water Unit Heater in Poor Condition



D2. 28: IDF Data Room

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 29: View of access corridor adjacent to auditorium seating.



D2. 30: View of cafeteria ceiling

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 31: Detail view of clerestory windows into cafeteria



D2. 32: View of typical custodial closet & support storage area.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 33: Detail view of kiln



D2. 34: View of kitchen / servery area

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

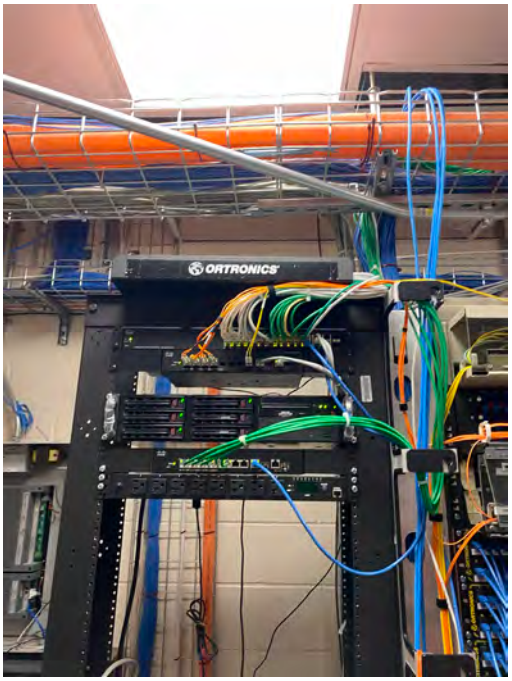


D2. 35: Linear Slot Diffusers in Auditorium



D2. 36: Lochinvar Domestic Water Heaters in Mechanical Room

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 37: Main Data Network Rack



D2. 38: McQuay Air Cooled Condensing Unit on Roof

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 39: McQuay Rooftop Units and Exposed Ductwork in Fair Condition



D2. 40:Oil Fueled Cast iron Boiler in Mechanical Room in Fair Condition

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

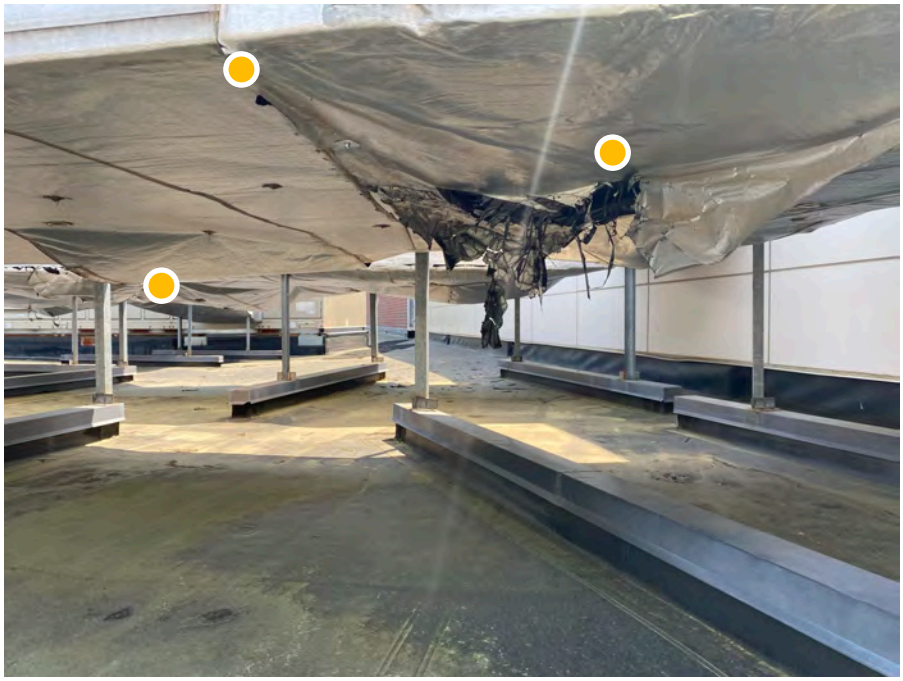


D2. 41: Piping in Good Condition



D2. 42: Power Factor Correction Capacitor Bank

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 43: View of he underside of the roof mounted ductwork, insulation wrap is in poor condition overall.



D2. 44: Detail view of clay trap and PVC plumbing in fair to poor condition with indication of previous leaks via the staining

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 45: Standby Generator #1



D2. 46: Standby Generator #2

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

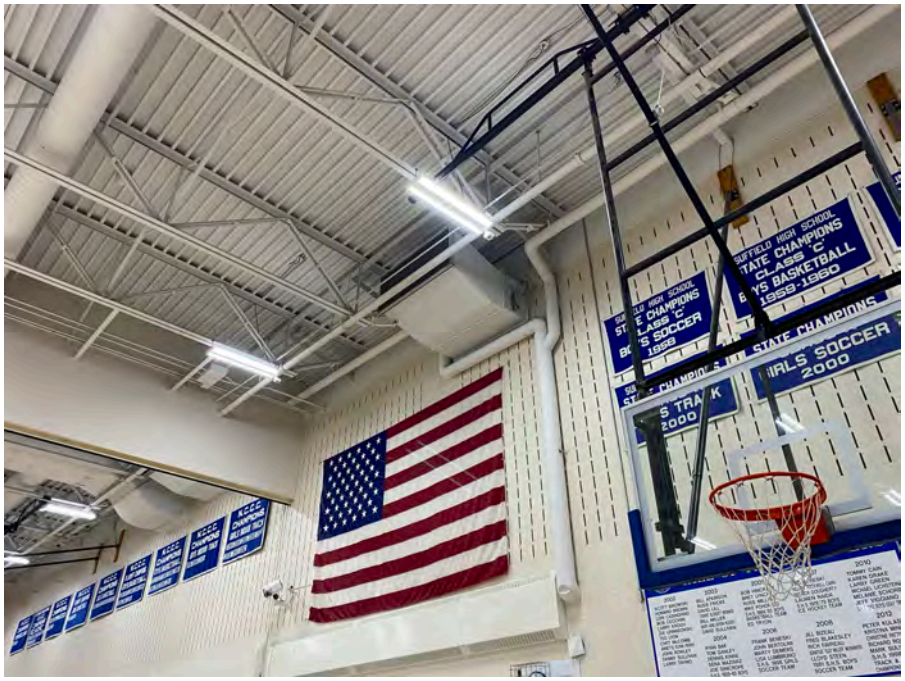


D2. 47: Standby Power ATS #1



D2. 48: Standby Power ATS #2

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 49: Storm Piping From Gym Roof



D2. 50: Toilet Room Sink in Good Condition

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 51: Torit Downflo Garage Exhaust System



D2. 52: VFDs Located in Mechanical Room

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 53: VRF Cassette Serving IDF Room



D2. 54: Various Mechanical Equipment on Roof in Fair Condition

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 55: Venmar Rooftop Unit in Fair Condition



D2. 56: Vestibule Hot Water Cabinet Unit Heater in Fair Condition

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D2. 57: Workout Room Fin Tube in Poor Condition

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D3. 1: Detail view of exterior masonry screen wall, note efflorescence likely caused by moisture infiltration into the cavity. Also note deterioration of the masonry joints.

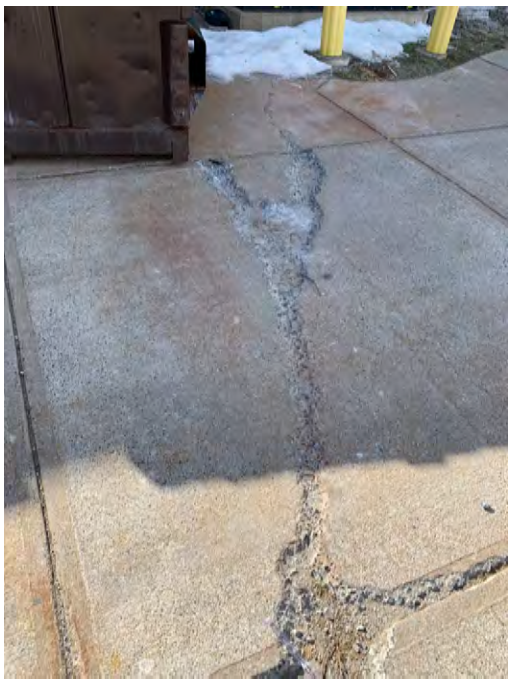


D3. 2: Typical condition of concrete sidewalks adjacent to main entry of building, note severe cracking likely caused by settlement.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D3. 3: Detail view of bollard replacement, poor condition overall, note severe cracking likely caused by settlement and moisture infiltration.



D3. 4: Typical condition of concrete sidewalks adjacent to service area, note severe cracking likely caused by settlement and moisture infiltration.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D3. 5: View of protected courtyard area



D3. 6: Typical condition of concrete sidewalks adjacent to service area, note severe cracking likely caused by settlement and moisture infiltration.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D3. 7: Detail view of typical concrete sidewalk expansion joints, note poor condition and expansion filler requires replacement.

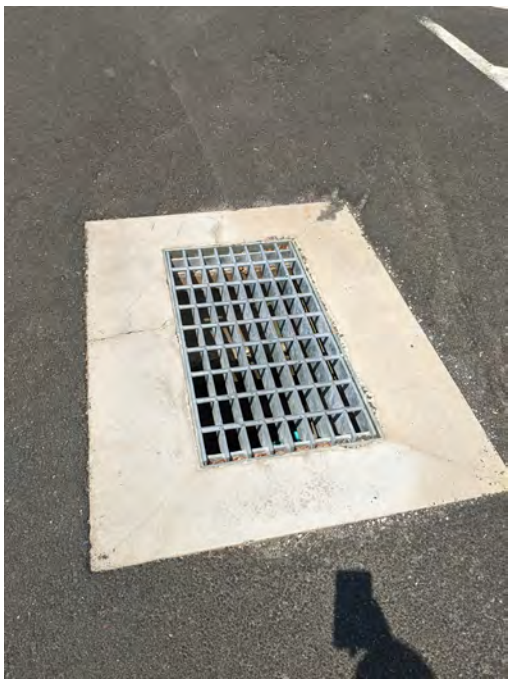


D3. 8: Detail view of accessible flush curb at drop off area.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D3. 9: View of crosswalk to parking area



D3. 10: View of typical catch basin

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D3. 11: View of typical precast curb/catch basin



D3. 12: View of accessible parking areas

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

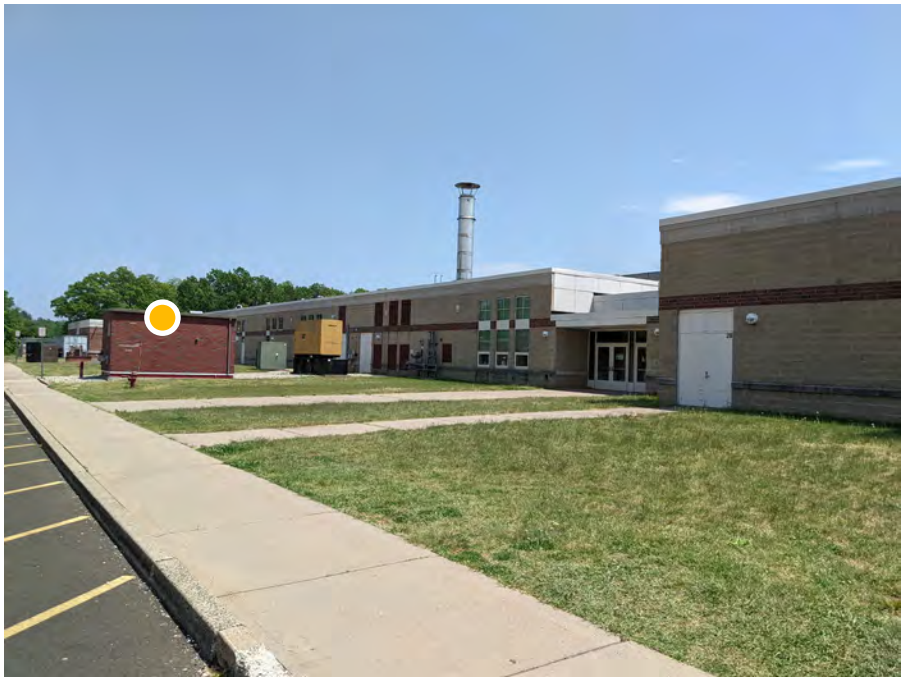


D3. 13: View of masonry pier at entry area, note ground mounted lighting no longer functioning due to electrical wiring. Also note, sever settlement at concrete sidewalk expansion joint.



D3. 14: View of rear of gymnasium and screening/fencing at service area.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D3. 15: View of north side of the building, fire sprinkler building (left)



D3. 16: View of north side of building, dust control exhaust system (center)

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D3. 17: View of east side of building with greenhouse structure in background. Masonry screen wall to right, note deterioration of masonry joints and efflorescence

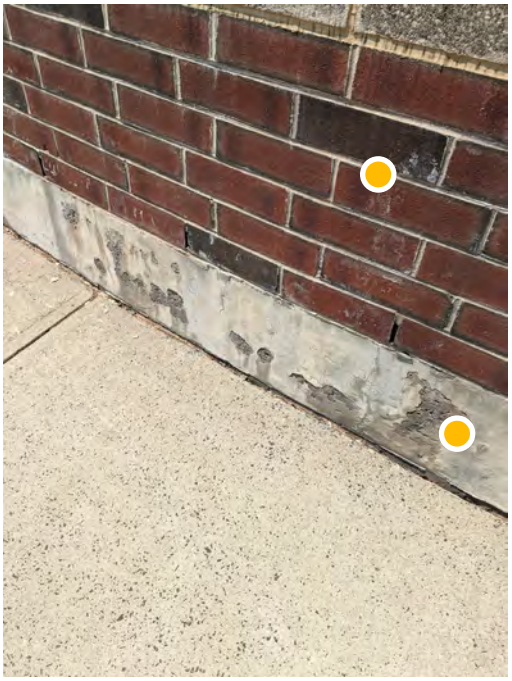


D3. 18: Detail view of partially obstructed yard drain.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D3. 19: View of south side of building, screen wall (center) for early childhood play area



D3. 20: Detail view of typical screen wall, note deterioration of masonry jointing, efflorescence, and spalling at concrete foundation wall.

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT



D3. 21: View to main entry canopy, looking north.



D3. 22: View to parking field to west.

CAPITAL IMPROVEMENTS E

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD , CT

SUFFIELD HIGH SCHOOL - 1060 SHELDON ST, SUFFIELD, CT

Suffield High School - ROM Summary												Building Area: 182,025				CIP Prioritization				
SYSTEM / LINE ITEM DESCRIPTION	Amount	Unit	Unit Price	Current Replacement Cost	General Conditions	Bonds, Ins., Permit	(Unforeseen Conditions)	Temporary Facilities and Controls	Subtotal - Line Item	Line Item Contingency + Approx. Soft Costs (Design, printing, advertising, etc.)	Projected Line Item Cost	Escalation, Market Premium	Projected Line Item Cost W/Premium	REMARKS	Immediate	1-3 Years	3-5 Years	5-10 Years	10+ Years
					10%	1.5%	7.5%	5.0%		12.5%		20%			0.0%	7.2%	16.8%	31.8%	56.6%
Site Improvements																			
Repaving of existing drives	24,444	SY	$55	$ 1,344,444	$ 134,444	$ 20,167	$ 100,833	$ 67,222	$ 1,667,111	$ 208,389	$ 1,875,500	$ 375,100	$ 2,250,600	Maintain base, strip and reuse aggregate					
Repaving of existing parking areas	10,000	SY	$45	$ 450,000	$ 45,000	$ 6,750	$ 33,750	$ 22,500	$ 558,000	$ 69,750	$ 627,750	$ 125,550	$ 753,300	Maintain base, strip and reuse aggregate					
Granite curbing	6,494	LF	$50	$ 324,700	$ 32,470	$ 4,871	$ 24,353	$ 16,235	$ 402,628	$ 50,329	$ 452,957	$ 90,591	$ 543,548	Main drives and parking perimeter					
Concrete sidewalks	48,100	SF	$14	$ 673,400	$ 67,340	$ 10,101	$ 50,505	$ 33,670	$ 835,016	$ 104,377	$ 939,393	$ 187,879	$ 1,127,272	Reuse of base material					
Bituminous sidewalks	178	SY	$45	$ 8,000	$ 800	$ 120	$ 600	$ 400	$ 9,920	$ 1,240	$ 11,160	$ 2,232	$ 13,392	Reuse of base material					
Storm water drainage	182,025	SF	$10	$ 1,820,250	$ 182,025	$ 27,304	$ 136,519	$ 91,013	$ 2,257,110	$ 282,139	$ 2,539,249	$ 507,850	$ 3,047,099						
Parking lot lighting	72	EA	$5,500	$ 396,000	$ 39,600	$ 5,940	$ 29,700	$ 19,800	$ 491,040	$ 61,380	$ 552,420	$ 110,484	$ 662,904	Includes all site lighting, excludes field lights					
Play area surface	0	SY	$65	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	No existing play areas at the High School					
Bollard/Ground lighting	6	EA	$3,500	$ 21,000	$ 2,100	$ 315	$ 1,575	$ 1,050	$ 26,040	$ 3,255	$ 29,295	$ 5,859	$ 35,154	Replaces existing bollards and recessed sidewalk lighting					
Playground Equipment	0	EA	$65,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -						
Fencing (4 ft vinyl coated chain link)	0	LF	$65	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -						
Turf Field Replacement	9,969	SY	$0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	Recently installed, No replacement necessary at this time					
Grass Field Replacement	29,578	SY	$0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	Recently installed, No replacement necessary at this time					
Tennis Courts	4,678	SY	$0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	Recently installed, No replacement necessary at this time					
Basketball Courts	1,233	SY	$0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	Recently installed, No replacement necessary at this time					
Exterior Bleachers	1	EA		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -						
Exterior Improvements				$ -					$ -	$ -	$ -								
Brick Repair/Repointing	182,025	SF	$8	$ 1,456,200	$ 145,620	$ 21,843	$ 109,215	$ 72,810	$ 1,805,688	$ 225,711	$ 2,031,399	$ 406,280	$ 2,437,679	replacement of spalling brick, retooling of joints, and sealer. Assumes 30% of existing masonry walls every 10 years					
Window Replacement	4,686	SF	$75	$ 351,450	$ 35,145	$ 5,272	$ 26,359	$ 17,573	$ 435,798	$ 54,475	$ 490,273	$ 98,055	$ 588,327						
Security Window Film (Allowance)	3,124	SF	$15	$ 46,860	$ 4,686	$ 703	$ 3,515	$ 2,343	$ 58,106	$ 7,263	$ 65,370	$ 13,074	$ 78,444						
Caulking & Sealant Replacement	182,025	SF	$2	$ 364,050	$ 36,405	$ 5,461	$ 27,304	$ 18,203	$ 451,422	$ 56,428	$ 507,850	$ 101,570	$ 609,420	backer rod and sealant replacement - all joints					
Exterior Doors	22	EA	$3,500	$ 77,000	$ 7,700	$ 1,155	$ 5,775	$ 3,850	$ 95,480	$ 11,935	$ 107,415	$ 21,483	$ 128,898	replace with new hollow metal door and frames					
Patch, repair, paint trim	182,025	SF	$2	$ 364,050	$ 36,405	$ 5,461	$ 27,304	$ 18,203	$ 451,422	$ 56,428	$ 507,850	$ 101,570	$ 609,420						
Soffit, canopy repair/refinish	1,550	SF	$15	$ 23,250	$ 2,325	$ 349	$ 1,744	$ 1,163	$ 28,830	$ 3,604	$ 32,434	$ 6,487	$ 38,921						
Roof Replacement	138,400	SF	$28	$ 3,875,200	$ 387,520	$ 58,128	$ 290,640	$ 193,760	$ 4,805,248	$ 600,656	$ 5,405,904	$ 1,081,181	$ 6,487,085	replace in kind, new insulation to meet current energy code					
Interior Improvements				$ -					$ -	$ -	$ -								
Door, frame, and hardware replacement	333	EA	$1,750	$ 582,750	$ 58,275	$ 8,741	$ 43,706	$ 29,138	$ 722,610	$ 90,326	$ 812,936	$ 162,587	$ 975,524	does not include security hardware or devices, removal of existing					
Reconfiguration of door for ADA		EA	$5,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	Existing doors meet ADA requirements					
Flooring	170,025	SF	$15	$ 2,550,375	$ 255,038	$ 38,256	$ 191,278	$ 127,519	$ 3,162,465	$ 395,308	$ 3,557,773	$ 711,555	$ 4,269,328	assumes replacement of VCT throughout and vinyl plank flooring in the Media Center					
Gymnasium Flooring Replacement	12,000	SF	$18	$ 216,000	$ 21,600	$ 3,240	$ 16,200	$ 10,800	$ 267,840	$ 33,480	$ 301,320	$ 60,264	$ 361,584	Gymnasium flooring could be refinished for roughly $10/SF					
Ceilings	182,025	SF	$11	$ 2,002,275	$ 200,228	$ 30,034	$ 150,171	$ 100,114	$ 2,482,821	$ 310,353	$ 2,793,174	$ 558,635	$ 3,351,808						
Toilet Room reconfiguration/renovation		SF	$325	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	Existing toilet rooms meet ADA requirements					
Millwork	3,320	LF	$650	$ 2,158,000	$ 215,800	$ 32,370	$ 161,850	$ 107,900	$ 2,675,920	$ 334,490	$ 3,010,410	$ 602,082	$ 3,612,492	removal and replacement of existing, high and low PLAM cabinets and countertops					
Caulking and Painting	182,025	SF	$6.5	$ 1,183,163	$ 118,316	$ 17,747	$ 88,737	$ 59,158	$ 1,467,122	$ 183,390	$ 1,650,512	$ 330,102	$ 1,980,614	allocation for all walls					
Interior glazing		SF	$50	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -						
Drinking Fountain replacements	20	EA	$6,500	$ 130,000	$ 13,000	$ 1,950	$ 9,750	$ 6,500	$ 161,200	$ 20,150	$ 181,350	$ 36,270	$ 217,620						
Chair lift (ADA Accessibility)		EA	$65,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -						
Elevator		STOP	$65,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -						
Misc - Kitchen Equipment	182,025	SF	$7	$ 1,183,163	$ 118,316	$ 17,747	$ 88,737	$ 59,158	$ 1,467,122	$ 183,390	$ 1,650,512	$ 330,102	$ 1,980,614						
Water Vapor Emission Control System	182,025	-	$30	$ 5,460,750	$ 546,075	$ 81,911	$ 409,556	$ 273,038	$ 6,771,330	$ 846,416	$ 7,617,746	$ 1,523,549	$ 9,141,296	Water vapor emission control system installed over existing concrete slabs, does not include removal and reinstallation of flooring systems					
Division 21 - Fire Protection				$ -					$ -	$ -	$ -								
Fire Protection Distribution System	182,025	SF	$8	$ 1,456,200	$ 145,620	$ 21,843	$ 109,215	$ 72,810	$ 1,805,688	$ 225,711	$ 2,031,399	$ 406,280	$ 2,437,679	Replacement of entire fire protecson system.					
Fire Pump	182,025	SF	$1.5	$ 273,038	$ 27,304	$ 4,096	$ 20,478	$ 13,652	$ 338,567	$ 42,321	$ 380,887	$ 76,177	$ 457,065	Building contains a fire pump.					
Division 22 - Plumbing				$ -					$ -	$ -	$ -								
Water Distribution and Drainage Systems	182,025	SF	$10	$ 1,820,250	$ 182,025	$ 27,304	$ 136,519	$ 91,013	$ 2,257,110	$ 282,139	$ 2,539,249	$ 507,850	$ 3,047,099	Piping is approaching the end of its useful life in 10+ years.					
Plumbing Fixtures / Equipment	182,025	SF	$5.0	$ 910,125	$ 91,013	$ 13,652	$ 68,259	$ 45,506	$ 1,128,555	$ 141,069	$ 1,269,624	$ 253,925	$ 1,523,549	Replacement of all plumbing fixtures throughout the building.					
Water Heaters	182,025	SF	$1.5	$ 273,038	$ 27,304	$ 4,096	$ 20,478	$ 13,652	$ 338,567	$ 42,321	$ 380,887	$ 76,177	$ 457,065	Water heaters are nearing the end of their useful lives.					
Misc ~ Sanitary Slab Cutting, Floor Repair, Trenching	182,025	SF	$5	$ 910,125	$ 91,013	$ 13,652	$ 68,259	$ 45,506	$ 1,128,555	$ 141,069	$ 1,269,624	$ 253,925	$ 1,523,549						
Division 23 - Mechanical				$ -					$ -	$ -	$ -								
Heating Plant (Boilers, Pumps, etc.)	182,025	SF	$5	$ 910,125	$ 91,013	$ 13,652	$ 68,259	$ 45,506	$ 1,128,555	$ 141,069	$ 1,269,624	$ 253,925	$ 1,523,549	Heating plant is orginal to the 2002 construction and approaching the end of their useful lives.					
Terminal Units	182,025	SF	$5	$ 910,125	$ 91,013	$ 13,652	$ 68,259	$ 45,506	$ 1,128,555	$ 141,069	$ 1,269,624	$ 253,925	$ 1,523,549	Convectors, fin tube radiation, unit heaters and radiant panels original to the 2002 construction are approaching the end of their useful lives.					
Air Handling Systems	182,025	SF	$7	$ 1,274,175	$ 127,418	$ 19,113	$ 95,563	$ 63,709	$ 1,579,977	$ 197,497	$ 1,777,474	$ 355,495	$ 2,132,969	Air handling systems, ductwork, and exhaust fans of the original construction are approaching the end of their ustul lives.					
Control Systems	182,025	SF	$8	$ 1,456,200	$ 145,620	$ 21,843	$ 109,215	$ 72,810	$ 1,805,688	$ 225,711	$ 2,031,399	$ 406,280	$ 2,437,679	The building does not contain a BMS, all other devices controlled by standalone controls of varying vintages.					
Air Conditioning	182,025	SF	$45	$ 8,191,125	$ 819,113	#####	$ 614,334	$ 409,556	$ 10,156,995	#####	$ 11,426,619	$ 2,285,324	$ 13,711,943	There is no air conditioning plant within the building. Cooling is accomplished through the rooftop units and mini split units loacted throughout.					
Division 26 - Electrical				$ -					$ -	$ -	$ -								
Electrical Service / Distribution	182,025	SF	$25	$ 4,550,625	$ 455,063	$ 68,259	$ 341,297	$ 227,531	$ 5,642,775	$ 705,347	$ 6,348,122	$ 1,269,624	$ 7,617,746	Electric Service Switchboard and equipment appear to to be in good working condtion. This equipment was installed around 2006.					
Generator #1 - 30 kW	182,025	SF	$0.5	$ 91,013	$ 9,101	$ 1,365	$ 6,826	$ 4,551	$ 112,856	$ 14,107	$ 126,962	$ 25,392	$ 152,355	Standby Power #1					
Generator #2 - 250 kW	182,025	SF	$1.5	$ 273,038	$ 27,304	$ 4,096	$ 20,478	$ 13,652	$ 338,567	$ 42,321	$ 380,887	$ 76,177	$ 457,065	Standby Power #2					
Lighting - General	182,025	SF	$8	$ 1,456,200	$ 145,620	$ 21,843	$ 109,215	$ 72,810	$ 1,805,688	$ 225,711	$ 2,031,399	$ 406,280	$ 2,437,679	Some fixtures have been retrofit with LED lamps.					
Fire Alarm System	182,025	SF	$7	$ 1,274,175	$ 127,418	$ 19,113	$ 95,563	$ 63,709	$ 1,579,977	$ 197,497	$ 1,777,474	$ 355,495	$ 2,132,969	Fire alarm system is code compliant with voice capable equipment. System panels are recently upgraded.					
Technology Infrastructure	182,025	SF	$12	$ 2,184,300	$ 218,430	$ 32,765	$ 163,823	$ 109,215	$ 2,708,532	$ 338,567	$ 3,047,099	$ 609,420	$ 3,656,518						
Security Alarms and control devices	182,025	SF	$5	$ 910,125	$ 91,013	$ 13,652	$ 68,259	$ 45,506	$ 1,128,555	$ 141,069	$ 1,269,624	$ 253,925	$ 1,523,549						
Subtotal for CIP Items				**$ 56,186,329**					**$ 69,671,049**		**$ 78,379,930**	**$ 15,675,986**	**$ 94,055,915**						
Cost Per Square Foot				**$ 308.67**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 382.76**	**$ -**	**$ 430.60**	**$ 86.12**	**$ 516.72**						

Building Vintage Summary			
Building Vintage	Area		% to Ttl
Building Vintage ~ 2002	182,025	V1	100.00%
	182,025		100.00%

TOWN HALL ANNEX

97 MOUNTAIN ROAD, SUFFIELD, CT

CONDITIONS ASSESSMENT & MASTER PLAN

Tecton ARCHITECTS

3.5



TABLE OF CONTENTS

INTRODUCTION ..... **A**

Summary & Analysis A1

DATA & RANKINGS ..... **B**

Building Data B1

Condition Rankings B2

EXISTING CONDITIONS NARRATIVE ..... **C**

Architectural *(Building & Structure)* C1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* C2

Site *(Civil, Landscape, Utilities)* C3

PHOTO LOG ..... **D**

Architectural *(Building & Structure)* D1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* D2

Site *(Civil, Landscape, Utilities)* D3

CAPITAL IMPROVEMENTS ..... **E**

Capital Improvements E1

INTRODUCTION A

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

The Town Hall Annex houses overflow offices from the Town Hall. The exterior is clad in brick veneer and vinyl siding. The main entrance is located on the North façade of the building facing Mountain Road and has additional man-doors located on all sides. Three overhead garage doors are located on the South side and exit into a rear parking lot. The Town Hall Annex is centrally located on a small open site with one entrance driveway on the North side. The rear of the site is heavily wooded with a large open parking area.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

BUILDING AREA/SITE	2,060 SF / 1.62 acres
AGE/CONSTRUCTION	1976 (46)

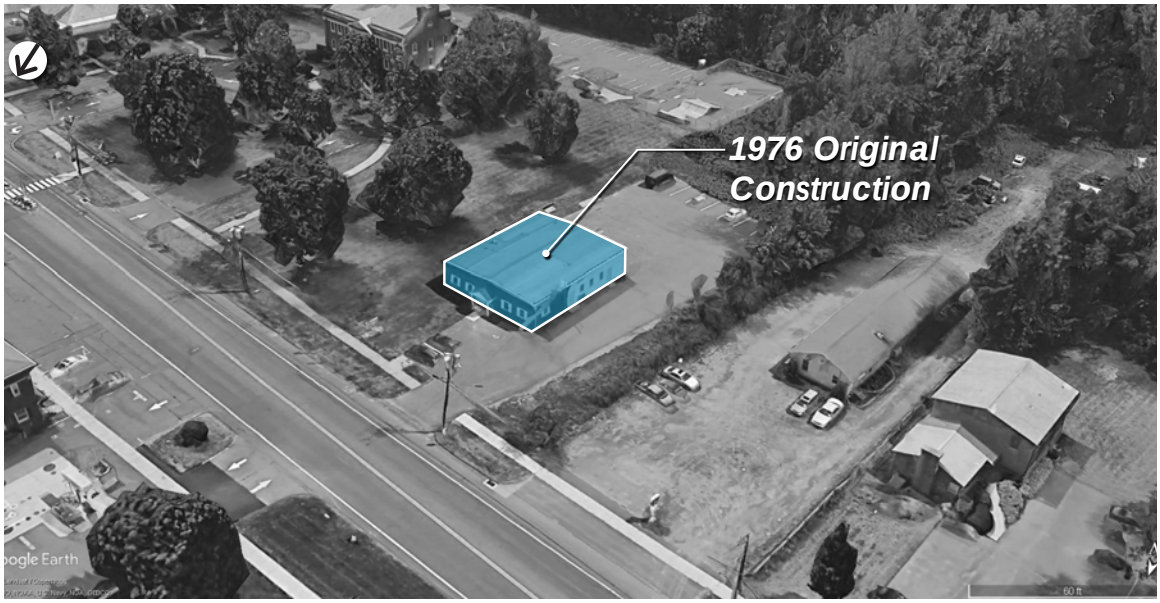
Building Condition*: *Fair

- Cracking and deterioration at all concrete and asphalt site components
- General cleaning of exterior masonry and foundation walls needed
- Some exterior man-doors and garage doors need replacement or repair
- Ripped insulation lining throughout garage
- Minor deterioration of interior finishes
- No automatic sprinkler system within this building
- Need to identify possible future uses and/or if it should be discarded
- Potential for centralized storage location to serve town needs

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



A1. 1: Aerial View of Existing Town Hall Annex and Property



A1. 2: Vintage Plan

DATA & RANKINGS B

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

B. DATA & RANKINGS

B.1 Building Data

The Facility:

Name:	**Town Hall Annex**		
Address:	**97 Mountain Rd**		
Type / Use:	**Town Administrative Building**		
Total Building Area (SF):	2,060	**Original Construction:**	1976
Site Area (acres):	1.62	**Additions (dates):**	N/A
Stories (above grade):	1	**Construction Type(s):**	
Building / Framing Materials:	Wood Studs	**Roof Types & Age:**	Asphalt Shingles (2016) 2036 warranty
Split-level / ramps (interior):	No	**Heating (types):**	Furnace, Hot Air
Stairs (interior):	No	**Fuel Types:**	Natural Gas
Elevator:	No	**Cooling (centralized):**	Central Furnace, Cold Air
Basement:	No	**Ventilation:**	Yes, via outdoor air through furnace
Mezzanine (finished)	No	**Electrical:**	208/120 volt, 3 ph, 4 wire 200 amp
Crawl Space / Tunnels:	No	**Generator:**	No
Auxiliary Buildings:		**Fire Alarm:**	Simplex 4001 w/HS
Full ADA Compliance:	No	**Sewer / Septic**	Sewer (GIS)
	Missing grab bar, step into garage	**Municipal Water / Well**	Well (GIS)
		Sprinklered (full / partial):	N/A
School Data		**Parking Count:**	12
Enrollment(2020):	N/A		
Enrollment 10-yr:	N/A	**Meals:**	N/A
Net Enrollment Change:	N/A	**Meal Prep on site?:**	N/A
Location in Town:	N/A	**Start Time:**	N/A
Grade Structure:	N/A	**Dismissal:**	N/A
Pre-K?:	N/A	**Buses:**	N/A
Athletic Fields:	N/A	**Additional Programs:**	N/A

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
2 Poor [P] May require attention in 2-5 years
3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Exterior

V4 V3 V2 **V1**

Component	Material(s)	Condition				Notes
Roofing	Membrane roof	-	-	-	3	Installed 2002, 15 year warranty
	Metal Roof	-	-	-	3	Installed 2002, 20 year warranty
	Asphalt Shingle Roof	-	-	-	4	No data
	Flashing / joints	-	-	-	4	N/A
	Gutters / downspouts/scuppers	-	-	-	4	N/A
	Fascia / trim	-	-	-	3	Courtyard fascia loose, birds nesting
	Skylights	-	-	-	4	N/A
Walls	Masonry (unpainted)	-	-	-	3	Staining below windows, CMU poor
	Metal Panel	-	-	-	3	Dented due to thru-bolts
	Joints (Building or expansion)	-	-	-	3	N/A
	Wall mounted fixtures	-	-	-	4	N/A
	Foundations – exposed concrete	-	-	-	4	N/A
Entrances	Entrance doors	-	-	-	3	Hollow metal doors require re-painting
	Overhead doors	-	-	-	3	N/A
	Soffits / Canopy	-	-	-	3	N/A
Windows	Aluminum	-	-	-	3	N/A
	Window Screens (exterior)	-	-	-	3	N/A
Walkways / site stairs	Sidewalks	-	-	-	2	Some cracking at entrance
	Bituminous concrete curb	-	-	-	3	N/A
Drives / parking lots	Bituminous concrete pavement	-	-	-	3	N/A
	Pavement striping	-	-	-	3	N/A
Landscaping	Lawn	-	-	-	3	N/A
	Plants	-	-	-	3	N/A
	Mulch beds	-	-	-	3	N/A
	Trees	-	-	-	3	N/A
Recreation	Soccer Field	-	-	-	4	N/A
	Football/Soccer Field	-	-	-	4	N/A
	Track	-	-	-	4	N/A
	Softball Field	-	-	-	4	N/A
	Baseball Field	-	-	-	4	N/A
	Tennis Courts	-	-	-	4	N/A
	Basketball Courts	-	-	-	4	N/A
Other Structures	Site lighting – poles and fixtures	-	-	-	4	N/A
	Vehicular signage	-	-	-	4	N/A
	Catch basin tops	-	-	-	3	Some cracking at concrete
	Catch basin structures	-	-	-	3	N/A

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
2 Poor [P] May require attention in 2-5 years
3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Interior

V4 V3 V2 **V1**

Component	Material(s)	Condition				Notes
Flooring	Concrete (unpainted)	-	-	-	2	Cracking at exposed concrete
	Ceramic Tile	-	-	-	3	Minor chipping at locker rooms
	Vinyl composite tile	-	-	-	1	Adhesive bubbling through flooring
Walls Surfaces	Masonry (painted)	-	-	-	3	Minor cracking throughout
	Gypsum board	-	-	-	4	N/A
	Tile	-	-	-	4	N/A
Ceilings	Gypsum board ceilings / soffits	-	-	-	3	Some cracking at soffits
	Acoustic panel ceiling	-	-	-	4	N/A
Interior trim	Wood - Wall Base / Door / Window	-	-	-	4	N/A
	Wall Base – Vinyl	-	-	-	4	N/A
Interior doors	Wood doors	-	-	-	4	N/A
	Hollow metal doors	-	-	-	3	Exterior HM doors beginning to rust
	Hardware	-	-	-	4	N/A
Built-ins	Benches (composite wood)	-	-	-	4	N/A
	Casework	-	-	-	2	Accelerated wear / melamine peeling
	Countertops	-	-	-	3	Accelerated wear
Toilet Facilities	Fixtures	-	-	-	4	N/A
	Partitions	-	-	-	2	Accelerated wear throughout
	Accessories (dispensers, driers)	-	-	-	4	N/A
Athletics	Gymnasium floor / play surface	-	-	-	4	N/A
	Athletic equipment	-	-	-	4	N/A
	Bleacher Seating	-	-	-	4	N/A
	Lockers	-	-	-	4	N/A

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
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4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Building Systems

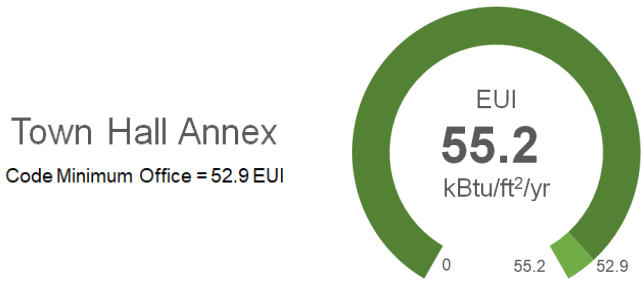
V4 V3 V2 **V1**

Component	Material(s)	Condition				Notes
Fire Protection	Alarms & Devices	-	-	-	4	In good working condition
	Fire suppression (infrastructure / devices)	-	-	-	4	In good working condition
Plumbing Systems	Infrastructure (pipes, drains, etc.)	-	-	-	4	Infrastructure in good condition
	Fixtures	-	-	-	2	Fixtures beginning to fail
	Overall efficiency	-	-	-	3	Overall efficiency is fair
Mechanical / HVAC	Infrastructure (pipes, ducts, etc.)	-	-	-	4	Infrastructure is in good condition
	Heating systems	-	-	-	4	Boilers are in good condition
	Cooling systems	-	-	-	3	Working but nearing end of life
	Fixtures & equipment (Interior)	-	-	-	3	In fair working condition
	Fixtures & equipment (Exterior/Roof top)	-	-	-	3	In fair working condition
	Overall efficiency	-	-	-	3	Overall efficiency is fair
Electrical (Service)	Infrastructure (panels, wiring, etc.)	-	-	-	3	Infrastructure is in good condition
	Service & distribution	-	-	-	3	In good working condition
	Generator	-	-	-	3	In good working condition
	Other	-	-	-	-	N/A
Electrical Lighting	Infrastructure (panels, wiring, etc.)	-	-	-	3	Infrastructure is in good condition
	Fixtures (Interior)	-	-	-	3	Fixtures in good working condition
	Efficiency (incl. natural & artificial light distr.)	-	-	-	3	LED retrofit lights in some areas
Security	Access Control	-	-	-	3	Building-wide System installed
	Cameras	-	-	-	3	Building-wide System installed

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

B. 2 Benchmarking

MECHANICAL, ELECTRICAL, FIRE PROTECTION, SECURITY			
SYSTEM	**EQUIPMENT LIFE EXPECTANCY**	**EQUIPMENT AGE**	**USEFUL LIFE PERCENTAGE**
Fire Protection System	40 Years	N/A	N/A
Plumbing Water Heater	25 Years	5 Years	20%
Plumbing Piping & Fixtures	40 Years	10 Years	25%
Mechanical Furnace	40 Years	10 Years	25%
Mechanical Equipment	40 Years	10 Years	25%
Mechanical Air Conditioning	25 Years	15 Years	60%
Mechanical Controls	20 Years	N/A	N/A
Electrical Service & Distribution	40 Years	15 Years	38%
Electrical Lighting	30 Years	15 Years	50%
Electrical Generator	40 Years	15 Years	38%
Fire Alarm	20 Years	15 Years	75%



EXISTING CONDITIONS NARRATIVE C

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

C.1 Architectural

Construction:

The Town Hall Annex is constructed from a steel frame with a steel stud back up wall. The exterior is clad in brick veneer and vinyl siding.

Exterior:

EXTERIOR (GENERAL): The main entrance is located on the North façade of the building facing Mountain Road and has additional man-doors located on all sides. Three overhead garage doors are located on the South side and exit into a rear parking lot.

WALLS: Exterior brick veneer is in good condition but requires cleaning and routine maintenance to extend the life of the material. The vinyl siding is damaged around the base and will need repair. Vinyl trim at building joints between brick and siding is missing and should be replaced. These elements can be considered fair condition.

WINDOWS/DOORS/ENTRANCES: Wood/Aluminum windows are in fair condition and require cleaning and re-caulking. Main entrance door and canopy is in good condition. The rear man-door at the ramp is in poor condition with major corrosion at the base. This door should be replaced. Overhead doors have large dents and should be replaced or repaired.

ROOF: The asphalt shingle roof was replaced in 2016 and carries a 20-year warranty. Downspouts clips should be replaced at all downspouts along West façade. One of these downspouts is heavily dented and should be replaced. The downspout at the Southeast corner of the building is facing the wrong direction and is not directly draining into the subsurface system. Splash blocks should be added at all downspouts not draining into the subsurface system or directly onto concrete.

Interior:

INTERIOR SPACES (GENERAL): The majority of corridors and offices are carpeted and have acoustic panel ceilings, which are both in good condition. A transaction window separates an office near the main entry from the lobby space. This window and counter are in good condition. Gypsum board walls throughout are in good condition.

TOILET FACILITIES: The acoustic panel ceilings carry into the toilet rooms and are also in good condition. Vinyl composite flooring and base in toilet rooms are in fair condition. Some minor repairs are needed at transition strip to carpet. Painted masonry and gypsum board walls in toilet rooms are in good condition.

STORAGE GARAGE: The storage garage has a mix of exposed concrete floors and vinyl composite tile where rooms used to be. There is also a small area where a flooring material had been previously removed and the adhesive was left behind. This tile is in poor condition and should be removed along with any adhesive to create a uniform floor surface in the garage. The structure and roof insulation are exposed in this space as there is no ceiling. Roof insulation is ripped throughout and should be replaced. Concrete sills at exterior doors are heavily deteriorated and should be repaired and re-painted.

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

BREAK ROOM: Some staining was observed at acoustic panel ceiling in the break area. The vinyl composite tile in this area is in good condition.

Code & Safety

ADA: Toilet facilities are missing required grab bars to be considered ADA-compliant. A raised sill separates the office area from the garage and is not considered wheelchair accessible.

SAFETY: This building is not sprinklered.

C.2 MEP

B.4 Plumbing/Fire Protection:

HOT WATER GENERATION: The buildings existing domestic hot water is generated via one water heater. The water heater is an electric water storage tank located in the mechanical room off the garage floor. This tank has a 40 Gallon Capacity and 4.5 KW Input. This tank was installed approximately 5 years ago and appears to be in good working condition.

DOMESTIC WATER SERVICE: The existing building is currently served by a municipal domestic water service from the town of Suffield. This service is 3/4" when it enters the building and is located in the mechanical room off the garage floor. This service was installed during the original 1976 construction and appears to be in acceptable working condition but nearing the end of its useful life.

DOMESTIC WATER PIPING: Domestic water piping was observed to be copper piping. The majority of the domestic water supply piping was installed during the 1976 construction. The piping directly connected to the water heater is in good working condition while the original piping is near or past its useful service life.

PLUMBING FIXTURES: The plumbing fixtures in the building are from various renovations. The plumbing fixtures by the garage were installed approximately 10 years ago and are in good working condition. All other plumbing fixtures appear to be in fair condition.

SANITARY SERVICE: The building is served by a municipal sewer system. The building currently has one sanitary entrance located outside of the mechanical room off the garage floor. This service is original to the building and past the end of its useful life.

STORM SERVICE: The building currently uses a gutter system to collect and transfer all storm drainage. The roof is pitched on either side to lead the storm into the gutters. The gutters distribute the storm drainage onto the ground through the use of splash guards. The storm service appears to be in good working condition.

NATURAL GAS SERVICE: The building currently has a natural gas service that feeds the furnace. The natural gas service entrance is located on the outside wall next to the mechanical room. The service and piping is in good working condition.

FIRE PROTECTION: There is currently no fire protection sprinkler system within the building.

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

B.5 Mechanical:

HEATING SYSTEMS: The existing building except for the garage is currently served by a natural gas high efficiency furnace. The furnace is located in the mechanical room off the garage floor. The furnace has been installed within the last 10 years and appears to be in good working condition.

HOT WATER PIPING: There is no hot water piping currently in the building.

TERMINAL UNITS: There is a window air conditioning unit serving the storage room next to the garage. The garage is served by electric unit heaters that are currently inoperable.

VENTILATION SYSTEMS: The building is ventilated through the use of the furnace. The furnace ducts in outdoor air to supply the existing rooms and exhausts the return air out of the building. This ventilation system appears to be in fair working condition. The garage brings in outdoor air through the operable garage bay doors. The garage does not contain any exhaust system which is required by current code.

COOLING SYSTEMS: The building is currently cooled by the furnace which incorporates a direct expansion cooling coil. The cooling coil is served by refrigerant from a condensing unit located outdoors on the ground next to the mechanical room. There is also an old abandoned condensing unit located next to the operable unit. The cooling system appears to be in good working condition.

DUCTWORK: The majority of the ductwork in the facility is located above the ceilings. The ductwork was installed during the 1992 renovation and is in good working condition. Any existing ductwork from the 1976 construction is past its useful life.

CONTROLS: The building does not contain a Building Management System (BMS).

B.7 Electrical:

MAIN ELECTRIC SERVICE: Overhead electric service at 208/120 volt, 3 phase, 4 wire rated for 200 amperes. The service transformers consist of a pole mounted array rated for 45 kVA. The pole is CL&P # 4856. Service conductors run aerial to a utility riser pole located directly adjacent to the western egress door and transitions to the meter enclosure via a service weather head and conduit drop. The service capacity is adequate for the buildings current use.

The service disconnect and meter consist of a hot sequence meter with meter number 89-047-477. The main disconnect consists of a 200 ampere main circuit breaker in the electrical distribution MDP.

ELECTRICAL DISTRIBUTION: MDP is a 208/120v – 3ph – 4w – 200 ampere panel manufactured by Square D Co dating to approximately mid 1990's. This panel features a 100 ampere sub-feed breaker to serve the adjacent branch circuit panel board P1. The sub panel P1 is 208/120v – 3ph – 4w – 100 ampere 42 pole panel that contains 40 single pole circuit breakers serving miscellaneous circuits throughout the building. Panel P1 is also identical vintage to MDP installed approximately in the mid 1990's.

Existing receptacle power provisions within the spaces are code compliant but could be improved with additional devices.

Existing wiring systems are building wire in conduit and metal clad cable.

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

GENERATOR: A generator for backup power is not installed at this facility.

LIGHTING SYSTEMS: Lighting systems within the building consist mainly of 2x4 fluorescent parabolic troffers with linear T8 lamp systems for interior office applications. The garage area utilizes T-12 lamps which are now discontinued due to Department of Energy mandates and are no longer allowed for new installations. These can be maintained in use with replacement lamps but these should be upgraded. All of the fixtures appear to be from the original building fit-up.

Emergency lighting fixtures consist of self-contained wall mounted twin head emergency lighting units. Toilet rooms contained single lamp remote heads. The fixtures represent a newer LED type that were installed as part of a full system upgrade

Exterior emergency egress lighting was not installed at the rear egress doors. The front and side egress door were upgraded with LED fixtures which are integrated into the emergency lighting system

Exterior lighting consisted of LED fixtures for the front and side. The rear parking area was illuminated with a HID wall pack fixture above the overhead doors

Lighting controls consist of wall toggle switches. Occupancy sensors were not installed. An exterior photocell control is incorporated for dusk to dawn control capability.

FIRE ALARM SYSTEM: Fire Alarm protective signaling provisions exist in the building and are administered through a Simplex 4001 control panel. The panel appears to be fully functional but does date to approximately 1990 and is obsolete. The panel is a 4 zone hardwired panel and does not utilize addressable devices. The existing occupant notification devices are horn/strobe type and appear to be installed in a code compliant manner. The building is fit up with smoke and heat detection devices.

COMMUNICATION SERVICES: Cable TV / broadband service is utilized in the building. Service cable enters the building on the west side via an aerial cable.

Fiber service interconnects the Annex Office building with the Town Hall building via a 12 strand single mode and to the highway building with a 12 strand single mode.

MDF data rack is provisioned within a data closet room. The rack is a 2 post rack with fiber patch panel, 24 port Cat 5e patch panel and 24 port network switch. Network data and voice outlets are distributed throughout the office spaces and appear to satisfactorily serve the office spaces. Wireless access points are provisioned throughout and appear to be the Aerohive AP250 series.

25 Pair copper cabling for voice communications appear to extend to or from the highway building.

12 pair copper cabling for voice communications appears to be extended from the town hall phone room.

Ceiling speakers were observed throughout the space but it was not clear what could have been sourcing audio to these speakers. The system featured wall mounted volume controls in various locations.

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

C.3 Site

SITE (GENERAL): The Town Hall Annex is centrally located on a small open site with one entrance driveway on the North side. The rear of the site is heavily wooded with a large open parking area.

WALKWAYS/SITE STAIRS: Two small ramps are the only concrete sidewalks on the site. One leads up to the main entrance and the other exits from a small storage room door on the South façade. Both ramps are beginning to chip and require minor repairs.

ROADWAYS/PARKING: A few striped parking spaces are located directly in front of the main entrance with overflow parking in the rear. Most of the rear lot is open space and not suitable for parking. Heavy cracking can be observed throughout the drive aisle and parking areas and these can be considered fair condition.

LANDSCAPING: Storm water ponding was observed along the East Wall. Site should be re-graded along this wall to allow proper drainage.

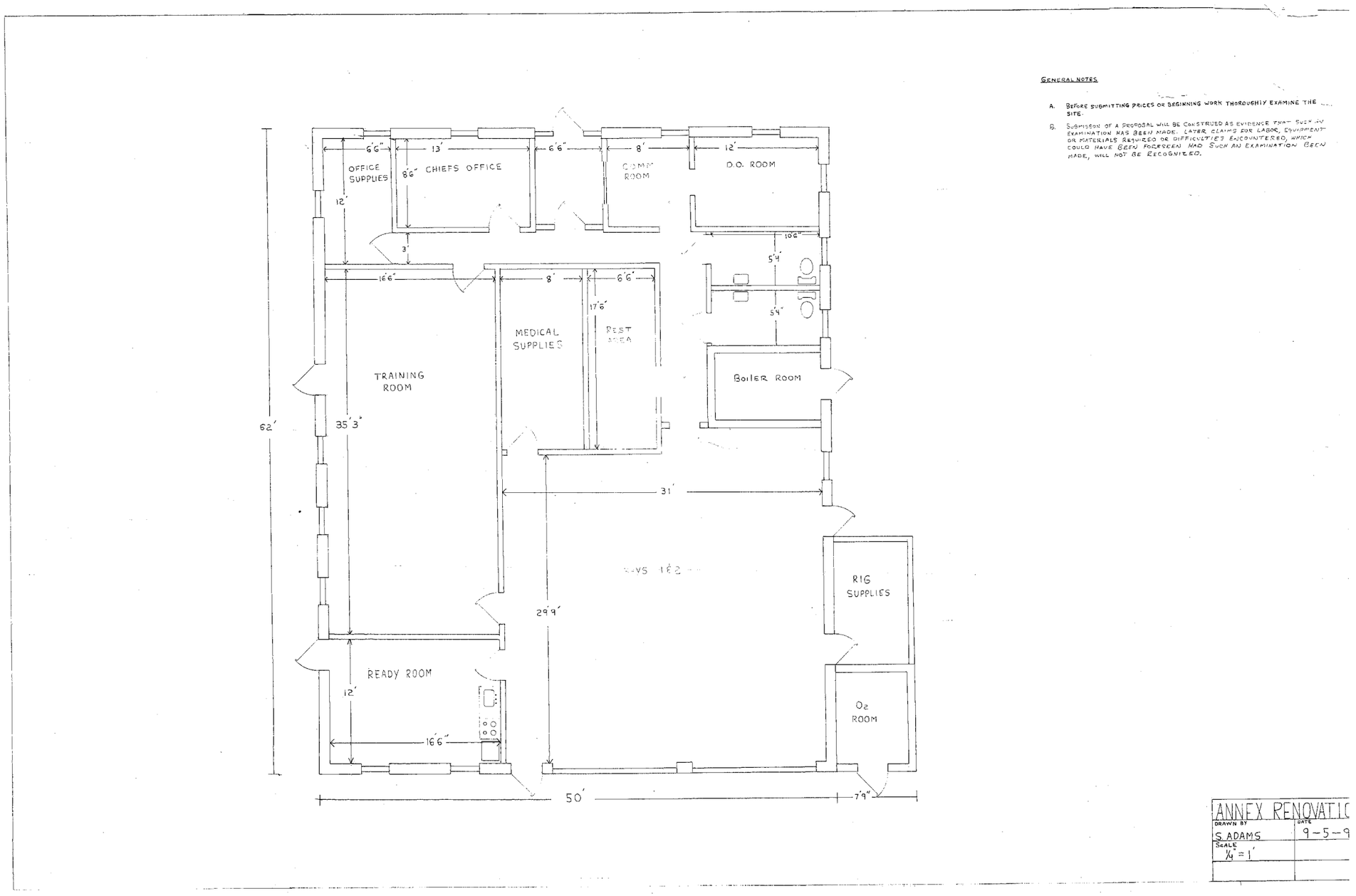
SITE FEATURES: A vinyl building sign is located near Mountain Road and is in good condition.

OTHER STRUCTURES: Concrete catch basin tops are beginning to crack and requires repair. Parking signage is beginning to lean and should be corrected.

PHOTO LOG D

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



GENERAL NOTES

A. BEFORE SUBMITTING PRICES OR BEGINNING WORK THOROUGHLY EXAMINE THE SITE.

B. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE. LATER CLAIMS FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED OR DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN EXAMINATION BEEN MADE, WILL NOT BE RECOGNIZED.

