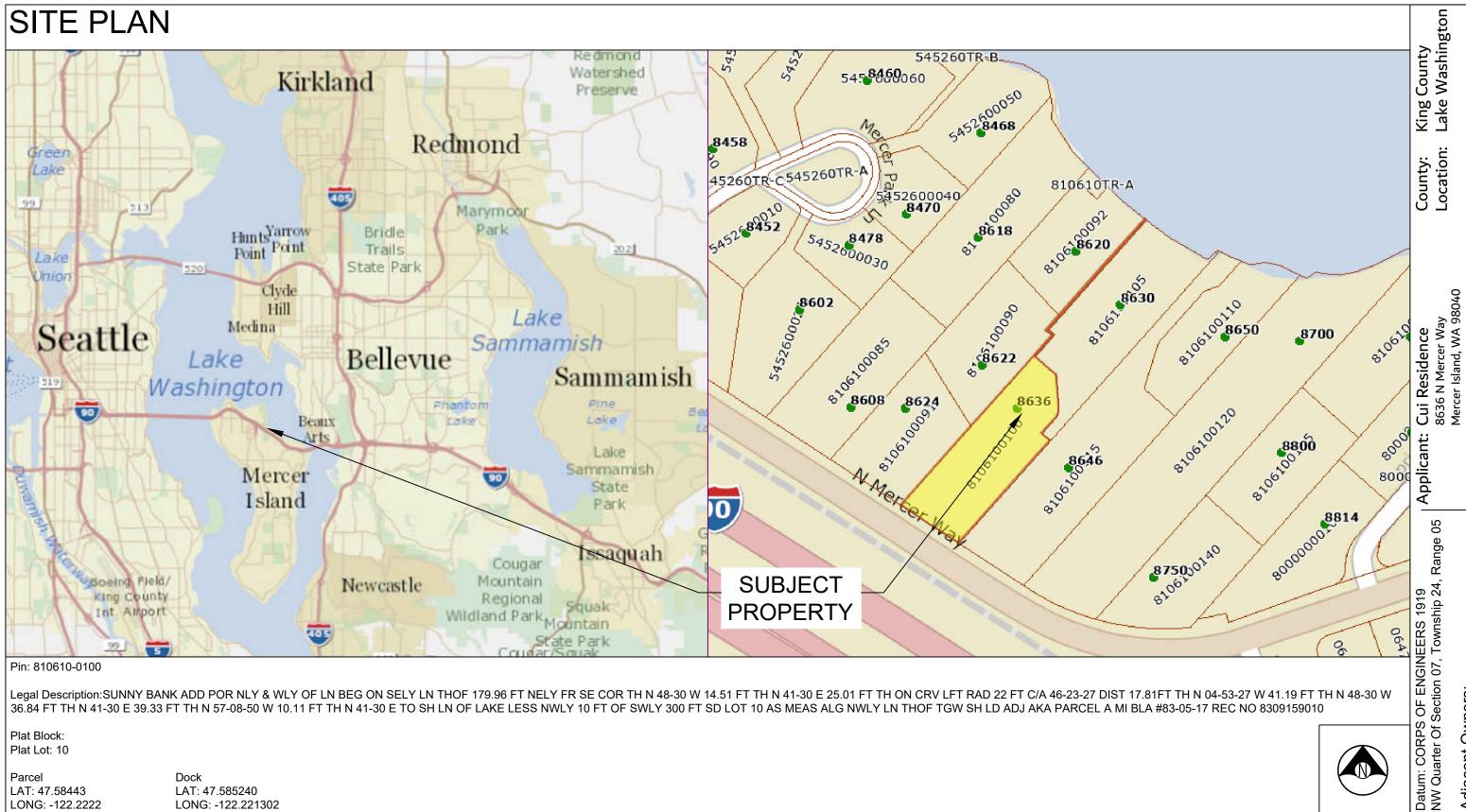
# SITE PLAN



Pin: 810610-0100

Legal Description:SUNNY BANK ADD POR NLY & WLY OF LN BEG ON SELY LN THOF 179.96 FT NELY FR SE COR TH N 48-30 W 14.51 FT TH N 41-30 E 25.01 FT TH ON CRV LFT RAD 22 FT C/A 46-23-27 DIST 17.81FT TH N 04-53-27 W 41.19 FT TH N 48-30 W 36.84 FT TH N 41-30 E 39.33 FT TH N 57-08-50 W 10.11 FT TH N 41-30 E TO SH LN OF LAKE LESS NWLY 10 FT OF SWLY 300 FT SD LOT 10 AS MEAS ALG NWLY LN THOF TGW SH LD ADJ AKA PARCEL A MI BLA #83-05-17 REC NO 8309159010

Plat Block: Plat Lot: 10

Parcel LAT: 47.58443

Dock LAT: 47.585240 LONG: -122.2222 LONG: -122.221302



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 (9) existing piles and repair (1010 sqft) of the existing pier with grated decking material.

