

Lewis County  
Department of Public Works  
Engineering Division

**CONTRACT  
PROVISIONS AND PLANS  
FOR CONSTRUCTION OF:  
2020 GRAF ROAD MP 1.01  
CULVERT REPLACEMENT**

RAP Project No. 2113-01  
COUNTY ROAD PROJECT NO. 2158  
December, 2019

Lewis County Public Works  
2025 NE Kresky Ave.  
Chehalis, WA 98532-2626



BOARD OF COUNTY COMMISSIONERS

Edna J. Fund, District No. 1  
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19

20

21

1 **INTRODUCTION**

2 The following Amendments and Special Provisions shall be used in conjunction with the 2018 Standard  
3 Specifications for Road, Bridge, and Municipal Construction.  
4

5 **AMENDMENTS TO THE STANDARD SPECIFICATIONS**

6  
7 The following Amendments to the Standard Specifications are made a part of this contract and  
8 supersede any conflicting provisions of the Standard Specifications. For informational purposes, the  
9 date following each Amendment title indicates the implementation date of the Amendment or the latest  
10 date of revision.

11  
12 Each Amendment contains all current revisions to the applicable section of the Standard Specifications  
13 and may include references which do not apply to this particular project.  
14

15 **Section 1-02, Bid Procedures and Conditions**

16 April 2, 2018

17 **1-02.6 Preparation of Proposal**

18 Item number 1 of the second paragraph is revised to read:

- 19  
20 1. A unit price for each item (omitting digits more than two places to the right of the decimal  
21 point),  
22

23 In the third sentence of the fourth paragraph, “WSDOT Form 422-031” is revised to read “WSDOT  
24 Form 422-031U”.  
25

26 The following is inserted after the third sentence of the fourth paragraph:  
27

28 Bidders shall submit a UDBE Broker Agreement documenting the fees or commissions charged by  
29 the Broker for any Broker listed on the UDBE Utilization Certification in accordance with the  
30 Special Provisions. Bidders shall submit a completed UDBE Trucking Credit Form for each UDBE  
31 Trucking firm listed on the UDBE Utilization Certification in accordance with the Special Provisions.  
32 WSDOT Form 272-058 is available for this purpose.  
33

34 The following new paragraph is inserted before the last paragraph:  
35

36 The Bidder shall submit with their Bid a completed Contractor Certification Wage Law Compliance  
37 form (WSDOT Form 272-009). Failure to return this certification as part of the Bid Proposal  
38 package will make this Bid Nonresponsive and ineligible for Award. A Contractor Certification of  
39 Wage Law Compliance form is included in the Proposal Forms.  
40

41 **1-02.13 Irregular Proposals**

42 Item 1(h) is revised to read:  
43

- 44 h. The Bidder fails to submit Underutilized Disadvantaged Business Enterprise Good Faith Effort  
45 documentation, if applicable, as required in Section 1-02.6, or if the documentation that is



submitted fails to demonstrate that a Good Faith Effort to meet the Condition of Award was made;

Item 1(i) is revised to read the following three items:

- i. The Bidder fails to submit an Underutilized Disadvantaged Business Enterprise Trucking Credit Form, if applicable, as required in Section 1-02.6, or if the Form that is submitted fails to meet the requirements of the Special Provisions;
- j. The Bidder fails to submit an Underutilized Disadvantaged Business Enterprise Broker Agreement, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to demonstrate that the fee/commission is reasonable as determined by the Contracting Agency; or
- k. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation.

## **SECTION 1-05, CONTROL OF WORK**

April 2, 2018

### **1-05.9 Equipment**

The following new paragraph is inserted before the first paragraph:

Prior to mobilizing equipment on site, the Contractor shall thoroughly remove all loose dirt and vegetative debris from drive mechanisms, wheels, tires, tracks, buckets and undercarriage. The Engineer will reject equipment from the site until it returns clean.

This section is supplemented with the following:

Upon completion of the Work, the Contractor shall completely remove all loose dirt and vegetative debris from equipment before removing it from the job site.

## **SECTION 1-07, LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC**

April 2, 2018

### **1-07.5 Environmental Regulations**

This section is supplemented with the following new subsections:

#### **1-07.5(5) U.S. Army Corps of Engineers**

When temporary fills are permitted, the Contractor shall remove fills in their entirety and the affected areas returned to pre-construction elevations.

If a U.S. Army Corps of Engineers permit is noted in Section 1-07.6 of the Special Provisions, the Contractor shall retain a copy of the permit or the verification letter (in the case of a Nationwide Permit) on the worksite for the life of the Contract. The Contractor shall provide copies of the permit or verification letter to all subcontractors involved with the authorized work prior to their commencement of any work in waters of the U.S.

#### **1-07.5(6) U.S. Fish/Wildlife Services and National Marine Fisheries Service**

The Contracting Agency will provide fish exclusion and handling services if the Work dictates. However, if the Contractor discovers any fish stranded by the project and a Contracting Agency

1 biologist is not available, they shall immediately release the fish into a flowing stream or open  
2 water.

3  
4 **1-07.5(1) General**

5 The first sentence is deleted and replaced with the following:

6  
7 No Work shall occur within areas under the jurisdiction of resource agencies unless authorized in  
8 the Contract.

9  
10 The third paragraph is deleted.

11  
12 **1-07.5(2) State Department of Fish and Wildlife**

13 This section is revised to read:

14 In doing the Work, the Contractor shall:

- 15 1. Not degrade water in a way that would harm fish, wildlife, or their habitat.
- 16 17 2. Not place materials below or remove them from the ordinary high water line except as  
18 may be specified in the Contract.
- 19 20 3. Not allow equipment to enter waters of the State except as specified in the Contract.
- 21 22 4. Revegetate in accordance with the Plans, unless the Special Provisions permit otherwise.
- 23 24 5. Prevent any fish-threatening silt buildup on the bed or bottom of any body of water.
- 25 26 6. Ensure continuous stream flow downstream of the Work area.
- 27 28 7. Dispose of any project debris by removal, burning, or placement above high-water flows.
- 29 30 8. Immediately notify the Engineer and stop all work causing impacts, if at any time, as a  
31 result of project activities, fish are observed in distress or a fish kill occurs.

32 If the Work in (1) through (3) above differs little from what the Contract requires, the Contracting  
33 Agency will measure and pay for it at unit Contract prices. But if Contract items do not cover those  
34 areas, the Contracting Agency will pay pursuant to Section 1-09.4. Work in (4) through (8) above  
35 shall be incidental to Contract pay items.

36  
37  
38  
39  
40 **1-07.7(1) General**

41 The first sentence of the third paragraph is revised to read:

42  
43 When the Contractor moves equipment or materials on or over Structures, culverts or pipes, the  
44 Contractor may operate equipment with only the load-limit restrictions in Section 1-07.7(2).

45  
46 The first sentence of the last paragraph is revised to read:

47  
48 Unit prices shall cover all costs for operating over Structures, culverts and pipes.

1 **1-07.9(2) Posting Notices**

2 The second sentence of the first paragraph (up until the colon) is revised to read:

3  
4 The Contractor shall ensure the most current edition of the following are posted:

5  
6 In items 1 through 10, the revision dates are deleted.

7  
8 **1-07.11(2) Contractual Requirements**

9 In this section, “creed” is revised to read “religion”.

10  
11 Item numbers 1 through 9 are revised to read 2 through 10, respectively.

12  
13 After the preceding Amendment is applied, the following new item number 1 is inserted:

- 14  
15 1. The Contractor shall maintain a Work site that is free of harassment, humiliation, fear, hostility  
16 and intimidation at all times. Behaviors that violate this requirement include but are not limited  
17 to:
- 18 a. Persistent conduct that is offensive and unwelcome.
  - 19 b. Conduct that is considered to be hazing.
  - 20 c. Jokes about race, gender, or sexuality that are offensive.
  - 21 d. Unwelcome, unwanted, rude or offensive conduct or advances of a sexual nature which  
22 interferes with a person’s ability to perform their job or creates an intimidating, hostile, or  
23 offensive work environment.
  - 24 e. Language or conduct that is offensive, threatening, intimidating or hostile based on race,  
25 gender, or sexual orientation.
  - 26 f. Repeating rumors about individuals in the Work Site that are considered to be harassing  
27 or harmful to the individual’s reputation.
- 28  
29  
30  
31  
32  
33  
34

35 **1-07.11(5) Sanctions**

36 This section is supplemented with the following:

37  
38 Immediately upon the Engineer’s request, the Contractor shall remove from the Work site any  
39 employee engaging in behaviors that promote harassment, humiliation, fear or intimidation  
40 including but not limited to those described in these specifications.

41  
42 **1-07.11(6) Incorporation of Provisions**

43 The first sentence is revised to read:

44  
45 The Contractor shall include the provisions of Section 1-07.11(2) Contractual Requirements (1)  
46 through (5) and the Section 1-07.11(5) Sanctions in every subcontract including procurement of  
47 materials and leases of equipment.

48  
49 **1-07.18 Public Liability and Property Damage Insurance**

2020 Graf Road MP 1.01 Culvert Replacement Project  
CMP-1531

1 Item number 1 is supplemented with the following new sentence:

2  
3 This policy shall be kept in force from the execution date of the Contract until the Physical  
4 Completion Date.

5

1  
2

1 **INTRODUCTION**

2  
3 The following Special Provisions are made a part of this contract and supersede any conflicting  
4 provisions of the 2018 Standard Specifications for Road, Bridge, and Municipal Construction, and the  
5 foregoing Amendments to the Standard Specifications.

6  
7 The said Standard Specifications and Amendments thereto, the WSDOT Standard Plans, and WSDOT  
8 Construction Manual, together with the Special Provisions and the attached plans hereinafter contained,  
9 covering all work specified under this contract are incorporated and hereby made a part of this contract.  
10 The Special Provisions hereinafter contained shall supersede any conflicting provisions of the Standard  
11 Specifications and Amendments thereto, the WSDOT Standard Plans, and WSDOT Construction  
12 Manual.

13  
14 Several types of Special Provisions are included in this contract; General, Region, Bridges and  
15 Structures, and Project Specific. Special Provisions types are differentiated as follows:

- 16 (date) General Special Provision
- 17 (\*\*\*\*\*) Notes a revision to a General Special Provision
- 18 and also notes a Project Specific Special Provision.
- 19 (APWA GSP) American Public Works Association General Special Provision

20  
21  
22 **General Special Provisions** are similar to Standard Specifications in that they typically apply to many  
23 projects, usually in more than one Region. Usually, the only difference from one project to another is  
24 the inclusion of variable project data, inserted as a “fill-in”.

25  
26 **Project Specific Special Provisions** normally appear only in the contract for which they were  
27 developed.

28  
29 The following paragraph pertaining to the Standard Specifications shall obtain and be made a part of  
30 this contract:

31  
32 Wherever the word “State” or “Contracting Agency” is used it shall mean Lewis County; that  
33 wherever the words “Secretary (Secretary of Transportation)” are used they shall mean Lewis  
34 County Engineer; that wherever the words “State Treasurer” are used they shall mean Lewis  
35 County Treasurer; that wherever the words “State Auditor” are used they shall mean Lewis  
36 County Auditor; that wherever the words “Motor Vehicle Fund” are used they shall mean Lewis  
37 County Road Fund.

38  
39 **SPECIAL PROVISIONS**

40  
41 **DIVISION 1**  
42 **GENERAL REQUIREMENTS**

43  
44 **1-01, DESCRIPTION OF WORK**

45 (March 13, 1995)

46 This contract provides for the improvement of \*\*\* Graf Road MP 1.01 by installing a stream bypass,  
47 removing the existing concrete twin box culvert, excavation, Geosynthetic Reinforced Soil construction,  
48 precast voided slab bridge construction, streambed restoration, road restoration, guardrail,  
49 hydroseeding \*\*\* and other related work, all in accordance with the attached Contract Plans, these  
50 Contract Provisions, and the Standard Specifications.

1 **1-01.3 Definitions**  
2 (January 4, 2016 APWA GSP)

3  
4 Delete the heading **Completion Dates** and the three paragraphs that follow it, and replace them with  
5 the following:

6  
7 **Dates**

8 ***Bid Opening Date***

9 The date on which the Contracting Agency publicly opens and reads the Bids.

10 ***Award Date***

11 The date of the formal decision of the Contracting Agency to accept the lowest responsible and  
12 responsive Bidder for the Work.

13 ***Contract Execution Date***

14 The date the Contracting Agency officially binds the Agency to the Contract.

15 ***Notice to Proceed Date***

16 The date stated in the Notice to Proceed on which the Contract time begins.

17 ***Substantial Completion Date***

18 The day the Engineer determines the Contracting Agency has full and unrestricted use and  
19 benefit of the facilities, both from the operational and safety standpoint, any remaining traffic  
20 disruptions will be rare and brief, and only minor incidental work, replacement of temporary  
21 substitute facilities, plant establishment periods, or correction or repair remains for the Physical  
22 Completion of the total Contract.

23 ***Physical Completion Date***

24 The day all of the Work is physically completed on the project. All documentation required by  
25 the Contract and required by law does not necessarily need to be furnished by the Contractor by  
26 this date.

27 ***Completion Date***

28 The day all the Work specified in the Contract is completed and all the obligations of the  
29 Contractor under the contract are fulfilled by the Contractor. All documentation required by the  
30 Contract and required by law must be furnished by the Contractor before establishment of this  
31 date.

32 ***Final Acceptance Date***

33 The date on which the Contracting Agency accepts the Work as complete.

34  
35 Supplement this Section with the following:

36  
37 All references in the Standard Specifications, Amendments, or WSDOT General Special Provisions,  
38 to the terms "Department of Transportation", "Washington State Transportation Commission",  
39 "Commission", "Secretary of Transportation", "Secretary", "Headquarters", and "State Treasurer"  
40 shall be revised to read "Contracting Agency".

41  
42 All references to the terms "State" or "state" shall be revised to read "Contracting Agency" unless  
43 the reference is to an administrative agency of the State of Washington, a State statute or  
44 regulation, or the context reasonably indicates otherwise.

45  
46 All references to "State Materials Laboratory" shall be revised to read "Contracting Agency  
47 designated location".

48  
49 All references to "final contract voucher certification" shall be interpreted to mean the Contracting  
50 Agency form(s) by which final payment is authorized, and final completion and acceptance granted.



1  
2 **Additive**

3 A supplemental unit of work or group of bid items, identified separately in the Bid Proposal, which  
4 may, at the discretion of the Contracting Agency, be awarded in addition to the base bid.  
5

6 **Alternate**

7 One of two or more units of work or groups of bid items, identified separately in the Bid Proposal,  
8 from which the Contracting Agency may make a choice between different methods or material of  
9 construction for performing the same work.  
10

11 **Business Day**

12 A business day is any day from Monday through Friday except holidays as listed in Section 1-08.5.  
13

14 **Contract Bond**

15 The definition in the Standard Specifications for "Contract Bond" applies to whatever bond form(s)  
16 are required by the Contract Documents, which may be a combination of a Payment Bond and a  
17 Performance Bond.  
18

19 **Contract Documents**

20 See definition for "Contract".  
21

22 **Contract Time**

23 The period of time established by the terms and conditions of the Contract within which the Work  
24 must be physically completed.  
25

26 **Notice of Award**

27 The written notice from the Contracting Agency to the successful Bidder signifying the Contracting  
28 Agency's acceptance of the Bid Proposal.  
29

30 **Notice to Proceed**

31 The written notice from the Contracting Agency or Engineer to the Contractor authorizing and  
32 directing the Contractor to proceed with the Work and establishing the date on which the Contract  
33 time begins.  
34

35 **Traffic**

36 Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs, and  
37 equestrian traffic.  
38

39 **1-02, BID PROCEDURES AND CONDITIONS**

40  
41 **1-02.1 Prequalification of Bidders**

42  
43 Delete this Section and replace it with the following:  
44

45 **1-02.1 Qualifications of Bidder**

46 *(January 24, 2011 APWA GSP)*  
47

48 Before award of a public works contract, a bidder must meet at least the minimum qualifications of  
49 RCW 39.04.350(1) to be considered a responsible bidder and qualified to be awarded a public  
50 works project.  
51

52 **1-02.2 Plans and Specifications**

2020 Graf Road MP 1.01 Culvert Replacement Project  
CMP-1531

1 (\*\*\*\*\*)

2  
3 The first paragraph of section 1-02.2 is revised to read:

4  
5 Copies of the plans and specifications are on file in the office of:

6  
7 Lewis County Public Works Department  
8 2025 N.E. Kresky Avenue  
9 Chehalis, Washington 98532  
10 (360) 740-2612

11  
12 The second paragraph of section 1-02.2 is revised to read:

13  
14 Prospective bidders may obtain plans and specifications from Lewis County Public  
15 Works Department in Chehalis, Washington or download from Lewis County Website at  
16 [www.lewiscountywa.gov](http://www.lewiscountywa.gov).

17  
18 **1-02.6 Preparation Of Proposal**

19  
20 (August 2, 2004)

21 The fifth and sixth paragraphs of Section 1-02.6 are deleted.

22  
23 **1-02.9 Delivery of Proposal**

24 (*August 15, 2012 APWA GSP, Option A*)

25  
26 Delete this section and replace it with the following:

27  
28 Each proposal shall be submitted in a sealed envelope, with the Project Name and Project Number  
29 as stated in the Call for Bids clearly marked on the outside of the envelope, or as otherwise  
30 required in the Bid Documents, to ensure proper handling and delivery.

31  
32 If the project has FHWA funding and requires DBE Written Confirmation Documents or Good Faith  
33 Effort Documentation, then to be considered responsive, the Bidder shall submit with their Bid  
34 Proposal, written Confirmation Documentation from each DBE firm listed on the Bidder's completed  
35 DBE Utilization Certification, form 272-056A EF, as required by Section 1-02.6.

36  
37 The Contracting Agency will not open or consider any Bid Proposal that is received after the time  
38 specified in the Call for Bids for receipt of Bid Proposals, or received in a location other than that  
39 specified in the Call for Bids.

40  
41 **1-02.12 Public Opening Of Proposal**

42 (\*\*\*\*\*)

43  
44 Section 1-02.12 is supplemented with the following:

45  
46 **Date and Time of Bid Opening**

47 The Board of County Commissioners of Lewis County or designee, will open sealed proposals and  
48 publicly read them aloud at or after 11:00 a.m. on **December 17, 2019**, at the Lewis County  
49 Courthouse, Chehalis, Washington, for the 2020 Graf Road MP 1.01 Culvert Replacement Project  
50 CMP-1531.

51  
52 **SEALED BIDS MUST BE DELIVERED BY OR BEFORE**

1 **11:00 A.M. on Tuesday, December 17, 2019**

2 (Lewis County official time is displayed on Axxess Intertel phones in the office of the Board of County Commissioners.  
3 **Bids submitted after 11:00 AM will not be considered for this project.**)

4  
5 **Delivery and Marking of Sealed Bid Proposals**

6 Sealed proposals must be delivered to the Clerk of the Board of Lewis County Commissioners  
7 (351 N.W. North Street, Room 210, CMS-01, Chehalis, Washington 98532) by or before **11:00**  
8 **a.m.** on the date specified for opening, and in an envelope clearly marked: **“SEALED BID FOR**  
9 **THE 2020 GRAF ROAD MP 1.01 CULVERT REPLACEMENT PROJECT CMP-1531, TO BE**  
10 **OPENED AT OR AFTER 11:00 A.M. ON DECEMBER 17, 2019”.**

11  
12 **1-02.13 Irregular Proposals**

13 *(June 20, 2017 APWA GSP)*

14  
15 Delete this section and replace it with the following:

- 16  
17 1. A Proposal will be considered irregular and will be rejected if:
- 18 a. The Bidder is not prequalified when so required;
  - 19 b. The authorized Proposal form furnished by the Contracting Agency is not used or is  
20 altered;
  - 21 c. The completed Proposal form contains any unauthorized additions, deletions, alternate  
22 Bids, or conditions;
  - 23 d. The Bidder adds provisions reserving the right to reject or accept the award, or enter into  
24 the Contract;
  - 25 e. A price per unit cannot be determined from the Bid Proposal;
  - 26 f. The Proposal form is not properly executed;
  - 27 g. The Bidder fails to submit or properly complete a Subcontractor list, if applicable, as  
28 required in Section 1-02.6;
  - 29 h. The Bidder fails to submit or properly complete an Underutilized Disadvantaged  
30 Business Enterprise Certification, if applicable, as required in Section 1-02.6;
  - 31 i. The Bidder fails to submit written confirmation from each UDBE firm listed on the  
32 Bidder’s completed UDBE Utilization Certification that they are in agreement with the  
33 bidder’s UDBE participation commitment, if applicable, as required in Section 1-02.6, or  
34 if the written confirmation that is submitted fails to meet the requirements of the Special  
35 Provisions;
  - 36 j. The Bidder fails to submit UDBE Good Faith Effort documentation, if applicable, as  
37 required in Section 1-02.6, or if the documentation that is submitted fails to demonstrate  
38 that a Good Faith Effort to meet the Condition of Award was made;
  - 39 k. The Bid Proposal does not constitute a definite and unqualified offer to meet the material  
40 terms of the Bid invitation; or
  - 41 l. More than one Proposal is submitted for the same project from a Bidder under the same  
42 or different names.
- 43  
44 2. A Proposal may be considered irregular and may be rejected if:
- 45 a. The Proposal does not include a unit price for every Bid item;
  - 46 b. Any of the unit prices are excessively unbalanced (either above or below the amount of  
47 a reasonable Bid) to the potential detriment of the Contracting Agency;
  - 48 c. Receipt of Addenda is not acknowledged;
  - 49 d. A member of a joint venture or partnership and the joint venture or partnership submit  
50 Proposals for the same project (in such an instance, both Bids may be rejected); or
  - 51 e. If Proposal form entries are not made in ink.
- 52

1 **1-02.14 Disqualification of Bidders**

2 *(July 31, 2017 APWA GSP, Option B)*

3  
4 Delete this section and replace it with the following:

5  
6 A Bidder will be deemed not responsible if the Bidder does not meet the mandatory bidder  
7 responsibility criteria in RCW 39.04.350(1), as amended; or does not meet Supplemental Criteria  
8 1-7 listed in this Section.

9  
10 The Contracting Agency will verify that the Bidder meets the mandatory bidder responsibility  
11 criteria in RCW 39.04.350(1), and Supplemental Criteria 1-2. Evidence that the Bidder meets  
12 Supplemental Criteria 3-7 shall be provided by the Bidder as stated later in this Section.

13  
14 In addition, the Bidder shall submit to the Contracting Agency a signed “Certification of  
15 Compliance with Wage Payment Statutes” document where the Bidder under penalty of perjury  
16 verifies that the Bidder is in compliance with responsible bidder criteria in RCW 39.04.350  
17 subsection (1)(g). A form appropriate for “Certification of Compliance with Wage Payment  
18 Statutes” will be provided by the Contracting Agency in the Bid Documents. The form provided in  
19 the Bid Documents shall be submitted with the Bid as stated in Section 1-02.9.

20  
21 **1. Delinquent State Taxes**

22  
23 A. Criterion: The Bidder shall not owe delinquent taxes to the Washington State  
24 Department of Revenue without a payment plan approved by the Department of  
25 Revenue.

26  
27 B. Documentation: The Bidder shall not be listed on the Washington State Department of  
28 Revenue’s “Delinquent Taxpayer List” website:  
29 <http://dor.wa.gov/content/fileandpaytaxes/latefiling/dtlwest.aspx> , or if they are so listed,  
30 they must submit a written payment plan approved by the Department of Revenue, to  
31 the Contracting Agency by the deadline listed below.

32  
33 **2. Federal Debarment**

34  
35 A. Criterion: The Bidder shall not currently be debarred or suspended by the Federal  
36 government.

37  
38 B. Documentation: The Bidder shall not be listed as having an “active exclusion” on the  
39 U.S. government’s “System for Award Management” database ([www.sam.gov](http://www.sam.gov)).

40  
41 **3. Subcontractor Responsibility**

42  
43 A. Criterion: The Bidder’s standard subcontract form shall include the subcontractor  
44 responsibility language required by RCW 39.06.020, and the Bidder shall have an  
45 established procedure which it utilizes to validate the responsibility of each of its  
46 subcontractors. The Bidder’s subcontract form shall also include a requirement that  
47 each of its subcontractors shall have and document a similar procedure to determine  
48 whether the sub-tier subcontractors with whom it contracts are also “responsible”  
49 subcontractors as defined by RCW 39.06.020.

50  
51 B. Documentation: The Bidder, if and when required as detailed below, shall submit a copy  
52 of its standard subcontract form for review by the Contracting Agency, and a written

1 description of its procedure for validating the responsibility of subcontractors with which  
2 it contracts.

3  
4 **4. Claims Against Retainage and Bonds**

- 5  
6 A Criterion: The Bidder shall not have a record of excessive claims filed against the  
7 retainage or payment bonds for public works projects in the three years prior to the bid  
8 submittal date, that demonstrate a lack of effective management by the Bidder of making  
9 timely and appropriate payments to its subcontractors, suppliers, and workers, unless  
10 there are extenuating circumstances and such circumstances are deemed acceptable to  
11 the Contracting Agency.
- 12  
13 B. Documentation: The Bidder, if and when required as detailed below, shall submit a list of  
14 the public works projects completed in the three years prior to the bid submittal date that  
15 have had claims against retainage and bonds and include for each project the following  
16 information:
- 17 • Name of project
  - 18 • The owner and contact information for the owner;
  - 19 • A list of claims filed against the retainage and/or payment bond for any of the
  - 20 projects listed;
  - 21 • A written explanation of the circumstances surrounding each claim and the ultimate
  - 22 resolution of the claim.
- 23  
24

25 **5. Public Bidding Crime**

- 26  
27 A Criterion: The Bidder and/or its owners shall not have been convicted of a crime  
28 involving bidding on a public works contract in the five years prior to the bid submittal  
29 date.
- 30  
31 B. Documentation: The Bidder, if and when required as detailed below, shall sign a  
32 statement (on a form to be provided by the Contracting Agency) that the Bidder and/or  
33 its owners have not been convicted of a crime involving bidding on a public works  
34 contract.
- 35

36 **6. Termination for Cause / Termination for Default**

- 37  
38 A Criterion: The Bidder shall not have had any public works contract terminated for cause  
39 or terminated for default by a government agency in the five years prior to the bid  
40 submittal date, unless there are extenuating circumstances and such circumstances are  
41 deemed acceptable to the Contracting Agency.
- 42  
43 B. Documentation: The Bidder, if and when required as detailed below, shall sign a  
44 statement (on a form to be provided by the Contracting Agency) that the Bidder has not  
45 had any public works contract terminated for cause or terminated for default by a  
46 government agency in the five years prior to the bid submittal date; or if Bidder was  
47 terminated, describe the circumstances. .
- 48

49 **7. Lawsuits**

- 50  
51 A Criterion: The Bidder shall not have lawsuits with judgments entered against the Bidder  
52 in the five years prior to the bid submittal date that demonstrate a pattern of failing to

1 meet the terms of contracts, unless there are extenuating circumstances and such  
2 circumstances are deemed acceptable to the Contracting Agency

- 3  
4 B. Documentation: The Bidder, if and when required as detailed below, shall sign a  
5 statement (on a form to be provided by the Contracting Agency) that the Bidder has not  
6 had any lawsuits with judgments entered against the Bidder in the five years prior to the  
7 bid submittal date that demonstrate a pattern of failing to meet the terms of contracts, or  
8 shall submit a list of all lawsuits with judgments entered against the Bidder in the five  
9 years prior to the bid submittal date, along with a written explanation of the  
10 circumstances surrounding each such lawsuit. The Contracting Agency shall evaluate  
11 these explanations to determine whether the lawsuits demonstrate a pattern of failing to  
12 meet of terms of construction related contracts

13  
14 As evidence that the Bidder meets Supplemental Criteria 3-7 stated above, the apparent low  
15 Bidder must submit to the Contracting Agency by 12:00 P.M. (noon) of the second business day  
16 following the bid submittal deadline, a written statement verifying that the Bidder meets  
17 supplemental criteria 3-7 together with supporting documentation (sufficient in the sole judgment  
18 of the Contracting Agency) demonstrating compliance with Supplemental Criteria 3-7. The  
19 Contracting Agency reserves the right to request further documentation as needed from the low  
20 Bidder and documentation from other Bidders as well to assess Bidder responsibility and  
21 compliance with all bidder responsibility criteria. The Contracting Agency also reserves the right  
22 to obtain information from third-parties and independent sources of information concerning a  
23 Bidder's compliance with the mandatory and supplemental criteria, and to use that information in  
24 their evaluation. The Contracting Agency may consider mitigating factors in determining whether  
25 the Bidder complies with the requirements of the supplemental criteria.

26  
27 The basis for evaluation of Bidder compliance with these mandatory and supplemental criteria  
28 shall include any documents or facts obtained by Contracting Agency (whether from the Bidder or  
29 third parties) including but not limited to: (i) financial, historical, or operational data from the  
30 Bidder; (ii) information obtained directly by the Contracting Agency from others for whom the  
31 Bidder has worked, or other public agencies or private enterprises; and (iii) any additional  
32 information obtained by the Contracting Agency which is believed to be relevant to the matter.

33  
34 If the Contracting Agency determines the Bidder does not meet the bidder responsibility criteria  
35 above and is therefore not a responsible Bidder, the Contracting Agency shall notify the Bidder in  
36 writing, with the reasons for its determination. If the Bidder disagrees with this determination, it  
37 may appeal the determination within two (2) business days of the Contracting Agency's  
38 determination by presenting its appeal and any additional information to the Contracting Agency.  
39 The Contracting Agency will consider the appeal and any additional information before issuing its  
40 final determination. If the final determination affirms that the Bidder is not responsible, the  
41 Contracting Agency will not execute a contract with any other Bidder until at least two business  
42 days after the Bidder determined to be not responsible has received the Contracting Agency's  
43 final determination.

44  
45 Request to Change Supplemental Bidder Responsibility Criteria Prior to Bid: Bidders with  
46 concerns about the relevancy or restrictiveness of the Supplemental Bidder Responsibility Criteria  
47 may make or submit requests to the Contracting Agency to modify the criteria. Such requests  
48 shall be in writing, describe the nature of the concerns, and propose specific modifications to the  
49 criteria. Bidders shall submit such requests to the Contracting Agency no later than five (5)  
50 business days prior to the bid submittal deadline and address the request to the Project Engineer  
51 or such other person designated by the Contracting Agency in the Bid Documents.

1 **1-02.15 Pre Award Information**

2 (August 14, 2013 APWA GSP)

3  
4 Revise this section to read:

5  
6 Before awarding any contract, the Contracting Agency may require one or more of these items or  
7 actions of the apparent lowest responsible bidder:

- 8 1. A complete statement of the origin, composition, and manufacture of any or all materials to be  
9 used,
  - 10 2. Samples of these materials for quality and fitness tests,
  - 11 3. A progress schedule (in a form the Contracting Agency requires) showing the order of and time  
12 required for the various phases of the work,
  - 13 4. A breakdown of costs assigned to any bid item,
  - 14 5. Attendance at a conference with the Engineer or representatives of the Engineer,
  - 15 6. Obtain, and furnish a copy of, a business license to do business in the city or county where the  
16 work is located.
  - 17 7. Any other information or action taken that is deemed necessary to ensure that the bidder is the  
18 lowest responsible bidder.
- 19

20 **1-03, AWARD AND EXECUTION OF CONTRACT**

21 **1-03.3 Execution of Contract**

22 (October 1, 2005 APWA GSP)

23  
24 Revise this section to read:

25  
26  
27 Copies of the Contract Provisions, including the unsigned Form of Contract, will be available for  
28 signature by the successful bidder on the first business day following award. The number of copies  
29 to be executed by the Contractor will be determined by the Contracting Agency.

30  
31 Within 15 calendar days after the award date, the successful bidder shall return the signed  
32 Contracting Agency-prepared contract, an insurance certification as required by Section 1-07.18,  
33 and a satisfactory bond as required by law and Section 1-03.4. Before execution of the contract by  
34 the Contracting Agency, the successful bidder shall provide any pre-award information the  
35 Contracting Agency may require under Section 1-02.15.

36  
37 Until the Contracting Agency executes a contract, no proposal shall bind the Contracting Agency  
38 nor shall any work begin within the project limits or within Contracting Agency-furnished sites. The  
39 Contractor shall bear all risks for any work begun outside such areas and for any materials ordered  
40 before the contract is executed by the Contracting Agency.

41  
42 If the bidder experiences circumstances beyond their control that prevents return of the contract  
43 documents within the calendar days after the award date stated above, the Contracting Agency  
44 may grant up to a maximum of 5 additional calendar days for return of the documents, provided  
45 the Contracting Agency deems the circumstances warrant it.

46  
47 **1-03.4 Contract Bond**



1 (July 23, 2015 APWA GSP)

2  
3 Delete the first paragraph and replace it with the following:

4  
5 The successful bidder shall provide executed payment and performance bond(s) for the full contract  
6 amount. The bond may be a combined payment and performance bond; or be separate payment  
7 and performance bonds. In the case of separate payment and performance bonds, each shall be  
8 for the full contract amount. The bond(s) shall:

- 9 1. Be on Contracting Agency-furnished form(s);
- 10 2. Be signed by an approved surety (or sureties) that:
  - 11 a. Is registered with the Washington State Insurance Commissioner, and
  - 12 b. Appears on the current Authorized Insurance List in the State of Washington published by  
13 the Office of the Insurance Commissioner,
- 14 3. Guarantee that the Contractor will perform and comply with all obligations, duties, and  
15 conditions under the Contract, including but not limited to the duty and obligation to indemnify,  
16 defend, and protect the Contracting Agency against all losses and claims related directly or  
17 indirectly from any failure:
  - 18 a. Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of  
19 the Contractor) to faithfully perform and comply with all contract obligations, conditions, and  
20 duties, or
  - 21 b. Of the Contractor (or the subcontractors or lower tier subcontractors of the Contractor) to  
22 pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or  
23 any other person who provides supplies or provisions for carrying out the work;
- 24 4. Be conditioned upon the payment of taxes, increases, and penalties incurred on the project  
25 under titles 50, 51, and 82 RCW; and
- 26 5. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond;  
27 and
- 28 6. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor  
29 or partner). If the Contractor is a corporation, the bond(s) must be signed by the president or  
30 vice president, unless accompanied by written proof of the authority of the individual signing the  
31 bond(s) to bind the corporation (i.e., corporate resolution, power of attorney, or a letter to such  
32 effect signed by the president or vice president).

## 34 **1-05, CONTROL OF WORK**

35 (March 13, 1995)

### 37 **1-05.7 Removal Of Defective And unauthorized Work**

38 (October 1, 2005 APWA GSP)

39  
40 Supplement this section with the following:

41  
42 If the Contractor fails to remedy defective or unauthorized work within the time specified in a  
43 written notice from the Engineer, or fails to perform any part of the work required by the Contract  
44 Documents, the Engineer may correct and remedy such work as may be identified in the written  
45 notice, with Contracting Agency forces or by such other means as the Contracting Agency may  
46 deem necessary.

47  
48 If the Contractor fails to comply with a written order to remedy what the Engineer determines to be  
49 an emergency situation, the Engineer may have the defective and unauthorized work corrected

1 immediately, have the rejected work removed and replaced, or have work the Contractor refuses to  
2 perform completed by using Contracting Agency or other forces. An emergency situation is any  
3 situation when, in the opinion of the Engineer, a delay in its remedy could be potentially unsafe, or  
4 might cause serious risk of loss or damage to the public.

5  
6 Direct or indirect costs incurred by the Contracting Agency attributable to correcting and remedying  
7 defective or unauthorized work, or work the Contractor failed or refused to perform, shall be paid  
8 by the Contractor. Payment will be deducted by the Engineer from monies due, or to become due,  
9 the Contractor. Such direct and indirect costs shall include in particular, but without limitation,  
10 compensation for additional professional services required, and costs for repair and replacement of  
11 work of others destroyed or damaged by correction, removal, or replacement of the Contractor's  
12 unauthorized work.

13  
14 No adjustment in contract time or compensation will be allowed because of the delay in the  
15 performance of the work attributable to the exercise of the Contracting Agency's rights provided by  
16 this Section.

17  
18 The rights exercised under the provisions of this section shall not diminish the Contracting  
19 Agency's right to pursue any other avenue for additional remedy or damages with respect to the  
20 Contractor's failure to perform the work as required.

21  
22 **1-05.13 Superintendents, Labor and Equipment of Contractor**  
23 *(August 14, 2013 APWA GSP)*

24  
25 Delete the sixth and seventh paragraphs of this section.

26  
27 **1-05.14 Cooperation With Other Contractors**

28 Section 1-05.14 is supplemented with the following:  
29 (March 13, 1995)

30  
31 **Other Contracts Or Other Work**

32 It is anticipated that the following work adjacent to or within the limits of this project will be  
33 performed by others during the course of this project and will require coordination of the work:

34  
35        \$\$ Utilities and/or Utility Contractors. The contractor's attention is directed to Section 1-07.17  
36        these Special Provisions. \$\$

37  
38 **1-05.15 Method of Serving Notices**

39 (March 25, 2009 APWA GSP)

40 Revise the second paragraph to read:

41  
42 All correspondence from the Contractor shall be directed to the Project Engineer. All  
43 correspondence from the Contractor constituting any notification, notice of protest, notice of dispute,  
44 or other correspondence constituting notification required to be furnished under the Contract, must  
45 be in paper format, hand delivered or sent via mail delivery service to the Project Engineer's office.  
46 Electronic copies such as e-mails or electronically delivered copies of correspondence will not  
47 constitute such notice and will not comply with the requirements of the Contract.

48  
49 **1-06, CONTROL OF MATERIAL**

50 **Buy America**

51 Section 1-06 is supplemented with the following:

2020 Graf Road MP 1.01 Culvert Replacement Project  
CMP-1531

1  
2 (August 6, 2012)

3 In accordance with Buy America requirements contained in 23 CFR 635.410, the major quantities  
4 of steel and iron construction material that is permanently incorporated into the project shall consist  
5 of American-made materials only. Buy America does not apply to temporary steel items, e.g.,  
6 temporary sheet piling, temporary bridges, steel scaffolding and falsework.

7  
8 Minor amounts of foreign steel and iron may be utilized in this project provided the cost of the  
9 foreign material used does not exceed one-tenth of one percent of the total contract cost or  
10 \$2,500.00, whichever is greater.

11  
12 American-made material is defined as material having all manufacturing processes occurring  
13 domestically. To further define the coverage, a domestic product is a manufactured steel material  
14 that was produced in one of the 50 States, the District of Columbia, Puerto Rico, or in the territories  
15 and possessions of the United States.

16  
17 If domestically produced steel billets or iron ingots are exported outside of the area of coverage, as  
18 defined above, for any manufacturing process then the resulting product does not conform to the  
19 Buy America requirements. Additionally, products manufactured domestically from foreign source  
20 steel billets or iron ingots do not conform to the Buy America requirements because the initial  
21 melting and mixing of alloys to create the material occurred in a foreign country.

22  
23 Manufacturing begins with the initial melting and mixing, and continues through the coating stage.  
24 Any process which modifies the chemical content, the physical size or shape, or the final finish is  
25 considered a manufacturing process. The processes include rolling, extruding, machining,  
26 bending, grinding, drilling, welding, and coating. The action of applying a coating to steel or iron is  
27 deemed a manufacturing process. Coating includes epoxy coating, galvanizing, aluminizing,  
28 painting, and any other coating that protects or enhances the value of steel or iron. Any process  
29 from the original reduction from ore to the finished product constitutes a manufacturing process for  
30 iron.

31  
32 Due to a nationwide waiver, Buy America does not apply to raw materials (iron ore and alloys),  
33 scrap (recycled steel or iron), and pig iron or processed, pelletized, and reduced iron ore.

34  
35 The following are considered to be steel manufacturing processes:

- 36  
37 1. Production of steel by any of the following processes:  
38  
39 a. Open hearth furnace.  
40  
41 b. Basic oxygen.  
42  
43 c. Electric furnace.  
44  
45 d. Direct reduction.  
46  
47 2. Rolling, heat treating, and any other similar processing.  
48  
49 3. Fabrication of the products.  
50  
51 a. Spinning wire into cable or strand.  
52

1                   b. Corrugating and rolling into culverts.

2  
3                   c. Shop fabrication.

4  
5                   A certification of materials origin will be required for any items comprised of, or containing, steel or  
6 iron construction materials prior to such items being incorporated into the permanent work. The  
7 certification shall be on DOT Form 350-109EF provided by the Engineer, or such other form the  
8 Contractor chooses, provided it contains the same information as DOT Form 350-109EF.  
9

## 10 **1-07, LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC**

### 11 **1-07.1 Laws to be Observed** 12 *(October 1, 2005 APWA GSP)*

13 Supplement this section with the following:  
14

15                   In cases of conflict between different safety regulations, the more stringent regulation shall apply.  
16

17                   The Washington State Department of Labor and Industries shall be the sole and paramount  
18 administrative agency responsible for the administration of the provisions of the Washington  
19 Industrial Safety and Health Act of 1973 (WISHA).  
20

21                   The Contractor shall maintain at the project site office, or other well-known place at the project site,  
22 all articles necessary for providing first aid to the injured. The Contractor shall establish, publish,  
23 and make known to all employees, procedures for ensuring immediate removal to a hospital, or  
24 doctor's care, persons, including employees, who may have been injured on the project site.  
25 Employees should not be permitted to work on the project site before the Contractor has  
26 established and made known procedures for removal of injured persons to a hospital or a doctor's  
27 care.  
28

29                   The Contractor shall have sole responsibility for the safety, efficiency, and adequacy of the  
30 Contractor's plant, appliances, and methods, and for any damage or injury resulting from their  
31 failure, or improper maintenance, use, or operation. The Contractor shall be solely and completely  
32 responsible for the conditions of the project site, including safety for all persons and property in the  
33 performance of the work. This requirement shall apply continuously, and not be limited to normal  
34 working hours. The required or implied duty of the Engineer to conduct construction review of the  
35 Contractor's performance does not, and shall not, be intended to include review and adequacy of  
36 the Contractor's safety measures in, on, or near the project site.  
37

### 38 **1-07.2 State Taxes**

39  
40 Delete this section, including its sub-sections, in its entirety and replace it with the following:  
41

#### 42 **1-07.2 State Sales Tax** 43 *(June 27, 2011 APWA GSP)*

44                   The Washington State Department of Revenue has issued special rules on the State sales tax.  
45 Sections 1-07.2(1) through 1-07.2(3) are meant to clarify those rules. The Contractor should  
46 contact the Washington State Department of Revenue for answers to questions in this area. The  
47 Contracting Agency will not adjust its payment if the Contractor bases a bid on a misunderstood tax  
48 liability.  
49  
50  
51

1  
2 The Contractor shall include all Contractor-paid taxes in the unit bid prices or other contract  
3 amounts. In some cases, however, state retail sales tax will not be included. Section 1-07.2(2)  
4 describes this exception.

5  
6 The Contracting Agency will pay the retained percentage (or release the Contract Bond if a FHWA-  
7 funded Project) only if the Contractor has obtained from the Washington State Department of  
8 Revenue a certificate showing that all contract-related taxes have been paid (RCW 60.28.051).  
9 The Contracting Agency may deduct from its payments to the Contractor any amount the  
10 Contractor may owe the Washington State Department of Revenue, whether the amount owed  
11 relates to this contract or not. Any amount so deducted will be paid into the proper State fund.

### 12 13 **1-07.2(1) State Sales Tax — Rule 171**

14  
15 WAC 458-20-171, and its related rules, apply to building, repairing, or improving streets, roads, etc.,  
16 which are owned by a municipal corporation, or political subdivision of the state, or by the United  
17 States, and which are used primarily for foot or vehicular traffic. This includes storm or combined  
18 sewer systems within and included as a part of the street or road drainage system and power lines  
19 when such are part of the roadway lighting system. For work performed in such cases, the  
20 Contractor shall include Washington State Retail Sales Taxes in the various unit bid item prices, or  
21 other contract amounts, including those that the Contractor pays on the purchase of the materials,  
22 equipment, or supplies used or consumed in doing the work.

### 23 24 **1-07.2(2) State Sales Tax — Rule 170**

25  
26 WAC 458-20-170, and its related rules, apply to the constructing and repairing of new or existing  
27 buildings, or other structures, upon real property. This includes, but is not limited to, the  
28 construction of streets, roads, highways, etc., owned by the state of Washington; water mains and  
29 their appurtenances; sanitary sewers and sewage disposal systems unless such sewers and  
30 disposal systems are within, and a part of, a street or road drainage system; telephone, telegraph,  
31 electrical power distribution lines, or other conduits or lines in or above streets or roads, unless  
32 such power lines become a part of a street or road lighting system; and installing or attaching of any  
33 article of tangible personal property in or to real property, whether or not such personal property  
34 becomes a part of the realty by virtue of installation.

35  
36 For work performed in such cases, the Contractor shall collect from the Contracting Agency, retail  
37 sales tax on the full contract price. The Contracting Agency will automatically add this sales tax to  
38 each payment to the Contractor. For this reason, the Contractor shall not include the retail sales  
39 tax in the unit bid item prices, or in any other contract amount subject to Rule 170, with the following  
40 exception.

41  
42 Exception: The Contracting Agency will not add in sales tax for a payment the Contractor or a  
43 subcontractor makes on the purchase or rental of tools, machinery, equipment, or consumable  
44 supplies not integrated into the project. Such sales taxes shall be included in the unit bid item  
45 prices or in any other contract amount.

### 46 47 **1-07.2(3) Services**

48  
49 The Contractor shall not collect retail sales tax from the Contracting Agency on any contract wholly  
50 for professional or other services (as defined in Washington State Department of Revenue Rules  
51 138 and 244).  
52

1 **1-07.5 Environmental Regulations**

2 Section 1-07.5 is supplemented with the following:

3  
4 (September 20, 2010)

5 **Environmental Commitments**

6 The following Provisions summarize the requirements, in addition to those required elsewhere in  
7 the Contract, imposed upon the Contracting Agency by the various documents referenced in the  
8 Special Provision **Permits and Licenses**. Throughout the work, the Contractor shall comply with  
9 the following requirements:

10  
11 **General**

12 The Contractor shall ensure that the Project Manager representing the Prime Contractor and all  
13 Subcontractors has read and understands this Special Provision. Prior to commencing any work  
14 on site, the Contractor shall provide the Engineer with a signed statement from the Project  
15 Manager stating that the Project Manager has read, understands and will abide by the conditions  
16 of this Special Provision.

17  
18 **Wetlands and Water Quality**

19 The following restrictions and requirements pertain to work throughout the project limits:

20  
21 (August 3, 2009)

22 Temporary BMPs shall be used to allow turbid water to settle before discharge to the  
23 stream. Settling time shall be sufficient to meet water quality standards. The flow rate of  
24 turbid water into the stream shall not exceed one tenth of the natural flow rate of the  
25 stream at the time of discharge. Before discharging to the stream, the Contractor shall  
26 request the Engineer to sample the water to ensure the water is in compliance with water  
27 quality standards.

28  
29 (August 3, 2009)

30 During any operation involving saw cutting of concrete, all water generated by the cutting  
31 operation shall be controlled and contained, to be disposed of on land with no possibility  
32 of entry to waters of the State, including wetlands.

33  
34 (February 25, 2013)

35 The Contractor shall retain a copy of the most recent U.S. Army Corps of Engineers  
36 Nationwide Permit Verification Letter, conditions, and permit drawings on the worksite for  
37 the life of the Contract (See Special Provision titled Permits and Licenses). The  
38 Contractor shall provide copies of the items above listed to all Sub-Contractors involved  
39 with the authorized work prior to their commencement of any work.

40  
41 (February 25, 2013)

42 Temporary structures and dewatering of areas under the jurisdiction of the U.S. Army  
43 Corps of Engineers must maintain normal downstream flows and prevent upstream and  
44 downstream flooding to the maximum extent practicable.

45  
46 (February 25, 2013)

47 Any temporary fills placed must be removed in their entirety and the affected areas  
48 returned to their pre-construction elevation.

49  
50 (August 3, 2009)

51 The Contractor shall notify the Engineer a minimum of 10 calendar days prior to  
52 commencing any work in environmentally sensitive areas, mitigation area, and wetland

1 buffers. Installation of construction fencing is excluded from this notice requirement. At  
2 the time of notification, the Contractor shall submit a work plan for view and approval  
3 detailing how the work will be performed. Plan detail must be sufficient to verify that work  
4 is in conformance with all contract provisions.

5  
6 (August 3, 2009)

7 No Contractor staging areas will be allowed within \*\*\* 50 \*\*\* feet of any waters of the  
8 State including wetlands. Refueling or storage of hazardous substances shall occur at  
9 least 200 feet away from any waters of the State including wetlands. All staging,  
10 stockpile and refueling areas shall be within the limits of the Area of Potential Effect as  
11 depicted on the TESC Sheet in the Construction Plans.

12  
13 (August 3, 2009)

14 **Payment**

15  
16 All costs to comply with this special provision for the environmental commitments and  
17 requirements are incidental to the contract and are the responsibility of the Contractor. The  
18 Contractor shall include all related costs in the associated bid prices of the contract.

19  
20 **1-07.6 Permits and Licenses**

21 Section 1-07.6 is supplemented with the following:

22  
23 (September 20, 2010)

24 The Contracting Agency has obtained the below-listed permit(s) for this project. A copy of the  
25 permit(s) is attached as an appendix for informational purposes. All contacts with the permitting  
26 agency concerning the below-listed permit(s) shall be through the Engineer. The Contractor shall  
27 obtain additional permits as necessary. All costs to obtain and comply with additional permits shall  
28 be included in the applicable bid items for the work involved. Copies of these permits are required  
29 to be onsite at all times.

30

Permit, Approval, Certification or Concurrence	Permitting Agency
Section 404 Nationwide Permit 27	US Army Corps of Engineers (USACE)
Section 106 Concurrence	Department of Archaeology and Historic Preservation (DAHP)
Hydraulic Permit Approval	Washington Department of Fish and Wildlife

31  
32 **The contractor shall ensure that all permit conditions have been read, understood and will be**  
33 **complied with. The Project Environmental Review Form must be signed by the contractor to**  
34 **document this.**

35  
36 **1-07.7 Load Limits**

37 Section 1-07.7 is supplemented with the following:

38  
39 (\*\*\*\*\*)

40 If the source of materials provided by the Contractor necessitates hauling over roads other than  
41 Lewis County roads, the Contractor shall, at the Contractor's expense, make all arrangements  
42 for the use of the haul routes.

43  
44 Any vehicle providing material paid for by the ton, on the project, will provide licensed tonnage  
45 for that vehicle.



1 **1-07.9 Wages**

2  
3 **General**

4 Section 1-07.9(1) is supplemented with the following:

5  
6 (\*\*\*\*\*)

7 The State rates incorporated in this contract are applicable to all construction activities  
8 associated with this contract.

9  
10 (April 2, 2007)

11 **Application of Wage Rates for the Occupation of Landscape Construction**

12 State prevailing wage rates for public works contracts are included in this contract and show a  
13 separate listing for the occupation:

14  
15 Landscape Construction, which includes several different occupation descriptions such  
16 as: Irrigation and Landscape Plumbers, Irrigation and Landscape Power Equipment  
17 Operators, and Landscaping or Planting Laborers.

18  
19 In addition, federal wage rates that are included in this contract may also include occupation  
20 descriptions in Federal Occupational groups for work also specifically identified with  
21 landscaping such as:

22  
23 Laborers with the occupation description, Landscaping or Planting, or

24  
25 Power Equipment Operators with the occupation description, Mulch Seeding Operator.

26  
27 If Federal wage rates include one or more rates specified as applicable to landscaping work,  
28 then Federal wage rates for all occupation descriptions, specific or general, must be  
29 considered and compared with corresponding State wage rates. The higher wage rate, either  
30 State or Federal, becomes the minimum wage rate for the work performed in that occupation.

31  
32 Contractors are responsible for determining the appropriate crafts necessary to perform the  
33 contract work. If a classification considered necessary for performance of the work is missing  
34 from the Federal Wage Determination applicable to the contract, the Contractor shall initiate a  
35 request for approval of a proposed wage and benefit rate. The Contractor shall prepare and  
36 submit Standard Form 1444, Request for Authorization of Additional Classification and Wage  
37 Rate available at <http://www.wdol.gov/docs/sf1444.pdf> , and submit the completed form to the  
38 Project Engineer’s office. The presence of a classification wage on the Washington State  
39 Prevailing Wage Rates For Public Works Contracts does not exempt the use of form 1444 for  
40 the purpose of determining a federal classification wage rate.

41  
42 **1-07.11 Requirements For Nondiscrimination**

43 Section 1-07.11 is supplemented with the following:

44  
45 (August 5, 2013)

46 Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order  
47 11246)

- 48  
49 1. The Contractor's attention is called to the Equal Opportunity Clause and the Standard Federal  
50 Equal Employment Opportunity Construction Contract Specifications set forth herein.  
51

2. The goals and timetables for minority and female participation set by the Office of Federal Contract Compliance Programs, expressed in percentage terms for the Contractor's aggregate work force in each construction craft and in each trade on all construction work in the covered area, are as follows:

Women - Statewide

<u>Timetable</u>	<u>Goal</u>
Until further notice	6.9%

Minorities - by Standard Metropolitan Statistical Area (SMSA)

Spokane, WA:

SMSA Counties:	
Spokane, WA	2.8
WA Spokane.	
Non-SMSA Counties	3.0
WA Adams; WA Asotin; WA Columbia; WA Ferry; WA Garfield; WA Lincoln, WA Pend Oreille; WA Stevens; WA Whitman.	

Richland, WA

SMSA Counties:	
Richland Kennewick, WA	5.4
WA Benton; WA Franklin.	
Non-SMSA Counties	3.6
WA Walla Walla.	

Yakima, WA:

SMSA Counties:	
Yakima, WA	9.7
WA Yakima.	
Non-SMSA Counties	7.2
WA Chelan; WA Douglas; WA Grant; WA Kittitas; WA Okanogan.	

Seattle, WA:

SMSA Counties:	
Seattle Everett, WA	7.2
WA King; WA Snohomish.	
Tacoma, WA	6.2
WA Pierce.	
Non-SMSA Counties	6.1
WA Clallam; WA Grays Harbor; WA Island; WA Jefferson; WA Kitsap; WA Lewis; WA Mason; WA Pacific; WA San Juan; WA Skagit; WA Thurston; WA Whatcom.	

Portland, OR:

SMSA Counties:	
Portland, OR-WA	4.5
WA Clark.	
Non-SMSA Counties	3.8
WA Cowlitz; WA Klickitat; WA Skamania; WA Wahkiakum.	

1 These goals are applicable to each nonexempt Contractor's total on-site construction  
2 workforce, regardless of whether or not part of that workforce is performing work on a Federal,  
3 or federally assisted project, contract, or subcontract until further notice. Compliance with  
4 these goals and time tables is enforced by the Office of Federal Contract compliance  
5 Programs.

6  
7 The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-  
8 4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative  
9 action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to  
10 meet the goals. The hours of minority and female employment and training must be  
11 substantially uniform throughout the length of the contract, in each construction craft and in  
12 each trade, and the Contractor shall make a good faith effort to employ minorities and women  
13 evenly on each of its projects. The transfer of minority or female employees or trainees from  
14 Contractor to Contractor or from project to project for the sole purpose of meeting the  
15 Contractor's goal shall be a violation of the contract, the Executive Order and the regulations  
16 in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours  
17 performed.

- 18  
19 3. The Contractor shall provide written notification to the Office of Federal Contract Compliance  
20 Programs (OFCCP) within 10 working days of award of any construction subcontract in  
21 excess of \$10,000 or more that are Federally funded, at any tier for construction work under  
22 the contract resulting from this solicitation. The notification shall list the name, address and  
23 telephone number of the Subcontractor; employer identification number of the Subcontractor;  
24 estimated dollar amount of the subcontract; estimated starting and completion dates of the  
25 subcontract; and the geographical area in which the contract is to be performed. The  
26 notification shall be sent to:

27  
28 U.S. Department of Labor  
29 Office of Federal Contract Compliance Programs Pacific Region  
30 Attn: Regional Director  
31 San Francisco Federal Building  
32 90 – 7<sup>th</sup> Street, Suite 18-300  
33 San Francisco, CA 94103(415) 625-7800 Phone  
34 (415) 625-7799 Fax

35  
36 Additional information may be found at the U.S. Department of Labor website:  
37 <http://www.dol.gov/ofccp/TAguides/ctaguide.htm>

- 38  
39 4. As used in this Notice, and in the contract resulting from this solicitation, the Covered Area is  
40 as designated herein.

41  
42 Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive  
43 Order 11246)

- 44  
45 1. As used in these specifications:
- 46 a. Covered Area means the geographical area described in the solicitation from which  
47 this contract resulted;
  - 48 b. Director means Director, Office of Federal Contract Compliance Programs, United  
49 States Department of Labor, or any person to whom the Director delegates authority;
- 50  
51  
52

1 c. Employer Identification Number means the Federal Social Security number used on  
2 the Employer's Quarterly Federal Tax Return, U. S. Treasury Department Form 941;

3  
4 d. Minority includes:

- 5  
6 (1) Black, a person having origins in any of the Black Racial Groups of Africa.  
7  
8 (2) Hispanic, a fluent Spanish speaking, Spanish surnamed person of Mexican,  
9 Puerto Rican, Cuban, Central American, South American, or other Spanish  
10 origin.  
11  
12 (3) Asian or Pacific Islander, a person having origins in any of the original  
13 peoples of the Pacific rim or the Pacific Islands, the Hawaiian Islands and  
14 Samoa.  
15  
16 (4) American Indian or Alaskan Native, a person having origins in any of the  
17 original peoples of North America, and who maintain cultural identification  
18 through tribal affiliation or community recognition.  
19

- 20 2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work  
21 involving any construction trade, it shall physically include in each subcontract in excess of  
22 \$10,000 the provisions of these specifications and the Notice which contains the applicable  
23 goals for minority and female participation and which is set forth in the solicitations from which  
24 this contract resulted.  
25  
26 3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by  
27 the U.S. Department of Labor in the covered area either individually or through an  
28 association, its affirmative action obligations on all work in the Plan area (including goals and  
29 timetables) shall be in accordance with that Plan for those trades which have unions  
30 participating in the Plan. Contractors must be able to demonstrate their participation in and  
31 compliance with the provisions of any such Hometown Plan. Each Contractor or  
32 Subcontractor participating in an approved Plan is individually required to comply with its  
33 obligations under the EEO clause, and to make a good faith effort to achieve each goal under  
34 the Plan in each trade in which it has employees. The overall good faith performance by other  
35 Contractors or Subcontractors toward a goal in an approved Plan does not excuse any  
36 covered Contractor's or Subcontractor's failure to take good faith effort to achieve the Plan  
37 goals and timetables.  
38  
39 4. The Contractor shall implement the specific affirmative action standards provided in  
40 paragraphs 7a through 7p of this Special Provision. The goals set forth in the solicitation from  
41 which this contract resulted are expressed as percentages of the total hours of employment  
42 and training of minority and female utilization the Contractor should reasonably be able to  
43 achieve in each construction trade in which it has employees in the covered area. Covered  
44 construction contractors performing construction work in geographical areas where they do  
45 not have a Federal or federally assisted construction contract shall apply the minority and  
46 female goals established for the geographical area where the work is being performed. The  
47 Contractor is expected to make substantially uniform progress in meeting its goals in each  
48 craft during the period specified.  
49  
50 5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with  
51 whom the Contractor has a collective bargaining agreement, to refer either minorities or

1 women shall excuse the Contractor's obligations under these specifications, Executive Order  
2 11246, or the regulations promulgated pursuant thereto.

- 3
- 4 6. In order for the nonworking training hours of apprentices and trainees to be counted in  
5 meeting the goals, such apprentices and trainees must be employed by the Contractor during  
6 the training period, and the Contractor must have made a commitment to employ the  
7 apprentices and trainees at the completion of their training, subject to the availability of  
8 employment opportunities. Trainees must be trained pursuant to training programs approved  
9 by the U.S. Department of Labor.
- 10
- 11 7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity.  
12 The evaluation of the Contractor's compliance with these specifications shall be based upon  
13 its effort to achieve maximum results from its action. The Contractor shall document these  
14 efforts fully, and shall implement affirmative action steps at least as extensive as the following:
- 15
- 16 a. Ensure and maintain a working environment free of harassment, intimidation, and  
17 coercion at all sites, and in all facilities at which the Contractor's employees are  
18 assigned to work. The Contractor, where possible, will assign two or more women to  
19 each construction project. The Contractor shall specifically ensure that all foremen,  
20 superintendents, and other on-site supervisory personnel are aware of and carry out  
21 the Contractor's obligation to maintain such a working environment, with specific  
22 attention to minority or female individuals working at such sites or in such facilities.
  - 23
  - 24 b. Establish and maintain a current list of minority and female recruitment sources,  
25 provide written notification to minority and female recruitment sources and to  
26 community organizations when the Contractor or its unions have employment  
27 opportunities available, and maintain a record of the organizations' responses.
  - 28
  - 29 c. Maintain a current file of the names, addresses and telephone numbers of each  
30 minority and female off-the-street applicant and minority or female referral from a  
31 union, a recruitment source or community organization and of what action was taken  
32 with respect to each such individual. If such individual was sent to the union hiring  
33 hall for referral and was not referred back to the Contractor by the union or, if  
34 referred, not employed by the Contractor, this shall be documented in the file with the  
35 reason therefor, along with whatever additional actions the Contractor may have  
36 taken.
  - 37
  - 38 d. Provide immediate written notification to the Director when the union or unions with  
39 which the Contractor has a collective bargaining agreement has not referred to the  
40 Contractor a minority person or woman sent by the Contractor, or when the  
41 Contractor has other information that the union referral process has impeded the  
42 Contractor's efforts to meet its obligations.
  - 43
  - 44 e. Develop on-the-job training opportunity and/or participate in training programs for the  
45 area which expressly include minorities and women, including upgrading programs  
46 and apprenticeship and trainee programs relevant to the Contractor's employment  
47 needs, especially those programs funded or approved by the U.S. Department of  
48 Labor. The Contractor shall provide notice of these programs to the sources  
49 compiled under 7b above.
  - 50
  - 51 f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions  
52 and training programs and requesting their cooperation in assisting the Contractor in

1 meeting its EEO obligations; by including it in any policy manual and collective  
2 bargaining agreement; by publicizing it in the company newspaper, annual report,  
3 etc.; by specific review of the policy with all management personnel and with all  
4 minority and female employees at least once a year; and by posting the company  
5 EEO policy on bulletin boards accessible to all employees at each location where  
6 construction work is performed.

- 7
- 8 g. Review, at least annually, the company's EEO policy and affirmative action  
9 obligations under these specifications with all employees having any responsibility for  
10 hiring, assignment, layoff, termination or other employment decisions including  
11 specific review of these items with on-site supervisory personnel such as  
12 Superintendents, General Foremen, etc., prior to the initiation of construction work at  
13 any job site. A written record shall be made and maintained identifying the time and  
14 place of these meetings, persons attending, subject matter discussed, and  
15 disposition of the subject matter.
- 16
- 17 h. Disseminate the Contractor's EEO policy externally by including it in any advertising  
18 in the news media, specifically including minority and female news media, and  
19 providing written notification to and discussing the Contractor's EEO policy with other  
20 Contractors and Subcontractors with whom the Contractor does or anticipates doing  
21 business.
- 22
- 23 i. Direct its recruitment efforts, both oral and written to minority, female and community  
24 organizations, to schools with minority and female students and to minority and  
25 female recruitment and training organizations serving the Contractor's recruitment  
26 area and employment needs. Not later than one month prior to the date for the  
27 acceptance of applications for apprenticeship or other training by any recruitment  
28 source, the Contractor shall send written notification to organizations such as the  
29 above, describing the openings, screening procedures, and tests to be used in the  
30 selection process.
- 31
- 32 j. Encourage present minority and female employees to recruit other minority persons  
33 and women and where reasonable, provide after school, summer and vacation  
34 employment to minority and female youth both on the site and in other areas of a  
35 Contractor's work force.
- 36
- 37 k. Validate all tests and other selection requirements where there is an obligation to do  
38 so under 41 CFR Part 60-3.
- 39
- 40 l. Conduct, at least annually, an inventory and evaluation of all minority and female  
41 personnel for promotional opportunities and encourage these employees to seek or  
42 to prepare for, through appropriate training, etc., such opportunities.
- 43
- 44 m. Ensure that seniority practices, job classifications, work assignments and other  
45 personnel practices, do not have a discriminatory effect by continually monitoring all  
46 personnel and employment related activities to ensure that the EEO policy and the  
47 Contractor's obligations under these specifications are being carried out.
- 48
- 49 n. Ensure that all facilities and company activities are nonsegregated except that  
50 separate or single-user toilet and necessary changing facilities shall be provided to  
51 assure privacy between the sexes.
- 52

- 1           o. Document and maintain a record of all solicitations of offers for subcontracts from  
2 minority and female construction contractors and suppliers, including circulation of  
3 solicitations to minority and female contractor associations and other business  
4 associations.
- 5
- 6           p. Conduct a review, at least annually, of all supervisors' adherence to and  
7 performance under the Contractor's EEO policies and affirmative action obligations.
- 8
- 9       8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling  
10 one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor  
11 association, joint contractor-union, contractor-community, or other similar group of which the  
12 Contractor is a member and participant, may be asserted as fulfilling any one or more of the  
13 obligations under 7a through 7p of this Special Provision provided that the Contractor actively  
14 participates in the group, makes every effort to assure that the group has a positive impact on  
15 the employment of minorities and women in the industry, ensure that the concrete benefits of  
16 the program are reflected in the Contractor's minority and female work-force participation,  
17 makes a good faith effort to meet its individual goals and timetables, and can provide access  
18 to documentation which demonstrate the effectiveness of actions taken on behalf of the  
19 Contractor. The obligation to comply, however, is the Contractor's and failure of such a group  
20 to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
- 21
- 22       9. A single goal for minorities and a separate single goal for women have been established. The  
23 Contractor, however, is required to provide equal employment opportunity and to take  
24 affirmative action for all minority groups, both male and female, and all women, both minority  
25 and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a  
26 particular group is employed in substantially disparate manner (for example, even though the  
27 Contractor has achieved its goals for women generally, the Contractor may be in violation of  
28 the Executive Order if a specific minority group of women is underutilized).
- 29
- 30       10. The Contractor shall not use the goals and timetables or affirmative action standards to  
31 discriminate against any person because of race, color, religion, sex, or national origin.
- 32
- 33       11. The Contractor shall not enter into any subcontract with any person or firm debarred from  
34 Government contracts pursuant to Executive Order 11246.
- 35
- 36       12. The Contractor shall carry out such sanctions and penalties for violation of these  
37 specifications and of the Equal Opportunity Clause, including suspensions, terminations and  
38 cancellations of existing subcontracts as may be imposed or ordered pursuant to Executive  
39 Order 11246, as amended, and its implementing regulations by the Office of Federal Contract  
40 Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties  
41 shall be in violation of these specifications and Executive Order 11246, as amended.
- 42
- 43       13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific  
44 affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of  
45 this Special Provision, so as to achieve maximum results from its efforts to ensure equal  
46 employment opportunity. If the Contractor fails to comply with the requirements of the  
47 Executive Order, the implementing regulations, or these specifications, the Director shall  
48 proceed in accordance with 41 CFR 60-4.8.
- 49
- 50       14. The Contractor shall designate a responsible official to monitor all employment related activity  
51 to ensure that the company EEO policy is being carried out, to submit reports relating to the  
52 provisions hereof as may be required by the government and to keep records. Records shall

1 at least include, for each employee, their name, address, telephone numbers, construction  
2 trade, union affiliation if any, employee identification number when assigned, social security  
3 number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of  
4 changes in status, hours worked per week in the indicated trade, rate of pay, and locations at  
5 which the work was performed. Records shall be maintained in an easily understandable and  
6 retrievable form; however, to the degree that existing records satisfy this requirement, the  
7 Contractors will not be required to maintain separate records.

8  
9 15. Nothing herein provided shall be construed as a limitation upon the application of other laws  
10 which establish different standards of compliance or upon the application of requirements for  
11 the hiring of local or other area residents (e.g., those under the Public Works Employment Act  
12 of 1977 and the Community Development Block Grant Program).

13  
14 16. Additional assistance for Federal Construction Contractors on contracts administered by  
15 Washington State Department of Transportation or by Local Agencies may be found at:

16  
17 Washington State Dept. of Transportation  
18 Office of Equal Opportunity  
19 PO Box 47314  
20 310 Maple Park Ave. SE  
21 Olympia WA  
22 98504-7314  
23 Ph: 360-705-7090  
24 Fax: 360-705-6801  
25 <http://www.wsdot.wa.gov/equalopportunity/default.htm>

26  
27 **1-07.17 Utilities And Similar Facilities**

28 (April 2, 2007)

29 Section 1-07.17 is supplemented with the following:

30  
31 Locations and dimensions shown in the Plan for existing facilities are in accordance with available  
32 information obtained without uncovering, measuring, or other verification.

33  
34 The following addresses and telephone numbers of utility companies known or suspected of  
35 having facilities within the project limits are supplied for the Contractor's convenience:

36  
37 **Lewis County P.U.D. No. 1**  
38 **321 NW Pacific**  
39 **Chehalis, WA 98532**  
40 **Telephone: (360) 748-9261**

41  
42 **Centurylink**  
43 **Dioni Cariaga**  
44 **451 S. Kaiser Rd.**  
45 **Olympia, WA 98502**  
46 **Telephone (206) 733-5261**  
47 **Cell: 360250-2596**

48  
49 The Contractor shall coordinate with the property owner for the irrigation pump during construction.

50  
51 The Contractor shall call the Underground locate service (800-424-5555) two to ten days prior to  
52 construction at each project site. The Contractor shall notify the Utility Owner of any utilities that are  
53 within two feet of the planned construction. The above list of Utility Owners may not be complete. As



1 per RCW 19.122 it shall be the Contractors responsibility to contact the owners of utilities known or  
2 suspected of having services close to the project site.

3  
4 **1-07.18 Public Liability and Property Damage Insurance**

5  
6 Delete this section in its entirety, and replace it with the following:

7  
8 **1-07.18 Insurance**

9 *(January 4, 2016 APWA GSP)*

10  
11 **1-07.18(1) General Requirements**

- 12 A. The Contractor shall procure and maintain the insurance described in all subsections of section 1-  
13 07.18 of these Special Provisions, from insurers with a current A. M. Best rating of not less than A-:  
14 VII and licensed to do business in the State of Washington. The Contracting Agency reserves the  
15 right to approve or reject the insurance provided, based on the insurer's financial condition.
- 16  
17 B. The Contractor shall keep this insurance in force without interruption from the commencement of  
18 the Contractor's Work through the term of the Contract and for thirty (30) days after the Physical  
19 Completion date, unless otherwise indicated below.
- 20  
21 C. If any insurance policy is written on a claims made form, its retroactive date, and that of all  
22 subsequent renewals, shall be no later than the effective date of this Contract. The policy shall  
23 state that coverage is claims made, and state the retroactive date. Claims-made form coverage  
24 shall be maintained by the Contractor for a minimum of 36 months following the Completion Date or  
25 earlier termination of this Contract, and the Contractor shall annually provide the Contracting  
26 Agency with proof of renewal. If renewal of the claims made form of coverage becomes  
27 unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period  
28 ("tail") or execute another form of guarantee acceptable to the Contracting Agency to assure  
29 financial responsibility for liability for services performed.
- 30  
31 D. The Contractor's Automobile Liability, Commercial General Liability and Excess or Umbrella  
32 Liability insurance policies shall be primary and non-contributory insurance as respects the  
33 Contracting Agency's insurance, self-insurance, or self-insured pool coverage. Any insurance, self-  
34 insurance, or self-insured pool coverage maintained by the Contracting Agency shall be excess of  
35 the Contractor's insurance and shall not contribute with it.
- 36  
37 E. The Contractor shall provide the Contracting Agency and all additional insureds with written notice  
38 of any policy cancellation, within two business days of their receipt of such notice.
- 39  
40 G. The Contractor shall not begin work under the Contract until the required insurance has been  
41 obtained and approved by the Contracting Agency
- 42  
43 H. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material  
44 breach of contract, upon which the Contracting Agency may, after giving five business days' notice  
45 to the Contractor to correct the breach, immediately terminate the Contract or, at its discretion,  
46 procure or renew such insurance and pay any and all premiums in connection therewith, with any  
47 sums so expended to be repaid to the Contracting Agency on demand, or at the sole discretion of  
48 the Contracting Agency, offset against funds due the Contractor from the Contracting Agency.
- 49  
50 I. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the  
51 Contract and no additional payment will be made.
- 52

1 **1-07.18(2) Additional Insured**

2 All insurance policies, with the exception of Workers Compensation, and of Professional Liability and  
3 Builder's Risk (if required by this Contract) shall name the following listed entities as additional  
4 insured(s) using the forms or endorsements required herein:

- 5     ▪ the Contracting Agency and its officers, elected officials, employees, agents, and volunteers

6  
7 The above-listed entities shall be additional insured(s) for the full available limits of liability maintained  
8 by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than  
9 those required by this Contract, and irrespective of whether the Certificate of Insurance provided by the  
10 Contractor pursuant to 1-07.18(4) describes limits lower than those maintained by the Contractor.

11  
12 For Commercial General Liability insurance coverage, the required additional insured endorsements  
13 shall be at least as broad as ISO forms CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for  
14 completed operations.

15  
16 **1-07.18(3) Subcontractors**

17 The Contractor shall cause each Subcontractor of every tier to provide insurance coverage that  
18 complies with all applicable requirements of the Contractor-provided insurance as set forth herein,  
19 except the Contractor shall have sole responsibility for determining the limits of coverage required to be  
20 obtained by Subcontractors.

21  
22 The Contractor shall ensure that all Subcontractors of every tier add all entities listed in 1-07.18(2) as  
23 additional insureds, and provide proof of such on the policies as required by that section as detailed in  
24 1-07.18(2) using an endorsement as least as broad as ISO CG 20 10 10 01 for ongoing operations and  
25 CG 20 37 10 01 for completed operations.

26  
27 Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency  
28 evidence of insurance and copies of the additional insured endorsements of each Subcontractor of  
29 every tier as required in 1-07.18(4) Verification of Coverage.

30  
31 **1-07.18(4) Verification of Coverage**

32 The Contractor shall deliver to the Contracting Agency a Certificate(s) of Insurance and endorsements  
33 for each policy of insurance meeting the requirements set forth herein when the Contractor delivers the  
34 signed Contract for the work. Failure of Contracting Agency to demand such verification of coverage  
35 with these insurance requirements or failure of Contracting Agency to identify a deficiency from the  
36 insurance documentation provided shall not be construed as a waiver of Contractor's obligation to  
37 maintain such insurance.

38  
39 Verification of coverage shall include:

- 40 1. An ACORD certificate or a form determined by the Contracting Agency to be equivalent.
- 41 2. Copies of all endorsements naming Contracting Agency and all other entities listed in 1-07.18(2) as  
42 additional insured(s), showing the policy number. The Contractor may submit a copy of any blanket  
43 additional insured clause from its policies instead of a separate endorsement.
- 44 3. Any other amendatory endorsements to show the coverage required herein.
- 45 4. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these  
46 requirements – actual endorsements must be submitted.

47  
48 Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency a full  
49 and certified copy of the insurance policy(s). If Builders Risk insurance is required on this Project, a full

1 and certified copy of that policy is required when the Contractor delivers the signed Contract for the  
2 work.

3  
4 **1-07.18(5) Coverages and Limits**

5 The insurance shall provide the minimum coverages and limits set forth below. Contractor's  
6 maintenance of insurance, its scope of coverage, and limits as required herein shall not be construed to  
7 limit the liability of the Contractor to the coverage provided by such insurance, or otherwise limit the  
8 Contracting Agency's recourse to any remedy available at law or in equity.

9  
10 All deductibles and self-insured retentions must be disclosed and are subject to approval by the  
11 Contracting Agency. The cost of any claim payments falling within the deductible or self-insured  
12 retention shall be the responsibility of the Contractor. In the event an additional insured incurs a liability  
13 subject to any policy's deductibles or self-insured retention, said deductibles or self-insured retention  
14 shall be the responsibility of the Contractor.

15  
16 **1-07.18(5)A Commercial General Liability**

17 Commercial General Liability insurance shall be written on coverage forms at least as broad as ISO  
18 occurrence form CG 00 01, including but not limited to liability arising from premises, operations, stop  
19 gap liability, independent contractors, products-completed operations, personal and advertising injury,  
20 and liability assumed under an insured contract. There shall be no exclusion for liability arising from  
21 explosion, collapse or underground property damage.

22  
23 The Commercial General Liability insurance shall be endorsed to provide a per project general  
24 aggregate limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

25  
26 Contractor shall maintain Commercial General Liability Insurance arising out of the Contractor's  
27 completed operations for at least three years following Substantial Completion of the Work.

28  
29 Such policy must provide the following minimum limits:

30	\$1,000,000	Each Occurrence
31	\$2,000,000	General Aggregate
32	\$2,000,000	Products & Completed Operations Aggregate
33	\$1,000,000	Personal & Advertising Injury each offence
34	\$1,000,000	Stop Gap / Employers' Liability each accident

35  
36 **1-07.18(5)B Automobile Liability**

37 Automobile Liability shall cover owned, non-owned, hired, and leased vehicles; and shall be written on  
38 a coverage form at least as broad as ISO form CA 00 01. If the work involves the transport of  
39 pollutants, the automobile liability policy shall include MCS 90 and CA 99 48 endorsements.

40  
41 Such policy must provide the following minimum limit:

42	\$1,000,000	Combined single limit each accident
----	-------------	-------------------------------------

43  
44 **1-07.18(5)C Workers' Compensation**

45 The Contractor shall comply with Workers' Compensation coverage as required by the Industrial  
46 Insurance laws of the State of Washington.

47  
48 **1-07.23, PUBLIC CONVENIENCE AND SAFETY**

1 **1-07.23(1) Construction Under Traffic**

2 Section 1-07.23(1) is supplemented with the following:

3  
4 (January 2, 2012)

5 **Work Zone Clear Zone**

6 The Work Zone Clear Zone (WZCZ) applies during working and nonworking hours. The  
7 WZCZ applies only to temporary roadside objects introduced by the Contractor's  
8 operations and does not apply to preexisting conditions or permanent Work. Those work  
9 operations that are actively in progress shall be in accordance with adopted and  
10 approved Traffic Control Plans, and other contract requirements.

11  
12 During nonworking hours equipment or materials shall not be within the WZCZ unless  
13 they are protected by permanent guardrail or temporary concrete barrier. The use of  
14 temporary concrete barrier shall be permitted only if the Engineer approves the  
15 installation and location.

16  
17 During actual hours of work, unless protected as described above, only materials  
18 absolutely necessary to construction shall be within the WZCZ and only construction  
19 vehicles absolutely necessary to construction shall be allowed within the WZCZ or  
20 allowed to stop or park on the shoulder of the roadway.

21  
22 The Contractor's nonessential vehicles and employees private vehicles shall not be  
23 permitted to park within the WZCZ at any time unless protected as described above.

24  
25 Deviation from the above requirements shall not occur unless the Contractor has  
26 requested the deviation in writing and the Engineer has provided written approval.

27  
28 Minimum WZCZ distances are measured from the edge of traveled way and will be  
29 determined as follows:

Regulatory Posted Speed	Distance From Traveled Way (Feet)
35 mph or less	10 *
40 mph	15
45 to 55 mph	20
60 mph or greater	30

30  
31 \* or 2-feet beyond the outside edge of sidewalk

32  
33 **Minimum Work Zone Clear Zone Distance**

34  
35 **1-08, PROSECUTION AND PROGRESS**

36  
37 **1-08.0 Preliminary Matters**

38 (May 25, 2006 APWA GSP)

39  
40 Add the following new section:

41  
42 **1-08.0(1) Preconstruction Conference**

43 (October 10, 2008 APWA GSP)

1 Prior to the Contractor beginning the work, a preconstruction conference will be held between the  
2 Contractor, the Engineer and such other interested parties as may be invited. The purpose of the  
3 preconstruction conference will be:

- 4 1. To review the initial progress schedule;
- 5 2. To establish a working understanding among the various parties associated or affected by the  
6 work;
- 7 3. To establish and review procedures for progress payment, notifications, approvals, submittals,  
8 etc.;
- 9 4. To establish normal working hours for the work;
- 10 5. To review safety standards and traffic control; and
- 11 6. To discuss such other related items as may be pertinent to the work.

12 The Contractor shall prepare and submit at the preconstruction conference the following:

- 13 1. A breakdown of all lump sum items;
- 14 2. A preliminary schedule of working drawing submittals; and
- 15 3. A list of material sources for approval if applicable.

16  
17  
18 Add the following new section:  
19

20 **1-08.0(2) Hours of Work**  
21 *(December 8, 2014 APWA GSP)*  
22

23 Except in the case of emergency or unless otherwise approved by the Engineer, the normal working  
24 hours for the Contract shall be any consecutive 8-hour period between 7:00 a.m. and 6:00 p.m.  
25 Monday through Friday, exclusive of a lunch break. If the Contractor desires different than the  
26 normal working hours stated above, the request must be submitted in writing prior to the  
27 preconstruction conference, subject to the provisions below. The working hours for the Contract  
28 shall be established at or prior to the preconstruction conference.  
29

30 All working hours and days are also subject to local permit and ordinance conditions (such as noise  
31 ordinances).  
32

33 If the Contractor wishes to deviate from the established working hours, the Contractor shall submit  
34 a written request to the Engineer for consideration. This request shall state what hours are being  
35 requested, and why. Requests shall be submitted for review no later than 3 working days prior to  
36 the day(s) the Contractor is requesting to change the hours.  
37

38 If the Contracting Agency approves such a deviation, such approval may be subject to certain other  
39 conditions, which will be detailed in writing. For example:

- 40 1. On non-Federal aid projects, requiring the Contractor to reimburse the Contracting Agency  
41 for the costs in excess of straight-time costs for Contracting Agency representatives who  
42 worked during such times. (The Engineer may require designated representatives to be  
43 present during the work. Representatives who may be deemed necessary by the Engineer  
44 include, but are not limited to: survey crews; personnel from the Contracting Agency's  
45 material testing lab; inspectors; and other Contracting Agency employees or third party  
46 consultants when, in the opinion of the Engineer, such work necessitates their presence.)
- 47 2. Considering the work performed on Saturdays, Sundays, and holidays as working days with  
48 regard to the contract time.

3. Considering multiple work shifts as multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period.
4. If a 4-10 work schedule is requested and approved the non working day for the week will be charged as a working day.
5. If Davis Bacon wage rates apply to this Contract, all requirements must be met and recorded properly on certified payroll

**1-08.1 Subcontracting**  
(February 16, 2018 APWA GSP)

The eighth and ninth paragraphs are revised to read:

On all projects, the Contractor shall certify to the actual amount received from the Contracting Agency and amounts paid to all firms that were used as Subcontractors, lower tier subcontractors, manufacturers, regular dealers, or service providers on the Contract. This includes all Disadvantaged, Minority, Small, Veteran or Women's Business Enterprise firms. This Certification shall be submitted to the Engineer on a monthly basis each month between Execution of the Contract and Physical Completion of the Contract using the application available at: <https://wsdot.diversitycompliance.com>. A monthly report shall be submitted for every month between Execution of the Contract and Physical Completion regardless of whether payments were made or work occurred.

The Contractor shall comply with the requirements of RCW 39.04.250, 39.76.011, 39.76.020, and 39.76.040, in particular regarding prompt payment to Subcontractors. Whenever the Contractor withholds payment to a Subcontractor for any reason including disputed amounts, the Contractor shall provide notice within 10 calendar days to the Subcontractor with a copy to the Contracting Agency identifying the reason for the withholding and a clear description of what the Subcontractor must do to have the withholding released. Retainage withheld by the Contractor prior to completion of the Subcontractors work is exempt from reporting as a payment withheld and is not included in the withheld amount. The Contracting Agency's copy of the notice to Subcontractor for deferred payments shall be submitted to the Engineer concurrently with notification to the Subcontractor.

Section 1-08.1 is supplemented with the following:

(October 12, 1998)

Prior to any subcontractor or lower tier subcontractor beginning work, the Contractor shall submit to the Engineer a certification (WSDOT Form 420-004) that a written agreement between the Contractor and the subcontractor or between the subcontractor and any lower tier subcontractor has been executed. This certification shall also guarantee that these subcontract agreements include all the documents required by the Special Provision **Federal Agency Inspection**.

A Subcontractor or lower tier Subcontractor will not be permitted to perform any work under the contract until the following documents have been completed and submitted to the Engineer:

1. Request to Sublet Work (Form 421-012), and
2. Contractor and Subcontractor or Lower Tier Subcontractor Certification for Federal-aid Projects (Form 420-004).

The Contractor's records pertaining to the requirements of this Special Provision shall be open to inspection or audit by representatives of the Contracting Agency during the life of the contract and for a period of not less than three years after the date of acceptance of the contract. The

1 Contractor shall retain these records for that period. The Contractor shall also guarantee that  
2 these records of all Subcontractors and lower tier Subcontractors shall be available and open to  
3 similar inspection or audit for the same time period.

4  
5 **1-08.1(1) Subcontract Completion and Return of Retainage Withheld**

6 Section 1-08.1(1) is revised to read:

7  
8 (June 27, 2011)

9 The following procedures shall apply to all subcontracts entered into as a part of this Contract:

10  
11 **Requirements**

- 12 1. The Prime Contractor or Subcontractor shall make payment to the Subcontractor not later  
13 than ten (10) days after receipt of payment from the Contracting Agency for work  
14 satisfactorily completed by the Subcontractor, to the extent of each Subcontractor's  
15 interest therein.
- 16  
17 2. Prompt and full payment of retainage from the Prime Contractor to the Subcontractor  
18 shall be made within 30 days after Subcontractor's Work is satisfactorily completed.
- 19  
20 3. For purposes of this Section, a Subcontractor's work is satisfactorily completed when all  
21 task and requirements of the Subcontract have been accomplished and including any  
22 required documentation and material testing.
- 23  
24 4. Failure by a Prime Contractor or Subcontractor to comply with these requirements may  
25 result in one or more of the following:
  - 26  
27 a. Withholding of payments until the Prime Contractor or Subcontractor complies
  - 28  
29 b. Failure to comply shall be reflected in the Prime Contractor's Performance Evaluation
  - 30  
31 c. Cancellation, Termination, or Suspension of the Contract, in whole or in part
  - 32  
33 d. Other sanctions as provided by the subcontractor or by law under applicable prompt  
34 pay statutes.

35  
36 **Conditions**

37 This clause does not create a contractual relationship between the Contracting Agency and  
38 any Subcontractor as stated in Section 1-08.1. Also, it is not intended to bestow upon any  
39 Subcontractor, the status of a third-party beneficiary to the Contract between the Contracting  
40 Agency and the Contractor.

41  
42 **Payment**

43 The Contractor will be solely responsible for any additional costs involved in paying retainage  
44 to the Subcontractors. Those costs shall be incidental to the respective Bid Items.

45  
46 **1-08.3(2)A Type A Progress Schedule**

47 *(March 13, 2012 APWA GSP)*

48  
49 Revise this section to read:

50  
51 The Contractor shall submit \$\$\$ copies of a Type A Progress Schedule no later than at the  
52 preconstruction conference, or some other mutually agreed upon submittal time. The schedule may

1 be a critical path method (CPM) schedule, bar chart, or other standard schedule format. Regardless  
2 of which format used, the schedule shall identify the critical path. The Engineer will evaluate the  
3 Type A Progress Schedule and approve or return the schedule for corrections within 15 calendar  
4 days of receiving the submittal.

### 5 **Contractor's Weekly Activities**

6 **(\*\*\*\*\*)**

7  
8  
9 The Contractor shall submit a weekly schedule to the Engineer. The schedule shall indicate the  
10 Contractor's proposed activities for the forthcoming week along with the hours of work. This will  
11 permit the Engineer to more effectively provide the contract engineering and inspection for the  
12 Contractor's operations.

13  
14 The written weekly activity schedule shall be submitted to the Engineer or a designated assistant  
15 before the end of the last shift on the next to the last working day of the week preceding the  
16 indicated activities, or other mutually agreeable time.

17  
18 If the Contractor proceeds with work not indicated on the weekly activity schedule, or in a  
19 sequence differing from that which has been shown on the schedule, the Engineer may require the  
20 Contractor to delay unscheduled activities until they are included on a subsequent weekly activity  
21 schedule.

22  
23 Separately, and in addition to the weekly schedule, the Contractor shall submit weekly a summary  
24 of project activities to the Engineer. The summary of activities shall include a report of the nature  
25 and progress of each of the major activities that were advanced on the project within the previous  
26 week.

27  
28 It shall be sufficiently detailed that a composite history of the project develops. The locations and  
29 approximate quantity guardrail and traffic control work shall be reported. Unusual activity, and  
30 conditions or events that may affect the course of the project shall also be reported.

### 31 **1-08.4 Prosecution of Work**

32  
33 Delete this section and replace it with the following:

#### 34 **1-08.4 Notice to Proceed and Prosecution of Work**

35 *(July 23, 2015 APWA GSP)*

36  
37  
38 Notice to Proceed will be given after the contract has been executed and the contract bond and  
39 evidence of insurance have been approved and filed by the Contracting Agency. The Contractor  
40 shall not commence with the work until the Notice to Proceed has been given by the Engineer. The  
41 Contractor shall commence construction activities on the project site within ten days of the Notice to  
42 Proceed Date, unless otherwise approved in writing. The Contractor shall diligently pursue the  
43 work to the physical completion date within the time specified in the contract. Voluntary shutdown  
44 or slowing of operations by the Contractor shall not relieve the Contractor of the responsibility to  
45 complete the work within the time(s) specified in the contract.

46  
47  
48 When shown in the Plans, the first order of work shall be the installation of high visibility fencing to  
49 delineate all areas for protection or restoration, as described in the Contract. Installation of high  
50 visibility fencing adjacent to the roadway shall occur after the placement of all necessary signs and  
51 traffic control devices in accordance with 1-10.1(2). Upon construction of the fencing, the Contractor  
52 shall request the Engineer to inspect the fence. No other work shall be performed on the site until



1 the Contracting Agency has accepted the installation of high visibility fencing, as described in the  
2 Contract.

3  
4 **1-08.5 Time for Completion**  
5 *(September 12, 2016 APWA GSP, Option B)*

6  
7 Revise the third and fourth paragraphs to read:

8  
9 Contract time shall begin on the first working day following the \$\$14 \$\$ calendar day after the  
10 Notice to Proceed date. If the Contractor starts work on the project at an earlier date, then contract  
11 time shall begin on the first working day when onsite work begins.  
12

13 Each working day shall be charged to the contract as it occurs, until the contract work is physically  
14 complete. If substantial completion has been granted and all the authorized working days have  
15 been used, charging of working days will cease. Each week the Engineer will provide the  
16 Contractor a statement that shows the number of working days: (1) charged to the contract the  
17 week before; (2) specified for the physical completion of the contract; and (3) remaining for the  
18 physical completion of the contract. The statement will also show the nonworking days and any  
19 partial or whole day the Engineer declares as unworkable. Within 10 calendar days after the date  
20 of each statement, the Contractor shall file a written protest of any alleged discrepancies in it. To  
21 be considered by the Engineer, the protest shall be in sufficient detail to enable the Engineer to  
22 ascertain the basis and amount of time disputed. By not filing such detailed protest in that period,  
23 the Contractor shall be deemed as having accepted the statement as correct. If the Contractor is  
24 approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week  
25 in which a 4-10 shift is worked would ordinarily be charged as a working day, then the fifth day of  
26 that week will be charged as a working day whether or not the Contractor works on that day.  
27

28 Revise the sixth paragraph to read:

29  
30 The Engineer will give the Contractor written notice of the completion date of the contract after all  
31 the Contractor's obligations under the contract have been performed by the Contractor. The  
32 following events must occur before the Completion Date can be established:

- 33 1. The physical work on the project must be complete; and  
34 2. The Contractor must furnish all documentation required by the contract and required by law, to  
35 allow the Contracting Agency to process final acceptance of the contract. The following  
36 documents must be received by the Project Engineer prior to establishing a completion date:  
37 a. Certified Payrolls (per Section 1-07.9(5)).  
38 b. Material Acceptance Certification Documents  
39 c. Monthly Reports of Amounts Credited as DBE Participation, as required by the Contract  
40 Provisions.  
41 d. Final Contract Voucher Certification  
42 e. Copies of the approved "Affidavit of Prevailing Wages Paid" for the Contractor and all  
43 Subcontractors  
44 f. Property owner releases per Section 1-07.24

45  
46 (\*\*\*\*\*)

47 This project shall be physically completed within \*\*\* 55 \*\*\* working days.  
48

1 **1-08.9 Liquidated Damages**

2 *(August 14, 2013 APWA GSP)*

3  
4 Revise the fourth paragraph to read:

5  
6 When the Contract Work has progressed to Substantial Completion as defined in the Contract, the  
7 Engineer may determine that the work is Substantially Complete. The Engineer will notify the  
8 Contractor in writing of the Substantial Completion Date. For overruns in Contract time occurring  
9 after the date so established, the formula for liquidated damages shown above will not apply. For  
10 overruns in Contract time occurring after the Substantial Completion Date, liquidated damages shall  
11 be assessed on the basis of direct engineering and related costs assignable to the project until the  
12 actual Physical Completion Date of all the Contract Work. The Contractor shall complete the  
13 remaining Work as promptly as possible. Upon request by the Project Engineer, the Contractor  
14 shall furnish a written schedule for completing the physical Work on the Contract.  
15

16 **1-09, MEASUREMENT AND PAYMENT**

17  
18 **1-09.7 Mobilization**

19 Section 1-09.7 is supplemented with the following:

20  
21 *(\*\*\*\*\*)*

22 The Contracting Agency will provide a temporary staging site during construction of the project.  
23 The area to be used shall be staked in the field prior to use. The Contractor shall restore this site  
24 to the condition it was found or as directed by the Engineer. The Contractor shall provide  
25 landowner access through the staging area as depicted in the Contract Plans.  
26

27 **1-09.9 Payments**

28 *(March 13, 2012 APWA GSP)*

29  
30 Delete the first four paragraphs and replace them with the following:

31  
32 The basis of payment will be the actual quantities of Work performed according to the Contract and  
33 as specified for payment.  
34

35 The Contractor shall submit a breakdown of the cost of lump sum bid items at the Preconstruction  
36 Conference, to enable the Project Engineer to determine the Work performed on a monthly basis.  
37 A breakdown is not required for lump sum items that include a basis for incremental payments as  
38 part of the respective Specification. Absent a lump sum breakdown, the Project Engineer will make  
39 a determination based on information available. The Project Engineer's determination of the cost of  
40 work shall be final.  
41

42 Progress payments for completed work and material on hand will be based upon progress  
43 estimates prepared by the Engineer. A progress estimate cutoff date will be established at the  
44 preconstruction conference.  
45

46 The initial progress estimate will be made not later than 30 days after the Contractor commences  
47 the work, and successive progress estimates will be made every month thereafter until the  
48 Completion Date. Progress estimates made during progress of the work are tentative, and made

1 only for the purpose of determining progress payments. The progress estimates are subject to  
2 change at any time prior to the calculation of the final payment.  
3

4 The value of the progress estimate will be the sum of the following:

- 5 1. Unit Price Items in the Bid Form — the approximate quantity of acceptable units of work  
6 completed multiplied by the unit price.
- 7 2. Lump Sum Items in the Bid Form — based on the approved Contractor’s lump sum  
8 breakdown for that item, or absent such a breakdown, based on the Engineer’s determination.
- 9 3. Materials on Hand — 100 percent of invoiced cost of material delivered to Job site or other  
10 storage area approved by the Engineer.
- 11 4. Change Orders — entitlement for approved extra cost or completed extra work as determined  
12 by the Engineer.  
13

14 Progress payments will be made in accordance with the progress estimate less:

- 15 1. Retainage per Section 1-09.9(1), on non FHWA-funded projects;
- 16 2. The amount of progress payments previously made; and
- 17 3. Funds withheld by the Contracting Agency for disbursement in accordance with the Contract  
18 Documents.  
19

20 Progress payments for work performed shall not be evidence of acceptable performance or an  
21 admission by the Contracting Agency that any work has been satisfactorily completed. The  
22 determination of payments under the contract will be final in accordance with Section 1-05.1.  
23

#### 24 **1-09.9(1) Retainage**

25 Section 1-09.9(1) is supplemented with the following:

26 **Retainage of 5 percent shall be as required by RCW 60.28.011.**  
27

### 28 **1-09.11 Disputes and Claims**

#### 29 **1-09.11(3) Time Limitation and Jurisdiction**

30 *(July 23, 2015 APWA GSP)*  
31

32 Revise this section to read:  
33

34  
35  
36 For the convenience of the parties to the Contract it is mutually agreed by the parties that any  
37 claims or causes of action which the Contractor has against the Contracting Agency arising from  
38 the Contract shall be brought within 180 calendar days from the date of final acceptance (Section 1-  
39 05.12) of the Contract by the Contracting Agency; and it is further agreed that any such claims or  
40 causes of action shall be brought only in the Superior Court of the county where the Contracting  
41 Agency headquarters is located, provided that where an action is asserted against a county, RCW  
42 36.01.05 shall control venue and jurisdiction. The parties understand and agree that the  
43 Contractor’s failure to bring suit within the time period provided, shall be a complete bar to any such  
44 claims or causes of action. It is further mutually agreed by the parties that when any claims or  
45 causes of action which the Contractor asserts against the Contracting Agency arising from the  
46 Contract are filed with the Contracting Agency or initiated in court, the Contractor shall permit the  
47 Contracting Agency to have timely access to any records deemed necessary by the Contracting  
48 Agency to assist in evaluating the claims or action.  
49

#### 50 **1-09.13 Claims Resolution**

2020 Graf Road MP 1.01 Culvert Replacement Project  
CMP-1531

1  
2 **1-09.13(3) Claims \$250,000 or Less**  
3 (October 1, 2005 APWA GSP)

4  
5 Delete this Section and replace it with the following:

6  
7 The Contractor and the Contracting Agency mutually agree that those claims that total \$250,000 or  
8 less, submitted in accordance with Section 1-09.11 and not resolved by nonbinding ADR  
9 processes, shall be resolved through litigation unless the parties mutually agree in writing to resolve  
10 the claim through binding arbitration.

11  
12 **1-09.13(3)A Administration of Arbitration**  
13 (July 23, 2015 APWA GSP)

14  
15 Revise the third paragraph to read:

16  
17 The Contracting Agency and the Contractor mutually agree to be bound by the decision of the  
18 arbitrator, and judgment upon the award rendered by the arbitrator may be entered in the Superior  
19 Court of the county in which the Contracting Agency's headquarters is located, provided that where  
20 claims subject to arbitration are asserted against a county, RCW 36.01.05 shall control venue and  
21 jurisdiction of the Superior Court. The decision of the arbitrator and the specific basis for the  
22 decision shall be in writing. The arbitrator shall use the Contract as a basis for decisions.

23  
24 **1-09.13(4) Claims in Excess of \$250,000**

25  
26 Section 1-09.13(4) is hereby deleted and replaced with the following:

27  
28 **CLAIMS RESOLUTION**

29 ~~(\*\*\*\*\*)~~

30  
31 Any dispute arising from the contract shall be processed in accordance with Section 1-04.5 and  
32 Sections 1-09.11 through 1-09.13(1) of the Standard Specifications. The provisions of these  
33 sections must be complied with in full as a condition precedent to the Contractor's right to seek  
34 claims resolution through arbitration or litigation. The Contractor may file with the Engineer a  
35 request for binding arbitration; the Engineer's decision regarding that request shall be final and  
36 unappealable. Nothing in this paragraph affects or tolls the limitations period as set forth in  
37 Section 1-09.11(3) of the Standard Specifications. However, if the Contractor files a lawsuit raising  
38 any claim(s) arising from the contract, the parties shall, if the Engineer so directs, submit such  
39 claim(s) to binding arbitration, subject to the rights of any party thereto to file with the Lewis County  
40 Superior Court motions to dismiss or for summary judgment at any time. In any binding arbitration  
41 proceeding, the provisions of subparagraphs (a) and (b) shall apply.

- 42  
43 a) Unless the parties otherwise agree, all disputes subject to arbitration shall be heard in  
44 a single arbitration hearing, and then only after completion of the contract. The  
45 parties shall be bound by Ch. 7.04 RCW generally, and by the arbitration rules  
46 hereafter stated, and shall, for purposes of administration of the arbitration, comply  
47 where applicable with the 1994 Lewis County Superior Court Mandatory Arbitration  
48 Rules (LMAR) sections 1.1(b), 1.3, 2.3, 3.1, 3.2(a) and (b), 5.1, 5.2 (except as  
49 referenced to MAR 5.2), 5.3, 6.1, 6.2 (including the referenced MAR 6.2), and 8.6.  
50 There shall be one arbitrator, to be chosen by mutual agreement of the parties from  
51 the list provided by the Lewis County Superior Court Administrator. If the parties  
52 cannot agree on a person to serve as arbitrator, the matter shall be submitted for

1 appointment of an arbitrator under LMAR 2.3. The arbitrator shall determine the  
2 scope and extent of discovery, except that the Contractor shall provide and update  
3 the information required by Section 1-09.11(2) of the Standard Specifications.  
4 Additionally, each party shall file a statement of proof with the other party and the  
5 arbitrator at least 20 calendar days before the scheduled arbitration hearing. The  
6 statement of proof shall include:

- 7
- 8 1. The name, business address and contact telephone number of each  
9 witness who will testify at the hearing.
- 10
- 11 2. For each witness to be offered as an expert, a statement of the subject  
12 matter and a statement of the facts, resource materials (not protected by  
13 privilege) and learned treatises upon which the expert is expected to  
14 testify and render an opinion(s), synopsis of the basis for such  
15 opinion(s), and a resume of the expert detailing his/her qualifications as  
16 an expert and pursuant to rendering such opinion(s). A list of documents  
17 and other exhibits the party intends to offer in evidence at the arbitration  
18 hearing. Either party may request a copy of any document listed, and a  
19 copy or description of any other exhibit listed. The party receiving the  
20 request shall provide the copies or description within five (5) calendar  
21 days. The parties or arbitrator may subpoena parties in accordance with  
22 the Superior Court Mandatory Arbitration Rules (MAR) of Washington,  
23 Rule 4.3, and witness fees and costs shall be provided for under Rule  
24 6.4, thereof. The arbitrator may permit a party to call a witness or offer a  
25 document or other exhibit not included in the statement of proof only  
26 upon a showing of good cause.
- 27

- 28 b) The arbitration hearing shall be conducted at a location within Lewis County,  
29 Washington. The extent of application of the Washington Rules of Evidence shall be  
30 determined in the exercise of sound discretion of the arbitrator, except that such  
31 Rules should be liberally construed in order to promote justice. The parties should  
32 stipulate to the admission of evidence when there is no genuine issue as to its  
33 relevance or authenticity. The decision of the arbitrator and the specific grounds for  
34 the decision shall be in writing. The arbitrator shall use the contract as a basis for its  
35 decisions. The County and the Contractor agree to be bound by the decision of the  
36 arbitrator, subject to such remedies as are provided in Ch. 7.04 RCW. Judgment  
37 upon the award rendered by the arbitrator shall be entered as judgment before the  
38 presiding judge of the Superior Court for Lewis County. Each party shall bear its own  
39 costs in connection with the arbitration. Each party shall pay one-half of the  
40 arbitrator's fees and expenses.
- 41

## 42 **1-10, TEMPORARY TRAFFIC CONTROL**

### 43 **1-10.2 Traffic Control Management**

#### 44 **1-10.2(1) General**

45 Section 1-10.2(1) is supplemented with the following:

46 (January 3, 2017)

47 Only training with WSDOT TCS card and WSDOT training curriculum is recognized in the  
48 State of Washington. The Traffic Control Supervisor shall be certified by one of the following:  
49  
50  
51

1  
2 The Northwest Laborers-Employers Training Trust  
3 27055 Ohio Ave.  
4 Kingston, WA 98346  
5 (360) 297-3035

6  
7 Evergreen Safety Council  
8 12545 135<sup>th</sup> Ave. NE  
9 Kirkland, WA 98034-8709  
10 1-800-521-0778

11  
12 The American Traffic Safety Services Association  
13 15 Riverside Parkway, Suite 100  
14 Fredericksburg, Virginia 22406-1022  
15 Training Dept. Toll Free (877) 642-4637  
16 Phone: (540) 368-1701

17  
18 **1-10.2(2) Traffic Control Plans**

19 (\*\*\*\*\*)

20 Section 1-10.2(2) is supplemented with the following:

21  
22 The Contracting Agency has attached a Traffic Control Plan in the Contract Plans for road closure  
23 and traffic detour on this project. Graf Road shall be closed to traffic from June 15, 2020 through  
24 August 31, 2020, in order for the Contractor to complete the project. All signs required for this  
25 project (as shown on the Traffic Control Plan) shall be the Contractors responsibility to furnish,  
26 erect, maintain, and remove. The Contractor shall provide escorted access through the  
27 construction site for school busses from August 31 through the end of the project (if needed due to  
28 weather delays).

29  
30 If determined by the Engineer that additional signing (not shown on the Traffic Control Plan) is  
31 needed, it shall be the Contractors responsibility to furnish, erect, and maintain these additional  
32 signs at no cost to the Contracting Agency.

33  
34 **1-10.2(3) Conformance to Established Standards**

35 (\*\*\*\*\*)

36 Section 1-10.2(3) is supplemented with the following:

37  
38 The latest revision of the WSDOT Manual M54-44 "Work Zone Traffic Control Guidelines"  
39 (WZTCG) is hereby made a part of this contract by reference as if contained fully herein.

40  
41 **1-10.4 Measurement**

42  
43 **1-10.4(1) Lump Sum Bid for Project (No Unit Items)**

44 Section 1-10.4(1) is supplemented with the following:

45  
46 (August 2, 2004)

47 The proposal contains the item "Project Temporary Traffic Control," lump sum. The provisions  
48 of Section 1-10.4(1) shall apply.

49  
50 **DIVISION 2**  
51 **EARTHWORK**  
52

1 **2-01, CLEARING, GRUBBING, AND ROADSIDE CLEANUP**

2  
3 **2-01.1 Description**

4 (March 13, 1995)

5  
6 Section 2-01.1 is supplemented with the following:

7  
8 Clearing and grubbing on this project shall be performed within the following limits:

9  
10 The area staked in the field by the Engineer prior to bid opening.

11  
12 **2-01.2 Disposal of Usable Material and Debris**

13 Section 2-01.2 is supplemented with the following:

14  
15 **(\*\*\*\*\*)**

16 All trees 6-inch diameter and larger located east of Scammon Creek and within the clearing limits shall  
17 be decked within the staging area at a location agreed upon with the property owner (decked logs will  
18 be cut for firewood by the property owner after project completion).

19  
20 **2-02, REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

21 **2-02.1 Description**

22 Section 2-02.1 is supplemented with the following:

23  
24 (March 13, 1995)

25 This work shall consist of removing miscellaneous traffic items.

26  
27 **2-02.3 Construction Requirements**

28 Section 2-02.3 is supplemented with the following:

29  
30 **Removing Miscellaneous Items**

31  
32 (March 13, 1995)

33 The following miscellaneous traffic items shall be removed and disposed of:

34  
35 \*\*\* Raised or recessed pavement markers \*\*\*

36 \*\*\* Flexible Guide Post \*\*\*

37  
38 **Miscellaneous Items**

39 **(\*\*\*\*\*)**

40 Traffic Signs at the intersection of Scammon Creek Road shall be adjusted or moved as construction  
41 progresses to meet the conditions as stated in the MUTCD.

42  
43 **2-02.3(2) Removal of Bridges, Box Culverts, and other Drainage Structures**

44 Section 2-02.3(2) is supplemented with the following:

45  
46 **(\*\*\*\*\*)**

47 The Contractor shall remove the existing Graf Road twin 10' x 10' x 40' concrete box culverts  
48 with wingwalls after routing traffic onto the detour route. The existing Graf Road twin 10' x 10'  
49 x 40' concrete box culverts with wingwalls shall be completely removed and disposed of at an  
50 approved waste site. A portion of the existing 12-inch diameter culvert at the southeast

1 quadrant of the project shall be removed (per Contract Plans) and disposed of at an approved  
2 waste site.

3  
4 **Use of Explosives**

5 (June 26, 2000)

6 Explosives shall not be used in the demolition.

7  
8 (January 7, 2002)

9 **Requirements for Closing Bridge to Traffic Prior to Beginning Removal**

10 The Contractor shall not close the existing bridge to traffic, and shall not begin bridge removal  
11 operations, until the following conditions are met:

- 12 1. The Contractor has received the Engineer's approval of the bridge demolition plan.
- 13 2. The traffic control for the detour bridge shall be operational and opened to traffic prior  
14 to closure and removal of the existing structure.
- 15 3. The Contractor has sufficient material on hand to complete bridge removal and  
16 bridge construction operations in the least possible time.
- 17 4. The Contractor shall furnish a report on the status of material delivery to the  
18 Engineer. The report shall specify the materials already available at the site, the  
19 materials yet to arrive at the site, and the scheduled delivery dates of the materials  
20 yet to arrive at the site.
- 21 5. The Contractor has received the Engineer's approval to proceed.

22  
23  
24  
25  
26  
27 **2-02.4 Measurement**

28 Section 2-02.4 is supplemented with the following:

29 No specific unit of measurement will apply to the lump sum item of "Removal of Structure and  
30 Obstruction". Traffic signs to be adjusted or moved shall be considered incidental to this bid item. All  
31 signs shall remain the property of Lewis County. Removal and disposal of the existing 12-inch  
32 diameter culvert and Graf Road twin 10' x 10' x 40' concrete box culverts with wingwalls shall be  
33 considered incidental to this bid item.

34  
35  
36 **2-02.5 Payment**

37 Section 2-02.5 is supplemented with the following:

38 Payment will be made in accordance with Section 1-04.1, for the following Bid item when it is included  
39 in the Proposal:

40 "Removal of Structures and Obstructions", lump sum.

41 If pavements, sidewalks, curbs, or gutters lie within an excavation area, their removal will be paid  
42 for as part of the quantity removed in excavation.

43  
44  
45  
46  
47  
48 **2-03, ROADWAY EXCAVATION AND EMBANKMENT**

49 **(\*\*\*\*\*)**

50 **2-03.3 Construction Requirements**

51 2020 Graf Road MP 1.01 Culvert Replacement Project  
CMP-1531



1  
2 **2-03.3(7) Disposal of Surplus Material**

3 Section 2-03.3(7) is supplemented with the following:  
4

5 No waste site has been provided to the Contractor for the disposal of unsuitable and excess  
6 excavation material. The Contractor shall make his own arrangement to acquire a site for the  
7 disposal of unsuitable and excess excavation material.  
8

9 The Contractor shall make his own arrangements to acquire a site and obtain all environmental  
10 permits required for the disposal of the unsuitable excavation material. The Contracting Agency  
11 must approve the waste site prior to it being utilized. Approval cannot be given until the  
12 Contracting Agency receives copies of all environmental approvals.  
13

14 All costs for acquiring a disposal site and for the loading, hauling, and disposal of unsuitable and  
15 excess excavation material shall be considered incidental to the project and be included in the unit  
16 contract prices for the various items of work therein.  
17

18 **2-03.3(14)M Excavation of Channels and Ditches**

19 Section 2-03.3(14)M is supplemented with the following:  
20

21 The Contractor shall protect existing vegetation and channel slopes outside the stream re-grade  
22 areas. All excavation and construction activities shall be conducted within the cut limits of the  
23 project staked by the Engineer, access roads through areas not designated for clearing shall not  
24 be permitted. Access to the stream channel for excavation and material placement shall be via a  
25 Temporary Access Road from the stockpile area at the southeast quadrant of the project (as  
26 depicted in the Contract Plans). Material removed for this Temporary Access Road shall be  
27 stockpiled and replaced after construction is completed to form a streambank and terrace that  
28 reasonably represents the original ground contours (cuts and fills within 0.25-feet of surrounding  
29 contours).  
30

31  
32 **2-03.3(14)I Embankments at Bridge and Trestle Ends**

33 Section 2-03.3(14)I is supplemented with the following:  
34

35 After clearing is completed, the Contractor shall stockpile suitable excavated material (material  
36 within 2-feet of the surface with low clay content) to mix with Quarry Spalls at a 1:1 ratio. The  
37 Rock/Soil Mix shall be installed at the face of the Structural Earth Wall under the bridge as  
38 depicted in the Contract Plans with all surface voids filled with native material and compacted per  
39 Section 2-03.3(14)C—Method A.  
40

41 No Concrete rubble shall be allowed in the Rock / Soil Mix.  
42

43 **2-03.4 Measurement**

44 Section 2-03.4 is supplemented with the following:  
45

46 (March 13, 1995)

47 Only one determination of the original ground elevation will be made on this project. Measurement  
48 for roadway excavation and embankment will be based on the original ground elevations recorded  
49 previous to the award of this contract. Control stakes will be set during construction to provide the  
50 Contractor with all essential information for the construction of excavation and embankments.  
51

1 Earthwork quantities will be computed, either manually or by means of electronic data processing  
2 equipment, by use of the average end area method or by the finite element analysis method  
3 utilizing digital terrain modeling techniques.  
4

5 Copies of the ground cross-section notes will be available for the bidder's inspection, before the  
6 opening of bids, at the County Engineer's office.  
7

8 Upon award of the contract, copies of the original ground cross-sections will be furnished to the  
9 successful bidder on request to the Project Engineer.  
10

11 (\*\*\*\*\*)

12 The "Roadway Excavation Incl. Haul" bid item shall include the removal and disposal of channel  
13 excavation, roadway excavation and approximately 900 S.Y. of HMA mat material. Roadway  
14 Excavation and Embankment quantities will be measured and paid in accordance with the  
15 requirements of Sections 2-03.4 and 2-03.5. Roadway Excavation Incl. Haul shall include  
16 unsuitable material within 2-feet of the planned subgrade surface. Additional unsuitable material  
17 shall be field measured, as directed by the Engineer, and disposed of by the Contractor.  
18

19 Traffic signs to be adjusted or moved shall be considered incidental to "Removal of Structures and  
20 obstructions".  
21

22 "Rock/Soil Mix" shall be measured per cubic yard of compacted material placed within the structure  
23 excavation area and per the Contract Plans. Rock/Soil Mix quantities shall be based on neat line  
24 dimensions measured in the field after final grading and filling.  
25

26 No specific unit of measurement will apply to "Temporary Access Road".  
27

## 28 **2-03.5 Payment**

29 Section 2-03.5 is supplemented with the following:  
30

31 (\*\*\*\*\*)

32 The unit Contract price per cubic yard for "Rock/Soil Mix" shall be full compensation for all costs  
33 incurred with stockpiling existing soil; supplying and hauling Quarry Spalls; mixing rock/soil at a  
34 1:1 ratio; placing & compacting Rock/Soil Mix per the Contract Plans; and all other materials,  
35 labor, equipment and incidentals needed to complete this work.  
36

37 "Temporary Access Road", lump sum.

38 The lump sum contract price for "Temporary Access Road" shall be full payment to perform the  
39 work as specified, including excavation, stockpiling native material, maintaining the access road,  
40 replacing excavated material, and restoring the area to original ground contours.  
41  
42

## 43 **2-09, STRUCTURE EXCAVATION**

### 44 **2-09.1 Description**

45 (\*\*\*\*\*)

46 Section 2-09.1 is supplemented with the following:  
47

#### 48 **Temporary Stream Diversion for Structure & Channel Excavation**

49 Temporary Stream Diversion for Structure & Channel Excavation work shall consist of installation and  
50 maintenance of stream diversion/bypass for the creek during all in-water construction. Temporary  
51

1 Stream Diversion for Structure Excavation shall be conducted in a manner that does not violate State  
2 Water Quality Standards. All work in and adjacent to the stream shall be accomplished in strict  
3 accordance with the requirements of the WDFW HPA. This work also consists of adjustments to the  
4 location of the dewatering systems as deemed necessary by the Contractor to complete the project and  
5 comply with all environmental regulations, permits, specifications and special provisions for this project.

6  
7 **The Contracting Agency has depicted a Temporary Stream Diversion Plan on Sheet 4 of 16 in**  
8 **the Contract Plans for the Contractor's approval. The Contractor may submit a different plan as**  
9 **outlined below for approval by the Engineer at their discretion.**

10  
11 Upon completion of in-water construction, the Contractor shall promptly remove all stream diversion  
12 materials and equipment as directed by the Engineer. Disposal of surplus material and debris  
13 remaining from dewatering operations shall be incidental to and included in this item of work. The  
14 Stream Diversion Plan is an integral component of stormwater management for this site. If work is  
15 required above the ordinary high water mark after the in-water work window has expired, additional  
16 BMPs not shown in the Contract Plans shall be proposed by the Contractor for approval by the  
17 Engineer. BMPs installed and maintained after the in-water work window has expired shall control  
18 stormwater generated from the site during final construction activities. Payment for BMPs shall be per  
19 Contract Unit Bid prices or via Section 1-09.

### 20 21 **Submittals**

22 One week prior to beginning stream diversion/bypass and dewatering work, the Contractor shall submit  
23 the following in writing to the Engineer for approval:

- 24  
25 1. Plans for the installation and commissioning of the dewatering system throughout the duration of  
26 the structure excavation.
  - 27  
28 a) Drawings for Information: Show arrangement, locations, and details of temporary  
29 diversion structure, pump locations and discharge line, discharge point, temporary  
30 erosion control, and removal of stranded fish.
  - 31  
32 b) Include a written report outlining control procedures to be adopted if stream bypass  
33 problems arise. Photograph or videotape, in sufficient detail, existing conditions of  
34 adjoining construction and site improvements that might be misconstrued as damage  
35 caused by stream bypass operations.
- 36  
37 2. Method of stream diversion/bypass throughout the duration of the structure excavation.

38 Work shall not commence until the submittals are approved in writing by the Engineer.

### 39 **2-09.3 Construction Requirements**

40 **(\*\*\*\*\*)**

41 Section 2-09.3 in supplemented with the following:

#### 42 43 **Preparation**

44 Protect facilities from damage caused by settlement, lateral movement, undermining, washout, and  
45 other hazards created by stream diversion operations.

46  
47 Install the stream diversion system to ensure minimum interference with the existing streambed, and  
48 other facilities surrounding the dewatering site.

49  
50 Disturbance of the bed and banks should be limited to that necessary to place the structure,  
51 embankment protection, and any required channel modification associated with the installation. All

1 disturbed areas should be protected from erosion within seven (7) calendar days of completion using  
2 vegetation or other means.

3  
4 Isolation of the construction site from stream flow shall be accomplished using techniques such as:

- 5
- 6 By pumping the stream flow around the site.
- 7 The installation of a sheetpile or sandbag wall.
- 8 The use of a water-filled cofferdam.
- 9

10 Exception may be granted if siltation or turbidity is reduced to acceptable levels by means approved by  
11 the Engineer and the Washington Department of Fish and Wildlife (WDFW).

### 12 **Installation**

13 Install the stream diversion system utilizing pipes, pumps, culverts, flexible hose or similar methods  
14 complete with pump equipment, standby power and pumps, valves, appurtenances, water disposal,  
15 and surface-water controls.

16  
17  
18 It is anticipated that a pump bypass system will be utilized to by-pass stream around the excavation  
19 area.

20  
21 Provide standby equipment on-site available for immediate operation, to maintain stream bypass on  
22 continuous basis if any part of system becomes inadequate or fails. At a minimum the Contractor shall  
23 provide and have on hand additional pumps as a backup to the stream bypass system. If stream  
24 bypass requirements are not satisfied due to inadequacy or failure of stream bypass system, restore  
25 damaged structures and foundation soils at no additional expense to the County.

26  
27 Any fish stranded in the construction area or diversion reach shall be safely moved to the flowing  
28 stream.

29  
30 Any wastewater from project activities and dewatering shall be routed to an area outside the ordinary  
31 high water line to allow settling of fine sediments and other contaminants prior to being discharged back  
32 into the subject stream. Do not permit open-sump pumping that leads to loss of fines, soil piping,  
33 subgrade softening, and slope instability. Dewatering operations shall comply with regulatory water  
34 disposal requirements of authorities having jurisdiction. The stream diversion/bypass and shall be  
35 sufficiently maintained to avoid significant leaks that may result in flows through the work zone. All in-  
36 water work shall be in strict conformance with permits obtained for this project.

37  
38 Remove and dispose of the stream bypass system from project site once the new stream channel has  
39 been constructed and approved by the Engineer. Upon decommissioning, flows shall be reintroduced  
40 gradually so as to minimize the mobilization of sediments.

### 41 **2-09.3(1)E Backfilling**

42 **(\*\*\*\*\*)**

43 Section 2-09.3(1)E is supplemented with the following:

44  
45  
46 Native material within 2-ft of the existing surface shall be stockpiled during construction. BMP's  
47 shall be used for stockpiled material. Following structural earth wingwall and stream channel  
48 construction approval, the Contractor shall restore existing contours along the structural earth  
49 wingwalls and channel using stockpiled material (for reconstruction of Planting Zone 2.  
50 Restoration shall include re-establishing roadside ditches (2-ft wide bottom and 1.5-ft deep with 2:1  
51 side slopes) and shaping material to provide a smooth transition to the existing terrain.

1 **2-09.4 Measurement**

2 (\*\*\*\*\*)

3 Section 2-09.4 is supplemented with the following:

4  
5 No specific unit of measurement will apply to “Temporary Stream Diversion”.

6  
7 **2-09.5 Payment**

8 (\*\*\*\*\*)

9 Section 2-09.5 is supplemented with the following:

10  
11 Payment will be made in accordance with Section 1-04.1 for the following bid item included in the  
12 proposal:

13  
14 “Temporary Stream Diversion”, lump sum.

15  
16 The lump sum contract price for “Temporary Stream Diversion” shall be full payment to perform the  
17 work as specified, including dewatering, stream diversion/bypass, and any sandbagging, pumping, fish  
18 exclusion, sediment removal, filtration or other materials necessary to complete the work.

19  
20 Native Material stockpiled and used for re-contouring and blending into existing ground contours in  
21 Planting Zone 2 shall be considered incidental to the various items of work.

22  
23  
24 **DIVISION 3**  
25 **PRODUCTION FROM QUARRY AND PIT SITES AND STOCKPILING**

26  
27 **3-01 PRODUCTION FROM QUARRY AND PIT SITES**

28  
29 **3-01.4 Contractor Furnished Material Sources**

30  
31 **3-01.4(1) Acquisition and Development**

32 (\*\*\*\*\*)

33 Section 3-01.4(1) is supplemented with the following:

34  
35 No source has been provided for any materials necessary for the construction of this project.

36  
37  
38 **DIVISION 4**  
39 **BASES**

40  
41 **4-04, BALLAST AND CRUSHED SURFACING**

42  
43 **4-04.3 Construction Requirements**

44  
45 **4-04.3(5) Shaping and Compacting**

46 (\*\*\*\*\*)

47 Section 4-04.3(5) is supplemented with the following:

1 **Shoulder Finishing**

2 Shoulder finishing material shall not be placed until the abutting pavement has been completed,  
3 unless designated by the Engineer. Shoulder finishing material (Crushed Surfacing Top Course)  
4 shall be placed by a spreader box in one lift. Processing of the shoulder finishing material on the  
5 roadway shall not be permitted.  
6

7 The existing shoulder material, as well as any additional crushed surfacing material required shall  
8 be placed, watered, and compacted against the vertical edge of the pavement, including road  
9 approaches. Hand work may be required in areas of road approaches and guardrail. The  
10 Contractor shall grade the shoulder material to a uniform slope, remove all debris (sod, large  
11 rocks, etc.) and dress all berms resulting from this operation to the satisfaction of the Engineer.  
12 The material shall be graded into place and compacted by wheel rolling a minimum of two passes  
13 with a motor grader or comparable piece of equipment in areas where the shoulder is narrow. All  
14 other areas shall be compacted to the satisfaction of the Engineer. In all areas where the shoulder  
15 is wide enough, as determined by the Engineer, a steel drum vibratory compactor shall be used.  
16 For compaction, water shall be applied as determined by the Engineer. Damage to the HMA mat  
17 due to the Contractor’s operation shall be repaired at no cost to the Contracting Agency.  
18

19 Following the placement of crushed surfacing material each day, the new mainline and shoulder  
20 pavement shall be cleaned of all dirt and debris to the satisfaction of the Engineer. Prior to  
21 commencing work on the Shoulder Finishing operation the Contractor shall submit the selected  
22 method of compaction and equipment to be used to the Engineer for approval.  
23

24 **4-04.4 Measurement**

25 (\*\*\*\*\*)

26 Section 4-04.4 is supplemented with the following:

27 “Shoulder Finishing” shall be measured per ton.  
28  
29

30 **4-04.5 Payment**

31 (\*\*\*\*\*)

32 Section 4-04.5 is supplemented with the following:

33 The unit contract price per ton for “Shoulder Finishing” shall be full pay for furnishing crushed  
34 surfacing, hauling, grading existing material, placing additional material, watering, compacting and  
35 all other work as specified. Water for compaction of shoulder rock shall be considered incidental to  
36 this bid item.  
37  
38

39 **DIVISION 5**  
40 **SURFACE TREATMENTS AND PAVEMENTS**

41 (\*\*\*\*\*)

42 **5-04, HOT MIX ASPHALT**

43 (\*\*\*\*\*)

44 Delete Section 5-04 and amendments, Hot Mix Asphalt and replace it with the following:  
45

46 (\*\*\*\*\*)

47 **5-04.1 Description**  
48

1 This Work shall consist of providing and placing one or more layers of plant-mixed hot mix asphalt  
2 (HMA) on a prepared foundation or base in accordance with these Specifications and the lines,  
3 grades, thicknesses, and typical cross-sections shown in the Plans.

4  
5 HMA shall be composed of asphalt binder and mineral materials as may be required, mixed in the  
6 proportions specified to provide a homogeneous, stable, and workable mixture.  
7

8 The term "Approach" shall include Road approaches, driveways, and extensions.  
9

### 10 **Superintendents, Labor, and Equipment of Contractor**

11  
12 The Contractor shall have a sufficient number of qualified personnel on the project to  
13 insure the following minimum crew size:  
14

15 One paving superintendent  
16 One paver operator  
17 Two screed operators  
18 Three roller operators  
19 Two rakers  
20

21 These workers shall be present and not assigned to dual activities that would stop them  
22 from fulfilling their assigned task while the paver is in operation. There will be one  
23 assigned supervisor who will be in charge of paving operations and who will be  
24 responsible for work performed.

### 25 **Fiber Reinforced HMA:**

26  
27 This work shall consist of providing and placing Fiber Reinforced HMA in accordance with these  
28 Specifications and the lines, grades, thicknesses and typical cross-sections shown in the plans.  
29

### 30 **Definitions:**

- 31 • Reinforcing Fibers: High tensile strength synthetic aramid fiber blend specially  
32 formulated to reinforce hot mix asphalt.
- 33 • Fiber Reinforced Asphalt Concrete (FRAC): A mixture of hot mix asphalt and  
34 reinforcing fibers that has greater resistance to rutting, thermal cracking, fatigue  
35 cracking, and reflective cracking as compared to conventional non-fiber asphalt  
36 mixes.
- 37 • Aramid Dispersion State Ratio (ADSR): A measure of the dispersion efficiency of the  
38 Reinforcing Fibers within asphalt mixes. ADSR is calculated by comparing the mass  
39 of aramid in the individual state to the total mass of extracted aramid fibers,  
40 expressed as a percentage.  
41

42 (\*\*\*\*\*)

### 43 **5-04.2 Materials**

44 Materials shall meet the requirements of the following sections:  
45

46 Asphalt Binder	9-02.1(4)
47 Cationic Emulsified Asphalt	9-02.1(6)
48 Anti-Stripping Additive	9-02.4
49 HMA Additive	9-02.5
50 Aggregates	9-03.8

1	Recycled Asphalt Pavement	9-03.8(3)B
2	Mineral Filler	9-03.8(5)
3	Recycled Material	9-03.21
4	Portland Cement	9-01
5	Sand	9-03.1(2)
6	(As noted in 5-04.3(5)C for crack sealing)	
7	Joint Sealant	9-04.2
8	Foam Backer Rod	9-04.2(3)A

9 The Contract documents may establish that the various mineral materials required for the  
10 manufacture of HMA will be furnished in whole or in part by the Contracting Agency. If the  
11 documents do not establish the furnishing of any of these mineral materials by the Contracting  
12 Agency, the Contractor shall be required to furnish such materials in the amounts required for the  
13 designated mix. Mineral materials include coarse and fine aggregates, and mineral filler.

15 The Contractor may choose to utilize recycled asphalt pavement (RAP) in the production of HMA.  
16 The RAP may be from pavements removed under the Contract, if any, or pavement material from  
17 an existing stockpile.

19 The Contractor may use up to 20 percent RAP by total weight of HMA with no additional sampling  
20 or testing of the RAP in the leveling course only. No RAP will be accepted for the wearing course.  
21 The RAP shall be sampled and tested at a frequency of one sample for every 1,000 tons produced  
22 and not less than ten samples per project. The asphalt content and gradation test data shall be  
23 reported to the Contracting Agency when submitting the mix design for approval on the QPL. The  
24 Contractor shall include the RAP as part of the mix design as defined in these Specifications.

26 The grade of asphalt binder shall be as required by the Contract. Blending of asphalt binder from  
27 different sources is not permitted.

29 Production of aggregates shall comply with the requirements of Section 3-01.  
30 Preparation of stockpile site, the stockpiling of aggregates, and the removal of aggregates from  
31 stockpiles shall comply with the requirements of Section 3-02.

32 **Reinforcing Fibers:**

- 33  
34 1. Provide a reinforcing fiber blend of virgin polyolefins and virgin aramids that meets  
35 the requirements in Table 1 and Table 2 below:  
36  
37

**Table 1**

<b>Reinforcing Fiber Material Properties</b>			
<b>Property</b>	<b>Standard</b>	<b>Polyolefin</b>	<b>Aramid</b>
Form	Manufacturer Certification	Serrated	Monofilament
Nominal Specific Gravity	ASTM D276	0.91	1.44
Tensile Strength (psi)	ASTM D7269	NA <sup>1</sup>	400,000
Length (in)	Manufacturer	0.75	0.75



	Certification		
--	---------------	--	--

1. Polyolefin fibers will melt or become plastically deformed during production

**Table 2**

<b>Reinforcing Fiber Performance Properties</b>			
<b>Performance Measure</b>	<b>Test Method</b>	<b>Standard</b>	<b>Requirement</b>
Dispersion Efficiency	Aramid Dispersion State Ratio (ADSR)	Modified ASTM D2172	≥ 85%
Field Performance Cracking Resistance	Pavement Condition Index	ASTM D6433	≥ 10 PCI Points increase, Minimum 4 years
Resistance to Permanent Deformation (Rutting)	Flow Number (FN)	AASTHO TP79	≥ 75% increase

2. If an aramid-based fiber blend is proposed that does not meet all of the material properties in Table 1 above, performance test results meeting Table 2 above and complying with Part 2 of Section 5-04.2(2) below a substitute fiber blend shall be submitted at least one week prior to bid date for approval by engineer.
3. Non-aramid fiber blends will not be considered as acceptable alternatives to this specification

**5-04.2(1) How to Get a HMA Mix Design on the QPL**

If the contractor wishes to submit a mix design for inclusion in the Qualified Products List (QPL), please follow the WSDOT process outlined in Standard Specification 5-04.2(1).

**5-04.2(1)A Vacant**

**5-04.2(2) Mix Design – Obtaining Project Approval**

No paving shall begin prior to the approval of the mix design by the Engineer.

**Nonstatistical** evaluation will be used for all HMA not designated as Commercial HMA in the contract documents.

(\*\*\*\*\*)

**Commercial** evaluation will be used for Commercial HMA and for other classes of HMA if approved by the Engineer, in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails, gores, prelevel, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Project Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Project Engineer. The Proposal quantity of HMA that is accepted by commercial evaluation will be excluded from the quantities used in the determination of nonstatistical evaluation.

**Nonstatistical Mix Design.** Fifteen days prior to the first day of paving the contractor shall provide one of the following mix design verification certifications for Contracting Agency review;

- The WSDOT Mix Design Evaluation Report from the current WSDOT QPL, or one of the mix design verification certifications listed below.
- The proposed HMA mix design on WSDOT Form 350-042 with the seal and certification (stamp & signature) of a valid licensed Washington State Professional Engineer.
- The Mix Design Report for the proposed HMA mix design developed by a qualified City or County laboratory that is within one year of the approval date.\*\*

The mix design shall be performed by a lab accredited by a national authority such as Laboratory Accreditation Bureau, L-A-B for Construction Materials Testing, The Construction Materials Engineering Council (CMEC's) ISO 17025 or AASHTO Accreditation Program (AAP) and shall supply evidence of participation in the AASHTO: resource proficiency sample program.

Mix designs for HMA accepted by Nonstatistical evaluation shall;

- Have the aggregate structure and asphalt binder content determined in accordance with WSDOT Standard Operating Procedure 732 and meet the requirements of Sections 9-03.8(2), except that Hamburg testing for ruts and stripping are at the discretion of the Engineer, and 9-03.8(6).
- Have anti-strip requirements, if any, for the proposed mix design determined in accordance with AASHTO T 283 or T 324, or based on historic anti-strip and aggregate source compatibility from previous WSDOT lab testing.

At the discretion of the Engineer, agencies may accept verified mix designs older than 12 months from the original verification date with a certification from the Contractor that the materials and sources are the same as those shown on the original mix design.

Commercial Evaluation Approval of a mix design for "Commercial Evaluation" will be based on a review of the Contractor's submittal of WSDOT Form 350-042 (For commercial mixes, AASHTO T 324 evaluation is not required) or a Mix Design from the current WSDOT QPL or from one of the processes allowed by this section. Testing of the HMA by the Contracting Agency for mix design approval is not required.

For the Bid Item Commercial HMA, the Contractor shall select a class of HMA and design level of Equivalent Single Axle Loads (ESAL's) appropriate for the required use.

### **Reinforcing Fibers:**

1. Submit the following as part of the bid package:
  - a. Representative fiber product sample.
  - b. Fiber product data sheet and certification from the Manufacturer that the fiber product supplied meets the requirements of this specification.
  - c. Manufacturer's instructions and general recommendations.
  - d. Performance test results of ADSR testing from a minimum of three separate laboratory trials to validate dispersion efficiency.
  - e. Performance results of PCI testing from a minimum of three separate field trials to validate cracking resistance.
  - f. Performance test results of FN testing from a minimum of three separate laboratory trials to validate rutting resistance.

- 1 g. A minimum of five unique project examples and references where the  
2 reinforcing fiber product was used within 250 miles of the project location

3 **\*\*NOTE: Testing is NOT required on samples from the job mix. Submit**  
4 **previously completed lab testing only.**

5  
6 2. Performance testing requirements

7  
8 All historical test results submitted to validate the fiber's performance in asphalt  
9 mixes shall be from previously completed laboratory and field trials using plant-mixed  
10 FRAC only. **Testing is NOT required on samples from the job mix.**

11  
12 Performance testing must be from laboratory trials at a fiber dosage rate equal to the  
13 rate proposed for the project. Tests must be performed by an AASHTO accredited  
14 laboratory or nationally recognized university testing lab and must be reviewed and  
15 approved by the project engineer.

16  
17 a. Aramid Dispersion State Ratio (ADSR) Tests from a minimum of three (3)  
18 separate laboratory trials.

- 19 1. Perform ADSR test based on modified ASTM D2172 procedures as  
20 provided in the document entitled "Extraction of Aramid Fibers from  
21 Fiber Reinforced Asphalt Concrete – Special Test Method". A copy of  
22 the modified extraction methodology can be obtained by making an  
23 inquiry to the Pavement and Materials Laboratory at Arizona State  
24 University at NCE@asu.edu.  
25 2. To validate ADSR results, average extracted aramid fiber quantity  
26 must equal 0.007 percent by total sample weight with no individual  
27 result less than 0.005 percent of the total sample weight.  
28 3. All tested fiber mixes must achieve a minimum ADSR of 85%.

29  
30 b. Pavement Condition Index (PCI) side by side comparison from a minimum of  
31 three (3) field trails with a minimum in-service pavement age of four years.

- 32 1. PCI surveys shall be performed according to ASTM D6433.  
33 2. Tests results shall include a control and a fiber reinforced pavement  
34 section. FRAC mix shall be identical to control mix except for the  
35 inclusion of fibers added at the same dosage as proposed on the  
36 project.  
37 3. In field performance sections shall be subject to the same  
38 environmental and traffic conditions. A minimum surface area of 500  
39 yd<sup>2</sup> per FRAC and control section is required.  
40 4. PCI results from fiber sections shall show a minimum 10 PCI points  
41 greater than the control section after a minimum of 4 years.

42  
43 c. Flow Number (FN) Tests from a minimum of three (3) separate laboratory  
44 trials.

- 45 1. Perform FN tests using the protocol from AASHTO TP79.  
46 2. Tests results shall include a control and a fiber reinforced mix. FRAC  
47 mix shall be identical to control mix except for the inclusion of fibers  
48 added at the same dosage as proposed on the project.  
49 3. Results from fiber specimens shall show an average FN increase of at  
50 least 75% over control specimens.  
51

1 **5-04.3 Construction Requirements**

2  
3 **5-04.3(1) Weather Limitations**

4 Do not place HMA for wearing course on any Traveled Way beginning October 1st through March  
5 31st of the following year without written concurrence from the Engineer.

6  
7 Do not place HMA on any wet surface, or when the average surface temperatures are less than  
8 those specified below, or when weather conditions otherwise prevent the proper handling or  
9 finishing of the HMA.

10  
11 **Minimum Surface Temperature for Paving**

Compacted Thickness (Feet)	Wearing Course	Other Courses
Less than 0.10	55°F	45°F
0.10 to .20	45°F	35°F
More than 0.20	35°F	35°F

12  
13 **5-04.3(2) Paving Under Traffic**

14 When the Roadway being paved is open to traffic, the requirements of this Section shall apply.

15  
16 The Contractor shall keep intersections open to traffic at all times except when paving the  
17 intersection or paving across the intersection. During such time, and provided that there has been  
18 an advance warning to the public, the intersection may be closed for the minimum time required to  
19 place and compact the mixture. In hot weather, the Engineer may require the application of water to  
20 the pavement to accelerate the finish rolling of the pavement and to shorten the time required  
21 before reopening to traffic.

22  
23 Before closing an intersection, advance warning signs shall be placed and signs shall also be  
24 placed marking the detour or alternate route.

25  
26 During paving operations, temporary pavement markings shall be maintained throughout the  
27 project. Temporary pavement markings shall be installed on the Roadway prior to opening to traffic.  
28 Temporary pavement markings shall be in accordance with Section 8-23.

29  
30 All costs in connection with performing the Work in accordance with these requirements shall be  
31 included in the unit Contract prices for the various Bid items involved in the Contract.

32  
33 **5-04.3(3) Equipment**

34  
35 **5-04.3(3)A Mixing Plant**

36 Plants used for the preparation of HMA shall conform to the following requirements:

- 37  
38 **1. Equipment for Preparation of Asphalt Binder** – Tanks for the storage of asphalt binder  
39 shall be equipped to heat and hold the material at the required temperatures. The heating

1 shall be accomplished by steam coils, electricity, or other approved means so that no flame  
2 shall be in contact with the storage tank. The circulating system for the asphalt binder shall  
3 be designed to ensure proper and continuous circulation during the operating period. A  
4 valve for the purpose of sampling the asphalt binder shall be placed in either the storage  
5 tank or in the supply line to the mixer.

- 6 **2. Thermometric Equipment** – An armored thermometer, capable of detecting temperature  
7 ranges expected in the HMA mix, shall be fixed in the asphalt binder feed line at a location  
8 near the charging valve at the mixer unit. The thermometer location shall be convenient and  
9 safe for access by Inspectors. The plant shall also be equipped with an approved dial-scale  
10 thermometer, a mercury actuated thermometer, an electric pyrometer, or another approved  
11 thermometric instrument placed at the discharge chute of the drier to automatically register  
12 or indicate the temperature of the heated aggregates. This device shall be in full view of the  
13 plant operator.
- 14 **3. Heating of Asphalt Binder** – The temperature of the asphalt binder shall not exceed the  
15 maximum recommended by the asphalt binder manufacturer nor shall it be below the  
16 minimum temperature required to maintain the asphalt binder in a homogeneous state. The  
17 asphalt binder shall be heated in a manner that will avoid local variations in heating. The  
18 heating method shall provide a continuous supply of asphalt binder to the mixer at a uniform  
19 average temperature with no individual variations exceeding 25°F. Also, when a WMA  
20 additive is included in the asphalt binder, the temperature of the asphalt binder shall not  
21 exceed the maximum recommended by the manufacturer of the WMA additive.
- 22 **4. Sampling and Testing of Mineral Materials** – The HMA plant shall be equipped with a  
23 mechanical sampler for the sampling of the mineral materials. The mechanical sampler shall  
24 meet the requirements of Section 1-05.6 for the crushing and screening operation. The  
25 Contractor shall provide for the setup and operation of the field testing facilities of the  
26 Contracting Agency as provided for in Section 3-01.2(2).
- 27 **5. Sampling HMA** – The HMA plant shall provide for sampling HMA by one of the following  
28 methods:
- 29 a. A mechanical sampling device attached to the HMA plant.
  - 30 b. Platforms or devices to enable sampling from the hauling vehicle without entering  
31 the hauling vehicle.

### 32 33 **5-04.3(3)B Hauling Equipment**

34 Trucks used for hauling HMA shall have tight, clean, smooth metal beds and shall have a cover of  
35 canvas or other suitable material of sufficient size to protect the mixture from adverse weather.  
36 Whenever the weather conditions during the work shift include, or are forecast to include,  
37 precipitation or an air temperature less than 45°F or when time from loading to unloading exceeds  
38 30 minutes, the cover shall be securely attached to protect the HMA.

39  
40 The contractor shall provide an environmentally benign means to prevent the HMA mixture from  
41 adhering to the hauling equipment. Excess release agent shall be drained prior to filling hauling  
42 equipment with HMA. Petroleum derivatives or other coating material that contaminate or alter the  
43 characteristics of the HMA shall not be used. For live bed trucks, the conveyer shall be in operation  
44 during the process of applying the release agent.

### 45 46 **5-04.3(3)C Pavers**

47 HMA pavers shall be self-contained, power-propelled units, provided with an internally heated  
48 vibratory screed and shall be capable of spreading and finishing courses of HMA plant mix material  
49 in lane widths required by the paving section shown in the Plans.

1  
2 The HMA paver shall be in good condition and shall have the most current equipment available  
3 from the manufacturer for the prevention of segregation of the HMA mixture installed, in good  
4 condition, and in working order. The equipment certification shall list the make, model, and year of  
5 the paver and any equipment that has been retrofitted.  
6

7 The screed shall be operated in accordance with the manufacturer's recommendations and shall  
8 effectively produce a finished surface of the required evenness and texture without tearing, shoving,  
9 segregating, or gouging the mixture. A copy of the manufacturer's recommendations shall be  
10 provided upon request by the Contracting Agency. Extensions will be allowed provided they  
11 produce the same results, including ride, density, and surface texture as obtained by the primary  
12 screed. Extensions without augers and an internally heated vibratory screed shall not be used in the  
13 Traveled Way.  
14

15 When specified in the Contract, reference lines for vertical control will be required. Lines shall be  
16 placed on both outer edges of the Traveled Way of each Roadway. Horizontal control utilizing the  
17 reference line will be permitted. The grade and slope for intermediate lanes shall be controlled  
18 automatically from reference lines or by means of a mat referencing device and a slope control  
19 device. When the finish of the grade prepared for paving is superior to the established tolerances  
20 and when, in the opinion of the Engineer, further improvement to the line, grade, cross-section, and  
21 smoothness can best be achieved without the use of the reference line, a mat referencing device  
22 may be substituted for the reference line. Substitution of the device will be subject to the continued  
23 approval of the Engineer. A joint matcher may be used subject to the approval of the Engineer. The  
24 reference line may be removed after the completion of the first course of HMA when approved by  
25 the Engineer. Whenever the Engineer determines that any of these methods are failing to provide  
26 the necessary vertical control, the reference lines will be reinstalled by the Contractor.  
27

28 The Contractor shall furnish and install all pins, brackets, tensioning devices, wire, and accessories  
29 necessary for satisfactory operation of the automatic control equipment.  
30

31 If the paving machine in use is not providing the required finish, the Engineer may suspend Work as  
32 allowed by Section 1-08.6. Any cleaning or solvent type liquids spilled on the pavement shall be  
33 thoroughly removed before paving proceeds.  
34

35 **(\*\*\*\*\*)**

36 **5-04.3(3)D Material Transfer Vehicle**  
37

38 When used, the MTV shall mix the HMA after delivery by the hauling equipment and prior to  
39 laydown by the paving machine. Mixing of the HMA shall be sufficient to obtain a uniform  
40 temperature throughout the mixture.  
41

42 To be approved for use, an MTV:  
43

- 44 1. Shall be self-propelled vehicle, separate from the hauling vehicle or paver.
- 45 2. Shall not be connected to the hauling vehicle or paver.
- 46 3. May accept HMA directly from the haul vehicle.

- 1           4. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the
- 2           paving machine.
- 3           5. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.
- 4

5           Direct transfer of the HMA mixture from the hauling equipment to the paving machine will not be  
6           allowed. The Contractor shall use a self-propelled material transfer vehicle (MTV) to deliver the  
7           HMA mixture from the hauling equipment to the paving machine when placing HMA pavement on  
8           travel lanes and shoulders, when shoulders are paved in conjunction with travel lanes. A material  
9           transfer vehicle is not required for small quantities such as driveways and is optional for shoulders  
10          that are paved separately from the driving lane(s). A windrow elevator is not acceptable as a  
11          transfer device.

12  
13          The transfer vehicle's holding hopper shall have a minimum capacity of 15 tons. The material  
14          transfer vehicle shall mix the HMA after delivery by the hauling equipment but prior to lay down by  
15          the paving machine. Mixing of the HMA material shall be sufficient to obtain a consistent  
16          temperature throughout the mixture. If a transfer vehicle does not have holding or mixing  
17          capabilities, the paving machine shall be fitted with a holding and mixing hopper having a minimum  
18          capacity of 15 tons.

19  
20          Prior to use, the Contractor shall submit the manufacturer and model number of the equipment to  
21          the Engineer for review and approval. All costs to incorporate the material transfer device or  
22          vehicle into the paving train shall be included in the unit contract price for the HMA.

23  
24          The Contractor shall deliver the mixture to the paving machine at a rate that provides continuous  
25          operation of the paving machine, except for unavoidable delay or breakdown. If excessive  
26          stopping of the paving machine occurs during paving operations, the Engineer may suspend  
27          paving operations until the mixture deliver rate matches the paving machine operation.

#### 28 29          **5-04.3(3)E Rollers**

30          Rollers shall be of the steel wheel, vibratory, oscillatory, or pneumatic tire type, in good condition  
31          and capable of reversing without backlash. Operation of the roller shall be in accordance with the  
32          manufacturer's recommendations. When ordered by the Engineer for any roller planned for use on  
33          the project, the Contractor shall provide a copy of the manufacturer's recommendation for the use  
34          of that roller for compaction of HMA. The number and weight of rollers shall be sufficient to compact  
35          the mixture in compliance with the requirements of Section 5-04.3(10). The use of equipment that  
36          results in crushing of the aggregate will not be permitted. Rollers producing pickup, washboard,  
37          uneven compaction of the surface, displacement of the mixture or other undesirable results shall  
38          not be used.

#### 39 40          **5-04.3(4) Preparation of Existing Paved Surfaces**

41          When the surface of the existing pavement or old base is irregular, the Contractor shall bring it to a  
42          uniform grade and cross-section as shown on the Plans or approved by the Engineer.

43  
44          Preleveling of uneven or broken surfaces over which HMA is to be placed may be accomplished by  
45          using an asphalt paver, a motor patrol grader, or by hand raking, as approved by the Engineer.

46  
47          Compaction of preleveling HMA shall be to the satisfaction of the Engineer and may require the use  
48          of small steel wheel rollers, plate compactors, or pneumatic rollers to avoid bridging across  
49          preleveled areas by the compaction equipment. Equipment used for the compaction of preleveling  
50          HMA shall be approved by the Engineer.

1  
2 Before construction of HMA on an existing paved surface, the entire surface of the pavement shall  
3 be clean. All fatty asphalt patches, grease drippings, and other objectionable matter shall be entirely  
4 removed from the existing pavement. All pavements or bituminous surfaces shall be thoroughly  
5 cleaned of dust, soil, pavement grindings, and other foreign matter. All holes and small depressions  
6 shall be filled with an appropriate class of HMA. The surface of the patched area shall be leveled  
7 and compacted thoroughly. Prior to the application of tack coat, or paving, the condition of the  
8 surface shall be approved by the Engineer.

9  
10 A tack coat of asphalt shall be applied to all paved surfaces on which any course of HMA is to be  
11 placed or abutted; except that tack coat may be omitted from clean, newly paved surfaces at the  
12 discretion of the Engineer. Tack coat shall be uniformly applied to cover the existing pavement with  
13 a thin film of residual asphalt free of streaks and bare spots at a rate between 0.02 and 0.10 gallons  
14 per square yard of retained asphalt. The rate of application shall be approved by the Engineer. A  
15 heavy application of tack coat shall be applied to all joints. For Roadways open to traffic, the  
16 application of tack coat shall be limited to surfaces that will be paved during the same working shift.  
17 The spreading equipment shall be equipped with a thermometer to indicate the temperature of the  
18 tack coat material.

19  
20 Equipment shall not operate on tacked surfaces until the tack has broken and cured. If the  
21 Contractor's operation damages the tack coat it shall be repaired prior to placement of the HMA.

22  
23 The tack coat shall be CSS-1, or CSS-1h emulsified asphalt. The CSS-1 and CSS-1h emulsified  
24 asphalt may be diluted once with water at a rate not to exceed one part water to one part emulsified  
25 asphalt. The tack coat shall have sufficient temperature such that it may be applied uniformly at the  
26 specified rate of application and shall not exceed the maximum temperature recommended by the  
27 emulsified asphalt manufacturer.

### 28 29 **5-04.3(4)A Crack Sealing**

30  
31 (\*\*\*\*\*)

#### 32 **5-04.3(4)A1 General**

33 When the Proposal includes a pay item for crack sealing, seal all cracks ¼ inch in width and greater.  
34 If the Proposal does not include an item for crack sealing or sealed joints it shall be incidental to  
35 and included in the unit contract price per ton for the HMA

36  
37 **Cleaning:** Ensure that cracks are thoroughly clean, dry and free of all loose and foreign material  
38 when filling with crack sealant material. Use a hot compressed air lance to dry and warm the  
39 pavement surfaces within the crack immediately prior to filling a crack with the sealant material. Do  
40 not overheat pavement. Do not use direct flame dryers. Routing cracks is not required.

41  
42 **Sand Slurry:** For cracks that are to be filled with sand slurry, thoroughly mix the components and  
43 pour the mixture into the cracks until full. Add additional CSS-1 cationic emulsified asphalt to the  
44 sand slurry as needed for workability to ensure the mixture will completely fill the cracks. Strike off  
45 the sand slurry flush with the existing pavement surface and allow the mixture to cure. Top off  
46 cracks that were not completely filled with additional sand slurry. Do not place the HMA overlay until  
47 the slurry has fully cured.



1 The sand slurry shall consist of approximately 20 percent CSS-1 emulsified asphalt, approximately  
2 2 percent portland cement, water (if required), and the remainder clean Class 1 or 2 fine aggregate  
3 per section 9-03.1(2). The components shall be thoroughly mixed and then poured into the cracks  
4 and joints until full. The following day, any cracks or joints that are not completely filled shall be  
5 topped off with additional sand slurry. After the sand slurry is placed, the filler shall be struck off  
6 flush with the existing pavement surface and allowed to cure. The HMA overlay shall not be placed  
7 until the slurry has fully cured. The requirements of Section 1-06 will not apply to the portland  
8 cement and sand used in the sand slurry.

9  
10 In areas where HMA will be placed, use sand slurry to fill the cracks.

11  
12 In areas where HMA will not be placed, fill the cracks as follows:

- 13  
14 1. Cracks ¼ inch to 1 inch in width - fill with hot poured sealant.
- 15 2. Cracks greater than 1 inch in width – fill with sand slurry.

16  
17 **Hot Poured Sealant:** For cracks that are to be filled with hot poured sealant, apply the material in  
18 accordance with these requirements and the manufacturer's recommendations. Furnish a Type 1  
19 Working Drawing of the manufacturer's product information and recommendations to the Engineer  
20 prior to the start of work, including the manufacturer's recommended heating time and  
21 temperatures, allowable storage time and temperatures after initial heating, allowable reheating  
22 criteria, and application temperature range. Confine hot poured sealant material within the crack.  
23 Clean any overflow of sealant from the pavement surface. If, in the opinion of the Engineer, the  
24 Contractor's method of sealing the cracks with hot poured sealant results in an excessive amount of  
25 material on the pavement surface, stop and correct the operation to eliminate the excess material.

#### 26 27 **5-04.3(4)A2 Crack Sealing Areas Prior to Paving**

28  
29 In areas where HMA will be placed, use sand slurry to fill the cracks.

#### 30 31 **5-04.3(4)A3 Crack Sealing Areas Not to be Paved**

32  
33 In areas where HMA will not be placed, fill the cracks as follows:

- 34  
35 A. Cracks ¼ inch to 1 inch in width - fill with hot poured sealant.
- 36 B. Cracks greater than 1 inch in width – fill with sand slurry.

#### 37 38 **5-04.3(4)B Vacant**

#### 39 40 **5-04.3(4)C Pavement Repair**

41  
42 All planning bituminous pavement shall be complete before performing pavement repair. The  
43 Contractor shall excavate pavement repair areas and shall backfill these with HMA in accordance  
44 with the details shown in the Plans and as marked in the field. The Contractor shall conduct the  
45 excavation operations in a manner that will protect the pavement that is to remain. Pavement not  
46 designated to be removed that is damaged as a result of the Contractor's operations shall be  
47 repaired by the Contractor to the satisfaction of the Engineer at no cost to the Contracting Agency.

1 The Contractor shall excavate only within one lane at a time unless approved otherwise by the  
2 Engineer. The Contractor shall not excavate more area than can be completely finished during the  
3 same shift, unless approved by the Engineer.  
4

5 Unless otherwise shown in the Plans or determined by the Engineer, excavate to a depth of 1.0  
6 feet. The Engineer will make the final determination of the excavation depth required. The minimum  
7 width of any pavement repair area shall be 40 inches unless shown otherwise in the Plans. Before  
8 any excavation, the existing pavement shall be sawcut or shall be removed by a pavement grinder.  
9 Excavated materials will become the property of the Contractor and shall be disposed of in a  
10 Contractor-provided site off the Right of Way or used in accordance with Sections 2-02.3(3) or 9-  
11 03.21.  
12

13 Asphalt for tack coat shall be required as specified in Section 5-04.3(4). A heavy application of tack  
14 coat shall be applied to all surfaces of existing pavement in the pavement repair area.  
15

16 Placement of the HMA backfill shall be accomplished in lifts not to exceed 0.35-foot compacted  
17 depth. Lifts that exceed 0.35-foot of compacted depth may be accomplished with the approval of  
18 the Engineer. Each lift shall be thoroughly compacted by a mechanical tamper or a roller.  
19

#### 20 **5-04.3(5) Producing/Stockpiling Aggregates and RAP**

21

22 Aggregates and RAP shall be stockpiled according to the requirements of Section 3-02. Sufficient  
23 storage space shall be provided for each size of aggregate and RAP. Materials shall be removed  
24 from stockpile(s) in a manner to ensure minimal segregation when being moved to the HMA plant  
25 for processing into the final mixture. Different aggregate sizes shall be kept separated until they  
26 have been delivered to the HMA plant.  
27

#### 28 **5-04.3(5)A Vacant**

29

30 (\*\*\*\*\*)

#### 31 **5-04.3(6) Mixing**

32 After the required amount of mineral materials, asphalt binder, recycling agent and anti-stripping  
33 additives have been introduced into the mixer the HMA shall be mixed until complete and uniform  
34 coating of the particles and thorough distribution of the asphalt binder throughout the mineral  
35 materials is ensured.  
36

37 When discharged, the temperature of the HMA shall not exceed the optimum mixing temperature by  
38 more than 25°F as shown on the reference mix design report or as approved by the Engineer. A  
39 maximum water content of 2 percent in the mix, at discharge, will be allowed providing the water  
40 causes no problems with handling, stripping, or flushing. If the water in the HMA causes any of  
41 these problems, the moisture content shall be reduced as directed by the Engineer.  
42

43 Storing or holding of the HMA in approved storage facilities will be permitted with approval of the  
44 Engineer, but in no event shall the HMA be held for more than 24 hours. HMA held for more than 24  
45 hours after mixing shall be rejected. Rejected HMA shall be disposed of by the Contractor at no  
46 expense to the Contracting Agency. The storage facility shall have an accessible device located at  
47 the top of the cone or about the third point. The device shall indicate the amount of material in  
48 storage. No HMA shall be accepted from the storage facility when the HMA in storage is below the

1 top of the cone of the storage facility, except as the storage facility is being emptied at the end of  
2 the working shift.

3  
4 Recycled asphalt pavement (RAP) utilized in the production of HMA shall be sized prior to entering  
5 the mixer so that a uniform and thoroughly mixed HMA is produced. If there is evidence of the  
6 recycled asphalt pavement not breaking down during the heating and mixing of the HMA, the  
7 Contractor shall immediately suspend the use of the RAP until changes have been approved by the  
8 Engineer. After the required amount of mineral materials, RAP, new asphalt binder and asphalt  
9 rejuvenator have been introduced into the mixer the HMA shall be mixed until complete and uniform  
10 coating of the particles and thorough distribution of the asphalt binder throughout the mineral  
11 materials, and RAP is ensured.

## 12 **Reinforcing Fibers:**

- 13  
14 1. Delivery & Storage: Deliver fiber-reinforcement to plant in sealed, undamaged  
15 containers with labels intact and legible, indicating material name and lot number.  
16 Store materials covered and off the ground. Keep sand and dust out of boxes and  
17 do not allow boxes to become wet.
- 18  
19 2. Add aramid and polyolefin reinforcing fiber blends at a dosage rate of one (1) pound  
20 per one (1) ton of asphalt.
- 21  
22 3. Add alternative aramid fiber blends at a rate proposed by the manufacturer that  
23 achieves the ADSR, PCI, and FN results required in Section 5-04.2.
- 24  
25 4. Have a fiber manufacturer's representative on site during mixing and production.  
26 This requirement can be waived if fiber manufacturer and asphalt producer can  
27 supply evidence of manufacturer's brand of fiber being successfully produced a  
28 minimum of three times at the asphalt plant to be used for the project.
- 29  
30 5. Batch Plant. When a batch plant is used, add fiber to the aggregate in the weigh  
31 hopper and increase both dry and wet mixing times. Ensure that the fiber is  
32 uniformly distributed before the injection of asphalt cement into the mixture.
- 33  
34 6. Drum Plant:
  - 35 a. Inject fibers through the RAP collar by feeding them with a blower tube system.  
36 Rate the feeding of fibers with the rate the plant is producing asphalt mix. If there  
37 is any evidence of fiber balls at the discharge chute, increase the mixing time  
38 and/or temperature or change the angle of the fiber feeder line to increase dry  
39 mixing time.
  - 40 b. When using a blower tube system, add fibers continuously and in a steady  
41 uniform manner. Provide automated proportioning devices and control delivery  
42 within  $\pm 10\%$  of the mass of the fibers required. Perform an equipment calibration  
43 to the satisfaction of the fiber manufacturer's representative to show that the fiber  
44 is being accurately metered and uniformly distributed into the mix.

45 Include the following with the blower tube system:

- 46
- 47 • Low level indicators
- 48 • No-flow indicators
- 49 • A printout of feed rate status in pounds/minute

- A section of transparent pipe in the fiber supply line for observing consistency of flow or feed.
- Manufacturer’s representative’s approval of fiber addition system

(\*\*\*\*\*)

**5-04.3(7) Spreading and Finishing**

The mixture shall be laid upon an approved surface, spread, and struck off to the grade and elevation established. HMA pavers complying with Section 5-04.3(3) shall be used to distribute the mixture. Unless otherwise directed by the Engineer, the nominal compacted depth of any layer of any course shall not exceed the following:

HMA Class 1”	0.35 feet
HMA Class ¾” and HMA Class ½”	
wearing course	0.30 feet
other courses	0.35 feet
HMA Class ⅜”	0.20 feet

On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical, the paving may be done with other equipment or by hand.

When more than one JMF is being utilized to produce HMA, the material produced for each JMF shall be placed by separate spreading and compacting equipment. The intermingling of HMA produced from more than one JMF is prohibited. Each strip of HMA placed during a work shift shall conform to a single JMF established for the class of HMA specified unless there is a need to make an adjustment in the JMF.

**5-04.3(8) Aggregate Acceptance Prior to Incorporation in HMA**

For HMA accepted by nonstatistical evaluation the aggregate properties of sand equivalent, uncompacted void content and fracture will be evaluated in accordance with Section 3-04. Sampling and testing of aggregates for HMA accepted by commercial evaluation will be at the option of the Engineer.

**5-04.3(9) HMA Mixture Acceptance**

Acceptance of HMA shall be as provided under nonstatistical, or commercial evaluation.

Nonstatistical evaluation will be used for the acceptance of HMA unless Commercial Evaluation is specified.

Commercial evaluation will be used for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails, gores, prelevel, temporary pavement, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Engineer.

1  
2 The mix design will be the initial JMF for the class of HMA. The Contractor may request a change in  
3 the JMF. Any adjustments to the JMF will require the approval of the Engineer and may be made in  
4 accordance with this section.  
5

### 6 **Spreading and Finishing**

7 (**\*\*\*\*\***)  
8

9 The Contractor shall meet with the Engineer or representative by the end of each working day  
10 to verify and confirm in writing and by signature the daily yields and quantities.  
11

12 If the Contractor fails to follow this procedure, the Contractor accepts the Engineer's  
13 estimated quantities for the work completed that day.  
14

### 15 **Overages**

16 The Contractor shall not exceed the negotiated quantity on any section by more than **five**  
17 **percent (5%)**, unless directed by the Engineer except HMA used for Middle Fork Road.  
18 Middle Fork Road shall be as shown in the Contract Plans or directed by the Engineer. Any  
19 material placed on each individual section in excess of the five percent shall be at the  
20 Contractor's expense.  
21

22 This provision shall not relieve the Contractor of his/her responsibility to complete each  
23 section in its entirety.  
24

### 25 **Reinforcing Fibers:**

- 26
- 27 1. Follow manufacturer's representative's recommendations for placement of
  - 28 FRAC.
  - 29 2. Collect a small sample (10-20kg) of mix from the discharge chute during first 50
  - 30 tons of production. If there are one or more undistributed fiber clips or bundles,
  - 31 adjust mixing operations per manufacturer's recommendations to eliminate fiber
  - 32 bundles.
  - 33 3. Visually observe FRAC mix in the back of first three trucks and every tenth truck
  - 34 thereafter to confirm adequate blending of the fiber.
  - 35 4. Remove any observed fiber bundles from placed mixture and adjust operations
  - 36 per the manufacturer's recommendation to eliminate future fiber bundle
  - 37 development.  
38
- 39

### 40 **HMA Tolerances and Adjustments**

- 41 1. **Job Mix Formula Tolerances** – The constituents of the mixture at the time of acceptance  
42 shall be within tolerance. The tolerance limits will be established as follows:

43 For Asphalt Binder and Air Voids (Va), the acceptance limits are determined by adding  
44 the tolerances below to the approved JMF values. These values will also be the Upper  
45 Specification Limit (USL) and Lower Specification Limit (LSL) required in Section 1-  
46 06.2(2)D2

Property	Non-Statistical Evaluation	Commercial Evaluation
Asphalt Binder	+/- 0.5%	+/- 0.7%
Air Voids, Va	2.5% min. and 5.5% max	N/A

For Aggregates in the mixture:

- a. First, determine preliminary upper and lower acceptance limits by applying the following tolerances to the approved JMF.

<b>Aggregate Percent Passing</b>	<b>Non-Statistical Evaluation</b>	<b>Commercial Evaluation</b>
1", ¾", ½", and 3/8" sieves	+/- 6%	+/- 8%
No. 4 sieve	+/-5%	+/- 8%
No. 8 Sieve	+/- 4%	+/-8%
No. 200 sieve	+/- 1.0%	+/- 3.0%

- b. Second, adjust the preliminary upper and lower acceptance limits determined from step (a) the minimum amount necessary so that none of the aggregate properties are outside the control points in Section 9-03.8(6). The resulting values will be the upper and lower acceptance limits for aggregates, as well as the USL and LSL required in Section 1-06.2(2)D2.

2. Job Mix Formula Adjustments – An adjustment to the aggregate gradation or asphalt binder content of the JMF requires approval of the Engineer. Adjustments to the JMF will only be considered if the change produces material of equal or better quality and may require the development of a new mix design if the adjustment exceeds the amounts listed below.

- a. **Aggregates** –2 percent for the aggregate passing the 1½", 1", ¾", ½", 3/8", and the No. 4 sieves, 1 percent for aggregate passing the No. 8 sieve, and 0.5 percent for the aggregate passing the No. 200 sieve. The adjusted JMF shall be within the range of the control points in Section 9-03.8(6).

- b. **Asphalt Binder Content** – The Engineer may order or approve changes to asphalt binder content. The maximum adjustment from the approved mix design for the asphalt binder content shall be 0.3 percent

#### **5-04.3(9)A Vacant**

#### **5-04.3(9)B Vacant**

#### **5-04.3(9)C Mixture Acceptance – Nonstatistical Evaluation**

HMA mixture which is accepted by Nonstatistical Evaluation will be evaluated by the Contracting Agency by dividing the HMA tonnage into lots.

#### **5-04.3(9)C1 Mixture Nonstatistical Evaluation – Lots and Sublots**

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A subplot shall be equal to one day's production or 800 tons, whichever is less except that the final subplot will be a minimum of 400 tons and may be increased to 1200 tons.

All of the test results obtained from the acceptance samples from a given lot shall be evaluated collectively. If the Contractor requests a change to the JMF that is approved, the material produced after the change will be evaluated on the basis of the new JMF for the remaining sublots in the current lot and for acceptance of subsequent lots. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

1 Sampling and testing for evaluation shall be performed on the frequency of one sample per subplot.

2  
3 **5-04.3(9)C2 Mixture Nonstatistical Evaluation Sampling**

4 Samples for acceptance testing shall be obtained by the Contractor when ordered by the Engineer.  
5 The Contractor shall sample the HMA mixture in the presence of the Engineer and in accordance  
6 with AASH-TO T 168. A minimum of three samples should be taken for each class of HMA placed  
7 on a project. If used in a structural application, at least one of the three samples shall to be tested.  
8

9 Sampling and testing HMA in a Structural application where quantities are less than 400 tons is at  
10 the discretion of the Engineer.  
11

12 For HMA used in a structural application and with a total project quantity less than 800 tons but  
13 more than 400 tons, a minimum of one acceptance test shall be performed. In all cases, a minimum  
14 of 3 samples will be obtained at the point of acceptance, a minimum of one of the three samples will  
15 be tested for conformance to the JMF:  
16

- 17 • If the test results are found to be within specification requirements, additional testing will be at  
18 the Engineer's discretion.
- 19 • If test results are found not to be within specification requirements, additional testing of the  
20 remaining samples to determine a Composite Pay Factor (CPF) shall be performed.  
21

22 **5-04.3(9)C3 Mixture Nonstatistical Evaluation – Acceptance Testing**

23 Testing of HMA for compliance of  $V_a$  will be at the option of the Contracting Agency. If tested,  
24 compliance of  $V_a$  will use WSDOT SOP 731.  
25

26 Testing for compliance of asphalt binder content will be by WSDOT FOP for AASHTO T 308.  
27

28 Testing for compliance of gradation will be by FOP for WAQTC T 27/T 11.  
29

30 **5-04.3(9)C4 Mixture Nonstatistical Evaluation – Pay Factors**

31 For each lot of material falling outside the tolerance limits in 5-04.3(9), the Contracting Agency will  
32 determine a Composite Pay Factor (CPF) using the following price adjustment factors:  
33

Table of Price Adjustment Factors	
Constituent	Factor "f"
All aggregate passing: 1½", 1", ¾", ½", ⅜" and No.4 sieves	2
All aggregate passing No. 8 sieve	15
All aggregate passing No. 200 sieve	20
Asphalt binder	40
Air Voids ( $V_a$ ) (where applicable)	20

1 Each lot of HMA produced under Nonstatistical Evaluation and having all constituents falling within  
2 the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further  
3 evaluation. When one or more constituents fall outside the nonstatistical tolerance limits in the Job  
4 Mix Formula shown in Table of Price Adjustment Factors, the lot shall be evaluated in accordance  
5 with Section 1-06.2 to determine the appropriate CPF. The nonstatistical tolerance limits will be  
6 used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three  
7 sublots exist, backup samples of the existing sublots or samples from the Roadway shall be tested  
8 to provide a minimum of three sets of results for evaluation.

#### 9 10 **5-04.3(9)C5 Vacant**

#### 11 12 **5-04.3(9)C6 Mixture Nonstatistical Evaluation – Price Adjustments**

13 For each lot of HMA mix produced under Nonstatistical Evaluation when the calculated CPF is less  
14 than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals the algebraic  
15 difference of CPF minus 1.00 multiplied by 60 percent. The total job mix compliance price  
16 adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons, and  
17 the unit Contract price per ton of mix.

18  
19 If a constituent is not measured in accordance with these Specifications, its individual pay factor will  
20 be considered 1.00 in calculating the Composite Pay Factor (CPF).

#### 21 22 **5-04.3(9)C7 Mixture Nonstatistical Evaluation - Retests**

23 The Contractor may request a subplot be retested. To request a retest, the Contractor shall submit a  
24 written request within 7 calendar days after the specific test results have been received. A split of  
25 the original acceptance sample will be retested. The split of the sample will not be tested with the  
26 same tester that ran the original acceptance test. The sample will be tested for a complete  
27 gradation analysis, asphalt binder content, and, at the option of the agency,  $V_a$ . The results of the  
28 retest will be used for the acceptance of the HMA in place of the original subplot sample test results.  
29 The cost of testing will be deducted from any monies due or that may come due the Contractor  
30 under the Contract at the rate of \$500 per sample.

#### 31 32 **5-04.3 (9)D Mixture Acceptance – Commercial Evaluation**

33 If sampled and tested, HMA produced under Commercial Evaluation and having all constituents  
34 falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price  
35 with no further evaluation. When one or more constituents fall outside the commercial tolerance  
36 limits in the Job Mix Formula shown in 5-04.3(9), the lot shall be evaluated in accordance with  
37 Section 1-06.2 to determine the appropriate CPF. The commercial tolerance limits will be used in  
38 the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist,  
39 backup samples of the existing sublots or samples from the street shall be tested to provide a  
40 minimum of three sets of results for evaluation.

41  
42 For each lot of HMA mix produced and tested under Commercial Evaluation when the calculated  
43 CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals  
44 the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The Job Mix Compliance Price  
45 Adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons,  
46 and the unit Contract price per ton of mix.

47  
48 If a constituent is not measured in accordance with these Specifications, its individual pay factor will  
49 be considered 1.00 in calculating the Composite Pay Factor (CPF).



1  
2 **5-04.3(10) HMA Compaction Acceptance**

3 HMA mixture accepted by nonstatistical evaluation that is used in traffic lanes, including lanes for  
4 intersections, ramps, truck climbing, weaving, and speed change, and having a specified  
5 compacted course thickness greater than 0.10-foot, shall be compacted to a specified level of  
6 relative density. The specified level of relative density shall be a Composite Pay Factor (CPF) of not  
7 less than 0.75 when evaluated in accordance with Section 1-06.2, using a LSL of 92.0 (minimum of  
8 92 percent of the maximum density). The maximum density shall be determined by WSDOT FOP  
9 for AASHTO T 729. The specified level of density attained will be determined by the evaluation of  
10 the density of the pavement. The density of the pavement shall be determined in accordance with  
11 WSDOT FOP for ASSHTO T 355, except that gauge correlation will be at the discretion of the  
12 Engineer, when using the nuclear density gauge and WSDOT SOP 736 when using cores to  
13 determine density.  
14

15 Tests for the determination of the pavement density will be taken in accordance with the required  
16 procedures for measurement by a nuclear density gauge or roadway cores after completion of the  
17 finish rolling.  
18

19 If the Contracting Agency uses a nuclear density gauge to determine density the test procedures  
20 WSDOT FOP for ASSHTO T 355 and WSDOT SOP T 729 will be used on the day the mix is placed  
21 and prior to opening to traffic.  
22

23 Roadway cores for density may be obtained by either the Contracting Agency or the Contractor in  
24 accordance with WSDOT SOP 734. The core diameter shall be 4-inches minimum, unless  
25 otherwise approved by the Engineer. Roadway cores will be tested by the Contracting Agency in  
26 accordance with WSDOT FOP for AASHTO T 166.  
27

28 If the Contract includes the Bid item "Roadway Core" the cores shall be obtained by the Contractor  
29 in the presence of the Engineer on the same day the mix is placed and at locations designated by  
30 the Engineer. If the Contract does not include the Bid item "Roadway Core" the Contracting Agency  
31 will obtain the cores.  
32

33 For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after  
34 the Engineer is satisfied that material conforming to the Specifications can be produced.  
35

36 HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than  
37 those listed above shall be compacted on the basis of a test point evaluation of the compaction  
38 train. The test point evaluation shall be performed in accordance with instructions from the  
39 Engineer. The number of passes with an approved compaction train, required to attain the  
40 maximum test point density, shall be used on all subsequent paving.  
41

42 HMA for preleveling shall be thoroughly compacted. HMA that is used for preleveling wheel rutting  
43 shall be compacted with a pneumatic tire roller unless otherwise approved by the Engineer.  
44

45 **Test Results**

46 For a subplot that has been tested with a nuclear density gauge that did not meet the minimum of 92  
47 percent of the reference maximum density in a compaction lot with a CPF below 1.00 and thus  
48 subject to a price reduction or rejection, the Contractor may request that a core be used for

1 determination of the relative density of the subplot. The relative density of the core will replace the  
2 relative density determined by the nuclear density gauge for the subplot and will be used for  
3 calculation of the CPF and acceptance of HMA compaction lot.  
4

5 When cores are taken by the Contracting Agency at the request of the Contractor, they shall be  
6 requested by noon of the next workday after the test results for the subplot have been provided or  
7 made available to the Contractor. Core locations shall be outside of wheel paths and as determined  
8 by the Engineer. Traffic control shall be provided by the Contractor as requested by the Engineer.  
9 Failure by the Contractor to provide the requested traffic control will result in forfeiture of the request  
10 for cores. When the CPF for the lot based on the results of the HMA cores is less than 1.00, the  
11 cost for the coring will be deducted from any monies due or that may become due the Contractor  
12 under the Contract at the rate of \$200 per core and the Contractor shall pay for the cost of the traffic  
13 control.  
14

#### 15 **5-04.3(10)A HMA Compaction – General Compaction Requirements**

16 Compaction shall take place when the mixture is in the proper condition so that no undue  
17 displacement, cracking, or shoving occurs. Areas inaccessible to large compaction equipment shall  
18 be compacted by other mechanical means. Any HMA that becomes loose, broken, contaminated,  
19 shows an excess or deficiency of asphalt, or is in any way defective, shall be removed and replaced  
20 with new hot mix that shall be immediately compacted to conform to the surrounding area.  
21

22 The type of rollers to be used and their relative position in the compaction sequence shall generally  
23 be the Contractor's option, provided the specified densities are attained. Unless the Engineer has  
24 approved otherwise, rollers shall only be operated in the static mode when the internal temperature  
25 of the mix is less than 175°F. Regardless of mix temperature, a roller shall not be operated in a  
26 mode that results in checking or cracking of the mat. Rollers shall only be operated in static mode  
27 on bridge decks.  
28

#### 29 **5-04.3(10)B HMA Compaction – Cyclic Density**

30 Low cyclic density areas are defined as spots or streaks in the pavement that are less than 90  
31 percent of the theoretical maximum density. At the Engineer's discretion, the Engineer may  
32 evaluate the HMA pavement for low cyclic density, and when doing so will follow WSDOT SOP 733.  
33 A \$500 Cyclic Density Price Adjustment will be assessed for any 500-foot section with two or more  
34 density readings below 90 percent of the theoretical maximum density.  
35

#### 36 **5-04.3(10)C Vacant**

#### 38 **5-04.3(10)D HMA Nonstatistical Compaction**

##### 40 **5-04.3(10)D1 HMA Nonstatistical Compaction – Lots and Sublots**

41 HMA compaction which is accepted by nonstatistical evaluation will be based on acceptance testing  
42 performed by the Contracting Agency dividing the project into compaction lots.  
43

44 A lot is represented by randomly selected samples of the same mix design that will be tested for  
45 acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix  
46 Formula placed. Only one lot per JMF is expected. A subplot shall be equal to one day's production  
47 or 400 tons, whichever is less except that the final subplot will be a minimum of 200 tons and may be  
48 increased to 800 tons. Testing for compaction will be at the rate of 5 tests per subplot per WSDOT T

1 738. The compaction test locations will be determined by the Engineer in accordance with WSDOT  
2 Test Method T 716.

