Fire Escape
Existing Conditions Report

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Site: #176 Golda Meir Lower Campus

Address: 1555 Dr. Martin Luther King Drive

Date: 8 December, 2020

Executive Summary

There are three fire escapes at this site. Fire Escapes #1 and #2 are replacement fire escapes (not original to the building) and are in good to fair condition. Fire Escape #2 will likely need paint maintenance before the next 5 year critical examination.

Fire Escape #3 is original to the building and is in poor condition. This fire escape has an immediate need for repair and we recommend closure until repairs can be made. Additionally we recommend a building code impact study to review the potential for de-commissioning and removal of this fire escape.

Additional Maintenance Concerns: Existing exterior doors leading to the fire escape are at the end of their service life and in need of replacement.

Sincerely,

Craig Eide
Foundation Architects, LLC

Attachments:
1 Existing Fire Escape Floor Plans
2 Critical Examination Report by Integrated Structural Engineering

Fire Escape Overview

There are three (3) fire escapes at this site.

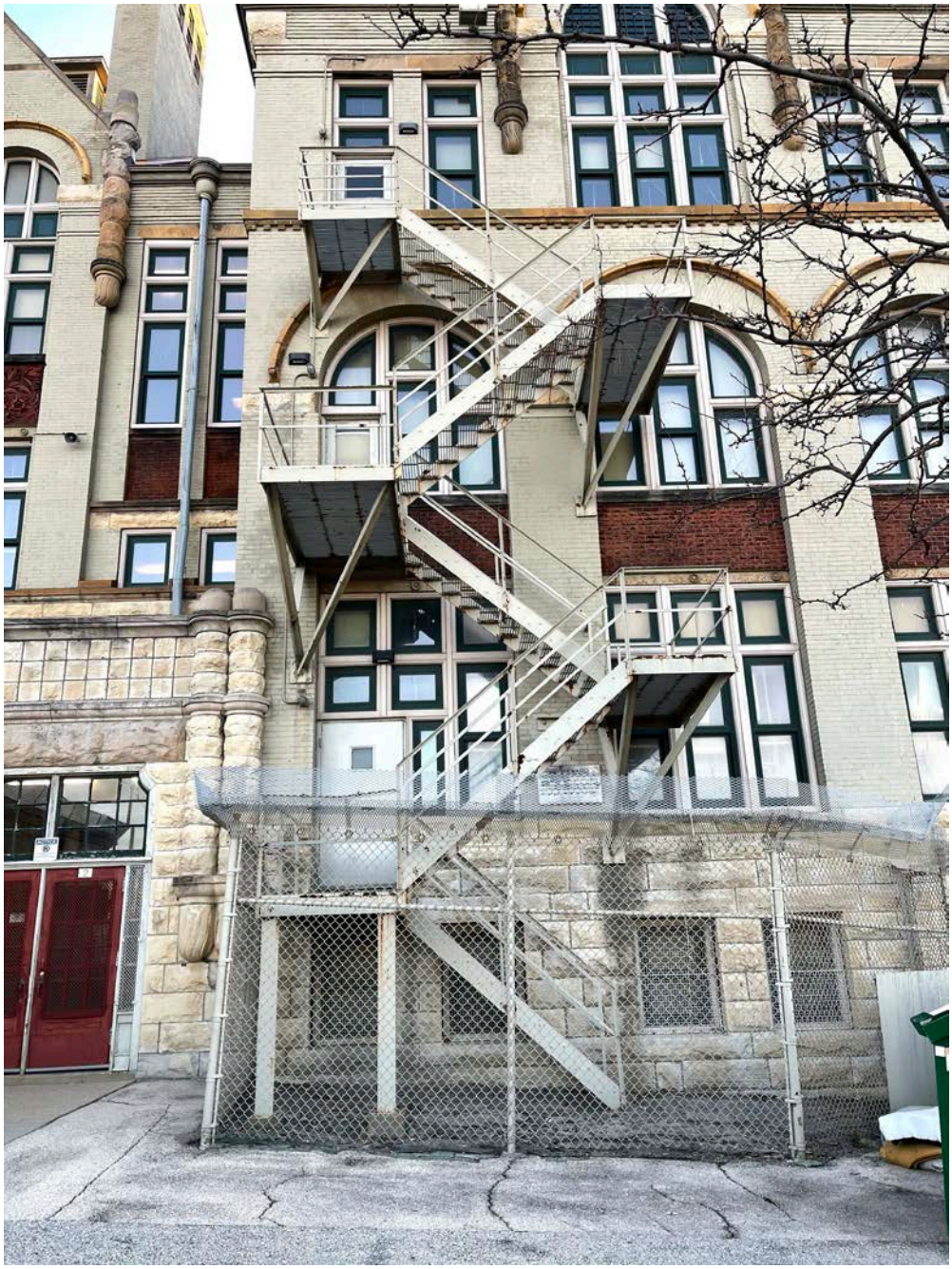
Fire Escape #1: Egresses from the third floor Gym 31 to grade. Additionally, exits for Storage 21A and Office 11A utilize this fire escape. Located on east face of building.

