



**Town of Fairfield**  
Town Planning and Zoning Commission  
725 Old Post Road  
Fairfield, Connecticut 06824

Sullivan Independence Hall

203-256-3050

## Memo

**To: Members of the RTM**  
**From: Jim Wendt, Planning Director**  
**Date: April 19, 2022**  
**Re: Opt-Out of State Mandated Zoning Regulation Language**

Public Act 21-29 "*An Act Concerning the Zoning Enabling Act, Accessory Apartments, Training for Certain Land Use Officials, Municipal affordable Housing Plans and Commission on Connecticut's Development and Future*" adopted last year, mandates certain zoning regulation language regarding off-street parking for dwellings as well as default regulation language for accessory apartments. The Act provides for a municipal opt-out provision for each of these requirements.

The Town Plan and Zoning Commission has unanimously voted to opt-out of both of these requirements as described in the attached one-page background papers for each. Public hearings were held on January 25, 2022. The Commission's vote on the parking opt-out occurred on February 8, 2022 and the decision was published in the Fairfield Citizen on February 18, 2022.

The Commission's vote on the accessory apartment opt-out occurred on March 22, 2022 and was published in the Fairfield Citizen on March 25, 2022. (Both notices are attached)

In addition to the TPZ Commission's vote, the opt-out provision of the Act requires that the RTM must also vote to complete the opt-out process. (See pages 12-13 and 15 -16 of the Act, attached).

I am therefore requesting this matter be placed on a RTM agenda for consideration and vote.



FAIRFIELD TOWN PLAN AND ZONING COMMISSION PROPOSED OPT-OUT OF  
STATE MANDATED REGULATION LANGUAGE REGARDING OFF-STREET PARKING.

**Background:** This past legislative session, the CT General Assembly adopted Public Act 21-29 *An act Concerning the Zoning Enabling Act, Accessory Apartments, Training for Certain Land Use Officials, Municipal affordable Housing Plans and Commission on Connecticut's Development and Future*. The Act requires that local zoning regulations **“shall not require more than one parking space for each studio or one-bedroom dwelling unit or more than two parking spaces for each dwelling unit with two or more bedrooms, unless the community opts out in accordance with the provisions of section 5 of this act”**

The opt-out process requires a public hearing and an affirmative vote of 2/3 of the commission stating upon the record the reasons for doing so. To complete the process, the RTM must also approve opting out by a 2/3 vote.

The Fairfield Zoning regulations require varying number of parking spaces depending on the zone and number of dwelling units. For properties with 1-4 dwelling units, 2 spaces per unit are required. The new rule in this case would have limited applicability since there are virtually no new units of this type that are likely to have fewer than 2 bedrooms per unit.

Our regulations for Transit Oriented Development in the area around Fairfield Metro already prescribe fewer spaces than the new statutory maximums (the lesser of 1 space per bedroom or 1.25 space per unit).

Other larger residential development, not near transit and greater than 4 units, requires more parking than the prescribed maximum. These types of developments are only permitted in the Designed Residence District and presently require 2.5 spaces per unit in developments of 5-10 units and 3 spaces per unit in developments of 11 or more units. In addition, 0.5 spaces per unit of visitor parking is required.

The parking required for the majority of residential development opportunity in town is consistent with or less than the prescribed new maximums. The Commission believes however that larger developments, not near transit warrant additional parking than the prescribed maximums, and therefore the Commission is proposing to opt-out of the requirement as provided by statute.

## FAIRFIELD TOWN PLAN AND ZONING COMMISSION PROPOSED AMENDMENTS TO ACCESSORY APARTMENT REGULATIONS AND PROPOSED OPT-OUT OF STATE MANDATED REGULATION LANGUAGE.

**Background:** This past legislative session, the CT General Assembly adopted Public Act 21-29 *An act Concerning the Zoning Enabling Act, Accessory Apartments, Training for Certain Land Use Officials, Municipal affordable Housing Plans and Commission on Connecticut's Development and Future*. The Act requires that local zoning regulations allow for the creation of accessory apartments and prescribes specific language that communities must adopt to be in compliance. The Act requires that local zoning commissions either amend their regulations to comply with the statutes or vote to opt-out by January 1, 2023.

The opt-out process requires a public hearing and an affirmative vote of 2/3 of the commission stating upon the record the reasons for doing so. To complete the process, the RTM must also approve opting out by a 2/3 vote.

The concept of accessory apartments is not new to Fairfield, as the Zoning Regulations have permitted accessory apartments since 1986 with 170 apartments in inventory. The Accessory Apartment Regulations were most recently amended in February of 2021 and are very similar to the required State language. There are two key provisions in the default language which differ from the Fairfield local regulations.

The Fairfield regulations permit accessory apartments in single family zones but not the Beach District. The statutory language would require apartments to be permitted on any lot that contains a single family dwelling regardless of zone. The Plan and Zoning Commission agrees that accessory apartment opportunity should be extended to residence our B and C Zones that contain single family dwellings. These two districts already permit multi-family dwellings depending on lot size and presently prohibit accessory apartments. Given the unique and discreet geography of the Beach District however, the Commission believes that accessory apartments should remain prohibited in this district.

The statutory language also requires that accessory apartments to be allowed in detached structures in any district. The Fairfield regulations presently permit detached apartments only in the AAA (2 acre) zone. The Commission is proposing to extend the detached opportunity to the AA (1 acre) and R3 (½ acre) districts, but believes that detached units should not be permitted in all districts.

In short, the Plan and Zoning Commission has a long history of supporting accessory apartment opportunity. The Commission is proposing amended language to increase this opportunity, but for the considerations discussed is also proposing to opt-out of the statutory default language.

**TOWN PLAN AND ZONING COMMISSION  
FAIRFIELD, CONNECTICUT  
NOTICE OF DECISION – FEBRUARY 8, 2022**

The Town Plan and Zoning Commission of the Town of Fairfield, Connecticut held a teleconference/videoconference meeting on February 8, 2022, and voted on the following:

**1401 Kings Highway** Zoning Compliance Application of 1401 King, LLC to establish a dog care, overnight boarding, grooming and training use. Des. Comm. Dist./TODP.

**APPROVED**

**Off-Street Parking Opt-Out** Proposal of the Town Plan and Zoning Commission to opt-out of State mandated parking requirements, pursuant to Public Act 21-29.

**APPROVED**

Dated at Fairfield, CT this 18<sup>th</sup> day of February, 2022.

Effective Date: February 19, 2022

TOWN PLAN AND ZONING COMMISSION

Tom Noonan, Chairman  
Meg Francis, Secretary  
Josephine M. Keogh, Clerk

**TOWN PLAN AND ZONING COMMISSION  
FAIRFIELD, CONNECTICUT  
NOTICE OF DECISION – MARCH 22, 2022**

The Town Plan and Zoning Commission of the Town of Fairfield, Connecticut held a teleconference/videoconference meeting on March 22, 2022, and voted on the following:

**Zoning Regulation Amendment and Opt-Out (Accessory Apartments)**

Application of the Town Plan and Zoning Commission to amend Section 6.0 of the Zoning Regulations (Accessory Apartments) proposed changes:

- 6.3 Add residence B and C Zones to districts that permit accessory apartments.
- 6.3, 6.5 Eliminate the request for annual recertification of permit.
- 6.3.8 Add residence AA and R-3 Zones to districts eligible for a detached accessory apartment.
- 6.4 Clarify that application process is administrative.

The Commission is also proposing to opt-out of the State mandated language pursuant to Public Act 27-29.

**APPROVED**

**2-6 Beacon Square** Zoning Compliance application of Beacon Square Properties, LLC pertaining to a 26-unit residential development, pursuant to Section 8-30g of the CT General Statutes as shown on plans entitled “Improvement Location Survey Prepared for Beacon Square Properties, LLC,” dated February 10, 2021, Revised, February 9, 2022, and prepared by Land Surveying Services, LLC. Res. R-3 Zone

**APPROVED**

Dated at Fairfield, CT this 25<sup>th</sup> day of March; 2022.  
Effective Date: March 26, 2022

TOWN PLAN AND ZONING COMMISSION

Tom Noonan, Chairman  
Meg Francis, Secretary  
Josephine M. Keogh, Clerk



**Substitute House Bill No. 6107**

**Public Act No. 21-29**

**AN ACT CONCERNING THE ZONING ENABLING ACT, ACCESSORY APARTMENTS, TRAINING FOR CERTAIN LAND USE OFFICIALS, MUNICIPAL AFFORDABLE HOUSING PLANS AND A COMMISSION ON CONNECTICUT'S DEVELOPMENT AND FUTURE.**

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. Section 8-1a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2021*):

(a) "Municipality" as used in this chapter shall include a district establishing a zoning commission under section 7-326. Wherever the words "town" and "selectmen" appear in this chapter, they shall be deemed to include "district" and "officers of such district", respectively.

(b) As used in this chapter and section 6 of this act:

(1) "Accessory apartment" means a separate dwelling unit that (A) is located on the same lot as a principal dwelling unit of greater square footage, (B) has cooking facilities, and (C) complies with or is otherwise exempt from any applicable building code, fire code and health and safety regulations;

(2) "Affordable accessory apartment" means an accessory apartment that is subject to binding recorded deeds which contain covenants or

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restrictions that require such accessory apartment be sold or rented at, or below, prices that will preserve the unit as housing for which, for a period of not less than ten years, persons and families pay thirty per cent or less of income, where such income is less than or equal to eighty per cent of the median income;

(3) "As of right" means able to be approved in accordance with the terms of a zoning regulation or regulations and without requiring that a public hearing be held, a variance, special permit or special exception be granted or some other discretionary zoning action be taken, other than a determination that a site plan is in conformance with applicable zoning regulations;

(4) "Cottage cluster" means a grouping of at least four detached housing units, or live work units, per acre that are located around a common open area;

(5) "Middle housing" means duplexes, triplexes, quadplexes, cottage clusters and townhouses;

(6) "Mixed-use development" means a development containing both residential and nonresidential uses in any single building; and

(7) "Townhouse" means a residential building constructed in a grouping of three or more attached units, each of which shares at least one common wall with an adjacent unit and has exterior walls on at least two sides.

Sec. 2. Section 8-1c of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2021*):

(a) Any municipality may, by ordinance, establish a schedule of reasonable fees for the processing of applications by a municipal zoning commission, planning commission, combined planning and zoning commission, zoning board of appeals or inland wetlands commission.



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Such schedule shall supersede any specific fees set forth in the general statutes, or any special act or established by a planning commission under section 8-26.

(b) A municipality may, by regulation, require any person applying to a municipal zoning commission, planning commission, combined planning and zoning commission, zoning board of appeals or inland wetlands commission for approval of an application to pay the cost of reasonable fees associated with any necessary review by consultants with expertise in land use of any particular technical aspect of such application, such as regarding traffic or stormwater, for the benefit of such commission or board. Any such fees shall be accounted for separately from other funds of such commission or board and shall be used only for expenses associated with the technical review by consultants who are not salaried employees of the municipality or such commission or board. Any amount of the fee remaining after payment of all expenses for such technical review, including any interest accrued, shall be returned to the applicant not later than forty-five days after the completion of the technical review.

(c) No municipality may adopt a schedule of fees under subsection (a) of this section that results in higher fees for (1) development projects built using the provisions of section 8-30g, as amended by this act, or (2) residential buildings containing four or more dwelling units, than for other residential dwellings, including, but not limited to, higher fees per dwelling unit, per square footage or per unit of construction cost.

Sec. 3. Subsection (j) of section 8-1bb of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2021*):

(j) A municipality, by vote of its legislative body or, in a municipality where the legislative body is a town meeting, by vote of the board of selectmen, may opt out of the provisions of this section and the [provision] provisions of subdivision (5) of subsection [(a)] (d) of section

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8-2, as amended by this act, regarding authorization for the installation of temporary health care structures, provided the zoning commission or combined planning and zoning commission of the municipality: (1) First holds a public hearing in accordance with the provisions of section 8-7d on such proposed opt-out, (2) affirmatively decides to opt out of the provisions of said sections within the period of time permitted under section 8-7d, (3) states upon its records the reasons for such decision, and (4) publishes notice of such decision in a newspaper having a substantial circulation in the municipality not later than fifteen days after such decision has been rendered.

Sec. 4. Section 8-2 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2021*):

(a) (1) The zoning commission of each city, town or borough is authorized to regulate, within the limits of such municipality: [, the] (A) The height, number of stories and size of buildings and other structures; (B) the percentage of the area of the lot that may be occupied; (C) the size of yards, courts and other open spaces; (D) the density of population and the location and use of buildings, structures and land for trade, industry, residence or other purposes, including water-dependent uses, as defined in section 22a-93; [,] and (E) the height, size, location, brightness and illumination of advertising signs and billboards, [. Such bulk regulations may allow for cluster development, as defined in section 8-18] except as provided in subsection (f) of this section.

(2) Such zoning commission may divide the municipality into districts of such number, shape and area as may be best suited to carry out the purposes of this chapter; and, within such districts, it may regulate the erection, construction, reconstruction, alteration or use of buildings or structures and the use of land. All [such] zoning regulations shall be uniform for each class or kind of buildings, structures or use of land throughout each district, but the regulations in one district may

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differ from those in another district. [, and]

(3) Such zoning regulations may provide that certain classes or kinds of buildings, structures or [uses] use of land are permitted only after obtaining a special permit or special exception from a zoning commission, planning commission, combined planning and zoning commission or zoning board of appeals, whichever commission or board the regulations may, notwithstanding any special act to the contrary, designate, subject to standards set forth in the regulations and to conditions necessary to protect the public health, safety, convenience and property values. [Such regulations shall be]

(b) Zoning regulations adopted pursuant to subsection (a) of this section shall:

(1) Be made in accordance with a comprehensive plan and in [adopting such regulations the commission shall consider] consideration of the plan of conservation and development [prepared] adopted under section 8-23; [. Such regulations shall be]

(2) Be designed to (A) lessen congestion in the streets; [to] (B) secure safety from fire, panic, flood and other dangers; [to] (C) promote health and the general welfare; [to] (D) provide adequate light and air; [to prevent the overcrowding of land; to avoid undue concentration of population and to] (E) protect the state's historic, tribal, cultural and environmental resources; (F) facilitate the adequate provision for transportation, water, sewerage, schools, parks and other public requirements; [. Such regulations shall be made] (G) consider the impact of permitted land uses on contiguous municipalities and on the planning region, as defined in section 4-124i, in which such municipality is located; (H) address significant disparities in housing needs and access to educational, occupational and other opportunities; (I) promote efficient review of proposals and applications; and (J) affirmatively further the purposes of the federal Fair Housing Act, 42 USC 3601 et

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seq., as amended from time to time;

(3) Be drafted with reasonable consideration as to the [character] physical site characteristics of the district and its peculiar suitability for particular uses and with a view to [conserving the value of buildings and] encouraging the most appropriate use of land throughout [such] a municipality; [. Such regulations may, to the extent consistent with soil types, terrain, infrastructure capacity and the plan of conservation and development for the community, provide for cluster development, as defined in section 8-18, in residential zones. Such regulations shall also encourage]

(4) Provide for the development of housing opportunities, including opportunities for multifamily dwellings, consistent with soil types, terrain and infrastructure capacity, for all residents of the municipality and the planning region in which the municipality is located, as designated by the Secretary of the Office of Policy and Management under section 16a-4a; [. Such regulations shall also promote]

(5) Promote housing choice and economic diversity in housing, including housing for both low and moderate income households; [, and shall encourage]

(6) Expressly allow the development of housing which will meet the housing needs identified in the state's consolidated plan for housing and community development prepared pursuant to section 8-37t and in the housing component and the other components of the state plan of conservation and development prepared pursuant to section 16a-26; [. Zoning regulations shall be]

(7) Be made with reasonable consideration for [their] the impact of such regulations on agriculture, as defined in subsection (q) of section 1-1; [.]

(8) Provide that proper provisions be made for soil erosion and



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sediment control pursuant to section 22a-329;

(9) Be made with reasonable consideration for the protection of existing and potential public surface and ground drinking water supplies; and

(10) In any municipality that is contiguous to or on a navigable waterway draining to Long Island Sound, (A) be made with reasonable consideration for the restoration and protection of the ecosystem and habitat of Long Island Sound; (B) be designed to reduce hypoxia, pathogens, toxic contaminants and floatable debris on Long Island Sound; and (C) provide that such municipality's zoning commission consider the environmental impact on Long Island Sound coastal resources, as defined in section 22a-93, of any proposal for development.

(c) Zoning regulations adopted pursuant to subsection (a) of this section may: [be]

(1) To the extent consistent with soil types, terrain and water, sewer and traffic infrastructure capacity for the community, provide for or require cluster development, as defined in section 8-18;

(2) Be made with reasonable consideration for the protection of historic factors; [and shall be made with reasonable consideration for the protection of existing and potential public surface and ground drinking water supplies. On and after July 1, 1985, the regulations shall provide that proper provision be made for soil erosion and sediment control pursuant to section 22a-329. Such regulations may also encourage]

(3) Require or promote (A) energy-efficient patterns of development; [.] (B) the use of distributed generation or freestanding solar, wind and other renewable forms of energy; [.] (C) combined heat and power; and (D) energy conservation; [. The regulations may also provide]

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(4) Provide for incentives for developers who use [passive solar energy techniques, as defined in subsection (b) of section 8-25, in planning a residential subdivision development. The incentives may include, but not be] (A) solar and other renewable forms of energy; (B) combined heat and power; (C) water conservation, including demand offsets; and (D) energy conservation techniques, including, but not limited to, cluster development, higher density development and performance standards for roads, sidewalks and underground facilities in the subdivision; [ Such regulations may provide]

(5) Provide for a municipal system for the creation of development rights and the permanent transfer of such development rights, which may include a system for the variance of density limits in connection with any such transfer; [ Such regulations may also provide]

(6) Provide for notice requirements in addition to those required by this chapter; [ Such regulations may provide]

(7) Provide for conditions on operations to collect spring water or well water, as defined in section 21a-150, including the time, place and manner of such operations; [ No such regulations shall prohibit]

(8) Provide for floating zones, overlay zones and planned development districts;

(9) Require estimates of vehicle miles traveled and vehicle trips generated in lieu of, or in addition to, level of service traffic calculations to assess (A) the anticipated traffic impact of proposed developments; and (B) potential mitigation strategies such as reducing the amount of required parking for a development or requiring public sidewalks, crosswalks, bicycle paths, bicycle racks or bus shelters, including off-site; and

(10) In any municipality where a traprock ridge or an amphibolite ridge is located, (A) provide for development restrictions in ridgeline



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setback areas; and (B) restrict quarrying and clear cutting, except that the following operations and uses shall be permitted in ridgeline setback areas, as of right: (i) Emergency work necessary to protect life and property; (ii) any nonconforming uses that were in existence and that were approved on or before the effective date of regulations adopted pursuant to this section; and (iii) selective timbering, grazing of domesticated animals and passive recreation.

(d) Zoning regulations adopted pursuant to subsection (a) of this section shall not:

(1) Prohibit the operation of any family child care home or group child care home in a residential zone; [. No such regulations shall prohibit]

(2) (A) Prohibit the use of receptacles for the storage of items designated for recycling in accordance with section 22a-241b or require that such receptacles comply with provisions for bulk or lot area, or similar provisions, except provisions for side yards, rear yards and front yards; [. No such regulations shall] or (B) unreasonably restrict access to or the size of such receptacles for businesses, given the nature of the business and the volume of items designated for recycling in accordance with section 22a-241b, that such business produces in its normal course of business, provided nothing in this section shall be construed to prohibit such regulations from requiring the screening or buffering of such receptacles for aesthetic reasons; [. Such regulations shall not impose]

(3) Impose conditions and requirements on manufactured homes, including mobile manufactured homes, having as their narrowest dimension twenty-two feet or more and built in accordance with federal manufactured home construction and safety standards or on lots containing such manufactured homes, [which] including mobile manufactured home parks, if those conditions and requirements are

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substantially different from conditions and requirements imposed on (A) single-family dwellings; [and] (B) lots containing single-family dwellings; [. Such regulations shall not impose conditions and requirements on developments to be occupied by manufactured homes having as their narrowest dimension twenty-two feet or more and built in accordance with federal manufactured home construction and safety standards which are substantially different from conditions and requirements imposed on] or (C) multifamily dwellings, lots containing multifamily dwellings, cluster developments or planned unit developments; [. Such regulations shall not prohibit]

(4) (A) Prohibit the continuance of any nonconforming use, building or structure existing at the time of the adoption of such regulations; [or] (B) require a special permit or special exception for any such continuance; [. Such regulations shall not] (C) provide for the termination of any nonconforming use solely as a result of nonuse for a specified period of time without regard to the intent of the property owner to maintain that use; [. Such regulations shall not] or (D) terminate or deem abandoned a nonconforming use, building or structure unless the property owner of such use, building or structure voluntarily discontinues such use, building or structure and such discontinuance is accompanied by an intent to not reestablish such use, building or structure. The demolition or deconstruction of a nonconforming use, building or structure shall not by itself be evidence of such property owner's intent to not reestablish such use, building or structure; [. Unless such town opts out, in accordance with the provisions of subsection (j) of section 8-1bb, such regulations shall not prohibit]

(5) Prohibit the installation, in accordance with the provisions of section 8-1bb, as amended by this act, of temporary health care structures for use by mentally or physically impaired persons [in accordance with the provisions of section 8-1bb] if such structures

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comply with the provisions of said section, [.] unless the municipality opts out in accordance with the provisions of subsection (j) of said section;

(6) Prohibit the operation in a residential zone of any cottage food operation, as defined in section 21a-62b;

(7) Establish for any dwelling unit a minimum floor area that is greater than the minimum floor area set forth in the applicable building, housing or other code;

(8) Place a fixed numerical or percentage cap on the number of dwelling units that constitute multifamily housing over four units, middle housing or mixed-use development that may be permitted in the municipality;

(9) Require more than one parking space for each studio or one-bedroom dwelling unit or more than two parking spaces for each dwelling unit with two or more bedrooms, unless the municipality opts out in accordance with the provisions of section 5 of this act; or

(10) Be applied to deny any land use application, including for any site plan approval, special permit, special exception or other zoning approval, on the basis of (A) a district's character, unless such character is expressly articulated in such regulations by clear and explicit physical standards for site work and structures, or (B) the immutable characteristics, source of income or income level of any applicant or end user, other than age or disability whenever age-restricted or disability-restricted housing may be permitted.

(e) Any city, town or borough which adopts the provisions of this chapter may, by vote of its legislative body, exempt municipal property from the regulations prescribed by the zoning commission of such city, town or borough, [;] but unless it is so voted, municipal property shall be subject to such regulations.

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[(b) In any municipality that is contiguous to Long Island Sound the regulations adopted under this section shall be made with reasonable consideration for restoration and protection of the ecosystem and habitat of Long Island Sound and shall be designed to reduce hypoxia, pathogens, toxic contaminants and floatable debris in Long Island Sound. Such regulations shall provide that the commission consider the environmental impact on Long Island Sound of any proposal for development.

(c) In any municipality where a traprock ridge, as defined in section 8-1aa, or an amphibolite ridge, as defined in section 8-1aa, is located the regulations may provide for development restrictions in ridgeline setback areas, as defined in said section. The regulations may restrict quarrying and clear cutting, except that the following operations and uses shall be permitted in ridgeline setback areas, as of right: (1) Emergency work necessary to protect life and property; (2) any nonconforming uses that were in existence and that were approved on or before the effective date of regulations adopted under this section; and (3) selective timbering, grazing of domesticated animals and passive recreation.]

[(d)] (f) Any advertising sign or billboard that is not equipped with the ability to calibrate brightness or illumination shall be exempt from any municipal ordinance or regulation regulating such brightness or illumination that is adopted by a city, town or borough, pursuant to subsection (a) of this section, after the date of installation of such advertising sign or billboard. [pursuant to subsection (a) of this section.]

Sec. 5. (NEW) (*Effective October 1, 2021*) The zoning commission or combined planning and zoning commission, as applicable, of a municipality, by a two-thirds vote, may initiate the process by which such municipality opts out of the provision of subdivision (9) of subsection (d) of section 8-2 of the general statutes, as amended by this act, regarding limitations on parking spaces for dwelling units;

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provided such commission: (1) First holds a public hearing in accordance with the provisions of section 8-7d of the general statutes on such proposed opt-out, (2) affirmatively decides to opt out of the provision of said subsection within the period of time permitted under section 8-7d of the general statutes, (3) states upon its records the reasons for such decision, and (4) publishes notice of such decision in a newspaper having a substantial circulation in the municipality not later than fifteen days after such decision has been rendered. Thereafter, the municipality's legislative body or, in a municipality where the legislative body is a town meeting, its board of selectmen, by a two-thirds vote, may complete the process by which such municipality opts out of the provision of subsection (d) of section 8-2 of the general statutes, as amended by this act.

Sec. 6. (NEW) (*Effective January 1, 2022*) (a) Any zoning regulations adopted pursuant to section 8-2 of the general statutes, as amended by this act, shall:

(1) Designate locations or zoning districts within the municipality in which accessory apartments are allowed, provided at least one accessory apartment shall be allowed as of right on each lot that contains a single-family dwelling and no such accessory apartment shall be required to be an affordable accessory apartment;

(2) Allow accessory apartments to be attached to or located within the proposed or existing principal dwelling, or detached from the proposed or existing principal dwelling and located on the same lot as such dwelling;

(3) Set a maximum net floor area for an accessory apartment of not less than thirty per cent of the net floor area of the principal dwelling, or one thousand square feet, whichever is less, except that such regulations may allow a larger net floor area for such apartments;



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(4) Require setbacks, lot size and building frontage less than or equal to that which is required for the principal dwelling, and require lot coverage greater than or equal to that which is required for the principal dwelling;

(5) Provide for height, landscaping and architectural design standards that do not exceed any such standards as they are applied to single-family dwellings in the municipality;

(6) Be prohibited from requiring (A) a passageway between any such accessory apartment and any such principal dwelling, (B) an exterior door for any such accessory apartment, except as required by the applicable building or fire code, (C) any more than one parking space for any such accessory apartment, or fees in lieu of parking otherwise allowed by section 8-2c of the general statutes, (D) a familial, marital or employment relationship between occupants of the principal dwelling and accessory apartment, (E) a minimum age for occupants of the accessory apartment, (F) separate billing of utilities otherwise connected to, or used by, the principal dwelling unit, or (G) periodic renewals for permits for such accessory apartments; and

(7) Be interpreted and enforced such that nothing in this section shall be in derogation of (A) applicable building code requirements, (B) the ability of a municipality to prohibit or limit the use of accessory apartments for short-term rentals or vacation stays, or (C) other requirements where a well or private sewerage system is being used, provided approval for any such accessory apartment shall not be unreasonably withheld.

(b) The as of right permit application and review process for approval of accessory apartments shall require that a decision on any such application be rendered not later than sixty-five days after receipt of such application by the applicable zoning commission, except that an applicant may consent to one or more extensions of not more than an



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additional sixty-five days or may withdraw such application.

(c) A municipality shall not (1) condition the approval of an accessory apartment on the correction of a nonconforming use, structure or lot, or (2) require the installation of fire sprinklers in an accessory apartment if such sprinklers are not required for the principal dwelling located on the same lot or otherwise required by the fire code.

(d) A municipality, special district, sewer or water authority shall not (1) consider an accessory apartment to be a new residential use for the purposes of calculating connection fees or capacity charges for utilities, including water and sewer service, unless such accessory apartment was constructed with a new single-family dwelling on the same lot, or (2) require the installation of a new or separate utility connection directly to an accessory apartment or impose a related connection fee or capacity charge.

(e) If a municipality fails to adopt new regulations or amend existing regulations by January 1, 2023, for the purpose of complying with the provisions of subsections (a) to (d), inclusive, of this section, and unless such municipality opts out of the provisions of said subsections in accordance with the provisions of subsection (f) of this section, any noncompliant existing regulation shall become null and void and such municipality shall approve or deny applications for accessory apartments in accordance with the requirements for regulations set forth in the provisions of subsections (a) to (d), inclusive, of this section until such municipality adopts or amends a regulation in compliance with said subsections. A municipality may not use or impose additional standards beyond those set forth in subsections (a) to (d), inclusive, of this section.

(f) Notwithstanding the provisions of subsections (a) to (d), inclusive, of this section, the zoning commission or combined planning and zoning commission, as applicable, of a municipality, by a two-thirds

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vote, may initiate the process by which such municipality opts out of the provisions of said subsections regarding allowance of accessory apartments, provided such commission: (1) First holds a public hearing in accordance with the provisions of section 8-7d of the general statutes on such proposed opt-out, (2) affirmatively decides to opt out of the provisions of said subsections within the period of time permitted under section 8-7d of the general statutes, (3) states upon its records the reasons for such decision, and (4) publishes notice of such decision in a newspaper having a substantial circulation in the municipality not later than fifteen days after such decision has been rendered. Thereafter, the municipality's legislative body or, in a municipality where the legislative body is a town meeting, its board of selectmen, by a two-thirds vote, may complete the process by which such municipality opts out of the provisions of subsections (a) to (d), inclusive, of this section, except that, on and after January 1, 2023, no municipality may opt out of the provisions of said subsections.

Sec. 7. Subsection (k) of section 8-30g of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2021*):

(k) The affordable housing appeals procedure established under this section shall not be available if the real property which is the subject of the application is located in a municipality in which at least ten per cent of all dwelling units in the municipality are (1) assisted housing, (2) currently financed by Connecticut Housing Finance Authority mortgages, (3) subject to binding recorded deeds containing covenants or restrictions which require that such dwelling units be sold or rented at, or below, prices which will preserve the units as housing for which persons and families pay thirty per cent or less of income, where such income is less than or equal to eighty per cent of the median income, (4) mobile manufactured homes located in mobile manufactured home parks or legally approved accessory apartments, which homes or

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apartments are subject to binding recorded deeds containing covenants or restrictions which require that such dwelling units be sold or rented at, or below, prices which will preserve the units as housing for which, for a period of not less than ten years, persons and families pay thirty per cent or less of income, where such income is less than or equal to eighty per cent of the median income, or (5) mobile manufactured homes located in resident-owned mobile manufactured home parks. For the purposes of calculating the total number of dwelling units in a municipality, accessory apartments built or permitted after January 1, 2022, but that are not described in subdivision (4) of this subsection, shall not be counted toward such total number. The municipalities meeting the criteria set forth in this subsection shall be listed in the report submitted under section 8-37qqq. As used in this subsection, "accessory apartment" [means a separate living unit that (A) is attached to the main living unit of a house, which house has the external appearance of a single-family residence, (B) has a full kitchen, (C) has a square footage that is not more than thirty per cent of the total square footage of the house, (D) has an internal doorway connecting to the main living unit of the house, (E) is not billed separately from such main living unit for utilities, and (F) complies with the building code and health and safety regulations] has the same meaning as provided in section 8-1a, as amended by this act, and "resident-owned mobile manufactured home park" means a mobile manufactured home park consisting of mobile manufactured homes located on land that is deed restricted, and, at the time of issuance of a loan for the purchase of such land, such loan required seventy-five per cent of the units to be leased to persons with incomes equal to or less than eighty per cent of the median income, and either [(i)] (A) forty per cent of said seventy-five per cent to be leased to persons with incomes equal to or less than sixty per cent of the median income, or [(ii)] (B) twenty per cent of said seventy-five per cent to be leased to persons with incomes equal to or less than fifty per cent of the median income.

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Sec. 8. Subsection (e) of section 8-3 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2021*):

(e) (1) The zoning commission shall provide for the manner in which the zoning regulations shall be enforced, except that any person appointed as a zoning enforcement officer on or after January 1, 2023, shall be certified in accordance with the provisions of subdivision (2) of this subsection.

(2) Beginning January 1, 2023, and annually thereafter, each person appointed as a zoning enforcement officer shall obtain certification from the Connecticut Association of Zoning Enforcement Officials and maintain such certification for the duration of employment as a zoning enforcement officer.

Sec. 9. (NEW) (*Effective from passage*) (a) On and after January 1, 2023, each member of a municipal planning commission, zoning commission, combined planning and zoning commission and zoning board of appeals shall complete at least four hours of training. Any such member serving on any such commission or board as of January 1, 2023, shall complete such initial training by January 1, 2024, and shall complete any subsequent training every other year thereafter. Any such member not serving on any such commission or board as of January 1, 2023, shall complete such initial training not later than one year after such member's election or appointment to such commission or board and shall complete any subsequent training every other year thereafter. Such training shall include at least one hour concerning affordable and fair housing policies and may also consist of (1) process and procedural matters, including the conduct of effective meetings and public hearings and the Freedom of Information Act, as defined in section 1-200 of the general statutes, (2) the interpretation of site plans, surveys, maps and architectural conventions, and (3) the impact of zoning on the environment, agriculture and historic resources.

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(b) Not later than January 1, 2022, the Secretary of the Office of Policy and Management shall establish guidelines for such training in collaboration with land use training providers, including, but not limited to, the Connecticut Association of Zoning Enforcement Officials, the Connecticut Conference of Municipalities, the Connecticut Chapter of the American Planning Association, the Land Use Academy at the Center for Land Use Education and Research at The University of Connecticut, the Connecticut Bar Association, regional councils of governments and other nonprofit or educational institutions that provide land use training, except that if the secretary fails to establish such guidelines, such land use training providers may create and administer appropriate training for members of commissions and boards described in subsection (a) of this section, which may be used by such members for the purpose of complying with the provisions of said subsection.

(c) Not later than March 1, 2024, and annually thereafter, the planning commission, zoning commission, combined planning and zoning commission and zoning board of appeals, as applicable, in each municipality shall submit a statement to such municipality's legislative body or, in a municipality where the legislative body is a town meeting, its board of selectmen, affirming compliance with the training requirement established pursuant to subsection (a) of this section by each member of such commission or board required to complete such training in the calendar year ending the preceding December thirty-first.

Sec. 10. Section 7-245 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2021*):

For the purposes of this chapter: (1) "Acquire a sewerage system" means obtain title to all or any part of a sewerage system or any interest therein by purchase, condemnation, grant, gift, lease, rental or otherwise; (2) "alternative sewage treatment system" means a sewage treatment system serving one or more buildings that utilizes a method



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of treatment other than a subsurface sewage disposal system and that involves a discharge to the groundwaters of the state; (3) "community sewerage system" means any sewerage system serving two or more residences in separate structures which is not connected to a municipal sewerage system or which is connected to a municipal sewerage system as a distinct and separately managed district or segment of such system, but does not include any sewerage system serving only a principal dwelling unit and an accessory apartment, as defined in section 8-1a, as amended by this act, located on the same lot; (4) "construct a sewerage system" means to acquire land, easements, rights-of-way or any other real or personal property or any interest therein, plan, construct, reconstruct, equip, extend and enlarge all or any part of a sewerage system; (5) "decentralized system" means managed subsurface sewage disposal systems, managed alternative sewage treatment systems or community sewerage systems that discharge sewage flows of less than five thousand gallons per day, are used to collect and treat domestic sewage, and involve a discharge to the groundwaters of the state from areas of a municipality; (6) "decentralized wastewater management district" means areas of a municipality designated by the municipality through a municipal ordinance when an engineering report has determined that the existing subsurface sewage disposal systems may be detrimental to public health or the environment and that decentralized systems are required and such report is approved by the Commissioner of Energy and Environmental Protection with concurring approval by the Commissioner of Public Health, after consultation with the local director of health; (7) "municipality" means any metropolitan district, town, consolidated town and city, consolidated town and borough, city, borough, village, fire and sewer district, sewer district and each municipal organization having authority to levy and collect taxes; (8) "operate a sewerage system" means own, use, equip, reequip, repair, maintain, supervise, manage, operate and perform any act pertinent to the collection, transportation and disposal of sewage; (9) "person" means any person, partnership,



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corporation, limited liability company, association or public agency; (10) "remediation standards" means pollutant limits, performance requirements, design parameters or technical standards for application to existing sewage discharges in a decentralized wastewater management district for the improvement of wastewater treatment to protect public health and the environment; (11) "sewage" means any substance, liquid or solid, which may contaminate or pollute or affect the cleanliness or purity of any water; and (12) "sewerage system" means any device, equipment, appurtenance, facility and method for collecting, transporting, receiving, treating, disposing of or discharging sewage, including, but not limited to, decentralized systems within a decentralized wastewater management district when such district is established by municipal ordinance pursuant to section 7-247.

Sec. 11. Subsection (b) of section 7-246 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2021*):

(b) Each municipal water pollution control authority designated in accordance with this section may prepare and periodically update a water pollution control plan for the municipality. Such plan shall designate and delineate the boundary of: (1) Areas served by any municipal sewerage system; (2) areas where municipal sewerage facilities are planned and the schedule of design and construction anticipated or proposed; (3) areas where sewers are to be avoided; (4) areas served by any community sewerage system not owned by a municipality; (5) areas to be served by any proposed community sewerage system not owned by a municipality; and (6) areas to be designated as decentralized wastewater management districts. Such plan may designate and delineate specific allocations of capacity to serve areas that are able to be developed for residential or mixed-use buildings containing four or more dwelling units. Such plan shall also describe the means by which municipal programs are being carried out

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to avoid community pollution problems and describe any programs wherein the local director of health manages subsurface sewage disposal systems. The authority shall file a copy of the plan and any periodic updates of such plan with the Commissioner of Energy and Environmental Protection and shall manage or ensure the effective supervision, management, control, operation and maintenance of any community sewerage system or decentralized wastewater management district not owned by a municipality.

Sec. 12. Section 8-30j of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) (1) [At] Not later than June 1, 2022, and at least once every five years thereafter, each municipality shall prepare or amend and adopt an affordable housing plan for the municipality and shall submit a copy of such plan to the Secretary of the Office of Policy and Management, who shall post such plan on the Internet web site of said office. Such plan shall specify how the municipality intends to increase the number of affordable housing developments in the municipality.

(2) If, at the same time the municipality is required to submit to the Secretary of the Office of Policy and Management an affordable housing plan pursuant to subdivision (1) of this subsection, the municipality is also required to submit to the secretary a plan of conservation and development pursuant to section 8-23, such affordable housing plan may be included as part of such plan of conservation and development. The municipality may, to coincide with its submission to the secretary of a plan of conservation and development, submit to the secretary an affordable housing plan early, provided the municipality's next such submission of an affordable housing plan shall be five years thereafter.

(b) The municipality may hold public informational meetings or organize other activities to inform residents about the process of preparing the plan and shall post a copy of any draft plan or amendment

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to such plan on the Internet web site of the municipality. If the municipality holds a public hearing, such posting shall occur at least thirty-five days prior to the public hearing. [on the adoption, the municipality shall file in the office of the town clerk of such municipality a copy of such draft plan or any amendments to the plan, and if applicable, post such draft plan on the Internet web site of the municipality.] After adoption of the plan, the municipality shall file the final plan in the office of the town clerk of such municipality and [, if applicable,] post the plan on the Internet web site of the municipality.

(c) Following adoption, the municipality shall regularly review and maintain such plan. The municipality may adopt such geographical, functional or other amendments to the plan or parts of the plan, in accordance with the provisions of this section, as it deems necessary. If the municipality fails to amend and submit to the Secretary of the Office of Policy and Management such plan every five years, the chief elected official of the municipality shall submit a letter to the [Commissioner of Housing] secretary that (1) explains why such plan was not amended, and (2) designates a date by which an amended plan shall be submitted.

Sec. 13. (*Effective from passage*) (a) There is established a Commission on Connecticut's Development and Future within the Legislative Department, which shall evaluate policies related to land use, conservation, housing affordability and infrastructure.

(b) The commission shall consist of the following members:

(1) Two appointed by the speaker of the House of Representatives, one of whom is a member of the General Assembly not described in subdivision (7), (8), (9) or (10) of this subsection and one of whom is a representative of a municipal advocacy organization;

(2) Two appointed by the president pro tempore of the Senate, one of whom is a member of the General Assembly not described in

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subdivision (7), (8), (9) or (10) of this subsection and one of whom has expertise in state or local planning;

(3) Two appointed by the majority leader of the House of Representatives, one of whom has expertise in state affordable housing policy and one of whom represents a town with a population of greater than thirty thousand but less than seventy-five thousand;

(4) Two appointed by the majority leader of the Senate, one of whom has expertise in zoning policy and one of whom has expertise in community development policy;

(5) Two appointed by the minority leader of the House of Representatives, one of whom has expertise in environmental policy and one of whom is a representative of a municipal advocacy organization;

(6) Two appointed by the minority leader of the Senate, one of whom has expertise in homebuilding and one of whom is a representative of the Connecticut Association of Councils of Governments;

(7) The chairpersons and ranking members of the joint standing committee of the General Assembly having cognizance of matters relating to planning and development;

(8) The chairpersons and ranking members of the joint standing committee of the General Assembly having cognizance of matters relating to the environment;

(9) The chairpersons and ranking members of the joint standing committee of the General Assembly having cognizance of matters relating to housing;

(10) The chairpersons and ranking members of the joint standing committee of the General Assembly having cognizance of matters

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relating to transportation;

(11) Two appointed by the Governor, one of whom is an attorney with expertise in planning and zoning and one of whom has expertise in fair housing;

(12) The Secretary of the Office of Policy and Management;

(13) The Commissioner of Administrative Services, or the commissioner's designee;

(14) The Commissioner of Economic and Community Development, or the commissioner's designee;

(15) The Commissioner of Energy and Environmental Protection, or the commissioner's designee;

(16) The Commissioner of Housing, or the commissioner's designee; and

(17) The Commissioner of Transportation, or the commissioner's designee.

(c) Appointing authorities, in cooperation with one another, shall make a good faith effort to ensure that, to the extent possible, the membership of the commission closely reflects the gender and racial diversity of the state. Members of the commission shall serve without compensation, except for necessary expenses incurred in the performance of their duties. Any vacancy shall be filled by the appointing authority.

(d) The speaker of the House of Representatives and the president pro tempore of the Senate shall jointly select one of the members of the General Assembly described in subdivision (1) or (2) of subsection (b) of this section to serve as one cochairperson of the commission. The Secretary of the Office of Policy and Management shall serve as the other



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cochairperson of the commission. Such cochairpersons shall schedule the first meeting of the commission.

(e) The commission may accept administrative support and technical and research assistance from outside organizations and employees of the Joint Committee on Legislative Management. The cochairpersons may establish, as needed, working groups consisting of commission members and nonmembers and may designate a chairperson of each such working group.

(f) (1) Except as provided in subdivision (2) of this subsection, not later than January 1, 2022, and not later than January 1, 2023, the commission shall submit a report to the joint standing committees of the General Assembly having cognizance of matters relating to planning and development, environment, housing and transportation and to the Secretary of the Office of Policy and Management, in accordance with the provisions of section 11-4a of the general statutes, regarding the following:

(A) Any recommendations for statutory changes concerning the process for developing, adopting and implementing the state plan of conservation and development;

(B) Any recommendations for (i) statutory changes concerning the process for developing and adopting the state's consolidated plan for housing and community development prepared pursuant to section 8-37t of the general statutes, and (ii) implementation of such plan;

(C) Any recommendations (i) for guidelines and incentives for compliance with (I) the requirements for affordable housing plans prepared pursuant to section 8-30j of the general statutes, as amended by this act, and (II) subdivisions (4) to (6), inclusive, of subsection (b) of section 8-2 of the general statutes, as amended by this act, and (ii) as to how such compliance should be determined, as well as the form and

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manner in which evidence of such compliance should be demonstrated. Nothing in this subparagraph may be construed as permitting any municipality to delay the preparation or amendment and adoption of an affordable housing plan, and the submission of a copy of such plan to the Secretary of the Office of Policy and Management, beyond the date set forth in subsection (a) of section 8-30j of the general statutes, as amended by this act;

(D) (i) Existing categories of discharge that constitute (I) alternative on-site sewage treatment systems, as described in section 19a-35a of the general statutes, (II) subsurface community sewerage systems, as described in section 22a-430 of the general statutes, and (III) decentralized systems, as defined in section 7-245 of the general statutes, as amended by this act, (ii) current administrative jurisdiction to issue or deny permits and approvals for such systems, with reference to daily capacities of such systems, and (iii) the potential impacts of increasing the daily capacities of such systems, including changes in administrative jurisdiction over such systems and the timeframe for adoption of regulations to implement any such changes in administrative jurisdiction; and

(E) (i) Development of model design guidelines for both buildings and context-appropriate streets that municipalities may adopt, in whole or in part, as part of their zoning or subdivision regulations, which guidelines shall (I) identify common architectural and site design features of building types used in urban, suburban and rural communities throughout this state, (II) create a catalogue of common building types, particularly those typically associated with housing, (III) establish reasonable and cost-effective design review standards for approval of common building types, accounting for topography, geology, climate change and infrastructure capacity, (IV) establish procedures for expediting the approval of buildings or streets that satisfy such design review standards, whether for zoning or subdivision

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regulations, and (V) create a design manual for context-appropriate streets that complement common building types, and (ii) development and implementation by the regional councils of governments of an education and training program for the delivery of such model design guidelines for both buildings and context-appropriate streets.

(2) If the commission is unable to meet the January 1, 2022, deadline set forth in subdivision (1) of this subsection for the submission of the report described in said subdivision, the cochairpersons shall request from the speaker of the House of Representatives and president pro tempore of the Senate an extension of time for such submission and shall submit an interim report.

(3) The commission shall terminate on the date it submits its final report or January 1, 2023, whichever is later.

Approved June 10, 2021

**MEMORANDUM OF UNDERSTANDING (MOU)**  
**BETWEEN THE CITY OF BRIDGEPORT AND TOWN OF FAIRFIELD**  
**CONCERNING**  
**THE ROOSTER RIVER WATERSHED PROJECT**

This is an Agreement between the City of Bridgeport and the Town of Fairfield for the purpose of reducing flooding from the Rooster River Watershed through the design and construction of floodwater detention areas and water containment areas to reduce the frequency and severity of flooding along the Rooster River ("the Project").

**WHEREFORE**, in or about 2018, Fairfield engaged the firm Milone and McBroom, subsequently known as SLR, (the "Engineering Consultant"), to evaluate the feasibility of creating floodwater storage/detention areas on open sites within the Rooster River Watershed. Seven sites were identified, including property owned by Bridgeport and known as the Fairchild Wheeler Golf Course, located within the town of Fairfield at 2390 Easton Turnpike. The Engineering Consultant proposed three potential areas within the Golf Course for the construction of a detention area.

**WHEREFORE**, Bridgeport and Fairfield agree that it is mutually beneficial and in the best interests of each municipality to continue the engagement of the Engineering Consultant to develop the flood mitigation concepts on Bridgeport's property, perform any additional engineering analysis and advance the flood mitigation plans specifically as it relates to Bridgeport's property.

**NOW THEREFORE**, the Parties hereby clearly and specifically identify the roles and responsibilities of Bridgeport and Fairfield as they relate to design and construction of detention areas pursuant to a Plan for Flood Mitigation within the Rooster River Watershed on property owned by Bridgeport, specifically the property known as the Fairchild Wheeler Golf Course, as follows:

1. Fairfield shall remain solely responsible for payment of the Engineering Consultant's fees and costs.
2. Fairfield shall instruct the Engineering Consultant to invoice work solely pertaining to Fairfield Wheeler Golf Course separately and to deliver the invoices to Bridgeport.
3. Bridgeport shall pay to Fairfield the amount invoiced by the Engineering Consultant that solely pertains to work completed for Fairchild Wheeler Golf Course.
4. Fairfield shall procure through a competitive public bid process, compliant with the requirements of the American Rescue Plan Act ("ARPA"), construction

- services for the entire project and enter into contract(s) for the Project including the work on Fairchild Wheeler Golf Course. Fairfield shall be responsible for payment of all services rendered and materials provided thereunder.
5. Fairfield shall ensure that Bridgeport is identified in all contracts as a third-party beneficiary and as an additional insured for all construction services and restoration work that impact Fairchild Wheeler Golf Course.
6. The construction contract(s) entered into by Fairfield shall require the contractor to separately invoice services and materials provided to Fairchild Wheeler Golf Course, which invoices shall be provided to Bridgeport. To the extent necessary, Fairfield shall seek appropriate change orders or amendments to its contract, to comply with the terms of this Agreement at its sole cost.
7. Solely with regard to construction services and materials provided at Fairchild Wheeler Golf Course, Bridgeport shall reimburse Fairfield for those services and materials delivered and invoiced.
8. Bridgeport's financial responsibilities and contribution ("Contribution") for the entire project, including but not limited to consulting engineering services, materials, and construction services, shall be limited to the aggregate and total sum of Seven Hundred and Fifty Thousand (\$750,000) Dollars. Bridgeport's Contribution shall be paid pursuant to an allocation approved within Bridgeport's federal ARPA funds. As to all Project expenses relating to Fairchild Wheeler Golf Course over the aggregate \$750,000, Fairfield shall be solely responsible and shall indemnify and hold Bridgeport harmless for any costs or expenses above its \$750,000 contribution.
9. Fairfield and Bridgeport shall work cooperatively on the Project, and Bridgeport shall not unreasonably withhold access to contractors related to the Project services.
10. This MOU shall be effective upon the date of the last signature of the authorized officials below and shall remain in effect until December 31, 2025, unless otherwise terminated.
11. It is understood that Fairfield has a budget of at least \$2 million approved for this project. It is understood that Bridgeport has an absolute budget maximum of \$750,000 approved for the Bridgeport portion of the Project.
12. Retention: All records must be retained in accordance with applicable federal, state, local and municipal laws, rules and regulations.
13. Compliance with General Statutes §7-339c:



- a. Any amendment to, termination of, or withdrawal from this MOU shall be mutual, in writing and signed by the Parties
  - b. This MOU shall have no effect unless and until the legislative bodies of each municipality ratify the same after an opportunity for public comment.
14. The Within MOU may be countersigned and each signatory represents to the other authority to execute the same.
15. After the Project has been completed, Bridgeport shall be responsible for cleaning and routine maintenance of exterior, easily accessible detention area structures (not pipes) on golf course property. Both municipalities shall equally share the cost of repairs, improvements and more extensive maintenance/cleaning (pipes) of the detention system on the golf course property. Bridgeport shall not be responsible for maintenance, repair or improvement costs related to items and areas of the detention system that are not located on the Fairchild Wheeler Golf Course property.

**AGREED and ACCEPTED:**

**CITY OF BRIDGEPORT**

\_\_\_\_\_  
Joseph P. Ganim, Mayor  
Or his designee

Dated: \_\_\_\_\_

**TOWN OF FAIRFIELD**

\_\_\_\_\_  
Brenda L. Kupchick, First Selectman  
Or her designee

Dated: \_\_\_\_\_

20 YEAR

**A RESOLUTION APPROPRIATING \$1,949,778 FOR THE COSTS OF TOWN-WIDE  
FACILITY SYSTEM UPGRADES AND AUTHORIZING THE ISSUANCE OF BONDS  
TO FINANCE SUCH APPROPRIATION**

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**RESOLVED:**

1. As recommended by the Board of Finance and the Board of Selectmen, the Town of Fairfield (the "Town") hereby appropriates the sum of One Million Nine Hundred Forty-Nine Thousand Seven Hundred Seventy-Eight and 00/100 Dollars (\$1,949,778) for costs related to Town-wide facility system upgrades, including but not limited to, heating, ventilation and air conditioning (HVAC), life safety, electrical, accessibility and structural system upgrades in various municipal buildings located throughout the Town, and all related engineering, administrative, financing, legal, contingency and other soft costs (the "Project").
2. To finance such appropriation and in lieu of a tax therefor, and as recommended by the Board of Finance and the Board of Selectmen, the Town may borrow a sum not to exceed One Million Nine Hundred Forty-Nine Thousand Seven Hundred Seventy-Eight and 00/100 Dollars (\$1,949,778) and issue its general obligation bonds/bond anticipation notes for such indebtedness under its corporate name and seal and upon the full faith and credit of the Town in an amount not to exceed said sum for the purpose of financing the appropriation for the Project.
3. The Board of Selectmen, the Treasurer and the Chief Fiscal Officer of the Town are hereby appointed a committee (the "Committee") with full power and authority to cause said bonds to be sold, issued and delivered; to determine their form and terms, including provision for redemption prior to maturity; to determine the aggregate principal amount thereof within the amount hereby authorized and the denominations and maturities thereof; to fix the time of issue of each series thereof and the rate or rates of interest thereon as herein provided; to determine whether the interest rate on any series will be fixed or variable and to determine the method by which the variable rate will be determined, the terms of conversion, if any, from one mode to another or from fixed to variable; to set whatever other terms of the bonds they deem necessary, desirable or appropriate; to designate the bank or trust company to certify the issuance thereof and to act as transfer agent, paying agent and as registrar for the bonds, and to designate bond counsel. The Committee shall have all appropriate powers under the Connecticut General Statutes, as amended (the "Statutes") including Chapter 748 (Registered Public Obligations Act) and Chapter 109 (Municipal Bond Issues) to issue, sell and deliver the bonds and, further, shall have full power and authority to do all that is required under the Internal Revenue Code of 1986, as amended, and under rules of the Securities and Exchange Commission, and other applicable laws and regulations of the United States, to provide for issuance of the bonds in tax exempt form and to meet all requirements which are or may become necessary in and subsequent to the issuance and delivery of the bonds in order that the interest on the

bonds be and remain exempt from Federal income taxes, including, without limitation, to covenant and agree to restriction on investment yield of bond proceeds, rebate of arbitrage earnings, expenditure of proceeds within required time limitations, the filing of information reports as and when required, and the execution of Continuing Disclosure Agreements for the benefit of the holders of the bonds and notes.

4. The First Selectwoman and Treasurer or Chief Fiscal Officer, on behalf of the Town, shall execute and deliver such bond purchase agreements, reimbursement agreements, line of credit agreement, credit facilities, remarketing, standby marketing agreements, standby bond purchase agreements, and any other commercially necessary or appropriate agreements which the Committee determines are necessary, appropriate or desirable in connection with or incidental to the sale and issuance of bonds, and if the Committee determines that it is necessary, appropriate, or desirable, the obligations under such agreements shall be secured by the Town's full faith and credit.
5. The First Selectwoman and Treasurer or Chief Fiscal Officer shall execute on the Town's behalf such interest rate swap agreements or similar agreements related to the bonds for the purpose of managing interest rate risk which the Committee determines are necessary, appropriate or desirable in connection with or incidental to the carrying or selling and issuance of the bonds, and if the Committee determines that it is necessary, appropriate or desirable, the obligations under such interest rate swap agreements shall be secured by the Town's full faith and credit.
6. The bonds may be designated "Public Improvement Bonds of the Town of Fairfield", series of the year of their issuance and may be issued in one or more series, and may be consolidated as part of the same issue with other bonds of the Town; shall be in serial form maturing in not more than twenty (20) annual installments of principal, the first installment to mature not later than three years from the date of issue and the last installment to mature not later than twenty (20) years from the date of issuance or as otherwise provided by statute. The bonds may be sold at an aggregate sales price of not less than par and accrued interest at public sale upon invitation for bids to the responsible bidder submitting the bid resulting in the lowest true interest cost to the Town, provided that nothing herein shall prevent the Town from rejecting all bids submitted in response to any one invitation for bids and the right to so reject all bids is hereby reserved, and further provided that the Committee may sell the bonds on a negotiated basis, as provided by statute. Interest on the bonds shall be payable semi-annually or annually. The bonds shall be signed on behalf of the Town by at least a majority of the Board of Selectmen and the Treasurer, and shall bear the seal of the Town. The signing, sealing and certification of the bonds may be by facsimile as provided by statute.
7. The Committee is further authorized to make temporary borrowings as authorized by the Statutes and to issue temporary notes of the Town in anticipation of the receipt of proceeds from the sale of the bonds to be issued pursuant to this resolution. Such notes shall be issued and renewed at such time and with such maturities, requirements and limitations as provided by the Statutes. Notes evidencing such borrowings shall be signed by the First Selectwoman and Treasurer or Chief Fiscal Officer, have the seal of the Town affixed,

which signing and sealing may be by facsimile as provided by statute, be certified by and payable at a bank or trust company incorporated under the laws of this or any other state, or of the United States, be approved as to their legality by bond counsel and may be consolidated with the issuance of other Town bond anticipation notes. The Committee shall determine the date, maturity, interest rates, form and manner of sale, including negotiated sale, and other details of said notes consistent with the provisions of this resolution and the Statutes and shall have all powers and authority as set forth above in connection with the issuance of bonds and especially with respect to compliance with the requirements of the Internal Revenue Code of 1986, as amended, and regulations thereunder in order to obtain and maintain issuance of the notes in tax exempt form.

8. Pursuant to Section 1.150-2, as amended, of the Federal Income Tax Regulations the Town hereby declares its official intent to reimburse expenditures (if any) paid for the Project from its General or Capital Funds, such reimbursement to be made from the proceeds of the sale of bonds and notes authorized herein and in accordance with the time limitations and other requirements of said regulations.
9. The First Selectwoman, Chief Fiscal Officer and Town Treasurer are hereby authorized, on behalf of the Town, to enter into agreements or otherwise covenant for the benefit of bondholders to provide information on an annual or other periodic basis to the Municipal Securities Rulemaking Board (the "MSRB") and to provide notices to the MSRB of material events as enumerated in Securities and Exchange Commission Exchange Act Rule 15c2-12, as amended, as may be necessary, appropriate or desirable to effect the sale of the bonds and notes authorized by this resolution.
10. The Committee is hereby authorized to take all action necessary and proper for the sale, issuance and delivery of the bonds and notes in accordance with the provisions of the Statutes and the laws of the United States.
11. The First Selectwoman or other proper Town official is authorized to apply for and accept any available State or Federal grant in aid of the financing of the Project, and to take all action necessary and proper in connection therewith. Any such grants or contribution received prior to the issuance of the Bonds authorized herein shall be applied to the costs of the Project or to pay at maturity the principal of any outstanding bond anticipation notes issued pursuant this resolution and shall reduce the amount of the Bonds that can be issued pursuant to this resolution. If such grants and contributions are received after the issuance of the Bonds, they shall be applied to pay the principal on the Bonds or as otherwise authorized by the Board of Selectmen, Board of Finance and Representative Town Meeting provided such application does not adversely affect the tax-exempt status of the Bonds or the Town's receipt of such grant or contribution.

## 14-Point Summary

### Town-wide Facility Upgrades

\$1,949,778

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1. **Background** – There are 17 large Town of Fairfield Municipal Buildings under the care of the Public Works Building Maintenance Department. In these larger buildings, there are approximately 28 departments and/or public services. The Town-Wide Facility Audit/Plan provided a long-range capital expenditure plan that included Mechanical Assets, Life Safety, Energy Efficiency, and ADA Compliance to ensure efficient utilization of physical assets.
2. **Purpose and Justification** – The purpose of these upgrades are to address the Priority one (urgent) items based off the Town-Wide Facility Audit/Plan performed last year by Silver Petrucelli and Associates.
3. **Detailed Description of Proposal** – The projects will involve engaging an architect/engineering firm through a Request for Proposal to design bid specifications for multiple types of upgrades needed and/or replacement of mechanical assets. Some of the primary systems that will be included in the Priority one upgrades are:
  - Heating, Ventilation & Air Conditioning (HVAC)
  - Life safety
  - Electrical
  - Accessibility
  - Structural
4. **Reliability of Cost Estimate** – on a scale of 0 to 10, the reliability of the estimate is 6.0. The estimate was based on research of projects like this from other communities and projects from Silver Petrucelli and Associates have worked on in the past but no specific engineering or architectural work has been performed yet to obtain an opinion of probable cost in today's volatile supply market.
5. **Increased Efficiency or Productivity** – There are several facilities that would benefit from energy efficient upgrades, better air quality and safe working environments.
6. **Additional Long Range Costs** – This is the first of five priorities marked out in last year's Capital Needs Assessment Report performed by Silver Petrucelli. There is a Ten Year plan created for the future.
7. **Additional Use or Demand on Existing Facilities** – TBD
8. **Alternatives to this Request** – None
9. **Safety and Loss Control** – At this point in time, there are no anticipated safety or loss control aspects of the projects included.



10. **Environmental Considerations** – As part of the architectural design services, a full Hazardous Building Materials Investigation will be completed for any of the areas of the buildings that are proposed to be disturbed, as part of any future renovations. Testing will be completed for Asbestos, PCBs, and Lead Based Paints which may be disturbed during renovations.
11. **Insurance** – Any architect, engineer or contractors hired will be required to hold liability insurance at the limits requested by the Town's Purchasing Agent.
12. **Financing** – The project will be bonded as part of the Non-recurring Capital budget of 2022-23. The upgrades considered have a life expectancy greater than 20 years.

Total Priority 1 Item Costs	\$2,372,137
30% Soft Costs	\$711,641
ARPA Funding for Sr. Center	(\$850,000)
Balance of Authorized Funding for Town-wide Audit	<u>(\$284,000)</u>
<b>Total Proposed Authorization</b>	<b>\$1,949,778</b>

13. **Other Considerations**: The Department will seek cost-effective alternatives to reduce the financial impact of construction that may be recommended as a result of this study and architectural design.
14. **Other Approvals**: Board of Selectmen – 5/2/22  
Board of Finance – 5/5/22  
RTM – 5/23/22

10 YEAR

**A RESOLUTION APPROPRIATING \$7,000,000 FOR THE COSTS ASSOCIATED WITH THE EMERGENCY RADIO PROJECT, AUTHORIZING A GRANT TO REIMBURSE \$3,500,000 OF SUCH APPROPRIATION AND AUTHORIZING THE ISSUANCE OF BONDS TO FINANCE THE REMAINING PORTION OF SUCH APPROPRIATION.**

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**Resolved:**

1. As recommended by the Board of Selectmen and the Board of Finance, the Town of Fairfield appropriates Seven Million and 00/100 (\$7,000,000) Dollars to fund the Emergency Radio Project, including, but not limited to, costs associated with the buildout of necessary infrastructure, mobile and handheld radios, and all administrative, financing, legal, contingency and other soft costs related thereto (the "Project").
2. The First Selectwoman is hereby authorized and directed to negotiate and accept the terms of a federal grant entitled 2022 Member Directed Community Project Funding in the amount of Three Million Five Hundred Thousand and 00/100 (\$3,500,000) Dollars to fund a portion of the Project (the "Grant"). The First Selectwoman is also hereby authorized to enter into, on behalf of the Town, a Grant agreement or other document memorializing the terms of the Grant and to take all action necessary or reasonably required to carry out, give effect and consummate such Grant including executing on behalf of the Town such documents, agreements, contracts and certificates as deemed to be necessary or advisable by the First Selectwoman.
3. As recommended by the Board of Finance and the Board of Selectmen, the Town shall borrow a sum not to exceed Three Million Five Hundred Thousand and 00/100 (\$3,500,000) Dollars and issue bonds for such indebtedness under its corporate name and seal and upon the full faith and credit of the Town in an amount not to exceed said sum for the purpose of financing the portion of the appropriation for the Project not paid for by the Grant.
4. The Board of Selectmen, the Treasurer and the Chief Fiscal Officer of the Town are hereby appointed a committee (the "Committee") with full power and authority to cause said bonds to be sold, issued and delivered; to determine their form and terms, including provisions for redemption prior to maturity; to determine the aggregate principal amount thereof within the amount hereby authorized and the denominations and maturities thereof; to fix the time of issue of each series thereof and the rate or rates of interest thereon as herein provided; to determine whether the interest rate on any series will be fixed or variable and to determine the method by which the variable rate will be determined, the terms of conversion, if any, from one interest rate mode to another or from fixed to variable; to set whatever other terms of the bonds they deem necessary, desirable or appropriate; to designate the bank or trust company to certify the issuance

thereof and to act as transfer agent, paying agent and as registrar for the bonds, and to designate bond counsel. The Committee shall have all appropriate powers under the Connecticut General Statutes, as amended (the "Statutes") including Chapter 748 (Registered Public Obligations Act), and Chapter 109 (Municipal Bond Issues) to issue, sell and deliver the bonds and, further, shall have full power and authority to do all that is required under the Internal Revenue Code of 1986, as amended, and under rules of the Securities and Exchange Commission, and other applicable laws and regulations of the United States, to provide for issuance of the bonds in tax exempt form and to meet all requirements which are or may become necessary in and subsequent to the issuance and delivery of the bonds in order that the interest on the bonds be and remain exempt from Federal income taxes, including, without limitation, to covenant and agree to restriction on investment yield of bond proceeds, rebate of arbitrage earnings, expenditure of proceeds within required time limitations, the filing of information reports as and when required, and the execution of Continuing Disclosure Agreements for the benefit of the holders of the bonds and notes.

5. The First Selectwoman and Treasurer or Chief Fiscal Officer, on behalf of the Town, shall execute and deliver such bond purchase agreements, reimbursement agreements, line of credit agreement, credit facilities, remarketing agreement, standby marketing agreements, bond purchase agreement, standby bond purchase agreements, and any other commercially necessary or appropriate agreements which the Committee determines are necessary, appropriate or desirable in connection with or incidental to the sale and issuance of bonds, and if the Committee determines that it is necessary, appropriate, or desirable, the obligations under such agreements shall be secured by the Town's full faith and credit.
6. The First Selectwoman and Treasurer or Chief Fiscal Officer shall execute on the Town's behalf such interest rate swap agreements or similar agreements related to the bonds for the purpose of managing interest rate risk which the Committee determines are necessary, appropriate or desirable in connection with or incidental to the carrying or selling and issuance of the bonds, and if the Committee determines that it is necessary, appropriate or desirable, the obligations under such interest rate swap agreements shall be secured by the Town's full faith and credit.
7. The bonds may be designated "Public Improvement Bonds of the Town of Fairfield," series of the year of their issuance and may be issued in one or more series, and may be consolidated as part of the same issue with other bonds of the Town; shall be in serial form maturing in not more than ten (10) annual installments of principal, the first installment to mature not later than three (3) years from the date of issue and the last installment to mature not later than ten (10) years from the date of issuance or as otherwise provided by statute. The bonds may be sold at an aggregate sales price of not less than par and accrued interest at public sale upon invitation for bids to the responsible bidder submitting the bid resulting in the lowest true interest cost to the Town, provided that nothing herein shall prevent the Town from rejecting all bids submitted in response to any one invitation for bids and the right to so reject all bids is

hereby reserved, and further provided that the Committee may sell the bonds on a negotiated basis, as provided by statute. Interest on the bonds shall be payable semi-annually or annually. The bonds shall be signed on behalf of the Town by at least a majority of the Board of Selectmen and the Treasurer, and shall bear the seal of the Town. The signing, sealing and certification of the bonds may be by facsimile as provided by statute.

8. The Committee is further authorized to make temporary borrowings as authorized by the Statutes and to issue temporary notes of the Town in anticipation of the receipt of proceeds from the sale of the bonds to be issued pursuant to this resolution or in anticipation of the receipt of the Grant. Such notes shall be issued and renewed at such time and with such maturities, requirements and limitations as provided by the Statutes. Notes evidencing such borrowings shall be signed by the First Selectwoman and Treasurer or the Chief Fiscal Officer, have the seal of the Town affixed, which signing and sealing may be by facsimile as provided by statute, be certified by and payable at a bank or trust company incorporated under the laws of this or any other state, or of the United States, be approved as to their legality by bond counsel, and may be consolidated with the issuance of other Town bond anticipation notes. The Committee shall determine the date, maturity, interest rates, form and manner of sale, including negotiated sale, and other details of said notes consistent with the provisions of this resolution and the Statutes and shall have all powers and authority as set forth above in connection with the issuance of bonds and especially with respect to compliance with the requirements of the Internal Revenue Code of 1986, as amended, and regulations thereunder in order to obtain and maintain issuance of the notes in tax exempt form.
9. Pursuant to Section 1.150-2, as amended, of the Federal Income Tax Regulations the Town hereby declares its official intent to reimburse expenditures (if any) paid for the Project from its General or Capital Funds, such reimbursement to be made from the proceeds of the sale of bonds and notes authorized herein and in accordance with the time limitations and other requirements of said regulations.
10. The First Selectwoman, the Chief Fiscal Officer and Town Treasurer are hereby authorized, on behalf of the Town, to enter into agreements or otherwise covenant for the benefit of bondholders to provide information on an annual or other periodic basis to the Municipal Securities Rulemaking Board (the "MSRB") and to provide notices to the MSRB of material events as enumerated in Securities and Exchange Commission Exchange Act Rule 15c2-12, as amended, as may be necessary, appropriate or desirable to effect the sale of the bonds and notes authorized by this resolution.
11. The Committee is hereby authorized to take all action necessary and proper for the sale, issuance and delivery of the bonds and notes in accordance with the provisions of the Statutes and the laws of the United States.
12. The First Selectwoman or other proper Town official is authorized to apply for and accept any available State or Federal grant, in addition to the Grant as defined in

paragraph 2 herein, in aid of the financing of the Project, and to take all action necessary and proper in connection therewith. Any such grants or contribution received prior to the issuance of the Bonds authorized herein shall be applied to the costs of the Project or to pay at maturity the principal of any outstanding bond anticipation notes issued pursuant this resolution and shall reduce the amount of the Bonds that can be issued pursuant to this resolution. If such grants and contributions are received after the issuance of the Bonds, they shall be applied to pay the principal on the Bonds or as otherwise authorized by the Board of Selectmen, Board of Finance and Representative Town Meeting provided such application does not adversely affect the tax-exempt status of the Bonds or the Town's receipt of such grant or contribution.





Robert Kalamaras  
Chief of Police

# Fairfield Police Department

100 Reef Road  
Fairfield, CT 06824  
(203) 254-4816



Keith Broderick  
Deputy Chief

## Fairfield Emergency Radio Project

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### 1. Background-

The project's primary goal is to replace the antiquated LMR communications system and to enhance interoperability and expanded communications capabilities for Fairfield's First Responders.

### 2. Purpose and Justification-

Fairfield's existing Radio system was built in the early 1990s and this existing LMR system has reached the end of its life and is beginning to fail. The existing system provides limited interoperability both for incoming mutual aid and for Fairfield's emergency services providing aid to other municipal, state, and federal agencies. When a radio currently being used malfunctions, finding a replacement is a difficult process due to the fact our current radios are no longer supported by the manufacturer. There are several areas in town where there is limited or no coverage, which caused Officer/firefighter safety issues. The impacts of the project will enhance communication amongst first responders at the local, state, and federal levels. This will allow first responders to enhance the services provided to Fairfield residents by way of a more effective and efficient communications system.

### 3. Detailed Description of Proposal-

This project will encompass the buildout of infrastructure necessary to ensure tower coverage within the Town and mobile and handheld radios for the end users. These radios will replace older radios which are NOT currently compatible with the State's Public Safety Radio System and our mutual-aid partners, and will enable the Police and Fire Department to communicate with our regional assets/teams on all the public safety bands utilizing analog or digital P25 and P25 Phase II standard radio language. Also included are allowances for radio installations, end user training, frequency coordination and licensing.

The State has afforded municipalities an opportunity to join their existing network. Many municipalities in Connecticut have or will be taking advantage of this invitation by the State of Connecticut to become part of their Connecticut Land Mobile Radio Network (CLMRN). The benefits of joining the CLMRN are: no fees charged by the State, interoperability with other users, access to conventional channel gateway network (CCGW) with Motorola consoles, over-the-air-rekeying (OTAR), over-the-air-programming (OTAP), access to the state radio management system, potential improved coverage, 24/7/365 monitoring by a dedicated team of experts at the

Network Control Center, reduced costs as opposed to building your own system, and Mobile phone/LTE integration. Our closest neighbors and our most frequent mutual-aid partners, the City of Bridgeport and the Town of Westport have already joined this Network.

The coverage standard of joining the State of CT system will meet new construction technology and **will integrate with our new regional 911 center (Fairfield County Regional Dispatch)**

Town of Fairfield Cost Estimate: **\$3,500,000. (Total cost of project estimated at 7 million dollars but the town was recently awarded a 3.5 million dollar grant to fund half of the project. This total cost estimate of 7 million dollars includes a 500,00 software and hardware warranty supported by the state).**

#### **4. Reliability of Cost Estimate-**

On a scale of 1 to 10, the reliability of this estimate is a 9 if we move forward with the project prior to July 1. Motorola has refreshed their cost estimate to give us the high end estimate prior to July 1<sup>st</sup>. after July 1, there can be expected to be a significant cost increase.

#### **5. Increased Efficiency and Productivity**

Communities use Mutual Aid to handle those occasional incidents requiring more resources than they have or to handle instances when there are a large number of simultaneous calls. Dependable mutual aid partners respond promptly and efficiently when called and expect their partners to do the same. This purchase will enable timely replacement of equipment used daily in our core mission and ensure efficient and reliable response.

#### **6. Additional Long Range Costs-**

There are no additional long range costs. There will be a reduction in maintenance costs, as these will be new units under warranty.

#### **7. Additional Use or Demand-**

None anticipated

#### **8. Alternatives to This Request-**

This request represents the best alternative for the Police and Fire Departments. This is a purchase of equipment that is necessary to our essential functions. As noted earlier, our current radios are no longer supported by the manufacturer, and replacing a current radio is difficult due to the fact that they are hard to find replacements for sale.

#### **9. Safety**

For the Fire Department, the technology requested will support fire-ground communications and mutual-aid coordination. Lack of fire-ground communication is a commonly-cited reason for increased risk of injury or death on the scene of an emergency incident.

For the Police Department, the current, outdated radio system brings with it many dead spots in town where there is little or no radio reception, which causes significant officer safety issues. Also, if there was a major incident inside a large building or school in town, the current system has very little indoor reception which poses hazards for both Police and Fire.

**10. Environmental Considerations-** n/a

**11. Insurance-** n/a

**12. Financing-** The expected service life of these units is 10 years.

**13. Other Considerations-** n/a

**14. Approvals-** Board of Selectmen, Board of Finance, RTM

Motorola Solutions, Inc.  
123 Tice Blvd #202  
Woodcliff Lake, NJ 07677

April 21, 2022

Chief Robert Kalamaras  
Fairfield Police Department  
100 Reef Rd  
Fairfield, CT 06824-5999

Subject: Budgeting System Value

Dear Chief Kalamaras:

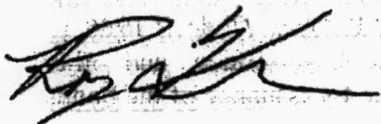
Motorola Solutions, Inc. is providing a budgeting system value at the request of the Town of Fairfield in support of its process to secure funding for a communications system upgrade. In review of prior formal proposals and their scope, Motorola Solutions is providing the following not to exceed system values:

- \$6.9M: 3-site 12-channel G Simulcast Subsystem add-on with 610 APX subscribers for Public Safety and Town Government users
- \$6.5M: 3-site 12-channel G Simulcast Subsystem add-on with 385 Public Safety only APX subscribers
- \$500K: Years 2-5 for Advanced Plus Maintenance and SUAll for the 3-site infrastructure solution.
- These not to exceed prices are valid for 90 days from the date of this letter.

Motorola will work with the Town of Fairfield to provide an updated firm proposal with collaboration, input and approval from the State's CTS group. A formal proposal will be consistent with the State's Master Contract A-99-001 for Two-Way Radio Equipment, Contract Award 967-A-23-0338C and will not be contingent upon the negotiation of a communication system and services agreement (CSSA).

We look forward our continued discussions with the Town of Fairfield and supporting your efforts to secure funding for the upgrade of your communications system. Should you have any questions, please contact your Senior Account Manager, Mark Ambrosone at (617) 733-5894 or by email at [Mark.Ambrosone@MotorolaSolutions.com](mailto:Mark.Ambrosone@MotorolaSolutions.com).

Sincerely,



Roy Kirchner  
MSSSI Vice President

20 YEAR

**A RESOLUTION APPROPRIATING \$2,250,000 FOR THE TIDE GATE SYSTEM  
PROJECT AND AUTHORIZING THE ISSUANCE OF BONDS TO FINANCE SUCH  
APPROPRIATION**

-----

**RESOLVED:**

1. As recommended by the Board of Finance and the Board of Selectmen, the Town of Fairfield (the "Town") hereby appropriates the sum of Two Million Two Hundred Fifty Thousand and 00/100 Dollars (\$2,250,000) for costs to replace a tide gate system located on Town open space roughly halfway to the terminus of Pine Creek, adjacent to Kiwanis Field, which project includes, but is not limited to, replacing the existing tide gates, and removing and restoring the historic Railroad Bridge, and all related engineering, administrative, financing, legal, contingency and other soft costs (the "Project").
2. To finance such appropriation and in lieu of a tax therefor, and as recommended by the Board of Finance and the Board of Selectmen, the Town may borrow a sum not to exceed Two Million Two Hundred Fifty Thousand and 00/100 Dollars (\$2,250,000) and issue its general obligation bonds/bond anticipation notes for such indebtedness under its corporate name and seal and upon the full faith and credit of the Town in an amount not to exceed said sum for the purpose of financing the appropriation for the Project.
3. The Board of Selectmen, the Treasurer and the Chief Fiscal Officer of the Town are hereby appointed a committee (the "Committee") with full power and authority to cause said bonds to be sold, issued and delivered; to determine their form and terms, including provision for redemption prior to maturity; to determine the aggregate principal amount thereof within the amount hereby authorized and the denominations and maturities thereof; to fix the time of issue of each series thereof and the rate or rates of interest thereon as herein provided; to determine whether the interest rate on any series will be fixed or variable and to determine the method by which the variable rate will be determined, the terms of conversion, if any, from one mode to another or from fixed to variable; to set whatever other terms of the bonds they deem necessary, desirable or appropriate; to designate the bank or trust company to certify the issuance thereof and to act as transfer agent, paying agent and as registrar for the bonds, and to designate bond counsel. The Committee shall have all appropriate powers under the Connecticut General Statutes, as amended (the "Statutes") including Chapter 748 (Registered Public Obligations Act) and Chapter 109 (Municipal Bond Issues) to issue, sell and deliver the bonds and, further, shall have full power and authority to do all that is required under the Internal Revenue Code of 1986, as amended, and under rules of the Securities and Exchange Commission, and other applicable laws and regulations of the United States, to provide for issuance of the bonds in tax exempt form and to meet all requirements which are or may become necessary in and subsequent to the issuance and delivery of the bonds in order that the interest on the bonds be and remain exempt from Federal income taxes, including, without limitation, to covenant and agree to restriction on investment yield of bond proceeds, rebate of arbitrage



thereof and to act as transfer agent, paying agent and as registrar for the bonds, and to designate bond counsel. The Committee shall have all appropriate powers under the Connecticut General Statutes, as amended (the "Statutes") including Chapter 748 (Registered Public Obligations Act), and Chapter 109 (Municipal Bond Issues) to issue, sell and deliver the bonds and, further, shall have full power and authority to do all that is required under the Internal Revenue Code of 1986, as amended, and under rules of the Securities and Exchange Commission, and other applicable laws and regulations of the United States, to provide for issuance of the bonds in tax exempt form and to meet all requirements which are or may become necessary in and subsequent to the issuance and delivery of the bonds in order that the interest on the bonds be and remain exempt from Federal income taxes, including, without limitation, to covenant and agree to restriction on investment yield of bond proceeds, rebate of arbitrage earnings, expenditure of proceeds within required time limitations, the filing of information reports as and when required, and the execution of Continuing Disclosure Agreements for the benefit of the holders of the bonds and notes.

5. The First Selectwoman and Treasurer or Chief Fiscal Officer, on behalf of the Town, shall execute and deliver such bond purchase agreements, reimbursement agreements, line of credit agreement, credit facilities, remarketing agreement, standby marketing agreements, bond purchase agreement, standby bond purchase agreements, and any other commercially necessary or appropriate agreements which the Committee determines are necessary, appropriate or desirable in connection with or incidental to the sale and issuance of bonds, and if the Committee determines that it is necessary, appropriate, or desirable, the obligations under such agreements shall be secured by the Town's full faith and credit.
6. The First Selectwoman and Treasurer or Chief Fiscal Officer shall execute on the Town's behalf such interest rate swap agreements or similar agreements related to the bonds for the purpose of managing interest rate risk which the Committee determines are necessary, appropriate or desirable in connection with or incidental to the carrying or selling and issuance of the bonds, and if the Committee determines that it is necessary, appropriate or desirable, the obligations under such interest rate swap agreements shall be secured by the Town's full faith and credit.
7. The bonds may be designated "Public Improvement Bonds of the Town of Fairfield," series of the year of their issuance and may be issued in one or more series, and may be consolidated as part of the same issue with other bonds of the Town; shall be in serial form maturing in not more than ten (10) annual installments of principal, the first installment to mature not later than three (3) years from the date of issue and the last installment to mature not later than ten (10) years from the date of issuance or as otherwise provided by statute. The bonds may be sold at an aggregate sales price of not less than par and accrued interest at public sale upon invitation for bids to the responsible bidder submitting the bid resulting in the lowest true interest cost to the Town, provided that nothing herein shall prevent the Town from rejecting all bids submitted in response to any one invitation for bids and the right to so reject all bids is

hereby reserved, and further provided that the Committee may sell the bonds on a negotiated basis, as provided by statute. Interest on the bonds shall be payable semi-annually or annually. The bonds shall be signed on behalf of the Town by at least a majority of the Board of Selectmen and the Treasurer, and shall bear the seal of the Town. The signing, sealing and certification of the bonds may be by facsimile as provided by statute.

8. The Committee is further authorized to make temporary borrowings as authorized by the Statutes and to issue temporary notes of the Town in anticipation of the receipt of proceeds from the sale of the bonds to be issued pursuant to this resolution or in anticipation of the receipt of the Grant. Such notes shall be issued and renewed at such time and with such maturities, requirements and limitations as provided by the Statutes. Notes evidencing such borrowings shall be signed by the First Selectwoman and Treasurer or the Chief Fiscal Officer, have the seal of the Town affixed, which signing and sealing may be by facsimile as provided by statute, be certified by and payable at a bank or trust company incorporated under the laws of this or any other state, or of the United States, be approved as to their legality by bond counsel, and may be consolidated with the issuance of other Town bond anticipation notes. The Committee shall determine the date, maturity, interest rates, form and manner of sale, including negotiated sale, and other details of said notes consistent with the provisions of this resolution and the Statutes and shall have all powers and authority as set forth above in connection with the issuance of bonds and especially with respect to compliance with the requirements of the Internal Revenue Code of 1986, as amended, and regulations thereunder in order to obtain and maintain issuance of the notes in tax exempt form.
9. Pursuant to Section 1.150-2, as amended, of the Federal Income Tax Regulations the Town hereby declares its official intent to reimburse expenditures (if any) paid for the Project from its General or Capital Funds, such reimbursement to be made from the proceeds of the sale of bonds and notes authorized herein and in accordance with the time limitations and other requirements of said regulations.
10. The First Selectwoman, the Chief Fiscal Officer and Town Treasurer are hereby authorized, on behalf of the Town, to enter into agreements or otherwise covenant for the benefit of bondholders to provide information on an annual or other periodic basis to the Municipal Securities Rulemaking Board (the "MSRB") and to provide notices to the MSRB of material events as enumerated in Securities and Exchange Commission Exchange Act Rule 15c2-12, as amended, as may be necessary, appropriate or desirable to effect the sale of the bonds and notes authorized by this resolution.
11. The Committee is hereby authorized to take all action necessary and proper for the sale, issuance and delivery of the bonds and notes in accordance with the provisions of the Statutes and the laws of the United States.
12. The First Selectwoman or other proper Town official is authorized to apply for and accept any available State or Federal grant, in addition to the Grant as defined in

paragraph 2 herein, in aid of the financing of the Project, and to take all action necessary and proper in connection therewith. Any such grants or contribution received prior to the issuance of the Bonds authorized herein shall be applied to the costs of the Project or to pay at maturity the principal of any outstanding bond anticipation notes issued pursuant this resolution and shall reduce the amount of the Bonds that can be issued pursuant to this resolution. If such grants and contributions are received after the issuance of the Bonds, they shall be applied to pay the principal on the Bonds or as otherwise authorized by the Board of Selectmen, Board of Finance and Representative Town Meeting provided such application does not adversely affect the tax-exempt status of the Bonds or the Town's receipt of such grant or contribution.



**To:** Jared Schmitt, Chief Fiscal Officer  
**From:** Timothy J. Bishop, Conservation Director  
**Date:** April 13, 2022  
**Re:** Capital Budget – Railroad Bridge Tide Gate

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**Background** - The Conservation Department operates and maintains over a dozen tide gates and flood control structures in the southern portions of Town. The gates are multi-purposed with respect to flood control and estuarine habitat enrichment throughout the tidal and riverine systems generally located south of Post Road.

This tide gate system is located on Town open space, roughly halfway to the terminus of Pine Creek, adjacent to Kiwanis Field. Access to the gates can be made via Old Dam Road or by crossing Pine Creek towards the landfill and solar field. Functionally, the tide gates regulate drainage from an expansive yet fragmented tidal marsh located south of the former Fairfield Lumber property (Post Road) to the outlet into the Long Island Sound at Fairfield Beach Road.

According to documents I've located, the existing tide gate system consists of three self-regulating tide gates (SRTs) originally installed in 1980. The original units were replaced in 1999 and additional culvert re-lining, welding and other repairs were made between 2010 and 2012. Based on the current age of the existing equipment, it's exceeded its life expectancy, beyond repair and in need of replacement.

**Purpose and Justification** – The purpose of the proposal is to replace aging infrastructure to prevent failure and major flooding and maintain existing flood management and hydrology. An additional benefit of the redesign and replacement is the realignment of the channel to its original flow direction.

**Detailed Description of Proposal** – The existing tide gate system is at the end of or beyond its life expectancy and requires replacement. The proposal is to fully abandon the three existing SRTs and culverts in place and replace them with five SRTs (in accordance with the engineered design and in accordance with all applicable permits) in order to realign the original stream channel. Additionally, the historic railroad bridge currently prevents the replacement project and requires removal.

The railroad bridge was registered on the U.S. Department of Interior-National Park Service's National Register of Historic Places in April 1992. The significance of the bridge is the unique construction using wrought-iron and pin-connected pony trusses which were fabricated between 1870 and 1872. The Department and its consultants have been in contact with the State Historic Preservation Office (SHPO) to discuss the most feasible and prudent removal and/or relocation options for the railroad bridge itself.

**Reliability of Cost Estimate** – The original estimated costs are based on the similarity to other completed projects. Since the design engineering consultant's original cost estimate was dated August 16, 2019, I anticipate the total cost to increase (from the capital budget request of \$2M) roughly 12% to \$2,250,000.00,

due to rising costs of materials, labor and installation related to inflation over the past 3 years since the estimate was generated.

**Increased Efficiency or Productivity** – There is both increased efficiency and capacity to manage flow, both of which are anticipated gains with this replacement project.

**Additional Long Range Costs** – Any long-term costs would be incidental to the equipment and operation of the tide gates. Any maintenance costs would be covered under the Conservation Department's annual operating budget throughout their functional life expectancy.

**Additional Use or Demand on Existing Facilities** – None Anticipated.

**An alternative to this Request** – While not a good one, the only alternative to this request is not to move forward with the replacement at this time.

**Safety and Loss Control** – If these tide gates are not replaced during the FY23 review, delay could compromise flood control in neighborhoods adjacent to Pine Creek, including: Pine Creek Avenue, Old Dam Road, Field Point Drive, Fairfield Beach Road, Oldfield Road and the area surrounding the Senior Center.

**Environmental Considerations** – All significant environmental considerations will be related during actual construction/installation activities and conducted under all applicable Federal and State permits, including but not limited to: sediment & erosion controls, wildlife breeding/migration, weather, seasonal cycles, noise ordinance, etc.

**Insurance** – Will be required by design and installation contractors, as applicable and required by the Purchasing Department as part of regular RFP/contract award process.

**Financing** – Town Capital Budget

**Other Considerations:** Primary access to Town open space from Old Dam Road and the trail north of the railroad bridge. Pending consultation and engineering evaluation during the design phase, the integrity of the earthen dyke should also be considered during this project and at a minimum, trees/vegetation should be removed.

**Other Potential Approvals:** CTDEEP, USACE, SHPO, Conservation Commission, Board of Selectmen, Board of Finance, Representative Town Meeting.



15 YEAR

**A RESOLUTION APPROPRIATING \$450,000 FOR THE COSTS OF THE TRANSFER  
STATION REPAIR PROJECT AND AUTHORIZING THE ISSUANCE OF BONDS TO  
FINANCE SUCH APPROPRIATION**

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**RESOLVED:**

1. As recommended by the Board of Finance and the Board of Selectmen, the Town of Fairfield (the "Town") hereby appropriates the sum of Four Hundred Fifty Thousand and 00/100 Dollars (\$450,000) for costs of the Town's transfer station repair project, including, but not limited to, various safety, environmental, mechanical and structural repairs, and all related engineering, administrative, financing, legal, contingency and other soft costs (the "Project").
2. To finance such appropriation and in lieu of a tax therefor, and as recommended by the Board of Finance and the Board of Selectmen, the Town may borrow a sum not to exceed Four Hundred Fifty Thousand and 00/100 Dollars (\$450,000) and issue its general obligation bonds/bond anticipation notes for such indebtedness under its corporate name and seal and upon the full faith and credit of the Town in an amount not to exceed said sum for the purpose of financing the appropriation for the Project.
3. The Board of Selectmen, the Treasurer and the Chief Fiscal Officer of the Town are hereby appointed a committee (the "Committee") with full power and authority to cause said bonds to be sold, issued and delivered; to determine their form and terms, including provision for redemption prior to maturity; to determine the aggregate principal amount thereof within the amount hereby authorized and the denominations and maturities thereof; to fix the time of issue of each series thereof and the rate or rates of interest thereon as herein provided; to determine whether the interest rate on any series will be fixed or variable and to determine the method by which the variable rate will be determined, the terms of conversion, if any, from one mode to another or from fixed to variable; to set whatever other terms of the bonds they deem necessary, desirable or appropriate; to designate the bank or trust company to certify the issuance thereof and to act as transfer agent, paying agent and as registrar for the bonds, and to designate bond counsel. The Committee shall have all appropriate powers under the Connecticut General Statutes, as amended (the "Statutes") including Chapter 748 (Registered Public Obligations Act) and Chapter 109 (Municipal Bond Issues) to issue, sell and deliver the bonds and, further, shall have full power and authority to do all that is required under the Internal Revenue Code of 1986, as amended, and under rules of the Securities and Exchange Commission, and other applicable laws and regulations of the United States, to provide for issuance of the bonds in tax exempt form and to meet all requirements which are or may become necessary in and subsequent to the issuance and delivery of the bonds in order that the interest on the bonds be and remain exempt from Federal income taxes, including, without limitation, to covenant and agree to restriction on investment yield of bond proceeds, rebate of arbitrage earnings, expenditure of proceeds within required time limitations, the filing of information

reports as and when required, and the execution of Continuing Disclosure Agreements for the benefit of the holders of the bonds and notes.

4. The First Selectwoman and Treasurer or Chief Fiscal Officer, on behalf of the Town, shall execute and deliver such bond purchase agreements, reimbursement agreements, line of credit agreement, credit facilities, remarketing, standby marketing agreements, standby bond purchase agreements, and any other commercially necessary or appropriate agreements which the Committee determines are necessary, appropriate or desirable in connection with or incidental to the sale and issuance of bonds, and if the Committee determines that it is necessary, appropriate, or desirable, the obligations under such agreements shall be secured by the Town's full faith and credit.
5. The First Selectwoman and Treasurer or Chief Fiscal Officer shall execute on the Town's behalf such interest rate swap agreements or similar agreements related to the bonds for the purpose of managing interest rate risk which the Committee determines are necessary, appropriate or desirable in connection with or incidental to the carrying or selling and issuance of the bonds, and if the Committee determines that it is necessary, appropriate or desirable, the obligations under such interest rate swap agreements shall be secured by the Town's full faith and credit.
6. The bonds may be designated "Public Improvement Bonds of the Town of Fairfield", series of the year of their issuance and may be issued in one or more series, and may be consolidated as part of the same issue with other bonds of the Town; shall be in serial form maturing in not more than fifteen (15) annual installments of principal, the first installment to mature not later than three years from the date of issue and the last installment to mature not later than fifteen (15) years from the date of issuance or as otherwise provided by statute. The bonds may be sold at an aggregate sales price of not less than par and accrued interest at public sale upon invitation for bids to the responsible bidder submitting the bid resulting in the lowest true interest cost to the Town, provided that nothing herein shall prevent the Town from rejecting all bids submitted in response to any one invitation for bids and the right to so reject all bids is hereby reserved, and further provided that the Committee may sell the bonds on a negotiated basis, as provided by statute. Interest on the bonds shall be payable semi-annually or annually. The bonds shall be signed on behalf of the Town by at least a majority of the Board of Selectmen and the Treasurer, and shall bear the seal of the Town. The signing, sealing and certification of the bonds may be by facsimile as provided by statute.
7. The Committee is further authorized to make temporary borrowings as authorized by the Statutes and to issue temporary notes of the Town in anticipation of the receipt of proceeds from the sale of the bonds to be issued pursuant to this resolution. Such notes shall be issued and renewed at such time and with such maturities, requirements and limitations as provided by the Statutes. Notes evidencing such borrowings shall be signed by the First Selectwoman and Treasurer or Chief Fiscal Officer, have the seal of the Town affixed, which signing and sealing may be by facsimile as provided by statute, be certified by and payable at a bank or trust company incorporated under the laws of this or any other state, or of the United States, be approved as to their legality by bond counsel and may be

consolidated with the issuance of other Town bond anticipation notes. The Committee shall determine the date, maturity, interest rates, form and manner of sale, including negotiated sale, and other details of said notes consistent with the provisions of this resolution and the Statutes and shall have all powers and authority as set forth above in connection with the issuance of bonds and especially with respect to compliance with the requirements of the Internal Revenue Code of 1986, as amended, and regulations thereunder in order to obtain and maintain issuance of the notes in tax exempt form.

8. Pursuant to Section 1.150-2, as amended, of the Federal Income Tax Regulations the Town hereby declares its official intent to reimburse expenditures (if any) paid for the Project from its General or Capital Funds, such reimbursement to be made from the proceeds of the sale of bonds and notes authorized herein and in accordance with the time limitations and other requirements of said regulations.
9. The First Selectwoman, Chief Fiscal Officer and Town Treasurer are hereby authorized, on behalf of the Town, to enter into agreements or otherwise covenant for the benefit of bondholders to provide information on an annual or other periodic basis to the Municipal Securities Rulemaking Board (the "MSRB") and to provide notices to the MSRB of material events as enumerated in Securities and Exchange Commission Exchange Act Rule 15c2-12, as amended, as may be necessary, appropriate or desirable to effect the sale of the bonds and notes authorized by this resolution.
10. The Committee is hereby authorized to take all action necessary and proper for the sale, issuance and delivery of the bonds and notes in accordance with the provisions of the Statutes and the laws of the United States.
11. The First Selectwoman or other proper Town official is authorized to apply for and accept any available State or Federal grant in aid of the financing of the Project, and to take all action necessary and proper in connection therewith. Any such grants or contribution received prior to the issuance of the Bonds authorized herein shall be applied to the costs of the Project or to pay at maturity the principal of any outstanding bond anticipation notes issued pursuant this resolution and shall reduce the amount of the Bonds that can be issued pursuant to this resolution. If such grants and contributions are received after the issuance of the Bonds, they shall be applied to pay the principal on the Bonds or as otherwise authorized by the Board of Selectmen, Board of Finance and Representative Town Meeting provided such application does not adversely affect the tax-exempt status of the Bonds or the Town's receipt of such grant or contribution.

## 14-Point Summary

### Non-Recurring Information and Justification Form

#### Transfer Station Repairs

\$450,000

1. **Background:** The Fairfield transfer station is located on the north side of Richard White Way. The facility has been in operation for over 40+ years during which time only minor repairs to the building have been made to keep the facility operational. For the first 30 years during its operation, the facility was owned by Connecticut Resources Recovery Authority (CRRA) and operated by Wheelabrator Technologies with a subcontract to Enviro Express. Any repair or improvements above \$1,000 dollars were the responsibility of CRRA. Title to the facility was transferred to the Town approximately 12 years ago after CRRA was disbanded by State mandate. Two years ago the Town began the process of much needed upgrades and improvements to the facility in order to keep the transfer station a safe working environment for the staff and residents. This included \$250,000 of long needed critical repairs to the electrical service, lighting, bathrooms and roof replacement. These items have now been completed with the exception of some minor items to finish the roof replacement.

The transfer station consists of two-story brick building used for municipal waste transfer station activities, a scale house, a truck scale and areas of bituminous concrete and concrete pads used for temporary truck and transfer trailer storage and parking as well as storage of recycling trailer, and visitor/employee parking. The transfer station building has been in a state of deterioration in need of repairs in order to continue the safe and secure operation of the facility.

2. **Purpose & Justification:** The purpose of the project is to continue the long-term capital projects that are required to secure the building and address needed safety and environmental concerns.
3. **Detailed Description of Proposal:** The project will address the following issues:

<u>ITEM</u>	<u>COST</u>	<u>CATEGORY</u>
Replace stairwell between upper and lower levels	\$ 35,000	safety
Trough to collect sludge & juices	\$ 10,000	environmental/safety
Floor Drains replace and repair	\$ 70,000	environmental
Masonry repairs	\$ 4,000	structural
7 Overhead Doors	\$ 140,000	security/safety
4 Entry doors	\$ 12,000	security/safety
Remove and patch old boiler Flue	\$ 4,000	safety
Exhaust System with CO and NO2 Detectors	\$ 23,000	mechanical
Tipping floor Repairs	\$ 75,000	structural
Subtotal	\$ 373,000	
contingency 20% & miscellaneous	\$ 77,000	
TOTAL	\$ 450,000	

4. **Reliability of Estimated Cost:** on a scale of 0 to 10, the reliability of the estimate at 6.0. Have quotes for some items and similar repair costs to other facilities.

5. **Increased Efficiency or Productivity:** Improvements to the facility will increase the efficiency of the transfer station operations and the time to compact trash, maintain cleanliness, and improve security.
6. **Additional Long-Range Costs:** This project addresses needed repairs to the building only. Future development of the site to improve operations and efficiencies is anticipated to be performed over a 5 to 10 year period.
7. **Additional Use or Demand on Existing Facilities:** The town anticipates that the use of the facility and the tonnage of MSW received on an annual basis will continue to be relatively constant.
8. **Alternates to this Request:** The only alternative to this request is not to do anything, which will not resolve the existing problems with the facility and continue exposure to liability.
9. **Safety and Loss Control:** The project would enhance safety and environmental conditions in order to reduce liabilities.
10. **Environmental Considerations:** Testing will be performed for asbestos, PCBs and Lead Based Paint which may be disturbed during improvements where suspected .
11. **Insurance:** Any contractors hired will be required to hold liability insurance at the limits requested by the Town Purchasing Agent.
12. **Financing:** The project will be bonded as part of the Non-recurring Capital budget of 2022-2023. Although individual repair life expectancies will vary, the project is anticipated to last 15 years.
13. **Other Considerations:** The Department will seek cost effective alternatives to reduce the financial impact of construction that may be recommended as a result of the planning, design, and bids.
14. **Other Approvals:** Board of Selectmen –  
Board of Finance –  
RTM –



10 YEAR

**A RESOLUTION APPROPRIATING \$4,125,000 FOR THE COSTS OF THE ROGER LUDLOWE MIDDLE SCHOOL TURF FIELD PROJECT AND AUTHORIZING THE ISSUANCE OF BONDS TO FINANCE SUCH APPROPRIATION**

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**RESOLVED:**

1. As recommended by the Board of Finance and the Board of Selectmen, the Town of Fairfield (the "Town") hereby appropriates the sum of Four Million One Hundred Twenty-Five Thousand and 00/100 Dollars (\$4,125,000) for costs to convert the existing multipurpose fields at the Roger Ludlowe Middle School to artificial turf and to install new lighting at the fields, and all related engineering, administrative, financing, legal, contingency and other soft costs (the "Project").
2. To finance such appropriation and in lieu of a tax therefor, and as recommended by the Board of Finance and the Board of Selectmen, the Town may borrow a sum not to exceed Four Million One Hundred Twenty-Five Thousand and 00/100 Dollars (\$4,125,000) and issue its general obligation bonds/bond anticipation notes for such indebtedness under its corporate name and seal and upon the full faith and credit of the Town in an amount not to exceed said sum for the purpose of financing the appropriation for the Project.
3. The Board of Selectmen, the Treasurer and the Chief Fiscal Officer of the Town are hereby appointed a committee (the "Committee") with full power and authority to cause said bonds to be sold, issued and delivered; to determine their form and terms, including provision for redemption prior to maturity; to determine the aggregate principal amount thereof within the amount hereby authorized and the denominations and maturities thereof; to fix the time of issue of each series thereof and the rate or rates of interest thereon as herein provided; to determine whether the interest rate on any series will be fixed or variable and to determine the method by which the variable rate will be determined, the terms of conversion, if any, from one mode to another or from fixed to variable; to set whatever other terms of the bonds they deem necessary, desirable or appropriate; to designate the bank or trust company to certify the issuance thereof and to act as transfer agent, paying agent and as registrar for the bonds, and to designate bond counsel. The Committee shall have all appropriate powers under the Connecticut General Statutes, as amended (the "Statutes") including Chapter 748 (Registered Public Obligations Act) and Chapter 109 (Municipal Bond Issues) to issue, sell and deliver the bonds and, further, shall have full power and authority to do all that is required under the Internal Revenue Code of 1986, as amended, and under rules of the Securities and Exchange Commission, and other applicable laws and regulations of the United States, to provide for issuance of the bonds in tax exempt form and to meet all requirements which are or may become necessary in and subsequent to the issuance and delivery of the bonds in order that the interest on the bonds be and remain exempt from Federal income taxes, including, without limitation, to covenant and agree to restriction on investment yield of bond proceeds, rebate of arbitrage earnings, expenditure of proceeds within required time limitations, the filing of information

reports as and when required, and the execution of Continuing Disclosure Agreements for the benefit of the holders of the bonds and notes.

4. The First Selectwoman and Treasurer or Chief Fiscal Officer, on behalf of the Town, shall execute and deliver such bond purchase agreements, reimbursement agreements, line of credit agreement, credit facilities, remarketing, standby marketing agreements, standby bond purchase agreements, and any other commercially necessary or appropriate agreements which the Committee determines are necessary, appropriate or desirable in connection with or incidental to the sale and issuance of bonds, and if the Committee determines that it is necessary, appropriate, or desirable, the obligations under such agreements shall be secured by the Town's full faith and credit.
5. The First Selectwoman and Treasurer or Chief Fiscal Officer shall execute on the Town's behalf such interest rate swap agreements or similar agreements related to the bonds for the purpose of managing interest rate risk which the Committee determines are necessary, appropriate or desirable in connection with or incidental to the carrying or selling and issuance of the bonds, and if the Committee determines that it is necessary, appropriate or desirable, the obligations under such interest rate swap agreements shall be secured by the Town's full faith and credit.
6. The bonds may be designated "Public Improvement Bonds of the Town of Fairfield", series of the year of their issuance and may be issued in one or more series, and may be consolidated as part of the same issue with other bonds of the Town; shall be in serial form maturing in not more than ten (10) annual installments of principal, the first installment to mature not later than three years from the date of issue and the last installment to mature not later than ten (10) years from the date of issuance or as otherwise provided by statute. The bonds may be sold at an aggregate sales price of not less than par and accrued interest at public sale upon invitation for bids to the responsible bidder submitting the bid resulting in the lowest true interest cost to the Town, provided that nothing herein shall prevent the Town from rejecting all bids submitted in response to any one invitation for bids and the right to so reject all bids is hereby reserved, and further provided that the Committee may sell the bonds on a negotiated basis, as provided by statute. Interest on the bonds shall be payable semi-annually or annually. The bonds shall be signed on behalf of the Town by at least a majority of the Board of Selectmen and the Treasurer, and shall bear the seal of the Town. The signing, sealing and certification of the bonds may be by facsimile as provided by statute.
7. The Committee is further authorized to make temporary borrowings as authorized by the Statutes and to issue temporary notes of the Town in anticipation of the receipt of proceeds from the sale of the bonds to be issued pursuant to this resolution. Such notes shall be issued and renewed at such time and with such maturities, requirements and limitations as provided by the Statutes. Notes evidencing such borrowings shall be signed by the First Selectwoman and Treasurer or Chief Fiscal Officer, have the seal of the Town affixed, which signing and sealing may be by facsimile as provided by statute, be certified by and payable at a bank or trust company incorporated under the laws of this or any other state, or of the United States, be approved as to their legality by bond counsel and may be

consolidated with the issuance of other Town bond anticipation notes. The Committee shall determine the date, maturity, interest rates, form and manner of sale, including negotiated sale, and other details of said notes consistent with the provisions of this resolution and the Statutes and shall have all powers and authority as set forth above in connection with the issuance of bonds and especially with respect to compliance with the requirements of the Internal Revenue Code of 1986, as amended, and regulations thereunder in order to obtain and maintain issuance of the notes in tax exempt form.

8. Pursuant to Section 1.150-2, as amended, of the Federal Income Tax Regulations the Town hereby declares its official intent to reimburse expenditures (if any) paid for the Project from its General or Capital Funds, such reimbursement to be made from the proceeds of the sale of bonds and notes authorized herein and in accordance with the time limitations and other requirements of said regulations.
9. The First Selectwoman, Chief Fiscal Officer and Town Treasurer are hereby authorized, on behalf of the Town, to enter into agreements or otherwise covenant for the benefit of bondholders to provide information on an annual or other periodic basis to the Municipal Securities Rulemaking Board (the "MSRB") and to provide notices to the MSRB of material events as enumerated in Securities and Exchange Commission Exchange Act Rule 15c2-12, as amended, as may be necessary, appropriate or desirable to effect the sale of the bonds and notes authorized by this resolution.
10. The Committee is hereby authorized to take all action necessary and proper for the sale, issuance and delivery of the bonds and notes in accordance with the provisions of the Statutes and the laws of the United States.
11. The First Selectwoman or other proper Town official is authorized to apply for and accept any available State or Federal grant in aid of the financing of the Project, and to take all action necessary and proper in connection therewith. Any such grants or contribution received prior to the issuance of the Bonds authorized herein shall be applied to the costs of the Project or to pay at maturity the principal of any outstanding bond anticipation notes issued pursuant this resolution and shall reduce the amount of the Bonds that can be issued pursuant to this resolution. If such grants and contributions are received after the issuance of the Bonds, they shall be applied to pay the principal on the Bonds or as otherwise authorized by the Board of Selectmen, Board of Finance and Representative Town Meeting provided such application does not adversely affect the tax-exempt status of the Bonds or the Town's receipt of such grant or contribution.

**FAIRFIELD PARKS & RECREATION**

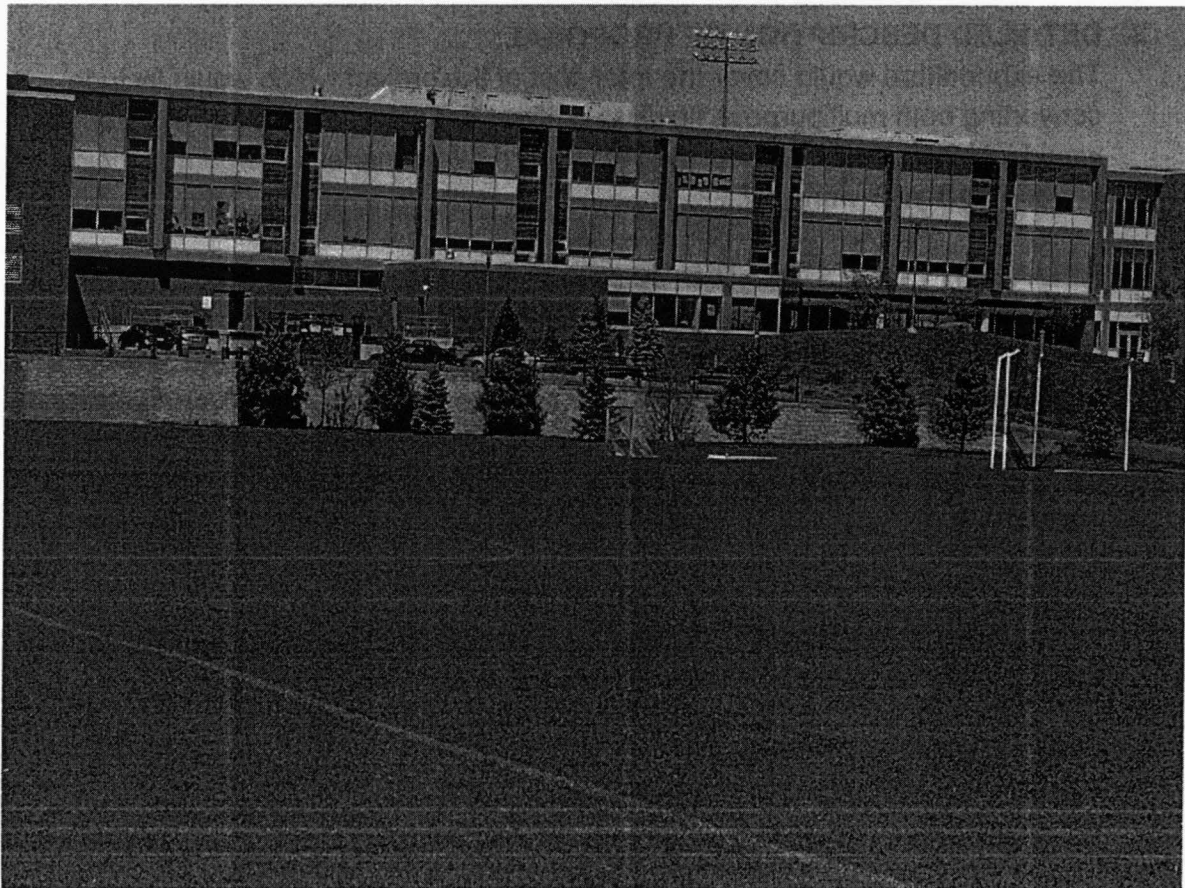
**ROGER LUDLOWE**

**MIDDLE SCHOOL**

**TURF FIELD**

**CAPITAL REQUEST**

**2022**





**1. BACKGROUND:**

There is presently one full-sized multipurpose field and a smaller than regulation field area at our Roger Ludlowe Middle School complex. These two fields are used almost year-round from March to December by both high school athletic programs, Town Parks and Recreation programs, and other local youth organizations. The lack of field space in Fairfield is a challenge our Department deals with on a daily basis. We are requesting \$4.125 million dollars to convert both of these multipurpose fields to artificial turf and to upgrade/install new lighting for both fields.

**2. PURPOSE & JUSTIFICATION:**

The ability to convert these two fields to artificial turf will give our Town and Department the flexibility to ease the scheduling burden on other fields in Town. By replacing these grass fields with artificial turf, we will be increasing the number of playable hours on these two fields. We will have a reduction in the number of rainouts each season, we will gain approximately 550 hours of playing time by installing/upgrading the lights.

**3. DETAILED DESCRIPTION OF PROPOSAL:**

The expenditure would cover the total cost of the project which would include converting both multipurpose fields to artificial turf fields with lights. The project would include all new installation and labor, new permanent line/game striping and a new 8-year warranty.

**4. RELIABILITY OF ESTIMATED COST:**

The cost of this funding request is \$4,125,000.00. This number is based on the Capital Region Education Council (CREC) program. CREC provides pre-determined, preferential pricing through approved vendors. Since products have already been bid at the national level, individual owners do not have to duplicate the formal bid process. Estimates are provided by professional licensed contractors.

**5. INCREASE EFFICIENCY OR PRODUCTIVITY:**

These terms do not directly apply to this type of project, however an artificial turf field typically has more use than a traditional grass field.

**6. ADDITIONAL LONG RANGE COSTS:**

There will be no additional costs other than maintenance (sweeping the field to redistribute the rubber) during the year. We could also potentially see a savings



in the maintenance cost of some of our other grass fields as they would have less play on them. At the end of the 10-12 year lifespan, the Town should consider replacement.

**7. ADDITIONAL USE OR DEMAND ON EXISTING FACILITIES:**

No additional use or demand. This replacement project will have an anticipated life of 10-12 years of what is considered "heavy use" for this upgrade.

**8. ALTERNATIVES TO THIS REQUEST:**

The alternative would be to do nothing. It is most cost-effective to convert both fields at the same time, this helps us cut down on labor costs.

**9. SAFETY AND LOSS CONTROL:**

Replacing the grass fields to artificial turf fields will result in a safer playing experience for all users.

**10. ENVIRONMENTAL CONSIDERATIONS:**

This project calls for the use of a crumb rubber fill. The Town could opt to use an organic fill, however, this would add a significant amount to the overall cost of the project.

**11. INSURANCE:**

Installer would be required to carry insurance coverage.

**12. FINANCING:**

Bonded

**13. OTHER CONSIDERATIONS:**

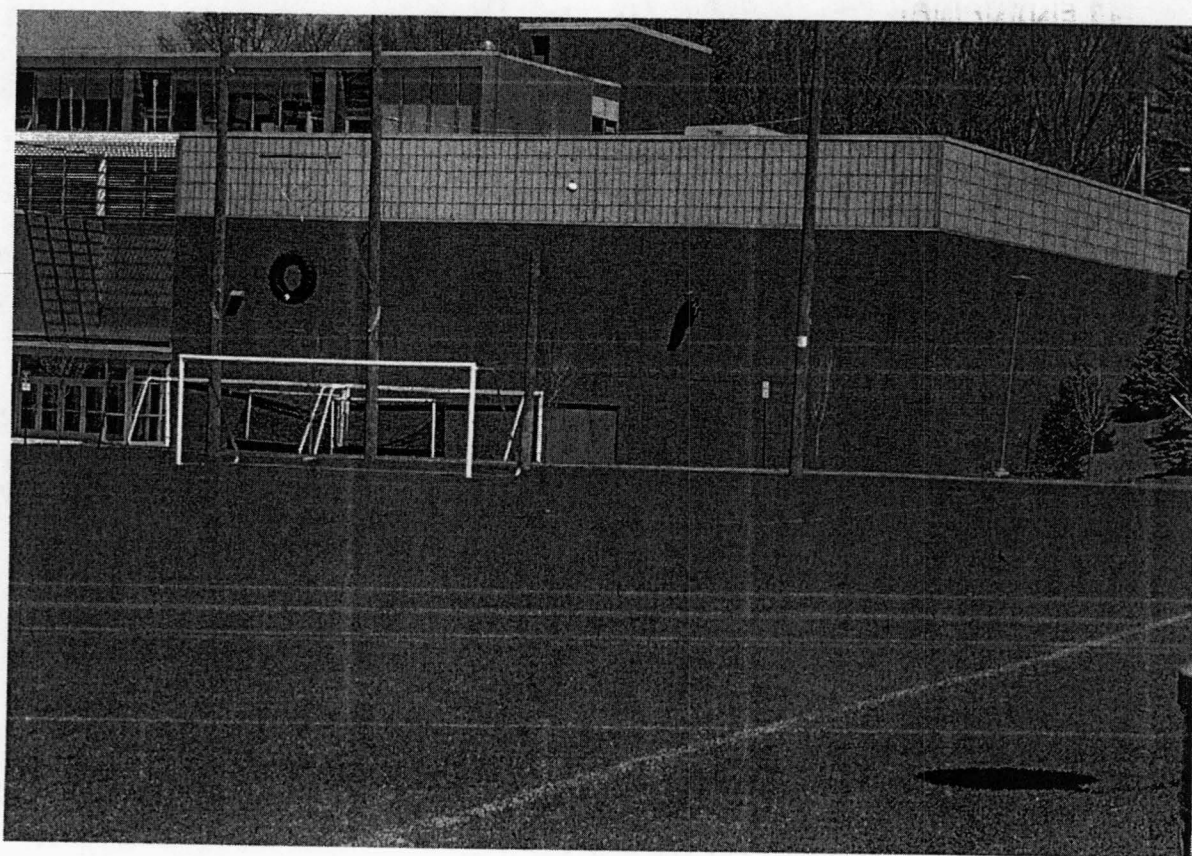
None

**14. OTHER APPROVALS:**

Board of Selectman

Board of Finance

RTM



20 YEAR

**A RESOLUTION APPROPRIATING \$22,701,443 FOR THE COSTS ASSOCIATED WITH PHASE I OF THE AIR CONDITIONING UPGRADE PROJECT AT VARIOUS SCHOOLS, AUTHORIZING GRANTS TO REIMBURSE \$1,116,320 OF SUCH APPROPRIATION AND AUTHORIZING THE ISSUANCE OF BONDS TO FINANCE THE REMAINING PORTION OF SUCH APPROPRIATION.**

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**Resolved:**

1. As recommended by the Board of Selectmen and the Board of Finance, the Town of Fairfield appropriates Twenty Two Million Seven Hundred One Thousand Four Hundred Forty-Three and 00/100 (\$22,701,443) Dollars to fund Phase I of the Air Conditioning Upgrade Project at North Stratfield Elementary School, Osborn Hill Elementary School and Fairfield Woods Middle School, for costs associated with completing the air-conditioning systems, including, but not limited to, planning, equipment, installation, including all alterations, repairs and improvements in connection therewith, as well as, all administrative, financing, legal, contingency and other soft costs related thereto (the "Project").
2. The First Selectwoman is hereby authorized and directed to negotiate and accept the terms of federal grants received by the Town and the Town's Board of Education through the American Rescue Plan Act, as previously approved by the Town boards, in the amount of One Million One Hundred Sixteen Thousand Three Hundred Twenty and 00/100 (\$1,116,320) Dollars to fund a portion of the Project (collectively, the "Grants"). The First Selectwoman is also hereby authorized to enter into, on behalf of the Town, agreements for the Grants or other document memorializing the terms of the Grants and to take all action necessary or reasonably required to carry out, give effect and consummate such Grants including executing on behalf of the Town such documents, agreements, contracts and certificates as deemed to be necessary or advisable by the First Selectwoman.
3. As recommended by the Board of Finance and the Board of Selectmen, the Town shall borrow a sum not to exceed Twenty One Million Five Hundred Eighty-Five Thousand One Hundred Twenty-Three and 00/100 (\$21,585,123) Dollars and issue bonds for such indebtedness under its corporate name and seal and upon the full faith and credit of the Town in an amount not to exceed said sum for the purpose of financing the portion of the appropriation for the Project not paid for by the Grants.
4. The Board of Selectmen, the Treasurer and the Chief Fiscal Officer of the Town are hereby appointed a committee (the "Committee") with full power and authority to cause said bonds to be sold, issued and delivered; to determine their form and terms, including provisions for redemption prior to maturity; to determine the aggregate principal amount thereof within the amount hereby authorized and the denominations and maturities

thereof; to fix the time of issue of each series thereof and the rate or rates of interest thereon as herein provided; to determine whether the interest rate on any series will be fixed or variable and to determine the method by which the variable rate will be determined, the terms of conversion, if any, from one interest rate mode to another or from fixed to variable; to set whatever other terms of the bonds they deem necessary, desirable or appropriate; to designate the bank or trust company to certify the issuance thereof and to act as transfer agent, paying agent and as registrar for the bonds, and to designate bond counsel. The Committee shall have all appropriate powers under the Connecticut General Statutes, as amended (the "Statutes") including Chapter 748 (Registered Public Obligations Act), and Chapter 109 (Municipal Bond Issues) to issue, sell and deliver the bonds and, further, shall have full power and authority to do all that is required under the Internal Revenue Code of 1986, as amended, and under rules of the Securities and Exchange Commission, and other applicable laws and regulations of the United States, to provide for issuance of the bonds in tax exempt form and to meet all requirements which are or may become necessary in and subsequent to the issuance and delivery of the bonds in order that the interest on the bonds be and remain exempt from Federal income taxes, including, without limitation, to covenant and agree to restriction on investment yield of bond proceeds, rebate of arbitrage earnings, expenditure of proceeds within required time limitations, the filing of information reports as and when required, and the execution of Continuing Disclosure Agreements for the benefit of the holders of the bonds and notes.

5. The First Selectwoman and Treasurer or Chief Fiscal Officer, on behalf of the Town, shall execute and deliver such bond purchase agreements, reimbursement agreements, line of credit agreement, credit facilities, remarketing agreement, standby marketing agreements, bond purchase agreement, standby bond purchase agreements, and any other commercially necessary or appropriate agreements which the Committee determines are necessary, appropriate or desirable in connection with or incidental to the sale and issuance of bonds, and if the Committee determines that it is necessary, appropriate, or desirable, the obligations under such agreements shall be secured by the Town's full faith and credit.
6. The First Selectwoman and Treasurer or Chief Fiscal Officer shall execute on the Town's behalf such interest rate swap agreements or similar agreements related to the bonds for the purpose of managing interest rate risk which the Committee determines are necessary, appropriate or desirable in connection with or incidental to the carrying or selling and issuance of the bonds, and if the Committee determines that it is necessary, appropriate or desirable, the obligations under such interest rate swap agreements shall be secured by the Town's full faith and credit.
7. The bonds may be designated "Public Improvement Bonds of the Town of Fairfield," series of the year of their issuance and may be issued in one or more series, and may be consolidated as part of the same issue with other bonds of the Town; shall be in serial form maturing in not more than twenty (20) annual installments of principal, the first installment to mature not later than three (3) years from the date of issue and the last



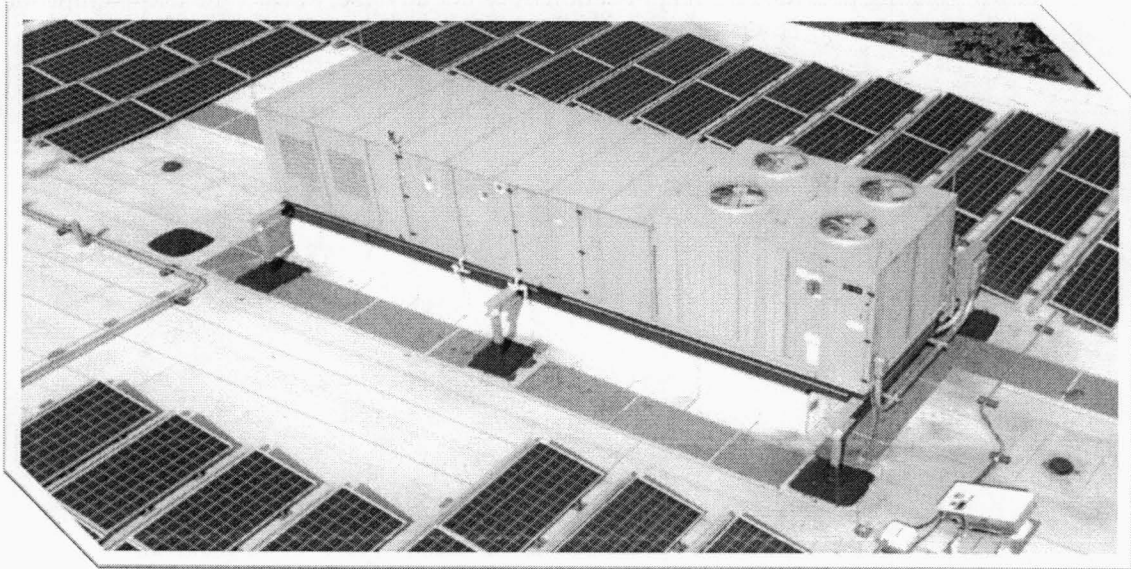
installment to mature not later than twenty (20) years from the date of issuance or as otherwise provided by statute. The bonds may be sold at an aggregate sales price of not less than par and accrued interest at public sale upon invitation for bids to the responsible bidder submitting the bid resulting in the lowest true interest cost to the Town, provided that nothing herein shall prevent the Town from rejecting all bids submitted in response to any one invitation for bids and the right to so reject all bids is hereby reserved, and further provided that the Committee may sell the bonds on a negotiated basis, as provided by statute. Interest on the bonds shall be payable semi-annually or annually. The bonds shall be signed on behalf of the Town by at least a majority of the Board of Selectmen and the Treasurer, and shall bear the seal of the Town. The signing, sealing and certification of the bonds may be by facsimile as provided by statute.

8. The Committee is further authorized to make temporary borrowings as authorized by the Statutes and to issue temporary notes of the Town in anticipation of the receipt of proceeds from the sale of the bonds to be issued pursuant to this resolution or in anticipation of the receipt of the Grants. Such notes shall be issued and renewed at such time and with such maturities, requirements and limitations as provided by the Statutes. Notes evidencing such borrowings shall be signed by the First Selectwoman and Treasurer or the Chief Fiscal Officer, have the seal of the Town affixed, which signing and sealing may be by facsimile as provided by statute, be certified by and payable at a bank or trust company incorporated under the laws of this or any other state, or of the United States, be approved as to their legality by bond counsel, and may be consolidated with the issuance of other Town bond anticipation notes. The Committee shall determine the date, maturity, interest rates, form and manner of sale, including negotiated sale, and other details of said notes consistent with the provisions of this resolution and the Statutes and shall have all powers and authority as set forth above in connection with the issuance of bonds and especially with respect to compliance with the requirements of the Internal Revenue Code of 1986, as amended, and regulations thereunder in order to obtain and maintain issuance of the notes in tax exempt form.
9. Pursuant to Section 1.150-2, as amended, of the Federal Income Tax Regulations the Town hereby declares its official intent to reimburse expenditures (if any) paid for the Project from its General or Capital Funds, such reimbursement to be made from the proceeds of the sale of bonds and notes authorized herein and in accordance with the time limitations and other requirements of said regulations.
10. The First Selectwoman, the Chief Fiscal Officer and Town Treasurer are hereby authorized, on behalf of the Town, to enter into agreements or otherwise covenant for the benefit of bondholders to provide information on an annual or other periodic basis to the Municipal Securities Rulemaking Board (the "MSRB") and to provide notices to the MSRB of material events as enumerated in Securities and Exchange Commission Exchange Act Rule 15c2-12, as amended, as may be necessary, appropriate or desirable to effect the sale of the bonds and notes authorized by this resolution.



11. The Committee is hereby authorized to take all action necessary and proper for the sale, issuance and delivery of the bonds and notes in accordance with the provisions of the Statutes and the laws of the United States.
12. The First Selectwoman or other proper Town official is authorized to apply for and accept any available State or Federal grant, in addition to the Grants as defined in paragraph 2 herein, in aid of the financing of the Project, and to take all action necessary and proper in connection therewith. Any such grants or contribution received prior to the issuance of the Bonds authorized herein shall be applied to the costs of the Project or to pay at maturity the principal of any outstanding bond anticipation notes issued pursuant this resolution and shall reduce the amount of the Bonds that can be issued pursuant to this resolution. If such grants and contributions are received after the issuance of the Bonds, they shall be applied to pay the principal on the Bonds or as otherwise authorized by the Board of Selectmen, Board of Finance and Representative Town Meeting provided such application does not adversely affect the tax-exempt status of the Bonds or the Town's receipt of such grant or contribution.

# **Fairfield Board of Education Proposed Capital Project 2022-2023**



**Air Conditioning Upgrade Project – Phase I (North Stratfield Elementary School, Osborn Hill Elementary School & Fairfield Woods Middle School)**

**Approved by the Board of Education on February 3, 2022**

**Michael Cummings**  
**Superintendent of Schools**



501 Kings Hwy East, Suite 210  
Fairfield, CT 06825  
203-255-8309

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February 3, 2022

Dear Board of Education Members:

This booklet provides an overview for the following 2022-2023 Proposed Capital Project Request:

- Districtwide Air Conditioning Upgrade Project- Phase I (North Stratfield Elementary School, Osborn Elementary School & Fairfield Woods Middle School)

We have included the above project in the Fairfield Public Schools' Facilities Plan Waterfall Schedule. Information for this project is provided using the 12-point format devised by the Town of Fairfield and includes:

- Justification and background information.
- A cost estimate that includes previous project information, verbal quotations, and/or written proposals.

We hope you find this information helpful, and we are confident it will answer many of your questions as we begin the budget discussions. Thank you for your continued support.

Sincerely,

Michael Cummings  
Superintendent of Schools

MC:lt

**Fairfield Public Schools  
2022-2023  
Capital & Non-Recurring Projects**

**Table of Contents**

<u>Location</u>	<u>Project</u>	<u>Estimated Cost</u>	<u>Page</u>
<b>Capital Project</b>			
Districtwide	Air Conditioning Upgrade Project – Phase 1 (North Stratfield Elementary School, Osborn Hill Elementary School & Fairfield Woods Middle School)	\$ 22,701,443	1
<hr/>			
<b>Total</b>		<b>\$ 22,701,443</b>	

Background: The Fairfield Board of Education has been working towards adding air-conditioning to all seventeen school buildings in the district. Burr, Holland Hill, McKinley, Mill Hill, Riverfield, Roger Sherman, Stratfield Elementary schools, and Roger Ludlowe Middle school have complete air-conditioning systems. Jennings, Dwight, North Stratfield, Osborn Hill, Elementary schools, Fairfield Woods and Tomlinson Middle schools, Fairfield Warde, Fairfield Ludlowe, and Walter Fitzgerald High schools have had portions of the buildings air-conditioned using integrated systems or split units. This phase I project would complete the air-conditioning at North Stratfield Elementary School, Osborn Hill Elementary School, and Fairfield Woods Middle School.

Purpose & Justification: The purpose of this project would be to add air-conditioning to North Stratfield Elementary School, Osborn Hill Elementary School, and Fairfield Woods Middle School. Currently, these buildings do not have a large project on the BOE waterfall chart. This project is justified as it would begin to create equality among all district buildings in air-conditioned spaces. In addition, the lack of air-conditioning and the ability to bring fresh air into the building was found to be a significant deficiency during the current pandemic. This project would assist in improving the indoor air quality at non-air-conditioned buildings by reducing areas that can become conducive for mold growth during hot and humid days. Additionally, increasing air-conditioning and air movement in the buildings would increase the air that moves through our air filtration system.

Detailed Description: This expenditure would cover the total cost of this project, and the cash flow distribution would occur over the next three years. (See attached Appendix 2) This funding request would cover all aspects of this project, from planning schematics to equipment installation. Additionally, this funding would cover necessary repairs/replacement/alterations required for the installation of AC - such as acoustic ceilings, LED lights, fire protection system alterations, and the addition of a fire suppression system where deficient. Lastly, this project funding would include commissioning and balancing the new AC system and updating the automated building controls systems where required.

Estimated Cost: The cost of this funding request is \$22,701,443. This number was calculated by determining an operating budget that allows us to perform a complete building evaluation of each of the schools and the best approach to meet the fundamental needs of each building while performing this work. This number also considers a \$1,000,000 grant from the Town and a \$116,320 grant to the BOE.

Long Range Costs: This project would bring additional costs to the district operating budget to provide supplemental equipment needed to perform preventative maintenance. However, new equipment, and filter changes on existing equipment, will allow both to run more efficiently and will positively impact the electrical draw at each building.



Security, Safety, and Loss Control: This project will play a significant role in improving indoor air quality along with improvements in building conditions. This project will enable us to control building moisture and alleviate the safety hazards, unsafe buildings, and material loss created by mold.

Environmental Considerations: All new equipment will meet all regulatory standards.

Funding, Financing & OSCG&R: This project would not proceed without funding approval. There are no State or Federal regulations required for this project at this time. We will continue to look at possible state or federal grants that may help offset the cost of this project. In addition, the project will apply for reimbursement from OSCG&R. Additionally, the Town has committed \$1,000,000 to this project through their ARPA grant application, and the Board of Education has committed \$116,320 to this project through their ESSER II grant.

Other Considerations: The Town Purchasing Department will bid out this work performed by outside professionally licensed contractors. This project will be assigned to a building committee to oversee and meet the state reimbursement requirements.

Alternates to The Request: The alternative to this request would be to divide this project by building and add them to the Board of Education's waterfall over a period of time.

# Fairfield Public Schools Long Term Facilities Plan

General Information	
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Origination Date:	7/1/21
Project No:	<u>DIST-010</u>
Project Name:	<b>AC Upgrade Phase 1 (Woods/Osborn/North Stratfield)</b>

Non-Reoccurring Status	
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Project Description:	Woods 6,277,700 Osborn 4,823,000 + 265,329 = 5,088,329 North Stratfield 7,774,000 + 265,329 = 8,039,329
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Status:

Project Budget	
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Design Budget:	\$0
Construction Budget:	\$19,405,358
Construction Escalation:	\$776,214
<b>Total Construction Budget:</b>	<b>\$20,181,572</b>
Escalation Date:	7/1/2021
Estimated Construction Start:	7/1/2022
Miscellaneous Fees and Expenses:	
- State Permits (.0026%)	\$52,472
- Testing & Inspections	\$0
- Advertising	\$0
Construction Admin	\$201,816
Commissioning	\$201,816
Hazardous Materials	\$0
Other	\$0
<b>Subtotal Fees &amp; Expenses:</b>	<b>\$456,103</b>
Project Subtotal	\$20,637,675
Project Contingency 10%	\$2,063,768
<b>Total Budget</b>	<b>\$22,701,443</b>

OSCGR Eligible?	Yes
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<b>OSCGR Reimbursement</b>	<b>\$5,332,978</b>
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Action Items

1.00	
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Project Priority Ranking

- Security	0
- Severity of Condition	0
- Code/Statutory	0
- Programmatic Need	0
- Constructability/Sequencing	0
	0

## Fairfield Public Schools 10-year Waterfall

[illegible]

# Fairfield Public Schools 10-year Waterfall

ROW	Project #	Main Recurring	Priority	School Priority	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030 - 2033	Project Total	OSCR Reimbursement	Estimated District Share
<b>Holland Hill Elementary</b>																					
100	HH-001	Partial Roof Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,362,014	\$0	\$0	\$0	\$0	\$0	\$0	\$1,370,014	\$321,841	\$1,048,173
101	HH-002		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
102	HH-003		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
103	HH-004		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
104	HH-005		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
105	HH-006		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
106	HH-007		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
107	HH-008		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
108	HH-009		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
109	HH-010		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
130					\$0	\$0	\$0	\$0	\$0	\$0	\$8,000	\$1,362,014	\$0	\$0	\$0	\$0	\$0	\$0	\$1,370,014	\$321,841	\$1,048,173
<b>Holland Hill Elementary</b>																					
<b>Jennings Elementary</b>																					
131	JEN-001	Additions and alterations (escape to be eliminated)	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,200,000	\$31,536,113	\$0	\$0	\$0	\$33,736,113	\$7,925,220	\$25,810,893
132	JEN-002		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
133	JEN-003		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
134	JEN-004		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
135	JEN-005		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
136	JEN-006		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
137	JEN-007		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
138	JEN-008		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
139	JEN-009		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
140	JEN-010		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
161					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,200,000	\$31,536,113	\$0	\$0	\$0	\$33,736,113	\$7,925,220	\$25,810,893
<b>McKinley Elementary</b>																					
162	MCK-001	Receiving Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$1,497,219	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,505,819	\$353,744	\$1,152,075
163	MCK-002	Yes	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,425	\$507,853	\$0	\$0	\$0	\$543,278	\$127,614	\$415,664
164	MCK-003	Interface Veritide Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,373,272	\$0	\$1,373,272
165	MCK-004	Boiler/Burner Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,456	\$300,431	\$0	\$0	\$0	\$0	\$0	\$322,887	\$0	\$322,887
166	MCK-005	HVAC Controls	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
167	MCK-006		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
168	MCK-007		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
169	MCK-008		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
170	MCK-009		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
171	MCK-010		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
192					\$0	\$0	\$0	\$0	\$0	\$0	\$8,000	\$1,497,219	\$22,456	\$300,431	\$124,979	\$1,791,521	\$0	\$0	\$3,745,404	\$481,358	\$3,264,046
<b>McKinley Elementary</b>																					
<b>Mill Hill Elementary</b>																					
193	MH-001	Mill Hill Addition Alteration	0		\$0	\$0	\$2,050,040	\$18,450,540	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,500,600	\$4,815,960	\$15,684,640
194	MH-002		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
195	MH-003		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
196	MH-004		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
197	MH-005		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
198	MH-006		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
199	MH-007		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
200	MH-008		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
201	MH-009		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
223					\$0	\$0	\$2,050,040	\$18,450,540	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,500,600	\$4,815,960	\$15,684,640

[illegible]



[illegible]

# Fairfield Public Schools 10-year Waterfall

ROW	Project #	Detail Description	Priority	School Priority	Fiscal Year												OSCAR Reimbursement	Eliminated District Share	
					2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030 - 2033	Project Total
Tomlinson MS																			
478	TMS-001	Flooring Replacement (NR)	0		\$0	\$0	\$44,000	\$396,000	\$0	\$0	\$0	\$1,052,247	\$0	\$0	\$0	\$0	\$0	\$0	\$440,000
479	TMS-002	New Windows	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$82,500	\$0	\$0	\$0	\$0	\$0	\$0	\$468,175
480	TMS-003	Acoustical Ceiling and Lights	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$66,853	\$0	\$0	\$0	\$0	\$0	\$0	\$988,500
481	TMS-004	Boiler/Burner Replacements	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$85,731	\$1,467,172	
482	TMS-005	Partial Roof Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,292,299	\$1,331,172	
483	TMS-006	Elevator Replacement (2)	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$310,000	
484	TMS-007	Full A/C Upgrade	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$749,247	
485	TMS-008		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
486	TMS-009		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
487	TMS-010		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
508	Tomlinson HS				\$0	\$0	\$44,000	\$396,000	\$0	\$0	\$82,500	\$1,052,247	\$66,853	\$921,707	\$0	\$339,282	\$1,378,530	\$2,130,757	\$4,110,904
Fairfield Ludlowe HS																			
509	FLHS-001	Tennis Court Replacement	0		\$0	\$0	\$55,000	\$495,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$550,000
510	FLHS-002	Emergency Generator Replacement (NR)	0		\$0	\$0	\$0	\$0	\$224,972	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$224,972
511	FLHS-003	Renovate Student Bathrooms	0		\$0	\$0	\$0	\$0	\$2,374,580	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,374,580
512	FLHS-004	A/C Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
513	FLHS-005	Artificial Turf Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,549,779	\$1,649,779	
514	FLHS-006	BMAS Control Upgrades	0		\$0	\$0	\$0	\$0	\$1,948,505	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$0	\$0	\$1,948,505
515	FLHS-007	Partial Roof Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$274,194	\$224,720	\$0	\$0	\$274,194
516	FLHS-008	Boiler/Burner Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$231,813
517	FLHS-009	Elevator Modernization	0		\$0	\$0	\$0	\$0	\$0	\$265,329	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$265,329
518	FLHS-010		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
539	Fairfield Ludlowe HS				\$0	\$0	\$55,000	\$495,000	\$4,568,057	\$245,329	\$0	\$0	\$0	\$7,194	\$224,720	\$100,000	\$1,549,779	\$0	\$7,245,076
Fairfield Warde HS																			
540	FWHS-001	Flt House HVAC RTH #1	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
541	FWHS-002	New A/C for Cafeteria	0		\$0	\$0	\$0	\$0	\$1,687,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,687,200
542	FWHS-003	Flt House HVAC RTH #2&3	0		\$0	\$0	\$0	\$0	\$0	\$0	\$1,094,485	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,094,485
543	FWHS-004	Renovate Bathrooms	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
544	FWHS-005	New Windows Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$144,703	\$4,655,297	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000,000
545	FWHS-006	Replace Boiler/Burner NR	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$18,000	\$4,177,131	\$0	\$0	\$0	\$0	\$0	\$4,492,131
546	FWHS-007	Flt House Tennis Courts & Basketball Courts	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30,416	\$387,948	\$0	\$0	\$0	\$0	\$0	\$418,362
547	FWHS-008	HVAC BMAS Controls Upgrades	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
548	FWHS-009	Artificial Turf Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$1,549,779	\$0	\$0	\$1,649,779	
549	FWHS-010	Partial Roof Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$224,720	\$0	\$0	\$224,720	
550	FWHS-011	A/C Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
570	Fairfield Warde HS				\$0	\$0	\$30,000	\$30,000	\$0	\$1,687,200	\$1,094,485	\$5,877,105	\$4,177,131	\$7,194	\$224,720	\$100,000	\$1,549,779	\$0	\$14,947,803
Walter Fitzgerald Campus																			
570	WFC-001	Purchase of Walter Fitzgerald Campus Building - 108 Bro	0		\$0	\$0	\$0	\$500,000	\$5,674,300	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,174,300
571	WFC-002	BMAS Controls	0		\$0	\$0	\$0	\$0	\$0	\$0	\$11,328	\$14,481	\$0	\$0	\$0	\$0	\$0	\$0	\$155,809
572	WFC-003		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
573	WFC-004		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
574	WFC-005		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
575	WFC-006		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
576	WFC-007		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
577	WFC-008		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
578	WFC-009		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
579	WFC-010		0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
600	Walter Fitzgerald Campus				\$0	\$0	\$0	\$500,000	\$5,674,300	\$0	\$11,328	\$14,481	\$0	\$0	\$0	\$0	\$0	\$0	\$6,330,109
601	Waterfall Total				\$0	\$0	\$2,496,587	\$23,394,043	\$14,743,294	\$28,051,999	\$5,938,808	\$34,404,920	\$37,009,466	\$58,805,579	\$35,573,199	\$959,511	\$15,704,415	\$4,540,770	\$219,692,240

1/27/2022

# Fairfield Public Schools 10-year Waterfall

ROW	Project#	Mill. Accounting	Priority	School Priority	Fiscal Year															Project Total	OSGCR Reimbursement	Estimated District Share
					2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030 - 2033				
YEAR																						
602	Capital Projects																					
603	Non-Recurring Projects																					
	OSGCR Reimbursement - TOTAL																					
	OSGCR Reimbursement - CAPITAL																					
	OSGCR Reimbursement - NON-RECURRING																					

Districtwide Air Conditioning Upgrade Project - Phases 1 through 5 - Cash Flow									
	22/23	23/24	24/25	25/26	26/27	27/28	28/29	Project Total	OSGR Reimbursement
<b>Phase One</b>									
North Stratfield Elementary School	\$940,485	\$4,232,180	\$4,232,180					\$9,404,844	\$2,209,367
Osborn Hill Elementary School	\$595,261	\$5,357,344						\$5,952,604	\$1,398,374
Fairfield Woods Middle School	\$734,399	\$3,304,798						\$7,343,995	\$1,725,237
<b>Phase Two</b>									
Tomlinson Middle School		\$232,264	\$1,045,159	\$1,045,159				\$2,322,583	\$545,616
<b>Phase Three</b>									
Fairfield Ludlowe High School			\$2,259,278	\$6,777,835	\$6,777,835	\$6,777,835		\$22,592,783	\$5,307,451
<b>Phase Four</b>									
Fairfield Warde High School				\$2,615,631	\$7,846,891	\$7,846,891	\$7,846,891	\$26,156,305	\$6,144,587
<b>Phase Five</b>									
Walter Fitzgerald Campus						\$275,635	\$2,480,715	\$2,756,350	\$647,516
<b>Total Yearly A/C Project Cost</b>									
ARPA Grant Funding	\$2,270,145	\$13,126,585	\$10,841,415	\$10,438,625	\$14,624,727	\$14,900,362	\$10,327,606	\$76,529,465	\$17,978,149
ESSER2 Grant Funding	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0		
Capital Funding	\$116,320	\$0	\$0	\$0	\$0	\$0	\$0		
	<b>\$1,153,825</b>	<b>\$13,126,585</b>	<b>\$10,841,415</b>	<b>\$10,438,625</b>	<b>\$14,624,727</b>	<b>\$14,900,362</b>	<b>\$10,327,606</b>		
<b>Phase One Total</b>									
	\$22,701,443								
<b>Phase Two Total</b>									
	\$2,322,583								
<b>Phase Three Total</b>									
	\$22,592,783								
<b>Phase Four Total</b>									
	\$26,156,305								
<b>Phase Five Total</b>									
	\$2,756,350								

# **Fairfield Board of Education Proposed Capital Project 2022-2023**



**Air Conditioning Upgrade Project – Phase I (North Stratfield Elementary School, Osborn Hill Elementary School & Fairfield Woods Middle School)**

**Approved by the Board of Education on February 3, 2022**





February 3, 2022

Dear Board of Education Members:

This booklet provides an overview for the following 2022-2023 Proposed Capital Project Request:

- Districtwide Air Conditioning Upgrade Project- Phase I (North Stratfield Elementary School, Osborn Elementary School & Fairfield Woods Middle School)

We have included the above project in the Fairfield Public Schools' Facilities Plan Waterfall Schedule. Information for this project is provided using the 12-point format devised by the Town of Fairfield and includes:

- Justification and background information.
- A cost estimate that includes previous project information, verbal quotations, and/or written proposals.

We hope you find this information helpful, and we are confident it will answer many of your questions as we begin the budget discussions. Thank you for your continued support.

Sincerely,



Michael Cummings  
Superintendent of Schools

MC:lt



**Fairfield Public Schools  
2022-2023  
Capital & Non-Recurring Projects**

**Table of Contents**

<u>Location</u>	<u>Project</u>	<u>Estimated Cost</u>	<u>Page</u>
<b>Capital Project</b>			
Districtwide	Air Conditioning Upgrade Project – Phase 1 (North Stratfield Elementary School, Osborn Hill Elementary School & Fairfield Woods Middle School)	\$ 22,701,443	1
<hr/>			
<b>Total</b>		<b>\$ 22,701,443</b>	





Background: The Fairfield Board of Education has been working towards adding air-conditioning to all seventeen school buildings in the district. Burr, Holland Hill, McKinley, Mill Hill, Riverfield, Roger Sherman, Stratfield Elementary schools, and Roger Ludlowe Middle school have complete air-conditioning systems. Jennings, Dwight, North Stratfield, Osborn Hill, Elementary schools, Fairfield Woods and Tomlinson Middle schools, Fairfield Warde, Fairfield Ludlowe, and Walter Fitzgerald High schools have had portions of the buildings air-conditioned using integrated systems or split units. This phase I project would complete the air-conditioning at North Stratfield Elementary School, Osborn Hill Elementary School, and Fairfield Woods Middle School.

Purpose & Justification: The purpose of this project would be to add air-conditioning to North Stratfield Elementary School, Osborn Hill Elementary School, and Fairfield Woods Middle School. Currently, these buildings do not have a large project on the BOE waterfall chart. This project is justified as it would begin to create equality among all district buildings in air-conditioned spaces. In addition, the lack of air-conditioning and the ability to bring fresh air into the building was found to be a significant deficiency during the current pandemic. This project would assist in improving the indoor air quality at non-air-conditioned buildings by reducing areas that can become conducive for mold growth during hot and humid days. Additionally, increasing air-conditioning and air movement in the buildings would increase the air that moves through our air filtration system.

Detailed Description: This expenditure would cover the total cost of this project, and the cash flow distribution would occur over the next three years. (See attached Appendix 2) This funding request would cover all aspects of this project, from planning schematics to equipment installation. Additionally, this funding would cover necessary repairs/replacement/alterations required for the installation of AC - such as acoustic ceilings, LED lights, fire protection system alterations, and the addition of a fire suppression system where deficient. Lastly, this project funding would include commissioning and balancing the new AC system and updating the automated building controls systems where required.

Estimated Cost: The cost of this funding request is \$22,701,443. This number was calculated by determining an operating budget that allows us to perform a complete building evaluation of each of the schools and the best approach to meet the fundamental needs of each building while performing this work. This number also considers a \$1,000,000 grant from the Town and a \$116,320 grant to the BOE.

Long Range Costs: This project would bring additional costs to the district operating budget to provide supplemental equipment needed to perform preventative maintenance. However, new equipment, and filter changes on existing equipment, will allow both to run more efficiently and will positively impact the electrical draw at each building.

Security, Safety, and Loss Control: This project will play a significant role in improving indoor air quality along with improvements in building conditions. This project will enable us to control building moisture and alleviate the safety hazards, unsafe buildings, and material loss created by mold.

Environmental Considerations: All new equipment will meet all regulatory standards.

Funding, Financing & OSCG&R: This project would not proceed without funding approval. There are no State or Federal regulations required for this project at this time. We will continue to look at possible state or federal grants that may help offset the cost of this project. In addition, the project will apply for reimbursement from OSCG&R. Additionally, the Town has committed \$1,000,000 to this project through their ARPA grant application, and the Board of Education has committed \$116,320 to this project through their ESSER II grant.

Other Considerations: The Town Purchasing Department will bid out this work performed by outside professionally licensed contractors. This project will be assigned to a building committee to oversee and meet the state reimbursement requirements.

Alternates to The Request: The alternative to this request would be to divide this project by building and add them to the Board of Education's waterfall over a period of time.

# Fairfield Public Schools Long Term Facilities Plan

General Information	
Origination Date:	7/1/21
Project No:	<u>DIST-010</u>
Project Name:	AC Upgrade Phase 1 (Woods/Osborn/North Stratfield)
Non-Reoccurring Status	
Project Description:	Woods 6,277,700 Osborn $4,823,000 + 265,329 = 5,088,329$ North Stratfield $7,774,000 + 265,329 = 8,039,329$

Status:

Project Budget	
Design Budget:	\$0
Construction Budget:	\$19,405,358
Construction Escalation:	\$776,214
Total Construction Budget:	\$20,181,572
Escalation Date:	7/1/2021
Estimated Construction Start:	7/1/2022
Miscellaneous Fees and Expenses:	
- State Permits (.0026%)	\$52,472
- Testing & Inspections	\$0
- Advertising	\$0
Construction Admin	\$201,816
Commissioning	\$201,816
Hazardous Materials	\$0
Other	\$0
Subtotal Fees & Expenses:	\$456,103
Project Subtotal	\$20,637,675
Project Contingency 10%	\$2,063,768
Total Budget	\$22,701,443
OSCGR Eligible?	Yes
OSCGR Reimbursement	\$5,332,978

Action Items

1.00

Project Priority Ranking

- Security	0
- Severity of Condition	0
- Code/Statutory	0
- Programmatic Need	0
- Constructability/Sequencing	0
	0

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## Appendix 1

Fairfield Public Schools 10-year Waterfall

ROW	Project #	Non-Recurring		Priority	School Priority	Fiscal Year																
						2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030 - 2033	Project Total	OSGR Reimbursement	Estimated District Share
1							\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2								\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3								\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4								\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5								\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	District Wide Total					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	District Wide Projects																					
7	DIST-001	Yes	IT Switch Replacement - Phase II	0		\$0	\$0	\$58,176	\$1,165,023	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,223,199	\$0	\$1,223,199
8	DIST-002	Yes	IT Server Network - HVAC Controls	0		\$0	\$0	\$27,500	\$247,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$275,000	\$0	\$275,000
9	DIST-003	Yes	Security Infrastructure	0		\$0	\$0	\$35,000	\$315,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$350,000	\$0	\$350,000
10	DIST-004	Yes	Underground Oil Tank Removal	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000	\$331,551	\$0	\$0	\$0	\$0	\$0	\$481,551	\$0	\$481,551
11	DIST-005	Yes	Solar System Replacements &/or Upgrades	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,000	\$387,445	\$0	\$412,445	\$0	\$412,445
12	DIST-006		Tunnel Asbestos Abatement and Reinsulation Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$115,000	\$1,782,247	\$0	\$1,897,247	\$0	\$1,897,247
13	DIST-007	Yes	Elementary School Playground Replacements	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$125,000	\$1,937,225	\$0	\$2,062,225	\$0	\$2,062,225
14	DIST-008	Yes	Aboveground Storage Tank (AST) Replacements	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,000	\$309,956	\$0	\$329,956	\$0	\$329,956
15	DIST-009	Yes	Retro-Commissioning	0		\$0	\$0	\$0	\$0	\$625,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$625,000	\$0	\$625,000
16	DIST-010		AC Upgrade Phase 1 (Woods/Osborn/North Stratfield)	0		\$0	\$0	\$0	\$0	\$0	\$22,701,443	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,701,443	\$5,332,978	\$17,368,466
17	DIST-011		AC Upgrade Phase 2 (Tomlinson)	0		\$0	\$0	\$0	\$0	\$0	\$0	\$2,322,581	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,322,581	\$545,616	\$1,776,965
18	DIST-012		AC Upgrade Phase 3 (Ludlow)	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,592,783	\$0	\$0	\$0	\$0	\$0	\$0	\$22,592,783	\$5,307,451	\$17,285,332
19	DIST-013		AC Upgrade Phase 4 (Warde)	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$26,156,303	\$0	\$0	\$0	\$0	\$0	\$26,156,303	\$0	\$26,156,303
20	DIST-014		AC Upgrade Phase 5 (Walter Fitzgerald)	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,756,350	\$0	\$0	\$0	\$0	\$2,756,350	\$0	\$2,756,350
21	DIST-015			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
37	District Wide Projects					\$0	\$0	\$120,676	\$1,727,523	\$625,000	\$22,701,443	\$2,322,581	\$22,742,783	\$26,487,854	\$2,756,350	\$0	\$285,000	\$4,416,873	\$0	\$84,186,084	\$11,186,045	\$73,000,039
	Burr Elementary School																					
38	BUR-001		Roof Replacement Project	0		\$0	\$0	\$0	\$0	\$1,734,703	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,734,703	\$407,513	\$1,327,190
39	BUR-002	Yes	Boiler/Burner Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$996,370	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$996,370	\$0	\$996,370
40	BUR-003	Yes	Entrance Vestibule Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$39,325	\$633,673	\$672,998	\$158,099	\$514,899
41	BUR-004	Yes	Elevator Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$712,932	\$712,932	\$0	\$712,932
42	BUR-005			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
43	BUR-006			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
44	BUR-007			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
45	BUR-008			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
46	BUR-009			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
47	BUR-010			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
68	Burr Elementary School					\$0	\$0	\$0	\$0	\$1,734,703	\$996,370	\$0	\$0	\$0	\$0	\$0	\$0	\$39,325	\$1,346,605	\$4,117,003	\$565,612	\$3,551,390
	Dwight Elementary																					
69	DW-001	Yes	HVAC BMS Controls Upgrades (NR)	0		\$0	\$0	\$0	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$200,000	\$0	\$200,000
70	DW-002		Renovation Project or New	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$50,250,200	\$0	\$0	\$0	\$51,750,200	\$12,157,053	\$39,593,147	
71	DW-003			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
72	DW-004			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
73	DW-005			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
74	DW-006			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
75	DW-007			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
76	DW-008			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
77	DW-009			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
78	DW-010			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
99	Dwight Elementary					\$0	\$0	\$0	\$200,000	\$0	\$0	\$0	\$0	\$1,500,000	\$50,250,200	\$0	\$0	\$0	\$0	\$51,950,200	\$12,157,053	\$39,793,147



Fairfield Public Schools 10-year Waterfall

ROW	Project #	Non- Recurring		Priority	School Priority	Fiscal Year																
						2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030 - 2033	Project Total	OSCGR Reimbursement	Estimated District Share
	Holland Hill Elementary																					
100	HH-001		Partial Roof Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$8,000	\$1,362,014	\$0	\$0	\$0	\$0	\$0	\$0	\$1,370,014	\$321,841	\$1,048,173
101	HH-002			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
102	HH-003			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
103	HH-004			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
104	HH-005			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
105	HH-006			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
106	HH-007			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
107	HH-008			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
108	HH-009			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
109	HH-010			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
130	Holland Hill Elementary					\$0	\$0	\$0	\$0	\$0	\$0	\$8,000	\$1,362,014	\$0	\$0	\$0	\$0	\$0	\$0	\$1,370,014	\$321,841	\$1,048,173
	Jennings Elementary																					
131	JEN-001		Additions and alterations (Scope To Be Determined)	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,200,000	\$31,536,113	\$0	\$0	\$0	\$33,736,113	\$7,925,220	\$25,810,893
132	JEN-002			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
133	JEN-003			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
134	JEN-004			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
135	JEN-005			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
136	JEN-006			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
137	JEN-007			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
138	JEN-008			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
139	JEN-009			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
140	JEN-010			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
161	Jennings Elementary					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,200,000	\$31,536,113	\$0	\$0	\$0	\$33,736,113	\$7,925,220	\$25,810,893
	McKinley Elementary																					
162	MCK-001		Roofing Project	0		\$0	\$0	\$0	\$0	\$0	\$8,600	\$1,497,219	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,505,819	\$353,744	\$1,152,075
163	MCK-002	Yes	Entrance Vestibule Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,425	\$507,803	\$0	\$0	\$0	\$543,228	\$127,614	\$415,614
164	MCK-003		Boiler/Burner Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$89,554	\$1,283,718	\$0	\$0	\$0	\$1,373,272	\$0	\$1,373,272
165	MCK-004		HVAC Controls	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,656	\$300,431	\$0	\$0	\$0	\$0	\$0	\$323,087	\$0	\$323,087
166	MCK-005			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
167	MCK-006			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
168	MCK-007			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
169	MCK-008			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
170	MCK-009			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
171	MCK-010			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
192	McKinley Elementary					\$0	\$0	\$0	\$0	\$0	\$8,600	\$1,497,219	\$22,656	\$300,431	\$124,979	\$1,791,521	\$0	\$0	\$0	\$3,745,406	\$481,358	\$3,264,048
	Mill Hill Elementary																					
193	MH-001		Mill Hill Addition Alteration	0		\$0	\$0	\$2,050,060	\$18,450,540	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,500,600	\$4,815,960	\$15,684,640
194	MH-002			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
195	MH-003			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
196	MH-004			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
197	MH-005			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
198	MH-006			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
199	MH-007			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
200	MH-008			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
201	MH-009			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
223	Mill Hill Elementary					\$0	\$0	\$2,050,060	\$18,450,540	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,500,600	\$4,815,960	\$15,684,640

Fairfield Public Schools 10-year Waterfall

ROW	Project #	Non-Recurring		Priority	School Priority	Fiscal Year																
						2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030 - 2033	Project Total	OSCR Reimbursement	Estimated District Share
	North Stratfield																					
224	NS-001		AC Upgrade	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
225	NS-002		Roof Replacement Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,000	\$2,105,745	\$0	\$0	\$0	\$0	\$0	\$2,113,745	\$496,557	\$1,617,188
226	NS-003	Yes	Entrance Vestibule Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$32,500	\$414,521	\$0	\$0	\$0	\$0	\$0	\$0	\$447,021	\$105,013	\$342,008
227	NS-004			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
228	NS-005			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
229	NS-006			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
230	NS-007			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
231	NS-008			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
232	NS-009			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
233	NS-010			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
254	North Stratfield					\$0	\$0	\$0	\$0	\$0	\$0	\$32,500	\$422,521	\$2,105,745	\$0	\$0	\$0	\$0	\$0	\$2,560,766	\$601,570	\$1,959,196
	Osborn Hill ES																					
255	OH-001		Roof Replacement Project	0		\$0	\$0	\$0	\$1,584,980	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,584,980	\$372,340	\$1,212,640
256	OH-002		AC Upgrade	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
257	OH-003	Yes	Renovate Student Bathrooms NR	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$36,465	\$483,553	\$0	\$0	\$0	\$0	\$0	\$520,018	\$0	\$520,018
258	OH-004		Additions and Renovations	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$398,854	\$6,181,359	\$0	\$6,580,213	\$1,545,811	\$5,034,403
259	OH-005	Yes	Entrance Vestibule Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$34,450	\$456,831	\$0	\$0	\$0	\$0	\$0	\$491,281	\$115,411	\$375,870
260	OH-006			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
261	OH-007			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
262	OH-008			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
263	OH-009			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
264	OH-010			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
286	Osborn Hill ES					\$0	\$0	\$0	\$1,584,980	\$0	\$0	\$0	\$70,915	\$940,384	\$0	\$0	\$398,854	\$6,181,359	\$0	\$9,176,492	\$2,033,562	\$7,142,931
288	Riverfield ES																					
289	RIV-001		Partial Roof Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$51,189	\$1,797,368	\$1,848,557	\$434,259	\$1,414,298
290	RIV-002			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
291	RIV-003			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
292	RIV-004			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
293	RIV-005			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
294	RIV-006			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
295	RIV-007			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
296	RIV-008			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
297	RIV-009			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
298	RIV-010			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
320	Riverfield ES					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$51,189	\$1,797,368	\$1,848,557	\$434,259	\$1,414,298
322	Roger Sherman ES																					
323	SHERM-001		Roof Replacement	0		\$0	\$0	\$0	\$0	\$0	\$15,800	\$1,314,308	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,330,108	\$312,466	\$1,017,642
324	SHERM-002	Yes	Boiler/Burner Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$76,245	\$972,461	\$0	\$0	\$0	\$0	\$0	\$0	\$1,048,706	\$0	\$1,048,706
325	SHERM-003	Yes	Entrance Vestibule Upgrades	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,425	\$507,803	\$0	\$0	\$0	\$543,228	\$127,614	\$415,614
326	SHERM-004		Controls Upgrade	0		\$0	\$0	\$0	\$0	\$0	\$0	\$265,329	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$265,329	\$0	\$265,329
327	SHERM-005			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
328	SHERM-006			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
329	SHERM-007			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
330	SHERM-008			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
331	SHERM-009			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
332	SHERM-010			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
353	Roger Sherman ES					\$0	\$0	\$0	\$0	\$0	\$15,800	\$1,655,882	\$972,461	\$0	\$35,425	\$507,803	\$0	\$0	\$0	\$3,187,370	\$440,080	\$2,747,290

Fairfield Public Schools 10-year Waterfall

ROW	Project #	Non-Recurring		Priority	School Priority	Fiscal Year																
						2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030 - 2033	Project Total	OSCGR Reimbursement	Estimated District Share
	Straffield ES																					
354	<a href="#">STRAT-001</a>		Roof Replacement Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$42,447	\$1,275,219	\$0	\$0	\$0	\$0	\$1,317,666	\$309,543	\$1,008,123
355	<a href="#">STRAT-002</a>	Yes	Front Façade and Cornice Wall Painting NR	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$648,050	\$648,050	\$0	\$648,050
356	<a href="#">STRAT-003</a>	Yes	HVAC BMS Controls Upgrade	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,000	\$358,365	\$0	\$0	\$0	\$383,365	\$0	\$383,365
357	<a href="#">STRAT-004</a>	Yes	Elevator Replacement (1)	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,500	\$537,548	\$0	\$0	\$0	\$575,048	\$0	\$575,048
358	<a href="#">STRAT-005</a>	Yes	Entrance Vestibule Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$38,350	\$617,960	\$656,310	\$154,179	\$502,131
359	<a href="#">STRAT-006</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
360	<a href="#">STRAT-007</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
361	<a href="#">STRAT-008</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
362	<a href="#">STRAT-009</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
363	<a href="#">STRAT-010</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
384	Straffield ES					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$42,447	\$1,337,719	\$895,913	\$0	\$38,350	\$1,266,011	\$3,580,440	\$463,723	\$3,116,717
	Early Childhood Center																					
385	<a href="#">ECC-001</a>	Yes	ECC Location 1 (NR)	0		\$0	\$0	\$0	\$0	\$0	\$0	\$25,000	\$318,862	\$0	\$0	\$0	\$0	\$0	\$0	\$343,862	\$0	\$343,862
386	<a href="#">ECC-002</a>	Yes	ECC Location 2 (NR)	0		\$0	\$0	\$0	\$0	\$0	\$0	\$25,000	\$318,862	\$0	\$0	\$0	\$0	\$0	\$0	\$343,862	\$0	\$343,862
387	<a href="#">ECC-003</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
388	<a href="#">ECC-004</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
389	<a href="#">ECC-005</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
390	<a href="#">ECC-006</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
391	<a href="#">ECC-007</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
392	<a href="#">ECC-008</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
393	<a href="#">ECC-009</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
394	<a href="#">ECC-010</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
415	Early Childhood Center					\$0	\$0	\$0	\$0	\$0	\$0	\$50,000	\$637,724	\$0	\$0	\$0	\$0	\$0	\$0	\$687,724	\$0	\$687,724
	Fairfield Woods Middle School																					
416	<a href="#">FWMS-001</a>	Yes	Elevator Replacement (NR)	0		\$0	\$0	\$196,851	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$196,851	\$0	\$196,851
417	<a href="#">FWMS-002</a>		Full AC Upgrade	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
418	<a href="#">FWMS-003</a>		Window & Siding Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$82,500	\$1,137,437	\$0	\$0	\$0	\$0	\$1,219,937	\$0	\$1,219,937
419	<a href="#">FWMS-004</a>		Renovate Student Bathrooms (2)	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$98,497	\$1,306,137	\$0	\$0	\$0	\$0	\$0	\$1,404,634	\$0	\$1,404,634
420	<a href="#">FWMS-005</a>	Yes	Boiler/Burner Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$78,679	\$1,003,516	\$0	\$0	\$0	\$0	\$0	\$0	\$1,082,195	\$0	\$1,082,195
421	<a href="#">FWMS-006</a>	Yes	Entrance Vestibule Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,375	\$579,230	\$0	\$616,605	\$144,852	\$471,754
422	<a href="#">FWMS-007</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
423	<a href="#">FWMS-008</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
424	<a href="#">FWMS-009</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
425	<a href="#">FWMS-010</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
446	Fairfield Woods Middle School					\$0	\$0	\$196,851	\$0	\$0	\$0	\$78,679	\$1,102,013	\$1,388,637	\$1,137,437	\$0	\$37,375	\$579,230	\$0	\$4,520,222	\$144,852	\$4,375,370
	Roger Ludlowe MS																					
447	<a href="#">RLMS-001</a>	Yes	Cooling Tower Replacement (NR)	0		\$0	\$0	\$0	\$40,000	\$453,944	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$493,944	\$0	\$493,944
448	<a href="#">RLMS-002</a>		Roof Replacement Project	0		\$0	\$0	\$0	\$0	\$0	\$2,969,972	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,969,972	\$697,700	\$2,272,272
449	<a href="#">RLMS-003</a>	Yes	Fire Alarm Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$27,375	\$392,409	\$0	\$0	\$0	\$419,784	\$0	\$419,784
450	<a href="#">RLMS-004</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
451	<a href="#">RLMS-005</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
452	<a href="#">RLMS-006</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
453	<a href="#">RLMS-007</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
454	<a href="#">RLMS-008</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
455	<a href="#">RLMS-009</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
456	<a href="#">RLMS-010</a>			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
477	Roger Ludlowe MS					\$0	\$0	\$0	\$40,000	\$453,944	\$2,969,972	\$0	\$0	\$0	\$27,375	\$392,409	\$0	\$0	\$0	\$3,883,700	\$697,700	\$3,186,000

Fairfield Public Schools 10-year Waterfall

ROW	Project #	Non-Recurring		Priority	School Priority	Fiscal Year																
						2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030 - 2033	Project Total	OSCGR Reimbursement	Estimated District Share
	Tomlison MS																					
478	TMS-001	Yes	Flooring Replacement (NR)	0		\$0	\$0	\$44,000	\$396,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$440,000	\$0	\$440,000
479	TMS-002		New Windows	0		\$0	\$0	\$0	\$0	\$0	\$0	\$82,500	\$1,052,247	\$0	\$0	\$0	\$0	\$0	\$0	\$1,134,747	\$266,573	\$868,175
480	TMS-003	Yes	New Acoustical ceiling and lights	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$66,853	\$921,707	\$0	\$0	\$0	\$0	\$988,560	\$0	\$988,560
481	TMS-004	Yes	Boiler/Burner Replacements	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$85,731	\$1,381,441	\$1,467,172	\$0	\$1,467,172
482	TMS-005		Partial Roof Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$38,282	\$1,292,799	\$0	\$1,331,081	\$312,695	\$1,018,386
483	TMS-006	Yes	Elevator Replacement (2)	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$749,347	\$749,347	\$0	\$749,347
484	TMS-007		Full AC Upgrade	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
485	TMS-008			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
486	TMS-009			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
487	TMS-010			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
508	Tomlison MS					\$0	\$0	\$44,000	\$396,000	\$0	\$0	\$82,500	\$1,052,247	\$66,853	\$921,707	\$0	\$38,282	\$1,378,530	\$2,130,787	\$6,110,906	\$579,267	\$5,531,639
	Fairfield Ludlowe HS																					
509	FLHS-001	Yes	Tennis Court Replacement (NR)	0		\$0	\$0	\$55,000	\$495,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$550,000	\$0	\$550,000
510	FLHS-002	Yes	Emergency Generator Replacement (NR)	0		\$0	\$0	\$0	\$0	\$224,972	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$224,972	\$0	\$224,972
511	FLHS-003		Renovate Student Bathrooms NR	0		\$0	\$0	\$0	\$0	\$2,374,580	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,374,580	\$0	\$2,374,580
512	FLHS-004		AC Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
513	FLHS-005		Artificial Turf Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$1,549,779	\$0	\$1,649,779	\$0	\$1,649,779
514	FLHS-006		BMS Control Upgrades	0		\$0	\$0	\$0	\$0	\$1,968,505	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,968,505	\$0	\$1,968,505
515	FLHS-007		Partial Roof Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,194	\$224,720	\$0	\$0	\$231,913	\$54,481	\$177,432
516	FLHS-008	Yes	Elevator Modernization	0		\$0	\$0	\$0	\$0	\$0	\$265,329	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$265,329	\$0	\$265,329
517	FLHS-009			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
518	FLHS-010			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
539	Fairfield Ludlowe HS					\$0	\$0	\$55,000	\$495,000	\$4,568,057	\$265,329	\$0	\$0	\$0	\$7,194	\$224,720	\$100,000	\$1,549,779	\$0	\$7,265,078	\$54,481	\$7,210,597
	Fairfield Warde HS																					
540	FWHS-001	Yes	Fitts House HVAC RTU#1 Replacement (NR)	0		\$0	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30,000	\$0	\$30,000
541	FWHS-002		New A/C for Cafeteria	0		\$0	\$0	\$0	\$0	\$1,687,290	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,687,290	\$0	\$1,687,290
542	FWHS-003		Fitts House HVAC RTU#2&3 Replacement	0		\$0	\$0	\$0	\$0	\$0	\$1,094,485	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,094,485	\$0	\$1,094,485
543	FWHS-004		Renovate Bathrooms	0		\$0	\$0	\$0	\$0	\$0	\$0	\$144,703	\$4,855,297	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000,000	\$0	\$5,000,000
544	FWHS-005		New Windows Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$315,000	\$4,177,115	\$0	\$0	\$0	\$0	\$4,492,115	\$1,055,279	\$3,436,836	
545	FWHS-006	Yes	Replace Boiler/ Burner NR	0		\$0	\$0	\$0	\$0	\$0	\$0	\$25,000	\$318,862	\$0	\$0	\$0	\$0	\$0	\$0	\$343,862	\$0	\$343,862
546	FWHS-007		Knapps Hwy Tennis Courts & Basketball Courts	0		\$0	\$0	\$0	\$0	\$0	\$0	\$30,416	\$387,946	\$0	\$0	\$0	\$0	\$0	\$0	\$418,362	\$0	\$418,362
547	FWHS-008		HVAC BMS Controls Upgrades	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
548	FWHS-009		Artificial Turf Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$1,549,779	\$0	\$1,649,779	\$0	\$1,649,779
549	FWHS-010		Partial Roof Replacement	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,194	\$224,720	\$0	\$0	\$231,913	\$54,481	\$177,432
550	FWHS-011		AC Project	0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
570	Fairfield Warde HS					\$0	\$0	\$30,000	\$0	\$1,687,290	\$1,094,485	\$200,119	\$5,877,105	\$4,177,115	\$7,194	\$224,720	\$100,000	\$1,549,779	\$0	\$14,947,806	\$1,109,759	\$13,838,047
	Walter Fitzgerald Campus																					
570	WFC-001		Purchase of Walter Fitzgerald Campus Building - 108 Biro	0		\$0	\$0	\$0	\$500,000	\$5,674,300	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,174,300	\$0	\$6,174,300
571	WFC-002		BMS Controls	0		\$0	\$0	\$0	\$0	\$0	\$0	\$11,328	\$144,481	\$0	\$0	\$0	\$0	\$0	\$0	\$155,809	\$0	\$155,809
572	WFC-003			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
573	WFC-004			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
574	WFC-005			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
575	WFC-006			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
576	WFC-007			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
577	WFC-008			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
578	WFC-009			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
579	WFC-010			0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
600	Walter Fitzgerald Campus					\$0	\$0	\$0	\$500,000	\$5,674,300	\$0	\$11,328	\$144,481	\$0	\$0	\$0	\$0	\$0	\$0	\$6,330,109	\$0	\$6,330,109
601	Waterfall Total					\$0	\$0	\$2,496,587	\$23,394,043	\$14,743,294	\$28,051,999	\$5,938,808	\$34,406,920	\$37,009,466	\$58,805,579	\$35,573,199	\$959,511	\$15,784,415	\$6,540,770	\$263,704,591	\$44,012,343	\$219,692,244

Fairfield Public Schools 10-year Waterfall

ROW	Project #	Non-Reoccurring		Priority	School Priority	Fiscal Year																
						2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030 - 2033	Project Total	OSCGR Reimbursement	Estimated District Share
			YEAR					2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030 - 2033			
	602	Capital Projects							\$2,050,060	\$20,535,520	\$13,439,378	\$26,790,300	\$5,676,384	\$30,838,921	\$35,670,678	\$57,723,147	\$33,269,270	\$752,136	\$12,407,153	\$1,797,368		
	603	Non-Reoccurring Projects							\$446,527	\$2,858,523	\$1,303,916	\$1,261,699	\$262,424	\$3,567,999	\$1,338,788	\$1,082,432	\$2,303,928	\$207,375	\$3,377,263	\$4,743,402		
		OSCG&R Reimbursement - TOTAL							\$0	\$5,188,300	\$407,513	\$6,030,678	\$1,211,826	\$6,000,878	\$1,667,246	\$12,466,597	\$8,289,409	\$0	\$2,003,357	\$746,538		
		OSCG&R Reimbursement - CAPITAL							\$0	\$5,188,300	\$407,513	\$6,030,678	\$1,211,826	\$5,895,865	\$1,551,835	\$12,466,597	\$8,034,181	\$0	\$1,858,505	\$434,259		
		OSCG&R Reimbursement - NON-RECURRING							\$0	\$0	\$0	\$0	\$0	\$105,013	\$115,411	\$0	\$255,228	\$0	\$144,852	\$312,278		

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## Appendix 2

Districtwide Air Conditioning Upgrade Project - Phases 1 through 5 - Cash Flow								Project Total	OSCGR Reimbursement	Estimated District Share
	22/23	23/24	24/25	25/26	26/27	27/28	28/29			
Phase One										
North Stratfield Elementary School	\$940,485	\$4,232,180	\$4,232,180					\$9,404,844	\$2,209,367	\$7,195,477
Osborn Hill Elementary School	\$595,261	\$5,357,344						\$5,952,604	\$1,398,374	\$4,554,230
Fairfield Woods Middle School	\$734,399	\$3,304,798	\$3,304,798					\$7,343,995	\$1,725,237	\$5,618,758
Phase Two										
Tomlinson Middle School		\$232,264	\$1,045,159	\$1,045,159				\$2,322,583	\$545,616	\$1,776,966
Phase Three										
Fairfield Ludlowe High School			\$2,259,278	\$6,777,835	\$6,777,835	\$6,777,835		\$22,592,783	\$5,307,451	\$17,285,332
Phase Four										
Fairfield Warde High School				\$2,615,631	\$7,846,891	\$7,846,891	\$7,846,891	\$26,156,305	\$6,144,587	\$20,011,718
Phase Five										
Walter Fitzgerald Campus						\$275,635	\$2,480,715	\$2,756,350	\$647,516	\$2,108,834
Total Yearly A/C Project Cost	\$2,270,145	\$13,126,585	\$10,841,415	\$10,438,625	\$14,624,727	\$14,900,362	\$10,327,606	\$76,529,465	\$17,978,149	\$58,551,316
ARPA Grant Funding	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0			
ESSER2 Grant Funding	\$116,320	\$0	\$0	\$0	\$0	\$0	\$0			
Capital Funding	\$1,153,825	\$13,126,585	\$10,841,415	\$10,438,625	\$14,624,727	\$14,900,362	\$10,327,606			
Phase One Total	\$22,701,443									
Phase Two Total	\$2,322,583									
Phase Three Total	\$22,592,783									
Phase Four Total	\$26,156,305									
Phase Five Total	\$2,756,350									

# **Fairfield Board of Education Proposed Capital Project 2022-2023**



**Fairfield Warde High School Fitts House  
HVAC RTU Replacement**

**Approved by the Board of Education on February 3, 2022**



**Fairfield Public Schools  
2022-2023  
Capital Projects**

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<u>Location</u>	<u>Project</u>	<u>Estimated Cost</u>	<u>Page</u>
<b>Capital Project</b>			
Districtwide	Fitts House HVAC RTU Replacement (3) Project	\$ 1,094,485	1
<hr/>			
<b>Total</b>		<b>\$ 1,094,485</b>	





## Fairfield Warde High School

### Fitts House HVAC RTU Replacement (3) Project

**\$1,094,485**

Background: The existing Fitts House building houses four large HVAC Rooftop units that were installed around 1991. Two are 40-ton units, and two are 30-ton units. One of the 40-ton units and both of the 30-ton units are beginning to fail, and we are experiencing trouble keeping the units running for the occupants of the school building. As we continue to repair the units, the cost of keeping them up and running is escalating. We have reached a point where the existing units cannot meet the requirements to provide mechanical means of fresh air, heating, and cooling for a portion of the Fitts House building. This request is for funding the removal of the existing rooftop equipment and the installation of new Trane Voyager rooftop HVAC units. The decision was made to replace all existing units because of their condition, and by completing the replacement of all three at the same time, we will streamline the process and save funding.

Purpose & Justification: The existing HVAC rooftop units are deteriorating and failing on a regular basis. We can no longer obtain parts and circuit boards for replacement. These HVAC rooftop units are essential for the mechanical means of providing fresh air, heating, and cooling for portions of the Fitts House building where the school students and staff are located. Without this unit, the space temperature would be uncontrollable, making this area of the building unusable.

Detailed Description: This expenditure would cover the total cost of the project. This would include all labor and material, a 300-ton crane, roof work, controls, and start-up and testing. These funds would also cover the administrative construction costs for a licensed professional engineer and a contingency for unforeseen conditions that might arise during the construction activities.

Estimated Cost: The cost of this funding request is \$1,094,485. This number is based on estimates provided by several professional licensed contractors and from a professional licensed engineering firm in CT.

Long Range Costs: These new HVAC rooftop units with more recent technology are expected to last 30 years. Long-range costs would only relate to general HVAC preventative maintenance.

Demand on Existing Facilities: This project would reduce maintenance costs with a new system performing better than the existing system, virtually no downtime, new equipment energy use techniques and efficiency, and the latest technology with up-to-date configurations.

Security, Safety, and Loss Control: This project would enhance safety and loss control by drastically reducing the risk of failure to the equipment and the overall use of the Fitts House building for all the students and staff. With the current pandemic, we realize the need for adequately running HVAC equipment to serve our students and staff.

Environmental Considerations: Not applicable.

Funding, Financing & SDE Reimbursement: This project would not proceed without funding approval. There are no State or Federal regulations that require this project to be undertaken. This project is not eligible for reimbursement through the State Department of Education, Bureau of School Facilities.

Schedule, Phasing & Timing: The schedule is to have all this work done in the summer of 2022 and completed for school to open for the new year in September of 2022.

Other Considerations: The work will be bid out by the Town Purchasing Department and will be performed by outside professional licensed contractors.

Alternates to the Request: The alternative to this request is to do nothing. This alternative will delay this needed replacement and further delay other similar projects scheduled in the BOE future planning. This could increase the risk of injury to students and staff that need this space for teaching and learning and may shut down the space for use.

**General Information**

Initiation Date: 7/1/21  
Project No: FWHS-003  
Project Name: Fitts House HVAC RTU#1,2&3 Replacement

**Non-Reoccurring Status**

Project Description: 1/20/21 increased amount

Status:

**Project Budget**

Design Budget:	\$82,500
Construction Budget:	\$825,000
Construction Escalation:	\$67,320
Total Construction Budget:	\$892,320
Estimated Construction Start:	7/1/2023
Miscellaneous Fees and Expenses:	
- State Permits (.0026%)	\$2,320
- Testing & Inspections	\$0
- Advertising	\$0
Construction Admin	\$8,923
Commissioning	\$8,923
Other	\$0
Subtotal Fees & Expenses:	\$20,166
Project Subtotal	\$994,986
Project Contingency 10%	\$99,499
Total Budget	\$1,094,485

OSCGR Eligible?

**OSCGR Reimbursement****Action Items**

1.00

**Project Priority Ranking**

- Security	0
- Severity of Condition	0
- Code/Statutory	0
- Programmatic Need	0
- Constructability/Sequencing	0

## Capital Projects Summary

### 2022 -2023 Projected Cash Requirements

Exhibit 1 - PROPOSED Capital 2022 - 2023	\$19,018,088
Exhibit 2 - APPROVED Non-Recurring Capital 2022 - 2023	\$3,609,525
Exhibit 3 - APPROVED Capital 2021 - 2022	\$10,320,909
Exhibit 4 - APPROVED Non-Recurring Capital 2021 - 2022	\$3,950,000
<b>Total</b>	<b>\$36,898,522</b>

### Allocation of 2022 - 2023 Projects by Entity (from Ex 1 and 2 above)

Town	\$14,617,604
Board of Education	\$3,510,009
WPCA	\$4,500,000
<b>Total</b>	<b>\$22,627,613</b>

### AVERAGE Annual Target Allocations (for Reference)

Town	\$12,500,000
Board of Education	\$12,500,000
WPCA	\$5,500,000
Contingency	\$7,000,000
<b>Total</b>	<b>\$37,500,000</b>

		Exhibit 1			For Future Issuance Post-2022
<u>PROPOSED Capital Projects - 2022-2023</u>		<u>Total</u>	<u>Other Source</u>	<u>NET Cost</u>	
<u>For Authorization Before June 1, 2022</u>					
Cons	Railroad Bridge Tide Gates	\$2,250,000	\$0	\$2,250,000	\$20,429,855
Police	Radio System (Infrastructure and Pub Safety Users)	\$7,000,000	(\$3,500,000)	\$3,500,000	
DPW	Town-wide Facility Upgrades (Life-Safety Issues)	\$3,083,778	(\$1,134,000)	\$1,949,778	
DPW	Solid Waste Transfer Station Repairs	\$450,000	\$0	\$450,000	
Rec	Roger Ludlowe Middle School Turf	\$4,120,000	\$0	\$4,120,000	
BOE	Fitts HVAC Project	\$1,094,485	\$0	\$1,094,485	
BOE	HVAC (N Stratfield, Osborne Hill, FFld Woods - <b>\$22.7 MM total authorization</b> )*	\$2,270,145	(\$1,116,320)	\$1,153,825	
WPCA	East Trunk - Wetland Crossing	\$2,400,000	\$0	\$2,400,000	
WPCA	Fairfield Beach Road Pump Station	\$2,100,000	\$0	\$2,100,000	
<u>For Authorization After June 1, 2022</u>					
Eng	Black Rock Turnpike Improve. Construct.	\$2,000,000	(\$2,000,000)	\$0	\$26,954,245
Eng	Kings Highway Phase III Construction	\$2,060,000	(\$2,060,000)	\$0	
Town	Remediation - (Fill Pile, Penfield, Other Sites)	\$4,500,000	(\$4,500,000)	\$0	
Town	Penfield Construction (Est Total - \$7 - \$10 million)	\$4,000,000	\$0	\$0	
BOE	Riverfield ES Roof	\$1,848,557	(\$372,340)	\$0	
BOE	Sherman ES Roof	\$1,370,014	(\$321,841)	\$0	
WPCA	I & I Study and Removal	\$1,854,000	(\$1,854,000)	\$0	
<b>PROPOSED Total Capital - 2022-2023</b>		<b>\$42,400,979</b>	<b>(\$16,858,501)</b>	<b>\$19,018,088</b>	

\* This funding represents the design portion of a \$22.7 million AC Upgrade project that will take place over multiple years. \$1 million of FY23 grant amount is from Town ARPA funding. \$116k is from BOE ARP ESSSR.

**Exhibit 2**

<b><u>APPROVED Non-Recurring Capital - 2022-2023</u></b>		<b><u>Total</u></b>	<b><u>Other Source</u></b>	<b><u>NET Cost</u></b>
Fire	Self Contained Breathing (SCBA - 10-yr Bond)	\$358,445	(\$241,818)	\$116,626
Eng	Underwater Bridge Inspection and Repairs (10-yr Bond)	\$150,000		\$150,000
Cons	Pine Creek - McCleary Tidegate Repair	\$500,000		\$500,000
Cons	Riverside Creek Tidegate Repair	\$453,200		\$453,200
Eng	Increase Resiliency AC Open Space-Jennings Beach - Design	\$250,000		\$250,000
Parks	Lake Mohegan - Restoration from Storm Ida Damage	\$500,000	(\$375,000)	\$125,000
Rec	Tennis Center Light Replacement	\$100,000		\$100,000
Rec	Jacky Durrell Pavilion Upgrades	\$103,000		\$103,000
Rec	Post-Tension Tennis Courts - Dwight	\$550,000		\$550,000
BOE	Burr - Boiler Burner Replacement	\$996,370		\$996,370
BOE	FLHS - Elevator Modernization	\$265,329		\$265,329
<b>APPROVED Non-Recurring Capital 2022-2023</b>		<b>\$4,226,344</b>	<b>(\$616,818)</b>	<b>\$3,609,525</b>



**Exhibit 3**

<b><u>APPROVED Capital Projects - 2021-2022</u></b>		<b><u>Total</u></b>	<b><u>Other Source</u></b>	<b><u>NET Cost</u></b>
DPW	Capital Equipment (Trucks)	\$1,190,000	\$0	\$1,190,000
Town	Gould Manor (Two Authorizations)	\$1,395,000	\$0	\$1,395,000
ENG	Commerce Drive Bridge Construction	\$3,700,000	(\$3,700,000)	\$0
ENG	Duck Farm Road Bridge	\$3,729,800	(\$2,983,840)	\$745,960
Fire	Fire Alerting System	\$196,192	\$0	\$196,192
BOE	RLMS Roof and Sherman	\$2,991,607	(\$600,000)	\$2,391,607
BOE	FLHS Building Automation (\$853k in BANs)	\$1,750,000	\$0	\$1,750,000
BOE	School Roof Replace & Bath Reno	\$2,652,150	\$0	\$2,652,150
Town	Remediation - (Fill Pile, Penfield, Other Sites)	\$8,000,000	(\$8,000,000)	\$0
<b>APPROVED Capital Projects - 2021-2022</b>		<b>\$25,604,749</b>	<b>(\$15,283,840)</b>	<b>\$10,320,909</b>

**Exhibit 4**

<b><u>APPROVED Non-Recurring Capital - 2021-2022</u></b>		<b><u>Total</u></b>	<b><u>Other Source</u></b>	<b><u>NET Cost</u></b>
DPW	Independence Hall Office Renovations	\$500,000		\$500,000
DPW	Town-wide Facility Audit/Plan	\$400,000		\$400,000
DPW	Police Department - New HVAC	\$500,000		\$500,000
DPW	Flood Control Study (W. Jenn Bch to Rickards Dune)	\$100,000		\$100,000
Eng	Town-wide Guard Rail and Fencing	\$200,000		\$200,000
Eng	Black Rock Tpke Design	\$250,000		\$250,000
Eng	Road Safety Improvements	\$250,000		\$250,000
Eng	Congress St. Bridge Design (Add'l for new bridge)	\$150,000		\$150,000
Eng	Culvert Repair - Reef Road	\$100,000		\$100,000
Fire	Pumper - LSN 11	\$725,000		\$725,000
Rec	Lake Mohegan Splash Pad Replacement	\$150,000		\$150,000
BOE	Rebalance of Mech Systems	\$625,000		\$625,000
<b>APPROVED Non-Recurring Capital 2021-2022</b>		<b>\$3,950,000</b>	<b>\$0</b>	<b>\$3,950,000</b>



## Town of Fairfield



### Assessed properties:

- Fire Station #1
- Fire Station #2
- Fire Station #3
- Fire Station #4
- Fire Station #5
- Public Works Garage
- Animal Control
- Main Library
- Fairfield Woods Library
- Eunice Postol Recreation Center
- Police Department
- Operation Hope
- Penfield Pavilion
- Old Town Hall
- Sullivan Independence Hall
- Burr Mansion
- Bigelow Senior Center

# Capital Needs Assessment Report

The report analyzes the current facilities and grounds regarding code compliance, accessibility (ADA), and on-going and future maintenance needs.

**February 8, 2022**



**SILVER/PETRUCELLI+ASSOCIATES**  
*Architects / Engineers / Interior Designers*

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# SECTION I – INTRODUCTION

## Acknowledgements

Silver Petrucelli & Associates would like to thank the City of Fairfield and the Department of Public Works for the opportunity to serve the city with the preparation of this study. We would also like to thank the employees of Fairfield for their enthusiasm, helpfulness, and input.

## Report Overview and Purpose

This report is the result of a study by the City of Fairfield to determine and assess the current conditions of 17 buildings.

The report analyzes the current facilities and grounds regarding code compliance, accessibility (ADA), and on-going and future maintenance needs.

The issues addressed in this report include the assessment of the current conditions of each building. The conditions include a broad range of building, accessibility, and fire code conformance, including accessibility and the Americans with Disabilities Act guidelines for barrier-free buildings (Title II ADA), health and life safety issues, mechanical, electrical and plumbing system conditions, site, technology and on-going and long-term maintenance issues. These concerns are addressed and are included in this report. The conditions are assigned a priority ranking and specific conceptual cost. This Capital Needs Assessment is the first tool to aid in the creation of a Master Plan.

The code compliance effort has been undertaken to determine the relative compliance of the facility and their architectural, mechanical, plumbing, fire protection or electrical systems with the current building and life safety codes. The State of Connecticut's Building, Fire, and Health Codes as well as Federal OSHA and Americans with Disabilities Act (ADA) requirements are incorporated into the review of the facility. The Connecticut Fire Safety Code is the only retroactive and "immediately" enforceable code. The balance of the code conditions noted are "prescriptive" and apply to future projects with local and state authorities having jurisdiction. Should any of the code conformance or renovation work disturb existing hazardous materials or systems, the required abatement work would need to be performed.

*This report was prepared by the architectural and engineering firm of Silver Petrucelli + Associates, Inc., (S/P+A) of Hamden Connecticut, a firm specializing in municipal programming, planning and design, feasibility analyses and building condition investigations including building envelope surveys, window and roof repair and replacements.*

## **Process**

S/P+A gathered the information in this report through walk throughs of each building and associated discussions with various members of the department.

Architects, mechanical and electrical engineers conducted extensive on-site facility evaluations and investigations. City records including many of the buildings floor plans and construction documents were also reviewed.

This data was organized and appears in sections of this report in the form of building condition narratives and matrices detailing the specific code, repair or maintenance issues or deficiencies, with suggested recommendations including corrective actions, prioritization, and associated cost estimates.

## **Codes**

The following is a list of the current building codes which are applicable for the State of Connecticut, and these codes were used as the basis for the code review for this study. Please note that not all of these codes have been thoroughly reviewed for this study, but major codes with significant cost and life safety implications were reviewed.

### **State and Federal Codes**

Current Building Codes

State of Connecticut

Effective October 1, 2018

2015 International Building Code

2009 ICC/ANSI A117.1 Accessible and Usable Buildings and Facilities

2015 International Existing Building Code

2015 International Plumbing Code

2015 International Mechanical Code

2015 International Energy Conservation Code

2017 NFPA 70, National Electrical Code, of the National Fire Protection Association Inc.

2015 International Residential Code of the International Code Council, Inc.

2010 Americans with Disabilities Act (ADA)

- Title I Employment
- Title II Government Facilities
- Title III Public Accommodations

As the codes are updated, they will affect the pertinence of the information contained in this report, and the facilities should be reviewed for the applicable changes in the codes, revising the report accordingly. Most importantly, the codes that are in effect at the time building permits are obtained by a Contractor are the ultimate determinant codes, so changes in the codes and their adoption dates should be closely monitored and planned for.

The building was surveyed to determine compliance with current fire safety, building and

health codes and regulations. Most areas of the buildings were investigated, and mechanical, plumbing and electrical violations range from inaccessible (not ADA compliant) plumbing fixtures to inadequate combustion air provisions. The violations observed are noted within the document.

This report is preliminary in nature and not a Construction Document but represents a reasonable accounting of most significant code challenges at this building. However, the definitive determination of code compliance lies in a set of construction documents ready for permitting with the local authorities, primarily the Building Official, Fire Marshal, 504/ADA Coordinator, and Regional Health Director.

## **Report Findings**

This report clearly identifies the needs which will assist the department in determining how to continue with these buildings. Overall, many of the physical needs arose out of the facility capital needs assessment. All the buildings need some physical improvements and upgrades. The recommendation herein is to proceed with focused improvements.



## SECTION II – FACILITY CONDITIONS ASSESSMENT

The facility conditions assessment is the visual inspection of the physical building and its grounds. This analysis reviews code compliance, accessibility (ADA), health and life safety issues, mechanical, electrical systems, plumbing systems, civil, technology, environmental hazards, and on-going and future maintenance needs. This comprehensive review evaluates the needs of each building.

A team of architects and engineers conducted these extensive on-site facility evaluations and investigations. Each evaluation was conducted with a member of the department present. Facility condition assessments were prepared after the field surveys were conducted. The existing facility and grounds were surveyed by architects and engineers regarding site, exterior envelope, interior building, mechanical, electrical, fire protection and plumbing systems.

These field surveys generate this section and include narratives and cost matrices. The building narratives for each station describe the conditions reviewed and call out the items that should be addressed. The matrices detail each condition and are organized by category; site, exterior, interior, plumbing, mechanical and electrical. The first column contains a tag number, then the assessment, then a possible code reference may be

LEGEND PRIORITY - RANK

1	Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.
2	High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.
3	Moderate priority - These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.
4	Low priority - These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.

listed when applicable. Next, these issues are ranked on a scale from 1 to 4 with 1 being the most urgent.

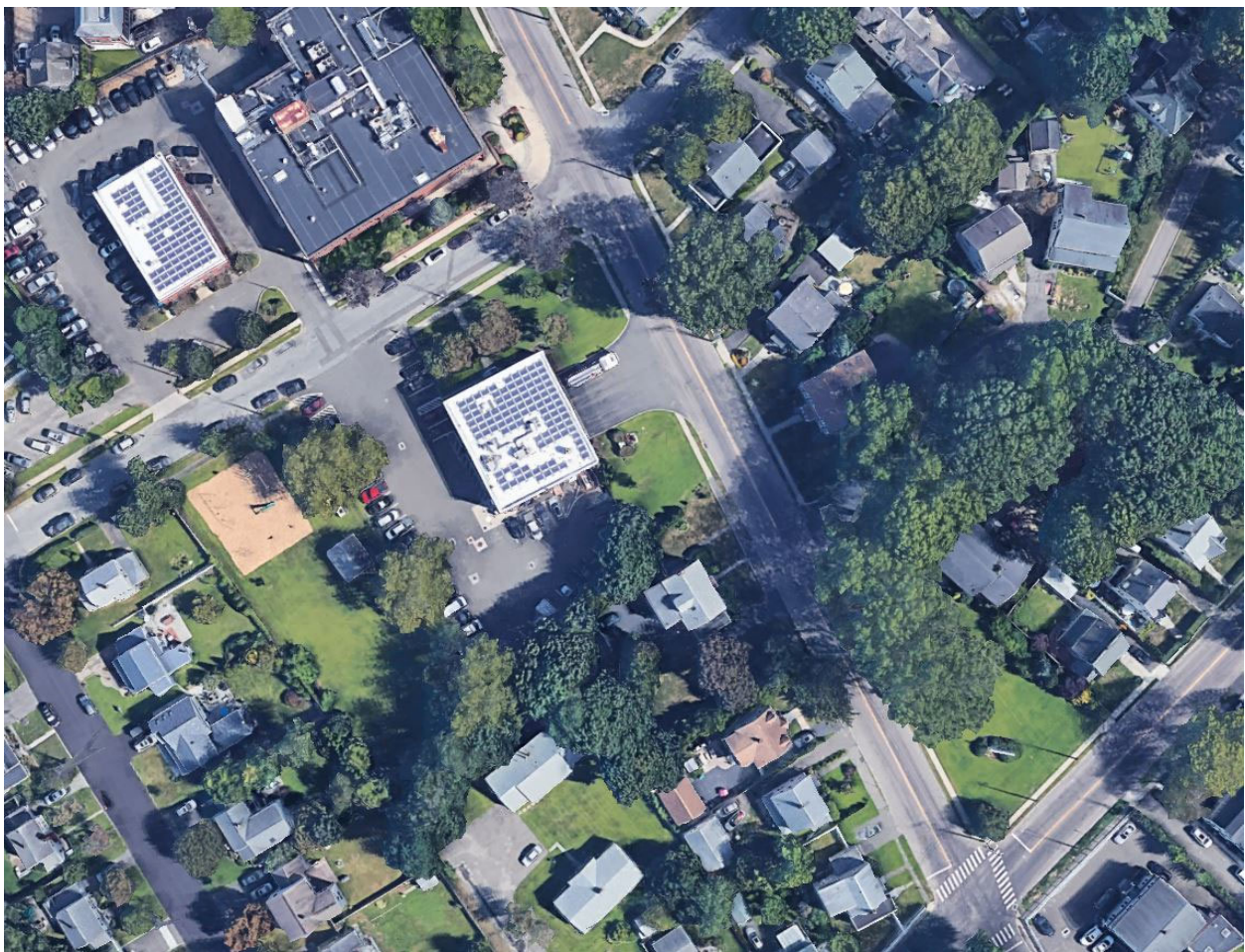
A corrective action or suggestive recommendations to the specific code, repair, maintenance, or deficiencies are provided to address these issues. Associated cost estimates are also prepared for the applicable items. The remarks column may list any additional information such as how cost was derived or additional options.

The facility conditions assessment provides the design team with a vital understanding of these buildings, and it provides the client with a better understanding of their building's issues. It also helps to prioritize their needs and understanding of the potential costs that can be incurred moving forward. This type of assessment is truly the first step in this process.

## Fire Station #1 – 140 Reef Road

Fire Station #1 was constructed in 1954. This 11,360 square foot building is the largest fire house and one of the most updated structures out of all fire stations. This station is the Headquarters for the department and additionally houses the Fire Marshall offices on the second floor.

Fire Station #1 is located on 140 Reef Road, on the corner of Nichols Street and Reef Road. The building is situated on about 1.5 acres and consists of a three-bay garage, located on the northeast side of the lot. Vehicular parking is located on the opposite side of the building. Landscape and vegetation take up about 40 percent of the lot creating a separate from the driveway for the fire trucks and the parking lot.



### Architecture

Overall Fire Station #1 is in good condition. Having been built in the 1950s, the construction of the building is brick masonry with a combination of interior materials such as masonry and plaster. The layout of the building is well organized and is working to support the department. The building's program consists of the three-bay apparatus



garage, kitchen, lounge area, locker room, and officers' room on the main level. The second floor consists of a weight room, restrooms, dormitory, conference room, Chief's office, and Fire Marshall offices.

### **Exterior Building Envelope**



This two-story facade is in good condition. The exterior brick walls of the fire station are generally in good condition, with a limited areas of settling and spalling. The building is constructed with brick "veneer" with no air space evident. The energy efficiency of this construction is very low, and typical in the 1950s ("pre-energy crisis"), and not one that is easily or readily corrected. There are limited areas which will eventually require repointing or repairing, most notably on the lower portions of the wall near grade. Overall, the building's envelope is in good condition, considering its age.

## Windows

When evaluating the energy efficiency of a building, it is known that nearly 25–40% of all heat energy is lost through windows. The second-floor windows are original and should be replaced. The first floor's windows have been replaced when the previous renovation occurred. The windows located on the first floor were recently worked on, however, the window east of the garage bays (see left photo) is in poor condition. Due to a miscommunication in measurements, the surrounding window trim is too small for the perimeter. Its also is revealing blocking at the bottom of the window. In addition, they have taken some damage due to wear and tear, weather conditions, etc. In order to maintain the integrity of the wall this trim should be repaired or replaced.



## Doors

There are a variety of exterior doors. First and foremost, there are 6 large overhead doors (3 per side). These garage doors were recently replaced or refinished. Other standard doors are in fairly good condition. One of the exterior door's finish is beginning to fail. There is a large vertical tear and similar issues to the window trim are also noted around this door. This door should be replaced.





## Roof

This single ply roof, Thermoplastic Polyolefin (TPO) was replaced in 2006. There is time until another replacement (5-15 years) depending on the warranty duration. It appears that the strainers on the roof have not been cleaned in a long time. This is creating some ponding on the roof, increasing risk for leaks in the building. The roof strainers should be clean at least twice a year, as a maintenance priority.

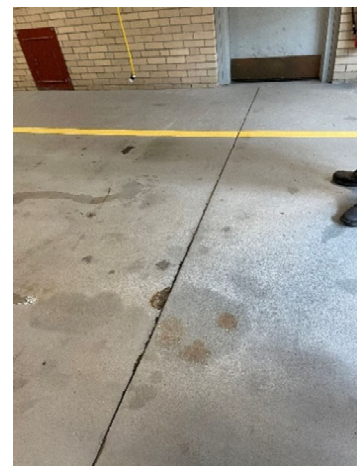


After the roof was replaced, solar panels were installed shortly after. The solar panels are mounted on sled-ballasted blocks, as you can see from the photograph above. There are multiple blocks that are cracked. If the blocks fall apart, the solar panels may become loose. These should be replaced as soon as possible. The hatch (as seen in the above photo) is unfortunately not to code. The International Building Code requires the building hatch to be "no less than 16 square feet in area with having a minimum dimension of 24 inches". In relation to the hatch, the roof ladder was not to code. OSHA states in section 1910.23 that individual rung ladder should be spaced out 7 inches, from the centerline of the rung to an object such as a wall or a hatch. This ladder gives about 1 inch of space from the hatch, giving no room to place a foot or hand on that specific part of the ladder. In addition to the condition of the ladder, the safety post installed to the right of the ladder is quite unstable so it would be recommended to install a new post or to re-fasten it to the ladder.

## **Interior Conditions**

The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. Given the building's age, its interior is well maintained, however, it needs some improvements concerning building codes and ADA standards.

## **Floors**



There are a variety of materials that are used in this building. The majority of the first floor is made of a plain concrete slab which is seen in the apparatus floor. Limited stains and cracks were noted. Vinyl Composition tile (VCT) is installed in all the livable areas such as the officers' rooms and locker rooms. Quarry tile is installed in the kitchen and is in fair condition. Some restrooms have older ceramic tile which is also in fair condition. There are some 9x9 vinyl asbestos tiling (VAT) tiles that will need to be tested for abatement. There is carpet in the dormitory and living area. This is nearing the end of its life expectancy and should be replaced soon.

## **Walls**

The interior walls consist of a variety of different materials from brick, concrete masonry units, tile, gypsum wall board, plaster, and fiberglass reinforced panels (FRP). All materials are in pretty good condition. With the renovation of the first floor, there is minimal work to be done to the walls. On the second floor there are multiple small items that need to be resolved. There are some areas that need repatching or repair work.



## **Ceilings**

Ceilings throughout the building consists of hard ceilings made from plaster or gypsum wall board and dropped acoustical ceiling tile (ACT). Hard ceilings in the stairs could use some paint where lights have been changed. There are a portion of ACT that have been stained, broken, or are missing. If the tiles are damaged due to water, they should be replaced and inspected behind to determine if there is an underlying issue with leaks. Tiles that are missing expose wires and mechanical equipment and should be fixed. Some window heads at the ceiling level also have peeling paint and should be rectified within the window replacement project.

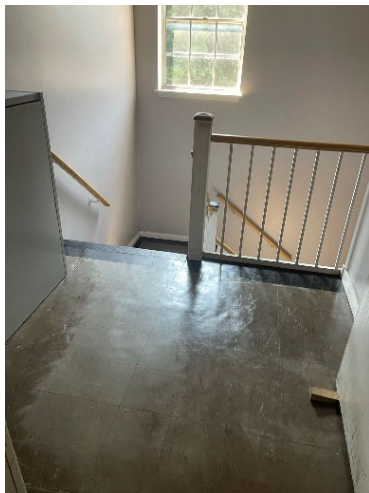


## **Doors**

Most of the doors inside are wood doors set within wood frames. They are in good condition structurally but cosmetically they show wear and tear. These doors should be painted. Most of the door hardware is dated. The knobs require twisting and do not meet American Disability Act requirements. The hardware should be changed.

## **Stairs**

There are two stair towers in the fire house serving as means of egress, located on the eastern and western sides of the building. The first staircase located on the eastern side of the building was renovated and the abatement of the 9x9 tiles was taken care of. The floor was replaced with rubber flooring. The western staircase still occupies the 9x9 tiles which the fire department claims it will be abated in the near future. In both staircases the handrails do not meet code requirements and should be replaced or modified to accommodate the correct heights and extensions.



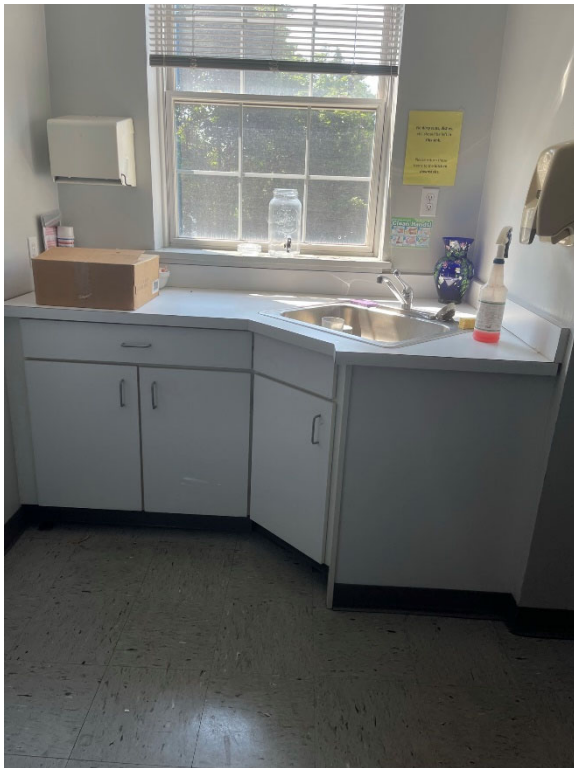


## **Restrooms**

There are multiple restrooms throughout the station. Some have been renovated and some are in the process of being designed for renovation. Most restrooms are original with the original fixtures and tile. Some existing urinals are floor mounted which is no longer code compliant. These should be changed out for newer models. Some of the older toilet partitions are nearing the end of their useful life. It is understood that the first-floor restroom will be renovated into an ADA compliant restroom. However, the same should be applied to restrooms on the second floor. There should be an ADA compliant restroom and shower stall provided for each gender. This should be included in a long-term capital plan.

## **Casework**

Most of the casework throughout the facility is in fair condition. However, none have accessible knee spaces with countertops at 2'-10" high.



## **Building Code and ADA**

As noted within many of the sections, there are multiple code and accessibility issues within this building. Door hardware, stair handrails, the roof ladder, ADA restrooms and showers and casework were previously noted. Other issues are with certain spatial clearances within rooms and at doors. The required maneuvering clearances at doors is not always present in every location. These spaces should be adjusted to accommodate these accessibility clearances. Where they can not be modified a power assisted door

operator should be installed. Another issue with this building is access to the second floor. An elevator should be required at this building to gain access to the program on the second floor. Offices and dormitory spaces need to be accessible to all. Many ADA accessibility issues were noted at this facility. This is a common occurrence given the age of the building. These items should be included in the long-term capital plan.

## **Plumbing**

The gas service is routed from the gas main in Reef Road to a gas meter located on the outside in the front of the building. One gas meter serves the boiler and the domestic water heater and kitchen range. Exterior gas piping is rusting and corroding.

Domestic water service is fed from Aquarion's public utility water mains, there are no wells, water pressure is good and routed from Reef Road to the basement. Domestic water piping is copper with soldered joints and provided with insulation. Domestic water shutoff valves are gate type and don't tend to last, consider replacing with ball valves. Exterior wall hydrants are not freeze proof type and are broken. There is a 1-1/2" water line feeding a fire hose line in the garage with a backflow preventer. Testing and inspection weren't present. Hose bibbs were missing vacuum breakers. Insulation is missing around the piping in some locations. Some piping is corroding.

### **Drainage Systems**

The roofs are drained pitched to roof drains and interior storm piping to a site municipal collection system. There is a parapet on the roof and no way to drain the roof if the rains get clogged. Refer to Architectural Narrative for further information. There is a floor drain in the garage so there is a requirement for an oil water separator.

The building's sewer system is mainly cast iron with some PVC repairs. It discharges underground to a public main in Reef Road to a regional wastewater treatment plant, there are no septic systems. There were no reported clogs or issues. The building was built in the 1950's so original piping is 60 years old or more.

### **Domestic Water Heater**

Domestic hot water serving the building is from a 50-gallon Rheem manufacture natural gas fired storage water with an input capacity of 38,000 BTUH. The unit is in the basement located in the boiler room. The heater was installed in 2020 and is new. There is no hot water recirculating pump, thermal expansion tank and ASSE1017 mixing valve installed. We recommend adding those components for compliance. Insulation was missing around the piping.

### **Plumbing Fixtures**

Existing plumbing fixtures in the building include commercial grade, vitreous china, floor-mounted flush valve type water closets, floor mounted urinals with flush valves, wall mounted lavatories, fiberglass and tiled showers and counter mounted stainless steel kitchen sink. Some fixtures are original to the building and not energy efficient. Plumbing fixtures are not ADA accessible but may not be required as this is a private facility only for able bodied persons.

Additional fixtures in the building include a cast iron service sink in the Apparatus Bay. A laundry indirect drain standpipe located behind the washer and dryer. An emergency eye wash was not located.



### **Recommendations for Repair / Replacement**

- Remove and replace plumbing fixtures with water saver fixtures.
- Provide a thermostatic mixing valve on the water heater.
- Test and inspect backflow preventers.
- Remove and replace exterior hose bibbs.
- Repair and provide insulation on all domestic water piping.
- Paint all exposed exterior gas piping.
- Provide scuppers on roof for secondary or emergency drainage.
- Remove and plug floor drain from apparatus bay.
- Remove and replace all gate valves with ball valves.
- Remove, replace and repair corroding domestic water piping.

## **Fire Protection**

The building is not sprinklered and the town may consider sprinklering it.

### **Recommendations for Repair / Replacement**

- Fully sprinkler the building with new piping and a new fire service from the street.



## Mechanical

### Boiler Plant

The existing boiler, located in the basement, is a cast iron gas fired HB Smith boiler Series 8 with a Power Flame burner. The boiler has an IBR rating of 554,800 BTUH. Based on the serial numbers, the boiler was manufactured in 1987, and has been in operation for over 30 years. Cast iron boilers have a useful life expectancy of 30 years. Products of combustion are vented into the existing chimney through a sheet metal flue. Combustion air appears to be inadequate.

There are four (4) independent zones serving the building. The four (4) zones are fed from individual inline pumps off of the boiler supply manifold. Inline pumps are showing signs of wear and it is unknown when they were manufactured and installed, it is very likely that they were installed the same as the boiler. Inline pumps of this type have a useful life expectancy of 10 years.



The existing steel piping distribution system and associated components are showing signs of wear, they are likely original to the building and should be considered for replacement. There are newer hot water copper pipes with press fittings routed in the basement. Date of installation is unknown; it is likely that copper pipes are less than 20 years old since the pro-press technology were only introduced to the US market in 1999.

The insulation covering the hot water piping are likely original to the building. Piping insulation has a useful life expectancy of approximately 20 years. Sections of existing steel hot water piping and all new copper piping are not insulated.

Surface wall mounted convectors and finned tube radiation fed from the boiler system, provide perimeter heating in occupied spaces. Convectors and finned tube radiation



have useful life expectancy of 20 years. Convectors and finned tube radiation are in fair condition.

### **Basement**

There is no mechanical ventilation provided in the basement.

There is a portable dehumidifier provided in the basement storage. A dehumidifier with fresh air duct connection can be provided in the basement.

### **Air Filtration**

Air King filtration units are recently provided in the sleeping quarters to capture most airborne nuisance particulates. The self-contained filtration unit continuously pull contaminated air through multiple stages of highly efficient filters. The filtered air is then re-circulated back into the space.

### **Cooling and Ventilation**

There are two(2) roof top units providing cooling, heating, and ventilation to the spaces. One unit has a cooling capacity of 8.5 tons and heating input capacity of 180,000 BTUH, serves the administration area . The other unit has a cooling capacity of 5 tons and heating input capacity of 120,000 BTUH, serves the dormitory. Both units are manufactured in 2014 and installed in 2015. With a useful life expectancy of 15 years, these units still have approximately 8 useful years remaining subject to proper maintenance. The unit serving the admin area is mounted on a wood dunnage and is configured for horizontal discharge. The supply and return ductwork are exposed on the roof through the existing duct curbs. The exposed outdoor supply and return ductwork are in poor condition. The unit serving the dormitory is mounted on a roof curb. Both units provide air to the space using a network of distribution ductwork located above ceiling terminating a ceiling mounted supply diffusers and return grilles.

Daikin ductless split heat pump systems have been provided in various spaces in the building. Daikin units were manufactured in 2014. With a useful life expectancy of 15 years, these systems still have approximately 8 useful years remaining subject to proper maintenance. Window and wall mounted air conditioners have been provided in various spaces in the building.



## **Kitchen**

The existing gas stove does not have a commercial kitchen exhaust hood with an Ansul fire protection system. There is also no makeup air for the kitchen, as required by code. Per International Mechanical Code Section 507.1.2, domestic cooking appliances utilized for commercial purposes require Type I hood, domestic cooking appliance utilized for domestic purposes within a commercial setting shall comply with IMC section 505. The

Authority Having Jurisdiction shall determine code compliance for a particular application. A residential hood with UL300A suppression system may be considered for this type of application. However, the use of this type of use shall be approved by the AHJ.

### **Apparatus Bay**

The Apparatus Bay is heated by hot water unit heaters. The unit heaters appear to be original to the building and have exceeded their useful life expectancy of 20 years.

A Nederman tail pipe exhaust system currently removes products of combustion from active vehicles. The exhaust fan is mounted in the wall and exhausts the air through a vent stack which runs up the exterior of the building to above the roof line. We were not able to determine the model, capacity and age of existing system at the time of visit. We are not aware of any issues with this system, however, it was mentioned that a plan is in place to replace/improve all of town of Fairfield fire house tailpipe exhaust systems.

The international Mechanical Code Section 404.2 requires that a minimum of 0.05 cfm per square foot of continuous ventilation be provided and 0.75 cfm per square foot of ventilation air is exhausted when any vehicle is running within the space. In modern installations a CO/NO<sub>2</sub> detection system is installed which triggers the operation of exhaust fan. In addition to this exhaust fan, a means to provide make-up air, either by a separate supply fan or a louvered opening with motorized damper, would be installed to maintain the air balance for the space. Please note that this ventilation requirement needs to be met regardless of whether a tail pipe exhaust system has been installed.

### **Seismic Restraints**

The Fire Station is an essential facility. Buildings categorized as essential must remain operational during and after major disaster type events. There is no seismic bracing of equipment and piping observed throughout the facility. Further study is recommended to determine the seismic requirement of the facility.

### **Underground Storage Tank**

The existing 2,000 gallon diesel fuel underground storage tank was installed in 2011. Underground Storage Tank has life expectancy of 30 years.

### **Recommendations for Repair / Replacement**

- Replace existing boiler and associated near boiler specialties. The new boiler will be high efficiency condensing boiler, with flue and combustion air pipes connected directly to the outdoors.
- Replace in-line pumps.
- Perform ultrasonic testing for the rest of the piping system to determine the rates of corrosion within the pipes. Replace pipes as needed.

- Provide piping insulation with thickness complying with the Energy Code.
- Provide new boiler controls. Controls shall be compatible with the town DDC System.
- Engage the service of a Chemical Service Provider to maintain proper water treatment to the building water loop
- Replace or paint rusted convector and finned tube radiation covers.
- Replace and add unit heaters in the basement.
- Provide basement with dehumidifier with outside air duct connections for ventilation. Provide condensate drain piping terminating to an indirect drain in the basement.
- Replace the roof top unit existing wood dunnage. The new curb should be anchored to the roof structure.
- Replace sections of rusted ductwork and provide external insulation with jacket.
- Provide gas fired cooking appliance with hood with fire suppression system.
- Provide tempered make-up air to the space equivalent to 80% of air being exhausted.
- Replace toilet room exhaust fans.
- Provide exhaust fan and outdoor air to the apparatus bay. Provide with CO/NO2 detection system.
- Replace unit heaters in apparatus bay.
- Provide seismic analysis and calculations to determine facility seismic requirements.

## Electrical

The existing electrical service is made up of a 400 amp 120/208V-3PH-4W Square D main breaker, with integrated C/T cabinet feeding an adjacent 400-amp automatic transfer switch (ATS) located in the Basement of the building. There is a second ATS on the south side of the building near the generator. The generator is an 80KW diesel 120/208V-3PH-4W with a single 300-amp output breaker located behind the building in the south-east corner installed in 1993. In addition to the normal utility service and the generator service, there is a feed coming from the Police Station microgrid. There is also a



photovoltaic system on this building. This is made up of solar panels on the roof feeding two inverters in the basement just to the side when you come down the stairs. The ATS in the basement feeds two adjacent 200-amp main circuit breaker panels. These panels feed lighting and power throughout the building plus additional panels. There are a couple of original electrical panels nearing the end of their useful life along with a (6) circuit fused load center. The generator enclosure is showing signs of age (rusting throughout).





## **Fire Alarm**

The fire alarm system (Fire - Lite #MS-5024 by Honeywell) is located on the wall outside of the bathroom of the Officer's Room (north side). There are manual pull stations at most of the egress doors and the stairs, but not in the basement. The devices appear to meet the current ADA height requirement (top of the pull station handle 48" AFF and the height of the strobe light shall be between 80"-96" AFF). Also, there are audio/visual devices and smoke & heat detectors throughout the building. It is our understanding the system is working without any issues.

## **Lighting**

The existing interior lighting in the building is a mix of recessed fluorescent lensed 2x2 & 2x4 fixtures, recessed down lights, surface mounted wraparound fixtures, recessed 2x2 & 2x4 fixtures w/mini-cube lens, surface mounted industrial fixtures, wall mounted wall wash/vanity fixtures, recessed 2x4 parabolic fixtures, incandescent screw-in socket fixtures and surface mounted 2x4 high output fixtures. These fixtures appear to be in



fair/good

condition and working properly. It is our understanding that the majority of the fixtures have been upgraded with new LED bulbs. There are some fixtures that still have fluorescent or incandescent bulbs. These were areas that the town determined to be low use and would be replaced later as needed. Most of the areas have local toggle type & dimmer switches for control.

The existing exterior lighting for the building is made up of incandescent lantern type, wall mounted "jelly jar" type fixtures, wall mounted LED flood lights and wall mounted round globe light fixtures. We were not able to determine the operation of the exterior fixtures at the time of our inspection.







Emergency lighting for the interior of the building is made up mainly of self-contained twin head emergency fixtures with a few fixtures having an integral battery. In addition to the self-contained battery lights there are combination exit sign/emergency lights, there is also a diesel generator serving the building. Exit signs in the building are made up mostly of thermoplastic signs with red lettering and emergency battery. Most of the exit signs appear to be in fair/good condition and working properly. We are not able to confirm the batteries on the exit signs and emergency lights will operate for the required 90 minutes.

### **Devices**

Existing wiring devices (receptacles & light switches) in the building are a mix of recessed and surface mounted. The devices appear to be in fair/good condition, there are some receptacles that have been painted over, a quad receptacle back box pulled off the wall and some broken cover plates.

### **Telecommunication System**

The existing phone system D-Mark is on the basement (south-east corner) near the main switch & ATS. The main network closet with the racks and headend equipment is on the second floor. It is our understanding there are (3) different versions of phones operating in the building.

### **Recommendations For Repair / Replacement**

- Replace or remove existing fused load center basement along with replacing all (older) panelboards.
- Replace existing wall switches with new occupancy sensors and dimmer switches.
- Add fire alarm manual pull stations in the basement, plus to the first & second floor as required to meet code.
- Install emergency lighting at the exterior of all egress doors to meet current code requirements.
- Replace existing rusted generator enclosure and repair the fuel tank (rust).
- Replace existing exit signs and emergency lights after testing if they do not operate for 90 minutes on battery.
- Replace existing painted receptacles and broken cover plates with new and remount the quad receptacle to the wall. The quad is in the room on the second floor adjacent to the bathroom in the back left corner.
- Replace the broken and rusted bolts on the cover of the exterior transfer switch.
- Replace two older type phones with new phones matching the third phone type in the building.

Fire Station 1 - 140 Reef Road Facility Conditions Cost Estimate										
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING					CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
			4	3	2	1	n/a			
EXTERIOR CONDITIONS										
A01	Brick is spalling or mortar is in need of repointing	General		3				Patch, repair, or replace brick and repoint as necessary.	\$ 25,000	
A02	Second floor windows are original and nearing the end of their useful life	General			2			Replace with energy efficient doubled glazed unit to match 1st floor	\$ 50,000	
A03	Door is in disrepair				2			Replace door	\$ 2,000	
A04	Roof drain strainers are blocked with debris					1		Clean at least twice a year, as a maintenance priority	\$ -	
A05	Concrete sled-ballasted blocks holding solar panel boots are cracking					1		Replace blocks with new ones	\$ -	by solar contractor
A06	The roof hatch ladder is not to code					1		Replace roof hatch and ladder with code compliant ladder	\$ 8,000	
A07	Roof may need replacement between 2026-2036 depending on warranty		4					Replace with TPO roof	\$ 140,000	removal of exiting solar panels would need to be coordinated
EXTERIOR SUBTOTAL										\$ 225,000
INTERIOR CONDITIONS										
A08	Carpet is nearing the end of its useful life	General		3				Replace carpet flooring with carpet tile	\$ 27,000	
A09	Various wall areas need to be patched and painted	General			2			Scrape, prime, and repaint necessary areas	\$ 10,000	Allowance
A10	ACT is stained broken or missing	General		3				Replace with acoustical tiles to match existing	\$ 2,500	
A11	Window head ceiling is peeling	General				1		Inspect for leaks then scrape prime and paint	\$ 2,000	
A12	Handrails are not code compliant	(F)5-2.2.4.2 (B)1014.7 (ANSI A117.1) 505			2			Replace handrails	\$ 8,000	
A13	Existing restrooms do not meet accessibility requirements. Floor urinals do not meet building codes.	(B)1108.0 (ANSI A117.1) 603-606			2			Provide at least one accessible toilet stall, lavatory sink, urinal and shower. Provide required grab bars. Provide new accessible doors and frames and latching hardware as required by doors adjacent to egress corridor.	\$ 250,000	Lower level not included as an ongoing ADA restroom project is under design
A14	Single restroom is not ADA	(B)1108.0 (ANSI A117.1) 603-606			2			Reconfigure the room to enlarge and provide the minimum dimensional requirements.	\$ 30,000	
A15	All door push and/or pull maneuvering clearances do not meet code.	413.6 (ADA) 1101.2 (IBC) ANSI 117.1			2			Where obstruction is not furniture related, modify door swing and/or location to comply. Where the previous is not easily achieved, supply push button door operator where required.	\$ 20,000	Allowance
A16	Some door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)			2			Remove door locksets and install new accessible lever handle locksets where designated.	\$ 10,000	
A17	There is no elevator up to the second floor				2			Install and construct elevator	\$ 350,000	
A18	Insufficient knee space provided at sink and/or workstation.	4.32 (ADA)			2			Provide accessible sinks and workstations per ADA Section 4.32. 27" high x 30" wide x 19" deep.	\$ 14,000	
INTERIOR SUBTOTAL										\$ 723,500

## Fire Station #1 Facility Conditions Cost Estimate

PLUMBING/FIRE PROTECTION									
P01	Older, inefficient plumbing fixtures	Maint.	4					Remove and replace plumbing fixtures	\$ 10,000
P02	Water heater missing mixing valve	IPC	3					Provide required mixing valve	\$ 500
P03	Backflow preventer not tested	IPC	3					Continue to test and inspect backflow preventer	\$ 500
P04	Exterior hose bibbs broken	Maint.		2				Remove and replace hose bibbs	\$ 2,000
P05	Insulation missing on water piping	IPC	3					Provide pipe insulation	\$ 2,000
P06	Exterior gas piping corroding	Maint.	3					Repaint gas piping	\$ 1,500
P07	No secondary drainage for roof	IPC		2				Provide scuppers on roof for overflow	\$ 5,000
P08	Oil water separator missing for garage	IPC	3					Plug and cap drain in garage	\$ 1,200
P09	Older gate valves needing replacement	Maint.	3					Remove and replace gate valves with ball valves	\$ 4,000
P10	Domestic water piping corroding	Maint.	3					Remove and replace corroded water piping and devices	\$ 5,000
FP01	The building isn't sprinklered	NFPA 13	3					Fully sprinkler building and bring in a new service.	\$ 40,000
<b>PLUMBING/FP SUBTOTAL</b>									<b>\$ 71,700</b>
MECHANICAL SYSTEMS									
M01	Boilers at the end of their useful life	General	4					Provide new boiler and associated specialties and controls	\$ 45,000
M02	In line Pumps at end of their useful life	General	4					Provide new pumps and associated specialties and controls	\$ 40,000
M03	Piping system at the end of their useful life	General	4					Replace with new.	\$ 35,000 allowance for approximately 1000 LF of piping
M04	Piping insulation is missing or has deteriorated on hot water piping	General	4					Remove existing and replace with new per current IECC requirements.	\$ 15,000 allowance for approximately 1000 LF of insulation
M05	Rusted convectors and finned tube radiation covers	General	4					Replace with new.	\$ 12,000
M06	Boiler loop chemical treatment	General	4					Engage the services of a Chemical Treatment Service Provider	\$ 2,500 allowance
M07	Unit heaters in the basement	General	4					Replace and add new.	\$ 5,500
M08	Basement has no ventilation	IMC			1			Provide ventilation. Ventilation shall consist of outside air intake louver, ductwork , motorized damper	\$ 2,000
M09	Basement dehumidifier at the end of its useful life	General	4					Replace with new suspended from structure complete with condensate piping	\$ 4,200
M10	Roof top unit on wood Dunnage	General	3					Provide new curb anchored to the roof.	\$ 5,000
M11	Rusted exterior ductwork	General	3					Provide new with insulation and jacket	\$ 50,000
M12	Kitchen hood does not have grease exhaust fan or grease exhaust ductwork.	General			1			Provide hood, fan and grease ductwork. Provide make-up air equivalent to 80% of exhaust air.	\$ 40,000
M13	Exhaust fan at the end of their useful life	General	3					Replace with new	
M14	Apparatus bay unit heaters at the end of their useful life	General	3					Replace with new	\$ 14,200
M15	Apparatus Bay has no ventilation.	IMC			1			Install new supply and exhaust fans with CO/NO2 monitoring.	\$ 40,000
M16	Building is an essential facility	IBC			1			Provide Seismic analysis and seismic restraints	\$ 25,000
M17	No Building management	General	4					Provide new system and integrate all equipment	\$ 120,000
<b>MECHANICAL SUBTOTAL</b>									<b>\$ 455,400</b>

## Fire Station #1 Facility Conditions Cost Estimate

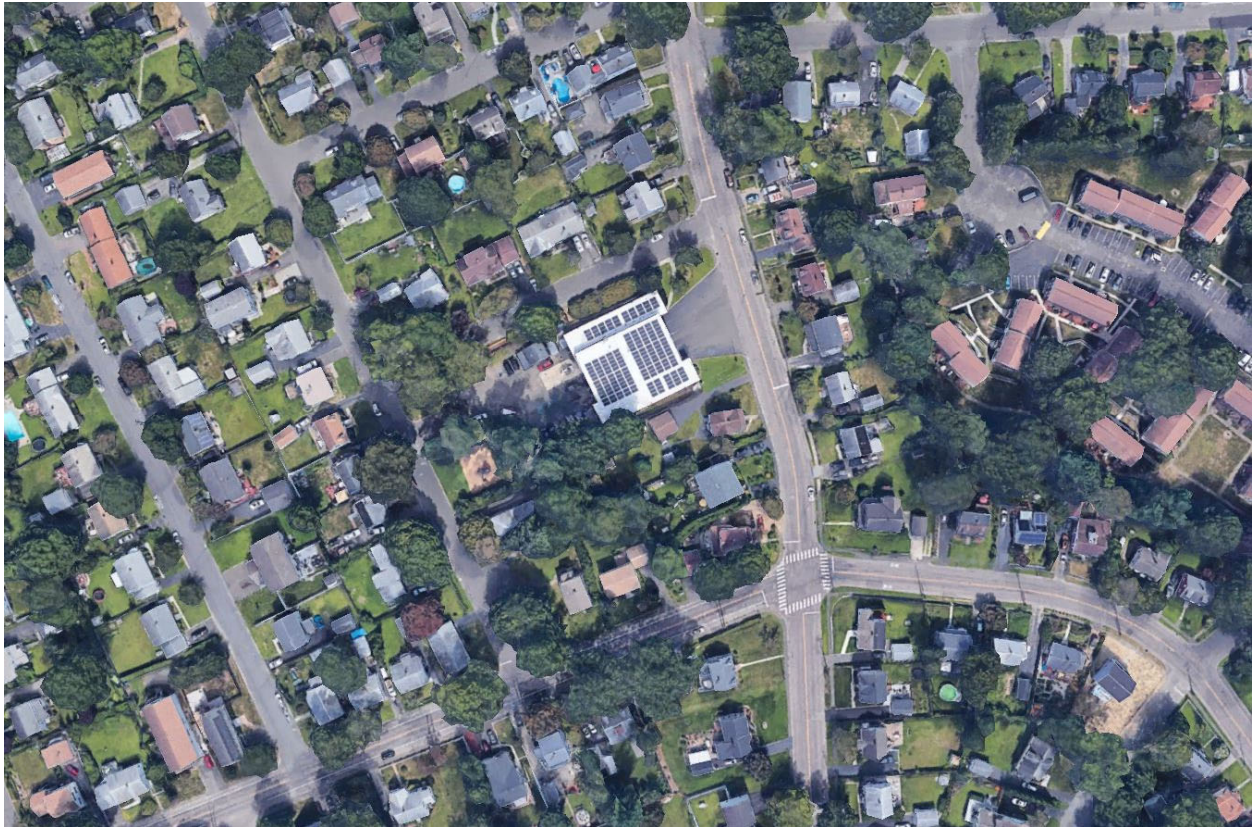
ELECTRICAL SYSTEMS											
E1	Existing fused load center	Maint.		3					Replace existing fused load center with new load center (past useful life)	\$ 500	
E2	No manual pull stations in the basement and other locations	NFPA 72			2				Add pull stations in the basement at the stair and other areas on the first and second floor to meet current code	\$ 750	
E3	Multiple phone systems	General	4						Replace (2) oldest phone systems with new phones matching/compatible with the newest system	\$ 5,000	
E4	No Exterior emergency egress lighting	NEC				1			Add an emergency light fixture w/battery and test switch for each egress door	\$ 1,200	
E5	Toggle type light switches	2015 IECC	4						Replace all existing toggle type switches with occupancy sensors and dimmer switches	\$ 8,000	
E6	Painted and broken receptacles & cover plates. Quad receptacle hanging off wall.	General	4						Replace damaged and broken receptacles and cover plates. Re-mount quad receptacle to wall	\$ 525	
E7	Generator enclosure and base fuel tank are rusted			3					Replace existing generator enclosure and remove rust from base fuel tank	\$ 8,500	
E8	Broken and rusted bolts on existing exterior transfer switch			3					Replace broken bolt and relace rusted bolt on exterior transfer switch	\$ 500	
E9	Existing exit sign & emergency lights don't operate for 90 minutes on battery			3					Replace old exit signs and emergency light fixtures with new LED units	\$ 1,000	
E10	Existing plumbing & mechanical equipment to be replaced	Maint.		3					Disconnect and reconnect electrical connections to plumbing & mechanical equipment to be replaced	\$ 3,500	
<b>ELECTRICAL SUBTOTAL</b>											<b>\$ 29,475</b>
<b>TOTAL ESTIMATED COSTS</b>											<b>\$ 1,505,075</b>
<b>LEGEND PRIORITY - RANK</b>											
1	Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.										
2	High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.										
3	Moderate priority - These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.										
4	Low priority - These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.										



## Fire Station #2 – 600 Jennings Road

Fire Station #2 was constructed in 1969, the newest of the 5 fire stations in Fairfield. The building is located on the corner of Jennings Road and Crimson Lane.

Fire Station #2 is located on Jennings Road, a main road parallel to Route 1. The location is mostly surrounded by a residential area but close to the commercial district. This two-story building is situated on about 1 acre of land and is surrounded by vegetation acting as the property line of the site. The firetruck parking/driveway is located on the northeastern side of the lot while vehicular parking is on the opposite side of the building.





## Architecture

Overall Fire Station #2 is in good condition. Having been built in the 1960s, the architecture is a combination of brick masonry with wood shingles and sloped roofs. The program of the fire station contains a three-bay apparatus garage including a mechanics bay along with dormitories, a kitchen, lounge, lockers, weight room and office spaces. There is also a partial basement with storage and a conference room.

### Exterior Building Envelope





The exterior of the building is in good condition. The building is constructed with brick "veneer", rigid insulation, and painted concrete masonry unit interior. The energy efficiency of this construction is low, and typical in the 1970s ("pre-energy crisis"), and not one that is easily or readily corrected. Overall, the mortar is in reasonably good condition although the age of the building suggests that in the future a detail review should evaluate if repointing is required. The upper portion of these walls incorporate wood shingles. These are painted and appear in fair condition with some areas in need of repainting. Most notably, the soffit overhangs need to be scraped primed and painted. At the south elevation, there are existing grills with wire mesh laid on top. They are loose and curling and creating a tripping hazard. This should be replaced or secured to the grill. Overall, the exterior walls are in good condition.

### **Windows**

The windows do not appear to be original as they are double glazed insulated aluminum window systems. While they appear in good condition inside, it was noted on the exterior that the caulk is in poor condition, with areas cracking and beginning to fall out. It is recommended that these areas be replaced with new caulk.

## Doors

There are a variety of exterior doors. First and foremost, there are 6 large overhead doors (3 per side). These doors look a bit dated, and it appears some panels may have been replaced. The heads, jambs and sills are in good condition with some areas of chipped paint that should be maintained. Other standard doors are in fairly good condition. The front entrance is a glazed storefront system. The finish is beginning to fade but is in otherwise good condition. This door has a large step up to it. A ramp should be provided. The other metal exit doors have a significant amount of paint chipping. The weatherstripping is also beginning to fall off. The basement doors and frames are rusting. These doors should be repaired and repainted.



## Roof

The building has three separate shed style roofs. The roofs consist of a white rubber membrane with solar panels installed on it. It was replaced in 2005 therefore it could need replacement by 2025-2035 depending on warranty. As previously mentioned, overhangs need painting. The metal fascia appears in good condition. Due to the sloping nature of the roof the roof was not able to have a full inspection.



## **Interior Conditions**

The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. Given the building's age, its interior is well maintained, however, it needs some minor improvements and upgrades.

### **Floors**

There are a variety of materials that make up the floors at this building. Starting with the apparatus bays, the concrete slab has seen many years of general wear and tear. There is staining and some minor cracks. The Emergency Operations Center, locker rooms, and much of the basement spaces contain vinyl composition tile (VCT). It appears dated or dirty and should be cleaned thoroughly or replaced. The dormitories and hallway contain carpet. Some areas are nearing the end of their useful life and should be replaced. The lounge area has been renovated with an epoxy floor that appears in good condition. Restrooms have ceramic tile which is original to the building but appears to be in good condition.



### **Walls**

The walls are constructed from a variety of materials. Many walls are painted concrete masonry units (CMU). They are in good condition, however, some areas such as the apparatus bay, halls and bathrooms could use a new coat of paint. Areas are also peeling in the fitness room. The gypsum partitions in the dormitories require to re-finish and painting due to dings and dents that have damaged the walls over time.



## Ceilings

There are a variety of ceiling types within the building. Most are dropped acoustical ceiling tiles and others are a hard ceiling that is either plaster or gypsum. Due to age, ceilings in the building vary in conditions. The apparatus garage has seen some damage, as seen in the photograph to the right. It is evident that there is a leak above, either in the roof or equipment. This should be further investigated and repaired before further damage occurs. The ACT ceilings are a variety of ages or types, and some are also damaged. Many tiles should be replaced due to water stains, damage, or discoloration. These areas should be investigated to determine the source of any leaks and replaced once corrected.



## Doors

There are a variety of door types throughout this building, both wood and metal. Many are dated and in need of replacement while other areas that were renovated are in good condition. Older doors have knobs require twisting and do not meet American Disability Act requirements (ADA). The hardware should be changed. Some door jambs also exceed the allowable jamb depth and should be adjusted.





### **Restrooms**

There are multiple restrooms throughout the station. Some are single unisex restrooms connected to private office or dormitory. There is a large one adjacent to the large dormitory and another smaller one off the lounge. None of the restrooms are ADA compliant nor are there any female restrooms. There are no ADA showers. Additionally, these spaces are dated and in need of renovations. The toilet partitions are showing their age. ADA compliancy and gender equality should be a part of the long-term capital planning of this station.



### **Casework**

Most of the casework throughout the facility is in fair condition. The plastic laminate counter in the Emergency Operations Center is chipped and being to delaminate. This should be considered for replacement. The kitchen has new stainless-steel counters. However, they do not have an ADA complaint sink or knee space incorporated.

### **Building Code and ADA**



As noted within many of the sections, there are multiple code and accessibility issues within this building. Door hardware, ADA restrooms and showers and casework were previously noted. Other ADA issues are with certain spatial clearances within rooms and at doors. The required maneuvering clearances at doors is not always present in every location. These spaces should be adjusted to accommodate these accessibility clearances. Where they cannot be modified a power assisted door operator should be installed. Basement stairs do not have code complaint handrails with the appropriate extensions. Another issue noted was at the exterior. The egress out of the basement

consists of noncompliant handrails with extensions. The railing at grade does not have guardrails surrounding the egress stair which results in a safety hazard. There is no signage present in the building on the main levels, and the basement contains small room labels create based on a previous code. Recommendation for new signage to label all rooms and spaces with the associated dimensions, font, and height based on the 2009 ANSI 117.1 code. These items should be included in the long-term capital plan.



## **Plumbing**

The gas service is routed from the gas main in Jennings Road to a gas meter located in the basement near the fire service. The gas company requires meters to be installed on the exterior although this one may be grandfathered. The gas meter serves the boiler and the domestic water heater and kitchen range. Exterior gas piping is rusting and corroding.

Domestic water service is fed from Aquarian's public utility water mains, there are no wells, water pressure is good and routed from Jennings Road to the basement. Domestic water piping is copper with soldered joints and provided with insulation. Domestic water shutoff valves are gate type and don't tend to last, consider replacing with ball valves. Exterior wall hydrants are not freeze proof type and are broken. There is a 1-1/2" water line feeding a fire hose line in the garage with a backflow preventer. Testing and inspection were present. Hose bibbs were missing vacuum breakers. Insulation is missing around the piping in some locations. Some piping is corroding.

### **Drainage Systems**

The roofs are drained pitched to roof drains and interior storm piping to a site municipal collection system. There is a parapet on the roof and no way to drain the roof if the drains get clogged. Refer to Architectural Narrative for further information. There is a duplex sump/sewage ejector in the basement with CPVC discharge piping. There is an exterior drain at the bottom of the stairs that needs regular maintenance.

The building's sewer system is mainly underground cast iron with PVC above grade. It discharges underground to a public main Jennings Road to a regional wastewater treatment plant, there are no septic systems. There were no reported clogs or issues. The building was built in 1969 so original piping is 52 years old. There is a floor drain in the apparatus bay so there is a small oil water separator in the floor. The separator needs to be regularly cleaned, maintained, and inspected.

### **Domestic Water Heater**

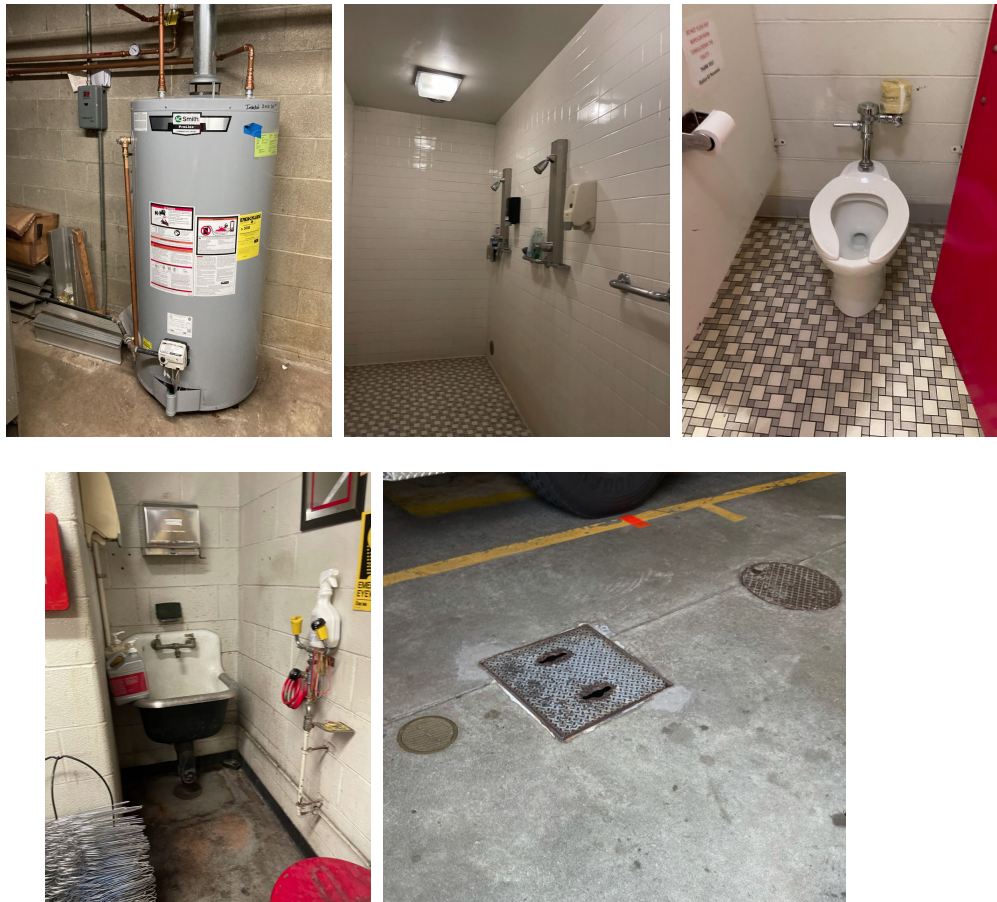
Domestic hot water serving the building is from a 73-gallon Rheem manufacture natural gas fired storage water with an input capacity of 75,100 BTUH. The unit is in the basement located in the boiler room. The heater was installed in 2021 and is new. There is no hot water recirculating pump or, thermal expansion tank. But there is an ASSE1017 mixing valve installed. We recommend adding those missing components for compliance. Insulation was missing around the piping.

### **Plumbing Fixtures**

Existing plumbing fixtures in the building include commercial grade, vitreous china, floor-mounted flush valve type water closets, wall mounted urinals with flush valves, wall mounted lavatories, stainless steel modular showers with tile backing and counter

mounted stainless steel kitchen sink. Some fixtures are original to the building and not energy efficient. Plumbing fixtures are not ADA accessible but may not be required as this is a private facility only for able bodied persons.

Additional fixtures in the building include a cast iron service sink in the Apparatus Bay. A fiberglass laundry sink with an indirect drain standpipe located behind the washer and dryer with an air admittance valve. An emergency eye wash as well. Tepid water was not provided. A commercial kitchen with a stainless-steel single compartment sink.



### **Recommendations for Repair / Replacement**

- Remove and replace plumbing fixtures with water saver fixtures.
- Test and inspect backflow preventers.
- Remove and replace exterior hose bibbs.
- Provide vacuum breakers on interior hose bibbs.
- Repair and provide insulation on all domestic water piping.
- Paint all exposed exterior gas piping.
- Provide scuppers on roof for secondary or emergency drainage.
- Remove and replace all gate valves with ball valves.
- Remove, replace and repair corroding domestic water piping.
- Provide tepid water and mixing valve to emergency eye wash.

## Fire Protection

The facility is provided with a fully automatic fire protection system with sprinkler coverage throughout the building. The sprinkler system was added recently as the piping and accessories are newer. A dedicated four-inch fire protection water main supplies the system from Jennings Road and is provided with a vertical reduced pressure detector assembly backflow preventer with bypass meter to protect the municipal water system from cross contamination. A wall mounted fire department connection with check valve is provided accordingly and is located on the building exterior.

Water pressure is excellent at 120 psi.

Distribution piping is black steel with mechanical roll grooved and threaded fittings. Sprinklers and piping are exposed throughout with upright and sidewall sprinkler heads.

The sprinkler system is yearly tested and maintained according to NFPA 13.



## Recommendations for Repair / Replacement

- Continue to maintain, test, and inspect sprinklers and devices as required by code.

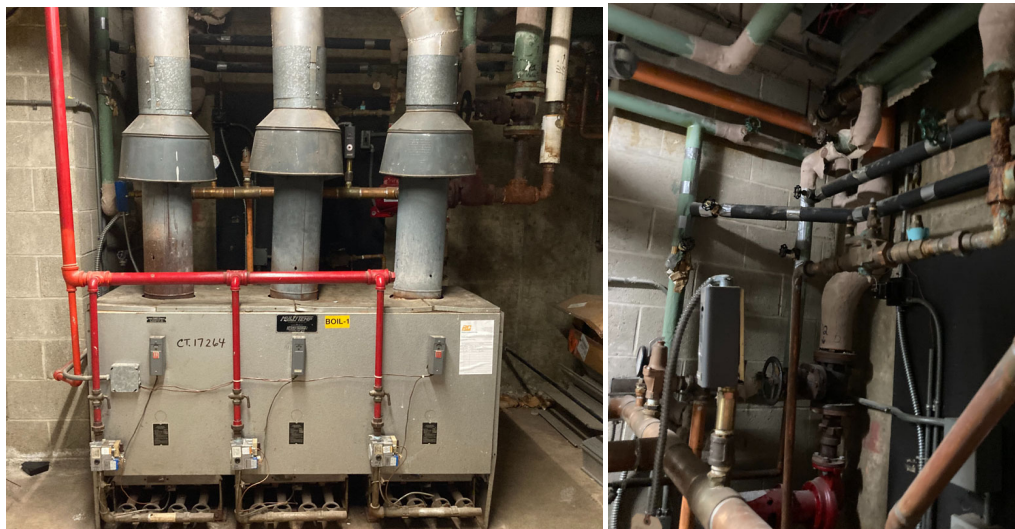
## **Mechanical**

### **Boiler Plant**

The existing boiler, located in the basement, is a Multi Temp Hydrotherm 3 module boiler. Products of combustion are vented through a sidewall mounted Field Controls vent cap. Combustion air is from a Field Controls combustion air system. We were not able to determine the age of the boiler, however the boiler is not original to the building based on the newer copper piping supply manifold connected to the existing steel pipes. The boiler flue piping is showing signs of wear. One (1) inline pump serves the building.

The piping distribution system and associated components are showing signs of wear. We were unable to determine the age of the piping, but it is likely original to the building. Piping systems, with proper maintenance, can operate for 50 years, however, older piping system should be inspected utilizing ultrasonic testing to determine rates of corrosion within piping.

The insulation covering the hot water piping appears to be original to the building. Piping insulation has a useful life expectancy of approximately 20 years. Sections of existing steel hot water piping and all new copper piping are not insulated.



### **Basement**

There is no mechanical ventilation provided to the basement area. Two (2) 1-ton heat pump ductless split system serve the basement occupied areas.



### **Air Filtration**

Air King filtration units are recently provided in the sleeping quarters to capture most airborne nuisance particulates. The self-contained filtration unit continuously pull contaminated air through multiple stages of highly efficient filters. The filtered air is then re-circulated back into the space.

### **Toilet Rooms and Locker Rooms**

Toilet rooms and lockers rooms are provided with exhaust fans. Exhaust fans appear to be original to the building and are beyond their useful life expectancy.

### **Cooling**

Three split systems serve the occupied spaces. The two (2) 4-ton Trane split systems serve the kitchen/Lounge and the Office spaces in the Northeast side of the building. The 3-ton Heil Split system serves the lounge, dormitory in the Southwest Side of the building. The Trane units, operating on the obsolete R-22 refrigerant, were manufactured in 2013 and 2016 and the Heil unit was manufactured in 2019. With a useful life expectancy of 15 years, these units still are within their service life expectancy. Air handling units located above ceiling have outside air ductwork connected to louvers.

The three split systems provide air to the spaces using a network of distribution ductwork located above ceiling terminating a ceiling mounted supply diffusers and return grilles.

Thru the wall mounted air conditioner was provided in the Weight Room. This unit appears to be original to the building and is beyond its useful service life of 10 years. A 2-ton Daikin ductless split heat pump unit was added in the weight room. The Daikin ductless split system, manufactured in 2016, is within its useful life expectancy.



### **Kitchen**

The kitchen was renovated in 2018. A Captive Aire commercial kitchen exhaust hood with an Ansul fire protection system was provided. There is no make-up air provided to the space.

### **Apparatus Bay**

The Apparatus Bay is heated by three (3) vertical hot water unit heaters. The unit heaters appear to be original to the building and have exceeded their useful life expectancy of 20 years.

A tail pipe exhaust system currently removes products of combustion from active vehicles. The exhaust fan is mounted in the attic with exhaust termination through the roof. We were not able to determine the model, capacity and age of existing system at the time of visit. We are not aware of any issues with this system, however, it was mentioned that a plan is in place to replace/improve all of town of Fairfield fire house tailpipe exhaust systems.

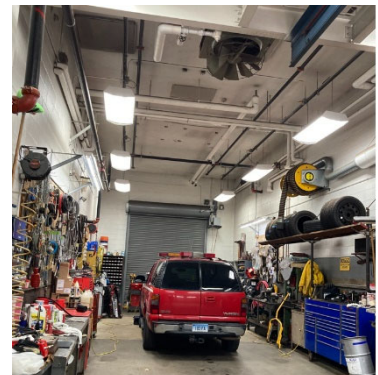
The International Mechanical Code Section 404.2 requires that a minimum of 0.05 cfm per square foot of continuous ventilation be provided and 0.75 cfm per square foot of ventilation air is exhausted when any vehicle is running within the space. In modern installations a CO/NO<sub>2</sub> detection system is installed which triggers the operation of exhaust fan. In addition to this exhaust fan, a means to provide make-up air, either by a separate supply fan or a louvered opening with motorized damper, would be installed to maintain the air balance for the space. Please note that this ventilation requirement needs to be met regardless of whether a tail pipe exhaust system has been installed.

### **Maintenance Bay**

The Apparatus Bay is heated by a vertical hot water unit heater. The unit heaters appear to be original to the building and have exceeded their useful life expectancy of 20 years.

A tail pipe exhaust system currently removes products of combustion from active vehicles. The exhaust fan is mounted below ceiling with exhaust termination through the roof. We were not able to determine the model, capacity and age of existing system at the time of visit. We are not aware of any issues with this system, however, it was mentioned that a plan is in place to replace/improve all of town of Fairfield fire house tailpipe exhaust systems.

The International Mechanical Code Section 404.2 requires that a minimum of 0.05 cfm per square foot of continuous ventilation be provided and 0.75 cfm per square foot of ventilation air during all occupied hours. In addition to this exhaust fan, a means to provide make-up air, either by a separate supply fan or a louvered opening with motorized damper, would be installed to maintain the air balance for the space. Please note that this ventilation requirement needs to be met regardless of whether a tail pipe exhaust system has been installed.





### **Dryer Vent**

Dryer is vented into the Bay. The lint trap bucket is missing.

### **Electric Heater**

Bathroom heating is a wall mounted electric heater. No improvement is recommended at this time. If renovation is scheduled, we recommend replacing the electric heater.

### **Seismic Restraints**

The Fire Station is an essential facility. Buildings categorized as essential must remain operational during and after major disaster type events. There is no seismic bracing of equipment and piping observed throughout the facility. Further study is recommended to determine the seismic requirement of the facility.

### **Underground Storage Tank**

The existing 1,000 gallon diesel fuel underground storage tank was installed in 1993. This tank is approaching the end of its life expectancy.

### **Recommendations for Repair / Replacement**

- Replace existing boiler and associated near boiler specialties. The new boiler will be high efficiency condensing boiler, with flue and combustion air pipes connected directly to the outdoors.
- Replace in-line pump.
- Perform ultrasonic testing for the rest of the piping system to determine the rates of corrosion within the pipes. Replace pipes as needed.
- Provide piping insulation with thickness complying with the Energy Code.
- Provide new boiler controls. Controls shall be compatible with the town DDC System.
- Engage the service of a Chemical Service Provider to maintain proper water treatment to the building water loop
- Provide basement with mechanical ventilation. To help control humidity in the basement, a dehumidifier with outside air connection can be provided. Provide condensate drain piping terminating to an indirect drain in the basement.
- Replace and add unit heaters in the basement.
- Replace toilet room exhaust fans.
- Provide tempered make-up air to the space equivalent to 80% of air being exhausted.
- Replace dryer indoor vent kit.
- Provide exhaust fan and outdoor air to the apparatus bay. Provide with CO/NO2 detection system.
- Replace unit heaters in apparatus bay.
- Provide exhaust fan and outdoor air to the maintenance bay.
- Replace unit heaters in maintenance bay.
- Provide seismic analysis and calculations to determine facility seismic requirements.
- Replace Underground Diesel Fuel Storage Tank.

## Electrical

The existing electrical service is made up of a new 400 amp 120/208V-3PH-4W G.E. combination main breaker/service switch and CT cabinet. The service switch feeds the main distribution panel (MDP) through the adjacent automatic



Figure 2-30: ATS Switch

transfer switch located in the Basement (south-east corner). The MDP feeds panels in the basement and first floor. The service switch, MDP, ATS and half of the panels are newer, the remaining panels appear to be original to the building (1969). There is an 60KW diesel emergency generator 120/208V-3PH-4W located behind the building in the north-east corner. The generator has a single output breaker (225

amps) that feeds the emergency side of the automatic transfer switch. The generator was installed in August of 2000 and appears to be in good condition with a little rust starting on the enclosure, we are not aware of any issues with this equipment. In addition to the normal electrical and generator distribution, there is also a photovoltaic system. This is made up of solar panels on the of the roof that feed (3) wall mounted inverters for approximately 180-amp distribution. The disconnect switch, utility meters and inverters are on the exterior wall east side of the building (southern corner).

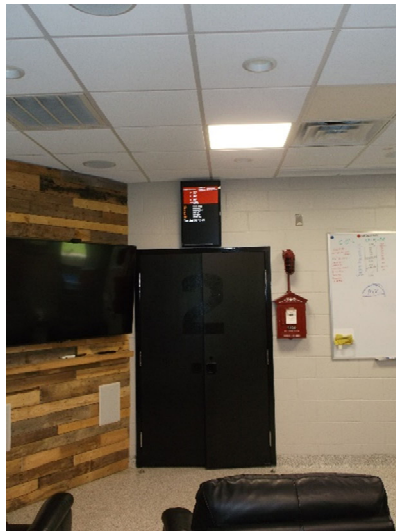


## **Fire Alarm**

The fire alarm system (Radionics #D7024) is located in the basement on the exterior wall in the south-east corner. There are manual pull stations at all of the egress doors and one of the stairs from the basement. Also, there are audio/visual devices and smoke & heat detectors throughout the building. Both the manual pull stations and audio/visual devices appear to meet the current ADA height requirements. It is our understanding the system is working properly without any issues.

## **Lighting**

The existing interior lighting in the building is a mix of recessed fluorescent lensed 2x2 and 2x4 fixtures, recessed linear wall fixture, recessed down light fixtures, surface mounted incandescent/fluorescent square fixtures, surface mounted track light fixtures, surface/pendant

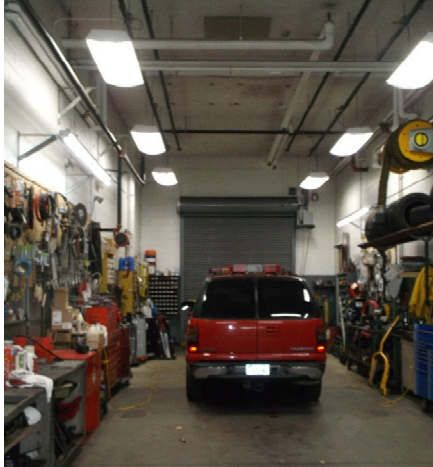


mounted industrial fixtures, small surface mounted



LED flood lights and wall mounted adjustable “reading” lights at each bunk. These fixtures appear to be in fair/good condition and working properly. It is our understanding that the majority of the fixtures have been upgraded with new LED bulbs. There are some fixtures that still have fluorescent or incandescent bulbs. These were areas that the town determined to be low use and would be replaced later as needed. Some of the areas have local toggle type & dimmer switches for control while others have low voltage switches. The existing exterior lighting for the building is

made up of wall mounted incandescent globe type fixtures on the front of the building with some semi-recessed spotlights in the overhang between the garage doors. There are small wall mounted LED flood lights on the east side and back of the building along with one wall mounted HID flood light in the back. We were not able to determine the operation of the exterior fixtures at the time of our inspection.



Emergency lighting for the interior of the building is made up of combination exit signs with emergency lights and self-contained twin head emergency fixtures. In addition to the self-contained battery lights and combination exit sign/emergency lights, there is a diesel generator serving the building. Exit signs in the building are made up mostly of thermoplastic signs with red lettering and emergency battery. Most of the exit signs appear to be in fair/good condition and working properly. We are not able to confirm the batteries on the exit signs and emergency lights will operate for the required 90 minutes.

## **Devices**

Existing wiring devices (receptacles & light switches) in the building are a mix of recessed and surface mounted. The devices appear to be in fair/good condition and are not aware of any issues with these devices.

## **Telecommunication System**

The existing phone system D-Mark is in the basement (south-east corner) near the main electrical gear and the automatic transfer switch. The security panels and small network cabinet are wall mounted in the first-floor front office. We are not aware of any issues with this equipment at this time.

## **Recommendations for Repair / Replacement**

- Replace the few original electrical panels (Empire Electric) with new.
- Replace existing wall switches with new occupancy sensors and dimmer switches.
- Add a fire alarm manual pull station in the basement at the stair going up to the first floor.
- Install emergency lighting at the exterior of all egress doors to meet current code requirements.
- Replace existing generator enclosure and repair rust on fuel tank.



Fire Station 2 - 600 Jennings Road Facility Conditions Cost Estimate									
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING					ITEMIZED ESTIMATED COST	REMARKS
			4	3	2	1	n/a		
<b>EXTERIOR CONDITIONS</b>									
A01	Front door threshold has transitions greater than 1/2" at both the ground level and at the door sill.	ANSI 117 (ADA)				1		Reconstruct ramp and re-grade asphalt to allow for 1/2" maximum vertical transition.	\$ 12,000
A02	Limited brick is spalling or mortar is in need of repointing	General		3				Patch, repair, or replace brick and repoint as necessary.	\$ 8,750
A03	Some areas of wood shingles or soffits are in need of repainting	General		3				Scrape, prime and paint	\$ 10,000
A04	Metal mesh is not attached to grates	General			2			Fasten metal to grates for safety	\$ 2,000
A05	Caulk at windows is failing	General			2			Recaulk as required	\$ 16,000
A06	Door paint is peeling	General			2			Scrap, prime, and paint	\$ 2,500
A07	Door weatherstripping is failing	General		3				Provide new weatherstripping	\$ 1,200
A08	Handrails and guardrails are not complaint at basement egress					1		Weld extensions to handrails and weld balusters guardrails to meet code compliance, paint	\$ 10,000
A09	Roof was replaced in 2005 indicating it may need replacement between 2025-2035 depending on warranty		4					Replace with TPO roof	\$ 262,500 Removal and replacement of exiting solar panel would need to be coordinated
<b>EXTERIOR SUBTOTAL</b>									<b>\$ 324,950</b>
<b>INTERIOR CONDITIONS</b>									
A09	VCT flooring is nearing the end of its useful life	General	4					Replace with new flooring	\$ 7,200
A10	Carpet is nearing the end of its useful life	General		3				Replace with new carpet squares	\$ 6,000
A11	Paint is peeling on CMU	General		3				Scrape, prime, and repaint	\$ 6,000
A12	Gypsum walls are chipped and dented	General	4					Scrape, prime, and repaint as necessary	\$ 5,000
A13	Apparatus ceiling is stained with water damage	General		3				Investigate and Repair, prep and repaint	\$ 3,000
A14	ACT ceilings are nearing the end of their useful life	General	4					Replace with new ACT	\$ 18,000
A15	Some interior doors are damaged or nearing the end of their useful life	General	4					Replace doors as necessary	\$ 9,000
A16	Door jamb thickness is larger than 8 inches beyond the face of the door which does not meet code	404.2.4.3			2			Modify or add an electric door operator at these locations	\$ 10,000
A17	Some door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)			2			Remove door locksets and install new accessible lever handle locksets where designated.	\$ 4,000
A18	Due to the size, restrooms do not meet accessibility requirements	(B)1108.0 (ANSI A117.1) 603-606			2			Reconfigure the room to enlarge and provide the minimum dimensional requirements.	\$ 75,000 3 singles
A19	Existing restroom does not meet accessibility requirements. Floor urinals do not meet building codes.	(B)1108.0 (ANSI A117.1) 603-606			2			Provide at least one accessible toilet stall, lavatory sink, urinal and shower. Provide required grab bars. Provide new accessible doors and frames and latching hardware as required by doors adjacent to egress corridor.	\$ 150,000
A20	There are no women restrooms, showers dormitory or locker rooms.	(B)1108.0 (ANSI A117.1) 603-606			2			Reconfigure to include.	\$ 200,000 Allowance
A21	Plastic laminate casework is worn	General	4					Replace casework with new	\$ 10,000
A22	Insufficient knee space provided at kitchen sink and/or workstation	4.32 (ADA)			2			Provide accessible sinks and workstations per ADA Section 4.32. 27" high x 30" wide x 19" deep.	\$ 2,500
A23	Hand railing is not compliant				2			Provide new or weld extensions	\$ 2,000
<b>INTERIOR SUBTOTAL</b>									<b>\$ 507,700</b>



## Fire Station #2 Facility Conditions Cost Estimate

PLUMBING/FIRE PROTECTION											
P01	Older, inefficient plumbing fixtures	Maint.	4						Remove and replace plumbing fixtures	\$ 10,000	
P02	Backflow preventer not tested	IPC		3					Test and inspect backflow preventer	\$ 500	
P03	Exterior hose bibbs broken	IPC		3					Remove and replace hose bibbs	\$ 2,000	
P04	Vacuum brakers missing on hose bibbs	Maint.			2				Provide vacuum breakers at hose bibbs	\$ 500	
P05	Insulation missing on water piping	IPC		3					Provide pipe insulation where missing	\$ 2,000	
P06	Exterior gas piping corroding	Maint.		3					Repaint gas piping	\$ 1,200	
P07	No secondary drainage for roof	IPC							Provide scuppers on roof for overflow	\$ 5,000	
P08	Older gate valves needing replacement	Maint.		3					Remove and replace gate valves with ball valves	\$ 4,000	
P09	Domestic water piping corroding	Maint.		3					Remove and replace corroded water piping and devices	\$ 5,000	
P10	Tepid water nor provided at eye wash	IPC			2				Provide hot water supply and mixing valve for tepid water	\$ 2,500	
PLUMBING/FP SUBTOTAL											\$ 32,700
MECHANICAL SYSTEMS											
M01	Boilers at the end of their useful life	General	4						Provide new boiler and associated specialties and controls.	\$ 59,000	
M02	In line Pump is at end of its useful life	General	4						Provide new pumps and associated specialties and controls	\$ 19,750	
M03	Piping system at the end of their useful life	General	4						Replace with new	\$ 17,500	allowance for approximately 500 LF of piping
M04	Boiler loop chemical treatment	General	4						Engage the services of a Chemical Treatment Service Provider	\$ 2,500	allowance
M05	Piping insulation is missing or has deteriorated on hot water piping	General	4						Remove existing and replace with new per current IECC requirements.	\$ 7,500	allowance for approximately 500 LF of new insulation
M06	Basement has no ventilation	IMC				1			Provide ventilation. Ventilation shall consist of outside air intake louver, ductwork , motorized damper	\$ 2,000	
M07	Basement dehumidifier at the end of its useful life	General	4						Replace with new suspended from structure complete with condensate piping	\$ 4,200	
M08	Exhaust fan at the end of their useful life	General		3					Replace with new	\$ 7,600	
M09	No make-up air provided for the kitchen hood	IMC				1			Provide make-up air equivalent to 80% of exhaust air.	\$ 26,500	
M10	Unit heaters in the basement	General	4						Replace and add new.	\$ 5,500	
M11	Apparatus bay unit heaters at the end of their useful life	General		3					Replace with new	\$ 14,200	
M12	Apparatus Bay has no ventilation.	IMC				1			Install new supply and exhaust fans with CO/NO2 monitoring.	\$ 37,500	
M13	Maintenance bay unit heater at the end of their useful life	General		3					Replace with new	\$ 5,000	
M14	Maintenance Bay has no ventilation.	IMC				1			Install new supply and exhaust fans with CO/NO2 monitoring.	\$ 22,000	
M15	Building is an essential facility	IBC				1			Provide Seismic analysis and seismic restraints	\$ 25,000	allowance
M16	Existing 1,000 gallon underground diesel fuel tank at the end of useful service life	CTSB,IFC , NFPA, CTDEEP			2				Provide new doublewall complete with leak detection system, existing soil testing, backfill and repaving	\$ 55,000	tank replacement allowance for uncontaminated soil
MECHANICAL SUBTOTAL											\$ 310,750

## Fire Station #2 Facility Conditions Cost Estimate

ELECTRICAL SYSTEMS									
E1	Old electrical panels (at or beyond useful life)			3				Replace all old electrical panels (Empire elec.) with new	\$ 12,000
E2	No manual pull stations in the basement at stair to first floor	NFPA 72			2			Add pull stations in the basement at the stair to first floor to meet current code	\$ 250
E3	No Exterior emergency egress lighting	NEC				1		Add an emergency light fixture w/battery and test switch for each egress door	\$ 1,750
E4	Toggle type light switches	2015 IECC	4					Replace all existing toggle type switches with occupancy sensors and dimmer switches	\$ 4,250
E5	Existing plumbing & mechanical equipment to be replaced	Maint.		3				Disconnect and reconnect electrical connections to plumbing & mechanical equipment to be replaced	\$ 3,000
<b>ELECTRICAL SUBTOTAL</b>									<b>\$ 21,250</b>
<b>TOTAL ESTIMATED COSTS</b>									<b>\$ 1,197,350</b>
LEDGEND PRIORITY - RANK									
1	Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.								
2	High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.								
3	Moderate priority - These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.								
4	Low priority - These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.								

## Fire Station #3 – 400 Jackman Avenue

Fire Station #3 was constructed in 1929 and is the second oldest fire station in Fairfield. It was renovated in 1996 with possible additions.

Fire Station #3 is located on Jackman Avenue, north of Route 1 and just off Stratfield Road. The building is built on just about six tenths of an acre surrounded by a densely populated residential area. Parking is located on the western side of the site and can be entered through Jackman Avenue. While the sites are not a part of this study it must be mentioned that the parking lot is in terrible shape and should be repaved.





## Architecture

The fire station overall, is in fair condition. The envelope of the building is made up of a combination of brick masonry and stucco with gabled roofs. Having been built in the 1920s, the age of this building was designed without regard to today's codes. The building's program consists of a 2-bay apparatus garage connected to the dormitories, lounge, kitchen, office, and restrooms on the main level. The main dormitory is on the second floor along with a conference room.

### Exterior Building Envelope



Considering the age of this building the exterior walls are in great condition. The concrete foundation looks dated with the rear portion consisting of staining and a little deterioration. The exterior brick walls of the fire station are generally in good condition, with a limited areas of settling and spalling. The building is constructed with brick "veneer" with no air space evident, predictable for its age. The energy efficiency of this construction is very low, and typical in the 1920s ("pre-energy crisis"), and not one that is easily or readily corrected. It is evident that repointing in some areas have been previously performed. There are still some limited areas which will eventually require



repointing or repairing, most notably on the lower portions of the wall near grade or near downspouts and windows. Generally, the mortar is in reasonably good condition and should continue to be monitored. The stucco and the wood shingles in the gable ends appear to be in good condition. Overall, the building's envelope is in good condition, considering its age.

## Windows

The windows at this fire station have replaced the original windows. They vary between type and size. Large windows in the apparatus bay are wood with limited operability. Most of the remaining windows throughout the station are vinyl replacement double hung systems. It was reported that the windows in this building are difficult to operate and its very problematic. This is a common occurrence with many vinyl replacements. It may be because the track is dirty and needs lubrication. It is recommended to clean and lubricate the window tracks. Additionally, there are basement windows that are original steel assemblies with single pane of glass. It is recommended to replace any old or nonfunctioning windows.



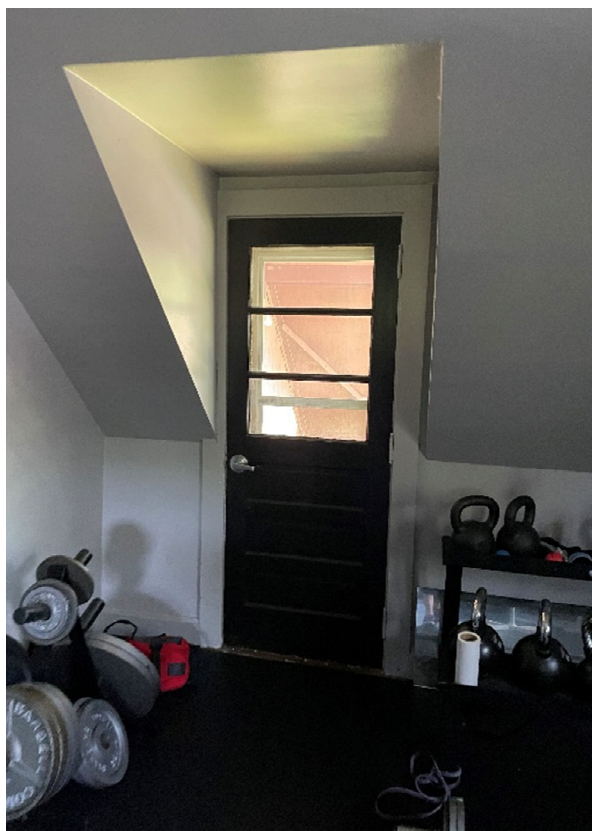


### Doors

There are a variety of doors at this station. The two garage doors were replaced and appear to be in good condition. The exterior doors are a variety of materials such as metal and wood. At the ground floor the metal doors all appear to be in good condition. On the second floor the wood door leading out to the emergency stair does not meet the code required minimum width. This door should be replaced, and the space modified to accommodate the required clearances around the door.

### Roof

The roof of this building is comprised of a series of gable roofs. This is very common for the time this building was constructed. The roof was likely replaced during the 1996 renovation project. It consists of 3-tab asphalt shingles which is an older style roof. Due to the nature of this roof, it was unable to be inspected up close. The visual inspection from ground did not indicate any issues and it appeared in fair condition, with no reports of issues. However, considering its age, it will likely need to be replaced in the next 5 -10 years.

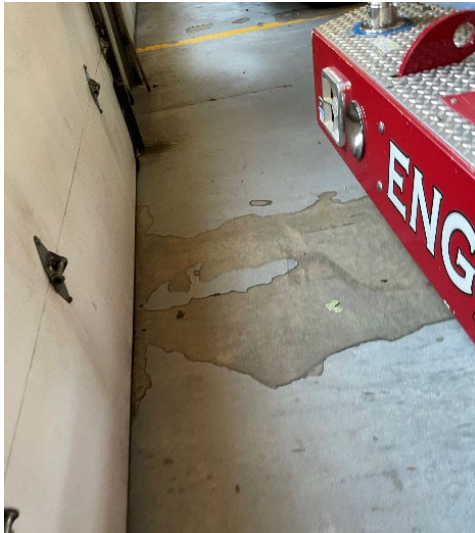




## **Interior Conditions**

The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. Given the building's age, and the renovations in the 90s its interior is well maintained. However, some improvements concerning building codes and ADA standards should be made.

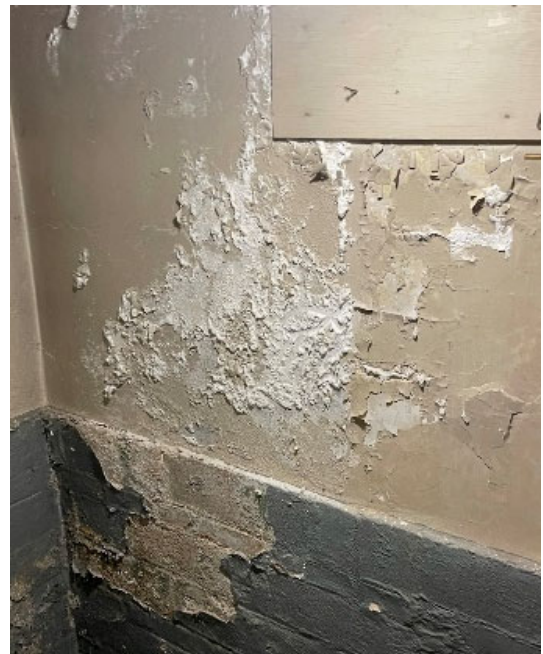
## **Floors**



There are a variety of materials that are used in this building. The apparatus bay is a concrete slab which has held up well. The slab was painted including striping, but much of it has begun to wear away. This should be repainted with an epoxy type of product to withstand the wear and tear of the trucks and associated activities. There is carpet present in the lounge area connected to the kitchen, which is worn due to circulation. It is recommended to replace the carpet. In other spaces of the building such as the dormitory the carpet is in better condition. Vinyl Composition Tile (VCT) is located in the remaining spaces of the building which are all in good condition.

## **Walls**

The interior walls consist of a few different materials from brick, concrete, and gypsum wall board. On the main floor and second floor all materials are all in good condition and well maintained. The baseboard, on the other hand, should be refinished due to multiple cracks and chips in towards the floor area due to the natural wear and tear from circulation. The basement has some issues. There is likely a moisture problem such as hydrostatic pressure or some type of water infiltration as seen from the photograph of the basement wall (right). The paint is peeling and is in poor shape. There is not usable space in the basement so appearance may not be a priority. It should be further evaluated to determine if there is a problem.



### Ceilings

There are two types of ceilings present at this station. Every room except the apparatus bays, bathrooms, and basement, has acoustical ceiling tile (ACT). The ceilings appear to be in good condition, aside from a few limited tiles that are stained or discolored. Those tiles should be replaced. The remainder of the building is built with gypsum wall board with a painted finish that is in good condition.



### Doors

The doors at this building are hollow metal set within hollow metal frames. They all appear to be in good condition, given the age of the building. However, some doors have knobs that require twisting and do not meet American Disability Act requirements. The hardware should be changed.

### Stairs

There are currently three sets of stairs in this building. The first staircase is in the center of the building at the front entrance. The stairs are in good condition and have recently been worked on. The second staircase which leads to the basement. This is a wood constructed stair and with the moisture issue at the basement this stair should be investigated for structural integrity. The handrails do not meet code requirements. The third stair is an exterior staircase, used as the second means of egress for the dormitories upstairs, pictured in the photographs at the right. This metal exterior staircase is located towards the back of the building terminating at two large concrete steps. The condition of this staircase is poor. The bottom concrete stairs that support the bottom of the metal stair is in disrepair. This should be replaced as it is settling.



### **Restrooms**

There are multiple restrooms throughout the station. The single unisex restrooms on the main level have been made into an ADA compliant stall. It is only missing the vertical grab bar. This should be added to achieve compliancy. There is a large restroom adjacent to the large dormitory and another smaller one off the lounge. None of the restrooms are ADA compliant nor are there any female restrooms. There are no ADA showers. Additionally, these spaces are dated and in need of renovations. ADA compliancy and gender equality should be a part of the long-term capital planning of this station.

### **Casework**

Most of the casework throughout the facility is in fair condition. The plastic laminate in the kitchen is dated with some areas chipped. There is no knee space nor is there an ADA complaint sink.

### **Building Code and ADA**

As noted within many of the sections, there are some code and accessibility issues within this building. Door hardware, ADA restrooms and showers and the second-floor exterior egress stair were previously noted. Other ADA issues are with certain spatial clearances at doors. Often this is related to the placement of furniture, and they can simply be relocated in another configuration. Other spaces should be adjusted to accommodate these accessibility clearances. Where they cannot be modified a power assisted door operator should be installed. Basement stairs do not have code complaint handrails with the appropriate extensions. The exterior wood stairs do not have complaint handrails and should be changed. Another issue noted is the fact that there is no elevator. With the dormitories located on the second floor an elevator is required. This is a common occurrence given the age of the building. There is no signage present in the building on the main levels, and the basement contains small room labels create based on a previous code. Recommendation for new signage to label all rooms and spaces with the associated dimensions, font, and height based on the 2009 ANSI 117.1 code. These items should be included in the long-term capital plan.

## **Plumbing**

The gas service provided by Southern CT Gas Company is routed from the gas main in Jackman Avenue to gas meter in the basement. The gas meter serves the boiler and the domestic water heater and kitchen range.

Domestic water service is fed from Aquarion's public utility water mains, there are no wells, water pressure is good and is routed from Jackman Road to the basement. Domestic water piping is not provided with insulation. Domestic water shutoff valves are gate type and don't tend to last, consider replacing with ball valves.

### **Drainage Systems**

The roofs are drained via perimeter gutters and leaders which spill to the site and are not piped. Refer to Architectural Narrative for further information.

The building's sewer system is mainly cast iron with some PVC repairs. It discharges underground to a public main in Reef Road to a regional wastewater treatment plant, there are no septic systems. There were no reported clogs or issues. The building was built in 1929 so original piping is 60 years old or more.

### **Domestic Water Heater**

Domestic hot water serving the building is from a 40-gallon State Industries natural gas fired storage water heater with an input capacity of 40,000 BTUH. The heater is in the basement adjacent to the boiler. The heater was manufactured in 2014 and has a useful life expectancy of 10 to 15 years. Products of combustion are vented into the existing chimney through a sheet metal flue. There is no hot water recirculating pump, thermal expansion tank and ASSE1017 mixing valve installed. We recommend adding those components for compliance.





### **Plumbing Fixtures**

Existing plumbing fixtures in the building include vitreous china, floor-mounted tank-type water closet, wall mounted lavatory, fiberglass shower, and counter mounted stainless steel kitchen sink. If any adjustment and/or renovations is needed to the bathrooms, we recommend bringing the fixtures up to current ADA requirements. Refer to Architectural Narrative for further information.



Additional fixtures, located in the Apparatus Bay, include a cast iron service sink and a water cooler. A laundry indirect drain standpipe is located adjacent to the service sink. The emergency eye wash is in the apparatus bay, fed with cold water only. Current OSHA/ANSI standards require a supply temperature range of 60-100 deg F to emergency



fixtures. Adding hot water supply and a thermostatic mixing valve to the current installation will provide a safe, inviting code-compliant water temperature at this fixture.



### **Oil Interceptor**

An oil interceptor appears to be located underground, in the front of the building. The age of the oil interceptor was unable to be determined though it is likely original to the building.

### **Recommendations for Repair / Replacement**

- Remove and replace plumbing fixtures with water saver fixtures.
- Provide a thermal expansion tank, a ASSE1017 thermostatic mixing valve on the water heater and a recirculating system as there is a long wait for hot water and exceeds code requirements.
- Test and inspect backflow preventers.
- Provide missing insulation around water heater on water piping.

## Fire Protection

The facility is provided with a fully automatic fire protection system with sprinkler coverage throughout the building. The sprinkler system was installed in 1994. A dedicated fire protection water main supplies the system and is provided with a reduced pressure detector assembly backflow preventer with bypass meter to protect the municipal water system from cross contamination. A wall mounted fire department connection with check valve is provided accordingly and is located adjacent to the gas meter assembly. A dry valve assembly is provided and consists of a dry riser check valve, maintenance air compressor and supervised valves with flow and tamper switches.

Distribution piping is black steel with mechanical and threaded fittings, galvanized distribution piping was not utilized. Areas are provided with upright sprinkler heads and pendent heads for area with ceiling.



## Recommendations for Repair / Replacement

- Continue to maintain, test, and inspect sprinklers and devices as required by code.

## Mechanical

### Boiler Plant

The existing boiler, located in the basement, is a cast iron gas fired Burnham boiler model IN11 with an input capacity of 349,000 BTUH and a net IBR rating of 250,000 BTUH. The boiler was manufactured in 1991. Cast iron boilers have a useful life expectancy of 30 years. Products of combustion are vented into the existing chimney through a sheet metal flue. Ducted combustion air from exterior louver is provided to the space. Size of combustion air appears to be inadequate. Additional combustion comes from the basement.

There are three (3) independent zones serving the building. The (3) zones are fed from individual inline pumps off the boiler supply manifold. We were unable to determine the date of manufacture and installation of the inline pumps, they are likely installed the same year as the boiler. Inline pumps of this type have a useful life expectancy of 10 years.

Based on the observed abandoned steam condensate system in the boiler room, the original building appears to have been served by a steam boiler. The hot water piping distribution system appears to be installed the same year as the boiler. Hot water supply and return piping system has a useful life expectancy of 50 years.

Hot water supply and return piping in the basement are uninsulated.





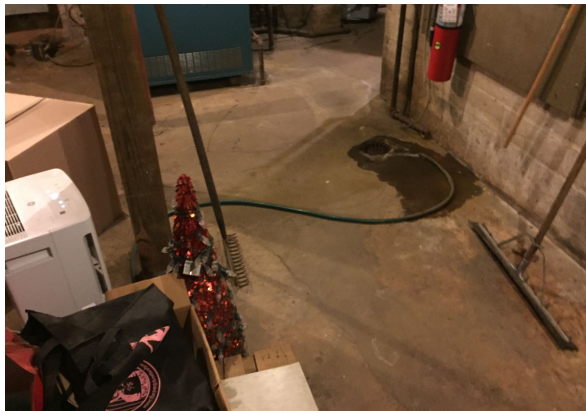
Perimeter radiation, fed from the boiler system, provides heat in first and second floor occupied spaces. Finned tube radiation has a useful life expectancy of 20 years. Perimeter radiator enclosures are in fair condition.



### **Basement**

Basement is used as a storage space. There is no mechanical ventilation provided to the basement.

A portable dehumidifier is provided in the basement. Condensate drain is routed to the nearest floor drain.





### **Ventilation**

There is no ventilation for any space in the building other than operable windows. The code allows for use of operable windows if the operable window area is 4% of the total floor area of the space.

### **Air Filtration**

Air King filtration units are recently provided in the sleeping quarters to capture most airborne nuisance particulates. The self-contained filtration unit continuously pull contaminated air through multiple stages of highly efficient filters. The filtered air is then re-circulated back into the space.

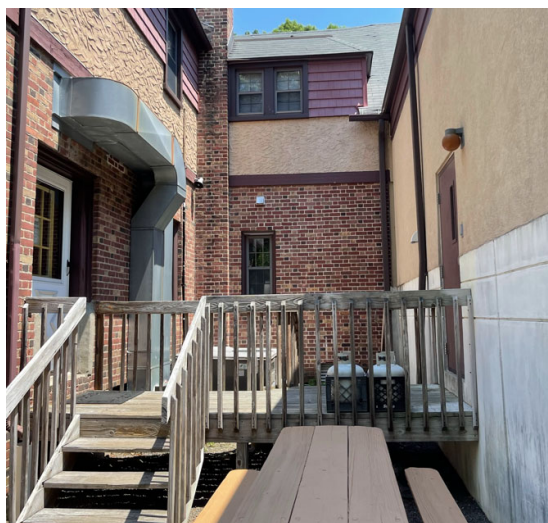
### **Toilet Rooms**

Toilet rooms are served by exhaust fans which appear to meet the requirement of the current mechanical code. Exhaust fans are likely near the end of their useful life expectancy.

### **Cooling**

A packaged unit and a split system, consisting of an air handling unit and a remote air-cooled condensing unit, serve the first and second floor occupied spaces. The packaged unit is manufactured in 2006 and the split system in 1994, both units have outlived their useful service life expectancy of 15 years. Both systems are using the obsolete refrigerant R22.

The packaged unit and the air-cooled condensing unit are mounted on a concrete pad in the courtyard. There is inadequate service and airflow clearance between the two units.





The 3-ton outdoor packaged unit serves the first-floor dormitory, lounge, kitchen, and office spaces. This unit does not have outdoor air intake connections. The exterior supply and return ductwork are provided with liner. Given the age of the unit, it is most likely that the existing liner thickness do not meet the code required R value. Exterior supply and return ductwork have surface corrosion. The 3.5 ton split system serves the second-floor space.



### **Kitchen**

The existing cooking appliance is residential gas stove. Over the range microwave vent hood is provided and air is exhausted through wall cap. There is no make-up air to the kitchen as required by code. A range hood with approved fire suppression system is required. Per International Mechanical Code Section 507.1.2, domestic cooking appliances utilized for commercial purposes require Type I hood, domestic cooking appliance utilized for domestic purposes within a commercial setting shall comply with IMC section 505. The Authority Having Jurisdiction shall determine code compliance for a particular application. A residential hood with UL300A suppression system may be considered for this type of application. However, the use of this type of use shall be approved by the AHJ.



### **Apparatus Bay**

The Apparatus Bay is currently heated by three (3) gas fired unit heaters. We are unable to determine the age of the unit, however, the unit heaters appear to be in good condition. New concentric vent adapter in the attic and new vertical concentric vent terminations were recently installed to replace the corroded flue terminations. Ceiling fans are provided to help circulate the air in the space.



Tail pipe exhaust system currently removes products of combustion from active vehicles. The exhaust fan is mounted in the attic with exhaust termination through the roof. We were not able to determine the model, capacity and age of existing system at the time of visit. We are not aware of any issues with this system, however, it was mentioned that a plan is in place to replace/improve all of town of Fairfield fire house tailpipe exhaust systems.

There appears to be ceiling mounted exhaust grille in the Apparatus Bay. It is not known if the grille is connected to an exhaust fan. The International Mechanical Code section 404.2 requires that a minimum of 0.05 cfm per square foot of continuous ventilation be provided and 0.75 cfm per square foot of ventilation air is exhausted when any vehicle is running within the space. In modern installations a CO/NO<sub>2</sub> detection system is installed which triggers the operation of exhaust fan. In addition to this exhaust fan, a means to provide make-up air, either by a separate supply fan or a louvered opening with motorized damper, would be installed to maintain the air balance for the space. Please note that this ventilation requirement needs to be met regardless of whether a tail pipe exhaust system has been installed.

### **Seismic Restraints**

The Fire Station is an essential facility. Buildings categorized as essential must remain operational during and after major disaster type events. There is no seismic bracing of

equipment and piping observed throughout the facility. Further study is recommended to determine the seismic requirement of the facility.

### **Recommendation for Repair/Replacement**

- Replace existing boiler and associated near boiler specialties. The new boiler will be high efficiency condensing boiler, with flue and combustion air pipes connected directly to the outdoors.
- Replace in-line pumps.
- Provide piping insulation with thickness complying with the Energy Code.
- Engage the service of a Chemical Service Provider to maintain proper water treatment to the building water loop
- Provide unit heater in the basement.
- Provide basement with dehumidifier with outside air duct connections for ventilation. Provide condensate drain piping terminating to an indirect drain in the basement.
- Replace packaged outdoor unit with new unit capable of delivering ventilation air to the space. Replace associated thermostat.
- Replace the exterior ductwork. New exterior ductwork should be provided with insulation and protective jacket.
- Extend housekeeping pad to properly support the units and to provide manufacturer required service and airflow clearances.
- Replace split system. Provide outdoor air ductwork connection to the air handling unit for ventilation. Replace associated thermostat.
- Replace refrigeration piping. Provide new refrigeration piping with insulation. Provide all exterior refrigeration piping insulation with aluminum jacket.
- Replace toilet room exhaust fans.
- Provide gas fired cooking appliance with hood with fire suppression system.
- Provide tempered make-up air to the space equivalent to 80% of air being exhausted.
- Provide exhaust fan and outdoor air to the apparatus bay. Provide with CO/NO2 detection system.
- Provide seismic analysis and calculations to determine facility seismic requirements.



## Electrical

The existing electrical service is made up of a new 400 amp 120/208V-1PH-3W G.E. service rated fused disconnect switch and adjacent CT cabinet. The service switch feeds the main distribution panel (MDP) through the Kohler



automatic transfer switch (ATS) located on the other side of the MDP. The MDP feeds panels in the basement and first floor. The service switch, MDP, ATS and most of the panels appear to be from the 1996 renovation. There is a 50KW diesel emergency generator 120/208V-1PH-3W located behind the building on the west side. The generator has a single output breaker (225 amps) that feeds the emergency side of the automatic transfer switch (ATS) in the

Apparatus Bay. The generator was installed during the 1996 renovation and the enclosure has a large amount of rust on it, we are not aware of any issues with this equipment.



## Fire Alarm

The fire alarm system (Edwards/EST #LSS1) is located on the wall next to the exterior door out of the stairway. There are manual pull stations at all of the egress doors but not the stair from the basement. Also, there are audio/visual devices and smoke & heat detectors throughout the building. Both the manual pull stations and audio/visual devices

do not appear to meet the current ADA height requirements (top of the pull station handle 48" AFF and the height of the strobe light shall be between 80"-96" AFF). It is our understanding the system is working properly without any issues.

### **Lighting**

The existing interior lighting in the building is a mix of recessed fluorescent lensed 2x4 fixtures, screw-in incandescent sockets, surface mounted incandescent/fluorescent round fixture, surface mounted industrial fixtures, surface mounted fluorescent wraparound fixtures and a few wall mounted reading lights (bunks). These fixtures appear to be in fair/good condition and working properly.

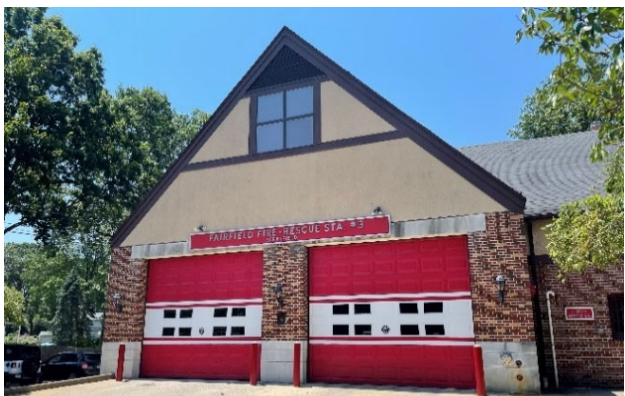


It is our

understanding that the majority of the fixtures have been upgraded with new LED bulbs. There are some fixtures that still have fluorescent or incandescent bulbs. These were areas that the town determined to be low use and would be replaced later as needed. Most of the areas have local toggle type & dimmer switches for control of the light fixtures. The existing exterior lighting for the building is made up of wall mounted

incandescent "lantern" type fixtures on the front and side of the building with two twin incandescent spotlights over the garage doors. There are some wall mounted LED flood lights on the south side and back of the building along with one wall globe fixture from the Apparatus Bay door. We were not able to determine the operation of the exterior fixtures at the time of our inspection.

Emergency lighting for the interior of the building is made up of combination exit signs with emergency lights and self-contained twin head emergency fixtures. In addition to





the self-contained battery lights and combination exit sign/emergency lights, there is a diesel generator serving the building. Exit signs in the building are made up mostly of thermoplastic signs with red lettering and emergency battery. Most of the exit signs appear to be in fair/good condition and working properly. We are not able to confirm the batteries on the exit signs and emergency lights will operate for the required 90 minutes.

### **Devices**

Existing wiring devices (receptacles & light switches) in the building are mostly recessed with a few surface mounted devices. The devices appear to be in fair/good condition and are not aware of any issues with these devices.

### **Telecommunication System**

The existing phone system D-Mark is on the south wall of the Apparatus Bay near the main electrical gear and the automatic transfer switch. There are a couple of wall mounted network switches over the door from the "pole" into the hallway outside of Lounge. We are not aware of any issues with this equipment at this time.

### **Recommendations for Repair / Replacement**

- Replace the few older electrical panels (not from 1996 renovation) with new.
- Replace the existing fire alarm system, at the end of its useful life.
- Add a fire alarm manual pull station in the basement at the stair going up to the first floor.
- Install emergency lighting at the exterior of all egress doors to meet current code requirements.
- Replace the rusted generator enclosure.
- Replace existing exterior weatherproof receptacle covers with "in-use" covers.

Fire Station 3 - 400 Jackman Road Facility Conditions Cost Estimate										
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING					CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
			4	3	2	1	n/a			
EXTERIOR CONDITIONS										
A01	Limited brick is spalling or mortar is in need of repointing	General		3				Patch, repair, or replace brick and repoint as necessary.	\$ 7,500	
A02	Asphalt roof may need replacement within 10 years	General	4					Provide new roof	\$ 109,600	Replaced in 1996?
A03	Basement windows are steel and single pane with gaps allowing mice and bats in the building	General			2			Replace with energy efficient aluminum windows	\$ 24,000	
A04	Vinyl windows are difficult to operate	General			2			Clean and lubricate the window tracks.	\$ -	
A05	2nd floor egress door does not meet code dimensions					1		Provide new door, requires some interior modifications.	\$ 20,000	
A06	Egress stair concrete base steps are settling	General				1		Remove and provide new stairs	\$ 6,000	
A07	Wood stairs at courtyard do not have a code complaint handrail	General			2			Install new handrail	\$ 2,000	
EXTERIOR SUBTOTAL										\$ 169,100
INTERIOR CONDITIONS										
A08	Apparatus bay floor paint is failing	General			2			Scrape, prime, and repaint slab?	\$ 6,000	
A09	Baseboard is beat up and could use painting	General			2			Scrape, prime, and repaint? Remove flooring or tape flooring before repainting	\$ 3,000	
A10	Basement moisture issue	General				1		Hygienist should verify, clean and monitor		Cost is to be determined
A11	Some door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)				1		Remove door locksets and install new accessible lever handle locksets where designated.	\$ 4,500	
A12	Handrails are not code compliant	(F)5-2.2.4.2 (B)1014.7 (ANSI A117.1) 505			2			Replace handrails	\$ 4,000	
A13	Existing upstairs restrooms do not meet accessibility requirements.	(B)1108.0 (ANSI A117.1) 603-606			2			Provide at least one accessible toilet stall, lavatory sink, urinal and shower. Provide required grab bars. Provide new accessible doors and frames and latching hardware as required by doors adjacent to egress corridor.	\$ 125,000	
A14	There are no women restrooms or showers.				2			Reconfigure to include.	\$ 150,000	Allowance
A15	Insufficient knee space provided at sink and/or workstation.	4.32 (ADA)			2			Provide accessible sinks and workstations per ADA Section 4.32. 27" high x 30" wide x 19" deep.	\$ 5,000	
A16	There is limited signage and the little provided is not code compliant	ANSI 117.1 code.			2			Provide code complaint signage	\$ 4,500	
A17	There is no elevator up to the second floor				2			Install and construct elevator	\$ 350,000	
INTERIOR SUBTOTAL										\$ 652,000
PLUMBING/FIRE PROTECTION										
P01	Older, inefficient plumbing fixtures	Maint.	4					Remove and replace plumbing fixtures	\$ 10,000	
P02	Water heater missing mixing valve and recirculation system	IPC		3				Provide required mixing valve and recirculation system	\$ 5,000	
P03	Backflow preventers not tested	IPC		3				Test and inspect backflow preventer	\$ 500	
P04	Insulation missing at water piping	IPC		3				Provide pipe insulation	\$ 2,000	
PLUMBING/FP SUBTOTAL										\$ 17,500

### Fire Station #3 Facility Conditions Cost Estimate

MECHANICAL SYSTEMS										
M01	Boilers at the end of their useful life	General	4					Provide new boiler and associated specialties and controls	\$ 45,000	
M02	In line Pumps at end of their useful life	General	4					Provide new pumps and associated specialties and controls	\$ 31,500	
M03	Piping insulation is missing or has deteriorated on hot water piping	General	4					Provide insulation per current IECC requirements. Allowance for 2000 LF)	\$ 7,500	Allowance for 500 LF of insulation
M04	Boiler loop chemical treatment	General	4					Engage the services of a Chemical Treatment Service Provider	\$ 2,500	allowance
M05	Unit heaters in the basement	General	4					Replace and add new.	\$ 5,500	
M06	Basement has no ventilation	IMC				1		Provide ventilation. Ventilation shall consist of outside air intake louver, ductwork , motorized damper	\$ 2,000	
M07	Basement dehumidifier at the end of its useful life	General	4					Replace with new suspended from structure complete with condensate piping	\$ 4,200	
M08	Packaged unit at the end of its useful life. Unit has no outside air intake	IMC				1		Replace with new unit capable of delivering OA	\$ 26,000	
M09	Rusted exterior ductwork	General		3				Provide new with insulation and jacket	\$ 22,000	
M10	Split System at the end of its useful life.	IMC		3				Replace with new unit. Replace refrigeration piping. Provide new piping insulation and jacket.	\$ 22,500	
M11	Exhaust fan at the end of their useful life	General		3				Replace with new	\$ 10,200	
M12	Kitchen hood does not have grease exhaust fan or grease exhaust ductwork.	General				1		Provide hood, fan and grease ductwork. Provide make-up air equivalent to 80% of exhaust air.	\$ 40,000	
M13	Apparatus Bay has no ventilation.	IMC				1		Install new supply and exhaust fans with CO/NO2 monitoring.	\$ 40,000	
M14	Building is an essential facility	IBC				1		Provide Seismic analysis and seismic restraints	\$ 25,000	
MECHANICAL SUBTOTAL										\$ 283,900
ELECTRICAL SYSTEMS										
E1	Old electrical panels (at or beyond useful life)	Maint.		3				Replace all old electrical panels (Empire elec.) with new	\$ 6,000	
E2	No manual pull stations in the basement up to the first floor	NFPA 72			2			Add pull stations in the basement at the stair up to the first floor to meet current code	\$ 250	
E3	No Exterior emergency egress lighting	NEC				1		Add an emergency light fixture w/battery and test switch for each egress door	\$ 2,500	
E4	Toggle type light switches	2015 IECC	4					Replace all existing toggle type switches with occupancy sensors and dimmer switches	\$ 5,000	
E5	Generator enclosure and base fuel tank are rusted	Maint.		3				Replace existing generator enclosure and remove rust from base fuel tank	\$ 8,500	
E6	Existing exterior receptacles do not have "in-use" covers	General	4					Replace existing weatherproof receptacle covers with new "in-use" covers	\$ 225	
E7	Existing plumbing & mechanical equipment to be replaced	Maint.		3				Disconnect and reconnect electrical connections to plumbing & mechanical equipment to be replaced	\$ 2,500	
ELECTRICAL SUBTOTAL										\$ 24,975
TOTAL ESTIMATED COSTS										\$ 1,147,475
LEDGEND PRIORITY - RANK										
1	Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.									
2	High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.									
3	Moderate priority – These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.									
4	Low priority – These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.									

## **Fire Station #4 – 69 Main Street, Southport**

Fire Station #4 was constructed in 1914, the oldest fire station in Fairfield. This building serves as a station for both fire fighters and volunteer fire fighters. These two occupants are separated by floors, top floor for the volunteers. Each program includes a kitchen, a dormitory, and a common space. The first floor contains an apparatus garage and wash bay and bathroom and serve as the common spaces for both parties.



Fire Station #4 is located on Main Street in Southport which runs north and south off of Pequot Avenue. This two-story building is built on about one quarter of an acre with parking towards the back of the site.



## Architecture

Fire Station 4 is overall in fair condition. The envelope of the building is made up of a combination of brick masonry and stucco with a hip roof. Having been built in the 1910s, the age of this building was designed without regard to today's codes. It is evident that some renovations have taken place here, specifically the front façade and doors.

### Exterior Building Envelope

Having been constructed over 100 years ago, the buildings envelope is in fair condition. The exterior brick walls of the fire station are generally in poor condition, aside from the front, with a limited areas of settling and spalling. The building is constructed with brick "veneer" with no air space evident, predictable for its age. The energy efficiency of this construction is very low, and typical in the 1910s ("pre-energy crisis"), and not one that is easily or readily corrected. It is evident that repointing in some areas have been previously performed. There are still many various areas throughout the remaining of the building which require repointing or repairing. There are a few areas of damage to the stucco coats, exposing the wire mesh. This should be repaired.



### Windows

When evaluating the energy efficiency of a building, it is known that nearly 25–40% of all heat energy is lost through windows. The majority of the windows are original single-glazed with wood frame windows. It appears storm systems have been added for some improvement. Regardless, these windows are in poor condition. The paint is peeling on both the window itself and the trim. In some cases, wood has deteriorated on the mullions, and the glass is barely hanging in. Trim is split and cracked in some areas. Additionally given their age they may contain lead paint. It is highly recommended that these windows be replaced. Additionally, window lintels are rusting and should be scraped primed and painted.





### **Doors**

There are three types of doors at this facility. The garage doors have been replaced. There are exterior wood doors in this building. Overall, they are in good condition. Most of the doors will require repainting and new weatherstripping as daylight is visible from inside. Although the garage doors are newly finished, the surrounding weatherstrips will need to be replaced due to weather damage and disintegrating.

### **Roof**

The building, simplistic in plan has a simple hip roof constructed over the second floor. There is also a small shed roof over the first floor at the rear of the building. The roofs consist of asphalt shingles. Fascias and soffits and trim are wood and like the windows. Main of the visible portions are they are in poor condition. The paint is peeling, and the wood appears to be in disrepair. These should be replaced when the roof is next replaced. Due to the sloping nature of the roof the roof was not able to have a full inspection. It was replaced 2013 and will likely be due for replacement 2033-2043 depending on warranty.



### **Interior Conditions**

An assessment of the interior conditions is an observation of materials, architectural components, the layout and organization of the building, and situations regarding code. There are some significant things that are not required but should be advised to be repaired.

### **Floors**

There are a variety of materials that make up the floors at this building. There are multiple spaces which would need a replacement or refinishing. Beginning with the apparatus bay floor, there is a very large crack in the concrete slab which extends from the inner point of the slab to the center where the drain is located. This is intentional to eliminate what can be assumed was a "bird bath" situation due to the slab not being correctly

pitched to the drain. Paint is also being to wear with some adjacent areas of slab beginning to chip and deteriorate. This should be monitored and repaired. At the main entrance there is a painted concrete slab that is peeling and should be repaired. Other areas have VCT or tile which is in fair condition. The carpet in the dormitories on the second-floor volunteer spaces is in disrepair. The carpet has reached the end of the line. The remainder of the second floor is made of wood. It has minimal damage and will require new layer of finish. Many of the floors are set at different levels requiring one to transverse on stairs while moving through the building. Ramps should be included however the layout and small rooms makes this quite a challenge.



### **Walls**

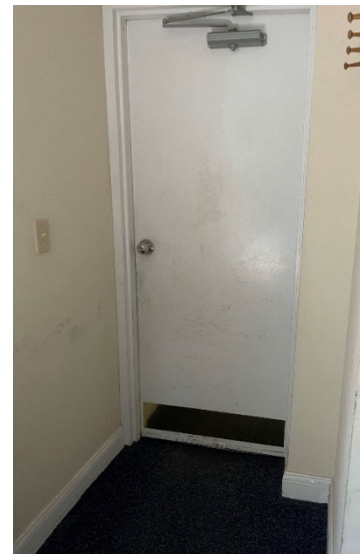
The walls throughout much of the station are plaster or gypsum wall board. Some walls have wood paneling. Most are in good to fair condition. Some areas could use a fresh coat of paint to fix the general wear and tear of the walls. Other areas have become damaged and need repair, most notably within the apparatus bay. There is water damage and perhaps covering the wall with a Fiber reinforced plastic panel (FRP) type of product would reduce the issue of water deteriorating the wall in these locations.

### **Ceilings**

The ceiling structure in this building is in good condition overall. The ground floor is constructed of various materials. The apparatus garage is constructed of plaster which is in good condition. The lower-level dormitory has plaster ceilings which look to have been recently repainted. The adjacent office, kitchen and second-floor volunteer space consists of acoustical ceiling tiles (ACT) which are in good condition with some stains. It would be a good idea to replace any damaged or tiles in poor condition.

### **Doors**

Most of the doors and frames are wood with some hollow metal. They are all in generally good condition. Some should be repainted. Most door hardware requires twisting and should be replaced. Some doors do not have the necessary clearances and should be adjusted, or power assisted door operators should be included.



## **Stairs**

There is one internal stair serving this building and one exterior egress stair. As mentioned, there are also small multiple stairs and steps throughout the first floor. They are in overall in good condition, however, none of them are to build to today's code. The interior stairs located on the western side of the building are not code compliant and require an intermediate landing as the rise is greater than 12 feet. Nor are the handrails compliant. The stair is likely grandfathered in, but the handrails should be changed. Stairs on the lower level also require handrails and should have ramps included.



On the exterior, the stair constructed of wood has had some work done to it to replace decaying wood. The building code requires exterior means of egress to be covered which does not happen here. Additionally, the railings and handrails are not constructed to code. This should be modified and covered.

## **Building Code and ADA**

As noted, there are code and ADA issues with the stair construction and level changes throughout the building. The stairs on the ground floors need a ramp, to enter and exit the selective rooms with this condition. Doors hardware should be changed and clearances altered.



Overall, considering the age of this building it is in good conditions with the need for some general maintenance items and code upgrades.



## Plumbing

The gas service is routed underground to the back of the building under the rear exterior stairs, where the service pressure regulator, and gas meter are located. Gas is distributed to the gas fired boiler and the two(2) kitchen gas range in the building, using black steel pipe. Exterior gas piping is exhibiting surface corrosion. Painting gas piping is recommended.



Water meter is in ground. We were not able to locate the routing of the water pipe from the in ground meter.

## Drainage Systems

The roofs are pitched to exterior gutters and downspouts. Downspouts are hard-piped to a site storm system. Refer to Architectural Narrative for further information.

The building's sewer system is mainly cast iron with some PVC repairs. It discharges underground to a public main in Main Street to a regional wastewater treatment plant, there are no septic systems. There were no reported clogs or issues. The building was built in the 1950's so original piping is 60 years old or more.

## Domestic Water Heater

Domestic hot water heater serving the building is a State Industries, 40 gallon electric heater, located in the boiler room. The heater was manufactured in 2012 and has a useful life expectancy of 10 to 15 years. There is no hot water recirculating pump, thermal expansion tank and ASSE1017 mixing valve installed. We recommend adding those components for compliance.

### **Plumbing Fixtures**

Existing plumbing fixtures in the building include vitreous china, floor-mounted tank-type water closet, wall mounted urinal, wall mounted lavatory, a fiberglass shower, and counter mounted stainless steel kitchen sinks.

Additional fixtures in the building include a fiberglass service sink in the Apparatus Bay. A laundry indirect drain standpipe with air admittance valve is located adjacent to the service sink. There is no emergency eye wash near the washer in the apparatus bay. Providing an eyewash station with OSHA/ANSI standards required supply temperature range of 60-100 deg F is recommended.

### **Oil Interceptor**

At the time of visit, we were not able to determine if an oil interceptor is installed in the facility. As required by the current code the sanitary line from the Apparatus Bay should be separate and should go into an oil interceptor prior to connecting into the main sanitary line. Further review of site is necessary to confirm compliance.

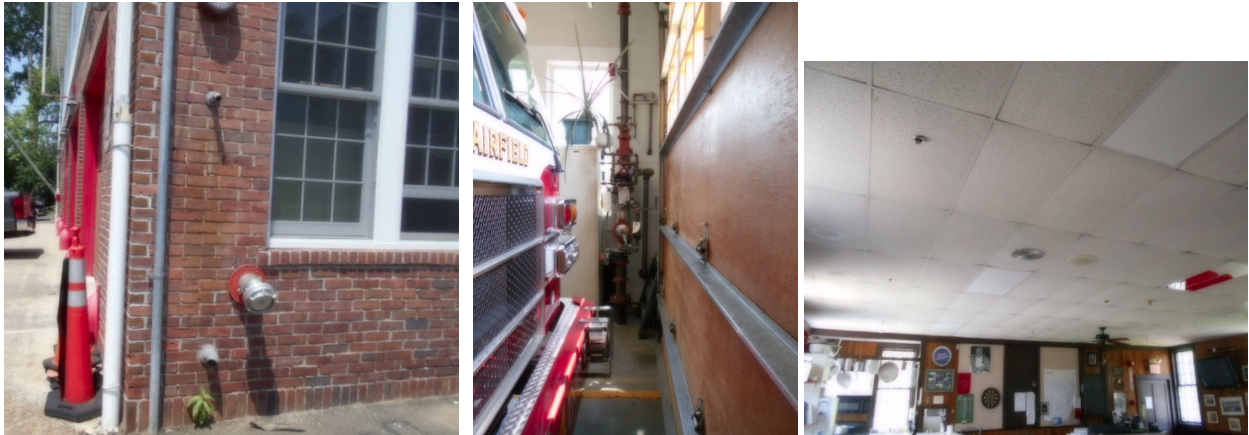
### **Recommendations for Repair / Replacement**

- Remove and replace plumbing fixtures with water saver fixtures.
- Remove and replace water heater, provide an expansion tank, a thermostatic mixing valve on the water heater and a recirculating system through the pipe tunnel as there is a long wait for hot water and exceeds code requirements.
- Test and inspect backflow preventers.
- Provide missing insulation around water heater on water piping.
- Paint exterior gas piping.



## Fire Protection

There is an existing fire protection sprinkler system in the building. A vertical, double check valve backflow preventer is provided at the riser in the corner of the apparatus garage, near the garage doors. There is a concern, if the doors are left open for an extended period in winter conditions, the system could freeze



## Recommendations for Repair / Replacement

- Continue to maintain, test, and inspect sprinklers and devices as required by code.

## Mechanical

### Boiler Plant

A cast iron gas fired Burnham boiler model IN8 is in the mechanical room adjacent to the officer's room and the Apparatus Bay. The boiler has an input capacity of 245,000 BTUH. Inline pumps are provided to circulate hot water to four (4) heating zones. According to ASHRAE, cast iron boiler useful life expectancy is 30 years and inline circulating pumps have a useful life expectancy of 10 years. We were unable to determine the date of manufacture and installation of the boiler and the inline pumps. The pumps and the boiler maybe either at the end or beyond their useful service life. Products of combustion are vented into the chimney through a sheet metal flue. Combustion air, one terminating high and one terminating low in the boiler room, ducted from the exterior wall, appear to be sized per International Mechanical Code. Bird screens are not observed at the combustion air outside terminations.

The air separator is exhibiting significant surface corrosion and sections of hot water piping in the boiler room are missing insulation.

The insulation covering the hot water piping throughout appears to be original to the building. Piping insulation has a useful life expectancy of 20 years. In addition to having outlived its useful life, it appears to be non-conforming to current code requirements for thickness.

Perimeter radiation, fed from the boiler system, provides heat in most of the occupied spaces. Second floor heating is though perimeter radiators made from multiple rows of steel pipes. Perimeter radiators appear to be original to the building and are beyond their useful life expectancy.





### **Electric Heater**

Bathroom heating is a wall mounted electric heater. No improvement is recommended at this time. If renovation is scheduled in the future, we recommend replacing the electric heater.

Entry/Stairs area heating is from a wall mounted electric unit heater. No improvement recommended at this time.

A sprinkler pipe and sprinkler head are installed in the storage below the stairs. The storage room does not have heating equipment. The sprinkler pipe within this storage space maybe subjected to freezing temperature.



### **Ventilation**

Ventilation air to occupied portions of the first floor is from operable window. The code allows for use of operable windows if the openable window area is 4% of the total floor area of the space.

Second floor sleeping quarters are lacking ventilation. Sleeping quarters are in the interior space, we recommend providing tempered mechanical ventilation

The first floor Officer's Room is housed in one (1) Bay and is lacking ventilation. Adding tempered ventilation air ins recommended.

An air king filtration unit is provided in the sleeping quarters to capture most airborne nuisance particulates. The self-contained filtration unit continuously pull contaminated air through multiple stages of highly efficient filters. The filtered air is then re-circulated back into the space.

Exhaust fans in the bathrooms are likely original to the building. While exhaust fans are currently functioning adequately, the exhaust fans are likely near the end useful life expectancy.

### **Cooling**

Window mounted air conditioning units and a portable floor mounted air conditioning unit provide cooling to the spaces. We are not aware of any issues to the window air conditioners.

Second assembly area is provided with two(2) ceiling fans to help circulate the air in the space.

### **Officer's room**

The first floor Officer's Room is housed in one (1) Bay and is lacking ventilation. Adding tempered ventilation air ins recommended. Cooling is provided by a wall mounted air conditioning unit. Expelled heat from air conditioning unit is discharged into the apparatus bay. The condensate drain is collected in a bucket. There is no active heating element provided in the room. Heating is currently from the radiated warm air from the boiler room.



## **Kitchen**

Over the range recirculating microwave vent hoods are provided at each cooking range. A fan pulls air through the filter and recirculated back to the space. The existing cooking appliances are residential stove. Per International Mechanical Code Section 507.1.2, domestic cooking appliances utilized for commercial purposes require Type I hood, domestic cooking appliance utilized for domestic purposes within a commercial setting shall comply with IMC section 505. The Authority Having Jurisdiction shall determine code compliance for a particular application. A residential hood with UL300A suppression system may be considered for this type of application. However, the use of this type of use shall be approved by the AHJ.



## **Apparatus Bay**

The Apparatus Bay is currently heated by hot water unit heaters. The unit heaters appear to be original to the building and have outlived their useful life expectancy of 20 years. Apparatus Bay ventilation air comes from open overhead doors.

There is no source of ventilation for the apparatus bay.

A tail pipe exhaust system currently removes products of combustion from active vehicles. A fan, mounted in the mechanical mezzanine above the toilet room, exhausts the air through a vent stack which runs up the exterior of the building to above the roof line. We were not able to determine the model, capacity and age of existing system at the time of visit. We are not aware of any issues with this system however, it was mentioned that a plan is in place to replace/improve all of town of Fairfield fire house tailpipe exhaust systems.

The International Mechanical Code section 404.2 requires that requires that a minimum of 0.05 cfm per square foot of continuous ventilation be provided and 0.75 cfm per square foot of ventilation air is exhausted when any vehicle is running within the space. In modern installations a CO/NO2 detection system is installed which triggers the operation of exhaust fan. In addition to this exhaust fan, a means to provide make-up air,



either by a separate supply fan or a louvered opening with motorized damper, would be installed to maintain the air balance for the space. Please note that this ventilation requirement needs to be met regardless of whether a tail pipe exhaust system has been installed.



### **Seismic Restraints**

The Fire Station is an essential facility. Buildings categorized as essential must remain operational during and after major disaster type events. There is no seismic bracing of equipment and piping observed throughout the facility. Further study is recommended to determine the seismic requirement of the facility.

### **Recommendation for Repair/Replacement**

- Replace existing boiler and associated near boiler specialties. The new boiler will be high efficiency condensing boiler, with flue and combustion air pipes connected directly to the outdoors.
- Engage the service of a Chemical Service Provider to maintain proper water treatment to the building water loop
- Replace in-line pumps.
- Perform ultrasonic testing for the rest of the piping system to determine the rates of corrosion within the pipes. Replace pipes as needed.
- Provide piping insulation with thickness complying with the Energy Code.
- Replace toilet room exhaust fans.
- Replace Officer's Room air conditioner with a ductless split system that can provide the code required ventilation and air conditioning.
- Provide gas fired cooking appliance with hood with fire suppression for each kitchen appliance.
- Provide tempered make-up air to the space equivalent to 80% of air being exhausted.
- Provide exhaust fan and outdoor air to the apparatus bay. Provide with CO/NO2 detection system.
- Provide seismic analysis and calculations to determine facility seismic requirements

## Electrical



The existing electrical service is made up of a 200 amp 120/208V-1PH-3W G.E. enclosed main breaker, with (2) adjacent panels 'LP1' & 'LP2' serving the building. These panels feed all of the lighting and power throughout both floors of the building (installed 05-08-2020). There is a 54KW diesel emergency generator 120/208V-1PH-3W located behind the building in the north-east corner. The generator has a single



output breaker (225 amps) that feeds panels 'LP1' & 'LP2' via an automatic transfer switch. The generator was installed on 11/6/95, with the enclosure showing signs of age (rusting throughout).

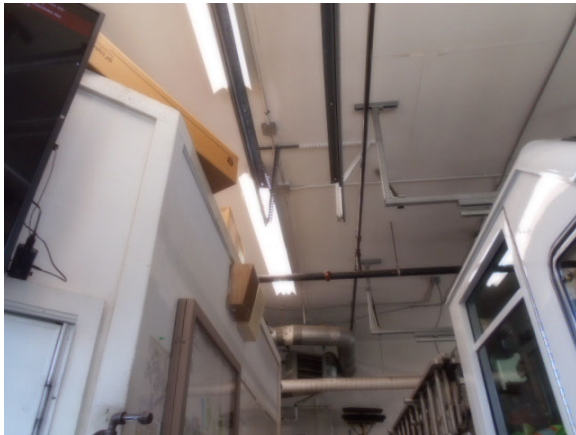


## Fire Alarm

The fire alarm system (Edwards #EST-1) is located on the wall next to the transfer switch on the first-floor north-west corner. There are manual pull stations at all of the egress doors and the stairs except the doors out of the Wash Bay (far right bay). Most of these devices do not meet the current ADA height requirement. The top of the pull handle is above 48" above finished floor. Also, there are audio/visual devices and smoke & heat detectors throughout the building. It is our understanding the system is working without any issues.

## **Lighting**

The existing interior lighting in the building is a mix of recessed fluorescent lensed 2x4 fixtures, recessed down lights, surface mounted wraparound fixtures, surface mounted strip light fixtures, surface mounted industrial fixtures, and wall mounted adjustable “reading” lights at each bunk. These fixtures appear to be in fair/good condition and working properly. It is our understanding that the majority of the fixtures have been upgraded with new LED bulbs. There are some fixtures that still have fluorescent or incandescent bulbs. These were areas that the town determined to be low use and would be replaced later as needed. Most of the areas have local toggle type & dimmer switches for control. The existing exterior lighting for the building is made up of incandescent lantern type fixtures on the front of the building, “goose neck” type fixtures at the egress doors except from the kitchen. The door from the kitchen has a wall mounted “jelly jar” fixture. We were not able to determine the operation of the exterior fixtures at the time of our inspection.



Emergency lighting for the interior of the building is made up of combination exit signs with emergency lights and self-contained twin head emergency fixtures. In addition to the self-contained battery lights and combination exit sign/emergency lights, there is a diesel generator serving the building. Exit signs in the building are made up mostly of thermoplastic signs with red lettering and emergency battery. Most of the exit signs appear to be in fair/good condition and working properly. We are not able to confirm the batteries on the exit signs and emergency lights will operate for the required 90 minutes.

## **Devices**

Existing wiring devices (receptacles & light switches) in the building are a mix of recessed and surface mounted. The devices appear to be in fair/good condition and are not aware of any issues with these devices.

## **Telecommunication System**

The existing phone system D-Mark is on the first floor (north-west side) between the main electrical gear and the automatic transfer switch. The security equipment is also wall mounted in the same location. We are not aware of any issues with this equipment at this time.

### **Recommendations for Repair / Replacement**

- Replace existing wall switches with new occupancy sensors and dimmer switches.
- Replace the existing fire alarm system, at the end of its useful life.
- Add additional emergency lights to meet current code required light levels.
- Install emergency lighting at the exterior of all egress doors to meet current code requirements.
- Repair/Replace existing rusted generator enclosure.

Fire Station 4 - 69 Main Street Southport Facility Condition Cost Estimate							
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING				
			4	3	2	1	n/a
<b>EXTERIOR CONDITIONS</b>							
A01	Brick is spalling or mortar is in need of repointing	General		2			
A02	Stucco is damaged in some limited areas	General		2			
A03	Windows are original and nearing the end of their useful life	General		2			
A04	Lintels are rusting	General	3				
A05	Doors are in need of repainting	General	3				
A06	Weatherstripping is deteriorating	General	3				
A07	Roof fascia is peeling and likely nearing the end of its useful life	General	3				
A08	Roof was replaced in 2013 and should last until 2033-43	General	4				
<b>EXTERIOR SUBTOTAL</b>							<b>\$ 166,615</b>
<b>INTERIOR CONDITIONS</b>							
A09	Concrete slab paint finish is peeling	General	4				
A10	There are multiple level within the first floor	General		2			Allowance
A11	Carpet on second floor has exceeded its useful life	General		2			
A12	Water damage at wall of apparatus bay	General		2			
A13	Limited areas of walls are in need of repainting	General	3				Allowance
A14	Doors are in need of repainting	General	3				
A15	All door push and/or pull maneuvering clearances do not meet code.	413.6 (ADA) 1101.2 (IBC) ANSI 117.1		2			
A16	Some door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)		2			
A17	The stair handrails do not meet code and some stairs do not have railings			2			
A18	The exterior stair assembly is not to code				1		
A19	There is no elevator up to the second floor			2			
<b>INTERIOR SUBTOTAL</b>							<b>\$ 467,200</b>
<b>PLUMBING/FIRE PROTECTION</b>							
P01	Older, inefficient plumbing fixtures	Maint.	4				
P02	Water Heater older	Maint.	3				
P03	Backflow preventer needs testing	IPC	3				
P04	Water piping missing insulation	IPC	3				
P05	Exterior gas piping corroding	Maint.	3				
<b>PLUMBING/FP SUBTOTAL</b>							<b>\$ 19,000</b>



## Fire Station #4 Facility Conditions Cost Estimate

MECHANICAL SYSTEMS									
M01	Boiler is at the end of their useful life	General	4				Provide new high efficient boiler and associated specialties and controls. Install new polypropylene flue and combustion piping	\$ 36,850	
M02	No bird screen at exterior combustion air termination	General			2		install bird screen	\$ 250	
M03	In line Pumps at end of their useful life	General	4				Provide new pumps and associated specialties and controls	\$ 37,500	
M04	Piping system at the end of their useful life	General	4				Replace with new.	\$ 14,000	allowance for 400 LF
M05	Piping insulation is missing or has deteriorated on hot water piping	General	4				Remove existing and replace with new per current IECC requirements.	\$ 6,000	allowance for 400 LF
M06	Boiler loop chemical treatment	General	4				Engage the services of a Chemical Treatment Service Provider	\$ 2,500	allowance
M07	Exhaust fan at the end of their useful life	General	4				Replace with new	\$ 10,000	
M08	Officer's Room has no ventilation	IMC				1	Provide ductless split system with OA ductwork connection	\$ 6,000	
M09	Storage below stair has not heating.	General			2		provide electric heater	\$ 2,000	
M10	Kitchen hood does not have grease exhaust fan or grease exhaust ductwork.	General				1	Provide hood, fan and grease ductwork. Provide make-up air equivalent to 80% of exhaust air.	\$ 77,000	
M11	Apparatus bay unit heaters at the end of their useful life	General		3			Replace with new	\$ 12,500	
M12	Apparatus Bay has no ventilation.	IMC				1	Install new supply and exhaust fans with CO/NO2 monitoring.	\$ 40,000	
M13	Firs floor and second floor finned tube radiation had out lived its useful life	General	4				Replace with new	\$ 25,000	
M14	Building is an essential facility	IBC				1	Provide Seismic analysis and seismic restraints	\$ 25,000	
MECHANICAL SUBTOTAL									\$ 294,600
ELECTRICAL SYSTEMS									
E1	Existing fire alarm system is at end of useful life	NFPA 72			2		Replace existing fire alarm system with new	\$ 7,500	
E2	Existing emergency lighting does not provide proper coverage	NEC				1	Add additional emergency light fixtures throughout to meet current code required light levels	\$ 4,000	
E3	No Exterior emergency egress lighting	NEC				1	Add an emergency light fixture w/battery and test switch for each egress door	\$ 1,500	
E4	Generator enclosure and base fuel tank are rusted	Maint.		3			Replace existing generator enclosure and remove rust from base fuel tank	\$ 8,500	
E5	Toggle type light switches	2015 IECC	4				Replace all existing toggle type switches with occupancy sensors and dimmer switches	\$ 2,500	
E6	Existing plumbing & mechanical equipment to be replaced	Maint.		3			Disconnect and reconnect electrical connections to plumbing & mechanical equipment to be replaced	\$ 2,500	
ELECTRICAL SUBTOTAL									\$ 26,500
TOTAL ESTIMATED COSTS									\$ 973,915
LEDGEND PRIORITY - RANK									
1	Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.								
2	High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.								
3	Moderate priority – These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.								
4	Low priority – These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.								

## Fire Station #5 – 3965 Congress Street

Fire Station #5 was constructed in 1954, on the second largest site of the fire stations. It is located on Congress Street in Fairfield in a residential area. The one-story building is situated on the center of the 1.2-acre site. The fire station is laid out with the 2-bay apparatus garage in the center flanked by the day room, kitchen, and weight area to one side and the dormitories and offices on the other. Parking is in the back of the site, with two means of vehicular circulation around the sides of the building. The rear parking lot is in severe disrepair and should be redone.



## Architecture

Overall Fire Station #5 is in fair condition. Having been built in the 1950s, the architecture is a of brick masonry with gabled roofs. The flanking sides are also gabled structures but with siding. The building has been updated over the years; however, the majority of renovations have no relation to code or accessibility leaving items to rectify and still has some finishes to upgrade.





### **Exterior Building Envelope**

Much of the exterior of the building is in good condition. The building is constructed with brick “veneer”, rigid insulation, and a glazed concrete masonry unit interior. The energy efficiency of this construction is low, and typical in the 1970s (“pre-energy crisis”), and not one that is easily or readily corrected. Overall, the mortar is in reasonably good condition although the age of the building suggests that in the future a detail review should evaluate if repointing is required. The side buildings are covered with vinyl siding. Some of it is in disrepair. A portion of the eastern façade should be repaired. The north side needs to be cleaned.



### **Windows**

The windows are double hung vinyl assemblies that likely are replacement windows. They appear to be in good condition. The basement windows, however, are original steel assemblies and although in fair condition, they should be considered to be replaced in the future.

### **Doors**

There are a variety of exterior doors. First and foremost, there are 2 large overhead doors. These doors look to be in fine working order. The concrete below was recently redone. The corner guards are rusting and peeling and should be refinished. The door heads are rusting slightly but some areas are stained with black soot. This should be cleaned. Other exterior doors are wood and in fair condition. The front door to the watch room is peeling. The door also has knobs that require twisting. It is also up two steps. A ramp should be provided. The remaining doors appear in better condition and are only accessible from a set of stairs. Minimally the main door used for public should be made accessible.



### **Roof**

The one-story building is comprised of gable roofs. The roofs are architectural asphalt shingles and appear to be in good condition. They were recently replaced in 2019. The roofs have gable vents. The fascias and soffits appear to be vinyl and in good condition. Drainage is handled through gutters and downspouts that are piped to an underground system.

## **Interior Conditions**

The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. The interior is well maintained; however, it needs some improvements, upgrades and code modifications.

### **Floors**

The floor materials in the building varies based on the spaces of the building. The apparatus bays and mechanical areas flooring is a painted concrete slab. The kitchen/weight room/day room area was recently renovated and includes a vinyl wood look floor. Ceramic tile is in the bathroom which is original but in fair condition. The basement stairs have some vinyl asbestos floor tile on the landing that should be removed and abated.

### **Walls**

There are a few different materials in this building. The glazed block in the apparatus bay is in good condition given its age. Mortar joint have held up well but overall, the surfaces could use a good cleaning. The walls in the restroom have ceramic wall tile and are in good condition. Walls throughout the rest of the station are gypsum wallboard. The renovated areas are in very good condition while other areas are in fair condition with some areas in need of paint. Some areas of the basement walls have signs of efflorescence and possible mold indicating a moisture issue. This area of the wall should be inspected to determine the underlying cause.



### **Ceilings**

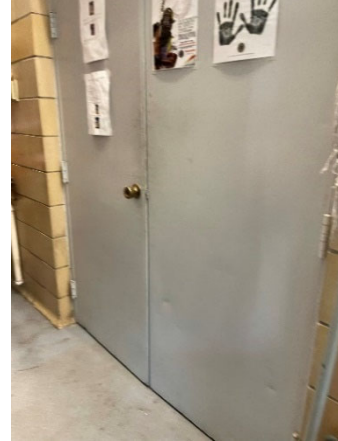
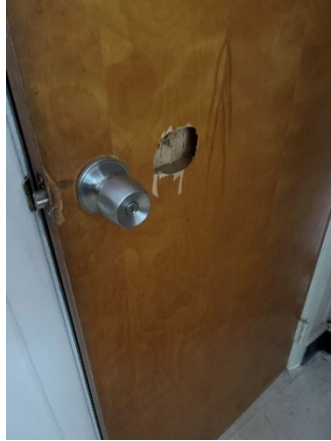
There are a few types of ceilings in this building. The apparatus bay ceiling is painted plaster. The remaining ceilings are primarily acoustical ceiling tile (ACT). There are two types that are evident and correlate with the construction timeframe. The newly renovated spaces consist of 2x2 ACT hung on an exposed grid. This is typical for today. While the original spaces remain to have a 1x2 concealed spline ACT. Given its age it could contain asbestos. Regardless these ceilings are not easy to work with and it should be replaced in the future.





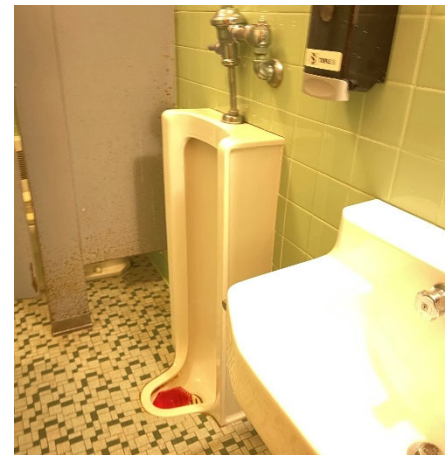
## Doors

There are both hollow metal doors and frames along with wood doors and frames throughout the station. The doors are in fair to poor condition. Hollow metal doors and frames need to be painted. Several wood doors are in disrepair. Some are hollow and damaged. They should be replaced. Most door hardware are knobs that require twisting. They need to be replaced with lever or pull handles.



## Restrooms

There are multiple restrooms throughout the station. None of the restrooms are ADA compliant nor are there any female restrooms. There are no ADA showers. Additionally, the urinals are floor mounted which are no longer code compliant. These spaces are dated and in need of renovations. The toilet partitions are also showing their age and beginning to rust. ADA compliancy and gender equality should be a part of the long-term capital planning of this station.



## Stairs

The only interior stairs are to the basement and as previously mentioned VAT floor tile is apparent. The handrail is also not code compliant with the proper extensions. The exterior stairs from the basement handrail and guard rails are also not compliant. They are also rusted. These should be replaced.



## **Casework**

Most of the casework throughout the facility is new. However, they do not have an ADA complaint sink or knee space incorporated.

## **Building Code and ADA**

As noted within many of the sections, there are multiple code and accessibility issues within this building. Door hardware, ADA restrooms and showers and casework were previously noted. Other ADA issues are with certain spatial clearances within rooms and at doors. The required maneuvering clearances at doors is not always present in every location. These spaces should be adjusted to accommodate these accessibility clearances. Where they cannot be modified a power assisted door operator should be installed. There is no signage present in the building on the main levels, and the basement contains small room labels create based on a previous code. Recommendation for new signage to label all rooms and spaces with the associated dimensions, font, and height based on the 2009 ANSI 117.1 code.

## **Plumbing**

The gas service is routed from the gas main in Congress Street to two (2) gas meters located in the front of the building. One gas meter serves the boiler and the other serves the domestic water heater and kitchen range.

Domestic water service is routed from Congress Street to the basement.

### **Drainage Systems**

The roofs are drained via perimeter gutters and leaders. Refer to Architectural Narrative for further information.

Building sanitary is collected to a septic tank located in the rear parking lot. We were not able to locate the oil interceptor at the time visit.

### **Domestic Water Heater**

Domestic hot water serving the building is from a 50-gallon Rheem natural gas fired storage water with an input capacity of 38,000 BTUH. The unit is in the basement located in the boiler room. The heater was manufactured in 2013 and has a useful life expectancy of 10 to 15 years. There is no hot water recirculating pump, thermal expansion tank and ASSE1017 mixing valve installed. We recommend adding those components for compliance.

### **Plumbing Fixtures**

Existing plumbing fixtures in the building include vitreous china, floor-mounted tank-type water closet, wall mounted lavatory, a fiberglass shower, and counter mounted stainless steel kitchen sinks.

Additional fixtures in the building include a fiberglass service sink in the Apparatus Bay. A laundry indirect drain standpipe with air admittance valve is located behind the washer and dryer. The emergency eye wash is in the apparatus bay, fed with cold water only. Current OSHA/ANSI standards require a supply temperature range of 60-100 deg F to emergency fixtures. Adding hot water supply and a thermostatic mixing valve to the current installation will provide a safe, inviting code-compliant water temperature at this fixture.



### **Recommendations for Repair / Replacement**

- Remove and replace plumbing fixtures with water saver fixtures.
- Provide an expansion tank, a thermostatic mixing valve on the water heater and a recirculating system through the pipe tunnel as there is a long wait for hot water and exceeds code requirements.
- Test and inspect backflow preventers.
- Provide a vacuum breaker on the laundry tub sink.
- Convert the sanitary system from septic to a public sewer system if possible.
- Provide tepid water to eye wash.
- Provide floor drains in basement boiler rooms where needed.

## Fire Protection

A four-inch fire water service is routed from Congress Street to the basement sprinkler system.

The facility is provided with a fully automatic fire protection system with sprinkler coverage throughout the building. A dedicated fire protection water main supplies the system and is provided with a reduced pressure detector assembly backflow preventer with bypass meter to protect the municipal water system from cross contamination. A wall mounted fire department connection with check valve is provided accordingly and is located adjacent to the gas meter assembly. A 4" dry valve assembly is provided and consists of a dry riser check valve, maintenance air compressor and supervised valves with flow and tamper switches.

Distribution piping is black steel with mechanical and threaded fittings, galvanized distribution piping was not utilized. Areas are provided with upright sprinkler heads.



## Recommendations for Repair / Replacement

- Continue to maintain, test, and inspect sprinklers and devices as required by code.
- Provide floor drains for sprinkler drainage, currently buckets are being used.



## Mechanical

### Boiler Plant

The existing boiler, located in the basement, is a cast iron gas fired HB Smith boiler Series 5 with a Power Flame burner. The boiler has an IBR rating of 330,400 BTUH. Based on the serial numbers, the boiler was manufactured in 1987 and has been in operation for over 30 years. Cast iron boilers have a useful life expectancy of 30 years. Products of combustion are vented into the existing chimney through a sheet metal flue. Combustion air appears to be inadequate.

There are three (3) independent zones serving the building. The (3) zones are fed from individual inline pumps off of the boiler supply manifold. We were unable to determine the date of manufacture and installation of the inline pumps, it appears that one inline pump was recently replaced. Inline pumps of this type have a useful life expectancy of 10 years.

The hot water piping distribution system appears to be original to the building. The hot water piping is in the basement and is routed in the tunnel to the crawlspace below the dayroom and kitchen area. Hot water supply and return piping has a useful life expectancy of 50 years. The boiler supply manifold is showing signs of heavy wear.

The insulation covering the hot water piping appears to be original to the building. Hot water piping through the tunnel appears to be missing insulation. Piping insulation has a useful life expectancy of approximately 20 years. In addition to having outlived its useful life it is likely that it is non-conforming to current code requirements for thickness.



Semi-recessed wall mounted convectors, fed from the boiler system, provides perimeter in occupied spaces. Convectors have useful life expectancy of 20 years. Convectors appear to be fair condition.



### **Basement**

There is no mechanical ventilation provided to the basement area.

### **Air Filtration**

Air King filtration units are recently provided in the sleeping quarters to capture most airborne nuisance particulates. The self-contained filtration unit continuously pull contaminated air through multiple stages of highly efficient filters. The filtered air is then re-circulated back into the space.

### **Toilet Rooms**

Toilet rooms are served by exhaust fans which appear to meet the requirement of the current mechanical code. Exhaust fans are likely near the end of their useful life expectancy.

### **Cooling**

A two(2) zone 5 ton split system serves the occupiers spaces. The split system consists of an air handling unit, a remote air-cooled condensing unit, and zone dampers. The air handling and air-cooled condensing are manufactured in 2018. The air handling unit and the duct distribution system are in the attic. One zone serves the watch room, dormitory and office area, and the other zone serves the dayroom and the kitchen area. The main duct distribution system is provided with foil-faced bubble wrap. The R value of this wrap does not conform with the energy code requirements for ductwork located in the attic.

There is no outside air connected to the air handling unit. Based on the capacity, this unit should be equipped with economizer. Economizer allows the system to provide free cooling to the space when the outdoor air temperature is cooler than the indoor air temperature.

The air-cooled condensing unit, located on the south side of the building, is mounted on a concrete masonry unit block on top of the pre-fabricated pad. The unit has a dent and was pushed close to the exterior wall. This was caused by the fallen tree from the

storm. We recommend moving the unit away from the exterior wall to maintain the manufacturer's airflow clearance requirements.



### **Kitchen**

The kitchen was renovated in 2017. The existing gas stove does not have a Type I kitchen exhaust hood with an Ansul fire protection system. There is also no makeup air for the kitchen, as required by code. Per International Mechanical Code Section 507.1.2, domestic cooking appliances utilized for commercial purposes require Type I hood, domestic cooking appliance utilized for domestic purposes within a commercial setting shall comply with IMC section 505. The Authority Having Jurisdiction shall determine code compliance for a particular application. A residential hood with UL300A suppression system may be considered for this type of application. However, the use of this type of use shall be approved by the AHJ.

### **Apparatus Bay**

The Apparatus Bay is heated by two (2) hot water unit heaters. The unit heaters appear to be original to the building and have exceeded their useful life expectancy of 20 years.



A Nederman tail pipe exhaust system currently removes products of combustion from active vehicles. The exhaust fan is mounted in the attic with exhaust termination through



the roof. We were not able to determine the model, capacity and age of existing system at the time of visit. We are not aware of any issues with this system, however, it was mentioned that a plan is in place to replace/improve all of town of Fairfield fire house tailpipe exhaust systems.

A sidewall mounted propeller exhaust fan appears to be original to the building. The propeller exhaust fan appears to be original to the building and has exceeded their useful life expectancy of 15 years.

The International Mechanical Code section 404.2 requires that a minimum of 0.05 cfm per square foot of continuous ventilation be provided and 0.75 cfm per square foot of ventilation air is exhausted when any vehicle is running within the space. In modern installations a CO/NO<sub>2</sub> detection system is installed which triggers the operation of exhaust fan. In addition to this exhaust fan, a means to provide make-up air, either by a separate supply fan or a louvered opening with motorized damper, would be installed to maintain the air balance for the space. Please note that this ventilation requirement needs to be met regardless of whether a tail pipe exhaust system has been installed.

### **Seismic Restraints**

The Fire Station is an essential facility. Buildings categorized as essential must remain operational during and after major disaster type events. There is no seismic bracing of equipment and piping observed throughout the facility. Further study is recommended to determine the seismic requirement of the facility.

### **Diesel Fuel Storage**

A Highland Tank diesel fuel dike tank is in the rear parking lot. The tank is in fair condition. We are not aware of any issues with this tank.



### **Recommendation for Repair/Replacement**

- Replace existing boiler and associated near boiler specialties. The new boiler will be high efficiency condensing boiler, with flue and combustion air pipes connected directly to the outdoors.

- Engage the service of a Chemical Service Provider to maintain proper water treatment to the building water loop
- Replace in-line pumps.
- Perform ultrasonic testing for the rest of the piping system to determine the rates of corrosion within the pipes. Replace pipes as needed.
- Provide piping insulation with thickness complying with the Energy Code.
- Provide unit heater in the basement.
- Provide basement with dehumidifier with outside air duct connections for ventilation. Provide condensate drain piping terminating to an indirect drain in the basement.
- Provide economizer dampers (outside air and return air damper) and economizer control at air handling unit.
- Replace/add insulation to achieve the Energy Code required R value of 12 for ductwork located in the attic (outside of the building envelop).
- Move air-cooled condensing unit away from the exterior wall.
- Replace refrigeration piping insulation. Provide all exterior refrigeration piping insulation with aluminum jacket.
- Provide gas fired cooking appliance with hood with fire suppression system.
- Provide tempered make-up air to the space equivalent to 80% of air being exhausted.
- Replace exhaust fans in the toilet rooms.
- Provide exhaust fan and outdoor air to the apparatus bay. Provide with CO/NO2 detection system.
- Provide seismic analysis and calculations to determine facility seismic requirements.



## Electrical

The existing electrical service is made up of a 200 amp 120/208V-1PH-3W Trumbull Electric service rated fused disconnect switch with integral CT cabinet. The service switch feeds what appears to be a manual transfer switch, which also has a feed from the generator. The manual



switch in turn feeds the MDP via an old electrical panel (used as a splice box). The MDP feeds a load center in the basement in addition to all of the branch circuits for the building. All of this equipment is in the



basement in the south-east corner. There is a 50KW diesel emergency generator 120/208V-1PH-3W located behind the building on the west side. The generator has a single output breaker (225 amps) that feeds the emergency side of the automatic transfer switch (ATS) in the Basement. The

generator enclosure has a small amount of rust on it, we are not aware of any issues with the generator. There is also an above ground fuel storage tank and fuel pump out behind the building. The emergency power off switch (EPO) for the fuel tank & pump in on the south-west corner of the building.



## Fire Alarm

The fire alarm system (Fire-Lite #MS-10UD) is located on the east wall of the Watch room south corner. There are manual pull stations at some of the egress doors and the stair from the basement, but not at egress doors. Also, there are audio/visual devices and smoke & heat detectors throughout the building. Most of the manual pull stations and some of

the audio/visual devices do not appear to meet the current ADA height requirements (top of the pull station handle 48" AFF and the height of the strobe light shall be between 80"-96" AFF). It is our understanding the system is working properly without any issues.

### **Lighting**

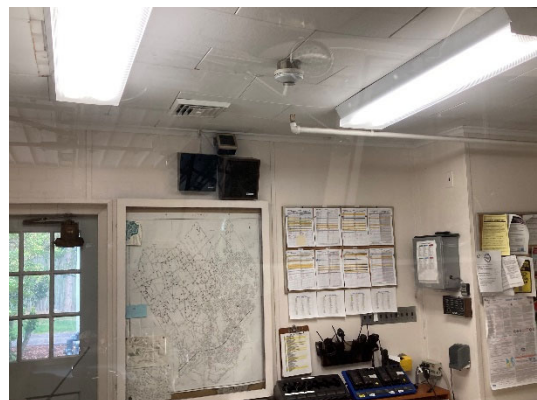
The existing interior lighting in the building is a mix of recessed fluorescent lensed 2x4 fixtures, screw-in incandescent sockets, surface mounted incandescent/fluorescent round, square & oval fixtures, surface mounted industrial fixtures, surface mounted fluorescent wraparound fixtures



and wall mounted reading lights (bunks). These fixtures appear to

be in fair/good condition and working properly. It is our understanding that the majority of the fixtures have been upgraded with new LED bulbs. There are some fixtures that still have fluorescent or incandescent bulbs. These were areas that the town determined to be low use and would be replaced later as needed. Most of the areas have local toggle type & dimmer switches for control of the light fixtures, with a

couple of spaces with rotary timer switches and wall occupancy sensor switches for control. The existing exterior lighting for the building is made up of wall mounted incandescent "lantern" type fixtures on the front and back of the building with a twin headed incandescent spotlights at the south-west corner of the building. There is a wall mounted LED full cut-off light between the front overhead doors and some adjustable LED flood lights on the back of the building. We were not able to determine the operation of the exterior fixtures at the time of our inspection.







Emergency lighting for the interior of the building is made up of combination exit signs with emergency lights and self-contained twin head emergency fixtures. In addition to the self-contained battery lights and combination exit sign/emergency lights, there is a diesel generator serving the building. Exit signs in the building are made up mostly of thermoplastic signs with red lettering and emergency battery. Most of the exit signs appear to be in fair/good condition and working properly. We are not able to confirm the batteries on the exit signs and emergency lights will operate for the required 90 minutes.

### **Devices**

Existing wiring devices (receptacles & light switches) in the building are mostly recessed with some surface mounted devices in the Apparatus Bay and the Basement. The devices appear to be in fair/good condition and are not aware of any issues with these devices.

### **Telecommunication System**

The existing phone system D-Mark is on the east wall of the Basement near the main electrical gear and the automatic transfer switch. There are wall mounted network switches and security panels on a plywood backboard with the D-Mark. We are not aware of any issues with this equipment at this time.

### **Recommendations for Repair / Replacement**

- Replace the existing electrical panels and service switch with new. Eliminate the manual transfer switch and wire new normal service through the existing ATS. Provide a new 2-section MDP panel to eliminate all of the "split" type breakers.
- Replace existing wall switches with new occupancy sensors and dimmer switches.

- Add a fire alarm manual pull station at all egress doors that currently do not have one.
- Install missing smoke detector in hallway outside of Office & Bunk room.
- Install emergency lighting at the exterior of all egress doors to meet current code requirements.
- Replace existing exterior weatherproof receptacle covers with “in-use” covers.

Fire Station 5 - 3965 Congress Street Facility Condition Cost Estimate									
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING					ITEMIZED ESTIMATED COST	REMARKS
			4	3	2	1	n/a		
<b>EXTERIOR CONDITIONS</b>									
A01	Vinyl siding at the east is damaged & punctured	General			2			\$ 3,000	
A02	Basement windows are original steel assemblies	General			2			\$ 6,000	
A03	Front door is not accessible	General				1		\$ 8,000	
A04	Exterior door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)			2			\$ 1,000	
A05	Door paint is peeling	General			2			\$ 1,500	
A06	Handrails and guardrails are not complaint at basement egress					1		\$ 10,000	
<b>EXTERIOR SUBTOTAL</b>									<b>\$ 29,500</b>
<b>INTERIOR CONDITIONS</b>									
A07	Apparatus concrete slab paint finish is peeling	General	4					\$ 4,400	
A08	Basement walls indicate a moisture/water issue with efflorescent and mold and mildew present	General				1			Cost is to be determined
A09	Spline ceiling systems are nearing end of useful life		4					\$ 2,000	
A10	Hollow metal doors paint finish is failing		4					\$ 1,500	
A11	Several wood doors are in disrepair or broken			3				\$ 7,500	
A12	All door push and/or pull maneuvering clearances do not meet code.	413.6 (ADA) 1101.2 (IBC) ANSI 117.1			2			\$ 4,000	
A13	Some door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)			2			\$ 3,500	
A14	Existing restrooms do not meet accessibility requirements.	(B)1108.0 (ANSI A117.1) 603-606			2			\$ 250,000	male and female at right side
A15	Existing restrooms do not meet accessibility requirements. Floor urinals do not meet building codes.	(B)1108.0 (ANSI A117.1) 603-606			2			\$ 125,000	
A16	There are no women restrooms with showers by dormitory.				2			\$ 150,000	Allowance
A17	Basement stair handrail does not have extensions	(F)5-2.2.4.2 (B)1014.7 (ANSI A117.1) 505			2			\$ 2,000	
A18	The required knee spaces do not exist at kitchen cabinetry				2			\$ 2,500	
A19	The kitchen sink is not accessible				2			\$ 3,500	
<b>INTERIOR SUBTOTAL</b>									<b>\$ 555,900</b>



## Fire Station #5 Facility Conditions Cost Estimate

PLUMBING/FIRE PROTECTION											
P01	Plumbing fixtures older and inefficient	Maint.	4						Remove and replace plumbing fixtures	\$ 30,000	
P02	Accessories missing on water heater	IPC			2				Provide recirculation system, mixing valve and expansion tank	\$ 2,000	
P03	Backflow preventer not tested	IPC		3					Test and inspect backflow preventer	\$ 500	
P04	Vacuum breaker missing on sink	Maint.			2				Install vacuum breaker	\$ 500	
P05	Waste piping goes to a septic system	Maint.		3					Pipe existing sanitary piping to public sewer if possible	\$ 20,000	Allowance
P06	Eye wash has only cold water	IPC		3					Provide tepid water with mixing valve	\$ 2,000	
P07	Floor drain missing in boiler room near fire service	Maint.		3					Floor drain and sump pump needed in boiler room near fire service.	\$ 10,000	
<b>PLUMBING/FP SUBTOTAL</b>											<b>\$ 65,000</b>
MECHANICAL SYSTEMS											
M01	Boilers at the end of their useful life	General	4						Provide new boiler and associated specialties and controls	\$ 41,030	
M02	In line Pumps at end of their useful life	General	4						Provide new pumps and associated specialties and controls	\$ 30,000	
M03	Piping system at the end of their useful life	General	4						Replace with new.	\$ 17,500	Allowance for 500 LF
M04	Piping insulation is missing or has deteriorated on hot water piping	General	4						Remove existing and replace with new per current IECC requirements.	\$ 7,500	Allowance for 500 LF
M05	Boiler loop chemical treatment	General	4						Engage the services of a Chemical Treatment Service Provider	\$ 2,500	allowance
M06	Basement has no ventilation	IMC				1			Provide ventilation. Ventilation shall consist of outside air intake louver, ductwork , motorized damper	\$ 2,000	
M07	Basement dehumidifier at the end of its useful life	General	4						Replace with new suspended from structure complete with condensate piping	\$ 4,200	
M08	Occupied spaces ventilation is from operable window. AHU serving occupied space does not have economizer	IECC				1			Provide economizer consisting of outside air duct, return duct with relief fan and economizer control	\$ 17,500	
M09	Ductwork insulation R value does not conform with code	IECC			2				Replace with new	\$ 20,000	
M10	Condensing unit too close to exterior wall	General		3					Move condensing unit	\$ 5,000	
M11	Deteriorating refrigeration piping insulation	General	4						Replace insulation . Provide aluminum jacket	\$ 2,500	
M12	Kitchen hood does not have grease exhaust fan or grease exhaust ductwork.	IMC				1			Provide hood, fan and grease ductwork. Provide make-up air equivalent to 80% of exhaust air.	\$ 40,000	
M13	Exhaust fan at the end of their useful life	General		3					Replace with new	\$ 6,000	
M14	Apparatus Bay unit heaters are beyond their useful life	General		3					Replace and add new.	\$ 12,500	
M15	Apparatus Bay has no ventilation.	IMC				1			Install new supply and exhaust fans with CO/NO2 monitoring.	\$ 40,000	
M16	Building is an essential facility	IBC				1			Provide Seismic analysis and seismic restraints	\$ 25,000	
<b>MECHANICAL SUBTOTAL</b>											<b>\$ 273,230</b>

### Fire Station #5 Facility Conditions Cost Estimate

ELECTRICAL SYSTEMS									
E1	Existing Main service switch/CT and main distribution panel (at end of useful life)	Maint.		3			Replace existing main service switch and main distribution panel, plus remove old manual transfer switch and wire normal feeder through the existing ATS.	\$ 15,000	
E2	Manual pull stations are not at every egress door	NFPA 72		2			Add pull stations to each egress door that currently does not have one to meet current code	\$ 750	
E3	No Exterior emergency egress lighting	NEC			1		Add an emergency light fixture w/battery and test switch for each egress door	\$ 1,800	
E4	Toggle type light switches	2015 IECC	4				Replace all existing toggle type switches with occupancy sensors and dimmer switches	\$ 5,000	
E5	Missing smoke detector outside of Office & Bunk room (base only)	NFPA 72			1		Replace missing smoke detector with new device	\$ 350	
E6	Existing exterior receptacles do not have "in-use" covers	General	4				Replace existing weatherproof receptacle covers with new "in-use" covers	\$ 225	
E7	Existing plumbing & mechanical equipment to be replaced	Maint.		3			Disconnect and reconnect electrical connections to plumbing & mechanical equipment to be replaced	\$ 2,500	
<b>ELECTRICAL SUBTOTAL</b>									<b>\$ 25,625</b>
<b>TOTAL ESTIMATED COSTS</b>									<b>\$ 949,255</b>
<b>LEDGEND PRIORITY - RANK</b>									
1	Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.								
2	High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.								
3	Moderate priority – These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.								
4	Low priority – These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.								

## Public Works Garage - 899 Richard White Way

The Fairfield Department of Public Works is a complex of various buildings that support the towns needs for carpentry, electrical, roofing, HVAC, masonry, sheetrock, painting, alarm and communications systems installation, and trash collection. Five of these buildings were reviewed during the assessment; the mechanics bays, the Admin section, Old Garage/truck bays, Masons Garage and the Carpenters shop/parks garage. The first building of the garages was constructed in 1952, the second garage located south of the first building was constructed in 1956. The overall site is shared with the Transfer station, the Bus depot, Compost Building, Animal Control, Fire Training Center and some others. The department of Public Works is located in the northwestern section of this site. The Public Works buildings are separated between Administration and the garages. The Administration building is the most recent portion of the building updated on the garage site.





## Architecture

The series of buildings overall are in fair condition. Considering the variety of ages of these buildings, the issues vary through each as well. The mechanics bays at the far left in the photo is newer and so is the Carpenters shop/parks L-shaped garage in the center both with solar panels. The Admin section abuts the mechanics bays and is connected to the oldest portion, the U-shaped Old Garage/truck bays, and the Masons Garage.

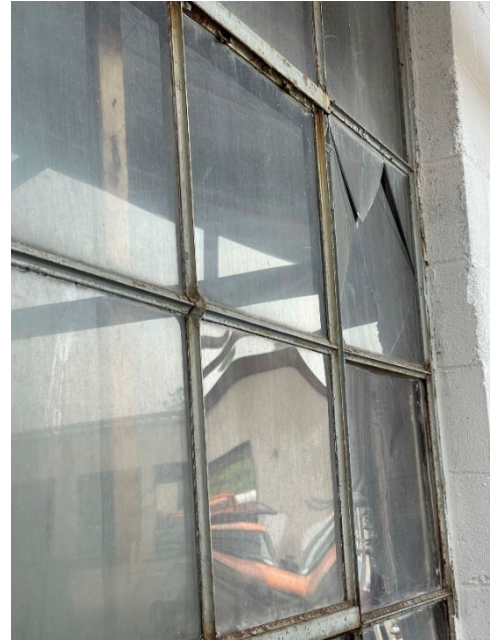


### Exterior Building Envelope

There is a variety of exterior building materials ranging between fair and good condition. The newest garage, the Carpenters shop is sheathed in metal panels, typical for prefabricated structures. Overall, it is in good condition with limited areas bent which occur most often around the garage doors due to truck impact. The exterior of the Mechanics and Admin building is constructed with ribbed face block, ground face block and metal panels. Overall, it is in good condition with very limited areas of block damaged or chipped. The end wing walls have minimal discoloration or mildew growth. The garage bays are consisting of brick veneer which is in rough shape. Many areas are spalling, growing mildew or vegetation. Considering the use of the building the poor energy efficiency of the 1950s brick wall construction is less of a concern, but the integrity of the brick will continue to deteriorate if it is not correct. Replacement, repointing and sealing the brick is recommended throughout this structure. The mason's building is also an older building, but it is sheathed in vertical wood siding. The siding is in fair to poor condition. The paint is beginning to peel, and some of the wood is nearing the end of its useful life.

## **Windows**

There are limited windows throughout the buildings. Most are within the Admin building and the Old Garage/truck bays. Admin has aluminum window systems. They are double glazed with an air space with small operable portions for ventilation. They appear to be in good condition throughout this building. The Old Garage/truck bays contain original single pane steel windows. These are in very poor condition. Many have rusted away or have broken glass, and all are covered with clear plastic at the interior. Although this is a garage with less concern for energy efficiency, these windows are so far gone that they should be replaced. In lieu of standard windows a less costly option may be to use a fiberglass sandwich-panel assembly such as a Kalwall system.



## **Doors**

There are a variety of exterior doors. There are many overhead doors throughout the facility. While many doors were open and unable to be seen during the time of the assessment, these doors appear in good condition. The heads, jambs and sills are in good condition with some areas chipped or dented as previously noted. The garage doors at the Old Garage are obviously older and many are fading in color and portions of the panels have been replaced. Many of the jambs are also peeling and some of the metal sill angles have begun to wear away. These doors should continue to be monitored and replaced as needed. The remaining standard doors throughout the buildings are primarily metal with limited wood doors in the original Old Garage. The hollow metal frames and doors in some areas such as the Admin Building and Mechanical Building are rusting and should be replaced. It is suggested to replace these exterior doors with aluminum doors and frames to avoid future corrosion.





## **Roof**

The roofs on the garages that are currently in use are supplied with solar panels and were not able to be reviewed up close in detail. The metal roofs on the mechanics, admin and carpenters buildings were all done in 1990. Considering they are past 30 years old, these should be considered for replacement in the next few years. Additionally the Masons garage appears to be rusting and likely needs replacement also.

## **Interior Conditions**

The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. Given the multiple building's ages and usage, the interior is well maintained. However, it needs some improvements and code modifications.

## **Floors**

There is limited finished flooring at this facility. Most of the flooring is made up of exposed concrete slabs at all the garages. The slabs contain a variety of minor cracks and have areas that are worn to a rough surface especially in the Old Garage. The cracks are likely due to freeze thaw conditions. Many areas consist of painted stripping or overall painting that has worn away. There is an old 9x9 tile floor that is deteriorating in the Old Garage. This should be abated. The Admin Building contains a variety of flooring. There is vinyl composition tile (VCT) throughout much of the spaces such as the hallway, training room and locker room. It is in fair condition with some areas chipped, damaged or worn. A marble threshold is cracked and stained. There is ceramic tile in the restrooms, and it is in good condition. There is carpeting in the offices, and it is in good condition with limited areas of stains or wearing.

## **Walls**

There are a variety of interior wall types and partitions through this complex of buildings. Primarily most walls throughout all the buildings consist of painted concrete masonry units (CMU). This is evident in the Mechanics Garage and Admin Building, the Old



Garage and much of the Carpenters Building. Overall, the CMU is in good condition with some stepped cracking in limited areas. These should be repaired as some already have. In addition to CMU the Carpenter's building has exposed insulation paneled walls. A small portion in the Old Garage and in the Mason's Garage has wood paneling. They all appear in fine condition. Other materials in the Admin building consists of ceramic wall tile at the restrooms and locker room. There are also some gypsum wallboard partitions in the office suite. These all appear in good condition. In the wash bay of the Mechanics Garage the column bases are rusting. These should be scraped, primed and epoxy coated to protect the integrity of the structure.



### **Ceilings**

There are few finished ceilings throughout the overall complex. The Mechanics and Carpenters Garage both consist of exposed insulation panels under the roof deck. Most of the Old Garage and the Masons Garage has an exposed deck. They appear in good condition. There is a portion in the Old Garage with a plaster ceiling which is in fine condition. The Admin building had a variety of ceiling types such as Acoustical Ceiling Tiles



(ACT), exposed insulation and plaster. Some of the ACT is 2x2 and others are 2x4. They are not in the best condition. They are older and are beginning to sag. Signs of stains, dirt, and contact with moisture are present. They should be replaced in the future as many areas are nearing the end of their useful life.



### **Doors**

There are a variety of doors throughout, both wood and metal. The Admin Building has all wood doors with knobs that require twisting and do not meet American Disability Act requirements (ADA). The Mechanics Building has all metal doors but with the same hardware issue. Interior doors throughout the Carpenter Building have the same issue. The hardware should be changed.

### **Restrooms**

There are multiple restrooms throughout the complex. The Mechanics Garage contains a single unisex restroom. This restroom should be modified slightly to be considered ADA complaint. It needs grab bars, pipe sleeves, and a new mirror to comply. The Admin Building has a large men's locker room with restrooms and showers. There is no handicap stall, sink or shower in this space. Due to the storage in the shower room, it appears this space is not utilized as intended. Across the hall, there are female and male restrooms. In the female restroom there is a handicap shower and sink. The stall does not comply with current standards and should be enlarged and modified. The male restroom does have the adequate space at the toilet but should have the grab bars modified. The sink needs pipe sleeves. The single restroom in the Carpenters Garage is in fair condition given the usage. It is not handicap accessible and would need to be enlarged in order to comply. ADA compliancy and gender equality should be a part of the long-term capital planning of this facility.

### **Casework**

There is limited casework throughout the facility. In the training room of the Admin Building a plastic laminate bank of casework accommodates a breakroom area. The sink is not ADA complaint nor is there a knee space incorporated.



### **Building Code and ADA**

As noted within many of the sections, there are multiple code and accessibility issues within this building. Door hardware, ADA restrooms and showers and casework were previously noted. Other ADA issues are with ramps and stairs. The ramps in the Admin Building do not have any handrails. The stairs in the training room does not have compliant handrails with extensions. Additionally, much of the signage throughout the complex is not compliant and should be updated. Many ADA accessibility issues were noted at this facility. This is a common occurrence given the age of the building. These items should be included in the long-term capital plan.

## Plumbing

The building's sewer system discharges underground to a public main to a regional wastewater treatment plant, there are no septic systems. It appears the garage trench drains go to an exterior oil water separator. The domestic water service is fed from Aquarion's public utility water mains, there are no wells, water pressure is good. The systems appear to have been installed in the 1950's and may be original to the building. They are well past their useful life expectancy.

The equipment, water heater and plumbing fixtures are in fair condition, older, nearing their end of life and will need replacement soon.

The toilet and lavatory may not meet minimum code distance requirements.

Anti-bacteria wipes present if these are flushed it will cause serious backups.

The exterior gas piping rusting and corroding.

The handicap accessible lavatory piping is not insulated below the lavatory to prevent scalding.

The water heater is missing a thermostatic mixing valve for scald prevention.

The water pressure exceeds 80 psi, a PRV for the domestic service is required by code.

The backflow preventer needs to be tested and inspected feeding boiler water makeup.

The water heater is 8 years old, nearing its life expectancy.

Water piping was missing insulation.

Column style gang showers are not being used and space is being used for storage.





### **Recommendations for Repair / Replacement**

- Remove and replace plumbing fixtures to make them ADA compliant.
- Remove and replace water heaters.
- Remove and replace air compressor.
- Repair/Replace/Add missing pipe insulation.
- Test and maintain backflow preventers.
- Paint exterior gas piping.
- Demolish and repurpose the unused shower room.
- Remove and replace broken stainless-steel washbasin.
- Provide a PRV for the domestic water service.

## Fire Protection

The fire water service is fed from Aquarion's public utility water mains, there are no wells, water pressure is good. The system appears to have been installed in the 1950's and may be original to the building.

It does not appear the garage portion is sprinklered, only the office area, and the town may consider fully sprinklering it.

Some sprinkler heads missing escutcheons.

Sprinkler inspections are current and up to date.



### **Recommendations for Repair / Replacement**

- Provide a dry pipe system with sprinklers in the garage.
- Continue to maintain, test, and inspect sprinklers and devices as required by code.
- Provide sprinkler pipe escutcheons where missing.

## Mechanical

### Admin

Two (2) boilers located in the mechanical room serve the admin and the mechanics bays. Both Boilers are H.B. Smith Series 28A-6 and were manufactured in 1989. Cast iron boilers have a useful expected lifespan of approximately 30 years. At 32 years old they have outlived their serviceable life. Products of combustion are vented through sheet metal flue to the roof. Combustion air to boiler room appears to be adequate. Two(2) pumps serve the building. Inline pumps have a useful life expectancy of 10 years. Both pumps are being repaired at the time of visit.

The hot water piping distribution system appears to be the same age as the building. Piping system, with proper maintenance and proper water treatment, can operate for 50 years, however, piping system should be inspected utilizing ultrasonic testing to determine rates of corrosion within the piping.

The insulation covering the hot water piping is original to the building. Hot water pipe sections are missing insulation. Piping insulation has a useful life expectancy of approximately 20 years. In addition to having outlived its useful life it is likely that it is non-conforming to current code requirements for thickness.

A hot water unit heater provides heating for the mechanical room. The unit appears to be good condition. Finned tube radiation provided in perimeter offices and training room appear to be in good condition. Cabinet unit heater provided in vestibule is in poor condition.



There are two(2) ducted split systems providing heating and cooling to the admin. One system serving the training room has a capacity of 5 tons. The indoor unit appear to be recently replaced and is matched with a standard efficiency air cooled condensing for this system manufactured in 2014. Based on the capacity, this unit should be equipped with economizer. Economizer allows the system to provide free cooling to the space

when the outdoor air temperature is cooler than the indoor air temperature. The second system serving the office area has a capacity of 4 tons. The indoor unit is a Carrier manufactured in 1989 matched with an air cooled condensing manufactured in 2012. Both condensing units are using the refrigerant R22. Refrigeration piping insulation is starting to deteriorate. The systems appear to be provided with local controls.



Units provide air to the space using a network of distribution ductwork located above ceiling terminating to ceiling mounted supply diffusers. Hot water pipes to the air handling units is showing signs of wear.

Toilet rooms and locker room are served by ducted exhaust fans. The exhaust fans are likely near the end of their useful life expectancy.

### **Mechanics Bays**

The mechanics bays are provided with heat by vertical hot water unit heaters with louvered plenum box. The hot water is fed from the boiler in the admin mechanical room. These systems are original to the building and are beyond their useful service life expectancy.



General ventilation for the shop area is provided by air handling units installed in several locations along the service aisle. Outside air for each unit is ducted from exterior louvers.

Air curtains are provided at overhead door openings. Air curtains are in poor condition and are not being used.

The welding bay and an area dedicated to welding and light machine work are provided with a shop exhaust system for welding fumes and dust. The system appears to be serviceable.

Hot water unit heaters are provided in the storage room and the machine shop.

A dedicated exhaust fan is provided for the battery room.

An exhaust system is provided for removal of vehicle exhaust fumes in the Wash Bay. The system consists of a utility exhaust fan and metal ductwork with duct drops and duct collars at the repair bays for connection of flexible hose to the vehicle exhaust pipes. The system appears to be serviceable but is likely near the end of its useful life.

The Ductless Split provided in the Mechanic's Office, manufactured in 2008, is at the end of its useful service life.



### **Mason's Garage/Old Garage / Truck Bays**

The Mason's Garage/ Old Garage / Truck Bays are heated using Power vented gas fired unit heaters. Combustion air used by the unit heater is from the space. The gas fired unit heaters are manufactured in 2018 and are well within their service life expectancy.



General ventilation for the Old Truck Bay is provided by propeller wall exhaust fan. Make-up air is provided through the overhead doors.

The corner area of the Old Garage /Truck Bays is heated using a Burnham model IN61 steam boiler. This boiler was recently installed and serves all the existing steam unit heaters and radiators in the adjacent space. The steam condensate receiver appears to be original to the building. Products of combustion are vented into the chimney through a sheet metal flue.

The Northeast wing of the Truck Bay appears to have a tailpipe exhaust system. This system appears to be old and likely near beyond its useful service life.



### **Carpenter's Shop and Parks Garage**

The building is heated using a Weil McLain model EGH-105 with a net IBR rating of 313 MBH. We were not able to get the manufacturing date, but it appears to be original to the building. Products of combustion are vented through a sheet metal flue to roof.

There are four (4) independent zones serving the building. The four (4) zones are fed from individual inline pumps off of the boiler manifold. Inline pumps are installed the same year as the boiler. Each zone is controlled by a local thermostat.

Hot water unit heaters are provided in the building. Sections of hot water distribution piping in the Carpenter's Shop have no insulation. Hot water piping serving unit heater in the Parks Garage appears to be provided with heat tracing.

General ventilation for the shop area is provided by propeller wall exhaust fan. Make-up air is provided through the overhead doors.

A dust collection system is provided in the Carpenter's shop. The system consists of a utility exhaust fan, duct collector and metal ductwork with duct drops and duct collars at the equipment. The system appears to be serviceable but is showing signs of surface corrosion.



## Recommendations for Repair / Replacement

- Admin
  - Replace existing boiler and associated near boiler specialties. The new boiler will be high efficiency condensing boiler, with flue and combustion air pipes connected directly to the outdoors.
  - Replace in-line pumps.
  - Provide chemical bypass feeder in the boiler room.
  - Engage the service of a Chemical Service Provider to maintain proper water treatment to the building water loop and cooling tower loop.
  - Provide piping insulation with thickness complying with the Energy Code.
  - Replace cabinet unit heater in the admin vestibule.
  - Repair/replace worn out fittings.
  - Provide ductwork insulation.
  - Replace exhaust fans serving toilet rooms and locker room. Clean and seal existing ductwork. Rebalance system.
  - Provide economizer dampers (outside air and return air damper) and economizer control at air handling unit.
  - Replace indoor unit serving the admin office. Clean and seal existing ductwork.
  - Replace existing temperature controls.
    - Consider adding DDC system to allow remote adjustment of setpoints and monitoring of space conditions and alarms.
- Mechanics Bays
  - Replace unit heater in Mechanics Bays.
    - Consider using gas fired infrared radiant tube heaters.
  - Provide vehicle exhaust system . System shall have an overhead exhaust fans and retractable flexible hoses for connection to the vehicle exhaust pipes. The system should allow the hoses to be easily accessible and stored up and out of the way when not in use.
  - Replace existing temperature controls.