ANNEX RENOVATIO

DRAWN BY	DATE
S ADAMS	9-5-9
SCALE 1/4" = 1'	

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 1: South Façade



D1. 2: Northwest corner

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 3: North Façade



D1. 4: Main Entrance

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 5: Aluminum windows with brick sill; Brick staining

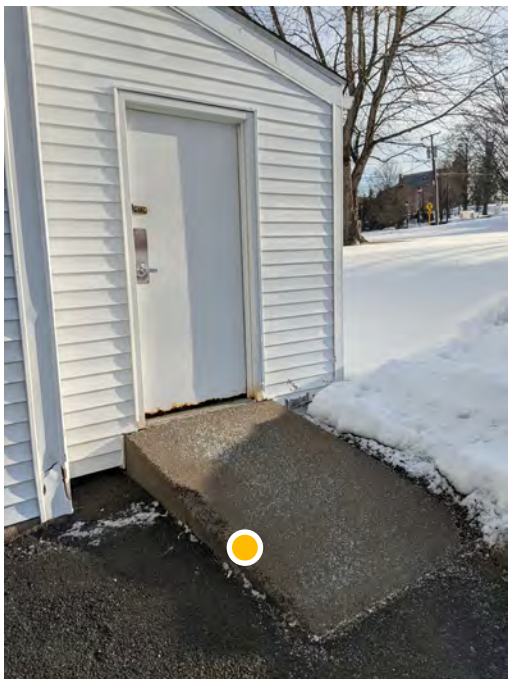


D1. 6: Brick and concrete staining at base

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

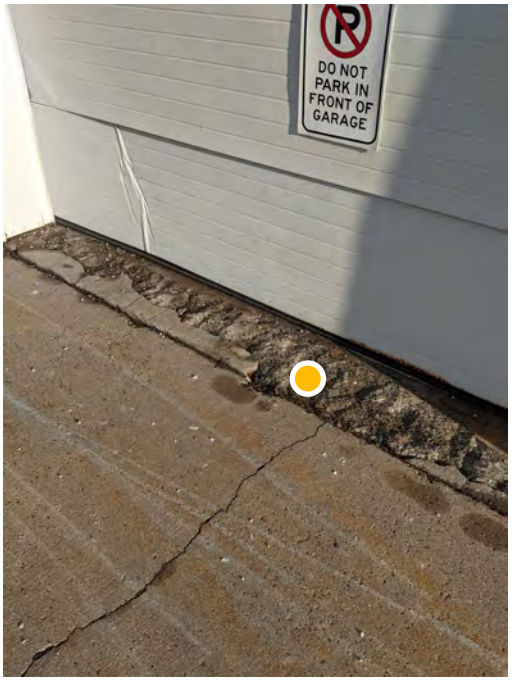


D1. 7: Garage doors are dented



D1. 8: Spalling concrete at rear storage ramp

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 9: Concrete spalling at garage door thresholds



D1. 10: Staining and poorly installed caulk at brick window sills

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 11: Northeast corner



D1. 12: Missing splashblock causing soil erosion

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

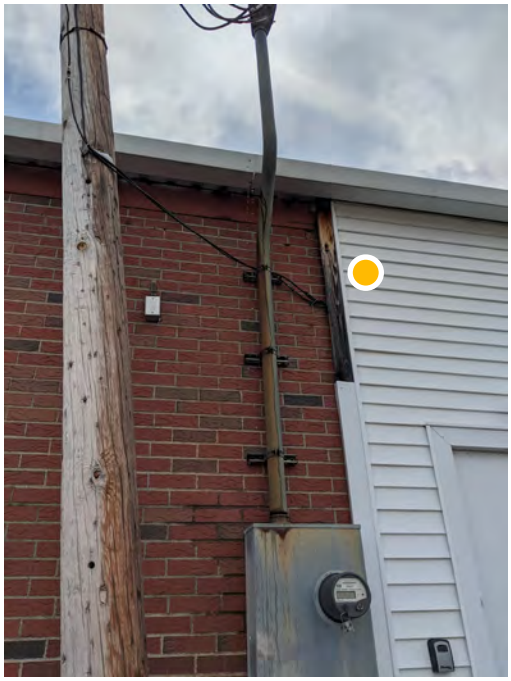


D1. 13: East Façade



D1. 14: Vinyl siding damaged at base

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 15: Missing trim at vinyl siding along West Façade



D1. 16: Downspout dented along pavement

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 17: Windows poorly caulked

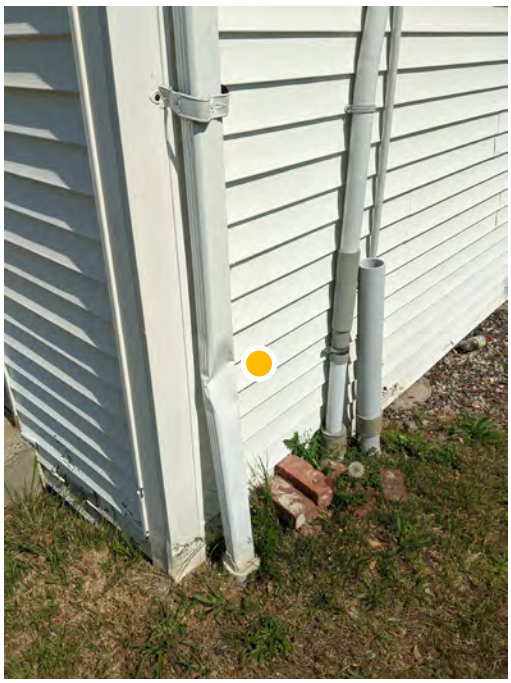


D1. 18: Damaged downspout at connection to sub-surface drainage system

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

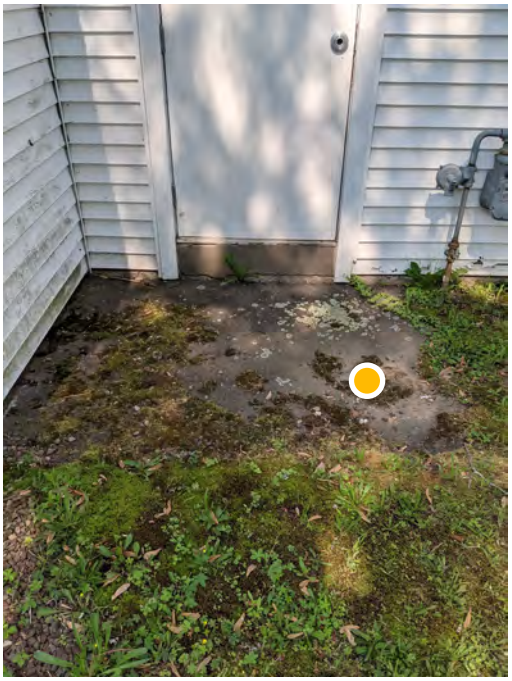


D1. 19: Corrosion at base of storage room exterior door

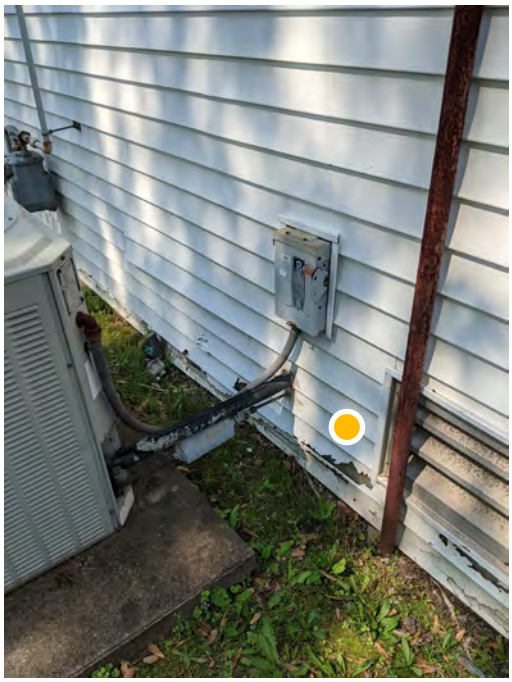


D1. 20: Downspout damaged

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 21: Organic growth at concrete pad; Vinyl siding damaged at base



D1. 22: Vinyl siding damaged at base

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 23: Missing splashblock causing soil erosion at edge of concrete

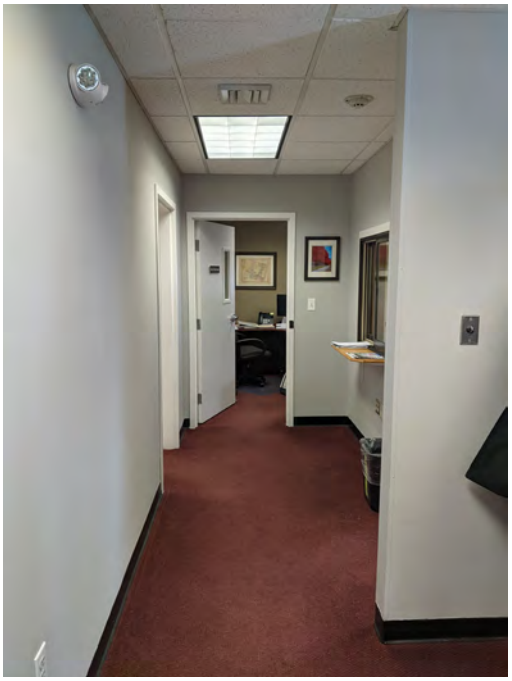


D1. 24: Ground-mounted building signage

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 25: Southeast corner

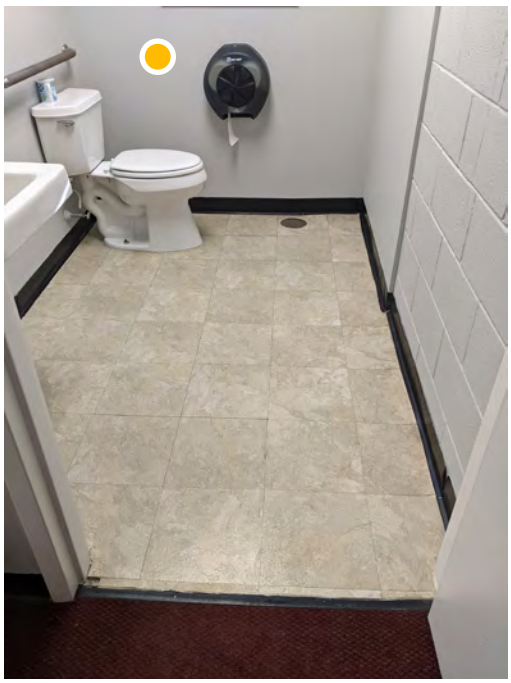


D1. 26: Main corridor at entry and offices

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

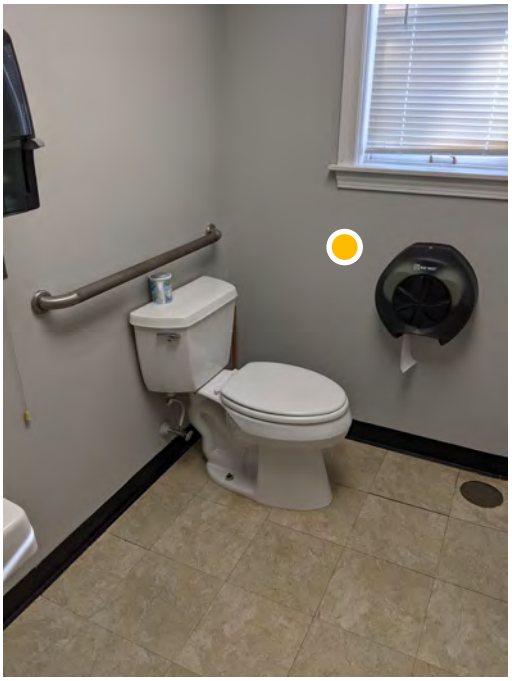


D1. 27: Service counter at offices



D1. 28: Missing ADA grab bar at toilet rooms

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

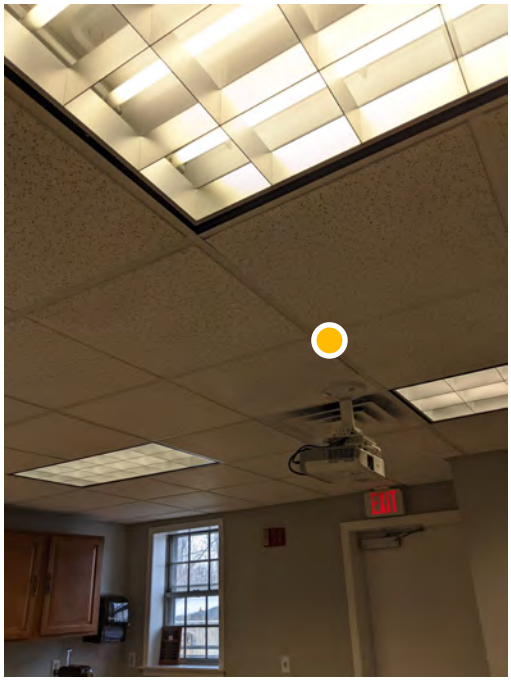


D1. 29: Missing ADA grab bar at toilet rooms



D1. 30: Service counter at offices

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 31: Stained acoustic ceiling tiles



D1. 32: Storage Garage

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

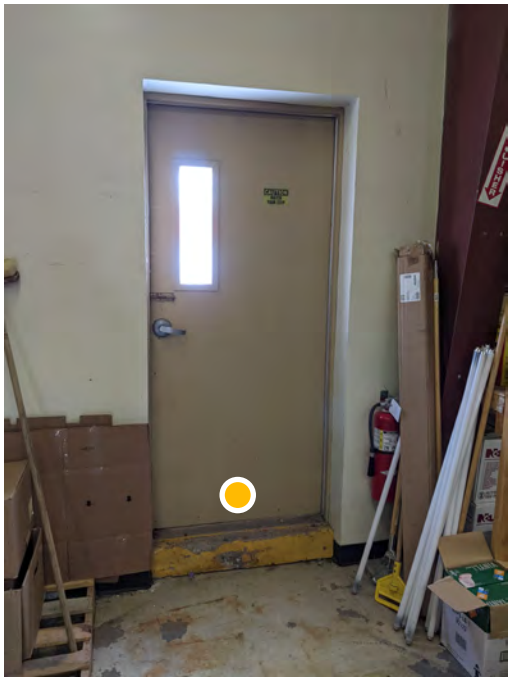


D1. 33: Equipment in storage area prohibiting access to other spaces

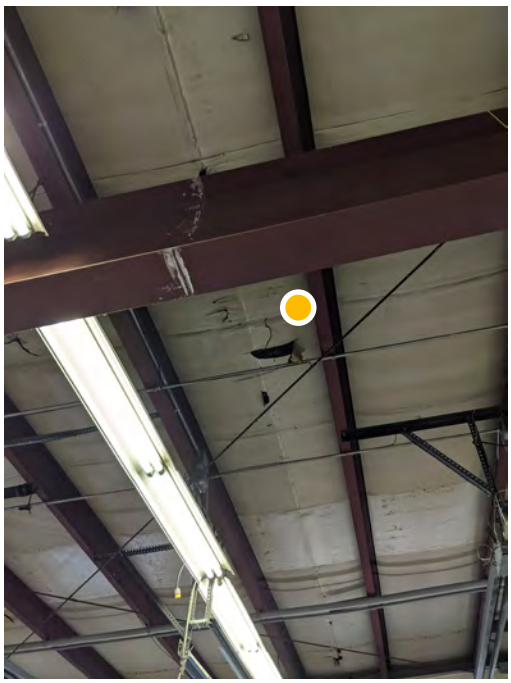


D1. 34: Damaged roof insulation throughout storage garage

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 35: Spalling concrete sill at exterior door in storage garage



D1. 36: Damaged roof insulation throughout storage garage

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 37: Damaged vinyl tile flooring in storage garage

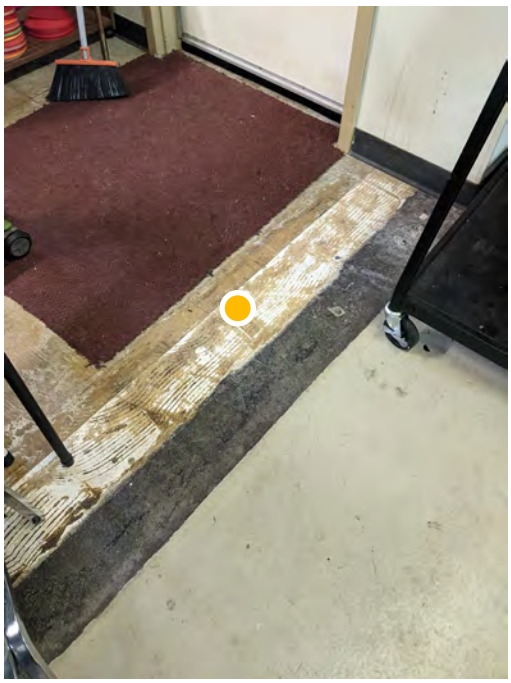


D1. 38: Electrical closet

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 39: Mismatched flooring at door threshold in break area

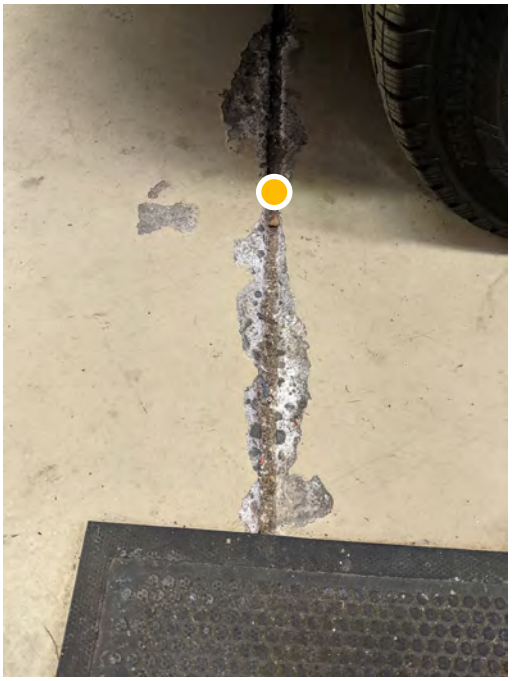


D1. 40: Former tile flooring adhesive at previously demolished space within storage garage

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 41: Spalling concrete sill at exterior door in storage garage



D1. 42: Spalling concrete control joints in storage area

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D1. 43: Damaged vinyl tile flooring at break area

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

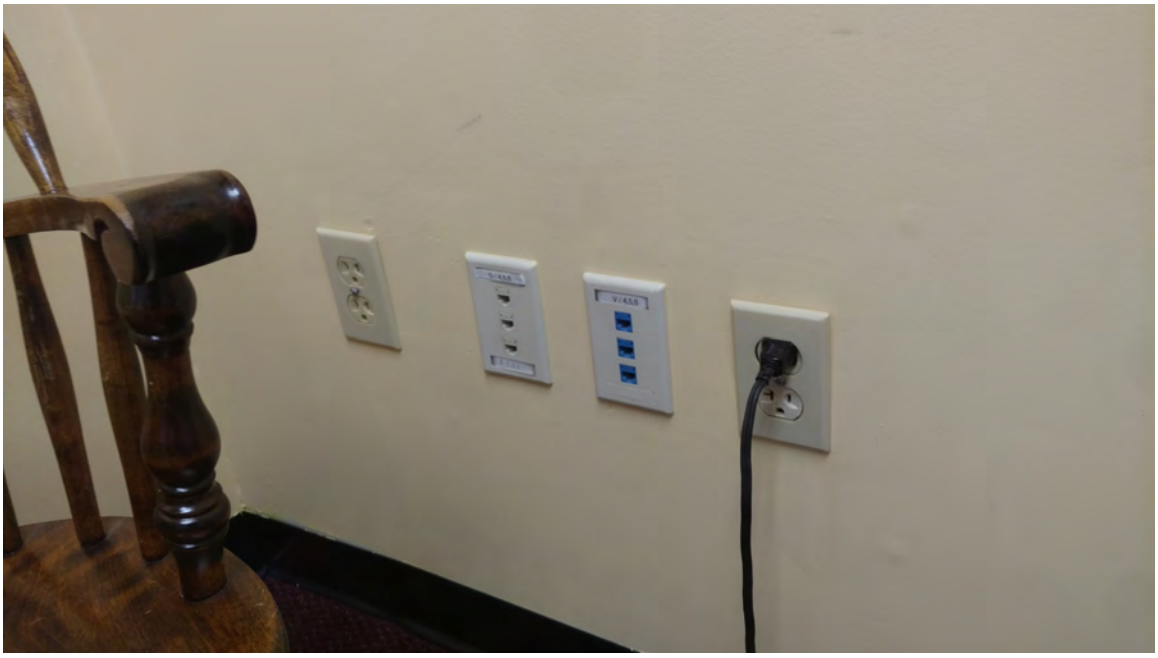


D2. 1: Access Control

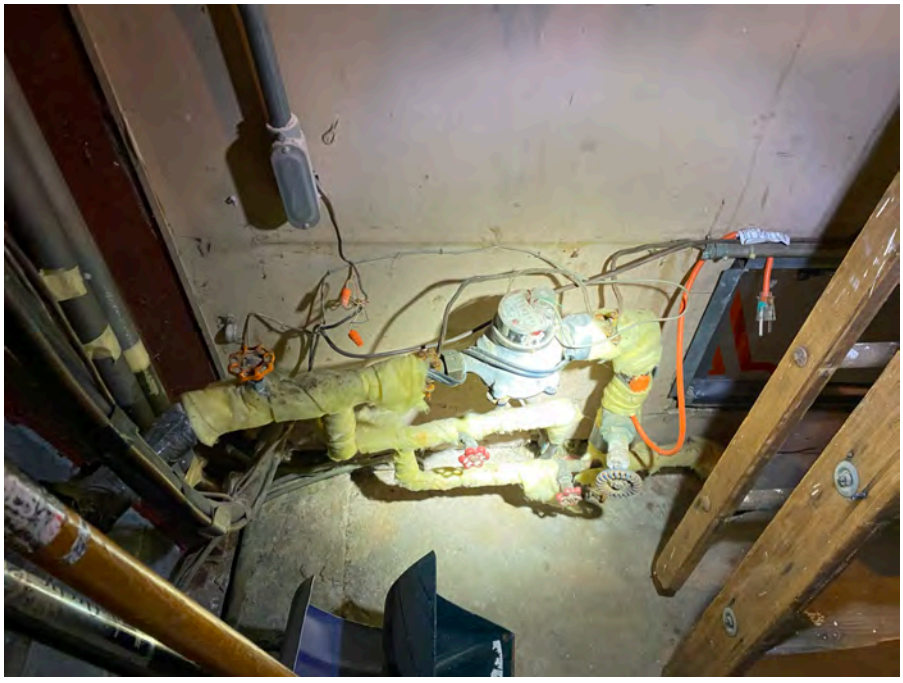


D2. 2: Ceiling Speaker

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 3: Data Work Area Outlets

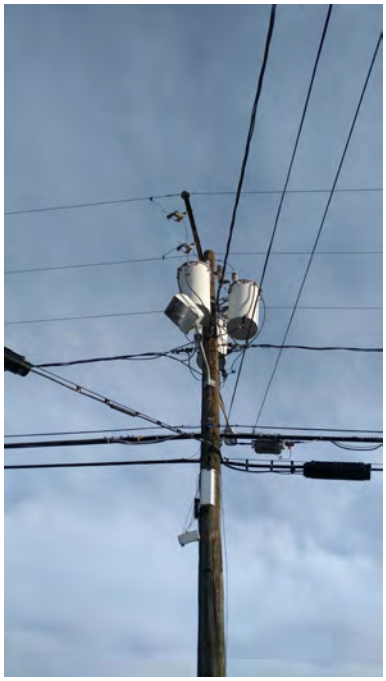


D2. 4: Domestic Water Service in Poor Condition

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 5: Electric Domestic Hot Water Heater Located in Mechanical Room



D2. 6: Electric Service Utility Pole

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 7: Electric Unit Heater Serving Garage - Currently Inoperable



D2. 8: Electrical Cable TV Distribution

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 9: Electrical Conduit Distribution



D2. 10: Electrical Distribution

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 11: Electrical Main Service Panel



D2. 12: Electrical Meter

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 13: Electrical Service Drop at Meter



D2. 14: Electrical Technology in Conference Room

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 15: Electrical Wall Controls



D2. 16: Exhaust Fan and Vent on Roof

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 17: Exterior Communication Conduit



D2. 18: Exterior HID Wall Pack Lighting Fixture

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

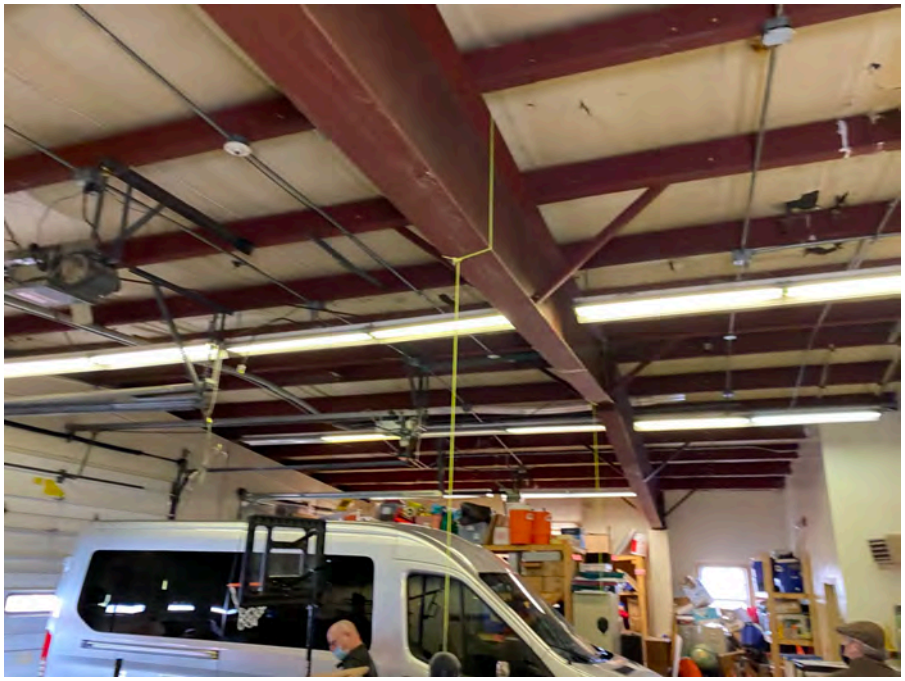


D2. 19: Fire Alarm Control Panel



D2. 20: Furnace Ductwork and Refrigerant Piping in Fair Condition

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 21: Garage Lighting Fixtures

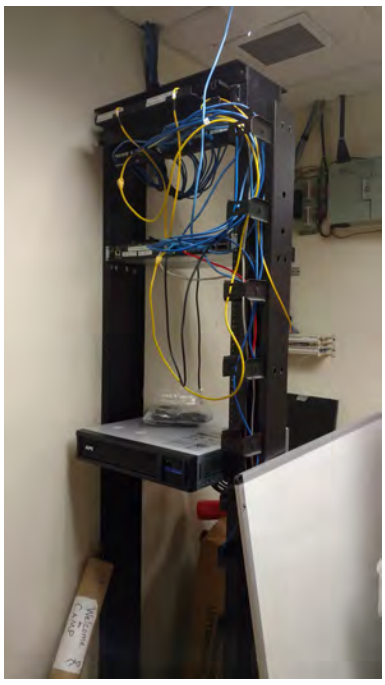


D2. 22: Interior Egress Lighting Fixture

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 23: Interior Lighting Fixture



D2. 24: MDF Data Network Rack

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 25: Natural Gas Fired Furnace Located in Mechanical Room

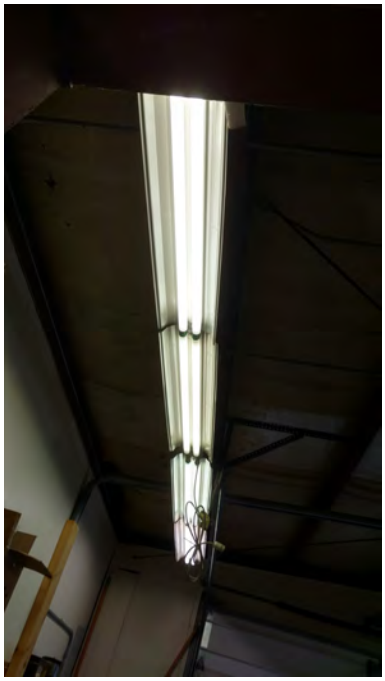


D2. 26: Natural Gas Service Located Outside

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 27: Old and New Temperature Controls



D2. 28: Outdated T10 Fluorescent Lighting in Garage Bays

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 29: Plumbing Fixtures in Good Working Condition



D2. 30: Rood Drain Gutter System

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 31: Side Door Exterior Lighting Fixture



D2. 32: Sidewall Exhaust Louver Serving Furnace

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 33: Telecommunications Hub



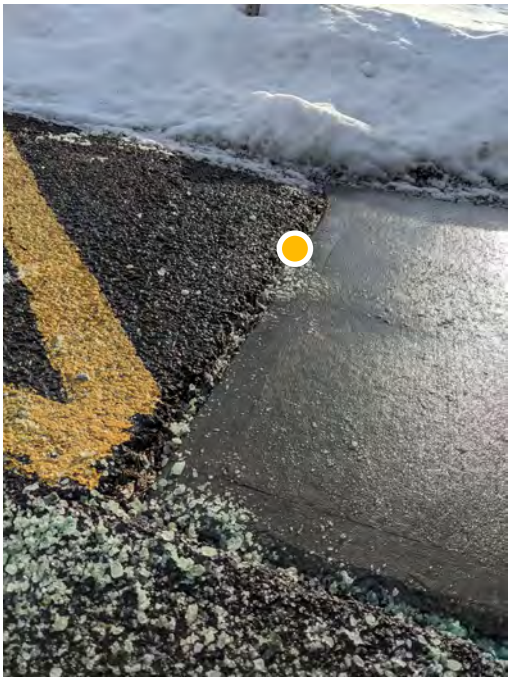
D2. 34: Trane Condensing Unit Serving the Furnace and Old Abandoned Condensing Unit

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D2. 35: Window Mounted AC Unit

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D3. 1: Corrosion of pavement at base of entrance ramp



D3. 2: Cracking pavement throughout parking areas and drive aisles

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

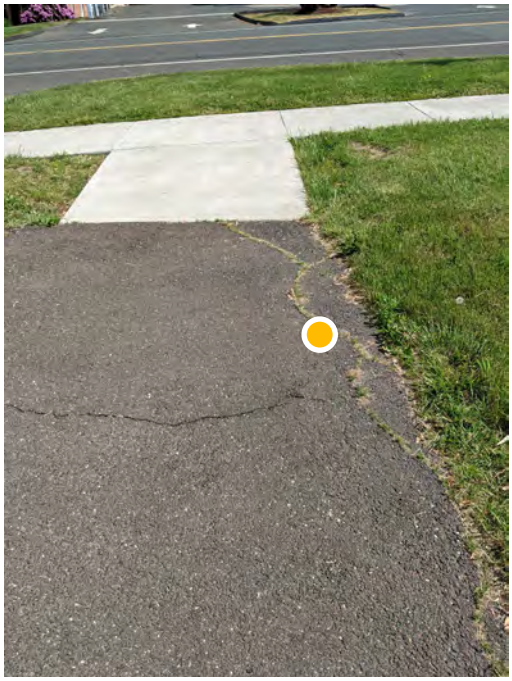


D3. 3: Cracking pavement throughout parking areas and drive aisles



D3. 4: Uneven and spotty lawn along West drive aisle

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D3. 5: Cracking pavement throughout parking areas and drive aisles



D3. 6: Warped parking signage at main entry

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D3. 7: Damaged bituminous curbs along parking and drive aisles



D3. 8: Bituminous pavement cracking at main entry

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

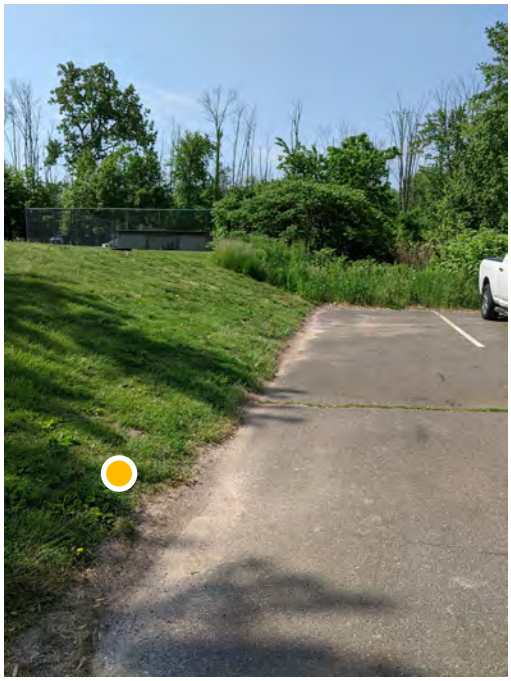


D3. 9: Cracking pavement throughout parking areas and drive aisles

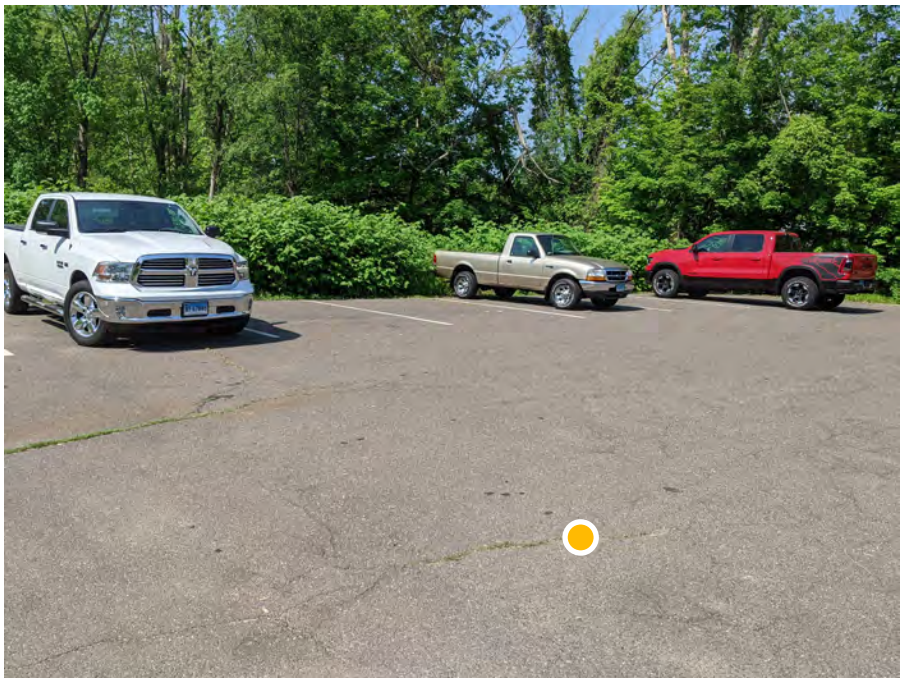


D3. 10: Uneven and spotty lawn at rear parking area

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D3. 11: Uneven and spotty lawn at rear parking area



D3. 12: Cracking pavement throughout parking areas and drive aisles

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

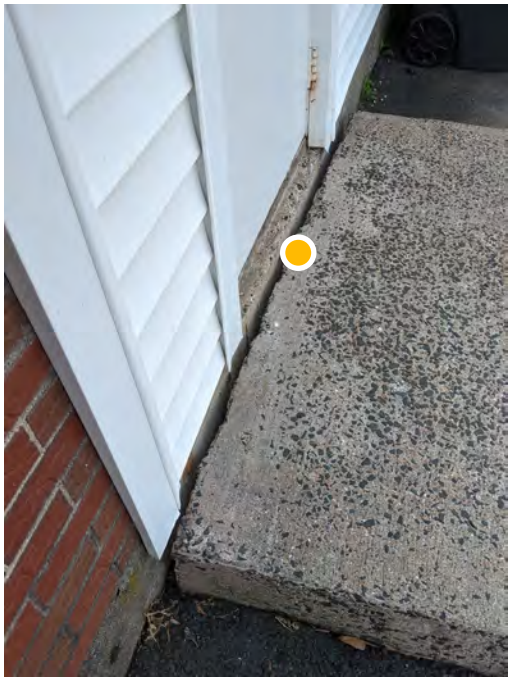


D3. 13: Damaged concrete catch basin top at rear parking area; Metal grate is beginning to rust



D3. 14: Damaged concrete ramp at rear storage door

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT



D3. 15: Concrete pad at rear door has separated from building

CAPITAL IMPROVEMENTS E

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

Town Hall Annex, 97 Mountain Rd - ROM Summary												Building Area: 2,060				CIP Prioritization				
SYSTEM / LINE ITEM DESCRIPTION	Amount	Unit	Unit Price	Current Replacement Cost	General Conditions	Bonds, Ins., Permit	(Unforeseen Conditions)	Temporary Facilities and Controls	Subtotal - Line Item	Line Item Contingency + Approx. Soft Costs (Design, printing, advertising, etc.)	Projected Line Item Cost	Escalation, Market Premium	Projected Line Item Cost W/Premium	REMARKS	Immediate	1-3 Years	3-5 Years	5-10 Years	10+ Years
					10%	1.5%	7.5%	5.0%		12.5%		20%			0.0%	7.2%	16.8%	31.8%	56.6%
Site Improvements																				
Repaving of existing drives/parking areas	1,100	SY	$61	$ 66,550	$ 6,655	$ 998	$ 4,991	$ 3,328	$ 82,522	$ 10,315	$ 92,837	$ 18,567	$ 111,405							
Regrade east side of building	700	SY	$61	$ 42,350	$ 4,235	$ 635	$ 3,176	$ 2,118	$ 52,514	$ 6,564	$ 59,078	$ 11,816	$ 70,894							
Repair concrete ramps, add guard/hand rail	50	SF	$55	$ 2,750	$ 275	$ 41	$ 206	$ 138	$ 3,410	$ 426	$ 3,836	$ 767	$ 4,604							
Repair/replace concrete apron at OH doors	100	SF	$17	$ 1,650	$ 165	$ 25	$ 124	$ 83	$ 2,046	$ 256	$ 2,302	$ 460	$ 2,762							
Repair concrete at catch basins	1	EA	$880	$ 880	$ 88	$ 13	$ 66	$ 44	$ 1,091	$ 136	$ 1,228	$ 246	$ 1,473							
Reset existing parking signage	3	EA	$220	$ 660	$ 66	$ 10	$ 50	$ 33	$ 818	$ 102	$ 921	$ 184	$ 1,105							
Exterior Improvements				$ -					$ -	$ -	$ -									
Clean masonry/exposed foundation	1,030	SF	$2	$ 2,266	$ 227	$ 34	$ 170	$ 113	$ 2,810	$ 351	$ 3,161	$ 632	$ 3,793							
Replace vinyl siding/trim	300	SF	$6	$ 1,650	$ 165	$ 25	$ 124	$ 83	$ 2,046	$ 256	$ 2,302	$ 460	$ 2,762							
Replace window caulking & sealant	100	SF	$2	$ 220	$ 22	$ 3	$ 17	$ 11	$ 273	$ 34	$ 307	$ 61	$ 368							
Replace exterior door	1	EA	$3,850	$ 3,850	$ 385	$ 58	$ 289	$ 193	$ 4,774	$ 597	$ 5,371	$ 1,074	$ 6,445							
Replace OH door	2	EA	$5,500	$ 11,000	$ 1,100	$ 165	$ 825	$ 550	$ 13,640	$ 1,705	$ 15,345	$ 3,069	$ 18,414							
Replace downspout and boot	3	EA	$330	$ 990	$ 99	$ 15	$ 74	$ 50	$ 1,228	$ 153	$ 1,381	$ 276	$ 1,657							
Replace aluminum downspout clips	6	EA	$6	$ 33	$ 3	$ 0	$ 2	$ 2	$ 41	$ 5	$ 46	$ 9	$ 55							
Add downspout splash block	4	EA	$28	$ 110	$ 11	$ 2	$ 8	$ 6	$ 136	$ 17	$ 153	$ 31	$ 184							
Interior Improvements				$ -					$ -	$ -	$ -									
Replace transition strip between flooring types	10	LF	$7	$ 66	$ 7	$ 1	$ 5	$ 3	$ 82	$ 10	$ 92	$ 18	$ 110							
Repair/paint concrete curb at doors	8	SF	$33	$ 264	$ 26	$ 4	$ 20	$ 13	$ 327	$ 41	$ 368	$ 74	$ 442							
Remove raised sill and replace interior door to Garage area	5	EA	$2,200	$ 11,000	$ 1,100	$ 165	$ 825	$ 550	$ 13,640	$ 1,705	$ 15,345	$ 3,069	$ 18,414							
Remove flooring and adhesive at Garage floors, provide new epoxy paint	1,000	SF	$13	$ 13,200	$ 1,320	$ 198	$ 990	$ 660	$ 16,368	$ 2,046	$ 18,414	$ 3,683	$ 22,097							
ADA compliant grab bars at toilet rooms	4	EA	$110	$ 440	$ 44	$ 7	$ 33	$ 22	$ 546	$ 68	$ 614	$ 123	$ 737	Technically infeasible to achieve proper door clearance without significant renovations						
Replace ceiling tiles at Training room	500	SF	$8	$ 3,850	$ 385	$ 58	$ 289	$ 193	$ 4,774	$ 597	$ 5,371	$ 1,074	$ 6,445							
Replace exposed roof insulation in garage	1,000	SF	$3	$ 3,300	$ 330	$ 50	$ 248	$ 165	$ 4,092	$ 512	$ 4,604	$ 921	$ 5,524							
Division 21 - Fire Protection				$ -					$ -	$ -	$ -									
Division 22 - Plumbing				$ -					$ -	$ -	$ -									
Water Distribution and Drainage Systems	2,060	SF	$10	$ 20,394	$ 2,039	$ 306	$ 1,530	$ 1,020	$ 25,289	$ 3,161	$ 28,450	$ 5,690	$ 34,140	3-5yrs useful life. Piping is original to the 1976 construction and nearing the end of its useful life.						
Plumbing Fixtures / Equipment	2,060	SF	$4	$ 9,064	$ 906	$ 136	$ 680	$ 453	$ 11,239	$ 1,405	$ 12,644	$ 2,529	$ 15,173	3-5yrs useful life. Replacement of all plumbing fixtures throughout the building.						
Water Heaters	1	EA	$11,000	$ 11,000	$ 1,100	$ 165	$ 825	$ 550	$ 13,640	$ 1,705	$ 15,345	$ 3,069	$ 18,414	10+yrs useful life. Water heater is newer and in good working condition.						
Division 23 - Mechanical				$ -					$ -	$ -	$ -									
Heating Plant (Boilers, Pumps, etc.)	1	EA	$22,000	$ 22,000	$ 2,200	$ 330	$ 1,650	$ 1,100	$ 27,280	$ 3,410	$ 30,690	$ 6,138	$ 36,828	10+yrs useful life. Heating plant has been updated within the last 10-15 years and is in good working condition.						
Terminal Units	2,060	SF	$4	$ 9,064	$ 906	$ 136	$ 680	$ 453	$ 11,239	$ 1,405	$ 12,644	$ 2,529	$ 15,173	In need of immediate replacement. Electric unit heaters are currently inoperable.						
Air Handling Systems	2,060	SF	$7	$ 13,596	$ 1,360	$ 204	$ 1,020	$ 680	$ 16,859	$ 2,107	$ 18,966	$ 3,793	$ 22,760	10+yrs useful life. The air handling system is accomplished through the use of a ducted furnace that is in good condition.						
Control Systems	2,060	SF	$6	$ 11,330	$ 1,133	$ 170	$ 850	$ 567	$ 14,049	$ 1,756	$ 15,805	$ 3,161	$ 18,966	1-3yrs useful life. The building does not contain a BMS, all other devices controlled by standalone controls of varying vintages.						
Air Conditioning	2,060	SF	$6	$ 11,330	$ 1,133	$ 170	$ 850	$ 567	$ 14,049	$ 1,756	$ 15,805	$ 3,161	$ 18,966	10+yrs useful life. The air conditioning is accomplished through the ducted furnace that is in good working condition.						
Division 26 - Electrical				$ -					$ -	$ -	$ -									
Electrical Service / Distribution	2,060	SF	$22	$ 45,320	$ 4,532	$ 680	$ 3,399	$ 2,266	$ 56,197	$ 7,025	$ 63,221	$ 12,644	$ 75,866	10+yrs useful life. Electric service appears to be in good working condition.						
Lighting - General	2,060	SF	$9	$ 18,128	$ 1,813	$ 272	$ 1,360	$ 906	$ 22,479	$ 2,810	$ 25,289	$ 5,058	$ 30,346	5-10yrs useful life. Parabolic troffers with T8 fluorescent in office areas, T12 systems in garage areas. Exterior LED fixtures installed.						
Fire Alarm System	2,060	SF	$11	$ 22,660	$ 2,266	$ 340	$ 1,700	$ 1,133	$ 28,098	$ 3,512	$ 31,611	$ 6,322	$ 37,933	5+yrs useful life. Obsolete Simplex 4001.						
Subtotal for CIP Items				**$ 360,965**					**$ 447,597**		**$ 503,546**	**$ 100,709**	**$ 604,255**							
Cost Per Square Foot				**$ 175.23**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 217.28**	**$ -**	**$ 244.44**	**$ 48.89**	**$ 293.33**							

Building Vintage Summary			
Building Vintage	**Area**		**% to Ttl**
Building Vintage ~ 1976	2,060	V1	100.00%

SENIOR CENTER

145 BRIDGE STREET, SUFFIELD, CT

CONDITIONS ASSESSMENT & MASTER PLAN

Tecton ARCHITECTS

3.6


SUFFIELD
SENIOR CENTER



TABLE OF CONTENTS

INTRODUCTION ..... **A**

Summary & Analysis A1

DATA & RANKINGS ..... **B**

Building Data B1

Condition Rankings B2

EXISTING CONDITIONS NARRATIVE ..... **C**

Architectural *(Building & Structure)* C1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* C2

Site *(Civil, Landscape, Utilities)* C3

PHOTO LOG ..... **D**

Architectural *(Building & Structure)* D1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* D2

Site *(Civil, Landscape, Utilities)* D3

CAPITAL IMPROVEMENTS ..... **E**

Capital Improvements E1

INTRODUCTION A

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

In addition to the Senior Center function, the offices of Youth Services and Parks & Recreation are house within the Senior Center. The main entrance is located on the West façade. Additional entrances are located on all sides of the building. Two are located on the on the East side, another is located on the Northeast corner into the former chapel space, and two are in the North and South courtyards. Youth Services and Parks & Recreation reside in the two peninsulas flanking the South courtyard, they each have two private entrances respectively. The building sits centrally located on a large site surrounded by trees. Traffic flows one way starting at an entrance at the Northeast corner, travels clockwise around the building, and exits in the Northwest corner.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

BUILDING AREA/SITE	11,702 sf / 3.27 acres
AGE/CONSTRUCTION	1950 (72)

***Building Condition*: Good**

- Uneven brick patio in rear
- Cracking in pavement throughout
- Recent renovations were done in 2009
- Lack of gutters at large hip roof and main entrance causing water drainage issues and ice build up in Winter months
- Minor deterioration of interior finishes
- Youth Services and Parks & Rec do not have accessible entrances from exterior
- No Automatic Sprinkler System.
- Most MEP elements are in good condition.
- MEP systems will start to need more maintenance in the next 5-10 years.
- Youth Services current location remote from schools, must cross main road.
- Senior Center has adequate space to meet current programming needs

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



A1. 1: Aerial View of Existing Senior Center and Property



A1. 2: Vintage Plan

DATA & RANKINGS B

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

B. DATA & RANKINGS

B.1 Building Data

The Facility:

Name:	**Senior Center**		
Address:	**145 Bridge Street**		
Type / Use:	**Senior Center**		
Total Building Area (SF):	11,702	**Original Construction:**	1950
Site Area (acres):	3.27	**Additions (dates):**	N/A
Stories (above grade):	1	**Construction Type(s):**	
Building / Framing Materials:	Brick/Masonry	**Roof Types & Age:**	Asphalt Shingles (2009) No warranty data
Split-level / ramps (interior):	Yes	**Heating (types):**	Hot Water & Heat Pumps
Stairs (interior):	Yes	**Fuel Types:**	Natural Gas
Elevator:	No	**Cooling (centralized):**	Non-Central, via FCUs and heat pumps
Basement:	No	**Ventilation:**	Partial, via FCUs and a make-up air unit
Mezzanine (finished)	No	**Electrical:**	208/120 volt, 3 ph, 4 wire 400 amp
Crawl Space / Tunnels:	No	**Generator:**	Cummins GGHE 60 kW natural gas
Auxiliary Buildings:		**Fire Alarm:**	Notifier System with horn/strobes
Full ADA Compliance:	No	**Sewer / Septic**	Sewer
	Step up into Parks & Rec/Youth	**Municipal Water / Well**	Municipal Water
		Sprinklered (full / partial):	N/A
School Data		**Parking Count:**	75
Enrollment(2020):	N/A		
Enrollment 10-yr:	N/A	**Meals:**	N/A
Net Enrollment Change:	N/A	**Meal Prep on site?:**	N/A
Location in Town:	N/A	**Start Time:**	N/A
Grade Structure:	N/A	**Dismissal:**	N/A
Pre-K?:	N/A	**Buses:**	N/A
Athletic Fields:	N/A	**Additional Programs:**	N/A

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
2 Poor [P] May require attention in 2-5 years
3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Exterior

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Roofing	Asphalt shingle roof	4	Installed 2009, no warranty information
	Flashing / joints	3	Flashing at entrance, repair required
	gutters / downspouts	2	Lacking gutters at hip roof & entrance
	Fascia / trim	3	Minor repairs and repainting required
Walls	Masonry (unpainted)	3	Staining present at windows & ice
	Joints (Building or expansion)	4	N/A
	Wall mounted fixtures	4	N/A
	Foundations – exposed concrete	3	Staining below similar brick staining
Entrances	Entrance Doors	4	N/A
	Soffits / Canopy	4	N/A
Windows	Vinyl clad wood	2	Replaced 2009, repaint exterior
	Window Screens (exterior)	4	N/A
Walkways / site stairs	Sidewalks	3	Cracking at building joint
	Bituminous concrete curb	2	Cracking and separation throughout
Drives / parking lots	Bituminous concrete pavement	2	Pavement cracking throughout
	Pavement striping	4	N/A
	Concrete curb stop	2	Lifting away from pavement
Landscaping	Lawn	4	N/A
	Plants	4	N/A
	Mulch beds	4	N/A
	Trees	4	N/A
	Brick patio	1	Leveling required, uneven bricks
Recreation	-	-	N/A
Other Structures	Site lighting – poles and fixtures		N/A
	Vehicular signage	4	N/A
	Catch basin tops	3	Pavement cracking surrounding
	Catch basin structures	4	N/A

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

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Vintage: **V1** **V2** **V3** **V4**

Interior

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Flooring	Ceramic Tile	4	N/A
	Carpet	4	N/A
	Vinyl Tile	3	Scuffed tiles, some separation present
Walls Surfaces	Masonry (painted)	4	N/A
	Gypsum board	3	Minor cracking below windows
	Tile	4	N/A
Ceilings	Gypsum board ceilings / soffits	3	Minor cracking at clerestory windows
	Wood Ceilings (exposed structure)	4	N/A
Interior trim	Wood - Door / Window	3	Minor wood repair and repaint needed
	Wall Base – Vinyl	4	N/A
Interior doors	Wood doors	4	N/A
	Hollow metal doors	3	Adjust to mitigate rubbing on frame
	Hardware	4	N/A
Built-ins	Casework	2	Non-accessible sink at Youth Services
	Countertops	4	N/A
Toilet Facilities	Fixtures	4	N/A
	Partitions	4	N/A
	Accessories (dispensers, driers)	4	N/A
Athletics	-	-	N/A

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

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Vintage: **V1** **V2** **V3** **V4**

Building Systems

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Fire Protection	Fire Alarm System & Devices	4	In good working condition
	Fire suppression (infrastructure / devices)	-	N/A
Plumbing Systems	Infrastructure (pipes, drains, etc.)	4	Infrastructure is in good condition
	Fixtures	4	In good working condition
	Overall efficiency	4	Overall efficiency is good
Mechanical / HVAC	Infrastructure (pipes, ducts, etc.)	4	Infrastructure is in good condition
	Heating systems	4	In good working condition
	Cooling systems	4	In good working condition
	Fixtures & equipment (Interior)	4	In good working condition
	Fixtures & equipment (Exterior/Roof top)	4	In good working condition
	Overall efficiency	4	Overall efficiency is good
Electrical (Service)	Infrastructure (panels, wiring, etc.)	4	Infrastructure is in good condition
	Service & distribution	4	In good working condition
	Generator	4	In good working condition
	Other	-	N/A
Electrical Lighting	Infrastructure (panels, wiring, etc.)	4	Infrastructure is in good condition
	Fixtures (Interior)	4	Linear and compact fluorescent
	Fixtures (Exterior)	4	HID Metal Halide floodlights
	Efficiency (incl. natural & artificial light distr.)	2	Fixtures should be upgraded to LED
Security	Access Control	3	Infinias System located at two doors
	Cameras	-	N/A

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

B.2 Benchmarking

MECHANICAL, ELECTRICAL, FIRE PROTECTION, SECURITY			
SYSTEM	**EQUIPMENT LIFE EXPECTANCY**	**EQUIPMENT AGE**	**USEFUL LIFE PERCENTAGE**
Fire Protection System	40 Years	N/A	N/A
Plumbing Water Heater	25 Years	10 Years	40%
Plumbing Piping & Fixtures	40 Years	10 Years	25%
Mechanical Boiler Plant	30 Years	10 Years	33%
Mechanical Piping & Equipment	40 Years	10 Years	25%
Mechanical Air Conditioning	25 Years	10 Years	40%
Mechanical Controls	20 Years	10 Years	50%
Electrical Service & Distribution	40 Years	10 Years	25%
Electrical Lighting	30 Years	10 Years	33%
Electrical Generator	40 Years	10 Years	33%
Fire Alarm	20 Years	10 Years	50%



EXISTING CONDITIONS NARRATIVE C

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

C.1 Architectural

Construction:

The Senior Center is constructed of load bearing masonry with a brick veneer. Roof construction is a mix of roof trusses, laminated beams, and bar joists.

Exterior:

EXTERIOR (GENERAL): Renovations occurred in 2009 that changed the use of the building to a Senior Center. The main entrance to the Senior Center is located on the West façade. Additional entrances are located on all sides of the building. Two are located on the on the East side, another is located on the Northeast corner into the former chapel space, and two are in the North and South courtyards. Youth Services and Parks & Recreation reside in the two peninsulas flanking the South courtyard, they each have two private entrances respectively.

WALLS: Most exterior walls are clad in a brick veneer with small areas of vinyl siding at roof gables and a few small alcoves around the exterior. The brick is in fair condition with some staining present on brick and foundations below masonry openings and at location of a major ice dam to the left of the main entrance. The vinyl siding is in good condition throughout.

WINDOWS/DOORS/ENTRANCES: Vinyl clad wood windows were replaced in 2009 during renovation of this building into the Senior Center. They are in fair to good condition, but the exterior should be repainted.

ROOF: Asphalt roof shingles were replaced in 2009 during the renovation of this building into the Senior Center. No warranty information has been provided on this roof. Gutter to the left of main entrance into Senior Center does not reach the adjacent wall. This is allowing water to drip down the masonry wall and ice buildup to form. This gutter should be extended to avoid future damage to brick wall below. Hip roof lacks gutters, allowing water to shed onto plant beds below. This is causing some of the previously mentioned masonry staining. Roof rakes and fascia require minor repair and re-painting.

Interior:

INTERIOR SPACES (GENERAL): Vinyl composite tile can be found throughout the facility and is in good condition. Some specific problem areas can be identified as fair condition and require repair. Vinyl floor tile at North courtyard exterior door is beginning to separate. Corridor floors also require buffing. Gypsum board ceilings and acoustic panel ceilings can be found throughout most corridors, common spaces, and offices. These ceilings can all be considered as good condition. Minor gypsum board cracking below windowsills was observed in the library.

OFFICES: Offices around the main entry are carpeted and in good condition. Office doors in this area require adjustment to avoid rubbing on the frame. Re-painting of doors is required at these locations.

TOILET FACILITIES: Ceramic wall tile, floor tile, and integral base in toilet facilities is in good condition.

DANCE HALL: Tile below leaking radiant heaters in the large dance hall space is stained. Minor wood window trim repair is required.

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

Code & Safety

ADA: The departments of Youth Services and Parks & Recreation do not have accessible entrances from the exterior of the building. To access these spaces without a step up, a person will have to be routed through the Senior Center spaces or enter at the brick patio where there is no front approach clear space or push plate. The sink in Youth Services does not have required clear space below. Toilet rooms through the facility are considered ADA-compliant.

SAFETY: Exterior brick patio is a tripping hazard in its current state due to the bricks heaving.

C.2 MEP

B.4 Plumbing/Fire Protection:

HOT WATER GENERATION: The buildings existing domestic hot water is generated via two (2) water heaters. The first heater is a natural gas fired hot water storage tank located in the Mechanical Room. This tank has a 40 Gallon Capacity with a 40,000 BTUH input. This heater was installed in 2009 and appears to be in good working condition. The second water heater is an electric water storage tank located the Boiler Room. This tank has a 20 Gallon Capacity and 2.5 KW Input. This tank was installed in 2009 and appears to be in good working condition.

DOMESTIC WATER SERVICE: The existing building is currently served by a municipal domestic water service and located in the mechanical room. This service was installed during the original 1950 construction and some devices were renovated in 2009. The service appears to be in fair working condition.

DOMESTIC WATER PIPING: Domestic water piping was observed to be a combination of copper and steel piping. The piping for the original 1950 areas was installed then while the piping for the 2009 addition was installed at that time. The 1950 piping is past its useful life while the piping from the 2009 addition is in good working condition.

PLUMBING FIXTURES: The plumbing fixtures in the building are from the 2009 renovation. The plumbing fixtures are in good working condition.

SANITARY SERVICE: The building is served by a municipal sanitary service. A 4" sanitary line is located outside of the Janitor's Closet and a 2" line is located under the men and women's bathroom. The sanitary service was renovated in 2009 and is in good working condition.

STORM SERVICE: The building currently uses a gutter system to collect and transfer all storm drainage. The roof is pitched on either side to lead the storm into the gutters. The gutters distribute the storm drainage onto the ground through the use of splash guards. The storm service appears to be in good working condition.

NATURAL GAS SERVICE: The building currently has natural gas service that feeds a water heater, boiler, and the generator. A new gas service replaced the existing during the 2009 renovation. This service and piping appears to be in good working condition.

FIRE PROJECTION: There is currently no fire protection sprinkler system within the building.

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

B.5 Mechanical:

HEATING SYSTEMS: The existing boiler plant consists of one natural gas condensing boiler manufactured by Lochinvar. This boiler has an output of 500 MBH. The boiler was installed in the 2009 renovation and is in good working condition. Hot water is distributed throughout the building via a pair of base mounted pumps, these pumps distribute heating hot water from the boilers to the building heating equipment. These pumps were installed in the 2009 renovation and are in good working condition.

HOT WATER PIPING: The hot water heating systems consists of Black Steel and Copper piping. This piping was installed in the 2009 addition. This piping is in good working condition.

TERMINAL UNITS: The 2009 renovation added perimeter hot water baseboard radiation to various rooms. The hot water baseboard and corresponding piping is in good working condition. There are six split system heat pumps in the building. Four of the heat pumps serve the Exercise Dance Room with heating and cooling provided by two condensing units located on the ground exterior of the building. Two of the heat pumps serve the Cards/Game Room with heating and cooling provided by one condensing unit located on the ground exterior of the building. The heat pumps and respective condensing units were installed in the 2009 renovation and are in good working condition. The building is also served by a VRF system with four fan coil units located throughout the building. Each are hot water heating and direct expansion cooling served by their own condensing units located outside. Fan coil unit 1 is located in the attic and serves the main entry office spaces. Fan coil unit 2 is located in the attic and serves the Dining Room. Fan coil unit 3 is located in the attic and serves the classroom wing. Fan coil unit 4 is a vertical unit located in the mechanical room and serves the Library/Lecture Room. All four fan coil units and respective condensing units were installed in 2009 and are in good working condition. There is one Fujitsu wall mounted split AC unit in kitchen. This split unit has its own condensing unit located outside to provide cooling. Both units appear to be 5 to 10 years old and in good working condition.

VENTILATION SYSTEMS: Fan coil unit 1 and 2 provide outdoor air for ventilation to the spaces they serve. There is a 2,000 CFM make-up air unit that provides outdoor air to the kitchen. The make-up air unit was installed in 2009 and is in good working condition. There are three toilet exhaust fans (one roof mounted and two in the ceiling) that transfer air from the toilet rooms out of the building. There is a Data room exhaust fan and a Janitor's Closet exhaust fan that transfers exhaust air out of the building. The exhaust fans were installed in 2009 and are in good working condition. There is an existing kitchen exhaust fan that takes all kitchen exhaust out of the building. The kitchen exhaust fan appears to be old and nearing the end of its useful life. All other rooms have natural ventilation through operable windows.

COOLING SYSTEMS: Air Conditioning is provided throughout the building. The air conditioning is done through the terminal units and VRF system listed above. Each fan coil unit and heat pump contain a direct expansion cooling coil served by an outdoor condensing unit. The condensing units use R410A refrigerant as the coolant serving the terminal units. The cooling system was installed in 2009 and is in good working condition. The Kitchen is cooled by the Fujitsu wall mounted split AC unit.

DUCTWORK: The ductwork in the building was installed during the 2009 renovation. This ductwork serves the fan coil units, exhaust fans, and make-up air unit providing heating, cooling, and ventilation to the building. This ductwork is in good working condition.

CONTROLS: The building contains electrical temperature sensors and controls in various room locations.

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

B.7 Electrical:

MAIN ELECTRIC SERVICE: The building is fed with underground electric service at 208/120 volt, 3 phase, 4 wire rated for 400 amperes. The service originates from utility pole 4570 with has a pole mounted transformer array providing 45 kVA total capacity. Service conductors run underground to a self-contained meter socket located on the building exterior northern elevation. The service size is adequate for the buildings current use.

The service equipment and distribution were installed in the 2009 construction period. The service and equipment are in good working condition and should continue in service without issues.

ELECTRICAL DISTRIBUTION: The electrical distribution consists of conduit and feeders from the main distribution panels to branch circuit panel boards located throughout the building. The distribution lineup incorporates a 400 ampere Auto Transfer Switch (ATS) to provide standby power to the entire building.

GENERATOR: The building currently has a 60 kW Cummins GGHE natural gas fired standby generator. The generator was installed as part of the 2009 new construction. The generator is in good working condition and has clocked 408 hours which is slightly above average for an 11 year old unit.

LIGHTING SYSTEMS: The lighting throughout the building consists of T8 linear fluorescent 2x4, 2x2, 1x4 and cove lighting applications. Recessed downlights and decorative pendant fixtures are installed with compact fluorescent lamp sources. A few fixtures have been retrofit with LED replacement lamps. All of the fixtures were installed new as part of the 2009 construction.

Emergency lighting for the building is provisioned throughout by self-contained battery backed twin head emergency lighting units throughout. Exit signs are provided with integral battery backup.

Lighting control consists of wall mounted switches in combination with ceiling mounted occupancy sensors.

Exterior building mounted lighting fixtures consist of a combination of decorative wall sconce types at all egress doors with battery backup and compact fluorescent lamp sources and floodlight style metal halide fixtures.

Parking area lighting is supplemented by leased floodlights mounted on utility poles.

FIRE ALARM SYSTEM: The fire alarm system in the building consists of a Notifier fire alarm control panel, ADA compliant horn/strobe units, ADA compliant strobe only units, manual fire alarm pull stations, smoke detectors, heat detectors, duct mounted smoke detectors with remote test switches. The fire alarm control panel was installed in the 2009 construction period and is in good working condition. The panel has been upgraded with a cellular/internet based central station communication unit.

Additional features included magnetic door holders that release on an alarm condition, area smoke detector coverage provided throughout and cooking hood monitoring of the fire suppression system.

COMMUNICATION SERVICES: Communication service entrances exist for copper voice and fiber lines.

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

Fiber service interconnects the Senior Center with the Town server network.

Cable TV service is utilized in the building. Service cable enters the building on the north side via the underground conduit system and distributes from the telecomm room.

Infinias access control equipment is provisioned for a minimum of two doors.

One MDF data rack is provisioned within telecomm MDF room. The rack consists of a 2 post rack with fiber patch panels and network switches. The buildings internal network drops land directly on the network switches without being cross-connected through a patch panel. Network data and voice outlets exist within the building but are minimal provisions at best as there are 18 active drops.

Wireless access points are provisioned throughout and appear to be the Aerohive AP250 series.

MISCELLANEOUS SYSTEMS: Supplemental sound reinforcement systems are provided in the entertainment hall with an audio production rack, microphone and speaker system.

Snow melting cable systems are installed throughout the gutter and downspout systems on the building exterior.

Access Control provisions exist but are limited to two doors.

C.3 Site

SITE (GENERAL): The Senior Center sits centrally located on a large site surrounded by trees. Traffic flows one way starting at an entrance at the Northeast corner, travels clockwise around the building, and exits in the Northwest corner. There are a mix of single loaded angled spaces and double loaded straight parking spaces along the East, South, and West facades. An additional drive aisle is provided for drop-off at the main entrance.

WALKWAYS/SITE STAIRS: Concrete sidewalk that wraps around the front of the building is in fair condition. Cracking at the edges, around control joints, and through the middle was observed and should be repaired. Cracking was also observed where sidewalk meets the foundation at the mechanical room door.

ROADWAYS/PARKING: Some parking curb stops have started to lift away from road surface and will require re-attachment. Bituminous asphalt paving is cracked throughout and is in fair condition. Most of this cracking occurs at edges of parking lot and around catch basins.

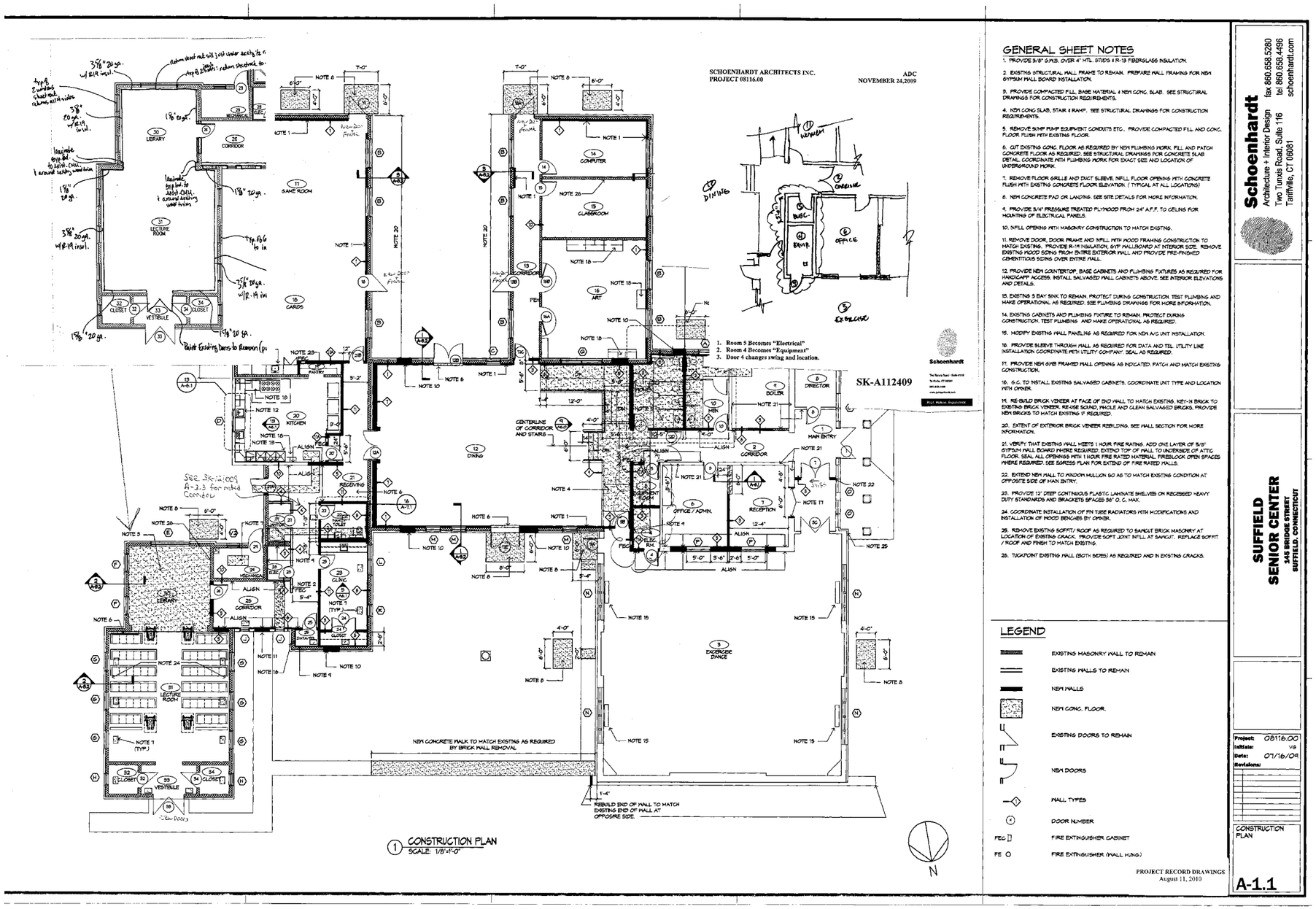
LANDSCAPING: Exterior brick patio in the South courtyard is uneven and requires leveling.

SITE FEATURES: Five raised masonry planters fill an alcove to the Southwest of the building and are in good condition.

PHOTO LOG D

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



GENERAL SHEET NOTES

1. PROVIDE 3/8" G.W.B. OVER 4" MTL. STUDS @ R-19 FIBERGLASS INSULATION.
2. EXISTING STRUCTURAL WALL FRAME TO REMAIN. PREPARE WALL FRAMING FOR NEW GYPSUM WALL BOARD INSTALLATION.
3. PROVIDE COMPACTED FILL, BASE MATERIAL & NEW CONC. SLAB. SEE STRUCTURAL DRAWINGS FOR CONSTRUCTION REQUIREMENTS.
4. NEW CONC SLAB, STAIR & RAMP. SEE STRUCTURAL DRAWINGS FOR CONSTRUCTION REQUIREMENTS.
5. REMOVE SUMP PUMP EQUIPMENT CONDUITS ETC., PROVIDE COMPACTED FILL AND CONC. FLOOR FLUSH WITH EXISTING FLOOR.
6. CUT EXISTING CONC. FLOOR AS REQUIRED BY NEW PLUMBING WORK. FILL AND PATCH CONCRETE FLOOR AS REQUIRED. SEE STRUCTURAL DRAWINGS FOR CONCRETE SLAB DETAIL. COORDINATE WITH PLUMBING WORK FOR EXACT SIZE AND LOCATION OF UNDERGROUND WORK.
7. REMOVE FLOOR GRILLE AND DUCT SLEEVE. INFILL FLOOR OPENING WITH CONCRETE FLUSH WITH EXISTING CONCRETE FLOOR ELEVATION. (TYPICAL AT ALL LOCATIONS)
8. NEW CONCRETE PAD OR LANDING. SEE SITE DETAILS FOR MORE INFORMATION.
9. PROVIDE 3/4" PRESSURE TREATED PLYWOOD FROM 24" A.F.F. TO CEILING FOR MOUNTING OF ELECTRICAL PANELS.
10. INFILL OPENING WITH MASONRY CONSTRUCTION TO MATCH EXISTING.
11. REMOVE DOOR, DOOR FRAME AND INFILL WITH WOOD FRAMING CONSTRUCTION TO MATCH EXISTING. PROVIDE R-19 INSULATION, 5/8" WALLBOARD AT INTERIOR SIDE. REMOVE EXISTING WOOD SIDING FROM ENTIRE EXTERIOR WALL AND PROVIDE PRE-FINISHED CEMENTITIOUS SIDING OVER ENTIRE WALL.
12. PROVIDE NEW COUNTERTOP, BASE CABINETS AND PLUMBING FIXTURES AS REQUIRED FOR HANDICAPPED ACCESS. INSTALL SALVAGED WALL CABINETS ABOVE. SEE INTERIOR ELEVATIONS AND DETAILS.
13. EXISTING 3 BAY SINK TO REMAIN. PROTECT DURING CONSTRUCTION. TEST PLUMBING AND MAKE OPERATIONAL AS REQUIRED. SEE PLUMBING DRAWINGS FOR MORE INFORMATION.
14. EXISTING CABINETS AND PLUMBING FIXTURE TO REMAIN. PROTECT DURING CONSTRUCTION. TEST PLUMBING AND MAKE OPERATIONAL AS REQUIRED.
15. MODIFY EXISTING WALL PANELING AS REQUIRED FOR NEW A/C UNIT INSTALLATION.
16. PROVIDE SLEEVE THROUGH WALL AS REQUIRED FOR DATA AND TEL UTILITY LINE INSTALLATION COORDINATE WITH UTILITY COMPANY. SEAL AS REQUIRED.
17. PROVIDE NEW 6X6 FRAMED WALL OPENING AS INDICATED. PATCH AND MATCH EXISTING CONSTRUCTION.
18. S.C. TO INSTALL EXISTING SALVAGED CABINETS. COORDINATE UNIT TYPE AND LOCATION WITH OWNER.
19. RE-BUILD BRICK VENEER AT FACE OF END WALL TO MATCH EXISTING. KEY-IN BRICK TO EXISTING BRICK VENEER. RE-USE SOUND, WHOLE AND CLEAN SALVAGED BRICKS. PROVIDE NEW BRICKS TO MATCH EXISTING IF REQUIRED.
20. EXTENT OF EXTERIOR BRICK VENEER REBUILDING. SEE WALL SECTION FOR MORE INFORMATION.
21. VERIFY THAT EXISTING WALL MEETS 1 HOUR FIRE RATING. ADD ONE LAYER OF 5/8" GYPSUM WALL BOARD WHERE REQUIRED. EXTEND TOP OF WALL TO UNDERSIDE OF ATTIC FLOOR. SEAL ALL OPENINGS WITH 1 HOUR FIRE RATED MATERIAL. FIRESTOP OPEN SPACES WHERE REQUIRED. SEE EGRESS PLAN FOR EXTENT OF FIRE RATED WALLS.
22. EXTEND NEW WALL TO WINDOW MULLION SO AS TO MATCH EXISTING CONDITION AT OPPOSITE SIDE OF MAIN ENTRY.
23. PROVIDE 12" DEEP CONTINUOUS PLASTIC LAMINATE SHELVES ON RECESSED HEAVY DUTY STANDARDS AND BRACKETS SPACED 36" O. C. MAX.
24. COORDINATE INSTALLATION OF FIN TUBE RADIATORS WITH MODIFICATIONS AND INSTALLATION OF WOOD BENCHES BY OWNER.
25. REMOVE EXISTING SOFFIT/ ROOF AS REQUIRED TO SAWCUT BRICK MASONRY AT LOCATION OF EXISTING CRACK. PROVIDE SOFT JOINT INFILL AT SAWCUT. REPLACE SOFFIT / ROOF AND FINISH TO MATCH EXISTING.
26. TUCKPOINT EXISTING WALL (BOTH SIDES) AS REQUIRED AND IN EXISTING CRACKS.

LEGEND

- EXISTING MASONRY WALL TO REMAIN
- EXISTING WALLS TO REMAIN
- NEW WALLS
- NEW CONC. FLOOR.
- EXISTING DOORS TO REMAIN
- NEW DOORS
- WALL TYPES
- DOOR NUMBER
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER (WALL HUNG)

PROJECT RECORD DRAWINGS
August 11, 2010

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SUFFIELD SENIOR CENTER
145 BRIDGE STREET
SUFFIELD, CONNECTICUT

Project: 08116.00
Initials: VG
Date: 07/16/09
Revisions:

CONSTRUCTION PLAN

A-1.1

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 1: Main entrance



D1. 2: South courtyard between Youth Services and Parks & Recreation

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 3: Youth Services wing



D1. 4: Lecture Room / Library wing

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 5: Rear entrance at kitchen



D1. 6: Northeast corner

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 7: North courtyard



D1. 8: Dance Hall wing

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 9: Northwest corner



D1. 10: Staining at brick below windows

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 11: Detail view of masonry; appears to be poorly patched



D1. 12: Lack of gutter system above is causing soil erosion below and splashback onto brick façade

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 13: Main entrance

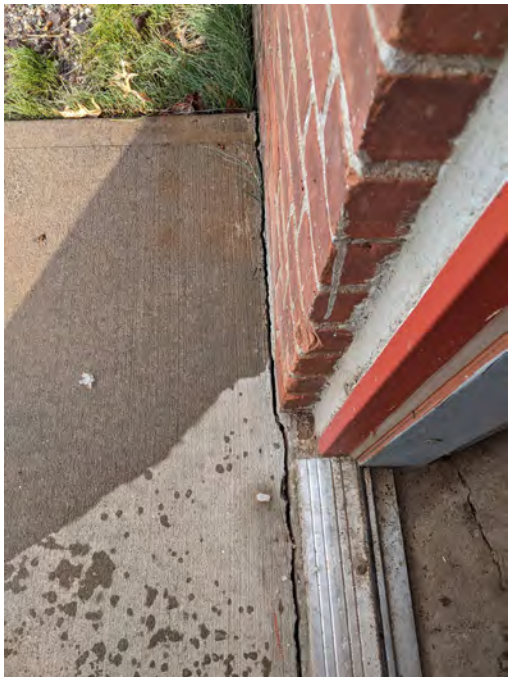


D1. 14: Lack of proper gutter flashing above is causing ice build up and staining on brick shelf below

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 15: Detail view of exterior louver



D1. 16: Cracking at rear mechanical room sidewalk

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



- D1. 17: Concrete step at entrance to Parks and Recreation; This entrance is not accessible



- D1. 18: Concrete step at entrance to Youth Services; This entrance is not accessible

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 19: Wood windows are poorly caulked



D1. 20: Damaged wood trim at entry door

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 21: Adhesive left from former roof to wall flashing location



D1. 22: Detail view of interior corner; a gap is present at the joint between brick and vinyl siding

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

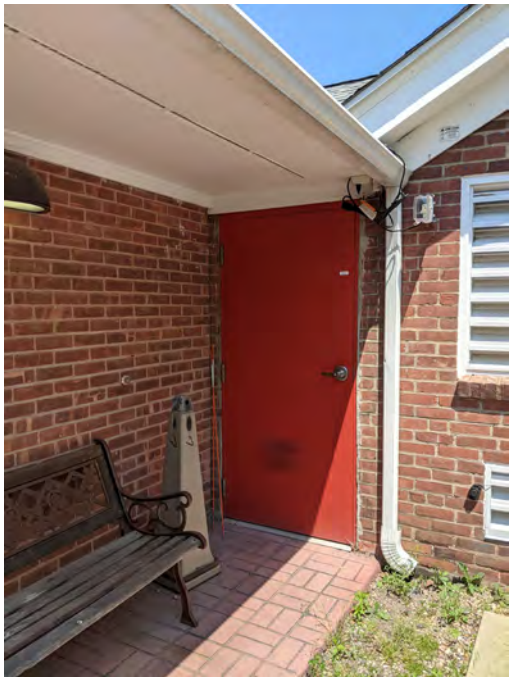


D1. 23: Spalling concrete foundation at perimeter



D1. 24: Exterior doors at Lexture room appear to have received upgrades to weather seals

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

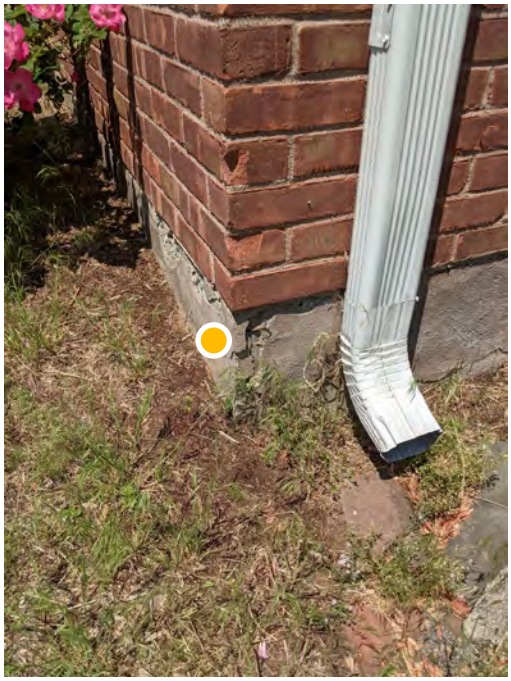


D1. 25: Rear entrance door at Lecture Room / Library

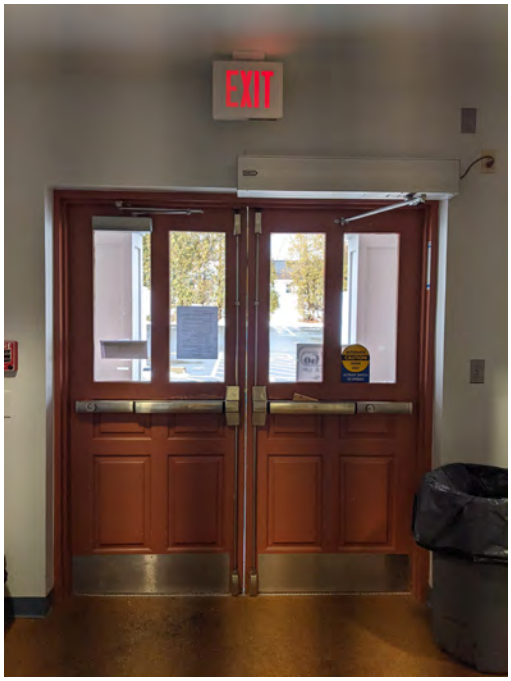


D1. 26: Window at Lecture Room / Library

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 27: Spalling concrete at foundation

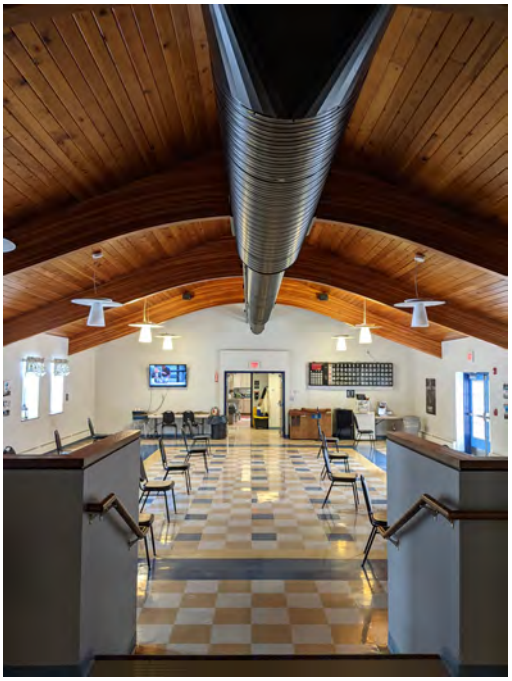


D1. 28: Main entrance doors

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

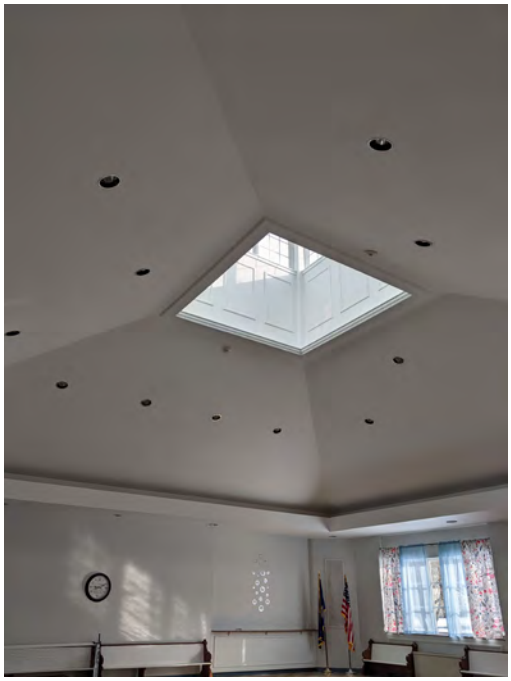


D1. 29: Office doors need adjustment to prevent rubbing on frames

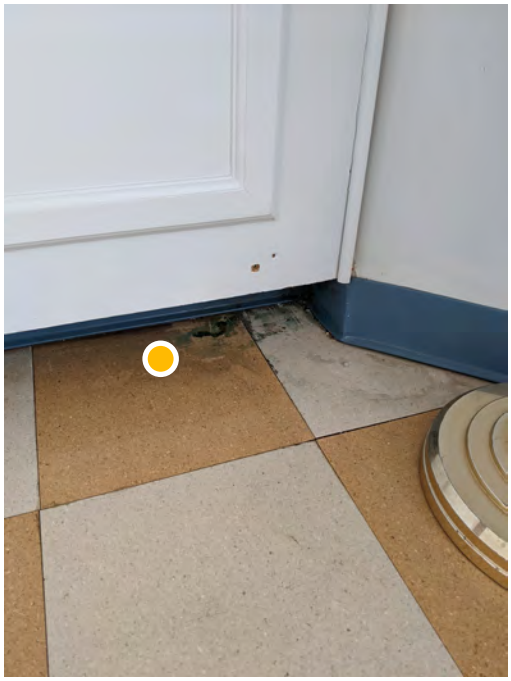


D1. 30: Dining Area

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 31: Dance Hall ceiling

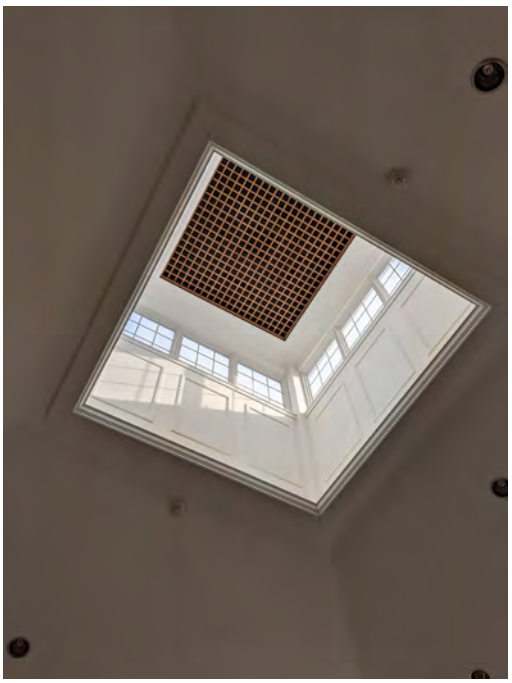


D1. 32: Radiator leak has caused damage to vinyl tile floors

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 33: Damaged wood trim below Dance Hall window

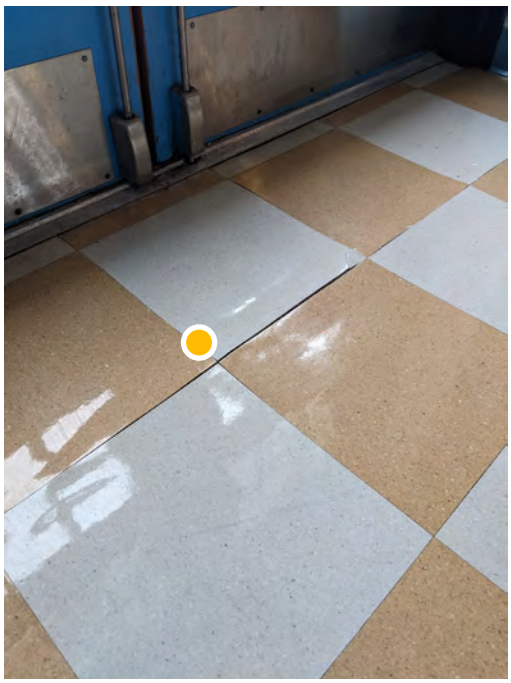


D1. 34: Clerestory in Dance Hall

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 35: Door into Dance Hall



D1. 36: Damaged vinyl tile flooring at entry doors into Dining

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 37: Entry door at Dining

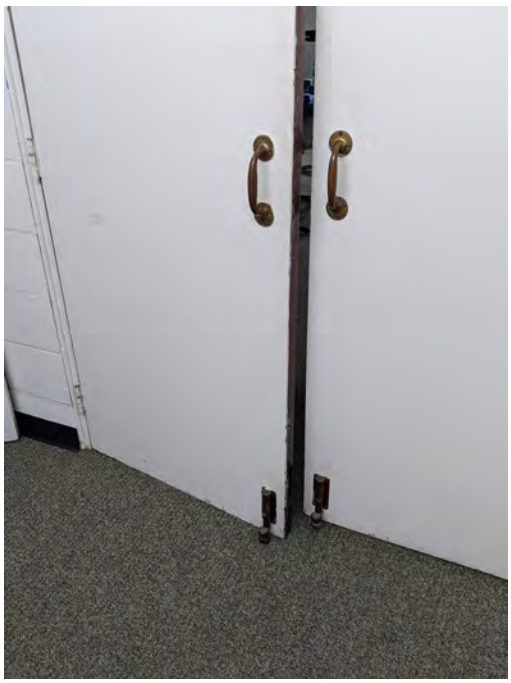


D1. 38: Gypsum board cracking below windows

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

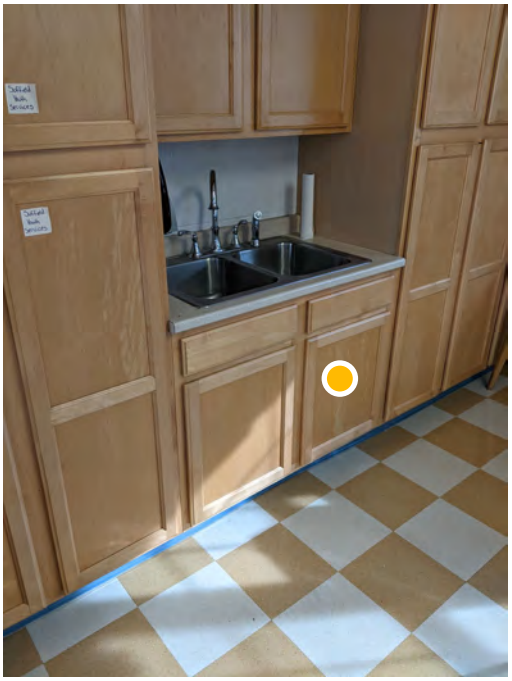


D1. 39: Ladder to attic space above Lecture Hall vestibule



D1. 40: Door between Lecture Hall and vestibule does not properly seal

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D1. 41: Kitchenette in Youth Services is not accessible



D1. 42: Damaged vinyl tile flooring at Youth Services entry

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

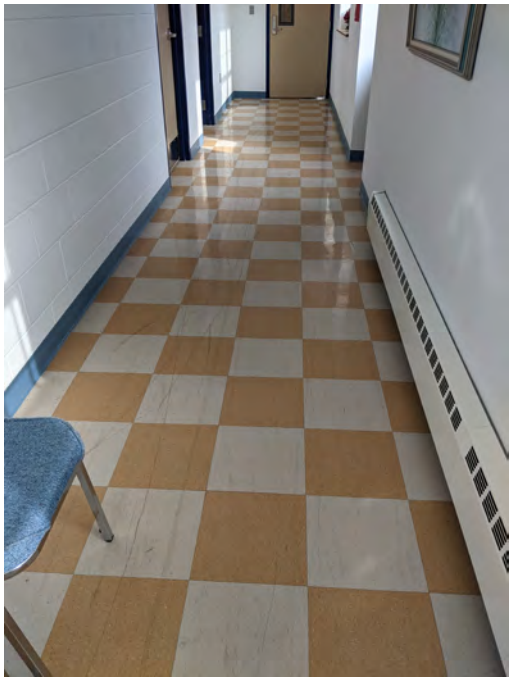


D1. 43: Youth Services



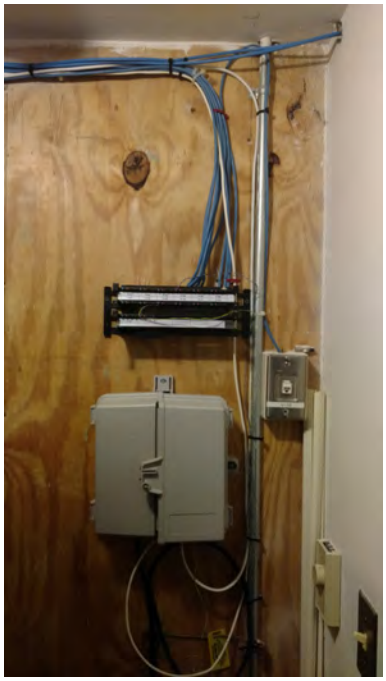
D1. 44: Gypsum board cracking below windows

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

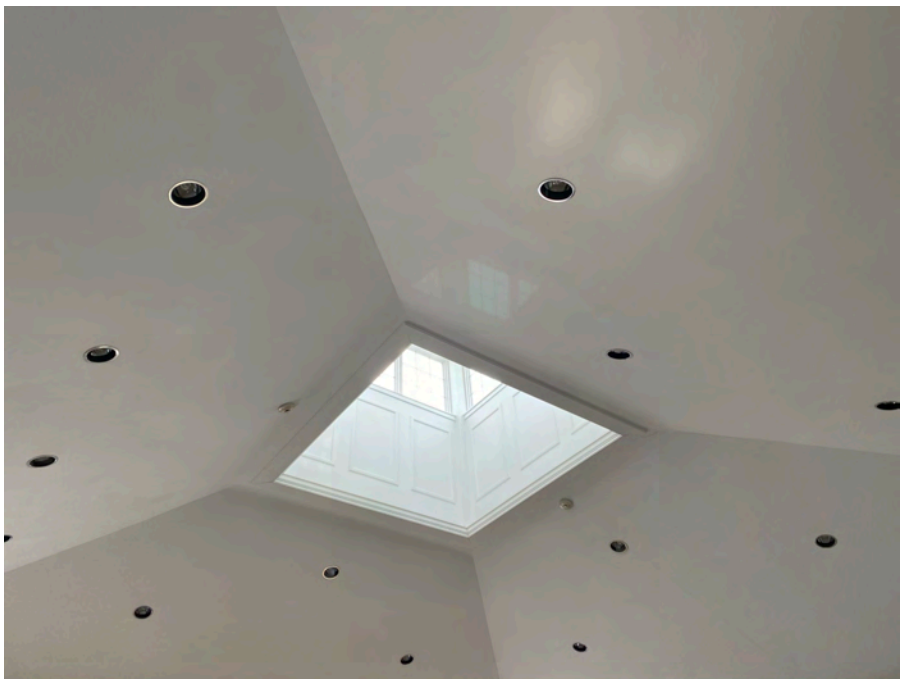


D1. 45: Scuffed and damaged vinyl tile flooring at corridor adjacent to Parks and Recreation

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

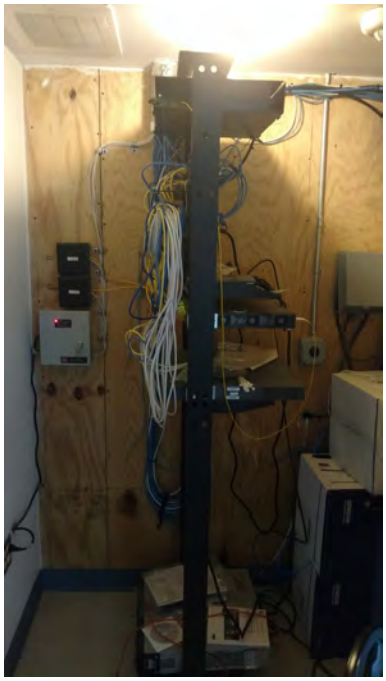


D2. 1: Communications Interface



D2. 2: Compact Fluorescent Retrofit Downlights

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 3: Data Network Rack



D2. 4: Data Network Wireless Access Point

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

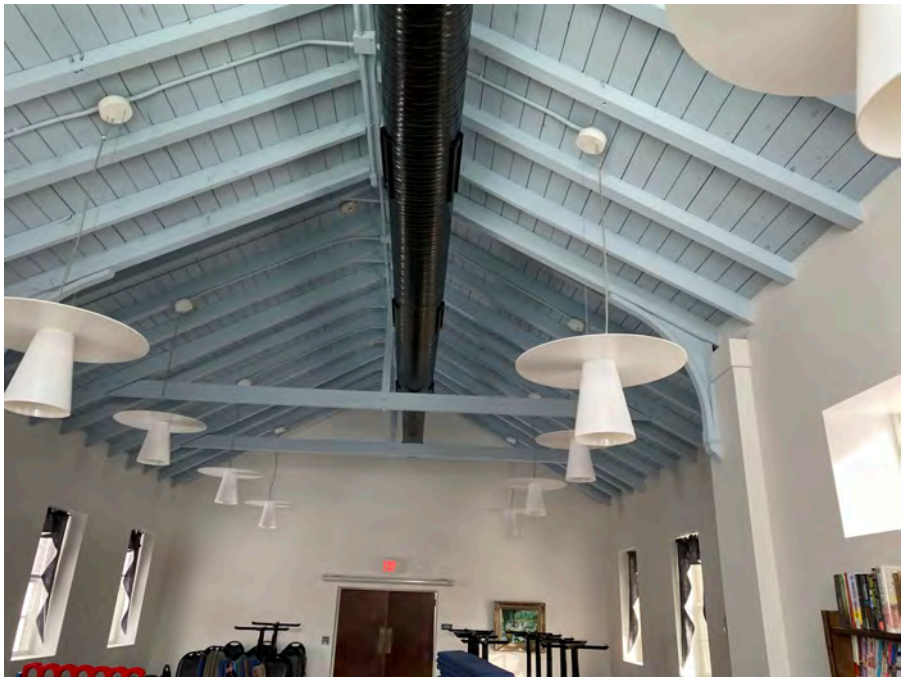


D2. 5: Diffuser Served by a Fan Coil Unit



D2. 6: Ductwork From Fan Coil Unit in Good Condition

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 7: Ductwork and Lighting in Good Condition

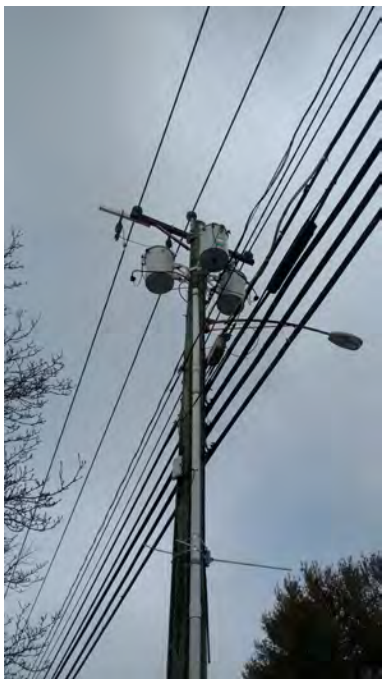


D2. 8: Electric Domestic Water Heater in Boiler Room

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

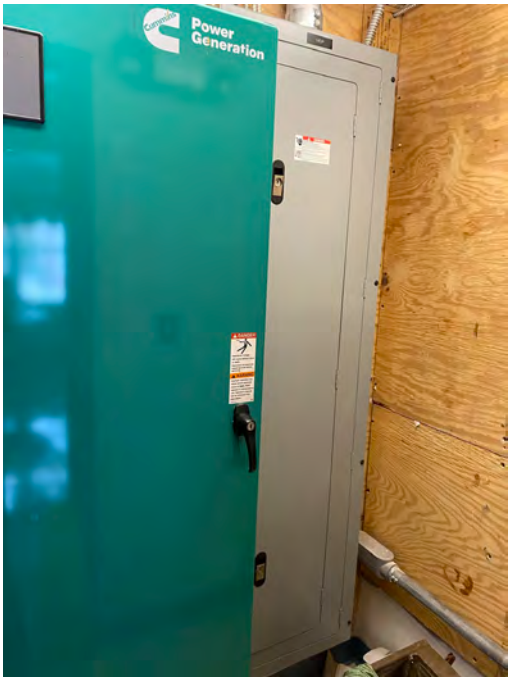


D2. 9: Electric Service Main Switch



D2. 10: Electric Utility Transformer

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 11: Electrical ATS and Distribution Panel



D2. 12: Electrical Branch Circuit Panel

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 13: Electrical Lighting Decorative Pendant Fixtures

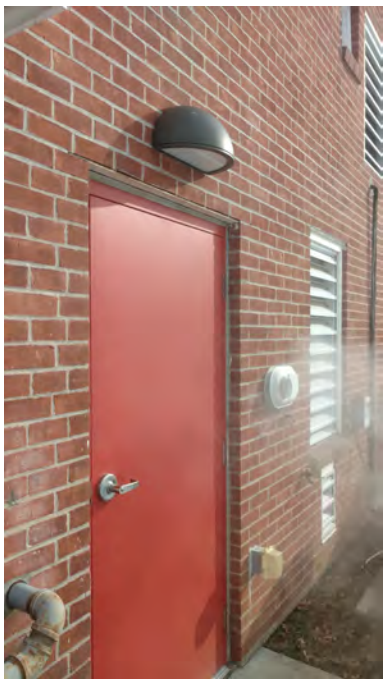


D2. 14: Electrical Main Service Switch (1)

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 15: Electrical Meter



D2. 16: Electrical Sidedoor Lighting Fixture

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 17: Exit Sign and Door Controls



D2. 18: Exterior Condenser Power Feed

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 19: Exterior Lighting Fixture and Security Camera



D2. 20: Fire Alarm Control Panel

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 21: Fluorescent Lighting with Occupancy Sensor Control

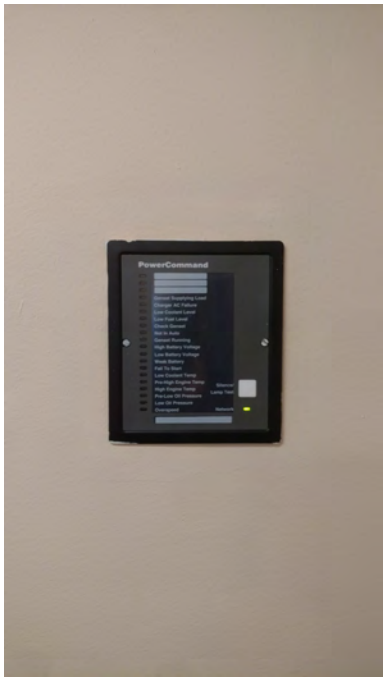


D2. 22: Fujitsu Condensing Unit Serving Split Unit

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 23: Fujitsu Wall Mounted Split Unit in Good Condition



D2. 24: Generator Remote Annunciator

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 25: Generator



D2. 26: Gutter Roof Drain System

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 27: Hot Water Pumps and Piping in Good Condition

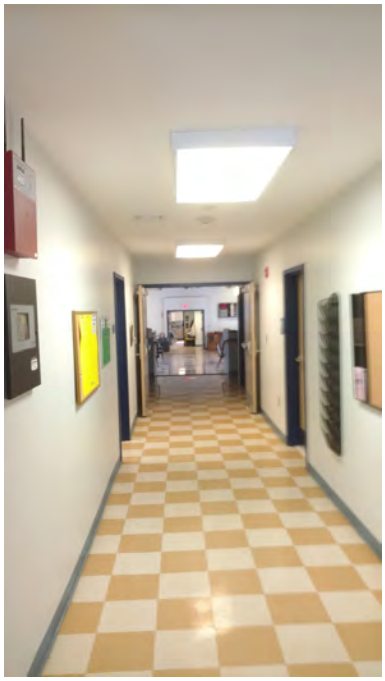


D2. 28: IDF Data Network Rack

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 29: Indoor Heat Pump Unit in Good Condition



D2. 30: Interior Hallway Lighting Fixtures

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 31: Lighting Controls for Large Activity Room



D2. 32: Lochinvar Natural Gas Hot Water Boiler

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 33: Mitsubishi VRF Casette in Ceiling



D2. 34: Natural Gas Domestic Hot Water Tank

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 35: Natural Gas Service



D2. 36: Old Hot Water Baseboard Radiation

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 37: Outdoor Condensing Unit



D2. 38: Outdoor Condensing Units Serving Terminal units Indoors

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 39: Plumbing Fixture in Good Condition



D2. 40: Plumbing Piping and Equipment in Good Condition

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 41: Powered Door Control



D2. 42: Rain Gutter De-Icing Equipment

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 43: Smoke Detector



D2. 44: Trane Fan Coil Unit Serving the Library

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D2. 45: Trane Wall Thermostat



D2. 46: Wireless Access Point

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D3. 1: Curb cut at main entrance

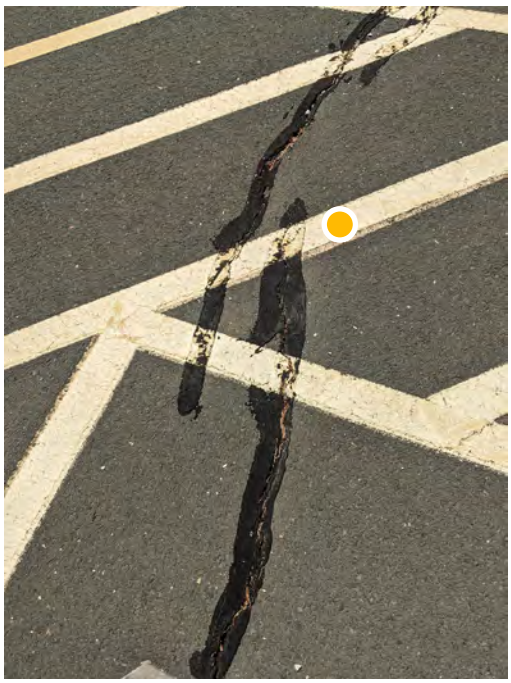


D3. 2: Cracking throughout parking area and drive aisles has been patched

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D3. 3: Parking signage at accessible parking spaces



D3. 4: Cracking throughout parking area and drive aisles has been patched

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D3. 5: Bituminous curbing is damaged and sections have begun to separate



D3. 6: Cracking along edge of parking area has been patched

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D3. 7: South courtyard



D3. 8: Bricks at rear courtyard have begun to heave and create unsafe conditions

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

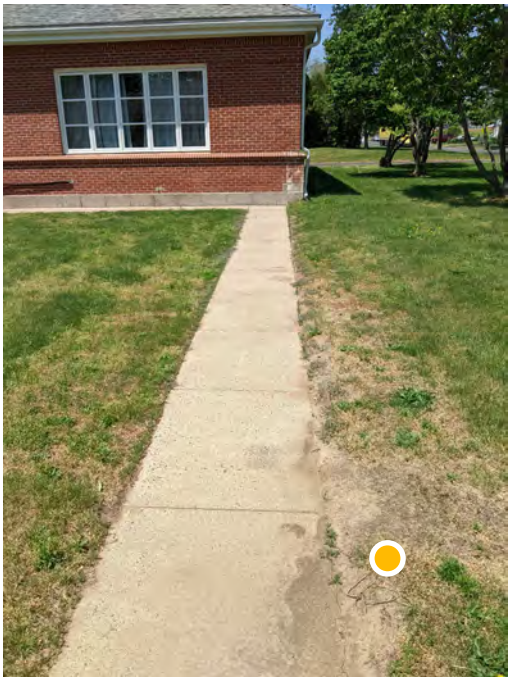


D3. 9: Bituminous asphalt paving was previously trenched and patched



D3. 10: Parking curb stop has lifted away from parking surface

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

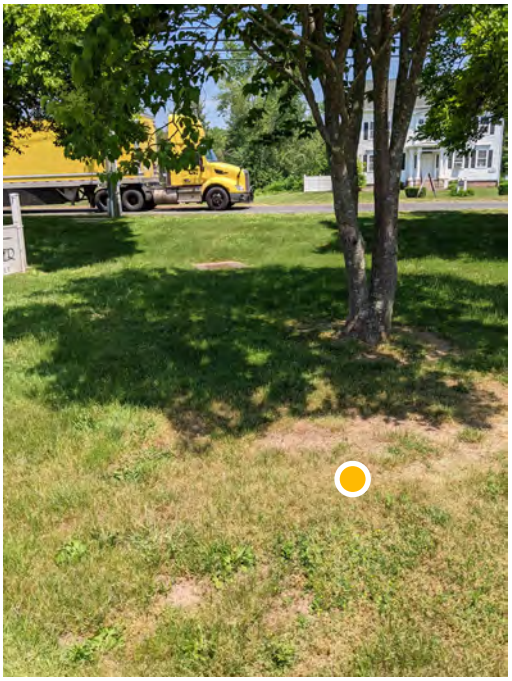


D3. 11: Soil has eroded onto concrete sidewalks



D3. 12: Ground-mounted building signage along Bridge Street

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D3. 13: North lawn area is patchy and requires re-seeding

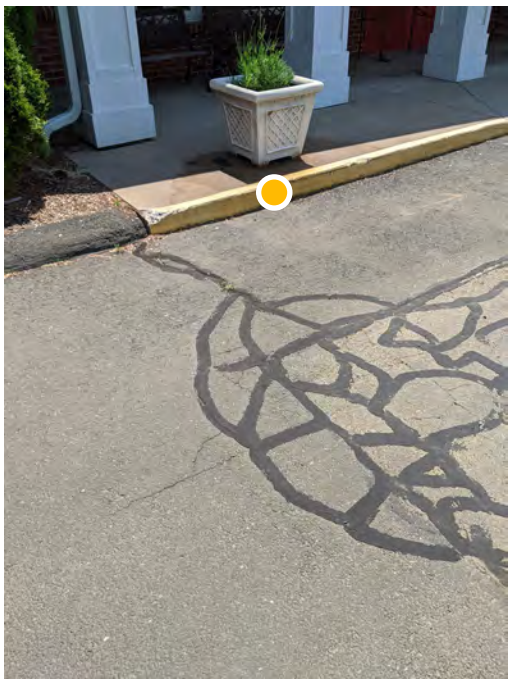


D3. 14: Concrete basin top located in North lawn area is in good condition

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT



D3. 15: Cracking and edge chipping at concrete basin top in parking area



D3. 16: Spalling concrete curb at main entry sidewalk

CAPITAL IMPROVEMENTS E

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

SENIOR CENTER - 145 BRIDGE STREET, SUFFIELD, CT

Senior Center, 145 Bridge St - ROM Summary														Building Area: 11,702				CIP Prioritization				
SYSTEM / LINE ITEM DESCRIPTION	Amount	Unit	Unit Price	Current Replacement Cost	General Conditions	Bonds, Ins., Permit	(Unforeseen Conditions)	Temporary Facilities and Controls	Subtotal - Line Item	Line Item Contingency + Approx. Soft Costs (Design, printing, advertising, etc.)	Projected Line Item Cost	Escalation, Market Premium	Projected Line Item Cost W/Premium	REMARKS	Immediate	1-3 Years	3-5 Years	5-10 Years	10+ Years
					10%	1.5%	7.5%	5.0%		12.5%		20%			0.0%	7.2%	16.8%	31.8%	56.6%
Site Improvements																				
Repaving of existing drives/parking areas	3,900	SF	$17	$ 64,350	$ 6,435	$ 965	$ 4,826	$ 3,218	$ 79,794	$ 9,974	$ 89,768	$ 17,954	$ 107,722							
Repair cracks in front concrete sidewalk	30	SF	$8	$ 231	$ 23	$ 3	$ 17	$ 12	$ 286	$ 36	$ 322	$ 64	$ 387							
Repair and level wheel stop	1	EA	$220	$ 220	$ 22	$ 3	$ 17	$ 11	$ 273	$ 34	$ 307	$ 61	$ 368							
Provide new concrete ramps to Youth Services and Parks & Rec entrances	100	SF	$44	$ 4,400	$ 440	$ 66	$ 330	$ 220	$ 5,456	$ 682	$ 6,138	$ 1,228	$ 7,366							
Level brick patio	1,200	SF	$17	$ 19,800	$ 1,980	$ 297	$ 1,485	$ 990	$ 24,552	$ 3,069	$ 27,621	$ 5,524	$ 33,145							
Exterior Improvements				$ -					$ -	$ -	$ -									
Clean masonry/exposed foundation	11,702	SF	$2	$ 25,744	$ 2,574	$ 386	$ 1,931	$ 1,287	$ 31,923	$ 3,990	$ 35,913	$ 7,183	$ 43,096							
Paint existing wood windows	300	SF	$4	$ 1,320	$ 132	$ 20	$ 99	$ 66	$ 1,637	$ 205	$ 1,841	$ 368	$ 2,210							
Add gutters at hip roof	164	LF	$11	$ 1,804	$ 180	$ 27	$ 135	$ 90	$ 2,237	$ 280	$ 2,517	$ 503	$ 3,020							
Replace gutter/downspout along Main Entrance	10	LF	$22	$ 220	$ 22	$ 3	$ 17	$ 11	$ 273	$ 34	$ 307	$ 61	$ 368	Requires further investigation. Resize/recalculate rain water runoff.						
Interior Improvements				$ -					$ -	$ -	$ -									
Replace damaged VCT tiles	50	SF	$8	$ 385	$ 39	$ 6	$ 29	$ 19	$ 477	$ 60	$ 537	$ 107	$ 644							
Repair/paint cracks in GWB walls, add control joints	30	SF	$11	$ 330	$ 33	$ 5	$ 25	$ 17	$ 409	$ 51	$ 460	$ 92	$ 552							
Division 21 - Fire Protection				$ -					$ -	$ -	$ -									
Division 22 - Plumbing				$ -					$ -	$ -	$ -									
Water Distribution and Drainage Systems	11,702	SF	$10	$ 115,850	$ 11,585	$ 1,738	$ 8,689	$ 5,792	$ 143,654	$ 17,957	$ 161,610	$ 32,322	$ 193,933	3-5yrs useful life. All original piping from the 1950 construction is past its useful life, all piping from the 2009 renovation is approaching the end of its useful life in 10+ years.						
Plumbing Fixtures / Equipment	11,702	SF	$4	$ 51,489	$ 5,149	$ 772	$ 3,862	$ 2,574	$ 63,846	$ 7,981	$ 71,827	$ 14,365	$ 86,192	5-10yrs useful life. Replacement of all plumbing fixtures throughout the building.						
Water Heaters	1	EA	$16,500	$ 16,500	$ 1,650	$ 248	$ 1,238	$ 825	$ 20,460	$ 2,558	$ 23,018	$ 4,604	$ 27,621	10+yrs useful life. Water heaters are newer and in good working condition.						
Division 23 - Mechanical				$ -					$ -	$ -	$ -									
Heating Plant (Boilers, Pumps, etc.)	1	EA	$165,000	$ 165,000	$ 16,500	$ 2,475	$ 12,375	$ 8,250	$ 204,600	$ 25,575	$ 230,175	$ 46,035	$ 276,210	10+yrs useful life. Heating plant updated in 2009 and is in good working condition.						
Terminal Units	11,702	SF	$4	$ 51,489	$ 5,149	$ 772	$ 3,862	$ 2,574	$ 63,846	$ 7,981	$ 71,827	$ 14,365	$ 86,192	10+yrs useful life. Perimeter fin tube radiation and split system heat pumps approaching the end of their useful lives in 10+ years.						
Air Handling Systems	11,702	SF	$7	$ 77,233	$ 7,723	$ 1,158	$ 5,792	$ 3,862	$ 95,769	$ 11,971	$ 107,740	$ 21,548	$ 129,288	10+yrs useful life. Air handling systems, ductwork, and exhaust fans installed in 2009 are in good working condition.						
Control Systems	11,702	SF	$6	$ 64,361	$ 6,436	$ 965	$ 4,827	$ 3,218	$ 79,808	$ 9,976	$ 89,784	$ 17,957	$ 107,740	5-10yrs useful life. The building does not contain a BMS, all other devices controlled by standalone controls of varying vintages.						
Air Conditioning	11,702	SF	$6	$ 64,361	$ 6,436	$ 965	$ 4,827	$ 3,218	$ 79,808	$ 9,976	$ 89,784	$ 17,957	$ 107,740	10+yrs useful life. The split system heat pumps, fan coil units, and mini split systems provide cooling throughout the building.						
Division 26 - Electrical				$ -					$ -	$ -	$ -									
Electrical Service / Distribution	11,702	SF	$22	$ 257,444	$ 25,744	$ 3,862	$ 19,308	$ 12,872	$ 319,231	$ 39,904	$ 359,134	$ 71,827	$ 430,961	10+yrs useful life. Electric service equipment appears to be in good working condition, installed in 2009.						
Generator	1	EA	$82,500	$ 82,500	$ 8,250	$ 1,238	$ 6,188	$ 4,125	$ 102,300	$ 12,788	$ 115,088	$ 23,018	$ 138,105	10+yrs useful life. Generator in good condition but has been exposed to above average runtime.						
Lighting - General	11,702	SF	$9	$ 102,978	$ 10,298	$ 1,545	$ 7,723	$ 5,149	$ 127,692	$ 15,962	$ 143,654	$ 28,731	$ 172,385	5yrs useful life. Linear fluorescent and compact fluorescent technologies are installed with a few retrofit LED lamps on interior fixtures. Exterior fixtures consist of compact fluorescent and metal halide type technologies.						
Fire Alarm System	11,702	SF	$11	$ 128,722	$ 12,872	$ 1,931	$ 9,654	$ 6,436	$ 159,615	$ 19,952	$ 179,567	$ 35,913	$ 215,481	10+yrs useful life. Fire alarm system is in good condition.						
Subtotal for CIP Items				**$ 1,296,731**					**$ 1,607,946**		**$ 1,808,939**	**$ 361,788**	**$ 2,170,727**							
Cost Per Square Foot				**$ 110.81**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 137.41**	**$ -**	**$ 154.58**	**$ 30.92**	**$ 185.50**							

Building Vintage Summary			
Building Vintage	**Area**		**% to Ttl**
Building Vintage ~ 1950	11,702	V1	100.00%

POLICE DEPARTMENT

911 MOUNTAIN ROAD, SUFFIELD, CT

CONDITIONS ASSESSMENT & MASTER PLAN

Tecton ARCHITECTS

3.7


SUFFIELD POLICE
911 MOUNTAIN ROAD
LOBBY CLOSED
EXCEPT
FOR
EMERGENCIES
NON-EMERGENCIES CALL:
860-668-3870

TABLE OF CONTENTS

INTRODUCTION ..... **A**

Summary & Analysis A1

DATA & RANKINGS ..... **B**

Building Data B1

Condition Rankings B2

EXISTING CONDITIONS NARRATIVE ..... **C**

Architectural *(Building & Structure)* C1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* C2

Site *(Civil, Landscape, Utilities)* C3

PHOTO LOG ..... **D**

Architectural *(Building & Structure)* D1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* D2

Site *(Civil, Landscape, Utilities)* D3

CAPITAL IMPROVEMENTS ..... **E**

Capital Improvements E1

INTRODUCTION A

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

Original drawings indicate that the Police station is constructed of load-bearing masonry with wood roof trusses. The police station is in good condition overall relative to the age of the building. The main entrance is located on the North façade with one additional man-door located on the West and two on the South. The Sally Port overhead door is located on the West and two maintenance bays with overhead doors are located at the Southwest corner. The station sits on an open site surrounded by trees. The rear parking lot is fenced in with gates along the East and West of the building. There are two driveways that exit the North side of the site onto Mountain Road.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

BUILDING AREA/SITE	8,955 sf / 2.69 acres
AGE/CONSTRUCTION	1988 (34)

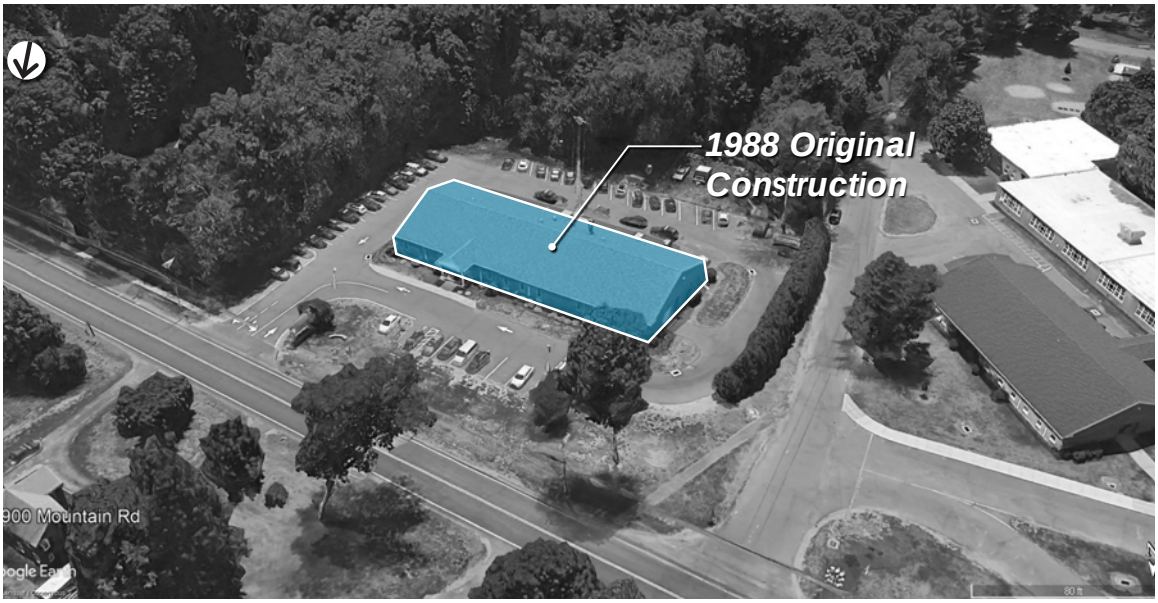
***Building Condition*: Fair**

- New paving and fence were recently installed
- Recommend preventative maintenance program to extend useful life.
- Minor snow build up and possible damming at roof valleys and uneven snowmelt due to super heating of garage spaces
- Accessibility upgrades required throughout
- Relatively minor cracking at multiple interior CMU walls, non structural issue.
- MEP Systems are all beyond useful life and need to be upgraded.
- Only one boiler with no redundancy
- No exhaust systems in garages which is required by current code.
- Undersized training space with access control vulnerabilities at training/lobby doors
- Prisoner Processing workflow; no padded cell, no ambulance access in Sally Port

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT



A1. 1: Aerial View of Existing Police Department and Property



A1. 2: Vintage Plan

DATA & RANKINGS B

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

B. DATA & RANKINGS

B.1 Building Data

The Facility:

Name:	**Police Department**		
Address:	**911 Mountain Rd**		
Type / Use:	**Police Department**		
Total Building Area (SF):	8,955	**Original Construction:**	1988
Site Area (acres):	2.69	**Additions (dates):**	N/A
Stories (above grade):	1	**Construction Type(s):**	
Building / Framing Materials:	Brick/Masonry	**Roof Types & Age:**	Asphalt Shingles (2009) No warranty data
Split-level / ramps (interior):	No	**Heating (types):**	Hot Water
Stairs (interior):	No	**Fuel Types:**	Natural Gas
Elevator:	No	**Cooling (centralized):**	Non-Central, via PTAC units and AHUs
Basement:	No	**Ventilation:**	Yes, via PTAC units and AHUs
Mezzanine (finished)	No	**Electrical:**	208/120 volt, 3 ph, 4 wire 600 amp
Crawl Space / Tunnels:	No	**Generator:**	Cummins GGLB 150 kW natural gas
Auxiliary Buildings:		**Fire Alarm:**	Fire Lite 4424B (monitoring only)
Full ADA Compliance:	No	**Sewer / Septic**	Sewer (GIS)
	Clearances, Toilets, Showers	**Municipal Water / Well**	Well (GIS)
		Sprinklered (full / partial):	N/A
School Data		**Parking Count:**	18 Public, 16 Fleet (striped)
Enrollment(2020):	N/A		
Enrollment 10-yr:	N/A	**Meals:**	N/A
Net Enrollment Change:	N/A	**Meal Prep on site?:**	N/A
Location in Town:	N/A	**Start Time:**	N/A
Grade Structure:	N/A	**Dismissal:**	N/A
Pre-K?:	N/A	**Buses:**	N/A
Athletic Fields:	N/A	**Additional Programs:**	N/A

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
2 Poor [P] May require attention in 2-5 years
3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Exterior

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Roofing	Asphalt Shingle Roof	3	Ice damming at valleys, replaced 2009
	Flashing / joints	4	N/A
	gutters / downspouts	2	Rust at downspout boots
	Fascia / trim	4	N/A
Walls	Masonry (unpainted)	3	Some staining present
	Joints (Building or expansion)	3	N/A
	Wall mounted fixtures	4	N/A
	Foundations – exposed concrete	4	N/A
Entrances	Entrance Doors	4	N/A
	Overhead Doors	3	Minor dents
	Soffits / Canopy	3	Minor cleaning required
Windows	Vinyl	4	Replaced 2016
	Window Screens (exterior)	4	N/A
Walkways / site stairs	Sidewalks	3	Minor crack repairs
	Bituminous concrete curb	4	Recently replaced
Drives / parking lots	Bituminous concrete pavement	4	Recently repaved
	Pavement striping	4	Recently restriped
Landscaping	Lawn	4	N/A
	Plants	3	N/A
	Mulch beds	3	N/A
	Trees	4	N/A
Recreation	-	-	N/A
Other Structures	Site lighting – poles and fixtures	4	N/A
	Vehicular signage	3	Requires reseating
	Catch basin tops	3	Minor cracking around basin
	Catch basin structures	4	N/A

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

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2 Poor [P] May require attention in 2-5 years
3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Interior

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Flooring	Concrete (unpainted)	4	N/A
	Ceramic Tile	4	N/A
	Carpet	4	N/A
	Vinyl Tile	2	Scuffed and scratched throughout
	Wood	4	N/A
Walls Surfaces	Masonry (painted)	3	Cracking throughout
	Masonry (glazed)	4	N/A
	Gypsum board	2	Patch and paint required throughout
	Tile	4	N/A
Ceilings	Gypsum board ceilings / soffits	4	N/A
	Acoustic Panel Ceiling	2	Stained tiles throughout
Interior trim	Wall Base – Vinyl	4	N/A
Interior doors	Hollow metal doors	4	N/A
	Hardware	4	N/A
Built-ins	Casework	4	Non-accessible kitchen
	Countertops	4	N/A
Toilet Facilities	Fixtures	1	Non-accessible fixtures
	Partitions	4	N/A
	Accessories (dispensers, driers)	4	N/A
Athletics	-	-	N/A

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
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3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Building Systems

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Fire Protection	Fire Alarm System & Devices	-	N/A
	Fire suppression (infrastructure / devices)	-	N/A
Plumbing Systems	Infrastructure (pipes, drains, etc.)	3	In fair working condition
	Fixtures	3	In fair working condition
	Overall efficiency	2	Updates will improve efficiency
Mechanical / HVAC	Infrastructure (pipes, ducts, etc.)	3	In fair working condition
	Heating systems	3	In fair working condition
	Cooling systems	3	In fair working condition
	Fixtures & equipment (Interior)	2	Equipment should be updated
	Fixtures & equipment (Exterior/Roof top)	2	Equipment should be updated
	Overall efficiency	1	Overall efficiency is very poor
Electrical (Service)	Infrastructure (panels, wiring, etc.)	2	Serviceable but nearing end of life
	Service & distribution	2	Main Switch at end of life and obsolete
	Generator	3	Serviceable condition
	Automatic Transfer Switch	3	Switch is operational, good condition
Electrical Lighting	Infrastructure (panels, wiring, etc.)	2	Infrastructure in serviceable condition
	Fixtures (Interior)	2	Fluorescent systems should be replaced
	Efficiency (incl. natural & artificial light distr.)	2	Overall efficiency is poor
Security	Access Control	3	Functional System installed throughout
	Cameras	3	Functional system installed throughout

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

B. 2 Benchmarking

MECHANICAL, ELECTRICAL, FIRE PROTECTION, SECURITY			
SYSTEM	**EQUIPMENT LIFE EXPECTANCY**	**EQUIPMENT AGE**	**USEFUL LIFE PERCENTAGE**
Fire Protection System	40 Years	N/A	N/A
Plumbing Water Heater	25 Years	15 Years	60%
Plumbing Piping & Fixtures	40 Years	33 Years	83%
Mechanical Boiler Plant	30 Years	15 Years	50%
Mechanical Piping & Equipment	40 Years	33 Years	83%
Mechanical Air Conditioning	25 Years	33 Years	132%
Mechanical Controls	20 Years	N/A	N/A
Electrical Service & Distribution	40 Years	33 Years	83%
Electrical Lighting	30 Years	33 Years	110%
Electrical Generator	40 Years	20 Years	50%
Fire Alarm	20 Years	33 Years	165%



EXISTING CONDITIONS NARRATIVE C

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

C.1 Architectural

Construction:

Original drawings indicate that the Police station is constructed of load-bearing masonry with wood roof trusses.

Exterior:

EXTERIOR (GENERAL): The police station is in good condition overall relative to the age of the building. The main entrance is located on the North façade with one additional man-door located on the West and two on the South. The Sally Port overhead door is located on the West and two maintenance bays with overhead doors are located at the Southwest corner.

WALLS: Exterior brick veneer has been well maintained and is in good condition with some minor staining. The exposed concrete foundation is in fair condition. It is beginning to show signs of wear and requires minor repairs.

WINDOWS/DOORS/ENTRANCES: All windows were replaced in 2016 with high efficiency vinyl double-hung windows and are in good condition. Main entry door and side/rear doors are in good condition. Soffit over main entry is in good condition but should receive routine cleaning and maintenance to extend the life of the materials.

ROOF: The roof was replaced in 2009, no warranty information has been provided but it appears to be in good condition. Snow buildup and possible ice damming were observed at roof valleys and should be addressed. Cast iron downspout boots that connect to subsurface drainage are beginning to rust. Snow melt was uneven across the roof with almost all snow melting over the garage spaces. This indicates either a lack of insulation or an overheating of the garage spaces below.

Interior:

INTERIOR SPACES (GENERAL): Floor finish throughout the building is carpet and it is in good condition. Acoustic panel ceilings are discolored and stained throughout and should be replaced. Painted concrete masonry units show non-structural cracking intermittently and require repair and repainting. Gypsum board finish is also cracking at exterior walls above and below window openings in the offices and training room along the East exterior wall. Corridors at exterior doors have ceramic tile flooring and these areas are in good condition.

OFFICES/STORAGE: Records room has vinyl composite tile flooring which is in poor condition and should be replaced. Acoustic panel ceilings in some offices and storage areas appear to be newer than the rest of the facility and are in fair to good condition.

TOILET FACILITIES: Toilet rooms throughout the facility are ceramic tile floors with integral base and painted concrete masonry unit walls, all in good condition.

KITCHEN: Casework and countertop is dated but has been well maintained and can be considered good condition.

SALLY PORT/MAINTENANCE GARAGE: Concrete slab edges at the overhead doors are beginning to crack and deteriorate.

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

LOCKER ROOMS: Lockers are built from concrete masonry units. They are in fair condition but limit future flexibility. Acoustic panel ceilings in the locker rooms appear to be newer than the rest of the facility and are in fair to good condition.

CELLS: Cells and cell passages are glazed brick walls and concrete floors in good condition. The cell passages have an acoustic panel ceiling in similar condition to the rest of the facility. The cells have a painted wood or gypsum board ceiling and is in good condition. Although solid cell fronts are the preferred detail, the cells appear to meet CALEA standards.

Code & Safety:

ADA: Drinking fountains do not have required clear space below. The kitchen does not have clear space below sink and is not considered ADA compliant. Pipe insulation is missing below toilet room lavatories and required grab bars are not at toilets. Step down into showers is a tripping hazard in addition to being non-compliant with ADA. There is a step down into the maintenance bays and Sally Port.

SAFETY: Security flow from lobby to training room to secure Police side of the facility should be reworked to allow for a more secure training room.

C.2 MEP

B.4 Plumbing/Fire Protection:

HOT WATER GENERATION: The buildings existing domestic hot water is generated via one indirect water heater. The water is heated by the boiler and stored in the water heater tank. The water heater is located in the mechanical room and was installed approximately 15 years ago. It appears to be in fair working condition.

DOMESTIC WATER SERVICE: The existing building is currently served by a municipal domestic water service. This service is 4" when it enters the building and is located in the Large Evidence Room. This service was installed in the original 1988 construction. This service appears to be at the end of its useful life.

DOMESTIC WATER PIPING: Domestic water piping was observed to be a combination of copper and steel piping. The majority of the piping is original to the building and was installed in 1988. There is newer domestic hot water piping connected to the water heater that was installed approximately 15 years ago. The 1988 piping is past its useful life while the piping from the 2005 installation is in fair working condition.

PLUMBING FIXTURES: The plumbing fixtures in the building are from the original 1988 construction. The plumbing fixtures are in fair working condition.

SANITARY SERVICE: The building is served by a municipal sanitary service. The building currently has three sanitary entrances. The 4" sanitary lines are buried and located outside of the Briefing Room, Mechanical Room, and Garage. The sanitary service is original to the building and was installed in 1988.

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

STORM SERVICE: The building currently uses a gutter system to collect and transfer all storm drainage. The roof is pitched on either side to lead the storm into the gutters. The gutters distribute the storm drainage onto the ground through the use of splash guards. The storm service appears to be in good working condition.

NATURAL GAS SERVICE: The building currently has natural gas service that feeds the boiler. The service appears to be original to the 1988 construction and is in fair condition.

FIRE PROJECTION: There is currently no fire protection sprinkler system within the building.

B.5 Mechanical:

HEATING SYSTEMS: The existing boiler plant consists of one natural gas cast iron boiler manufactured by H.B. Smith. This boiler has an input of 629 MBH. The boiler was installed approximately 15 years ago and is in fair working condition. The hot water produced by the boiler is used for air handling heating coils, perimeter fin-tube radiation, unit heaters, and packaged terminal air conditioners (PTAC). The boiler also provides hot water to the indirect fired water heater. A higher efficiency boiler would result in greater energy savings. Hot water is distributed throughout the building via a pair of circulatory Bell & Gossett pumps. These pumps appear to be in fair working condition.

HOT WATER PIPING: The hot water heating systems consists of Copper piping. The majority of the piping was installed during the original construction in 1988. This piping is at the end of its useful life. Some hot water piping was replaced approximately 15 years ago at the same time of the boiler and water heater. This piping appears to be in fair working condition.

TERMINAL UNITS: The building contains perimeter fin-tube baseboard radiation in various rooms. The baseboard is being fed by hot water piping from the boiler to provide heat to the rooms. The baseboard appears to be in fair condition. Hydronic unit heaters and cabinet unit heaters serve perimeter rooms as well. Hot water is piped to the heaters from the boiler room and they appear to be at the end of their useful life. The packaged terminal air conditioners (PTAC) units also provide heating through hot water coils from the boiler system. The PTAC units vary in age but are overall in poor condition and will require replacement. Mitsubishi split ductless air conditioners serve the Data Room and Dispatch Room. These units are not very old and appear to be in good working condition. The building contains two indoor air handling units. The units are manufactured by Trane and contain hot water heating coils and direct expansion cooling coils. Each unit has its own condensing unit located outside that provides the refrigerant for cooling. The units are original to the building construction and were installed in 1988. The air handling units are in poor condition and at the end of their useful lives. The two condensing units are approximately 10 years old and are in good condition.

VENTILATION SYSTEMS: The PTAC units provide outdoor ventilation air to each room they serve. The two indoor air handling units provide ventilation to the common room spaces along with other areas. There are six rooftop exhaust fans that remove exhaust air from the building. The fans serve the locker rooms, toilet rooms, kitchenette, holding cells, and utility spaces. There is no exhaust fan in the Garage or Sally Port which is required by code. The existing fans appear to be original to the building and are in fair working condition.

COOLING SYSTEMS: Air Conditioning is provided throughout the building. The air conditioning is accomplished by the PTAC units and the two air handling units. Direct expansion coils within the units provide cooling to the spaces.

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

DUCTWORK: The ductwork appears to be original to the building. The ductwork is old and is at the end of its useful life.

CONTROLS: The building does not have a Building Management System (BMS). The building contains electrical temperature sensors and controls in various room locations serving the terminal units.

B.7 Electrical:

MAIN ELECTRIC SERVICE: Electric service is supplied from a utility company owned pad mounted transformer at 208/120 volt, 3 phase, 4 wire rated for 600 amperes. The service transformers consist of a pad mounted unit of approximately 150 kVA. The existing service size is adequate for the buildings current use.

The service disconnect and meter consist of a combination fusible switch and CT cabinet with utility meter number 08-108-423. This equipment is obsolete.

ELECTRICAL DISTRIBUTION: The main service switch is a General Electric Type THFP combination fusible switch / CT cabinet rated for 208/120v – 3ph – 4w – 600 ampere and is believed to be fit up with 500 ampere fuses. This equipment is obsolete and replacement parts will be difficult to find. This equipment is from the 1987 original installation. The main switch feeds into a 600 ampere auto-transfer switch to pick up the full building load on generator power.

The standby power system has been upgraded since the 1987 construction. The current Cummins unit is believed to have replaced the original Kohler system formerly in the building. The single transfer switch was code compliant to support all loads prior to 1996 but modern codes now require emergency life safety systems to be segregated through a dedicated transfer switch / distribution panels necessitating a minimum of two transfer switches to energize the full building on generator.

Existing receptacle power provisions within the spaces are code compliant but could be improved with additional devices.

Existing wiring systems in the building are building wire with conduit and also metal clad cable.

GENERATOR: Standby power is provided from a Cummins GGLB 150 kW natural gas fired pad mounted generator. This unit appears to be 15 – 20 years old and has accumulated 415 running hours per the maintenance records. This is above average use for a unit this age. With proper maintenance this unit can continue in service.

LIGHTING SYSTEMS: Lighting systems within the building consist mainly of 2x4 fluorescent acrylic prismatic troffers with linear T8 lamp systems for interior office applications. The dispatch room utilizes 2x4 parabolic fluorescent troffers for glare control but with most of the fixtures turned off. The garage area utilizes 1x4 fluorescent strips with reflectors and wire guards. All of the fixtures appear to be from the original building fit-up. All of the fixtures are obsolete technologies and applications.

The emergency lighting system consists of building fixtures connected to the generator but the system is no longer code compliant due to the 1996 code change referenced above. One self-contained battery unit was observed in the Garage Room and also feeds remote heads within the main hallway and cell block area therefore these areas are compliant. Any other rooms supported with battery backup were

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

not readily observable. Exterior emergency egress lighting is not discernible and is believed not to be installed at the front, rear or side egress doors.

Exterior lighting consists of induction style fixtures mounted on poles and the building supplemented with HID wall packs. The rear parking area was illuminated with a HID wall pack fixture above the overhead doors.

Lighting controls consist of wall toggle switches. Occupancy sensors were not installed. An exterior photocell control is incorporated for dusk to dawn control capability.

FIRE ALARM SYSTEM: A Fire Alarm protective signaling system for occupant notification or dialing out does not appear to be operational within the building. An existing panel exists under the counter in dispatch that is a Fire Lite 4424B, 4 zone panel that formerly monitored Bridge Street, Middle and Spaulding School outgoing alarms. This panel appears to be minimally function.

The building has single station smoke detectors in a few rooms but not throughout the building. These devices appear to be functional.

COMMUNICATION SYSTEMS: Fiber service is provided in single-mode and multi-mode cable types that interconnect the Police Station with many buildings in the community. Backup redundancy is provided at the Police Department.

MDF data rack is provisioned within the main telecommunication room. Network data and voice outlets are distributed throughout the office spaces and appear to satisfactorily serve the office spaces. Wireless access points are provisioned throughout and appear to be the Aerohive AP250 series.

Multipair copper cabling for voice communications are provided in the main telecommunication room.

A radio tower exists on site with dedicated radio equipment located in the main telecommunication room inside the building. The tower is adequately grounded and busbar provisions are included in the equipment room and at the exterior of the building at the antenna cable entry.

Ceiling speakers were observed in suspended ceiling systems but it is unclear what sources sound to these speaker systems.

C.3 Site

SITE (GENERAL): The police station sits on an open site surrounded by trees. The rear parking lot is fenced in with gates along the East and West of the building. There are two driveways that exit the North side of the site onto Mountain Road. A preventative maintenance program is recommended to preserve all site components.

WALKWAYS/SITE STAIRS: A concrete sidewalk runs partially along the North face of the building and is in fair condition. Cracking was observed at sidewalk control joints with minor repairs required. Two additional short walkways exit the building on the South side and are in good condition.

ROADWAYS/PARKING: Drive aisles and parking were recently re-paved and are in good condition.

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Landscaping:

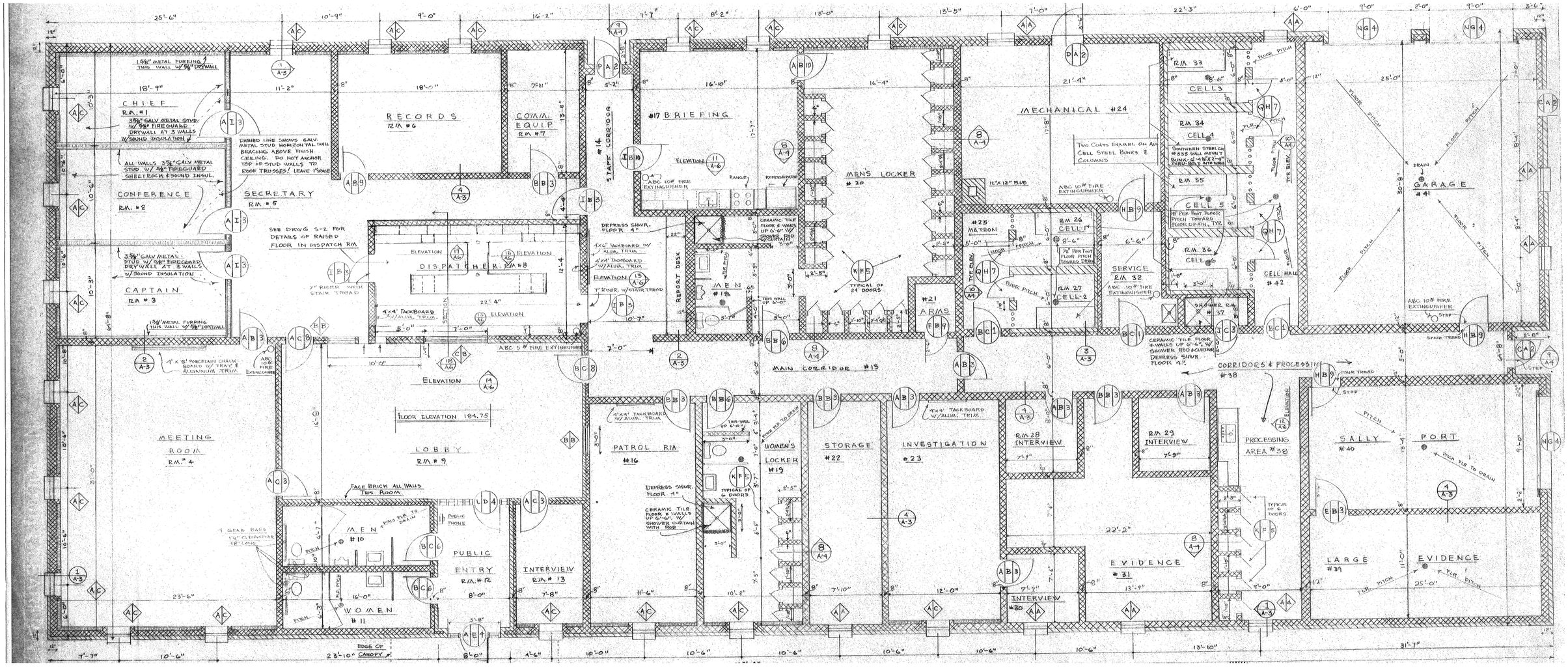
SITE FEATURES: The rear parking lot is fenced in with gates at the East and West drive aisles. The fences and gates were added recently and are in good condition and all gates are fully-functioning. Site signage is a wood sign with a brick base and concrete cap at the Northeast entrance. The concrete cap is beginning to chip and requires repair. Subsurface drainage exits through a culvert at the concrete retaining wall near the Northeast entrance.

OTHER STRUCTURES: A radio tower sits just off the South face of the build. Across the drive aisle in the department parking lot there is a small fenced in impound lot. The fence around the impound lot is in good condition.

PHOTO LOG D

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D1. 1: Main Entrance



D1. 2: Northeast corner

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D1. 3: Northwest corner



D1. 4: Rusted boot connecting downspout to sub-surface drainage system

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D1. 5: West façade

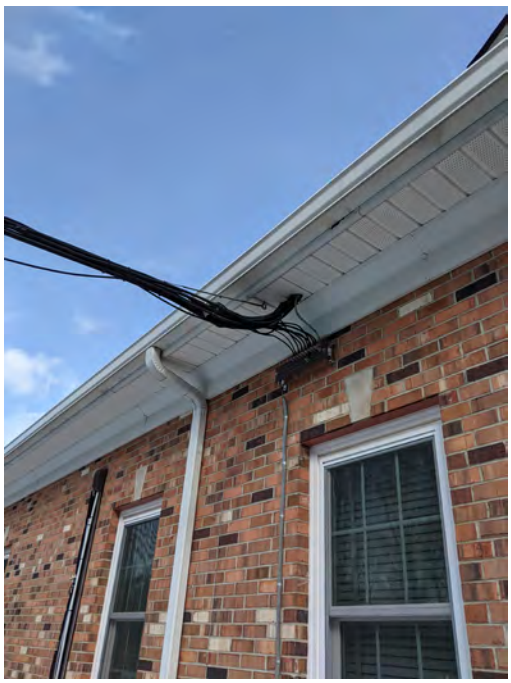


D1. 6: Maintenance Garage doors

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D1. 7: Uneven drying of asphalt shingle roof surface



D1. 8: Radio tower feed into Police Station

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D1. 9: Staff entry door at Sally Port

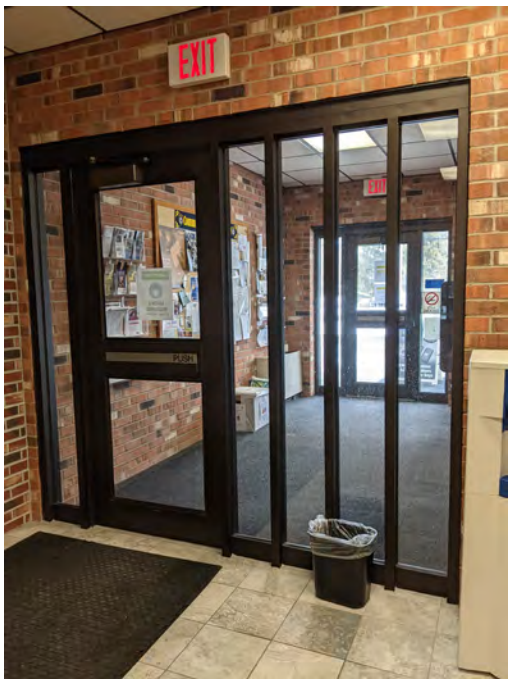


D1. 10: North façade and main entrance

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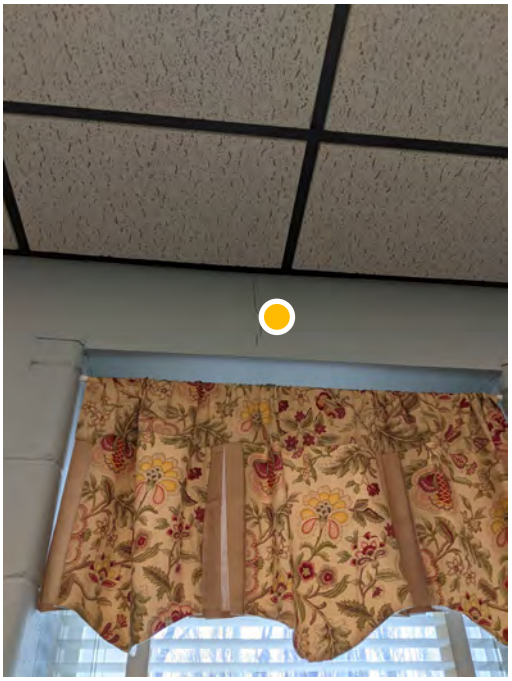


D1. 11: Concrete window sill



D1. 12: Main entrance vestibule into lobby

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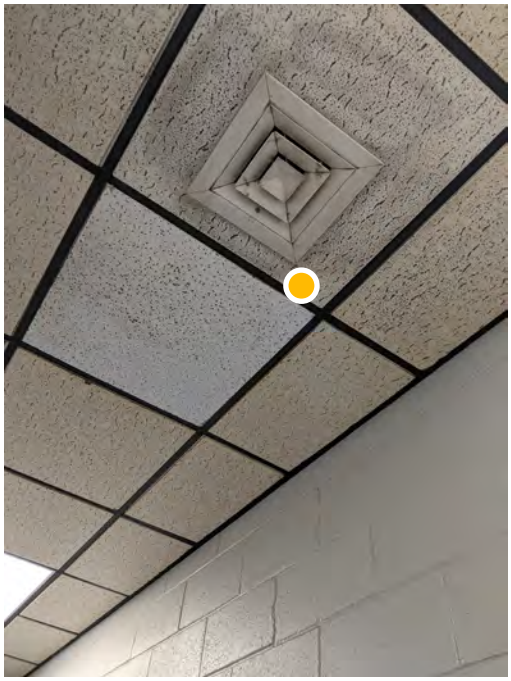


D1. 13: Gypsum board cracking above windows throughout



D1. 14: Cracked and damaged vinyl tile at File Records storage

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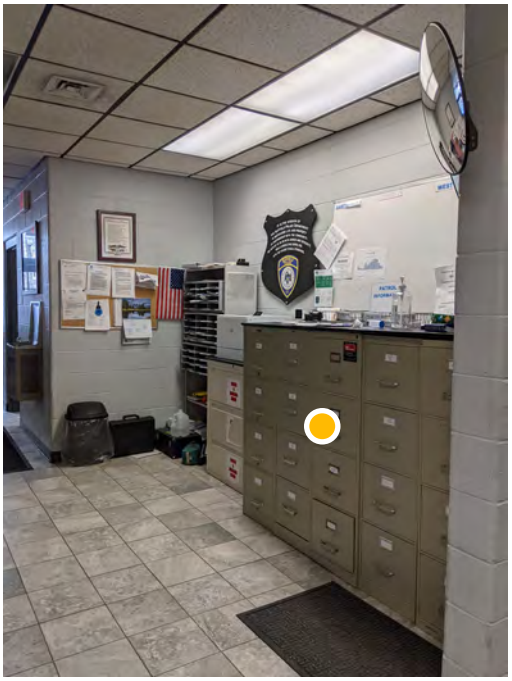


D1. 15: Stained and discolored acoustic ceiling tiles

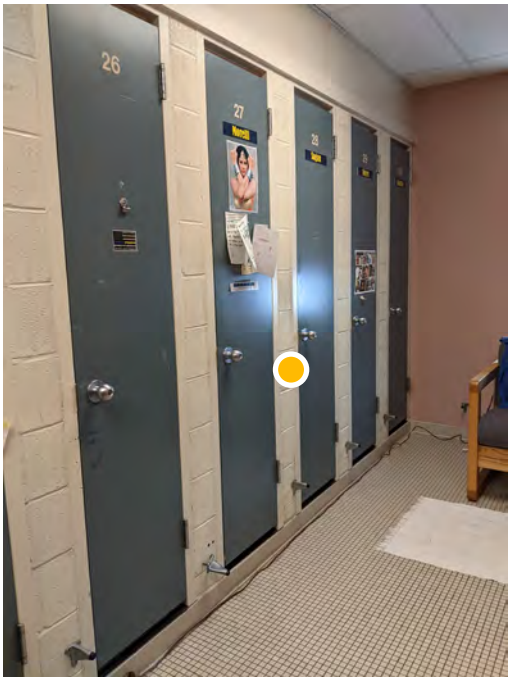


D1. 16: Kitchenette at staff break area is not accessible

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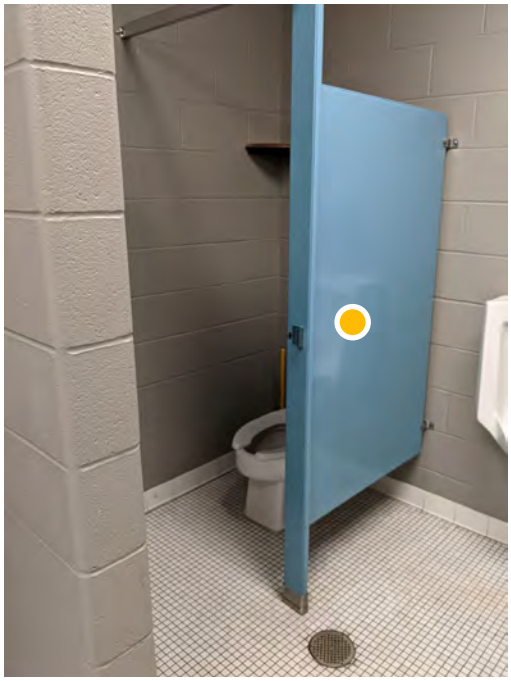


D1. 17: File storage located in corridor

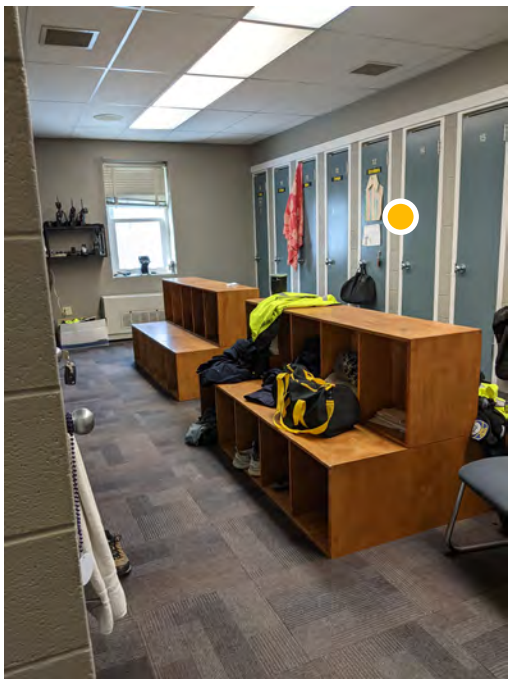


D1. 18: Male locker room; lockers are built-in and limit future flexibility

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

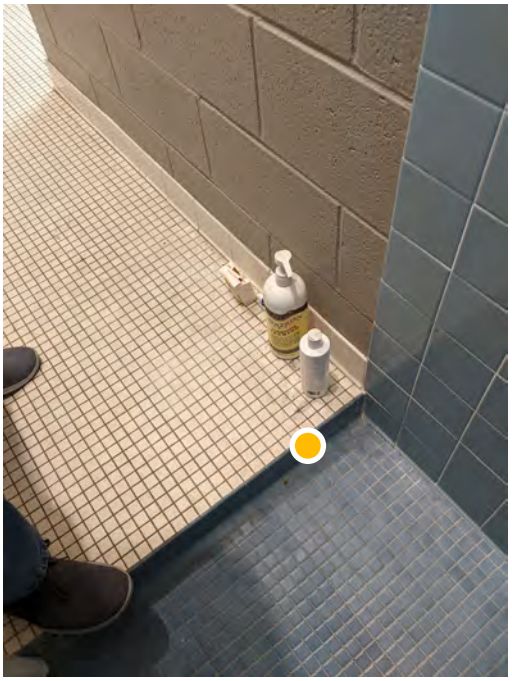


D1. 19: Toilet stalls do not have required clear space to be considered accessible

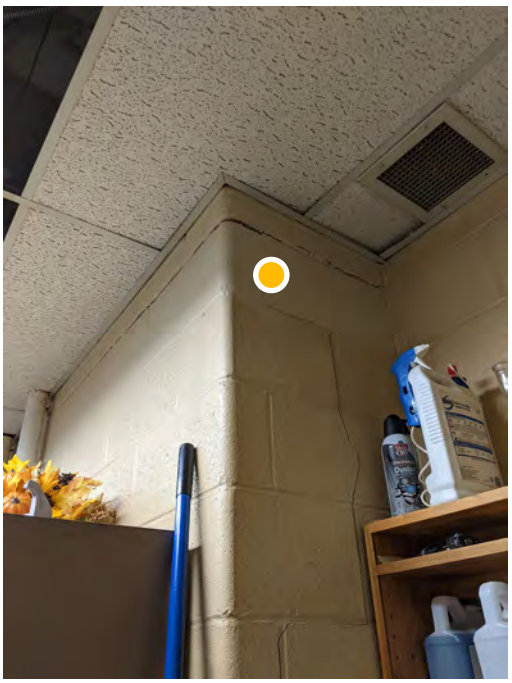


D1. 20: Male locker room; lockers are built-in and limit future flexibility

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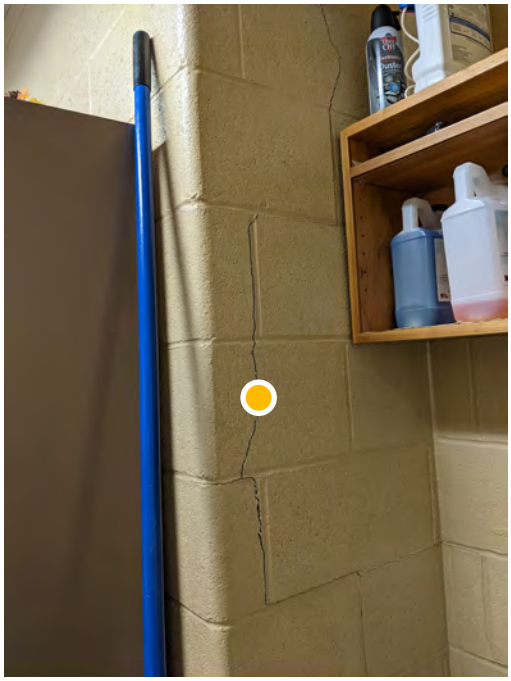


D1. 21: Step-down into shower space creates a non-accessible condition

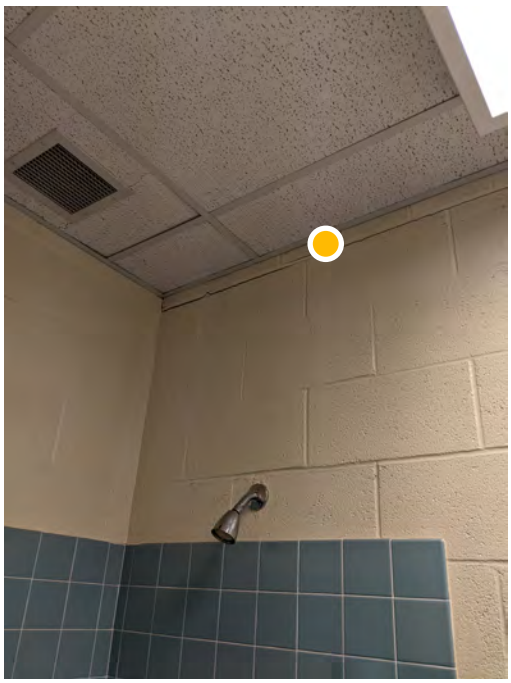


D1. 22: Cracking of concrete masonry unit walls observed throughout

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D1. 23: Cracking of concrete masonry unit walls observed throughout



D1. 24: Cracking of concrete masonry unit walls observed throughout

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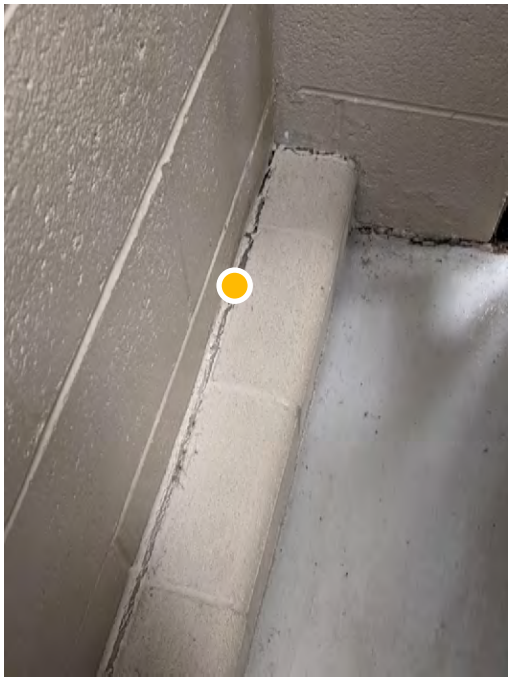


D1. 25: Male holding cells

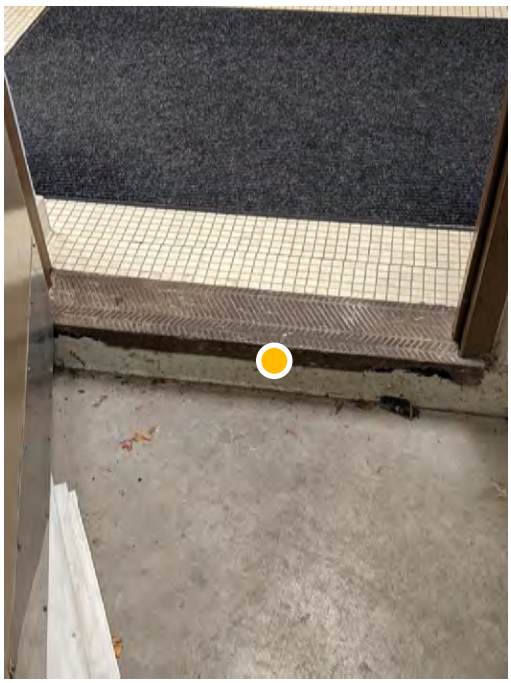


D1. 26: Cracking of concrete masonry unit walls observed throughout

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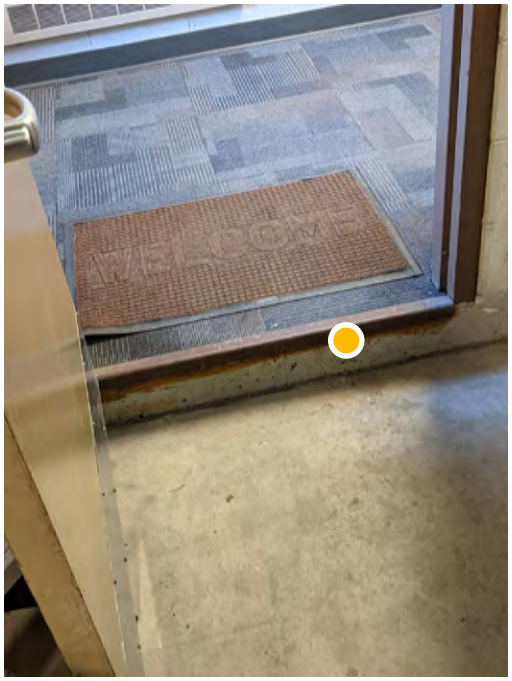


D1. 27: Cracking of concrete masonry unit walls observed throughout

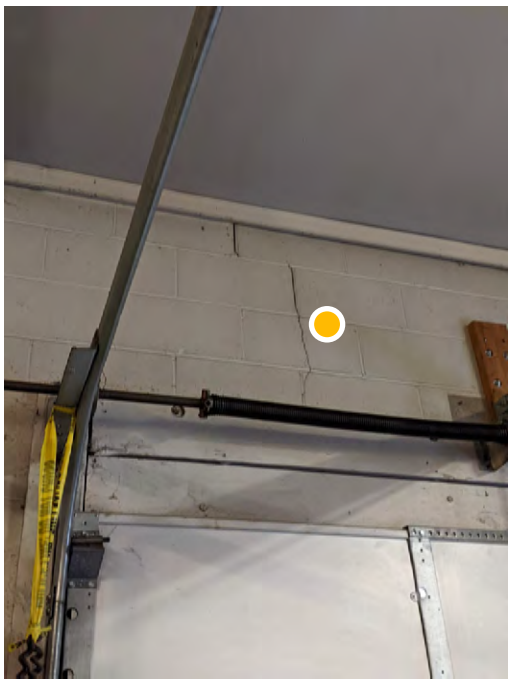


D1. 28: Step-down into Maintenance Garage and Sally Port creates a non-accessible condition

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D1. 29: Step-down into Maintenance Garage and Sally Port creates a non-accessible condition



D1. 30: Cracking of concrete masonry unit walls observed throughout

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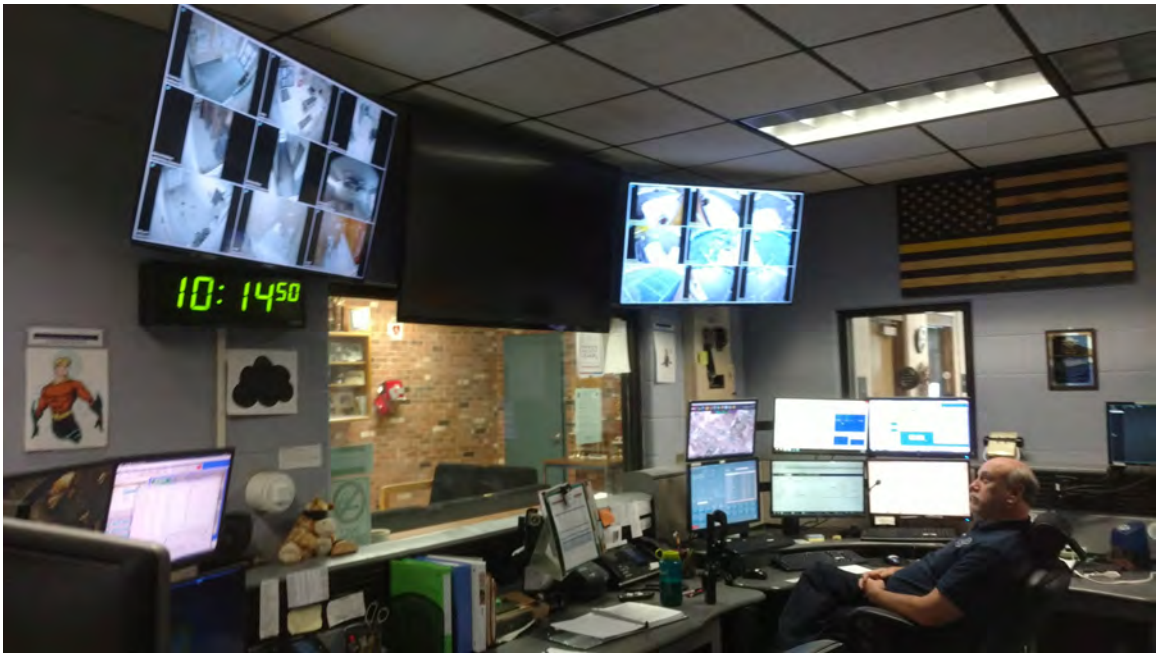


D2. 1: Automatic Transfer Switch

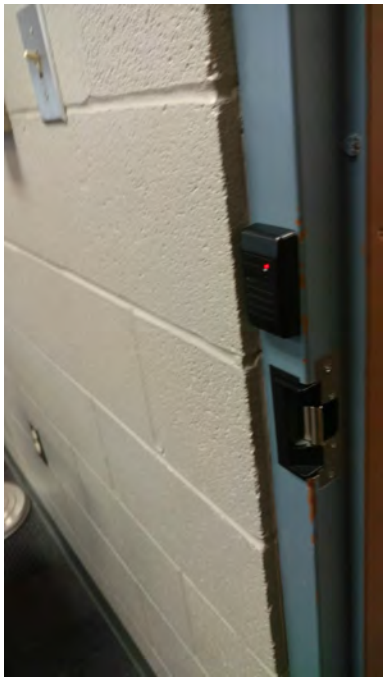


D2. 2: Communications Infrastructure

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D2. 3: Dispatch Control Room Fluorescent Lighting



D2. 4: Door Accesss Control

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D2. 5: Ductwork and Hot Water Piping in Poor Condition



D2. 6: Electrical Branch Circuit Panel

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D2. 7: Exterior Parking Lot Lighting Fixture



D2. 8: Fire Alarm Control Panel Monitoring Only)

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D2. 9: Generator Staus Panel



D2. 10: Hot Water Piping and Ductwork from HAC 2 in Poor Condition

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D2. 11: Hot Water Unit Heater



D2. 12: Indirect Domestic Hot Water Tank and Piping

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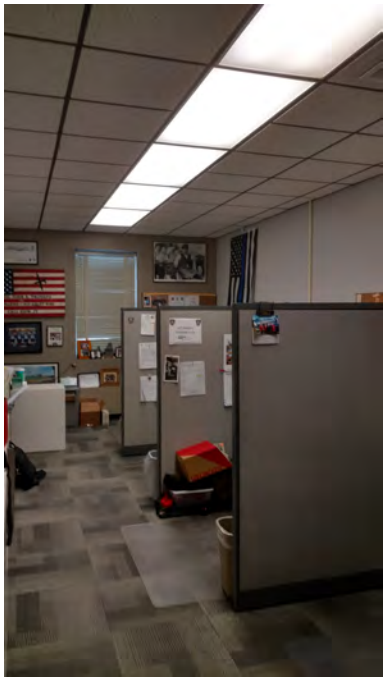


D2. 13: Indoor Air Handler (HAC 2) in Poor Condition



D2. 14: Indoor Air Handler in Mechanical Room Needs Replacement

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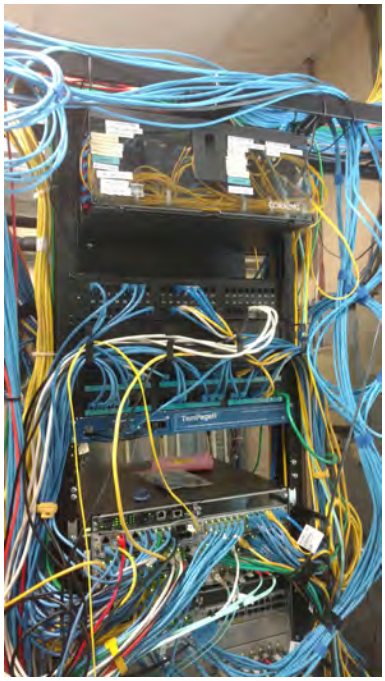


D2. 15: Interior Office Lighting Fixtures



D2. 16: Main Server Cabinets

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D2. 17: MDF Data Network Rack



D2. 18: Mitsubishi Condensing Units Located Outside

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D2. 19: Mitsubishi Ductless VRF Unit



D2. 20: Natural Gas Hot Water Boiler

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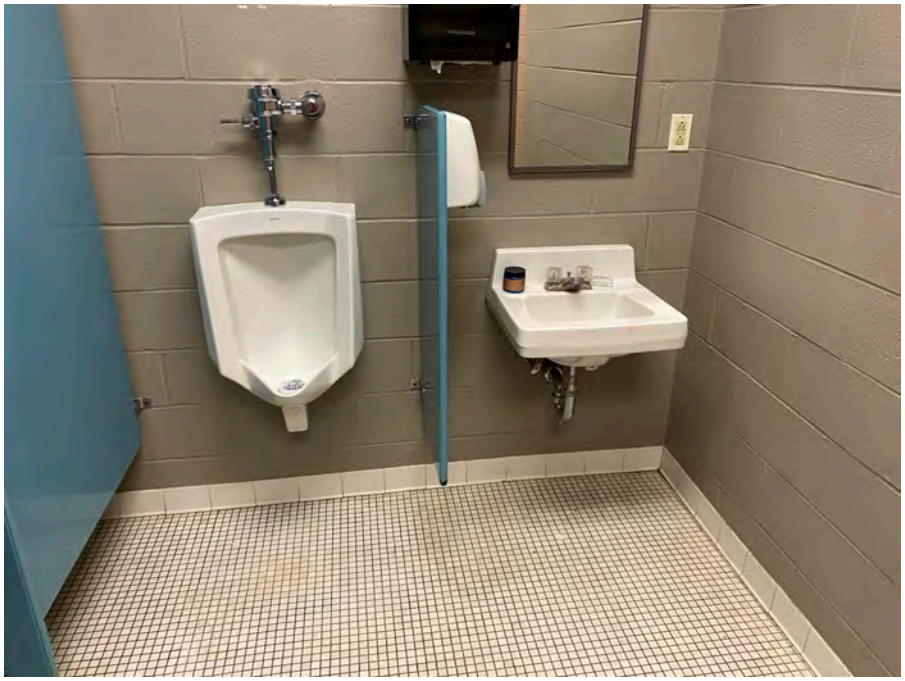


D2. 21: Natural Gas Service in Fair Condition



D2. 22: Newer PTAC Unit in Fair Condition

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D2. 23: Plumbing Fixtures in Fair Condition



D2. 24: PTAC Unit Needs Replacement

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D2. 25: Radio Tower



D2. 26: Roof Gutter Storm System

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D2. 27: Rooftop Exhaust Fans



D2. 28: Second Trane Condensing Unit Serving Indoor Air Handler

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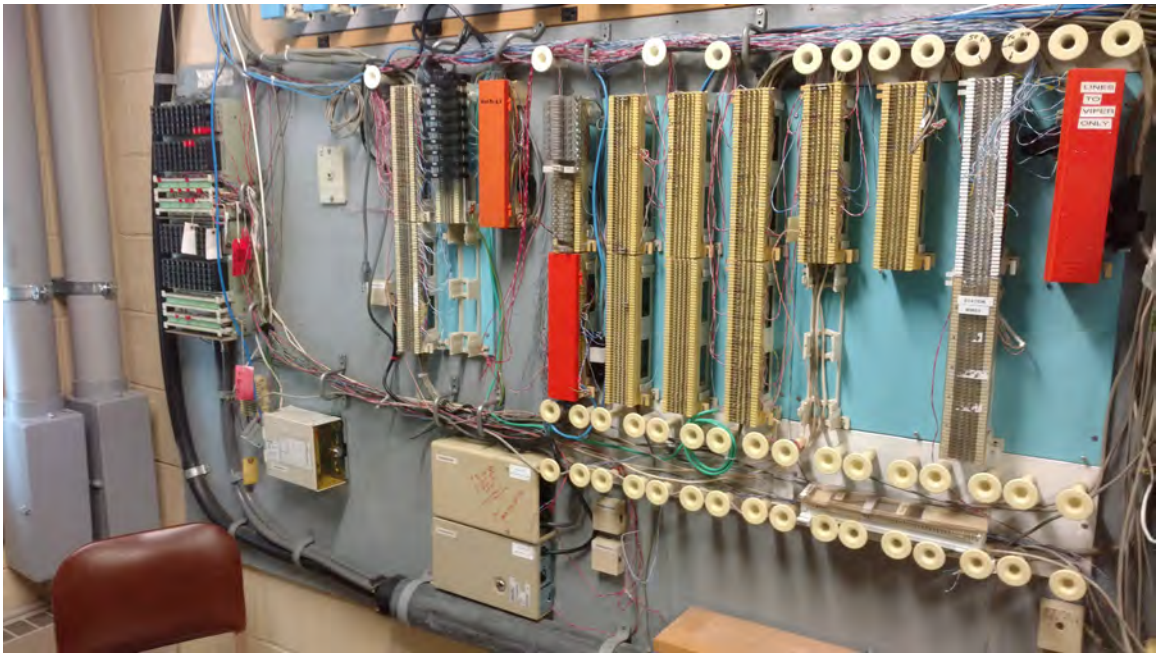


D2. 29: Security Cameras Located Outside



D2. 30: Standby Generator

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D2. 31: Telephone Distribution #1



D2. 32: Telephone Distribution #2

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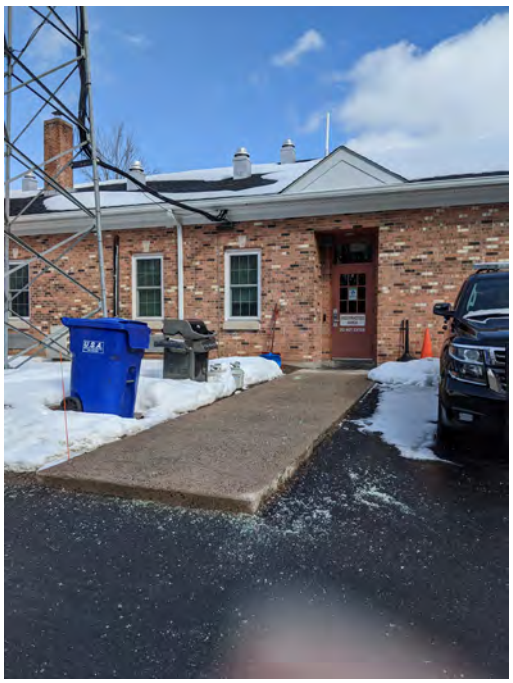


D2. 33: Trane Condensing Unit Serves Indoor Air Handler

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D3. 1: Rear impound lot

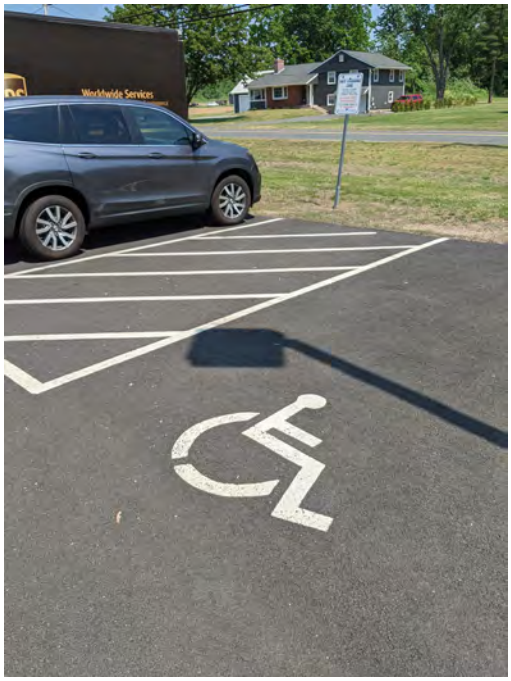


D3. 2: Rear entry located at the center of the South façade

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D3. 3: East façade



D3. 4: Parking striping has been recently repainted

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D3. 5: Parking signage requires reseating



D3. 6: Concrete bollards require reseating

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D3. 7: Parking signage requires reseating

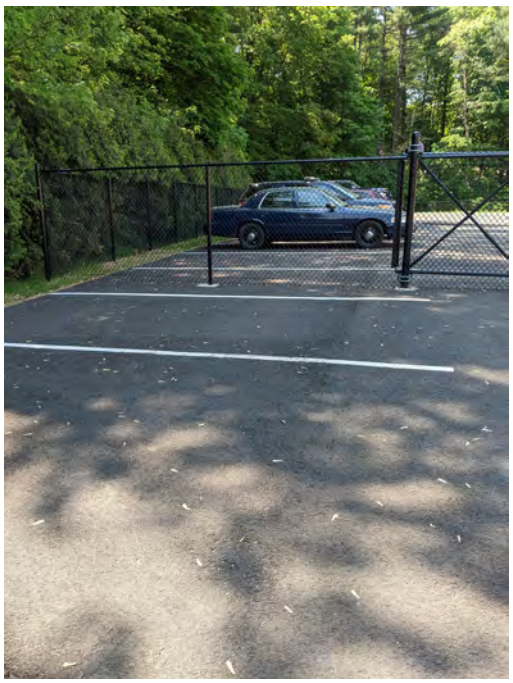


D3. 8: Flag pole East of main entrance

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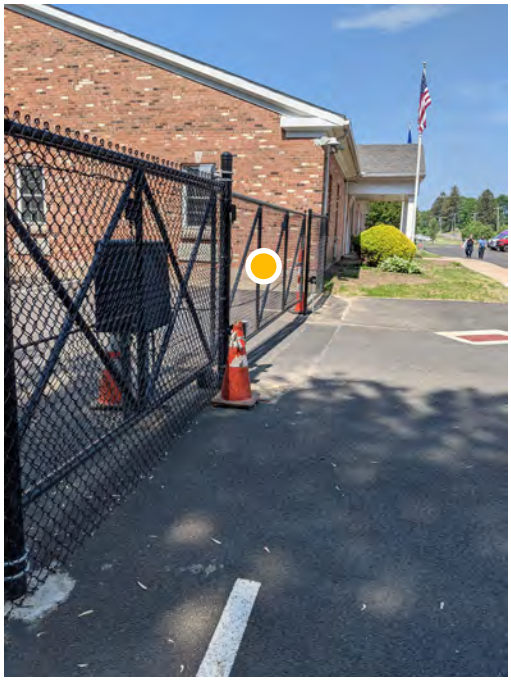


- D3. 9: Concrete basin tops are in good condition and appear to have been replaced along with recent parking lot work

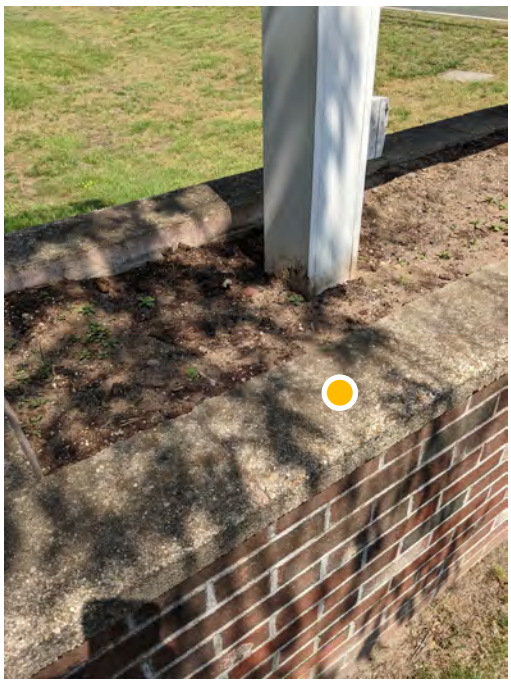


- D3. 10: Security fencing with an access-controlled gate has recently been installed, restricting access to the rear lot from the East and West driveways

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D3. 11: Security fencing with an access-controlled gate has recently been installed, restricting access to the rear lot from the East and West driveways



D3. 12: Detail view of signage mounting detail within raised brick planter; Concrete cap detail at planter is beginning to show signs of wear

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D3. 13: Overall view of site signage along Mountain Road



D3. 14: Lawn area at North side of the site along Mountain Road is patchy and requires reseeding

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D3. 15: Storm water discharge pipe located along Mountain Road



D3. 16: Concrete basin tops are in good condition and appear to have been replaced along with recent parking lot work

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D3. 17: Security fencing with an access-controlled gate has recently been installed restricting access to the rear lot from the East and West driveways

CAPITAL IMPROVEMENTS E

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

Police Department, 911 Mountain Road - ROM Summary												Building Area: 8,955				CIP Prioritization				
SYSTEM / LINE ITEM DESCRIPTION	Amount	Unit	Unit Price	Current Replacement Cost	General Conditions	Bonds, Ins., Permit	(Unforeseen Conditions)	Temporary Facilities and Controls	Subtotal - Line Item	Line Item Contingency + Approx. Soft Costs (Design, printing, advertising, etc.)	Projected Line Item Cost	Escalation, Market Premium	Projected Line Item Cost W/Premium	REMARKS	Immediate	1-3 Years	3-5 Years	5-10 Years	10+ Years
					10%	1.5%	7.5%	5.0%		12.5%		20%			0.0%	7.2%	16.8%	31.8%	56.6%
Site Improvements																				
Replace concrete sidewalk at Main entry	500	SF	$8	$ 3,850	$ 385	$ 58	$ 289	$ 193	$ 4,774	$ 597	$ 5,371	$ 1,074	$ 6,445							
Repair/replace concrete cap at site sign	34	LF	$55	$ 1,870	$ 187	$ 28	$ 140	$ 94	$ 2,319	$ 290	$ 2,609	$ 522	$ 3,130							
Repair/replace concrete apron at OH doors	30	SF	$17	$ 495	$ 50	$ 7	$ 37	$ 25	$ 614	$ 77	$ 691	$ 138	$ 829							
Exterior Improvements				$ -					$ -	$ -	$ -									
Clean masonry/exposed foundation	8,955	SF	$2	$ 19,701	$ 1,970	$ 296	$ 1,478	$ 985	$ 24,429	$ 3,054	$ 27,483	$ 5,497	$ 32,979							
Parge existing exposed foundation at south and east side of building	225	SF	$11	$ 2,475	$ 248	$ 37	$ 186	$ 124	$ 3,069	$ 384	$ 3,453	$ 691	$ 4,143							
Scrape and paint cast iron downspout boot	12	EA	$220	$ 2,640	$ 264	$ 40	$ 198	$ 132	$ 3,274	$ 409	$ 3,683	$ 737	$ 4,419							
Interior Improvements				$ -					$ -	$ -	$ -									
Replace VCT flooring in Records room	240	SF	$8	$ 1,848	$ 185	$ 28	$ 139	$ 92	$ 2,292	$ 286	$ 2,578	$ 516	$ 3,094							
Repair cracks in exterior masonry walls	300	SF	$22	$ 6,600	$ 660	$ 99	$ 495	$ 330	$ 8,184	$ 1,023	$ 9,207	$ 1,841	$ 11,048							
Repair/paint cracks in GWB walls	100	SF	$11	$ 1,100	$ 110	$ 17	$ 83	$ 55	$ 1,364	$ 171	$ 1,535	$ 307	$ 1,841							
Replace drinking fountain with ADA drinking fountain	1	EA	$3,300	$ 3,300	$ 330	$ 50	$ 248	$ 165	$ 4,092	$ 512	$ 4,604	$ 921	$ 5,524							
ADA upgrades at toilet/shower rooms	2	EA	$6,600	$ 13,200	$ 1,320	$ 198	$ 990	$ 660	$ 16,368	$ 2,046	$ 18,414	$ 3,683	$ 22,097	Relocate lav, urinal, shower. Cut back shower wall, level shower floor.						
Level floor at Processing shower	1	EA	$1,100	$ 1,100	$ 110	$ 17	$ 83	$ 55	$ 1,364	$ 171	$ 1,535	$ 307	$ 1,841	Technically infeasible without significant renovations or relocation						
Division 21 - Fire Protection				$ -					$ -	$ -	$ -									
Division 22 - Plumbing				$ -					$ -	$ -	$ -									
Water Distribution and Drainage Systems	8,955	SF	$10	$ 88,655	$ 8,865	$ 1,330	$ 6,649	$ 4,433	$ 109,932	$ 13,741	$ 123,673	$ 24,735	$ 148,408	3-5yrs useful life. Piping appears to be original to the 1988 construction and is at the end of its useful life.						
Plumbing Fixtures / Equipment	8,955	SF	$4	$ 39,402	$ 3,940	$ 591	$ 2,955	$ 1,970	$ 48,858	$ 6,107	$ 54,966	$ 10,993	$ 65,959	3-5yrs useful life. Replacement of all plumbing fixtures throughout the building.						
Water Heaters	1	EA	$33,000	$ 33,000	$ 3,300	$ 495	$ 2,475	$ 1,650	$ 40,920	$ 5,115	$ 46,035	$ 9,207	$ 55,242	10+yrs useful life. Water heater is newer and in good working condition.						
Division 23 - Mechanical				$ -					$ -	$ -	$ -									
Heating Plant (Boilers, Pumps, etc.)	1	EA	$165,000	$ 165,000	$ 16,500	$ 2,475	$ 12,375	$ 8,250	$ 204,600	$ 25,575	$ 230,175	$ 46,035	$ 276,210	10+yrs useful life. Boiler plant was updated approximately 15 years ago and is in fair working condition.						
Terminal Units	8,955	SF	$6	$ 49,253	$ 4,925	$ 739	$ 3,694	$ 2,463	$ 61,073	$ 7,634	$ 68,707	$ 13,741	$ 82,449	1-3yrs useful life. Unit heaters, fin tube radiation, and PTAC units are original to the 1988 construction and are at the end of their useful lives.						
Air Handling Systems	8,955	SF	$8	$ 68,954	$ 6,895	$ 1,034	$ 5,172	$ 3,448	$ 85,502	$ 10,688	$ 96,190	$ 19,238	$ 115,428	1-3yrs useful life. Air handling systems, ductwork, and exhaust fans of various vintages are at or past the end of their useful life.						
Control Systems	8,955	SF	$7	$ 59,103	$ 5,910	$ 887	$ 4,433	$ 2,955	$ 73,288	$ 9,161	$ 82,449	$ 16,490	$ 98,938	1-3yrs useful life. The building does not contain a BMS, all other devices controlled by standalone controls of varying vintages.						
Air Conditioning	8,955	SF	$7	$ 59,103	$ 5,910	$ 887	$ 4,433	$ 2,955	$ 73,288	$ 9,161	$ 82,449	$ 16,490	$ 98,938	1-3yrs useful life. Air handling units and PTAC units provide cooling throughout the building and are at the end of their useful lives.						
Division 26 - Electrical				$ -					$ -	$ -	$ -									
Electrical Service / Distribution	8,955	SF	$22	$ 197,010	$ 19,701	$ 2,955	$ 14,776	$ 9,851	$ 244,292	$ 30,537	$ 274,829	$ 54,966	$ 329,795	5-10+yrs useful life. Original Main Service Switch is obsolete and dates back to the original construction. Other equipment is a more recent install to upgrade and supplement the existing distribution.						
Generator	1	EA	$82,500	$ 82,500	$ 8,250	$ 1,238	$ 6,188	$ 4,125	$ 102,300	$ 12,788	$ 115,088	$ 23,018	$ 138,105	10+yrs useful life. Generator in good condition.						
Lighting - General	8,955	SF	$9	$ 78,804	$ 7,880	$ 1,182	$ 5,910	$ 3,940	$ 97,717	$ 12,215	$ 109,932	$ 21,986	$ 131,918	5-10yrs useful life. Linear fluorescent systems installed in lay-in style 2x4 fixtures.						
Fire Alarm System	8,955	SF	$11	$ 98,505	$ 9,851	$ 1,478	$ 7,388	$ 4,925	$ 122,146	$ 15,268	$ 137,414	$ 27,483	$ 164,897	1-2yrs useful life. Fire alarm system does not appear to be installed for occupant notification.						
Subtotal for CIP Items				**$ 1,077,467**					**$ 1,336,058**		**$ 1,503,066**	**$ 300,613**	**$ 1,803,679**							
Cost Per Square Foot				**$ 120.32**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 149.20**	**$ -**	**$ 167.85**	**$ 33.57**	**$ 201.42**							

Building Vintage Summary			
Building Vintage	**Area**		**% to Ttl**
Building Vintage ~ 1988	8,955	V1	100.00%

FIRE DEPARTMENT 1 (HQ)

73 MOUNTAIN ROAD, SUFFIELD, CT

CONDITIONS ASSESSMENT & MASTER PLAN

Tecton ARCHITECTS

3.8


SUFFIELD FIRE STATION
73

TABLE OF CONTENTS

INTRODUCTION ..... **A**

Summary & Analysis A1

DATA & RANKINGS ..... **B**

Building Data B1

Condition Rankings B2

EXISTING CONDITIONS NARRATIVE ..... **C**

Architectural *(Building & Structure)* C1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* C2

Site *(Civil, Landscape, Utilities)* C3

PHOTO LOG ..... **D**

Architectural *(Building & Structure)* D1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* D2

Site *(Civil, Landscape, Utilities)* D3

CAPITAL IMPROVEMENTS ..... **E**

Capital Improvements E1

INTRODUCTION A

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

Fire Station #1 serves as the headquarters for the Town of Suffield. The Apparatus Bay doors face North exiting onto Mountain Road. There are two man-doors located on the West façade and one located on the East, one has an exterior canopy and columns. One entrance is located on the South and has an exterior stair and more extensive canopy and railing system. The Fire Headquarters is located on the East side of the Town Hall. The apparatus bay apron exits the North of the site onto Mountain Road. Recent site renovations have added parking along the West and South side of the site.

