City Hall Facility Review

April 7, 2026 City Council Meeting

AB 6891

Agenda

- Purpose
- Introduction to Mackenzie
- Project Introduction
- Executive Findings
- Building Assessment
  - Architectural
  - Structural
  - Mechanical & Plumbing
  - Electrical & Low Voltage
- Recommendation
- Next Steps

Purpose

Agenda Bill Summary

The purpose of this agenda item is to:

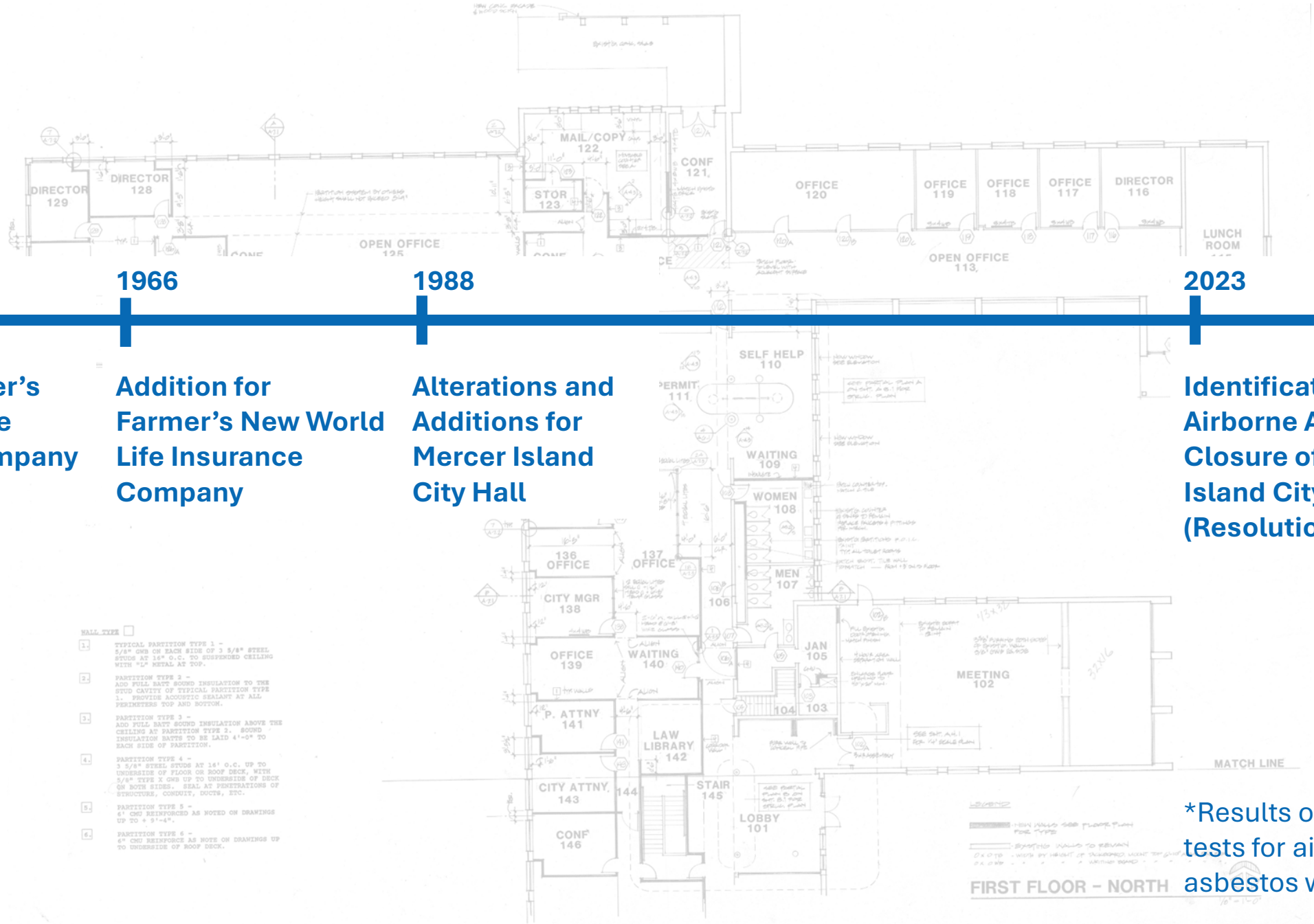
- Provide an overview of the existing City Hall building,
- Summarize facility assessment findings and outline anticipated renovation costs and challenges, and
- Seek City Council direction on whether to renovate the existing building or demolish and construct a new facility

MACKENZIE.

