

**BEFORE THE BOARD OF COUNTY COMMISSIONERS
LEWIS COUNTY, WASHINGTON**

IN THE MATTER OF:

RESOLUTION NO. 23-090

CALL FOR BIDS FOR THE MATERIAL PURCHASE
OF A PRECAST CONCRETE SPLIT BOX CULVERT
FOR FUTURE INSTALLATION AT KRUGER ROAD

WHEREAS, this contract provides for the improvement of Kruger Road (MP 1.2), CMP 15-1904, in Lewis County by purchasing a culvert for future installation and other related work, all in accordance with the Contract Plans, Contract Provisions, and the Standard Specifications; and

WHEREAS, the purchase of this culvert will expediate the installation of this project during a narrow in-water work construction window and allow Public Works to receive more competitive bids for the project.

NOW THEREFORE BE IT RESOLVED that the Department of Public Works is instructed to issue a Call for Bids and Contract Specifications for the material purchase of a precast concrete split box culvert for Kruger Road (MP 1.2), CMP 15-1904. Bids for this project shall be submitted to the Clerk of the BOCC (351 N.W. North Street, Room 210, CMS-01, Chehalis, WA 98532) by or before 12:15 p.m. on Thursday, March 30, 2023, and will be opened at or after 12:15 p.m. on March 30, 2023, subject to official proposal addenda that establishes an alternate bid due date or opening time.

DONE IN OPEN SESSION this 14th day of March, 2023.

APPROVED AS TO FORM:
Jonathan Meyer, Prosecuting Attorney

BOARD OF COUNTY COMMISSIONERS
LEWIS COUNTY, WASHINGTON

Kevin A. McDowell
By: Kevin A. McDowell,
Deputy Prosecuting Attorney

Sean D. Swope
Sean D. Swope, Chair

ATTEST:



Scott J. Brummer
Scott J. Brummer, Vice Chair

Rieva Lester
Rieva Lester,
Clerk of the Lewis County Board of
County Commissioners

Lindsey R. Pollock, DVM
Lindsey R. Pollock, DVM, Commissioner



Lewis County Department of Public Works

Josh S. Metcalf, PE, Director

Tim Fife, PE, County Engineer

NOTICE TO CONTRACTORS

NOTICE IS HEREBY GIVEN that the Board of County Commissioners of Lewis County or designee, will open sealed proposals and publicly read them aloud on or after 12:15 p.m. on **Thursday, March 30, 2023**, at the Lewis County Courthouse in Chehalis, Washington, for the Culvert Material Purchase – Kruger Rd. MP 1.2 Culvert Project.

SEALED BIDS MUST BE DELIVERED BY OR BEFORE 12:15 P.M. on Thursday, March 30, 2023

(Lewis County official time is displayed on Axxess Intertel phones in the office of the Board of County Commissioners. **Bids submitted after 12:15 PM will not be considered for this project.**)

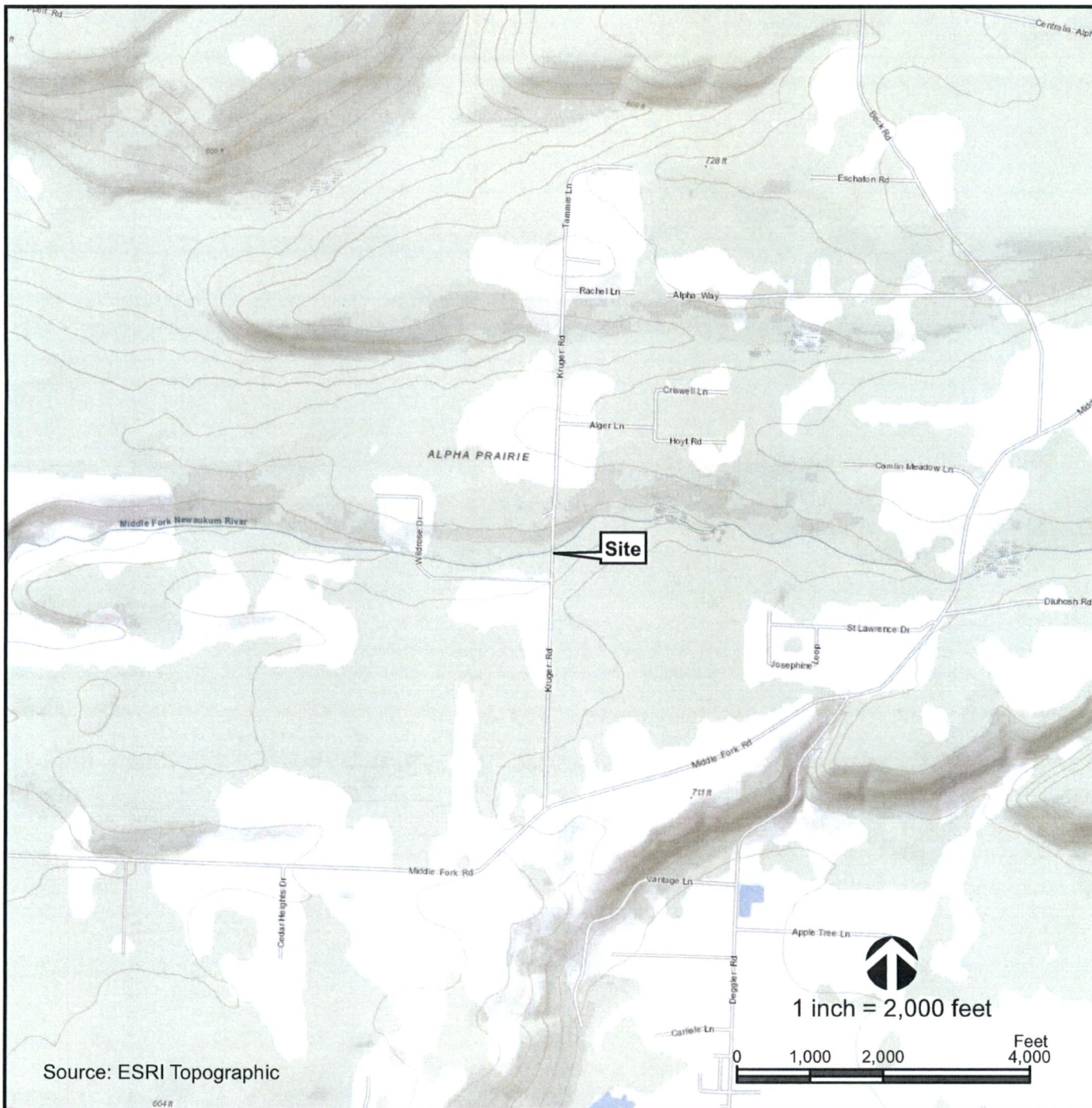
Sealed proposals must be delivered to the Clerk of the Board of Lewis County Commissioners (351 N.W. North Street, Room 210, CMS-01, Chehalis, Washington 98532), by or before **12:15 P.M.** on the date specified for opening, and in an envelope clearly marked: **"SEALED BID FOR CULVERT MATERIAL PURCHASE – KRUGER ROAD MP 1.2 CULVERT REPLACEMENT PROJECT, CMP 15-1904, TO BE OPENED ON OR AFTER 12:15 P.M. ON THURSDAY, MARCH 30, 2023."**

All bid proposals shall be accompanied by a bid proposal deposit in cash, certified check, cashier's check or surety bond in an amount equal to five percent (5%) of the amount of such bid proposal. Should the successful bidder fail to enter into such contract and furnish satisfactory contract bond within the time stated in the specifications, the bid proposal deposit shall be forfeited to the Lewis County Public Works Department.

Informational copies of maps, plans and specifications are on file for inspection in the office of the County Engineer of Lewis County in Chehalis, Washington. The contract documents may be viewed and downloaded from Lewis County's Web Site @ www.lewiscountywa.gov or you may call the Lewis County Engineers office @ (360) 740-2671 and request a copy be mailed to you.

The Lewis County Public Works Department in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, subtitle A, Office of the Secretary, Part 21, nondiscrimination in Federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises as defined at 49 CFR Part 26 will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin, or sex in consideration for an award.

Publish in: The Chronicle and The Seattle Daily Journal of Commerce / March 16 and 23, 2023



Source: ESRI Topographic



VICINITY MAP

KRUGER ROAD CULVERT REPLACEMENT ONALASKA, WASHINGTON

DATE: NOV 2019 · PROJECT: 45013.006



FIGURE

1

REQUEST FOR SEALED BID
Culvert Material Purchase – Kruger Road MP 1.2 Culvert Replacement
CMP 15-1904

1. SCOPE

The purpose of this request for sealed bid is to purchase a 21-ft wide by 11-ft high by 43-ft long precast reinforced concrete split-box culvert with headwalls and four wing walls as depicted and described in the attached “100% Submittal Construction Plans” dated June 2020. The box culvert structure shall support two-lane, two-way AASHTO HL-93 traffic loading aligned per Sheet C-201.

Two sets of plans for the culvert structure with wing walls shall be stamped and certified by a Civil Engineer licensed in the State of Washington. Stamped plans shall be provided to Lewis County within twenty-one (21) working days of contract award. Plans shall include connection details, lifting details, assembly, and installation details. The structure and all wingwall components shall be completed and ready for Lewis County inspection by July 31, 2023. Lewis County anticipates placing the structure during the third week of August 2023. If this project is postponed by Lewis County, the successful bidder shall provide storage of all bid items for a period of up to sixteen months (if needed) and delivery to the project site in the summer of 2024. Project postponement will be determined by June 30, 2023, when construction easements for the project are expected to be finalized. The manufacturer shall coordinate with Lewis County for delivery and material offload (by Lewis County’s Contractor) at the project site.

2. NOTES

- For engineering questions, please contact Rod Lakey via telephone (360-520-9729) or email (Rodney.Lakey@lewiscountywa.gov) or Geoff Soderquist via email (Geoff.Soderquist@lewiscountywa.gov).
- Lewis County (Agency) reserves the right to ask for descriptive literature and technical specifications at the bidders’ expense.
- The bid shall include cost of material as specified and **ALL** shipping to the project site (Kruger Road MP 1.2, closest address 337 Kruger Rd, Onalaska, WA 98570), see the Vicinity Map in the attached “100% Submittal Construction Plans” dated June 2020.
- No fuel surcharges shall be added.
- Federal Tax Identification Number from IRS form W-9 is required on all invoices.
- Bidders are to submit a copy of any and all warranties for the proposed product(s) with their response. A copy of the warranties shall also accompany products delivered.
- Manufacturer shall determine split-box culvert concrete wall/top/bottom thickness design to achieve the 21-ft Span by 11-ft High interior dimensions and wing wall dimensions as specified.
- The proposed concrete split-box culvert base units shall incorporate a minimum 7 -ft interior side height from flow line to allow for placement of streambed material (by others) prior to placing top units.

3. SPECIFICATIONS

This Contract shall be in accordance with the Washington State Department of Transportation 2023 Standard Specification for Road, Bridge, and Municipal Construction (2023 Standard Specifications). All supplied material, components and related Manufacturer supplied plans/shop drawings shall meet all requirements listed in the 2023 Standard Specifications **Section 6-20 Buried Structures** (including all applicable reference sections) or as supplemented below:

6-20 BURIED STRUCTURES

6-20.1 Description

Section 6-20.1 is replaced with the following:

This work consists of providing engineered plans and shop drawings to produce and deliver a precast reinforced concrete split box culvert units and wingwalls to the project site at MP 1.2 on Kruger Road in Lewis County, near Onalaska, WA. This water crossing structure shall be designed to support HL-93 vehicle loading and shall be constructed to the width, length and height as described within this Contract and the attached "100% Submittal Construction Plans" dated June 2020.

6-20.3 Construction Requirements

6-20.3(1) Design

Section 6-20.3(1) is supplemented with the following:

This structure shall be considered a Contractor Supplied Design.

6-20.3(1)D Geotechnical Considerations

Section 6-20.3(1)D is replaced with the following:

The Geotechnical Report for this project (PBS, dated 16-Dec-19) is available on Lewis County's website (<https://cfb.lewiscountywa.gov/projects/>), no additional geotechnical information will be required by the culvert manufacturer for this Contract.

6-20.3(1)E Hydraulic Considerations shall be deleted from this Contract.

6-20.3(1)G Traffic Barrier

Section 6-20.3(1)G is supplemented with the following:

Guardrail shall be attached to the supplied structure per WSDOT Standard Plan C-20.41 (by others after delivery). Connection to the structure shall require a minimum Test Level Three (TL-3) design for guardrail anchor points drilled and epoxied into the top of the culvert as depicted in the attached "100% Submittal Construction Plans" dated June 2020. Note, furnishing and installation of all guardrail and fencing shall be completed by others after delivery of culvert components to the project site.

6-20.3(1)H Concrete Structures paragraph 8 shall be replaced with the following:

A method of shear transfer shall be provided between the top slabs of adjacent precast units to equalize deflections by incorporating structural connection between adjacent precast units capable of transferring the imposed shear and equalizing deflections. The structural connection shall include cast-in-place reinforced concrete closures or grouted shear keys with steel weld ties at 5-ft on center. A similar connection shall be incorporated at the end culvert to wingwall connections and all wingwall to wingwall connections (for multi-section wingwalls).

6-20.3(2) Submittals

6-20.3(2)B Load Rating Report shall be deleted from this Contract.

6-20.3(2)D Dewatering System shall be deleted from this Contract.

6-20.3(5) Excavation shall be deleted from this Contract.

6-20.3(6) Bedding and Foundations shall be deleted from this Contract.

6-20.3(8) Placement and Assembly shall be deleted from this Contract.

6-20.3(9) Backfilling shall be deleted from this Contract.

6-20.5 Payment

Section 6-20.5 is supplemented with the following:

The Lump Sum Contract price for "Culvert Material Purchase—Kruger Rd MP 1.2" shall be full payment to perform the work as specified in this Contract including all costs for supplying all materials, manufacturing, and delivering a precast reinforced concrete split box culvert (21-ft Span by 11-ft High by 43-ft Long with four wing walls and two headwalls, as specified) to Kruger Rd. MP 1.2, in Lewis County, near Onalaska, WA.

4. PUBLIC OPENING OF PROPOSAL

Date and Time of Bid Opening

The Board of County Commissioners of Lewis County or designee, will open sealed proposals and publicly read them aloud on or after 12:15 p.m. on **March 30, 2023**, at the Lewis County Courthouse, Chehalis, Washington, for the Culvert Material Purchase—Kruger Rd. MP 1.2 Culvert Project, CMP 15-1904.

SEALED BIDS MUST BE DELIVERED BY OR BEFORE 12:15 P.M. on Thursday, March 30, 2023

(Lewis County official time is displayed on Axxess Intertel phones in the office of the Board of County Commissioners. Bids submitted after 12:15 PM will not be considered for this project.)

Delivery and Marking of Sealed Bid Proposals

Sealed proposals must be delivered to the Clerk of the Board of Lewis County Commissioners (351 N.W. North Street, Room 210, CMS-01, Chehalis, Washington 98532) by or before **12:15 p.m.** on the date specified for opening, and in an envelope clearly marked: ***"SEALED BID FOR CULVERT MATERIAL PURCHASE – KRUGER ROAD MP 1.2 CULVERT REPLACEMENT PROJECT, CMP 15-1904, TO BE OPENED ON OR AFTER 12:15 P.M. ON THURSDAY, MARCH 30, 2023."***

All bid proposals shall be accompanied by a bid proposal deposit in cash, certified check, cashier's check or surety bond in an amount equal to five percent (5%) of the amount of such bid proposal. Should the successful bidder fail to enter into such contract within the time stated in the specifications, the bid proposal deposit shall be forfeited to the Lewis County Public Works Department.

5. **BID SUBMITTALS** (Entries shall be typed or entered using an ink pen)

PRICE SHEET

Bid Item	Description	Quantity	Unit	Unit Price	Total Price
1	Culvert Material Purchase—Kruger Rd MP 1.2 21-ft Span by 11-ft High by 43-ft Long Precast Rieforced Concrete Split Box Culvert (with Four Wingwalls and Two Headwalls) Material and Delivery to Kruger Rd. MP 1.2 Near Onalaka, WA (Lewis County, WA).	1	Lump Sum	_____	_____
				SUBTOTAL	_____
				Washington State Sales Tax 7.8%	_____
				TOTAL	_____

6. **CONDITIONS**

By signature below, the Authorized Official(s) of the company submitting this Proposal do hereby acknowledge that in the event this Proposal is deemed to be the lowest responsive bid, this document shall be construed to be the legal contract for the purchase of the materials specified herein. The successful bidder shall be liable, and hereby agrees to reimburse Lewis County, for any and all costs incurred by Lewis County due to delays in the delivery of any materials specified herein beyond the agreed delivery date as identified in Part 1. The liability for costs due to material delivery delays shall be limited to the total cost of the bid for the materials as contained in this Proposal. Please be apprised that a bid bond shall accompany this proposal in order for this proposal to be valid as per the Call for Bid.

*Receipt is hereby acknowledged of addendum(s) Number(s) 1 _____, 2 _____, 3 _____.

SIGNATURE OF AUTHORIZED OFFICIAL(S)

Proposal Must be Signed

X_____

Company Name

Address

Unified Business Identifier (U.B.I.) No.

Telephone #

Federal ID No.

Attachment: Kruger Rd MP 1.2 Culvert Replacement, CMP 15-1904 (MF Newaukum Tributary)
"100% Submittal Construction Plans" dated June 2020.

FOR LEWIS COUNTY USE ONLY

AWARD RESOLUTION NO. _____

APPROVED:

County Engineer

Date

Filename: L:\Projects\45000\45013\45013-006\Civil\CAD\Working\Sheets\45013-006-C001.dwg	Layout Tab: C-001 COVER SHEET	User: Doug Enebrant	CAD Plot Date/Time: 6/26/2020 3:26:28 PM
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A site location map showing the intersection of Rachel Lane and Kruger Rd. The map includes a north arrow in the top right corner. A label 'RACHEL LANE' is placed above the intersection. A label 'KRUGER RD' is placed vertically along the road. A label 'TRIBUTARY TO MIDDLE FORK NEWAUKUM RIVER' points to a line crossing the road. A large black arrow points from the intersection area to the text 'PROJECT SITE' on the right. Below the map, the text 'SITE LOCATION MAP' is underlined, followed by 'SCALE: 1" = 300' (@ 22X34)'.

Assistant County Engineer

Date _____

PBS Engineering and
Environmental Inc.
1180 NW Maple St, Ste 160
Issaquah, WA 98027
425.654.8775
pbsusa.com



COVER SHEET FOR:
 KRUGER RD MP 1.20 (MF NEWAUKUM TRIBUTARY) CULVERT REPLACEMENT
 LEWIS COUNTY, WASHINGTON



SHEET 1 OF 16

SEC. 18, T13N, R01E

Existing Linetype Legend

Existing Right-of-way	---
Existing Edge of Pavement	----
Existing Centerline	----
Existing Lot Line	----
Existing Contour	-----
Existing Flow Line	-----
Existing Culvert	-----
Existing Edge of Shoulder	-----
Existing Telephone Line	-----
Existing Overhead Power	-----
Existing Water Line	-----
Existing Fence	-----
Existing Building	-----
Existing Ordinary High Water	-----
Existing Wetland Boundary	-----
Area Of Potential Effect	-----

Proposed/Future Linetype Legend

Proposed Coated Chain Link Fence	-----
Proposed Edge Of Pavement	-----
Proposed Centerline	-----
Proposed Guardrail	-----
Proposed Contour	-----
Proposed Flow Line	-----
Proposed Sawcut Line	-----
Proposed Edge of Shoulder	-----
Proposed Paint Stripe	-----
Proposed Lath with Rag Tape	-----
Proposed Cut Limit	-----
Proposed Fill Limit	-----
Proposed Clear and Grub Limit	-----
Proposed Straw Wattles	-----
Proposed High Visibility Silt Fence	-----

