

PERSHING ROAD BUILDING
1769 W Pershing Ave, Chicago, IL 60609
Facility Evaluation Report 07/09/2021

HARDING MODE JOINT VENTURE

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EXECUTIVE SUMMARY:

1769 W Pershing Avenue is a six-story storage facility that is a portion of a multi-building campus maintained operated by the Department of Assets, Information & Services (AIS) in the McKinley Park neighborhood. The campus consists of three identical 6-story buildings connected with underground tunnels at the basement level and bridge connections between the second and sixth floors (fig 0.1). At the south side of the property (fig 0.2) there is an asphalt parking lot, with two additional one-story structures utilized by other Chicago City agencies. The structure was originally constructed in approximately 1920 and was originally utilized by the US Army. During the 1970's the campus was occupied by the Board of Education and the upper floor levels were built out at all buildings for their use. The City of Chicago currently owns and maintains all buildings on the campus, and primarily uses the facilities for warehousing and maintenance operations.



Fig 0.1 - Bridge Connection between 1819 and 1769



Fig 0.2 - South elevation of the property

The building at 1769 W Pershing is currently not being utilized except for miscellaneous overstock storage of Board of Elections materials on the third floor, some materials stored by various agencies at the first floor and abandoned materials at other floor levels. The assessment report will describe the existing conditions of the facility as assessed on site, focused primarily on interior conditions with some description of envelope and site conditions. Minimum code compliance requirements will be indicated with recommendations for bringing the facility into compliance. In addition, recommendations for additional work exceeding code minimums will be identified where appropriate. The intent for the 1769 Pershing facility is to 'mothball' the facility, and to identify the requirements for the facility to qualify as a Vacant Building.

The primary document for assessing compliance for the facility is Title 14X – 2019 Chicago Minimum Requirements for Existing Building. Title 14X applies to all existing structures, whether any new construction or alterations are being performed. Title 14X is primarily concerned with the maintenance of facility to ensure weather tightness and minimum standards for occupant use while also covering Vacant Buildings. The code dictates that Vacant Buildings comply only with Chapter 3 and 12 of Title 14X.

Chapter 14X-3 specifies the minimum exterior envelope and interior structure maintenance. The intent is primarily to ensure that structure is sound and sanitary for occupants and ensures that a vacant structure will not pose a life safety hazard from danger of collapse or failure.

- 14X-3-303 – Exterior Structure: Exterior Envelope must be maintained in structurally sound and weather tight condition. Includes structural members, masonry and cornices and trim, roof, windows, skylights and doors. Section 303.7 – Roofs must be sound tight and adequate to prevent dampness or deterioration to interior structure.
- 14X-3-304 – Interior Structure – The interior including wall and walking surfaces must be maintained in sound and sanitary conditions.
- 14X-3-306 – Handrails and Guardrails: Section 306.1 Requires a handrail between 30 and 42 inches all stairs (one side). Section 306.2 requires Guards at open side of railing of 30" and minimum 36" where open side is 12' or more above surface below. Guards required to be 36" high must have balusters with minimum 6" passthrough below 34", except for 21" passthrough exception at type S occupancy.
- 14X-3-307 – Rubbish and Garbage shall be removed from interiors.

EXECUTIVE SUMMARY (cont.):

Chapter 14X-12 specifies the requirements for Vacant Buildings. If a building is registered with the City of Chicago as a vacant structure there are limited requirements for work in the structure, with the primary concern being the maintenance of the property, specifically maintaining a secured and weathertight envelope.

- 14X-12-1202.3 Outdoor Areas – Must maintain outdoor areas including vegetation.
- 14X-12-1202.4 Exterior Structure – Exterior Structure shall be sound, and windows and doors shall be maintained with glazing repaired where cracked or missing, or secured with security panels (not plywood). Roof must be maintained in weathertight condition.
- 14X-12-1202.4.7 Lighting – Entrances and Exits must be maintained with minimum two footcandles of intensity at floor surface for min. 8' radius. May be battery or solar powered.
- 14X-12-1202.5.1 Rubbish – Rubbish must be removed. Materials are permitted to be stored on premises, stacked in orderly manner away from egress routes.
- 14X-12-1202.5.3 Plumbing – Pipes must be drained or heated to resist freezing.
- 14X-12-1202.6.6 Exterior Entrance – A minimum of one building entrance must be accessible from the exterior with secured lock. A minimum of two exit doors must be accessible from the interior, with a maximum travel distance of 150' from any point on ground floor.

While envelope repairs are not generally included in the scope for this project, roof masonry and window repairs are required for all existing structures. The code requirements will need to be reviewed with both building code and fire department officials to confirm no additional actions would be required. Of particular concern would be the connecting tunnels and bridges between 1769 and 1819 buildings, to determine what permanent fire separations and or access between buildings would be required and locations of separations, at either building line or midpoint of connections. Existing interior hazardous environmental conditions should be abated, and openings will require modifications at some exterior entrances to ensure compliance with egress requirements and security of premises.

EXISTING CONDITIONS OVERVIEW:

The total floor area is approximately 524,000sf, with a floorplate 324'-8" (N/S) by 276'-8" (E/W) with a total building height of 80'-6", which qualifies the structure as a High-Rise per Chicago Building Code. The structure is concrete, with columns and flat slab structure. The exterior envelope is brick with terracotta trim and cornices, and the roof a gravel ballasted built-up membrane roof with skylights. There are six stair towers within the building, five of which connect all levels from basement to 6th floor, and the sixth extending from the roof level to second floor then exiting directly to grade without access from first floor or basement levels. There are two existing passenger elevators and five remaining freight elevators, however none are operational. Loading docks are located at the west and south sides of the building. At the basement level a utility tunnel south of the building connects to buildings to west, and near the center of the building a basement tunnel and bridge levels at 2nd-6th floors connect from building to the west. The separation between the buildings and bridge length is approximately 46'-8". The connecting tunnels were observed to have significant structural concerns, and other cracking was observed within the structure. Refer to the detailed tunnel and structural reports in the appendix for details and corrective recommendations.

The facility was occupied by the Board of Education from the 1970s through the 1990s. The 5th and 6th floors were extensively renovated and built out, and some modifications were made at the 2nd, 3rd and 4th floor to accommodate various program over time. Detailed interior descriptions by floor are included in the detailed conditions assessment.

The 1769 Facility would be considered Moderate Hazard Storage, Group S-1 based on the existing usage of the facility. Based on review of the existing building structure the construction complies with Type IA construction, which allows for the highest permissive use of construction. Type IA construction allows unlimited building area and number of floors regardless

EXISTING CONDITIONS OVERVIEW (cont.):

of whether a building is sprinkled or unsprinkled, however buildings exceeding 80' in height are only allowable if fully sprinkled. The facility at 1769 W Pershing has a separate electrical service located in the building. Currently the building is energized, with some partially functional lighting, however generally building systems are inoperative. Steam boilers in the basement of the 1869 building feed heat to the 1769 facility, however the steam feeding this building has been shut off and the facility is currently unheated. The building was at one point served by air handlers and a chiller water system, however all ventilation is inoperative at this time, and chilled water system has been abandoned. Domestic water piping fed from 1819 has been capped to the facility. The facility has sprinkler piping, fed by a fire pump located in 1869, however the system is not connected. Complete facility description, including site, exterior, interior and MEP systems, and remediation recommendations for minimum code compliance for vacant buildings is provided in the detailed existing conditions assessment. Abatement for asbestos and lead are not addressed as a portion of this assessment as material testing has not been performed. The descriptions and detailed assessments contained herein are not intended to be exhaustive or to identify all potential deficiencies, but rather to identify minimum code compliance requirements and recommendations for remedial action.

Detailed Existing Conditions Assessments and Corrective Action Recommendations:

1. Site
2. Exterior
3. Interior
 - Floor By Floor Conditions
 - Stair and Exiting
 - Code Requirements and Recommendations
4. Mechanical
5. Electrical
6. Plumbing
7. Fire Protection

1. SITE

The subject property is located on the south side of Pershing Road, and is the easternmost building in a series of warehousing and manufacturing facilities dating to approximately 1920. The property is bound by a CDOT parking lot to the east, a materials yard and rail yard to the south, additional warehouse buildings to the west and Pershing Road to the north. At the northwest corner of the building is a traffic light at Wood St. Between the 1769 and 1819 buildings an original brick paved drive provides access to the asphalt parking lot at the south side of the property (fig 1.1). This asphalt lot extends from the center of 1769 to the west face of 1819 where a Chicago Fire Department structure is located, with gravel parking extending to the east side of 1769. (fig 1.2)

At the east side of the property there is an approximately 10' wide landscape strip and chain link fence that separates the AIS campus from the CDOT facility. The fence is damaged at some locations along this property line. The landscape area is heavily overgrown and is not maintained. There are multiple building exits on this side of the property, but due to overgrowth they are not accessible (fig 1.3), and at one location growth would prevent any exiting from the building due to inability

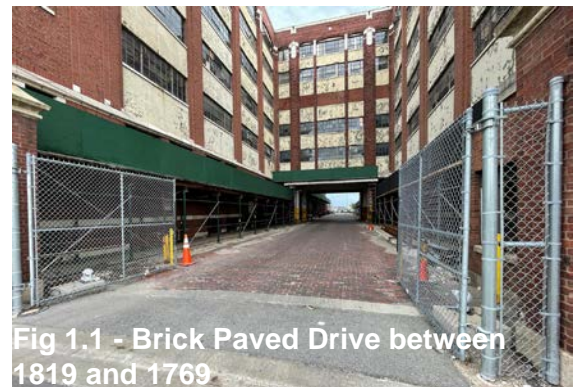


Fig 1.1 - Brick Paved Drive between 1819 and 1769



Fig 1.2 - Parking South of 1769

1. SITE (cont.)

to open the exit door. At the south face of the building there is a chain link fence separating the façade from the parking lot. The west side of the building faces directly on the brick paver and asphalt access drive from Pershing, and the north face of the building is directly on the sidewalk at the property line. Scaffolding is installed along the north and west sides of the building to protect pedestrians from deteriorated building masonry.

The parking lot area is approximately 150' x 600'. The parking lot is fully asphalt paved at the west portion of the lot and generally in good condition, however the east side of the lot is primarily an unpaved gravel lot and some areas are in poor condition. The west portion of the parking lot has visible striping, however the east side of the lot is not striped.

- Code Compliance:
 - Per section 14X-12-1202.3 Outdoor Areas the landscaping at the east side of the building requires maintenance. Remove overgrowth and planting preventing egress from required exits. In case of exiting occupants will require route from enclosed fenced area, may require modifications to fencing
- Recommendations:
 - Parking lot area may require some patching and repairs. Per CBC stormwater requirements, modifications to an existing parking lot that exceed 7500 of impermeable area require full compliance with stormwater management requirements. Based on existing lot and property area modifications should be limited below this threshold due to budget constraints.



2. EXTERIOR

The subject property is a six story concrete frame structure with masonry infill and veneer with terracotta detailing and coping. There are single pane glazing ribbon windows between brick piers at the exterior, with cement stucco infill panels between floors. A bridge connects the 1769 Pershing structure to the 1819 structure to the east at floors two through six. At the north and west sides of the building there is scaffolding to protect pedestrians due to deterioration of the envelope. (fig 2.1 & 2.2)

At the west side of the building there is a large loading dock recessed into the building with four overhead doors. There are additional overhead loading dock doors at the south and east elevations. There are multiple exits at grade around the perimeter of the building, including three double door entrances/exits on the north elevation onto Pershing, three exits to the east from interior stairwells, three exits from ground floor to grade at south elevation and one door exiting directly from a stairwell on the west side of the building. At the north side of the building all doors are boarded and sealed or locked and cannot be opened, and the scaffolding additionally obstructs the ability to exit or enter through the doors. At the east side doors and access are obstructed by vegetation. Doors at the south and west side are accessible.



The roof is a built-up membrane system with gravel ballast over a sloped concrete structural deck. There are skylights across the entire roof area of the building, and there are elevator penthouses at all original elevator shaft locations. Direct

2. EXTERIOR (cont):

roof access is possible through Stair 'D' at the east side of the building which extends a penthouse to the roof level. The door accessing this penthouse stair is not attached to hinges and cannot be closed. There is significant degradation to the roof, and significant plant growth across the entire building area (fig 2.3). At the south side of the roof there are three lights mounted on pole arms that provide lighting for the parking area to the south.

Exterior envelope assessments are being completed under a separate contract, however compliance with minimum code requirements for vacant buildings primarily focuses on exterior envelope integrity, so observed deficiencies and improvements are included herein for project compliance, though are expected to be completed under a separate contract.

- Code Compliance
 - Per 14X-3-303 Exterior Structure the building is required to be structurally sound. This criteria is also addressed under chapter 12 for vacant buildings. Masonry is displaced, damaged and missing across the exterior of the structure, and has failed entirely and separated from the backup structure at locations around the perimeter of the building, with fractured and missing masonry at south elevation along parking, and damaged masonry at the west and north elevations necessitating scaffolding to protect pedestrians. At the roof level parapets and copings were observed to be displaced, damaged and not structurally sound at locations. Significant corrective actions are required, beyond the scope of the current assessment.
 - While the exterior envelope is generally beyond the scope of this assessment, the tunnel at the south side of the property connecting 1769, 1819 and 1869 Pershing was observed to have some significant deterioration. The drive aisles from Pershing to the parking areas at the south pass over these tunnels. Per section 14X-3-303.4 the structural members must be maintained, and structural repairs are required for any compromised docks or drive areas over these tunnels. A tunnel structural assessment report including these tunnels is included in the appendix.
 - Per 14X-3-303.7 Roofs are required to be watertight. This criteria is also addressed under chapter 12 for vacant buildings. The existing roof has visibly damaged membranes across the structure, and significant water infiltration at skylights. Equipment and penetrations are not secure and water and other elements are able to freely enter the building. Significant plant growth at the roof level has compromised both the roofing system, and may be compromising the structural slab. Significant corrective actions are required, beyond the scope of the current assessment.
 - Per section 14X-12-1202.4 for vacant buildings exterior windows and doors must be maintained, however there are multiple broken and missing window panes around the building perimeter at many floor levels. Plywood is not an allowable material for securing exterior opening, however all doors on the north elevation are boarded over with plywood. In order to maintain minimum exiting from the building, some of the doors would require replacement or repair to allow exiting on the north elevation, and existing plywood would need to be removed at doors not required as exits, and replaced with security type panels over the opening, or doors to be removed and replaced with secure panels. Scaffolding will be required to be modified or removed to allow for required egress
 - Per section 14X-12-1202.6.6 lighting is required to be added to the exterior entrance to the facility. Currently doors on the east and south side appear to be the best candidates at entrances for the facility, as they provide



2. EXTERIOR (cont):

easier access and locational security on site. Recommend adding wall pac lights at these entrances for minimum code compliance.

- Recommendations
 - The existing parking and access drive are not well lit at this time. Recommend adding additional wall or roof mounted or ceiling mounted lighting at the loading dock and bridge areas at access between east and west buildings. For the parking lot area to the south additional lighting should be added, however due to existing masonry deterioration it is recommended that lighting is not attached to the building at the south elevation, but rather that light posts are added at the east and south perimeter of the site to augment existing lighting from the roof level.

