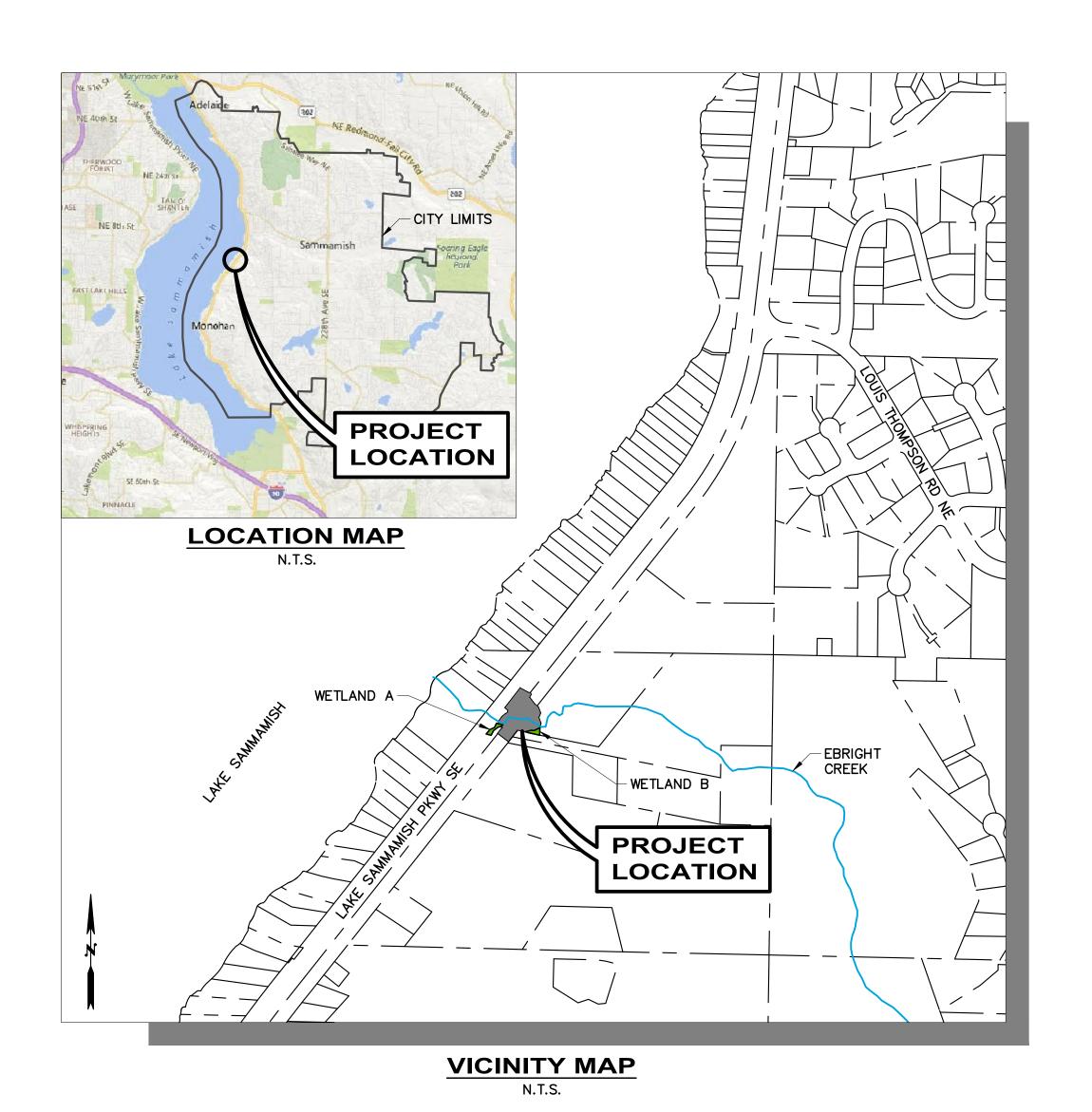
# CITY OF SAMMAMISH EBRIGHT CREEK FISH PASSAGE



#### **UTILITY COORDINATION CONTACTS: UTILITIES:**

EASTSIDE FIRE & RESCUE (425)392-3433 SAMMAMISH PLATEAU WATER (425)392-6256 COMCAST (253)303-2723 PUGET SOUND ENERGY (GAS) (425)449-7410 PUGET SOUND ENERGY (POWER) (425)223-0936 CENTURY LINK (425)677-0744 (425)261-6342 ZIPLY (FIBER) **VERIZON (FIBER)** (425)229-3123

#### **CITY OF SAMMAMISH:**

PROJECT MANAGER

STEPHANIE SULLIVAN, PE, M. ASCE (425)295-0560

MAYOR

KAREN MORAN (425) 295-0500

DEPUTY MAYOR

CHRISTIE MALCHOW (425) 295-0500

CITY MANAGER

**ACTING PUBLIC WORKS DIRECTOR** 

CHERYL PASTON (425) 295-0572

CITY ENGINEER

**ANDREW ZAGARS** (425) 295-0561

#### RECOMMENDED FOR APPROVAL:

PROJECT ENGINEER (STEPHANIE SULLIVAN) APPROVED BY:

CITY ENGINEER (ANDREW ZAGARS) PUBLIC WORKS DIRECTOR (CHERYL PASTON)

#### **SURVEYOR:**

DUANE HARTMAN & ASSOCIATES, INC. 16928 WOODINVILLE-REDMOND ROAD, B-107 WOODINVILLE, WASHINGTON 98072 (425) 483-4650

#### **ENGINEERING:**

OSBORN CONSULTING, INC. LAURA RUPPERT, PE 1800 112TH AVE. NE, SUITE 220E BELLEVUE, WA 98004 (425) 451-4009

#### DATUM:

HORIZONTAL DATUM: WASHINGTON STATE COORDINATE SYSTEM, NORTH ZONE NAD83(91), US FEET UTILIZING RTK GPS FIELD PROCEDURES WITH A COMBINED SCALE FACTOR OF (SC) 0.99996835. EXTENDED TO SITE FROM WSDOT CONTROL POINT #38611.

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88), US FEET. AS EXTENDED TO THE SITE VIA TRIMBLE RTKGPS TECHNIQUES

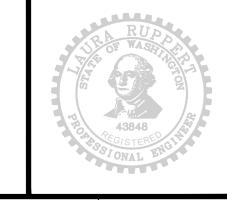
#### **SHEET INDEX**

#### SHEET # SHEET TITLE

- COVER SHEET, VICINITY MAP, AND SHEET INDEX
- LEGEND, GENERAL NOTES, AND ABBREVIATIONS
- **EXISTING SURVEY CONDITIONS**
- SURVEY CONTROL, EASEMENT PLAN, AND CONSTRUCTION STAKEOUT
- **DETOUR PLAN**
- TESC AND DEMO PLAN
- **TESC DETAILS**
- STREAM BYPASS PLAN
- STREAM BYPASS DETAILS
- **CULVERT AND WINGWALL LAYOUT** STRUCTURAL NOTES AND DETAILS
- STREAM CHANNEL GRADING PLAN AND PROFILE
- STREAM CHANNEL TYPICAL SECTIONS AND DETAILS 1
- STREAM CHANNEL TYPICAL SECTIONS AND DETAILS 2
- **ROADWAY PLAN AND PROFILE**
- GUARDRAIL AND CHANNELIZATION PLAN
- CIVIL DETAILS
- UTILITY DETAILS
- WATER UTILITY RELOCATION
- SEWER UTILITY RELOCATION STREAM RESTORATION PLAN
- STREAM RESTORATION PLANT SCHEDULE
- STREAM RESTORATION PLANTING DETAILS







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Science & Design

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Davido Consulting Group, Inc.

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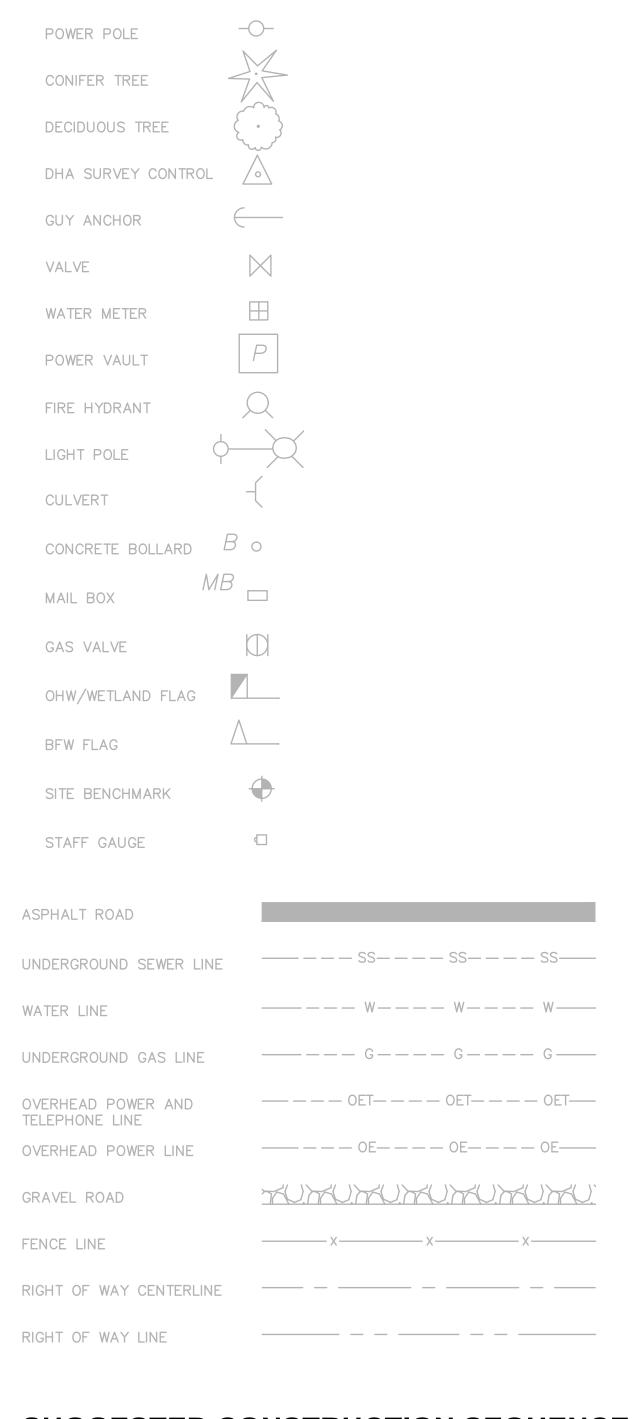
**EBRIGHT CREEK FISH PASSAGE CITY OF SAMMAMISH** COVER SHEET, VICINITY MAP, AND SHEET INDEX

09/30/202 10-190038 1 of 23 H: N/A V: N/A

ammamish" www.osbornconsulting.com

**LEGEND:** 

**EXISTING** 



#### SUGGESTED CONSTRUCTION SEQUENCE:

- 1. IT IS RECOMMENDED THAT THE CONTRACTOR BEGIN BY PERFORMING SITE PREPARATION AND INSTALLATION OF TESC MEASURES.
- 2. CONTRACTOR SHALL MAINTAIN ACCESS TO THE KING COUNTY TRAIL AND PRIVATE RESIDENTIAL PROPERTIES THROUGHOUT CONSTRUCTION.
- 3. TEMPORARY STREAM BYPASS SYSTEM AND FISH EXCLUSION SHALL BE COMPLETED BEFORE PERFORMING WORK TO RELOCATE EXISTING UTILITIES, INSTALL PRECAST CONCRETE CULVERT AND ASSOCIATED WINGWALLS, AND PERFORM CHANNEL GRADING.
- 4. CONTRACTOR SHALL NOTIFY CITY OF SAMMAMISH THREE (3) WEEKS PRIOR TO LANE CLOSURES ALONG EAST LAKE SAMMAMISH PARKWAY.
- 5. UPON COMPLETION OF WORK ALL STREAM BYPASS AND TEMPORARY EROSION CONTROL MEASURES, MATERIALS AND EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND THE SITE SHALL BE RESTORED TO THE PREVIOUS CONDITION.
- 6. PLANTING AND SEEDING SHALL BE PERFORMED ACCORDING TO THE STREAM RESTORATION PLAN AND DETAILS.

HECKED BY

#### **ABBREVIATIONS:**

AVERAGE DAILY TRAFFIC

AIR AND VACUUM RELIEF VALVE ASSEMBLY APPROXIMATE, APPROXIMATELY

BMP BEST MANAGEMENT PRACTICE

BW BOTTOM OF WALL CFS CUBIC FEET PER SECOND

CHNL CHANNEL CENTERLINE

CONC

FLEX

CMP CORRUGATED METAL PIPE

CONCRETE

CTR CENTER CY CUBIC YARDS

DUCTILE IRON DIA DIAMETER

EAST, EASTING ELEV **ELEVATION** 

**FLEXIBLE** 

FOOT, FEET GATE VALVE

HORIZONTAL BEND

HIGH-DENSITY POLYETHYLENE HPA HYDRAULIC APPROVAL

HIGH VISIBILITY FENCE INVERT ELEVATION

LCL LOCAL LOW POINT

MAX MAXIMUM MECHANICAL JOINT

MILES PER HOUR MON MONUMENT

NORTH, NORTHING N.T.S. NOT TO SCALE

ORDINARY HIGH WATER MARK OHWM

POLYVINYL CHLORIDE RESTRAINED JOINT

RIGHT OF WAY RAILROAD

SOUTH

SQUARE FEET

STATION

SSMH SANITARY SEWER MANHOLE

TEMPORARY BENCHMARK TOP OF WALL

TYPICAL UNDERGROUND

VERTICAL BEND WEST

WATER MAIN

WEDGE RESTRAINT GLAND XFMR TRANSFORMER

#### **EXISTING ABBREVIATIONS**

WATER VALVE PRD PER RECORD DRAWING CONC CONCRETE PP/UG POWER POLE W/ UNDERGROUND CAB CABINET RCC REBAR/ CONTROL CAP

ALDER FIR WILLOW CEDAR DECIDUOUS CONIFER HEMLOCK HEM CWD COTTONWOOD

#### **PROJECT GENERAL NOTES:**

- PROTECTION OF THE ENVIRONMENT: NO CONSTRUCTION RELATED ACTIVITY SHALL CONTRIBUTE TO THE DEGRADATION OF THE ENVIRONMENT, ALLOW MATERIAL TO ENTER SURFACE OR GROUND WATER. OR ALLOW PARTICULATE EMISSIONS TO ENTER THE ATMOSPHERE, WHICH EXCEED STATE OR FEDERAL STANDARDS. ANY ACTIONS THAT POTENTIALLY ALLOW A DISCHARGE TO STATE WATERS MUST HAVE PRIOR APPROVAL FROM THE WASHINGTON STATE DEPARTMENT OF ECOLOGY.
- 2. CONTRACTOR SHALL VERIFY LOCATION AND DEPTHS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

#### **TESC GENERAL NOTES:**

- 1. TESC MEASURES SHOWN ARE APPROXIMATE AND CONTRACTOR SHALL FIELD LOCATE TO ACCOMMODATE SITE CONDITIONS AND WORK SCHEDULE.
- 2. THE TEMPORARY EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO ANY GRADING OR EXTENSIVE LAND CLEARING IN ACCORDANCE WITH THE PLANS AND AS DIRECTED BY THE ENGINEER. THESE FACILITIES MUST BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION AND LANDSCAPING ARE COMPLETED, AND SITE IS STABILIZED. SEDIMENT LADEN WATER SHALL NOT ENTER THE NATURAL DRAINAGE SYSTEMS.
- 3. TEMPORARY SILT FENCE SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED WATTLES. END RUNS. AND UNDER-CUTTING BENEATH WATTLES. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- 4. ALL VEGETATION WITHIN CLEARING AND GRUBBING LIMITS SHALL BE REMOVED UNLESS NOTED OTHERWISE. ALL VEGETATION OUTSIDE DESIGNATED LIMITS SHALL REMAIN
- 5. ALL CRITICAL AREA BUFFERS SHALL BE STAKED PRIOR TO CONSTRUCTION. LIMITS OF DISTURBANCE TO BE STAKED. ANY DISTURBANCE INSIDE CRITICAL AREA BUFFER SHALL BE RESTORED PER PLANTING SHEET 21.
- 6. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF SAMMAMISH TO NOTIFY. FACILITATE AND MAINTAIN ACCESS TO ACCOMMODATE WORK OUTSIDE OF THE RIGHT-OF-WAY WITH PROPERTY OWNERS.
- 7. ALL STOCKPILES ARE TO BE LOCATED IN SAFE AREAS AND PROTECTED FROM EROSION BY MECHANICAL OR VEGETATIVE MEANS.
- 8. ALL EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY SEEDING. MULCHING. MATTING OR PLASTIC COVERING, FROM OCT. 1 TO APRIL 30, NO SOILS SHALL REMAIN UNSTABILIZED FOR MORE THAN 2 DAYS, FROM MAY 1 TO SEPT. 30, NO SOILS SHALL REMAIN UNSTABILIZED FOR MORE THAN 7 DAYS.
- 9. ALL PROPERTIES ADJACENT TO THE PROJECT SHALL BE PROTECTED FROM SEDIMENT DEPOSIT.
- 10. ALL POLLUTANTS OTHER THAN SEDIMENTS THAT OCCUR ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORM WATER. SEE DEPARTMENT OF ECOLOGY STORM WATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON, 2019, VOLUME ii CHAPTER 2.
- 11. SEDIMENTS TRANSPORTED ONTO A ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR SWEEPING AND BE TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
- 12. REMOVE TESC AND RETURN EROSION CONTROL AREAS TO ORIGINAL GROUND CONDITIONS UPON COMPLETION.

#### **GENERAL SITE PLAN NOTES:**

- 1. ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH PERMIT CONDITIONS, THE SAMMAMISH MUNICIPAL CODE (SMC), THE SAMMAMISH PUBLIC WORKS STANDARDS (PWS) AND THE CONDITIONS OF APPROVAL. IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR AND THE PROFESSIONAL CIVIL ENGINEER TO CORRECT ANY ERROR. OMISSION, OR DEVIATION FROM THE ABOVE REQUIREMENTS FOUND IN THESE PLANS. ALL CORRECTIONS SHALL BE AT NO ADDITIONAL COST OR LIABILITY TO THE CITY OF SAMMAMISH.
- 2. THE DESIGN ELEMENTS WITHIN THESE PLANS HAVE BEEN REVIEWED ACCORDING TO THE CITY OF SAMMAMISH PUBLIC WORKS DEVELOPMENT REVIEW CHECKLIST. ANY DEVIATION FROM ADOPTED STANDARDS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE CITY IN WRITING PRIOR TO CONSTRUCTION.
- 3. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL OF UTILITIES NOT OWNED BY THE CITY (E.G. DOMESTIC WATER CONVEYANCE, SEWER CONVEYANCE, GAS, ELECTRICAL, ETC.).
- 4. PRIOR TO ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY, A PRECONSTRUCTION MEETING SHALL BE HELD BETWEEN THE CITY OF SAMMAMISH, THE APPLICANT(S), AND THE APPLICANT'S CONSTRUCTION REPRESENTATIVE.
- 5. A COPY OF THESE APPROVED PLANS SHALL BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- 6. CONSTRUCTION HOURS ARE 7:00 AM TO 8:00 PM MONDAY THROUGH FRIDAY AND 9:00 AM TO 6:00 PM ON SATURDAYS. WORK IS NOT ALLOWED ON SUNDAYS AND SOME HOLIDAYS IN ACCORDANCE WITH SMC 16.05.030.
- 7. IT SHALL BE THE APPLICANT'S/CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL NECESSARY CONSTRUCTION FASEMENTS BEFORE INITIATING ANY OFF-SITE WORK.
- 8. DEWATERING (GROUNDWATER) SYSTEM CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT WSDOT STANDARD SPECIFICATIONS.
- 9. OPEN CUTTING OF ROADWAYS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE CITY AND NOTED ON THESE APPROVED PLANS.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL APPLY. WORK IN RIGHT-OF-WAY IS NOT AUTHORIZED UNTIL A TRAFFIC CONTROL PLAN IS APPROVED BY THE CITY.
- 11. ANY CHANGES TO THE APPROVED PLANS MUST BE SUBMITTED TO THE CITY IN WRITING. NO CONSTRUCTION ON THESE CHANGES SHALL BEGIN UNTIL APPROVED BY THE CITY.
- 12. PER RCW SECTION 19.122, CALL 811 BETWEEN TEN (10) AND TWO (2) BUSINESS DAYS BEFORE BEGINNING EXCAVATION WHERE ANY UNDERGROUND UTILITIES MAY BE LOCATED. FAILURE TO DO SO COULD MEAN BEARING SUBSTANTIAL REPAIR COSTS.
- 13. APPROXIMATE LOCATIONS OF EXISTING UTILITIES HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND ARE SHOWN FOR CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF EXISTING UTILITY LOCATIONS WHETHER OR NOT THESE UTILITIES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL EXERCISE ALL CARE TO AVOID DAMAGE TO ANY UTILITY. IF CONFLICTS WITH EXISTING UTILITIES ARISE DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY PUBLIC WORKS CONSTRUCTION INSPECTOR AND ANY CHANGES REQUIRED SHALL BE APPROVED BY THE CITY OF SAMMAMISH PUBLIC WORKS DEPARTMENT PRIOR TO COMMENCEMENT OF RELATED CONSTRUCTION ON THE PROJECT. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT UTILITY LOCATES ARE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.
- 14. ALL DAMAGES INCURRED TO PUBLIC AND/OR PRIVATE PROPERTY BY THE CONTRACTOR DURING THE COURSE OF CONSTRUCTION SHALL BE PROMPTLY REPAIRED TO THE SATISFACTION OF THE PUBLIC WORKS CONSTRUCTION INSPECTOR BEFORE PROJECT APPROVAL AND/OR THE RELEASE OF THE PROJECT'S PERFORMANCE BOND.
- 15. ALL LANDSCAPED AREAS OF THE PROJECT SHALL INCLUDE A MINIMUM OF 8-INCHES OF COMPOSTED SOIL AMENDMENT ATOP A MINIMUM OF 4-INCHES SCARIFIED SOIL.
- 16. NO FINAL CUT OR FILL SLOPE SHALL EXCEED SLOPES OF TWO (2) HORIZONTAL TO ONE (1) VERTICAL WITHOUT STABILIZATION BY ROCKERY OR BY A STRUCTURAL RETAINING WALL, UNLESS DESIGNED AND COMPLETED UNDER THE SUPERVISION OF A LICENSED GEOTECHNICAL ENGINEER.
- 17. THESE PLANS ARE APPROVED FOR STANDARD ROAD AND DRAINAGE IMPROVEMENTS ONLY. STRUCTURES SUCH AS BRIDGES, VAULTS, AND RETAINING WALLS REQUIRE ADDITIONAL PERMITS FROM THE CITY PRIOR TO CONSTRUCTION.
- 18. NO MATERIALS OR EQUIPMENT SHALL BE PLACED OR STORED ON PUBLIC RIGHT-OF-WAY AT ANY
- 19. CONSTRUCTION NOISE SHALL BE LIMITED TO THE CONSTRUCTION HOURS AS STATED IN SMC



90% SUBMITTAL

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**EBRIGHT CREEK FISH PASSAGE CITY OF SAMMAMISH** 

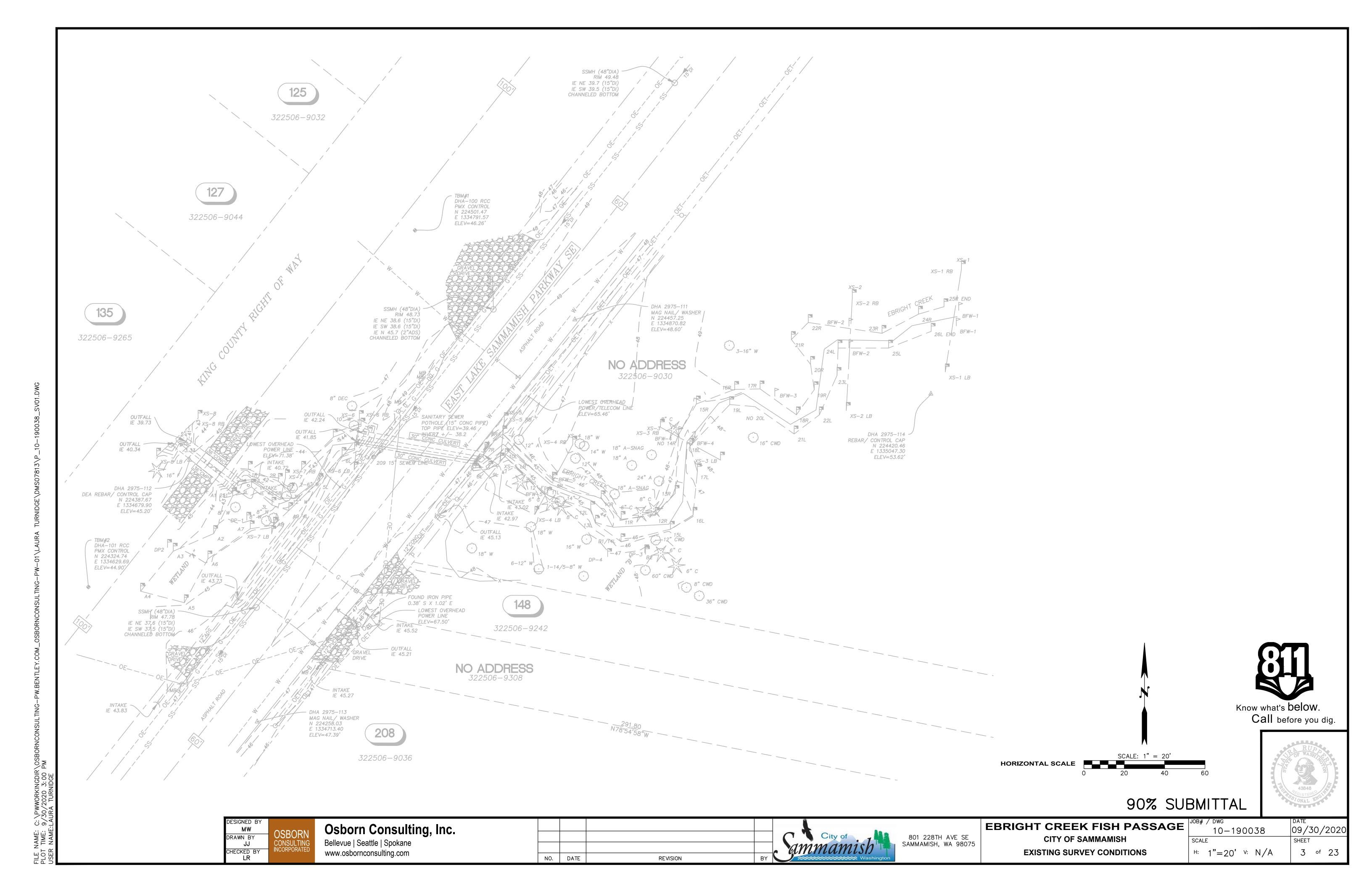
LEGEND, GENERAL NOTES, AND ABBREVIATIONS

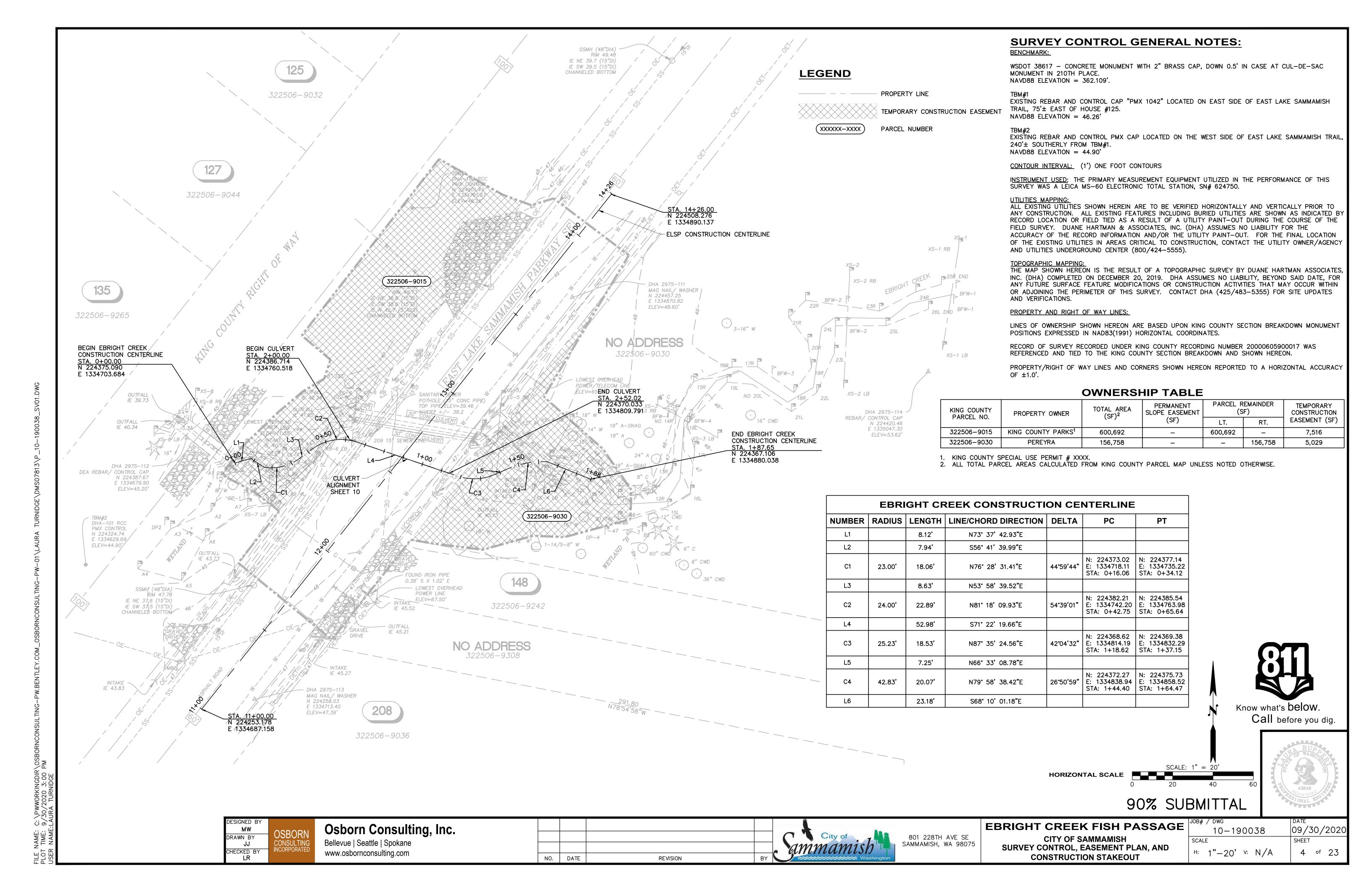
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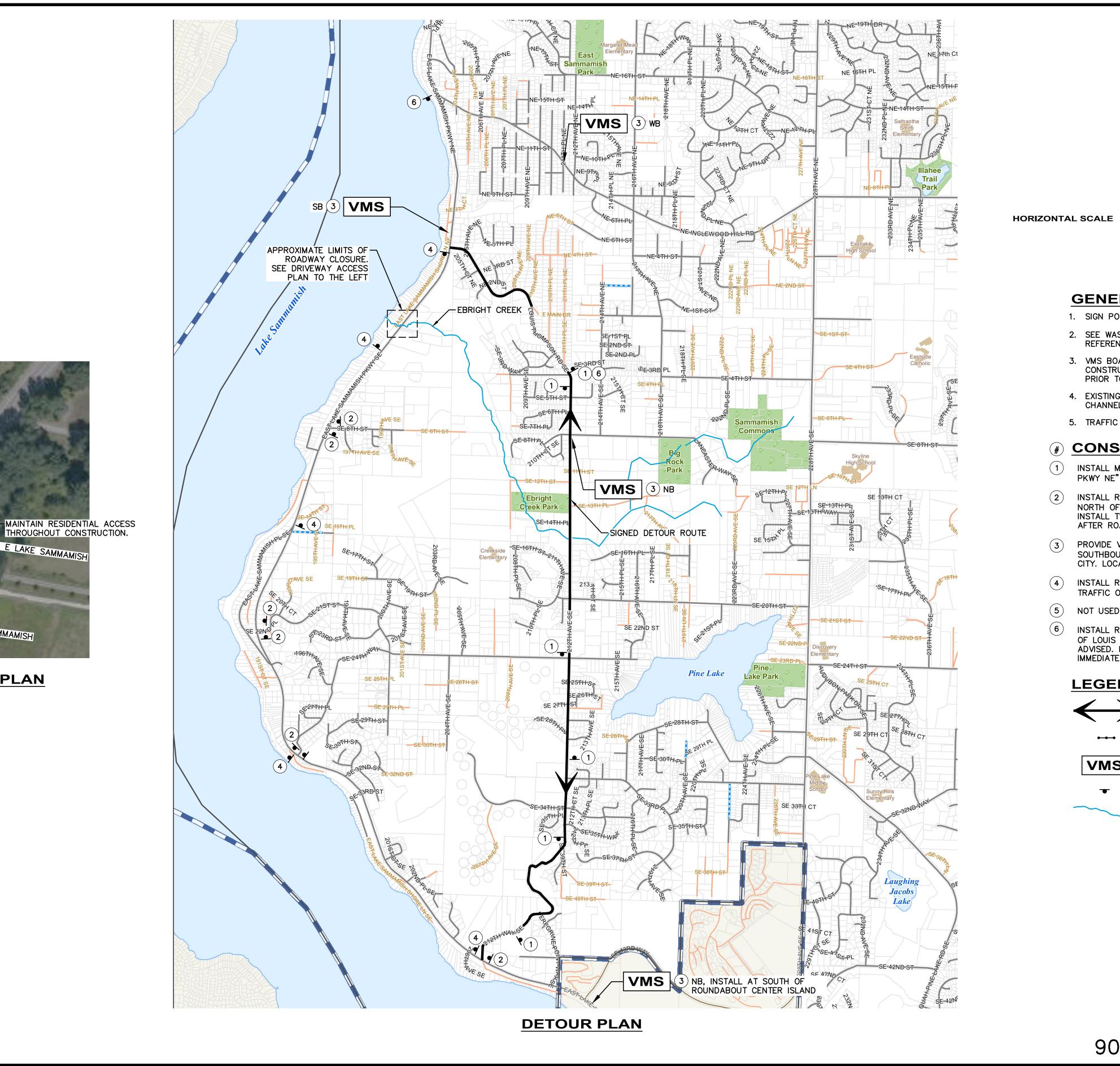
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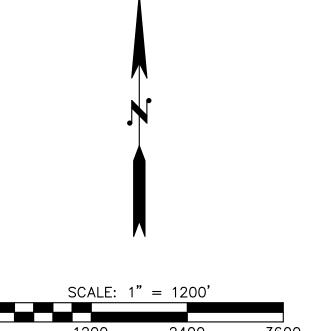
2 of 23

v: N/A H: **N/A** 









#### **GENERAL NOTES:**

- 1. SIGN POSITIONS SHOWN ARE NOT TO SCALE.
- 2. SEE WASHINGTON STATE "SIGN FABRICATION MANUAL" FOR CODE REFERENCES.
- 3. VMS BOARD TO BE INSTALLED 2 WEEKS PRIOR TO START OF CONSTRUCTION WORK AT SITE AND MESSAGE CHANGED 2 WEEKS PRIOR TO ELSP ROAD CLOSURE.
- 4. EXISTING MARKINGS IN CONFLICT WITH THE PROPOSED CHANNELIZATION IN TRAFFIC PLAN SHALL BE REMOVED.
- 5. TRAFFIC CONTROL PLAN SHALL BE PROVIDED BY THE CONTRACTOR.

#### **CONSTRUCTION NOTES:**

- INSTALL M4-9 "DETOUR" (UP) WITH D3-101 "E LAKE SAMMAMISH
- INSTALL R11-3 (MODIFIED) "E LAKE SAMMAMISH PKWY NE CLOSED NORTH OF SE 8TH ST (DATE) TO (DATE) ALTERNATE ROUTE ADVISED". INSTALL TWO WEEKS PRIOR TO CLOSURE AND REMOVE IMMEDIATELY AFTER ROAD IS OPEN TO TRAFFIC
- PROVIDE VARIABLE MESSAGE SIGN (VMS) NORTH BOUND (NB) AND SOUTHBOUND (SB). CHANGE MESSAGE ON VMS AS DIRECTED BY THE CITY. LOCATION TO BE AS DIRECTED BY THE CITY
- INSTALL R11-4 "ROAD CLOSED TO THRU TRAFFIC" WITH "LOCAL TRAFFIC ONLY" DURING CONSTRUCTION
- INSTALL R11-3 (MODIFIED) "E LAKE SAMMAMISH PKWY CLOSED SOUTH OF LOUIS THOMPSON RD NE (DATE) TO (DATE) ALTERNATE ROUTE ADVISED. INSTALL TWO WEEKS PRIOR TO CLOSURE AND REMOVE IMMEDIATELY AFTER ROAD IS OPEN TO TRAFFIC

## **LEGEND:**

SIGNED DETOUR ROUTE

TYPE III BARICADE

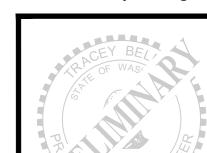
EBRIGHT CREEK

VARIABLE MESSAGE SIGN

**VMS** 

TEMPORARY SIGN LOCATION





90% SUBMITTAL

civil structural

APPROXIMATE LIMITS OF ROADWAY CLOSURE.

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NO.

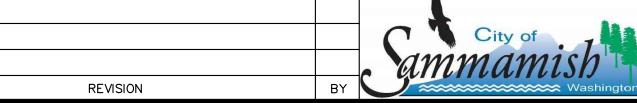
DATE

148 E LAKE SAMMAMISH

154 E LAKE SAMMAMISH

**DRIVEWAY ACCESS PLAN** 

SCALE: 1"=100'



801 228TH AVE SE SAMMAMISH, WA 98075

EBRIGHT CREEK FISH PASSAGE **CITY OF SAMMAMISH DETOUR PLAN** 

лов# / dwg 10-190038 09/30/2020 AS v: SHOWN 5 of 23

KING COUNTY RIGHT OF WAY

5. VOIDS FROM REMOVAL OF EXISTING FEATURES SHALL BE FILLED AND COMPACTED. WITHIN THE ROADWAY PRISM VOIDS SHALL BE BACKFILLED WITH GRAVEL BACKFILL FOR WALLS PER STANDARD SPECIFICATION SECTION 9-03.12(2) AND COMPACTED TO 95% RELATIVE COMPACTION.

- (4) INSTALL TEMPORARY STRAW BALE DAM.
- 5 INSTALL STRAW WATTLE PER WSDOT STD PLAN I-30.30-02, OR COMPOST STOCK PER STD PLAN I-30.40-02.
- (6) TEMPORARY STREAM BYPASS. SEE PLAN ON SHEET 8.
- 7 REMOVE EXISTING TREE. TREE TO BE USED IN LOG STRUCTURE CONSTRUCTION FOR STREAM RESTORATION AS APPROPRIATE PER SPECIAL PROVISIONS. SEE SHEETS 21–23 FOR RESTORATION PLANTING.
- 8 PROTECT EXISTING TREE WITHIN WORK AREA IN ACCORDANCE WITH SHEET 7 DETAIL 3 OR 4 AS FEASIBLE TO PERFORM WORK. 2
- 9 EXISTING UTILITY TO BE RELOCATED/ADJUSTED, SEE SHEETS 19-20 FOR DETAILS.

- (13) REMOVE EXISTING CULVERTS, 30-IN DIAMETER, 60-FT LENGTH.
- 14) INSTALL HIGH VISIBILITY FENCE PER WSDOT STD I-10.10-01.
- 15) MAINTAIN RESIDENTIAL ACCESS.
- 16 COLLECT RUNOFF AND ROUTE AROUND WORK AREA.
- 17 COORDINATE TEMPORARY RELOCATION OF OVERHEAD POWER, TELEPHONE, AND COMM. LINES.
- (18) COORDINATE RELOCATION OF UTILITY POLE.
- (19) PAVEMENT REMOVAL LIMITS



Know what's below. Call before you dig.

HORIZONTAL SCALE

**LEGEND** 

RIPRAP MAT

- PROPOSED MAJOR CONTOUR PROPOSED MINOR CONTOUR

\* HIGH VISIBILITY SILT FENCE

- HIGH VISIBILITY FENCE

TEMPORARY STRAW BALE DAM

TEMPORARY GRAVEL BAG BERM

STRAW WATTLE/COMPOST SOCK

CONSTRUCTION STAGING AREA

PAVEMENT REMOVAL LIMITS

TREE PROTECTION

STABILIZED CONSTRUCTION ENTRANCE

REMOVE TREE

FISH SCREEN

BYPASS PUMP

BYPASS PIPING

SEDIMENT MAT

———— SAWCUT LIMITS

— - - CONSTRUCTION LIMITS

90% SUBMITTAL

DESIGNED BY	
MW	OCDODN
DRAWN BY	OSBORN
JJ	CONSULTING
CHECKED BY L <b>R</b>	INCORPORATED

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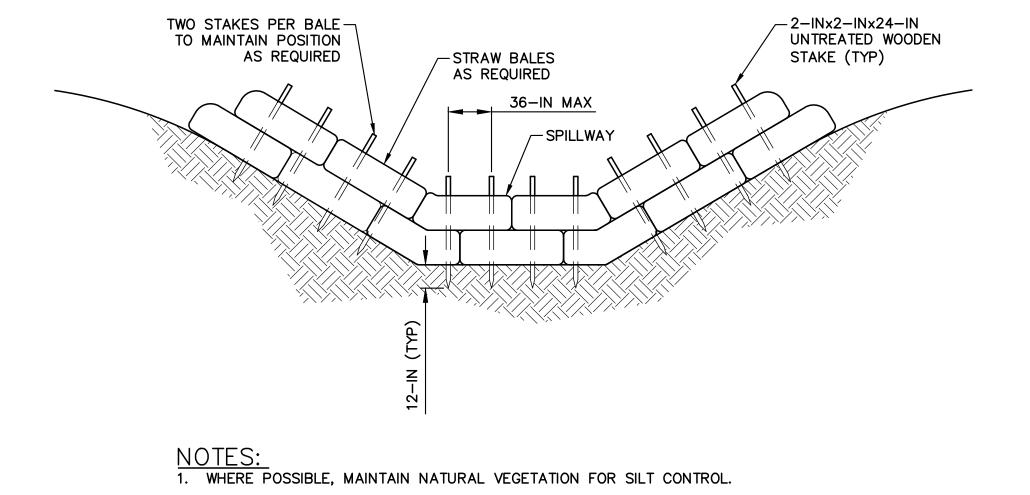
EBRIGHT CREEK FISH PASSAGE

**TESC AND DEMO PLAN** 

10-190038 H: 1"=20' V: N/A

**CITY OF SAMMAMISH** 

09/30/2020 6 of 23



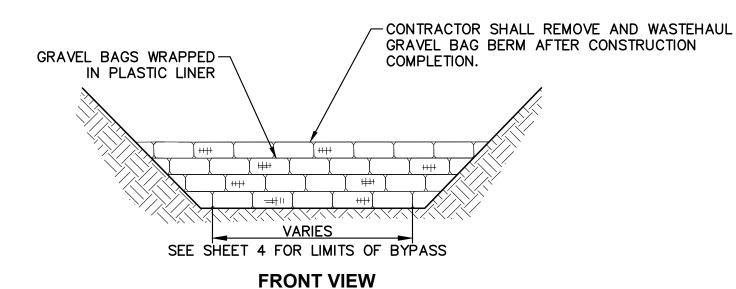
TEMPORARY STRAW BALE DAM

N.T.S.

2. STRAW BALE DAMS TO BE LOCATED AT THE BOTTOM OF EXISTING DITCH AS INDICATED ON

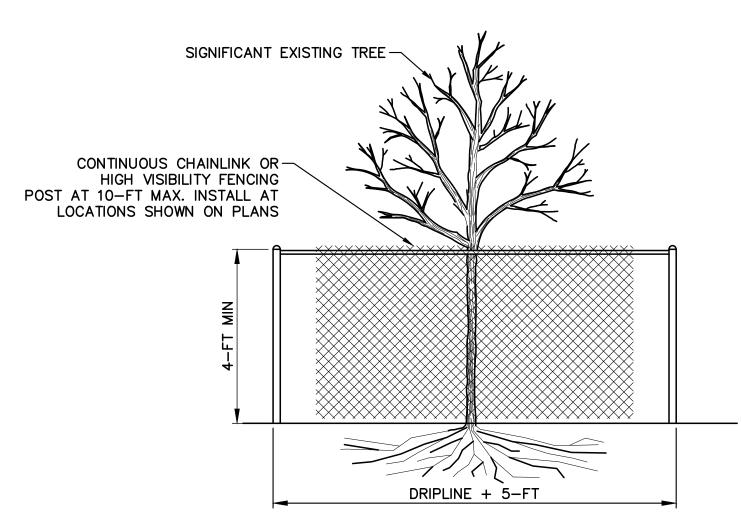
THE PLANS OR DIRECTED BY THE ENGINEER.

TOP OF BANK, BEYOND ~ISOLATED CHANNEL GRAVEL BAG TO HOLD LINER IN PLACE GRAVEL BAGS WRAPPED--EXISTING FLOW IN DITCH IN PLASTIC LINER SIDE VIEW PLASTIC LINER-



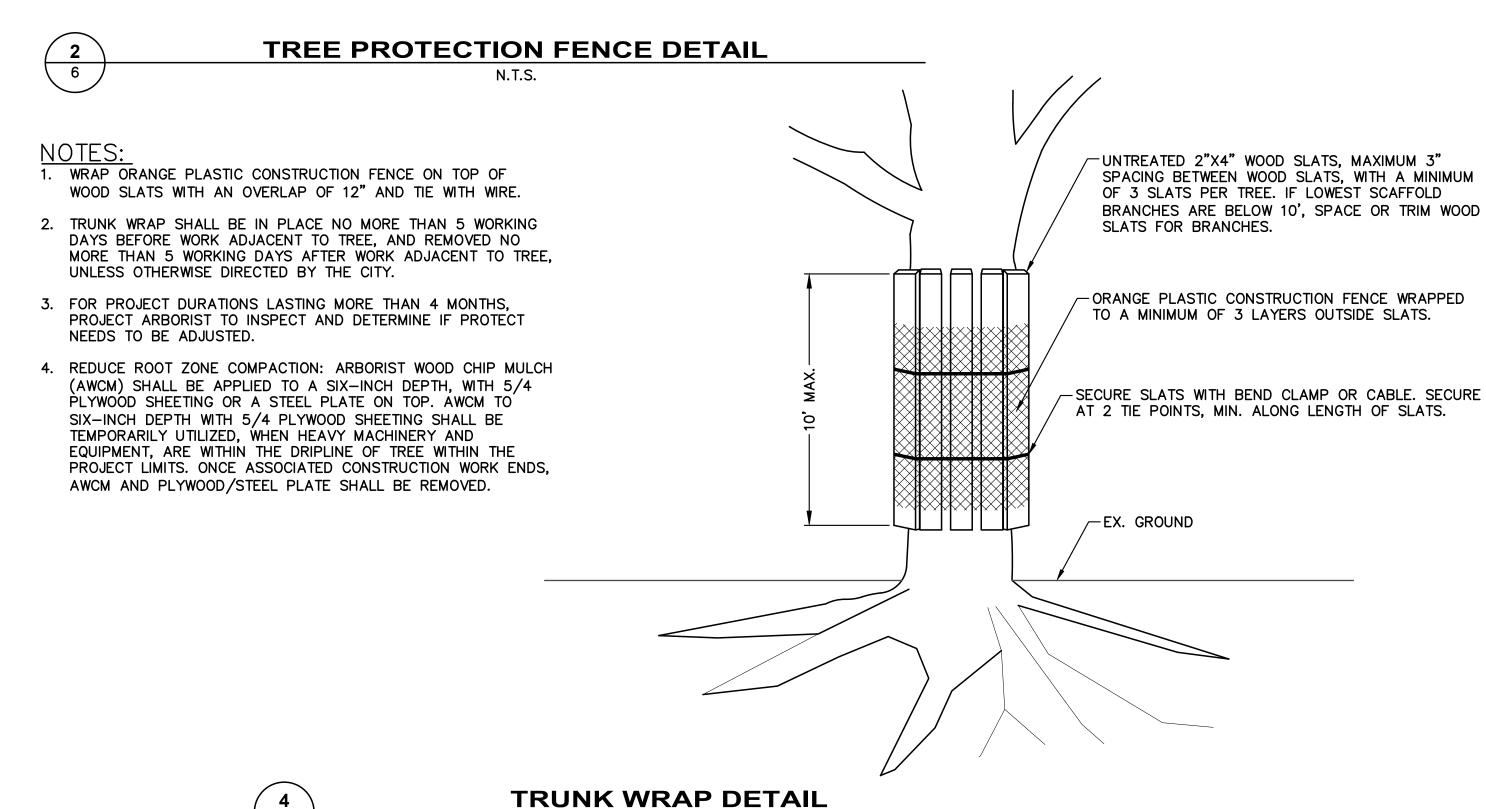
NOTES: 1. GRAVEL BAGS SHALL BE FILLED WITH ROUNDED PEA GRAVEL OR CLEAN SAND; NO ANGULAR OR CRUSHED MATERIALS MAY BE USED. GRAVEL BAGS SHALL BE WASTEHAULED AFTER REMOVAL OF BERM.

**GRAVEL BAG BERM DETAIL** 



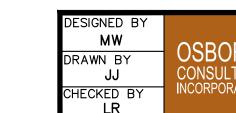
## NOTES:

- 1. MINIMUM FOUR (4) FOOT HIGH TEMPORARY FENCING SHALL BE INSTALLED FIVE (5) FEET BEYOND THE DRIPLINE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIRCLE TREE(S). INSTALL FENCE POSTS USING PIER BLOCK ONLY. AVOID POST OR STAKES INTO MAJOR ROOTS. MODIFICATIONS TO FENCING MATERIAL AND LOCATION MUST BE APPROVED BY PLANNING OFFICIAL.
- 2. TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION: FOR ROOTS OVER ONE (1) INCH DIAMETER DAMAGED DURING CONSTRUCTION, MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND COVERED WITH SOIL AS SOON AS POSSIBLE.
- 3. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING. FENCING SHALL NOT BE MOVED OR REMOVED UNLESS APPROVED BY THE CITY PLANNING OFFICIAL. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY UNDER THE SUPERVISION OF THE ON-SITE ARBORIST AND WITH PRIOR APPROVAL BY THE CITY PLANNING OFFICIAL.

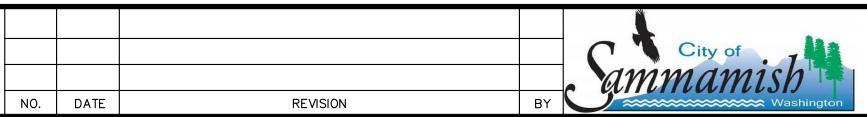


N.T.S.





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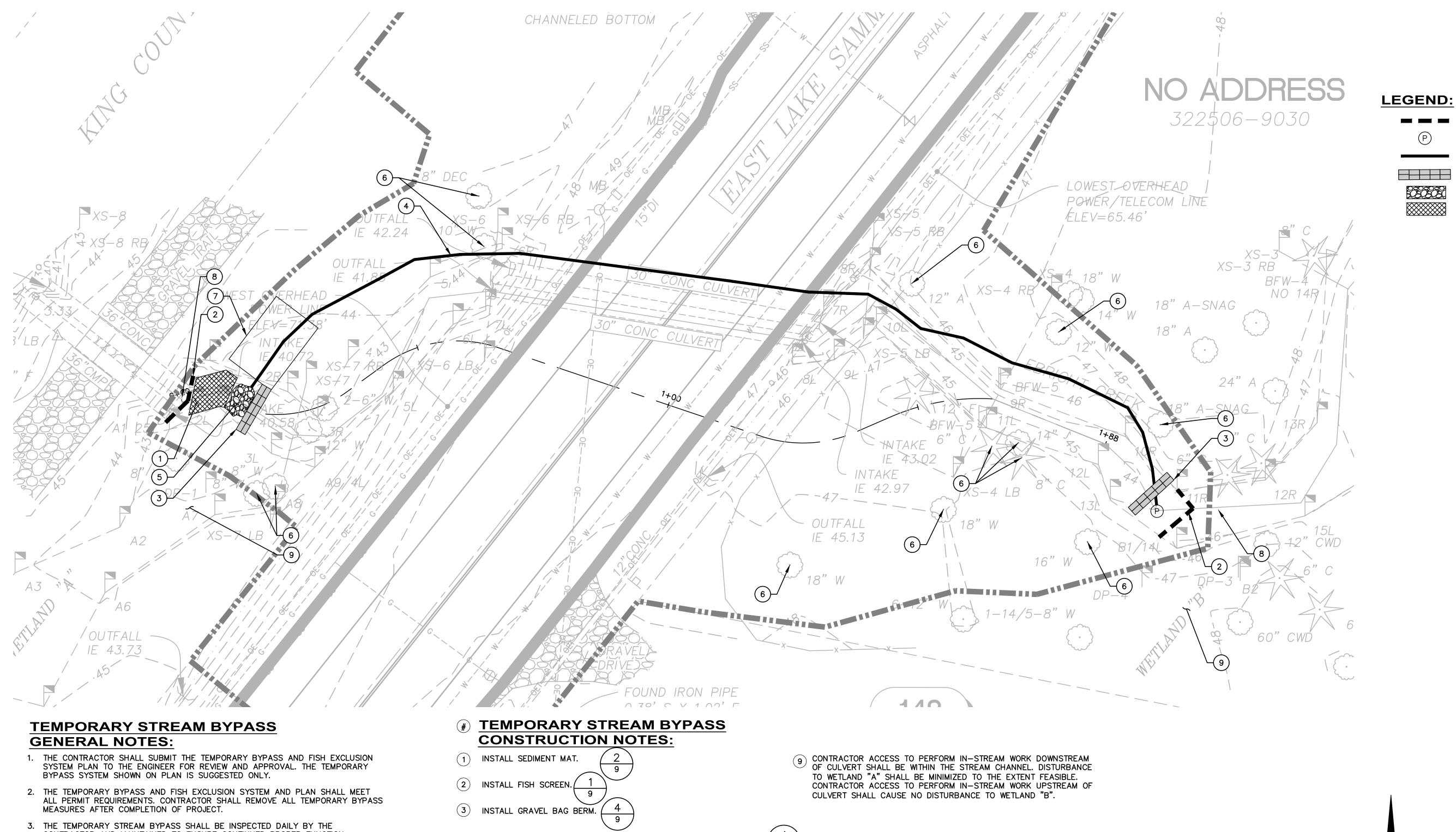
EBRIGHT CREEK FISH PASSAGE 10 **CITY OF SAMMAMISH** 

**TESC DETAILS** 

SCALE

09/30/2020 10-190038 H: N/A V: N/A 7 of 23

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- CONTRACTOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTION.
- 4. FISH EXCLUSION AND FISH REMOVAL SHALL BE PERFORMED BEFORE IN-WATER WORK IN ACCORDANCE WITH THE WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
- 5. CONTRACTOR SHALL REMOVE AND WASTEHAUL EXISTING GRAVEL BAG BERM AFTER STREAM FLOWS HAVE BEEN RELOCATED INTO THE NEW CHANNEL.
- 6. NO GROUND DISTURBANCE (MECHANICAL EQUIPMENT) SHALL OCCUR OUTSIDE OF THE CLEARING AND GRADING LIMITS.
- 7. CONTRACTOR SHALL RETAIN ANY LARGE WOODY MATERIAL INSIDE THE CHANNEL REMOVED FOR CONSTRUCTION (DEFINED AS TREES OR TREE PARTS LARGER THAN 4-IN IN DIAMETER AND LONGER THAN 6-FT) AND REPLACE BELOW OHWM PRIOR TO COMPLETION OF THE PROJECT.

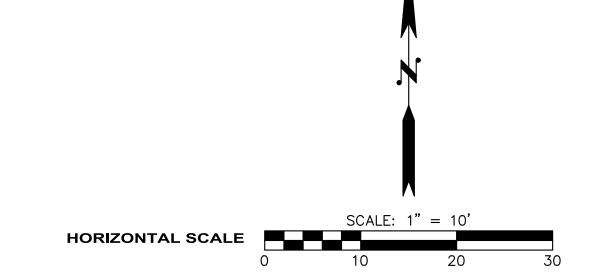
(4) INSTALL BYPASS PIPE. CONTRACTOR TO SIZE BYPASS PIPE. INSTALL GRAVEL BAGS ON/AROUND PIPE INLET TO STABILIZE.

5 INSTALL TEMPORARY RIPRAP MAT TO PREVENT EROSION AT BYPASS OUTFALL. ALL RIPRAP SHALL BE REMOVED WHEN CONSTRUCTION IS COMPLETE.

(6) EXISTING TREE/VEGETATION TO REMAIN. TREE LIMBS MAY BE TRIMMED WITH APPROVAL FROM THE CITY'S ARBORIST. PROTECT \ 7 DURING CONSTRUCTION.

7) FILTER BAG FOR DEWATERING AND SEDIMENT REMOVAL. (-

TURBIDITY MONITORING STATION. SEE CONTRACT SPECIFICATIONS FOR MONITORING REQUIREMENTS.





SEDIMENT MAT

90% SUBMITTAL

09/30/2020 10-190038

MW DRAWN BY CHECKED BY

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EBRIGHT CREEK FISH PASSAGE 10 **CITY OF SAMMAMISH** STREAM BYPASS PLAN

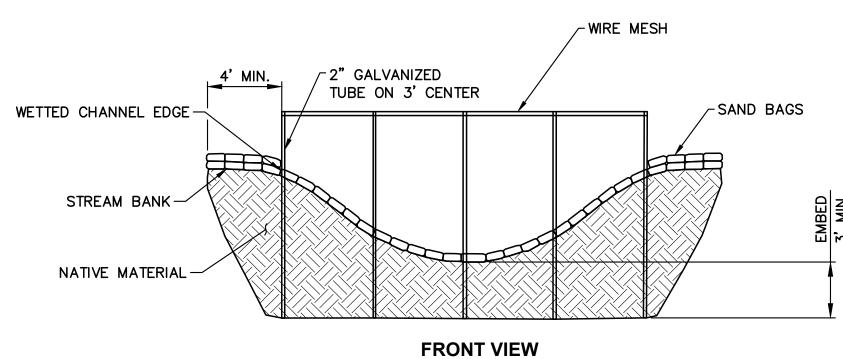
H: 1"=10' V: N/A 8 of 23 STREAM BANK-

WIRE MESH-

30° MIN.

-BRACING TIMBER

**PLAN VIEW** 



(1) INSTALL 2" GALVANIZED TUBES ON 3' CENTERS.

(2) SECURE WIRE MESH TO 2" GALVANIZED TUBES WITH WIRE FASTENER. MESH SHALL BE WOVEN WIRE WITH WITH A MAXIMUM OPENING OF 0.087

(4) ADD BRACING TIMBER AS NEEDED TO SUPPORT

(5) REMOVAL OF DEBRIS FROM THE UPSTREAM SIDE OF THE FENCE IS NECESSARY OTHERWISE THE SCREEN WILL BECOME CLOGGED AND WATER MAY TOPPLE OR BREACH THE SCREEN.

(6) NO WORK IS ALLOWED IN THE WETLAND.

1. FISH SCREEN SHALL BE PLACED IN A POOLED LOW FLOW LOCATION TO PREVENT FISH FROM GETTING IMPINGED OR ENTRAINED ON THE SCREEN AND TO ALLOW SUFFICIENT ROOM FOR FREEDOM OF MOVEMENT TO AVOID THE SCREEN.

ROCKS OR OTHER WEIGHTS.

2" X 2' LONG WOOD STAKES.

SEDIMENT MAT.

AREA OF INSTREAM

DISTURBANCE

AREA OF

INSTREAM

DISTURBANCE

FLOW

STREAMBED -

NOTES:

─EDGE OF STREAM | 12' MIN.

AFTER INSTREAM ACTIVITIES ARE COMPLETED.

6" MIN.

OVERLAP

**SECTION** 

FLOW

SEDIMENT MAT DETAIL

1. INSTALL MATS FLAT ON THE STREAM BOTTOM AT DOWNSTREAM EDGE OF DISTURBED

AREA IMMEDIATELY PRIOR TO INSTREAM DISTURBANCE AND REMOVE IMMEDIATELY

2. OVERLAP THE TRAILING EDGE OF UPSTREAM MATS OVER THE LEADING EDGE OF DOWNSTREAM MATS BY AT LEAST 6". OVERLAP SIDES A MINIMUM OF 6".

3. HOLD THE LEADING EDGE OF THE MATS TIGHTLY TO STREAMBED CONTOURS WITH

5. IF STREAM VELOCITY IS HIGH, ENGINEER MAY REQUIRE ADDITIONAL LENGTH OF

4. SECURE UPSTREAM CORNERS AND CENTERS OF MATS IN THE STREAMBED WITH 2" X

-OVERLAP SEDIMENT MATS, SEE NOTE 2

-SECURE MATS

SEE NOTE 4

AT STREAMBED,

-18" MIN. EMBEDMENT



-HAND PLACE GRAVEL BAGS -GRAVEL BAGS WRAPPED TO MEET STREAM BANK IN PLASTIC LINER ✓ STREAM BYPASS PIPE. SEE NOTES. TOP OF BANK EXISTING STREAMBED -SEE SHEET 8 FOR LIMITS

**FRONT VIEW** 

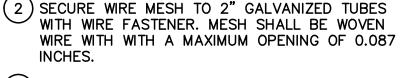
OF BYPASS

NOTES: 1. TYPICAL 2-YR STORM IS 22.6 CFS.

2. CONTRACTOR SHALL HAVE ON SITE, EMERGENCY BYPASS PIPE, PUMPS, GENERATOR, AND APPURTENANCES IN THE EVENT OF HIGH FLOWS AS WELL AS BACKUP PUMP(S) IN CASE OF PRIMARY PUMP FAILURE. EMERGENCY BYPASS PUMP INTAKE SHALL BE SCREÈNED TO PREVENT FISH FROM ENTERING BYPASS SYSTEM. SEE THE CONTRACT PROVISIONS AND THE HPA FOR ADDITIONAL INFORMATION ON TEMPORARY STREAM BYPASS.

3. GRAVEL BAGS SHALL BE FILLED WITH ROUNDED PEA GRAVEL OR CLEAN SAND; NO ANGULAR OR CRUSHED MATERIALS MAY BE USED. GRAVEL BAGS SHALL BE WASTEHAULED AFTER REMOVAL OF BYPASS.

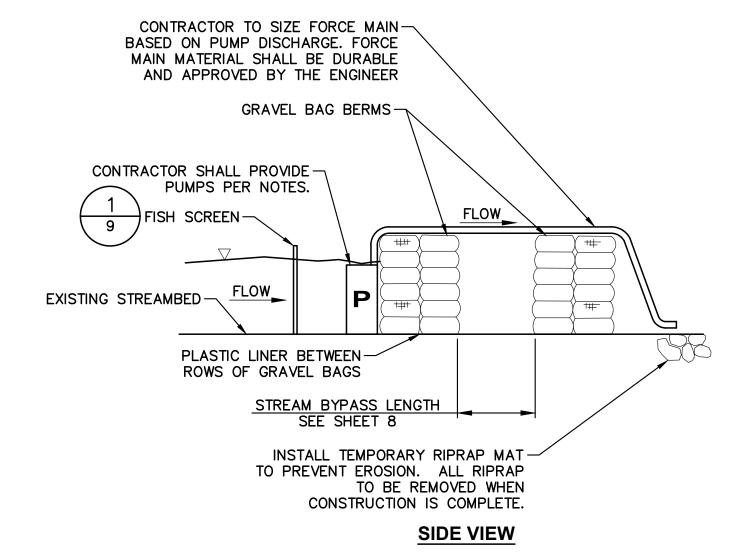
### **CONSTRUCTION SEQUENCE**



(3) EXTEND SAND BAGS 4' MIN. INTO STREAM

N.T.S.

FISH SCREEN DETAIL



**TEMPORARY STREAM BYPASS DETAIL** 

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EBRIGHT CREEK FISH PASSAGE **CITY OF SAMMAMISH** 

STREAM BYPASS DETAILS

09/30/202 10-190038 SCALE H: N/A V: N/A 9 of 23

PRE-MANUFACTURED MONOFILAMENT -GEOTEXTILE OR NON-WOVEN GEOTEXTILE FILTER BAG, SEE NOTES -INTAKE HOSE CONNECT TO PUMP DISCHARGE NOTES:

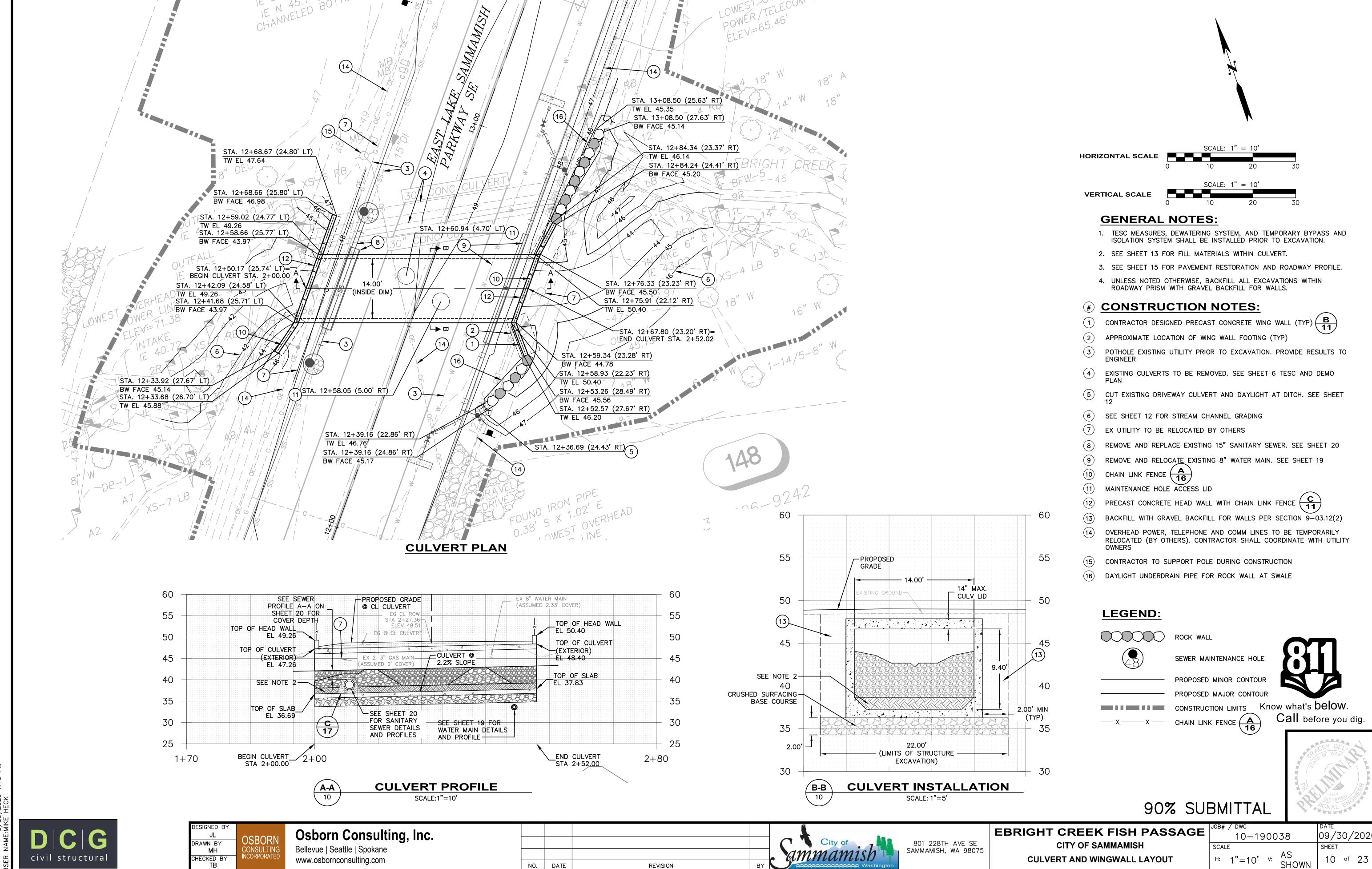
- 1. FILTER BAG SHALL BE MINIMUM 10' X 15' AND REPLACED AS NEEDED TO ACCOMMODATE ACTUAL SEDIMENT LOAD CONDITIONS (I.E. VOLUME, TYPE OF SEDIMENT, ETC.)
- 2. DRAIN FILTER BAG TO APPROVED (GRASSY, UPLAND) RECEIVING AREA, SUCH THAT FLOW DOES NOT RETURN BACK TO CREEK, MONITOR SYSTEM FREQUENTLY TO VERIFY ADEQUATE PERFORMANCE AND CONDITION OF FACILITIES.

**FILTER BAG DETAIL** N.T.S.

# 90% SUBMITTAL

MW DRAWN BY CHECKED BY

**Osborn Consulting, Inc.** 



#### DESIGN CRITERIA

**EDITION** 

CONTRACTOR TO DESIGN PRECAST CONCRETE CULVERT AND WINGWALLS

CODE: AASHTO BRIDGE DESIGN SPECIFICATION—LATEST

LOADING: TRAFFIC: HL-93

> VERTICAL SOIL / PAVING: 140 PCF LATERAL SOIL: PER LOADING CRITERIA DETAIL

DEFLECTION LIMIT: L/240

#### GENERAL CONDITIONS

- 1. THE CONTRACTOR SHALL VERIFY AND REVIEW ALL ITEMS WITHIN THE DRAWINGS PRIOR TO PROCEEDING WITH THE WORK. NOTIFY THE ENGINEER/ARCHITECT IMMEDIATELY WITH ANY DISCREPANCIES.
- 2. IF A SPECIFIC DETAIL IS NOT SHOWN FOR ANY PART OF THE WORK, THE CONSTRUCTION SHALL BE THE SAME AS FOR SIMILAR WORK AND THE CONTRACTOR SHALL SUBMIT SHOP DRAWING FOR ENGINEER REVIEW.
- 3. DIMENSIONS ARE NOT TO BE SCALED FROM THE PLANS. SECTIONS, OR DETAILS WITHIN THE DRAWINGS.
- 4. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCE, AND PROCEDURES.
- 5. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE REFERENCED BUILDING AND ALL OTHER REGULATING AGENCIES EXERCISING AUTHORITY OVER ANY PORTION OF THE WORK.
- 6. SPECIFIC NOTES AND DETAILS IN THE DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND SPECIFICATIONS.
- 7. NOTIFY THE ENGINEER OF ALL CHANGES MADE IN THE FIELD PRIOR TO INSTALLATION.

#### **CONCRETE**

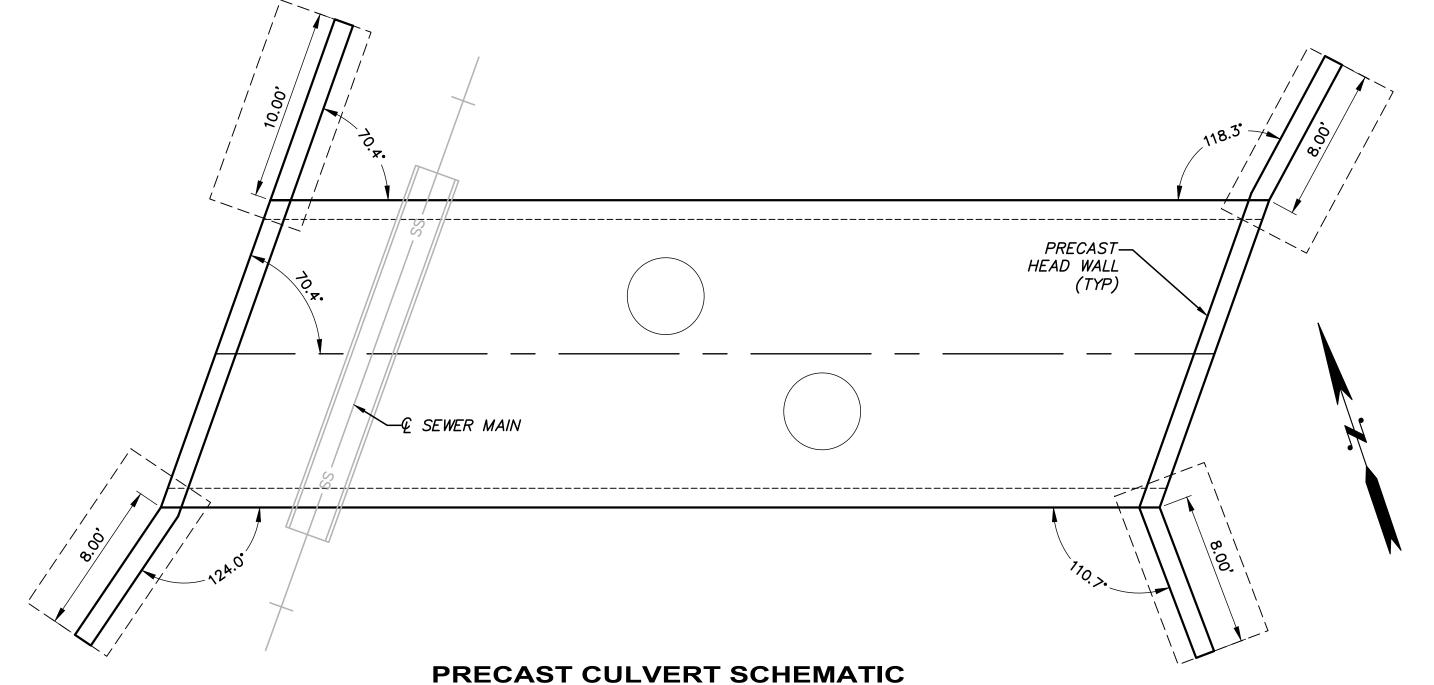
- 1. REFERENCE STANDARDS: ACI-301 AND ACI-318.
- 2. MINIMUM CONCRETE STRENGTH AT 28 DAYS: 4,000 PSI

#### REINFORCING STEEL

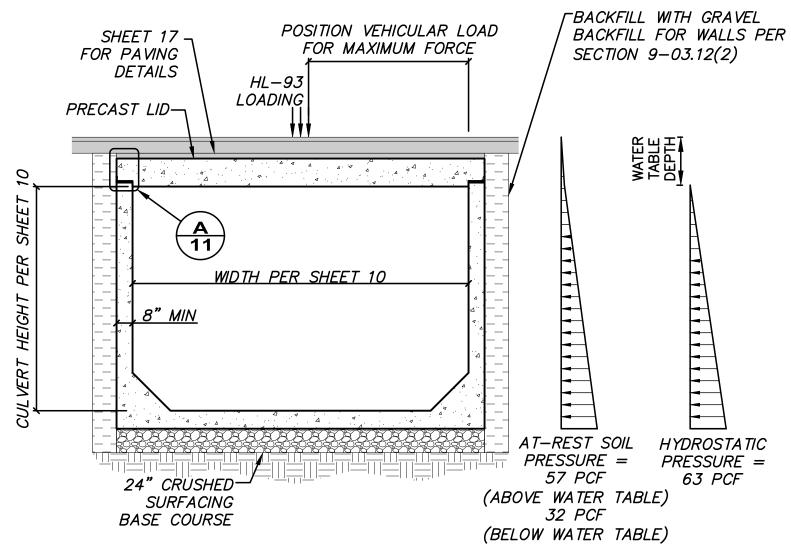
- 1. REFERENCE STANDARDS: ACI "DETAIL MANUAL" AND CRSI MANUAL OF STANDARD PRACTICE.
- 2. ALL REINFORCING TO BE GALVANIZED
- 3. MATERIALS: A. REINFORCING STEEL: ASTM A615, GRADE 60 FOR #5 AND

#### SHOP DRAWINGS AND SUBMITTALS

- 1. SUBMIT LAYOUT DRAWINGS IN PDF FORMAT FOR REVIEW OF: A. CULVERT DESIGN
- B. REINFORCING STEEL
- 2. SUBMIT SPECIFICATIONS IN PDF FORMAT FOR REVIEW OF: A. CONCRETE DESIGN MIX
- B. CONCRETE INSERTS



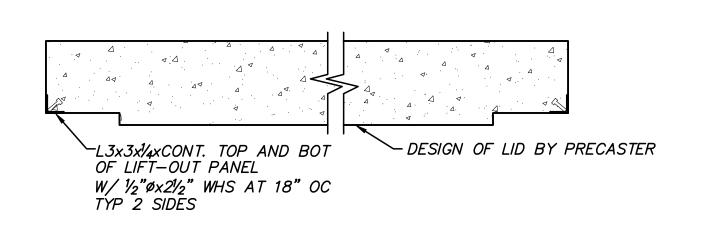
# SCALE: 1"=5'



#### PRECAST CULVERT LOADING CRITERIA

REVISION

SCALE: 1/4"=1'-0"



NO.

DATE

PRECAST CULVERT LID

REINFORCING





(A) CHAIN LINK FENCE-

CONNECTION BETWEEN ADJACENT WALL SEGMENTS AND CULVERT UTILIZING EPOXY ANCHORS OR

BACKFILL WITH-

12" X 12" MIN.—

FOR DRAINS

DAYLIGHT.

FOOTING LENGTH

PRECAST WING WALL

SCALE: 3/4"=1'-0"

BY DESIGNER

GRAVEL BACKFILL

SECTION 9-03.12(2).

FOR WALLS PER

GRAVEL BACKFILL

PERFORATED FOOTING—

MATCH WING WALL-

FOOTING ELEVATION

TO CULVERT FLOOR

DRAIN. DRAIN TO

PROVIDE STRUCTURAL—

∕—¾" CHAMFER, TYP

FOOTING AND

WALL TO BE

-24" LEVELING PAD OF

COMPACTED CSBC

INTEGRAL

*−2"ø WEEPHOLE* 

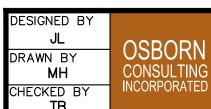
AT 8'-0"

EMBEDDED STEEL CLIPS



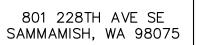
FILL WITH EPOXY RESIGN







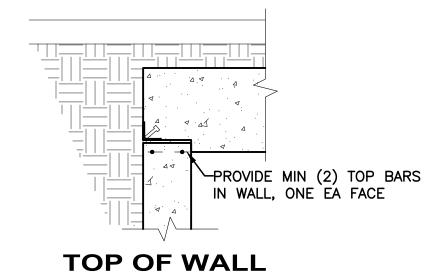




**EBRIGHT CREEK FISH PASSAGE CITY OF SAMMAMISH** 

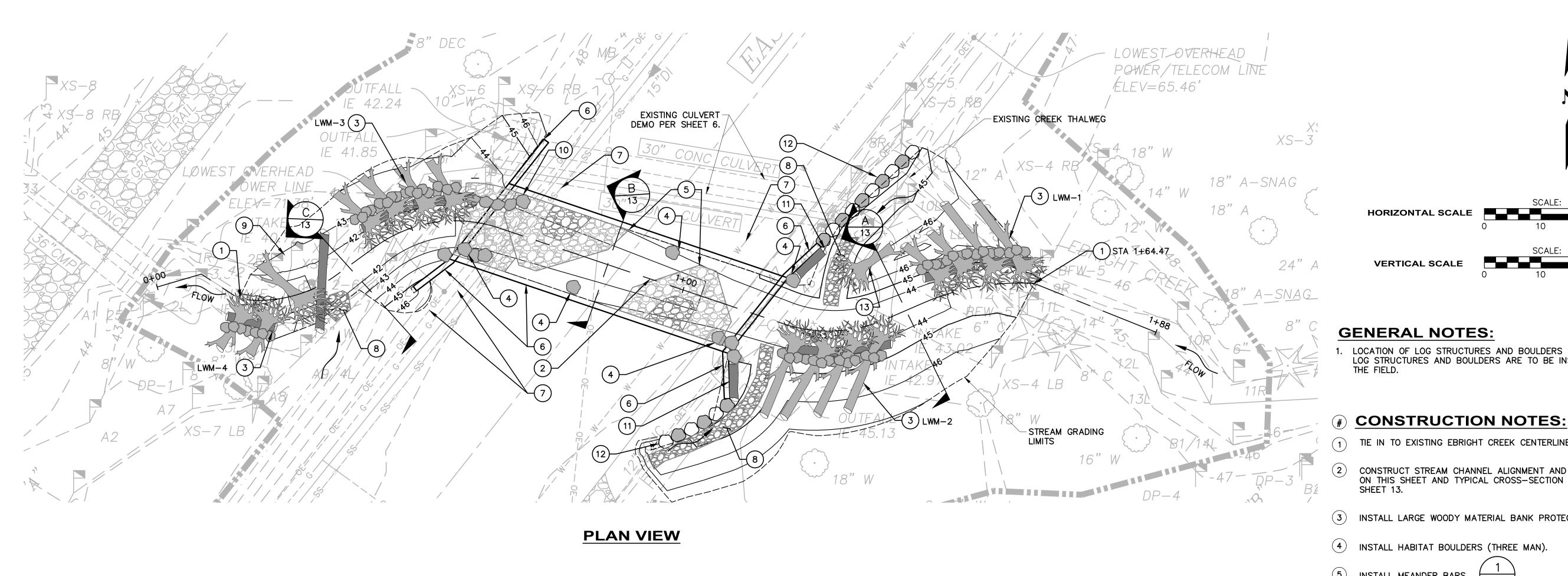
STRUCTURAL NOTES AND DETAILS

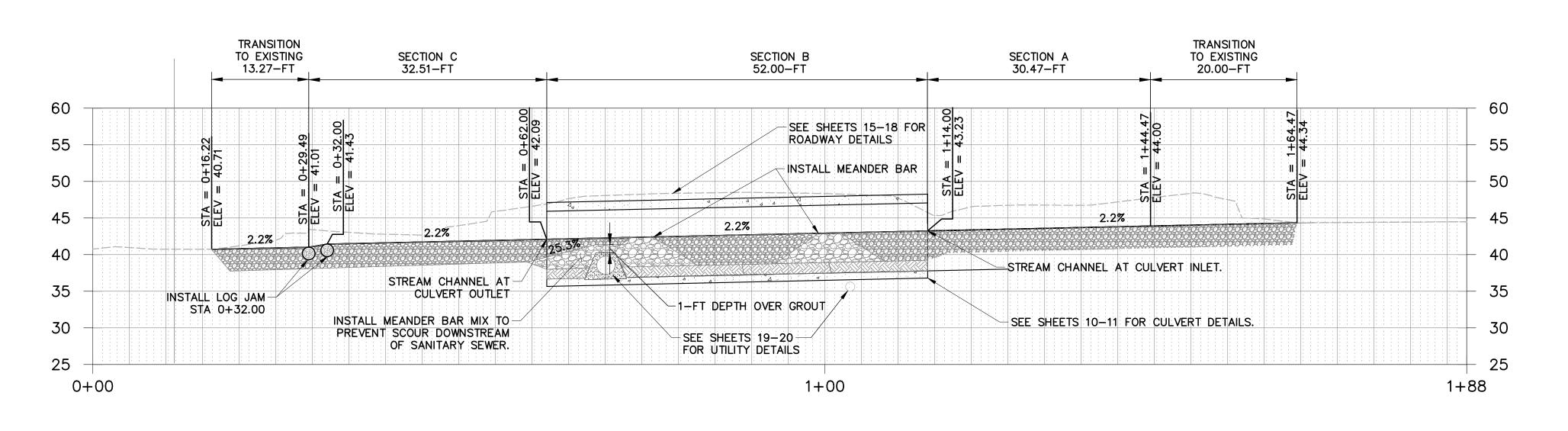
	DATE 09/30/2020
SCALE H: AS SHOWN	SHEET  11 of 23





4" DIAMETER STEEL SLEEVE-





**PROFILE VIEW** 

**HORIZONTAL SCALE** 

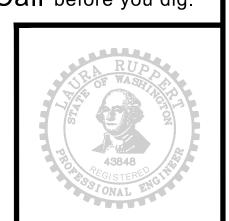
**VERTICAL SCALE** 

- TIE IN TO EXISTING EBRIGHT CREEK CENTERLINE.
- CONSTRUCT STREAM CHANNEL ALIGNMENT AND PROFILE AS SHOWN ON THIS SHEET AND TYPICAL CROSS—SECTION PER DETAILS ON

LOCATION OF LOG STRUCTURES AND BOULDERS SHOWN IN PLAN VIEW ARE APPROXIMATE. LOG STRUCTURES AND BOULDERS ARE TO BE INSTALLED AS SPECIFIED BY ENGINEER IN THE FIELD.

- (3) INSTALL LARGE WOODY MATERIAL BANK PROTECTION.
- 4 INSTALL HABITAT BOULDERS (THREE MAN).
- 5 INSTALL MEANDER BARS.
- 6 INSTALL CULVERT AND WING WALLS SEE SHEETS 10-11.
- 7 SEE SHEETS 19-20 FOR UTILITY IMPROVEMENTS.
- 8 INSTALL MEANDER BAR MIX AT 1-FT DEPTH ALONG DITCHES CONNECTING TO CREEK PER THE SPECIAL PROVISIONS.
- 10 INSTALL BOULDER TOE PROTECTION. 14
- 11 INSTALL LOG TOE (18-IN DIAM.) ALONG WINGWALL.
- ROCK WALL SEE SHEET XX.
- 13 INSTALL ROOTWAD TOE (18-IN DIAM.).

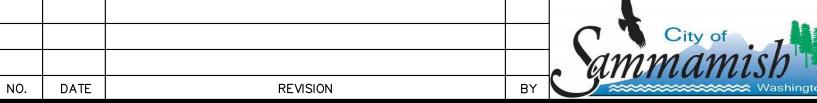




# 90% SUBMITTAL

DESIGNED BY	000000
DRAWN BY <b>JJ</b>	OSBORN CONSULTING
CHECKED BY LR	INCORPORATED

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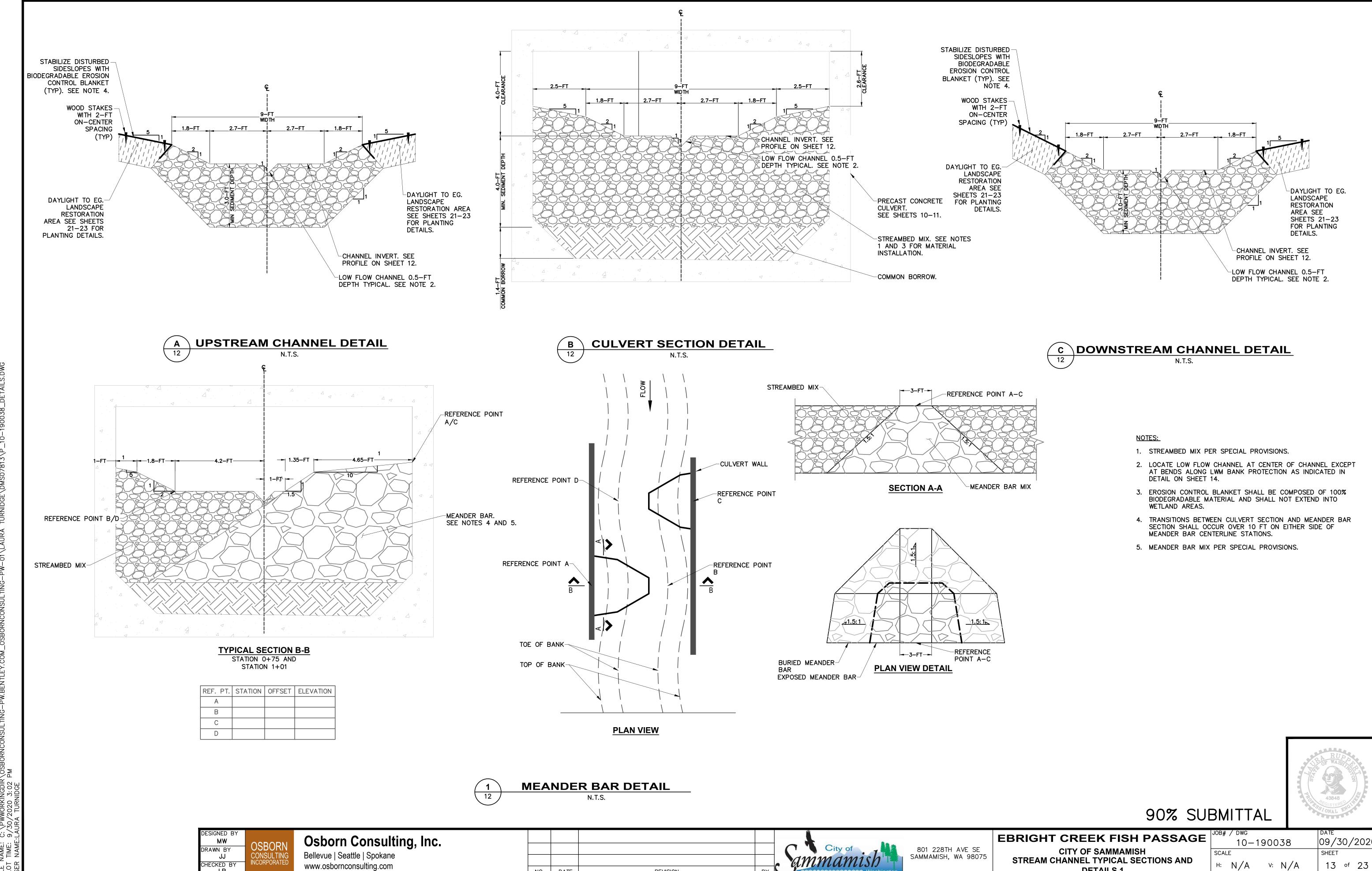


EBRIGHT CREEK FISH PASSAGE 10-**CITY OF SAMMAMISH** 

09/30/2020 10-190038

STREAM CHANNEL GRADING PLAN AND PROFILE H: 1"=10' V: 1"=10'

12 of 23

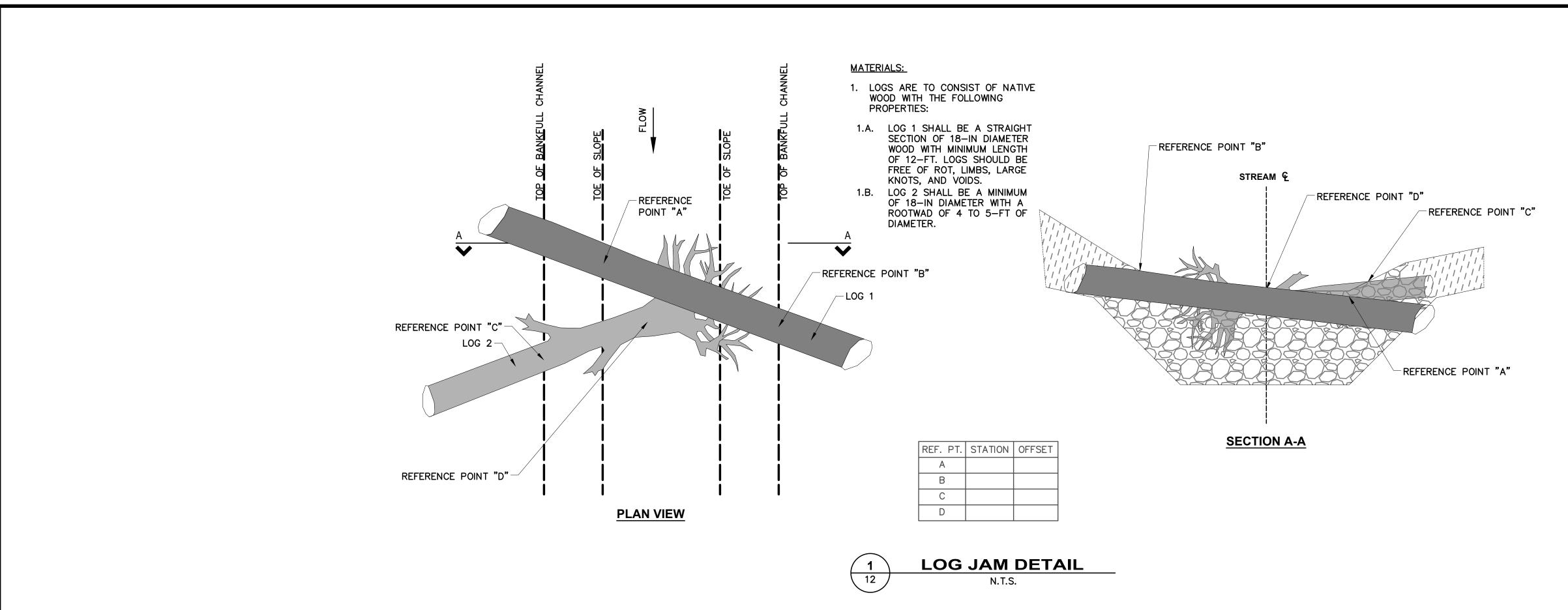


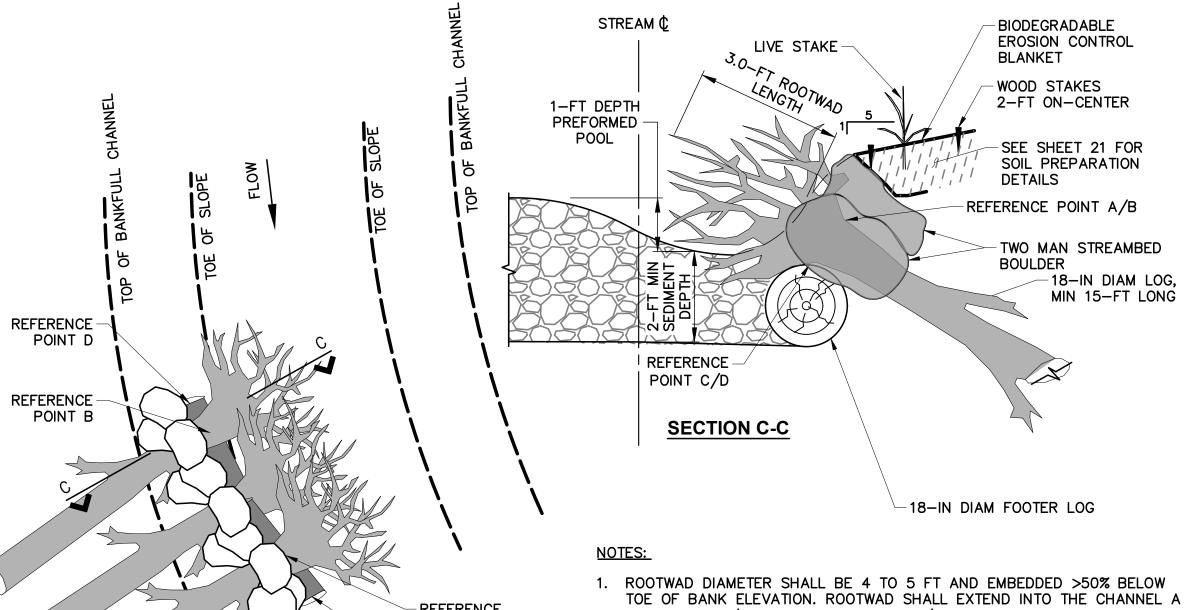
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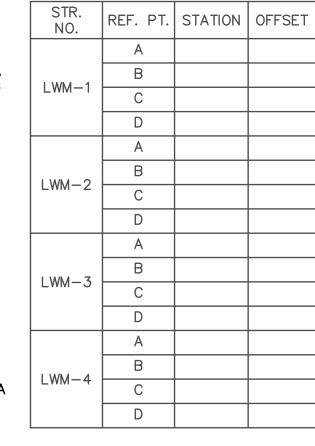
DATE

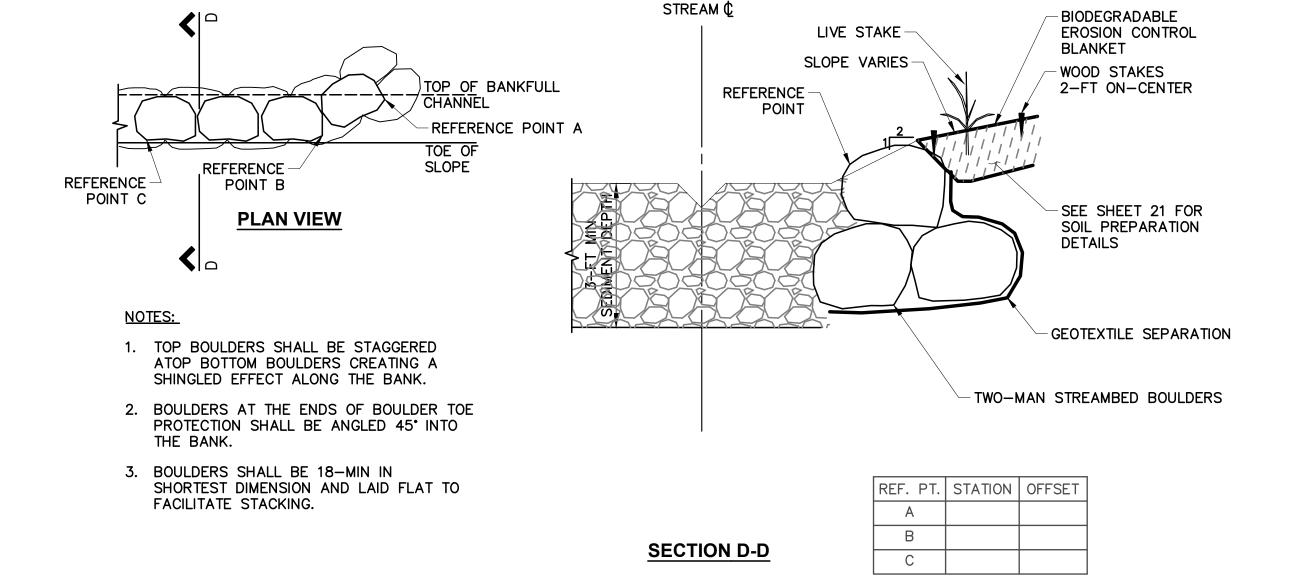
REVISION

**DETAILS 1** 











**BOULDER TOE PROTECTION DETAIL** 



DESIGNED BY	
MW	OCDODN
DRAWN BY	OSBORN
JJ	CONSULTING
CHECKED BY LR	INCORPORATED

REFERENCE

POINT A

REFERENCE

POINT C

**PLAN VIEW** 

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DIRECTED BY THE ENGINEER.

SHAPE OF THE PROPOSED BANK.

MINIMUM OF 1/3 AND A MAXIMUM OF 1/2 THE CHANNEL WIDTH AS

2. ROOTWAD SHALL BE PLACED SUCH THAT THE BASE OF THE TRUNK IS ALIGNED WITH THE BANK AND THE TRUNK IS ANGLED DOWNWARD INTO

3. STAINLESS STEEL CABLE TIE SHALL BE WRAPPED AROUND THE FOOTER

4. BOULDERS SHALL BE FITTED AS TIGHTLY AS POSSIBLE AND FORM THE

LOG AND ROOTWAD TIGHTLY BINDING THE LOGS TOGETHER.

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EBRIGHT CREEK FISH PASSAGE 10-**CITY OF SAMMAMISH** STREAM CHANNEL TYPICAL SECTIONS AND

**DETAILS 2** 

09/30/2020 10-190038 SCALE 14 of 23 H: N/A V: N/A

**ROADWAY PLAN** 

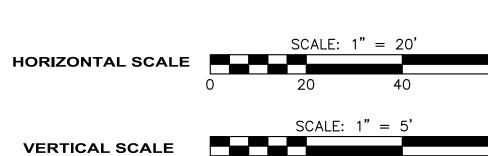
FULL DEPTH PAVEMENT

PVI STA = 12+64.56 PVI ELEV = 49.28

NO.

ROADWAY RESTORATION LIMITS

SEC. 32, T. 25 N, R. 6 E., W.M.



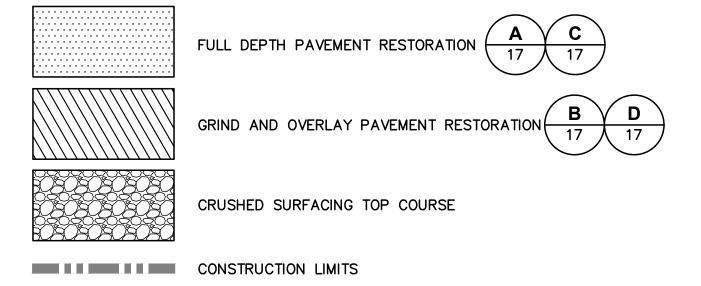
#### **GENERAL NOTES:**

- 1. SEE SHEET 12 FOR EBRIGHT CREEK GRADING
- 2. SEE SHEET 16 FOR FENCE PLAN AND DETAILS

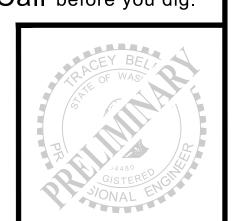
### (#) CONSTRUCTION NOTES:

- EXISTING FEATURES OR STRUCTURES TO REMAIN, PROTECT DURING CONSTRUCTION
- ADJUST EXISTING UTILITY COVER TO FINISHED GRADE
- GRAVEL DRIVEWAY TO MATCH PROPOSED ROADWAY
- EXISTING FEATURE TO BE RELOCATED. SEE SHEET 6 FOR TESC AND DEMO PLAN
- TRANSITION FROM EX SLOPE AT MAX 1.00% PER 25 LF
- 6" MIN COVER OVER CULVERT AT FOGLINE
- TRANSITION FROM EX SLOPE AT MAX 1.00% PER 25 LF
- MATCH EXISTING SLOPE
- FULL DEPTH ASPHALT CONCRETE PAVEMENT REQUIRED OUTSIDE CULVERT WALLS AND EXCAVATION (TYP).

#### LEGEND:







# **ROADWAY PROFILE**

55

DRAWN BY MH CHECKED BY TB

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DATE REVISION

GRIND AND OVERLAY

PROPOSED FINISHED
GRADE @ ELSP
CONSTRUCTION CENTERLINE



60

55

50

40

35

30

EBRIGHT CREEK FISH PASSAGE 10-**CITY OF SAMMAMISH ROADWAY PLAN AND PROFILE** 

90% SUBMITTAL 10-190038 09/30/2020 15 of 23 H: 1"=20' V: 1"=5'

50 0.62% 0.48% -0.50% 1.29% 0.74% 0.55% - EG @ ELSP CONSTRUCTION CENTERLINE APPROX. LOCATION OF PROPOSED BOX-CULVERT (SEE SHEETS 10-11 FOR DETAILS) 35 - EG ELEV @ ELSP CONSTRUCTION CENTERLINE FG ELEV @ ELSP CONSTRUCTION CENTERLINE 48.13 48.19 48.32 48.26 48.85 48.85 48.87 48.87 49.08 48.87 49.08 49.08 49.08 49.08 49.08 49.08 49.08 49.08 49.08 49.08 49.08 49.08 49.08 49.08 49.08 49.08 49.08 49.08 12+00 13+00 11+00 14+00 14+20

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GRIND AND OVERLAY

DETAILS ON SHEET 11

REVISION

**BLACK VINYL CHAIN LINK FENCE** SCALE: NTS

NO.

DATE

Call before you dig.

90% SUBMITTAL

10-190038 09/30/2020

civil structural

JL DRAWN BY CHECKED BY www.osbornconsulting.com

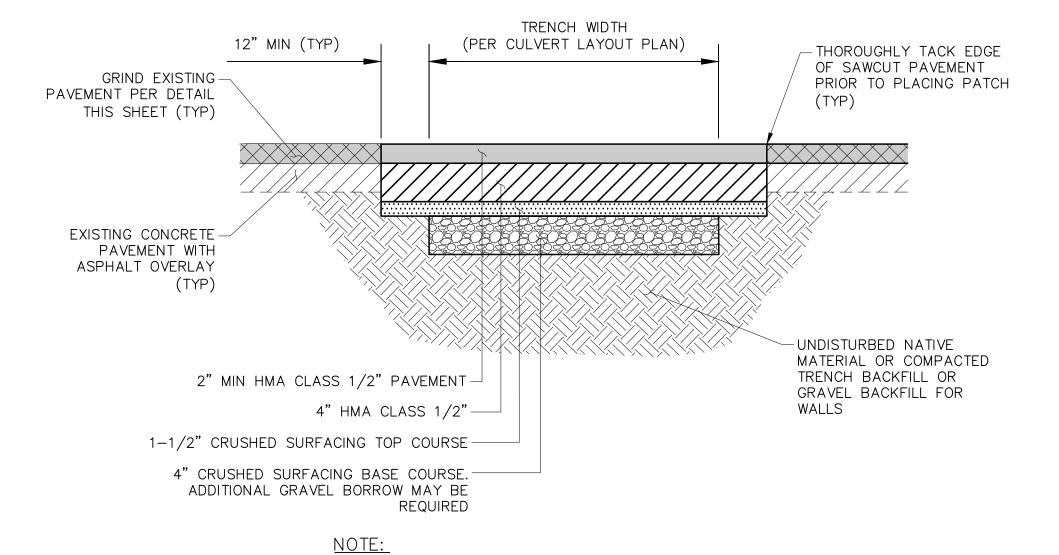
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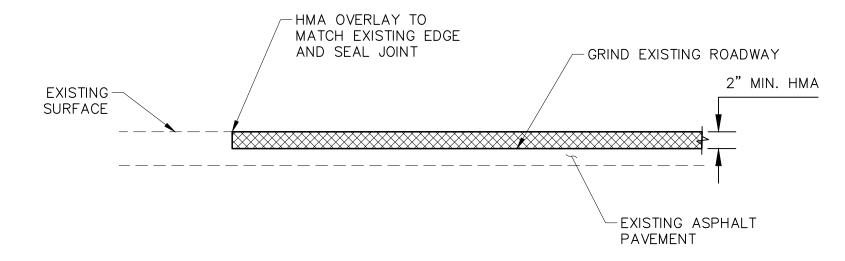
EBRIGHT CREEK FISH PASSAGE 10-**CITY OF SAMMAMISH** 

CHANNELIZATION PLANS AND FENCING DETAILS | H: 1"=20' V: N/A 16 of 23



**ROADWAY PAVEMENT RESTORATION -**NON CULVERT AREAS SCALE: NTS

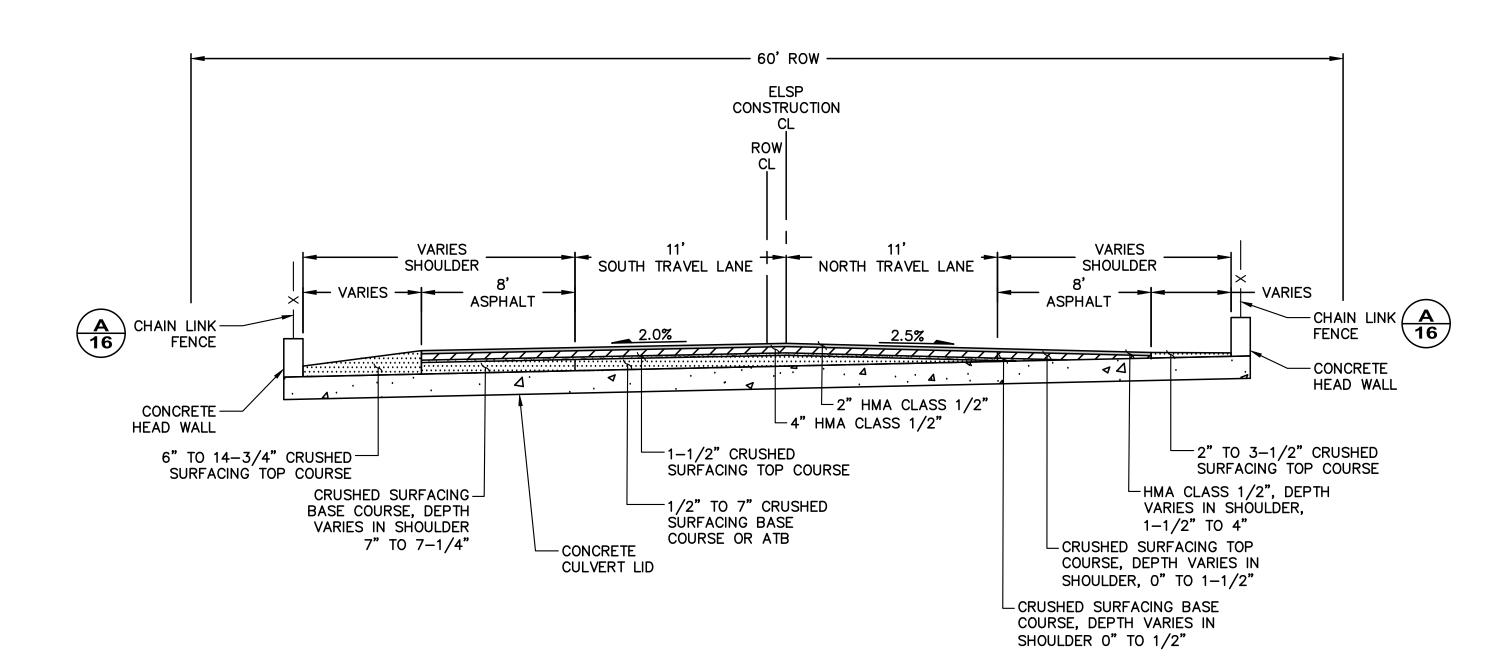
1. ALL DEPTHS SHOWN ARE MINIMUM COMPACT DEPTHS.



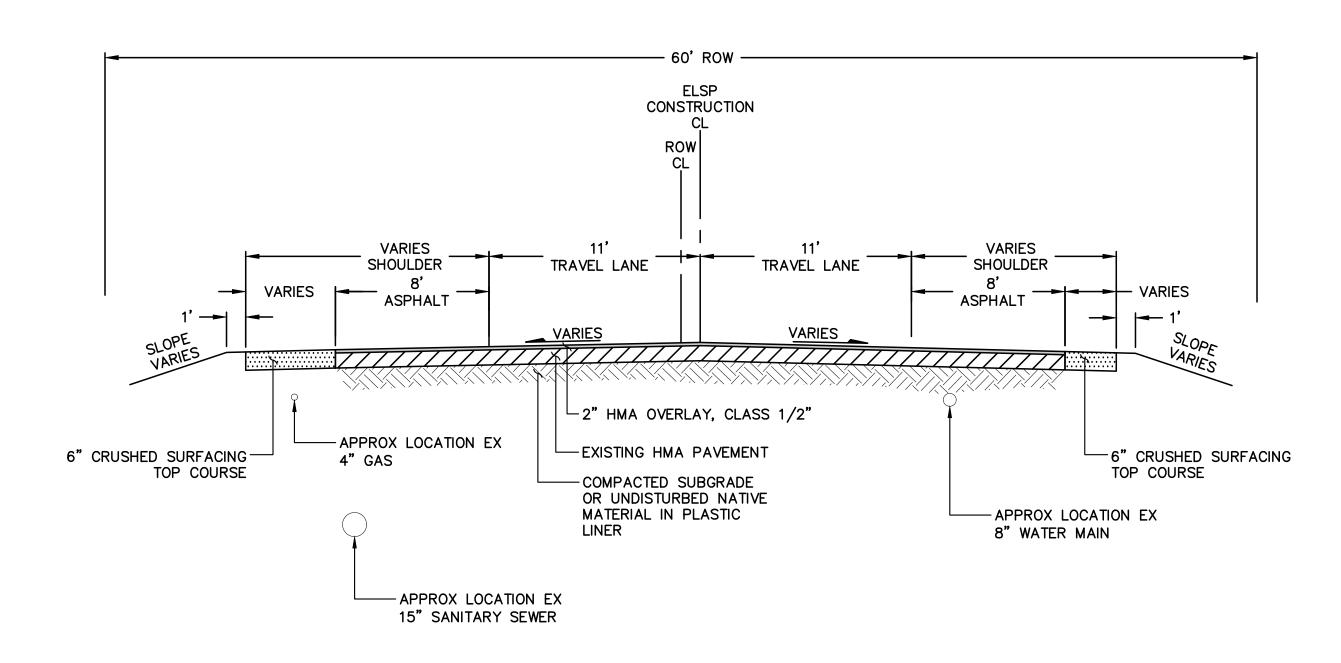
NOTE:

1. PROVIDE TEMPORARY ASPHALT RAMP UNTIL FINAL PAVING.

**PAVEMENT PLANING AND OVERLAY** SCALE: NTS

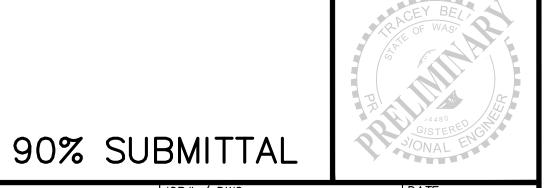


## **PAVEMENT SECTION OVER CULVERT** SCALE: NTS



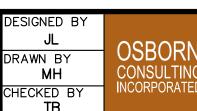
**HMA PAVEMENT OVERLAY SECTION** 15 SCALE: NTS







civil structural







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EBRIGHT CREEK FISH PASSAGE JOB# / DWG **CITY OF SAMMAMISH** 

**CIVIL DETAILS** 

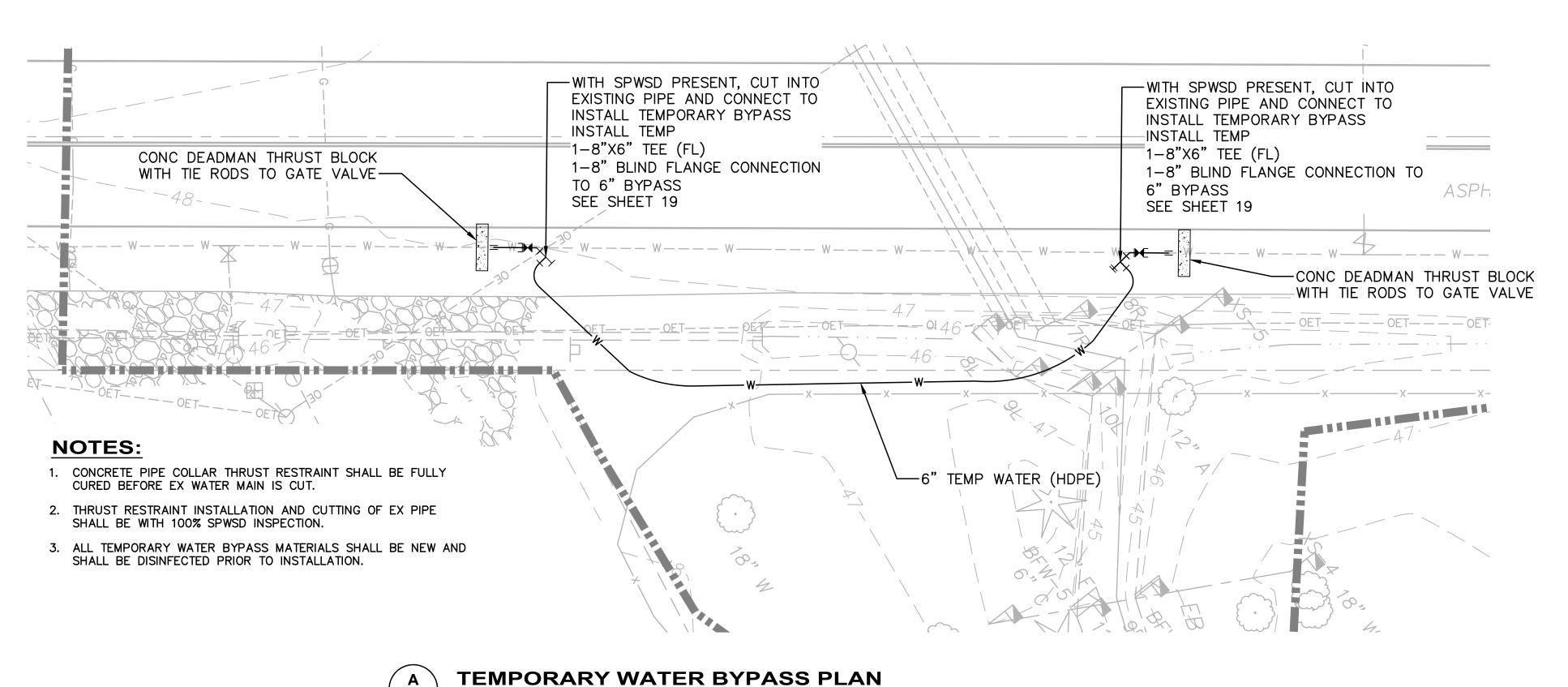
09/30/2020 10-190038 SCALE 17 of 23 SHOWN

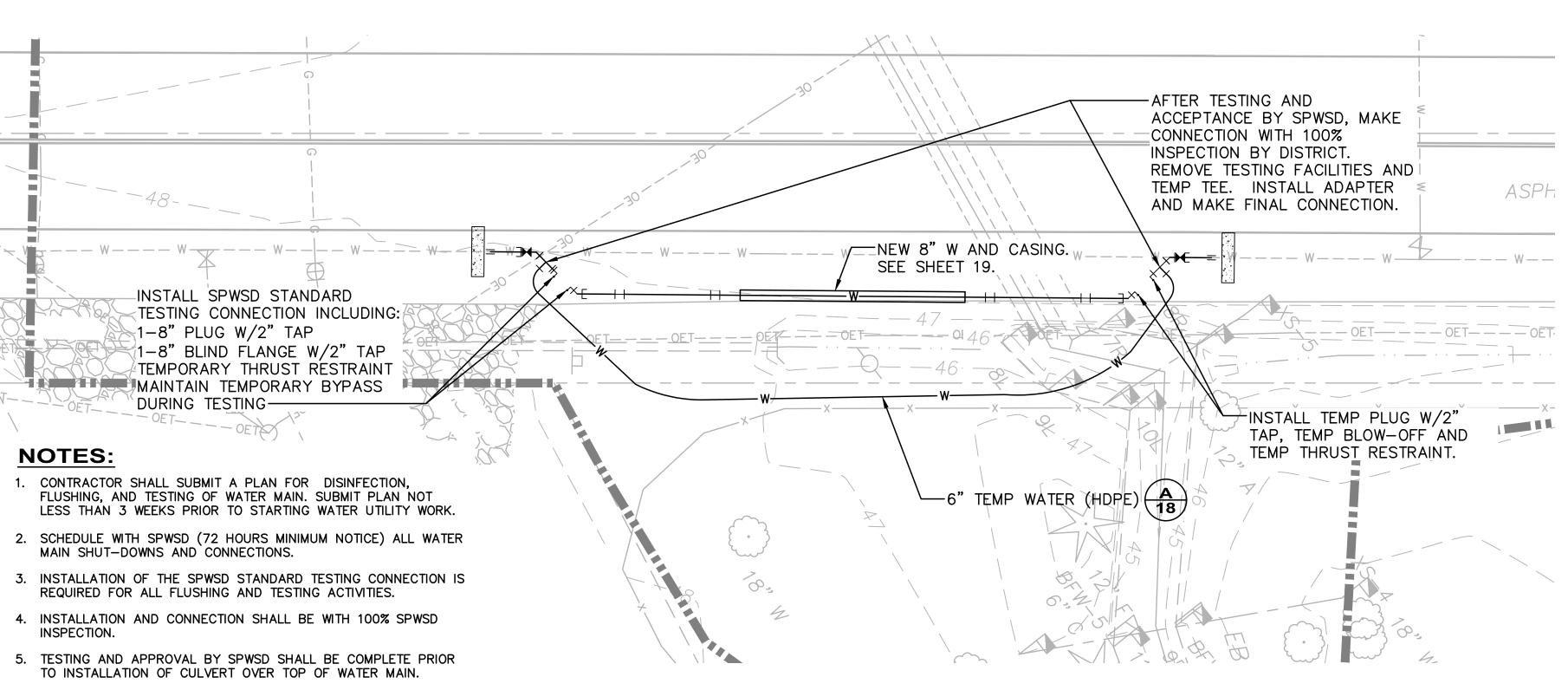
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DATE



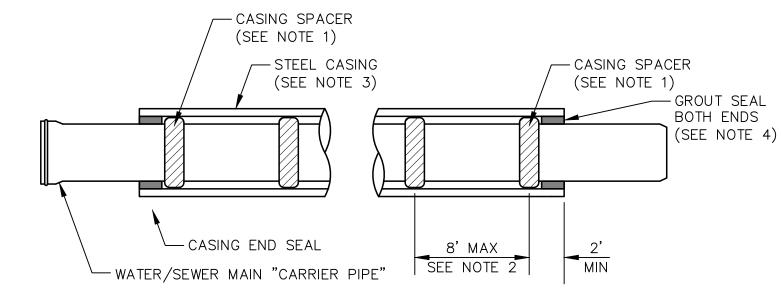


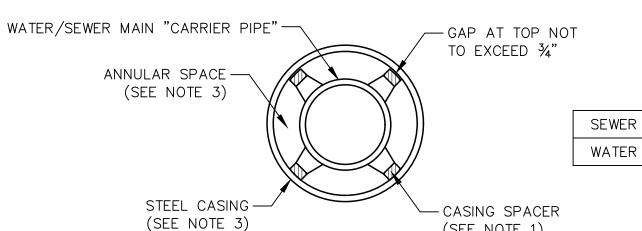
NO.

DATE

**REVISION** 

SCALE:1"=10'





(SEE NOTE 1)

CASING PIPE SIZE

26"

14"

WALL THICKNESS

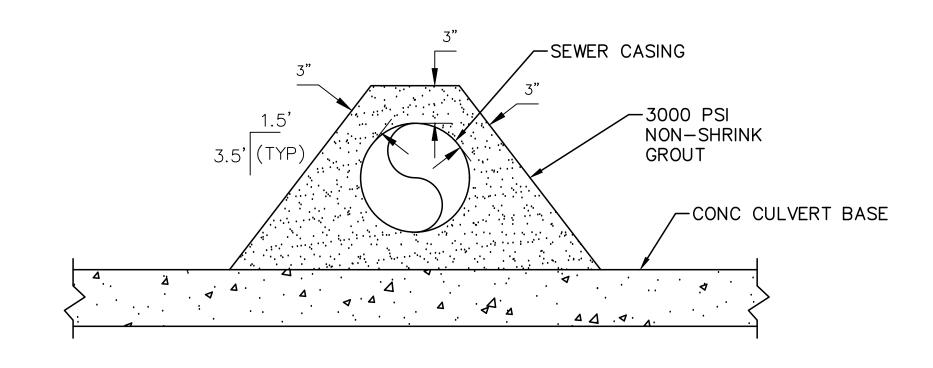
0.375"

0.375"

#### NOTES:

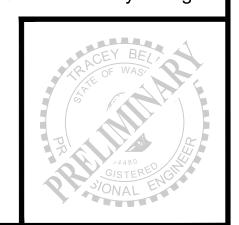
- 1. CASING SPACERS SHALL BE CENTER RESTRAINED POSITION TYPE
- 2. INSTALL A MINIMUM OF 3 SPACERS PER 20 FEET OF CARRIER PIPE SECTION EQUALLY SPACED.
- 3. AFTER HYDROSTATIC PRESSURE TEST IS COMPLETE AND APPROVED BY SPWSD, FILL ANNULAR SPACE WITH SAND.
- 4. END SEALS SHALL BE GROUT PLUGS WITH STRENGTH NO GREATER THAN
- 5. CASING SPACERS SHALL BE INSTALLED WITHIN 2' FROM CARRIER PIPE











**TESTING AND CONNECTION DETAIL** SCALE:1"=10'



JL

МН

CHECKED BY

DRAWN BY

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**EBRIGHT CREEK FISH PASSAG CITY OF SAMMAMISH** 

**UTILITY DETAILS** 

90% SUE	BMITTAL	310	ONAL	ENC	
PASSAGE	JOB# / DWG 10-190038		)9/3	0/	2C
Н	SCALE AS V	S	SHEET	- 4	_
	H: AS V: SHOWN		18	of	2.



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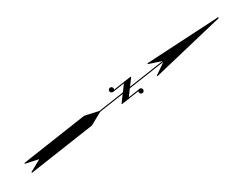
└\_2.50' MIN

NO.

DATE

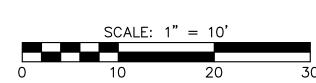
WATER MAIN PROFILE

SCALE:1"=10'





**VERTICAL SCALE** 



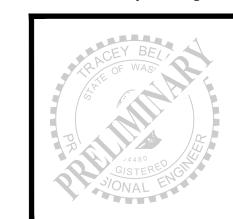
#### **GENERAL NOTES:**

- 1. CONTRACTOR SHALL CONTACT SAMMAMISH PLATEAU WATER AND SEWER DISTRICT (SPWSD) PRIOR TO WORK ON WATER MAIN. CONTRACTOR SHALL SUBMIT TEMPORARY BYPASS PLANS FOR WATER WITHIN 3 WEEKS OF NOTICE TO PROCEED. CONTRACTOR SHALL CONTACT SPWSD 7 DAYS BEFORE PERFORMING WORK ON THE WATER MAIN.
- 2. ALL WORK ON WATER MAIN SHALL MEET THE STANDARDS OF THE SPWSD TECHNICAL SPECIFICATIONS, AND NO WORK WILL BE ALLOWED WITHOUT APPROVAL FROM THE SPWSD ENGINEER.
- . WATER MAIN PIPE TRENCH SHALL BE IN ACCORDANCE WITH SPWSD STANDARD WATER DETAILS - WATER MAIN TRENCH SECTION. ALL TRENCH BACKFILL AND BEDDING MATERIAL SHALL BE IMPORTED MATERIAL AND SHALL MEET SPWSD TECHNICAL SPECIFICATIONS.
- 4. ALL EXISTING UTILITY CONDITIONS ARE APPROXIMATE. CONTRACTOR SHALL POTHOLE AND VERIFY DEPTH OF EXISTING UTILITIES AT CONNECTION POINTS PRIOR TO CONSTRUCTION.
- 5. THE CONTRACTOR SHALL PROTECT ALL PRIVATE AND PUBLIC UTILITIES FROM DAMAGE WHEN TRENCHING ACROSS OR BESIDE EXISTING UTILITIES. ALL SERVICES TO BE MAINTAINED UNTIL NEW MAIN IS ACTIVATED.
- 6. UNLESS NOTED OTHERWISE, ALL WATER MAIN SHALL BE DUCTILE IRON CL 52 RESTRAINED JOINT, TR FLEX OR APPROVED EQUIVALENT. ALL FITTINGS SHALL BE RESTRAINED JOINT MATCHING THE RESTRAINED JOINT PIPE SYSTEM. DUCTILE IRON PIPE SHALL BE CEMENT MORTAR-LINED AND ZINC COATED. SEE PART TWO, ITEM P OF THE SPWSD STANDARD MATERIALS AND CONSTRUCTION NOTES.
- 7. SEE SHEET 18 FOR TEMPORARY BYPASS AND TESTING AND CONNECTION REQUIREMENTS.
- 8. CONTRACTOR SHALL NOT OPERATE ANY VALVES EXCEPT IN THE PRESENCE OF THE SPWSD INSPECTOR. CONTRACTOR SHALL NOTIFY SPWSD 48 HOURS IN ADVANCE OF NEED TO OPERATE
- 9. DUCTILE IRON SHALL BE WRAPPED WITH POLYWRAP CONFORMING TO ANSI/AWWA A21.5/C105 (SEE AWWA C600) FOR LOW-DENSITY POLYETHYLENE FILM. THE INSIDE SURFACE OF THE POLYWRAP TO BE IN CONTACT WITH THE PIPE EXTERIOR SHALL BE INFUSED WITH A BELND OF ANTI-MICROBIAL BIOCIDE TO MITIGATE MICROBIOLOGICALLY INFLUENCED CORROSION AND VOLATILE CORROSION INHIBITOR TO CONTROL GALVANIC

## (#) CONSTRUCTION NOTES:

- BEGIN 14" CASING
- 27 LF 14" CASING W/ 8" WM  $\frac{B}{18}$
- END 14" CASING
- CLOSEST LINE VALVE APPROX 490' SOUTH
- CLOSEST LINE VALVE APPROX 560' NORTH
- CONC DEADMAN THRUST BLOCK WITH TIE RODS TO GATE VALVE. SEE SPWSD STANDARD DETAILS.
- 1 8" SLEEVE (RJ)
- 8" 45° HB (FL) 8" GATE VALVE (FLXMJ) W/ WRG, VALVE BOX AND MARKER POST 8" ADAPTER (FLXMJ) W/WRG
- 8" 45° HB (RJ)
- 8" 45° VB (RJ)
- 8" VB (RJ) IE 33.25
- CONTRACTOR SHALL PROVIDE TEMPORARY STREAM BYPASS PRIOR TO UTILITY WORK
- 8" VB (RJ) IE 33.25
- REMOVE EX 8" WATER MAIN
- CONC CULVERT. SEE SHEET 10
- 2" AIR & VACUUM RELIEF VALVE ASSEMBLY PER SPWSD STANDARD DETAIL. LOCATE AS DIRECTED BY SPWSD ENGINEER.
- VB TO BE LOCATED 8' FROM EDGE OF CULVERT (TYP)
- CASING PIPE TO EXTEND 5' PAST EDGE OF CULVERT (TYP)
- 19 NOT USED
- CONTRACTOR SHALL PROVIDE TEMPORARY WATER BYPASS. SEE GENERAL NOTE 1 THIS 18





90% SUBMITTAL

**REVISION** 

2+00

2+20

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1+00

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801 228TH AVE SE SAMMAMISH, WA 98075

**EBRIGHT CREEK FISH PASSAGE CITY OF SAMMAMISH** 

09/30/202 10-190038

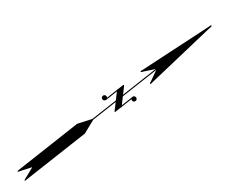
WATER UTILITY RELOCATION

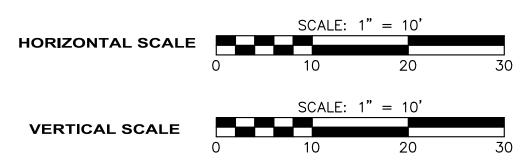
19 of 23 H: 1"=10' V: 1"=10'

civil structural

**SEWER PROFILE** 

SCALE:1"=10'





#### **GENERAL NOTES:**

- 1. CONTRACTOR SHALL CONTACT SAMMAMISH PLATEAU WATER AND SEWER DISTRICT (SPWSD) PRIOR TO WORK ON SEWER MAIN. CONTACTOR SHALL SUBMIT TEMPORARY BYPASS PLANS FOR SEWER WITHIN 3 WEEKS OF NOTICE TO PROCEED. CONTRACTOR SHALL CONTACT SPWSD 7 DAYS BEFORE PERFORMING WORK ON THE SEWER MAIN.
- 2. ALL WORK ON SEWER MAIN SHALL MEET THE STANDARDS OF THE SPWSD TECHNICAL SPECIFICATIONS, AND NO WORK WILL BE ALLOWED WITHOUT APPROVAL FROM THE SPWSD ENGINEER.
- 3. SEWER MAIN PIPE TRENCH SHALL BE IN ACCORDANCE WITH SPWSD STANDARD SEWER DETAILS - SANITARY SEWER TRENCH SECTION.
- 4. ALL EXISTING UTILITY CONDITIONS ARE APPROXIMATE. CONTRACTOR SHALL POTHOLE AND VERIFY DEPTH OF EXISTING UTILITIES AT CONNECTION POINTS PRIOR TO CONSTRUCTION.
- 5. THE CONTRACTOR SHALL PROTECT ALL PRIVATE AND PUBLIC UTILITIES FROM DAMAGE WHEN TRENCHING ACROSS OR BESIDE EXISTING UTILITIES. ALL SERVICES TO BE MAINTAINED UNTIL NEW MAIN IS ACTIVATED.
- 6. PIPE FOR SANITARY SEWER SHALL BE DUCTILE IRON THICKNESS CLASS 52 WITH PROTECTO 401 EPOXY LINING AND EXTERIOR COATING OF ARC-SPRAYED ZINC PER ISO 8179.
- 7. A FLEXIBLE FITTING SHALL BE INSTALLED ON PIPES ENTERING OR EXITING ANY STRUCTURE, PLACED WITHIN 5 FT OF THE EXTERIOR WALL OF THE STRUCTURE PER SPWSD STANDARDS.

### (#) CONSTRUCTION NOTES:

- REMOVE AND REPLACE EXISTING 15" SANITARY SEWER W/ 18" DIP
- 2) 30" PENETRATION THROUGH CULVERT (TYP)
- BEGIN 26" CASING
- 26" CASING W/ 18" SS
- 5 END 26" CASING
- SSMH 1-48" SADDLE MAINTENANCE HOLE PER SPWSD STANDARD
- SSMH 2-48" SADDLE MAINTENANCE HOLE PER SPWSD STANDARD DETAIL
- 15" TEMPORARY PUMPED SS BYPASS. CONTRACTOR SHALL SUBMIT A SEWER BYPASS PLAN TO SPWSD FOR REVIEW AND APPROVAL PRIOR TO BEGINNING WORK. SEE SPECIFICATION 7-17 FOR REQUIREMENTS. BYPASS SHOWN IS APPROXIMATE AND SCHEMATIC ONLY. CONTRACTOR SHALL VERIFY EXISTING FACILITIES, DESIGN BYPASS AND COORDINATE WITH SPWSD. SEE NOTE 1
- 9 NOT USED
- CASING PIPE TO BE EMBEDDED WITHIN GROUT
- CONTRACTOR SHALL SURVEY INVERT OF EXISTING SEWER AT EACH SADDLE MH AND PROVIDE TO ENGINEER. ADJUST SLOPE OF NEW 18" SS AND INVERTS AS DIRECTED BY ENGINEER
- PROVIDE WATERTIGHT JOINT WHERE PIPE PASSES THROUGH CULVERT WALL, KOR-N-SEAL BOOT OR APPROVED EQUIVALENT
- SEE SHEET 12 FOR STREAMBED MATERIALS



Call before you dig.

90% SUBMITTAL

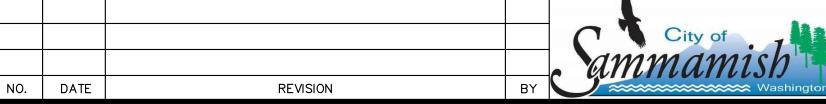
civil structural

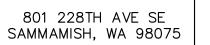
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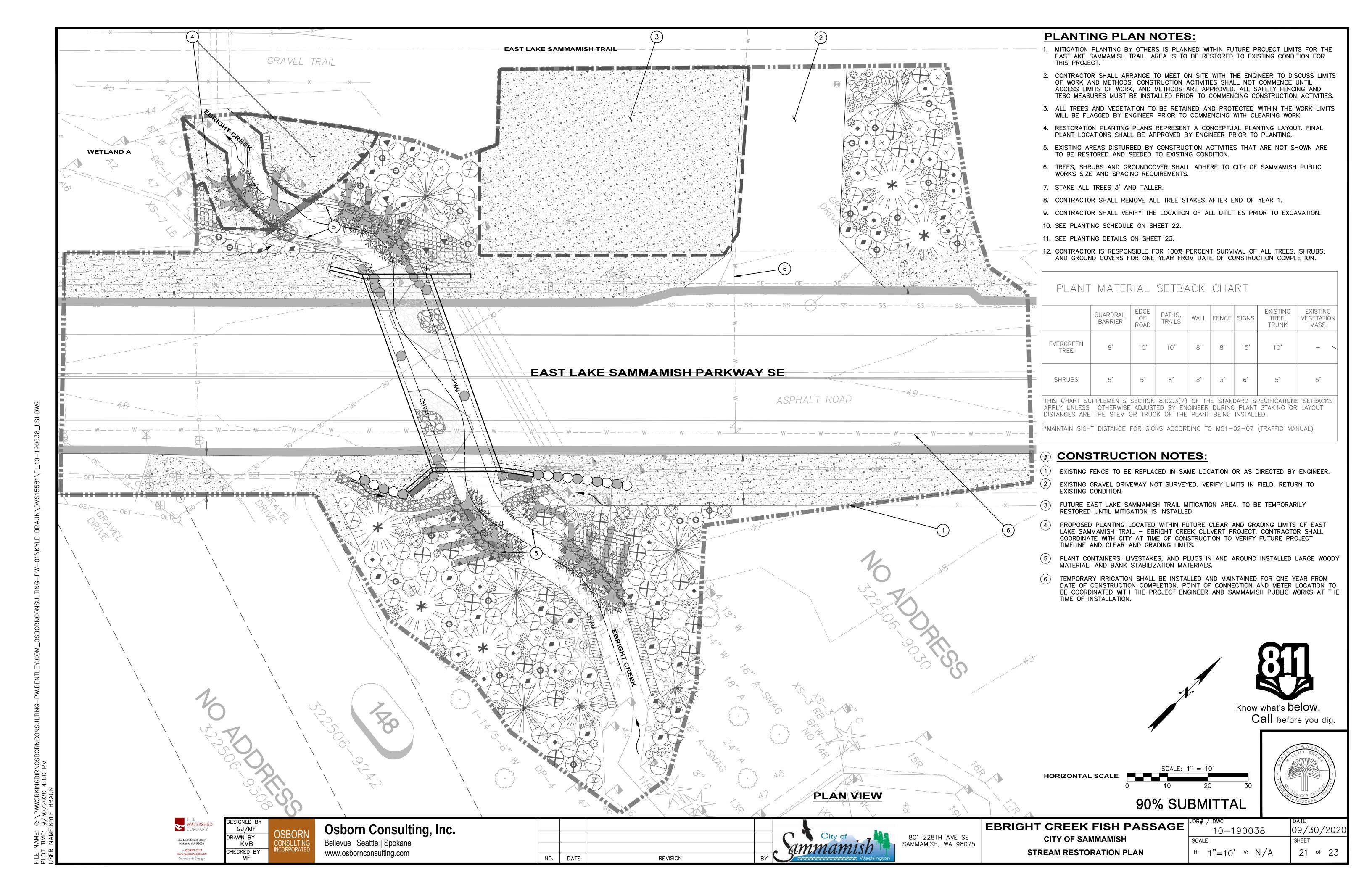


**EBRIGHT CREEK FISH PASSAGE** 

09/30/202 10-190038 H: 1"=10' V: 1"=10' 20 of 23

**CITY OF SAMMAMISH** 

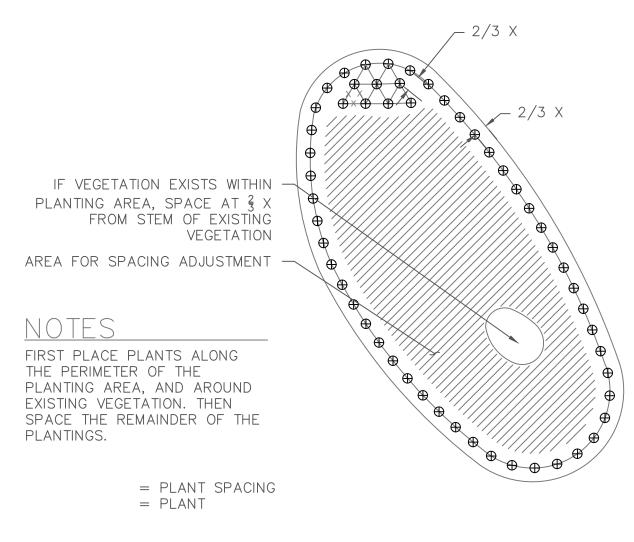
SEWER UTILITY RELOCATION



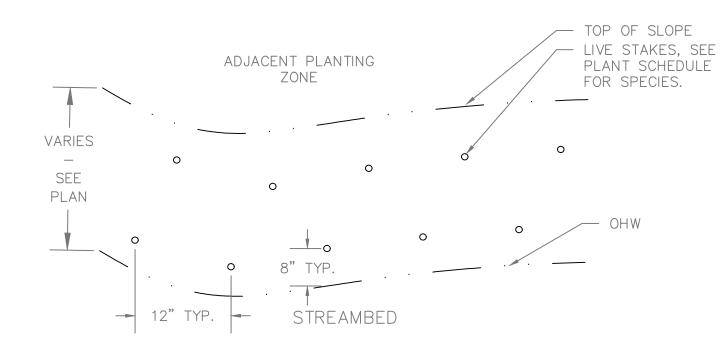
HATCH AREAS	BOTANICAL / COMMON NAME	SIZE	SPACING	QTY
	RIPARIAN RESTORATION AREA			424 SF
	CORNUS SERICEA RED TWIG DOGWOOD	LIVE STAKE. MIN. 48"	12" o.c.	148
	SALIX LUCIDA PACIFIC WILLOW	LIVE STAKE. MIN. 48"	12" o.c.	148
	SALIX SITCHENSIS SITKA WILLOW	LIVE STAKE. MIN. 48"	12" o.c.	150
	EMERGENT/BACKWATER RETORATION AREA			329 SF
	ATHYRIUM FILIX—FEMINA COMMON LADY FERN	10" PLUG	12" o.c.	69
	CAREX OBNUPTA SLOUGH SEDGE	10" PLUG	12" o.c.	69
	RIBES BRACTEOSUM STINK CURRANT	1 GALLON	24" O.C.	9
	SCIRPUS ACUTUS HARDSTEM BULRUSH	10" PLUG	12" o.c.	86
	SCIRPUS MICROCARPUS SMALL—FRUITED BULRUSH	10" PLUG	12" o.c.	86
GROUND COVERS	BOTANICAL / COMMON NAME	SIZE		QTY
	WSDOT STD 8-02.2(9-14.3).OPT10.LSP EXCLUDES LUPINE SP.			7,293 SF
<b>(</b>	ARCTOSTAPHYLOS UVA-URSI KINNIKINNICK	1 GALLON		10
$\odot$	ATHYRIUM FILIX—FEMINA COMMON LADY FERN	1 GALLON		9
	POLYSTICHUM MUNITUM WESTERN SWORD FERN—	1 GALLON		90

## PLANT SCHEDULE NOTES:

- 1. AMEND ALL PLANTING AREAS AND SEEDING AREAS PER SOIL PREPARATION DETAILS ON SHEET 23. SOIL AMENDMENT SHALL BE WSDOT STD. FINE COMPOST.
- 2. ALL TREES SHALL BE MINIMUM 6' HEIGHT, B&B OR CONTAINER. FULL, DENSE, AND SYMMETRICAL IN SHAPE.
- 3. ALL 1 GALLON CONTAINER PLANTS SHALL BE MINIMUM HEIGHT OF 12".
- 4. IN EMERGENT BACKWATER RESTORATION AREA CLUSTER SAME SPECIES IN GROUPS OF 3, 5, AND 7.
- 5. LIVE STAKES SHALL BE  $\frac{1}{2}$ " 1" DIAMETER X 48" LONG, MINIMUM 12 LATERAL BUDS PER STAKE.
- 6. HYDROSEED SHALL BE DONE PER SEEDING AND MULCHING WSDOT STANDARD SPECIFICATION 8-01.







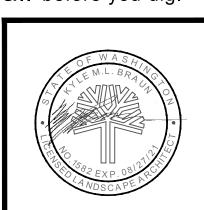
PLAN

## LIVE STAKE SPACING

NOT TO SCALE



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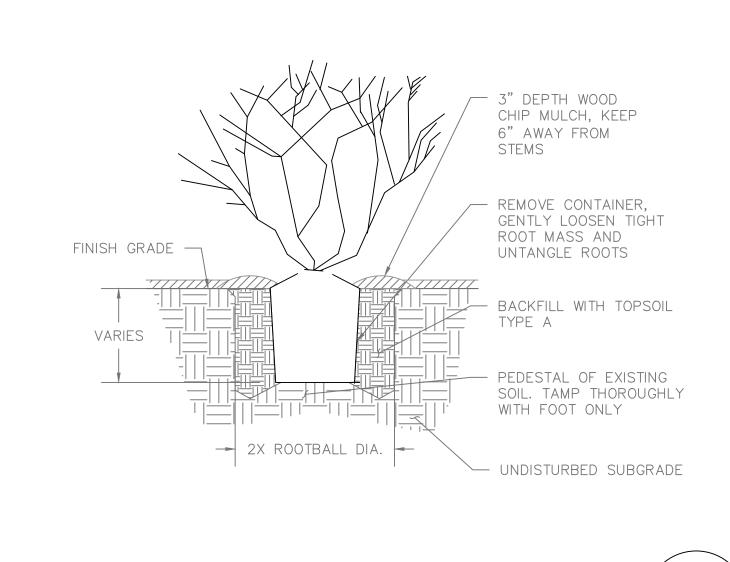
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ammamish NO. DATE REVISION

EBRIGHT CREEK FISH PASSAGE JOB# / DWG **CITY OF SAMMAMISH** STREAM RESTORATION PLANT SCHEDULE

90% SUBMITTAL 09/30/2020 10-190038 22 of 23 H: 1"=10' V: N/A

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TREE AND SHRUB PLANTING

NOT TO SCALE

10" WETLAND PLUG REFER TO PLANT SCHEDULE SET CROWN OF ROOT BALL <sup>1</sup>" MAX ABOVE BIODEGRADABLE EROSION -FINISH GRADE CONTROL BLANKET FINISH GRADE -HAND EXCAVATE PLANTING PIT TO ACCOMMODATE PLUG PLANTING

**PLUG PLANTING** 

NOT TO SCALE

1. SEE SHEET 22 FOR PLANT SPACING AND LAYOUT.

2. APPLY SOIL PREPARATION TYPE 2 WITHOUT MULCH (OMIT STEP 5 OF DETAIL

5, THIS SHEET). 3. TO PLANT THROUGH EROSION CONTROL BLANKET, CUT 'X' TWICE AS WIDE AS

THE ROOTBALL THROUGH BLANKET.

SEE

PLANTING

SCHEDULE

FOR MIN. LENGTH

> NOTES:
>
> 1. INSTALL HARDWOOD CUTTINGS DURING THEIR DORMANCY. DO NOT ALLOW THEM TO DRY OUT.

2. CUTTINGS SHALL BE  $\frac{3}{4}$ " TO 1" IN DIAMETER OR APPROVED EQUIVALENT. 3. INSTALL TO MIN. 2/3RDS DEPTH INTO SOIL. USE TRIANGULAR SPACING. SEE

PLANTING SCHEDULE FOR SPACING. 4. INSURE THAT BUDS ARE POINTING UP.

2/3RDS - | | \_\_\_\_|

1/3RD

CUTTING

CUTTING

HT.

5. FIRM UP SOIL AROUND INSTALLED CUTTING.

6. WATER AFTER PLANTING AND BEFORE MULCHING.

## LIVE STAKE PLANTING

NOT TO SCALE

MINIMUM TWO LIVE BUDS EXPOSED ABOVE

- TAMP SOIL AROUND CUTTING, ENSURE NO

FORM PILOT HOLE W/ ROCK BAR, REBAR

HAMMER OR POUND IN CUTTINGS UNLESS

APPROVED BY RESTORATION SPECIALIST.

OR OTHER PLANTING TOOL. DO NOT

AIR POCKETS

- FINISH GRADE

AS SPECIFIED

- SOIL AMENDMENTS

- ANGLE CUT AT BASE

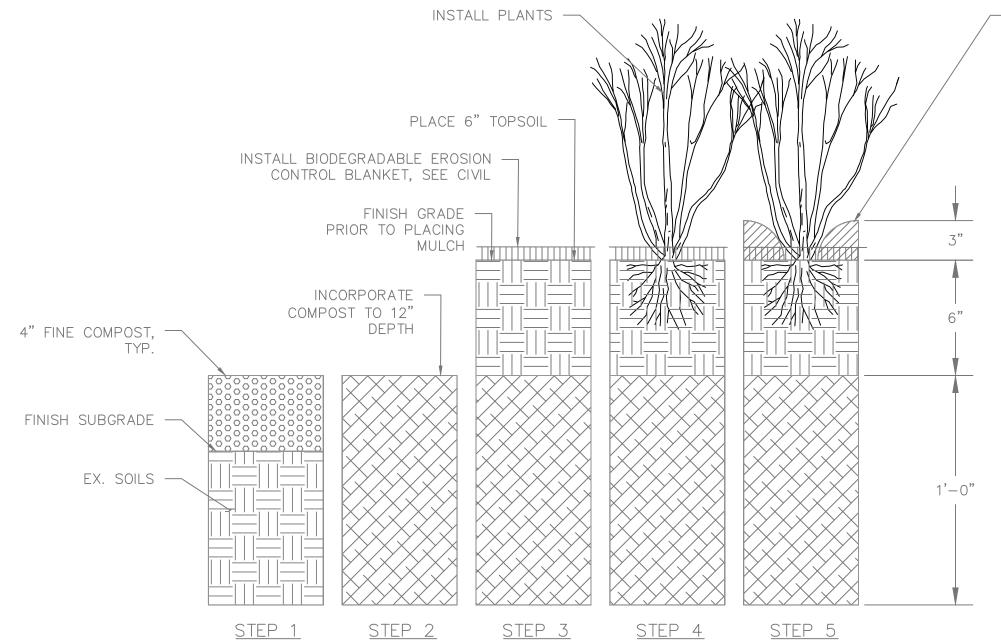
INSTALL 3" DEPTH WOOD CHIP MULCH, KEEP 6"

- SPECIFIED MULCH LAYER

INCORPORATE COMPOST HYDROSEED -TO 8" DEPTH 2" FINE COMPOST, TYP -FINISH GRADE -PLANTING AREA PRIOR TO PLACING PREPARATION SEQUENCE FINISH SUBGRADE -STEP 1 PLACE 3" FINE COMPOST STEP 2 INCORPORATE FINE COMPOST TO 8" DEPTH EX. SOILS — STEP 3 INSTALL SEED, SEE PLANTING PLAN FOR LOCATIONS.

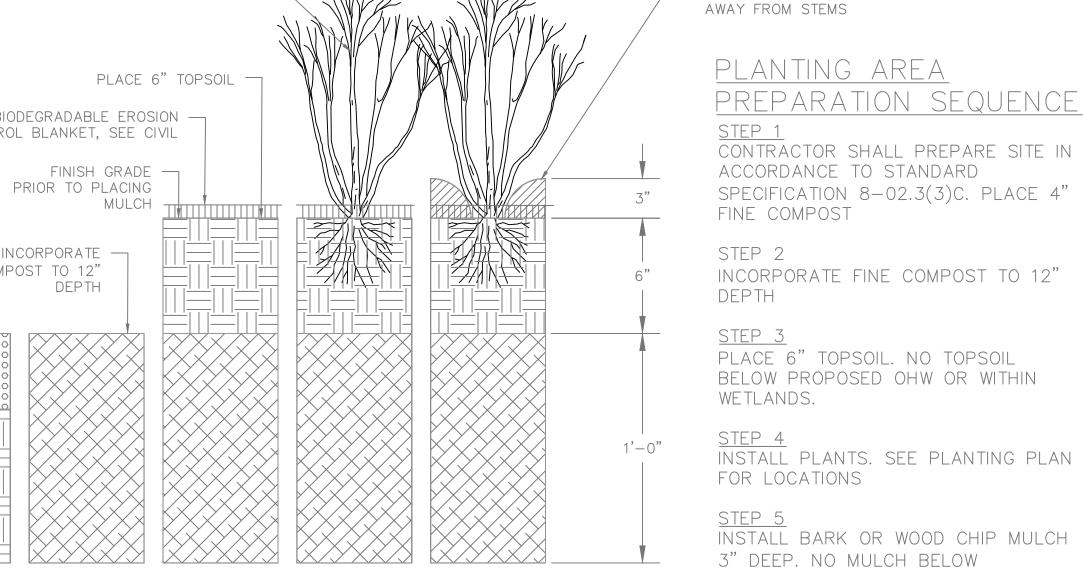
STEP 2 SOIL PREPARATION SEQUENCE 1 (SEEDED AREAS, NO WETLAND)

NOT TO SCALE



**SOIL PREPARATION SEQUENCE 2 (PLANTING AREAS)** 

NOT TO SCALE



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PROPOSED OHW OR WITHIN WETLANDS.

p 425.822.5242 www.watershedco.com Science & Design

STEP 1

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EBRIGHT CREEK FISH PASSAGE **CITY OF SAMMAMISH** STREAM RESTORATION PLANTING DETAILS

09/30/2020 10-190038

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H: 1"=10' V: N/A 23 of 23