UNIFIED IN THE DELIVERY OF DESIGN EXCELLENCE
SINCE 1965

Project Introduction

1957 to Present


TODAY
1957
1966
1988
2023
2026
Built for Farmer's New World Life Insurance Company
Addition for Farmer's New World Life Insurance Company
Alterations and Additions for Mercer Island City Hall
Identification of Non-Airborne Asbestos* & Closure of Mercer Island City Hall (Resolution No. 1650)
*Results of multiple tests for airborne asbestos were negative
DIRECTOR 129
DIRECTOR 128
MAIL/COPY 122
CONF 121
STOR 123
OPEN OFFICE 125
OFFICE 120
OFFICE 119
OFFICE 118
OFFICE 117
DIRECTOR 116
LUNCH ROOM
OPEN OFFICE 113
SELF HELP 110
PERMIT 111
WAITING 109
WOMEN 108
MEN 107
136 OFFICE
137 OFFICE
CITY MGR 138
OFFICE 139
WAITING 140
P. ATTNY 141
LAW LIBRARY 142
CITY ATTNY 143
CONF 146
STAIR 145
LOBBY 101
JAN 105
MEETING 102
104
103
106
144
MATCH LINE
FIRST FLOOR - NORTH

Mackenzie's Tasks

Task: Existing Facility Conditions Assessment Consolidation

- Review collection of existing information completed over the past few years
- Conduct site visit to examine and verify existing reports against current conditions
- Prepare **additional** assessments:
  - Facility Condition
  - Structural Assessment
  - Mechanical/Electrical/Plumbing Supplemental Assessment

Mackenzie's Tasks

Task: Existing Facility Conditions Assessment Consolidation

- Prepare a **consolidated** building evaluation report:
  - **Executive summary** of general condition of the existing buildings
  - Summary of **structural** deficiencies
  - Summary of **mechanical, electrical, and plumbing** deficiencies
  - Summary of **building code and accessibility** non-conformance
  - **Cost estimate** capturing consolidated improvements, including hard and soft costs

Executive Findings

A breakdown of the City Hall Building Assessment

Estimated Total Project Cost

Project costs for the renovation of the existing building

	Estimated Total Project Cost Range (includes **Construction Costs** & anticipated **Owner Soft Costs**) Note: All figures are escalated to a ***Construction Midpoint of Q4, 2028***
Full Building Renovation & Seismic Upgrade	$55,427,000 to $57,407,000
Additive Alternate 1 Complete space reconfiguration for a full Police & EOC occupancy	$2,855,000 to $2,957,000
Additive Alternate 2 Fencing for secure parking, automatic gates, and covered parking canopy	$1,764,000 to $1,827,000
	$60,046,000 to $62,191,000

Key Deficiencies

Non-Airborne Asbestos identified throughout the building

Seismic deficiency of the existing building structure + inability to meet Seismic Category IV requirements for essential facilities

Mechanical & electrical systems are at **end-of-service-life**

Alteration Level

Removal of Non-Airborne Asbestos

Preparation + Abatement of non-airborne asbestos throughout building:

- Demolition of all mechanical systems
- Demolition of all ceiling and flooring
- Demolition of doors and windows
- Demolition of select wall, floor, and roof construction

Change of Occupancy

Building utilized for Police Station use.

A change in the purpose of, or a change in the level of activity within, a building or structure is considered as a change of occupancy per Chapter 10 of the International Existing Building Code Chapter (2021).

Alteration – Level 3

The alteration area **exceeds 50 percent** of the building area and therefore must comply with **Alteration - Level 3** per International Existing Building Code (2021).

Where a change of occupancy results in a building being assigned to a higher risk category, the building shall satisfy the requirements of the International Building Code for the **new risk category using full seismic forces.**

Building Assessment

Architectural

Analysis of the existing City Hall Architectural Systems

Architectural

Existing conditions

The existing City Hall building was constructed in 1957.

The building is Construction Type III-N (non-combustible).

The building is **not** equipped with an automatic sprinkler system.

The building is a two-story structure with a total building area of 34,737 square feet (SF).

The original occupancy classification of the building is B-2 (business) and A-3 (assembly). There are fire-rated door assemblies throughout the space, but overall fire separations between the spaces was not easily identified onsite.

Architectural
Deficiencies

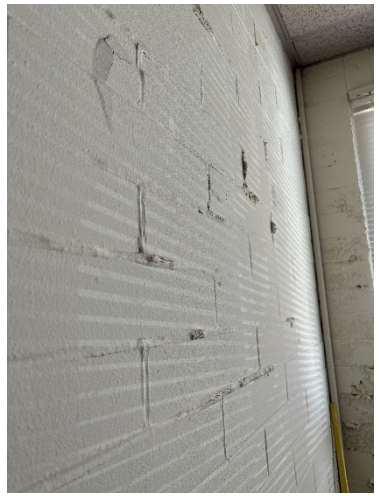
Building life safety & egress not up to current building code standards:

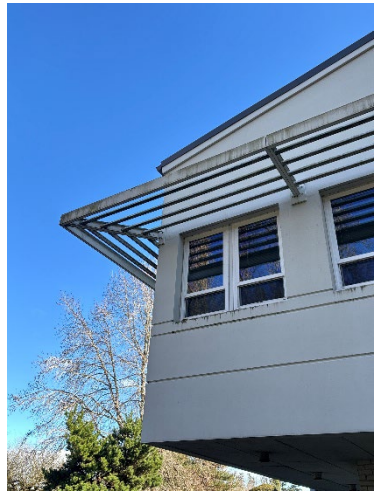
- **No automatic sprinkler system**
- **No accessible egress pathway** at the Basement Level of the building
- **Fire separations** between occupancies unable to be verified and most-likely not compliant with current building code standards
- **Lack of signage** for wayfinding and emergency egress
- **Non-Airborne Asbestos** identified in several building elements listed below. If these elements were to break or become disturbed that would present additional challenges to occupancy:
    - Misc. vinyl flooring tile
    - Misc. mastic and residual black mastic
    - Fire-rated wood doors
    - Concealed pipe insulation
    - Window putty
    - Ductwork insulation and lining

Architectural
Deficiencies

Building envelope deficiencies and non-compliance with current energy code:

- **Moisture intrusion** at numerous existing CMU (concrete masonry unit) block walls and interior gypsum wallboard (typical interior) walls leading to **breakdown of wall construction**
- **Mildew, mold, and rust** along the exterior building facades
- Discoloration from **water damage** at ceilings throughout the building
- Flashing/weatherproofing of the window and door openings, wall joints, and roof edges **does not meet current standards** and is providing additional areas for water intrusion and leakage
- Overall, **under-insulated exterior wall and roof assemblies** which do not comply with current energy code standards

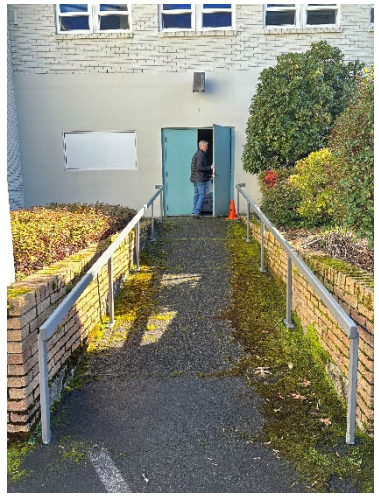
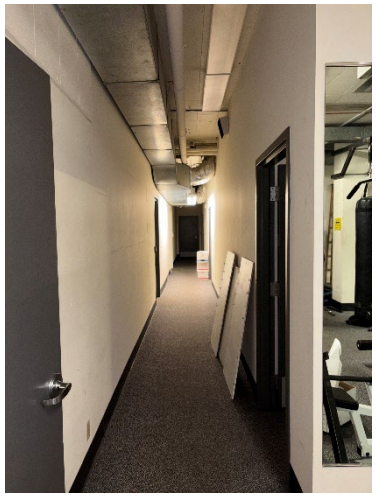
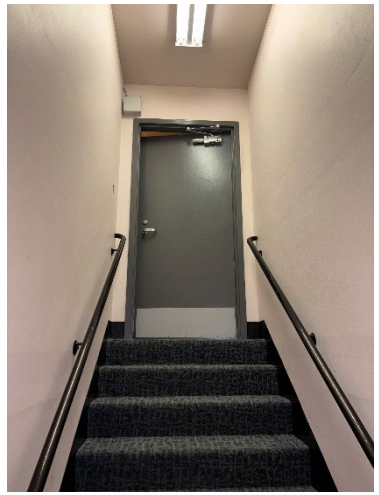





Architectural
Deficiencies

Accessibility restrictions:

- Stairway treads and ramp slopes, landings, guardrails and handrails **do not comply** with current building code and accessibility standards
- **No accessible egress path** via elevator or wheelchair path to lower level
- **No ADA accessible toilets, showers, or lockers** which comply with current accessibility standards


Architectural

Renovation approach

Building life safety & egress updates:

- New automatic sprinkler system
- Abatement/removal of non-airborne asbestos materials
- Complete space reconfiguration for Police & EOC occupancy

Accessibility updates:

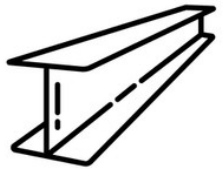
- Addition of an elevator and replacement of existing stairs and ramp
- Addition of ADA compliant restrooms and fixtures

Architectural

Renovation approach

Building envelope updates:

- Full exterior enclosure replacement:
  - Waterproofing measures at basement walls
  - Wall framing improvements with rigid insulation; new windows, exterior doors, and flashing
  - New standing seam metal roofing with insulation



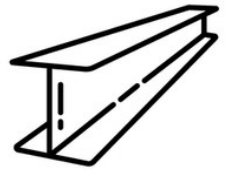
Building Assessment

Structural

Analysis of the existing City Hall Structural Systems

Structural

Existing conditions



Gravity System:

- Steel roof trusses and corrugated metal roof deck
- Trusses bear on concrete masonry unit (CMU) walls, reinforcement unknown
- Foundation consists of shallow concrete footings

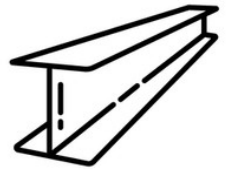
Lateral System:

- Unreinforced masonry shear walls
- Metal roof deck serves as a flexible diaphragm

Additional Systems:

- Interior masonry walls appear non-load bearing and not properly braced at top-of-wall = overturning potential
- Lower-level CMU bearing walls supporting assumed upper-level cantilevered concrete floorplate on all four sides
- Partial mechanical mezzanine in basement area, likely flat plate cast-in-place concrete and concrete columns

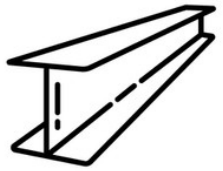
Structural
Deficiencies



Seismic Deficiencies – structural components :

- Existing masonry shear walls are likely **not grouted or reinforced**
    - These shear walls do not provide enough capacity to meet the demands during a seismic event either for in-plane or out-of-plane forces
- Truss seats likely **do not provide adequate out-of-plane wall anchorage** for the top of masonry walls
- Unknown extent of fastening of the metal roof deck to the steel trusses and to adjacent sections of deck - these **connections may be overstressed** when subjected to earthquake forces
- Unlikely that roof construction can withstand diaphragm chord forces
- The type of connection(s) between the roof diaphragm and masonry shear walls make an **incomplete lateral load path**

Structural
Deficiencies



Seismic Deficiencies – building layout:

- Building layout has multiple wings, each framed with perimeter shear walls, results in **reentrant corners**
- Each wing likely has different shear wall stiffnesses (based on wall length, thickness, aspect ratio) - this issue creates different sections of the building resulting in incompatible amounts of movement, **causing the building to tear apart** at these corner locations
- Northwest wing has a vertical offset irregularity where the shear wall is offset between the upper and lower levels - this offset indicates a **soft-story irregularity** for stiffness and/or strength of this wing
- Subject to slope stability, lateral spreading, and/or **liquefaction concerns**

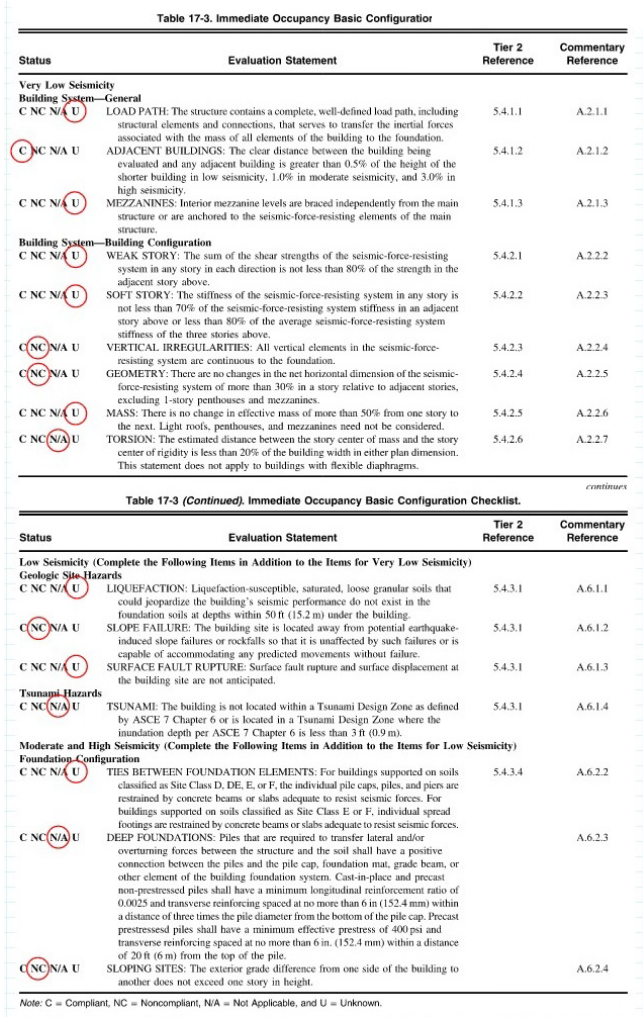


Table 17-3. Immediate Occupancy Basic Configuratior

Status	Evaluation Statement	Tier 2 Reference	Commentary Reference
Very Low Seismicity			
Building System—General			
C NC N/A (U)	LOAD PATH: The structure contains a complete, well-defined load path, including structural elements and connections, that serves to transfer the inertial forces associated with the mass of all elements of the building to the foundation.	5.4.1.1	A.2.1.1
(C) NC N/A U	ADJACENT BUILDINGS: The clear distance between the building being evaluated and any adjacent building is greater than 0.5% of the height of the shorter building in low seismicity, 1.0% in moderate seismicity, and 3.0% in high seismicity.	5.4.1.2	A.2.1.2
C NC N/A (U)	MEZZANINES: Interior mezzanine levels are braced independently from the main structure or are anchored to the seismic-force-resisting elements of the main structure.	5.4.1.3	A.2.1.3
Building System—Building Configuration			
C NC N/A (U)	WEAK STORY: The sum of the shear strengths of the seismic-force-resisting system in any story in each direction is not less than 80% of the strength in the adjacent story above.	5.4.2.1	A.2.2.2
C NC N/A (U)	SOFT STORY: The stiffness of the seismic-force-resisting system in any story is not less than 70% of the seismic-force-resisting system stiffness in an adjacent story above or less than 80% of the average seismic-force-resisting system stiffness of the three stories above.	5.4.2.2	A.2.2.3
C (NC) N/A U	VERTICAL IRREGULARITIES: All vertical elements in the seismic-force-resisting system are continuous to the foundation.	5.4.2.3	A.2.2.4
C (NC) N/A U	GEOMETRY: There are no changes in the net horizontal dimension of the seismic-force-resisting system of more than 30% in a story relative to adjacent stories, excluding 1-story penthouses and mezzanines.	5.4.2.4	A.2.2.5
C NC N/A (U)	MASS: There is no change in effective mass of more than 50% from one story to the next. Light roofs, penthouses, and mezzanines need not be considered.	5.4.2.5	A.2.2.6
C NC (N/A) U	TORSION: The estimated distance between the story center of mass and the story center of rigidity is less than 20% of the building width in either plan dimension. This statement does not apply to buildings with flexible diaphragms.	5.4.2.6	A.2.2.7

continues

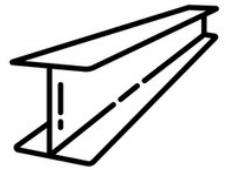
Table 17-3 *(Continued)*. Immediate Occupancy Basic Configuration Checklist.

Status	Evaluation Statement	Tier 2 Reference	Commentary Reference
Low Seismicity (Complete the Following Items in Addition to the Items for Very Low Seismicity)			
Geologic Site Hazards			
C NC N/A (U)	LIQUEFACTION: Liquefaction-susceptible, saturated, loose granular soils that could jeopardize the building's seismic performance do not exist in the foundation soils at depths within 50 ft (15.2 m) under the building.	5.4.3.1	A.6.1.1
C (NC) N/A U	SLOPE FAILURE: The building site is located away from potential earthquake-induced slope failures or rockfalls so that it is unaffected by such failures or is capable of accommodating any predicted movements without failure.	5.4.3.1	A.6.1.2
C NC N/A (U)	SURFACE FAULT RUPTURE: Surface fault rupture and surface displacement at the building site are not anticipated.	5.4.3.1	A.6.1.3
Tsunami Hazards			
C NC (N/A) U	TSUNAMI: The building is not located within a Tsunami Design Zone as defined by ASCE 7 Chapter 6 or is located in a Tsunami Design Zone where the inundation depth per ASCE 7 Chapter 6 is less than 3 ft (0.9 m).	5.4.3.1	A.6.1.4
Moderate and High Seismicity (Complete the Following Items in Addition to the Items for Low Seismicity)			
Foundation Configuration			
C NC N/A (U)	TIES BETWEEN FOUNDATION ELEMENTS: For buildings supported on soils classified as Site Class D, DE, E, or F, the individual pile caps, piles, and piers are restrained by concrete beams or slabs adequate to resist seismic forces. For buildings supported on soils classified as Site Class E or F, individual spread footings are restrained by concrete beams or slabs adequate to resist seismic forces.	5.4.3.4	A.6.2.2
C NC (N/A) U	DEEP FOUNDATIONS: Piles that are required to transfer lateral and/or overturning forces between the structure and the soil shall have a positive connection between the piles and the pile cap, foundation mat, grade beam, or other element of the building foundation system. Cast-in-place and precast non-prestressed piles shall have a minimum longitudinal reinforcement ratio of 0.0025 and transverse reinforcing spaced at no more than 6 in (152.4 mm) within a distance of three times the pile diameter from the bottom of the pile cap. Precast prestressesd piles shall have a minimum effective prestress of 400 psi and transverse reinforcing spaced at no more than 6 in. (152.4 mm) within a distance of 20 ft (6 m) from the top of the pile.		A.6.2.3
C (NC) N/A U	SLOPING SITES: The exterior grade difference from one side of the building to another does not exceed one story in height.		A.6.2.4

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

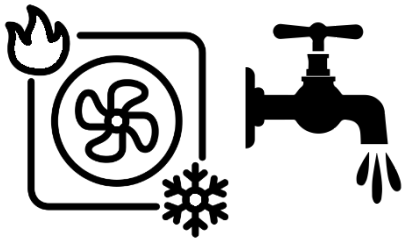
Structural

Renovation approach



Seismic Remediation:

- Micropile deep foundations
- Supplemental footings for seismic upgrade
- Shotcrete of existing masonry shear walls with new reinforcement to increase the flexural and shear strength
- Reinforce joist seat connections to strengthen out-of-plane connection of existing masonry walls
- Adding new diaphragm fastening or replacing the metal roof deck to provide adequate diaphragm capacity
- New steel angles or channels welded between the trusses to act as diaphragm chord members
- Additional steel channels, wide flange shapes, etc. to act as collector elements



Building Assessment

Mechanical & Plumbing

Analysis of the existing City Hall Mechanical & Plumbing Systems

Mechanical

Existing conditions

General:

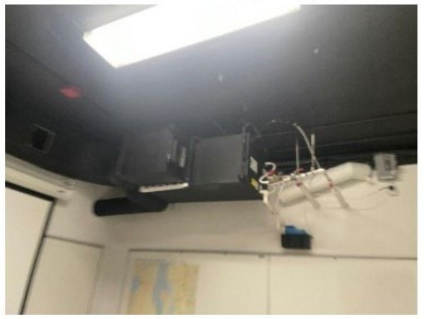
- The HVAC system consists of two supply air handling units (direct outside air ventilation only) and,
- An air-to-water heat pumps which are served by a two-pipe condenser system
- A boiler and a cooling tower tie into the condenser loop to act as a source of heat during cooler weather and a means of heat rejection during hotter weather
- Heat pumps recirculate and mix zone air with the ventilation air supplied by the air handlers. There is no central return air system for the air handlers, nor is there any means of heat recovery
- Exhaust is removed from the spaces via belt drive fans to maintain a relatively neutral pressure balance within the zones
- Supplemental relays on a mix of several split system heat pumps
- There is no central direct digital conrol system present; all the installed systems currently operate on standalone/packaged controls

Mechanical

Deficiencies

Generally, all the mechanical systems are at or nearing the end of their useful service life:

- The two primary air handlers appear to be original and are well past their useful service life
- The existing heat pump units are all at or nearing the end of their anticipated useful service life though they look to have likely been replaced or installed around the 2000's, rather than being original
- The boiler and cooling tower were likely installed or replaced at the same time as the heat pumps; nearing the end of their useful service life
- The pumps for the condenser loop are original to the loop




Mechanical
Deficiencies

Non-airborne asbestos:

- Ductwork was found to **include asbestos** lining/insulation

Installation errors:

- The hydronic piping serving all the heat pumps was installed in PVC. **PVC is not appropriate** for this type of installation and is showing signs of sagging/warping

Mechanical

Renovation approach

Due to the near or at end-of-life condition observed for the majority of the systems AND the poor condition of the supporting infrastructure (piping and ductwork), it would not be recommended that any of these systems be retained for reuse as part of a renovation

- Remove and install new mechanical systems that meet current energy code
- Remove and install new supporting infrastructure (piping and ductwork)
- Install direct digital control system for system control and monitoring

Plumbing

Existing conditions

Currently the facility is served by multiple electric tank-style water heaters, ground water sump pump and non-low flow fixtures.

Existing fixture counts:

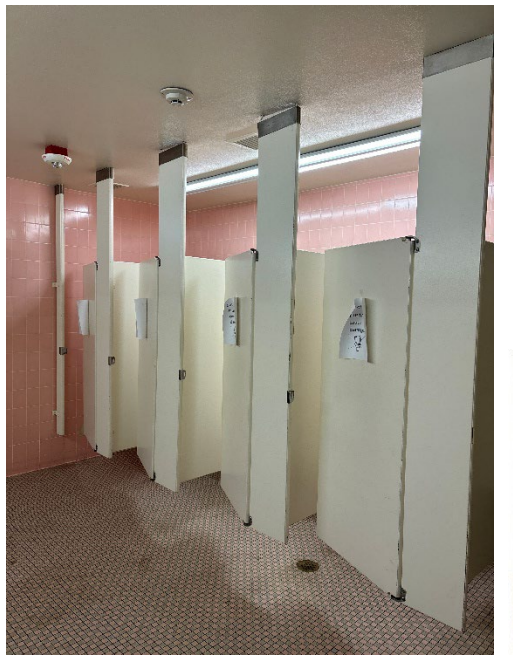
- Basement:
  - Women's: 1 toilet fixtures, 1 lavatory, 3 showers
  - Men's: 2 toilet/urinal fixtures, 2 lavatories, 3 showers
- First floor:
  - Women's: 6 toilet fixtures, 7 lavatories
  - Men's: 12 toilet/urinal fixtures, 4 lavatories
  - Unisex: 2 toilet fixtures, 2 lavatories

Plumbing

Deficiencies

Generally, all the systems are at or nearing the end of their useful service life; additional concerns include:

- **Inadequate number of plumbing fixtures** for occupancy of building
- There are **no accessible water closets/toilets, lavatories, showers, or lockers** which meet current ADA accessibility standards



Plumbing

Renovation approach

- Replacement of the electric water heaters with heat pump technology
- Provide ADA accessible restrooms
- Provide additional plumbing fixtures to adequately serve occupancy of the building
- Install modern low-flow plumbing fixtures
- Replace ground water sump pump within basement level
- Wholesale re-piping of the domestic water system for programmatic changes

Building Assessment

Electrical & Low Voltage

Analysis of the existing City Hall Electrical & Low Voltage Systems

Electrical

Existing conditions

Main Electrical Service:

- The facility is served by a 1200 Amp, 208Y/120V, 3-phase, 4-wire main service switchboard located in the basement electrical room. The service is fed from an exterior pad-mounted utility transformer. The switchboard appears to be original to the 1988 renovation.

Distribution Panels and Feeders:

- The facility contains multiple 208/120V branch circuit panelboards distributed throughout the building. The panels and associated breakers appear to date back to the 1988 renovation.

Emergency Power System:

- 100 kW outdoor diesel generator & 800 Amp Automatic Transfer Switch (ATS) located in the main electrical room

Lighting System & Controls:

- Lighting systems consist primarily of fluorescent fixtures and incandescent sources. Lighting controls appear limited and do not reflect modern energy management practices.

Electrical
Deficiencies

Generally, <u>all</u> the systems are at or nearing the end of their useful service life; major power system concerns include:

- Aging protective devices and bus components
- Limited availability of replacement parts
- Increased probability of failure due to age
- Absence of modern monitoring and metering capabilities
- Elevated arc flash risk relative to modern equipment
- Breaker failure under fault conditions
- Nuisance tripping
- Obsolete breaker models with limited availability
- Inaccurate or outdated panel schedules
- Limited spare capacity

Electrical
Deficiencies

Lighting system deficiencies:

- **Non-compliance** with current Washington State Energy Code
- Aging ballasts and **lamp failures**
- Reduced lighting quality
- **High energy consumption** lighting fixtures
- Lack of occupancy and daylight controls

Low Voltage

Existing conditions

Low Voltage Systems:

- The Local Area Network (LAN) system appears to be in fair condition
- The Main Distribution Frame (MDF) room equipment is in good condition and continues to support the City's central data systems

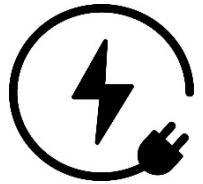
Access Control and Surveillance Systems:

- Electronic access control and video surveillance systems are installed and operational

Fire Alarm system:

- The facility is equipped with a Potter PFC 6200 addressable fire alarm system

Low Voltage
Deficiencies



Generally, the low voltage, access control, and fire alarm systems are in fair condition, but some concerns include:

- Cabling category compliance
- Backbone capacity
- Redundancy and resiliency
- Main Distribution Frame (MDF) cooling and power sufficiency
- A security systems audit is recommended to evaluate modernization opportunities and integration with future infrastructure improvements

Electrical & Low Voltage

Renovation approach

The electrical infrastructure at the City Hall / Police Station facility is largely at or beyond its intended service life, particularly the primary power distribution systems dating from the 1988 renovation. Renovation work required:

- Full replacement of branch panelboards is recommended
- Feeder conductors should be evaluated and replaced where insulation condition or capacity limitations are identified
- Updated panel schedules and labeling should be provided as part of modernization
- Generator replacement should be planned within approximately five years, with evaluation of increased capacity for resiliency
- The ATS may remain in service if compatible with replacement equipment
- A comprehensive LED retrofit is recommended. The upgrade should include occupancy sensors, daylight controls where applicable, and improved lighting levels in operational police areas
- A security systems audit is recommended to evaluate modernization opportunities and integration with future infrastructure improvements

Building Assessment Summary

- **Architectural** - building & life safety non-compliance, energy code non-compliance, lack of accessibility
- **Structural** - seismic deficiencies
- **Mechanical** – non-airborne asbestos materials, installation errors, energy code non-compliance, systems are at or nearing the end of their useful service life
- **Plumbing** - inefficient fixtures, energy code non-compliance, systems are at or nearing the end of their useful service life
- **Electrical** - energy code non-compliance, systems are at or nearing the end of their useful service life
- **Low Voltage** – outdated systems, non-compliance with current codes, lack of capacity & resiliency

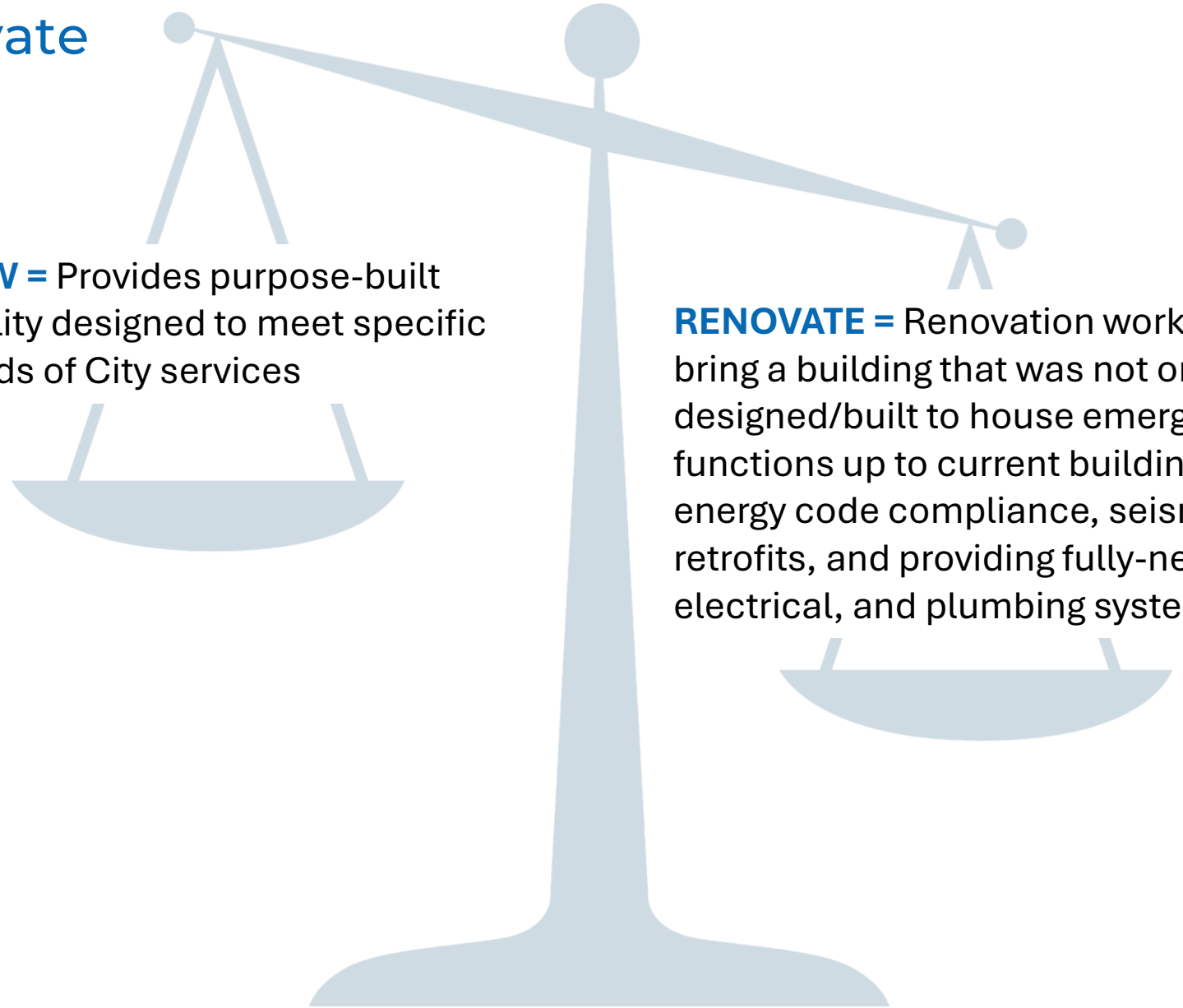
$60,046,000 to $62,191,000

Recommendation

Findings based recommendation for the existing City Hall

Considerations

New vs Renovate

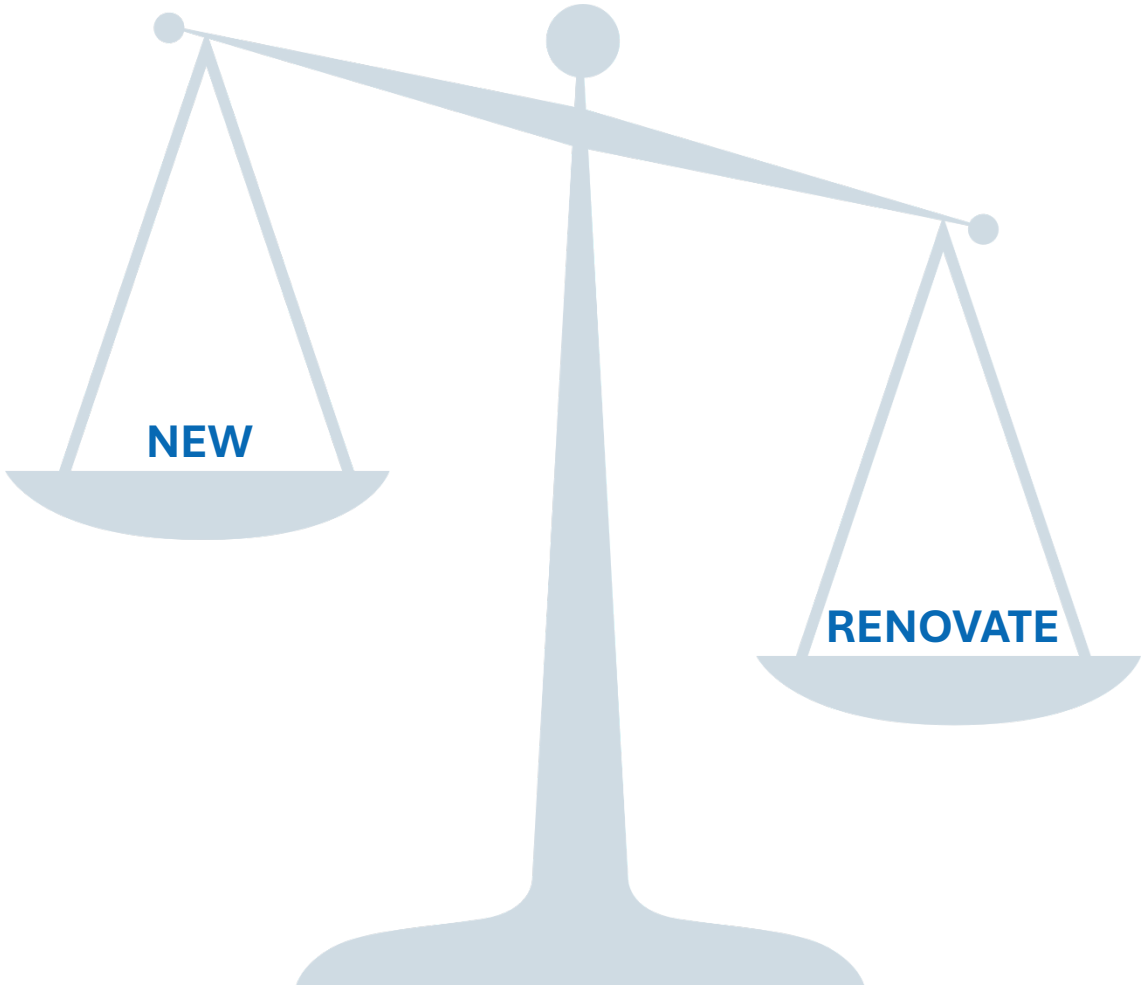


NEW = Provides purpose-built facility designed to meet specific needs of City services

RENOVATE = Renovation work required to bring a building that was not originally designed/built to house emergency response functions up to current building code and energy code compliance, seismic category IV retrofits, and providing fully-new mechanical, electrical, and plumbing systems.

Recommended Action

Based on the cost estimate to fully renovate City Hall, which confirms previous findings, the City Manager is recommending demolition of the City Hall facility.



Recommended Motion

Direct the City Manager to prepare a demolition plan for City Hall and return to the City Council for review and approval.

Next Steps

Future Discussions

Next Steps

Future Discussions

- The next presentation to the City Council will include information on the Public Works Building condition assessment, an update on the recently completed seismic work, and follow-up discussions on replacement or renovation.
- The project team is also working on the assessment and space planning for the newly acquired 9655 Building, which will also be discussed with the City Council at a future meeting.
- This additional information and analysis will support ongoing facility planning discussions with the City Council.

Questions?