
CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT

9611 SE 36TH STREET | MERCER ISLAND, WA 98040

PHONE: 206.275.7605 | www.mercergov.org



STAFF REPORT

SHORELINE SUBSTANTIAL DEVELOPMENT PERMIT

Project No.:	SHL22-021
Description:	Shoreline Substantial Development Permit to expand an existing residential pier and permit two existing boat lifts.
Applicant / Owner:	Dray Davick (Seaborn Pile Driving) / Jenn Henry
Site Address:	6802 96 th Ave SE, Mercer Island, WA 98040; Identified by King County Assessor tax parcel number 258070-0005.
Zoning District:	Single Family Residential (R-8.4)
Staff Contact:	Andrew Leon, Planner
Exhibits:	<ol style="list-style-type: none">1. Development Application, dated August 12, 20222. Development Plan Set, dated March 1, 20233. Applicant Narrative and Project Narrative, received by the City of Mercer Island on March 3, 20234. Review Response letter, dated March 3, 20235. Ecological No Net Loss Assessment Report, prepared by Northwest Environmental Consulting, LLC, dated March 20236. Geotechnical Report, prepared by The Riley Group, Inc., dated November 22, 20227. U.S. Army Corps of Engineers permit approval (reference number 071-0YB-002164), dated August 13, 19748. SEPA Checklist, dated September 20, 20229. SEPA Mitigated Determination of Nonsignificance Issued by the City of Mercer Island on May 1, 202310. Comment Letter from the Washington State Department of Ecology, dated November 30, 2022

INTRODUCTION

I. Project Description

The applicant has requested approval of a Shoreline Substantial Development Permit to construct a 233 square foot extension to an existing residential pier and to permit two existing, previously unpermitted boatlifts. The pier extension is proposed to be 39 feet, 10 inches long and 5 feet, 10

inches wide and will extend approximately 34 feet, 10 inches waterward of the existing pier. The total proposed length of the extended pier is 92 feet, 4 inches. Eight new steel piles are proposed to be driven into the lakebed to support the pier extension. One of the existing boatlifts is proposed to be permitted in its current location on the north side of the existing portion of the pier. The other boatlift is proposed to be relocated waterward to a location on the north side of the proposed pier extension.

Applications for development involving additions to moorage facilities, including the installation of boatlifts, are subject to the development standards of Mercer Island City Code (MICC) 19.13.050(F)(1) or the alternative development standards for moorage facilities of MICC 19.13.050(F)(3). The applicant has requested that the installation of the boatlift and personal watercraft lifts be reviewed under the alternative development standards of MICC 9.13.050(F)(3).

The proposal also involves the repair of 74 linear feet of an existing rock bulkhead. The repaired bulkhead will be constructed of new rocks and incorporate rock stairs leading down to a sand cove. Development proposals involving repair or replacement of bulkheads are subject to the bulkhead and shoreline stabilization structure regulations listed in MICC 19.13.050(B).

II. Site Description and Context

1. The proposed activity is to take place at 6802 96th Ave SE, Mercer Island, WA 98040. This site is designated Single Family Residential (zoned R-8.4) in the Urban Residential Environment on Mercer Island in Lake Washington pursuant to Appendix F of Title 19 of the Mercer Island City Code and described in MICC 19.13.030(B). Adjacent properties are within the R-8.4 zones and contain residential uses.

Findings of Fact & Conclusions of Law

III. Application Procedure

1. The application for a Shoreline Substantial Development Permit was received by the City of Mercer Island on October 4, 2022. The application was determined to be complete on October 20, 2022.
2. Under MICC 19.15.030, Table A, applications for Shoreline Substantial Development Permits must undergo Type III review. Type III reviews require notice of application (discussed below). A notice of decision is issued once the project review is complete.
3. The City of Mercer Island provided public notice of application for this Shoreline Substantial Development Permit, as set forth in MICC 19.15.090. The comment period for the public notice period lasted for 30 days, from October 31, 2022 to November 30, 2022. The following methods were used for the public notice of application:
 - 1) A mailing sent to neighboring property owners within 300 feet of the subject parcel.
 - 2) A sign posted on the subject parcel.
 - 3) A posting in the City of Mercer Island's weekly permit bulletin.

One comment letter was received during the public notice period. The Washington State Department of Ecology commented that the site is within the plume of the old Asarco smelter in north Tacoma (Exhibit 10). Ecology recommended the following condition of approval, which has

been added to the SEPA Threshold Determination associated with this project, as processed under SEP22-017 (Exhibit 9):

“Any soils or sediments exported off site shall be sampled and analyzed for arsenic and lead. If soils are found to be contaminated with arsenic or lead, they shall be managed and disposed of in accordance with state and local regulations, including the Solid Waste Handling Standards (Chapter 173-350 WAC).”

IV. State Environmental Policy Act (SEPA)

A Mitigated Determination of Nonsignificance (MDNS) is being issued concurrently with the approval of this shoreline substantial development permit following the optional DNS process per Washington Administrative Code (WAC) 197-11-355 (Exhibit 9). The SEPA application is identified by City of Mercer Island project number SEP22-017.

V. Consistency with the Shoreline Master Program and Land Development Code

1. MICC 19.13.050(A), Table C lists the requirements for development located landward from the OHWM:

- a. Setbacks for all structures (including fences over 48 inches high) and parking shall be 25 feet from the OHWM and all required setbacks of the development code. If a wetland is adjacent to the shoreline, measure the shoreline setback from the wetland’s boundary.

Staff Analysis: Exhibit 2 shows that there are no structures within 25 feet from the OHWM or within setbacks required by the development code. This standard is met.

- b. Height limits for all structures shall be the same as the height limits specified in the development code but shall not exceed a height of 35 feet above average building elevation.

Staff Analysis: The subject property contains a single-family residence with a deck. This proposal involves and addition to an existing pier and bulkhead repairs. Modifications to the house are not proposed. This standard does not apply.

- c. The maximum hardscape and lot coverage shall be:
 - i. 10% between 0 and 25 feet landward from the OHWM.
 - ii. 30% between 25 and 50 feet landward from the OHWM.

Staff Analysis: Exhibit 2 shows that hardscape and lot coverage is proposed to be limited to 9.681% between 0 and 25 feet landward from the OHWM and to 28.023% between 25 and 50 feet landward from the OHWM. As proposed, this standard is met.

2. MICC 19.13.050(B) lists the requirements for bulkheads and shoreline stabilizations structures.

- a. An existing shoreline stabilization structure may be replaced with a similar structure if there is a demonstrated need to protect principal uses or structures from erosion caused by currents or waves, and the following conditions shall apply:

- i. The replacement structure should be designed, located, sized, and constructed to assure no net loss of ecological functions.

Staff Analysis: The provided no net loss plan indicates that the replacement bulkhead will not have an adverse impact on the ecological functions of the shoreland. This standard is met.

- ii. Replacement walls or bulkheads shall not encroach waterward of the ordinary high water mark or existing structure unless the primary structure was occupied prior to January 1, 1992, and there are overriding safety or environmental concerns. In such cases, the replacement structure shall abut the existing shoreline stabilization structure. Soft shoreline stabilization measures that provide restoration of shoreline ecological functions may be permitted waterward of the ordinary high water mark (OHWM).

Staff Analysis: The applicant has indicated in Exhibit 2 and Exhibit 4 that the replacement bulkhead is not proposed to encroach waterward of the OHWM or the existing structure. This standard is met.

- iii. For purposes of this section standards on shoreline stabilization measures, "replacement" means the construction of a new structure to perform a shoreline stabilization function of an existing structure which can no longer adequately serve its purpose. Additions to or increases in size of existing shoreline stabilization measures shall be considered new structures.

Staff Analysis: The geotechnical report provided by the applicant (Exhibit 6) indicates that the existing bulkhead will not adequately protect the principal use of the lot from erosion when the cove is excavated. The size of the bulkhead is not proposed to be increased. This standard is met.

- iv. Construction and maintenance of normal protective bulkhead common to single-family dwellings requires only a shoreline exemption permit, unless a report is required by the code official to ensure compliance with the above conditions; however, if the construction of the bulkhead is undertaken wholly or in part on lands covered by water, such construction shall comply with SEPA mitigation.

Staff Analysis: The proposed replacement of the bulkhead is being reviewed in conjunction with an expansion to a residential pier. The total scope of this project requires a shoreline substantial development permit under WAC 173-27-040.

- b. New or enlarged structural shoreline stabilization measures for an existing primary structure, including residences, are not allowed unless there is conclusive evidence, documented by a geotechnical analysis, that the structure is in danger from shoreline erosion caused by currents or waves. Normal sloughing, erosion of steep bluffs, or shoreline erosion itself, without a scientific or geotechnical analysis, is not demonstration of need. The geotechnical analysis should evaluate on-site drainage issues and address drainage problems away from the shoreline edge before considering structural shoreline stabilization. New or enlarged erosion control structure shall not result in a net loss of shoreline ecological functions.

Staff Analysis: Exhibits 2 and 4 show that the proposed replacement bulkhead will not be larger than the existing bulkhead. This standard does not apply.

- c. Bulkheads shall be located generally parallel to the natural shoreline. No filling may be allowed waterward of the OHWM, unless there has been severe and unusual erosion within two years immediately preceding the application for the bulkhead. In this event the city may allow the placement of the bulkhead to recover the dry land lost by erosion.

Staff Analysis: The replacement is proposed to be located in the same location as the existing bulkhead, which is parallel to the natural shoreline. Exhibits 2 and 4 indicate that this proposal will not involve fill waterward of the OHWM. This standard is met.

- d. Geotechnical reports pursuant to this section that address the need to prevent potential damage to a primary structure shall address the necessity for shoreline stabilization by estimating time frames and rates of erosion and report on the urgency associated with the specific situation. As a general matter, hard armoring solutions should not be authorized except when a report confirms that there is a significant possibility that such a structure will be damaged within three years as a result of shoreline erosion in the absence of such hard armoring measures, or where waiting until the need is that immediate would foreclose the opportunity to use measures that avoid impacts on ecological functions. Thus, where the geotechnical report confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as the three years, that report may still be used to justify more immediate authorization to protect against erosion using soft measures.

Staff Analysis: The geotechnical report provided by the applicant (Exhibit 6) states that the site would be at risk from erosion caused by wave action within three years if there is not a hard-armored bulkhead along the OHWM. The applicant also provided a no net loss plan (Exhibit 5) that shows that the replacement of the bulkhead will not result in a net negative impact on the ecological function of the shorelands. This standard is met.

- e. When any structural shoreline stabilization measures are demonstrated to be necessary, pursuant to the provisions listed in MICC 19.13.050(B)(1) through (7), the following shall apply:
 - i. Limit the size of stabilization measures to the minimum necessary. Use measures designed to assure no net loss of shoreline ecological functions. Soft approaches shall be used unless demonstrated not to be sufficient to protect primary structures, dwellings and businesses.
 - ii. Ensure that publicly financed or subsidized shoreline erosion control measures do not permanently restrict appropriate public access to the shoreline except where such access is determined to be infeasible because of incompatible uses, safety, security, or harm to ecological functions. See public access provisions: WAC 173-26-211(4). Where feasible, incorporate ecological restoration and public access improvements into the project.
 - iii. Mitigate new erosion control measures, including replacement structures, on feeder bluffs or other actions that affect beach sediment-producing areas to avoid and, if that is not possible, to minimize adverse impacts to sediment conveyance systems. Where sediment conveyance systems cross jurisdictional boundaries, local governments should coordinate shoreline management efforts. If beach erosion is threatening existing development, local governments should adopt master program provisions for a beach management district

or other institutional mechanism to provide comprehensive mitigation for the adverse impacts of erosion control measures.

Staff Analysis: Exhibit 2 shows that the replacement bulkhead is proposed to be the minimum size recommended in the geotechnical report (Exhibit 6) to protect the site from erosion caused by wave action. This proposal does not involve publicly financed or subsidized erosion control measures or erosion control measures on feeder bluffs. These standards are met.

3. MICC 19.13.050(D), Table D lists requirements for moorage facilities and development located waterward from the OHWM:

- a. Setbacks for all moorage facilities, covered moorage, and floating platforms shall be 10 feet from the lateral line, except where the moorage facility is built pursuant to the agreement between adjoining property owners.

Staff Analysis: As shown in Exhibit 2, the existing pier is located within the 10-foot setback from the south lateral line. MICC 19.13.020(B) states that expansions to legal nonconforming overwater structures are permitted, provided that the expanded portion of the structure is constructed in compliance with Chapter 19.13 MICC and all other standards and provisions of the MICC. The applicant provided documentation that the current location of the pier received permit approval in 1974 (Exhibit 7). Exhibit 2 shows that the addition to the pier is proposed to be located outside of the 10-foot lateral line setback, so this standard is met.

- b. Setbacks for boat ramps and other facilities for launching boats by auto or hand, including parking and maneuvering space, shall be 25 feet from any adjacent private property line.

Staff Analysis: This site does not contain a boat ramp or other facility for launching boats. This standard does not apply.

- c. The length or maximum distance from the OHWM for moorage facilities, covered moorage, boatlifts and floating platforms shall be a maximum of 100 feet. In cases where water depth is less than 11.85 feet below the OHWM, length may extend up to 150 feet or to the point where water depth is 11.85 feet at OHWM, whichever is less.

Staff Analysis: Exhibit 2 shows that the proposed pier extends 92 feet, 4 inches waterward from the OHWM. This standard is met.

- d. The width of moorage facilities within 30 feet waterward from the OHWM shall be a maximum of 4 feet. This maximum width may increase to 5 feet if one of the following is met:

- Water depth is 4.85 feet or more, as measured from the OHWM.
- A moorage facility is required to comply with Americans with Disabilities Act (ADA) requirements.
- A resident of the property has a documented permanent state disability as defined in WAC 308-96B-010(5).
- The proposed project includes mitigation option A, B or C listed in Table E; and for replacement actions, there is either a net reduction in overwater coverage within 30 feet waterward from the OHWM, or a site-specific report is prepared by a qualified

professional demonstrating no net loss of ecological function of the shorelands. Moorage facility width shall not include pilings, boat ramps and lift stations.

Staff Analysis: Exhibit 2 shows that the existing pier is 7 feet, 3 inches in width within the first 30 feet waterward from the OHWM. The applicant provided documentation that the current location of the pier received permit approval in 1974 (Exhibit 7). MICC 19.13.020(A) states that overwater uses and structures, and uses and structures 25 feet landward from the OHWM, which were legally created may be maintained, repaired, renovated, remodeled and completely replaced to the extent that nonconformance with standards and regulations of Chapter 19.13 MICC is not increased. The pier's existing nonconformity is not proposed to be increased as a part of this project, so this standard does not apply.

- e. The width of moorage facilities more than 30 feet waterward from the OHWM shall be a maximum of 6 feet. Moorage facility width shall not include pilings, boat ramps and boatlifts.

Staff Analysis: Exhibit 2 shows that the existing pier is 7 feet, 3 inches in width. The applicant provided documentation that the current location of the pier received permit approval in 1974 (Exhibit 7). MICC 19.13.020(A) states that overwater uses and structures, and uses and structures 25 feet landward from the OHWM, which were legally created may be maintained, repaired, renovated, remodeled and completely replaced to the extent that nonconformance with standards and regulations of Chapter 19.13 MICC is not increased. The pier's existing nonconformity is not proposed to be increased as a part of this project, so this standard does not apply to the existing portion of the pier.

As shown in Exhibit 2, the proposed extension is located more than 30 feet waterward from the OHWM and will have a width of 5 feet, 10 inches. The width of the proposed extension is less than 6 feet and thus complies with this standard.

- f. The maximum height limits for walls, handrails and storage containers located on piers shall be 3.5 feet above the surface of a dock or pier. Ramps and gangways designed to span the area between 0 and 30 feet from the OHWM may be 4 feet above the surface of the dock or pier.

Staff Analysis: The elevation view on Sheet A5.0 of Exhibit 2 shows that the pier does not include walls, rails, or storage containers. This standard is met.

- g. The height limit for mooring piles, diving boards and diving platforms shall be 10 feet above the elevation of the OHWM.

Staff Analysis: The moorage facility at this site currently has one moorage pile. The mooring pile is proposed to be removed as a part of this project. This standard does not apply.

- h. The minimum water frontage for a dock used by a single-family lot on the shoreline is 40 feet combined for both lots.

Staff Analysis: The existing pier is located on a lot with a shoreline frontage of approximately 72 feet. This standard is met.

2. MICC 19.13.050(F)(3) lists the alternative development standards for moorage facilities. The code official shall approve moorage facilities not in compliance with the development standards in MICC 19.13.050(F)(1) or (F)(2) subject to both U.S. Army Corps of Engineers and Washington Department of Fish and Wildlife approval to an alternate project design. The following requirements and all other applicable provisions of this chapter shall be met:

- a. The dock must be no larger than authorized through state and federal approval.

Staff Analysis: The applicant has provided a Letter of Permission from the U.S. Army Corps of Engineers (Exhibit 9) showing that the project has received their approval. However, the applicant has not yet provided documentation that the project has been approved by the Washington Department of Fish and Wildlife. This decision conditions that the applicant provide documentation that state and federal agencies approve of the proposal prior to issuance of building permits. As conditioned, this standard is met.

- b. The maximum width must comply with the width of moorage facilities standards specified in MICC 19.13.050(D), Table D.

Staff Analysis: The current configuration of the existing pier is 7 feet, 3 inches, which exceeds the pier width standards listed in MICC 19.13.050(D), Table D. MICC 19.13.020(A) states that overwater structures and uses which were legally created may be maintained to the extent that nonconformance with the standards of Chapter 19.13 MICC is not increased. The applicant provided documentation that the current location of the pier received permit approval in 1974 (Exhibit 7). The expansion to the pier is proposed to be 5 feet, 10 inches in width and will be located more than 30 feet waterward from the OHWM. This meets the standards listed in MICC 19.13.050(D), Table D, so the expansion meets this standard.

- c. The minimum water depth must be no shallower than authorized through state and federal approval.

Staff Analysis: The applicant has provided a Letter of Permission from the U.S. Army Corps of Engineers (Exhibit 9) showing that the project has received their approval. However, the applicant has not yet provided documentation that the project has been approved by the Washington Department of Fish and Wildlife. This decision conditions that the applicant provide documentation that state and federal agencies approve of the proposal prior to issuance of building permits. As conditioned, this standard is met.

- d. The applicant must demonstrate to the code official's satisfaction that the proposed project will not create a net loss in ecological function of the shorelands.

Staff Analysis: The applicant provided an Ecological No Net Loss Assessment Report (Exhibit 5) that indicates that the project will not have a negative impact on the ecological function of the shorelands. This standard is met.

- e. The applicant must provide the city with documentation of approval of the moorage facilities by both the U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife.

Staff Analysis: The applicant has provided a Letter of Permission from the U.S. Army Corps of Engineers (Exhibit 9) showing that the project has received their approval. However, the applicant has not yet provided documentation that the project has been approved by the Washington Department of Fish and Wildlife. This decision conditions that the applicant provide documentation that state and federal agencies approve of the proposal prior to issuance of building permits. As conditioned, this standard is met.

CONDITIONS OF APPROVAL

1. The project proposal shall be in substantial conformance with Exhibit 2 and all applicable development standards contained within Mercer Island City Code (MICC) Chapter 19.13.
2. The applicant shall obtain any permits from state and federal agencies that are applicable to this project. The applicant is also responsible for documenting any required changes in the project proposal due to conditions imposed by any applicable local, state and federal government agencies.
3. Construction shall not be authorized, nor may begin within twenty-one days of the date of filing of the decision as defined in RCW 90.58.140(6).
4. A City of Mercer Island Building Permit may be required for construction of this project proposal. The Building Official may require an appropriate performance bond in an amount to be determined prior to Building Permit issuance to ensure all required vegetation installation is completed in compliance with applicable code requirements.
5. Construction of this project proposal shall only occur during approved fish windows by local, state, and/or federal government agencies. The applicant is responsible for obtaining permit approvals from all state and federal agencies.
6. Construction of this project proposal shall only occur during approved construction hours by the City of Mercer Island and/or as otherwise restricted by the Building Official.
7. The applicant shall provide a survey, prepared by a Washington licensed surveyor, showing that the proposed hardscape and lot coverage within 0 and 25 feet and between 25 and 50 feet of the OHWM will meet the limits specified in MICC 19.13.050(A), Table C.
8. The applicant shall provide the City with documentation of approval of the project from the U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife. This documentation shall be received by the City prior to issuance of building permits for this project.
9. The applicant shall provide the City with an affidavit prior to **permit issuance**. The affidavit shall state that the applicant has field located the sewer lake line and the location on the site plan (as revised) is the actual location within Lake Washington. The affidavit shall acknowledge that the applicant is responsible for any damages to the sewer lake line caused by the construction. **Please note:** Damage can occur from pile driving, grounding the barge or securing it with vertical steel shafts (spuds), and other possible impacts from the project.
10. The applicant shall provide the City with development plans that reflect the field verified location of the sewer lake line pre-construction prior to **permit issuance**. If the lakebed is being disturbed, please contact Fish and Wildlife and the U.S. Army Corps of Engineers, as a permit may be required. **Please**

note: Field verification should be performed with due care as the sewer lake line is pressurized in some locations and the pipe material could be prone to damage.

The applicant shall provide development plans based upon a pre-construction field survey locating the sewer lake line, and shall deliver the results to the City in one of the formats listed below, ranked from top to bottom, (a) being the top preferred method:

- a. A hand-drawn or plotted as-built of the lake line location with accurate distance measurements to multiple visible and permanent reference points. Reference points can include dock corners, utilities, structures, stairs, etc.
- b. A CAD file including the lake line and surveyed area in WGS-1984 or Washington State Plane North coordinate systems.
- c. A CAD file including the lake line and surveyed area in an assumed coordinate system, including multiple visible and permanent reference points.
- d. A list of coordinates denoting the lake line location, in WGS-1984 or Washington State Plane North coordinate systems.
- e. If none of the above options are viable, the City will consider reasonable efforts to provide field verification of the sewer lake line. Possible constraints that may make field verification nonviable includes, but is not limited to, the following: if the sewer pipe is too deep to locate or if there are fish window constraints.

If a coordinate system is used, the survey must be performed using high accuracy GPS or total station (half-foot accuracy). This **excludes** cellphone or handheld GPS surveys.

11. The applicant shall inform the Mercer Island Maintenance Department at (206) 275-7608 of the anticipated start date of in-water work prior to commencement of construction.
12. Piles, floats or other structures in direct contact with water shall not be treated or coated with toxic substances harmful to the aquatic environment. Chemical treatment of structures shall comply with all applicable state and federal regulations. Any pollutants entering Lake Washington shall be reported immediately to the Department of Ecology. N.W. Regional Office: (425) 649-7000 and the City of Mercer Island (206) 275-7605.
13. Construction or substantial progress toward construction of a development for which a permit has been granted must be undertaken within two years after the approval of the permit or the permit shall terminate. The code official shall determine if substantial progress has been made. A single extension before the end of the time limit, with prior notice to parties of record, for up to one year, based on reasonable factors may be granted.

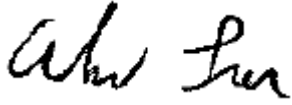
DEVELOPMENT REGULATION COMPLIANCE – DISCLOSURE

1. The applicant is responsible for obtaining any required permits or approvals from the appropriate Local, State, and Federal Agencies. The applicant is responsible for meeting the conditions are required by the agencies pursuant to MICC 19.13.010(E) and 19.13.040.
2. All required permits must be obtained prior to the commencement of construction.

DECISION

Based upon the above noted Findings of Fact and Conclusions of Law, Shoreline Substantial Development Permit application SHL22-021, as depicted in Exhibit 2, is hereby **APPROVED**. This decision is final, unless appealed in writing consistent with adopted appeal procedures, MICC 19.15.130(A), and all other applicable appeal regulations.

Approved this 1st day of May, 2023



Andrew Leon
Planner
Community Planning & Development
City of Mercer Island

CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT

9611 SE 36TH STREET | MERCER ISLAND, WA 98040

PHONE: 206.275.7605 | www.mercergov.org



CITY USE ONLY

PROJECT#	RECEIPT #	FEE

Date Received:

Received By:

DEVELOPMENT APPLICATION

STREET ADDRESS/LOCATION		ZONE
COUNTY ASSESSOR PARCEL #'S		PARCEL SIZE (SQ. FT.)
PROPERTY OWNER (required)	ADDRESS (required)	CELL/OFFICE (required) E-MAIL (required)
PROJECT CONTACT NAME	ADDRESS	CELL/OFFICE E-MAIL
TENANT NAME	ADDRESS	CELL PHONE E-MAIL

DECLARATION: I HEREBY STATE THAT I AM THE OWNER OF THE SUBJECT PROPERTY OR I HAVE BEEN AUTHORIZED BY THE OWNER(S) OF THE SUBJECT PROPERTY TO REPRESENT THIS APPLICATION, AND THAT THE INFORMATION FURNISHED BY ME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Dray Davick
SIGNATURE

DATE

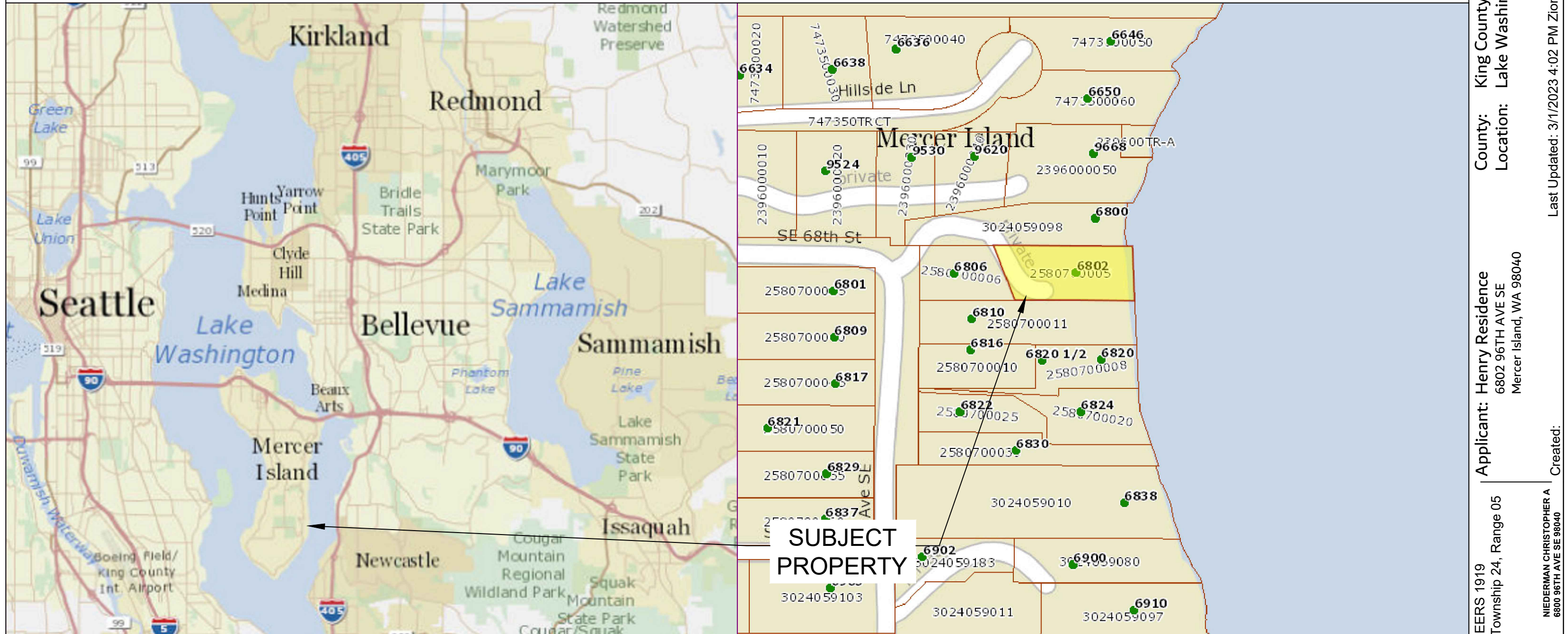
PROPOSED APPLICATION(S) AND CLEAR DESCRIPTION OF PROPOSAL (PLEASE USE ADDITIONAL PAPER IF NEEDED):

ATTACH RESPONSE TO DECISION CRITERIA IF APPLICABLE

CHECK TYPE OF LAND USE APPROVAL REQUESTED:

APPEALS	DEVIATIONS	SUBDIVISION SHORT PLAT
<input type="checkbox"/> Building	<input type="checkbox"/> Changes to Antenna requirements	<input type="checkbox"/> Short Plat- Two Lots
<input type="checkbox"/> Code Interpretation	<input type="checkbox"/> Changes to Open Space	<input type="checkbox"/> Short Plat- Three Lots
<input type="checkbox"/> Land use	<input type="checkbox"/> Shoreline	<input type="checkbox"/> Short Plat- Four Lots
<input type="checkbox"/> Right-of-Way Use	<input type="checkbox"/> Seasonal Development Limitation Waiver	<input type="checkbox"/> Short Plat- Deviation of Acreage Limitation
CRITICAL AREAS	ENVIRONMENTAL REVIEW (SEPA)	<input type="checkbox"/> Short Plat- Amendment
<input type="checkbox"/> Critical Area Review 1 (Hourly Rate 2hr Min)	<input type="checkbox"/> SEPA Review (checklist)- Minor	<input type="checkbox"/> Short Plat- Final Plat
<input type="checkbox"/> Critical Area Review 2 (Determination)	<input type="checkbox"/> SEPA review (checklist)- Major	OTHER LAND USE
<input type="checkbox"/> Reasonable Use Exception	<input type="checkbox"/> Environmental Impact Statement	<input type="checkbox"/> Accessory Dwelling Unit
DESIGN REVIEW	SHORELINE MANAGEMENT	<input type="checkbox"/> Code Interpretation Request
<input type="checkbox"/> Pre Design Meeting	<input type="checkbox"/> Exemption	<input type="checkbox"/> Comprehensive Plan Amendment (CPA)
<input type="checkbox"/> Design Review (Code Official)	<input type="checkbox"/> Permit Revision	<input type="checkbox"/> Conditional Use (CUP)
<input type="checkbox"/> Design Commission Study Session	<input type="checkbox"/> Shoreline Variance	<input type="checkbox"/> Lot Line Revision
<input type="checkbox"/> Design Review- Design Commission- Exterior Alteration	<input type="checkbox"/> Shoreline Conditional Use Permit	<input type="checkbox"/> Noise Exception
<input type="checkbox"/> Design Review- Design Commission- New Building	<input type="checkbox"/> Substantial Development Permit	<input type="checkbox"/> Reclassification of Property (Rezoning)
WIRELESS COMMUNICATION FACILITIES	SUBDIVISION LONG PLAT	<input type="checkbox"/> Transportation Concurrency (see supplemental application form)
<input type="checkbox"/> Wireless Communications Facilities- 6409 Exemption	<input type="checkbox"/> Long Plat- Preliminary	<input type="checkbox"/> Planning Services (not associated with a permit or review)
<input type="checkbox"/> New Wireless Communication Facility	<input type="checkbox"/> Long Plat- Alteration	<input type="checkbox"/> Zoning Code Text Amendment
	<input type="checkbox"/> Long Plat- Final Plat	<input type="checkbox"/> Request for letter
	VARIANCES (Plus Hearing Examiner Fee)	
	<input type="checkbox"/> Variance	

SITE PLAN



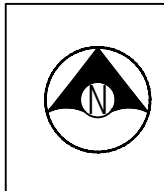
Pin: 258070-0005

Legal Description: FLOODS LAKE SIDE TRS DIV #3 LOT B MERCER ISLAND SHORT PLAT HOLYOKE AF #7507230710 SD PLAT DAF LOT 1 BLK 1 FLOODS LAKE SIDE TRS DIV #3 TGW SH LDS ADJ

Plat Block: 1
Plat Lot: 1

PARCEL
LAT: 47.54198
LONG: -122.21001

DOCK
LAT: 47.541889
LONG: -122.209674



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05
Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

SHEET
1.0
NWS-2022-719
PAGE 1 OF 16

Last Updated: 3/1/2023 4:02 PM Zion

Created:

GENERAL NOTES:

MATERIALS SPEC LIST:

Decking Material: FRPP - Fiberglass reinforced polypropylene

Light permeable percentage:

- * Surface - 43%
- * 18" Dock Height - 61%

Sewer:

- * All sewer is field verified by probing the lake bed manually during the allowed work windows for the area.

Piles:

- * All new piles are epoxy coated steel piles *size varies, see plan set
- * Piles are driven using the vibro method

CODE REFERENCES: Mercer Island

We are applying for the permit to be reviewed under the:

“Alternative Development Standards” per MIMC 19.13050(F)(3).

The code official shall approve moorage facilities not in compliance with the development standards in subsection (F)(1) or (F)(2) of this section subject to both U.S. Army Corps of Engineers and Washington Department of Fish and Wildlife approval to an alternate project design. The following requirements and all other applicable provisions in this chapter shall be met:

i. The dock must be no larger than authorized through state and federal approval; Ch. 19.13 Shoreline Master Program | Mercer Island City Code Page 30 of 34 The Mercer Island City Code is current through Ordinance 20C-13, passed June 16, 2020.

The dock is no longer than authorized.

ii. The maximum width must comply with the width of moorage facilities standards specified in standards specified in subsection D of this section (Table D);

The maximum width is within compliance.

iii. The minimum water depth must be no shallower than authorized through state and federal approval;

The minimum water depth is within compliance.

iv. The applicant must demonstrate to the code official's satisfaction that the proposed project will not create a net loss in ecological function of the shorelands; and

The No Net Loss report is attached.

v. The applicant must provide the city with documentation of approval of the moorage facilities by both the U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife.

The plan set is is review by CORPS and WDFW.

Mitigation" Disturbance of bank vegetation shall be limited to the minimum amount necessary to accomplish the project. Disturbed bank vegetation shall be replaced with native, locally adapted herbaceous and/or woody vegetation. Herbaceous plantings shall occur within 48 hours of the completion of construction. Woody vegetation components shall be planted in the fall or early winter, whichever occurs first. The applicant shall take appropriate measures to ensure revegetation success;

Last permit issued for property: Permit # 0408-290 Sep 29, 2004

Dock established/constructed: 5/1/1967



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

Last Updated: 3/1/2023 4:02 PM Zion

Created:

**SHEET
2.0**

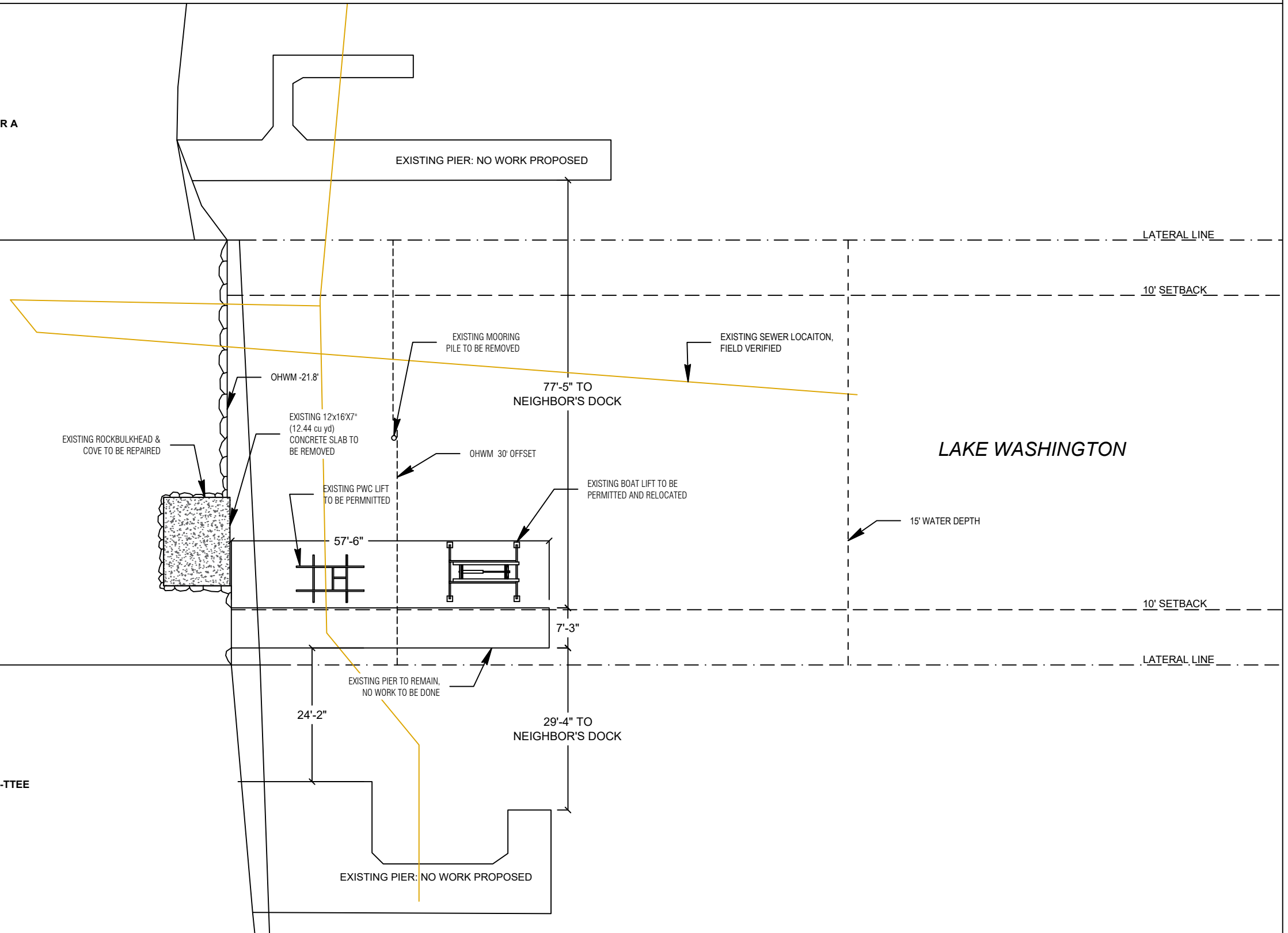
EXISTING CONDITIONS

****CLEAN UP LAKE AROUND PROJECT****

NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

SUBJECT PROPERTY:
Henry Residence
6802 96th Ave SE 98040
Parcel #: 258070-0005

STIVERS JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040



SCALE: 1" = 20'-0"
0' 5' 10' 20'



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05
Adjacent Owners:
STIVERS JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040

SHEET 3.0

NWS-2022-719
PAGE 3 OF 16

Last Updated: 3/1/2023 4:02 PM Zion

Created:

NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

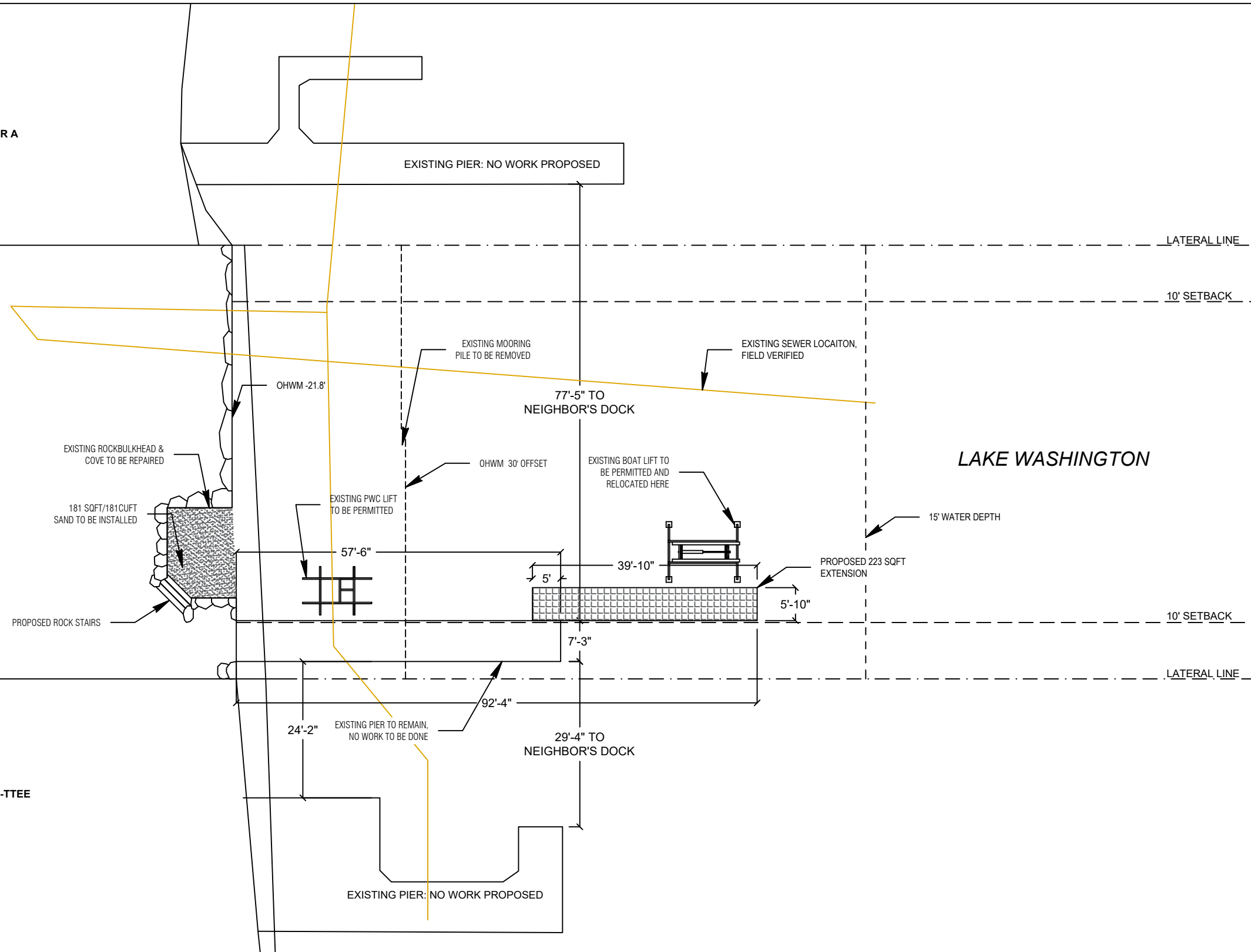
PROPOSED CONDITIONS

****CLEAN UP LAKE AROUND PROJECT****

NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

SUBJECT PROPERTY:
Henry Residence
6802 96th Ave SE 98040
Parcel #: 258070-0005

STIVERS JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040



SCALE: 1" = 20'-0"
0' 5' 10' 20'



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
STIVERS JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040

Last Updated: 3/1/2023 4:02 PM Zion

Created:

SHEET 4.0

PIER DETAILS - EXISTING/PROPOSED PLAN VIEW

LEGEND

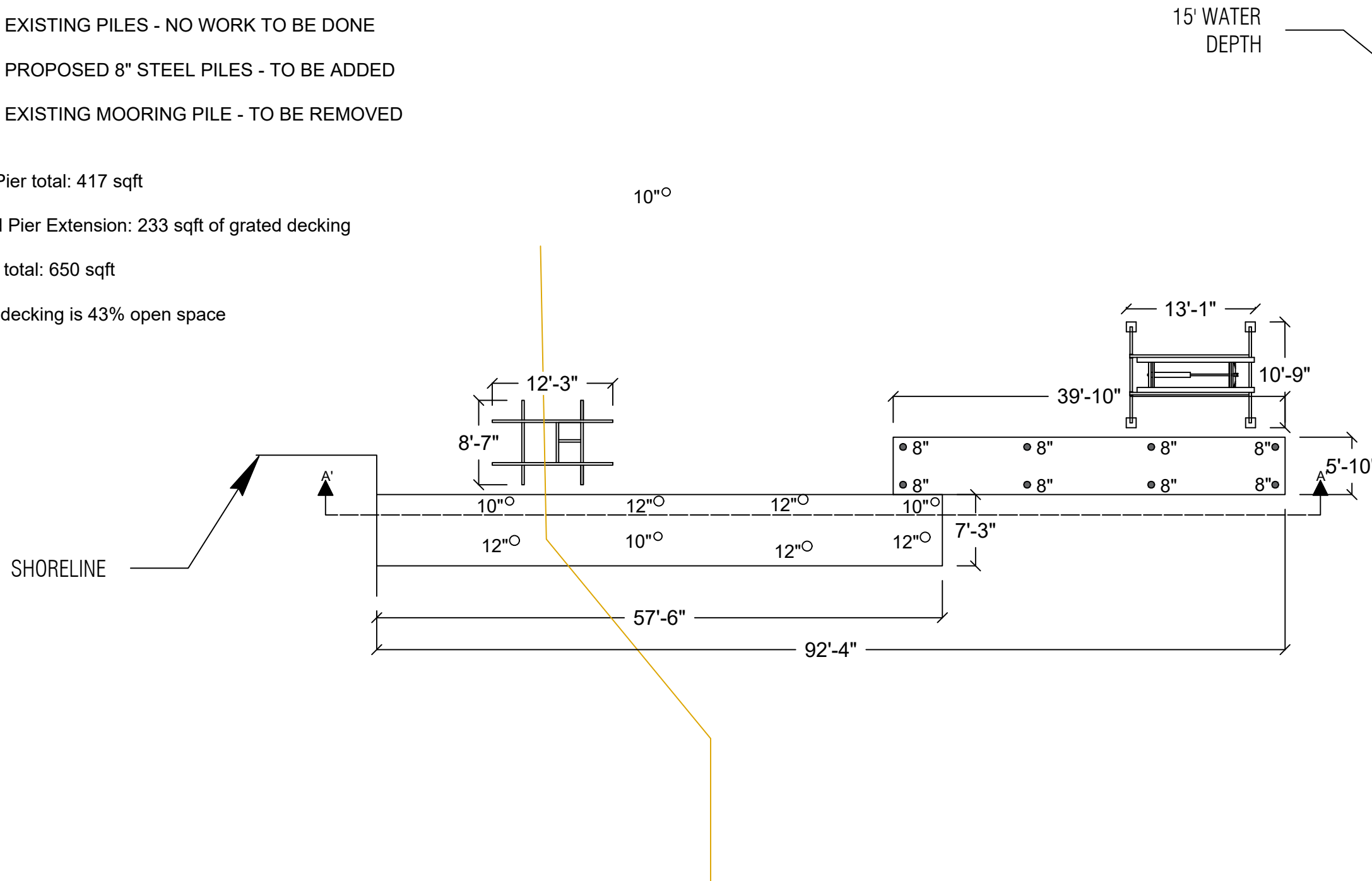
- (8) EXISTING PILES - NO WORK TO BE DONE
- (8) PROPOSED 8" STEEL PILES - TO BE ADDED
- (1) EXISTING MOORING PILE - TO BE REMOVED

Existing Pier total: 417 sqft

Proposed Pier Extension: 233 sqft of grated decking

New Pier total: 650 sqft

**Grated decking is 43% open space



PLAN VIEW



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040

NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

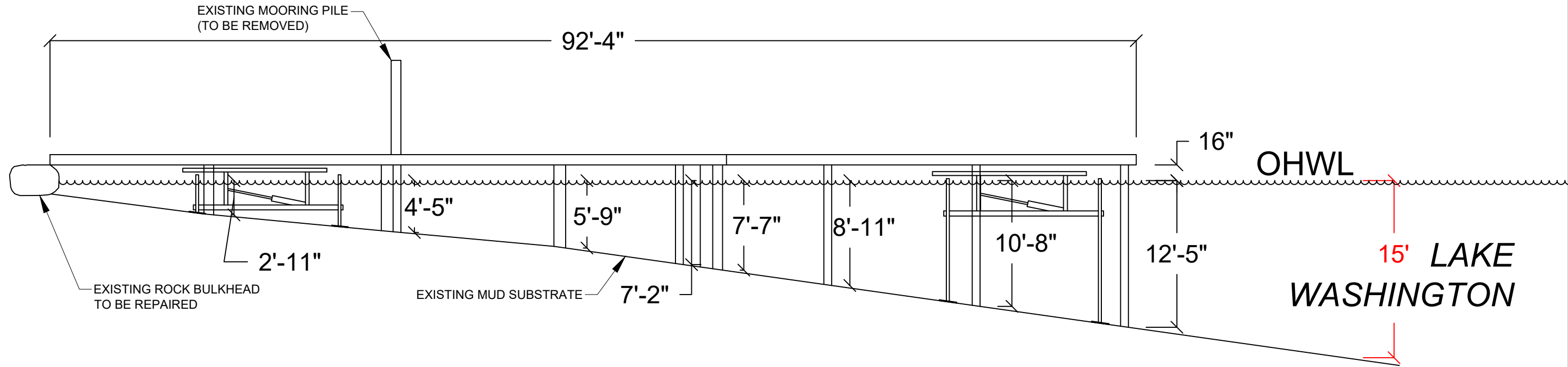
SHEET
5.0

NWS-2022-719
PAGE 5 OF 16

Last Updated: 3/1/2023 4:02 PM Zion

Created:

PIER DETAILS EXISTING/PROPOSED - SECTION VIEW



SECTION VIEW: A'-A'



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05
Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

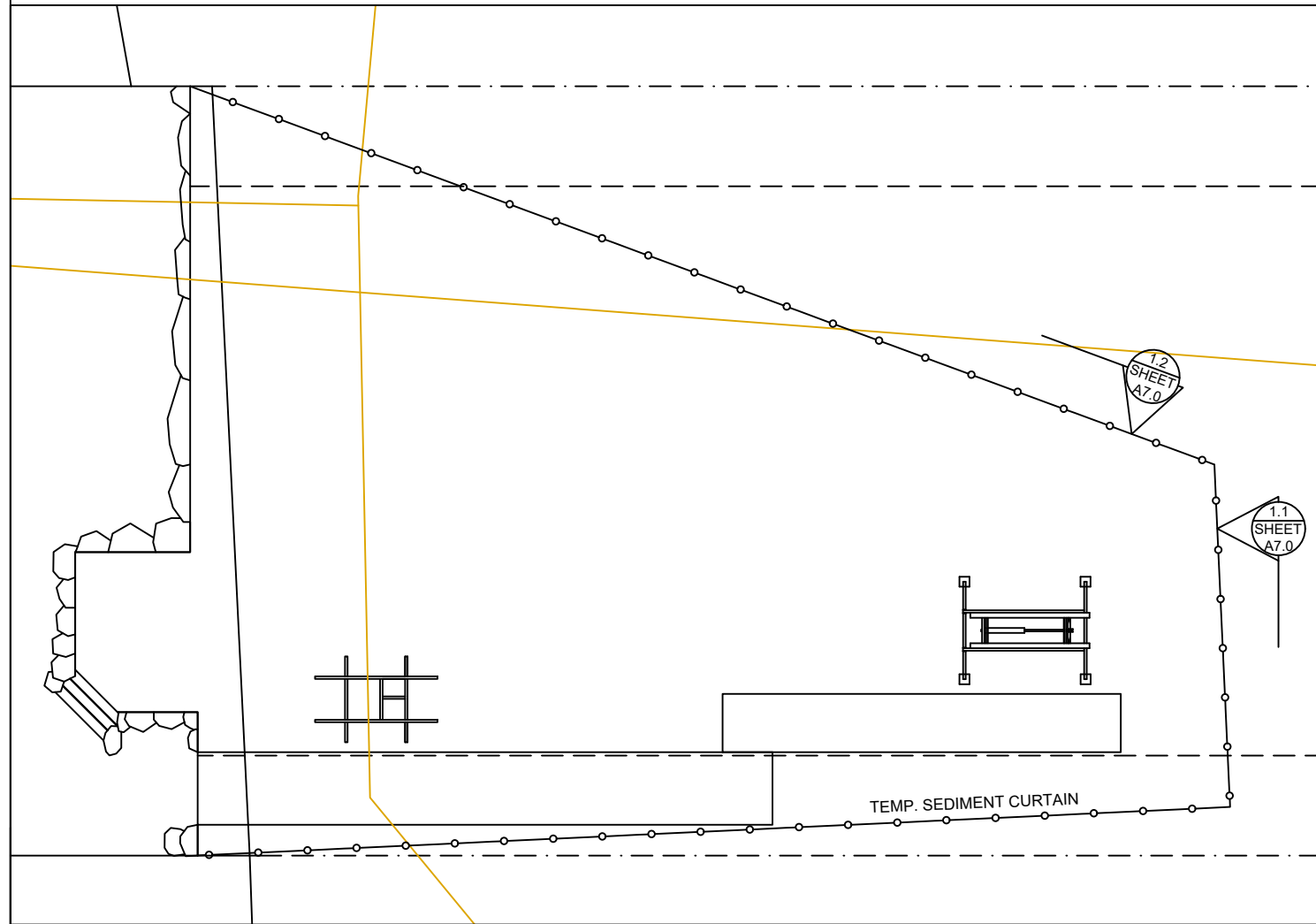
SHEET
6.0

NWS-2022-719
PAGE 6 OF 16

Last Updated: 3/1/2023 4:02 PM Zion

Created:

BMP INFORMATION

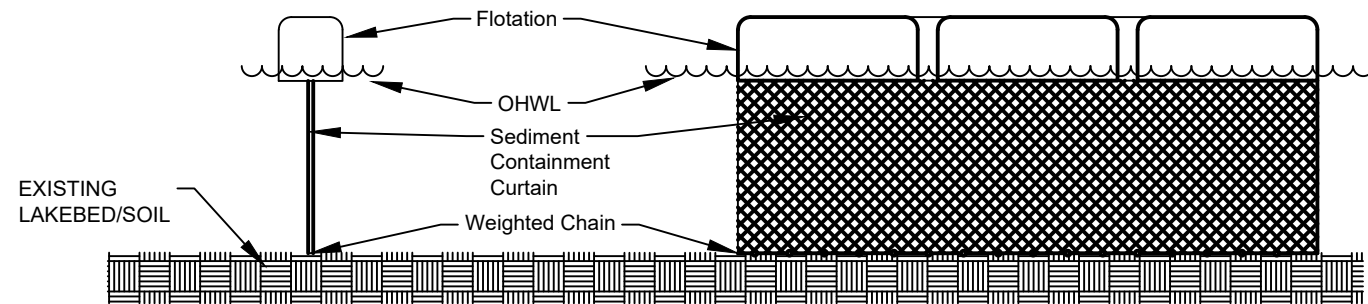


BMP NOTES:

- A. Constant vigilance shall be kept for the presence of protected fish species during all aspects of the proposed action, particularly during in-water activities such as vessel movement, deployment of anchors & spuds, pile driving, dredging, and placement of gravels and other fill.
 1. The project manager shall designate an appropriate number of competent observers to survey the project site and adjacent areas for protected species, including the presence of fish as conditions allow.
 2. Visual surveys shall be made prior to the start of work each day, and prior to resumption of work following any break of more than an hour. Periodic additional visual surveys throughout the work day are strongly recommended.
 3. All in-water work shall be done during the in-water work window for the waterbody. Where there is a difference between the USCOE and WDFW work windows, the overlap of the two shall apply.
 4. All pile driving and extraction shall be postponed or halted when obvious aggregations or schooling of fish are observed within 50 yards of that work, and shall only begin/resume after the animals have voluntarily departed the area.
 5. When piloting vessels, vessel operators shall operate at speeds and power settings to avoid grounding vessels, and minimize substrate scour and mobilization of bottom sediments.
- B. No contamination of the marine environment shall result from project-related activities.
 1. Appropriate materials to contain and clean potential spills shall be stored and readily available at the work site and/or aboard project-related vessels.
 2. The project manager and heavy equipment operators shall perform daily pre-work equipment inspections for cleanliness and leaks. All heavy equipment operations shall be postponed or halted should a leak be detected, and shall not proceed until the leak is repaired and the equipment is cleaned.
 3. To the greatest extent practicable, utilize biodegradable oils for equipment that would be operated in or near water.
 4. Fueling of land-based vehicles and equipment shall take place at least 50 feet away from the water, preferably over an impervious surface. Fueling of vessels shall be done at approved fueling facilities.
 5. Turbidity and siltation from project-related work shall be minimized and contained through the appropriate use of erosion control practices, effective silt containment devices, and the curtailment of work during adverse weather and tidal/flow conditions.
 6. All wastes shall be collected and contained for proper disposal at approved upland disposal sites appropriate for the material(s).
 7. When removing piles and other similarly treated wood, containment curtain must fully enclose the work area. Wood debris, oils, and any other materials released into lake waters must be collected, removed, and properly disposed of at approved disposal sites.
 8. All in- and over-water wood cutting would be limited to the minimum required to remove the subject wood component, and all cutting work should be enclosed within floating containment curtain.
 9. When removing piles, no actions shall be taken that would cause adhering sediments to return to lake waters.
 10. Above-water containment shall be installed around removed piles to prevent sediment laden waters from returning to lake waters.
 11. Construction staging (including stocking of materials, etc.) will occur on the supply barge.
 12. All Exposed wood to be used on the project will be treated with a cheminite treatment.

DETAIL 1.1

DETAIL 1.2



DETAIL 1.1 & 1.2



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

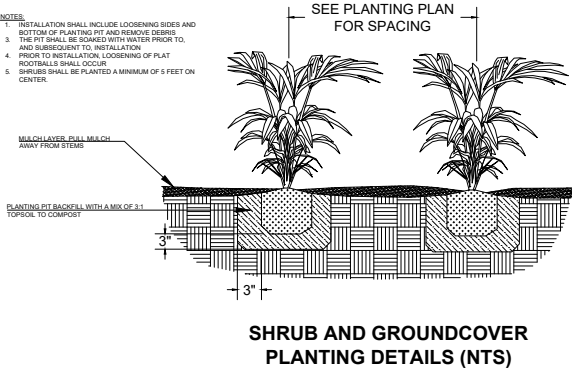
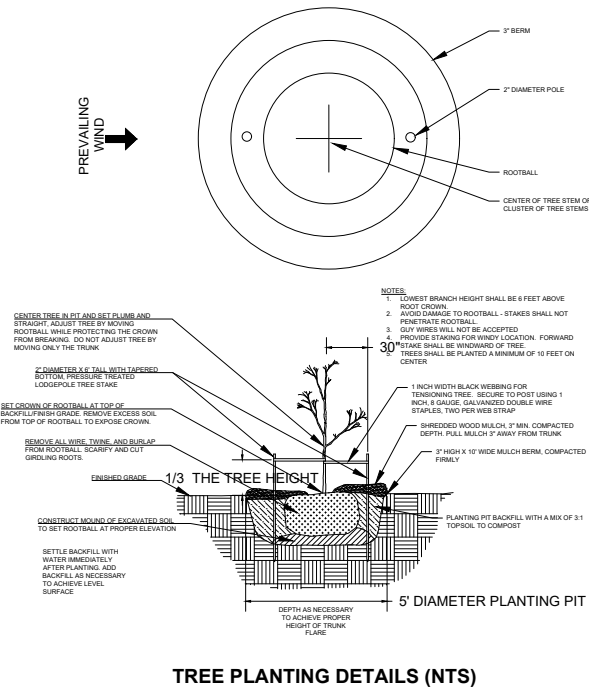
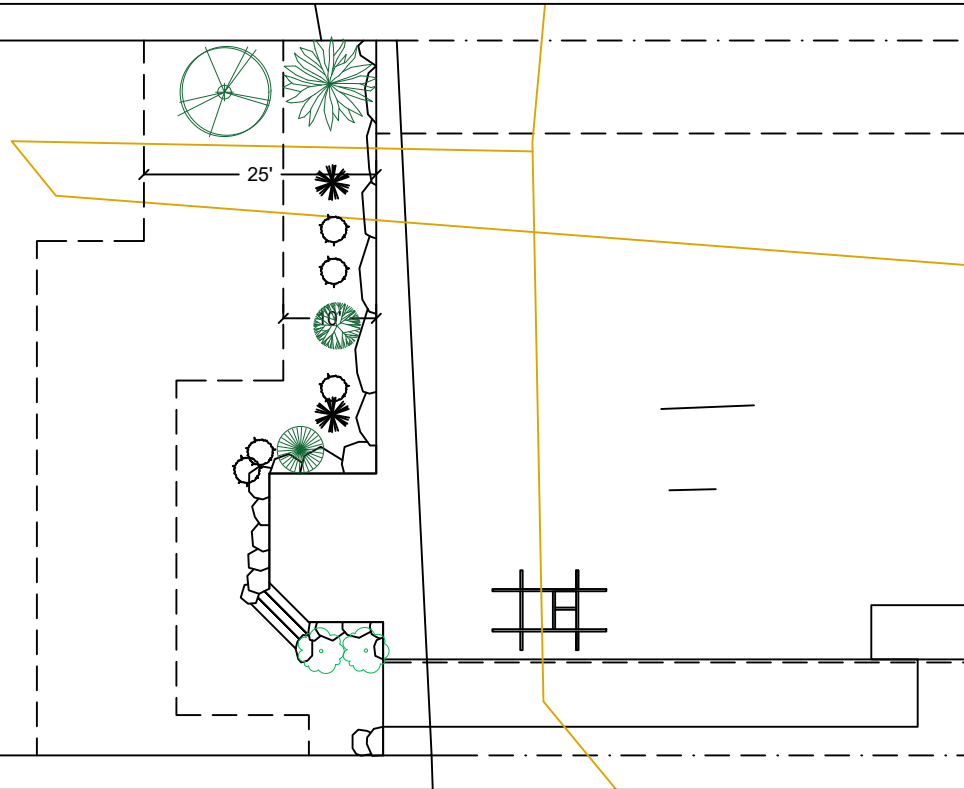
SHEET
7.0

NWS-2022-719
PAGE 7 OF 16

Last Updated: 3/1/2023 4:02 PM Zion

Created:

MITIGATION PLAN



- Notes:**
1. Shrubs are show, and shall be planted, at least five feet on center. Trees are show, and shall be planted, at least ten feet to center.
 2. The property owner will implement and abide by the shoreline planting plan. The plants shall be installed before or concurrent with the work authorized by this permit. A report, as-built drawing and photographs demonstrating the plants have been installed or a report on the status of project construction will be submitted to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch, within 12 months from the date of permit issuance. This reporting requirement may be met by completing and submitting a U.S. Army Corps of Engineers approved Report for Mitigation Work Completion form.
 3. The property owner will maintain and monitor the survival of installed shoreline plantings for five years after the U.S. Army Corps of Engineers accepts the as-built report. Installed plants shall achieve 100% survival during monitoring Years 1 and 2. Installed plants shall achieve at least 80% survival during monitoring Years 3, 4 and 5. Percent survival is based on the total number of plants installed in accordance with the approved riparian planting plan. Individual plants that die will be replaced with native riparian species in order to meet the survival performance standards.
 4. The property owner will provide annual monitoring reports for five years (Monitoring Years 1-5). Each annual monitoring report will include written and photographic documentation on plant mortality and replanting efforts and will document whether the performance standards are being met. Photos will be taken from established points and used repeatedly for each monitoring year. In addition to photos at designated points, photo documentation will include a panoramic view of the entire planting area. Submitted photos will be formatted on standard 8 1/2 x 11" paper, dated with the date the photo was taken, and clearly labeled with the direction from which the photo was taken. The photo location points will be identified on an appropriate drawing. Annual shoreline planting monitoring reports will be submitted to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch, by November 31 of each monitoring year. This reporting requirement may be met by completing and submitting a U.S. Army Corps of Engineers approved Mitigation Planting Monitoring Report form.

PROPOSED PLANTING SPECIES/QUANTITIES

SYMBOL	LATIN NAME	COMMON NAME	QTY	SIZE
	Pinaceae Menziesii	Douglas Fir	1	3 ft
	Pinus contorta v contorta	Shore pine	1	3 ft
	Philadelphus lewisii	Mock Orange	1	1 Gallon
	Acer Circinatum	Vine Maple	1	1 Gallon
	Rubus Parviflorus	Thimbleberry	2	1 Gallon

PLANTS: Shrubs to be installed 5ft on center and trees to be installed 10ft on center. All proposed existing plants for credit have been established for 5 years or more on the property.

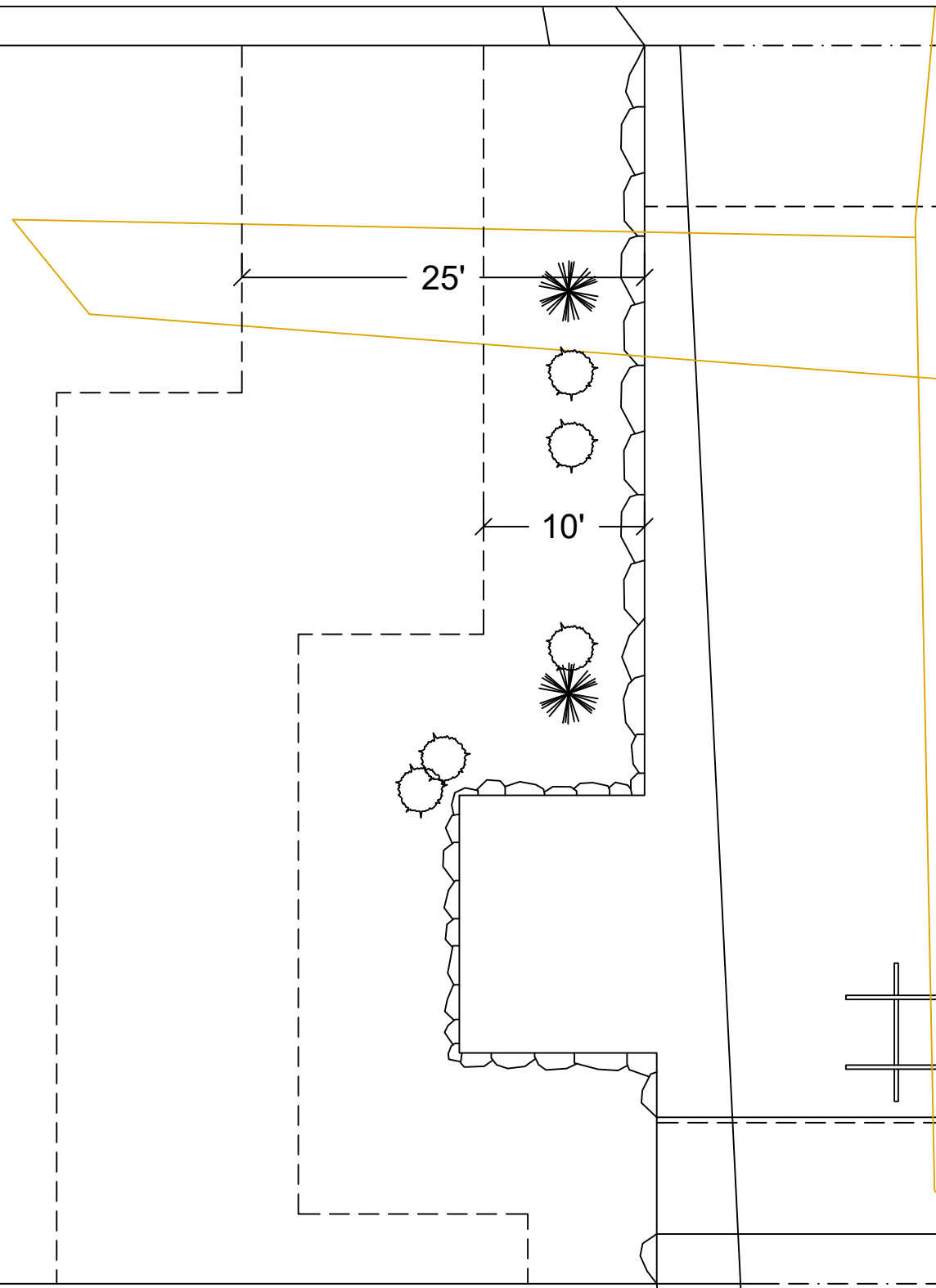


Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119
Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

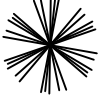
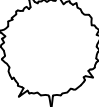
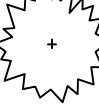
Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington
Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040
Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05
Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040
Created:
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040
Last Updated: 3/1/2023 4:02 PM Zion
SHEET
8.0
NWS-2022-719
PAGE 8 OF 16

EXISTING PLANT PLAN



EXISTING PLANTING SPECIES/QUANTITIES

SYMBOL	SCIENTIFIC NAME	COMMON NAME	QTY	SIZE
	Cichorium Intybus	Common Chicory	2	~3ft
	Hemerocallis Fulva	Orange Daylily	4	~2ft
	Festuca Glauca	Blue Fescue	N/A	~ 1ft

PLAN VIEW

EXISTING PLANTS TABLE



Seaborn Pile Driving
 1080 W Ewing St
 Seattle, WA 98119
 Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
 Location: Lake Washington
 Applicant: Henry Residence
 6802 96TH AVE SE
 Mercer Island, WA 98040
 Datum: CORPS OF ENGINEERS 1919
 NE Quarter Of Section 30, Township 24, Range 05
 Adjacent Owners:
 STIVERS, JEAN GILLILAND-TTEE
 6810 96TH AVE SE 98040
 NIEDERMAN CHRISTOPHER A
 6800 96TH AVE SE 98040
 Created:
 Last Updated: 3/1/2023 4:02 PM Zion

SHEET
9.0

GENERAL ENGINEERING NOTES:

GENERAL

- ALL CONSTRUCTION SHALL CONFORM TO THESE PLANS.
- CONTRACTOR SHALL VERIFY ALL LEVELS, DIMENSIONS, AND EXISTING CONDITIONS IN THE FIELD BEFORE PROCEEDING. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR FIELD CHANGES PRIOR TO INSTALLATION OR FABRICATION. IN CASE OF DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THE DRAWINGS, THE CONTRACTOR SHALL OBTAIN DIRECTION FROM THE ENGINEER BEFORE PROCEEDING. DIMENSIONS NOTED AS PLUS OR MINUS (\pm) OR REF INDICATE UNVERIFIED DIMENSIONS AND ARE APPROXIMATE. NOTIFY ENGINEER IMMEDIATELY OF CONFLICTS OR EXCESSIVE VARIATIONS FROM INDICATED DIMENSIONS, NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS – DO NOT SCALE DRAWINGS. DIMENSIONS OF EXISTING CONDITIONS ARE BASED ON RECORD DRAWINGS AND ARE TO BE FIELD-VERIFIED BY THE CONTRACTOR.
- CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS AND EXISTING MEMBERS, AS REQUIRED, AND IN A MANNER SUITABLE TO WORK SEQUENCE. TEMPORARY SHORING AND BRACING SHALL NOT BE REMOVED UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE DRAWINGS AND MATERIALS HAVE ACHIEVED DESIGN STRENGTH.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES REQUIRED TO PERFORM THE WORK.
- ALL MATERIALS SHALL BE NEW, UNO.
- ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE DRAWINGS, NOTES, AND MANUFACTURER RECOMMENDATIONS. IF THERE ARE ANY CONFLICTS BETWEEN THESE DOCUMENTS, THE ENGINEER SHALL BE CONTACTED FOR DIRECTION.
- THE CONTRACTOR SHALL CAREFULLY DECONSTRUCT EXISTING ELEMENTS AS NECESSARY TO ACCESS THE WORK AREAS. SUCH DECONSTRUCTION MAY INCLUDE, INTERIOR AND EXTERIOR FINISHES. ALL DECONSTRUCTION ELEMENTS SHALL BE RECONSTRUCTED TO MATCH THE ORIGINAL APPEARANCE AND MEET THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.
- ALL MOORAGE COVERS AND LIFTS SHALL BE FREESTANDING AND SHALL NOT BE ATTACHED TO THE DOCK, UNLESS NOTED OTHERWISE.

CODES AND STANDARDS

- ALL METHODS AND MATERIALS SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE, 2018 EDITION.
- AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
- WOOD WORK SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION (NDS) 2018 EDITION.
- AMERICAN SOCIETY FOR TESTING AND MATERIALS, CURRENT EDITION

DESIGN CRITERIA

WIND DESIGN: WIND LOAD IS BASED ON ASCE 7 CHAPTER 29 WITH THE FOLLOWING FACTORS

EXPOSURE CATEGORY = D RISK CATEGORY = II
 $V_{3s} = 98\text{MPH}$ WIND IMPORTANCE FACTOR, $I_w = 1.0$

DESIGN VESSEL IS 30' LONG WITH AVERAGE FREEBOARD OF 11'-6"
 DESIGN VESSEL IS 60' LONG WITH AVERAGE FREEBOARD OF 14'

WAVE LOADS: $P = 328\text{ LBS}$

LIVE LOADS: LIVE LOAD = 40 PSF
 SNOW LOAD = 25 PSF

SEISMIC LOADS: DOCK PILING $R = 2.0$
 SEISMIC IMPORTANCE = 1.0
 $SD_1 = 0.595g$

STRUCTURAL STEEL

- ALL MISCELLANEOUS STEEL SHAPES AND PLATES, EXCEPT AS NOTED BELOW, SHALL CONFORM TO ASTM 36.
- ALL WF SHAPES SHALL CONFORM TO ASTM A992, $F_y = 50\text{ KSI}$
- ALL PILES SHALL CONFORM TO ASTM A252 GRADE 3, $F_y = 45\text{ KSI}$
- ALL BOLTS SHALL BE ASTM A307, UNO.
- ALL NUTS SHALL BE ASTM A563, UNO.
- ALL WASHERS SHALL BE ASTM F436, UNO.
- ALL THREADED RODS SHALL CONFORM TO ASTM F1554, GRADE 36.
- ALL STEEL MEMBERS AND FASTENERS THAT ARE NOT EPOXY COATED SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 AS APPLICABLE.

WELDING

- ALL WELDING SHALL BE PERFORMED BY WELDERS QUALIFIED FOR THE WELD AND POSITION SHOWN IN ACCORDANCE WITH AWS AND HAVING CURRENT CERTIFICATION FROM WABO.
- ALL WELDS SHALL BE PERFORMED WITH PROCEDURES PREQUALIFIED OR QUALIFIED IN ACCORDANCE WITH AWS D1.1.
- THE WELDS SHOWN ARE FOR THE FINAL CONNECTIONS, FIELD WELD SYMBOLS ARE SHOWN WHERE FIELD WELDS ARE REQUIRED BY THE STRUCTURAL DESIGN. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING IF A WELD SHOULD BE SHOP OR FIELD WELDED IN ORDER TO FACILITATE THE STRUCTURAL STEEL ERECTION.
- WELDING ELECTRODES SHALL BE 70 KSI STRENGTH AND SHALL BE "LOW-HYDROGEN ELECTRODES."

WOOD

- EACH PIECE OF LUMBER SHALL BEAR A STAMP INDICATING A GRADE MARK OF THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB), WESTERN WOOD PRODUCTS ASSOCIATION (WWPA), OR OTHER AGENCY ACCREDITED BY THE AMERICAN STANDARD COMMITTEE (ALSC).
- DIMENSION LUMBER SHALL BE P.T. DOUG-FIR NO 2 OR BETTER, UNLESS NOTED OTHERWISE.
- STRUCTURAL GLUED LAMINATED TIMBER SHALL BE ALASKAN CEDAR AC.AC 20F-V12.
- WOOD SHALL BE SEASONED DRY WITH A MAXIMUM MOISTURE CONTENT OF 19%.
- PRESERVATIVE TREATED WOOD SHALL CONFORM TO THE AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) UC4A. ALL WOOD SHALL BEAR A TREATMENT IDENTIFICATION MARK BY THE CERTIFYING AGENCY.
- ALL BOLT HOLES IN WOOD MEMBERS SHALL BE A MINIMUM OF 1/32" TO MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER. PROVIDE PLATE WASHERS WHERE NUTS, BEAR ON WOOD. CUT WASHERS SHALL MEASURE 2 1/4" ϕ x 3/16" THICK.

GRATING

- DECK GRATING SHALL BE SUNWALK 90 SERIES OR APPROVED EQUAL.

ABBREVIATIONS

⊙	AT
AWS	AMERICAN WELDING SOCIETY
CL	CENTER LINE
CLR	CLEAR
COL	COLUMN
CONT.	CONTINUOUS
DF	DOUG FIR
EA	EACH
EX OR (E)	EXISTING
GLB	GLULAM BEAM
LLH	LONG LEG HORIZONTAL
MIN	MINIMUM
MNFR	MANUFACTURER
OC	ON CENTER
OPP	OPPOSITE
PL	PLATE
PSI	POUNDS PER SQUARE INCH
PSF	POUNDS PER SQUARE FOOT
P.T.	PRESERVATIVE TREATED
SF	SQUARE FOOT
REF	REFERENCE
SIM	SIMILAR
SS	STAINLESS STEEL
t	THICK
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
WABO	WASHINGTON ASSOCIATION OF BUILDING OFFICIALS
WF	WIDE FLANGE
W/	WITH

Datum: CORPS OF ENGINEERS 1919
 NE Quarter Of Section 30, Township 24, Range 05

County: King County

Location: Lake Washington

Applicant: Henry Residence
 6802 96TH AVE SE
 Mercer Island, WA 98040

Adjacent Owners:
 STIVERS, JEAN GILLILAND-TTEE
 6810 96TH AVE SE 98040

NIEDERMAN CHRISTOPHER A
 6800 96TH AVE SE 98040

Created: 3/1/2023 4:02 PM Zion



Seaborn Pile Driving
 1080 W Ewing St
 Seattle, WA 98119

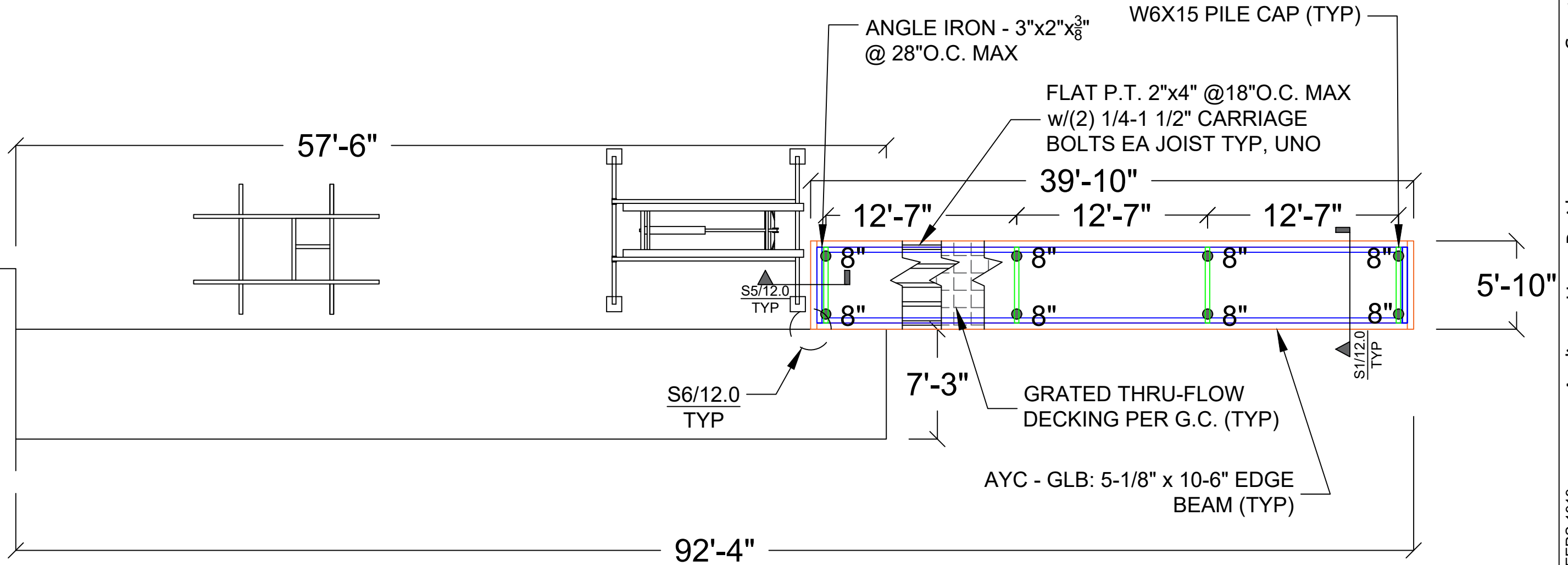
Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

SHEET
10.0

NWS-2022-719
 PAGE 10 OF 16

FRAMING PLAN



County: King County
 Location: Lake Washington

Applicant: Henry Residence
 6802 96TH AVE SE
 Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
 NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
 STIVERS, JEAN GILLILAND-TTEE
 6810 96TH AVE SE 98040

NIEDERMAN CHRISTOPHER A
 6800 96TH AVE SE 98040

Created:

Last Updated: 3/1/2023 4:02 PM Zion



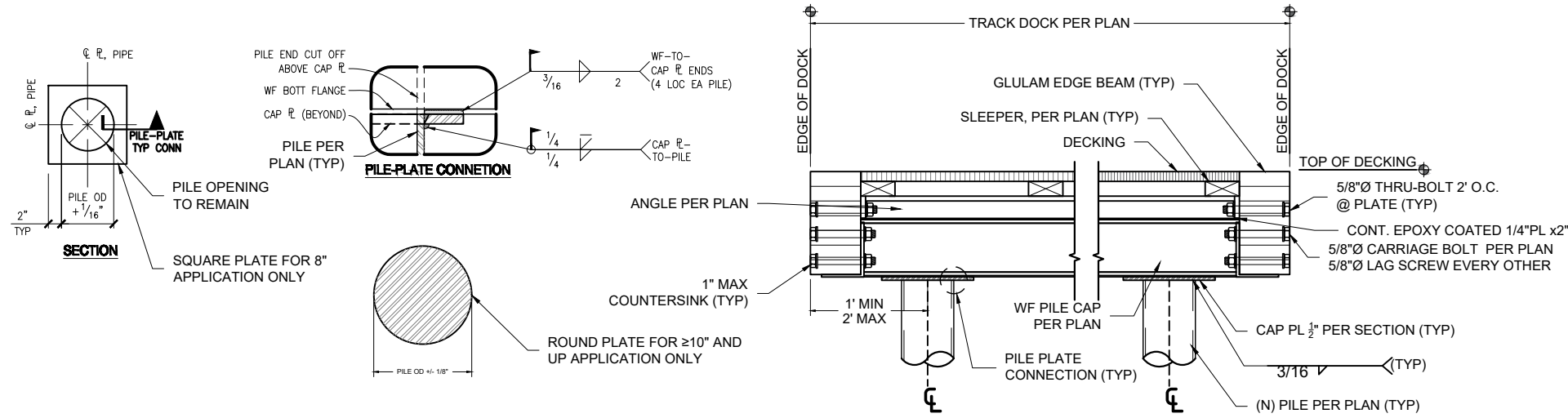
Seaborn Pile Driving
 1080 W Ewing St
 Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

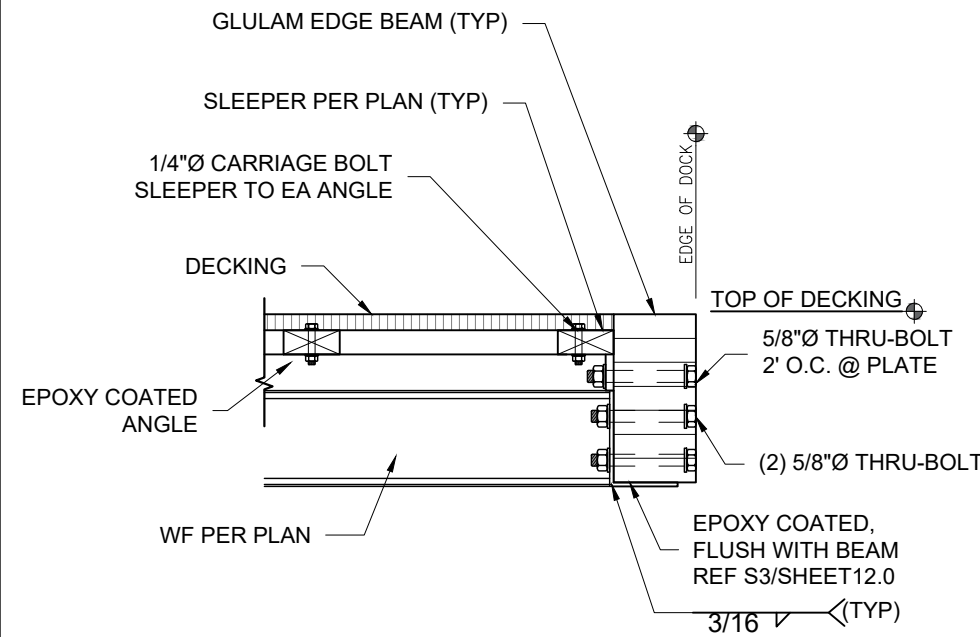
SHEET
11.0

DETAILS - TRACK

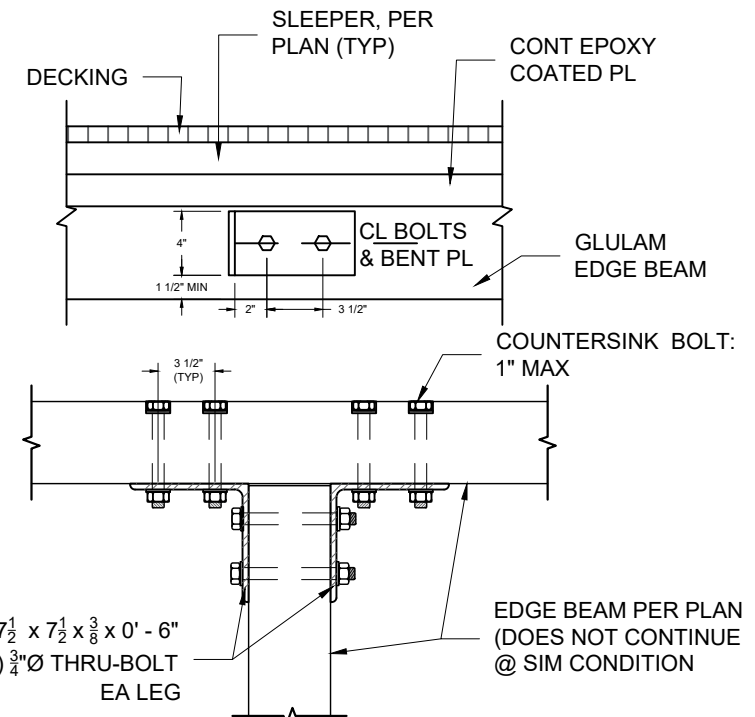


S1 DOCK SECTION w/PILES - TYP
SCALE: 1" = 1'

S3 DETAIL NOT IN USE



S5 EDGE SECTION (STEEL TRACK) - TYP
SCALE: 1" = 1'



S6 BEAM TO BEAM - TYP
SCALE: 1" = 1'

S4 DETAIL NOT IN USE



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040

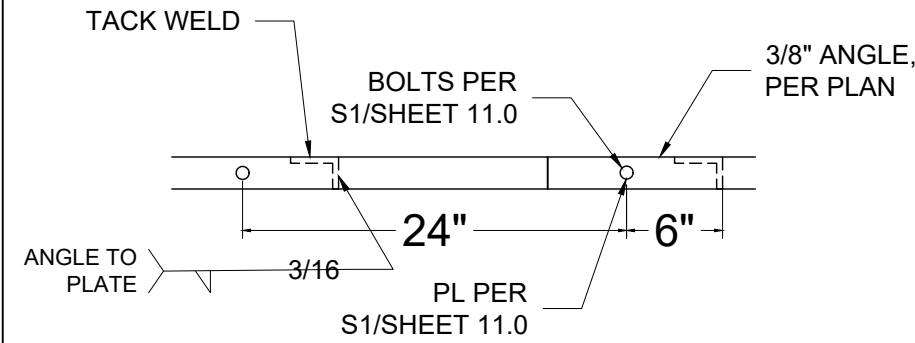
Created:

Last Updated: 3/1/2023 4:02 PM Zion

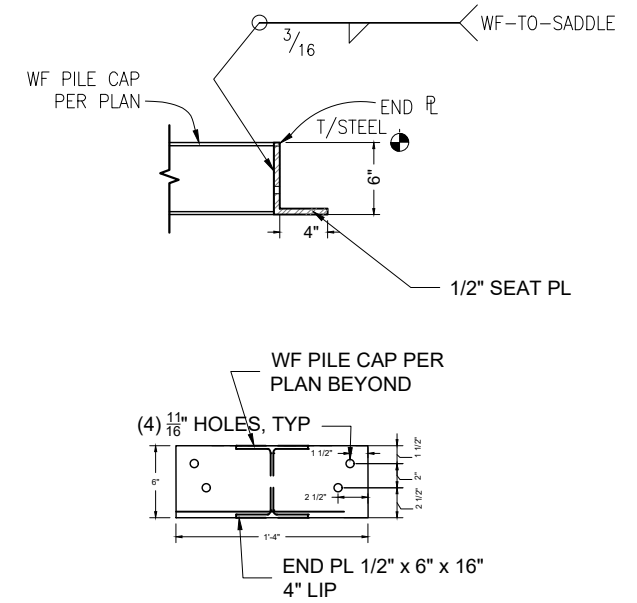
SHEET
12.0

DETAILS - TRACK

S1 DETAIL NOT IN USE



S2 ANGLE TO PLATE - TYP
SCALE: 1" = 1"



S3 BEAM SADDLE BRACKET
SCALE: 3/4" = 1"

S4 DETAIL NOT IN USE

S5 DETAIL NOT IN USE

S6 DETAIL NOT IN USE



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

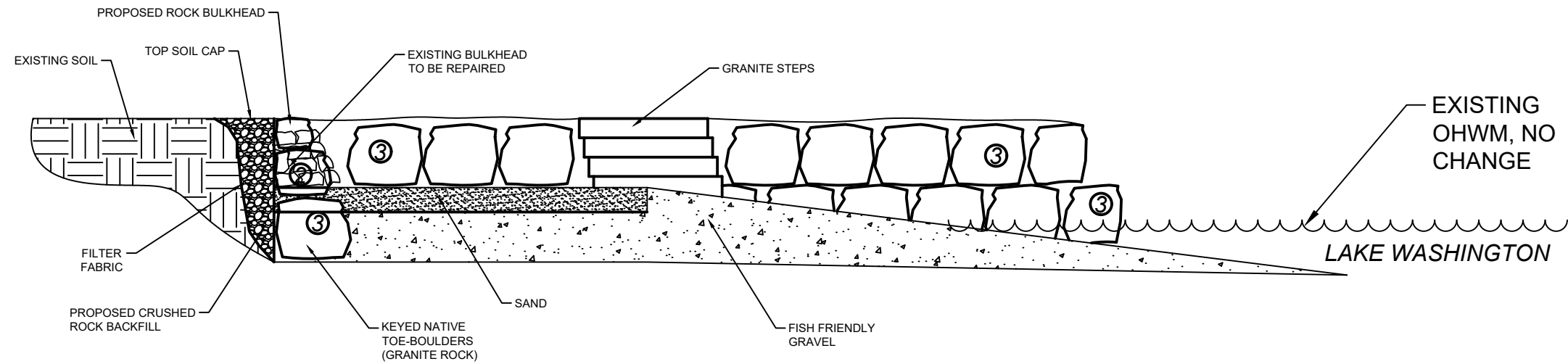
SHEET
13.0

NWS-2022-719
PAGE 13 OF 16

Created:

Last Updated: 3/1/2023 4:02 PM Zion

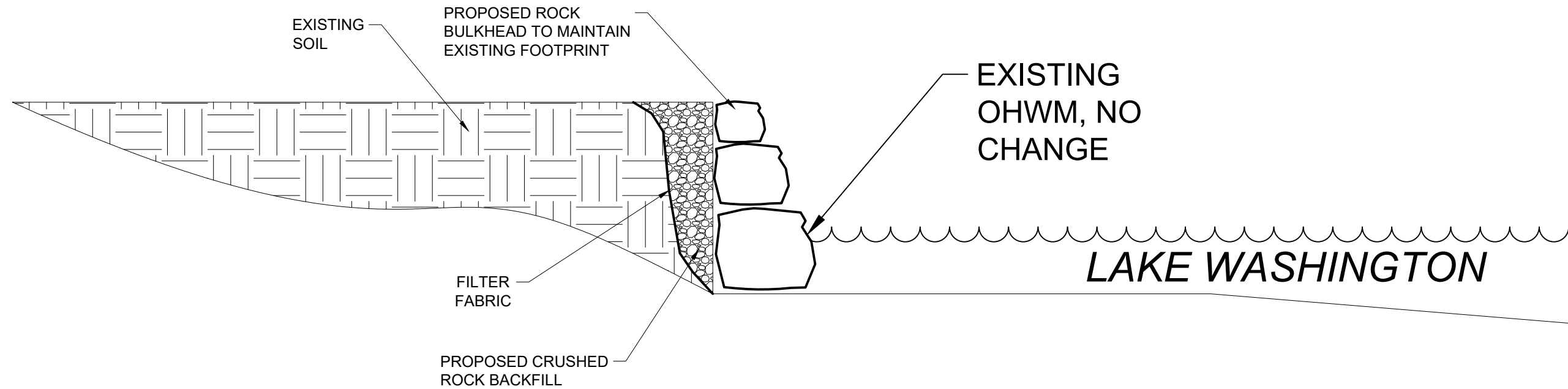
DETAILS- COVE



LEGEND

- S1 BULKHEAD W/ COVE AND STEPS
SCALE: NTS
- ② SIZE OF ROCK (2 MAN)
- ③

COVE AND BEACH SECTION VIEW



S2 BULKHEAD SECTION VIEW
SCALE: NTS



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040

Last Updated: 3/1/2023 4:02 PM Zion

Created:

SHEET
14.0

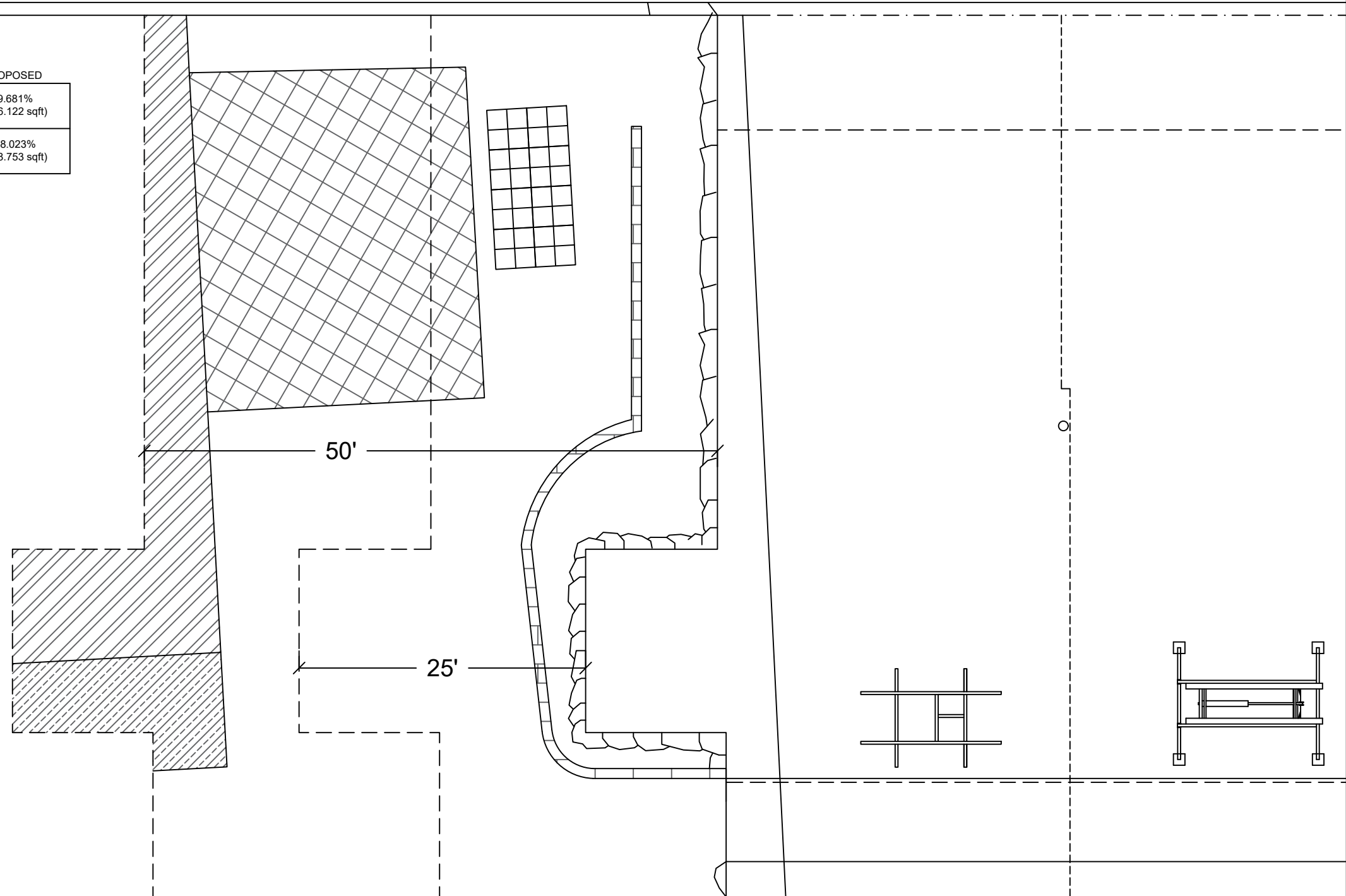
EXISTING HARDSCAPE CALCULATION DRAWING

Allowed Hardscape Quantities

SETBACK (total sqft)	ALLOWED	CURRENTLY USED	REMOVING	PROPOSED
0' - 25' SETBACK (1,922.577 sqft)	10% (192.258 sqft)	20.497% (394.075 sqft)	10.816% (207.953 sqft)	9.681% (186.122 sqft)
25' - 50' SETBACK (1,922.577 sqft)	30% (576.773 sqft)	58.988% (1134.092 sqft)	30.966% (595.339 sqft)	28.023% (538.753 sqft)

LEGEND

DESCRIPTION	AREA	HATCH
PATIO (25' SETBACK)	111.186 sqft	
RETAINING WALL (25' SETBACK)	65.919 sqft	
ROCK BULKHEAD (25' SETBACK)	120.203 sqft	
STEPPING STONES (25' SETBACK)	96.767 sqft	
DECK (50' SETBACK) (PERMIT SHL07-018)	398.986 sqft	
STEPS (50' SETBACK) (PERMIT SHL07-018)	139.767 sqft	
PATIO (50' SETBACK)	595.339 sqft	



County: King County
Location: Lake Washington
Applicant: Henry Residence
 6802 96TH AVE SE
 Mercer Island, WA 98040
Datum: CORPS OF ENGINEERS 1919
 NE Quarter Of Section 30, Township 24, Range 05
Adjacent Owners:
 STIVERS, JEAN GILLILAND-TTEE
 6810 96TH AVE SE 98040
 NIEDERMAN CHRISTOPHER A
 6800 96TH AVE SE 98040
Created: Last Updated: 3/1/2023 4:02 PM Zion



Seaborn Pile Driving
 1080 W Ewing St
 Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.


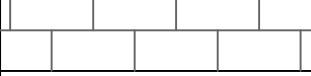

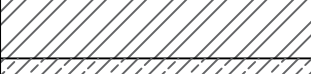

SHEET
15.0

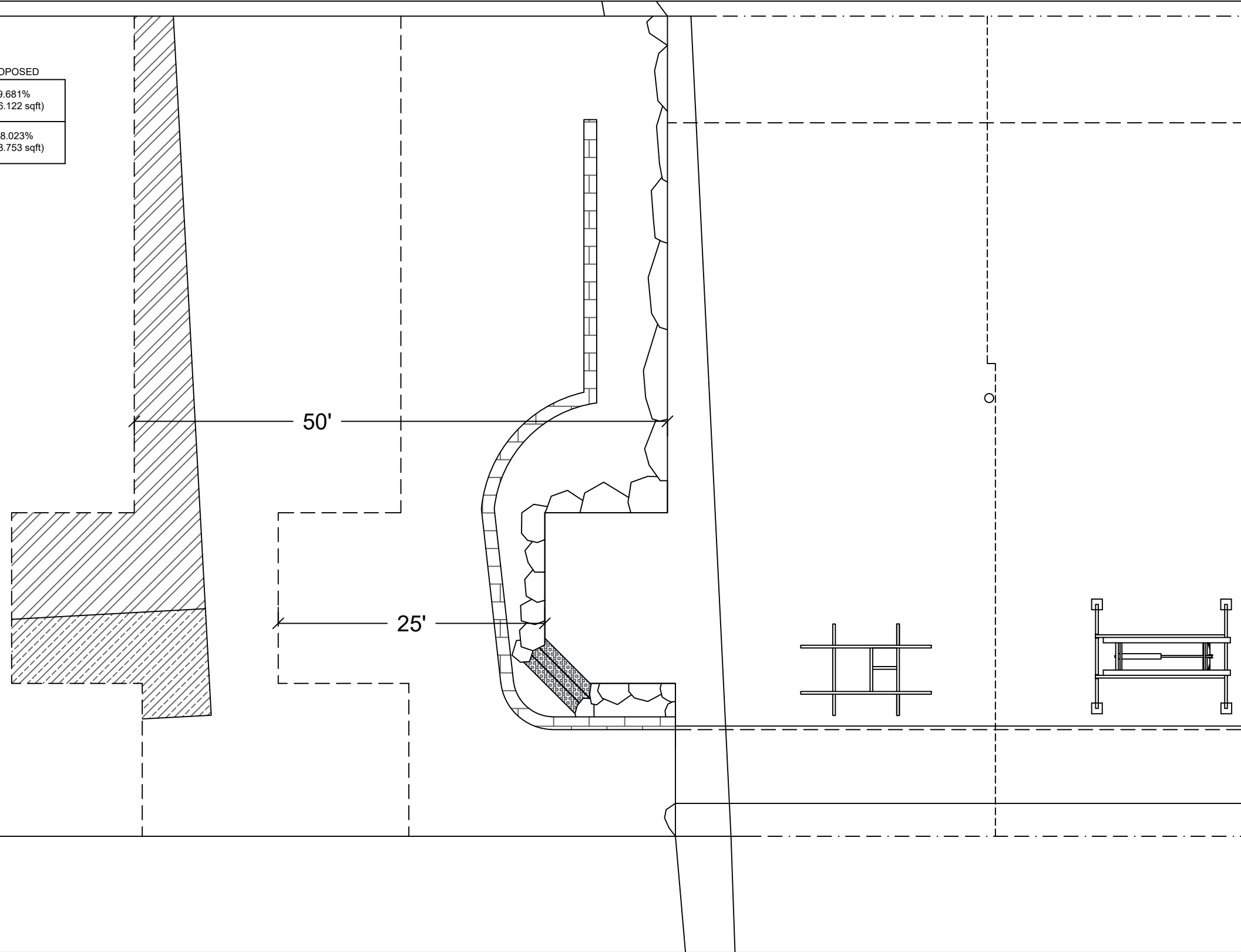
PROPOSED HARDSCAPE CALCULATION DRAWING

Allowed Hardscape Quantities

SETBACK (total sqft)	ALLOWED	CURRENTLY USED	REMOVING	PROPOSED
0' - 25' SETBACK (1,922.577 sqft)	10% (192.258 sqft)	20.497% (394.075 sqft)	10.816% (207.953 sqft)	9.681% (186.122 sqft)
25' - 50' SETBACK (1,922.577 sqft)	30% (576.773 sqft)	58.988% (1134.092 sqft)	30.966% (595.339 sqft)	28.023% (538.753 sqft)

LEGEND

DESCRIPTION	AREA	HATCH
BULKHEAD STEPS (25' SETBACK)	19.086 sqft	
RETAINING WALL (25' SETBACK)	65.919 sqft	
ROCK BULKHEAD (25' SETBACK)	101.117 sqft	
DECK (50' SETBACK) (PERMIT SHL07-018)	398.986 sqft	
STEPS (50' SETBACK) (PERMIT SHL07-018)	139.767 sqft	



County: King County
Location: Lake Washington
Applicant: Henry Residence
 6802 96TH AVE SE
 Mercer Island, WA 98040
Datum: CORPS OF ENGINEERS 1919
 NE Quarter Of Section 30, Township 24, Range 05
Adjacent Owners:
 STIVERS, JEAN GILLILAND-TTEE
 6810 96TH AVE SE 98040
 NIEDERMAN CHRISTOPHER A
 6800 96TH AVE SE 98040
Created: 3/1/2023 4:02 PM Zion



Seaborn Pile Driving
 1080 W Ewing St
 Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

SHEET
16.0

Applicant Information

Project Address: 6802 96th Ave SE, Mercer Island, WA 98040

Parcel Number: 258070-0005

Applicant: Seaborn Pile Driving Company, 1080 W Ewing St Building B, Seattle, WA 98119
206-236-1700

Property Owner: Jenn Henry

Legal Description: FLOODS LAKE SIDE TRS DIV #3 LOT B MERCER ISLAND SHORT PLAT HOLYOKE AF #7507230710 SD PLAT DAF LOT 1 BLK 1 FLOODS LAKE SIDE TRS DIV #3 TGW SH LDS ADJ

Description of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

Job specific comments

Purpose

The proposed dock is to provide for safe boat moorage and safe water recreational activities for a single-family residence.

Habitat Enhancement

The proposed planting plan has been designed to mitigate for the existing and proposed pier.

Water Quality

In order to prevent debris from entering the lake during the demolition stage of the project, a containment boom will surround the crane barge and work area.

Permits

Mercer Island SSDP w/ SEPA:

We are applying for the permit to be reviewed under the:

“Alternative Development Standards” per (MICC) 19.13.050(F)(3)

“Bulkheads and shoreline stabilization structures” per (MICC) 19.13.050.B

Mitigation

Shoreline Plantings: The shoreline plantings have been designed to provide the spread of tree and shrub nutrients into the adjacent waters of Lake Washington.

Fully grated deck: The proposed extension dock will have a fully grated deck to provide light penetration below the dock where there is no light penetration with the existing structure.

Contractor: Seaborn Pile Driving Company License #: SEABOPD942CG

Address: 1080 W Ewing St. Bldg B. Seattle WA 98119

Office: 206.236.1700

Mobile: 253-459-3267

Contact: Madison Johnson

Email: permits@seabornpiledriving.com

Construction Narrative

Mobilization

Mobilize crew, crane barge, supply and debris barges, and materials on site

Pile Driving

1. Set out a Sediment Containment Curtain around the work area waterward of the bulkhead to contain any silt and debris that may be generated during construction.
2. Locate the new piles to be driven per the building permit drawings.
3. Using the crane and a vibro-hammer, drive the piles to required refusal.
4. Cut the piles to elevation.
5. Clean the work area and remove the sediment curtain.

Dock construction (Track Dock)

1. Set out a Sediment Containment Curtain around the work area waterward of the bulkhead to contain any silt and debris that may be generated during construction.
2. Install new piles where applicable.
3. Install new steel I-beam pile caps and attach to the piles by welding.
4. Install metal brackets on edge of cap by welding them to I-beam to support glulam beams.
5. Install dock section made of Glulam Beams and angle iron framing with 2x4 nailers to support the Surestep decking
6. Install electrical conduit and water lines under the deck along the dock. Wiring and re-connection to be completed by others.
7. Install the SunWalk grating with stainless steel screws making sure the screws are aligned and flush with the surface.
8. Install any boat or PWC lifts.
9. Clean the work area and remove the sediment curtain.

Rock Bulkhead Repair

1. Set out a Sediment Containment Curtain around the work area waterward of the bulkhead to contain any silt and debris that may be generated during construction.

2. Remove soil and material from behind the bulkhead.
3. Install filter fabric into the excavated area and backfill with 2" – 4" cleaned crushed rock, and then envelope with the filter fabric.
4. Finish with 10" – 12" of topsoil and blend into the existing elevation.
5. Clean the work area and remove the silt fence/boom.

Structural Notes

General

- All materials, workmanship, design, and construction shall conform to the submitted drawings and the International Building Code.
- The contractor will be responsible for all safety precautions and methods and processes to perform the designated work.

Design Criteria

- The existing design and construction meets the live load specification of a minimum of 40 PSF.

Materials

All materials used in the construction of the dock will be for use on the water and of the highest quality available on the market. All materials will conform to the International Building Code.

For example:

- Wood piles and pile stubs. The proposed wood pile will be Class B (12" @ 3' from Butt) – 40' Douglas Fir pilings per ASTM D-25.
- Steel piles/ Sleeves – ASTM A53 GrB with Devran 261QC low temperate cure epoxy (16 mils) finish coated full length.
- Structural Lumber – All lumber will be graded and marked in conformance with WCLIB standard grading rules.
- Fasteners – All fasteners, bolts, nuts and nails will be epoxy-coated.
- Decking – The decking will consist of fiberglass grating which is pet and children friendly and will provide years of safe and comfortable use.

Preservatives

- All wood preservatives to be state approved and will be applied and fully cured prior to installation over the water.
- All hardware and fasteners to be epoxy-coated.

Best Management Practices

1. Above the Water Line Work

1. Seaborn Pile Driving Company will employ one crane barge, one supply and one debris barge to complete the scope of work. A tug will tow the barges on and off the job site.
2. Seaborn Pile Driving Company personnel working in, near or over the water will at all time wear either USCG approved life vests or work vest as well as hard hats and safety glasses.

2. Material Handling

1. While at the job site, a floating containment boom will completely surround the work area.
2. All removed piles and the existing dock structure will be placed on the debris barge where they will be contained and kept out of the lake.

3. Hazardous Materials

- No hazardous materials will be mixed or stored in or near the water. No cleaning of materials will be performed in or near the water.

4. Polluting Materials in Water

- Seaborn Pile Driving Company will take extra precautions to ensure materials don't fall into or pollute the water. Any material that enters the water will be removed immediately. Any hazardous material such as oily rags will not be handled near or over the water.
- A spill kit will be employed on the barges at the job site.
- If any pollutants enter the water, Seaborn Pile Driving Company will contact the appropriate agencies and report the spill immediately.

5. Materials Disposal

- Seaborn Pile Driving Company will dispose of the rotten wood and pile sections in an approved legal disposal site in accordance with all applicable laws and permit requirements.



Seaborn Pile Driving
1080 W Ewing St. Bldg B
Seattle WA 98119
seabornpiledriving.com

Review Response

Date: 3/3/2023

Project Name: Henry Pier Extension & Bulkhead Pier

Response To: SHL22-021 (Henry Pier Expansion)

To Andrew,

This letter is in response to the corrections for SHL22-021 & SEP22-017. Below are our responses to the questions/comments from 2/1/2023.

1. Please provide a completed code compliance matrix for Chapter 19.13 MICC (attached to the email accompanying this letter). All tabs of the code compliance matrix must be filled out.

See completed compliance matrix included with resubmittal materials.

2. The permit documents cite code sections in MICC 19.07.110 to reference the city's shoreline master program. The City of Mercer Island's shoreline master program is Chapter 19.13 MICC. Please update any references in the application to the correct code.

Code references have been corrected on NNL report & applicant information sheet.

3. The existing pier is located within the 10-foot lateral line setback from the south lateral line and is therefore nonconforming. MICC 19.13.020(B) states that expansions of legal nonconforming overwater structures is permitted, provided that the expanded portion of the structure is in compliance with this chapter and all other standards and provisions of the MICC. Please provide documentation showing that the nonconforming existing pier is legally established.

Please see submitted city permit records from 1974 – dock is shown in drawings existing in current location, demonstrating legal non-conformance.

4. MICC 19.13.050(B)(1) states that an existing shoreline stabilization structure may be replaced with a similar structure if there is a demonstrated need to protect principal uses or structures from erosion caused by currents or waves. Please provide written documentation that there is a need to protect the principal uses or structures from erosion caused by currents or waves.

See submitted geotechnical report.

5. MICC 19.13.050(B)(1)(ii) states that replacement walls or bulkheads shall not encroach waterward of the existing structure unless the primary structure was occupied prior to January 1, 1992, and there are overriding safety or environmental concerns. Please show the location of the existing bulkhead on the bulkhead detail sheet to confirm whether the replacement bulkhead encroaches waterward of the existing bulkhead. If the replacement bulkhead encroaches waterward of the existing bulkhead, please provide documentation that there is a safety or environmental concern that requires further encroachment.



Seaborn Pile Driving
1080 W Ewing St. Bldg B
Seattle WA 98119
seabornpiledriving.com

Replacement bulkhead will not encroach further waterward than existing bulkhead. A14 in plan set indicates that OHWM will remain in same location, as replacement bulkhead will be in same location as existing.

6. MICC 19.13.050(B)(6) states that no filling may be allowed waterward of the ordinary high water mark (OHWM) unless there has been severe or unusual erosion within 2 years immediately preceding the application for the bulkhead. Please confirm whether fill waterward of the OHWM is proposed. If so, please provide written documentation that there has been severe or unusual erosion within 2 years of the date of application.

There will be no fill placed waterward of the OHWM.

7. If you can demonstrate that a shoreline stabilization structure is necessary, please provide written documentation that the standards of MICC 19.13.050(B)(7) and (8) are being met.

See final tab of submitted compliance matrix.

8. Please provide surface coverage (lot coverage and hardscape) calculations showing that the following standards are met:

- A maximum of 10% of the area between 0 and 25 feet landward of the OHWM may be covered by lot coverage and hardscape.
- A maximum of 30% of the area between 25 and 50 feet landward of the OHWM may be covered by lot coverage and hardscape.

See sheets A15 & A16 of revised plan set.

Thank you for your time,

Madison Johnson
Permit Manager
206-236-1700
permits@seabornpiledriving.com

Ecological No Net Loss Assessment Report

Prepared for

Jenn Henry
6802 96th Ave SE
Mercer Island, WA 98040

Prepared by

 **Northwest**
Environmental Consulting, LLC

Northwest Environmental Consulting, LLC
600 North 36th Street, Suite 423
Seattle, WA 98103
206-234-2520

March 2023

Purpose

The purpose of this report is to fulfill the requirements of City of Mercer Island Municipal Code (MICC) 19.13.050 Shoreline Master Program by assessing overall project impacts and proposed mitigation to determine if the project meets the “No Net Loss” General Regulation of the Shoreline Master Program.

No Net Loss is defined as “An ecological concept whereby conservation losses in one geographic or otherwise defined area are equaled by conservation gains in function in another area.”

Permits are being applied for a dock extension, bulkhead repair, and associated moorage improvements.

Location

The subject property is located at 6802 96th Ave SE (King County parcel number 2580700005) in the City of Mercer Island, Washington (see Appendix A – Sheet A1.0). The parcel is on the waterfront of Lake Washington, a shoreline of the state, that contains several endangered fish species listed under the Endangered Species Act and Washington State designated priority fish species.

Project Description

The proposed construction involves driving 8 new 8-inch epoxy coated steel piles and constructing a new deck with grated decking material at the waterward side of the existing dock. A single mooring pile will be removed. The existing unpermitted boat lift will be moved waterward towards the end of the new dock extension. ThruFlow grated decking will be used for decking on the new dock.

The existing bulkhead will be repaired by removing 74 linear feet of the existing rock bulkhead and removal of the existing submerged concrete slabs. The new bulkhead will be reconstructed by constructing a new rock bulkhead along the shoreline and around the 181 square foot beach cove with stairs.

The existing personal watercraft lift and existing boat lift were not permitted and are included in this analysis to be permitted. See Appendix A – Sheets A2.0 to A 6.0).

During construction, a floating boom will surround the work barge and dock. A silt curtain will be used during bulkhead repair. (See Appendix A – Sheets A7.0)

A shoreline vegetation plan is proposed, that will add 2 native conifer trees and 3 native shrubs and preserve the existing vegetation. These shoreline plantings will provide shade and allow beneficial allochthonous material to enter the lake along the shoreline (see Appendix A – Sheet A8.0 and a9.0).

Project drawings are included in Attachment A.

Approach

Northwest Environmental Consulting LLC (NVEC) biologist Brad Thiele conducted a site visit on September 9, 2022 to evaluate conditions on site and adjacent to the site. NVEC also

consulted the following sources for information on potential critical fish and wildlife habitat along this shoreline:

- Washington Department of Fish and Wildlife (WDFW): Priority Habitats and Species online database (<http://apps.wdfw.wa.gov/phsontheweb/>)
- WDFW SalmonScape online database of fish distribution and ESA listing units (<https://apps.wdfw.wa.gov/salmonscape/>)
- Mercer Island GIS online database (<https://chgis1.mercergov.org/Html5Viewer/Index.html?viewer=PubMaps&viewer=PubMaps>)

Site Description

The subject property is a shoreline tract in a residential neighborhood. It has shoreline on its eastern boundary with single-family homes to the north and south along the shoreline.

The only existing structures on the property are the house, and the existing wood decked dock.

The shoreline is armored with a basalt bulkhead. The substrate of the lake is sand and gravel with some remnant Eurasian milfoil still present towards the end of the dock.

The shoreline is lawn with ornamental beds along the top of the bulkhead and fence lines. The neighboring properties are similar in shoreline armoring and have docks. See attached photos in Appendix B- Photos.

Species Use

WDFW's PHS mapping and SalmonScape mapping tools show the following salmonid species using Lake Washington for migration and/or rearing: residential coastal cutthroat (*Oncorhynchus clarkii*), winter steelhead (*O. mykiss*), Dolly Varden/bull trout (*Salvelinus malma*), sockeye salmon (*O. nerka*), fall Chinook (*O. tshawytscha*), coho salmon (*O. kisutch*), and kokanee (*O. nerka*). The SalmonScape database maps the site as accessible to the Endangered Species Units (ESU) of Threatened Chinook and steelhead. Juveniles migrate and may rear in the waters near the project when traveling from spawning sites on other lake tributaries to the lake's outlet at the Hiram M. Chittenden Locks. The project site is accessible to any fish migrating or rearing in the lake. The shoreline is mapped as or very near a sockeye salmon spawning location.

Priority Habitats and Species mapping, maps a biodiversity area at Pioneer Park about 1,600 feet to the west but no other terrestrial priority species or habitats at or near the site.

The City of Mercer Island GIS Portal does not indicate any environmental features at the site.

Project Impacts and Conservation Measurements

Direct Impacts:

Sediments: Sediment disturbance will occur below the OHWM and along the shoreline of Lake Washington during pile removal installation, and removal of a section of the bulkhead.

Additionally, the tug and barge propwash may disturb sediments temporarily when making trips to/from the site.

Impacts to sediments should be minimal from installation and removal of the pilings.

The reconstruction and removal of the bulkhead has the potential to create a significant sediment plume. A weighted silt curtain will be installed around the perimeter to contain any suspended sediments that occur during construction of the bulkhead.

Shoreline: Removing the bulkhead will improve shoreline conditions by removing a section of bulkhead that creates a reflecting wave at high water that can cause erosion of shoreline sediments. In addition the beach cove can be beneficial to outmigrating salmonids at high water.

Planting additional native vegetation, including a native cedar tree, will increase the habitat functions of the shoreline by creating shade along the shoreline that will be an improvement from the existing baseline habitat conditions at the project site. These plants will provide overhanging cover for fish, structural diversity for birds and wildlife, detritus for aquatic invertebrates and long-term recruitment of woody material and other allochthonous food sources. The proposed planting plan is included (see Appendix A - Sheet A8.0).

Lakebed: Construction of the dock extension includes driving 8 8-inch pilings and removal of 1 10-inch pile. This will result in 2.3 square feet of lake bottom displacement.

Noise: Construction equipment will create noise audible to neighbors and in-water. Noise disturbance will be short-term and should have negligible effects on fish and wildlife in the area. Work will be completed during the in-water work window when juvenile fish are not expected to be present.

Potential spills: Short-term risks include the potential for petroleum spills that can occur with any equipment operation. The level of impact to the aquatic environment is expected to be minor because a trained crew will be onsite that will implement spill containment measures should a spill occur.

Shading: The proposed dock will increase overwater coverage by 233 square feet. The proposed decking will be ThruFlow grated decking. Grated decking allows more light to penetrate the waters below a dock, which can increase productivity in the water column, and reduce the full shade favored by salmonid predators. Salmonid predators are known to use hard shadowing under solid-decked docks to ambush juvenile salmonids. Reducing these hard shadows limits their ability to effectively hunt salmonids. In addition, hard shadowing may reduce juvenile salmonid outmigration times when encountered along the shoreline.

ThruFlow grated decking has measured performance at 43 percent light penetration (ThruFlow, 2021). Thus, the increase in lighting under the pier is effectively 57% of the area of a solid decked structure. Table 1 provides a summary of effective coverage:

Table 1 – Effective coverage

	Existing/ Proposed	Proposed grated	Conversion	Effective coverage	Reduction in effective coverage
New Grated Dock (SF)	0	233	0.57	133	100

The use of grated decking at the site reduces the effective coverage of the new structure by 100 square feet.

In addition the new dock configuration will place moorage into water 7 to 12 feet deep.

Recreational Boating: The project supports continued recreational boating, which has been identified as a limiting factor for salmonid populations in Lake Washington. The pier will not introduce additional boating to Lake Washington, as the owners could still access the lake from a public boat launch or private moorage facility.

Other Conservation measures:

Work window: The work will be completed during the prescribed in-water work window for this area of Lake Washington (July 16 to December 31). Operating within this time frame helps protect Chinook salmon, steelhead, bull trout and other salmonid fish species by doing work when juvenile fish are not expected to be present.

Best Management Practices: Applicable BMPs will be used, such as a floating boom around the in-water work area, to contain any floating debris that may escape during construction. The barge will have a perimeter containment sock to absorb oil and grease that might inadvertently wash from the barge during construction. A silt curtain will be used to contain turbidity that may be generated from removal of a section of existing bulkhead.

Hazardous material containment supplies such as spill absorbent pads and trained personnel will be required onsite during any phase of construction where machinery is in operation near surface waters.

Conclusion

Juvenile Chinook salmon, and other salmonids, rear and migrate along the Lake Washington shoreline.

There will be temporary impacts from noise and disturbed sediments during construction and bulkhead repair. Construction disturbance and dock reconfiguration will degrade ecological conditions at the site by increasing overwater coverage at the site. The effects of construction will be short term. The dock will use grated decking to minimize the effective overwater coverage to a net gain of 133 square feet. The grating reduces the hard shadows favored by salmonid predators and increases productivity under the pier. In addition, the new structure is in deeper water more than 30 feet from shore. Overwater structures may slow juvenile salmonid outmigration times. Constructing the new moorage away from shore will reduce the chances of delaying outmigrating juvenile salmonids.

The project will displace about 2.3 square feet of lakebed from installation of new pilings.

Ecological conditions at the site will be improved by placing the watercraft lift in the deeper water to prevent or reduce sediment disturbance during docking and castoff from propwash over the existing condition.

A shoreline planting plan will be implemented that will add native trees and shrubs to the shoreline that will provide natural shading, allochthonous food sources and will eventually be a source of woody materials that will improve shoreline conditions at the site in the long-term.

Removing the concrete slabs will restore shoreline substrates at the cove.

The project will minimize construction effects on the environment by following the prescribed fish window and using applicable BMPs to prevent construction spills, turbidity, and floating

debris from escaping the area. The construction crew will retrieve all dropped items from the bottom and dispose of them properly.

This project has been designed to meet current residential dock standards and will use Best Management Practices to reduce project impacts. The conservation measures are designed to improve ecological functions or prevent further degradation of habitat **and will result in No Net Loss of ecological functions.**

Document Preparers

Brad Thiele	Biologist	28 years of experience	Northwest Environmental Consulting, LLC (NVEC)
-------------	-----------	------------------------	--

NVEC followed standard acceptable field methods and protocols at the time work was performed. These standards may include delineation of wetland and stream boundaries, characterization, rating, functional analyses, impact assessments and mitigation of impacts. The conclusions and findings in this report are based on field observations and measurements and represent our best professional judgment and to some extent rely on other professional service firms and available site information. Within the limitations of project scope, budget, and seasonal variations, we believe the information provided herein is accurate and true to the best of our knowledge. Northwest Environmental Consulting does not warrant any assumptions or conclusions not expressly made in this report or based on information or analyses other than what is included herein.

REFERENCES

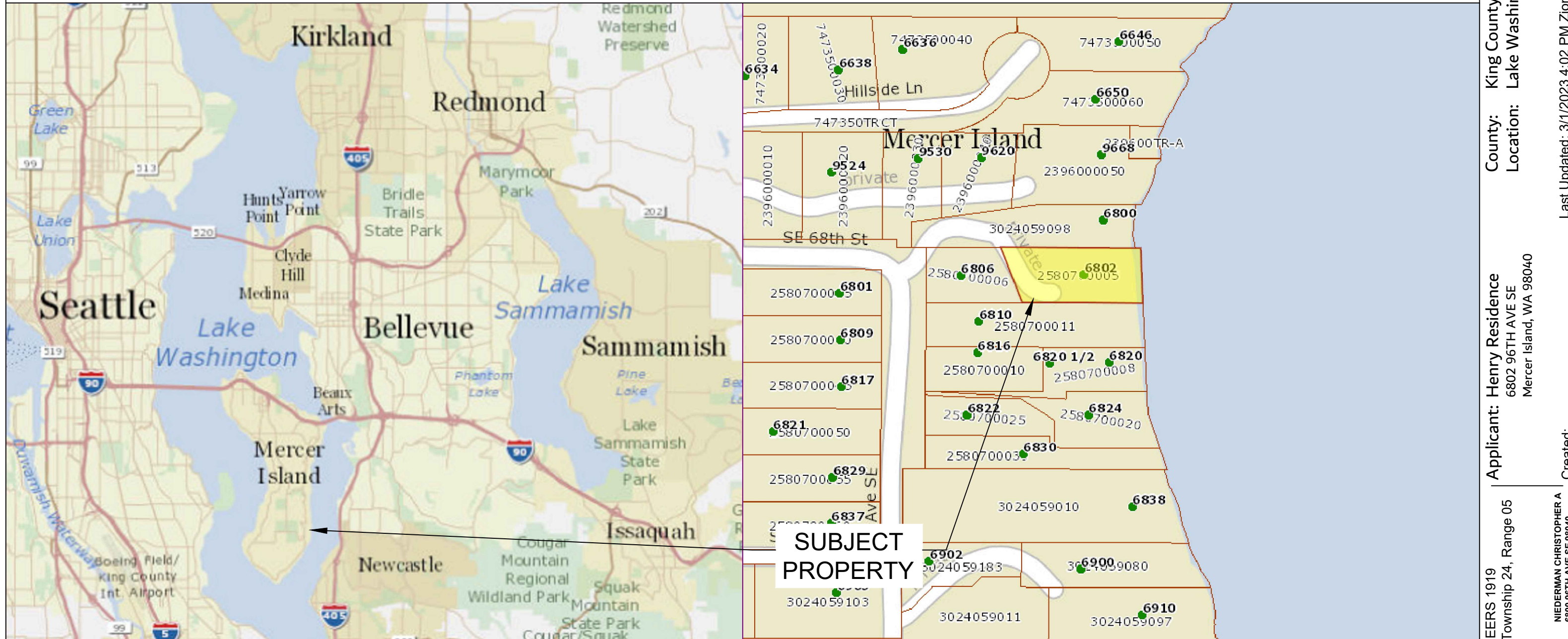
King County. 2022. King County iMap. Online database. Accessed September 2022 at <https://gismaps.kingcounty.gov/iMap/>

Washington Department of Fish and Wildlife (WDFW). 2022. Priority Habitats and Species. Online database. Accessed September 2022 at <http://apps.wdfw.wa.gov/phsontheweb/>

WDFW. 2022. SalmonScape. Online database. Accessed September 2022 at <http://apps.wdfw.wa.gov/salmonscape/>

Appendix A: Project Drawings

SITE PLAN



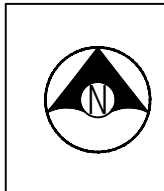
Pin: 258070-0005

Legal Description: FLOODS LAKE SIDE TRS DIV #3 LOT B MERCER ISLAND SHORT PLAT HOLYOKE AF #7507230710 SD PLAT DAF LOT 1 BLK 1 FLOODS LAKE SIDE TRS DIV #3 TGW SH LDS ADJ

Plat Block: 1
Plat Lot: 1

PARCEL
LAT: 47.54198
LONG: -122.21001

DOCK
LAT: 47.541889
LONG: -122.209674



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05
Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

SHEET
1.0
NWS-2022-719
PAGE 1 OF 16

Last Updated: 3/1/2023 4:02 PM Zion

Created:

GENERAL NOTES:

MATERIALS SPEC LIST:

Decking Material: FRPP - Fiberglass reinforced polypropylene

Light permeable percentage:

- * Surface - 43%
- * 18" Dock Height - 61%

Sewer:

- * All sewer is field verified by probing the lake bed manually during the allowed work windows for the area.

Piles:

- * All new piles are epoxy coated steel piles *size varies, see plan set
- * Piles are driven using the vibro method

CODE REFERENCES: Mercer Island

We are applying for the permit to be reviewed under the:

“Alternative Development Standards” per MIMC 19.13050(F)(3).

The code official shall approve moorage facilities not in compliance with the development standards in subsection (F)(1) or (F)(2) of this section subject to both U.S. Army Corps of Engineers and Washington Department of Fish and Wildlife approval to an alternate project design. The following requirements and all other applicable provisions in this chapter shall be met:

i. The dock must be no larger than authorized through state and federal approval; Ch. 19.13 Shoreline Master Program | Mercer Island City Code Page 30 of 34 The Mercer Island City Code is current through Ordinance 20C-13, passed June 16, 2020.

The dock is no longer than authorized.

ii. The maximum width must comply with the width of moorage facilities standards specified in standards specified in subsection D of this section (Table D);

The maximum width is within compliance.

iii. The minimum water depth must be no shallower than authorized through state and federal approval;

The minimum water depth is within compliance.

iv. The applicant must demonstrate to the code official's satisfaction that the proposed project will not create a net loss in ecological function of the shorelands; and

The No Net Loss report is attached.

v. The applicant must provide the city with documentation of approval of the moorage facilities by both the U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife.

The plan set is is review by CORPS and WDFW.

Mitigation" Disturbance of bank vegetation shall be limited to the minimum amount necessary to accomplish the project. Disturbed bank vegetation shall be replaced with native, locally adapted herbaceous and/or woody vegetation. Herbaceous plantings shall occur within 48 hours of the completion of construction. Woody vegetation components shall be planted in the fall or early winter, whichever occurs first. The applicant shall take appropriate measures to ensure revegetation success;

Last permit issued for property: Permit # 0408-290 Sep 29, 2004

Dock established/constructed: 5/1/1967



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

Last Updated: 3/1/2023 4:02 PM Zion

Created:

**SHEET
2.0**

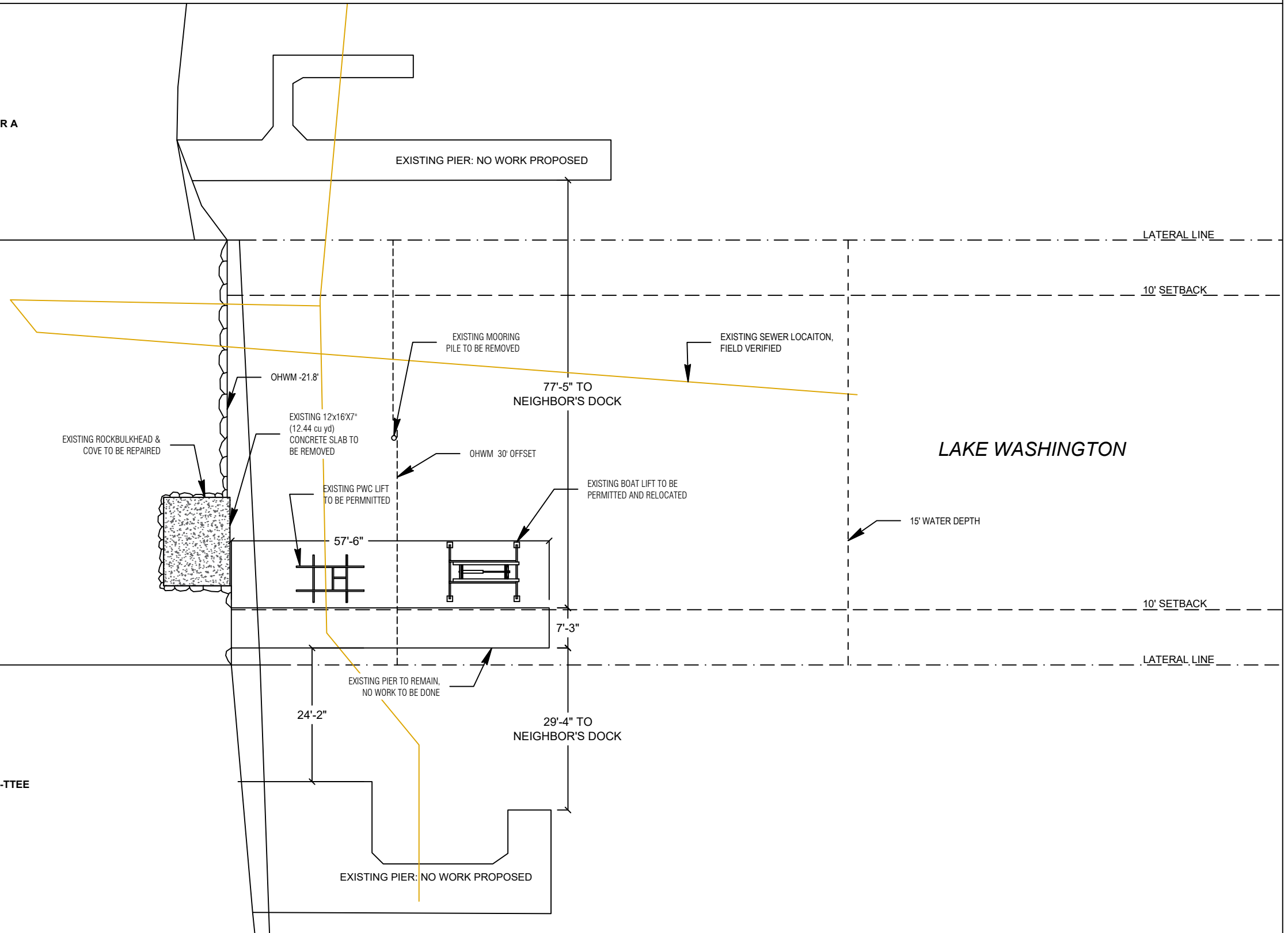
EXISTING CONDITIONS

****CLEAN UP LAKE AROUND PROJECT****

NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

SUBJECT PROPERTY:
Henry Residence
6802 96th Ave SE 98040
Parcel #: 258070-0005

STIVERS JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040



SCALE: 1" = 20'-0"
0' 5' 10' 20'



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
STIVERS JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

Last Updated: 3/1/2023 4:02 PM Zion

Created:

SHEET 3.0

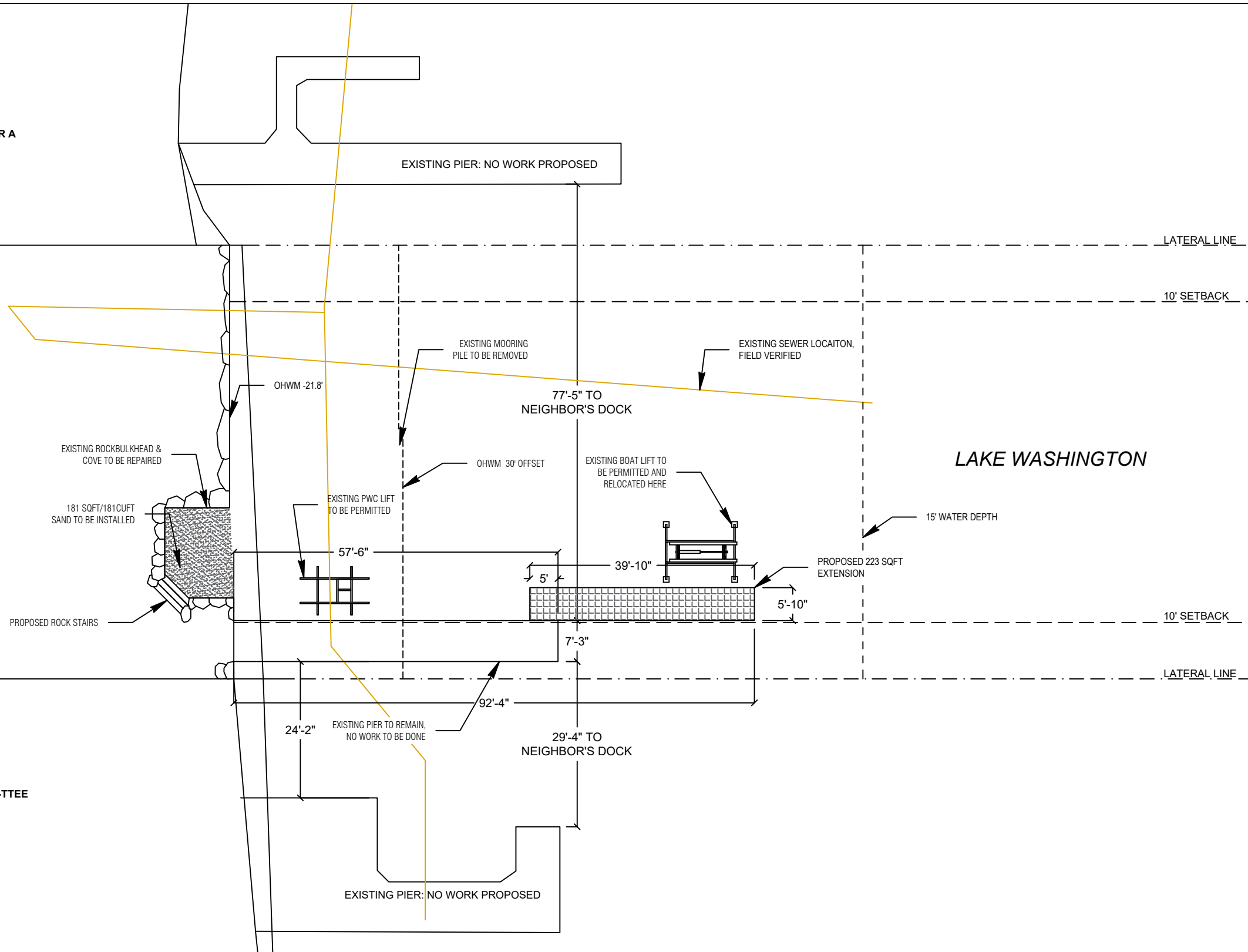
PROPOSED CONDITIONS

****CLEAN UP LAKE AROUND PROJECT****

NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

SUBJECT PROPERTY:
Henry Residence
6802 96th Ave SE 98040
Parcel #: 258070-0005

STIVERS JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040



SCALE: 1" = 20'-0"
0' 5' 10' 20'



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05
Adjacent Owners:
STIVERS JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

**SHEET
4.0**

NWS-2022-719
PAGE 4 OF 16

Last Updated: 3/1/2023 4:02 PM Zion

Created:

PIER DETAILS - EXISTING/PROPOSED PLAN VIEW

LEGEND

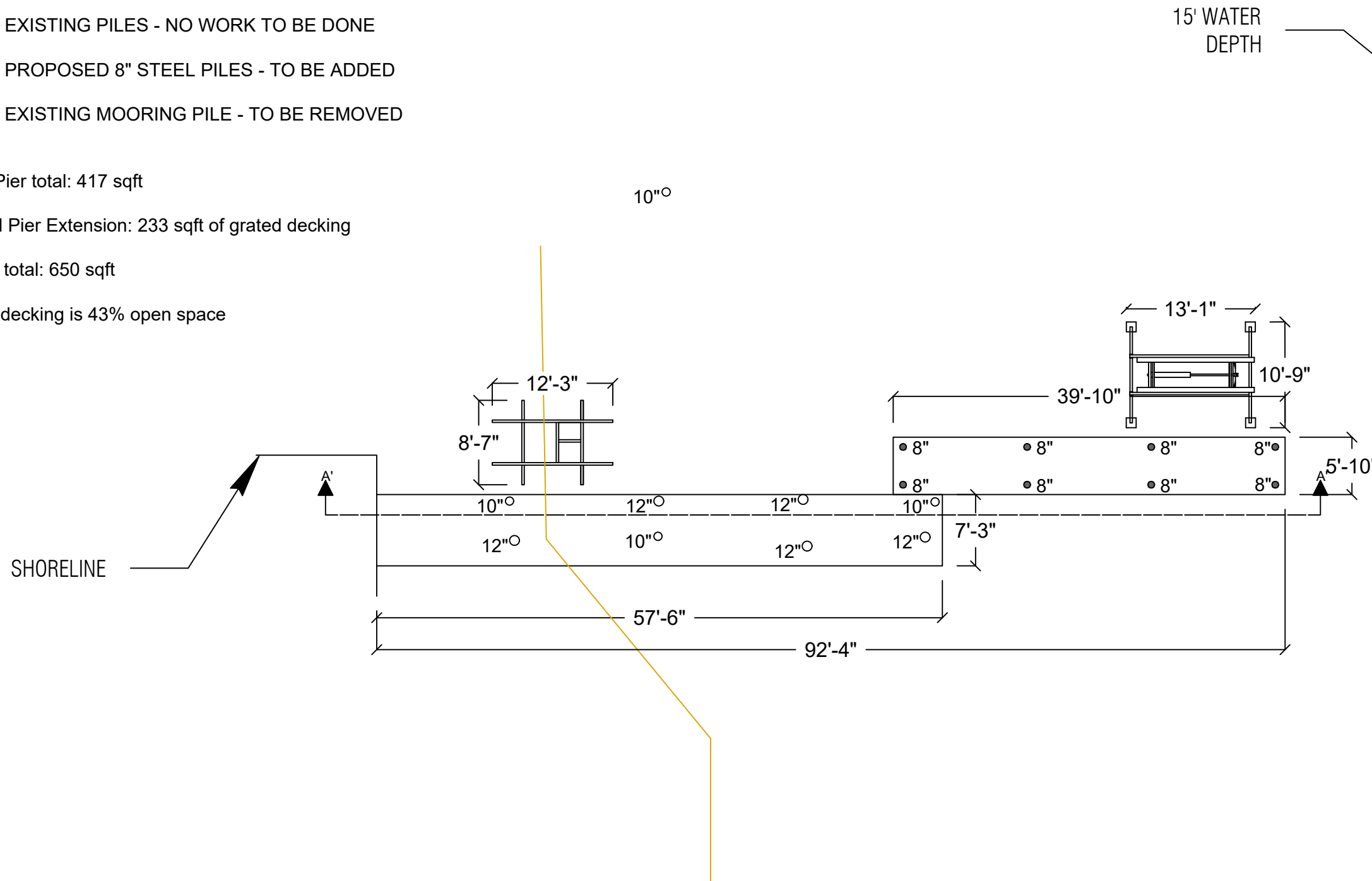
- (8) EXISTING PILES - NO WORK TO BE DONE
- (8) PROPOSED 8" STEEL PILES - TO BE ADDED
- (1) EXISTING MOORING PILE - TO BE REMOVED

Existing Pier total: 417 sqft

Proposed Pier Extension: 233 sqft of grated decking

New Pier total: 650 sqft

**Grated decking is 43% open space



PLAN VIEW



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

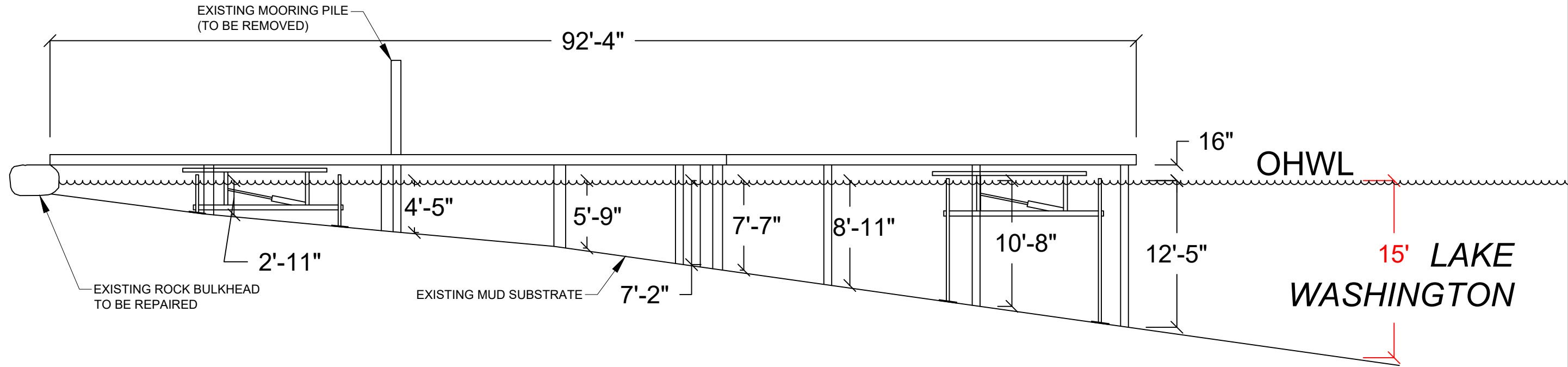
SHEET
5.0

NWS-2022-719
PAGE 5 OF 16

Last Updated: 3/1/2023 4:02 PM Zion

Created:

PIER DETAILS EXISTING/PROPOSED - SECTION VIEW



SECTION VIEW: A'-A'



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

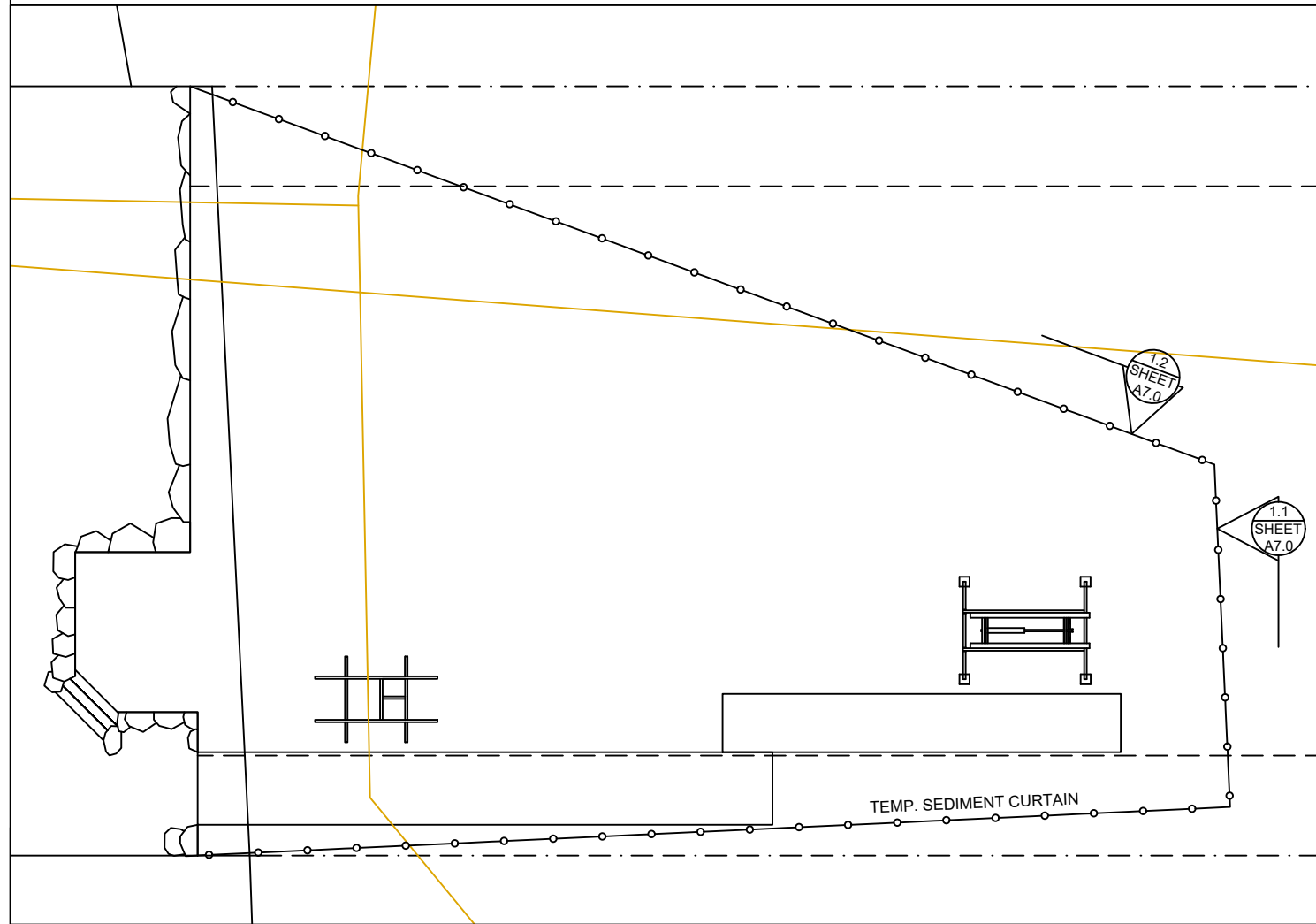
Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05
Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

SHEET
6.0
NWS-2022-719
PAGE 6 OF 16

Last Updated: 3/1/2023 4:02 PM Zion

Created:

BMP INFORMATION

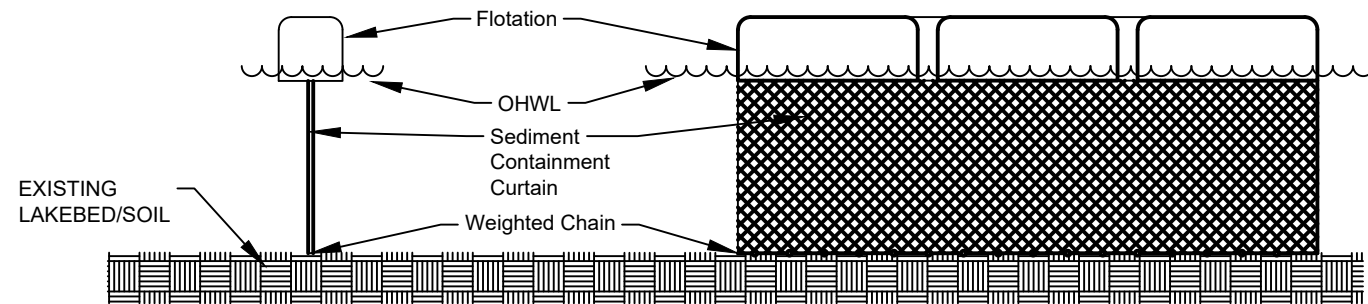


BMP NOTES:

- A. Constant vigilance shall be kept for the presence of protected fish species during all aspects of the proposed action, particularly during in-water activities such as vessel movement, deployment of anchors & spuds, pile driving, dredging, and placement of gravels and other fill.
 1. The project manager shall designate an appropriate number of competent observers to survey the project site and adjacent areas for protected species, including the presence of fish as conditions allow.
 2. Visual surveys shall be made prior to the start of work each day, and prior to resumption of work following any break of more than an hour. Periodic additional visual surveys throughout the work day are strongly recommended.
 3. All in-water work shall be done during the in-water work window for the waterbody. Where there is a difference between the USCOE and WDFW work windows, the overlap of the two shall apply.
 4. All pile driving and extraction shall be postponed or halted when obvious aggregations or schooling of fish are observed within 50 yards of that work, and shall only begin/resume after the animals have voluntarily departed the area.
 5. When piloting vessels, vessel operators shall operate at speeds and power settings to avoid grounding vessels, and minimize substrate scour and mobilization of bottom sediments.
- B. No contamination of the marine environment shall result from project-related activities.
 1. Appropriate materials to contain and clean potential spills shall be stored and readily available at the work site and/or aboard project-related vessels.
 2. The project manager and heavy equipment operators shall perform daily pre-work equipment inspections for cleanliness and leaks. All heavy equipment operations shall be postponed or halted should a leak be detected, and shall not proceed until the leak is repaired and the equipment is cleaned.
 3. To the greatest extent practicable, utilize biodegradable oils for equipment that would be operated in or near water.
 4. Fueling of land-based vehicles and equipment shall take place at least 50 feet away from the water, preferably over an impervious surface. Fueling of vessels shall be done at approved fueling facilities.
 5. Turbidity and siltation from project-related work shall be minimized and contained through the appropriate use of erosion control practices, effective silt containment devices, and the curtailment of work during adverse weather and tidal/flow conditions.
 6. All wastes shall be collected and contained for proper disposal at approved upland disposal sites appropriate for the material(s).
 7. When removing piles and other similarly treated wood, containment curtain must fully enclose the work area. Wood debris, oils, and any other materials released into lake waters must be collected, removed, and properly disposed of at approved disposal sites.
 8. All in- and over-water wood cutting would be limited to the minimum required to remove the subject wood component, and all cutting work should be enclosed within floating containment curtain.
 9. When removing piles, no actions shall be taken that would cause adhering sediments to return to lake waters.
 10. Above-water containment shall be installed around removed piles to prevent sediment laden waters from returning to lake waters.
 11. Construction staging (including stocking of materials, etc.) will occur on the supply barge.
 12. All Exposed wood to be used on the project will be treated with a cheminite treatment.

DETAIL 1.1

DETAIL 1.2



DETAIL 1.1 & 1.2



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

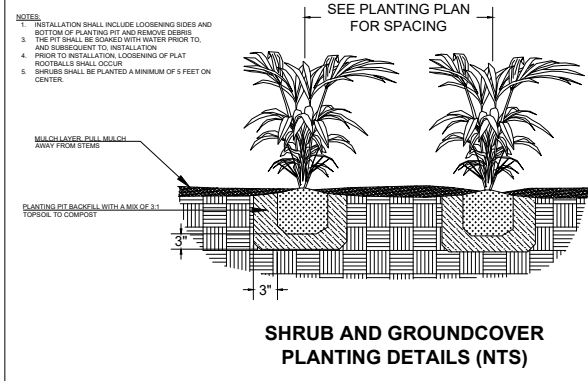
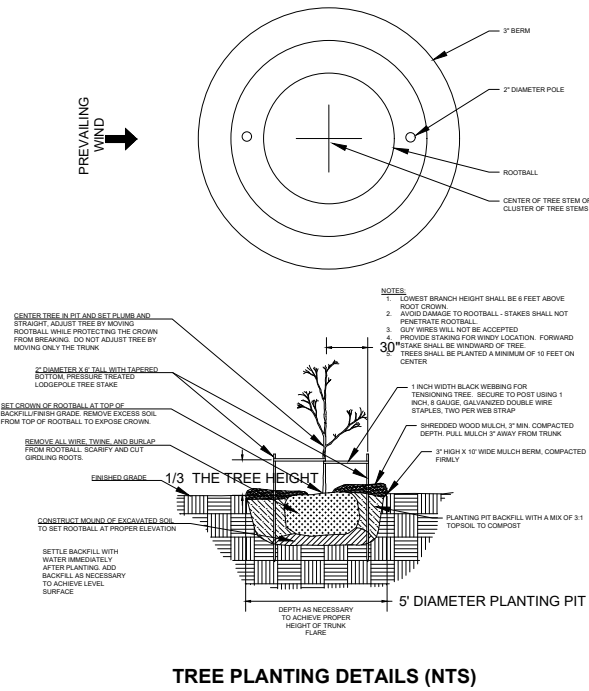
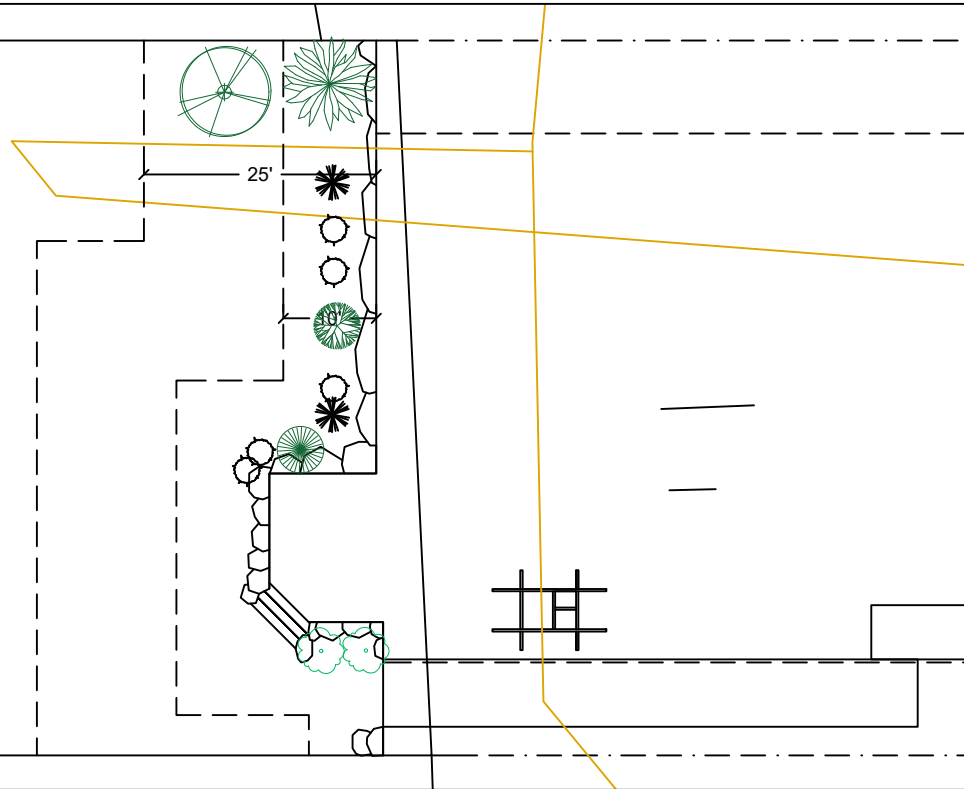
SHEET
7.0

NWS-2022-719
PAGE 7 OF 16

Last Updated: 3/1/2023 4:02 PM Zion

Created:

MITIGATION PLAN



Notes:

1. Shrubs are show, and shall be planted, at least five feet on center. Trees are show, and shall be planted, at least ten feet to center.
2. The property owner will implement and abide by the shoreline planting plan. The plants shall be installed before or concurrent with the work authorized by this permit. A report, as-built drawing and photographs demonstrating the plants have been installed or a report on the status of project construction will be submitted to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch, within 12 months from the date of permit issuance. This reporting requirement may be met by completing and submitting a U.S. Army Corps of Engineers approved Report for Mitigation Work Completion form.
3. The property owner will maintain and monitor the survival of installed shoreline plantings for five years after the U.S. Army Corps of Engineers accepts the as-built report. Installed plants shall achieve 100% survival during monitoring Years 1 and 2. Installed plants shall achieve at least 80% survival during monitoring Years 3, 4 and 5. Percent survival is based on the total number of plants installed in accordance with the approved riparian planting plan. Individual plants that die will be replaced with native riparian species in order to meet the survival performance standards.
4. The property owner will provide annual monitoring reports for five years (Monitoring Years 1-5). Each annual monitoring report will include written and photographic documentation on plant mortality and replanting efforts and will document whether the performance standards are being met. Photos will be taken from established points and used repeatedly for each monitoring year. In addition to photos at designated points, photo documentation will include a panoramic view of the entire planting area. Submitted photos will be formatted on standard 8 1/2 x 11" paper, dated with the date the photo was taken, and clearly labeled with the direction from which the photo was taken. The photo location points will be identified on an appropriate drawing. Annual shoreline planting monitoring reports will be submitted to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch, by November 31 of each monitoring year. This reporting requirement may be met by completing and submitting a U.S. Army Corps of Engineers approved Mitigation Planting Monitoring Report form.

PROPOSED PLANTING SPECIES/QUANTITIES

SYMBOL	LATIN NAME	COMMON NAME	QTY	SIZE
	Pinaceae Menziesii	Douglas Fir	1	3 ft
	Pinus contorta v contorta	Shore pine	1	3 ft
	Philadelphus lewisii	Mock Orange	1	1 Gallon
	Acer Circinatum	Vine Maple	1	1 Gallon
	Rubus Parviflorus	Thimbleberry	2	1 Gallon

PLANTS: Shrubs to be installed 5ft on center and trees to be installed 10ft on center. All proposed existing plants for credit have been established for 5 years or more on the property.



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040

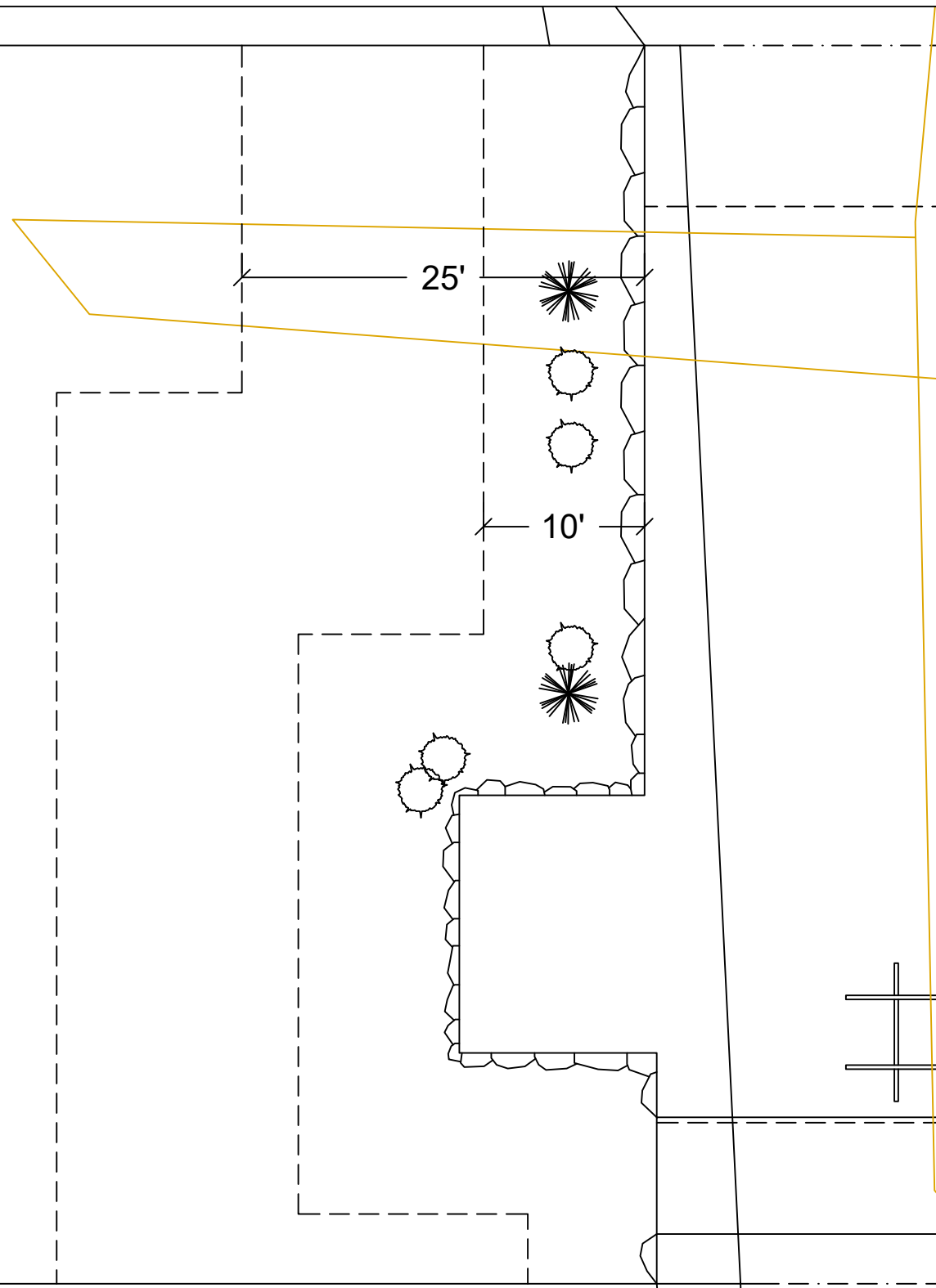
Created:
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

Last Updated: 3/1/2023 4:02 PM Zion

SHEET 8.0

NWS-2022-719
PAGE 8 OF 16

EXISTING PLANT PLAN



EXISTING PLANTING SPECIES/QUANTITIES

SYMBOL	SCIENTIFIC NAME	COMMON NAME	QTY	SIZE
	Cichorium Intybus	Common Chicory	2	~3ft
	Hemerocallis Fulva	Orange Daylily	4	~2ft
	Festuca Glauca	Blue Fescue	N/A	~ 1ft

PLAN VIEW

EXISTING PLANTS TABLE



Seaborn Pile Driving
 1080 W Ewing St
 Seattle, WA 98119
 Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
 Location: Lake Washington
 Applicant: Henry Residence
 6802 96TH AVE SE
 Mercer Island, WA 98040
 Datum: CORPS OF ENGINEERS 1919
 NE Quarter Of Section 30, Township 24, Range 05
 Adjacent Owners:
 STIVERS, JEAN GILLILAND-TTEE
 6810 96TH AVE SE 98040
 NIEDERMAN CHRISTOPHER A
 6800 96TH AVE SE 98040
 Created:
 Last Updated: 3/1/2023 4:02 PM Zion

SHEET
9.0

GENERAL ENGINEERING NOTES:

GENERAL

- ALL CONSTRUCTION SHALL CONFORM TO THESE PLANS.
- CONTRACTOR SHALL VERIFY ALL LEVELS, DIMENSIONS, AND EXISTING CONDITIONS IN THE FIELD BEFORE PROCEEDING. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR FIELD CHANGES PRIOR TO INSTALLATION OR FABRICATION. IN CASE OF DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THE DRAWINGS, THE CONTRACTOR SHALL OBTAIN DIRECTION FROM THE ENGINEER BEFORE PROCEEDING. DIMENSIONS NOTED AS PLUS OR MINUS (\pm) OR REF INDICATE UNVERIFIED DIMENSIONS AND ARE APPROXIMATE. NOTIFY ENGINEER IMMEDIATELY OF CONFLICTS OR EXCESSIVE VARIATIONS FROM INDICATED DIMENSIONS, NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS – DO NOT SCALE DRAWINGS. DIMENSIONS OF EXISTING CONDITIONS ARE BASED ON RECORD DRAWINGS AND ARE TO BE FIELD-VERIFIED BY THE CONTRACTOR.
- CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS AND EXISTING MEMBERS, AS REQUIRED, AND IN A MANNER SUITABLE TO WORK SEQUENCE. TEMPORARY SHORING AND BRACING SHALL NOT BE REMOVED UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE DRAWINGS AND MATERIALS HAVE ACHIEVED DESIGN STRENGTH.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES REQUIRED TO PERFORM THE WORK.
- ALL MATERIALS SHALL BE NEW, UNO.
- ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE DRAWINGS, NOTES, AND MANUFACTURER RECOMMENDATIONS. IF THERE ARE ANY CONFLICTS BETWEEN THESE DOCUMENTS, THE ENGINEER SHALL BE CONTACTED FOR DIRECTION.
- THE CONTRACTOR SHALL CAREFULLY DECONSTRUCT EXISTING ELEMENTS AS NECESSARY TO ACCESS THE WORK AREAS. SUCH DECONSTRUCTION MAY INCLUDE, INTERIOR AND EXTERIOR FINISHES. ALL DECONSTRUCTION ELEMENTS SHALL BE RECONSTRUCTED TO MATCH THE ORIGINAL APPEARANCE AND MEET THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.
- ALL MOORAGE COVERS AND LIFTS SHALL BE FREESTANDING AND SHALL NOT BE ATTACHED TO THE DOCK, UNLESS NOTED OTHERWISE.

CODES AND STANDARDS

- ALL METHODS AND MATERIALS SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE, 2018 EDITION.
- AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
- WOOD WORK SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION (NDS) 2018 EDITION.
- AMERICAN SOCIETY FOR TESTING AND MATERIALS, CURRENT EDITION

DESIGN CRITERIA

WIND DESIGN: WIND LOAD IS BASED ON ASCE 7 CHAPTER 29 WITH THE FOLLOWING FACTORS

EXPOSURE CATEGORY = D RISK CATEGORY = II
 $V_{3s} = 98\text{MPH}$ WIND IMPORTANCE FACTOR, $I_w = 1.0$

DESIGN VESSEL IS 30' LONG WITH AVERAGE FREEBOARD OF 11'-6"
 DESIGN VESSEL IS 60' LONG WITH AVERAGE FREEBOARD OF 14'

WAVE LOADS: $P = 328\text{ LBS}$

LIVE LOADS: LIVE LOAD = 40 PSF
 SNOW LOAD = 25 PSF

SEISMIC LOADS: DOCK PILING $R = 2.0$
 SEISMIC IMPORTANCE = 1.0
 $SD_1 = 0.595g$

STRUCTURAL STEEL

- ALL MISCELLANEOUS STEEL SHAPES AND PLATES, EXCEPT AS NOTED BELOW, SHALL CONFORM TO ASTM 36.
- ALL WF SHAPES SHALL CONFORM TO ASTM A992, $F_y = 50\text{ KSI}$
- ALL PILES SHALL CONFORM TO ASTM A252 GRADE 3, $F_y = 45\text{ KSI}$
- ALL BOLTS SHALL BE ASTM A307, UNO.
- ALL NUTS SHALL BE ASTM A563, UNO.
- ALL WASHERS SHALL BE ASTM F436, UNO.
- ALL THREADED RODS SHALL CONFORM TO ASTM F1554, GRADE 36.
- ALL STEEL MEMBERS AND FASTENERS THAT ARE NOT EPOXY COATED SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 AS APPLICABLE.

WELDING

- ALL WELDING SHALL BE PERFORMED BY WELDERS QUALIFIED FOR THE WELD AND POSITION SHOWN IN ACCORDANCE WITH AWS AND HAVING CURRENT CERTIFICATION FROM WABO.
- ALL WELDS SHALL BE PERFORMED WITH PROCEDURES PREQUALIFIED OR QUALIFIED IN ACCORDANCE WITH AWS D1.1.
- THE WELDS SHOWN ARE FOR THE FINAL CONNECTIONS, FIELD WELD SYMBOLS ARE SHOWN WHERE FIELD WELDS ARE REQUIRED BY THE STRUCTURAL DESIGN. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING IF A WELD SHOULD BE SHOP OR FIELD WELDED IN ORDER TO FACILITATE THE STRUCTURAL STEEL ERECTION.
- WELDING ELECTRODES SHALL BE 70 KSI STRENGTH AND SHALL BE "LOW-HYDROGEN ELECTRODES."

WOOD

- EACH PIECE OF LUMBER SHALL BEAR A STAMP INDICATING A GRADE MARK OF THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB), WESTERN WOOD PRODUCTS ASSOCIATION (WWPA), OR OTHER AGENCY ACCREDITED BY THE AMERICAN STANDARD COMMITTEE (ALSC).
- DIMENSION LUMBER SHALL BE P.T. DOUG-FIR NO 2 OR BETTER, UNLESS NOTED OTHERWISE.
- STRUCTURAL GLUED LAMINATED TIMBER SHALL BE ALASKAN CEDAR AC.AC 20F-V12.
- WOOD SHALL BE SEASONED DRY WITH A MAXIMUM MOISTURE CONTENT OF 19%.
- PRESERVATIVE TREATED WOOD SHALL CONFORM TO THE AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) UC4A. ALL WOOD SHALL BEAR A TREATMENT IDENTIFICATION MARK BY THE CERTIFYING AGENCY.
- ALL BOLT HOLES IN WOOD MEMBERS SHALL BE A MINIMUM OF 1/32" TO MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER. PROVIDE PLATE WASHERS WHERE NUTS, BEAR ON WOOD. CUT WASHERS SHALL MEASURE 2 1/4" ϕ x 3/16" THICK.

GRATING

- DECK GRATING SHALL BE SUNWALK 90 SERIES OR APPROVED EQUAL.

ABBREVIATIONS

⊙	AT
AWS	AMERICAN WELDING SOCIETY
CL	CENTER LINE
CLR	CLEAR
COL	COLUMN
CONT.	CONTINUOUS
DF	DOUG FIR
EA	EACH
EX OR (E)	EXISTING
GLB	GLULAM BEAM
LLH	LONG LEG HORIZONTAL
MIN	MINIMUM
MNFR	MANUFACTURER
OC	ON CENTER
OPP	OPPOSITE
PL	PLATE
PSI	POUNDS PER SQUARE INCH
PSF	POUNDS PER SQUARE FOOT
P.T.	PRESERVATIVE TREATED
SF	SQUARE FOOT
REF	REFERENCE
SIM	SIMILAR
SS	STAINLESS STEEL
t	THICK
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
WABO	WASHINGTON ASSOCIATION OF BUILDING OFFICIALS
WF	WIDE FLANGE
W/	WITH



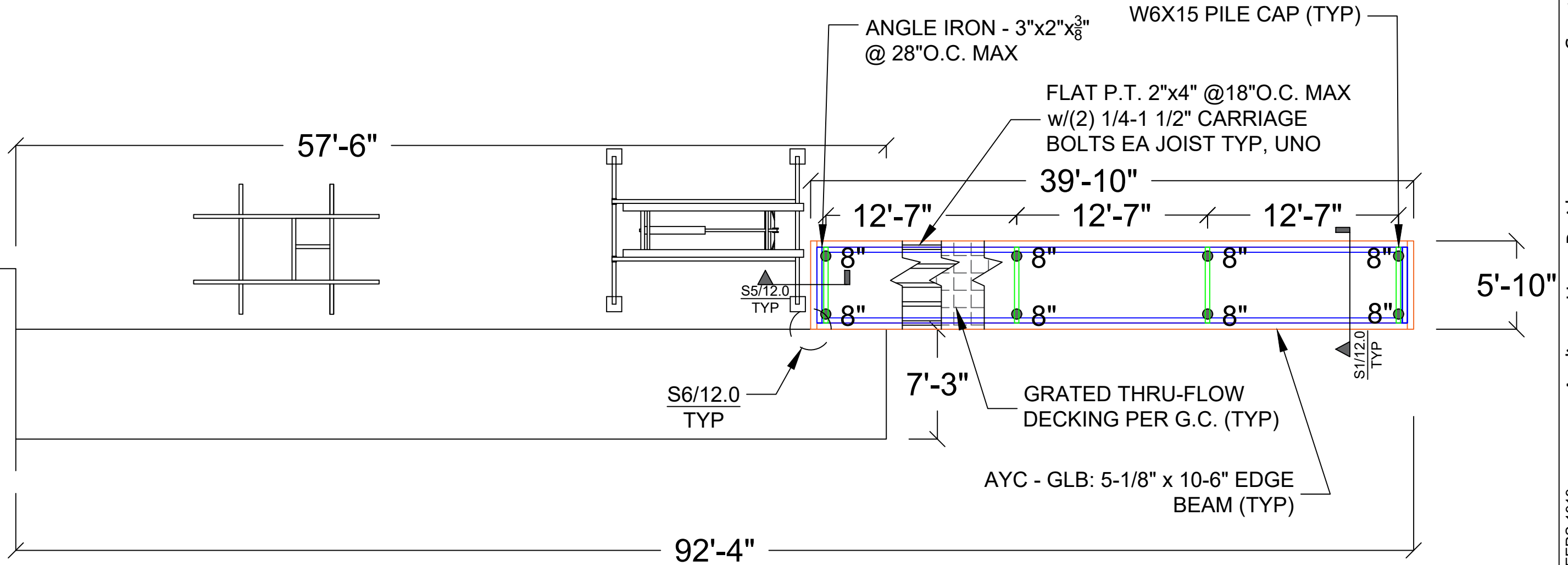
Seaborn Pile Driving
 1080 W Ewing St
 Seattle, WA 98119
 Office: 206-236-1700 ext. 3
 www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

Datum: CORPS OF ENGINEERS 1919
 NE Quarter Of Section 30, Township 24, Range 05
 Adjacent Owners: STIVERS, JEAN GILLILAND-TTEE
 6810 96TH AVE SE 98040
 NIEDERMAN CHRISTOPHER A
 6800 96TH AVE SE 98040
 Applicant: Henry Residence
 6802 96TH AVE SE
 Mercer Island, WA 98040
 County: King County
 Location: Lake Washington
 Last Updated: 3/1/2023 4:02 PM Zion
 Created:

SHEET
10.0
 NWS-2022-719
 PAGE 10 OF 16

FRAMING PLAN



County: King County
 Location: Lake Washington

Applicant: Henry Residence
 6802 96TH AVE SE
 Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
 NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
 STIVERS, JEAN GILLILAND-TTEE
 6810 96TH AVE SE 98040

NIEDERMAN CHRISTOPHER A
 6800 96TH AVE SE 98040

Created:

Last Updated: 3/1/2023 4:02 PM Zion



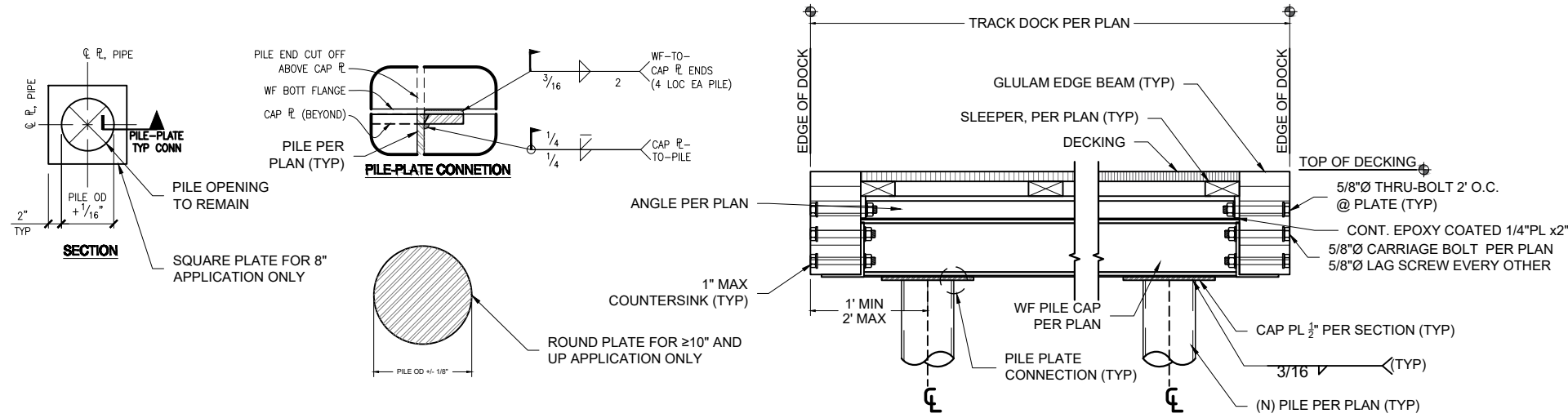
Seaborn Pile Driving
 1080 W Ewing St
 Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

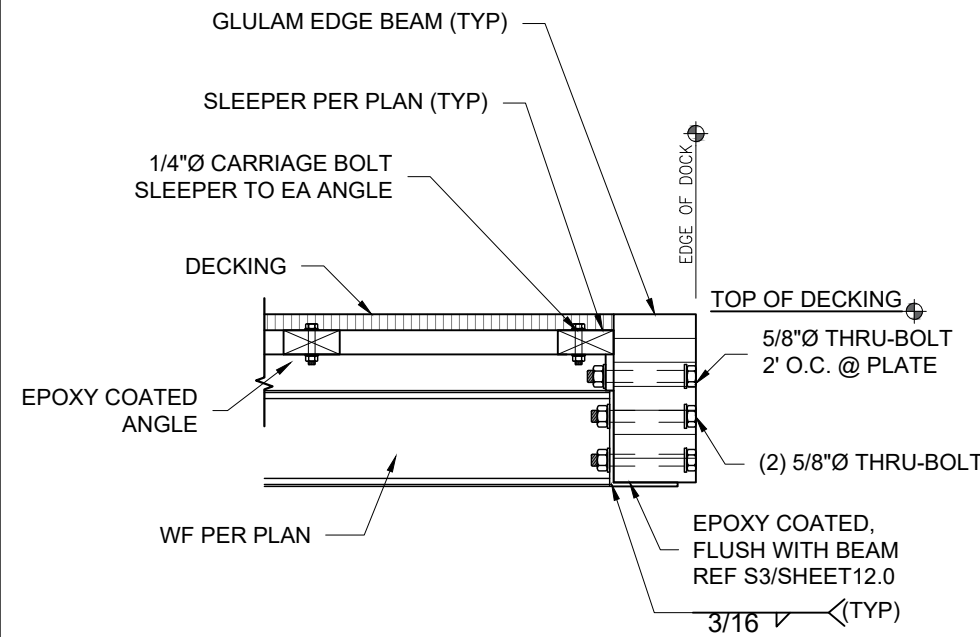
SHEET
11.0

DETAILS - TRACK

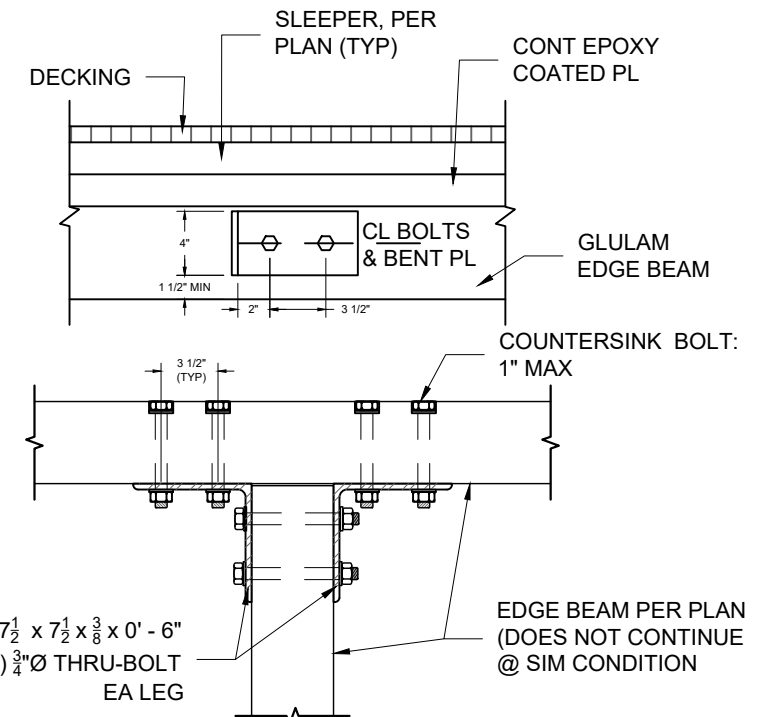


S1 DOCK SECTION w/PILES - TYP
SCALE: 1" = 1'

S3 DETAIL NOT IN USE



S5 EDGE SECTION (STEEL TRACK) - TYP
SCALE: 1" = 1'



S6 BEAM TO BEAM - TYP
SCALE: 1" = 1'

S4 DETAIL NOT IN USE



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040

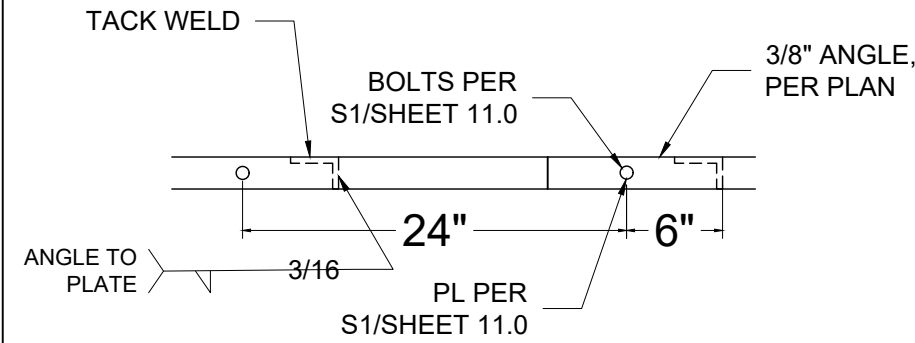
Created:

Last Updated: 3/1/2023 4:02 PM Zion

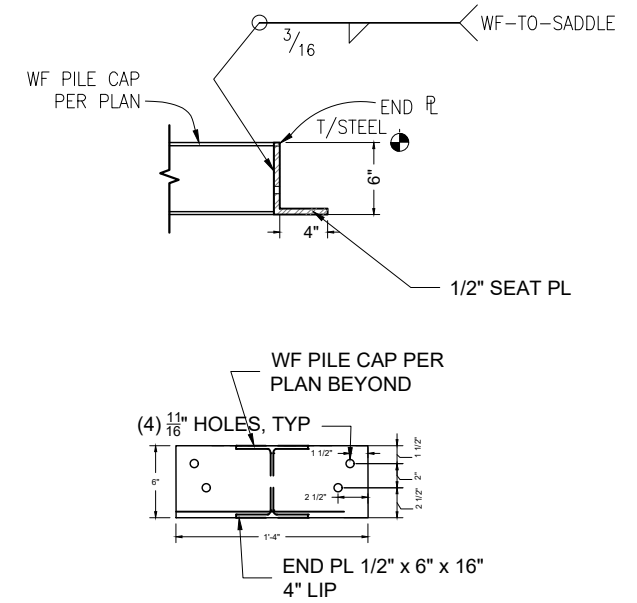
SHEET
12.0

DETAILS - TRACK

S1 DETAIL NOT IN USE



S2 ANGLE TO PLATE - TYP
SCALE: 1" = 1"



S3 BEAM SADDLE BRACKET
SCALE: 3/4" = 1"

S4 DETAIL NOT IN USE

S5 DETAIL NOT IN USE

S6 DETAIL NOT IN USE



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05

Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

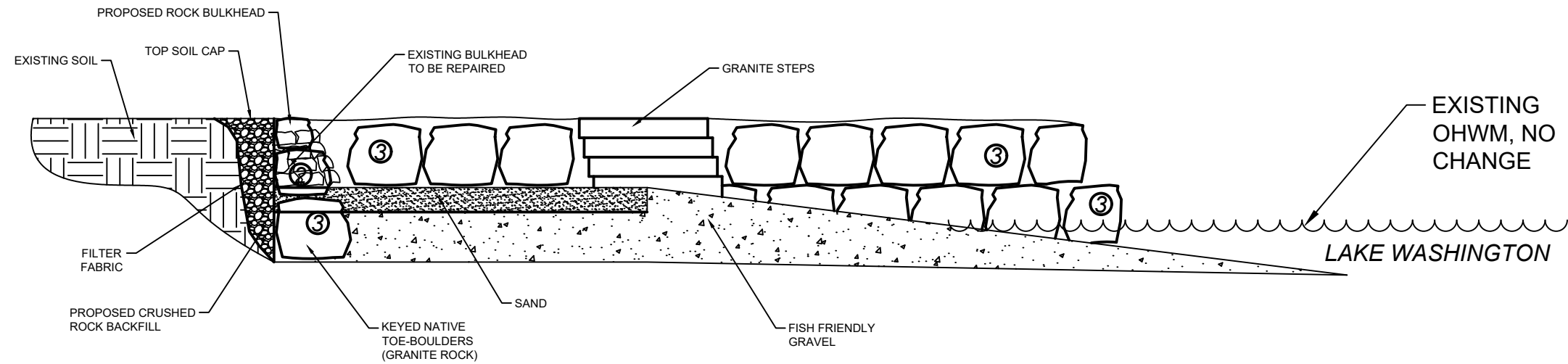
SHEET
13.0

NWS-2022-719
PAGE 13 OF 16

Last Updated: 3/1/2023 4:02 PM Zion

Created:

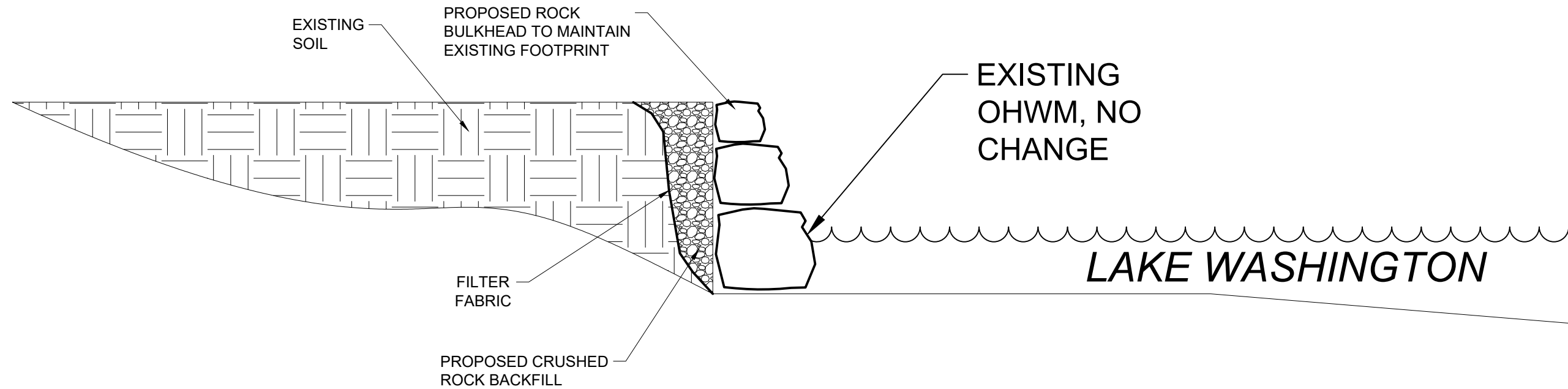
DETAILS- COVE



LEGEND

- S1 BULKHEAD W/ COVE AND STEPS
SCALE: NTS
- ② SIZE OF ROCK (2 MAN)
- ③

COVE AND BEACH SECTION VIEW



S2 BULKHEAD SECTION VIEW
SCALE: NTS



Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

County: King County
Location: Lake Washington

Applicant: Henry Residence
6802 96TH AVE SE
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 30, Township 24, Range 05
Adjacent Owners:
STIVERS, JEAN GILLILAND-TTEE
6810 96TH AVE SE 98040
NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

SHEET
14.0

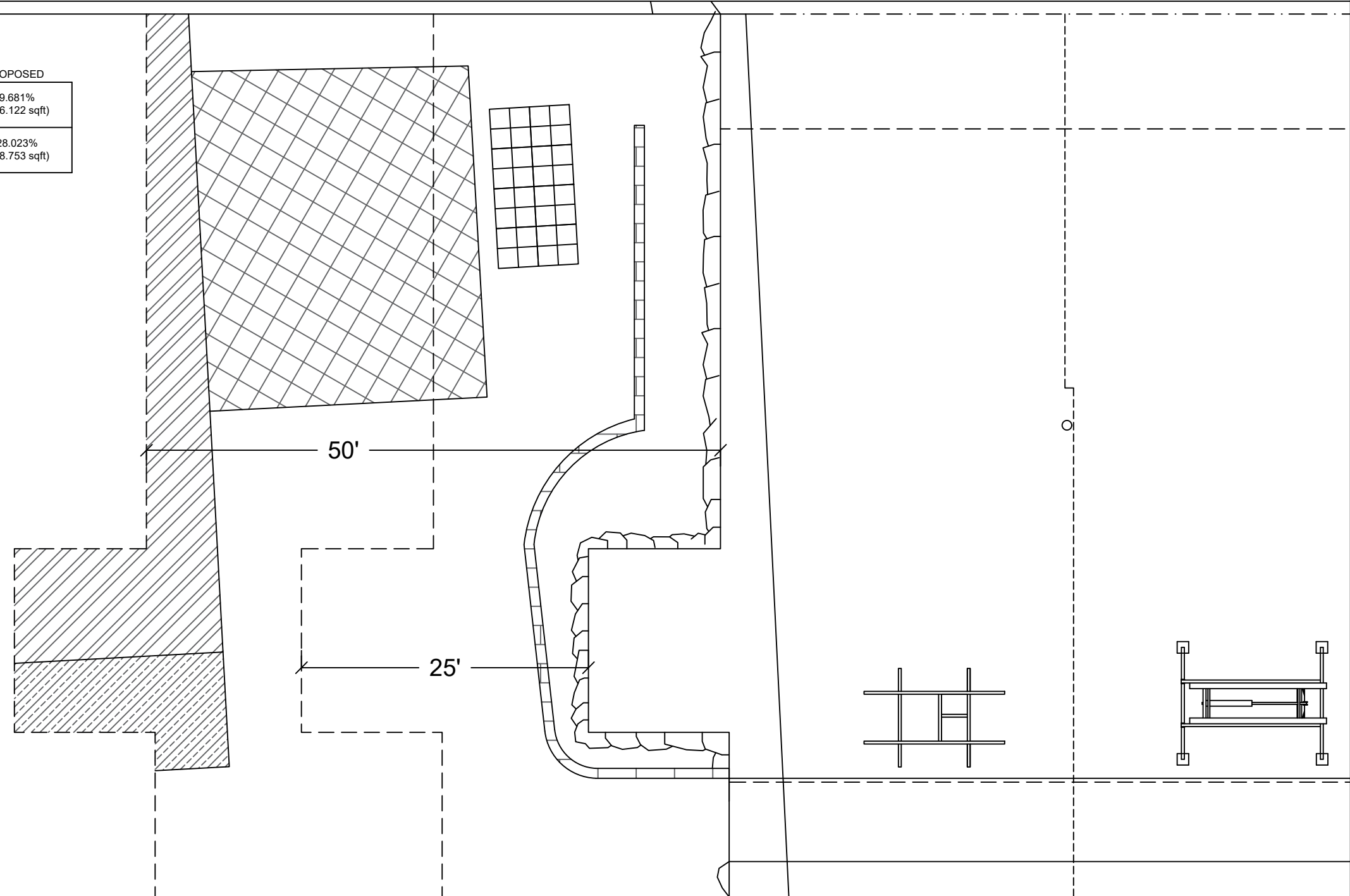
EXISTING HARDSCAPE CALCULATION DRAWING

Allowed Hardscape Quantities

SETBACK (total sqft)	ALLOWED	CURRENTLY USED	REMOVING	PROPOSED
0' - 25' SETBACK (1,922.577 sqft)	10% (192.258 sqft)	20.497% (394.075 sqft)	10.816% (207.953 sqft)	9.681% (186.122 sqft)
25' - 50' SETBACK (1,922.577 sqft)	30% (576.773 sqft)	58.988% (1134.092 sqft)	30.966% (595.339 sqft)	28.023% (538.753 sqft)

LEGEND

DESCRIPTION	AREA	HATCH
PATIO (25' SETBACK)	111.186 sqft	
RETAINING WALL (25' SETBACK)	65.919 sqft	
ROCK BULKHEAD (25' SETBACK)	120.203 sqft	
STEPPING STONES (25' SETBACK)	96.767 sqft	
DECK (50' SETBACK) (PERMIT SHL07-018)	398.986 sqft	
STEPS (50' SETBACK) (PERMIT SHL07-018)	139.767 sqft	
PATIO (50' SETBACK)	595.339 sqft	



Datum: CORPS OF ENGINEERS 1919
 NE Quarter Of Section 30, Township 24, Range 05
 County: King County
 Location: Lake Washington
 Applicant: Henry Residence
 6802 96TH AVE SE
 Mercer Island, WA 98040
 Adjacent Owners:
 STIVERS, JEAN GILLILAND-TTEE
 6810 96TH AVE SE 98040
 NIEDERMAN CHRISTOPHER A
 6800 96TH AVE SE 98040
 Created:
 Last Updated: 3/1/2023 4:02 PM Zion



Seaborn Pile Driving
 1080 W Ewing St
 Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.


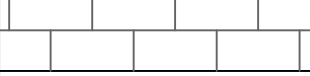

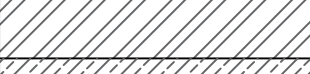

SHEET
15.0

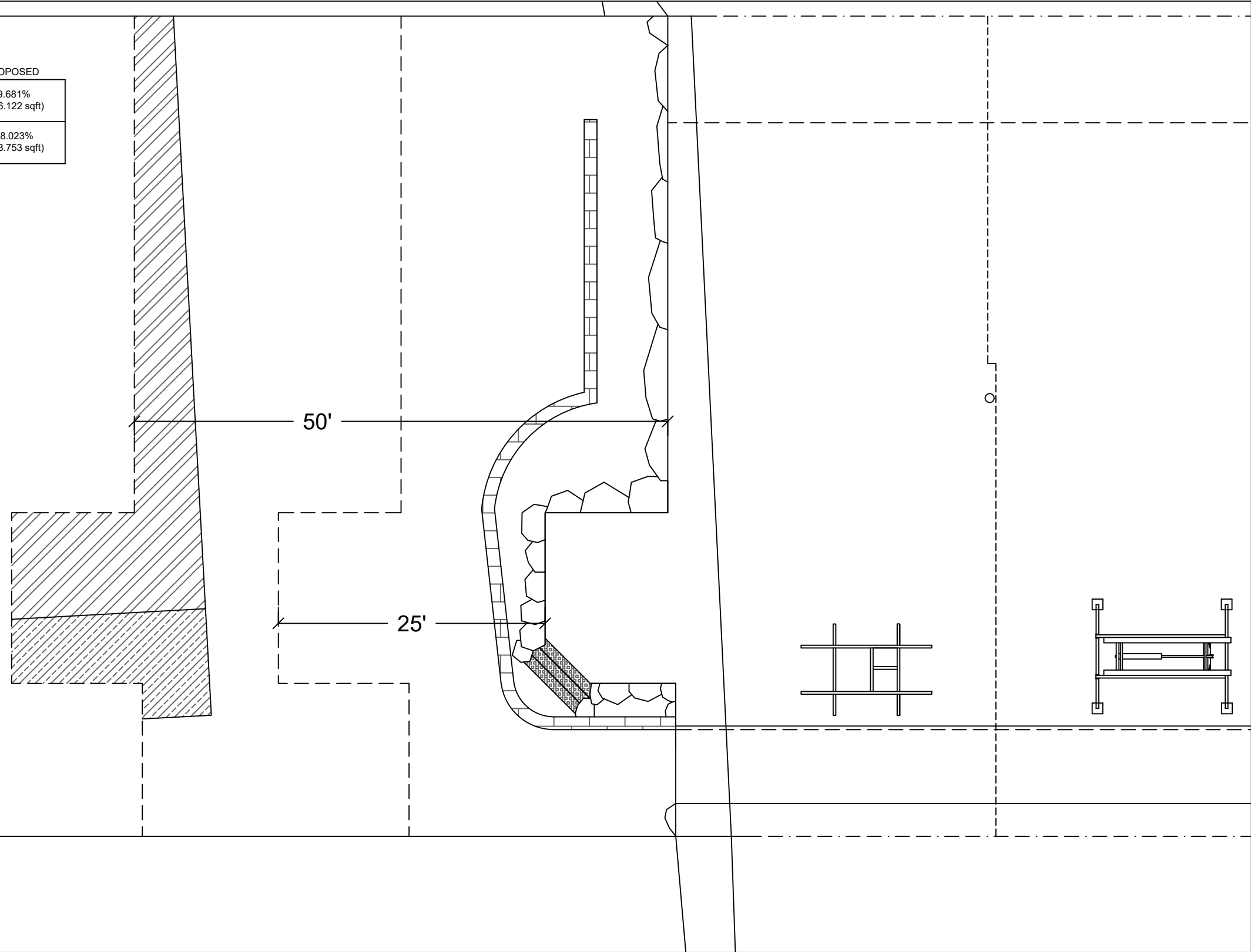
PROPOSED HARDSCAPE CALCULATION DRAWING

Allowed Hardscape Quantities

SETBACK (total sqft)	ALLOWED	CURRENTLY USED	REMOVING	PROPOSED
0' - 25' SETBACK (1,922.577 sqft)	10% (192.258 sqft)	20.497% (394.075 sqft)	10.816% (207.953 sqft)	9.681% (186.122 sqft)
25' - 50' SETBACK (1,922.577 sqft)	30% (576.773 sqft)	58.988% (1134.092 sqft)	30.966% (595.339 sqft)	28.023% (538.753 sqft)

LEGEND

DESCRIPTION	AREA	HATCH
BULKHEAD STEPS (25' SETBACK)	19.086 sqft	
RETAINING WALL (25' SETBACK)	65.919 sqft	
ROCK BULKHEAD (25' SETBACK)	101.117 sqft	
DECK (50' SETBACK) (PERMIT SHL07-018)	398.986 sqft	
STEPS (50' SETBACK) (PERMIT SHL07-018)	139.767 sqft	



County: King County
Location: Lake Washington
Applicant: Henry Residence
 6802 96TH AVE SE
 Mercer Island, WA 98040
Datum: CORPS OF ENGINEERS 1919
 NE Quarter Of Section 30, Township 24, Range 05
Adjacent Owners:
 STIVERS, JEAN GILLILAND-TTEE
 6810 96TH AVE SE 98040
 NIEDERMAN CHRISTOPHER A
 6800 96TH AVE SE 98040
Created: 3/1/2023 4:02 PM Zion



Seaborn Pile Driving
 1080 W Ewing St
 Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to drive (8) new steel piles, remove (1) existing mooring pile, construct a 233 SQFT extension, repair 74 LnFt of existing bulkhead, remove 12.44 cu yd concrete slabs, install a new cove with stairs, and permit (2) existing boat lifts.

SHEET
16.0

Appendix B: Site Photographs



Photo 1 - Existing dock looking waterward.



Photo 2 - Existing dock looking landward.



Photo 3 - Existing shoreline conditions north of dock showing cove and bulkhead.



Photo 4 - Existing shoreline conditions south of dock.



Photo 5 - Shoreline conditions north of the site.



Photo 6 - Shoreline conditions south of the site.



November 22, 2022

Kelsey Meyer
Seaborn Pile Driving
1080 West Ewing Street
Seattle, Washington 98119

**RE: Bulkhead Recommendations
Henry Residence
6802 96th Avenue Southeast
Mercer Island, Washington 98040
RGI Project No. 2022-607-1**

Dear Ms. Meyer:

The Riley Group, Inc. (RGI) is pleased to present our recommendations for repairing a bulkhead and build a cove, and installing eight steel piles for existing dock extension at the above-referenced site. On October 20, 2022, RGI observed the site condition and performed subsurface exploration by advancing four borings using a hand auger in the proposed cove and bulkhead area. The boring locations are shown on Figure 2. The following presents our findings of the soil conditions and recommendations for the proposed project site plans prepared by Seaborn Pile Driving dated October 4, 2022.

PROJECT DESCRIPTION

RGI understands that the owner plans to install 8 new steel piles, remove an existing mooring pile, construct a 233 square feet extension, repair 74 feet of existing bulkhead, remove 12.44 cubic yards of concrete slab, and install a new cove with stairs. A geotechnical engineering report (GER) will be needed for the project. Our understanding of the project is based on site plans prepared by Seaborn Pile Driving dated October 4, 2022.

An RGI geologist visited the site on October 20, 2022 and observed the existing shoreline condition. Based on our observations, the project is feasible from a geotechnical standpoint.

Currently, the bulkhead is the only structure to protect the site from being damaged by wave action. Per City of Mercer Island Municipal Code 19.13.050(B), we recommend that the bulkhead be repaired to protect the property from being damaged by wave action from Lake Washington.

SOIL AND GROUNDWATER CONDITION

The soils encountered during field exploration include up to 2.5 feet of fill comprised of loose to medium dense silty sand with varying gravel and sand with some silt over native deposits of loose to medium dense sandy gravel, silty sand, and sand with some silt.

Groundwater was encountered at one foot below ground surface at HA-4. More detailed descriptions of the subsurface conditions encountered are presented in the attached logs. Sieve analysis was performed on two selected soil samples. The grain size distribution curve are included.

At the time of the field exploration was performed, the lake level is 2.5 to 3 feet below the top of the existing bulkhead. RGI understands that the lake level variates about 2 feet and will be lower in the winter.

GEOTECHNICAL RECOMMENDATIONS

Analysis

The existing bulkhead is supporting the slope above the shoreline. As soon as the new cove is excavated, the slope will be affected by erosion caused by wave action.

RGI reviewed a wave climate report in Lake Washington prepared by Mott McDonald dated September 2015, the report is for entire Lake Washington including wave information for Mercer Island. Based on the report, the largest significant waves occur at the shoreline facing south and southwest along Mercer Island in Lake Washington. The project area is facing east and the wave height at the bulkhead area is 1 to 2 feet with a peak period of 1 to 2 seconds and wave energy of 50 to 100 lbs-foot per square foot. With the expected wave height, peak period, and energy, we expect that the shoreline, without protection from a bulkhead, will have an erosion rate up to several inches per year. The toe of slope will be completely eroded within the next three years. The slope stability will be affected and a landslide will likely occur in the affected area.

The bulkhead is the only structure that protects the slope from being damaged by wave action. Per City of Mercer Island Municipal Code 19.13.050(B), we recommend that the existing bulkhead be repaired as soon as possible to protect the property from being damaged by wave action from Lake Washington.

Based on the current scope of work, an existing rock bulkhead will be removed and a new rock bulk head will be constructed around the perimeter of the cove. Some of the rock blocks will be reused. We recommend that the height of the bulkhead be at least 2 feet higher than the maximum wave height which is 1 to 2 feet. The new bulkhead will be at least 3 feet above the Ordinary High Water Mark (OHWM). Our geotechnical comments and recommendations concerning the design and construction of the replacement bulkhead are provided below.

Rock Bulkhead

Rock bulkhead is a rockery used to protect waterfront property and it is not intended to function as an engineered structures to resist lateral earth pressures as a retaining wall. The primary function of a rock bulkhead is to provide stability and erosion control due to wave action. The amount of support obtained will depend on a large extent on the quality of the workmanship, size, shape of the rocks used, and drainage behind it. A critical factor in rockery construction is the quality of the rock material used. Rock for use in rockery should be cubical, rectangular, or tubular in shape with the longest dimension not exceeding three times the width. The rocks recycled from existing bulkhead may be used if meeting the requirement. Additional rocks may need to be imported. The rock bulkhead should be constructed by an experienced rockery contractor in accordance with Associated Rockery Contractors (ARC) guidelines.

We recommended that limiting the rockery height to eight feet placed along the native dense soil. A general rock bulkhead section detail is included on Figure 3.

The following sections of the report provide general recommendations related to piles, erosion and sediment control, excavations, structural fill, and backfill compaction.

Piles

Eight new piles will be installed for supporting the dock extension. RGI expects 8-inch diameter galvanized steel pipe piles will be used for supporting. The piles should be driven to refusal in the competent native soil (very dense native soil) below the loose soil at the lake bottom. Based on our experience with similar projects, the pile capacities listed in Table 1 can be used for project design. The actual pile depth will be determined in the field based on actual driving condition.

Table 1 Driven Pier Capacities (kips)

Pile Type	Pile Diameter (inches)	Compression	Lateral
Steel Pipe	8	45	4.5

RGI recommends that the steel piles be installed with a 3,000-pound hydraulic hammer. The minimum pile embedment depth is 10 feet into the very dense native soil below the loose soil at the bottom of the lake. Based on the water depth, RGI expects that the pile capacities can be reached from over 25 to 40 feet below water level. However, the actual pile termination depth should be determined in the field, based on pile driving conditions.

For 8-inch-diameter piles, a refusal criterion of 10 seconds per inch can be used with a 3,000-pound hammer. The new piles should be at least 3 pile diameter laterally from existing piles or structures to avoid impacts.

During the installation of new piles, a vibration monitoring program may be required by the City of Mercer Island. If it is required, it should be established to measure vibrations and to confirm that vibrations are maintained below established thresholds where damage may be observed in structures and utilities. The vibration monitoring will be performed by a seismograph to monitor vibrations near pile driver, in the existing structures, and on the ground surface in the vicinity of sensitive utilities. A vibration threshold of 0.3 inches/second and 1.5 inches/second is recommended for structures and ground surface in the vicinity of utilities, respectively.

The ground vibration will be performed by a subcontractor specialized in the area. If the pile operation is approaching the threshold, the operation will need to be adjusted to avoid vibration damages to structures and properties.

Erosion and Sediment Control

Potential sources or causes of erosion and sedimentation depend on construction methods, slope length and gradient, amount of soil exposed and/or disturbed, soil type, construction sequencing and weather. The impacts on erosion-prone areas can be reduced by implementing an erosion and sedimentation control plan. The plan should be designed in accordance with applicable city and/or county standards.

RGI recommends the following erosion control Best Management Practices (BMPs):

- Scheduling site preparation and grading for the drier summer and early fall months and undertaking activities that expose soil during periods of little or no rainfall
- Establishing a quarry spall construction entrance

- Installing siltation control fencing or anchored straw or coir wattles on the downhill side of work areas
- Covering soil stockpiles with anchored plastic sheeting
- Revegetating or mulching exposed soils with a minimum 3-inch thickness of straw if surfaces will be left undisturbed for more than one day during wet weather or one week in dry weather
- Directing runoff away from exposed soils and slopes
- Minimizing the length and steepness of slopes with exposed soils and cover excavation surfaces with anchored plastic sheeting (Graded and disturbed slopes should be tracked in place with the equipment running perpendicular to the slope contours so that the track marks provide a texture to help resist erosion and channeling. Some sloughing and raveling of slopes with exposed or disturbed soil should be expected.)
- Decreasing runoff velocities with check dams, straw bales or coir wattles
- Confining sediment to the project site
- Inspecting and maintaining erosion and sediment control measures frequently (The contractor should be aware that inspection and maintenance of erosion control BMPs is critical toward their satisfactory performance. Repair and/or replacement of dysfunctional erosion control elements should be anticipated.)

Permanent erosion protection should be provided by reestablishing vegetation using hydroseeding and/or landscape planting. Until the permanent erosion protection is established, site monitoring should be performed by qualified personnel to evaluate the effectiveness of the erosion control measures. Provisions for modifications to the erosion control system based on monitoring observations should be included in the erosion and sedimentation control plan.

Excavations

All temporary cut slopes associated with the site and utility excavations should be adequately inclined to prevent sloughing and collapse. Based on OSHA regulations, the native soil classifies as a Group B soil. Accordingly, for excavations more than 4 feet but less than 20 feet in depth, the temporary side slopes should be laid back with a minimum slope inclination of 1-1/2H:1V (Horizontal:Vertical).

In all cases, however, appropriate inclinations will depend on the actual soil and groundwater conditions encountered during earthwork. Ultimately, the site contractor must be responsible for maintaining safe excavation slopes that comply with applicable OSHA or WISHA guidelines.

Structural Fill

The native soil encountered is suitable for re-use as structural fill if the moisture can be properly controlled. If the construction occurs in wet weather, RGI recommends import structural fill be used for all grading and backfill. The import material must meet the grading requirements listed in Table 2 in order to be used as structural fill.

Table 2 Structural Fill Gradation

U.S. Sieve Size	Percent Passing
3 inches	100
No. 4 sieve	75 percent
No. 200 sieve	5 percent *

*Based on minus 3/4 inch fraction.

Prior to use, an RGI representative should observe and test all materials imported to the site for use as structural fill. Structural fill materials should be placed in uniform loose layers not exceeding 12 inches and compacted as specified in Table 3. The soil's maximum density and optimum moisture should be determined by American Society of Testing and Materials D1557-09 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (ASTM D1557).

Table 3 Structural Fill Compaction ASTM D1557

Location	Material Type	Minimum Compaction Percentage	Moisture Content Range	
Foundations	On-site granular or approved imported fill soils:	95	+2	-2
Retaining Wall Backfill	On-site granular or approved imported fill soils:	92	+2	-2

Placement and compaction of structural fill should be observed by RGI. A representative number of in-place density tests should be performed as the fill is being placed to confirm that the recommended level of compaction is achieved.

ADDITIONAL SERVICES

RGI is available to provide further geotechnical consultation throughout the design phase of the project. RGI should review the final design and specifications in order to verify that earthwork and foundation recommendations have been properly interpreted and incorporated into project design and construction.

RGI is also available to provide geotechnical engineering and construction monitoring services during construction. The integrity of the earthwork and construction depends on proper site preparation and procedures. In addition, engineering decisions may arise in the field in the event that variations in subsurface conditions become apparent. Construction monitoring services are not part of this scope of work. If these services are desired, please let us know and we will prepare a cost proposal.



LIMITATIONS

This letter is the property of RGI, Seaborn Pile Driving, and its designated agents. Within the limits of the scope and budget, this letter was prepared in accordance with generally accepted geotechnical engineering practices in the area at the time this letter was issued. This letter is intended for specific application to the Henry Residence project in Mercer Island, Washington, and for the exclusive use of Seaborn Pile Driving and its authorized representatives. No other warranty, expressed or implied, is made. Site safety, excavation support, and dewatering requirements are the responsibility of others.

The scope of services for this project does not include either specifically or by implication any environmental or biological (for example, mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, we can provide a proposal for these services.

The analyses and recommendations presented in this letter are based upon data obtained from reviewing the explorations completed by others on the site. Variations in soil conditions can occur, the nature and extent of which may not become evident until construction. If variations appear evident, RGI should be requested to reevaluate the recommendations in this letter prior to proceeding with construction.

We trust the information presented is sufficient for your current needs. If you have any questions regarding this letter report or require additional information, please call us at (425) 415-0551.

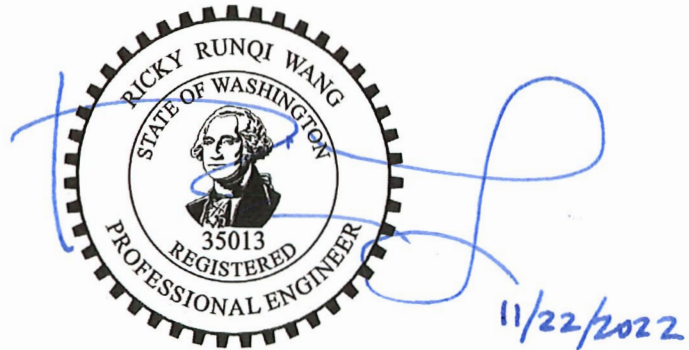
Sincerely yours,

THE RILEY GROUP, INC.



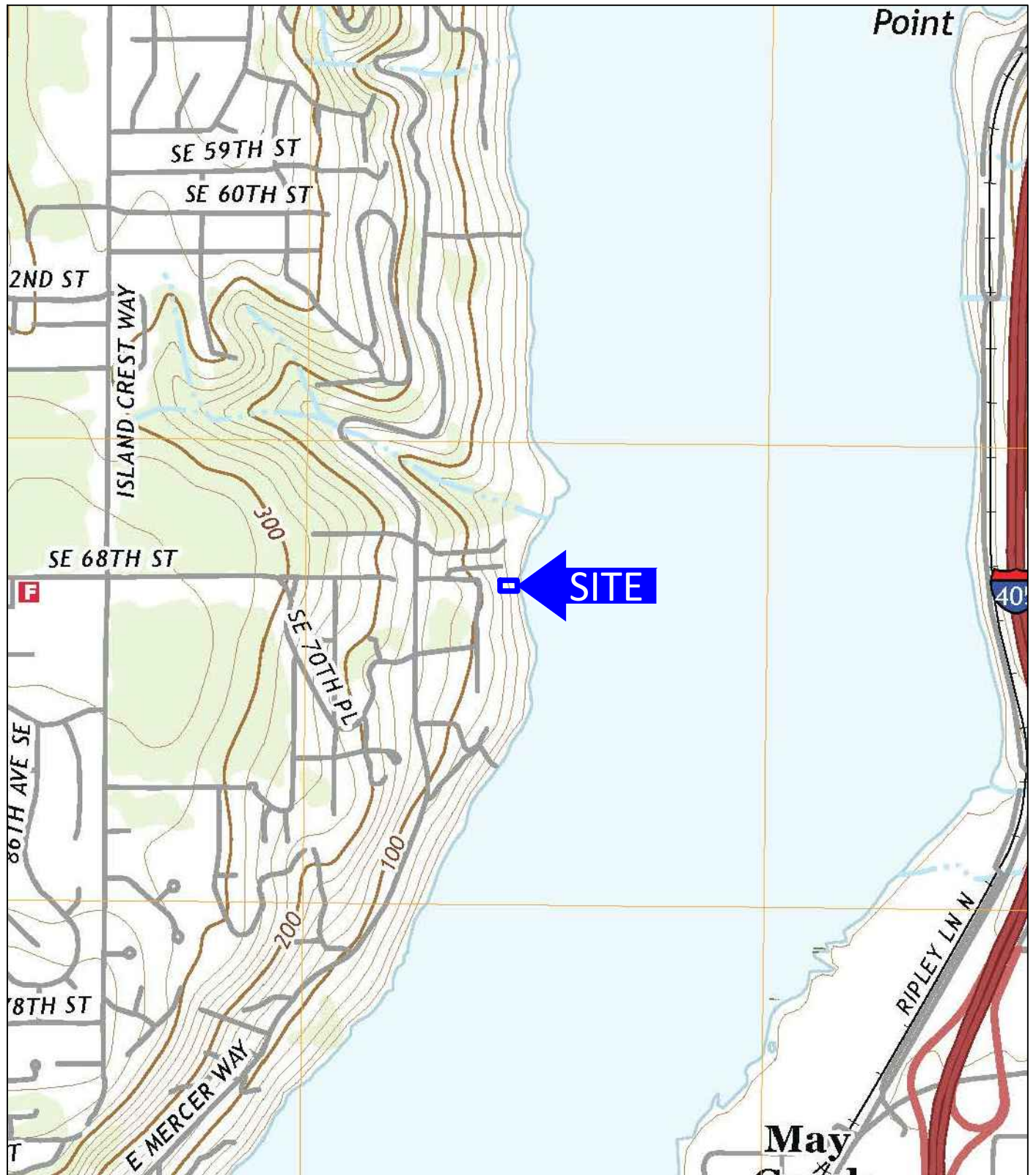
ERIC L. WOODS

Eric L. Woods, LG
Project Geologist



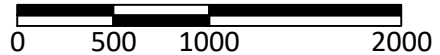
Ricky R. Wang, PhD, PE
Principal Engineer

Attachments: Figure 1 Site Vicinity Map
 Figure 2 Geotechnical Exploration Plan
 Figure 3 Typical Rock Bulkhead Section
 Hand Auger Boring Logs and Grainsize Analysis



USGS, 2020, Mercer Island, Washington
7.5-Minute Quadrangle

Approximate Scale: 1"=1000'



Corporate Office
17522 Bothell Way Northeast
Bothell, Washington 98011
Phone: 425.415.0551
Fax: 425.415.0311

Henry Residence

RGI Project Number:
2022-607-1

Site Vicinity Map

Figure 1

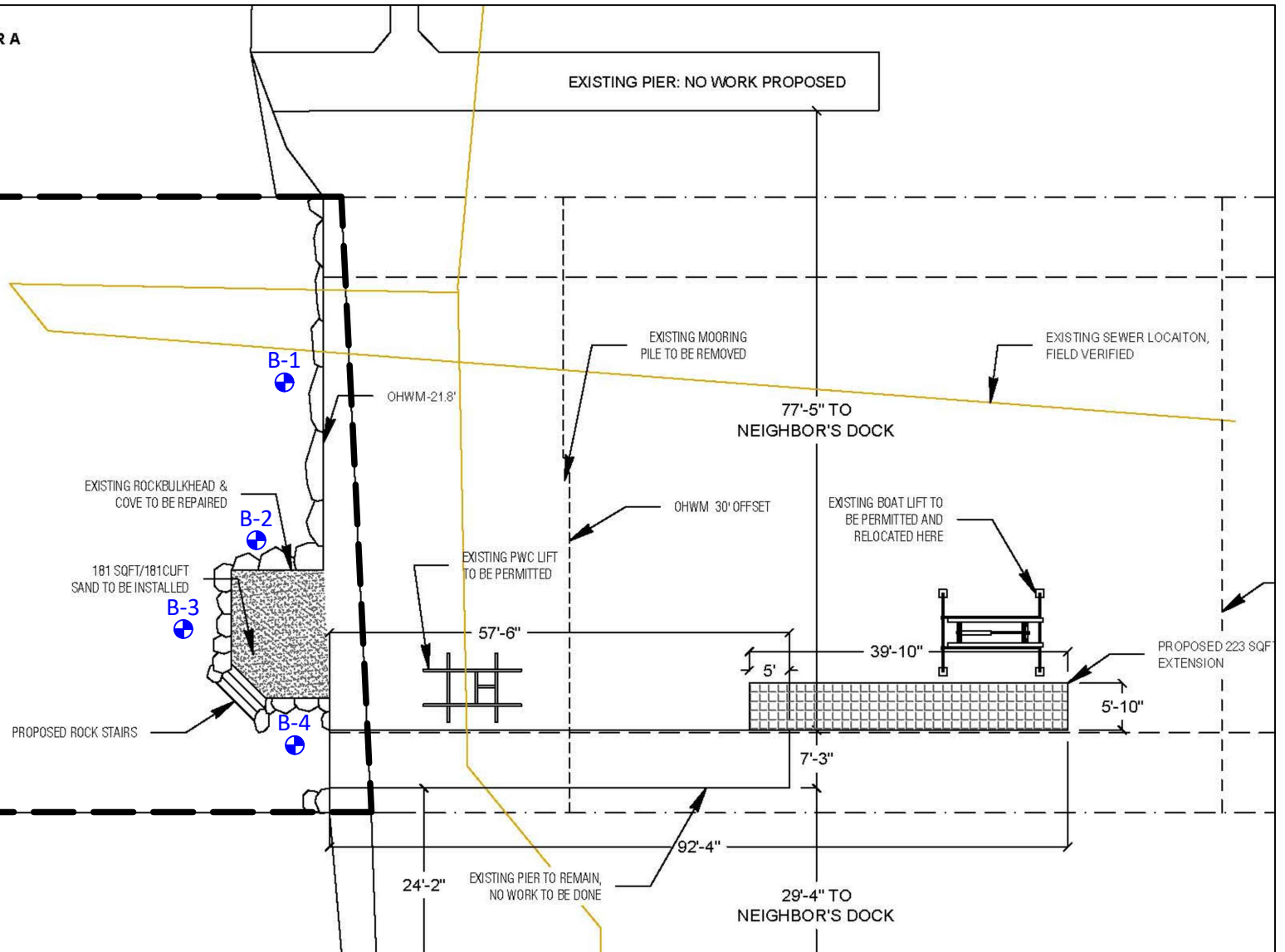
Date Drawn:
11/2022

Address: 6802 96th Avenue Southeast, Mercer Island, Washington 98040

NIEDERMAN CHRISTOPHER A
6800 96TH AVE SE 98040

EXISTING PIER: NO WORK PROPOSED

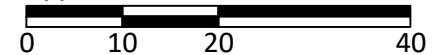
SUBJECT PROPERTY:
Henry Residence
6802 96th Ave SE 98040
Parcel #: 258070-0005



⊕ = Hand augers by RGI, 10/20/22

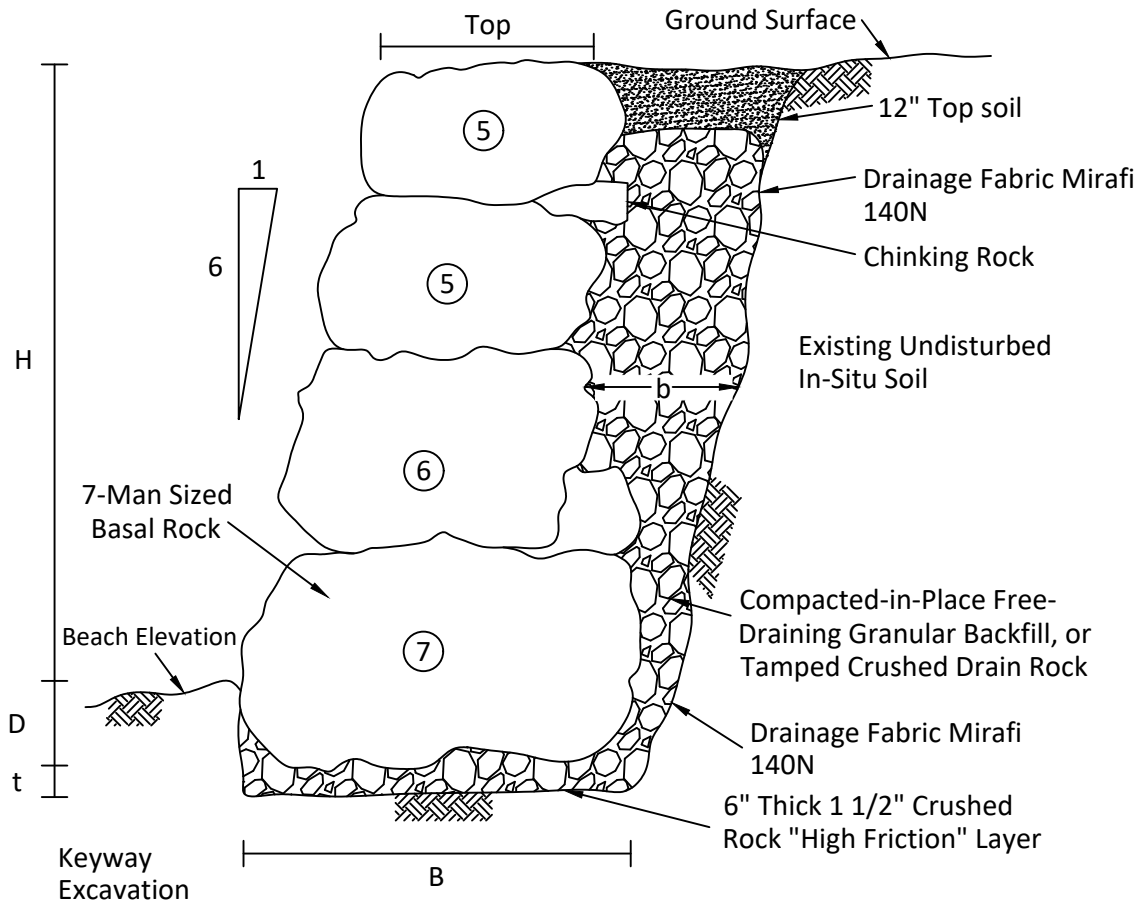
--- = Site boundary

Approximate Scale: 1"=20'



RILEYGROUP
Corporate Office
17522 Bothell Way Northeast
Bothell, Washington 98011
Phone: 425.415.0551
Fax: 425.415.0311

Henry Residence		Figure 2
RGI Project Number: 2022-607-1	Geotechnical Exploration Plan	
Address: 6802 96th Avenue Southeast, Mercer Island, Washington 98040		Date Drawn: 11/2022



LEGEND

- Maximum estimated free-standing rock wall height, H = 12 feet
- Minimum estimated keyway excavation depth, D = 2-1/2 feet
- Minimum recommended thickness of 1-1/2" crushed rock "high friction" - layer t = 6 inches
- Minimum estimated total rock wall length, H+D-I = 13-1/2 feet
- Minimum recommended width of keyway excavation, B = See Table
- Minimum recommended thickness of drain rock layer, b = 1 foot
- Allowable soil bearing capacity of base of rock wall = 2,100 psf
- Minimum recommended basal rock size = 7-man
- Minimum recommended size of chinking rock = 2-man
- Neglect upper 1 foot of passive resistance in design
- Rock bulkhead wall construction to be in general accordance with the geotechnical engineering report and the ARC Rockery Construction Guidelines

Rock Man-Size	Rock Dimensions (Inches)	Rock Weight (Pounds)
3-man	28-36	700-2,000
4-man	36-48	2,000-4,000
5-man	48-54	4,000-6,000
6-man	54-60	6,000-8,000
7-man	>60	>8,000

H (Feet)	B (Feet)	Top (Feet)
4	4	3
6	5.5	4
8	7	5.5
10	8.5	6
12	9.5	7



Corporate Office
 17522 Bothell Way Northeast
 Bothell, Washington 98011
 Phone: 425.415.0551
 Fax: 425.415.0311

Henry Residence		Figure 3
RGI Project Number: 2022-607-1	Typical Rock Bulkhead Section	Date Drawn: 11/2022
Address: 6802 96th Avenue Southeast, Mercer Island, Washington 98040		

Project Name: **Henry Residence**

Project Number: **2022-607-1**

Client: **Seaborn Pile Driving**



Hand Auger No.: **HA-1**

Sheet 1 of 1

Date(s) Drilled: 10/20/2022	Logged By: ELW	Surface Conditions: Grass
Drilling Method(s): Hand Auger	Drill Bit Size/Type: 2.25"	Total Depth of Borehole: 2.5 feet bgs
Drill Rig Type: N/A	Drilling Contractor: N/A	Approximate Surface Elevation: N/A
Groundwater Level: Not Encountered	Sampling Method(s):	Hammer Data : N/A
Borehole Backfill: Cuttings	Location: 6802 96th Avenue Southeast, Mercer Island, Washington	

Elevation (feet)	Depth (feet)	Sample Type	Sample ID	Sampling Resistance, blows/ft	Recovery (%)	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	Moisture (%)
0						TPSL		6" topsoil	
						Fill		Brown silty SAND, loose, moist (Fill) Trace concrete debris	
						Fill		Gray SAND with some silt, loose to medium dense, moist to wet Angular gravel at 2'	
								Hand Auger terminated at 2.5' due to log obstruction	

Project Name: **Henry Residence**

Project Number: **2022-607-1**

Client: **Seaborn Pile Driving**



Hand Auger No.: **HA-2**

Sheet 1 of 1

Date(s) Drilled: 10/20/2022	Logged By: ELW	Surface Conditions: Vines
Drilling Method(s): Hand Auger	Drill Bit Size/Type: 2.25"	Total Depth of Borehole: 1.5 feet bgs
Drill Rig Type: N/A	Drilling Contractor: N/A	Approximate Surface Elevation: N/A
Groundwater Level: Not Encountered	Sampling Method(s): Auger	Hammer Data : N/A
Borehole Backfill: Cuttings	Location: 6802 96th Avenue Southeast, Mercer Island, Washington	

Elevation (feet)	Depth (feet)	Sample Type	Sample ID	Sampling Resistance, blows/ft	Recovery (%)	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	Moisture (%)
0						TPSL		4" topsoil	
						Fill		Brown silty SAND with some gravel, loose, dry	
	1					Fill		Brown drain rock in a silty sand matrix, loose, moist Fabric encountered at 8"	7
	2							Hand Auger terminated at 1.5' due to caving	
	3								
	4								

Project Name: **Henry Residence**

Project Number: **2022-607-1**

Client: **Seaborn Pile Driving**



Hand Auger No.: **HA-3**

Sheet 1 of 1

Date(s) Drilled: 10/20/2022	Logged By: ELW	Surface Conditions: Grass, Moss
Drilling Method(s): Hand Auger	Drill Bit Size/Type: 2.25"	Total Depth of Borehole: 1.5 feet bgs
Drill Rig Type: N/A	Drilling Contractor: N/A	Approximate Surface Elevation: N/A
Groundwater Level: Not Encountered	Sampling Method(s):	Hammer Data : N/A
Borehole Backfill: Cuttings	Location: 6802 96th Avenue Southeast, Mercer Island, Washington	

Elevation (feet)	Depth (feet)	Sample Type	Sample ID	Sampling Resistance, blows/ft	Recovery (%)	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	Moisture (%)
0						TPSL		2" topsoil	
						Fill		Brown silty SAND with some gravel, loose, dry	
1								Contains concrete debris	
								Hand Auger terminated at 1.5' due to concrete rubble obstruction	
2									
3									
4									

Project Name: **Henry Residence**

Project Number: **2022-607-1**

Client: **Seaborn Pile Driving**



Hand Auger No.: **HA-4**

Sheet 1 of 1

Date(s) Drilled: 10/20/2022	Logged By: ELW	Surface Conditions: Gravel
Drilling Method(s): Hand Auger	Drill Bit Size/Type: 2.25"	Total Depth of Borehole: 4 feet bgs
Drill Rig Type: N/A	Drilling Contractor: N/A	Approximate Surface Elevation: N/A
Groundwater Level: 1'	Sampling Method(s): Auger	Hammer Data : N/A
Borehole Backfill: Cuttings	Location: 6802 96th Avenue Southeast, Mercer Island, Washington	

Elevation (feet)	Depth (feet)	Sample Type	Sample ID	Sampling Resistance, blows/ft	Recovery (%)	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	Moisture (%)
0						GP		Gray sandy GRAVEL, loose, wet	
1	1					SM		Gray silty SAND, loose to medium dense, water bearing, 13% fines Trace wood debris	27
2									
3									26
4						SP-SM		Gray SAND with some silt, loose to medium dense, water bearing, 11% fines	27
	4							Hand Auger terminated at 4'	

Project Name: **Henry Residence**

Project Number: **2022-607-1**

Client: **Seaborn Pile Driving**



Key to Log of Boring

Sheet 1 of 1

Elevation (feet)	Depth (feet)	Sample Type	Sample ID	Sampling Resistance, blows/ft	Recovery (%)	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	Moisture (%)
1	2	3	4	5	6	7	8	9	10

COLUMN DESCRIPTIONS

- 1** Elevation (feet): Elevation (MSL, feet).
- 2** Depth (feet): Depth in feet below the ground surface.
- 3** Sample Type: Type of soil sample collected at the depth interval shown.
- 4** Sample ID: Sample identification number.
- 5** Sampling Resistance, blows/ft: Number of blows to advance driven sampler one foot (or distance shown) beyond seating interval using the hammer identified on the boring log.
- 6** Recovery (%): Core Recovery Percentage is determined based on a ratio of the length of core sample recovered compared to the cored interval length.
- 7** USCS Symbol: USCS symbol of the subsurface material.
- 8** Graphic Log: Graphic depiction of the subsurface material encountered.
- 9** MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.
- 10** Moisture (%): Moisture, expressed as a water content.

FIELD AND LABORATORY TEST ABBREVIATIONS

- CHEM: Chemical tests to assess corrosivity
- COMP: Compaction test
- CONS: One-dimensional consolidation test
- LL: Liquid Limit, percent
- PI: Plasticity Index, percent
- SA: Sieve analysis (percent passing No. 200 Sieve)
- UC: Unconfined compressive strength test, Qu, in ksf
- WA: Wash sieve (percent passing No. 200 Sieve)

MATERIAL GRAPHIC SYMBOLS

- AF
- Poorly graded GRAVEL (GP)
- Silty SAND (SM)
- Poorly graded SAND with Silt (SP-SM)
- Topsoil

TYPICAL SAMPLER GRAPHIC SYMBOLS

- Auger sampler
- Bulk Sample
- 3-inch-OD California w/ brass rings
- CME Sampler
- Grab Sample
- 2.5-inch-OD Modified California w/ brass liners

OTHER GRAPHIC SYMBOLS

- Water level (at time of drilling, ATD)
- Water level (after waiting)
- Minor change in material properties within a stratum
- Inferred/gradational contact between strata
- Queried contact between strata

GENERAL NOTES

- 1: Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
- 2: Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

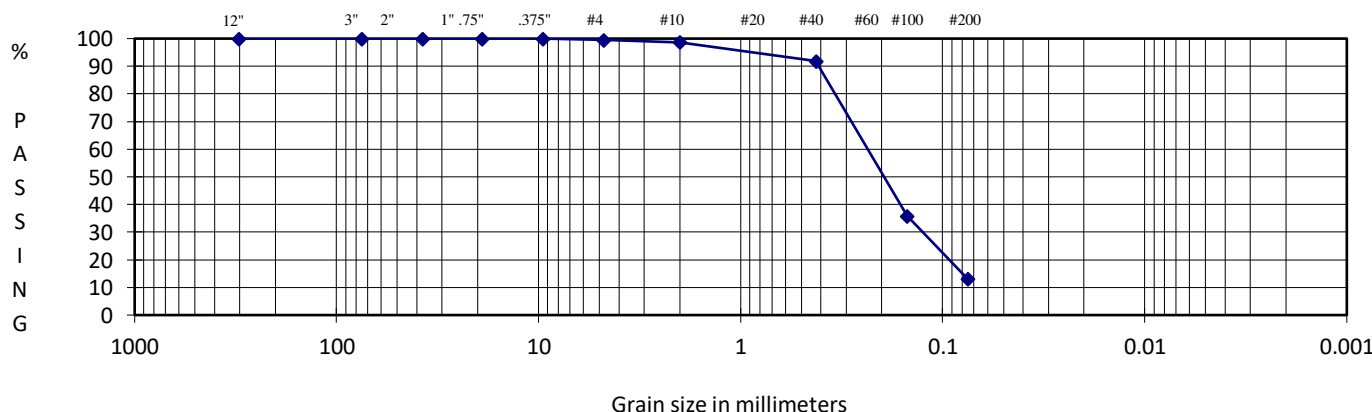
GRAIN SIZE ANALYSIS
ASTM D421, D422, D1140, D2487, D6913

PROJECT TITLE	Henry Residence	HA-4	
PROJECT NO.	2022-607-1	1 foot	
TECH/TEST DATE	CM 11/3/2022	10/20/2022	

WATER CONTENT (Delivered Moisture)		Total Weight Of Sample Used For Sieve Corrected For Hygroscopic Moisture	
Wt Wet Soil & Tare (gm)	(w1) 441.5	Weight Of Sample (gm)	376.9
Wt Dry Soil & Tare (gm)	(w2) 376.9	Tare Weight (gm)	134.3
Weight of Tare (gm)	(w3) 134.3	(w6) Total Dry Weight (gm)	242.6

Weight of Water (gm)	(w4=w1-w2) 64.6	SIEVE ANALYSIS	
Weight of Dry Soil (gm)	(w5=w2-w3) 242.6	Cumulative	
Moisture Content (%)	(w4/w5)*100 27	Wt Ret +Tare	(Wt-Tare) (wt ret/w6)*100
		(%Retained)	% PASS (100-%ret)

% COBBLES	0.0	12.0"	134.3	0.00	0.00	100.00	cobbles
% C GRAVEL	0.0	3.0"	134.3	0.00	0.00	100.00	coarse gravel
% F GRAVEL	0.5	2.5"					coarse gravel
% C SAND	0.8	2.0"					coarse gravel
% M SAND	6.9	1.5"	134.3	0.00	0.00	100.00	coarse gravel
% F SAND	78.9	1.0"					coarse gravel
% FINES	13.0	0.75"	134.3	0.00	0.00	100.00	fine gravel
% TOTAL	100.0	0.50"					fine gravel
D10 (mm)		0.375"	134.3	0.00	0.00	100.00	fine gravel
D30 (mm)		#4	135.5	1.20	0.49	99.51	coarse sand
D60 (mm)		#10	137.4	3.10	1.28	98.72	medium sand
Cu		#20					medium sand
Cc		#40	154.1	19.80	8.16	91.84	fine sand
		#60					fine sand
		#100	289.9	155.60	64.14	35.86	fine sand
		#200	345.4	211.10	87.02	12.98	finer
		PAN	376.9	242.60	100.00	0.00	silt/clay



DESCRIPTION: Silty SAND
 USCS: SM

Prepared For:
 Seaborn Pile Driving

Reviewed By:
 ELW



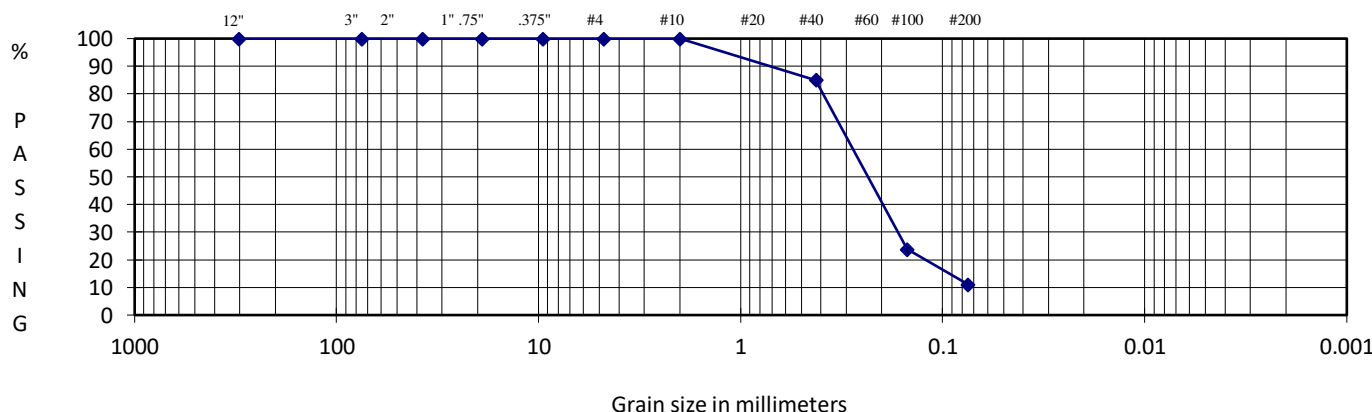
GRAIN SIZE ANALYSIS
ASTM D421, D422, D1140, D2487, D6913

PROJECT TITLE	Henry Residence	HA-4
PROJECT NO.	2022-607-1	3.5 feet
TECH/TEST DATE	CM 11/3/2022	10/20/2022

WATER CONTENT (Delivered Moisture)		Total Weight Of Sample Used For Sieve Corrected For Hygroscopic Moisture	
Wt Wet Soil & Tare (gm)	(w1) 396.2	Weight Of Sample (gm)	339.7
Wt Dry Soil & Tare (gm)	(w2) 339.7	Tare Weight (gm)	133.6
Weight of Tare (gm)	(w3) 133.6	(w6) Total Dry Weight (gm)	206.1

Weight of Water (gm)	(w4=w1-w2) 56.5	SIEVE ANALYSIS	
Weight of Dry Soil (gm)	(w5=w2-w3) 206.1	Cumulative	
Moisture Content (%)	(w4/w5)*100 27	Wt Ret +Tare	(Wt-Tare) (wt ret/w6)*100
		(%Retained)	% PASS (100-%ret)

% COBBLES	0.0	12.0"	133.6	0.00	0.00	100.00	cobbles
% C GRAVEL	0.0	3.0"	133.6	0.00	0.00	100.00	coarse gravel
% F GRAVEL	0.0	2.5"					coarse gravel
% C SAND	0.1	2.0"					coarse gravel
% M SAND	14.8	1.5"	133.6	0.00	0.00	100.00	coarse gravel
% F SAND	73.9	1.0"					coarse gravel
% FINES	11.1	0.75"	133.6	0.00	0.00	100.00	fine gravel
% TOTAL	100.0	0.50"					fine gravel
D10 (mm)	0.075	0.375"	133.6	0.00	0.00	100.00	fine gravel
D30 (mm)	0.18	#4	133.6	0.00	0.00	100.00	coarse sand
D60 (mm)	0.28	#10	133.8	0.20	0.10	99.90	medium sand
Cu	3.7	#20					medium sand
Cc	1.5	#40	164.4	30.80	14.94	85.06	fine sand
		#60					fine sand
		#100	290.7	157.10	76.23	23.77	fine sand
		#200	316.8	183.20	88.89	11.11	finest
		PAN	339.7	206.10	100.00	0.00	silt/clay



DESCRIPTION: SAND with some silt
 USCS: SP-SM

Prepared For:
 Seaborn Pile Driving

Reviewed By:
 ELW



CITY OF MERCER ISLAND

3505 - 88th Avenue S.E.
 Mercer Island, Washington 98040
 Phone: 232-6400

8/13/75-004

Holyoke, Bruce

H-5
 Mr. Gerald A. Newgard
 U. S. Army Corps of Engineers
 1519 - Alaskan Way South
 Seattle, Wa. 98134



RE: 071-OYB-002164 Holyoke, Bruce W.

Dear Mr. Newgard:

The City of Mercer Island has received and reviewed comments from various departments relative to the above Public Notice. Based upon those comments, the City of Mercer Island offers the following statement(s):

1. We have no objection to the project as stated in the above notice. A building permit is required and may be secured at the Building Department.
2. This agency has determined that this project is exempt from the Shoreline Management Act and has notified the applicant.
3. A Shoreline Management Permit is required and, accordingly, we notified the applicant to initiate appropriate proceedings at our office.
4. Applicant has applied for a Shorelines Management Permit.
5. We request that the Corps permit be withheld until a Substantial Development Permit application has been reviewed.
6. Other:

Yours very truly,

Robert W. Thorpe
 Assistant Director of Planning

RWT:dg

cc: Department of Ecology, Northwest Regional Office
 Office of Attorney General
 Applicant
 Applicant's Engineer/Architect
 Mercer Island Building Department ✓

RECEIVED

AUG 12 1974

CITY OF MERCER ISLAND
PUBLIC WORKS DEPARTMENT

DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS

4735 East Marginal Way South
SEATTLE, WASHINGTON 98134

NPSOP-RF

13 August 1974

PUBLIC NOTICE

Reference: 071-OYB-1-002164
Holyoke, Bruce W.

Application has been received by this office from Bruce W. Holyoke, 6802 96th Avenue Southeast, Mercer Island, Washington 98040 (Telephone (206) 232-2838), for Department of the Army permit in accordance with Section 10 of the River and Harbor Act of March 3, 1899 for certain work described below and shown on the reverse side of this public notice.

Proposed Work:

- a. Location: In Lake Washington at the City of Mercer Island, Washington.
- b. Physical Character: Drive two mooring piles.
- c. Purpose (as explained by the applicant): Private boat moorage.

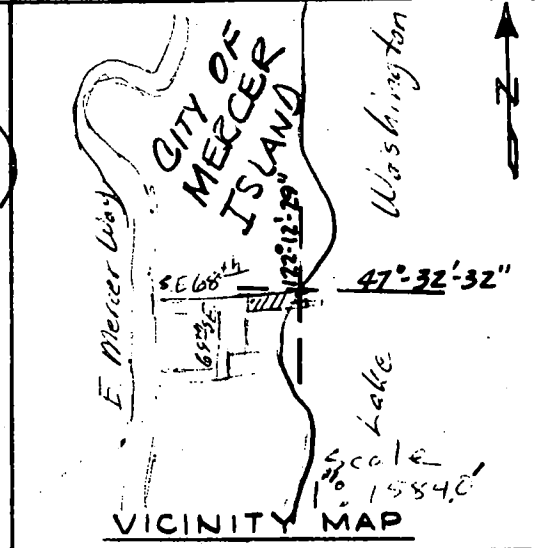
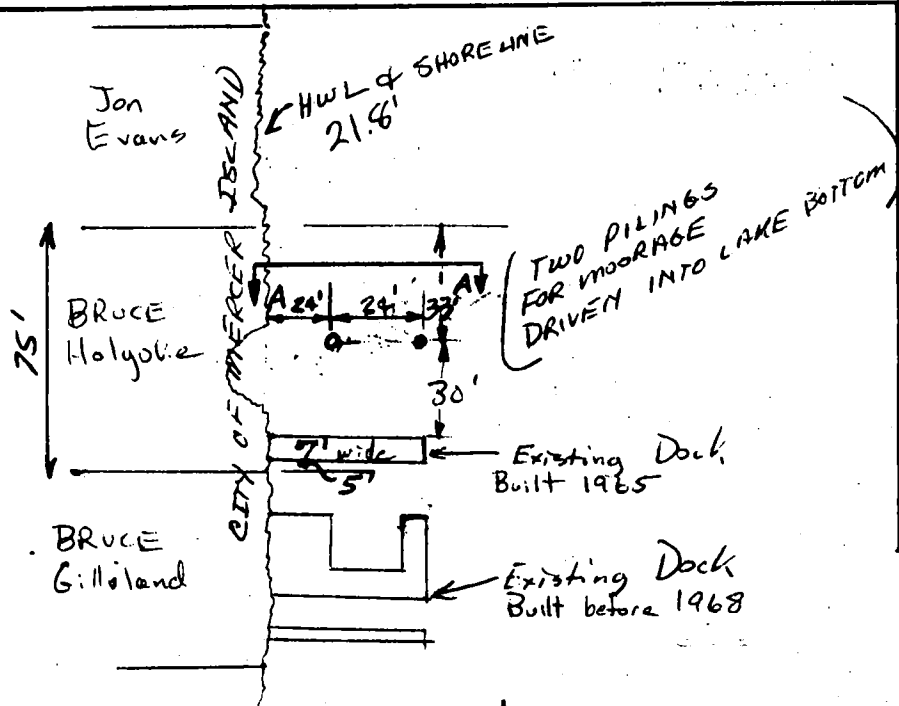
The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered; among those are conservation, economics, aesthetics, general environmental concerns, historic values, fish and wildlife values, flood damage prevention, land classification, navigation, recreation, water supply, water quality and, in general, the needs and welfare of the people. No permit will be granted unless its issuance is found to be in the public interest.

Preliminary determinations indicate the issuance of a permit will not be a significant Federal action and an environmental impact statement will not be required.

Comments on these factors will be accepted and made part of the record and will be considered in determining whether it would be in the best public interest to grant a permit. Comments should refer to the reference number shown above and reach this office not later than 13 September 1974 to insure consideration.


PETER L. THORSEN
Permit Section

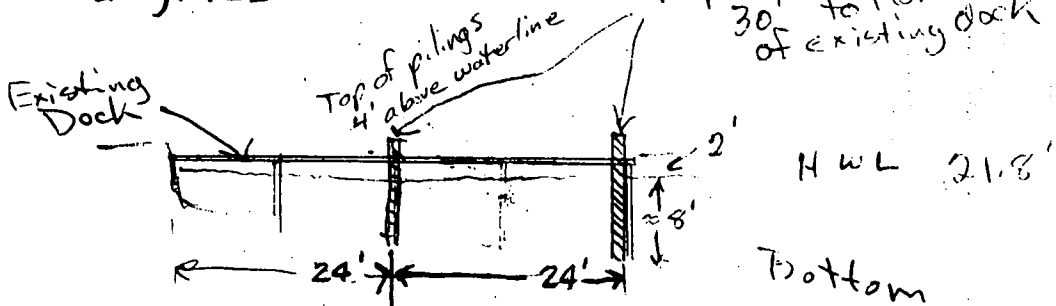
Proposed Location of Two PILINGs FOR MOORAGE



From Short Plat survey
Prepared by Jack Ellert &
Associates Nov. 15, 1973

PLAN Scale 1" = 60'

Site Location Lat. 47° 32' 32" N
Long. 122° 12' 29" W



Section AA
Scale 1" = 20'

NOTES.

1. PURPOSE: Private boat moorage pilings

2. DATUM: HWL - 21.8' ELEVATION

3. SOUNDINGS ARE IN FATHOMS/ FEET

4. ARE FEDERAL HARBOR LINES ESTABLISHED? YES NO

5. NAME AND ADDRESS OF ADJACENT PROPERTY OWNERS

① BRUCE GILLILAND
6810 96th Ave SE.
MERCER ISLAND, WA. 98040

② Jon Evans
6800 96th Ave SE.
MERCER ISLAND WA 98040

071-0YB-1-002164

Proposed Moorage pilings

IN: Lake Washington
ON: Mercer Island

COUNTY OF King STATE Wa.

APPLICATION BY: BRUCE HOLYOKE
MERCER ISLAND, WA.

DATE: 28/6/74 SHEET 1 of 1

File copies

75-004



**DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS**

NOTICE OF AUTHORIZATION

19

**A PERMIT TO DRIVE TWO MOORING PILES (PRIVATE BOAT MOORAGE) IN LAKE
WASHINGTON**

AT THE CITY OF MERCER ISLAND, WASHINGTON

HAS BEEN ISSUED TO MR. BRUCE W. HOLYOKE

ON 19

**ADDRESS OF PERMITTEE 6802 - 96TH S. E.
MERCER ISLAND, WA 98040**

PERMIT NUMBER 071-OYB-1-002164

Raymond J. Eineigl
RAYMOND J. EINEIGL
District Engineer
Colonel, Corps of Engineers

ENG Form 4336
Jul 70

THIS NOTICE MUST BE CONSPICUOUSLY DISPLAYED AT THE SITE OF WORK.

* GPO: 1971 O-415-598



DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
4735 EAST MARGINAL WAY SOUTH
SEATTLE, WASHINGTON 98134

NPSOP-RF

25 OCT 1974

Mr. Bruce W. Holyoke
6802 - 96th S. E.
Mercer Island, Washington

Reference: 071-OYB-1-002164
Holyoke, Bruce W.

Dear Mr. Holyoke:

Pursuant to your application dated-----26 June 1974-----inclosed is Department of the Army permit to drive two mooring piles in Lake Washington at the City of Mercer Island, Washington.

Sections 9 and 10 of the River and Harbor Act of 3 March 1899 make it unlawful to build or to commence to build any structure across or in any navigable water of the United States and/or to excavate, or fill, or in any manner to alter or to modify the course of such navigable water, except on plans that have had the prior approval of the Chief of Engineers and the Secretary of the Army.

You are therefore cautioned that if any material changes in the location or plans of the structure or work are found necessary on account of unforeseen or altered conditions or otherwise, revised plans should be submitted promptly to this office in order that these revised plans, if found unobjectionable, may receive the approval required by law before construction thereon is begun.

You are requested to notify this office when the work authorized by the inclosed permit is begun, and immediately after it is completed.

Sincerely yours,

1 Incl
Permit w/Notice of Authorization

Raymond J. Eineigl
RAYMOND J. EINEIGL
Colonel, Corps of Engineers
District Engineer

NPSOP-RF

DEPARTMENT OF THE ARMY

PERMIT

SEATTLE DISTRICT, CORPS OF ENGINEERS
Seattle, Washington

Application No. 071-OYB-1-002164
Name of Applicant Holyoke, Bruce W.
Effective Date 25 OCT 1974
Expiration Date (If applicable) _____

Referring to written request dated 26 June 1974 for a permit to:

(X) Perform work in or affecting navigable waters of the United States, upon the recommendation of the Chief of Engineers, pursuant to Section 10 of the Rivers and Harbors Act of March 3, 1899 (33 U.S.C. 403);

() Discharge dredged or fill material into navigable waters upon the issuance of a permit from the Secretary of the Army acting through the Chief of Engineers pursuant to Section 404 of the Federal Water Pollution Control Act (86 Stat. 816, P.L. 92-500);

() Transport dredged material for the purpose of dumping it into ocean waters upon the issuance of a permit from the Secretary of the Army acting through the Chief of Engineers pursuant to Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (86 Stat. 1052, P.L. 92-532);

Mr. Bruce W. Holyoke
6802 - 96th S. E.
Mercer Island, Washington 98040

(Here insert the full name and address of the permittee)

is hereby authorized by the Secretary of the Army to drive two mooring piles (private boat moorage)

(Here describe the proposed structure or activity, and its intended use. In the case of an application for a fill permit, describe the structures,

071-OYB-1-002164

~~if any, proposed to be erected on the fill. In the case of an application for the discharge of dredged or fill material into navigable waters or the transportation for discharge in ocean waters of dredged material, describe the type and quantity of material to be discharged.)~~

~~in Lake Washington~~

~~(Here to be named the ocean, river, harbor or waterway concerned.)~~

~~at the City of Mercer Island, Washington~~

~~(Here to be named the nearest well-known locality -- preferably a town or city -- and the distance in miles and tenths from some definite point in the same, stating whether above or below or giving direction by points of compass.)~~

in accordance with the plans and drawings attached hereto which are incorporated in and made a part of this permit (on drawings: give file number or other definite identification marks.) Subject to the following conditions:

I. GENERAL CONDITIONS:

a. That all activities identified and authorized herein shall be consistent with the terms and conditions of this permit; and that any activities not specifically identified and authorized herein shall constitute a violation of the terms and conditions of this permit which may result in the modification, suspension or revocation of this permit, in whole or in part, as set forth more specifically in General Conditions j or k hereto, and in the institution of such legal proceedings as the United States Government may consider appropriate, whether or not this permit has been previously modified, suspended or revoked in whole or in part.

b. That all activities authorized herein shall, if they involve a discharge or deposit into navigable waters or ocean waters, be at all times consistent with applicable water quality standards, effluent limitations and standards of performance, prohibitions, and pretreatment standards established pursuant to Sections 301, 302, 306 and 307 of the Federal Water Pollution Control Act of 1972 (P.L. 92-500; 86 Stat. 816), or pursuant to applicable State and local law.

c. That when the activity authorized herein involves a discharge or deposit of dredged or fill material into navigable waters, the authorized

071-OYB-1-002164

activity shall, if applicable water quality standards are revised or modified during the term of this permit, be modified, if necessary, to conform with such revised or modified water quality standards within 6 months of the effective date of any revision or modification of water quality standards, or as directed by an implementation plan contained in such revised or modified standards, or within such longer period of time as the District Engineer, in consultation with the Regional Administrator of the Environmental Protection Agency, may determine to be reasonable under the circumstances.

d. That the permittee agrees to make every reasonable effort to prosecute the construction or work authorized herein in a manner so as to minimize any adverse impact of the construction or work on fish, wildlife and natural environmental values.

e. That the permittee agrees that it will prosecute the construction or work authorized herein in a manner so as to minimize any degradation of water quality.

f. That the permittee shall permit the District Engineer or his authorized representative(s) or designee(s) to make periodic inspections at any time deemed necessary in order to assure that the activity being performed under authority of this permit is in accordance with the terms and conditions prescribed herein.

g. That the permittee shall maintain the structure or work authorized herein in good condition and in accordance with the plans and drawings attached hereto.

h. That this permit does not convey any property rights either in real estate or material, or any exclusive privileges; and that it does not authorize any injury to property or invasion of rights or any infringement of Federal, State, or local laws or regulations, nor does it obviate the requirement to obtain State or local assent required by law for the activity authorized herein.

i. That this permit does not authorize the interference with any existing or proposed Federal project and that the permittee shall not be entitled to compensation for damage or injury to the structures or work authorized herein which may be caused by or result from existing or future operations undertaken by the United States in the public interest.

j. That this permit may be summarily suspended, in whole or in part, upon a finding by the District Engineer that immediate suspension of the activity authorized herein would be in the general public interest. Such suspension shall be effective upon receipt by the permittee of a written notice thereof which shall indicate (1) the extent of the suspension,

071-OYB-1-002164

(2) the reasons for this action, and (3) any corrective or preventative measures to be taken by the permittee which are deemed necessary by the District Engineer to abate imminent hazards to the general public interest. The permittee shall take immediate action to comply with the provisions of this notice. Within ten days following receipt of this notice of suspension, the permittee may request a hearing in order to present information relevant to a decision as to whether his permit should be reinstated, modified or revoked. If a hearing is requested, it shall be conducted pursuant to procedures prescribed by the Chief of Engineers. After completion of the hearing, or within a reasonable time after issuance of the suspension notice to the permittee if no hearing is requested, the permit will either be reinstated, modified or revoked.

k. That this permit may be either modified, suspended or revoked in whole or in part if the Secretary of the Army or his authorized representative determines that there has been a violation of any of the terms or conditions of this permit or that such action would otherwise be in the public interest. Any such modification, suspension, or revocation shall become effective 30 days after receipt by the permittee of written notice of such action which shall specify the facts or conduct warranting same unless (1) within the 30-day period the permittee is able to satisfactorily demonstrate that (a) the alleged violation of the terms and the conditions of this permit did not, in fact, occur or (b) the alleged violation was accidental, and the permittee has been operating in compliance with the terms and conditions of the permit and is able to provide satisfactory assurances that future operations shall be in full compliance with the terms and conditions of this permit; or (2) within the aforesaid 30-day period, the permittee requests that a public hearing be held to present oral and written evidence concerning the proposed modification, suspension or revocation. The conduct of this hearing and the procedures for making a final decision either to modify, suspend or revoke this permit in whole or in part shall be pursuant to procedures prescribed by the Chief of Engineers.

l. That in issuing this permit, the Government has relied on the information and data which the permittee has provided in connection with his permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended or revoked, in whole or in part, and/or the Government may, in addition, institute appropriate legal proceedings.

m. That any modification, suspension, or revocation of this permit shall not be the basis for any claim for damages against the United States.

n. That the permittee shall notify the District Engineer at what time the activity authorized herein will be commenced, as far in advance of the time of commencement as the District Engineer may specify, and of any suspension of work, if for a period of more than one week, resumption of work and its completion.

071-OYB-1-002164

o. That if the activity authorized herein is not started on or before _____ day of _____, 19____, (one year from the date of issuance of this permit unless otherwise specified) and is not completed on or before _____ day of _____, 19____, (three years from the date of issuance of this permit unless otherwise specified) this permit, if not previously revoked or specifically extended, shall automatically expire.

p. That no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized by this permit.

q. That if the display of lights and signals on any structure or work authorized herein is not otherwise provided for by law, such lights and signals as may be prescribed by the United States Coast Guard shall be installed and maintained by and at the expense of the permittee.

r. That this permit does not authorize or approve the construction of particular structures, the authorization or approval of which may require authorization by the Congress or other agencies of the Federal Government.

s. That if and when the permittee desires to abandon the activity authorized herein, unless such abandonment is part of a transfer procedure by which the permittee is transferring his interests herein to a third party pursuant to General Condition v hereof, he must restore the area to a condition satisfactory to the District Engineer.

t. That if the recording of this permit is possible under applicable State or local law, the permittee shall take such action as may be necessary to record this permit with the Register of Deeds or other appropriate official charged with the responsibility for maintaining records of title to and interests in real property.

u. That there shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein.

v. That this permit may not be transferred to a third party without prior written notice to the District Engineer, either by the transferee's written agreement to comply with all terms and conditions of this permit or by the transferee subscribing to this permit in the space provided below and thereby agreeing to comply with all terms and conditions of this permit. In addition, if the permittee transfers the interests authorized herein by conveyance of realty, the deed shall reference this permit and the terms and conditions specified herein and this permit shall be recorded along with the deed with the Register of Deeds or other appropriate official.

071-OYB-1-002164

II. SPECIAL CONDITIONS: Here list conditions relating specifically to the proposed structure or work authorized by this permit. The following Special Conditions will be applicable when appropriate:-----

w. STRUCTURES FOR SMALL BOATS: That permittee hereby recognizes the possibility that the structure permitted herein may be subject to damage by wave wash from passing vessels. The issuance of this permit does not relieve the permittee from taking all proper steps to insure the integrity of the structure permitted herein and the safety of boats moored thereto from damage by wave wash and the permittee shall not hold the United States liable for any such damage.-----

x. DISCHARGE OF DREDGED MATERIAL INTO OCEAN WATERS: That the permittee shall place a copy of this permit in a conspicuous place in the vessel to be used for the transportation and/or dumping of the dredged material as authorized herein.-----

y. ERECTION OF STRUCTURE IN OR OVER NAVIGABLE WATERS: That the permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the authorized structure or work, shall, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the waterway to its former conditions. If the permittee fails to comply with the direction of the Secretary of the Army or his authorized representative, the Secretary or his designee may restore the waterway to its former condition, by contract or otherwise, and recover the cost thereof from the permittee.-----

z. MAINTENANCE DREDGING: (1) That when the work authorized herein includes periodic maintenance dredging, it may be performed under this permit for _____ years from the date of issuance of this permit (ten years unless otherwise indicated); and (2) That the permittee will advise the District Engineer in writing at least two weeks before he intends to undertake any maintenance dredging.-----

071-OYB-1-002164

This permit shall become effective on the date of the District Engineer's signature.

Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.

17 Oct 74
Date

Bruce W Holyoke
Bruce W. Holyoke
Permittee

By authority of the Secretary of the Army:

10/25/74
Date

Raymond J. Eineigl
RAYMOND J. EINEIGL
Colonel, Corps of Engineers
District Engineer

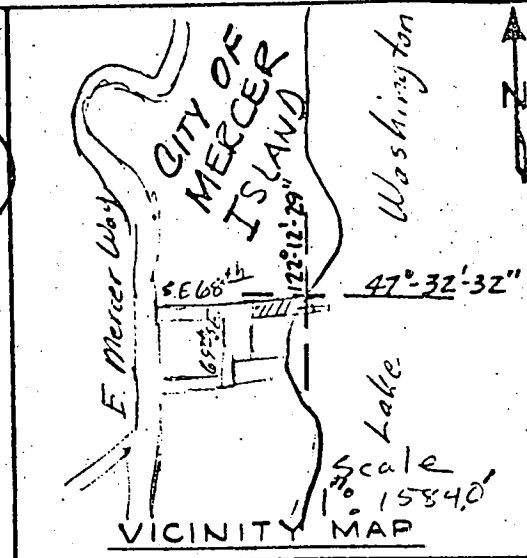
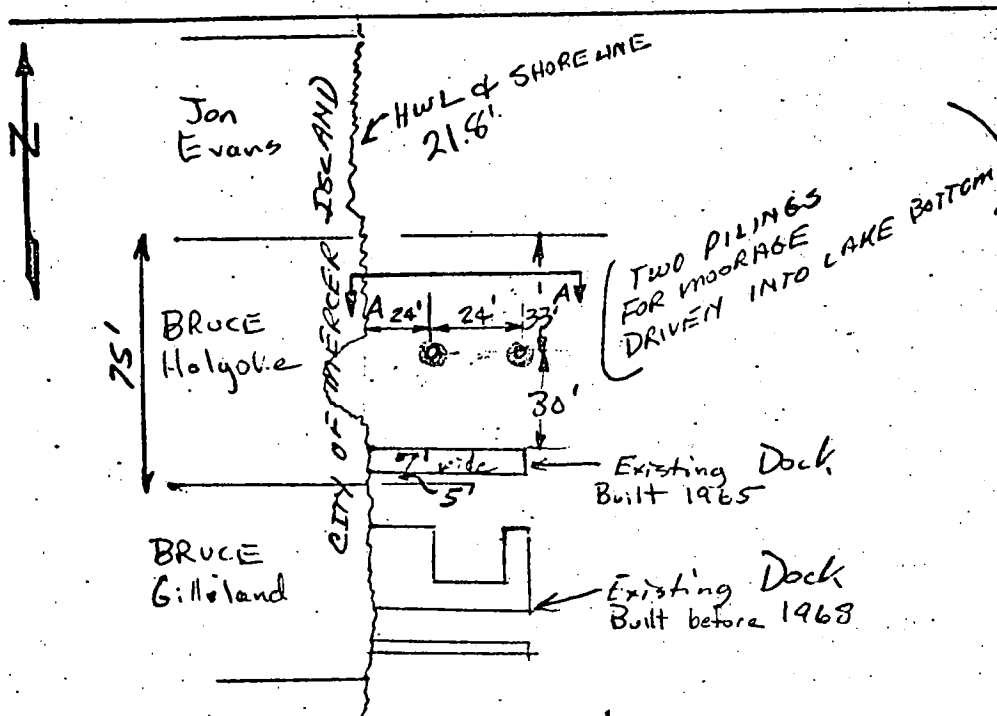
Transferee hereby agrees to comply with the terms and conditions of this permit.

Date

Transferee

- Proposed Location of Two PILINGs FOR MOORAGE

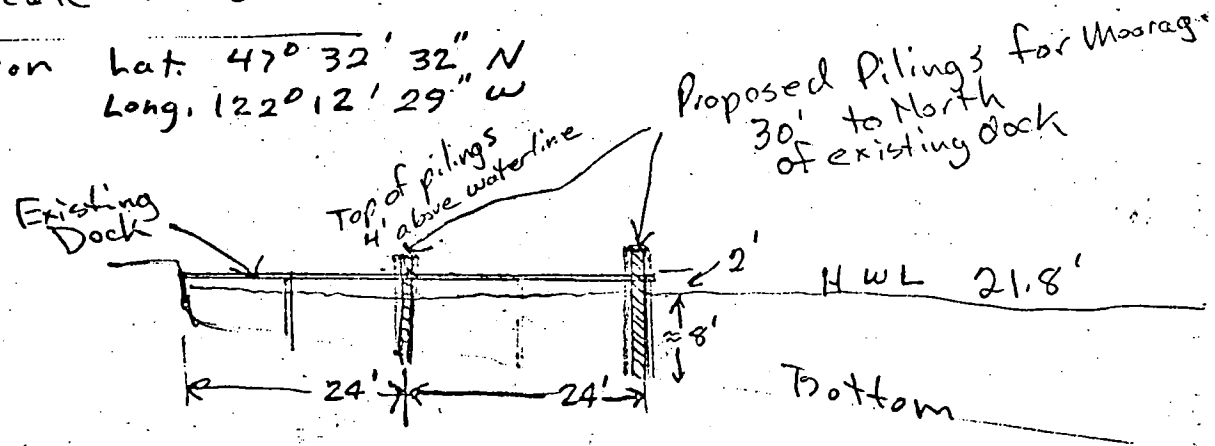
75-004



From Short Plat survey Prepared by Jack Ellert Associates Nov. 15, 1973

PLAN Scale 1" = 60'

Site Location Lat. 47° 32' 32" N Long. 122° 12' 29" W



Section AA Scale 1" = 20'

NOTES.

1. PURPOSE: Private boat moorage pilings

2. DATUM: H.W.L. - 21.8' ELEVATION

3. BOUNDINGS ARE IN FATHOMS/FEET

4. ARE FEDERAL HARBOR LINES ESTABLISHED? YES NO

5. NAME AND ADDRESS OF ADJACENT PROPERTY OWNERS

- ① BRUCE GILLILAND
6810 96th Ave SE.
MERCER ISLAND, WA. 98040.
- ② Jon Evans
6500 96th Ave SE.
MERCER ISLAND, WA. 98040

071-0YB-1-002164

Proposed Moorage piling

IN: Lake Washington
ON ~~MERCER ISLAND~~ Mercer Island
COUNTY OF King STATE Wa.
APPLICATION BY: BRUCE HOLYOKE
MERCER ISLAND, Wa.
DATE: 28/6/74 SHEET 1 of 1

**CITY OF MERCER ISLAND
COMMUNITY PLANNING & DEVELOPMENT**

9611 SE 36TH STREET | MERCER ISLAND, WA 98040
PHONE: 206.275.7605 | www.mercergov.org



CITY USE ONLY	
Date Received	
File No	
Received By	

ENVIRONMENTAL CHECKLIST

PURPOSE OF CHECKLIST

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

PRE-APPLICATON MEETING

A pre-application meeting is used to determine whether a land use project is ready for review, to review the land use application process, and to provide an opportunity for initial feedback on a proposed application. Some land use applications require a pre-application – in particular: short and long subdivisions, lot line revisions, shoreline permits, variances, and critical area determinations. The City strongly recommends that all land use applications use the pre-application process to allow for feedback by City staff.

Please note: pre-application meetings are held on Tuesdays, by appointment. To schedule a meeting, submit the meeting request form and the pre-application meeting fee (see fee schedule). Meetings must be scheduled at least one week in advance. Applicants are required to upload a project narrative, a list of questions/discussion points, and preliminary plans to the Mercer Island File Transfer Site one week ahead of the scheduled meeting date.

SUBMITTAL REQUIREMENTS

In addition to the items listed below, the code official may require the submission of any documentation reasonably necessary for review and approval of the land use application. An applicant for a land use approval and/or development proposal shall demonstrate that the proposed development complies with the applicable regulations and decision criteria.

- A. **Completed pre-application.**
- B. **Development Application Sheet.** Application form must be fully filled out and signed.
- C. **Development Plan Set.** Please refer to the Land Use Application- Plan Set Guide in preparing plans.
- D. **Title Report.** Less than 30 days old.
- E. **SEPA checklist.**

INSTRUCTIONS FOR APPLICANTS

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you. The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

USE OF CHECKLIST FOR NONPROJECT PROPOSALS

For nonproject proposals complete this checklist and the supplemental sheet for nonproject actions (Part D). The lead agency may exclude any question for the environmental elements (Part B) which they determine do not contribute meaningfully to the analysis of the proposal. For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

- 1. Name of proposed project, if applicable:

- 2. Name of applicant:

- 3. Address and phone number of applicant and contact person:

- 4. Date checklist prepared:

- 5. Agency requesting checklist:

- 6. Proposed timing or schedule (including phasing, if applicable):

7. Do you have any plans for future additions, expansions, or further activity related to or connected with this proposal? If yes, explain:

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal:

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain:

10. List any government approvals or permits that will be needed for your proposal, if known:

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

Flat Rolling Hilly Steep slopes Mountainous Other

b. What is the steepest slope on the site (approximate percent slope)?

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, and industrial wood smoke) during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

3. Water

a. Surface:

i. Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

ii. Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

iii. Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

iv. Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

v. Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

- vi. Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

b. Ground

- i. Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well? Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

- ii. Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, [containing the following chemicals...]; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

c. Water runoff (including stormwater):

- i. Describe the source of runoff (including stormwater) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

- ii. Could waste materials enter ground or surface waters? If so, generally describe.

- d. Proposed measures to reduce or control surface, ground, runoff water, and drainage pattern impacts, if any:

4. Plants

- a. Check types of vegetation found on the site
- Deciduous tree: Alder, Maple, Aspen, other
 - Evergreen tree: Fir, Cedar, Pine, other
 - Shrubs
 - Grass

- Pasture
- Crop or grain
- Wet soil plants: Cattail, buttercup, bulrush, skunk cabbage, other
- Water plants: Water lily, eelgrass, milfoil, other
- Other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

c. List threatened or endangered species known to be on or near the site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

e. List all noxious weeds and invasive species known to be on or near the site.

5. Animals

a. State any birds and animals which have been observed on or near the site or are known to be on or near the site. Examples include:

Birds: hawk, heron, eagle, songbirds, other:

Mammals: deer, bear, elk, beaver, other:

Fish: bass, salmon, trout, herring, shellfish, other:

b. List any threatened or endangered species known to be on or near the site.

c. Is the site part of a migration route? If so, explain.

d. Proposed measure to preserve or enhance wildlife, if any:

-
-
- e. List any invasive animal species known to be on or near the site.
-
-
-

6. Energy and natural resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
-
-
-

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
-
-
-

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
-
-
-

7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.
-
-
-

- i. Describe any known or possible contamination at the site from present or past uses.
-
-
-

- ii. Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.
-
-
-

- iii. Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.
-
-
-

iv. Describe special emergency services that might be required.

v. Proposed measures to reduce or control environmental health hazards, if any:

b. Noise

i. What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

ii. What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

iii. Proposed measures to reduce or control noise impacts, if any:

8. Land and shoreline use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

c. Describe any structures on the site.

d. Will any structures be demolished? If so, what?

e. What is the current zoning classification of the site?

f. What is the current comprehensive plan designation of the site?

g. If applicable, what is the current shoreline master program designation of the site?

h. Has any part of the site been classified as an “environmentally sensitive” area? If so, specify.

i. Approximately how many people would reside or work in the completed project?

j. Approximately how many people would the completed project displace?

k. Proposed measures to avoid or reduce displacement impacts, if any:

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

- c. Proposed measures to reduce or control housing impacts, if any:

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas? What is the principal exterior material(s) proposed?

- b. What views in the immediate vicinity would be altered or obstructed?

- c. Proposed measures to reduce or control aesthetics impacts, if any:

11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

- c. What existing off-site sources of light or glare may affect your proposal?

- d. Proposed measures to reduce or control light and glare impacts, if any:

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

b. Would the proposed project displace any existing recreational uses? If so, describe.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

13. Historic and cultural preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

14. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

c. How many additional parking spaces would the completed project or nonproject proposal have? How many would the project or proposal eliminate?

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

h. Proposed measures to reduce or control transportation impacts, if any:

15. Public services

a. Would the project result in an increased need for public services (for example; fire protection, police protection, health care, schools, other)? If so, generally describe.

b. Proposed measures to reduce or control direct impacts on public services, if any.

16. Utilities

a. Check utilities currently available at the site:

- | | | | |
|--------------------------------------|---|--|---|
| Electricity <input type="checkbox"/> | Natural Gas <input type="checkbox"/> | Water <input type="checkbox"/> | Refuse Service <input type="checkbox"/> |
| Telephone <input type="checkbox"/> | Sanitary sewer <input type="checkbox"/> | Septic system <input type="checkbox"/> | Other <input type="checkbox"/> |

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

C. SIGNATURE

I certify (or declare) under penalty of perjury under the laws of the State of Washington that the answers to the attached SEPA Checklist are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Dray Davick

Date Submitted: _____

SEPA RULES

SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

(do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; productions, storage, or release of toxic or hazardous substances; or production of noise?

Proposed measures to avoid or reduce increases are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy or natural resources?

Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Proposed measures to protect such resources or to avoid or reduce impacts are:

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

[Statutory Authority: RCW [43.21C.110](#), WSR 16-13-012 (Order 15-09), § 197-11-960, filed 6/2/16, effective 7/3/16. Statutory Authority: RCW [43.21C.110](#) and [43.21C.100](#) [43.21C.170]. WSR 14-09-026 (Order 13-01), § 197-11-960, filed 4/9/14, effective 5/10/14. Statutory Authority: RCW [43.21C.110](#), WSR 13-02-065 (Order 12-01), § 197-11-960, filed 12/28/12, effective 1/28/13; WSR 84-05-020 (Order DE 83-39), § 197-11-960, filed 2/10/84, effective 4/4/84.]



MITIGATED DETERMINATION OF NON-SIGNIFICANCE (MDNS)

Application No.: **SEP22-017**

Description of proposal: **Review under the State Environmental Policy Act (SEPA) for a 233 square foot expansion to an existing residential pier and the repair of 74 linear feet of an existing bulkhead. The project also involves the removal of a 12.44 cubic yard concrete slab, the installation of a new cove with stairs, and the permitting of two existing boat lifts.**

Proponent: **Dray Davick (Seaborn Pile Driving)**

Owner: **Jenn Henry**

Location of proposal: **6802 96th Ave SE, Mercer Island, WA 98040;
Identified by King County Assessor tax parcel numbers 258070-0005**

Lead agency: **City of Mercer Island**

Project Documents: **Please follow this file path to access the associated documents for this project: <https://mieplan.mercergov.org/public/SHL22-021&SEP22-017/>**

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist. This information is available to the public on request.

_____ There is no comment period for this DNS.

✓
_____ This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

_____ This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 14 days from the date below. Comments must be submitted by N/A at 5:00pm.

Responsible Official: Andrew Leon, Planner
City of Mercer Island
9611 SE 36th Street
Mercer Island, WA 98040
Phone: (206) 275-7720
Email: andrew.leon@mercergov.org

Date: **May 1, 2023**

Signature:

APPEAL INFORMATION

This decision to issue a Determination of Non-significance (DNS) rather than to require an EIS may be appealed pursuant to Section 19.21 of the Mercer Island Unified Land Development Code, Environmental procedures.

- ✓ Any party of record may appeal this determination to the City Clerk at 9611 SE 36th Street Mercer Island, WA 98040 no later than **5:00 PM on Tuesday, May 15, 2023** by filing a timely and complete appeal application and paying the appeal fee. You should be prepared to make specific factual objections. Contact the City Clerk to read or ask about the procedures for SEPA appeals. To reverse, modify or remand this decision, the appeal hearing body must find that there has been substantial error, the proceedings were materially affected by irregularities in procedure, the decision was unsupported by material and substantial evidence in view of the entire record, or the decision is in conflict with the city's applicable decision criteria.

_____ There is no agency appeal.

MITIGATION CONDITIONS

The following conditions are required pursuant to RCW 43.21C.060 and WAC 197-11-350 to mitigate probable and unavoidable impacts identified for this proposal. All conditions of mitigation must be completed prior to building permit final approval.

1. Any soils or sediments exported off site shall be sampled and analyzed for arsenic and lead. If soils are found to be contaminated with arsenic or lead, they shall be managed and disposed of in accordance with state and local regulations, including the Solid Waste Handling Standards (Chapter 173-350 WAC).



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Region Office
PO Box 330316, Shoreline, WA 98133-9716 • 206-594-0000

November 30, 2022

Andrew Leon, Planner
Community Planning & Development
City of Mercer Island
9611 SE 36th Street
Mercer Island, WA 98040

Re: Henry Pier Expansion
File# SEP22-017, Ecology SEPA# 202205452

Dear Andrew Leon:

Thank you for the opportunity to provide comments on the State Environmental Policy Act (SEPA) notice of application utilizing the optional determination of nonsignificance (ODNS/NOA) process for the Henry Pier Expansion project. Based on review of the checklist associated with this project, the Department of Ecology (Ecology) has the following comments:

This proposed project is located in an area that may have been contaminated with heavy metals due to the air emissions originating from the old Asarco smelter in north Tacoma (visit Ecology's Tacoma Smelter Plume map search tool: <https://apps.wa.gov/ecy/dirtalert/>). Soil contamination from the former Asarco smelter poses a risk to human health and the environment. Construction workers, landscapers, gardeners, and others who work in the soils are at risk. Ecology recommends that the lead agency includes the following as conditions of approval: Any soil or sediments exported off site have to be sampled and analyzed for arsenic and lead. If soils are found to be contaminated with arsenic or lead, they shall be managed and disposed in accordance with state and local regulations, including the Solid Waste Handling Standards (Chapter 173-350 WAC). The link below provides a fact sheet that explains more how the arsenic and lead clean-up levels were set and why Ecology sees that they are protective for human health: <https://fortress.wa.gov/ecy/publications/SummaryPages/1109095.html>.

Thank you for considering these comments from Ecology. For assistance and information about Tacoma Smelter Plume and soils contamination, contact Eva Barber with the Toxics Cleanup Program at (360) 999-9593 or by email at eva.barber@ecy.wa.gov.

Andrew Leon
November 30, 2022
Page 2

Sincerely,

Kelli Price

Kelli Price
SEPA Coordinator

Sent by email: Andrew Leon, andrew.leon@mercerisland.gov

ecc: Eva Barber, Ecology