

Ecological No Net Loss Assessment Report

Prepared for

**Douglas and Deborah Rosen
5995 SE 30th Street
Mercer Island, WA 98040**

Prepared by



**Northwest Environmental Consulting, LLC
3639 Palatine Avenue North
Seattle, WA 98103
206-234-2520**

February 2020
Revised December 2023

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.”

Location

The subject property is located at 5995 SE 30th Street (King County parcel number 2174500100) in the City of Mercer Island, Washington (see Appendix A – Sheet 1 of 10). The parcel is on the waterfront of Lake Washington, which contains several endangered fish species listed under the Endangered Species Act and Washington State designated priority fish species.

Project Description

The landowner is proposing to replace the decking and fascia on the pier, repair timber piles, damaged finger pier, reconfigure the landward most slip, and remove the moorage cover on the property’s waterfront. The overwater coverage includes 1,340 square foot dock, 380 square-foot moorage cover, and 100 square-foot platform lift. The moorage cover fell in a storm and damaged a finger pier that will be repaired. See Appendix A - Sheets 2 and 4 of 10.

During the proposed work, 13 existing piles will be spliced, corbels will be installed to raise the dock from 11 inches to 18 inches above the OHWL, new 4-foot by 8-foot stringers will be installed, the solid wood decking will be replaced with Sunwalk grated decking and the fascia will be replaced. All dock accessories and lifts will be reinstalled.

Approach

Northwest Environmental Consulting LLC (NVEC) biologist Courtney Straight conducted a site visit on November 13, 2019 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 SalmonScope online database of fish distribution and ESA listing units

Site Description

The subject property is in a residential neighborhood on the western shoreline of Mercer Island. The parcel is surrounded on all other sides by single-family houses. An aerial drawing of the site is included as Sheet 2 of 10 in Appendix A. Pictures of the site are included in Appendix B.

Existing structures on the property include a single-family residence, a guest house, and the existing pier. As described above, the pier is 1,320 square feet with two boat lifts, a 100-square-foot platform lift, a jet ski lift, a diving board, and a 380-square-foot moorage cover (which has been damaged). The pier is 89 feet long, with 41-foot-long finger piers (Sheet 4 of 10). The pier sits in water up to 13 feet deep (Sheet 4 of 10).

The shoreline on the property is armored with a poured concrete and rock bulkhead (see Photos 2 through 5). One set of stairs with a gravel beach is inset into the bulkhead for water access. The yard is landscaped with planted trees, shrubs, herbaceous species, and a mowed lawn. Plants present are primarily ornamentals. The north end of the property is lined with ornamental grasses, a birch tree and other ornamental trees, Japanese spurge, and English laurel. The south end of the property contains a rhododendron, David viburnum (*Viburnum davidii*), Japanese spurge, birch trees, and an arborvitae hedge. There is an inkberry holly (*Ilex glabra*) mixed with a grape vine which overhangs the water next to the pier.

The adjacent parcel to the north has a rock bulkhead and pier. The parcel to the south has a mix of rock bulkhead and a beach cove with a weeping willow tree with a pier.

Substrates along the shoreline consist of angled rock (up to 15 inches long) within 5 to 10 feet of the bulkhead, and smooth rock, with cobble and sand. No aquatic vegetation was visible within 10 feet of the pier, at the time of the site visit.

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 clarki*), 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. There is a spawning site for sockeye salmon mapped along the shoreline adjacent to the project. Juveniles may rear in the waters near the project when traveling from spawning sites on other lake tributaries to the lake's outlet at the Locks. The project site is accessible to any fish migrating or rearing in the lake, but specific critical habitat for these species is not present at the subject parcel.

There are no other priority habitats directly associated with the project site, for aquatic or terrestrial species.

Project Impacts and Conservation Measurements

Direct Impacts:

Sediments: Sediment disturbance will occur below the OHWL and along the shoreline of Lake Washington. Additionally, the tug and barge propwash may disturb sediments temporarily when making trips to/from the site. Some sedimentation may also be caused during pile driving.

Sediments have been shown to be minimally disturbed during pile driving activities and the only pile work will be pile splicing and the installation of 2 4-inch pin piles. The project will meet state water quality standards.

Shoreline: Planting native vegetation 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 C01).

Lake Bed: No change in lake bed will occur from pile splicing, Two 4-inch by 4-inch wooden posts will be removed from the dock and replaced with 2 4-inch steel pin piles resulting in a restoration of 0.05 square feet of lake bed.

Noise: Construction equipment and pile driving 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.

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 of the small amount of petroleum products available for spillage during typical construction activities, and because of spill containment measures that will be employed should a spill occur.

Indirect Impacts:

Shading: The existing dock, moorage cover, and platform lift cover about 1,800 square feet of the lake surface. The existing moorage cover roof and platform lift will be removed.

The effective overwater shading will be reduced by using grated decking throughout, instead of solid decking (as is present on the existing surfaces). Grated decking allows more light to penetrate the waters below a dock, which can increase productivity in the waters, 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.

Sunwalk grated decking has measured performance at 43 percent light penetration (Sunwalk, 2020). Thus, effective coverage of a pier with Sunwalk grating is about 57% of the total area. A summary of how this will affect this project’s shading is shown below:

Existing pier area (1,320 sq. ft. pier + 380 sq. ft. moorage cover + 100 s. ft. platform lift)	1,800 sq. ft.
Effective overwater coverage with solid decking, moorage cover, and platform lift (100% of area)	1,800 sq. ft.
Overwater coverage after removals	1,269 sq. ft.
Effective overwater coverage with Sunwalk decking (57% of area) and translucent moorage cover (100% of area)	723 sq. ft.

The project will decrease overwater coverage by 531 square feet by removal of the moorage cover, platform lift, and part of the dock at the landward most slip. Using grated decking will reduce the effective overwater coverage at the site by an additional 546 square feet.

Cumulative Impacts:

The project supports continued recreational boating, which has been identified as a limiting factor for salmonid populations in Lake Washington. The repairs 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.

Best Management Practices: Applicable BMPs will be used such as a silt curtain (floating and anchored) around the in-water work area will contain any silt and sediment that may escape during demolition and construction. A floating boom will contain any floating debris and the barge will contain a perimeter containment sock to absorb oil and grease that may 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.

In-lieu Fee: The shoreline on the subject property will be planted with native, overhanging vegetation and additional mitigation planting is not possible. The project also requires approval from the National Marine Fisheries Service (NMFS). NMFS has developed a calculator to determine appropriate mitigation costs for proposed in-water structures in Lake Washington. This calculator has established a fund that owners can pay into if they are not willing or cannot find mitigation to offset impacts from the project. The owner is not able to complete the required mitigation at the subject property and the property owners will pay into the in-lieu fee program to mitigate project impacts. An in-lieu fee program is defined as follows:

“A program involving the restoration, establishment, enhancement, and/or preservation of aquatic resources through funds paid to a governmental or non-profit natural resources management entity to satisfy compensatory mitigation requirements... Similar to a mitigation bank, an in-lieu fee program sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the in-lieu program sponsor.” (Fed. Reg. 40 CFR Part 230)

The fee has been determined using the Restoration And Permitting (RAP) Calculator for Lake Washington and will be paid to King County Conservation Fund. The funds have been used to remove 350 piles from Lake Washington at the mouth of the Cedar River.

Conclusion

Juvenile Chinook salmon and other salmonids rear and migrate along the Lake Washington shoreline, and the shoreline adjacent to the property is mapped by WDFW as containing sockeye spawning habitat.

There will be temporary impacts from noise and inwater work for pile repair and installation of 2 new 4" pin piles. To reduce impacts during construction, inwater work will occur only during the prescribed inwater work period and use applicable BMPs to prevent construction spills and turbidity from occurring.

The project will overall have a net benefit to the nearshore environment by removing the 380 square foot moorage cover, 100 square foot platform lift, and reducing the dock by 71 square feet. In addition, Sunwalk grating will be used to replace the existing wood decking. The grated decking will reduce the effective overwater coverage by an additional 546 square feet. This grating will reduce the hard shadows favored by salmonid predators and increase productivity in waters under the pier. In addition, the pier will be raised by 7 inches which will naturally allow more light under the pier, further reducing impacts.

A shoreline planting plan will be implemented that will add two native trees and three native shrubs that will improve 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 existing established woody ornamental vegetation on the site will be maintained and provides cover and habitat structure along the shoreline.

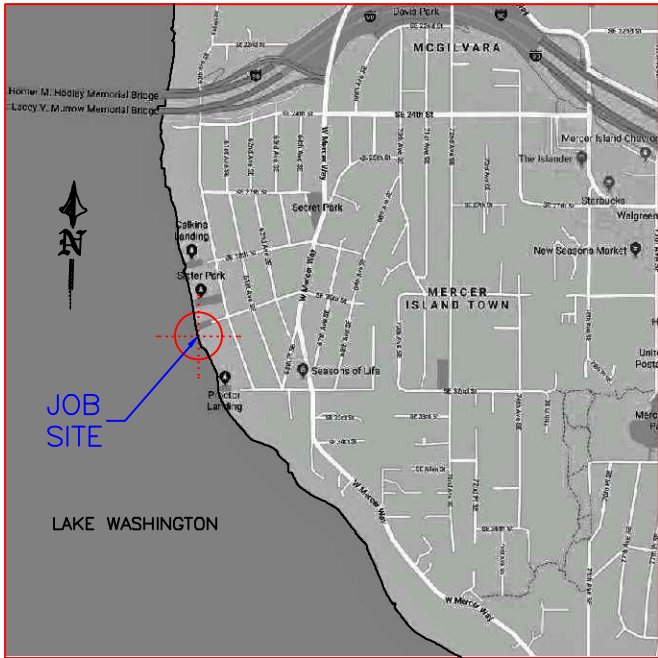
The owner is paying into an in-lieu fee program that will be used for habitat projects by King County. Money collected for this program has been used to remove 350 derelict pilings from the mouth of the Cedar River in Lake Washington.

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** at the site. Conservation measures including shoreline planting and removal of overwater coverage will **improve ecological functions** at the site.

REFERENCES

- Sunwalk. 2020. Sunwalk 45 Series – The original bi-directional dock surface panel. Online. Accessed February 2020 at <http://www.sunwalkdocks.com/product-page-1/>.
- US Army Corps of Engineers (USACE). 2004. Final Biological Evaluation, Regional General Permit: Construction of New or Expansion of Existing Residential Overwater Structures and Driving of Moorage Piling. Lake Washington, Lake Sammamish, the Sammamish River and Lake Union, Including the Lake Washington Ship Canal, in the State of Washington.
- Washington Department of Fish and Wildlife (WDFW). 2020. Priority Habitats and Species. Online database. Accessed February 2020 at <http://apps.wdfw.wa.gov/phsontheweb/>
- WDFW. 2020. SalmonScape. Online database. Accessed February 2020 at <http://apps.wdfw.wa.gov/salmonscape/>

Appendix A: Figures and Project Drawings



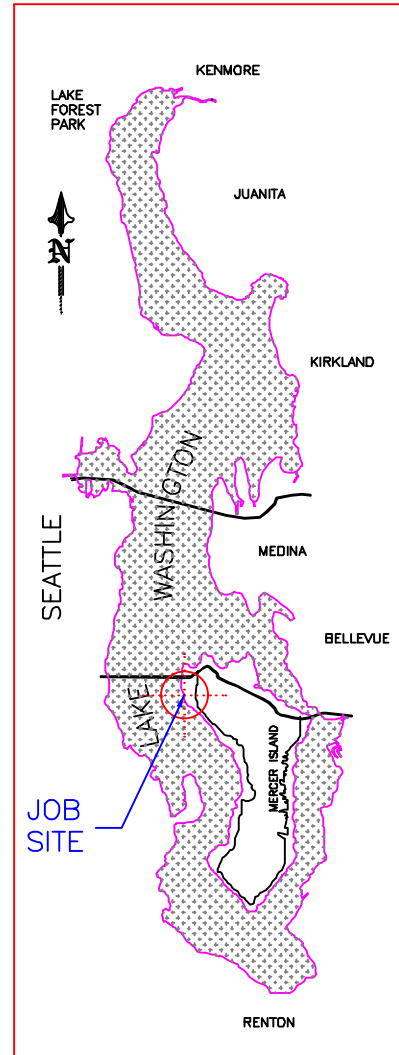
VICINITY MAP/NO SCALE

LEGAL DESCRIPTION

SECTION: NE-11-24-4 LAT: 47.583370 (47° 35' 0.132" N)
 TAXLOT #: 217450-0100 LONG: -122.252240 (122° 15' 8.064" W)

EAST SEATTLE ADD LOT 1 & SH LDS ADJ MERCER ISLAND SHORT PLAT
 NO 83-09-32 REC NO 8403019001 SD SHORT PLAT DAF - LOTS
 19-20-21 & 22 BLK 1 SD ADD & VAC ST ADJ

NOTE:
 PREVIOUS PERMITS INDICATE LEGAL NONCONFORMANCE.



AREA MAP/NO SCALE

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REVISED
 12/22/2022

PER CoMI-CPDD
 AFFILIATE COMMENTS
 DATED 12/21/2022.

ADJACENT OWNERS:

- ① GARFIELD LANDING
 CITY OF MERCER ISLAND
 MERCER ISLAND, WA 98040
- ② ALMA HOLDINGS, LLC
 3019 60TH AVE SE
 MERCER ISLAND, WA 98040

APPLICATION#:

PROPOSED: PIER REPAIR

PURPOSE: RESTORE PIER INTEGRITY

DATUM: C.O.E. MLLW=0.0'

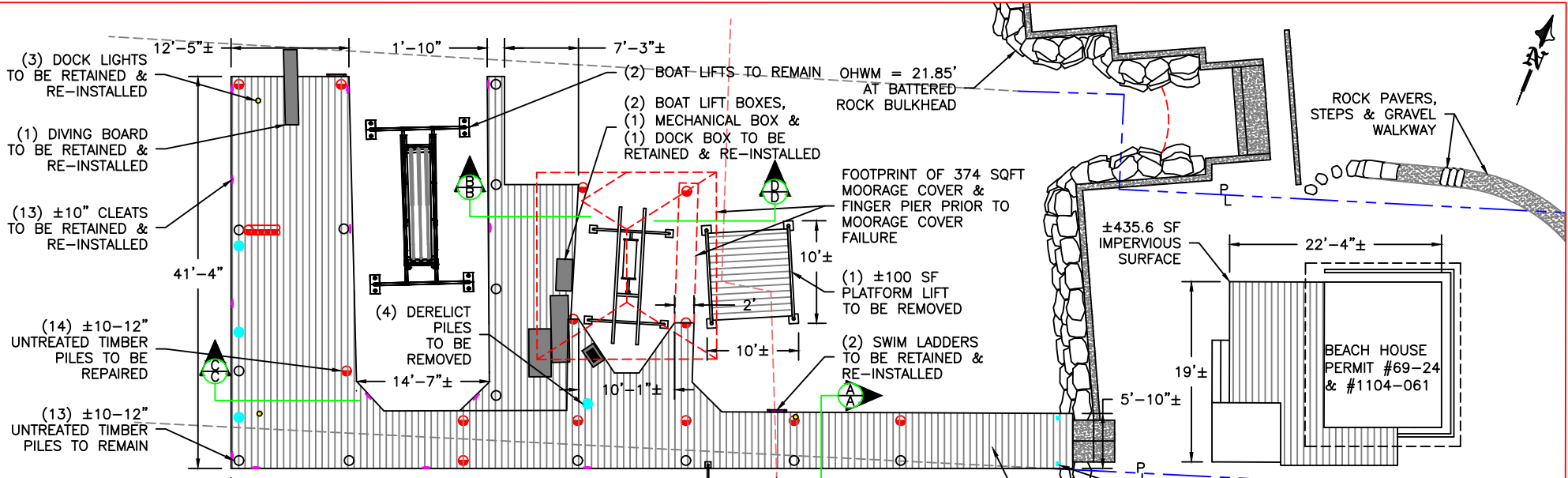
DWG#: 19-31042-A13-1

APPLICANT: DOUGLAS ROSEN

SITE ADD. 5995 SE 30TH STREET
 MERCER ISLAND, WA 98040

MAIL ADD. 5995 SE 30TH STREET
 MERCER ISLAND, WA 98040

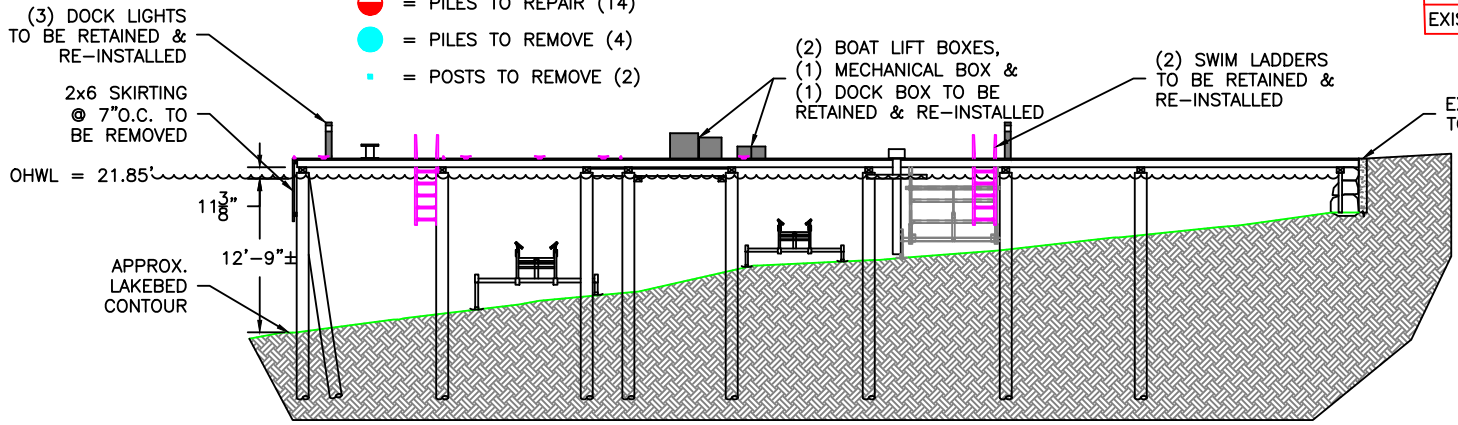
PAGE: 1 OF: 16 DATE: 2-7-2020



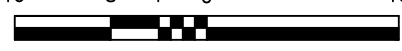
EXISTING DETAIL VIEW
SCALE: 1/16"=1'

LAKE WASHINGTON

- = PILES TO REMAIN (13)
- = PILES TO REPAIR (14)
- = PILES TO REMOVE (4)
- = POSTS TO REMOVE (2)



EXISTING ELEVATION VIEW



SCALE: 1/16"=1'

EXISTING SQUARE FOOTAGE = 1340 SQFT
EXISTING TIMBER PILES/POSTS = 33

JOB SITE
DOUGLAS & DEBORAH ROSEN
5995 SE 30TH ST
MERCER ISLAND, WA 98040
217450-0100

REVISED
12/22/2022

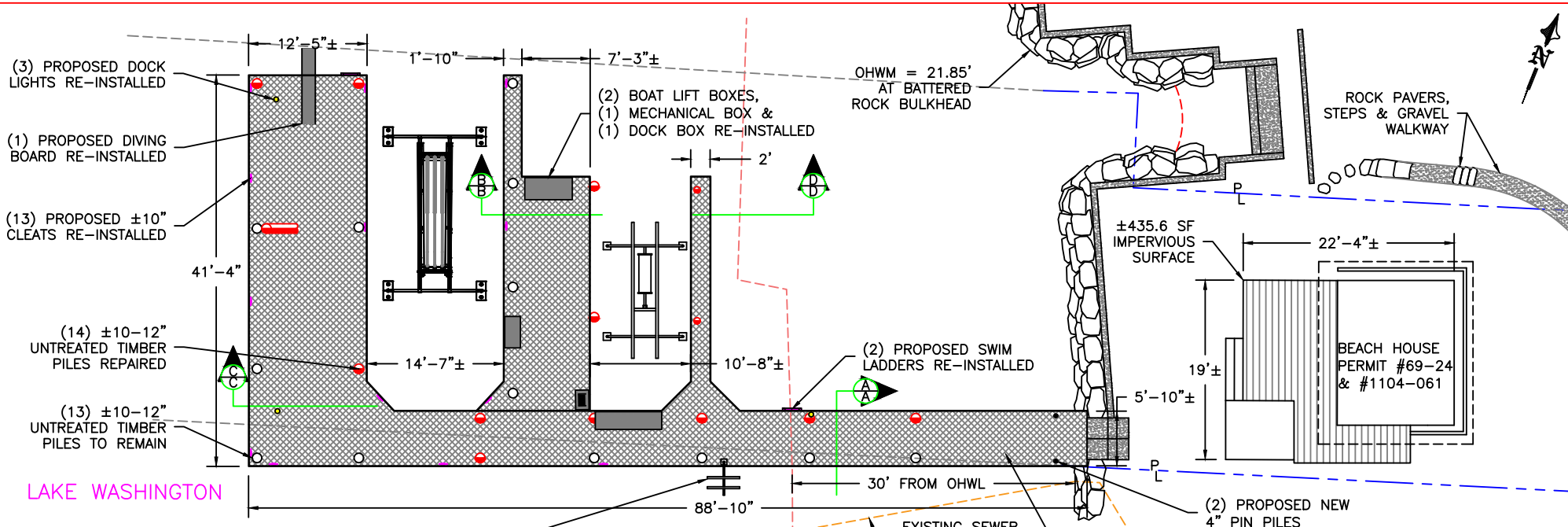
PER CoMI-CPDD
AFFILIATE COMMENTS
DATED 12/21/2022.

REFERENCE #:		
APPLICANT: DOUGLAS ROSEN		
PROPOSED: PIER REPAIR		
SHEET: 3	OF: 16	NEAR/AT: MERCER ISLAND
DATE: 2-7-2020		DWG#: 19-31042-A13-3

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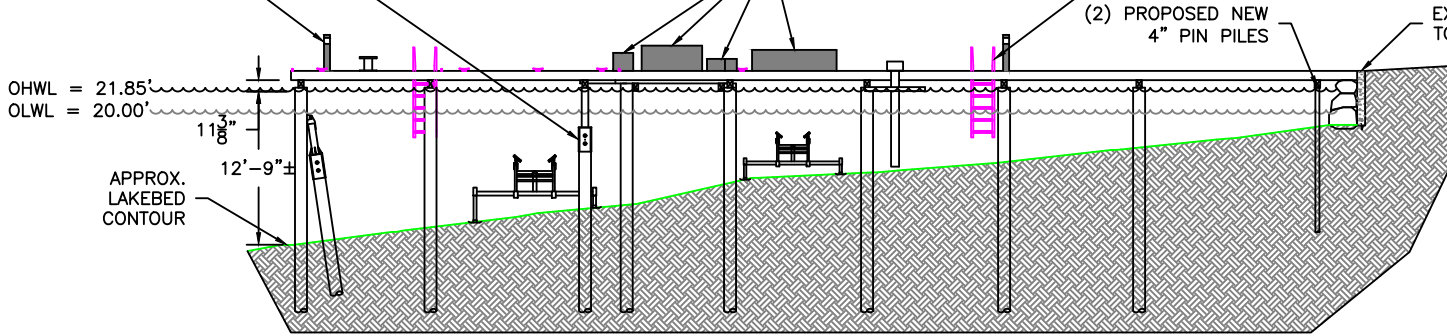
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SEE SHEETS 9-14 FOR PILE REPAIR DETAILS.
SEE SHEETS 9-10 FOR SUBSTRUCTURE REPAIR DETAILS.



- (14) ±10-12" UNTREATED TIMBER PILES REPAIRED
- (3) DOCK LIGHTS TO BE RETAINED & RE-INSTALLED

- = PILES TO REMAIN (13)
- = PILES REPAIRED (14)
- = NEW PIN PILES (2)



PROPOSED SQUARE FOOTAGE = 1269

NOTE:
71 SQFT REDUCTION. 2 PILE REDUCTION.

JOB SITE
DOUGLAS & DEBORAH ROSEN
5995 SE 30TH ST
MERCER ISLAND, WA 98040
217450-0100

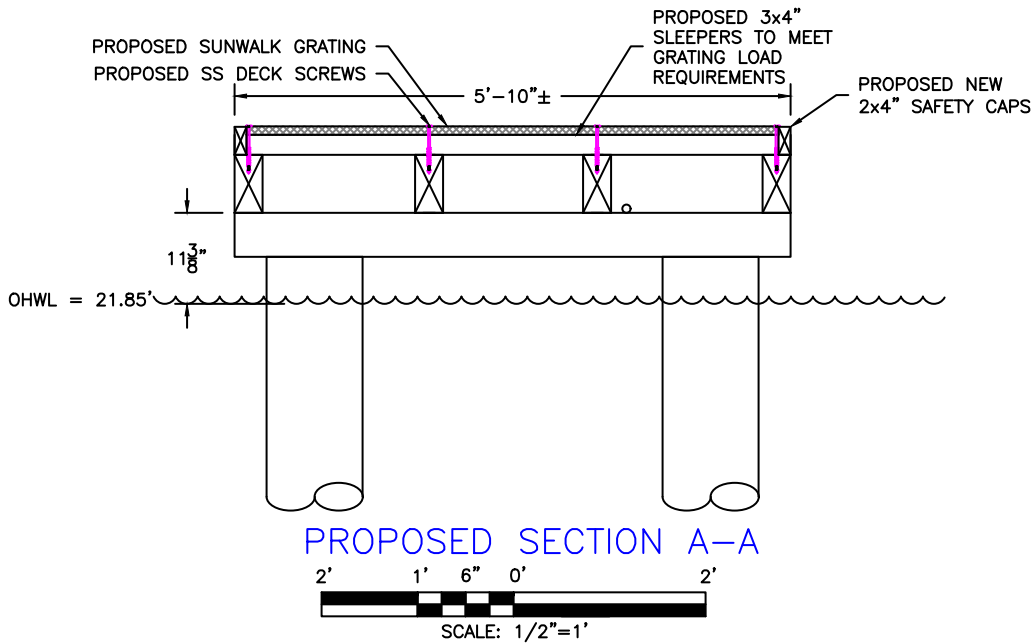
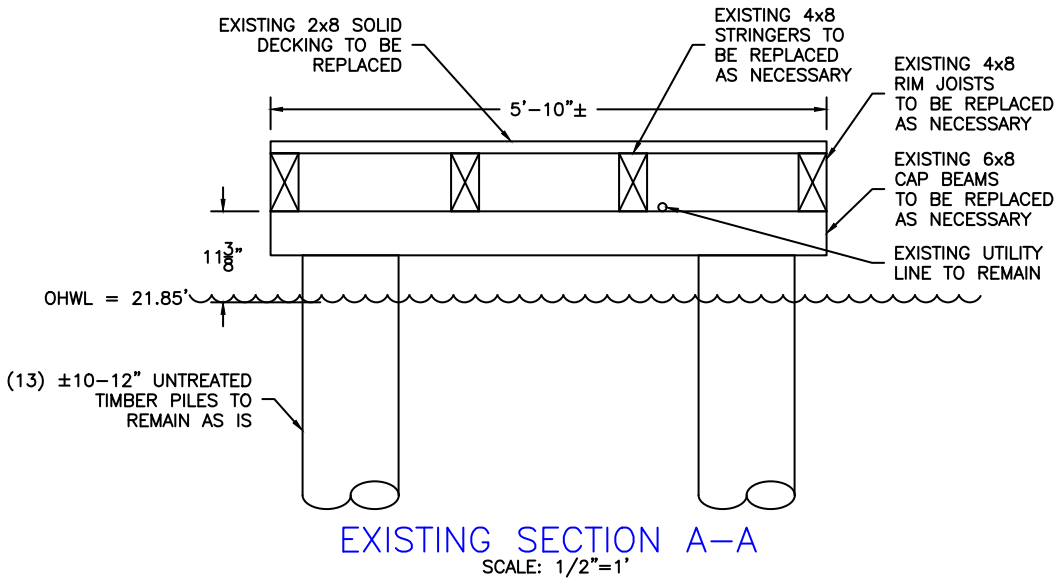
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12/22/2022

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PROPOSED: PIER REPAIR	
SHEET: 4	OF: 16
DATE: 2-7-2020	NEAR/AT: MERCER ISLAND
	DWG#: 19-31042-A13-4



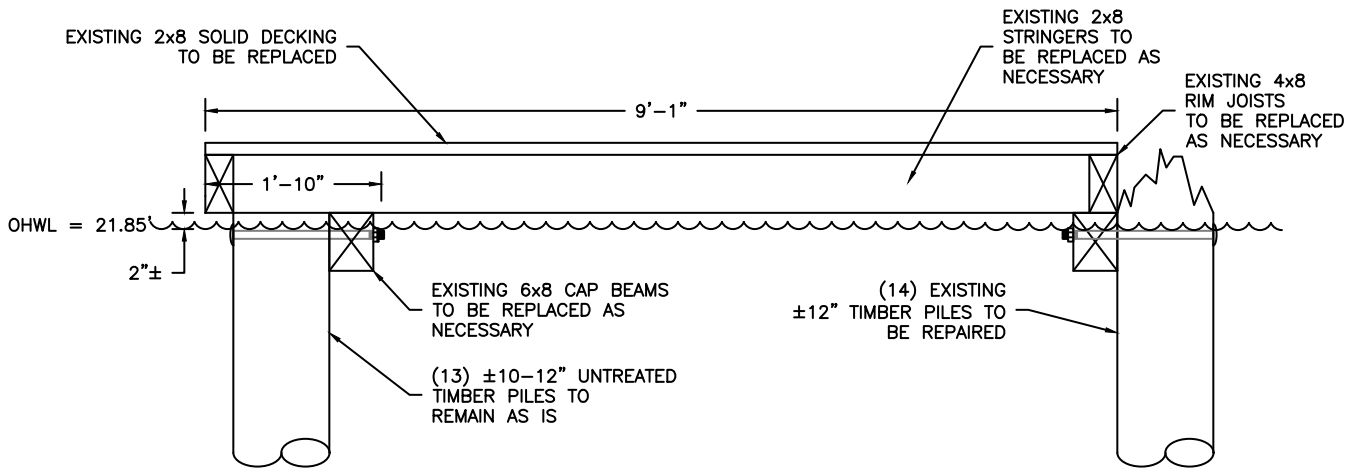
SEE SHEETS 9-14 FOR PILE REPAIR DETAILS.

SEE SHEETS 9-10 FOR SUBSTRUCTURE REPAIR DETAILS.

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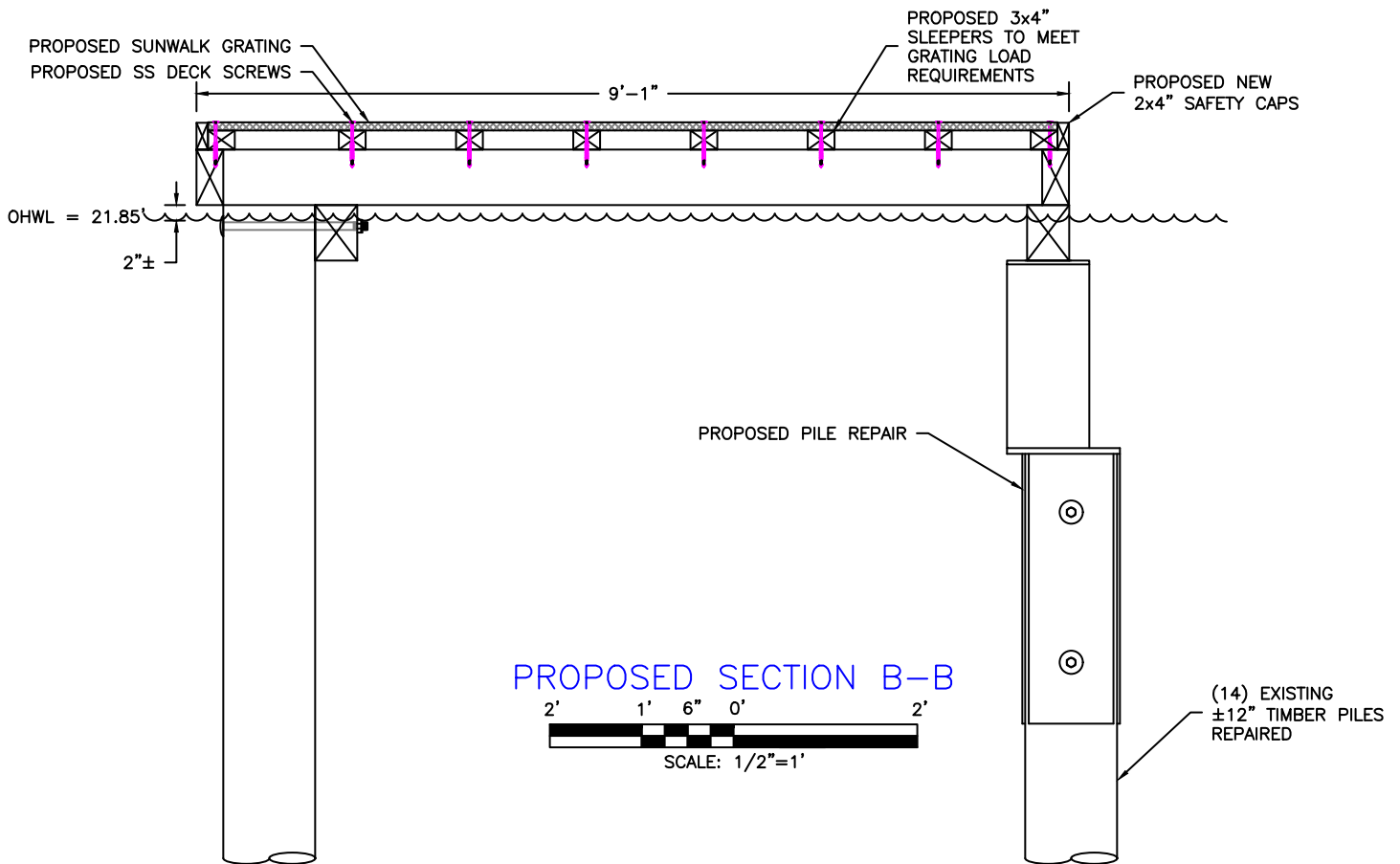
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 DATED 12/21/2022.

REFERENCE #:		
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PROPOSED: PIER REPAIR		
SHEET: 5	OF: 16	NEAR/AT: MERCER ISLAND
DATE: 2-7-2020	DWG#: 19-31042-A13-5	



EXISTING SECTION B-B
SCALE: 1/2"=1'

SEE SHEETS 9-14 FOR PILE REPAIR DETAILS.
SEE SHEETS 9-10 FOR SUBSTRUCTURE REPAIR DETAILS.



PROPOSED SECTION B-B
SCALE: 1/2"=1'

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PROPOSED: PIER REPAIR

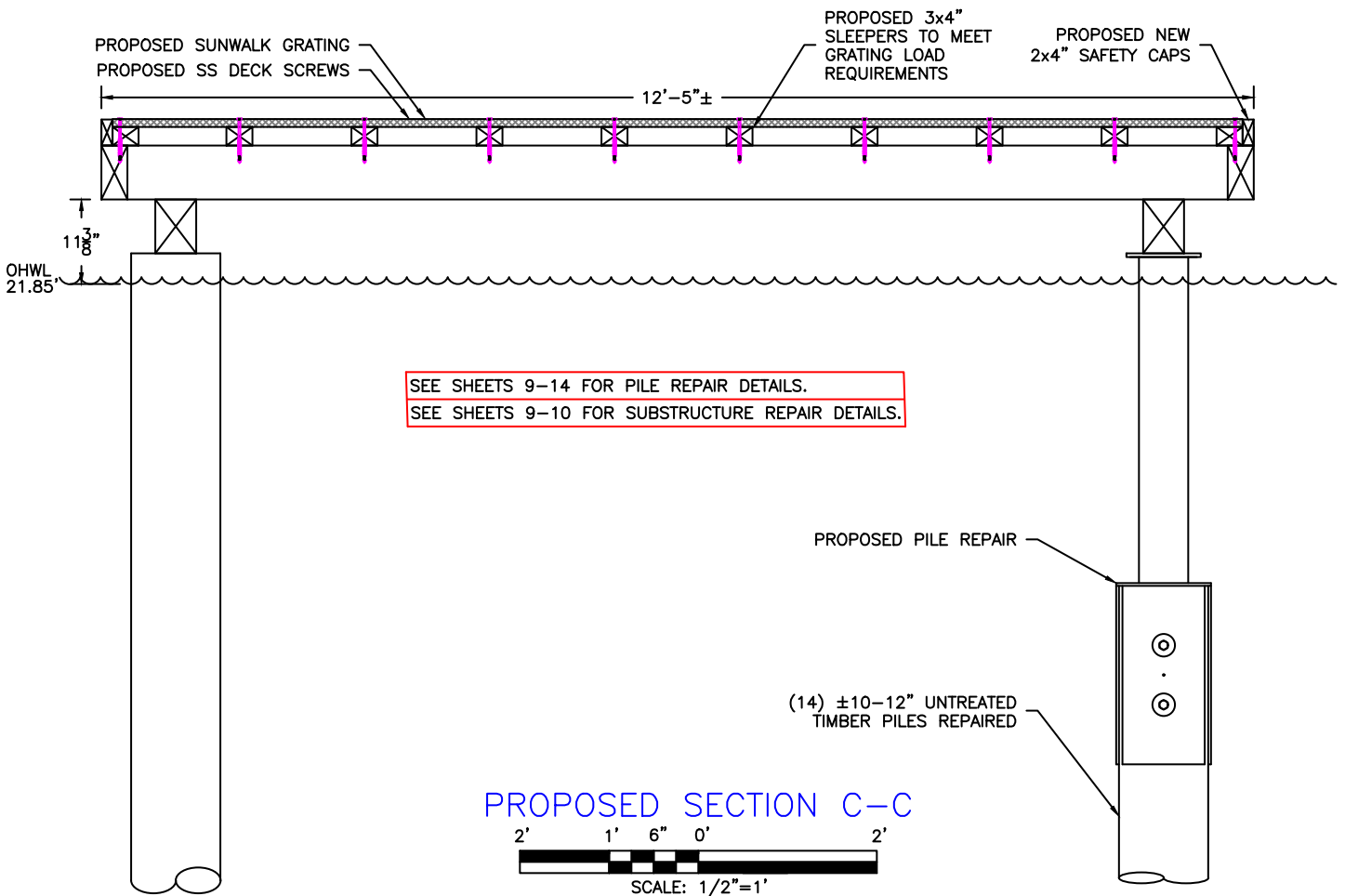
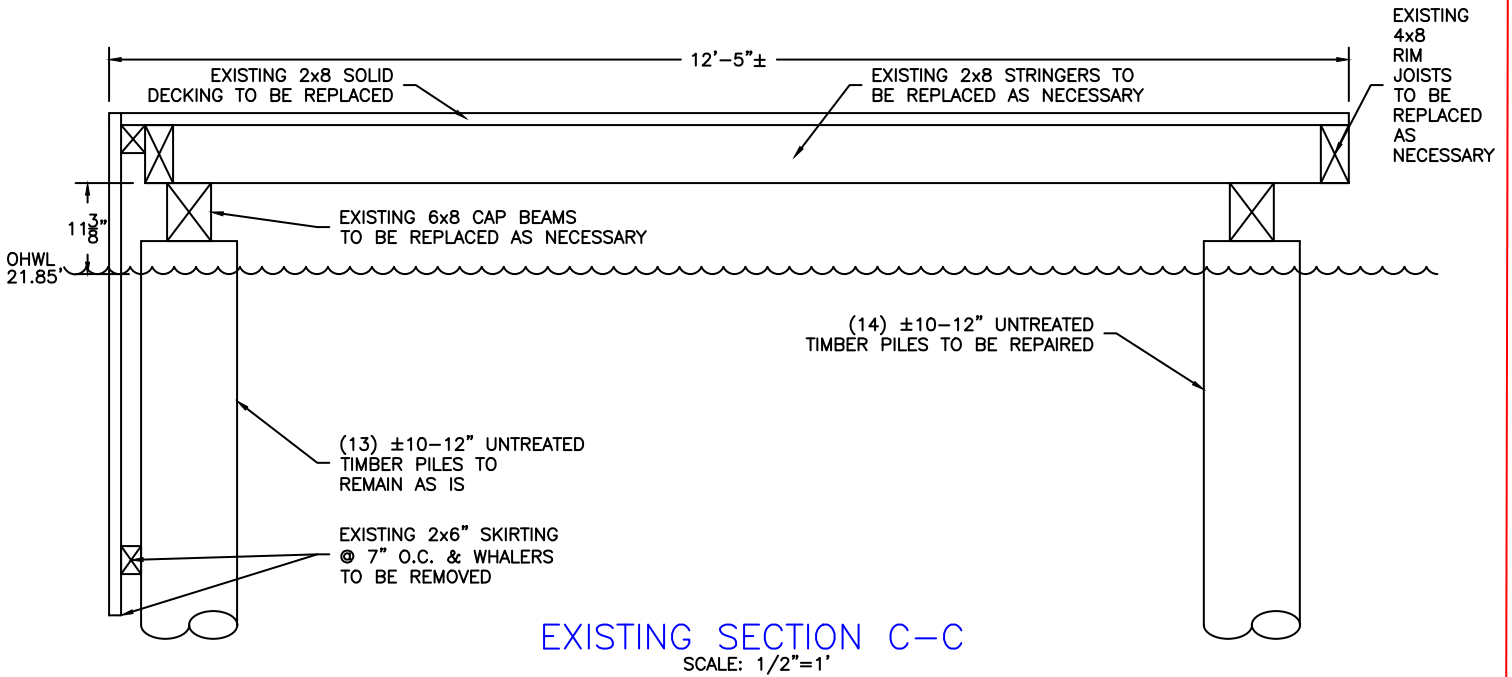
SHEET: 6

OF: 16

NEAR/AT: MERCER ISLAND

DATE: 2-7-2020

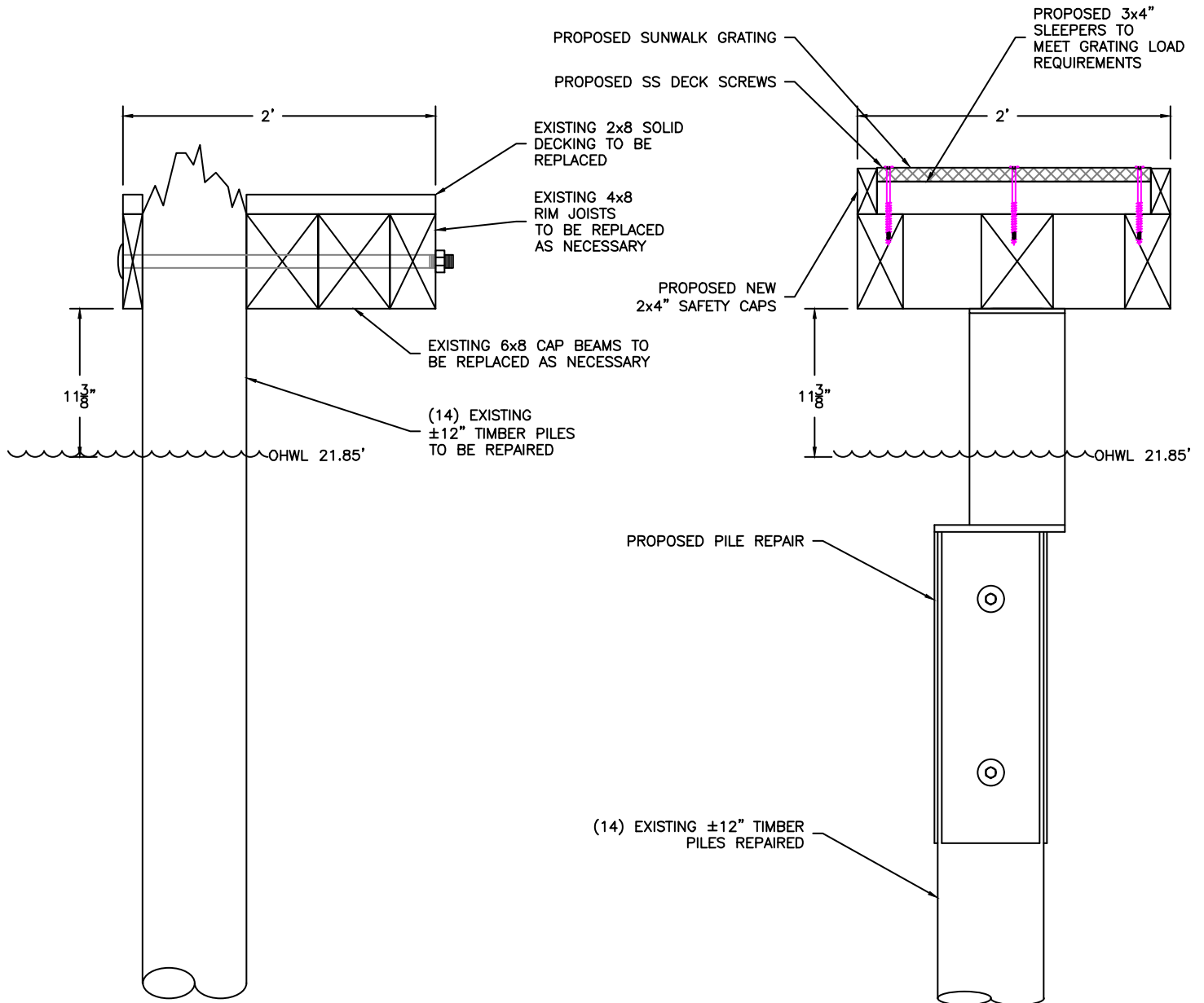
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PROPOSED: PIER REPAIR		
SHEET: 7	OF: 16	NEAR/AT: MERCER ISLAND
DATE: 2-7-2020	DWG#: 19-31042-A13-7	

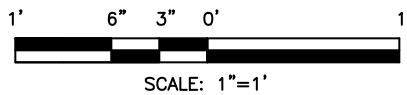


EXISTING SECTION D-D

SCALE: 1"=1'

PROPOSED SECTION D-D

SCALE: 1"=1'



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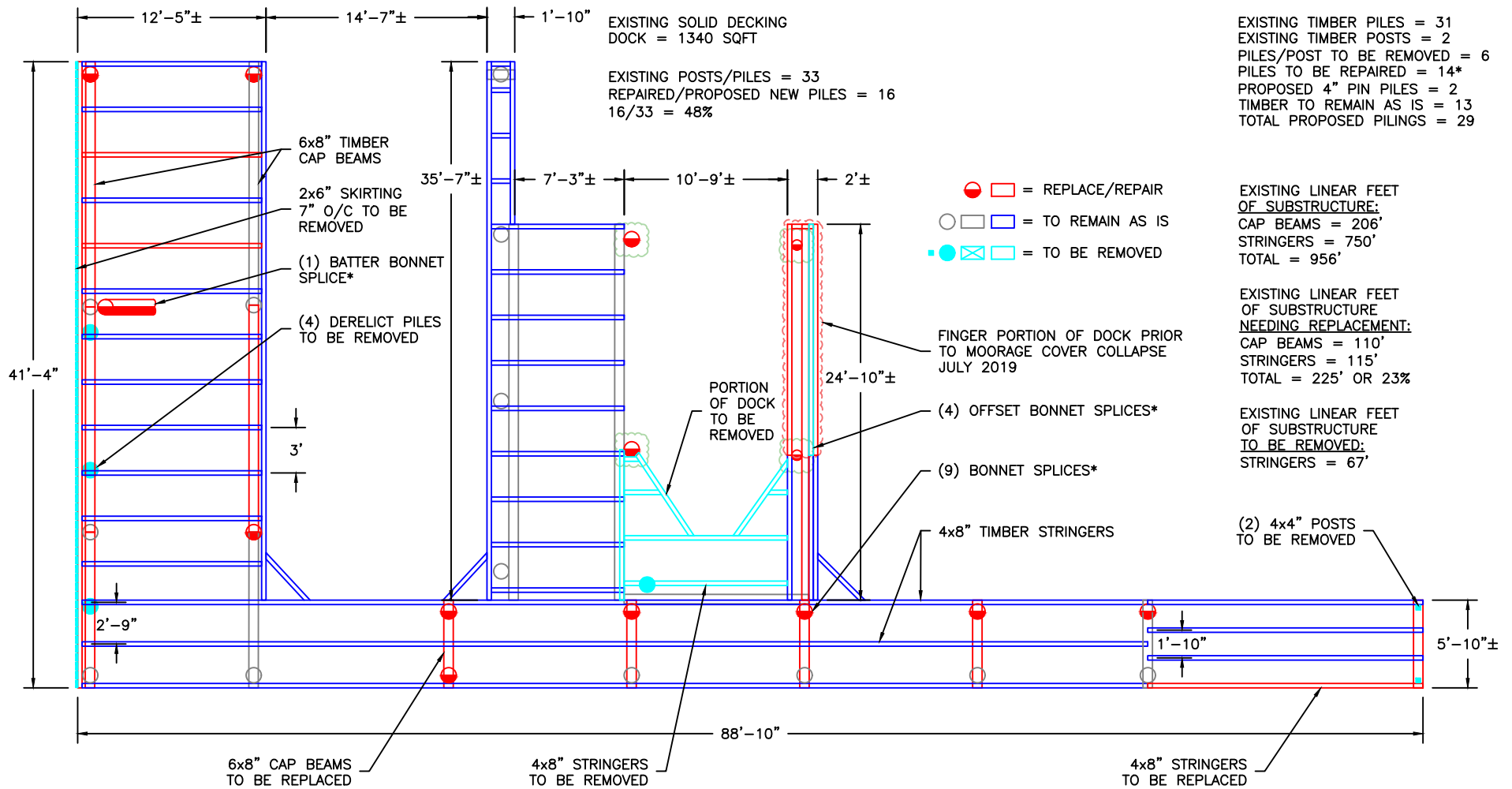
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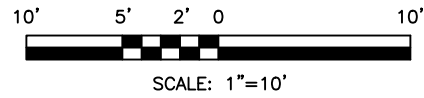
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PROPOSED: PIER REPAIR		
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DATE: 2-7-2020	DWG#: 19-31042-A13-8	



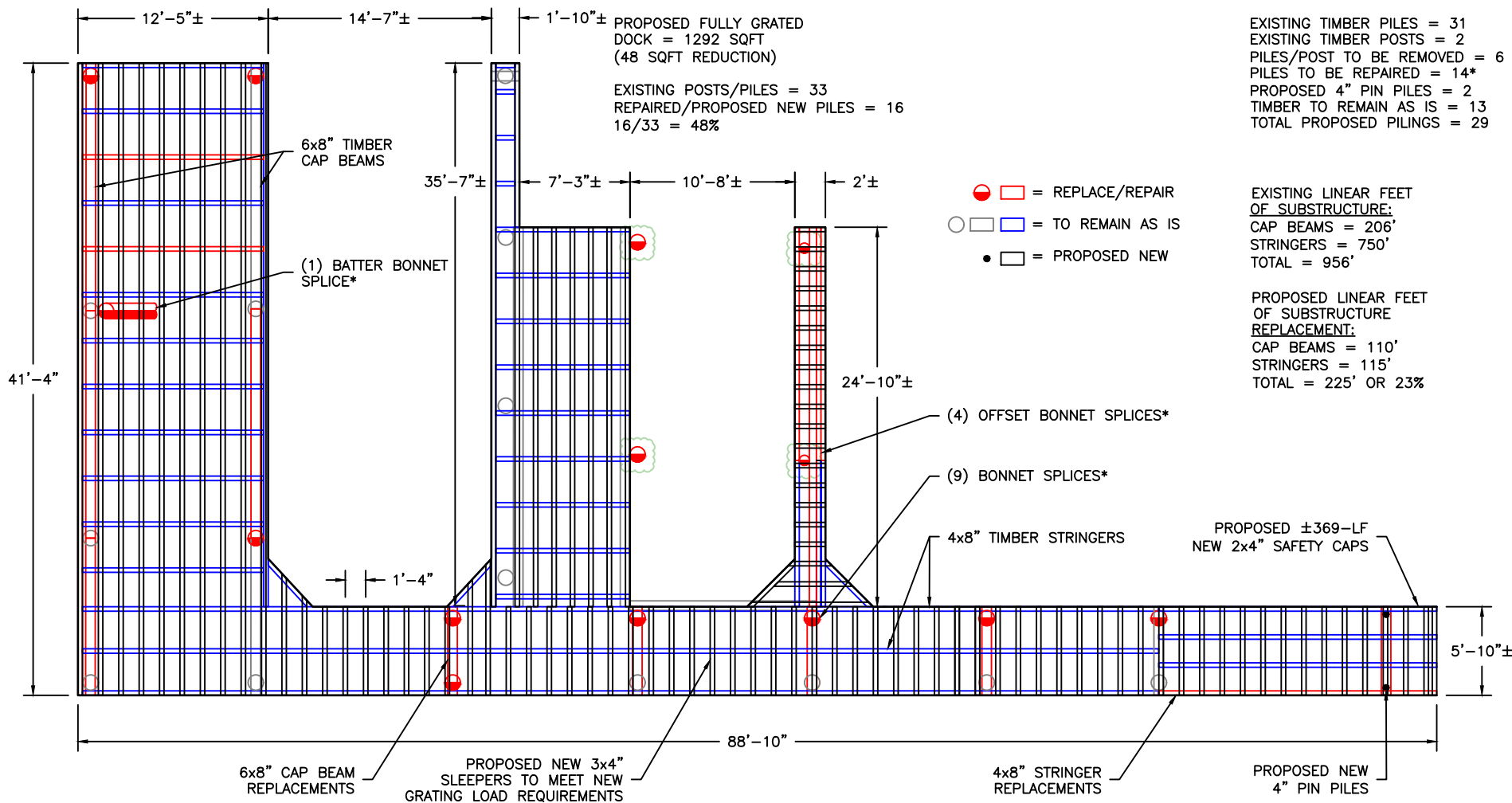
EXISTING FRAMING DETAIL PLAN VIEW



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PROPOSED: PIER REPAIR		
SHEET: 9	OF: 16	NEAR/AT: MERCER ISLAND
DATE: 2-7-2020	DWG#: 19-31042-A13-9	



PROPOSED FULLY GRATED DOCK = 1292 SQFT (48 SQFT REDUCTION)
 EXISTING POSTS/PILES = 33
 REPAIRED/PROPOSED NEW PILES = 16
 16/33 = 48%

EXISTING TIMBER PILES = 31
 EXISTING TIMBER POSTS = 2
 PILES/POST TO BE REMOVED = 6
 PILES TO BE REPAIRED = 14*
 PROPOSED 4" PIN PILES = 2
 TIMBER TO REMAIN AS IS = 13
 TOTAL PROPOSED PILING = 29

EXISTING LINEAR FEET OF SUBSTRUCTURE:
 CAP BEAMS = 206'
 STRINGERS = 750'
 TOTAL = 956'
 PROPOSED LINEAR FEET OF SUBSTRUCTURE REPLACEMENT:
 CAP BEAMS = 110'
 STRINGERS = 115'
 TOTAL = 225' OR 23%

PROPOSED FRAMING DETAIL PLAN VIEW



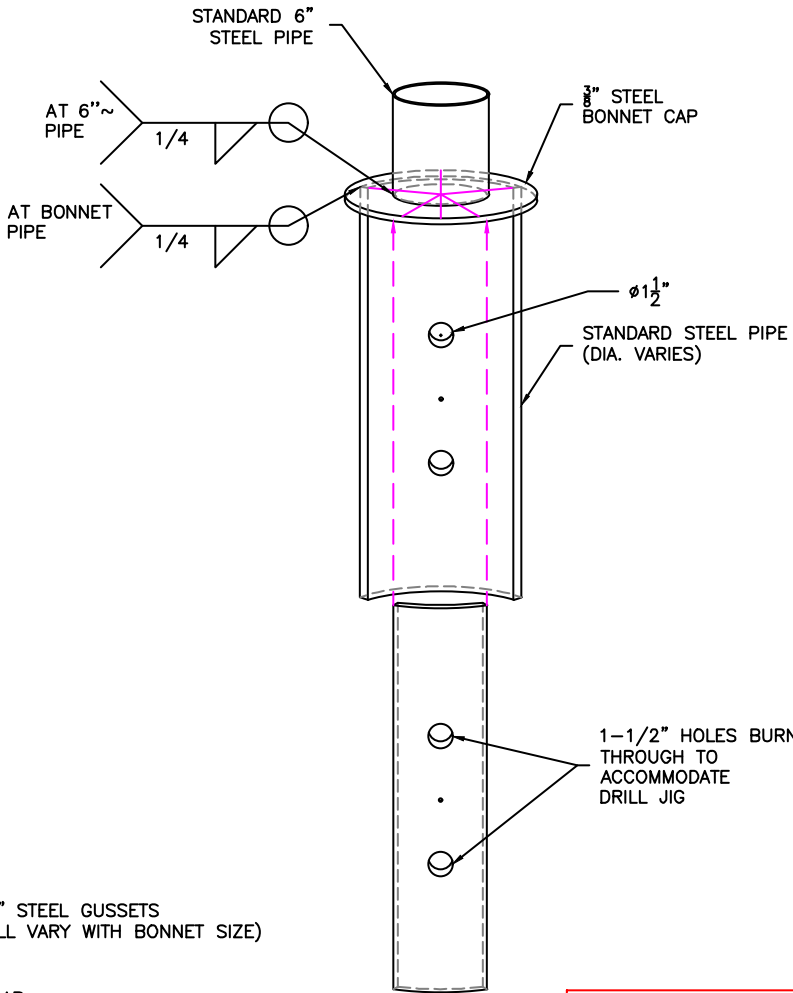
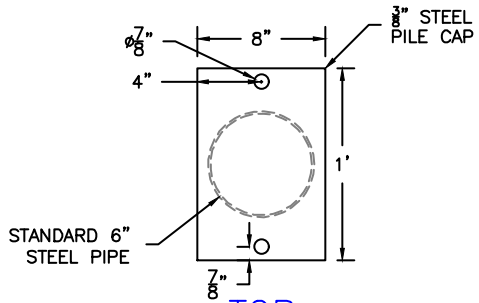
SUBSTRUCTURE REPAIRS:
 CAP BEAMS / STRINGERS = 23% OF 956 (23x956=219.88)
 PILING = 48% OF 33 (.48x33=15.84)
 (219.88+15.84) / (956+33) = 24% OF TOTAL SUBSTRUCTURE REPAIR

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 12/22/2022

PER CoMI-CPDD
 AFFILIATE COMMENTS
 DATED 12/21/2022.

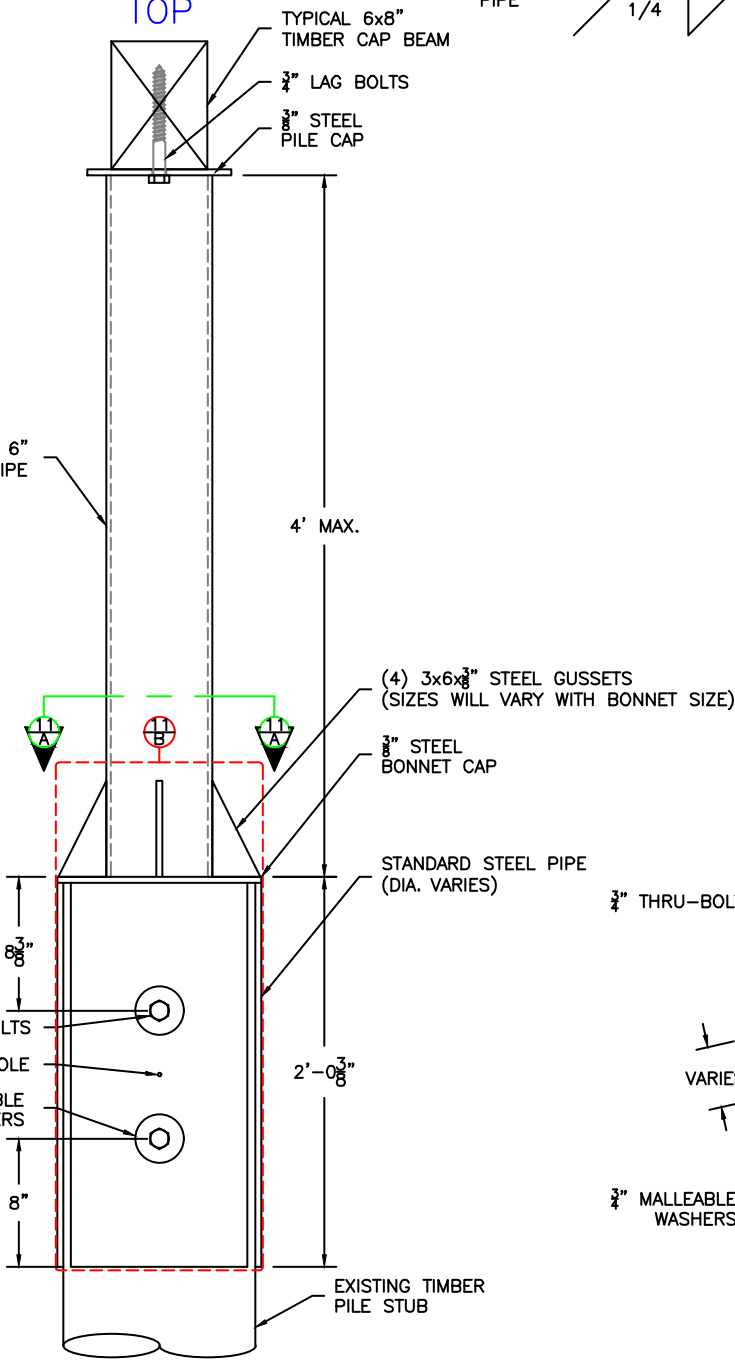
REFERENCE #:		
APPLICANT: DOUGLAS ROSEN		
PROPOSED: PIER REPAIR		
SHEET: 10	OF: 16	NEAR/AT: MERCER ISLAND
DATE: 2-7-2020	DWG#: 19-31042-A13-10	

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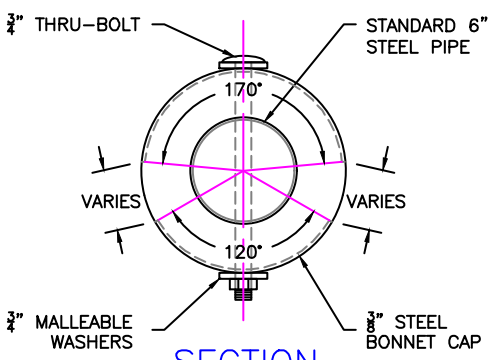


NOTE:
STEEL GUSSETS LEFT OUT OF DETAIL & SECTION VIEWS FOR CLARITY.

DETAIL 11-B



FRONT



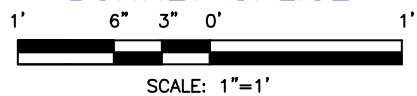
SECTION 11-A

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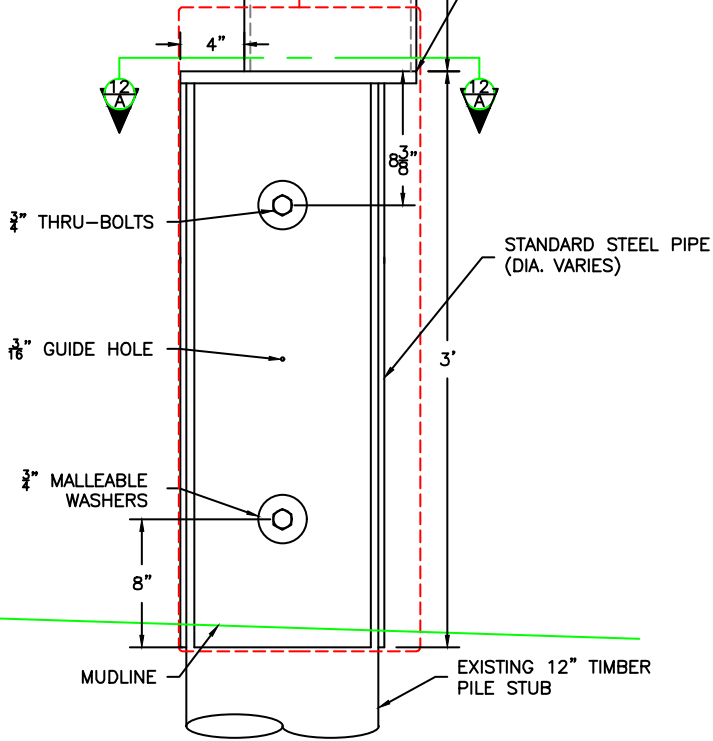
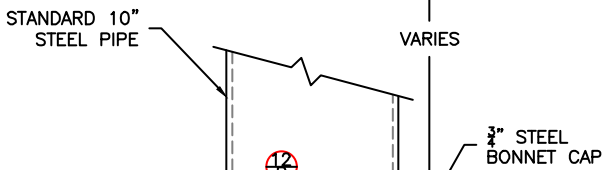
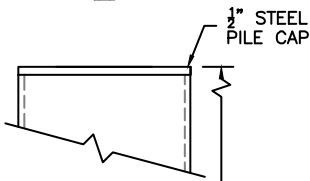
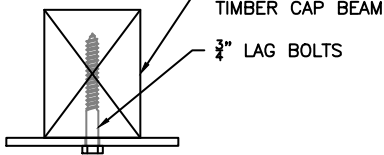
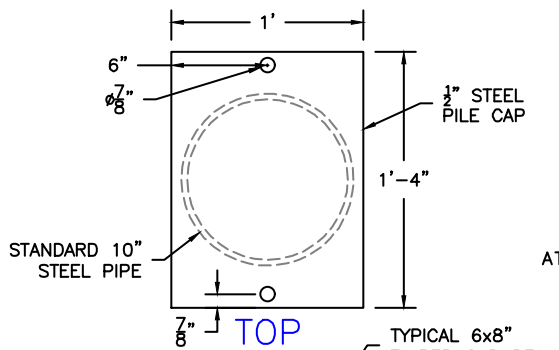
REVISED
12/22/2022

PER CoMI-CPDD
AFFILIATE COMMENTS
DATED 12/21/2022.

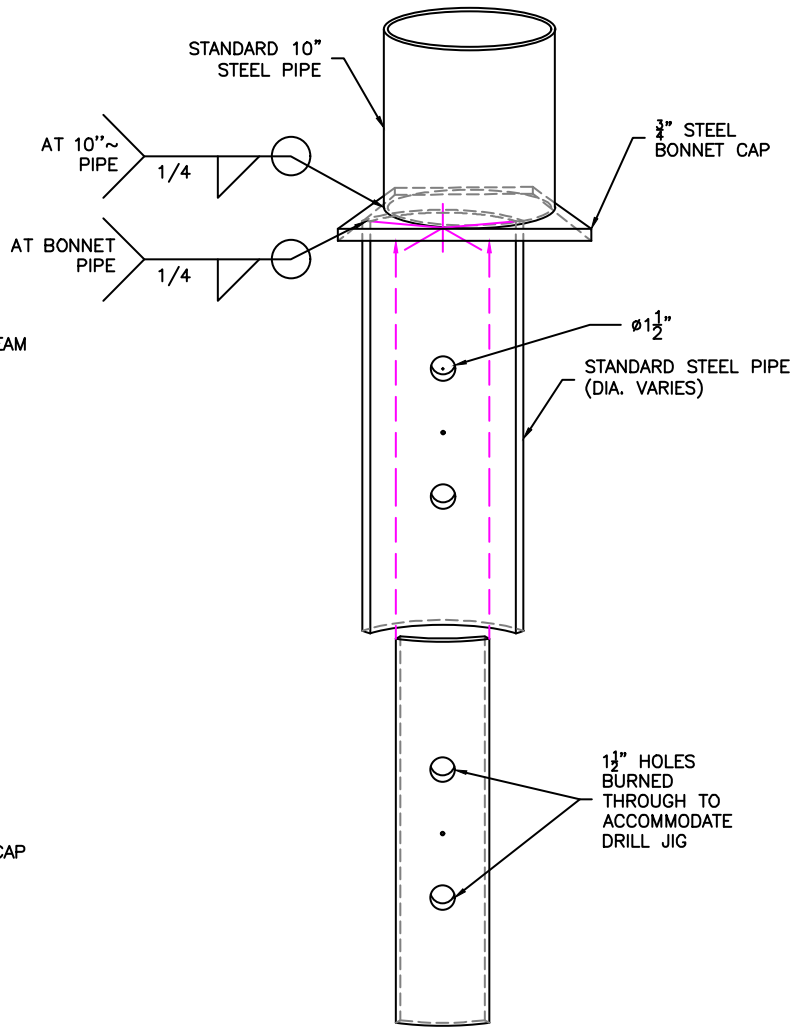
BONNET SPLICE



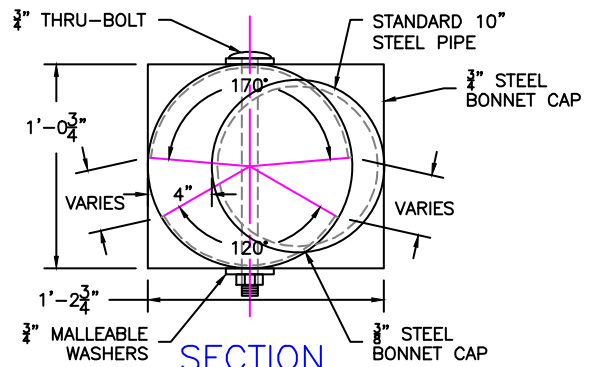
REFERENCE #:	
APPLICANT: DOUGLAS ROSEN	
PROPOSED: PIER REPAIR	
SHEET: 11	OF: 16
DATE: 2-7-2020	NEAR/AT: MERCER ISLAND
DWG#: 19-31042-A13-11	



FRONT



DETAIL 12-B



SECTION 12-A

PROJECT DESIGNED BY:

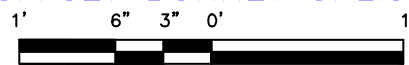
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REVISED
12/22/2022

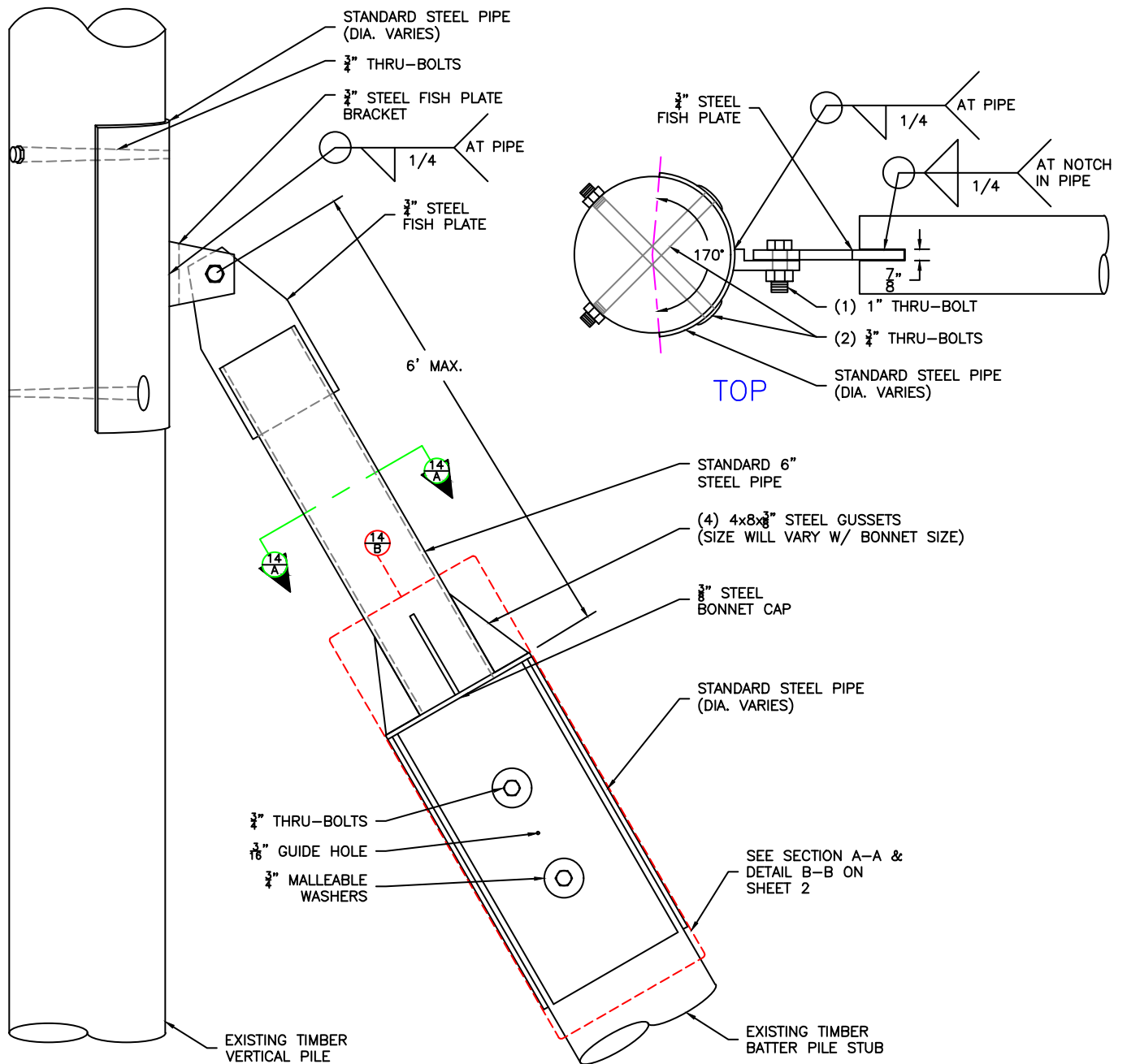
PER CoMI-CPDD
AFFILIATE COMMENTS
DATED 12/21/2022.

OFFSET BONNET SPLICE



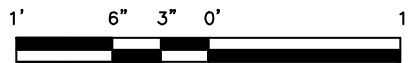
SCALE: 1"=1'

REFERENCE #:	
APPLICANT: DOUGLAS ROSEN	
PROPOSED: PIER REPAIR	
SHEET: 12	OF: 16
DATE: 2-7-2020	NEAR/AT: MERCER ISLAND
DWG#: 19-31042-A13-12	



SIDE

BATTER BONNET SPLICE



SCALE: 1"=1'

REVISED
12/22/2022

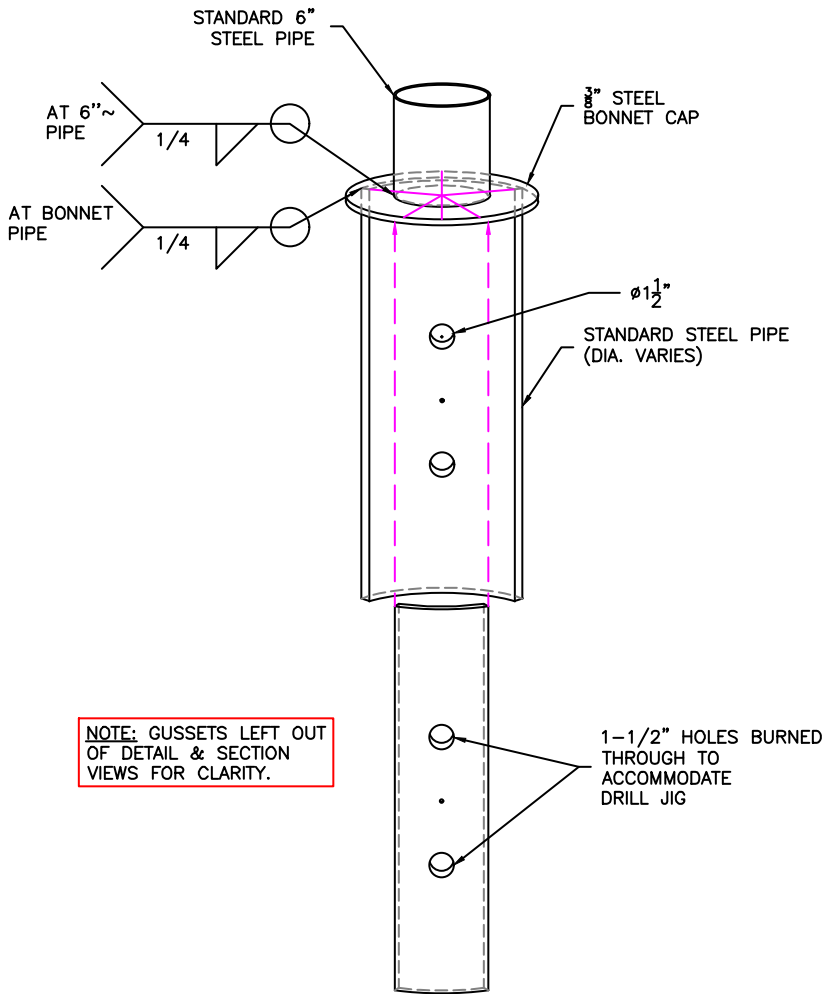
PER CoMI-CPDD
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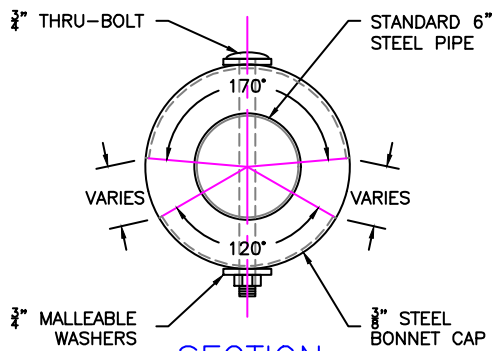
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APPLICANT: DOUGLAS ROSEN		
PROPOSED: PIER REPAIR		
SHEET: 13	OF: 16	NEAR/AT: MERCER ISLAND
DATE: 2-7-2020	DWG#: 19-31042-A13-13	



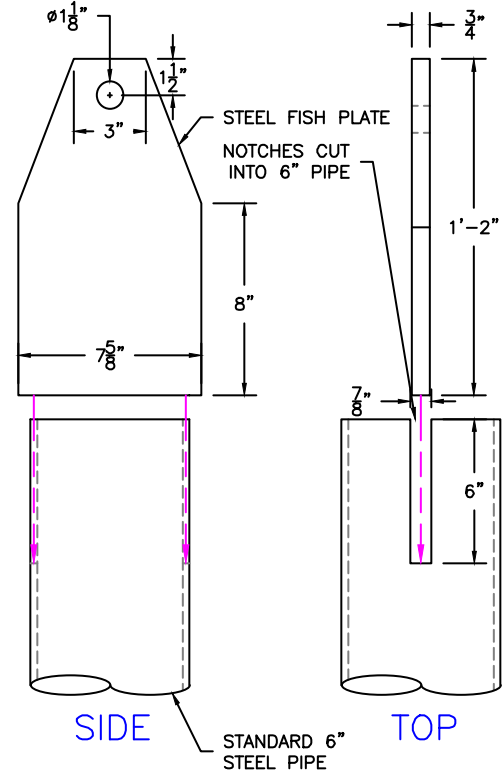
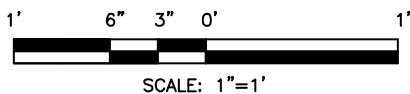
NOTE: GUSSETS LEFT OUT OF DETAIL & SECTION VIEWS FOR CLARITY.

1-1/2" HOLES BURNED THROUGH TO ACCOMMODATE DRILL JIG

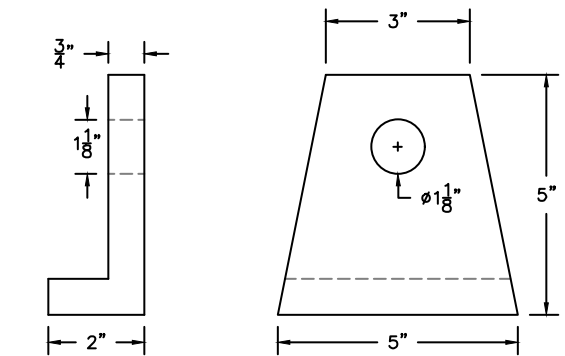
DETAIL 14-B



SECTION 14-A



FISH PLATE TO PILE CONNECTION



TOP SIDE
STEEL FISH PLATE BRACKET

SCALE: 3\"/>

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REVISED
12/22/2022

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 AFFILIATE COMMENTS
 DATED 12/21/2022.

REFERENCE #:	
APPLICANT: DOUGLAS ROSEN	
PROPOSED: PIER REPAIR	
SHEET: 14	OF: 16
DATE: 2-7-2020	NEAR/AT: MERCER ISLAND
	DWG#: 19-31042-A13-14



NOTE:
DOCK LIGHTS NOT TO EXCEED 450LM EACH
NOR A TOTAL OF 2700LM.

OVERWATER SOLID COVERAGE CALCULATIONS:
LIGHTS = .5889 SQFT
DIVING BOARD = 11.1875 SQFT
BOATLIFT BOXES = 8.5 SQFT
MECHANICAL BOX = 11.8125 SQFT
DOCK BOX = 13.1875 SQFT
TOTAL = 45.3 SQFT

OVERWATER LIGHT-PENETRATING COVERAGE CALCULATIONS:
GRATING = 1224 SQFT

0-25' SHOREWARD OF OHWM = 3787 SF
TOTAL IMPERVIOUS SURFACE = 678 SF
OR 18%

25-50' SHOREWARD OF OHWM = 3706 SF
TOTAL IMPERVIOUS SURFACE = 188 SF
OR 5%

OHWM = 21.85'
AT BATTERED
ROCK BULKHEAD

JOB SITE
DOUGLAS & DEBORAH ROSEN
5995 SE 30TH ST
MERCER ISLAND, WA 98040
217450-0100

EXISTING SEWER LINE
FIELD LOCATED ON
2/6/2019

EXISTING DOCK LIGHTS,
DIVING BOARD & SWIM
LADDERS TO BE
RE-INSTALLED

ROCK PAVERS,
STEPS & GRAVEL
WALKWAY

46'-9" ±
TOTAL OVERWATER COVERAGE
= 1269 SQFT,
TOTAL LIGHT-PENETRATING
COVERAGE = 1180 SF OR 93%

(13) EXISTING ±10"
CLEATS RE-INSTALLED

REVISED
12/22/2022

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DATED 12/21/2022.

PROJECT DESIGNED BY:

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**PROPOSED IMPERVIOUS SURFACE
& OVERWATER COVERAGE CALCULATIONS**

20' 15' 10' 5' 0' 20'



SCALE: 1"=20'

REFERENCE #:

APPLICANT: DOUGLAS ROSEN

PROPOSED: PIER REPAIR

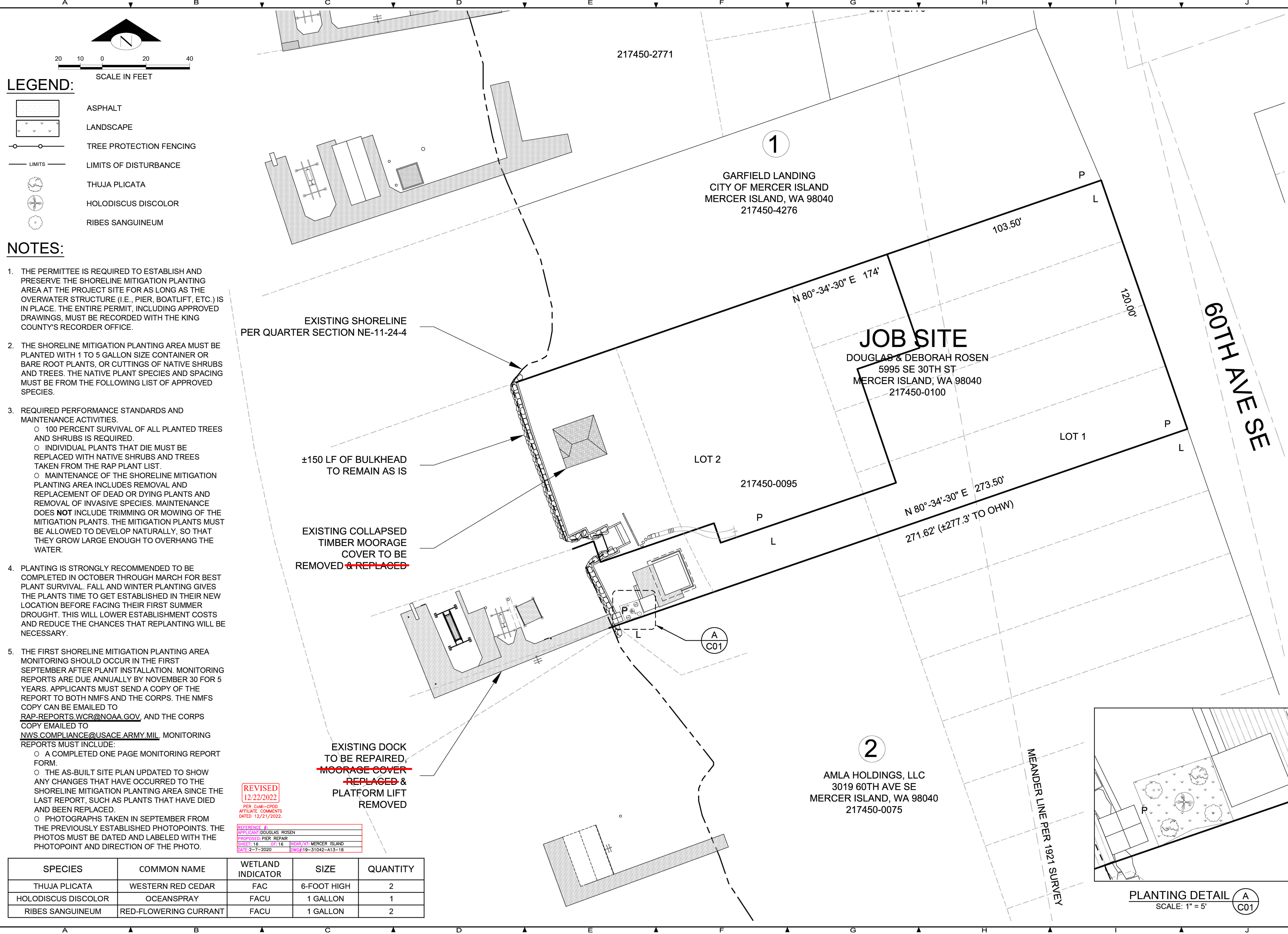
SHEET: 15 OF: 16

NEAR/AT: MERCER ISLAND

DATE: 2-7-2020

DWG#: 19-31042-A13-15

CAD FILE NUMBER: P:\CLIENTS\MARINE\1709-0030-00 - ROSEN DECK - WATERFRONT CONSTRUCTION\DRAWINGS\6868 SE 30TH ST MERCER ISLAND - CIVIL PLANS.DWG
 USER: JLR DATE: 9/19/2022 1:38 PM - SHEET SET: 5995 SE 30TH ST MERCER ISLAND - CIVIL PLANS - ORIGINAL SHEET SIZE: ANSI FULL BLEED (34.00 X 22.00 INCHES)
 AUTOCAD VERSION: CML 20 2018



LEGEND:

- ASPHALT
- LANDSCAPE
- TREE PROTECTION FENCING
- LIMITS OF DISTURBANCE
- THUJA PLICATA
- HOLODISCUS DISCOLOR
- RIBES SANGUINEUM

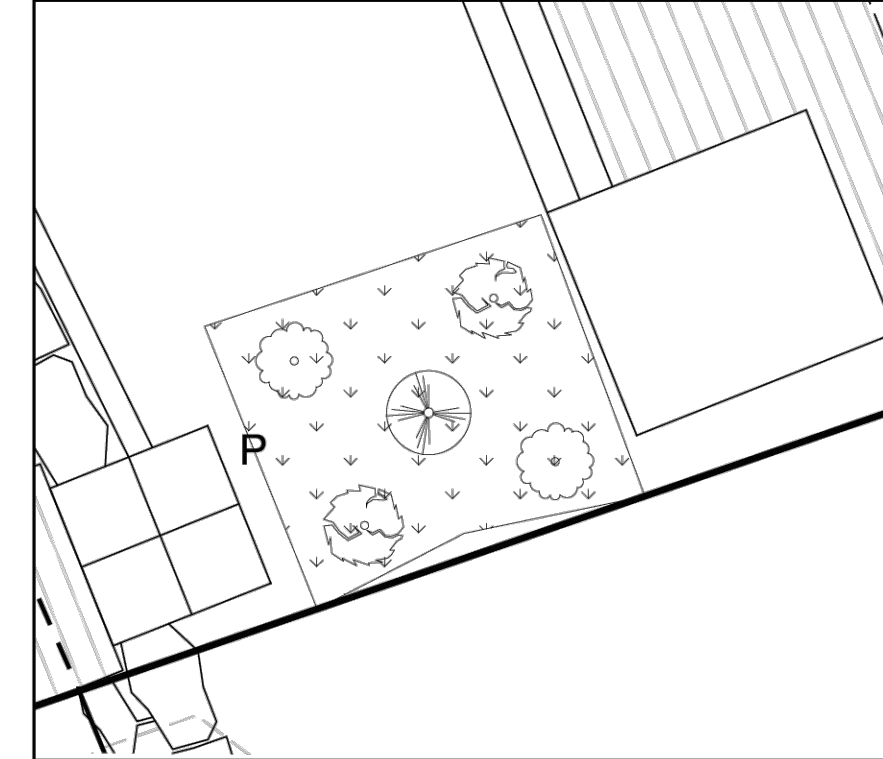
NOTES:

1. THE PERMITTEE IS REQUIRED TO ESTABLISH AND PRESERVE THE SHORELINE MITIGATION PLANTING AREA AT THE PROJECT SITE FOR AS LONG AS THE OVERWATER STRUCTURE (I.E., PIER, BOATLIFT, ETC.) IS IN PLACE. THE ENTIRE PERMIT, INCLUDING APPROVED DRAWINGS, MUST BE RECORDED WITH THE KING COUNTY'S RECORDER OFFICE.
2. THE SHORELINE MITIGATION PLANTING AREA MUST BE PLANTED WITH 1 TO 5 GALLON SIZE CONTAINER OR BARE ROOT PLANTS, OR CUTTINGS OF NATIVE SHRUBS AND TREES. THE NATIVE PLANT SPECIES AND SPACING MUST BE FROM THE FOLLOWING LIST OF APPROVED SPECIES.
3. REQUIRED PERFORMANCE STANDARDS AND MAINTENANCE ACTIVITIES:
 - 100 PERCENT SURVIVAL OF ALL PLANTED TREES AND SHRUBS IS REQUIRED.
 - INDIVIDUAL PLANTS THAT DIE MUST BE REPLACED WITH NATIVE SHRUBS AND TREES TAKEN FROM THE RAP PLANT LIST.
 - MAINTENANCE OF THE SHORELINE MITIGATION PLANTING AREA INCLUDES REMOVAL AND REPLACEMENT OF DEAD OR DYING PLANTS AND REMOVAL OF INVASIVE SPECIES. MAINTENANCE DOES NOT INCLUDE TRIMMING OR MOWING OF THE MITIGATION PLANTS. THE MITIGATION PLANTS MUST BE ALLOWED TO DEVELOP NATURALLY, SO THAT THEY GROW LARGE ENOUGH TO OVERHANG THE WATER.
4. PLANTING IS STRONGLY RECOMMENDED TO BE COMPLETED IN OCTOBER THROUGH MARCH FOR BEST PLANT SURVIVAL. FALL AND WINTER PLANTING GIVES THE PLANTS TIME TO GET ESTABLISHED IN THEIR NEW LOCATION BEFORE FACING THEIR FIRST SUMMER DROUGHT. THIS WILL LOWER ESTABLISHMENT COSTS AND REDUCE THE CHANCES THAT REPLANTING WILL BE NECESSARY.
5. THE FIRST SHORELINE MITIGATION PLANTING AREA MONITORING SHOULD OCCUR IN THE FIRST SEPTEMBER AFTER PLANT INSTALLATION. MONITORING REPORTS ARE DUE ANNUALLY BY NOVEMBER 30 FOR 5 YEARS. APPLICANTS MUST SEND A COPY OF THE REPORT TO BOTH NMFS AND THE CORPS. THE NMFS COPY CAN BE EMAILED TO RAP-REPORTS.WCR@NOAA.GOV, AND THE CORPS COPY EMAILED TO NWS.COMPLIANCE@USACE.ARMY.MIL. MONITORING REPORTS MUST INCLUDE:
 - A COMPLETED ONE PAGE MONITORING REPORT FORM.
 - THE AS-BUILT SITE PLAN UPDATED TO SHOW ANY CHANGES THAT HAVE OCCURRED TO THE SHORELINE MITIGATION PLANTING AREA SINCE THE LAST REPORT, SUCH AS PLANTS THAT HAVE DIED AND BEEN REPLACED.
 - PHOTOGRAPHS TAKEN IN SEPTEMBER FROM THE PREVIOUSLY ESTABLISHED PHOTOPOINTS. THE PHOTOS MUST BE DATED AND LABELED WITH THE PHOTOPOINT AND DIRECTION OF THE PHOTO.

REVISED
 12/22/2022
PER COM-CPDD
 AFFILIATE COMMENTS
 DATED 12/21/2022.

PERMITTEE: #	APPLICANT: DOUGLAS ROSEN
PROPOSED: PIER REPAIR	NEAR/AT: MERCER ISLAND
SHEET: 16	DATE: 2-7-2020
DATE: 2-7-2020	DWG#: 19-31042-A13-18

SPECIES	COMMON NAME	WETLAND INDICATOR	SIZE	QUANTITY
THUJA PLICATA	WESTERN RED CEDAR	FAC	6-FOOT HIGH	2
HOLODISCUS DISCOLOR	OCEANSPRAY	FACU	1 GALLON	1
RIBES SANGUINEUM	RED-FLOWERING CURRANT	FACU	1 GALLON	2



9706 4TH AVE NE
 SUITE 300
 SEATTLE, WA 98115
 P: 206.523.0024
 F: 206.523.1012
 www.dcgengr.com

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 AWARDED TO INDIVIDUALS UNDER LICENSE BY THE GREEN
 BUILDING CERTIFICATION INSTITUTE.

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2 BUSINESS DAYS
BEFORE YOU DIG
(UNDERGROUND UTILITY LOCATIONS ARE APPROX.)

BASE MAP TOPOGRAPHY PROVIDED BY OTHERS. DCG CANNOT BE HELD LIABLE FOR ACCURACY. CONTRACTOR SHALL FIELD VERIFY GRADES, UTILITIES, & ALL OTHER EX FEATURES & CONDITIONS. IF CONDITIONS ARE NOT AS SHOWN &/OR PLANS CANNOT BE CONSTRUCTED AS SHOWN, CONTACT DCG PRIOR TO CONSTRUCTION.

OWNER: DOUGLAS ROSEN
5995 SE 30TH STREET
MERCER ISLAND, WA 98040

PROJECT: 5995 SE 30TH STREET
MERCER ISLAND, WA 98040
PLANTING PLAN

PROJ. MANAGER: SR
 DESIGNED BY: SR
 DRAWN BY: GS
 CHECKED BY: SR

SCALE: SCALE
 DATE: 9/19/2022 REV. A SHEET 1 OF 1

SHEET NUMBER
C01

Appendix B: Site Photographs



Photo 1. View of pier from southwest corner looking northwest.

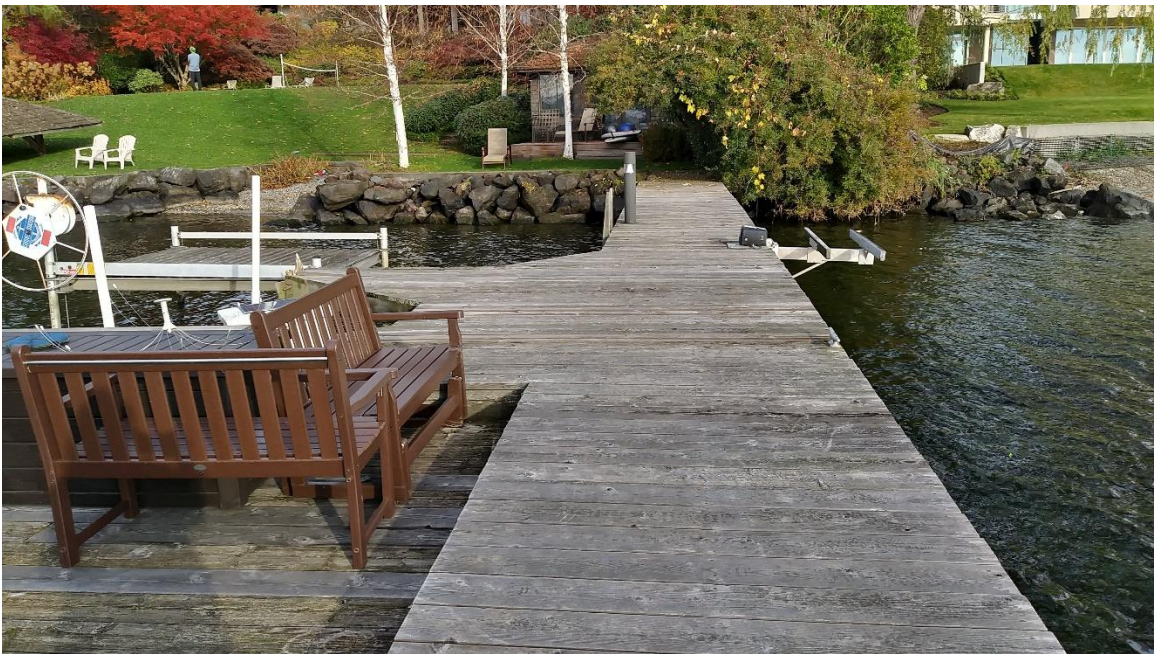


Photo 2. View of pier from west end looking east.



Photo 3. View of pier from south shoreline.



Photo 4. View from pier of south shoreline and adjacent property to the south.



Photo 5. View of north shoreline and adjacent shoreline to the north.



Photo 6. View of shoreline from northwest corner of pier looking east.