

AGENDA
GIG HARBOR CITY COUNCIL STUDY SESSION
Thursday, May 11, 2023 – 3:00 p.m.
Community Rooms

*This meeting may also be accessed through Zoom
at <https://zoom.us/j/93216056382> or by calling (253) 215-8782 and entering
Meeting ID 932 1605 6382.*

CALL TO ORDER/ROLL CALL

DISCUSSION ITEMS

1. Masonic Lodge Discussion

Parks Manager Jennifer Haro

Documents:

[STAFF MEMO Masonic Lodge Discussion.pdf](#)

2. Conservation Area Naming Recommendations

Parks Manager Jennifer Haro

Documents:

[STAFF MEMO Conservation Area Naming Recommendations.pdf](#)
[Letter from Gig Harbor Land Conservation Fund Advisory Board.pdf](#)

3. Parks Bond Projects

Finance Director Dave Rodenbach

Documents:

[STAFF MEMO Parks Bond Projects.pdf](#)

**4. Wastewater Comprehensive Plan Technical Amendments -
Mallards Landing Lot 7 & Harbor Run**

Public Works Director Jeff Langhelm

Documents:

[STAFF MEMO Wastewater Comprehensive Plan Technical
Amendments.pdf](#)

ADJOURN

AMERICANS WITH DISABILITIES (ADA) ACCOMMODATIONS

ADA accommodations can be provided upon request. Those requiring special accommodations should contact the City Clerk at cityclerk@gigharborwa.gov or (253) 853-7613 at least 24 hours prior to the meeting.



PUBLIC WORKS DEPARTMENT

MEMORANDUM

TO: Mayor & City Council

FROM: Jennifer Haro, Parks Manager

DATE: May 4, 2023

SUBJECT: Masonic Lodge Discussion

The Masonic Lodge was purchased by the city in 2017. Sitting on its own parcel between Crescent Creek Park and the sand volleyball courts on 96th Street, the Lodge is within unincorporated Pierce County. The city has an annexation application in for the Lodge parcel and another unincorporated parcel the city purchased north of the Park. Currently, the basement of the building is being used by the Gig Harbor Coop Preschool. The main floor and attic are unoccupied.

As part of the Crescent Creek Master Planning process scope, HBB Landscape Architecture hired architectural and engineer sub-consultants to examine the structural and architectural integrity of the building. Those reports are attached.

The basement of the building experienced some minor flooding recently and continues to have issues with moisture and water seeping in through the foundation. The city paid for a mold inspection, which found mold in a few areas, but none that is adverse to human health. In response to this mold, Public Works has been providing a dehumidifier to the preschool to keep the moisture levels down.

The consultants prepared cost estimates to bring the building up to code to be able to open up the main floor to public use. The estimated cost of \$1,753,713 includes only these minimal upgrades: ADA access to the main floor, bathrooms, ADA compliance for basement bathrooms, and structural and waterproofing repairs to the foundation. It also includes hazardous building materials remediation for lead and asbestos that was found in the building. The cost estimates do not include seismic upgrades or any exterior modifications, except for opening the existing windows back up to the outside and installing an exterior ADA ramp. Inside, current code requires bathrooms on the main level and improvements to the bathrooms on the basement level, which requires moving a load-bearing wall and foundation modifications to continue to support the structure.

We had several comments and requests for information about what level of earthquake the Masonic Lodge could withstand. After meeting with our engineering consultants, it was determined that to evaluate the building for seismic requirements, it would cost approximately \$100,000 and take 4 to 5 months to complete. It would be invasive, and

the Preschool would not be able to occupy the building during the investigation. (See attached email from Jon Keiser, PE)

Considerations:

- The Gig Harbor Coop Preschool has been in this building since 1987. Their current lease expires May 31, 2023. The hazardous materials assessment found lead and asbestos in their leased area. After some minor remediation, including removing doors, it does not pose a risk to children, if advice from consultant is followed.
- Some residents are advocating that the Masonic Lodge be repurposed as a place for the arts – drama, music, visual arts, etc.; community meetings/events; and rental space.
- A few residents are asking that the building be put on our local historic register. Because of the extensive alterations, it does not qualify for a state or federal register. It could possibly qualify for the local register as outlined in [GHMC 17.97](#). There are 11 criteria for listing, but it only needs to meet one to qualify. The criteria that the building is most likely to meet is #5 - *Is associated with the lives of persons significant in national, state or local history*. Lucy Goodman, one of the first teachers in Gig Harbor, taught at the Crescent Valley School for a few years. Listing the building would require a certificate of appropriateness from the Design Review Board to make any changes to the building.
- With the proposed minimal remodel, the main (upper) floor of the Masonic Lodge will have 1764 square feet of assembly space. The preschool would not be able to use the building during the remodel.
- The Pierce County Assessor currently values the building at \$128,200 and the land at \$298,800.
- The City's Building Official / Fire Marshal provided an email stating that accessibility upgrades do not trigger upgrades, but a valid Certificate of Occupancy would be required, and a simple "Assembly" use would trigger fire system upgrades, and may require seismic upgrades

At the May 11 Council Study Session, staff will be requesting guidance from Council on the future of the Masonic Lodge. Staff would like guidance on whether to pursue any of the following options for the building, including any guidance what aspects of these options we should include in the public outreach and park master planning process:

1. Demolish the building and include site in Crescent Creek Park master planning efforts for repurposing for other park improvements – new recreation programming or other related infrastructure improvements to support park use.
2. Determine funding source for the minimal upgrades as outlined by the consultants and make plans to open the building for public uses;
3. Perform remediation then leave the main floor as-is until a designated future use is determined and continue with master planning process to develop programming opportunities for the use of the building.

The landscape architect, building architect and structural engineering consultants will be present at this meeting to brief Council on the state of the building and to answer any questions you may have.

Attachments:

- Masonic Lodge Condition Assessment
- Architectural Analysis
- Rolluda Architects Tech Memo
- Engineering Construction Cost Estimates
- Architectural Construction Cost Estimates
- Demolition Cost Estimates
- Existing and potential floor plans
- Email from Maureen Elenga, Architectural Historian at Department of Archaeology & Historical Preservation
- Email from Jon Keiser, PE, PND Engineering re: seismic standards

February 28, 2023

PND No. 224063

HBB Landscape Architecture
Attn: Juliet Vong
2101 4th Ave Unit 1800
Seattle WA, 98121

CC: Sheenam Arora, HBB
Rich Murakami, Rolluda Architects

Subject: City of Gig Harbor Crescent Creek Park

1. INTRODUCTION

PND has completed the condition assessment on the visible superstructure of the Crescent Valley School House/Masonic Lodge (Masonic Lodge) located at City of Gig Harbor's Crescent Creek Park. The purpose of this condition assessment is to provide an inspection report; documenting the existing conditions of the Masonic Lodge. Specifically, the condition assessment focused on documenting the existing building structural design elements including; exterior condition, roof and floor framing elements, load bearing walls and columns, and visible foundation elements. PND performed an initial site inspection on February 10, 2023, in conjunction with representatives of Rolluda Architects and City staff, the observation and inspection findings are described in the following sections of this document.

The report contains two appendices:

- **Appendix A – Framing and Floor Plan Field Notes**
- **Appendix B – Field Photographs**

2. BACKGROUND

As noted in the "Phase 1 Environmental Site Assessment – Masonic Lodge Property" (Aspect 2017), the original Crescent Valley School building was constructed in 1915 and was operated as a school until 1941. The property was then purchased in 1949 by the Masonic Temple Association of Gig Harbor (MTA), after which the building underwent significant remodeling which included an addition to the west side of the building, and removal of existing second floor of the school building, see photograph 2.1 and 2.2.



Photograph 2-1. Crecent Valley School Building – South and West Exterior prior to MTA remodel (Circa 1948). Photograph from Harbor History Museum website (www.harborhistorymuseum.org)



Photograph 2-2. Masonic Lodge – South and West Exterior current condition, post MTA remodel (2023). Photograph from google maps street view (maps.google.com)

3. SPECIAL REPORTS AND STUDIES

The following reports have been utilized in the development of this document. Each report is within the project file and can be provided upon request.

- “Phase 1 Environmental Site Assessment - Masonic Lodge Property”, City of Gig Harbor, prepared by Aspect Consulting June 2017.
- “Masonic Lodge” Draft - Technical Memorandum – prepared by Rolluda Architects, February 2023

4. INSPECTION METHODOLOGY AND LIMITATIONS

The purpose of the inspection of the existing structure was to observe the condition of the wood framing, the sizing and capacity of the existing members in regard to repurposing the structure, observation of the concrete foundation for any deficiencies, and a general assessment of the overall condition of the structure. Only the members already exposed were examined; no destructive testing was performed.

5. SUMMARY OF EVALUATION AND ASSESSMENT

5.1 BUILDING EXTERIOR

The historic structure exterior wall is built with diagonal 2x planking on 2x studs @ 16” oc. (Photo No. 18) The exterior wall of the addition was not immediately available but appeared to be similar. The historic foundation is built with poured concrete walls, the addition is built with CMU. (Photo No. 1) The concrete has various cracks and chips. There is evidence of a leak in the southeast corner, as observed in the crawlspace. The CMU foundation has several cracks; reinforcement is undetermined. (Photo No. 8)

5.2 ROOF ELEMENTS

A hip roof is constructed with T&G planking on 2x rafters, hip and ridge boards to cover the entirety of the building. (Photo No. 13) Site-built trusses span north-to-south across the full width of the addition part of the building and support an east-west beam that carries the rafters at mid-span. The roof over the historic portion of the building is constructed over the existing second floor framing, forming an attic space. (Photo No. 11) The rafters, trusses and beams appeared generally to be sized appropriately and in acceptable condition.

5.3 2ND FLOOR ELEMENTS

The 2nd floor framing of the historic structure is comprised of 2x14 joists @ 12” oc, generally in good condition. (Photo No. 17) The floor sheathing and joists did not extend to the exterior walls of the historic structure. At the historic side, the area between the 2nd floor and the exterior wall is generally built with smaller 2x ceiling joists above the entry area. On the new side, no floor exists, and the ceiling below is supported by the site-built trusses.

5.4 1ST FLOOR ELEMENTS

The first floor, both the historic portion and the added portion, were not exposed, but appeared to be similarly sized to the 2nd floor. (Photo No. 18) The joists spanned between beams, which were in turn supported on posts. The floor appeared sturdy, with no apparent sags, bounce, or soft spots. The floor plan in Appendix A outlines the location and sizes of the posts and beams.

6. IMPACTS OF PROPOSED ALTERNATIVES

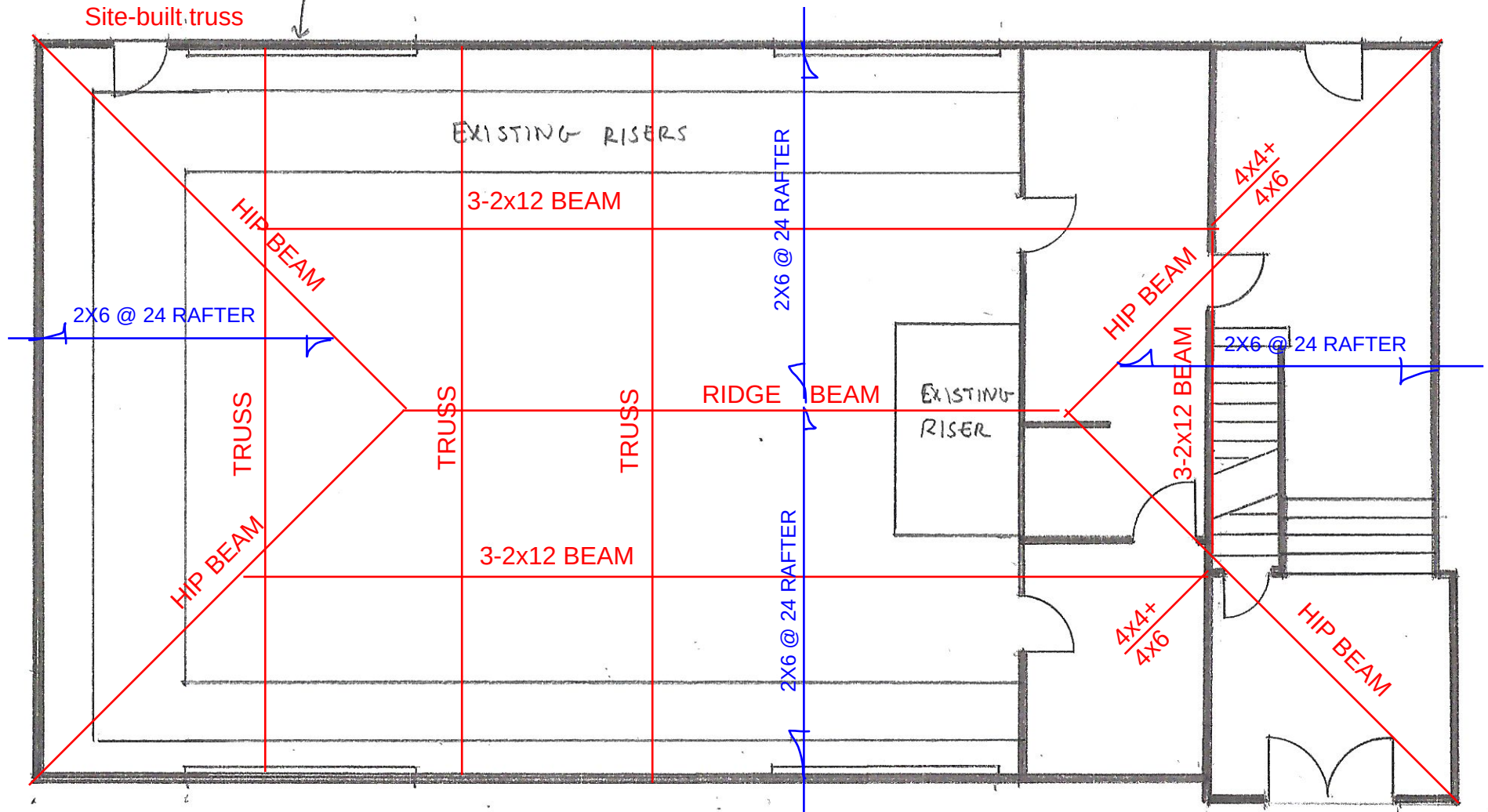
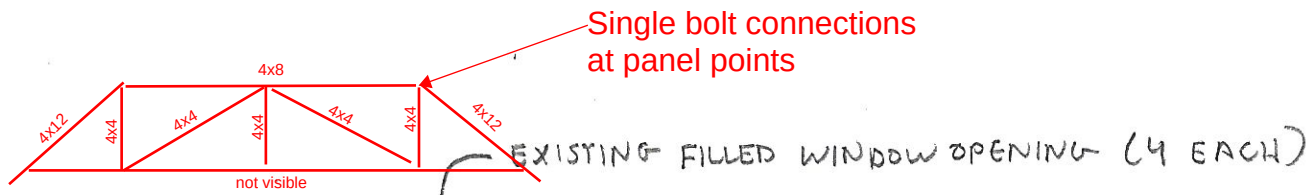
This section is to up updated as part of a later phase of the project once initial concepts for proposed future uses of the facility are considered.

7. RECOMMENDATIONS

This section is to up be updated as part of a later phase of the project once initial concepts for proposed future uses of the facility are considered.

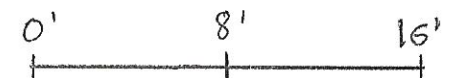
Appendix A. Framing and Floor Plan Field Notes.

See attached.