3. Interior

The building interior for 1769 W Pershing Road is characterized by a dense concrete columnar grid on generally open floor plates. The original construction had continuous fire separation walls extending from the east to west sides of the building that divided the building into three relatively evenly divided floor areas to the north, center and south at all levels above the first floor. The firewall bifurcates the connecting bridges and tunnel location at the north/center third, though generally the fire wall terminates at the bridge. Overhead coiling doors fire shutters are located at each side of the fire wall separation at each side of the bridges and tunnels. The fire walls align with the center of vertical freight elevator shafts, with five shafts along each firewall. Four hour sliding fire doors with fusible links protect the openings in the firewalls, although status of existing link operation is unknown.

There are six stair towers within the floor plate, which are arranged so that there are a minimum of 3 stair access exits from each fire area. At the north side of the building there is a stair in the northwest (Stair A) and northeast (Stair B) corners, as well as a stair in the southeast corner (Stair C) that has an exit door into the stairwell from both sides of the firewall to serve both north and center areas. Continuing down the east side of the building Stair D is divided by the south firewall and serves both the center and south sections, and at the southeast corner of the south section (Stair E) provides a second exit from the south section, with the third stair at the northwest side of the area (Stair F) again being split by the firewall and serving the south and center areas.

While the building may have once required fire separations due to use – hazardous materials storage or manufacturing, with the construction type and current usage the fire area separations are no longer required by code. Renovations at some floor levels have removed portions of the fire walls and fire doors, and there is no requirement that existing be maintained. Detailed assessments by floor and for each stair follow to describe existing uses, renovations and deficiencies per code as observed.

- **Basement Level (Appendix A-1):** The basement level is approximately 8' below grade. The basement area does not occupy the full floor plate, as the center of the basement area from the south end to near the north end is unexcavated where train car loading occurred within the building accessed from the south, as well as below loading docks at the west side of the building. There are rated masonry enclosures at the active electrical service and some storage and utility rooms at the north side of the floor. At the south side of the building and at the center of the building tunnels connect to 1819 building to west. Some areas are partitioned by light gauge metal partitions with gypsum board at one side, though at most locations the bottom panel has been removed, likely due to past moisture saturation. There is some lighting within the space, however it appears to be only partially operational. Generally, the area appeared to be dry, and active sump pumps exist. There was minimal rubbish or environmental concerns. At freight elevator shaft 9 there is significant concrete degradation at the lintel, likely due to water infiltration from roof level down through shaft.
- **First Floor (Appendix A-2):** The first floor is elevated approximately 4'-6" above grade, with the exception of an entry

3. Interior (cont.)

lobby at the center of the north elevation that is at grade. Two passenger elevators at either side of this lobby would provide access to upper level, however neither elevator is operational. Rather than east west fire separations, there are fire walls that partition the plan into east, center and west areas. At the north side of the floor plate there is an office buildout that extends across the full elevation, which includes both original construction and renovated office areas, however otherwise there are few permanent partitions within the first-floor space, with some fencing and partial height plywood enclosures to define storage areas. While the observed areas appeared generally dry, there were some indications of mold at some walls at the north buildout area. Refuse and debris was observed at some locations including loading docks at west and in the office area at north side of the building, and at the office building there were damaged ceiling systems including loose wiring and lighting. Some stored materials were present that should be relocated to other buildings or facilities.

- **Second Floor (Appendix A-3):** The second floor is the first of the typical floor layouts that divide the building into thirds north, center and south. There is an office buildout at the north side of the building with minor debris and rubbish that requires removal. The remainder of the floorplate is open warehouse space with only some chain link fencing areas and the original fire walls. There are very few stored materials within the warehouse area at this floor. The lintel structure at both sides of freight elevator 9 openings were observed to be in deteriorated condition.
- **Third Floor (Appendix A-4):** The third floor is a typical floor plate with no buildouts except for a rated masonry enclosure at the southeast corner of the building. There were some Board of Elections materials stored at the center portion of the third floor and connecting bridge to 1819 that were observed during the walkthrough and require relocation. Freight elevator 13 was observed to have significant lintel deterioration.
- **Fourth Floor (Appendix A-5):** The fourth floor is a typical floor plate with no buildout areas. There is stored materials which are likely all rubbish at this floor level, as they all appear to be old Board of Education materials that were not removed including food service and educational materials. Elevator enclosure damage was noted at some elevators.
- **Fifth Floor (Appendix A-6):** The fifth floor was fully built-out during renovations by the Board of Education. Spaces are finished throughout the floorplate and includes buildout in the connecting bridge to 1819. Finishes consist of acoustic ceilings, gypsum partitions and carpet through much of the space, with concrete block cores built around the freight elevator and fire wall separations to create mechanical spaces, toilet rooms and other support areas. Due to construction around the entire floor plate, including offices at much of the exterior perimeter, and the lower acoustic ceilings there is limited natural light in the space. There is some operable lighting within the floor, however it is inadequate for use of the areas. Throughout the floor there are abandoned furnishings and materials that require removal. Due to water infiltration, it is expected that most ceiling tile, gypsum board and carpet has mold growth and may require abatement.
- **Sixth Floor (Appendix A-7):** The top floor was fully built-out during renovations by the Board of Education. Spaces are finished throughout the floorplate and includes buildout in the connecting bridge to 1819. Finishes consist of acoustic ceilings, gypsum partitions and carpet through much of the space, with concrete block cores built around the freight elevator and fire wall separations to create mechanical spaces, toilet rooms and other support areas. There are skylights throughout the entire floor area, which allow for ample natural light into most of the floor, however the ongoing infiltration of water into this area also means that there is significant moss growing in the areas below the skylights. The carpet is saturated with water, and the entire level is extremely humid with mold evident throughout. Due to water infiltration, it is expected that all finishes will need to be abated. Throughout the floor there are abandoned furnishings and materials that require disposal.

The building is served by six stairs at the perimeter of the building, with stairs A, B, C, E and F connecting all levels from the basement to sixth floors, and stair D connecting the roof through 2nd floors and exiting directly to the exterior without access at the first floor. Since 1769 Pershing will be considered a vacant building, means of egress minimum requirements, enclosure of shafts, reentry hardware, and other fire and life safety minimum code compliances are not applicable – as such there is no requirement that all stairs be maintained as exits, pending fire department approval. The requirement for fall

3. Interior (cont.)

protection guards is enforced as a section for vacant buildings under Title 14X Chapter 3, so any remaining active stairs will require some guard modifications.

- Stair A: Located at the northwest corner of the building, this stair connects all levels. The stair, slab and enclosure construction are entirely of concrete. At the basement, the stair is open to the landing at grade level (fig 3.1). A partition with door provides a rated enclosure, however the door swings into the exit path for the exterior doors. A pair of doors facing north onto Pershing provide exiting for the stair (fig 3.2), however this door is completely boarded over from the exterior and exiting is not possible. A 34" wide rated door protects openings at all levels, however there are surface mounted bolts attached at several floors which could close doors off. At the 3rd and 4th floors there is no re-entry hardware from the stairs, and 5th floor the door is missing pull hardware from the stair side, and a vision window may be broken. During the assessment doors at all levels were propped open. The interior handrail and guardrail at top of stair do not comply with minimum code requirements at areas where fall distance exceed 8'.
- Stair B: Located at the northeast corner of the building, this stair connects all levels. The stair, slab and enclosure construction are entirely of concrete. At the basement, the stair is open to the landing at grade level. A partition provides a rated enclosure, however the door swings into the exit path for the exterior doors at grade. A pair of doors facing north onto Pershing provide exiting for the stair, however this door is completely boarded over from the exterior and exiting is not possible. A 34" wide rated door protects openings at all levels. At the 4th floor there is no re-entry hardware from the stairs, and between the 4th and 5th floors there is a security gate (fig 3.3) preventing access between the two levels, which will need to be removed if stair is to be used. During the assessment doors at all levels were propped open. The interior handrail and guardrail at top of stair do not comply with minimum code requirements at areas where fall distance exceed 8'.
- Stair C: Located at the east side of the building between the north and center area firewalls, this stair connects all levels. The stair, slab and enclosure construction are entirely of concrete. The stair is enclosed at all levels to basement, with a pair of 31" wide rated doors protecting openings at levels two through six (fig 3.4), and a single 34" door at the first floor and basement. At most floor levels re-entry hardware is missing (fig 3.5), or hardware is damaged. During the assessment doors at all levels were propped open. The interior handrail and guardrail at top of stair do not comply with minimum code requirements at areas where fall distance exceed 8'.

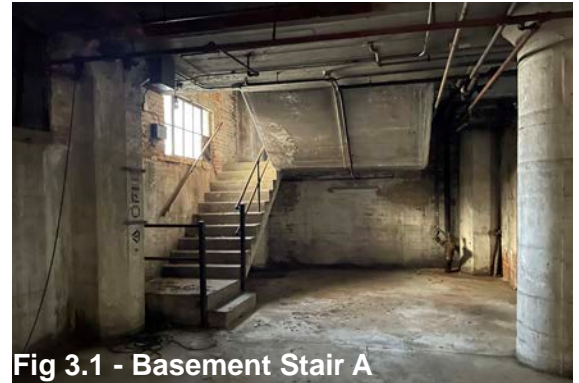


Fig 3.1 - Basement Stair A

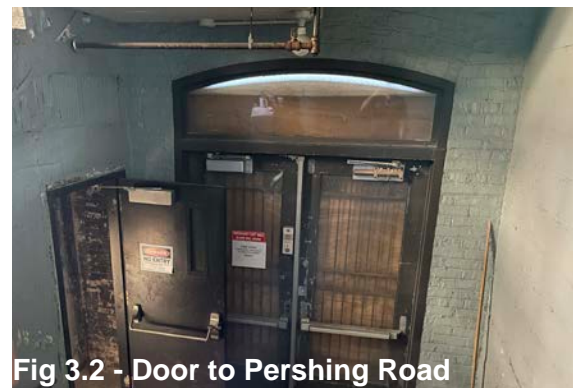


Fig 3.2 - Door to Pershing Road



Fig 3.3 - Security Gate

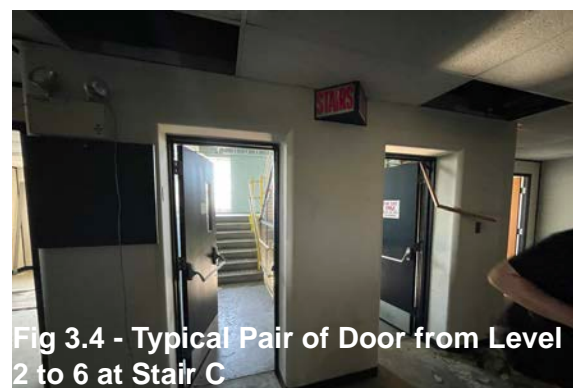
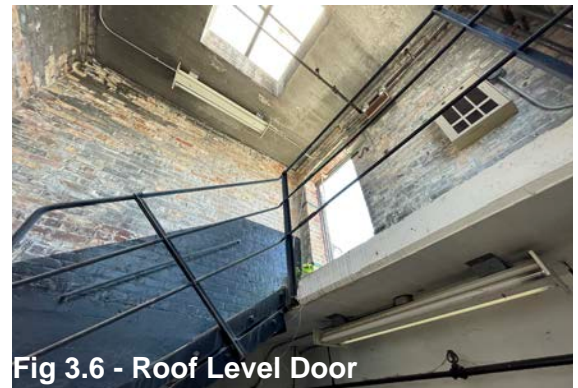


Fig 3.4 - Typical Pair of Door from Level 2 to 6 at Stair C

3. Interior (cont.)

- Stair D: Located at the east side of the building between the center and south area fire walls, this stair connects from roof to grade, with no access at the first floor. The landing slab and enclosure construction are entirely of concrete; however the stairs are entirely of metal. The stair is accessed by a pair of 34" wide rated doors protecting openings at levels two through six, that swing into a vestibule area, with a separate 34" door swinging into the stair, which entirely blocks the egress path. There is no re-entry hardware on any doors within the exit stairwell. At the roof level the door is off its hinges and requires replacement to prevent water access (fig 3.6). Due to infiltration, it is possible the upper metal structural supports may be deteriorated. The interior handrail and guardrail at top of stair do comply with minimum code requirements for storage buildings, and no modifications would be required.
- Stair E: Located at the southeast corner of the building, this stair connects all levels. The stair, slab and enclosure construction are entirely of concrete. At the basement, the stair is open to the landing at grade level. A partition at the grade landing provides a rated enclosure. A door facing to the east provide exiting for this stairwell, but due to plant overgrowth the stair cannot be exited. A 34" wide rated door protects openings at all levels. At the 4th floor there is no re-entry hardware from the stairs, at the first floor there is a security gate preventing access to floors above, which will need to be removed if stair is to be used. The stairwell was filled with bird carcasses (fig 3.7) and excrement and requires significant abatement. The interior handrail and guardrail at top of stair do not comply with minimum code requirements at areas where fall distance exceed 8'.
- Stair F: Located at the west side of the building between the center and south area firewalls, this stair connects all levels. The stair, slab and enclosure construction are entirely of concrete. The stair is enclosed at all levels to basement, with a pair of 30" wide rated doors protecting openings at levels two through six, and a single 34" door at the first floor and basement. This stair is the 'main stair' for the facility and has hardware at both sides of doors throughout. A security gate is located at the 4th to 5th floor intermediate landing that would need to be removed. During the assessment doors at all levels were propped open (fig 3.8). The interior handrail and guardrail at top of stair do not comply with minimum code requirements at areas where fall distance exceed 8'.



For a vacant building there are limited code requirements as most minimum building code items do not apply. Minimum code required renovations and recommendations include the following items, and do not address minimum requirements for an occupied building.

3. Interior (cont.)

- Code Compliance:
 - Per section 14X-3-304 interior structure and surfaces must be maintained such that wall and walking surfaces are stable and secure. At most floor levels the existing concrete construction at floors and walls are in stable condition. Of concern are the fifth and sixth floor levels and buildout areas at the first and second floors where decaying interiors and carpets leave unsafe environmental and walking conditions. It is recommended that unstable surfaces in these areas be demolished. Abatement of the animal excrement and carcasses would be required at Stair E. Refer to interior structural assessment in appendix for additional deficiencies and recommendation.
 - Per section 14X-3-306 Handrails and Guardrails are required to comply with minimum standards. At required stairs it is proposed that continuous metal grate panels be attached to the concrete stair structure similar to the security gates existing at some levels at existing stairs. Required locations and extent of fencing would be established once the required stairs to be maintained were established, though relief from the requirement for the vacant building may be sought from code officials.
 - Per section 14X-3-307 Rubbish and Garbage shall be removed from all interiors, as identified in the report.
 - Per section 14X-12-1202.6.6 at the ground level exterior exits must be maintained within 150' of any point at the ground floor. As an appendix to this report a minimum number of required exits are identified at the ground floor to comply with this requirement. At each of these required exits it is assumed that doors and hardware will require replacement.
- Recommendations:
 - Rated separations between the 1769 structure and the occupied 1819 structure are required. The location of the firewalls will need to be coordinated with fire and building code officials. It is recommended that solid masonry construction be utilized consistent with the building construction type, and that all inactive piping connections be terminated and capped at all levels between buildings.
 - Abatement of environmental hazards is not specifically required by code, however as identified in the assessment should occur at many areas throughout the building. This would include the removal of soft surfaces including gypsum board at most built out floor areas.
 - Title 14X only specifies exiting requirements from the ground floor level for a vacant building, and egress requirements do not apply to levels above the first floor. As such, multiple stairwells may not be required as exits at the first floor, and if not required may be sealed at the first floor and levels above if fire and building code officials do not object. If these stairwells are sealed then exit doors at grade will not need to be replaced, and guardrail code requirements will not apply, which will allow for scope reduction.
 - Fire doors and shutters throughout the building area should be secured in open position to maintain an open floor plate and minimize risk of impeding access and air movement.
 - Structural repairs may be required at elevator shafts and utility tunnels as noted in the assessment report. An exterior structural assessment, including roof slabs, is being prepared by others under a separate contract. A full structural assessment of the building interior is attached as an appendix at the conclusion of this report.
 - Lighting of the interior is not required by code, however it is recommended that minimal lighting at active exit stairs that serve all levels be provided to allow any individuals servicing the building to identify active exit locations.
 - Ventilation of the building is recommended to minimize humidity. This is especially pertinent at the upper floor levels where water infiltration is prevalent and extremely humid conditions persist. Keeping doors open between floor levels will promote airflow through the building. Additional description will be provided in the MEP narrative section.
 - All plumbing piping into the building is currently capped, however heat tracing of horizontal runs on roof drain piping will ensure that pipes do not freeze and burst in the unheated building. Additional scoping description will be provided in the MEP narrative section.

4. MECHANICAL

1769 W Pershing is currently a vacant, non-occupied property with six floors above grade and a partial basement. The building has brick masonry exterior walls and original single pane glass windows on floors 1-5 and newer windows on floor 6. There are plans to replace the roofing system and storm drainage to prevent water intrusion to the upper floors. The building was heated by the central steam boiler plant in the basement of the west 1869 building. The main steam line thru the interconnecting utility tunnel has been cut off and capped at the central 1819 building. Ventilation was provided by air handling units on the upper floors and a mix of fan systems with exterior louvers on the lower floors.

Code Requirements

There are no Chicago Building Code requirements to heat or ventilate a non-occupied, abandoned building that has been sealed from regular use.

Mothballing Recommendations

Trapped heat and humidity in a sealed and abandoned building can lead to long term deterioration of the roofing and exterior brick masonry systems. A minimal amount of natural ventilation air exchange is required to prevent damaging condensation and high humidity that can cause mold, mildew, rot, and insect infestations. A general recommendation of about one air change per hour (1 ACH) or 10% exterior openings is required to create adequate ventilation. To adequately ventilate the building to prepare it for mothballing, the following scope is recommended:

- Demolish exhaust fan and associated louver and ductwork on the north side of the east basement. Replace louver with new stationary exhaust louver, approximately 5'x3' with birdscreen, drainable louvers, and 55% free area. Paint to match color used on 1869 building. Provide 11,000 CFM, 3HP inline exhaust fan w/ belt guard, inlet screen, starter, and 7-day programmable timeclock.
 - Louver – Ruskin ELF6375X or similar by Greenheck or Dayton
 - Fan – Loren Cook 300SQNB or similar by Greenheck or Twin City Fan
- Provide (4) roof mounted gravity vents w/ prefabricated 14" high roof curb and birdscreen. Space equally over four quadrants of the roof.
 - Loren Cook Model GR 30X60 or similar by Greenheck or Twin City Fan, 3750 CFM each, 260 fpm thru throat area
- Remove existing metal framed windows and glass panes, approximately 12'x5' each. Catalog and store window frames in building. Remove (3) windows on each floor from floors 2 thru 6, (1) window centrally located on the west, east, and south facades (15 total).
- Replace removed windows with new extruded aluminum stationary louvers (15 total), approximately 12'x5' each with bird screen, drainable louvers, and 55% free area. Paint to match color used on 1869 building.
 - Ruskin ELF6375X or similar by Greenheck or Dayton
- Provide (5) inline exhaust fans (1 per floor) connected to west louvers. Fans shall be 15,000 CFM, 5HP, w/ belt guard, inlet screen, starter, and 7-day programmable timeclock.
 - Loren Cook 330SQNB or similar by Greenheck or Twin City Fan

In addition to providing adequate ventilation for the interior, steps must be taken to protect storm drainage systems that must remain in place. The following scope is recommended:

- Provide 5kW electric unit heaters with integral thermostat at all sump pump locations in the basement
 - QMark Model MUH or similar, voltage to match available voltage
- As the steam heating systems have been disconnected, provide heat tracing for horizontal storm piping to protect

5. ELECTRICAL

1769 W Pershing is currently a vacant, non-occupied property with six floors

The building is served by 3000A 208Y/120V 3ph 4W located in electrical room at ground level. The equipment is in working condition but exceed its life span. There are plans to de-energize entire switchgear or most of components of exiting distribution system. Mostly, distribution and branch panelboards are located throughout the building on each floor in designated electrical/mechanical rooms.

The building has emergency system type II with auxiliary source as separate feed from unitility vault located in the building. System was serving mainly emergency lighting and exist signs throughout.

Interior general lighting in the building was provided mostly by fluorescent linear fixtures. Most of fixtures are not working or are in very poor condition.

The building perimeter an adjacent parking lot are lid by exterior lighting fixtures located on the roof of the building and on the wall at first floor level. Fixtures are in poor condition and approximately half of them is not working.

Fire alarm system was not observed in the building during initial walk through.

Code Requirements for Vacant Buildings

- Entrances and Exits must be maintained with minimum two footcandles of intensity at floor surface for min. 8' radius (Chapter 14X-12-1202.4.7)
 - Provide new LED wall mounted exterior lighting fixture (approx. 3000 lumen) on the outside of the building by each entrance and exit door to remain active. Provide with built-in photocell. Refer to architectural part of report for number of active entrance/exit doors.
 - Provide new LED surface mounted interior lighting fixture (approx. 4500 lumen) on the inside of the building by each entrance and exit door to remain active. Provide with local switch. Refer to architectural part of report for number of active entrance/exit doors.
- In case it will be decided to de-energize entire building, it is recommended to provide power from adjacent building for lighting listed above.

Recommendations

- There is not sufficient lighting for existing parking located on south of the building. The area is lit by roof mounted fixtures which are in very poor condition and required replacement. However due to existing masonry deterioration it would be better to remove exiting roof mounted fixtures which might be potential hazard and provide (2) 30' light poles with four-head fixtures. New lighting should be fed from exiting lighting panel located in central building in case it will be decided to de-energize entire east building.
- There is not sufficient lighting for access drive between central and east building. Since central building will stay active it is recommended to use central building for installation of new exterior lighting serving access driveway. Refer to recommended scope of work for central building (1819 W Pershing).
- It is recommended that minimal lighting at active exit stairs is maintained even though lighting of the interior is not required by code. The following scope is recommended:
 - Provide new LED linear lighting fixtures in each active staircase (Approx. 12 fixtures per staircase). Refer to architectural part of report for number of active staircases.
 - Provide new LED linear lighting fixture by each entrance to the staircase on each floor to allow any individuals easily identify active exit locations.
 - Provide local switches for lighting listed above.

5. ELECTRICAL (cont.)

- It is recommended by plumbing part of this report to provide heat-trace for all horizontal storm piping sections in ceilings at lower level. The following electric scope is recommended:
 - Provide heat trace cable for storm piping. Length/location to be determined by plumbing. Provide 20A/1phase dedicated circuit per every 150 feet of heating cable (10W/ft @50F deg.).
- It is also recommended by plumbing part of this report to reestablish power to existing ejector pumps. The following electric scope is recommended:
 - Option 1: Reconnect existing feeder serving these pumps as condition of existing conduit permits. Extend existing conduit and wiring as required to make final connection. Make sure this part of distribution system stays energized and won't be disrupted with potential power cut-off.
 - Option 2: Provide new feeder to existing emergency panel with available capacity and space. Provide new fuse/breaker matching existing type and AIC rating
- New 5kW electric unit heaters are recommended by mechanical report at all sump pump location. Following electrical scope is recommended:
 - Provide dedicated circuit from existing emergency panel for each unit heater (number of conductors and breaker type per selected equipment).
- In case it will be decided in future to de-energize entire building, it is recommended to provide power from adjacent building for items listed above.

6. PLUMBING

DOMESTIC WATER SERVICE

1769 W Pershing is currently a vacant, non-occupied property, with domestic water service cut off to all fixtures and outlets. Per staff the domestic water has been disconnected and drained for around 3 years. The domestic water is provided from the 1869 W Pershing building basement from a combined 12" service. A 4" domestic water feed provides water to each of the 3 connecting buildings (fig 6.1). A triplex domestic water booster pump (fig 6.2), also located at the 1869 building, was reported to provide adequate pressure and flow to all buildings. Domestic water is supplied to each of the 6 stories, across all buildings, through the connecting walkways at floors 2, 3 and 6. The "cut off" point or valved off point was not observed but was confirmed disconnected by facility staff.

TOILET ROOMS

Toilet rooms are located on all floors and are all currently inactive.

DOMESTIC WATER PIPING

Domestic water piping was observed to the extent feasible when exposed. Only a small sample was viewed. No official determination can be made to the overall condition. Most of the piping is believed to be original steel with minor sections replaced with copper.

- Code compliance:
 - 18-29-605.26 Unused sections of water supply piping systems (or so called, dead-ends) where city water will

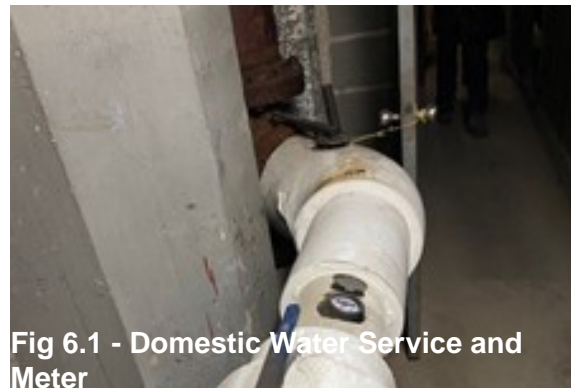


Fig 6.1 - Domestic Water Service and Meter

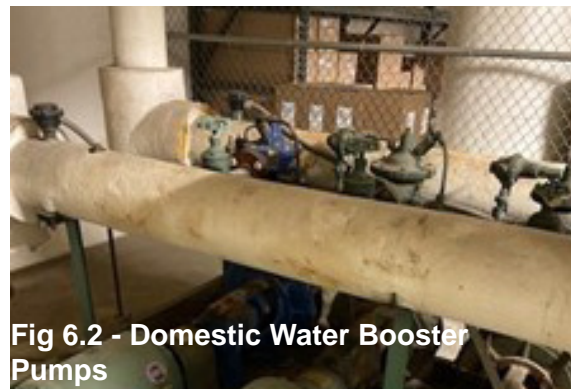


Fig 6.2 - Domestic Water Booster Pumps

6. PLUMBING (cont.)

become stagnant are prohibited other than fire protection systems. All domestic water pipes (hot and cold on all floors) supplying the 1769 building must be brought back to a point of service where no dead ends will occur. Piping must be capped or valved off.

DOMESTIC HOT WATER PLANT

Not observed as part of the initial walkthrough. The domestic hot water plant is located in the 1869 building and services all 3 buildings. Hot water is supplied to each of the 6 stories, across all buildings, through the connecting walkways at floors 2, 3 and 6. The domestic hot water return line is located in the ceiling of the lower level. Hot water has been cut off to the 1769 building. Building is to remain vacant. No hot water service required.

SANITARY WASTE AND VENT

Waste and vent piping was observed to the extent feasible when exposed. Only a small sample was viewed. No official determination can be made to the overall condition. Waste and vent observed at the basement level ceiling appeared to be in poor condition with visible exterior pipe corrosion. The existing ejector pump and pit was observed to be in new to newer condition (fig 6.3). All electrical connections have been cut from the panel.

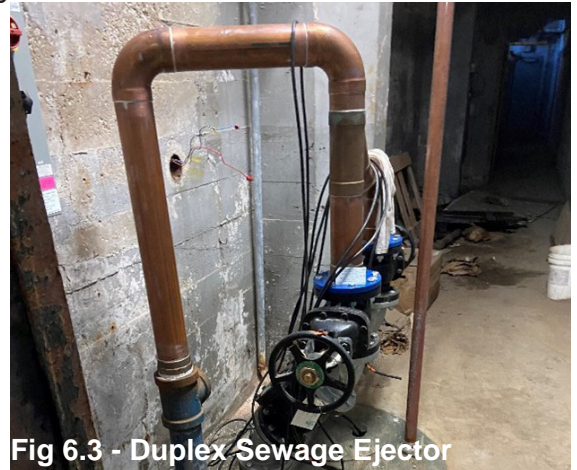


Fig 6.3 - Duplex Sewage Ejector

- Recommendations
 - Reconnect electrical power and controls to ejector pumps. Confirm pump and high-water alarm/switch operation. Pumps to be activated and operational during building vacancy. No recommendation to replace any waste and vent piping as the building is to remain vacant.

STORM PIPING

Storm piping was observed to the extent feasible when exposed. Significant water infiltration on the upper floors was observed resulting in damage and environmental concerns. Although not observed, it is believed that the roof and possibly the roof drain piping is causing the water infiltration. Per existing As-Built drawings the storm piping from the roof drains travels vertically to the basement level. Horizontal runs only occur at the lower level.

- Recommendations
 - Rod and televise existing storm leaders from roof drains to lower-level wyes. Provide Owner and A/E representatives with a Plumber's report with all findings, obstructions and damage. Heat-trace all horizontal piping sections in ceilings at lower level. See Electrical portion of report for more information. Provide 1" thick insulation with jacket on all horizontal storm runs to foundation wall.

PLUMBING FIXTURES

Plumbing fixtures were observed to the extent feasible as not all toilet rooms were accessible. No plumbing fixtures or water outlets are active within the entire building. The fixtures observed were generally in poor condition.

- Recommendations:
 - No recommendations for plumbing fixtures to be re-activated or operational as building is to remain vacant.

7. FIRE PROTECTION

1769 W Pershing is currently a vacant, non-occupied property, with fire protection services cut off to all sprinklers and hose valves. Per staff, the fire protection service has been disconnected and drained for around 3 years. The sprinkler and hose valve water service is provided from the 1869 W Pershing building basement from a combined 12" service. A 10" sprinkler water feed provides fire protection to each of the 3 connecting buildings. Two fire pumps (primary and backup), also located at the 1869 building, are active and functional and were reported to provide adequate pressure and flow to all buildings (fig 7.1 & 7.2). Fire protection water is supplied to each building, through the connecting Lower-level utility tunnel (fig 7.3). The "cut off" point or valved off point was not observed but was confirmed by facility staff to be disconnected within the utility tunnel.

FIRE PROTECTION PIPING

Fire protection mains were observed to be in decent to good condition. Fire protection branch piping was observed to be in fair to poor condition. The 1769 building has 6 total sprinkler risers that extend up from the lower-level ceiling. Each riser splits on all floors above into two zones for a total of 12 sprinkler zones per floor (fig 7.4 & 7.5)

- Recommendations:
 - No recommendations for fire protection piping to be reconnected to system as building is to remain vacant.

SPRINKLERS

Non-active sprinklers were observed to be in fair to poor condition. Sprinklers are provided though out the entire building on all floors. Upright heads provided at all non-finished ceiling areas. Pendant heads provided at finished ceiling locations.

- Recommendations:
 - No recommendations for activating existing sprinklers as building is to remain vacant. Sprinkler main to remain disconnected.



Fig 7.1 - Electric Drive Fire Pump

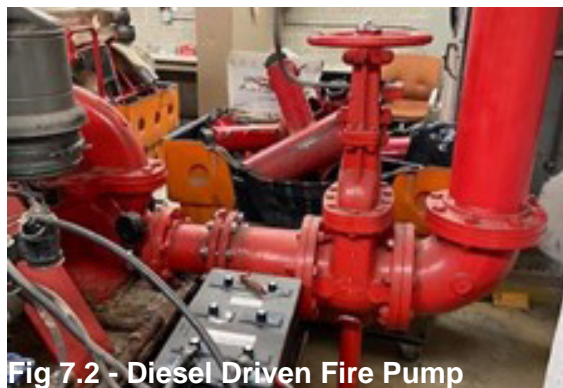


Fig 7.2 - Diesel Driven Fire Pump



Fig 7.3 - Fire Protection Backflow Preventer

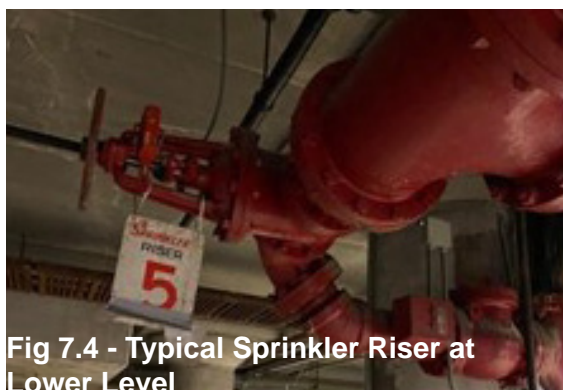


Fig 7.4 - Typical Sprinkler Riser at Lower Level

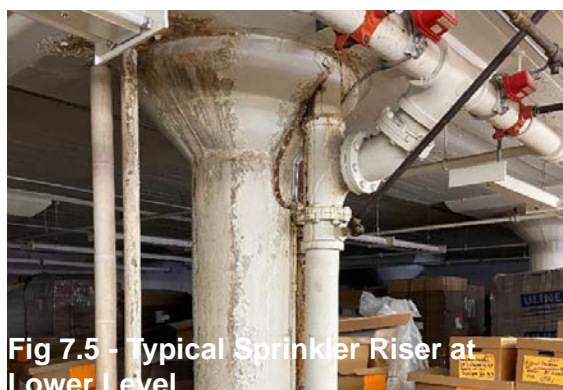


Fig 7.5 - Typical Sprinkler Riser at Lower Level

7. FIRE PROTECTION (cont.)

HOSE VALVES

Fire protection 1-1/2" hose valves are located though-out the building, on all floors, at or near stairwells and at the core interior. The valve cabinets appear to be fed from a 2" riser. Most cabinets are missing hoses and fire extinguishers (fig 7.6 & 7.7)

- Recommendations:
 - No recommendations for activating existing 1-1/2" hose valves as building is to remain vacant.

STANDPIPES

Standpipes are not installed. The existing building, when occupied, was protected by a wet pipe sprinkler system and 1-1/2" hose valves.

- Recommendations:
 - No recommendations for providing standpipes with 2-1/2" valves as building is to remain vacant.

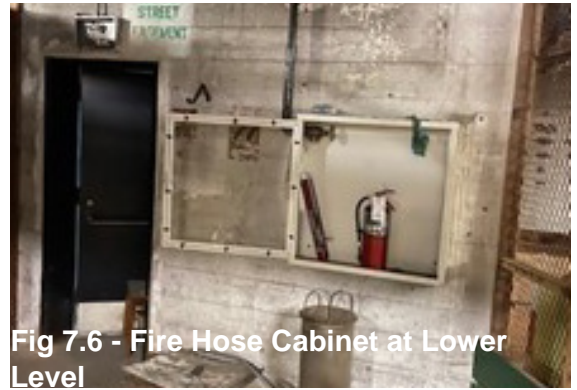
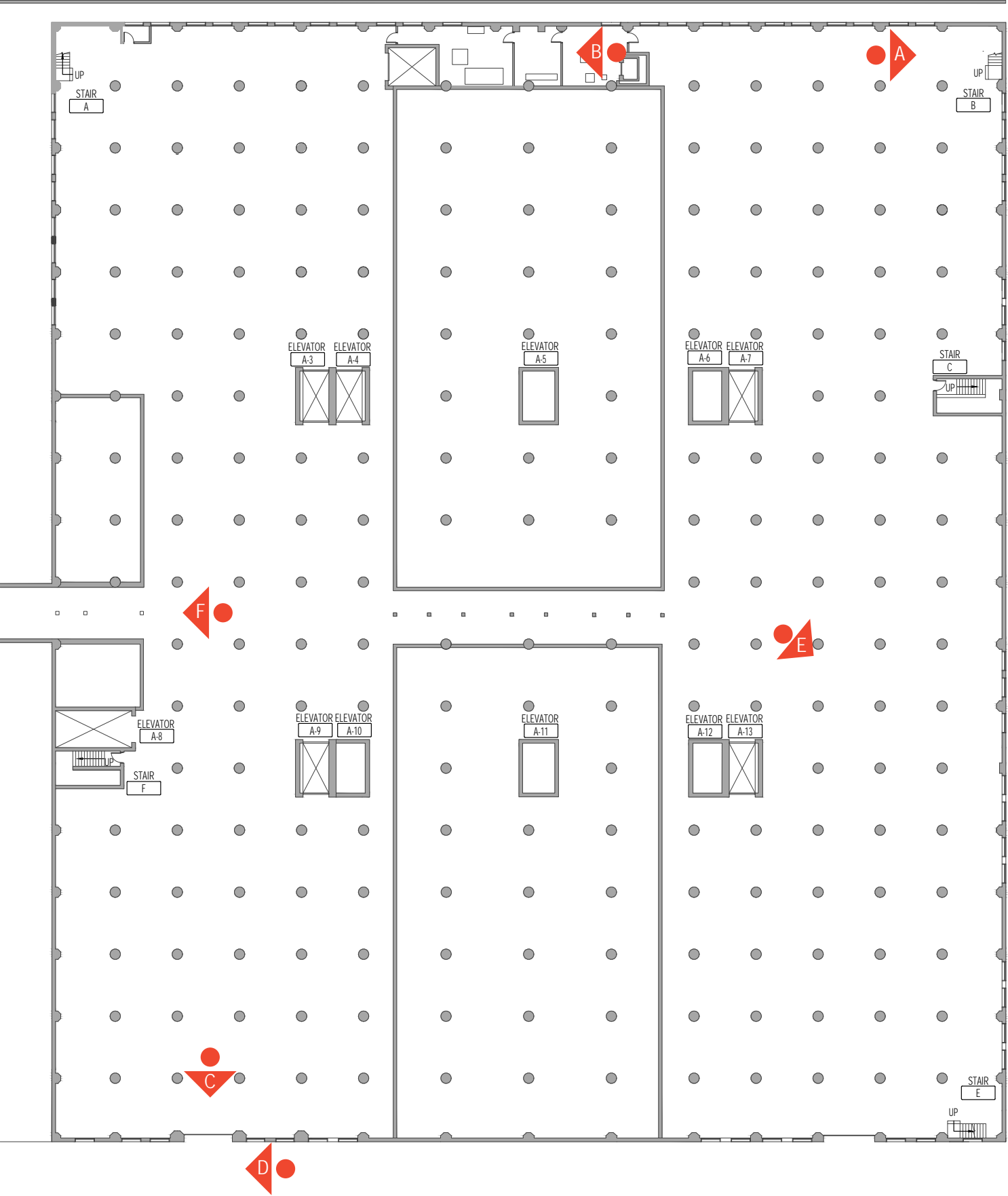


Fig 7.6 - Fire Hose Cabinet at Lower Level



Fig 7.7 - Typical Fire Hose Cabinet on Upper Floor

PERSHING ROAD BUILDING
1769 W Pershing Ave, Chicago, IL 60609
Appendix A
Floor Plans



Basement Floor Plan



A - Stair B without enclosure



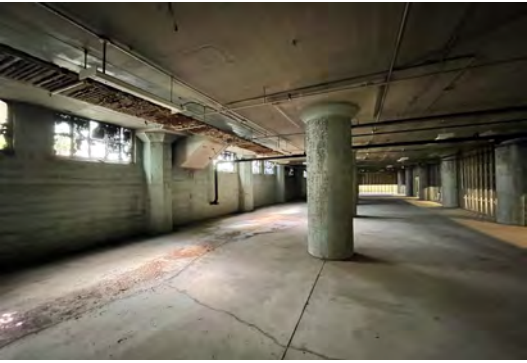
B - Pump Room



C - Utility Tunnel



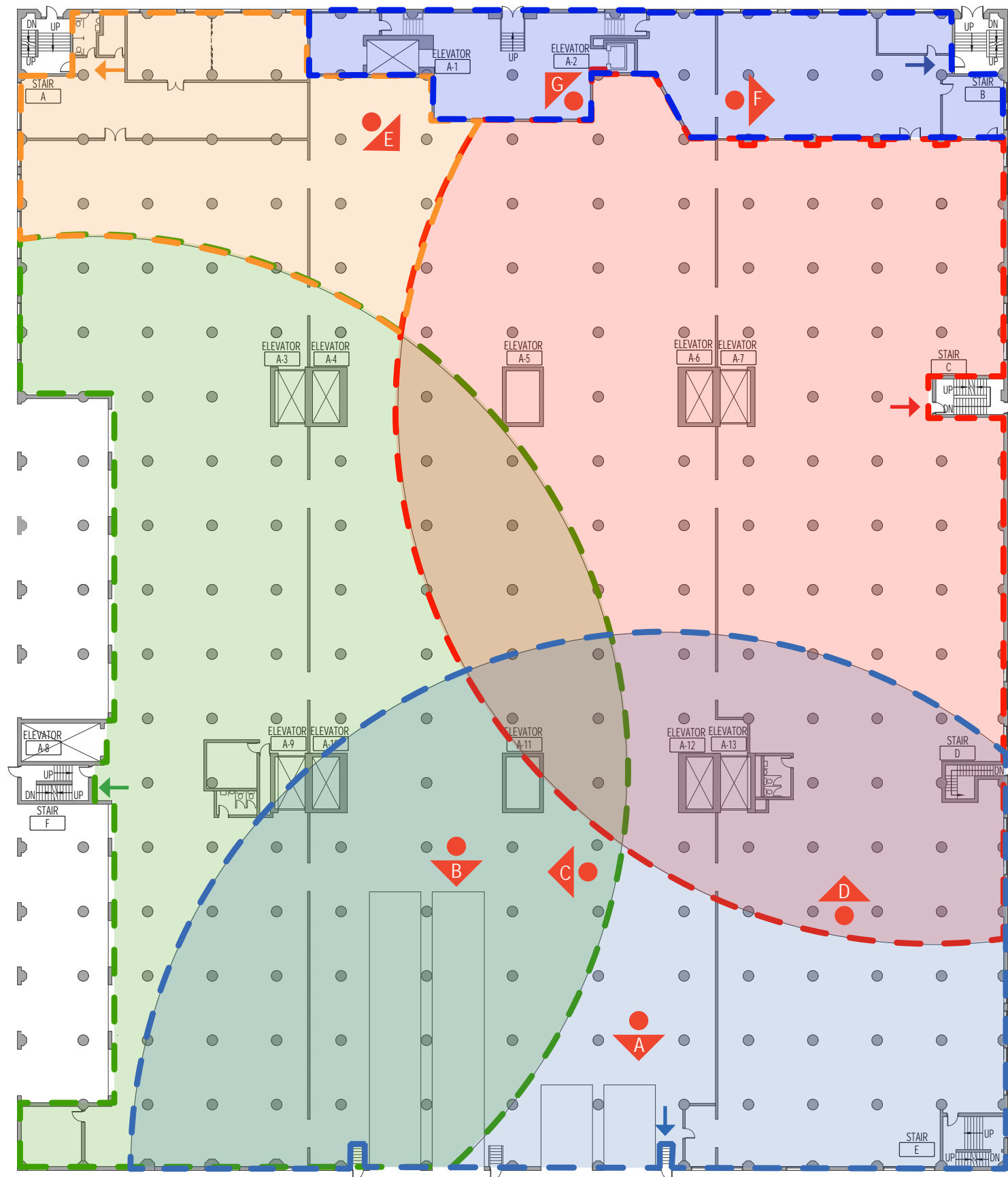
D - Utility Tunnel



E - East of Basement



F - Tunnel to Central Building



First Floor Plan

EXIT ZONES
150' TRAVEL DISTANCE PER SECTION 14X-12-1202.6.6

First Floor Existing Diagram: Section 14X-12-1202.6.6 Requires maximum 150' travel distance to an exit from any point on the ground floor. The diagram on the attached floor plan indicates that a total of 5 exits (Stair A, Stair B, Stair C, east exit at south elevation and Stair F) would need to be maintained for exiting from the building. The main entrance, center and east exits at the north side may be eliminated by modifying interior partitions. One exit would need to be maintained at building 'entrance'.



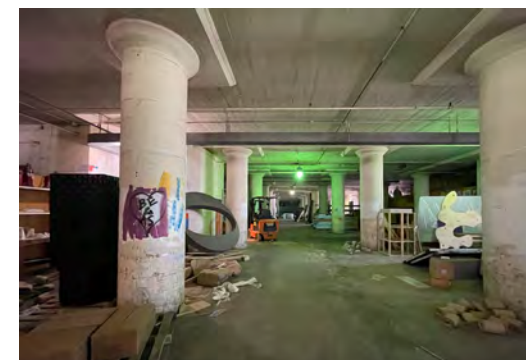
B - Loading dock to south



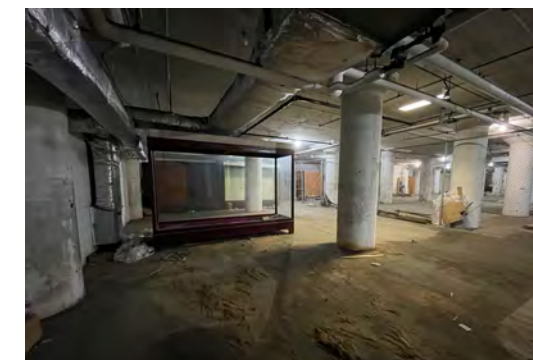
B - Rubbish at loading dock



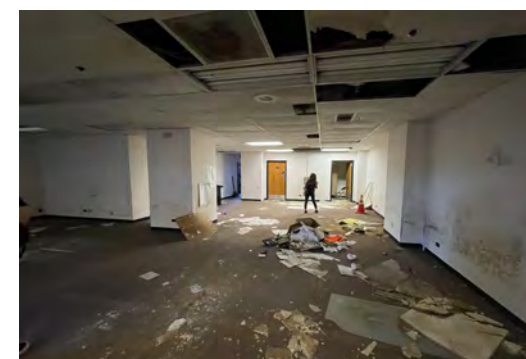
C - Some buildouts along at the center portion of the floor



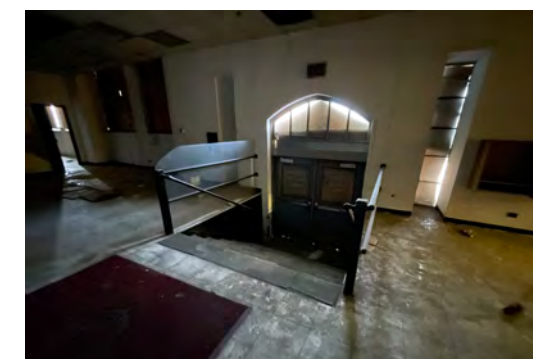
D - Stored materials and rubbish at east side



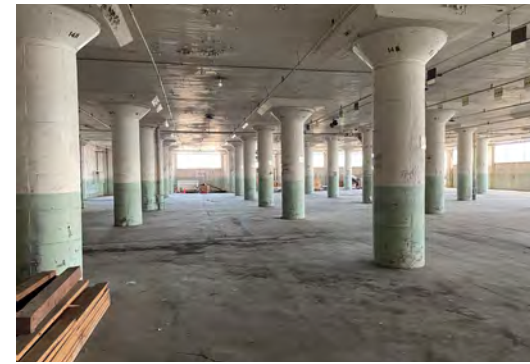
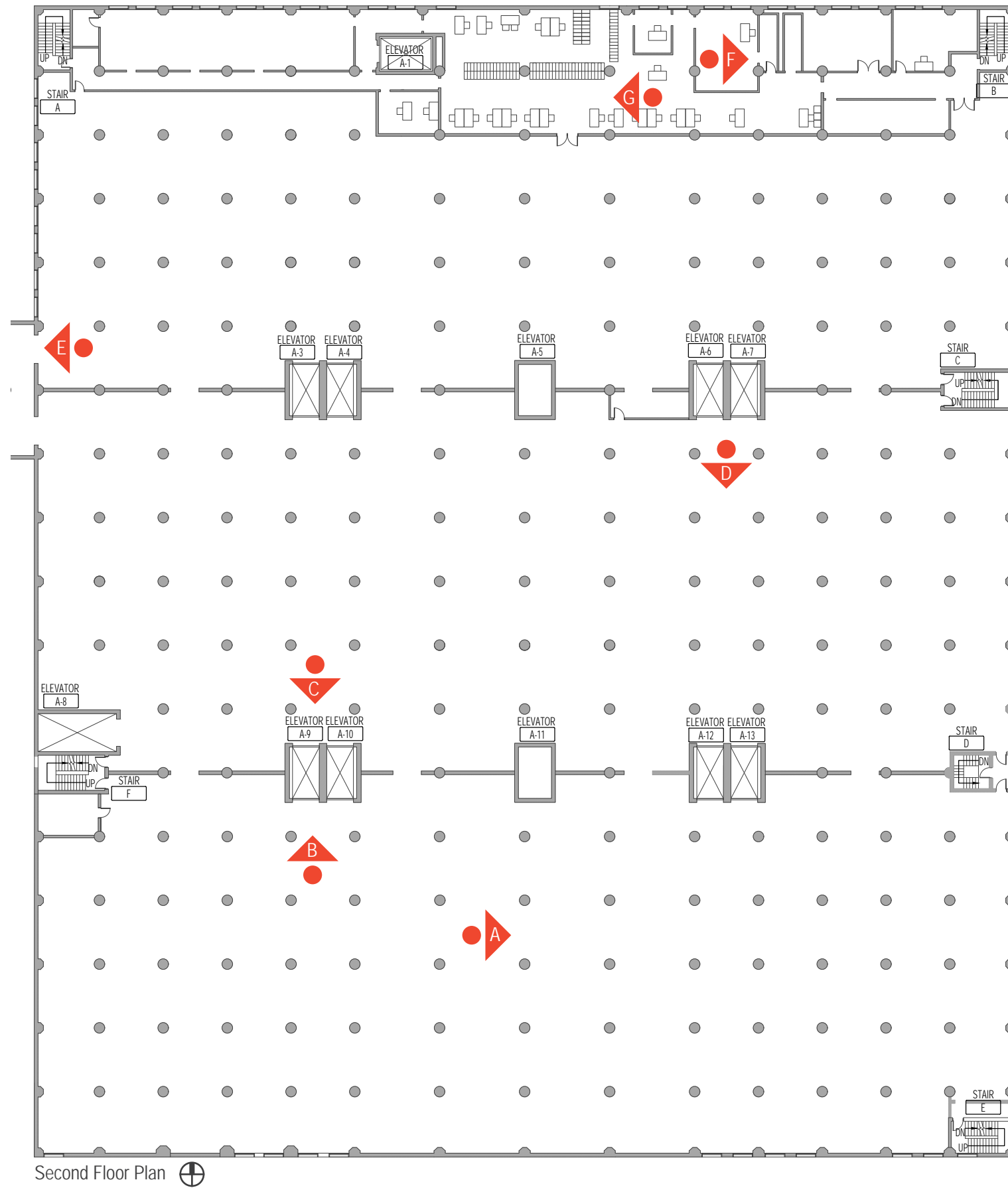
E - Stored materials at the north of the floor



F - Office buildout with damaged finishes at the north of floor



G - Center entrance to Pershing Road obstructed with plywood



A - South side of floor



B - Deteriorated Lintel Elevator 9



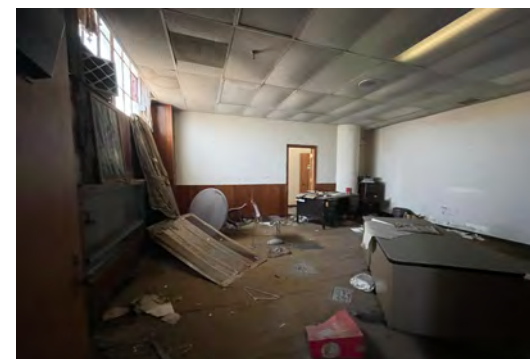
C - Deteriorated Lintel Elevator 9



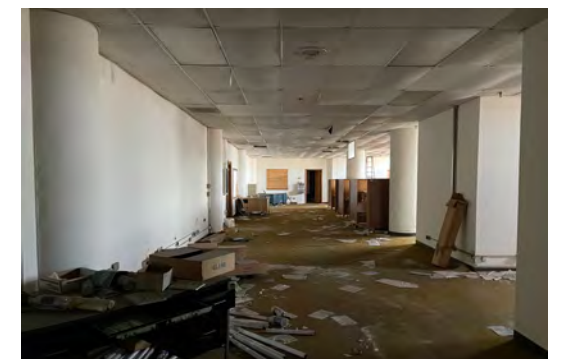
D - Chain Link Fenced Area and rubbish



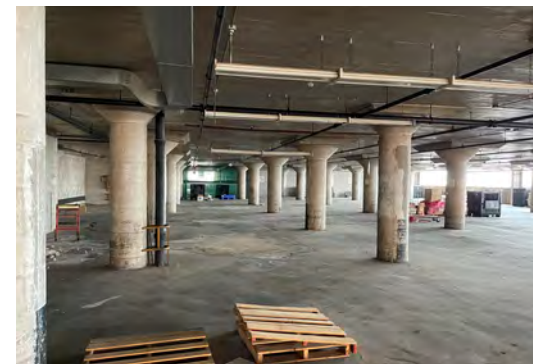
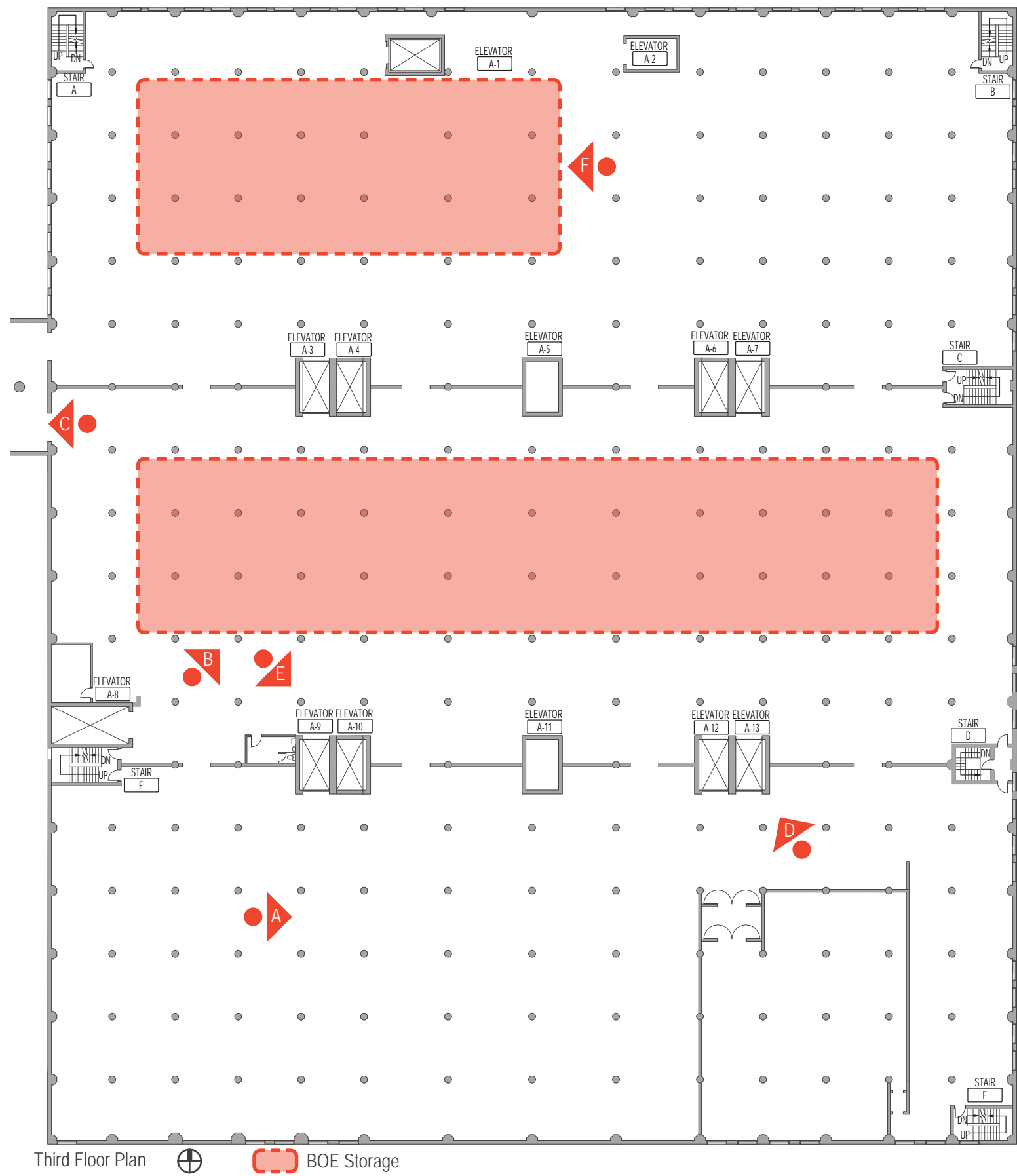
E - Bridge to Central Building



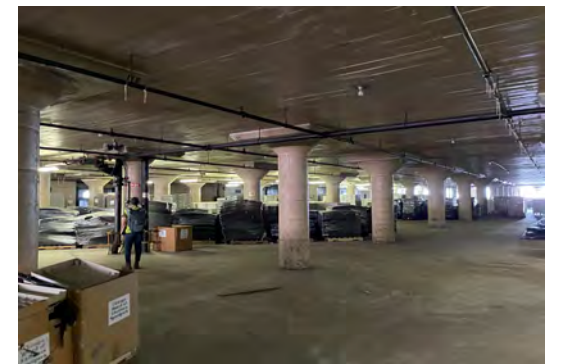
F - Buildout at north of floor and rubbish



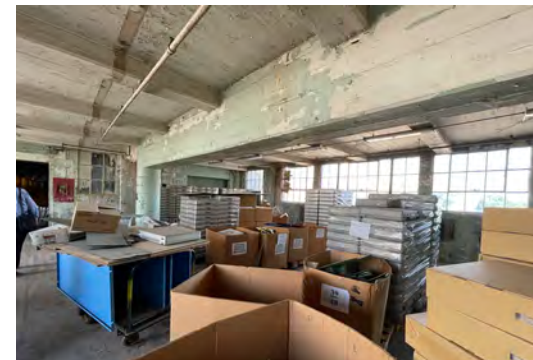
E - Buildout at north of floor and rubbish



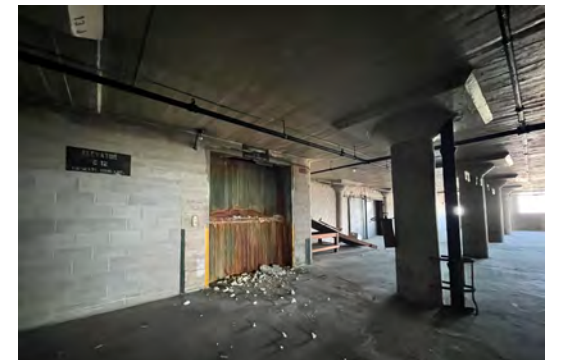
A - South area of floor



B - BOE Storage center of building



C - BOE storage on the bridge to Central Building



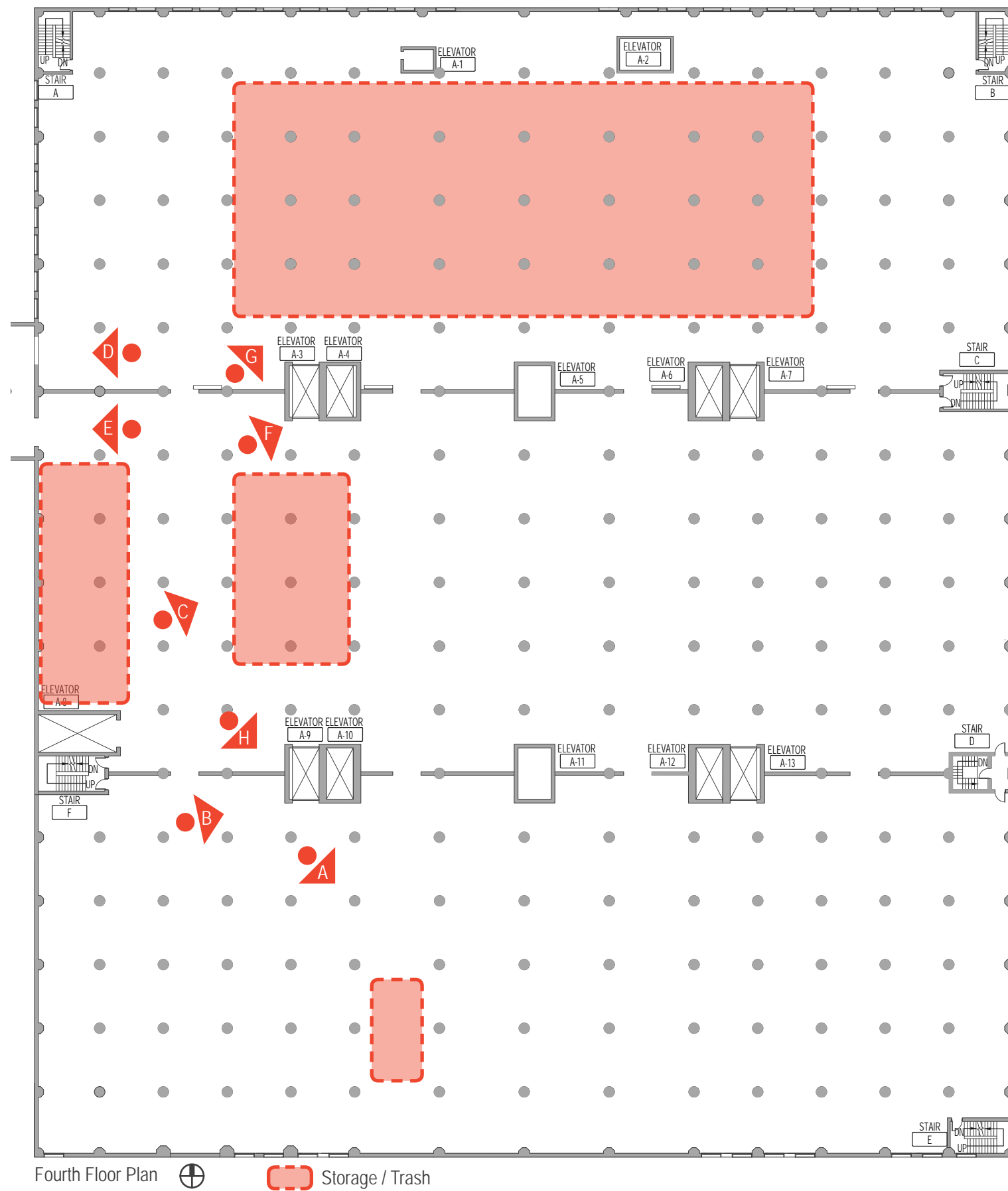
D - Elevator Lintel Deterioration



E - Elevator Lintel Deterioration



F - BOE storage at north side of floor



A - Rubbish at south of floor



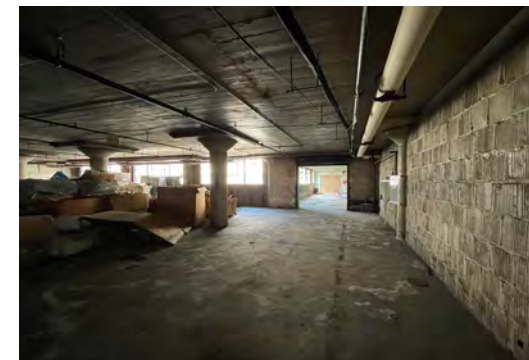
B - Damaged elevator



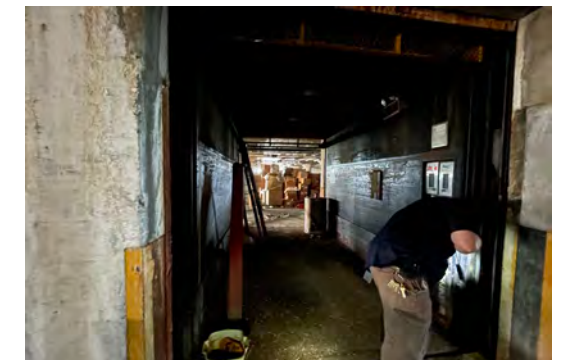
C - Trash at center portion of floor



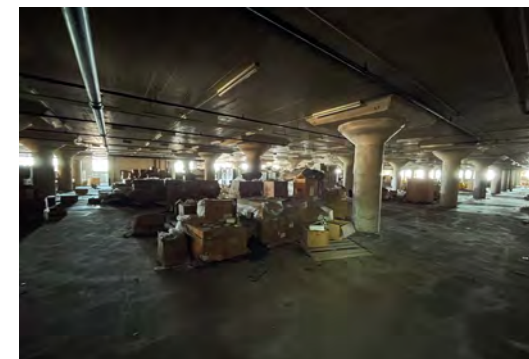
D - Masonry fill at existing bridge



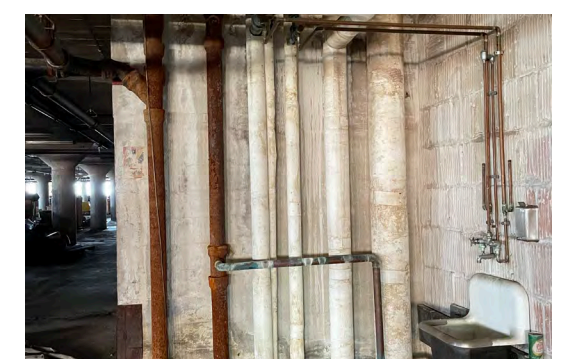
E - Boarded up opening at the 1819 side of the bridge



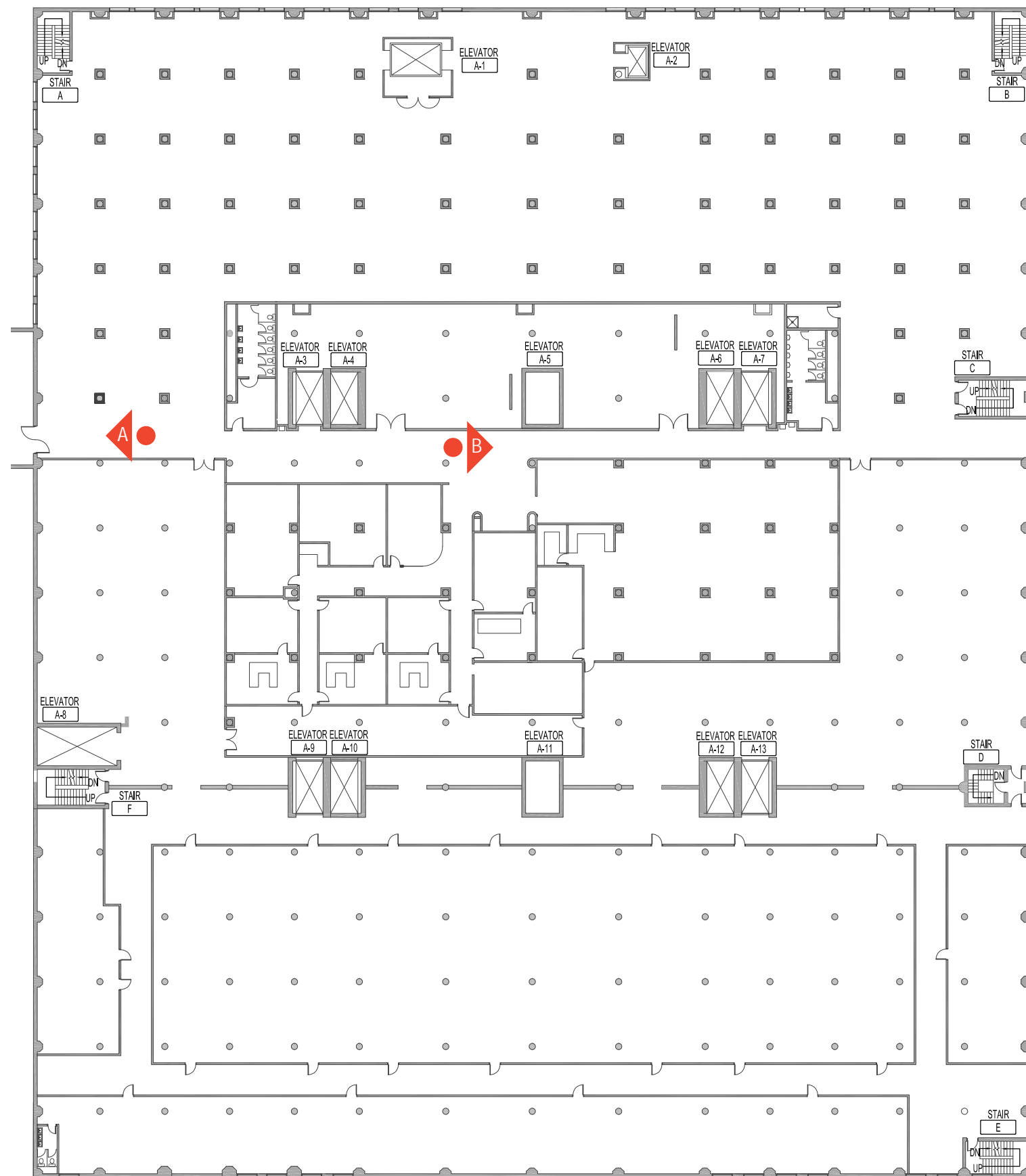
F - Abandoned freight elevator



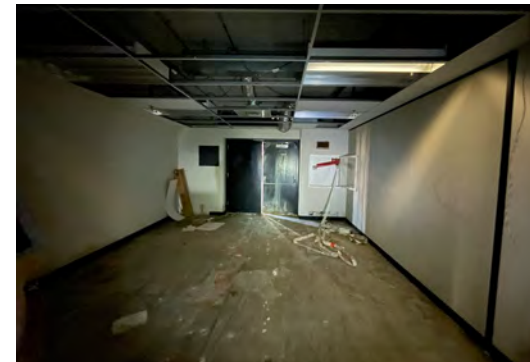
G - Abandoned materials at north side of floor



H - Existing piping and plumbing fixtures



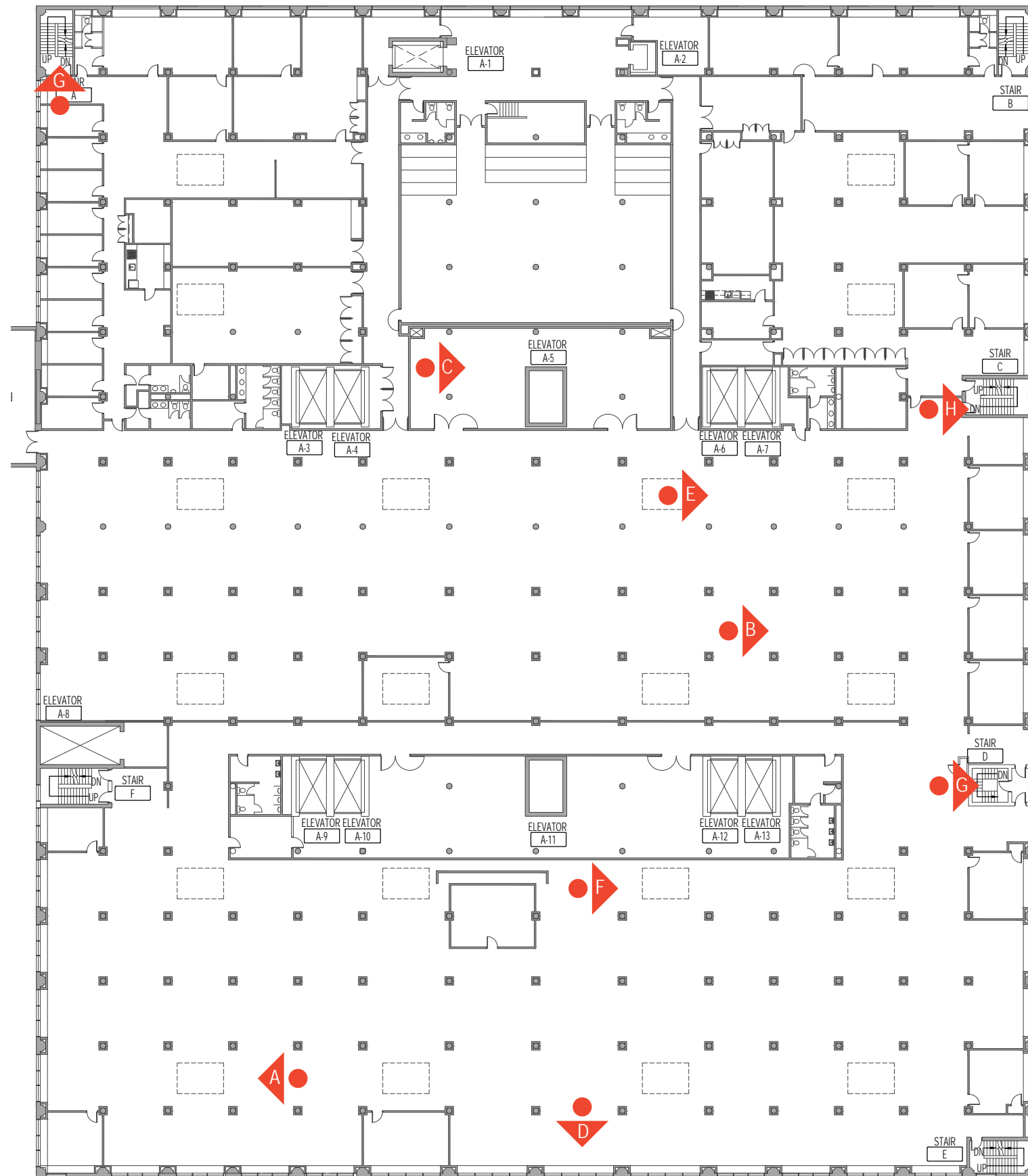
Fifth Floor Plan



A - Door to bridge connecting the East and Central Building



B - Interior Buildouts and abandoned furnishings



Sixth Floor Plan



A - Moss growing at floor areas below skylights



B - Interior build-outs and damaged materials



C - Abandoned mechanical units



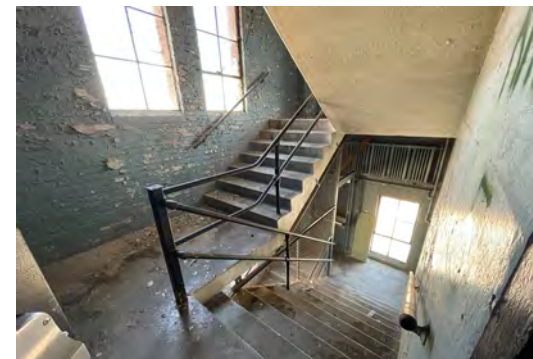
D - Deteriorated wall assembly



E - Partition and buildout, abandoned equipment



F - Concrete core built around freight elevator



G - Stair A with cage extended from the intermediate landing of 5th to 6th Floor



H - Guardrail at Stair C

PERSHING ROAD BUILDING
1769 W Pershing Ave, Chicago, IL 60609
Appendix B
Structural Assessment Report

HARDING MODE JOINT VENTURE



175 N Franklin Street
Chicago, Illinois
(312) 750-1701

Suite 410
60606
Fax (312) 750-1704

STRUCTURAL ASSESSMENT REPORT

Date:	July 6, 2021	Participants:	C. Perrin
Date of visit:	June 25 & June 28, 2021		M. Fagerson
			M. McClendon
Project:	EPR Pershing Structural Assessment		
	1769, 1819, & 1869 W. Pershing		
	Chicago, Illinois	Distribution:	FILE
			Paul Harding
Weather:	Rain, 78° F (June 25); Partly Cloudy, 75° F (June 28)		C. Anderson

Accompanied by Paul Harding of Harding Partners and the building engineer of EPR Pershing, we observed the general structural conditions of the EPR Pershing buildings at 1769, 1819, and 1869 W. Pershing in Chicago, IL. We performed a walk-through of the three buildings, that included the 6 floors and basement of each building, the 2 interconnecting bridges, and 3 tunnels, to assess visible structural issues. The building envelope, including the exterior façade and roofing, were not assessed by cea&a. We previously issued a report on June 28, 2021, that discussed the condition of the 3 tunnels in the basement that required immediate attention. This report will discuss the condition of the remainder of the building.

The three buildings were originally constructed in 1917. The existing structure of each building consists of concrete two-way flat slabs, spanning between concrete columns with capitals and drop panels. Given the relatively close column spacing of 18'-0" on center and the presence of drop panels, the concrete structure was likely designed for heavy loads, such as required for storage or manufacturing. The interconnecting bridge buildings are separated from each main building with expansion joints on each end.

1869 W. Pershing (West Building)

The building structure was generally in good condition. On Level 6, we observed a hole in the roof concrete slab, where the concrete had been removed, but the rebar was still intact and visible. We also observed a concrete beam above the Elevator B-6 opening that appeared to have been cut. Some of the bottom bar reinforcement and stirrups in the cut beam were visible. Generally, on Level 6, we observed several locations of concrete spalling and exposed, rusted rebar. Typically, when reinforcing is exposed to water and rusts it expands. The forces that result from the rusting cracks and eventually spalls the concrete cover. The majority of the locations of rusted rebar and spalled concrete were around skylights. It appeared that there had been leaks in the past, which caused the rebar to rust and concrete to spall. At the time of our visit, we did not observe any leaks, possibly the roof and skylights had been repaired and the water damage rusting and spalling occurred some time ago.



Cut Slab Near Column M.2



Cut Beam at Elevator B6



Exposed Rebar around Skylight



Exposed Rebar around Skylight

Levels 1 to 5 of 1869 W. Pershing were in relatively good condition. There were many existing cores through the concrete structure for plumbing and other utilities. Some cores occurred through column capitals. The cores reduce the strength of the concrete slabs. Cores through the column capitals and drop panels reduces the shear and flexural strength of the slab/column connection. We observed several locations where there were cracks in the floors. We did not see these cracks telegraphing through to the underside of slab in the locations we checked. There are many causes for concrete surface cracks, such as initial shrinkage cracks that enlarged over time due to overloading of the slab by heavy equipment, or long-term deflection of the slab due to creep. The surface damage cracks may also have occurred from the forklifts and equipment that were driven over the slab.



Pipes Through Column Capital



Plumbing Cores Through Concrete Slab



Floor Cracks at Level 5



Floor Cracks at Level 5

1819 W. Pershing (Center Building)

At Level 6, there was extensive visible damage due to water infiltration. There was visible water leaking through the roof structure, and there was mold and water damage throughout the floor. The majority of the substantial leaks were occurring at the skylights. There were many areas where the concrete structure around the skylight was covered with mold, and there was visible rusted rebar. The majority of the structure around the skylights will need to be repaired or replaced. There were other leaks in the roof away from the skylights that could result in damage to the reinforcing and concrete. There were approximately 10 locations of leaks and possible water damage in other locations away from the skylights.



Water Damage at Skylights



Water Damage at Skylights

On Levels 3 to 5 of 1819 W. Pershing, we observed areas of water damage, spalling concrete, and rusted rebar that corresponded with areas of leaking water from above. It appeared that the water infiltrated the slab and caused the rebar to rust. The rusted rebar spalled the concrete and created a crack in the slab. The water then filtered through the cracks and pond on the level below creating similar damage on multiple levels. The extent of the water damage diminished as it progressed down the building to lower floors. There were some areas that were not visible at the time of our visit, because the structure was covered with drop ceiling tiles.

There were also several locations where we observed a continuous crack at the underside of the slab at the midspan of a bay. At the upper levels, water was infiltrating these continuous cracks and leaking down to the floor below. At the lower levels, the crack was visible, but there was no water leaking through. A possible cause of the continuous cracks is that there are no intermediate building expansion joints in the large floor plates. When the building expands and contracts, it creates internal stresses within the slab, and those stresses are relieved by developing cracks. Another possible cause of the cracks in the bottom of the slabs is that the slab is under-reinforced for the span conditions. This condition would be exasperated by the thermal expansion and contraction noted above.

At the ground floor and 2nd floor, the condition of the structure was generally good. We observed thin continuous cracks on the underside of the floor slab in the midspan of several bays. The cracks were similar to those that had been observed on the upper floors, but there was no water infiltrating these cracks at the time of our visit.



Level 5 Water Damage



Water Damage at Column



Level 5 Water Damage



Continuous Crack at Slab Underside

Also, at 1819 W. Pershing, we observed the condition of the metal stair in the southeast corner. Based on the sound of the metal when struck with a hammer, we believe that the stair may be made of cast iron. The metal should be tested, as required, to verify this assumption. It should be noted that after testing the metal, if it is cast iron, cast iron is difficult to modify. If welding or cutting of the stairs is anticipated to modify the stairs, special construction procedures and guidelines will need to be implemented. The stair appeared to be in fair condition, however there was some rust color on the metal, and there was visible water near the top of the stair.

At Level 3, in the interconnecting bridge building, we observed water dripping through the building expansion joints on each side. There was some deterioration of the structure due to water damage.



***Water Damage at Expansion Joint between
Main Building and Interconnecting Bridge***

1769 W. Pershing (East Building)

There was widespread water damage to the roof slab of the 1769 W. Pershing building. There were active leaks at all skylight locations. At least 1/3 of the bays observed across the entire roof structure had some sort of active leak or visible corrosion. There were other areas of the roof that were not visible due to a dropped ceiling. There was extensive mold across the 6th floor, with moss and plants growing under the skylights where there was direct sunlight. Much of the carpeted floor was moist, so much of the concrete slab below is constantly being exposed to moisture.



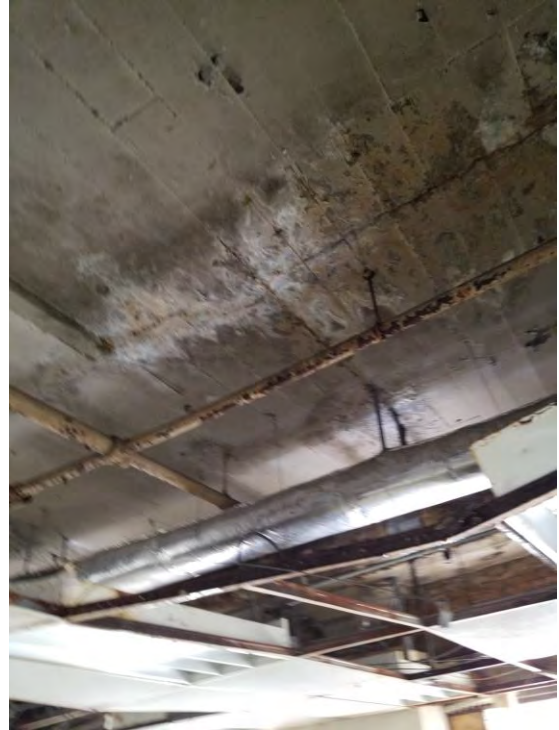
Mold and Corrosion @ Skylight



Water Damage and Cracking in Roof Slab



Plant growth at skylight areas



***Corrosion visible on underside of
Roof slab***



***Corrosion visible on underside of
Roof slab***

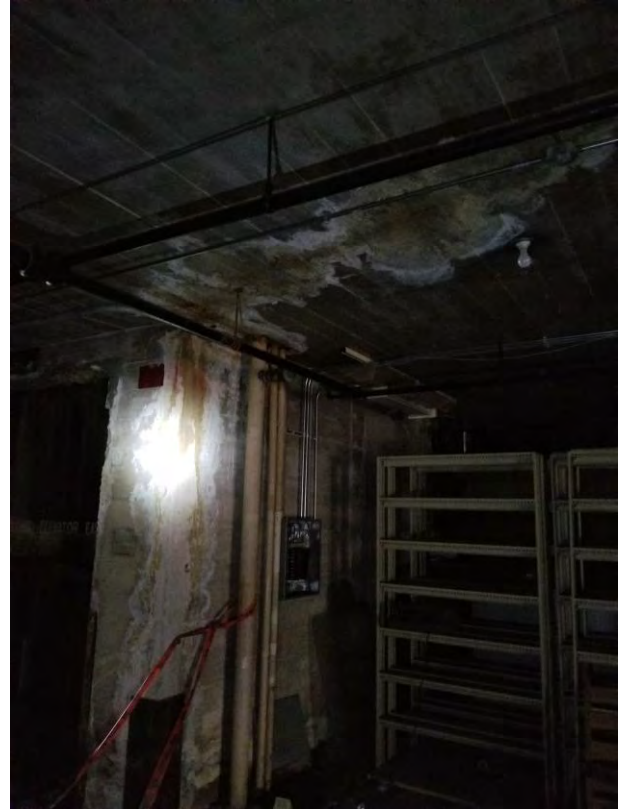


***Overall condition of all elements on
Level 6***

On Level 5, there were at least 10 locations observed throughout the building where there were active leaks with signs of concrete deterioration. Most of these were small cracks that ranged from within one bay to several bays in length. There was also a location where water was leaking through a column capital, indicating possible corrosion of reinforcing within the column. A good portion of the concrete structure on this level is concealed by dropped ceilings, but judging from locations of water leaks on the floors below, there could be up to 10 more locations where active leaks are occurring through the 6th floor slab. In addition to the cracks through the floor, there is also deterioration around the freight elevators, and in other locations where plumbing penetrates the floor structure.



Active leak through column capital



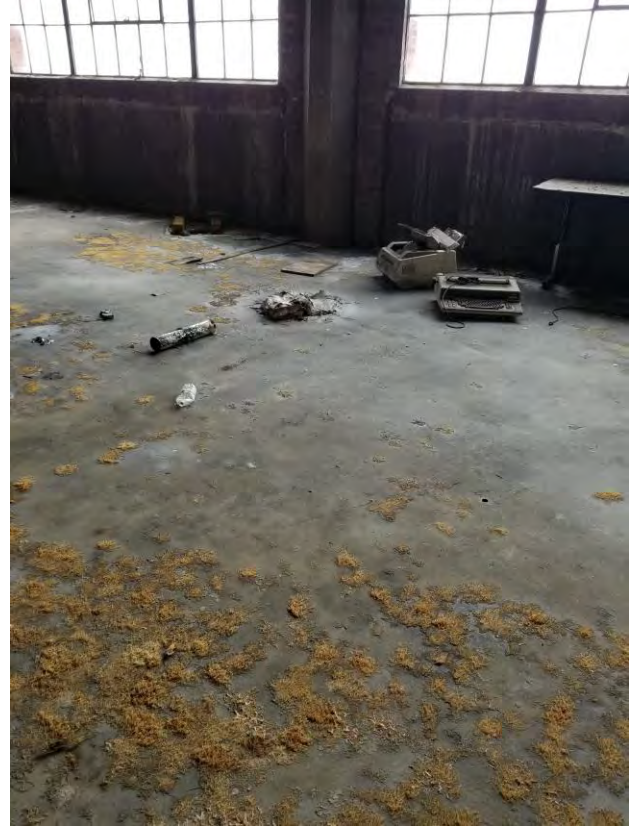
***Corrosion of slab surrounding the
freight elevator shaft***



Cracking @ Water Infiltration in Floor Slab

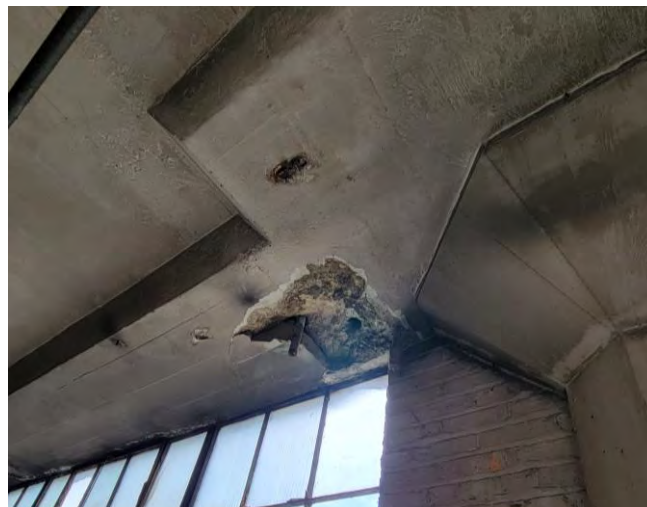


***Deterioration of spandrel beam on
north side of building***



***Life forms growing on surface of
5th floor slab***

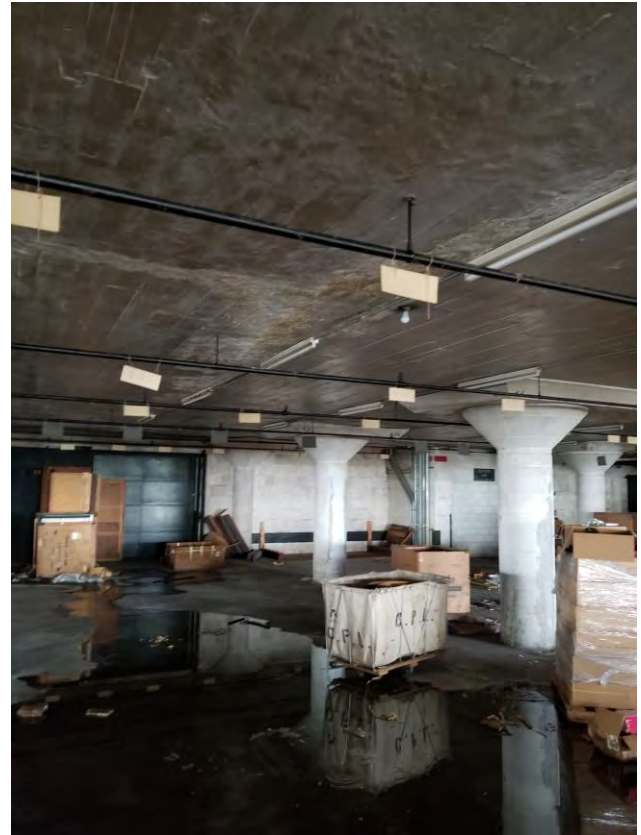
On Level 4, there were 18 observed locations of concrete deterioration around cracks. More locations were observed on this level than on the upper levels because there were no dropped ceilings, so all concrete structure was visible for inspection. Most of these locations were discoloration or efflorescence, but at 4 of the locations there were active leaks. A good length of the spandrel beam at the north wall was deteriorated, and there was also some corrosion visible along the south wall, particularly at one of the columns.



Spalling at North Spandrel Beam

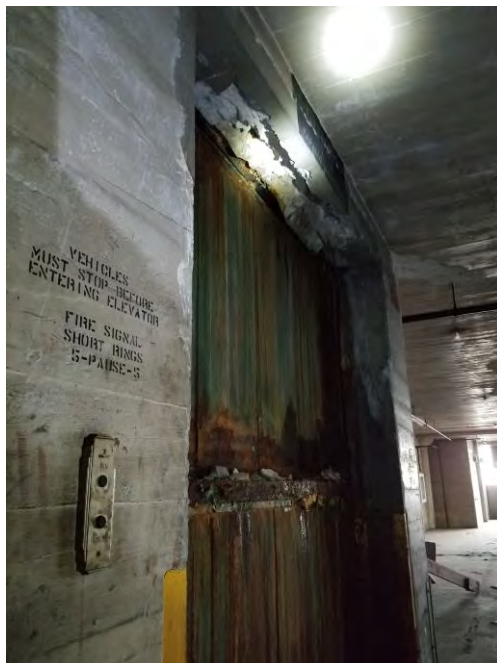


***Deterioration of spandrel beam on
north side of building***



***Crack running through multiple
bays, with corrosion***

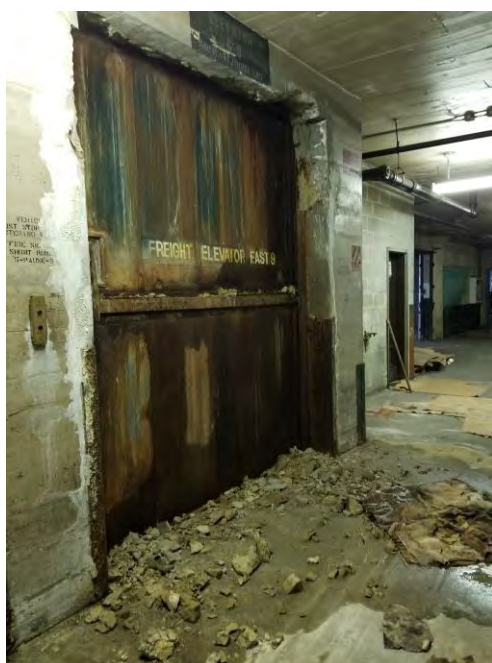
At Level 3 of the 1769 W. Pershing building, the condition of the structure was generally good with a few isolated areas of water leaks located within the interior areas of the floor plan. There were several locations at the elevator doors that had visible water leaking. Additionally, there were large pieces of spalled concrete from the beam above the elevator opening. Based on the color of the concrete, it appeared that these beams had been patched at some time in the past. The patched concrete was spalling in large pieces, and were on the floor slab below the opening. This could have been attributed to the patches applied without wire or pins, for a positive mechanical connection to the original base concrete. This issue is recurring on the other levels of this building at the 4 interior freight elevator shafts.



Elevator 13 Concrete Beam Deterioration



Elevator 13 Spalled Concrete



Elevator 9 South Door



Elevator 9 North Door

At the levels below the 3rd floor, the deterioration was minor, mainly in the form of efflorescence at some of the cracks. There were very few locations of active leaking, except at the freight elevator shafts and some of the adjacent pipe penetrations.

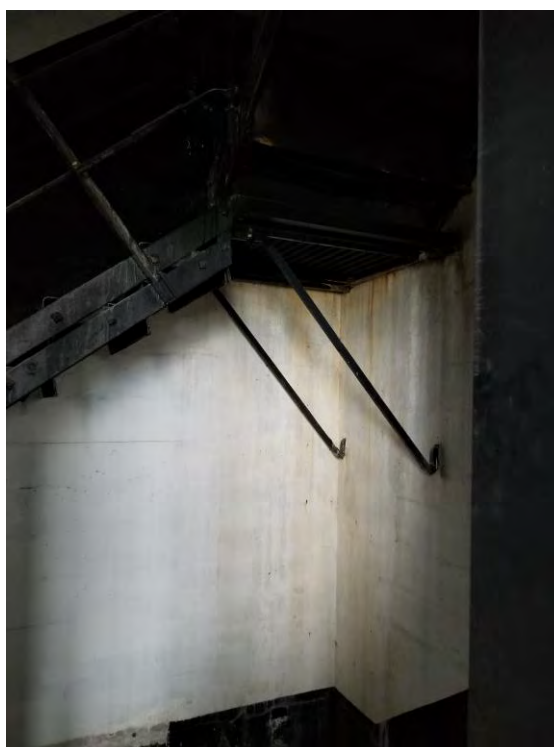


***Corrosion visible on underside of
3rd floor slab***



***Deteriorated beam at freight elevator,
and corrosion in adjacent 3rd floor slab***

We also observed the condition of a metal stair, possibly cast iron, in the 1769 W. Pershing building. This stair had more visible rust, including on the face of the stair shaft walls.



Rust from Metal Stair Structure

Recommendations

1869 W. Pershing (West Building)

This building structure is in good condition. Minor concrete repairs are recommended at the corroded areas around the skylights, and at the door of the freight elevator shaft. The openings in the slab should be patched with new concrete.

1819 W. Pershing (Center Building)

The roof needs to be replaced on this building as soon as possible to avoid any further water infiltration and damage to the structure. At the time of the roof replacement, all damage to the roof structure should also be repaired. All existing dropped ceilings and drywall finishes should be removed as soon as possible to expose all deteriorated areas of the roof slab. The slabs surrounding all cracked and corroded areas should be shored so the concrete around the corroded spots can be removed and the reinforcing bars can be inspected and replaced as required. We recommend immediately shoring all areas of slab surrounding corrosion if the floors below are to remain occupied. After the roof is replaced, repairs should be made in a similar fashion to the floors below, where there is any sign of corrosion around cracks.

1769 W. Pershing (East Building)

The roof needs to be replaced on this building as soon as possible to avoid any further water infiltration and damage to the structure. More inspection will be required at this level, once all interior finishes and roofing is removed, to fully assess the condition of the roof structure. Due to the widespread water infiltration noted at this level, consideration should be given to completely removing the roof slab and replacing with new structure, or removing the uppermost level entirely and roofing the floor below. At the time of the roof replacement, all damage to the roof structure should also be repaired. The slabs surrounding all cracked and corroded areas should be shored, so the concrete around the corroded spots can be removed, and the reinforcing bars can be inspected and replaced as required. After the roof is replaced, repairs should be made in a similar fashion to the floors below where there are any signs of corrosion around cracks. Further inspection is required of the interior of the freight elevator shafts, where extensive water damage is likely.

The above constitutes our understanding of events observed and issues discussed. Any discrepancies should be immediately addressed, in writing, to the observers. If there are any questions or additional information required, please do not hesitate to contact us.

C. E. Anderson & Associates PC

A handwritten signature in black ink, appearing to read 'Ch E. Anderson', written in a cursive style.

Charles E. Anderson SE AIA
President

PERSHING ROAD BUILDING
1769 W Pershing Ave, Chicago, IL 60609
Appendix C
Tunnel Report

HARDING MODE JOINT VENTURE

STRUCTURAL ASSESSMENT REPORT - TUNNELS

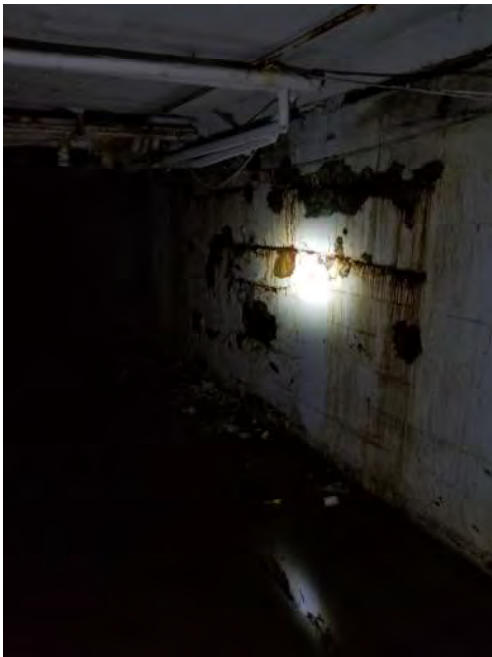
Date: **July 2, 2021**
Date of visit: **June 25 & June 28, 2021**
Project: **ERP Pershing Structural Assessment
1769, 1819, & 1869 W. Pershing
Chicago, Illinois**
Weather: **Rain, 78° F (June 25); Partly Cloudy, 75° F (June 28)**

Participants: **C. Perrin
M. Fagerson
M. McClendon**
Distribution: **FILE
Paul Harding
C. Anderson**

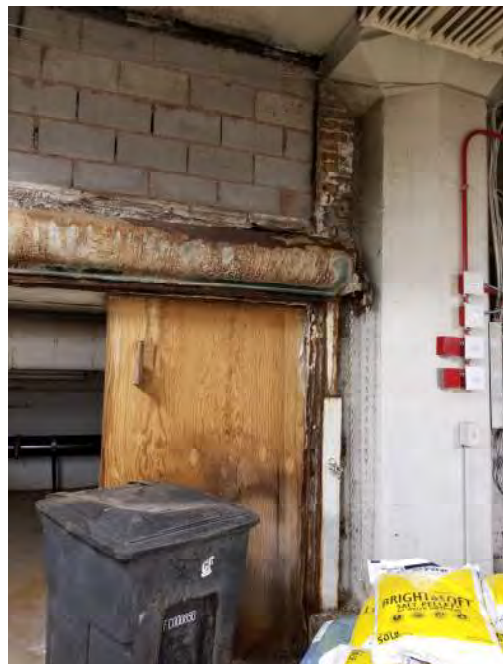
Accompanied by Paul Harding of Harding Partners and the building engineer of ERP Pershing, we observed the general structural conditions of the ERP Pershing buildings at 1769, 1819, and 1869 W. Pershing in Chicago, IL. We performed a walk-through of the three buildings, including the 6 floors and basement of each building, the 2 interconnecting bridges, and 3 tunnels, to assess structural issues that were visible at the time of our visit. The building envelope, including the exterior façade and roofing, were not assessed by cea&a. This report will discuss the condition of the 3 tunnels in the basement that require immediate attention.

1869 W. Pershing (West Building)

In the basement of 1869 W. Pershing, at the tunnel area beneath the loading docks, we observed spalled concrete and exposed, rusted rebar from water damage that was occurring at the joint in the building basement wall and the pavement slab above the tunnel. There was damage in the concrete wall under the exterior face of the building above, and there were some areas of the tunnel slab that were deteriorated and may need replacement.



Deteriorated Rebar in West Building Tunnel



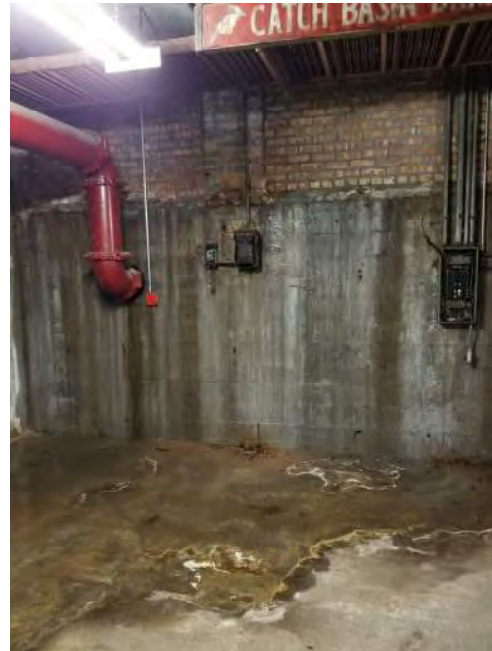
Deteriorated Masonry at Tunnel Entrance

1819 W. Pershing (Center Building)

In the tunnel beneath 1819 W. Pershing, there was visible leaking at the west entrance to the tunnel and along the exterior basement walls. There was also approximately 3-4" of standing water at the entrance to the tunnel. At the east entrance of the tunnel, there were many locations of spalled concrete and exposed, rusted rebar. The damaged sections of the concrete slab were extensive and will need to be replaced. The rebar was visible, and by measuring, we estimated it to be #4 bars spaced at 2" on center. There were areas of rusted rebar spanning from exterior building wall to exterior tunnels wall, that occurred approximately every 10'. In some locations, the rebar was falling out of the slab and no longer in contact with the concrete.



Standing Water at West Tunnel Entrance



Water Leaks on Interior Face of Wall



Exposed Rebar in Tunnel Roof Slab

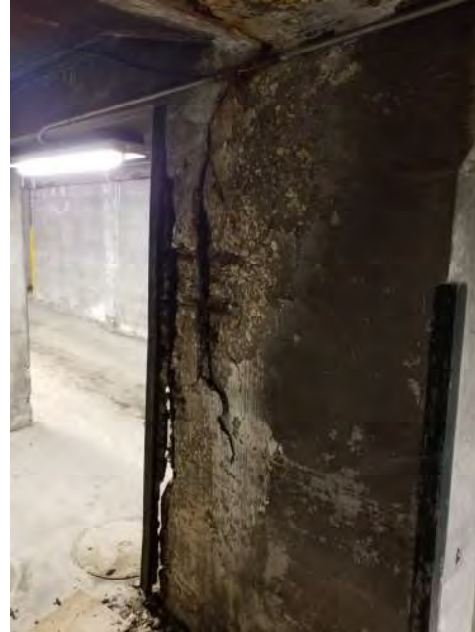


Strips of Rusted Rebar at 10' on center

At the link between the 1819 and 1769 W. Pershing buildings, we observed an area of water damage and deteriorated structure. The concrete on the underside of the slab and the concrete on the face of the column that supports the link building above had spalled off, and pieces of concrete were on the floor slab of the link tunnel. The rebar in the underside of slab and in the face of the column was exposed and extensively rusted.



Deterioration in Underside of Link Slab



Deterioration of Link Column

1769 W. Pershing (East Building)

In the tunnel of the 1769 W. Pershing building, we observed the same areas of rusted rebar in the slab occurring at approximately 10' on center that we observed in the 1819 W. Pershing building. There were visible leaks within the tunnel and many areas of deteriorated slab reinforcement. There was also cracking, spalled concrete, and rusted rebar in the interior face of the basement wall.



Tunnel, Looking East



Tunnel, Looking West



Exposed Rebar in Tunnel Slab



Exposed Rebar in Basement Wall

There was portion of the tunnel slab that had been supported by a dropped concrete beam and reinforced concrete posts on each end. The bottom of each of the existing concrete posts has excessive spalling and corroded rebar.



Concrete Post in Tunnel with Exposed Rebar



Concrete Post in Tunnel with Spalling at Base

Recommendations

Due to the severe deterioration of the tunnel slabs and the column beneath the link building, we recommend that any loading on the slab, such as from vehicle traffic, be removed from the slab immediately. Temporary shoring and bracing may be installed underneath the slab to provide support until permanent repairs can be made. Shoring should be placed immediately under the link building column and slab, and vehicle traffic through the area should be rerouted until the shoring is installed. Along the tunnels, shoring should be placed immediately under traffic areas and all areas used for loading dock purposes. The areas used for parking should be barricaded from traffic and parking; shoring can be installed under these areas, if desired. See the attached key plan for shoring requirements. The temporary shoring should be designed by the shoring contractor's licensed Illinois Structural Engineer.

The above constitutes our understanding of events observed and issues discussed. Any discrepancies should be immediately addressed, in writing, to the observer.

Humberto's Pizza
Takeout • Delivery

Twin Lens Auto
Service and Repair

S Honore St

S Wood St

W Pershing Ave

W Pershing Rd

W Pershing Rd

W Pershing Rd

Chicago Fire Department

S Wolcott Ave

1869

1819

1769

5' FROM CORNER
OF BLDG

10' FROM CORNER
OF BLDG

5' FROM CORNER
OF BLDG

EXTENT OF
TUNNEL BELOW

23' FROM FACE
OF BLDG

BARRICADE

EXTENT OF
TUNNEL BELOW

IMMEDIATELY SHORE THE
FULL LENGTH OF THE
TUNNEL SLAB UNDER ALL
TRAFFIC AREAS, AND ALL
AREAS USED FOR LOADING
DOCK PURPOSES

IMMEDIATELY SHORE THE
FULL LENGTH OF THE
TUNNEL SLAB UNDER ALL
TRAFFIC AREAS, AND ALL
AREAS USED FOR LOADING
DOCK PURPOSES

IMMEDIATELY BARRICADE ALL
OTHER AREAS ABOVE THE
TUNNEL FROM TRAFFIC AND
PARKING. REMOVE ALL LOADING
FROM THE AREA ABOVE THE
TUNNEL SLAB, AND IN ALL AREAS
WITHIN 5 FEET OF THE
PERIMETER OF THE TUNNEL.
THESE AREAS CAN ALSO BE
SHORED, IF MAINTAINING
ACCESS DESIRED.

IMMEDIATELY SHORE
THE AREA OF SLAB
SURROUNDING THE
DETERIORATED BEAMS
AND COLUMN IN THE
BASEMENT OF THE LINK
(SHORE THE FULL
LENGTH OF THE TUNNEL
BETWEEN BUILDINGS
1769 AND 1819.)