SHEET 1.0

Adjacent Owners:
LIN MELINA
8630 N MERCER WAY 98040

ast Updated: 12/13/2023 3:21 PM Shop

NWS-2023-XXX

# **GENERAL NOTES:**

# MATERIALS SPEC LIST:

**Boat Lifts:** Aluminum

- \* SL10014ARW 146" x 167"
- \* 104" x 66" PWC Lift
- \* SL2008AR2D2 104" x 132" (dual jet ski)

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
- \* Repair piles are done as a sleeve/strap method
- \* Piles are driven using the vibro 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;
- ii. The area, width, or length of the structure is not increased, but may be decreased;
- 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;
- 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;
- 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:
- vi. 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;
- 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;
- 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.
- 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:
- 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;
- 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
- 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
- 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
- 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.

### WAC173-27-040(2)(b) Normal maintenance or repair:

The project includes only repairs to existing piles and pier resulting in comparable conditions to the existing size and configuration.

### WAC 197-11-800(3) Repair, remodeling and maintenance activities

The project includes only repairs to existing piles and pier resulting in comparable conditions to the existing size and configuration.

Last permit issued for property: 2207-241 11/03/2022 Dock established/constructed: 1959 Sewer Easement \* Boat lifts permitted under 2207-241 11/03/2022



