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2	– LEGEND AND ABBREVIATIONS
3	– EXISTING SITE CONDITIONS
4	– TESC PLAN AND TREE PROTECTION 1
5	– TESC PLAN AND TREE PROTECTION 2
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ISSAQUAH CREEK MITIGATION PROJECT

This topographic map depicts the Issaquah Creek area, highlighting the Middle Issaquah Creek Natural Area. The map includes the following details:


- Property Owners and Addresses:**
 - 222306-9163 HUGHES, WILFORD & KATHY
 - 222306-9162 HUGHES, WILFORD & KATHY
 - 222306-9089 HUGHES, WILFORD & KATHY
 - 222306-9091 FORGIE, MARION
 - 222306-9013 HARER, JULIE ANNA
 - 222306-9174 KC PARKS
 - 222306-9101 RECTOR, THOMAS & RUTH
 - 222306-9122 KC PARKS
 - 222306-9015 KC PARKS
 - 222306-9109 CLARK, DOUGLAS
- Geographical Features:**
 - ISSAQUAH CREEK** is shown flowing through the area.
 - MIDDLE ISSAQUAH CREEK NATURAL AREA** is indicated by a stippled pattern on the right side of the map.
- Infrastructure:**
 - SE 156TH ST.** and **SE 158TH ST.** are marked as horizontal roads.
 - CEDAR GROVE RD. SE** is marked as a vertical road on the left.
- Elevation and Contours:** The map features numerous contour lines with numerical values (e.g., 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000) indicating the terrain's elevation.
- Map Elements:**
 - A north arrow is located on the right side of the map.
 - A scale bar at the bottom right indicates distances in feet, with markings for 200, 0, and 200 feet.

PARCEL NUMBER: 222306-9122
SITE ADDRESS: 23731 SE 156TH ST 98027
LEGAL: TRACT 3 OF KC SHORT PLAT NO 674195 RECORDING NO 7707250892 SD PLAT DAF - SW 1/4 OF SE 1/4 LY E OF CEDAR GROVE RD LESS S 403 FT LESS CO RD
PARCEL NUMBER: 222306-9015
SITE ADDRESS: N/A
LEGAL: PP ACT 39929427 MOBILE HOME TRACT 4 OF KC SHORT PLAT NO 674195 RECORDING NO 7707250892 SD PLAT DAF - SW 1/4 OF SE 1/4 LY E OF CEDAR GROVE RD LESS S 403 FT LESS CO RD



**Know what's below.
Call before you dig.**

(UNDERGROUND UTILITY LOCATIONS ARE APPROX.)

		NUM.	REVISION	BY	DATE	APPROVED: WILL MANSFIELD, P.E.	6/2018	PROJECT No. 1122266				<div><div> King County</div><div>Department of Natural Resources and Parks Water and Land Resources Division Rural and Regional Services Section Ecological Restoration and Engineering Services Unit <i>Christie True, Director</i></div></div>	ISSAQUAH CREEK MITIGATION PROJECT	VICINITY MAP AND SHEET INDEX	SHEET 1 OF 22 SHEETS 2017-09
FIELD BOOK: --		<div>30% DESIGN PROGRESS COPY 6/4/2018</div>				PROJECT MANAGER: JOSH LATTERELL, PH.D.	6/2018								
SURVEYED: PARAMETRIX						DESIGNED: RACHAEL VAICUNAS, P.E.	6/2018								
SURVEY BASE MAP: PU1521282P200T201SV-BM						SCOTT MUCHARD, P.E.	6/2018								
CHECKED: S. SHARPE	10/2017					LAURA HARTEMA	6/2018								
						TODD HURLEY	6/2018								
		NUM.	RECORD CHANGES APPROVED	BY	DATE	CAD DESIGN: KAY KITAMURA	6/2018	CONTRACT No. --							

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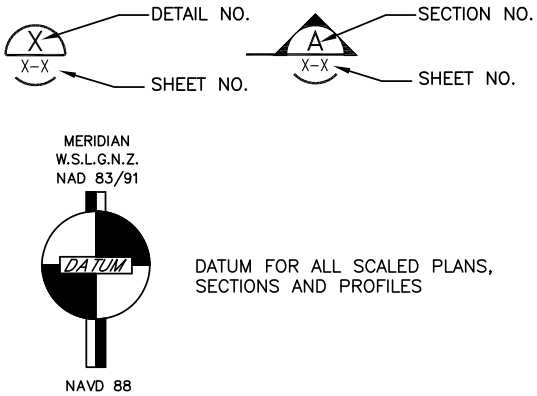
ABBREVIATIONS

APPROX.	APPROXIMATELY
BMP	BEST MANAGEMENT PRACTICE
CL	CENTERLINE
CY	CUBIC YARD
EA	EACH
EL	ELEVATION
EOP	EDGE OF PAVEMENT
EXIST	EXISTING
FT	FEET/FOOT
GD	GROUND
HORIZ	HORIZONTAL
HT	HUB AND TACK
IE	INVERT ELEVATION
INV	INVERT
KC	KING COUNTY
KC WLRD	KING COUNTY WATER AND LAND RESOURCES DIVISION
LCPE	LINED CORRUGATED POLYETHYLENE PIPE
LF	LINEAR FOOT/FEET
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
MISC	MISCELLANEOUS
MON	MONUMENT
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
MW	MONITORING WELL
N	NORTH
NO	NUMBER
NTS	NOT TO SCALE
OHW	ORDINARY HIGH WATER
PP	POWER POLE
PSP&L	PUGET SOUND POWER AND LIGHT
QTY	QUANTITY
R	RADIUS
RD	ROAD
REQ'D	REQUIRED
RT	RIGHT
R/W	RIGHT-OF-WAY
SD	STORM DRAIN
SF	SQUARE FEET/FOOT
SHT	SHEET
SPEC	SPECIAL
SPECS	SPECIFICATIONS
SQ	SQUARE
ST	STREET
STA	STATION
STM	STREAM
T	TELEPHONE
TCE	TEMPORARY CONSTRUCTION EASEMENT
TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
TEMP	TEMPORARY
TYP	TYPICAL
VERT.	VERTICAL
WM	WATER METER
W/O	WITHOUT
YDS	YARDS
&	AND

LEGEND - BASEMAP

	BENCHMARK LOCATION
	FOUND CASIED MONUMENT
	SET HUB
	SET MAG NAIL
	SET REBAR WITH CAP
	SET SCRIBE X
	SIGN
	DECIDUOUS TREE
	CONIFEROUS TREE
	TELEPHONE RISER
	GATE POST
	TREE GROVE
	MONITORING WELL
	POWER POLE
	POWER POLE WITH DROP LINE
	POWER POLE WITH LIGHT
	MAIL BOX
	WOOD POST
	STORM DRAIN PIPE
	UNDERGROUND FIBER OPTICS
	UNDERGROUND POWER
	OVERHEAD POWER
	EDGE OF PAVEMENT
	GUARDRAIL
	STREAM THALWEG
	DITCH CENTER LINE
	ESTIMATED ORDINARY HIGH WATER LINE
	100 YEAR FLOODPLAIN
	WOOD FENCE
	CHAIN LINK FENCE
	BARBED WIRE FENCE
	EXISTING INDEX CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED INDEX CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING WETLAND AREA PROVIDED BY WLRD
	EXISTING RIPRAP

DETAIL SYMBOLS



LEGEND - CONSTRUCT

	CE	CONSERVATION EASEMENT – VALLEJOS
	HVF	TEMPORARY HIGH VISIBILITY FENCE
		STRAW WATTLE
	BV	BEAVER FENCE
	C&G	CLEARING AND GRADING LIMITS
	SF	SILT FENCE
	250	FINISHED GRADE INDEX CONTOUR
	251	FINISHED GRADE MINOR CONTOUR
		SETTLING BASIN
		STABILIZED CONSTRUCTION ENTRANCE
		STAGING
		WETLAND CROSSINGS
		TEMPORARY ACCESS ROUTE
		VEGETATED FILTER
		TEMPORARY WATER ISOLATION SYSTEM
		ON-SITE SALVAGED TREE

NUM.	REVISION	BY	DATE
NUM.	RECORD CHANGES APPROVED	BY	DATE

APPROVED:	WILL MANSFIELD, P.E.	5/2018
PROJECT MANAGER:	JOSH LATTERELL, PH.D.	5/2018
DESIGNED:	RACHAEL VAICUNAS, P.E.	5/2018
	SCOTT MUCHARD, P.E.	5/2018
	LAURA HARTEMA	5/2018
	TODD HURLEY	5/2018
CAD DESIGN:	KAY KITAMURA	5/2018

PROJECT No.	1122266
CONTRACT No.	--

King County
Department of Natural Resources and Parks
Water and Land Resources Division
Rural and Regional Services Section
Ecological Restoration and Engineering Services Unit
Christie True, Director

**ISSAQUAH CREEK
MITIGATION PROJECT**

LEGEND AND ABBREVIATIONS



Know what's below.
Call before you dig.

(UNDERGROUND UTILITY LOCATIONS ARE APPROX.)

SHEET
2
OF
22
SHEETS

2017-09

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SE 1/4, SEC. 22, TWN. 23N, R. 6E, W.M.

NOTE:

WETLAND BOUNDARIES WERE DELINEATED USING A TRIMBLE GEO7X GEOGRAPHIC POSITIONING SYSTEM (GPS) WITH A MINIMUM SUB-METER HORIZONTAL ACCURACY OF ≤ 2 FT.

HORIZONTAL DATUM:

HORIZONTAL DATUM FOR THIS SURVEY IS NAD 1983(91) BASED ON KING COUNTY POINT DESIGNATIONS 4086 AND 4136.

PROJECTION IS WASHINGTON STATE PLANE NORTH ZONE, U.S. SURVEY FEET

POINT DESIGNATION 4086
NORTHING: 169603.3902
EASTING: 1345334.9204
POINT DESIGNATION 4136
NORTHING: 179145.5216
EASTING: 1345189.378

VERTICAL DATUM:

VERTICAL DATUM IS NAVD88 BASED ON KING COUNTY POINT DESIGNATION 4136

POINT DESIGNATION 4136
ELEVATION: 226.56

BASIS OF BEARING:

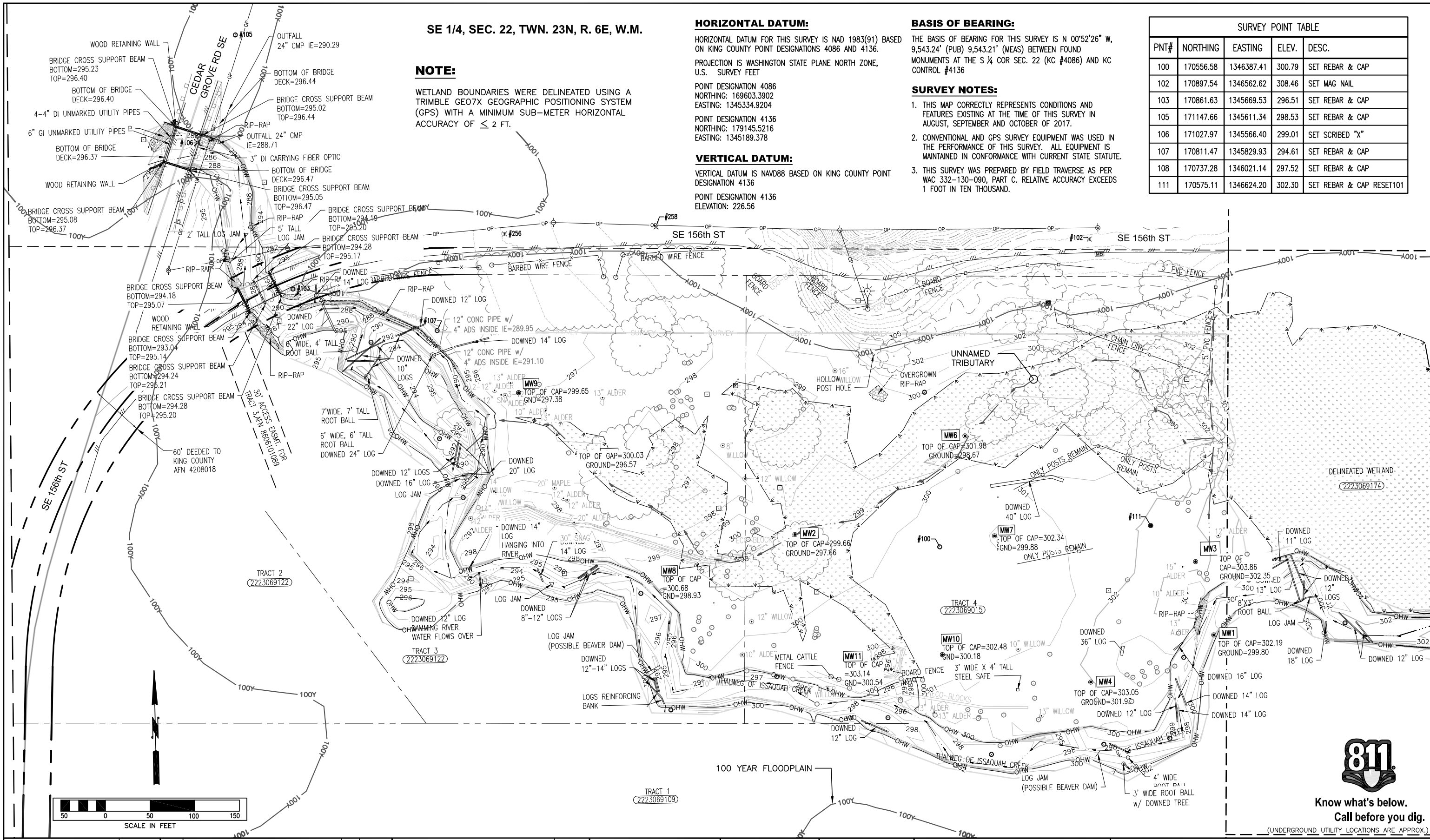
THE BASIS OF BEARING FOR THIS SURVEY IS N 00°52'26" W, 9,543.24' (PUB) 9,543.21' (MEAS) BETWEEN FOUND MONUMENTS AT THE S ¼ COR SEC. 22 (KC #4086) AND KC CONTROL #4136

SURVEY NOTES:

- THIS MAP CORRECTLY REPRESENTS CONDITIONS AND FEATURES EXISTING AT THE TIME OF THIS SURVEY IN AUGUST, SEPTEMBER AND OCTOBER OF 2017.
- CONVENTIONAL AND GPS SURVEY EQUIPMENT WAS USED IN THE PERFORMANCE OF THIS SURVEY. ALL EQUIPMENT IS MAINTAINED IN CONFORMANCE WITH CURRENT STATE STATUTE.
- THIS SURVEY WAS PREPARED BY FIELD TRAVERSE AS PER WAC 332-130-090, PART C. RELATIVE ACCURACY EXCEEDS 1 FOOT IN TEN THOUSAND.


SURVEY POINT TABLE

PNT#	NORTHING	EASTING	ELEV.	DESC.
100	170556.58	1346387.41	300.79	SET REBAR & CAP
102	170897.54	1346562.62	308.46	SET MAG NAIL
103	170861.63	1345669.53	296.51	SET REBAR & CAP
105	171147.66	1345611.34	298.53	SET REBAR & CAP
106	171027.97	1345566.40	299.01	SET SCRIBED "X"
107	170811.47	1345829.93	294.61	SET REBAR & CAP
108	170737.28	1346021.14	297.52	SET REBAR & CAP
111	170575.11	1346624.20	302.30	SET REBAR & CAP RESET101



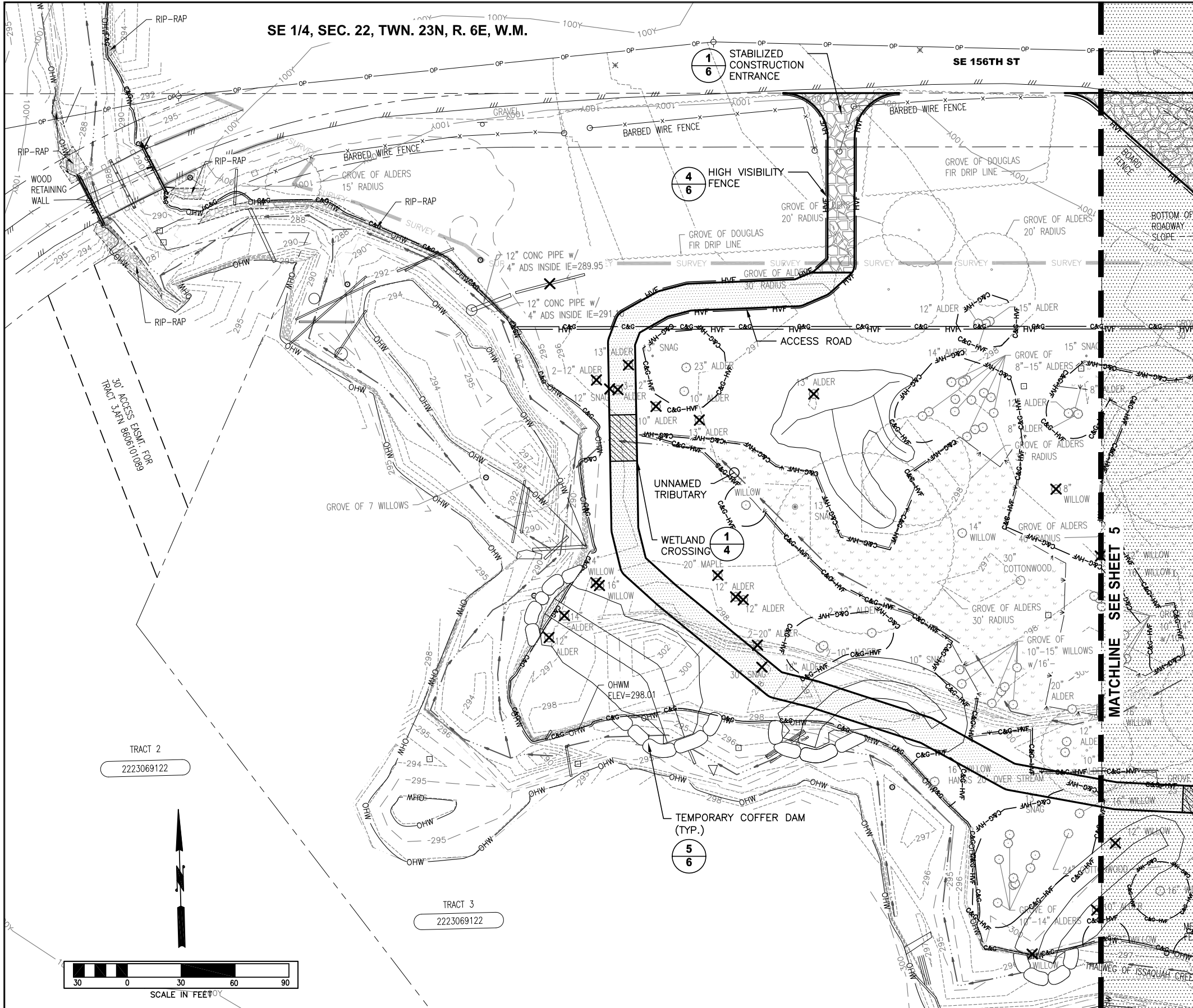
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		NUM.	REVISION		BY	DATE	APPROVED: WILL MANSFIELD, P.E. 6/2018 PROJECT MANAGER: JOSH LATTERELL, PH.D. 6/2018 DESIGNED: RACHAEL VAICUNAS, P.E. 6/2018 SCOTT MUCHARD, P.E. 6/2018 LAURA HARTEMA 6/2018 TODD HURLEY 6/2018 KAY KITAMURA 6/2018 CAD DESIGN:	PROJECT No. 1122266 CONTRACT No. --			 King County Department of Natural Resources and Parks Water and Land Resources Division Rural and Regional Services Section Ecological Restoration and Engineering Services Unit <i>Christie True, Director</i>	ISSAQUAH CREEK MITIGATION PROJECT EXISTING SITE CONDITIONS	SHEET 3 OF 22 SHEETS 2017-09
FIELD BOOK: --													
SURVEYED: PARAMETRIX													
SURVEY BASE MAP: PU15121282P200T201SV-BM													
CHECKED: S. SHARPE 10/2017													
		NUM.	RECORD CHANGES APPROVED		BY	DATE							

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LEGEND - TESC & TREE REMOVAL:

- TREE TO BE REMOVED
- C&G CLEARING AND GRADING LIMITS
- C&G-HVF TEMPORARY HIGH VISIBILITY FENCE/ CLEARING LIMITS
- SF SILT FENCE
- CONSTRUCTION ENTRANCE
- TEMPORARY ACCESS ROAD
- TEMPORARY COFFER DAM
- WETLAND CROSSING

NOTE:
EXTENTS OF WETLAND CROSSINGS TO BE DETERMINED AT THE TIME OF CONSTRUCTION. CROSSINGS OVER THE NAMED TRIBUTARY SHALL INCLUDE A CULVERT AND HOG FUEL. OTHER CROSSINGS SHALL CONSIST OF SWAMP PADS, TRUCK MATS, OR OTHER MEANS AS NECESSARY TO FACILITATE EQUIPMENT PASSAGE.


WETLAND CROSSING DETAIL
NTS

1
4



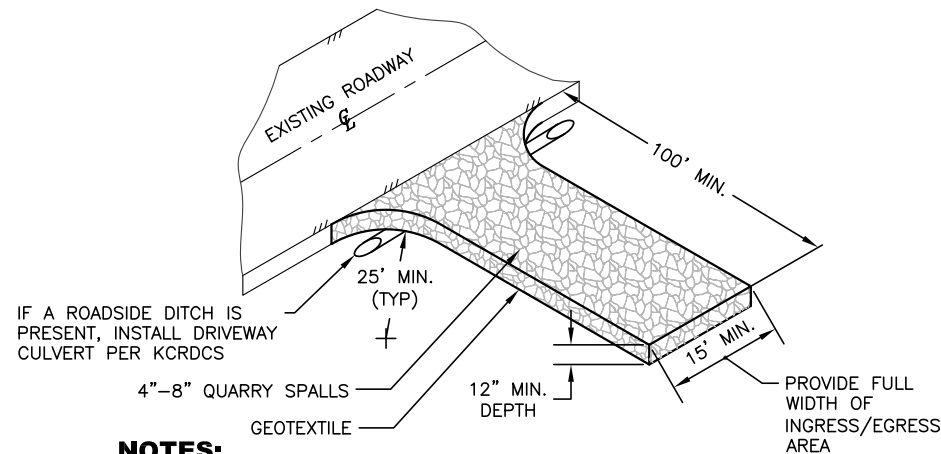
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SURVEYED: PARAMETRIX												
SURVEY BASE MAP: PU1521282P200T01SV-BM												
CHECKED: S. SHARPE 10/2017												
		NUM.		RECORD CHANGES APPROVED		BY	DATE					

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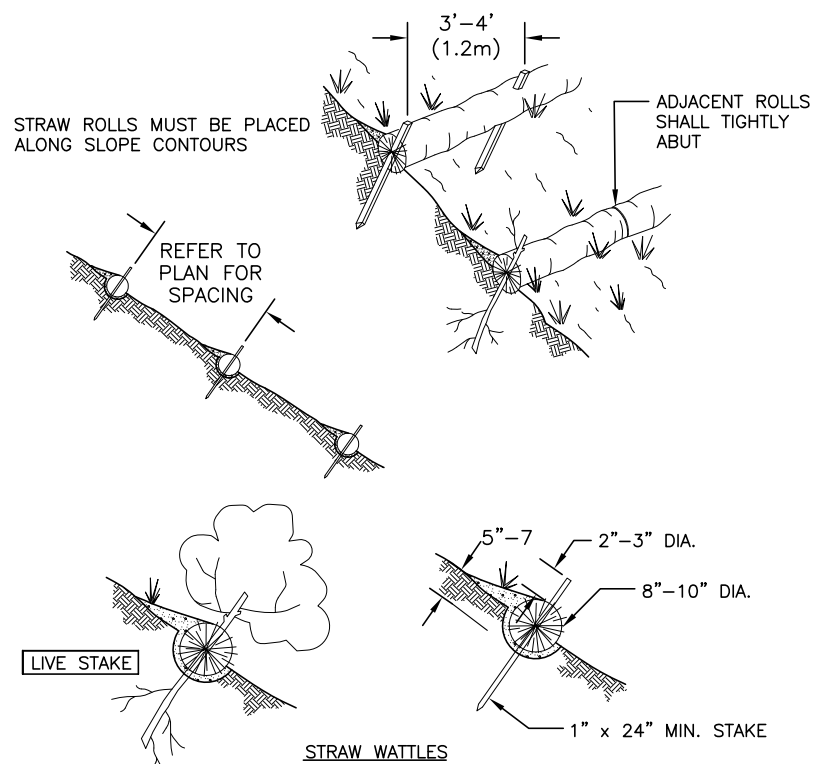
NOTES:

- PER KING COUNTY ROAD DESIGN AND CONSTRUCTION STANDARDS (KCRDCS), DRIVEWAYS SHALL BE PAVED TO EDGE OF R-O-W PRIOR TO INSTALLATION OF THE CONSTRUCTION ENTRANCE TO AVOID DAMAGING OF THE ROADWAY.
- IT IS RECOMMENDED THAT THE ENTRANCE BE CROWNED SO THAT RUNOFF DRAINS OFF THE PAD.

STABILIZED CONSTRUCTION ENTRANCE

NTS

1
4



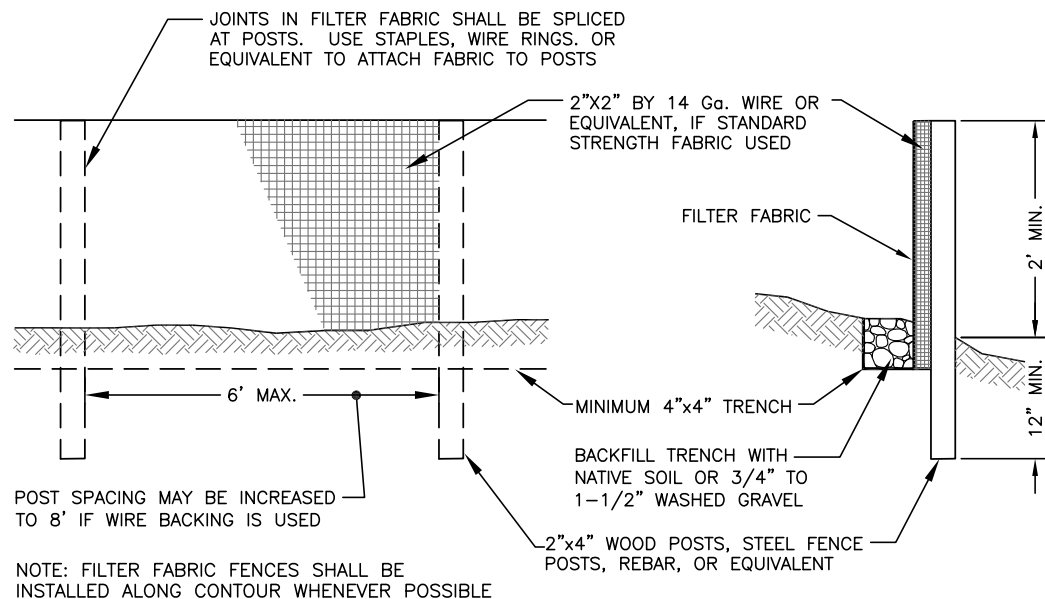
NOTES:

- STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 5" x 7" DEEP, DUG ON CONTOUR.
- RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.
- REMOVE SEDIMENT ACCUMULATION WHEN IT EXCEEDS HALF THE HEIGHT BETWEEN OP OF WATTLE AND GROUND SURFACE.

STRAW WATTLES

NTS

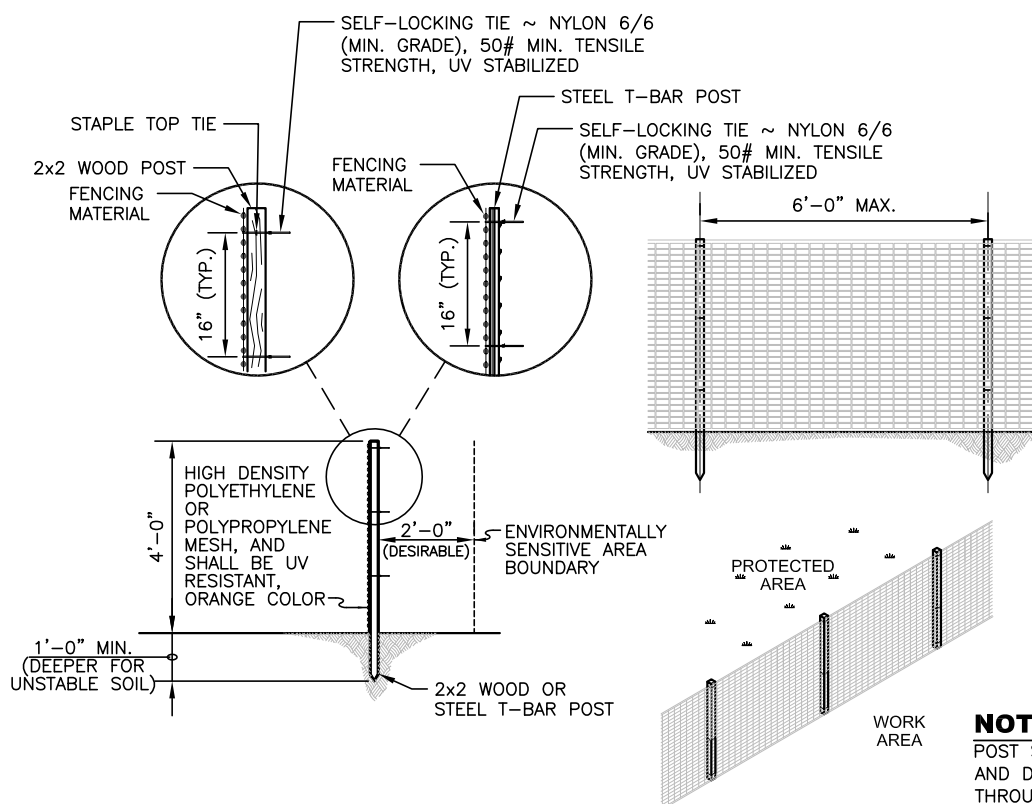
3
4



SILT FENCE DETAIL

NTS

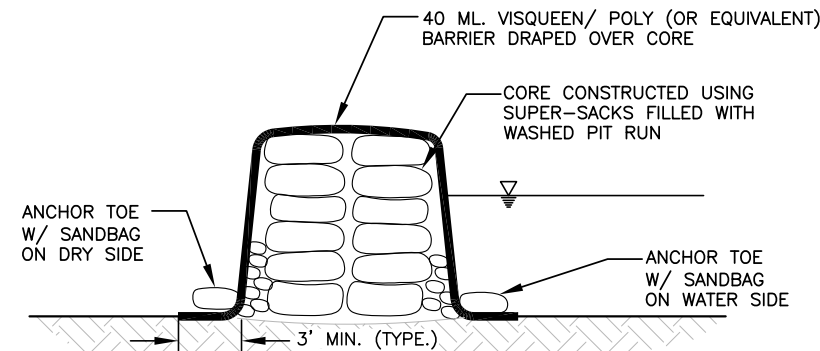
2
--



HIGH VISIBILITY FENCE DETAIL

NTS

4
4



NOTE:
OR LEAVE EARTHEN PLUGS
IN PLACE TEMPORARILY

TEMPORARY COFFER DAM DETAIL

NTS

5
4



Know what's below.
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SURVEYED: PARAMETRIX				
SURVEY BASE MAP: PU1512182P200T201SV-BM				
CHECKED: S. SHARPE	10/2017			

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APPROVED: WILL MANSFIELD, P.E.	6/2018
PROJECT MANAGER: JOSH LATTERELL, PH.D.	6/2018
DESIGNED: RACHAEL VAICUNAS, P.E.	6/2018
SCOTT MUCHARD, P.E.	6/2018
LAURA HARTEMA	6/2018
TODD HURLEY	6/2018
KAY KITAMURA	6/2018

CAD DESIGN: KAY KITAMURA

PROJECT No. 1122266
CONTRACT No. --

King County
Department of Natural Resources and Parks
Water and Land Resources Division
Rural and Regional Services Section
**Ecological Restoration
and Engineering Services Unit**
Christie True, Director

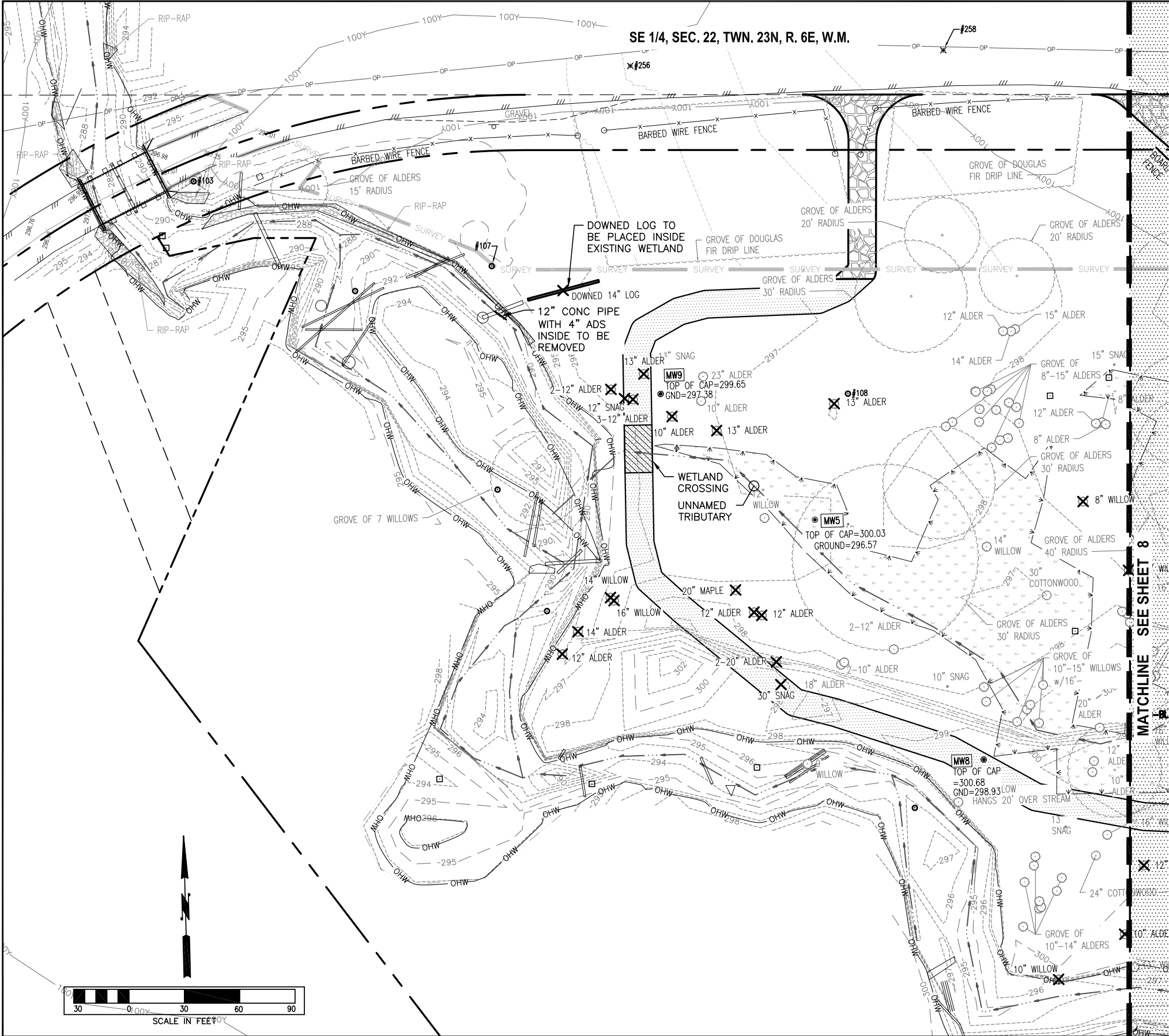
**ISSAQUAH CREEK
MITIGATION PROJECT**

TESC DETAILS

SHEET
6
OF
22
SHEETS

2017-09



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NOTES:

ALL REED CANARY GRASS TO BE REMOVED FROM WITHIN CLEARING AND GRADING LIMITS.

LEGEND

-  TREE TO BE REMOVED WITH ROOTWAD AND BRANCHES INTACT. SALVAGE FOR USE ON SITE.
-  HVF TEMPORARY HIGH VISIBILITY FENCE (AS SHOWN ON TESC PLAN)

MW POINT TABLE

WELL DESIGNATION	NORTHING	EASTING	ELEV. (TOP OF CAP)	ACTION
MW1	170451.09	1346692.13	302.19	PROTECT
MW2	170574.04	1346225.56	299.66	PROTECT
MW3	170533.64	1346673.63	303.86	DECOMMISSION
MW4	170401.30	1346553.22	303.05	DECOMMISSION
MW5	170669.46	1346001.48	300.03	PROTECT
MW6	170680.29	1346418.47	301.98	PROTECT
MW7	170567.51	1346449.05	302.34	DECOMMISSION
MW8	170537.10	1346089.54	300.68	DECOMMISSION
MW9	170739.87	1345919.70	299.65	DECOMMISSION
MW10	170435.78	1346387.77	300.18	DECOMMISSION
MW11	170412.40	1346286.97	303.14	DECOMMISSION



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FIELD BOOK: --	NUM.	REVISION	BY	DATE
SURVEYED: PARAMETRIX				
SURVEY BASE MAP: PU1521282P200T01SV-BM				
CHECKED: S. SHARPE	10/2017			
	NUM.	RECORD CHANGES APPROVED	BY	DATE

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LAURA HARTEMA	6/2018
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CAD DESIGN: KAY KITAMURA	6/2018

PROJECT No. 1122266

CONTRACT No. --

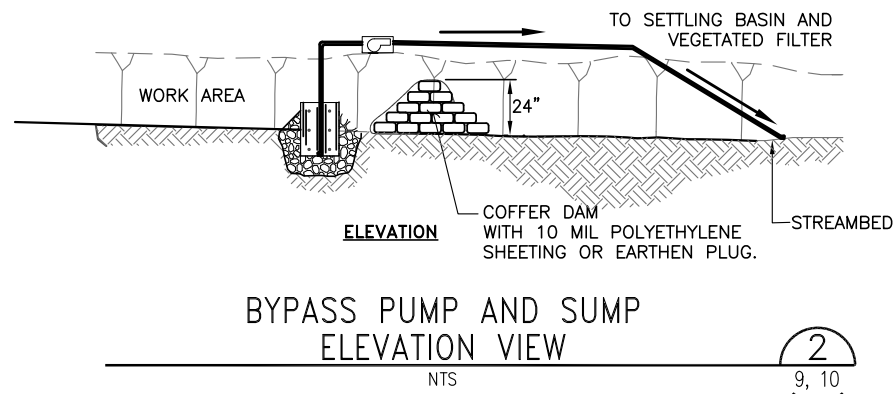
 **King County**
Department of Natural Resources and Parks
Water and Land Resources Division
Rural and Regional Services Section
**Ecological Restoration
and Engineering Services Unit**
Christie True, Director

ISSAQUAH CREEK
MITIGATION PROJECT


SITE PREPARATION PLAN 1

SHEET
7
OF
22
SHEETS

2017-09

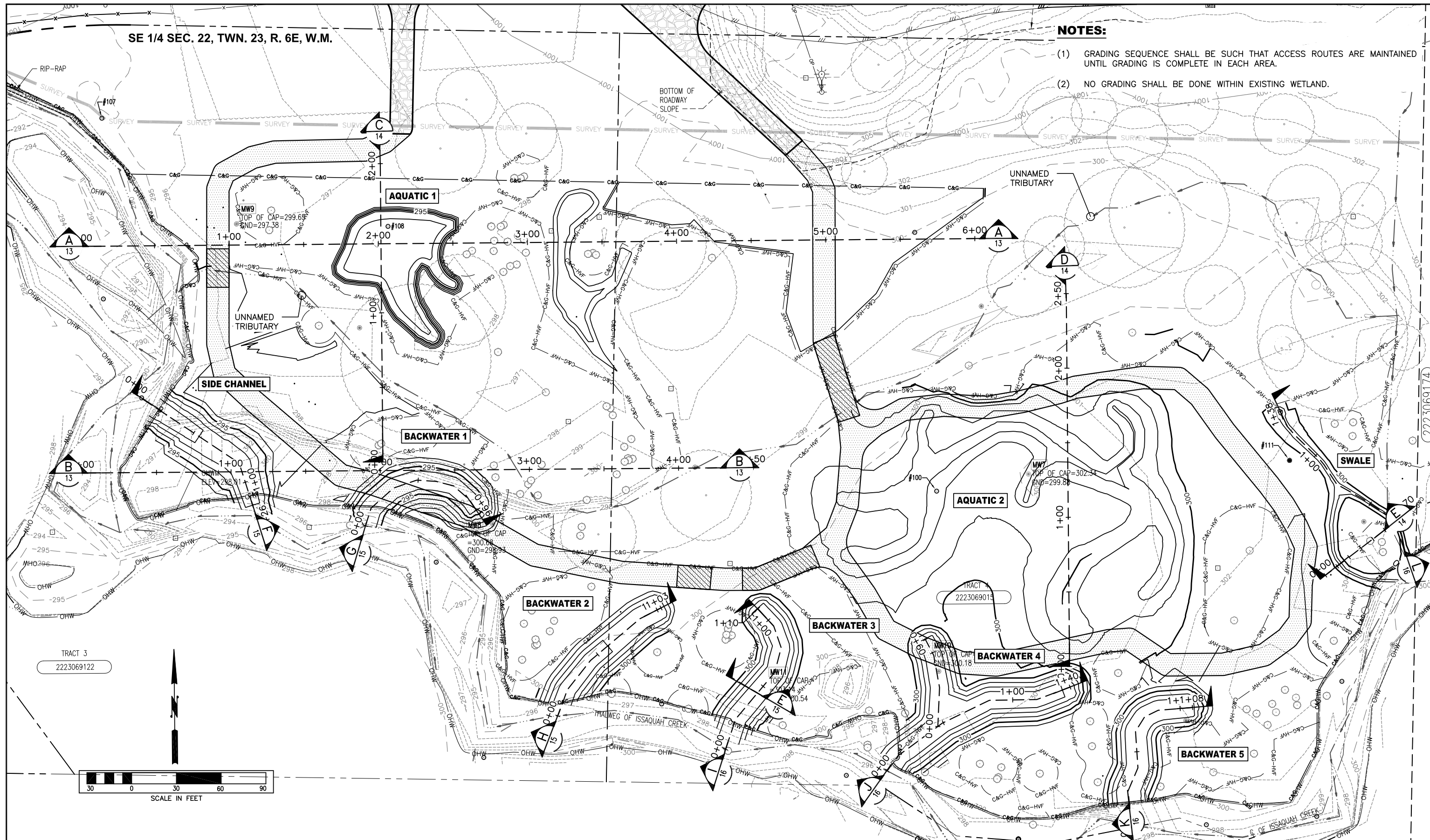



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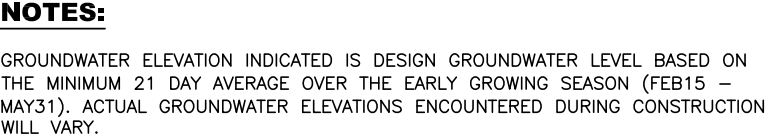
		NUM.	REVISION	BY	DATE	APPROVED: WILL MANSFIELD, P.E.	6/2018	PROJECT No. 1122266			 King County Department of Natural Resources and Parks Water and Land Resources Division Rural and Regional Services Section Ecological Restoration and Engineering Services Unit <i>Christie True, Director</i>	ISSAQUAH CREEK MITIGATION PROJECT	SHEET	11 OF 22 SHEETS	2017-09
FIELD BOOK: ---						PROJECT MANAGER: JOSH LATTERELL, PH.D.	6/2018								
SURVEYED: PARAMETRIX						DESIGNED: RACHAEL VAICUNAS, P.E.	6/2018								
SURVEY BASE MAP: PU1521282P200T201SV-BM						SCOTT MUCHARD, P.E.	6/2018								
CHECKED: S. SHARPE	10/2017					LAURA HARTEMA	6/2018								
						TODD HURLEY	6/2018								
						CAD DESIGN: KAY KITAMURA	6/2018								
		NUM.	RECORD CHANGES APPROVED	BY	DATE			CONTRACT No. ---				DEWATERING DETAILS			

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 Filename: D:\CDNRP SWSS CSU x TB.dwt | Layout: Model | Last Edited: 2012/APRIL/13 11:20
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- (1) GRADING SEQUENCE SHALL BE SUCH THAT ACCESS ROUTES ARE MAINTAINED UNTIL GRADING IS COMPLETE IN EACH AREA.
- (2) NO GRADING SHALL BE DONE WITHIN EXISTING WETLAND.




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SURVEYED: PARAMETRIX										PROJECT MANAGER: JOSH LATTERELL, PH.D.		6/2018											
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										LAURA HARTEMA		6/2018											
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										CAD DESIGN: KAY KITAMURA		6/2018											

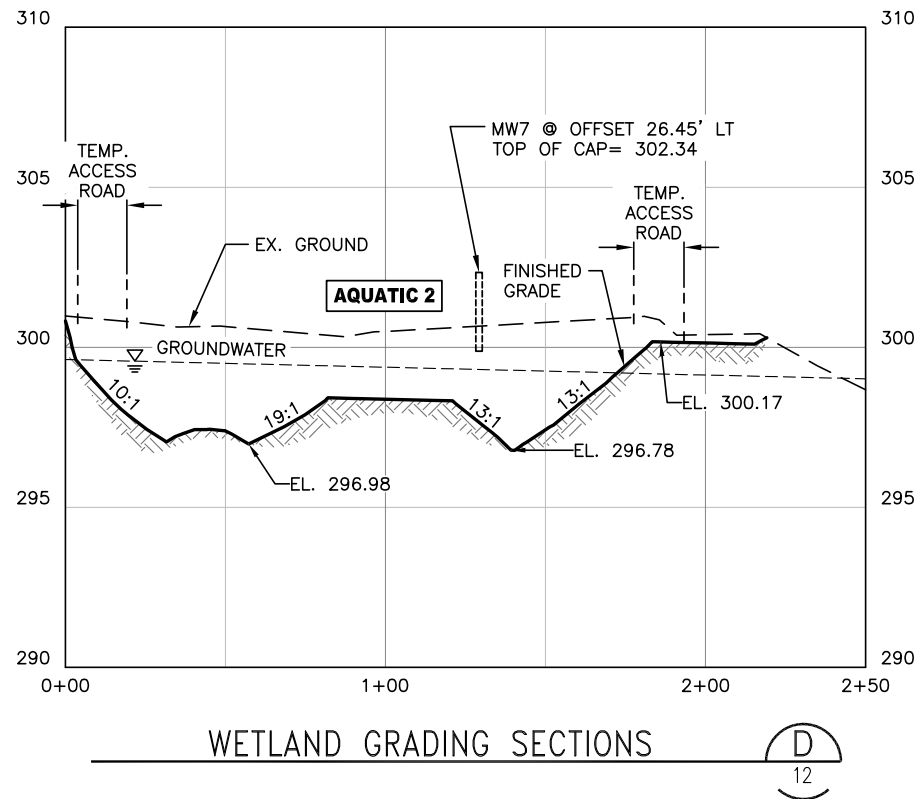
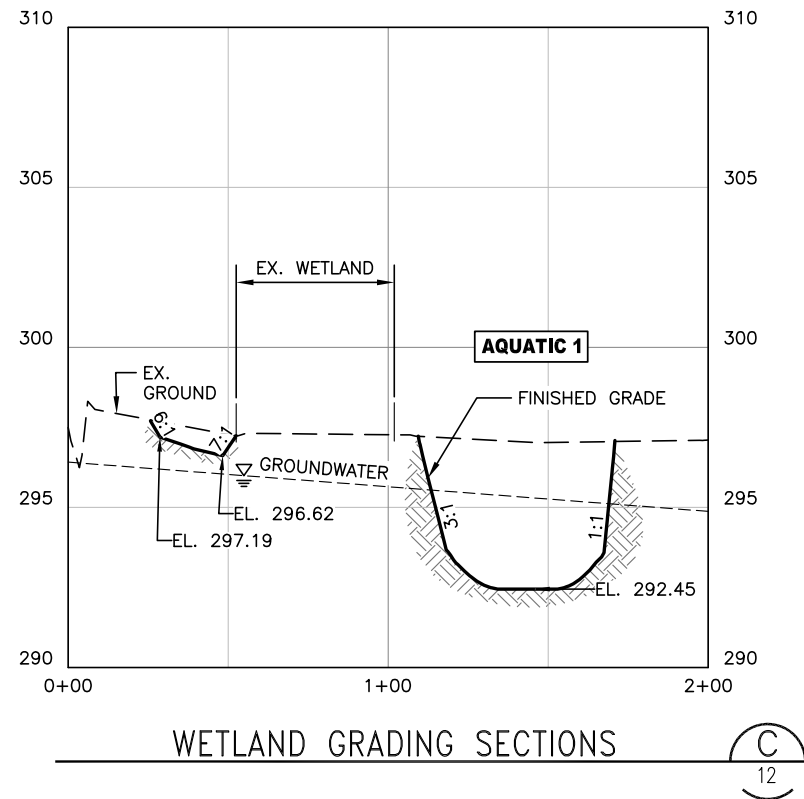


**Know what's below.
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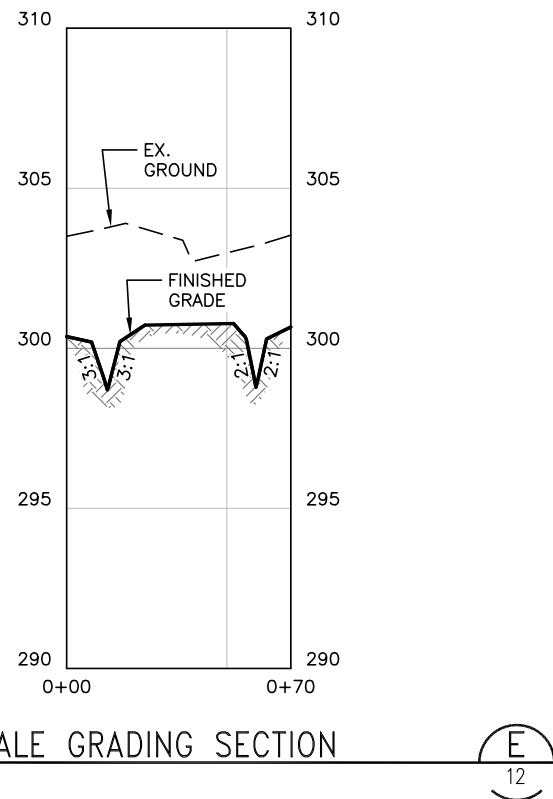
FIELD BOOK: --		NUM.	REVISION	BY	DATE	APPROVED: WILL MANSFIELD, P.E.	6/2018	PROJECT No. 1122266			 King County Department of Natural Resources and Parks Water and Land Resources Division Rural and Regional Services Section Ecological Restoration and Engineering Services Unit <i>Christie True, Director</i>	ISSAQUAH CREEK MITIGATION PROJECT	WETLAND GRADING SECTIONS 1	SHEET 13 OF 22 SHEETS
SURVEYED: PARAMETRIX						PROJECT MANAGER: JOSH LATTERELL, PH.D.	6/2018							
SURVEY BASE MAP: PU1521282P200T201SV-BM						DESIGNED: RACHAEL VAICUNAS, P.E.	6/2018							
						SCOTT MUCHARD, P.E.	6/2018							
CHECKED: S. SHARPE	10/2017					LAURA HARTEMA	6/2018							
						TODD HURLEY	6/2018							
						CAD DESIGN: KAY KITAMURA	6/2018						2017-09	
		NUM.	RECORD CHANGES APPROVED	BY	DATE									

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NOTES:

GROUNDWATER ELEVATION INDICATED IS DESIGN GROUNDWATER LEVEL BASED ON THE MINIMUM 21 DAY AVERAGE OVER THE EARLY GROWING SEASON (FEB15 - MAY31). ACTUAL GROUNDWATER ELEVATIONS ENCOUNTERED DURING CONSTRUCTION WILL VARY.



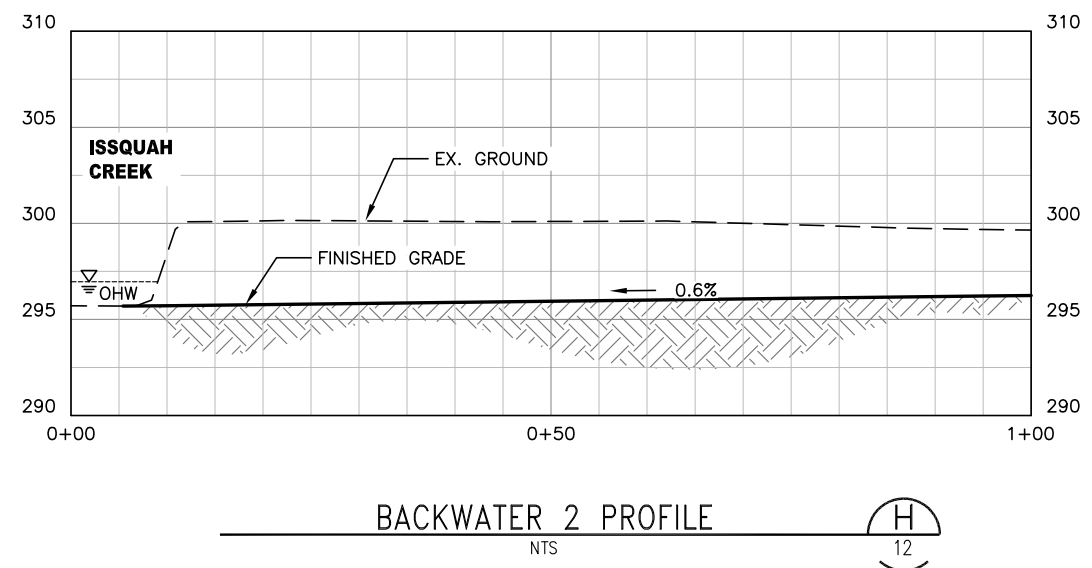
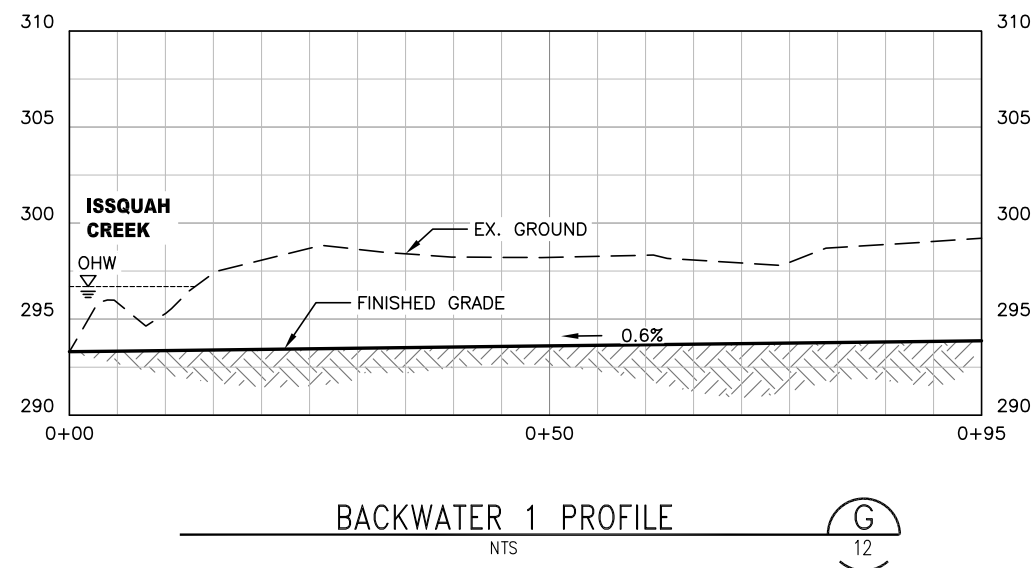
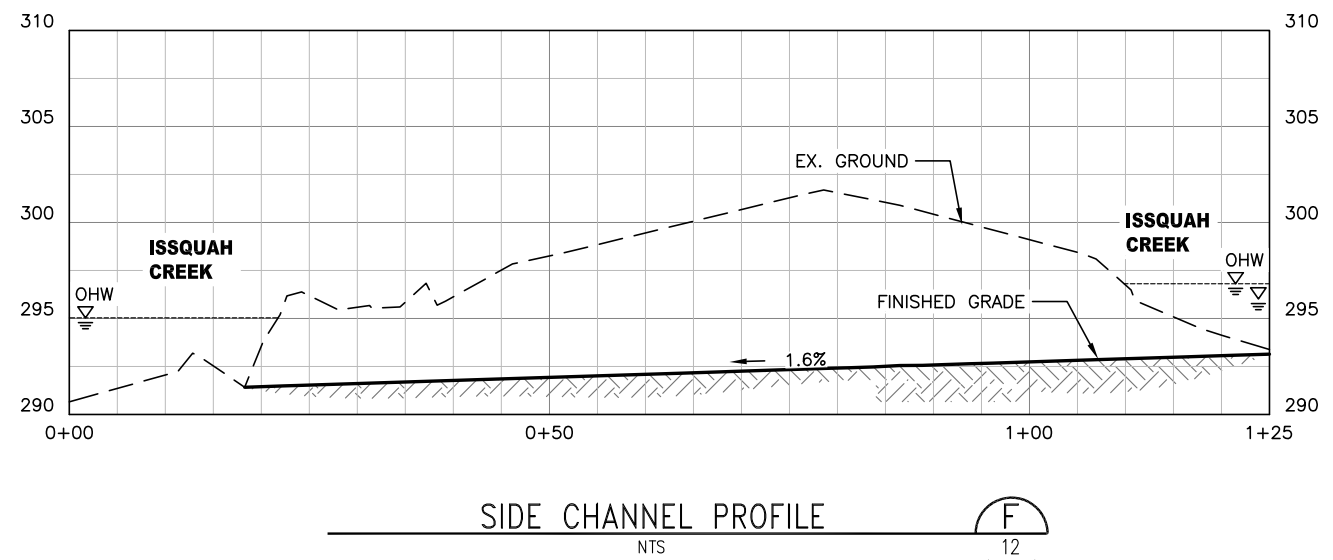
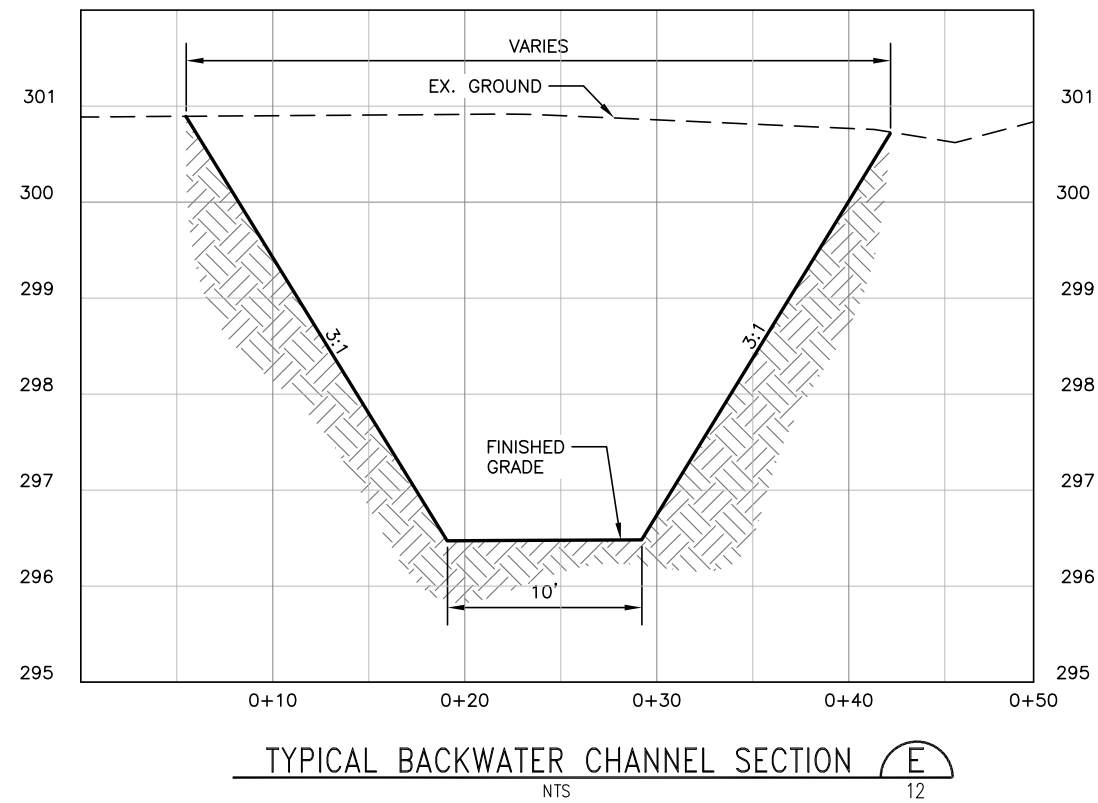
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		NUM.	REVISION	BY	DATE	APPROVED: WILL MANSFIELD, P.E.	6/2018	PROJECT No. 1122266	 King County Department of Natural Resources and Parks Water and Land Resources Division Rural and Regional Services Section Ecological Restoration and Engineering Services Unit <i>Christie True, Director</i>	ISSAQUAH CREEK MITIGATION PROJECT	WETLAND GRADING SECTIONS 2	SHEET 14 OF 22 SHEETS 2017-09
FIELD BOOK: --						PROJECT MANAGER: JOSH LATTERELL, PH.D.	6/2018					
SURVEYED: PARAMETRIX						DESIGNED: RACHAEL VAICUNAS, P.E.	6/2018					
SURVEY BASE MAP: PU1521282P200T201SV-BM						SCOTT MUCHARD, P.E.	6/2018					
CHECKED: S. SHARPE	10/2017					LAURA HARTEMA	6/2018					
		NUM.	RECORD CHANGES APPROVED	BY	DATE	TODD HURLEY	6/2018	CONTRACT No. --				
						CAD DESIGN: KAY KITAMURA	6/2018					

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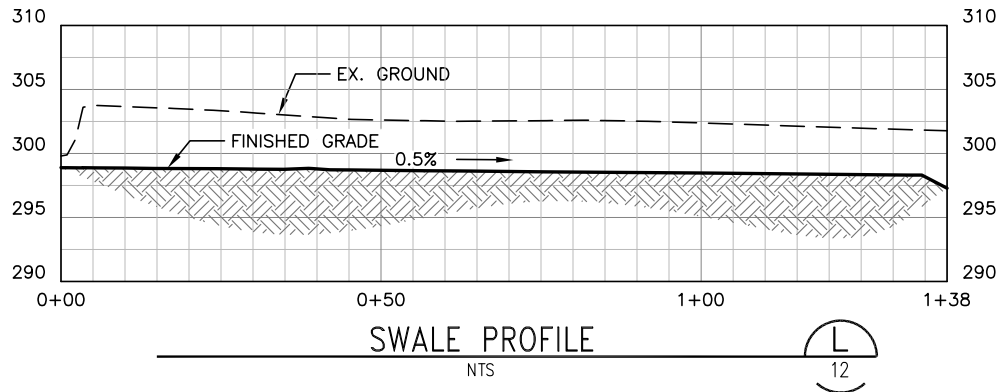
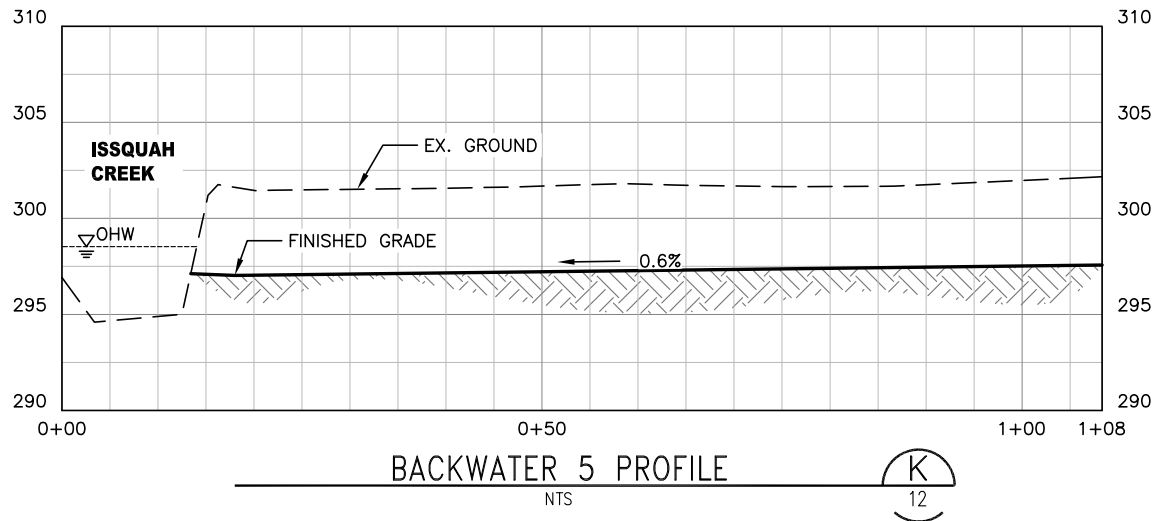
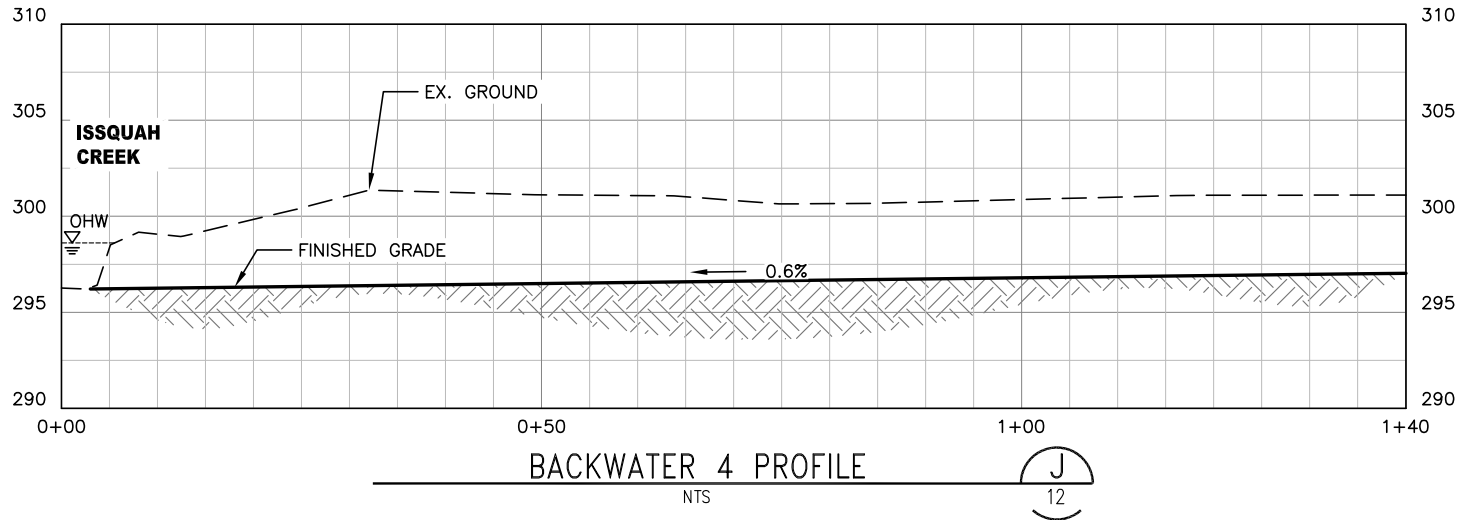
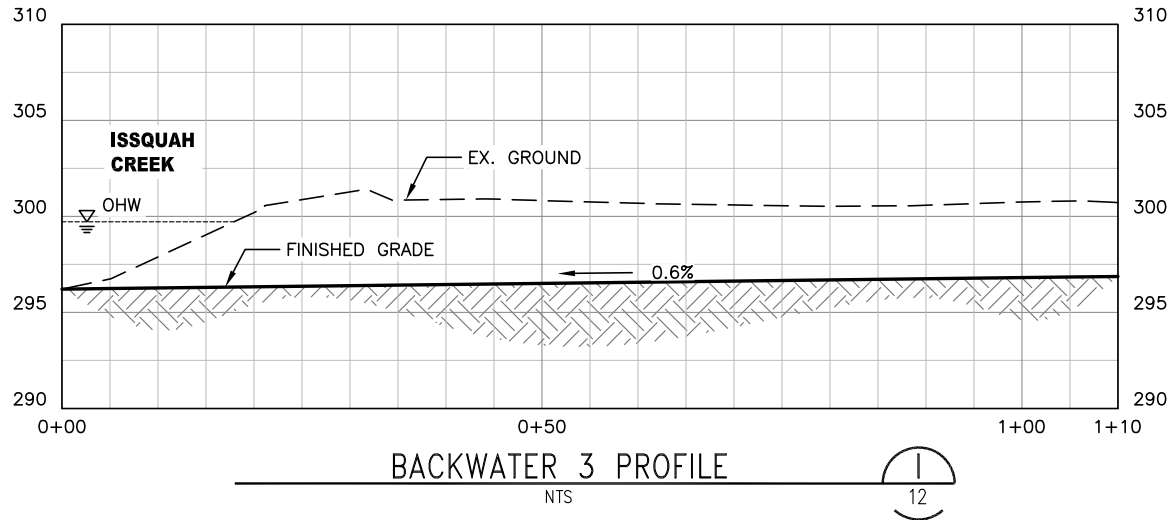
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(UNDERGROUND UTILITY LOCATIONS ARE APPROX.)

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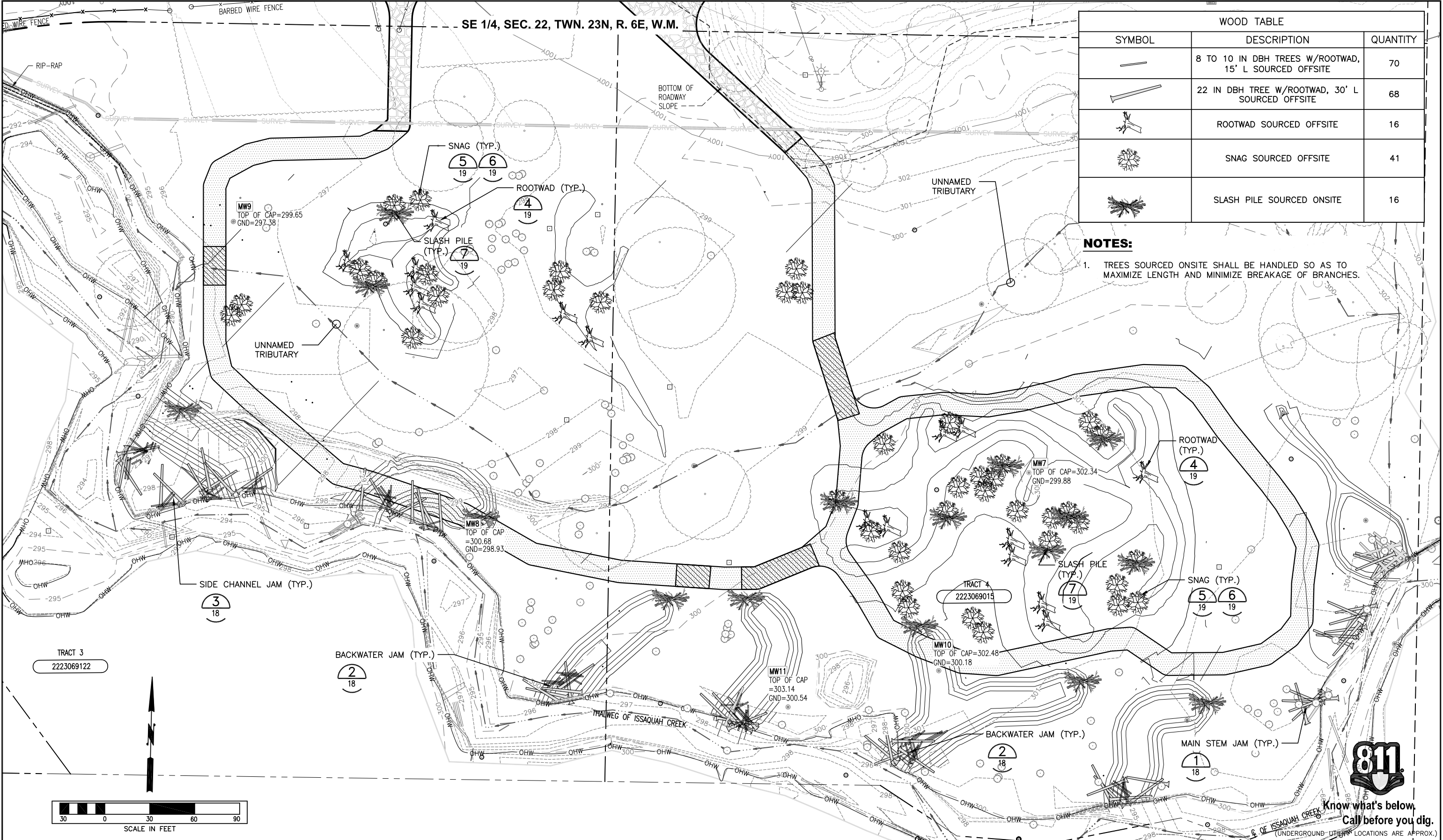


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(UNDERGROUND UTILITY LOCATIONS ARE APPROX.)

FIELD BOOK: --		NUM.		REVISION		BY		DATE		APPROVED: WILL MANSFIELD, P.E.		6/2018		PROJECT No. 1122266								<div> King County Department of Natural Resources and Parks Water and Land Resources Division Rural and Regional Services Section Ecological Restoration and Engineering Services Unit <i>Christie True, Director</i></div>		ISSAQUAH CREEK MITIGATION PROJECT		BACKWATER CHANNEL PROFILES 2		SHEET 16 OF 22 SHEETS	
SURVEYED: PARAMETRIX								PROJECT MANAGER: JOSH LATTERELL, PH.D.		6/2018																			
SURVEY BASE MAP: PU1521282P200T201SV-BM								DESIGNED: RACHAEL VAICUNAS, P.E.		6/2018																			
CHECKED: S. SHARPE		10/2017						SCOTT MUCHARD, P.E.		6/2018																			
								LAURA HARTEMA		6/2018																			
										TODD HURLEY		6/2018		CONTRACT No. --															
										KAY KITAMURA		6/2018																	
										CAD DESIGN:														2017-09					
		NUM.		RECORD CHANGES APPROVED		BY		DATE																					

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Location: I:\0-ACAD MASTER\Template\



WOOD TABLE		
SYMBOL	DESCRIPTION	QUANTITY
	8 TO 10 IN DBH TREES W/ROOTWAD, 15' L SOURCED OFFSITE	70
	22 IN DBH TREE W/ROOTWAD, 30' L SOURCED OFFSITE	68
	ROOTWAD SOURCED OFFSITE	16
	SNAG SOURCED OFFSITE	41
	SLASH PILE SOURCED ONSITE	16

NOTES:
1. TREES SOURCED ONSITE SHALL BE HANDLED SO AS TO MAXIMIZE LENGTH AND MINIMIZE BREAKAGE OF BRANCHES.

FIELD BOOK: ---	NUM.	REVISION	BY	DATE	APPROVED: WILL MANSFIELD, P.E.	6/2018	PROJECT No. 1122266 CONTRACT No. ---	King County Department of Natural Resources and Parks Water and Land Resources Division Rural and Regional Services Section Ecological Restoration and Engineering Services Unit Christie True, Director	ISSAQUAH CREEK MITIGATION PROJECT WOOD PLACEMENT PLAN	SHEET 17 OF 22 SHEETS 2017-09
SURVEYED: PARAMETRIX					PROJECT MANAGER: JOSH LATTERELL, PH.D.	6/2018				
SURVEY BASE MAP: PU1521282P200T201SV-BM					DESIGNED: RACHAEL VAICUNAS, P.E.	6/2018				
CHECKED: S. SHARPE	10/2017				SCOTT MUCHARD, P.E.	6/2018				
					LAURA HARTEMA	6/2018				
					TODD HURLEY	6/2018				
					CAD DESIGN: KAY KITAMURA	6/2018				

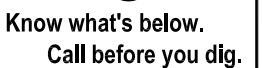
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6/4/2018**

NUM. RECORD CHANGES APPROVED BY DATE




NOTES:

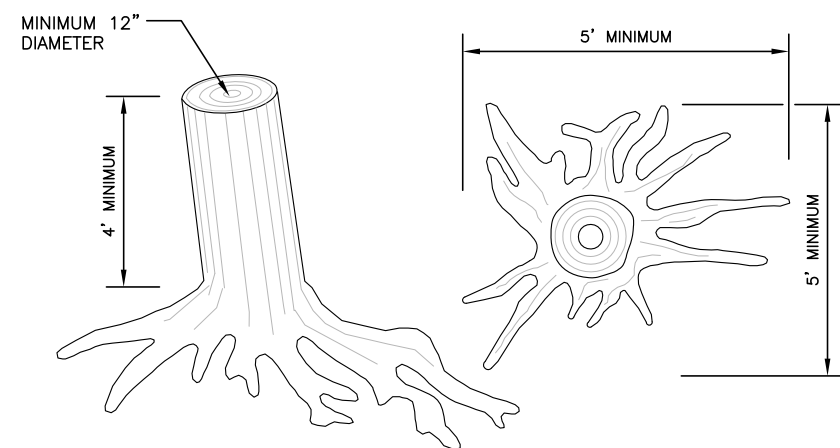
1. LOGS ON ANY LAYERS CAN BE PLACED BETWEEN STANDING TREES.
2. MIN. 4 TREES >8" DIA. PER JAM, IN DIRECT CONTRACT WITH LAYER 1 LOGS.



(UNDERGROUND UTILITY LOCATIONS ARE APPROX.)

		NUM.	REVISION	BY	DATE	APPROVED: WILL MANSFIELD, P.E.	6/2018	PROJECT No. 1122266				 King County Department of Natural Resources and Parks Water and Land Resources Division Rural and Regional Services Section Ecological Restoration and Engineering Services Unit <i>Christie True, Director</i>	ISSAQUAH CREEK MITIGATION PROJECT	SHEET	2017-09
FIELD BOOK: ---						PROJECT MANAGER: JOSH LATTERELL, PH.D.	6/2018							OF	
SURVEYED: PARAMETRIX						DESIGNED: RACHAEL VAICUNAS, P.E.	6/2018							22	
SURVEY BASE MAP: PU1521282P200T201SV-BM						SCOTT MUCHARD, P.E.	6/2018							SHEETS	
CHECKED: S. SHARPE	10/2017					LAURA HARTEMA	6/2018								
						TODD HURLEY	6/2018								
						CAD DESIGN: KAY KITAMURA	6/2018								
		NUM.	RECORD CHANGES APPROVED	BY	DATE										

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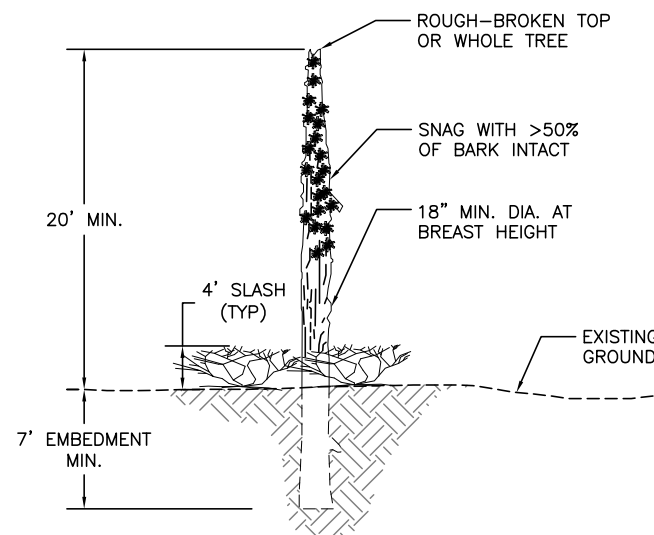


ROOTWAD DETAIL

NTS

4

17

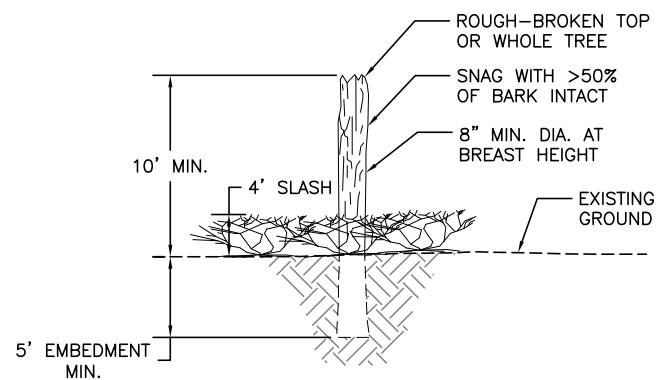


NESTING SNAG DETAIL

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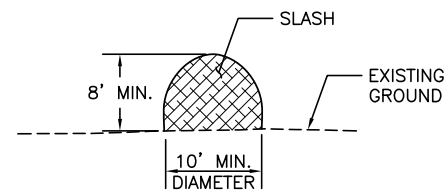


FORAGING SNAG DETAIL

NTS

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SLASH PILE DETAIL


NTS

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17











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		NUM.	REVISION	BY	DATE	APPROVED: WILL MANSFIELD, P.E.	6/2018	PROJECT No. 1122266			 King County Department of Natural Resources and Parks Water and Land Resources Division Rural and Regional Services Section Ecological Restoration and Engineering Services Unit <i>Christie True, Director</i>	ISSAQUAH CREEK MITIGATION PROJECT	SHEET	19 OF 22 SHEETS	2017-09
FIELD BOOK: --						PROJECT MANAGER: JOSH LATTERELL, PH.D.	6/2018								
SURVEYED: PARAMETRIX						DESIGNED: RACHAEL VAICUNAS, P.E.	6/2018								
SURVEY BASE MAP: PU1521282P200T201SV-BM						SCOTT MUCHARD, P.E.	6/2018								
CHECKED: S. SHARPE	10/2017					LAURA HARTEMA	6/2018								
						TODD HURLEY	6/2018								
		NUM.	RECORD CHANGES APPROVED	BY	DATE	CAD DESIGN: KAY KITAMURA	6/2018								
									CONTRACT No. --						

NE 1/4 SEC. 09, TWN. 22, R. 6E, W.M.

PLANT LEGEND:

- | | | | |
|---|-----------------------|---|---------------------|
|  | FORESTED WETLAND |  | WETLAND ENHANCEMENT |
|  | SCRUB-SHRUB WETLAND |  | BACKWATER SLOPES |
|  | EMERGENT WETLAND |  | SLASH PILE |
|  | AQUATIC |  | ROOTWAD |
|  | CONIFER UNDERPLANTING |  | SNAG |


NOTES:

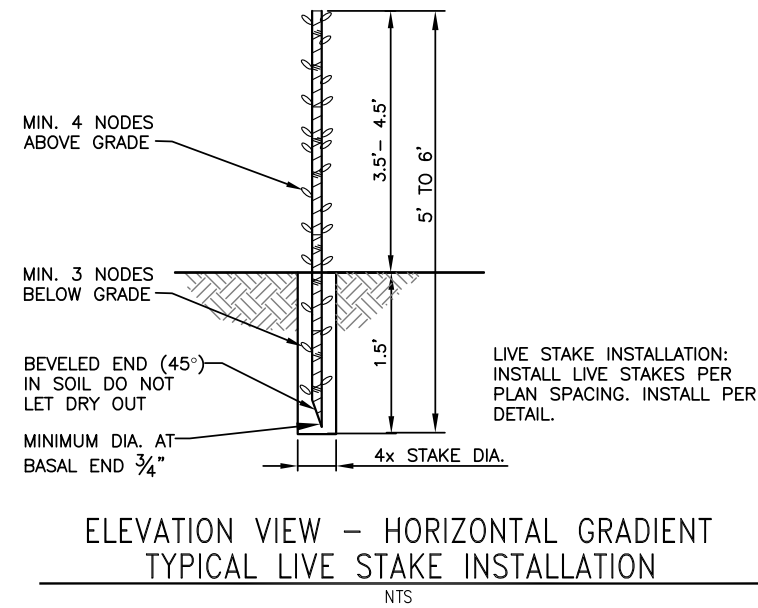
1. TREES SOURCED ONSITE SHALL BE HANDLED SO AS TO MINIMIZE BREAKAGE OF BRANCHES.


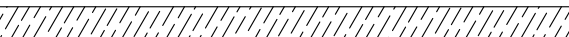




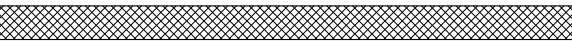


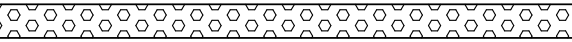
**Know what's below.
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(UNDERGROUND UTILITY LOCATIONS ARE APPROX.)

		NUM.	REVISION	BY	DATE	APPROVED: WILL MANSFIELD, P.E.	6/2018	PROJECT No. 1122266	 King County Department of Natural Resources and Parks Water and Land Resources Division Rural and Regional Services Section Ecological Restoration and Engineering Services Unit <i>Christie True, Director</i>	ISSAQUAH CREEK MITIGATION PROJECT	PLANTING PLAN	SHEET 20 OF 22 SHEETS
FIELD BOOK: --		<div>30% DESIGN PROGRESS COPY 6/4/2018</div>				PROJECT MANAGER: JOSH LATTERELL, PH.D.	6/2018					
SURVEYED: PARAMETRIX						DESIGNED: RACHAEL VAICUNAS, P.E.	6/2018					
SURVEY BASE MAP: PU1521282P200T201SV-BM						SCOTT MUCHARD, P.E.	6/2018					
CHECKED: S. SHARPE	10/2017					LAURA HARTEMA	6/2018					
						TODD HURLEY	6/2018	CONTRACT No. --				
		NUM.	RECORD CHANGES APPROVED	BY	DATE	CAD DESIGN: KAY KITAMURA	6/2018					2017-09




HABITAT TYPE	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
FORESTED WETLAND				
<i>Trees</i>	<i>Alnus rubra</i>	red alder	1 gal	5-8' o.c.
	<i>Callitropsis nootkatensis</i>	yellow cedar	1 gal	15-25' o.c.
	<i>Fraxinus latifolia</i>	Oregon ash	1 gal	8-10' o.c.
	<i>Picea sitchensis</i>	Sitka spruce	1 gal	15-20' o.c.
	<i>Populus trichocarpa</i>	black cottonwood	3/4-1-1/2" dia , 5' stakes	5' o.c.
	<i>Salix lasiandra</i>	Pacific willow	1 gal	6-8' o.c.
<i>Shrubs</i>	<i>Thuja plicata</i>	Western red cedar	1 gal	15-25' o.c.
	<i>Cornus sericea</i>	red twig dogwood	3/4-1-1/2" dia , 5' stakes	3-4' o.c.
	<i>Physocarpus capitatus</i>	Pacific ninebark	1 gal	3-4' o.c.
	<i>Rosa nutkana</i>	Nootka rose	1 gal	3-4' o.c.
	<i>Salix sitchensis</i>	Sitka willow	3/4-1-1/2" dia , 5' stakes	4' o.c.
SCRUB-SHRUB WETLAND				
<i>Trees</i>	<i>Fraxinus latifolia</i>	Oregon ash	1 gal	8-10' o.c.
	<i>Picea sitchensis</i>	Sitka spruce	1 gal	15-20' o.c.
	<i>Populus trichocarpa</i>	black cottonwood	3/4-1-1/2" dia , 5' stakes	5' o.c.
<i>Shrubs</i>	<i>Salix lasiandra</i>	Pacific willow	1 gal	6-8' o.c.
	<i>Cornus sericea</i>	red twig dogwood	3/4-1-1/2" dia , 5' stakes	3-4' o.c.
	<i>Lonicera involucrata</i>	twinberry	1 gal	3-4' o.c.
	<i>Physocarpus capitatus</i>	Pacific ninebark	1 gal	3-4' o.c.
	<i>Rosa nutkana</i>	Nootka rose	1 gal	3-4' o.c.
	<i>Rosa pisocarpa</i>	clustered rose	1 gal	3-4' o.c.
	<i>Rubus spectabilis</i>	salmonberry	1 gal	4-5' o.c.
	<i>Salix hookeriana</i>	Hooker's willow	3/4-1-1/2" dia , 5' stakes	4' o.c.
	<i>Salix sitchensis</i>	Sitka willow	3/4-1-1/2" dia , 5' stakes	4' o.c.
EMERGENT WETLAND				
	<i>Carex mertensii</i>	Merten's sedge	plug	12" o.c.
	<i>Carex obnupta</i>	slough sedge	seed/plug	12" o.c.
	<i>Carex stipata</i>	sawbeak sedge	plug	12" o.c.
	<i>Deschampsia caespitosa</i>	tufted Hairgrass	1 gal	5-6' o.c.
	<i>Eleocharis palustris</i>	common spike rush	plug	12" o.c.
	<i>Glyceria grandis</i>	reed mannagrass	rhizome/plug	12" o.c.
	<i>Juncus ensifolius</i>	daggerleaf rush	rhizome/plug	12" o.c.
	<i>Juncus tenuis</i>	slender rush	plug	12" o.c.
	<i>Scirpus microcarpus</i>	small-fruited bulrush	rhizome/plug	12"
AQUATIC				
	<i>Alisima plantago-aquatica</i>	water plantain	4" pot	12"
	<i>Oenanthe sarmentosa</i>	water parsley	plug	12"
	<i>Scirpus (Schoenoplectus) acutus</i>	hardstem bulrush	plug	18"
	<i>Sparganium emersum</i>	narrowleaf burreed	plug	18" o.c.
	<i>Sagittaria latifolia</i>	wapato	plug	18" o.c.

Habitat Type	Scientific Name	Common Name	Size	Spacing
Conifer Underplanting				
Trees	<i>Acer macrophyllum</i>	big leaf maple	1 gal	8-10' o.c.
	<i>Callitropsis nootkatensis</i>	yellow cedar	1 gal	15-25' o.c.
	<i>Picea sitchensis</i>	Sitka spruce	1 gal	15-25' o.c.
	<i>Populus trichocarpa</i>	black cottonwood	3/4-1-1/2" dia , 5' stakes	5' o.c.
	<i>Thuja plicata</i>	Western red cedar	1 gal	15-25' o.c.
Shrubs	<i>Pseudotsuga menziesii</i>	Douglas fir	1 gal	15-25' o.c.
	<i>Corylus cornuta</i>	beaked hazelnut	1 gal	6-8' o.c.
	<i>Rosa nutkana</i>	Nootka rose	1 gal	3-4' o.c.
	<i>Rubus parviflorus</i>	thimbleberry	1 gal	3-4' o.c.
	<i>Salix scouleriana</i>	Scouler's willow	3/4-1-1/2" dia , 5' stakes	4' o.c.
	<i>Symphoricarpus alba</i>	snowberry	1 gal	3-4' o.c.
Site Perimeter Protection				
Trees	<i>Acer macrophyllum</i>	big leaf maple	1 gal	8-10' o.c.
	<i>Callitropsis nootkatensis</i>	yellow cedar	1 gal	15-25' o.c.
	<i>Picea sitchensis</i>	Sitka spruce	1 gal	15-20' o.c.
	<i>Populus trichocarpa</i>	black cottonwood	3/4-1-1/2" dia , 5' stakes	5' o.c.
	<i>Thuja plicata</i>	Western red cedar	1 gal	15-25' o.c.
Shrubs	<i>Pseudotsuga menziesii</i>	Douglas fir	1 gal	15-25' o.c.
	<i>Corylus cornuta</i>	beaked hazelnut	1 gal	6-8' o.c.
	<i>Rosa nutkana</i>	Nootka rose	1 gal	3-4' o.c.
	<i>Rubus parviflorus</i>	thimbleberry	1 gal	3-4' o.c.
	<i>Salix scouleriana</i>	Scouler's willow	3/4-1-1/2" dia , 5' stakes	4' o.c.
	<i>Symphoricarpus alba</i>	snowberry	1 gal	3-4' o.c.
Wetland Enhancement				
Trees	<i>Fraxinus latifolia</i>	Oregon ash	1 gal	8-10' o.c.
	<i>Picea sitchensis</i>	Sitka spruce	1 gal	15-20' o.c.
	<i>Populus trichocarpa</i>	black cottonwood	3/4-1-1/2" dia , 5' stakes	5' o.c.
Shrubs	<i>Salix lasiandra</i>	Pacific willow	1 gal	6-8' o.c.
	<i>Cornus sericea</i>	red twig dogwood	3/4-1-1/2" dia , 5' stakes	3-4' o.c.
	<i>Lonicera involucrata</i>	twinberry	1 gal	3-4' o.c.
	<i>Physocarpus capitatus</i>	Pacific ninebark	1 gal	3-4' o.c.
	<i>Rosa nutkana</i>	Nootka rose	1 gal	3-4' o.c.
	<i>Rosa pisocarpa</i>	clustered rose	1 gal	3-4' o.c.
	<i>Salix hookeriana</i>	Hooker's willow	3/4-1-1/2" dia , 5' stakes	4' o.c.
	<i>Salix sitchensis</i>	Sitka willow	3/4-1-1/2" dia , 5' stakes	4' o.c.
Backwater Slopes				
Trees	<i>Callitropsis nootkatensis</i>	yellow cedar	1 gal	25' o.c.
	<i>Populus trichocarpa</i>	black cottonwood	3/4-1-1/2" dia , 5' stakes	8' o.c.
Shrubs	<i>Alnus rubra</i>	red alder	1 gal	8' o.c.
	<i>Cornus sericea</i>	red twig dogwood	3/4-1-1/2" dia , 5' stakes	3-4' o.c.
	<i>Lonicera involucrata</i>	twinberry	1 gal	3-4' o.c.
	<i>Physocarpus capitatus</i>	Pacific ninebark	1 gal	3-4' o.c.
	<i>Rosa nutkana</i>	Nootka rose	1 gal	3-4' o.c.
	<i>Rubus parviflorus</i>	thimbleberry	1 gal	3-4' o.c.
	<i>Salix scouleriana</i>	Scouler's willow	3/4-1-1/2" dia , 5' stakes	4' o.c.
	<i>Salix sitchensis</i>	Sitka willow	3/4-1-1/2" dia , 5' stakes	4' o.c.
	<i>Symphoricarpus alba</i>	snowberry	1 gal	3-4' o.c.



**Know what's below.
Call before you dig.**

(UNDERGROUND UTILITY LOCATIONS ARE APPROX.)

FIELD BOOK: ---		NUM.	REVISION	BY	DATE	APPROVED: WILL MANSFIELD, P.E.	6/2018	PROJECT No. 1122266				 King County Department of Natural Resources and Parks Water and Land Resources Division Rural and Regional Services Section Ecological Restoration and Engineering Services Unit <i>Christie True, Director</i>	ISSAQUAH CREEK MITIGATION PROJECT	PLANTING NOTES AND SCHEDULE	SHEET 22 OF 22 SHEETS
SURVEYED: PARAMETRIX						PROJECT MANAGER: JOSH LATTERELL, PH.D.	6/2018								
SURVEY BASE MAP: PU1521282P200T201SV-BM						DESIGNED: RACHAEL VAICUNAS, P.E.	6/2018								
						SCOTT MUCHARD, P.E.	6/2018								
CHECKED: S. SHARPE	10/2017					LAURA HARTEMA	6/2018								
						TODD HURLEY	6/2018								
		NUM.	RECORD CHANGES APPROVED	BY	DATE	CAD DESIGN: KAY KITAMURA	6/2018							2017-09	