Total Height: 37'-8"
# of Treads: 53
# of Landings: 5
Finish: Painted steel in good condition.
Notes: 2 6x6x1/2 posts, 6 large brackets.

Overall View of Fire Escape #1 (Looking North West)

Fire Escape #2: Egresses from the third floor Classroom 33 to grade. Additionally, exits for Classroom 23 and Classroom 13 utilize this fire escape. Located on west face of building near the SW corner.

Total Height: 35’-0”
# of Treads: 49
# of Landings: 5
Finish: Painted steel in fair condition.
Notes: 2 6x6x1/2 posts, 4 large brackets.

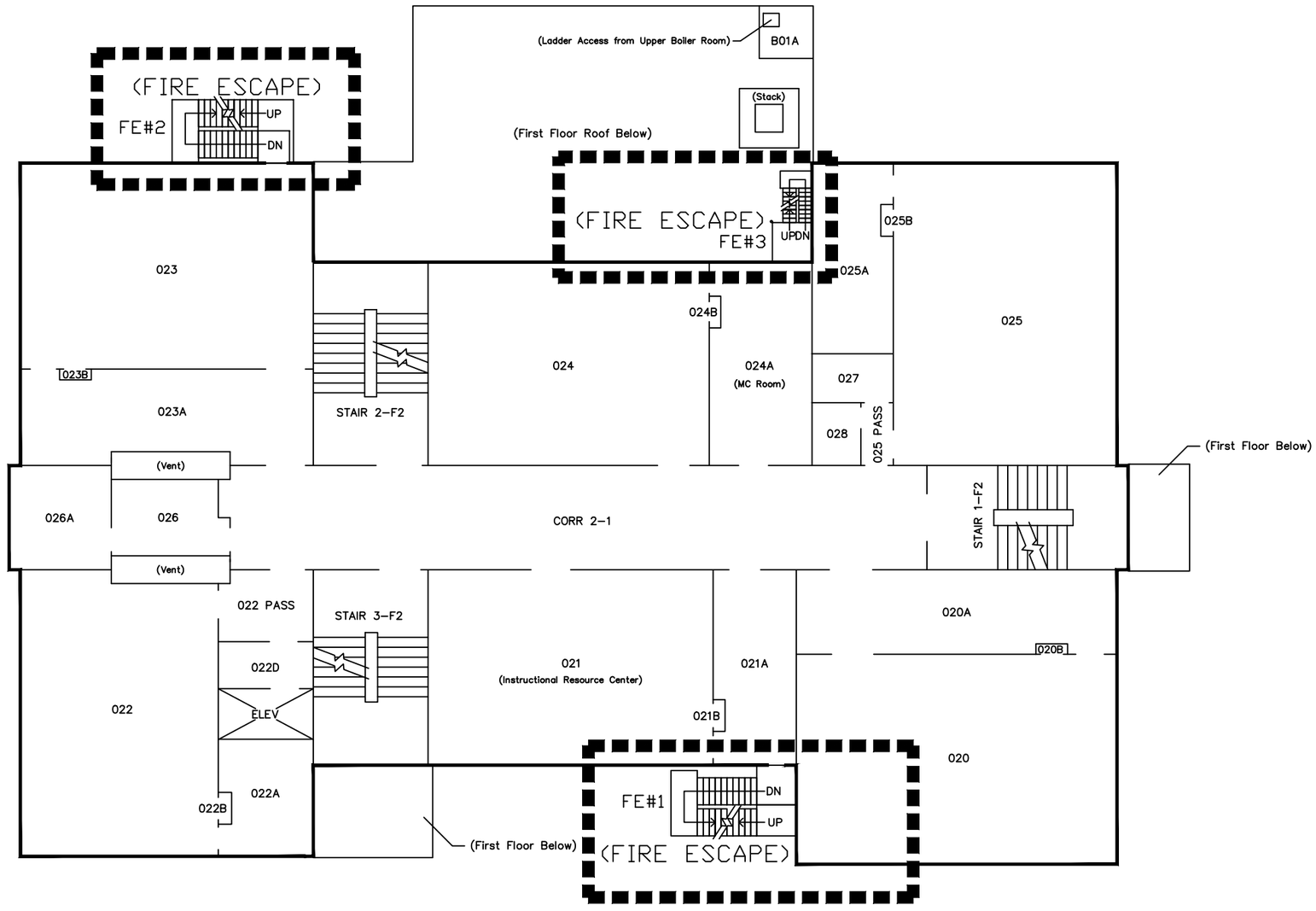


Overall View of Fire Escape #2 (Looking East)

Fire Escape #3: Egresses from the third floor Gym 31 to enclosed roof area above the boiler room with no egress to the public way. No other rooms utilize this fire escape. The code requirement for this fire escape should be investigated. Located on west face of building.

Total Height: 29'-6"
# of Treads: 32
# of Landings: 5
Finish: Painted steel.
Notes: 1 3" column, 2 angle brackets, 4 scroll brackets, No handrails on building side.

Overall View of Fire Escape #3 (Looking North East)



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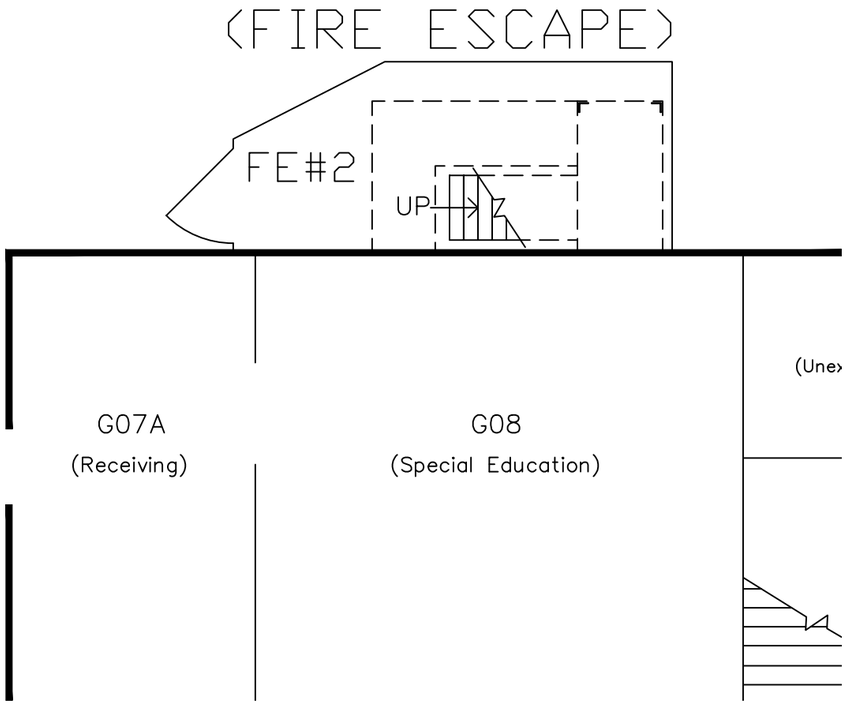
SECOND FLOOR PLAN

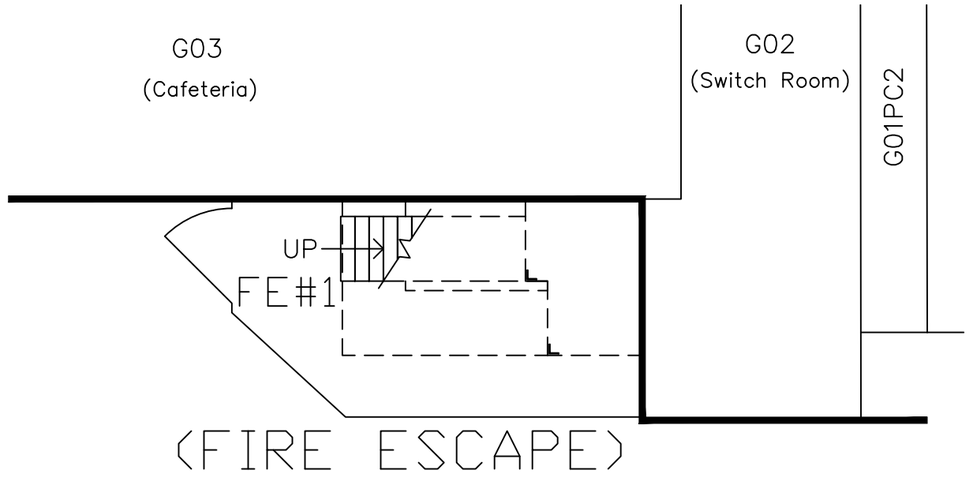
SITE NO. 176 – GOLDA MEIR ELEMENTARY SCHOOL
1555 N. MARTIN LUTHER KING DR., MILW., WI., 53212
DATE: 12/18/20

NORTH

0 8' 16'

SCALE: 1/16" = 1'-0"





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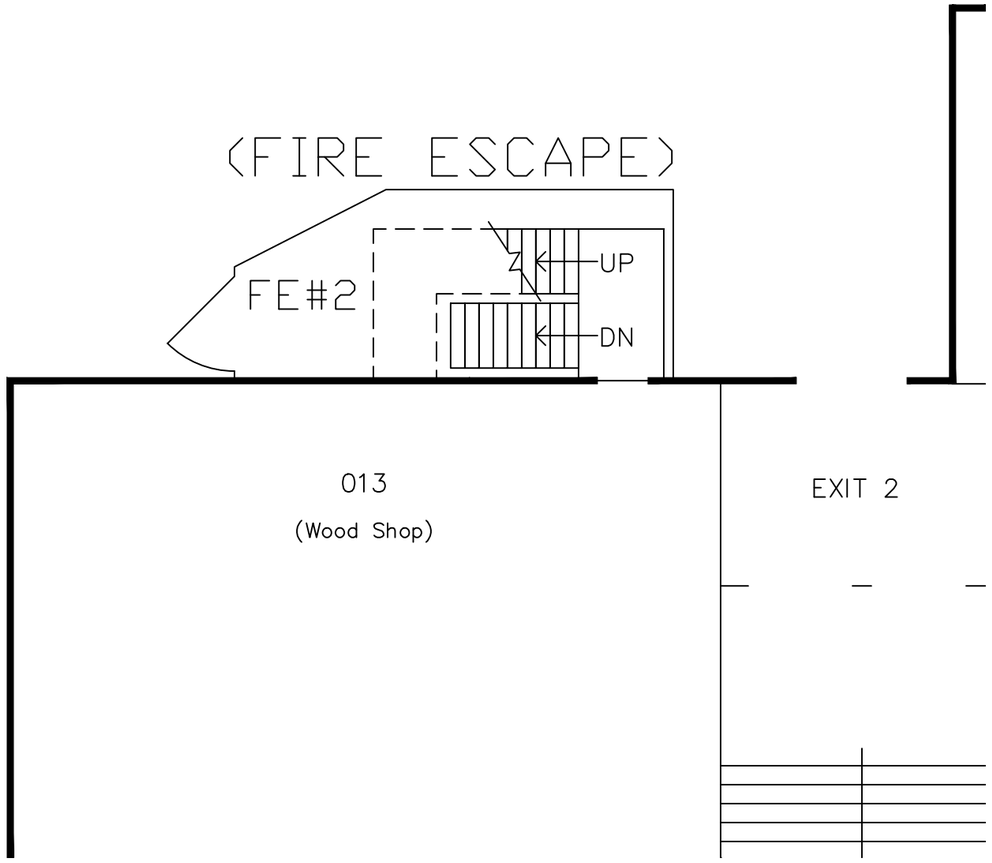
GROUND FLOOR PLAN – ENLARGED FIRE ESCAPE PLAN

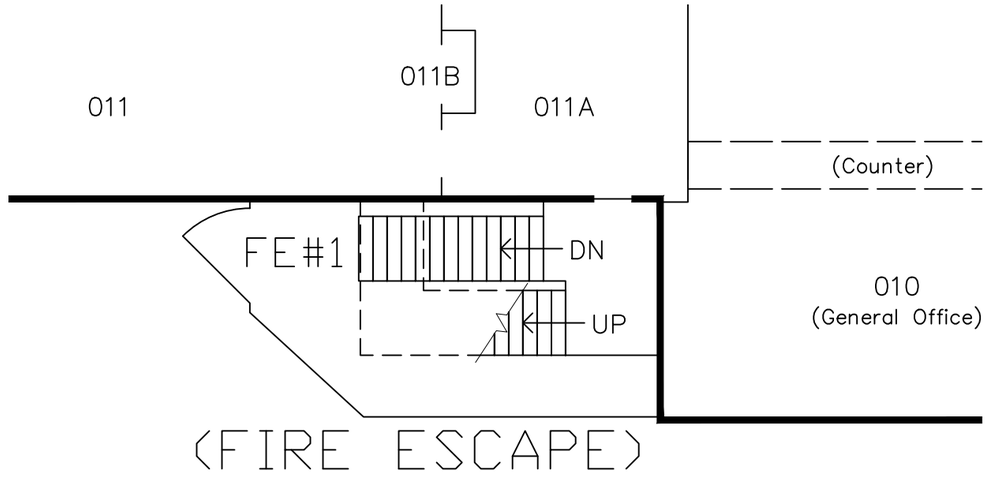
SITE NO. 176 – GOLDA MEIR ELEMENTARY SCHOOL
1555 N. MARTIN LUTHER KING DR., MILW., WI., 53212
DATE: 12/18/20

NORTH

0 4' 8'

SCALE: 1" = 8'