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SHEET 2.0

Adjacent Owners:
LIN MELINA
8630 N MERCER WAY 98040

County Washington

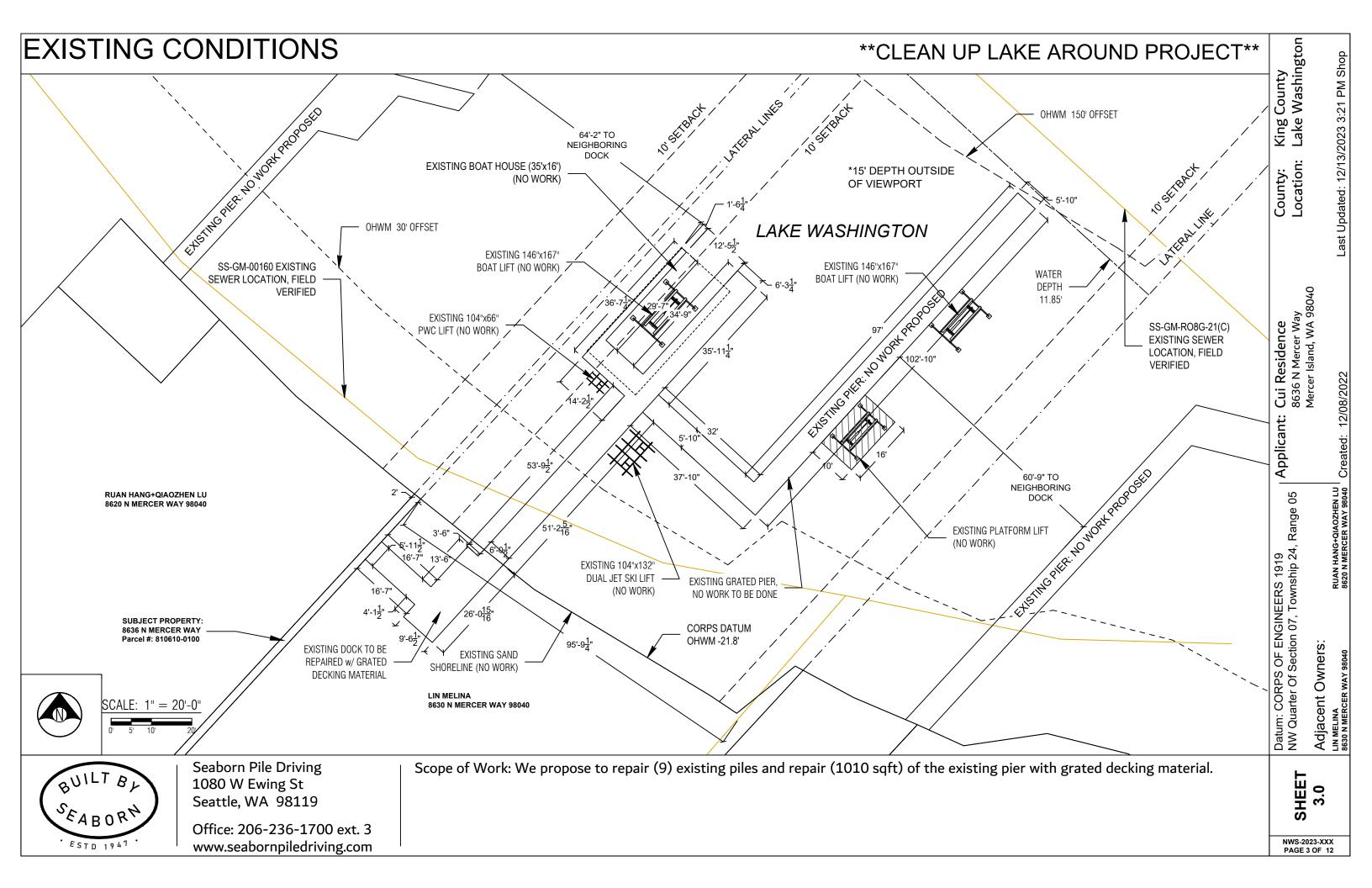
King Lake

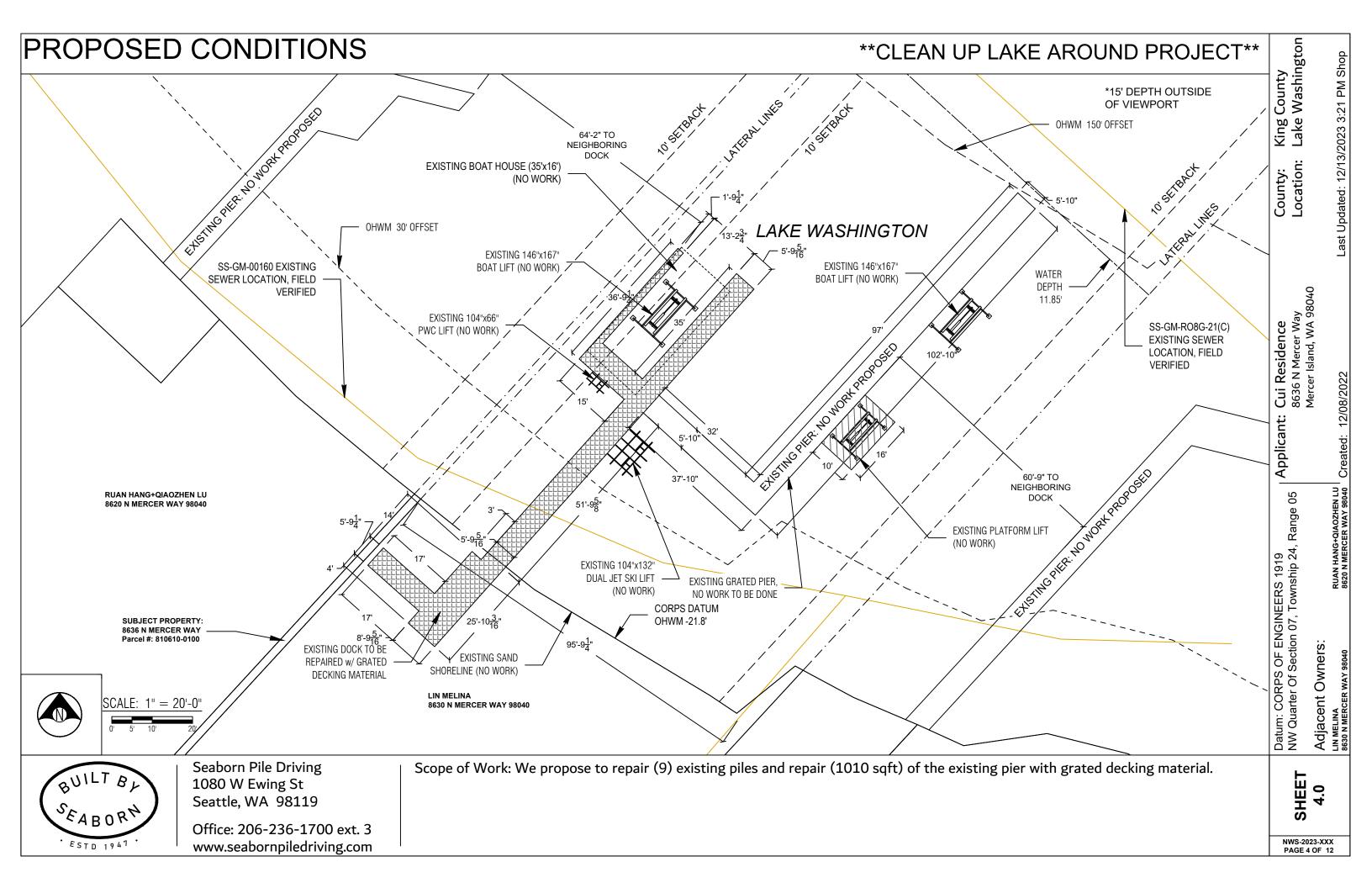
Cui Residence 8636 N Mercer Way Mercer Island, WA 98040

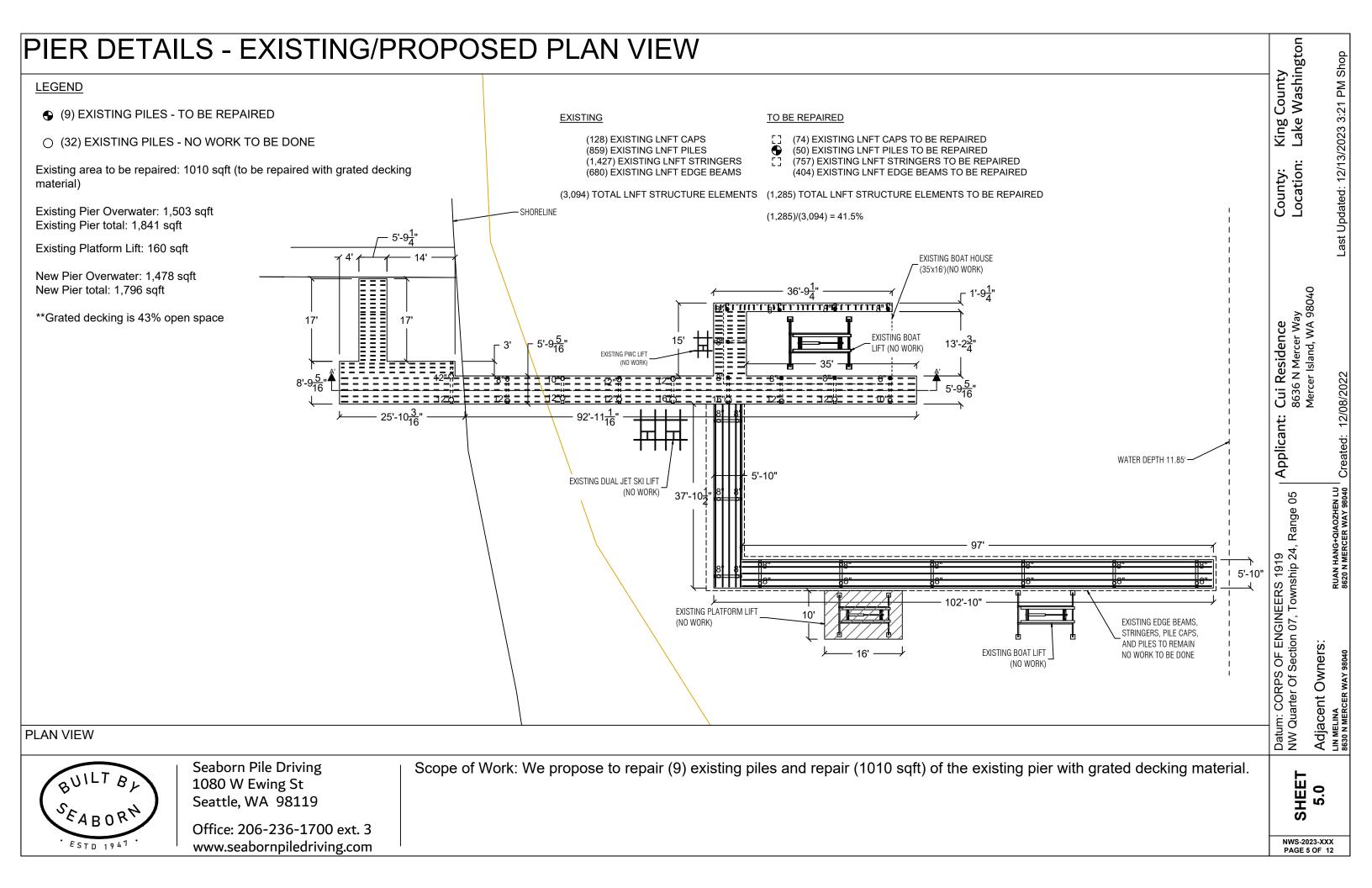
Applicant:

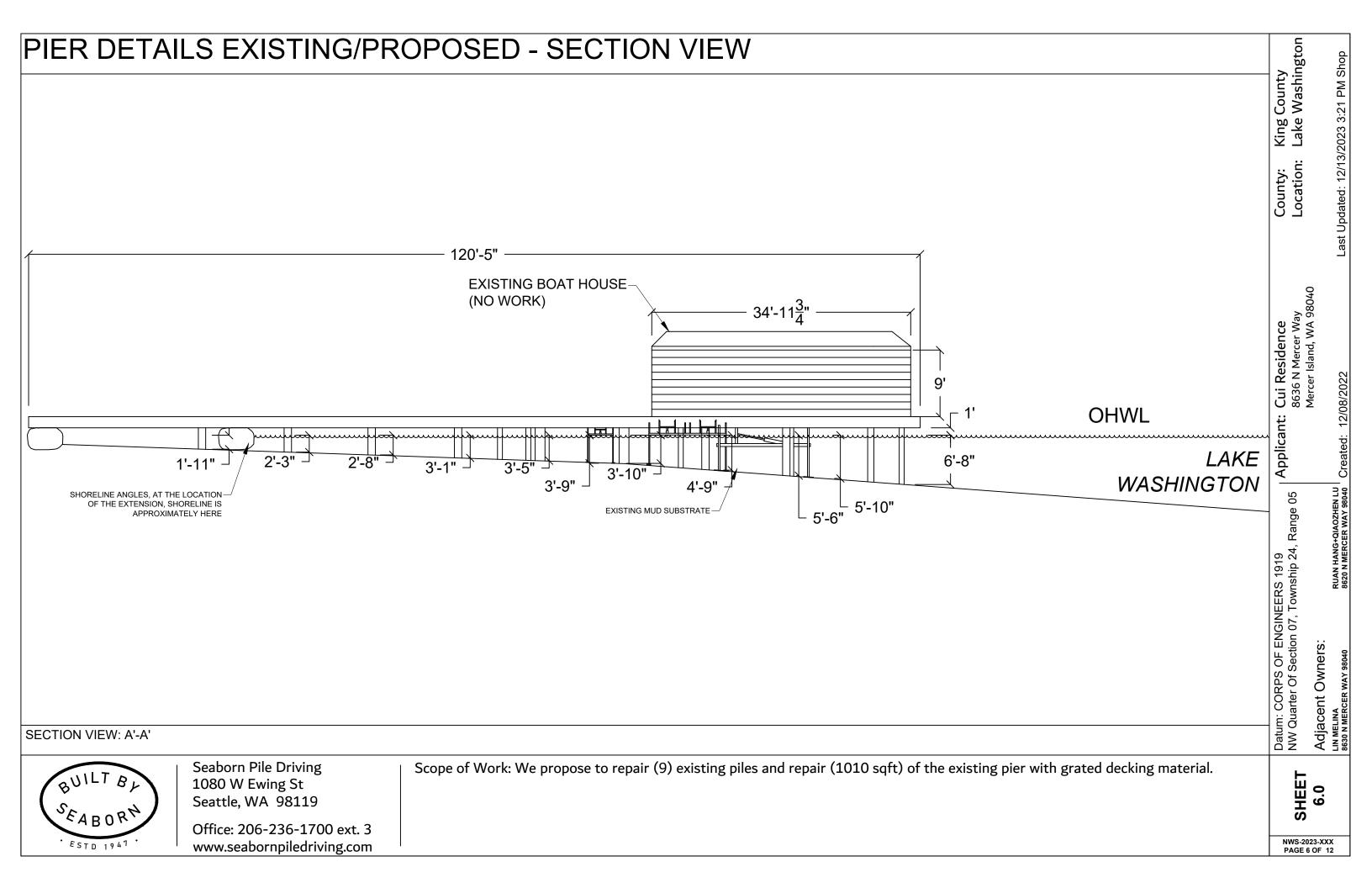
Datum: CORPS OF ENGINEERS 1919 NW Quarter Of Section 07, Township 24, Range 05

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# **BMP INFORMATION** DETAIL 1.1 DETAIL 1.2 Containment

# 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
- 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 & 1.2** 

EXISTING LAKEBED/SOIL



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SHEET 7.0

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County Washington

King ( Lake '

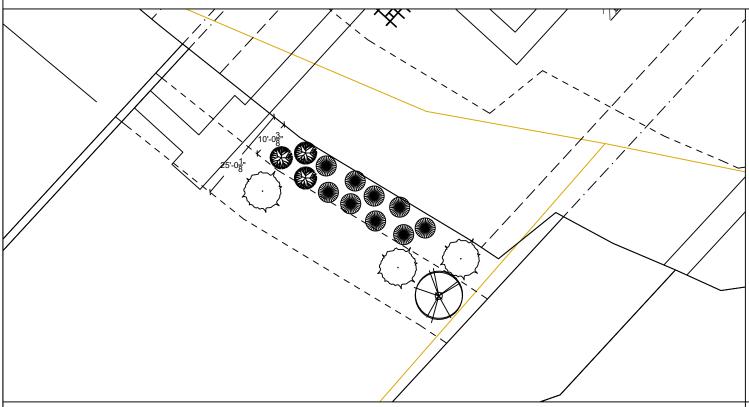
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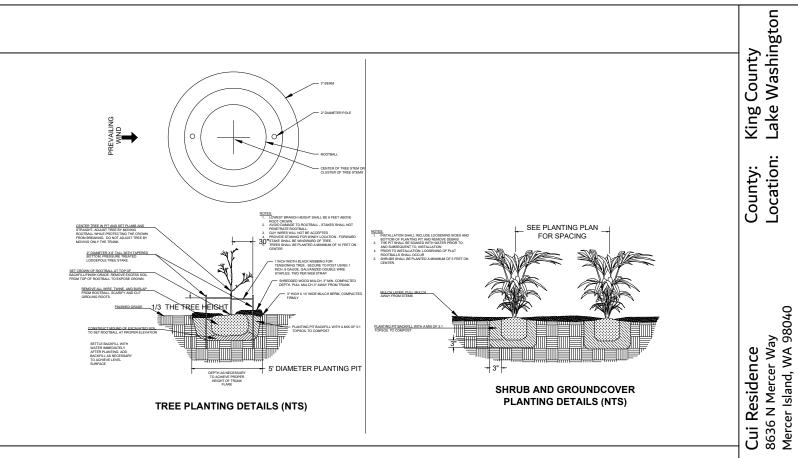
Applicant:

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NWS-2023-XXX

# 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.

PLANTS: No additional plants are proposed due to fully planted shoreline and easement restriction.

SEABORN . ESTD 1941.

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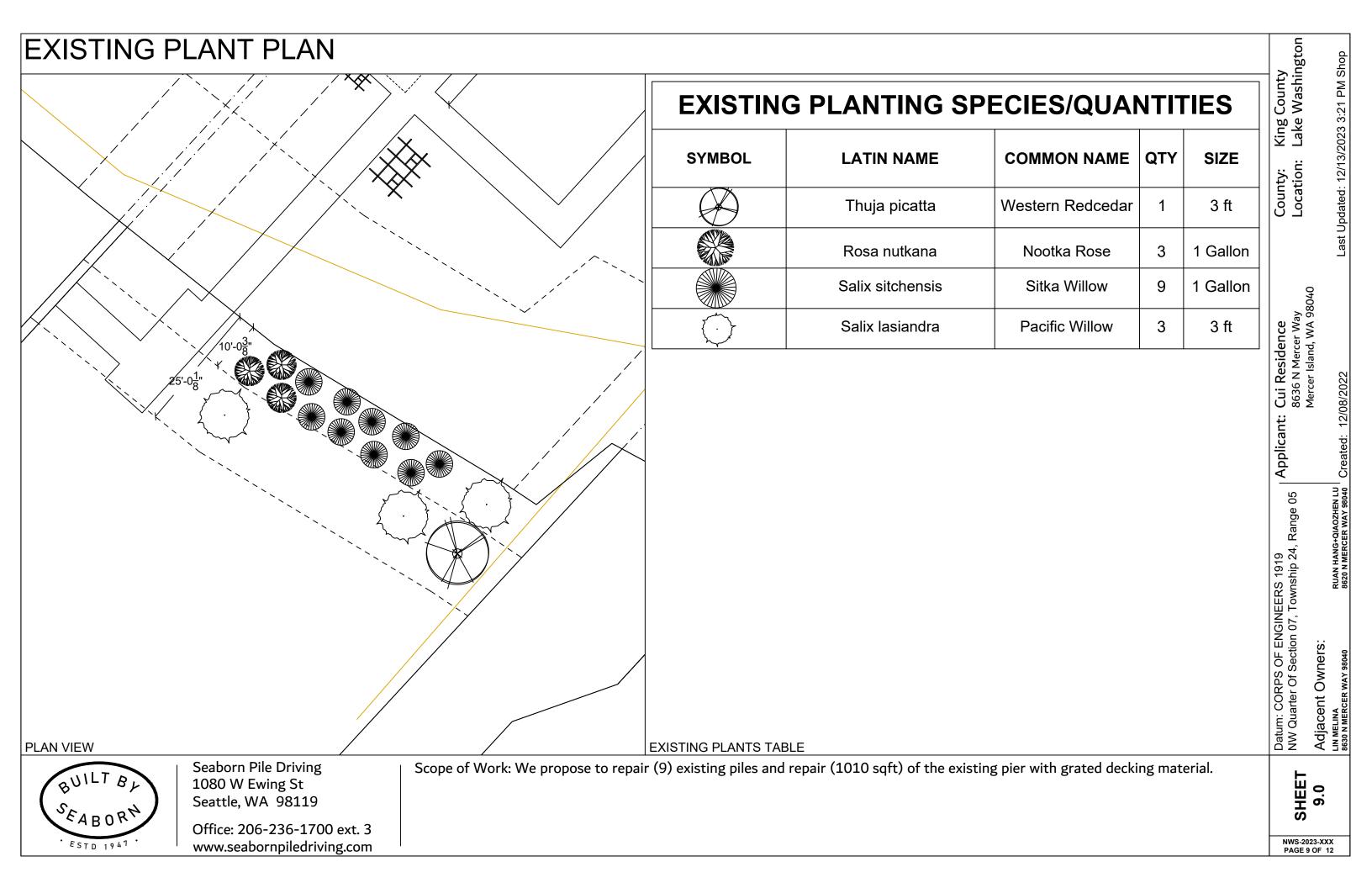
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SHEET 8.0

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# **GENERAL ENGINEERING NOTES:**

# **GENERAL**

- 1. 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 (±) 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
- 5. 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
- 2. 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
- 4. AMERICAN SOCIETY FOR TESTING AND MATERIALS, CURRENT EDITION

# **DESIGN CRITERIA**

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

EXPOSURE CATEGORY = D

RISK CATEGORY = II

 $V_{3S} = 98MPH$ 

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:

LIVE LOADS:

LIVE LOAD = 40 PSF SNOW LOAD = 25 PSF

SEISMIC LOADS: DOCK PILING R = 2.0

SEISMIC IMPORTANCE = 1.0  $SD_1 = 0.595q$ 

# STRUCTURAL STEEL

- ALL MISCELLANEOUS STEEL SHAPES AND PLATES, EXCEPT AS NOTED BELOW, SHALL
- 2. ALL WF SHAPES SHALL CONFORM TO ASTM A992, Fy = 50 KSI
- ALL PILES SHALL CONFORM TO ASTM A252 GRADE 3, Fy = 45 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
- 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 FIFLD WELDED IN ORDER TO FACILITATE THE STRUCTURAL STEEL ERECTION.
- 4. WELDING ELECTRODES SHALL BE 70 KSI STRENGTH AND SHALL BE "LOW-HYDROGEN

### 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
- 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
- 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" x 3/16" THICK.

# **GRATING**

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

# **ABBREVIATIONS**

AMERICAN WELDING SOCIETY CLR COL COLUMN. CONT CONTINUOUS DOUG FIR EXISTING EX OR (E) GLULAM BEAM GLB LONG LEG HORIZONTAL MNFR MANUFACTURER OC OPP ON CENTER OPPOSITE PL PSI POUNDS PER SQUARE INCH POUNDS PER SQUARE FOOT P.T. PRESERVATIVE TREATED SQUARE FOOT REF REFERENCE SIM SS STAINLESS STEEL

**TYPICAL** UNLESS NOTED OTHERWISE UNO VERIFY IN FIELD
WASHINGTON ASSOCIATION OF WARO BUILDING OFFICIALS WF WIDE FLANGE

ESTD 1947

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Office: 206-236-1700 ext. 3 www.seabornpiledriving.com Scope of Work: We propose to repair (9) existing piles and repair (1010 sqft) of the existing pier with grated decking material.

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King Lake

Cui Residence 8636 N Mercer Way Mercer Island, WA 9

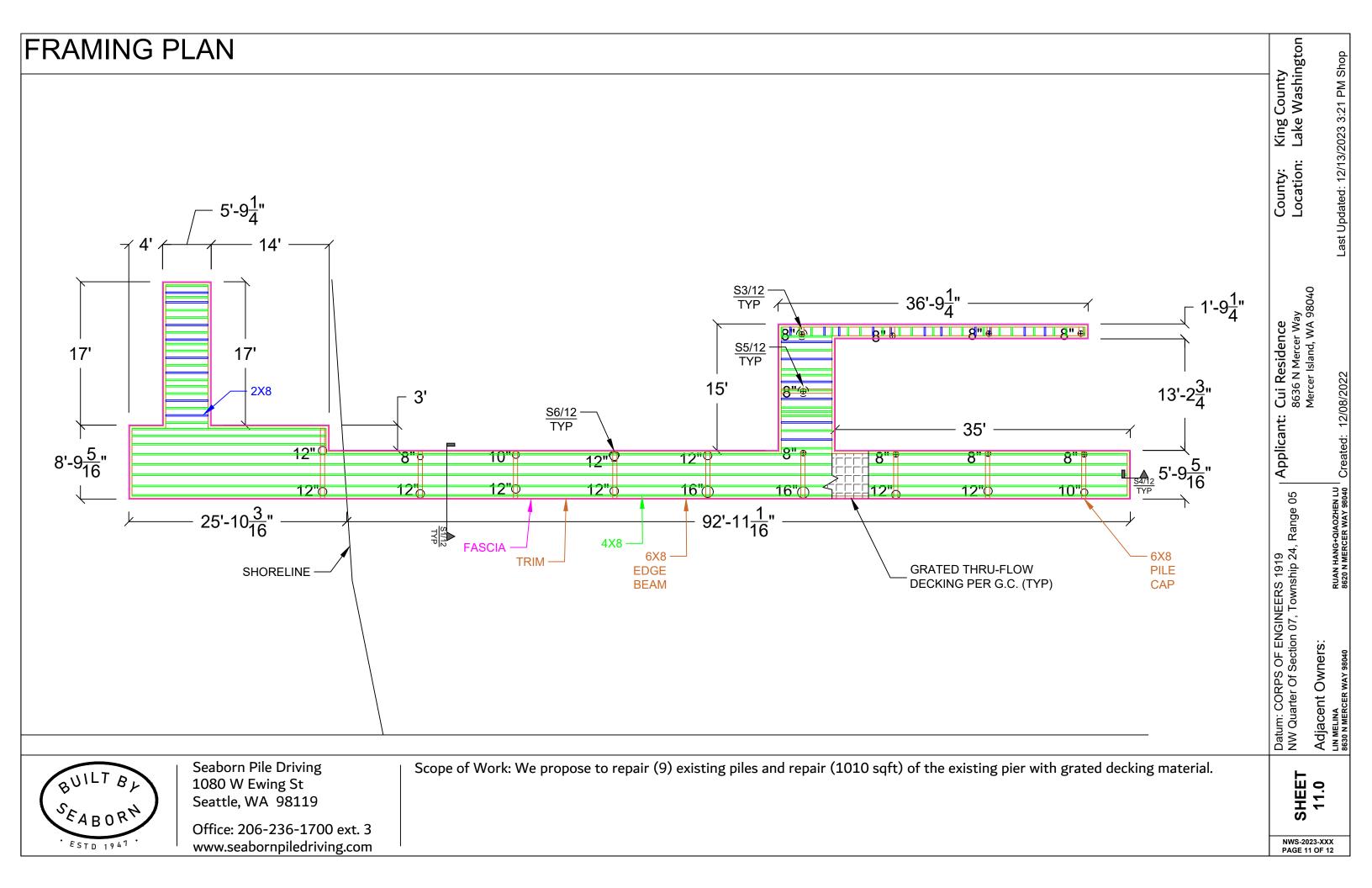
Applicant:

Range 05

Datum: CORPS OF ENGINEERS 1919 NW Quarter Of Section 07, Township 24,

3:21

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# King County Lake Washington DETAILS - REPAIR Last Updated: 12/13/2023 3:21 PM Shop MATCH (E) WOOD PILE Ø (STEEL PIPE OR ROUND HSS, AS REQUIRED) SAWCUT (E) PILE - SAWCUT TOP (E) PILE Cui Residence 8636 N Mercer Way Mercer Island, WA 98040 PILE CAP PER PLAN (2) 3/4" Ø X 16" GALV LAG SCREW @ EA CAP-TO-PILE (TYP) S3) PILE SPLICE - STEEL SPLICE REPAIR DOCK SECTION DETAIL NOT IN USE Applicant: PILE BELOW (2) 3/4"ø THRU BOLT PILE CAP PER PLAN Datum: CORPS OF ENGINEERS 1919 NW Quarter Of Section 07, Township 24, Range 05 TRIM BOARD AND (2) 3/4"ø THRU BOLT FPOXY COATED √ VERT PL TO CAP PL, TYP ROUND PL TOP/BOTTOM -JOIST CONNECTION PER SECTION JOIST PER PLAN. TERMINATES AT FASCIA 1/2"øx11" LAG SCREW 00 PILE CAP PER PLAN VERT PL TO PILE CAP PL, TYP PILE CAP GLULAMS CONNECTION PER SECTION 1/4 V ≺ Adjacent Owners: LIN MELINA 8630 N MERCER WAY 98040 PILE PER STEEL PIPE DIA TO MATCH PILE DOCK SECTION AT CORNERS SCALE: 3/4" - 1' MIN 4" WALL S5) SQUARE PLATE DETAIL S6) CROWN DETAIL Seaborn Pile Driving Scope of Work: We propose to repair (9) existing piles and repair (1010 sqft) of the existing pier with grated decking material. 1080 W Ewing St



Seattle, WA 98119

Office: 206-236-1700 ext. 3 www.seabornpiledriving.com SHEET 12.0

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