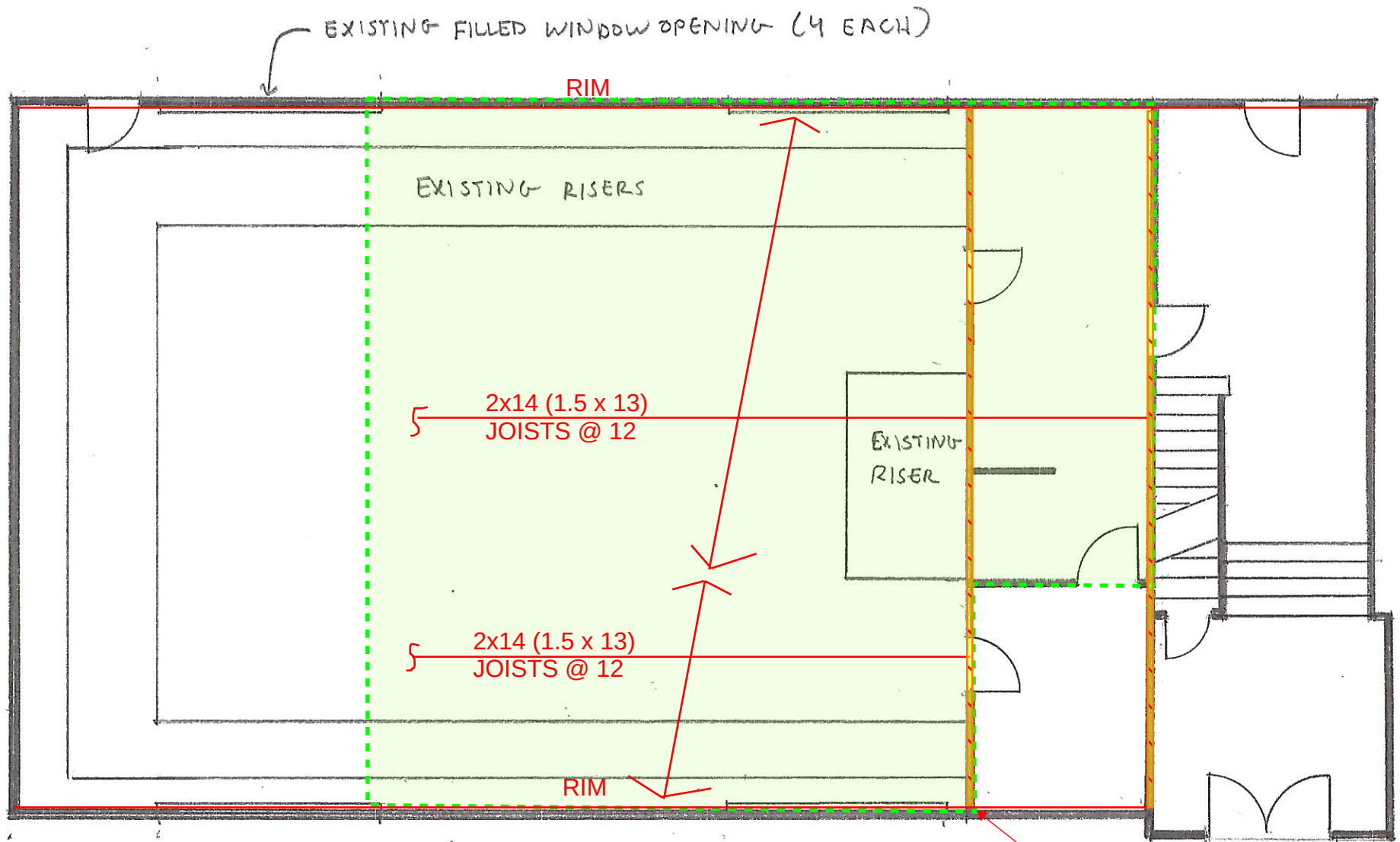


MASONIC LODGE

EXISTING MAIN FLOOR PLAN

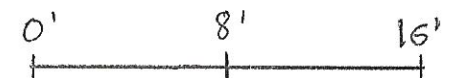


ROOF PLAN

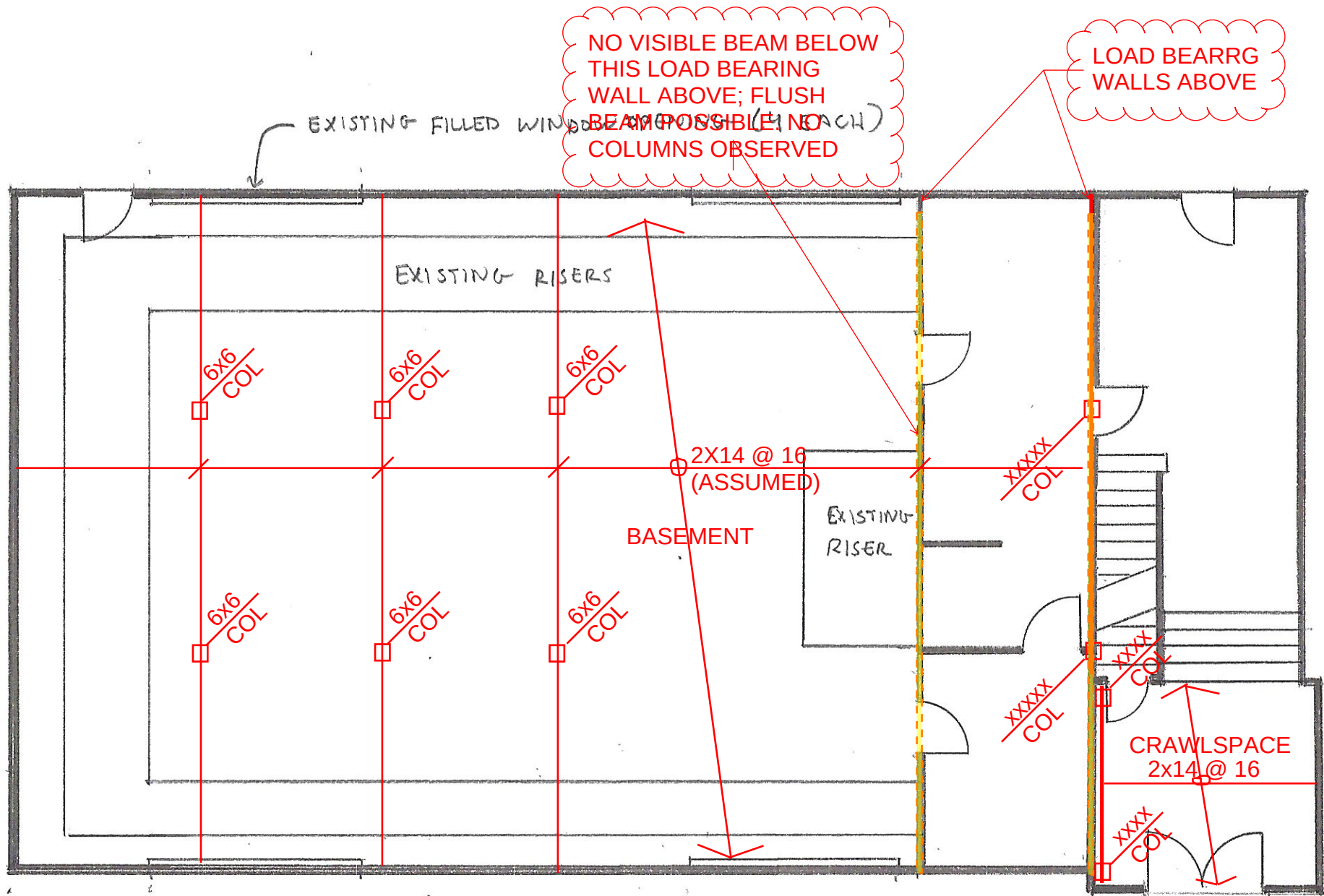


MASONIC LODGE

EXISTING MAIN FLOOR PLAN

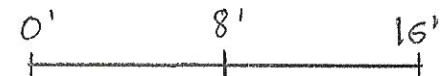


2nd FLOOR FRAMING PLAN



MASONIC LODGE

EXISTING MAIN FLOOR PLAN



MAIN FLOOR FRAMING PLAN

Appendix B. Field Photographs.

See attached.



Photograph No. 1

Exterior, north wall, looking south.

Notes:

Wall with historic (left) and addition (right). Crack developed at block/concrete interface.



Photograph No. 2

Exterior, north wall, looking east

Notes:

Typical condition of historic foundation. Block infill at existing opening.



Photograph No. 3

Exterior, north wall, looking east

Notes:

Basement access in historic foundation.



Photograph No. 4

Exterior, northeast corner, looking south.

Notes:

Concrete damage. Possible rebar exposure.

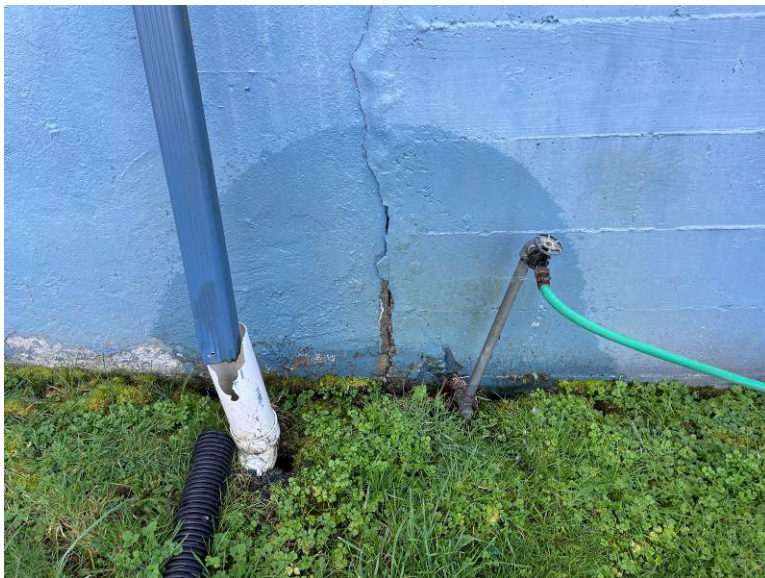


Photograph No. 5

Exterior, north wall, looking south.

Notes:

Exterior exist & stairway from main floor



Photograph No. 6

Exterior, north wall, looking south.

Notes:

Water infiltration risk at interface of historic foundation and addition.



Photograph No. 7

Exterior, west wall, looking east

Notes:

Overview of south end of west addition basement wall



Photograph No. 8

Exterior, west wall, looking east

Notes:

Overview of south end of west addition basement wall.
Note cracks near center



Photograph No. 9

Exterior, west wall, looking east

Notes:

Top of concrete footing visible, depth undetermined.



Photograph No. 10

Exterior, west wall, looking east

Notes:

A close up of one of the cracks. The crack begins at the top of a 2x buck that has remained within the CMU wall.



Photograph No. 11

Interior, attic, looking SE

Notes:

Overview of 2x rafters, beam, and historic 2nd floor



Photograph No. 12

Interior, attic, looking SW

Notes:

Close up of 2x rafters bearing on exterior wall.



Photograph No. 13

Interior, attic, looking west

Notes:

Site built truss. 4x members, stitch plates, and rafter beam visible



Photograph No. 14

Interior, attic, looking west

Notes:

Site built truss. 4x members, stitch plates, and rafter beam visible. Note possible water on floor.



Photograph No. 15

Interior, attic, looking east

Notes:

General condition of roof and 2nd floor over historic portion of structure.



Photograph No. 16

Interior, attic, looking north

Notes:

Existing brick chimney

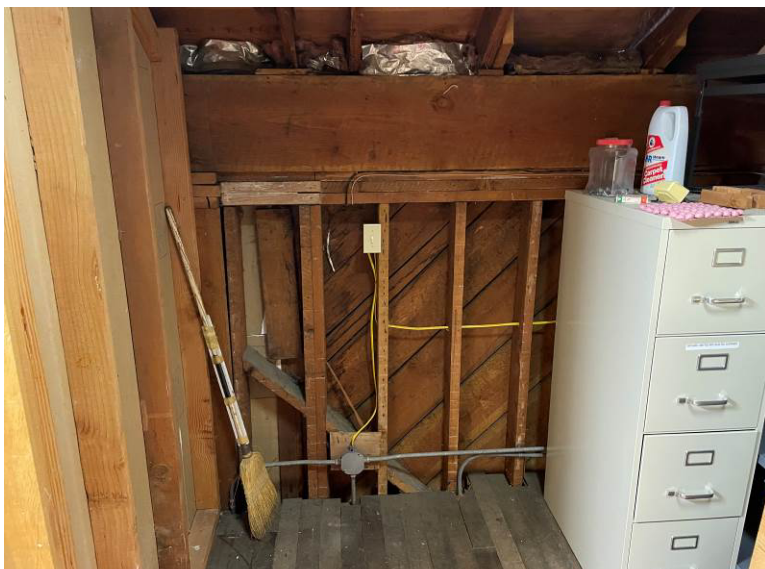


Photograph No. 17

Interior, attic, looking west

Notes:

Typical 1x T&G decking on 2x14 2x14 floor joists at 12" oc. Interior 2x bearing wall below.



Photograph No. 18

Interior, attic, looking south

Notes:

Rafters bearing on 14" continuous rim beam. Exterior diagonal sheathing visible on typical 2x studs. 14" x continuous rim.

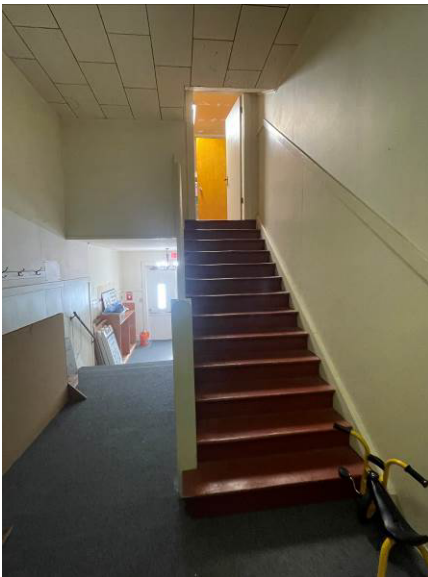


Photograph No. 18

Interior, entrance to attic, looking west

Notes:

Typical interior condition



Photograph No. 18

Interior, entrance to attic, looking south

Notes:

Typical interior condition



Photograph No. 18

Interior, from main entrance, looking north

Notes:

Basement access on left, stairs to main floor on left.
Crawlspace is located under this entrance/foyer floor.



Photograph No. 18

Interior, main floor, looking south

Notes:

Typical interior condition



Photograph No. 18

Interior, main floor, looking south

Notes:

Typical interior condition

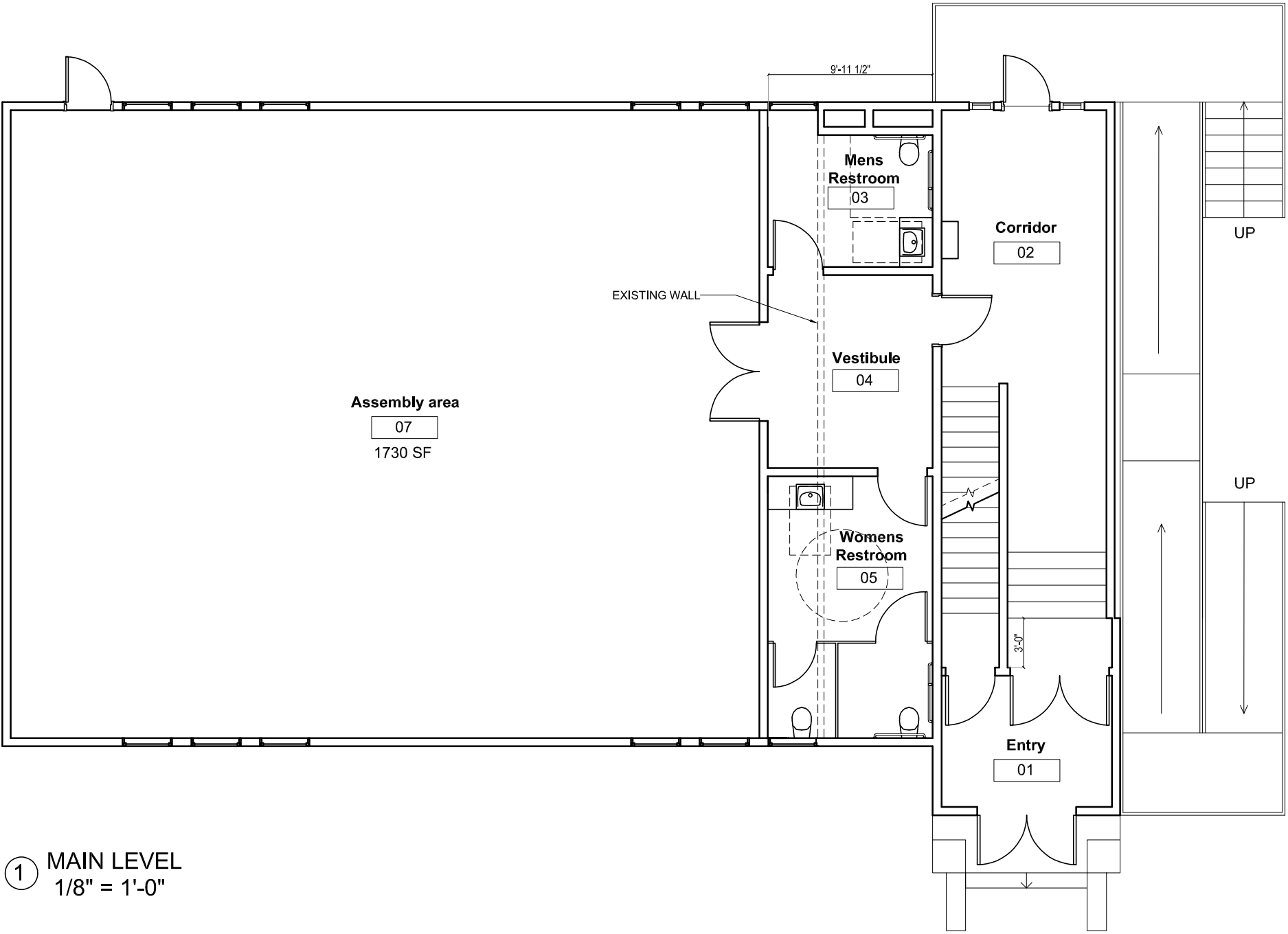


Photograph No. 18

Interior, main floor, looking west

Notes:

Typical interior condition



① MAIN LEVEL
1/8" = 1'-0"

MASONIC LODGE
3025 96TH ST, GIG
HARBOR, WA 98335
OWNER:
CITY OF GIG HARBOR CRESCENT
CREEK PARK

REVISION	DATE

Design:
Drawn:
Checked:
Project No.

Issuance
.

Date: 27/02/2023

Drawing Title

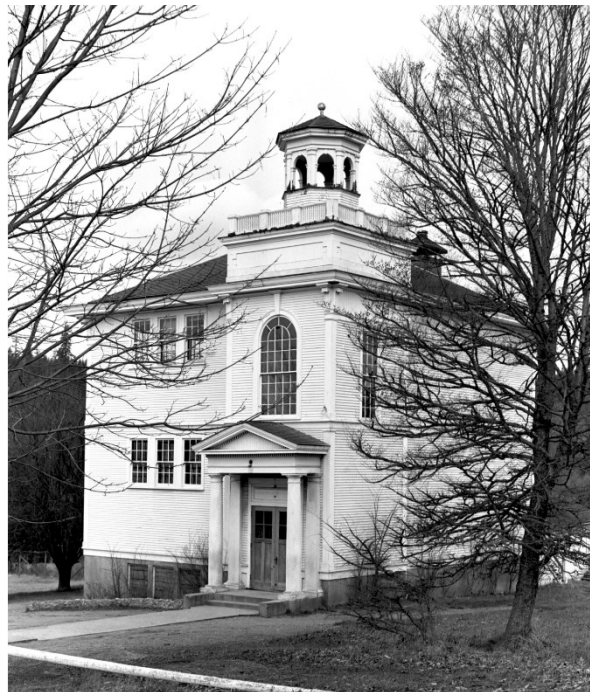
FLOOR PLAN

Drawing Number

A102

TECHNICAL MEMORANDUM

	Date:	February 24, 2023
To:	Juliet Vong HBB Landscape Architecture	From: Rolluda Architects
Project:	Crescent Creek Park Master Plan	Project #:
Re:	Masonic Lodge	



*Harbor History Museum Collection, Catalog Numbers GH-152, E-03.2, FS72-5, Sch-183-CV
2020 Photos: Kellys on Pioneer, Harborview Drive, and Crescent Valley School Now by Stephanie Lile*

1. PROJECT OVERVIEW

This memo evaluates the existing conditions and uses of the Masonic Lodge and determines potential improvements. Features that would help create continuity between the different park elements will be considered, along with protecting the natural environment and the existing park character.

2. HISTORY

- a. Crescent Valley School was built in 1915 located on the corner (Vernhardson / 96th and Crescent Valley Road) where the old Masonic Temple structure still stands. The building was decommissioned as a school in 1942 and was purchased in 1949 when it became the Masonic Temple (John Paul Jones Lodge #217) and remodeled by the Masonic Temple Association. The original schoolhouse was extensively remodeled and expanded

at some point, believed to be in the late 1940s. There was an addition to the west that doubled the building's footprint, and the schoolhouse's second floor and tower element were removed. The main floor windows were infilled at some point during its history.

b. Historical Significance

i. Criteria for evaluation of whether a property is eligible for being listed on the National Register of Historic Places:

1. Be associated with important events that have contributed significantly to the broad pattern of our history, or
2. Be associated with the lives of persons significant in our past, or
3. Embody the distinctive characteristics of a type, period or method of construction; or represent the work of a master; or possess high artistic values; or represent a significant and distinguishable entity whose components may lack individual distinction, or
4. Have yielded, or may be likely to yield, information important in prehistory or history.

ii. Because the building has been modified extensively over the past 100+ years, with the removal of the 2nd story of the original school house, the doubling of the building's footprint, the infilling of the main floor windows, the replacement of siding with vinyl siding, and the replacement of the roofing with standing seam metal roofing, it would appear that there is little remaining of the original building fabric to have the structure considered for nomination under criteria 3 above.

3. GENERAL DESCRIPTION

- a. The Masonic Lodge is on a 1.1-acre parcel in unincorporated Pierce County. It borders the City of Gig Harbor on 3 of its sides. The structure has a concrete foundation with a concrete slab on grade at the basement level. The concrete foundation walls seem to extend to the main floor framing. From that point, the building is constructed of wood studs and clad with vinyl siding. The siding on the north side of the building appears to have mildew growth on the surface. The hipped roof is clad with a standing seam metal roof. The finish of the roof appears to be chalking and the age of the roof is unknown. We understand anecdotally that the basement has experience moisture intrusion, believed to be caused by ground water moving across the site from east to west.
- b. A Phase 1 Environmental Site Assessment was performed in 2017. This assessment revealed no evidence of recognized environmental conditions, except for the following:
 - i. Heating Oil Tank located in the northeast corner of the building, which may not have been properly decommissioned.
 - ii. The property is located within the Tacoma Smelter Plume.
 - iii. Hazardous Building Materials are suspected, given the age of the building.
- c. Structural Analysis: An analysis of the building's structure was performed and is included under separate cover.

4. CODE REVIEW (IBC 2018)

- a. Zoning
 - i. Overview

1. The Masonic site is located in unincorporated Pierce County and is zoned Single Family (SF). The parcel directly adjacent to the site's western boundary is within the City of Gig Harbor and is zoned Public Institutional District (PI) and is listed on the Historic Register. The parcel to the north and east is also within the City of Gig Harbor and is zoned PI. The parcel to the south, across 96th St NW is within unincorporated Pierce County and is zoned SF.
- ii. SF Zone
 1. Civic Use, Public Park Facilities, Levels 1, 2, and 4 are permitted.
 - a. Level 1 - Local Parks. Local Parks such as playfields, neighborhood parks, and small community parks have limited facilities and typically include a playground, sports field, tennis or basketball courts, internal pathway, and supporting amenities.
 - b. Level 2 - County Parks and rest areas associated with a major transportation route. County Parks are large community parks that support a wide range of recreation interests, attract residents from nearby communities, provide active and passive recreation opportunities and may also incorporate natural open space.
 - c. Level 4 - Linear Parks/Trails and Resource Conservancy Parks. Linear Parks/ Trails and Resource Conservancy Parks include built or natural corridors which provide recreation or non-motorized transportation linkages within the county or green buffers between communities. Recreational use is generally passive and trail-related and may include supporting facilities, such as viewing areas, play areas, picnic tables, or trailheads.
 - d. Day Care Centers are not listed as a permitted use in SF zones.
 - iii. Development Standards
 1. Setbacks - Front - 12 ft for porches, 15 ft for other portions of building; Interior/Side - 10 ft; Rear – 10 ft
 2. Building Height Limits – 35 ft
 - iv. Adjacent Zoning:
 1. West: Public-Institutional District, Historic Register (City of Gig Harbor)
 2. North and East: Single-Family Residential (City of Gig Harbor)
 3. South: Single-Family (Pierce County)
 - v. Parking Requirements - TBD
- b. Building
 - i. Occupancy (Chapter 3)
 1. Existing

The Masonic Lodge main level falls under Assembly **Group A - 3** occupancy, per 2018 IBC, Sec 303.1 and Sec 303.4. Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering of persons for purposes such as civic, social, or religious functions; recreation, food or drink consumption or awaiting

transportation. Group A-3 occupancy includes assembly uses intended for worship, recreation or amusement and other assembly uses not classified elsewhere in Group A including Community halls.

The Masonic Lodge basement-level falls under **Group E** Day Care facilities, per 2018 IBC 305.2. This group includes buildings and structures or portions thereof occupied by more than five children older than 2 1/2 years of age who receive educational, supervision or personal care services for fewer than 24 hours per day.

- ii. Construction Type: Type V-B
- iii. Allowable Area (Chapter 5): Assumption – Building is 1-story, non/sprinkled, with basement.
 - 1. A-3 Occupancy: 6,000 sf
 - 2. E-1 Occupancy: 9,500 sf
- iv. Means of Egress (Chapter 10)

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT (Table – 1004.5)

DESCRIPTION	AREA SQ FT	AREA SQ FT	OCCUPANT LOAD FACTOR	OCCUPANT
01-LEVEL 1 - A3				
Assembly area		1864	7	266.285714
Entry	115			
Corridor	302			
Room	120			
Store	10			
Store/ Utility	65			
Store	41			
00-BASEMENT - E				
Day Care		1739	35	49.6857143
Kitchen		172	200	0.86
Restroom	102			
Restroom	36			
Mechanical Equipment	54			
Corridor	166			
				316.831429
TOTAL OCCUPANCY				317

- 1. Exit width

- a. Main Floor:
 - i. Required: Doorways - 54 in; Stairs – 80.1 in
 - ii. Provided: Doorways – 64 in; Stairs – 144 in
 - b. Basement:
 - i. Required: 10 in
 - ii. Provided: 66 in
- v. Accessibility (Chapter 11): up to 20% of the construction budget will be required to be allocated to address accessibility deficiencies.
- 1. Interior:
 - a. Restrooms do not comply with accessibility requirements (maneuvering/turning space, fixture heights)
 - b. Kitchen does not comply with accessibility requirements (knee space, workspace height)
 - c. Stairs
 - i. Stair nosing projection: underside of projects does not have curved or beveled underside
 - ii. Handrail lack extensions at top and bottom, and do not return to the wall.
 - iii. Guards spaced greater than 4 in apart.
 - d. Assembly space on the main floor is not wheelchair accessible, only accessible from the main entry by stairs.
 - e. The exit door at the northwest corner of the assembly space is ~12 in higher than main floor level, accessible only by stairs.
 - f. The only restroom facilities in the building are at the basement level, which are not wheelchair accessible from the main level.
 - g. The stairs to the attic does not have a handrail on both sides of the stairs, spacing of guards are greater than 4", handrail does not have extensions at top and bottom.
 - 2. Exterior
 - a. Main entry is not wheelchair accessible.
 - b. Main entry stair has only 1 handrail.
 - c. North exit stairs have open risers and noncompliant handrails.

vi. Plumbing Fixtures (Chapter 29)

MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (See Sections 2902.2 and 2902.3)

Occupants: 317

NO	CLASSIFICA-TION	OCCUPANCY	WATER CLOSET / URINAL			LAVATORIES			BATHTUBS / SHOWERS	DRINKING FOUNTAINS
			MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX		

			1 PER 125	1 PER 65	--	1 PER 200			--	1 PER 500
1	Assembly	A-3*	1.268	2.438462	--	0.7925	0.7925	--	--	0.634

* Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiums.

5. CONCEPT ALTERNATIVES - TBD

MEMORANDUM

PROJECT NO. 224063

DATE: March 31, 2023

PROJECT: Crescent Creek Park Master Plan

TO: Juliet Vong, HBB Landscape Architecture

CC: Rich Murakami, Rolluda Architects

FROM: Adam Tyner, PND Engineers

SUBJECT: Crescent Creek Park – Masonic Lodge Renovation

PND has completed a construction cost estimate for the renovation of the existing Masonic Lodge structure at Crescent Creek Park in the City of Gig Harbor. The following construction cost estimation is based on the current applicable building codes, construction standard practices, and preliminary structural plans based on the architectural design. The preliminary structural plans are attached. Any changes to the design or scope of the project may affect the construction cost estimate.

The city of Gig Harbor has adopted the 2018 International Building Code. The loads used for the new construction can be referenced in IBC 2018 Table 1607.1. The pertinent loads used in design of the new structural elements are listed below.

Category	Dead	Live	Snow
Roof	15 psf	20 psf	15 psf
2 nd Floor	15 psf	100 psf	NA
Main Floor	15 psf	100 psf	NA

Category	Value
Wind Speed	97 mph
Risk Category	II
Exposure	B

Category	Value
Seismic Design Cat	D
Site Class	D-
Sds	1.195

PND performed calculations to estimate beam sizes, post requirements, and foundation sizes based on the assumed loading information above. These are rough checks for the gravity capacity of the new structural elements, and rough checks for the lateral capacity of the existing structure. The foundation reinforcement and the building connection to the foundation are not known. No geotechnical investigation has been conducted to confirm the building would meet current codes for soils bearing strength or liquefaction. The following summarizes the construction costs, broken down into broad construction categories.

Renovation Cost Estimate				
Category	Area (SF/LF)	SF/LF	Cost/SF(LF)	Cost
Foundation (New)	1600	SF	\$55	\$88,000
Foundation (Repair)	100	LF	\$130	\$13,000
Main Floor Framing	1600	SF	\$40	\$64,000
Second Floor Framing	1600	SF	\$40	\$64,000
New ADA Ramp	500	SF	\$35	\$17,500
Sum				\$246,500

Hazard Mitigation			Cost
Category			
Asbestos	Lump Sum		\$10,000
Lead Paint	Lump Sum		\$10,000
Sum			\$20,000

The basement has had instances of flooding and water infiltration. The cost estimate includes considerations the cost to excavate the perimeter, investigate potential water intrusion locations, address drainage, waterproof as required, and backfill. The foundation estimate also includes the shoring and the construction of new isolated footings and filling existing cracks in the concrete or CMU basement walls, but does not include the ADA ramp footings.

The main floor estimate includes shoring and demolition of the existing structure as required, and the framing of new structural members.

The second-floor estimate includes the shoring and demolition of the existing walls, the installation of the new structural beams and columns, and placing the new interior non-load bearing walls. It also includes shoring and adding structure to the floor area above the Entry.

The ramp estimate includes the footings, posts, ramp framing, and guard rails.

The Hazardous Building Material Assessment report by DH Environmental indicated locations requiring mitigation of asbestos and lead. The asbestos estimate is based on the square footage of the discovered asbestos. The lead estimation is based on the amount of confirmed lead specimens compared to the amount sampled. These estimates are subject to change if additional hazardous material is discovered. These do not include replacement costs, refer to the architectural estimates for new materials.

For the hazardous materials, and for all other associated costs, the estimated costs above are subject to change based on local variances in material and labor costs.

The estimate above does not include structural design fees, taxes, permitting, construction administration or contingency costs. Refer to the architectural estimate for the compiled estimate of these and other additional costs.

REVISION	DATE

Design:
Drawn:
Checked:
Project No.

Issuance
.

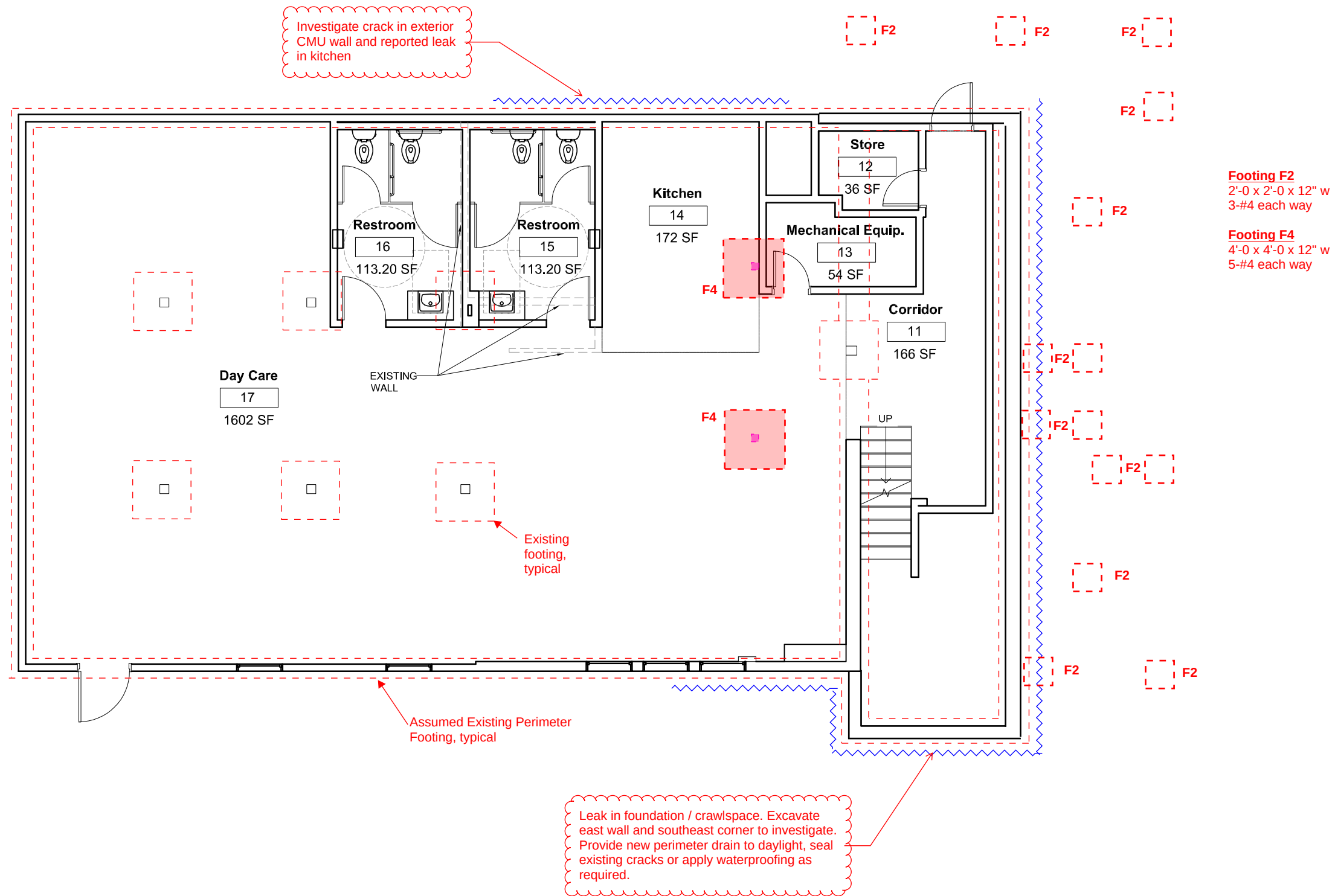
Date: 03/03/2023

Drawing Title

FLOOR PLAN

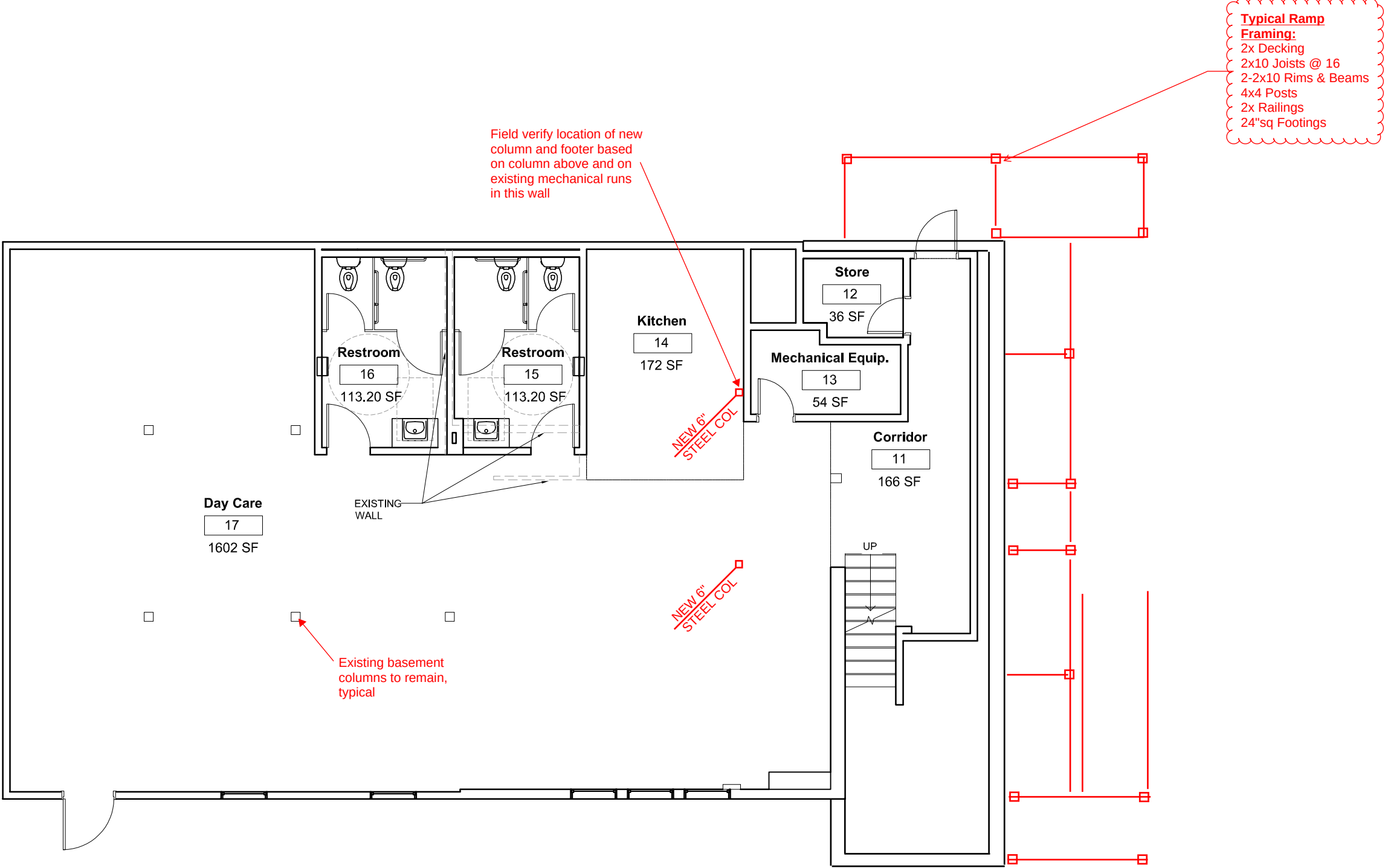
Drawing Number

A101



FOUNDATION PLAN

Existing structural framing components to remain, unless noted otherwise.



MAIN FLOOR FRAMING PLAN

Existing structural framing components to remain, unless noted otherwise.

MASONIC LODGE

3025 96TH ST, GIG
HARBOR, WA 98335
OWNER:
CITY OF GIG HARBOR CRESCENT
CREEK PARK

REVISION	DATE

Design:
Drawn:
Checked:
Project No.

Issuance
.

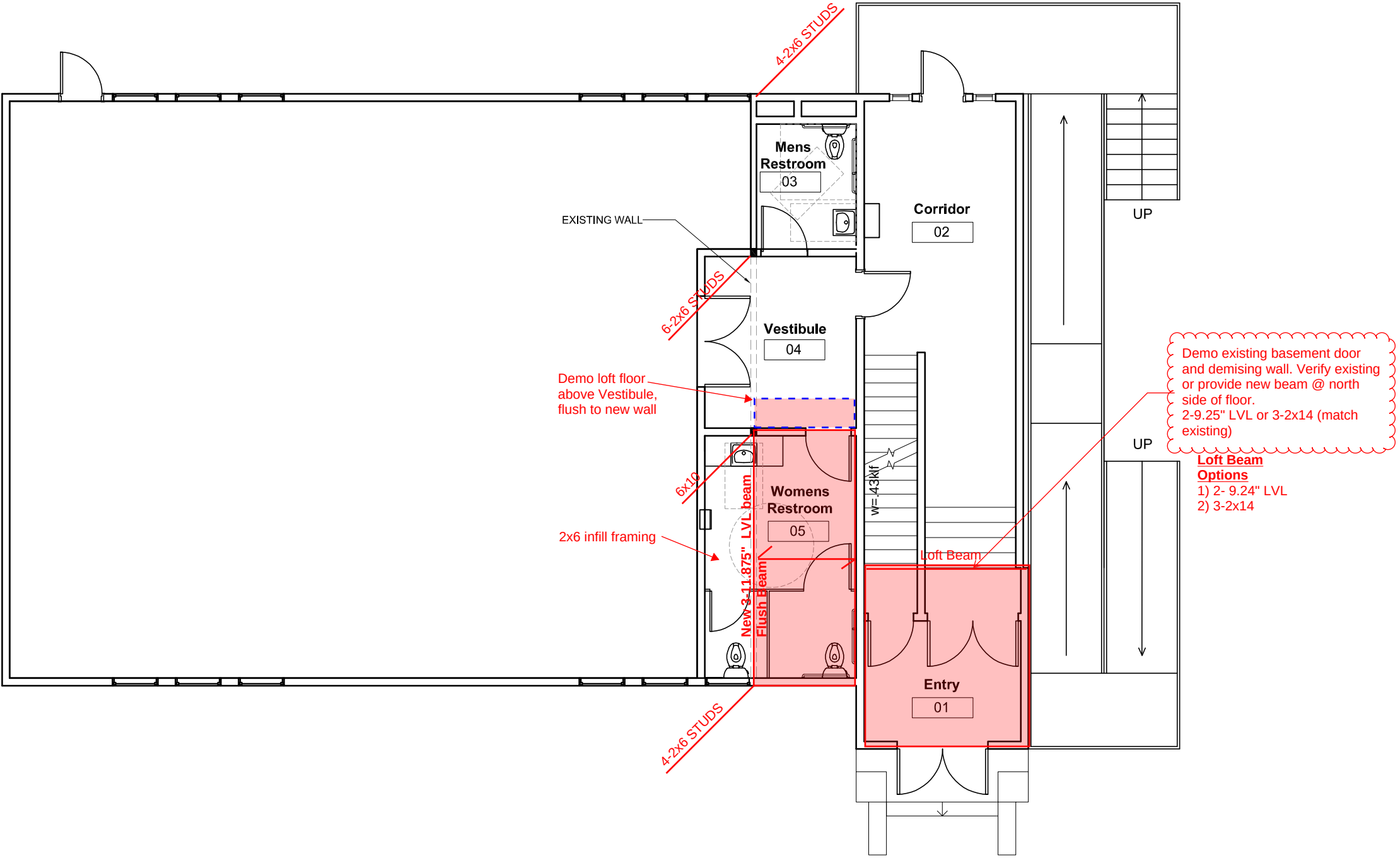
Date: 03/03/2023

Drawing Title

FLOOR PLAN

Drawing Number

A101



SECOND FLOOR FRAMING PLAN (INSET)

Existing structural framing components to remain, unless noted otherwise.

MASONIC LODGE
3025 96TH ST, GIG
HARBOR, WA 98335
OWNER: CITY OF GIG HARBOR CRESCENT
CREEK PARK

REVISION	DATE

Design:
Drawn:
Checked:
Project No.

Issuance
.

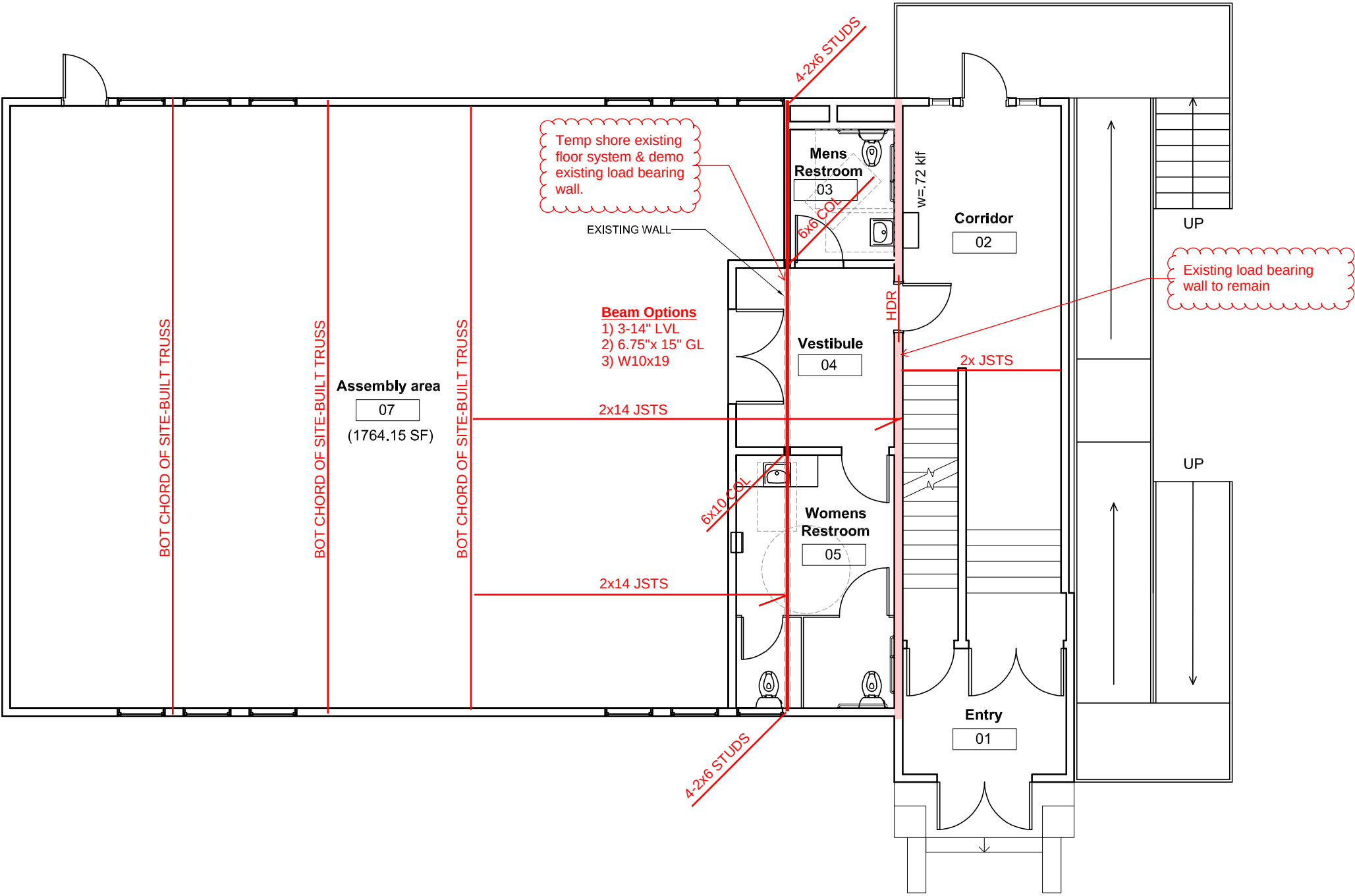
Date: 27/02/2023

Drawing Title

FLOOR PLAN

Drawing Number

A102



SECOND FLOOR FRAMING PLAN

Existing structural framing components to remain, unless noted otherwise.

MASONIC LODGE
3025 96TH ST, GIG
HARBOR, WA 98335
OWNER: CITY OF GIG HARBOR CRESCENT
CREEK PARK

REVISION	DATE

Design:
Drawn:
Checked:
Project No.

Issuance
.

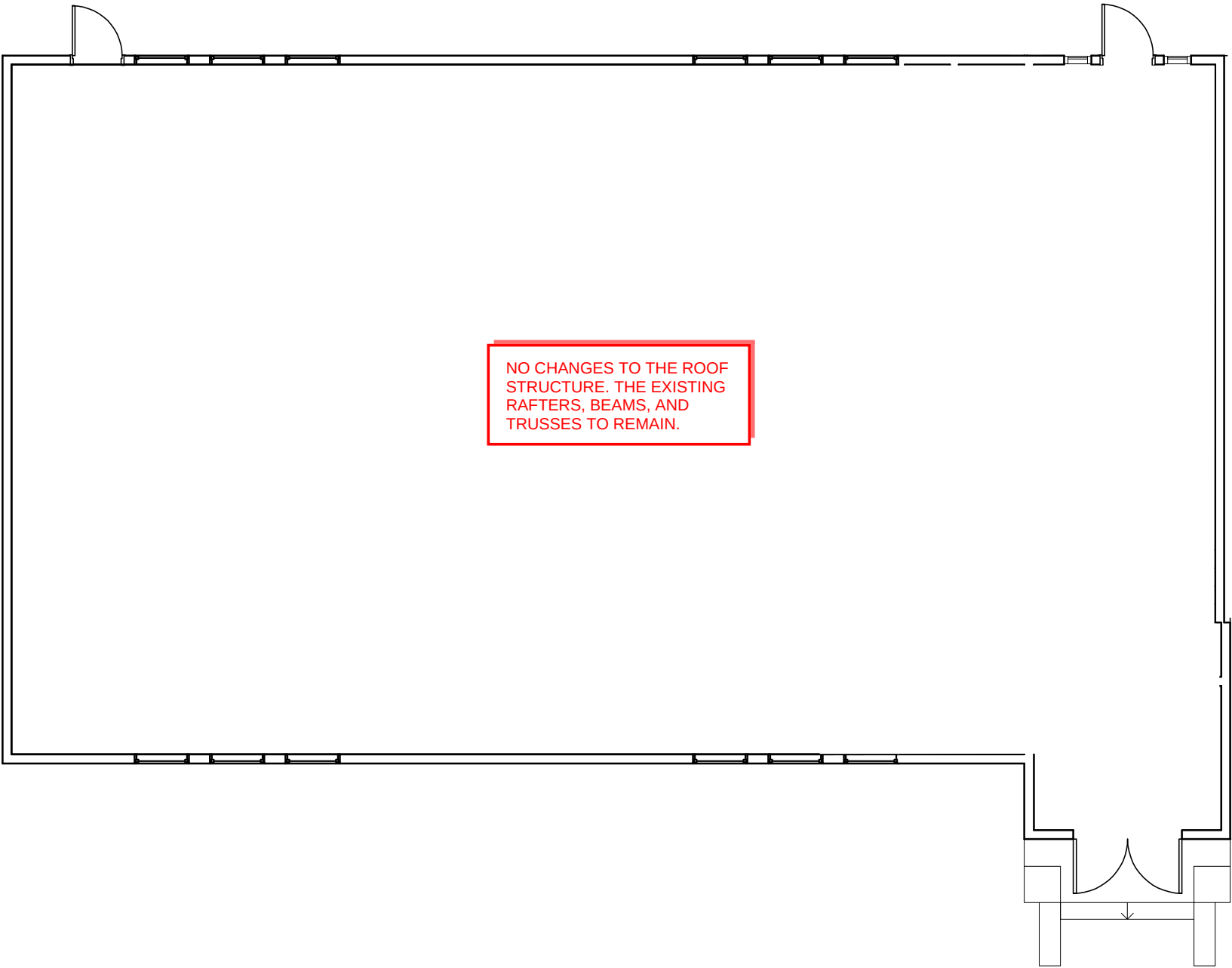
Date: 27/02/2023

Drawing Title

FLOOR PLAN

Drawing Number

A102



NO CHANGES TO THE ROOF
STRUCTURE. THE EXISTING
RAFTERS, BEAMS, AND
TRUSSES TO REMAIN.

ROOF FRAMING PLAN

Existing structural framing components to remain, unless noted otherwise.

rolludaarchitects
architecture planning interior design

105 S. Main Street Suite 323
Seattle, WA 98104
t: 206-624-4222
f: 206-624-4226

MASONIC LODGE

3025 96TH ST, GIG
HARBOR, WA 98335

OWNER:
CITY OF GIG HARBOR CRESCENT
CREEK PARK

REVISION	DATE

Design:
Drawn:
Checked:
Project No.

Issuance

.

Date: 27/02/2023

Drawing Title

FLOOR PLAN

Drawing Number

A102

Project : Crescent Creek Park Master Plan - Masonic Lodge
 Gig Harbor WA
Architect: Rolluda Architects Inc.
Design Phase: Concept Draft
Date: March 31, 2023

SUMMARY

ITEMS/DESCRIPTION	TOTAL
Slab on Grade	\$4,521
Superstructure	\$246,500
Exterior Closure	\$60,364
Roofing	\$2,600
Interior Partitions & Doors	\$67,625
Interior Finishes	\$107,200
Specialties	\$19,535
Mechanical	\$167,100
Electrical	\$115,000
Selective Building Demolition	\$11,487
HazMat Abatement	\$20,000
Total Direct Cost	\$821,932
General Conditions including Site Supervision	12.5% 102,742
GC's Overhead and Profit including B&O Tax & Insurance	7.0% 64,727
Contingency - Design	25.0% 247,350
TOTAL COST @ TODAY'S BID	\$1,236,751
WSST	8.80% \$108,834
A/E Fees (WA ST A/E Fee Schedule - 2023 dollars)	15.00% \$185,513
Other Soft Costs	18.00% \$222,615
TOTAL	\$1,753,713

Notes/Assumptions:

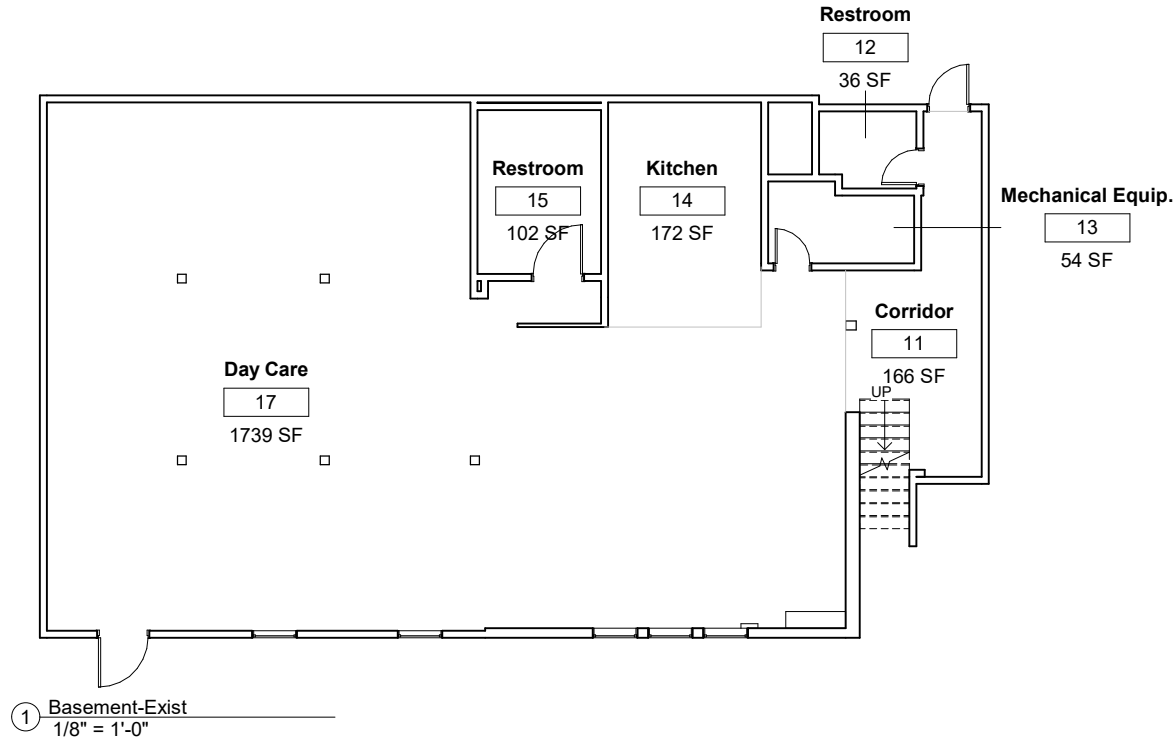
This estimate is based on prevailing union wage rate and public bid. It is assumed that the existing sanitary sewer line is adequately sized and its depth can accommodate the new restroom layout. Exterior work is limited to the ADA ramp and window replacement in main assembly space on main floor. Existing

2023 dollars

ESTIMATE DETAIL

DESCRIPTION	Quantity	Unit	Unit Cost	Sub-Total	TOTAL
Standard Foundation					0
	0	LF	84.00	0	
Slab on Grade					4,521
4" thick conc	4	CY	500.00	2,000	
W1.4xW1.4 6x6 WWF mesh	328	SF	1.00	328	
4' capillary break - gravel fill	4	CY	65.00	260	
Vapor retarder	328	SF	0.95	312	
Drill, epxy grout, dowell connect new to exist slab per det 6/S0.05	50	LF	25.00	1,250	
Slab const/control joints	328	SF	1.13	371	
Superstructure					246,500
Structural Renovation Costs (inclcd fdn and ADA ramp) frm PND	1	EA	246,500.00	246,500	
Exterior Closure					60,364
Mtl Clad Wood Windows	300	SF	175.00	52,500	
Trim/Flashing New Windows	1	LS	4,000.00	4,000	
Misc Patch/Repair	1	LS	3,000.00	3,000	
Cont metal drip flashing to window head/pan & wall	48	LF	18.00	864	
Roofing					2,600
Flashing pipe penetrations	4	EA	650.00	2,600	
Interior Partitions & Doors					67,625
Wood stud wall framing	2,000	SF	6.50	13,000	
5/8" GWB to interior walls	4,000	SF	4.85	19,400	
Sound batt insulation	500	SF	1.25	625	
New SCW Door/Frame/Hdwr	6	EA	3,500.00	21,000	
New SCW Door/Frame/Hdwr	2	PR	6,800.00	13,600	
Finishes					107,200
New CT Floor Finish	500	SF	22.00	11,000	
New CT Wainscot	700	SF	15.00	10,500	
New LVT	3,500	SF	12.00	42,000	
New Cpt	600	SF	6.50	3,900	
RB base - 6"	600	LF	5.50	3,300	
Paint GWB walls/clgs	6,500	SF	2.00	13,000	
Sealant, caulking & fire penetration ptrtection	1	LS	3,500.00	3,500	
Other misc patch & repair - allow	1	LS	20,000.00	20,000	
Specialties					19,535
Toilet partitions & doors - HC	6	EA	1,600.00	9,600	
Corner guards - metal	6	EA	110.00	660	

DESCRIPTION	Quantity	Unit	Unit Cost	Sub-Total	TOTAL
ADA signage 6" x 9"	4	EA	300.00	1,200	
Toilet grab bar	4	SETS	350.00	1,400	
Mirror	4	EA	225.00	900	
Soap dispenser	4	EA	95.00	380	
Seat cover disp	6	EA	285.00	1,710	
San Napkin disposal	4	EA	125.00	500	
Paper towel disp	4	EA	250.00	1,000	
Toilet tissue disp	7	EA	75.00	525	
Insulate waste pipes	4	EA	65.00	260	
Fire extinguisher	4	EA	350.00	1,400	
Mechanical					167,100
HVAC	450	SF	38.00	17,100	
Plumbing	5,000	SF	13.50	67,500	
Fire Protection	7,500	SF	10.00	75,000	
Mechanical demo	1	LS		7,500	
Electrical					115,000
Electrical Power Work	5,000	SF	12.50	62,500	
Lighting and Receptacle Work	5,000	SF	6.50	32,500	
Telecom/Security	5,000	SF	4.00	20,000	
Selective Building Demolition					\$11,487
Demo exist interior studs wall	92	LF	15.00	1,380	
Demo exist wd doors & frame	3	EA	125.00	375	
Demo raised floor	300	SF	5.00	1,500	
Demo exist VCT flooring	400	SF	0.85	340	
Demo exist carpet floor finishes	3,000	SF	0.75	2,250	
Demo Windows/Siding and Dispose	300	SF	12.00	3,600	
Sawcut/demo exist slab on grade	328	SF	1.50	492	
Demo exist ceiling/wall - 12" wide	10	LF	25.00	250	
Demo exist casework	4	LF	25.00	100	
Demo exist plumbing fixture	6	EA	200.00	1,200	
Load, haul & dump debris	included above		0.00	0	
Site Preparation					\$0
				0	
HazMat					\$20,000
HazMat Abatement - from PND	1	LS	20,000.00	20,000	
				0	
TOTAL DIRECT COST				821,932	\$821,932



MASONIC LODGE
3025 96TH ST.
GIG HARBOR, WA 98335
OWNER:
CITY OF GIG HARBOR CRESCENT
CREEK PARK

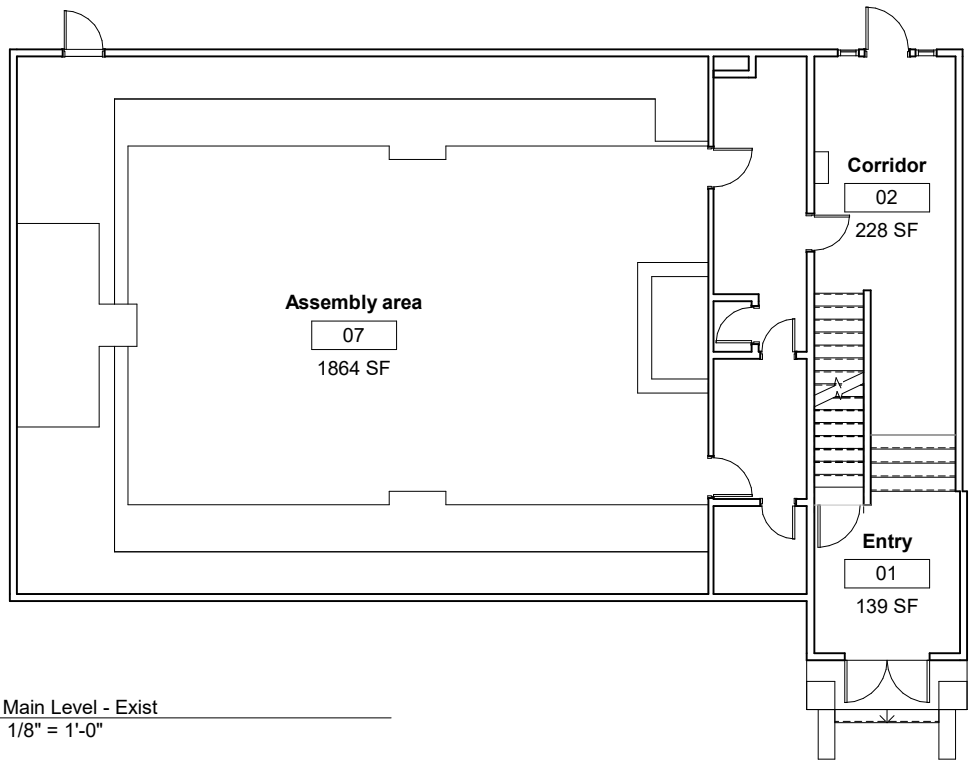
REVISION	DATE
	2/10/2023

Design: RM
Drawn: SP
Checked: RM
Project No.: Project Number

Issuance
PRE-DESIGN

Date: 3/8/2023
Drawing Title
**FLOOR PLAN -
BASEMENT -
EXISTING**

Drawing Number



① Main Level - Exist
1/8" = 1'-0"

MASONIC LODGE
3025 96TH ST.
GIG HARBOR, WA 98335
OWNER:
CITY OF GIG HARBOR CRESCENT
CREEK PARK

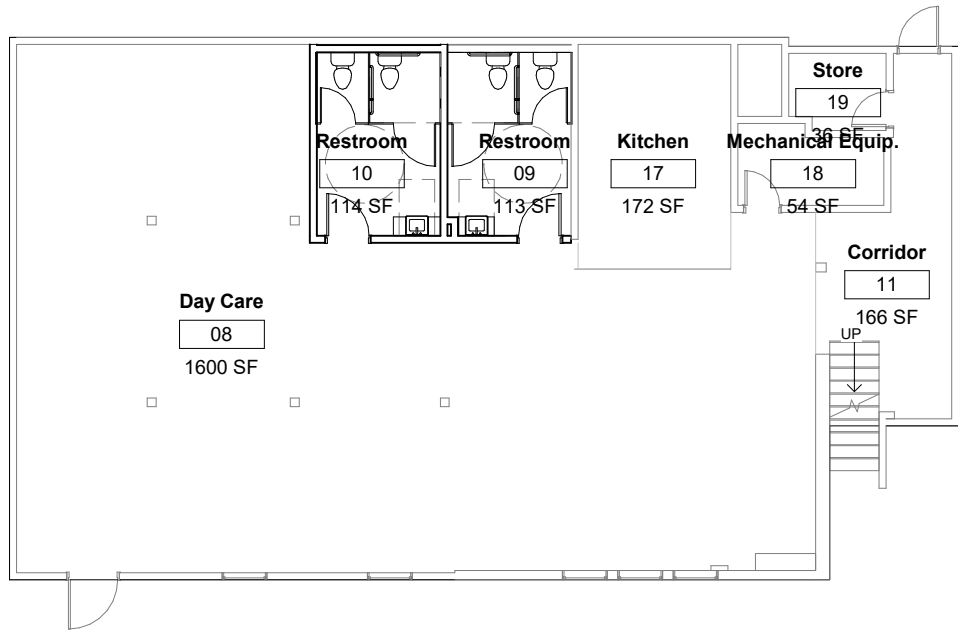
REVISION	DATE

Design: RM
Drawn: SP
Checked: RM
Project No.: Project Number

Issuance
PRE-DESIGN

Date: 3/8/2023
Drawing Title
**FLOOR PLAN - MAIN
LEVEL - EXISTING**

Drawing Number
..



① **Basement-New**
1/8" = 1'-0"

MASONIC LODGE
3025 96TH ST.
GIG HARBOR, WA 98335
OWNER: CITY OF GIG HARBOR CRESCENT CREEK PARK

REVISION	DATE

Design: Designer
Drawn: Author
Checked: Checker
Project No.: Project Number

Issuance

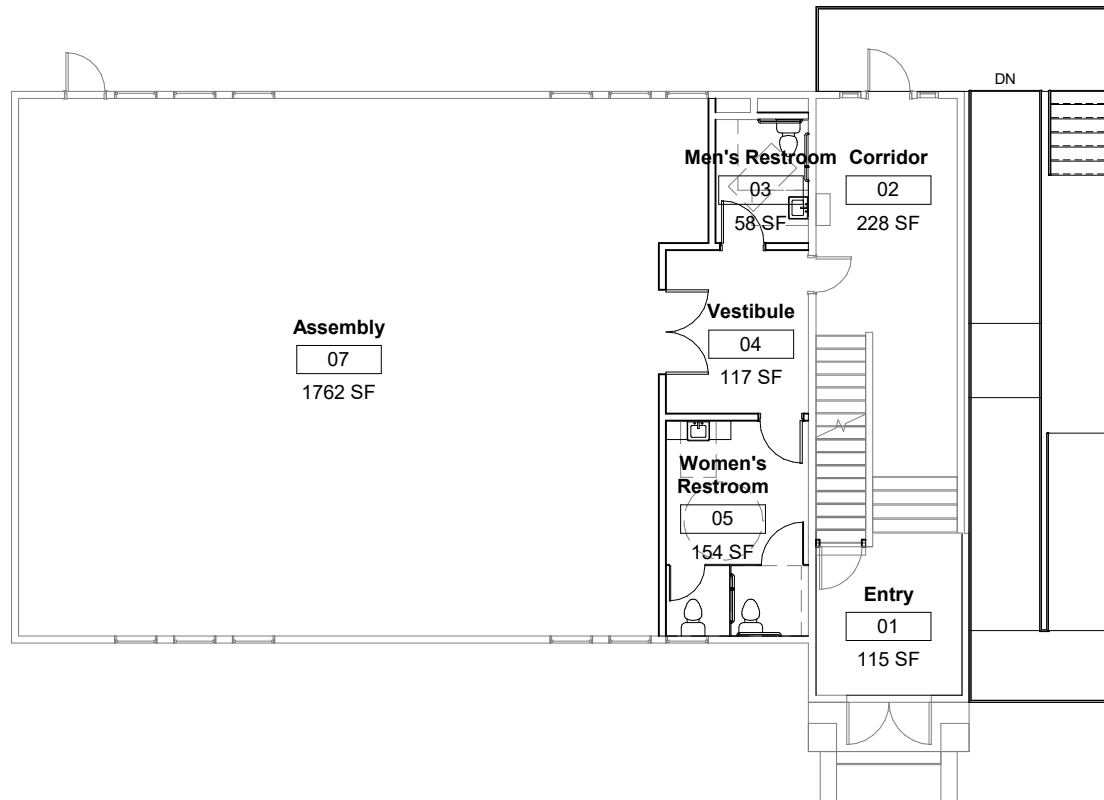
PRE-DESIGN

Date: 3/8/2023

Drawing Title
FLOOR PLAN - BASEMENT

Drawing Number

A-101



① Main Level-New
1/8" = 1'-0"

MASONIC LODGE
3025 96TH ST.
GIG HARBOR, WA 98335
OWNER:
CITY OF GIG HARBOR CRESCENT
CREEK PARK

REVISION	DATE

Design: Designer
Drawn: Author
Checked: Checker
Project No.: Project Number

Issuance
PRE-DESIGN

Date: 3/8/2023

Drawing Title
**FLOOR PLAN -
MAIN LEVEL**

Drawing Number

A-102

Project : **MASONIC LODGE BUILDING DEMOLITION**
 Gig Harbor WA
 Architect: Rolluda
 Prepared by :
 Design Phase: Budget Estimate
 Date: April 5, 2023

Item/Description	Quantity	Unit	Unit Cost	Sub-Total	TOTAL
Site Preparation & Demolition					\$108,326
Demo & dispose existing building	90,048	CF	0.62	55,470	
Demo/dispose footings & slab on grade of existing build	2,600	SF	3.69	9,581	
Other misc. demo - allow	1	LS	2,200.00	2,200	
Import/Compact structural fill - allow	162	CY	55.00	8,909	
Erosion, construction entrance & sedimentation control	1	LS	5,500.00	5,500	
Temporary fencing - rental/install	505	LF	13.20	6,666	
HazMat abatement	1	LS	20,000.00	20,000	
Site Improvements					\$0
Landscaping/planting		NIC		0	
Site Utilities					\$4,950
Protect catch basins/drainage - allow	1	LS	2,750.00	2,750	
Cut/cap water supply	1	LS	1,100.00	1,100	
Cut misc. power/phone/cable	1	LS	1,100.00	1,100	
TOTAL DIRECT COST				\$113,276	\$113,276
General Conditions Including site overhead, B&O Taxes		13%			\$14,159
General Contractor's Overhead and Profit, Bonding & Insurance		7%			\$8,920
Design Contingency		25%			\$34,089
TOTAL COST AT BID TODAY					\$170,445
WSST			8.80%		\$14,999
A/E Fees			27%		\$46,020
Other Soft Costs/Contingencies			18%		\$30,680
TOTAL ESTIMATE COST					\$262,144

Notes: This estimate assumes Prevailing wage union rate, public bid

From: [Elenga, Maureen \(DAHP\)](#)
To: [Jennifer Haro](#)
Cc: [Vann, Nicholas \(DAHP\)](#)
Subject: RE: Gig Harbor Masonic Lodge
Date: Wednesday, March 29, 2023 9:02:26 AM
Attachments: [image009.png](#)
[image010.png](#)
[image011.png](#)
[image012.png](#)
[image016.png](#)
[image001.png](#)

Hi Jennifer,

Evaluating National Register eligibility for a building that has been this drastically altered is complicated. Eligibility would depend on it having strong historical significance as a Masonic lodge, as it has lost nearly all of its character-defining features as a 1915 school building. It does seem to retain integrity from the 1940s alterations, which are now historic in their own right. Evaluating it for what it essentially is, a 1940s former Masonic lodge, one could argue that the alterations/lack of fenestration convey its historic significance and function as a secret society lodge; but it's not the original purpose of the building, so perhaps not the strongest argument for eligibility unless, again, it has an important connection to a person, event or pattern of history at the local, state or national level.

Evaluating it for local landmarking eligibility is going to be the best way to guide the commission's decision. It sounds as though this building is pretty important to people in the community, given that there are calls to save it. I would encourage the commission to make a decision on the building based on local input and on your local landmarking codes. We suggest engaging your architectural historian/consultant to evaluate the building's local historical significance as a post-war Masonic lodge and produce a report for the commission and the community to consider in deciding the future of the building.

Warm regards,

Maureen Elenga, M.A. | *Architectural Historian – Transportation Project Reviewer*
(360) 972-4539
maureen.elenga@dahp.wa.gov

My work hours are 7:00am – 3:30pm, Mon-Fri

Dept. of Archaeology & Historic Preservation | www.dahp.wa.gov
1110 S. Capitol Way, Suite 30 | Olympia, WA 98501
PO Box 48343 | Olympia WA 98504-8343



From: [Jon Keiser](#)
To: [Maureen Whitaker](#)
Cc: [Juliet Vong](#); [Adam Tyner, PE](#); [Jennifer Haro](#)
Subject: RE: CCP - Masonic Lodge Meeting
Date: Thursday, April 20, 2023 1:23:32 PM
Attachments: [image002.png](#)
[image003.png](#)
[image004.png](#)
[image021.png](#)

Maureen,

This email is in response to clarifications requested at the April 19 meeting with the City on the Masonic Lodge.

PND's structural design and cost estimate was based on what it took to bring the building up to minimum current code from an occupancy/ADA/architectural standpoint; limited to the changes needed to be made to accommodate the required Architectural changes needed to support use of the upper level of the building. PND's review was limited to non-invasive measures in order to avoid disturbance to the existing preschool use. Any further detailed evaluation would require invasive measures that could only occur when the preschool was not in session, including repair of areas disturbed as a result of the review. As a result, PND did not analyzing the seismic capacity or integrity, nor did we have the ability to investigate the presence of reinforcement in the wall or foundation or the connection of the building to the foundation.

If requested, PND can analyze the building per ASCE standard, ASCE 41-17 Seismic Evaluation and Retrofit of Existing Buildings. It is very unlikely the existing building meets the IBC 2021 code requirements for seismic. We would need to perform a seismic evaluation of the existing building to determine the seismic retrofits necessary for the building, which includes invasive work to the interior of the building that can only occur while the preschool is not in session. We would also need a geotechnical investigation to determine the site-specific seismic requirements and to assess the potential for liquefaction at the building site. The cost for this additional work could be approximately \$100,000 and would take 4-5 months to complete. We would then have the information needed to assess how the building would perform in an earthquake and we would be able to recommend any seismic retrofits needed for the structure and provide order of magnitude cost estimates.

Let us know if the City has any questions?

Thanks

Jon

Jon B. Keiser, P.E. P.Eng. | Vice President
P|N|D Engineers, Inc.
p. 206.624.1387 f. 907.563.4220
jkeiser@pndengineers.com | www.pndengineers.com



PUBLIC WORKS DEPARTMENT

MEMORANDUM

TO: Mayor & City Council

FROM: Jennifer Haro, Parks Manager

DATE: May 5, 2023

SUBJECT: Conservation Area Naming Recommendations

Resolution 717 outlines the policy for naming city parks and facilities. The three-phased 2022 acquisitions of 40.5 acres of conservation properties around North Creek / Donkey Creek require a name. In accordance with Resolution 717, the city solicited names from the public via a submittal form on the City's website.

The city received 29 submissions from the public, which are attached. City staff provided the Parks Commission with the list of recommendations along with the meeting materials for their May 3 meeting.

At the May meeting, the Parks Commission had a robust discussion about the merits of the suggested names that were submitted. Of the 29 names submitted, nine of them were some form of txʷaalqəł, which is the Lushootseed name for area which roughly translates to "Place Where Game is Found." The Parks Commission desires to honor the Tribal people who were the first residents of Gig Harbor, as well as the recommendation of current Tribal members and Tribal staff.

There was also a desire to honor the later history of the area when there was a sawmill and logging activities near the creek. The Donkey Creek area, named after the steam donkey logging equipment acknowledges the importance of logging to the first European settlers in the area.

The Parks Commission wishes to make two name recommendations to City Council for your consideration:

1. txʷaalqəł Conservation Area
2. Donkey Creek Reserve

At the May 11 study session, staff is requesting that Council choose a preferred name so that a resolution can be drafted and brought to a regular council meeting.

Attachments: Submitted name suggestions

Suggested Name

Twawalkut
Donkey Creek Ecosystem Preservation Reserve
Neep Neep Park
Jellybean Park
Chatham Park
Promise Park
Wildlife beach trail
North Creek Forest Conservation Park
txʷaalqəł Conservation Area
txʷaalqəł Conservation Area
txʷaalqəł Conservation Area
txʷaalqəł Conservation Area
txʷaalqəł Conservation Area
Gig Harbor Woods
NorthCreek Woods
txʷaalqəł
txʷaalqəł Conservation
txʷaalqəł Conservation site
North Creek Preserve or Donkey Creek Preserve
txʷaalqəł
North Creek Heritage Park
Harbor Nature Preserve
Eco Science Education and Wildlife Preserve
Borgen Neighborhood Forest
Swiftwater
Salmon Run Natural Area
Steam Donkey Park and Natural Area
The Harbor's Promise for the Future Conservation Area
Harbor Up Creek Nature Trails

Submitted By:

Dominic Wilkerson
Rose Mary Micheli
Monika
Monika
Monika
Monika
Dan Lilley
Katy Ellis
Jennifer Keating
Michael D. Behrens, Ph.D
Robyn Denson
Buffy Via
Karen Burns
Mike Ahern
Mike Ahern
Jim Haberstro
Jeni Woock
Jill
Mark Hoppen
GH Land Conservation Fund Advisory Board
Justin Tims

Michael Shipman
William Borgen



March 27, 2023

Dear Mayor Markley and Gig Harbor City Council,

We are so appreciative of all of your efforts to conserve critical habitat and open space in Gig Harbor. You've demonstrated your genuine commitment to conservation with a significant investment and have created a legacy for which Gig Harbor residents and visitors will be grateful in perpetuity.

We are excited that the City has commenced with a naming process for the conservation properties in the North Creek area. These properties, as you have acknowledged and appreciated on so many occasions, are not only important for ecosystem preservation, they are also historically and culturally important as the site of the original tx^waalqəł village.

This area has always and will always be known to the Puyallup Tribe by this original Lushootseed name of tx^waalqəł and we ask you to consider preserving and honoring that name.

We are thrilled that with the conservation of these properties, the meaning of tx^waalqəł, "place where game exists" will continue to be appropriate as these lands will host not only an increasingly healthy salmon habitat, but will also be a refuge for other animals and birds.

One of our Board members, Jennifer Keating, is a member of the Puyallup Tribe and a Historic Preservation Officer for the Tribe. She has offered to help the City create appropriate signage and suggested the Tribe would likely be interested in partnering on additional speaker boxes.

The Puyallup Tribe is a strong advocate for the preservation and restoration of the Lushootseed language. There are very few first speakers left after surviving abuse associated with Nation-wide assimilation efforts via residential boarding schools developed to remove all Indigenous language and culture. Language revitalization is very possible. It all starts with education efforts and projects just like the tx^waalqəł Conservation Area (corresponding to your completed tx^waalqəł Estuary). The more the community is exposed to the language, the more normal it becomes. In the restoration of the name to the estuary, many hours of research were completed and there significant community support so we hope this will be a fairly straight-forward effort.

This area of Gig Harbor, anchored by the amazing Honoring Statue, is a real demonstration that the City of Gig Harbor acknowledges and appreciates its whole history, including its first residents, ancestors of which remain here today.

Thank you for considering retaining the name tx^waalqəł for this incredible conservation area, a true jewel of the harbor. Please let us know if we can be of any assistance.

Thank you,

Gig Harbor Land Conservation Fund Advisory Board



PUBLIC WORKS DEPARTMENT

MEMORANDUM

TO: Mayor & City Council

FROM: Dave Rodenbach, Finance Director

DATE: May 11, 2023

SUBJECT: Parks Bond Projects

The final levy to pay principal and interest on the 2005 Eddon Boat voted bonds is set for 2023. The 2023 levy rate is \$0.065 per \$1,000 of assessed valuation (AV). This calculates to an annual amount of \$52.00 for an \$800,000 home.

With the adoption of the Parks, Recreation & Open Space Plan in 2022, there are many park project priorities that are unfunded, but remain a priority for Gig Harbor residents. This payoff provides an opportunity for the City to partner with voters and fund some of these projects through a voted parks bond. For example, a \$10 million, 20-year bond would carry annual debt service costs (principal & interest) of about \$621,000. This correlates to annual levy rates ranging from \$0.07 to \$0.13. The annual cost to a \$1 million home at these rates is about \$52 to \$96.

At the May 11 Council Study Session we are looking for guidance on whether to pursue a Parks Bond and, if so, which projects to submit to voters. A list of potential projects and their estimated costs has been provided. The projects selected should appeal to a broad cross section of voters because voted bonds require a 60% yes vote.

If Council approves moving forward with a voted parks bond, it would ideally be put on the November 7 general election ballot. For the November election, all materials, including a resolution, an explanatory statement, and committee appointments (optional) would need to be submitted to the Pierce County Auditor by **August 1**. Statements for and against the measure are due by August 3.

Public Works Director Jeff Langhelm & Parks Manager Jennifer Haro will be available to answer any questions about the project list.

Attachments:
Possible Parks Bond Project List

Project	Estimated Costs (in 2023 dollars)		
	Design/Permitting	Construction	Total
TRAILS PROJECTS			
Conservation property trails and parking - <i>Includes Burnham properties, North Creek Conservation Area</i>			\$2,400,000
Cushman to Harborview Trail connection - <i>gravel path from Cushman Trail that connects to proposed underpass on Harborview</i>	\$155,000	\$1,000,000	\$1,155,000
Cushman Trail Phase 5A - <i>Borgen Trailhead, over Borgen to St. Anthony's Hospital</i>	\$1,000,000	\$4,235,000	\$5,235,000
Gig Harbor North Trails		\$75,000	\$75,000
TOTAL FOR TRAILS PROJECTS			\$8,865,000
HISTORIC PROJECTS			
Wilkinson Farm Barn restoration - <i>including parking and restrooms</i>	\$305,000	\$3,400,000	\$3,705,000
TOTAL FOR HISTORIC PROJECT			\$3,705,000
SPORTS PROJECTS			
Sports Complex Phase 1A - <i>currently in permitting with YMCA</i>		\$8,000,000	\$8,000,000
Sports Complex Phase 2 - <i>Install artificial turf at Pen Light Fields</i>	\$800,000	\$2,200,000	\$3,000,000
Sports Complex Phase 3 - <i>Install lighted fields and parking at undeveloped property south of the YMCA (& west of</i>	\$1,500,000	\$9,000,000	\$10,500,000
TOTAL FOR SPORTS PROJECTS			\$21,500,000
BUILDINGS			
Soundview House option 1- <i>renovation, parking improvements</i>	\$1,000,000	\$4,000,000	\$5,000,000
Soundview House option 2- <i>demolition, build new meeting space, parking improvements</i>	\$1,200,000	\$5,000,000	\$6,200,000
Masonic Lodge - <i>remodel, reprogram space, parking lot improvements</i>	\$1,300,000	\$3,200,000	\$4,500,000
Senior/Community Center - <i>Site and scope TBD</i>			
TOTOL FOR BUILDING PROJECTS			\$15,700,000
MISCELLANEOUS PARK PROJECTS			
Wilkinson Farm Park Development - <i>restrooms, parking, paved trails</i>	\$400,000	\$1,100,000	\$1,500,000
Commercial fishing homeport - <i>in progress</i>		\$3,200,000	\$3,200,000
BMX/Pump Track/Bike Playground - <i>locate, design and construct at either Crescent Creek Park, Shaw Park, or Civic Center</i>	\$50,000	\$500,000	\$550,000
Civic Center Playground upgrade - <i>replace playground equipment near skate park</i>		\$240,000	\$240,000
KLM Veterans Park enhancements - <i>Teen/youth amenities, roller slide & trail development</i>	\$100,000	\$500,000	\$600,000
Maritime Pier dock expansion -	\$400,000	\$1,150,000	\$1,550,000
TOTAL FOR MISCELLANEOUS PARK PROJECTS			\$7,640,000
TOTAL FOR ALL PROJECTS			\$57,410,000



PUBLIC WORKS DEPARTMENT

MEMORANDUM

TO: Mayor and City Council

FROM: Stephanie Seibel, PE, Associate Engineer

DATE: May 5, 2023

SUBJECT: Wastewater Comprehensive Plan Technical Amendments
- Mallards Landing Lot 7 (6916-7166 Wagner Way, sewer basin #14 & 21)
- Harbor Run (10800 block of Peacock Hill Avenue, sewer basin #2 & 3)

The City of Gig Harbor is currently considering two technical amendments to the City's 2018 Wastewater Comprehensive Plan related to sewer basins #14/21 and #2/3. These sewer basins are located in the areas of Wagner Way and Peacock Hill Ave, respectively. See the attached maps.

The first amendment was requested from, Chris Dewald, representing Rush Development Company, LLC. The proposed amendment is related to the proposed Mallard Landing Lot 7 Senior Living Facility (PL-SPR-19-0003). The Mallard Landing Lot 7 project is a 6.98-acre residential plat consisting of a single, four-story senior living community building located in the 7000 block of Wagner Way. The parcels comprising Mallards Landing Lot 7 are located in sewer basin #14. This amendment proposes to redirect flows being pumped to from lift station 14 to basin 3 to lift station 21, thus reducing the capacity problems that currently exist at lift station 14.

The second amendment is from Craig Deaver, representing CES NW. The proposed amendment is related to the proposed Harbor Run Plat (PL-UGA-22-0005). The Harbor Run Plat project is a 4.98-acre residential plat consisting of 16 single family lots located in the 10800 block of Peacock Hill Avenue. The parcel comprising the Harbor Run Plat is located in sewer basin #2. This amendment proposes to redirect flows from basin #2 north of Apollo Way and Peacock Hill Ave to basin #3.

Technical memos from HDR Inc. are attached to this memo for each proposed technical amendment. Each technical memo represents the impacts to the receiving basin and/or lift station reflected in the proposed technical amendments.

The next opportunity for a comprehensive plan amendment would be application in early 2023 and decision before the end of 2024.

At the end of the meeting Staff is looking for direction from the Council to move this forward to resolution at a Council meeting for adoption or to not move forward.



Technical Memo

Date: May 4, 2023

Project: Gig Harbor Neighborhood Developments

To: Stephanie Seibel, City of Gig Harbor

From: Lisa Tamura, Ty Johnson

Subject: Hydraulic Analysis of Mallard's Landing Development Connection

Background

The Mallard's Landing development developer is proposing a reconfiguration of the existing City of Gig Harbor (City) sewer collection system forcemain from Lift Station 14 to accommodate additional flow from 42 proposed equivalent residential units (ERUs) in a senior living facility on Lot No. 7. Lot No. 7 was originally proposed as a commercial development and reserved for five ERUs in 2007. The reconfiguration of the sewer system includes shortening the forcemain and relocating the connection point to the existing sewer system from Basin 3 manhole in Skansie Avenue (46th Avenue) to Basin 21 manhole in 72nd Street.

The City requested a confirmation analysis be performed for the proposed reconfiguration. This technical memo describes the results of the analysis.

The City provided the Mallard's Landing Lot No. 7 Senior Living Facility Sewer Service Basin and Lift Station Evaluation Update Report prepared by RH2 Engineering, Inc. (August 9, 2022) describing the hydraulic assumptions, including flow loading assumptions, for the new development.

The City also provided a SewerCAD model of their collection system for hydraulic analysis. The model was built in 2008 and updated in 2015 by HDR. For this analysis new infrastructure near the project area, including the 8-inch sewer main along 46th Avenue and 72nd Street, was added to the model. Figure 1 highlights the model updates made to reflect these developments. The manhole just upstream of Lift Station 21 has an invert elevation of 192 feet which was lower than the modeled wetwell invert of 200 feet. For this analysis, a wetwell invert of 185 feet was assumed for the lift station.

Other than the updates to Basins 14 and 21 needed to represent the proposed Mallard's Landing development alternative, no other changes were made to the hydraulic model provided.

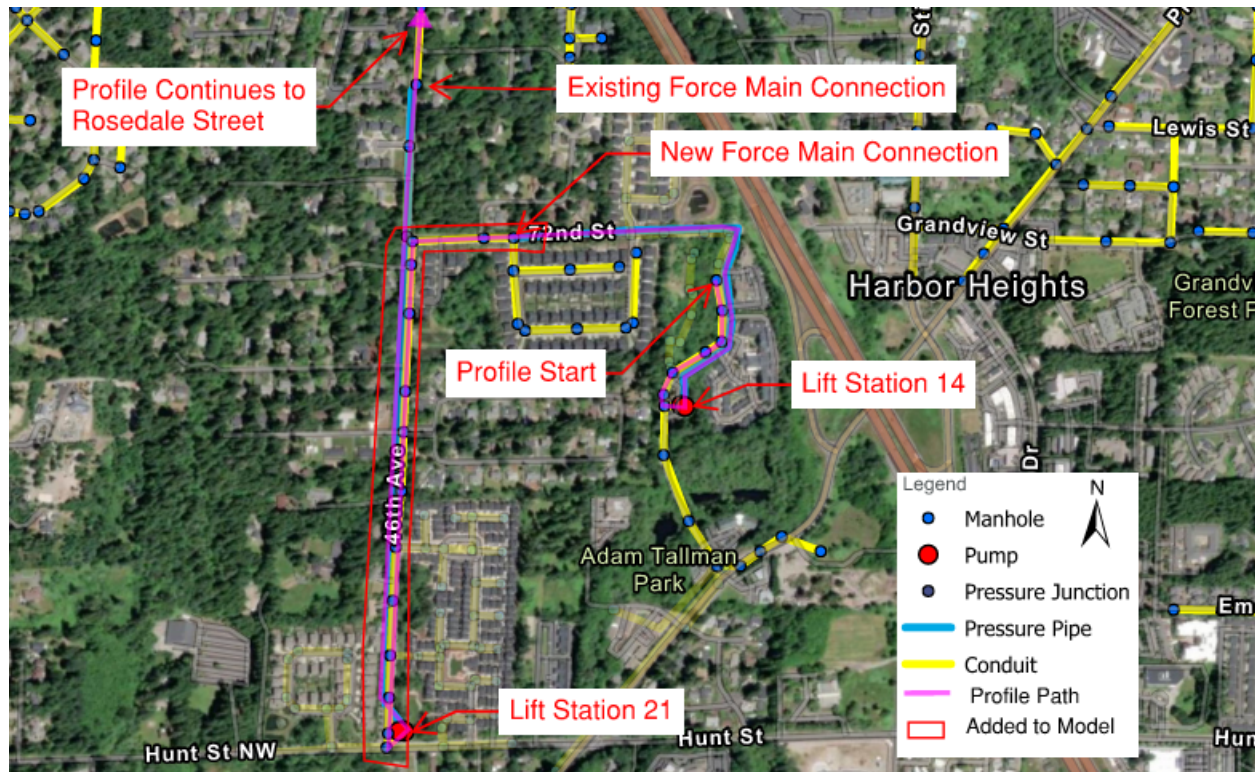


Figure 1. Updates to Basin 14 and Basin 21

Flow Loading

Two flow loading alternatives were analyzed and are described below. For both analyses, the 2050 Peak Hour Flow Scenario defined in the model was used as the starting point for all existing infrastructure in the model. The proposed forcemain connection relocation was used for both scenarios. Table 1 includes a summary of flows for each scenario.

Scenario 1 – Mallard's Landing Development and 72nd Street Plat

For Scenario 1, additional flow from 42 ERUs proposed in the Mallard's Landing development on Lot No. 7 was added to the existing Basin 14 flows.

An average flow of 150 gallons per day (gpd) was assumed for each of the 42 proposed residential units and a peak factor of 3.6 applied. This resulted in an average flow of 6,300 gpd and peak flow of 22,680 gpd. These flows were added to a manhole in Wagner Way NW (model ID 14-13).

Other than adding the new proposed flow for the Mallard's Landing development no adjustments to the flow loading in the model were made.

Scenario 2 – Mallard's Landing Development, 72nd Street Plat, and additional future ERUs

For Scenario 2, flow from the 42 proposed ERUs in Scenario 1 were kept. In addition, 46 potential ERUs were added to Basin 14 and flow from 137 potential ERUs was added to Basin 21. These potential ERU numbers were taken from the RH2 Engineering report.

A summary of the flow loadings for each scenario is included in Table 1 below.

Table 1. Flow Loading Scenarios

Scenario	Basin	ERUs	Average Flow (gpd)	Peak Flow (gpd)
Scenario 1	Basin 14 - Mallard's Landing Development	42	6,300	22,680
Scenario 2	Basin 14 - Mallard's Landing Development	42	6,300	22,680
	Basin 14 – Additional Future Developments	46	6,900	24,840
	Basin 21 – Additional Future Developments	137	20,550	73,980

Analysis Summary

The model results for both scenarios 1 and 2 show no hydraulic constrictions or overflows resulting from the reconfiguration of flows from Basin 14 to Basin 21. The current pump capacity at Lift Station 14 is capable of conveying the increased flows from the additional Mallard's Landing development. The current pump capacity at Lift Station 21 is capable of receiving the flows from Basin 14 and conveying them to Basin 3. The maximum depth (d) of water in a pipe divided by the diameter (D) of the pipe (d/D ratio) is a calculation used to confirm that the pipe is not overloaded. A d/D value of 1.0 (100 percent) indicates a full pipe. The calculated maximum d/D for Basins 14 and 21 for Scenarios 1 and 2 are 44.8 percent and 49.3 percent, respectively.

In Basin 3, the model calculated the conduit immediately downstream of the Lift Station 21 forcemain at a maximum d/D for Scenarios 1 and 2 of 56.2 percent and 91.3 percent, respectively. In Scenario 2, continuing downstream from the forcemain connection the pipe slope increases, and the d/D ratio decreases to 72.8 percent then 55.8 percent.

Figure 2 and Figure 3 show pipe profiles from the north end of Basin 14 to the intersection of Rosedale Street and 46th Avenue for each scenario.

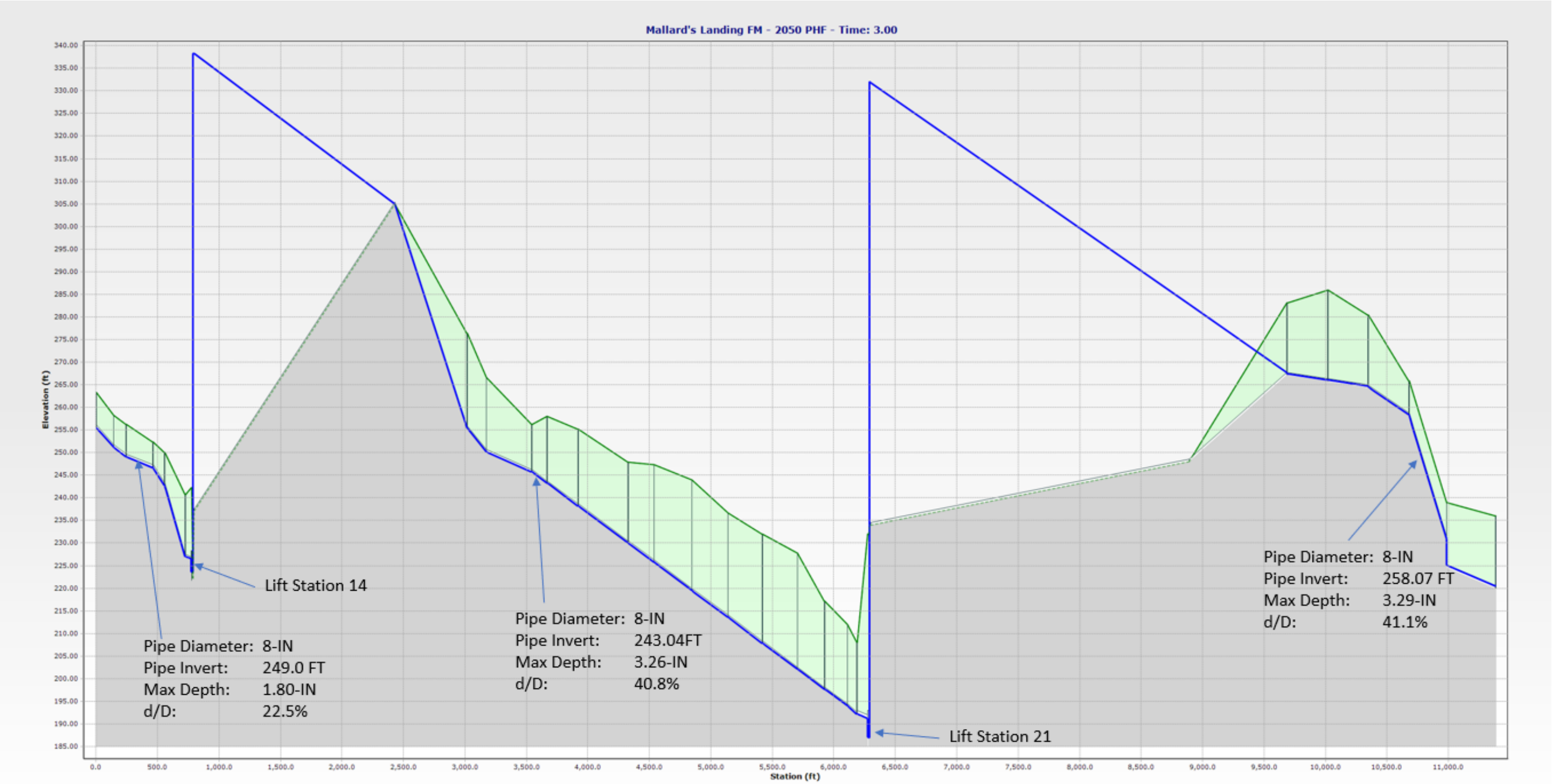


Figure 2. Scenario 1 - Pipe Profile

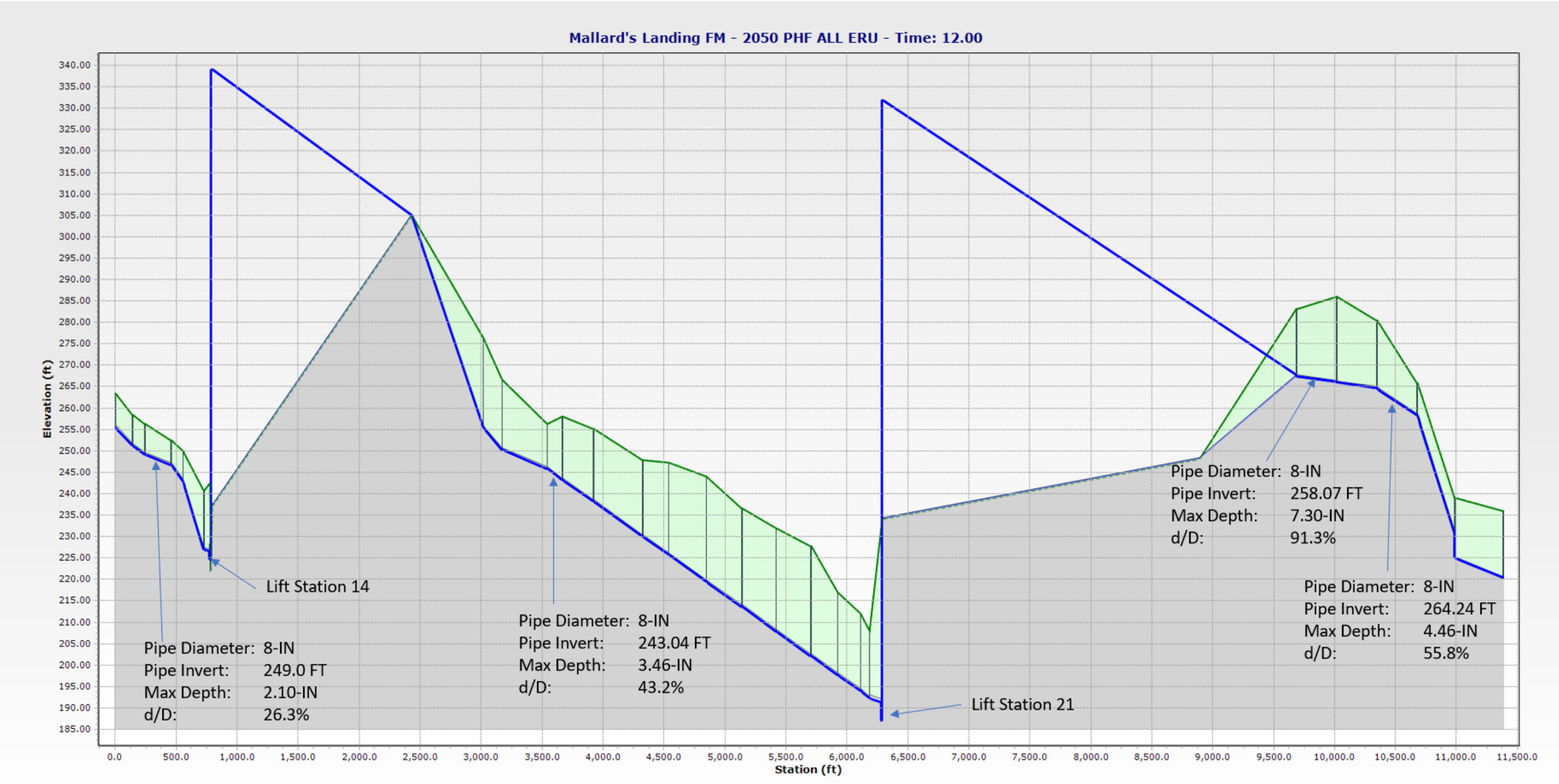


Figure 3. Scenario 2 - Pipe Profile

Mallard Landing Lot 7

Senior Living Facility

(Basins 14 & 21)



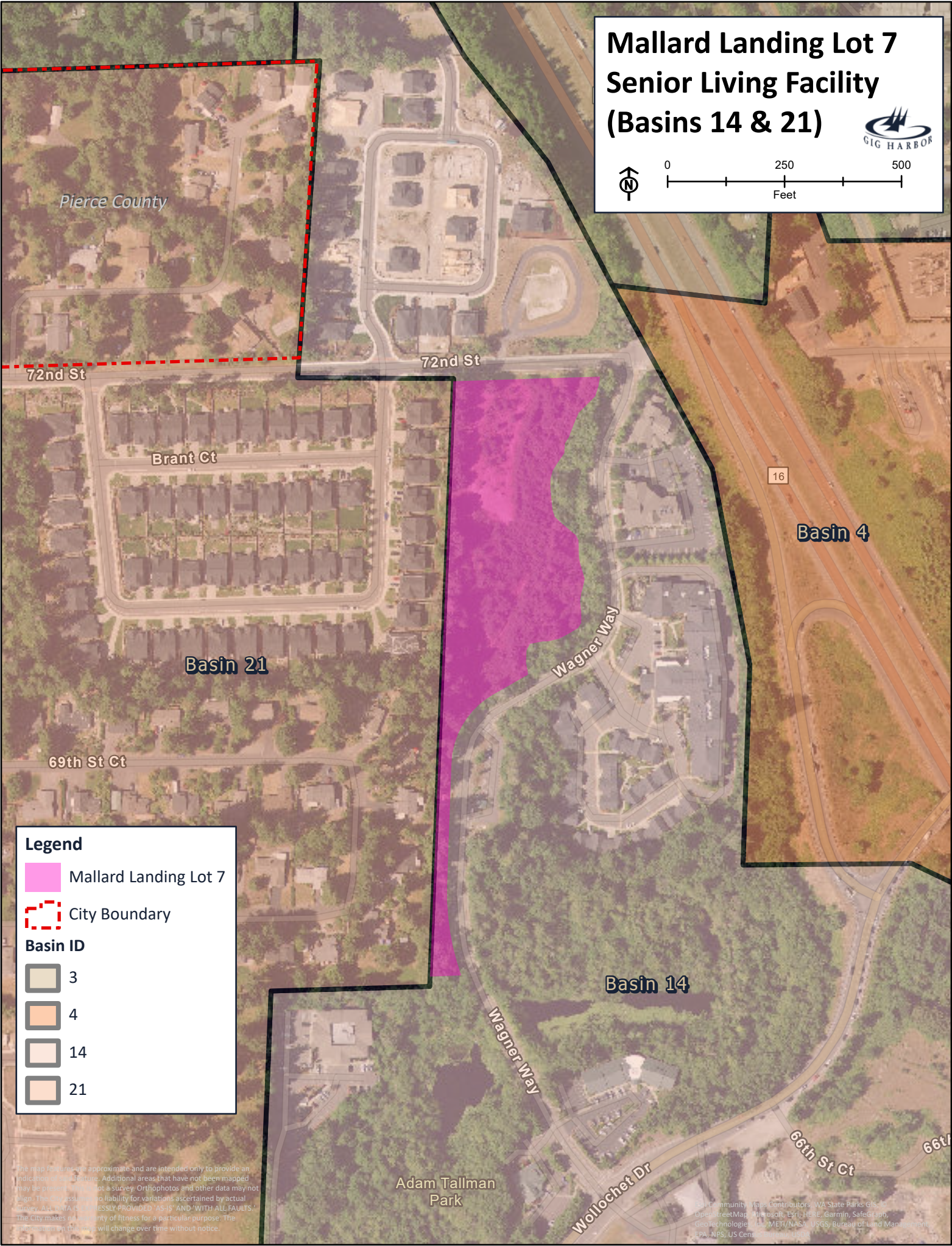


0

250

500

Feet





Technical Memo

Date: May 2, 2023

Project: Gig Harbor Neighborhood Developments

To: Stephanie Seibel, City of Gig Harbor

From: Lisa Tamura, Ty Johnson

Subject: Hydraulic Analysis of Harbor Run Development Connection

Background

The Harbor Run development developer is proposing a reconfiguration of the existing City of Gig Harbor (City) sewer collection system basin boundaries to send flows from the development directly to Basin 3 instead of first flowing to Basin 2. According to the City's 2018 Wastewater Comprehensive Plan Update, Harbor Run development is located in Basin 2 along Peacock Hill Avenue. To connect the development to the City's existing sewer infrastructure, the developer has proposed connecting to the manhole located in the intersection of Apollo Way and Echo Rock Place.

The City requested a confirmation analysis be performed for the proposed reconfiguration. This technical memo describes the results of the analysis.

The City provided a Sewer Hydraulic Report prepared by CES NW, Inc. (July 2021) describing the hydraulic assumptions, including flow loading assumptions, for the new development.

The City also provided a SewerCAD model of their collection system for hydraulic analysis. The model was built in 2008 and updated in 2015 by HDR. For this analysis, new infrastructure near the project area was added. Figure 1 highlights the model updates made to reflect these developments.

Updates for this analysis of the Harbor Run development proposal were made in the same model that was updated for the Mallard's Landing analysis. All changes in the Mallard's Landing Model were carried over to this model.

Other than updates needed to represent the proposed Harbor Run development and changes brought in from the Mallard's Landing model, no other changes were made to the hydraulic model provided. A complete model update for other areas of the collection system is in progress.

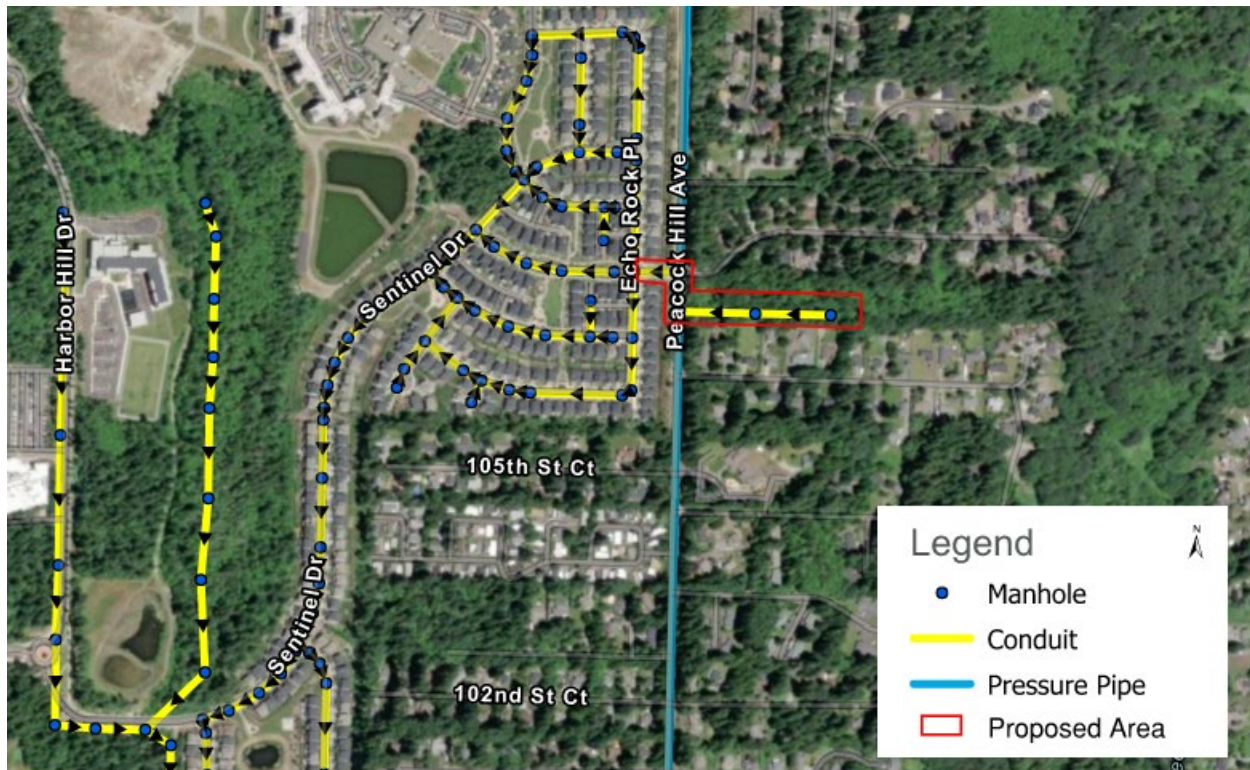


Figure 1. Model Update – Harbor Run Development

Flow Loading

For this analysis, two scenarios were added to the model and analyzed. The 2050 Peak Hour Flow Scenario defined in the model was used as the starting point for all existing infrastructure in the model.

Scenario 1 - Proposed Harbor Run Development

Scenario 1 removes from Basin 2 and adds to Basin 3, 16 proposed equivalent residential units (ERUs) to the model to reflect only the proposed Harbor Run development. An average flow of 150 gallons per day (gpd) was assumed for each of the 16 proposed ERUs and a peak factor of 3.6 applied. This resulted in an average flow of 2,400 gpd and peak flow of 8,604 gpd.

Other than adding the new proposed flow for the Harbor Run development no adjustments to the flow loading in the model were made for Scenario 1.

Scenario 2 – Existing and Future Development, and Transfer from Basin 2 to Basin 3

In addition to the 16 proposed ERUs from the Harbor Run development, 128 existing ERUs and 412 potential future ERUs were estimated to be relocated from Wastewater Basin 2 to Basin 3. The additional 540 ERUs were split into two groups according to the areas shown in Appendix A-3 of CES NW's Sewer Hydraulic Report. Loading from 124 ERUs was sent to the manhole 3-90. Loading from 416 ERUs was applied to manhole 3-527 of the Harbor Hill development.

Table 1 summarizes the flows that were added to the model for this analysis. Figure 2 shows system loadings were applied.

Table 1. Flow Loading Scenarios

Scenario	Basin	ERUs	Average Flow (gpd)	Peak Flow (gpd)
Scenario 1	Proposed Harbor Run development	16	2,400	8,640
Scenario 2	Existing ERUs relocated from Basin 2 to Basin 3	128	19,200	69,120
	Proposed Harbor Run development	16	2,400	8,640
	Potential Future ERUs relocated from Basin 2 to Basin 3	412	61,800	222,480

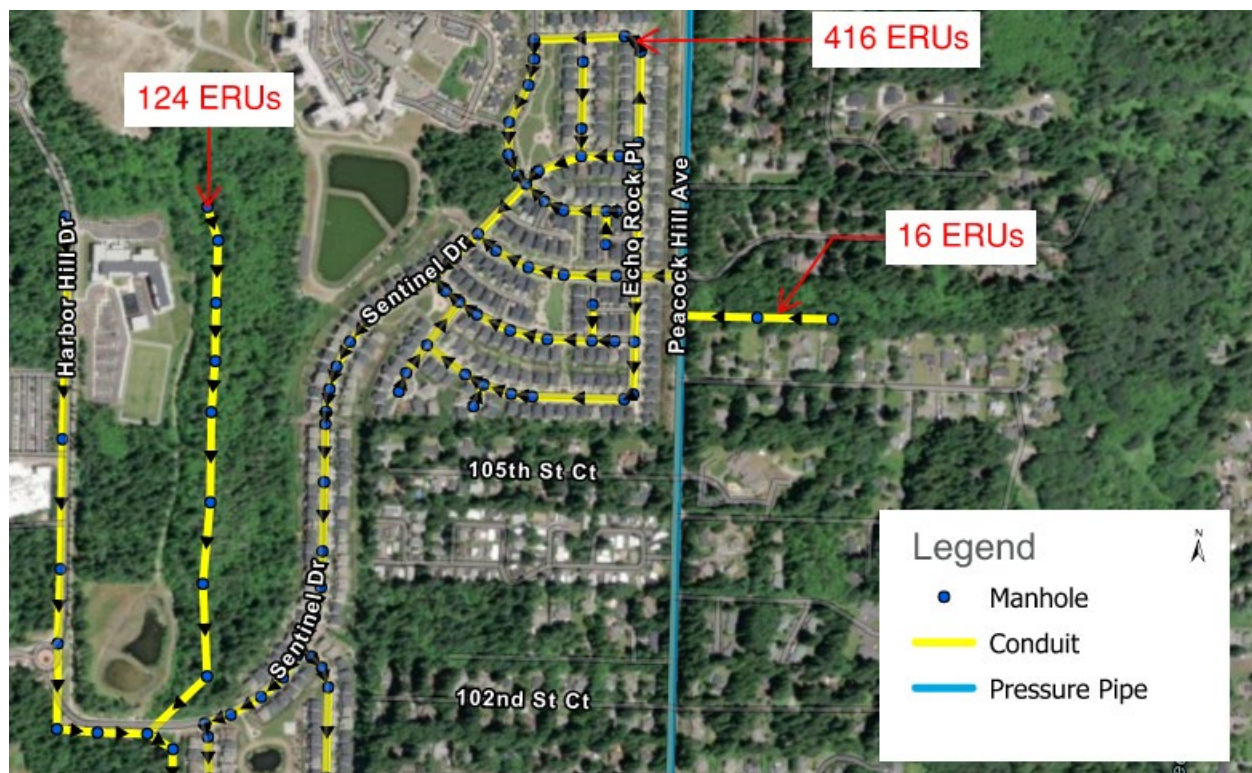


Figure 2. Scenario 2 - Manhole Loadings

Analysis Summary

For both flow scenarios, the model results show no hydraulic constrictions or overflows resulting from the reconfiguration of flows to Basin 3. The maximum depth (d) of water in a pipe divided by the diameter (D) of the pipe (d/D ratio) is a calculation used to confirm a pipe is not overloaded. A d/D value of 1.0 (100 percent) indicates a full pipe. The model indicates a maximum d/D of 100 percent for the critical flow path between the Harbor Run development and Lift Station 3 immediately upstream of the Lift Station 3 wetwell. This situation is a result of the wetwell filling up, causing water to back up into the incoming pipe. The water surface elevation

is greater than 5 feet below grade in the manhole upstream of the wetwell making an overflow at this location unlikely.

Aside from immediately upstream of the wetwell, the next highest d/D ratio is in the pipe under Burnham Road just south of 96th Street with a d/D of 72.9 percent in Scenario 1 and 81.2 percent in Scenario 2. The pipes with a d/D greater than 90 percent near Lift Station 3 are identified in Figure 3. Figure 4 illustrates the proposed reconfiguration of the sewer basin boundaries.

Figure 5 and Figure 6 show profiles of the piping from the east end of the development to the Lift Station 3 wetwell for both scenarios.

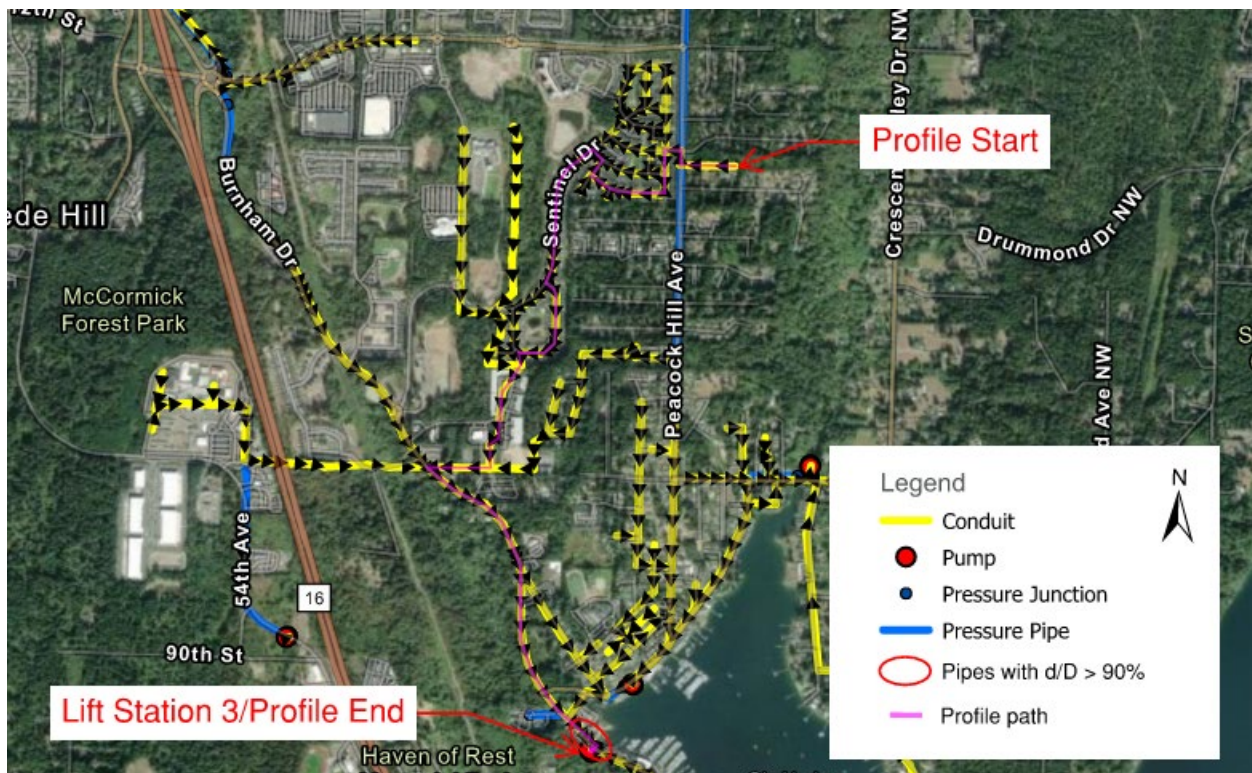


Figure 3. Pipes with a d/D Greater than 90%

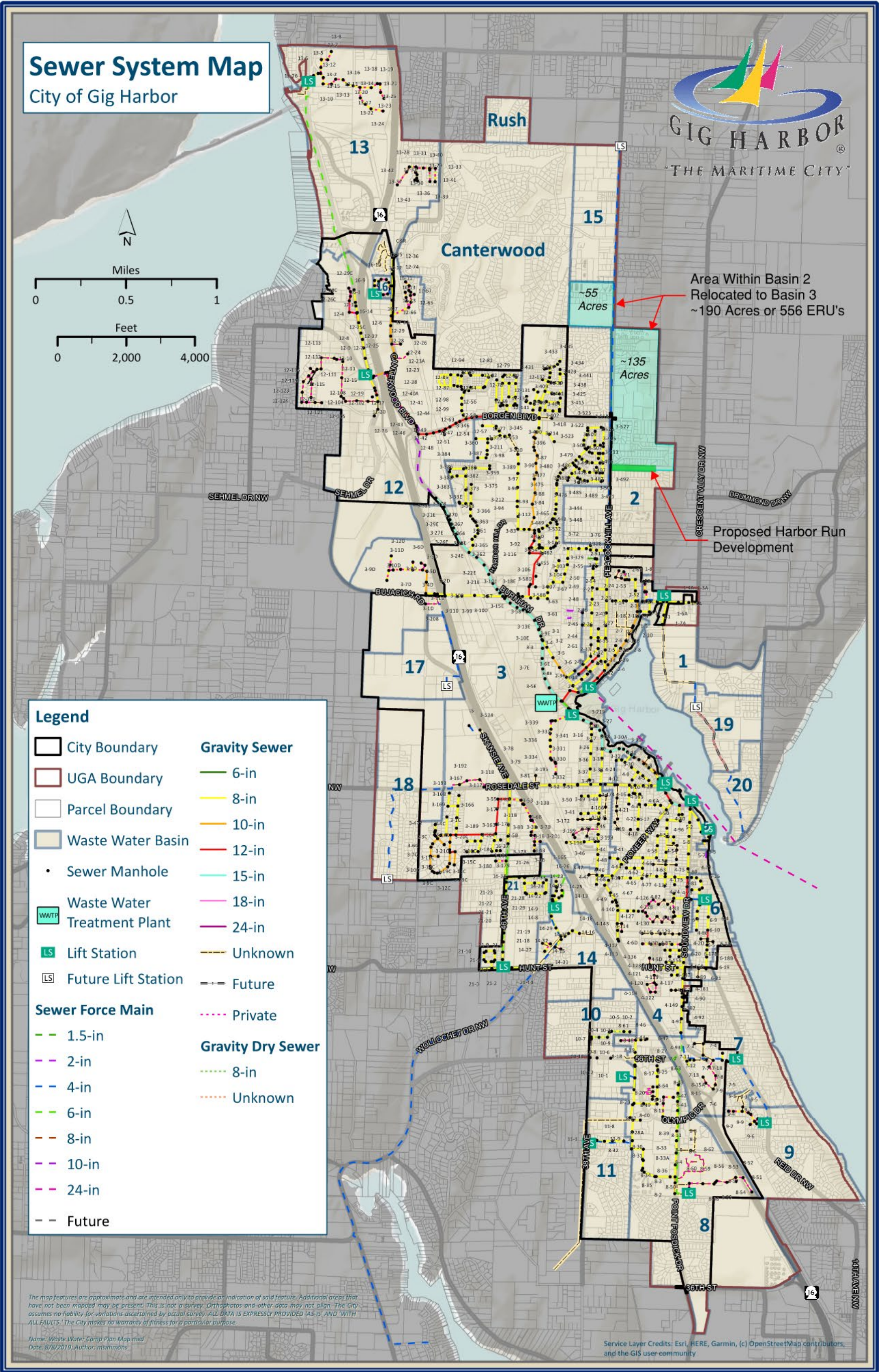


Figure 4. Revision to Sewer System Map Basins

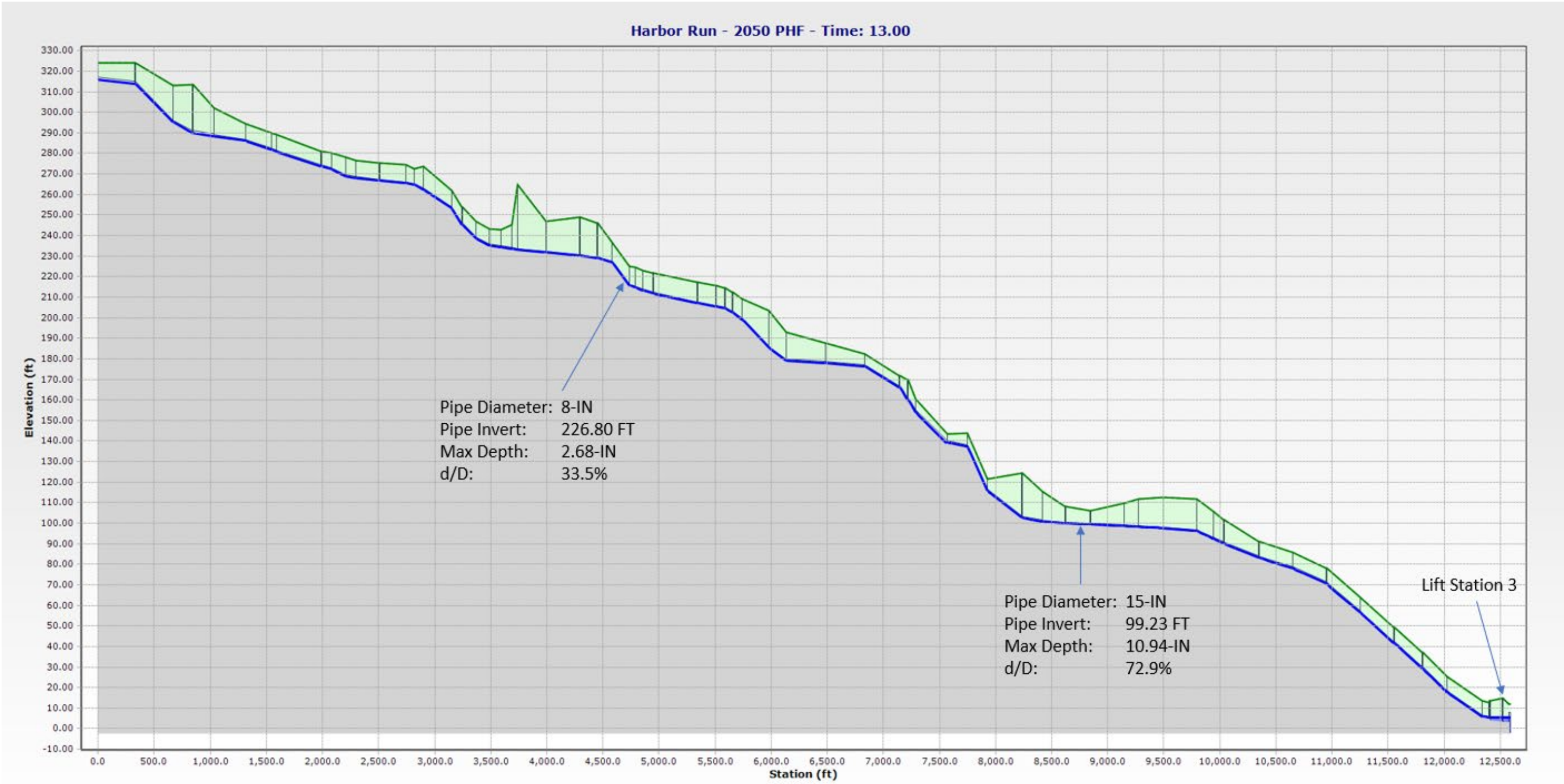


Figure 5. Scenario 1 - Pipe Profile

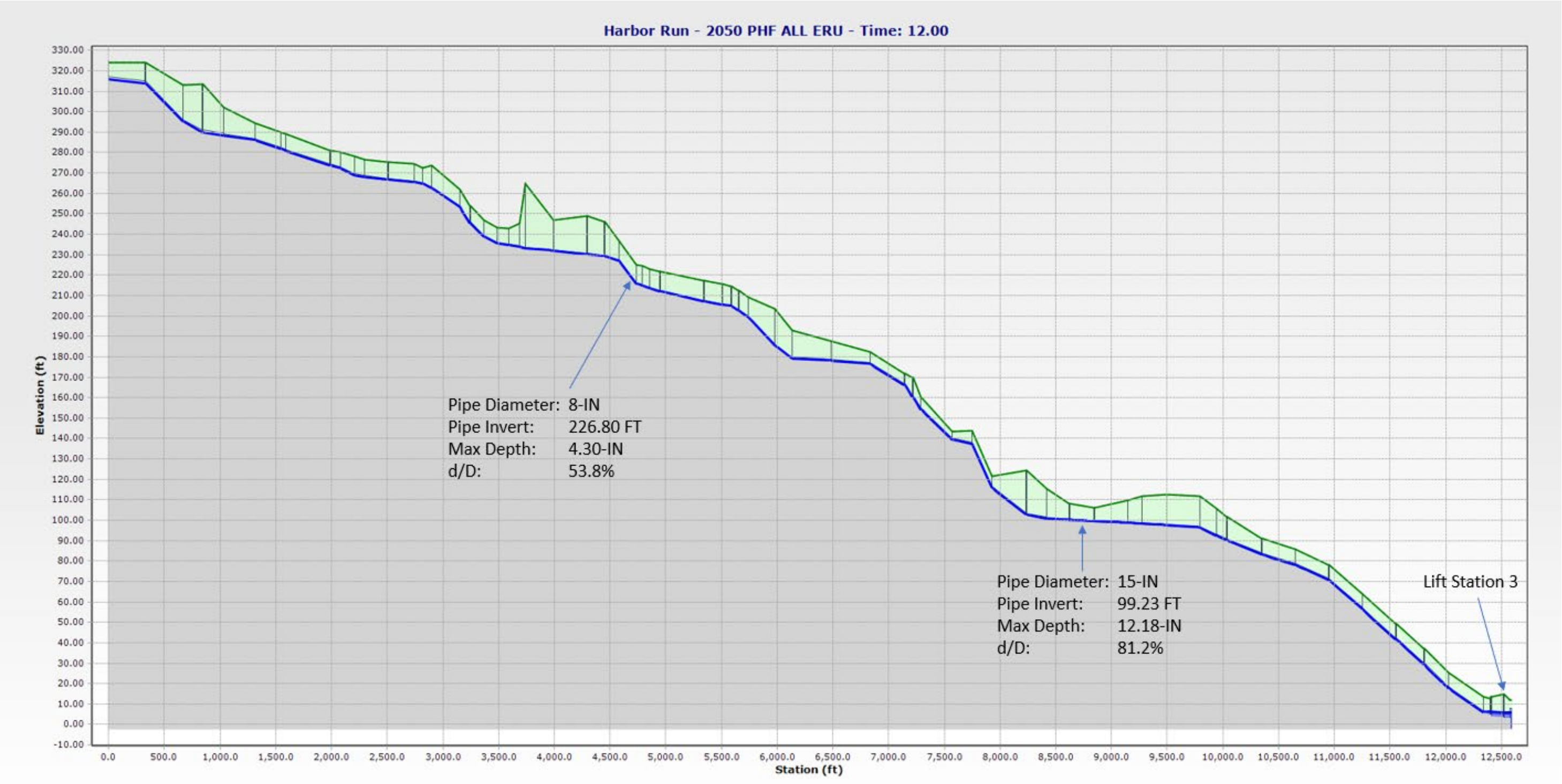
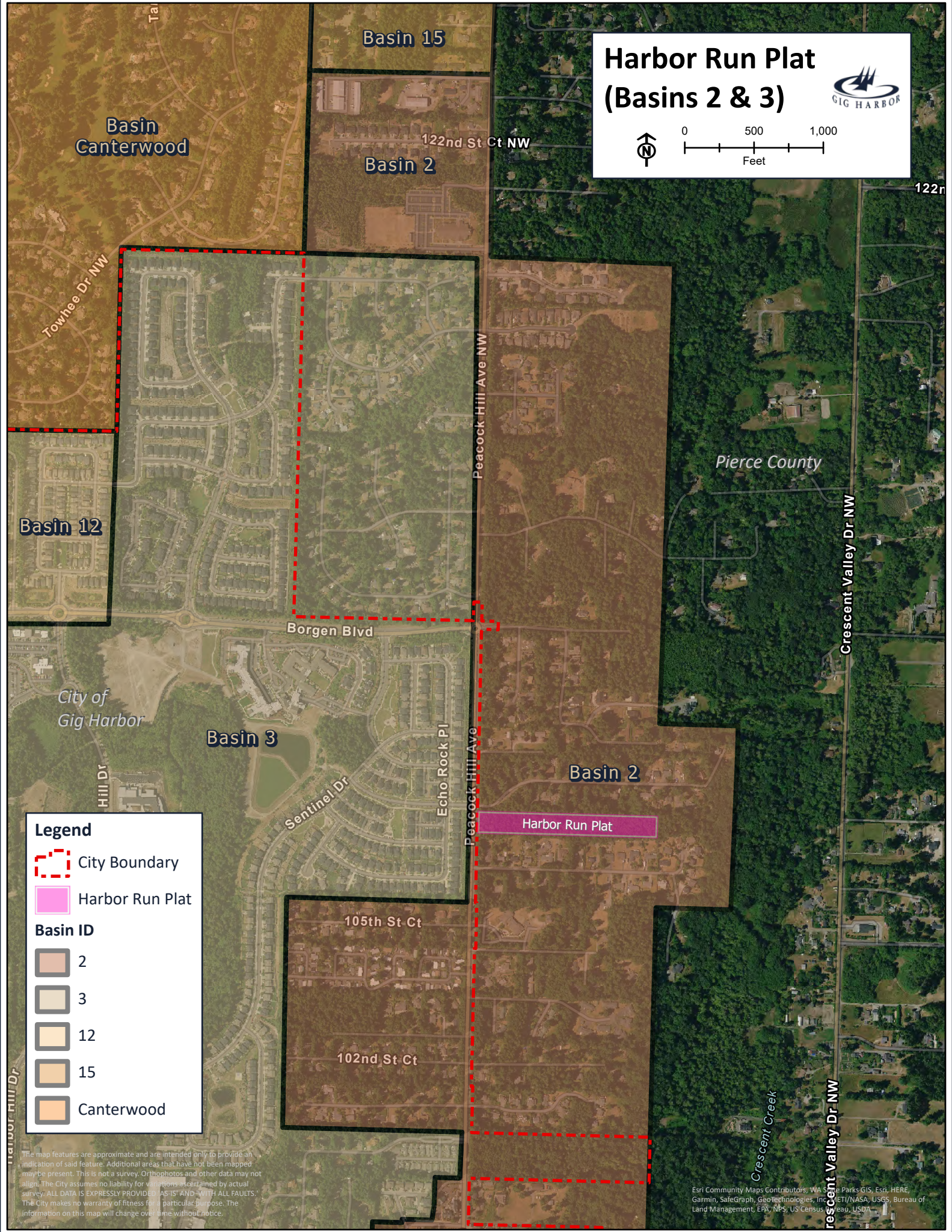
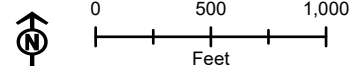


Figure 6. Scenario 2 - Pipe Profile

Harbor Run Plat (Basins 2 & 3)



Legend

City Boundary

Harbor Run Plat

Basin ID

2

3

12

15

Canterwood

The map features are approximate and are intended only to provide an indication of said feature. Additional areas that have not been mapped may be present. This is not a survey. Orthophotos and other data may not align. The City assumes no liability for violations ascertained by actual survey. ALL DATA IS EXPRESSLY PROVIDED "AS-IS" AND "WITH ALL FAULTS." The City makes no warranty of fitness for a particular purpose. The information on this map will change over time without notice.

Esri Community Maps Contributors, WA State Parks GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc., AETI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA