Village of
# Northbrook

## Ad Hoc Facilities Committee

NORTHBROOK VILLAGE HALL, 1225 CEDAR LANE
**February 27, 2018, 6:30 P.M., TERRACE ROOM**

The Ad Hoc Facilities Committee of the Village of Northbrook Board of Trustees will hold a meeting on Tuesday, February 27, 2018 at 6:30 p.m. in the Terrace Room of the Village Hall, 1225 Cedar Lane, Northbrook, Illinois. The following will be discussed.

**MEETING AGENDA**

***Please note: A light dinner will be provided for Board Members and Staff***

1. Call To Order
2. Hear From The Audience
3. Status Update on Facilities Assessment
4. Adjourn

**Robert Israel, Chair**
Ad Hoc Facilities Committee

**Members:** Trustee A.C. Buehler
Trustee Kathryn Ciesla

Village of Northbrook
Cook County, Illinois
February 27, 2018

The Village of Northbrook is subject to the requirements of the Americans with Disabilities Act of 1990. Individuals with disabilities who plan to attend this meeting and who require certain accommodations in order to allow them to observe and/or participate in this meeting, or who have questions regarding the accessibility of this meeting or the facilities, are requested to contact Greg Van Dahm or Debbie Ford (664-4014 or 4013respectively) promptly to allow the Village of Northbrook to make reasonable accommodations for those persons. Hearing impaired individuals may call the TDD number, 564-8645, for more information.

# MEMORANDUM
# VILLAGE OF NORTHBROOK
## PUBLIC WORKS DEPARTMENT

**TO:** RICHARD A. NAHRSTADT, VILLAGE MANAGER

**FROM:** KELLY HAMILL, PUBLIC WORKS DIRECTOR

**DATE:** February 27, 2018

**SUBJECT:** UPDATE ON FACILITIES ASSESSMENT AND SPACE NEEDS ANALYSIS

The Village Board established its Ad Hoc Facilities Committee to review the current conditions and operational uses of the Village's facilities and recommend a plan to the Village Board for the future management and maintenance of these facilities. After tours of the Village's facilities and discussions about the Committee's priorities, the Ad Hoc Facilities Committee directed staff to prepare a RFP for a condition assessment and space needs analysis of the Police Station, Fleet Maintenance Garage, and operations wing of Fire Station 11. In developing the RFP the need to look at the Village Hall's parking lot as well as the commuter parking lots for compliance with the Americans with Disabilities Act was identified and included in the scope of work as well. Staff prepared an RFP and the project was awarded on October 10, 2017 to Healy, Bender & Associates of Naperville, Illinois.

The process established in the RFP included three key milestones for the project: (i) a condition assessment of the three facilities; (ii) a space needs analysis of the three facilities; and (iii) an evaluation of the current facilities to determine the most cost effective solution for the Village to meet its needs whether it is renovation, addition, reconstruction on the same site, or relocation of the facility.

The condition assessment of the Police Station, Fleet Maintenance Garage, and operations wing of Station 11 has been completed and is intended to provide a snapshot of the current condition of the buildings and what the estimated costs to maintain the buildings as they are. It is not intended to address any operational issue that the facilities may have.

To prepare the facility assessments, the consultant has completed a thorough review of each building's critical systems and graded them using the American Society for Testing & Materials (ASTM) E2018-15 Standard Guide for Property Condition Assessments, the industry standard for assessing existing facilities, and building codes. These assessments have resulted in a "report card" summary report for each facility and a proposed 10-year capital improvement plan based on a simple prioritization of improvement by type. Staff will provide a presentation on the findings of this initial phase of the project at the Ad Hoc Committee's February 27, 2018 meeting.

The next phase of the project, which is already underway, is the space needs analysis. The space needs analysis will evaluate the operations of the Police Department, Fleet Maintenance Division, and the Fire Department with respect to their facilities. More specifically, whether those facilities have sufficient space to house those current and future operations and whether or not the facilities are hindering the workflows within that department. Staff respectfully requests that the Committee schedule its next meeting to discuss the space needs analysis.

# MEMORANDUM
# VILLAGE OF NORTHBROOK
## PUBLIC WORKS DEPARTMENT

**TO:** RICHARD A. NAHRSTADT, VILLAGE MANAGER

**FROM:** KELLY HAMILL, PUBLIC WORKS DIRECTOR

**DATE:** February 27, 2018

**SUBJECT:** FACILITIES ASSESSMENT METHODOLOGY

As part of the Facilities Assessment and Space Needs Analysis project, the Village required that the successful consultant first complete a comprehensive facilities assessment for each subject building. Staff included specific conditions on these assessments including the use of the American Society for Testing & Materials (ASTM) E2018-15 Standard Guide for Property Condition Assessments to ensure a comprehensive and standardized review of each facility. Additionally, staff required the consultant to generate a final property condition report and a 10-year capital improvement plan to maintain each facility.

To gather information on each facility, Healy Bender and its engineering sub-consultant reviewed existing plans, interviewed staff and conducted detailed walkthroughs to assess the items detailed on the check sheet. Using the ASTM's rating system and existing building code, each item included in the field guide was rated as one of the following:

- Good Current: This rating indicates the system meets current nationally recognized standards and is functioning properly. Parts are readily available.
- Good Dated: This rating indicates the system meets code requirements (but not the nationally recognized standards) and is functioning properly. Parts are readily available.
- Fair: This rating indicates the system does not meet the lawfully enforceable minimum standard in one or more minor respects but can be brought up to code. A system with this rating is marginally functional but requires frequent repair. Parts may be becoming difficult to find and the system is nearing the end of its useful life.
- Poor: This rating indicates the system fails to meet the lawfully enforceable minimum standard in a substantial respect and does not reliably function. Parts are not available, and the system is beyond its useful life.
- Very Poor: This rating indicates the system fails to meet the lawfully enforceable minimum standard, may pose an imminent threat to health or safety and is completely nonfunctional.

The raw building evaluation information used to determine the rating of each item is included in the report as the Deficiency Notation Form. The ratings of the building components are also used to produce a "Facility Report Card." The purpose of the facility report card is to provide a one page overview of the condition of a building.

In developing the Facility Report Card, each component of a building is identified and assigned a maximum numerical score. Components of a facility that are rated as "Good Current" will receive a full scores, however a 15% deduction in total points will be taken for components rated as "Good Dated,"

30% deduction in total for components rated as “Fair,” and so on. The result is an overview of a building that shows quantitatively its condition.

At the Ad Hoc Facilities Committee meeting on Tuesday, February 27, staff will provide an overview of the methodology for this phase of the project and answer any questions the Committee may have. The consultants will also be available for any specific questions related to the ASTM rating system or methodology.

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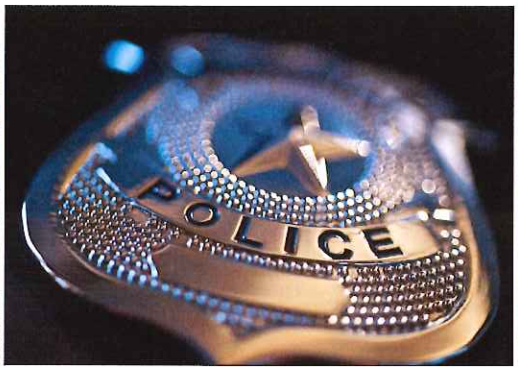
# Facility Assessments




## Northbrook Fleet Maintenance Garage
## Northbrook Police Department
## Northbrook Fire Station #11

February 27, 2018

HEALY BENDER

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HEALY BENDER
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## Executive Summary

In October 2017, the Village of Northbrook asked Healy, Bender & Associates, Inc. to develop a Facility Assessment for three (3) of their existing buildings and their current parking lots:

- Fire Station No. 11 – Operations Wing (740 Dundee Road)
- Police Station (1401 Landwehr Road)
- Fleet Maintenance Garage (1227 Cedar Lane)
- Village Hall and Commuter Lot Americans with Disabilities Act (ADA) Assestment

The purpose of the facility assessment was to provide an understanding of the physical and mechanical conditions of the existing facilities. The assessment focused on all the spaces within each of the facilities including but not limited to the areas used for operations, administration, reception, storage, living (including any kitchen, restroom or sleeping quarters as applicable), training, meeting, any common areas not otherwise specific here as well as the mechanical and electrical systems of the facility, structural shell and roof structure as applicable. As part of the study we reviewed the general status of the buildings for the following items: life safety issues, present or anticipated mechanical, electrical or structural defects, and the useful life of the building systems and components. Deficiencies that were identified were itemized and maintenance/replacement costs were estimated. In addition, we created a 10-year Capital Improvement Plan that prioritized the deficiencies and proposed projects and timelines for corrective measures.

The report is the result of on-site observations by architects, engineers and consultants. The information herein is intended to be used as a tool for planning potential expenditures related to maintenance, improvements, and long-term sustainability of the existing facilities.

In October 2017, Healy|Bender began the process by collecting facility information, touring each facility and meeting with the building administrators. The information was compiled and formatted into an easy to read "Facility Report Card". This document rates the buildings like a standard academic grading system in the United States, A, B, C, D and F, where F stands for "failing".

**Facility Report Card**

- Fire Station No. 11 — Grade: 748/1000 (C )
- Police Station — Grade: 832/1000 (B-)
- Fleet Maintenance Garage — Grade: 746/1000 (C)

This overview of the buildings considering all of the components shows that the buildings are not failing in regard to their physical attributes, but they are not without their flaws. Grades in the lower C range often indicate that there are significant modifications that will need to occur to bring these facilities up to current national standards.

**Facility Capital Needs Plan**

Once the deficiencies were observed the Healy|Bender team developed cost estimates for corrective measures. It is important to note that these costs only reflect maintenance costs and do not address the functional aspects of the facility. Observations such as the Fleet Maintenance Garage not having the ability to maintain Village vehicles due to low roof structure heights were not addressed here. The initial process estimated the cost of repairs in 2018 dollars, were compiled, and are as follows:

- Fire Station No. 11 — $1,043,000
- Police Station — $1,786,000
- Fleet Maintenance Garage — $1,129,000

**10 Year Capital Improvement Plan**

Individual projects were identified and prioritized based on the level of importance to the facility. The most important deficiencies were the urgent/life safety issues which were slated to be resolved first. The second tier of projects addressed the major building systems such as mechanical systems, electrical systems and roofing. The final tier of projects addressed the more cosmetic aspects of the buildings such as interior flooring, painting and ceilings. We grouped together projects of similar scope to achieve economy of scale and distributed them over the ten-year period based on the above priorities. The project costs were escalated, and final yearly estimates were tabulated. The final estimate of costs per year including all three facilities are as follows:

| | |
|---|---|
| 2018 | $173,000 |
| 2019 | $410,000 |
| 2020 | $657,600 |
| 2021 | $701,600 |
| 2022 | $523,900 |
| 2023 | $355,400 |
| 2024 | $704,600 |
| 2025 | $196,800 |
| 2026 | $545,900 |
| 2027 | $248,000 |

The observations were conducted in the winter of 2017/2018 by the firms of Healy, Bender & Associates, Inc. (Architects) and 20|10 Engineering Group (Engineers). Each deficiency includes a preliminary estimated cost to implement the recommended solution. The costs do not include contingencies and professional design fees. The preliminary costs assume that the work will be completed within the identified year in the Capital Improvement Plan. If work is to be completed beyond the time frame indicated, preliminary costs should be increased for inflation. Costs for furniture, fixtures, and loose equipment have not been included in the estimates.

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# 1. REPORT METHODOLOGY

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# Physical Facility Assessment - Methodology

The **HEALY** | **BENDER** assessment process is based on the ASTM E2018-15 Standard Guide for Property Conditions Assessments: Baseline Property Condition Assessment Process. This is an industry standard for assessing existing facilities. Additionally, we have further refined our report to be a clear, usable document that defines the deficiencies which will give the Village of Northbrook the ability to plan for future improvements as part of its capital budget.

## PHASE 1. Gathering Information

Existing Floor Plans & Field Inspection Guide

The first step in the process was to develop a floor plan that could be utilized during the facility walk through. We obtained existing drawings and fire evacuation plans from the owner and developed our base floor plans. The other document developed prior to facility walk-throughs was the "Field Inspection Guide" (FIG). This form outlines the major building components and organizes them into eight (8) separate categories of the building: Site, Structural, Egress / Accessibility, Architectural, Mechanical, Plumbing, Fire Protection, and Electrical systems. The study team toured each facility utilizing the FIG as an outline to gather and organize information on the conditions and anticipated life spans of the various building systems and equipment items. Buildings were also reviewed for basic code compliance relating to occupancies, egress, fire ratings, and accessibility (ADA). A comprehensive code compliance study was not completed.

Deficiency Notation Form

Each building component was given a rating based on the condition/code compliance/life expectancy of that given system. The rating system is based on the ASTM E2018-15 standards and are as follows:

- **Good Current**
  The system was built, renovated or rehabilitated to equal or exceed the current nationally recognized standards addressing the item; it is functioning properly, and it appears to be properly maintained. Parts are readily available.
- **Good Dated**
  The system meets or exceeds the lawfully enforceable minimum standard but does not meet the corresponding current nationally recognized standard; it is functioning properly and appears to be properly maintained. Parts are readily available.
- **Fair**
  The system fails to meet minor lawfully enforceable minimum standards in one or more minor respects but is scheduled to be brought up to code. It is marginally functional or requires frequent repair to continue functioning and appears to be adequately maintained. Parts are becoming difficult to acquire and the system is nearing the end of its useful life.
- **Poor**
  The system fails to meet lawfully enforceable minimum standards in substantial respect; it does not function reliably and appears to be poorly maintained. Parts can no longer be acquired, and the system is beyond its useful life.
- **Very Poor**
  The system fails to meet lawfully enforceable minimum standards to such an extent as to pose an imminent threat to health or safety of building occupants or is completely nonfunctional.

The study team noted the condition of the building components during the facility tours and documented them on the "Deficiency Notation Form". This is an important document because it describes the reason for the condition rating based on the study team's professional judgement.

**PHASE 2. Facility Report Card**

To achieve a good understanding of the current condition of your existing facilities, **Healy|Bender** has developed a document called the "Facilities Report Card". This document provides a very quick one-page overview of the entire building adequacy based solely on the physical "bricks & mortar" conditions of the building.

The report card utilizes all the information gathered in phase I. Each building component is given a weighted point value based on the level of importance. For example, the Fire Alarm System is a very important system (life safety protection) for the building and has a weighted point value of 40. In contrast, room finishes such as paint and flooring are less critical building components and have a weighted point value of 5. Every building begins with a perfect score of 1000 points. Based on the study team's evaluation of each component, points are deducted from the overall score depending on the deficiency rating established in Phase I.

The result is a report card grade like the standard academic grading system in the United States, A, B, C, D and F, where F stands for "failing".

**PHASE 3. Facility Capital Needs**

Building components that were designated as "Good Current" or "Good Dated" are items that are functioning properly in the building and can be maintained for many years to come. The other components that were rated "Fair", "Poor", or "Very Poor" are items that will need to be replaced and were evaluated for replacement costs.

All the building components included in the 10-year capital needs assessment were estimated with current 2018 cost values. To project costs over the 10-year period we began by developing a priority list based on level of importance as follows:

1. Urgent/Immediate
2. Life Safety / Egress
3. Mechanical Systems
4. Roofing
5. Plumbing
6. Renovation / Finishes
7. Exterior Envelope
8. Parking / Site
9. Back – Up Generators

Once the improvements were grouped together and distributed to the appropriate priority category they were projected onto the 10-year capital needs plan. The estimated costs were escalated at 3% per year based on information from the 2018 RS Means Data – Square Foot Costs (nationally published industry standard).

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# 2. 10 YEAR CAPITAL IMPROVEMENT PLAN

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## 10 Year Capital Improvement Plan

| Facility | Capital Needs | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
| Northbrook Police Department | | | | | | | | | | |
| Project A (Urgent/Immediate) | $130,000 | | | | | | | | | |
| Project B (Life Safety/Egress) | | $319,300 | | | | | | | | |
| Project C (Mechanical Systems) | | | $42,400 | | | | | | | |
| Project D (Roofing) | | | | $0 | | | | | | |
| Project E (Plumbing) | | | | | $163,200 | | | | | |
| Project F (Renovation/Finishes) | | | | | | | $704,600 | | | |
| Project G (Exterior Envelope) | | | | | | | | $172,200 | | |
| Project H (Parking/Site) | | | | | | | | | $545,900 | |
| Project J (Back-Up Generator) | | | | | | | | | | |
| Project K | | | | | | | | | | |
| Fire Station #11 | | | | | | | | | | |
| Project A (Urgent/Immediate) | $43,000 | | | | | | | | | |
| Project B (Life Safety/Egress) | | $90,700 | | | | | | | | |
| Project C (Mechanical Systems) | | | $387,200 | | | | | | | |
| Project D (Roofing) | | | | $243,700 | | | | | | |
| Project E (Plumbing) | | | | | $71,400 | | | | | |
| Project F (Renovation/Finishes) | | | | | | $191,900 | | | | |
| Project G (Exterior Envelope) | | | | | | | | | | |
| Project H (Parking/Site) | | | | | | | | | | |
| Project J (Back-Up Generator) | | | | | | | | | | $124,000 |
| Project K | | | | | | | | | | |
| Fleet Maintenance Garage | | | | | | | | | | |
| Project A (Urgent/Immediate) | | | | | | | | | | |
| Project B (Life Safety/Egress) | | | | | | | | | | |
| Project C (Mechanical Systems) | | | $228,000 | | | | | | | |
| Project D (Roofing) | | | | $457,900 | | | | | | |
| Project E (Plumbing) | | | | | $289,300 | | | | | |
| Project F (Renovation/Finishes) | | | | | | $163,500 | | | | |
| Project G (Exterior Envelope) | | | | | | | | $24,600 | | |
| Project H (Parking/Site) | | | | | | | | | | |
| Project J (Back-Up Generator) | | | | | | | | | | $124,000 |
| Project K | | | | | | | | | | |
| **Total Capital Costs:** | $173,000 | $410,000 | $657,600 | $701,600 | $523,900 | $355,400 | $704,600 | $196,800 | $545,900 | $248,000 |

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# 3.

## Northbrook Police Department

1401 Landwehr Road, Northbrook


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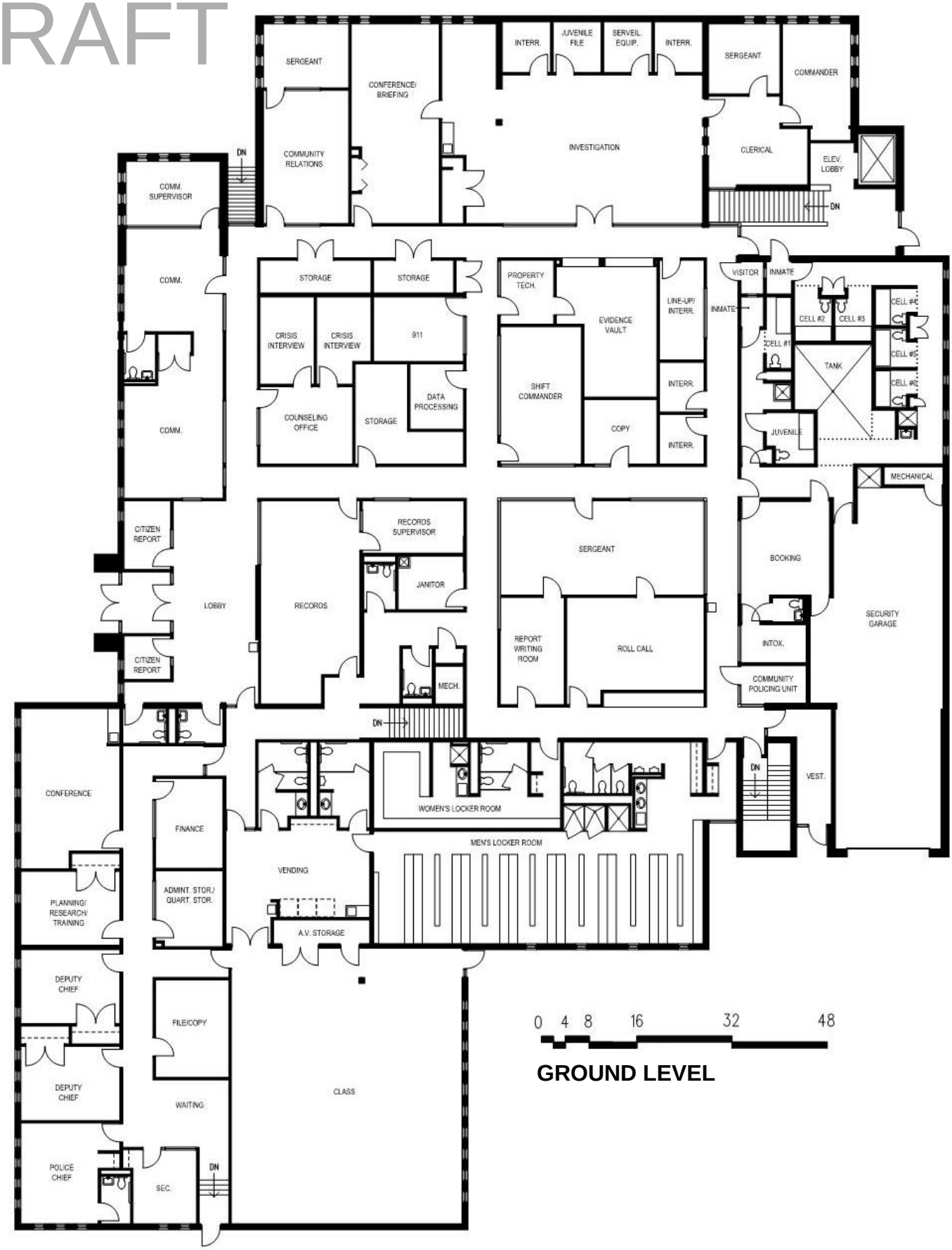


**GROUND LEVEL**

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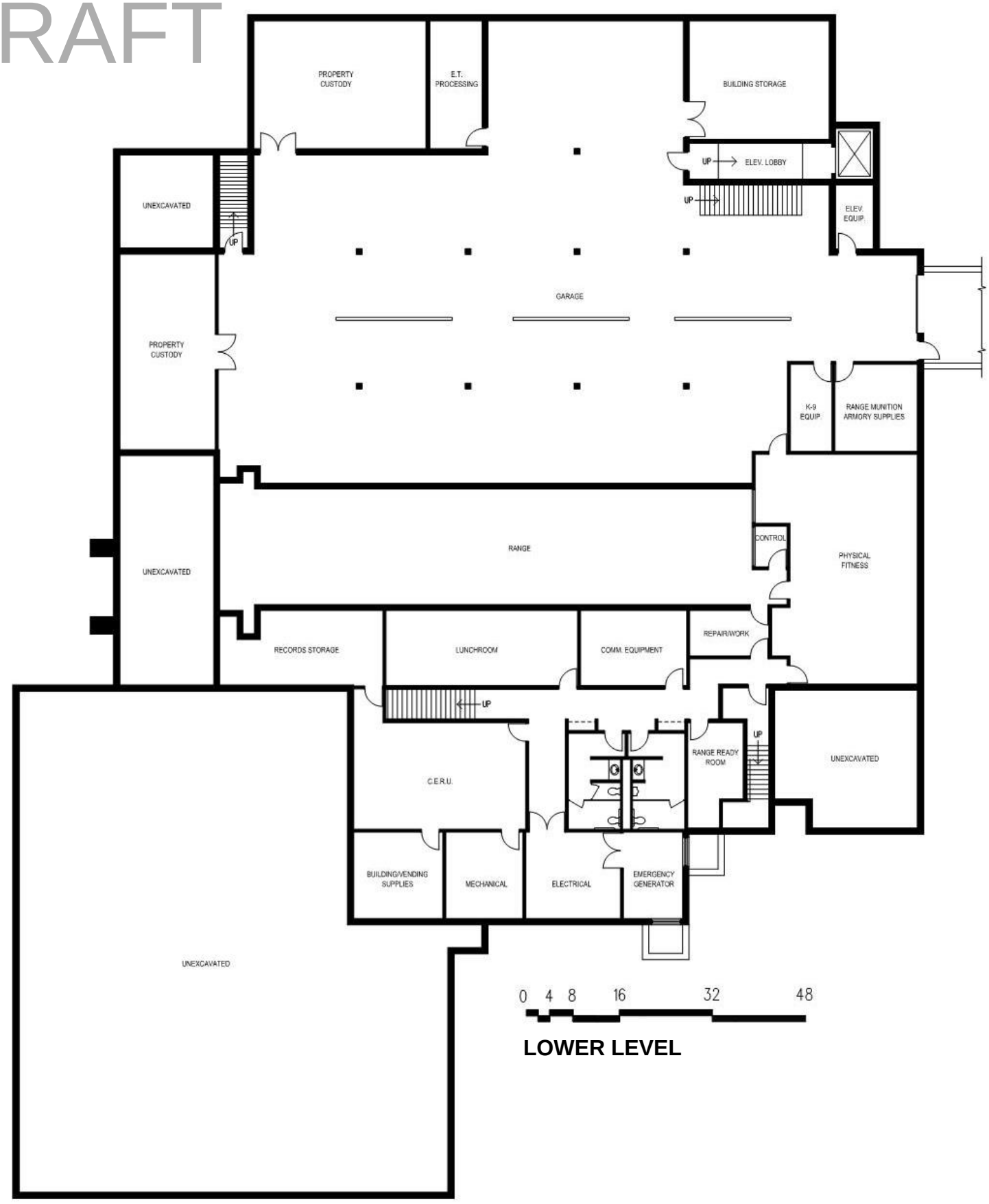