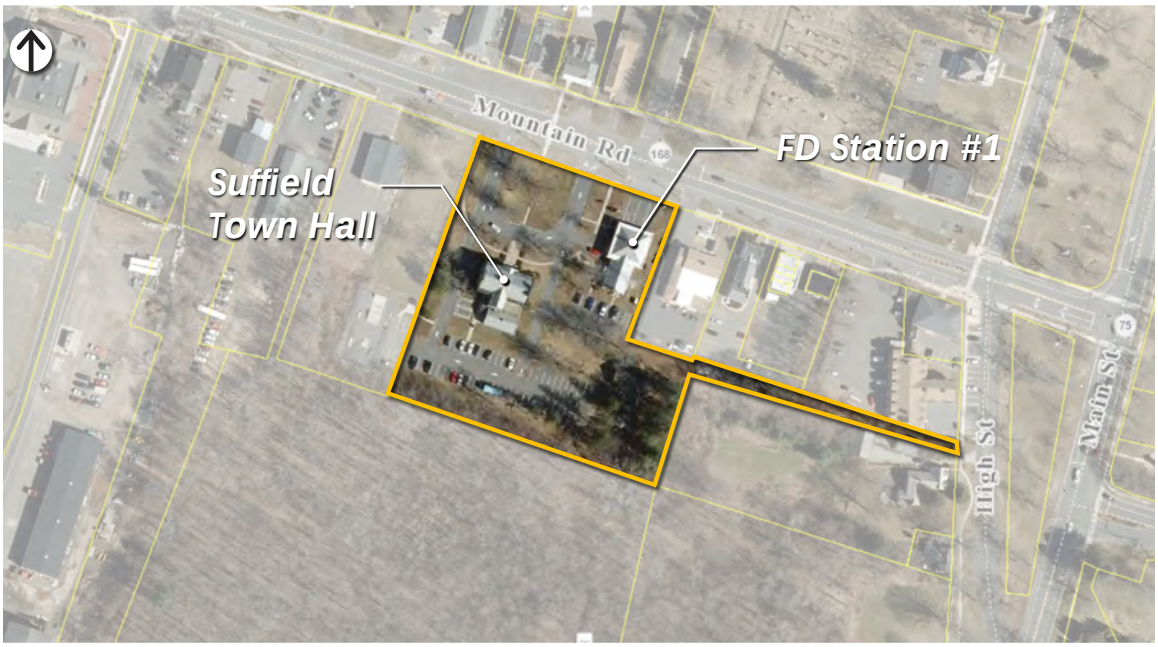
Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

BUILDING AREA/SITE	4,200 sf / 3.49 acres
AGE/CONSTRUCTION	1962 (60)

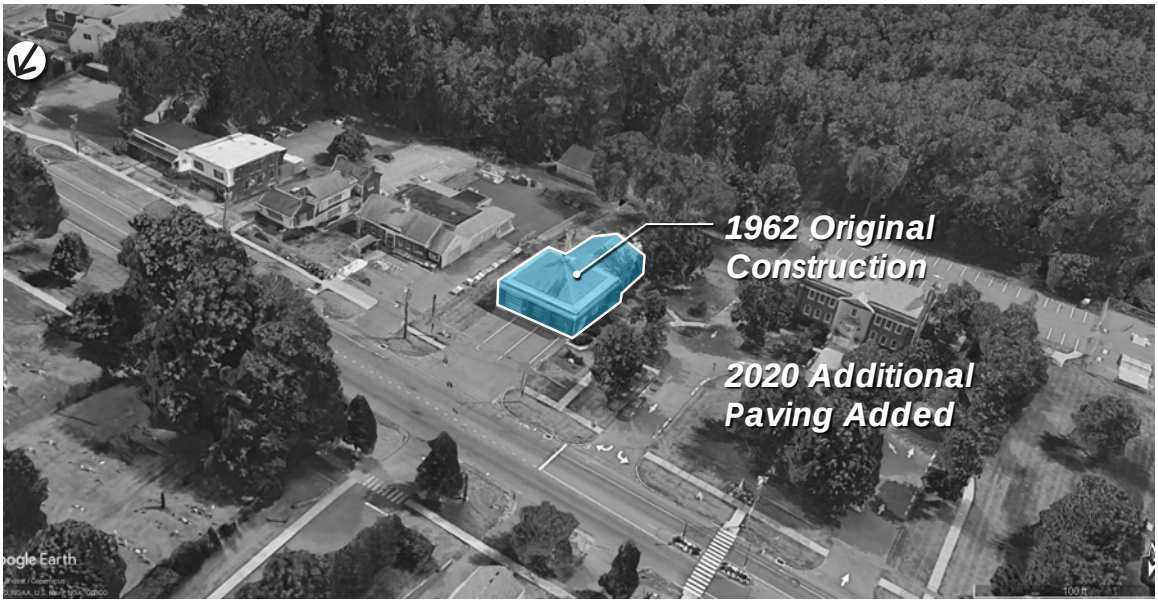
***Building Condition*: Poor**

- Recent expansion to paved site area though differential settlement and cracking in existing concrete sidewalks has remained
- Minor rot repair and repainting at wood trim work, railings, and louvers
- Vinyl asbestos tile present in the building
- Wood fiber tile ceilings present throughout
- No accessible entrances and most plumbing fixtures are non-accessible
- All MEP Systems are old and past their useful life.
- No Public Lobby, Entry or restrooms
- Fitness equipment is currently in basement
- Insufficient Apparatus Space and bay storage, and lacking physical training elements
- Decontamination and SCBA requirements per NFPA standards

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



A1. 1: Aerial View of Existing Fire Department 1 (HQ) and Property



A1. 2: Vintage Plan

DATA & RANKINGS B

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

B. DATA & RANKINGS

B.1 Building Data

The Facility:

Name:	**Fire Department 1 (HQ)**
Address:	**73 Mountain Rd**
Type / Use:	**Fire Department HQ**

Total Building Area (SF):	4,200	**Original Construction:**	1962
Site Area (acres):	3.49	**Additions (dates):**	N/A
Stories (above grade):	1	**Construction Type(s):**	
Building / Framing Materials:	Brick/Masonry	**Roof Types & Age:**	Slate No warranty data
Split-level / ramps (interior):	No	**Heating (types):**	Hot Water
Stairs (interior):	Yes	**Fuel Types:**	Natural Gas
Elevator:	No	**Cooling (centralized):**	Partial, Fan Coil Unit
Basement:	Yes	**Ventilation:**	Exhaust Only
Mezzanine (finished)	No	**Electrical:**	208/120 volt, 3 ph, 4 wire 200 amp
Crawl Space / Tunnels:	No	**Generator:**	Kohler 45RZG 45 kW natural gas
Auxiliary Buildings:		**Fire Alarm:**	Simplex 4001 (minimal coverage)
Full ADA Compliance:	No	**Sewer / Septic**	Sewer
	Toilets, Kitchenette Non-ADA	**Municipal Water / Well**	Municipal Water
		Sprinklered (full / partial):	N/A
School Data		**Parking Count:**	27
Enrollment(2020):	N/A		
Enrollment 10-yr:	N/A	**Meals:**	N/A
Net Enrollment Change:	N/A	**Meal Prep on site?:**	N/A
Location in Town:	N/A	**Start Time:**	N/A
Grade Structure:	N/A	**Dismissal:**	N/A
Pre-K?:	N/A	**Buses:**	N/A
Athletic Fields:	N/A	**Additional Programs:**	N/A

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
2 Poor [P] May require attention in 2-5 years
3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Exterior

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Roofing	Slate roof	3	No install/warranty information provided
	Flashing / joints	3	N/A
	gutters / downspouts	2	Missing clips and broken downspouts
	Fascia / trim	3	Some repair/paint touch-up required
Walls	Masonry (unpainted)	2	Repair needed at chimney
	Joints (Building or expansion)	2	N/A
	Wall mounted fixtures	2	Emergency lighting missing cover
	Foundations – exposed concrete	3	Some staining present
Entrances	Entrance Doors	1	No accessible entrances
	Overhead Doors	3	Thresholds beginning to rust
	Soffits / Canopy	3	Some paint touch-up required
Windows	Aluminum	3	Age unknown
	Window Screens (exterior)	3	N/A
Walkways / site stairs	Sidewalks	1	Some cracking and diff. settlement
	Bituminous concrete curb	4	N/A
Drives / parking lots	Bituminous concrete pavement	2	Apparatus apron beginning to crack
	Pavement striping	4	N/A
Landscaping	Lawn	2	Requires new seed due to recent work
	Plants	4	Recently replaced
	Mulch beds	4	Recently replaced
	Trees	4	Recently replaced
Recreation	-	-	N/A
Other Structures	Site lighting – poles and fixtures	-	N/A
	Vehicular signage	-	No signage at time of visit
	Catch basin tops	4	Recently replaced
	Catch basin structures	4	Recently replaced

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

B.2 Condition Rankings

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Vintage: **V1** **V2** **V3** **V4**

Interior

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Flooring	Concrete (Epoxy Coated)	3	N/A
	Concrete (Basement)	3	Staining/cleaning
	Ceramic Tile	3	Cleaning required
	Vinyl Asbestos Tile	1	Abatement or Encapsulation required
	Carpet	3	N/A
Walls Surfaces	Masonry (Painted)	3	N/A
	Gypsum board	3	Minor patch and paint throughout
	Tile	3	N/A
Ceilings	Gypsum board ceilings / soffits (App. Bay)	3	N/A
	Acoustic Panel Ceiling	2	Tiles curling
	Wood fiber ceilings	1	Removal recommended
Interior trim	Wood - Wall Base / Door / Window	3	
	Wall Base – Vinyl / Wood	3	
Interior doors	Wood doors	3	
	Hollow metal doors	3	
	Hardware	3	
Built-ins	Casework	1	Non-accessible kitchen
	Countertops	3	
Toilet Facilities	Fixtures	1	Staining, non-accessible fixtures
	Partitions	3	Minor rust spots
	Accessories (dispensers, driers)	3	
Athletics	-	-	N/A

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
2 Poor [P] May require attention in 2-5 years
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4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Building Systems

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Fire Protection	Fire Alarm System & Devices	2	Non-compliant system, obsolete
	Fire suppression (infrastructure / devices)	-	N/A
Plumbing Systems	Infrastructure (pipes, drains, etc.)	1	Infrastructure is past its useful life
	Fixtures	2	Fixtures are past their useful lives
	Overall efficiency	2	Piping/fixtures need to be updated
Mechanical / HVAC	Infrastructure (pipes, ducts, etc.)	1	Infrastructure is past its useful life
	Heating systems	4	Boiler is in good working condition
	Cooling systems	2	Minimal cooling throughout
	Fixtures & equipment (Interior)	2	Nearing end of useful life
	Fixtures & equipment (Exterior/Roof top)	2	Exhaust fans need to be updated
	Overall efficiency	1	Overall performance is very poor
Electrical (Service)	Infrastructure (panels, wiring, etc.)	3	Infrastructure in serviceable condition
	Service & distribution	4	In good working condition
	Generator	2	At end of life but functional
	Automatic Transfer Switch	4	In good working condition
	Other	1	Traffic control system does not work
Electrical Lighting	Infrastructure (panels, wiring, etc.)	2	Infrastructure in poor working condition
	Fixtures (Interior)	1	Building deserves a thorough upgrade
	Efficiency (incl. natural & artificial light distr.)	1	Mostly non-LED lighting
Security	Access Control	-	N/A
	Cameras	-	N/A

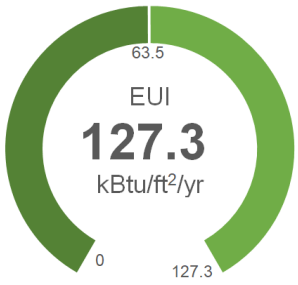
FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

B. 2 Benchmarking

MECHANICAL, ELECTRICAL, FIRE PROTECTION, SECURITY			
SYSTEM	**EQUIPMENT LIFE EXPECTANCY**	**EQUIPMENT AGE**	**USEFUL LIFE PERCENTAGE**
Fire Protection System	40 Years	N/A	N/A
Plumbing Water Heater	25 Years	10 Years	40%
Plumbing Piping & Fixtures	40 Years	40 Years	100%
Mechanical Boiler Plant	30 Years	10 Years	33%
Mechanical Piping & Equipment	40 Years	40 Years	100%
Mechanical Air Conditioning	25 Years	20 Years	80%
Mechanical Controls	20 Years	N/A	N/A
Electrical Service & Distribution	40 Years	20 Years	50%
Electrical Lighting	30 Years	40 Years	133%
Electrical Generator	40 Years	25 Years	63%
Fire Alarm	20 Years	30 Years	150%

Fire Station #1

Code Minimum Fire Station = 63.5 EUI



EXISTING CONDITIONS NARRATIVE C

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

C.1 Architectural

Construction:

Exterior walls are constructed from load-bearing concrete masonry units with a brick veneer and the roof structure is 2"x10" wood rafters.

Exterior:

EXTERIOR (GENERAL): The Apparatus Bay doors face North exiting onto Mountain Road. There are two man-doors located on the West façade and one located on the East, one has an exterior canopy and columns. One entrance is located on the South and has an exterior stair and more extensive canopy and railing system.

WALLS: The brick exterior walls are in good condition considering the age of the building. Some minor masonry repair is required at the top of the brick chimney. A small amount of exposed foundation can be seen along South and East facades where some minor staining is present.

WINDOWS/DOORS/ENTRANCES: Doors, trim, and aluminum windows around the building are in good condition. Some minor rot repair and repainting is required at a few windows, entrance canopies, and the wood railing at the South steps.

ROOF: The slate roof and snow guards are in good condition. The gutter and downspout system are in fair condition. Some downspout clips are missing and should be replaced. Wood trim at roof edge is in similar condition to other wood trim around the building and minor repair and painting is required.

Interior:

INTERIOR SPACES (GENERAL): While in good condition, vinyl asbestos tile is present throughout the building. Most of this flooring is not in a friable state although some cracking is beginning to show on the green tile near the apparatus bay. Wood fiber ceilings are also present throughout and are in fair condition. Some corners of the ceiling are beginning to peel and deteriorate. It is recommended to abate or encapsulate all vinyl asbestos tile and wood fiber ceilings. General finish material at most interior walls is painted plaster.

OFFICES: Offices throughout have carpet floors in good condition. Office spaces often double as bunk space.

TOILET FACILITIES: Toilet facilities throughout the building have tile floors and full/partial wall tile, both in good condition. Some minor staining is present at toilet room lavatories.

KITCHEN: Casework and countertop in the kitchen are dated but in fair condition. There is an acoustic panel ceiling in the kitchen area and the tiles are beginning to curl.

APPARATUS BAY: The floors in the apparatus bay are epoxy-coated concrete with painted vehicle bay striping. The walls are painted masonry. All aspects of the apparatus bays are in good condition with exception to the steel angle at apparatus bay doors that are beginning to rust.

FITNESS ROOM: Due to space limitations of the existing building, some programmatic elements are

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

located on the basement level. While general conditions of the basement can be considered fair, these program elements would be better located on the main level.

Code & Safety

ADA: There are no accessible entrances on the exterior of the building. All entrances have at least one step. Toilet and shower facilities throughout the building are not considered ADA compliant. Roll-in showers are not provided in the building and toilet room sinks do not have the proper pipe insulation or controls to be considered compliant. The kitchen does not have clear space below the sink to be considered an ADA-compliant sink.

SAFETY: The building is non-sprinklered. A step is present between apparatus bay and the rest of the building. This could potentially be a tripping hazard in a typical fire response situation. Differential settlement at exterior sidewalks has created a condition that could also be considered a tripping hazard.

C.2 MEP

B.4 Plumbing/Fire Protection:

HOT WATER GENERATION: The buildings existing domestic hot water is generated via one indirect water heater. The water is heated by the boiler and stored in the water heater tank. The water heater is located in the basement and was installed approximately 5-10 years ago. It appears to be in fair working condition.

DOMESTIC WATER SERVICE: The existing building is currently served by a municipal water service. This service is 2" when it enters the building and is located in the mechanical room. The service appears to be original to the 1961 construction and is in poor working condition.

DOMESTIC WATER PIPING: Domestic water piping was observed to be a combination of copper and steel piping. The piping appears to be original to the 1961 construction and is past the end of its useful life.

PLUMBING FIXTURES: The plumbing fixtures in the building appear to be from the original 1961 construction and are at the end of their useful lives.

SANITARY SERVICE: The building is served by a municipal sanitary service. The sanitary service entrance is 4" and located underground outside of the East side of the building.

STORM SERVICE: The building currently uses a gutter system to collect and transfer all storm drainage. The roof is pitched on either side to lead the storm into the gutters. The gutters distribute the storm drainage onto the ground through the use of splash guards. The storm service appears to be in good working condition.

NATURAL GAS SERVICE: The building currently has a natural gas service that serves the boiler and generator. The natural gas service is located on the wall outside of the building. The gas service and corresponding piping is old and at the end of its useful life.

FIRE PROTECTION: There is no fire protection system in this building.

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

B.5 Mechanical:

HEATING SYSTEMS: The existing heating plant consists of one cast iron natural gas fired boiler manufactured by Well McLain. The boiler has an input of 643 MBH and supplies hot water heating to the building. The boiler is approximately 5 to 10 years old and is in good working condition.

HOT WATER PIPING: The hot water piping consists of steel and copper pipe throughout the building. The majority of the hot water piping is original to the 1961 building construction and at the end of its useful life. New piping connections at the boiler appear to be in good working condition.

TERMINAL UNITS: The building contains a mixture of hot water convectors, unit heaters, and fin tube radiation. These terminal units provide the heating to a majority of the rooms including the Apparatus Bay. These units appear to be old, possibly original to the 1961 construction, and are at the end of their useful lives. There is a ducted fan coil unit located inside. This unit provides heating and cooling to some spaces through a direct expansion cooling coil and hot water heating coil. This unit has its own condensing unit located outside and both appear to be approximately 20 years old and is in fair working condition. There are two Fujitsu ductless wall mounted split AC unit in the IT room. The split units have their own condensing unit outside and all appear to be newer in good working condition. The building contains a vehicle exhaust system in the Garage manufactured by Plymovent that appears to be in good working condition.

VENTILATION SYSTEMS: The ventilation in this building is through operable windows only. There is no air handling unit that brings in outdoor air. There are exhaust fans that serve the Apparatus Bay, Kitchen, and Toilets rooms. The exhaust fans remove the exhaust air from the building. The fans appear to be original to the construction of the building and are at the end of their useful lives.

COOLING SYSTEMS: There is no cooling plant in the building. The fan coil unit provides some cooling to certain areas and the wall mounted split AC unit provides cooling to the IT room. The condensing units outside provide the fan coil unit and split AC unit with refrigeration for the direct expansion cooling coil. Both appear to be in good working condition.

DUCTWORK: There is minimal ductwork throughout this building. There is exhaust ductwork serving the exhaust grilles and fans. This ductwork appears to be original to the building and at the end of its useful life.

CONTROLS: There is no building management system (BMS) in this building. There are electrical space sensors in various rooms to control the heating.

B.7 Electrical:

MAIN ELECTRIC SERVICE: The building is fed with underground electric service at 208/120 volt, 3 phase, 4 wire rated for 200 amperes. The service originates at CL&P pole #852 from a pole mounted transformer array providing a total capacity of 45 kVA. Service conductors run underground to a self-contained meter socket located on the building exterior eastern elevation. The service capacity is adequate for the buildings current use

The electric meter is installed on the building exterior in hot sequence with the main disconnect switch which is located in the building interior. The main disconnect is a 200 ampere enclosed circuit breaker.

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

Electrical records were supplied from Nov / Dec months. Records from June / July / August would be preferred to determine maximum demand and service adequacy for renovation or expansion.

ELECTRICAL DISTRIBUTION: The service main disconnect switch feeds into a 200 ampere automatic transfer switch. The transfer switch supports the building full load transferring from utility to the available standby generator. The transfer switch feeds into the array of branch circuit panel boards to support the full building load

Branch circuit distribution consists of a series of 208/120v – 3ph – 4w – 200 ampere load center type panels manufactured by Siemens dating to approximately 2011. The panels feature a main circuit breaker in each with the feeder gutter tapped from the 200 ampere service feeder. The branch circuit panels are all 208/120v – 3ph – 4w – 200 ampere 42 pole panels that contain various circuit breakers serving fire house equipment

Existing receptacle power provisions within the spaces are code compliant but could be improved with additional devices

Existing wiring systems are building wire in conduit and metal clad cable.

GENERATOR: Standby power is provided from a Kohler 45RZG 45 kW natural gas fired pad mounted generator. Per the maintenance logs this unit has 798 running hours, an extremely high number. This unit is beyond useful life but can continue in service with a good preventative maintenance program.

LIGHTING SYSTEMS: Lighting systems within the building consisted of a combination of incandescent recessed / surface mounted fixtures and surface mounted linear fluorescent 1 x 4 systems for interior office applications. The apparatus bay area utilizes new LED fixtures. All of the non-LED type fixtures appear to be from the original building fit-up

Emergency lighting elements could not be identified as a cohesive system. This building deserves a thorough upgrade throughout

Exterior emergency egress lighting was not readily apparent at any of the egress doors. A central inverter system with transfer relays could not be found within the building

Exterior lighting consisted of black lantern style decorative light fixtures on the front and west side

Lighting controls consist of wall toggle switches. Occupancy sensors were not installed. An exterior photocell control is incorporated for dusk to dawn control capability.

FIRE ALARM SYSTEM: Fire Alarm protective signaling provisions exist in the building and are administered through a Simplex 4001 control panel. The panel appears to be fully functional. The panel and peripheral equipment dates to approximately 1990 and is obsolete. The panel is a 4 zone hardwired panel and does not utilize addressable devices. The existing occupant notification device layout should be reviewed to identify areas of non-compliance with NFPA standards as it appears the layout may not be fully code compliant. The building does not appear to be fit up with any smoke and heat detection devices.

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

COMMUNICATION SERVICES: Cable TV is service is utilized in the building. Service cable enters the building on the east side via the underground cable.

T1 communication equipment exists at the MDF service backboard.

Fiber service interconnects the Annex Office building with the Town Hall building via a 12 strand multi-mode and a 6 strand single mode.

Communication service entrances exist within the basement area for copper voice and fiber infrastructure. One MDF data rack is provisioned within the basement located in the radio equipment area. The rack consists of a 2 post rack with fiber patch panels and network switches. The buildings internal network drops land directly on the network switches without being cross-connected through a patch panel. Network data and voice outlets exist within the building but are minimal provisions at best as there are 18 active drops. Wireless access points are provisioned throughout and appear to be the Aerohive AP250 series.

25 Pair copper cabling for voice communications appear to extend to or from the highway building.

12 pair copper cabling for voice communications appears to be extended from the town hall phone room.

Ceiling speakers were observed throughout the space but it was not clear what could have been sourcing audio to these speakers. The system featured wall mounted volume controls in various locations.

MISCELLANEOUS SYSTEMS: The apparatus bay was fit up with red/green traffic control signal system but personnel at the building indicated the system has fallen into disrepair and is not functional. It is desirous to have this system available.

Radio tower and radio equipment are situated in an open part of the basement and are not contained within a hardened room/support center.

A community alert siren is mounted on the roof peak with a siren controller located within the basement area. It was not clear if the equipment is utilized but appeared to be functional.

C.3 Site

SITE (GENERAL): The Fire Headquarters is located on the East side of the Town Hall. The apparatus bay apron exits the North of the site onto Mountain Road. Recent site renovations has added parking along the West and South side of the site.

WALKWAYS/SITE STAIRS: Differential settlement and cracking was observed at the concrete sidewalks at rear entry. At the time of the site visits, some sidewalks had not yet been completed.

ROADWAYS/PARKING: At the time of site visit (Spring 2021), an expansion of site paving was underway to the West of the building. This project, which added additional parking spaces and re-routed existing sidewalks, was still unfinished when an additional site visit occurred on May 26, 2021. The apparatus bay apron is in good condition and new catch basins have been installed as a part of this project.

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

Landscaping:

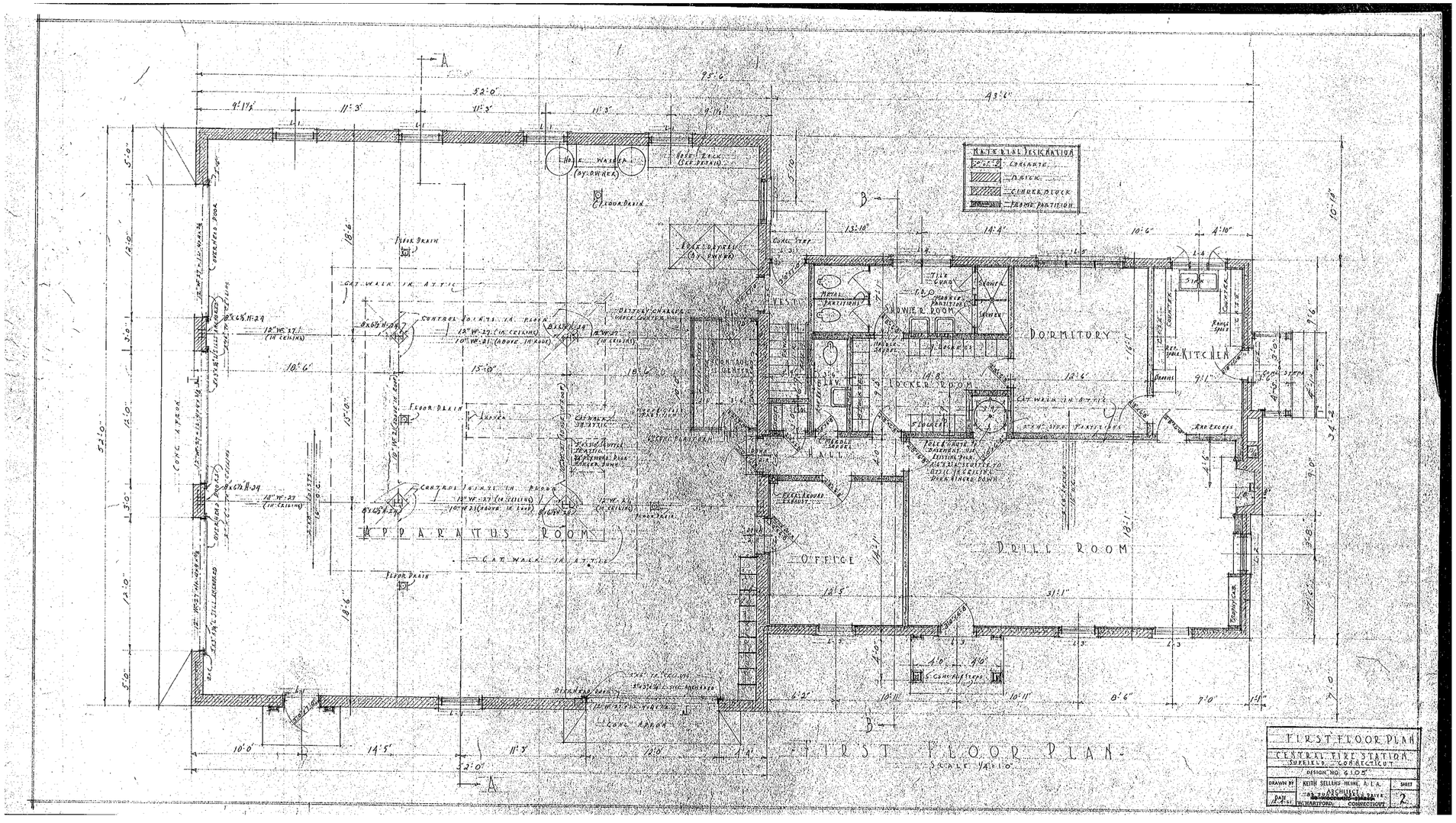
SITE FEATURES: A flagpole and plaque are located on the North façade adjacent to apparatus bay apron. Site lighting is only present on the West side of the site along the Town Hall drive.

OTHER STRUCTURES: A radio tower is located along the East façade of the building. Although it was not looked at as a part of this study, a fire museum is located behind the main building on the same site.

PHOTO LOG D

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D1. 1: Northwest corner



D1. 2: Main entry is not wheel chair accessible

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D1. 3: Window well to lower level



D1. 4: South façade

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D1. 5: Radio tower



D1. 6: Rear Staff entry is not wheel chair accessible; wood trim and railing is decaying

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D1. 7: Downspout splash block is under-sized, some soil erosion observed



D1. 8: Rear entry along East façade is not wheel chair accessible

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

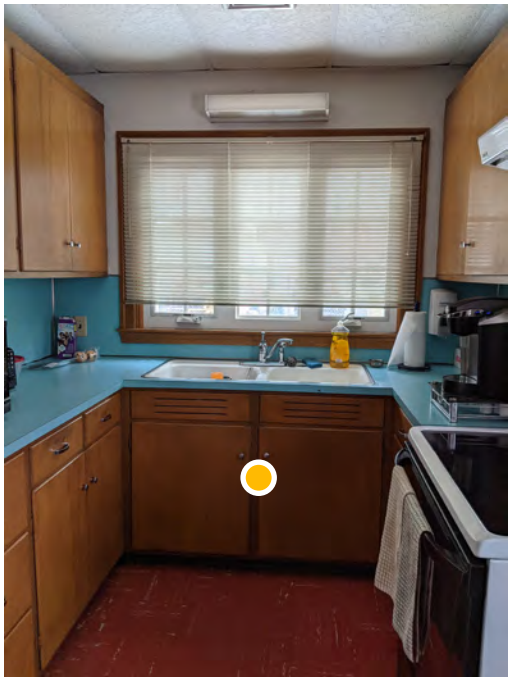


D1. 9: Aluminum windows located throughout

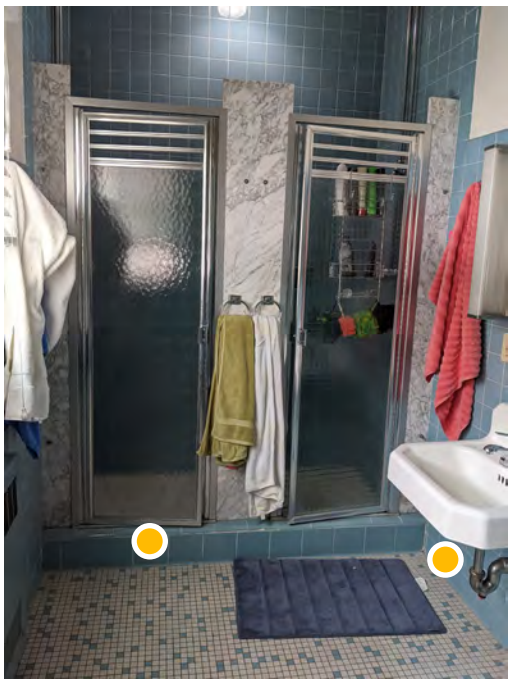


D1. 10: Fireplace in Day Room

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D1. 11: Kitchen sink does not have required clear space to be considered accessible



D1. 12: Shower facilities are not wheel-chair accessible and sink does not have required pipe insulation to be considered ADA-compliant

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

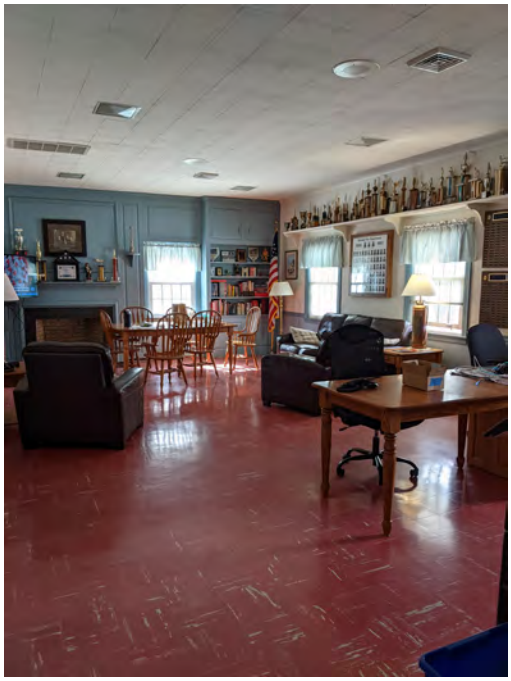


D1. 13: Wood fiber ceilings throughout are beginning to peel away from substrate



D1. 14: Toilet room off main corridor is under-sized and sink does not have required pipe insulation to be considered ADA-compliant

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D1. 15: Day Room

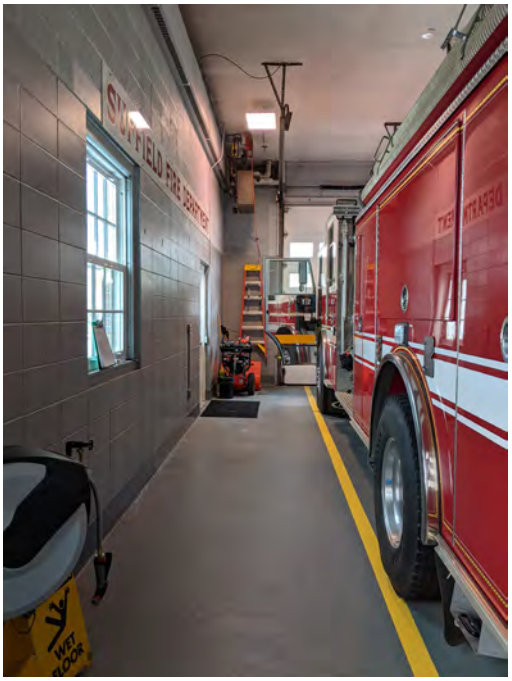


D1. 16: Office and bunk space has been combined due to space limitations

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

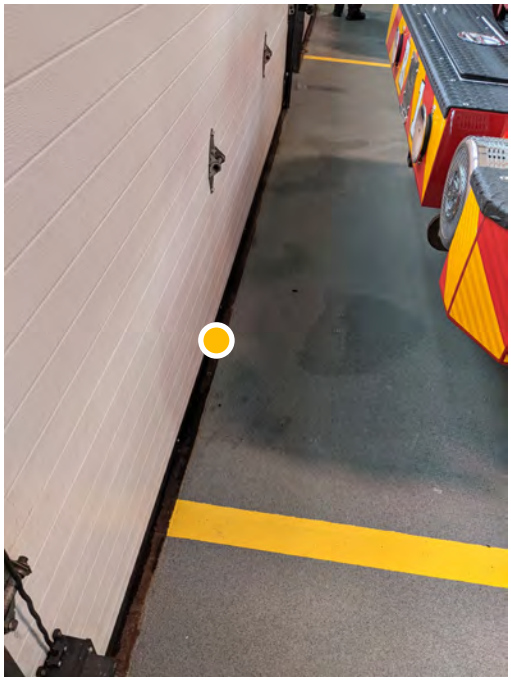


D1. 17: Vinyl asbestos tile is present throughout, some cracking is beginning to show



D1. 18: Apparatus Bay

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

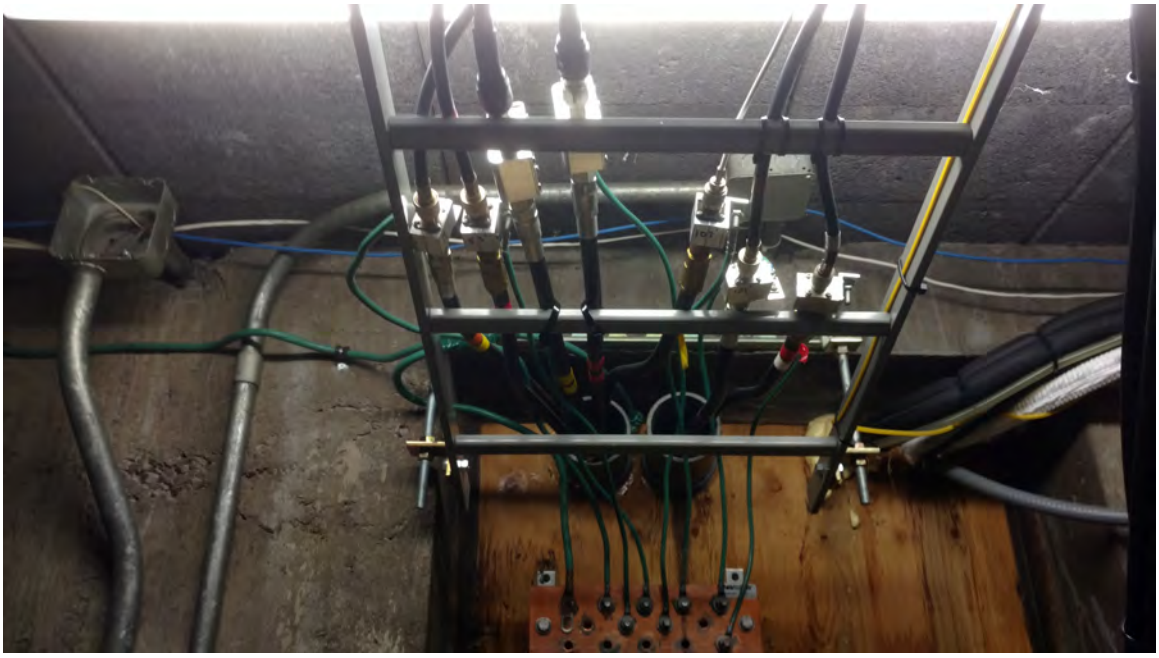


D1. 19: Steel angle at Apparatus Bay doors is beginning to rust

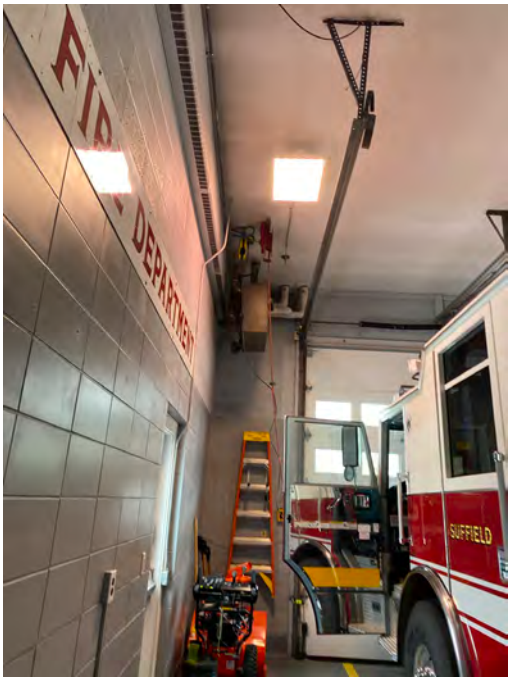


D1. 20: Fitness equipment is located on the lower level, this space is not wheelchair accessible

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 1: Antenna Cables with Bonding



D2. 2: App Bay Lighting - LED Fixtures

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 3: Automatic Transfer Switch



D2. 4: Branch Circuit Panelboard

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 5: Branch Circuit Panelboards



D2. 6: Community Alert Siren Mounted on Roof

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 7: Compressor Systems



D2. 8: Condensing Unit Serving FCU Provideing Cooling

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

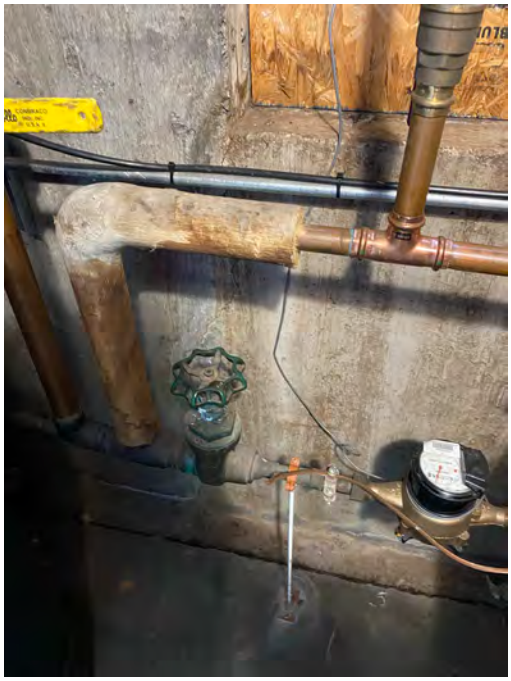


D2. 9: Condensing Units Serving IT Room Split Units Providing Cooling

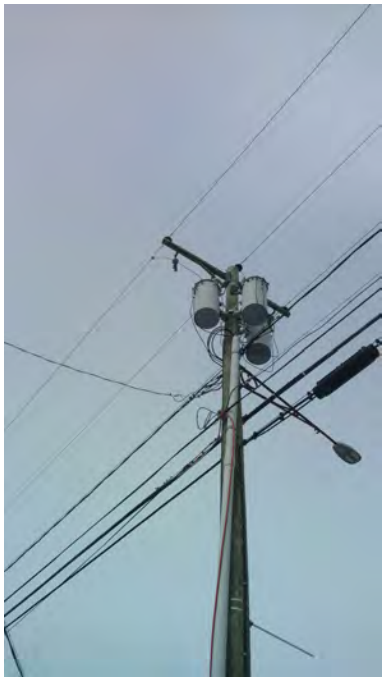


D2. 10: Diffuser in Ceiling Served by Fan Coil Unit

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 11: Domestic Water Service Needs to be Updated



D2. 12: Electrical Service Pole

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 13: Exterior Lighting - Lantern Style



D2. 14: Eyewash Station in Fair Condition

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

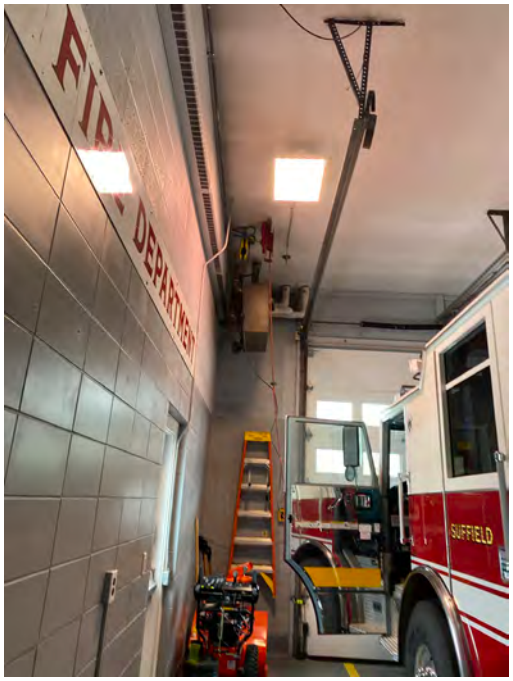


D2. 15: Fiber Optic Service Equipment

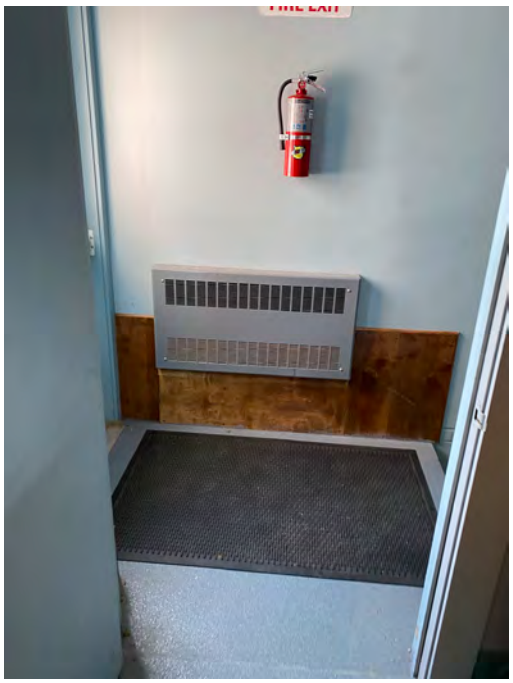


D2. 16: Fire Alarm Control Panel

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 17: Hot Water Unit Heater in App Bay



D2. 18: Hot Water Wall Convector Needs Replacing

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

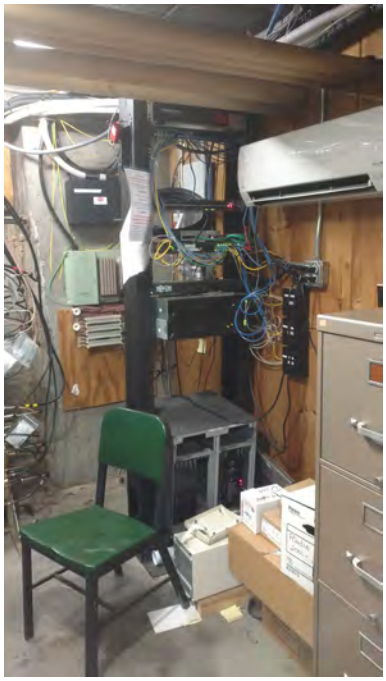


D2. 19: Hydronic Hot Water Pumps



D2. 20: Hydronic and Domestic Water Piping Needs to be Replaced

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 21: IT Network Rack

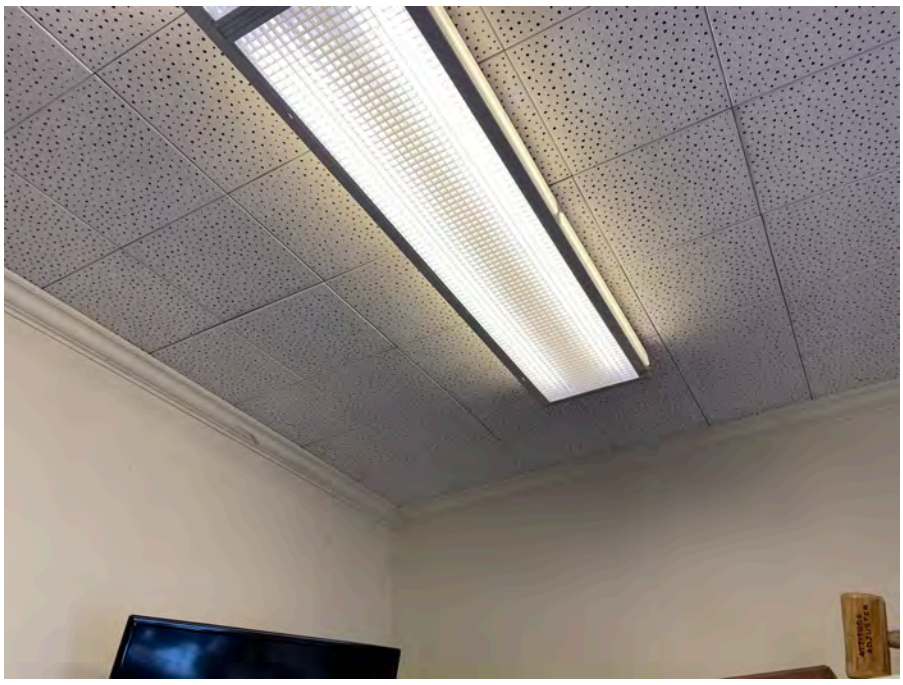


D2. 22: IT Room Split AC Units

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 23: Indirect Domestic Hot Water Heater



D2. 24: Interior Lighting - Surface Mounted Linear

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 25: Internal Traffic Control Light (Non-functional)



D2. 26: Main Switch and ATS

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 27: Municipal Sewer Service Access



D2. 28: Natural Gas Hot Water Boiler

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

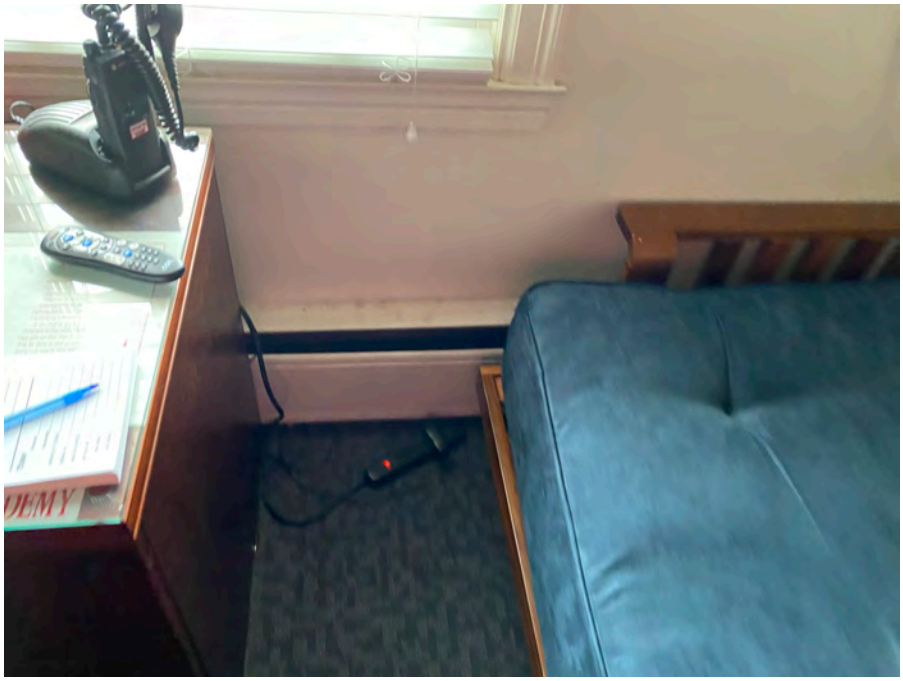


D2. 29: Natural Gas Service



D2. 30: Old Generator Feed to Town Hall

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

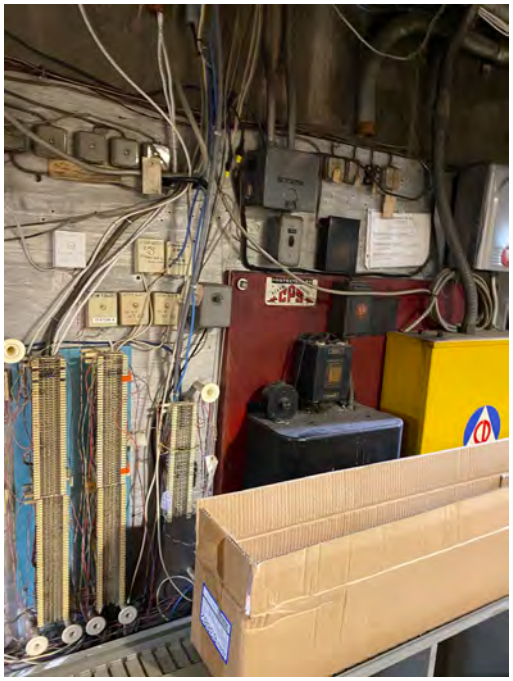


D2. 31: Old Radiator Needs Replacement



D2. 32: Old Thermostat

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 33: Outdated Communication Infrastructure



D2. 34: Outdated Lighting

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 35: Outdated Plumbing Fixtures

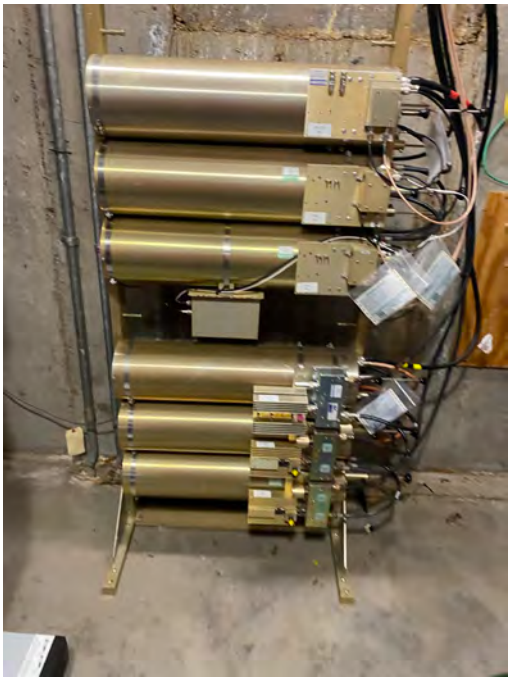


D2. 36: Plymovent Exhaust

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 37: Radio Equipment Rack



D2. 38: Radio Equipment

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 39: Roof Drain Gutters and App Bay Exhaust



D2. 40: Standby Generator

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D2. 41: Telephone Demarc



D2. 42: Thru Wall AC Unit in Poor Condition

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

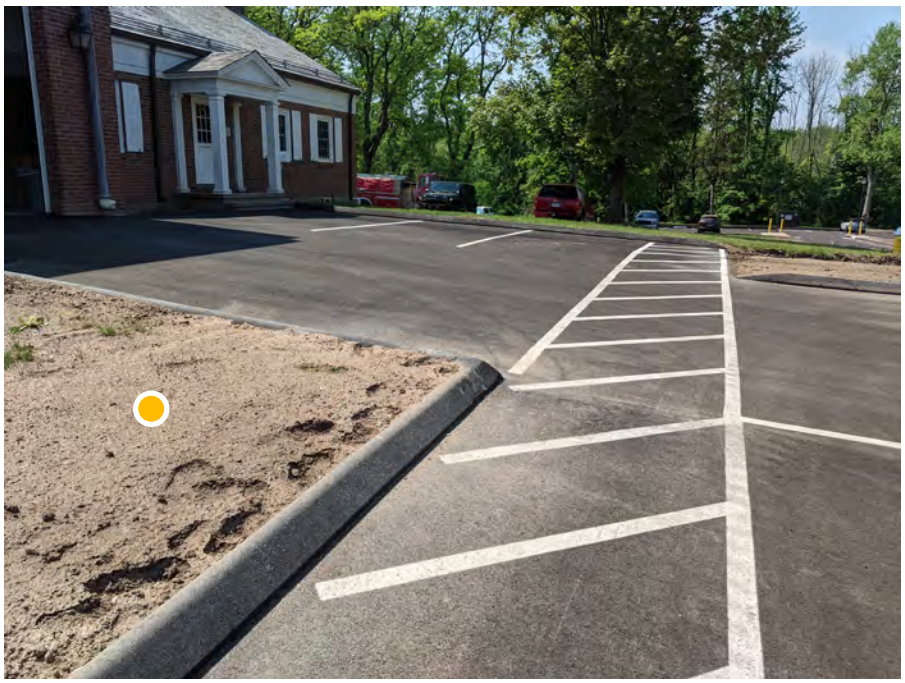


D2. 43: Traffic Signal Control Buttons (1)

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D3. 1: Parking area and drive aisle West of the building has been recently replaced



D3. 2: Grass missing in lawn area due to parking lot work

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D3. 3: New sidewalk substrate has been prepared but was not completed at the time of walkthrough

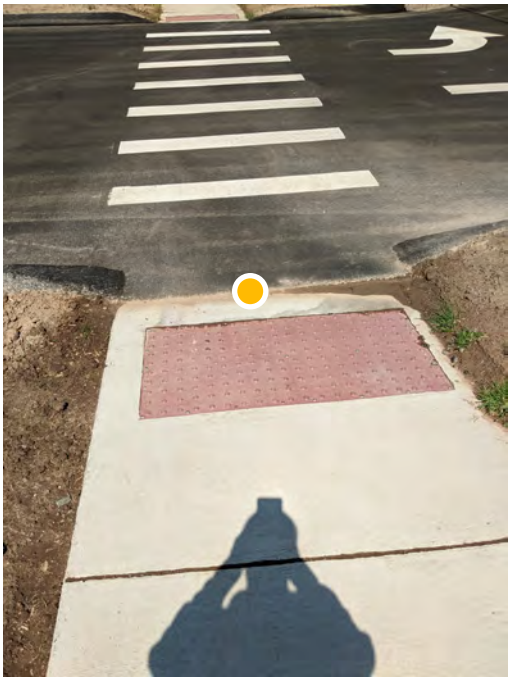


D3. 4: Grass missing in lawn area due to parking lot work

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

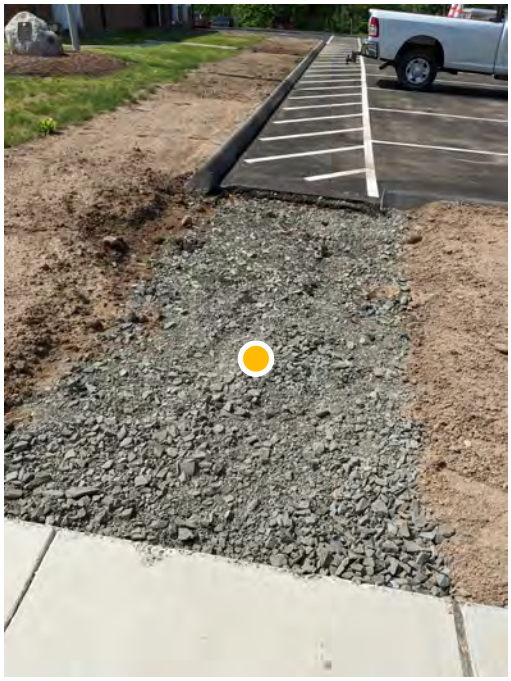


D3. 5: New catch basins and tops were recently installed



D3. 6: A low point was observed between concrete sidewalk and parking area and may collect water

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D3. 7: New sidewalk substrate has been prepared but was not completed at the time of walkthrough



D3. 8: Flag pole and plaque at Mountain Road

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT



D3. 9: Site lighting at lot line between Fire Station and Town Hall

CAPITAL IMPROVEMENTS E

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

Fire Department 1, 73 Mountain Rd - ROM Summary											Building Area: 4,200				CIP Prioritization					
SYSTEM / LINE ITEM DESCRIPTION	Amount	Unit	Unit Price	Current Replacement Cost	General Conditions	Bonds, Ins., Permit	(Unforeseen Conditions)	Temporary Facilities and Controls	Subtotal - Line Item	Line Item Contingency + Approx. Soft Costs (Design, printing, advertising, etc.)	Projected Line Item Cost	Escalation, Market Premium	Projected Line Item Cost W/Premium	REMARKS	Priority Ranking	Immediate	1-3 Years	3-5 Years	5-10 Years	10+ Years
					10%	1.5%	7.5%	5.0%		12.5%		20%			0.0%	0.0%	7.2%	16.8%	31.8%	56.6%
Site Improvements															#	1	2	3	4	5
Regrade/replace concrete sidewalks	400	SF	$15	$ 6,160	$ 616	$ 92	$ 462	$ 308	$ 7,638	$ 955	$ 8,593	$ 1,719	$ 10,312							
Add exterior accessible concrete ramp to Drill Room entry with metal guard/hand rails	200	SF	$55	$ 11,000	$ 1,100	$ 165	$ 825	$ 550	$ 13,640	$ 1,705	$ 15,345	$ 3,069	$ 18,414							
Exterior Improvements				$ -					$ -	$ -	$ -									
Clean masonry/exposed foundation	4,200	SF	$2	$ 9,240	$ 924	$ 139	$ 693	$ 462	$ 11,458	$ 1,432	$ 12,890	$ 2,578	$ 15,468							
Repair masonry chimney	20	SF	$9	$ 176	$ 18	$ 3	$ 13	$ 9	$ 218	$ 27	$ 246	$ 49	$ 295							
Repair/repaint misc. wood rot at rear entrance canopy, posts and railings	20	LF	$22	$ 440	$ 44	$ 7	$ 33	$ 22	$ 546	$ 68	$ 614	$ 123	$ 737							
Replace window shutter	1	EA	$132	$ 132	$ 13	$ 2	$ 10	$ 7	$ 164	$ 20	$ 184	$ 37	$ 221							
Replace copper downspout clips	6	EA	$22	$ 132	$ 13	$ 2	$ 10	$ 7	$ 164	$ 20	$ 184	$ 37	$ 221							
Interior Improvements				$ -					$ -	$ -	$ -									
ACM abatement flooring	1,200	SF	$17	$ 19,800	$ 1,980	$ 297	$ 1,485	$ 990	$ 24,552	$ 3,069	$ 27,621	$ 5,524	$ 33,145							
Replace VCT flooring	1,200	SF	$8	$ 9,240	$ 924	$ 139	$ 693	$ 462	$ 11,458	$ 1,432	$ 12,890	$ 2,578	$ 15,468							
Encapsulate wood fiber ceiling with GWB ceiling, remove/reinstall light	1,000	SF	$17	$ 16,500	$ 1,650	$ 248	$ 1,238	$ 825	$ 20,460	$ 2,558	$ 23,018	$ 4,604	$ 27,621							
Replace kitchen ceiling tiles	120	SF	$8	$ 924	$ 92	$ 14	$ 69	$ 46	$ 1,146	$ 143	$ 1,289	$ 258	$ 1,547							
Replace kitchen sink/cabinet with ADA accessible sink and casework	1	EA	$2,750	$ 2,750	$ 275	$ 41	$ 206	$ 138	$ 3,410	$ 426	$ 3,836	$ 767	$ 4,604							
ADA upgrades at toilet rooms	2	EA	$6,600	$ 13,200	$ 1,320	$ 198	$ 990	$ 660	$ 16,368	$ 2,046	$ 18,414	$ 3,683	$ 22,097	Technically infeasible without significant renovations. Reduce plumbing fixture counts to (2) wc's, (2) lavs, (1) shower.						
Division 21 - Fire Protection				$ -					$ -	$ -	$ -									
Division 22 - Plumbing				$ -					$ -	$ -	$ -									
Water Distribution and Drainage Systems	4,200	SF	$10	$ 41,580	$ 4,158	$ 624	$ 3,119	$ 2,079	$ 51,559	$ 6,445	$ 58,004	$ 11,601	$ 69,605	3-5yrs useful life. A majority of the existing piping within the building is from 1962 and past its useful life.						
Plumbing Fixtures / Equipment	4,200	SF	$4	$ 18,480	$ 1,848	$ 277	$ 1,386	$ 924	$ 22,915	$ 2,864	$ 25,780	$ 5,156	$ 30,936	3-5yrs useful life. Replacement of all plumbing fixtures throughout the building.						
Water Heaters	1	EA	$16,500	$ 16,500	$ 1,650	$ 248	$ 1,238	$ 825	$ 20,460	$ 2,558	$ 23,018	$ 4,604	$ 27,621	10+yrs useful life. Water heater is newer and in good working condition.						
Division 23 - Mechanical				$ -					$ -	$ -	$ -									
Heating Plant (Boilers, Pumps, etc.)	1	EA	$33,000	$ 33,000	$ 3,300	$ 495	$ 2,475	$ 1,650	$ 40,920	$ 5,115	$ 46,035	$ 9,207	$ 55,242	10+yrs useful life. Boiler plant has been updated approximately 10 years ago, plant is in good working condition.						
Terminal Units	4,200	SF	$7	$ 27,720	$ 2,772	$ 416	$ 2,079	$ 1,386	$ 34,373	$ 4,297	$ 38,669	$ 7,734	$ 46,403	1-3yrs useful life. Hot water convectors, unit heaters, baseboard, and associated piping of various vintages is at or past the end of its useful life.						
Air Handling Systems	4,200	SF	$9	$ 36,960	$ 3,696	$ 554	$ 2,772	$ 1,848	$ 45,830	$ 5,729	$ 51,559	$ 10,312	$ 61,871	3-5yrs useful life. Ducted fan coil unit and exhaust fans of various vintages are at or past the end of their useful life.						
Control Systems	4,200	SF	$8	$ 32,340	$ 3,234	$ 485	$ 2,426	$ 1,617	$ 40,102	$ 5,013	$ 45,114	$ 9,023	$ 54,137	3-5yrs useful life. There is no BMS within the building, all other devices controlled by standalone controls of varying vintages.						
Air Conditioning	4,200	SF	$8	$ 32,340	$ 3,234	$ 485	$ 2,426	$ 1,617	$ 40,102	$ 5,013	$ 45,114	$ 9,023	$ 54,137	1-3yrs useful life. There is no cooling plant within the building. Air handler with split condensing unit.						
Division 26 - Electrical				$ -					$ -	$ -	$ -									
Electrical Service / Distribution	4,200	SF	$22	$ 92,400	$ 9,240	$ 1,386	$ 6,930	$ 4,620	$ 114,576	$ 14,322	$ 128,898	$ 25,780	$ 154,678	15+yrs useful life. Building electrical service appears to be in good working.						
Generator	1	EA	$82,500	$ 82,500	$ 8,250	$ 1,238	$ 6,188	$ 4,125	$ 102,300	$ 12,788	$ 115,088	$ 23,018	$ 138,105	5+yrs useful life. Generator is beyond useful life.						
Lighting - General	4,200	SF	$9	$ 36,960	$ 3,696	$ 554	$ 2,772	$ 1,848	$ 45,830	$ 5,729	$ 51,559	$ 10,312	$ 61,871	1-5yrs useful life. Existing fixtures are mainly incandescent type with some retrofit lamps. Apparatus bay lighting is a newer, higher efficiency install.						
Fire Alarm System	4,200	SF	$11	$ 46,200	$ 4,620	$ 693	$ 3,465	$ 2,310	$ 57,288	$ 7,161	$ 64,449	$ 12,890	$ 77,339	1-2yrs useful life. Fire alarm system is an obsolete Simplex 4001 and could not be confirmed as fully functional.						
Subtotal for CIP Items				**$ 586,674**					**$ 727,476**		**$ 818,410**	**$ 163,682**	**$ 982,092**							
Cost Per Square Foot				**$ 139.68**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 173.21**	**$ -**	**$ 194.86**	**$ 38.97**	**$ 233.83**							

Building Vintage Summary			
Building Vintage	**Area**		**% to Ttl**
Building Vintage ~ 1962	4,200	V1	100.00%

FIRE DEPARTMENT 2

9 RATLEY ROAD, SUFFIELD, CT

CONDITIONS ASSESSMENT & MASTER PLAN

Tecton ARCHITECTS

3.9


SUFFIELD FIRE STATION NO. 2

TABLE OF CONTENTS

INTRODUCTION ..... **A**

Summary & Analysis A1

DATA & RANKINGS ..... **B**

Building Data B1

Condition Rankings B2

EXISTING CONDITIONS NARRATIVE ..... **C**

Architectural *(Building & Structure)* C1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* C2

Site *(Civil, Landscape, Utilities)* C3

PHOTO LOG ..... **D**

Architectural *(Building & Structure)* D1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* D2

Site *(Civil, Landscape, Utilities)* D3

CAPITAL IMPROVEMENTS ..... **E**

Capital Improvements E1

INTRODUCTION A

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

Fire Station #2 serves as a substation for the Town of Suffield. This is a newer station that is well built with adequate apparatus bay space. The building is in good to fair condition overall. The building sits on the east side of a large open site. The apparatus bay apron opens onto Ratley Road on the east side.

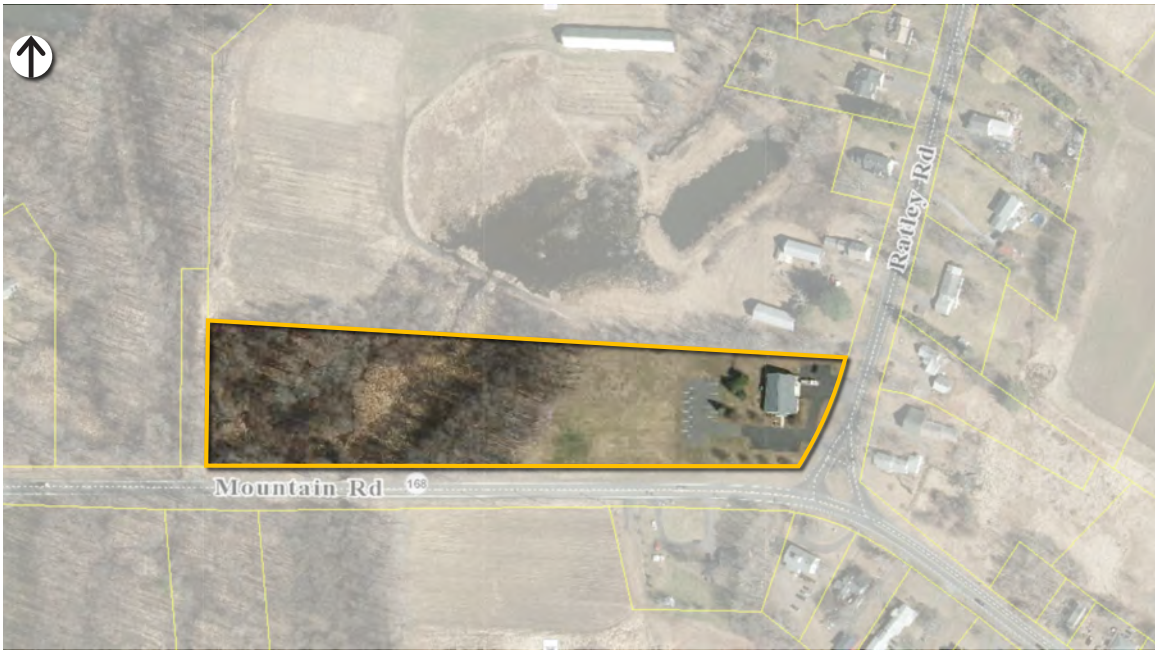
Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

BUILDING AREA/SITE	3,906 sf / 6.89 acres
AGE/CONSTRUCTION	2004 (18)

***Building Condition*: Good**

- Newer station, well built, good apparatus space, in relatively good condition
- Ice dams present at time of walkthrough, persistent issue for some time. May cause damage elsewhere if not properly addressed. Some signs of moisture infiltration are present on the interior
- Exterior materials are in good condition.
- All systems in good working condition but may require maintenance in the next 5-10 years
- Minor accessibility upgrades recommended
- Lack of storage space, hot/cold transition zone
- Suitable for on-call operations
- Apparatus space is adequate for substations

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



A1. 1: Aerial View of Existing Fire Department 2 and Property



A1. 2: Vintage Plan

DATA & RANKINGS B

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

B. DATA & RANKINGS

B.1 Building Data

The Facility:

Name:	**Fire Department 2**
Address:	**9 Ratley Rd**
Type / Use:	**Fire Department Substation**

Total Building Area (SF):	3,906	**Original Construction:**	2004
Site Area (acres):	6.89	**Additions (dates):**	N/A
Stories (above grade):	1.5	**Construction Type(s):**	3B
Building / Framing Materials:	Brick/Wood Studs	**Roof Types & Age:**	Asphalt Shingles (2004) No warranty data
Split-level / ramps (interior):	No	**Heating (types):**	Furnace, Hot Air
Stairs (interior):	To Mezzanine	**Fuel Types:**	Propane
Elevator:	No	**Cooling (centralized):**	Central Furnace, Cold Air
Basement:	No	**Ventilation:**	Yes, via outdoor air through furnace
Mezzanine (finished)	Yes	**Electrical:**	208/120 volt, 3 ph, 4 wire 200 amp
Crawl Space / Tunnels:	No	**Generator:**	Cummins GGFD 45 kW natural gas
Auxiliary Buildings:		**Fire Alarm:**	Fire Lite Alarms #MS-9050UD w/HS
Full ADA Compliance:	No Kitchenette Non-ADA	**Sewer / Septic** **Municipal Water / Well**	Sewer (GIS) Well (GIS)
		Sprinklered (full / partial):	Yes, Full Coverage, Dry System Throughout
School Data		**Parking Count:**	21
Enrollment(2020):	N/A		
Enrollment 10-yr:	N/A	**Meals:**	N/A
Net Enrollment Change:	N/A	**Meal Prep on site?:**	N/A
Location in Town:	N/A	**Start Time:**	N/A
Grade Structure:	N/A	**Dismissal:**	N/A
Pre-K?:	N/A	**Buses:**	N/A
Athletic Fields:	N/A	**Additional Programs:**	N/A

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
2 Poor [P] May require attention in 2-5 years
3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Exterior

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Roofing	Asphalt Shingle roof	2	Installed 2004, no warranty information
	Flashing / joints	4	
	gutters / downspouts	1	Ice damming
	Fascia / trim	4	
Walls	Masonry (unpainted)	3	Needs routine cleaning and maint.
	Siding (vinyl)	4	
	Joints (Building or expansion)	4	
	Wall mounted fixtures	-	
	Foundations – exposed concrete	-	
Entrances	Entrance Doors	3	Painting required at rear door
	Overhead Doors	4	
	Soffits / Canopy	3	Minor painting required
Windows	Fiberglass/aluminum	4	
	Window Screens (exterior)	4	
Walkways / site stairs	Sidewalks	3	Ponding at end of walk
	Bituminous concrete curb	2	Snowplow damage throughout
Drives / parking lots	Bituminous concrete pavement	2	Cracking throughout
	Pavement striping	3	Fading at cracked pavement
Landscaping	Lawn	4	N/A
	Plants	4	N/A
	Mulch beds	4	N/A
	Trees	4	N/A
Recreation	-	-	N/A
Other Structures	Site lighting – poles and fixtures	4	N/A
	Vehicular signage	3	Signage beginning to lean
	Catch basin tops	4	N/A
	Catch basin structures	4	N/A

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

B.2 Condition Rankings

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Vintage: **V1** **V2** **V3** **V4**

Interior

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Flooring	Concrete (Epoxy Coated)	4	N/A
	Ceramic Tile	4	N/A
	Vinyl Tile	4	N/A
Walls Surfaces	Masonry (painted)	4	N/A
	Gypsum board	3	Paint required throughout
	Tile	4	N/A
Ceilings	Gypsum board ceilings / soffits	4	N/A
	Acoustic Ceiling Panel	1	Tile sagging throughout, some staining
Interior trim	Wood - Door / Window	4	N/A
	Wall Base – Vinyl / Wood	4	N/A
Interior doors	Wood doors	4	N/A
	Hollow metal doors	4	N/A
	Hardware	4	N/A
Built-ins	Casework	1	Non-accessible kitchenette
	Countertops	4	N/A
Toilet Facilities	Fixtures	4	N/A
	Accessories (dispensers, driers)	4	N/A
Athletics	-	-	N/A

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
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3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Building Systems

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Fire Protection	Fire Alarm System & Devices	4	Addressable system in good condition
	Fire suppression (infrastructure / devices)	4	Building is fully fire sprinklered
Plumbing Systems	Infrastructure (pipes, drains, etc.)	4	Infrastructure in good condition
	Fixtures	4	Fixtures are in good condition
	Overall efficiency	4	System efficiency is good
Mechanical / HVAC	Infrastructure (pipes, ducts, etc.)	4	Infrastructure in good condition
	Heating systems	4	In good working condition
	Cooling systems	4	In good working condition
	Fixtures & equipment (Interior)	4	In good working condition
	Fixtures & equipment (Exterior/Roof top)	3	App Bay requires exhaust fan
	Overall efficiency	3	Overall efficiency could be better
Electrical (Service)	Infrastructure (panels, wiring, etc.)	4	Infrastructure in good condition
	Service & distribution	4	Service in good working condition
	Generator	3	Equipment in serviceable condition
	Automatic Transfer Switch	4	Good condition
	Other	-	N/A
Electrical Lighting	Infrastructure (panels, wiring, etc.)	3	Infrastructure in good condition
	Fixtures (Interior)	2	Fixtures should be upgraded to LED
	Efficiency (incl. natural & artificial light distr.)	3	Lighting quality can be updated
Security	Access Control	3	Functional system is installed
	Cameras	-	N/A

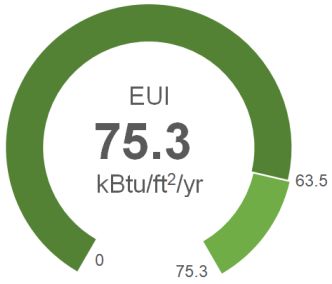
FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

B. 2 Benchmarking

MECHANICAL, ELECTRICAL, FIRE PROTECTION, SECURITY			
SYSTEM	**EQUIPMENT LIFE EXPECTANCY**	**EQUIPMENT AGE**	**USEFUL LIFE PERCENTAGE**
Fire Protection System	40 Years	15 Years	38%
Plumbing Water Heater	25 Years	15 Years	60%
Plumbing Piping & Fixtures	40 Years	15 Years	38%
Mechanical Boiler Plant	25 Years	15 Years	60%
Mechanical Piping & Equipment	25 Years	15 Years	60%
Mechanical Air Conditioning	25 Years	15 Years	60%
Mechanical Controls	20 Years	15 Years	75%
Electrical Service & Distribution	40 Years	15 Years	38%
Electrical Lighting	30 Years	15 Years	50%
Electrical Generator	40 Years	15 Years	38%
Fire Alarm	20 Years	15 Years	75%

Fire Station #2

Code Minimum Fire Station = 63.5 EUI



EXISTING CONDITIONS NARRATIVE C

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

C.1 Architectural

Construction:

The construction type for this building is 3B (combustible – unprotected). Apparatus bay is a concrete masonry unit back-up wall with brick veneer and the rest of the building is wood stud construction with a brick veneer and vinyl siding. Roof framing is 2"x10" wood rafters with wood trusses over the apparatus bay.

Exterior:

EXTERIOR (GENERAL): This is a newer station that is well built with adequate apparatus bay space. The building is in good to fair condition overall. The apparatus bay doors open to a parking area on the east façade of the building. The main entrance is on the south façade with a canopy and an additional entrance into the apparatus bay is located on the side.

WALLS: Exterior walls are a mix of brick, stone, and siding. The stone water table and brick are in good condition but require routine maintenance and cleaning. Vinyl siding is in good condition except where it meets the ground. This occurs at the north side of the building and the damage is likely caused by string trimmers.

WINDOWS/DOORS/ENTRANCES: Windows, doors, and entrances are all in good condition. Some minor painting is required at the entrance canopy on the south side and the rear entrance door.

ROOF: Asphalt shingle roof is original to the building from 2004. General condition of the roof can be considered good; however, some ice damming was observed. This seems to have been a persistent issue for some time and may cause damage elsewhere if not properly addressed.

Interior:

INTERIOR SPACES (GENERAL): Interior partitions are a mix of painted masonry and gypsum board finishes and are in good condition. Vinyl floor tile can be found throughout and is also in good condition. Acoustic panel ceilings are located in all non-apparatus bay spaces. Ceiling tiles are in fair condition but are beginning to sag. The design team noted this may be due to a temperature/humidity control issue. This is especially noticeable below aforementioned ice damming and could possibly be due to moisture infiltration.

TOILET FACILITIES: Toilet facilities have tile flooring with integral tile base with gypsum board wall finish. Shower facility has vinyl floor tile with vinyl base. All are in good condition.

KITCHEN: Casework and appliances are in good condition.

APPARATUS BAY: The apparatus bay has a gypsum board ceiling and an epoxy coated concrete floor. A staircase constructed of wood with vinyl treads leads to an unfinished attic space.

Code & Safety

ADA: Kitchenette does not have clear space below the sink. All toilet and shower facilities can be considered ADA-compliant.

SAFETY: The building is fully sprinklered. A step is present between apparatus bay and the rest of the building. This could potentially be a tripping hazard in a typical fire response situation.

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

C.2 MEP

B.4 Plumbing/Fire Protection:

HOT WATER GENERATION: The buildings existing domestic hot water is generated via one propane fueled water heater. The water heater tank has a storage capacity of 100 gallons and a 150 MBH output. The water heater is manufactured by A.O. Smith and is located in the mechanical room. The water heater is original to the building installed in 2005 and appears to be in fair working condition.

DOMESTIC WATER SERVICE: The existing building is currently served by a municipal domestic water service. This service is 3" when it enters the building and is located outside of the Apparatus Room. This service was installed in the original 2005 construction and appears to be in fair condition.

DOMESTIC WATER PIPING: Domestic water piping was observed to be a combination of copper and steel piping. The piping is original to the 2005 construction and appears to be in good working condition.

PLUMBING FIXTURES: The plumbing fixtures in the building are from the original 2005 construction and are in good working condition.

SANITARY SERVICE: The building is served by a septic sanitary service with a tight tank for storage below the apparatus bay floor. The sanitary service and tank appear to be in good working condition.

STORM SERVICE: The building currently uses a gutter system to collect and transfer all storm drainage. The roof is pitched on either side to lead the storm into the gutters. The gutters distribute the storm drainage onto the ground through the use of splash guards. The storm service appears to be in good working condition.

PROPANE SERVICE: The building currently has a propane gas service that feeds the water heater and boiler. There is one 1,000 gallon propane tank located outside of the building. The propane is piped underground to the gas service located outside of the mechanical room. The tank, service, and piping are in good working condition.

FIRE PROTECTION: The building currently contains a full fire protection sprinkler system. The sprinkler system is a dry system and the fire protection entrance is located in the Apparatus Bay. The sprinkler system appears to be in good working condition.

B.5 Mechanical:

HEATING SYSTEMS: The existing heating plant consists of one propane gas fired furnace manufactured by Trane. This furnace has 60.0 MBH cooling output and a 140 MBH heating output. The furnace was installed original to the 2005 construction and is in good working condition.

HOT WATER PIPING: There is no hot water piping throughout the building.

TERMINAL UNITS: The building contains four propane fired unit heaters located in the Apparatus Bay. The unit heaters are original to construction and in good working condition. There are six variable air volume (VAV) boxes located in the ductwork system throughout the building. The VAV boxes control the volume of airflow moving through the ductwork from the furnace. The VAV boxes are in good working condition. The building contains a vehicle exhaust system in the Apparatus Bay manufactured by Plymovent that appears to be in good working condition.

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

VENTILATION SYSTEMS: The propane fired furnace provides ventilation air throughout the entire building except for the Apparatus Bay. There are four ceiling exhaust fans serving the toilet and shower rooms. The exhaust fans remove the exhaust air from the building. The Apparatus Bay does not have an exhaust fan but one is required according to code. The furnace ventilation system is in good working condition.

COOLING SYSTEMS: Air Conditioning is provided throughout the building. The air conditioning is accomplished by the furnace unit and is distributed throughout the building via the ductwork system. The furnace contains a direct expansion cooling coil being fed by the Trane condensing unit located outside of the mechanical room. The condensing unit is original to construction and is in good working condition.

DUCTWORK: The ductwork is original to the building and appears to be in good working condition.

CONTROLS: The building consists of variable volume temperature controls (VVT). The VVT controls are manufactured by Trane and are the VariTrac CCP model.

B.7 Electrical:

MAIN ELECTRIC SERVICE: The building is fed with underground electric service at 208/120 volt, 3 phase, 4 wire rated for 200 amperes. The service originates from CL&P pole #2547 with a pole mounted transformer array providing a total capacity of 45 kVA. Service conductors run underground to a self-contained meter socket located on the building exterior eastern elevation. The service capacity is adequate for the buildings current use.

The electric meter is installed on the building exterior in hot sequence with the main disconnect switch which is located in the building interior. The main disconnect is a 200 ampere enclosed circuit breaker.

Electrical records were supplied from Nov / Dec months. Records from June / July / August would be preferred to determine maximum demand and service adequacy for renovation or expansion.

ELECTRICAL DISTRIBUTION: The service main disconnect switch feeds into a 200 ampere automatic transfer switch. The transfer switch supports the building full load transferring from utility to the available standby generator. The transfer switch feeds into the array of branch circuit panel boards to support the full building load

Branch circuit distribution consists of a series of 208/120v – 3ph – 4w – 200 ampere load center type panels manufactured by Siemens dating to approximately 2011. The panels feature a main circuit breaker in each with the feeder gutter tapped from the 200 ampere service feeder. The branch circuit panels are all 208/120v – 3ph – 4w – 200 ampere 42 pole panels that contain various circuit breakers serving fire house equipment

Standby power is provided from a Cummins GGFD 45 kW natural gas fired pad mounted generator. This unit appears to be 15 – 20 years old and has accumulated 572 running hours per the maintenance records.

Existing receptacle power provisions within the spaces are provided to satisfy code compliant minimums. Additional devices to supplement the existing layout would be beneficial in apparatus bay areas and meeting room AV equipment areas.

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

Existing wiring systems are building wire in conduit and metal clad cable.

GENERATOR: Standby power is provided from a Kohler 45RZG 45 kW natural gas fired pad mounted generator. Per the maintenance logs this unit has 798 running hours, an extremely high number. This unit is beyond useful life but can continue in service with a good preventative maintenance program.

LIGHTING SYSTEMS: Lighting systems within the building consist of a combination of linear fluorescent recessed 2x4 acrylic prismatic lensed troffers and recessed incandescent or compact fluorescent 6" diameter downlights. These fixture types are utilized throughout the office / admin area and corridors. These non-LED type fixtures appear to be from the original building fit-up of 2004

The apparatus bay areas utilize high output 2x2 and 2x4 chain hung fixtures. These fixtures are providing adequate light levels within these spaces.

Emergency lighting elements could not be identified as a cohesive system. This building deserves a thorough upgrade throughout

Exterior emergency egress lighting is provided at all egress doors and areas of exit discharge. Fixtures providing this illumination consist of LED or incandescent remote mounted weatherproof lamp heads. A central inverter system could not be found within the building

Exterior lighting consisted of HID appearing wall pack style security fixtures.

Lighting controls in the interior consist of wall toggle switches with ceiling mounted occupancy sensors. An exterior photocell control and time clock is incorporated for exterior dusk to dawn control capability.

FIRE ALARM SYSTEM: Fire Alarm protective signaling provisions exist in the building and are administered through a Fire Lite Alarms #MS-9050UD control panel. The panel appears to be fully functional and in very good condition. The panel and peripheral equipment dates to approximately 2004. The panel is a 50 point addressable device control panel. The existing occupant notification device layout appears to be in compliance with NFPA requirements with regard to occupant notification standards and initiation device layout. The system communicates to a Central Station via a Notifier #PGSM-4G cellular based communicator complete with an exterior antenna that is installed at the North exterior roof peak. The building is complete with pull stations, smoke detectors and heat detectors and monitors the fire protection service water flow and supervisory conditions.

COMMUNICATION SERVICES: Cable TV service is utilized within the building. Service cable enters the building in the main electric/boiler room via underground service conduit. The service splits to two separate drops in the building.

50 Pair copper cabling for voice communications enters the building in 4" service conduit underground and terminates at a 50 pair service demarc provided by the utility company.

Fiber service is not provisioned to this building.

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

Data network infrastructure does not exist within this building. A cable modem is provided that offers broadband internet connection capabilities with a router that provides wireless connection capabilities.

Sonitrol card access is provided within the building.

MISCELLANEOUS SYSTEMS: The main meeting room has Audio - Visual provisions that consist of a ceiling mounted projector, lectern for public speaking and a wall mounted digital display for viewing content.

C.3 Site

SITE (GENERAL): The building sits on the east side of a large open site. The apparatus bay apron opens onto Ratley Road on the east side. Handicap parking is located near the entrance on the south of the building and a larger general parking lot is located down the hill to the west.

WALKWAYS/SITE STAIRS: A concrete walkway leading out of the main entrance is in good condition, but some ponding was observed where it meets the parking lot. Rear entrance has a small section of bituminous asphalt that is in fair condition. Some cracking is beginning to spread from the adjacent driveway.

ROADWAYS/PARKING: Cracking can be seen throughout parking areas, specifically in the lower lot. Snowplow damage is present at almost all bituminous asphalt curbing. Parking lot striping is beginning to fade at the lower lot. One catch basin is located at the north end of the site and appears to be in good condition.

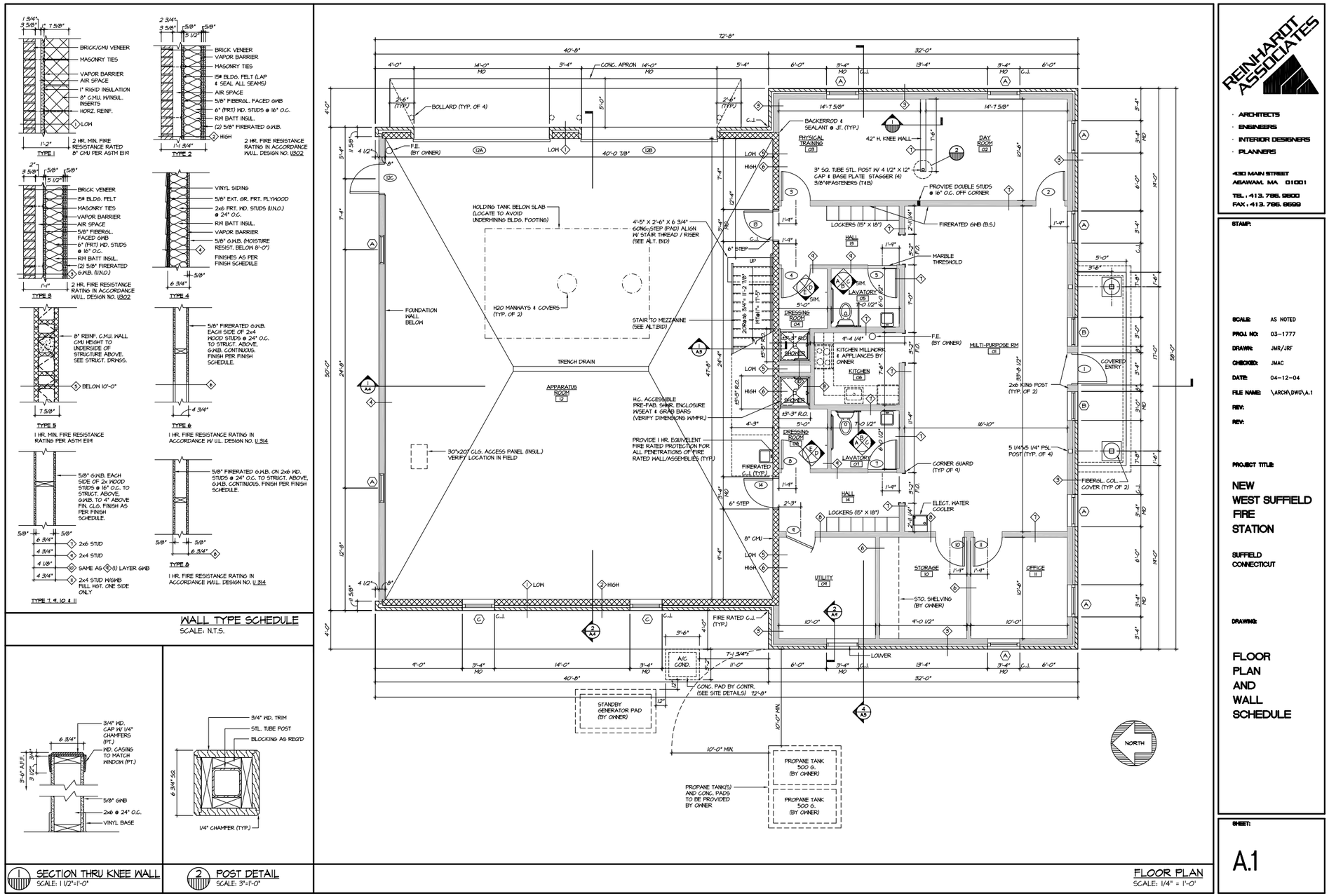
LANDSCAPING: Planting areas lack mulch and lawns have minor bare spots that require re-seeding.

SITE FEATURES: Parking signage is beginning to lean but otherwise is in good condition. Flagpole and memorial plaque are located adjacent to the main entrance and are in good condition. Minor rusting was observed at the bottom of apparatus bay door bollards.

PHOTO LOG D

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



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STAMP:

SCALE:	AS NOTED
PROJ. NO:	03-1777
DRAWN:	JMR/JRF
CHECKED:	JMAC
DATE:	04-12-04
FILE NAME:	\ARCH\DWG\A.1
REV:	
REV:	

PROJECT TITLE:

NEW WEST SUFFIELD FIRE STATION

SUFFIELD CONNECTICUT

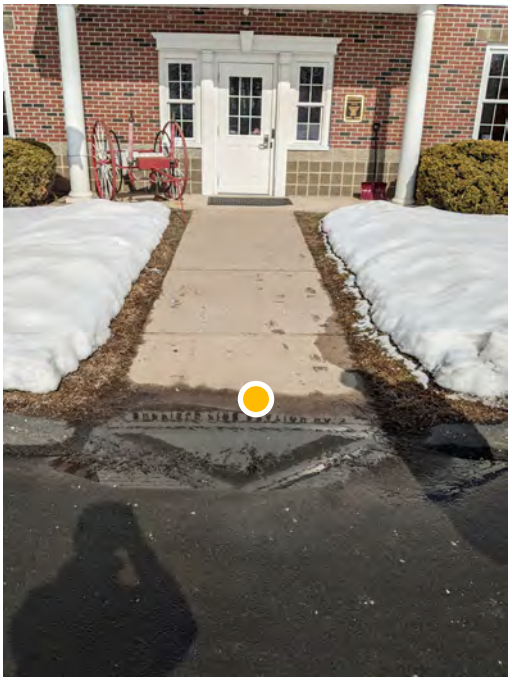
DRAWING:

FLOOR PLAN AND WALL SCHEDULE

SHEET:

A.1

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D1. 1: Concrete sidewalk and bituminous pavement drive aisle meet at a low point allowing water to collect and potentially freeze



D1. 2: Southwest corner

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D1. 3: Apparatus Bay doors on East façade



D1. 4: Northeast corner

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

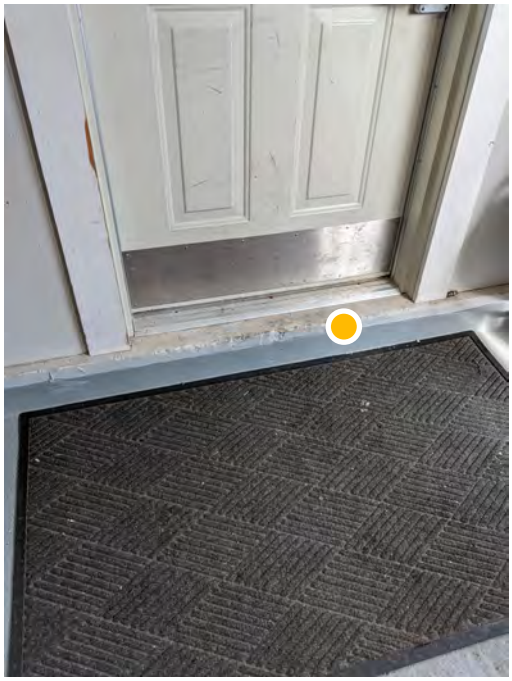


D1. 5: Rear entrance door



D1. 6: Damaged vinyl siding at base

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D1. 7: Step between Apparatus Bay and the rest of the programmed space creates a condition that is not wheelchair accessible

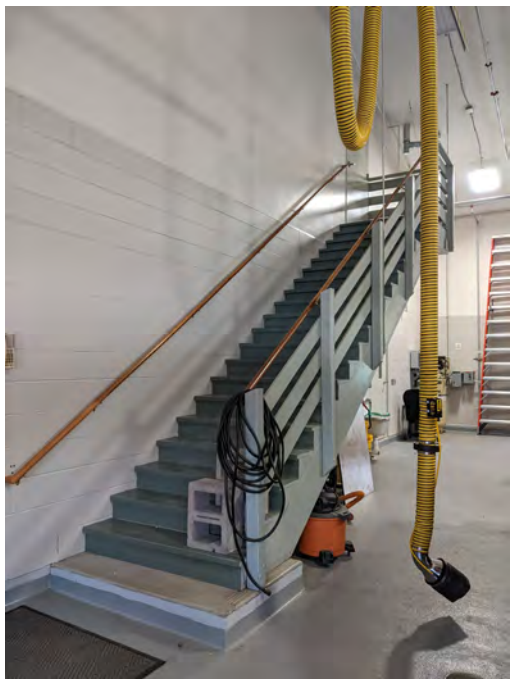


D1. 8: South façade

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

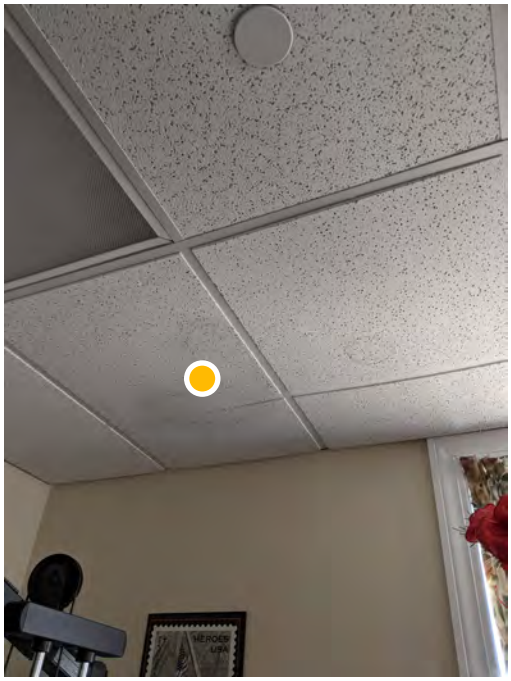


D1. 9: Vinyl windows throughout are in good condition



D1. 10: Interior stair to attic space

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D1. 11: Acoustic ceiling tiles were stained below a possible ice dam at the roof above

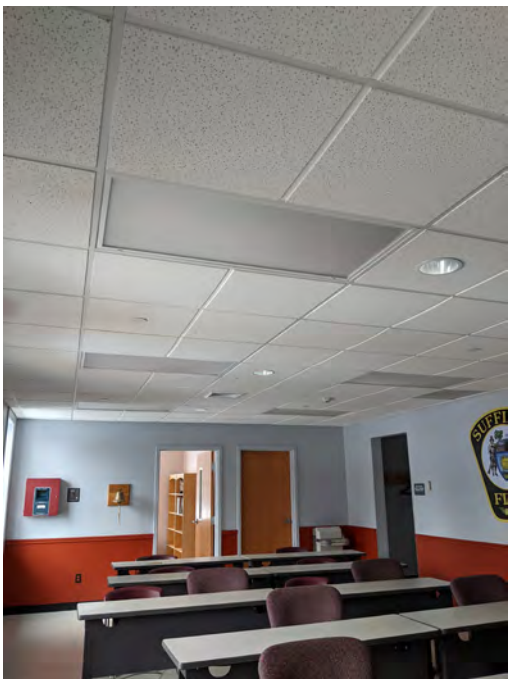


D1. 12: Kitchen sink does not have the required clear space to be considered wheelchair accessible

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

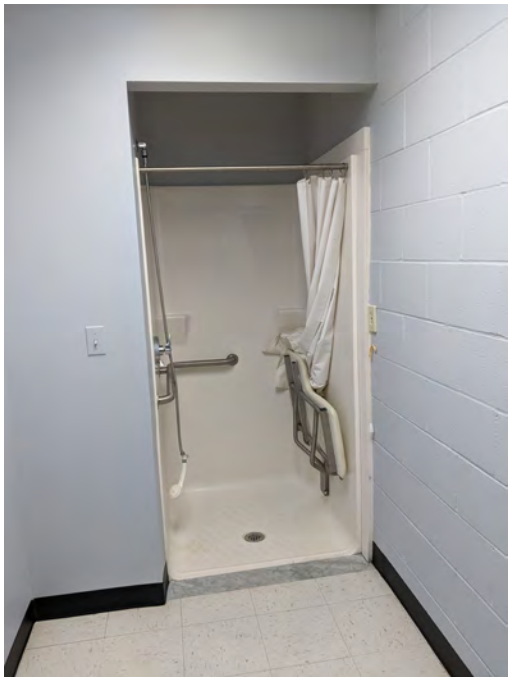


D1. 13: Toilet Rooms are ADA-compliant



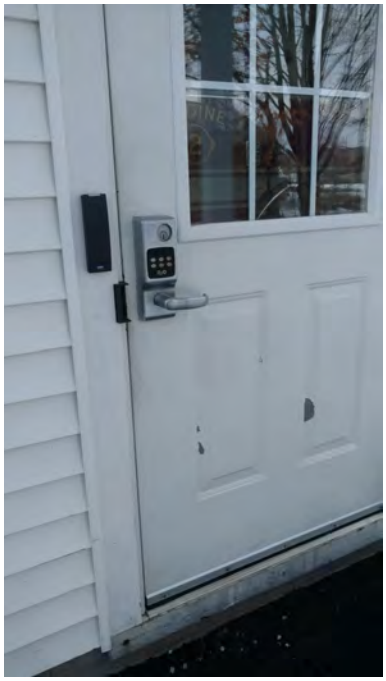
D1. 14: Multi-purpose Room

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D1. 15: Shower stall appears to be ADA-compliant as a transfer-type shower

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D2. 1: Access Control



D2. 2: Automatic Transfer Switch

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D2. 3: Communication Service Conduits



D2. 4: Diffuser Being Served by the Furnace

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D2. 5: Domestic Water Service Located in App Bay



D2. 6: Electrical Distribution

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D2. 7: Electrical Meter



D2. 8: Electrical Service Pole

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

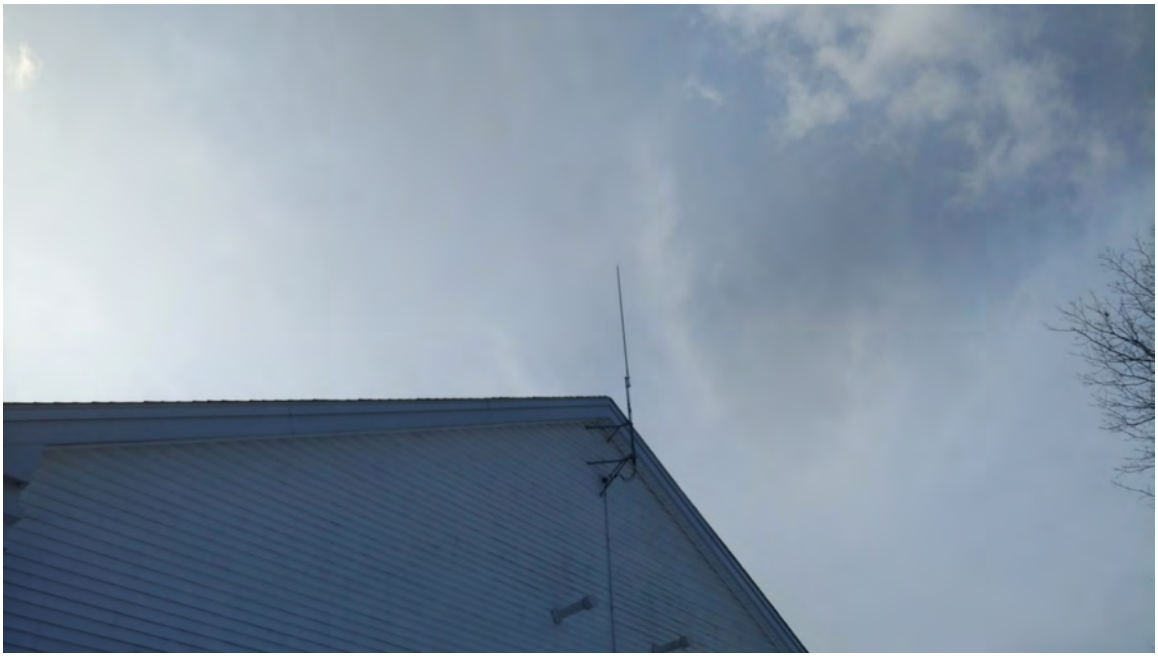


D2. 9: Exterior Lighting Pole



D2. 10: Exterior Lighting and Emergency Egress Lighting

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D2. 11: Fire Alarm Communicator Antenna



D2. 12: Fire Alarm Communicator

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D2. 13: Fire Alarm Control Panel



D2. 14: Fire protection Sprinkler System in App Bay

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D2. 15: Full Fire Protection Service Located in App Bay



D2. 16: Furnace Ductwork Routing through Attic Space

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

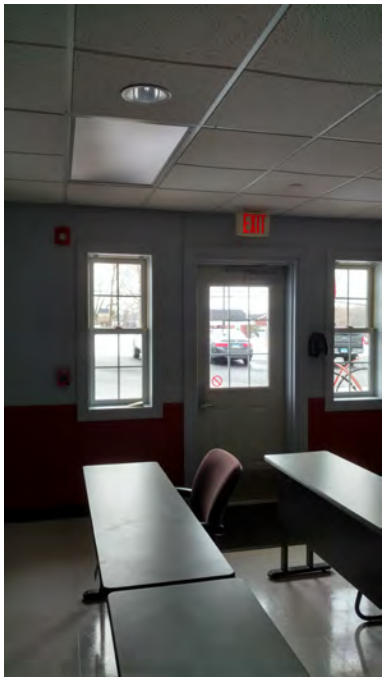


D2. 17: Generator Remote Annunciator



D2. 18: Interior Lighting

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D2. 19: Misc. Electrical



D2. 20: Plumbing Fixture in Good Condition

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D2. 21: Plumbing and Exhaust Vents on Roof



D2. 22: Plymovent System in App Bay

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

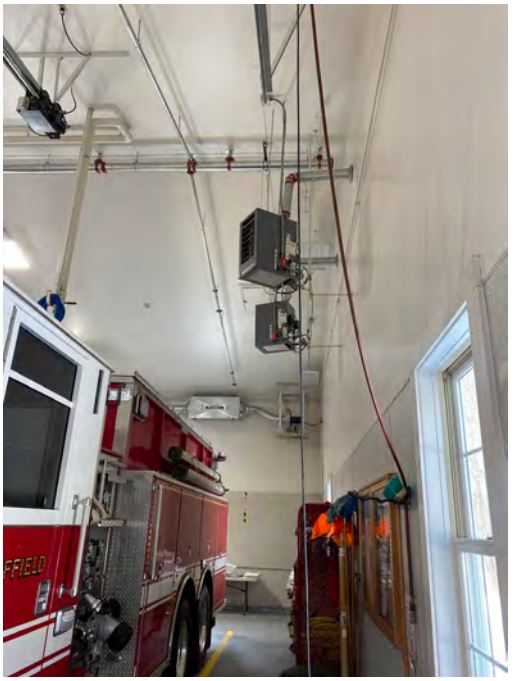


D2. 23: Projector



D2. 24: Propane Fired Furnace and Connecting Ductwork

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D2. 25: Propane Fired Unit Heaters in App Bay



D2. 26: Propane Fueled Domestic Hot Water Heater

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D2. 27: Propane Gas Service



D2. 28: Roof Drain Gutter System for Storm Service

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D2. 29: Smartboard and Projector Screen



D2. 30: Sprinkler System Monitoring

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D2. 31: Standby Generator



D2. 32: Trane VariTrac CCP Temperature Control

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D3. 1: Memorial Plaque at South lawn



D3. 2: Flag pole at South lawn

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

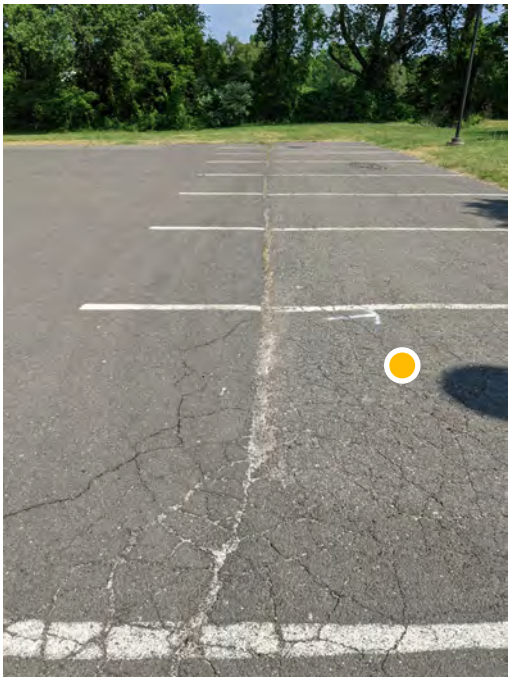


D3. 3: Lawn areas are patchy throughout and require re-seeding



D3. 4: Bituminous concrete paving is cracking at drive aisles and parking areas throughout the upper and lower parking lots

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D3. 5: Bituminous concrete paving is cracking at drive aisles and parking areas throughout the upper and lower parking lots



D3. 6: Site Lighting

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D3. 7: Cleanout is partially buried



D3. 8: West lawn

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D3. 9: North lawn



D3. 10: Bituminous concrete paving at North entrance is beginning to show cracking

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D3. 11: Concrete catch basin tops are partially buried



D3. 12: Parking signage requires resetting

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D3. 13: Site lighting



D3. 14: Site lighting

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D3. 15: Bituminous asphalt curbing is damaged at most locations



D3. 16: Planting areas along the East façade contain grass and weeds

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D3. 17: Parking signage requires resetting



D3. 18: Bituminous asphalt curbing is damaged at most locations

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT



D3. 19: Bituminous concrete paving is cracking at drive aisles and parking areas throughout the upper and lower parking lots

CAPITAL IMPROVEMENTS E

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

FIRE DEPARTMENT 2 - 9 RATLEY ROAD, SUFFIELD, CT

Fire Department 2, 9 Ratley Rd - ROM Summary												Building Area: 3,906				CIP Prioritization					
SYSTEM / LINE ITEM DESCRIPTION	Amount	Unit	Unit Price	Current Replacement Cost	General Conditions	Bonds, Ins., Permit	(Unforeseen Conditions)	Temporary Facilities and Controls	Subtotal - Line Item	Line Item Contingency + Approx. Soft Costs (Design, printing, advertising, etc.)	Projected Line Item Cost	Escalation, Market Premium	Projected Line Item Cost W/Premium	REMARKS	Priority	Immediate	1-3 Years	3-5 Years	5-10 Years	10+ Years
					10%	1.5%	7.5%	5.0%		12.5%		20%				0.0%	7.2%	16.8%	31.8%	56.6%
Site Improvements																				
Repaving of existing drives/parking areas	1,420	SY	$61	$ 85,910	$ 8,591	$ 1,289	$ 6,443	$ 4,296	$ 106,528	$ 13,316	$ 119,844	$ 23,969	$ 143,813							
Regrade/replace concrete sidewalk to Main entry to reduce ponding	100	SF	$22	$ 2,200	$ 220	$ 33	$ 165	$ 110	$ 2,728	$ 341	$ 3,069	$ 614	$ 3,683							
Replace bituminous curbing	680	LF	$9	$ 5,984	$ 598	$ 90	$ 449	$ 299	$ 7,420	$ 928	$ 8,348	$ 1,670	$ 10,017							
Reseed lawns north and south of building	200	SY	$4	$ 880	$ 88	$ 13	$ 66	$ 44	$ 1,091	$ 136	$ 1,228	$ 246	$ 1,473							
Reset existing parking signage	2	EA	$220	$ 440	$ 44	$ 7	$ 33	$ 22	$ 546	$ 68	$ 614	$ 123	$ 737							
Scrape and repaint existing bollards	4	EA	$110	$ 440	$ 44	$ 7	$ 33	$ 22	$ 546	$ 68	$ 614	$ 123	$ 737							
Exterior Improvements				$ -					$ -	$ -	$ -									
Clean masonry/exposed foundation	3,906	SF	$2	$ 8,593	$ 859	$ 129	$ 644	$ 430	$ 10,656	$ 1,332	$ 11,988	$ 2,398	$ 14,385							
Replace vinyl siding/trim	50	SF	$6	$ 275	$ 28	$ 4	$ 21	$ 14	$ 341	$ 43	$ 384	$ 77	$ 460							
Paint canopies	130	SF	$4	$ 572	$ 57	$ 9	$ 43	$ 29	$ 709	$ 89	$ 798	$ 160	$ 958							
Investigate ice damming issue	1	EA	$5,500	$ 5,500	$ 550	$ 83	$ 413	$ 275	$ 6,820	$ 853	$ 7,673	$ 1,535	$ 9,207	Requires further investigation						
Interior Improvements				$ -					$ -	$ -	$ -									
Replace ceiling tiles	1,400	SF	$8	$ 10,780	$ 1,078	$ 162	$ 809	$ 539	$ 13,367	$ 1,671	$ 15,038	$ 3,008	$ 18,046							
Replace kitchen sink/cabinet with ADA accessible sink and casework	1	EA	$2,750	$ 2,750	$ 275	$ 41	$ 206	$ 138	$ 3,410	$ 426	$ 3,836	$ 767	$ 4,604							
Division 21 - Fire Protection				$ -					$ -	$ -	$ -									
Fire Protection Distribution System	3,906	SF	$2	$ 8,593	$ 859	$ 129	$ 644	$ 430	$ 10,656	$ 1,332	$ 11,988	$ 2,398	$ 14,385	10+yrs useful life. Replacement of dry system serving entire building original construction.						
Division 22 - Plumbing				$ -					$ -	$ -	$ -									
Water Distribution and Drainage Systems	3,906	SF	$10	$ 38,669	$ 3,867	$ 580	$ 2,900	$ 1,933	$ 47,950	$ 5,994	$ 53,944	$ 10,789	$ 64,733	10+yrs useful life. Piping original to 2004 construction is in good condition.						
Plumbing Fixtures / Equipment	3,906	SF	$4	$ 17,186	$ 1,719	$ 258	$ 1,289	$ 859	$ 21,311	$ 2,664	$ 23,975	$ 4,795	$ 28,770	10+yrs useful life. Plumbing fixtures original to 2004 construction are in good working condition.						
Water Heaters	1	EA	$16,500	$ 16,500	$ 1,650	$ 248	$ 1,238	$ 825	$ 20,460	$ 2,558	$ 23,018	$ 4,604	$ 27,621	10+yrs useful life. Water heaters are original to the 2004 construction and in good working condition.						
Division 23 - Mechanical				$ -					$ -	$ -	$ -									
Heating Plant (Boilers, Pumps, etc.)	1	EA	$33,000	$ 33,000	$ 3,300	$ 495	$ 2,475	$ 1,650	$ 40,920	$ 5,115	$ 46,035	$ 9,207	$ 55,242	10+yrs useful life. Boiler plant installed in 2004 during original construction and is in good working condition.						
Terminal Units	3,906	SF	$7	$ 25,780	$ 2,578	$ 387	$ 1,933	$ 1,289	$ 31,967	$ 3,996	$ 35,963	$ 7,193	$ 43,155	10+yrs useful life. Unit heaters and variable air volume boxes original to 2004 construction in good working condition.						
Air Handling Systems	3,906	SF	$9	$ 34,373	$ 3,437	$ 516	$ 2,578	$ 1,719	$ 42,622	$ 5,328	$ 47,950	$ 9,590	$ 57,540	10+yrs useful life. Propane fired ducted furnace is original to 2004 construction and in good working condition.						
Control Systems	3,906	SF	$8	$ 30,076	$ 3,008	$ 451	$ 2,256	$ 1,504	$ 37,294	$ 4,662	$ 41,956	$ 8,391	$ 50,348	10+yrs useful life. The building consists of a Trane variable volume temperature control system in good condition.						
Air Conditioning	3,906	SF	$8	$ 30,076	$ 3,008	$ 451	$ 2,256	$ 1,504	$ 37,294	$ 4,662	$ 41,956	$ 8,391	$ 50,348	10+yrs useful life. Air conditioning is accomplished through the furnace and is in good condition.						
Division 26 - Electrical				$ -					$ -	$ -	$ -									
Electrical Service / Distribution	3,906	SF	$22	$ 85,932	$ 8,593	$ 1,289	$ 6,445	$ 4,297	$ 106,556	$ 13,319	$ 119,875	$ 23,975	$ 143,850	20+yrs useful life. Original service appears to be in good working condition.						
Generator	1	EA	$66,000	$ 66,000	$ 6,600	$ 990	$ 4,950	$ 3,300	$ 81,840	$ 10,230	$ 92,070	$ 18,414	$ 110,484	10+yrs useful life. Generator nearing end of life but functional and serviceable.						
Lighting - General	3,906	SF	$9	$ 34,373	$ 3,437	$ 516	$ 2,578	$ 1,719	$ 42,622	$ 5,328	$ 47,950	$ 9,590	$ 57,540	5-10yrs useful life. Fixtures installed in 2004 are fluorescent types. Apparatus bay light fixtures are a newer high performance type.						
Fire Alarm System	3,906	SF	$11	$ 42,966	$ 4,297	$ 644	$ 3,222	$ 2,148	$ 53,278	$ 6,660	$ 59,938	$ 11,988	$ 71,925	5-10yrs useful life. Fire alarm system was installed in 2004.						
Subtotal for CIP Items				**$ 587,849**					**$ 728,933**		**$ 820,049**	**$ 164,010**	**$ 984,059**							
Cost Per Square Foot				**$ 150.50**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 186.62**	**$ -**	**$ 209.95**	**$ 41.99**	**$ 251.94**							

Building Vintage Summary			
Building Vintage	**Area**		**% to Ttl**
Building Vintage ~ 2004	3,906	V1	100.00%

FIRE DEPARTMENT 3

3 COPPERHILL ROAD, SUFFIELD, CT

CONDITIONS ASSESSMENT & MASTER PLAN

Tecton ARCHITECTS

3.10


SUFFIELD FIRE DEPARTMENT STATION 3
3

TABLE OF CONTENTS

INTRODUCTION ..... **A**

Summary & Analysis A1

DATA & RANKINGS ..... **B**

Building Data B1

Condition Rankings B2

EXISTING CONDITIONS NARRATIVE ..... **C**

Architectural *(Building & Structure)* C1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* C2

Site *(Civil, Landscape, Utilities)* C3

PHOTO LOG ..... **D**

Architectural *(Building & Structure)* D1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* D2

Site *(Civil, Landscape, Utilities)* D3

CAPITAL IMPROVEMENTS ..... **E**

Capital Improvements E1

INTRODUCTION A

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

Fire Station #3 serves as a substation for the Town of Suffield. This station is a bit older but is in relatively good condition for its age. Apparatus Bay doors face east and exit onto Copper Hill Road. An exterior entrance can be found on the north façade with a small canopy. The building is centrally located on a wooded site with access from both Copper Hill Road and Mountain Road. All site parking is located to the north of the building.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

BUILDING AREA/SITE	3,256 sf / 1.08 acres
AGE/CONSTRUCTION	1985 (37)

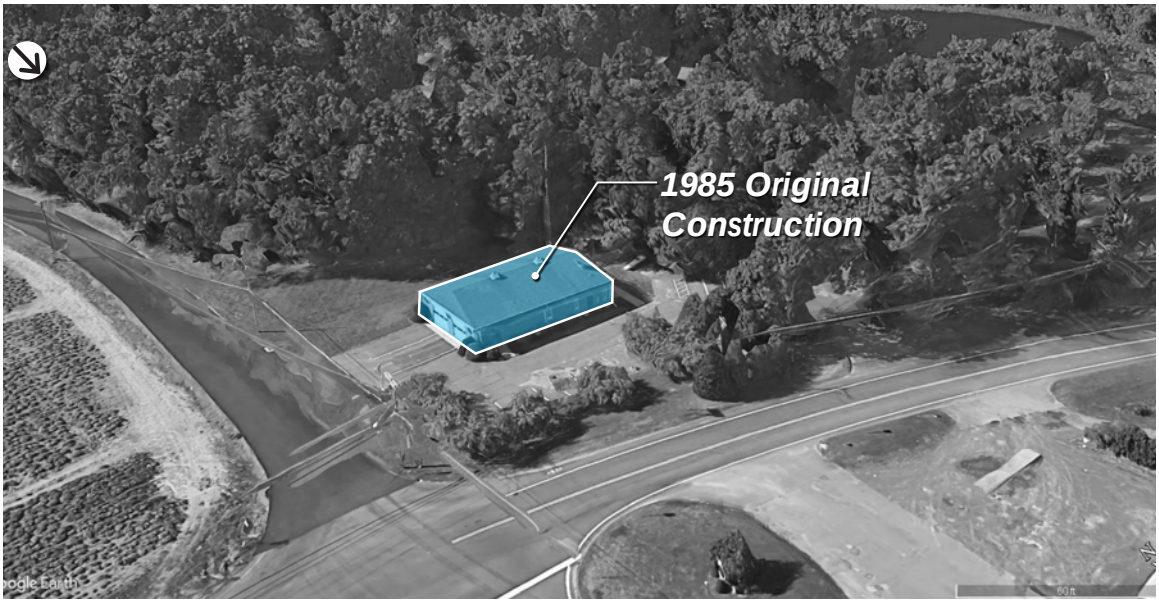
***Building Condition*: Good**

- Poor site drainage causing hazardous conditions with ice, grading revisions
- Minor cracking at apparatus bay apron
- Anecdotal reference to storm water infiltrating tight tank
- Older building but in relatively good condition for its age
- Some signs of ice damming present
- Recommend preventative maintenance to extend useful life
- Suspected mold on apparatus bay ceiling, possible condensation buildup
- Minor accessibility upgrades recommended
- MEP systems are in acceptable working condition but are nearing the end of their useful life and may need replacement in 5-10 years
- Lack of storage space, hot/cold transition zone
- Suitable for on-call operations
- Apparatus space is adequate for substations

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



A1. 1: Aerial View of Existing Fire Department 3 and Property



A1. 2: Vintage Plan

DATA & RANKINGS B

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

B. DATA & RANKINGS

B.1 Building Data

The Facility:

Name:	**Fire Department 3**		
Address:	**3 Copperhill Rd**		
Type / Use:	**Fire Department Substation**		
Total Building Area (SF):	3,256	**Original Construction:**	1985
Site Area (acres):	1.08	**Additions (dates):**	N/A
Stories (above grade):	1	**Construction Type(s):**	
Building / Framing Materials:	Brick/Masonry	**Roof Types & Age:**	Asphalt Shingles (2006) 2056 warranty
Split-level / ramps (interior):	No	**Heating (types):**	Hot Water, Hydronic Heat
Stairs (interior):	No	**Fuel Types:**	Propane
Elevator:	No	**Cooling (centralized):**	N/A
Basement:	No	**Ventilation:**	N/A
Mezzanine (finished)	No	**Electrical:**	120/240 volt, 1 ph, 3 wire, 200 amp
Crawl Space / Tunnels:	No	**Generator:**	Cummins 19 kW propane fired
Auxiliary Buildings:		**Fire Alarm:**	Fire Lite Alarms #MS-9050UD w/HS
Full ADA Compliance:	No	**Sewer / Septic**	Sewer (GIS)
	Toilets, Kitchenette Non-ADA	**Municipal Water / Well**	Well (GIS)
		Sprinklered (full / partial):	N/A
School Data		**Parking Count:**	15
Enrollment(2020):	N/A		
Enrollment 10-yr:	N/A	**Meals:**	N/A
Net Enrollment Change:	N/A	**Meal Prep on site?:**	N/A
Location in Town:	N/A	**Start Time:**	N/A
Grade Structure:	N/A	**Dismissal:**	N/A
Pre-K?:	N/A	**Buses:**	N/A
Athletic Fields:	N/A	**Additional Programs:**	N/A

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
2 Poor [P] May require attention in 2-5 years
3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Exterior

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Roofing	Asphalt shingle roof	4	Installed 2006, 50 year warranty
	Flashing / joints	4	N/A
	gutters / downspouts	1	Ice damming, downspout base route
	Fascia / trim	4	N/A
Walls	Masonry (unpainted)	3	Minor staining
	Joints (Building or expansion)	3	N/A
	Wall mounted fixtures	4	N/A
	Foundations – exposed concrete	4	N/A
Entrances	Entrance Doors	4	N/A
	Overhead Doors	4	N/A
	Soffits / Canopy	2	Add gutter, sheds onto sidewalk
Windows	Fiberglass/aluminum	4	N/A
	Window Screens (exterior)	4	N/A
Walkways / site stairs	Sidewalks	1	Differential settlement and cracking
	Bituminous concrete curb	3	Some damage from snowplows
Drives / parking lots	Bituminous concrete pavement	1	Poor drainage, cracking at apron
	Pavement striping	-	N/A
Landscaping	Lawn	4	N/A
	Plants	4	N/A
	Mulch beds	4	N/A
	Trees	4	N/A
Recreation	-	-	N/A
Other Structures	Site lighting – poles and fixtures	4	N/A
	Vehicular signage	3	Some signage leaning
	Catch basin tops	3	Some cracking around basin
	Catch basin structures	-	N/A

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

B.2 Condition Rankings

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Vintage: **V1** **V2** **V3** **V4**

Interior

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Flooring	Concrete (Epoxy Coated)	3	N/A
	Ceramic Tile	3	N/A
	Vinyl Tile	3	N/A
Walls Surfaces	Masonry (painted)	2	Minor crack repair and repainting
	Gypsum board	3	Minor painting required
	Tile	4	N/A
Ceilings	Gypsum board ceilings / soffits	1	Cleaning of mold and repaint
	Acoustic Panel Ceiling	2	Track rusting above shower
Interior trim	Wood - Wall Base / Door / Window	4	N/A
	Wall Base – Vinyl / Wood	4	N/A
Interior doors	Wood doors	-	N/A
	Hollow metal doors	3	N/A
	Hardware	4	N/A
Built-ins	Casework	1	Non-accessible kitchenette
	Countertops	4	N/A
Toilet Facilities	Fixtures	1	Non-accessible fixtures
	Accessories (dispensers, driers)	4	N/A
Athletics	-	-	N/A

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
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Vintage: **V1** **V2** **V3** **V4**

Building Systems

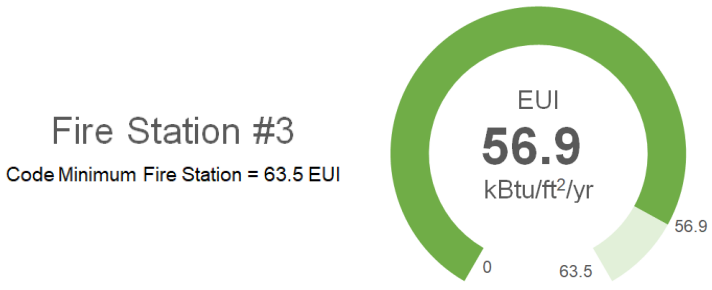
V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Fire Protection	Fire Alarm System & Devices	3	Addressable system in good condition
	Fire suppression (infrastructure / devices)	-	N/A
Plumbing Systems	Infrastructure (pipes, drains, etc.)	2	At end of useful life
	Fixtures	2	At end of useful life
	Overall efficiency	3	New hot water tank is efficient
Mechanical / HVAC	Infrastructure (pipes, ducts, etc.)	2	Infrastructure is at end of useful life
	Heating systems	2	Boiler will need to be replaced
	Cooling systems	-	N/A
	Fixtures & equipment (Interior)	2	Nearing the end of their useful lives
	Fixtures & equipment (Exterior/Roof top)	1	Multiple exhaust fans are required
	Overall efficiency	2	Overall system efficiency is poor
Electrical (Service)	Infrastructure (panels, wiring, etc.)	2	At end of useful life
	Service & distribution	2	In fair working condition
	Generator	2	Near end of useful life
	Automatic Transfer Switch	3	Recently upgraded unit
Electrical Lighting	Infrastructure (panels, wiring, etc.)	2	At end of useful life
	Fixtures (Interior)	1	At end of useful life
	Fixtures – Apparatus Bay	3	Good condition, recent upgrade
	Efficiency (incl. natural & artificial light distr.)	2	Mostly non-LED lighting
Security	Access Control	-	N/A
	Cameras	-	N/A
	Community Alert Siren	1	Could not determine functional status

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

B. 2 Benchmarking

MECHANICAL, ELECTRICAL, FIRE PROTECTION, SECURITY			
SYSTEM	**EQUIPMENT LIFE EXPECTANCY**	**EQUIPMENT AGE**	**USEFUL LIFE PERCENTAGE**
Fire Protection System	40 Years	N/A	N/A
Plumbing Water Heater	25 Years	2 Years	8%
Plumbing Piping & Fixtures	40 Years	35 Years	87%
Mechanical Boiler Plant	30 Years	35 Years	116%
Mechanical Piping & Equipment	40 Years	35 Years	85%
Mechanical Air Conditioning	25 Years	35 Years	140%
Mechanical Controls	20 Years	N/A	N/A
Electrical Service & Distribution	40 Years	35 Years	87%
Electrical Lighting	30 Years	35 Years	116%
Electrical Generator	40 Years	15 Years	38%
Fire Alarm	20 Years	35 Years	175%



EXISTING CONDITIONS NARRATIVE C

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

C.1 Architectural

Construction:

This building is constructed with a load-bearing concrete masonry units and a brick veneer. Roof framing is 2"x6" wood trusses.

Exterior:

EXTERIOR (GENERAL): This building is a bit older but is in relatively good condition for its age. Apparatus Bay doors face east and exit onto Copper Hill Road. An exterior entrance can be found on the north façade with a small canopy. An additional entrance is located on the west side of the building. Routine preventative maintenance, such as caulking and sealant, is recommended to extend the life of the building.

WALLS: Exterior brick veneer is in good condition, but minor staining was observed below canopies due to watershed.

WINDOWS/DOORS/ENTRANCES: Double hung windows, overhead apparatus bay doors, and exterior entry doors are in fair condition considering their age.

ROOF: Asphalt shingle roof was installed in 2006 and carries a 50-year warranty. Gutters and downspouts can be considered fair condition. Some ice damming was observed at the initial site visit and rerouting of downspout discharge would be recommended. The current configuration discharges water across the main drive aisle potentially causing hazards. A gutter and downspout should be added at the canopy, the current configuration sheds water directly onto the sidewalk.

Interior:

INTERIOR SPACES (GENERAL): Vinyl floor tile, vinyl base, and acoustic panel ceilings can be found throughout the building and are in good condition. Interior partitions are gypsum board and painted concrete block. Both are in good condition, but some cleaning is required in the office adjacent to the apparatus bay. Particles from the apparatus bay have settled on the radiant heating in this office and caused a black soot to form.

TOILET FACILITIES: Toilet facilities have a ceramic tile floor with integral base and are in good condition. Acoustic panel ceiling track is beginning to rust above shower enclosure.

KITCHEN: Kitchenette casework is in good condition but dated.

APPARATUS BAY: Concrete masonry unit back-up walls are cracked throughout the apparatus bay. Gypsum board ceiling is in fair condition, however, some suspected mold can be seen above ceiling-mounted heating unit.

Code & Safety

ADA: Toilet facilities lack grab bars, pipe insulation, and accessible controls needed to be ADA compliant. Kitchenette sink does not have required clear space below to be considered ADA compliant. Shower facilities are not accessible.

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

SAFETY: A step is present between apparatus bay and the rest of the building. This could potentially be a tripping hazard in a typical fire response situation.

C.2 MEP

B.4 Plumbing/Fire Protection:

HOT WATER GENERATION: The buildings existing domestic hot water is generated via one electric storage water heater. The water heater tank has a storage capacity of 50 gallons and a 4.5 kW input. The water heater is manufactured by A.O. Smith and is located in the mechanical room. The water heater was installed in 2020 and is in good working condition.

DOMESTIC WATER SERVICE: The existing building is currently served by a city domestic water service. This service is 1-1/2" when it enters the building and is located in the mechanical room. This service was installed in the original 1984 construction and appears to be in fair condition.

DOMESTIC WATER PIPING: Domestic water piping was observed to be a combination of copper and steel piping. A majority of the piping is original to the 1984 construction while the rest is new to the 2020 installation of the water heater. The 1984 piping is at the end of its useful life.

PLUMBING FIXTURES: The plumbing fixtures in the building are from the original 1984 construction and appear to be in acceptable working condition.

SANITARY SERVICE: The building is served by a septic sanitary service. The sanitary service entrance is 4" and located underground outside of the building. The 4" pipe leads to a buried septic tank.

STORM SERVICE: The building currently uses a gutter system to collect and transfer all storm drainage. The roof is pitched on either side to lead the storm into the gutters. The gutters distribute the storm drainage onto the ground through the use of splash guards. The storm service appears to be in good working condition.

PROPANE SERVICE: The building currently has a propane tank that feeds the boiler. The tank is buried outside of the building and the propane gas is piped into the mechanical room to the boiler. The tank and piping are in fair working condition.

FIRE PROTECTION: There is no fire protection system in this building.

B.5 Mechanical:

HEATING SYSTEMS: The existing heating plant consists of one propane gas fired boiler manufactured by Weil McLain. The boiler supplies hot water heating to the building. The boiler is approximately 25 years old and at the end of its useful life.

HOT WATER PIPING: The hot water piping consists of copper pipe throughout the building. The hot water piping is original to the 1984 building construction and at the end of its useful life.

