King County Department of Local Services **Permitting Division** Residential Site Plan Template **EXISTING TIMBER** 24" x 36" -BULKHEAD For Permitting Use - TO BE REPAIRED PLAN NORTH KC MAPPED -POTENTIAL STEEP SLOPE HAZARD AREA Max. Impervious Surface Allowed KC MAPPED Max. Bldg. Height Allowed -POTENTIAL EROSION HAZARD AREA Min. Bldg. setback from Street EX. DECK -TOP OF STEEP SLOPE (BANK) Min. Garage setback from Street ASSUMED POTENTIAL ORDINARY HIGH WATER MARK EXISTING -AT MINIMUM 2-FEET ABOVE BEACH GRADE AT THE RESIDENCE Min. Bldg. setback from Interior EX. BULKHEAD #20518 APPROX. EXTENT **ROOF AREA FOR DECK** PUGET SOUND **Building Approval** APPROX. EXTENT OF -SOIL WASHOUT BEHIND BULKHEAD - PLACE FILL FOLLOWING BULKHEAD REPAIR EX. GARAGE Engineering / Drainage Approval EXISTING WOOD STAIRWAY WITH LANDINGS - REPAIR DAMAGED AREAS - REPAIR DAMAGED ACTIVE UTILITIES Critical Areas Approval APPROX. EXTENT OF -SOIL WASHOUT BEHIND BULKHEAD - PLACE FILL FOLLOWING BULKHEAD REPAIR ADDRESS: 20518 CHAUTAUQUA BEACH RD SW, VASHON, WA Clearing / Grading Approval PARCEL: 153520-0400 LEGAL (ABBREV.): CHAUTAUQUA BEACH LOTS 11 THRU 16 BLK 7; TGW PORTION OF ALDER AVE (APPROX 60 FT IN WIDTH) ABUTTING SAID LOTS 11 THRU 16; AND TGW UPLANDS AND SECOND CLASS TIDELANDS IN FRONT OF LOTS 11 THRU 16 EXTENDING TO EXTREME LOW TIDE PLAT BLOCK: 7 PLAT LOT: 11 THRU 16 Fire Approval PROPOSED IMPERVIOUS: 0 SQ FT PROPOSED ESTIMATED FILL (GRADING): 53 CU YDS Signature SCHEMATIC SITE PLAN SCALE: 1" ~ 20'

SPECIFICATIONS

PURPOSE: THE EXISTING TIMBER BULKHEAD HAS BECOME DAMAGED DUE TO TIDAL INFLUENCED SOIL WASHOUT AND IT REQUIRES REPAIR/MAINTENANCE. A PORTION OF THE HORIZONTAL LAGGING BOARDS REQUIRE REPLACEMENT AT THE BULKHEAD. THE WASHOUT HAS ALSO REMOVED SUPPORT AT SOME LOCATIONS FOR THE EXISTING TIMBER STAIR/DECK AT THE STEEP SLOPE AREA. NEW FOUNDATIONS MAY BE REQUIRED AT PORTIONS OF THE STAIR/DECK AREA.

LOADS / SOIL DESIGN PARAMETERS:

EXISTING STAIR/DECK ASSUMED LOADS: 50 PSF (DEAD + LIVE)

ALLOWABLE 2-INCH PIPE PILE AXIAL CAPACITY = 6000 LB (3 TONS) SPECIFIED HELICAL ANCHOR AXIAL TENSILE CAPACITY (WORKING) = 1,000 LB (1/2 TON)

BULKHEAD LAGGING BOARDS SHALL MATCH EXISTING BOARD SIZES OR BE MIN. 6X PRESSURE TREATED.

SOIL BEARING CAPACITY IF VERIFIED BY THE GEOTECHNICAL ENGINEER AT THE TIME OF CONSTRUCTION: 2,000 PSF

GEOTEXTILE FILTER FABRIC TO BE MIRAFI 180N OR EQUIVALENT.

FILL SHALL BE 2-INCH CLEAN CRUSHED ROCK (RAILROAD BALLAST)

CONCRETE FOR FOOTINGS/PILE CAPS SHALL BE MIN. F'C=2,500 PSI

PIPE PILES SHALL BE MIN. 2-INCH DIAMETER SCHEDULE 80 GALVANIZED STEEL PIPE WITH GALVANIZED COUPLERS

LATERAL EARTH ANCHORS TO BE GALVANIZED STEEL HELICAL ANCHORS HAVING AT LEAST ONE 8-INCH DIAMETER HELIX AND HAVING MANUFACTURER SPECIFIED CAPACITY EQUAL TO OR GREATER THAN THE DESIGN WORKING CAPACITY NOTED HEREIN.

1. CONTRACTOR SHALL DETERMINE ACCESS POINT FOR BULKHEAD REPAIR. IT APPEARS THAT IT MAY BE POSSIBLE TO ACCESS THE WORK AREA LANDWARD OF THE BULKHEAD. ANTICIPATED EXCAVATION TO CONFIRM EXISTING ACCEPTABLE TIMBER LAGGING TO 2-FT DEPTH OR REPLACE LAGGING TO THE 2-FT DEPTH. CARE SHALL BE TAKEN TO PREVENT DAMAGE TO SHORELINE HABITAT.

2. ALL FILLS PLACED BEHIND THE EXISTING REPAIRED BULKHEAD SHALL CONSIST OF 2-INCH CLEAN CRUSHED ROCK AND SHALL BE PROTECTED FROM TIDAL WASHOUT BY

3. REPLACEMENT DECK/STAIR SUPPORTS MAY BE EITHER REINFORCED CONCRETE SPREAD FOOTINGS (<2-FT DEPTH) BEARING ON TOP OF THE GEOTECHNICAL ENGINEER APPROVED MEDIUM DENSE TO DENSE NATIVE SOILS OR COMPACTED STRUCTURAL FILLS PLACED ON TOP OF THE COMPETENT SOILS OR REINFORCED CONCRETE PILE CAPS SUPPORTED BY DRIVEN PIPE PILING AND RESTRAINED WITH HELICAL ANCHORS PER THE PLAN.

4. PIPE PILES SHALL BE DRIVEN VERTICALLY BY 90LB JACKHAMMER OR EQUIVALENT TO MEET THE REFUSAL CRITERIA OF LESS THAN ONE-INCH OF PILE PENETRATION PER MINUTE FOR 3 CONSECUTIVE MINUTES, SHALL HAVE A MINIMUM DEPTH OF 3-FEET AND SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER.

5. HELICAL ANCHORS TO BE INSTALLED AT 30-DEGREES DECLINATION FROM HORIZONTAL BY ROTATING INTO THE EXISTING BANK AND SHALL HAVE A MINIMUM GROUND EMBEDMENT OF 10-FEET. CONTRACTOR SHALL INSTALL USING A TORQUE MOTOR AND SHALL PROVIDE AN IN-LINE GAUGE INDICATING INSTANTANEOUS TORQUE SO THAT THE GEOTECHNICAL ENGINEER SHALL VERIFY ACCEPTANCE OF EACH ANCHOR VIA THE EMPIRICAL RELATIONSHIP. HELICAL ANCHOR INSTALLATION MAY REQUIRE SHARPENING THE

6. BROKEN PIPING WAS OBSERVED AT THE SOIL WASHOUT LOCATION IN OCTOBER 2024. CONTRACTOR SHALL INVESTIGATE IF THIS PIPING IS AN ACTIVE UNDERGROUND UTILITY IF THE PIPING IS DETERMINED TO BE AN ACTIVE UNDERGROUND WATER CARRYING UTILITY THAN REPAIR SHALL INVOLVE DIRECTING NEW PIPING TO DISCHARGE AT THE BEACH.

TESTING/APPROVAL:

~199'

ALL CONCRETE SPREAD FOOTING SUBGRADES SHALL BE APPROVED THE THE GEOTECHNICAL ENGINEER AT THE TIME OF CONSTRUCTION.

ALL PIPE PILES SHALL BE OBSERVED AND APPROVED BY THE GEOTECHNICAL ENGINEER.

ALL HELICAL ANCHORS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER AND ONE PERFORMANCE-TEST TO 200% DESIGN LOAD SHALL OCCUR AT THE HELICAL ANCHORS.

CHAUTAUQUA BEACH LOTS 11 THRU 16 BLK 7; TGW PORTION OF ALDER AVE (APPROX 60 FT IN WIDTH) ABUTTING SAID LOTS 11 THRU 16; AND TGW UPLANDS AND SECOND CLASS TIDELANDS IN FRONT OF LOTS 11 THRU 16 EXTENDING TO EXTREME LOW TIDE PLAT BLOCK: 7 PLAT LOT: 11 THRU 16

PROJECT SITE

VICINITY MAP

NOT TO SCALE



Group

PLACE CLEAN CRUSHED ROCK TO RESTORE WASHOUT AREA **EXISTING** 14" DIAM. PILING EXISTING/PROPOSED **6X TIMBER LAGGING** PLACE FILTER FABRIC OVER **BANK & BEHIND LAGGING** 6' MAX **BEACH** CONFIRM EXISTING OR INSTALL NEW LAGGING-TO 2-FT MIN. DEPTH

> TYPICAL X-SECTION @ WASHOUT LOC. SCALE: 1" ~ 3'

Research property online using

King County's iMap: https://gismaps.kingcounty.gov/iMap/

- TEMP SHORE DECK AS NECESSARY #4 BAR BOTH DIRECTIONS AND ALL SIDES, TOP AND BOTTOM, CUBE SHAPE - 3-IN CLEAR ALL SIDES NEW 2' X 2' X 2' CONCRETE NEW HELICAL ANCHOR - INSTALL AT 30-DEG DOWN PERPENDICULAR TO SLOPE CONTOURS - 10-FT MIN LENGTH - 8" X 8" X $\frac{1}{2}$ " STEEL PLATE CAP MIN. NEW 2" DIAMETER PIPE PILE WITH 4" X 4" CAP

EXISTING OR NEW SUPPORT POST

- WITH SIMPSON CBSQ POST CONNECTOR

EX. DECK - PILE CAP DETAIL

SCALE: 1" ~ 2'

Engineering Scale:

1" = AS SHOWN

Sheet

Parcel Number <u>153520-0400</u> Applicant Name <u>ANDREW NAUMANN</u> Site Address <u>20518 CHAUTAUQUA</u> BEACH RD SW Permit Number