**LOWER LEVEL**

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## Police Station

1401 Landwehr Road, Northbrook IL

Report Card Method:
Building Evaluation begins with maximum Starting Value and Deductions are applied based on deficiencies observed in the field.
Highlighted areas (grey or yellow) are deductions based on field observations - see Appendix C & D for further clarification.
Report Card Methodology is based on ASTM 2018-15 established system

| Facility Report Card | Starting Value | Deductions | | | | | Final Value |
|---|---|---|---|---|---|---|---|
| **Areas of Evaluation** | **Possible Points** | **Good Current** | **Good Dated** | **Fair** | **Poor** | **Very Poor** | **Grade Points** |
| Site Evaluation (S) | | | | | | | |
| 1. Site Features | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 6 |
| 2. Utilities | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 9 |
| 3. Site Access | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 10 |
| 4. Parking Lots, Site Maintainability | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 6 |
| Structural Evaluation (ST) | | | | | | | |
| 1. Foundation and Slab on Grade | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 2. Floor Structural Systems | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20 |
| 3. Stairs, Ramps & Balconies | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 4. Interior Bearing Walls | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20 |
| 5. Exterior Bearing Walls | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 40 |
| 6. Steel Members | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 7. Roof Structural Systems | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 40 |
| Building Egress / Accessibility (BE) | | | | | | | |
| 1. Egress - Corridors | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 40 |
| 2. Egress - Interior Doors | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 3. Egress - Exterior Doors | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 4. Door Hardware | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 5. Stairs, Landings, Handrails/Guardrails | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 22 |
| 6. Accessible Toilet Facility / Lockers | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| Architectural (A) | | | | | | | |
| 1. Exterior Windows, Store Front, Curtain Wall | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14 |
| 2. Exterior Doors | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14 |
| 3. Exterior Envelope & Miscellaneous Items | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 4. Roofing | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 40 |
| 5. Interior - Stairs & Ramps | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 6. Interior - Secured Corridors | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14 |
| 7. Interior - Staff Lounge, Lunch rm, Multi-Purpose | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 7 |
| 8. Interior - Toilet & Locker Rooms | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 9. Interior - Lobby & Reception | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 10. Interior - Administration, Office | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14 |
| 11. Interior - Investigation | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14 |
| 12. Interior - Booking | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14 |
| 13. Interior - Holding | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20 |
| 14. Interior - Evidence | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 15. Interior - Shooting Range | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 9 |
| 16. Interior - Sergeant, Roll Call | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 7 |
| 17. Interior - Records, Counseling, Inteview, Shift Commander | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14 |
| 18. Interior - Fitness Room | 5 | 0 | -1 | -2 | -3 | -4 | 4 |
| 19. Interior - Garage, Mech., Elec, & Storage | 5 | 0 | -1 | -2 | -3 | -4 | 5 |
| Mechanical (M) | | | | | | | |
| 1. Temperature Control System | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20 |
| 2. Heating Equipment/System | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 3. Air Conditioning Equipment/System | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 40 |
| 4. Ventilation Equipment/System | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20 |
| 5. Exhaust Systems | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 9 |
| 6. Miscellaneous Systems | 5 | 0 | -1 | -2 | -3 | -4 | 4 |
| Plumbing (P) | | | | | | | |
| 1. Domestic Water Piping | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 28 |
| 2. Sanitary Waste and Vent Piping | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 3. Storm Water Piping | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 4. Plumbing Piping Insulation | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 9 |
| 5. Domestic Water Heaters | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 9 |
| 6. Sanitary Ejector Pump System | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 7. Storm/Drain Tile Ejector Pump System | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 8. Plumbing Fixtures | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 7 |
| 9. Wall Hydrants and Hose Bibbs | 5 | 0 | -1 | -2 | -3 | -4 | 4 |
| 10. Vehicle Bay Trench Drains | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 11 |
| Fire Protection (FP) | | | | | | | |
| 1. Fire Protection Incoming Service | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 2. Fire Pump System | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 3. Fire Protection Sprinkler Piping | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 4. Fire Protection Sprinkler Heads | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| Electrical (E) | | | | | | | |
| 1. Electrical Service | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 2. Electrical Distribution System | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 28 |
| 3. Emergency Power System | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 4. Emergency / Exit Lighting | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 5. Interior Lighting | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14 |
| 6. Exterior Lighting | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 7 |
| 7. Outlet Condition & Adequancy | 5 | 0 | -1 | -2 | -3 | -4 | 4 |
| 8. Fire Alarm System | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 28 |
| 9. Telecommunication System | 5 | 0 | -1 | -2 | -3 | -4 | 4 |
| 10. PA System | 5 | 0 | -1 | -2 | -3 | -4 | 4 |
| **Point Total:** | **1,455** | | | | | | **1,211** |
| **Interpolation to 1,000 point scale** | **1,000** | | | | | | **832** |
| **Building Grade:** | | | | | | | **B** |

**Facility Condition Assessments**
**Village of Northbrook**

**Northbrook Police Department**

| Ref # | Deficiency Description | Estimated Repair Cost (Current Dollars) | Capital Needs | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
| S-1 | Regrade and landscape in ponding water locations | $11,000 | | | | | | | | | $13,900 | |
| S-4 | Parking Lot Replacement | $370,000 | | | | | | | | | $468,700 | |
| BE-5 | Replace Guard Rails | $10,000 | | $10,300 | | | | | | | | |
| A-1 | Window Replacement | $140,000 | | | | | | | | $172,200 | | |
| A-2 | Door Hardware and access control replacement | $300,000 | | $309,000 | | | | | | | | |
| A-6 | Secured Corridor: New flooring, Ceiling, & Wall covering | $107,000 | | | | | | | $127,800 | | | |
| A-7 | Staff Lounge, Lunchroom, & Multi-purpose: New flooring and ceiling | $67,000 | | | | | | | $80,000 | | | |
| A-10 | Administration, Offices: New flooring, ceiling, & wall covering | $90,000 | | | | | | | $107,500 | | | |
| A-11 | Investigation: New flooring, Ceiling & wall covering | $90,000 | | | | | | | $107,500 | | | |
| A-12 | Booking: New flooring, & ceiling | $9,000 | | | | | | | $10,700 | | | |
| A-14 | Evidence: New flooring, & ceiling | $18,000 | | | | | | | $21,500 | | | |
| A-16 | Sergeant, Roll Call: New flooring, & ceiling | $23,000 | | | | | | | $27,500 | | | |
| A-17 | Records, Counseling, Interview, Shift Commander: New flooring, & ceiling | $46,000 | | | | | | | $54,900 | | | |
| P-1 | Replace all remaining galvanized piping throughout the building with copper. | $100,000 | | | | | $112,600 | | | | | |

**Facility Condition Assessments**
**Village of Northbrook**

**Northbrook Police Department**

| Ref # | Deficiency Description | Estimated Repair Cost (Current Dollars) | Capital Needs 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P-8 | Replace antiquated plumbing fixtures. | $120,000 | | | | | | | $143,300 | | | |
| P-10 | Replace trench drains. | $45,000 | | | | | $50,600 | | | | | |
| E-2 | Upgrade electrical system by replacing old panels in poor condition and adding panels to provide additional circuits. | $40,000 | | | $42,400 | | | | | | | |
| E-5 | Replace incandescent lighting in cell holding area and inadequate lighting in lower level garage. | $20,000 | | | | | | | $23,900 | | | |
| E-6 | Replace exterior wall pack light fixtures and HID pole mounted fixtures with LED. | $50,000 | | | | | | | | | $63,300 | |
| E-8 | Replace 120V zoned fire alarm system with addressable fire alarm system. | $130,000 | $130,000 | | | | | | | | | |
| | **Total Capital Costs:** | **$1,786,000** | **$130,000** | **$319,300** | **$42,400** | **$0** | **$163,200** | **$0** | **$704,600** | **$172,200** | **$545,900** | **$0** |

Building/Addition Name: Northbrook Police Department Year Built**: 1973/1996** Actual Age: **44/21** Evaluator Name: **Scott Rihel, AIA, LEED AP** BD+C

**DEFICIENCY NOTATION FORM**

Instructions: Provide notes below to justify the reason for point deductions on Building Condition Evaluation Form.

| SITE EVALUATION (S) | (40) | NOTES REGARDING SITE CONDITIONS |
|---|---|---|
| 1. Site Features | (10) | **Poor –** The grading around the North side of the building is saturated and drains poorly. The sidewalk on the North side of the site has ponding water. The grading on the Southeast side of the building has standing water and drains poorly. Maintenance reports indicate that the trench drain on the east side of the building at the bottom of the ramp to the underground garage repeatedly clogs. Therefore, rated Poor. |
| 2. Utilities | (10) | **Good Dated –** The sanitary sewer is adequate for the building use. The storm water drainage is poor. The site lighting coverage is poor providing inconsistent illumination and the light poles have rusted and are ending their useful life. The signage is working but is showing signs of wear. Site security is adequate but has little expandability and does not offer current day technology. |
| 3. Site Access | (10) | **Good Current** – There is plenty of vehicular parking and accessible (ADA compliant) spaces. The egress points lead to a public way. The parking lots exit out onto Walters Avenue which is a secondary arterial street. Traffic controls at Landwehr and Walters are functional. |
| 4. Parking Lots, Site Maintainability | (10) | **Poor** – Asphalt parking lot is older and has some significant deterioration. The exterior light poles are deteriorated. Some of the sidewalks have heaved and there are tripping hazards. The site is clear of debris and landscaping is maintained. |

| STRUCTURAL EVALUATION (ST) | (200) | NOTES REGARDING STRUCTURAL AND ARCHITECTURAL CONDITIONS |
|---|---|---|
| 1. Foundation and Slab on Grade | (20) | **Good Dated–** Most of the foundations walls were covered by a wall covering, but the visible concrete foundations are in good condition. There were no signs of visible seepage. The exposed concrete slab in the garage is pitted and cracking. |
| 2. Floor Structural Systems | (20) | **Good Current** – The floor slabs are in good condition and there are no signs of differential settlement. There were no signs of deflections or bearing failure. There are no visible signs of overloading. |
| 3. Stairs, Ramps and Balconies | (20) | **Good Dated -** The condition of the materials used for the interior stairs are in good condition. The treads and risers and railings need minor maintenance. There are no signs of deflections, torqueing, or major deterioration. |
| 4. Interior Bearing Walls | (20) | **Good Current** - There were a few visible cracks in the walls which suggest very little deflection. There are no racked door frames or other indications which would suggest settlement or torqueing issues associated with overloading. Reinforced concrete walls are in good condition. |
| 5. Exterior Bearing Wall | (40) | **Good Current -** The building doesn't utilize load bearing exterior walls but rather a steel frame, steel joists, steel beam, & concrete joists with an infill exterior skin. |
| 6. Visible Steel Members | (40) | **Good Dated** – There are few visible steel members. Again, there were no signs of cracking or racking that may indicate structural issues. Work order records do not indicate any immediate evidence of structural concerns. |
| 7. Roof Structural Systems | (40) | **Good Current** – The roofing at this building was replaced in the calendar year 2016. The roofing for this building is comprised of bar joists. There are no signs of structural overloading or deflection. There are no signs of rusted or deteriorated roof framing members. There are no apparent signs of water damage and/or structural member deterioration. |

| Building Egress / Accessibility (BE) | (200) | NOTES REGARDING BUILDING EGRESS/ACCESSIBILITY CONDITIONS |
|---|---|---|
| 1. Egress - Corridors | (40) | **Good Current** – Egress is looped with no dead-end corridors. |
| 2. Egress - Interior Doors | (40) | **Good Dated** – The doors are in working condition with no signs of racking. Although doors are older they still function for egress purposes. |
| 3. Egress - Exterior Doors | (40) | **Good Dated** – The doors are in working condition with no signs of racking. The exterior door out of the garage on the northeast side of the building swings onto the landing of the stairs. The egress door out of the garage to an exterior stair has panic hardware but is difficult to use. |
| 4. Door Hardware | (20) | **Good Dated** – The door hardware still functions but is approaching the end to its useful life. |
| 5. Stairs, Landings, Handrails | (40) | **Poor** – The stairs to the lower level have hand rails but do not have guard rails. The railings should be retrofitted with guard rails. The egress door from the garage to the exterior stair swings into the landing of the stair. The Handrails of that stair don't have railing extensions. Therefore, rated poor |
| 6. Accessible Toilet Facilities / Lockers | (20) | **Good Dated** – Locker rooms are accessible and are in good condition. The toilet facilities are in good working order. The toilet room in the booking area is not accessible. |

| Architectural (A) | (340) | NOTES REGARDING MECHANICAL CONDITIONS |
|---|---|---|
| 1. Exterior windows, store front, curtain wall | (20) | **Fair** – The windows are dual pane units with operable hoppers. However, staff feedback indicates that the units leak air. Therefore, rated fair. |
| 2. Exterior Doors | (20) | **Fair** – The door hardware on interior and exterior doors is old and in need of replacement. Interior doors are old but are functional and should last for many years to come. The interior access control security system to the building needs a new head-end and should be replaced. |
| 3. Exterior – Envelope and Miscellaneous items. | (20) | **Good Dated –** The brick and mortar on the outside of the building are in good condition. There are isolated areas that will need tuckpointing but can be handled with routine maintenance. The exterior stairs on the north west side of the building needs maintenance. |
| 4. Roofing | (40) | **Good Current** – The roofing was replaced in 2016 and has a 30-year warranty. |
| 5. Interior – Stairs & Ramps | (20) | **Good Dated** – The condition of the stairs is good. |
| 6. Interior – Secured Corridors | (20) | **Fair** – Some finishes need replacement. Ceiling tiles are stained, discolored and chipped and need to be replaced. Wall paper is deteriorating and needs to be replaced. Ceramic flooring is in good condition. |
| 7. Interior – Staff Lounge, Lunchroom, Multipurpose | (10) | **Fair** – The countertops and cabinets are old and delaminating. The flooring is deteriorated vinyl composition tile (VCT). Ceiling tiles are stained, discolored and chipped and need to be replaced. Therefore, rated fair. |
| 8. Interior – Toilet rooms & Locker rooms | (20) | **Good Dated** – The locker room finishes are older, and the space is undersized. Lockers are functioning and show little signs of deterioration. The toilet rooms have ceramic tile and are in good condition. Ceiling tiles are stained, discolored and chipped and need to be replaced. |
| 9. Interior – Lobby, Reception | (20) | **Good Dated** – Some finishes need replacement. Ceiling tiles are stained, discolored and chipped and need to be replaced. Wall paper is deteriorating and needs to be replaced. Ceramic flooring in in food condition. |
| 10. Interior – Administration, Office | (20) | **Fair** – Finishes need replacement. The carpeting floor finish is deteriorating, ceiling tiles are stained, discolored and chipping and need to be replaced. Wall paper is deteriorating and needs to be replaced |
| 11. Interior – Investigation | (20) | **Fair** – Finishes need replacement. The carpeting and vinyl composition tile (VCT) flooring is deteriorating, ceiling tiles are stained, discolored and chipping and need to be replaced. Wall Paper is deteriorating and needs to be replaced. |
| 12. Interior – Booking | (20) | **Fair -** Finishes need replacement. The vinyl composition tile (VCT) flooring is deteriorating, ceiling tiles are stained, discolored and chipping and need to be replaced. |
| 13. Interior – Holding | (20) | **Good Current** – The finishes are appropriate for the room. The space is small but in good condition for a cell. Equipment has some attributes that allows one the opportunity to attempt suicide via hanging from the equipment. These points will be further addressed in the needs assessments. |
| 14. Interior – Evidence | (20) | **Fair -** Finishes need replacement. The vinyl composition tile (VCT) flooring is deteriorating, ceiling tiles are stained, discolored and chipping and need to be replaced. Wall Paper is deteriorating and needs to be replaced. Demountable partitions are in good condition. |
| 15. Interior – Range | (10) | **Good Dated** – The finishes are appropriate for the room and use. The epoxy flooring is in good condition |
| 16. Interior – Sergeant, Roll Call | (10) | **Fair** – The vinyl composition tile (VCT) flooring is deteriorating, ceiling tiles are stained, discolored and chipping and need to be replaced. |
| 17. Interior – Records, Counseling, Interview, Shift Com | (20) | **Fair** – The carpeting is deteriorating, ceiling tiles are stained, discolored and chipping and need to be replaced. |
| 18. Interior – Fitness | (5) | **Good Dated** – The finishes are appropriate for the room and use. The rubber flooring is in fair condition for a work-out facility. The space has an excessive amount of debris. |
| 19. Interior – Garage, Mech, Elec, & Storage | (5) | **Good Current** – The finishes are appropriate for the room and uses. |

Building/Addition Name: **Northbrook Police Department** Year Built**:1973/1996** Actual Age: **45/21** Evaluator Name: **Jeff Chamberlin, 20|10 Engineering**

**DEFICIENCY NOTATION FORM**

Instructions: Provide notes below to justify the reason for point deductions on Building Condition Evaluation Form.

| MECHANICAL HVAC EVALUATION | (135) | NOTES REGARDING MECHANICAL HVAC CONDITIONS |
|---|---|---|
| 1. Temperature Control System | (20) | **Good Current** – Temperature control system is Trane Tracer recently upgraded with web access. Temperature control issues are present in the 911 center and the open office area. Other areas have temperature control issues unrelated to the control system itself, instead they are a result of adding walls and not adjusting the HVAC system to suit. |
| 2. Heating Equipment/System | (40) | **Good Dated** – Heating is expensive since it is almost all electric resistance via Trane VAV boxes with electric resistance coils. Rooftop units are Trane and have been recently replaced. They include gas heat, which operates rarely since VAV system requires 55 degrees F, discharge air temperature which is met by outside air. Since building is operated 24/7, there is no call for gas usage on morning warm-up. |
| 3. Air Conditioning Equipment/System | (40) | **Good Current** – Cooling for the occupied areas is provided by packaged rooftop units which have recently been replaced. A duct serving the Booking Room near the Sally Port has evidence of condensation and dripping on ceiling tiles. The rooftop unit serving this area was recently replaced. It is assumed that the discharge air temperature is too low, or the duct liner is insufficient insulation. |
| 4. Ventilation Equipment/System | (20) | **Good Current** – All occupied areas have proper ventilation provided by new equipment. |
| 5. Exhaust Systems | (10) | **Good Dated** – Most exhaust fans have been recently replaced. The exhaust fan serving the fitness room is original and needs maintenance. |
| 6. Miscellaneous Systems | (5) | **Good Dated** – The Firing Range has ventilation issues that were being addressed at the time of the survey. The Firing Range Exhaust fan is original to the building and in poor condition. The hot water boiler and in floor heating system for the lower level ramp is new and in very good condition. |

| PLUMBING EVALUATION (P) | (215) | NOTES REGARDING PLUMBING CONDITIONS |
|---|---|---|
| 1. Domestic Water Piping | (40) | **Fair –** The domestic water supply piping is a mix of galvanized steel and copper piping. The copper piping was used to make repairs when original galvanized piping failed. The galvanized piping does have leaks occurring and staff is repairing leaks as they present themselves. |
| 2. Sanitary Waste Piping | (40) | **Good Dated** – The sanitary piping that is visible before it terminates to underground appears to be primarily PVC. Underground piping material is unknown. Sanitary piping is original to building. Sanitary discharge is flowing, and no history of clogs or backups were noted. |
| 3. Storm Water Piping | (40) | **Good Dated** – The storm piping that is visible before it terminates to underground appears to be primarily PVC. Storm piping is original to building. Storm discharge is flowing, and no history of clogs or backups were noted. |
| 4. Plumbing Piping Insulation | (10) | **Good Dated** – Insulation appears original to building with repairs of more modern material where piping has been repaired. Elbows and fittings on insulated piping appear wrapped and should be investigated for type of material at joints. |
| 5. Domestic Water Heater | (10) | **Good Dated** – The domestic water heater appears in good condition. From the A.O. Smith serial number on the water heater (MH01-1132951-100) it appears the water heater is from 2011 (6 years old). Water heater size appears sufficient for load on domestic hot water system. |
| 6. Sanitary Ejector Pump System | (20) | **Good Dated** – The sanitary ejector system for the garage consists of two vertical shaft pumps. The ejector pump basin, covers, controls and discharge piping appear original to the building. The pump motors appear newer and have been replaced at some point. The sanitary ejector pump system for the toilet facilities consists of a set of duplex ejector pumps with new control panel, valves and float switches. These sanitary ejector pumps were installed in January 2016 and are in like new condition. |
| 7. Storm/Drain Tile Ejector Pump System | (20) | **Good Dated** – The drain tile and ramp trench drain run through a settling basin and into a storm water submersible pump system. One pump on the storm pump system was replaced in September 2017. The other pump's age is unknown. Pumps and basin are functional. |
| 8. Plumbing Fixtures | (10) | **Fair** –<br>Toilet Rooms: Plumbing fixtures are in good condition in the various toilet rooms. Water closets are primarily wall hung with either manual or sensor flush valves. Lavatories are wall hung with either self-closing faucets or manual faucets. Lavatories do not have thermostatic mixing valves for temperature control.<br><br>Locker Rooms: Plumbing fixtures are in good condition in the various toilet rooms. Water closets are primarily wall hung with manual flush valves. Urinals are wall hung with sensor flush valves. Lavatories are lay in counter type with manual faucets. Lavatories do not have thermostatic mixing valves for temperature control. One lavatory has an emergency eyewash that does not have a thermostatic mixing valve.<br><br>Holding Cells: Cell fixtures are combination toilet/sink units made of stainless steel. Fixtures are in poor condition and appear to be original to the building. Toilet bowls are |

| | | |
|---|---|---|
| | | rusting/corroded. Supply piping for the cell fixtures is original galvanized and is original to the building. Cell area showers are basic with only shower head accessible. Unit is turned on and left running for use. Basin for shower is not ADA compliant.<br><br>Sally Port: Emergency eyewash and shower are provided with water through a thermostatic mixing valve. Eyewash is functional but not ADA compliant. Emergency shower is not functional at time of building survey. Emergency shower appears to be original to building and in need of replacement with a ANSI compliant unit. |
| 9. Wall Hydrants and Hose Bibbs | (5) | **Good Dated** – Exterior wall hydrants appear to have been modernized and replaced recently. Interior water stations in garage are service sink faucets with raised vacuum breakers. Hose bib station without vacuum breakers are also present in the building. |
| 10. Vehicle Garage Trench Drains | (20) | **Poor** – Trench drains still function for flow of water. Frames of trench drains are failing, and trench drain grates no longer fit flush and solid into trench drain frames. Frames are expanding or shifting, and concrete is cracking around grate frames. Grease interceptor triple basin is cast iron and is original to the building. |

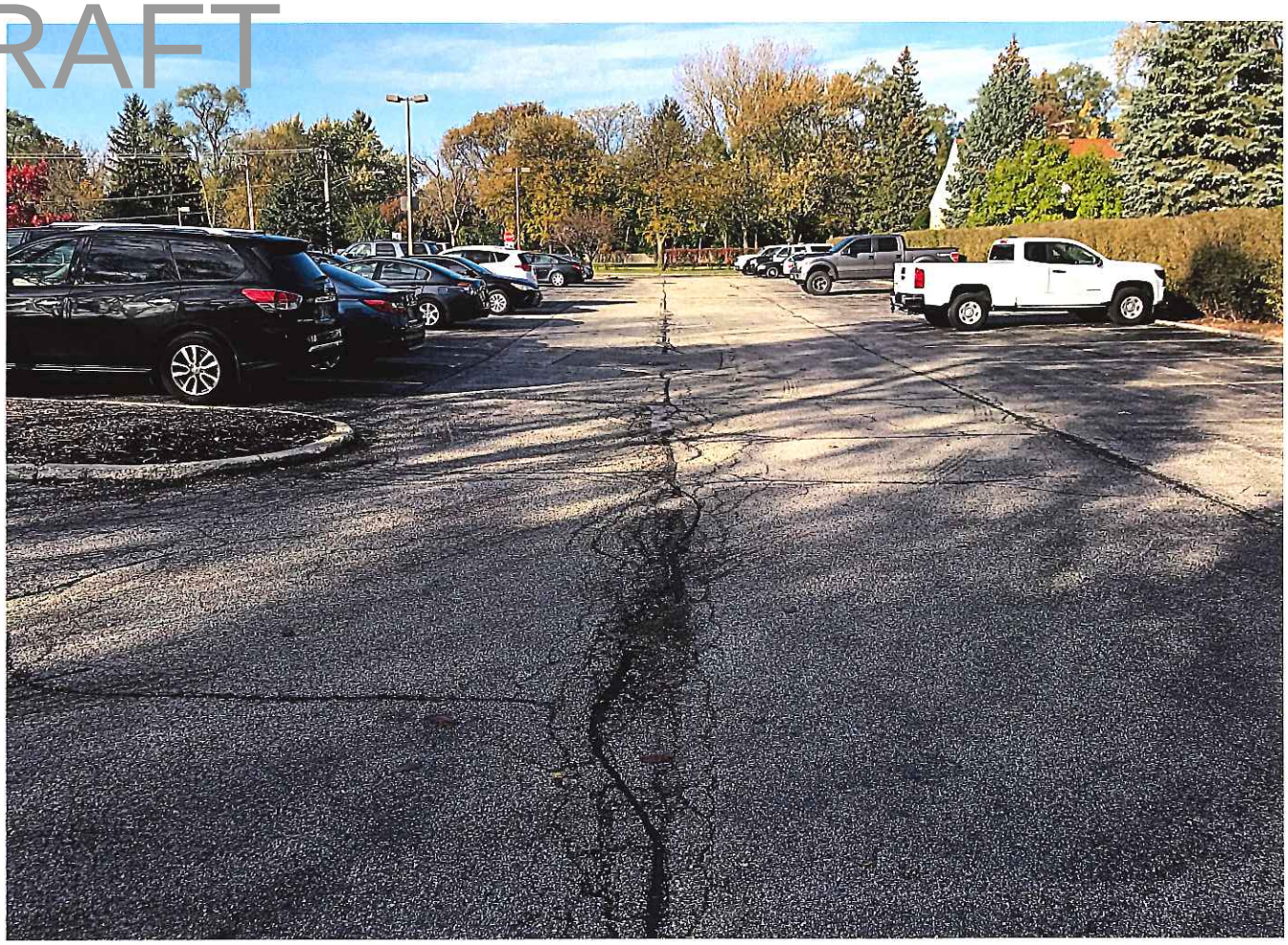
| FIRE PROTECTION EVALUATION (FP) | (120) | NOTES REGARDING FIRE PROTECTION CONDITIONS |
|---|---|---|
| 1. Fire Protection Incoming Service | (20) | **Good Dated** – Fire protection water supply backflow preventer is a Febco double detector check backflow preventer. Current Illinois standards are for the fire water supply to have an increased protection level with a reduced pressure zone detector assembly. A new Storz type fire department connection was installed recently near the main entrance of the building. |
| 2. Fire Pump System | (40) | **Good Dated** – Fire pump system and controls appear in good condition. Fire pump does show signs of packing leakage and corrosion but is still functional. Jockey pump and control appear to be in good condition. |
| 3. Fire Protection Sprinkler Piping | (40) | **Good Dated** – Sprinkler piping appears original throughout the building. Piping exposed in the garage area shows surface rust and corrosion, but system appears intact with no visible leaks. |
| 4. Fire Protection Sprinkler Heads | (20) | **Good Dated** – Sprinkler heads are original to the building. Sprinkler heads are covered in dust in most areas but appear functional. |

| ELECTRICAL EVALUATION (E) | (205) | NOTES REGARDING ELECTRICAL CONDITIONS |
|---|---|---|
| 1. Electrical Service | (40) | **Good Dated** – The electrical service is rated 1600 amperes at 208/120V-3Ph. The main service disconnect switch is located in a 4-section ITE switchboard that is manufactured in 1974. The switchboard appears in good condition with spaces available for expansion. The service size appears to be adequate for the building size, however, the utility demand load and load calculation will need to be looked at prior to any extensive renovation or addition. |
| 2. Electrical Distribution System | (40) | **Fair** – Power is distributed from the main switchboard to branch circuit panels throughout the building. All panels contain circuit breakers and are in good to fair condition. The panels contain limited quantity of spaces for additional loads. New panels will be required to support any extensive renovation or addition. |
| 3. Emergency Power System | (20) | **Good Dated** – The existing 175kVA natural gas generator is manufactured by Onan. It provides backup power to select loads such as emergency lighting, pumps and mechanical equipment critical for building operation. There is also a UPS system manufactured by MGE for redundancy to back up the radio system and 911 call center. Both the generator and UPS appear to be periodically maintained and in good condition. |
| 4. Emergency / Exit Lighting | (20) | **Good Dated** – Emergency lighting is connected to the emergency power system. Exit signs are provided with self-contained batteries. They appear to be functional and in good condition. |
| 5. Interior Lighting | (20) | **Fair** – The majority of the interior lights have been replaced as part of renovation work and contain T8 fluorescent lamps. The holding cell area appear to be original to the building and contain medium base screw in bulbs. The light levels are adequate at all areas except for the lower level vehicle garage and holding cell area where lighting can be improved to provide higher light levels and better uniformity. |
| 6. Exterior Lighting | (10) | **Fair** – Exterior lighting is comprised of wall packs and parking lot poles. They contain HID lamps and appear to be in fair condition. Underground wiring issues at the front of the building could be the result of damaged wire insulation or improper terminations and should be investigated further by an electrician. |
| 7. Outlet Condition & Adequacy | (5) | **Good Dated** – Outlets are located throughout the space and appear to be adequate for the most part. There are locations such as the investigation office and booking room where extension cords are used to plug in personal space heaters or equipment. Additional receptacles shall be installed in place of extension cords in those areas. |
| 8. Fire Alarm System | (40) | **Fair** – The fire alarm is a conventional system from Simplex #4005. It appears to be in fair condition and provides proper detection coverage. Notification coverage appear adequate. The system uses radio transmitters to the monitoring station. |

| | | |
|---|---|---|
| 9. Telecommunication System | (5) | **Good Dated** – Telecommunication system is located on the main and lower level communication room. The rooms contain telephone and data equipment. The equipment appears in working condition and adequate for its purpose. However, majority of the cable lack organization, labels and identification. Consideration should be made to organize and label the cable for ease of maintenance and troubleshooting. |
| 10. PA System | (5) | **Good Dated** – The head-end equipment is located on the lower level communication room. Ceiling speakers are located throughout the building and the system appears to be in good condition. |

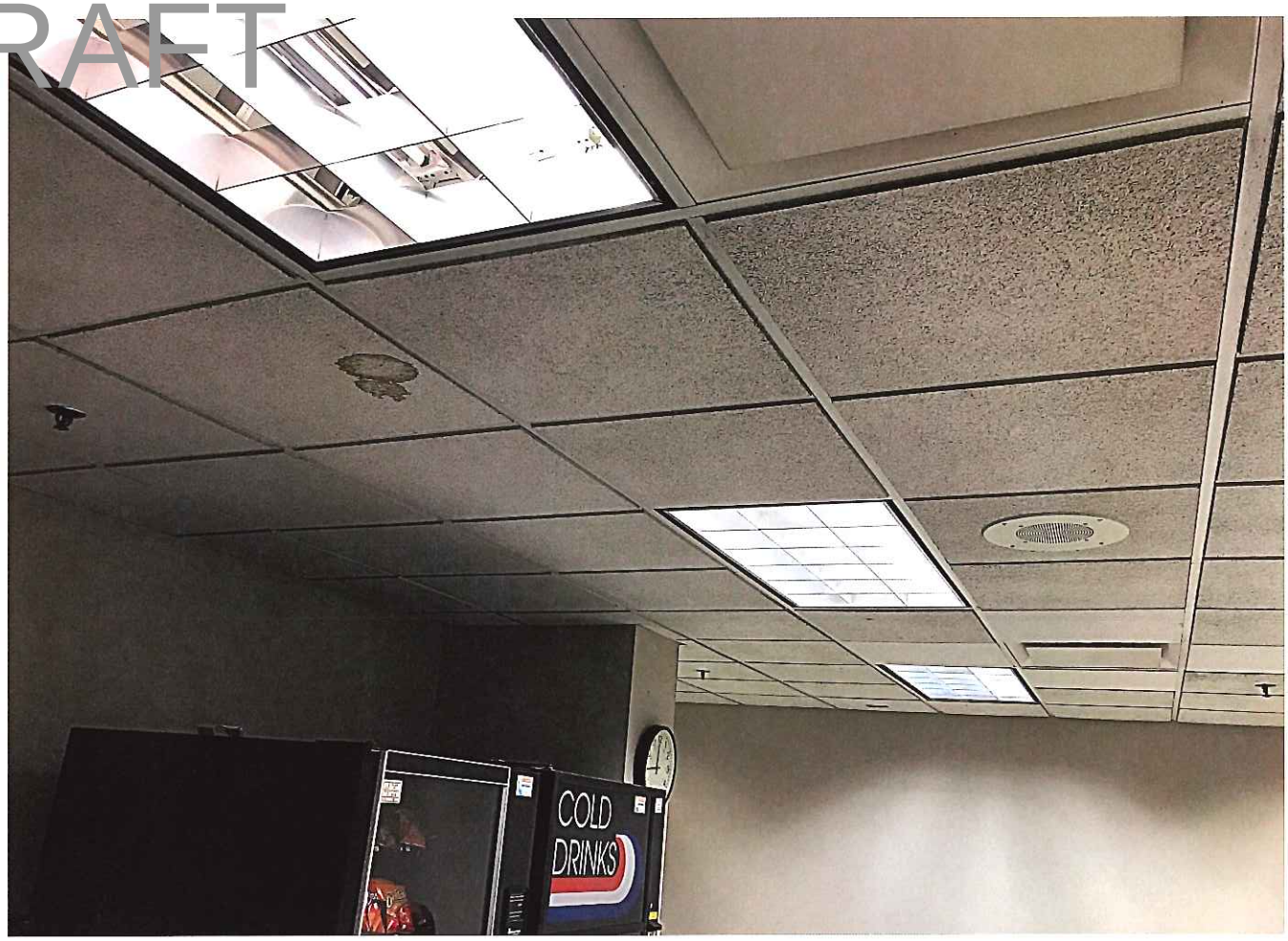
(S-1) Ponding water

(S-4) Deteriorated parking lot paving

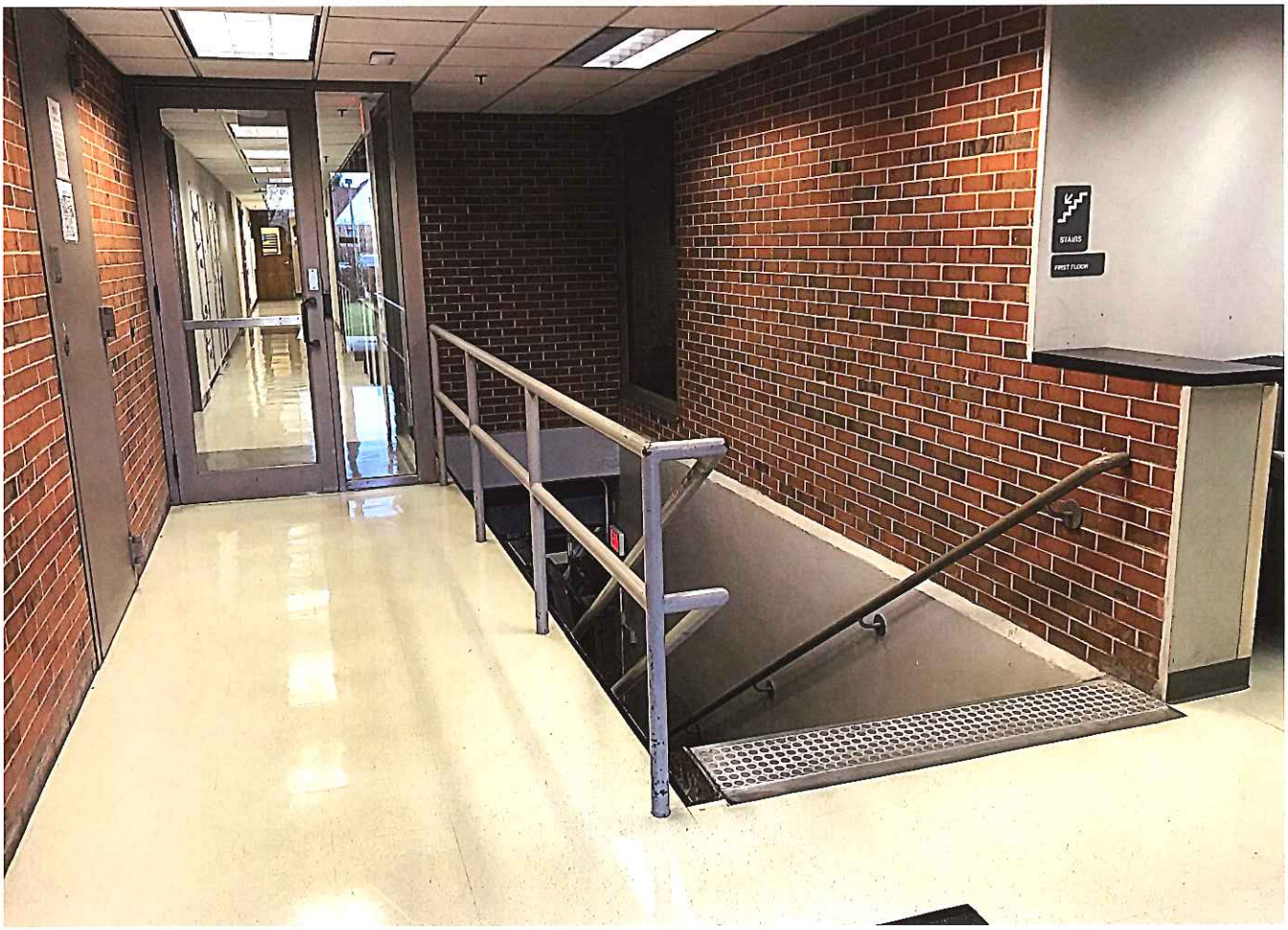


(S-4) Deteriorated parking lot paving

(S-4) Deteriorated site lighting poles




(A-7) Deteriorated interior finishes - ceiling, flooring, and casework




(BE-5) Missing guard rail

DRAFT

# 4.

## Fire Station #11

740 Dundee Road, Northbrook

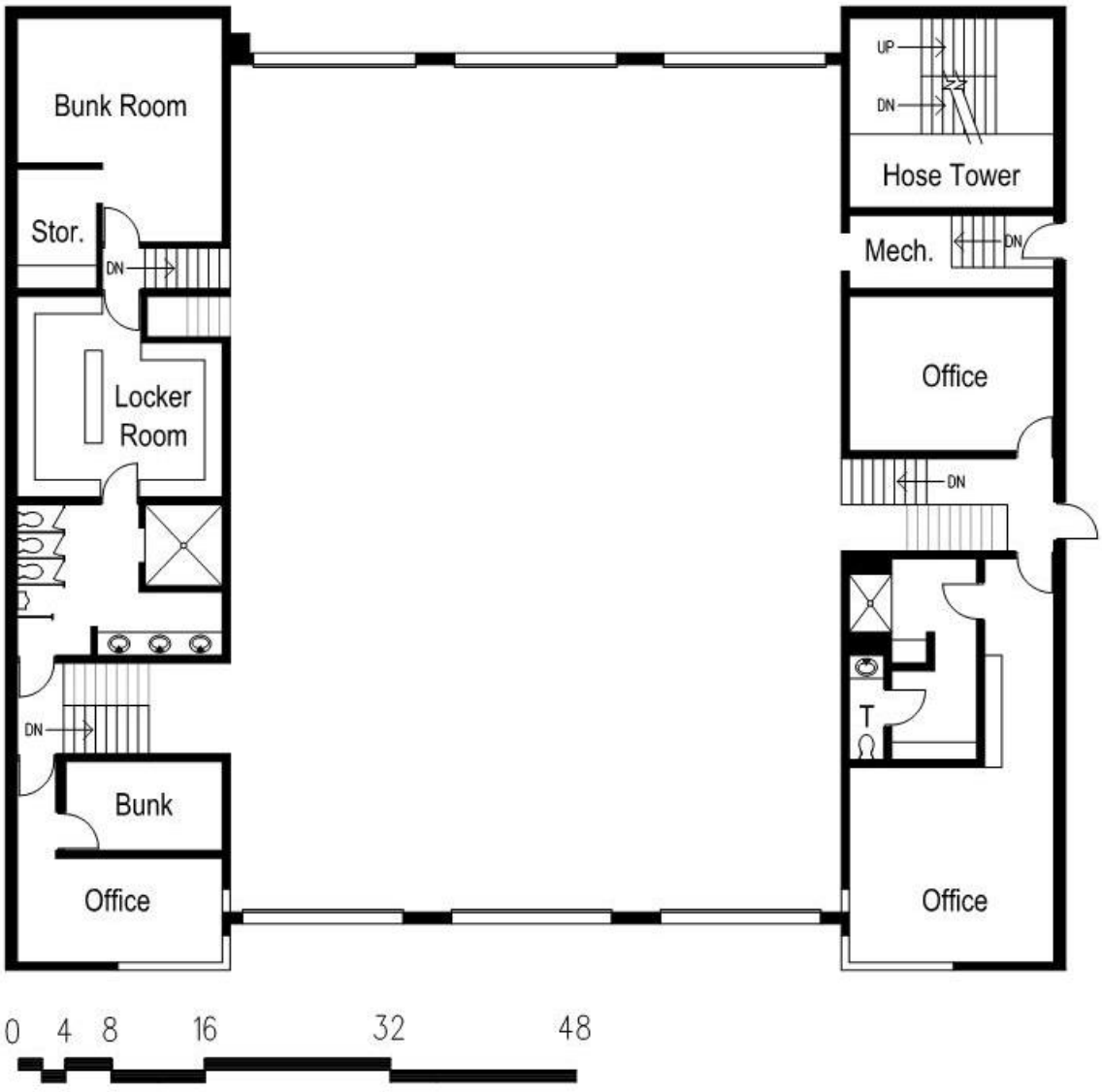
HEALY BENDER

Architects + Planners

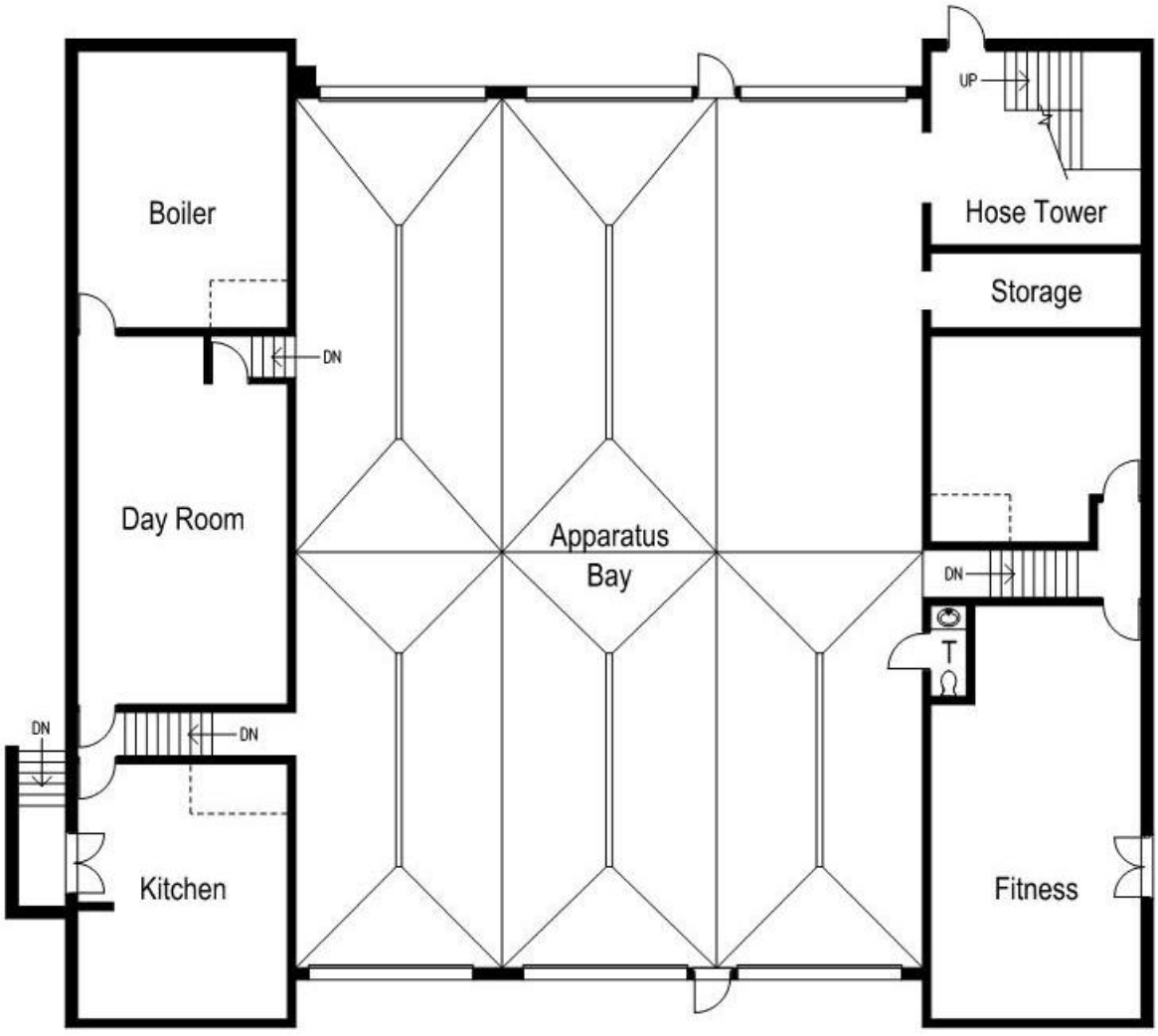
www.healybender.com

Moyer Associates, Inc.

www.moyerassociates.com




**UPPER LEVEL**




**GROUND LEVEL**

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# Fire Station No. 11

740 Dundee Road, Northbrook IL

Report Card Method:
Building Evaluation begins with maximum Starting Value and Deductions are applied based on deficiencies observed in the field.
Highlighted areas (grey or yellow) are deductions based on field observations - see Appendix C & D for further clarification.
Report Card Methodology is based on ASTM 2018-15 established system

## Facility Report Card

| Areas of Evaluation | Starting Value: Possible Points | Deductions: Good Current | Good Dated | Fair | Poor | Very Poor | Final Value: Grade Points |
|---|---|---|---|---|---|---|---|
| Site Evaluation (S) | | | | | | | |
| 1. Site Features | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 10 |
| 2. Utilities | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 10 |
| 3. Site Access | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 10 |
| 4. Parking Lots, Site Maintainability | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 9 |
| Structural Evaluation (ST) | | | | | | | |
| 1. Foundation and Slab on Grade | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14 |
| 2. Floor Structural Systems | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20 |
| 3. Stairs, Ramps & Balconies | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20 |
| 4. Interior Bearing Walls | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20 |
| 5. Exterior Bearing Walls | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 28 |
| 6. Steel Members | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 22 |
| 7. Roof Structural Systems | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 40 |
| Building Egress / Accessibility (BE) | | | | | | | |
| 1. Egress - Corridors | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 22 |
| 2. Egress - Interior Doors | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 16 |
| 3. Egress - Exterior Doors | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 28 |
| 4. Door Hardware | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 11 |
| 5. Stairs, Landings, Handrails/Guardrails | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 16 |
| 6. Accessible Toilet Facility / Lockers | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 8 |
| Architectural (A) | | | | | | | |
| 1. Exterior Windows, Store Front, Curtain Wall | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20 |
| 2. Exterior Doors | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 3. Exterior Envelope & Miscellaneous Items | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 4. Roofing | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 22 |
| 5. Interior - Stairs & Ramps | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20 |
| 6. Interior - Toilet Rooms | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 11 |
| 7. Interior - Locker Room's | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 11 |
| 8. Interior - Corridors, Lobby, & Offices | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 7 |
| 9. Interior - Apparatus Bays | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20 |
| 10. Interior - Day Room | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20 |
| 11. Interior - Kitchen | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 12. Interior - Bunk Room | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 13. Interior - Work Shop | 5 | 0 | -1 | -2 | -3 | -4 | 5 |
| Mechanical (M) | | | | | | | |
| 1. Temperature Control System | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 11 |
| 2. Heating Equipment/System | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 22 |
| 3. Air Conditioning Equipment/System | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 22 |
| 4. Ventilation Equipment/System | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14 |
| 5. Exhaust Systems | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 7 |
| 6. Miscellaneous Systems | 5 | 0 | -1 | -2 | -3 | -4 | 3 |
| Plumbing (P) | | | | | | | |
| 1. Domestic Water Piping | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 28 |
| 2. Sanitary Waste and Vent Piping | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 3. Storm Water Piping | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 4. Plumbing Piping Insulation | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 9 |
| 5. Domestic Water Heaters | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 9 |
| 6. Sanitary Ejector Pump System | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20 |
| 7. Storm/Drain Tile Ejector Pump System | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20 |
| 8. Plumbing Fixtures | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 7 |
| 9. Wall Hydrants and Hose Bibbs | 5 | 0 | -1 | -2 | -3 | -4 | 3 |
| 10. Vehicle Bay Trench Drains | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 11 |
| Fire Protection (FP) | | | | | | | |
| 1. Fire Protection Incoming Service | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 2. Fire Protection Sprinkler Service | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| Electrical (E) | | | | | | | |
| 1. Electrical Service | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 2. Electrical Distribution System | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 28 |
| 3. Emergency Power System | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14 |
| 4. Emergency / Exit Lighting | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14 |
| 5. Interior Lighting | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 6. Exterior Lighting | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 9 |
| 7. Outlet Condition & Adequancy | 5 | 0 | -1 | -2 | -3 | -4 | 3 |
| 8. Fire Alarm System | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 40 |
| 9. Telecommunication System | 5 | 0 | -1 | -2 | -3 | -4 | 3 |
| 10. PA System | 5 | 0 | -1 | -2 | -3 | -4 | 4 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| **Point Total:** | **1,310** | | | | | | **977** |
| **Interpolation to 1,000 point scale** | **1,000** | | | | | | **746** |
| **Building Grade:** | | | | | | | **C** |

**Facility Condition Assessments**
**Village of Northbrook**

**Fire Station No. 11**

| Ref # | Deficiency Description | Estimated Repair Cost (Current Dollars) | Capital Needs | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
| ST-1 | Locate and seal seepage in foundation wall in the boiler room | $1,000 | | | | | $1,100 | | | | | |
| ST-5 | Masonry parapet wall and stone cap on the existing hose tower has deteriorated. Replace brick & mortar properly flash and weep wall and provide metal cap over stone. | $11,000 | | | | | | $12,800 | | | | |
| ST-6 | Replace (2) Deteriorated Steel Columns at the Apparatus Bay | $43,000 | $43,000 | | | | | | | | | |
| BE-1 | Demolish existing railings, extend out flooring to provide proper door clearances replace guardrails. Work to be completed in conjunction with a new stair BE-5. | $8,000 | | $8,200 | | | | | | | | |
| BE-2 | Interior egress door at upper level east side that accesses the stair tower impedes egress. Move access door and reconfigure landing. | $12,000 | | $12,400 | | | | | | | | |
| BE-3 | Relocate equipment located in the egress door clear space. | $0 | | | | | | | | | | |
| BE-4 | Replace existing deteriorated door hardware | $36,000 | | $37,100 | | | | | | | | |
| BE-5 | Demolish existing stairs and ramp and provide new stair system and accessible lift with proper guard rails, handrails and accessible clearances. | $32,000 | | $33,000 | | | | | | | | |
| BE-6 | Renovate toilet room and locker area to provide (3) single user toilet rooms for both men's and women's use. New lockers along the perimeter. New paint, ceiling, & flooring. | $64,000 | | | | | | $74,200 | | | | |
| A-4 | Replace existing deteriorated roofing system | $223,000 | | | | $243,700 | | | | | | |
| A-7 | Provide new lockers in renovated men's and women's locker room (Note: in conjunction w/ BE-6) | $19,000 | | | | | | $22,000 | | | | |
| A-8 | Provide new floor finishes, ceiling tile & paint in offices | $14,000 | | | | | | $16,200 | | | | |
| M-1 | Replace temperature control system with web-based Direct Digital Controls. | $25,000 | | | $26,500 | | | | | | | |
| M-2 | Replace HVAC system in its entirety. | $200,000 | | | $212,200 | | | | | | | |
| M-3 | Included in M-2 | | | | | | | | | | | |

**Facility Condition Assessments**
**Village of Northbrook**

**Fire Station No. 11**

| Ref # | Deficiency Description | Estimated Repair Cost (Current Dollars) | Capital Needs 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M-4 | Included in M-2 | | | | | | | | | | | |
| M-5 | Replace exhaust fans. | $20,000 | | | $21,200 | | | | | | | |
| M-6 | Provide CO/NO2 sensing system in Apparatus Bay with exhaust and make-up air system. | $75,000 | | | $79,600 | | | | | | | |
| P-1 | Replace galvanized domestic water piping with copper. | $25,000 | | | | | $28,100 | | | | | |
| P-8 | Replace antiquated Plumbing fixtures. | $45,000 | | | | | | $52,200 | | | | |
| P-9 | Replace old interior and exterior sillcocks and hose bibs with wall hydrants with vacuum breakers. | $2,500 | | | | | $2,800 | | | | | |
| P-10 | Replace trench drains. | $35,000 | | | | | $39,400 | | | | | |
| E-2 | Upgrade electrical system by replacing old panels in poor condition and adding panels to provide additional circuits. | $25,000 | | | $26,500 | | | | | | | |
| E-3 | Replace the existing undersized generator with a larger generator include additional loads. | $95,000 | | | | | | | | | | $124,000 |
| E-4 | Revise emergency and exit sign lighting. | $20,000 | | | $21,200 | | | | | | | |
| E-7 | Add additional receptacles to eliminate extension cords. | $2,500 | | | | | | $2,900 | | | | |
| E-9 | Organize and label cables in Telecommunication Room. | $10,000 | | | | | | $11,600 | | | | |
| | **Total Capital Costs:** | **$1,043,000** | **$43,000** | **$90,700** | **$387,200** | **$243,700** | **$71,400** | **$191,900** | **$0** | **$0** | **$0** | **$124,000** |

Building/Addition Name: **Northbrook Fire Station No. 11** Year Built**: 1971** Actual Age: **47** Evaluator Name: **Scott Rihel, AIA, LEED AP** BD+C

**DEFICIENCY NOTATION FORM**

Instructions: Provide notes below to justify the reason for point deductions on Building Condition Evaluation Form.

| SITE EVALUATION (S) | (40) | NOTES REGARDING SITE CONDITIONS |
|---|---|---|
| 1. Site Features | (10) | **Good Current –** There are no apparent topography issues and the site appears to drain storm water. There is adequate parking for the fire station. The fencing around the patio on the west side of the building is in-tact and functioning. The paver sitting area on the south side of the site is in good condition and is maintained. Site lighting by the flag poles is functioning. |
| 2. Utilities | (10) | **Good Current -** The sanitary and storm water sewers are adequately sized to service the buildings. There are no standing storm water depressions and the site drains appropriately. There is site lighting and security which are both functioning and adequate. |
| 3. Site Access | (10) | **Good Current** - There are adequate vehicle and pedestrian access points. There are several site stairs that have handrails that need to be maintained and some of the concrete needs to be maintained. The concrete apron and curbs are in good shape and have a few cracks that have been well maintained. |
| 4. Parking Lots, Site Maintainability | (10) | **Good Dated** – Asphalt parking lot is older and has some cracking but appears to have been well maintained. Stripping is well defined and looks like it has been previously sealed and crack filled. The vertical edge of the asphalt are slightly deteriorated. There are signs of ponding around the catch basin. The site is clear of debris. The site fencing is flimsy but is in-tact. Concrete stoops appear to be well maintained. |

| STRUCTURAL EVALUATION (ST) | (200) | NOTES REGARDING STRUCTURAL AND ARCHITECTURAL CONDITIONS |
|---|---|---|
| 1. Foundation and Slab on Grade | (20) | **Fair –** There are few signs of wear or cracks indicating distress in the existing foundations. There was seepage in the boiler room that needs repair. Visible slabs are in good shape. There were no signs of differential settlement. |
| 2. Floor Structural Systems | (20) | **Good Current** – The floor structural systems appear to be in good shape. There are no signs of differential settlement. There are no visible signs of overload. There were no signs of deflections or bearing failure. |
| 3. Stairs, Ramps and Balconies | (20) | **Good Current -** The condition of the materials used for the stairs is in good shape. The treads and risers and railings have been maintained. There are no signs of deflections or torqueing or major deterioration. |
| 4. Interior Bearing Walls | (20) | **Good Current** - There were a few visible cracks in the walls which suggest very little deflection. The structural glazed tile block in the apparatus bay wall has a few visible cracks through the mortar joints. There are no racked door frames which would suggest settlement or torqueing issues associated with overloading. |
| 5. Exterior Bearing Wall | (40) | **Fair -** The majority of the exterior building including the brick, mortar and expansion joints are in good condition with little visible signs of deterioration. There are no signs of shadow boxing cracks in the mortar. However, the brick parapet and stone cap on the hose tower are badly deteriorated and need repairs – therefore rated fair. |
| 6. Visible Steel Members | (40) | **Poor** – Columns in the apparatus bay have been rusting and are very deteriorated. They need immediate attention – therefore rated poor. |
| 7. Roof Structural Systems | (40) | **Good Current** – The roofing for this building is comprised of bar joists. There are no signs of structural overloading or deflection. There are no signs of rusted or deteriorated roof framing members. |

| Building Egress / Accessibility (BE) | (200) | NOTES REGARDING BUILDING EGRESS/ACCESSIBILITY CONDITIONS |
|---|---|---|
| 1. Egress - Corridors | (40) | **Poor –** Corridors are narrow but meet the minimum width requirements. However, because there are doors that open onto these corridors – there is not enough width to provide accessible push and pull clearances for the doors. Corridors have handrails but do not have guardrails. |
| 2. Egress - Interior Doors | (40) | **Very Poor** – Interior egress door at upper level east side that accesses the exit stair does not meet code. The door swings into the stair and impedes egress out of the building. Doors leading to the kitchen exit door lack proper push/pull side clearances, and have old hardware. The hardware is old, doesn't meet accessibility grasping standards and is nearing the end of its useful life. Therefore, rated very poor. |
| 3. Egress - Exterior Doors | (40) | **Fair** – Doors out of the apparatus bay are good. Egress door out of the hose tower has equipment in front of it impeding the clear width of the door. |
| 4. Door Hardware | (20) | **Poor** – The door hardware in the building is very old and approaching the end to its useful life. Some hardware doesn't meet Illinois Accessibility – grasping standards. Therefore, rated poor. |
| 5. Stairs, Landings, Handrails | (40) | **Very Poor** – The stairs were retrofitted into an existing space to eliminate a ramp configuration. The stair risers are to high exceeding 7" maximum rise and treads not wide enough resulting in a stair that is too steep. Railings do not have proper continuation beyond final stair riser. There are no guard rails – only handrails. There are not proper landings at the top and bottom of all the stairs. Doors swing into the required stair landings. Therefore, rated very poor. |

| | | |
|---|---|---|
| 6. Accessible Toilet Facilities / Lockers | (20) | **Very Poor** – The toilet facilities are located on a second level with no vertical lift or elevator access. The toilet rooms do not have an accessible toilet stall, urinal, water closet, lavatory or shower facilities. There are no female toilet, shower, locker facilities. Therefore, rated very poor. |

| Architectural (A) | (255) | NOTES REGARDING MECHANICAL CONDITIONS |
|---|---|---|
| 1. Exterior windows, store front, curtain wall | (20) | **Good Current** – The windows in this facility were recently replaced with energy efficient double pane windows. There are two windows in the hose tower that still need to be replaced and should be handled as part of a larger hose tower renovation project. Overall – the windows are in great shape. |
| 2. Exterior Doors | (20) | **Good Dated** – The overhead doors are in good condition. Clearances work for the apparatus they have. There are no signs of racking. Openers function properly. The doors are very old but function for their purpose. The doors have been well maintained. There are egress clearance issues and some of the doors swing in the wrong direction or into the path of egress. The hardware is very old and is in need of replacement. Therefore, rated Good Dated. |
| 3. Exterior – Envelope and Miscellaneous items. | (20) | **Good Dated –** The brick and mortar on the outside of the building are in good condition. The hose tower has deterioration that needs to be addressed. The soffits are in good condition. The exterior insulation finish system (EIFS) at the top of the building is in good condition but needs painting and maintenance. Stairs on the outside of the building have some cracks and spalling concrete that needs repair. Stair railings are maintained but don't meet current code (lacking rail extensions). Therefore, rated good dated. |
| 4. Roofing | (40) | **Poor** – The roofing is a modified bitumen system installed in 2003. The system is 15 years old. There are no reported roof leaks at this time. The roof drains have strainers and appear to drain. The metal flashings have some oil canning but are functioning. There are signs that the granular topcoat of the system has worn off and is exposing the felts. Mechanical curbs appear to have acceptable clearances from the roof. The existing system does not have the proper insulation thickness to meet the most current energy code. Although the system is functioning, it is nearing the end of its useful life. Therefore, rated poor. |
| 5. Interior – Stairs & Ramps | (20) | **Good Current** – This section deals with the condition of the stairs not the configuration or accessibility which is handled in the "Egress" section. The stairs have a non-slip rubber floor covering that is in good condition. The railings are well maintained and are secure. |
| 6. Interior – Toilet Rooms | (20) | **Poor** – The floors are original 1x1 ceramic tile and are very worn and dated. All the grout is black. The gang shower has tile on the floor, walls, and ceiling which is in fair condition. The metal toilet partitions are beginning to rust. The counter tops and base cabinets are dated and delaminating and are beyond their useful life. The ceiling tile is all sagging, water stained, and needs replacement. Therefore rated poor. |
| 7. Interior – Locker Room | (20) | **Poor** – The lockers are a good size and are slightly worn but in good working order. Flooring is warn VCT that is ending its useful life. There are cubbies on top of lockers that are to close to the ceiling and don't meet code. Therefore, rated poor. |
| 8. Interior – Corridors, Lobby, Office | (10) | **Fair** – The carpeting in the offices is all dated, worn and beyond its useful life. The ceiling tiles all need to be replaced. Plastic laminate is old and delaminating. Therefore, rated fair. |
| 9. Interior – Apparatus Bays | (20) | **Good Current** – There is a gas curb and the walls are all in-tact. The structure is exposed with no ceiling. The walls are structural glazed tile block that don't require much maintenance. The floor has an epoxy finish which is in good condition. The trench drains are in need of repair/replacement but will be considered in the plumbing section. |
| 10. Interior – Day Room | (20) | **Good Current** – The flooring and ceiling are in good condition. The room is an adequate size. Access to the apparatus bay is direct, but up-stairs and very tight. |
| 11. Interior – Kitchen | (20) | **Good Dated**– The appliances are in good condition. The flooring is in good condition. However, the kitchen is small and doesn't have adequate counter space. The ceiling tiles need to be replaced. The exit doors leading to an exterior stair to the patio swing into the space rather than out. Doors leading to the apparatus bay swing into the room rather than in the path of travel. Therefore, rated Good Dated. |
| 12. Interior – Bunk Room | (20) | **Good Dated** – The bunk rooms are small. There are not accommodations for women. The flooring is worn, and the ceiling tiles need to be replaced. Therefore, rated Good Dated. |
| 13. Interior – Work Shop | (5) | **Good Current** – The finishes are appropriate for the room. The space is small but in good condition for a maintenance area. |

Building/Addition Name: **Northbrook Fire Station No. 11** Year Built**: 1971** Actual Age: **47** Evaluator Name: **Jeff Chamberlin, 20|10 Engineering**

**DEFICIENCY NOTATION FORM**

Instructions: Provide notes below to justify the reason for point deductions on Building Condition Evaluation Form.

| MECHANICAL HVAC EVALUATION (M) | (135) | NOTES REGARDING MECHANICAL HVAC CONDITIONS |
|---|---|---|
| 1. Temperature Control System | (20) | **Poor** – There is no Building Automation System. The hot water boiler does have a Tekmar controller. The hot water supply temperature is reset based on outside air. There is no local control of finned tube radiation. Temperature control is limited to one thermostat per rooftop unit serving multiple spaces with varying loads. |
| 2. Heating Equipment/System | (40) | **Poor** – Building is generally heated with a central hot water system consisting of a single Raypak atmospheric boiler, pump, and piping. The boiler is 8 years old and in good condition, but the rest of the system is original to the building and in poor condition. Hot water piping is routed under the floor where its condition is suspect and it cannot be repaired. The apparatus bay is heated by hot water unit heaters original to the building. |
| 3. Air Conditioning Equipment/System | (40) | **Poor** – Air conditioning for the squad room, sleeping rooms, and offices is provided by 2 packaged rooftop units in poor condition and beyond their useful life. |
| 4. Ventilation Equipment/System | (20) | **Fair** – Ventilation for the occupied areas is provided by the old rooftop units. Ventilation code for the apparatus bay is met by natural ventilation through openable man doors and garage doors. While code is met, mechanical ventilation provides year-round outside air ventilation to building occupants. |
| 5. Exhaust System | (10) | **Fair** – General exhaust fans are old and near the end of their life. |
| 6. Miscellaneous Systems | (5) | **Fair** – There are no CO/NO2 sensors in the apparatus bay to exhaust the area upon sensing high levels, nor a make-up air unit to replace and heat the air exhausted. Vehicle exhaust systems with hoses to connect to tailpipes are in place and appear to be in good condition. |

| PLUMBING EVALUATION (P) | (215) | NOTES REGARDING PLUMBING CONDITIONS |
|---|---|---|
| 1. Domestic Water Piping | (40) | **Fair –** The domestic water supply piping is a mix of galvanized steel and copper piping. The copper piping is what was used to make repairs when original galvanized piping failed. Galvanized piping does have leaks occurring and staff is repairing leaks as they present themselves. |
| 2. Sanitary Waste Piping | (40) | **Good Dated** – The sanitary piping that is visible before it terminates to underground appears to be primarily cast iron. Sanitary piping is original to building. Sanitary discharge is flowing and no history of clogs or backups were noted. |
| 3. Storm Water Piping | (40) | **Good Dated** – The storm piping that is visible before it terminates to underground appears to be primarily cast iron. Storm piping is original to building. Storm discharge is flowing and no history of clogs or backups were noted. |
| 4. Plumbing Piping Insulation | (10) | **Good Dated** – Insulation appears original to building with repairs of more modern material where piping has been repaired. Exposed piping in main mechanical room has had all insulation removed. Piping in mechanical room should be re-insulated. |
| 5. Domestic Water Heater | (10) | **Good Dated** – The domestic water heater appears in good condition. From the Rheem serial number on the water heater (1191DO3764) it appears the water heater is from 11/1991 (26 years old) and is nearing the end of it's life. Water heater size appears sufficient for load on domestic hot water system. |
| 6. Sanitary Ejector Pump System | (20) | **Good Current** – Sanitary ejector pump system in basement was replaced within the last two years. New pumps, control panels, floats check valves, ball valves and discharge piping was installed. |
| 7. Storm/Drain Tile Ejector Pump System | (20) | **Good Current** – Sanitary ejector pump system in basement was replaced within the last two years. New pumps, control panels, floats check valves, ball valves and discharge piping was installed. |
| 8. Plumbing Fixtures | (10) | **Fair** – Plumbing fixtures are original to the building and have seen heavy use over the years. Finishes of fixtures in toilet rooms are rough. The fixture stops and risers show signs of corrosion. Shower room does not meet current code requirements for drainages. Shower room waste flows over feet of multiple users to reach drains. |
| 9. Wall Hydrants and Hose Bibbs | (5) | **Fair** – Exterior wall hydrants and hose bibs are a mix of original fixtures without vacuum breakers and some are new fixtures with vacuum breakers. Interior hose bibs in mechanical room do not have vacuum breakers and are fitted with splitter devices. |
| 10. Vehicle Bay Trench Drains | (20) | **Poor** – Trench drains still function for flow of water. Trench drain grates are no longer removable from trench drain frames. The grates are seized and locked into the frames and are not removable for servicing and cleaning of trench drains in the garage area. |

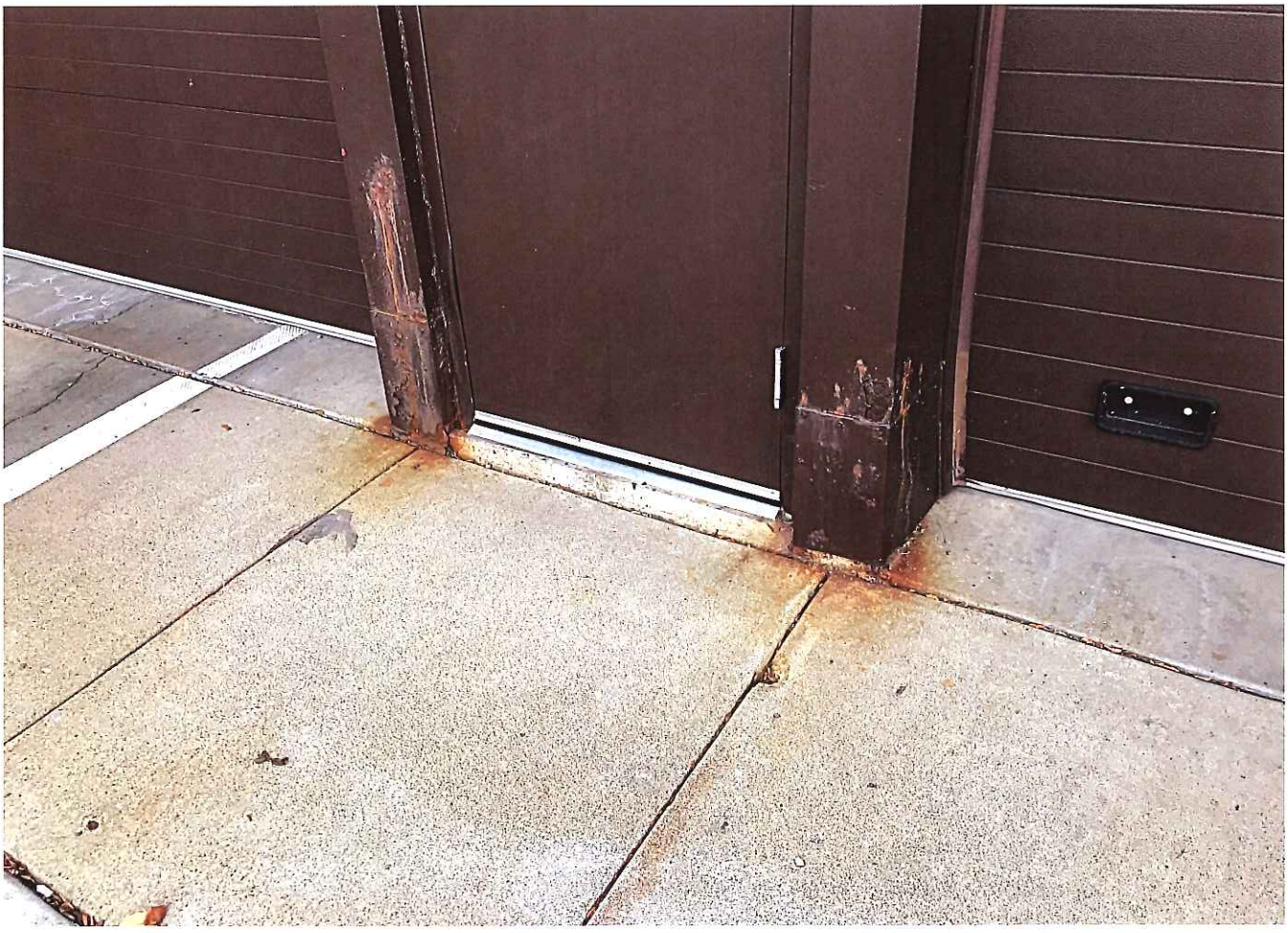
| FIRE PROTECTION EVALUATION (FP) | (60) | NOTES REGARDING FIRE PROTECTION CONDITIONS |
|---|---|---|
| 1. Fire Protection Incoming Service | (20) | **Good Dated** – Fire protection water supply backflow preventer is a Febco 806 double detector check backflow preventer. Current Illinois standards are for the fire water supply to have an increased protection level with a reduced pressure zone detector assembly. Fire protection water supply enters fire station building and is routed through the fire station to the administration building. |
| 2. Fire Protection / Sprinkler System | (40) | **Good Dated** – Fire Station 11 does not have a fire sprinkler system protecting the building. The fire protection service for the Fire Station and Administration building enters in the fire station space and runs through the Fire Station to feed the Administration Building sprinkler system. |

| ELECTRICAL EVALUATION (E) | (205) | NOTES REGARDING ELECTRICAL CONDITIONS |
|---|---|---|
| 1. Electrical Service | (40) | **Good Dated** – The electrical service is rated 1200 amperes at 208/120V-3Ph. The main service disconnect switch is located in a 3-section ITE switchboard. The switchboard appears in good condition with spaces available for expansion. The service size appears to be adequate for the building size, however, the utility demand load and load calculation will need to be looked at prior to any extensive renovation or addition. |
| 2. Electrical Distribution System | (40) | **Fair** – Power is distributed from the main switchboard to branch circuit panels throughout the building. All panels contain circuit breakers and are in good to fair condition. However, the panels do not contain spaces for additional loads. |
| 3. Emergency Power System | (20) | **Fair** – The existing generator provides backup power to select loads such as emergency lighting, heaters, boiler pumps and fire alarm control panel. Consideration could be made to replace the generator with a larger capacity to pick up additional loads. |
| 4. Emergency / Exit Lighting | (20) | **Fair** – Emergency and exit sign lighting is provided with lights tied to panels connected to the generator. |
| 5. Interior Lighting | (20) | **Good Dated** – The majority of the interior lights contain T8 fluorescent lamps. There are areas in the lower level with screw in incandescent downlights. The light levels appear to be adequate throughout the space for the purpose. |
| 6. Exterior Lighting | (10) | **Good Dated** – Exterior lighting is comprised of wall packs and canopy lights. Lighting at most locations have been retrofitted with new LED source. The canopy lights above the garage doors are metal halide source. The exterior lights appear to be controlled by a time clock device. |
| 7. Outlet Condition & Adequacy | (5) | **Fair** – Outlets are located throughout the space and appear to be adequate for the most part. There are locations such as the locker room/wash room area where extensions cords are used to plug in shavers / hair dryers. Permanent receptacle shall be installed in place of extension cords in those areas. |
| 8. Fire Alarm System | (40) | **Good Current** – The fire alarm is an addressable system from GE. It appears to be in good condition and provides proper detection and notification coverage throughout the building. |
| 9. Telecommunication System | (5) | **Fair** – Telecommunication system is located on the second floor storage room. The room contains telephone, data and radio equipment. The equipment appears in working condition and adequate for its purpose. However, majority of the cable lack organization, labels and identification. Consideration should be made to organize and label the cable for ease of maintenance and troubleshooting. The door into the room can be improved without the need to bend down. |
| 10. PA System | (5) | **Good Dated** – The head-end equipment is located on the second floor storage room. Ceiling speakers are located throughout the building and the system appears to be in good condition. |