TERMINAL UNITS: The building contains hot water fin-tube baseboard radiation along the perimeter walls in various rooms. The fin-tube radiation is fed by the boiler system. The fin-tube is approximately 25 years old and at the end of its useful life. There are two hot water unit heaters in the Apparatus Bay.

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

The unit heaters are fed by the boiler system and are at the end of their useful life. The building contains a vehicle exhaust system in the App Bay manufactured by Plymovent that appears to be in good working condition.

VENTILATION SYSTEMS: The ventilation in this building is through operable windows only. There is no air handling unit that brings in outdoor air. There are no exhaust fans in the bathrooms or Apparatus Bay which is against code.

COOLING SYSTEMS: There is no cooling system in this building.

DUCTWORK: There is no ductwork within this building.

CONTROLS: There is no building management system (BMS) in this building. There are electrical space sensors in various rooms to control the heating.

B.7 Electrical:

MAIN ELECTRIC SERVICE: The building is fed with underground electric service at 120/240 volt, 1 phase, 3 wire rated for 200 amperes. The service originates from a CL&P utility pole with a single pole mounted 15 kVA transformer. Service conductors run underground to a self-contained meter socket located on the building exterior northern elevation. The service size capacity is adequate for the buildings current use but any anticipated addition of electrical load should be carefully considered from the utility side as they are providing capacity for 60 amperes.

The electric service equipment consists of a combination electric meter / main circuit breaker installed on the north elevation of the building exterior outside the electric / mechanical room. The main circuit breaker is rated for 200 amperes.

ELECTRICAL DISTRIBUTION: The service main disconnect switch feeds into a 225 ampere automatic transfer switch located inside the building. The transfer switch supports the building full load transferring from utility to the available standby generator. The transfer switch feeds into an array of branch circuit panel boards to support the full building load.

Branch circuit distribution consists of a series of 208/120v – 3ph – 4w – 200 ampere load center type panels manufactured by General Electric A-Series dating to approximately 2004. The panels feature Main Lugs Only configuration fed from the ATS load side terminals. The branch circuit panels are all 208/120v – 3ph – 4w – 200 ampere 42 pole panels that contain various circuit breakers serving fire house equipment.

Existing receptacle power provisions within the spaces are provided to satisfy code compliant minimums. Additional devices to supplement the existing layout would be beneficial in apparatus bay areas and meeting room AV equipment areas.

Existing wiring systems are building wire in conduit and metal clad cable.

GENERATOR: Standby power is provided from a Cummins 19 kW propane fired pad mounted generator. This unit appears to be 20 – 25 years old. This unit has only 181 total hours, well below average for a unit of this age. The age of this unit depicts it to be well beyond useful life.

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

LIGHTING SYSTEMS: Lighting systems within the building consist of a combination of linear fluorescent recessed 2x4 acrylic prismatic lensed troffers and recessed incandescent or compact fluorescent 6" diameter downlights. These fixtures types are utilized throughout the office / admin area and corridors. These non-LED type fixtures appear to be from the original building fit-up of 2004.

The apparatus bay areas utilize high output 2x2 and 2x4 chain hung fixtures. These fixtures are providing adequate light levels within these spaces.

Emergency lighting elements could not be identified as a cohesive system. This building deserves a thorough upgrade throughout

Exterior emergency egress lighting is provided at all egress doors and areas of exit discharge. Fixtures providing this illumination consist of LED or incandescent remote mounted weatherproof lamp heads. A central inverter system could not be found within the building

Exterior lighting consisted of HID appearing wall pack style security fixtures.

Lighting controls in the interior consist of wall toggle switches with ceiling mounted occupancy sensors. An exterior photocell control and time clock is incorporated for exterior dusk to dawn control capability.

FIRE ALARM SYSTEM: Fire Alarm protective signaling provisions exist in the building and are administered through a Fire Lite Alarms #MS-9050UD control panel. The panel appears to be fully functional and in very good condition. The panel and peripheral equipment date to approximately 2004. The panel is a 50 point addressable device control panel. The existing occupant notification device layout appears to be in compliance with NFPA requirements with regard to occupant notification standards and initiating device layout. The system communicates to a Central Station via a Notifier #PGSM-4G cellular based communicator complete with an exterior antenna that is installed at the North exterior roof peak. The building is complete with pull stations, smoke detectors and heat detectors and monitors the fire protection service water flow and supervisory conditions.

COMMUNICATION SERVICES: Cable TV service is utilized within the building. Service cable enters the building in the main electric/boiler room via underground service conduit. The service splits to two separate drops in the building.

50 Pair copper cabling for voice communications enters the building in 4" service conduit underground and terminates at a 50 pair service demarc provided by the utility company.

Fiber service is not provisioned to this building.

Data network infrastructure does not exist within this building.

Sonitrol card access is provided within the building.

MISCELLANEOUS SYSTEMS: A radio tower exists on site with dedicated radio equipment situated in a dedicated support room inside the building.

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

A community alert siren is mounted on a dedicated utility pole located at the North end of the site. A siren controller is located within the apparatus bay area. It was not clear if the equipment is utilized but appeared to be functional.

C.3 Site

SITE (GENERAL): The building is centrally located on a wooded site with access from both Copper Hill Road and Mountain Road. All site parking is located to the north of the building.

WALKWAYS/SITE STAIRS: The west entrance to the building has a concrete sidewalk in fair condition; some differential settlement has occurred which could be a tripping hazard.

ROADWAYS/PARKING: Bituminous asphalt parking areas are in fair condition and cracking can be seen throughout. Cracking is worse at the catch basin in the drive aisle and at the base of the downspout adjacent to apparatus bay doors. Snowplow damage is present at most bituminous asphalt curbing. Concrete apparatus bay apron is cracking and can be considered fair condition. An anecdotal reference was made to storm water infiltration at the tight tank and should be investigated. Poor site drainage is causing a hazardous condition during the Winter with ice buildup in drive aisles and should be regraded to direct water away from this area.

LANDSCAPING: Planting areas lack mulch.

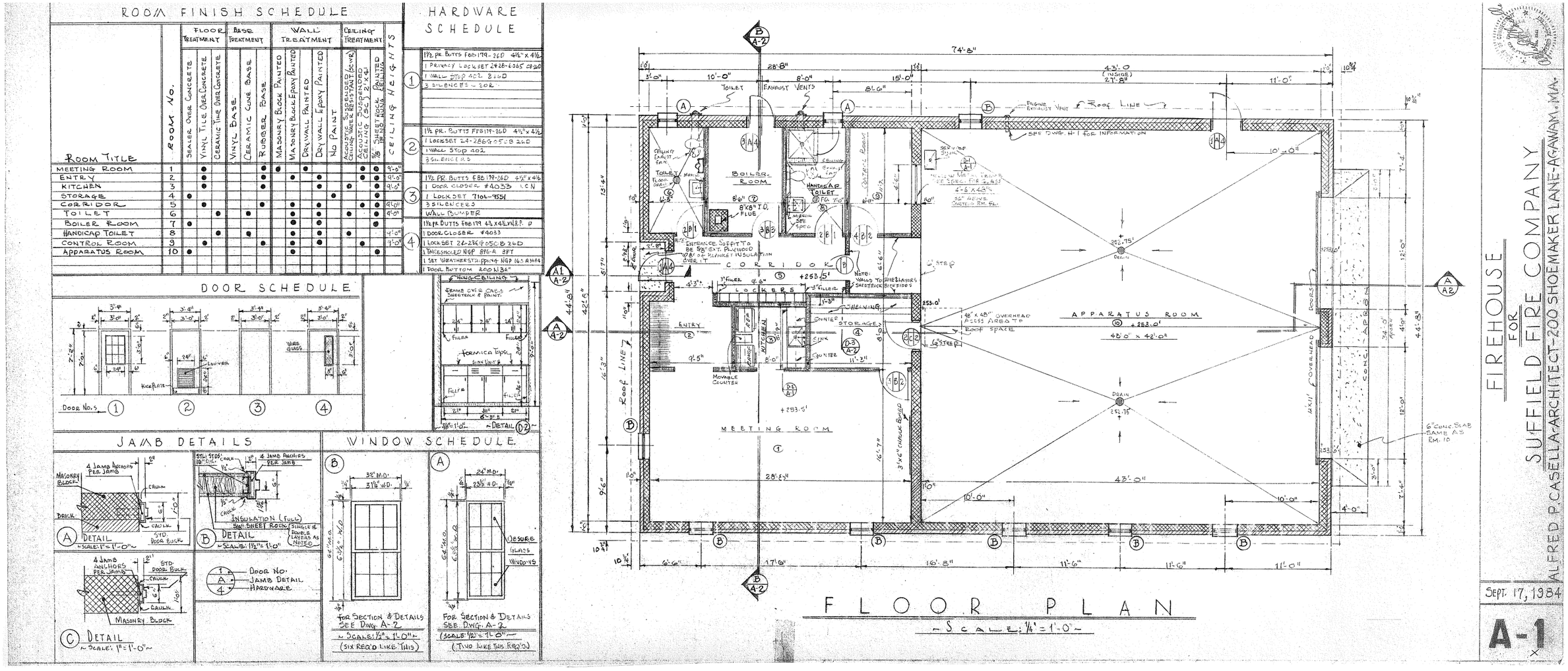
SITE FEATURES: Flagpole and memorial plaque are located adjacent to apparatus bay apron and are in good condition.

OTHER STRUCTURES: Radio tower and a large propane tank are located behind the building. An antique siren tower is located on the north end of the site and is in poor condition.

PHOTO LOG D

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

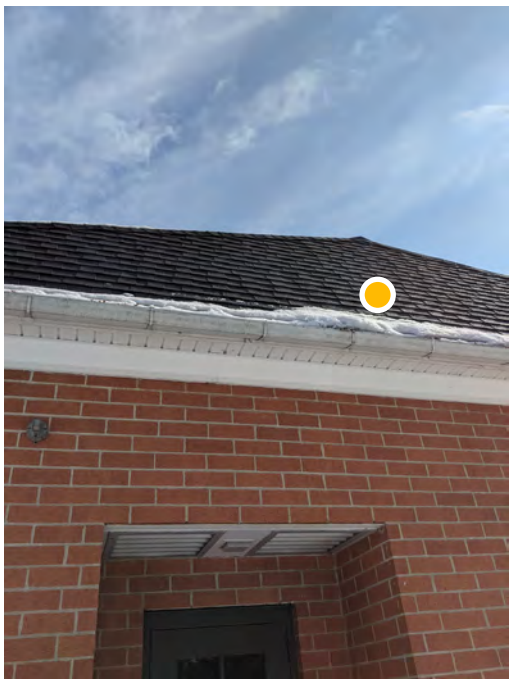
FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

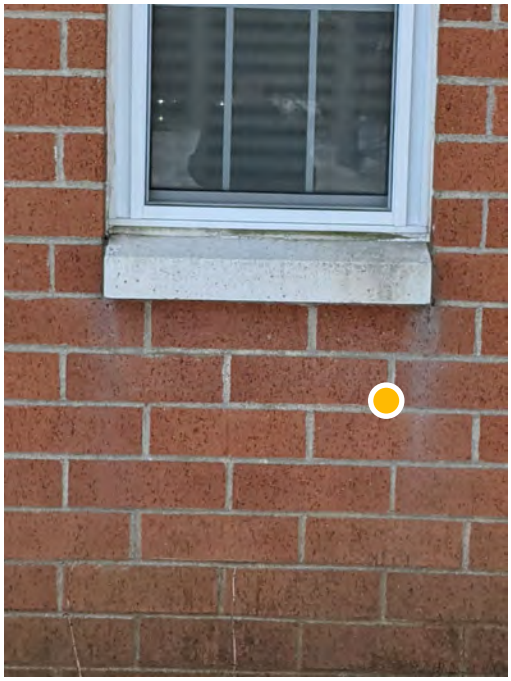


D1. 1: Northwest corner



D1. 2: Ice and snow build up at gutter system

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

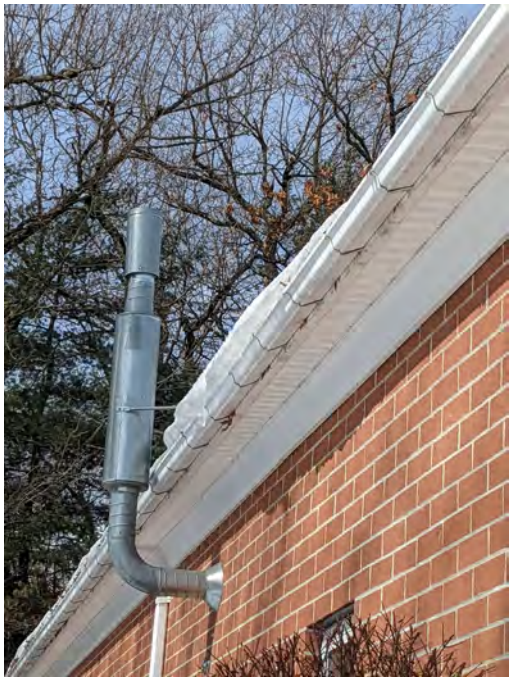


D1. 3: Brick staining below concrete window sills



D1. 4: Canopy at North entrance

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D1. 5: Ice and snow build up at gutter system



D1. 6: Northeast corner

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

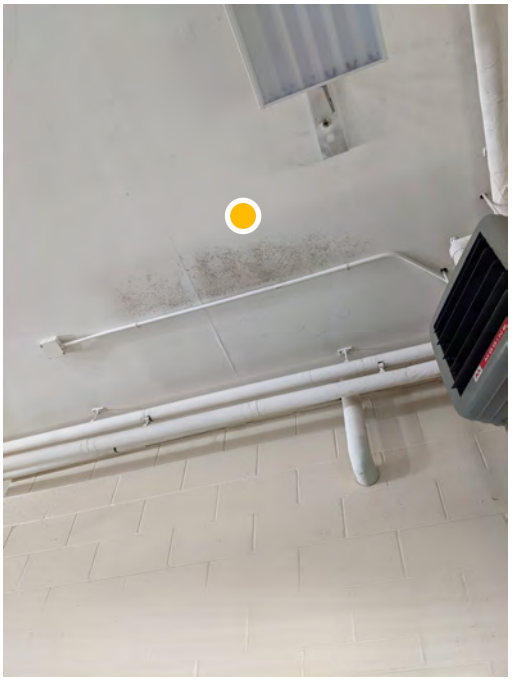


D1. 7: Rear entrance door at Northwest corner

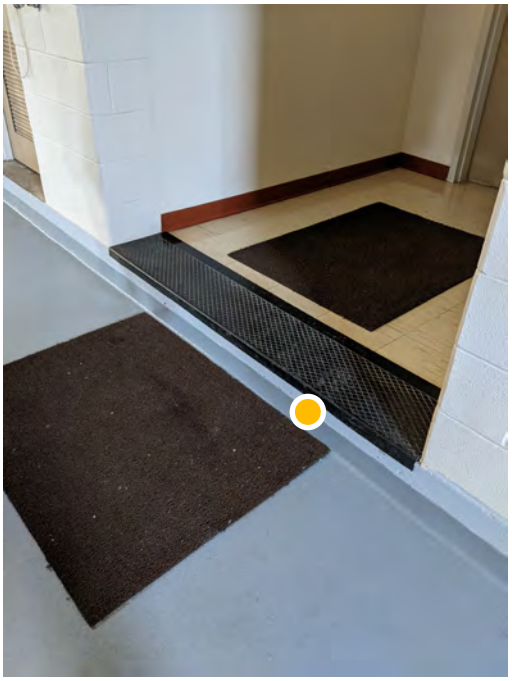


D1. 8: Vented cupola requires repainting

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

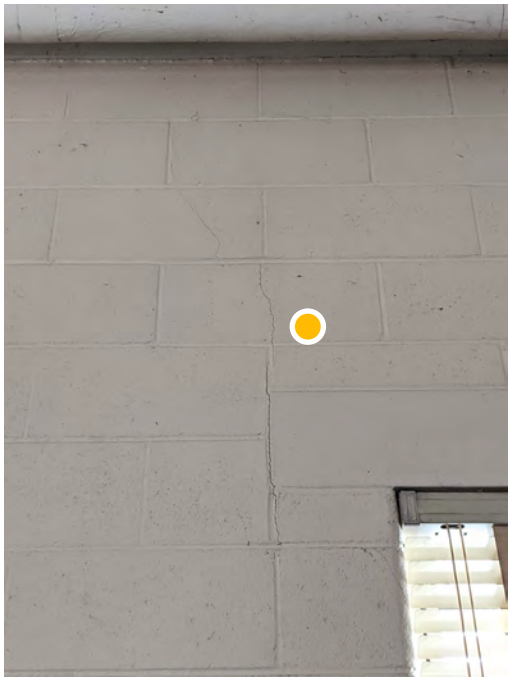


D1. 9: Staining at Apparatus Bay ceiling that is believed to be mold

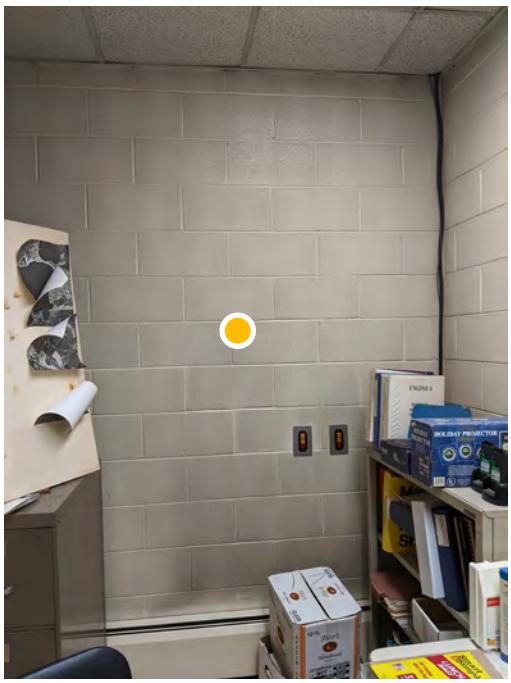


D1. 10: Step between Apparatus Bay and the rest of the building creates a condition that is not wheelchair accessible

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

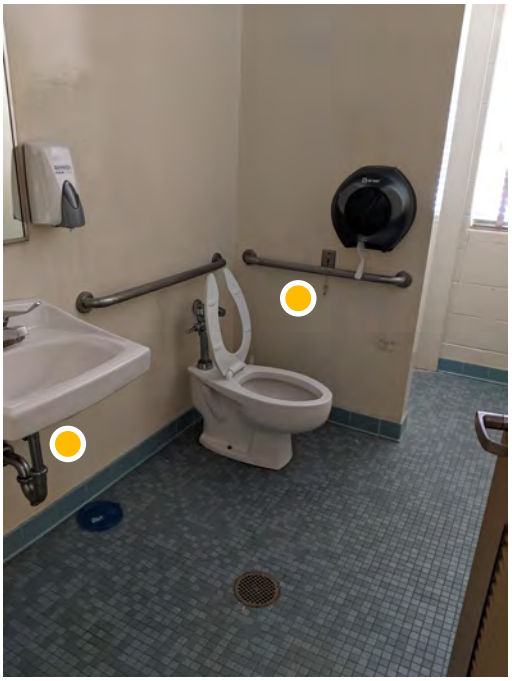


D1. 11: Cracking observed in concrete masonry unit walls in Apparatus Bay and adjacent offices

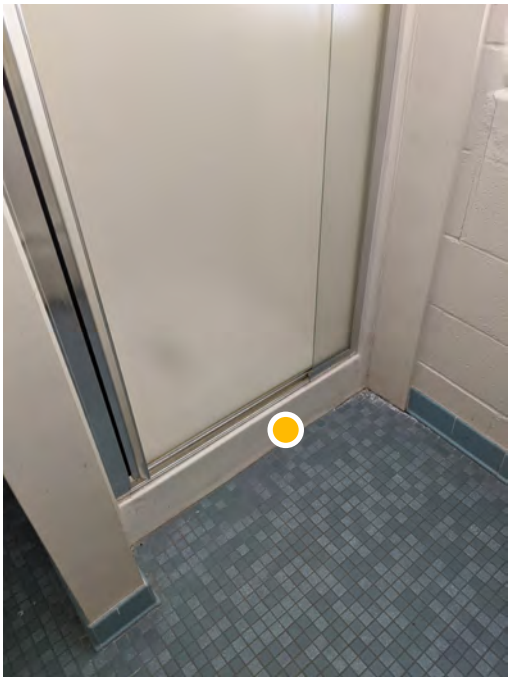


D1. 12: Staining on Radio room walls; this is likely from particulates, originating in the Apparatus Bay, having settled on the radiant heating system and burning

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D1. 13: Grab bars at toilet room do not meet ADA requirements to be considered compliant; pipe insulation is missing below lavatory

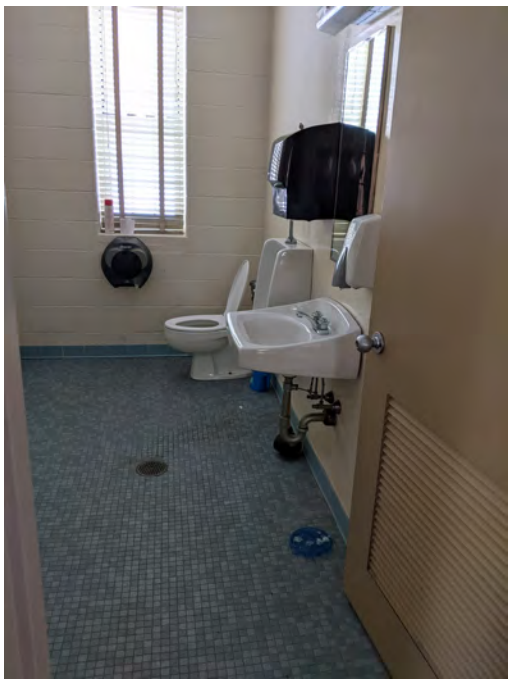


D1. 14: Showers in Toilet rooms do not meet requirements to be considered ADA-compliant

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D1. 15: Acoustic ceiling tile track showing signs of rust above shower stalls



D1. 16: Grab bars at toilet room do not meet ADA requirements to be considered compliant; pipe insulation is missing below lavatory

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D1. 17: Kitchen sink does not have the required clear space below to be considered ADA-compliant

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D2. 1: App Bay Lighting Fixtures



D2. 2: Automatic Transfer Switch

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

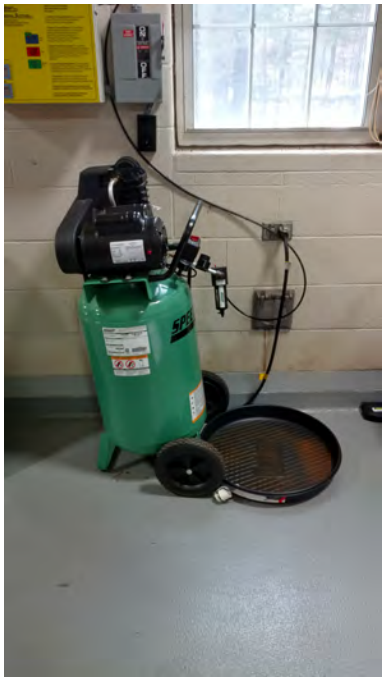


D2. 3: Carbon Monoxide Detector



D2. 4: Community Alert Siren

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D2. 5: Compressor Systems



D2. 6: Domestic Water Piping in Poor Condition

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D2. 7: Electric Domestic Water Heater

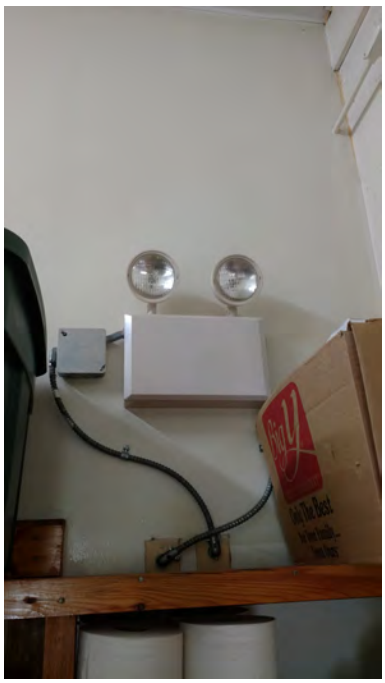


D2. 8: Electrical Meter

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

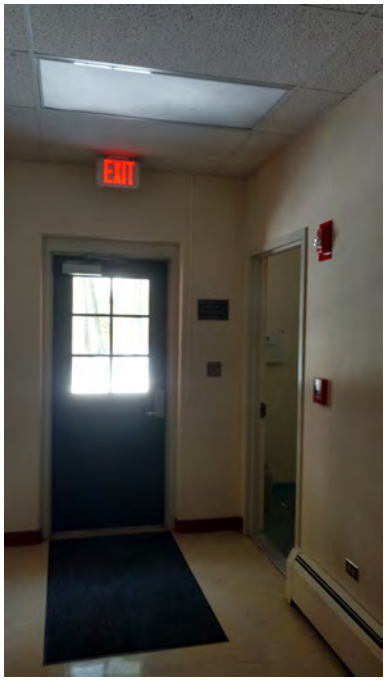


D2. 9: Electrical Service Utility Pole



D2. 10: Emergency Lighting

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D2. 11: Exit Sign



D2. 12: Exterior Lighting Fixtures

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D2. 13: Fire Alarm Control Panel



D2. 14: Gutter Roof Drain Storm Service

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

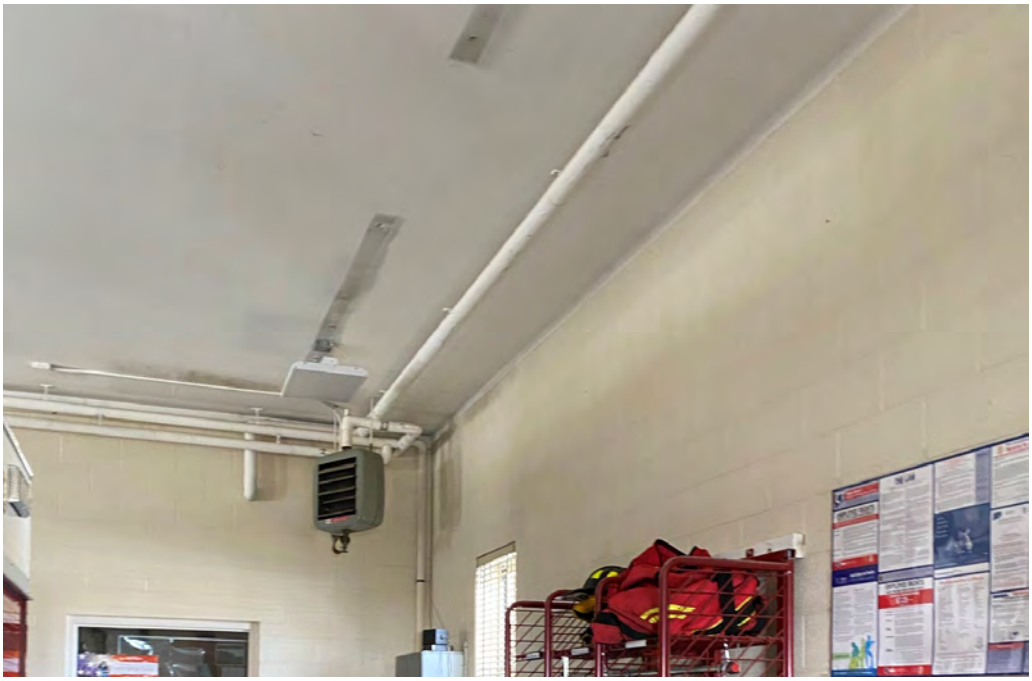


D2. 15: Hot Water Fin Tube Radiation



D2. 16: Hot Water Piping in Poor Condition

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D2. 17: Hot Water Unit Heater in App Bay

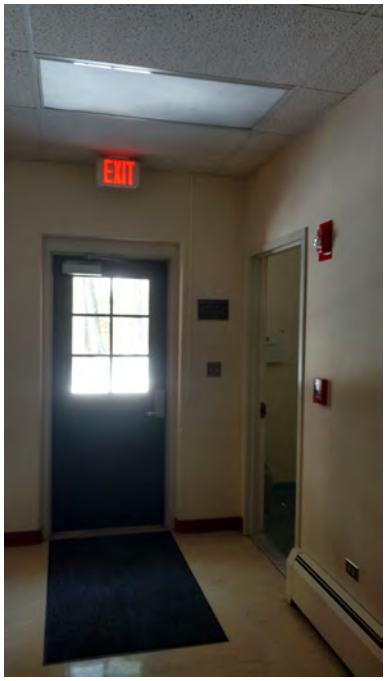


D2. 18: Main Service Disconnect Switch

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

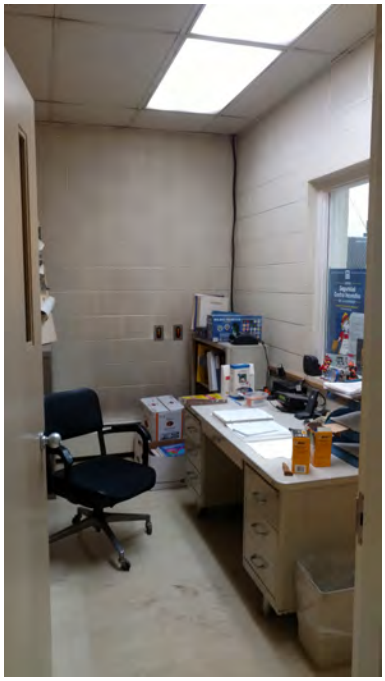


D2. 19: Main Service Panel



D2. 20: Exit Sign.

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D2. 21: Office Power and Lighting



D2. 22: Plumbing Fixtures

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D2. 23: Plymovent Exhaust System in App Bay



D2. 24: Propane Tank Located Outside

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D2. 25: Radio Equipment



D2. 26: Radio Tower Outside

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D2. 27: Smoke Detector and Fire Alarm Communicator



D2. 28: Standby Generator

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D2. 29: Telephone Service Demarc



D2. 30: Weil McLain Propane Fired Hot Water Boiler

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D3. 1: Downspout requires permanent solution to assist in directional shedding of roof drainage



D3. 2: Cracking observed at Apparatus Bay apron

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D3. 3: Flagpole and memorial plaque along Copper Hill Road



D3. 4: Downspout requires permanent solution to assist in directional shedding of roof drainage

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D3. 5: Bituminous concrete curbing is damaged along all drive aisles



D3. 6: West lawn area

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D3. 7: Parking signage requires reseating



D3. 8: Existing above-ground propane tank with bollards

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D3. 9: West façade



D3. 10: Plantings along South façade

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D3. 11: Storm grate is in poor condition with cracks forming on all sides



D3. 12: Bituminous concrete paving is cracked at storm manhole cover

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT



D3. 13: Bituminous concrete paving and curbing is crack adjacent to Apparatus Bay doors



D3. 14: East façade

CAPITAL IMPROVEMENTS E

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

FIRE DEPARTMENT 3 - 3 COPPERHILL ROAD, SUFFIELD, CT

Fire Department 3, 3 Copper Hill Rd - ROM Summary															Building Area: 3,256					CIP Prioritization				
SYSTEM / LINE ITEM DESCRIPTION	Amount	Unit	Unit Price	Current Replacement Cost	General Conditions	Bonds, Ins., Permit	(Unforeseen Conditions)	Temporary Facilities and Controls	Subtotal - Line Item	Line Item Contingency + Approx. Soft Costs (Design, pinning, advertising, etc.)	Projected Line Item Cost	Escalation, Market Premium	Projected Line Item Cost W/Premium	REMARKS	Immediate	1-3 Years	3-5 Years	5-10 Years	10+ Years
					10%	1.5%	7.5%	5.0%		12.5%		20%			0.0%	7.2%	16.8%	31.8%	56.6%
Site Improvements																								
Repaving of existing drives/parking areas	1,200	SY	$61	$ 72,600	$ 7,260	$ 1,089	$ 5,445	$ 3,630	$ 90,024	$ 11,253	$ 101,277	$ 20,255	$ 121,532											
Replace bituminous curbing	650	LF	$9	$ 5,720	$ 572	$ 86	$ 429	$ 286	$ 7,093	$ 887	$ 7,979	$ 1,596	$ 9,575											
Regrade/replace concrete sidewalks	280	SF	$15	$ 4,312	$ 431	$ 65	$ 323	$ 216	$ 5,347	$ 668	$ 6,015	$ 1,203	$ 7,218											
Repair/replace concrete apron at OH doors	60	SF	$17	$ 990	$ 99	$ 15	$ 74	$ 50	$ 1,228	$ 153	$ 1,381	$ 276	$ 1,657											
Regrade drive aisle, trench/connect storm drainage, add gutter/downspout to Entrance canopy	150	SY	$61	$ 9,075	$ 908	$ 136	$ 681	$ 454	$ 11,253	$ 1,407	$ 12,660	$ 2,532	$ 15,192											
Add mulch to planting areas along building	10	CY	$55	$ 550	$ 55	$ 8	$ 41	$ 28	$ 682	$ 85	$ 767	$ 153	$ 921											
Investigate storm water infiltration at tank	1	EA	$2,750	$ 2,750	$ 275	$ 41	$ 206	$ 138	$ 3,410	$ 426	$ 3,836	$ 767	$ 4,604	Requires further investigation										
Exterior Improvements				$ -					$ -	$ -	$ -													
Clean masonry/exposed foundation	3,256	SF	$2	$ 7,163	$ 716	$ 107	$ 537	$ 358	$ 8,882	$ 1,110	$ 9,993	$ 1,999	$ 11,991											
Replace window caulking & sealant	120	SF	$2	$ 264	$ 26	$ 4	$ 20	$ 13	$ 327	$ 41	$ 368	$ 74	$ 442											
Interior Improvements				$ -					$ -	$ -	$ -													
Replace ceiling tiles and grid at shower	70	SF	$8	$ 539	$ 54	$ 8	$ 40	$ 27	$ 668	$ 84	$ 752	$ 150	$ 902											
Replace kitchen sink/cabinet with ADA accessible sink and casework	1	EA	$2,750	$ 2,750	$ 275	$ 41	$ 206	$ 138	$ 3,410	$ 426	$ 3,836	$ 767	$ 4,604	Technically infeasible without significant renovations										
ADA upgrades at toilet rooms	2	EA	$6,600	$ 13,200	$ 1,320	$ 198	$ 990	$ 660	$ 16,368	$ 2,046	$ 18,414	$ 3,683	$ 22,097	Technically infeasible without significant renovations.										
Repair cracks in exterior masonry walls	100	SF	$22	$ 2,200	$ 220	$ 33	$ 165	$ 110	$ 2,728	$ 341	$ 3,069	$ 614	$ 3,683											
Clean Radio Office	75	SF	$1	$ 83	$ 8	$ 1	$ 6	$ 4	$ 102	$ 13	$ 115	$ 23	$ 138											
Clean Apparatus Bay ceiling	1,800	SF	$1	$ 1,980	$ 198	$ 30	$ 149	$ 99	$ 2,455	$ 307	$ 2,762	$ 552	$ 3,315	Consider investigating cause of mold issue										
Division 21 - Fire Protection				$ -					$ -	$ -	$ -													
Division 22 - Plumbing				$ -					$ -	$ -	$ -													
Water Distribution and Drainage Systems	3,256	SF	$10	$ 32,234	$ 3,223	$ 484	$ 2,418	$ 1,612	$ 39,971	$ 4,996	$ 44,967	$ 8,993	$ 53,960	3-5yrs useful life. A majority of the hot water ping is from the original 1985 construction and nearing the end of its useful life.										
Plumbing Fixtures / Equipment	3,256	SF	$4	$ 14,326	$ 1,433	$ 215	$ 1,074	$ 716	$ 17,765	$ 2,221	$ 19,985	$ 3,997	$ 23,982	3-5yrs useful life. Replacement of all plumbing fixtures throughout the building.										
Water Heaters	1	EA	$16,500	$ 16,500	$ 1,650	$ 248	$ 1,238	$ 825	$ 20,460	$ 2,558	$ 23,018	$ 4,604	$ 27,621	10+yrs useful life. Water heater installed in 2020 and in good working condition.										
Division 23 - Mechanical				$ -					$ -	$ -	$ -													
Heating Plant (Boilers, Pumps, etc.)	1	SF	$9	$ 9	$ 1	$ 0	$ 1	$ 0	$ 11	$ 1	$ 12	$ 2	$ 15	3-5yrs useful life. Boiler plant appears to be original to the 1985 construction and is past its useful life, will need to be replaced.										
Terminal Units	3,256	SF	$7	$ 21,490	$ 2,149	$ 322	$ 1,612	$ 1,074	$ 26,647	$ 3,331	$ 29,978	$ 5,996	$ 35,974	3-5yrs useful life. Unit heaters and perimeter fin tube radiation are original to the building and at the end of their useful lives.										
Control Systems	3,256	SF	$8	$ 25,071	$ 2,507	$ 376	$ 1,880	$ 1,254	$ 31,088	$ 3,886	$ 34,974	$ 6,995	$ 41,969	3-5yrs useful life. There is no BMS within this building, all other devices controlled by standalone controls original to construction.										
Division 26 - Electrical				$ -					$ -	$ -	$ -													
Electrical Service / Distribution	3,256	SF	$22	$ 71,632	$ 7,163	$ 1,074	$ 5,372	$ 3,582	$ 88,824	$ 11,103	$ 99,927	$ 19,985	$ 119,912	10+yrs useful life. Original service appears to be in good working condition.										
Generator	1	EA	$55,000	$ 55,000	$ 5,500	$ 825	$ 4,125	$ 2,750	$ 68,200	$ 8,525	$ 76,725	$ 15,345	$ 92,070	5+yrs useful life. Generator is well beyond useful life.										
Lighting - General	3,256	SF	$9	$ 28,653	$ 2,865	$ 430	$ 2,149	$ 1,433	$ 35,529	$ 4,441	$ 39,971	$ 7,994	$ 47,965	5+yrs useful life. Light fixtures are older incandescent types with retrofit lamps.										
Fire Alarm System	3,256	SF	$11	$ 35,816	$ 3,582	$ 537	$ 2,686	$ 1,791	$ 44,412	$ 5,551	$ 49,963	$ 9,993	$ 59,956	10+yrs useful life. Fire alarm system is in good condition and is addressable technology.										
Subtotal for CIP Items				**$ 424,907**					**$ 526,885**		**$ 592,745**	**$ 118,549**	**$ 711,294**											
Cost Per Square Foot				**$ 130.50**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 161.82**	**$ -**	**$ 182.05**	**$ 36.41**	**$ 218.46**											

Building Vintage Summary			
Building Vintage	**Area**		**% to Ttl**
Building Vintage ~ 1985	3,256	V1	100.00%

FIRE DEPARTMENT 4

776 THOMPSONVILLE ROAD, SUFFIELD, CT

CONDITIONS ASSESSMENT & MASTER PLAN

Tecton
ARCHITECTS

3.11


SUFFIELD FIRE DEPT.
776

TABLE OF CONTENTS

INTRODUCTION ..... **A**

Summary & Analysis A1

DATA & RANKINGS ..... **B**

Building Data B1

Condition Rankings B2

EXISTING CONDITIONS NARRATIVE ..... **C**

Architectural *(Building & Structure)* C1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* C2

Site *(Civil, Landscape, Utilities)* C3

PHOTO LOG ..... **D**

Architectural *(Building & Structure)* D1

MEP *(Mechanical, Electrical, Plumbing, Fire Protection & Security)* D2

Site *(Civil, Landscape, Utilities)* D3

CAPITAL IMPROVEMENTS ..... **E**

Capital Improvements E1

INTRODUCTION A

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

A. INTRODUCTION

A.1 Summary & Analysis

Fire Station #4 serves as a substation for the Town of Suffield and is in good condition relative to its age. The apparatus bay doors are on the South Façade located adjacent to the main entrance. Additional entrances are located on the East and West sides of the building. The building is centrally located on an open site with minimal trees. A few parking spaces are located along the apron but it appears most parking for the site is taken care of in the shared lot to the West. The apparatus bay apron exits South off the site onto Thompsonville Road.

Refer to Programing, Energy Efficiency & Capital Improvements sections for additional information.

BUILDING AREA/SITE	2,702 sf / 3.46 acres
AGE/CONSTRUCTION	1975 (47)

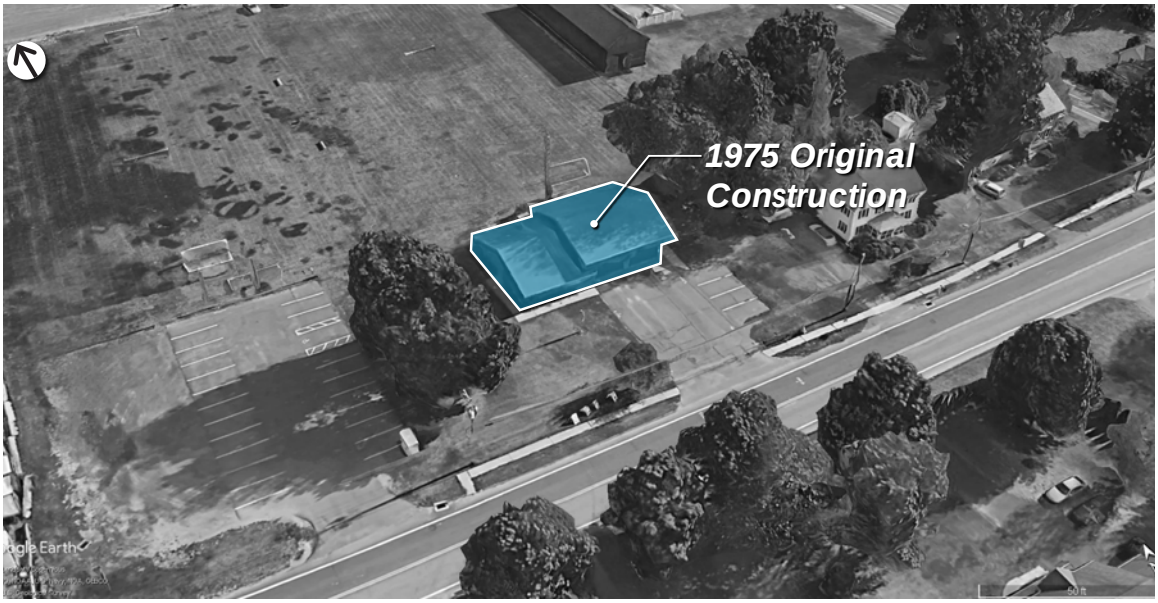
***Building Condition*: Fair**

- Building is in good condition relative to its age.
- Improper fit of window air conditioning unit and staining of adjacent brick wall.
- Finishes in fair condition considering age of building
- Lack of tie-in or splash block at downspout causing soil erosion
- MEP systems are at the end of their useful life and should be replaced in the near future
- Minor accessibility upgrades recommended
- Lack of storage space, hot/cold transition zone
- Suitable for on-call operations
- Apparatus space is adequate for substations

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



A1. 1: Aerial View of Existing Fire Department 4 and Property



A1. 2: Vintage Plan

DATA & RANKINGS B

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

B. DATA & RANKINGS

B.1 Building Data

The Facility:

Name:	**Fire Department 4**
Address:	**776 Thompsonville Rd**
Type / Use:	**Fire Department Substation**

Total Building Area (SF):	2,702	**Original Construction:**	1975
Site Area (acres):	3.46	**Additions (dates):**	N/A
Stories (above grade):	1	**Construction Type(s):**	
Building / Framing Materials:	Brick/Masonry	**Roof Types & Age:**	Asphalt Shingles (2016) 2031+ warranty
Split-level / ramps (interior):	No	**Heating (types):**	Hot Water, Hydronic Heat
Stairs (interior):	No	**Fuel Types:**	Natural Gas
Elevator:	No	**Cooling (centralized):**	Window Mounted A/C Units
Basement:	No	**Ventilation:**	Exhaust Only
Mezzanine (finished)	No	**Electrical:**	208/120 volt, 3 ph, 4 wire 200 amp
Crawl Space / Tunnels:	No	**Generator:**	Cummins GGMA natural gas
Auxiliary Buildings:		**Fire Alarm:**	Fire Lite Alarms #MS-9050UD w/HS
Full ADA Compliance:	No	**Sewer / Septic**	Sewer (GIS)
	Toilets, Kitchenette Non-ADA	**Municipal Water / Well**	Well (GIS)
		Sprinklered (full / partial):	N/A
School Data		**Parking Count:**	4
Enrollment(2020):	N/A		
Enrollment 10-yr:	N/A	**Meals:**	N/A
Net Enrollment Change:	N/A	**Meal Prep on site?:**	N/A
Location in Town:	N/A	**Start Time:**	N/A
Grade Structure:	N/A	**Dismissal:**	N/A
Pre-K?:	N/A	**Buses:**	N/A
Athletic Fields:	N/A	**Additional Programs:**	N/A

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
2 Poor [P] May require attention in 2-5 years
3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Exterior

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Roofing	Asphalt Shingle Roof	4	Installed 2016, 15-30 year warranty
	Flashing / joints	4	N/A
	gutters / downspouts	3	No splash block causing soil erosion
	Fascia / trim	4	N/A
Walls	Masonry (unpainted)	3	Staining present at AC unit
	Joints (Building or expansion)	3	N/A
	Wall mounted fixtures	4	N/A
	Foundations – exposed concrete	4	N/A
Entrances	Entrance Doors	3	Minor rusting at base of frame
	Overhead Doors	2	Thresholds beginning to rust
	Soffits / Canopy	4	N/A
Windows	Aluminum	2	Permanent installation of AC unit
	Window Screens (exterior)	-	N/A
Walkways / site stairs	Sidewalks	2	Cracking at side entrance walks
	Bituminous concrete curb		N/A
Drives / parking lots	Bituminous concrete pavement	3	Minor cracking
	Pavement striping		N/A
Landscaping	Lawn	3	Soil erosion at downspouts
	Plants	4	N/A
	Mulch beds	4	N/A
	Trees	4	N/A
Recreation	-	-	N/A
Other Structures	Site lighting – poles and fixtures	4	N/A
	Vehicular signage	4	N/A
	Catch basin tops		N/A
	Catch basin structures		N/A

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

B.2 Condition Rankings

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Vintage: **V1** **V2** **V3** **V4**

Interior

V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Flooring	Concrete (Epoxy Coated)	4	N/A
	Ceramic Tile	2	Minor repair & cleaning required
	Vinyl Tile	4	N/A
	Carpet	4	N/A
Walls Surfaces	Masonry (painted)	3	Patch holes from previous conduit
	Tile	3	Minor tile cracking
Ceilings	Gypsum board ceilings / soffits	3	Repaint at previous lighting locations
	Acoustic Panel Ceilings	3	Few tiles need replacement
Interior trim	Wall Base – Vinyl / Wood	4	N/A
Interior doors	Hollow metal doors	4	N/A
	Hardware	4	N/A
Built-ins	Casework	1	Non-accessible kitchenette
	Countertops	3	Beginning to warp and show wear
Toilet Facilities	Fixtures	1	Non-accessible fixtures
	Partitions	4	N/A
	Accessories (dispensers, driers)	4	N/A
Athletics	-	-	N/A

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

B.2 Condition Rankings

Rankings:

1 Very poor [VP] Requires prompt attention, 0-2 years
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3 Fair [F] May require attention in 5-10 years
4 Good [G] May require attention in 10+ years

Vintage: **V1** **V2** **V3** **V4**

Building Systems

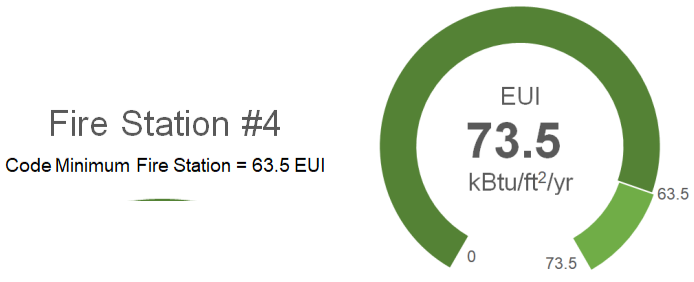
V4 V3 V2 **V1**

Component	Material(s)	Condition	Notes
Fire Protection	Fire Alarm Systems & Devices	3	Addressable system in good condition
	Fire suppression (infrastructure / devices)	-	N/A
Plumbing Systems	Infrastructure (pipes, drains, etc.)	1	Past the end of its useful life
	Fixtures	2	At the end of useful life
	Overall efficiency	3	New hot water tank is efficient
Mechanical / HVAC	Infrastructure (pipes, ducts, etc.)	1	Past the end of its useful life
	Heating systems	3	Boiler at end of life but works
	Cooling systems	1	Window mounted AC units
	Fixtures & equipment (Interior)	2	At the end of useful life
	Fixtures & equipment (Exterior/Roof top)	1	App Bay exhaust fan required
	Overall efficiency	2	Overall efficiency is poor
Electrical (Service)	Infrastructure (panels, wiring, etc.)	3	Good condition
	Service & distribution	3	Good condition
	Generator / ATS	3	Good condition
	Other	-	N/A
Electrical Lighting	Infrastructure (panels, wiring, etc.)	2	Nearing end of life
	Fixtures (Interior)	1	Should be upgraded
	Fixtures – Apparatus Bay	4	Recent Upgrade
	Efficiency (incl. natural & artificial light distr.)	2	Mostly non-LED fixtures
Security	Access Control	3	Functional system installed
	Cameras	-	N/A

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

B. 2 Benchmarking

MECHANICAL, ELECTRICAL, FIRE PROTECTION, SECURITY			
SYSTEM	**EQUIPMENT LIFE EXPECTANCY**	**EQUIPMENT AGE**	**USEFUL LIFE PERCENTAGE**
Fire Protection System	40 Years	N/A	N/A
Plumbing Water Heater	25 Years	5 Years	20%
Plumbing Piping & Fixtures	40 Years	45 Years	113%
Mechanical Boiler Plant	30 Years	25 Years	83%
Mechanical Piping & Equipment	40 Years	45 Years	113%
Mechanical Air Conditioning	25 Years	45 Years	180%
Mechanical Controls	20 Years	N/A	N/A
Electrical Service & Distribution	40 Years	45 Years	113%
Electrical Lighting	30 Years	45 Years	150%
Electrical Generator	40 Years	45 Years	113%
Fire Alarm	20 Years	45 Years	225%



EXISTING CONDITIONS NARRATIVE C

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

C.1 Architectural

Construction:

No existing drawings have been made available for Fire Station 4. It is assumed that the construction of this building is similar to substations 2 and 3; load bearing masonry with structural wood roof joists.

Exterior:

EXTERIOR (GENERAL): Fire Station 4 is in good condition relative to its age. The apparatus bay doors are on the South Façade located adjacent to the main entrance. Additional entrances are located on the East and West sides of the building.

WALLS: Exterior brick veneer is in good condition with a few spots requiring cleaning. Heavy staining was observed adjacent to window air conditioning unit. This unit is improperly fit in the window and should receive a more permanent solution. Exposed concrete foundation is beginning to show wear at Southeast corner of the building, likely due to salt build up during the winter months.

WINDOWS/DOORS/ENTRANCES: Overhead apparatus bay doors, main entrance door, and side doors are all in good condition. The main entrance door frame is beginning to corrode at the base, also likely due to salt buildup. The embedded steel angle at apparatus door sills are beginning to rust.

ROOF: The asphalt shingle roof was installed in 2016 and carries a 15+ year warranty. Metal soffits and fascia, gutters, and downspouts are in good condition. Lack of splash block or tie-in at the Northwest corner of the building is causing soil erosion

Interior:

INTERIOR SPACES (GENERAL): All interior finishes are in good condition considering the age of the building. Vinyl floor tile and carpet throughout are in good condition. Acoustic panel ceiling tiles are beginning to sag, and some minor tile staining was observed. Painted concrete masonry unit walls and gypsum board walls are in fair condition. Some minor tile repair, cleaning, and preventative maintenance are required to extend the life of these materials.

TOILET FACILITIES: Ceramic floor and wall tile is in good condition

KITCHEN: This building has a small all-in-one kitchenette unit which is very dated and should be replaced with a modern kitchenette that meets current ADA codes.

APPARATUS BAY: The apparatus bay floor is epoxy coated concrete with painted parking lines and is in good condition. The walls in this space are painted concrete masonry units and need some repair where former penetrations are located. Some minor painting and repairs are needed at the gypsum board ceiling.

Code & Safety

ADA: The all-in-one kitchenette unit does not meet current ADA standards. Toilet facilities throughout do not have required grab bars or clearances. In addition, clear space requirements below toilet room lavatories are not met. Push clearance is not met at toilet room doors.

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

SAFETY: This building does not have a sprinkler system.

C.2 MEP

B.4 Plumbing/Fire Protection:

HOT WATER GENERATION: The buildings existing domestic hot water is generated via one electric storage water heater. The water heater is a 20 gallon storage tank with a 2.5 KW input, and manufactured by AO Smith. The water heater is located in the mechanical room and was installed approximately 5 years ago. It appears to be in good working condition.

DOMESTIC WATER SERVICE: The existing building is currently served by a municipal water service. The water service appears to be original to the 1976 construction and is in fair condition.

DOMESTIC WATER PIPING: Domestic water piping was observed to be copper piping. The majority of the piping appears to be original to the 1976 construction and is at the end of its useful life. There is new piping connections to the water heater that appears to be in good working condition.

PLUMBING FIXTURES: The plumbing fixtures in the building appear to be from the original 1976 construction and are at the end of their useful lives.

SANITARY SERVICE: The building appears to have a municipal sanitary service that is original to the 1976 construction and appears to be in fair condition.

STORM SERVICE: The building currently uses a gutter system to collect and transfer all storm drainage. The roof is pitched on either side to lead the storm into the gutters. The gutters distribute the storm drainage onto the ground through the use of splash guards. The storm service appears to be in good working condition.

NATURAL GAS SERVICE: The building currently has a natural gas service that serves the boiler and generator. The natural gas service is located next to the wall outside of the building. The gas service and corresponding piping is old and at the end of its useful life. There is also and oil water separator located outside of the building that appears original and nearing the end of its useful life.

FIRE PROTECTION: There is no fire protection system in this building.

B.5 Mechanical:

HEATING SYSTEMS: The existing heating plant consists of one cast iron natural gas fired boiler manufactured by Weil McLain. The boiler has an input of 400 MBH and supplies hot water heating to the building. The boiler is approximately 25 years old and at the end of its useful life.

HOT WATER PIPING: The hot water piping consists of steel and copper pipe throughout the building. The hot water piping appears to be original to the 1976 construction and is nearing the end of its useful life.

TERMINAL UNITS: The building contains hot water fin-tube baseboard radiation along perimeter walls in various rooms. The baseboard radiation appears to be original to construction and is nearing the end

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

of its useful life. There are hot water unit heaters that provide heat to the Apparatus Bay. These unit heaters appear to be old and nearing the end of their useful lives. The building contains a vehicle exhaust system in the Garage manufactured by Plymovent that appears to be in good working condition.

VENTILATION SYSTEMS: The ventilation in this building is through operable windows only. There is no air handling unit that brings in outdoor air. There are localized exhaust fans that serve the toilet rooms and IT room. The exhaust fans remove the exhaust air from the building. The fans appear to be original to the construction of the building and at the end of their useful lives. There is no exhaust system serving the Apparatus Bay which is required by current code.

COOLING SYSTEMS: The building does not contain a central cooling system. Any cooling is being accomplished by window mounted A/C units that are in fair condition.

DUCTWORK: There is minimal ductwork throughout this building. There is exhaust ductwork serving the exhaust grilles and fans. This ductwork appears to be original to the building and at the end of its useful life.

CONTROLS: There is no building management system (BMS) in this building. There are electrical space sensors in various rooms to control the heating.

B.7 Electrical:

MAIN ELECTRIC SERVICE: Underground electric service at 208/120 volt, 3 phase, 4 wire rated for 200 amperes is supplied to the building. The service transformers configuration could not be confirmed. The service capacity is adequate for the buildings current use.

The service disconnect and meter consist of a hot sequence meter with meter number 89-025-455. The main disconnect consists of a 200 ampere fusible switch on the building exterior located at the rear of the building within a fenced in yard containing the generator.

ELECTRICAL DISTRIBUTION: The service main disconnect switch feeds into a 225 ampere automatic transfer switch located inside the building. The transfer switch supports the building full load transferring from utility to the available standby generator. The transfer switch feeds into an array of branch circuit panel boards to support the full building load.

The electric distribution incorporates a 200 ampere Auto Transfer Switch (ATS) to feed the entire building on utility outage. The switch is in like-new condition.

Existing receptacle power provisions within the spaces are code compliant but could be improved with additional devices.

Existing wiring systems are building wire in conduit and metal clad cable.

GENERATOR: Standby power is provided from a Cummins GGMA natural gas fired pad mounted generator. This unit appears to be in like-new condition with 57 running hours per the maintenance records.

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

LIGHTING SYSTEMS: Lighting systems within the building consist of a combination of linear fluorescent recessed 2x4 acrylic prismatic lensed troffers and recessed incandescent or compact fluorescent 6" diameter downlights. These fixtures types are utilized throughout the office / admin area and corridors. These non-LED type fixtures appear to be from the original building fit-up of 2004.

The apparatus bay areas utilize high output 2x2 and 2x4 chain hung LED fixtures. These fixtures are providing adequate light levels within these spaces.

Emergency lighting elements could not be identified as a cohesive system. This building deserves a thorough upgrade throughout

Exterior emergency egress lighting is provided at all egress doors and areas of exit discharge. Fixtures providing this illumination consisted of LED or incandescent remote mounted weatherproof lamp heads. A central inverter system could not be found within the building.

Exterior lighting consisted of black square sconce style decorative light fixtures at each side of the egress doors with an LED floodlight added above. This is installed at both the North and West elevations.

Lighting controls in the interior consist of wall toggle switches with ceiling mounted occupancy sensors. An exterior photocell control and time clock is incorporated for exterior dusk to dawn control capability.

FIRE ALARM SYSTEM: Fire Alarm protective signaling provisions exist in the building and are administered through a Fire Lite Alarms #MS-9050UD control panel. The panel appears to be fully functional and in very good condition. The panel and peripheral equipment dates to approximately 2004. The panel is a 50 point addressable device control panel. The existing occupant notification device layout appears to be in compliance with NFPA requirements with regard to occupant notification standards and initiation device layout. The system communicates to a Central Station via a Notifier #PGSM-4G cellular based communicator complete with an exterior antenna that is installed at the North exterior roof peak. The building is complete with pull stations, smoke detectors and heat detectors and monitors the fire protection service water flow and supervisory conditions.

COMMUNICATION SERVICES: Cable TV service is utilized within the building. Service cable enters the building in the main electric/boiler room via underground service conduit.

50 Pair copper cabling for voice communications enters the building in 4" service conduit underground and terminates at a 50 pair service demarc provided by the utility company.

Fiber service is not provisioned to this building.

Data network infrastructure does not exist within this building.

Sonitrol card access is provided within the building.

MISCELLANEOUS SYSTEMS: A radio tower exists on site with dedicated radio equipment situated in a dedicated support room inside the building.

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

C.3 Site

SITE (GENERAL): The building is centrally located on an open site with minimal trees. A few parking spaces are located along the apron but it appears most parking for the site is taken care of in the shared lot to the West. The apparatus bay apron exits South off the site onto Thompsonville Road.

WALKWAYS/SITE STAIRS: A concrete sidewalk wraps around the building connecting all three entrances and across the apparatus bay doors. This walk is in fair condition with cracking near the East entrance. A bituminous concrete walk extends from the West entrance to the overflow parking lot. This sidewalk is also in fair condition, with some observed cracking.

ROADWAYS/PARKING: Most of the paved area on the site is part of the apparatus bay apron and small space allocated for parking. This paving is beginning to show minor signs of cracking along the edge of the concrete section of apron. The overflow parking lot is in good condition.

LANDSCAPING: Landscaping appears to be well maintained.

SITE FEATURES: A flag pole is located South of the building adjacent to the apron and is in good condition.

OTHER STRUCTURES: A radio tower surrounded by a fence is located at the rear of the building.

PHOTO LOG D

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

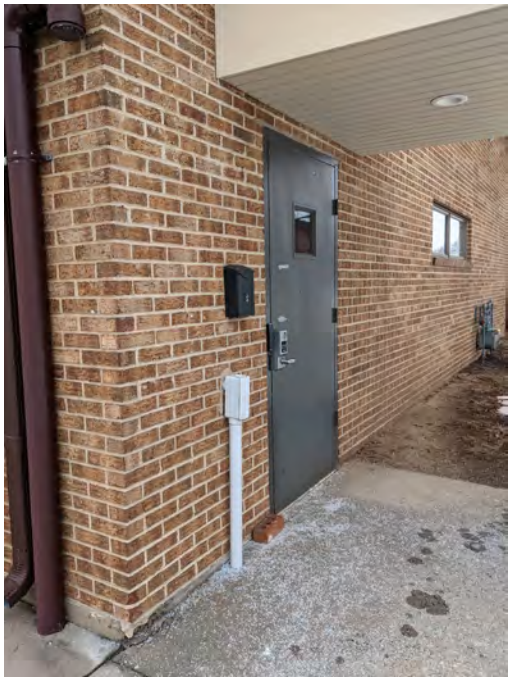


D1. 1: South façade



D1. 2: East façade

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

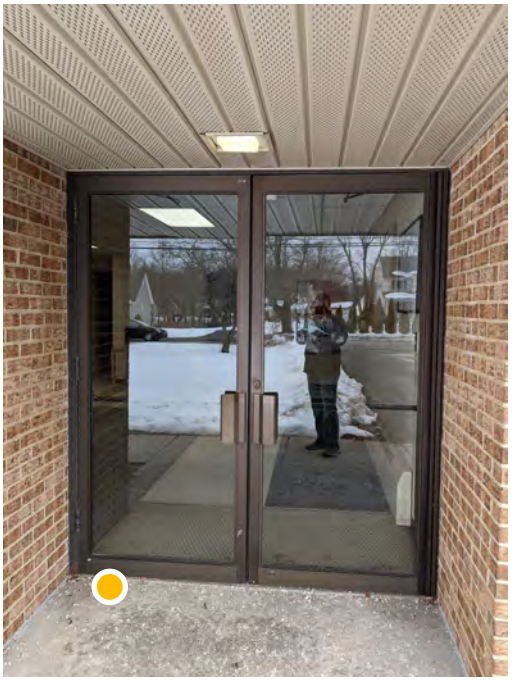


D1. 3: East entrance door



D1. 4: Dedication plaque

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D1. 5: Main entrance door; base of storefront is beginning to rust



D1. 6: Window air conditioning unit requires permanent installation solution; has caused staining on adjacent brickwork

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D1. 7: West façade



D1. 8: West façade

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D1. 9: Lavatory does not have required clear space below and does not meet accessible reach range requirements to be considered ADA-compliant

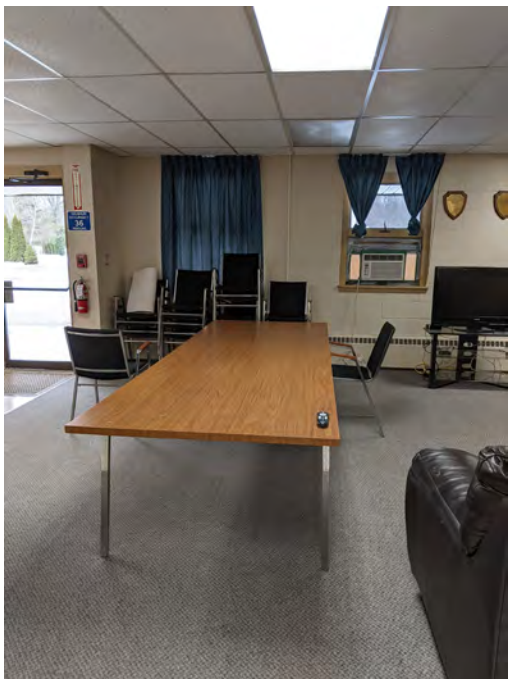


D1. 10: Kitchenette sink does not have required clear space below and does not meet accessible reach range requirements to be considered ADA-compliant

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

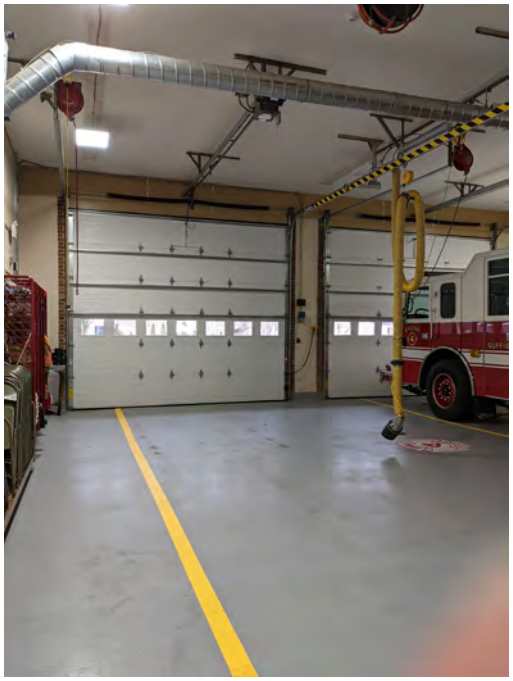


D1. 11: Window between Radio room and Apparatus Bay

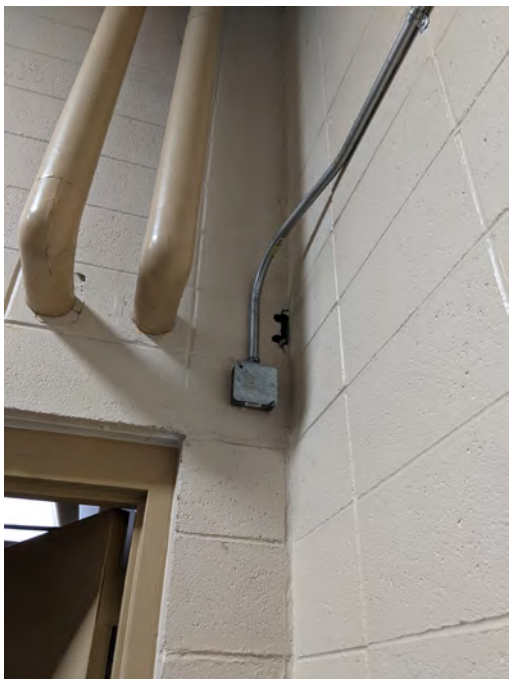


D1. 12: Day Room

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



- D1. 13: Apparatus Bay; ceiling has not been repainted since installation of newer light fixtures



- D1. 14: Concrete masonry units have holes from former electrical conduit locations that have not been repaired

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

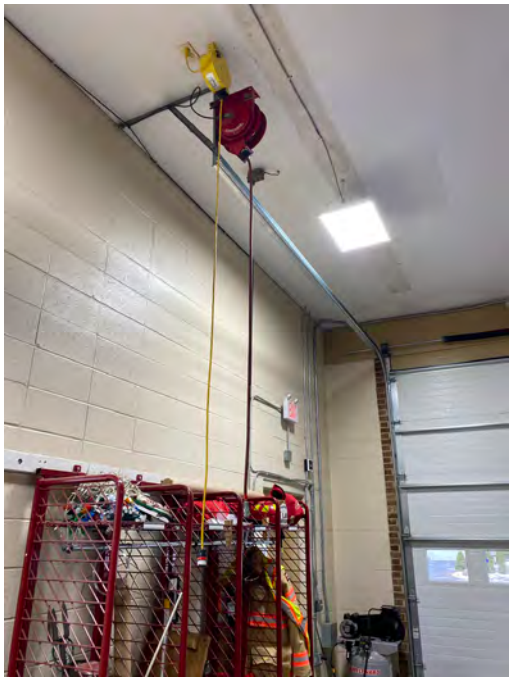


D1. 15: Concrete masonry units have holes from former electrical conduit locations that have not been repaired



D1. 16: Rusting was observed on steel angles at Apparatus Bay doors

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D2. 1: App Bay Lighting Fixture



D2. 2: Automatic Transfer Switch

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D2. 3: Electric Domestic Water Heater



D2. 4: Electrical Distribution Panel

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D2. 5: Electrical Main Switch and Meter



D2. 6: Emergency Egress Lighting

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D2. 7: Exterior Lighting and Access Control



D2. 8: Fire Alarm Panel and Communicator

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D2. 9: Fire Alarm Pullstation

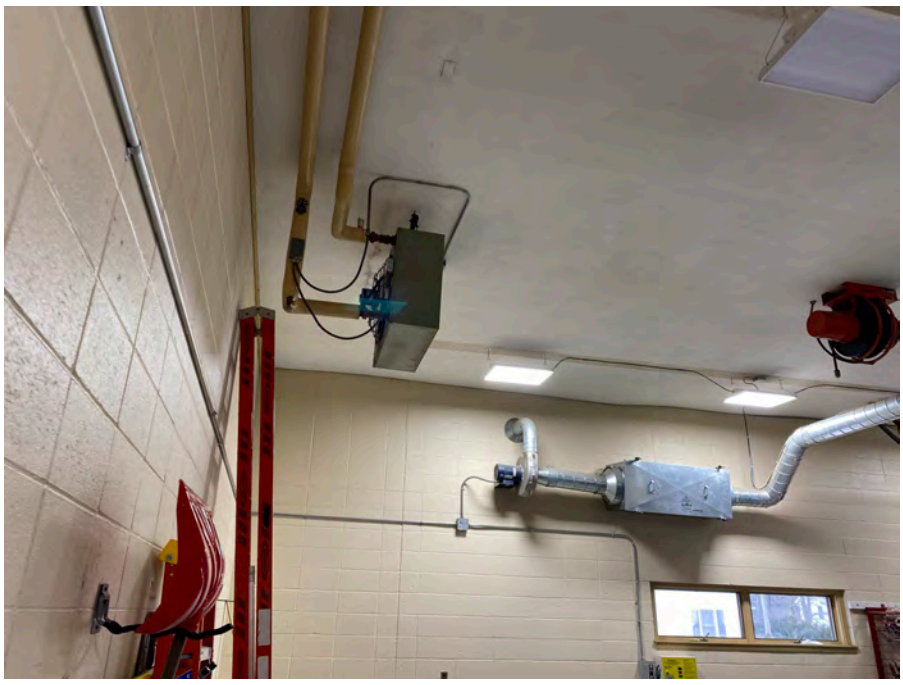


D2. 10: Gutter Roof Drain System

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D2. 11: Hot Water Fin Tube Radiation Needs Replacement

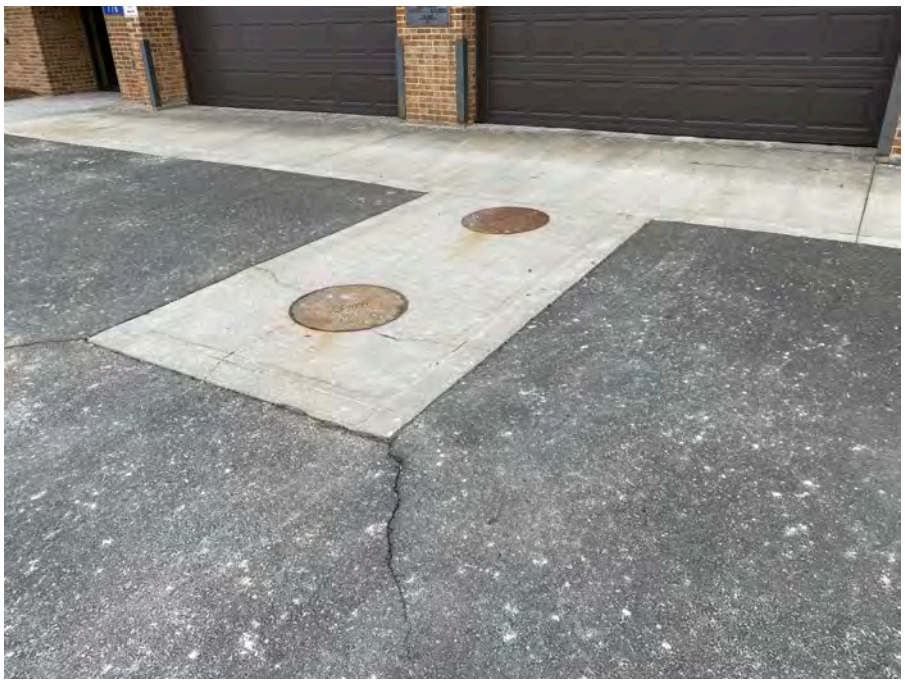


D2. 12: Hot Water Unit Heater in App Bay

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D2. 13: Interior Lighting 2x4



D2. 14: Municipal Sanitary Service

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D2. 15: Natural Gas Boiler

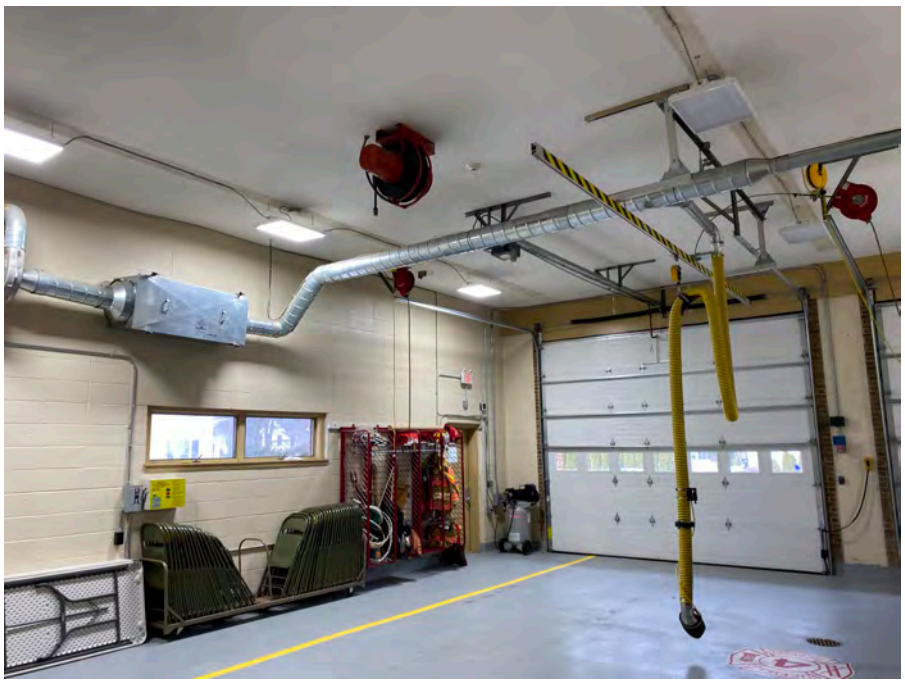


D2. 16: Natural Gas Service

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D2. 17: Plumbing Fixtures Nearing End of Useful Lives



D2. 18: Plymovent Exhaust System in App Bay

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D2. 19: Radio Equipment



D2. 20: Radio Tower

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D2. 21: Standby Generator



D2. 22: Telecommunications Service Backboard

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D2. 23: Traffic Signal Interface

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D3. 1: Exterior soffit along South façade



D3. 2: Radio Tower

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT



D3. 3: Exterior soffit along North façade



D3. 4: Missing splash block at downspout locations causing soil erosion; Concrete foundation has begun spalling

CAPITAL IMPROVEMENTS E

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

FIRE DEPARTMENT 4 - 776 THOMPSONVILLE ROAD, SUFFIELD, CT

Fire Department 4, 776 Thompsonville Rd - ROM Summary												Building Area: 2,702				CIP Prioritization				
SYSTEM / LINE ITEM DESCRIPTION	Amount	Unit	Unit Price	Current Replacement Cost	General Conditions	Bonds, Ins., Permit	(Unforeseen Conditions)	Temporary Facilities and Controls	Subtotal - Line Item	Line Item Contingency + Approx. Soft Costs (Design, printing, advertising, etc.)	Projected Line Item Cost	Escalation, Market Premium	Projected Line Item Cost W/Premium	REMARKS	Immediate	1-3 Years	3-5 Years	5-10 Years	10+ Years
					10%	1.5%	7.5%	5.0%		12.5%		20%			0.0%	7.2%	16.8%	31.8%	56.6%
Site Improvements																				
Regrade/replace concrete sidewalks	300	SF	$15	$ 4,620	$ 462	$ 69	$ 347	$ 231	$ 5,729	$ 716	$ 6,445	$ 1,289	$ 7,734							
Repair/replace bituminous sidewalks	30	SY	$50	$ 1,485	$ 149	$ 22	$ 111	$ 74	$ 1,841	$ 230	$ 2,072	$ 414	$ 2,486							
Exterior Improvements				$ -					$ -	$ -	$ -									
Clean masonry/exposed foundation	2,702	SF	$2	$ 5,944	$ 594	$ 89	$ 446	$ 297	$ 7,371	$ 921	$ 8,292	$ 1,658	$ 9,951							
Regrade NW corner of building and repair exposed foundation, add splash block at downspout	30	SF	$17	$ 495	$ 50	$ 7	$ 37	$ 25	$ 614	$ 77	$ 691	$ 138	$ 829							
Paint storefront entrance	50	SF	$4	$ 220	$ 22	$ 3	$ 17	$ 11	$ 273	$ 34	$ 307	$ 61	$ 368							
Interior Improvements				$ -					$ -	$ -	$ -									
Replace ceiling tiles	1,200	SF	$8	$ 9,240	$ 924	$ 139	$ 693	$ 462	$ 11,458	$ 1,432	$ 12,890	$ 2,578	$ 15,468							
Replace kitchen sink/cabinet with ADA accessible sink and casework	1	EA	$2,750	$ 2,750	$ 275	$ 41	$ 206	$ 138	$ 3,410	$ 426	$ 3,836	$ 767	$ 4,604	Technically infeasible without significant renovations						
ADA upgrades at toilet rooms	2	EA	$6,600	$ 13,200	$ 1,320	$ 198	$ 990	$ 660	$ 16,368	$ 2,046	$ 18,414	$ 3,683	$ 22,097	Technically infeasible without significant renovations						
Repair cracks in exterior masonry walls	100	SF	$22	$ 2,200	$ 220	$ 33	$ 165	$ 110	$ 2,728	$ 341	$ 3,069	$ 614	$ 3,683							
Repair/paint cracks in GWB ceiling	1,500	SF	$3	$ 4,950	$ 495	$ 74	$ 371	$ 248	$ 6,138	$ 767	$ 6,905	$ 1,381	$ 8,286							
Division 21 - Fire Protection				$ -					$ -	$ -	$ -									
Division 22 - Plumbing				$ -					$ -	$ -	$ -									
Water Distribution and Drainage Systems	2,702	SF	$10	$ 26,750	$ 2,675	$ 401	$ 2,006	$ 1,337	$ 33,170	$ 4,146	$ 37,316	$ 7,463	$ 44,779	1-3yrs useful life. Piping is original to the 1975 construction and is past the end of its useful life.						
Plumbing Fixtures / Equipment	2,702	SF	$4	$ 11,889	$ 1,189	$ 178	$ 892	$ 594	$ 14,742	$ 1,843	$ 16,585	$ 3,317	$ 19,902	1-3yrs useful life. Replacement of all plumbing fixtures throughout the building.						
Water Heaters	1	EA	$16,500	$ 16,500	$ 1,650	$ 248	$ 1,238	$ 825	$ 20,460	$ 2,558	$ 23,018	$ 4,604	$ 27,621	10+yrs useful life. Water heater is newer and in good working condition.						
Division 23 - Mechanical				$ -					$ -	$ -	$ -									
Heating Plant (Boilers, Pumps, etc.)	1	EA	$33,000	$ 33,000	$ 3,300	$ 495	$ 2,475	$ 1,650	$ 40,920	$ 5,115	$ 46,035	$ 9,207	$ 55,242	5-10yrs useful life. Boiler plant was updated approximately 25 years ago and is nearing the end of its useful life.						
Terminal Units	2,702	SF	$4	$ 11,889	$ 1,189	$ 178	$ 892	$ 594	$ 14,742	$ 1,843	$ 16,585	$ 3,317	$ 19,902	1-3yrs useful life. Unit heaters and perimeter fin tube radiation appears original to construction and are past the end of their useful lives.						
Control Systems	2,702	SF	$6	$ 14,861	$ 1,486	$ 223	$ 1,115	$ 743	$ 18,428	$ 2,303	$ 20,731	$ 4,146	$ 24,877	1-3yrs useful life. There is no BMS within this building, all other devices controlled by standalone controls of varying vintages.						
Division 26 - Electrical				$ -					$ -	$ -	$ -									
Electrical Service / Distribution	2,702	SF	$22	$ 59,444	$ 5,944	$ 892	$ 4,458	$ 2,972	$ 73,711	$ 9,214	$ 82,924	$ 16,585	$ 99,509	10+yrs useful life. Original service appears to be in good working condition and adequate for the current use.						
Generator	1	EA	$82,500	$ 82,500	$ 8,250	$ 1,238	$ 6,188	$ 4,125	$ 102,300	$ 12,788	$ 115,088	$ 23,018	$ 138,105	10+yrs useful life. Generator is in like new condition.						
Lighting - General	2,702	SF	$9	$ 23,778	$ 2,378	$ 357	$ 1,783	$ 1,189	$ 29,484	$ 3,686	$ 33,170	$ 6,634	$ 39,804	5yrs useful life. Linear fluorescent systems installed throughout in 2x4 troffers along with compact fluorescent downlights in select areas.						
Fire Alarm System	2,702	SF	$11	$ 29,722	$ 2,972	$ 446	$ 2,229	$ 1,486	$ 36,855	$ 4,607	$ 41,462	$ 8,292	$ 49,755	5-10yrs useful life. Fire alarm system is in good condition and is addressable technology.						
Subtotal for CIP Items				**$ 355,436**					**$ 440,741**		**$ 495,834**	**$ 99,167**	**$ 595,001**							
Cost Per Square Foot				**$ 131.55**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 163.12**	**$ -**	**$ 183.51**	**$ 36.70**	**$ 220.21**							

Building Vintage Summary			
Building Vintage	**Area**		**% to Ttl**
Building Vintage ~ 1975	2,702	V1	100.00%

PROGRAMMING **4**

A. Ward Spaulding School 4.1

McAlister Intermediate School 4.2

Suffield Middle School 4.3

Suffield High School 4.4

Town Hall Annex 4.5

Senior Center 4.6

Police Department 4.7

Fire Department 1 (HQ) 4.8

Fire Department 2 ..... 4.9

Fire Department 3 ..... 4.10

Fire Department 4 ..... 4.11

PROGRAMMING 4

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

4.1a Summary

INITIAL PROGRAMMING CONVERSATION WITH ADMINISTRATION & FACILITIES

• As exists today, there is poor visibility of the Main Entry from the Administrative Office Suite.

• Classrooms are generally a good size to address today's educational needs, but ideally they should be arranged in neighborhoods.

• Currently enjoy the connection that some classrooms have to the exterior.

• As exists today, there are limited specialized education, intervention, and testing areas. They are also poorly located - students waste time due to long travel distances to and from these programs. Addressing de-escalation is currently a concern due to the lack of space and the distance to resources. Ideally, resources are located adjacent to classrooms pods.

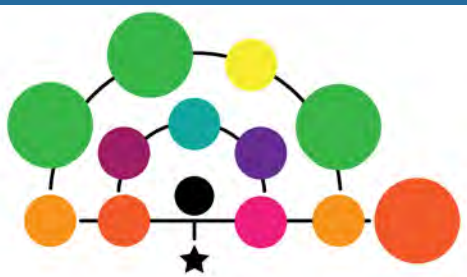
• There is currently a poor flow to specials such as music, art, STEM, and the media center. This results in more travel time for students and less educational time. Ideally, these programs should be centralized.

• The use of modulars is an ongoing concern, and they are in poor condition.

• Site security, parking, & defining the school boundary are ongoing concerns.

• As exists today, there are no dedicated outdoor classrooms, limited use, and the play area is exposed.

4.1b Diagram of Existing and Envisioned Program Flow

	EXISTING	ENVISIONED
★ Entrance ● Office / Admin ● Classrooms ● Gym ● Cafeteria ● Science ● Special Education ● Media / Resource ● Art / Maker ● Auditorium / Music		
	• Linear Flow • Isolated Specials • Insulated Administration • Classroom Wings	• Radial Flow • Integrated Specials • Centralized Administration • Classroom Neighborhoods

4.1c Detail

CONVERSATION DETAIL

What's Working:

Classrooms are generally working well and are a decent size. Classrooms with a door directly to the exterior is beneficial for quick access to the outdoors for reading or movement breaks without losing a lot of educational time. They are also considered an advantage for safety.

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

The media center is a good size but could grow and modernize. Currently, it is more of a classic library. A project based STEM feature was just implemented.

Having two cafeterias is advantageous for scheduling lunch without overcrowding the space. Food service is working well.

Other components that are currently working well: WAPS infrastructure, parent/bus number system, art & music classrooms, recently replaced Gym floor. The existing air conditioning does make a difference, but split systems are desired throughout because classrooms vary in thermal comfort needs based on sun orientation. The windows were replaced in 2004 - most operate well, but are 15+ years old.

What's Not Working:

The building is too small for the need - ran out of space for program and had to install portables. These temporary portables are poor quality, in disrepair, and are currently used as office space. Custodians need their own, larger space - currently they all share a small room.

The building is too spread out - not a good flow to specials like music and art. It is challenging for young elementary students to travel that distance, and it directly impacts the quality and time of their overall education. Similarly, Special Education is too spread out, and sensory rooms are too far removed for quick access. The sensory room is currently only used for special education but it wants to be used by all students. Currently cannot use this space the way they wanted to. De-escalation currently occurs in hallways for this reason. Each classroom needs a de-escalation area within it. The behavioral program is currently just a nook with mats and needs dedicated space. Resource teachers are currently using carts. The Special Education Supervisor currently uses the conference room for a workspace and needs dedicated space. There is educational time wasted while traveling to specialized education resources.

The administrative suite is poorly located and is not connected to main entry. Currently, visitors have to be escorted through the school, requiring one staff member to remain at the front of the school isolated and alone - not safe or ideal. The administrative space is small and disjointed. Records needs more storage space. The conference room is not in an ideal location - visitors must go through the staff break room for access.

Second grade currently has the worst travel distance and has no opportunity to collaborate easily with others. Ideally, everyone would be equally proximal to resources, and having third grade in the building would be nice. First grade is currently divided. Ideally, all grade level classrooms are co-located. Classroom furniture is old and is all piecemeal. Some furniture is not currently accessible by ADA standards. Adjustable, modular furniture that meets universal design criteria is desired.

The quality of existing cameras is not ideal for security - need cameras that are more sensitive to motion, and need more of them for investigations when and if something happens. Currently the cameras only capture motion of a group of people but not individuals. Also cannot capture vehicle tags. Enhanced security is an expectation of parents in the event of thefts, accusations, student supervision, and contact tracing.

Acoustics in the cafeteria and gym is problematic. In the gym, a drop-in ceiling was required. The school is generally loud and the classroom sound field system is not working. The gym has too many doors and insufficient storage that is not adjacent to the space. The summer school program is growing and needs separate multi-use space.

The public parking area for events is too small and creates issues. Vehicular drop off/ bus tends to be

A. WARD SPAULDING SCHOOL - 945 MOUNTAIN RD, WEST SUFFIELD, CT

problematic also. Loading and receiving needs to be better addressed. There is a public park behind the school's play space and a barn across the street - would like a fence to establish a boundary.

What's Missing:

• Kindergarten classrooms with their own toilets.

• Defined boundaries/fence for student safety.

• Dedicated testing space, dedicated OT/PT, and dedicated space for all four special education teachers. Currently, those with the most complex/highest need, behavioral, and mild/moderate academic need all share – not ideal.

• Proximity of de-escalation rooms or areas.

• Common, accessible social-emotional space.

• Meeting space in each neighborhood for small groups, overflow testing and related services.

• Consistency of technology across all the classrooms.

• Teacher prep space with copier, worktable, supplies and general storage. (Currently, teachers have to interrupt each other in the middle of class to get shared supplies.)

• Additional restrooms for staff and students, with more gender neutral toilets.

• Space in the gym for gross motor skills, and appropriate gym storage.

• Connecting interior program/classrooms to outdoor activities.

• Universally designed play equipment with rubberized flooring (reinforce play-based motor skills with outdoor equipment), enlarged blacktop play area for winter, larger dedicated and protected play areas.

• Kiln for the art program.

VISION FOR THE FUTURE

Driven by a programmatic focus that incorporates third grade, two cohorts are established: Early Learning (Pre-K - GR1) and Comprehension (GR2 - 3). Each cohort is supported by neighborhood style classroom pods equipped with de-escalation areas, outdoor access, consistent technology that allows greater collaboration, breakout areas, and flexible, modern furnishings.

Recapture the atrium space but retain a light well. Eliminate the modulars. Bring all specials to the main hall and re-imagine special education. Design outdoor classrooms. Maintain the two cafeteria model.

Repurpose the auditorium as a multi-purpose learning lab for targeted intervention, English language, small group breakout, and online learning. Create this space as a hub for small group instruction, equipped with collaborative technology, portable dividers, and flexible, modern furnishings.

Fully outfit the STEM program to support enrichment, and student-led projects. Would like a Lego wall.

Dedicate space for the Before and After School program, provide amenity spaces that are safely able to be shared and used by the town during the school day, and design a solution for the growing summer program that frees up the school's large amenity spaces for maintenance and cleaning.

Build a second parking lot near Pre-K and reroute traffic to better separate parent and bus drop-off. Expand public parking.

MCALISTER INTERMEDIATE SCHOOL - 260 MOUNTAIN RD, SUFFIELD, CT

4.2a Summary

INITIAL PROGRAMMING CONVERSATION WITH ADMINISTRATION & FACILITIES

- Classrooms are generally a good size to address today's educational needs, but ideally they should be arranged in neighborhoods. Considering mixed grade-level pods.
- Good location for Administrative Office Suite and specials (music, art, STEM are gathered together), but need appropriately size space.
- There is considerable noise/acoustical transmission from the second floor that impacts education.
- There is a lack of general classroom space on the first floor.
- Poor location and setup for media center - should be the "heart" of the school.
- Having only one cafeteria makes scheduling lunch waves difficult.
- Limited space for conference/small group, specialized education, teacher prep, large group meetings.
- Site security, parking, and school boundary are ongoing concerns, and limits the opportunity for outdoor classrooms.

4.2b Diagram of Existing and Envisioned Program Flow

	EXISTING	ENVISIONED
		
	• Linear Flow • Isolated Media Center • Lack of Classroom Space • Lack of Support Space	• Neighborhood Pods • Integrated Media Center • Additional Classroom Space • Additional Support Space

4.2c Detail

CONVERSATION DETAIL

What's Working:

Classrooms are large and flexible. Specials like music, art and STEM are all gathered together in the same hallway and this works well. Having administrative offices and student services adjacent to the main entry works well, and the administrative office space is adequate. Other adequate spaces include: nurse, file storage, custodial office and staff toilets. Furniture in the STEM room, food service, and art room storage are also adequate to meet today's educational needs.

MCALISTER INTERMEDIATE SCHOOL - 260 MOUNTAIN RD, SUFFIELD, CT

What's Not Working:

Two-thirds of the school is upstairs, but the elevator and second floor are problematic, and stairs are an issue for some students. This is driving the need for additional first floor classroom space, and the consideration of mixed grade-level pods. Currently, third grade is upstairs and this is not working to create an elementary school feel and is a significant adjustment for new students. The noise transmission from the second floor is another significant issue that was accentuated when the carpeting was removed during the COVID-19 pandemic.

Several classrooms suffer from temperature control and sun glare issues. Thermal comfort needs to be addressed. There is also an inconsistent location of projectors across all classrooms, and they are not wireless - both impact the flexibility and collaborative possibility in classrooms. The sound field system is not currently used. Consider taking a classroom and splitting it in half for use as both academic space and sensory space. Lockers are used, but are broken, narrow and would prefer built-in cubbies along the hallway.

Teachers need a dedicated workspace and break room. PE teachers currently use general classrooms to teach health and would like a dedicated space. Generally, the academic and student support offices are small and not built for their intended purpose (gym locker rooms were converted into offices for the secretary and school psychologist). All toilet rooms need to be updated.

The media center is in a poor location and should be the hub of the school. It takes students a significant amount of time to travel to the media center, which directly impacts their overall educational time.

Lack the space to introduce musical instruments at the fourth grade level as desired, and the music program does not have a large gathering space. Currently, the cafeteria also is used for band and is problematic. The cafeteria stage is used for storage and the stage elevator is not used. Co-locating music with the other specials is positive, but the existing space lacks proper acoustical separation and disturbs other specials while classes are in progress.

Having only one cafeteria makes scheduling lunch waves difficult and noisy. There are too many students in one space and it takes a long time to move through the serving line and sit down to eat. The serving line is messy and needs to be redesigned. The existing columns in the cafeteria space interfere with flexible seating layouts for dining.

There is a lot of outdoor space that is not used because there is no protection on site. Bushes and other existing landscaping are a security issue, and the aesthetic of walking up to the school's main entry is not welcoming. Generally, outdoor play areas need to be updated and their proximity to the nurse's office needs to be reassessed (currently too far away). The concrete pad outside could be expanded and used for play in winter if the delivery/receiving path is re-routed. Currently, the delivery path goes behind the school and separates classrooms from the play areas. This is both a safety and security issue. Site traffic is an ongoing issue. The parking lot is being used for pick-up and drop-off while the outdoor amenity spaces are populated, and classes are going on. Timing of buses needs to be coordinated with A. Ward Spaulding School because they cannot all fit on the McAlister Intermediate School site. Fire drills require that students use the tennis courts to avoid the propane and gas meters, but in the winter the tennis courts are not plowed – this is problematic.

What's Missing:

- Ability to mix and match all three grade levels – 3rd, 4th, 5th.

MCALISTER INTERMEDIATE SCHOOL - 260 MOUNTAIN RD, SUFFIELD, CT

- Innovative/flexible furniture (in classrooms and media center)
- Classroom space on the first floor.
- Storage space.
- Conference spaces.
- Teacher prep/copy/work space.
- Interactive boards (except for media and STEM).
- Large gathering spaces. (Want to remove the gym bleachers to expand the space but Parks & Rec/travel basketball uses the bleachers.)
- Spanish is the only special located outside of the "Specials Core" hallway.
- A resource room for each grade level.
- Room to grow. Currently every room is utilized,
- Sensory space.
- Testing room.
- Have a media space but need a production room (students have a news show).
- Dedicated space for OT/PT.
- Band instrument storage space.
- Auditorium/performance space. Currently need to use the middle school for the Spring Concert.
- Outdoor classrooms and program space. Have a pavilion, but it is not big enough for outdoor classrooms.

VISION FOR THE FUTURE

Every section of the building would have the flexibility to house all three grade levels. When grade levels are intermixed, one classroom from each grade would be divided in half so that SPED has an academic and sensory space/Zen room easily accessible to the classroom neighborhoods.

Improved thermal comfort and flexibility within the system allows each classroom to function independently and customize to individual needs. Proper acoustics mitigates sound.

A large gathering space that comfortably accommodates the whole school.

Outdoor learning spaces and a clearly defined perimeter of the school boundary. A sidewalk connects the schools and provides safe routes for Bike to School/Walk to School programs.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

4.3a Summary

INITIAL PROGRAMMING CONVERSATION WITH ADMINISTRATION & FACILITIES

• Classrooms are decent size throughout school, although many of the specialized classrooms are not sized correctly nor do they function well (ex. World language).

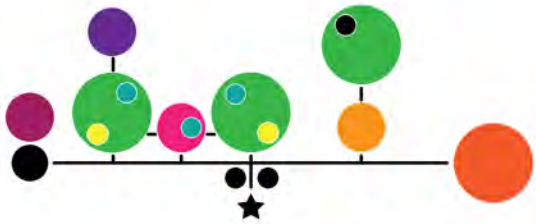
• The flow of the overall building is a concern. It is challenging to implement a team model or share spaces and promote collaboration - all of which is so important for this student population.

• Specialized teaching rooms and core facilities are the biggest concern - band, cafeteria, media center, family & consumer science, tech ed. - many are poorly located and need updates.

• Lack of efficiency in the layout directly affects the quality of education, time in class, and programs offered.

• Currently, students circulate through classrooms to attend special education - would like to centralize and share resources to save time and reinvest in the students' education.

4.3b Diagram of Existing and Envisioned Program Flow

EXISTING	ENVISIONED
 	
• Linear "Hallway" Model • Isolated Specials • Isolated Media Center • Siloed Model	• Radial "Gathering" Model • Integrated Specials • Centralized Media Center • Team Model

4.3c Detail

CONVERSATION DETAIL

What's Working:

Classrooms are generally working well and are a decent size. The facility is clean and well maintained. While there are functionality issues with the Gym, it is an adequate size. The kitchen support space and equipment are adequate. The existing greenhouse will become a raised garden bed, and the tennis courts are well maintained and actively used by the community - this is problematic during the school day, but otherwise a valued community amenity.

What's Not Working:

The flow of the building is a major concern. It was originally designed as a high school and the current

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

layout is not ideal for a middle school student experience. There is wasted science space and equipment, leftover from when the building was used as a high school. Additionally, these rooms were not built with the technology and infrastructure required in modern day science labs.

Not all classrooms have windows, and several are undersized since they were not initially designed for classroom use - for example, the existing World Language classroom. Similarly, band is not the proper size for a middle school population. Not all classrooms can accommodate book-bags, so students visit lockers in between classes. However, the lockers are not large enough for student backpacks and other bulky gear (such as winter coats). The lockers are original to the building and need to be updated. Students rely on the lockers because most classes are in the vicinity.

Classroom technology (projectors and whiteboards) need to be realigned. The set-up/location is not conducive for classroom management. These devices also need to be wireless. Currently, the interactive boards are not wireless.

In the cafeteria, the low ceiling creates acoustical challenges - the noise level is problematic. The serving line also needs improvement. Currently, the closed serving line does not allow grab-and-go and this delays students from efficiently getting their lunch. Cafeteria proximity to the toilet rooms is poor - there is no close bathroom for students to access during lunch.

Another challenge is staffing and space. Guidance is disconnected from the main administrative office. There is not an easy way to interact with counseling and psychology, even though they collaborate often. Also want to move the internal suspension room closer to the guidance counselors and support spaces. A divided space is also problematic with a staff of three secretaries - with one absent, the remaining two must split up and are isolated. Offices in the front of the building get very hot because of the sun angle - rooms are not properly placed. The air conditioning is not strong enough to cool the spaces.

The Family and Consumer Science program is poorly located and ill-equipped. Tech Ed is also poorly located with old infrastructure. Special education is too spread out in the building and this does not work well. Additionally, students have to pass by/through classrooms to access special education resources which is problematic.

Buses are required to double up and this flow does not allow for cars to be parked in these spaces during certain hours of the day. Parking for parents is already disorganized, and this adds another complicating factor. The entire school building dismisses at the same time, and parking for parent pick-up wraps around the building. This is a safety concern, since there is no security as students walk through the parking lot. Additionally, PE classes could be in progress towards end of day, and students would need to cross this drive aisle to access the fields - poses a safety issue.

Gym functionality is an issue, and there is a huge locker room that is not being used at all. Students no longer change for PE. Need some locker room space, but minimal. Showers are not needed. The office area for gym teachers needs to be improved, and a health classroom is needed. The auxiliary gym is not usable because of the proportion of the space and the hoop set-up (hoops do not retract). Outdoor sports areas/ fields need renovation (specifically the track field).

The auditorium carpet, seats, and backstage all need to be updated. And the band room is insufficient as it exists today.

Teachers need a designated space to prepare lunch, eat, work, or prepare. Teacher mailboxes also need to be improved - the flow is not working.

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

The art room was designed for kiln work but the kiln was removed to allow students to explore more modern forms of art such as graphic tee-shirts and spray paint. The room needs to be re-evaluated. The facilities shop is attached but not connected. Would like to create an interior connection for a second shop class or art to be able to use this space.

The main entrance needs to be more welcoming and less congested. There is no clear way-finding to direct you as you begin to circulate through the building.

Acoustical challenges exist in A-wing because of band and chorus, and in E-wing because sound is transmitted through the walls. The second level is also loud. Thermal comfort issues have also been raised by teachers, and the sun glare/heat gain is particularly bad on the second floor.

All student bathrooms need to be renovated.

All furniture needs to be upgraded to modern, flexible furnishings (movable desks, octagon shape, adaptable).

What's Missing:

• Programs that support student success in high school. Currently, the high school is limited because of the knowledge level/experiences of students in the middle school. If middle school advances, then the high school can as well.

• Breakout space for students (currently using hallways, or media center and sitting on the floor).

• Special education needs a designated space for OT/PT (currently in the gym or a classroom), sensory rooms, small group meeting rooms and offices for special education service providers, and an office for the Supervisor of Special Education.

• Offices with the ability to host small groups for (2) guidance counselors, (1) social worker, (1) psychologist, and a conference room for this group that is furnished with soft seating much like a living room.

• Soundproof room for speech & language, and the school psychologist.

• Dedicated space for the reading specialist (currently using a mobile cart).

• Guidance needs more file storage.

• Generally, teachers all need more useful staff space.

• More gym storage and general fitness equipment storage (currently the bleachers are being stored in the locker rooms)

• Designated health room located near the gym (currently using a classroom in the E-wing).

• Workout/yoga room.

• Practice rooms for the music program, an office for the music teacher, and additional band and musical instrument storage.

• Spray paint booth for the art room.

• Enhanced collaboration between art, media and technology.

• More dedicated spaces in the media center and want access from media to the outdoors.

• Gathering space for PTO meetings, volunteers (currently use the media center), or a space for teachers to collaborate (currently they use a classroom).

SUFFIELD MIDDLE SCHOOL - 350 MOUNTAIN RD, SUFFIELD, CT

- All Gender Bathrooms (currently use the nurse toilet as the All Gender Bathroom.) All Gender Bathroom is the preferred terminology at the middle school.
- Additional parking for teachers (currently share with McAlister).
- Designated awning/canopy or pick-up area.
- Additional loading/receiving space.

VISION FOR THE FUTURE

Central to the main entrance is the media center, surrounded by neighborhood classrooms. The idea is to be able to easily flow in and out of grade wing neighborhoods. All intervention spaces are also centralized, easily accessible to the common classroom wings/corridors. Success is when this program is intertwined with the general flow. When special education is centralized, it also becomes easier to mix and match the necessary support between the grade levels. Would like to create an Academic Support Center.

Technology across the entire school is fluid and works flexibly with teachers.

Surrounding this academic core, is the access to specials. Would like to convert the current Central Office to an Arts Center, convert E-wing into a hub for World Language, Family & Consumer Science, and expand the Tech Ed program to include robotics, drones, computer science. This will set the students up for greater success in the high school programs.

The cafeteria is converted into an open space where students can easily flow in and out to grab what they need for lunch.

Proper conferencing space is available in the administrative office area, and a component of the school is availabel for community use.

If 5th grade joins the middle school, the vision would be to develop a “school within a school”, where grades 5-6 are partner pairs with exposure to all curriculum, and grades 7-8 follow a traditional whole team model with pathways more tailored for students to craft their own educational experience. This would allow students to self-select their courses and better prepare them for the high school atmosphere. Even without 5th grade at the middle school, the vision is to implement a semester-based, self-selected course plan at the 8th grade level.

SUFFIELD HIGH SCHOOL - 1060 SHELDON RD, WEST SUFFIELD, CT

4.4a Summary

INITIAL PROGRAMMING CONVERSATION WITH ADMINISTRATION & FACILITIES

- Integrate more collaborative spaces throughout the building.
- Reinvent antiquated program space (dark room area, computer & material labs).
- New classroom furniture to promote collaboration, flexibility, and adaptable space.
- Less emphasis on "owning" of rooms.
- Integrate the idea of a campus setting - more progressive, higher education approach to program layout.
- Use large spaces in multiple ways (ex. use auditorium for "lecture hall" setting)
- Distribute specialized education and social emotional/wellness so they are more integrated into a daily routine - students can easily "be there".
- Create an Innovation Hub (Manufacturing), Career Center, Education & Health Service Center
- Implement a Career & College Ready model

4.4b Diagram of Existing and Envisioned Program Flow

	EXISTING	ENVISIONED
Entrance Office / Admin Classrooms Gym Cafeteria Science Special Education Media / Resource Art / Maker Auditorium / Music		
	• Dedicated Learning Zones • Isolated Student Support • Divided Building Model • Isolated Health & Wellness	• Multi-faceted Learning Zones • Integrated Student Support • Campus Building Model • Integrated Health & Wellness

4.4c Detail

CONVERSATION DETAIL

What's Working:

The flow of the school generally works well. Classroom sizes are adequate to meet the existing educational needs, but in a flexible classroom arrangement utilized often in modern learning environments, the space is crowded. The meeting space just beyond the main entry, known as "The Commons", is a nice space, works well, and gets used often for meetings or as an impromptu media center. The TV studio/newscast room is also working well. The Agriscience program is successful and attracts students. The exisitng bus system is operating effectively.

SUFFIELD HIGH SCHOOL - 1060 SHELDON RD, WEST SUFFIELD, CT

What's Not Working:

COVID-19 required that classrooms convert back to row seating, but teachers want to rearrange desks in collaborative layouts. To fully achieve this, the school needs flexible furniture. Currently, the high school is arranged in grade level pods, but would prefer to arrange by discipline instead (more of a higher education campus model). Lockers are barely used but each student is assigned one. They take up hallway space and are really only needed for coats, personal belongings, etc. rather than textbooks since more of this curriculum is going online. The bell system used to signal class changes should be removed to create more of a collegiate environment. The PA system currently does not carry outside.

Need more efficient technology. While students are currently allowed to have cell phones, they are not utilized for their full potential as miniature computers.

Need more efficient use of space. The auditorium used to be a teaching space but now is unused. It should be converted into a learning pod embedded with smart technology to support educational programs. The band practice rooms are barely used for their intended purpose – they are used as storage rooms. Two of the four rooms off the media center are not used to support the media center function. The courtyard is underutilized and requires frequent maintenance/upkeep. It is too small to serve as an outdoor classroom. Currently seniors eat there as a privilege. The school store can be repurposed.

The existing fitness room is too small. It needs to expand in order to better train and support athletes, and properly support the "Fit for Life" class. The gym needs more storage space.

Thermal comfort is an ongoing staff concern. Control needs to be customizable per learning space/ classroom.

Traffic flow from the main road to the parking lot results in a bottleneck. Need two curb cuts onto the main road to facilitate separated one-way "in and out" travel through the lot.

The guidance suite needs to be remodeled. Currently, it is a formal, "cold" office space and should be a comforting space for small gatherings. The existing space is also too small. The school psychologist and social worker offices currently double as their small group meeting space – they need to be dedicated meeting spaces. The nurse's office is problematic currently and need to be reconfigured. The main administrative office is small as well, but the priority should be educational spaces.

What's Missing:

• Dedicated science labs (want lab spaces to be accessible while classes are happening) and more science classroom space in general.

• Physics-style classroom (or would prefer that all labs are outfitted for both physics and core sciences)

• Workroom/classroom with 3D printers for shared use with fashion design program.

• Music technology classrooms (similar to the existing) are the future and need more space.

• Woodshop and design lab wants to be an innovation center where the design, manufacturing and business elements are all in the same corridor/vicinity and can interact or collaborate.

• Classroom for robotics that is dedicated to their team.

• College/Career Center where students can practice their interview skills, build resumes, etc. (currently have the course, but need the dedicated classroom space).

SUFFIELD HIGH SCHOOL - 1060 SHELDON RD, WEST SUFFIELD, CT

• Media center needs an identity. Currently students "work together" on individual chrome books. This space needs to be more interactive. Currently used for study hall, book clubs, English classes, and by the District for Board Meetings but want it to be used for guest speakers, science fairs, etc.

• A second gym space. Currently, students travel to the middle school to use their auxiliary gym. PE splits the existing high school gym and it is crowded (three classes at once currently: two gym classes and a fitness class)

• Yoga/mindfulness space.

• Advanced technology infrastructure.

• Enhanced WiFi and cellular service (wireless communication via text - or other - to the school community in case of emergency).

VISION FOR THE FUTURE

An entirely collaborative, supportive learning campus that is equipped with ample collaboration spaces. Teachers have pods versus an assigned room, with small teacher work areas within each pod, and these work areas are located so that they can be used as touch-down workspaces by any educator throughout the day. Teachers should be able to select a space that is the most appropriate room for their students/class size/curriculum rather than having an assigned room.

Every learning space is outfitted with interactive technology and a space for student presentations. The classroom of the future is fluid, allowing students more freedom of movement with instant access to technology. Use every square inch of space to allow students to freely move about.

Make the school environment a college/work campus and invite internship partners – need a space outfitted as a career and conferencing center. School counselors should be located on every floor, closer to the students, in satellite offices or touchdown workspaces. Implement a career pathways model for education at the high school level: CTE (manufacturing and design), Education and Human Services, and others. Implement a critical thinking model in the high school curriculum.

Reimagine how technology can assist in emergencies or drills. For example, can phones or ID cards be scanned quickly during a fire drill for attendance? Will typical pager systems be needed in the next 10 years? Is there a quicker way that uses modern/advanced technology using those same ID cards, badges, or QR codes that scan for attendance.

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

4.5a Summary

INITIAL PROGRAMMING CONVERSATION WITH ADMINISTRATION & FACILITIES

- Need to identify possible future uses and/or discarded
- Potential for centralized storage location to serve town needs
- Could be removed to make room for higher priorities to possibly create "campus"

4.5b Diagram of Existing and Envisioned Program Flow

EXISTING | ENVISIONED



4.5c Detail

CONVERSATION DETAIL

What's Working:

The 2,060 square foot Town Hall Annex was constructed forty-five years ago in 1976 on a 1.62-acre site and has served as home for a variety of Town Departments. There have been no additions to the building, although it has been subject to some interior renovations along with changes in the Town departments the building has served. Most recently, it was the swing space to support the Town Hall renovation project, but previously it has housed the Town Engineering Departments and Parks and Recreation. A portion of the garage space at the rear of the facility is still used for equipment storage by Parks and Recreation.

What's Not Working:

Two issues are notable from a Building Code and Accessibility standpoint. First, the restrooms are missing a required grab bar at the side of the toilet. Second, there are steps between office areas and garage areas limiting accessibility to the storage areas in the garage. From an operations standpoint, this building houses some of the Town's offices, isolated in this building and disconnected from colleagues.

TOWN HALL ANNEX - 97 MOUNTAIN RD, SUFFIELD, CT

4.5c Detail

What's Missing

- Resolve code and accessibility issues
- Address indoor environmental quality issues
- If the building remains as Town offices, consider additional meeting & video conferencing spaces, updated break areas, and a proper copy/print room

VISION FOR THE FUTURE

The future program, or use, of the Town Hall Annex has not yet been determined. The Town Departments have moved back into the renovated Town Hall, and the building now houses the DPW and Engineering Offices, Parks and Recreation storage and some Town Hall surplus storage. Some ideas that have been discussed are continuing the buildings use as a central storage facility for Town Departments, or to remove the structure and use the site to enhance the Town Hall campus with a new building to house another Town Department program.

SENIOR CENTER - 145 BRIDGE ST, SUFFIELD, CT

4.6a Summary

INITIAL PROGRAMMING CONVERSATION WITH ADMINISTRATION & FACILITIES

- Youth Services current location remote from schools, must cross main road. Possible connection to Bridge Street property?
- Youth Services offices co-mingled with activity space
- Parks and Recreation prefer proximity to play fields and gymnasium resources
- Parks and recreation prefers sound isolation between offices (walls do not extend to ceiling)
- Senior Center has adequate space to meet current programming needs
- Youth Services and Parks & Rec do not have accessible entrances from exterior

4.6b Diagram of Existing and Envisioned Program Flow

EXISTING	ENVISIONED



4.6c Detail

CONVERSATION DETAIL

What's Working:

The Senior Center offers a variety of programs and activities in a central location. The existing building offers enough space to meet their programmatic needs.

What's Not Working:

The current location of Youth Services is remote from the schools and requires students to cross a main road. Youth Services offices are also currently co-mingled with activity spaces for students and the noise level impacts their ability to work effectively. The Parks and Rec offices also housed in the facility have similar concerns and needs. Acoustics should be comprehensively addressed in this portion of the building. Both organizations also require accessible entrances from the exterior. A possible connection to the Bridge Street property could be explored.

SENIOR CENTER - 145 BRIDGE ST, SUFFIELD, CT

4.6c Detail

What's Missing

• The current Youth Services offices are co-mingled with activity spaces for students. The lack of acoustical separation is distracting and negatively impacts focused work.

• Parks & Rec has a similar acoustical concern for their offices and require proper sound isolation between rooms. Currently, the walls of their offices do not extend to the ceiling.

• Parks & Rec is remote from play fields and gymnasium resources and would prefer proximity.

• Most importantly, as noted previously, Youth Services and Parks & Rec do not have accessible entrances from the exterior.

VISION FOR THE FUTURE

The future program, or use, of the Senior Center has not yet been determined.

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

4.7a Summary

INITIAL PROGRAMMING CONVERSATION WITH ADMINISTRATION & FACILITIES

- Undersized training space with access control vulnerabilities at training/lobby doors
- Insufficient evidentiary storage
- Dispatch restroom/break space to comply with NFPA 1221 Standards
- Patrol offices repurposed to support Embedded Social Services
- Patrol storage displaced by Communications Equipment
- Insufficient Administrative Offices
- Staff facilities; locker size and quantity, Arms Cleaning, Fitness facilities
- Prisoner Processing workflow; no padded cell, no ambulance access in Sally Port
- Vehicle Maintenance Bay desired

4.7b Diagram of Existing and Envisioned Program Flow

EXISTING	ENVISIONED



4.7c Detail

CONVERSATION DETAIL

What's Working:

The 8,955 square foot Suffield Police Department was constructed 33 years ago in 1988 on a 2.69-acre site. There have been no additions to the building.

What's Not Working:

The current training room is undersized for department needs and is exposed to potential access control breaches at the training/lobby doors. The facility lacks sufficient evidentiary storage space and the dispatch area does not comply with the standards for emergency communications facilities. Patrol office space has been sacrificed to support embedded social workers, and patrol storage has been displaced by communications infrastructure. The administrative office areas are insufficient for planned management positions. The officer lockers are small and there are none available for future officers. There are safety issues with the prisoner processing area, including no ambulance access in the sally port and no padded cell, and the department is lacking any vehicle maintenance space.

POLICE DEPARTMENT - 911 MOUNTAIN RD, SUFFIELD, CT

4.7c Detail

What's Missing

- Lack of evidentiary storage space
- Insufficient patrol office space and sufficient area for social workers
- Additional management offices are needed to meet future growth
- Lack of vehicle maintenance space

VISION FOR THE FUTURE

The future program, or use, of the Police Department has not yet been determined. What is clear is that the real challenges for the police department do not come from building condition issues, but from programmatic challenges.

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

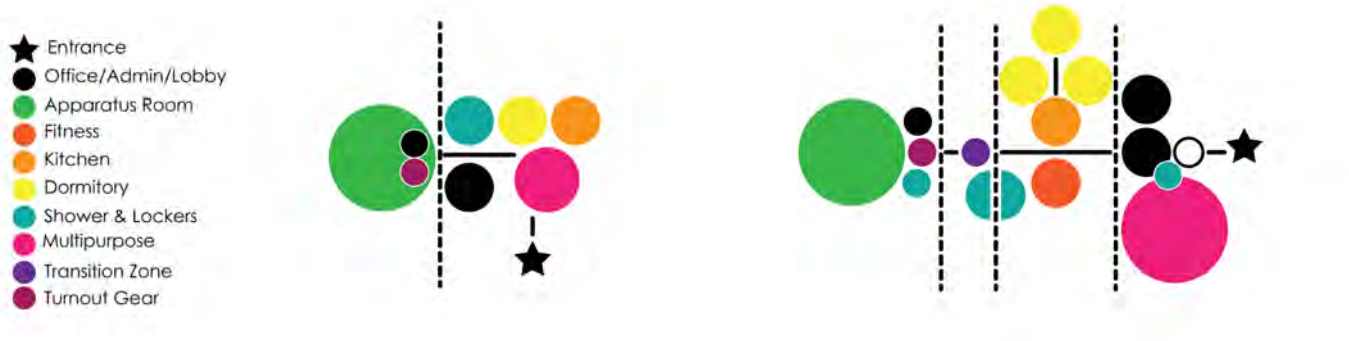
4.8a Summary

INITIAL PROGRAMMING CONVERSATION WITH ADMINISTRATION & FACILITIES

- No Public Lobby, Entry or restrooms
- Insufficient Training Room, currently use Substation #2 for Training needs
- Insufficient Administrative offices
- Insufficient bunk and living quarters
- Fitness equipment is currently in basement
- Insufficient Apparatus Space and lacking physical training elements
- Insufficient bay storage, decontamination, SCBA per NFPA standards
- Lack of hot/cold transition zones
- No segregated turnout gear storage

4.8b Diagram of Existing and Envisioned Program Flow

EXISTING	ENVISIONED



4.8c Detail

CONVERSATION DETAIL

What's Working:

The 4,200 square foot Fire Headquarters was constructed 59 years ago in 1962 on a 3.49-acre site. In 2020, additional paving areas were added on site. There have been no additions to the building.

What's Not Working:

It is clear that the existing building is insufficient to meet the current program needs. This impact extends from administrative function to firefighter health and safety. Upon arrival, there is no public lobby, entry or restrooms and administrative offices are cramped, outdated and lack proper adjacency to critical program elements in order to function optimally. The existing training room is too small, requiring travel to Substation #2 for use of their space for training needs of firefighters at the Headquarters. Bunk and living quarters are similarly insufficient.

FIRE DEPARTMENT 1 (HQ) - 73 MOUNTAIN RD, SUFFIELD, CT

4.8c Detail

Fitness equipment at the Fire Headquarters is located in the basement. The space is cramped, surrounded by overflow storage, removed from natural daylight, and isolated from locker room facilities. The Apparatus Room is also small and lacks necessary physical training elements. Most importantly, the facility does not meet modern standards for hot/cold transition zones, does not provide space for segregated turnout gear storage, and is insufficient per the NFPA standards for bay storage, decontamination, and SCBA equipment storage.

What's Missing

- No Public Lobby, Entry or restrooms
- Insufficient Training Room, currently use Substation #2 for Training needs
- Insufficient Administrative offices
- Insufficient bunk and living quarters
- Insufficient Apparatus Space and lacking physical training elements
- Insufficient bay storage, decontamination, SCBA per NFPA standards
- Lack of hot/cold transition zones
- No segregated turnout gear storage

VISION FOR THE FUTURE

The future program, or use, of the Fire Headquarters has not yet been determined.

FIRE DEPARTMENTS 2-4 - 9 RATLEY RD; 3 COPPER HILL RD; 776 THOMPSONVILLE RD, SUFFIELD, CT

4.9 - 4.11a Summary

INITIAL PROGRAMMING CONVERSATION WITH ADMINISTRATION & FACILITIES

- Lack of storage space throughout all substations
- Lack of hot/cold transition zone in all stations
- All substations are suitable for on-call operations
- Apparatus space is adequate for substations

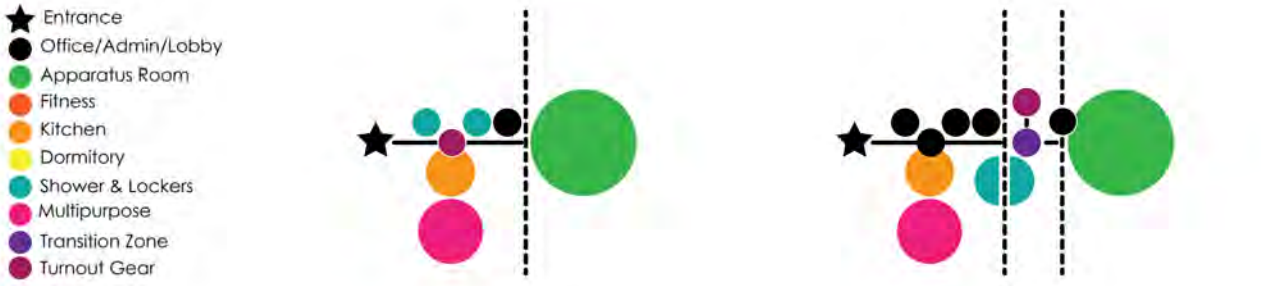
4.9b Diagram of Existing and Envisioned Program Flow

	EXISTING	ENVISIONED



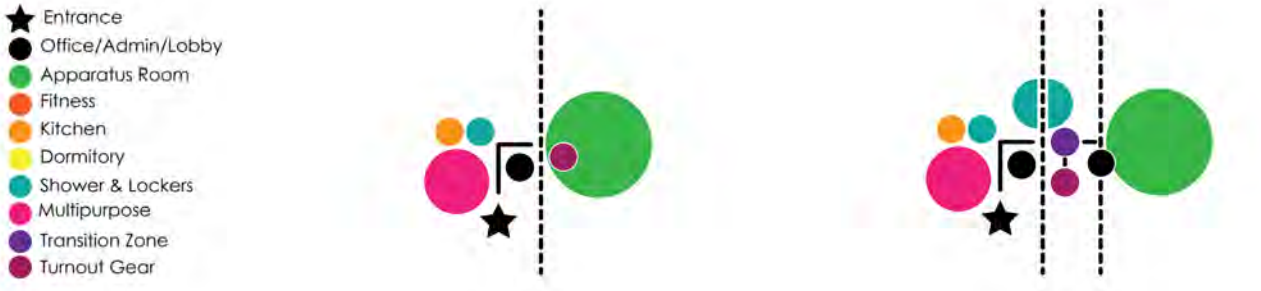
4.10b Diagram of Existing and Envisioned Program Flow

	EXISTING	ENVISIONED



4.11b Diagram of Existing and Envisioned Program Flow

	EXISTING	ENVISIONED



FIRE DEPARTMENTS 2-4 - 9 RATLEY RD; 3 COPPER HILL RD; 776 THOMPSONVILLE RD, SUFFIELD, CT

4.9 - 4.11c Detail

CONVERSATION DETAIL

What's Working:

These substations are either relatively newer, or are in good condition for their age. The substation model allows for focused and faster response times to remote or rural areas.

What's Not Working:

Several common observations can be made across all substation facilities. Successfully, all substations are suitable for on-call operations and are outfitted with adequate Apparatus Bay space. However, lacking in all substations is storage space, which has resulted in the overcrowding of critical program space and a reduction in operational efficiency for these areas. Additionally, all substations lack a hot/cold transition zone, which means that clean gear, adjacent program areas, and building materials are exposed to contaminants.

What's Missing

- Lack of storage space throughout all substations
- Lack of hot/cold transition zone in all stations
- All substations are suitable for on-call operations
- Apparatus space is adequate for substations

VISION FOR THE FUTURE

The future program, or use, of the Fire Departments #2-4 has not yet been determined.

RECOMMENDATIONS 5

RECOMMENDATIONS

As outlined, the analysis is a cumulative and multi-factorial assessment of existing facility conditions completed by an integrated architectural and engineering team that in addition to the buildings themselves, also incorporates the collection and review of documentation, operational metrics, stakeholder feedback and input from the community at large. The resulting framework is a long-term, phased implementation plan that comprehensively addresses Town needs.

The detailed existing conditions analysis evaluated each facility for condition of site features, exterior envelope, interior finishes, code compliance, building systems, functional requirements, and energy efficiency. Upon completion of this work, the following conclusion was reached:

The greatest need exists at the Middle School, followed by Fire Department 1. Therefore, as a first and highest priority, it is the recommendation of this study that the Middle School campus be initially addressed, with a solution to Fire Department 1 planned in the next five years.

This conclusion is a direct result of the comprehensive analysis of each of the programs and buildings, a thorough review of prior studies and existing building documentation, building walkthroughs, data & document review (plans, reports, warranties, utility bills), a comprehensive and broad-based exiting conditions analysis, a functional, space needs and programmatic needs evaluation informed by various stakeholder focus group meetings, a robust community engagement process (surveys, building tours, Town-wide events, digital access to information), and the delineation of options with associated cost estimates and phasing plans that address current challenges and reflect Town and department goals for the future.

As the Town deems fit, using this report as a guide through the decision-making process, additional projects that address the needs of the remaining Town and School portfolios will follow in the years after the first and highest priority is addressed.

The implementation of multi-phased, multi-generational projects as proposed here, will be further evaluated by the Town to strategically balance major projects with smaller capital improvements to provide the greatest economy to residents. Additional next steps include presentations to various Town boards and stakeholders, **and the refinement of a preferred plan that will serve to create a framework for the Town's Capital Plan for the next ten years.**

In summary:

1. Capital Improvements: Summary of recommended CIP improvements (Total spend over the next 10 years):

BUILDING	ADDRESS	CIP SUBTOTAL	COST/SF
High School	960 Sheldon Street	$63,598,071	$349.39
A. Ward Spaulding Elementary	945 Mountain Road	$29,714,546	$416.14
McAlister Intermediate School	260 Mountain Road	$29,478,700	$407.94
Middle School	350 Mountain Road	$48,596,207	$378.21
Police Department	911 Mountain Road	$1,803,679	$201.42
Fire Department 1	73 Mountain Road	$982,092	$233.83
Fire Department 2	9 Ratley Road	$984,059	$251.94
Fire Department 3	3 Copperhill Road	$711,294	$218.46
Fire Department 4	776 Thompsonville Road	$595,001	$220.21
Senior Center	145 Bridge Street	$2,170,727	$185.50
Town Hall Annex	97 Mountain Road	$604,255	$293.33

RECOMMENDATIONS

2. Major Projects: Recommended priorities for major projects:

(High Priority) Tier I – Tier II – Tier III (Low Priority)

BUILDING	PRIORITIZATION	0 - 5 YEARS	5 - 10 YEARS	10+ YEARS
High School	Tier III			X
A. Ward Spaulding Elementary School	Tier II		X	
McAlister Intermediate School	Tier II		X	
Middle School	Tier I	X		
Police Department	Tier II		X	
Fire Department 1	Tier I	X		
Fire Department 2	Tier III			X
Fire Department 3	Tier III			X
Fire Department 4	Tier III			X
Senior Center	Tier III			X
Town Hall Annex	Tier II		X	

Accompanying this volume is an appendix which contains all documentation relative to outreach graphics, presentations to date, enrollment projection data, and survey results.

Tecton
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