Symbol Legend

Proposed Flow Arrow	←
Existing Flow Arrow	←
Existing Sign	⊥
Existing Deciduous Tree	⊙
Existing Coniferous Tree	⊙
Existing Fence Post	⊙
Existing Power Pole	⊙
Bypass Culvert Pipe	⊙
Removed Deciduous Tree	⊙
Removed Coniferous Tree	⊙

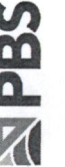
Abbreviation Legend

Acres	AC	Maximum	MAX
Bottom of Foundation	BOF	Minimum	MIN
Catch Basin	CB	Number	No. or #
Cubic Feet	CF	On Center	O.C.
Centerline	CL	Ordinary High Water	OHW
Compaction	COMP	Overhead Power	OHP
Concrete	CONC	Point Of Curve	PC
Construction	CONST	Point Of Tangent	PT
Corrugated Metal Pipe	CMP	Point Of Vertical Intersection	PVI
Cubic Yard	CY	Right Of Way	ROW
Diameter	DIA	Sheet	SHT
Edge Of Pavement	EOP	Station	STA
Elevation	EL	Standard	STD
Existing	EXIST	Storm	STM
Finished Grade	FG	Telephone	TEL
Invert Elevation	IE	Temporary	TEMP
Large Woody Debris	LWD	Top Of Wall	TOW
		Typical	TYP
		Washington Department Of Fish And Wildlife	WDFW

Hatching Legend

Existing Wetland	Existing Ground
Existing Hot Mixed Asphalt	Proposed Shoulder
Proposed Crushed Surfacing Top Course	Proposed Crushed Surfacing Base Course
Proposed Hot Mixed Asphalt	Proposed Streambed Mix
Proposed Construction Entrance	Proposed Concrete
Proposed Select Borrow	Proposed Common Borrow
Proposed Gravel Backfill	Proposed Bypass Road
Proposed Soil Section	Proposed Plastic For Cofferdam

PBS Engineering and
1100 NW Maple St. Ste. 100
Astoria, OR 97103
Phone: 503.325.8227
pbseas.com



LEGEND FOR:
KRUGER RD MP 1.20 (MF NEWAUKUM TRIBUTARY) CULVERT REPLACEMENT
LEWIS COUNTY, WASHINGTON



DESIGNED:
DAS
CHECKED:
DAS
4/20/2020

SHEET ID
C-002

SHEET 2 OF 16

100% SUBMITTAL

Filename: L:\projects\400004017\40013\4006\cadd\working\sheet\40013_006-001.dwg Layer: 1: C-002 LEGEND User: Doug Entwistle CAD File Date/Time: 6/16/2020 3:28:33 PM

Full Size Sheet Format is 22x34. If Plotter Size is Not 22x34, Then This Sheet Format Has Been Modified & Indicated Drawing Scale is Not Accurate.

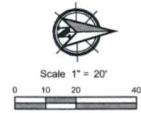
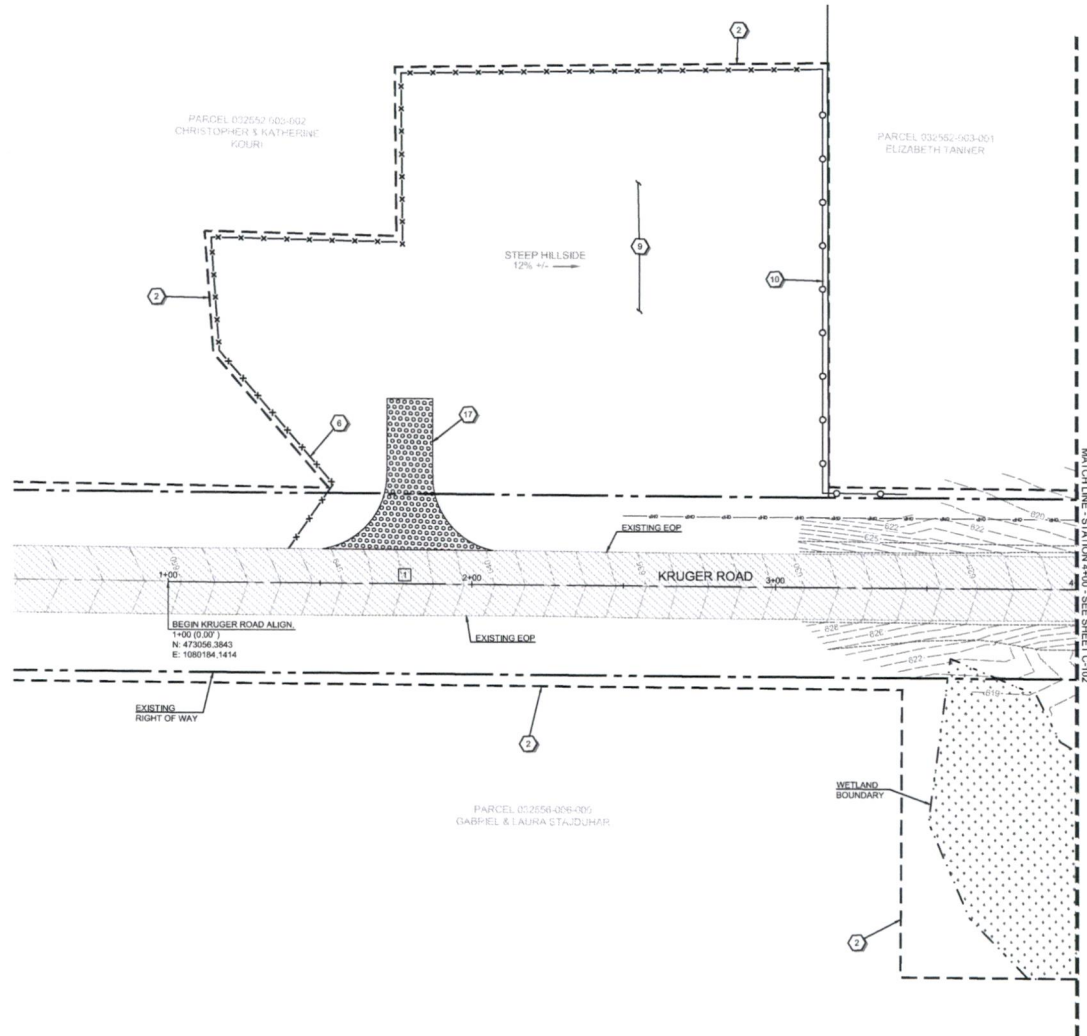
SEC. 18, T13N, R01E

CONSTRUCTION PLAN NOTES:

- 2 AREA OF POTENTIAL EFFECT
- 8 INSTALL 4' x 1-1/2" x 1/2" LATH WITH RAG TAPE, 10' O.C. (BY LEWIS COUNTY)
- 9 STAGING AND STOCKPILING AREA
- 10 HIGH VISIBILITY SILT FENCE, J-HOOK AT ENDS FOR EROSION CONTROL
- 17 STABILIZED CONSTRUCTION ENTRANCE (AS NEEDED)

KRUGER ROAD CENTERLINE ALIGNMENT DATA

CENTERLINE LINE DATA		
#	Length	Direction
1	365.00	N02° 10' 17"E



PBS Engineering and
1100 NW Main St. Ste. 100
Astoria, OR 97103
503.325.1771
pbsinc.com



SITE PREP AND TESC PLAN 1 FOR:
KRUGER RD MP 1.20 (MF NEWAUKUM TRIBUTARY) CULVERT REPLACEMENT
LEWIS COUNTY, WASHINGTON



Know what's below.
Call before you dig.



DESIGNED:
DAS
CHECKED:
DAS
JUNE 2020
45013.006
SHEET ID
C-101
SHEET 3 OF 16

100% SUBMITTAL

SEC. 18, T13N, R01E



Scale 1" = 20'

PBS Engineering and
1150 NW Maple St. Ste. 100
Portland, OR 97207
503.544.8772
pbsusa.com



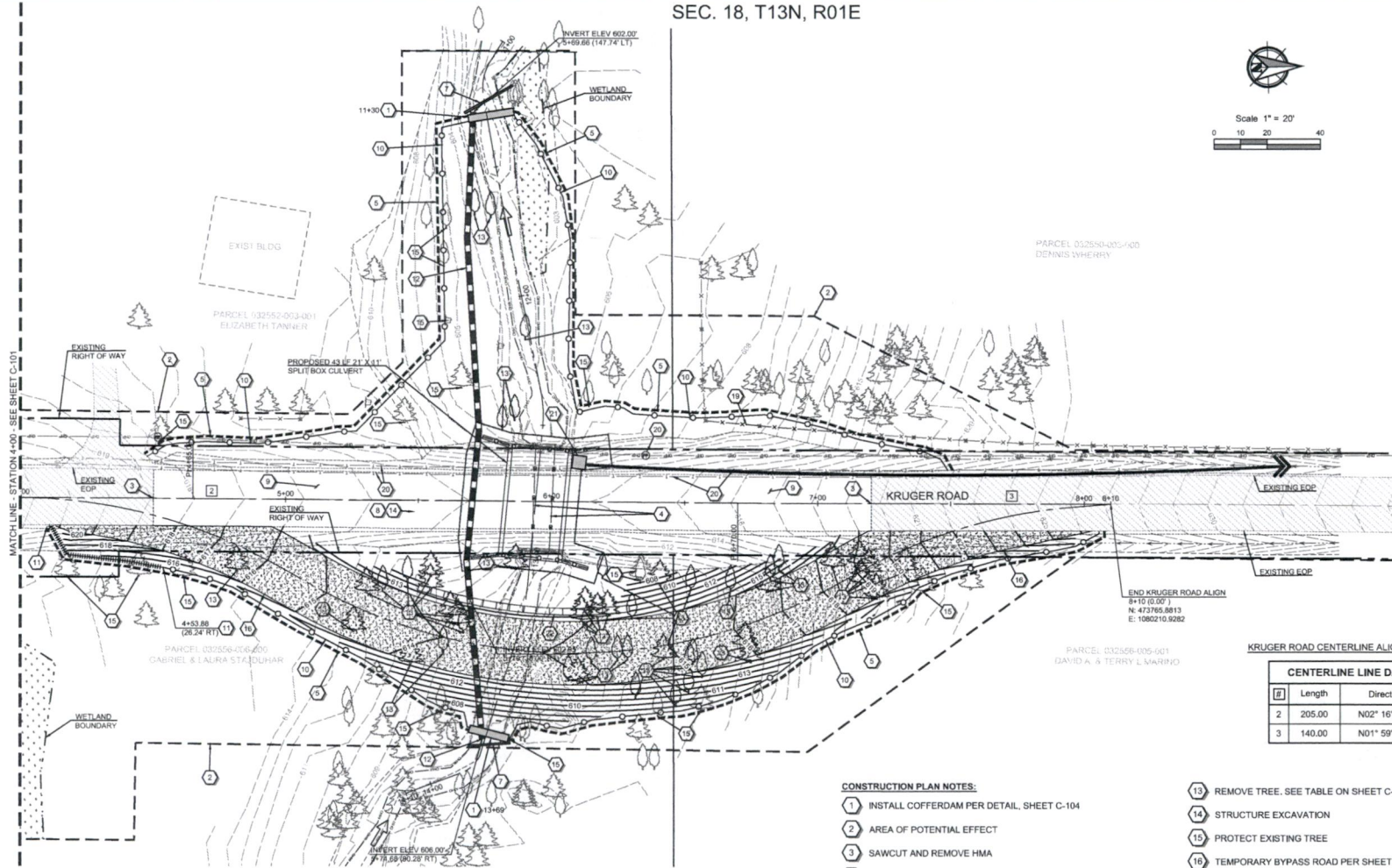
SITE PREP AND TESC PLAN 2 FOR:
KRUGER RD MP 1.20 (MF NEWAUKUM TRIBUTARY) CULVERT REPLACEMENT
LEWIS COUNTY, WASHINGTON



DESIGNED:
DAS
CHECKED:
DAS
JUNE 2020
45013.009

SHEET #
C-102

SHEET 4 OF 16



KRUGER ROAD CENTERLINE ALIGNMENT DATA

CENTERLINE LINE DATA		
Station	Length	Direction
1	205.00	N02° 16' 01"E
2	140.00	N01° 59' 05"E

CONSTRUCTION PLAN NOTES:

1. INSTALL COFFERDAM PER DETAIL, SHEET C-104
2. AREA OF POTENTIAL EFFECT
3. SAWCUT AND REMOVE HMA
4. REMOVE EXISTING 41 LF 3.5' X 5' SQUASH CMP CULVERTS
5. CLEAR AND GRUB LIMIT, CLEARING ONLY 2-FT BEYOND SILT FENCE
7. INSTALL WDFW APPROVED FISH EXCLUSION SCREEN AT 45° ANGLE TO CHANNEL
8. EXCAVATE TO SUBGRADE FOR PROPOSED BOX CULVERT AND WINGWALL FOUNDATIONS
9. STAGING AND STOCKPILING AREA
10. HIGH VISIBILITY SILT FENCE, J-HOOK AT ENDS FOR EROSION CONTROL
11. INSTALL WATTLES
12. 24" GRAVITY FED BYPASS (APPROXIMATE LOCATION SHOWN - ADJUST TO SUIT CONSTRUCTION SEQUENCING)

13. REMOVE TREE. SEE TABLE ON SHEET C-104
14. STRUCTURE EXCAVATION
15. PROTECT EXISTING TREE
16. TEMPORARY BYPASS ROAD PER SHEET C-103
18. PROTECT EXISTING POWER POLE
19. REMOVE AND REPLACE EXISTING FENCE
20. SEE UTILITIES SPECIAL PROVISIONS
21. CONSTRUCTION DEWATERING PUMP AND LINE (DISCHARGE 200' MIN FROM PROJECTS LIMITS WITHIN GRASS LINED DITCH IN RIGHT OF WAY)
22. ECOLOGY BLOCK WALL PER DETAIL, SHEET C-104

GENERAL NOTES

1. CONTRACTOR TO ENSURE THAT GRAVITY FED BYPASS GOES UNDER THE ECOLOGY BLOCK WALL. SEE SHEET C-104 FOR DETAILS

100% SUBMITTAL

Financials: L:\Projects\450004501\4501300\CD\Working\Sheet\4501300_C101.dwg User: Darryl Entwistle CAD Plot Date/Time: 5/26/2020 3:35:55 PM

Full Size Sheet Format is 22x34. If Printed Size is Not 22x34, Then This Sheet Format Has Been Modified & Indicated Drawing Scale is Not Accurate.

BYPASS ROAD CENTERLINE ALIGNMENT DATA

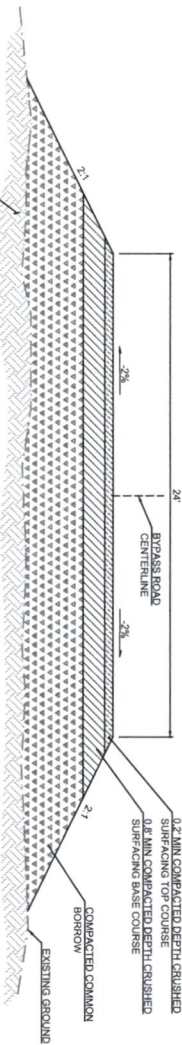
CENTERLINE LINE DATA			
Station	Length	Direction	
4	4.99	N02° 08' 52"E	
5	12.65	N01° 33' 45"E	
6	6.24	N08° 02' 31"W	
7	13.20	N02° 46' 21"W	

CENTERLINE CURVE DATA			
Station	R	L	T
1	297.4137	200	102.88
2	597.8137	200	208.88
3	297.4137	200	88.21

- GENERAL NOTES:
- THE DESIGN SPEED FOR THE TEMPORARY BYPASS ROAD IS 20 MPH WITH TEMPORARY LIGHTING THE BYPASS ROAD DESIGN SPEED IS 25 MPH.

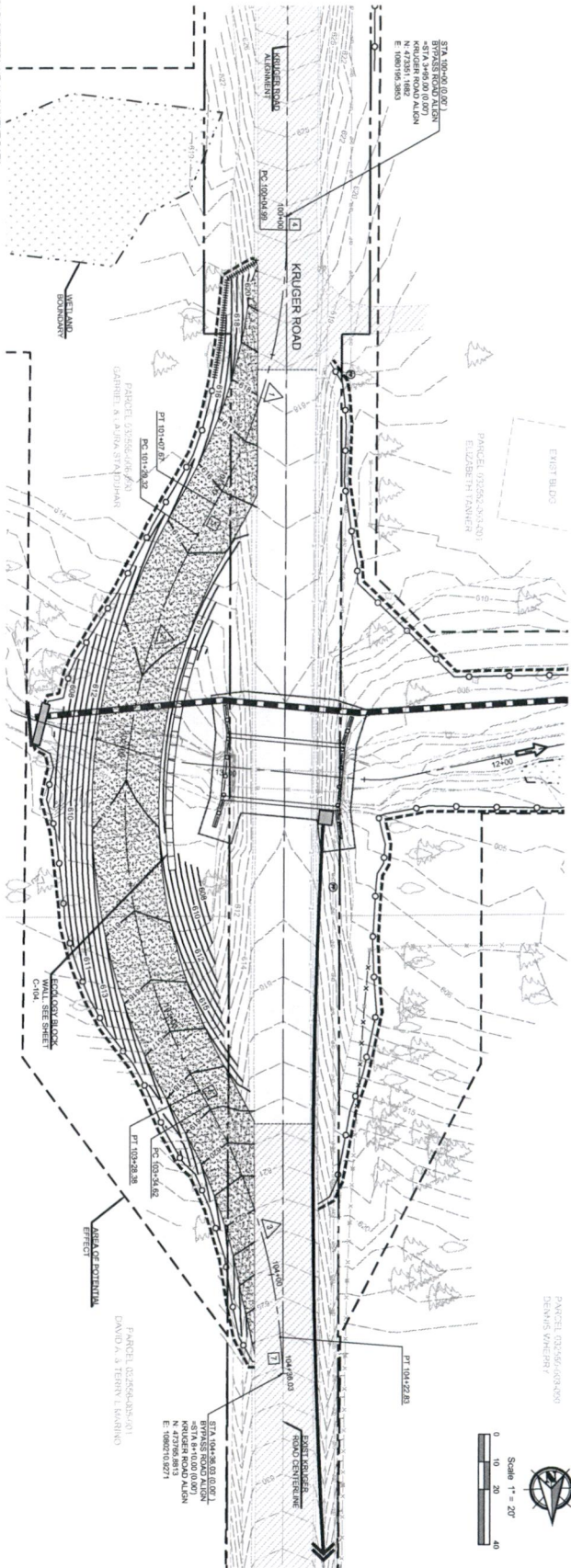
STAKE TOPSOIL AND COMPACT SUBGRADE PRIOR TO PLACING FILL TOPSOILS TO BE STOCKPILED FOR RESTORATION UPON REMOVAL OF BYPASS ROAD

1 TEMPORARY BYPASS ROAD SECTION
NOT TO SCALE

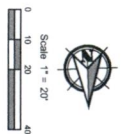


- TEMPORARY BYPASS ROAD NOTES:
- CONSTRUCT EMBANKMENT WITH COMMON BORROW IN AREAS WHERE FILL DEPTHS ARE GREATER THAN 1.2'

100% SUBMITTAL



SEC. 18, T13N, R01E



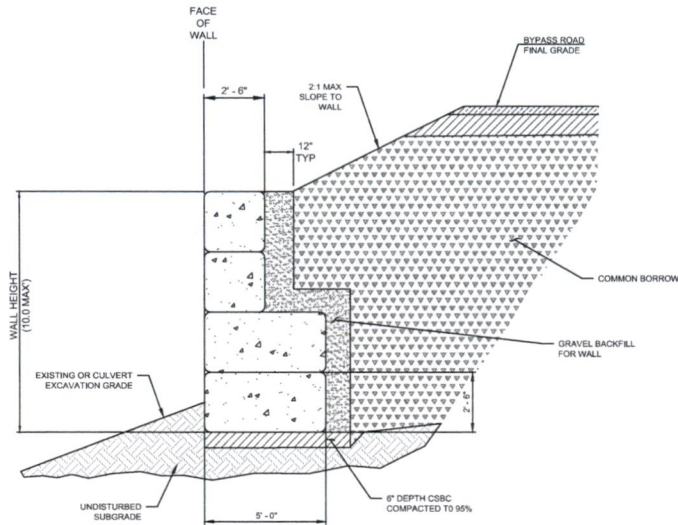
BYPASS ROAD PLAN AND PROFILE FOR:
KRUGER RD MP 1.20 (MF NEWAUKUM TRIBUTARY) CULVERT REPLACEMENT
LEWIS COUNTY, WASHINGTON



PBS Engineering and
Environmental Inc.
1180 NW Maple St. Ste 160
Issaquah, WA 98027
425.654.8775
pbsusa.com

5
SHEET 5 OF 16
C-103

SEC. 18, T13N, R01E



1 ECOLOGY BLOCK WALL DETAIL
NTS

Point #	Raw Description	Elevation	North	East
5975	TD 12 ALDER	608.78	473530.69	1080093.47
5983	TC 8 CEDAR	619.00	473671.11	1080238.43
5398	TC 30 CEDAR	607.08	473541.78	1080238.68
5974	TD 12 ALDER	607.14	473536.71	1080094.80
5483	TD 24 COTTEN	605.64	473560.07	1080271.68
5803	TC 12 DBL CEDAR	621.73	473436.70	1080225.99
5578	TC 18 CEDAR	618.32	473660.62	1080231.89
5770	TD 14 ALDER	608.97	473548.11	1080141.57
5769	TD 10 MAPLE	605.11	473543.14	1080172.16
5513	TD 24ASH	608.68	473584.61	1080248.80
5584	TC 20 CEDAR	620.34	473676.84	1080244.20
5520	TD 8 ALDER	612.56	473640.47	1080232.10
5768	TD 16 MAPLE	606.59	473538.41	1080175.86
5576	TD 20 ALDER	608.15	473513.62	1080259.51
5569	TC 6 FR	618.29	473688.04	1080234.21
5580	TD 20 CEDAR	618.57	473674.12	1080234.47
5516	TD 16COTTEN	608.12	473585.10	1080279.82
5579	TC 8 CEDAR	617.66	473670.66	1080231.20
5515	TD 6MAPLE	608.58	473582.51	1080264.49
5575	TD 20 DBL ALDER	607.72	473521.29	1080252.27

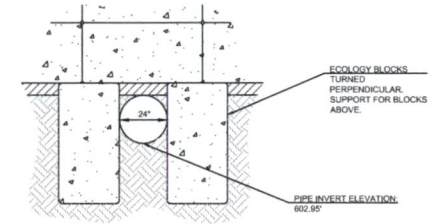
2 TREE REMOVAL TABLE
NTS

Point #	Raw Description	Elevation	North	East
5511	TC 18 CEDAR	608.30	473596.09	1080264.73
5574	TC 8 CEDAR	608.04	473519.59	1080249.15
5510	TD 8 COTTEN	608.32	473607.03	1080266.82
5573	TC 8 DBL CEDAR	607.97	473516.78	1080246.00
5509	TD 18 COTTEN	608.84	473605.83	1080268.33
5571	TC 18 CEDAR	606.44	473509.56	1080235.30
5570	TC 40 CEDAR	610.82	473509.88	1080230.40
5568	TD 16 ALDER	609.73	473501.00	1080232.03
5504	TD 14 DBLALDER	609.89	473622.08	1080239.47
5567	TD 16 ALDER	611.04	473491.54	1080235.36
5503	TD 18ALDER	608.28	473607.18	1080238.71
5564	TC 24 CEDAR	611.81	473485.45	1080235.83
5562	TC 18 CEDAR	612.78	473480.02	1080250.37
5560	TC 24 CEDAR	610.16	473501.11	1080263.37
5496	TD 24 ASH	607.49	473574.19	1080233.13
5538	TD 8 COTTEN	608.70	473600.12	1080282.29
5538	TD 8 COTTEN	608.44	473605.16	1080277.48
5530	TC 18CEDAR	612.07	473626.88	1080261.60
5529	TC 24 MAPLE	612.07	473628.76	1080266.80
5523	TC 10 CEDAR	611.84	473636.05	1080240.30

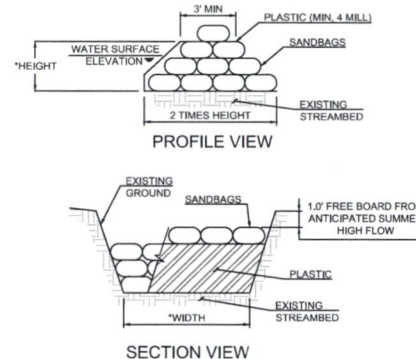
Point #	Raw Description	Elevation	North	East
5521	TD 8 ALDER	611.54	473637.16	1080235.79
5508	TD 18 COTTEN	608.05	473610.32	1080271.84
5501	TC 12 CEDAR	607.88	473595.73	1080236.48
5495	TC 24CEDAR	607.33	473575.64	1080247.46
5494	TC 14CEDAR	607.18	473571.82	1080248.28
5492	TC 16 CEDAR	607.34	473567.28	1080245.69
5491	TC 6 CEDAR	607.03	473565.79	1080249.12
5490	TD 18MAPLE	607.57	473567.78	1080252.52
5488	TD 8ASH	607.78	473578.67	1080264.62
5486	TD 6 ASH CLP	608.07	473568.88	1080264.99
5484	TC 16 CEDAR	605.07	473563.70	1080272.60

GENERAL ECOLOGY BLOCK WALL DETAIL NOTES

1. BASIS OF DESIGN FOR BLOCK WALL IS ECOLOGY BLOCK. BLOCKS ARE ASSUMED TO BE H=2.5' X W=2.5' X L=5'
2. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS & VERIFY SITE CONDITIONS MATCH DEPICTED DESIGN, FOR REVIEW AND APPROVAL BY THE ENGINEER SEE SPECIAL PROVISIONS FOR FURTHER INFORMATION.
3. WALL CONFIGURATION AS FOLLOWS:
 - 3.1. 1-2 BLOCKS STACKED: PLACE BLOCKS PERPENDICULAR TO TEMPORARY BYPASS ROAD.
 - 3.2. 3 BLOCKS STACKED: TOP TWO PLACED PARALLEL TO TEMPORARY BYPASS ROAD ALIGNMENT, BOTTOM BLOCK PLACED PERPENDICULAR TO ALIGNMENT.
 - 3.3. 4 BLOCKS STACKED: AS SHOWN ABOVE. TOP 2 BLOCKS PLACED PARALLEL TO TEMPORARY BYPASS ROAD ALIGNMENT, BOTTOM BLOCKS PLACED PERPENDICULAR TO ALIGNMENT.



1 PIPE & BLOCK WALL DETAIL
NTS



- COFFERDAM NOTES:**
1. SANDBAGS SHALL BE USED IN ACCORDANCE WITH APPLICABLE PERMITS.
 2. INSTALL COFFER DAM AND DEWATERING SITE PRIOR TO CONSTRUCTION.
 3. WATER BLADDERS, SUPER BAGS, OR APPROVED EQUAL CAN BE USED AS ALTERNATIVES TO COFFERDAMS.
 4. PROVIDE 1.0' FREEBOARD.
- DIMENSIONS SHOWN ARE MINIMUMS. CONTRACTOR TO SEE SPECIAL PROVISIONS.

3 COFFERDAM
NOT TO SCALE

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1180 NW Maple St., Ste. 200
Portland, OR 97207
503.564.8775
pbsenv.com

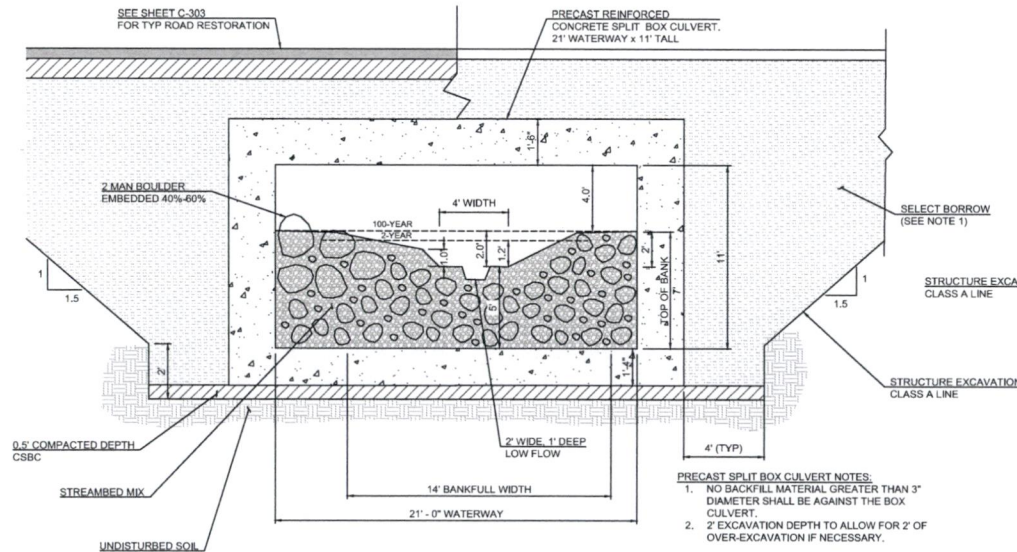
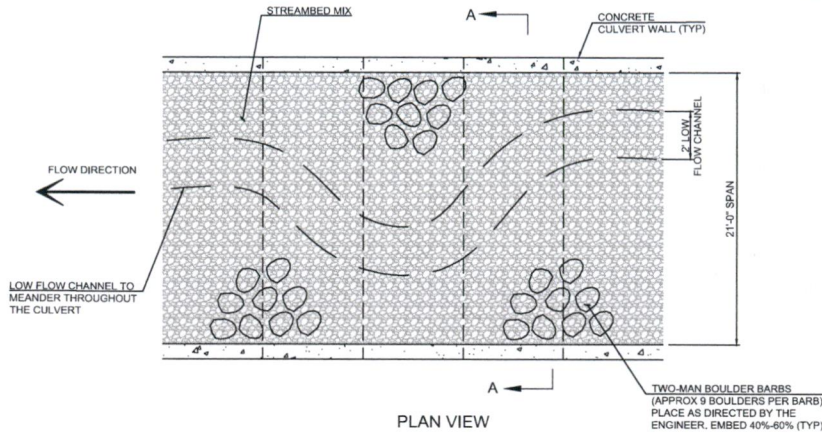


SITE PREP AND TESC DETAILS FOR:
KRUGER RD MP 1.20 (MF NEWAUKUM TRIBUTARY) CULVERT REPLACEMENT
LEWIS COUNTY, WASHINGTON



DESIGNED: DNE
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JUNE 2020
45013.006
SHEET ID
C-104
SHEET 6 OF 16

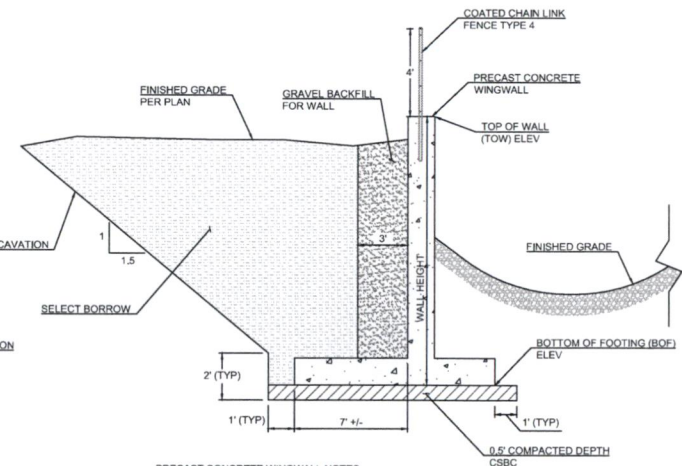
SEC. 18, T13N, R01E



1 PRECAST SPLIT BOX CULVERT
NOT TO SCALE

WINGWALL TABLE					
WINGWALL NO.	LENGTH (FT)	ANGLE TO CULVERT OPENING (DEGREES)	BEGIN HEIGHT (FT)	END HEIGHT (FT)	BOF ELEV
1 (NE)	10	168	14.83	12	598.52
2 (SE)	10	168	14.83	13.75	598.52
3 (NW)	10	168	15.33	14.83	597.79
4 (SW)	10	168	15.33	13	597.79

* HEIGHT OF WALL INCLUDES ASSUMED 16" THICK FOOTING. MATCH BOTTOM OF FOOTING WITH CULVERT BOTTOM.



PRECAST CONCRETE WINGWALL NOTES:
1. PRECAST WINGWALL TO BE DESIGNED AND PROVIDED BY CULVERT SUPPLIER, ENGINEER TO APPROVE DESIGN PRIOR TO CONSTRUCTION.
2. SEE SHEET C-201 FOR WINGWALL LOCATIONS.

2 PRECAST CONCRETE WINGWALL
NOT TO SCALE

- GENERAL NOTES:
1. LARGE WOODY DEBRIS FEATURES, TWO-MAN BOULDERS, AND THALWEG LOCATIONS ARE TO BE PLACED AS SHOWN ON PLANS. MINOR CHANGES TO THE WOOD FEATURES CAN BE MADE IN THE FIELD BY THE ENGINEER.
 2. STREAMBED MIX: THREE PARTS 12" STREAMBED COBBLES SHALL BE MIXED THOROUGHLY WITH TWO PARTS STREAMBED SEDIMENT.
 3. STREAMBED SEDIMENT IS TO PROVIDE STABILITY TO THE STREAMBED MIX AND BOULDER BARBS AND BE PLACED IN AREA OF VOIDS TO CREATE A UNIFORM, NON-POROUS BED.
 4. SEE SHEET C-203 FOR STREAMBED GRADATIONS.
 5. SEE PLANTING PLANS ON SHEETS C-401 THRU C-403 FOR FINAL STABILIZATION REQUIREMENTS.

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503.554.8775
pbs@a.com



CULVERT DETAILS FOR:
KRUGER RD MP 1.20 (MF NEWAUKUM TRIBUTARY) CULVERT REPLACEMENT
LEWIS COUNTY, WASHINGTON



DESIGNED:	DAS
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DATE:	JUNE 2020
PROJECT NO:	45013.006
SHEET #	8 OF 16

C-202

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Full Size Sheet Format is 22x34. If Printed Size is Not 22x34, Then This Sheet Format Has Been Modified & Indicated Drawing Scale is Not Accurate.

GENERAL NOTES:

1. LARGE WOODY DEBRIS FEATURES, TWO-MAN BOULDERS, AND THALWEG LOCATIONS ARE TO BE PLACED AS SHOWN ON PLANS. MINOR CHANGES TO THE WOOD FEATURES CAN BE MADE IN THE FIELD BY THE ENGINEER.
2. STREAMBED MIX: THREE PARTS 12" COBBLES SHALL BE MIXED THOROUGHLY WITH TWO PARTS STREAMBED SEDIMENT.
3. STREAMBED SEDIMENT IS TO PROVIDE STABILITY TO THE STREAMBED MIX AND BE PLACED IN AREA OF VOIDS TO CREATE A UNIFORM, NON-POROUS BED.
4. SEE PLANTING PLANS ON SHEET C-401 THRU C-403 FOR FINAL STABILIZATION REQUIREMENTS.

ROCK QUANTITY		
ROCK	MEASUREMENT	TOTAL
STREAMBED BOULDER TWO MAN	EACH	134

SEC. 18, T13N, R01E

LARGE WOODY DEBRIS CONTROL TABLE		
LWD FEATURE STATION	LOGS*	VOLUME (FT ³)
11+70	1,2,2,3	149.6
12+05	1,2,2,3	149.6
12+32	1,2,2,3	149.6
13+25	1,2,2,2,3,3	192.9
13+50	1,2,2,2,3,3	192.9

* SEE LOG SCHEDULE BELOW

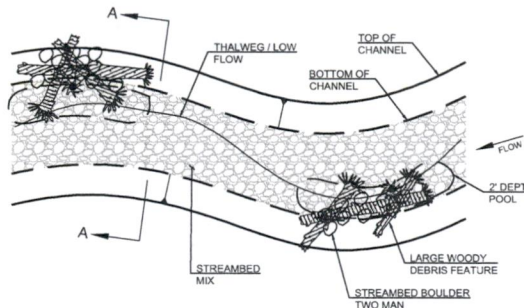
LOG SCHEDULE					
LOG #	LOG LENGTH (FT)	LOG DIAMETER (FT)	ROOTWAD LENGTH (FT)	ROOTWAD DIAMETER (FT)	VOLUME (FT ³)
1*	20	2	2	3	71.3
2*	15	1.5	2	3	35.0
3	5	1	1.5	2.5	8.3

* KEY LOG (VOLUME > 35 FT³)

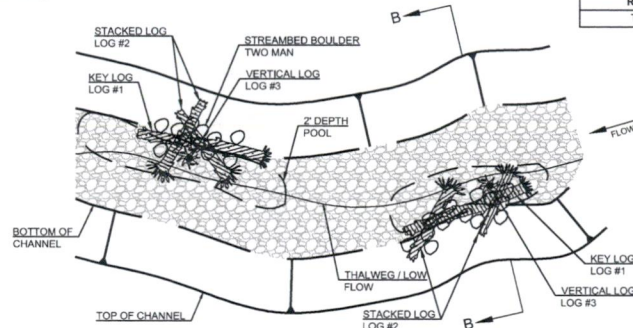
12" STREAMBED COBBLES GRADATION	
APPROXIMATE SIZE	% PASSING
12"	99 - 100
10"	70 - 90
5"	30 - 60
3/4"	10 MAX

STREAMBED SEDIMENT GRADATION	
SIEVE SIZE	% PASSING
2.5"	99 - 100
2"	65 - 95
1"	50 - 85
U.S. NO. 4	26 - 44
U.S. NO. 40	16 MAX
U.S. NO. 200	5.0 - 9.0

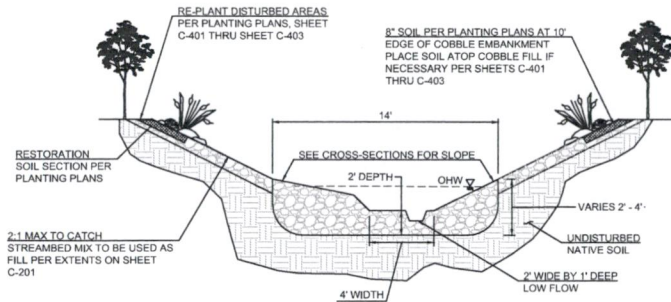
STREAMBED BOULDER SIZING	
ROCK SIZE	APPROXIMATE SIZE
TWO-MAN	18" - 28"



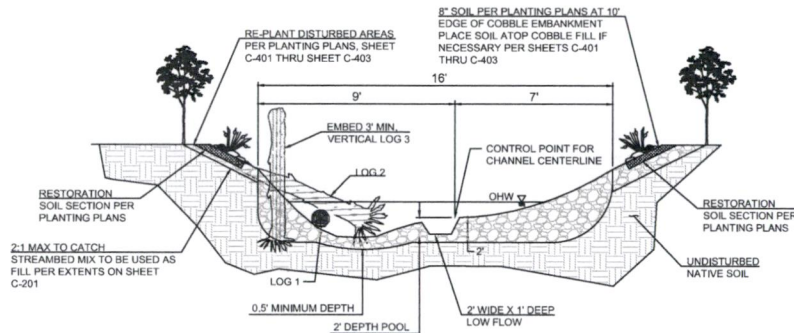
CHANNEL PLAN



LARGE WOODY DEBRIS PLAN



CHANNEL SECTION A-A



LARGE WOODY DEBRIS SECTION B-B

1 MF NEWAUKUM TRIBUTARY CHANNEL
NOT TO SCALE

2 LARGE WOODY DEBRIS FEATURE
NOT TO SCALE

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DKE
CHECKED BY:
DAS
JUNE 2020
45013.006

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STREAM DETAILS FOR:
KRUGER RD MP 1.20 (MF NEWAUKUM TRIBUTARY) CULVERT REPLACEMENT
LEWIS COUNTY, WASHINGTON

811
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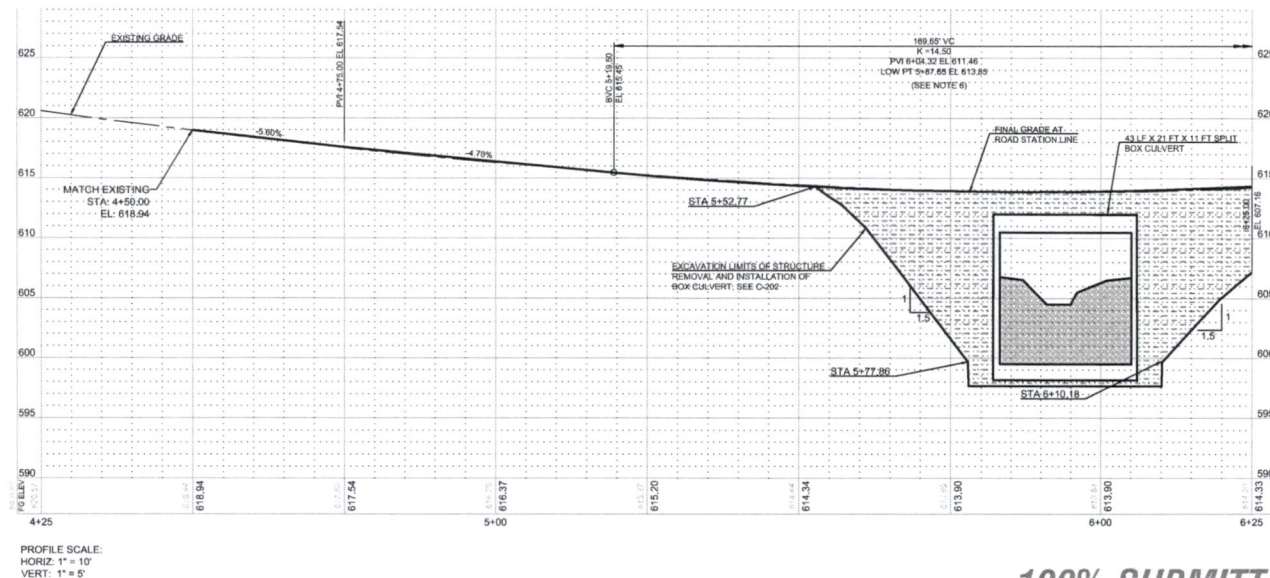
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C-203

SHEET 9 OF 16

[illegible]

- 1 SHOULDER WIDENING
- 2 43-LF PRECAST BOX CULVERT PER SECTION, SHEET C-202
- 3 BEAM GUARDRAIL TYPE 31, PER WSDOT STD PLAN C-20-10-05
- 4 BEAM GUARDRAIL TYPE 31 MSKT-SP-MGS (TL-2) NON-FLARED TERMINAL PER WSDOT STD PLAN C-22-45-04.
- 5 HMA PAVEMENT (SEE SECTION DETAIL, SHEET C-303)
- 6 SAWCUT
- 7 PRECAST CONCRETE WINGWALL PER DETAIL, SHEET C-202
- 8 BEAM GUARDRAIL TYPE 31, PER WSDOT STD PLAN C-20-41-02
- 9 DOUBLE CENTER YELLOW PAINT LINE (BY OTHERS)
- 10 COATED CHAIN LINK FENCE TYPE 4

1. GUARDRAIL STATION OFFSET LOCATIONS ARE TO FACE OF GUARDRAIL W-BEAM.
2. GUARDRAIL POSTS ARE STEEL UNLESS OTHERWISE NOTED OR REQUIRED IN THE STANDARD PLANS.
3. USE BOX CULVERT GUARDRAIL STEEL POSTS ABOVE CULVERT PER WSDOT STD PLAN C-20.41-02. DO NOT AFFECT STEEL REINFORCING WHEN DRILLING FOR ANCHORS.
4. SEE SHEET C-303 FOR TYPICAL ROAD SECTION.
5. SPEED LIMIT FOR KRUGER ROAD IS 35 MPH.





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ROADWAY PLAN AND PROFILE 1 FOR:

KRUGER RD MP 1.20 (NF NEVAUKUM TRIBUTARY) CULTVERT REPLACEMENT

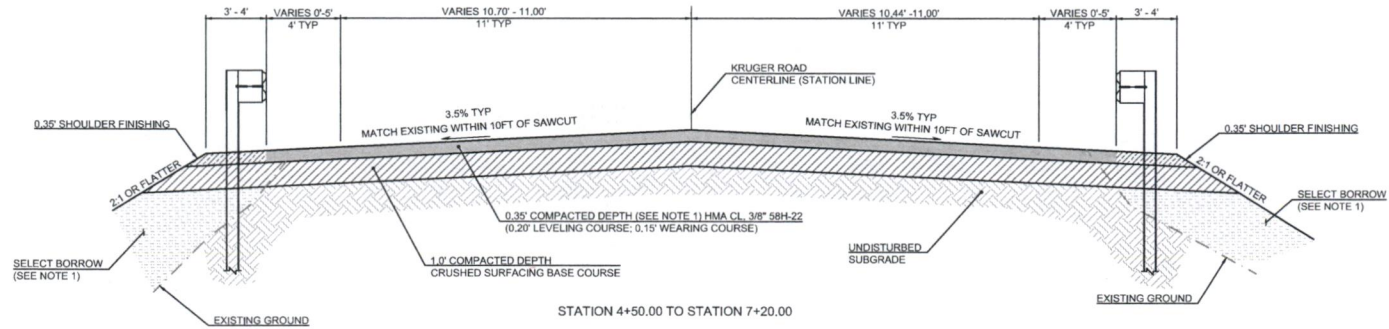
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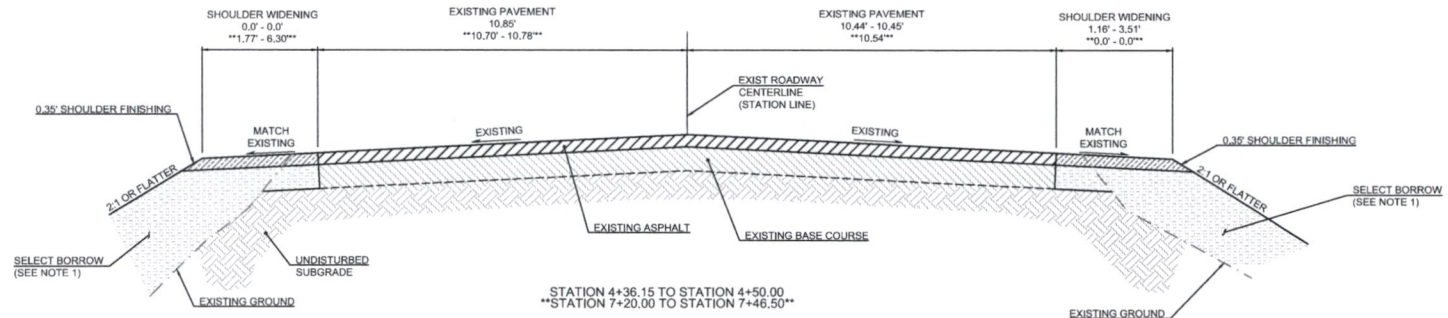
PHS Engineering and
 Environmental Inc.
 10000 1st Ave. SE
 Mukwonago, WA 98047
 253.564.8773
phsusa.com

SEC. 18, T13N, R01E



SECTION NOTES:

1. BENCH INTO EXISTING SIDE SLOPE PER WSDOT STANDARD SPECIFICATION 2-03.3(14).



1 TYPICAL ROAD RESTORATION SECTION

NOT TO SCALE

100% SUBMITTAL

PBS Engineering and
1100 NW Maple St, Ste
400, Portland, OR 97207
503.554.9775
pbsma.com



ROADWAY SECTIONS FOR:
KRUGER RD MP 1.20 (MF NEVAUKUM TRIBUTARY) CULVERT REPLACEMENT
LEWIS COUNTY, WASHINGTON



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SHEET 12 OF 16

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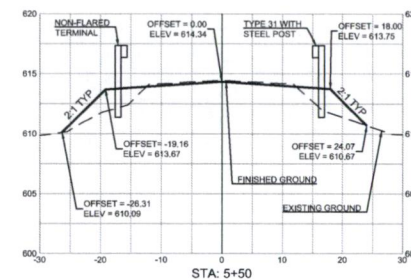
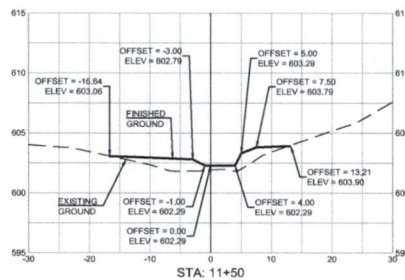
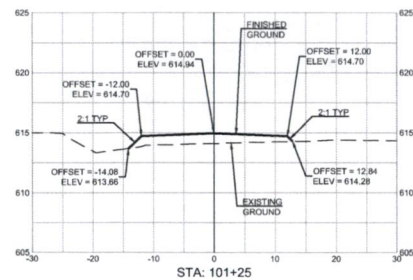
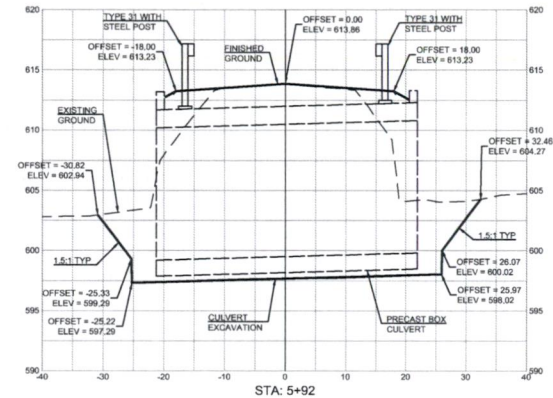
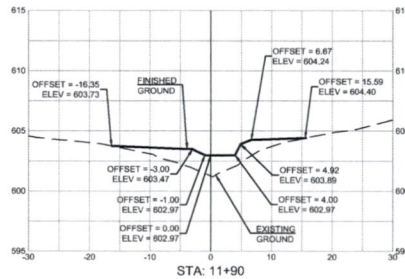
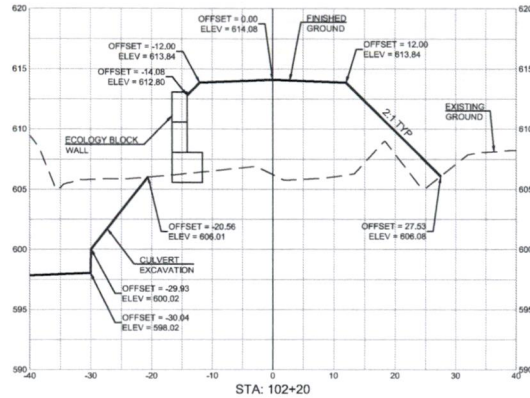
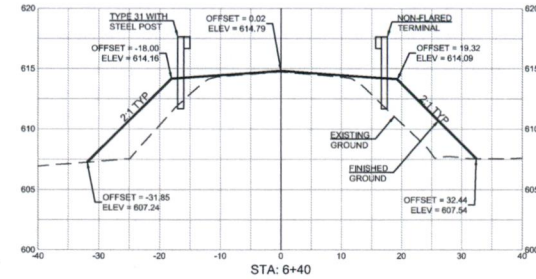
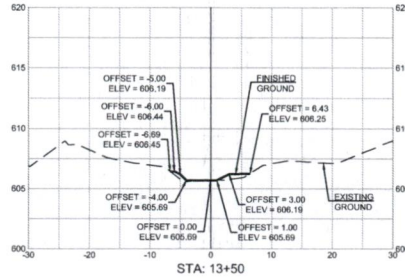
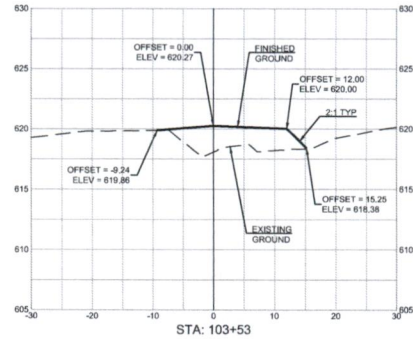
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Layer: T13N, C-303 ROADWAY SECTIONS

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SEC. 18, T13N, R01E



1 BYPASS ROAD CROSS SECTIONS

HORIZ. 1" = 10'
VERT. 1" = 5'

2 MF NEWAUKUM TRIBUTARY CROSS SECTIONS

HORIZ. 1" = 10'
VERT. 1" = 5'

3 KRUGER ROAD CROSS SECTIONS

HORIZ. 1" = 10'
VERT. 1" = 5'

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1180 NW 10th Ave, Suite 100
Fort Lauderdale, FL 33311
407.654.8775
pbsenv.com



PROJECT CROSS SECTIONS FOR:
KRUGER RD MP 1.20 (MF NEWAUKUM TRIBUTARY) CULVERT REPLACEMENT
LEWIS COUNTY, WASHINGTON



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C-304
SHEET 13 OF 16

SEC. 18, T13N, R01E

CONSTRUCTION NOTES:

- IN AREAS OF DISTURBED SOILS ONLY, CULTIVATE OR SCARIFY SUBGRADE TO 4" DEPTH TO ALLOW FREE DRAINAGE. REMOVE ALL CONSTRUCTION DEBRIS, AND ROCKS OVER 2" Ø.
- IN AREAS OF DISTURBED SOILS ONLY, PREPARE AREA FOR APPLICATION OF SEEDING PER STANDARD SPECIFICATION 8-01.3(2)A.
- APPLY SEED MIX AT RATE SHOWN ON THE PLANS USING LONG TERM MULCH PER STANDARD SPECIFICATION 8-01.3(2)D.

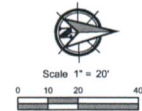
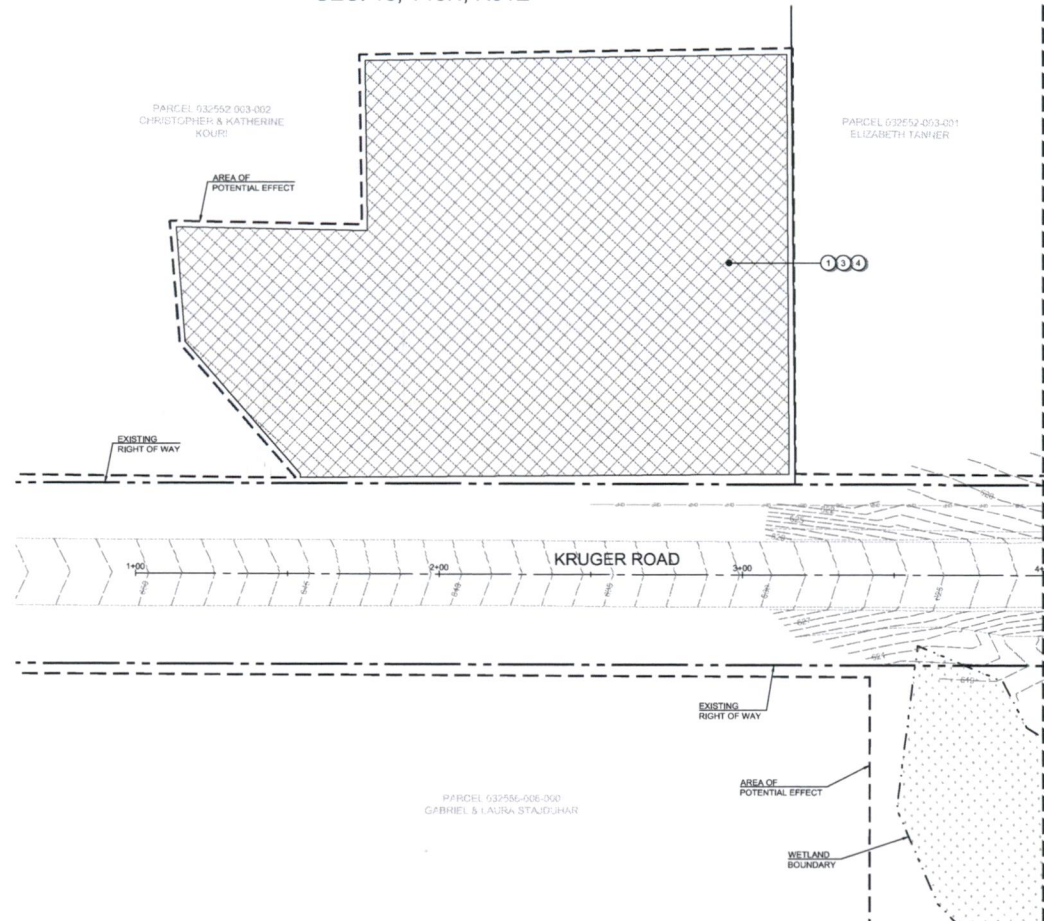
PLANTING MITIGATION NOTES:

- FOR SEEDING LIST, SEE THIS SHEET, FOR PLANTING LIST, SEE SHEET C-402.
- FOR PLANTING DETAILS, SEE SHEET C-403.
- EXISTING PLANT MATERIAL IS TO BE PROTECTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. ANY TREES DAMAGED THAT ARE NOT IDENTIFIED IN THE TREE REMOVAL TABLE ON SHEET C-104 DUE TO CONSTRUCTION ACTIVITIES ARE TO BE REPLACED.
- NO PLANTS SHALL BE INSTALLED WITHIN 10' OF PAVEMENT OR ROAD.
- HYDROSEEDING TO BE APPLIED TO BARE GROUND ONLY.

PLANTING AREA & SEEDING LEGEND:



RESTORATION SEED MIX



SEEDING LIST					
SYM	QTY	BOTANICAL NAME	COMMON NAME	% BY WEIGHT	PLS LBS NEEDED
RESTORATION SEED MIX					
	40,000 sf (74 LBS)	<i>Elymus glaucus</i>	Blue Wildrye	43%	31.8
		<i>Hordeum brachyantherum</i>	Meadow Barley	37%	27.4
		<i>Lolium multiflorum</i>	Sterile Annual Ryegrass	11%	8.1
		<i>Festuca idahoensis</i>	Idaho Fescue	7%	5.2
		<i>Festuca ovina</i>	Sheep Fescue	1%	0.75
		<i>Deschampsia cespitosa</i>	Slender Hairgrass	0.6%	0.45
		<i>Koeleria gracantha</i>	Prairie Junegrass	0.4%	0.3
Apply at 80lbs/acre with Long Term Mulch					

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PBS Engineering and
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1000
HARRISON, VA 22027
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pbsenv.com



PLANTING PLAN 1 FOR:
KRUGER RD MP 1.20 (MF NEVAUKUM TRIBUTARY) CULVERT REPLACEMENT
LEWIS COUNTY, WASHINGTON



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C-401

SHEET 14 OF 16

BOCC AGENDA ITEM SUMMARY

Resolution:**BOCC Meeting Date:** March 14, 2023**Suggested Wording for Agenda Item:****Agenda Type:** Legal Notice

Call for bids for the material purchase of a precast concrete split box culvert for future installation at Kruger Road

Contact: Geoff Soderquist**Phone:** 360-740-1175**Department:** PW - Public Works**Description:**

This resolution is a call for sealed bids for the material purchase of a precast concrete split box culvert for future improvement of Kruger Road (MP 1.2), CMP 15-1904, to be opened at or after 12:15 p.m. on March 30, 2023. Bids submitted after 12:15 p.m. on the date of bid opening will not be considered for this project.

Approvals:

User	Status
PA's Office	Pending

Publication Requirements:**Publications:**

The Chronicle, March 16 and 23, 2023
The Seattle Daily Journal of Commerce,
March 16 and 23, 2023

Additional Copies:

Rod Lakey, Tina Hemphill, Robin Saline,
Zelma Hammer, Shayla Landon, Tim Fife,
Geoff Soderquist, PW;

Cover Letter To: