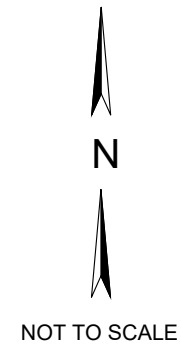
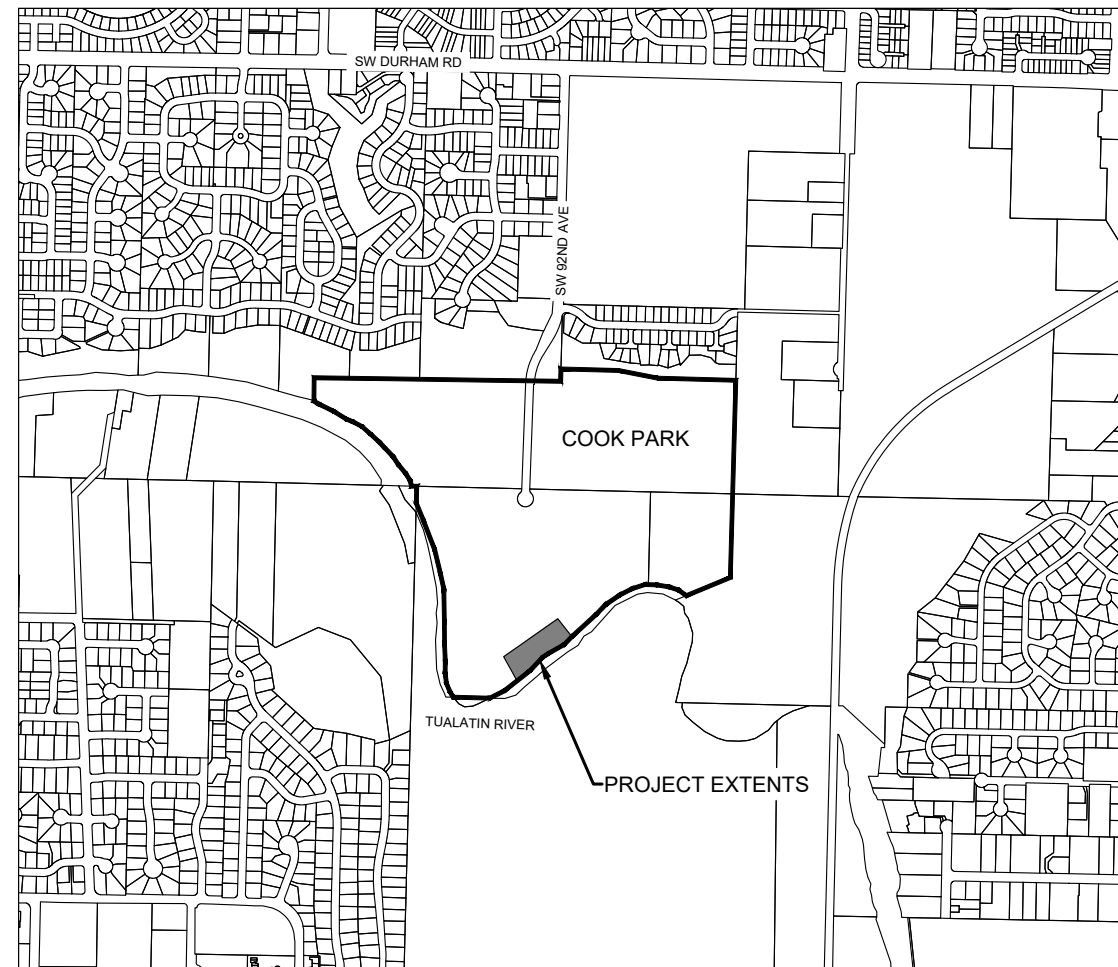
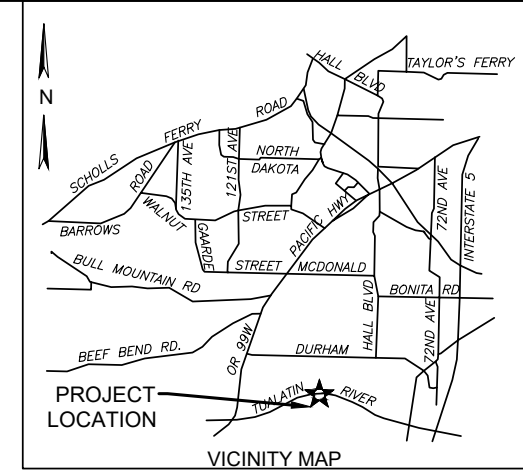


LEGEND

EXISTING		PROPOSED
	BASKETBALL HOOP	
	BIKE RACK	
	BOLLARD	
	DIRECTION OF FLOW	
	SIGN	
	TRASH CAN	
	TREE	
	CONTOUR	
	ASPHALT	
	ASPHALT EDGE	
	CONCRETE EDGE	
	CURB	
	ORDINARY HIGH WATER (OHW)	
	ORDINARY LOW WATER (OLW)	
	TAX LOT LINE	
	SEDIMENT FENCE	
	FLOATING SEDIMENT CURTAIN	
	TREE PROTECTION FENCE	
	AREA OF PROPOSED GRADING	
	ASPHALT	
	COIR FABRIC	
	CONCRETE	
	CONSTRUCTION STAGING	
	STOCKPILED SOIL	
	RESTORATION AREA (ABOVE OHW)	
	RESTORATION AREA (BELOW OHW)	
	RIPRAP	

CITY OF TIGARD, OREGON COOK PARK ACCESSIBLE DOCK

MARCH 2026



INDEX OF SHEETS

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02	G1.2	GENERAL NOTES
03	C2.1	EXISTING CONDITIONS
04	C3.1	SITE DEVELOPMENT PLAN
05	C3.2	LAYOUT AND GRADING PLAN
06	C3.3	PEDESTRIAN ACCESS ROUTE
07	C4.1	EROSION CONTROL PLAN
08	C5.1	SECTIONS
09	C5.2	BOARDING DOCK STANDARD DETAIL
10	C5.3	STANDARD DETAILS
11	C5.4	STANDARD DETAILS
12	C5.5	STANDARD DETAILS
13	C5.6	STANDARD DETAILS
14	C5.7	STANDARD DETAILS
15	C6.1	VEGETATED CORRIDOR ENHANCEMENT AND MITIGATION OVERVIEW
16	C6.2	VEGETATED CORRIDOR ENHANCEMENT AND MITIGATION PLAN (INSETS A & B)
17	C6.3	VEGETATED CORRIDOR ENHANCEMENT AND MITIGATION PLANT LIST
18	S0.1	STRUCTURAL NOTES
19	S1.0	STRUCTURAL DETAILS

PROJECT CONTACTS

OWNER:
CITY OF TIGARD - DEPT. OF PUBLIC WORKS
8777 SW BURNHAM STREET
TIGARD, OREGON 97223
TEL: 503-718-2583
CONTACT: RICK GRUEN, PARKS MANAGER

STRUCTURAL:
GRUMMEL ENGINEERING LLC
920 SW 3RD AVENUE, SUITE 200
PORTLAND, OR 97204
TEL: 503-244-7014 x101
CONTACT: ALEXANDER C GRUMMEL, PE

CIVIL ENGINEER:
CENTURY WEST ENGINEERING, INC.
5500 MEADOWS ROAD, SUITE 250
LAKE OSWEGO, OR 97035
TEL: 503-740-8444
CONTACT: RAWLEY VOORHIES, PE

ENVIRONMENTAL:
PACIFIC HABITAT SERVICES, INC.
9450 SW COMMERCE CIR # 180
WILSONVILLE, OR 97070
TEL: 503-570-0800
CONTACT: TINA FARRELLY, PWS

CITY PROJECT MANAGER:
CITY OF TIGARD
13125 SW HALL BLVD.
TIGARD, OR. 97223
TEL: 503-718-2466
CONTACT: JEFF PECK, PROJECT MANAGER

SITE INFORMATION

LOCATION: COOK PARK - 17005 SW 92ND AVE
TAX MPA AND TAX LOT NUMBER - 2S11DB0100
SITE SIZE: 1,349,053 SF
ZONING: PARKS AND RECREATION (PR)



PORTLAND OFFICE
5500 MEADOWS ROAD, SUITE 250
LAKE OSWEGO, OR 97035
503.419.2130 OFFICE
503.639.2710 FAX

Prepared and/or checked by: [Name], Date: [Date], Title: [Title]
 Checked by: [Name], Date: [Date], Title: [Title]
 Approved by: [Name], Date: [Date], Title: [Title]

ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090 YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987).

ATTENTION: NOTIFY NW NATURAL AT (503)220-2415 WHEN EXCAVATING WITHIN 5' OF AN EXISTING HIGH PRESSURE GAS MAIN.

CALL BEFORE YOU DIG
1-800-332-2344

PROJECT DESIGN OVERSIGHT APPROVAL BY:			CAPITAL CONSTRUCTION AND TRANSPORTATION DIVISION
ENGINEERING MANAGER			
BID DATE		13125 S.W. HALL BLVD. TIGARD, OREGON 97223	
92068	40084.017.01	VOICE: 503-639-4171	
PROJECT NO.	CWE FILE NUMBER	FAX: 503-624-0752	
		WWW.TIGARD-OR.GOV	

GENERAL CONDITION CONSTRUCTION NOTES:

1. THE CONTRACTOR MUST COMPLY WITH ALL APPLICABLE PROVISIONS OF FEDERAL AND STATE LAW, THE TIGARD MUNICIPAL CODE, AND THE TERMS OF ANY AGREEMENT WITH THE CITY OF TIGARD REGARDING WORK TO BE DONE PURSUANT TO THIS PERMIT.
2. THE CITY'S STANDARD SPECIFICATION FOR TRAFFIC CONTROL IS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", U.S. DEPT. OF TRANSPORTATION, FHWA, CURRENT EDITION.
3. TRAFFIC CONTROL AND TEMPORARY PEDESTRIAN ACCESSIBLE ROUTES SHALL BE PROVIDED FOR BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY'S STANDARD SPECIFICATIONS AND, ALSO, IN ACCORDANCE WITH A CITY (JOB SPECIFIC) APPROVED TRAFFIC CONTROL PLAN. A COPY OF THE APPROVED TRAFFIC CONTROL PLAN SHALL BE AVAILABLE AT THE WORK AREA.
4. ADVANCE WARNING OF IMMINENT TRAFFIC DISRUPTION SHALL BE PROVIDED TO THE GENERAL MOTORING PUBLIC BY PLACEMENT OF AN ADVANCE NOTIFICATION SIGN AT EACH END OF THE CONSTRUCTION AREA AT A MINIMUM OF 72 HOURS BEFORE INITIATION OF CONSTRUCTION WORK.
5. TRAFFIC CONTROL DEVICES, FLAG PERSONS, ETC., SHALL BE IN PLACE PRIOR TO INITIATION OF CONSTRUCTION WORK AND SHALL BE EFFECTIVELY MAINTAINED.
6. WORK IS PERMITTED BETWEEN THE HOURS OF 7:00 A.M. TO 5:00 P.M., MONDAY THROUGH FRIDAY.
7. THE CITY RESERVES THE RIGHT TO ADD TO OR MODIFY TRAFFIC CONTROL REQUIREMENTS AS MAY BE NECESSARY TO EFFECTIVELY CONTROL TRAFFIC AND TO ASSURE PUBLIC SAFETY.
8. BEFORE INITIATING ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL CONTACT THE CITY PM (503-718-2466) TO ESTABLISH A PLACE, TIME, AND DATE FOR A PRE-CONSTRUCTION MEETING.
9. THE CONTRACTOR SHALL NOTIFY THE CITY PM (503-718-2466) 24 HOURS PRIOR TO COMMENCING WORK, 24 HOURS PRIOR TO ANY STAGED INSPECTION, AND AFTER COMPLETING WORK COVERED BY THE PERMIT.
10. A COPY OF ISSUED PERMITS AND ALL ATTACHMENTS AND A COPY OF THE APPROVED CONSTRUCTION PLAN AND ALL AMENDMENTS SHALL BE AVAILABLE AT THE WORK AREA. ALL WORK SHALL CONFORM TO THE PERMIT TERMS, CONDITIONS, AND PROVISIONS; THE CITY APPROVED PERMIT PLANS AND APPROVED PLAN AMENDMENTS; AND THE CITY'S STANDARDS, SPECIFICATIONS, AND THESE GENERAL CONDITIONS. CHANGES TO ANY OF THE AFORESAID MUST BE APPROVED BY THE CITY IN ADVANCE OF WORK PERFORMANCE.
11. MAINTENANCE OF THE WORK AREA IS THE RESPONSIBILITY OF THE PERMIT HOLDER. THE WORK AREA SHALL BE MAINTAINED IN A CLEAN CONDITION, FREE FROM OBSTRUCTIONS AND HAZARDS. A COPY OF THE PERMIT HOLDER'S CERTIFICATE OF INSURANCE SHALL BE AVAILABLE AT THE WORK AREA.
12. THE SPREADING OF MUD OR DEBRIS OR STORAGE OF MATERIALS OR EQUIPMENT OF ANY KIND UPON ANY PUBLIC ROADWAY IS STRICTLY PROHIBITED. THE CITY MAY AT ANY TIME ORDER IMMEDIATE CLEAN-UP AND THE STOPPAGE OF WORK TO ACCOMPLISH CLEAN-UP.
13. PROPERTY DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE SEEDED WITH A STANDARD GRASS MIX; SHRUBS, FLOWERS, BARK DUST, EXISTING SIGNS, PAVEMENT MARKINGS, ETC. SHALL BE REESTABLISHED, REINSTALLED, OR REPLACED WITH LIKE KIND AND MATERIAL.
14. OREGON LAW REQUIRES FOLLOWING THE RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. SAID RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0080. COPIES OF SAID RULES MAY BE OBTAINED FROM THE CENTER BY CALLING 503-246-1987. IF YOU HAVE ANY QUESTION ABOUT THE RULES, CONTACT THE CENTER. NOTE: DAMAGE TO UTILITIES SHALL BE CORRECTED AT THE PERMIT HOLDER'S EXPENSE.
15. THE CITY INSPECTOR MAY, AT THEIR DISCRETION, REQUIRE PROVISION OF TESTS OR REPORTS FROM CONTRACTOR TO VALIDATE CLAIMS OF MATERIAL OR CONSTRUCTION ADEQUACY/COMPLIANCE. SUCH TESTS/REPORTS SHALL BE PROVIDED AT THE CONTRACTOR'S EXPENSE.
16. THE CONTRACTOR SHALL PROVIDE TO THE CITY INSPECTOR, IN WRITING, THE NAMES AND 24-HOUR EMERGENCY TELEPHONE NUMBERS OF TWO PERSONS WHO HAVE AUTHORITY TO RESOLVE PROBLEMS, TAKE CORRECTIVE ACTION, AND, IN GENERAL, WILL BE RESPONSIBLE IN CASE OF ANY EMERGENCY. THE CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR IN WRITING OF ANY/ALL ASSIGNMENT CHANGES.
17. THE CONTRACTOR SHALL CAUSE HIS CONTRACTOR TO PROVIDE TO THE CITY INSPECTOR, IN WRITING, THE NAME AND 24-HOUR EMERGENCY TELEPHONE NUMBER OF A DESIGNATED "COMPETENT PERSON" RESPONSIBLE FOR CONSTRUCTION SAFETY AS PER OR-OSHA, CHAP. 437, DIV. 3 CONSTRUCTION, SUB-DIVISION P - EXCAVATIONS. THE CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR IN WRITING OF ANY/ALL ASSIGNMENT CHANGES.
18. NEW ADA PARKING STALLS TO BE INSTALLED PRIOR TO REMOVAL OF EXISTING STALLS.
19. VEGETATED CORRIDOR ENHANCEMENT AND MITIGATION AREA PLANTING LOCATIONS TO BE COORDINATED WITH ENGINEER AND OWNER PRIOR TO INSTALLATION.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING THE SAMPLING & TESTING FOR AGGREGATE BASE, CONCRETE, AND ASPHALT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE CITY AND STRUCTURAL ENGINEER 48-HOURS NOTICE PRIOR TO COMMENCEMENT OF PILE INSTALLATIONS. TESTING AND INSPECTION SERVICES TO BE PAID FOR BY THE CITY.
21. THE CONTRACTOR SHALL PROVIDE TEMPORARY IRRIGATION OR WATERING AS REQUIRED TO MAINTAIN AND PROMOTE HEALTHY PLANT GROWTH.
22. THE CONTRACTOR IS RESPONSIBLE FOR THE SURVIVAL OF ALL PLANT MATERIAL UNTIL THE END OF THE PLANT ESTABLISHMENT PERIOD OF 1 CALENDAR YEAR. THE PLANT ESTABLISHMENT PERIOD WILL BEGIN WHEN ALL THE ORIGINAL PLANTING IS COMPLETE. THE ORIGINAL PLANTING IS CONSIDERED COMPLETE WHEN ALL PLANT MATERIAL HAS BEEN PLANTED TO SATISFACTION OF THE AGENCY.

DOCK AND GANGWAY NOTES:

1. THE CONTRACTOR SHALL INSTALL 5' X 110' STRUCTURAL MARINE-GRADE ALUMINUM GANGWAY AND 28' X 28' STRUCTURAL MARINE-GRADE ALUMINUM FLOATING DOCK, SUPPLIED BY THE CITY TO THE PROJECT SITE.
2. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
3. CONSTRUCTION SHALL BE IN MEET OREGON STATE MARINE BOARD GUIDELINES FOR RECREATIONAL BOATING FACILITIES, THIRD EDITION.

PILE NOTES:

1. STEEL PIPE PILES SHALL CONFORM TO REQUIREMENTS OF ASTM A252, GRADE 3.
2. MILL CERTIFICATION OF STEEL TO BE PROVIDED BY SUPPLIER
3. PILE DESIGN AND CONSTRUCTION SHALL MEET REQUIREMENTS OF OREGON STANDARDS SPECIFICATIONS FOR CONSTRUCTION (OSSC) SECTION 00520 (ODOT, 2024).
4. PILE DESIGN PROPERTIES
 - 4.1. PILE TYPE: PP 12X0.375 & PP16X0.375
 - 4.2. STEEL GRADE (KIPS/INCH2): A252 GRADE 3
 - 4.3. SECTION AREAS (INCH2): 13.7 (FOR 12" PILE) & 18.4 (FOR 16" PILE)
 - 4.4. NOMINAL STRUCTURAL CAPACITY (KIPS): 615 (FOR 12" PILE) & 825 (FOR 16" PILE)
 - 4.5. ULTIMATE AND ALLOWABLE COMPRESSIVE RESISTANCE OF PILES SHALL BE ESTABLISHED USING FS OF 3
5. REFERENCE GEOTECHNICAL ENGINEERING REPORT BY SHANNON & WILSON, CITY OF TIGARD - ACCESSIBLE BOAT LAUNCH AT COOK PARK DATED JANUARY 2024 FOR ADDITIONAL INFORMATION.

RIP RAP NOTES:

1. FILTER FABRIC TO BE PLACED IN ONE CONTINUOUS INSTALLATION THAT MAINTAINS INTIMATE CONTACT WITH SOIL BENEATH. AVOID VOIDS, GAPS, TEARS, OR OTHER HOLES IN FILTER. REPLACE OR REPAIR WHERE THEY OCCUR.
2. GEOTEXTILE TO BE ROLLED OR SPREAD DIRECTLY ON PREPARED AREA AND FREE OF FOLDS OR WRINKLES.
3. AFTER PLACEMENT OF GEOTEXTILE WORK AREA SHALL NOT BE TRAFFICKED OR DISTURBED IN A MANNER THAT MIGHT RESULT IN LOSS OF INTIMATE CONTACT BETWEEN RIPRAP, THE GEOTEXTILE, AND THE SUBGRADE.
4. PLACE GEOTEXTILE SO THAT UPSTREAM STRIPS OVERLAP DOWNSTREAM STRIPS. OVERLAPS TO BE PLACE IN DIRECTION OF FLOW WHERE POSSIBLE.

ONE INCH (REF)



Revisions and Addendums			
Description	Date	No.	By



PORTLAND OFFICE
5500 MEADOWS ROAD, SUITE 250
LAKE OSWEGO, OR 97035
503.419.2130 OFFICE
503.639.2710 FAX



ENGINEERING DIVISION
PUBLIC WORKS DEPARTMENT
13125 S.W. HALL BLVD.
TIGARD, OREGON 97223
VOICE: 503-639-4171
FAX: 503-624-0752
WWW.TIGARD-OR.GOV

DESIGN: CWE | DRAWN: CWE | CHECK: RDV | PROJ. NO: 92068 | BID ON:

CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK
GENERAL NOTES

SHEET
G1.2
02
OF
19
FILE NO

CONSTRUCTION NOTES:

1. PRIOR TO ANY SITE CLEARING, GRADING, OR CONSTRUCTION, THE VEGETATED CORRIDOR AND WATER QUALITY SENSITIVE AREAS SHALL BE SURVEYED, STAKED, AND TEMPORARILY FENCED PER APPROVED PLAN. DURING CONSTRUCTION, THE VEGETATED CORRIDOR SHALL REMAIN FENCED AND UNDISTURBED EXCEPT AS ALLOWED BY R&O 19-5, SECTION 3.06.1, AS AMENDED BY R&O 19-22 AND PER APPROVED PLANS.
2. BASE SEDIMENT AND EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO GROUND DISTURBING ACTIVITIES. CONTRACTOR TO OBTAIN A PUBLIC IMPROVEMENT INSPECTION (PFI) PERMIT AND CALL IN FOR AN INITIAL EROSION CONTROL INSPECTION.
3. CLEAN WATER SERVICES AND/OR CITY SHALL BE NOTIFIED 72 HOURS PRIOR TO THE START AND COMPLETION OF ENHANCEMENT/RESTORATION ACTIVITIES.
4. PROTECT FISH AND FISH HABITAT PER SECTION 00290.34 OF THE 2024 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION.

CONTROL POINT DATA TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
40001	125695.327	322553.391	116.70	SET COPPER PLUG "WESTLAKE CONSULTANTS"
40002	125393.715	322330.105	113.41	SET COPPER PLUG "WESTLAKE CONSULTANTS"
40003	125496.468	322500.876	111.90	SET MAGNETIC NAIL

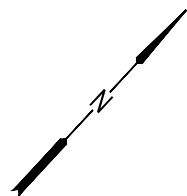
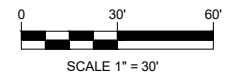
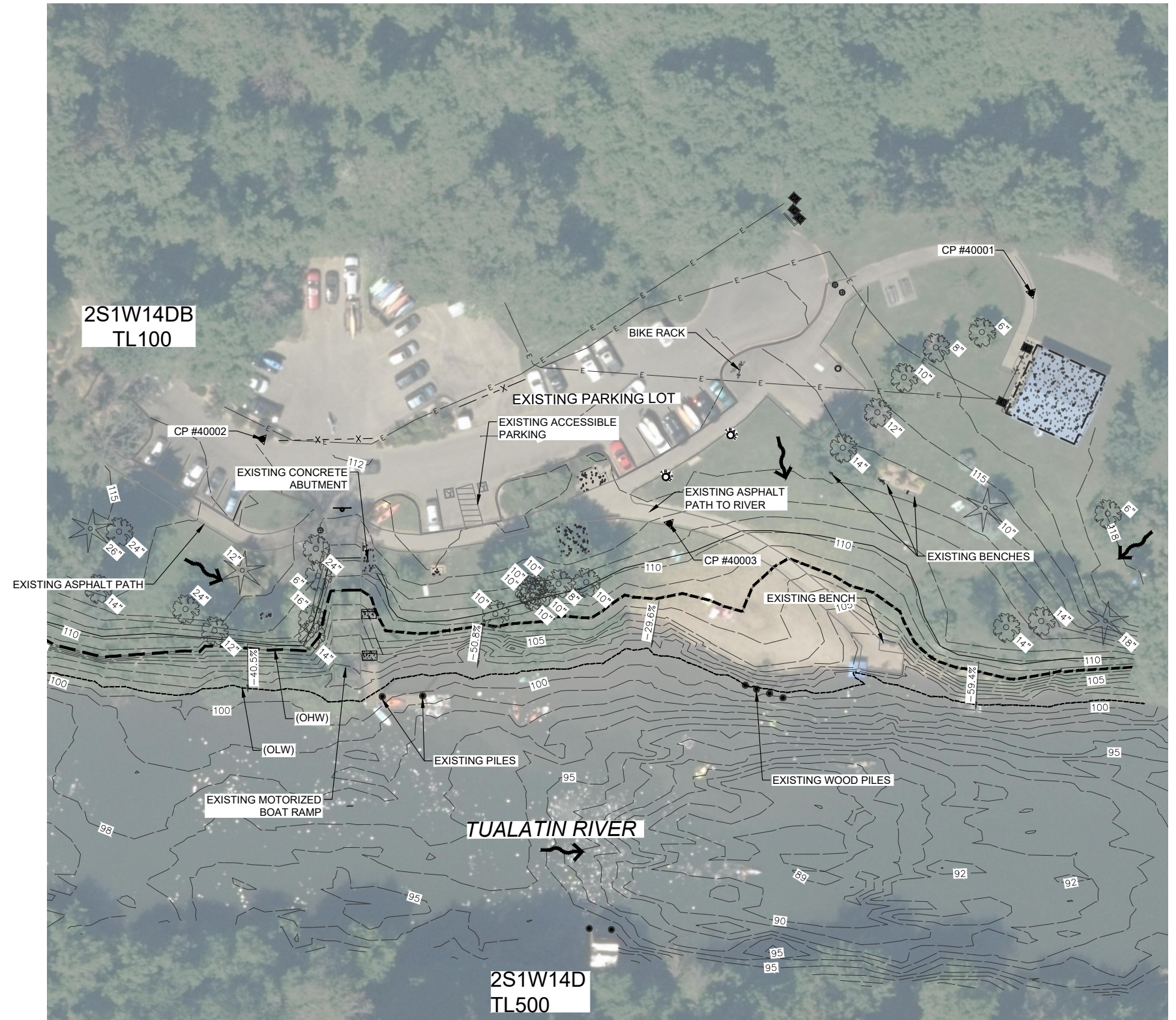
BASIS OF COORDINATES:

COORDINATE SYSTEM ESTABLISHED USING THE OREGON REAL-TIME GNSS NETWORK ON THE OREGON COORDINATE REFERENCE SYSTEM - PORTLAND ZONE - NAD83(2011) - INTERNATIONAL FEET.

BASIS OF ELEVATION:

ELEVATIONS BASED ON WASHINGTON COUNTY GEOCONTROL POINT GC_022-041. BENCHMARKS PROVIDED BY THE CITY OF TIGARD NEAR THE PROJECT SITE WERE NOT FOUND AND APPEARED TO BE DESTROYED BY PARK CONSTRUCTION. DIFFERENTIAL LEVELING WAS USED BETWEEN THE PROJECT SITE AND THE GC_022-041 BENCHMARK.

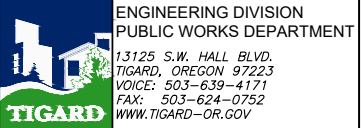
GC_022-041 = 204.47' NGVD29
 NGVD29 = NAVD88 - 3.812



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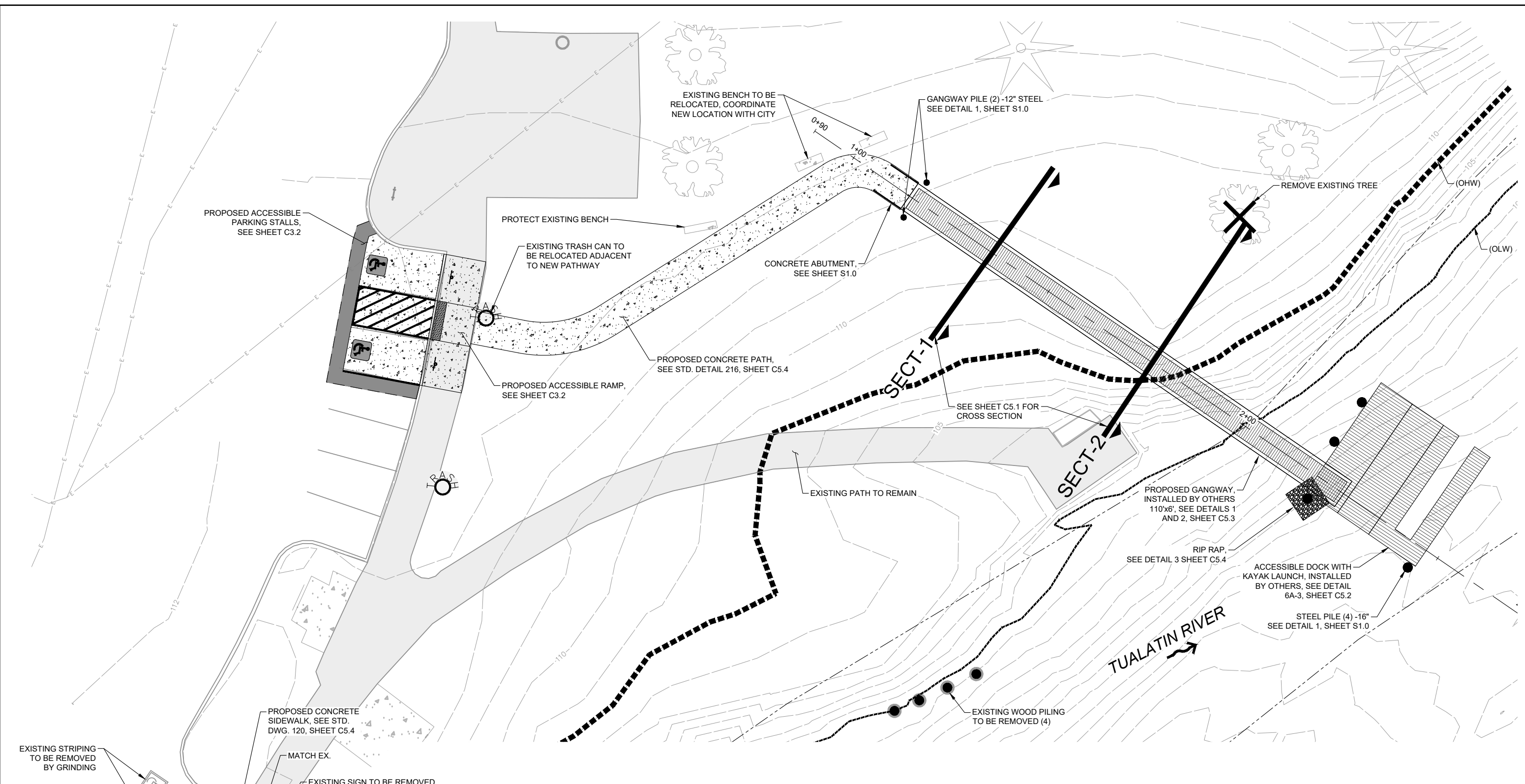
Revisions and Addendums			
Description	Date	No.	By



DESIGN: CWE | DRAWN: CWE | CHECK: RDV | PROJ. NO: 92068 | BID ON:

CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK
 EXISTING CONDITIONS

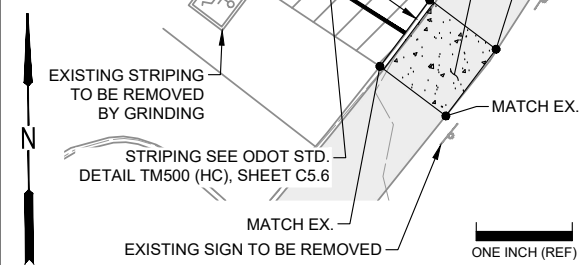
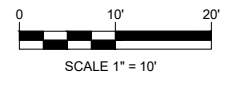
SHEET
 C2.1
 03
 OF
 19
 FILE NO



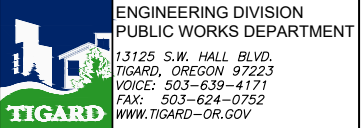
CONSTRUCTION NOTES:

1. REMOVE EXISTING SEDIMENT PER PLAN AND SEDIMENT REMOVAL TABLE. PRESERVE ALL LANDSCAPING PER THE EROSION CONTROL PLAN. REFERENCE SECTION 00320 AND 00330 OF THE 2024 OREGON STANDARD SPECIFICATION FOR CONSTRUCTION.

SEDIMENT REMOVAL				
LOCATION	2D AREA (SF)	CUT (CY)	FILL (CY)	NET CUT (CY)
ABOVE OHW	5146	236	19	218
BELOW OHW	849	56	1	56



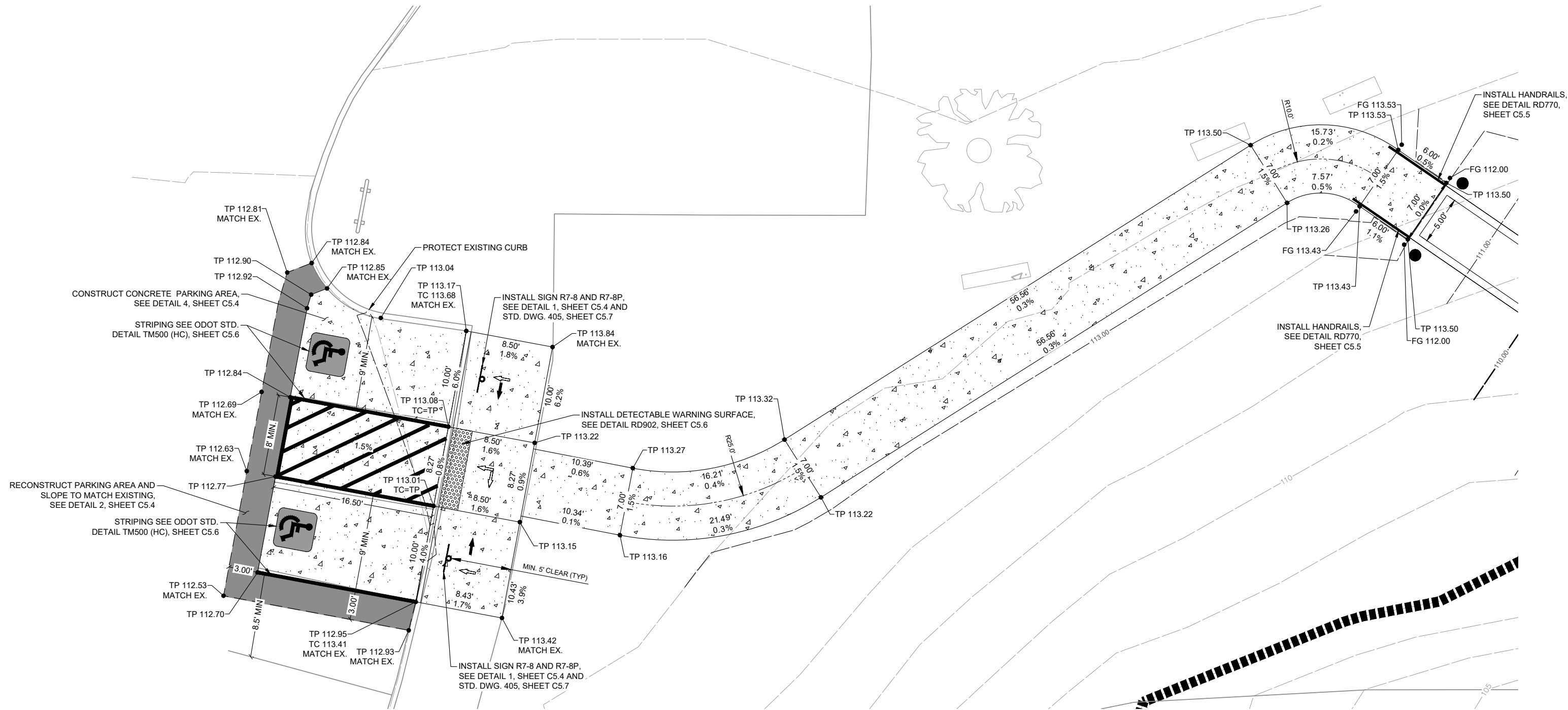
Revisions and Addendums			
Description	Date	No.	By



DESIGN: CWE | DRAWN: CWE | CHECK: RDV | PROJ. NO: 92068 | BID ON:

**CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK
SITE DEVELOPMENT PLAN**

SHEET C3.7
04 OF 19
FILE NO

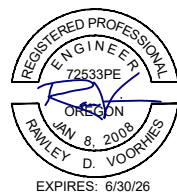
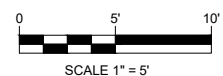


LEGEND

- TYPICAL CROSS SLOPE
2.0% MAX CONSTRUCTED
- RAMP RUNNING SLOPE
8.3% MAX CONSTRUCTED

CONSTRUCTION NOTES:

1. ALL FINISHED SLOPES WITHIN ADA PARKING STALLS SHALL BE 2% OR LESS.



ONE INCH (REF)

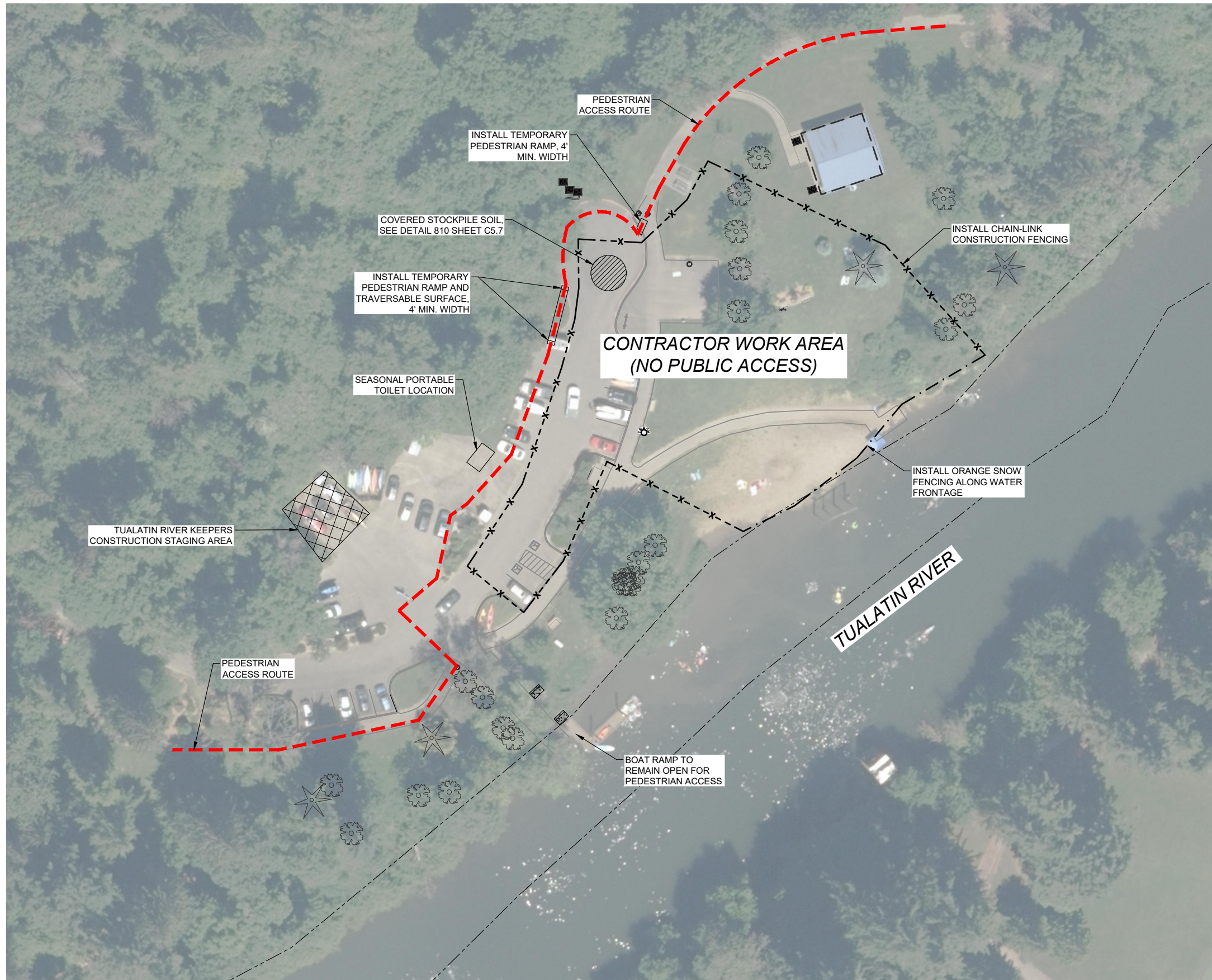
Revisions and Addendums			
Description	Date	No.	By



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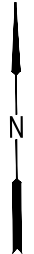
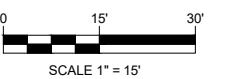
**CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK
LAYOUT AND GRADING PLAN**

SHEET
C3.2
OF
19
FILE NO

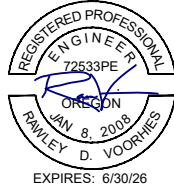


LEGEND

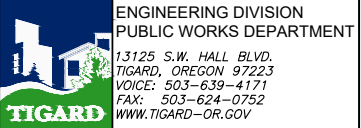
- - - - - TEMPORARY PEDESTRIAN ACCESS ROUTE
- - x - - x - - x - - x - - CHAIN-LINK CONSTRUCTION FENCING
- · - · - · - · - · - · - · - · - · - ORANGE SNOW FENCING



ONE INCH (REF)



Revisions and Addendums			
Description	Date	No.	By



DESIGN: CWE | DRAWN: CWE | CHECK: RDV | PROJ. NO: 92068 | BID ON:

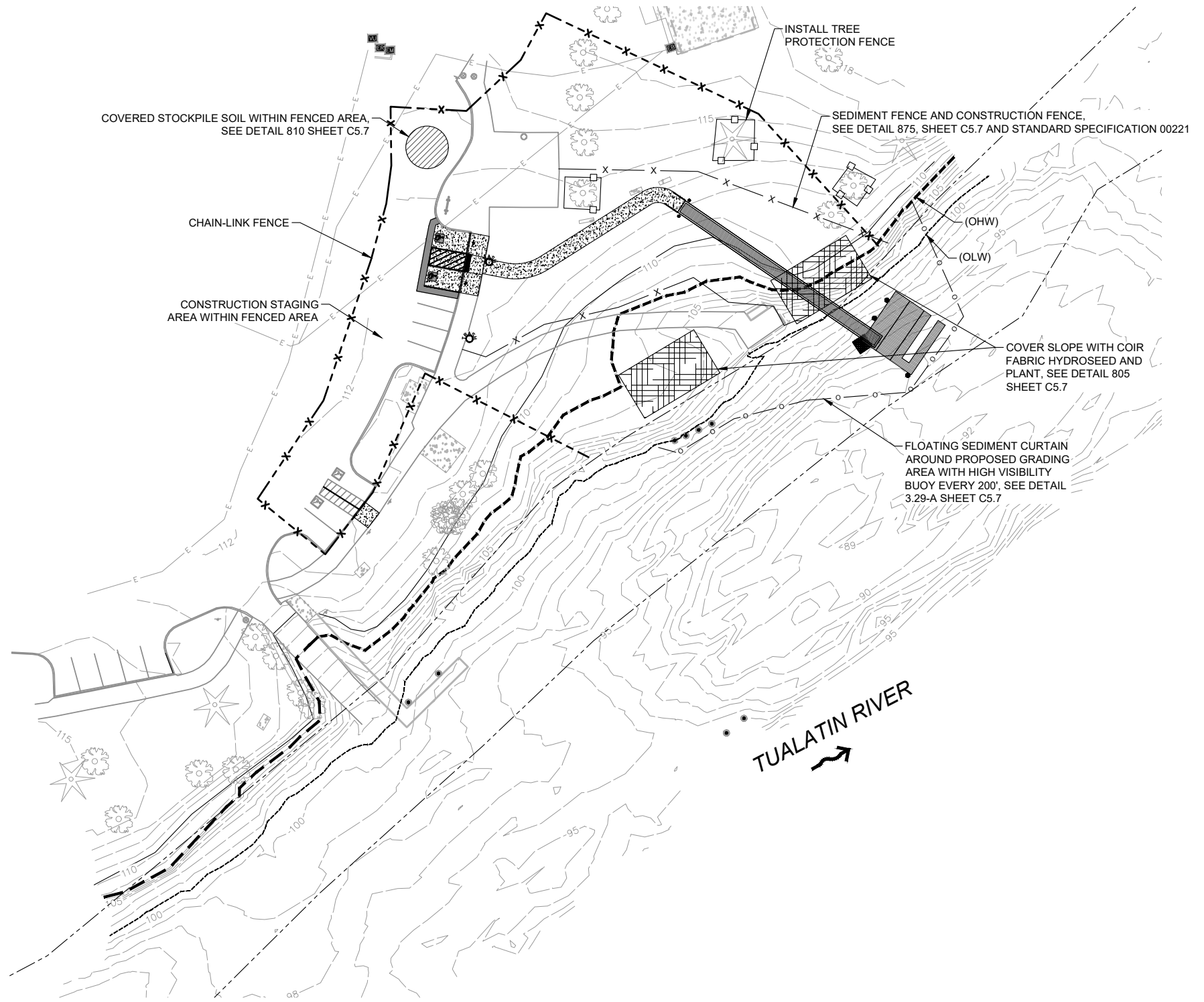
**CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK
PEDESTRIAN ACCESS ROUTE**

SHEET C3.3
06 OF 19
FILE NO

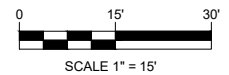
CONSTRUCTION NOTES:

1. TEMPORARY WORK PAD LOCATIONS ARE ESTIMATED BASED ON THE SITE SURVEY AND ANTICIPATED CONSTRUCTION EQUIPMENT.
2. FINAL TEMPORARY WORK PAD LOCATIONS TO BE DETERMINED BY CONSTRUCTION CONTRACTOR BASED ON FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND CONSTRUCTION EQUIPMENT LIMITATIONS.
3. TEMPORARY WORK PADS WILL NOT BE PLACED IN STANDING WATER WITHOUT PRIOR APPROVAL FROM THE US ARMY CORPS OF ENGINEERS AND OREGON DEPARTMENT OF STATE LANDS.
4. TEMPORARY SEDIMENT FENCES AND SEDIMENT CURTAINS TO REMAIN UNTIL END OF CONSTRUCTION.
5. ACCESS TO CONSTRUCTION STAGING AREA THROUGH EXISTING PAVED PARK ROADS.
6. TREES WILL BE PROTECTED WITH 3.5 FT TALL FENCE OR 3.5 FT TALL WOOD FRAMING MADE OF 2 IN BY 4 IN LUMBER COVERED BY DURABLY FASTENED ORANGE FENCE WITH 10 FEET MAXIMUM IN BETWEEN FENCE POSTS.
7. WORK WITHIN THE TUALATIN RIVER SHALL OCCUR WITHIN THE PREFERRED IN-WATER WORK WINDOW OF JUNE 1 TO SEPTEMBER 30.
8. MULCHING AND RESEEDING SHALL OCCUR IMMEDIATELY AFTER GRADING TO PREVENT SOIL EROSION. REFERENCE SECTION 01030 AND 01040 OF THE 2024 OREGON STANDARD SPECIFICATION FOR CONSTRUCTION.
9. STABILIZE EXCAVATION AREA WITH COIR FABRIC AND WOODEN STAKES PRIOR TO PLANTING AND SEEDING. FABRIC TO BE LEFT IN PLACE TO BIO-DEGRADE.
10. SEEDING SHALL BE PERFORMED DURING OPTIMAL WEATHER CONDITIONS AND AT LOW FLOW LEVELS TO MINIMIZE SEDIMENT IMPACTS. TEMPORARY IRRIGATION OR WATERING SHALL BE PROVIDED AS REQUIRED TO MAINTAIN AND PROMOTE HEALTHY PLANT GROWTH.
11. SEE CLEAN WATER SERVICES R&O 19-5, AMENDED BY R&O 19-22 APPENDIX A PLANTING REQUIREMENTS FOR ADDITIONAL INFORMATION.
12. SEED AND MULCH PER SEED LIST FOR RESTORATION AREAS TABLE, SHEETS C6.1-C6.3.

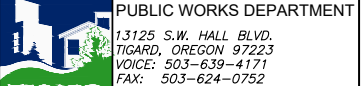
- NOTES:**
1. WHEN RAINFALL AND RUNOFF OCCURS, A KNOWLEDGEABLE AND EXPERIENCED PERSON IN THE PRINCIPLES, PRACTICES, INSTALLATION, AND MAINTENANCE OF EROSION AND SEDIMENT CONTROLS WHO WORKS FOR THE PERMITTEE MUST PROVIDE DAILY INSPECTIONS OF THE EROSION AND SEDIMENT CONTROLS AND DISCHARGE OUTFALLS.
 2. CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND CREATION OF BARE GROUND FROM OCTOBER 1 THROUGH MAY 31ST EACH YEAR.
 3. DURING WET WEATHER PERIOD, TEMPORARY STABILIZATION OF THE SITE MUST OCCUR AT THE END OF EACH WORK DAY.
 4. SEDIMENT CONTROLS MUST BE INSTALLED AND MAINTAINED ON ALL DOWN GRADIENT SIDES OF THE CONSTRUCTION SITE AT ALL TIMES DURING CONSTRUCTION. THEY MUST REMAIN IN PLACE UNTIL PERMANENT VEGETATION OR OTHER PERMANENT COVERING OF EXPOSED SOIL IS ESTABLISHED.
 5. ALL ACTIVE INLETS MUST HAVE SEDIMENT CONTROLS INSTALLED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
 6. SIGNIFICANT AMOUNTS OF SEDIMENT THAT LEAVES THE SITE MUST BE CLEANED UP WITHIN 24 HOURS AND PLACED BACK ON THE SITE AND STABILIZED OR PROPERLY DISPOSED. THE CAUSE OF THE SEDIMENT RELEASE MUST BE FOUND AND PREVENTED FROM CAUSING A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DEPARTMENT OF STATE LANDS REQUIRED TIME FRAME.
 7. SEDIMENT MUST NOT BE INTENTIONALLY WASHED INTO STORM SEWERS, DRAINAGE WAYS, OR WATER BODIES.
 8. SEDIMENT MUST BE REMOVED FROM BEHIND ALL SEDIMENT CONTROL MEASURES WHEN IT HAS REACHED A HEIGHT OF 1/3-RD THE BARRIER HEIGHT AND PRIOR TO THE CONTROL MEASURES REMOVAL.
 9. CLEANING OF ALL STRUCTURES WITH SUMPS MUST OCCUR WHEN THE SEDIMENT RETENTION CAPACITY HAS BEEN REDUCED BY 50% AND AT COMPLETION OF PROJECT.
 10. ANY USE OF TOXIC OR OTHER HAZARDOUS MATERIALS MUST INCLUDE PROPER STORAGE, APPLICATION, AND DISPOSAL.
 11. THE PERMITTEE MUST PROPERLY MANAGE HAZARDOUS WASTES, USED OILS, CONTAMINATED SOILS, CONCRETE WASTE, SANITARY WASTE, LIQUID WASTE, OR OTHER TOXIC SUBSTANCES DISCOVERED OR GENERATED DURING CONSTRUCTION.
 12. THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS. NUTRIENT RELEASES FROM FERTILIZERS TO SURFACE WATERS MUST BE MINIMIZED. TIME RELEASE FERTILIZERS SHOULD BE USED AND CARE SHOULD BE MADE IN APPLICATION OF FERTILIZERS WITHIN ANY WATER WAY RIPARIAN ZONE.
 13. OWNER OR DESIGNATED PERSON SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES, IN ACCORDANCE WITH CURRENT CLEAN WATER SERVICES STANDARDS AND STATE, AND FEDERAL REGULATIONS.
 14. PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BOUNDARIES OF THE CLEARING LIMITS, VEGETATED BUFFERS, AND ANY SENSITIVE AREAS SHOWN ON THIS PLAN SHALL BE CLEARLY DELINEATED IN THE FIELD. UNLESS OTHERWISE APPROVED, NO DISTURBANCE IS PERMITTED BEYOND THE CLEARING LIMITS. THE OWNER/PERMITTEE MUST MAINTAIN THE DELINEATION FOR THE DURATION OF THE PROJECT. NOTE: VEGETATED CORRIDORS TO BE DELINEATED WITH ORANGE CONSTRUCTION FENCE OR APPROVED EQUAL.
 15. PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BMPs THAT MUST BE INSTALLED ARE GRAVEL CONSTRUCTION ENTRANCE, PERIMETER SEDIMENT CONTROL, AND INLET PROTECTION. THESE BMPs MUST BE MAINTAINED FOR THE DURATION OF THE PROJECT.
 16. IF VEGETATIVE SEED MIXES ARE SPECIFIED, SEEDING MUST TAKE PLACE NO LATER THAN SEPTEMBER 1ST; THE TYPE AND PERCENTAGES OF SEED IN THE MIX ARE AS IDENTIFIED ON THE PLANS OR AS SPECIFIED BY THE DESIGN ENGINEER.
 17. WATERTIGHT TRUCKS MUST BE USED TO TRANSPORT SATURATED SOILS FROM THE CONSTRUCTION SITE. AN APPROVED EQUIVALENT IS TO DRAIN THE SOIL ON SITE AT A DESIGNATED LOCATION USING APPROPRIATE BMPs; SOIL MUST BE DRAINED SUFFICIENTLY FOR MINIMAL SPILLAGE.
 18. ALL PUMPING OF SEDIMENT LADEN WATER MUST BE DISCHARGED OVER AN UNDISTURBED, PREFERABLY VEGETATED AREA, AND THROUGH A SEDIMENT CONTROL BMP (I.E. FILTER BAG).
 19. THE ESC PLAN MUST BE KEPT ONSITE. ALL MEASURES SHOWN ON THE PLAN MUST BE INSTALLED PROPERLY TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER A SURFACE WATER SYSTEM, ROADWAY, OR OTHER PROPERTIES.
 20. THE ESC MEASURES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE MEASURES SHALL BE UPGRADED AS NEEDED TO MAINTAIN COMPLIANCE WITH ALL REGULATIONS.
 21. WRITTEN ESC LOGS ARE SUGGESTED TO BE MAINTAINED ONSITE AND AVAILABLE TO DISTRICT INSPECTORS UPON REQUEST.
 22. IN AREAS SUBJECT TO WIND EROSION, APPROPRIATE BMPs MUST BE USED, WHICH MAY INCLUDE THE APPLICATION OF FINE WATER SPRAYING, PLASTIC SHEETING, MULCHING, OR OTHER APPROVED MEASURES.
 23. ALL EXPOSED SOILS MUST BE COVERED, AT END OF BUSINESS DAY, DURING WET WEATHER PERIOD, FROM OCTOBER 1 - MAY 31.



STANDARD EROSION CONTROL NOTES FOR SITES LESS THAN 1 ACRE
DRAWING NO. 945 REVISED 10-31-19



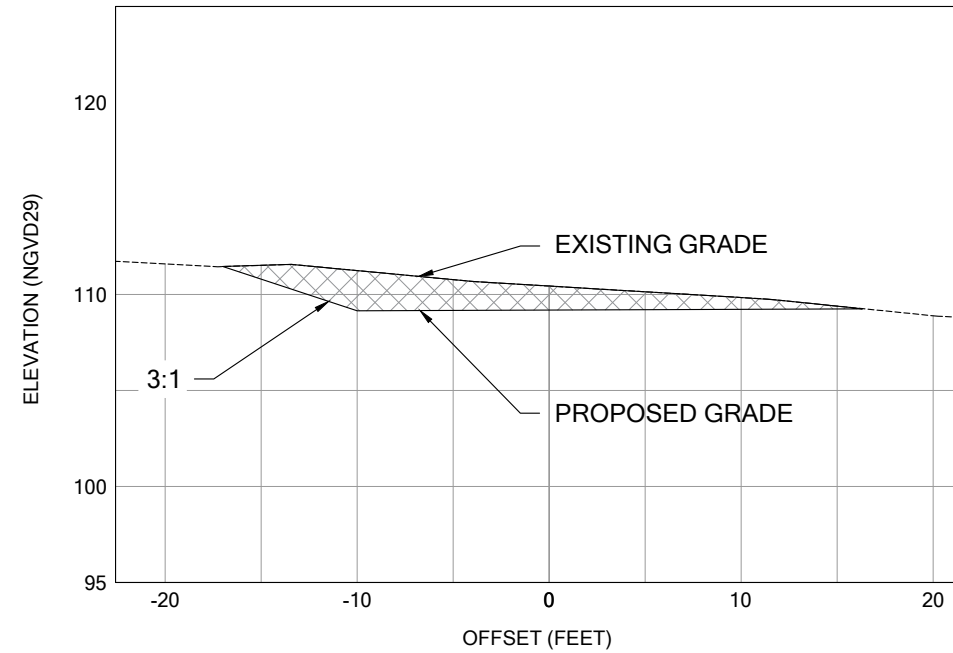
Revisions and Addendums			
Description	Date	No.	By



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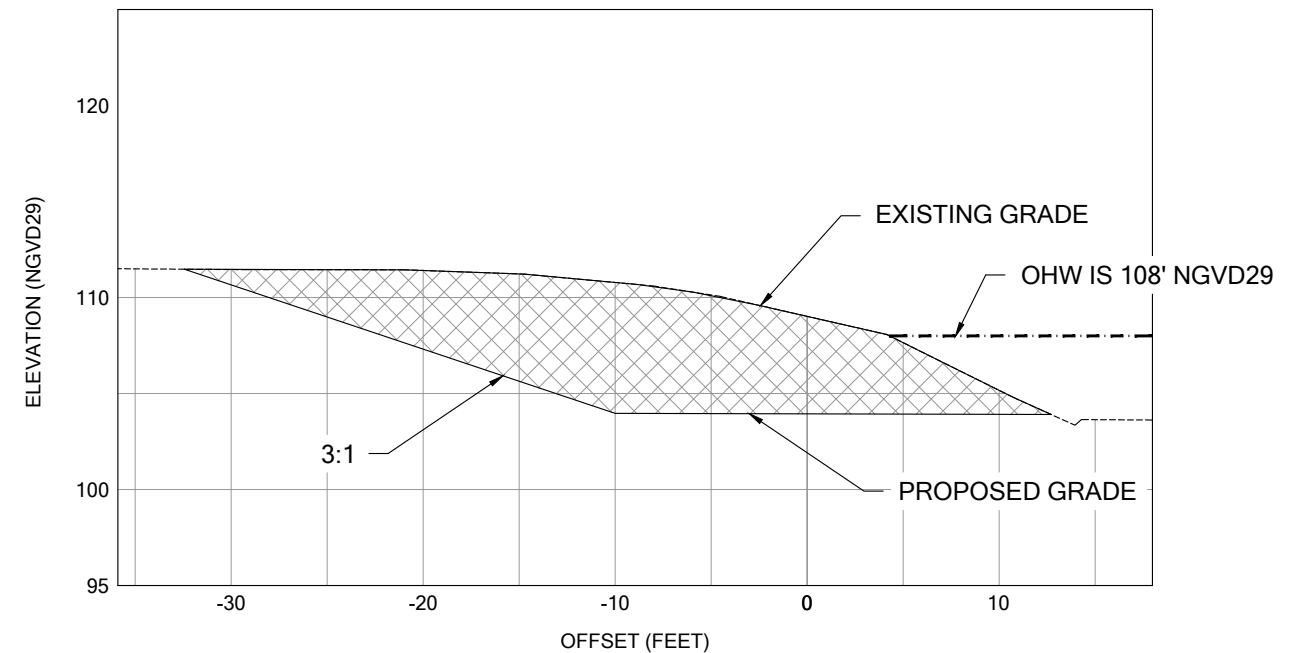
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK
EROSION CONTROL PLAN

SHEET C4.1
07 OF 19
FILE NO



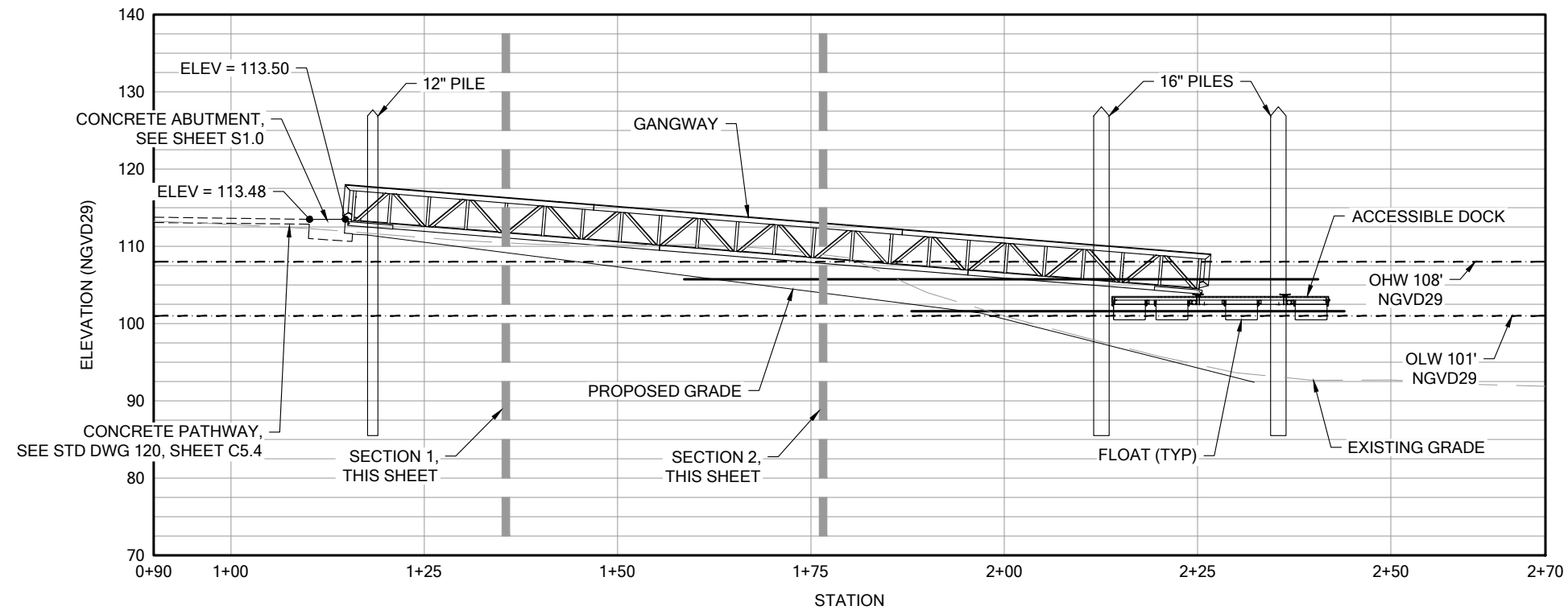
SECTION 1 PROFILE
SCALE: 1" = 5'

1
C5.1



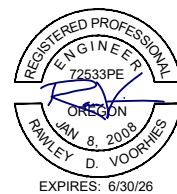
SECTION 2 PROFILE
SCALE: 1" = 5'

2
C5.1



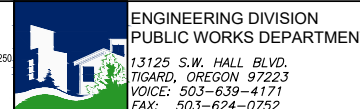
PROPOSED DOCK PROFILE
SCALE: 1" = 10'

3
C5.1



ONE INCH (REF)

Revisions and Addendums			
Description	Date	No.	By

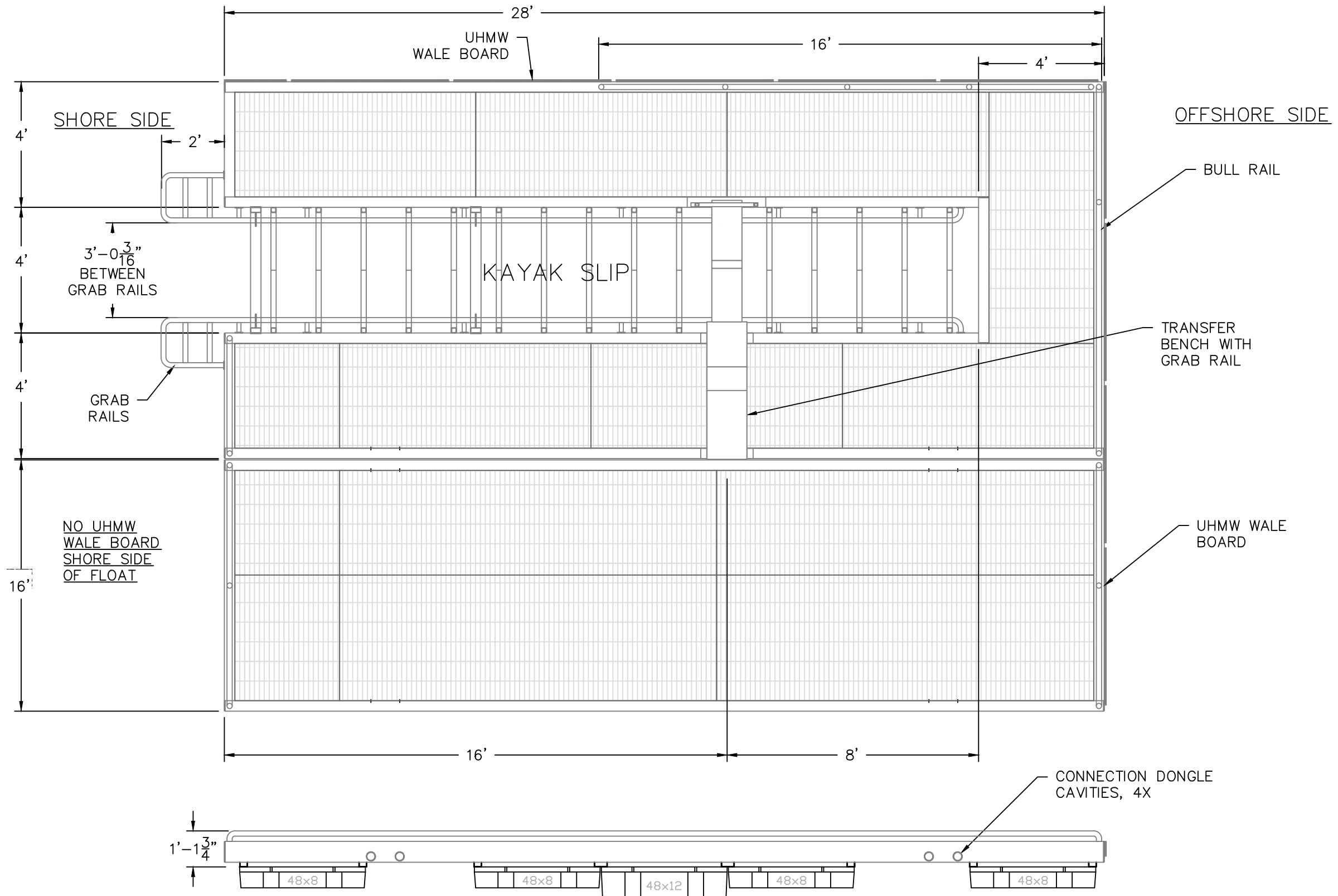


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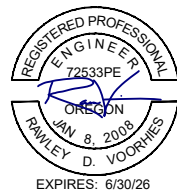
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK
SECTIONS

SHEET
C5.7
08
OF
19
FILE NO

FOR REFERENCE ONLY



OSMB Kayak Dock Prototype
Plan/Profile



ONE INCH (REF)

Revisions and Addendums			
Description	Date	No.	By



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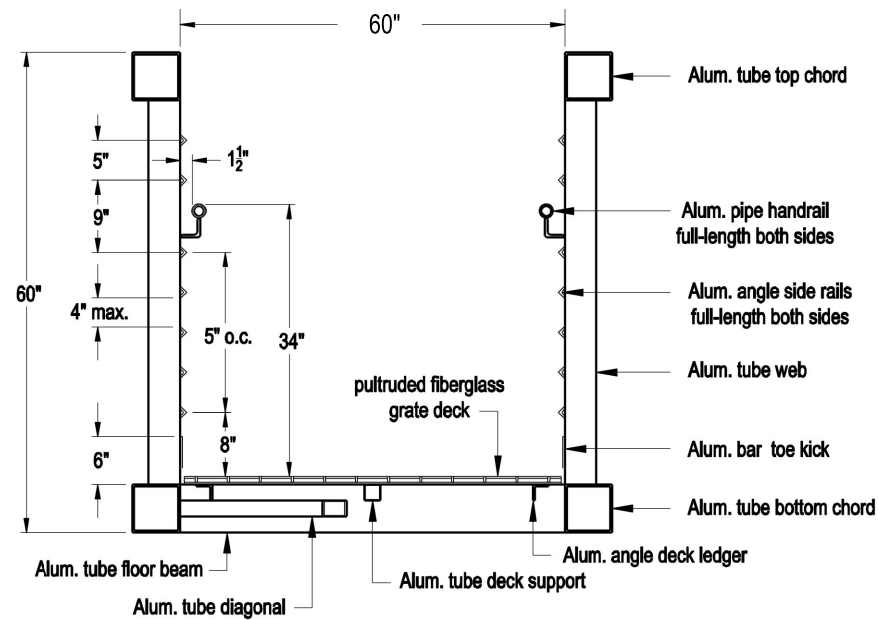
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK
BOARDING DOCK STANDARD DETAIL

SHEET
C5.2
09
OF
19
FILE NO

FOR REFERENCE ONLY

NOTES:

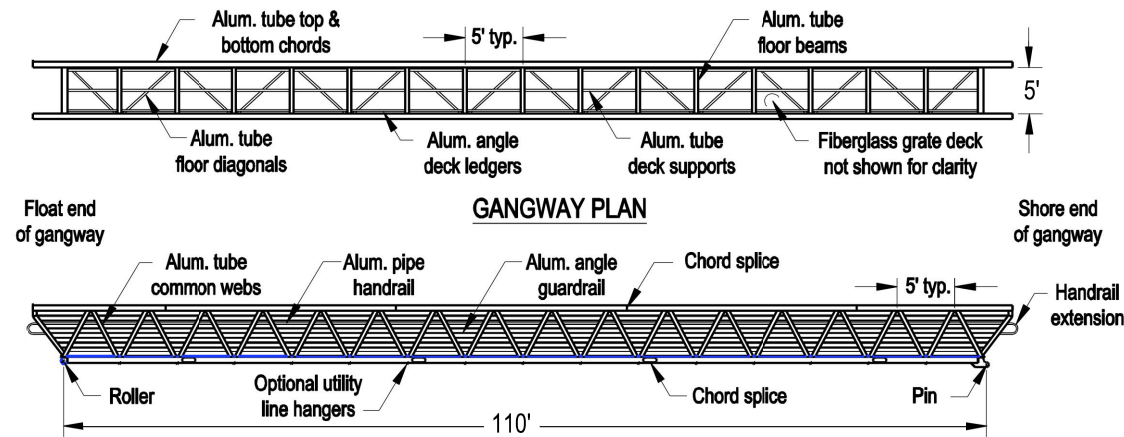
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GANGWAY SECTION

N.T.S.

1
C5.3

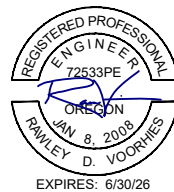


GANGWAY PROFILE

N.T.S.

2
C5.3

ONE INCH (REF)



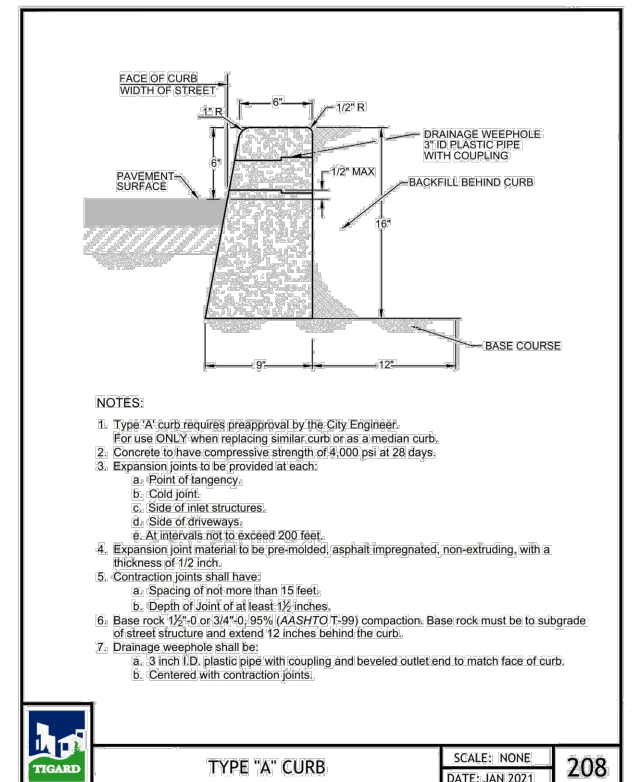
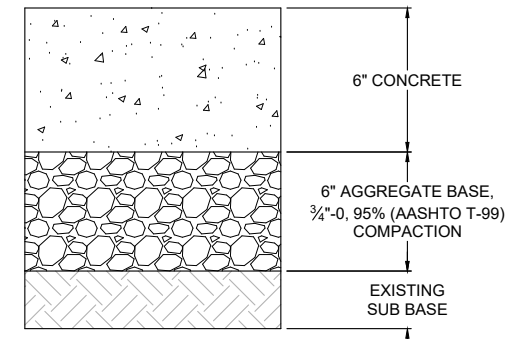
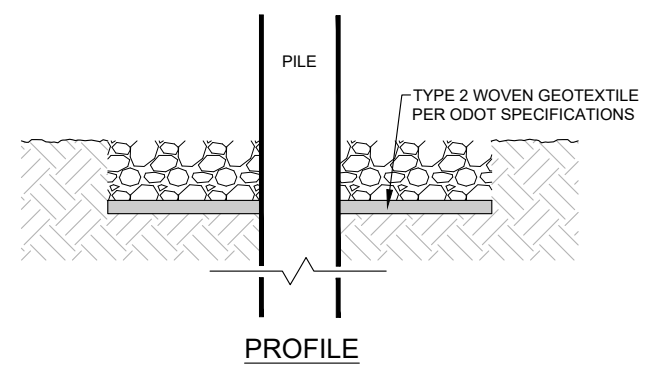
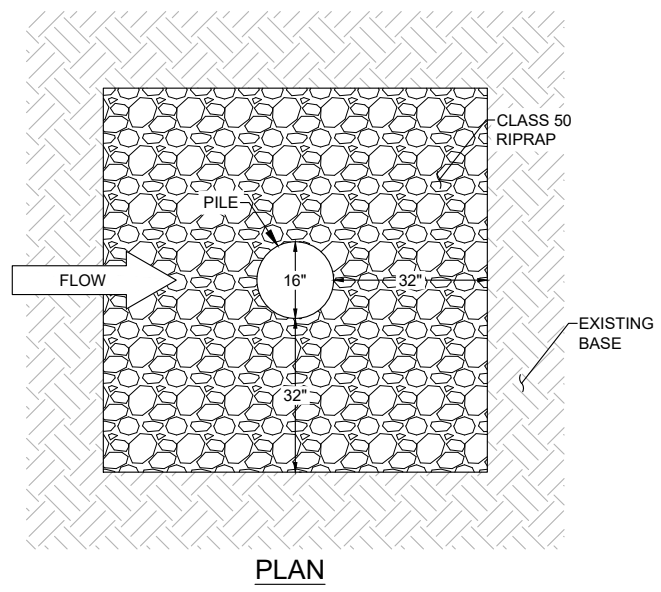
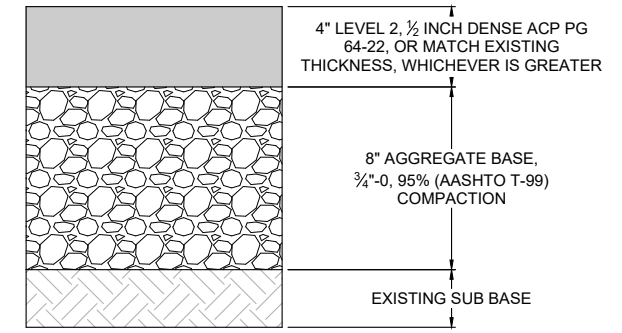
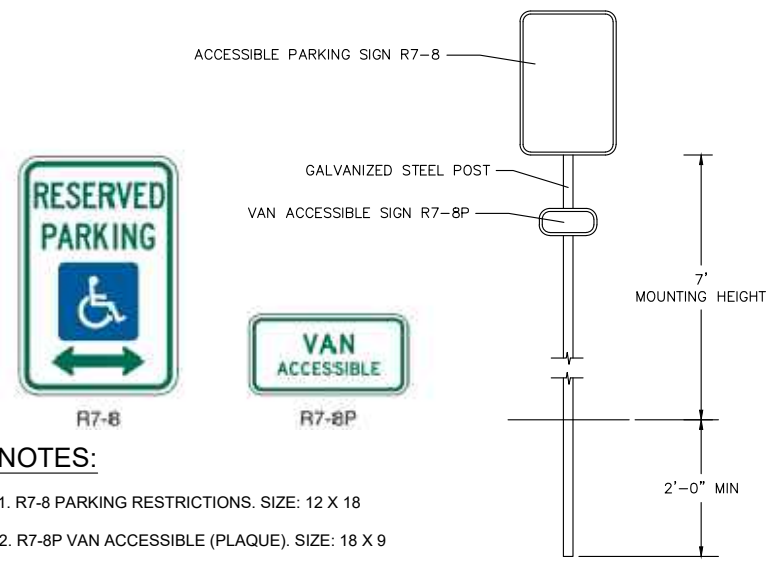
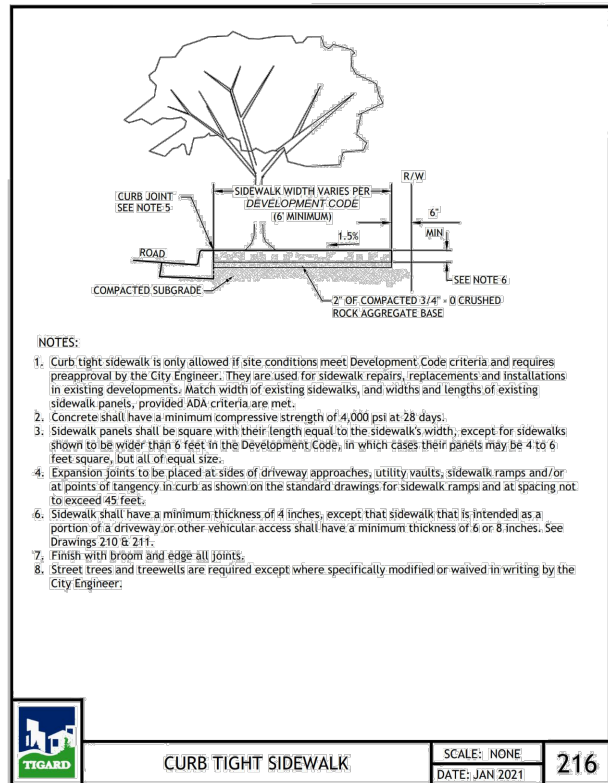
Revisions and Addendums			
Description	Date	No.	By



DESIGN: CWE | DRAWN: CWE | CHECK: RDV | PROJ. NO: 92068 | BID ON:

CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK
 BOARDING DOCK STANDARD DETAIL

SHEET
C5.3
10
OF
19
FILE NO

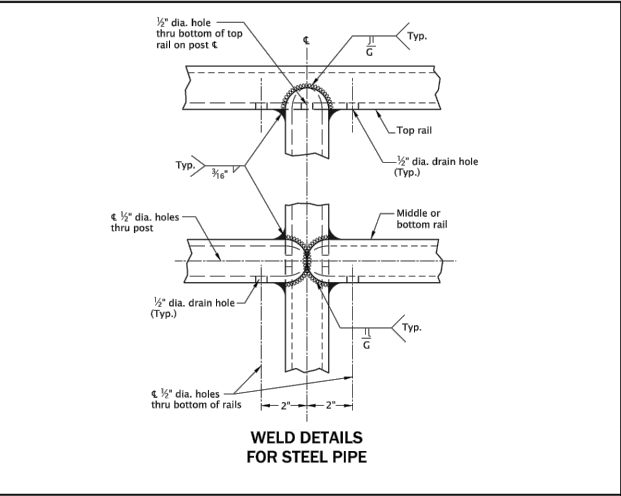
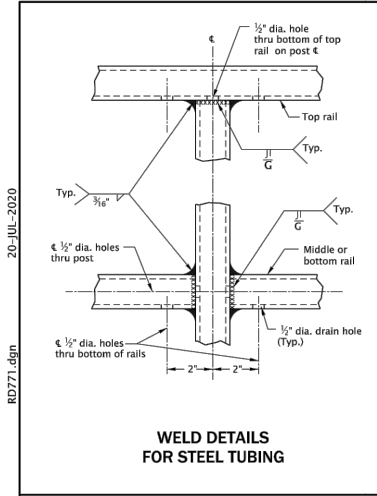
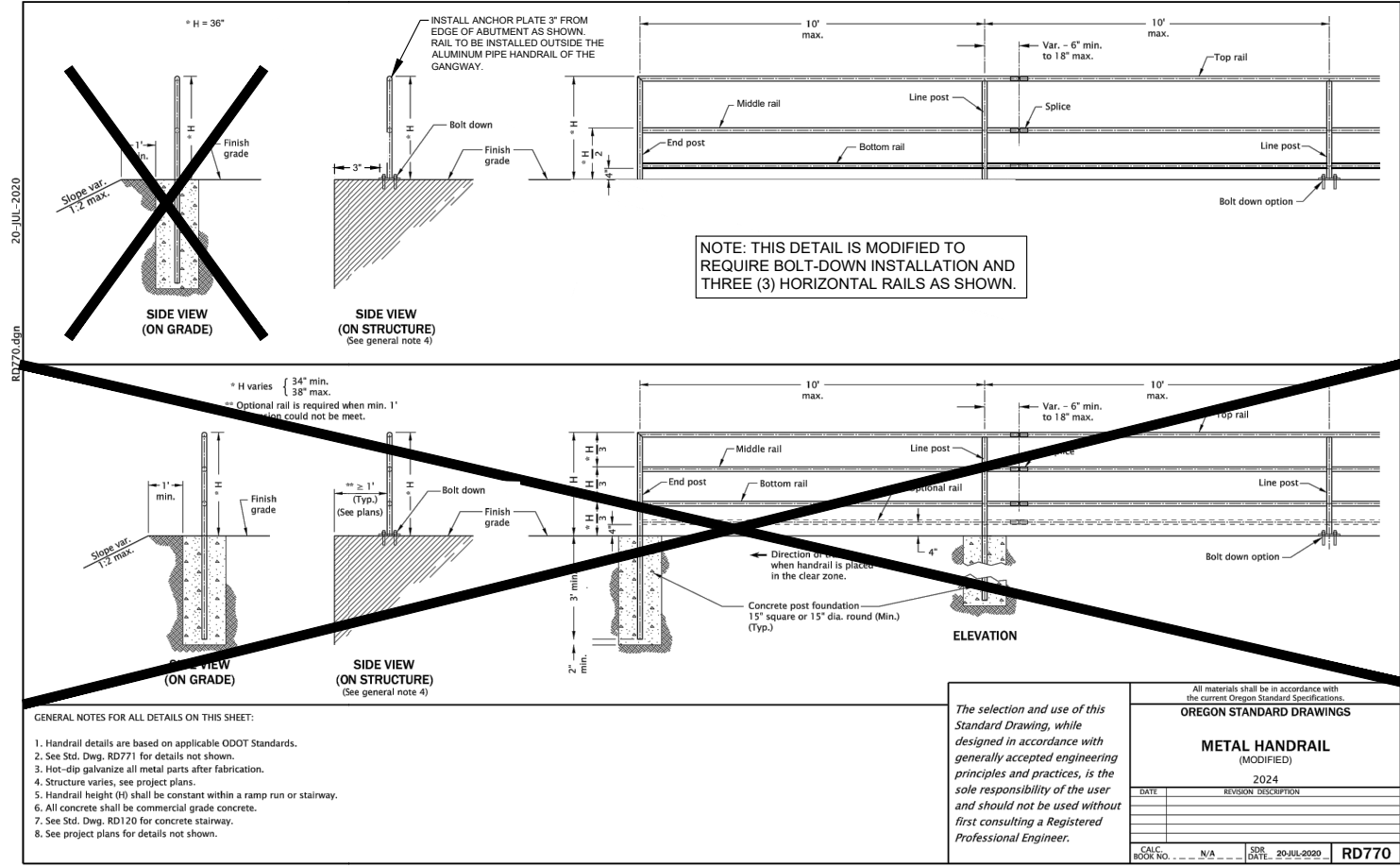


Revisions and Addendums			
Description	Date	No.	By



DESIGN: CWE | DRAWN: CWE | CHECK: RDV | PROJ. NO: 92068 | BID ON:

CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK
STANDARD DETAILS

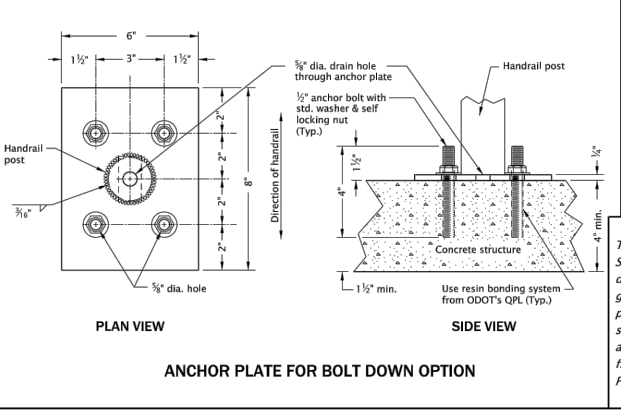
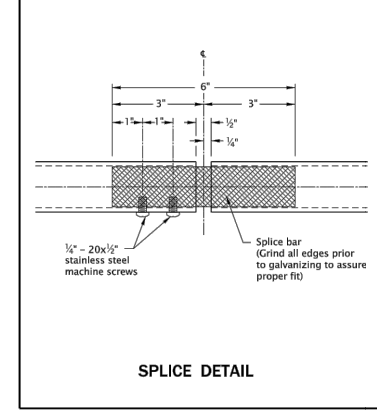


MATERIAL TABLES

STEEL PIPE POST & RAIL MEMBERS				ROUND SPLICE BAR
NOM. DIA.	SCH.	O.D.	I.D.	O.D.
1 1/2"	40	1.660"	1.380"	1 1/4"
1 1/2"	10	1.900"	1.682"	1 1/2"
1 1/2"	40	1.900"	1.610"	

SQUARE STRUCTURAL STEEL TUBING POST & RAIL MEMBERS			SQUARE SPLICE BAR
Outside Dimensions	Wall Thickness	Outside Dimensions	
1 1/2"x1 1/2"	1/8"	1"x1"	
	3/16"	3/4"x3/4"	

- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**
- Handrail details are based on applicable ODOT Standards.
 - Select materials from tables. Posts and rails shall be identical material. Structural steel tubing shall conform to ASTM specification A500, grade B.
 - Posts shall be vertical. The top rail shall be continuous over a minimum of two posts.
 - On structure, the railing shall conform to the vertical alignment of the structure. Rails shall have a splice in the post space occurring at expansion joints.
 - On grade, rails shall have splices at intervals not to exceed 10'.
 - Hot-dip galvanize all metal parts after fabrication.
 - See Std Dwg. RD770 for details not shown.
 - See Std Dwg. RD120 for concrete stairway.
 - See project plans for details not shown.



METAL HANDRAIL DETAILS

2024	
DATE	REVISION DESCRIPTION

Effective Date: June 1, 2024 - November 30, 2024

- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**
- Handrail details are based on applicable ODOT Standards.
 - See Std. Dwg. RD771 for details not shown.
 - Hot-dip galvanize all metal parts after fabrication.
 - Structure varies, see project plans.
 - Handrail height (H) shall be constant within a ramp run or stairway.
 - All concrete shall be commercial grade concrete.
 - See Std. Dwg. RD120 for concrete stairway.
 - See project plans for details not shown.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

OREGON STANDARD DRAWINGS

METAL HANDRAIL (MODIFIED)

2024

DATE	REVISION DESCRIPTION

CALC. BOOK NO. N/A DATE: 20-JUL-2020 RD770

Effective Date: June 1, 2024 - November 30, 2024

Effective Date: June 1, 2024 - November 30, 2024



ONE INCH (REF)

Revisions and Addendums			
Description	Date	No.	By



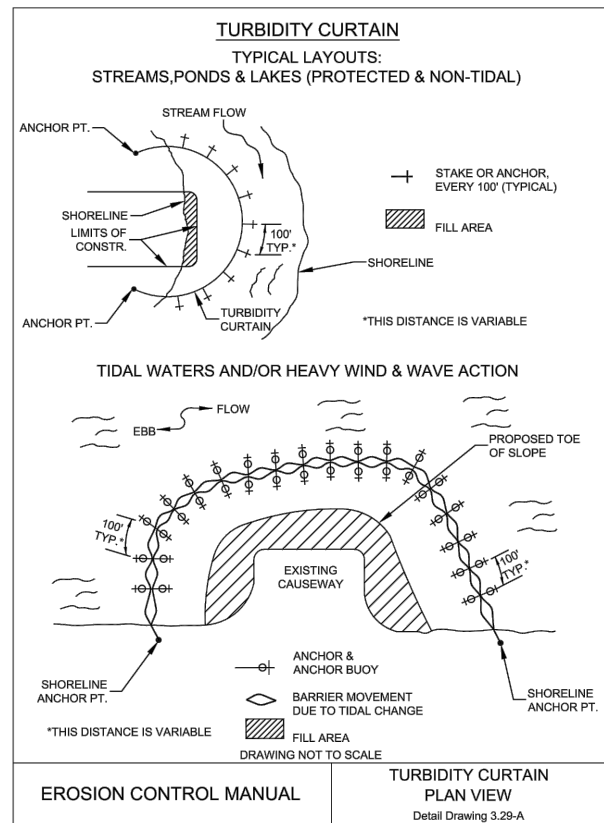
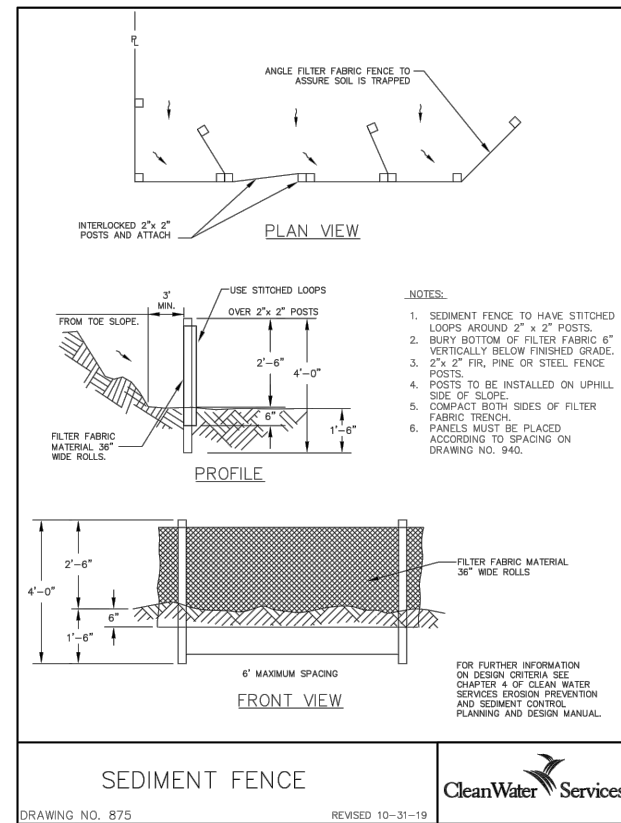
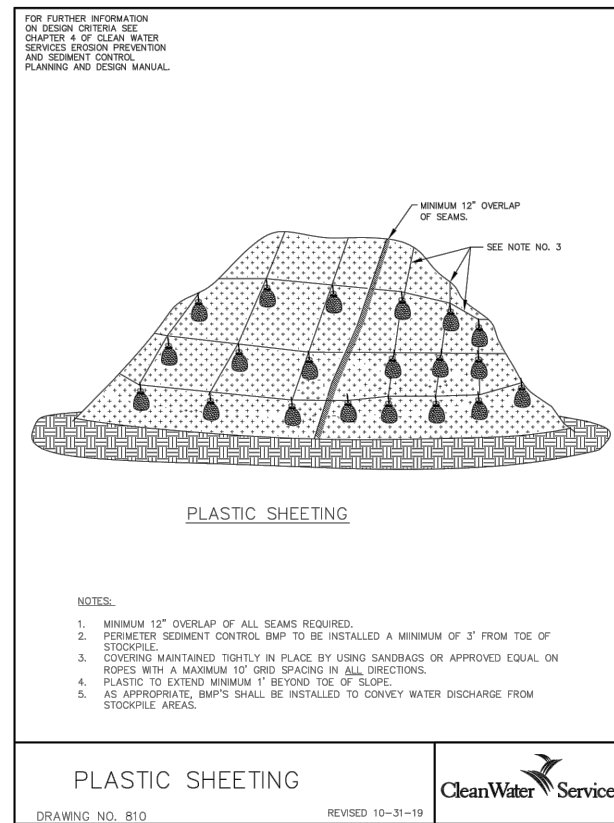
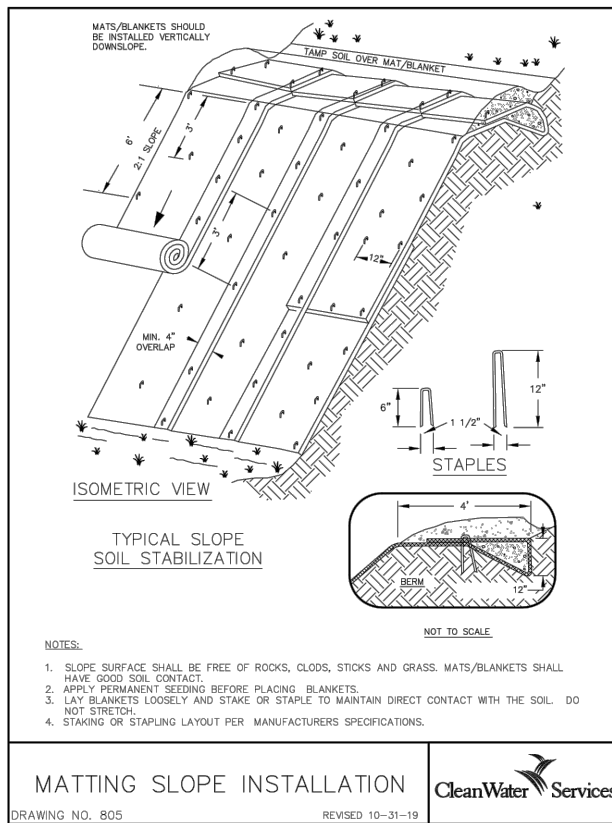
ENGINEERING DIVISION PUBLIC WORKS DEPARTMENT

13125 S.W. HALL BLVD.
TIGARD, OREGON 97223
VOICE: 503-639-4171
FAX: 503-624-0752
WWW.TIGARD-OR.GOV

DESIGN: CWE | DRAWN: CWE | CHECK: RDV | PROJ. NO: 92068 | BID ON:

CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK
STANDARD DETAILS

SHEET C5.5
12 OF 19
FILE NO



GENERAL SIGNING NOTES:

- Contractor shall supply and install all signs, and is responsible for staking sign locations and obtaining utility locates for staked sign locations. Signs shall be located per typical sign location or as shown on the plans. It is the contractor's responsibility to verify the final street names with the County Survey Office at 503-846-5773 before ordering and installing street name signs.
- All signing shall conform to the Manual on Uniform Traffic Control Devices and the City's permanent signing legends. Spacing between letters, words, numbers, and/or symbols shall be in conformance with the Standard Alphabets for Highway Signs in the MUTCD.

GENERAL SIGNING NOTES CONT.:

- A 2 x 2 inch x 10 foot (min.) galvanized "Unistrut Telespar" 12 gauge perforated posts or approved equivalent shall be used.
- Sign combinations and minimum sign mounting height shall determine post length.
- Large signs may require larger posts than the minimums shown above. See QDOT Std. Dir. (TM&B) for additional post-sizing requirements. (3 second gust wind speed = 95 MPH)
- No other type of post shall be used unless prior approval of the City Engineer is obtained.
- All signs shall be aluminum. Plywood and polyplate are not allowed.
- Contractor is required to submit shop drawings for City approval prior to fabrication of all non-standard drawings.
- 2-1/2" 7 gage heavy duty anchor is required with 2" post. 3" 7 gage heavy duty anchor is required with 2-1/2" post. See contract plan.

SIGNING CALLOUT NOTES:

- Install new sign
- Install new sign (N) on new (M) support
- Remove existing sign (N)
- Remove existing sign (N) and (M) support
- Reinstall sign (N) on new (M) support
- Maintain and protect existing sign (N) and support
- Reinstall existing sign on existing support

EXAMPLE SIGNING LEGEND:

N = Sign number
M = Materials, options are:
ST = Perforated Steel Square Tube Sign Support
SP = Sign Pole Mount
SSC = Stainless Steel Clamp
MA = Mark Arm Street Name Sign Mount

SHEETING MATERIALS:

School warning signs: Diamond grade fluorescent yellow/green reflective sheeting, Type IX
Overhead signing (including street name signs): Diamond grade reflective sheeting, Type IX
Stop signs: Diamond grade reflective sheeting, Type IX with protective overlay film
All other signs (post mounted): High intensity prismatic reflective sheeting, Type IV
One manufacturer's sheeting splice is permitted per sign. Contractor splices are not allowed. Splice shall be horizontal with the upper section overlapping the lower by a min. 1/8 inch.

TYPICAL STREET SIGN PLACEMENT:

TYPICAL INTERSECTION SIGN PLACEMENT:

TYPICAL SIGN POST INSTALLATION:

NOTES:
1. No nuts or bolts will be permitted to fasten any sign to metal posts.
2. Two drive rivets at right angles or right angle bolts shall be used to fasten the post to the anchor.

Revisions and Addendums			
Description	Date	No.	By

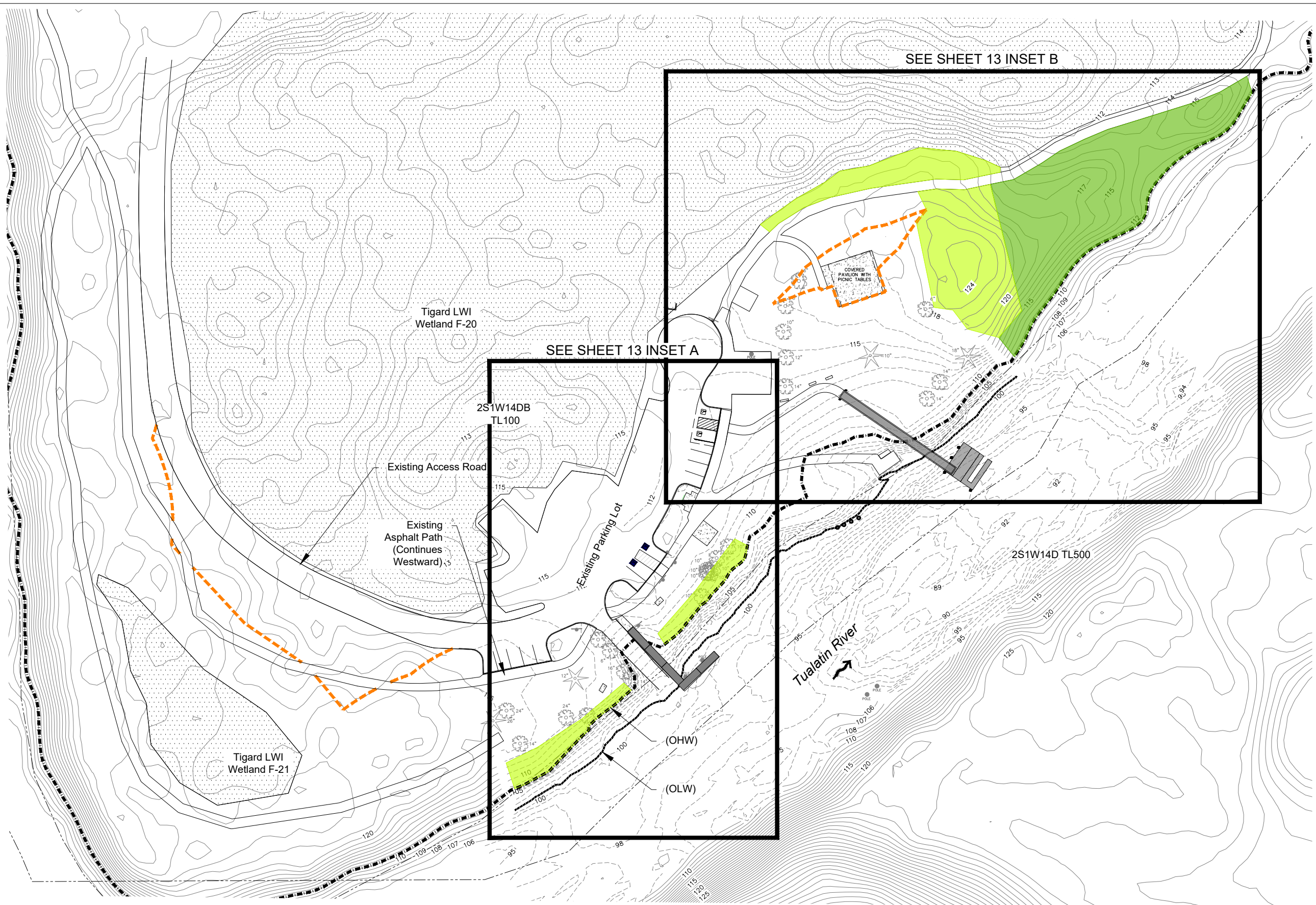
STANDARD DRAWINGS SIGNS AND SIGNPOSTS
SCALE: NONE
DATE: MAY 2022

CENTURY WEST ENGINEERING
PORTLAND OFFICE
5500 MEADOWS ROAD, SUITE 250
LAKE OSWEGO, OR 97035
503.419.2130 OFFICE
503.639.2710 FAX

ENGINEERING DIVISION PUBLIC WORKS DEPARTMENT
13125 S.W. HALL BLVD.
TIGARD, OREGON 97223
VOICE: 503-639-4171
FAX: 503-624-0752
WWW.TIGARD-OR.GOV

DESIGN: CWE | DRAWN: CWE | CHECK: RDV | PROJ. NO: 92068 | BID ON:

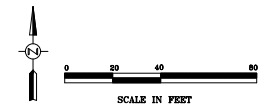




- LEGEND**
- LWI Wetland
 - Ordinary High Water (OHW) (108' Elevation NGVD29)
 - Ordinary Low Water (OLW) (101' elevation NGVD29)
 - Direction of Flow
 - Existing Contour (Westlake Survey NGVD29)
 - Existing Contour (NOAA NAVD88)
 - Tax Lot Line
 - Vegetated Corridor Enhancement (15,457 sf / 0.35 ac)
 - Mitigation Area (13,984 sf / 0.32 ac)
 - Vegetated Corridor

NOTE:
 See Sheet 15 For Insets A and B
 See Sheet 16 for Plant List.

Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum Ordinary high water (OHW) elevation flagged by Pacific Habitat Services (PHS) and surveyed by the Westlake Consultants Inc. Interpolated USGS gage data from stations on the Tualatin River confirmed the OHW elevation delineated by PHS in the project area. The Ordinary Low Water (OLW) elevation was determined by Flowing Solutions based on multiple field visits during the low water season. Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum. The approximate boundaries of Tigard LWI wetlands in the project vicinity were confirmed in the field and have an estimated accuracy of +/- 5 feet.



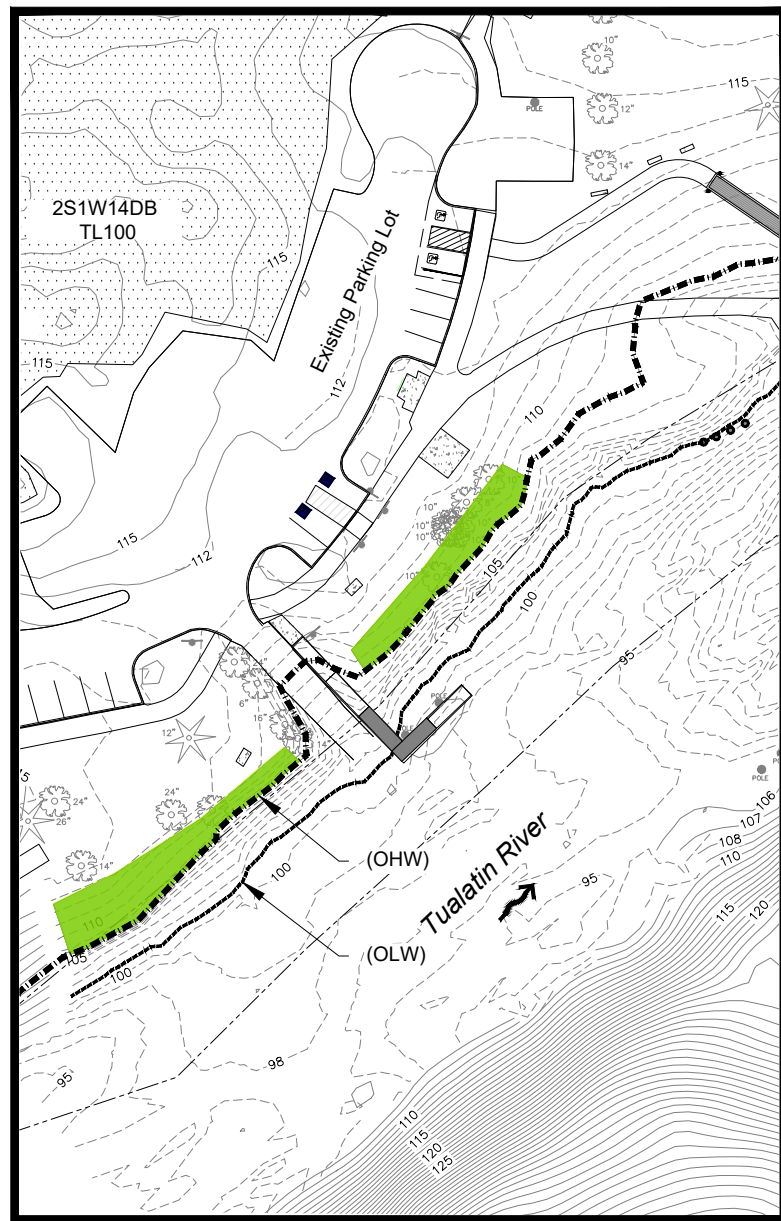
Revisions and Addendums			
Description	Date	No.	By

Pacific Habitat Services, Inc.
 1450 SW Commerce Circle, Suite 180 Wilson, Oregon 97150
 Phone: (503) 570-0800 Fax: (503) 570-0855

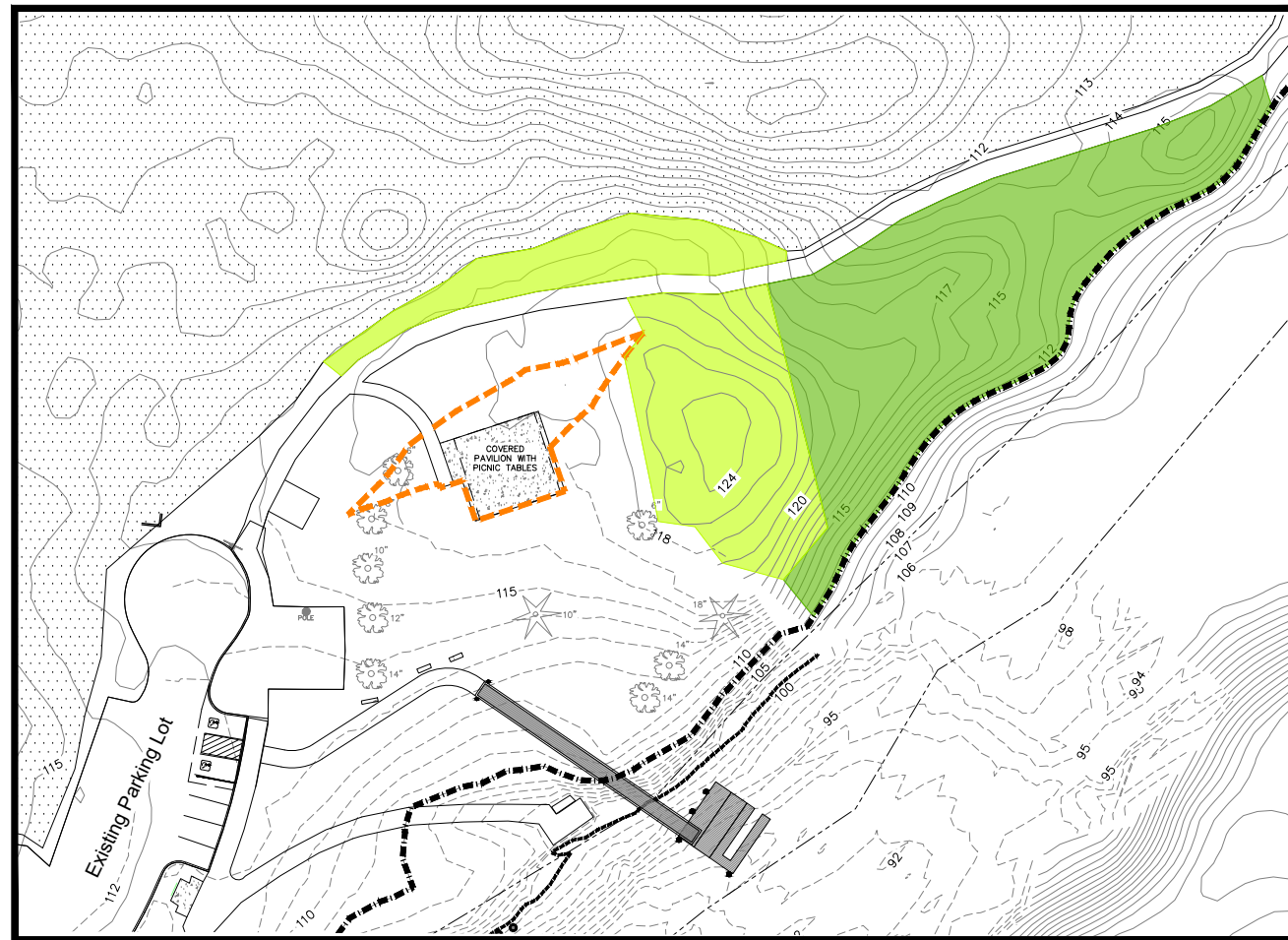
**ENGINEERING DIVISION
 PUBLIC WORKS DEPARTMENT**
 13125 S.W. HALL BLVD.
 TIGARD, OREGON 97223
 VOICE: 503-639-4171
 FAX: 503-624-0752
 WWW.TIGARD-OR.GOV

CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK
 Vegetated Corridor Enhancement and Mitigation Overview











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 FILE NO
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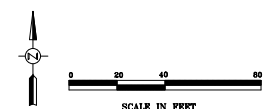
INSET A



INSET B

- LEGEND**
-  LWI Wetland
 -  Ordinary High Water (OHW) (108' Elevation NGVD29)
 -  Ordinary Low Water (OLW) (101' elevation NGVD29)
 -  Direction of Flow
 -  Existing Contour (Westlake Survey NGVD29)
 -  Existing Contour (NOAA NAVD88)
 -  Tax Lot Line
 -  Vegetated Corridor Enhancement (15,457 sf / 0.35 ac)
 -  Mitigation Area (13,984 sf / 0.32 ac)
 -  Vegetated Corridor

Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum
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 Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum. The approximate boundaries of Tigard LWI wetlands in the project vicinity were confirmed in the field and have an estimated accuracy of +/- 5 feet.



Revisions and Addendums			
Description	Date	No.	By

 Pacific Habitat Services, Inc. <small>9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97170 Phone: (503) 570-0850 Fax: (503) 570-0855</small>	 ENGINEERING DIVISION PUBLIC WORKS DEPARTMENT <small>13125 S.W. HALL BLVD. TIGARD, OREGON 97223 VOICE: 503-639-4171 FAX: 503-624-0752 WWW.TIGARD-OR.GOV</small>			
DESIGN:	DRAWN:	CHECK:	PROJ. NO:	BID ON:

CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK
 Vegetated Corridor Enhancement and Mitigation Plan (Insets A and B)

SHEET C6.2
16 OF 19
FILE NO 14

Species (Latin name)	Common Name	Quantity	Form
Enhancement Areas			
Trees (40*)			
<i>Acer circinatum</i>	Vine maple	20	2 gallon container
<i>Acer macrophyllum</i>	Big-leaf maple	5	2 gallon container
<i>Cornus nuttallii</i>	Western flowering dogwood	5	1 gallon container
<i>Pseudotsuga menziesii</i>	Douglas-fir	10	2 gallon container
Shrubs (200*)			
<i>Amelanchier alnifolia</i>	Serviceberry	25	2 gallon container
<i>Holodiscus discolor</i>	Oceanspray	25	1 gallon container
<i>Mahonia aquifolium</i>	Tall Oregon grape	50	1 gallon container
<i>Rubus parviflorus</i>	Thimbleberry	50	1 gallon container
<i>Symphoricarpos albus</i>	Snowberry	50	1 gallon container
*Tree and shrub quantities reduced from standard based on existing woody plants.			
Mitigation Area			
Trees (35**)			
<i>Acer circinatum</i>	Vine maple	9	2 gallon container
<i>Acer macrophyllum</i>	Big-leaf maple	8	2 gallon container
<i>Cornus nuttallii</i>	Western flowering dogwood	9	1 gallon container
<i>Pseudotsuga menziesii</i>	Douglas-fir	9	2 gallon container
Shrubs (699)			
<i>Amelanchier alnifolia</i>	Serviceberry	140	2 gallon container
<i>Holodiscus discolor</i>	Oceanspray	140	1 gallon container
<i>Mahonia aquifolium</i>	Tall Oregon grape	140	1 gallon container
<i>Rubus parviflorus</i>	Thimbleberry	139	1 gallon container
<i>Symphoricarpos albus</i>	Snowberry	140	1 gallon container

**Tree quantities reduced from standard based on existing canopy.

Botanical Name	Common Name	% of Mix by Weight
Seed List for Bare Ground		
<i>Achillea millifolium</i>	Common yarrow	2
<i>Bromus carinatus</i>	California brome	25
<i>Elymus glaucus</i>	Blue wildrye	25
<i>Hordeum branchyantherum</i>	Meadow barley	33
<i>Lupinus rivularis</i>	Riverbank lupine	15
<i>Triticum aestivum x Elytrigia elongata</i>	Regreen	30 lbs/acre

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DESIGN: DRAWN: CHECK: PROJ. NO: BID ON:

CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK
Vegetated Corridor Enhancement and Mitigation Plant List

SHEET
C6.3
17
OF
19
FILE NO
14

GENERAL NOTES:

PROJECT NARRATIVE:

THIS PROJECT CONSISTS OF A PRE-MANUFACTURED DOCK AND GANGWAY WHICH WILL PREPLACE THE EXISTING STRUCTURE. THE SCOPE OF THESE DRAWING IS LIMITED TO PILE AND ABUTMENT DESIGN.

GOVERNING DESIGN CODES:

- A) INTERNATIONAL BUILDING CODE 2021 EDITION WITH LOCAL AREA AMENDMENTS (IBC-21)
- B) AISI MANUAL OF STEEL CONSTRUCTION 15TH EDITION (AISC 360-15)
- C) BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE 2015 EDITION (ACI 318-15)

DESIGN CRITERIA:

DESIGN WAS BASED ON THE STRENGTH AND DEFLECTION CRITERIA OF THE (066C/IBC). IN ADDITION COMPONENT SELF WEIGHT (DEAD LOAD). THE FOLLOWING LOADS WERE USED FOR DESIGN:

- A) GRAVITY DESIGN CRITERIA:
 - LIVE LOADS:
 - DOCK 100 PSF
 - SNOW LOADS:
 - ROOF SNOW 25 PSF (HIGHER AT SNOW DRIFT AREAS)
- B) LATERAL DESIGN CRITERIA:
 - WIND LOADS:
 - WIND SPEED 98 MPH
 - WIND EXPOSURE CATEGORY C
 - C) ALLOWABLE SOIL BEARING 1500 PSF (ASSUMED)
 - D) DESIGN CURRENT 1.65 FTS BASED ON SCOUR ANALYSIS # 15. PROBABILITY FOR ANNUAL OCCURRENCE PER WEST CONSULTANTS TECHNICAL MEMORANDUM DATED DEC. 15TH 2023.
 - E) PILE DESIGN CRITERIA RECOMMENDATIONS AND GEOTECHNICAL PARAMETERS PER GEOTECHNICAL REPORT BY SHANNON AND WILSON DATED JAN. 2024

SUBMITTALS:

- 1. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT AND ENGINEER OF RECORD PRIOR TO FABRICATION AND CONSTRUCTION REGARDING ALL STRUCTURAL ITEMS, INCLUDING THE FOLLOWING:
 - A) CONCRETE MIX DESIGNS
 - B) CONCRETE REINFORCING
 - C) EMBEDDED STEEL ITEMS
 - D) STRUCTURAL STEEL
- 2. IF THE SHOP DRAWINGS DIFFER FROM OR ADD TO THE DESIGN OF THE DRAWINGS, THEY SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON. ANY CHANGES TO THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT AND ARE SUBJECT TO REVIEW AND ACCEPTANCE OF THE ENGINEER. FIELD ENGINEERED DETAILS DEVELOPED BY THE CONTRACTOR THAT DIFFER FROM OR ADD TO THE STRUCTURAL DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO CONSTRUCTION.

INSPECTION:

- 1. SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR SHALL BE PERFORMED FOR THE FOLLOWING:

TYPE	FREQUENCY
EMBEDDED BOLT PLACEMENT	PERIODIC
MECHANICAL ANCHOR PLACEMENT	CONTINUOUS
ADHESIVE ANCHORS	CONTINUOUS
SOILS COMPACTION	PERIODIC
CONCRETE PLACEMENT	CONTINUOUS
STEEL FABRICATION AND ERECTION	PERIODIC
HIGH STRENGTH BOLTING AND WELDING	PERIODIC

- 2. ALL SOIL-BEARING SURFACES SHALL BE INSPECTED BY THE BUILDING INSPECTOR PRIOR TO PLACEMENT OF REINFORCING STEEL.
- 3. ALL WELDS SHALL BE VISUALLY INSPECTED. ALL COMPLETE PENETRATION WELDS SHALL BE TESTED ULTRASONICALLY OR USING ANOTHER APPROVED METHOD.
- 4. PILE INSTALLATION SHALL BE OBSERVED BY THE GEOTECHNICAL ENGINEER.

CONCRETE:

CONCRETE WORK SHALL CONFORM TO ACI 318. CONCRETE STRENGTHS GREATER THAN F_c + 2500 PSI SHALL BE VERIFIED BY STANDARD 28-DAY CYLINDER TESTS PER ASTM C39. FIELD CURED CYLINDERS PER ASTM C31 AND SHALL BE AS FOLLOWS:

F' C (PSI)	ABSOLUTE WATER-CEMENT RATIO BY WEIGHT		USE	MIN. CEMENT
	NON AIR-ENTRAINED	AIR-ENTRAINED		
4000	.58	.46	ALL USES UNLESS OTHERWISE NOTED	470 LBS/YD

HIGHER WATER/CEMENT RATIOS THAN SHOWN ABOVE MAY BE USED IF SUBSTANTIATED IN ACCORDANCE WITH ACI 318.

THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS, ALONG WITH TEST DATA AS REQUIRED, A MINIMUM OF TWO WEEKS PRIOR TO PLACING CONCRETE.

CONCRETE ADMIXTURES, AGGREGATES AND WATER SHALL MEET THE REQUIREMENTS OF ACI CHAPTER 16.4. COARSE AND FINE AGGREGATES SHALL CONFORM TO ASTM C33 FOR NORMAL WEIGHT CONCRETE. FLY-ASH CONFORMING TO ASTM C618, TYPE F OR TYPE G, MAY BE USED TO REPLACE UP TO 20% OF THE CEMENT PROVIDED THAT THE MIX STRENGTH IS SUBSTANTIATED BY TEST DATA. A WATER-REDUCING ADMIXTURE CONFORMING TO ASTM C494 USED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION, SHALL BE INCORPORATED IN CONCRETE DESIGN MIXES. A HIGH-RANGE WATER-REDUCING (HARW) ADMIXTURE CONFORMING TO ASTM C494, TYPE F OR G, MAY BE USED IN CONCRETE MIXES, PROVIDING THAT THE SLUMP DOES NOT EXCEED 10". AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260 SHALL BE USED IN CONCRETE MIXES FOR EXTERIOR HORIZONTAL SURFACES EXPOSED TO WEATHER. THE AMOUNT OF ENTRAINED AIR SHALL BE 5% ± 1% BY VOLUME.

SLEEVES, OPENINGS, CONDUIT, AND OTHER EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER BEFORE POURING. CONDUITS EMBEDDED IN SLABS SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN ONE THIRD OF THE THICKNESS OF THE SLAB AND SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS ON CENTER. PROVIDE ¼" CHAMFERS ON ALL EXPOSED CONCRETE EDGES UNLESS NOTED OTHERWISE.

REINFORCING STEEL:

- 1. REINFORCING STEEL SHALL CONFORM TO ASTM A63, INCLUDING B1 GRADE 60, FOR DEFORMED BARS AND ASTM A618 FOR SMOOTH WELDED WIRE FABRIC (WWF), UNLESS OTHERWISE NOTED. REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706.
- 2. BARS IN BEAMS AND SLABS SHALL BE SUPPORTED ON WELL-CURED CONCRETE BLOCKS OR APPROVED METAL CHAIRS AS SPECIFIED BY THE CRSI MANUAL OF THE STANDARD PRACTICE. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 318.
- 3. SHOP DRAWINGS SHALL INCLUDE ELEVATIONS OF ALL BEAMS AND COLUMNS SHOWING BAR LOCATIONS, LAP ALL REINFORCING BARS AT SPLICES 48 DIAMETERS, WITH A MINIMUM LAP OF 18". EXCEPT AS NOTED, MECHANICAL SPLICES NOTED ON THE PLANS SHALL BE DAYTON BAR-GRIP SPLICES OR APPROVED WITH A CURRENT ICBO APPROVAL REPORT.

REINFORCING STEEL SHALL HAVE PROTECTION AS FOLLOWS:

USE	COVER
FOOTING REINFORCING	3"

CONCRETE ACCESSORIES:

- 1. HEADED SHEAR STUDS SHALL BE NELSON HEADED ANCHORS WITH FLUXED ENDS OR APPROVED EQUIVALENT. DEFORMED BAR ANCHORS (DBA) SHALL BE NELSON, TYPE DA, OR APPROVED EQUIVALENT. STUDS AND DBA SHALL BE AUTOMATICALLY END-WELDED WITH THE MANUFACTURER'S STANDARD EQUIPMENT IN ACCORDANCE WITH THEIR RECOMMENDATIONS. EXPANSION BOLTS SHALL BE SIMPSON STRONG BOLTS OR APPROVED SUBSTITUTE WITH EQUIVALENT ICBO ALLOWABLE TENSION AND SHEAR VALUES.
- 2. PERMANENTLY EXPOSED EMBEDDED PLATES AND ANGLES SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION, UNLESS OTHERWISE NOTED. NO LOADS OR WELDS SHALL BE PLACED ON EMBEDDED PLATES OR ANGLES FOR A MINIMUM OF 1 DAY AFTER CASTING.

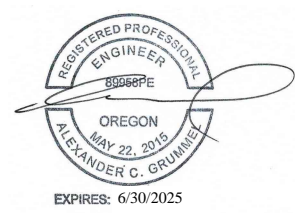
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STRUCTURAL STEEL:

- 1. STRUCTURAL STEEL GRADES SHALL BE AS FOLLOWS:
 - A) ANGLES, CHANNELS AND PLATES ASTM A36 OR A572 GRADE 50
 - B) STRUCTURAL PIPES ASTM A53 GRADE B (75%MIN)
 - C) HEADED ANCHOR STUDS (H.A.S.) ASTM A09 AND A16 D11
 - D) WELDING ELECTRODES A58 D11 E70 SERIES
 - E) GALVANIZED FINISH ASTM A102
- 2. WELDS SHALL BE MADE USING E70XX ELECTRODES AND SHALL BE 3/16" MINIMUM UNLESS OTHERWISE NOTED. WELDING SHALL BE BY AWS CERTIFIED WELDERS. PREQUALIFIED WELDING PROCEDURES ARE TO BE USED, UNLESS AWS QUALIFICATION IS SUBMITTED TO THE ARCHITECT AND ENGINEER OF RECORD PRIOR TO FABRICATION.
- 3. ALL EXPOSED STEEL OUTSIDE THE BUILDING ENVELOPE SHALL BE HOT-DIPPED GALVANIZED. COLD GALVANIZE INTERRUPTIONS IN GALVANIZATION THAT OCCUR DUE TO ERECTION PER ASTM A780.

DRIVEN PILES:

- 1. FILE DESIGN
 - A) PILES TO BE STEEL PIPES AND CONFORM TO ASTM A252 GRADE 3 (F_y + 46 KSI)
 - B) SIZE AND SHAPE OF PILES SHOWN ON PLANS.
- 2. FILE INSTALLATION
 - A) PILES TO BE DRIVEN OR INSTALLED OPEN ENDED WITH VIBRATION DRIVING.
 - B) INSTALLATION TO FOLLOW GEOTECHNICAL RECOMMENDATIONS.
 - C) PILES TO BE DRIVEN A MINIMUM 30 FT BELOW GRADE FOR RESISTANCE TO LATERAL LOADS. NO GRAVITY LOADS (AXIAL LOADS) ARE REQUIRED OF THE PILES.



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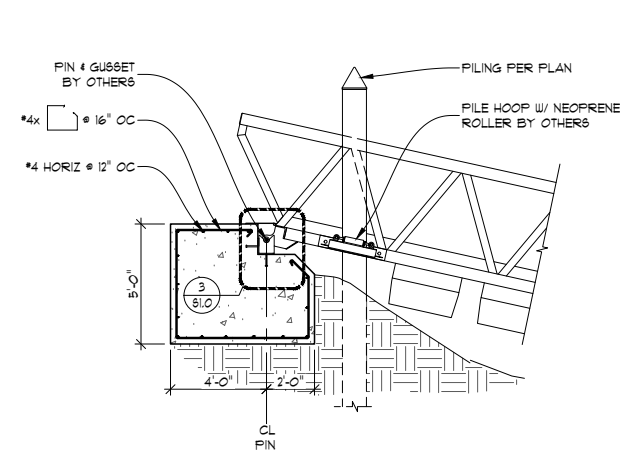
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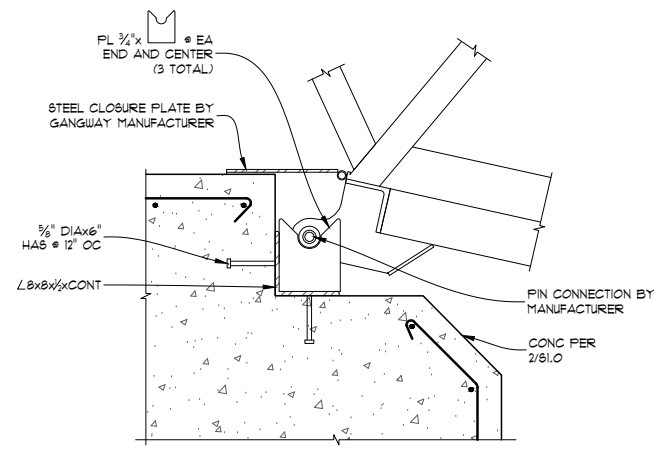
**CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK
STRUCTURAL GENERAL NOTES**

DESIGN: ACG	DRAWN: JSM	CHECK:	PROJ. NO:	BID ON:
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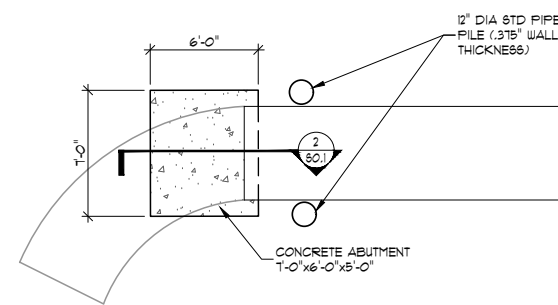
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18 OF 19
FILE NO



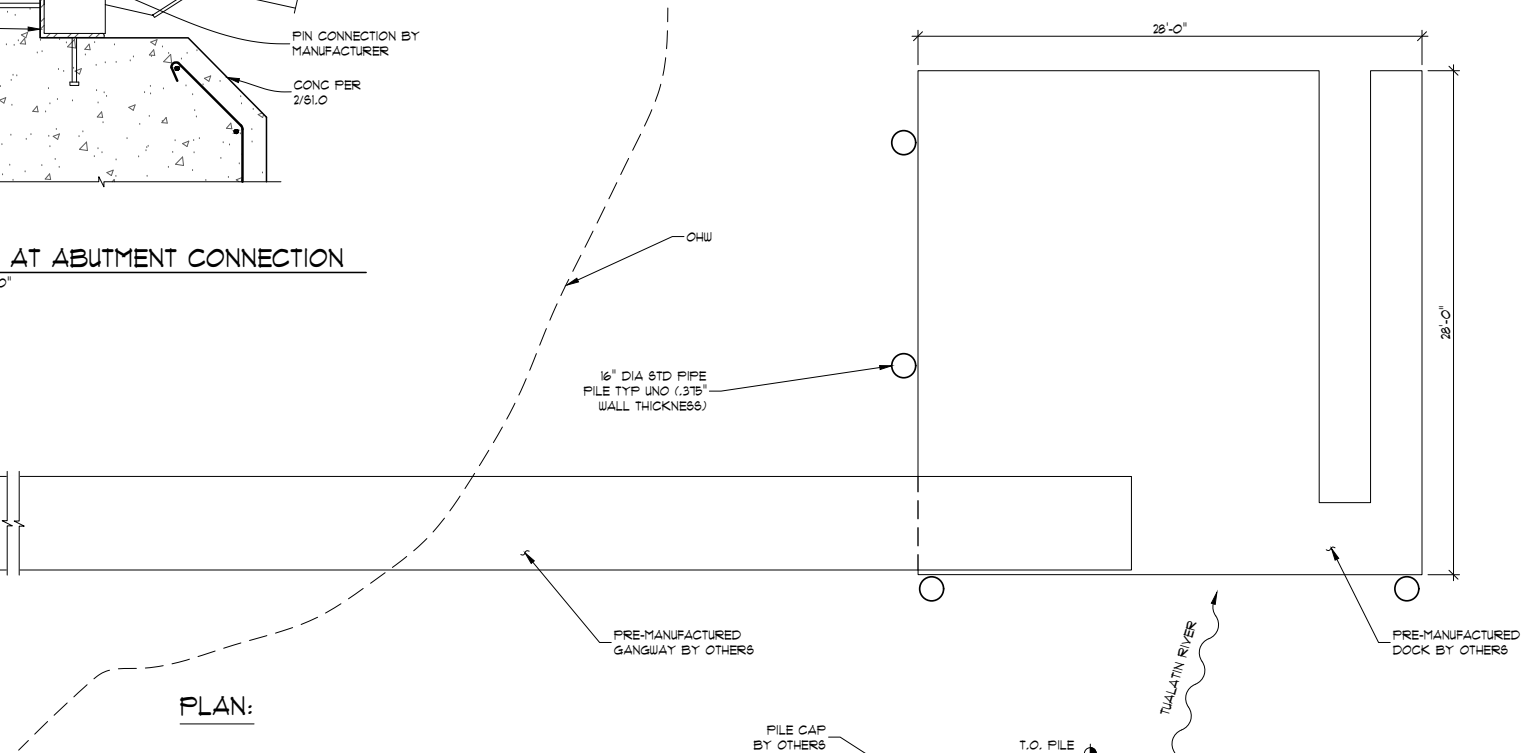
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S1.0 SECTION AT ABUTMENT
SCALE: 1/4" = 1'-0"



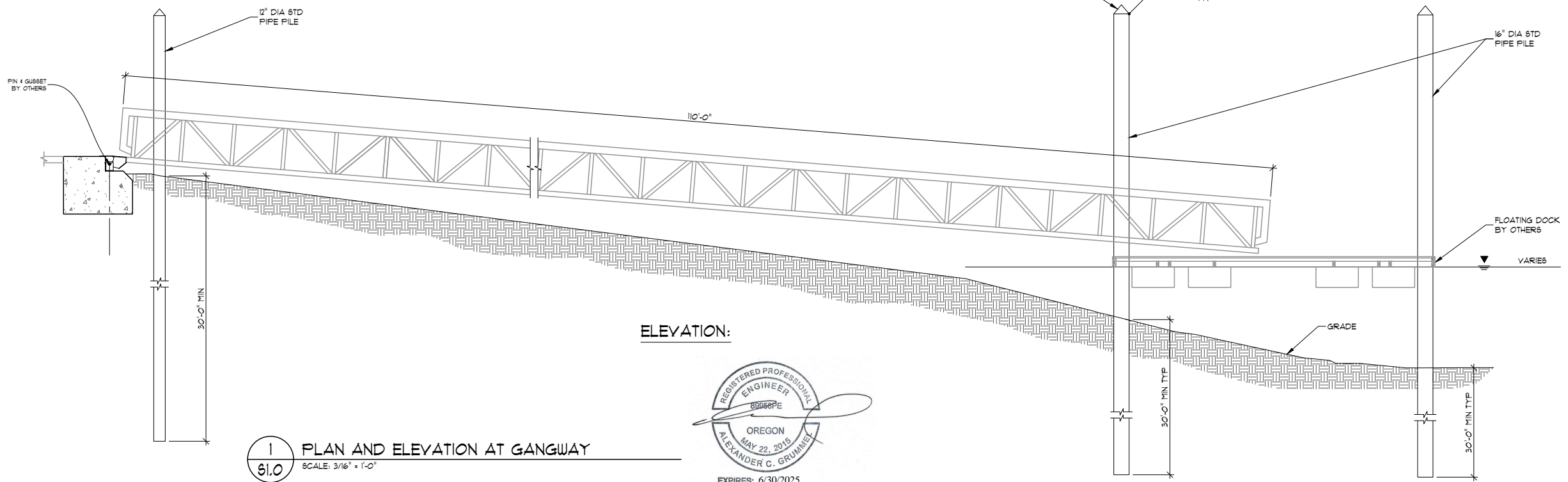
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S1.0 DETAIL AT ABUTMENT CONNECTION
SCALE: 1" = 1'-0"



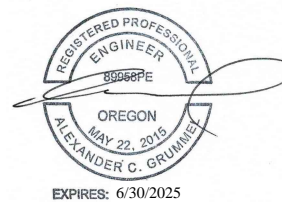
1
S1.0 PLAN AND ELEVATION AT GANGWAY
SCALE: 3/16" = 1'-0"



PLAN:



ELEVATION:



ONE INCH (REF)

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