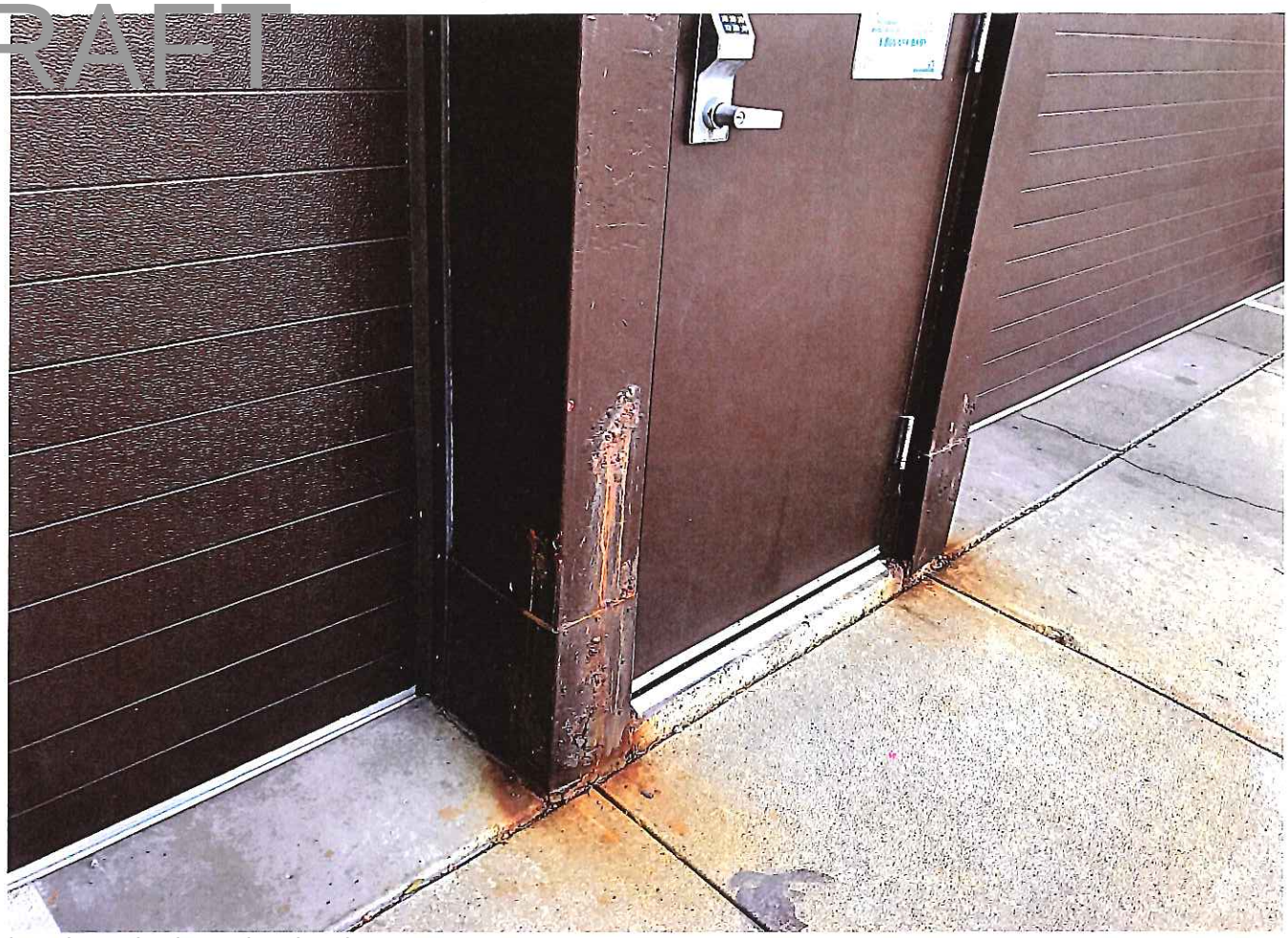
(ST-5) Masonry deterioration

(ST-5) Masonry deterioration

(ST-5) Masonry deterioration

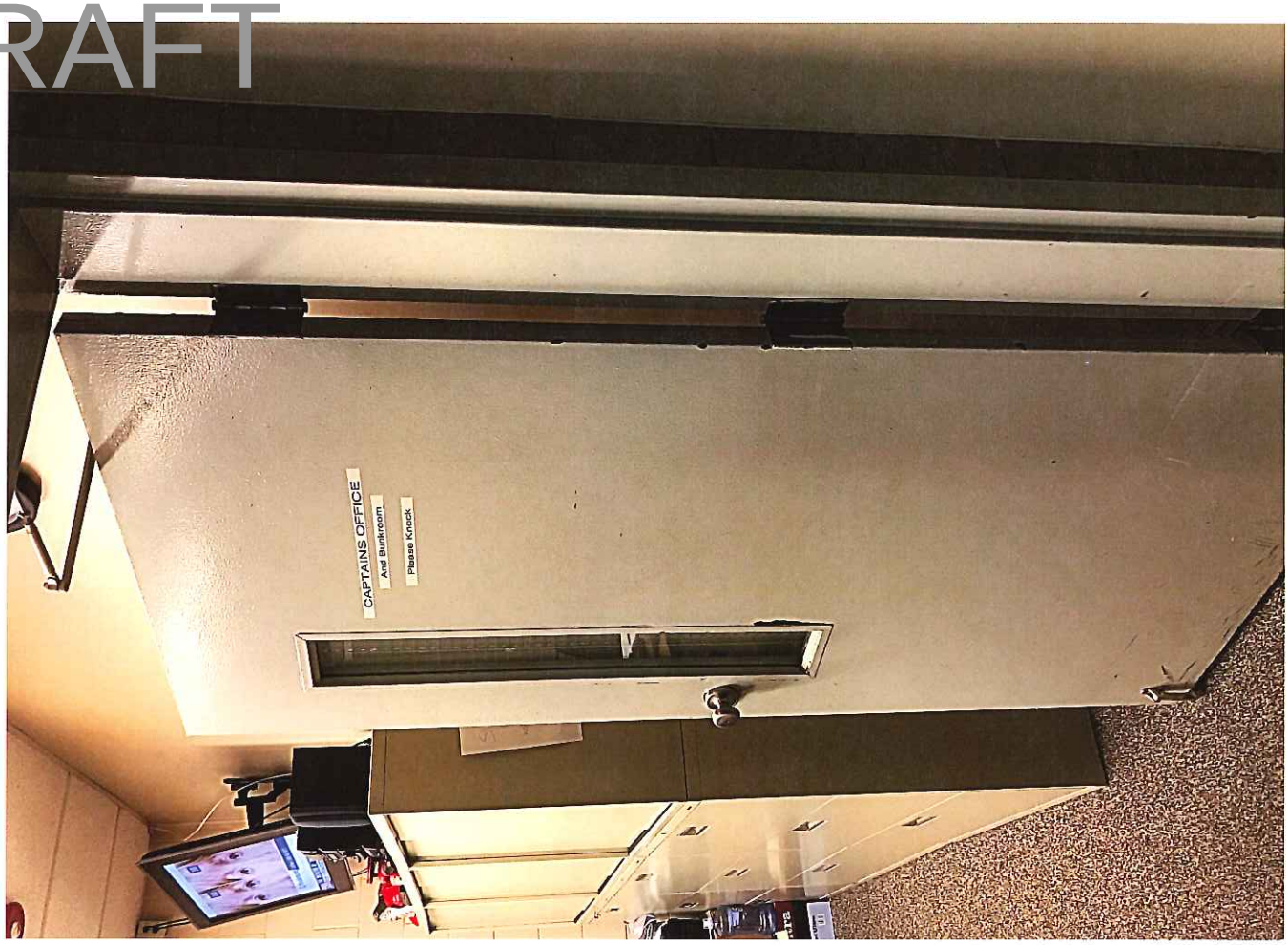


(ST-6) Steel column deterioration



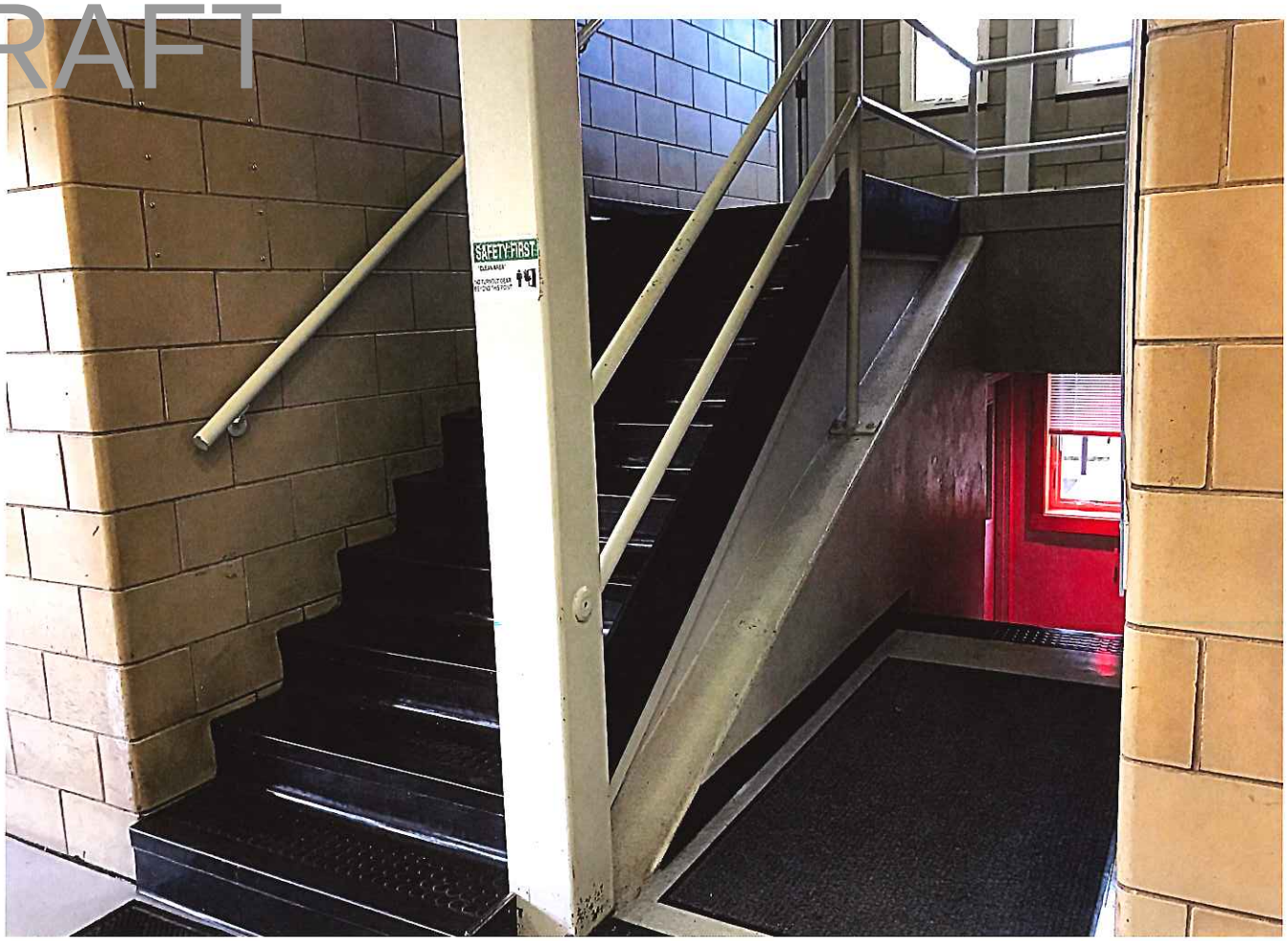
(ST-6) Steel column deterioration


(BE-1) Missing door push/pull accessibility clearances

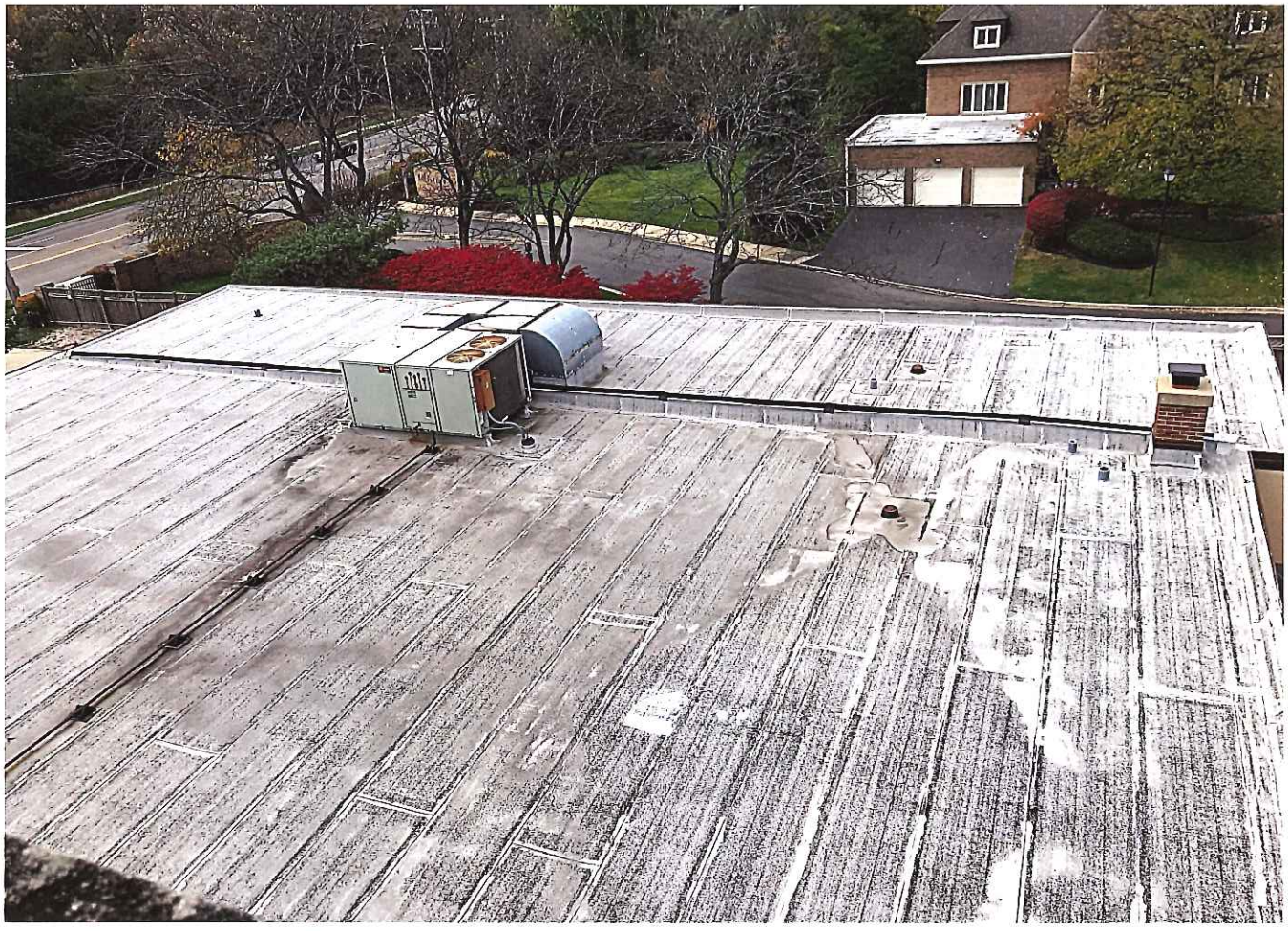


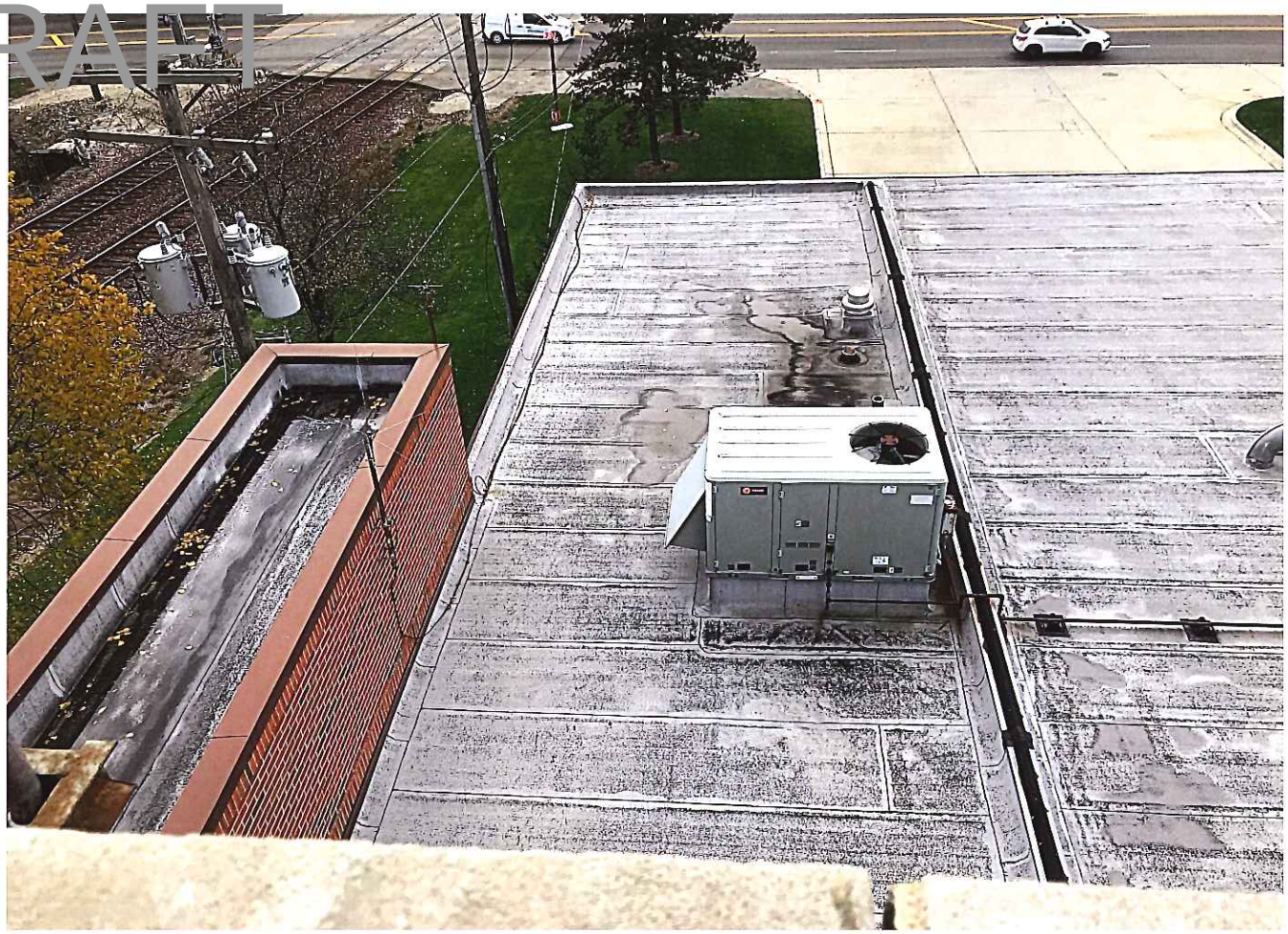

(BE-4) Hardware is approaching the end of its useful life - doesn't meet ADA

(BE-2) Exit door impedes egress through exit stair



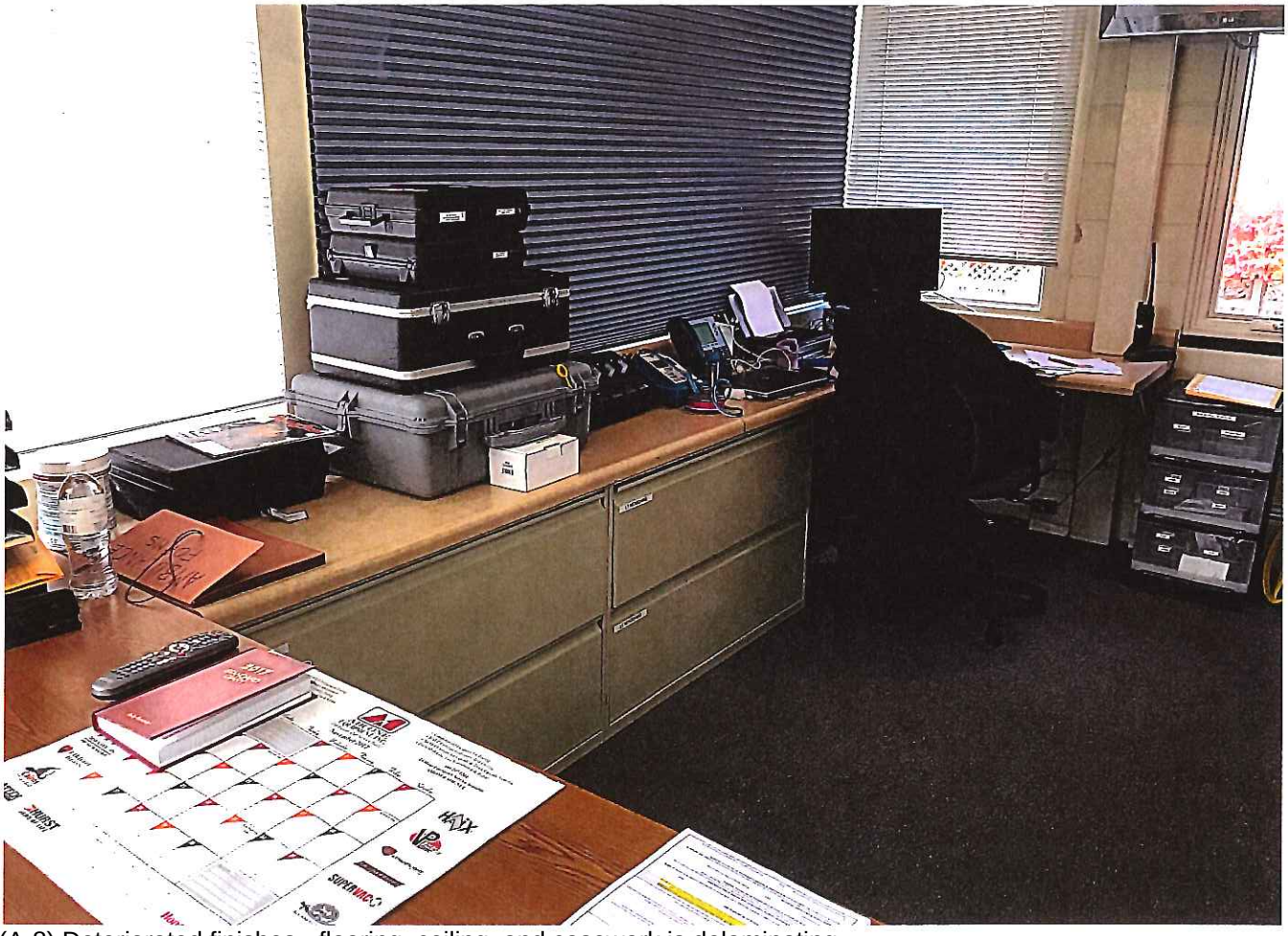

(BE-5) Exit stair is too steep, railings don't have proper continuation, there are no guard rails.





(BE-6 & A-6) No accessible toilet facilities or female toilet facilities - Finishes are worn

(A-7) Deteriorated finishes - flooring & ceiling. Storage on top of lockers doesn't meet code.



(A-8) Deteriorated finishes - flooring, ceiling, and casework is delaminating.

DRAFT

# 5.

## Fleet Maintenance Garage

1225 Cedar Lane, Northbrook

HEALY BENDER

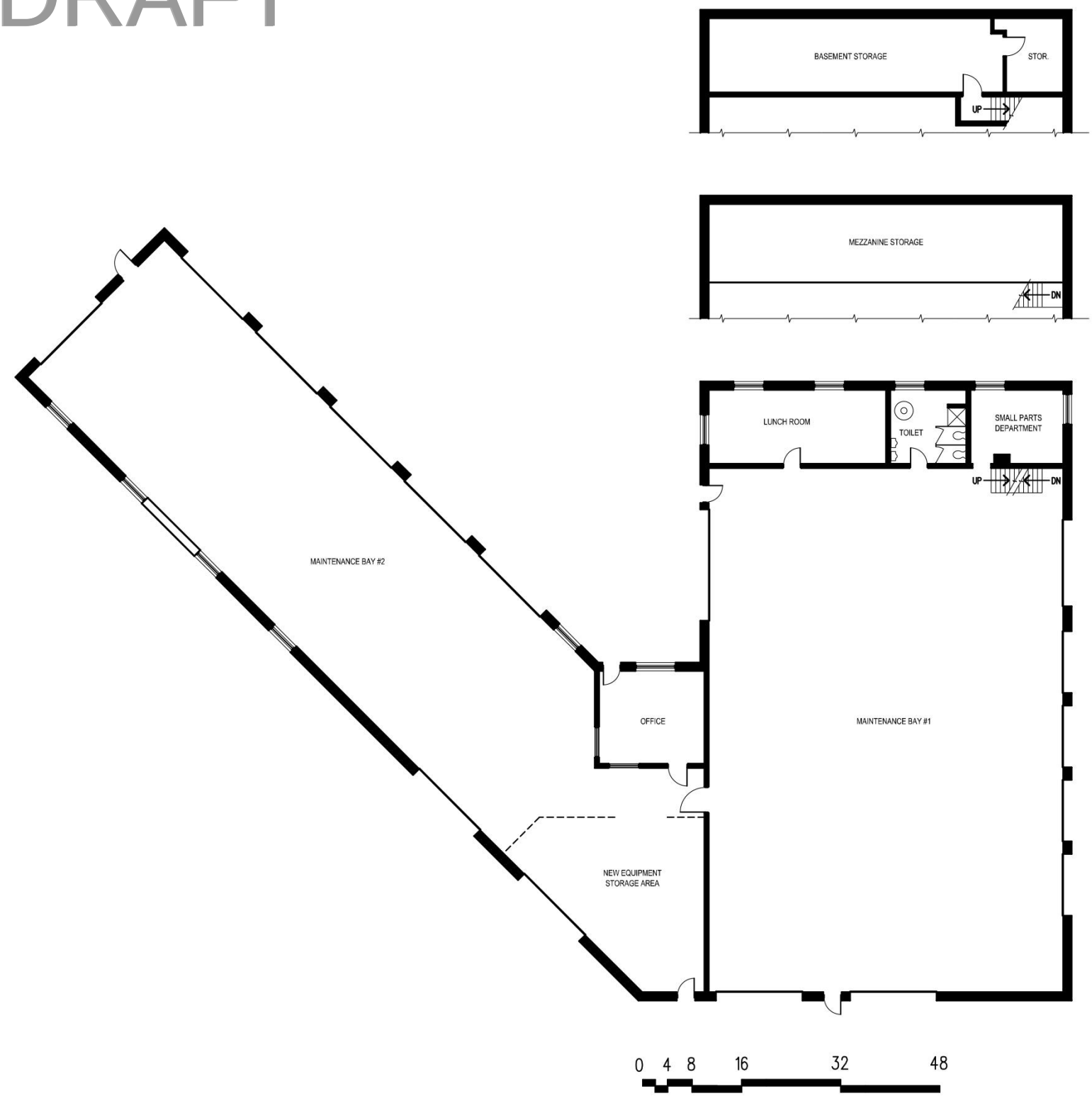
Architects + Planners

www.healybender.com

Moyer Associates, Inc.

www.moyerassociates.com

DRAFT




**GROUND LEVEL**

DRAFT

# Public Works - Fleet Maintenance Garage

1225 Cedar Lane, Northbrook IL

Report Card Method:
Building Evaluation begins with maximum Starting Value and Deductions are applied based on deficiencies observed in the field.
Highlighted areas (grey or yellow) are deductions based on field observations - see Appendix C & D for further clarification.
Report Card Methodology is based on ASTM 2018-15 established system

## Facility Report Card

| Areas of Evaluation | Starting Value: Possible Points | Deductions: Good Current | Good Dated | Fair | Poor | Very Poor | Final Value: Grade Points |
|---|---|---|---|---|---|---|---|
| Site Evaluation (S) | | | | | | | |
| 1. Site Features | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 8.5 |
| 2. Utilities | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 7.0 |
| 3. Site Access | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 5.5 |
| 4. Parking Lots, Site Maintainability | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 8.5 |
| Structural Evaluation (ST) | | | | | | | |
| 1. Foundation and Slab on Grade | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 11.0 |
| 2. Floor Structural Systems | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20.0 |
| 3. Stairs, Ramps & Balconies | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17.0 |
| 4. Interior Bearing Walls | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20.0 |
| 5. Exterior Bearing Walls | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 40.0 |
| 6. Steel Members | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34.0 |
| 7. Roof Structural Systems | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 40.0 |
| Building Egress / Accessibility (BE) | | | | | | | |
| 1. Egress - Corridors | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 22.0 |
| 2. Egress - Interior Doors | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 22.0 |
| 3. Egress - Exterior Doors | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34.0 |
| 4. Door Hardware | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 20.0 |
| 5. Stairs, Landings, Handrails/Guardrails | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 22.0 |
| 6. Accessible Toilet Facility / Lockers | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 11.0 |
| Architectural (A) | | | | | | | |
| 1. Exterior Windows, Store Front, Curtain Wall | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14.0 |
| 2. Exterior Doors | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 11.0 |
| 3. Exterior Envelope & Miscellaneous Items | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14.0 |
| 4. Roofing | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 22.0 |
| 5. Interior - Stairs & Ramps | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17.0 |
| 6. Interior - Toilet Rooms | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 11.0 |
| 7. Interior - Staff Lounge | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 7.0 |
| 8. Interior - Maintenance Bay - Area #1 | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 8.0 |
| 9. Interior - Maintenance Bay - Area #2 | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 8.0 |
| 10. Interior - Office | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17.0 |
| 11. Interior - Mezzanine Storage/Locker | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 8.0 |
| 12. Interior -Basement Storage | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17.0 |
| 13. Interior - New Equip. Storage Cage | 5 | 0 | -1 | -2 | -3 | -4 | 5.0 |
| 14. Interior - Parts Storage | 5 | 0 | -1 | -2 | -3 | -4 | 5.0 |
| Mechanical (M) | | | | | | | |
| 1. Temperature Control System | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 2. Heating Equipment/System | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 3. Air Conditioning Equipment/System | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 28 |
| 4. Ventilation Equipment/System | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14 |
| 5. Exhaust Systems | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 9 |
| 6. Miscellaneous Systems | 5 | 0 | -1 | -2 | -3 | -4 | 5 |
| Plumbing (P) | | | | | | | |
| 1. Domestic Water Piping | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 28 |
| 2. Sanitary Waste and Vent Piping | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 28 |
| 3. Storm Water Piping | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 4. Plumbing Piping Insulation | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 9 |
| 5. Domestic Water Heaters | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 9 |
| 6. Sanitary Ejector Pump System | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 8. Plumbing Fixtures | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 7 |
| 9. Wall Hydrants and Hose Bibbs | 5 | 0 | -1 | -2 | -3 | -4 | 3 |
| 10. Vehicle Bay Trench Drains | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 11 |
| Fire Protection (FP) | | | | | | | |
| 1. Fire Protection Sprinkler Service | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| Electrical (E) | | | | | | | |
| 1. Electrical Service | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 2. Electrical Distribution System | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 28 |
| 3. Emergency Power System | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 14 |
| 4. Emergency / Exit Lighting | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 17 |
| 5. Interior Lighting | 20 | 0.0 | -3.0 | -6.0 | -9.0 | -12.0 | 11 |
| 6. Exterior Lighting | 10 | 0.0 | -1.5 | -3.0 | -4.5 | -6.0 | 9 |
| 7. Outlet Condition & Adequancy | 5 | 0 | -1 | -2 | -3 | -4 | 4 |
| 8. Fire Alarm System | 40 | 0.0 | -6.0 | -12.0 | -18.0 | -24.0 | 34 |
| 9. Telecommunication System | 5 | 0 | -1 | -2 | -3 | -4 | 4 |
| **Point Total:** | **1,270** | | | | | | **947** |
| **Interpolation to 1,000 point scale** | **1,000** | | | | | | **745** |
| **Building Grade:** | | | | | | | **C** |

**Facility Condition Assessments**
**Village of Northbrook**

**Fleet Maintenance Garage**

| Ref # | Deficiency Description | Capital Needs | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Estimated Repair Cost (Current Dollars) | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
| S-2 | Regrade the North end of the building to drain the site away from the building. | $3,000 | | | | | $3,400 | | | | | |
| S-3 | No resolution possible | | | | | | | | | | | |
| ST-1 | Replace the concrete slabs in maintenance bay #1 | $111,000 | | | | | $124,900 | | | | | |
| BE-1 | Establish a clear path to the building exit that does not have to circulate through a storage area. | $6,000 | | | | | | $7,000 | | | | |
| BE-2 | Replace deteriorated hardware | $18,000 | | | | | | $20,900 | | | | |
| BE-5 | Relocate the mezzanine fencing to allow for a proper stair landing. | $4,000 | | | | | | $4,600 | | | | |
| BE-6 | Reorganize the facility to provide proper accessible toilet rooms for both men and women. | $36,000 | | | | | | $41,700 | | | | |
| A-1 | Replace single pane windows that are beyond their useful life | $8,000 | | | | | | | | $9,800 | | |
| A-2 | No resolution possible | | | | | | | | | | | |
| A-3 | The steel lintels over the windows are rusted and have significant "rust jacking". Replace the lintels tuckpoint the masonry cracks. Repair the precast concrete on the north side of the building. | $12,000 | | | | | | | | $14,800 | | |
| A-4 | Replace existing deteriorated roofing system | $419,000 | | | | $457,900 | | | | | | |
| A-7 | Staff Lounge: Replace the flooring, patch/repair walls and repaint, replace existing casework beyond its useful life. | $13,000 | | | | | | $15,100 | | | | |
| A-8 | Maintenance Bay #1 Structure is to low to work on fleet vehicles.<br>No resolution possible | | | | | | | | | | | |
| A-9 | Maintenance Bay #2: Repair the trench drain to properly drain. See MEP | | | | | | | | | | | |
| A-11 | Mezzanine Lockers: This is not an appropriate location for a locker room. Designate a different location in the facility for this function. | $9,000 | | | | | | $10,400 | | | | |

**Facility Condition Assessments**
**Village of Northbrook**

**Fleet Maintenance Garage**

| Ref # | Deficiency Description | Estimated Repair Cost (Current Dollars) | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Capital Needs | | | | | | | | | |
| M-3 | Provide air conditioning for office and break room via new duct free split systems in lieu of window air conditioners. | $30,000 | | | | | | $34,800 | | | | |
| M-4 | Provide heated ventilation systems to be in operation during occupied times for all occupied spaces within the building. | $150,000 | | | $159,100 | | | | | | | |
| P-1 | Replace all remaining galvanized piping throughout the building with copper. | $30,000 | | | | | $33,800 | | | | | |
| P-2 | Scope all the underground sanitary piping and repair all areas of observed failures. | $50,000 | | | | | $56,300 | | | | | |
| P-7 | Replace antiquated plumbing fixtures. | $25,000 | | | | | | $29,000 | | | | |
| P-8 | Replace old interior and exterior sillcocks and hose bibs with wall hydrants with vacuum breakers. | $3,000 | | | | | $3,400 | | | | | |
| P-9 | Replace trench drains. | $60,000 | | | | | $67,500 | | | | | |
| E-2 | Upgrade electrical system by replacing old panels in poor condition and adding panels to provide additional circuits. | $15,000 | | | $15,900 | | | | | | | |
| E-3 | Provide permanent generator in place to serve whole building. | $95,000 | | | | | | | | | | $124,000 |
| E-5 | Replace all existing T-12 lighting with LED. | $50,000 | | | $53,000 | | | | | | | |
| | **Total Capital Costs:** | **$1,147,000** | **$0** | **$0** | **$228,000** | **$457,900** | **$289,300** | **$163,500** | **$0** | **$24,600** | **$0** | **$124,000** |

Building/Addition Name: **Fleet Maintenance Garage** Year Built**: 1967/1990** Actual Age: **50/27** Evaluator Name: **Scott Rihel, AIA, LEED AP** BD+C

**DEFICIENCY NOTATION FORM**

Instructions: Provide notes below to justify the reason for point deductions on Building Condition Evaluation Form.

| SITE EVALUATION (S) | (40) | NOTES REGARDING SITE CONDITIONS |
|---|---|---|
| 1. Site Features | (10) | **Good Dated –** There is a site retaining wall along the East side of the site adjacent the river that was recently stabilized and is in good condition. The fences along the river are in good solid condition. The shed appears to be functioning and in working order. Note: this study did not evaluate the water tower. |
| 2. Utilities | (10) | **Fair -** The grading on the north side of the building is back pitched toward the building. Although this is an undesirable condition, the north side of the building is unobstructed and should be an easily fixed maintenance item. There is some seepage on the Northeast side of the building due to the back pitch. LED site lighting is adequate. There is no security around the vehicle storage on the north side of the building or the storage yard on the east side of the building. |
| 3. Site Access | (10) | **Poor** - There are no designated staff parking spots. The overhead sectional doors open to a busy street and don't offer enough turning radius to get larger vehicles into the garage. The one accessible parking space is not level, not stripped/designated and is located in an area the Owner has designated as vehicle storage – not employee parking. There isn't a loading dock and Semi-truck deliveries are unable to turn to the building, so they must unload outside and then move delivery into the building. Commuters walk down Cedar drive because there are no sidewalks. |
| 4. Parking Lots, Site Maintainability | (10) | **Good Dated** – Asphalt parking lot is older and has some cracking but appears to have been well maintained. The site is clear of debris. The site fencing is flimsy but is in-tact. |

| STRUCTURAL EVALUATION (ST) | (200) | NOTES REGARDING STRUCTURAL AND ARCHITECTURAL CONDITIONS |
|---|---|---|
| 1. Foundation and Slab on Grade | (20) | **Poor –** Visible foundation walls seem to be in good condition and there were signs of some seepage on the north east foundation walls in the basement storage. It is believed to be caused by the back pitch of the grading and should resolve itself with maintenance and minor grading outside. There is a crack in the foundation wall at the stair that needs to be repaired. It appears there was water seepage in the area contributed to the issue. There are no signs of differential settlement. The slabs on grade are pitched incorrectly away for the trench drains. There are hollow areas of the concrete slabs. The condition of the concrete is terrible in the maintenance bays – pitting and spalling. For these reasons this was rated Poor |
| 2. Floor Structural Systems | (20) | **Good Current** – The floor slabs in the mezzanine are in good condition and there are no signs of differential settlement. There were no signs of deflections or bearing failure. |
| 3. Stairs, Ramps and Balconies | (20) | **Good Dated -** The condition of the materials used for the stairs is in good shape. The treads and risers and railings in need of minor maintenance. There are no signs of deflections or torqueing or major deterioration. |
| 4. Interior Bearing Walls | (20) | **Good Current** - There were a few visible cracks in the walls which suggest very little deflection. Load bearing concrete masonry unit (CMU) under the mezzanine don't have any visible cracks through the mortar joints. There are no racked door frames which would suggest settlement or torqueing issues associated with overloading. |
| 5. Exterior Bearing Wall | (40) | **Good Current -** The majority of the exterior building including the brick, mortar and expansion joints are in good condition with little visible signs of deterioration. There are no signs of shadow boxing cracks in the mortar. |
| 6. Visible Steel Members | (40) | **Good Dated** – The are few visible steel members. Some of the steel lintels on the outside of the building have rusted and are in need of maintenance. |
| 7. Roof Structural Systems | (40) | **Good Current** – The roofing for this building is comprised of bar joists. There are no signs of structural overloading or deflection. There are no signs of rusted or deteriorated roof framing members. |

| Building Egress / Accessibility (BE) | (200) | NOTES REGARDING BUILDING EGRESS/ACCESSIBILITY CONDITIONS |
|---|---|---|
| 1. Egress - Corridors | (40) | **Poor** – The only egress corridor is outside the office and must exit through parts storage. |
| 2. Egress - Interior Doors | (40) | **Poor** – Doors lack proper push/pull side clearances. The hardware is old, doesn't meet accessibility grasping standards and is nearing the end of their useful life. Therefore, rated poor. |
| 3. Egress - Exterior Doors | (40) | **Good Dated** – Doors are in good condition with no signs of racking. They function properly however there is debris in the clear width on the push side of the doors. The debris needs to be removed – which can be done by staff. |
| 4. Door Hardware | (20) | **Good Current** – The door hardware in the building is old but still functions. The exterior doors have panic hardware and are and approaching the end to its useful life. |
| 5. Stairs, Landings, Handrails | (40) | **Poor** – The stairs to the mezzanine have a door and fence cage that are poorly designed. The door swings out into space and when shut there are no landings. |

| | | |
|---|---|---|
| | | The stair risers are to high exceeding 7" maximum rise and treads not wide enough resulting in a stair that is too steep. Railings do not have proper continuation beyond final stair riser. There are no guard rails – only handrails. There are not proper landings at the top and bottom of all the stairs. Doors swing into the required stair landings. Therefore, rated poor |
| 6. Accessible Toilet Facilities / Lockers | (20) | **Poor** – The toilet room door has a dead bolt, so the hardware is not accessible. The door swings into the required clear space for the accessible toilet and the urinal. The locker room is upstairs in the storage mezzanine with no accessible access. There are no locker room or toilet room facilities for women. Therefore, rated poor. |

| Architectural (A) | (260) | NOTES REGARDING MECHANICAL CONDITIONS |
|---|---|---|
| 1. Exterior windows, store front, curtain wall | (20) | **Fair** – There are a combination of dual pane windows that function properly and are in good shape and (5) single pane windows that are very old and need to be replaced. For this reason, rated fair. |
| 2. Exterior Doors | (20) | **Poor** – The overhead doors were installed in 1992 and are old but are in working condition. The sectional door openers have been recently replaced. The existing 12' door height is not ideal – 14' doors are need for the facility to function properly. The condition of the egress doors and frames are good with no signs of racking. Openers function properly. The doors have been well maintained. Because the maintenance doors are not high enough this is rated Poor. |
| 3. Exterior – Envelope and Miscellaneous items. | (20) | **Fair –** The brick and mortar on the outside of the building are in good condition. The precast concrete soffit around the north side of the building is deteriorated and in need of repair. The steel lintels over the windows are rust jacking and need to be replaced with a window replacement. Therefore, rated Fair. |
| 4. Roofing | (40) | **Poor** – The roofing is a modified bitumen system installed in 1997. The system is over 20 years old. According to the facility manager there are no roof leaks at this time. The roof drains have strainers and appear to drain. There are visible signs of standing water on the roof system. The metal flashings have some oil canning but are functioning. Mechanical curbs appear to have acceptable clearances from the roof. The existing system does not have the proper insulation thickness to meet the most current energy code. Although the system is functioning, it is nearing the end of its useful life. Therefore, rated poor. |
| 5. Interior – Stairs & Ramps | (20) | **Good Dated** – This section deals with the condition of the stairs not the configuration or accessibility which is handled in the "Egress" section. The stairs have wear but are in functioning condition. The railings are well maintained and are secure. |
| 6. Interior – Toilet Rooms | (20) | **Poor** – The floors are very worn 12"x12" cracked vct tile. There are signs of water damage and staining. The cabinet heater is rusted. l 1x1 ceramic tile and are very worn and dated. The ceiling is painted plaster. The partitions are functioning. The door swings into the clear space for the accessible toilet and the urinal. There are no dedicated facilities for women. Therefore, rated poor. |
| 7. Interior – Staff Lounge | (10) | **Fair** – The countertops and cabinets are old and delaminating. There are holes all over the masonry walls. The flooring is deteriorated vinyl composition tile (VCT). The ceiling is plaster and is dated but is functional. Therefore, rated fair. |
| 8. Interior – Maintenance Bay – Area #1 | (20) | **Very Poor** – The flooring is badly deteriorated. The facility is not high enough to maintain some of the vehicles in the fleet, so they need to work outside. In ground lifts do not function properly. Therefore, rated very poor |
| 9. Interior – Maintenance Bay – Area #2 | (20) | **Very Poor** – The trench drain in the floor doesn't function properly and allows sewer gas into the facility. Therefore, very poor. |
| 10. Interior – Office | (20) | **Good Dated** – Vinyl composition tile (VCT) flooring is in reasonable condition. Walls and ceiling are in good condition. Windows are in good condition. The casework and counter tops are old and dated. The door hardware are knobs which are not accessible. The systems furniture is old but is functioning. There are exposed data wires routed along the ceiling and walls. |
| 11. Interior – Mezzanine Storage / Locker Room | (20) | **Very Poor** – This is not an appropriate locker room. There isn't code compliant head height to the bottom of the structure. It is not accessible. It is not private. Inefficient to store heavy items upstairs. Therefore, very poor |
| 12. Interior – Basement Storage | (20) | **Good Dated** – functions as a storage facility w/ appropriate floors and ceilings |
| 13. Interior – New Equip. Storage Cage | (5) | **Good Current** – The finishes are appropriate for the room. The space is small but in good condition for a maintenance area. |
| 14. Interior – Parts Storage | (5) | **Good Current** – The finishes are appropriate for the room. The space is small but in good condition for a maintenance area. |

## DEFICIENCY NOTATION FORM

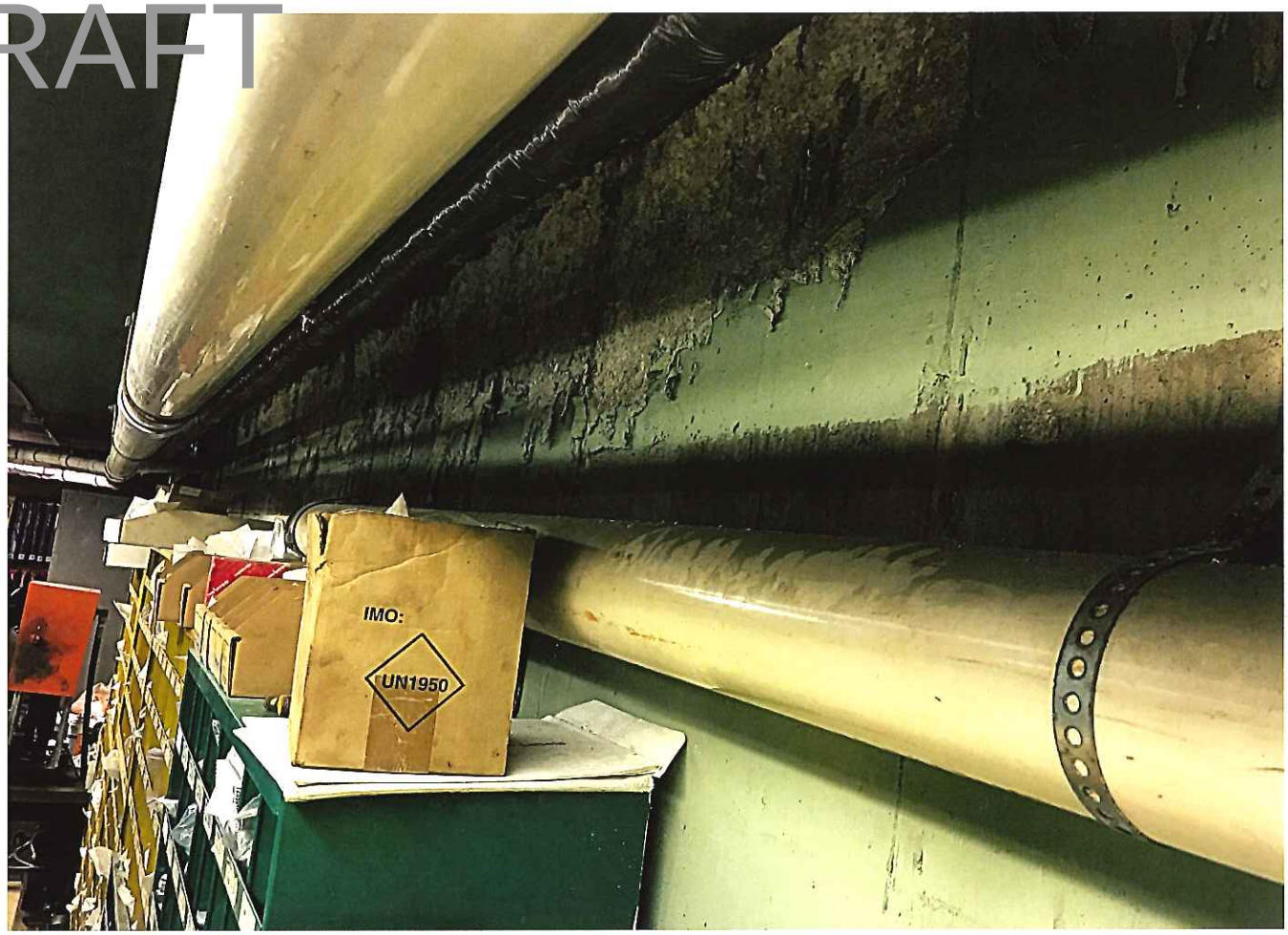
Instructions: Provide notes below to justify the reason for point deductions on Building Condition Evaluation Form.

| MECHANICAL HVAC EVALUATION | (135) | NOTES REGARDING MECHANICAL HVAC CONDITIONS |
|---|---|---|
| 1. Temperature Control System | (20) | **Good Dated** – There is no Building Automation System. HVAC equipment is generally simple with dedicated wall mounted thermostats controlling space temperature. |
| 2. Heating Equipment/System | (40) | **Good Dated** – Building is generally heated with gas fired unit heaters. Office areas have electric resistance heaters. Most appear to be recently replaced. |
| 3. Air Conditioning Equipment/System | (40) | **Fair** – Air conditioning for the office and break room is provided by window air conditioners which appear to be older models. |
| 4. Ventilation Equipment/System | (20) | **Fair** – Ventilation code for the building appears to be met by natural ventilation through openable windows/doors. While code is met, mechanical ventilation provides year-round outside air ventilation to building occupants. |
| 5. Exhaust System | (10) | **Good Dated** – Exhaust fans appear to be in good condition. |
| 6. Miscellaneous Systems | (5) | **Good Current** – CO/NO2 sensors are installed in vehicle maintenance areas to engage exhaust fans and recently installed gas fired make-up air units upon activation. Vehicle exhaust systems with hoses to connect to tailpipes are in place and appear to be in good condition. |

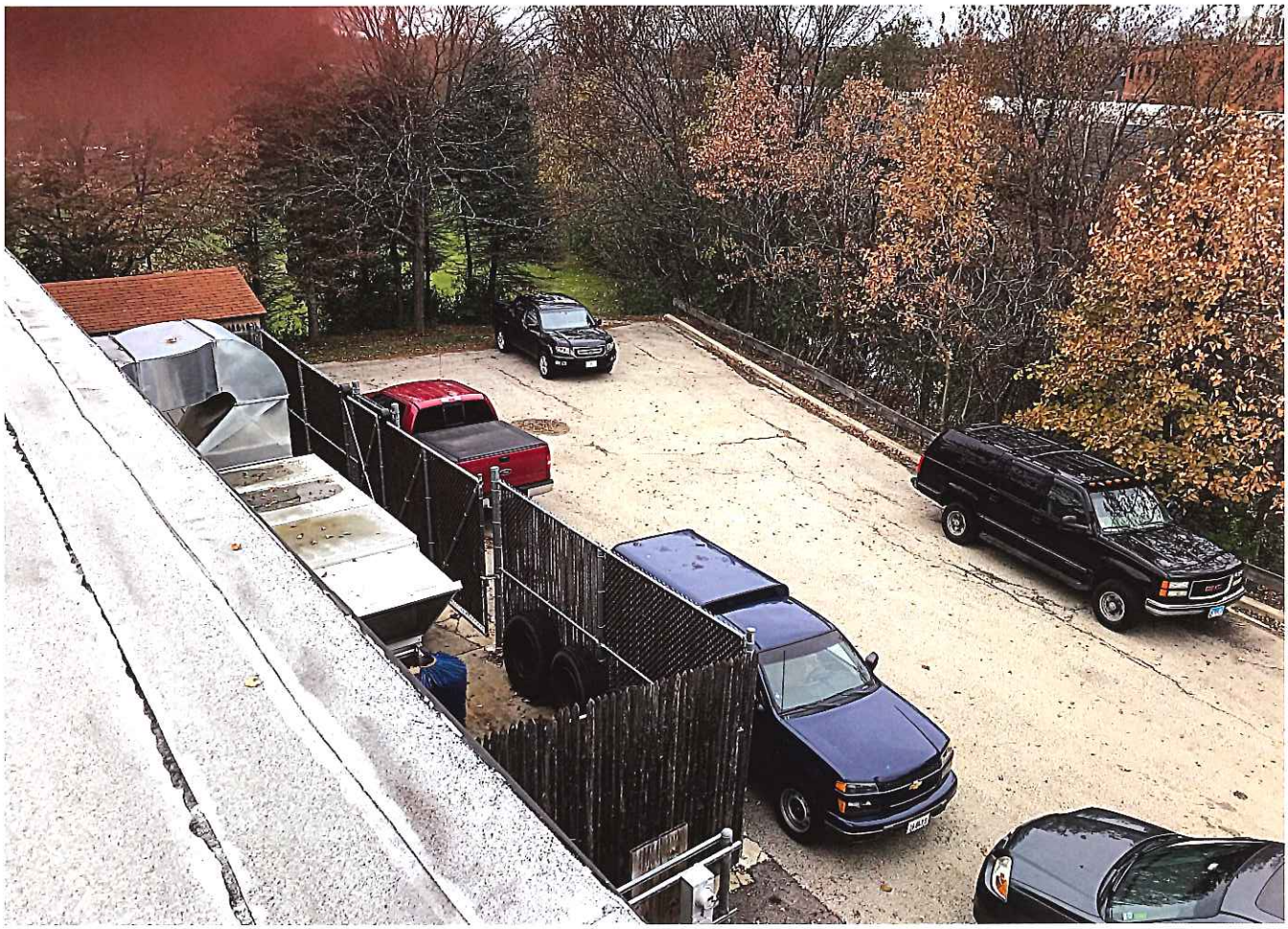
| PLUMBING EVALUATION (P) | (195) | NOTES REGARDING PLUMBING CONDITIONS |
|---|---|---|
| 1. Domestic Water Piping | (40) | **Fair –** The domestic water supply piping is a mix of galvanized steel and copper piping. The copper piping is what was used to make repairs when original galvanized piping failed. Galvanized piping does have leaks occurring and staff is repairing leaks as they present themselves. |
| 2. Sanitary Waste Piping | (40) | **Fair –** The sanitary piping is original to the building. The underground piping is failing and being repaired as the failures occur. |
| 3. Storm Water Piping | (40) | **Good Dated** – The storm piping is primarily cast iron. Storm piping is original to building. Storm discharge is flowing, and no history of clogs or backups were noted. |
| 4. Plumbing Piping Insulation | (10) | **Good Dated** – Insulation appears original to building with repairs of more modern material where piping has been repaired. |
| 5. Domestic Water Heater | (10) | **Good Dated** – The domestic water heater for the east side appears in good condition. From the A.O Smith serial number on the water heater (MG00-0038116-S19) it appears the water heater is from 2000 (17 years old) and is nearing the end of it's life. Water heater is a residential tank type unit. Water heater size appears sufficient for load on domestic hot water system. The domestic water heater for the west side appears in good condition. From the A.O Smith serial number on the water heater (1221A007728) it appears the water heater is from 2012. Water heater size appears sufficient for parts washing and vehicle wash down stations. |
| 6. Sanitary Ejector Pump System | (20) | **Good Dated** – Sanitary ejector pump system in basement appears to be older but not original to building. Sanitary ejector pump is in good working order and appears to function. |
| 7. Plumbing Fixtures | (10) | **Fair** – Plumbing fixtures are original to the building and have seen heavy use over the years. Finishes of fixtures in toilet rooms are rough. The fixture stops, and risers show signs of replacement and relocation due to failure of piping within wall. |
| 8. Wall Hydrants and Hose Bibbs | (5) | **Fair** – Exterior wall hydrants and hose bibs are a mix of original fixtures without vacuum breakers and some are new fixtures with vacuum breakers. Interior hose bibs in service bays area mix of units with a nd without vacuum breakers. |
| 9. Vehicle Bay Trench Drains | (20) | **Poor** – Trench drains still function for flow of water. Trench drains in east building section do not appear to be properly vented. Fuel and chemical smells enter east work bay area's when water flows through trench drains and into receptacle located at far east end of work area. Oil water separators appear to be original to building. Condition and function of separators is unknow but covers appear worn. |

| FIRE PROTECTION EVALUATION (FP) | (40) | NOTES REGARDING FIRE PROTECTION CONDITIONS |
|---|---|---|
| 1. Fire Protection Sprinkler System | (40) | **Good Dated** – The facility does not have a sprinkler system. At the time the Facility Maintenance Garage was built the facility did not require a fire sprinkler system and met the minimum standards. By todays standards, the facility would be upgraded to have a sprinkler system. |

| ELECTRICAL EVALUATION (E) | (200) | NOTES REGARDING ELECTRICAL CONDITIONS |
|---|---|---|
| 1. Electrical Service | (40) | **Good Dated** – The electrical service is rated 600 amperes at 208/120V-3Ph. The main service disconnect switch is located in a Siemens fusible distribution panel that is manufactured in 1992. The distribution panel appears in good condition with possible bussed spaces available for expansion. |
| 2. Electrical Distribution System | (40) | **Fair** – Power is distributed from the main distribution panel to branch circuit panels and load centers. All panels contain circuit breakers and are in good to fair condition. However, the panels do not contain spaces for additional loads. |
| 3. Emergency Power System | (20) | **Fair** – Provisions are in place to connect a portable generator to the electrical distribution system for emergency backup. The generator does not appear to be sized to carry the whole building at full capacity. It will be up to the building operator to ensure only critical loads are utilized while running the backup generator. |
| 4. Emergency / Exit Lighting | (20) | **Good Dated** – Emergency lighting and exit signs are powered by self-contained batteries. They appear to be functional and in good condition. |
| 5. Interior Lighting | (20) | **Poor** – The majority of the interior lights contain old T12 fluorescent lamps except for the vehicle bay where high bay metal halide fixtures are used. The light levels are adequate at all areas except for the vehicle bay where lighting can be improved to provide higher light levels and better uniformity. |
| 6. Exterior Lighting | (10) | **Good Dated** – Lighting at some locations have been retrofitted with new LED source. The exterior lights appear to be controlled by a time clock device. |
| 7. Outlet Condition & Adequacy | (5) | **Good Dated** – Outlets are located throughout the space and appear to be adequate. Dirt and grime can be seen on the receptacles due to the shop environment. |
| 8. Fire Alarm System | (40) | **Good Dated** – The fire alarm is an addressable system from Silent Knight. It appears to be in good condition and provides proper detection coverage. Notification coverage appear adequate. The system use radio transmitters to the monitoring station. |
| 9. Telecommunication System | (5) | **Good Dated** – Telecommunication system is provided to support office functions. The head-end equipment is located in the office area and appears to be adequate for the building's needs. |

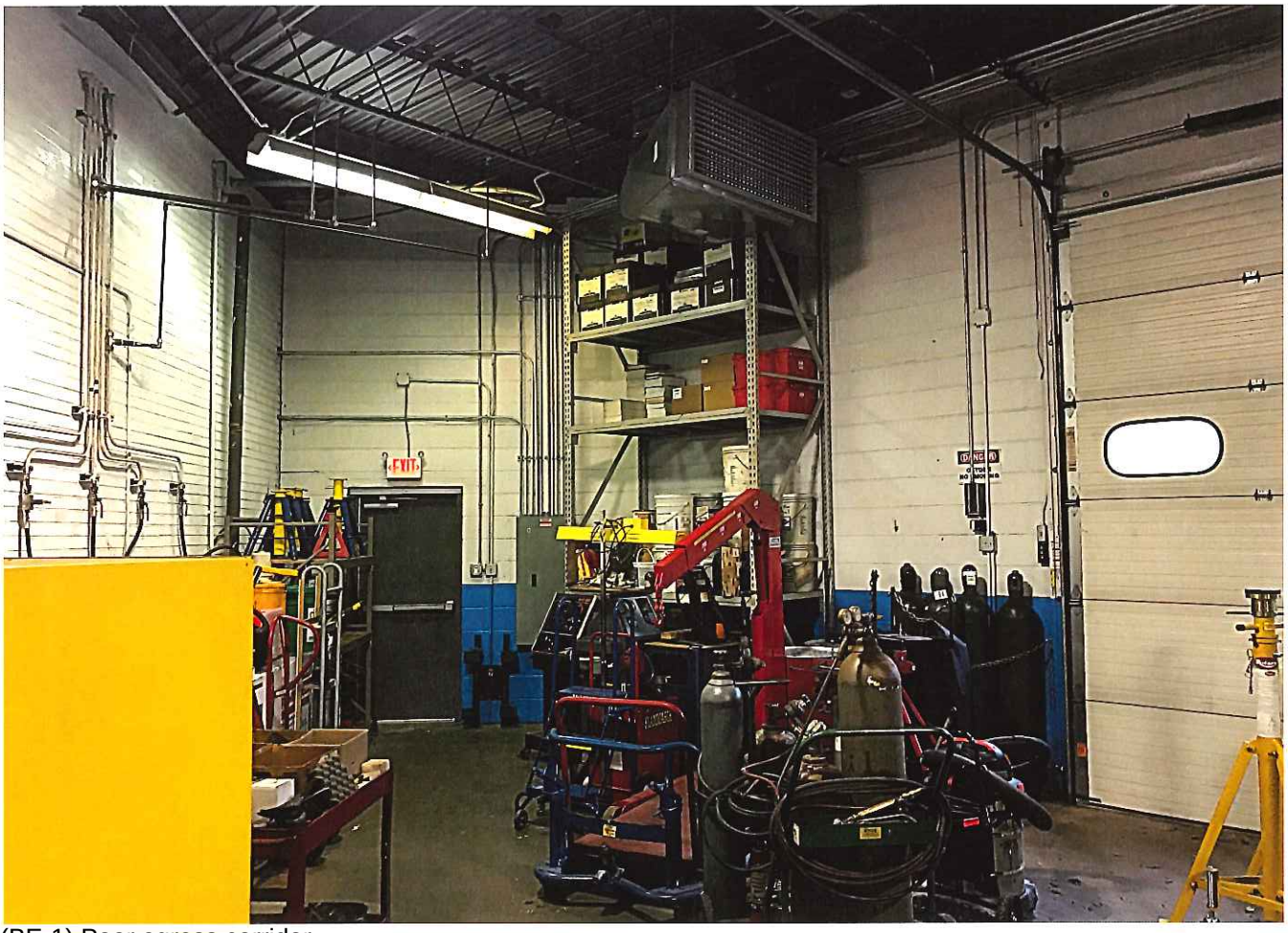



(S-2) Foundation seepage

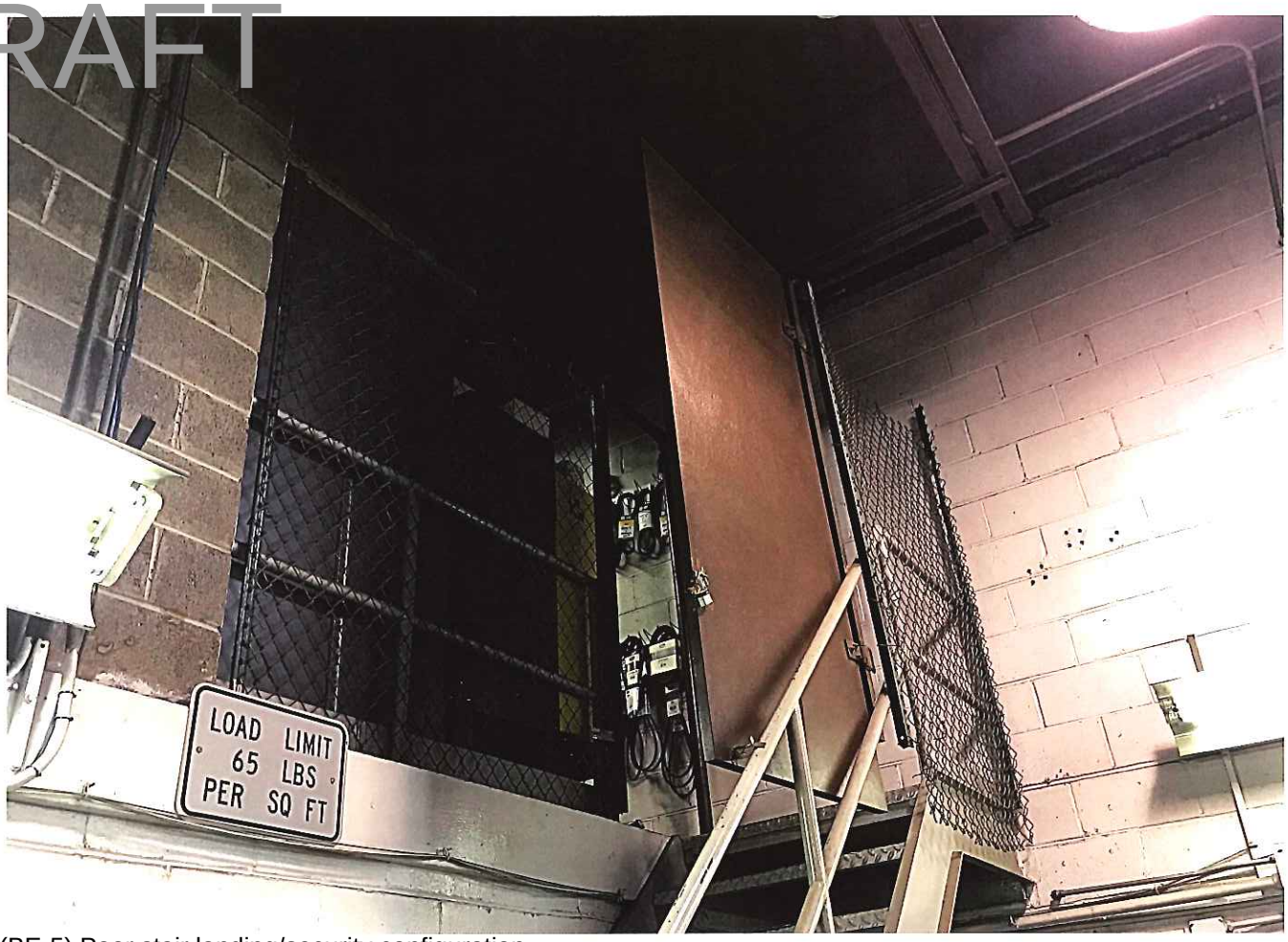


(S-3) Lack of staff parking

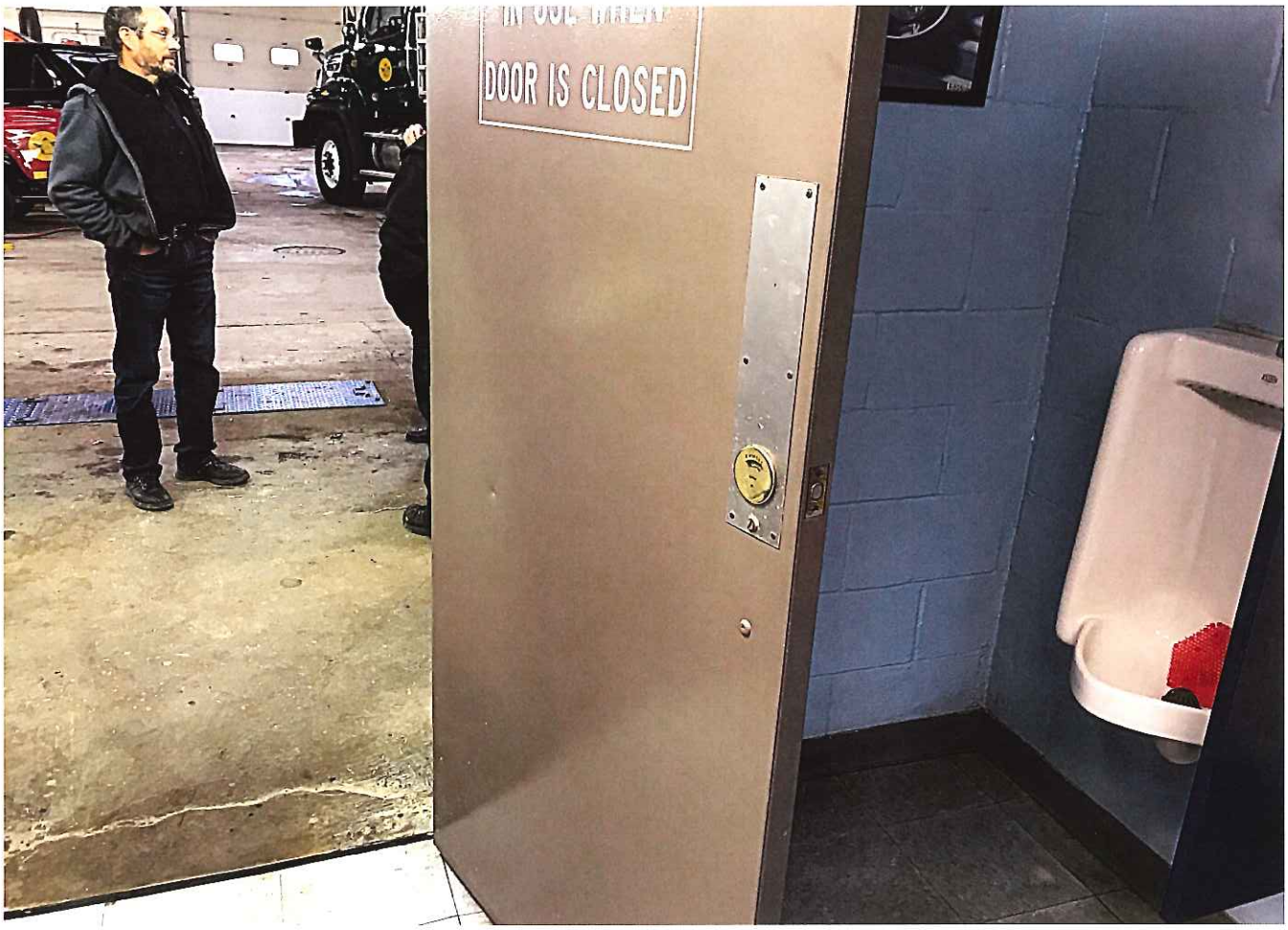
(ST-1) Pitting and Spalding concrete



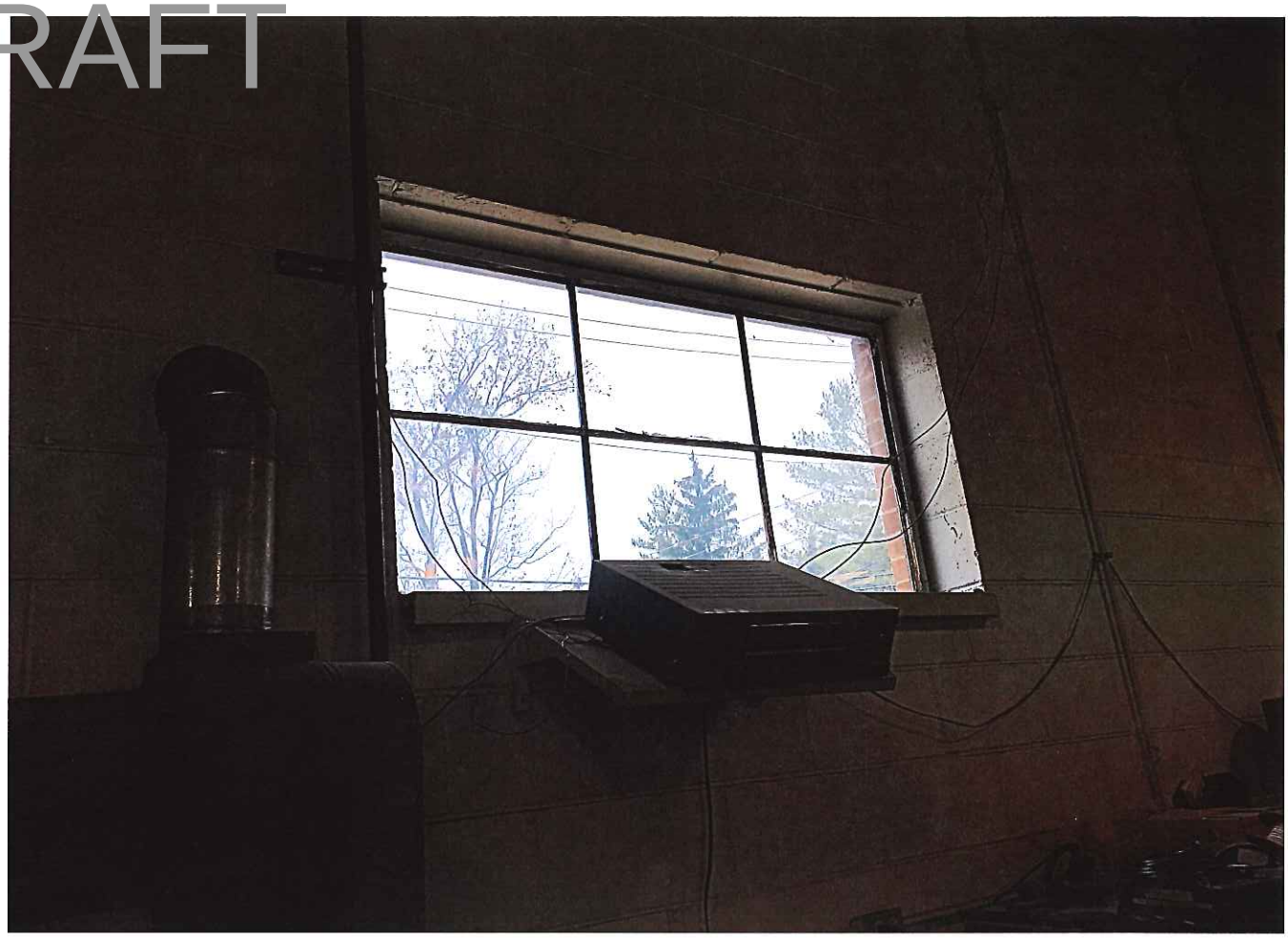

(BE-1) Poor egress corridor




(BE-5) Poor stair landing/security configuration




(BE-6) Missing accessible door hardware



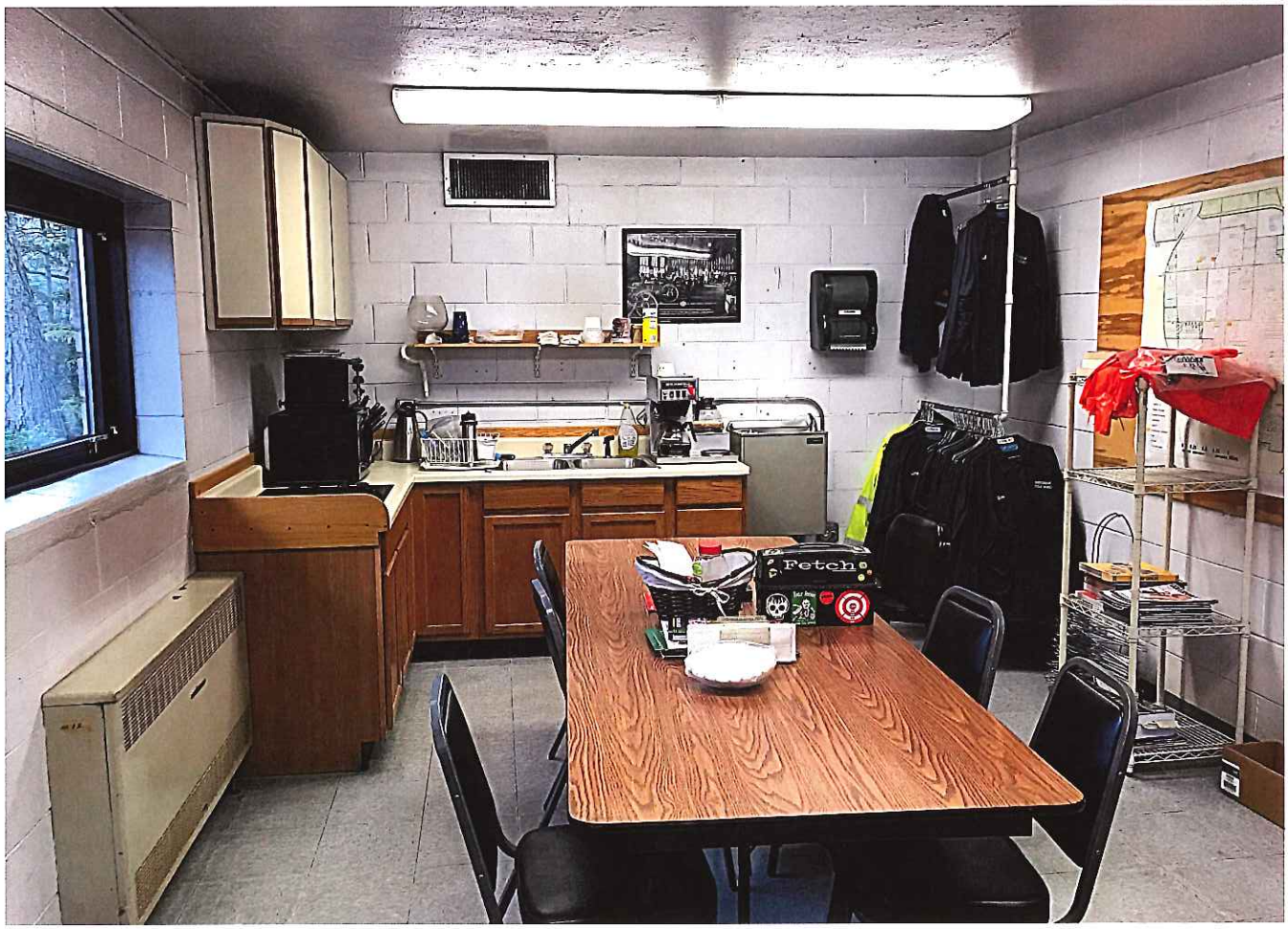
(A-1) Single pane windows


(A-3) Steel lintel is rust jacking

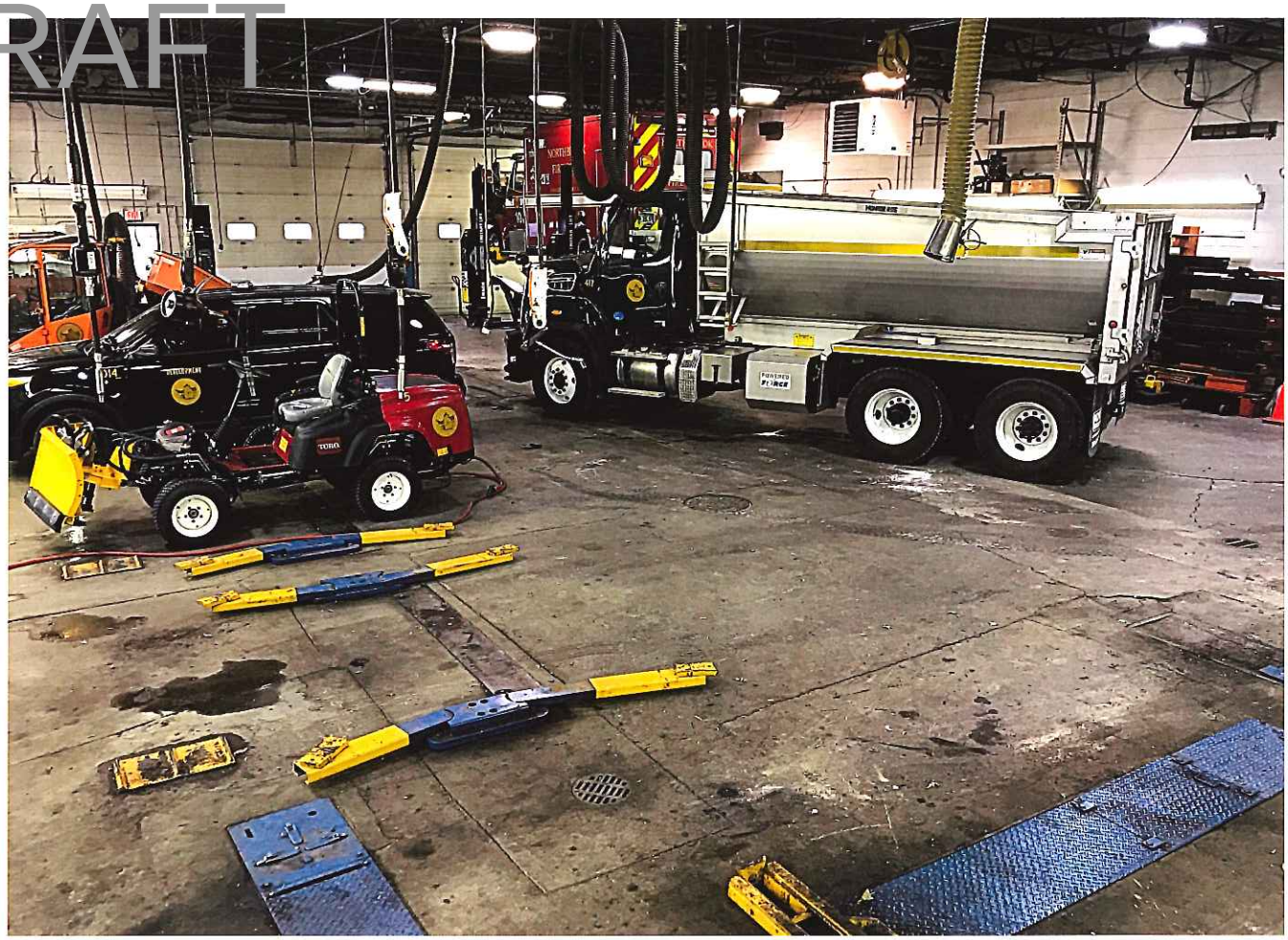
(A-4) Roofing

(A-4) Roofing


(A-6) Deteriorated finishes - floor, ceiling, partitions



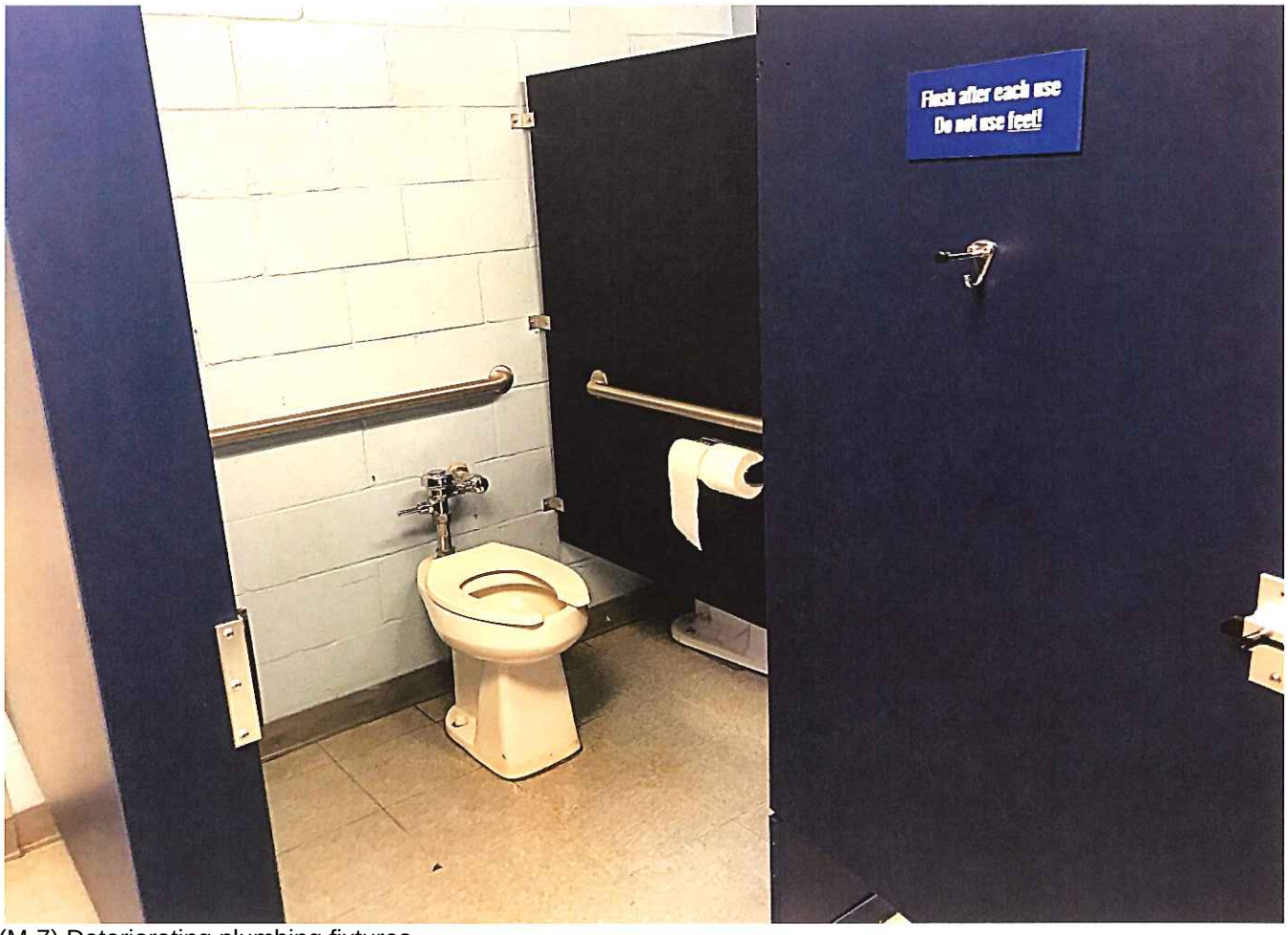

(A-7) Deteriorated finishes - floor, ceiling, counters



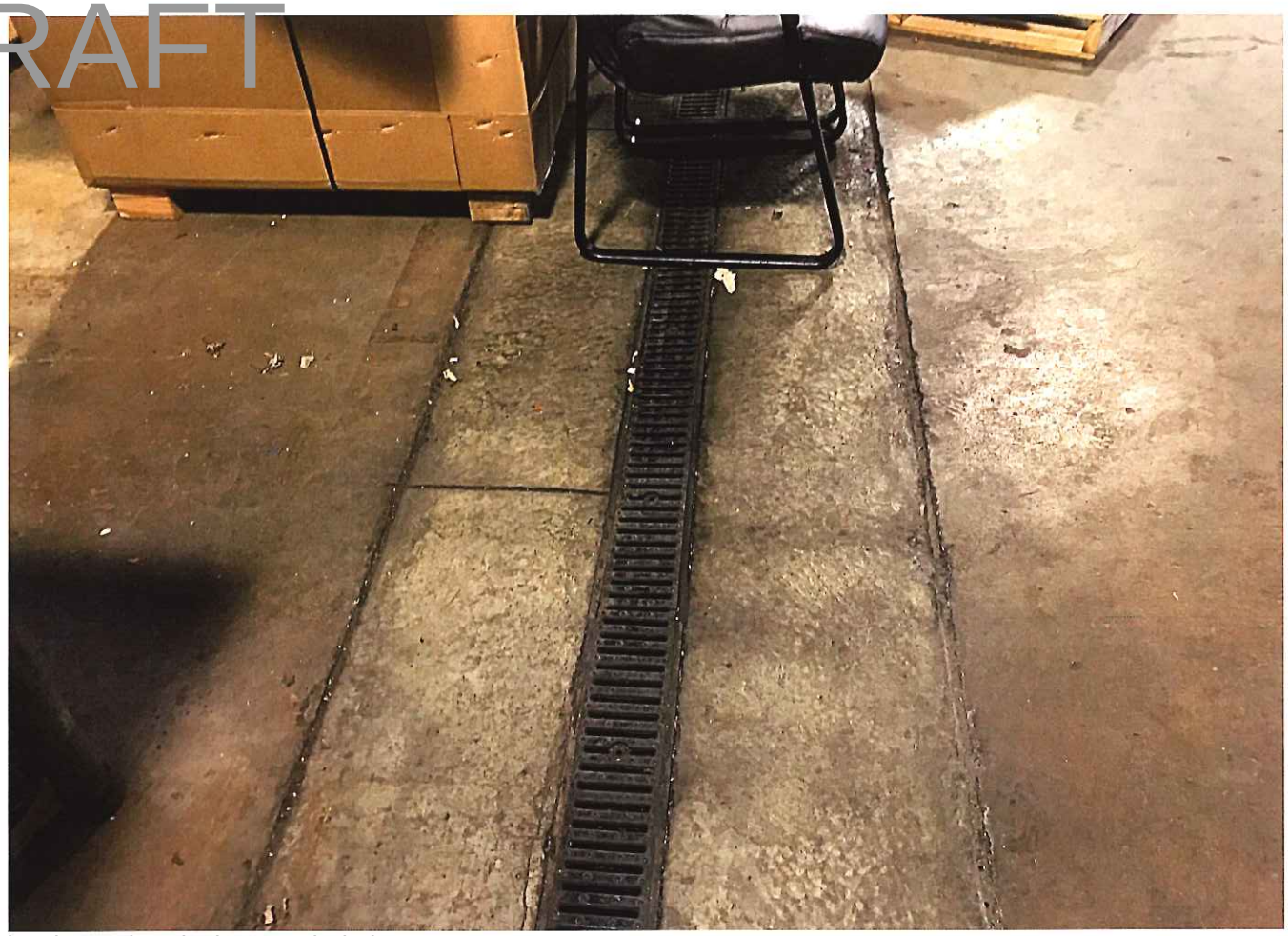
(A-8) Deteriorated concrete slabs and lifts

(A-11) Locker room in parts storage mezzanine

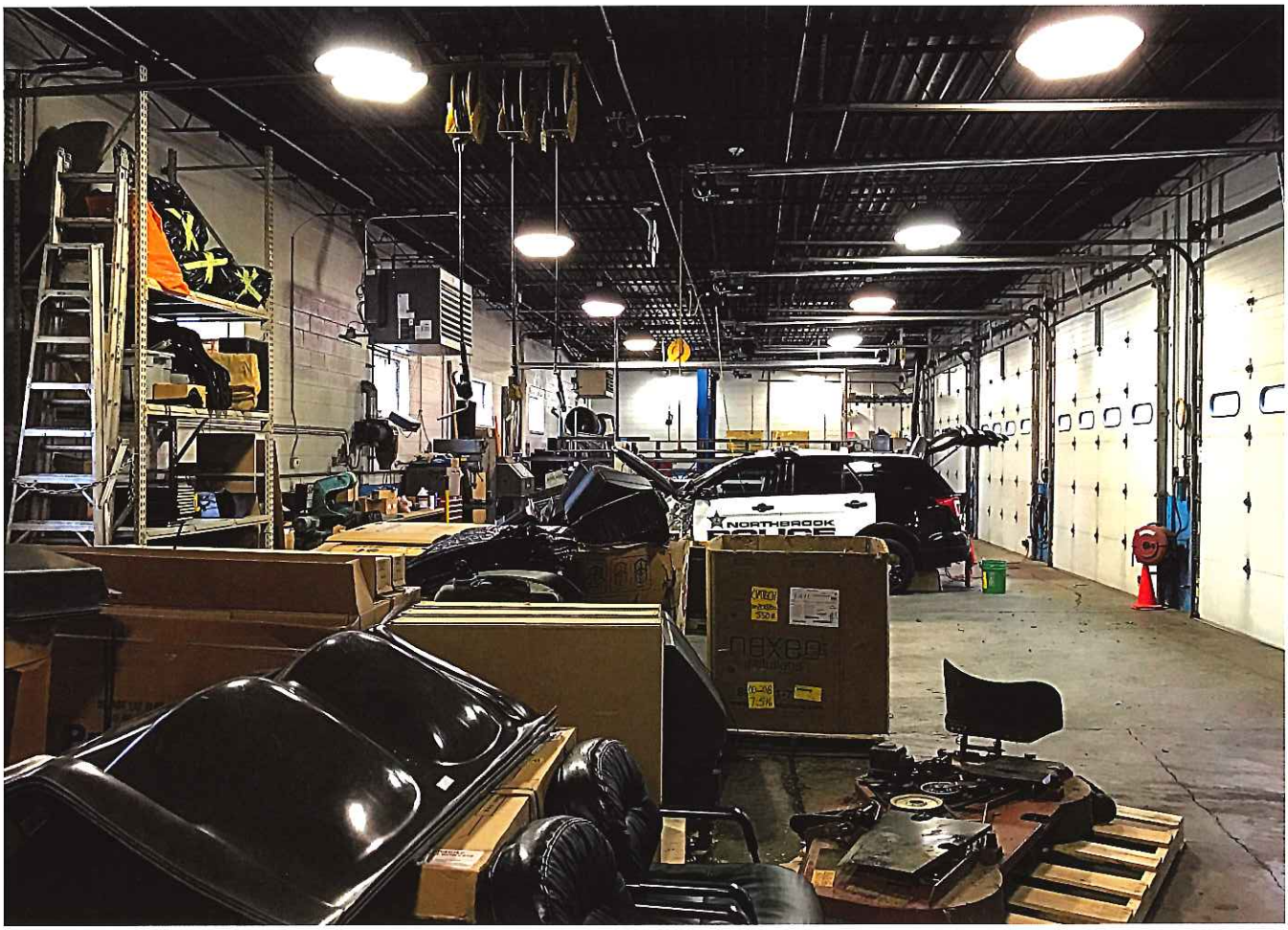
(M-3) Older model wall mounted ac unit




(M-7) Deteriorating plumbing fixtures



(M-9) Non-functioning trench drains




(E-5) Inefficient metal halide light fixtures

DRAFT

# 6. Parking Lot Assessment

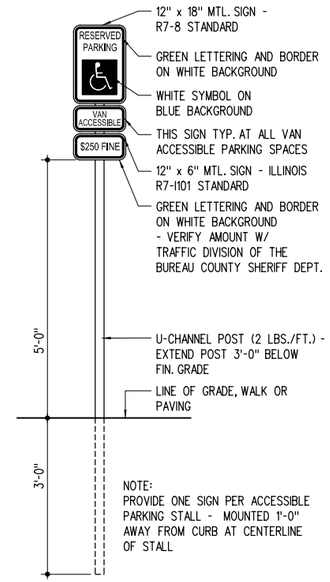

HEALY BENDER
Architects + Planners
www.healybender.com

Moyer Associates, Inc.
www.moyerassociates.com

DRAFT


## COMPOSITE PARKING LOT PLAN

NO SCALE




1 / A-1 ACCESSIBLE PARKING STALL SIGN

3/4" = 1'-0"

0 1 2 4

COMPOSITE PARKING LOT PLAN

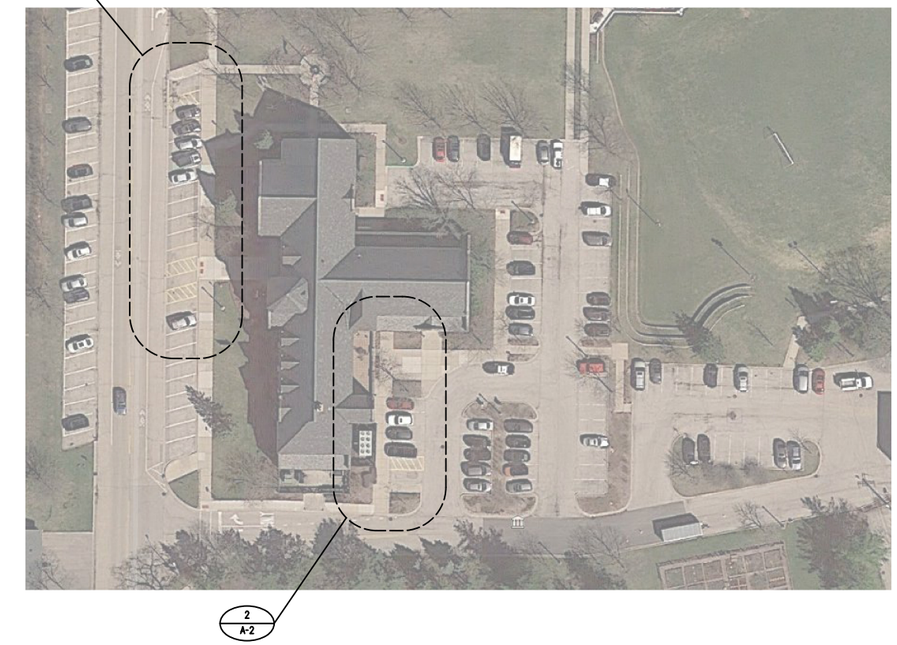
FACILITY AND SPACE NEEDS ANALYSIS
FIRE STATION, POLICE STATION & MAINTENANCE GARAGE
FOR
VILLAGE OF NORTHBROOK
NORTHBROOK, COOK COUNTY, ILLINOIS

PROJ. NO. 10-1117-45
DRAWN BY -
DATE 00-00-18
REVISIONS

HEALY, BENDER & ASSOCIATES, INC.
ARCHITECTS PLANNERS
4040 HELENE AVENUE, NAPERVILLE, IL 60564 TEL 630.904.4300 FAX 630.904.1515

SHEET NO. A-1 OF

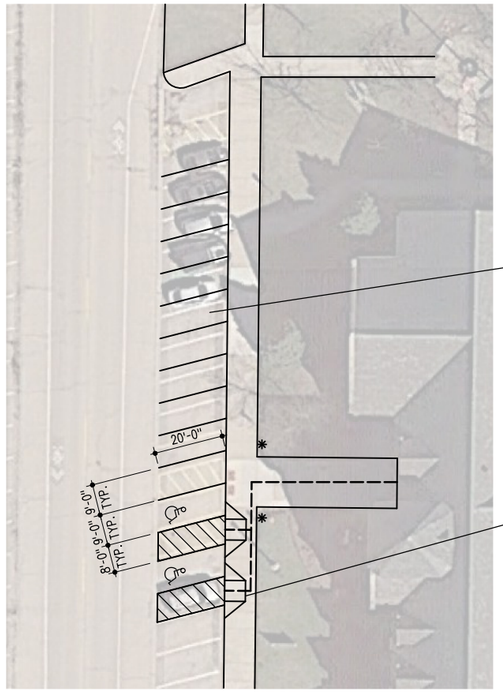
DRAFT




SITE PLAN - PARKING LOTS 1, 2, AND 3

NO SCALE

NORTH

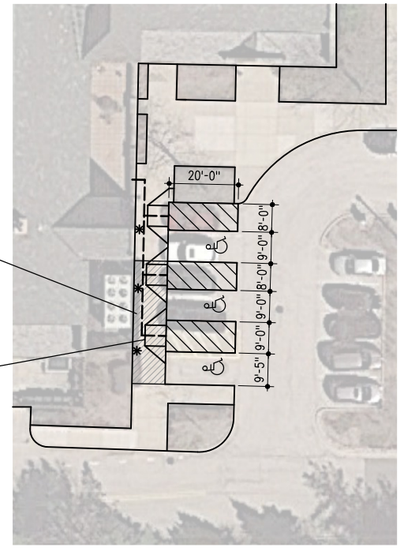



1 A-2 ENLARGED SITE PLAN - PARKING LOT 1

1" = 20'-0"

0 5 10 20 40 60

NORTH




2 A-2 ENLARGED SITE PLAN - PARKING LOT 2

1" = 20'-0"

NORTH

## PARKING STALL NOTES: LOT 1

EXISTING PARKING SPACES:

| | |
|---|---|
| STANDARD PARKING SPACES: | 20 |
| ACCESSIBLE PARKING SPACES: | 3 |

PROPOSED PARKING SPACES:

| | |
|---|---|
| STANDARD PARKING SPACES: | 21 |
| ACCESSIBLE PARKING SPACES: | 2 |

## PARKING STALL NOTES: LOTS 2 AND 3

EXISTING PARKING SPACES - LOTS 2 AND 3 COMBINED:

| | |
|---|---|
| STANDARD PARKING SPACES: | 51 |
| ACCESSIBLE PARKING SPACES: | 1 |

PROPOSED PARKING SPACES - LOTS 2 AND 3 COMBINED:

| | |
|---|---|
| STANDARD PARKING SPACES: | 47 |
| ACCESSIBLE PARKING SPACES: | 3 |

## LEGEND

- ACCESSIBLE ROUTE (LESS THAN 2% SLOPE)
- (1) PHOTOGRAPH OF LASER LEVEL
- * ACCESSIBLE PARKING STALL SIGN. SEE DETAIL 1/A-1

| | |
|---|---|
| SHEET TITLE | PROJ. NO. 10-1117-45 |
| FACILITY AND SPACE NEEDS ANALYSIS FIRE STATION, POLICE STATION & MAINTENANCE GARAGE FOR VILLAGE OF NORTHBROOK NORTHBROOK, COOK COUNTY, ILLINOIS | DRAWN BY - |
| | DATE 00-00-18 |
| | REVISIONS |
| HEALY, BENDER & ASSOCIATES, INC. ARCHITECTS PLANNERS 4040 HELENE AVENUE, NAPERVILLE, IL 60564 TEL 630.904.4300 FAX 630.904.1515 | SHEET NO. A-2 OF |

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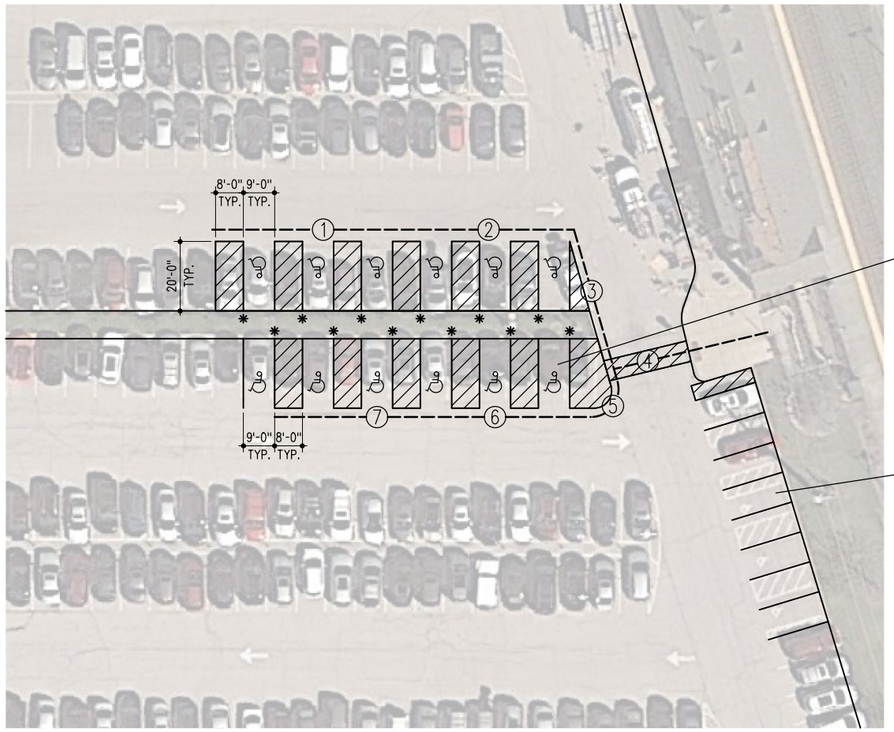
SITE PLAN - PARKING LOTS 4 AND 5

NO SCALE

NORTH




1
A-3

ENLARGED SITE PLAN - PARKING LOT 5

1" = 20'-0"

0 5 10 20 40 60

NORTH

## PARKING STALL NOTES:

EXISTING PARKING SPACES - LOTS 4 AND 5 COMBINED:

| | |
|---|---|
| STANDARD PARKING SPACES: | 531 |
| ACCESSIBLE PARKING SPACES: | 5 |

PROPOSED PARKING SPACES - LOTS 4 AND 5 COMBINED:

| | |
|---|---|
| STANDARD PARKING SPACES: | 508 |
| ACCESSIBLE PARKING SPACES: | 12 |

## LEGEND

| | |
|---|---|
| - - - - - - | ACCESSIBLE ROUTE (LESS THAN 2% SLOPE) |
| ① | PHOTOGRAPH OF LASER LEVEL |
| * | ACCESSIBLE PARKING STALL SIGN. SEE DETAIL 1/A-1 |

PARKING AREA 6

FACILITY AND SPACE NEEDS ANALYSIS
FIRE STATION, POLICE STATION & MAINTENANCE GARAGE
FOR
VILLAGE OF NORTHBROOK
NORTHBROOK, COOK COUNTY, ILLINOIS

PROJ. NO. 10-1117-45
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SHEET NO. A-3 OF

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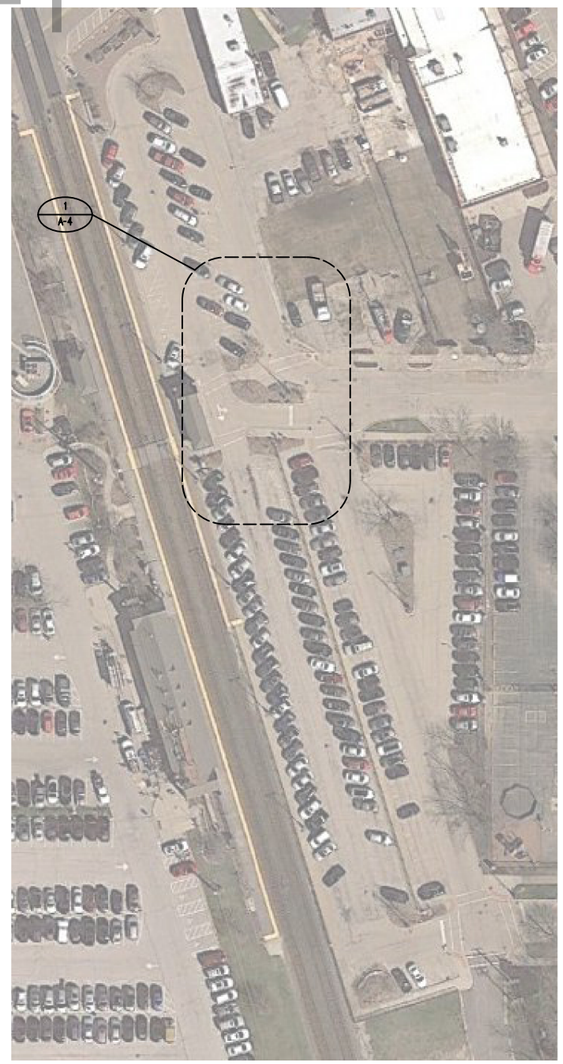


SITE PLAN - PARKING LOT 6

NO SCALE

NORTH


2
A-4

ENLARGED SITE PLAN - PARKING LOT 6

1" = 20'-0"

NORTH

## PARKING STALL NOTES:

EXISTING PARKING SPACES:

| | |
|---|---|
| STANDARD PARKING SPACES: | 159 |
| ACCESSIBLE PARKING SPACES: | 8 |

PROPOSED PARKING SPACES:

| | |
|---|---|
| STANDARD PARKING SPACES: | 156 |
| ACCESSIBLE PARKING SPACES: | 6 |

## LEGEND

| | |
|---|---|
| - - - - - - | ACCESSIBLE ROUTE (LESS THAN 2% SLOPE) |
| ① | PHOTOGRAPH OF LASER LEVEL |
| * | ACCESSIBLE PARKING STALL SIGN. SEE DETAIL 1/A-1 |

SHEET TITLE

FACILITY AND SPACE NEEDS ANALYSIS
FIRE STATION, POLICE STATION & MAINTENANCE GARAGE
FOR
VILLAGE OF NORTHBROOK
NORTHBROOK, COOK COUNTY, ILLINOIS

PROJ. NO. 10-1117-45
DRAWN BY -
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SHEET NO. A-4 OF

# STATUS UPDATE ON THE FACILITIES ASSESSMENT

## AD HOC FACILITIES COMMITTEE

## FEBRUARY 27, 2018

# GOALS OF THE PROJECT

- Conduct a comprehensive facility assessment and space needs analysis of the following buildings:
  - Police Station
  - Fleet Maintenance Garage
  - Operations Wing of Fire Station 11
- Develop capital improvement schedules and other reports for each of the facilities
- Evaluate and provide recommendations for renovation, reuse or relocation of the current facilities

# PROCESS TO DATE

## Facilities Study

- Review of Physical Condition of Current Facilities
- Capital Improvement Plan to maintain existing facilities as they are

## Space Needs Analysis

- Review of Operational Needs and Suitability of Current Facilities
- Develop projections of future growth and anticipated needs

## Final Report

- Combines Facilities Assessment and Space Needs Analysis
- Provides recommendations and alternatives to address Village needs
- Capital Improvement Plan to meet Village's needs

# FACILITIES ASSESSMENT

- Purpose: To identify the overall condition of the current facilities and the capital improvements needed to maintain them as they are.
- Does not address the operational nor space needs of the facilities.
- Data Gathering:
  - Involves detailed evaluation of the buildings by:
    - Architectural Team
    - Mechanical, Electrical and Plumbing Engineers
  - Review of Plan Sets for Buildings and Interviews with Staff

# METHODOLOGY

- Consultants used American Society for Testing and Materials (ASTM) E2018-15 Guide to assess the facilities
  - Detailed list of building components that is used to review and rate each
  - Ratings of "Good Current" to "Very Poor"

- Ratings are used to compile a "facility report card" that summarizes the condition of the building.

# FACILITY IMPROVEMENTS

- Improvements to building systems that are rated "Fair," "Poor," or "Very Poor" have been identified for replacement and an estimated costs.
- These improvements are what are needed to maintain the buildings as they are today.
- Consultant has programmed projects based on priorities of life/safety issues to parking.

# INITIAL IMPRESSIONS OF FACILITY ASSESSMENT

- The Village has maintained its buildings.
  - Focus has been on key building systems to keep our buildings functional and livable.
  - There has been less of an emphasis on finishes and the appearance of our buildings.

- Key projects that the Village has completed that affected the ratings in a positive way:
  - Roof and HVAC at Police Station
  - Window replacements and driveways at Fire Station 11
  - Main vehicle hoist replacement at Fleet Maintenance Garage

# POLICE DEPARTMENT

- Rating of Building: B
- Projected Value of Improvements Needed: $1,786,000
- Notable Findings:
  - Electrical Distribution System (E2)
  - Plumbing System Components (P1 and P10)
  - Windows (A1)
  - Parking Lot and Parking Lot Lighting (S4)

# POLICE DEPARTMENT PARKING LOTS

# POLICE DEPARTMENT PARKING LOTS

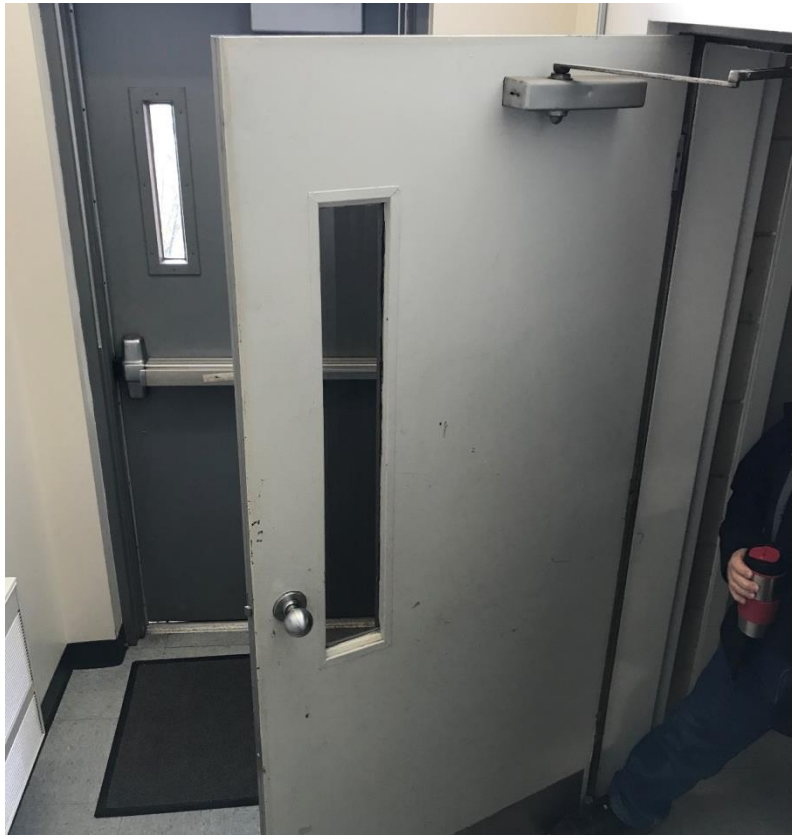
# POLICE DEPARTMENT ELECTRICAL SYSTEM

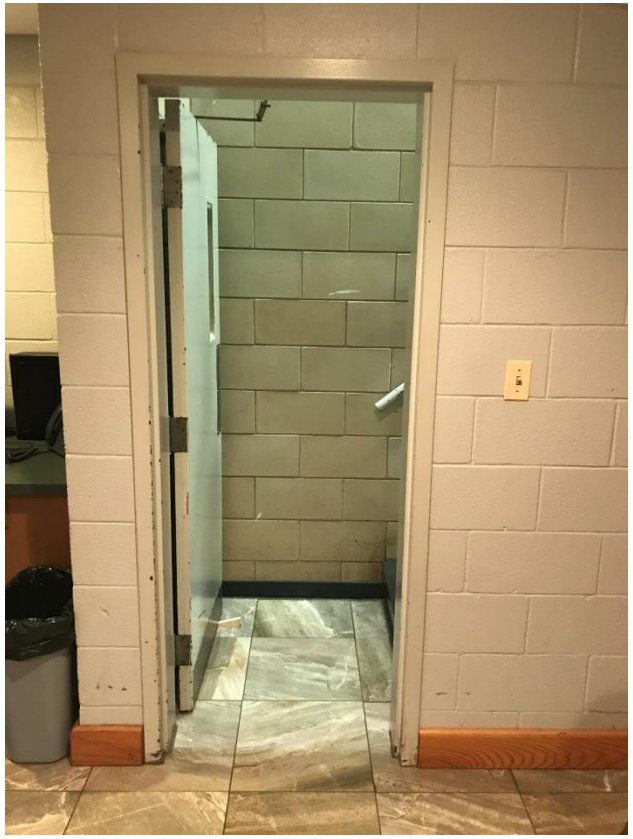

# POLICE DEPARTMENT WINDOWS

# FIRE STATION 11 – OPERATIONS WING

- Rating of Building: C
- Projected Value of Improvements Needed: $1,043,000
- Notable Findings:
  - Building Egress is fair to very poor throughout the operations wing (BE1-6)
  - Air conditioning system is past its useful life (M3)
  - Boiler is in good condition, however the pipes feeding the radiators themselves are failing and will require replacement (M2)

# FIRE STATION 11 BUILDING EGRESS





# FIRE STATION I I AIR CONDITIONING UNITS/ROOF

# FLEET MAINTENANCE GARAGE

- Rating of Building: C
- Projected Value of Improvements Needed: $1,129,000
- Notable Findings:
  - Roofing is approaching the end of its useful life (A4).
  - Maintenance bays are in very poor condition (A8 – A9).

# FLEET MAINTENANCE GARAGE ROOF

# FLEET MAINTENANCE GARAGE MAINTENANCE BAYS

# NEXT STEPS IN PROCESS

- Next Meeting:
  - Review Draft Space Needs Analysis for each facility
  - Review Facility Manager's proposed schedule of capital improvements for all facilities (global perspective)
  - Direction and feedback needed on alternatives to consider in final report
- Final Meeting:
  - Review Final Report and Alternatives
  - Consider for recommendation to the full Village Board

# QUESTIONS