

Ecological No Net Loss Assessment Report

Prepared for

Jason Gurney
4550 E Mercer Way
Mercer Island, WA 98040

Prepared by



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

April 2022

Purpose

The purpose of this report is to fulfill the requirements of City of Mercer Island Municipal Code (MICC) 19.07.110 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 and repair.

Location

The subject property is located at 4550 E Mercer Way (King County parcel number 1824059082) 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 work includes removal of the decking surface and repairing 21 existing pilings by the sleeve/strap method. The existing boatlift canopies will be removed. The existing boat lift on the north side of the dock will be relocated adjacent to the existing boat lift. The existing deck will be replaced with ThruFlow grated decking. Project drawings are included in Attachment A, sheets A2.0 to A5.0

During construction, a floating boom will surround the work barge and dock. (See Appendix A – Sheets A6.0)

A shoreline vegetation plan is proposed, that will add 2 native trees and 3 native shrubs. These shoreline plantings will provide shade and allow allochthonous material to enter the lake along the shoreline and improve shoreline conditions (see Appendix A – Sheet A7.0).

Approach

Northwest Environmental Consulting LLC (NVEC) biologist Brad Thiele conducted a site visit on March 16, 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 yard is landscaped with beds and lawn. The lawn extends towards the waterfront with a planting strip along the top of the bulkhead with woody ornamental shrubs and small trees. A mature western red cedar is present along the waters edge.

The shoreline is bulkhead with a rock bulkhead with a beach cove. Shoreline substrates include gravel and cobble. The substrates shift to sands about 10 to 15 feet from shore. No submerged aquatic vegetation was observed at the time of the site visit.

The neighboring properties include armored shoreline and similar vegetation. See attached 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 or close to a mapped sockeye salmon spawning location.

Priority Habitats and Species mapping does not show any other aquatic or terrestrial occurrences within 1,500 feet of the project location.

The Mercer Island GIS does not show any environmental layers on or on the adjacent properties.

Project Impacts and Conservation Measurements

Direct Impacts:

Sediments: Sediment disturbance will occur below the OHWM and along the shoreline of Lake Washington during pile repair. Additionally, the tug and barge propwash may disturb sediments temporarily when making trips to/from the site.

Impacts to sediments should be negligible from pile repair and the project actions are not expected to exceed State Water Quality Standards.

Shoreline: Planting additional native vegetation, especially a native western red cedar and

shorepine, 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 and includes retaining existing vegetation (see Appendix A - Sheet A7.0).

Lakebed: The proposed repairs will not affect lakebed coverage.

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 reduced because a crew competent using spill containment measures will be on site and employ these measures should a spill occur.

Indirect Impacts:

Shading: The proposed configuration will not change the overwater coverage at the stie. The existing solid wood decking will be replaced with grated ThruFlow decking.

Grated decking allows more light to penetrate the water below a dock that can increase productivity in the littoral zone below the dock 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 predation opportunity caused by hard shading under the dock and may increase salmonid outmigration times over opaque decking.

ThruFlow grated decking has a measured performance at 43 percent light penetration (ThruFlow, 2020). Thus, effective cover of the area is 57% of the area of a solid decked structure. Table 1 provides a summary of effective coverage:

Table 1 – Effective coverage

	Solid decking	Proposed grated	Conversion	Effective coverage	Reduction in coverage
Existing after removal (SF)	1,214	1,214	0.57	692	522

The use of grated decking reduces the proposed effective overwater coverage by 522 square feet at the site and will reduce the effective overwater coverage within 30 feet of the shore by 139 square feet.

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 April 30). 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.

Hazardous material containment materials 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. All new and existing decking will use grated ThruFlow decking and reduce the effective overwater coverage by 522 square feet at the site and 139 square feet within the nearshore environment. The grating reduces the hard shadows favored by salmonid predators and increases productivity under the pier. Hard shadowing of overwater structures may also decrease salmonid outmigration times, grated decking helps reduce the chances of the structure being a partial migration barrier to outmigrating juvenile salmonids.

A shoreline planting plan will be implemented and 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 and will improve shoreline conditions at the site in the long-term to offset temporary construction impacts. The planting includes 2 native trees and 3 native shrubs.

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 during construction. The conservation measures are designed to improve ecological functions or prevent further degradation of habitat. The project will improve shoreline conditions, reduce overwater coverage in the nearshore and reduce effective overwater coverage at the site. The proposed project has been designed to improve baseline ecological conditions at the site **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

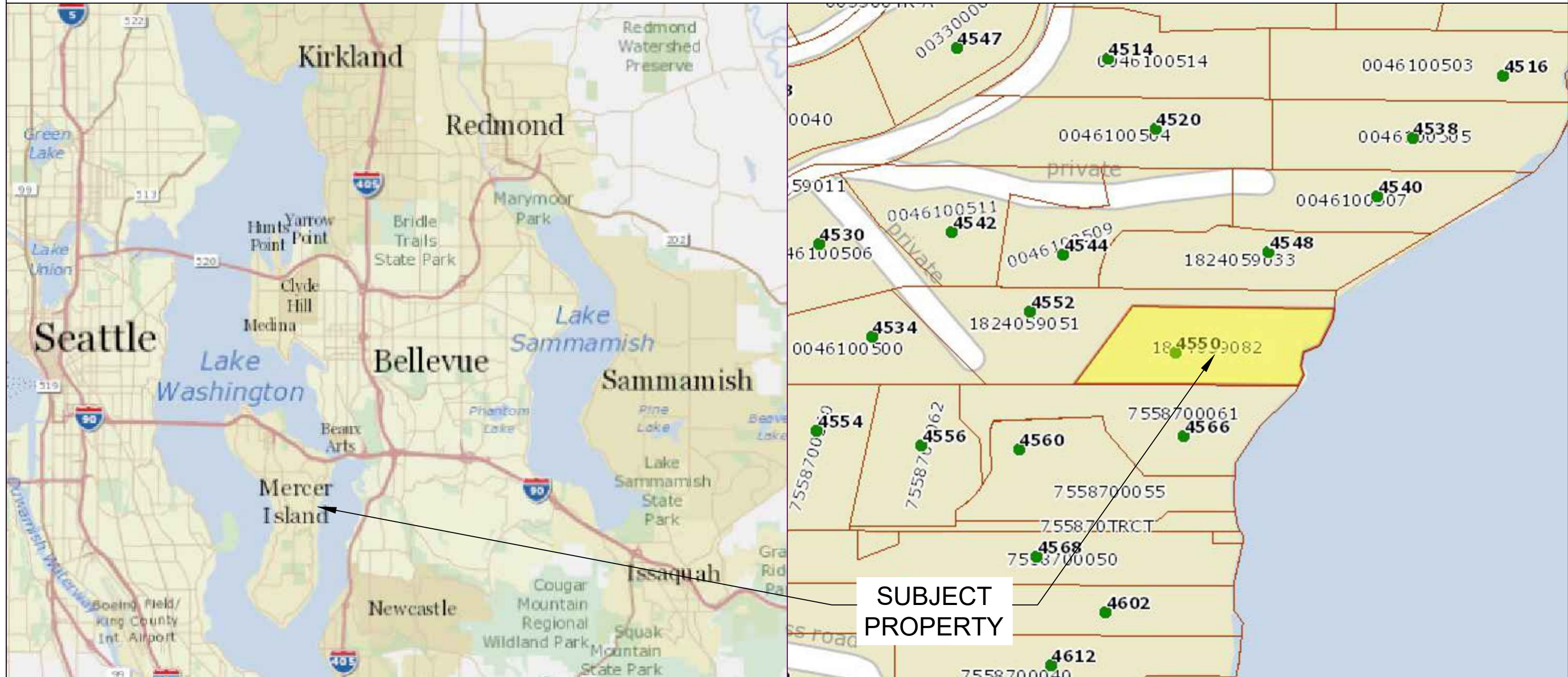
King County. 2022. King County iMap. Online database. Accessed March 2022 at <https://gismaps.kingcounty.gov/iMap/>

Washington Department of Fish and Wildlife (WDFW). 2022. Priority Habitats and Species. Online database. Accessed April 2021 at <http://apps.wdfw.wa.gov/phsontheweb/>

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

Appendix A: Project Drawings

SITE PLAN

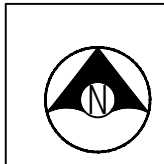


Pin: 182405-9082

Legal Description:
 BEG NW COR OF S 1/4 OF NW 1/4 OF SE 1/4 TH N 89-16-30 E 1276.17 FT TO PT ON ELY MGN OF A 30 FT PRIVATE RD TH S 25-08-30 E 66.30 FT TH S 46-16-30 E 144.70 FT TH N 88-49-30 E 84.50 FT TH TPOB TH N 35-33-30 E 99.80 FT TH N 89-16-30 E TO SH LN OF LAKE WASH TH SLY ALG SD SH LN TO PT WH IS N 88-49-30 E FR TPOB TH S 88-49-30 W TO TPOB TGW 2ND CL SH LDS ADJ

Plat Block:
 Plat Lot:

LAT: 47.5642 LONG: -122.20972



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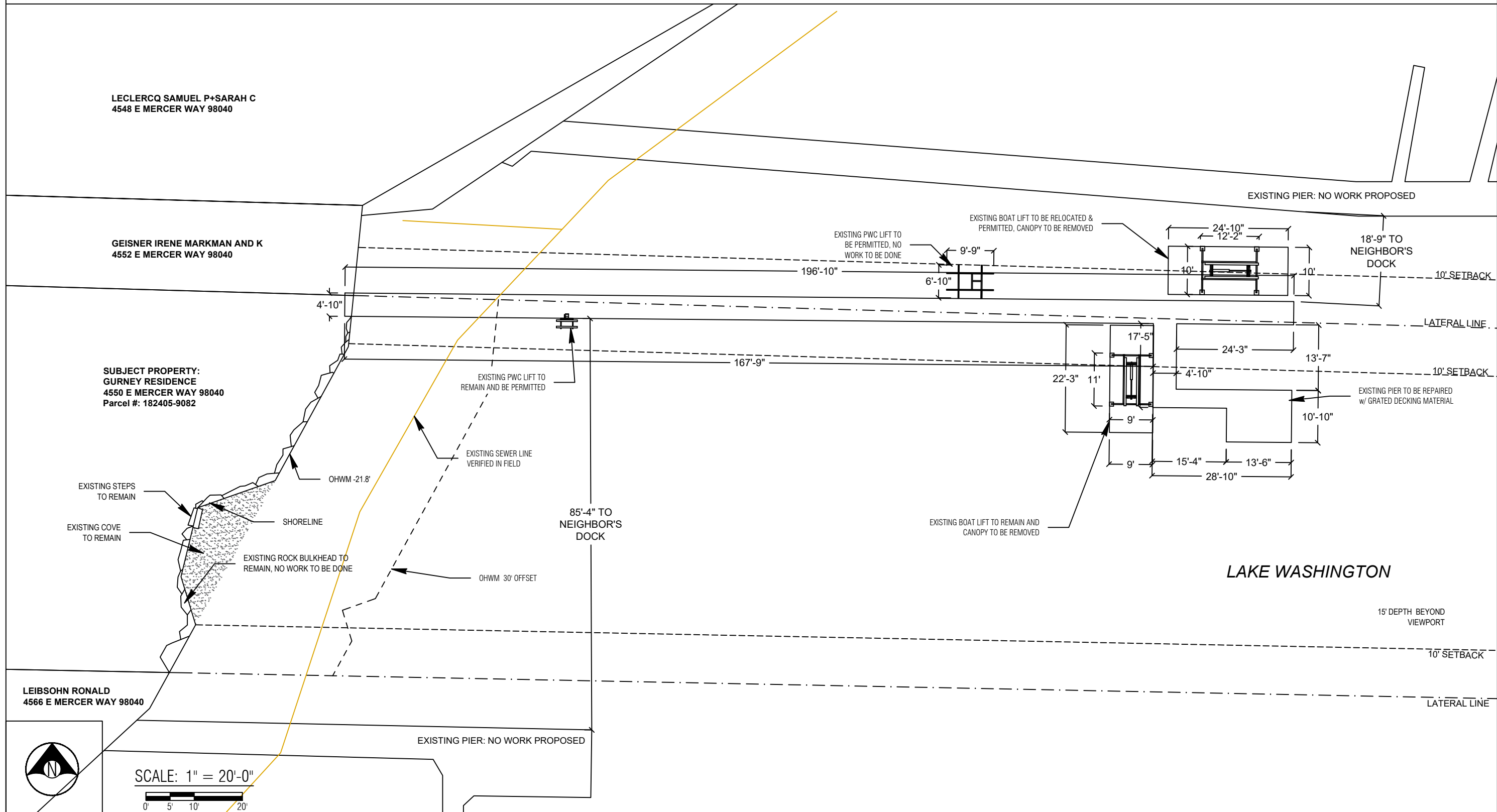
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County: King County
 Location: Lake Washington
 Applicant: Gurney Residence
 4550 E. Mercer Way
 Mercer Island, WA 98040
 Datum: CORPS OF ENGINEERS 1919
 SE Quarter Of Section 18, Township 24, Range 05
 Adjacent Owners:
 LEIBSOHN RONALD
 4566 E MERCER WAY 98040
 Last Updated: 4/15/2022 12:11 PM Dray
 Created: 01/13/22

SHEET
A1.0
 NWS-2021-XXX
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EXISTING CONDITIONS

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



County: King County
Location: Lake Washington

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Adjacent Owners:
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4548 E MERCER WAY 98040

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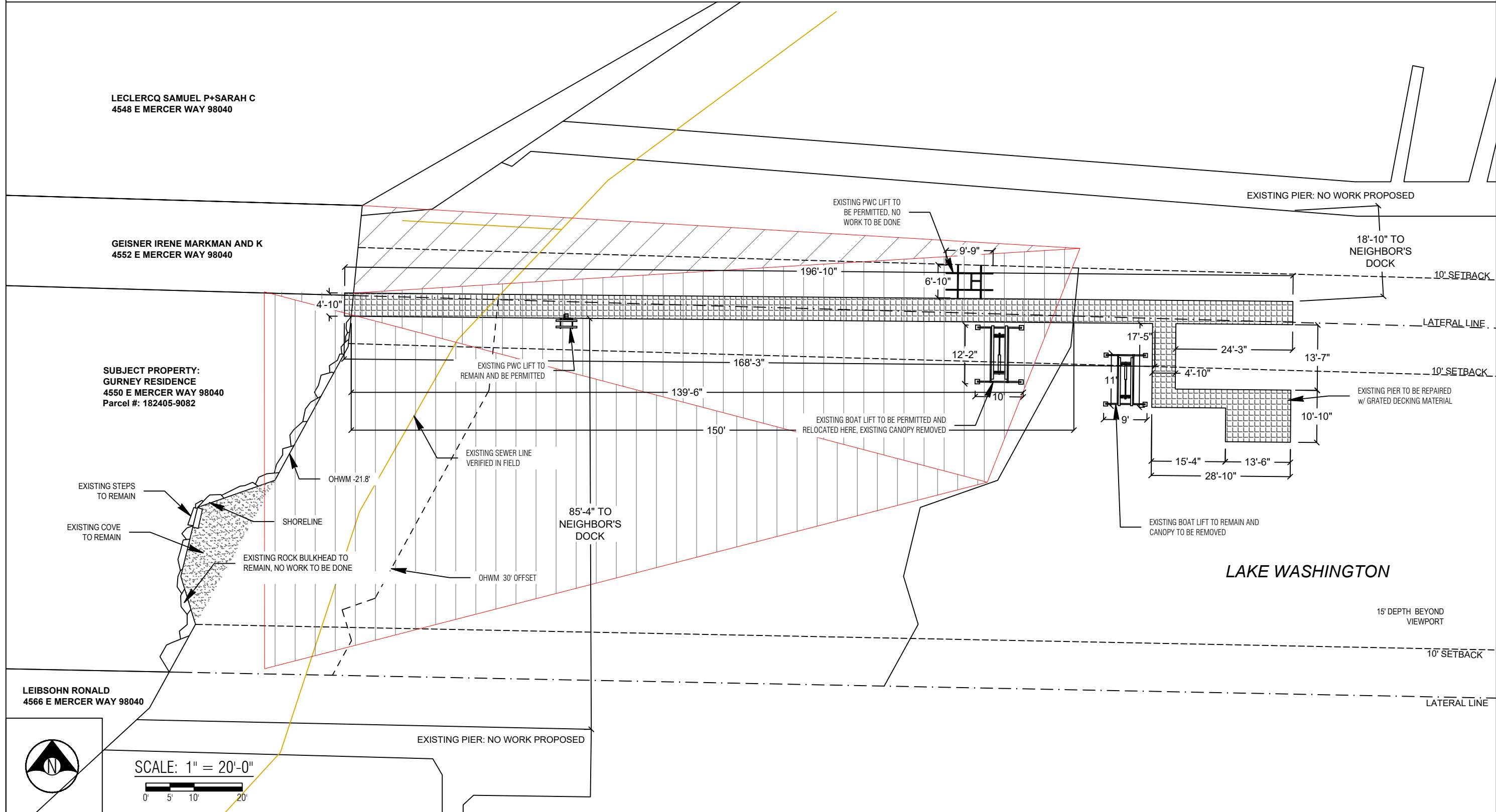
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A2.0

PROPOSED CONDITIONS

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



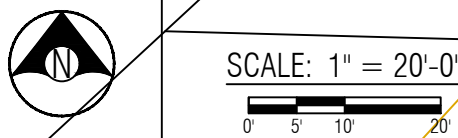
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**SHEET
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PIER DETAILS - EXISTING/PROPOSED

LEGEND

- (21) EXISTING PILES - TO BE REPAIRED
- (21) EXISTING PILES - NO WORK TO BE DONE

Area: 1,214 sqft (over water)
 Area: 1,222 sqft (new grated decking)

**Grated decking is 43% light permeable

EXISTING

- (21) EXISTING CAPS
- (42) EXISTING PILES
- (89) EXISTING STRINGERS
- (84) EXISTING PLATES

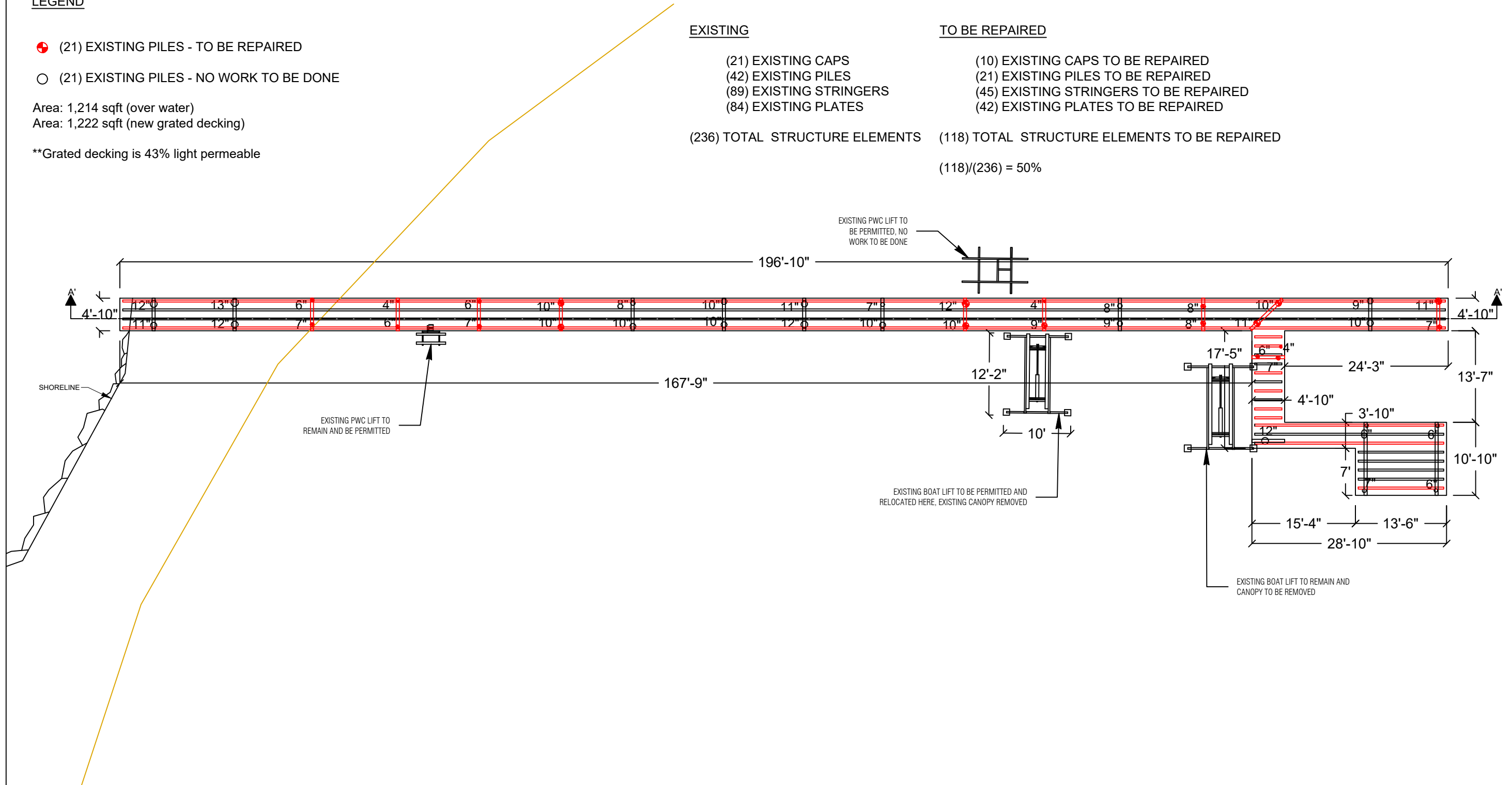
(236) TOTAL STRUCTURE ELEMENTS

TO BE REPAIRED

- (10) EXISTING CAPS TO BE REPAIRED
- (21) EXISTING PILES TO BE REPAIRED
- (45) EXISTING STRINGERS TO BE REPAIRED
- (42) EXISTING PLATES TO BE REPAIRED

(118) TOTAL STRUCTURE ELEMENTS TO BE REPAIRED

(118)/(236) = 50%



PLAN VIEW



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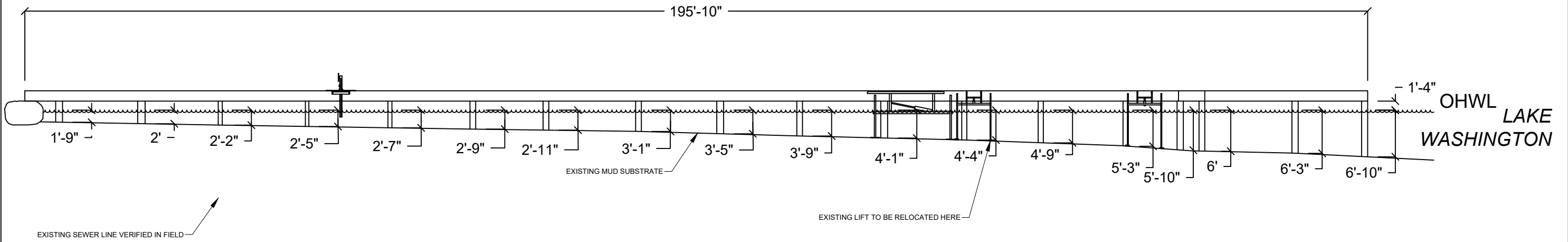
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A4.0

PIER DETAILS EXISTING/PROPOSED



SECTION VIEW: A'-A'



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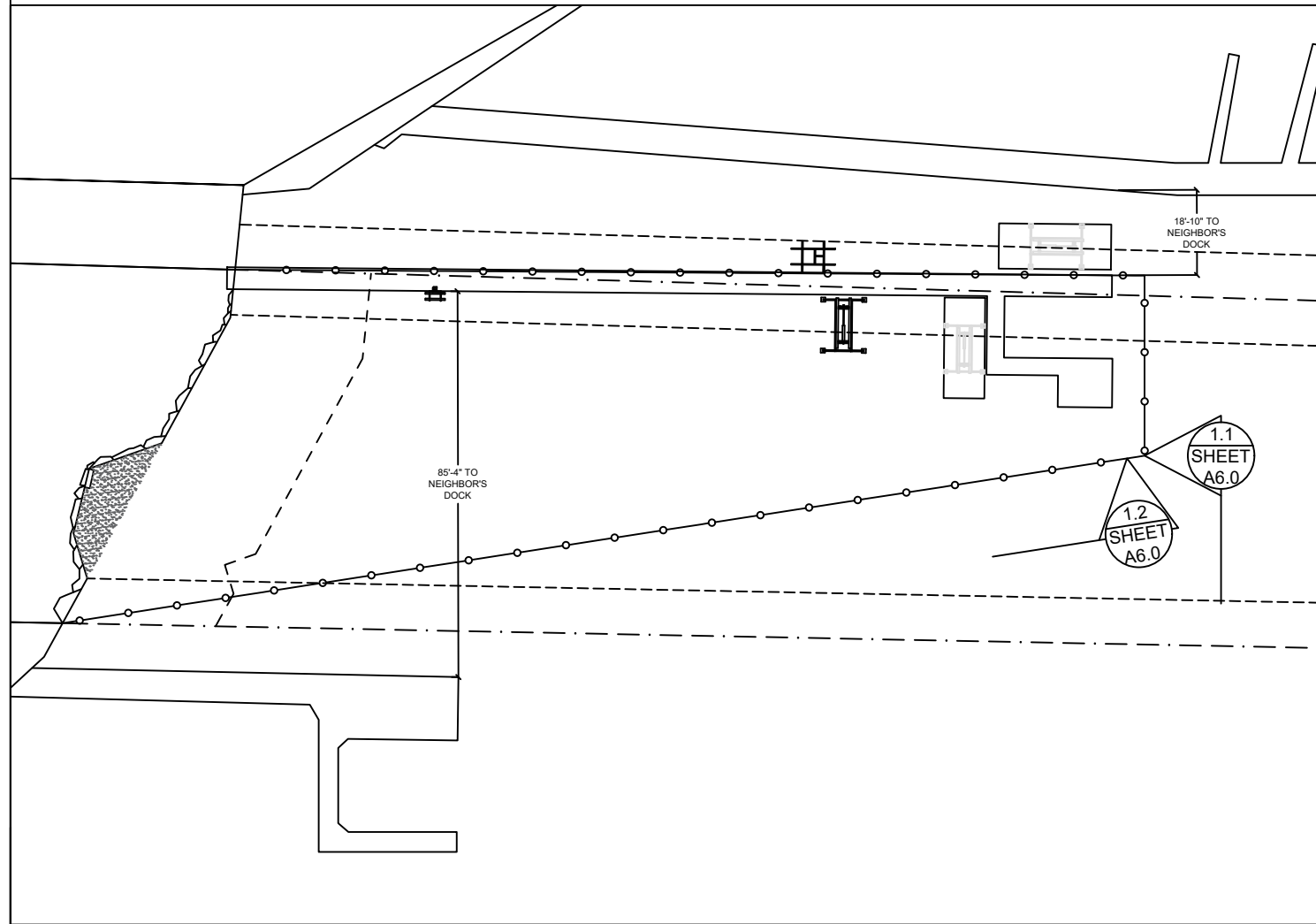
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SHEET
A5.0

BMP INFORMATION

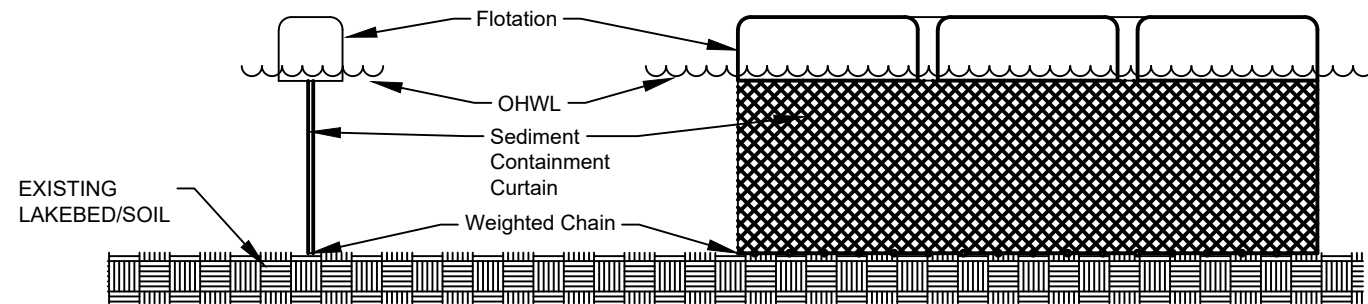


BMP NOTES:

- 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 booms 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 booms.
 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



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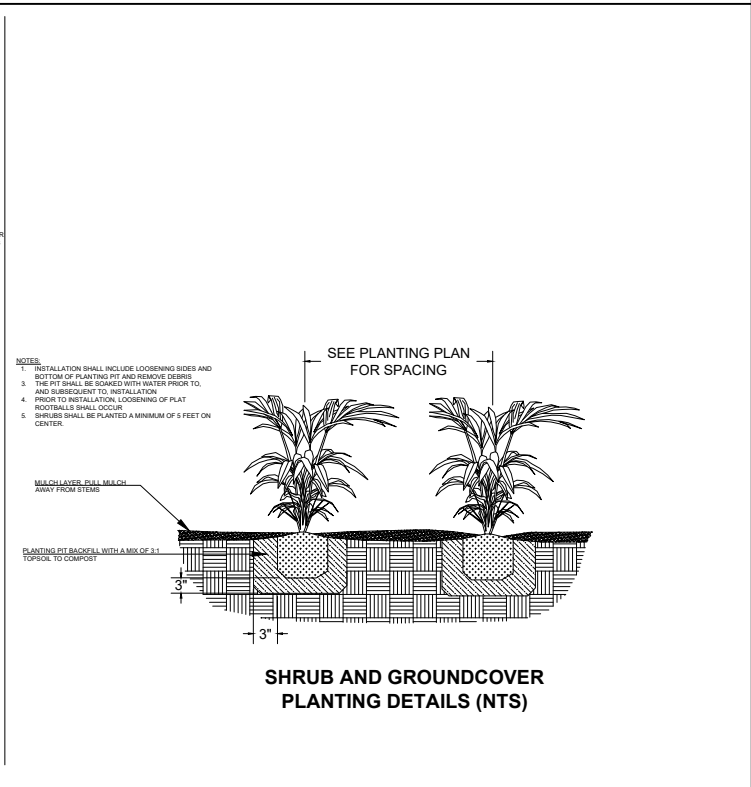
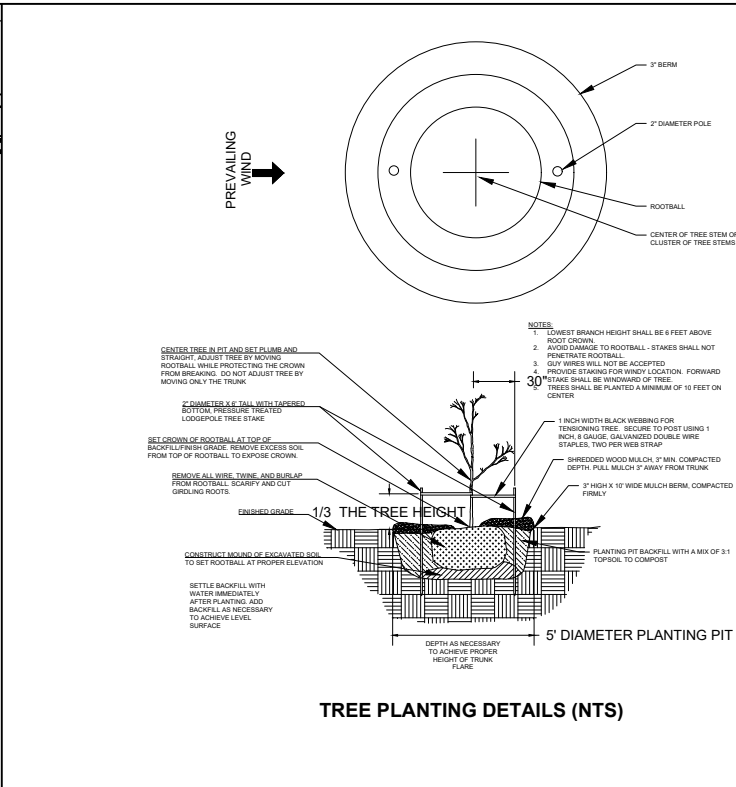
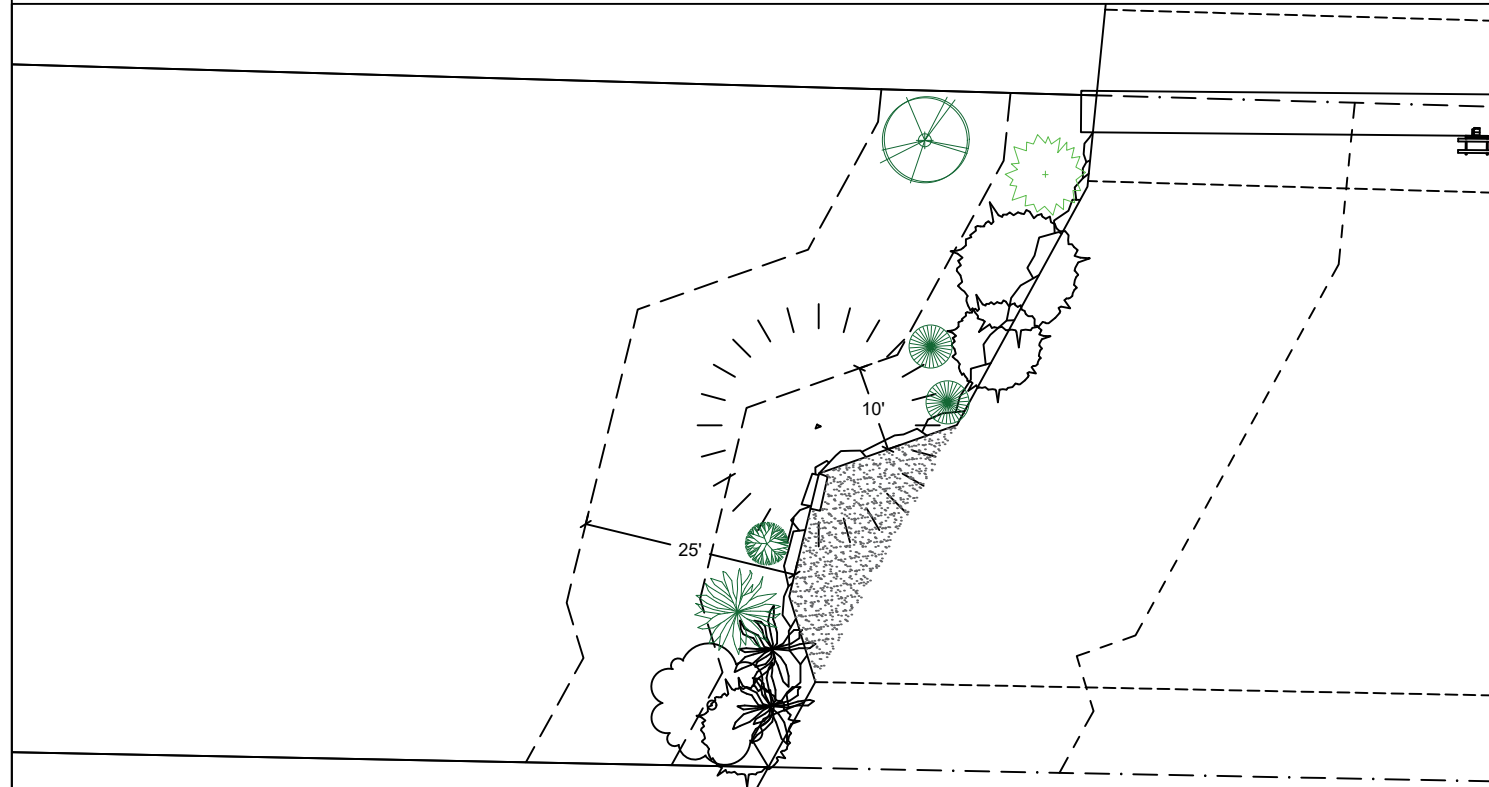
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SHEET
A6.0

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
	<i>Thuja picatta</i>	Western Redcedar	1	3 ft
	<i>Pinus contorta v contorta</i>	Shore pine	1	3 ft
	<i>Rosa nutkana</i>	Nootka Rose	1	1 Gallon
	<i>Philadelphus lewisii</i>	Mock Orange	2	1 Gallon

PLANTS: Shrubs to be installed 5ft on center and trees to be installed 10ft on center. Existing plants requesting credit have been established for a minimum of 5 years.

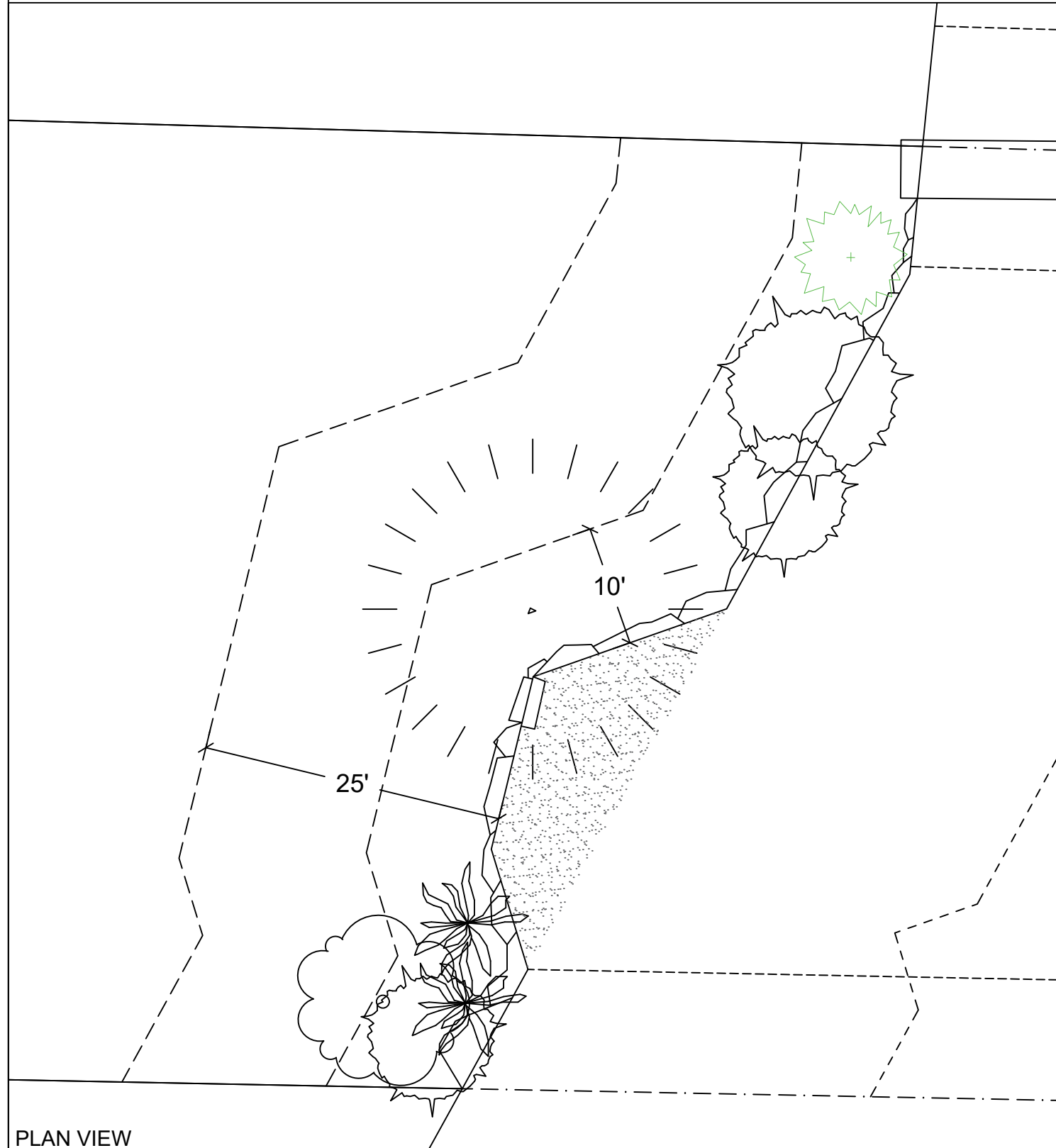


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Created: 01/13/22
Last Updated: 4/15/2022 12:11 PM Dray
SHEET A7.0
NWS-2021-XXX
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EXISTING PLANT PLAN



PLAN VIEW

EXISTING PLANTING SPECIES/QUANTITIES

SYMBOL	SCIENTIFIC NAME	COMMON NAME	QTY	SIZE
	<i>Thuja plicata</i>	Western Red Cedar	1	~30'
	<i>Juniperus Communis</i>	Common Juniper	3	varies
	<i>Laburnum anagyroides</i>	Golden chain tree	1	~ 40ft
	<i>Berberis thunbergii</i> f. <i>atropurpurea</i>	Japanese barberry	1	~3ft
	<i>Berberis thunbergii</i> 'Grhozam'	Japanese Barberry	2	~3ft

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SHEET
A8.0

GENERAL NOTES:

MATERIALS SPEC LIST:

Boat Lifts:

- * SL10014ARW - 146" x 120"
- * SL8012ARW - 132" x 108"
- * SL2008AR2D2 - 147" x 103"
- *

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:

- * Repair piles are done as a sleeve/strap method

CODE REFERENCES: MERCER ISLAND

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

"Development Standards for Replacement, Repair and Maintenance of Overwater Structures, Including Moorage Facilities" per MIMC 19.13050(F)(2).

2. Development Standards for Replacement, Repair and Maintenance of Overwater Structures, Including Moorage Facilities. The maintenance, repair and complete replacement of legally existing overwater structures is permitted; provided, that:

i. All permit requirements of federal and state agencies are met;

Plan set under review by WDFW and CORPS.

ii. The area, width, or length of the structure is not increased, but may be decreased;

The structure is not increasing in size.

iii. The height of any structure is not increased, but may be decreased; provided, that the height above the OHWM may be increased as provided in subsection (F)(2)(ix)(b) of this section;

The height of the structure is not increasing.

iv. The location of any structure is not changed unless the applicant demonstrates to the director's satisfaction that the proposed change in location results in: (A) a net gain in ecological function, and (B) a higher degree of conformity with the location standards for a new overwater structure;

The boat lift being relocated puts it more into conformity.

v. Piles shall not be treated with pentachlorophenol, creosote, CCA or comparably toxic compounds. If ammoniacal copper zinc arsenate (ACZA) pilings are proposed, the applicant shall meet all of the best management practices, including a post-treatment procedure, as outlined in the amended Best Management Practices of the Western Wood Preservers. All piling sizes are in nominal diameter; Any paint, stain or preservative applied to components of the overwater structure must be leach resistant, completely dried or cured prior to installation. Materials shall not be treated with pentochlorophenol, creosote, CCA or comparably toxic compounds;

Piles will be repaired with an epoxy coated steel.

vii. The applicant shall abide by the work windows for listed species established by the U.S. Army Corps of Engineers and Washington Fish and Wildlife;

All work will be done within the work windows.

viii. 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; Ch. 19.13 Shoreline Master Program | Mercer Island City Code Page 29 of 34 The Mercer Island City Code is current through Ordinance 20C-13, passed June 16, 2020.

New, indigenous plantings will occur in the fall or early winter, whichever occurs first.

ix. Structural Repair. The structural repair, which may include replacement of framing elements, of moorage facilities that results in the repair of more than 50 percent of the structure's framing elements within a five-year period shall comply with subsections (F)(2)(ix)(a) through (F)(2)(ix)(c) of this section. For this section, framing elements include, but are not limited to, stringers, piles, pile caps, and attachment brackets, as shown in Figure D:

Structural repair will not exceed 50%

a. One hundred percent of the decking area of the pier, dock, and any platform lifts must be fully grated with materials that allow a minimum of 40 percent light transmittance;

The decking will be replaced with grated decking material that is 43% open area.

b. The height above the OHWM for moorage facilities, except floats, shall be a minimum of one and one-half feet and a maximum of five feet; and

The height above the OHWM will be at least 1'-4".

c. An existing moorage facility that is five feet wide or more within 30 feet waterward from the OHWM shall be replaced or repaired with a moorage face

Not applicable

x. Exterior surface repair. The exterior surface repair, which may include the replacement of exterior surface materials of moorage facilities that results in the repair of more than 50 percent of the surface area of the moorage facility's decking, fascia, and platform lifts within a five-year period (see Figure D), shall be required to utilize materials that allow a minimum of 40 percent light transmittance over 100 percent of the dock; and

Repair will not exceed 50%.

xi. Any decking that is removed in the course of repair shall be replaced with decking materials that allow a minimum of 40 percent light transmittance.

The decking will be replaced with grated decking material that is 43% open area.

Last permit issued for property: Building Permit 8/5/2014

Dock established/constructed: April 15, 1994



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 repair (21) piles, remove (2) existing canopies, relocate (1) boat lift, permit (2) existing PWC lifts, permit (1) existing boat lift, and replace the existing dock with grated decking material.

County: King County
Location: Lake Washington

Applicant: Gurney Residence
4550 E. Mercer Way
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
SE Quarter Of Section 18, Township 24, Range 05

Adjacent Owners:
LEIBSOHN RONALD
4566 E MERCER WAY 98040
LECLERCQ SAMUEL P+SARAH C
4548 E MERCER WAY 98040

SHEET
A9.0

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Created: 01/13/22

DETAILS - REPAIR

S1 DETAIL NOT IN USE

S2 DETAIL NOT IN USE

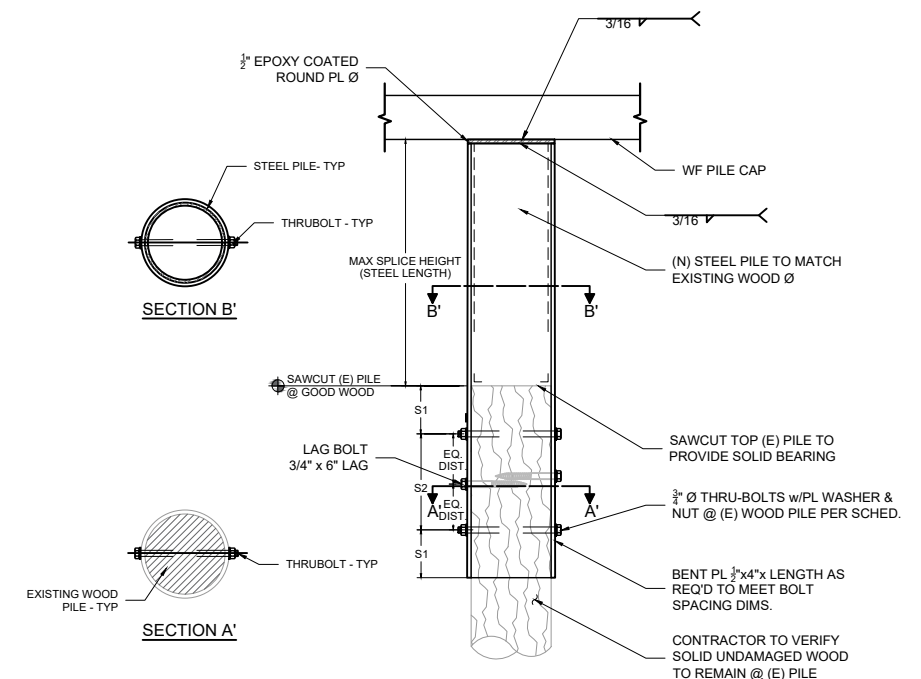
S3 DETAIL NOT IN USE

S4 DETAIL NOT IN USE

S5 SPLICE PILE REPAIR - TYP
SCALE: 1/2" = 1'

STEEL SLEEVE TABLE				
PILE Ø	MAX SPLICE HEIGHT	S1	S2	S3
9"	15"	6"	12"	3"
12"+	28"	6"	12"	3"

- NOTES:
- 1) MAX PILE LOAD = 1,200 # / PILE (BOAT LOAD PARALLEL TO DOCK). CONTACT ENGINEERING IF BOAT SIZE EXCEEDS GENERAL NOTES MAXIMUM ALLOWABLE.
 - 2) MINIMUM BOLT SPACING = 3"
 - 3) STRAP AXIS SHALL BE ORIENTED PERPENDICULAR TO LONGITUDINAL AXIS OF DOCK.



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Location: Lake Washington

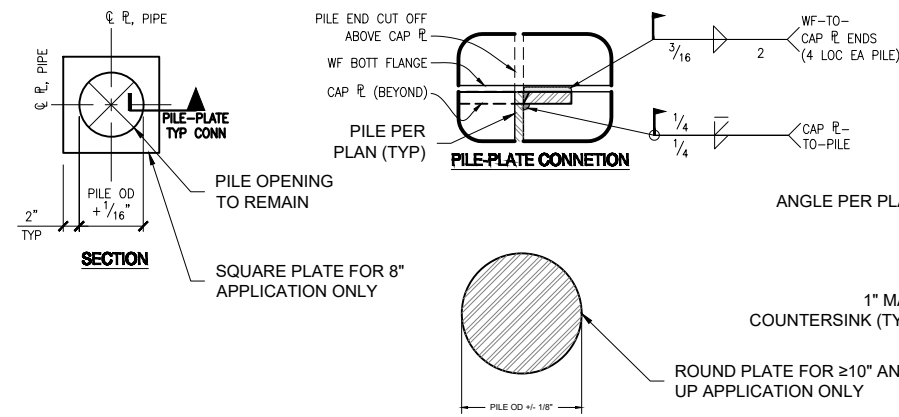
Applicant: Gurney Residence
4550 E. Mercer Way
Mercer Island, WA 98040

Datum: CORPS OF ENGINEERS 1919
SE Quarter Of Section 18, Township 24, Range 05

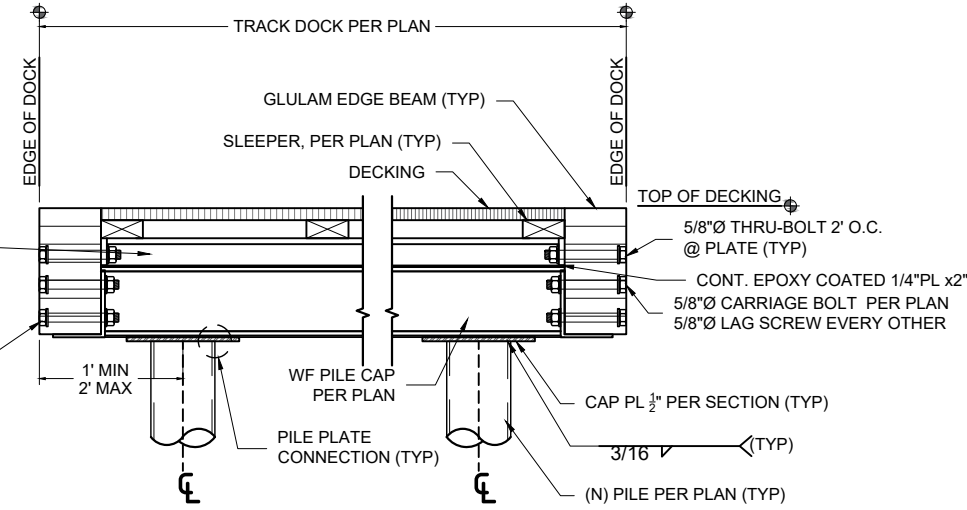
Adjacent Owners:
LEIBSOHN RONALD
4566 E MERCER WAY 98040

SHEET
A10.0

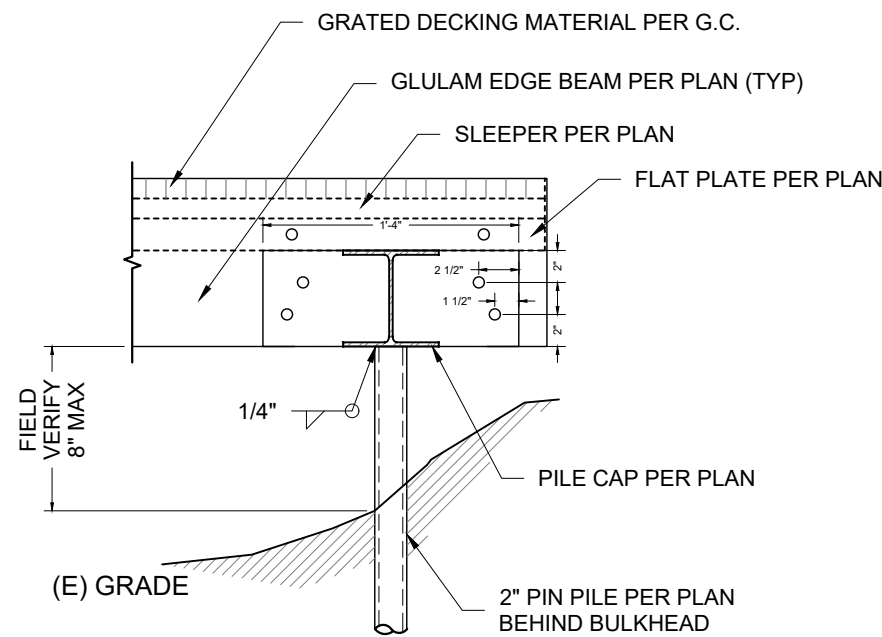
DETAILS - TRACK



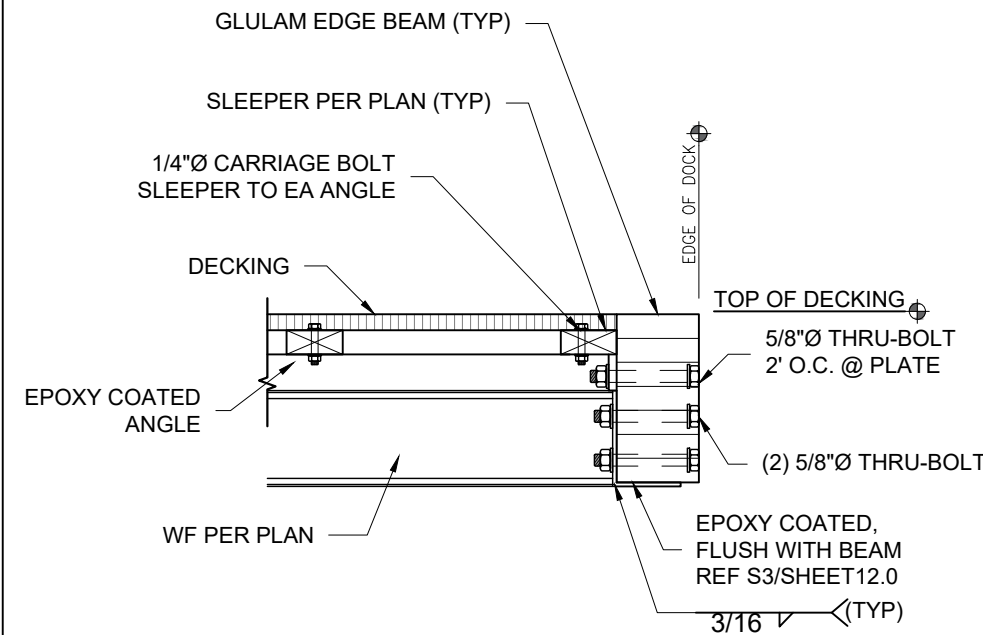
S1 DOCK SECTION w/PILES - TYP
SCALE: 1" - 1"



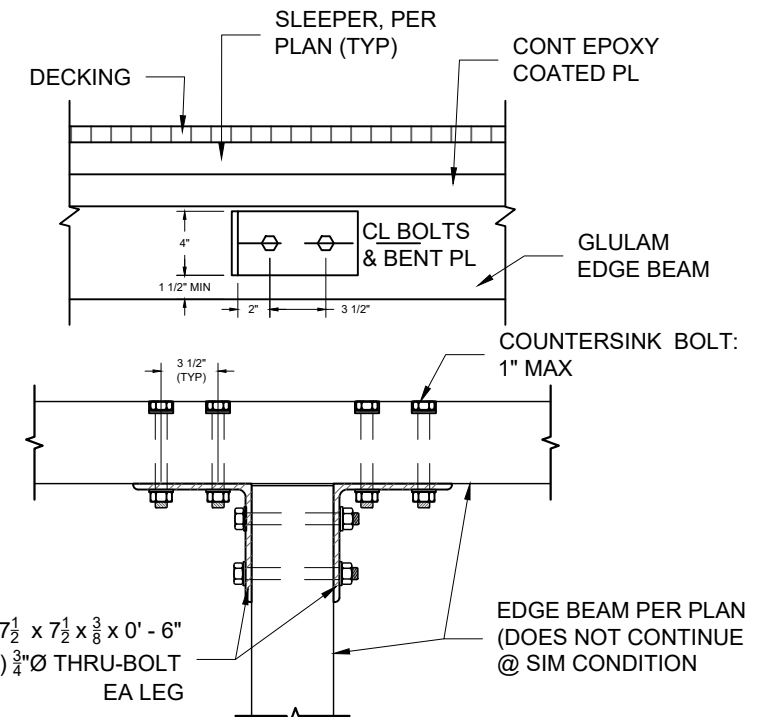
S3 I-BEAM CAP TO WOOD PILE - TYP
SCALE: 1" - 1"



S4 PIN PILE @SHORE MOUNT - TYP
SCALE: 1" - 1"



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



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



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Location: Lake Washington

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LECLERCQ SAMUEL P-SARAH C
4548 E MERCER WAY 98040

SHEET
11.0

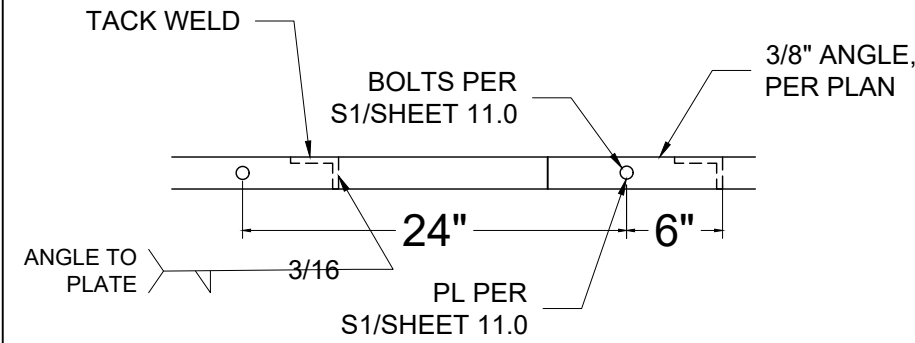
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Created: 01/13/22

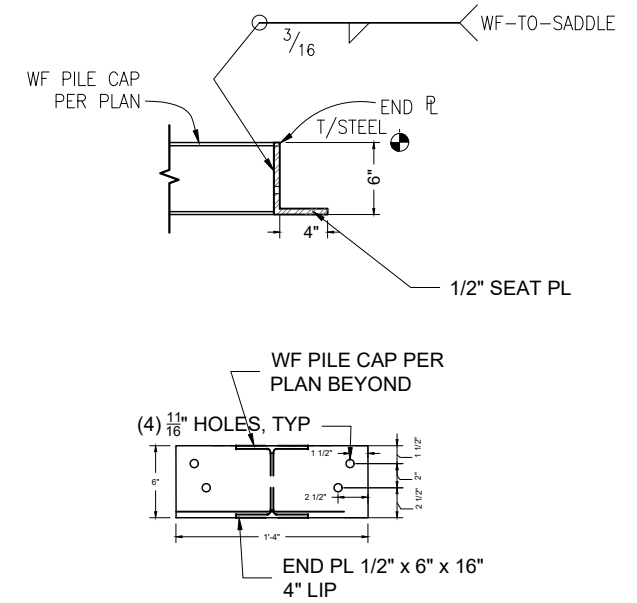
Last Updated: 4/15/2022 12:11 PM Dray

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



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SHEET
12.0

Appendix B: Site Photographs



Photo 1 - Existing dock looking waterward.



Photo 2 - Existing dock looking landward.



Photo 3 - Shoreline conditions looking landward on the north side of existing dock.



Photo 4 - Shoreline conditions looking landward on the south side of the existing dock.



Photo 5 - Shoreline conditions north of the site.



Photo 6 - Shoreline conditions south of the site.