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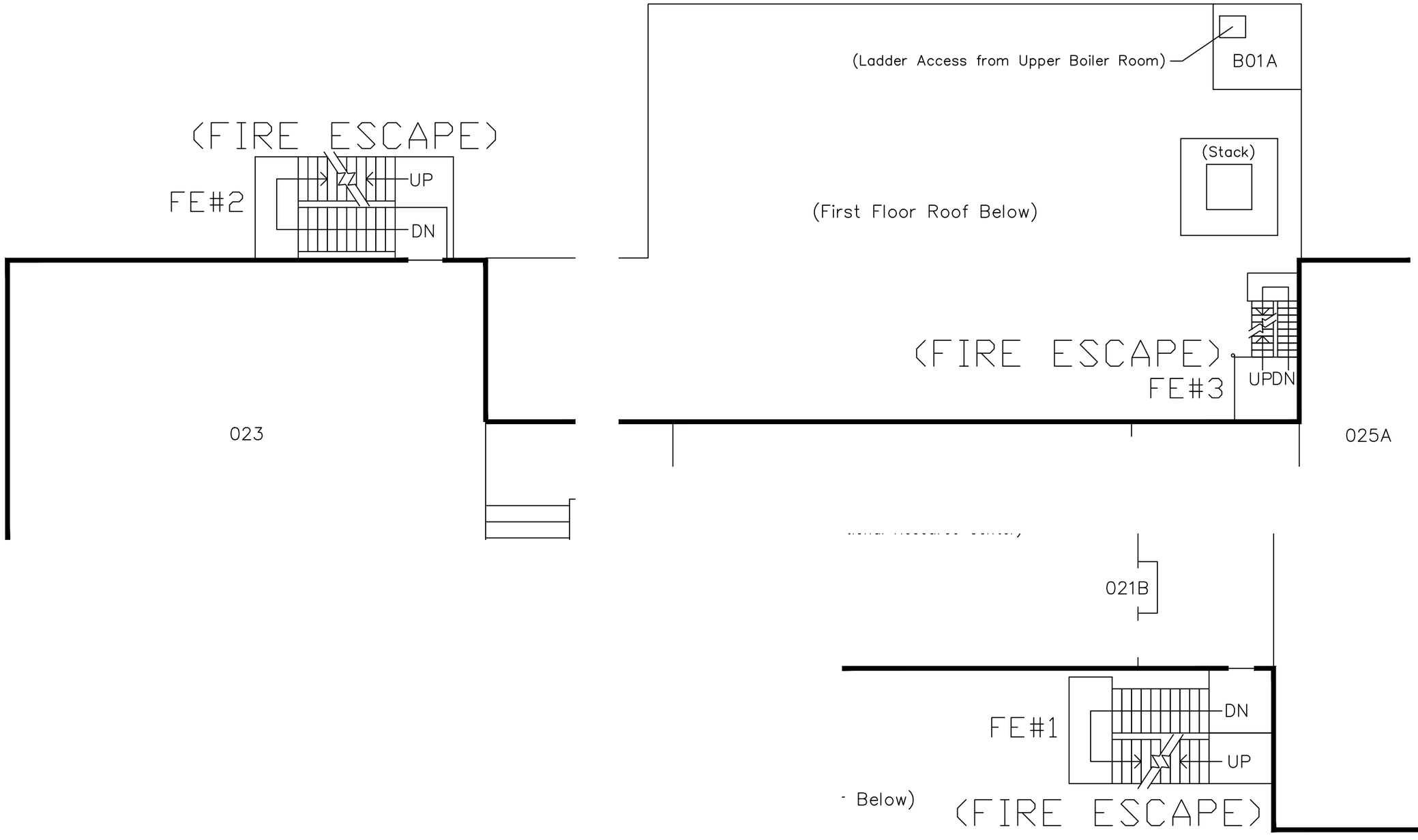
FIRST FLOOR PLAN – ENLARGED FIRE ESCAPE PLAN

SITE NO. 176 – GOLDA MEIR ELEMENTARY SCHOOL
1555 N. MARTIN LUTHER KING DR., MILW., WI., 53212
DATE: 12/18/20

NORTH

0 4' 8'

SCALE: 1" = 8'



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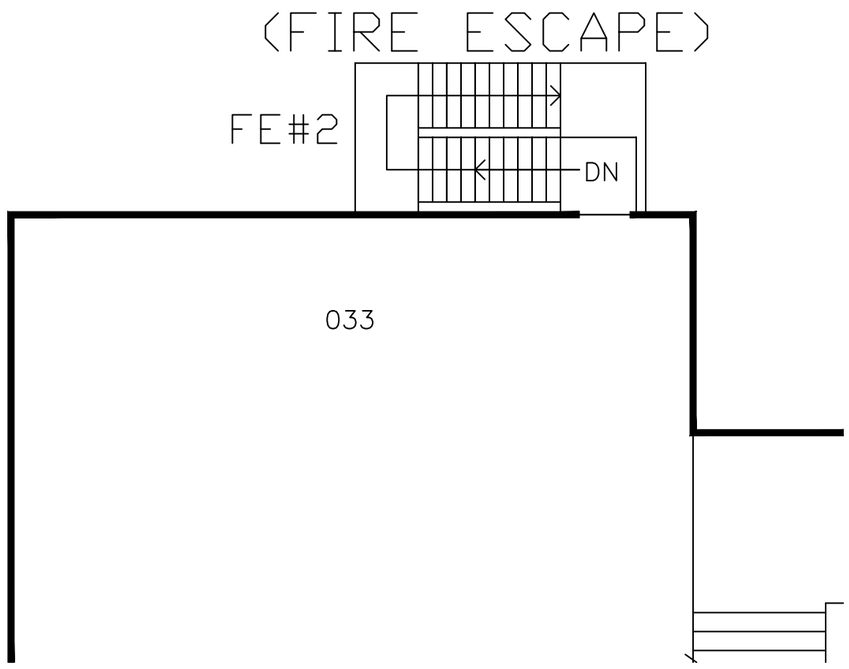
SECOND FLOOR PLAN – ENLARGED FIRE ESCAPE PLAN

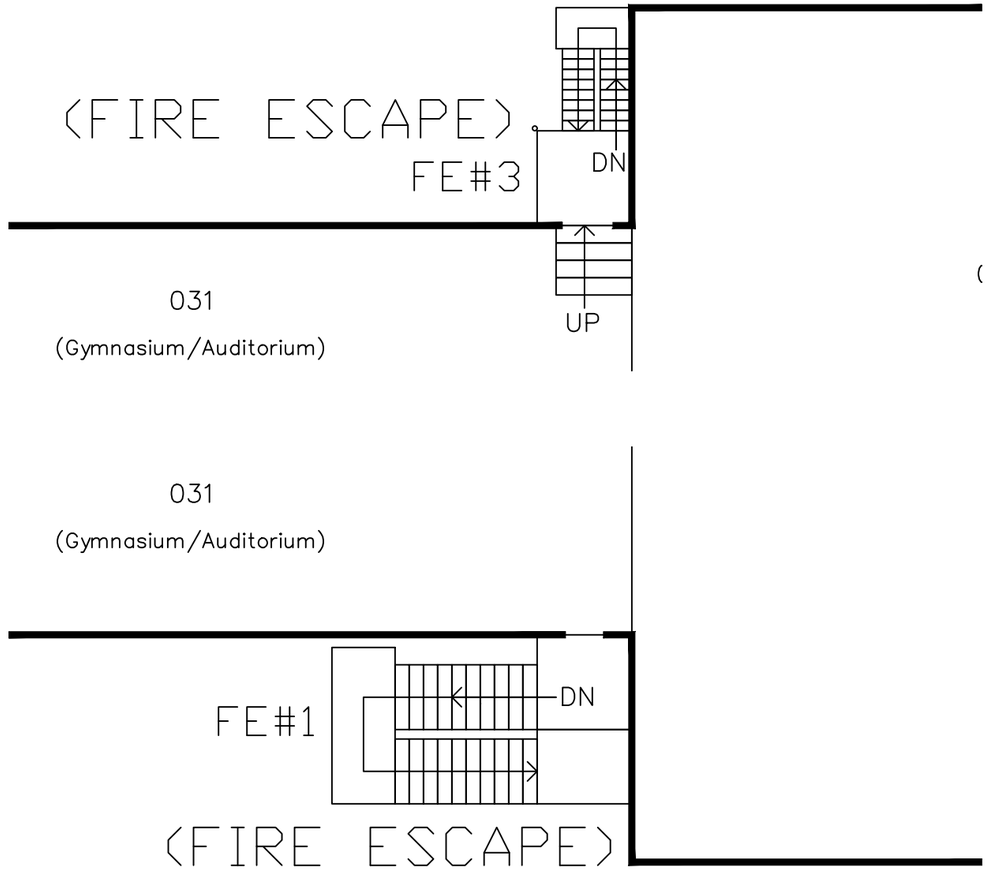
SITE NO. 176 – GOLDA MEIR ELEMENTARY SCHOOL
1555 N. MARTIN LUTHER KING DR., MILW., WI., 53212
DATE: 12/18/20

NORTH

0 4' 8'

SCALE: 1" = 8'





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THIRD FLOOR PLAN – ENLARGED FIRE ESCAPE PLAN

SITE NO. 176 – GOLDA MEIR ELEMENTARY SCHOOL
1555 N. MARTIN LUTHER KING DR., MILW., WI., 53212
DATE: 12/18/20

NORTH

0 4' 8'

SCALE: 1" = 8'

Integrated Structural Engineering, LLC
7700 Hill n Dale Court
Cedarburg, Wisconsin 53012
Phone: (920) 470-3119
email: pete@ise-llc.net

December 28, 2020

12/28/2020

Commissioner of Buildings
City of Milwaukee
Department of Building Inspection
Code Enforcement Section
841 North Broadway
Milwaukee, Wisconsin 53202

RE: Fire Escape Inspection Report
Golda Meir Lower Campus
MPS Site #176
1555 Dr. Martin Luther King Drive

Dear Inspector,

On December 8th and 10th, 2020, a Fire Escape Critical Examination was performed of the steel fire escapes which are attached to the northeast (FE#1), southwest (FE#2) and northwest (FE#3) faces of the building at the address noted above by Integrated Structural Engineering LLC.

A visual examination was conducted to review the exterior portions of the fire escapes and related supporting exteriors portions of the building. The observation covers such things the visible condition and apparent maintenance of anchor points, supporting walls, metal members and all welded and bolted connections. This observation as performed without removal or alteration of any part of the permanent structure or finish materials.

Below is a list of findings and recommendations from our observation at 1555 Dr. Martin Luther King Drive:

Finding and Recommendations

1. **Findings:** The entire metal frame has multiple degrees of corrosion varying from bubbled paint to members pitted due to material loss. None of the members appeared to be structurally compromised and in need of repair except those noted below.

   Recommendations: Properly clean corroded portions of the metal frame to bare steel. Re-inspect to confirm no significant loss of section in any of the members. Reinforce or replace any members with a 10 percent loss of section. Steel cleaning should be completed before other repairs have begun. Paint with a rust inhibiting paint. All prime and final painting shall be completed after all repairs have been made.

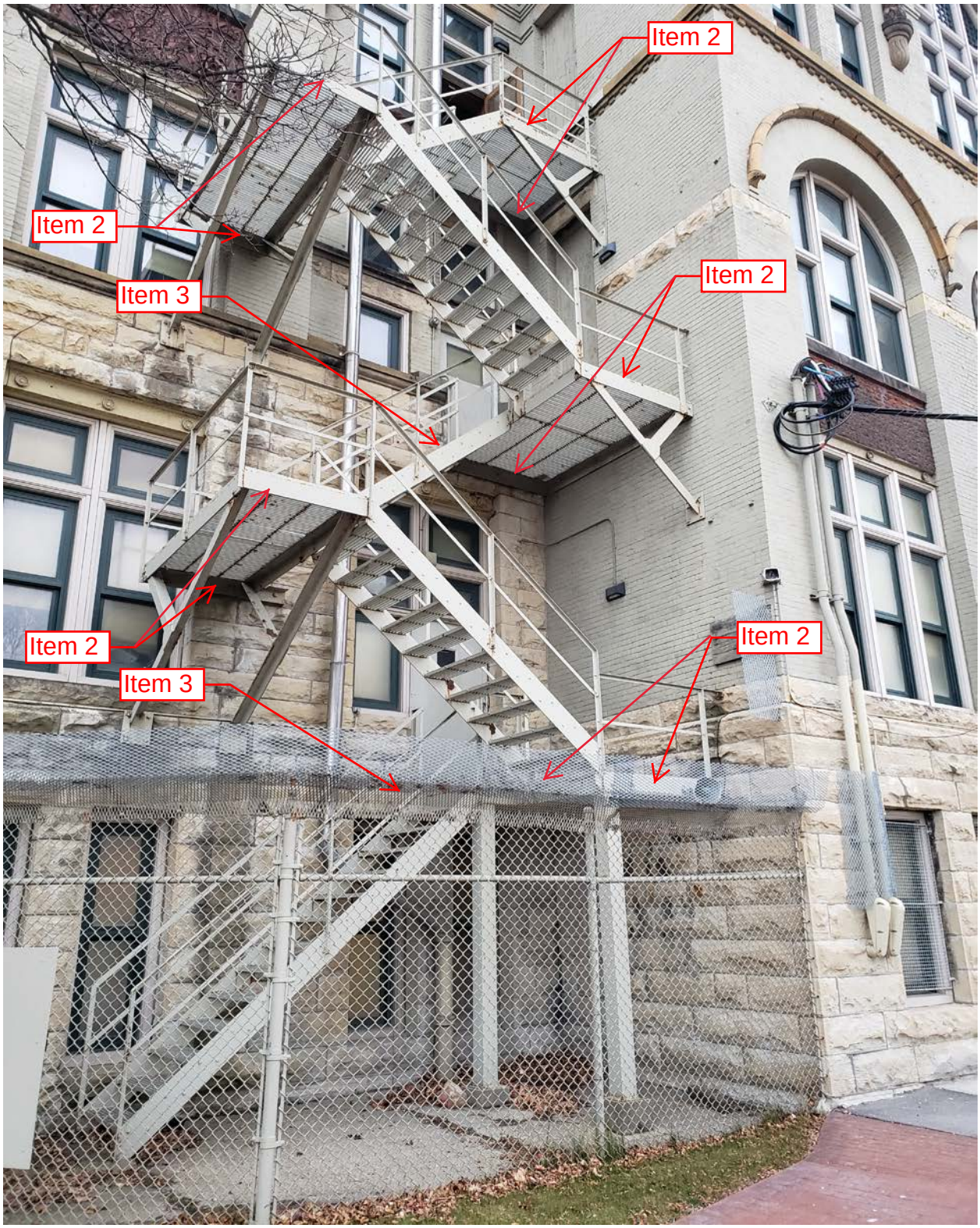

Figure 1 Fire Escape FE#1

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Figure 2 Fire Escape FE#2

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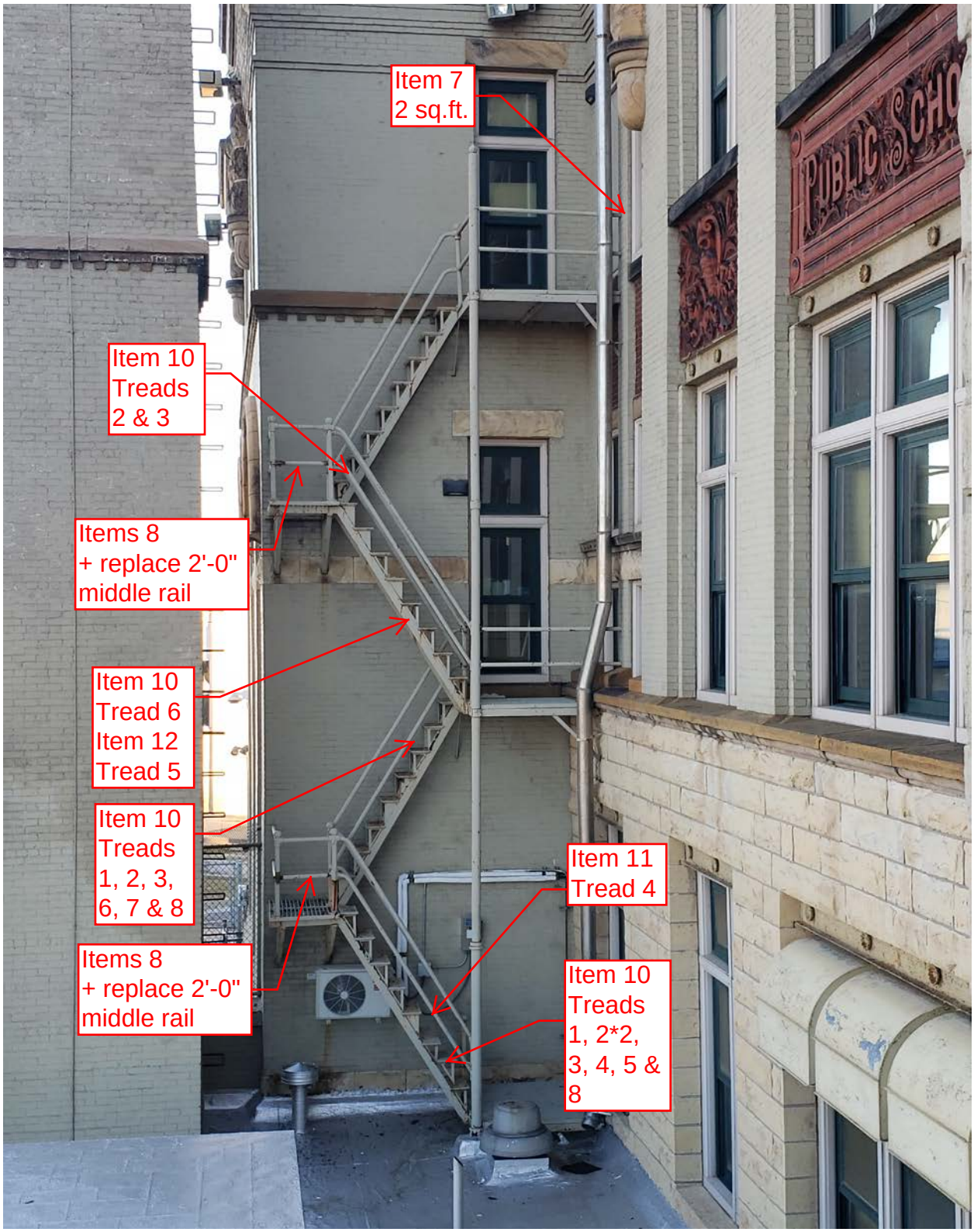

Figure 3 Fire Escape FE#3

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Figure 4 Common corrosion found on FE#1 and FE#2

2. **Findings:** Grating over support angles attached to the building face have no means to drain water. The grating slots catch debris and hold water worsening corrosion conditions.

   Recommendations: Clean all debris out of grooves and clean steel for painting. Drill 1/4" diameter holes at 12"on center in center of groove through the horizontal leg of the angle below the groove. Stagger holes 6" from holes of an adjacent groove. Remove and replace any bars in grating that are corroded 50% or more.

3. **Findings:** Post connection to landing beam has failed.

   Recommendations: Clean steel and remove all corrosion. Re-weld post to beam.

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Figure 5 Enclosed Grooves of Bar Grating Trap Water and Debris Which Accelerate Corrosion

4. **Findings:** Masonry around and below fire escape support bracket has spalling and cracking. The condition will worsen as cracks fill with water and experience freeze-thaw cycles.

   Recommendations: Tuckpoint masonry at and round around support connection bracket.

5. **Findings:** Bolt attaching tread to stringer has corroded and broken off.

   Recommendations: Clean all steel for painting and install new connection bolt matching existing in size and grade.

6. **Findings**: Nut and/or bolt of rod holding bar grating together is severely corroded.

   Recommendations: Remove corroded nut and bolt, clean all steel for painting and provide a new bolt matching existing anchor bolt size and amount.

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Figure 6 Cracking Masonry at and Around Fire Escape Support Brackets

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7. **Findings:** Building masonry around the fire escape railing rail connection points is deteriorated. Mortar joints have eroded away and masonry units are cracked and loose resulting compromised connection.

   Recommendations: Tuckpoint masonry at and round rail connection points

Figure 7 Broken and/or Missing Railing Connection Brackets

8. **Findings**: Railing post base connection flange is broken compromising post connection to landing.

   Recommendations: Remove and replace flange. Or provide new post to landing beam connection.

9. **Findings**: Railing post to rail connection bracket is fractured and/or missing pieces.

   Recommendations: Replace connection bracket and reattach rail to post. Or provide new welded rail to post connection.

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Figure 7 Failed Tread Bracket Connection

10. **Findings**: Tread support bracket is broken.

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Recommendations: Replace support bracket made of welded L1x1x1/8 matching existing bracket configuration. Attach bracket to stringer and tread.

11. **Findings**: Tread connection to supporting bracket is missing.

    Recommendations: Provide new bolts to attach tread to bracket matching existing bolts size and grade.

12. **Findings**: Tread bracket connection to stringer is missing bolts.

    Recommendations: Provide new bolts to attach tread bracket to stringer matching existing bolts size and grade.

From the observations of the fire escapes at 1555 Dr. Martin Luther King Drive, we conclude that fire escapes FE#1 and FE#2 are in good and safe condition with exception of a few minor maintenance items. When these maintenance items are corrected, the fire escapes will perform their intended functions. Fire escape#3, however, is in poor condition and should not be used until critical repairs have been made or it is abandoned.

Sincerely,

Peter C. Bartnik, P.E.

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