- Consider adding DDC system to allow remote adjustment of setpoints and monitoring of space conditions and alarms.
  - Add exhaust fans in the Mechanics Bay and provide carbon monoxide and nitrogen dioxide detectors and control system to energize exhaust fans and provide alarm on detection of vehicle exhaust.
  - Replace ductless split system.
- Mason's Garage/Old Garage / Truck Bays
  - Add exhaust fans and outside air intake in the and provide carbon monoxide and nitrogen dioxide detectors and control system to energize exhaust fans and provide alarm on detection of vehicle exhaust.
  - Replace steam condensate receiver.
- Carpenter's Shop and Parks Garage
  - Repair/ Provide pipe insulation in the Carpenter's Shop.
  - Engage the service of a Chemical Service Provider to maintain proper water treatment to the building water loop.
  - Replace existing Armaflex insulation and reinstall existing heat tracing for hot water unit heater serving Parks Garage.
  - Add exhaust fans and outside air intake in the Parks Garage and provide carbon monoxide and nitrogen dioxide detectors and control system to energize exhaust fans and provide alarm on detection of vehicle exhaust.

## Electrical

This site is made up of multiple buildings (Mechanics Garage/Admin. building, Carpentry Shop/Parks Dept. building, Mason's Garage and Old Garage/Vehicle Storage building) excluding the Salt/Sand shed building. There are three electrical services supporting these buildings.

The existing electrical service for the Mechanics Garage/Admin. Building and Carpentry Shop/ Parks Department building is made up of an 800 amp 120/208V-3PH-4W Square D main breaker, with integrated C/T cabinet feeding an adjacent 400-amp normal distribution (2-section panel 'PP-1') and a 400-amp generator distribution (3-section panel 'EP-1') via automatic transfer switch (ATS) located in the mechanical room of the Mechanics building. Panels 'PP-1' & 'EP-1' feed panels 'PP-2' & 'EP-2' in the Admin. building each from a 225A-3P breaker in their respective panels. Panel 'PP-1' also feeds a panel in the Carpentry Shop from a 150A-3P breaker. These panels feed all the branch circuits within their respective buildings. The generator is an 125KW diesel 120/208V-3PH-4W with a single 400-amp output breaker located in the same room as the main switch. There is also a photovoltaic system on the Mechanics building and the Parks Dep. building. These are made up of solar panels on the roofs of the buildings feeding two inverters on the exterior of each building. The inverters on the Parks building then run underground and connect into the main distribution on the back of the Mechanics building.



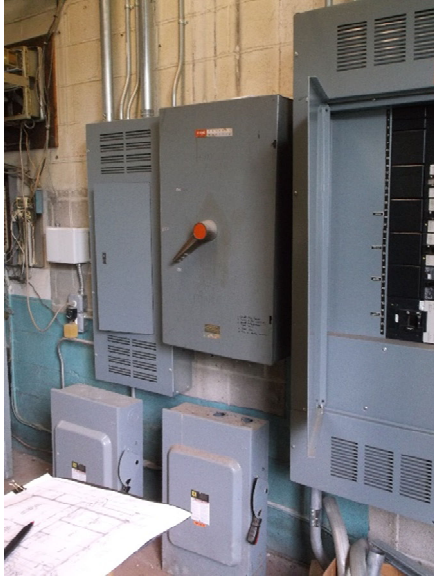




The existing electrical service for the Old Garage/Vehicle Storage Building and Mason's Garage is made up of a 400 amp 120/208V-3PH-4W Square D main breaker, with integrated C/T cabinet feeding an adjacent 400-amp distribution panel (MDP). The MDP feeds an adjacent old manual transfer switch which then feeds an adjacent local panel. The MDP also feeds a series of single and three phase load centers throughout the building. One of these load centers (south-west corner) feed an 8-circuit load center in the Mason's Garage from an overhead feeder between the buildings. There is also a photovoltaic system on the west roof of the Old Garage/Vehicle Storage building. This is made up of solar panels on the roof of the building feeding three inverters and control panel on the exterior of building.







There is a third existing electrical service on the exterior of the Old Garage (east corner) that is made up of a 400 amp 277/480V-3PH-4W Square D main breaker and in-line meter, that feeds an adjacent 400-amp automatic transfer switch (ATS) which in turn feeds an adjacent distribution panel. The distribution panel feeds another 480V panel, step down transformer and 120V panel further down the wall. There is a 125KW natural gas generator that also feeds the ATS from two enclosed breakers (one active, one spare). This service is for the propane fuel dispensing/pumping system (no longer in use).



### **Fire Alarm**

The first fire alarm system (Fire - Lite #MS-10UD by Honeywell) located on the wall of the mechanical room in the Admin. Building serves the Mechanics Garage/Admin. building. There are manual pull stations, audio/visual devices, and smoke & heat detectors throughout the building. Most of the devices appear to meet the current ADA height

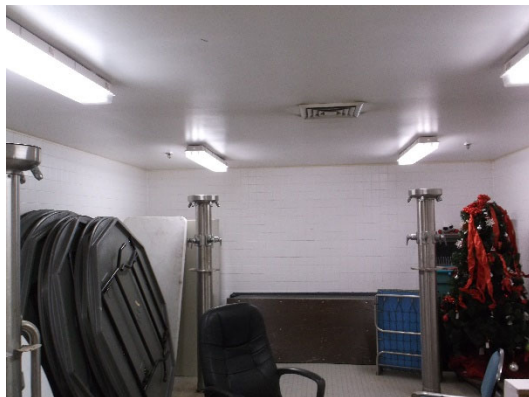
requirement (top of the pull station handle 48" AFF and the height of the strobe light shall be between 80"-96" AFF), there are some pull station up at 58" AFF. It is our understanding the system is working without any issues.

The second fire alarm system (Fire - Lite #MS-5024UD by Honeywell) located in the shop area of the Carpentry/Parks Dept. building serving this building only. There are manual pull stations, audio/visual devices, and smoke & heat detectors throughout the building. The devices appear to meet the current ADA height requirement (top of the pull station handle 48" AFF and the height of the strobe light shall be between 80"-96" AFF). It is our understanding the system is working without any issues.

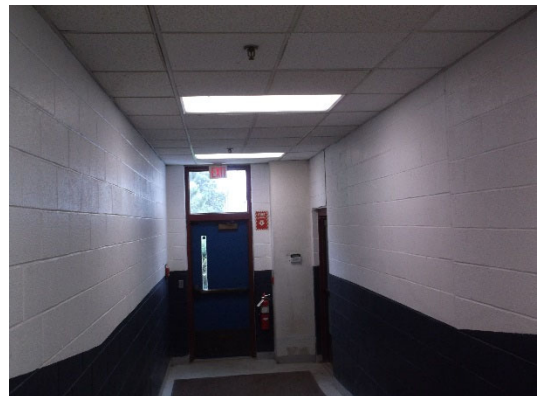
There are limited devices in the Old Garage & Mason's building, it is unclear where these devices are connected to.

### **Lighting**

The existing interior lighting throughout all of the buildings is a mix of recessed fluorescent lensed 2x4 fixtures, surface & pendant mounted wraparound fixtures, surface & pendant mounted industrial fixtures, surface mounted fluorescent strip fixtures, surface/wall & pendant mounted fluorescent gasketed fixtures and high output lensed industrial fluorescent fixtures. Most of these



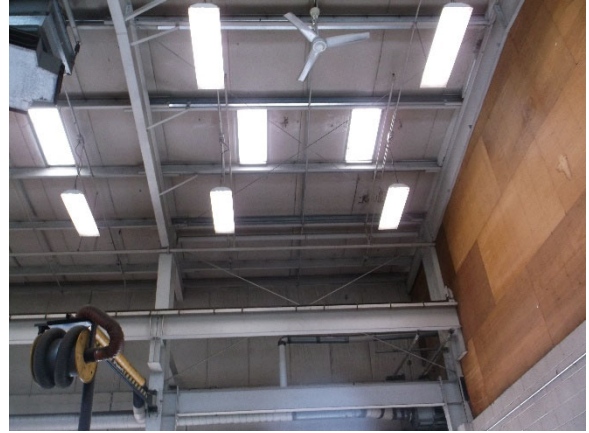
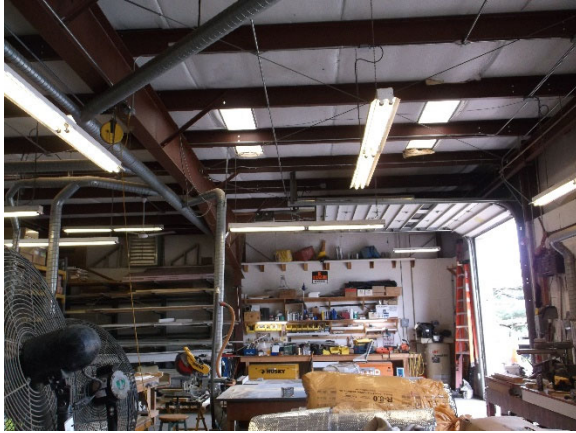
fixtures appear to



be in fair/good condition and working properly. It is our understanding that the majority of the fixtures have been upgraded with new LED bulbs. There are some fixtures that still have fluorescent or incandescent bulbs. These were areas that the town determined to be low use and would be replaced later as needed. Most of the areas have local toggle type & dimmer switches for control

with a few rooms having wall switch occupancy sensors. The existing exterior lighting for the building is made up of wall and pole (mounted on bldg.) LED flood lights, a few wall mounted "jelly jar" type fixtures, wall mounted LED full cut-off light fixtures and pole mounted flood lights around the site. We were not able to determine the operation of the exterior fixtures at the time of our inspection.





Emergency lighting for the interior of the building is made up mainly of self-contained twin head emergency fixtures with a few combination exit sign/emergency lights. In addition to the self-contained battery lights and combination exit sign/emergency lights, there is a diesel generator serving the Mechanics Garage/Admin. building only. Exit signs in the building are made up mostly of thermoplastic signs with red lettering and emergency battery, some paper (non-illuminated) signs in the Old Garage building. Most of the illuminated exit signs appear to be in fair/good condition and working properly. We are not able to confirm the batteries on the exit signs and emergency lights will operate for the required 90 minutes.

### **Devices**

Existing wiring devices (receptacles & light switches) in the buildings are a mix of recessed and surface mounted. The devices in the Admin. building and most of the office type spaces in the other buildings have recessed devices, the other areas have most surface mounted devices. The devices appear to be in fair/good condition, there are some receptacles that appear to be damaged and some broken cover plates.

### **Telecommunication System**

The existing phone system D-Mark for the Mechanics Garage/Admin. building is in the same room as the main electrical equipment next to the main switch. is on the basement (south-east corner) near the main switch & ATS. We are not aware of any issues with this equipment at this time.

### **Recommendations for Repair / Replacement**

- Replace all (older) single & three phase load centers in the Old Garage and Mason's building with new panelboards.
- Replace existing toggle type wall switches with new occupancy sensors and dimmer switches.

- Add fire alarm manual pull stations, audio/visual devices, smoke & heat detectors in areas currently without but are required to meet current code.
- Install emergency lighting at the exterior of all egress doors to meet current code requirements.
- Replace existing damaged/broken receptacles and cover plates throughout.
- Replace existing exit signs and emergency lights after testing if they do not operate for 90 minutes on battery.
- Replace all existing paper exit signs with new illuminated signs.
- Replace all existing exterior receptacle weatherproof covers with new "in-use" covers.
- Relocate existing natural gas generator (propane pumping station) and associated transfer switch to another town building with an older unit. If none currently are needed, remove and store for future.
- Disconnect, remove and relocate existing 480V and 120V distribution equipment currently serving the propane pumping equipment to other town buildings or store for future.

Public Works Garages - 899 Richard White Way Facility Conditions Cost Estimate									
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING					ITEMIZED ESTIMATED COST	REMARKS
			4	3	2	1	n/c		
<b>EXTERIOR CONDITIONS</b>									
A01	Brick is spalling or mortar is in need of repointing at Old Garage	General			2			\$ 150,000	
A02	Wood siding at Mason Garage is nearing the end of its useful life	General			2			\$ 48,000	
A03	Metal Roof at Mason Garage is nearing the end of its useful life - rusting	General			2			\$ 45,000	
A04	Windows at Old Garage have exceeded their useful life	General			2			\$ 37,500	
A05	The roofs are all nearing the end of their useful life - Mechanic, Admin and Carpenters were all done in 1990	General		3				\$ 1,385,325	
A06	Hollow metal doors and frames are rusting	General			2			\$ 10,000	
A07	Garage doors at Old Garage jambs are peeling and some of the metal sill angles have begun to wear away	General			2			\$ 5,000	
<b>EXTERIOR SUBTOTAL</b>									<b>\$ 1,680,825</b>
<b>INTERIOR CONDITIONS</b>									
A08	Some cracks are evident in slab	General		3				\$ 5,000	
A09	VCT flooring is nearing the end of its useful life	General		3				\$ 10,000	
A10	CMU stepped cracks	General		3				\$ 2,000	
A11	Column bases are rusting in wash room	General			2			\$ 500	
A12	ACT ceiling is nearing the end of its useful life	General		3				\$ 17,500	
A13	Some door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)			2			\$ 15,000	
A14	Due to the size, restrooms do not meet accessibility requirements.	(B)1108.0 (ANSI A117.1) 603-606			2			\$ 25,000	
A15	Some restrooms are missing the required grab bars & pipe sleeves	(B)1108.0 (ANSI A117.1) 603-606			2			\$ 1,500	
A16	Female restroom stall is not compliant dimensions	(B)1108.0 (ANSI A117.1) 603-606			2			\$ 8,000	
A17	Mens locker restrooms do not meet accessibility requirements.	(B)1108.0 (ANSI A117.1) 603-606			2			\$ 8,000	
A18	The required knee space and sink do not exist at cabinetry				2			\$ 6,000	
A19	Handrails are not code compliant or do not exist at ramp	(F)5-2.2.4.2 (B)1014.7 (ANSI A117.1) 505			2			\$ 3,500	
A20	Signage is limited and not to code				2			\$ 6,250	
<b>INTERIOR SUBTOTAL</b>									<b>\$ 108,250</b>



## Public Works Facility Conditions Cost Estimate

PLUMBING/FIRE PROTECTION											
P01	Backflow preventers need to be tested and inspected yearly	IPC			2				Test and inspect backflow preventers	\$ 250	
P02	Provide missing insulation	IPC	4						Provide missing pipe insulation	\$ 1,200	
P03	Remove and replace water heater	Maint.		3					Remove and replace water heater, valves and accessories	\$ 5,000	
P04	Exterior gas piping corroding	Maint.		3					Paint all exterior gas piping	\$ 1,500	
P05	Plumbing fixtures not ADA compliant	IPC			2				Remove and replace some plumbing fixtures	\$ 5,000	
P06	Air compressor past it's life expectancy	Maint.		3					Remove and replace air compressor	\$ 10,000	
P07	Shower room not used	General	4						Remove showers and repurpose room	\$ 5,000	
P08	Washfountain broken	Maint.			2				Remove and replace washfountain	\$ 5,000	
P09	Water pressure exceeds 80 psi	IPC		3					Provide a pressure reducing valve	\$ 5,000	
FP01	Garage not sprinklered	NFPA 13				1			Sprinkler garage with dry pipe system	\$ 33,500	
<b>PLUMBING/FP SUBTOTAL</b>											<b>\$ 71,450</b>
MECHANICAL SYSTEMS											
M01	Boilers are at the end of their useful life	General	4						Provide new boiler and associated specialties and DDC controls	\$ 111,500	
M02	In line Pumps at end of their useful life	General	4						Provide new pumps and associated specialties and DDC controls. Provide VFD	\$ 44,000	
M03	Boiler Plant chemical treatment	General	4						Engage the services of a Chemical Treatment Service Provider	\$ 4,000	allowance
M04	Piping insulation is missing or has deteriorated on hot water piping in mechanical room	IECC	4						Remove existing and replace with new per current IECC requirements. Allowance for 2000 LF)	\$ 3,000	
M05	Rusted cabinet unit in admin vestibule. Cabinet unit heater is at the end of its useful service life	General	4						Replace with new.	\$ 3,000	
M06	Toilet and Loker room exhaust fans are at the end of their useful life	General	4						Replace with new. Clean ductwork and rebalance system.	\$ 7,600	
M08	Training room AHU serving occupied space does not economizer	IECC				1			Provide economizer consisting of outside air duct, return duct with relief fan and economizer control	\$ 16,000	
M09	Indoor unit serving the office is at end of their useful life	General	4						Provide new system using R410A refrigerant. Clean and existing ductwork. Rebalance system	\$ 23,000	
M10	Section of ductwork above ceiling has no insulation	General	4						provide insulation	\$ 5,000	
M11	Obsolete temperature controls. AHUs and misc	General	4						Provide new controls. Control system should be compatible with town's DDC system	\$ 55,000	
M12	Mechanic's Bay unit heaters are at the end of their service life	General		3					Replace with new. Consider gas fired infrared radiant tube heater as replacement	\$ 40,000	
M13	Mechanic's Bay does not have tailpipe exhaust system	General	4						Provide tailpipe exhaust system	\$ 52,000	
M14	Mechanic's Bay obsolete controls	General	4						Provide new controls. Control system should be compatible with town's DDC system	\$ 61,500	
M15	Mechanic's Bay has no CO/NO2 sensor	IMC				1			Install exhaust fans and with CO/NO2 controls.	\$ 65,000	
M16	Mechanic's office ductless split system is at the end of its useful service life	General	4						Replace with new.	\$ 4,300	
M17	Mason's Garage, Old Garage/Truck Bays have no ventilation.	IMC				1			Install new supply and exhaust fans with CO/NO2 monitoring.	\$ 63,000	
M18	Piping insulation is missing or has deteriorated on hot water piping	General	4						Remove existing and replace with new per current IECC requirements. Allowance for 2000 LF)	\$ 1,200	
M19	Piping insulation with heat tracing in Parks Garage	General	4						Replace insulation, reinstall heat tracing and provide jacket.	\$ 800	
M20	Parks Garage has no ventilation.	IMC				1			Install new supply and exhaust fans with CO/NO2 monitoring.	\$ 35,000	
<b>MECHANICAL SUBTOTAL</b>											<b>\$ 594,900</b>

## Public Works Facility Conditions Cost Estimate

ELECTRICAL SYSTEMS										
E1	Old elctrical panels and load centers (at or beyond useful life)	Maint.		3				Replace old electrical panels and load centers with new, newer panels and switchboard can remain	\$ 15,000	Old Garage & Masons Bldg. only
E2	Toggle type light switches	2015 IECC	4					Replace all existing toggle type switches with occupancy sensors, dimmer switches and low voltage control system	\$ 7,500	Admin. bldg. only plus Office spaces in other bldg's.
E3	Manual pull stations are not at every egress door and/or stair	NFPA 72			2			Add pull stations to each egress door and basement & second floor stair that currently does not have one to meet current code	\$ 2,500	All Bldg's.
E4	Existing fire alarm audio/visual devices do not appear to provide proper coverage	NFPA 72			2			Test system, and provide additional fire alarm audio/visual devices throughout to meet current code requirements and replace any damaged devices	\$ 5,000	All Bldg's.
E5	No Exterior emergency egress lighting	NEC				1		Add an emergency light fixture w/battery and test switch for each egress door	\$ 7,500	All Bldg's.
E6	Existing damaged/broken receptacles cover plates	Maint.	4					Replace all damaged/broken recptacles and cover plates with new	\$ 3,500	All Bldg's.
E7	Existing exit sign & emergency lights don't operate for 90 minutes on battery	NEC		3				Test all exit signs & emergency lights and replace all old exit sign s and emeregency light fixtures with new LED units if they do not run for 90 minutes (on battery)	\$ 5,000	All Bldg's.
E8	There are non-illuminated (paper) exit signs in some locations	NEC				1		Replace existing paper exit signs with new illuminated LED exit signs	\$ 1,000	All Bldg's.
E9	Existing exterior receptacles with weatherproof covers	General	4					Replace all existing exterior receptacles with weatherproof covers with new "in-use" cover"	\$ 1,500	All Bldg's.
E10	Existing 125KW natural gas generator that served inactive propane fuel dispensing station	General	4					Disconnect, remove and relocate to another building with an older generator	\$ 6,000	Old Garage
E11	Existing 480V exterior mounted electrical distribution that served inactive propane fuel dispensing station	General	4					Disconnect, remove and relocate to another building or store for future	\$ 8,000	Old Garage
E12	Existing plumbing & mechanical equipment to be replaced	Maint.		3				Disconnect and reconnect electrical connections to plumbing & mechanical equipment to be replaced	\$ 5,000	All Bldg's.
ELECTRICAL SUBTOTAL										\$ 67,500
TOTAL ESTIMATED COSTS										\$ 2,522,925
LEDGEND PRIORITY - RANK										
1	Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.									
2	High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.									
3	Moderate priority – These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.									
4	Low priority – These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.									

## Fairfield Animal Control - 211 Richard White Way

The Animal Control building was constructed in 2000, one of the newest buildings. Fairfield Animal Control is located on the corner of the continuous road, Richard White Way. It is located south of the Public Works Garage and north of the Fairfield Regional Fire School.



## Architecture

Overall, the Animal Control building is in good condition. At only 20 years old, the architecture of this one-story building consists of a variety of masonry at the exterior with a low slope metal roof.

The program of this building consists of a public lobby, an office suite, 2 kennels, and support spaces to provide service to the dogs and cats that are at this facility.





### **Exterior Building Envelope**

The exterior of the building is in good condition. The building is constructed with concrete masonry unit “veneer”, air space, rigid insulation, and painted concrete masonry unit (CMU) interior. Overall, the mortar is in good condition. Some areas of staining and mildew are on the face of the CMU. These areas should be cleaned and sealed.

### **Windows**

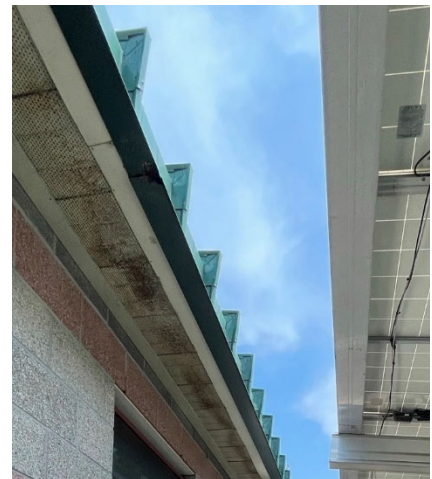
The windows are double glazed insulated aluminum window systems. They appear in good condition. Lintels are beginning to rust and should be monitored and eventually scraped primed and painted. In addition, caulk should be monitored and replaced with as needed.

### **Doors**

The exterior doors and frames throughout the facility are hollow metal. They are in fair condition and would benefit from a coat of paint. Additionally, some of the weatherstripping are deteriorating and should be replaced.

### **Roof**

The roof was not reviewed in proximity due to the sloping nature and the photovoltaics on the system. The roof is a metal standing seam roof. Given the age and type of roof it likely has a life expectancy of 20 - 30 years. Therefore, replacement may want to be considered in the capital plan at about 10 years. The roof eve vents at the soffit have gotten dirty and should be cleaned. Also, vegetation should be controlled as not to continuing growing onto the building.



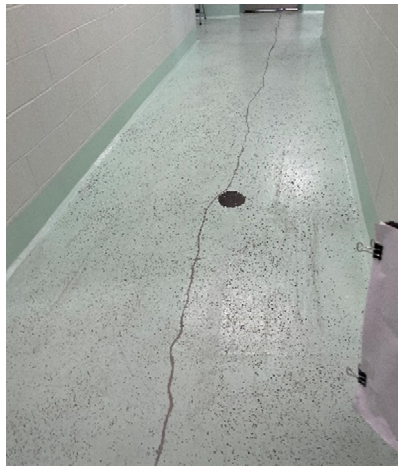


## **Interior Conditions**

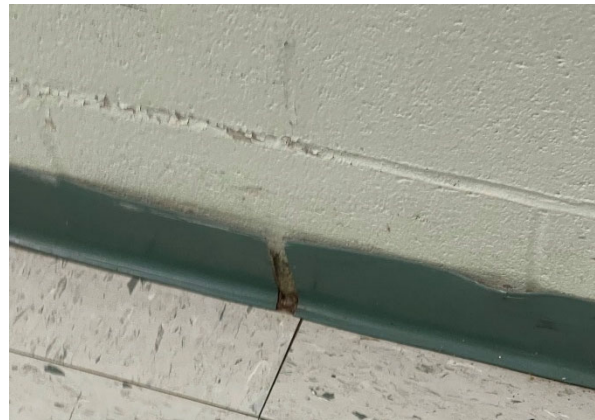
The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. Given the building's age, its interior is in good condition, however, it needs some minor improvements and upgrades.

## **Floors**

There are a variety of floor types at this building. Vinyl composition tile (VCT) with a rubber base is the predominate throughout many of the spaces with epoxy flooring in the kennels and ceramic tile at restrooms. The rubber base in many locations consist



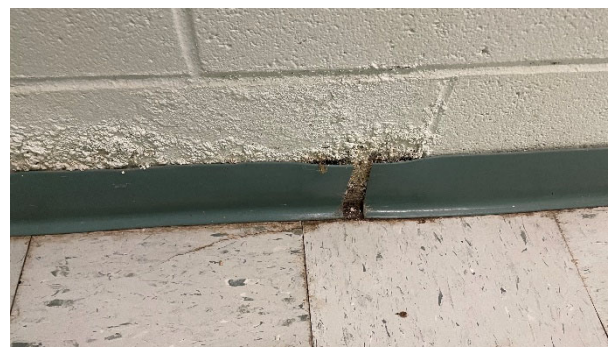
of gaps and seams that appear to be failing. One



area in the hallway against the mechanical room shows evidence of a leak. To improve this situation, the location of the water in the mechanical room should be reviewed. Once rectified, the efflorescence of the wall would need to be scraped off followed by repainting the brick wall. The Rubber base would also need to be removed and the mastic should be scraped off and reapplied to place on the rubber base again. The damaged vinyl composite tiles

should also be removed along with the mastic that is damaged by water and reapplied with new VCT and mastic.

Another situation which occurred in the building is the general cracking in the epoxy flooring in the hallways in towards the back of the building. The photo on the right shows a large crack down the middle of the hallway which looks to be epoxy filled already. In similar instances, the same method should be applied to these conditions in the epoxy flooring.

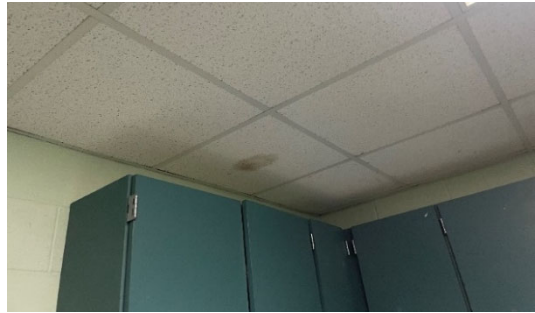


## **Walls**

The walls throughout are painted concrete masonry units. They are in good condition, aside from the water damaged CMU in the hallway outside of the mechanical room and the baseboard issues.

### **Ceilings**

Ceilings throughout are dropped acoustical Ceiling Tiles (ACT). Most of the ceilings are in good condition. There are a few tiles that should be replaced due to water damage.



### **Doors**

The interior doors in this building are primarily hollow metal. They are in good condition.

### **Restrooms**

There are two restrooms within this facility, one off the public lobby for guests and one in the work area for employees. Both are unisex, and both are required to be accessible. They have the adequate space. They are missing the vertical grab bar and one of the sinks is missing pipe sleeves.



### **Casework**

The casework is located in the kitchen. It consists of plastic I laminate base cabinets casework with stainless steel countertops. The base cabinets in fair condition with edges beginning to wear. The kitchen has stainless steel appliances. The double sink is also stainless. There is no accessible sink or knee space built into this layout. A complaint sink and knee space should be incorporated.

### **Building Code and ADA**

As noted, there are limited code and ADA issues with the restrooms and kitchen. In addition, some furniture placement encroached clearances at door swings or toilet clearances and those should simply be relocated or adjusted. The signage should be updated in some areas to reflect the accurate usage of the room or to replace damaged pieces.

Overall, this building it is in good condition with the need for some general maintenance items and code upgrades.

## **Plumbing**

The building is 20 years old, and systems are newer and in good condition.

The gas service is provided by Southern CT Gas Company and routed from the gas main in Richard White Way to an exterior gas meter exposed along the building. Gas piping primarily serves boilers, water heater, exterior HVAC unit and exterior generator. The exterior exposed piping is corroding.

Domestic water service is fed from Aquarion's public utility water mains, there are no wells, water pressure is good and routed from Richard White Way to the basement. Domestic water piping is copper with soldered joints and provided with insulation. Domestic water shutoff valves are gate type and don't tend to last, consider replacing with ball valves.

### **Drainage Systems**

The building's sewer system is PVC and discharges underground to a public main in Richard White Way to a regional wastewater treatment plant, there are no septic systems. There were no reported clogs or issues.

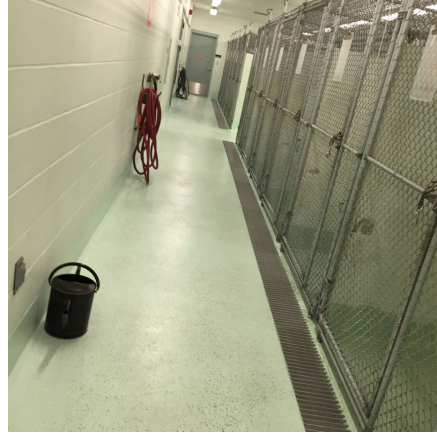
The roof is a sloped metal style with exterior gutters and downspouts. There are no internal storm drains or storm piping. Refer to Architectural Narrative for further information.

### **Domestic Water Heater**

Domestic hot water serving the building is from a vertical storage type, 98-gallon State Industries manufacture natural gas fired storage water heater with an input capacity of 75,100 BTUH. The heater is in the boiler room. The heater is eight years old and nearing its end of life. Products of combustion are vented into the existing chimney through a sheet metal flue. There is a hot water recirculating pump to maintain temperature. A ASSE1017 mixing valve was not installed. Piping was missing insulation. We recommend adding those components for compliance.

### **Plumbing Fixtures**

Existing plumbing fixtures in the building include vitreous china, wall-mounted commercial water closet with flush valves, wall mounted commercial lavatory with manual faucet, and counter mounted stainless steel kitchenette sink, not meeting ADA requirements. There is an emergency eye wash in the Janitor's Room is blocked with storage and has cold water only, not tepid water as required.



### **Recommendations for Repair / Replacement**

- Provide missing insulation around water heater on water piping.
- Remove and replace water heater, recirculation pump, expansion tank and valves, provide with ASSE1017 thermostatic mixing valve.
- Paint all exterior gas piping.
- Remove and replace kitchenette sink to make it ADA compliant.
- Pipe hangers are corroding and will affect water piping life expectancy, repair, or remove and replace.
- Piping throughout boiler room is foam sealed not fire stopped. Provide UL rated compliant firestopping.
- Insulation is missing on piping, provide new insulation where missing.
- Some of the water piping is corroding in boiler room. Repair or remove and replace.
- Maintenance needs to be done round exterior gas meter to clear weeds growing.
- Tested and inspect backflow preventer feeding boiler water makeup and sprinklers. Location is too high as well.

## **Fire Protection**

The facility has a limited area system only in the boiler room that ties into the domestic water supply with a backflow preventer and shutoff valve at the ceiling. This type of system is limited to only six sprinklers in any fire area maximum. The piping is copper tubing with soldered joints. There is no flow switch or alarm, so if the system discharges, no one may know. There is not a tamper switch on the valve, if the system is turned off, the sprinklers will not discharge water.

The town may consider fully sprinklering the building with a new service, alarms, and devices.



## **Recommendations for Repair / Replacement**

- Provide a fully sprinklered building throughout with a new service, alarms, and devices.



## **Mechanical**

### **Boiler Plant**

The boiler, located in the Mechanical room, is a 2019 Viessmann Vitocrossal 300 model CU3A 199, high efficiency gas fired, with an input capacity of 199,000 BTUH. Products of combustion and combustion air are vented into the exterior wall through polypropylene pipes. A variable speed inline circulating pump delivers hot water to the terminal equipment in the building.

The piping distribution system throughout the building is original to the building. Piping systems, with proper maintenance, can operate for 50 years.

Finned tube radiation, convectors and unit heaters fed from the boiler system provide heating in the lobby, vestibules, toilet rooms, and mechanical room. Finned tube radiation, convectors and unit heaters are in good condition. Finned tube radiation cover located in the tub room has surface corrosion.

### **General Office Area/Small Animals Room**

A single zone 5-ton split system provides, heating ventilation and air conditioning to the office and adjacent spaces. This system is original to the building and is operating on the obsolete R22 refrigerant. The system consists of an air handling unit, hot water coil, refrigeration coil and a remote air-cooled condensing unit. The air handling unit is in the attic mechanical space and the duct distribution is routed above the ceiling to diffusers and grilles. Existing drawings did not have provisions for economizer, based on the capacity, this unit should be equipped with economizer to provide free cooling to the space when the outdoor air temperature is cooler than the indoor air temperature. It was also observed that the air handling unit return duct plenum is open to the attic mechanical space, this opening should be capped. Duct in the mechanical space is not insulated.



## **Kennel Area**

Two (2) gas fired outdoor units serve the South and the North kennel areas. Each unit has direct expansion cooling coil, condenser coil, compressor, supply fan, gas fired heat exchanger and an outside air intake damper with hood. Each unit has a nominal cooling capacity of 10 tons and a heating input capacity of 235,000 BTUH. These units have been replaced in kind. The units, mounted on a concrete platform on grade, are configured for horizontal discharge. The supply and return ductwork are routed exposed penetrating the adjacent exterior wall. The exterior supply and return ductwork, which are not provided with insulation and jacket, have developed surface corrosion. Supply ductwork is routed exposed below the kennel ceiling and air is distributed to the space through duct mounted registers. The return air grille is located sidewall in the space.



Roof mounted exhaust fans are provided in kennels, isolation, and quarantine spaces. According to Animal Control Officer, these exhaust fans do not have local controls and can only be turned on and off at the electrical panel.

The small animal room is provided with exhaust fan. When the exhaust fan is operating, the air is transferred from the adjacent corridor through wall mounted transfer grilles.

## **Recommendations for Repair / Replacement**

- In accordance with the International Energy Conservation code, units providing 100% ventilation air requires energy recovery ventilator. Provide energy recovery ventilator.
- Replace the exterior ductwork. New exterior ductwork should be provided with insulation and protective jacket.
- Replace split system. Provide the new system with economizer. Replace refrigeration piping. Provide new refrigeration piping with insulation. Provide all exterior refrigeration piping insulation with aluminum jacket.

- Replace roof mounted exhaust fans serving kennels, isolation, and quarantine area. Consider providing variable frequency drives.
- Provide local controllers. In addition to local controllers, provide DDC controls compatible with the Town's system.
- Engage the service of a Chemical Service Provider to maintain proper water treatment to the building water loop.

## Electrical

The existing electrical service is made up of a combination 300 amp 120/208V-3PH-4W main breaker and integrated C/T cabinet. The main breaker feeds an adjacent main distribution panel (MDP). The MDP in turn feeds a local electrical panel 'LP1'. The main switch is fed underground from pole mounted utility company transformers on pole #5201. This equipment is original to when the building was built in 1998. MDP feeds the large equipment loads, while 'LP1' feeds local branch circuits. In addition to the normal electrical distribution, there are two photovoltaic systems



installed. The first system is made up of solar panels on the south-east side of the roof and patio canopy. This feeds back to five inverters and panel in the Mech./Elec. Room. The second system is made up of solar panels on the north-west side of the roof. These run back to two inverters mounted on the outside of the building at the door into the Incinerator room. The meters and disconnect

switches for both systems are on the exterior wall south-west side near the exterior of the Mech./Elect. room.



## Fire Alarm

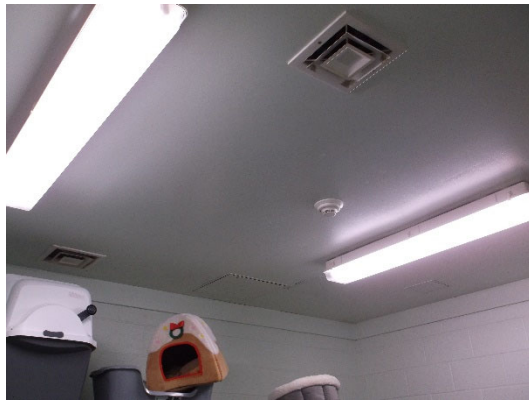
The fire alarm system (Fire Watch #SXL-EX by Cerberus/Pyrotronics) is located in the front entrance vestibule. There are manual pull stations at all of the egress doors, and there are audio/visual devices throughout the building with heat & smoke detectors. The manual pull stations do not appear to meet the current ADA height requirements (top of



the pull station handle 48" AFF and the height of the strobe light shall be between 80"-96" AFF). It is our understanding the system is working properly.

### **Lighting**

The existing interior lighting in the building is a mix of recessed lensed fluorescent 2x2 & 2x4 fixtures, recessed down lights, surface mounted industrial fluorescent fixtures, and surface mounted gasketed lensed fluorescent fixtures. These fixtures



appear to be in good condition and



working properly. It is our understanding that the majority of the fixtures have been upgraded with new LED bulbs. There are some fixtures that still have fluorescent or incandescent bulbs. These were areas that the town determined to be low

use and would be replaced later as needed. All of the areas appear to be controlled by local toggle type switches with a couple of rooms having an occupancy sensor switch. The existing exterior lighting for the building is made up of H.I.D. wall packs, and wall mounted full cut-off type LED fixtures. We were not able to determine the operation of the exterior fixtures at the time of our inspection.



Emergency lighting for the interior of the building is made up of fixture mounted emergency batteries and test switch. Exit signs in the building are made up of thermoplastic signs with red lettering and emergency battery. The illuminated signs appear to be in fair/good condition and working properly.



### **Devices**

Existing wiring devices (receptacles & light switches) in most areas of the building are recessed mounted, there are a few devices in the building that are surface along with a few on the exterior of the building as well. The devices all appear to be in good condition, we are not aware of any issues.

### **Telecommunication System**

The existing phone system D-Mark and network distribution with headend equipment is in a closet of the Food Prep room behind the main Office. We are not aware of any issues with this equipment.

### **Recommendations for Repair / Replacement**

- Add a smoke detector at the fire alarm control panel (required by code).
- Replace existing toggle type switches with occupancy sensors and dimmer switches.
- Install emergency lighting at the exterior of all egress doors to meet current code requirements.
- Relocate existing weatherproof GFI duplex receptacle at RTU #1 disconnect switch. Currently the device cover is partially blocked by the disconnect switch.

Fairfield Animal Shelter - 211 Richard White Way Facility Condition Cost Estimate										
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING					CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
			4	3	2	1	n/a			
EXTERIOR CONDITIONS										
A01	Mildew at CMU	General		3				Clean as required	\$ 2,000	
A02	Lintels are at the beginning stages of rust	General	4					Scrape, prime and paint	\$ 6,000	
A03	Door weather stripping is beginning to break	General		3				Replace weather stripping	\$ 1,000	
A04	Roof soffit vents	General		3				Clean as required	\$ 1,000	
A05	Roof replacement may be needed in 2030 or sooner	General	4					Replace with new metal roof	\$ 184,900	
A06	Vegetation	General			2			Remove and monitor	\$ -	
EXTERIOR SUBTOTAL										\$ 194,900
INTERIOR CONDITIONS										
A07	Rubber base throughout is beginning to fail	General		3				Replace	\$ 2,000	
A08	Leak at hallway near mechanical room	General				1		Locate and repair issue, clean, prep and paint wall	\$ 2,500	
A09	Vertical grab bars are missing	(B)1108.0 (ANSI A117.1) 603-606			2			Install grab bars	\$ 1,000	
A10	Restroom sink pipe sleeves are missing	(B)1108.0 (ANSI A117.1) 603-606			2			Install pipe sleeves	\$ 500	
A11	Insufficient knee space provided at sink and/or workstation in kitchen.	4.32 (ADA)			2			Provide accessible sinks and workstations per ADA Section 4.32. 27" high x 30" wide x 19" deep.	\$ 5,000	
A12	Some signage needs updating				2			Install code complaint signage	\$ 1,250	
INTERIOR SUBTOTAL										\$ 12,250
PLUMBING/FIRE PROTECTION										
P01	Backflow preventers need to be tested and inspected yearly	IPC			2			Test and inspect backflow preventers	\$ 250	
P02	Provide missing insulation	IPC	4					Provide missing pipe insulation	\$ 1,200	
P03	Remove and replace water heater	Maint.		3				Remove and replace water heater, valves and accessories	\$ 5,000	
P04	Exterior gas piping corroding	General		3				Paint all exterior gas piping	\$ 1,500	
P05	Water piping corroding	Maint.		3				Repair corroding piping	\$ 1,500	
P06	Fire stop piping	IBC		3				Fire stop piping	\$ 1,000	
P07	Kitchenette sink not ADA compliant	IPC			2			Remove and replace kitchenette sink	\$ 3,000	
FP01	Building not sprinklered	NFPA 13		3				Sprinkler building	\$ 30,000	
PLUMBING/FP SUBTOTAL										\$ 43,450
MECHANICAL SYSTEMS										
M01	Units serving Kennel is delivering 100% OA	IECC	4					Provide with exterior energy recovery ventilator. New duct to existing RTU	\$ 78,500	
M02	Rusted exterior ductwork	General		3				Provide new with insulation and jacket	\$ 27,500	
M03	Split System at end of their useful life	IECC, General	4					Provide new split system complete with economizer. existing ductwork to be reused	\$ 32,500	
M04	Toilet exhaust fans are at the end of their useful life	General	4					Replace with new	\$ 7,100	
M05	Kennel exhaust fans are at the end of their useful life	General	4					Replace with new	\$ 24,000	
M06	Kennel exhaust fans do not local ON/OFF control	General			2			Provide controls	\$ 5,000	
M07	Boiler loop chemical treatment	General	4					Engage the services of a Chemical Treatment Service Provider	\$ 2,000	allowance
M08	No Building management	General	4					Provide new controls compatible with the town's DDC system	\$ 103,000	
MECHANICAL SUBTOTAL										\$ 279,600

## Fairfield Animal Shelter Facility Conditions Cost Estimate

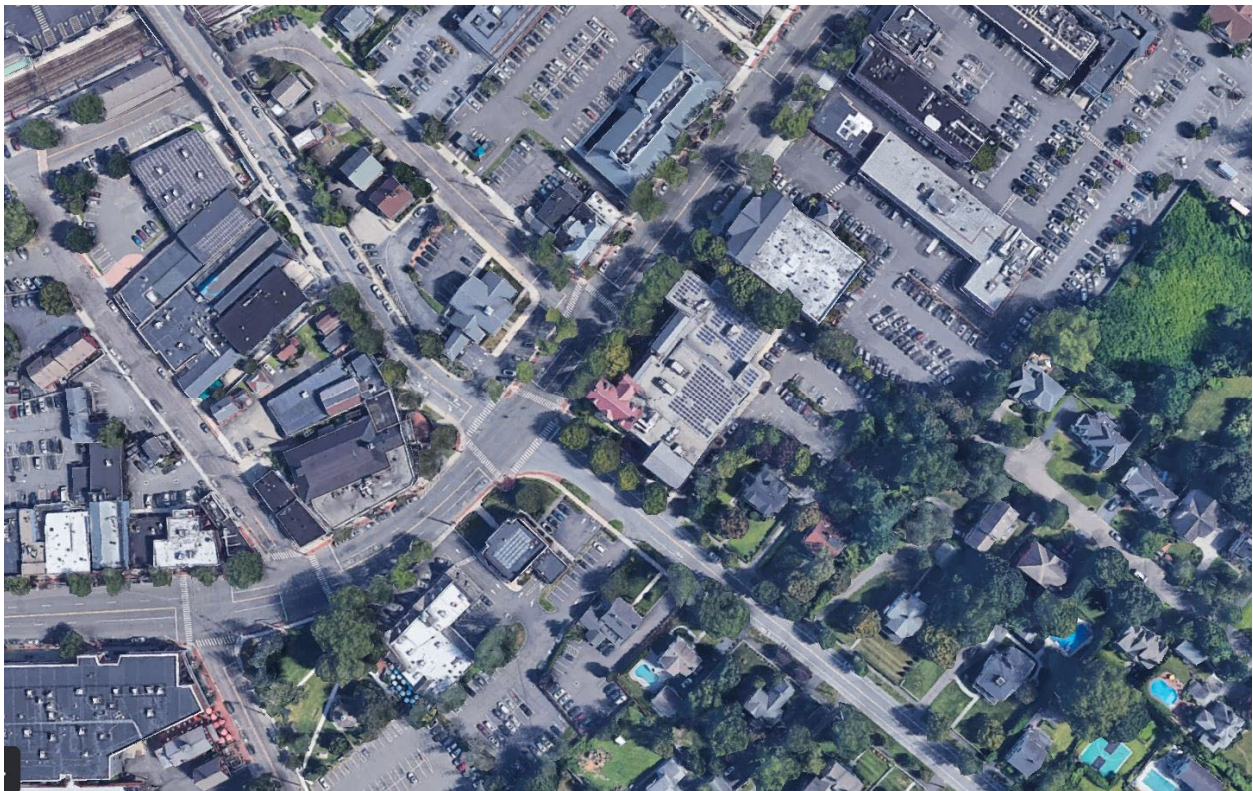
ELECTRICAL SYSTEMS											
E1	No smoke detector at Fire Alarm panel	NFPA 72			2				Add a smoke detector in the Lobby near the Fire Alarm panel	\$ 350	
E2	Toggle type light switches	2015 IECC	4						Replace all existing toggle type switches with occupancy sensors and dimmer switches (not in the animal areas)	\$ 2,500	
E3	No Exterior emergency egress lighting	NEC				1			Add a remote emergency battery and test switch for the light at each egress door	\$ 2,100	
E4	Existing receptacle in-use cover blocked by disconnect switch	General	4						Relocate existing receptacle so opening & closing the cover is not interfered by the disconnect switch	\$ 225	
E5	Existing plumbing & mechanical equipment to be replaced	Maint.		3					Disconnect and reconnect electrical connections to plumbing & mechanical equipment to be replaced	\$ 2,500	
<b>ELECTRICAL SUBTOTAL</b>											<b>\$ 7,675</b>
<b>TOTAL ESTIMATED COSTS</b>											<b>\$ 537,875</b>
<b>LEGEND PRIORITY - RANK</b>											
1	Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.										
2	High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.										
3	Moderate priority - These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.										
4	Low priority - These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.										

## Main Library – 1080 Old Post Road

The Main Library was originally constructed in 1876. It received many additions throughout its lifetime in 1902, 1930, 1959, 1981, and 2005. At the time of the assessment, a portion of the main floor is currently under renovation.

The library originally was constructed as a two-story colonial while each addition consists of low slope roof structures. Looking at the Google aerial view below, there is a significant difference in roof material and color which signifies the original and additional spaces created on the site. The site is currently being renovated in the office spaces on the basement level.

The Main Library stands on about on acre of land located on the corner of Post Road and Old Post Road. Pedestrian circulation onto the site is located north side of the building off Old Post Road and southeastern portion of the site through one half story below.





## Architecture

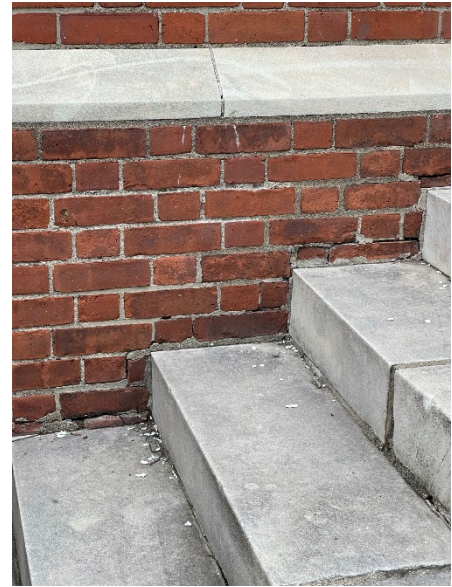
Having been built during multiple decades beginning in the late 1800s, the architecture of this building is comprised of many styles. The original portion of the building is constructed of brick masonry and each addition after construction followed suit. On the exterior, the difference in architecture is mostly seen in the roof structure and fenestration styles.

### Exterior Building Envelope

The exterior brick walls are generally in good condition, with a limited areas of settling and spalling. The older portions of the building are constructed with brick "veneer" with no air space which is typical of anything built before the energy crisis in the 70s. It results in very low energy efficiency construction and not one that is easily or readily corrected. New portions will have an air space and insulation incorporated within the cavity increasing the efficiency. Given the age of this building there are numerous areas spread throughout the exterior of areas where repointing the mortar joints would be recommended, most notably on the lower portions of the wall near grade, at chimneys and some areas by the parapet. Many of the stone steps need joints repaired also. Some areas of brick have a large amount of efflorescence which aesthetically should be cleaned. Some of the precast frieze/cornice details at the parapet are damaged. These should be repaired. There are also some stone sills that deteriorating and should be repaired or replaced. Considering its age, the building's envelope is in good condition.

### Windows

There are a variety of window types due to the variety of construction periods. Most of the windows are double hung assemblies in a variety of materials. In newer additions they are fixed aluminum windows storefront assemblies. Some of the wood double hung windows are old but understandably are kept retaining the historic character. Overall, they are in good condition.





## Doors

The exterior doors vary as did the windows from one vintage to the next. There are a variety of aluminum and wood doors. The main entrance doors are a sliding aluminum. They appear in good condition. Many doors on the older portions are wood doors and they too appear to be in good condition.

## Roof

There are a variety of roofs throughout the facility. The low slope "flat" roof is a ballasted modified bituminous roof assembly. The roof is in fair condition but there are many areas where the ballasted areas have run thin leaving the bitumen exposed to the elements. These areas are wearing and water penetration which is evident in the alligatoring and bubbling. Most of the roof is covered with solar panels. A small area of sloped roofs is clad in metal panels. The remaining sloped roofs are slate tile roofs in gray and terra cotta. Some of these tiles have fallen out and been removed. These should be replaced. Some of the roof drains are clogged or have vegetation growing in them. They should be cleaned. Some areas of the wood fascia have peeling paint. On the original portion the library, there are dormers which have been infilled with wood and painted. These items should be scraped of the old paint, primed, and repainted as the fascia will be done.



### **Interior Conditions**

The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. The interior is well maintained and needs limited improvements mostly concerning building codes and ADA compliance.

### **Floors**

There are a variety of different flooring materials throughout the building. They change depending on each space and the time of construction. The basement floor, which contains a storage area, mechanical and electrical equipment, and office spaces consists of pho wood vinyl floors, rubber tile, and carpet. The main floor and second floor contain carpet tile in the library areas including much of the children's area. There is also some VCT flooring in the program room. All appear to be in good condition. The periodical room contains mosaic tile which is in good condition. There is also ceramic tile at all restrooms that appear in good condition. Lastly, the entrance area has a stone tiled floor. One area has a significant crack that's runs through. These tiles should be replaced.

### **Walls**

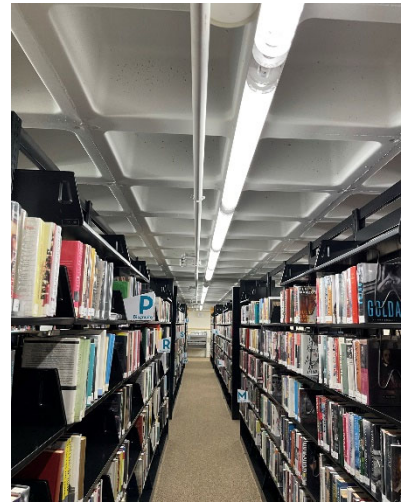
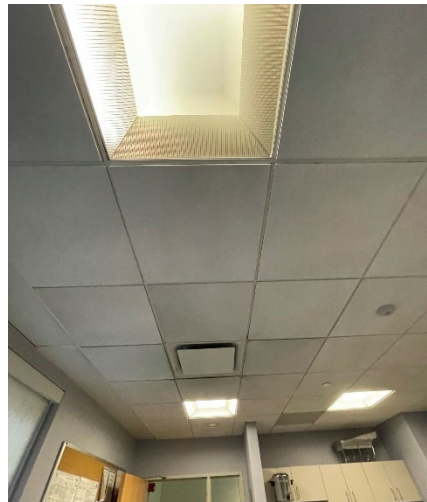
The walls in the building are plaster and sheetrock. They are in pretty good condition. With only minor scuffing and damage, they have typical wear and tear a public facility. One area on the second-floor hallway did indicate some water damage with bubbling of the wall. This should be explored to determine the underlying issues and then repaired.





## Ceilings

There are a variety of ceiling types. Most spaces have dropped Acoustical Ceiling Tile (ACT) while some of the original spaces have plaster ceilings. The Main floor consists of 2 x 2 ACT, and 4x4 ACT. Some areas have a dropped egg crate system. Another area has an exposed waffle slab. A few plaster areas including the Memorial Room on the second floor have some areas that need to be repaired. Overall, the ceiling is in great condition.

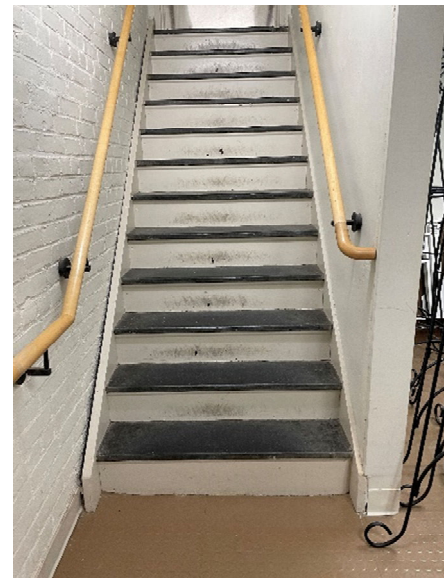


## Doors

The interior doors in this building vary on the materials. Most of the doors are wood set within hollow metal frames. There are minimal number of doors with noncompliant hardware which should be changed. Overall, they are in good condition.

## Stairs & Ramps

There are many stairs within the facility. Most of them are in good condition, with few minor items to adjust. The stairs between the basement of the Main Library and the ground level, unfortunately, do not meet the building code and ADA compliance. Firstly, the rise and run of a stair should not exceed 7



inches by 11 inches where in this case, it is 8.5 inches by 9 inches. The stairs are too tall and do not have enough foot room to properly place your foot on the step. In addition,

a stairway should have a landing at the top and bottom of the stair. This stair does not have a top landing. These issues can only be rectified if they are rebuilt. There are existing ramps in the library, however, there are a few ramps which do not meet the code or compliance. The ramp located outside of the teens room, as seen in the photograph to the right, does not have handrail extension of no less than 12 inches beyond the bottom and top landings of the ramp. These should be extended to comply.

### **Restrooms**

There are multiple restrooms throughout the facility. All the dedicated handicap stalls or single restrooms comply except they do not have vertical grab bars. These should be included.

### **Casework**

The casework in the Main Library is overall in good condition. Most of the casework is made of plastic laminate, however, they do not all have an ADA compliant knee space. The Periodical room is in similar condition regarding its wooden casework and meets the ADA code.

### **Building Code and ADA**

As previously noted, there are some minor code and accessibility issues within this building. These items should be addressed within a capital plan. Overall, this building is in good condition.

## Plumbing

The gas service is routed from the gas main in Old Post Road to a gas meter located on the outside in the front of the building. One gas meter serves the boiler and the domestic water heater and kitchen range. Exterior gas piping is rusting and corroding. There wasn't a drip leg on the gas piping required by code.

The building's sewer system discharges underground to a public main to a regional wastewater treatment plant, there are no septic systems. Roofs are pitched to roof drains and overflow drain to an interior storm system. There are also gutter and downspouts that drain from a higher roof to a lower roof. Some scuppers on the roof for secondary (emergency) drainage.

The domestic water service is fed from Aquarion's public utility water main from Old Post Road, there are no wells and water pressure is good, 90 psi. The systems appear to have been installed and remodeled many times since the early 1900's. The systems are in good condition.

The water heater is new and in good condition, piping is missing insulation and a thermostatic mixing valve to prevent scalding.

There is a main backflow preventer and pressure reducing valve in the basement.

Plumbing fixtures are in good condition and ADA compliant. See architectural report for grab bars.

Cups were put into the plumbing vent stack rendering it inoperable and will affect the drainage system.





### **Recommendations for Repair / Replacement**

- Provide missing insulation and mixing valve at water heater.
- Repaint gas piping on roof and provide drip legs per code.
- Remove and replace kitchenette sink for accessibility.

## Fire Protection

The building is fully sprinklered with a wet system in the heated areas and a dry system in the attic.

The main sprinkler service is in the basement, it looks to be in conformance and regularly tested and maintained.



## Recommendations for Repair / Replacement

- Continue to maintain, test, and inspect sprinklers and devices as required by code.

## **Mechanical**

### **Boiler Plant**

The building is heated using two (2) boilers mounted on the mechanical room floor, no housekeeping is provided. The newer boiler is Smith model 19A-W-07, cast iron gas fired with a Power Flame burner. This boiler, installed in 2005, has an IBR rating of 783 MBH. The older boiler was installed in 1985 and was provided with new powerflame burner in 2005. Gas fired, cast iron boilers have a useful expected lifespan of approximately 30 years, the newer boiler is at middle of its useful service life, while the older boiler is beyond its serviceable life. Near boiler piping is showing signs of corrosion.



Two(2) pumps in lead/standby operation, circulate hot water to all heating terminal units in the building. All terminal units , i.e., cabinet unit heaters, unit heaters, ceiling radiant panels, are in good condition. Base mounted pumps have an expected life span of 20 years. There are signs of rust, but the pumps in general, appear to be maintained.



### **Cooling Tower**

The cooling tower, manufactured by Evapco in 2001, is located on a steel platform of roof. The steel platform is rusted and in need of painting. The cooling tower pumping system is in the basement. Cooling towers have a useful life expectancy of 20 years. Two(2) pumps in lead/standby operation, circulate water to water source heat pumps

and cooling tower. Pumps, suction diffusers, reducers and flange connections are showing signs of wear. Condenser water piping has no insulation.



### **Heating, Cooling and Ventilation**

Eight(8) York gas fired roof top units, three(3) water source heat pumps and three(3) ducted split systems provide cooling, heating, and ventilation to the building. The water source heat pump units located in basement are manufactured by Carrier. The Evapco cooling tower on the roof is used to reject the heat from the water source heat pumps.

All roof top units are manufactured in 2010. With a useful life expectancy of 15 years, these units have approximately 5 useful years remaining subject to proper maintenance. The base support of rooftop units is starting to develop rust. Water source heat pump units, located in utility room 001, are manufactured in 2004 and 2005 and are using the obsolete R22 refrigerant. With a useful life expectancy for commercial water to air heat pumps of 19 years, these water source heat pumps are at the end of their useful service life. Two(2) air cooled condensing units are manufactured in 2007 and 2008. With a useful life expectancy for this type of 15 years, these units have approximately 3-5 useful years remaining subject to proper maintenance. We were not able to get the heat pump information located below the Audio Visual Room and the third condensing unit located on grade.

For roof top units configured for horizontal discharge, ductwork distribution system is routed exposed above roof. The exterior ductwork appears to have insulation and weatherproof cladding. Joints should be inspected to ensure proper weather sealing. Considering the age of the associated equipment, the R value of existing insulation may not conform with the current energy code requirements.



All units provide air to the space using a network of distribution ductwork located above ceiling.

Most of the spaces utilize a Variable Air Volume system which delivers air to each space from the rooftop unit. VAV boxes have reheat coil to allow for a controlled supply air temperature to the space.

Toilet rooms are provided with exhaust fans. Roof mounted centrifugal exhaust fans have a useful life expectancy of 25 years.

Portable dehumidifiers were observed in various locations in the office. Added dehumidifiers in the space typically indicates humidity concerns in the some of the spaces.

An Alerton DDC system is provided in the building.

### **Recommendations for Repair / Replacement**

- Provide boiler housekeeping pad.
- Replace the older boiler.
- Provide chemical bypass feeder in the boiler room.
- Provide cooling tower water filtration system.
- Engage the service of a Chemical Service Provider to maintain proper water treatment to the building water loop and cooling tower loop.
- Replace worn parts and rusted flange connections. Provide new gaskets and repair leaks.
- Consider replacing exterior ductwork insulation and jacket. Clean and seal ductwork
- Consider replacing the rooftop unit serving the office with a variable volume unit with hot reheat to help control humidity in the spaces. Consider rebalancing the system.
- Paint rusted cooling tower platform.
- Replace water source heat pump units and cooling tower in kind or consider using a conventional air to air split system.



## Electrical

The existing electrical service is made up of a 1600 amp 120/208V-3PH-4W switchboard, with a 1600-amp main breaker, an integrated C/T cabinet and two adjoining distribution sections. The switchboard was installed in the building in 2004 and is in good condition. The switch board is fed underground from



the utility company pad mounted transformer (North-East corner) through the exterior wall and into the back of the main switch. The two distribution sections feed



multiple panels, HVAC equipment and the elevator. There are two elevators in the building. Most of the electrical panels appear to be the same age as the switchboard with a few panels slightly older, all look to be in good working order. In addition to the normal electrical distribution, there is a photovoltaic system

also. This is made up of solar panels on the flat areas of the roof that feed multiple inverters in the basement for a 200-amp distribution. This system is newer than the normal electrical distribution.



## **Fire Alarm**

The fire alarm system (Simplex #4010) with a 4003 Voice Control Panel and 4009 IDNet NAC extender panel located in the work room behind the circulation desk. There is local manual pull stations at the egress doors and at some of the stairs in the basement and second floor. Also, there are audio/visual devices throughout the building. Both the manual pull stations and audio/visual devices appear to meet current height requirements. It is our understanding the system is working properly.

## **Lighting**

The existing interior lighting in the building is a mix of recessed fluorescent 2x2, 2x4 & 4x4 indirect fixtures, recessed down lights, pendant mounted direct/indirect fixtures, surface mounted fluorescent strip fixtures with round white baffles and surface mounted lensed strip. These fixtures appear to be in fair/good condition and working properly. It is our understanding that the majority of the fixtures have been upgraded with new LED bulbs.



There are some fixtures that still have fluorescent or incandescent bulbs. These were areas that the town determined to be low use and would be replaced later as needed. Most of the areas have occupancy sensors to turn the lights on and off in



conjunction with local toggle type & dimmer switches for added control. The existing exterior lighting for the building is made up of fluorescent/incandescent wall mounted lantern type fixtures at the doors of the original portion of the building. The rest of the building has small wall mounted LED wall pack fixtures at the back entrance doors, wall mounted LED full cutoff fixtures along the back sidewalk area and indirect wall mount fixtures and short pole light at the south side entrance. There are exterior rated "jelly jar" type fixtures on each of the mechanical units on the roof. At least one of these has a





cracked lens and needs a new bulb. We were not able to determine the operation of the exterior fixtures at the time of our inspection.



Emergency lighting for the interior of the building is made up mostly of fixture mounted emergency battery ballast and some self-contained twin head emergency fixtures. Exit signs in the building are made up mostly of thermoplastic signs with red lettering and emergency battery. There are a couple of rooms that have non-illuminated paper exit signs. The illuminated signs all appear to be in fair/good condition and working properly.

### **Devices**

Existing wiring devices (receptacles & light switches) in most areas of the building are recessed mounted, except some devices in the original portion of the building and some back of house areas. The devices all appear to be in fair/good condition, along with their cover plates.

### **Telecommunication System**

The existing phone system D-Mark is in the basement north-east corner near the main electrical switch board. The main network closet with the racks and headend equipment is in the middle of the basement along the front wall (west side).

### **Recommendations for Repair / Replacement**

- Add additional fire alarm audio/visual devices in areas of the buildings where there are no devices currently or with minimal coverage.
- Add fire alarm manual pull stations at basement and second floor stairwell entrances that currently do not have a device and all first-floor exterior egress doors without a device.
- Add additional exit signs, not all areas can easily see signs especially in the Children's reading areas.
- Replace existing paper exit signs with new illuminated signs to meet current code.

- Replace (5) existing dimmer switches with a single device or relocate switches in second floor 'Memorial Room' to comply with ADA mounting requirements.
- Replace existing exposed photovoltaic wiring run on the roof with new wiring installed in conduit.
- Replace broken lens on "jelly jar" type fixture on roof top mechanical unit and install new light bulb.
- Replace existing wall switches with new occupancy sensors and dimmer switches.
- Add additional and/or new emergency lighting at the exterior of all egress doors to meet current code requirements.

Main Library - 1080 Old Post Road Facility Condition Cost Estimate												
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING					CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS		
			4	3	2	1	n/a					
EXTERIOR CONDITIONS												
A01	Brick is spalling or mortar is in need of repointing	General			2			Patch, repair, or replace block and repoint as necessary.	\$ 60,000			
A02	Precast cornices are cracked and have deteriorated	General		3				Clean, repair and seal as necessary	\$ 15,000			
A03	The ballast modified bit roof is nearing the end of its useful life	General			2			Replace roof	\$ 427,900			
A04	Portions of the wood dormers and roof fascia's are nearing the end of their useful life	General			2			Remove and replace any decayed wood and scrape, prime and paint	\$ 3,000			
A05	Roof drains are clogged or have vegetation growing in them	General				1		Remove debris from drains provide a "cage" on the drain to prevent large portions from flooding in the future. Maintenance for roof drainage should be done at least twice a year.	\$ 1,000			
EXTERIOR SUBTOTAL												\$ 506,900
INTERIOR CONDITIONS												
A06	Stone floor tiles are cracked	General	4					Replace with new stone tiles to match existing floor pattern.	\$ 1,800			
A07	2nd floor hallway wall shows signs of water infiltration	General			2			Investigate and rectify the cause. Scrape, prime and paint	\$ 2,500			
A08	Various areas of plaster ceiling are damaged	General	4					Repair or repatch plaster ceiling areas as necessary	\$ 6,000	Allowance		
A09	Some door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)			2			Remove door locksets and install new accessible lever handle locksets where designated.	\$ 5,000			
A10	Basement stair does not meet code requirements					1		Rebuild stair to meet code	\$ 12,000			
A11	Hand railing is not compliant				2			Provide new or weld extensions as required	\$ 2,000			
A12	The required toilet grab bars are not installed	(B)1108.0 (ANSI A117.1) 603-606			2			Add vertical and swing up grab bar to all handicap stalls	\$ 3,000			
A13	Insufficient knee space provided at sink and/or workstation.	4.32 (ADA)			2			Provide accessible sinks and workstations per ADA Section 4.32. 27" high x 30" wide x 19" deep.	\$ 10,500			
INTERIOR SUBTOTAL												\$ 42,800
PLUMBING/FIRE PROTECTION												
P01	Insulation and mixing valve missing at water heater	IPC	4					Provide insulation and mixing valve missing on piping	\$ 1,500			
P02	Gas piping corroding on roof and missing drip leg	Maint.		3				Repaint gas piping & add drip leg	\$ 1,500			
P03	Kitchenette sink is not handicap accessible.	IPC			2			Remove and replace plumbing fixtures	\$ 2,000			
PLUMBING/FP SUBTOTAL												\$ 5,000



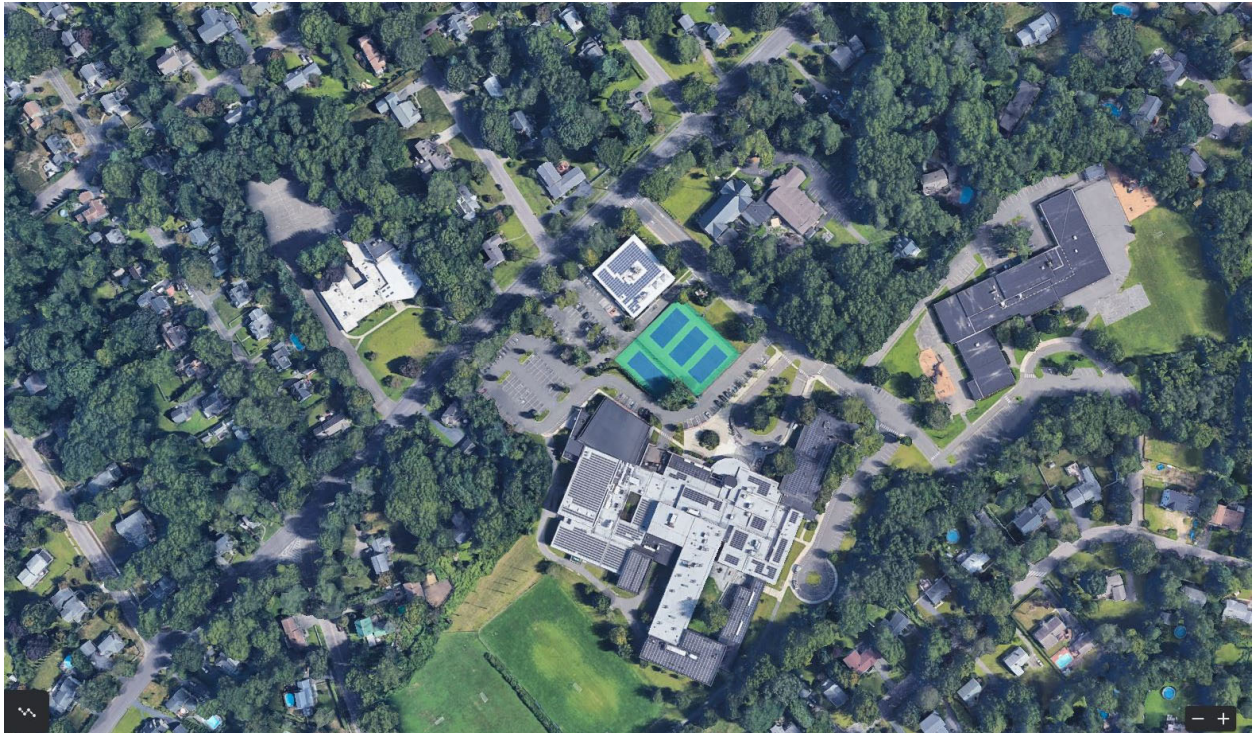
## Main Library Facility Conditions Cost Estimate

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## **Fairfield Woods Library – 1147 Fairfield Woods Road**

The Fairfield Woods Library is an additional library in Fairfield built to support an additional library location. It was constructed in 1968 and was renovated and expanded in 1990. This library is greatly valued by the community.

The Fairfield Woods Branch Library is a two-story building which is built on about 3 acres of land adjacent to Fairfield Woods Middle School. Parking is located towards the southwest portion of the site with the main entrance on the closest façade. Two additional means of egress, one being ADA compliant, are on perpendicular and parallel to the southwestern façade.



## Architecture

Overall Fairfield Woods Library is in good condition. The architecture is quintessential of the late 1960s with an expressive concrete structure and heavy stone facades.

### Exterior Building Envelope



The single-story facade is composed of stone cavity walls within a concrete structure. The exterior of the building is in good condition, with some areas of wear and tear. The mortar is in good condition with limited areas in need of repointing. There are some minor cracks throughout the concrete portion. Many areas of the concrete structure have peeling paint and should be scraped, primed and painted.

### Windows

The windows at the Woods Library are bronze aluminum insulated systems. Many of the windows are up high while some terminate all the way at the floor level. Many have operable hopper windows which are in good condition.





### **Doors**

The exterior doors and frames in the Woods Library are aluminum systems. They all seem to be operating well and are in good condition.

### **Roof**

The existing roof on the Woods Library is a Thermal Polyolefin (TPO) roof. Much of the roof is covered with photovoltaic panels. There is no evidence of damage to the membrane and seams appear to be holding up well. The roof was observed following large amounts of rain and there is some debris collecting on the roof. There should be scheduled maintenance cleanup at least twice a year. The drains would benefit from larger cages around them to filter out the debris.



### **Interior Conditions**

The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. Given the building's age, its interior is well maintained, however, it needs some improvements regarding finishes and concerning building codes and ADA standards.

### **Floors**

There are a variety of flooring materials installed. Most of the flooring throughout the main floor is carpeting. It varies in style from the children's areas to the main space but overall is in good condition. Ceramic tile is seen in the restrooms, and all appears in good condition. The flooring in the basement spaces vary between vinyl composition tile (VCT), rubber tile, carpeting, and concrete slab. The main level's flooring consists of carpet tile and vinyl composition tile (VCT) which are in good condition.

## Walls

The walls in the Woods Library are mostly gypsum wall board or plaster. There are some walls that bring the stone from the outside inside. Most walls are in good condition, however, there are a few spaces that should seek attention. The wall on the mezzanine level directly under the roof, as seen in the photograph on the right, shows the peeling of paint and drywall providing evidence of water damage within the exterior wall.



## Ceilings

There are a variety of ceiling types in this library. Most of the ceilings are mostly composed of 2x2 acoustical ceiling tiles (ACT). They are all in good condition with a few stained or damaged tiles that should be replaced. Additionally, there are some areas with exposed cementitious and concrete decking.



## Doors

Most of the interior doors are wood set within hollow metal frames. There are some hollow metal doors and frames. Overall, they are in good condition. Most doors have compliant hardware, but the basement level has many knobs that require twisting. The hardware should be replaced to follow the current code requirements.





## Stairs

There are three sets of stairs within this building. There are multiple issues with the stairs which lead up to the mezzanine floor, as seen in the photograph to the right. The handrails are not to code and the width of the stair is too small. The International Building Code states the width of the stair shall be no less than 44 inches.

At all the stairs the handrail should have a railing extension no less than 12 inches in length. The profile of the handrail does not meet ADA requirements. While handrails need to be between 34"-38" the height, the guard railings should be 42". The arrangement at these stairs and mezzanine edge railing do not meet code or ADA.

In addition, both the mezzanine and the basement stairs do not meet the International Building Code in relation to the standard "rise over run" of the steps. The requirement of the stairs is a 7-inch maximum rise by 11-inch minimum run.

Additionally, the underside of the stairs should be blocked to comply the minimum vertical clearance of 80" as seen in the diagram from the 2010 ADA Standards for Accessible Design. Protection should be added under these stairs.

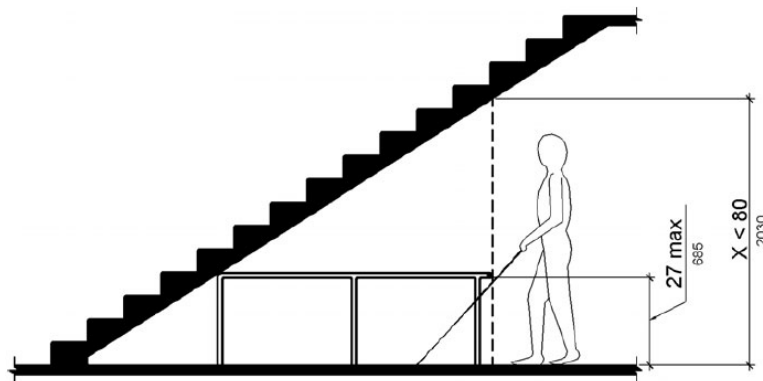
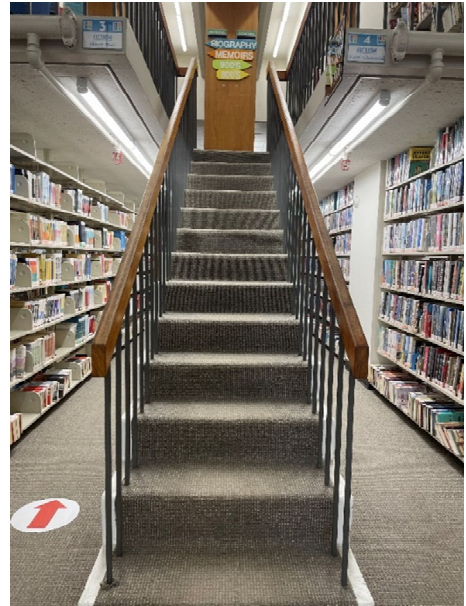


Figure 307.4  
Vertical Clearance



### **Restrooms**

There are multiple restrooms throughout the library. There are 3 single restrooms on the basement level. None are ADA compliant. The fixtures would need to be changed modified and the arrangement made so that both the sink, toilet and door had the proper clearances. The same scenario applies to the restrooms on the main level. Although the children's room complies and is only missing a vertical grab bar and sink pipe sleeves. These should be added to comply.



### **Casework**

There is limited casework throughout the facility. There is a breakroom on the main level and a small kitchenette in the basement. The plastic laminate casework is in good condition. However, it does not provide a knees space or an accessible sink.



### **Building Code and ADA**

As noted within many of the sections, there are multiple code and accessibility issues within this building such as the stairs, restrooms, and casework. The ceilings on the basement floor provide a height of 7 foot 2 inches which is not updated to the current International Building Code (IBC) of 7'-6" for habitable spaces and corridors. 7'-0" is allowable for bathrooms, toilet rooms, kitchens, storage rooms and laundry rooms. Signage is a very important necessity in this building. Aside from missing room labels and incorrect room names, the height of the signs is too high based on the American Disabilities Act which states, the height signage is a minimum of 48 inches and a maximum of 60 inches in height. In addition, the elevator configuration and overall cab size does not comply with ADA. It also does not provide any access up to the mezzanine. These items should be included in the long-term capital plan.

## **Plumbing**

The gas service is routed from the gas main in Fairfield Woods Road to an exterior gas meter exposed along the building. Gas piping primarily serves boilers in the basement, water heater and HVAC rooftop units. The piping on the roof is rusting.

Domestic water service is fed from Aquarion's public utility water mains, there are no wells, water pressure is good and routed from Fairfield Woods Road to the basement. Domestic water piping is copper with soldered joints and provided with insulation. Domestic water shutoff valves are gate type and don't tend to last, consider replacing with ball valves.

### **Drainage Systems**

The building's sewer system is cast iron and discharges underground to a public main Fairfield Woods Road to a regional wastewater treatment plant, there are no septic systems. There were no reported clogs or issues.

The roofs are drained via perimeter roof drains and interior storm piping to a site municipal collection system. Refer to Architectural Narrative for further information. Roof drain strainers are too small and collect debris.

### **Domestic Water Heater**

Domestic hot water serving the building is from a vertical storage type, 40-gallon Rheem manufacture natural gas fired storage water heater with an input capacity of 40,000 BTUH. The heater is in the basement adjacent to the hot water pumps. The heater is in fair condition and has a useful life expectancy of 10 years. Products of combustion are vented into the existing chimney through a sheet metal flue. There is a hot water recirculating pump to maintain temperature. A thermal expansion tank and ASSE1017 mixing valve was not installed. We recommend adding those components for compliance.

### **Plumbing Fixtures**

Existing plumbing fixtures in the building include vitreous china, wall-mounted commercial water closet with sensor flush valve, wall mounted commercial lavatory with sensor faucet, and counter mounted stainless steel kitchenette sink, not meeting ADA requirements. The electric water cooler was replaced recently with a new wall mounted unit with a sensor bottle filler and meets ADA requirements. Refer to Architectural Narrative for further information.



### **Recommendations for Repair / Replacement**

- Water heater needs a thermostatic mixing valves for scald prevention.
- Provide a thermal expansion tank, a ASSE1017 thermostatic mixing valve on the water heater and a recirculating system as there is a long wait for hot water and exceeds code requirements.
- Test and inspect backflow preventers.
- Provide missing insulation around water heater on water piping.
- Remove and replace water heater.
- Paint exterior gas piping.
- Remove and replace kitchenette sink to make it ADA compliant.
- Remove and replace roof drain strainers with larger ones.



## Fire Protection

The facility is provided with a fully automatic fire protection system with sprinkler coverage throughout the building. The six-inch sprinkler system fed from Fairfield Woods Road was installed in 1990 along with the renovations and expansion. A dedicated fire protection water main supplies the system and is provided with a reduced pressure detector assembly backflow preventer with bypass meter to protect the municipal water system from cross contamination. A wall mounted fire department connection with check valve is provided accordingly and is located adjacent to the gas meter assembly.

A 30 hp, 500 gpm, 142 psi electric fire pump is in the basement to add pressure to the sprinkler system. The system is complete with a jockey pump to main pressure for any small leaks, controllers for each pump. The fire pump test header is located indoors near the fire pump which requires hoses to be brought outside for drainage during a full flow test. The fire pump is required to be separated and in its own 1 hour rated room.

Distribution piping is black steel with mechanical roll groove for larger piping and threaded fittings for smaller piping. Areas are provided with upright sprinkler heads and pendent heads for areas with hung ceilings.

Sprinkler inspections are current and up to date.



## Recommendations for Repair / Replacement

- Continue to maintain, test, and inspect sprinklers, fire pump and devices as required by code.
- Provide a separate rated room for the fire pump in accordance with NFPA 20.



## **Mechanical**

### **General**

Cooling, heating and ventilation to the building is provided by a boiler/chiller plant delivering water to air handling units and two(2) roof mounted, gas fired units with integral refrigeration system.

### **Boiler Plant**

The existing boiler, located in the mechanical room, is a cast iron gas fired Weil McLain Model WR8-G-05. The boiler nameplate minimum input of 1000 MBH and a maximum input 2200 MBH. We were not able to get year of manufacturer of the boiler, but it appears to be original to the building. Relief valve and drains near boiler are draining into a bucket and into a floor drain. Reconfigure and reroute drain pipes to floor drain.

### **Chiller Plant**

The York model YCAL044 air cooled scroll chiller is located on an elevated steel platform on the roof. The chiller has a cooling capacity of 47 tons. The chiller's lifespan is anywhere between 15 to 20 years. Based on the chiller's serial number, the unit is manufactured in 2002, and is at the end of its useful service life.



Three(3) pumps serve the building. One pump serves the hot water loop, one pump serves the chilled water loop and the third pump is for backup. Base mounted pumps have an expected life span of 20 years. Pump bases are rusted. Flanged connections and fittings are rusted.

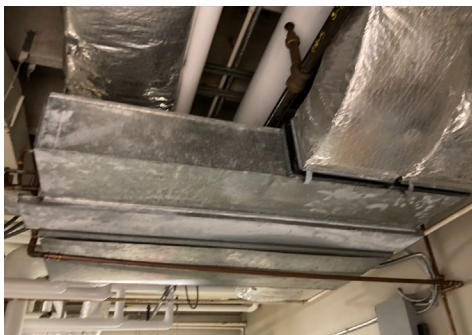
Hot water unit heater provides heating for the basement. The units appear to be original to the building and has an expected useful life of approximately 20 years.

Piping insulation in the mechanical room appears newer. No identification label is provided. Sections of copper piping are not insulated.



### **Air Handling Units**

There are three(3) air handling units located in the mechanical room AHU-1 is a Carrier 39LC110 and AHU-2 is a Carrier 39LC108. Both units, base mounted, were manufactured in 1989. Indoor air handling units have a useful expected lifespan of approximately 20 years. At 32 years old these units have well surpassed their expected service life. One air handling unit is suspended from the structure. We were not able to get the information of the unit. AHU-3 is a Dunham Bush HAH-32, is located in the storage room. We were not able to determine the age of the unit. There are no visible physical damage to the unit. There is outside air ductwork connection to the units, however, we were not able to determine if units are provided with economizer function.



## **Rooftop Units**

One (1) 15 ton gas fired roof top unit and one(1) 6 ton gas fired unit are located on the roof 1990 addition. The larger unit was manufactured in 2007 and the smaller unit in 2010. With a useful life expectancy of 15 years, these units have approximately 3- 5 useful years remaining subject to proper maintenance.



Units provide air to the space using a network of distribution ductwork located above ceiling terminating to ceiling mounted supply diffusers. For air handling units in the mechanical room, ductwork is routed below first floor to floor mounted registers and grilles. Sections of ductwork in mechanical room are missing insulation.



An electric cooking range with recirculating hood is provided in the kitchen.



Toilet rooms are provided with exhaust fans. Roof mounted centrifugal exhaust fans have a useful life expectancy of 25 years.

There is an Alerton DDC control panel in the mechanical room and a Unity Energy Dashboard in the wall near circulation. We were not able to determine the specific equipment being controlled by both controllers.

### **Recommendations for Repair / Replacement**

- Replace the boiler and all near boiler piping specialties.
- Provide chemical bypass feeder in the boiler room.
- Engage the service of a Chemical Service Provider to maintain proper water treatment to the building water loop.
- Repair pumps and replace worn components.
- Replace worn parts and rusted flange connections. Provide new gaskets and repair leaks.
- Provide mechanical room and adjacent space with dehumidifier with outside air duct connections for ventilation. Provide condensate drain piping terminating to an indirect drain in the basement.
- Review air handling unit controls. Provide economizer, if not currently provided.
  - For economizer, add exhaust fan, damper and controls.
- Replace all proprietary Unity Controls with FX controller, compatible with Town's DDC Controls.
- Remove all obsolete sensors in spaces.



## Electrical

The existing electrical service is made up of an 800 amp 120/208V-3PH-4W Westinghouse switchboard, with an 800-amp main breaker, an integrated C/T cabinet and adjoining distribution section. The switchboard is the original from when the building was built in 1967 and is in fair condition. The switch board is fed underground from the utility company pole mounted transformer power-bank on pole #7990 through the exterior wall



(Fairfield Woods Rd. side) and into the side of the main switch. The distribution section feeds multiple panels, motor control center (MCC-1), Chiller (CH-1) and the elevator. There is an elevator and a book lift in the building. The electrical panels are all original except panel 'PB-EM' which was installed during the 1989 addition/renovation. The original panels are in fair condition and are nearing the end of their useful life. Also added during the '89' renovation was a second electrical service (600 amp 120/208V-3PH-4W) for an electric fire pump that was added. This switch is located on the outside wall in the basement to the south-west of the switchboard. In addition to the normal electrical

distribution, there is also a photovoltaic system. This is made up of solar panels on the of the roof that feed (4) roof mounted inverters for a 160-amp distribution. The disconnect switch and utility meter on the exterior wall (north-west side) of the building. There is a plug on the exterior of the building below the PV panels for a portable generator.





## **Fire Alarm**

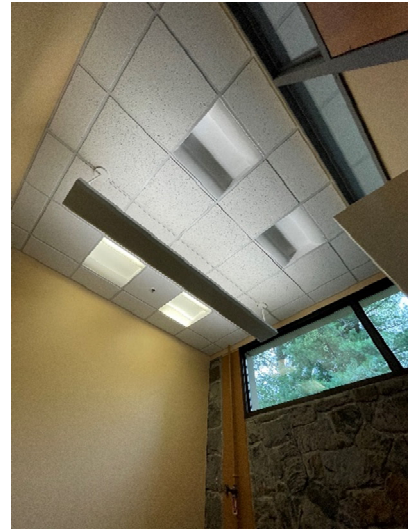
The fire alarm system (FireLite #ES-50X by Honeywell) is located just inside the main entrance. There are manual pull stations at some of the egress doors and at the two basement stairs. Also, there are audio/visual devices and smoke & heat detectors throughout the building. Both the manual pull stations and audio/visual devices appear to meet the current ADA height requirements. It is our understanding the system is working properly.

## **Lighting**

The existing interior lighting in the building is a mix of recessed fluorescent 2x2 & 2x4 indirect fixtures, recessed down lights, pendant mounted indirect fixtures, surface mounted lensed fluorescent strip fixtures, surface mounted wraparound fixtures, pendant mounted industrial fixtures, wall mounted direct/indirect fixtures and recessed



mounted perimeter fixture w/parabolic louver. These fixtures appear to be in fair/good condition and working properly. It is our understanding that the majority of the fixtures have



been upgraded with new LED bulbs. There are some fixtures that still have fluorescent or incandescent bulbs. These were areas that the town determined to be low use and would be replaced later as needed. Most of the areas have occupancy sensors to turn the lights on and off in conjunction with local toggle type & dimmer switches for added control. The existing exterior lighting for the building

is made up of fluorescent/incandescent surface mounted cylinder type fixtures, recessed down light fixtures and a few wall mounted LED flood lights. There is a remote headed incandescent lamp socket mounted to conduit on the side of the air handling unit disconnect switch. We were not able to determine the operation of the exterior fixtures at the time of our inspection.



Emergency lighting for the interior of the building is made up mostly of combination exit signs with emergency lights and self-contained twin head emergency fixtures. Exit signs in the building are made up mostly of thermoplastic signs with red lettering and emergency battery. There are a couple of exit signs that were not working at the time of the inspection. Most of the illuminated signs appear to be in fair/good condition and working properly.

### **Devices**

Existing wiring devices (receptacles & light switches) in most areas of the building are recessed mounted, there are a few devices in the building that are surface mounted. The devices appear to be in fair/good condition, with a couple of devices missing their cover plates.

### **Telecommunication System**

The existing phone system D-Mark is in the basement north-west corner near the main electrical switch board. The main network distribution with racks and headend equipment is in the basement slightly to the south-east of the d-mark location.

### **Recommendations for Repair / Replacement**

- Replace existing electrical distribution equipment and associated wiring, except for panel 'PB-EM' and fire pump service switch.

- Add additional fire alarm audio/visual devices in areas of the buildings where there are no devices currently or with minimal coverage.
- Add additional exit signs, not all areas can easily see a sign.
- Add additional emergency lights to meet current code required light levels.
- Install emergency lighting at the exterior of all egress doors to meet current code requirements.
- Install new cover plates to devices that either broken or missing.
- Clean dirt and debris out of weatherproof receptacle on roof at A/C unit.

Fairfield Woods Library - 1147 Fairfield Woods Road Facility Condition Cost Estimate										
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING					CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
			4	3	2	1	n/a			
EXTERIOR CONDITIONS										
A01	Stone motor is in need of repointing	General			2			Patch, repair, or replace block and repoint as necessary.	\$ 6,000	
A02	Many areas of concrete paint is peeling	General		3				Scrape, prime and paint	\$ 10,000	
A03	Roof may have a leak which was not noticeable from the exterior					1		Investigate over mezzanine area, See A05		
A04	Some roof drains do not have cages to filter out debris					1		Remove debris from drains provide a "cage" on the drain to prevent large portions from flooding in the future. Maintenance for roof drainage should be done at least twice a year.	\$ 1,000	
EXTERIOR SUBTOTAL										\$ 17,000
INTERIOR CONDITIONS										
A05	There is some water infiltration at the roof line above the mezzanine causing damage to the wall substrate					1		Once leak is rectified and scrape, prime and paint	\$ 5,000	allowance
A06	Some door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)			2			Remove door locksets and install new accessible lever handle locksets where designated.	\$ 4,000	
A07	Mezzanine guard rail is not at the correct height				2			Provide extension to existing railings to meet code requirements	\$ 6,000	
A08	Stair handrails are not compliant, clearance under stairs is not complaint & stair treads and risers are not to code				2			Remove stairs and build complaint ones	\$ 20,000	
A09	Due to the size, restrooms do not meet accessibility requirements.	(B)1108.0 (ANSI A117.1) 603-606			2			Reconfigure the rooms to enlarge and provide the minimum dimensional requirements.	\$ 100,000	
A10	The required toilet grab bars are not installed	(B)1108.0 (ANSI A117.1) 603-606			2			Add vertical and swing up grab bar to all handicap stalls	\$ 1,000	
A11	Insufficient knee space provided at sink and/or workstation in kitchen.	4.32 (ADA)			2			Provide accessible sinks and workstations per ADA Section 4.32. 27" high x 30" wide x 19" deep.	\$ 7,500	
A12	Ceiling height at basement is below the code minimum				2			Consult local authority having jurisdiction		
A13	Signage				2			Provide new signage	\$ 6,250	
A14	There is no elevator to the mezzanine				2			Provide elevator	\$ 150,000	
INTERIOR SUBTOTAL										\$ 299,750
PLUMBING/FIRE PROTECTION										
P01	Water heater missing insulation, mixing valve and recirculation system	IPC		3				Provide pipe insulation , mixing valve and recirculation system	\$ 5,000	
P02	Backflow preventers need testing and inspection	Maint.		3				Test and inspect backflow preventers	\$ 500	
P03	Exterior gas piping corroding	Maint.	4					Repaint gas piping	\$ 1,200	
P04	Kitchenette sink not handicap accessible	IPC			2			Replace plumbing fixtures to comply with ADA requirements.	\$ 2,000	
P05	Roof drain strainers clogging	Maint.		3				Replace roof drain strainer	\$ 500	
PLUMBING/FP SUBTOTAL										\$ 9,200



## Fairfield Woods Library Facility Conditions Cost Estimate

MECHANICAL SYSTEMS									
M01	Boiler is at the end of its useful life expectancy	General	4					Provide new boiler and associated specialties and DDC controls	\$ 68,000
M02	Wear on pump components and fittings	General			2			Repair/replace worn parts	\$ 5,000 allowance
M03	In line Pumps at end of their useful life expectancy	General	4					Provide new pumps and associated specialties and DDC controls	\$ 41,000
M04	Air cooled chiller is at the end of its useful life	General	4					Provide new 47 ton chiller and controls	\$ 98,000
M05	Rusted air cooled chiller platform	General	4					Remove rust and paint	\$ 3,000 allowance
M06	Missing piping insulation	General	4					Provide insulation per current IECC requirements.	\$ 4,500 allowance for 300 LF of insulation
M07	Boiler and chiller loop chemical treatment	General	4					Engage the services of a Chemical Treatment Service Provider	\$ 2,500 allowance
M08	Air handling unit economizer function	IECC				1		Review air handling units controls. Add exhaust fan , dampers and economizer controls	\$ 57,500
M09	Air handling units have outlived their useful life expectancy	General	4					Review air handling units controls. Add exhaust fan , dampers and economizer controls	\$ 130,200
M10	Obsolete temperature controls	General	4					Replace old proprietary controls. Provide controls compatible with town's DDC system	\$ 107,000
M11	Mechanical room and adjacent space has in sufficient ventilation	IMC				1		Provide ventilation. Ventilation shall consist of outside air intake louver, ductwork , motorized damper , relief fan and associated ductwork and exterior termination	\$ 9,800
M12	Unit heaters are at the end of their useful life expectancy	General	4					Provide new	\$ 3,900
M13	Basement dehumidifier at the end of its useful life	General	4					Replace with new suspended from structure complete with condensate piping	\$ 4,200
M14	Uninsulated ductwork	General	4					Provide ductwork insulation per current IECC requirements	\$ 9,900 allowance for 1200 SF of insulation
M15	Cooking appliance	IMC				1		Provide hood, fan and grease ductwork. Provide make-up air equivalent to 80% of exhaust air.	\$ 40,000 A less expensive residential hood with UL300A suppression system maybe installed subject to AHJ review and approval
MECHANICAL SUBTOTAL									\$ 584,500
ELECTRICAL SYSTEMS									
E1	Old electrical panels (at or beyond useful life)	Maint.		3				Replace all old electrical panels and switchboard with new	\$ 25,000
E2	Existing fire alarm audio/visual devices do not provide proper coverage	NFPA 72			2			Provide additional fire alarm audio/visual devices throughout to meet current code requirements and replace any damaged devices	\$ 5,000
E3	Not able to see exit signs from all locations within the building	NEC				1		Add exit signs throughout so every location can see a sign to meet current code	\$ 1,200
E4	Existing emergency lighting does not appear to provide required coverage	NEC				1		Install additional emergency light fixtures throughout to meet current code required light levels	\$ 1,200
E5	No Exterior emergency egress lighting	NEC				1		Add an emergency light fixture w/battery and test switch for each egress door	\$ 1,500
E6	Existing devices cover plates are damaged or missing	Maint.	4					replace all missing and/or broken devices cover plates	\$ 500
E7	Existing receptacle on roof top mechanical unit is filled with dirt & debris	Maint.	4					Replace existing receptacle with new gfi receptacle and "in-use" cover	\$ 175
E8	Existing plumbing & mechanical equipment to be replaced	Maint.		3				Disconnect & reconnect electrical connections to plumbing & mechanical equipment to be replaced	\$ 5,000
ELECTRICAL SUBTOTAL									\$ 39,575
TOTAL ESTIMATED COSTS									\$ 950,025

## Eunice Postol Recreation Center – 75 Mill Plain Road

The Eunice Postol Recreation Center was constructed around 1965. The building is primarily a fitness center for the Fairfield residents and is the main building for Parks and Recreation Department for the town.

The Eunice Postol Recreation Center is location on Mill Plain Road in the Mill Plain Plaza. Parking is located along the northern portion of the site which is separated by a small street for vehicular circulation. Surrounding the recreation center is a portion of green landscape which also its use from the industrial zone it sits on.



## Architecture

Overall Postol Recreation Center is in good condition. Having been built in the 1960s, the construction of the building is brick masonry with gabled roofs and additions added with concrete masonry units at the rear. The layout of the building is well organized and is working to support the department. The building's program consists of a check in deck upon entering with an office suite beyond. The fitness center occupies most of the building with a small lounge to the front and lockers and support to the rear.





### **Exterior Building Envelope**

This single-story facade is in good condition. The brick walls are generally in good condition, with a limited areas of settling and spalling. The building is constructed with brick "veneer" with no air space evident. The energy efficiency of this construction is very low, and typical in the 1960s ("pre-energy crisis"), and not one that is easily or readily corrected. There are a few areas which will eventually need repointing or repairing but generally, it has held up well. There is one area that should be addressed. As seen in the photo, the intersection of the brick and CMU joint is failing and should be caulked. The CMU at the rear and some of the siding needs painting. Additionally, some of the woodwork including column bases, should be repaired, and painted.



### **Windows**

The windows in the recreation center are in poor condition. These double-hung single glazed windows are likely original. When evaluating the energy efficiency of a building, it is known that nearly 25–40% of all heat energy is lost through windows. These windows are contributing to the energy loss of this building. While they appear in good condition on the interior on the exterior they appear in disrepair. The wood is wearing, the caulk is failing. These windows should be replaced with double or triple glazed efficient systems.





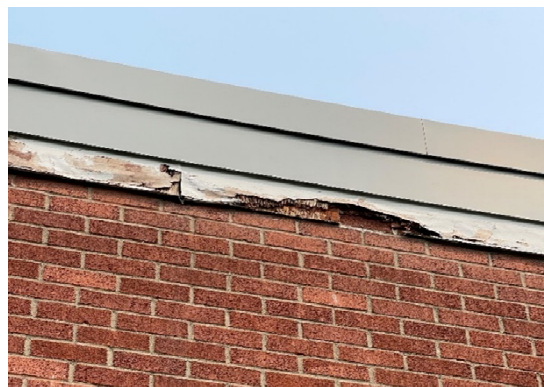
## Doors

The doors throughout are a variety of materials and ages. The main entrance metal door looks to be newer and is in good condition. The rear door is older with single pane glass but in good condition. Both the locker exit and mechanical exit door frames are beginning to rust. These should be scraped, primed, and painted. The mechanical room door is too far gone with rust and should be replaced. In addition, the door hardware is not ADA compliant as it requires twisting. Some of the wood trim around the doors needs replacement.



## Roof

There are multiple roofs on this building. The original front is consist of a series of hips and gables roofed with asphalt shingles. The reaming portion of the roof is a series of two low slope roofs with a single ply rubber membrane. The black roof is likely EPDM and white roof TPO. The roof is drained with a series of scuppers and collection boxes that a transferred via gutters and down spouts. There are a series of skylights that bring natural overhead light into the fitness center. There is an original wood fascia left partially exposed under the metal gravel stop. The wood is nearing the end of its useful life with areas of rot and decay. The guardrail at the mechanical equipment at the rear is not code compliant and should be replaced. The asphalt shingles appear to be wearing and nearing the end of its useful life. The wood soffits need painting. The soffit vents also appear minimal and likely need to be increased. Additionally, the gutter is mangled and dented. which are damaged making the purpose of the system to struggle in draining water from the roofs.



### **Interior Conditions**

The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. The interior conditions in the recreation center are very good, with minor code and ADA compliance revisions to focus on.

### **Floors**

The floors in the recreation center are a variety of materials. The office areas and the conference room are carpeting. The fitness center is a sports flooring. The locker rooms are ceramic tile. Some of it is dated but in fair condition with a few chipped or stained areas. Other portions are new. Flooring throughout is in good condition.

### **Walls**

The walls throughout are gypsum wall board construction with ceramic wall tile in the restrooms. The existing tiles are in good condition; however, the grout could be deep cleaned. The walls in the gym contain scuff marks which will require refinishing or repainting the area overtime.

### **Ceilings**

The ceilings throughout the recreation center are in good condition. Most of the ceilings are acoustical ceiling tile (ACT) while the fitness center contains vinyl faced fiberglass batt insulation. This ceiling has some loose pieces of tape around skylights. The ACT ceilings have minor cosmetic damage to few tiles. There are also missing tiles in multiple space which expose the equipment above the ceiling.

### **Restrooms**

There are male and female locker room restroom combinations in the center. The rooms are in good condition. They have recently been renovated to incorporate ADA showers. The handicap toilet stalls are missing the vertical grab bars. These should be added.



### **Casework**

Most of the casework throughout the facility is a combination of wood and plastic laminate. It is all in fair condition. However, none have accessible knee spaces with countertops at 2'-10" high. In the All-Purpose Room the counter exceeds the 2'10" and does not have a knee space or accessible sink. The kitchenette sink is not compliant. A portion of the reception counter does have an area for visitors at 2'-10". These items should be adjusted and incorporated.

### **Building Code and ADA**

As noted within the previous sections, there are some code and accessibility issues within this building. In addition to casework and vertical grab bars, the signage should be addressed. The signage is dated and installed at the wrong height. These items should be included in the long-term capital plan.





## Plumbing

The building's sewer system discharges underground to a public main to a regional wastewater treatment plant, there are no septic systems. Roofs are pitched to exterior scuppers and downspouts. The domestic water service is fed from Aquarion's public utility water mains, there are no wells, water pressure is good. The systems appear to have been installed in the mid 1960's and may be original to the building. They are well past their useful life expectancy.

Natural gas is the heating source, the gas meter is located on the building's exterior. Gas piping on and near the roof is rusted and needs to be repainted.

The water heaters are newer, gas-fired, point of use instantaneous wall mounted type.

The water heater is missing drip leg on the gas piping.

Insulation is missing at the water heaters.

Exterior hose bibbs are missing vacuum breakers.

Gas piping to rooftop units are missing drip legs.

Gas piping through exterior wall at meter is not sealed.

Plumbing fixtures are in good shape, need to be re-caulked.

Floor drain strainers are rusted and broken.





### **Recommendations for Repair / Replacement**

- Repair/Replace existing exterior hose bibbs are missing vacuum breakers.
- Repair/Replace/Add missing pipe insulation.
- Paint exterior gas piping.
- Repair/Replace existing floor drain strainers

## **Fire Protection**

The building is not sprinklered and the town may consider sprinklering it.

### **Recommendations for Repair / Replacement**

- Fully sprinkler the building with new piping and a new fire service from the street.

## Mechanical

### Boiler Plant

The boiler is a Navien model NFC 200 Condensing Fire Tube Combi-boiler. The boiler is manufactured in 2012. Products of combustion and combustion air are vented into the exterior wall through PVC pipes.



There are three (3) independent zones serving the building. The (3) zones are fed from individual inline pumps off the boiler supply manifold. The manifold is not insulated.

The age of the piping distribution system throughout the building is unknown, piping system, with proper maintenance and proper water treatment, can operate for 50 years, however, piping system should be inspected utilizing ultrasonic testing to determine rates of corrosion within the piping.

A combination of commercial and residential style finned tube radiation is provided along the perimeter walls. They are old and condition varies from fair to poor.



Two (2) Carrier roof top units, manufactured in 2001, provide cooling, heating, and ventilation to the spaces. Units are mounted close to each other on the flat roof. Both

units have flue vent extension to keep flue gas away from the outdoor air intake. Flue extension on one unit is not in place. Each unit has a cooling capacity of 15 tons and heating input capacity of 533,000 BTUH. Packaged units have useful life expectancy of 15 years and these units are operating beyond their expected life span. Units are showing of surface corrosion. Both units are mounted on roof curbs and are configured for downflow connections. Unit serving the office provides air to the spaces using a network of distribution ductwork located above ceiling terminating to ceiling mounted supply diffusers and sidewall registers . Unit serving the fitness provide air to the space through exposed ductwork with duct mounted registers.



Toilet rooms are provided with exhaust fans. Roof mounted centrifugal exhaust fans have a useful life expectancy of 25 years.

The telecommunication closet in only provided with door louvers.

DDC controllers are provided in the building.





### **Recommendations for Repair / Replacement**

- Replace PVC flue piping with polypropylene piping.
- Provide new piping insulation.
- Provide guard rails for units within 10 ft of the edge of the roof.
- Reinstall flue pipe extension on one unit.
- Replace roof top units. Provide new unit with single zone variable volume configuration with demand control ventilation. Consider providing unit with hot gas reheat for space humidity control. Provide DDC controller.
- Clean all existing ductwork.
- Engage the service of a Chemical Service Provider to maintain proper water treatment to the building water loop.

## Electrical

The existing electrical service is made up of a 400 amp 120/208V-3PH-4W Siemens service switch and integrated C/T cabinet and adjacent main distribution panel (MDP).

The main switch and MDP appear to be original from the 2000-2001 renovation. The



main switch is fed underground from the pad mounted utility company transformer over to the main switch. The MDP feeds two panels, one new 'LP2' and one existing 'LP1'. These two panels feed all the local lighting and power circuits, while the MDP feeds the large equipment loads. In addition to the normal electrical distribution, there is also a photovoltaic system. This is made up of solar panels on the of the roofs of the two parking lot canopies. Each canopy has four inverters, that run back



underground to a 400 amp disconnect switch & meter on the north-west side of the exterior of the building.



## Fire Alarm

The fire alarm system (FireLite #MS-4424B by Honeywell) is located in the front entrance vestibule. There are manual pull stations at the egress doors (one is located more than five feet from the entrance to the exit per code). Also, there are audio/visual devices throughout the building, but no heat or smoke detectors. Both the manual pull stations and audio/visual devices appear to meet the current ADA height requirements. It is our understanding the system is working properly.

## **Lighting**

The existing interior lighting in the building is a mix of recessed lensed fluorescent 2x2 & 2x4 fixtures, recessed down lights, pendant mounted direct/indirect fixtures, and surface/pendant mounted lensed fluorescent fixtures.



These fixtures appear

to be in fair/good condition and working properly. It is our understanding that the majority of the fixtures have been upgraded with new LED bulbs. There are some fixtures that still have fluorescent or incandescent bulbs. These were areas that the town determined to be low use and would be replaced later as needed. All of the areas appear to be

controlled by local toggle type switches with a couple of rooms having an occupancy sensor switch. The existing exterior lighting for the building is made up of fluorescent/incandescent recessed square down light fixtures, pendant mounted lantern type fixtures, surface mounted round wall pack light fixture and a few small walkway bollards. We were not able to determine the operation of the exterior fixtures at the time of our inspection.



Emergency lighting for the interior of the building is made up of self-contained twin head emergency fixtures. Exit signs in the building are made up of thermoplastic signs with red

lettering and emergency battery. Most of the illuminated signs appear to be in fair/good condition and working properly.



## **Devices**

Existing wiring devices (receptacles & light switches) in most areas of the building are recessed mounted, there are a few devices in the building that are surface mounted (Wiremold raceway in the Fitness room & devices in the Boiler room). The devices appear to be in fair/good condition, with a couple of junction boxes missing their cover plates and a broken "in-use" cover on a receptacle at the bike rack.

## **Telecommunication System**

The existing phone system D-Mark and network distribution with racks and headend equipment is in a closet of the All-Purpose room on the back side of the Boiler room. We are not aware of any issues with this equipment.

## **Recommendations for Repair / Replacement**

- Replace missing junction box cover plates and broken "in-use" cover on exterior receptacle.
- Add a smoke detector at the fire alarm control panel (required by code).
- Add a heat detector in the Boiler room.
- Replace existing toggle type switches with occupancy sensors.
- Install emergency lighting at the exterior of all egress doors to meet current code requirements.
- Add a weatherproof duplex receptacle for service near the two rooftop mechanical units.

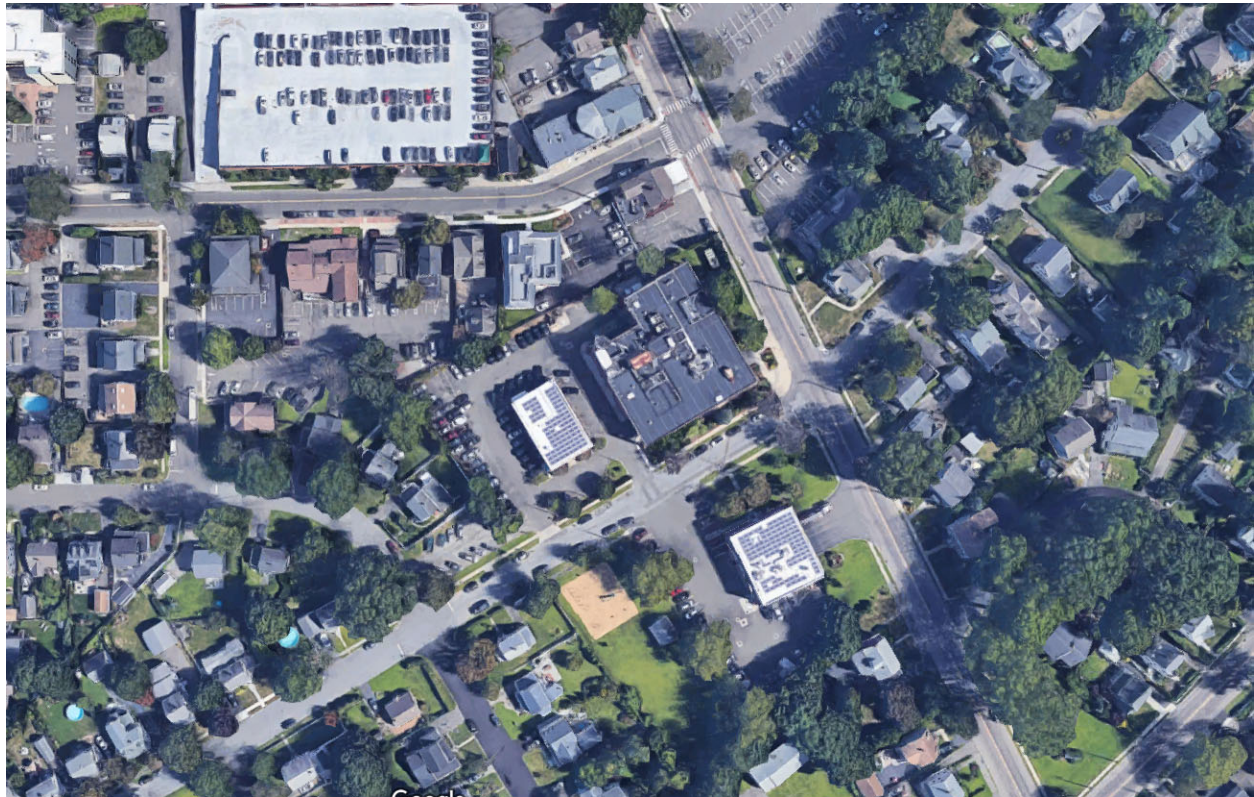
Postol Recreation Center - 75 Mill Plain Road Facility Condition Cost Estimate										
Tag No.	Assessment	System/ Code Ref.	Ranking					Corrective Action	Itemized Estimated Cost	Remarks
			4	3	2	1	n/a			
Exterior Conditions										
A01	The asphalt roof was replaced in 2005 and is nearing the end of its useful life	General		3				Replace with new asphalt shingles	\$ 75,000	
A02	Brick is spalling or mortar is in need of repointing	General		3				Patch, repair, or replace brick and repoint as necessary.	\$ 15,000	
A03	Caulk joint at brick and CMU is failing	General			2			remove caulk and replace	\$ 500	
A04	Windows are original and nearing the end of their useful life	General			2			Replace with energy efficient doubled glazed aluminum framed energy efficient system	\$ 37,500	
A05	Wood soffit is peeling	General			2			Scrape, prime and paint	\$ 3,012	
A06	Wood trim is rotting	General			2			Remove and replace with new	\$ 500	
A07	Wood column base is rotting and overall needs painting	General			2			Remove and replace with new	\$ 800	
A08	Gutters are dented	General		3				New cost with roof		
A09	Soffit vents are limited	General		3				Install additional soffit vents	\$ 1,000	
A10	Guard rail doesn't meet code	General				1		Install code complaint guard rail at the requirement within 10' from roof edge per code requirement	\$ 3,500	
A11	Door frames are rusting	General		3				Scrape, prime and paint	\$ 350	
A12	Door is rusting	General			2			Replace door	\$ 1,500	
Exterior Subtotal										\$ 138,662
Interior Conditions										
A14	The required toilet grab bars are not installed	(B)1108.0 (ANSI A117.1) 603-606			2			Add vertical and swing up grab bar to all handicap stalls	\$ 1,000	
A15	There is no accessible sink provided in casework				2			Replace with a compliant sink and pipe configuration	\$ 3,200	
A16	No accessible knee space				2			Provide within casework	\$ 1,600	
A17	Signage				2			Replace signage	\$ 4,750	
Interior Subtotal										\$ 10,550
Plumbing/Fire Protection										
P01	Exterior hose bibbs missing vacuum breakers	Maint.		3				Provide vacuum breakers at hose bibbs	\$ 500	
P02	Water piping missing insulation	IPC	4					Provide pipe insulation where missing	\$ 2,000	
P03	Exterior gas piping corroding	Maint.		3				Repaint gas piping	\$ 1,200	
P04	Floor drain strainer corroding	Maint.	4					Remove and replace strainer	\$ 250	
FP01	Building not sprinklered	NFPA 13		3				Fully sprinkler building and bring in a new service.	\$ 40,000	
Plumbing/FP Subtotal										\$ 43,950

MECHANICAL SYSTEMS									
M01	Flue piping PVC	General	4				Replace PVC flue piping with polypropylene piping.	\$ 1,500	
M02	Near boiler piping insulation is missing	General	4				Provide with new per current IECC requirements. Allowance for 2000 LF)	\$ 500	
M03	Existing piping insulation has outlived its useful life expectancy	General	4				Provide with new per current IECC requirements. Allowance for 2000 LF)	\$ 4,500	
M04	Finned tube radiation has outlived their useful life expectancy	General	4				Replace with new	\$ 24,750	
M05	Boiler loop chemical treatment	General	4				Engage the services of a Chemical Treatment Service Provider	\$ 1,000	allowance
M06	No guard rails for units within 10 ft of the edge of the roof.	IBC, OSHA				1	Guard rail in included in Architectural exterior conditions above		
M07	Roof top unit flue pipe extension is not installed	IMC				1	Reinstall	\$ 400	
M08	Rooftop units have out lived their useful life expectancy	General	4				Provide new units with single zone variable volume configuration with demand control ventilation. Consider providing units with hot gas reheat for space humidity control. Provide DDC controller. Clean and seal existing ductwork	\$ 90,600	
M09	RTU controls	General	4				Provide new DDC	\$ 22,000	
M10	Existing ductwork	General	4				Clean and seal existing ductwork	\$ 3,500	
M11	Exhaust fans are at the end of their useful life expectancies.	General	4				Replace with new	\$ 5,000	
<b>MECHANICAL SUBTOTAL</b>									<b>\$ 153,750</b>
ELECTRICAL SYSTEMS									
E1	No smoke detector at Fire Alarm panel	NFPA 72			2		Add a smoke detector in the Lobby near the Fire Alarm panel	\$ 350	
E2	No heat detector in the Boiler room	NFPA 72			2		Add a heat detector in the Boiler room	\$ 350	
E3	No Exterior emergency egress lighting	NEC				1	Add a remote emergency battery and test switch for the light at each egress door	\$ 2,500	
E4	Toggle type light switches	2015 IECC	4				Replace all existing toggle type switches with occupancy sensors and dimmer switches	\$ 4,500	
E5	No service receptacle at roof top mechanical equipment	General	4				Install new duplex GFI receptacle on roof with "in-use" cover	\$ 125	
E6	Missing and broken cover plates	General	4				Install cover plates on junction boxes, and replace broken "in-use" cover on exterior receptacle	\$ 250	
E7	Existing plumbing & mechanical equipment to be replaced	Maint.			3		Disconnect and reconnect electrical connections to plumbing & mechanical equipment to be replaced	\$ 2,500	
<b>ELECTRICAL SUBTOTAL</b>									<b>\$ 10,575</b>
<b>TOTAL ESTIMATED COSTS</b>									<b>\$ 357,487</b>
<b>LEDGEND PRIORITY - RANK</b>									
1	Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.								
2	High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.								
3	Moderate priority - These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.								
4	Low priority - These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.								

## Police Department – 100 Reef Road

The Fairfield Police station is located on 100 Reef Road. It sits across the street from Fire Station #1 and is adjacent to Operation Hope. Operation Hope building was the original police station in 1953 until this building was constructed in 1975.

Parking on the site is limited. It is located on the western side of the site, sharing much of the Operation Hope parking as well as along the perimeter of the site, as seen below.





## Architecture

The architecture of the Police Station is overall in good condition, given its age. Having been built in the 1970s, the construction of the building is brick masonry. The building is well maintained, and the layout of the program is organized on all floors. Based on the age of the building, the building was constructed around an older code along with the construction materials and methods.

### Exterior Building Envelope

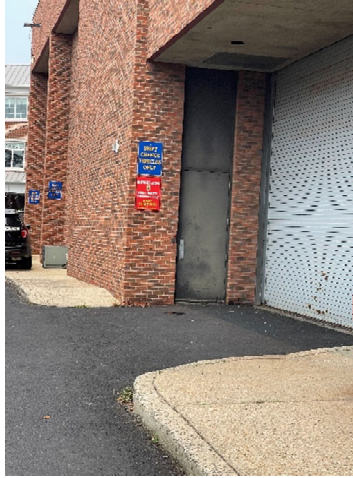


The exterior of the building is in good condition. The building is constructed with brick "veneer", rigid insulation, air space and painted concrete masonry unit or brick interior. Overall, the mortar is in reasonably good condition although the age of the building suggests that in the future a detail review should evaluate if repointing is required. Additionally, some vegetation and mildew have been growing at the base of the building in some areas. These should be cleaned and sealed to ensure the longevity of this construction.



## Windows

The windows throughout the facility are aluminum systems. They are double glazed units. Most of the windows are fixed with some operable hopper windows for ventilation. They all appear to be in good condition.



## Doors

The exterior doors throughout the facility are in fair condition. They are hollow metal. The color is beginning to fade, and some are beginning to rust. Most of the overhead doors appear to be in fine condition. Some areas are showing signs of rust. They should be scraped, primed, and painted to maintain longevity.

## Roof

The roof is a low slope roof with a parapet. It is covered with a single ply rubber roof membrane, likely EPDM. The roof is accessible through a penthouse accessed by a ships ladder. The penthouse door is rusting and should be included with the other doors although it may need full replacement. The roof itself appears in good condition. There are no known leaks or damage to the roof. There are sticks and debris which should be cleaned. The mechanical units supports are rusting and should be scraped primed and painted. The chimney requires a good cleaning and replacement of the end cap as it has deteriorated.





## **Interior Conditions**

The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. Given the building's age, its interior is well maintained, however, it needs some improvements concerning building codes and ADA standards.

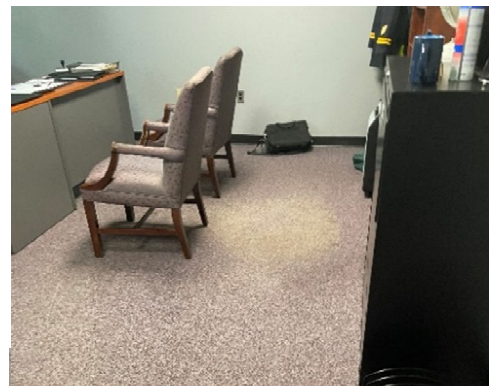
### **Floors**

There are multiple floor types throughout the station. Most of the building is carpeting which is in fair condition. It appears to be dated as many areas are wearing such as high traffic areas and portions of offices. Some of the VCT is older style and in fair condition. Restrooms have the same ceramic tile throughout most of the spaces. It too is dated but holding up well with a few areas of damaged tile. The flooring although not a high priority, should be considered for future improvements while the damaged areas should be repaired sooner.



### **Walls**

The majority of the walls throughout the station are painted concrete masonry unit construction with some areas of gypsum wall board and brick walls. Most of the walls are in good condition. There are minimal areas containing peeled paint or minor scuff marks, these spaces should be refinished or repainted.



### **Ceilings**

The ceilings throughout are acoustical ceiling tiles (ACT). Additionally, there is a fair amount of gypsum ceilings. Many areas were noted with stained ACTs and damaged areas of gypsum due to water damage or general wear and tear most notably around ceiling registers. Some ceiling registers were rusting. Some of the ACT are 2x4 which tend to sag. The ceilings should be considered for future improvements.



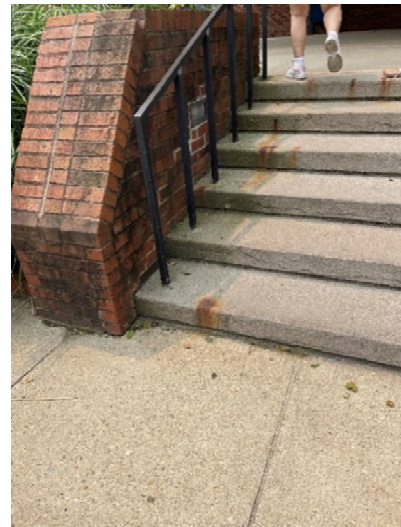
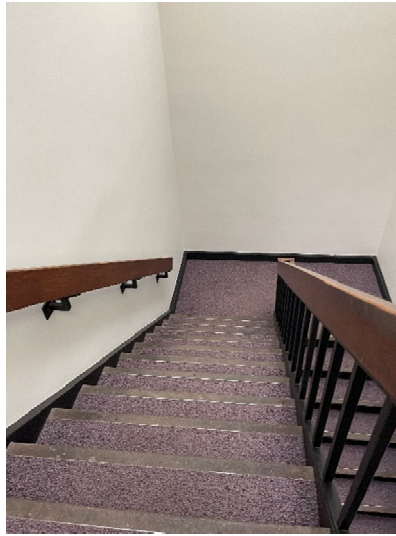
## Doors

The doors throughout the Police Station are wood set within hollow metal frames with some hollow metal doors. Generally, they are in good condition. Some wood doors would benefit from refinishing and frames from repainting but most importantly the majority of the door hardware is not to code. The doors currently have doorknobs that require twisting. These doors are not ADA compliant and should be changed out with lever handles.



## Stairs

The stairs on the interior of the Police station are in good condition. However, the handrails profile and height are not compliant. The exterior stairs also do not have compliant handrails. In addition, there is rust stains and mildew on the brick walls and concrete steps. These areas should be cleaned. Additionally, there is a ramp in the hallway connecting the lobby and the adjacent garage. There are no handrails included with is required for any rise greater than 6". One should be installed at both sides of the hallway.



## Restrooms

The many restrooms throughout the facility are dated and original to the building. Very few are considered ADA. There is one unisex restroom in the lobby that just needs a vertical grab bar to comply. One male and one female restroom per floor or per program should be provided. Most of the restrooms will need modifications to the layout in order to accommodate a compliant stall. None of the showers are ADA complaint. At least one per locker room should be provided. Additionally, many finishes are beginning to wear. Some of the toilet partitions in the bathrooms are rusted or starting to rust. These should be replaced.



### **Casework**

There is a variety of casework throughout the facility. Some of the plastic laminate is likely original and some seem to be new replacements. Most is not ADA compliant as there needs to be an accessible knee space incorporated. Where sinks are provided within casework, they too are not accessible. These should be modified at each program location.



### **Building Code and ADA**

As noted within many of the sections, there are multiple code and accessibility issues within this building. Door hardware, handrails, ADA restrooms and showers and casework were previously noted. Other issues are with certain spatial clearances within rooms and at doors. The required maneuvering clearances at doors is not always present in every location. These spaces should be adjusted to accommodate these accessibility clearances. Where they cannot be modified a power assisted door operator should be installed. Signage is also an item which should be modified in this building. There is a lack of signage which should be modified as well as the signage type and heights/dimensions should be incorporated. All these items should be included in the long-term capital plan.

## Plumbing

The building's sewer system discharges underground to a public main to a regional wastewater treatment plant, there are no septic systems. Roofs are pitched to exterior scuppers and downspouts. The domestic water service is fed from Aquarion's public utility water mains, there are no wells, water pressure is good. The systems appear to have been installed in the mid 1960's and may be original to the building. They are well past their useful life expectancy.

Natural gas is the heating source, the gas meter is located on the building's exterior. Gas also feeds the exterior remote emergency generator. Gas piping on and near the roof is rusted and needs to be repainted.

The plumbing equipment and water heater are in fair condition, older, nearing their end of life and will need replacement soon.

Waste and vent piping is older cast iron, original to the building.

Plumbing fixtures are in good condition and well maintained. Most of the plumbing fixtures are not ADA compliant and need updating. There are stainless steel security fixtures for prisoners.

Insulation is missing on the domestic water piping.

Handicap lavatories are missing insulation for scald protection.

A safety emergency eye wash is provided in the garage.

There is an exterior below grade oil water separator for the garage drains.



### **Recommendations for Repair / Replacement**

- Repair/Replace/Add missing pipe insulation.
- Paint exterior gas piping.
- Replace plumbing fixtures to comply with ADA requirements.

## **Fire Protection**

The facility has a limited area system only in the oil storage room that ties into the domestic water supply with a backflow preventer and shutoff valve. This type of system is limited to only six sprinklers in any fire area maximum. The piping is copper tubing with soldered joints. There is no flow switch or alarm, so if the system discharges, no one may know. There is not a tamper switch on the valve, if the system is turned off, the sprinklers will not discharge water.

The town may consider fully sprinklering the building with a new service, alarms, and devices.

### **Recommendations for Repair / Replacement**

- Fully sprinkler the building with new piping and a new fire service from the street.



## **Mechanical**

### **Boiler Plant**

The building is heated using two (2) boilers located in the basemen. Boilers are Weil McLain, cast iron gas fired with a Power Flame burner. Each boiler has an IBR rating of 1808MBH. The boilers are original to the building. Cast iron boilers have a useful life expectancy of 30 years. Products of combustion are vented into the existing chimney though a sheet metal flue. Combustion air to boiler room appears to be adequate.

There are four (4) base mounted pumps serving the building and one inline pump serving the indirect domestic hot water heater. Base mounted pumps have a useful life expectancy of 20 years and inline pumps have a useful life expectancy of 10 years. Base mounted pumps are original to building and are showing heavy wear. One pump is being repaired at the time of visit.

The boiler supply manifold is showing signs of heavy wear. The hot water piping distribution system is original to the building and is showing signs of heavy wear. Piping system, with proper maintenance and proper water treatment, can operate for 50 years, however, piping system should be inspected utilizing ultrasonic testing to determine rates of corrosion within the piping.

The insulation covering the hot water piping is original to the building. Hot water pipe sections are missing insulation. Piping insulation has a useful life expectancy of approximately 20 years. In addition to having outlived its useful life it is likely that it is non-conforming to current code requirements for thickness.



### **Cogeneration plant**

The cogeneration plant consists of the gas fired generator, radiator, absorption chiller and associated cooling tower and pumps. The heat rejected from the generator is either expelled through the radiator or used as a heating source for the absorption chiller during cooling season and as domestic water heater source on shoulder months.

### **Cooling, Heating and Ventilation**

First and second floor offices, toilet rooms, locker rooms and cell area are served from a main heating, ventilation and air conditioning system consisting of an air handling unit, remote condensing units, duct mounted return fan with variable frequency drive. The air handling unit, located in the penthouse, was manufactured by York/ JCI in 2008. This unit consists of supply fan with variable frequency drive, hot water heating coil, chilled water coils, direct expansion cooling coil and filter/economizer segment. Two (2) stacked 2-circuit coils are interconnected to two (2) 40- ton remote 2-circuit condensing units, mounted on a steel platform on the roof. The coils and the air-cooled condensing are being replaced as part of the 2021 HVAC upgrade project. The chilled water coils in the unit were added as part of a Cogeneration Upgrade Project in 2010. Based on the information gathered, the chilled water coils are used for cooling during low load months and as pre- cooling during high load months. The chilled water coils are fed from the absorption chiller. The absorption chiller, the associated cooling tower and condenser pump are being also being replaced as part of the 2021 HVAC Upgrade. Supply air ductwork is routed above ceiling space to diffusers. Diffusers are provided with either motorized dampers or VAV box for zone control. The return air ductwork terminates above the ceiling and the ceiling cavity serves as a return air plenum.

There are portable space electric heaters used in various spaces in the building. There are portable air conditioning units provided in various spaces in the building to supplement cooling. The heat rejected by the condensers are discharged to the plenum ceiling. Based on information from building occupants, there are overheating and overcooling concerns in the some of the spaces.

Perimeter offices, toilet rooms, entries, stairs, lobby, and vestibules are provided with either finned tube radiation, convectors, and cabinet unit heaters. They are original to the building and are in fair conditions.

Toilet rooms, storage rooms, lockers rooms, conference room, photo lab, sally port, cell area and target range are provided with exhaust fans. Roof mounted centrifugal exhaust fans have a useful life expectancy of 25 years.

Two (2) 2-ton Mitsubishi ductless split systems serve the second floor Data/IT room. These units are installed in 2018.

The Records Office located on the first floor is provided with duct split system. The fan coil unit was located above the ceiling in the space and not provided with secondary drain pan. We were not able to get the information of the system during the site visit.

The Emergency Communication Center (ECC), located in the basement is served by a 6-ton Trane split system. The Trane unit, operating on the obsolete R-22 refrigerant, was manufactured in 1998. With a useful life expectancy of 15 years, this system had outlived its useful service life. Based on the capacity, this unit should be equipped with economizer. Economizer allows the system to provide free cooling to the space when the outdoor air temperature is cooler than the indoor air temperature. The duct distribution system is routed exposed in the room and are externally wrapped with insulation.

Two (2) Mitsubishi ductless split systems serve the basement telecommunication.

A kitchen adjacent to the ECC has an electric cooking appliance with no exhaust hood.

The Pistol Range, located in the basement, is served by an indoor air handling unit and a roof mounted exhaust fan. The air handling unit and exhaust fans are original to the building. The exhaust fan is showing heavy wear.

The Maintenance Bay is heated by hot water unit heaters. The unit heaters appear to be original to the building and have exceeded their useful life expectancy of 20 years. There's an air handling unit suspended from the structure serving the maintenance. We did not get the information of the unit. The International Mechanical Code section 404.2 requires that a minimum of 0.05 cfm per square foot of continuous ventilation be provided and 0.75 cfm per square foot of ventilation air during all occupied hours. In addition to this exhaust fan, a means to provide make-up air, either by a separate supply fan or a louvered opening with motorized damper, would be installed to maintain the air balance for the space. Please note that this ventilation requirement needs to be met regardless of whether a tail pipe exhaust system has been installed.

A car exhaust pipe system currently removes products of combustion from active vehicles. The exhaust fan is mounted below ceiling with exhaust termination through the wall. We were not able to determine the model, capacity and age of existing system at the time of visit. We are not aware of any issues with this system.

The car garage, bike storage and the rest of the storage spaces adjacent to the car garage and maintenance bay are provided with hot water unit heaters. Ventilation to the spaces is from an air handling unit located in mezzanine and multiple relief louvers. We did not get the information of the unit, however, based on the existing drawings, the system is original to the building.

The secure storage room off the car garage does not have mechanical ventilation. It's currently transfer grille communicating to the car garage. A portable type of dehumidifier is provided.

The Sallyport ventilation is a wall mounted exhaust fan and an outdoor air intake louver. Based on the existing drawings, the system is original to the building.

There are two (2) different existing control systems in the building. One control system is a proprietary Unity Controls using wireless sensors and controllers. This system currently controls most of the building components, i.e., boilers and associated pumps, air handling units, exhaust fans, diffuser dampers, VAV boxes, cabinet unit heaters, perimeter heaters. The other system is the Niagara based FX Controller. The FX controller was installed as part of a Cogeneration Upgrade Project in 2010. The main air handling unit will be provided with FX controller as part of the 2021 HVAC upgrade project.

### **Seismic Restraints**

The Police Station is an essential facility. Buildings categorized as essential must remain operational during and after major disaster type events. There is no seismic bracing of equipment and piping observed throughout the facility. Further study is recommended to determine the seismic requirement of the facility.

### **Underground Storage Tanks**

There are two(2) existing underground storage tanks on site. The 8,000 gallon underground gas storage tank was installed in 2006 and the 8,000 gallon underground fuel oil storage tank was installed in 2005. Underground Storage Tanks have life expectancy of 30 years.

### **Recommendations for Repair / Replacement**

- Replace existing boiler and associated near boiler specialties. The new boiler will be high efficiency condensing boiler, with flue and combustion air pipes connected directly to the outdoors.
- Replace base mounted pumps. Provide Variable Frequency Drives.
- Perform ultrasonic testing for the rest of the piping system to determine the rates of corrosion within the pipes. Replace pipes as needed.
- Repair piping insulation within the boiler room.
- Provide piping insulation at all uninsulated piping.
- Provide chemical bypass feeder in the boiler room.
- Engage the service of a Chemical Service Provider to maintain proper water treatment to the building water loop, cogenerator heating medium loop and cooling tower loop.
- Replace unit heater in the boiler room.



- For all spaces served by the main air handling unit, engage the services of a certified testing and balancing professional to further determine deficiencies in spaces.
- Provide economizer dampers (outside air and return air damper) and economizer control at ECC air handling unit.
- Provide kitchen cooking appliance with hood with fire suppression system.
- Provide tempered make-up air to the space equivalent to 80% of air being exhausted.
- Replace all roof mounted exhaust fans.
- Provide exhaust fan in fitness room.
- Add exhaust fan to the existing relief duct in the maintenance bay to conform with the mechanical code.
- Replace all unit heaters in maintenance bay, car garage and storage rooms.
- Provide exhaust fan and outdoor air to the maintenance bay. Provide with CO/NO2 detection system.
- Replace unit heaters in maintenance bay, car garage and storage rooms.
- Replace all proprietary Unity Controls with FX controller. Replace all wireless controllers and sensors with wired controllers and sensors. Remove all obsolete sensors in spaces.
- Provide seismic analysis and calculations to determine facility seismic requirements.
- Provide an Engineered Smoke Control System in the cell area, as required by International Building Code.

## Electrical

The existing electrical service is made up of a 1600 amp 120/208V-3PH-4W Westinghouse switchboard, with a 1600-amp main switch, an integrated C/T cabinet and (2) adjoining distribution sections with a third section free standing in the south-east corner. The switchboard is the original from when the building was built in 1974 and is in fair condition. The main switch and adjacent CT cabinet



have recently been replaced. The switch board is fed from an underground utility vault located below the Salley Port entrance. From there it runs in the unexcavated space to the north of the basement and into the back of the main switch. The distribution sections feed multiple panels, mechanical equipment, Chiller (CH-1), cell tower and the elevator. The electrical panels are all original except for a couple of panels. The original panels and switchboard are in fair condition but nearing the

end of their useful life. There is a 1600 amp 120/208V-3PH-4W natural gas emergency generator located out front in the north-east corner. The generator has a single output breaker (1600 amps) that feeds a Square D emergency distribution system. The emergency distribution is made up of a 1600-amp Detroit Diesel automatic transfer switch. Which intern feeds the Square D emergency switchboard. The switch board is made up of a 1600-amp main breaker section and a distribution section that feeds the ATS-P for the police station, ATS-OH for operation hope, ATS-F1 for fire house #1 and ATS-C1, C2, C3 for the cell tower. In addition to the normal and generator distribution systems there is a microgrid system. That system connects the normal electrical distribution, generator distribution and co-gen plant on the roof.





### **Fire Alarm**

The fire alarm system (Fire Lite #MS-9600UDLS by Honeywell) is located in the switchgear room in the basement. There are manual pull stations at most of the egress doors and at some of the stairs. Most of these devices do not meet the current ADA height requirement. The top of the pull handle is above 48" above finished floor. Also, there are audio/visual devices and smoke & heat detectors throughout the building. There are some areas in the building that do not have any fire alarm audio/visual devices in them or the adjacent space. There is a suppression system serving the flammable storage room off the first-floor vehicle garage. It is our understanding the system is working without any issues.

### **Lighting**

The existing interior lighting in the building is a mix of recessed fluorescent lensed 2x2, 2x4 & 1x4, 2x2 indirect fixtures, pendant mounted direct/indirect

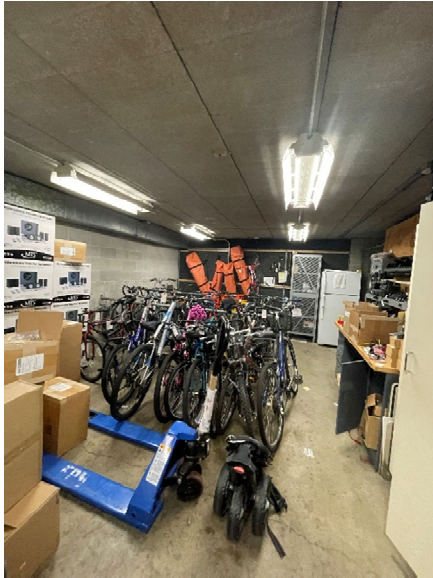


fixtures, recessed down lights, surface mounted lensed fluorescent fixtures, surface mounted wraparound



fixtures, pendant mounted industrial fixtures, wall mounted direct/indirect valance fixtures and fluorescent strip fixtures. These fixtures appear to be in fair/good condition and working properly. It is our understanding that the majority of the fixtures have been upgraded with new LED bulbs. There are some fixtures that still have fluorescent or incandescent

bulbs. These were areas that the town determined to be low use and would be replaced later as needed. Most of the areas have occupancy sensors to turn the lights on and off in conjunction with local toggle type & dimmer switches for added control. The existing exterior lighting for the building is mostly recessed fluorescent/incandescent down light fixtures, a few wall mounted LED flood lights, a couple of bollards and recessed step lights at the front entrance. There are a few wall mounted “jelly jar” fixtures and small wall pack type fixtures on the roof. We were not able to determine the operation of the exterior fixtures at the time of our inspection.



Emergency lighting for the interior of the building is made up mostly of combination exit signs with emergency lights and self-contained twin head emergency fixtures. In addition to the self-contained battery lights and combination exit sign/emergency lights, there is a diesel generator serving the building. Exit signs in the building are made up mostly of thermoplastic signs with red lettering and emergency battery. There are a couple of exit signs that were not working at the time of the inspection. Most of the illuminated signs appear to be in fair/good condition and working properly.

### **Devices**

Existing wiring devices (receptacles & light switches) in most areas of the building are recessed mounted, there are a few devices in the building that are surface mounted (back of house spaces). The devices appear to be in fair/good condition, with a couple of devices missing their cover plates.

### **Telecommunication System**

The existing phone system D-Mark is in the basement west side about halfway down in the main Telecommunications room. The main network distribution with racks and



headend equipment is in the basement Telecomm room and adjacent communications room.

### **Recommendations for Repair / Replacement**

- Replace existing normal electrical distribution equipment and associated wiring, except for a couple of newer panels (penthouse, UPS #1-3, RP1A, etc.). Generator and Microgrid equipment are newer and do not need to be replaced.
- Add additional fire alarm audio/visual devices in areas of the buildings where there are no devices currently or with minimal coverage.
- Add additional exit signs, not all areas can easily see a sign.
- Add additional emergency lights to meet current code required light levels.
- Install emergency lighting at the exterior of all egress doors to meet current code requirements.
- Install new cover plates to devices that either broken or missing, and provide weatherproof "in-use" covers on all exterior receptacles.
- Replace existing rusted wiring to roof mounted exhaust fan.
- Properly support all network cables that are currently laying on the ceiling tiles.
- Replace missing light fixture on the roof at AT&T enclosure entrance.



Police Department - 100 Reef Road Facility Condition Cost Estimate										
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING					CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
			4	3	2	1	n/a			
EXTERIOR CONDITIONS										
A01	Brick is dirty with mildew, vegetation, lichen	General		3				Clean and seal building to maintain longevity	\$ 5,000	
A02	Doors are fading and rusting	General	4					Scrape, prime and paint	\$ 2,500	
A03	Roof door is nearing end of useful life	General			2			Replace door to match existing	\$ 1,500	
A04	Chimney needs work	General		3				Replace deteriorated chimney cap and clean chimney	\$ 2,500	
EXTERIOR SUBTOTAL										\$ 11,500
INTERIOR CONDITIONS										
A05	Some carpet is nearing the end of its useful life	General		3				Replace carpet with carpet tile	\$ 60,000	
A06	Some ACT ceilings are nearing the end of their useful life	General		3				Provide new acoustical ceiling tiles in the ceiling grids which are damaged or missing	\$ 132,000	
A07	Most door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)			2			Remove door locksets and install new accessible lever handle locksets where designated.	\$ 75,000	
A08	Some door finish is wearing	General	4					Repaint door	\$ 10,000	Allowance
A09	Stair handrails are not code compliant	(F)5-2.2.4.2 (B)1014.7 (ANSI A117.1) 505			2			Modify or replace stair handrails to meet code requirements	\$ 8,000	
A10	Ramp does not have railings	(F)5-2.2.4.2 (B)1014.7 (ANSI A117.1) 505			2			Provide new railings for ramp based to comply with ADA standards	\$ 4,000	
A11	Due to the size, restrooms do not meet accessibility requirements.	(B)1108.0 (ANSI A117.1) 603-606			2			Reconfigure the rooms to enlarge and provide the minimum dimensional requirements.	\$ 300,000	
A12	No showers in the building are ADA compliant	(B)1108.0 (ANSI A117.1) 603-606			2			Provide a new shower as required by ADA standards	\$ 10,000	
A13	Insufficient knee space provided at sink and/or workstation in kitchen.	4.32 (ADA)			2			Provide accessible sinks and workstations per ADA Section 4.32. 27" high x 30" wide x 19" deep.	\$ 20,000	
A15	All door push and/or pull maneuvering clearances do not meet code.	413.6 (ADA) 1101.2 (IBC) ANSI 117.1			2			Where obstruction is not furniture related, modify door swing and/or location to comply. Where the previous is not easily achieved, supply push button door operator where required.	\$ 40,000	
A16	Signage should be modified to meet ADA standards	ADA			2			To meet ADA standards, the signage must be between 48 and 60 inches from the ground, the size of the signage, font size, and braille must be included throughout.	\$ 25,000	
INTERIOR SUBTOTAL										\$ 684,000
PLUMBING/FIRE PROTECTION										
P01	Piping insulation is missing	IPC	4					Repair/Replace/Add missing pipe insulation	\$ 1,500	
P02	Gas piping corroding on roof	Maint.		3				Paint exterior gas piping.	\$ 1,500	
P03	Plumbing fixtures are not ADA complaint	IPC			2			Replace plumbing fixtures to comply with ADA requirements.	\$ 2,000	
PLUMBING/FP SUBTOTAL										\$ 5,000

## Police Department Facility Conditions Cost Estimate

MECHANICAL SYSTEMS									
M01	Boilers at the end of their useful life	General	4					Provide new boiler and associated specialties and controls	\$ 98,800
M02	Base mounted pumps at end of their useful life	General	4					Provide new pumps and associated specialties and controls	\$ 81,100
M03	Piping system at the end of their useful life	General	4					Replace with new.	\$ 70,000 allowance for 2000 If
M04	Piping insulation is missing or has deteriorated on hot water piping	IECC, General	4					Remove existing and replace with new per current IECC requirements.	\$ 30,000 allowance for 2000 If
M05	Piping insulation has deteriorated in mech room	IECC			2			Remove existing and replace with new per current IECC requirements.	\$ 3,000 allowance for 200 If
M07	Boiler and chiller loop chemical treatment	General			2			Engage the services of a Chemical Treatment Service Provider	\$ 5,000 allowance
M08	Unit heater in the boiler room is at the end of its useful life expectancy	General	4					Provide new	\$ 5,000
M09	Space air balancing	General	4					Engage the services of a certified testing and balancing professional to further determine deficiencies in spaces. testing and	\$ 10,000 allowance
M10	AHU serving ECC does not economizer	IECC				1		Provide economizer consisting of outside air duct, return duct with relief fan and economizer control	\$ 19,000
M11	ECC cooking appliance does not have Kitchen hood, grease exhaust fan, grease exhaust ductwork.	IMC				1		Provide hood, fan and grease ductwork. Provide make-up air equivalent to 80% of exhaust air.	\$ 40,000
M12	Exhaust fan are at the end of their useful life	General		3				Replace with new	\$ 75,000
M13	AHU Serving piston Range is at the end of their useful life	General		3				Replace with new	\$ 44,000
M14	Maintenance Bay has no ventilation.	IMC				1		Install new exhaust fan with CO/NO2 monitoring.	\$ 40,000
M15	Maintenance bay unit heaters are at the end of their useful life	General	4					Replace with new	\$ 10,000
M16	storage unit heaters are at the end of their useful life	General	4					Replace with new	\$ 35,000
M17	Building is an essential facility	IBC				1		Provide Seismic analysis and seismic restraints	\$ 25,000 allowance
M18	Obsolete temperature controls. AHUs, VAVs and misc. heating terminal	General	4					Provide new controls. Control system should be compatible with town's DDC system	\$ 355,000
M19	No smoke control System in Cell area	IBC				1		Provide UL864 and UUKL Engineered Smoke Control System	\$ 45,000
M20	No CO/NO2 detection in Sallyport	IMC				1		Provide CO/NO2 monitoring. Reuse existing fan and OA intake	\$ 10,500
MECHANICAL SUBTOTAL									\$ 1,001,400



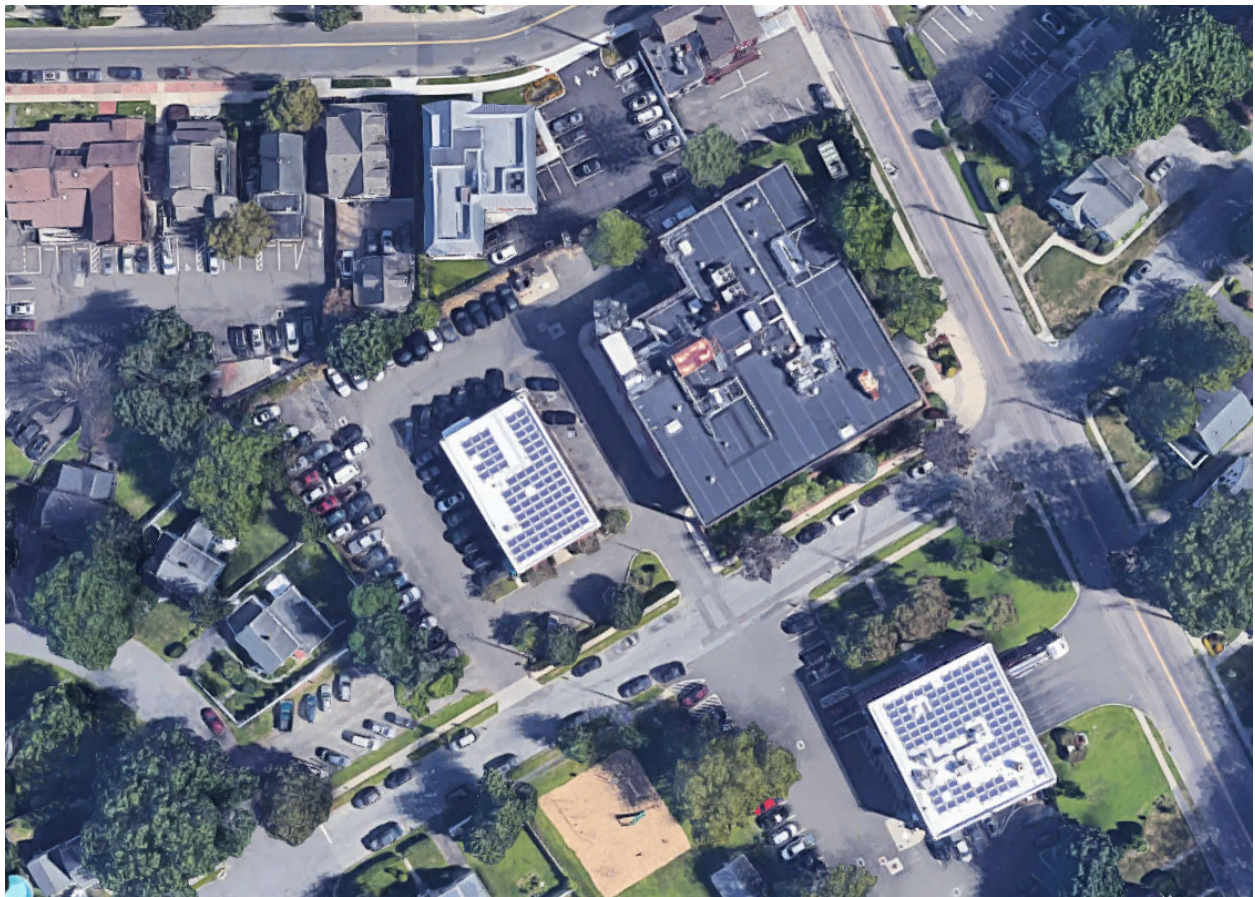
## Police Department Facility Conditions Cost Estimate

ELECTRICAL SYSTEMS									
E1	Old electrical panels (at or beyond useful life)	Maint.		3				Replace all old electrical panels and switchboard with new	\$ 75,000
E2	Existing fire alarm audio/visual devices do not provide proper coverage	NFPA 72			2			Provide additional fire alarm audio/visual devices throughout to meet current code requirements and replace any damaged devices	\$ 5,000
E3	Not able to see exit signs from all locations within the building	NEC				1		Add exit signs throughout so every location can see a sign to meet current code	\$ 2,500
E4	Existing emergency lighting does not appear to provide required coverage	NEC				1		Install additional emergency light fixtures throughout to meet current code required light levels	\$ 2,000
E5	No Exterior emergency egress lighting	NEC				1		Add an emergency light fixture w/battery and test switch for each egress door	\$ 2,000
E6	Existing device cover plates are damaged or missing and no "in-use" covers on exterior outlets	Maint.	4					Replace all missing and/or broken devices cover plates and install "in-use" cover plates on all exterior receptacles	\$ 1,200
E7	Conduit serving roof mounted fan is rusted and broken	Maint.		3				Replace rusted and broken conduit with new	\$ 350
E8	Existing low voltage cable is laying on the ceiling	Maint.	4					Properly support all cables currently laying on the ceiling	\$ 15,000
E9	Existing light fixture is missing on the side of the AT&T enclosure on the roof (base only)	Maint.	4					Install new LED light fixture in same location	\$ 250
E10	Existing plumbing & mechanical equipment to be replaced	Maint.		3				Disconnect and reconnect electrical connections to plumbing & mechanical equipment to be replaced	\$ 4,000
<b>ELECTRICAL SUBTOTAL</b>									<b>\$ 107,300</b>
<b>TOTAL ESTIMATED COSTS</b>									<b>\$ 1,809,200</b>
<b>LEDGEND PRIORITY - RANK</b>									
1	Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.								
2	High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.								
3	Moderate priority - These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.								
4	Low priority - These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.								

## Operation Hope – 50 Nichols Street

Operation Hope Building was constructed in 1953 as the police station until the adjacent station was built. In 1986 Operation Hope, a foundation was formed by the Fairfield community to support those that needed food and shelter. Originally it was a shelter for, a community kitchen, and a food pantry, however, the building is no longer being used as such. It currently does provide food and donations to the community.

Located on the corner of Nichols Street and Reef Road, Operation Hope shares a one-and-a-half-acre site with the Police Station. Most of the parking is primarily for police cars and cruisers, located directly around the building. Visitor's parking is in front of the south facing façade and well as on the edge of the southern portion of the site.





## Architecture

The architecture of Operation Hope is, overall, in disrepair. Having been built in the 1950s, the construction of the building is brick masonry. The building is broken up into a variety of offices, sleeping rooms, bathrooms, laundry areas and a dining hall and kitchen.

### Exterior Building Envelope



This two-story facade has many areas of disrepair. The building is constructed with brick “veneer” with no air space evident. The energy efficiency of this construction is very low, and typical in the 1950s (“pre-energy crisis”), and not one that is easily or readily corrected. The exterior brick walls have a considerable amount of settling and spalling. The north and west elevations have a large amount of spalling bricks throughout that should be replaced. In addition the building should be cleaned and remove the unwanted vegetation on the side of the building.





## **Windows**

The windows at Operation Hope are operable double hung vinyl windows systems. These double-glazed systems are replacement windows. They appear to be in good condition. Many of the metal lintels at the window heads are beginning to rust. These should be scraped, primed and painted. Some of the brick sills are also spalling.



## **Doors**

The exterior doors are hollow metal doors set within hollow metal or wood frames. Many of the doors are rusting and should be replaced. The wood frames and trim are also nearing the end of their useful life. There is one aluminum door that is in good condition. The mechanical room door hardware is not compliant and should be replaced.

## **Roofs**

During the time of the assessment, there was no access for roof investigation. It appears to be similar to the neighboring Fire Station 1 with a white TPO roof and photovoltaic panels.



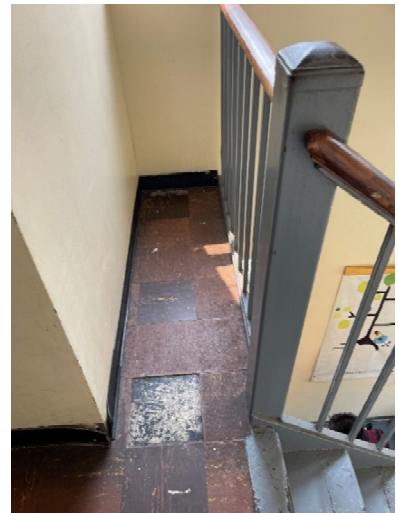
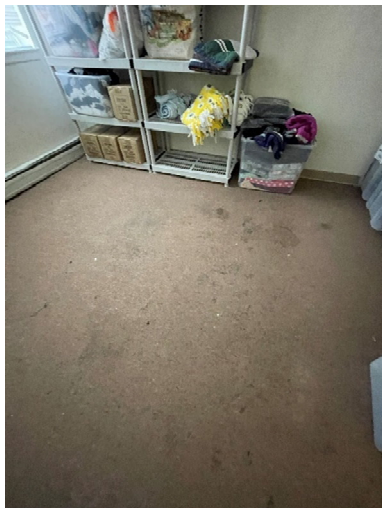


## **Interior Conditions**

The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. Many of the conditions of the interior of the building are in disrepair with many areas needing new finishes and code compliance upgrades.

### **Floors**

The flooring materials in Operation Hope vary based on the spaces viewed and they are in fair to disrepair condition. There is carpet located in the lobby, office areas, shelter rooms. The carpet is damaged and worn down. The vinyl composition tile (VCT) is located in the majority of the second floor and in the hallways on the ground floors. Many are damaged or missing leaving mastic visible. In addition to the condition of the VCT, the rubber base is mangled and should be replaced. The elevator lobbies and some stairwells consist of 9x9 tiles which likely contain asbestos and should be replaced.



### **Walls**

The interior walls in Operation Hope are made of plaster and gypsum wall board. There is a significant amount of the materials which are damage and in need of repair or replacement. The restrooms have ceramic tile which also has many damaged areas.



### Ceilings

There are a variety of ceiling types throughout the facility. There is a combination of ACT dropped ceiling but also a variety of spline ceilings. ceilings in the building are in disrepair. There are many stained or missing tiles in the main office which should be replaced. The captain's office contains much staining which should result in the replacement of all tiles.



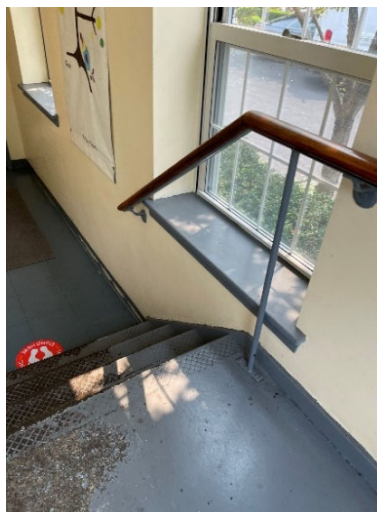
### Doors

There are a variety of door types at the facility. Most are hollow metal set in hollow metal frames. There are also some wood doors. Some of the doors are worn and would benefit from a fresh coat of paint. Some door hardware is not accessible. Knob handles require grasping and twisting and are not in compliance. Additionally, there are some lever handles that are small when they should be 3.8" to 4". These should be replaced.



### Stairs

The existing stairs are in fair condition. The painted stairs are worn and the 9x9 tile was previously mentioned. Additionally, the stair handrails do not have the extensions and the guardrails do not have the required height. These items should be modified to conform.





## **Restrooms**

There are multiple restrooms throughout the building. Most of them are in rather poor condition with finishes in disrepair. There is one woman's bathroom including a shower on the main level that is considered ADA complaint. One would be required for every use.



There should be a male one, a family one and one available. These restrooms need repairs, updating and layout modifications.

## **Casework**

The casework throughout Operation Hope is in fair condition. Most are plastic laminate, and some have wood bases with plastic laminate countertops. None had complaint knee spaces or sinks built into them. Nor do they exist in the kitchen. Additionally, the counter height is at 3'-0" when they need to be at 2'-10" to meet ADA compliancy. These areas should be modified.

## **Building Code and ADA**

As noted within many of the sections, there are multiple code and accessibility issues within this building. Door hardware, stair handrails, ADA restrooms and showers and casework were previously noted. Other issues are with certain spatial clearances within rooms and at doors. The required maneuvering clearances at doors is not always present in every location. These spaces should be adjusted to accommodate these accessibility clearances. Where they cannot be modified a power assisted door operator should be installed. Additionally, signage is sparsely incorporated throughout the facility and is non-compliant. These items should be included in the long-term capital plan.



## Plumbing

The building's sewer system discharges underground to a public main in Nichols Street to a regional wastewater treatment plant, there are no septic systems.

Roofs are pitched to exterior scuppers and downspouts.

The domestic water service is fed from Aquarion's public utility water mains, there are no wells, water pressure is good. The systems appear to have been installed in the mid 1960's and may be original to the building. They are well past their useful life expectancy.

Natural gas is the heating source and the gas service is routed from the gas main in Nichols Street. The gas meter is located on the building's exterior. Gas piping on and near the roof is rusted and needs to be repainted.

The water heater was installed 3 years ago and is an instantaneous wall mounted type. It is missing drip leg on the gas piping.

Plumbing fixtures are older and need upgrades. Fixtures are not ADA compliant. There is also an 80-gallon electric water heater missing a thermostatic mixing valve and insulation.

Exterior hose bibbs are broken and need replacement.



### **Recommendations for Repair / Replacement**

- Repair/Replace existing exterior hose bibbs are missing vacuum breakers.
- Repair/Replace/Add missing pipe insulation.
- Paint exterior gas piping.
- Repair/Replace existing plumbing fixtures for ADA compliance.
- Replace exterior hose bibbs.



## Fire Protection

The building is fully sprinklered with exposed painted sprinkler piping in areas where acoustical tile ceilings are not present.

The four-inch main sprinkler service is in the lower level. It consists of a vertical reduced pressure principal backflow preventer, alarm check valve with a metered bypass. It was installed in 1987. The pressure is good, tested at 90 psi static. The systems were last tested 6/7/17 & 10/18/12 and are out of date. There isn't a floor drain in the space and if backflow occurs, it could dump a large amount of water into the space and cause damage.



### **Recommendations for Repair / Replacement**

- Provide a floor drain for the backflow preventer for drainage.
- Yearly test and maintain sprinkler system components as required by NFPA 13.

## **Mechanical**

### **Boiler Plant**

The building is heated using a Smith model 19HE cast iron boiler located in the mechanical room. The boiler has an IBR rating of 510 MBH. The boiler is manufactured in 2017. Products of combustion are vented into the existing chimney through a sheet metal flue. Combustion air is from louvered exterior door.

There are four (4) independent zones serving the building. The four (4) zones are fed from individual inline pumps off of the boiler manifold. Inline pumps are installed the same year as the boiler. Each zone is controlled by a local thermostat.

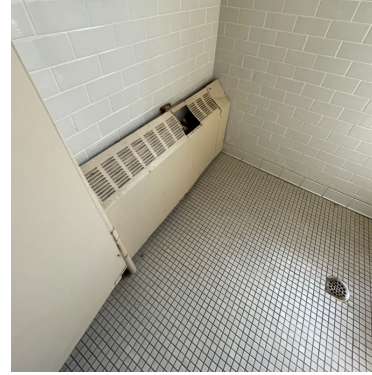
Age of the hot water piping distribution system beyond the boiler room is unknown, piping system should be inspected utilizing ultrasonic testing to determine rates of corrosion within the piping. Section of hot water piping have no insulation.



### **Common Area**

Common areas and service areas are served by window mounted air conditioning units. The window air conditioning units are of varying conditions; unit life for this type of equipment is 5 – 7 years.

Finned tube radiation is utilized at vestibules, common area and common area toilet rooms. Finned tube radiation is generally in poor condition.



### **Administration Area**

Cooling and heating for the administration area is from a ducted split system controlled by a local thermostat. The air handling unit, equipped with direct expansion coil and hot water is in the first floor mechanical closet. The duct distribution system is routed above ceiling to supply diffusers and return air if from the closet wall mounted return grilles. Duct distribution system and associated diffusers and grilles are in need of cleaning.

### **Dwelling Units**

Heating in all dwelling units is done by perimeter finned tube radiation. Perimeter finned tube radiation are in poor condition. Several dwelling units are equipped with window mounted air-conditioning units which plug into adjacent wall receptacles. The window air conditioning units are of varying conditions; unit life for this type of equipment is 5 – 7 years. Ventilation in the dwelling units is through operable windows and exhaust grilles.



### **Ventilation/Exhaust**

Ventilation in the common area is handled by exhaust grilles and rooftop exhaust fans. Use of operable windows accounts for the intake of untempered, uncontrolled airflow intake. Most, if not all, of the grilles and registers in the facility require cleaning and confirmation of existing airflow balancing. The ductwork is most likely in need of cleaning and updating for conformance with air leakage rates.

Toilet/shower exhaust in common areas is done by ceiling mounted grilles/fans to the exterior.

All this equipment is past its useful service life and in need of replacement.

Dryer exhaust, provided with inline fans, appears to be routed to a common exhaust duct through exterior wall. Make-up air comes from adjacent space volumes. Exhaust ductwork joints are held together by metallized duct tape and should be upgraded.



### **Kitchen**

The existing cooking appliances are provided with a vent hood ducted to a wall cap. There is also no makeup air for the kitchen. Per International Mechanical Code Section 507.1.2, domestic cooking appliances utilized for commercial purposes require Type I hood with fire suppression system. The cooking appliances are gas open-burner ranges, and are defined as heavy duty appliance per IMC section 202. IMC section 507.5.2 requirement for heavy duty cooking appliance using a wall mounted canopy type of hood is 400 CFM/linear foot. IMC section 508 requires make-up to be supplied during operation of commercial kitchen exhaust.



### **Underground Storage Tank**

The existing 1,000 gallon fuel oil underground storage tank was installed in 2006. Underground Storage Tank has life expectancy of 30 years.



## **Recommendations for Repair / Replacement**

- Perform ultrasonic testing for the rest of the piping system to determine the rates of corrosion within the pipes. Replace pipes as needed.
- Provide piping insulation.
- Engage the service of a Chemical Service Provider to maintain proper water treatment to the building water loop.
- Clean and seal existing ductwork.
- Replace split system in administration area. Provide outdoor air connection to the unit. Clean and seal all existing ductwork, registers, and grilles. Re-insulate as required.
- Consider adding DDC control to remotely monitor/control the system.
  - Or consider variable refrigerant flow (VRF) split system heat pump system and energy recovery ventilator for the administration area.
- Replace finned tube radiation in toilet /shower rooms.
- Replace finned tube radiation in common area.
- Replace finned tube radiation in dwelling units. Consider adding manual thermostatic control valve at each dwelling unit.
- Replace exhaust fan serving the dwelling units.
- Replace toilet/shower room exhaust fans. Clean ductwork.
- Provide exhaust fan in elevator machine room.
- Provide gas fired cooking appliance with Type I hood with fire suppression system and UL listed ductwork and exhaust fan. Provide make-up air system.
- Consider replacing window air conditioning in the meeting room with variable refrigerant flow (VRF) split system heat pump system and energy recovery ventilator.

## Electrical

The existing electrical service is made up of a 400 amp 120/208V-3PH-4W service switch inside the (Kohler) transfer switch mounted on the exterior of the building (north-east corner) outside the Boiler room. The in-line meter and main switch are fed



of the parking lot by the fuel pump. The main switch/ATS feeds the main distribution panel (MDP) in the Boiler room. The MDP feeds other electrical panels, mechanical equipment, and the elevator. The generator side of the transfer switch is fed from a breaker in the generator distribution panel in the basement of the Police Station next door. In addition to the normal/generator electrical distribution, there is also

a photovoltaic system. This is made up of solar panels on the roof feeding two inverters in the Boiler room. This building is also connected to the microgrid system of the Police station.



## Fire Alarm

The fire alarm system (FireLite #MS-5UD by Honeywell) is located inside the front entrance of the building. There are manual pull stations at the egress doors (one is located more than five feet from the entrance to the exit per code). Also, there are audio/visual

devices and smoke & heat detectors throughout the building. Not all fire alarm devices appear to meet the current ADA height requirements. It is our understanding the system is working properly without any issues.

### **Lighting**

The existing interior lighting in the building is a mix of recessed lensed fluorescent 2x2, 2x4 & 1x4 fixtures, recessed down lights, surface mounted wraparound fixtures and 4-foot industrial fluorescent fixtures. These fixtures are in fair condition, with some of the lens cracked and/or broken.



It is our understanding that the majority of the fixtures



have been upgraded with new LED bulbs. There are some fixtures that still have fluorescent or incandescent bulbs. These were areas that the town determined to be low use and would be replaced later as needed. Most of the areas appear to be controlled by local toggle type switches with a couple of lights controlled by a rotary time switch. There are a couple of lights not working at this time, they may just need new bulbs. The existing exterior lighting for the building

is made up mostly of surface mounted full cutoff LED wall pack light fixtures and a couple of wall mounted incandescent/fluorescent "jelly jar" type fixtures. We were not able to determine the operation of the exterior fixtures at the time of our inspection.



Emergency lighting for the interior of the building is made up of self-contained twin head emergency fixtures and combination exit signs and emergency lights. Exit signs in the building are made up of thermoplastic signs with red lettering and emergency battery. There are a couple of non-illuminated exit signs also. Most of the illuminated signs appear to be in fair/good condition and working properly. We are not able to confirm the batteries on the exit signs and emergency lights will operate for the required 90 minutes.

## **Devices**



Existing wiring devices (receptacles & light switches) in the building are a mix of recessed and surface mounted. There are a few ungrounded receptacles (2-prong not 3) in the building, in addition to a large number of receptacles that have had the face of the device painted over. The devices overall appear to be in fair/poor condition.

## **Telecommunication System**



The existing phone system D-Mark is in a closet in the Family Shelter on the back side of Stair #2. We are not aware of any issues with this equipment.

### **Recommendations for Repair / Replacement**

- Replace existing electrical distribution equipment and associated wiring, except for new panel install on second floor during the last renovation.
- Replace existing ungrounded receptacles with new ground receptacles and matching cover plates.
- Replace all existing receptacles and phone & network outlets with new except for those installed under the last addition/renovation.
- Replace all old rusty bathroom "call for aid" devices with new.
- Replace existing toggle type switches with new occupancy sensors and dimmer switches.
- Install emergency lighting at the exterior of all egress doors to meet current code requirements.
- Replace all paper exit signs with new illuminated exit signs.

Operation Hope - 50 Nichols Street Facility Condition Cost Estimate										
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING					CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
			4	3	2	1	n/a			
EXTERIOR CONDITIONS										
A01	Brick is spalling or mortar is in need of repointing	General		3				Patch, repair, or replace brick and repoint as necessary.	\$ 100,000	
A02	Lintels are beginning to rust	General	4					Scrape prime and paint	\$ 1,500	
A03	Some of the exterior doors are nearing the end of their useful life	General		3				Replace doors and frames	\$ 5,000	
EXTERIOR SUBTOTAL										\$ 106,500
INTERIOR CONDITIONS										
A04	Flooring through the facility is nearing the end of its useful life	General			2			Full replacement	\$ 48,000	
A05	Many walls are damaged	General			2			Repair all damaged wall plaster or gypsum, prime and paint	\$ 25,000	Allowance
A06	Many ceilings are damaged and stained	General			2			Full replacement	\$ 48,000	
A07	Door finish is failing	General		3				Refinish doors	\$ 5,000	
A08	Some door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)			2			Remove door locksets and install new accessible lever handle locksets where designated.	\$ 10,000	
A09	Handrails do not meet code requirements	(F)5-2.2.4.2 (B)1014.7 (ANSI A117.1) 505			2			Provide new or weld extensions	\$ 2,000	
A10	Due to the size, restrooms do not meet accessibility requirements	(B)1108.0 (ANSI A117.1) 603-606			2			Reconfigure the room to enlarge and provide the minimum dimensional requirements.	\$ 90,000	
A11	Insufficient knee space provided at sink and/or workstation in rooms and kitchen.	4.32 (ADA)			2			Provide accessible sinks and workstations per ADA Section 4.32. 27" high x 30" wide x 19" deep.	\$ 17,500	
A14	Some door push and/or pull maneuvering clearances do not meet code.	413.6 (ADA) 1101.2 (IBC) ANSI 117.1			2			Where obstruction is not furniture related, modify door swing and/or location to comply. Where the previous is not easily achieved, supply push button door operator where required.	\$ 30,000	
A15	Signage is sparsely incorporated throughout the facility and is non-compliant				2			Replace with new signage	\$ 6,250	
INTERIOR SUBTOTAL										\$ 281,750
PLUMBING/FIRE PROTECTION										
P01	Exterior hose bibbs missing vacuum breakers	IPC			2			Remove and replace exterior hose bibbs	\$ 2,000	
P02	Water piping missing insulation	IPC	4					Provide insulation missing on piping	\$ 1,200	
P03	Exterior gas piping corroding	Maint.		3				Repaint gas piping	\$ 1,500	
P04	Plumbing fixtures not ADA	IPC			2			Remove and replace plumbing fixtures	\$ 10,000	
FP01	Floor drain missing at fire service	General		3				Provide floor drain for fire service	\$ 2,000	
FP02	Sprinkler tests out of date	Maint.		3				Test and inspect sprinkler systems	\$ 500	
PLUMBING/FP SUBTOTAL										\$ 17,200

## Operation Hope Facility Conditions Cost Estimate

MECHANICAL SYSTEMS											
M01	Piping system age outside of mechanical room is unknown.	General	4						Replace with new.	\$ 10,500	Allowance for 300 LF
M02	Piping insulation is missing	General	4						Provide with new per current IECC requirements. Allowance for 2000 LF)	\$ 4,500	Allowance for 300 LF
M03	Boiler loop chemical treatment	General	4						Engage the services of a Chemical Treatment Service Provider	\$ 2,500	allowance
M04	Office split system has outlived its useful life expectancy	General	4						Replace with new. Clean and seal ductwork. Provide ne ductwork insulation.	\$ 22,750	
M05	Local temperature controls	General	4						Replace old controls. Provide controls compatible with town's DDC system	\$ 67,000	
M06	Finned tube radiation serving toilet shower rooms have outlived their useful life expectancy	General	4						Replace with new. Provide control valve and temperature controls	\$ 11,000	
M07	Finned tube radiation serving common area has outlived its useful life expectancy	General	4						Replace with new. Provide control valve and temperature controls	\$ 12,000	Allowance for 60 LF of FIR
M08	Finned tube radiation serving dwelling area has outlived its useful life expectancy	General	4						Replace with new. Provide thermostatic control valve and local controls	\$ 18,000	Allowance for 6 dwelling units
M09	Common Area and Dwelling units exhaust fans have outlived their useful life expectancy	General	4						Replace with new. Clean and seal existing ductwork	\$ 10,500	
M10	Elevator Machine Room	General	4						Provide exhaust fan and local thermostat. Provide outside air ductwork with motorized damper. Provide with electric beater	\$ 6,500	
M11	Toilet/Shower Exhaust fans have outlived their useful life expectancy	General	4						Replace with new. Clean and seal existing ductwork	\$ 10,100	
M12	Kitchen cooking appliances are not provided with Type 1 hood , UL listed fan and grease exhaust ductwork.	IMC				1			Provide with type 1 hood with Ansul system, UL exhaust fan, grease ductwork and make-up air	\$ 43,000	
M13	Dryer exhaust fans have outlived their useful life expectancy	General	4						Replace with new. Reconfigure exterior duct termination	\$ 7,500	
M14	Meeting room window air conditioning units are at the end of their useful life expectancy	General	4						Replace with variable refrigerant flow (VRF) split system heat pump system	\$ 56,000	
M15	Meeting room untreated ventilation form operable window	IMC				1			Provide energy recovery ventilator for ventilation	\$ 19,000	
MECHANICAL SUBTOTAL											\$ 300,850
ELECTRICAL SYSTEMS											
E1	Old electrical panels (at or beyond useful life)	Maint.		3					Replace all old electrical panels and switchboard with new	\$ 18,000	
E2	Existing ungrounded (2-prong) receptacles	Maint.	4						Replace all ungrounded receptacles with new grounded (3-prong) receptacles	\$ 2,000	
E3	Existing receptacles and phone outlets are old at end of useful life	General	4						replace all existing receptacle and phone/data outlets with new except those installed under last renovation	\$ 16,000	
E4	Existing bathroom "call-for-aid" devices are old and rusty	Maint.	4						Replace existing rusted devices with new	\$ 500	
E5	Toggle type light switches	2015 IECC	4						Replace all existing toggle type switches with occupancy sensors, dimmer switches and low voltage control system	\$ 8,000	
E6	No Exterior emergency egress lighting	NEC				1			Add an emergency light fixture w/battery and test switch for each egress door	\$ 1,000	
E7	There are non-illuminated (paper) exit signs in some locations	NEC				1			Replace existing paper exit signs with new illuminated LED exit signs	\$ 1,000	
E8	Existing plumbing & mechanical equipment to be replaced	Maint.		3					Disconnect and reconnect electrical connections to plumbing & mechanical equipment to be replaced	\$ 2,500	
ELECTRICAL SUBTOTAL											\$ 49,000
TOTAL ESTIMATED COSTS											\$ 755,300

## Penfield Pavilion- 323 Fairfield Beach Road

The Penfield Pavilion is located directly along the Long Island Sound at Penfield Beach. Parking is located on the western side of the site, behind the pavilion and across the street on the corner of Penfield Road and Fairfield Beach Road. The program consists of locker rooms, restrooms, and a Banquet Hall with the associated program spaces for hosting venues or events.





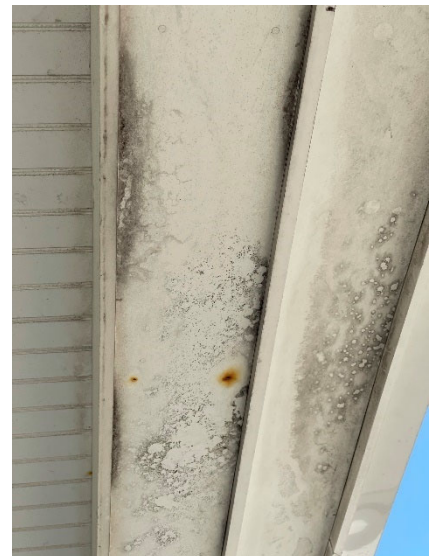
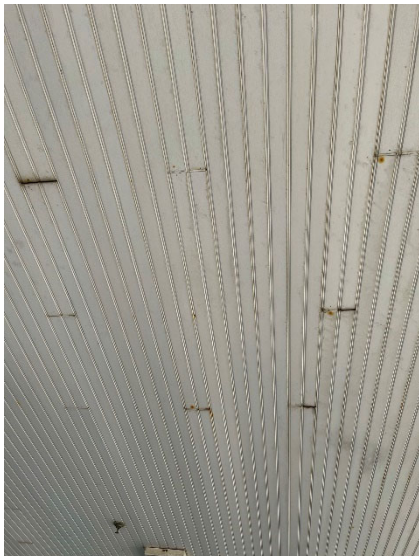
## Architecture

The building overall is in good condition. Based on the age of the pavilion, there are only minor items that should be improved. Built on a series of piles the wooden structure provides an expansive covered deck along the beachfront.



### Exterior Building Envelope

The Pavilion's building envelope is sheathed in vertical Hardie panels and detailed with a PVC trim. Overall, it is in good condition. Many of the nails have begun to rust. Additionally, the underside of the roof overhangs also has rusting nails and missing spacers. All exterior PVC surfaces should be power washed followed by priming the rusted nail head with a rust inhibitor primer, and then a fresh coat of paint. The material has more life left to it, if properly protected.



## Windows

The windows are only a few years old. They are a few types. There are aluminum storefront systems at the gable end of the gathering room and some double hung windows along with some awing windows. All appear in good condition.

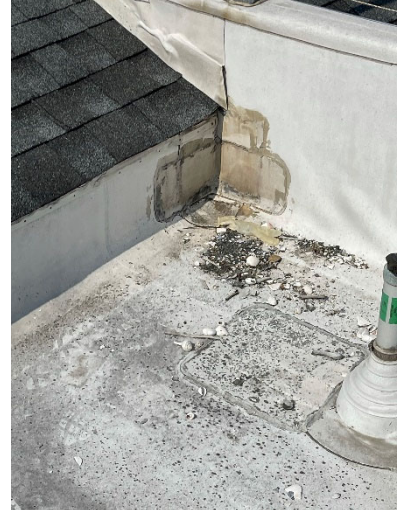


## Doors

The exterior doors throughout the facility are also a variety. There are aluminum and fiberglass doors. They are all in good shape. The metal kickplates and fasteners are beginning to rust. The metal sectional door at the lifeguard areas is also beginning to rust.

## **Roof**

The roof is a combination of a Thermoplastic Polyolefin (TPO), Ethylene Propylene Diene Monomer (EPDM) membrane and asphalt shingles. The roof is in good condition, aside from the general cleaning of debris which should be done at least twice a year on any building. There are also some damaged downspouts that should be repaired.



### **Interior Conditions**

The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. A majority of the building is in good condition. There are minor items which will need to be adjusted, based on the International Building Code and ADA code compliance.

### **Floors**

The floors of the Penfield Pavilion are in good condition. The wood floors in the locker room and outdoor areas have been worn down with the constant sand and water from pedestrian circulation resulting in peeling paint. These should be monitored and maintain to add longevity to the materials. The remainder of the consists of ceramic and quarry tiles and concrete flooring.



### **Walls**

There are a variety of walls which make up the pavilion. All are generally in good condition.

### **Ceilings**

The indoor ceilings in the pavilion are in good condition. Most are exposed with limited gypsum wall board and ACT ceilings. There is a little bit of water damage surrounding the roof hatch that should be repaired.

### **Doors**

The interior doors are all in good condition.



### **Stairs**

The stair or ramp handrails are beginning to rust in a few areas. This should be monitored and eventually repaired. Additionally, some of the wood posts on the railings are cracked and beginning to fail. These should be monitored and eventually replaced.

### **Restrooms**

There are multiple restrooms throughout this facility. Considering the age of the building they are generally in good condition and meet current ADA standards.

### **Building Code and ADA Compliance**

There are not many code and accessibility issues within this building. One door was noted that does not have the clearances at door. Door could simply flip the swing and latch side to rectify the issue. The kitchen does not have a compliant sink. The concession's area is lacking 5' turning clearances due to the equipment layout. This should be adjusted. Lastly the ladders which lead to the roof are not code compliant. The requirement states 7' from the center of the rung to the wall or closest surface which is not met here. These items should be included in the long-term capital plan.

## Plumbing

The building's sewer system discharges underground to a public main in Fairfield Beach Road to a regional wastewater treatment plant, there are no septic systems. The water service is fed from Aquarion's public utility water mains, there are no wells, water pressure is good.

The plumbing systems are in good condition and only 4 to 10 years old.

A commercial kitchen exists with a gas stove and pot wash sink. The pot wash sink has a point of use grease recovery system to capture and skim off the grease at the source. There is an instantaneous wall mounted gas-fired water heater in the kitchen.

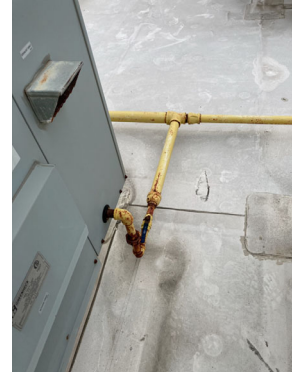
The hot water piping under the hand wash sink in the kitchen is not insulated per code.

The gas service is routed from the gas main in Fairfield Beach Road to a gas meter located on the outside in the front of the building. The gas meter serves the boiler and the domestic water heater and kitchen range. Exposed gas piping on the roof is corroding and should be painted or replaced at a minimum. Because of the location of the building near the ocean, exposed piping will corrode faster with the salty sea air.

Primary and secondary roof drains are present on the flat roof area which drain internally from the building to a site storm sewer. Gutters and downspouts drain the pitched roof area.

There are two newer storage type gas-fired water heaters in the mezzanine of the pavilion which are fed from solar evacuated tubes on the roof. There is a hot water return system and recirculating valve to ensure hot water is readily available. There is a mixing valve to prevent scalding. The system was turned off at the time of survey.

Plumbing fixtures are newer and in good condition.



### **Recommendations for Repair / Replacement**

- Insulate piping at handicap hand wash sinks.
- Repair/Repaint existing exposed gas piping on the roof.
- Replace corroding exterior hose bibbs.
- Test, inspect and recommission the solar hot water system and pumps.

## Fire Protection

The building has a newer 2017 and older 2011 sprinkler system. It is fully sprinklered with concealed sprinklers and piping in finished spaces and exposed sprinklers and piping where there are no ceilings. The exposed sprinklers in the pavilion appear to be a dry system with galvanized piping.

There is an Ansul type suppression system for the hood over the stove.

There is an exposed drum drip assembly for the dry pipe sprinkler system. The system is heat traced and must have experienced a freeze-up. The system may not be piped correctly or needs to be drained.



## Recommendations for Repair / Replacement

- Replace all corroding exterior sprinklers with non-corrosive ones.
- Repipe the drum drip assembly for the dry pipe sprinkler system. To prevent a freeze up.
- Continue to maintain, test, and inspect sprinklers and devices as required by code.



## Mechanical

### Heating, Cooling and Ventilation

Four (4) Trane gas fired roof top units serving the gathering room. The roof top units are located on the north and south flat roof adjacent to the gathering room. Unit are manufactured in 2011. With a useful life expectancy of 15 years, these units have approximately 5 useful years remaining subject to proper maintenance. Roof top units are mounted on the roof curbs and are configured for downflow connections. Ductwork distribution system is routed above ceiling into the gathering where air is distributed through exposed ductwork with duct mounted registers.

There are two(2) Fujitsu ductless split systems provided, one system serves the Director's Office and the other, the Lifeguard Area. Ductless slit systems are manufactured in 2011. With a useful life expectancy of 15 years, these units have approximately 5 useful years remaining subject to proper maintenance.





The warming kitchen and the concession kitchen are provided with the code compliant type I hood with Ansul system complete with UL exhaust fan, and make-up air unit. The make-up units and the associated air cooled conditions are manufactured in 2011. Refrigerating piping insulation is starting to deteriorate. The exhaust fans are provided with grease trap. These grease traps require periodic maintenance.



Locker room exhaust is handled by two(2) roof mounted exhaust fans with duct termination below the roof penetration. The shower room exhaust from multiple inlet grilles ducted to a common duct to the roof mounted exhaust fan. Based on the serial numbers, these exhaust fans are ordered in 2016. With a useful life expectancy of 25 years, these units are well within the expected lifespan.



Roof mounted exhaust fan provided in all toilet rooms.

The lifeguard storage space and adjacent area with the overhead door are not provided with ventilation.

### **Recommendations for Repair / Replacement**

- Replace refrigeration piping insulation. Provide insulation with aluminum jacket.
- Clean grease trap and replace the disposal grease absorber. Consider periodic inspection and grease trap.
- Provide exhaust fan and ventilation air in lifeguard area.



## Electrical

The existing electrical service is made up of a 600 amp 120/208V-3PH-4W GE service rated disconnect switch, that feeds a 200-amp combination meter and main breaker (KP-1) and a 400-amp combination meter and main breaker (P2-1). The 200-amp



breaker feeds panels 'KP' & 'KP Sub' in the kitchen. The 400-amp breaker feeds adjacent distribution panels 'P2-1' & 'P2-2'. These panels feed a few other panels in addition to lights, receptacles, and mechanical equipment. The service disconnect switch is



fed underground from the utility pad mounted transformer out front to the south-west side of the building. In

addition to the normal electrical distribution, there is also a photovoltaic system. This is made up of solar panels on the of the flat roofs that feed (3) wall mounted inverters, meter and disconnect switch. This equipment is located on the front exterior wall (west side) of the building next to the corridor to the Lockers.





## **Fire Alarm**

The fire alarm system (Notifier #NFW2-100) is located just inside the main entrance outside the Banquet room. There are manual pull stations at most of the egress doors and there are audio/visual devices and smoke & heat detectors throughout the building. Both the manual pull stations and audio/visual devices appear to meet the current ADA height requirements. It is our understanding the system is working properly.

## **Lighting**

The existing interior lighting in the Locker area of the building is made up of surface mounted 4 foot gasketed sealed fluorescent fixtures, incandescent sockets in the mezzanine and recessed down lights in for the showers. The Banquet area has ceiling mounted spotlight fixtures and wall mounted indirect light fixtures. The adjacent Corridor/Vestibule has recessed 2x2 center basket type fixtures. The Kitchen and Snack Bar area has recessed lensed 2x2 fixtures.



The Bathrooms for the Banquet Hall have recessed linear wall wash fixtures. The large public Bathroom/Shower rooms have recessed down lights and linear wall wash fixtures. The other supporting spaces and small public Bathrooms and mostly gasketed sealed fixtures with some 2x2 fixtures. These fixtures appear to be in good condition and working

properly. It is our understanding that the majority of the fixtures have been upgraded with new LED bulbs. There are some fixtures that still have fluorescent or incandescent bulbs. These were areas that the town determined to be low use and would be replaced later as needed. Most of the areas have occupancy sensors to turn the lights on and off in conjunction with local toggle type & dimmer switches for added control. The existing exterior lighting for the building is made up of fluorescent/incandescent surface mounted "jelly jar" type fixtures with round reflectors, surface mounted square LED light fixtures and some wall mounted fluorescent elliptical shaped fixtures. Most of these fixtures are in fair/poor condition (rusting exterior



finish). We were not able to determine the operation of the exterior fixtures at the time of our inspection.



Emergency lighting for the interior of the building is made up mostly of self-contained twin head emergency fixtures with some combination exit sign with emergency lights. Exit signs in the building are made up mostly of thermoplastic signs with red lettering and emergency battery. The exit signs in the Locker area have vandal-proof covers on them. Most of the illuminated signs appear to be in fair/good condition and working properly.

### **Devices**

Existing wiring devices (receptacles & light switches) in most of the public areas of the building are recessed mounted, there are a few devices in the building that are surface mounted (Kitchen, Lockers). The devices appear to be in fair/good condition, along with their cover plates.

### **Telecommunication System**

The existing phone system D-Mark and main network distribution with racks and headend equipment is in the main electrical closet/water service room. We are not aware of any issues with this equipment.

### **Recommendations for Repair / Replacement**

- Add additional fire alarm manual pull stations in areas of the buildings where there are no devices currently or where they exceed the code allowed distance.
- Install emergency lighting at the exterior of all egress doors to meet current code requirements.
- Replace existing exterior weatherproof receptacle covers with "in-use" covers.
- Test all exit sign and emergency light fixtures batteries to confirm they will operate for the required 90 minutes. If they can't they should be replaced with new LED devices.

Penfield Beach Pavilion - 323 Fairfield Beach Road Facility Condition Cost Estimate										
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING					CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
			4	3	2	1	n/a			
EXTERIOR CONDITIONS										
A01	Nails at siding and canopy are rusting	General			2			All exterior PVC surfaces should be power washed followed by priming the rusted nail head with a rust inhibitor primer, and then a fresh coat of paint	\$ 8,000	
A02	Kick plates are beginning to rust	General	4					Provide new kickplate at all doors necessary	\$ 1,500	
A03	Sectional door is beginning to rust	General	4					Provide new sectional door at the lifeguard area in the building	\$ 3,000	
A04	Roof hatch may be leaking due to interior damage	General				1		Investigate issue at roof hatch area, provide seals around perimeter.	\$ 2,000	Allowance
A05	Downspout is dented	General		3				Provide new downspout at required areas	\$ 1,000	
A06	Handrails are beginning to rust	General			2			Scrape, prime, and paint handrails as required	\$ 2,000	
A07	Wood railing post is cracking	General		3				Replace exterior wood railing, then paint and stain	\$ 5,000	
EXTERIOR SUBTOTAL										
										\$ 22,500
INTERIOR CONDITIONS										
A08	Wood decking paint finish is peeling and wearing in various areas	General		3				Scrape, repaint, and prime	\$ 6,000	
A09	Ceiling/walls surrounding roof hatch are damaged.	General		3				Repair any cracks or damaged area which may be a factor of risking life safety in the area.	\$ 1,800	
A10	Required push and pull clearances are not met based on ADA compliance	413.6 (ADA) 1101.2 (IBC) ANSI 117.1			2			Modify any sizes of landings to correct any clearance conflicts	\$ 1,000	
A11	Concession stand layout	ADA			2			The placement of furniture and equipment should be modified per required ADA standards	\$ -	
A12	Roof hatch ladder	IBC			2			Provide a new ladder which is more than 7" away from any object or wall for clearance purposes	\$ 3,000	
INTERIOR SUBTOTAL										
										\$ 11,800
PLUMBING/FIRE PROTECTION										
P01	Insulation missing at hand wash sinks	ADA		3				Provide pipe insulation	\$ 500	
P02	Gas piping corroding on roof	Maint.		3				Repaint gas piping	\$ 1,500	
P03	Exterior hose bibbs corroding	Maint.			2			Remove and replace hose bibbs	\$ 2,000	
P04	Solar water heaters turned off	Maint.		3				Recommission water heater and pumps	\$ 1,200	
FP01	Exterior sprinklers corroding	Maint.				1		Remove and replace sprinklers	\$ 1,500	
FP01	Drum drip freezes up	Maint.		3				Repipe drum drip	\$ 1,200	
FP01	Test and inspect sprinklers	Maint.		3				Continue to test and inspect sprinklers	\$ 500	
PLUMBING/FP SUBTOTAL										
										\$ 8,400
MECHANICAL SYSTEMS										
M01	Deteriorating refrigeration piping insulation	General	4					Replace insulation . Provide aluminum jacket	\$ 1,000	
M02	Kitchen exhaust fan grease trap	General			2			Clean grease trap and replace the disposal grease absorber. Consider periodic inspection and grease trap.	\$ 650	
M03	Lifeguard area has no ventilation	IMC				1		Provide outside air and exhaust fan for ventilation. Provide local controls	\$ 5,750	
MECHANICAL SUBTOTAL										
										\$ 7,400

## Penfield Pavilion Facility Conditions Cost Estimate

ELECTRICAL SYSTEMS											
E1	Manual pull stations are not at every egress door and/or stair	NFPA 72			2			Add pull stations to each egress door and basement & second floor stair that currently does not have one to meet current code	\$	2,000	
E2	Existing exterior canopy lights are rusting	Maint.	4					Replace all capoy fixtures with new LED fixtures with a marine grade finish	\$	10,000	
E3	Existing exterior emergency lights do not appear to meet current light level/coverage requirements	NEC			2			Add additional emergency light fixtures to meet current code requirements	\$	6,500	
E4	Existing exterior receptacles with weatherproof covers	General	4					Replace all existing exterior receptacles with weatherproof covers with new "in-use" cover"	\$	1,500	
E5	Existing exit sign & emergency lights don't operate for 90 minutes on battery			3				Test all exit signs & emergency lights and replace all old exit sign s and emergency light fixtures with new LED units if they do not run for 90 minutes (on battery)	\$	1,200	
E6	Existing plumbing & mechanical equipment to be replaced	Maint.		3				Disconnect and reconnect electrical connections to plumbing & mechanical equipment to be replaced	\$	3,000	
<b>ELECTRICAL SUBTOTAL</b>											<b>\$ 24,200</b>
<b>TOTAL ESTIMATED COSTS</b>											<b>\$ 74,300</b>
<b>LEDGEND PRIORITY - RANK</b>											
1	Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.										
2	High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.										
3	Moderate priority – These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.										
4	Low priority – These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.										



## Old Town Hall – 611 Old Post Road

Old Town Hall has been remodeled many times. After Fairfield was invaded by the British, the building burned down at only ten years old. In 1794, the community rebuilt Town Hall which also served as the courthouse. The style of the building changed in 1870 to a Second Empire style and again in 1936, to its original and current Federal style.

The Old Town Hall is located on the corner of Old Post Road and Beach Road. Parking is located at the southwestern side of the building adjacent to the road connecting the remainder of the buildings on the Fairfield green.





## Architecture

The architecture of the building is in good condition considering its age. The layout of the building is essentially organized in a T-shape allowing various town departments to be efficiently organized off of a double loaded corridor.



### Exterior Building Envelope

The exterior facades of the Old Town Hall are in good condition. The siding is composed of wood shingles and is painted white. There are multiple layers of paint but overall, it is holding up well. There are also some areas of painted masonry construction which is also holding up well. These areas do have some vegetation growing against the façade which should be removed to maintain the integrity of the masonry and mortar joints. The stone foundations appear to be in good condition. Given its age, the mortar should be inspected on a regular basis and repointed as necessary. The front porch slate is beginning to wear. Some areas are chipping away at the corners and the mortar joints are failing in places.



## **Windows**

When evaluating the energy efficiency of a building, it is known that nearly 25–40% of all heat energy is lost through windows. The windows here are old wood double hung window units with a single layer of glazing. Additionally, there are some Palladian style round top windows incorporated. Storm windows have been integrated at the interior for some added improvement. Although these windows give the historic appeal to this building, they should be considered for replacement with a more energy efficient system that can mimic the original style. Otherwise continued maintenance and repairs to these windows are essential to maintain their lifespan.

## **Doors**

Many of the exterior doors at Old Town Hall are wood. They are in fair to good condition. Some of these doors are narrow and undersized per code but due to the historic district are likely acceptable. Some of the door hardware does not meet code and should be addressed. Additionally, some weatherstripping improvements should be to be included.

## **Roof**

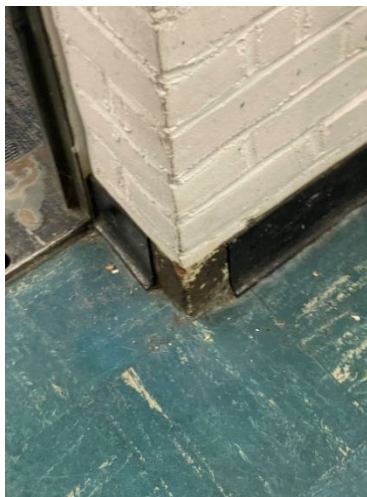
The roof of Old Town Hall consists of Gable roofs with cedar shakes. The roof was unable to be reviewed up close in detail, but it appears it is nearing the end of its useful life. Some of it was replaced in 2008. This roof should be considered for replacement in the future, possibly around 2028.

## **Interior Conditions**

The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. Overall, the building's interior is in good condition, given the age of the building with some general and finish improvements and upgrades along with code modifications needed.

## **Floors**

There are a variety of floor types at the Old Town hall. there are a variety of carpeting types. Some are in good condition while others have stains, are worn and dated which should be replaced. There is a large amount of vinyl asbestos tile (VAT) that should be abated. There is additionally wood and stone flooring which are all in fair to good condition.





## Walls

There are a variety of wall types most notably plaster along with some gypsum wallboard, ceramic tile. Overall, the walls are in fair condition with areas of damaged plaster and peeling paint in a few areas. Specifically portions of paint that peeled off the walls in the Tax Collectors office which should be scraped, patched, primed, and painted.

## Ceilings

The ceilings in Old Town Hall are made up of plaster of acoustical ceiling tiles (ACT). The ceilings are in pretty good condition with various stains throughout.

## Doors

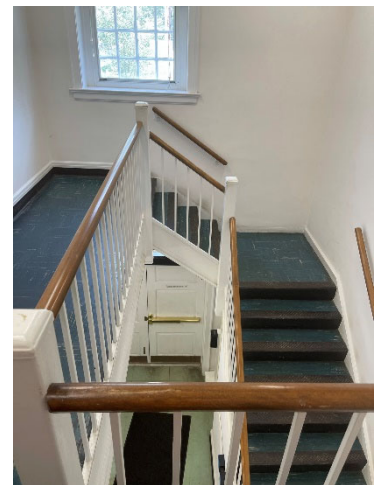
The doors in Old Town Hall are existing wood doors, original to the building. Some doors could benefit from a fresh coat of paint. Many doors have knobs which require twisting. These should be replaced with lever sets.

## Stairs

There are two main stairs in the building along with stairs at level changes throughout both floors. The handrails and guardrails do not meet code and should be altered. It must be mentioned that the front stair is not in an enclosed rated partition and is open. This is not to code but likely an acceptable condition due to the historic nature of the building. In addition, the ladder which leads to the attic space above the Department of Housing and Urban Development is not sturdy and should be fixed.



Figure 14-4: Wall Condition





### **Restrooms**

There are multiple restrooms throughout the building. The restrooms are rather dated although the finishes are holding up well. None of the restrooms are ADA compliant. It is required to have one ADA compliant toilet stall and sink in each of male and female restroom on each floor.

### **Casework**

There is a variety of casework and counters throughout the facility. most are wood and in fair condition. However, some areas are not ADA compliant as there is no nice space or 2'-10" counter for visitors at offices. Casework with sinks do not have a compliant sink or knee space included. These should all be updated to comply.



### **Building Code and ADA**

As noted within many of the sections, there are multiple code and accessibility issues within this building. Door hardware, stairs, ADA restrooms and casework were previously noted. Other issues are with certain spatial clearances within rooms and at doors. The required maneuvering clearances at doors is not always present in every location. These spaces should be adjusted to accommodate these accessibility clearances. Where they cannot be modified a power assisted door operator should be installed. Lastly, signage should be updated to current code standards. These items should be included in the long-term capital plan.

*Figure 14-6: Attic Stairway Condition*

## Plumbing

The building's sewer system discharges underground to a public main in Old Post Road to a regional wastewater treatment plant, there are no septic systems. Roofs are pitched to exterior scuppers and downspouts.

The domestic water service is fed from Aquarion's public utility water mains, there are no wells, water pressure is good. The systems appear to have been installed and remodeled since the early 1900's. They are well past their useful life expectancy.

The gas service is routed from the gas main in Old Post Road to a gas meter located on the outside in the front of the building. One gas meter serves the boilers. Exterior gas piping is rusted/corroded and needs to be repainted.

A corroding, backflow preventer is in the mechanical room, it needs to be annually tested and inspected

Water piping is missing insulation

The water heater is electric, newer in good condition, but missing a tempering valve for scald prevention.

Exterior cold-water piping to the cooling tower is uninsulated and unprotected.

An exterior gas meter serves the boilers.

Plumbing fixtures are minimal and in good condition. Handicap accessible lavatory needs pipe insulation on exposed piping, required clearance and mounting heights.



*Electric Water Heater in Basement*



*Exterior Cold-Water Piping to the Cooling Tower*



*ADA Water Closet*

### **Recommendations for Repair / Replacement**

- Repair/Replace/Add missing pipe insulation.
- Provide tempering valve at water heater.
- Paint exterior gas piping.
- Repair/Replace existing plumbing fixtures for ADA compliance.

## **Fire Protection**

The building is not sprinklered and the Town may consider sprinklering it. The attic is unheated and will need a dry pipe system to prevent freezing. The building is also a wood framed combustible construction which will need sprinklers in large interstitial spaces. The aesthetics and historical aspect of the building need to be considered and running exposed piping everywhere would not be advisable.

## **Recommendations for Repair / Replacement**

- Fully sprinkler the building with new piping and a new fire service from the street. Provide a dry pipe system and nitrogen generator for unheated areas subject to freezing.



## **Mechanical**

### **General**

Heating and cooling for the building is provided by a water source heat pump system consisting of multiple water source heat pump units, cooling tower, heat exchanger, boiler, and water circulating pumps.

Ventilation air is from operable window.

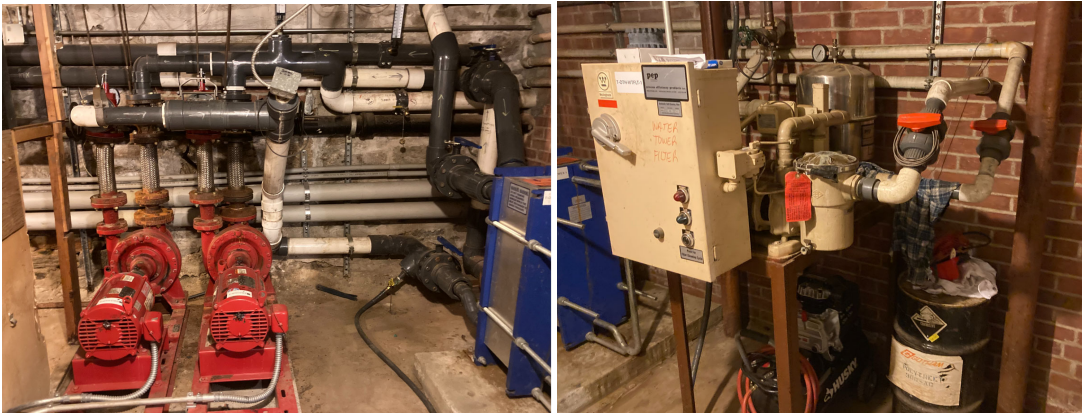
### **Boiler Plant**

The low pressure /water tube boiler, manufactured by NTI model Lx300, is located in the basement. Based on the serial number, the boiler is manufactured in 2013. Flue piping, a combination of PVC and flex pipe routed into the existing chimney. The flex pipe, which appears to be the chimney liner, is not installed in accordance with the manufacturer's requirements. The boiler is equipped with air filter kit to draw combustion air from the space, sufficient outside air should be provided to the basement. Supply and return piping material are a made of steel and PVC.

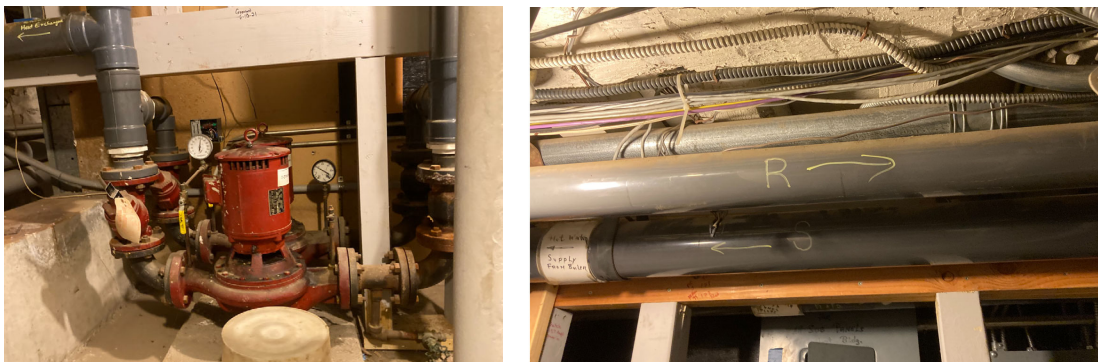


### **Cooling Tower**

The cooling tower, manufactured by Baltimore Air Coil, is located on grade. The cooling tower pumping system and the associated PEP filtration system is in the basement. Cooling towers have a useful life expectancy of 20 years. Based on the serial number, this cooling tower is likely manufactured in 2002 and is at the end of its useful service life. Two(2) pumps circulate water through heat exchanger to cooling tower. Both reducers and flange connections are rusted. Piping material used is a mix of schedule 40 and schedule 80 PVC.



The piping distribution system in the building is a 2- pipe system. Two(2) pumps, lead/standby operation, circulate water throughout the building to multiple water source heat pumps. Both pumps have minor wear. Flanged connections are rusted. Piping material used is a mix of schedule 40 and schedule 80 PVC.







### **Basement**

An air handling unit located in the crawlspace, circulates air in the basement. This unit had outlived its useful service life. Duct distribution system and associated diffusers and grille are in need of cleaning.

There is portable dehumidifier provided in the basement vault.



### **Recommendation for Repair/Replacement**

- Replace boiler vent piping connection with a short piece of approved manufacturer vent kit adapter.
- Replace PVC and flex pipe with polypropylene rigid pipe connecting to the rigid pipe connector in the approved polypropylene chimney liner kit.
- Replace all PVC pipes used for the 2-pipe building loop ( supply and return) with either steel or copper. Provide insulation.
- Provide outside air ductwork with motorized damper to the basement.
- Engage the service of a Chemical Service Provider to maintain proper water treatment to the to the building water loops.
- Replace worn parts and rusted flange connections. Provide new gaskets and repair leaks.
- Replace air handling unit in the crawlspace. Provide outdoor air connection to the unit. Clean and seal all existing ductwork, registers, and grilles. Re-insulate as required.
- Consider providing dedicated outdoor air units to occupied space. Providing dedicated outdoor air units will eliminate excessive introduction of untreated outdoor air to the space.



## Electrical

The existing electrical service is made up of a 1200 amp 120/208V-3PH-4W Square D main breaker with integral CT cabinet, that feeds an adjacent 1200-amp automatic transfer switch (ATS) by



Kohler. The ATS feeds the old distribution, which is made up of a pull box, wireway, (6) disconnect



switches, enclosed circuit breaker and (4) panels (2 – old & 2 – new). There are additional panels on the first and second floor. The main switch is fed underground from the pad mounted utility transformer on the east side of the building. In addition to the normal electrical distribution, there is a 128 KW natural gas generator (by Kohler) outside on the west side of the building. The generator has a 600-amp output breaker that feeds the 1200 amp 120/208V-3PH-4W automatic transfer switch (ATS) in the basement.



## Fire Alarm

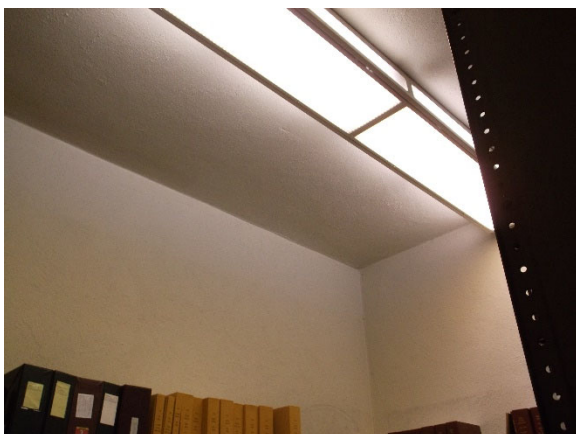
The fire alarm system (Silent Knight #5820XL by Honeywell) is located in the basement along the front wall west of the stairs as you come down from the first floor. There is a remote annunciator panel located in the main Lobby. There are manual pull stations and audio/visual devices and smoke & heat detectors throughout the building. It appears that some of the manual pull stations and audio/visual devices meet the current ADA height requirements (top of the pull station handle 48" AFF and the height of the strobe

light shall be between 80"-96" AFF) and some do not. It is our understanding the system is working properly.

### Lighting



The existing interior lighting in the building is a mix pendant & surface mounted wraparound fixtures, surface mounted fluorescent 1x4 & 2x2 fixtures, small & large chandeliers, surface and pendant mounted 1x4 fixtures, recessed lensed 2x4 fixtures and fluorescent strip & industrial fixtures. These fixtures appear to be in fair/good condition and working properly. It is our understanding that the majority of the fixtures have been upgraded with new LED bulbs. There are some fixtures that still have fluorescent or incandescent bulbs. These were areas that the town determined to be low use and would be replaced later as needed. Most areas have local wall mounted toggle type & dimmer switches for control of the lights in their area. The existing exterior lighting for the building is made up of incandescent surface mounted "lantern" type fixtures, wall mounted adjustable LED flood lights, and post top "lantern" type fixtures. We were not able to determine the operation of the exterior fixtures at the time of our inspection.



Emergency lighting for the interior of the building is made up mostly of self-contained twin head emergency fixtures with some combination exit signs with emergency lights. In addition to the self-contained battery lights and combination exit sign/emergency lights,

there is a natural gas generator serving the building. Exit signs in the building are made up mostly of thermoplastic signs with red lettering and emergency battery. The illuminated signs appear to be in fair/good condition and working properly. We are not able to confirm the batteries on the exit signs and emergency lights will operate for the required 90 minutes.

### **Devices**

Existing wiring devices (receptacles & light switches) is a mix of recessed and surface mounted devices throughout the building. There are some ungrounded (two prong) receptacles in the building and painted over receptacles. The devices appear to be in fair/good condition, along with their cover plates. There are a few open junction boxes with wiring and no cover plate.

### **Telecommunication System**

The existing phone system D-Mark and main network distribution with racks and headend equipment is in the Telephone room located of the main Lobby. We are not aware of any issues with this equipment.

### **Recommendations for Repair / Replacement**

- Replace existing (older) local electrical panels throughout and distribution equipment (disconnect switches & enclosed breakers) in the basement. Except for the new service entrance switch, automatic transfer switch and a few new panels.
- Add additional fire alarm manual pull stations in areas of the buildings where there are no devices currently or where they exceed the code allowed distance.
- Test fire alarm system and confirm all rooms meet code required audio/visual requirements. Rooms/areas that do not, add devices as needed.
- Replace existing wall switches with new occupancy sensors and dimmer switches.
- Install emergency lighting at the exterior of all egress doors to meet current code requirements.
- Replace existing exterior weatherproof receptacle covers with "in-use" covers.
- Test all exit signs and emergency light fixture batteries to confirm they will operate for the required 90 minutes. If any fixture/exit sign does not, they should be replaced with new LED devices.
- Replace all existing ungrounded (two prong) receptacles and those that have been painted.

Old Town Hall - 611 Old Post Road Facility Condition Cost Estimate										
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING					CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
			4	3	2	1	n/a			
EXTERIOR CONDITIONS										
A01	Remove vegetation from drains	Maint.				1		Remove debris from drains provide a "cage" on the drain to prevent large portions from flooding in the future. Maintenance for roof drainage should be done at least twice a year.	\$ 500	
A02	Front porch slate steps have chipped pieces and loose joints	General		3				Repair and repoint	\$ 5,000	
A03	Windows are assumed to remain but maintained should be accommodated	General		3				Repair and repaint windows as needed	\$ 10,000	allowance
A04	Door hardware and door size do not meet current code	ADA					n/a	Assumed this is acceptable due to the historic nature of the building		
A05	Roof may need to be replaced around 2028	General	4					Replace with new cedar shingles to match	\$ 387,835	
EXTERIOR SUBTOTAL										\$ 403,335
INTERIOR CONDITIONS										
A06	The carpet is beginning to wear and some areas are stained.	General			2			Remove and replace with carpet squares.	\$ 36,000	
A08	Some plaster walls are damaged	General	4					Repaint and prime areas	\$ 5,000	allowance
A09	Some door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)			2			Remove door locksets and install new accessible lever handle locksets where designated.	\$ 20,000	
A10	Some doors paint is wearing	Maint.	4					Prime and paint	\$ 5,000	allowance
A11	Stair hand rails do not meet code	(F)5-2.2.4.2 (B)1014.7 (ANSI A117.1) 505			2			Install or modify new handrails	\$ 2,000	
A12	Existing restrooms do not meet accessibility requirements.	(B)1108.0 (ANSI A117.1) 603-606			2			Provide at least one accessible toilet stall, lavatory sink, and urinal. Provide required grab bars.	\$ 300,000	
A13	Insufficient knee space provided at sink and/or workstation.	4.32 (ADA)			2			Provide accessible sinks and workstations per ADA Section 4.32. 27" high x 30" wide x 19" deep.	\$ 20,000	
A14	Spatial clearance at doors are not present in all locations.	ADA		3				Spaces should be adjusted to accommodate accessible clearances, based on ADA standards	\$ 15,000	
A15	Signage should be modified to meet ADA standards	ADA		3				To meet ADA standards, the signage must be between 48 and 60 inches from the ground, the size of the signage, font size, and braille must be included throughout.	\$ 6,000	
A16	Structural issue noted in basement - temporary beam shoring					2		This should be evaluated by a structural engineer	\$ 200,000	Allowance
INTERIOR SUBTOTAL										\$ 609,000



## Old Town Hall Facility Conditions Cost Estimate

PLUMBING/FIRE PROTECTION										
P01	Insulation missing on water piping	IPC		3				Provide pipe insulation	\$ 2,000	
P02	Tempering valve missing on water heater	IPC			2			Provide tempering valve	\$ 1,200	
P03	Exterior gas piping corroding	Maint.		3				Repaint gas piping	\$ 1,500	
P04	Plumbing fixtures not ADA	Maint.			2			Remove and replace plumbing fixtures	\$ 10,000	
P05	Building not sprinklered	NFPA 13		3				Fully sprinkler building and bring in a new service.	\$ 68,000	
PLUMBING/FP SUBTOTAL										\$ 82,700
MECHANICAL SYSTEMS										
M01	Boiler vent connection is not in accordance with manufacturer's requirements	IMC				1		Replace boiler vent piping connection with a short piece of approved manufacturer vent kit adapter.	\$ 3,800	
M02	Flex pipe installation in not in accordance with flue manufacturer's requirements	IMC				1		Replace PVC and flex pipe with polypropylene rigid pipe connecting to the rigid pipe connector in the approved polypropylene chimney liner kit.	\$ 2,100	
M03	PVC piping is used in hot water piping.	IMC		3				Replace all PVC pipes used for the 2-pipe building loop ( supply and return) with either steel or copper. Provide insulation.	\$ 22,800	allowance for 400 LF
M04	Basement has no ventilation	IMC				1		Provide ventilation. Ventilation shall consist of outside air intake louver, ductwork , motorized damper	\$ 4,000	
M05	Basement dehumidifier at the end of its useful life	General	4					Replace with new suspended from structure complete with condensate piping	\$ 4,200	
M06	Boiler and chiller loop chemical treatment	General	4					Engage the services of a Chemical Treatment Service Provider	\$ 2,500	allowance
M07	Wear on pump components and fittings	General			2			Repair/replace worn parts	\$ 5,000	allowance
M08	Cooling tower is at the end of its useful life	General	4					Provide cooling. Provide new DDC control.	\$ 75,000	
M09	Air handling unit in the basement has out lived its useful life expectancy	General		3				Provide new and unit. Clean and seal existing ductwork	\$ 25,500	
M10	Ventilation air from operable windows.	General	4					Consider providing dedicated outdoor air units to occupied space. Providing dedicated outdoor air units will eliminate excessive introduction of untreated outdoor air to the space	\$ 123,750	
M11	Obsolete temperature controls	General	4					Replace old proprietary water loop controls controls. Provide controls compatible with town's DDC system	\$ 60,000	
MECHANICAL SUBTOTAL										\$ 328,650

## Old Town Hall Facility Conditions Cost Estimate

ELECTRICAL SYSTEMS											
E1	Old electrical panels and switchboard (at or beyond useful life)	Maint.		3				Replace old electrical panels and switchboard with new, newer panels can remain	\$	18,000	
E2	Manual pull stations are not at every egress door and/or stair	NFPA 72			2			Add pull stations to each egress door and basement & second floor stair that currently does not have one to meet current code	\$	2,500	
E3	Existing fire alarm audio/visual devices do not appear to provide proper coverage	NFPA 72			2			Test system, and provide additional fire alarm audio/visual devices throughout to meet current code requirements and replace any damaged devices	\$	5,000	
E4	No Exterior emergency egress lighting	NEC				1		Add an emergency light fixture w/battery and test switch for each egress door	\$	2,000	
E5	Existing exterior receptacles with weatherproof covers	General	4					Replace all existing exterior receptacles with weatherproof covers with new "in-use" cover"	\$	300	
E6	Existing exit sign & emergency lights don't operate for 90 minutes on battery	NEC		3				Test all exit signs & emergency lights and replace all old exit sign s and emergency light fixtures with new LED units if they do not run for 90 minutes (on battery)	\$	1,500	
E7	Existing ungrounded (2-prong) receptacles	Maint.	4					Replace all ungrounded receptacles and ground (that have been painted) with new grounded (3-prong) receptacles	\$	2,000	
E8	Toggle type light switches	2015 IECC	4					Replace all existing toggle type switches with occupancy sensors, dimmer switches and low voltage control system	\$	10,000	
E9	Existing plumbing & mechanical equipment to be replaced	Maint.		3				Disconnect and reconnect electrical connections to plumbing & mechanical equipment to be replaced	\$	3,500	
<b>ELECTRICAL SUBTOTAL</b>											<b>\$ 44,800</b>
<b>TOTAL ESTIMATED COSTS</b>											<b>\$ 1,468,485</b>
<b>LEDGEND PRIORITY - RANK</b>											
1	Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.										
2	High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.										
3	Moderate priority – These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.										
4	Low priority – These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.										

## **Sullivan Independence Hall – 725 Old Post Road**

Independence Hall was constructed in 1979 and named after the longest serving selectman, John J. Sullivan.

The building is located off Old Post Road, leading down Independence Hall Access Road. Vehicular parking is located at the southeastern side of the site and an exit route to leave the site.





## Architecture

The building, architecturally, is in good condition. The exterior façade is made up of federal style design and painted wood siding. Based on the age of the building, it is assumed there are a few items which may require maintenance.



### Exterior Building Envelope

Independence Hall's exterior is in good condition. Similar to Old Town Hall, the siding is white painted wood shingles. There are multiple layers of paint but overall, it is holding up well. Most of the issues are at the rear of the building as that elevation has the most damage. For instance, there are portions corner boards on the building have large holes likely due to woodpecker damage or insects. There is peeling paint in various areas of the facade including the gable. These gaps should be filled and repaired. The corner boards should be replaced along with any other rotten or decaying wood. The exterior in this area should be scraped primed and painted.



## **Windows**

The windows, appear to be original to the building. They are wood double hung units and in fair condition. The window sills should be scraped, primed, and refinished.

## **Doors**

The exterior doors are wood set within wood frames. The main entrance doors' finish is wearing, and the door is showing signs of decay. To maintain performance and quality of the door the doors should be refinished.

## **Roof**

The gable roofs are framed with wood trusses. The roofing is architectural asphalt shingles. In the center there is a low slope single ply rubber membrane EPDM. This roof houses mechanical equipment, concealed from ground level. The roof appears in good condition. There is wooden set of stairs over ductwork creating for access from each side. The wood stair is beginning to deteriorate. Nails on the railing are failing as the nails rust and the wood decays. This unit is beyond repair and should be replaced.



### **Interior Conditions**

The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. Overall, the building's interior is in good condition, given the age of the building with some general finish improvements and upgrades along with code modifications needed.

### **Floors**

Floors in Independence Hall vary. There are VCT, ceramic tile, and carpet. They are in fair condition however in the basement there was a presence of mold due to a recent flooding event from a storm. This should be professionally remediated, and any effected flooring replaced.

### **Walls**

Most walls throughout the building are painted gypsum wall board. The walls in the Tax Collector's office and vault are painted brick. There is an area cracked joints which should be repaired.

### **Ceilings**

Most ceilings are dropped ACT along with some gypsum or plaster. Most are in fairly good condition. There are some cracks in the ceiling which should be repaired and painted. ACT have some areas looking tattered especially around registers as they dirty and should be cleaned or replaced.

### **Doors**

Most of the doors are wood set within hollow metal frames. Most are in fine condition, but many have knobs which require twisting. These should be replaced with lever sets.

### **Stairs**

There are two main stairs in the building. The handrails and guardrails do not meet code and should be altered.

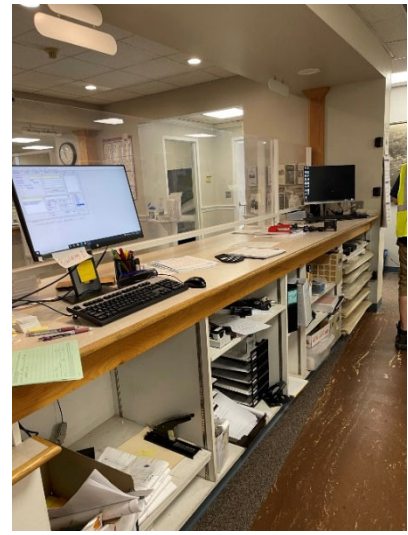


## **Restrooms**

There are multiple restrooms stacked throughout the building. The restrooms are good condition and have held up well. The bathroom in the basement is not ADA compliant, however, there is enough space to adjust fixture clearances.

## **Casework**

There is a variety of casework and counters throughout the facility. Most are wood and lack a knee space. Casework with sinks do not have a compliant sink or knee space included. These should all be updated to comply.



## **Building Code and ADA**

As noted within many of the sections, there are multiple code and accessibility issues within this building. Door hardware, stairs, ADA restrooms and casework were previously noted. A few doors do not have the required accessibility clearances. Where they cannot be modified a power assisted door operator should be installed. Signage is a very important item which should be incorporated into this building. Although each room has a room name and label, the dimensions, height, and lack of braille are not code compliant. These items should be included in the long-term capital plan.





## Plumbing

The building's sewer system discharges underground to a public main to a regional wastewater treatment plant, there are no septic systems. Pitched roofs are pitched to exterior downspouts and rain leaders. Flat roof areas are provided with roof drains to a piped interior storm system. The domestic water service is fed from Aquarion's public utility water mains, there are no wells, water pressure is good. The systems appear to have been installed in the mid 1960's and may be original to the building. They are well past their useful life expectancy.

Domestic water service is routed from Old Post Road to the basement. A backflow preventer is in the mechanical room, it needs to be annually tested and inspected. Water piping in the mechanical room is missing insulation.

The water heater is electric, newer in good condition, five years old, but missing a tempering valve for scald prevention.

There is an exterior backflow preventer that serves the lawn sprinklers, it needs to be annually tested and inspected.

The gas service is routed from the gas main in Old Post Road to an exterior gas meter which serves the boilers. Exposed gas piping on the roof is severely corroding and should be painted or replaced at a minimum.

A roof drain strainer is missing. This can cause clogs as nothing is preventing debris entering the storm piping.

Sump pumps/Sewage ejectors were found in the basement. Further inspection and testing need to occur.





### **Recommendations for Repair / Replacement**

- Test and inspect backflow preventers as required by Aquarian Water Company.
- Provide a thermostatic mixing valve on the water heater.
- Repair/Replace/Add missing pipe insulation.
- Paint exterior gas piping.
- Replace roof drain strainer – note this is an immediate repair needed as it can cause damage to the building and appears to be ponding and clogging now.
- Test, inspect and repair sump pumps/sewage ejectors.

## Fire Protection

The building is a wood framed structure with combustible concealed spaces which require sprinklers.

The building is sprinklered with exposed sprinklers and piping. The four-inch main connects to a two-inch domestic water service with a backflow preventer which is not allowed. The sprinkler system needs it's own service with a minimum of a six-inch main coming into the building.

The unheated attic is exposed with wood framing. Sprinklers were not evident.

Distribution piping is black steel with mechanical and threaded fittings. Areas are provided with upright sprinkler heads.

A server/computer room exists with a raised floor, a gaseous suppression system sometimes protects these rooms so water does not damage sensitive electronic equipment.



## **Recommendations for Repair / Replacement**

- The attic did not appear to be sprinklered. Provide a dry pipe sprinkler system in the attic.
- Provide a new sprinkler service from the street, minimum four-inch with backflow preventer and fire department connection. Hydraulically calculate all existing piping for correct sizes and upgrade as necessary. Provide sprinklers in any areas where they may be lacking.
- Continue to maintain, test, and inspect sprinklers and devices as required by code.

## Mechanical

### Boiler Plant

The building is heated using two (2) boilers located in the basement. Boilers are Burnham model V906, 6-section cast iron gas fired with Power Flame burner. Each boiler has an IBR rating of 690 MBH. The new boiler plant was installed in 2020. The boiler plant is equipped with filtration system and chemical by-pass feeder. Products of combustion are vented into the existing chimney through a sheet metal flue. Combustion air to boiler room appears to be adequate. Each boiler is provided with a blend pump to protect the cast iron section from low return water temperature. There are four (4) base mounted pumps serving the building. Two (2) pumps on a lead/lag configuration serves the East Wing and the other two (2) pumps on a lead/lag configuration serves the West Wing. Pumps are provided with variable frequency drives.



The hot water piping distribution system, beyond the boiler room, is original to the building. Hot water supply and return piping has a useful life expectancy of 50 years. The piping insulation is original to the building. Piping insulation has a useful life expectancy of approximately 20 years. In addition to having outlived its useful life it is likely that it is non-conforming to current code requirements for thickness.

There are two (2) roof top units providing cooling, heating, and ventilation to the spaces. Both units are manufactured by York. One unit serving the second floor is manufactured in 2008, has a cooling capacity of 25 tons and heating input capacity of 533,000 BTUH. The other unit serving the first floor is manufactured in 2006, has a cooling capacity of 25 tons and heating input capacity of 466,000 BTUH. Packaged units have useful life expectancy of 15 years. These units are at the end of their expected life span. Units are showing of surface corrosion. Condensate drain piping is trapped and spilling close to the curb. The drain should be piped to the nearest roof drain to eliminate ponding. It is also observed that the relief air bird screens are damaged. Ductwork distribution system are routed exposed on the roof through the attic space. Both units provide air to the

space using a network of distribution ductwork located above ceiling terminating to ceiling mounted supply diffusers. Diffusers are provided with either motorized dampers or VAV box for zone control. The exterior ductwork and insulation /cover are in poor condition. Some of the ductwork routed through the attic are missing insulation. The R value of existing insulation does not conform with the energy code requirements for ductwork located in the attic.



Perimeter offices, toilet rooms, and vestibules are provided with either finned tube radiation, convectors, and cabinet unit heaters. They are original to the building. The basement storage is provided with unit heaters. The heating equipment appear to be in good condition.

The Meeting Room/ Lounge Records located in the basement is provided with duct split system and an electric unit heater. We were not able to get the information of the system during the site visit. They appear to be in good condition.

The mail room in the basement is provided with wall mounted air conditioning unit, an electric heater and wall mounted exhaust fan.



The IT offices in the basement is served by a 4-ton Trane split system. The Trane unit, located in the closet, operating on the obsolete R-22 refrigerant. The split system, manufactured in 2004, has been in operation for more than 16 years. The system has outlived its service life expectancy. The duct distribution system is routed above ceiling to supply diffusers. The outside air ductwork is routed behind the unit and the return grille is place just below the filter. The unit appears to be returning air from the closet.



Toilet rooms, storage rooms and electric switch gear rooms are provided with exhaust fans. They appear to be in good condition.

The server room is served by a Liebert Computer Room Air conditioning system with under the floor air distribution system.

Existing control systems in the building appears to be the combination of the proprietary Unity Controls and the Johnson Control FX controller. The Unity control is not user friendly and technical support is not easy to avail.

### **Underground Storage Tank**

The existing 6,000 gallon fuel oil underground storage tank was installed in 2005. This tank is no longer in use.

### **Recommendations for Repair / Replacement**

- Perform ultrasonic testing for the rest of the piping system to determine the rates of corrosion within the pipes. Replace pipes as needed.
- Replace piping insulation.
- Engage the service of a Chemical Service Provider to maintain proper water treatment to the building water loop.

- Replace the relief air bird screen for both units.
- Extend condensate drain piping to nearest roof drain.
- Replace roof top units. Provide new unit with multizone variable volume configuration with the same capacity as the existing with Multizone VAV unit. Provide unit with hot gas reheat coil to help with humidity control in the space.
- Clean and seal exterior ductwork. Replace insulation and provide jacket.
- Clean and seal interior ductwork. Replace/add insulation to achieve the Energy Code required R value of 12 for ductwork located in the attic (outside of the building envelop).
- Replace the 4-ton split system serving the IT offices.
- Replace all proprietary Unity Controls with FX controller. Replace all wireless controllers and sensors with wired controllers and sensors. Remove all obsolete sensors in spaces.
- Remove existing fuel oil tank.

## Electrical

The existing electrical service is made up of a 1200 amp 120/208V-3PH-4W GE bolted pressure switch with integral CT cabinet, that feeds two adjacent fused distribution



sections. They feed six other panels (2 per floor), AC-1 & 2, elevator, fire alarm, and UPS. The main switch is fed underground from the utility pad mounted transformer on the south-west side of the building. In addition to the normal electrical distribution, there is a 200 KW diesel generator outside to the south-east of the building within the dumpster enclosure. The generator has a 800 amp output breaker that feeds an exterior 1200 amp 120/208V-3PH-4W automatic transfer switch (ATS) located in the area



way outside of the main switch in the basement. The transfer switch in turn feeds the main switch.



## Fire Alarm

The fire alarm system (Fire-Lite #MS-9600UDLS by Honeywell) is located in the basement in the south-west end of the building. There are manual pull stations and audio/visual devices and smoke & heat detectors throughout the building. It does not appear that most of the manual pull stations and some audio/visual devices meet the current ADA height requirements (top of the pull station handle 48" AFF and the height of the strobe light shall be between 80"-96" AFF). It is our understanding the system is working properly.



## Lighting

The existing interior lighting in the building is a mix of recessed lensed fluorescent 2x2 & 2x4, recessed down lights, pendant mounted direct/indirect round fixtures, surface and pendant mounted fluorescent wraparound fixtures, small & large chandeliers, and surface

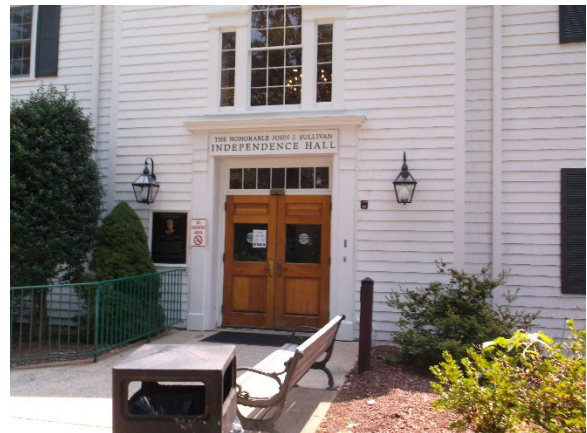


and  
pendant  
mounted  
1x4



fixtures. These fixtures appear to be in fair/good condition and working properly. It is our understanding that the majority of the fixtures have been upgraded with new LED bulbs. There are some fixtures that still have fluorescent or incandescent bulbs. These were areas that the town determined to be low use and would be

replaced later as needed. Most all areas have ceiling or wall mounted occupancy sensors to turn the lights on and off in conjunction with local toggle type & dimmer switches for added control. The existing exterior lighting for the building is made up of incandescent surface mounted "lantern" type fixtures, and wall mounted adjustable LED flood lights. We were not able to determine the operation of the exterior fixtures at the time of our inspection.



Emergency lighting for the interior of the building is made up mostly of self-contained twin head emergency fixtures with some combination exit signs with emergency lights. In addition to the self-contained battery lights and combination exit sign/emergency lights, there is a diesel generator serving the building. Exit signs in the building are made up mostly of thermoplastic signs with red lettering and emergency battery. The illuminated



signs appear to be in fair/good condition and working properly. We are not able to confirm the batteries on the exit signs and emergency lights will operate for the required 90 minutes.

### **Devices**

Existing wiring devices (receptacles & light switches) in most of the public areas of the building are recessed mounted, there are a few devices in the building that are surface mounted (back of house, non-public). The devices appear to be in good condition, along with their cover plates. There are a few open junction boxes with wiring and no cover plate. There is a raised floor system in the basement Computer room (north-west end).

### **Telecommunication System**

The existing phone system D-Mark and main network distribution with racks and headend equipment is in the basement (south-west side) near Stair #2. We are not aware of any issues with this equipment.

### **Recommendations for Repair / Replacement**

- Replace existing electrical distribution, original to the building (1979), at the end of its useful life, except for a few new local electrical panels.
- Add additional fire alarm manual pull stations in areas of the buildings where there are no devices currently or where they exceed the code allowed distance.
- Test fire alarm system and confirm all rooms meet code required audio/visual requirements. Rooms/areas that do not, add devices as needed.
- Replace existing wall switches with new occupancy sensors and dimmer switches.
- Install emergency lighting at the exterior of all egress doors to meet current code requirements.
- Replace existing exterior weatherproof receptacle covers with "in-use" covers.
- Test all exit signs and emergency light fixture batteries to confirm they will operate for the required 90 minutes. If any fixture/sign does not, they should be replaced with new LED devices.
- Install cover plates on all open junction boxes.

Independence Hall - 725 Old Post Road Facility Conditions										
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING					CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
			4	3	2	1	n/a			
EXTERIOR CONDITIONS										
A01	Paint peeling at rear façade and window sills	General			2			Scrape, prime and paint	\$ 8,000	
A02	Corner boards damaged due to woodpecker	General			2			Replace with new wood, prime and paint	\$ 2,000	
A03	Main entrance door finish is wearing	General			2			Remove doors and refinish	\$ 600	
A04	Roof wood stair nearing end of useful life	General			2			Build new stairs	\$ 6,000	
EXTERIOR SUBTOTAL										\$ 16,600
INTERIOR CONDITIONS										
A05	Mold was present at basement	General				1		Hygienist should verify, clean and monitor		Cost is to be determined
A06	Stepped cracked joints present at brick wall	General		3				Repair as required	\$ 1,350	
A07	Ceilings are approaching replacement	General	4					Replace ceilings with 2x2 ACT	\$ 16,610	
A08	Some door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)			2			Remove door locksets and install new accessible lever handle locksets where designated.	\$ 50,000	
A09	Handrails do not meet code requirements	(F)5-2.2.4.2 (B)1014.7 (ANSI A117.1) 505			2			Install new handrails	\$ 4,000	
A10	Restroom in basement is not ADA	(B)1108.0 (ANSI A117.1) 603-606			2			Modify fixture locations to create necessary clearances	\$ 6,000	
A11	Insufficient knee space provided at sink and/or workstation in kitchen.	4.32 (ADA)			2			Provide accessible sinks and workstations per ADA Section 4.32. 27" high x 30" wide x 19" deep.	\$ 12,500	
A12	The signage throughout the building is not to code				2			Provide new signage	\$ 20,000	
A12	All door push and/or pull maneuvering clearances do not meet code.	413.6 (ADA) 1101.2 (IBC) ANSI 117.1			2			Where obstruction is not furniture related, modify door swing and/or location to comply. Where the previous is not easily achieved, supply push button door operator where required.	\$ 5,000	
INTERIOR SUBTOTAL										\$ 115,460
PLUMBING/FIRE PROTECTION										
P01	Backflow preventer not tested and inspected			3				Test and inspect backflow preventer	\$ 500	
P02	Thermostatic mixing valve missing on water heater				2			Provide tempering valve	\$ 1,200	
P03	Pipe insulation missing			3				Provide insulation missing on piping	\$ 1,200	
P04	Gas piping corroding			3				Repaint gas piping	\$ 1,500	
P05	Roof drain strainer missing					1		Provide new roof drain strainer	\$ 500	
P06	Original sewage ejectors				2			Test and inspect sewage ejectors	\$ 1,200	
FP01	Attic not sprinklered				2			Provide dry sprinkler system in attic	\$ 10,000	
FP02	Sprinkler main connected to domestic piping				2			Provide new sprinkler service from street	\$ 20,000	
PLUMBING/FP SUBTOTAL										\$ 36,100

## Independence Hall Facility Conditions Cost Estimate

MECHANICAL SYSTEMS										
M01	Piping insulation is at the end of its useful service life	General	4					Remove existing and replace with new per current IECC requirements. Allowance for 2000 LF)	\$ 20,000	
M02	Boiler and chiller loop chemical treatment	General	4					Engage the services of a Chemical Treatment Service Provider	\$ 2,500	allowance
M03	Damaged roof top units relief air bird screen	General			2			Replace with new	\$ 2,000	allowance
M04	Unit condensate drain	General			2			Extend and route to nearest roof drain	\$ 300	
M05	Roof top units are at the end of their useful life expectancy	General	4					Provide new with multizone variable volume configuration with the same capacity as the existing with Multizone VAV unit. Provide unit with hot gas reheat coil to help with humidity control in the space.	\$ 202,000	DDC Control included
M06	Exterior ductwork	General			2			Clean and seal existing ductwork. Provide insulation and weatherproof jacket	\$ 50,000	
M07	Missing insulation on ductwork routed in the attic	General			2			Clean and seal existing ductwork. Provide new insulation per current IECC	\$ 15,000	allowance 1500 sf
M08	IT Office split system has outlived its r useful life expectancy	General	4					Replace with new	\$ 33,750	DDC Control Included
M09	Obsolete temperature controls	General	4					Replace old controls. Provide controls compatible with town's DDC system	\$ 175,000	total Number of VAV to be verified
M10	Existing 6,000 gallon fuel oil tank no longer in use	CTSB,IFC , NFPA, CTDEEP	4					Remove tank, existing soil testing, backfill and repaving	\$ 20,000	tank removal allowance for uncontaminated soil
MECHANICAL SUBTOTAL										\$ 520,550
ELECTRICAL SYSTEMS										
E1	Old electrical panels and switchboard (at or beyond useful life)	Maint.	3					Replace old electrical panels and switchboard with new, newer panels can remain	\$ 18,000	
E2	Manual pull stations are not at every egress door and/or stair	NFPA 72			2			Add pull stations to each egress door and basement & second floor stair that currently does not have one to meet current code	\$ 2,500	
E3	Existing fire alarm audio/visual devices do not appear to provide proper coverage	NFPA 72			2			Test system, and provide additional fire alarm audio/visual devices throughout to meet current code requirements and replace any damaged devices	\$ 5,000	
E4	No Exterior emergency egress lighting	NEC				1		Add an emergency light fixture w/battery and test switch for each egress door	\$ 2,000	
E5	Existing exterior receptacles with weatherproof covers	General	4					Replace all existing exterior receptacles with weatherproof covers with new "in-use" cover"	\$ 500	
E6	Existing exit sign & emergency lights don't operate for 90 minutes on battery	NEC			3			Test all exit signs & emergency lights and replace all old exit sign s and emergency light fixtures with new LED units if they do not run for 90 minutes (on battery)	\$ 1,500	
E7	Existing junction boxes missing cover plates	Maint.	4					Install cover plates on all junction boxes that currently do not have one	\$ 600	
E8	Toggle type light switches	2015 IECC	4					Replace all existing toggle type switches with occupancy sensors, dimmer switches and low voltage control system	\$ 20,000	
E9	Existing plumbing & mechanical equipment to be replaced	Maint.			3			Disconnect and reconnect electrical connections to plumbing & mechanical equipment to be replaced	\$ 4,000	
ELECTRICAL SUBTOTAL										\$ 54,100
TOTAL ESTIMATED COSTS										\$ 742,810

## **Burr Mansion – 738 Old Post Road**

Burr Mansion is located in the heart of Fairfield's Old Post Road Historic District. It is on the same site as Old Town Hall and Independence Hall. The mansion was built in 1790 after the original was destroyed in the fire of 1779. It has been managed by Fairfield Museum and History Center and is utilized as a venue facility and contains independent offices on the upper levels. In the last few years, it has seen renovations to its kitchen and restrooms.





## Architecture

The architecture of the building is in good condition considering its age. The layout of the building is organized for public events on the main level and private rooms and offices on the above two levels.



### Exterior Building Envelope

Considering the age of this building the exterior walls are in fair condition. The wood shingles are peeling and would benefit from a fresh coat of paint. This should be scraped primed and painted. Lead may also be present so necessary steps to properly remove debris should take place.

### Windows

When evaluating the energy efficiency of a building, it is known that nearly 25–40% of all heat energy is lost through windows. The windows here are old wood double hung window units with a single layer of glazing. They appear to be original to the building. A few have been replaced to match. With only a single pane of glazing in these windows. Although these windows give the historic appeal to this building, they should be



considered for replacement with a more energy efficient system that can mimic the original style. Otherwise, continued maintenance and repairs to these windows are essential to maintain their lifespan. Minimally, the windows are in dire need of painting. They should be scraped, primed, and painted. Additionally other buildings on this site have storm windows have been integrated at the interior for some added improvement, creating 2 layers of glass. That could be an option here if not interested in pursuing a full replacement.

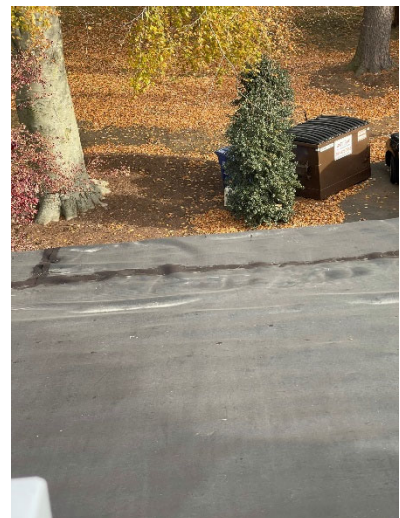
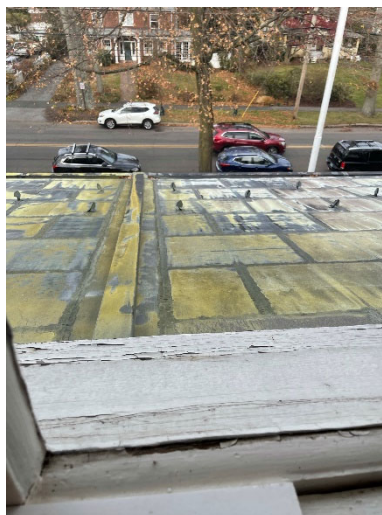
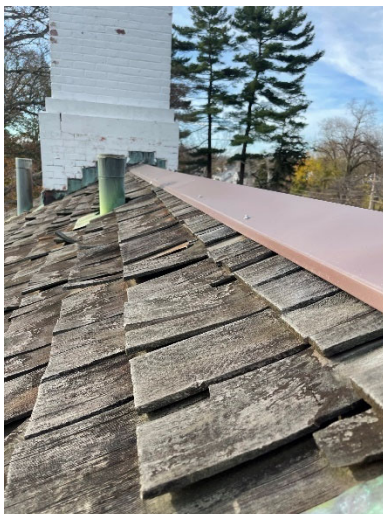
### Doors

There are a variety of wood exterior doors. They appear to be in good to fair condition. The rear door is largely glass and should be laminated per code.



### Roof

There are a variety of roof types at Bur mansion. The main gable is cedar shingles. This roof is nearing the end of its useful life. Other shed roofs are metal systems which are also exceeding their useful life. One area has a temporary membrane roof laid over it. This was done temporarily 3-4 years ago. The roofs at this building should be replaced.

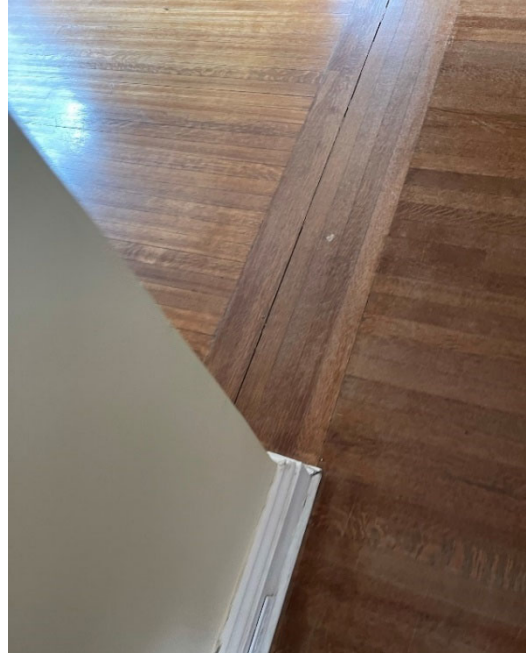


## **Interior Conditions**

The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. Given the building's age, and the renovations the building is in fairly good condition. The renovated areas....

### **Floors**

There are a variety of flooring materials that are used in this building such as wood, parkay. Ceramic tile and quarry tile. The tile is all in good condition. However, the wood floors are nearing the end of their useful life and don't appear to have much life left in them. The first floor appears in worse condition than the second.



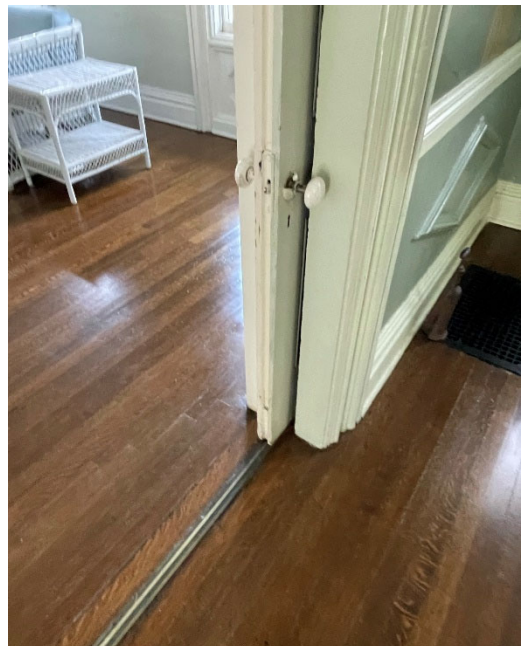
### **Walls**

There are a mostly plaster. The front hall has a mural. The rooms seem to be well painted with limited areas in need. Some peeling paint was noted in the offices upstairs.



### **Ceilings**

There are a few types of ceilings, mostly plaster and sheetrock. For the most part they are in good condition with some cracks in the plaster. The sunroom has detailing that is beginning to fall apart due to the track lighting. This should be repaired. The kitchen has a dropped ceiling in very good condition. Upstairs there are areas of crown molding with cracked paint.



### **Doors**

The doors at this building are wood set within wood frames. Most are in good condition while others are in fair condition. Older hardware such as knobs that require twisting are prevalent. These should be changed to levers if permitted within the historic review.





### **Stairs**

There are currently two staircases and a third for attic access. One is original and one was added in the 2016 renovations. They are in good condition however the original stair does not have a code compliant railing. This should be modified to comply with code and ADA requirements if permitted within the historic review.

### **Restrooms**

There are multiple restrooms throughout the facility. On the main level a men's and women's room was added in 2016. These rooms meet ADA. An existing old restroom exists under the stair. This is dated, awkward, not highly used and should be removed. On the second floor there is one restroom which is not ADA. This should be modified. On the third floor there are 2 restrooms which are too not ADA. One should be made compliant. The two could be combined into one. If each floor offers a restroom, one should be made accessible.



### **Building Code and ADA**

As noted within many of the sections, there are some code and accessibility issues within this building. Door hardware, ADA restrooms and railings are the common issues. It is understood that alterations to historic buildings are to conform to accessibility requirements to the maximum extent feasible. As a part of this report, accessibility improvements have been made as recommendations. It is assumed that the State Historic Preservation Officer or Advisory Council on Historic Preservation such as Fairfield's own Historic District Commission will ultimately review and determine what is and isn't acceptable based on whether the adjustments threaten or destroy the historic significance of this building.





## Plumbing

The building's sewer system discharges underground to a public main in Old Post Road then to a regional wastewater treatment plant, there are no septic systems. There is a plan in place to possibly remove the existing old cast iron sanitary piping with new PVC piping out along the driveway and to the street. They've reported some clogging issues and will camera test the piping first. Roofs are pitched to exterior scuppers and downspouts.

The domestic water service is fed from Aquarion's public utility water mains, there is an abandoned well in the basement with no cover. Water pressure is good; 92 psi. Piping and systems have been recently remodeled and upgraded in 2016.

The gas service is routed from the gas main in Old Post Road to a newer gas meter located in the basement that serves the boiler, water heater and kitchen grill. The gas company usually requires an exterior meter, but this might be grandfathered to stay there.

Cold water piping is missing insulation which may condensate, drip and cause moisture issues.

The water heater is a newer gas-fired, vertical storage type in good condition. It was installed in 2016. It has a 60-gallon capacity with a recovery of 138 GPH. It is a highly efficient type with sealed combustion.

The kitchen is a commercial grade type, with newer stainless-steel equipment, a 3-bay sink with a grease recovery unit, a handwash sink and a prep sink.

Plumbing fixtures on the first floor were upgraded to ADA compliant type with electronic commercial flush valves in 2016 and are in good condition. The plumbing fixtures on the upper levels are older tank type water closets and pedestal style sinks and a bathtub to match the architecture. One of the toilets had an issue with it running and may need replacement. It was mentioned that the piping was replaced in the walls.





### **Recommendations for Repair / Replacement**

- Repair/Replace older plumbing fixtures on upper levels.
- Replace sanitary piping in basement and on site.
- Cap off and fill existing well in basement per health department regulations.
- Insulate cold water piping.

## Fire Protection

The building is fully sprinklered with a dry pipe system throughout. It was installed within the past 20 years. It is regularly tested including the detector check valve in the basement. Pressure is good at 92 psi and does not require a fire pump.

The fire department connection is located on the outside of the building with a freestanding sidewalk type fire department connection where the main service enters the building in the front.

The majority of the sprinklers are exposed painted piping with sidewall type sprinklers located along the perimeter of rooms. The basement and attic are exposed upright type sprinklers. Valves were recently added to wet test and drain the system.

The sprinklers are not older than 50 years old, so they're not required to be replaced.

The kitchen hood is protected with an Ansul type system wet chemical suppression system.



### **Recommendations for Repair / Replacement**

- Some of the sprinkler pipe is rusting/corroding, recommend painting piping.
- Continue to test and maintain sprinkler and hood suppression system.



## Mechanical

### **Boiler Plant**

The existing steam boiler, located in the basement, is a cast iron gas-fired HB Smith boiler Series 19A with a Power Flame burner. The boiler has an IBR rating of 431,000 BTUH. Based on the serial numbers, the boiler was manufactured in 2006, and has been in operation for over 15 years. Cast iron boilers have a useful life expectancy of 30 years. Products of combustion are vented into the existing chimney through a sheet metal flue. Combustion air appears to be inadequate, and the system has no redundancy.



*Existing boiler*



*Existing boiler burner*

The existing steel piping distribution system and associated components are showing signs of wear, they are likely original to the building and should be considered for replacement.

The insulation covering the steam/stream condensate piping in some areas has been replaced. The remaining piping is either missing or original and possibly containing asbestos. Piping insulation has a useful life expectancy of approximately 20 years. Sections of existing steel piping with original insulation or missing insulation should be re-insulated.

Steam coils and cast-iron radiation fed from the boiler system, provide heating in occupied spaces, the second & third floor bathrooms and a few hallways through the building. Steam coils and cast-iron radiation have useful life expectancy of 20 years. Cast-iron radiation is in fair condition but beyond their service life expectancy.

### **HVAC Controls**

Existing Temperature Control systems throughout the facility are stand alone, operated by pneumatic control and cannot be monitored or controlled through a central building management control system or internet. The systems should be considered to be beyond the end of their use life but appear to be functioning properly and may be kept in service



during the construction process. This type of control system is considered obsolete technology and replacement parts are not readily available.

### **Cooling**

Means for cooling have not been provided with the exception of random window AC Units.

### **Ventilation**

Ventilation, or the provision for delivering fresh air to the building, has been provided predominantly via operable windows. Although a combination of mechanical exhaust, natural and mechanical ventilation has been provided throughout the facility as well. Before the use of mechanical ventilation, it was common practice to simply open the exterior windows. This is not a method that is currently recommended for several reasons. First, during the winter and summer months the windows are generally not opened which fails to meet the requirements of the code. Second, ASHRAE Standard 62 Ventilation for Acceptable Indoor Air Quality has provisions for how far an exterior window must be from the furthestmost interior wall.

### **Basement**

There is no mechanical ventilation or dehumidification provided in the basement.

### **Bathrooms – Level 1**

Bathrooms on the first floor are ventilated by independent exhaust fans and heated with electric radiation which were installed several years ago. Make-up air to the spaces is provided by operable windows and/or undercuts of doors.

### **Bathrooms – Level 2**

Bathrooms on the second floor are not exhausted or properly ventilated. Make-up air to the spaces is provided by operable windows, transfer air louvers within doors and/or undercuts of doors.

### **Bathrooms – Level 3**

Bathrooms on the third floor are ventilated by independent exhaust fans. The existing exhaust fans appear to be in poor condition and beyond their service life expectancy. Make-up air to the spaces is provided by operable windows and/or undercuts of doors.

### **Kitchen**

The existing gas stove associated commercial kitchen exhaust hood with an Ansul fire protection system, exhaust fan, gas-fired makeup air unit and wall mounted ductless split system serving the kitchen were installed several years ago. The kitchen exhaust fan is mounted to the side wall of the building and the gas-fired makeup air unit is in the basement. All HVAC equipment associated with the kitchen appear to be in working order, excellent condition and installed per code requirements.



*Existing kitchen stove & commercial hood*



*Existing kitchen makeup air unit*



*Existing kitchen wall mounted indoor heating/cooling unit*



*Existing kitchen exhaust fan & outdoor heat pump.*

## **Recommendations for Repair / Replacement**

- A baseline to be established with the Department of Interiors regarding the parameters of renovating a historical building such as the Burr Mansion.
- Replace existing boiler and associated boiler specialties. Provide redundancy in the heating system with multiple new hot water boilers. The new boilers will be high

efficiency gas-fired condensing boiler, with flue and combustion air pipes connected directly to the outdoors.

- Provide new boiler controls. Controls shall be compatible with the town DDC System.
- Provide combustion air to mechanical room.
- Provide basement with dehumidifier with outside air duct connections for ventilation. Provide condensate drain piping terminating to an indirect drain in the basement.
- Replace existing steam & steam condensate piping.
- Provide ductwork and piping insulation with thickness complying with the Energy Code.
- Replace or paint rusted cast-iron radiation.
- Replace ducted steam coils associated with floor grilles on level 1.
- Provide tempered make-up air to the space equivalent to 80% of air being exhausted.
- Provide toilet room exhaust fans on the second floor.
- Replace toilet room exhaust fans on the third floor.
- Consider providing dedicated outdoor air units to occupied space. Providing dedicated outdoor air units will eliminate excessive introduction of untreated outdoor air to the space.
- Consider adding DDC control to remotely monitor/control the system.
  - Or consider variable refrigerant flow (VRF) split system heat pump system and energy recovery ventilator for the administration area.
- Consider replacing window air conditioning in the rooms with variable refrigerant flow (VRF) split system heat pump system and energy recovery ventilator.
- Clean and seal existing ductwork.

## Electrical



The existing electrical service is made up of a 120/208V-3PH-4W Square D main breaker, and integrated C/T cabinet and adjacent distribution panel and local panel (EPB1). This equipment was installed in 2016 and is in good condition. The main breaker is fed underground from the utility company pad mounted transformer at the west corner of the property. The main distribution panel (MDP) feeds five or more local panels. The 2016 renovation also

added a panel in the kitchen (KP-1) that was called for to be fed from the MDP but is not listed in the panel schedule. Along with the main distribution equipment and adjacent panel (EPB1) the other panel in the basement (EPB2) and the new kitchen panel are in good condition. There also is a



panel on the exterior of the building (south-east side near doors to the Hall), that serves the tent area for outdoor events. The panel is within a wooden enclosure, the panel and adjacent receptacles are in fair-good condition. The two recessed panels, one on the second and one on the third floor are nearing the end of their useful life and should be replaced.



The panel is within a wooden enclosure, the panel and adjacent receptacles are in fair-good condition. The two recessed panels, one on the second and one on the third floor are nearing the end of their useful life and should be replaced.

## Fire Alarm



The fire alarm system (Fire Lite #MS-9200UDLS by Honeywell) is located in the basement across from the main electrical equipment. There is a remote annunciator panel adjacent to the front door along with a semi-recessed cabinet with a microphone for paging. Also, there are manual pull stations and audio/visual devices throughout the building in addition to smoke





and heat detectors throughout the building. In the Kitchen, there is a hood suppression system that we assume is connected to the fire alarm system.

### **Lighting**



The existing interior lighting in the building is a mix of pendant mounted incandescent chandeliers, incandescent wall sconces, incandescent track lights, surface mounted fluorescent/LED fixtures, and some pull chain light fixtures. Except for the lights installed under the 2016 renovation, the rest of the lights are old and

should like to be replaced. The existing exterior lighting is made up wall mounted sconce type fixtures at the doors and a single LED flood light on the back of the building at the second floor aimed at the open tent area.



Emergency lighting for the interior of the building is made up of self-contained emergency twin head fixtures and exit signs with remote emergency lamps. Exits signs throughout the building are thermoplastic signs wall and/or ceiling mounted with red



lettering and emergency batteries. The exit signs and emergency lights all appear to be in good condition. The appears to be only one single head emergency light on the exterior of the building at the new stair behind the Kitchen. The two main entries (front & back) do not appear to have emergency egress light fixtures. Also, the handicap accessible ramp at the back of the building does not have either normal or emergency lighting.

### **Devices**

Existing wiring devices (receptacles & light switches) in most areas of the building are recessed mounted, there are some areas with surface mounted devices and connecting raceway. Most all devices appear to be in fair/good condition along with their cover plates. There are a few devices that are older and need to be replaced along with a few devices that have been painted over that should be replaced.

### **Telecommunication System**

The existing phone system is made up of a few phone lines in the building (both owner and tenant). There is also a wi-fi system in the building, it is our understanding that both

phone and wi-fi system are working properly and do not require any maintenance/upgrades at this time.

### **Recommendations for Repair / Replacement**

- Replace existing surface mounted track lighting with new LED fixture more in style with the building.
- Replace existing pendant and surface mounted incandescent and fluorescent light fixtures throughout the building with new energy efficient fixtures that match the style of the building.
- Replace existing wall switches with new occupancy sensors and/or dimmer switches throughout the three main floors.
- Replace the two existing recessed electrical panels on the second and third floor with new panels.
- Provide additional lighting from the back exit of the building leading out to the tent area.
- Provide both normal and emergency egress lighting for the handicap ramp at the back of the building to meet code.
- Replace the cover plates on the recessed floor receptacles in the kitchen with new sealed flush covers.
- Provide power to new mechanical Toilet exhaust fans, power for a new second boiler along with power for air conditioning for the building.

Fairfield Capital Needs Assessment									
Burr Mansion - 739 Old Post Road, Fairfield, CT 06824									
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING				CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
			4	3	2	1	n/a		
<b>EXTERIOR CONDITIONS</b>									
A01	Ramp hand rails do not meet code	(F)5-2.2.4.2 (B)1014.7 (ANSI A117.1) 505		2			Add new new railings to meet code	\$ 5,100	
A02	Front stairs have no hand rails	(F)5-2.2.4.2 (B)1014.7 (ANSI A117.1) 505		2			Add new railings to meet code	\$ 2,100	
A03	Exterior is in need of painting	General		3			Scrape, prime and paint	\$ 35,000	
A04	Cedar roofs are nearing or exceeded their useful life, some fascia and soffit should be replaced	General		2			Remove and reroof, replace fascia and soffit as needed and repaint	\$ 96,000	
A05	Copper roofs are nearing or exceeded their useful life, some fascia and soffit should be replaced	General		2			Remove and reroof, replace fascia and soffit as needed and repaint	\$ 185,000	
A06	Windows are in poor condition, they are old inefficient single glazed double hung in need or repair and repainting	General		3			Replace windows to match existing style but with double glazed efficient systems.	\$ 75,000	If new windows are not perused consider adding storm windows and refurbishing existing frames.
A07	Chimneys are in need of repointing (inside and out)	General		2			Repoint and replace brick as necessary	\$ 9,000	
A08	Door hardware does not meet current code	4.13.9 (ADA) 404.2.6 (ANSI 117.1)		2			Remove door locksets and install new accessible lever handle locksets.	\$ 4,000	
<b>EXTERIOR SUBTOTAL</b>									<b>\$ 411,200</b>
<b>INTERIOR CONDITIONS</b>									
A09	Some door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)		2			Remove door locksets and install new accessible lever handle locksets.	\$ 15,000	
A10	The wood floors are nearing the end of their useful life	General		3			Remove and replace wood floors complete with desired stain and finish	\$ 71,190	
A11	Limited areas of wall and ceilings have cracks in plaster	General	4				Patch, repair and paint	\$ 15,000	Allowance
A12	Limited of crown molding on second d floor need repair or have cracked paint	General	4				Remove, replace and paint as needed	\$ 7,000	
A13	Restroom under stair and second floor restroom is dated	General	4				Renovate or remove	\$ 50,000	
A14	Existing restroom on second and third floor does not meet accessibility requirements.	(B)1108.0 (ANSI A117.1) 603-606		2			Provide at least one accessible toilet stall, lavatory sink, and urinal. Provide required grab bars.	\$ 100,000	
A15	Some cast iron radiators have peeling paint	General	4				Patch, repair and paint	\$ 8,000	
A15	Sstairs have no hand rails	(F)5-2.2.4.2 (B)1014.7 (ANSI A117.1) 505		2			Add new railings to meet code	\$ 2,100	
A16	Modifications may be required to support mechanical alterations Tag No. M15 and M12		4				Provide vertical duct shafts in rooms as required with any mechanical modifications	\$ 15,000	allowance
<b>INTERIOR SUBTOTAL</b>									<b>\$ 283,290</b>

## Burr Mansion Facility Conditions Cost Estimate

PLUMBING/FIRE PROTECTION											
P01	Older inefficient plumbing fixtures need repair	Maint.	4						Remove and replace older plumbing fixtures	\$ 10,500	
P02	Sanitary piping clogging	Maint.		3					Replace sanitary piping in basement and on site	\$ 25,000	
P03	Existing well in basement	IPC			2				Cap off and fill existing well in basement	\$ 5,000	
P04	Uninsulated cold water	Maint.		3					Insulate cold water piping	\$ 1,500	
FP01	Sprinkler pipe corroding	NFPA 13			2				Paint rusting sprinkler pipe to prevent further corrosion	\$ 500	
FP02	Test sprinkler systems	NFPA 25	4						Continue to test and maintain sprinkler and hood suppression system	\$ 500	
PLUMBING/FP SUBTOTAL											\$ 43,000
MECHANICAL SYSTEMS											
M01	Boiler system has no redundancy and associated existing piping is at the end of its useful life.	General		3					Provide new high efficiency gas-fired hot water boiler system with redundancy, associated specialties and controls. Mount unit on housekeeping pad.	\$ 216,950	
M02	Mechanical room has in sufficient ventilation	IMC				1			Provide ventilation. Ventilation shall consist of outside air intake louver, ductwork, motorized damper , relief fan and associated ductwork and exterior termination	\$ 20,000	
M03	Basement has no ventilation	IMC				1			Provide ventilation. Ventilation shall consist of outside air intake louver, ductwork , motorized damper	\$ 22,500	
M04	Basement dehumidifier	General	4						Provide with new suspended from structure complete with condensate piping	\$ 7,210	
M05	Existing steam/steam condensate piping system at the end of their useful life	General			2				Replace with new.	\$ 36,500	
M06	Piping insulation is missing or has deteriorated on steam/steam condensate piping	General	4						Remove existing and replace with new per current IECC requirements.	\$ 15,000	allowance for approximately 1000 LF of insulation
M07	Uninsulated ductwork	General	4						Provide ductwork insulation per current IECC requirements	\$ 4,950	allowance for 600 SF of insulation
M08	Cast-iron radiation serving common area has outlived its useful life expectancy	General			2				Replace with new. Provide control valve and temperature controls	\$ 52,350	
M09	Steam Duct Coils serving level 1 floor grilles have outlived its useful life expectancy	General			2				Replace with new. Provide control valve and temperature controls	\$ 13,260	
M10	Toilet exhaust fans at the end of their useful life	General			2				Replace with new	\$ 5,250	
M11	Toilet rooms without exhaust fans.	IMC				1			Provide toilet exhaust fans and associated ductwork	\$ 5,825	
M12	Ventilation air from operable windows.	General	4						Consider providing dedicated outdoor air units to occupied space. Providing dedicated outdoor air units will eliminate excessive introduction of untreated outdoor air to the space	\$ 123,750	
M13	No Building management, existing temperature controls and local and obsolete	General	4						Provide new controls compatible with the town's DDC system	\$ 103,000	
M14	Rooms with no heating, cooling or ventilation	IMC				1			Provide heating, cooling and ventilation units	\$ 24,062	
M15	Window air conditioning units	General	4						Replace with variable refrigerant flow (VRF) split system heat pump system	\$ 96,250	
M16	Existing ductwork needs to be cleaned and sealed	General	4						Clean interior of the existing ductwork	\$ 4,560	
MECHANICAL SUBTOTAL											\$ 751,417



## Burr Mansion Facility Conditions Cost Estimate

ELECTRICAL SYSTEMS											
E1	Toggle type light switches	2015 IECC	4						Replace all existing toggle type switches in the three main floors with dimmer switches and/or occupancy sensors	\$ 7,500	
E2	Old electrical panels (at or near end of useful life)	Maint.		3					Replace all old electrical panels (Bryant) with new of equal size or larger	\$ 6,000	
E3	Floor receptacles in Kitchen	Maint.	4						Replace existing cover plates with missing caps over outlets with new	\$ 750	
E4	Track Lighting	General	4						Replace all existing track lighting in the building with new LED fixtures that match the style of the building	\$ 25,000	
E5	Incandescent & Fluorescent light fixtures	General	4						Replace existing fixtures with new matching LED fixtures where available, where not replace bulbs with new LED lamps.	\$ 22,500	
E6	Exterior egress lighting	NEC				1			Add a remote emergency battery and test switch for the lights at the front door and a smaller second for the light at the rear door.	\$ 5,000	
E7	Handicap accessible ramp	NEC				1			Add both normal and egress lighting along the entire length of the ramp.	\$ 7,500	
E8	Stair/sidewalk over to the tent area	Safety			2				Add lighting along the stair and sidewalk over to the tent area	\$ 5,000	
E9	Toilet Exhaust fans	Maint.		3					Provide power to new toilet exhaust fans, and disconnect and reconnect existing fans that are being replaced 1 for 1	\$ 2,500	
E10	New Boiler	General	4						Provide power to new second boiler and associated pumps	\$ 7,500	
E11	Air conditioning	General	4						Provide power for new air conditioning equipment throughout the building	\$ 42,500	
<b>ELECTRICAL SUBTOTAL</b>											<b>\$ 131,750</b>
<b>TOTAL ESTIMATED COSTS</b>											<b>\$ 1,620,657</b>
<b>LEDGEND PRIORITY - RANK</b>											
1	Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.										
2	High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.										
3	Moderate priority - These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.										
4	Low priority - These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.										

## Bigelow Senior Center & Daycare – 100 Mona Terrace

The Bigelow Senior Center & Daycare building was constructed in 1963. Originally the building was Old Field Elementary School, with an addition completed in 197x. After being converted to the Senior Center and Daycare facility, an addition in 2002 of portables to house the Health Center was completed.



## Architecture

Overall, the Senior Center and Daycare building is in good condition. At 60 years old, the architecture of this one-story building consists of a brick veneer, storefront window systems, and epdm roofing. The Heath Center located in the portables at the rear of the building are 20 years old and showing significant signs of wear.

The program of the Senior Center consists of a lobby, cafeteria with stage and adjacent warming kitchen, a large gymnasium, numerous multi-purpose rooms (workshop, activity room, pool room, ping pong room), and offices.

The program of the Daycare consists of numerous classrooms and offices, similarly the Health Center is a collection of storage rooms and offices contained in re-used portables.





### **Exterior Building Envelope**

The exterior of the building is in good condition. The original building is constructed with brick “veneer”, airspace, and concrete masonry unit (CMU) backup wall. The gymnasium addition consists of a brick “veneer” airspace, and a painted concrete masonry unit (CMU) interior. Overall, the mortar is in fair condition, with some areas in need of repointing and minor brick repair. Areas where the foundation wall is exposed are showing signs of wear and the parge coating is chipping off. At the existing storefront systems, the top third has been covered with a vertical vinyl siding, it appears to be in fair condition with limited signs of wear. The chimney brick is coated in soot and the chimney cap is showing signs of significant wear and deterioration. A previously used mechanical mezzanine built out of CMU appears to have had roofing/asphalt parge coat that has deteriorated.



### **Windows**

The storefront window systems are original to the building, they are single pane glass. They are in poor condition and showing significant signs of wear – the caulking is deteriorating (see attached HazMat report for information regarding potential PCBs), and the majority of window panes have yellowed. All of the storefront window systems are past their



lifespan and should be replaced with a more energy efficient double glazed insulated aluminum window system. The concrete sills are showing signs of wear, but are not failing. The windows at the raised roof of the cafeteria are also original to the building and in need of replacement. The entrance storefront system is in good condition and appears to have been replaced when prior additions/renovations were completed on the building.



### **Doors**

The exterior doors and frames not in the storefront systems are hollow metal in hollow metal frames. They are showing minor signs of wear and tear but overall are in good condition. Some doors do not have proper exiting hardware/ADA compliant levers – these should be replaced with compliant hardware.

### **Roof**

The existing roofs are EPDM. They have all been replaced recently and are in good condition. The metal coping around the perimeter is in good condition, it appears to have been replaced when the roofs were replaced. At the base of the brick wall along the perimeter of the raised roof area over the cafeteria, the transition flashing is in need of replacement, it is showing significant signs of deterioration and is failing in certain locations – this should be tested as it appears to be an asbestos containing material. Similarly, the coping and flashing along the raised roof edge is showing significant signs of wear and could be replaced. Upon observation of the gutters along the raised roof area, they are showing signs of wear and contained standing water due to lack of pitch towards the leaders, they should be replaced and properly pitched to drain. The majority of the roof has PV panels. Adjacent to the main building, the portables at the rear have a roof that is poor condition and leaking – this roof should be replaced fully to prevent further interior damage.



### **Interior Conditions**

The interior building assessment is a visual surveillance of the physical materials, architectural components, building layout and all code issues. For purposes of this report the Interior Conditions section has been broken out into the Senior Center and Daycare. In general given the building's age, its interior is in good condition, however, it needs some minor improvements and upgrades.

### **Senior Center**

The Senior Center has been renovated and is in good condition.

### **Floors**

There are a variety of floor types at this building. The lobby consists of stone that is in good condition and is showing minimal signs of wear. A majority of the flooring is carpeted with rubber base, this includes the corridor, multiple activity rooms, and offices. The carpet in these areas is in good condition, it appears to have been replaced within 10 years as there is minimal wear and tear. The rooms that do not contain carpet are vinyl composition tile (VCT) with rubber base. The flooring appears to have been replaced when prior additions/renovations had been completed and is in fair condition but showing signs of wear and tear, missing or damaged pieces of rubber base, and patchwork where tiles had been replaced. The gymnasium and cafeteria flooring are both wood and appear to be in good condition and not showing signs of significant wear and tear. The toilet room and kitchen flooring is denoted in the "Restrooms" and "Kitchen" sections of this report.

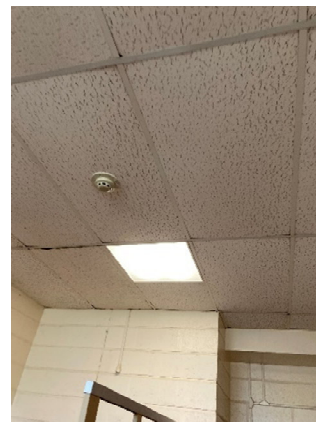


### **Walls**

The walls throughout are a mix of painted concrete masonry units, painted brick, and painted gypsum/plaster. They are all in good condition and do not show signs of wear and tear.

### **Ceilings**

The majority of ceilings throughout are plaster lathe with limited access areas. These are in good condition. There is multiple locations where dropped acoustical ceiling tiles (ACT) are used, this includes being installed vertically at the top of the storefront window systems in every room. The tiles are showing signs of wear, broken and discolored – these should be replaced as necessary.



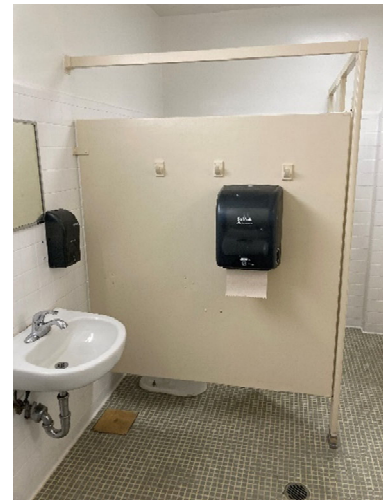
### **Doors**

The interior doors in this building are primarily wood in hollow metal frames. They are in good condition. Some doors do not have ADA compliant hardware – these should be replaced with compliant hardware.



## **Restrooms**

There are two sets of gang toilet rooms and two single user toilets existing. One set of gang toilet rooms is located off the main lobby, the other set is off the main corridor. The set of single user toilet rooms are located adjacent to the gymnasium and an additional single user toilet is in the offices and adjacent to the kitchen. All toilet rooms are in need of renovation as they do not meet ADA compliance and the fixtures and finishes appear to be original to the building. In order to make the two gang toilet rooms off the lobby ADA compliant, they will need to be modified to be single user toilet rooms – and potentially combined into one single user toilet room. The entry doors do not meet ADA compliance and will need to be modified. All fixtures, lavatories, mirrors, lighting, and finishes (floor tile, wall tile, and ceiling) are in need of replacement. Similarly the gang toilet rooms located down the corridor are in need of updating, including but not limited to fixtures, lavatories, mirrors, partitions, lighting and finishes (floor tile, wall tile, and ceiling). The two single user toilet rooms adjacent to the gymnasium currently do not meet ADA compliance and should be updated to meet these requirements. New fixtures, lavatories, and finishes (floor tile, wall tile, and ceiling) to be replaced. The single use toilet rooms off the offices and kitchen currently do not meet ADA compliance and the fixtures/finishes are in need of replacement. A further ADA study will need to be conducted to analyze compliance of entry in/out of each toilet room.





### **Casework**

The casework is located in the craft room. It consists of plastic laminate base and upper cabinets casework with laminate countertops. The base cabinets are in fair condition with edges beginning to wear. The sink is stainless steel. All cabinet hardware appears to be in good, functioning condition.



### **Kitchen**

The kitchen currently functions as a warming kitchen for the facility. The existing finishes are showing significant signs of wear and are in need of replacement. The finishes should be updated to reflect the most up to date health codes – washable ceiling tiles, FRP wall coverings, and either new quarry tile or epoxy flooring. Existing plastic laminate base and upper cabinets are in fair condition and showing minor signs of wear, including the countertops. The existing equipment appears to be in fair condition. Refer to the MEPFP sections of this report for more information regarding systems.



### **Building Code and ADA**

As noted, there are limited code and ADA issues with the restrooms and kitchen. In addition, toilet clearances and fixtures should simply be relocated and/or adjusted to be compliant. There are multiple exterior doors from rooms that do not have ADA compliant hardware, the non-compliant hardware should be replaced.

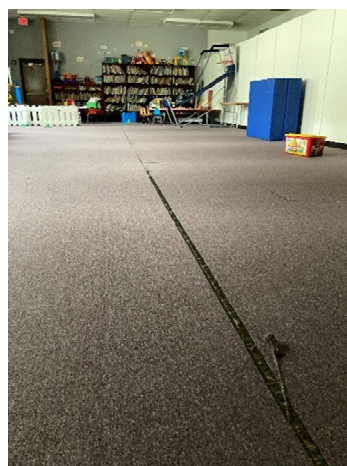
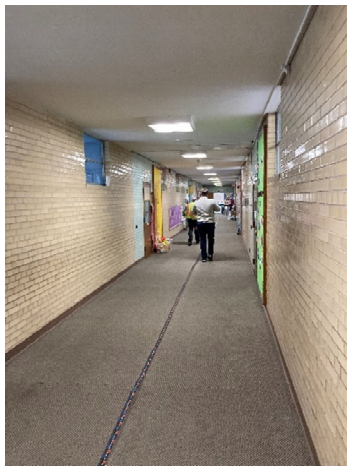
Overall, this building it is in good condition with the need for some general maintenance items and code upgrades.

### **Daycare**

The Daycare portion of the building has had limited renovations completed and is for the most part all original interiors.

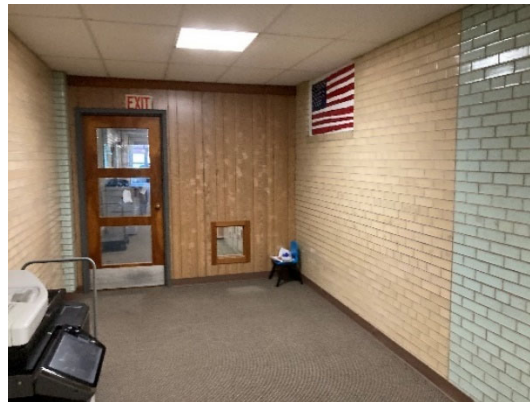
### **Floors**

The main corridor of the Daycare is carpeted with rubber base. The carpet in these areas is in fair condition, it is showing significant signs of wear and tear, fraying, and discoloring – this should be replaced. The rooms that do not contain carpet are vinyl composition tile (VCT) with rubber base. The flooring appears to have been replaced and is in fair condition but showing signs of wear and tear, missing or damaged pieces of rubber base, and patchwork where tiles had been replaced.



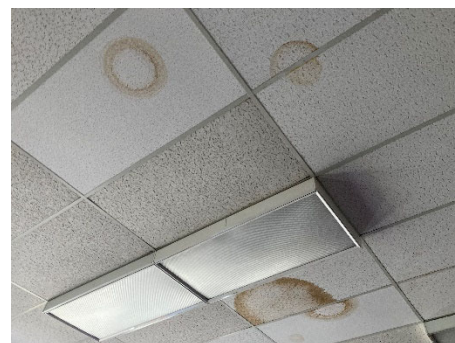
### **Walls**

The walls throughout are painted concrete masonry units and brick. They are in good condition, aside from having an outdated aesthetic. If desired, repainting the corridor walls would improve the general aesthetic of the corridor.



### Ceilings

The majority of ceilings throughout are plaster lathe with limited access areas. These are in good condition. There is multiple locations where dropped acoustical ceiling tiles (ACT) are used, this includes being installed vertically at the top of the storefront window systems in every room. The tiles are showing signs of wear, broken and discolored – these should be replaced as necessary.







### **Doors**

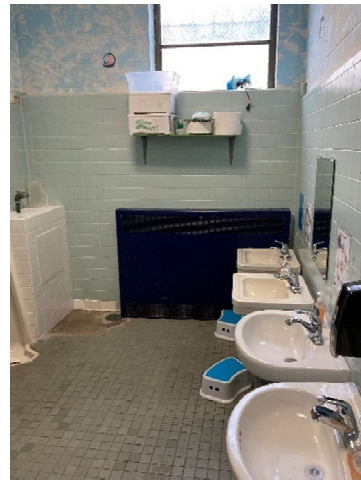
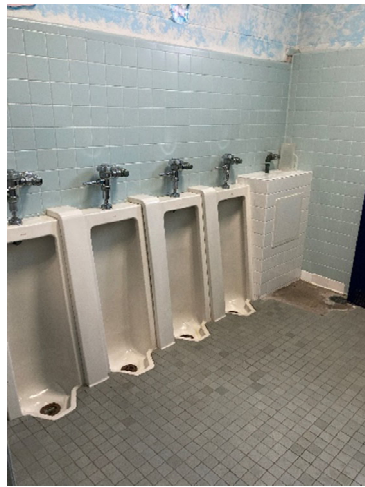
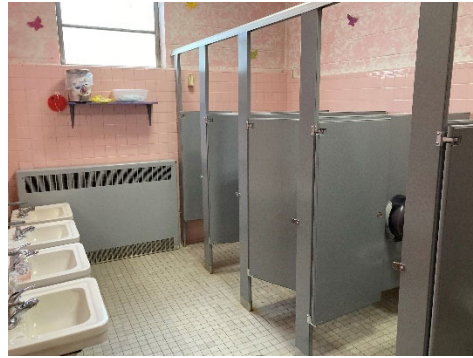
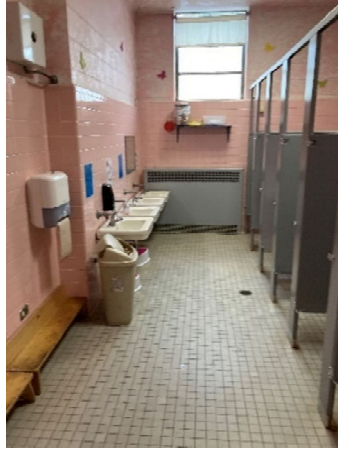
The interior doors in this building are primarily wood in hollow metal frames. They are in good condition but could use new paint. There are some miscellaneous hollow metal doors in hollow metal frames.



### **Restrooms**

There are four total toilet rooms in the Daycare. Two gang toilet rooms and two single user toilet rooms located off two classrooms. The gang toilet rooms are located off the main corridor – these toilet rooms currently do not meet ADA compliance. The existing finishes consist of tile and painted CMU walls, and plaster ceiling. The finishes and fixtures appear to be original to the building and are in fair condition – the floor could use replacement as it is showing greater signs of wear than the walls. The existing toilet partitions are in good shape, but an ADA stall is not provided.





### **Casework**

There is casework located throughout multiple classrooms. The existing sinks at casework are ADA compliant per a side approach, some sinks may need to be relocated to meet ADA reach requirements. The base cabinets are in poor condition and should be replaced.



### **Building Code and ADA**

As noted, there are limited code and ADA issues with the toilet rooms and door hardware.

Overall, this portion of the building it is in good condition with the need for some general maintenance items, code upgrades, and general aesthetic improvements.

### **Health Center - Portables**

The Health Center is adjacent to the Senior Center/Daycare building. These portables were previously used at a school in town and were relocated to this site to be used as the Health Center. The exterior of the portables are in poor shape and showing significant signs of wear.



### **Floors**

The existing floors are linoleum throughout. They are in fair condition.

### **Walls**

The walls throughout are painted gypsum wallboard. They are in good condition with minor areas in need of paint - repaint the walls as necessary.

### **Ceilings**

The majority of ceilings throughout are acoustical ceiling tiles (ACT). There are multiple areas where the roof has leaked and the tiles are compromised – these should be replaced as necessary.



### **Doors**

The interior doors in this building are in good condition.

### **Restrooms**

The restrooms are in good condition.

### **Building Code and ADA**

The building is currently ADA compliant, including the exterior ramps.



## Plumbing

Due to the age of the building and its systems most of the components of the plumbing system have either outlived their life expectancy or do not meet current code requirements. The building uses natural gas to fuel a water heater for domestic hot water generation and the system also has hot water recirculation. The domestic water piping is copper with soldered joints.

### Drainage

There are various styles of roof drains located on the roof of the main building, which consists of the Senior Center and Daycare. Some of those drains do not have grates which cover the entire roof penetration. Overall, the grates showed varying signs of wear and tear due to age and location on the roof. It is important to note that there is no secondary drainage system.



*Comparison of varying degrees of wear and tear on roof drain grates*



*Example of outdated roof drain grate*





*Example of outdated and ineffective roof drain grate*

Also on the roof are penetrations for vent piping to release waste gases into atmosphere. Like the roof drains, these pipes have varying degrees of wear and tear. Most show signs of rust.



*Vent to Roof showing signs of rust*

There are various sanitary & waste mains which serve the bathrooms, plumbing fixtures, and kitchen that exit the building to the east and feed into the parking lot underground. These pipes meet and feed into the city main located under Mona Terrace. There are reports that much of the piping is compromised and cracked in many locations. Scoping these lines with a camera is recommended.

### **Domestic Water Heater**

Domestic hot water serving the building is from a vertical storage type, 74-gallon A.O. Smith natural gas fired storage water heater with an input capacity of 75,100 BTUH. The heater is in the boiler room. The heater is over 4 years old and appears to be in good condition. Products of combustion are vented into the existing chimney through a sheet metal flue. There is a hot water recirculating pump to maintain temperature. An ASSE1017 mixing valve was not observed as installed. Piping was missing insulation. We recommend adding those components for compliance.



*Existing A.O. Smith Water Heater*

There is a second water heater which serves the portion of the senior center that was added during the 1977 renovation. That unit is a Rheem electric water heater with a storage capacity of 10 gallons. It was manufactured in 2016 and appears to be in good condition. We recommend adding insulation to the missing sections of connected piping.



*Existing Rheem Electric Water Heater*

The annex building has its own hot water generation. There is a 10-gallon State Industries electric water heater which generates hot water for the Men's and Women's bathrooms. This unit is reaching the end of its useful life expectancy. Each individual lavatory and sink in the building's offices has its own point of use instantaneous electric water heater.



*Existing State Industries Electric Water Heater*

### **Plumbing Fixtures**

Existing bathroom plumbing fixtures are vitreous china and include wall hung lavatories, water closets, and urinals as well as floor mounted water closets and urinals. Many of these fixtures are outdated and not ADA compliant. The floor mounted urinals need to be replaced with wall-hung fixtures.



*Examples of Existing Urinal Fixtures*

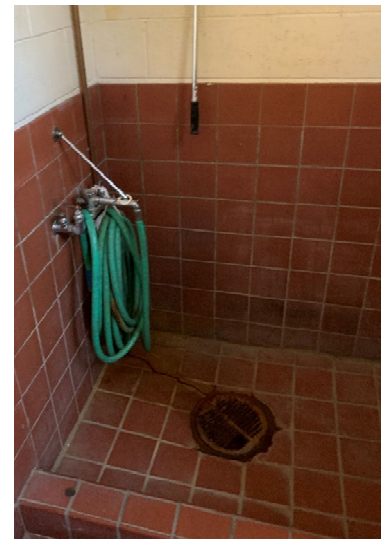




*Examples of Bathroom Plumbing Fixtures*

### **Kitchen**

The kitchen contains stainless steel plumbing fixtures which include a drop-in sink, double compartment dishwashing sink, and a wall hung handwashing lavatory. There are two existing grease interceptors and one of them is offline. They will not be able to handle the increased capacity of the proposed kitchen renovation. There is as a mop sink as well in the custodial area and a bathroom with a floor mounted water closet and wall hung lavatory.



*Existing Kitchen Plumbing Fixtures*

### **Plumbing Equipment**

There are two Quincy air compressors in the Boiler Room which supply pressurized air to serve the pneumatic controls. They are approaching the end of their useful life expectancy.





*Existing Quincy Air Compressors*

There is an existing sump pit in the facility piped from an unknown origin and it is unclear whether it is still in use or needed to remain in service. At the time of the survey, it is unclear as to its service and or operations.



*Existing Sump Pit in Boiler Room*

### **Gas Piping**

Gas service does not extend to supply any equipment on the roof. Based on the HVAC recommendation to use new gas-fired roof top units, it would be required to add new gas piping to serve these units.

### **Recommendations for Plumbing Repair / Replacement**

- Provide missing insulation for water piping around water heater(s) as well as other missing sections.
- Remove and replace all plumbing fixtures which are not ADA compliant and/or not in accordance with the occupancy requirements in the Architectural assessment.
- Remove and replace old piping where needed.
- Remove and replace old roof drains. Complete routine maintenance to make sure the grates are not blocked by debris or weeds.
- Replace existing grease interceptors or add new grease interceptor to meet meet proposed increase in Kitchen usage.
- Add required gas piping to serve new HVAC equipment

## Fire Protection

The facility has a limited area sprinkler system serving the custodial rooms. The service ties into the domestic water supply with a backflow preventer and shutoff valve at the ceiling. There is one pendent sprinkler in the ceiling of each of these rooms. The piping is copper tubing with soldered joints. There is no flow switch or alarm, so if the system discharges, no one may know. There is not a tamper switch on the valve, if the system is turned off, the sprinklers will not discharge water.



*Typical Pendent Sprinkler Head*

The town may consider to fully sprinkler the building with a new service, alarms, and devices in accordance with NFPA 13.

## **Recommendations for Repair / Replacement**

- Provide a fully sprinklered building throughout with a new service, alarms, and devices.

## **Mechanical**

### **Existing Conditions**

#### **General**

Ventilation, or the provision for delivering fresh air to the building, has been provided predominantly via operable windows. Although a combination of mechanical exhaust, natural and mechanical ventilation has been provided throughout the facility as well. Before the use of mechanical ventilation, it was common practice to simply open the exterior windows. This is not a method that is currently recommended for several reasons. First, during the winter and summer months the windows are generally not opened which fails to meet the requirements of the code. Second, ASHRAE Standard 62 Ventilation for Acceptable Indoor Air Quality has provisions for how far an exterior window must be from the furthestmost interior wall.

Means for cooling have not been provided with the exception of random window AC Units and a few rooftop units serving larger areas such as the Gymnasium, Daycare Library and All purpose/Lunch Room.

#### **Central Heating System**

A central boiler plant located in the mechanical room on the ground level provides heating for the entire building. Two of the three existing steam boilers are HB Smith Cast Iron sectional boilers with dual fuel (oil and gas) Powerflame burners. The existing nameplate indicates the boilers are a 28HE-6 series Smith boiler with a NET IBR Rating of 1,773,000 Btu/Hr. The two boilers generate heat for the facility and distribute steam to existing equipment in the original construction portion of the building. Steam is fed to equipment such as perimeter convection units, unit heaters, cabinet unit heaters, baseboard radiation and rooftop unit steam coils. The HB Smith Boilers were replaced in 2005 and appear to be in good condition. With proper maintenance of the equipment, the life expectancy of the boilers are 30 years and the burners are approximately 20 years. Therefore these boilers are just at over half their service life expectancy and the burners will need to be replaced within the next 5 years. The current capacity of these boilers are only sized for full load of the building with no redundancy. The third existing steam boiler is a Superior horizontal tank type with dual fuel (oil and gas) Powerflame burners. The boiler is in poor condition and beyond its service life expectancy. The existing nameplate indicates the boiler is a model G4 RC 70A Superior boiler which has been decommissioned. Associated gas, electrical and water are all disconnected. Multiple steam-hot water converter stations located in the mechanical room and above corridor ceilings provide hot water to equipment throughout the entire building. Hot water is distributed to equipment such as fan coil units, unit ventilators, cabinet unit heaters, unit heaters and fin tube radiators. The steam-hot water convertor located in the mechanical



room is in poor condition and beyond its service life expectancy. The convertors located above the ceilings throughout the building and their associated pumps, expansion tanks, etc. were replaced in 2014 and appear to be in good condition. The steam-hot water convertors are well within their service life expectancy of 24 years however the associated pumps are nearing their 10 year life expectancy.

The piping distribution system throughout the building is original to the building. Piping systems, with proper maintenance, can operate for 50 years.

Flue gases are routed through metal breeching connected to a masonry chimney which terminates above the roof. Combustion air is supplied by an intake louver located above the exterior double doors of the boiler room and is in poor condition and not installed to current code requirements.

An existing 10,000-gallon underground fuel oil storage tank was removed in the year 2019.











### **HVAC Controls**

Existing Temperature Control systems throughout the facility are mostly stand alone, operated by electro pneumatic control and cannot be monitored or controlled through a central building management control system or internet. This type of control system is considered obsolete technology and replacement parts are not readily available. Only the rooftop units are tied into a Johnson Metasys building management system. The systems should be considered to be beyond the end of their use life but appear to be functioning properly and may be kept in service during the construction process.





### **Front Reception Area & Offices**

Front reception area and offices are served by floor mounted air conditioning units with a roof mounted condensing unit and duct distribution for cooling, operable windows for ventilation and hot water radiation provides heating to the spaces. All of the equipment in this area is in poor condition, beyond their service life expectancy and should be replaced.



### **Senior Activity Rooms**

Senior Activity Rooms, are served by window mounted air conditioning units for cooling, operable windows for ventilation and floor mounted hot water fan coil units by the windows for heating. The existing supply diffusers and return grilles mounted to the ceiling are associated with an existing heating & ventilation system which is inactive and abandoned in place. The window units appear to be in fair condition but have exceeded their life expectancy of 10 years. The floor mounted fan coil units are in poor condition, beyond their service life expectancy of 20 years and should be replaced.





### **Media/Meeting Rooms**

Media Meeting Rooms, are served by wall mounted indoor air conditioning units with outdoor condensing units for cooling, operable windows for ventilation and floor mounted hot water fan coil units for heating. The existing supply diffusers and return grilles mounted to the ceiling are associated with an existing heating & ventilation system which is inactive and abandoned in place. The window units appear to be in fair condition but have exceeded their life expectancy of 10 years. The floor mounted fan coil units are in poor condition, beyond their service life expectancy of 20 years and should be replaced.







### **Southwest Offices**

Southwest Offices, are served by window mounted air conditioning units for cooling and hot water unit ventilators along the perimeter which provide heating and ventilation only to the space it is located in. The window units appear to be in fair condition but have exceeded their life expectancy of 10 years. The floor mounted unit ventilators are in poor condition, exceeded their service life expectancy of 20 years and should be replaced. Unit ventilators are considered obsolete technology for classroom use at present.





### **Daycare Classrooms**

Daycare Rooms, are served by window mounted air conditioning units for cooling, operable windows for ventilation and floor mounted fan coil units by the windows for heating. Several classrooms contain additional heating via electric unit heaters. The existing supply diffusers and return grilles mounted to the ceiling are associated with an existing heating & ventilation system which is inactive and abandoned in place. The window units appear to be in fair condition but have exceeded their life expectancy of 10 years. The floor mounted fan coil units are in poor condition, beyond their service life expectancy of 20 years and should be replaced. Electric unit heaters appear to be in good condition.







### **Large Daycare Room and Back Offices**

The large daycare room and back offices are served by an existing dedicated packaged rooftop unit (RTU-1) with integral Direct Expansion (DX) refrigerant cooling coils, electric heating section and ductwork distribution to provide heating, cooling and ventilation to the space. The rooftop unit is in poor condition, has exceeded its service life expectancy of 15 years and should be replaced.



## **Gymnasium**

The Gymnasium is served by an existing dedicated packaged rooftop unit (RTU-2) with integral Direct Expansion (DX) refrigerant cooling coils, steam heating section and ductwork distribution to provide heating, cooling and ventilation to the space. The rooftop unit is in poor condition, has exceeded its service life expectancy of 15 years and should be replaced.





### **All Purpose/Lunch Room & Stage**

The All Purpose/Lunch Room & Stage are served by multiple HVAC systems. An existing dedicated packaged rooftop unit (RTU-3) with integral Direct Expansion (DX) refrigerant cooling coils and ductwork distribution to provide cooling to the space. The space is heated via wall mounted radiation located just below the windows. Ventilation was once provided by a heating & ventilation (H&V) unit located above the stage storage room. The H&V unit is inactive and abandoned in place. Therefore this area has no provisions for ventilation. The ductwork associated with this unit may contain asbestos. All three of these systems are in poor condition, have exceeded their service life expectancy and should be replaced.

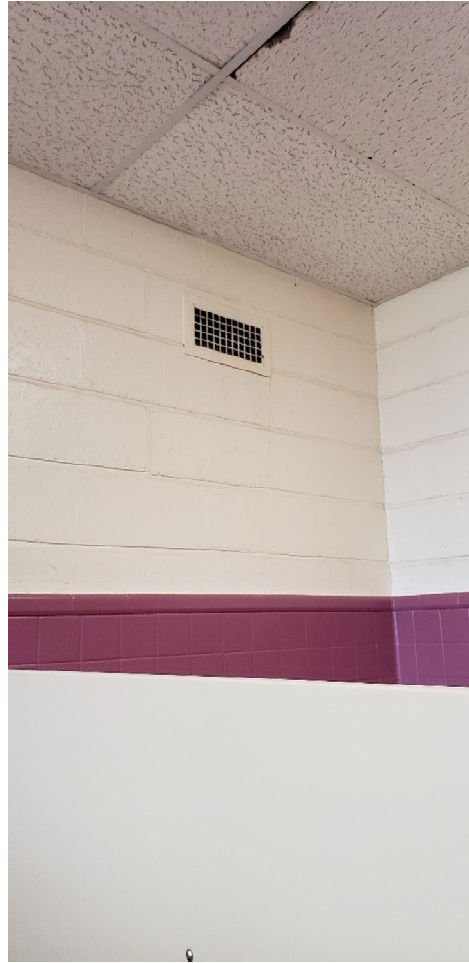




### **Toilet Rooms & Janitor Closets**

Toilet rooms and janitor closets are ventilated by independent exhaust fans. Make-up air to the spaces are provided by operable windows, transfer air louvers within doors and/or undercuts of doors. Toilet rooms with exterior walls contain either steam or hot water radiation along the perimeters. The roof mounted exhaust fans serving the toilet groups along with the perimeter radiation are in poor condition, beyond their service life expectancy of 20 years and should be replaced.





### **Kitchen**

The Kitchen is served by window mounted air conditioning units for cooling, operable windows for ventilation and a ceiling mounted cabinet unit heater for heating. The window unit appears to be in fair condition but has exceeded its life expectancy of 10 years. The cabinet unit heater is beyond the service life expectancy of 20 years and should be replaced.

The existing roof mounted exhaust fan serving the kitchen hood appears to be in fair condition but is beyond its service life expectancy. The kitchen hood is a Type 1 grease exhaust hood equipped with a clean agent fire extinguishing system interlocked with the roof fan and gas solenoid shut-off valve. The hood contains integral light fixtures and grease baffles all in which are in poor condition and in need of replacing.





### **Servery**

The Servery is served by a ceiling hung cabinet unit heater providing heating only. The cabinet unit heater is in poor condition, beyond the service life expectancy of 20 years and should be replaced.





### **Portable Building**

The portable building is served by (6) packaged rooftop units with integral Direct Expansion (DX) refrigerant cooling coils, electric heating section and ductwork distribution to provide heating, cooling and ventilation to the space. The rooftop units are in poor condition, have exceeded their service life expectancy of 15 years and should be replaced. The building also contains toilet rooms which are conditioned by a rooftop unit (RTU-6). Each toilet room contains independent ceiling mounted exhaust fans which appear to be in fair condition but beyond their serviceable life of 15 years.







### **Recommendations for Repair / Replacement**

Heating Plant: The Central Heating Plant will consist of natural gas fired high efficiency condensing boilers. Combustion air may be supplied directly to each boiler with a dedicated duct or it may be supplied to the boiler room by combustion air fans. The boilers will be vented outside either individually or into common venting. A microprocessor-based boiler controller will be provided to optimize boiler plant operation by sequencing boilers, pumps, and resetting supply water temperature based on outside air temperature. The boilers will have an automatic water treatment system. Hot water system will be piped in primary/secondary configuration. Each boiler will have a dedicated primary circulator. The secondary loop will be variable flow. Hot water distribution system will consist of either in-line centrifugal or end suction pumps to circulate hot water within the loop that serves the heating equipment and heating zones.

Hot Water will be supplied to fintube radiation and hot water coils associated with Cabinet Unit Heaters, Unit Heaters and Energy Recovery Units throughout the Building.

Automatic Temperature Controls/Energy Management System: A Direct Digital Control (DDC) type Energy Management System will be provided for the facility to meet the facilities' requirements. The system may or may not be compatible with existing systems serving other town facilities. Compatibility with existing systems will be determined based on the owner's requirements. The controls will be based on BACnet controls.

The Large Daycare Room and back Offices will be served by a dedicated variable air volume packaged rooftop unit with integral Direct Expansion (DX) refrigerant cooling coils, gas-fired heating section and new ductwork distribution to provide heating, cooling and ventilation to all spaces.

The Gymnasium will be served by a dedicated single zone variable air volume packaged rooftop unit with integral Direct Expansion (DX) refrigerant cooling coils, gas-fired heating section and new ductwork distribution to provide heating, cooling and ventilation to all spaces.

The All Purpose / Lunch Room & Stage will be served by a dedicated single zone variable air volume packaged rooftop unit with integral Direct Expansion (DX) refrigerant cooling coils, gas-fired heating section and new ductwork distribution to provide cooling and ventilation to all spaces. Hot water fin tube radiation will provide heating at the exterior windows.

Toilet/Janitor/Storage Room Exhaust: Each Toilet Room will be provided with exhaust as required by the Building Code. Energy Recovery Ventilators (ERVs) will be reviewed as an option. Rooms with exterior walls & windows should be equipped with perimeter hot water radiation.

The Kitchen will be served by a dedicated gas-fired packaged makeup air unit (MAU) with integral Direct Expansion (DX) refrigerant cooling coils, gas-fired heating section and new ductwork distribution to provide heating, cooling and ventilation to the space. The MAU will be used to heat and cool some surrounding spaces as well. The roof mounted MAU will be provided with a spring isolation curb with sound attenuating panels. The roof mounted kitchen hood exhaust fan tested to UL 762 and UL 705 will be incorporated. The unit will be equipped with grease filters and a removable grease trough, and cleaning access.

Other areas such as the Daycare Classrooms, Senior Activity Rooms, Offices, Conference Rooms, Corridors, etc. will be served by a new state-of-the-art Variable Refrigerant Flow (VRF) system. The VRF system provides the benefit of free energy exchange while in simultaneous heating and cooling modes without the need for seasonal equipment changeovers. If units operating along one exposure are in cooling mode, while the others across the hall on the opposite exposure are heating, or vice versa (both common scenarios in this specific building), the refrigerant streams effectively transfer energy from one another providing "free energy exchange". Therefore, the outdoor compressors operate at lower capacities resulting in a significant portion of the system's energy consumption being negated. They provide one of the most viable retrofit options available as well and potentially have the advantage of being much less disruptive

during the upgrade of a building's HVAC infrastructure, requiring only additional circuiting for the added number of terminals and routing small-diameter flexible pipe sets above the ceilings. They are also highly maintenance friendly.

The VRF system consists of multiple "fan coil units", similar to the split ductless-indoor units which have become commonplace, and which can be configured to be mounted in a myriad of configurations, such as:

- High-wall mounted
- Low-wall (floor) mounted
- Lay-in cassettes at the ceiling level
- Ceiling mounted
- Above the ceiling (concealed) with duct connections to diffusers serving the space

The benefit to this HVAC retrofit application is that there is no addition of ductwork, duct insulation, dampers, diffusers, registers and grilles (except for the aforementioned concealed units, thus minimizing space disruption. In addition, the flexible refrigerant piping and small electrical power and control circuits serving the fan coil units is more easily run through an existing space. The refrigerant piping is run from the fan coil unit to a branch-circuit controller/junction box serving a building zone, wherein all the free-energy exchange takes place. The branch-circuit controller then connects to an outdoor condensing unit, along with other branch-circuit connections, to reject or absorb heat as required. These outdoor units could easily be placed on grade or at rooftop level as applicable.

Ventilation will still need to be addressed. Specialized energy recovery units will distribute tempered, dehumidified, outside air to the building via a duct system.

The daycare classrooms and senior activey rooms should be equipped with hot water perimeter radiation along the windows due to exterior door and window infiltration.

Portable Building will be served by dedicated packaged rooftop units with integral Direct Expansion (DX) refrigerant cooling coils, electric heating section. Existing ductwork distribution to remain.

### **Energy Conservation Measures**

Various energy conservation measures will be employed in the mechanical systems to ensure that the building runs as efficiently as possible.

The boiler plant will consist of high efficient condensing type, with modulating burners so the boilers can more precisely meet heating demand and to minimize boiler cycling. This will also aid in extending the life of the boilers and adding redundancy.

Demand controlled ventilation is a method of ensuring adequate ventilation for building occupants, while eliminating unnecessary ventilation and reducing energy consumption. The ventilation process requires a substantial amount of energy because outside air needs to be heated, cooled and dehumidified to acceptable levels. Energy is conserved by controlling ventilation rates based on the actual number of occupants based, indirectly, on the use of carbon dioxide (CO<sub>2</sub>) as an indicator of occupant load. Concentrations of CO<sub>2</sub> are measured by a sensor located in the space or return air duct and the outside air dampers are modulated to maintain concentrations below an established baseline. This technique can be applied throughout the building and is especially effective in high occupancy spaces that are not continuously occupied. Demand Controlled Ventilation can be easily implemented by the addition of sensors and required programming when an Energy Management System is provided.

Outside air economizers will be employed on all air handling systems with a capacity of 4 tons and greater. If there is a demand for cooling within the building and the outside air temperature is less than the inside space temperature, the cooling system will be disabled and fresh air will be brought in and used to cool the space. This will be particularly useful for areas with high occupancy such as conference and meeting rooms, classrooms, high occupancy spaces, etc., where a load is generated by a large group of people and cooling is often required when it is cool outside and other spaces may require heating.

Variable frequency drives (VFD's) will be used on air handling units and pumps to minimize electrical demand. As demand increases, the heating or cooling system calls for more water flow. The VFD's will modulate the pump to provide greater flow. At times where there is minimal load the VFD's will modulate the pumps to minimum settings to reduce the electrical load on the building.

An Energy Management System (EMS) provides a building owner with the ability to monitor, control, and adjust all HVAC (along with plumbing and electrical if desired) systems from a central location. An operator workstation consisting of a personal computer and printer can be located in the building, and this station can be accessed remotely via the internet. The owner can set occupancy schedules, adjust set points, and monitor trouble/alarm conditions in an efficient manner with this tool. Features such as night setback, holiday scheduling and weekend scheduling will be included to allow the system to minimize energy expenditure during unoccupied periods. An alarm feature will be added which can remotely notify facilities staff of any pre-determined, alarm conditions.



Incentives, Grants, and other programs may be available to offset construction costs. They may be in the form of rebates for implementing certain energy conservation measures such as high efficiency air conditioning equipment and premium efficiency motors. In addition, other incentives may be available for high efficiency systems by participating in a utility companies comprehensive design program. The incentives offered are designed to offset some or all of the additional cost for higher efficiency systems. Possible funding sources will be investigated as part of the design process.

Energy Recovery can be accomplished through a variety of technologies, and for this project, the use of energy recovery ventilators and energy recovery wheels is anticipated. These devices capture a portion of energy from the exhaust air stream and add it to the supply air stream thus reducing the amount of energy input required.

Refrigerants used in air conditioning systems will be hydrofluorocarbons having low ozone depletion and global warming potentials. Equipment will most likely use HFC-410A or HFC-134a. The existing units employ R-22 which is no longer in production due to its high OPP & GWP

Premium Efficiency Motors will be utilized wherever their application is feasible and per the latest energy codes.

## Electrical

This assessment reports existing electrical conditions and code violations observed during a walkthrough survey and evaluates equipment lifespan and potential remedial alternatives to improve existing electrical conditions and code compliance. The evaluation was based on visual observation, and therefore, electrical components, equipment, and wiring were not inspected or tested for performance.

The Bigelow Building electrical service consists of a switchgear rated for 1,600A, 120/208V -3 Phase, 4 wire with distribution section. The switchgear is fed from a utility pad-mounted transformer located at the east side of the building. The pad-mounted transformer feeds the switchgear via underground secondary service. The distribution section feeds multiple subpanels and equipment located throughout the facility. The switchgear and distribution panel located in the former utility vault, were manufactured by Cuttler Hammer, appear to be installed recently and are in good condition. Panels throughout the facility are a combination of original and newer, with ratings from 100A to 200A, three-phase and manufactured by Square D and Federal Electric. There is one electrical panel labeled as "PP2" located in a closet with limited space. The closet is currently used as a storage room blocking accessibility to the panel. The NEC code requires access for all electrical panels to have a minimum of 3' clearance in front. Removing or relocating items from the closet to another location is recommended to meet accessibility code requirements.

**Switchgear and Main Distribution**



**Panel in Closet Used as Storage**



In addition to the Bigelow electrical service, the building is equipped with a photovoltaic system rated at 480V. Solar panels are installed throughout 90% of the roof and are interconnected with utility-interactive inverters that feed a 480V, 200A disconnect. The 200A disconnect feeds a 150KVA, 480/277V-208V step-down transformer

that feeds a 208V, 600A disconnect. Inverters are located on the roof and disconnects, and a stepdown transformer are located on the exterior wall at the east side of the building. The system appears to be installed recently and is in good condition.

#### **Bigelow Photovoltaic Distribution System**



The condition of all panels throughout the Bigelow Building varies from obsolete, fair, and good. Original panels appear to be over 40 years old and given the age of the equipment, replacement parts may be difficult to obtain in future renovations. The typical life expectancy of electrical panels is approximately 40 years. Assuming original panels are presumed to be over 40 years old, replacement of original panels should be considered in the near future. Also, multiple panels were without designation name tags and directory. The NEC code requires that all panels shall be marked and provided with a circuit designation directory.

#### **Bigelow Obsolete Original Panels**



The Public Health Nursing Building electrical service consists of a main distribution panel rated for 800A, 120/208V -3 Phase, 4 wire with integrated current transformer compartment. The main distribution panel is located outside and mounted to the exterior east side wall of the building. The main distribution panel is fed from the utility pad-mounted transformer via underground secondary service. The distribution panel feeds multiple subpanels located throughout the facility. The Cuttler Hammer distribution panel appears to be original to the building and is in fair condition. However, the enclosure is starting to show signs of deterioration with some areas getting rusty. Panels throughout the facility are newer, in good condition, and manufactured by General Electric.

**Public Health Nursing Main Distribution Panel**



In addition to the electrical service for Public Health Nursing Building, the building is equipped with a photovoltaic system rated at 480V. Solar panels are installed in the parking lot and are interconnected with utility-interactive inverters that feed a 480V, 100A disconnect switch. The 100A disconnect feeds a 112.5KVA, 480/277V-208V step-down transformer that feeds a 208V, 400A service disconnect. Inverters are located in the parking lot and disconnects, and a stepdown transformer is located on the exterior wall at the east side of the building. The system appears to be installed recently and is in good condition.

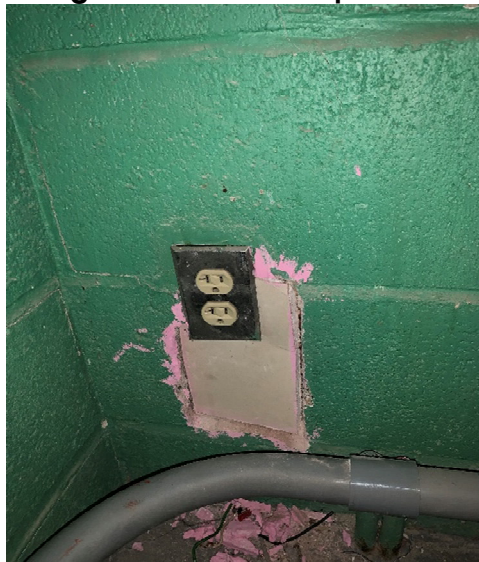


### **Nursing Building Photovoltaic Distribution System**



Power receptacles throughout the Bigelow facility consist of a combination of recessed and surface-mounted duplex receptacles with metal and nylon cover plates. It was observed that multiple receptacles were replaced, and additional were recently added to suit window air conditioning units and other equipment. Multiple power receptacles, without GFI (ground circuit interrupter) protection were observed in toilet and utility rooms. GFI power receptacles are required to be installed in potentially wet and utility areas such as toilets and utility rooms. Receptacle tamper-proof should be considered in daycare areas, offices, and corridors. The condition of the power receptacles throughout the facility varies from obsolete, fair, and good. The typical life expectancy of power receptacles is approximately 30 years. Based on observation, original power receptacles are presumed to be over the typical life expectancy and therefore, replacement of units should be considered in the near future. Power receptacles throughout The Public Health Nursing Building consist of recessed duplex receptacles with nylon cover plates. Power receptacles are newer and in good condition.

### **Bigelow Power Receptacle not GFI in Utility and Toilet Rooms**



The interior lighting throughout the Bigelow facility common areas, activity rooms, offices, kitchen, gym, utility rooms, and children garden area, consists of a combination of 10"x4' and 6"x4' pendant wraparound fixtures joined in a continuous row with acrylic prismatic lens, and 2'x2' and 2'x4' recessed and surface-mounted fixtures with parlouver diffusers and acrylic prismatic lens. Lighting fixtures throughout the Bigelow building are relatively in good condition and working properly. The original fixture fluorescent lamp was replaced with new LED lamps. Although lamps were upgraded to LED, they do not typically have the same efficiency levels as dedicated LED Fixtures. The typical life expectancy of light fixtures is approximately 30 years. Based on observation, light fixture housings appear to be over 30 years old. There were multiple classrooms and toilet rooms with occupancy sensors however, most lighting fixtures are controlled via toggle switches in corridors, common areas, toilet rooms, and dual toggle switches in multiple classrooms. There is a combination of original and newer lighting control switches with nylon and metal cover plates. Original light switches are obsolete. The typical life expectancy of lighting control is approximately 30 years. Based on observation, original lighting controls appear to be over 30 years old, and replacement of units should be considered in the near future. Occupancy and daylight sensors are recommended for energy saving. The exterior building perimeter lighting consists of a combination of wall-mounted full cut-off, recessed downlight with screw LED lamp, and ceiling surface-mounted LED fixtures. In addition to building perimeter lighting, there were approx. three light poles with what appear to be LED fixtures by the parking lot. the building perimeter lighting are newer and in good condition. Light poles are in fair condition however, pole base covers are deteriorated. The interior lighting throughout the Public Health Nursing Building common areas, and offices consist of 2'x4' recessed fixtures with acrylic prismatic lens. The original fixture lumen source was replaced with new LED lamps. Lighting fixtures throughout the building are relatively in good condition and working properly. All light fixtures are controlled via a combination of toggle switches and occupancy sensors. All lighting controls are in good condition and appear to be working properly.

**Bigelow Light Fixtures and Original Toggle Switches**



**Building Perimeter Light**



**Pole Base Cover**



**Public Health Nursing Light Fixtures and Original Toggle Switches**



The Bigelow emergency lighting system is based on self-contained twin head battery units throughout the paths of egress. The self-contained units appear to be in fair



condition however, multiple units appear to be obsolete and nearing the end of their useful life. Replacement of those units with LED units should be considered in the near future. Emergency lighting in the Gym appears to be mounted higher than recommended by the manufacturer. There is lacking emergency lighting in corridors and in classrooms with doors used as egress. No emergency lighting was observed at exterior of egress doors. The Public Health Nursing Building emergency lighting system is based on self-contained twin head battery units throughout the interior paths of egress and a single remote head at the exterior of each egress door and along the accessible ramps. The self-contained units and remote heads appear to be in fair condition and provided in sufficient numbers.

### **Bigelow Emergency Lighting**



The Bigelow exit signs throughout are LED with a combination of thermoplastic and metal housing. The units appear to be in fair condition and installed in the required locations however, there were multiple units not fully illuminated and classrooms with egress doors without exit signs. There were no ADA / accessible exit signs at egress doors as required by code. Adding accessible signs should be considered to meet code updates. The Public Health Nursing Building's exit signs are LED with thermoplastic housing. The exit signs are in good condition and provided in sufficient numbers within common areas. Adding accessible signs should be considered to meet code updates.



**Exit Sign not Fully Illuminated**



**Egress Door without Exit Sign & Emg. Lgt.**



The Bigelow addressable fire alarm system is manufactured by Silent Knight. The system includes a fire alarm control panel, voice evacuation, ADA speaker/strobes, smoke detectors, heat detectors and pull stations. Peripheral units were installed in the required locations however, there were classrooms with egress doors without a pull station. The fire alarm system is relatively new, modern, and peripheral units are ADA compliant. The Public Health Nursing Building addressable fire alarm system is manufactured by Fire-Lite. The system includes a fire alarm control panel, remote annunciator panel, ADA speaker/strobes, smoke detectors, and pull stations. Peripheral units were installed in the required locations. The fire alarm system is relatively new, modern, and peripheral units are ADA compliant.

**Bigelow Fire Alarm Panel**



**Health Nursing Fire Alarm Panel**



Both buildings existing phone systems appear to be in fair condition and no problems with neither system were reported.

Other items that should be addressed in the Bigelow Building are providing a label for panels and disconnect switches, replacing some disconnect units with rusty enclosure, relocating I/T rack and rearranging cable installation in a neat, organized manner, providing wire guards for fire alarm speaker/strobes, emergency lighting, clock and speakers in the gym.

Bigelow Senior Center/Child's Garden - 100 Mona Terrace Facility Condition Cost Estimate										
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING					CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
			4	3	2	1	n/a			
EXTERIOR CONDITIONS										
A01	Deteriorating mortar and cracked brick veneer	General		3				Repair and repoint	\$ 10,000	
A02	Storefront systems and windows are original and showing significant signs of wear and discoloration	General			2			Replace all storefront and windows with new double pane insulated glazed systems	\$ 600,000	
A03	Door hardware does not meet current code. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)				1		Remove door locksets and install new accessible lever handle locksets where designated.	\$ 30,000	
A04	Roof edge flashing at raised roof is worn, gutters are worn and not fully draining	General		3				Replace fascia components and install new gutters and leaders	\$ 7,000	
A05	Transition between lower and upper roof is deteriorating	General		3				Install new base flashing at perimeter of roof transition	\$ 28,000	
A06	Roof at portables is leaking and showing sings of wear	General			2			Replace EPDM roof with new roof and associated components	\$ 182,000	
A07	Exterior of portables showing signs of significant wear	General	4					Repaint exterior of portables	\$ 20,000	
EXTERIOR SUBTOTAL										\$ 877,000
INTERIOR CONDITIONS										
A08	Toilet Rooms - replace existing finishes	General			2			Replace floor tile, wall tile, toilet partitions, mirrors, repaint, etc.	\$ 300,000	
A09	Some plaster ceilings are damaged	General	4					Repaint and prime areas	\$ 5,000	allowance
A10	Some door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)				1		Remove door locksets and install new accessible lever handle locksets where designated.	\$ 30,000	
A11	Some doors paint is wearing	Maint.	4					Prime and paint	\$ 5,000	allowance
A12	Existing carpeting in Daycare corridor and library is worn	General		3				Replace carpeting with new, incl. base	\$ 40,000	
A13	Existing restrooms do not meet accessibility requirements.	(B) 1108.0 (ANSI A117.1) 603-606				1		Provide at least one accessible toilet stall, lavatory sink, and urinal. Provide required grab bars.	\$ 250,000	
A14	Insufficient knee space provided at sink and/or workstation in daycare	4.32 (ADA)			2			Provide accessible sinks and workstations per ADA Section 4.32. 27" high x 30" wide x 19" deep.	\$ 40,000	
A15	Replace ACT ceilings	General		3				Replace damaged and stained ACT to match existing	\$ 18,500	
A16	Existing casework and countertops are showing signs of wear and peeling	General		3				Replace damaged casework and countertops	\$ 75,000	
A17	Existing drinking fountains have plants and other items in them	Maint.					n/a	Clean out and confirm drinking fountains are operational		
A18	Existing casework and countertops are showing signs of wear and peeling	General		3				Replace damaged casework and countertops	\$ 75,000	
INTERIOR SUBTOTAL										\$ 838,500

Bigelow Senior Center/Child's Garden - 100 Mona Terrace Facility Condition Cost Estimate									
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING				CORRECTIVE ACTION	ITIMIZED ESTIMATED COST	REMARKS
PLUMBING/FIRE PROTECTION									
P01	Insulation missing on water piping	IPC			2		Provide pipe insulation	\$ 2,500	
P02	Main Building plumbing fixtures do not meet modern code requirements	IPC			1		Remove & replace Main Building Plumbing Fixtures & Equipment	\$ 100,000	
P03	Proposed kitchen renovation requires updating plumbing fixtures and equipment	Maint.			1		Remove & Replace Kitchen Plumbing Fixtures	\$ 32,000	
P04	Annex Building plumbing fixtures require upkeeping or replacement	Maint.	3				Remove & replace Annex Building Plumbing Fixtures & Equipment	\$ 26,000	
P05	Replace compromised piping	Maint.			2		Remove and replace compromised piping	\$ 100,000	
P06	Proposed HVAC plan is to add new gas-fired RTUs	Maint.			1		Add gas piping to serve new HVAC units	\$ 43,000	
P07	Roof drain cages show signs of rust and are past their useful life	Maint.	3				Replace all roof drain cages	\$ 15,000	
P08	Building not sprinklered	NFPA 13	3				Fully sprinkler building and bring in a new service.	\$ 270,000	
PLUMBING/FP SUBTOTAL									\$ 588,500
MECHANICAL SYSTEMS									
M01	Boilers have no redundancy	IMC			2		Replace boilers with gas-fired hot water condensing boilers capable of redundancy.	\$ 215,000	
M02	Boiler combustion air is not in accordance with code	IMC			1		Provide new combustion air per code requirements.	\$ 22,000	
M03	HVAC piping through the building has out lived it's useful life expectancy	IMC	3				Replace all pipes used for the 2-pipe building loop ( supply and return) with either steel or copper. Provide insulation.	\$ 96,350	
M04	Boiler chemical treatment	General	4				Engage the services of a Chemical Treatment Service Provider.	\$ 2,500	allowance
M05	Mechanical Room hot water pumps and steam to hot water heat exchanger have out lived their useful life expectancy	General			2		Provide primary/secondary system and new hot water pumps.	\$ 72,500	
M06	Main building Rooftop units have out lived their useful life expectancy	IECC			1		Replace the existing rooftop units with more energy efficient models.	\$ 300,000	
M07	Rear Portable Building - Rooftop units & electrical cabinet unit heater have out lived their useful life expectancy	IECC			2		Replace the existing rooftop units with more energy efficient models.	\$ 182,500	
M08	Air handling unit in the reception area has out lived its useful life expectancy	General	3				Provide new VRF Systems and perimeter hot water radiation within these spaces.	\$ 827,500	
M09	Fan coil unit have out lived their useful life expectancy	General	3						
M10	Unit ventilators have out lived their useful life expectancy	General	3						
M11	Cabinet unit heaters have out lived their useful life expectancy	General	3				Replace with new cabinet unit heaters.	\$ 13,500	
M12	Fintube radiation has out lived its useful life expectancy	General	3				Replace with new hot water radiation.	\$ 18,125	
M13	Toilet Rooms - All All associated HVAC equipment has out lived its useful life expectancy	General	3				Replace with new exhaust fan and associated ductwork, diffusers, radiation, etc.	\$ 48,500	
M14	Kitchen hood and associated exhaust fan have out lived their useful life. Makeup air for the exhaust does not exist.	General			1		Provide new kitchen hood, associated exhaust fan and a dedicated makeup air units.	\$ 50,000	
M15	Ventilation air from operable windows.	General			2		Consider providing dedicated outdoor air units to occupied space. Providing dedicated outdoor air units will eliminate excessive introduction of untreated outdoor air to the space.	\$ 296,750	
M16	Obsolete temperature controls	General			2		Replace old proprietary controls. Provide controls compatible with town's DDC system.	\$ 265,000	
MECHANICAL SUBTOTAL									\$ 2,410,225



Bigelow Senior Center/Child's Garden - 100 Mona Terrace Facility Condition Cost Estimate									
TAG NO.	ASSESSMENT	SYSTEM/ CODE REF.	RANKING				CORRECTIVE ACTION	ITIMIZED ESTIMATED COST	REMARKS
ELECTRICAL SYSTEMS									
E1	Old electrical panels (at or beyond useful life)	Maint.	3				Replace old electrical panels with new, newer panels can remain	\$ 27,450	Bigelow Bldg.
E2	Fire Alarm Manual pull station for doors used as egress	NFPA 72		2			Add pull stations to each egress door use as egress	\$ 2,500	Bigelow Bldg.
E3	ADA exit signs	NFPA 72		2			Provide ADA exit signs for corresponding door use as egress	\$ 3,000	Bigelow Bldg.
E4	No Exterior emergency egress lighting and additional for interior	NEC			1		Add an emergency light fixture w/battery and test switch for each egress door	\$ 4,500	Bigelow Bldg.
E5	Power Receptacles (GFI, Tamperproof, original)	General	4				Replace original, provide GFI and Tamperproof power receptacles	\$ 8,400	Bigelow Bldg.
E6	Toggle switches, occuoancy and daylight sensors	2015 IECC	4				Replace all original toggle type switches, and provide occupancy sensors and daylight sensors	\$ 10,415	Bigelow Bldg.
E7	Safety Disconnect replacement	Maint.	3				Disconnect in deteriorated condition and at or beyond useful life	\$ 6,000	Bigelow Bldg.
E8	Network System	Maint.	3				Relocate I/T Cabinet, provide proper support and protection to cables	\$ 10,000	Bigelow Bldg.
E9	Lighting Replacement	Maint.	4				Replace all original light fixtures with new LED fixtures	\$ 125,000	Bigelow Bldg.
E10	Misc.	Maint.	3				Provide panel directory and labels, wireguard for devices in gym	\$ 1,000	Bigelow Bldg.
E11	Misc. Required for new HVAC & Kitchen				1		Electrical support for new HVAC & Kitchen components	\$ 45,500	Bigelow Bldg.
ELECTRICAL SUBTOTAL									\$ 243,765
TOTAL ESTIMATED COSTS									\$ 4,957,990

LEDGEND PRIORITY - RANK

1	Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.
2	High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated
3	Moderate priority - These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.
4	Low priority - These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a

## Conclusions

The assessment of each building has addressed a vast variety of needs required to improve these facilities. All buildings require some building code or accessibility upgrades. Common occurrences tend to be seen in door hardware, signage, casework or restrooms. Architecturally many buildings call out the replacement of roofs and repairs to the exterior envelopes are addressed along with some interior finishes and maintenance needed within the next 10 years. Many buildings require some limited improvements to the plumbing and fire protections systems which typically are not major contributions to the overall cost. There are fairly consistent infrastructure upgrades to mechanical systems called out, commonly with ventilation, kitchen hoods. Electrically some code items regarding egress lighting and exits signs are often called out. While these items repeat themselves through many of the buildings, each building varies based on their age and construction, therefore each should be reviewed in depth individually. The chart below summarizes the capital needs of all 17 buildings. A row, Cost per square foot, is included. It begins to analyze the total facility conditions cost per building size. Building size is based off of information from the towns GIS. While this is not a perfect tool, it does provide another lens to compare the needs of each building. While every recommendation within each building may not be undertaken, the facility condition matrix with the prioritization ranking is now the tool to begin to create a master plan for the town.

BUILDING SITE	EXTERIOR	INTERIOR	PLUMBING/ FIRE PROTECTION	MECHANICAL	ELECTRICAL	TOTAL	NET SQ FT (PER GIS INFO)	COST PER SQ FT
Fire Station 1	\$ 225,000	\$ 723,500	\$ 71,700	\$ 455,400	\$ 29,475	\$ 1,505,075	11,360	\$ 132
Fire Station 2	\$ 324,950	\$ 507,700	\$ 32,700	\$ 310,750	\$ 21,250	\$ 1,197,350	10,428	\$ 115
Fire Station 3	\$ 169,100	\$ 652,000	\$ 17,500	\$ 283,900	\$ 24,975	\$ 1,147,475	5,579	\$ 206
Fire Station 4	\$ 166,615	\$ 467,200	\$ 19,000	\$ 294,600	\$ 26,500	\$ 973,915	4,935	\$ 197
Fire Station 5	\$ 29,500	\$ 555,900	\$ 65,000	\$ 273,230	\$ 25,625	\$ 949,255	3,848	\$ 247
DPW Garages	\$ 1,680,825	\$ 108,250	\$ 71,450	\$ 594,900	\$ 67,500	\$ 2,522,925	55,413	\$ 46
Animal Control	\$ 194,900	\$ 12,250	\$ 43,450	\$ 279,600	\$ 7,675	\$ 537,875	7,396	\$ 73
Main Library	\$ 506,900	\$ 42,800	\$ 5,000	\$ 458,000	\$ 40,900	\$ 1,053,600	49,640	\$ 21
Fairfield Woods Library	\$ 17,000	\$ 299,750	\$ 9,200	\$ 584,500	\$ 39,575	\$ 950,025	14,995	\$ 63
Recreation Center	\$ 138,662	\$ 10,550	\$ 43,950	\$ 153,750	\$ 10,575	\$ 357,487	8,959	\$ 40
Police Department	\$ 11,500	\$ 684,000	\$ 5,000	\$ 1,001,400	\$ 107,300	\$ 1,809,200	24,580	\$ 74
Operation Hope	\$ 106,500	\$ 281,750	\$ 17,200	\$ 300,850	\$ 49,000	\$ 755,300	4,000	\$ 189
Penfield Pavillion	\$ 22,500	\$ 11,800	\$ 8,400	\$ 7,400	\$ 24,200	\$ 74,300	15,542	\$ 5
Old Town Hall	\$ 403,335	\$ 609,000	\$ 82,700	\$ 328,650	\$ 44,800	\$ 1,468,485	15,962	\$ 92
Independence Hall	\$ 16,600	\$ 115,460	\$ 36,100	\$ 520,550	\$ 54,100	\$ 742,810	23,480	\$ 32
Burr Mansion	\$ 411,200	\$ 283,290	\$ 43,000	\$ 751,417	\$ 131,750	\$ 1,620,657	7,805	\$ 208
Bigelow Senior Center	\$ 877,000	\$ 838,500	\$ 588,500	\$ 2,410,225	\$ 243,765	\$ 4,957,990	41,752	\$ 119
	\$ 5,302,087	\$ 6,203,700	\$ 1,159,850	\$ 9,009,122	\$ 948,965	\$ 22,623,724	305,674	

## SECTION III – 10 YEAR CAPITAL PLAN

Silver / Petrucelli + Associates (SP+A) has prepared numerous Facilities Condition Cost Estimate matrices that now are the tool to Fairfield's 10-year Capital Plan. These matrices identify specific conditions in each building and are first presented by each professional discipline; Architectural, Plumbing, Mechanical, Electrical, etc. Each specific facility condition assessment is then prioritized by number from 1 - Urgent priority to 4 – Low priority. The Corrective Action envisioned is then briefly described and finally an estimated Cost is assigned. While this matrix is also preceded by text describing the overall conditions of the facility, it often becomes the singular focus of creating and the beginning of standalone capital projects.

The estimated assessment costs are conceptual in nature and not necessarily based on a specific design. They are our “opinion of probable construction cost.” These costs are included to allow for the prioritizing needs over a 10-year period. They are also not intended to be standalone project costs. To arrive at a project cost from an estimated construction cost is as much an art as it is a science.

In brief, when a town proceeds with Capital Needs as standalone projects, several considerations should be included to refine and then define these projects further, rather than just proceeding with an individual standalone conceptual cost. The factors we are raising for your consideration are as follows:

1. Design of, and the preparation of Construction Documents including the Construction Administration for implementing standalone projects.
2. Project construction delivery cost through Town bidding process to a General Contractor (GC), Construction Manager (CM), or directly to a Trade contractor.
3. Any and / or all hazardous material remediation once project scopes are further developed and specific hazardous material testing is complete.
4. Any and / or all site and structural issues once project scopes are further developed. These were not a part of this study and therefore have not been fully incorporated.
5. Town's recommendations regarding any accommodations from the ADA. While the CT Building Code “parallels” the ADA, it is not a federal law, nor is it “able” to determine a reasonable accommodation for specific projects. Perhaps further

confusing this separation, the State building code now requires some accessible improvements to the primary route in existing buildings.

6. Include an escalation factor and Town finance contingences, including project delivery cost for CM or GC overhead and profit. The phasing of construction and construction schedule contributes directly to project costs and should be factored into your consideration.

For the purposes of aiding the town with a 10-year capital needs master plan we have taken the approach of focusing on the priorities, number from 1 - Urgent priority to 4 – Low priority. We have broken them up over the 10-year period. Then each year out we have added a 3% escalation. Finally, we have incorporated a 30% soft cost which should account for design and general conditions. We believe this puts a more realistic approach to the overall costs over this period. However, it still may not reflect all issues such as hazardous material testing and remediation, structural modifications, site needs and unforeseen conditions typically seen while working in existing buildings. As specific projects are defined it is advantageous to incorporate contingencies within each.

We trust that this is helpful as a steering document, and sincerely understand the challenges ahead of you to make budget recommendations and see the projects through implementation.

BUILDING SITE	1	2	3	4	total
Fire Station 1	\$ 118,200	\$ 751,750	\$ 192,400	\$ 442,725	\$ 1,505,075
Fire Station 2	\$ 136,750	\$ 522,250	\$ 91,450	\$ 441,900	\$ 1,197,350
Fire Station 3	\$ 166,000	\$ 673,750	\$ 86,700	\$ 221,025	\$ 1,147,475
Fire Station 4	\$ 173,500	\$ 525,250	\$ 59,040	\$ 216,125	\$ 973,915
Fire Station 5	\$ 144,650	\$ 575,250	\$ 81,000	\$ 148,355	\$ 949,255
DPW Garages	\$ 221,000	\$ 387,000	\$ 1,506,325	\$ 408,600	\$ 2,522,925
Animal Control	\$ 4,600	\$ 16,350	\$ 75,000	\$ 441,925	\$ 537,875
Main Library	\$ 17,800	\$ 581,150	\$ 24,000	\$ 430,650	\$ 1,053,600
Fairfield Woods Library	\$ 117,200	\$ 312,750	\$ 46,000	\$ 474,075	\$ 950,025
Recreation Center	\$ 6,400	\$ 55,062	\$ 135,550	\$ 160,475	\$ 357,487
Police Department	\$ 186,000	\$ 498,500	\$ 399,350	\$ 725,350	\$ 1,809,200
Operation Hope	\$ 64,000	\$ 288,750	\$ 134,500	\$ 268,050	\$ 755,300
Penfield Pavillion	\$ 9,250	\$ 25,150	\$ 22,900	\$ 17,000	\$ 74,300
Old Town Hall	\$ 12,400	\$ 601,700	\$ 178,800	\$ 675,585	\$ 1,468,485
Independence Hall	\$ 2,500	\$ 221,300	\$ 28,050	\$ 490,960	\$ 742,810
Burr Mansion	\$ 84,887	\$ 536,160	\$ 433,140	\$ 566,470	\$ 1,620,657
Bigelow Senior Center	\$ 907,000	\$ 2,261,750	\$ 1,612,925	\$ 176,315	\$ 4,957,990
<b>TOTAL</b>	<b>\$ 2,372,137</b>	<b>\$ 8,833,872</b>	<b>\$ 5,107,130</b>	<b>\$ 6,305,585</b>	<b>\$ 22,623,724</b>



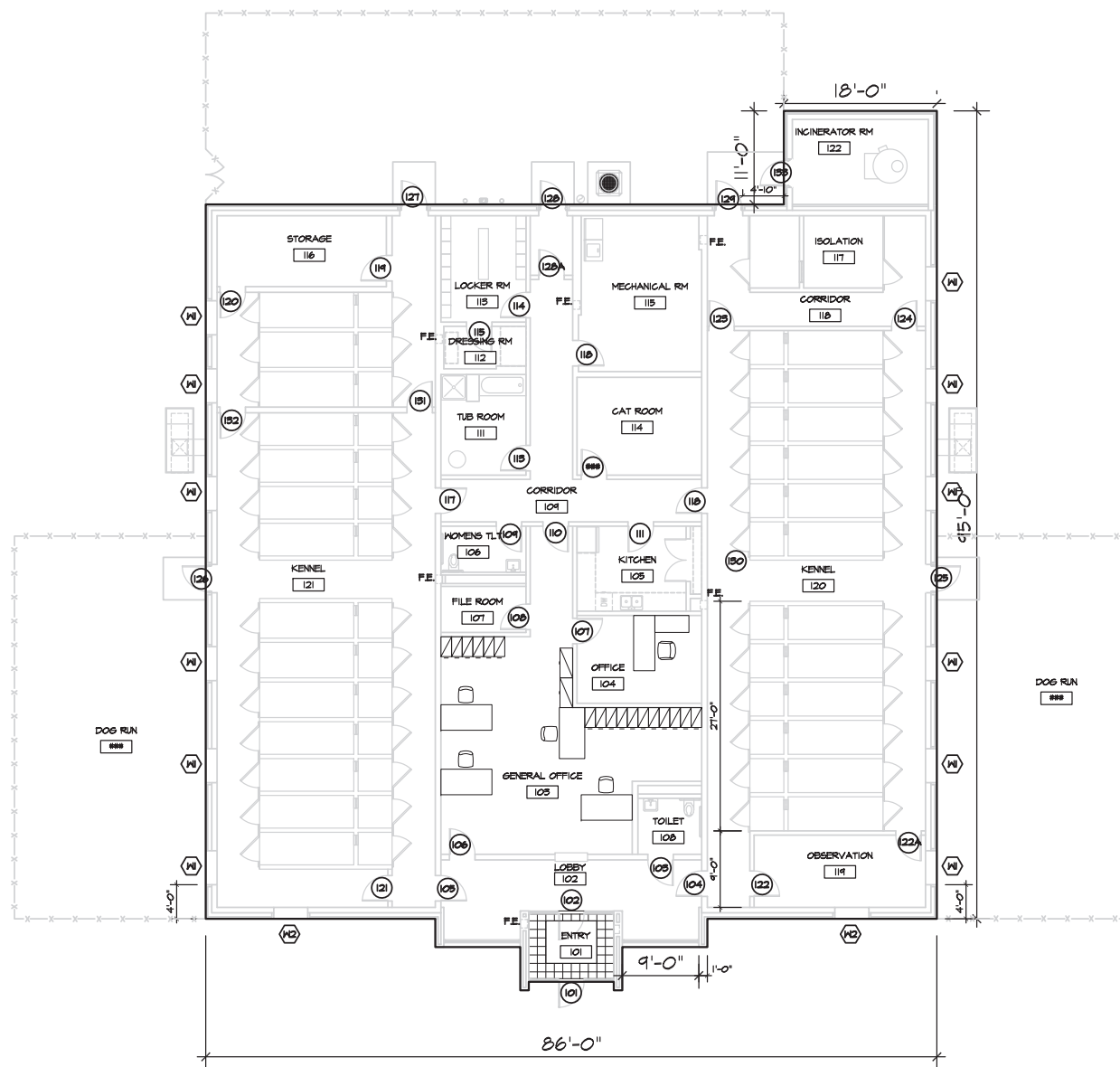
Fairfield CNA 10 year plan

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
rank	1s	2s	2s	2s	3s	3s	4s	4s	4s	4s
cost estimate	\$ 2,372,137	\$ 2,944,624	\$ 2,944,624	\$ 2,944,624	\$ 2,553,565	\$ 2,553,565	\$ 1,576,396	\$ 1,576,396	\$ 1,576,396	\$ 1,576,396
	\$ 711,641	\$ 88,339	\$ 88,339	\$ 88,339	\$ 76,607	\$ 76,607	\$ 47,292	\$ 47,292	\$ 47,292	\$ 47,292
	\$ 3,083,778	\$ 3,032,963	\$ 3,032,963	\$ 3,032,963	\$ 2,630,172	\$ 2,630,172	\$ 1,623,688	\$ 1,623,688	\$ 1,623,688	\$ 1,623,688
		\$ 909,889	\$ 90,989	\$ 90,989	\$ 78,905	\$ 78,905	\$ 48,711	\$ 48,711	\$ 48,711	\$ 48,711
		\$ 3,942,852	\$ 3,123,952	\$ 3,123,952	\$ 2,709,077	\$ 2,709,077	\$ 1,672,399	\$ 1,672,399	\$ 1,672,399	\$ 1,672,399
			\$ 937,185	\$ 93,719	\$ 81,272	\$ 81,272	\$ 50,172	\$ 50,172	\$ 50,172	\$ 50,172
			\$ 4,061,137	\$ 3,217,670	\$ 2,790,349	\$ 2,790,349	\$ 1,722,571	\$ 1,722,571	\$ 1,722,571	\$ 1,722,571
				\$ 965,301	\$ 83,710	\$ 83,710	\$ 51,677	\$ 51,677	\$ 51,677	\$ 51,677
				\$ 4,182,971	\$ 2,874,060	\$ 2,874,060	\$ 1,774,248	\$ 1,774,248	\$ 1,774,248	\$ 1,774,248
					\$ 862,218	\$ 86,222	\$ 53,227	\$ 53,227	\$ 53,227	\$ 53,227
					\$ 3,736,278	\$ 2,960,282	\$ 1,827,475	\$ 1,827,475	\$ 1,827,475	\$ 1,827,475
						\$ 888,085	\$ 54,824	\$ 54,824	\$ 54,824	\$ 54,824
						\$ 3,848,366	\$ 1,882,300	\$ 1,882,300	\$ 1,882,300	\$ 1,882,300
							\$ 564,690	\$ 56,469	\$ 56,469	\$ 56,469
							\$ 2,446,989	\$ 1,938,769	\$ 1,938,769	\$ 1,938,769
								\$ 581,631	\$ 58,163	\$ 58,163
								\$ 2,520,399	\$ 1,996,932	\$ 1,996,932
									\$ 599,079	\$ 59,908
									\$ 2,596,011	\$ 2,056,840
										\$ 617,052
										\$ 2,673,891

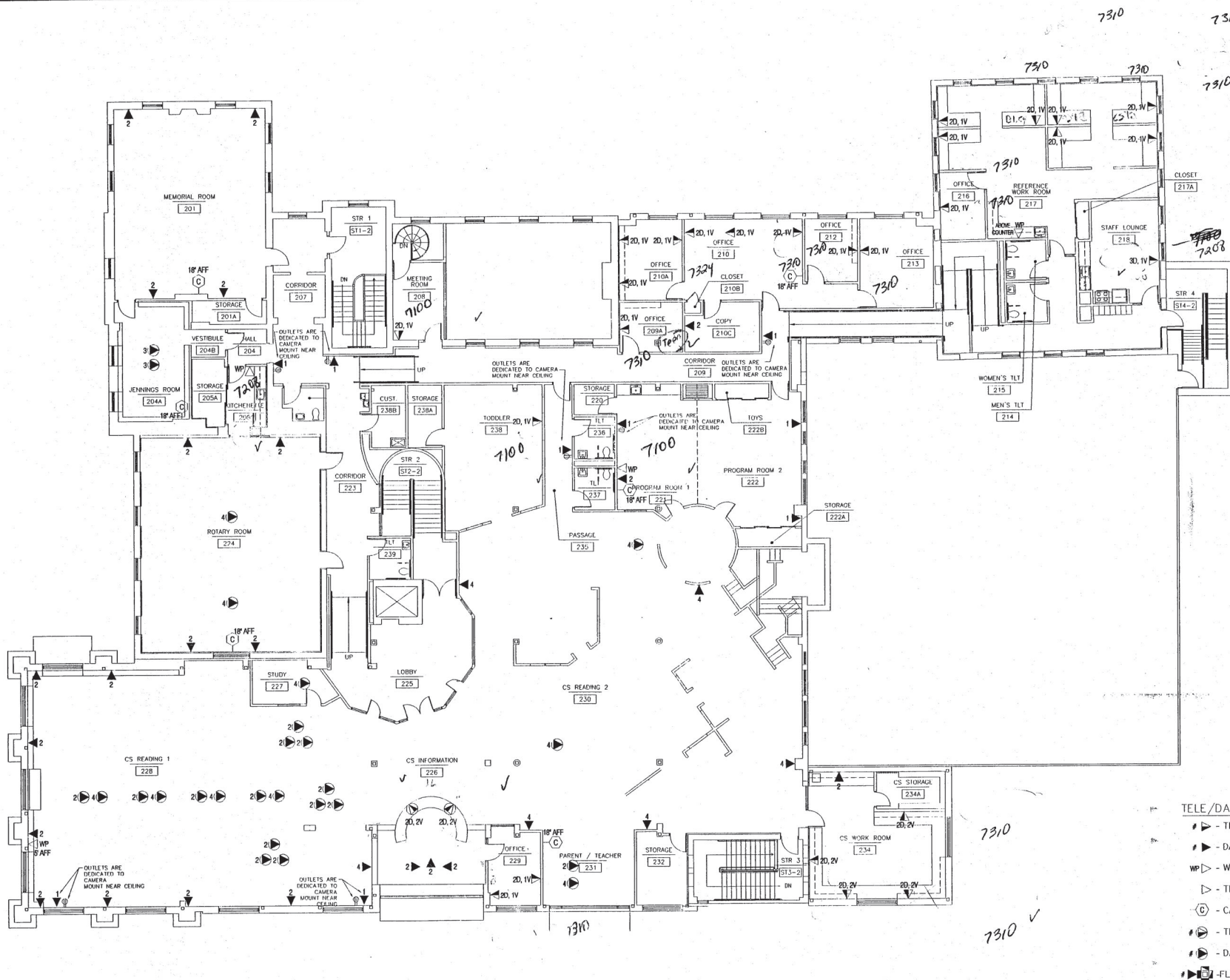
escalation @ 3% per year

construction cost

## **APPENDIX – FLOOR PLANS & CUT SHEETS**



ANIMAL CONTROL



- TELE/DATA LEGEND**
- ◀▶ - TELE/DATA OUTLET
  - ▶ - DATA OUTLET
  - WP▶ - WALL PHONE OUTLET
  - ▶ - TELEPHONE OUTLET
  - ◌ - CABLE TV OUTLET
  - ◌ - TELE/DATA POKE THRU
  - ◌ - DATA POKE THRU
  - ◌ - FLOOR BOX

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 FAIRFIELD, CONNECTICUT 06430  
 ACCUMULUM 3

Drawing Title  
**SECOND FLOOR  
 TEL/DATA PLAN**

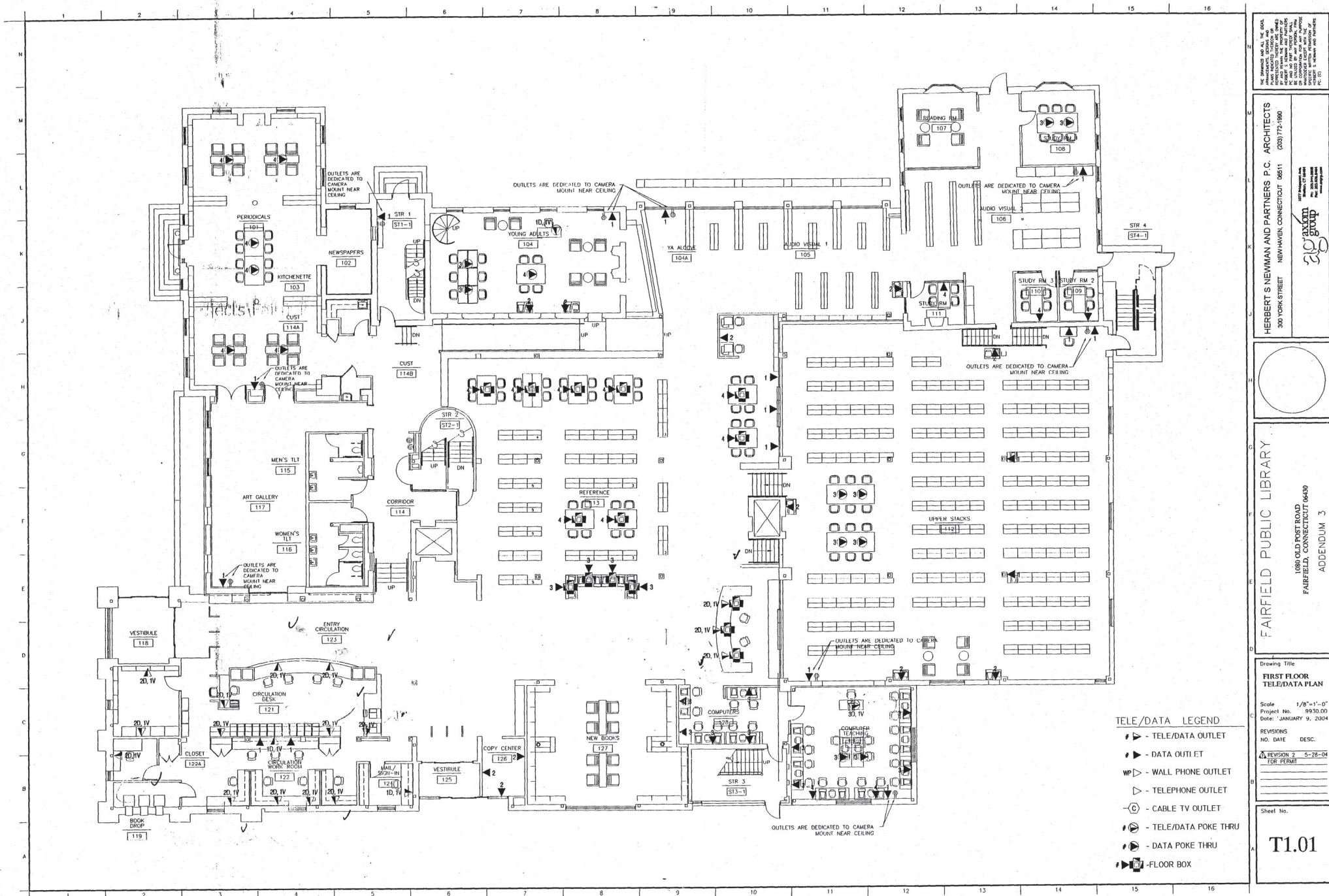
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 Date: JANUARY 9, 2004

REVISIONS  
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 1. REVISION 2 5-28-04 FOR PERMIT

Sheet No.  
**T1.02**

New Build  
 at Commerce Dr  
 at Sanford St  
 1720





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**axiom group**  
ARCHITECTS  
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(203) 255-1100

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APPENDIX 3

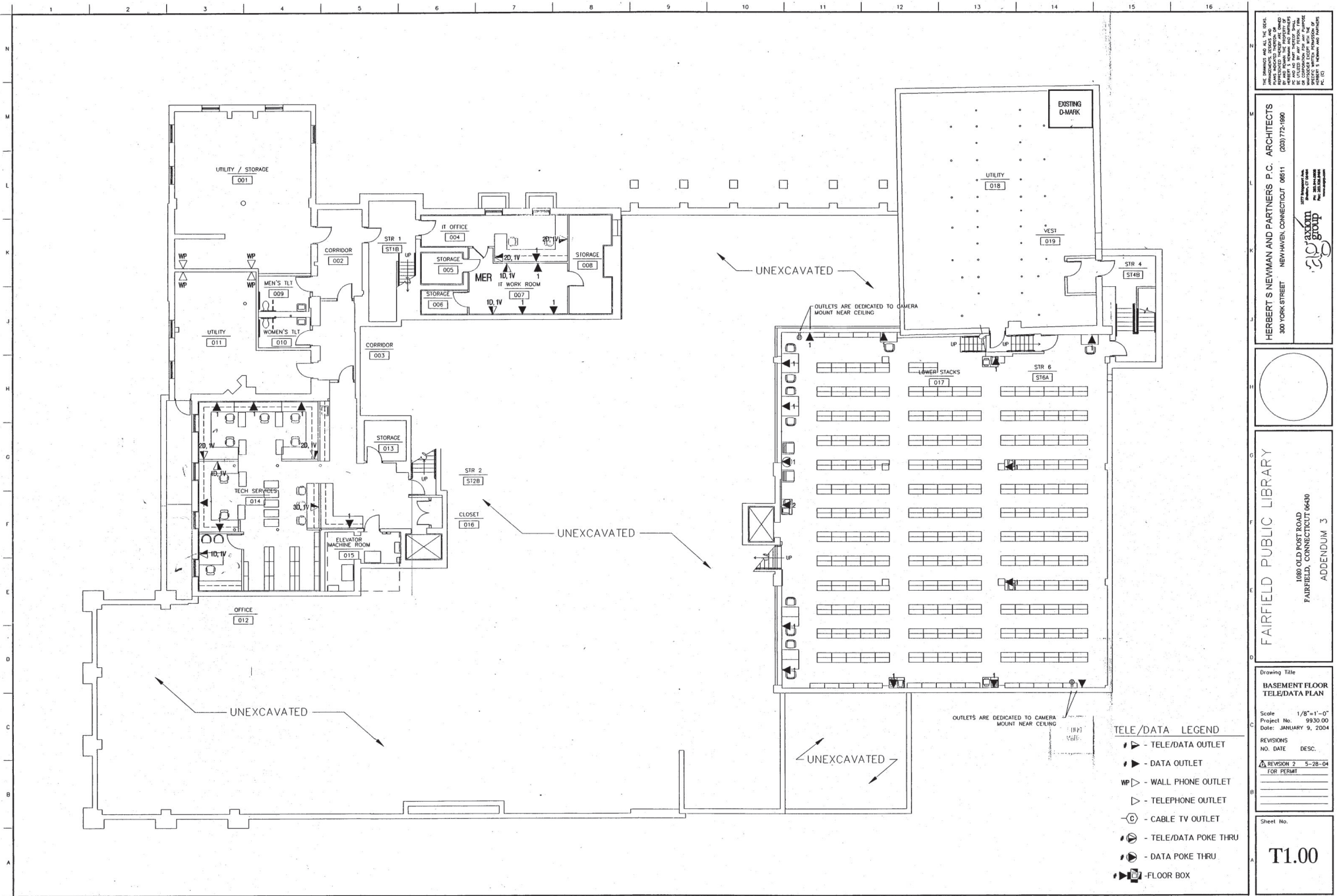
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**FIRST FLOOR  
TELE/DATA PLAN**

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Date: JANUARY 5, 2004

REVISIONS  
NO. DATE DESC.

1. REVISION 2 5-28-04  
FOR PERMIT

Sheet No.  
**T1.01**



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 axiomatic design  
 axiomatic engineering  
 axiomatic architecture

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 ADDENDUM 3

Drawing Title  
**BASEMENT FLOOR  
 TELE/DATA PLAN**

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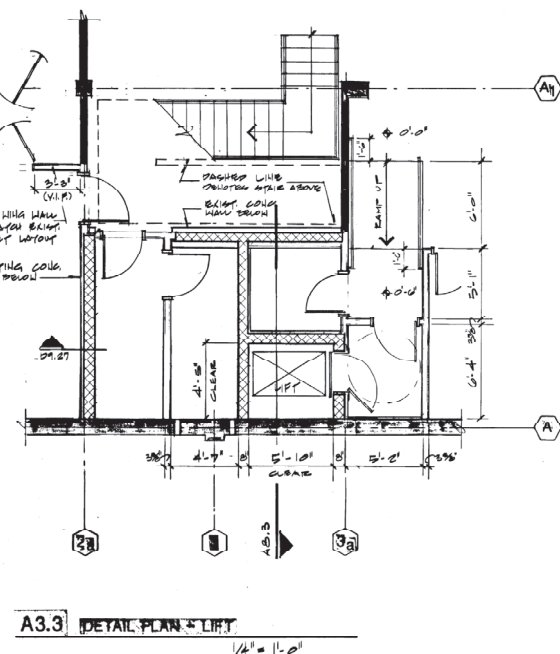
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 NO. DATE DESC.

Sheet No.

**T1.00**



SHEET  
OF



**A3.3** **DETAIL PLAN - LIFT**



ADDITION and RENOVATION  
FAIRFIELD WOODS BRANCH LIBRARY  
1147 FAIRFIELD WOODS ROAD  
FAIRFIELD, CONNECTICUT 06430



**GALLIHER and BAIER**  
Architects and Planners  
The Court/yard 10  
Simsbury, Connecticut 06070  
203/648-7417

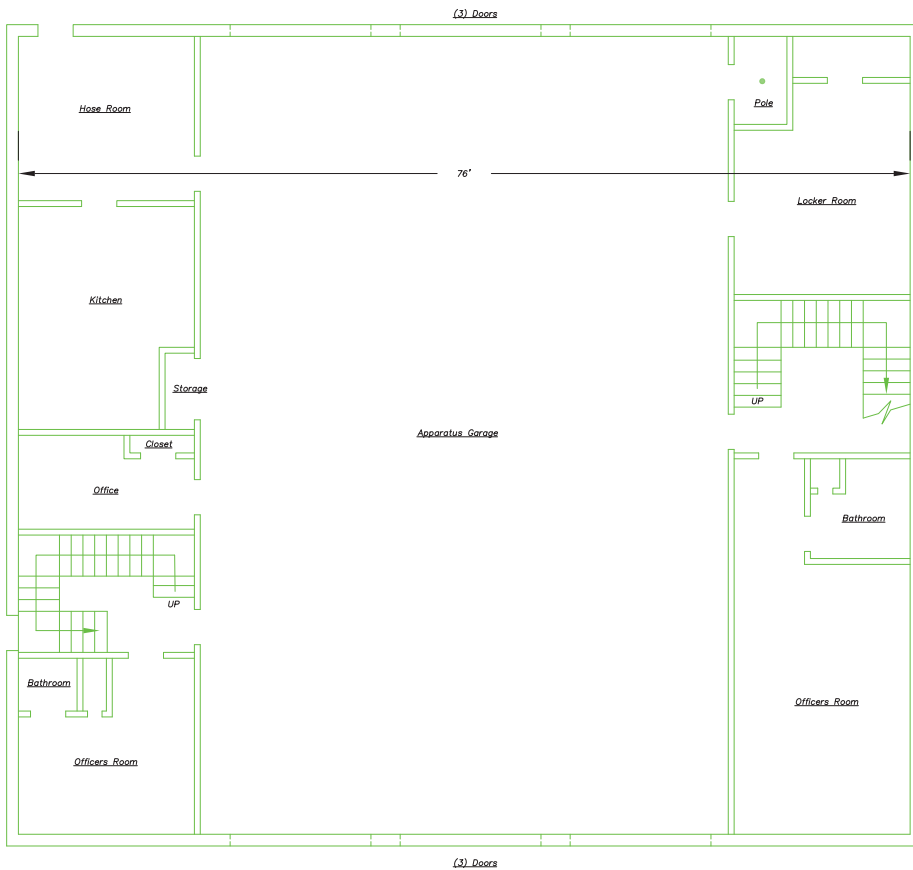
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**BASEMENT  
PLAN &  
DETAIL  
PLANS**

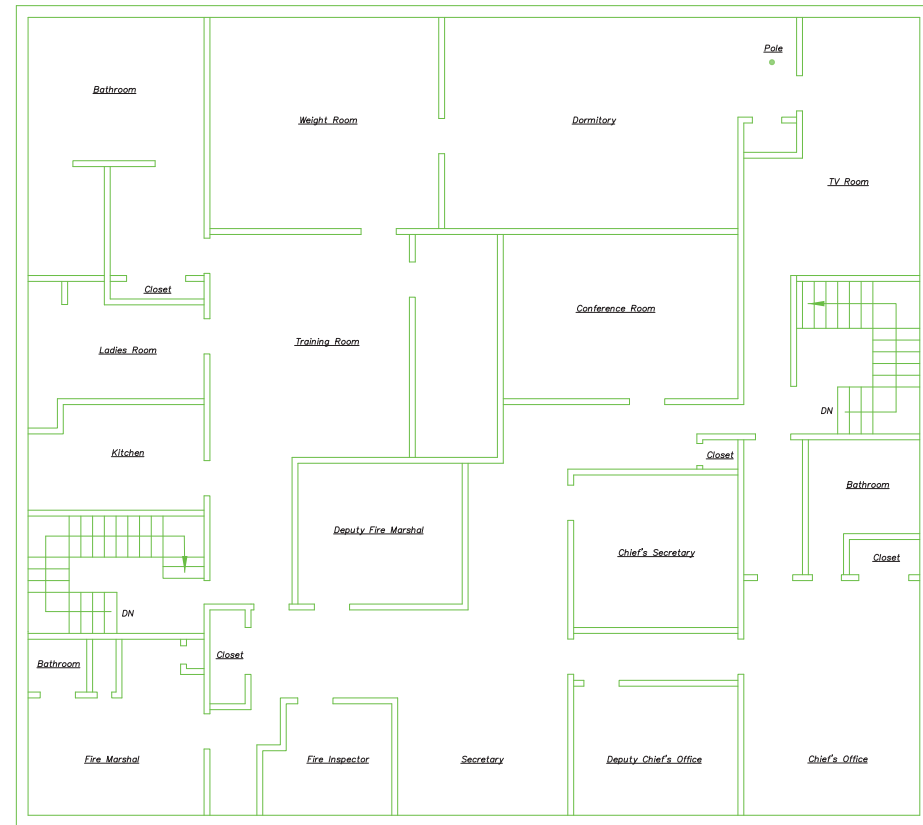
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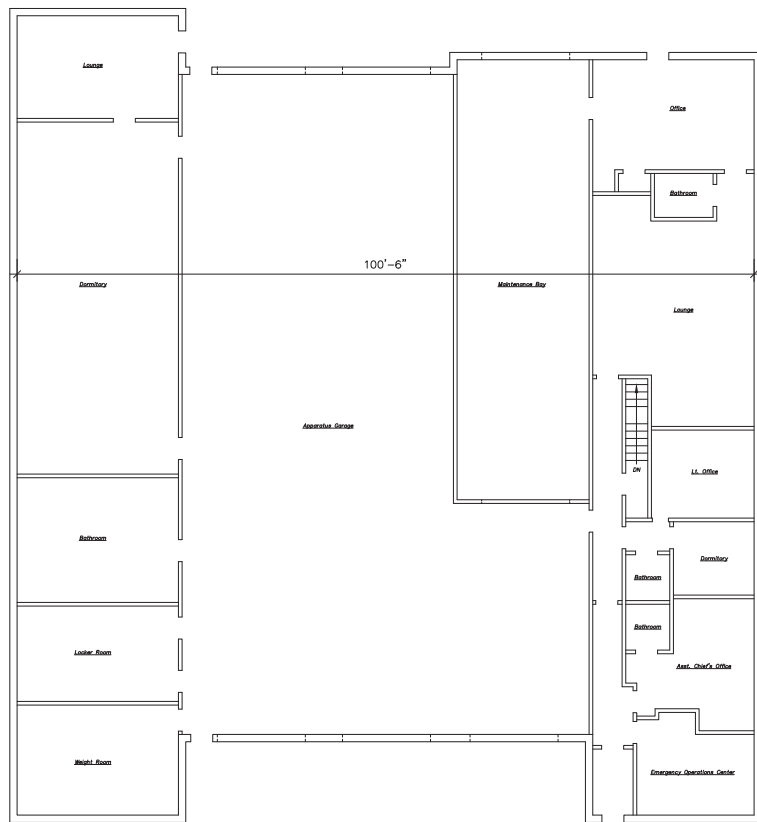


Reef Road Fire Station – 1st Floor



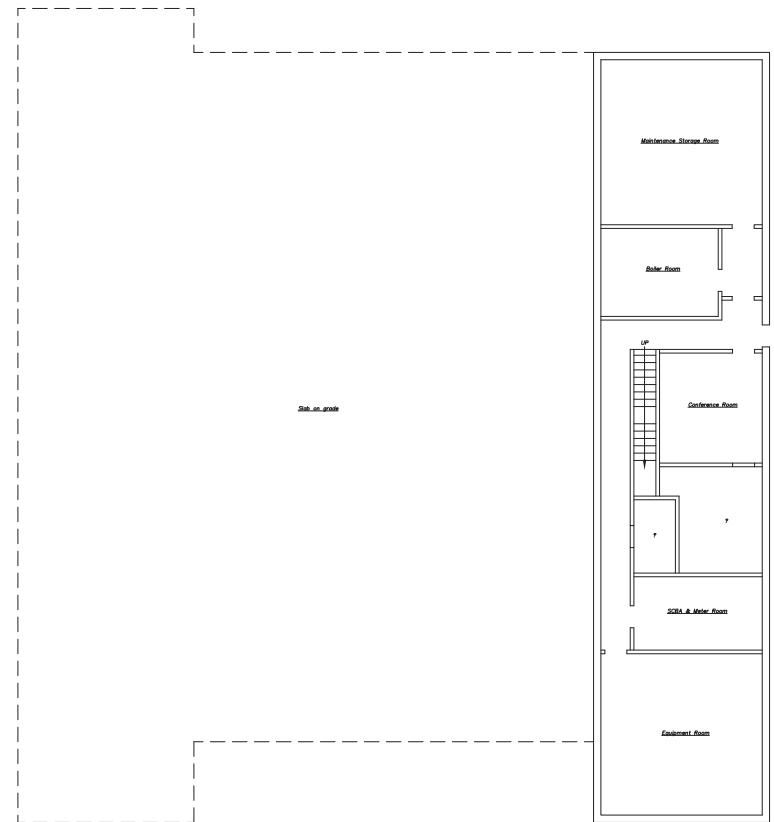
Reef Road Fire Station – 2nd Floor

## FIREHOUSE 1



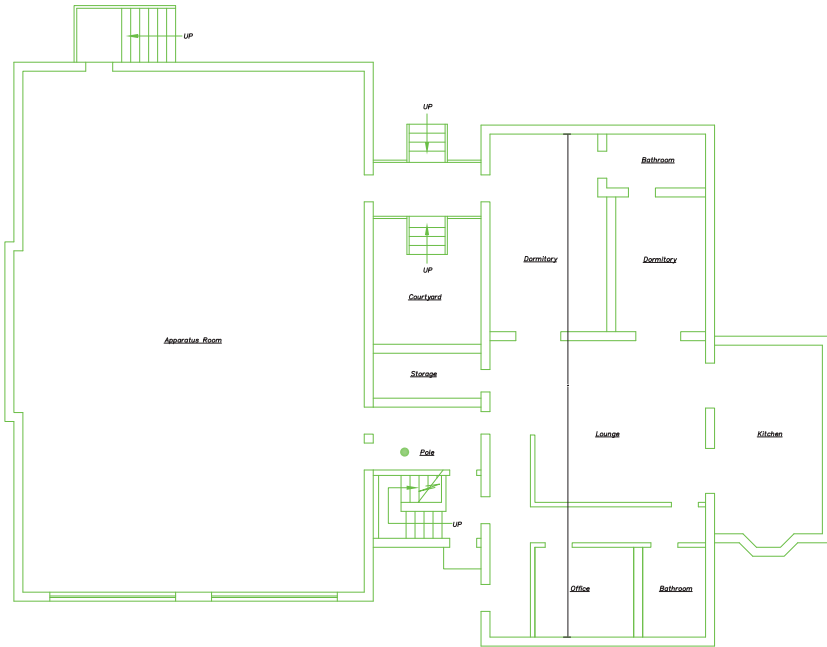
Jennings Road Fire Station — 1st Floor

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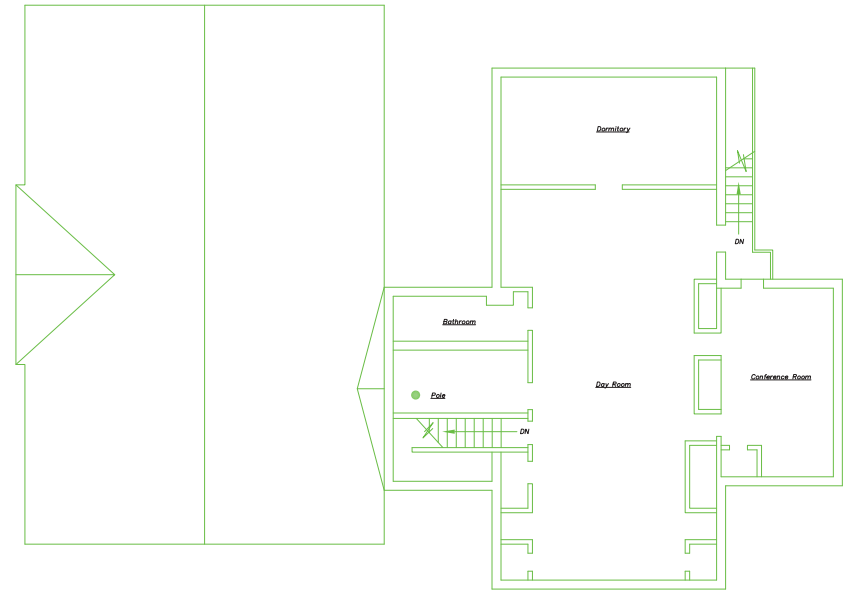


Jennings Road Fire Station — Basement

## FIREHOUSE 2

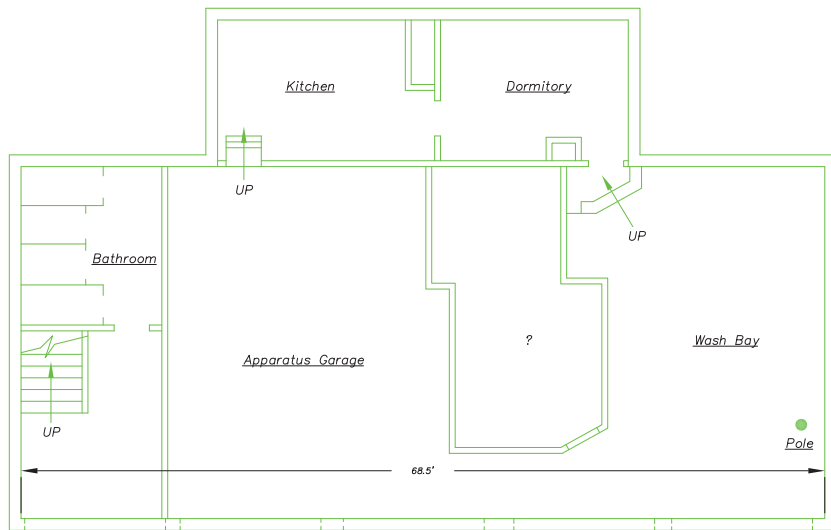


Jackman Avenue Fire Station — 1st Floor

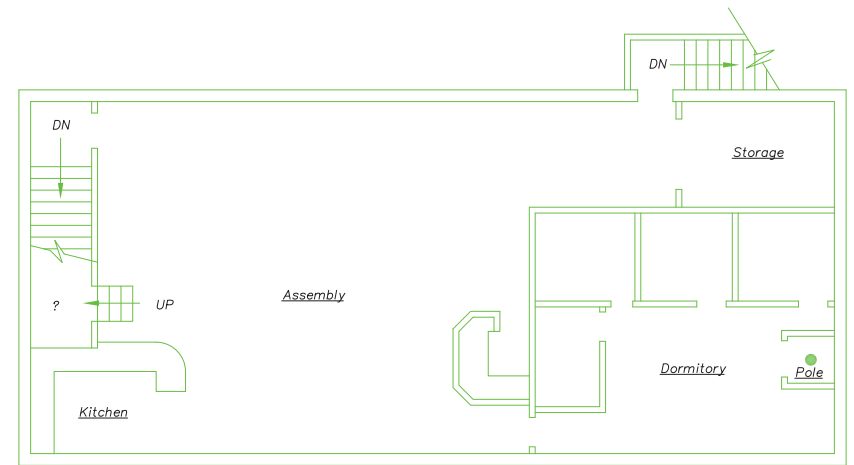


Jackman Avenue Fire Station — 2nd Floor

## FIREHOUSE 3



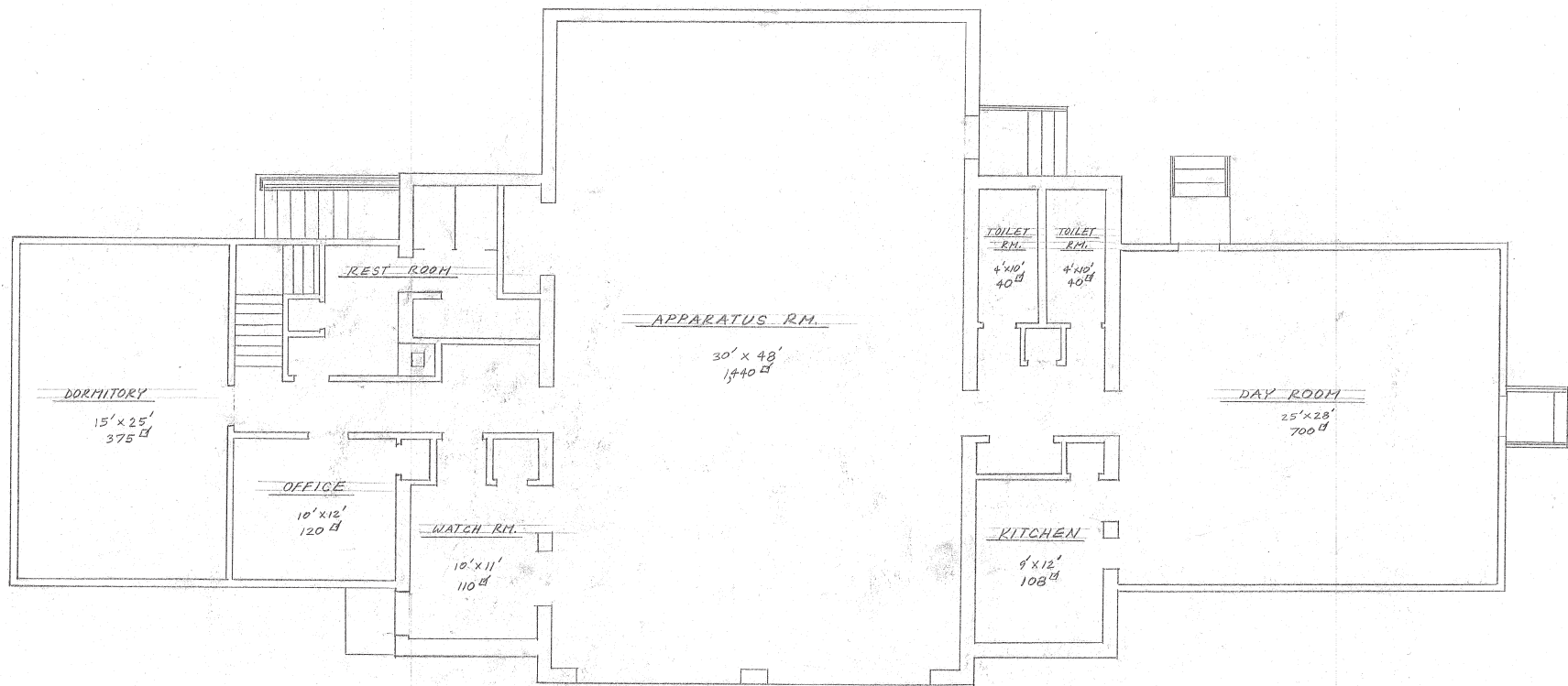
*Southport Fire House – 1st Floor*



*Southport Fire House – 2nd Floor*

## FIREHOUSE 4





# **FIREHOUSE 5**

FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

NOTE: DOORS & WINDOWS NOT SHOWN.

FILE: PUBLIC PROPERTY

**1104**

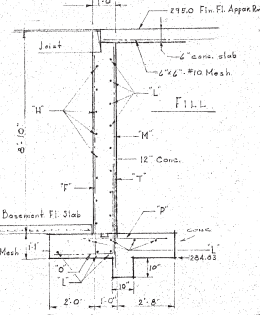
Town of Fairfield  
Dept. of Public Works



FIREHOUSE #5  
3965 CONGRESS ST.  
GREENFIELD HILL

DRAWN BY: AN/M.  
DATE: 7/15/2009  
SCALE: AS SHOWN

CHK'D BY:  
FILE NO: PUBLIC PROPERTY  
MAP NO: 1 of 1



Scale: 3/8" = 1'-0"

STEEL REINFORCING FOR J.

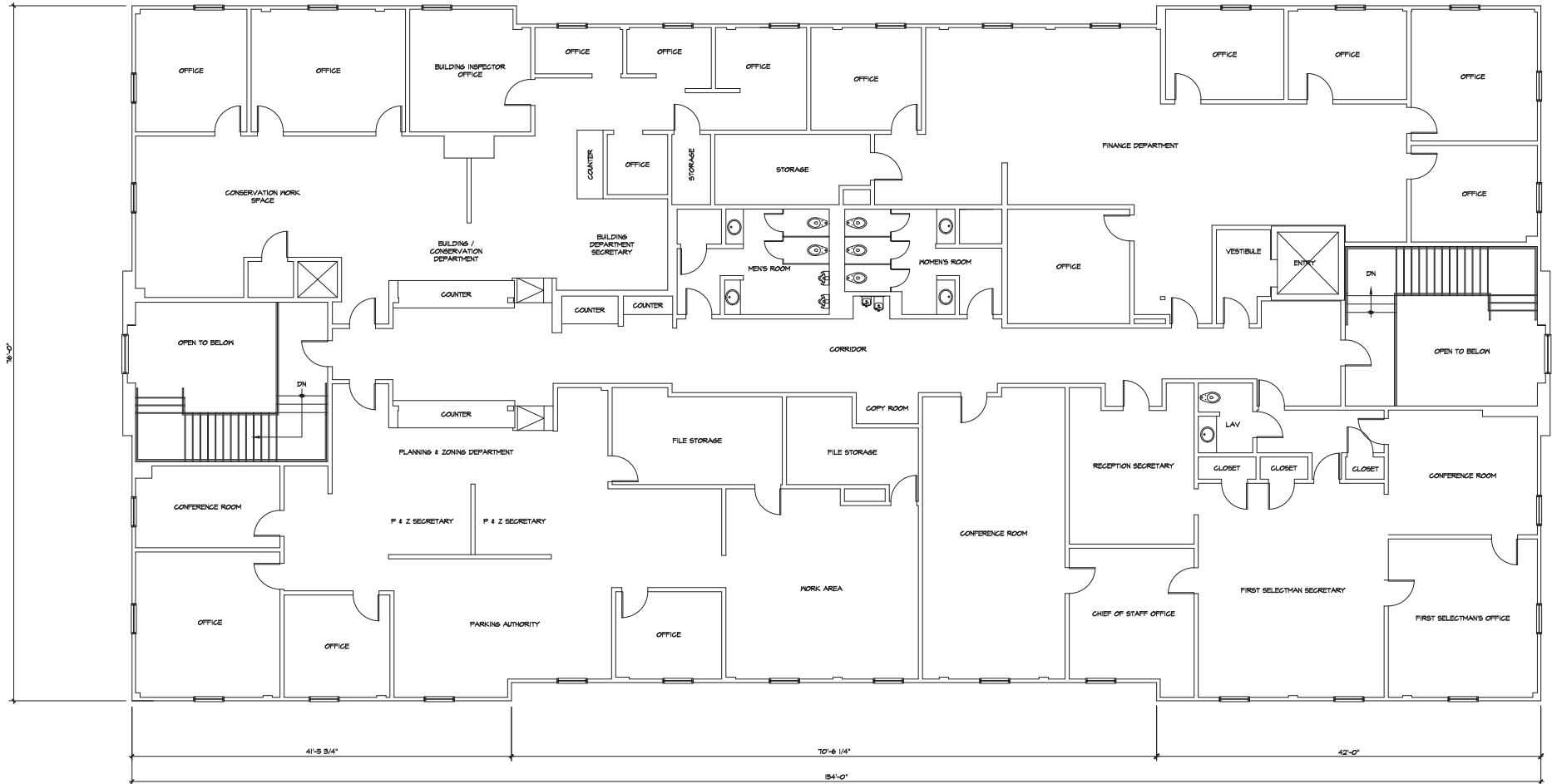
	Dia	Length	Space
H. - Longitud.	3/8"	Cent Lin.	12" o.c.
" - 15 Longitud.	3/8"	Cent Lin.	12" o.c.
" - 3 Cross Horiz.	3/8"	3'-2"	6" o.c.
V. - Vert.	3/8"	0'-10"	12" o.c.
M. - Vert.	3/8"	0'-10"	12" o.c.
T. - Vert.	3/8"	4'-3"	6" o.c.
O. Bent 2 @ 45°	3/8"	6'-0"	12" o.c.

Total: Wt of Bars per Lin. Ft. of Wall = 13.5 lbs.



Scale:  $\frac{1}{4}'' = 1'$

BUILDING FOR  
FAIRFIELD FIRE DEPT #5  
GREENFIELD HILL - FAIRFIELD, CONN.  
HERBERT C. ELTON - ARCHITECTS.  
FRED. C. ANDERSON  
BRIDGEPORT & FAIRFIELD - CONN.  
DRAWN BY R.P.S. SHEET #2. Nov. 28, 1958.



1  
A102  
EXISTING SECOND FLOOR PLAN  
SCALE: 3/16"=1'-0"

Town of Fairfield  
Dept. of Public Works

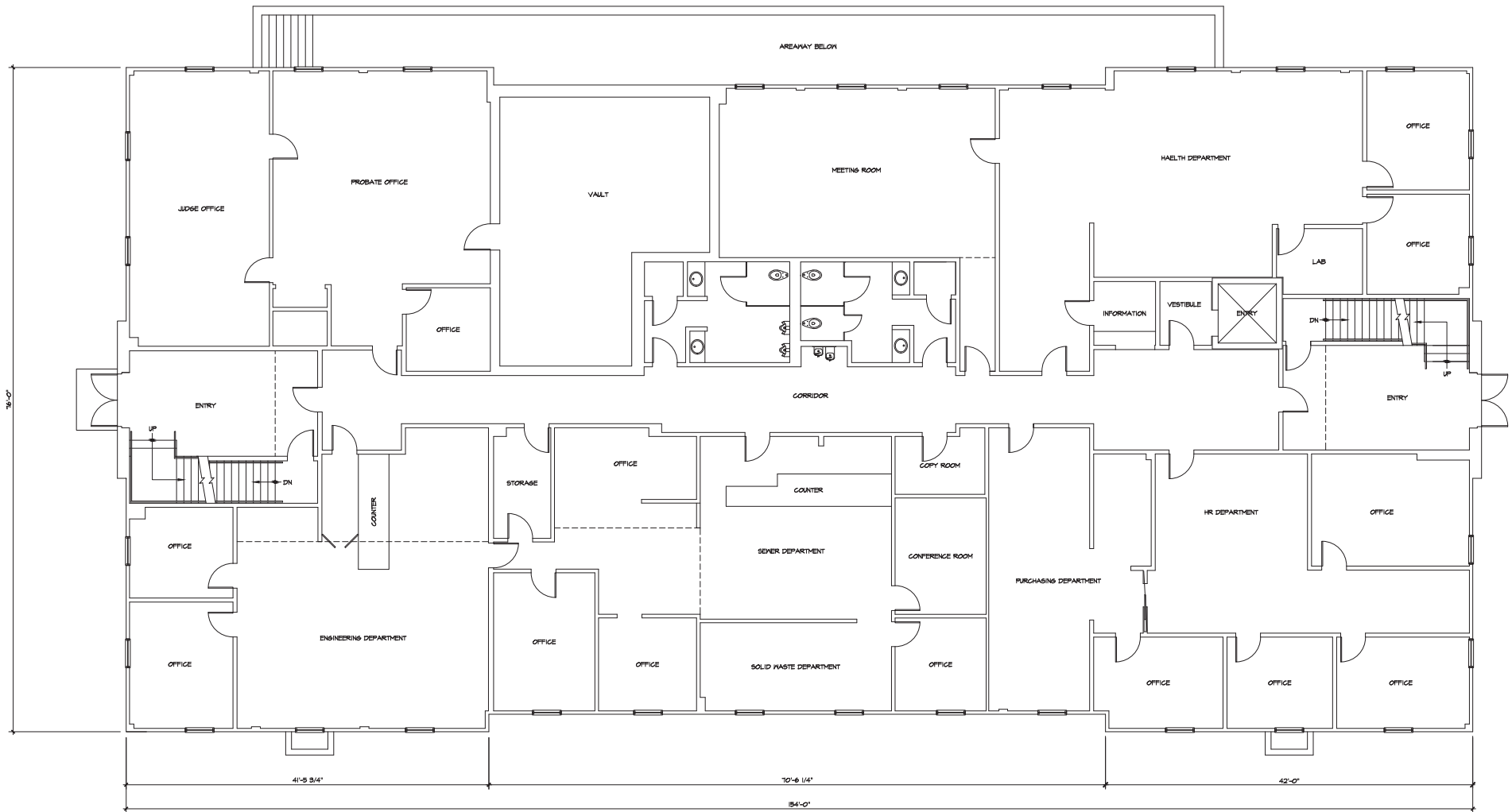


INDEPENDENCE HALL  
EXISTING SECOND FLOOR PLAN

A102

DRAWN BY: JMG  
DATE: JULY 19, 2012  
SCALE: 3/16"=1'-0"

CHK'D BY:  
FILE NO: 3316  
MAP NO:



1  
A101  
EXISTING FIRST FLOOR PLAN  
SCALE: 3/16"=1'-0"

Town of Fairfield  
Dept. of Public Works



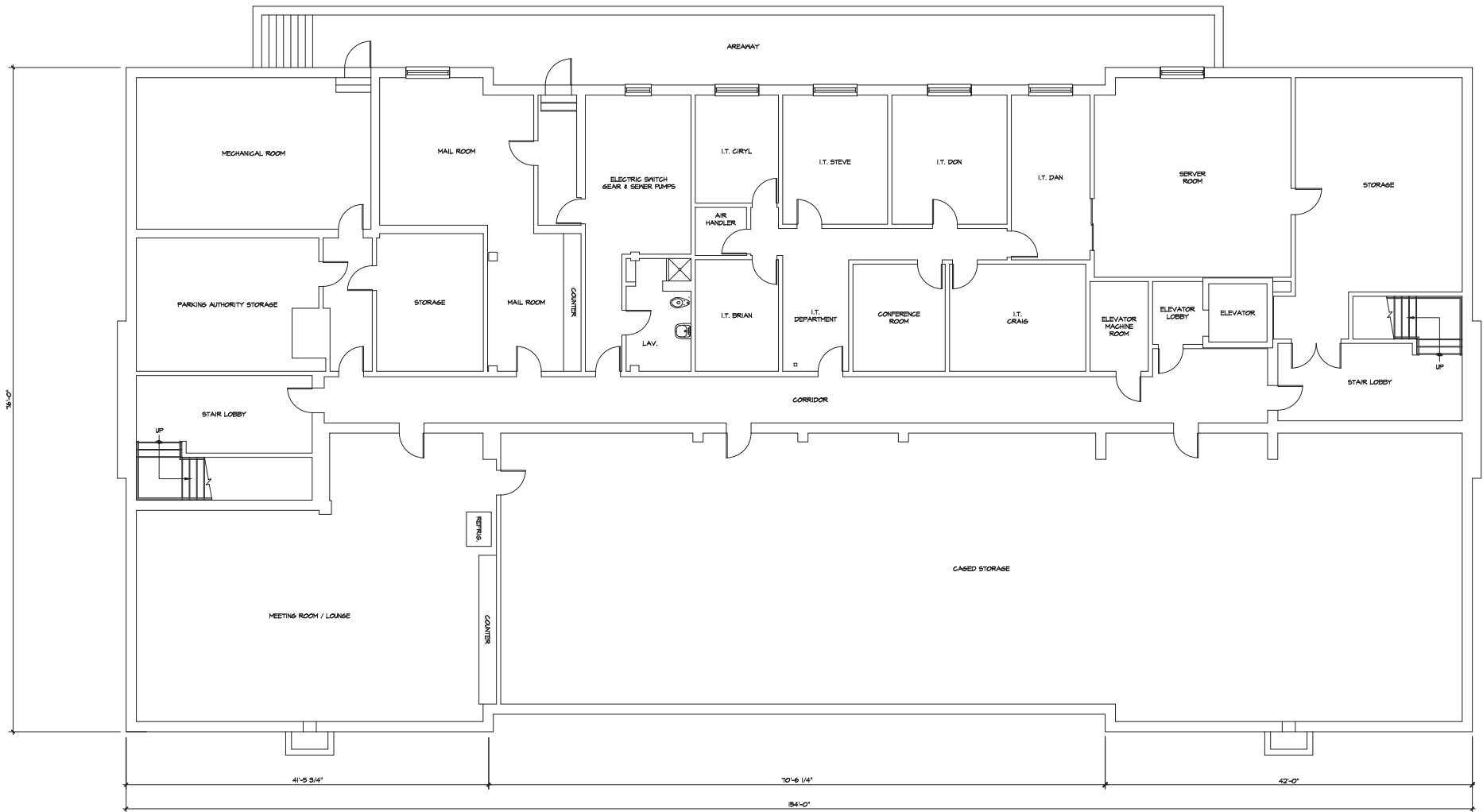
INDEPENDENCE HALL  
EXISTING FIRST FLOOR PLAN

A101

DRAWN BY: JMG  
DATE: JULY 19, 2012  
SCALE: 3/16"=1'-0"

CHK'D BY:  
FILE NO: 3316  
MAP NO:





1  
A103  
EXISTING BASEMENT FLOOR PLAN  
SCALE: 3/16"=1'-0"

Town of Fairfield  
Dept. of Public Works

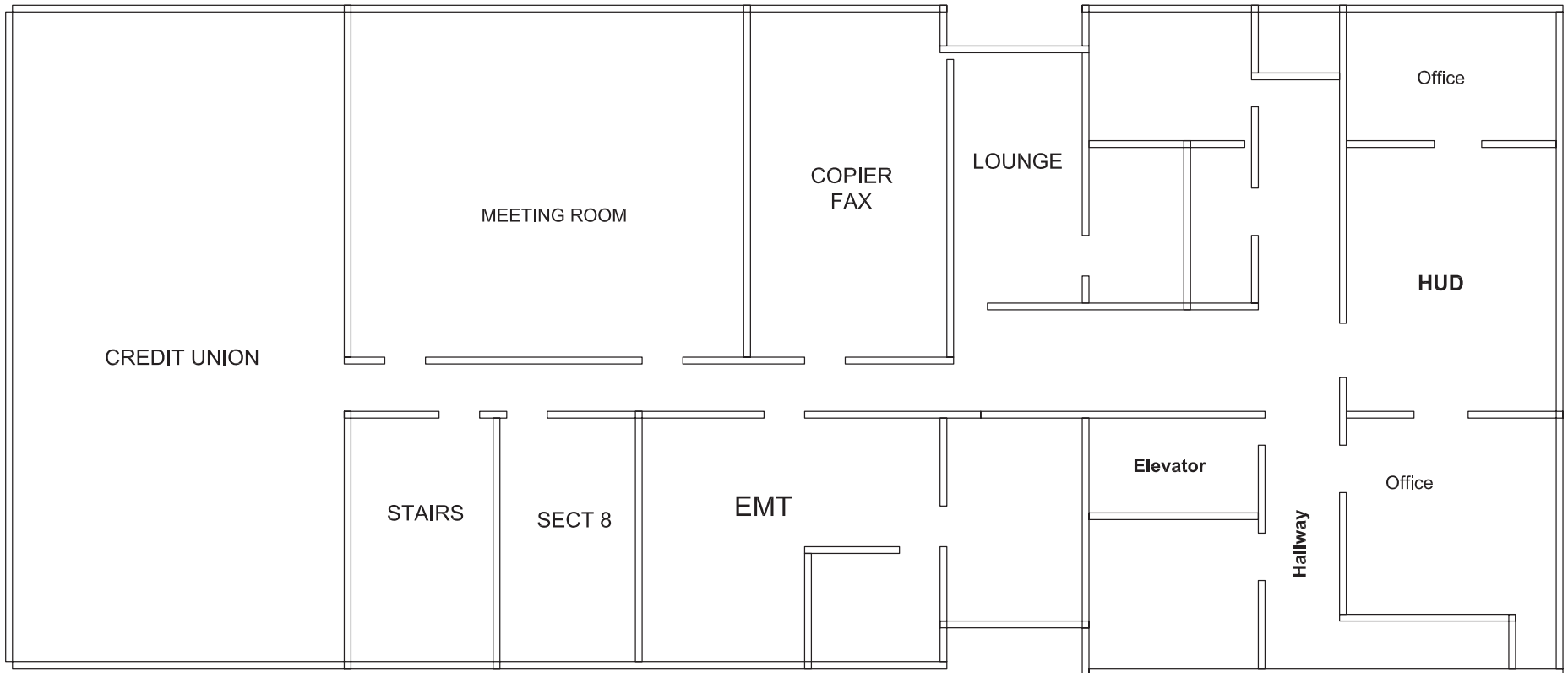


INDEPENDENCE HALL  
EXISTING BASEMENT FLOOR PLAN

A103

DRAWN BY: JMGX  
DATE: JULY 19, 2012  
SCALE: 3/16"=1'-0"

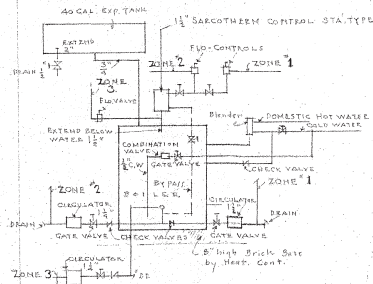
CHK'D BY:  
FILE NO: 3316  
MAP NO:



OLD TOWN HALL - SECOND FLOOR

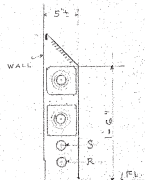


OLD TOWN HALL - FIRST FLOOR



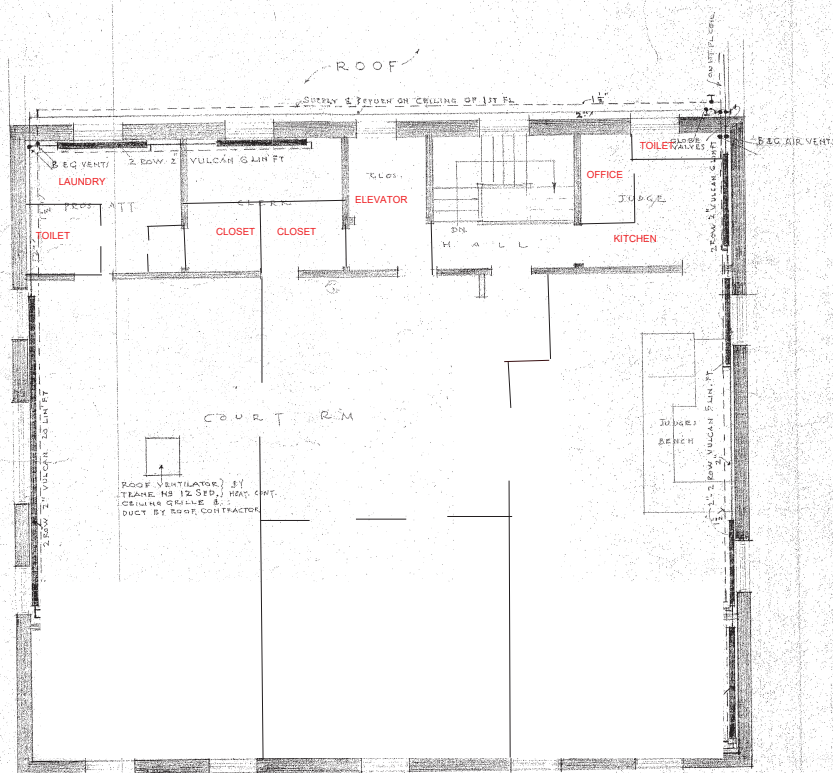
BOILER DETAILS

NO SCALE



VULCAN STANDARD RADIATION 2ND FL.

NO SCALE

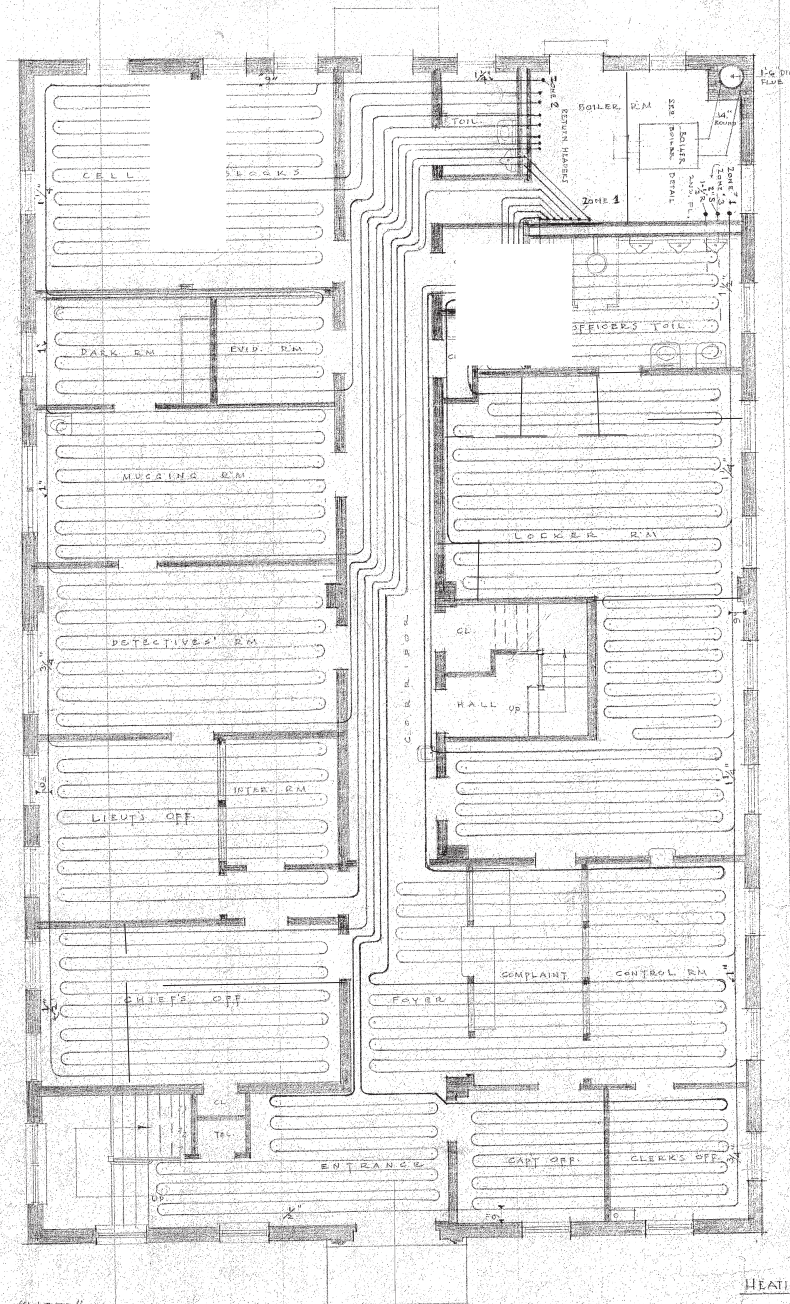


"NOTE."  
ALL VULCAN TO HAVE STYLE C-S  
COVER 3 HIGH WALL TO WALL.  
SUPPLY & RETURN TO RUN UNDER  
VULCAN CONCEALED. USE SLIDE  
CRADLE HANGERS AS PER  
MANUFACTURERS RECOMMENDATION.

SECOND FLOOR PLAN

SCALE - 1/4" = 1'-0"

OPERATION HOPE



"NOTE."  
ALL PANELS 1" ID BUNDY WELD  
OR J.M. TUBE  
ALL SPACING 9" O.C.  
SEPARATE RETURN FOR  
EACH PANEL 1" I.D.  
"ALT." GIVE SEPARATE PRICE  
FOR TYPE 1 HARD COPPER COILS

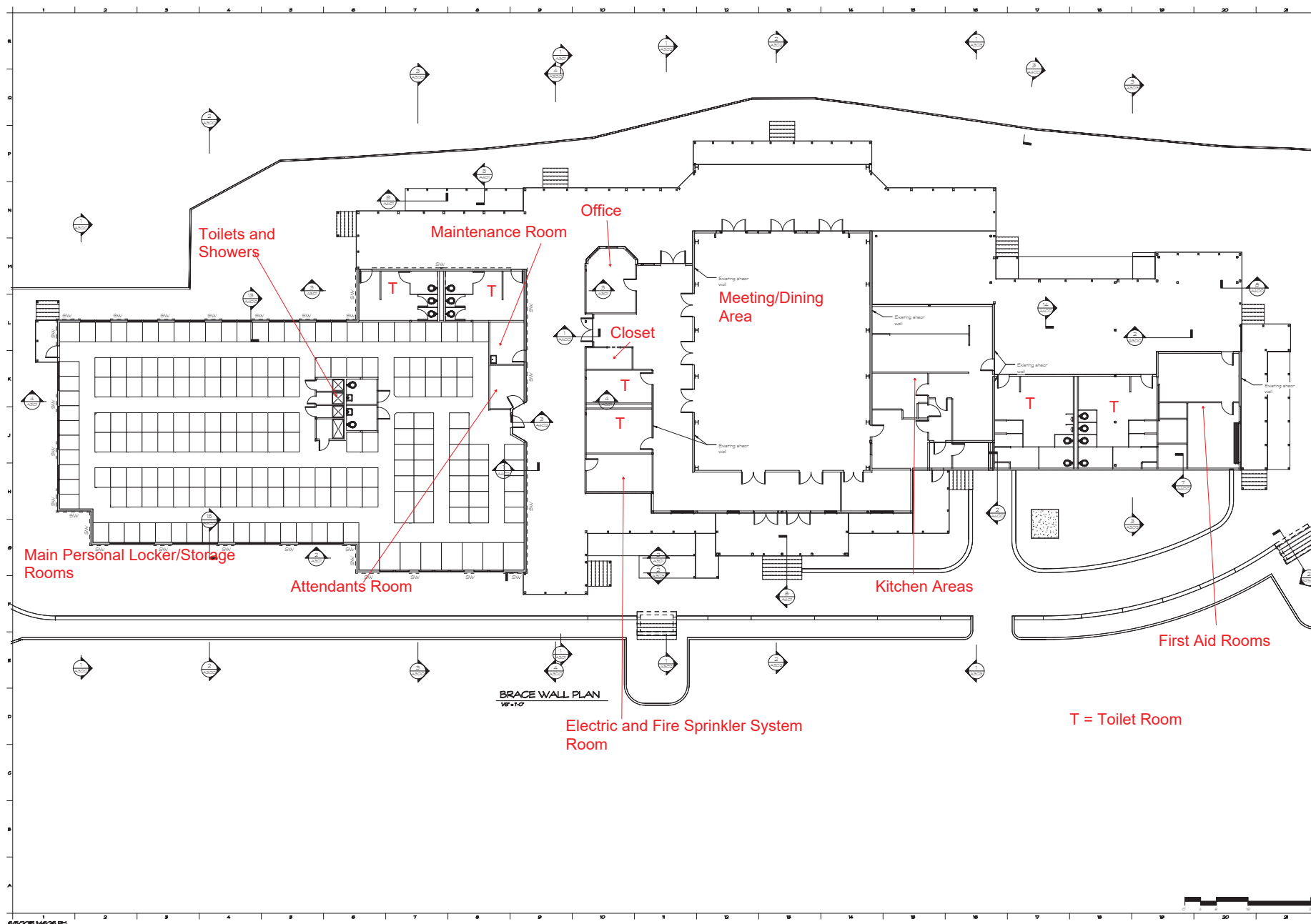
FIRST FLOOR PLAN

HEATING WORK

POLICE & TOWN COURT BUILDING  
FAIRFIELD, CONN.

HERBERT C. ELTON - ARCHITECTS.  
FRED C. ANDERSON  
BRIDGEPORT - CONN.  
SHEET NO. 7 OF 8  
MAY 1932





**DeStefano & Chamberlain**  
 Incorporated  
 Structural and Architectural Engineering  
 90 Thorpe Street, Fairfield, CT 06424-5325  
 203.254.7511 www.dscstructural.com

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A. All new construction and substantial improvement shall:

- Be designed or modified and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrostatic and hydrodynamic loads, including the effects of buoyancy.
- Be constructed by Federal Highway to Road Bridge.
- Be constructed by methods and practices that minimize flood damage.
- Be constructed with airtight, watertight, and fireproofing equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- Have and maintain water supply systems and be designed to remove or minimize intrusion of flood water into the structure.
- Have and maintain water supply systems and be designed to remove or minimize intrusion of flood water into the structure and discharge from the exterior of flood waters.

B. All new construction and substantial improvement shall have the lowest floor (including basement) elevated to or above the base flood level and if constructed with a fully automatic and/or manual flood protection system, the system shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters.

Revision/Description	Date	Description
1-25-2015	10/15/2015	Initial Design
2-25-2015	10/15/2015	Design Development
3-25-2015	10/15/2015	Final Design

North

**PENFIELD PAVILION**  
323 Fairfield Beach Road  
Fairfield - CT

**LATERAL BRACING PLAN**

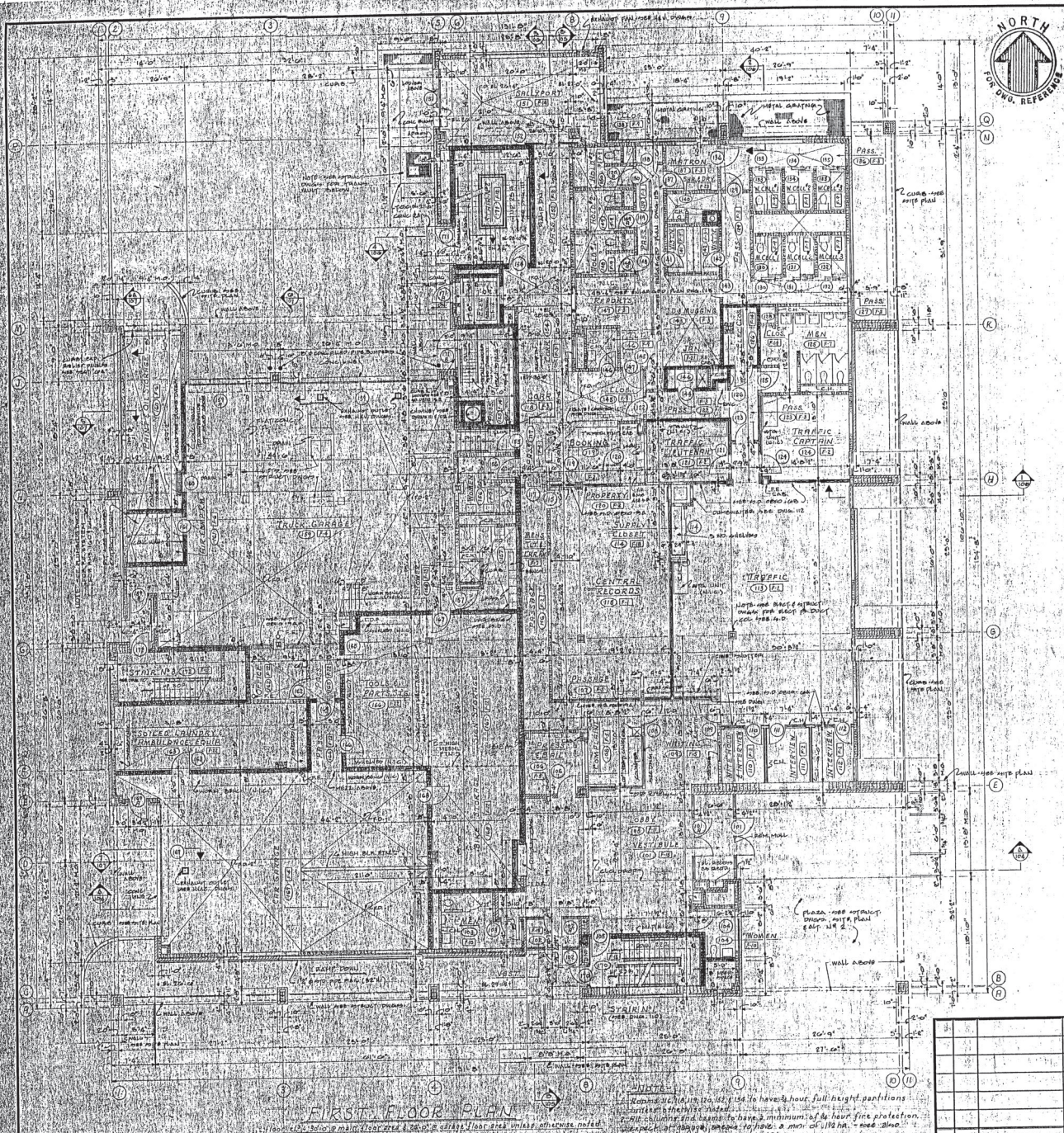
Project Number: 14-7396	Date: 6/12/2015
Scale: 1/8" = 1'-0"	Drawn by: KAC/JBD
Designed by: KAC/JBD	Checked by: KAC
Drawn by: KAC	Checked by: KAC

**S103**



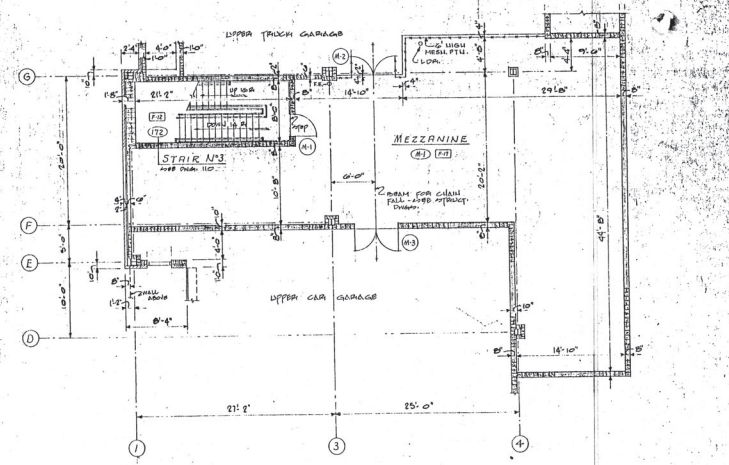






# ROOM FINISH SCHEDULE

TYPE	FLOOR	BASE	WALLS	CEILING	HGT.	REMARKS
F-1	vinyl asbestos tile	rubber	vitreous wall surfacing	acoustic board	8'-0"	(1) vinyl wall covering in room 216
F-2	carpet	rubber - footless	vitreous wall surfacing	acoustic board	8'-0"	(1) hung gypsum plaster painted in rooms 262, 263, 265
F-3	seamless resilient	seamless resilient	vitreous wall surfacing	acoustic board	8'-0"	(1) various oak pitched & exposed structure
F-4	concrete - sealed	no base	no finish	exposed structure	12'-0" (10'-0")	(1) 17'-0" @ rooms 155 & 169
F-5	carpet	rubber - footless	vinyl wall covering	acoustic board	8'-0"	(1) brick wall w/ no base @ west wall in room 166
F-6	concrete - sealed	no base	no finish	concrete slab	8'-0"	(1) gypsum bd. painted in rooms 135, 142, 144
F-7	ceramic tile	ceramic tile	vitreous wall surfacing	gypsum board painted	8'-0"	(1) 10'-0" in rooms 246 & 253
F-8	vinyl asbestos tile	rubber	vitreous wall surfacing	acoustic board	8'-0"	(1) gypsum bd. painted in rooms 135, 142, 144
F-9	seamless resilient	seamless resilient	vitreous wall surfacing	concrete painted	8'-0"	(1) 10'-0" in room 140
F-10	ceramic tile	ceramic tile	ceramic tile	gypsum board painted	8'-0"	(1) 10'-0" in room 140
F-11	carpet (see alternate #2)	no base	brick	acoustic tile 16" concealed spline	8'-0"	(1) vinyl wall covering w/ footless rubber base @ north wall in room 172
F-12	concrete, fill	metal stringer painted	vitreous wall surfacing	acoustic board 12" x 24" lay-in w/ gypsum board painted	various	(1) concealed fl. rubber base in room 172
F-13	carpet	metal stringer painted	vinyl wall covering	acoustic board 12" x 24" lay-in w/ gypsum board painted	various	(1) footless rubber base in room 172
F-14	concrete - sealed	no base	no finish	gypsum board painted	8'-0"	(1) hung gypsum per. l. plaster painted @ 12" x 24" in room 172
F-15	recessed	no base	brick	acoustic tile 16" x 16" concealed spline	10'-0"	(1) see section drawings
F-16	vinyl asbestos tile & concrete - sealed	rubber & no base	vitreous wall surfacing & 16" x 16" acoustic tile	exposed structure, 16" x 16" acoustic tile, ceiling base 1/2" for extent of finish see section they detail range drawings	various	
F-17	concrete plank	no base	no finish	exposed structure	8'-10"	
F-18	vinyl asbestos tile	rubber	vitreous wall surfacing	gypsum board painted	8'-0"	
F-19	vinyl asbestos tile	rubber	vitreous wall surfacing	hung gypsum plaster painted	8'-0"	
F-20	carpet	rubber - footless	vitreous wall surfacing	acoustic board	8'-0"	
F-21	concrete - sealed	no base	vitreous wall surfacing	gypsum board painted	8'-0"	
F-22	concrete - sealed	no base	no finish	concrete plank	8'-0"	(1) vitreous wall surfacing in rooms 142 & 143
F-23	ceramic tile	ceramic tile	ceramic tile	plaster painted	8'-0"	



MEZZANINE PLAN  
Floor at 84'-0"  
10'-11-0"

## FIRST FLOOR & MEZZANINE PLANS

Police Station Building  
Fairfield, Connecticut  
283300

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DATE: 4-22-74  
CHECKED BY: [Signature]  
DATE: 4-22-74  
DRAWN BY: [Signature]  
DATE: 4-22-74

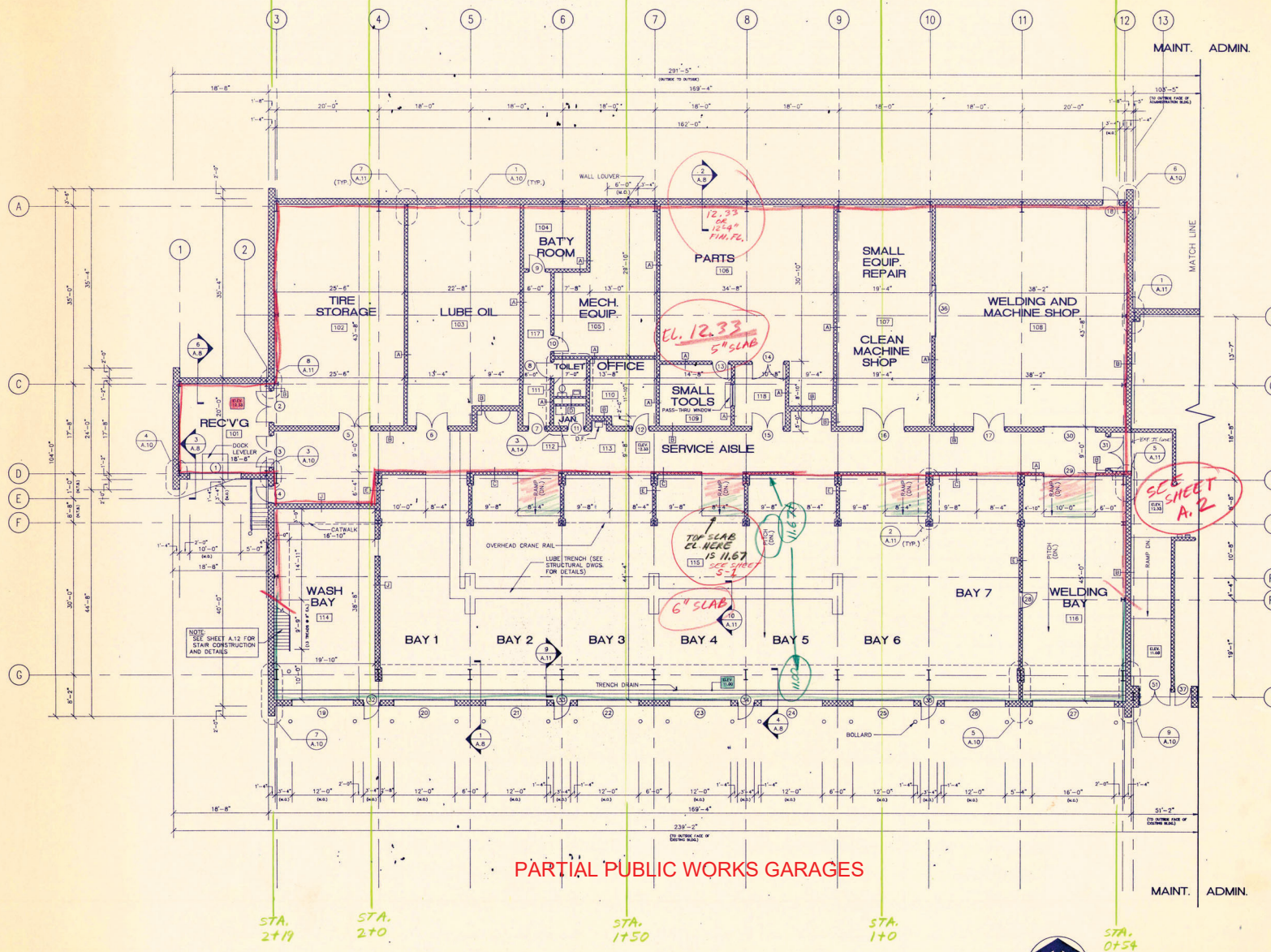












<b>KEY TO FIN. FL. ELEV.</b>	
MAINTENANCE SERVICE AREAS	FIN. FL. EL. 12'-4" OR 12.33
ADMINISTRATIVE BLDG.	FIN. FL. EL. 11'-0" OR 11.00'
LOADING DOCK APRON	FIN. FL. EL. 8'-4" OR 8.33'
EXISTING BLDG.	FIN. FL. EL. 9'-0" OR 9.00'

# FLOOR PLAN (MAINTENANCE)

1/8" = 1'-0"



**Kosinski**  
ASSOCIATES ARCHITECTS, PLANNERS, ENGINEERS, CONSTRUCTION MANAGERS  
235 NICOLL STREET, NEW HAVEN, CONNECTICUT 06511-2625 (203) 777-7700

**FAIRFIELD TOWN GARAGE**  
FAIRFIELD, CONNECTICUT

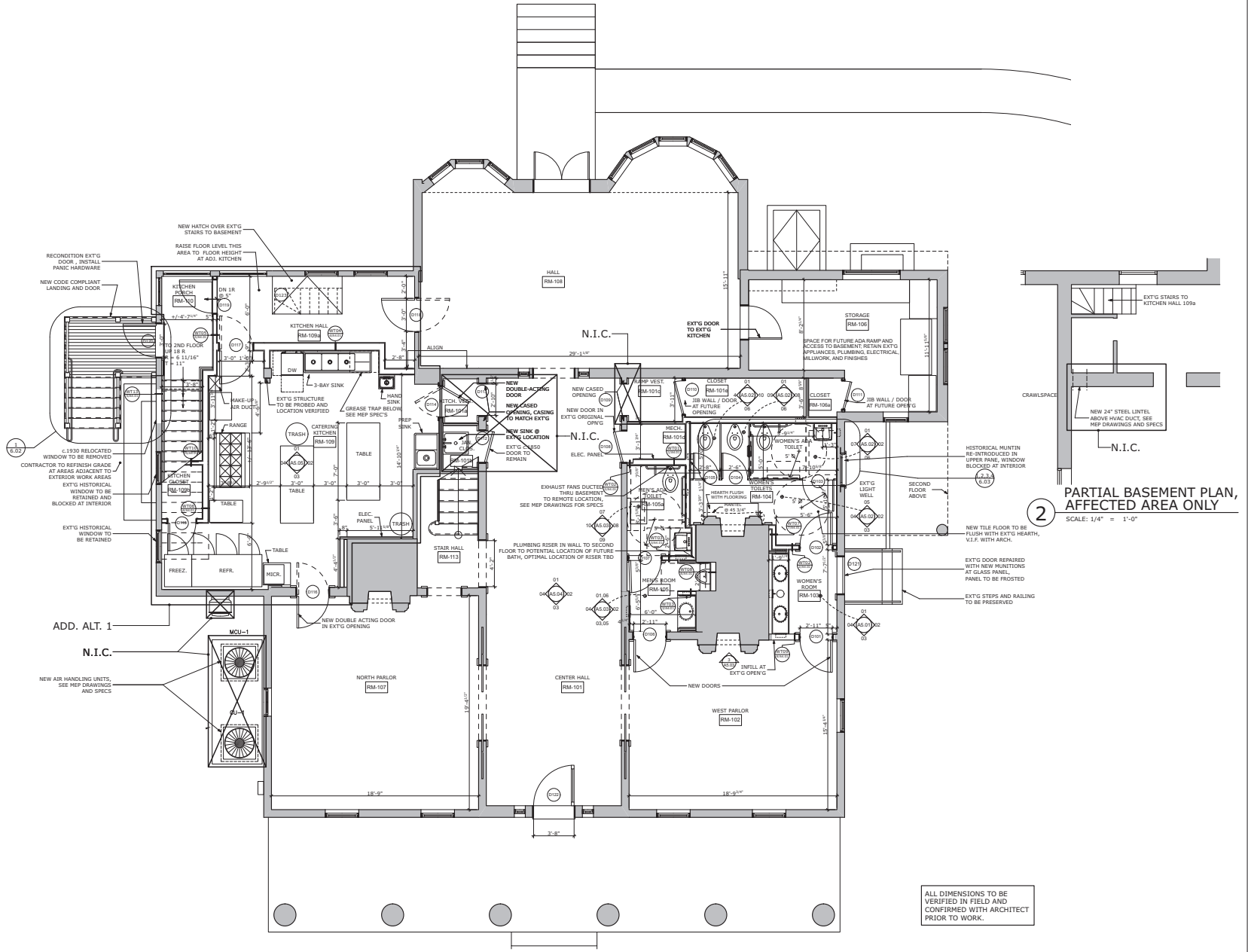
REVISIONS	

Job No.	88064
Drawn	A.G.DAVIS
Checked	
Date	8-28-89
Scale	

A.1









BURR HOMESTEAD

739 Old Post Road  
Fairfield, CT 06824

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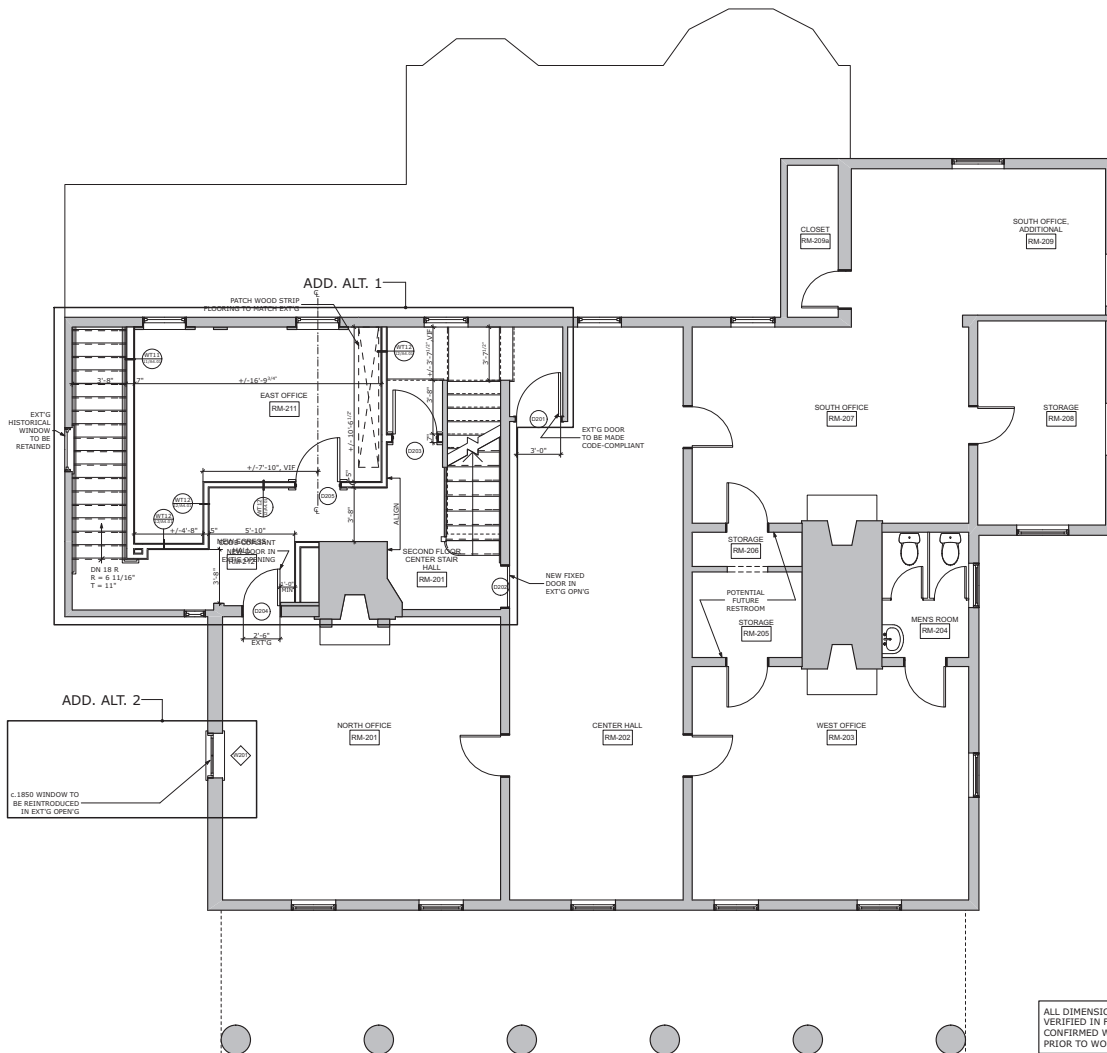
This plan is not valid for construction unless it bears the original seal and signature of David Scott Parker Architects.

PERMIT SET: 5/18/2018  
REVISIONS:

SHEET TITLE  
SCALE: 1/4" = 1'-0"

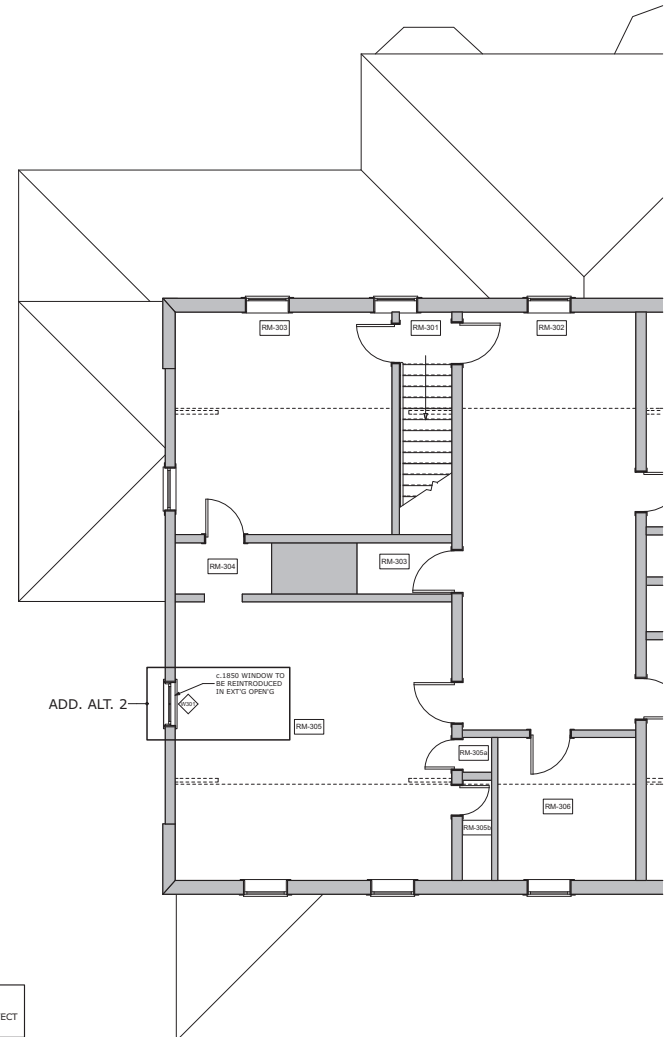
PROPOSED  
SECOND AND  
THIRD FLOOR  
PLANS

AI.02



1 PROPOSED SECOND FLOOR PLAN  
SCALE: 1/4" = 1'-0"

ALL DIMENSIONS TO BE  
VERIFIED IN FIELD AND  
CONFIRMED WITH ARCHITECT  
PRIOR TO WORK.



2 PROPOSED THIRD FLOOR PLAN (AFFECTED AREA ONLY)  
SCALE: 1/4" = 1'-0"



# Fire Ready Residential Range Hood

---

Model XRRS



### SAFETY IN SECONDS

Fire safety in kitchens is a necessity. Relying on portable fire extinguishers should never be the first step in your fire safety protocol when cooking. The best way to ensure fire safety in the kitchen is through deliberate preparation and precision-engineered products. The Accurex Fire Ready Residential Range hood is a dual-purpose integrated system that provides ventilation and features a self-contained fire suppression system. It is designed to detect fires early and extinguish them should they occur, and is specifically designed for use above residential style appliances in commercial settings, such as:

- Schools
- Places of Worship
- College Dormitories
- Independent Senior Living Units
- Cooking Classrooms
- Military Housing
- Fire Stations

### THE ACCUREX ADVANTAGE



**INTEGRATED FIRE SUPPRESSION SYSTEM PROVIDES THE REQUIRED PROTECTION IN A SMALLER FOOTPRINT COMPARED TO TYPE 1 HOODS**



**INTUITIVE TOUCHSCREEN USER INTERFACE**



**ALL PARTS INCLUDED FOR FASTER INSTALLATION**



**LESS TOTAL COST COMPARED TO A TYPE 1 HOOD**



**NO WELDED GREASE DUCT REQUIRED**



**ENERGY EFFICIENT WITH LED LIGHTS AND ELECTRONICALLY COMMUTATED FAN MOTORS**



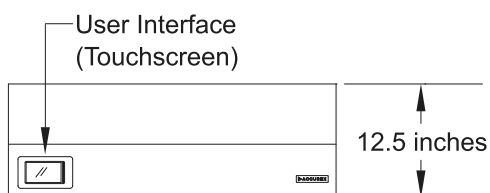
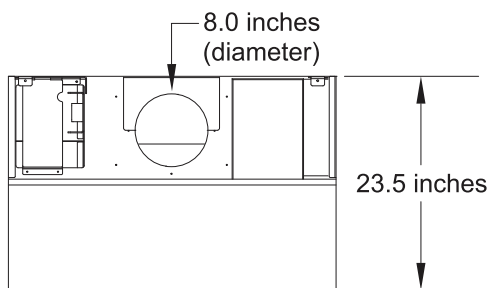
#### HOW IT WORKS

The Fire Ready Range hood continuously monitors temperature. If heat from the range increases the temperature in the hood beyond its first threshold, the system will raise the fan to full speed.

If the temperature continues to increase and exceeds the next threshold, the hood will shut-down the appliance using the supplied disconnect (gas or electric).

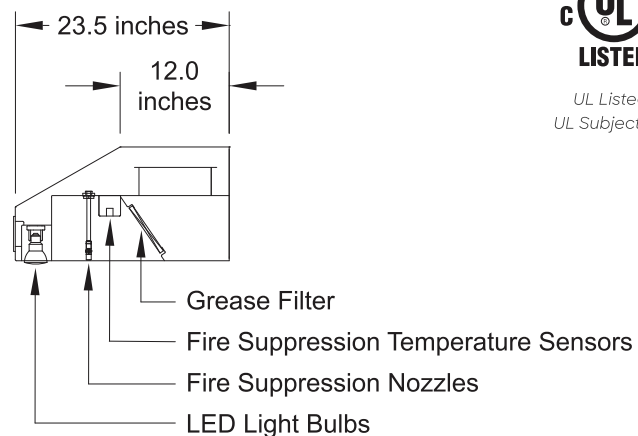
Should the hood temperature continue to rise, electronic temperature detection will force the unit into a fire-response protocol. This will release a liquid chemical suppression agent through multiple nozzles, eliminating the fire. It will also trigger the building's fire alarm system to notify those in the building to evacuate.

- 1 Touchscreen user interface (can be remote or mounted)
- 2 Recessed LED lights
- 3 Range electric shut off / gas shut off
- 4 Manual pull station
- 5 Integrated fire suppression system
- 6 Exhaust fan (available in multiple configurations)
- 7 Integrated system controls
- 8 Fire piping, grease filter (inside)



MODEL	DIMENSIONS
XRRS-30	30 inches
XRRS-36	36 inches

Available in multiple widths to match common residential range sizes.



UL Listed to  
UL Subject 300A

Dimensional data shown is for standard top discharge hood.



The Fire Ready Range Hood has been engineered with features designed to make the experience for both installers and users intuitive, effortless, and practical.



### UL 300A Wet Chemical Fire Suppression System

Specifically designed and listed for residential ranges and quickly suppresses flames if fire occurs. Easily cleans up with soap and water



### Fully Monitored Control Package

Detects cooking to automatically turn fans on and shuts off the range if temperature gets too high



### Electronic Fire Detection and Actuation

Reliable actuation with simple reset functionality versus fusible links that need replacement



### Plug and Play

Plug and play cables provided for all field mounted electrical components eliminating time consuming field wiring



### Hood or Remote Mounted Touchscreen

Full color touchscreen with simple interface for fan and light control as well as NFPA 101 lockout and timers when required



### Range Disconnect (For Electric / Gas Ranges)

Used to turn the range on and off. A 208-250 VAC 50 Amp electric disconnect for electric ranges or a gas shutoff valve with a 115V outlet for the range clock on gas ranges



### Audible Safety Alarm

Alerts occupants of fire danger



### Flexible Fan Offering with EC Motors

Provides flexibility for various installations. Rooftop, sidewall or other fan specifically for your application. Quiet, energy efficient fans with adjustable airflows for optimum ventilation



### Mesh Grease Filter

Captures airborne grease from cooking and is easily removable for cleaning

Discover how Accurex engineers simplicity into kitchen ventilation systems at [Accurex.com](https://www.accurex.com)

## ICC-ES PMG Product Certificate

**PMG-1533**

Effective Date: October 2020

This listing is subject to re-examination in one year.

[www.icc-es-pmg.org](http://www.icc-es-pmg.org) | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

CSI: DIVISION: 23 00 00—HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)  
Section: 23 38 00—Ventilation Hood

### Product certification system:

The ICC-ES product certification system includes testing samples taken from the market or supplier's stock, or a combination of both, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the supplier's quality system.

Product: Fire Ready Residential Range Hood

Listee: Accurex LLC  
400 Ross Ave., Facility 1  
Schofield, Wisconsin 54476  
[www.guardianssi.com](http://www.guardianssi.com)

### Compliance with the following codes:

2021, 2018, 2015, 2012 and 2009 *International Mechanical Code*® (IMC)  
2018, 2015, 2012 and 2009 *International Fire Code*® (IFC)  
2021, 2018, 2015, 2012 and 2009 *Uniform Mechanical Code*® (UMC)\*  
\* Copyrighted publication of the International Association of Plumbing and Mechanical Officials

### Compliance with the following standards:

ICC-ES LC1031-2012, PMG Listing Criteria for Exhaust Type II Hood with an integrated fire suppression system for domestic cooking appliances in commercial applications  
UL 300A (Ed. 3), Extinguishing System Units for residential top cooking surfaces,  
UL 507 (Ed. 9), Standard for Electric Fans

### Identification:

Accurex and Greenheck's Fire Suppression Range Hoods shall be marked with:

- manufacturer's recognized name or trademark
- in case of private labeling, the name, trademark, or other mark of the customer for whom the hood was manufactured.
- product name for the equipment qualified for use with each exhaust Type II hood with an integrated fire suppression system.
- the ICC-ES PMG listing mark

### Installation:

Accurex XRRS and Greenheck GRRS Fire Suppression Range Hoods shall be installed in accordance with the manufacturer's instructions and applicable codes.

**Model:**

The Accurex XRRS and Greenheck GRRS is a Fully Integrated, Self-Contained Fire Suppression Range Hood for Residential Appliances for use in protecting residential-grade appliances when used in public or otherwise (quasi-) commercial spaces.

The Accurex XRRS and Greenheck GRRS and is constructed with 304 stainless steel or 430 Stainless steel, having a fire suppression system pre-engineered into the design of the hood, including monitored electronic detection and actuation. The system uses a wet chemical agent and has been tested and demonstrated to conform to UL subject 300A. The Accurex XRRS and Greenheck GRRS may also include a centrifugal fan, tested and demonstrated to conform to UL 507.

Fire suppression consists of two mounted metal-housed temperature sensors that monitor the cooking surface and upon reaching set-point, send a signal back to the main fire system control board, which activates the tank solenoid valve and expels the wet chemical from a pre-charged tank responsible for suppressing the fire. Tank pressure shall be monitored using tank pressure sensor and a fault must be displayed on the user interface if low pressure is detected.

The hood system includes either an electronic or gas shut off device that shall be field connected back to the hood via factory-provided plug and play cables. Prior to fire suppression release, the shut off device shall be responsible for disabling the range upon detecting a high temperature. Gas disconnect (if provided) shall include a ¾" gas valve supplied with plug and play cable and a 115VAC control receptacle. Electric disconnect (if provided) shall include a 4-prong 250VAC 50A power receptacle.

Hood systems selected with optional NFPA 101 compliance, will include a 500 CFM fan, locked (password protected) appliance disconnect with timed-automatic range deactivation, and manual pull station.

The hood system is configured with a factory-supplied integral fan, or a factory-supplied external fan. Integral fan discharge options include either front recirculating or rear discharge. Front recirculating style shall include an easily accessible charcoal filter and opening in the front of the hood for filtering the exhaust air before discharging back into the space. Rear discharge shall direct the air to exit through the back of the hood, to discharge through a wall to the outside. External fan options include either a factory-provided inline fan (with plug and play cable) or fan by others option with a top discharge hood configuration. Top discharge shall direct the air to exit the top of the hood, to discharge through a roof or wall to the outside All factory provided fan options shall include energy efficient electrically commutated motors (ECM) standard.

When preemptive shutdown occurs, the system and the cooking equipment will not come back on-line until the Accurex XRRS and Greenheck GRRS are reset.

The Accurex XRRS and Greenheck GRRS are available in multiple ducting sizing calibrations, 30" and 36" sizes.

Accurex Model	Greenheck Model	Width (inch)	Configuration	Ventilation	Range Disconnect Type	External Fan Type	NFPA 101 Compliance
XRRS-W-30-F-E-O-N	GRRS-W-30-F-E-O-N	30	Wall	Integral Fan – Front Recirculating	Electric	Fan by others	No
XRRS-W-30-F-E-O-X	GRRS-W-30-F-E-O-X	30	Wall	Integral Fan – Front Recirculating	Electric	Fan by others	Yes
XRRS-W-30-F-E-D-N	GRRS-W-30-F-E-D-N	30	Wall	Integral Fan – Front Recirculating	Electric	Inline Duct	No
XRRS-W-30-F-E-D-X	GRRS-W-30-F-E-D-X	30	Wall	Integral Fan – Front Recirculating	Electric	Inline Duct	Yes
XRRS-W-30-F-G-O-N	GRRS-W-30-F-G-O-N	30	Wall	Integral Fan – Front Recirculating	Gas	Fan by others	No
XRRS-W-30-F-G-O-X	GRRS-W-30-F-G-O-X	30	Wall	Integral Fan – Front Recirculating	Gas	Fan by others	Yes
XRRS-W-30-F-G-D-N	GRRS-W-30-F-G-D-N	30	Wall	Integral Fan – Front Recirculating	Gas	Inline Duct	No
XRRS-W-30-F-G-D-X	GRRS-W-30-F-G-D-X	30	Wall	Integral Fan – Front Recirculating	Gas	Inline Duct	Yes
XRRS-W-30-R-E-O-N	GRRS-W-30-R-E-O-N	30	Wall	Integral Fan – Rear Discharge	Electric	Fan by others	No
XRRS-W-30-R-E-O-X	GRRS-W-30-R-E-O-X	30	Wall	Integral Fan – Rear Discharge	Electric	Fan by others	Yes
XRRS-W-30-R-E-D-N	GRRS-W-30-R-E-D-N	30	Wall	Integral Fan – Rear Discharge	Electric	Inline Duct	No

XRRS-W-30-R-E-D-X	GRRS-W-30-R-E-D-X	30	Wall	Integral Fan – Rear Discharge	Electric	Inline Duct	Yes
XRRS-W-30-R-G-O-N	GRRS-W-30-R-G-O-N	30	Wall	Integral Fan – Rear Discharge	Gas	Fan by others	No
XRRS-W-30-R-G-O-X	GRRS-W-30-R-G-O-X	30	Wall	Integral Fan – Rear Discharge	Gas	Fan by others	Yes
XRRS-W-30-R-G-D-N	GRRS-W-30-R-G-D-N	30	Wall	Integral Fan – Rear Discharge	Gas	Inline Duct	No
XRRS-W-30-R-G-D-X	GRRS-W-30-R-G-D-X	30	Wall	Integral Fan – Rear Discharge	Gas	Inline Duct	Yes
XRRS-W-30-T-E-O-N	GRRS-W-30-T-E-O-N	30	Wall	External Fan – Top Discharge	Electric	Fan by others	No
XRRS-W-30-T-E-O-X	GRRS-W-30-T-E-O-X	30	Wall	External Fan – Top Discharge	Electric	Fan by others	Yes
XRRS-W-30-T-E-D-N	GRRS-W-30-T-E-D-N	30	Wall	External Fan – Top Discharge	Electric	Inline Duct	No
XRRS-W-30-T-E-D-X	GRRS-W-30-T-E-D-X	30	Wall	External Fan – Top Discharge	Electric	Inline Duct	Yes
XRRS-W-30-T-G-O-N	GRRS-W-30-T-G-O-N	30	Wall	External Fan – Top Discharge	Gas	Fan by others	No
XRRS-W-30-T-G-O-X	GRRS-W-30-T-G-O-X	30	Wall	External Fan – Top Discharge	Gas	Fan by others	Yes
XRRS-W-30-T-G-D-N	GRRS-W-30-T-G-D-N	30	Wall	External Fan – Top Discharge	Gas	Inline Duct	No
XRRS-W-30-T-G-D-X	GRRS-W-30-T-G-D-X	30	Wall	External Fan – Top Discharge	Gas	Inline Duct	Yes
XRRS-W-36-F-E-O-N	GRRS-W-36-F-E-O-N	36	Wall	Integral Fan – Front Recirculating	Electric	Fan by others	No
XRRS-W-36-F-E-O-X	GRRS-W-36-F-E-O-X	36	Wall	Integral Fan – Front Recirculating	Electric	Fan by others	Yes
XRRS-W-36-F-E-D-N	GRRS-W-36-F-E-D-N	36	Wall	Integral Fan – Front Recirculating	Electric	Inline Duct	No
XRRS-W-36-F-E-D-X	GRRS-W-36-F-E-D-X	36	Wall	Integral Fan – Front Recirculating	Electric	Inline Duct	Yes
XRRS-W-36-F-G-O-N	GRRS-W-36-F-G-O-N	36	Wall	Integral Fan – Front Recirculating	Gas	Fan by others	No
XRRS-W-36-F-G-O-X	GRRS-W-36-F-G-O-X	36	Wall	Integral Fan – Front Recirculating	Gas	Fan by others	Yes
XRRS-W-36-F-G-D-N	GRRS-W-36-F-G-D-N	36	Wall	Integral Fan – Front Recirculating	Gas	Inline Duct	No
XRRS-W-36-F-G-D-X	GRRS-W-36-F-G-D-X	36	Wall	Integral Fan – Front Recirculating	Gas	Inline Duct	Yes
XRRS-W-36-R-E-O-N	GRRS-W-36-R-E-O-N	36	Wall	Integral Fan – Rear Discharge	Electric	Fan by others	No
XRRS-W-36-R-E-O-X	GRRS-W-36-R-E-O-X	36	Wall	Integral Fan – Rear Discharge	Electric	Fan by others	Yes
XRRS-W-36-R-E-D-N	GRRS-W-36-R-E-D-N	36	Wall	Integral Fan – Rear Discharge	Electric	Inline Duct	No
XRRS-W-36-R-E-D-X	GRRS-W-36-R-E-D-X	36	Wall	Integral Fan – Rear Discharge	Electric	Inline Duct	Yes
XRRS-W-36-R-G-O-N	GRRS-W-36-R-G-O-N	36	Wall	Integral Fan – Rear Discharge	Gas	Fan by others	No
XRRS-W-36-R-G-O-X	GRRS-W-36-R-G-O-X	36	Wall	Integral Fan – Rear Discharge	Gas	Fan by others	Yes
XRRS-W-36-R-G-D-N	GRRS-W-36-R-G-D-N	36	Wall	Integral Fan – Rear Discharge	Gas	Inline Duct	No
XRRS-W-36-R-G-D-X	GRRS-W-36-R-G-D-X	36	Wall	Integral Fan – Rear Discharge	Gas	Inline Duct	Yes
XRRS-W-36-T-E-O-N	GRRS-W-36-T-E-O-N	36	Wall	External Fan – Top Discharge	Electric	Fan by others	No
XRRS-W-36-T-E-O-X	GRRS-W-36-T-E-O-X	36	Wall	External Fan – Top Discharge	Electric	Fan by others	Yes
XRRS-W-36-T-E-D-N	GRRS-W-36-T-E-D-N	36	Wall	External Fan – Top Discharge	Electric	Inline Duct	No
XRRS-W-36-T-E-D-X	GRRS-W-36-T-E-D-X	36	Wall	External Fan – Top Discharge	Electric	Inline Duct	Yes
XRRS-W-36-T-G-O-N	GRRS-W-36-T-G-O-N	36	Wall	External Fan – Top Discharge	Gas	Fan by others	No



XRRS-W-36-T-G-O-X	GRRS-W-36-T-G-O-X	36	Wall	External Fan – Top Discharge	Gas	Fan by others	Yes
XRRS-W-36-T-G-D-N	GRRS-W-36-T-G-D-N	36	Wall	External Fan – Top Discharge	Gas	Inline Duct	No
XRRS-W-36-T-G-D-X	GRRS-W-36-T-G-D-X	36	Wall	External Fan – Top Discharge	Gas	Inline Duct	Yes
XRRS-I-30-F-E-O-N	GRRS-I-30-F-E-O-N	30	Island	Integral Fan – Front Recirculating	Electric	Fan by others	No
XRRS-I-30-F-E-O-X	GRRS-I-30-F-E-O-X	30	Island	Integral Fan – Front Recirculating	Electric	Fan by others	Yes
XRRS-I-30-F-E-D-N	GRRS-I-30-F-E-D-N	30	Island	Integral Fan – Front Recirculating	Electric	Inline Duct	No
XRRS-I-30-F-E-D-X	GRRS-I-30-F-E-D-X	30	Island	Integral Fan – Front Recirculating	Electric	Inline Duct	Yes
XRRS-I-30-F-G-O-N	GRRS-I-30-F-G-O-N	30	Island	Integral Fan – Front Recirculating	Gas	Fan by others	No
XRRS-I-30-F-G-O-X	GRRS-I-30-F-G-O-X	30	Island	Integral Fan – Front Recirculating	Gas	Fan by others	Yes
XRRS-I-30-F-G-D-N	GRRS-I-30-F-G-D-N	30	Island	Integral Fan – Front Recirculating	Gas	Inline Duct	No
XRRS-I-30-F-G-D-X	GRRS-I-30-F-G-D-X	30	Island	Integral Fan – Front Recirculating	Gas	Inline Duct	Yes
XRRS-I-30-R-E-O-N	GRRS-I-30-R-E-O-N	30	Island	Integral Fan – Rear Discharge	Electric	Fan by others	No
XRRS-I-30-R-E-O-X	GRRS-I-30-R-E-O-X	30	Island	Integral Fan – Rear Discharge	Electric	Fan by others	Yes
XRRS-I-30-R-E-D-N	GRRS-I-30-R-E-D-N	30	Island	Integral Fan – Rear Discharge	Electric	Inline Duct	No
XRRS-I-30-R-E-D-X	GRRS-I-30-R-E-D-X	30	Island	Integral Fan – Rear Discharge	Electric	Inline Duct	Yes
XRRS-I-30-R-G-O-N	GRRS-I-30-R-G-O-N	30	Island	Integral Fan – Rear Discharge	Gas	Fan by others	No
XRRS-I-30-R-G-O-X	GRRS-I-30-R-G-O-X	30	Island	Integral Fan – Rear Discharge	Gas	Fan by others	Yes
XRRS-I-30-R-G-D-N	GRRS-I-30-R-G-D-N	30	Island	Integral Fan – Rear Discharge	Gas	Inline Duct	No
XRRS-I-30-R-G-D-X	GRRS-I-30-R-G-D-X	30	Island	Integral Fan – Rear Discharge	Gas	Inline Duct	Yes
XRRS-I-30-T-E-O-N	GRRS-I-30-T-E-O-N	30	Island	External Fan – Top Discharge	Electric	Fan by others	No
XRRS-I-30-T-E-O-X	GRRS-I-30-T-E-O-X	30	Island	External Fan – Top Discharge	Electric	Fan by others	Yes
XRRS-I-30-T-E-D-N	GRRS-I-30-T-E-D-N	30	Island	External Fan – Top Discharge	Electric	Inline Duct	No
XRRS-I-30-T-E-D-X	GRRS-I-30-T-E-D-X	30	Island	External Fan – Top Discharge	Electric	Inline Duct	Yes
XRRS-I-30-T-G-O-N	GRRS-I-30-T-G-O-N	30	Island	External Fan – Top Discharge	Gas	Fan by others	No
XRRS-I-30-T-G-O-X	GRRS-I-30-T-G-O-X	30	Island	External Fan – Top Discharge	Gas	Fan by others	Yes
XRRS-I-30-T-G-D-N	GRRS-I-30-T-G-D-N	30	Island	External Fan – Top Discharge	Gas	Inline Duct	No
XRRS-I-30-T-G-D-X	GRRS-I-30-T-G-D-X	30	Island	External Fan – Top Discharge	Gas	Inline Duct	Yes
XRRS-I-36-F-E-O-N	GRRS-I-36-F-E-O-N	36	Island	Integral Fan – Front Recirculating	Electric	Fan by others	No
XRRS-I-36-F-E-O-X	GRRS-I-36-F-E-O-X	36	Island	Integral Fan – Front Recirculating	Electric	Fan by others	Yes
XRRS-I-36-F-E-D-N	GRRS-I-36-F-E-D-N	36	Island	Integral Fan – Front Recirculating	Electric	Inline Duct	No
XRRS-I-36-F-E-D-X	GRRS-I-36-F-E-D-X	36	Island	Integral Fan – Front Recirculating	Electric	Inline Duct	Yes
XRRS-I-36-F-G-O-N	GRRS-I-36-F-G-O-N	36	Island	Integral Fan – Front Recirculating	Gas	Fan by others	No
XRRS-I-36-F-G-O-X	GRRS-I-36-F-G-O-X	36	Island	Integral Fan – Front Recirculating	Gas	Fan by others	Yes
XRRS-I-36-F-G-D-N	GRRS-I-36-F-G-D-N	36	Island	Integral Fan – Front Recirculating	Gas	Inline Duct	No

XRRS-I-36-F-G-D-X	GRRS-I-36-F-G-D-X	36	Island	Integral Fan – Front Recirculating	Gas	Inline Duct	Yes
XRRS-I-36-R-E-O-N	GRRS-I-36-R-E-O-N	36	Island	Integral Fan – Rear Discharge	Electric	Fan by others	No
XRRS-I-36-R-E-O-X	GRRS-I-36-R-E-O-X	36	Island	Integral Fan – Rear Discharge	Electric	Fan by others	Yes
XRRS-I-36-R-E-D-N	GRRS-I-36-R-E-D-N	36	Island	Integral Fan – Rear Discharge	Electric	Inline Duct	No
XRRS-I-36-R-E-D-X	GRRS-I-36-R-E-D-X	36	Island	Integral Fan – Rear Discharge	Electric	Inline Duct	Yes
XRRS-I-36-R-G-O-N	GRRS-I-36-R-G-O-N	36	Island	Integral Fan – Rear Discharge	Gas	Fan by others	No
XRRS-I-36-R-G-O-X	GRRS-I-36-R-G-O-X	36	Island	Integral Fan – Rear Discharge	Gas	Fan by others	Yes
XRRS-I-36-R-G-D-N	GRRS-I-36-R-G-D-N	36	Island	Integral Fan – Rear Discharge	Gas	Inline Duct	No
XRRS-I-36-R-G-D-X	GRRS-I-36-R-G-D-X	36	Island	Integral Fan – Rear Discharge	Gas	Inline Duct	Yes
XRRS-I-36-T-E-O-N	GRRS-I-36-T-E-O-N	36	Island	External Fan – Top Discharge	Electric	Fan by others	No
XRRS-I-36-T-E-O-X	GRRS-I-36-T-E-O-X	36	Island	External Fan – Top Discharge	Electric	Fan by others	Yes
XRRS-I-36-T-E-D-N	GRRS-I-36-T-E-D-N	36	Island	External Fan – Top Discharge	Electric	Inline Duct	No
XRRS-I-36-T-E-D-X	GRRS-I-36-T-E-D-X	36	Island	External Fan – Top Discharge	Electric	Inline Duct	Yes
XRRS-I-36-T-G-O-N	GRRS-I-36-T-G-O-N	36	Island	External Fan – Top Discharge	Gas	Fan by others	No
XRRS-I-36-T-G-O-X	GRRS-I-36-T-G-O-X	36	Island	External Fan – Top Discharge	Gas	Fan by others	Yes
XRRS-I-36-T-G-D-N	GRRS-I-36-T-G-D-N	36	Island	External Fan – Top Discharge	Gas	Inline Duct	No
XRRS-I-36-T-G-D-X	GRRS-I-36-T-G-D-X	36	Island	External Fan – Top Discharge	Gas	Inline Duct	Yes

#### Conditions of Listing:

1. The Accurex XRRS and Greenheck GRRS Fire Suppression Range Hoods recognized in this listing must be installed in accordance with the manufacturer's published installation instructions and the applicable codes.
2. An automatic activation for fire suppression system is required, if provided the manual activation device shall be in accordance with Section 904.11.1 of the IBC.
3. Accurex XRRS and Greenheck GRRS Fire Suppression Range Hoods are not to be used over cooking appliances which are used for commercial purposes when appliances is primarily used for the preparation of food for compensation, trade or services rendered.
4. The Accurex XRRS and Greenheck GRRS Fire Suppression Range Hoods recognized in this listing are manufactured under a quality control program with annual surveillance inspections by ICC-ES.



## PROPER VENTILATION & PROTECTION OF A RESIDENTIAL RANGE IN A COMMERCIAL BUILDING

### THIS WHITE PAPER WILL ADDRESS:

- Residential and Commercial Kitchens
- Related Kitchen Code Definitions
- Code Specifics and Compliance
- Pulling It Together

### COMMERCIAL OR RESIDENTIAL?

Commercial buildings and residential buildings have a completely different set of codes which are typically considered to be mutually exclusive. This also applies to kitchens in these types of buildings. There is a noticeable difference between a full commercial kitchen producing large quantities of food daily and a residential style kitchen where the appliances may only cook small meals on occasion.

Restaurant, hotel, or university kitchens are considered to be commercial kitchens because they produce food to be sold for profit. Per code, commercial kitchens are required to have Type I or Type II commercial kitchen hood packages. Because of the frequency and temperature of the cooking, they are highly regulated for safety purposes. Although code does not require residential style kitchens to use a commercial hood, a similar level of protection is often recommended, if not required. Assisted living facilities, places of worship, classrooms, fire stations, college dormitories, or multi-family dwellings are common applications where food is prepared in a commercial building but is not sold for profit.

In discerning code requirements for these conditions – where food is prepared in a commercial building but is not sold for profit – confusion can often arise. For example, consider a small kitchenette designed with a single residential range that is located in an accessible area within an assisted living care facility. In this instance, a residential style kitchen resides within an overall commercial building. When residential and commercial components intermix, it can be unclear which codes apply. This kitchen is not subject to the same requirements as a full commercial kitchen. But both commercial and residential requirements demand equipment that ensures occupant safety. In general, code requirements for commercial kitchens are more detailed, with specific operation, fire protection, filtration, and construction demand, while residential code requirements are generally more lenient.



To better understand code compliance for domestic and residential style kitchens, the chart below defines the applicable codes and terminology used within them.

CODE NAME	DESCRIPTION
NFPA 101	National Fire Protection Association Life Safety Code addressing the construction, protection, and occupancy features necessary to minimize danger to life from the effects of fire.
IMC	The International Mechanical Code establishes the minimum acceptable level of safety and protects life and property from the hazards associated with installation and operation of mechanical systems.
IBC	The International Building Code provides minimum requirements to safeguard the public health, safety and general welfare of the occupants of new and existing buildings.
Group I-1	Includes occupancies for more than 16 persons, excluding staff who reside on a 24-hour basis in a supervised environment and receive custodial care, including but not limited to alcohol and drug centers, assisted living facilities, congregate care facilities, group homes, halfway houses, residential board and care facilities, and social rehabilitation facilities.
Group I-2 Condition 1	Includes facilities that provide nursing and medical care, including but not limited to nursing homes and foster care facilities.
Group R-2	Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, such as hotels, apartments, and dormitories.
Health Care Occupancy	Per NFPA 101, an occupancy used to provide in-patient treatment or care simultaneously to four or more patients who are mostly incapable of self-preservation due to age, physical, or mental disability, or because of security measures not under the occupants' control such as hospitals and nursing homes.
Residential Board and Care Occupancy	Per NFPA 101, an occupancy used for lodging and boarding of four or more residents, not related by blood or marriage to the owners or operators for the purpose of providing personal care services.
UL 300A	Underwriter Laboratories Outline of Investigation for Extinguishing System Units for Residential Range Top Cooking Surfaces.
UL 300	Underwriter Laboratories Standard for Fire Testing of Fire Extinguishing System Units for Protection of Commercial Cooking Equipment.
UL 507	Underwriter Laboratories Standard for Electric Fans.
UL 762	Underwriter Laboratories Outline of Investigation for Power Roof Ventilators for Restaurant Exhaust Appliances.
UL 710	Underwriter Laboratories Standard for Exhaust Hoods for Commercial Cooking Equipment.

## COMPLYING WITH CODE

With any application, the local **authority having jurisdiction (AHJ)** determines what is compliant with the code. It is important to consult the code authority directly on requirements for a particular application. Most local code authorities base compliance on the universally accepted I-Codes – the **International Mechanical Code (IMC)**, the **International Building Code (IBC)**, and the **National Fire Protection Association Life Safety Code (NFPA 101)**.

IMC is the standard code referenced in the context of mechanical systems, including kitchens. **IMC Section 507** is the specific section that addresses commercial kitchen hoods. It states that commercial cooking requires a Type I or Type II kitchen hood, whether a domestic appliance is being used or not: “Domestic cooking appliances utilized for commercial purposes shall be provided with Type I/II hoods.”. IMC states that a domestic appliance utilized for domestic purposes within a commercial setting is required to comply with IMC Section 505. and does not require any compliance within IMC 507. This excludes the requirement of a type I hood, a UL 762 listed grease exhaust fan, or any grease-rated ductwork. IMC section 505 revolves around the requirements for domestic cooking equipment. It states that **WHERE DOMESTIC EXHAUST EQUIPMENT IS PROVIDED, IT MUST HAVE ALL OF THE FOLLOWING:**

- A UL 507 listed exhaust fan
- Outdoor discharge through sheet metal duct in Group I-1 and I-2 applications
- Make-up air when the system is exhausting more than 400 CFM



While not commonly referenced with commercial kitchen spaces, the International Building Code (IBC) has useful occupancy classifications for residential kitchens. Occupancy types sort structures or spaces based on their hazard levels and provide specific requirements for each. While essentially all commercial kitchens are within occupancy Group A-2, residential kitchen occupancies are much more varied. If the residential kitchen isn't the main purpose of the space, it falls within the occupancy group of the overall space it is located in. This is important because certain occupancies require additional features beyond what is dictated by IMC 505. For example, in Group I-1 and I-2 occupancies, facilities where staff members administer care or custodial labor for a number of patrons (see formal definitions on page 2), recirculating fans within the hood are prohibited, and an automatic fire suppression system is required.

When the application does not fall within these occupancies – such as with fire stations, places of worship, and teaching kitchens – a recirculating hood can be used without make-up air (exhaust is typically 250 – 300 CFM), eliminating the need for ducts through the building or other additional equipment. This makes implementation and installation much simpler and more cost-effective – especially in applications with major construction or budget constraints.

**CONCERNING FIRE SUPPRESSION, IBC SECTION 904.13 DICTATES REQUIREMENTS FOR DOMESTIC COOKING SYSTEMS FOR GROUP I-1, I-2, AND R-2 OCCUPANCY. FOR THESE OCCUPANCIES, THE HOOD MUST:**

- Be equipped with a pre-engineered automatic fire-extinguishing system listed and labeled in accordance with UL 300A
- Include a means of manual actuation of the fire system
- Interconnect the fuel and electric power supply

Many of these same applications that fall under Group I-1 and I-2 occupancy – health care occupancies and residential board and care occupancies – also fall under the scope of NFPA 101 Life Safety Code. Under these circumstances, a few other **REQUIREMENTS FOR THE IMPLEMENTATION OF DOMESTIC RANGES ARE NECESSARY:**

- The cooktop must have a range hood of at least equal to the width of the cooking surface with clean-out capable grease collectors
- The cooktop is protected with a fire suppression system listed in accordance with UL 300 or is tested and meets all requirements of UL 300A and includes a means of manual actuation
- An interlock is included to turn off all fuel or electric sources to the range when the fire suppression system is activated
- Portable fire extinguishers are located in the kitchen
- A switch, located in the same room, which deactivates the range when the kitchen is not under staff supervision or after 2-hours of usage of the range
- At least two smoke detectors
- The hood system has a minimum airflow of 500 CFM

A growing market in health care, assisted living, and rehabilitation centers increases the need for a code-compliant domestic kitchen exhaust solutions with a trusted and approved UL 300A fire system.

To revisit the aforementioned example, what is the proper method of protection for this small, single range kitchenette located in an accessible area within an assisted living care facility? First, we have identified that the appliance is a residential range, not a commercial appliance. We also know that it is used solely to cook meals for the residents of the facility, and no cooking will be done for profit. Per **IMC section 507**, these two items dictate that a Type I or Type II exhaust hood does not need to be provided. Because the appliance is in a domestic space, the class of occupancy must then be determined; assisted living care facilities can fall within the Group I or Group R occupancy depending on the occupant capacity of the building. If this facility houses more than 16 people, excluding staff, this building is placed within the Group I-2 occupancy. With the kitchen fully defined, what hood should be placed over this range?

### **OPTION 1 - COMMERCIAL KITCHEN HOOD**

Looking solely at requirements within the I-Codes, there is no definite answer as to what style of hood to use, only what features that hood must provide. Revisiting the requirements in **IMC section 505 and 507**, we see that commercial kitchen code requirements are not mutually exclusive to commercial kitchens. A residential kitchen may be properly protected with a commercial kitchen hood system, as the protections offered by a commercial Type I system meet, or exceed, the requirements of **IMC section 505**. Theoretically, a full Type I hood system is a valid solution above this residential range by providing fire suppression and proper fuel interlocks. While this is a potential option, one must consider the size and cost of a commercial hood, especially in comparison to the space it's located in and the appliance underneath it.

These commercial systems are designed for heavy-duty, constant cooking. Just as this space likely isn't using a commercial freezer or dishwasher, the usage of a commercial hood may be excessive.

### **OPTION 2 - TRADITIONAL DOMESTIC HOOD**

A simple residential hood provided by a hardware store would typically fail to meet the required safety features. While these light-duty hoods exhaust effluent from the appliance and may even satisfy the code requirements in lesser occupancies, for these Group I situations, they're often lacking critically important features, like fuel disconnects and listed fire suppression systems.

### **OPTION 3) HOODS SPECIFICALLY DESIGNED FOR DOMESTIC RANGES IN A COMMERCIAL SPACE**

Many manufacturers closely follow code requirements and changes, and the market has seen the introduction of hoods specifically designed for domestic kitchens within commercial spaces. Typically originating from commercial kitchen/fire system manufacturers, full hood systems, as well as stand-alone UL 300A fire suppression systems, are designed around the various code requirements mentioned previously. These systems are recommended because they are specifically designed for the listed purpose of residential ranges. They can provide facility owners with confidence in code compliance and improved aesthetics within the facility, all while being more cost effective than a full commercial hood system.

Code requirements are continuously developing, both in distinguishing domestic kitchens from commercial kitchens and in defining the differences in their requirements. When determining the style of a kitchen, whether residential or commercial, always be aware of the type of appliances, their purpose and the style of cooking. If the cooking is determined to be domestic, identify the occupancy of the space to define further requirements. To ensure proper compliance, discuss these topics regularly with your local AHJ, especially as these codes continue to evolve.



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## **XRRS Specification**

### **Residential Range (Fire Ready Hood) System**

Provide Accurex hood model XRRS as shown on plans and in accordance with the following specification:

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Kitchen ventilation hood shall be exhaust only, and cover a domestic range (sizes 30" or 36") in commercial environments used for domestic purposes only. The hood shall be ICC evaluated and certified as compliant with International Mechanical Code (IMC), International Fire Code (IFC), and Uniform Mechanical Code (UMC). If provided with a fan, the fan shall be UL 507 listed or equivalent. Hood fire suppression shall be UL listed to the UL Subject 300A. Hood shall be configured as wall style (supplied with wall mounting bracket). The hood shall be constructed by Accurex.

The hood manufacturer shall provide, on request, the necessary data that confirms compliance with the code authorities listed above.

Hood shall be constructed of 18 gauge minimum, 300 series stainless steel outer shell. Hood shall be either 30" long (to cover 30" range) or 36" long (to cover 36" range). Hood shell shall be manufactured and assembled with no visible outer welds or weld marks. All internal seams shall be sealed with NSF-approved caulk, standard. A metal mesh filter shall be provided. Two (2) 2200-2700K color LED recessed hood lights shall provide over 50 foot-candles of evenly-dispersed lighting on the range below.





Hood shall include factory-installed UL Subject 300A fire suppression system, including fully monitored electronic detection and actuation. No braided cable or fusible links shall be accepted. Fire suppression shall consist of two (2) mounted metal-housed temperature sensors that monitor the cooking surface and upon reaching set-point, send a signal back to the main fire system control board, which activates the tank solenoid valve and expels the wet chemical from a pre-charged tank responsible for suppressing the fire. Tank pressure shall be monitored using tank pressure sensor and a fault must be displayed on the user interface if low pressure is detected.

All fire suppression and control components must be easily accessible by dropping the hood into a service position to allow for service without removing the hood. Latches shall be utilized to hold the hood into place for normal operation. No thumb screws or removable hardware are acceptable.

Hood system shall include either an electronic or gas shut off device that shall be field connected back to the hood via factory-provided plug and play cables. Prior to fire suppression release, the shut off device shall be responsible for disabling the range upon detecting a high temperature. Gas disconnect (if provided) shall include a  $\frac{3}{4}$ " gas valve supplied with plug and play cable and a 115VAC control receptacle. Electric disconnect (if provided) shall include a 4-prong 250VAC 50A power receptacle. Other electric disconnect receptacle types are also available upon special request.

Hood system with option for NFPA 101 compliance, must include: 500 CFM fan, locked (password protected) appliance disconnect with timed-automatic range deactivation, and manual pull station.

User interface shall be provided to control fan, range, and lights and view system statuses, including faults/alarms. User interface shall be full color 4.3" LCD touch screen. No toggle switches or rheostats shall be acceptable. All factory and configuration settings must be accessed by touchscreen through password-protected entry. For ADA compliance, the user interface can be shipped loose to be field mounted on a wall near the hood. If shipped loose, user interface shall be provided with factory supplied plug and play cable.

The hood system shall be configured as with either a factory-supplied integral fan, factory-supplied external fan, or fan by others. Integral fan options include either front recirculating or rear discharge. Front recirculating style shall include an easily accessible charcoal filter and opening in the front of the hood for filtering the exhaust air before discharging back into the space. Rear discharge shall direct the air to exit the back of the hood, to discharge through a wall to the outside. External fan options include either a factory-provided inline fan (with plug and play cable) or fan by others option with a top discharge hood configuration. Top discharge shall direct the air to exit the top of the hood, to discharge through a roof or wall to the outside. All factory provided fan options shall include energy efficient electrically commutated motors (ECM) standard.



Basic hood operation shall be as follows:

- 1) User interface can be utilized to turn on and off fans, lights, and range disconnect.
- 2) If configured for NFPA 101 life safety code, password entry will be required to engage disconnect. After range is turned on, count down timer will begin, and upon expiring will disengage the range disconnect.
- 3) Upon reaching specific set-point, exhaust fan will engage automatically if not already turned on and be forced to a speed based on a temperature range.
- 4) Upon reaching a second higher temperature set-point, the disconnect will be automatically shut off and a warning will appear on the user interface.
- 5) Upon reaching a preset temperature, the fire system will engage and discharge wet chemical on top of the range.

The system can also include the following options:

- 1) Enclosure panels to close-off the space above the hood to the ceiling (option for external fan configuration)
- 2) Finished top, when no overhead cabinets are enclosing the top of the hood (option for internal fan configuration)
- 3) Wall cap (option for rear discharge fan configuration)
- 4) Horn strobe, with plug and play cable
- 5) K-class 6 liter wet chemical fire extinguisher
- 6) Manual pull station, with plug and play cable (included automatically with NFPA 101 compliance)

Dry contacts are provided standard for tie into building alarm systems and supply fan integration.

*Due to continuous research Accurex reserves the right to change specifications without notice.*

***Nederman***



**Nederman MagnaSystem.  
Exhaust Extraction Solutions  
for Emergency Vehicles**



# Nederman MagnaSystem.

## Keep your station free from exhaust fumes



Every time a vehicle is started hazardous exhaust fumes and particulate are generated. Both are serious health risks. A Nederman exhaust extraction system

eliminates that risk. The Auto-Start Control System ensures that the fan energizes before the vehicle engine is started. The MagnaSystem automatically releases from the vehicle.



## Ergonomic and reliable

The MagnaSystem uses an electro-magnet to attach the exhaust hose and nozzle to the vehicle. When activated, the electro-magnet attaches to an anchor plate on the vehicle, holding the nozzle firmly on to the tail pipe. The extraction unit follows smoothly along the track/rail, as the vehicle exits. When passing the pre-set disconnection point on the track/rail, the electro-magnet is deactivated and the nozzle releases instantly. This prevents stress on the tail pipe and risk of injuries due to slingshot effect at release.

## Safe and reliable investment

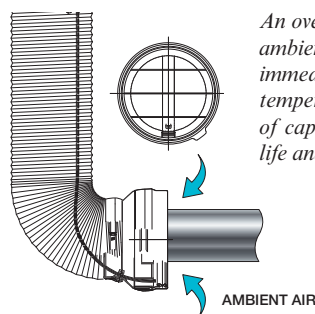
MagnaSystem is the Nederman family of exhaust extraction systems designed specifically for emergency vehicles. Our experience and know-how is a guarantee that MagnaSystem is a secure investment today, and for years to come. Nederman MagnaSystems are installed in over thirty thousand stations globally.



*The anchor plate is the nozzle attaching point on the vehicle. It is mounted at a convenient height on the vehicle body enabling you to attach the nozzle while standing up right. The electro-magnet has an ergonomic handle and attaches instantly to the anchor plate on the vehicle.*



*The tension of a leaf spring in the hose holds the nozzle firmly to the exhaust pipe. The spring also ensures the release of the nozzle when the electro-magnet is deactivated.*



*An oversized nozzle permits an ambient air mix in the air stream immediately reducing the emission temperature up to 50 % at the point of capture. This prolongs component life and prevents burning hazards.*

## There is a system for every need

Feature	MAGNARAIL The ultimate solution offering outstanding performance	MAGNATRACK HS For high-frequency/high-speed applications	MAGNATRACK S An economical alternative for lower speed and lower usage bays	MAGNATRACK B For stations with less usage demands	MAGNASTACK The reliable solution for vertical exhaust stacks
Serves up to 4 vehicles at a time	●				
Serves 1 vehicle at a time	●	●	●	●	●
Drive-through traffic	●				
Normal exit speed (up to 15 km/h, 10 mph)			●	●	●
High exit speed (up to 25 km/h, 15 mph)	●	●			
Low level tail pipe	●	●	●	●	
High level tail pipe	●	●			●
Vertical stack	(●)*	(●)*			●
Automatic return (accessory)	●				

*\*Also available in HL = high level*

# Nederman MagnaRail

## The ultimate solution offering outstanding performance

MagnaRail is a high capacity system designed to handle large volumes of exhaust fumes.

Up to four vehicles can be attached to the same rail system, each with a designated disconnection point.

The MagnaRail is the ideal solution for a drive-through application for vehicles with either High level or Low level tail pipes. The Suction Rail is

formed in a configuration such that the extrusion serves not only as an exhaust duct, but also as the guide rail that the extraction trolley travels in. The configuration has few parts, is light weight and it snaps easily into the suspensions, all in order to simplify the installation. The rail is available in up to 30m (100ft), increments of 2.5m (8ft) or 5m (16ft).

- Capacity: up to 4 vehicles at a time.  
For back in or drive-through vehicles
- High exit speed: up to 25 km/h; 15 mph
- Exhaust pipes: Low level or High level
- Option: Automatic return

### Transformer

Primary voltage: 100-230 V, 1-phase AC.  
Secondary voltage: 24 V AC.

### Bus-bar

Supplies power to the electro-magnet.

### Light weight exhaust rail

Makes the installation easy.

### Disconnection box

Releases the entire hose assembly from the vehicle in a one-step process; no stress or strain is transferred from the vehicle to the exhaust hose or overhead brackets.

### Extraction Trolley

The Extraction Trolley, made out of a light weight composite, serves as the component in the Rail System that travels in the suction rail.

Temp. resistance: for exhaust temperatures up to 600°F; 315°C.

### Electro-magnet assembly

Attaches the system to a vehicle.  
Includes a manual override switch to de-energize the magnet.

### Bracket

Snaps on to the rail.

### Shock absorber

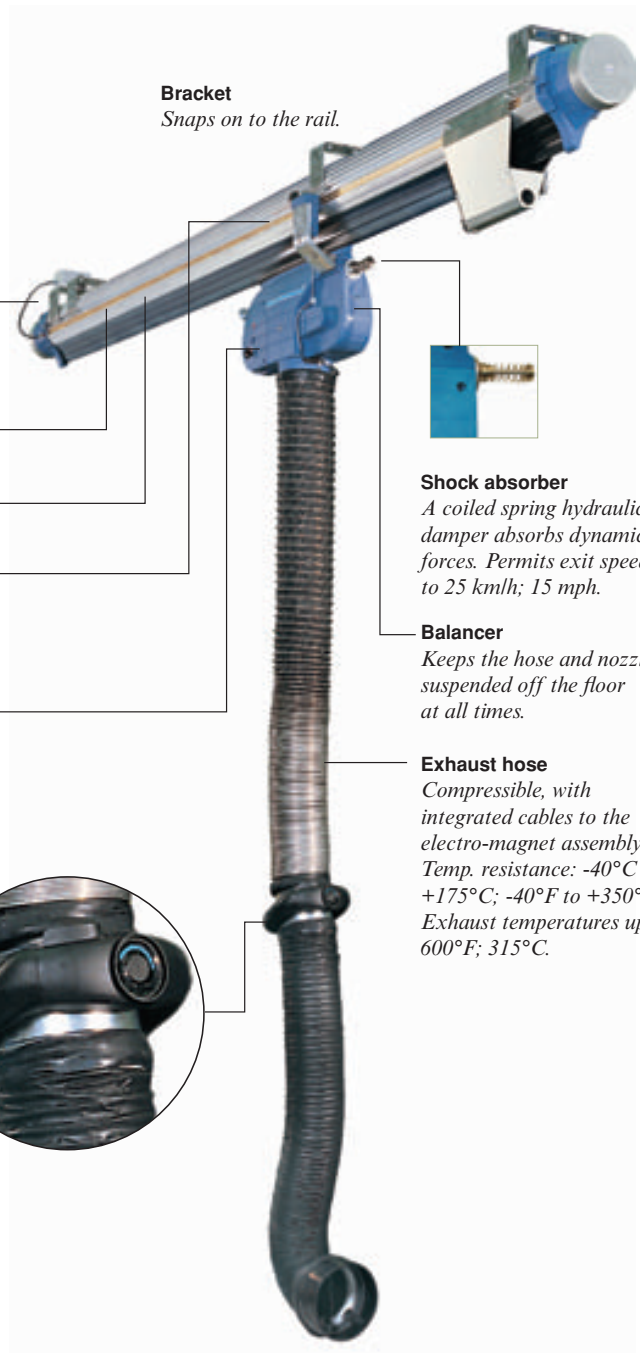
A coiled spring hydraulic oil damper absorbs dynamic forces. Permits exit speeds up to 25 km/h; 15 mph.

### Balancer

Keeps the hose and nozzle suspended off the floor at all times.

### Exhaust hose

Compressible, with integrated cables to the electro-magnet assembly.  
Temp. resistance: -40°C to +175°C; -40°F to +350°F.  
Exhaust temperatures up to 600°F; 315°C.



# Nederman MagnaTrack

## Nederman MagnaTrack HS

### For high-frequency/high-speed applications

The MagnaTrack HS track system serves one vehicle at a time. MagnaTrack HS is available in lengths from 3.5 m to 18 m; 10 ft. to 60 ft. For vehicles with either High level or Low level tail pipes.

## Nederman MagnaTrack S

### An economical alternative for lower speed and lower usage bays

MagnaTrack S is an economical alternative to the HS version. The S version serves one vehicle at a time. It is designed to serve emergency vehicles with a fewer runs and lower exit speeds. It is available in lengths from 5.9 m to 11.8 m; 20 ft. to 40 ft.



#### MagnaTrack HS

- Capacity: 1 vehicle per system
- High exit speed: up to 25 km/h; 15 mph
- Exhaust pipes: High level or Low level tail pipes

#### MagnaTrack S

- Capacity: 1 vehicle per system
- Normal exit speed: up to 15 km/h; 10 mph
- Exhaust pipes: Low level tail pipes

#### Guide track

Light weight extruded aluminum.

#### Transformer

Primary voltage: 100-230 V 1-phase AC.  
Secondary voltage: 26 V AC.

#### Disconnection box

Releases the entire hose assembly from the vehicle in a one-step process; no stress or strain is transferred from the vehicle to the exhaust hose or overhead brackets.

#### Exhaust hose

Compressible, with integrated cables to the electro-magnet assembly.  
Temp. resistance: -40°C to +175°C;  
-40°F to +350°F.  
Exhaust temperatures up to 600°F; 315°C.

#### Bracket

#### Shock absorber

A coiled spring hydraulic oil damper absorbs dynamic forces. Allows exit speed up to 25 km/h; 15 mph. Version S has a rubber stop which allows speed up to 15 km/h; 10 mph.

#### Balancer

Keeps the hose and nozzle suspended off the floor at all times. Version S has a spring for this function.

#### Trolley

The Extraction Trolley, with aluminum body, serves as the component that travels in the track, carries and supports the vertical hose assembly, balancer and disconnection box.

#### Electro-magnet assembly

Attaches the system to a vehicle. Includes a manual override switch to de-energize the magnet.

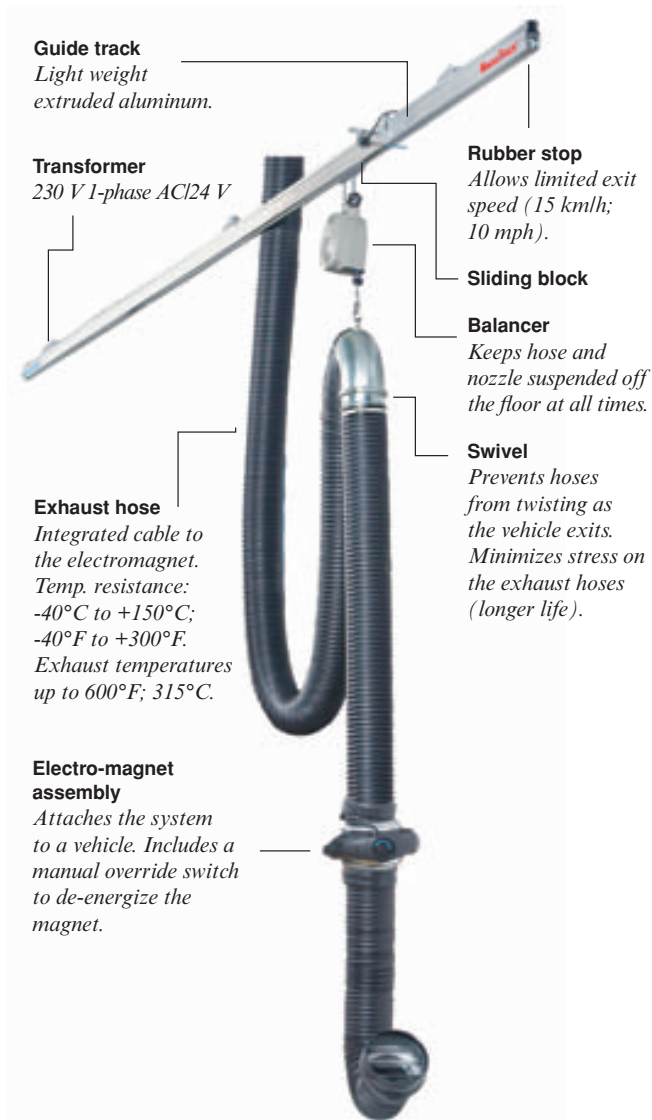
## Nederman MagnaTrack B

### For stations with less usage demand

MagnaTrack B is a suitable solution when the distance between tail pipe and exit door is no more than 7 m; 25 ft. The free-hanging exhaust hose is equipped with a swivel attached to a balancer, which moves on the guide track.

A switch on the guide separates the entire hose assembly from the vehicle in a one-step process; no stress or strain is transferred from the vehicle to the exhaust hose or overhead brackets.

- Capacity: 1 vehicle per system
- Normal speed exit: up to 15 km/h; 10 mph
- Exhaust pipes: Low-level tail pipes

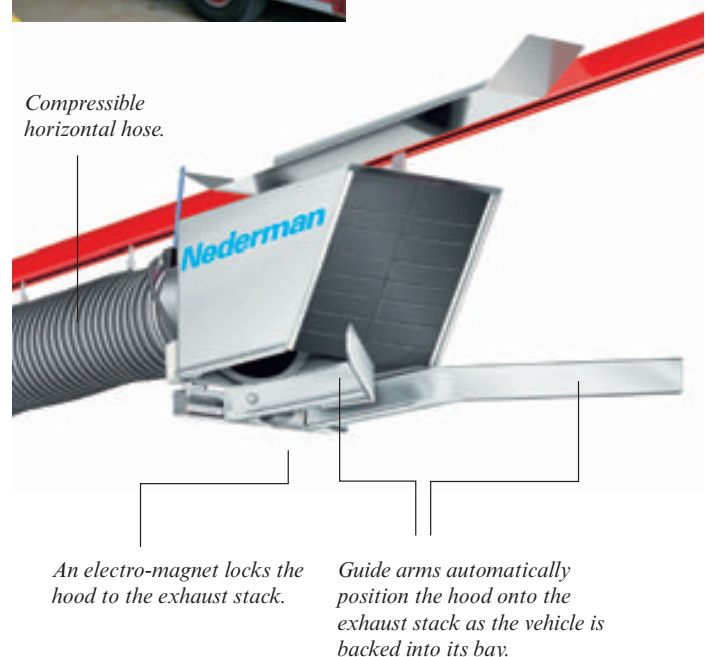


## Nederman MagnaStack

### The reliable solution for vertical exhaust stacks

MagnaStack is a 100 per cent automatic exhaust extraction system, based on the same technique as MagnaTrack. The extraction unit, however, is a hood enclosure, which automatically connects with the vertical exhaust stack as the vehicle is backed in to the parking bay. Guide arms position the laterally adjustable hood to the stack. The stack is attached to the hood with an electro-magnet. As the vehicle moves towards the exit, the horizontal hose and extraction hood follow smoothly along the guide track. At the doorway the electric power is automatically switched off, instantly releasing the exhaust stack from the hood.

- Capacity: 1 vehicle per system
- Normal speed exit: up to 15 km/h; 10 mph
- Exhaust pipes: Vertical stacks

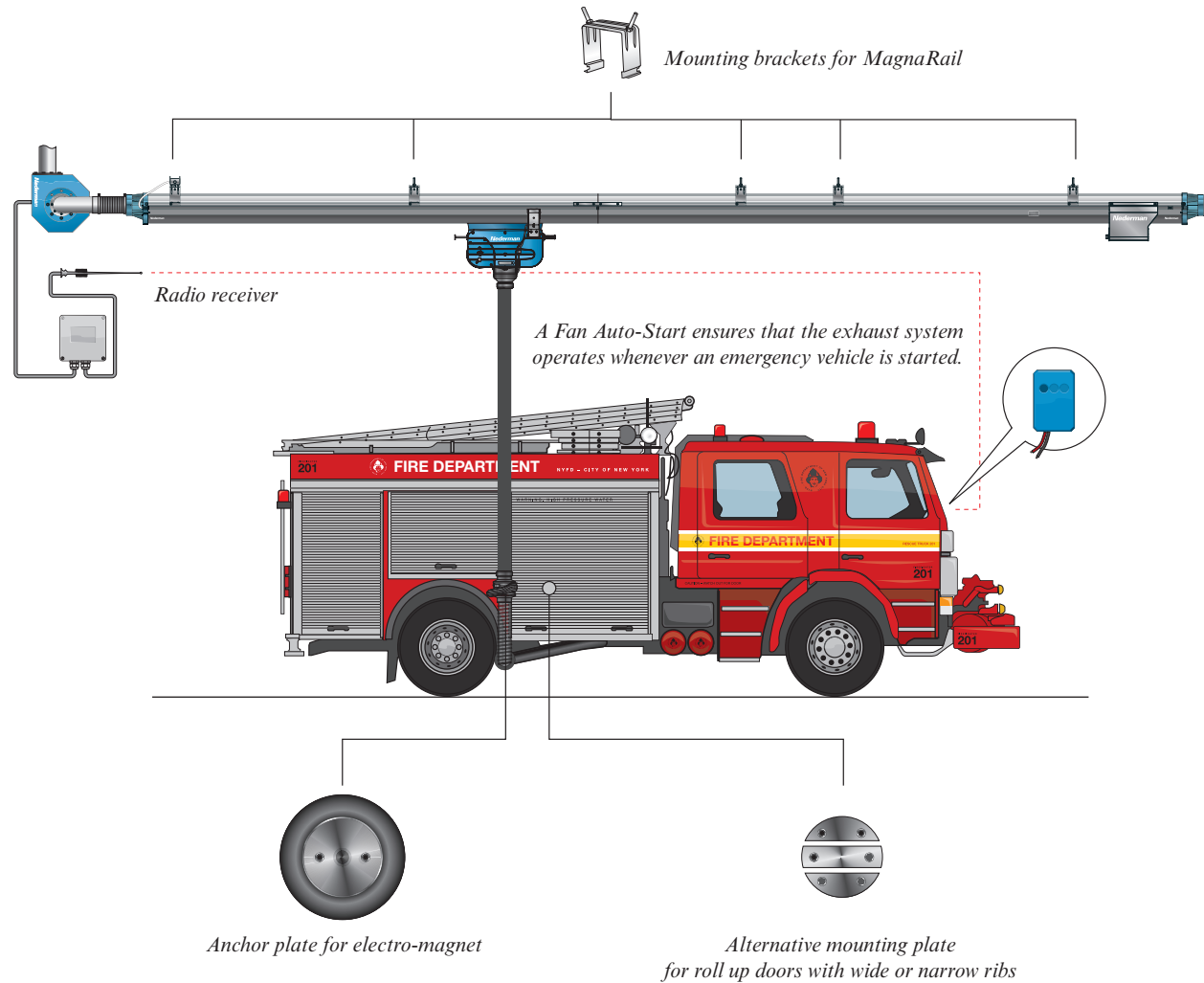




# Accessories for extended functions

A Nederman MagnaSystem can be equipped with a transmitter and radio receiver that starts the exhaust fan when the vehicle is started.

The fan is running two minutes after the vehicle has departed, which ensures complete extraction of hazardous exhaust fumes.



## Nederman – a global company with local presence

Nederman is a world leader in developing, manufacturing and marketing products and systems for a better working environment in all kinds of industries.  
We have sales companies and distributors in more than 50 countries.

MagnaSystem is the Nederman family of exhaust extraction systems designed specifically for emergency vehicles. The products have been installed in over thirty thousand stations globally. Our experience and know-how is a guarantee that MagnaSystem is a secure investment today, and for years to come.

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The Nederman logo consists of the word "Nederman" in a bold, blue, sans-serif font.

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**Nederman Agents:** Australia, Bahrain, Brazil, China, Cyprus, Egypt, Estonia, Finland, Greece, Holland, Hong Kong, Hungary, Iceland, India, Indonesia, Italy, Japan, Korea, Latvia, Lithuania, Malaysia, Philippines, Romania, Russia, Saudi Arabia, Singapore, Slovenia, South Africa, Switzerland, Taiwan R.O.C., Thailand, Turkey, United Arab Emirates



**Make your operation run more intelligently to protect people, property and your bottom line**

# E<sup>3</sup>Point Toxic and Combustible Gas Monitor



## Flexible Operation

- Comes in standalone, standalone with remote (dual gas mode) or network versions
- Connects to analog or digital systems
- Works with virtually any BAS including BACnet, Modbus
- Wall or duct mount
- Factory-calibrated cartridges

## Cost Effective

- Saves energy through Demand Control Ventilation (DCV)
- Simplifies installation/maintenance through plug-n-play sensor
- Remote sensor option provides dual gas monitoring (standalone version only)
- Optimizes BAS, fire, ventilation and other security systems

## Versatile Communications

- Works through BAS to improve fault diagnostics and collect data on gas concentration levels, sensor condition, etc.
- Couple with 301C to log data and daisy-chain up to 96 E<sup>3</sup>Point units

## Advanced Sensing Technology

- Detects CO, NO<sub>2</sub>, O<sub>2</sub>, H<sub>2</sub>, H<sub>2</sub>S, CH<sub>4</sub>, C<sub>3</sub>H<sub>8</sub>
- Advanced electrochemical (for toxic gases) and catalytic bead (for combustible gases) sensor performance
- Uses patented Reflex<sup>®</sup> and smart cartridge technologies

## Range of Accessories

- Factory-calibrated replacement cartridges
- Power transformer
- Vandal-resistant steel wire detector guards
- Tamper-proof screws
- Horns and strobes

## Electrical Certifications

- US (ANSI/UL 61010-1)
- Canada (CSA C22.2 No. 61010-1)

\* pending - call your sales rep for information

**E<sup>3</sup>Point goes beyond protection to offer your building greater performance and productivity.**



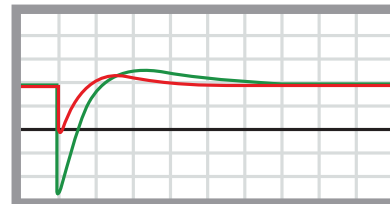
## Plug-N-Play Ease

E<sup>3</sup>Point's plug-n-play sensor is factory calibrated and works out of the box. Upon installation, E<sup>3</sup>Point automatically configures for quick operation. You benefit from easier installation and maintenance, and greater adaptability to changing building and safety requirements.

## Reflex<sup>®</sup> Keeps You Safer

Only Honeywell's patented Reflex<sup>®</sup> technology adds this extra degree of precision and diligence to sensor monitoring to make doubly sure you're safe. Reflex bounces electrical signals into the E<sup>3</sup>Point electrochemical sensor cell at regular intervals, a form of electronic bump testing and continuous monitoring of cell response.

**Oscilloscope graph shows cell responding to Reflex pulse, indicating sensor condition.**



**GREEN** shows optimal sensor condition (dynamic responsiveness to gas).

**RED** shows degraded sensor condition (indicating cell dry-out or failure).

**Efficient Operations + Energy Savings + Economical Value = E<sup>3</sup>Point**

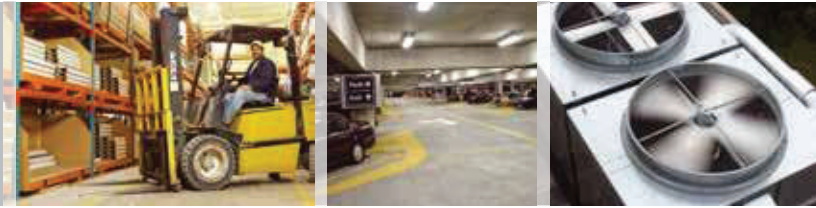
Smart sensor design, extreme temperature range, etc. optimize building performance

On-demand ventilation controls energy use

Reduces cost of installation, operation and maintenance



# Flexible Applications



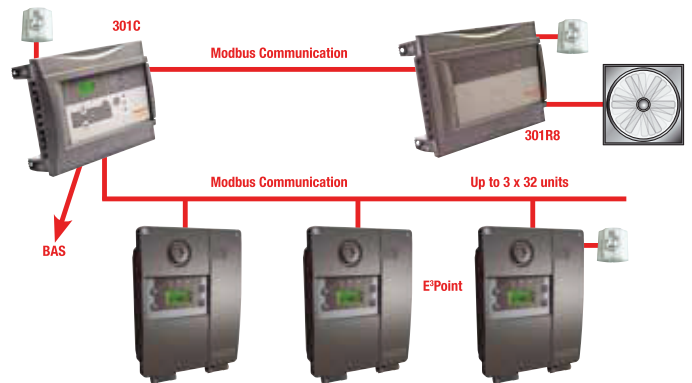
E<sup>3</sup>Point integrates easily with your building's analog or digital infrastructure as a standalone unit or network addressable device. Here are four installation examples to make E<sup>3</sup>Point work for you.

## E<sup>3</sup>Point Standalone Single-Sensor Operation

A low-cost application for buildings with minimal gas monitoring requirements typical of a small facility. Offers easy installation, commissioning and operation. Two on-board relays can activate fan or strobe.



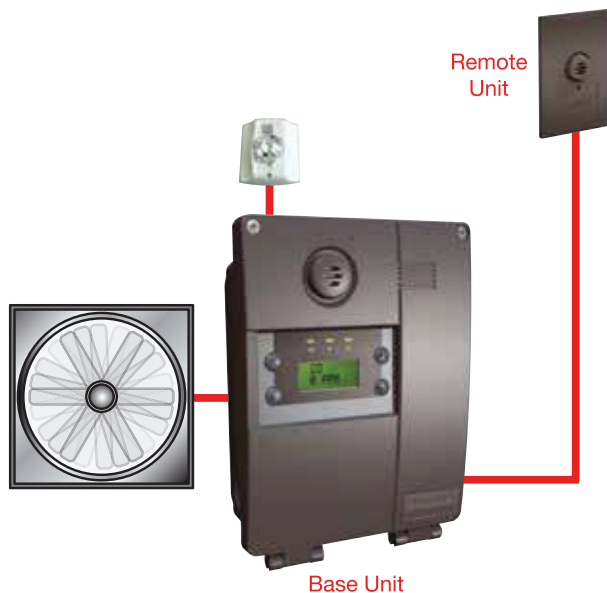
## E<sup>3</sup>Point/Modbus Configuration



Supports Modbus protocol to daisy-chain E<sup>3</sup>Point detectors, providing up to 96 points of monitoring on a serial bus. Excellent option for controller-based (VA301C) installations common in larger applications. A relay output is provided as an option for activating ventilation directly (e.g. when fan is located in close proximity to detector).

## E<sup>3</sup>Point Standalone Dual-Gas Sensor Operation

Economical application adds option of a second (remote) sensor for dual gas monitoring. Two on-board relays can activate ventilation or strobes.

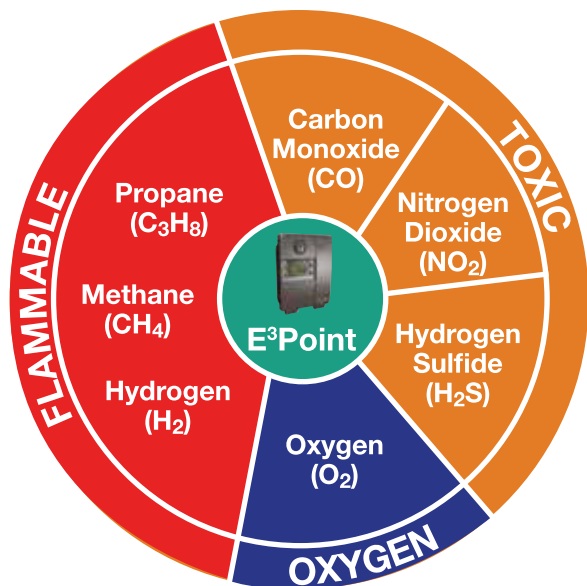


## E<sup>3</sup>Point/BACnet IP Configuration



E<sup>3</sup>Point outputs directly to BACnet or other BAS. Alarms, strobes and horns are activated through BAS with link to DCV/HVAC controls. This system design supports new and retrofit installations for large buildings, and can couple with a controller to effectively integrate wired system components. A relay output is provided as an option for activating ventilation directly (e.g. when fan is located in close proximity to detector).

## Dual-Gas Detection In Many Combinations



E³Point's standalone, dual-gas configuration monitors two gases simultaneously and cost effectively, in any of the following combinations: **toxic-toxic**, **toxic-combustible**, **oxygen-toxic**, or **oxygen-combustible**.

### Find out more

[www.honeywellanalytics.com](http://www.honeywellanalytics.com)

### Contact Honeywell Analytics:










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[www.honeywell.com](http://www.honeywell.com)

## E³Point Expands the Range of Gas Detection to Serve Practically All Building Areas, Including Outbuildings

	Building Environment	Gases Present (Detected by E³Point)
	Parking Structure	CO, NO <sub>2</sub> , C <sub>3</sub> H <sub>8</sub>
	Loading Dock	CO, NO <sub>2</sub> , C <sub>3</sub> H <sub>8</sub> , H <sub>2</sub>
	Transport Terminal	CO, NO <sub>2</sub> , C <sub>3</sub> H <sub>8</sub> , CH <sub>4</sub>
	Golf Cart Maintenance/ Battery Charging Area	CO, NO <sub>2</sub> , CH <sub>4</sub> , O <sub>2</sub> , H <sub>2</sub>
	Maintenance Garage	CO, NO <sub>2</sub> , C <sub>3</sub> H <sub>8</sub> , O <sub>2</sub> , H <sub>2</sub> S, H <sub>2</sub>
	Hospital/Ambulance Bay	CO, NO <sub>2</sub> , C <sub>3</sub> H <sub>8</sub> , O <sub>2</sub>
	Fire/Police Station	CO, NO <sub>2</sub> , C <sub>3</sub> H <sub>8</sub> , O <sub>2</sub> , H <sub>2</sub> , H <sub>2</sub> S
	Boiler Room	CO, CH <sub>4</sub> , C <sub>3</sub> H <sub>8</sub>
	Battery Charging Rooms & Hydrogen Tanks	H <sub>2</sub>
	Commercial Kitchen	C <sub>3</sub> H <sub>8</sub> , CO, CH <sub>4</sub>
	Indoor Stadium/Arena	CH <sub>4</sub> , CO, C <sub>3</sub> H <sub>8</sub>

### Please Note:

While every effort has been made to ensure accuracy in this publication, no responsibility can be accepted for errors or omissions. Data may change, as well as legislation, and you are strongly advised to obtain copies of the most recently issued regulations, standards, and guidelines. This publication is not intended to form the basis of a contract.



# ND-2 Series

## Exhaust Only Hood

CaptiveAire's Premier Canopy

**The ND-2 Series is a Type I, Wall Canopy Hood for use over 450°F, 600°F and 700°F cooking surface temperatures. The aerodynamic design includes a mechanical baffle and performance enhancing lip for exceptional capture and containment.**

### Fully Integrated Package

CaptiveAire sells this hood as a stand-alone appliance to be integrated into a kitchen ventilation application, or provided as part of a FULLY INTEGRATED PACKAGE designed by CaptiveAire and pre-engineered for optimum performance. The package consists of the hood, an integral utility cabinet, factory pre-wired electrical controls, and a listed fire suppression system. Other options include a listed exhaust fan, a listed make-up air unit and listed, factory-built ductwork.

### Advantages

- ▶ **Exhaust Flow Rates:** Superior exhaust flow rates. A 4' Hood can operate at 150 CFM/ft or 600 total CFM. Available in single or back-to-back configurations.
- ▶ **ETL Listed:** ETL Listed for use over 450°F, 600°F and 700°F cooking surface temperatures, which provides flexibility in designing kitchen ventilation systems. ETL Listed to US and Canadian safety standards, ETL Sanitation Listed and built in accordance with NFPA 96.
- ▶ **Capture and Containment:** Insulated, double-wall rigid front has aerodynamic design that reduces radiant heat into kitchen, prevents condensation and provides exceptional capture and containment of cooking vapors. This is accomplished with the signature ND-2 "mechanical baffle" on the front of the hood's capture area and the "C-shaped" design of the hood's capture area. Mechanical baffle provides a built-in wiring chase for optimal positioning of electrical controls and outlets on the front face of the hood without penetrating capture area or requiring external chase way.
- ▶ **Convenient Design:** Factory pre-wired lighting to illuminate the cooking surface is accessible from the bottom of the hood. Fitted with UL Listed, pre-wired, incandescent light fixtures and tempered glass globes to hold up to a standard 100 watt bulb. Pre-punched hanging angles on each end of hood and additional set provided for hoods longer than 12'.
- ▶ **Construction:** Polished stainless steel on the interior and exterior of the front enhance aesthetics. Fully welded and polished front corners. Fabricated from
- ▶ **Grease Extraction:** All hoods come standard with stainless steel baffle filters and a deep grease trough which allows for easy cleaning. Captrate Combo® and Captrate Solo® filters are optional. Grease drain system with removable 1/2 pint cup for easy cleaning. Standard filter stops eliminate gaps between filters.
- ▶ **Reduced Lead Times and Shipping Costs:** Produced on a high volume assembly line at one of six manufacturing facilities to reduce lead times and shipping costs.
- ▶ **Clearance to Combustibles:** Standard built in 3" rear standoff to meet NFPA 96 requirements, when installed in a wall application.
- ▶ **Controls:** Hoods can be equipped with modular utility cabinets and end standoffs. Optional listed light and fan control switches flush mounted and pre-wired through electrical chase way.
- ▶ **Optional Make-Up Air:** Make-up air can be supplied through optional front and/or side plenums (ND-2 Series with PSP or AC-PSP Accessory).
- ▶ **Optional Self Cleaning Technology:** The Self Cleaning Hood option adds a spray bar that extends the full length of the hood immediately behind the filters. The system cleans grease from the plenum and portion of the duct with the daily hot water spray cycle.
- ▶ **Optional CORE Protection:** The CORE Fire Protection System is an automatic, pre-engineered fire suppression system which is ETL listed to UL Standard



Type 430 stainless steel with option of Type 304 available.

- **Channels:** Hood comes standard with structural channels on top and wrapper channels on the bottom.
- **Reduced Weight:** Rigid single wall end panels reduce weight.

300. The CORE Protection System is designed to provide primary coverage for ventilating equipment including hoods, ducts, plenum and filters.

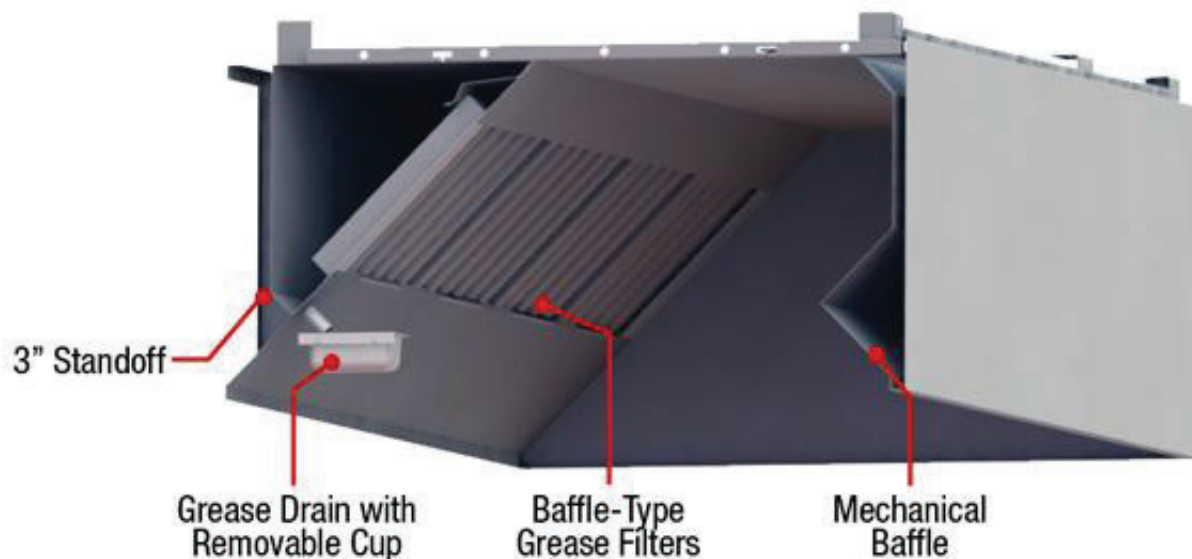
- **Optional Heat Recovery Coil:** This option is available for hoods with CORE Protection. A listed coil accessory can be added to the hood plenum to recover heat from the exhaust stream. Warm air in the exhaust stream passes over the coil and heats the cold water in the coil, acting as a preheater on the hot water supply line for the restaurant or facility.

## Performance

AVG. COOKING SURFACE TEMP. (°F)	CONFIGURATION	MIN. EXHAUST CFM / FT.
450°F	Single Wall Hood 2 Wall Hoods Back-to-Back	150 300
600°F	Single Wall Hood 2 Wall Hoods Back-to-Back	200 400
700°F	Single Wall Hood 2 Wall Hoods Back-to-Back	250 500

**Recommended Duct Sizing:** Exhaust - Based on 1500 FPM

## Features

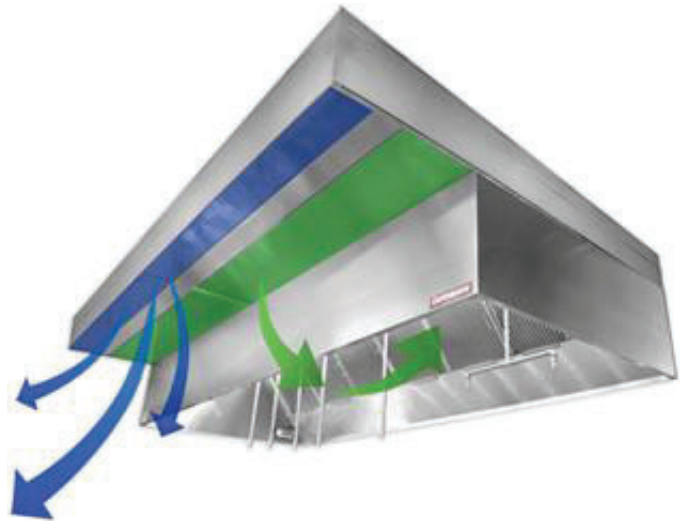




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## Optional Make-Up Air Accessory

- Provides the required make-up air for your kitchen system
- Delivers AC where it is needed most
- AC air does not interfere with the hoods capture and containment
- Convenient termination for AC ductwork in kitchen
- Stainless steel construction to match the ventilation hoods
- Insulated to prevent condensation
- Make-up plenum is located nearest the hood; the air conditioned plenum is away from the hood
- Make-up air stream and the air conditioned air stream are not permitted to mix until leaving the dual plenum
- Perforated, stainless steel diffuser plates provide even air distribution
- Optional LED Lights



**Make-up air** is evenly distributed along the length of the hood through the first plenum and **conditioned air** is delivered through the outer plenum.

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## Optional Vertical End Panels (VEP & WVEP)

### Energy Savings

- VEPs provide improved capture and containment by directing effluents into the hood and blocking cross drafts
- Allows exhaust CFM reductions up to 18%
- Equivalent reduction in makeup air
- This saves on fan energy, make-up air heating/cooling energy
- Possible equipment downsizing, reduces upfront cost

### Design

- Stainless steel matches hood finish
- Gas chase allows appliance lines to run between wall and end panel
- Double-wall insulated construction
- Adjustable feet
- May allow for a reduction in required side overhangs

### Safety

- Encloses the hood area, preventing flames or embers from escaping
- Ensures equipment is not accidentally moved outside of the hood area
- Stainless steel construction for sanitation and longevity
- Legs raise bottom of panel off floor to allow room for cleaning

- ▶ Hemmed edges prevent sharp surfaces
  - ▶ Wide Vertical End Panels (WVEPs) provide an increased level of heat containment and fire protection, especially useful for high radiant load appliances such as solid fuel
- 

## Options

**Utility Cabinet:** Listed for integral side mount and fabricated of same material as hood. Cabinet can house listed fire suppression system and listed, pre-wired electrical controls.

**Front Perforated Supply Plenum:** Provides low velocity make-up air for the kitchen and is discharged in front of the hood. Perforated diffuser plates allow for even air distribution and supply riser includes a volume damper for easy balancing. Side Perforated Supply Plenums can be added to optimize the air flow if necessary.

**Enclosure Panels:** Constructed of stainless steel. Sized to extend from hood top to ceiling, enclosing pipe and hanging parts.

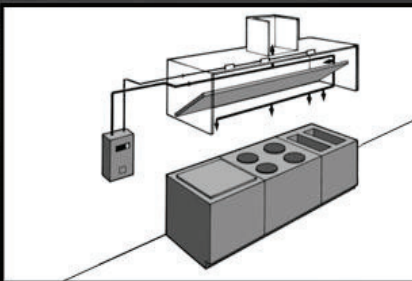
**End Panels:** Should be used to maximize hood performance and eliminate the effects of cross drafts in kitchen. units constructed of stainless steel and sized according to hood width and cooking equipment. Exposed edges hemmed for safety and rigidity.

**Roof Top Package:** Combination ETL Listed exhaust/supply air unit with factory prewired and mounted motors, trunkline and curb vented on exhaust side.

**Separate Exhaust and/or Make-Up Air Fans:** ETL Listed single exhaust fans and supply-air fans and curbs available.

**Fire Suppression System:** UL 300 fire suppression system.

**Lighting:** Recessed Incandescent, Recessed Fluorescent, Compact Fluorescent, Recessed LED, Halogen



# R-102 Series

## Restaurant Fire Suppression

Wet Chemical System

**The ANSUL® R-102™ Restaurant Fire Suppression System is an automatic, pre-engineered fire suppression system designed to protect areas associated with ventilating equipment including hoods, ducts, plenums and filters. The system also protects auxiliary grease extraction equipment and cooking equipment.**

## Application

Use of the R-102 system is limited to interior applications only. The regulated release and tank assemblies must be mounted in an area where the air temperature will not fall below 32°F (0° C) or exceed 130°F (54° C). The system must be designed and installed within the guidelines of the UL/ULC Listed Design, Installation, Recharge, and Maintenance Manual.



## System Description

The restaurant fire suppression system is a pre-engineered, wet chemical, cartridge-operated, regulated pressure type with a fixed nozzle agent distribution network. It is listed with Underwriters Laboratories, Inc. (UL/ULC). The system is capable of automatic detection and actuation and/or remote manual actuation. Additional equipment is available for building fire alarm panels connections, electrical shutdown and/or interface, and mechanical or electrical gas line shut-off applications.

The detection portion of the fire suppression system allows for automatic detection by means of specific temperature-rated alloy type fusible links, which separate when the temperature exceeds the rating of the link, allowing the regulated release to actuate.

A system owner's guide is available containing basic information pertaining to system operation and maintenance. A detailed technical manual including system description, design, installation, recharge, and maintenance procedures is available. The system is installed and serviced by authorized distributors that are trained by the manufacturer.

The basic system consists of an ANSUL AUTOMAN regulated release assembly which includes a regulated release mechanism and a wet chemical storage tank housed within a single enclosure. Nozzles with blow-off caps, detectors, cartridges, agent, fusible links, and pulley elbows are supplied in separate packages in the quantities needed for fire suppression system arrangements.

Additional equipment includes remote manual pull station, mechanical and electrical gas valves, pressure switches, and electrical switches for automatic equipment and gas line shut-off. Accessories can be added such as alarms, warning lights, etc., to installations where required.

Additional tanks and corresponding equipment can be used in multiple arrangements to allow for larger hazard coverage. Each tank is limited to a listed maximum amount of flow numbers.

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## Components

- Wet Chemical Agent
- Agent Tank
- Regulated Release Mechanism
- Regulated Actuator Assembly
- Discharge Nozzles
- Agent Distribution Hose
- Flexible Conduit
- Pull Station Assembly

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## Approvals

**Applicable Standards:** ULI listed under EX- 3470; ULC listed under CEX-747; meets requirements of NFPA 96 (Standard for the Installation of Equipment for the Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment); NFPA 17A (Standard on Wet Chemical Extinguishing Systems).

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## Ordering Information

Order all system components through your local authorized Ansul Distributor

**ANSUL FIRE PROTECTION**  
**MARINETTE, WI 54143-2542**  
**715-735-7411**



## DU-HFA

### CENTRIFUGAL UPBLAST DIRECT DRIVE FANS



- Air Volume: 2 – 22,500 cfm
- Maximum SP: 4" wg. @ standard air density

#### FEATURES & BENEFITS

- Completely enclosed drive compartment protects motor from airborne contaminants
- Forced fresh air through the motor compartment cools motor and ensures long motor life
- Variable Speed Control on Single Phase Units Only. (VFDs required to adjust speed for 3 phase versions)
- Non-overloading backward inclined wheels, blades and inlets fabricated from aluminum
- Units up to 24" nominal wheel can be wall mounted
- Quick release latches allow for easy access to motor compartment. (Size 12 & larger)
- Standard emergency disconnect switch (Size 12 & larger)

#### OPTIONS

- Gravity Damper. (UL705 Only)
- Motorized Damper. (UL705 Only)
- Wall Mount Sleeve.
- Roof Curb. (Vented and Non-Vented)
- Grease Collection Box. (Size 12 & larger)
- Bird Screen. (UL705 Only)
- Base Hinging Kit or Hinged Sub Base. (for NFPA96 compliance)

- Combination package that includes a supply fan mounted on the same roof curb.

## CERTIFICATIONS

CaptiveAire certifies that Model DU10HFA thru DU360HFA shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and Publication 311, and comply with the requirements of the AMCA Certified Rating Program.

Models DU10HFA thru DU360HFA are ETL Listed under file number 102628244PRT-001 and comply with UL705 (electrical) Standards and CSA Std C22.2, No 113.

Models DU12HFA thru DU360HFA are ETL Listed under file number 103336443COL-001 and comply with UL762 and ULC-S645 Standards.



Catalog #110C  
October 2020

## A SERIES

### MODULAR ROOFTOP FILTERED MAKE-UP AIR FANS



- Air Volume: 2 – 22,000 cfm
- Maximum SP: 4" wg. @ standard air density

#### DESCRIPTION

The Air Handler Unit is the heart of the modular fan system. It is designed to deliver fresh outside make up air for installations requiring frequent air changes. Units are designed for indoor or outdoor applications, and are available in vertical or horizontal discharge configurations.

Packages are available in sizes up to 22,000 CFM, and external static pressures up to 4" W.G. Units have large doors on both sides to provide ample access to all internal components. Standard features include vibration isolation, high efficiency motors, and adjustable drive sheaves (belt drive units only). Units consist of a galvanized enclosure with a blower and motor. Belt drive units also include pulleys and belt(s). The blower module has a standard horizontal inlet designed to accommodate an outside air inlet hood with a standard 2" filters and screen.

To satisfy a variety of installation and climatic requirements, packages are available in a number of configurations. Possible configurations include the addition of either a v-bank or an evaporative cooler intake module and a direct fired or indirect fired heating module. All modules bolt together to form a rigid common base structure that mount onto a single curb structure or can be hung for indoor applications.

Combination packages that include both exhaust and supply fans mounted on a single roof curb are also available, please contact your sales representative for more information.

#### FEATURES & BENEFITS

- Vibration isolation.
- High efficiency motors.
- Compact weatherproof design.
- Adjustable drive sheaves. (belt drive units only)
- Horizontal or down discharge.
- 2" washable filters.
- Inlet screen.
- G90 galvanized steel.
- Easy accessibility to all components for inspection, maintenance and cleaning.
- Disconnect switch.

- ☐ Lifting points.
- ☐ Speed control standard on direct drive units.

## OPTIONS

- ☐ Gravity intake damper.
- ☐ Motorized intake damper.
- ☐ Roof Curbs.
- ☐ Wall Mount Kit.
- ☐ Mixing Box with Damper Control.
- ☐ DX Cooling Coils.
- ☐ Hot Water/Steam Coils.
- ☐ Indoor Hanging Cradle.
- ☐ Insulated Housing.
- ☐ Evaporative Cooler Intake.
- ☐ VAV Packages.
- ☐ Extra Set of V-Belts. (belt drive units only)

## CERTIFICATIONS

The A Series Model has been certified by ITS. This certification mark indicates that the product has been tested to and has met the minimum requirements of a widely recognized (consensus) U.S. products safety standard, that the manufacturing site has been audited, and that the applicant has agreed to a program of periodic factory follow-up inspections to verify continued performance.



Model A Series is ETL Listed under file number J20029811-001 and complies with UL705 and CSA C22.2, No. 113 Standards.



**Chapter**  
**FAIRFIELD ARTS COMMISSION**

**§ Establishment.**

In recognition of the contribution that arts and culture make to the quality of life within the community, there is hereby established a permanent Town commission to be known as the "Fairfield Arts Commission."

**§ Purpose.**

The purpose of the Fairfield Arts Commission shall be to stimulate, foster, facilitate and encourage the development and appreciation of artistic and cultural activities within the Town of Fairfield.

**§ Membership; terms; compensation.**

The Fairfield Arts Commission shall consist of seven residents of the Town of Fairfield to be appointed by the Representative Town Meeting. The members shall serve without compensation. Of the members first appointed, three shall serve until December 31, 2024; two shall serve until December 31, 2025; and two shall serve until December 31, 2026. Thereafter, each succeeding member shall be appointed for a term of three years. In addition, the Director of Parks & Recreation, or their designee, shall serve as an ex officio member without vote.

**§ Election of officers.**

The Fairfield Arts Commission shall, at its first meeting following the effective date of its appointment and annually thereafter, elect a Chair and Vice Chair from among its members and such other officers as the Commission may determine.

**§ Meetings; rules of procedure.**

The Fairfield Arts Commission shall meet at least once every two months and at such other times as the Commission shall determine. The Commission may adopt its own rules of procedure consistent with the provisions of this article.

**§ Duties and responsibilities.**

The Fairfield Arts Commission shall have the following duties and responsibilities:

- A. The Commission shall make an initial survey and shall subsequently maintain an inventory of the artistic and cultural resources of the Town.
- B. The Commission shall develop, and revise as required, a formal arts policy for the Town of Fairfield, subject to approval by the Board of Selectmen, and may engage

in activities in accordance therewith.

- C. The Commission may make recommendations to the Board of Selectmen and other Town Boards and Commissions on arts-related matters in furtherance of the Town's arts policy, including without limitation designating an Arts District within the town.
- D. The Commission shall encourage and assist in the display and presentation of art, artistic performance and cultural activities in Town as well as the recognition of Town artists.
- E. The Commission may engage in other activities necessary and appropriate to carry out its objectives and purposes.
- F. The Commission shall keep records of its meetings and activities and shall file an annual report with the Representative Town Meeting describing its activities for the previous calendar year.

**TENTATIVE AGREEMENT  
FOR A SUCCESSOR**

**CONTRACT**

**BETWEEN**

**TOWN OF FAIRFIELD**

**AND**

**THE FAIRFIELD POLICE UNION**

**CONNECTICUT ORGANIZATION  
FOR PUBLIC SAFETY**

**C.O.P.S. LOCAL #550**

**T/A:**

**JULY 1, 2017 2022 TO JUNE 30, 2022 2025**

**T/A: TOC to be updated in final draft**

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## **CONTRACT BETWEEN THE TOWN OF FAIRFIELD**

### **AND THE FAIRFIELD POLICE UNION**

#### **CONNECTICUT ORGANIZATION FOR PUBLIC SAFETY, LOCAL #550**

The following contract, by and between the Town of Fairfield, herein referred to as the "Town" and the Fairfield Police Union, Connecticut Organization for Public Safety, Local #550, herein referred to as the "Union", is designed to maintain and promote a harmonious relationship between the Town of Fairfield and such of its employees who are within the provisions of this contract in order that more efficient and progressive public service may be rendered.

#### **ARTICLE I - RECOGNITION**

##### **Section 1.01**

The Town hereby recognizes the Union as the exclusive bargaining agent for the unit consisting of all full-time Police Officers within the Fairfield Police Department (who have completed training at "P.O.S.T." and have commenced assignment in said department), except officers of the grade of Captain and above, on all matters of wages, hours, and conditions of employment. During the probationary period, probationary officers will not have access to the grievance procedure beyond Step 3. Probationary officers will not have shift bidding rights or work schedule rights while at the P.O.S.T.

##### **Section 1.02**

Probationary period shall be from 12 months after receipt of state certification or 18 months from date of hire whichever comes last.

#### **ARTICLE II - COPIES OF CONTRACT**

The Town shall give each present employee, and to each new employee when hired, a copy of this contract.

#### **ARTICLE III -GRIEVANCE PROCEDURE**

##### **Section 3.01**

The purpose of this procedure is to provide an orderly method of adjusting grievances. Should any dispute, disagreement or grievance arise between the Union or any employee and the Town concerning wages, hours, or conditions of employment, the employee or the Union may seek adjustment in the order of the steps listed below:

**STEP ONE:** Within thirty (30) days of the alleged grievance an employee, or if the alleged grievance is one of a series of alleged grievance in which there are at least three (3) similar grievances submitted simultaneously, the grievances, signed by the grievant, will be filed by the Union and processed together. Said grievance shall be in writing, setting forth the nature of said grievance to the Chief of the department with copies to the Commander of the division, Board of Police Commissioners and to the Human Resources Director. Within ten (10) days (excluding Saturdays and Sundays) after receiving such grievance, the Chief shall meet with said employee for the purpose of adjusting or resolving such grievance. The Chief shall render a decision concerning said grievance within ten (10) days of said meeting. If such grievance is not resolved to the satisfaction of the employee, the employee may within ten (10) days of such decision initiate step two of this procedure, otherwise the decision of the Chief shall not be subject to further appeal.

**STEP TWO:** Further review of such grievance shall be made by presenting in writing such grievances to the Human Resources Director or designee. Within ten (10) days after the Human Resources Director receives such grievance, the Director shall have the option of meeting with the employee/union for the purpose of adjusting or resolving such grievance. The Director or designee shall render a decision concerning said grievance within ten (10) days after receiving such grievance. If such grievance is not resolved to the satisfaction of the employee, the employee may within ten (10) days initiate step three of this procedure, otherwise the decision of the Director shall be final and binding.

**STEP THREE:** The Union may initiate this step by giving notice within ten (10) days of the response at Step Two to the Director of Human Resources of its intent to seek arbitration. Thereafter, the Union shall, within ten (10) days of this notice, submit the dispute to arbitration by the Connecticut State Board of Mediation and Arbitration and shall provide the Director of Human Resources with a copy thereof within said same ten (10) days. Said Board shall hear and act on such dispute in accordance with its rules and render a decision that shall be final and binding on all parties. The fee of the arbitrator and the administration expenses of the arbitration, if any, shall be shared equally by the parties, but other expenses shall be borne by the party incurring them, including payments to representatives, witnesses, etc.

Employees may represent themselves or have the Union represent them in all steps of this grievance procedure. Whenever the Union is not representing the employee, it may attend each step of the procedure, including arbitration, and state its views. Notwithstanding the foregoing, if the Union elects not to file a grievance to arbitration, the employee may do so and/or otherwise choose not to have the Union represent the employee in arbitration, in which case the cost of the arbitration shall be shared between the Town and the employee.

For just cause, any employee may be removed, dismissed, discharged, suspended, fined or reduced in rank. Within thirty (30) days of said disciplinary action, an employee may institute a grievance to the Chief of the Department.



Failure to process the grievance within the time limits established in the preceding sections presumes that it has been satisfactorily resolved at the last step to which it had been properly processed. Failure on the part of the Town's representative to answer a grievance in the time limits established in the preceding sections will result in the grievance automatically moving to the next step in the grievance procedure.

Employees may request a meeting with the Division Commander along with a representative from the Union whenever they are given a written reprimand or have been requested to give a written explanation of an occurrence which explanation may lead to disciplinary action.

The time period specified in this article may be extended by mutual agreement of the parties involved.

#### **ARTICLE IV - SENIORITY**

##### **Section 4.01**

Seniority shall be defined by length of service in rank. An employee's length of service shall not be broken or reduced except by a disciplinary suspension lasting more than thirty (30) calendar days.

The Town shall provide the Union with a seniority list of all employees in the unit ranked in order of their classification and time in service.

#### **ARTICLE V- PAID HOLIDAYS**

##### **Section 5.01**

Employees on the payroll as of each of the twelve legal holidays listed in Section 5.02, hereof, shall be paid holiday pay for each holiday to be computed by multiplying their regular hourly rate by eight (8). The holiday pay shall be in addition to their regular pay for the time actually worked any such holiday.

##### **Section 5.02**

For the purpose of this Article, the following days shall be considered as legal holidays: New Year's Day, Martin Luther King Day, Washington Observance Day, Columbus Day, Good Friday, Easter Sunday, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day.

##### **Section 5.03**

Each employee is eligible to receive a compensatory day off for any six (6) of the Holidays listed in Section 5.02 instead of receiving holiday pay as set forth in Section 5.01. Such request must be made prior to the holiday and the compensatory day off shall be scheduled with the approval of the Chief of Police. Denial by the Chief of Police of a specific compensatory day off shall not be subject to the grievance procedure.

**T/A:**

## **ARTICLE VI - FUNERAL LEAVE**

### Section 6.01

An employee, upon request, shall receive time off from the date of death through the date of the funeral if a death occurs in the employee's immediate family. The employee will receive regular pay for regularly scheduled workdays during that period for of not less than three (3) days or more than five (5) days to be used to mourn and to attend funeral/memorial services. Immediate family shall be defined as spouse, parent, stepparent, child, stepchild, sibling, father-in-law or mother-in-law, grandparent, grandchild, brother-in-law and sister-in-law (defined as the brother or sister of the spouse) and relatives living in the employee's immediate household.

### Section 6.02

Funeral leave with pay due to the death of a relative outside the immediate family shall be granted for one (1) day i.e. First cousin, Aunt or Uncle of Employee or Spouse.

### Section 6.03

Employees shall be entitled to funeral pay only for those days for which they are normally scheduled to work.

### Section 6.04

An employee, upon request and upon providing written verification from a Doctor, shall receive time off in accordance with Section 6.01 of Article VI, if the employee has suffered a loss of pregnancy that said employee was the parent (biological or otherwise), due to miscarriage or stillbirth.

## **ARTICLE VII - CLOTHING ALLOWANCE**

### Section 7.01

On the first pay period of each fiscal year, the Town shall pay to each employee a uniform allowance of six hundred fifty dollars (\$650.00). In addition thereto, the Town shall replace shirts and trousers, turtle neck shirts, winter jackets, summer jackets, and raincoats of standard specifications upon submission to the Police Department where there are visible indications of wear. No more than six (6) shirts (three (3) summer and three (3) winter), four (4) pants, and one (1) jacket or coat can be replaced in any fiscal year. Weight loss shall be a proper basis for replacement of uniforms. The Chief or his designee shall have the final decision on determining the condition of the clothing and/or necessity for replacement including the re-issue of cleaned and pressed items, if appropriate. New items required by the Commission or Chief during the fiscal year over and above the current clothing requirements shall be purchased and paid for by the Town.

### Section 7.02

On the first pay period for each fiscal year, the Town shall pay to each employee a uniform maintenance allowance of four hundred fifty dollars (\$450.00). New Employees shall receive

a pro-rata maintenance allowance based on the number of months they work during the fiscal year.

#### Section 7.03

The Town shall reimburse any member for the loss or damage of clothing and/or personal property incurred in the performance of duty, provided such loss is not a result of the officer's negligence, and further provided such loss is reported to the employee's immediate supervisor during the course of the shift on which the loss takes place or immediately thereafter. Town's liability for such personal loss shall not exceed two hundred fifty dollars (\$250.00), except when off duty, the maximum of said loss shall be five hundred dollars (\$500.00).

#### Section 7.04

Detectives shall be entitled to an additional clothing allowance of four hundred dollars (\$400.00) per year, said clothing allowance to be paid on the first pay period of each fiscal year. Employees assigned to the Investigation Division after the beginning of the fiscal year shall be paid this clothing allowance quarterly on a pro-rated basis.

#### Section 7.05

On the first pay period of each fiscal year, Scuba Divers shall receive an allowance of four hundred dollars (\$400.00) per year when the Police Chief, in his sole discretion, authorizes the continued use of a Scuba Diving group. The responsibility to purchase Scuba Diving Equipment shall remain with the individual officer.

#### Section 7.06

Uniform turn-ins shall not be allowed during the month of June without prior authorization from the Office of the Chief of Police.

### **ARTICLE VIII - RETIREMENT BOARD**

#### Section 8.01

The Bargaining Unit shall have one representative on the Retirement Board to be appointed by the First Selectman, which employee has been designated by the Union for such appointment for a duration of three (3) years. When such term expires or should that appointment become vacant during such term, the First Selectman shall fill such vacancy in the same manner as the original appointment.

### **ARTICLE IX - INSURANCE**

#### Section 9.01- Health Insurance

The Town shall have the option of determining the carrier to provide these benefits and these benefits shall be substantially equivalent as a result of any change in carriers. Should the Town desire to make changes to any of the plans, it agrees to negotiate with the Union within the specified parameters with the understanding that any such new plan shall be substantially equivalent to or better than the existing plan.

The Town will provide and pay, subject to the applicable cost share, to all eligible

employees and their eligible dependents the following health care coverage:

- a) Medical: Anthem Blue Cross and Blue Shield Century Preferred (Preferred Provider Organization) or Blue Care (Health Maintenance Organization) or substantially equivalent plans.
  - i. Specific provisions of the plans are provided in the booklets entitled "Town of Fairfield Century Preferred Summary Booklet" – print date 2006 and "Town of Fairfield Blue Care Summary Booklet" – print date 2006 by Anthem Blue Cross and Blue Shield.
- b) Prescription drug: Express Scripts (ESI) or substantially equivalent plan. Specific provisions of the plan are provided in the handbook entitled "Town of Fairfield-Your Prescription Drug Benefit Handbook" print date 2005 by Medco, which has since been acquired by Express Scripts.
- c) Dental: Guardian or substantially equivalent plan. Specific provisions of the plan are provided in the pamphlet entitled "Town of Fairfield...." (final draft released to Fairfield in March 2006) print date 2006 by Guardian.
- d) Vision: Anthem Vision or substantially equivalent plan. Specific provisions of the plan are provided in the booklet entitled "Town of Fairfield Vision Summary Booklet" print date 2006 by Anthem Blue Cross and Blue Shield.

Effective October 1, 2015, Medical Insurance as set forth below shall be in effect:

Town of Fairfield			
Century Preferred Plan (In-Network Benefits Only)			
Plan Changes Police			
Benefit Description	Current Plan	Effective 1,2015	Oct
Medical Benefits - Anthem	Century Preferred	Century Preferred	
Deductible (ind/fam)	\$0	\$0	
Coinsurance	0%	0%	
Out-of-Pocket Maximum <sup>(1)</sup>	\$0	\$3K/\$6K/\$9K	



Lifetime Maximum	Unlimited	Unlimited
Office Visit Copays	\$20	\$25
Specialist Visit Copay	\$20	\$30
Hospital Copay	\$150	\$300
Urgent Care Copay	\$50	\$75
Emergency Room Copay	\$100	\$200
Outpatient Surgery Copay	\$0	\$100
Well Child Care	\$0	\$0
Periodic, Routine Health Exam	\$0	\$0
Routine Eye Exams	\$0	\$0
Routine OB/Gyn Exam	\$0	\$0
Mammography	\$0	\$0
Hearing Screening	\$0	\$0
Outpatient MH/SA	\$20	\$30
Diagnostic Lab and X-Ray	\$0	\$0
Allergy Services (except PCP Visit)	\$0	\$0
Semi-Private Room	\$150	\$300
Inpatient MH/SA	\$150	\$300
Skilled Nursing Facility	\$150	\$300
Inpatient Rehabilitative Services	\$0	\$0
Outpatient Surgery	\$0	\$100
Ambulance	\$0	\$0
Outpatient Rehabilitative Services	\$20	\$30
Durable Medical Equipment	\$0	\$0

<b>Prescription Drugs - Medco &amp; Anthem Plans</b> (2)	<b>Century Preferred</b>	<b>Century Preferred</b>
Retail Generic	\$10	\$10
Retail Brand Formulary	\$20	\$20
Retail Brand Non-Formulary	\$35	\$35
Mail Order Generic	\$20	\$20
Mail Order Brand Formulary	\$40	\$40
Mail Order Brand Non-Formulary	\$70	\$70
Rx Annual Maximum	Unlimited	Unlimited
(1) Out-of-Pocket maximum equals deductible plus coinsurance maximum		
(2) assumes mandatory generic substitution and 30 day supply at retail		

#### Out of Network Plan Changes

<b>Benefit Description</b>	<b>Current Plan</b>	<b>Effective Oct 1, 2015</b>
<b>Medical Benefits - Anthem</b>	<b>Century Preferred</b>	<b>Century Preferred</b>
Deductible (ind/fam)	\$200/\$400/\$500	\$400/\$800/\$1000
Out-of-Pocket Maximum <sup>(1)</sup>	\$600/\$1000/\$1500	\$800/\$1600/\$2000
Emergency Room Copay	\$100	\$200

Prescription drug option requires mandatory mail at two times retail for maintenance drugs.

#### **T/A:**

- e) Employee Contributions to Medical and Dental Premium Equivalent Costs
  - i. Effective upon ratification **July 1, 2022** employees shall contribute ~~fourteen percent (14.00%)~~ **seventeen percent (17%)** of the blended rate for Town premium equivalent costs.

- ii. Effective July 1, 2019 **2023** employees shall contribute ~~fifteen percent (15.00%)~~ **seventeen percent (17%)** of the blended rate for Town premium equivalent costs.
- iii. Effective July 1, 2020 **2024** employees shall contribute ~~sixteen percent (16.00%)~~ **eighteen percent (18%)** of the blended rate for Town premium equivalent costs.
- iv. ~~Effective July 1, 2021 employees shall contribute seventeen percent (17.00%) of the blended rate for Town premium equivalent costs.~~

The term "blended rate" shall be defined as 1) the gross total Town of Fairfield Healthcare cost of active employees only, including expected claims plus administrative fees, stop loss fees and network access fees for a given year as determined by the Town's health consulting firm; 2) divided by the number of active Town employees receiving healthcare benefits from the Town-sponsored plan.

f) Health Insurance Committee

- i. The Town and the Union fully agree that the rising costs of health insurance present a significant burden on the budget of the Town of Fairfield; therefore the parties agree to the following:
- ii. The parties shall fully participate and advocate a committee comprised of all other unions representing Town employees and Town officials, which shall meet and seek to reduce and contain such costs to the Town. Subjects shall include but shall not be limited to managed care for all employees, change in carrier(s), increased co-pay for prescription drug and home and office visits, modification in deductibles for hospital and medical services.
- iii. At any time that the committee shall find a way to reduce such cost, upon a unanimous vote by the committee, the Union agrees to bring and support to its members the changes for the purpose of ratification.

Upon ratification by the membership, the Union agrees to reopen its present agreement during the term of this present contract for the sole purpose of the inclusion of such changes.

Section 9.02 – Life Insurance

- a) The Town shall provide and pay for a Forty-Five Thousand Dollar (\$45,000) Life Insurance Policy with Accidental Death and Dismemberment coverage for all employees on a 24-hour basis.
- b) All employees shall be given the option of being covered by the Contributory Life and Accidental Death & Dismemberment Insurance Plan as outlined in the Prudential Company Booklet dated 3/84 on a 24 hour basis.

### Section 9.03 - Insurance for Retirees

- a) Employees with at least Twenty-Five (25) years of service including Credit for Military Service, who retire under the Normal or Disability (work or non-work related) provisions of the Police & Fire Retirement Plan and their enrolled dependents at the time of their retirement or their natural born children thereafter shall be entitled to Town Health Insurance Coverage as listed in Section 9.01. Except as otherwise provided for below, employees entitled to the retiree medical insurance benefits under this section shall continue to receive in retirement the same medical insurance benefits they received as an active employee, with the understanding that if the active employees switch to a new plan which is substantially equivalent to or better than the plan the employee retired under, the retiree will be switched to the new plan. All future retirees, following March 18, 2013, and who are eligible for post-employment medical benefits, shall receive benefits under the same plan terms as offered to active employees as those benefits may change from time to time for active employees. Such coverage shall change to the Medicare Carve Out Plan at age 65, in accordance with current practice. Employees who retire with less than 25 years of service with the exception of disability retirees shall not be entitled to any insurance benefits as listed in Section 9.01A.
- b) Employees who retire with Twenty-Five (25) years of service but who are less than fifty-one (51) years of age, shall upon attaining the age of fifty-one (51) be entitled to the benefits listed in Section 9.01a.
- c) Employees eligible for Social Security Medicare Benefits shall be required to participate in the Medicare Part A and B Plans upon attaining eligibility.
- d) Effective October 1, 1993, employees retiring in accordance with the normal or disability provisions of the Police and Fire Retirement Plan, and their eligible enrolled dependents, shall continue to be covered for health insurance coverages set forth in Section 9.01A above. Such coverages shall be reduced to a Medicare Carve-Out for those covered upon reaching the age of 65. The cost of Medicare, if any, shall be borne by the retiree.
- e) The Town shall provide to all employees who retire subsequent to January 1, 2000, a Life Insurance Policy in the amount of Fifteen Thousand Dollars (\$15,000.00). The Town shall pay all premiums for the policy.

### Section 9.04 Post Employment Health Plan-Establishment of OPEB Trust

- a) The Town shall maintain a post-retirement health insurance trust fund and plan in conformance with the Government Accounting Standard Board Principle # 45. The town shall obtain an actuarial analysis biennially, which shall determine both overall pension and post-retirement health benefit liabilities for the members and retirees eligible for Police and Fire Retirement plans. So long as Police and Fire Retirement Pension fund assets remain at least 120% above the actuarial level of funding required for all such pension liabilities, the actuarial analysis shall also determine whether employee contributions for each subsequent fiscal year are necessary to keep plan assets at or above such a 120% level of funding. In any fiscal year that actuarial projections demonstrate that a 120% or above over-funded basis will remain even if reduced police member contributions are made to such pension plan at a level less than the contractually required 4.5% contribution of salary, such police member contributions shall only be made to the pension plan from payroll for that portion of the fiscal year required for such contributions to sustain the 120% over-funded basis. For any such year, the balance



of such member's 4.5% payroll deductions for such fiscal years shall be deposited directly into the town's post-retirement health insurance trust fund. Should the amount of pay required to be contributed to the pension plan within this agreement change by mutual consent, the terms above shall reflect any such new percent.

b) Effective July 1, 2008, all covered employee members of the unit shall commence to contribute .5% of member's basic annual salary including longevity pay to the newly created post-retirement health trust fund and 4.5% to the existing pension fund. Effective July 1, 2009, for all covered employees, such contributions shall increase to 5.5% of basic annual salary including longevity pay. Effective June 30, 2010, for all covered employees, such contributions shall increase to 6% of basic annual salary including longevity pay. Effective July 1, 2008, the town will contribute at least 2% of all member salaries per annum to the post-retirement health insurance trust fund. Effective July 1, 2009, the town's contribution shall increase to at least 4% of such payroll. Effective at the close of business June 30, 2010, the town's contribution shall increase to at least 6% of such pay.

Employees who have become eligible for maximum pension benefits and contribute two and one half (2 1/2%) percent of salary to the pension plan shall continue to contribute that amount to either the retiree pension plan or the post-retirement health plan based on the above calculations. They shall also make the following contributions to the post-retirement health plan: effective July 1, 2008 they shall contribute one half (1/2%) percent; effective July 1, 2009 they contribute one (1%) percent; and June 30, 2010 they shall contribute one and one half (1.5%) percent. As a result at the end of this contract, the contribution for an employee eligible for maximum pension benefits shall be four (4%) percent.

c) The Town shall create mutually acceptable governing language for the post-retirement health insurance trust fund, with union approval, by December 31, 2007. If the parties do not accomplish a final plan on or before December 31, 2007, the provisions in sections A and B above shall not commence until such time a trust fund is created.

d) Only active members of the bargaining unit will be required to make contributions to the post-retirement health insurance trust fund as specified above. The parties agree that at least .05% of their combined contributions for the previous fiscal year shall remain in the post-retirement health insurance trust at all times. The parties agree that for such time as the post-retirement health insurance trust fund remains in effect, with contributions being made by members and the town, the matter of current retiree benefits and obligations shall not be revisited in future contract negotiations unless both the Town and the Union agree to reopen this subject.

e) Employee Contributions for Post-Employment Medical Benefits

- i. Employees hired on or before March 18, 2013 shall continue to contribute one and one-half percent (1½%) of their salary plus longevity to the OPEB Trust Account each year.

Upon ratification of the July 1, 2013 Agreement, employees shall pay two and one-half percent (2½%) of their salary plus longevity to the OPEB Trust account each year.

Effective July 1, 2016 employees shall pay three and one-quarter percent (3¼%).

- ii. Employees hired following March 18, 2013 shall pay the same contributions toward premium equivalent costs for all post-employment medical benefits provided by the Town, at the same percentage (or other) rate as active employees contribute to their medical benefits, as such amounts may change from time to time. Such employees also shall contribute one and one-half percent (1½%) of their salary plus longevity to the OPEB Trust Account each year.

Upon ratification of the July 1, 2013 Agreement, employees shall pay two and one-half percent (2½%) of their salary plus longevity to the OPEB Trust account each year. Effective July 1, 2016 employees shall pay three and one-quarter percent (3¼%).

f) Definition of Dependents

- i. Effective and retroactive to July 1, 2013, only dependents at the time of retirement and retiree's natural born children thereafter shall be eligible for retiree health.

**ARTICLE X- LEAVE OF ABSENCE WITHOUT PAY**

Section 10.01

An employee requesting a leave of absence without pay may be granted same at the discretion of the Human Resources Director upon reasonable cause being shown; however, no leave of absence shall be granted to an employee seeking employment outside of the Fairfield Police Department. Such leave shall not exceed ninety (90) days on completion of ten years of service; sixty (60) days on completion of eight years of service; and thirty (30) days on completion of five years of service. Department members will not be eligible for more than two emergency leaves, or exceed a total of 150 days leave of absence, without pay, within a 25-year period. Further, no more than two department members will be granted a leave of absence in the same period. During such leave of absence in excess of four weeks, health insurance benefits for the employee will remain in effect if the employee pays for such coverage based upon group rates. During such absences less than four weeks, health benefits for the employee will remain in effect, subject to co-shares. Life insurance benefits will remain in effect for the duration of the leave. Upon expiration of an approved leave of absence, the employee shall be reinstated in the position held at the time of such leave. Seniority will continue to accumulate for the duration of the leave. Employees on a leave of absence will forfeit one-twelfth (1/12) (rounded off to the nearest full day) of the vacation leave otherwise due them for each full month of absence. Such forfeiture shall take place in the fiscal year following such leave of absence without pay. Failure to report to duty at the termination of said leave of absence will be considered job abandonment and may be grounds for dismissal or other disciplinary action.

On completion of a leave of absence of thirty (30) days or more, the officer shall be required to present a doctor's report of physical examination, which physical examination will be paid for by the Officer.

Section 10.02

Officers returning from a leave of absence will forfeit their seniority insofar as it affects selection of vacation dates, in accordance with Article IV, for the balance of the fiscal year, so that officers who have worked the full fiscal year can complete their vacation schedule.

If, due to emergency leave, and loss of seniority privileges in the scheduling of vacation dates, an officer is unable to use up vacation time allotted within that given fiscal year, such vacation time will be paid pursuant to Article XII.

## **ARTICLE XI- GRIEVANCE REPRESENTATION**

### **Section 11.01**

The Town shall grant a leave from duty with full pay for one member of the Union grievance committee in step one of the grievance procedure as hereinabove set forth, and the Town shall grant leave from duty with full pay for two members of the Union grievance committee for each succeeding step of the grievance procedure. Such leave shall be granted whenever meetings between the Town and the Union as set forth in the grievance procedure take place at a time during which such employees are scheduled to be on duty.

## **ARTICLE XII - VACATIONS**

### **Section 12.01**

Vacation shall be granted to employees who have or will have completed continuous service by June 30<sup>th</sup> of the current FY in accordance with the following schedule:

<u>Continuous Service</u>	<u># of Days' Vacation</u>
6 Mos. But Less than 1 Year	7
1 Year But Less Than 10 Years	14
10 Years But Less Than 20 Years	21
20 Years or More	28

*Lateral police officers shall be entitled to vacation upon completion of field training.*

### **Section 12.02**

Vacation shall be selected by seniority in accordance with Article IV. Employees may select any number of vacation days however a minimum of four (4) vacation days in a continuous period of time off (inclusive of regular days off) must be taken in order to exercise seniority rights under this section. Vacations must also be submitted by midnight on the 20<sup>th</sup> of the preceding month in which such vacation is requested in order to exercise seniority rights. Vacation requests after the 20<sup>th</sup> of the month will be processed on a first come first serve basis and seniority will prevail regardless of how many days are requested. Further, seniority consideration for May and June vacation requests must be submitted in accordance with this section by midnight on April 20<sup>th</sup> of the same fiscal year.

### **Section 12.03**

The Chief of Police shall have the right to limit the number of employees who may be off duty on vacation on any one shift.

#### Section 12.04

Spouses, if any, or Estates shall receive payment for any unused vacation time of an employee who dies while actively employed.

#### Section 12.05

No employee shall be required to return to duty for the purpose of inspection when such employee is on vacation.

#### Section 12.06

Vacations must be taken during the fiscal year in which the employee becomes entitled to the vacation. Pay in lieu of vacation will be permitted up to a maximum of ten (10) days, except when unavoidable circumstances due to sickness, injury leave, or other approved leave, an employee is unable to take the vacation during such fiscal year. Employees who are not able to take vacation because of said reasons, shall be paid at the rate of one (1) day of pay computed by multiplying their regular hourly rate by eight (8) hours times the number of days' vacation entitlement which they were unable to use because of such reasons.

### **ARTICLE XIII - ACTING SUPERVISORS**

Whenever Employees are required to work in a classification higher than their regular classification, they shall receive the pay rate of the lowest step in the salary range of the higher classification.

It is understood that any officer serving under an officer who is receiving acting officer's pay pursuant to this Article shall not also be entitled to extra compensation pursuant to this Article.

Appointments shall be from the latest promotional list in the order of standing on said list. If the list has expired, the promotional list will continue to be used as a means of determining Acting Supervisors exclusive of recall personnel and those on over-lapping patrols and swapping of shifts.

### **ARTICLE XIV - PROMOTIONS**

#### Section 14.01

Promotional examinations shall be held for all eligible employees as described in the Police Manual at the discretion of the Board of Police Commissioners to establish promotional lists. The Promotional list shall remain in existence for at least six (6) months but shall not exceed more than one year.

#### Section 14.02

It is the intent and in the best interest of the Town of Fairfield and its expanding Police Department that all promotions to fill vacancies or newly created Police positions in the Police Department shall be made to meet the needs as soon as practicable from the existing promotional list or lists to be established in accordance with this Article.

#### Section 14.03



A vacancy shall be deemed to exist upon the retirement, discharge, quit, demotion or death of an officer, unless the Board of Police Commissioners within ninety (90) days of the vacancy declares that said position will be abolished and remain vacated and that a vacancy does not, therefore exist. During the ninety (90) day period, any existing promotional list shall be frozen and shall not lapse or expire. If, within two (2) years of the date of any such abolishment, the Commission shall create a new position of equivalent rank in the department, any promotional list in existence as of the date of the original abolishment shall be deemed reinstated for purposes of appointment to the position newly created.

#### Section 14.04

Any employee, upon application to the Chief, may inspect the average mark in each category of his own service or merit ratings, as shown on the merit ratings form agreed upon by both parties. (See Appendix D) In the event that an employee challenges the merit rating assigned to him, the rating Officer shall be required to submit to the Chief a written explanation of the disputed rating. Challenged ratings shall be subject to review by the Chief. The Chief's decision concerning the correctness of the disputed rating shall be binding and not subject to the Grievance Procedure.

#### Section 14.05

Rankings on the promotional list shall be arrived at by according one hundred percent (100%) of the weight to the results of testing procedures.

#### Section 14.06

Promotions to the Detective Division and Youth Division shall be made in accordance with testing procedures as outlined in Section 14.05 of this Article. Promotional lists under this Section shall remain in existence for at least six (6) months but shall not exceed more than one (1) year. Employees shall at the time of application for promotion to Detective have at least four (4) years of service in the rank of Patrolman. Temporary assignments under this Section shall be allowed but are not in lieu of, or in substitution of, a permanent position. Assignments made prior to the signing of this Agreement shall not be affected by this Section.

### **ARTICLE XV – POLITICAL ACTIVITIES**

It is to the benefit of the Town to build a competent staff of employees that will give efficient service to the Town at all times, regardless of changes in the administration. In the interest of achieving this objective, no employee covered by this agreement may participate actively in any political party in any capacity whatsoever.

### **ARTICLE XVI - INJURY LEAVE**

Employees who are injured or disabled in the performance of their duties or who are disabled as a result of heart disease or hypertension, shall be entitled to occupational disability leave with full pay from the date of injury or disability until such time as they are able to return to any duty or reach a point at which it is determined by a physician agreed upon by both parties that said employees will not be able to return to work. The examining physician's services shall be paid by the Town. Said employees shall be retired at an annual disability pension of sixty-

six and two-third percent (66 2/3%) of the pay they are receiving at the time of their retirement. In order to be entitled to injury leave, such employees must report such injury or disability to their superior officer as soon as they become aware that such injury or disability was suffered in the line of duty, and further provided that they report the same within one (1) year of the date of injury or disability, and further provided that they establish through proper evidence and/or witnesses that such injury or disability was suffered in the performance of their duty.

## **ARTICLE XVII WAGES**

**T/A:**

### Section 17.01

The wage rates and effective dates for employees covered by this Agreement are set forth in the Wage Appendices attached to this Agreement ~~and shall be retroactive to July 1, 2017.~~

- a) Wage rates shall increase by two and three quarter percent (2.00-2.75%) effective to July 1, 2017-2022.
- b) Wage rates shall increase by two and three quarter percent (2.00-2.75%) effective July 1, 2018 2023.
- c) Wage rates shall increase by two and three quarter percent (2.00-2.75%) effective July 1, 2019 2024.
- d) ~~Wage rates shall increase by two percent (2.00%) effective July 1, 2020.~~
- e) ~~Wage rates shall increase by two percent (2.00%) effective July 1, 2021.~~

### Section 17.02

Employees will receive a longevity step of one thousand dollars (\$1,000.00) which shall be added to the base pay of each employee with ten (10) years of service, and an additional longevity step of one thousand two hundred dollars (\$1,200.00) shall be added to the base pay of each employee with fifteen (15) years of service and an additional longevity step of one thousand four hundred dollars (\$1,400.00) shall be added to the base pay of each employee with twenty (20) years or more of service. The longevity shall be paid on a prorata basis over the fiscal year.

### Section 17.03

Employees shall be paid on a weekly basis. All holidays and overtime pay due an employee shall be given to said employee within fifteen (15) calendar days of the date on which the services were performed.

## **ARTICLE XVIII - OFF-DUTY ASSIGNMENTS**

**T/A:**

#### Section 18.01

Employees when employed on an off-duty police assignment and the Town of Fairfield is reimbursed by the person or organization requiring such off-duty assignment the employee will be paid at the rate of one and one-half (1 1/2) times the employee's regular hourly rate with a minimum of four (4) hours' pay except for the Town and the Board of Education of Fairfield and specified others who will remain at a three (3) hours minimum from Monday until Friday evening. Employees working any off-duty police assignments for any entity, other than the Town and the Board of Education, that extends beyond the four (4) hour minimum, will additionally be paid in two (2) hour minimum blocks thereafter. When an assignment requires more than three (3) but less than nine (9) officers, one such officer shall be placed in charge of the detail and said officer shall receive \$1.00 per hour more than his existing rate for that assignment. If the detail requires nine (9) but less than seventeen (17) officers a second officer will be placed in charge and said officer will receive \$2.00 per hour more than his existing rate for that assignment and so forth for each additional group of eight (8) officers or less so assigned. (subject to language being worked out in a side agreement)

#### Section 18.02

If there is more than one regular officer on the job, the determination of the officer or officers in charge shall be in accordance with the seniority provisions of Article IV.

#### Section 18.03

Outside job procedures are included in the Fairfield Police Department Policy and Procedure Manual - Section 0-2.

#### Section 18.04

The Union shall have the first right of refusal to any and all outside jobs. Captains will be allowed to work one outside job as part of the rotation and shall only be eligible to work any other outside jobs after all eligible Union members have been offered and refused the opportunity going off the weekly availability list.

Captains shall be permitted to place their names on the availability list kept at the "Front Desk" after all Union members have been given the opportunity to place their names on the list during the Thursday morning sign up process.

### **ARTICLE XIX- OVERTIME PAYMENT**

#### Section 19.01

Employees shall receive overtime pay for all hours worked in excess of eight (8) hours per day or when they work on their normally scheduled day off. The overtime rate shall be one and one-half (1 1/2) times the Employee's hourly rate. Employees shall receive one and one-half (1 1/2) times their regular hourly rate for all time spent in Superior Court when properly subpoenaed to appear in Court in a criminal matter and in their official capacity, less the reimbursement by the State of Connecticut.

Employees will receive one and one-half (1 1/2) times their regular hourly rate when called

or ordered to duty for any purpose on a regularly scheduled day off, including recall for inspection and training. The minimum call back shall be four (4) hours. This minimum four (4) hours does not apply to hours worked before or after a regularly scheduled workday provided the hours are continuous.

#### Section 19.02

Employees shall have the discretion to choose either overtime pay or compensatory time off under the terms of this Article. In compliance with C.G.S. 7-460c, compensatory time off shall be computed by multiplying one and one-half (1.5) times the total hours worked with maximum accrual of three hundred (300) hours. Any employee who upon the signing of this contract shall have until June 30, 2010 to use his/her compensatory hours above three hundred (300). On July 1, 2010, officers will be paid for any compensatory hours above three hundred (300) that were not used by June 30, 2010. Officers who have accrued compensatory hours above three hundred (300) as of the signing of this contract shall not accrue any additional compensatory time until their accrual drops below three hundred (300).

The spouses, if any, or Estate of the employee shall receive payment for any unused, accrued compensatory time upon the death of an active employee.

### **ARTICLE XX - FILL-IN ASSIGNMENTS**

Fill-in assignments shall be made at the discretion of the Chief.

### **ARTICLE XXI - SICK LEAVE**

#### Section 21.01

Except as otherwise provided below, in each fiscal year employees shall be entitled to absence due to sick leave according to the following schedule:

If more than 3 months and less than 1 year	1 working day per month of service not to exceed 8 days
If more than 1 year and less than 5 years	8 working days
If more than 5 years and less than 10 years	15 working days
If more than 10 years	20 working days

#### Section 21.02

If any employees are absent because of non-occupational disability and during their absence, while still drawing disability benefits, pass an anniversary date which would entitle them to increased duration of benefits, such increase will apply to their current absence.



#### Section 21.03

At the end of each fiscal year, unused sick leave may be accumulated up to five (5) unused sick leave days per year, however, employees shall not accumulate more than eighty (80) unused sick leave days during their employment, and there shall not be any additional pay for unused sick leave at the time of retirement or termination. Beginning with the 2013-2014 year, employees may accumulate up to ten (10) unused sick leave days per year, however, employees shall not accumulate more than one hundred twenty (120) unused sick leave days during their employment, and there shall not be any additional pay for unused sick leave at the time of retirement or termination. The Town's fiscal year will be used to re-establish eligibility for disability benefits.

#### Section 21.04

Payment of disability benefits is dependent upon the employee producing evidence of disability satisfactory to the Chief.

#### Section 21.05

- a) Any sickness or non-duty injury which prevents an employee from reporting for duty and is non-physician treated will be classified as an "intermittent sick" leave day. Whenever officers report off duty sick for one or two days, they must submit a physician's note within two (2) weeks of their return to work or the sick days will be forever more considered intermittent sick days.
- b) Eight "intermittent sick" days in any one fiscal year, may, at the discretion of the Chief, disqualify an employee from doing any off-duty employment and/or outside assignments for the remainder of said fiscal year.
- c) Any accumulation of eight or more "intermittent sick" days in any one fiscal year may at the discretion of the Chief, disqualify an employee from becoming a part of any shift swap or vacation swap for the remainder of said fiscal year.
- d) "Intermittent sick" leave is not to be reported less than one (1) hour nor more than twelve (12) hours before scheduled tour of duty.

### **ARTICLE XXII - EMERGENCY LEAVE**

#### Section 22.01

Eligible employees in the bargaining unit shall be granted emergency leave by the Chief, or if the Chief is not available, by the next Supervisor in the chain of command. Upon return to duty, the employees shall present evidence of the urgency of such leave to the Chief. The Chief will make a determination of the need for such leave and should the Chief determine that such leave did not constitute an emergency, the employees to whom the leave was granted will forfeit compensatory time due or vacation time due those employees equal to the time used for such emergency leave. If they have neither compensatory nor vacation time due, they shall be subject to loss of pay, or be given a "make up" time assignment equal to the time used. Eligible employees are those who are on duty or who are about to immediately report for duty. The term "emergency leave" shall include but shall not be limited to sickness,

accident, or maternity leave in their immediate household but shall not preclude other reasonable causes. Nothing in this article shall be construed to preclude a commanding officer to grant employees the right to temporarily leave their position if such an emergency arises while the employees are on duty.

#### Section 22.02 - Maternity Leave

a) Notification. A female employee who becomes pregnant shall, as early as her condition is known, submit a written statement from her physician indicating her present physical condition, the expected childbirth date, and any limitations which may affect her ability to continue in her regular duty assignments. The Town will make reasonable accommodations to provide light duty work when appropriate in the opinion of the employee's physician and if available.

b) Maternity Leave. Upon request of the employee and supported by her physician's certification of the employee's inability to continue to work, the employee shall be granted maternity leave. Accumulated sick leave and other accrued leave such as vacation may be used as maternity leave.

An employee who remains unable to resume her duties for a period of six (6) weeks past the date of delivery shall present a physician's certificate of inability to return to duty due to disability or the need for continued child care. If the continued disability or childcare is not proven, then the leave taken past the six-week period shall be deemed Leave of Absence without pay. If the disability or need for continued childcare is proven, the sick leave or other accrued leave, if any, may be used as extended maternity leave.

A Leave of Absence without pay beyond any accumulated leaves shall be available for such reasonable further period of time as an employee is determined by her physician to be disabled from performing the duties of her job because of pregnancy or conditions attendant thereto, or the need for continued child care, provided a request is made to the Director of Human Resources. The commencement and termination dates of the leaves provided above shall be mutually agreed upon between the employee and the Director of Human Resources, provided, however, that the unpaid leaves of absence shall not exceed ninety (90) days. It is understood that the aforementioned Leaves of Absence, whether paid or unpaid, shall be included for purposes of complying with the Family and Medical Leave Act of 1993 or any state or federal law superseding said Act.

The employee shall provide a two (2) week notice of her intention to return to duty and shall submit a satisfactory medical report from her physician stating that the employee is able to resume her normal duties.

### **ARTICLE XXIII-LEAVES OF ABSENCE**

#### Section 23.01 - SWAP Leave with Substitution

With the approval of the Chief, employees shall be granted a personal leave with pay for any day or days on which the employees are able to secure another employee of equal rank to work in their place provided:

- a) Such substitution does not impose any additional cost to the Town and,
- b) The immediate superior officer of the employees seeking leave is notified in writing not less than one (1) day prior to its effective date and,
- c) The substitute Employees shall, not less than one (1) day prior to the effective date, verify their willingness to act as a substitute for that purpose. The Employee substituting for the off-duty Employee as described in this article will be held responsible.

#### Section 23.02 - Personal Leave

Each employee shall receive three (3) paid days of personal leave per year. These personal days may be used for the purposes of private and/or emergency business, which may arise in the life of the employee. Such private and/or emergency business shall include but not be limited to or connected with family sickness, accident, maternity or other unforeseen situations. One patrol officer and one supervisor, per shift, may be excused from duty on personal leave.

### **ARTICLE XXIV- UNION BUSINESS LEAVE**

#### Section 24.01

Three (3) members of the Union Negotiating Committee shall be granted leave from duty with full pay for all joint meetings between the Town and the Union concerning negotiations of the terms of a contract, when such meeting takes place at a time during which such members are scheduled to be on duty. The Negotiating Committee shall give reasonable notice of such meetings to the Department.

#### Section 24.02

The members of the Union Executive Board or any steward of the Union shall not be impeded or prevented from performing the duties of the office in the conduct of the business of the Union during his regular working hours so long as such activity does not interfere with their normal and customary duties and responsibilities to the department.

#### Section 24.03

The Town shall grant leave from duty with full pay for the Union representative to the Pension Board when such meetings of the Pension Board are called at the time when the representative is scheduled to work.

#### Section 24.04

The Union shall be allotted ten (10) working days with pay per fiscal year for seminars, conventions and other Union business meetings.

### **ARTICLE XXV - OUTSIDE EMPLOYMENT**

#### Section 25.01

The Town hereby gives permission to the employees in the bargaining unit to obtain part-

time employment, other than police work, subject to the following qualifications:

- a) Employees shall submit to the Town, in writing, a statement as to the;
  - i. Nature of employment (whether remuneration is paid or not).
  - ii. Average work hours per week.
  - iii. Telephone number for emergency response.
  - iv. Name of employer.

The employees shall re-submit said statements if there is any change in the above information and in any event shall re-submit said statements annually.

- b) No employees shall accept employment that is in conflict with their position as police officers. No employees shall work such hours per week or engage in such physical employment that will hinder their performance of their position in the Department. No employees herein shall operate a business that employs on steady basis other employees.
- c) An employee shall notify the Town as to any injuries received in said "outside" employment in writing.
- d) The conditions above set forth shall be the only criteria concerning the right to outside employment.

## **ARTICLE XXVI - PENSION CHANGES**

### **Section 26.01**

The retirement and survivor benefits provided for in Article III.E3 of the Charter of the Town of Fairfield shall be continued, except that said benefits shall be and are improved as follows:

### **Section 26.02**

Any member of the retirement system who has been employed as a regular police officer for at least twenty (20) years of service as a member of the Police Department shall be eligible for retirement for superannuate on under provisions thereof.

### **Section 26.03**

Except as otherwise provided below in Section 11 for employees hired following March 18, 2013, any employees who are retired for superannuation or for disability shall receive an annual pension, payable monthly, equal to two percent (2%) of their basic annual salary, including their annual longevity pay which they are receiving or to which they are entitled at the time of their retirement for each year of service which they have with the Town up to ten (10) years, two and one-half percent (2 1/2%) for each year of service which they have with the Town from eleven (11) years through twenty (20) years, three percent (3%) for each year



of service which they have with the Town from twenty-one (21) years through twenty-five (25) years and four percent (4%) for each year of service which they have with the Town from twenty-six (26) years through thirty (30) years to a maximum of eighty percent (80%) of such annual salary including longevity pay, provided that no pension payable to account of permanent disability sustained during the performance of their duties pertaining to employment by the Town shall be less than sixty-six and two-thirds percent ( $66 \frac{2}{3}\%$ ) of such salary, including longevity steps.

#### Section 26.04

The rate of contributions shall be determined by the Retirement Board from time to time through negotiations by the parties but until otherwise changed, shall be four and three-quarter percent ( $4\frac{3}{4}\%$ ) of their basic salary including longevity pay. Effective July 1, 2018 employee contributions shall be five percent (5.00%) of their basic salary including longevity pay. Effective July 1, 2019 employee contributions shall be five and one-quarter percent (5.25%) of their basic salary including longevity pay. Effective July 1, 2020 employee contributions shall be five and one-half percent (5.50%) of their basic salary including longevity pay. An automatic cost-of-living adjustment feature, regulated by a change in the US Consumer Price Index has been made effective as of the monthly pension benefit check of July 1972. On July 1<sup>st</sup> of the even numbered years, monthly benefit checks for each retiree and each survivor will be increased by the percentage amount the Consumer Price Index (C.P.I.- U 1967= 100) increased during the two-year period immediately preceding March 31 of the even numbered years. Except as otherwise provided below in Section 26.11 for employees hired following March 18, 2013, this increase shall not exceed 3% in each year during the two (2) year calculation period. The initial calculation for a new retiree shall be based on the date of retirement and pro-rated to the following March 31 of the calculation period. Any employee retiring with less than twenty-five (25) years of service with the exception of a disability retiree shall not be entitled to an adjustment in accordance with this section. Any member retiring with at least twenty-five (25) years of service but who is less than fifty-one (51) years of age at the time of retirement shall be entitled to adjustments called for in this section from and after the time he attains the age of fifty- one (51) years.

Any employee who becomes eligible for a maximum percentage benefit based on service (excluding any Military Service Credit Time purchased) shall have a rate of contributions equal to two and one-half percent ( $2 \frac{1}{2}\%$ ) of their basic salary including longevity pay.

#### Section 26.05

Any employee eligible under the terms of the Pension Plan who becomes permanently and totally disabled by causes not job related and who has had at least five (5) years of continuous service will be entitled to pension benefits computed in the same manner as the normal retirement benefit, which is based on years of service and basic annual salary.

#### Section 26.06

For those who retire under the terms of the Pension Plan after July 1, 1973 and who subsequently die, a benefit equal to seventy-five percent (75%) of the amount the deceased pensioner was receiving at the time of death will be paid to their spouse until their death or remarriage and then to the children until the youngest child reaches eighteen (18).

#### Section 26.07

The spouse or dependent children of employees who were eligible for retirement by reason of age and length of service who die due to non-service connected causes, shall receive a pension payment equal to seventy-five percent (75%) of the compensation the employees would have received if they had retired the day before their death.

#### Section 26.08

If a member or pensioner shall die at the time when a valid designation of beneficiary is not on file with the Retirement Board, the Board shall pay amounts otherwise due to the estate. If there is no surviving spouse to receive any death benefits payable under these rules, the dependent child or children of the deceased member shall receive the death benefit otherwise payable to the surviving spouse. The term dependent child or children shall mean any unmarried child under the age of eighteen (18), or over said age if physically or mentally incapacitated from engaging in gainful employment. Any death benefit payable to a physically or mentally incapacitated child shall exclude from such death benefit the amount of any Social Security benefits that the child may be receiving, if any.

#### Section 26.09 - Military Buy-Back

Existing members of the Fairfield Police Department shall have the right to purchase military service time equal to the amount of time served on active duty in the Armed Forces of the United States but limited to a maximum of four (4) years of such service by paying for such service time at a rate equal to five percent (5%) of such employee's annual salary as of the date of hire. Said election shall be made by existing members of the Department and shall be fully paid for by such member of the Department on or before June 30, 1990. Members hired subsequent to the date of this contract shall indicate their election to purchase such Military Time on or before the second anniversary date of their hire and must complete the payment for such credit on or before the tenth (10<sup>th</sup>) anniversary date of their hire. Any military service credit time purchased shall add two percent (2%) per year of such military service time to each employee's retirement benefits only after such employee has served at least twenty (20) years with the Fairfield Police Department and shall not reduce the requirement of minimum service set forth in Section 1 above.

If such military time, when added to current Town service time, exceeds twenty-five (25) years, each year over twenty-five (25) and up to thirty (30) years will be calculated at six percent (6%).

#### Section 26.10 -Vesting Pension

Employees terminating their employment with the Town after completion of ten (10) years of service as a full-time employee shall be entitled to an annual vested pension computed at the rate of two percent (2%) of their Final Earnings, multiplied by their years of Credited Service. Such employees shall be eligible to begin receiving the above benefit in monthly installments on the first of the month following either the 25th anniversary of their date of hire or their 51st birthday, whichever is earlier.

#### Section 26.11 - Pension Benefit Terms For Employees Hired Following March 18, 2013

For employees hired following March 18, 2013, the maximum pension they shall be eligible to receive shall be seventy percent (70%) of their basic annual salary including longevity

pay (versus the eighty percent (80%) maximum applicable to previously hired employees) and the maximum COLA increase shall be two percent (2%) (versus the current three percent (3%) for previously hired employees) but all other terms of the current Defined Benefit Plan, including employee contribution of base salary plus longevity, shall apply.

For employees hired following March 18, 2013, such employees who are retired for superannuation or for disability shall receive an annual pension, payable monthly, equal to two percent (2%) of their basic annual salary, including their annual longevity pay which they are receiving or to which they are entitled at the time of their retirement for each year of service which they have with the Town up to fifteen (15) years, two and one-half percent (2 1/2%) for each year of service which they have with the Town from sixteen (16) years through twenty-five (25) years and three percent (3%) for each year of service they have with the Town from twenty-six (26) years through thirty (30) years to a maximum of seventy percent (70%) of such annual salary including longevity pay, provided that no pension payable on account of permanent disability sustained during the performance of their duties pertaining to employment by the Town shall be less than sixty-six and two-thirds percent (66 2/3%) of such salary, including longevity pay.

#### **ARTICLE XXVII - PRIOR PRACTICE**

##### **Section 27.01**

Nothing in this Agreement shall be construed as abridging any rights, benefits, or privileges that employees of the Town have enjoyed heretofore, unless such practice has been superseded by a provision of this Agreement.

#### **ARTICLE XXVIII - MANAGEMENT RIGHTS**

##### **Section 28.01**

All rights, prerogatives, rules or regulations not specifically modified by this Agreement are reserved to the Town.

#### **ARTICLE XXIX -WORK SCHEDULE**

##### **Section 29.01**

Except as otherwise provided in this Agreement, the patrol division shall pick their shifts by seniority every three (3) months. The shift assignments will commence on January 1, April 1, July 1, and October 1. The patrol division shall consist of four (4) shifts which will be a Day Shift (8-4 or 7-3), Evening Shift (4-12 or 3-11), a Midnight Shift (12-8 or 11-7), and a Relief Shift (8-4 or 4-12). The Relief Shift schedule will be as follows: Work two (2) days (8-4 or 7-3) followed by two (2) evenings (4-12 or 3-11) followed by two (2) days off duty and then repeating the cycle.

##### **Section 29.02**

The work schedule for the patrol of the Fairfield Police Department shall be as follows: Four (4) consecutive days of work followed by two (2) consecutive days off. The two (2) consecutive days off will regress one day per week except otherwise provided in this Agreement. The last

four (4) junior officers shall rotate as needed for a period not to exceed one (1) year after receipt of state certification or eighteen (18) months from date of hire whichever comes last. It is understood that such rotation shall not negatively impact senior officers who have bid on a particular shift and further understood that not more than one (1) junior officer may be assigned to each of the four (4) patrol shifts. Such officer once assigned to a particular shift will work that shift for a four (4) day period between regularly scheduled days off before being subject to assignment on some other shift. The Chief may order that the work schedule for the patrol of the Fairfield Police Department shall be as follows: Four (4) consecutive days of work followed by two (2) consecutive days off. The two (2) consecutive days off will regress one day per week except otherwise provided in this Agreement. The last four (4) junior officers shall rotate as needed for a period not to exceed one (1) year after receipt of state certification or eighteen (18) months from date of hire whichever comes last. It is understood that such rotation shall not negatively impact senior officers who have bid on a particular shift and further understood that not more than one (1) junior officer may be assigned to each of the four (4) patrol shifts. Such officer once assigned to a particular shift will work that shift for a four (4) day period between regularly scheduled days off before being subject to assignment on some other shift. The Chief may order members of the Police Department to attend the above training session four (4) hours before reporting to duty or four (4) hours after completion of their tour of duty. At no time shall the administration order employees to attend the above training sessions on their day off. As of November 1, 1988, all time spent in training sessions shall be compensated at the standard time and one-half rate.

#### Section 29.03

Notwithstanding any other language of this Agreement, those of all ranks assigned to the Detective, Administration, and Traffic divisions shall work schedules designed to avoid what the Chief determines to be excess manpower on Sunday. The scheduling to accomplish this goal shall be agreed upon by the Chief and the Union.

#### Section 29.04

If bidding for work assignments results in an inability of the Town to comply with the four on/two off schedule, such adjustments as are necessary will be made.

### **ARTICLE XXX - REIMBURSEMENT FOR COLLEGE TUITION**

#### Section 30.01

An employee shall notify the Town upon enrolling in an accredited college program leading to a degree in Police Science or Police Administration. The Town shall pay to such college the full tuition of such college credits as may be prescribed by the college (whether taken at the college or at any other accredited college) in the pursuit of said aforementioned degrees, upon the employee presenting to the Town a non-interest bearing promissory note payable in two (2) equal installments. The Town will abate the annual payments of said promissory note when due and owing if the employee is then a full time officer of the Town, provided such course was satisfactorily completed. This paragraph shall not apply to probationary employees. If an employee dies or becomes disabled, said note shall be abated by the Town. No employee shall receive reimbursement of tuition for courses taken beyond a bachelor's degree in Police Science or Police Administration.



## **ARTICLE XXXI - COLLEGE INCENTIVE PAY**

### **T/A:**

#### Section 31.01

In addition to their annual base pay, those employees who have satisfactorily completed the following course credits or hold a Bachelor's Degree from an accredited college shall receive the following sums in addition to their annual base pay:

<u>Credits Completed</u>	<u>Amount Payable</u>
30	\$400.00 <b><u>150.00</u></b>
60	\$300.00 <b><u>400.00</u></b>
90	\$500.00 <b><u>700.00</u></b>
Degree	\$1,000.00 <b><u>1,250.00</u></b>

These amounts of college incentive pay shall not be used in the computation of any holiday pay, or effect the daily or hourly rate of such employee and shall not be used in any manner in the computation of pensions or other fringe benefits. The college incentive pay shall be paid biannually on the first pay period of December and the last pay period of the fiscal year. Probationary Employees shall not be entitled to the aforesaid college incentive pay during their first six months of employment.

## **ARTICLE XXXII –SHIFT DIFFERENTIAL**

#### Section 32.01

Employees assigned to the 3-11 or 4-12 shift shall have their shift differential calculated by multiplying 5.9% times the salary established for a first step Police Officer. Employees assigned to the midnight to eight (12-8) or eleven to seven (11-7) shift shall have added to their salary an amount equal to 7.9% times the salary for a first step Police Officer. The shift differential shall not be used in any manner in the computation of pension or other fringe benefits. The shift differential shall be paid bi-annually on the first pay period of December and the first pay period of July. Employees who are assigned to and work at least thirty (30) days of 3-11, 4-12, or relief shifts in a six (6) month period shall be entitled to one-half (1/2) of the shift differential for such shift. Employees who are assigned to and work at least thirty (30) days of 11-7 or 12-8 shifts in a six (6) month period shall be entitled to one-half (1/2) of the shift differential for that shift.

## **ARTICLE XXXIII - AGENCY SHOP**

#### Section 33.01

Upon receipt of individual written authorization from employees covered by this Agreement for voluntary dues deduction, the Town agrees to deduct Union dues monthly from earned wages and remit promptly to C.O.P.S., P.O. Box 2, 1 West Main Street, Clinton, CT 06413 with the names of all the Union members. The Town also agrees that an extra dollar per month shall be deducted from a Union member's salary and remitted to the Local Union Treasurer. Said sums due as deductions shall be certified to the Town by the Union no

later than July 1 annually.

#### Section 33.02

Said dues shall be deducted by the Town and remitted to the Union at the end of each month.

#### Section 33.03

The Union agrees to defend, indemnify, and hold to Town harmless against any and all expenses, liability, suits or claims that arise from bargaining unit employees under this Article and/or from the Town's action in compliance with the provisions of this Article.

### **ARTICLE XXXIV - MILITARY RESERVE TRAINING**

#### Section 34.01

If any member of the Military Reserve or National Guard is called for annual training, the Town will pay the difference, if any, between the employee's gross service pay and the gross regular pay for the period of their required absence up to a maximum of thirty (30) days. Such time will not be charged to the employee's vacation or compensatory time. This Agreement would not apply to those employees that are members in the Connecticut Foot Guard or Horse Guard.

### **ARTICLE XXXV - DEDUCT INSURANCE PREMIUMS FOR RETIREES**

#### Section 35.01

At the written request of any retirees the Town shall deduct from their monthly retirement check the amount of the payments for the group hospital, medical, and major medical insurance for which such retiree and their enrolled dependents are eligible under the Town's group insurance policies; and the Town shall remit such amount in behalf of such retiree to the appropriate insurance carrier under such group policies.

### **ARTICLE XXXVI - NON-DISCRIMINATION CLAUSE**

#### Section 36.01

The Town acknowledges that it is an equal opportunity employer, and the Town and the Union agree that there shall be no discrimination against any person or groups of persons on the grounds of race, color, religion, creed, age, sex, marital status, sexual orientation, national origin, disability or veteran status.

Both parties to this Agreement agree that sexual harassment of any employee by another employee is absolutely prohibited. Any employee who feels he or she is being subjected to sexual harassment may contact one of the persons below with whom the employee feels the most comfortable. Complaints may be made orally or in writing to:

- a) The employee's immediate supervisor.
- b) The employee's Shift Commander.
- c) The employee's Division Commander.

- d) The Chief of Police.
- e) The Director of Human Resources.

The employee shall have the right to have Union representation if so desired.

The Town has appointed the Fairfield Community Services to provide services as an Ombudsman in the Employee Assistance Program to provide counseling and help as it relates to personal problems, whether they be substance abuse, marital, financial, sexual harassment and/or confidential issues not necessarily suited to the normal department hierarchy.

#### **ARTICLE XXXVII - HEALTH**

##### **Section 37.01**

Whenever a member of this bargaining unit has a proven exposure to any communicable disease and such exposure is directly connected with the performance of their duties, such members' families shall be offered immunization inoculation for such disease when they are available. The Union shall hold the Town harmless from any claims made by the Union member's family as a result of the Town's compliance with this section.

#### **ARTICLE XXXVIII - PHYSICAL EXAMINATION**

##### **Section 38.01**

Each employee shall submit to a complete physical examination annually by a physician selected by the Town. The Town shall pay the full cost of said examination. The employee shall have the right not to allow any information released by the physician selected by the Town to anyone including the administration.

#### **ARTICLE XXXIX - RESIDENCY**

##### **Section 39.01**

Employees shall reside in Connecticut, within a radius of thirty (30) miles from the Fairfield Police Department.

#### **ARTICLE XL - DURATION**

##### **T/A:**

##### **Section 40.01**

The duration of this contract shall extend through June 30, 2022 **2025**. Either party wishing to amend, or modify any provision of this Contract must notify the other party in writing no more than one hundred eighty (180) days nor less than one hundred fifty (150) days prior to the date on which such provision is to expire. Within ten (10) days of receipt of such notification by either party, a conference shall be held between the Town and the Union Negotiating Committee for the purpose of discussing such amendment or modification.

#### **ARTICLE XLI - REGULAR ASSIGNMENTS**

#### Section 41.01

All bargaining unit personnel shall have first preference on all regular assigned patrols such as Cmdr, R1, R2, R3, R4, R5, B1, B2, B3, B4, B5, Beach Patrol, Traffic Division Assignments, Boat Patrol, Motorcycle Patrol, and Detective Division Assignments. Any such bargaining unit position shall only be filled by another member of the bargaining unit.

### **ARTICLE XLII - SUBSTANCE ABUSE PROGRAM**

#### Section 42.01

The Town and Union do hereby agree to the Substance Abuse, Detection and Treatment Program attached hereto as Exhibit I.

### **ARTICLE XLIII - SMOKE CESSATION**

#### Section 43.01

The Town shall provide and pay for smoke cessation clinics for all interested employees, while on duty, who shall be encouraged by the Local to attend. The maximum number of programs is two for the lifetime of the employee.

### **ARTICLE XLIV - LAYOFF AND RECALL**

#### Section 44.01-Lay off

In the event of a reduction in force of the bargaining unit, the order of layoff shall be as follows:

- a) Probationary Police Officers.
- b) Regular Patrol Officers.

The order of the layoff shall be by department seniority, except in the case of a layoff within rank above patrol, which shall be by rank seniority.

#### Section 44.02-Bumping

Laid off Lieutenants may exercise their department seniority to bump the least senior Sergeant provided the Lieutenant has previously served as Sergeant. A laid off Lieutenant who has not previously served as a Sergeant and any laid off Sergeant may exercise their department seniority to bump the least senior patrol officer.

#### Section 44.03-Recall

Laid off employees shall retain recall rights for a period of twelve (12) months or for the length of seniority, whichever is less. Seniority shall continue to accrue during the period in which an employee has a right to recall. Recall shall be in inverse order of layoff. Notice of recall shall be sent certified, return receipt requested, to the employee at his last known address at least two (2) weeks in advance of the date the employee is expected to return. An employee who fails to respond to the notice of recall or who refuses recall shall lose his recall rights.

### **ARTICLE XLV - COURT APPEARANCES**



#### Section 45.01

Whenever an employee is required to appear in any State or Federal court or administrative agency or to provide deposition testimony during non-working hours for a criminal or civil matter which arose in connection with his/her employment with the Town, the Town shall compensate such employee for the difference between any witness fees received and the amount of overtime pay such employee is entitled to receive for the number of hours spent at said court, agency and/or deposition, or a minimum of four (4) hours, whichever is greater. This provision does not apply when an employee is required to appear in a contested matter that the employee has initiated against the Town or the Police Department.

### **ARTICLE XLVI - PERFECT ATTENDANCE**

#### Section 46.01

Any employee who has a record of six (6) months perfect attendance, not interrupted by sick leave, unauthorized absences or leaves of absence without pay as measured from January 1<sup>st</sup> to June 30 and July 1<sup>st</sup> through December 31<sup>st</sup> shall be entitled to receive one (1) day of pay at their applicable hourly rate multiplied by eight (8) hours. Each employee has the opportunity to earn two (2) days of pay each year.

### **ARTICLE XLVII- LIGHT DUTY**

#### Section 47.01

- a) A light-duty position may be created by the Chief of Police under the following conditions for an employee whose physical condition prevents him or her from performing his or her normal duties:
  - i. The employee's physician has indicated that the employee is capable of performing light duty.
  - ii. The employee's physician has indicated that the employee will eventually recover sufficiently enough to return to his or her normal duties.
- b) Such light-duty positions may be in any of the department's divisions that employs sworn police officers; but the positions shall be administrative or supportive in nature and shall not tend to aggravate the employee's illness or injury, or retard the employee's recovery.
- c) A vacation request submitted by an employee on light duty shall be considered independently from those submitted by officers on full duty.
- d) An employee on light duty shall bid for shifts as if he or she were on full duty but the slot selected by that employee shall remain vacant until he or she returns to full duty.
- e) During the six-month period an officer begins a light duty assignment, the light duty days

will be applied toward any shift differential benefit the officer would have been entitled to if she or he had not been granted light duty status. An officer who spends an entire six-month, shift differential period on light duty will not be entitled to shift differential payment unless she or he fulfills the requirements for that benefit as listed in the collective bargaining agreement between the Town and the Union. An officer returning to full duty from light duty will not be entitled to a shift differential payment unless she or he works at least fifteen (15) days on a shift that entitles her or him to shift differential payment.

- f) An employee on light duty may be required to work a non-patrol division 4-2 schedule. In any case, the Chief and the Union shall agree to the work schedule and shift assignment of an employee on light duty.
- g) An employee on light duty may be allowed to wear civilian clothing. An employee on light duty shall not be required to drive a marked police vehicle.
- h) An employee on light duty shall be excused from duty to keep medical or therapeutic appointments that relate to the condition that caused the employee's light duty status.
- i) An employee on light duty shall not be allowed to work any off duty assignments.
- j) An employee on light duty may be allowed to work recall or overtime when the position is consistent with his or her light duty status.
- k) The Chief of Police shall determine the duration light duty assignment.

#### **XLVIII - MISCELLANEOUS**

##### **Section 48.01**

During a disciplinary suspension of thirty (30) calendar days or more, the employee shall not accrue and will not be due upon return to work any vacation, sick, or other earned time they would have otherwise accrued. Clothing allowance and other benefits will be pro-rated accordingly.

##### **Section 48.02**

As a condition of continued employment as a sworn officer with the Town of Fairfield Police Department, all employees must maintain their certification as outlined in the Connecticut General Statutes Section 7-294e "Recertification of police officers. Regulations" and as may be amended from time to time.

Police officers who do not maintain their certification as outlined in C.G.S. 7-294e shall be allowed thirty (30) days to obtain their certifications. If, at the end of such thirty (30) day time, an officer shall not have obtained certification, then such officer shall be immediately terminated unless a request to extend the certification has been made by the Chief of Police to the State of Connecticut and subsequently approved. Any request for extension shall be at the sole discretion of the Chief of Police.

IN WITNESS WHEREOF, THE PARTIES HAVE CAUSED THEIR  
NAMES TO BE SIGNED ON THIS \_\_\_\_\_ DAY OF  
\_\_\_\_\_, 2022.

Town of Fairfield

Fairfield Police Union  
C.O.P.S., Local#550

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**T/A: Wage App. Updated**

**APPENDIX "A"**

	Effective July 1, 2017-2%							
	1	2	3	4	5	6*	7**	8**
Police Officers	<del>\$64,078</del>	<del>\$66,321</del>	<del>\$68,580</del>	<del>\$70,839</del>	<del>\$75,235</del>	<del>\$76,235</del>	<del>\$77,435</del>	<del>\$78,835</del>
Detectives					<del>\$81,251</del>	<del>\$82,251</del>	<del>\$83,451</del>	<del>\$84,851</del>
Sergeants				<del>\$80,079</del>	<del>\$87,749</del>	<del>\$88,749</del>	<del>\$89,949</del>	<del>\$91,349</del>
Lieutenants				<del>\$94,904</del>	<del>\$102,417</del>	<del>\$103,417</del>	<del>\$104,617</del>	<del>\$106,017</del>

**APPENDIX "B"**

	Effective July 1, 2018-2%							
	1	2	3	4	5	6*	7**	8**
Police Officers	<del>\$65,359</del>	<del>\$67,648</del>	<del>\$69,952</del>	<del>\$72,256</del>	<del>\$76,739</del>	<del>\$77,739</del>	<del>\$78,939</del>	<del>\$80,339</del>
Detectives					<del>\$82,876</del>	<del>\$83,876</del>	<del>\$85,076</del>	<del>\$86,476</del>
Sergeants					<del>\$89,504</del>	<del>\$90,504</del>	<del>\$91,704</del>	<del>\$93,104</del>
Lieutenants					<del>\$104,465</del>	<del>\$105,465</del>	<del>\$106,665</del>	<del>\$108,065</del>

**APPENDIX "C"**

	Effective July 1, 2019-2%							
	1	2	3	4	5	6*	7**	8**
Police Officers	<del>\$66,667</del>	<del>\$69,001</del>	<del>\$71,351</del>	<del>\$73,701</del>	<del>\$78,274</del>	<del>\$79,274</del>	<del>\$80,474</del>	<del>\$81,874</del>
Detectives					<del>\$84,534</del>	<del>\$85,534</del>	<del>\$86,734</del>	<del>\$88,134</del>
Sergeants					<del>\$91,294</del>	<del>\$92,294</del>	<del>\$93,494</del>	<del>\$94,894</del>



Lieutenants

~~\$106,555~~ ~~\$107,555~~ ~~\$108,755~~ ~~\$110,155~~

## APPENDIX "D"

Effective July 1, 2020 -2%

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6*</u>	<u>7**</u>	<u>8**</u>
Police Officers	<del>\$68,000</del>	<del>\$70,381</del>	<del>\$72,778</del>	<del>\$75,175</del>	<del>\$79,840</del>	<del>\$80,840</del>	<del>\$82,040</del>	<del>\$83,440</del>
Detectives					<del>\$86,224</del>	<del>\$87,224</del>	<del>\$88,424</del>	<del>\$89,824</del>
Sergeants					<del>\$93,120</del>	<del>\$94,120</del>	<del>\$95,320</del>	<del>\$96,720</del>
Lieutenants					<del>\$108,686</del>	<del>\$109,686</del>	<del>\$110,886</del>	<del>\$112,286</del>

## APPENDIX "E"

Effective July 1, 2021 -2%

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6*</u>	<u>7**</u>	<u>8**</u>
Police Officers	<del>\$69,360</del>	<del>\$71,788</del>	<del>\$74,233</del>	<del>\$76,678</del>	<del>\$81,436</del>	<del>\$82,436</del>	<del>\$83,636</del>	<del>\$85,036</del>
Detectives					<del>\$87,949</del>	<del>\$88,949</del>	<del>\$90,149</del>	<del>\$91,549</del>
Sergeants					<del>\$94,982</del>	<del>\$95,982</del>	<del>\$97,182</del>	<del>\$98,582</del>
Lieutenants					<del>\$110,860</del>	<del>\$111,860</del>	<del>\$113,060</del>	<del>\$114,460</del>

\*Longevity step granted on 10th anniversary of continuous service

\*\*Longevity step granted on 15th anniversary of continuous service

\*\*\*Longevity step granted in 20th anniversary of continuous service

## Appendix "A"

### POLICE

7/01/2022 - 6/30/2023 - 2.75%

						10 YR	15 YR	20 YR
Grade	<u>Step 1</u>	<u>Step 2</u>	<u>Step3</u>	<u>Step 4</u>	<u>Step 5</u>	<u>Step 6</u>	<u>Step 7</u>	<u>Step 8</u>
Offcrs	71,267	73,762	76,274	78,787	83,675	84,675	85,875	87,275
Detect.					90,368	91,368	92,568	93,968

Sgts	97,594	98,594	99,794	101,194
Lieut.	113,909	114,909	116,109	117,509

## **Appendix “B”**

### **POLICE**

**7/01/2023 - 6/30/2024 - 2.75%**

						10 YR	15 YR	20 YR
<u>Grade</u>	<u>Step 1</u>	<u>Step 2</u>	<u>Step3</u>	<u>Step 4</u>	<u>Step 5</u>	<u>Step 6</u>	<u>Step 7</u>	<u>Step 8</u>
Off'crs	73,227	75,791	78,372	80,953	85,977	86,977	88,177	89,577
Detect.					92,853	93,853	95,053	96,453
Sgts					100,278	101,278	102,478	103,878
Lieut.					117,041	118,041	119,241	120,641

## **Appendix “C”**

### **POLICE**

**7/01/2024 - 6/30/2025 - 2.75%**

						10 YR	15 YR	20 YR
<u>Grade</u>	<u>Step 1</u>	<u>Step 2</u>	<u>Step3</u>	<u>Step 4</u>	<u>Step 5</u>	<u>Step 6</u>	<u>Step 7</u>	<u>Step 8</u>
Off'crs	75,241	77,875	80,527	83,179	88,341	89,341	90,541	91,941
Detect.					95,406	96,406	97,606	99,006
Sgts					103,035	104,035	105,235	106,635
Lieut.					120,260	121,260	122,460	123,860

**\*Longevity step granted on 10th anniversary of continuous service**

**\*\*Longevity step granted on 15th anniversary of continuous service**

**\*\*\*Longevity step granted in 20th anniversary of continuous service**

## **Appendix F**

**FAIRFIELD POLICE DEPARTMENT**

**PERFORMANCE EVALUATION: NON-SUPERVISORY PERSONNEL**

EMPLOYEE \_\_\_\_\_ TITLE \_\_\_\_\_

LENGTH OF SERVICE \_\_\_\_\_ yrs EVALUATION PERIOD \_\_\_\_\_ to \_\_\_\_\_

### JOB KNOWLEDGE

1. Frequently lacks the necessary knowledge to complete work assignments satisfactorily and makes little effort to learn.
2. Lacks the necessary knowledge to complete some phases of assigned work and shows little interest in learning.
3. Generally displays the necessary knowledge to complete most assigned work.
4. Obviously knows the job well and uses previous experience to his/her advantage.
5. Displays exceptional amount of job knowledge.

SCORE \_\_\_\_\_

### DECISION MAKING

1. Frequently fails to make decisions or avoids them whenever possible.
2. Makes decisions hastily without sound judgement.
3. Acts judiciously under most circumstances. Generally makes acceptable decisions.
4. Makes good decisions with rare exceptions.
5. Displays a superior ability to make good decisions consistently even when faced with difficult situations.

SCORE \_\_\_\_\_

### COOPERATIVENESS

1. Frequently antagonistic, often undermines morale.
2. Often uncooperative.
3. Cooperative under most circumstances.

4. Cooperative.
5. Unusually cooperative, contributes to good morale by displaying a willingness to assume additional responsibility.

SCORE\_\_\_\_\_

#### QUALITY OF WORK

1. Frequently poor in quality with many errors. Often does not meet minimum standards.
2. Sometimes careless and lacking in quality.
3. Satisfactory in quality with few errors.
4. Above average in quality and seldom contains errors.
5. Exceptional in quality with practically no errors.

SCORE\_\_\_\_\_

#### QUANTITY OF WORK

1. Frequently does not meet minimum requirements.
2. Occasionally does not meet minimum requirements.
3. Meets and at times exceeds minimum requirements.
4. Usually exceeds minimum requirements.
5. Overall work production is exceptional.

SCORE\_\_\_\_\_

#### DEGREE OF EFFECTIVENESS IN DEALING WITH PUBLIC

1. Often antagonistic towards members of the public, creates a poor image of the Department.
2. Often loses control when interacting with the public.



3. Maintains control in most interpersonal situations but sometimes displays a negative attitude.
4. Displays a good attitude towards the public and effectively controls most situations.
5. Exceptionally effective when dealing with the public. Displays outstanding interpersonal skills while maintaining control even when faced with difficult situations.

SCORE\_\_\_\_\_

#### DEPENDABILITY

1. Requires an inordinate amount of supervision to complete assigned duties and/or shows a pattern of sick leave abuse.
2. Requires close supervision to complete some assigned duties and/or is often tardy or procrastinates.
3. Completes assigned duties without close supervision.
4. Requires little or no supervision to complete most assigned duties.
5. Completes even difficult assignments with little or no supervision.

SCORE\_\_\_\_\_

#### PERSONAL APPEARANCE

1. Frequently unsatisfactory in the degree to which he/she meets Department standards.
2. Frequently in violation of Department Regulations concerning uniforms and/or personal appearance.
3. Generally meets Department standards but is sometimes in violation.
4. Meets or exceeds Department standards.
5. Gives the overall impression of taking pride in his/her appearance.

SCORE\_\_\_\_\_

#### ABILITY TO PLAN AND ORGANIZE WORK

1. Frequently does not plan and organize work assignments, causing mistakes and/or wasted time and effort.
2. Plans and organizes work assignments poorly requiring more time than necessary to complete them.

3. Generally plans work assignments well and completes them within a satisfactory time span.
4. Plans and organizes work assignments well. Uses his/her time effectively and efficiently.
5. Plans and organizes most work assignments including difficult ones effectively and efficiently with excellent results.

SCORE\_\_\_\_\_

#### LEADERSHIP POTENTIAL

1. Frequently displays a negative attitude towards duties and the department causing the disruption of the attainment of organizational goals and objectives.
2. Often displays a negative attitude towards the Department, duties or some of its members creating a negative influence on co-workers.
3. Supports organizational goals and policies.
4. Supports the organization, has a positive influence on co-workers and has demonstrated the ability to lead others.
5. Is a positive influence on co-workers while displaying the ability and willingness to assume responsibility.

SCORE\_\_\_\_\_

EVALUATOR NAME/SIGNATURE \_\_\_\_\_ / \_\_\_\_\_ DATE \_\_\_\_\_

#### **Appendix G**

WHEREAS, the Town of Fairfield and the Fairfield Police Union, Local 550, I.B.P.O., recognize that the illegal use and abuse of drugs has become a serious problem in our society and in all professional fields, and

WHEREAS, the illegal use and abuse of drugs can adversely affect the performance of police officers and threaten their image and public confidence and safety, and

WHEREAS, the Town and the Fairfield Police Union, Local 550, I.B.P.O. have agreed that the illegal use and abuse of drugs is inconsistent with the effective performance of a police officer;

NOW, THEREFORE, in order to assure the highest level of service to the people of Fairfield, to protect brother and sister police officers and to help individual police officers with the problems with which they may need assistance, the Town and the Union agree to the following:

AMNESTY: From July 1990 through June 30, 1991, no police officer will be subject to the penalties of this Section.

INFORMING THE EMPLOYEES OF DRUG TESTING AND FAMILY ASSISTANCE PROGRAM:

During this period of amnesty, all employees will be fully informed of all of the details of this agreement before any testing is administered. Employees will be provided with information concerning the impact of the use and abuse of drugs on job performance. In addition the employer shall inform all employees of how the tests are conducted, how well the tests perform, when tests will be conducted, what tests can determine, the consequences of testing positive for drug use and abuse and the services offered under the Department's Family Assistance Program, and the penalties provided.

VOLUNTARY ASSISTANCE: Any employee, who, at any time, comes forward voluntarily to seek treatment of a problem involving substance abuse, will be provided the appropriate counseling and medical assistance, at the expense of the Town. No penalties of any kind will be imposed on such police officer, and they shall be granted sick leave for the time of any in-patient or outpatient care as required in an approved program.

APPOINTMENT OF THE INDEPENDENT EXPERT: The Town and the Union shall jointly appoint an independent expert who shall be a person experienced in the field of drug abuse and detection and treatment. The expert shall serve for the duration of the collective bargaining agreement unless the Town and the Union agree upon a replacement. Any fee of the expert shall be borne by the Town.

AUTHORIZATION FOR EMPLOYEE TESTING: No employee will be tested for substance abuse unless there exists probable cause to believe that the police officer, to be tested, is under the influence of an illegal drug. Random or mass testing is strictly prohibited. In the event that there is reasonable cause to believe that an employee is impaired on duty by the use of an illegal substance, misuse of controlled substances or medications or alcohol, the employer and the Union shall request a meeting with said employee. No such meeting will take place without a written charge being filed beforehand. Said meeting will be held within twenty-four (24) hours of such written charge being filed. In order to be able to respond intelligently to any charges being filed, the employee shall be told twenty-four (24) hours prior to such meeting. A copy of the written charges will be given to the employee along with a list of any evidence or relevant information that will be used against them, including a list of witnesses to be questioned.

If, after the initial hearing, there may still exist probable cause, a hearing shall be held before the Independent Expert. No hearsay or any other third party evidence shall be presented or be considered by the Expert. Only those who have direct knowledge of the situation and circumstances shall speak on the issue.

Immediately after hearing all of the evidence, information and witnesses, the Expert shall decide whether there exists probable cause to conclude that the employee was impaired on duty. If the Expert shall decide that such probable cause exists, he may order the employee to undergo the agreed upon substance abuse testing.

CONFIDENTIALITY: Absolute confidentiality must be maintained during the entire process. No individual involved in the process shall reveal any of the details or particulars of any incident. Any violations of this confidence will subject the violator to the most severe disciplinary action. It is also realized that anyone knowingly bringing false charges against an individual or using this procedure for harassment or personal reasons will be subject to disciplinary action. Nothing shall prevent or prohibit any individual who is willfully, wantonly or maliciously falsely accused from pursuing legal action against their accuser, though it is understood that any such legal action may tend to compromise the confidentiality of the process.

AUTHORIZED TESTING: Upon issuance of the Authorization for Testing by the Expert, the Department shall arrange for the employee to be tested in such a manner as has been agreed to by the Town and the Union. All tests shall be administered by a testing facility that can insure the following:

- a) A confidential chain of custody.
- b) An independent sample collection process.
- c) Sterile containers.
- d) The laboratory performing the test must be certified by the State in which it lies or by the Federal Government Health Authorities as a medical laboratory and shall meet the regional requirements for forensic laboratories.
- e) Test results should be supplied to both the Expert and the employee charged as soon as they are available. (If possible within twenty-four (24) to forty-eight (48) hours.)
- f) If any individual receives a positive test result, they may request an immediate retest or seek another independent test in a timely manner.

Sample collection shall be conducted in a manner that provides for the highest degree of security for the sample and freedom from adulteration. Employees shall not be witnessed while supplying a urine sample. Instead, administrative procedures and biological testing of samples shall be conducted to prevent the submission of fraudulent samples for testing. If testing is positive the sample shall be split into three parts and reserved for independent analysis.



The method for testing of samples shall be performed by the Gas Chromatography-Mass Spectrophotometry (GC-MS) test.

There shall be medical evaluation of each test result conducted by a toxicologist or physician prior to release. Only confirmed results shall be reported to the employer. Unconfirmed, inconclusive and "weak-positive" reports shall never leave the laboratory.

If the test is found to be positive the employee may be tested up to a maximum of two (2) times within the six (6) weeks following the Expert's authorization for testing.

USE OF THE TEST RESULTS: If the employee is confirmed by testing to have a substance abuse problem, they shall be required to enroll in the approved Family Assistance Program for the purpose of counseling, treatment and other appropriate actions as selected by the counseling agency for the purpose of helping the employee deal with their problem.

The employee shall be granted sick leave for the period of their treatment.

RIGHT OF APPEAL: Each employee has the right to challenge the results of the substance abuse testing in the same manner that they grieve any managerial action.

DUTY ASSIGNMENT AFTER TREATMENT: Once any employee successfully completes rehabilitation, upon the approval of the counseling or treatment agency, the employee shall be returned to their regular duty assignment with no disciplinary action having been taken. Such employee may be retested once within six (6) months of the end of their rehabilitation. After that period, a probable cause hearing shall be required, as is for any other employee.

If the same employee is found to test positive after a second probable cause hearing with the proper procedures, they will again be required to undergo treatment and/or counseling. Upon return to work after the second circumstance, said employee may be tested once every six (6) months for a period not to exceed two (2) years.

A third (3rd) positive test, within the guidelines of this Agreement, may be grounds for disciplinary action.

Once treatment and any follow up care is completed and no further incidents occur, at the end of a two (2) year period, the records of treatment and positive substance abuse testing shall be retired to a closed medical file. The employee shall be given a fresh start with a clean administrative record.

UNION HELD HARMLESS: The Town of Fairfield shall be solely liable for any legal obligations and costs arising out of the provisions and/or applications of this collective bargaining agreement relating to substance abuse testing. The Union shall be held harmless for the violation of any workers rights arising from the administration of the substance abuse testing program.

CONFLICT WITH OTHER LAWS: This Agreement on substance abuse testing is in no way intended to supersede or waive an employee's federal or state constitutional rights.

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## **Appendix H**

### **DISCIPLINE POLICY**

In order to maintain an efficient, effective, and well-respected police organization and to protect the Town of Fairfield from undue liability, disciplinary measures must be taken whenever

necessary to insure this end. Every effort will be made to maintain consistency in implementing this policy. Causes for disciplinary measures may fall into either one of two categories, a major or minor infraction.

A major infraction is one in which disciplinary action can be taken on the very first incident, regardless of the past record of an employee and could include termination.

\*Allegations of untruthfulness or dishonesty that are documented, investigated, and sustained shall result in discipline up to and including discharge. A major infraction would include but not be limited to:

Inappropriate conduct under life threatening situations, Thefts, Criminal Acts, Brutality, Insubordination, Unauthorized departure from work, Physical abuse, \*Untruthfulness or Dishonesty.

A minor infraction would include any act or omission against departmental rules, regulations, policy or general performance that would be considered non-serious in nature and would not generally be a cause for termination for the first offense.

Major Infraction: For any violation of a major infraction, the steps outlined in section 13 and 14 of the Fairfield Police Manual of Rules and Regulations shall be followed.

Minor Infraction: For Minor Infractions there shall be a thirty (30) day freeze or delay period that begins the first day the employee is verbally warned and prior to the documented "verbal warning" entering the Official Personnel Disciplinary File of the employee. Within this thirty (30) day freeze period, the employee may seek assistance of the Union to refute the "Minor Infraction" by scheduling a meeting with the Division Commander of whom the employee works under. This meeting is done prior to filing Step 1 of the Grievance procedure to see if a resolution can be reached at this level.

During this delay period, the verbal warning shall remain frozen until it is either resolved with the approval by the Chief of Police at the Division Commanders level, resolved via the Grievance procedures as spelled out in the contract or accepted by the employee.

FIRST STEP: A verbal warning will be given to the offending employee and a record of said verbal warning shall be documented by the supervisor.

SECOND STEP: A written warning shall be given to the offending employee if there is a reoccurrence of an offense for which the employee has been given a verbal warning.

This written warning should only be given if the second occurrence happens within a reasonable period of time after the verbal warning was given and shall not exceed a period of two (2) years.

THIRD STEP: For any infraction for which a verbal and written warning has been given, a suspension or fine may be imposed in accordance with Section 3 subsection 4 of the Fairfield Police Manual of Rules and Regulations.

FOURTH STEP: For any infraction for which a verbal, written warning and suspension or fine imposed, termination may result in accordance with Section 14 of the Fairfield Police Manual of Rules and Regulations.

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## **Appendix I**

### **TARDINESS POLICY**

It shall be the policy of the Fairfield Police Department to encourage punctuality among its employees to provide maximum service to the community.



Definition: Tardiness is reporting for duty or assignment later than scheduled or reporting off-duty sick later than one hour prior to scheduled starting time. This shall include recall assignments, training assignments, overtime assignments and outside employment assignments.

Bargaining unit members shall report, at the beginning of their shifts, to locations determined by their Division Commanders.

A bargaining unit member who is unable to report on time shall notify the on-duty Shift Commander of his or her inability to report on time.

Shift Commanders shall document the time of reported tardiness, the reason for the tardiness, and the time of arrival. They shall notify the bargaining unit member's division commander; and, they shall submit their written documentation to the bargaining unit member's Division Commander.

When tardy bargaining unit members arrive at work, they shall report to their Division Commanders.

A tardy bargaining unit member shall prepare a written report for his or her Division Commander. The report shall list the time the tardiness was reported, the time of arrival, and the time the bargaining unit member was scheduled to report for work.

Division Commanders shall maintain records concerning bargaining unit member tardiness.

Bargaining unit members shall receive a verbal warning the first time they are tardy. Bargaining unit members shall receive a written warning the second time they are tardy in a one-year period.

Bargaining unit members shall be suspended for one day the third time they are tardy in a one-year period. Division Commanders shall notify the Chief of Police when any officer is tardy three times in a one-year period. Additional incidents of tardiness within a one-year period shall result in additional discipline as determined by the Chief of Police.

Division Commanders shall notify the Chief of Police each time any bargaining unit member is tardy more than three times in one-year period.

## **Appendix J**

### **LIEUTENANTS' POLICE VEHICLES**

The following policy affects the use of police vehicles by the lieutenants of the Administrative Division, Detective Division, and the Special Services Division:

The lieutenants will be responsible for the proper care of the vehicle assigned to them, and they must be recoverable.

The lieutenants should comply with our policies and procedures written directives, and the police manual with the exception of Section 24-4. They are allowed to have passengers in the vehicles.

If the lieutenants are near enough to Fairfield to be recoverable when they are needed, they should be allowed the use of the police vehicles that are assigned to them.

- a) For travel that relates to their employment the lieutenants shall have unrestricted use of the police vehicles that are assigned to them, and they shall be reimbursed for expenses incurred as a result of the use of the vehicle for such travel.
- b) For travel that does not relate to their employment, the lieutenants shall be allowed the use of the police vehicles that are assigned to them for travel within Connecticut and New York City. The lieutenants will not be reimbursed for expenses incurred for the use of the vehicles for such travel.
- c) These three police vehicles and their use applies to the lieutenants' positions and not to the individual lieutenants. Should a lieutenant be transferred out of the Administrative Division, the Detective Division, or the Special Services Division, the vehicle remains with the division. The Chief of Police reserves the right to transfer or reassign these personnel, as he deems necessary. The Chief shall decide which vehicles are assigned to these three positions; however, the vehicles shall be unmarked. This benefit exists only as long as the position exists. If the Board of Police Commissioners should abolish any of these positions in accordance with Article XIV, Section 14.03 of the Collective Bargaining Agreement, the use of the vehicle is also abolished.
- d) These vehicles and the appearance of these vehicles shall not be altered without the permission of the Chief of Police.
- e) Lieutenants should not allow non-department persons to operate these police vehicles.
- f) Lieutenants who are on extended sick leave or vacation shall return the vehicle to Police Headquarters for the duration of the leave.

**Collective Bargaining Agreement – Tentative Agreement Provisions**  
***Fairfield Police Union, Connecticut Organization for Public Safety, Local #550***

The Police Collective Bargaining Unit is currently comprised of approximately 105 employees with a total base salary and overtime of \$12,563,170 in the approved 2022-23 budget.

Notable changes having fiscal impacts are discussed below.

**FUNERAL LEAVE:**

Changes to Article VI – Generally, Funeral Leave was changed to allow use to “mourn and to attend funeral/memorial services”. (The current contract allows leave only between the date of death and the date of funeral). In addition, Funeral Leave was changed to include “a loss of pregnancy due to miscarriage or stillbirth” as an acceptable reason for leave.

**WAGES:**

The contract includes the following wage increases:

FY23 2.75% | FY24 2.75% | FY25 2.75%

The contract retains the basic format of the wages in that there are currently four labor grades: Police Officer, Detective, Sergeant, and Lieutenant) The step schedule for Police Officer runs from step one to step eight, of which steps six, seven, and eight are longevity steps and depend on years of continuous service.

The step schedules for Detective, Sergeant, and Lieutenant runs from step five to step eight, of which steps six, seven, and eight are longevity steps and depend on years of continuous service.

If this contract is ratified, the projected FY23 salaries would increase by \$345,487 from \$12,563,170 to \$12,908,657. The table below reflects the impact to base salary for each fiscal year. The contingency reserve for salaries that is budgeted for FY23 is sufficient to fund the contractual increase. Holding all else equal, the projected salaries plus FICA are shown below.

	<b>GF Budget</b>	<b>New Contract</b>
FY23	12,563,170	12,908,657
FY24		13,263,645
FY25		13,628,395

The contract also makes changes to the Police Contract's schedule for college incentive pay to reflect the following:

<u>Credits Completed</u>	<u>Old Contract</u>	<u>New Contract</u>
30	100	150
60	300	400
90	500	700
Degree	1,000	1,250

These changes would result in a \$20K increase to college incentive payouts.

**INSURANCE:**

The contract includes the following schedule of health care premium contributions:

FY23 17% | FY24 17% | FY25 18%

The current contribution percentage for health insurance is 17 percent. As a result, there is no change to the current health insurance projection for members in the bargaining unit for the next two fiscal years.

**Contract Status:**

The union vote to ratify the contract will take place on May 11<sup>th</sup>.



	Department	Department	Years of Service		Current	FY23 (New)
Position	#	Name	e	Step	Salary (Est.)	Salary (Est.)
DETECTIVE	4030	Police	30	8	91,549	93,968
DETECTIVE	4030	Police	28	8	91,549	93,968
DETECTIVE	4030	Police	27	8	91,549	93,968
DETECTIVE	4030	Police	25	8	91,549	93,968
DETECTIVE	4030	Police	24	8	91,549	93,968
DETECTIVE	4030	Police	24	8	91,549	93,968
DETECTIVE	4030	Police	21	8	91,549	93,968
DETECTIVE	4030	Police	18	7	90,149	92,568
DETECTIVE	4030	Police	13	6	88,949	91,368
DETECTIVE	4030	Police	12	6	88,949	91,368
DETECTIVE	4030	Police	12	6	88,949	91,368
DETECTIVE	4030	Police	25	8	91,549	93,968
DETECTIVE	4030	Police	7	5	87,949	90,368
DETECTIVE	4030	Police	7	5	87,949	90,368
DETECTIVE	4030	Police	6	5	87,949	90,368
LIEUTENANT	4030	Police	30	8	114,460	117,509
LIEUTENANT	4030	Police	20	8	114,460	117,509
LIEUTENANT	4030	Police	24	8	114,460	117,509
LIEUTENANT	4030	Police	30	8	114,460	117,509
LIEUTENANT	4030	Police	13	6	111,860	114,909
LIEUTENANT	4030	Police	24	8	114,460	117,509
LIEUTENANT	4030	Police	16	7	113,060	116,109
LIEUTENANT	4030	Police	20	8	114,460	117,509
POLICE OFFICER	4030	Police	13	6	88,949	84,675
POLICE OFFICER	4030	Police	13	6	82,436	84,675
POLICE OFFICER	4030	Police	12	6	82,436	84,675
POLICE OFFICER	4030	Police	12	6	82,436	84,675
POLICE OFFICER	4030	Police	12	6	82,436	84,675
POLICE OFFICER	4030	Police	9	5	81,436	83,675
POLICE OFFICER	4030	Police	9	5	81,436	83,675
POLICE OFFICER	4030	Police	9	5	81,436	83,675
POLICE OFFICER	4030	Police	21	8	85,036	87,275
POLICE OFFICER	4030	Police	25	8	85,036	87,275
POLICE OFFICER	4030	Police	20	8	85,036	87,275
POLICE OFFICER	4030	Police	21	8	85,036	87,275
POLICE OFFICER	4030	Police	16	7	83,636	85,875
POLICE OFFICER	4030	Police	24	8	85,036	87,275
POLICE OFFICER	4030	Police	28	8	85,036	87,275
POLICE OFFICER	4030	Police	18	7	83,636	85,875
POLICE OFFICER	4030	Police	19	7	83,636	85,875
POLICE OFFICER	4030	Police	21	8	85,036	87,275

POLICE OFFICER	4030	Police	25	8	85,036	87,275
POLICE OFFICER	4030	Police	33	8	85,036	87,275
POLICE OFFICER	4030	Police	30	8	85,036	87,275
POLICE OFFICER	4030	Police	26	8	85,036	87,275
POLICE OFFICER	4030	Police	23	8	85,036	87,275
POLICE OFFICER	4030	Police	24	8	85,036	87,275
POLICE OFFICER	4030	Police	17	7	83,636	85,875
POLICE OFFICER	4030	Police	17	7	83,636	85,875
POLICE OFFICER	4030	Police	20	8	85,036	87,275
POLICE OFFICER	4030	Police	20	8	85,036	87,275
POLICE OFFICER	4030	Police	19	7	83,636	85,875
POLICE OFFICER	4030	Police	20	8	85,036	87,275
POLICE OFFICER	4030	Police	8	5	81,436	83,675
POLICE OFFICER	4030	Police	8	5	81,436	83,675
POLICE OFFICER	4030	Police	8	5	81,436	83,675
POLICE OFFICER	4030	Police	8	5	81,436	83,675
POLICE OFFICER	4030	Police	7	5	81,436	83,675
POLICE OFFICER	4030	Police	7	5	81,436	83,675
POLICE OFFICER	4030	Police	7	5	81,436	83,675
POLICE OFFICER	4030	Police	7	5	81,436	83,675
POLICE OFFICER	4030	Police	6	5	81,436	83,675
POLICE OFFICER	4030	Police	5	5	81,436	83,675
POLICE OFFICER	4030	Police	23	8	85,036	87,275
POLICE OFFICER	4030	Police	5	5	81,436	83,675
POLICE OFFICER	4030	Police	5	5	88,949	83,675
POLICE OFFICER	4030	Police	5	5	81,436	83,675
POLICE OFFICER	4030	Police	4	5	81,436	83,675
POLICE OFFICER	4030	Police	4	5	81,436	83,675
POLICE OFFICER	4030	Police	4	5	81,436	83,675
POLICE OFFICER	4030	Police	4	5	81,436	83,675
POLICE OFFICER	4030	Police	3	4	76,678	78,787
POLICE OFFICER	4030	Police	4	5	81,436	83,675
POLICE OFFICER	4030	Police	4	5	81,436	83,675
POLICE OFFICER	4030	Police	2	3	74,233	76,274
POLICE OFFICER	4030	Police	2	3	74,233	76,274
POLICE OFFICER	4030	Police	2	3	74,233	76,274
POLICE OFFICER	4030	Police	2	3	74,233	76,274
POLICE OFFICER	4030	Police	2	3	74,233	76,274
POLICE OFFICER	4030	Police	2	3	74,233	76,274
POLICE OFFICER	4030	Police	2	3	74,233	76,274
POLICE OFFICER	4030	Police	2	3	74,233	76,274
POLICE OFFICER	4030	Police	2	3	74,233	76,274
POLICE OFFICER	4030	Police	1	2	71,788	73,762
POLICE OFFICER	4030	Police	1	2	71,788	73,762

POLICE OFFICER	4030	Police	1	2	71,788	73,762
POLICE OFFICER	4030	Police	1	2	71,788	73,762
POLICE OFFICER	4030	Police	1	2	71,788	73,762
POLICE OFFICER	4030	Police	1	2	71,788	73,762
POLICE OFFICER	4030	Police	1	2	69,360	73,762
POLICE OFFICER	4030	Police	1	2	69,360	73,762
SERGEANT	4030	Police	35	8	98,582	101,194
SERGEANT	4030	Police	24	8	98,582	101,194
SERGEANT	4030	Police	23	8	98,582	101,194
SERGEANT	4030	Police	22	8	98,582	101,194
SERGEANT	4030	Police	12	6	95,982	98,594
SERGEANT	4030	Police	12	6	95,982	98,594
SERGEANT	4030	Police	23	8	98,582	101,194
SERGEANT	4030	Police	8	5	94,982	97,594
SERGEANT	4030	Police	14	6	95,982	98,594
SERGEANT	4030	Police	23	8	98,582	101,194
SERGEANT	4030	Police	9	5	94,982	97,594
SERGEANT	4030	Police	14	6	95,982	98,594
SERGEANT	4030	Police	8	5	94,982	97,594