3  
4 The subplot locations within each density lot will be determined by the Engineer. For a lot in progress  
5 with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is  
6 satisfied that material conforming to the Specifications can be produced.

7  
8 HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than  
9 those listed above shall be compacted on the basis of a test point evaluation of the compaction  
10 train. The test point evaluation shall be performed in accordance with instructions from the  
11 Engineer. The number of passes with an approved compaction train, required to attain the  
12 maximum test point density, shall be used on all subsequent paving.

13  
14 HMA for preleveling shall be thoroughly compacted. HMA that is used to prelevel wheel ruts shall  
15 be compacted with a pneumatic tire roller unless otherwise approved by the Engineer.

16  
17 **5-04.3(10)D2 HMA Compaction Nonstatistical Evaluation – Acceptance Testing**

18 The location of the HMA compaction acceptance tests will be randomly selected by the Engineer  
19 from within each subplot, with one test per subplot. The Contracting Agency will determine the  
20 random sample location using WSDOT Test Method T 716.

21  
22 **5-04.3(10)D3 HMA Nonstatistical Compaction – Price Adjustments**

23 For each compaction lot with one or two sublots, having all sublots attain a relative density that is  
24 92 percent of the reference maximum density the HMA shall be accepted at the unit Contract price  
25 with no further evaluation. When a subplot does not attain a relative density that is 92 percent of the  
26 reference maximum density, the lot shall be evaluated in accordance with Section 1-06.2 to  
27 determine the appropriate CPF. The maximum CPF shall be 1.00, however, lots with a calculated  
28 CPF in excess of 1.00 will be used to offset lots with CPF values below 1.00 but greater than 0.90.  
29 Lots with CPF lower than 0.90 will be evaluated for compliance per 5-04.3(11). Additional testing by  
30 either a nuclear moisture-density gauge or cores will be completed as required to provide a  
31 minimum of three tests for evaluation.

32  
33 For compaction below the required 92% a Non-Conforming Compaction Factor (NCCF) will be  
34 determined. The NCCF equals the algebraic difference of CPF minus 1.00 multiplied by 40 percent.  
35 The Compaction Price Adjustment will be calculated as the product of CPF, the quantity of HMA in  
36 the compaction control lot in tons, and the unit Contract price per ton of mix.

37  
38 **5-04.3(11) Reject Work**

39  
40 **5-04.3(11)A Reject Work General**

41 Work that is defective or does not conform to Contract requirements shall be rejected. The  
42 Contractor may propose, in writing, alternatives to removal and replacement of rejected material.  
43 Acceptability of such alternative proposals will be determined at the sole discretion of the Engineer.  
44 HMA that has been rejected is subject to the requirements in Section 1-06.2(2) and this  
45 specification, and the Contractor shall submit a corrective action proposal to the Engineer for  
46 approval.

1       **5-04.3(11)B Rejection by Contractor**

2       The Contractor may, prior to sampling, elect to remove any defective material and replace it with  
3       new material. Any such new material will be sampled, tested, and evaluated for acceptance.  
4

5       **5-04.3(11)C Rejection Without Testing (Mixture or Compaction)**

6       The Engineer may, without sampling, reject any batch, load, or section of Roadway that appears  
7       defective. Material rejected before placement shall not be incorporated into the pavement. Any  
8       rejected section of Roadway shall be removed.  
9

10       No payment will be made for the rejected materials or the removal of the materials unless the  
11       Contractor requests that the rejected material be tested. If the Contractor elects to have the rejected  
12       material tested, a minimum of three representative samples will be obtained and tested.  
13       Acceptance of rejected material will be based on conformance with the nonstatistical acceptance  
14       Specification. If the CPF for the rejected material is less than 0.75, no payment will be made for the  
15       rejected material; in addition, the cost of sampling and testing shall be borne by the Contractor. If  
16       the CPF is greater than or equal to 0.75, the cost of sampling and testing will be borne by the  
17       Contracting Agency. If the material is rejected before placement and the CPF is greater than or  
18       equal to 0.75, compensation for the rejected material will be at a CPF of 0.75. If rejection occurs  
19       after placement and the CPF is greater than or equal to 0.75, compensation for the rejected  
20       material will be at the calculated CPF with an addition of 25 percent of the unit Contract price added  
21       for the cost of removal and disposal.  
22

23       **5-04.3(11)D Rejection - A Partial Sublot**

24       In addition to the random acceptance sampling and testing, the Engineer may also isolate from a  
25       normal sublot any material that is suspected of being defective in relative density, gradation or  
26       asphalt binder content. Such isolated material will not include an original sample location. A  
27       minimum of three random samples of the suspect material will be obtained and tested. The material  
28       will then be statistically evaluated as an independent lot in accordance with Section 1-06.2(2).  
29

30       **5-04.3(11)E Rejection - An Entire Sublot**

31       An entire sublot that is suspected of being defective may be rejected. When a sublot is rejected a  
32       minimum of two additional random samples from this sublot will be obtained. These additional  
33       samples and the original sublot will be evaluated as an independent lot in accordance with Section  
34       1-06.2(2).  
35

36       **5-04.3(11)F Rejection - A Lot in Progress**

37       The Contractor shall shut down operations and shall not resume HMA placement until such time as  
38       the Engineer is satisfied that material conforming to the Specifications can be produced:  
39

- 40       1. When the Composite Pay Factor (CPF) of a lot in progress drops below 1.00 and the  
41       Contractor is taking no corrective action, or  
42       2. When the Pay Factor (PF) for any constituent of a lot in progress drops below 0.95 and the  
43       Contractor is taking no corrective action, or  
44       3. When either the PFi for any constituent or the CPF of a lot in progress is less than 0.75.  
45

46       **5-04.3(11)G Rejection - An Entire Lot (Mixture or Compaction)**

47       An entire lot with a CPF of less than 0.75 will be rejected.  
48

1 **5-04.3(12) Joints**

2  
3 **5-04.3(12)A HMA Joints**

4  
5 **5-04.3(12)A1 Transverse Joints**

6 The Contractor shall conduct operations such that the placing of the top or wearing course is a  
7 continuous operation or as close to continuous as possible. Unscheduled transverse joints will be  
8 allowed and the roller may pass over the unprotected end of the freshly laid mixture only when the  
9 placement of the course must be discontinued for such a length of time that the mixture will cool  
10 below compaction temperature. When the Work is resumed, the previously compacted mixture shall  
11 be cut back to produce a slightly beveled edge for the full thickness of the course.

12  
13 A temporary wedge of HMA constructed on a 20H:1V shall be constructed where a transverse joint  
14 as a result of paving or planing is open to traffic. The HMA in the temporary wedge shall be  
15 separated from the permanent HMA by strips of heavy wrapping paper or other methods approved  
16 by the Engineer. The wrapping paper shall be removed and the joint trimmed to a slightly beveled  
17 edge for the full thickness of the course prior to resumption of paving.

18  
19 The material that is cut away shall be wasted and new mix shall be laid against the cut. Rollers or  
20 tamping irons shall be used to seal the joint.

21  
22 **5-04.3(12)A2 Longitudinal Joints**

23 The longitudinal joint in any one course shall be offset from the course immediately below by not  
24 more than 6 inches nor less than 2 inches. All longitudinal joints constructed in the wearing course  
25 shall be located at a lane line or an edge line of the Traveled Way. A notched wedge joint shall be  
26 constructed along all longitudinal joints in the wearing surface of new HMA unless otherwise  
27 approved by the Engineer. The notched wedge joint shall have a vertical edge of not less than the  
28 maximum aggregate size or more than ½ of the compacted lift thickness and then taper down on a  
29 slope not steeper than 4H:1V. The sloped portion of the HMA notched wedge joint shall be  
30 uniformly compacted.

31  
32 **5-04.3(12)B Bridge Paving Joint Seals**

33  
34 **5-04.3(12)B1 HMA Sawcut and Seal**

35 Prior to placing HMA on the bridge deck, establish sawcut alignment points at both ends of the  
36 bridge paving joint seals to be placed at the bridge ends, and at interior joints within the bridge deck  
37 when and where shown in the Plans. Establish the sawcut alignment points in a manner that they  
38 remain functional for use in aligning the sawcut after placing the overlay.

39  
40 Submit a Type 1 Working Drawing consisting of the sealant manufacturer's application procedure.

41  
42 Construct the bridge paving joint seal as specified on the Plans and in accordance with the detail  
43 shown in the Standard Plans. Construct the sawcut in accordance with the detail shown in the  
44 Standard Plan. Construct the sawcut in accordance with Section 5-05.3(8)B and the manufacturer's  
45 application procedure.

1       **5-04.3(12)B2 Paved Panel Joint Seal**

2       Construct the paved panel joint seal in accordance with the requirements specified in section 5-  
3       04.3(12)B1 and the following requirement:

- 4
- 5           1. Clean and seal the existing joint between concrete panels in accordance with Section 5-  
6           01.3(8) and the details shown in the Standard Plans.

7

8       **5-04.3(13) Surface Smoothness**

9       The completed surface of all courses shall be of uniform texture, smooth, uniform as to crown and  
10       grade, and free from defects of all kinds. The completed surface of the wearing course shall not  
11       vary more than 1/8 inch from the lower edge of a 10-foot straightedge placed on the surface parallel  
12       to the centerline. The transverse slope of the completed surface of the wearing course shall vary  
13       not more than 1/4 inch in 10 feet from the rate of transverse slope shown in the Plans.

14

15       When deviations in excess of the above tolerances are found that result from a high place in the  
16       HMA, the pavement surface shall be corrected by one of the following methods:

- 17
- 18           1. Removal of material from high places by grinding with an approved grinding machine, or
  - 19           2. Removal and replacement of the wearing course of HMA, or
  - 20           3. By other method approved by the Engineer.

21

22       Correction of defects shall be carried out until there are no deviations anywhere greater than the  
23       allowable tolerances.

24

25       Deviations in excess of the above tolerances that result from a low place in the HMA and deviations  
26       resulting from a high place where corrective action, in the opinion of the Engineer, will not produce  
27       satisfactory results will be accepted with a price adjustment. The Engineer shall deduct from monies  
28       due or that may become due to the Contractor the sum of \$500.00 for each and every section of  
29       single traffic lane 100 feet in length in which any excessive deviations described above are found.

30

31       When utility appurtenances such as manhole covers and valve boxes are located in the traveled  
32       way, the utility appurtenances shall be adjusted to the finished grade prior to paving. This  
33       requirement may be waived when requested by the Contractor, at the discretion of the Engineer or  
34       when the adjustment details provided in the project plan or specifications call for utility  
35       appurtenance adjustments after the completion of paving.

36

37       Utility appurtenance adjustment discussions will be included in the Pre-Paving planning (5-  
38       04.3(14)B3). Submit a written request to waive this requirement to the Engineer prior to the start of  
39       paving.

40

41       **5-04.3(14) Planing (Milling) Bituminous Pavement**

42       The planing plan must be approved by the Engineer and a pre planing meeting must be held prior  
43       to the start of any planing. See Section 5-04.3(14)B2 for information on planing submittals.

44

45       Locations of existing surfacing to be planed are as shown in the Drawings.

1 For mainline planing operations, use equipment with automatic controls and with sensors for either  
2 or both sides of equipment. The controls shall be capable of sensing the grade from an outside  
3 reference line, or a mat-referencing device. The automatic controls shall have a transverse slope  
4 controller capable of maintaining the mandrel at the desired transverse slope (expressed as a  
5 percentage) within plus or minus 0.1 percent.  
6

7 Where planing an existing pavement is specified in the Contract, the Contractor must remove  
8 existing surfacing material and to reshape the surface to remove irregularities. The finished product  
9 must be a prepared surface acceptable for receiving an HMA overlay.  
10

11 Use the cold milling method for planing unless otherwise specified in the Contract. Do not use the  
12 planer on the final wearing course of new HMA.  
13

14 Conduct planing operations in a manner that does not tear, break, burn, or otherwise damage the  
15 surface which is to remain. The finished planed surface must be slightly grooved or roughened and  
16 must be free from gouges, deep grooves, ridges, or other imperfections. The Contractor must repair  
17 any damage to the surface by the Contractor's planing equipment, using an Engineer approved  
18 method.  
19

20 The Contractor where necessary shall plane or grind, and provide any hand work necessary to work  
21 around utility appurtenances, castings, lids, curbs, gutters, sidewalks, manholes, and catch basins  
22 to provide smooth transition of pavement to the finished thickness and grade as staked in the field  
23 or approved by the Engineer.  
24

25 Repair or replace any metal castings and other surface improvements damaged by planing, as  
26 determined by the Engineer.  
27

28 A tapered wedge cut must be planed longitudinally along curb lines sufficient to provide a minimum  
29 of 4 inches of curb reveal after placement and compaction of the final wearing course. The  
30 dimensions of the wedge must be as shown on the Drawings or as specified by the Engineer.  
31

32 A tapered wedge cut must also be made at transitions to adjoining pavement surfaces (meet lines)  
33 where butt joints are shown on the Drawings. Cut butt joints in a straight line with vertical faces 2  
34 inches or more in height, producing a smooth transition to the existing adjoining pavement.  
35

36 After planing is complete, planed surfaces must be swept, cleaned, and if required by the Contract,  
37 patched and preleveled.  
38

39 The Engineer may direct additional depth planing. Before performing this additional depth planing,  
40 the Contractor must conduct a hidden metal in pavement detection survey as specified in Section 5-  
41 04.3(14)A.  
42

#### 43 **5-04.3(14)A Pre-Planing Metal Detection Check**

44 Before starting planing of pavements, and before any additional depth planing required by the  
45 Engineer, the Contractor must conduct a physical survey of existing pavement to be planed with  
46 equipment that can identify hidden metal objects.  
47

1 Should such metal be identified, promptly notify the Engineer.

2  
3 See Section 1-07.16(1) regarding the protection of survey monumentation that may be hidden in  
4 pavement.

5  
6 The Contractor is solely responsible for any damage to equipment resulting from the Contractor's  
7 failure to conduct a pre-planing metal detection survey, or from the Contractor's failure to notify the  
8 Engineer of any hidden metal that is detected.

9  
10 **5-04.3(14)B Paving and Planing Under Traffic**

11  
12 **5-04.3(14)B1 General**

13 In addition the requirements of Section 1-07.23 and the traffic controls required in Section 1-10, and  
14 unless the Contract specifies otherwise or the Engineer approves, the Contractor must comply with  
15 the following:

16  
17 1. Intersections:

- 18 a. Keep intersections open to traffic at all times, except when paving or planing operations  
19 through an intersection requires closure. Such closure must be kept to the minimum time  
20 required to place and compact the HMA mixture, or plane as appropriate. For paving,  
21 schedule such closure to individual lanes or portions thereof that allows the traffic volumes  
22 and schedule of traffic volumes required in the approved traffic control plan. Schedule work  
23 so that adjacent intersections are not impacted at the same time and comply with the traffic  
24 control restrictions required by the Traffic Engineer. Each individual intersection closure or  
25 partial closure, must be addressed in the traffic control plan, which must be submitted to  
26 and accepted by the Engineer, see Section 1-10.2(2).
- 27 b. When planing or paving and related construction must occur in an intersection, consider  
28 scheduling and sequencing such work into quarters of the intersection, or half or more of an  
29 intersection with side street detours. Be prepared to sequence the work to individual lanes  
30 or portions thereof.
- 31 c. Should closure of the intersection in its entirety be necessary, and no trolley service is  
32 impacted, keep such closure to the minimum time required to place and compact the HMA  
33 mixture, plane, remove asphalt, tack coat, and as needed.
- 34 d. Any work in an intersection requires advance warning in both signage and a number of  
35 Working Days advance notice as determined by the Engineer, to alert traffic and  
36 emergency services of the intersection closure or partial closure.
- 37 e. Allow new compacted HMA asphalt to cool to ambient temperature before any traffic is  
38 allowed on it. Traffic is not allowed on newly placed asphalt until approval has been  
39 obtained from the Engineer.

40 2. Temporary centerline marking, post-paving temporary marking, temporary stop bars, and  
41 maintaining temporary pavement marking must comply with Section 8-23.

42 3. Permanent pavement marking must comply with Section 8-22.

43  
44 **5-04.3(14)B2 Submittals – Planing Plan and HMA Paving Plan**

45 The Contractor must submit a separate planing plan and a separate paving plan to the Engineer at  
46 least 5 Working Days in advance of each operation's activity start date. These plans must show  
47 how the moving operation and traffic control are coordinated, as they will be discussed at the pre-  
48 planing briefing and pre-paving briefing. When requested by the Engineer, the Contractor must



1 provide each operation's traffic control plan on 24 x 36 inch or larger size Shop Drawings with a  
2 scale showing both the area of operation and sufficient detail of traffic beyond the area of operation  
3 where detour traffic may be required. The scale on the Shop Drawings is 1 inch = 20 feet, which  
4 may be changed if the Engineer agrees sufficient detail is shown.  
5

6 The planing operation and the paving operation include, but are not limited to, metal detection,  
7 removal of asphalt and temporary asphalt of any kind, tack coat and drying, staging of supply  
8 trucks, paving trains, rolling, scheduling, and as may be discussed at the briefing.  
9

10 When intersections will be partially or totally blocked, provide adequately sized and noticeable  
11 signage alerting traffic of closures to come, a minimum 2 Working Days in advance. The traffic  
12 control plan must show where police officers will be stationed when signalization is or may be,  
13 countermanded, and show areas where flaggers are proposed.  
14

15 At a minimum, the planing and the paving plan must include:  
16

- 17 1. A copy of the accepted traffic control plan, see Section 1-10.2(2), detailing each day's traffic  
18 control as it relates to the specific requirements of that day's planing and paving. Briefly  
19 describe the sequencing of traffic control consistent with the proposed planing and paving  
20 sequence, and scheduling of placement of temporary pavement markings and channelizing  
21 devices after each day's planing, and paving.
- 22 2. A copy of each intersection's traffic control plan.
- 23 3. Haul routes from Supplier facilities, and locations of temporary parking and staging areas,  
24 including return routes. Describe the complete round trip as it relates to the sequencing of  
25 paving operations.
- 26 4. Names and locations of HMA Supplier facilities to be used.
- 27 5. List of all equipment to be used for paving.
- 28 6. List of personnel and associated job classification assigned to each piece of paving  
29 equipment.
- 30 7. Description (geometric or narrative) of the scheduled sequence of planing and of paving,  
31 and intended area of planing and of paving for each day's work, must include the directions  
32 of proposed planing and of proposed paving, sequence of adjacent lane paving, sequence  
33 of skipped lane paving, intersection planing and paving scheduling and sequencing, and  
34 proposed notifications and coordinations to be timely made. The plan must show HMA joints  
35 relative to the final pavement marking lane lines.
- 36 8. Names, job titles, and contact information for field, office, and plant supervisory personnel.
- 37 9. A copy of the approved Mix Designs.
- 38 10. Tonnage of HMA to be placed each day.
- 39 11. Approximate times and days for starting and ending daily operations.  
40

#### 41 **5-04.3(14)B3 Pre-Paving and Pre-Planing Briefing**

42 At least 2 Working Days before the first paving operation and the first planing operation, or as  
43 scheduled by the Engineer for future paving and planing operations to ensure the Contractor has  
44 adequately prepared for notifying and coordinating as required in the Contract, the Contractor must  
45 be prepared to discuss that day's operations as they relate to other entities and to public safety and  
46 convenience, including driveway and business access, garbage truck operations, Metro transit  
47 operations and working around energized overhead wires, school and nursing home and hospital

1 and other accesses, other contractors who may be operating in the area, pedestrian and bicycle  
2 traffic, and emergency services. The Contractor, and Subcontractors that may be part of that day's  
3 operations, must meet with the Engineer and discuss the proposed operation as it relates to the  
4 submitted planing plan and paving plan, approved traffic control plan, and public convenience and  
5 safety. Such discussion includes, but is not limited to:  
6

- 7 1. General for both Paving Plan and for Planing Plan:
  - 8 a. The actual times of starting and ending daily operations.
  - 9 b. In intersections, how to break up the intersection, and address traffic control and  
10 signalization for that operation, including use of peace officers.
  - 11 c. The sequencing and scheduling of paving operations and of planing operations, as  
12 applicable, as it relates to traffic control, to public convenience and safety, and to other  
13 contractors who may operate in the Project Site.
  - 14 d. Notifications required of Contractor activities, and coordinating with other entities and the  
15 public as necessary.
  - 16 e. Description of the sequencing of installation and types of temporary pavement markings  
17 as it relates to planning and to paving.
  - 18 f. Description of the sequencing of installation of, and the removal of, temporary pavement  
19 patch material around exposed castings and as may be needed
  - 20 g. Description of procedures and equipment to identify hidden metal in the pavement, such  
21 as survey monumentation, monitoring wells, street car rail, and castings, before planning,  
22 see Section 5-04.3(14)B2.
  - 23 h. Description of how flaggers will be coordinated with the planing, paving, and related  
24 operations.
  - 25 i. Description of sequencing of traffic controls for the process of rigid pavement base repairs.
  - 26 j. Other items the Engineer deems necessary to address.
- 27 2. Paving – additional topics:
  - 28 a. When to start applying tack and coordinating with paving.
  - 29 b. Types of equipment and numbers of each type equipment to be used. If more pieces of  
30 equipment than personnel are proposed, describe the sequencing of the personnel  
31 operating the types of equipment. Discuss the continuance of operator personnel for each  
32 type equipment as it relates to meeting Specification requirements.
  - 33 c. Number of JMFs to be placed, and if more than one JMF how the Contractor will ensure  
34 different JMFs are distinguished, how pavers and MTVs are distinguished if more than  
35 one JMF is being placed at the time, and how pavers and MTVs are cleaned so that one  
36 JMF does not adversely influence the other JMF.
  - 37 d. Description of contingency plans for that day's operations such as equipment breakdown,  
38 rain out, and Supplier shutdown of operations.
  - 39 e. Number of sublots to be placed, sequencing of density testing, and other sampling and  
40 testing.  
41

#### 42 **5-04.3(15) Sealing Pavement Surfaces**

43 Apply a fog seal where shown in the plans. Construct the fog seal in accordance with Section 5-  
44 02.3. Unless otherwise approved by the Engineer, apply the fog seal prior to opening to traffic.  
45

1       **5-04.3(16) HMA Road Approaches**

2       HMA approaches shall be constructed at the locations shown in the Plans or where staked by the  
3       Engineer. The Work shall be performed in accordance with Section 5-04.

4  
5       (\*\*\*\*\*)

6       **5-04.4 Measurement**

7  
8       “HMA Class 3/8 In. PG 58H-22 Fiber Reinforced” per Ton.

9  
10      “HMA for Approach Class 3/8 In. PG 58H-22” per Ton.

11  
12      (\*\*\*\*\*)

13      **5-04.5 Payment**

14      Payment will be made for each of the following Bid items that are included in the Proposal:

15  
16      “HMA Class 3/8 In. PG 58H-22 Fiber Reinforced” per Ton.

17  
18      The unit contract price per ton for “HMA Class 3/8 In. PG 58H-22 Fiber Reinforced” shall be full  
19      compensation for all costs, including paving reinforcing fiber, anti-stripping additive, incurred to  
20      carry out the requirements of Section 5-04 except for those costs included in other items which are  
21      included in this Subsection and which are included in the Proposal.

22  
23      “HMA for Approach Class 3/8 In. PG 58H-22” per Ton.

24  
25      The unit contract price per ton for “HMA For Approach Class 3/8 In. PG 58H-22” shall be full  
26      compensation for all labor for preparation and all extra or additional costs involved in grading  
27      existing surfacing material to reshape driveway approaches and furnishing, placing and  
28      compaction of the HMA in driveway approaches regardless of location, length, width or design.

29  
30      (\*\*\*\*\*)

31      **5-04.5(1) Quality Assurance Price Adjustment**

32  
33      In the event that test results indicate the HMA does not meet specifications, a change order will be  
34      issued for the price adjustments for Quality of HMA Mixture and Quality of HMA Compaction based  
35      upon these specifications.

36  
37      (\*\*\*\*\*)

38      **5-04.5(1)B           Price Adjustments for Quality of HMA Compaction**

39  
40      The maximum CPF of a compaction lot is 1.00.

41  
42      For each compaction lot of HMA when the CPF is less than 1.00, a Nonconforming Compaction  
43      Factor (NCCF) will be determined. THE NCCF equals the algebraic difference of CPF minus 1.00  
44      multiplied by 40 percent. The Compaction Price Adjustment will be calculated as the product of the  
45      NCCF, the quantity of HMA in the lot in tons and the unit contract price per ton of the mix.

46  
47      (\*\*\*\*\*)

48      The CPF shall be as follows:

49  
50                      Compaction    CPF

1	91.0% to 91.9%	95%
2	90.0% to 90.9%	90%
3	89.0% to 89.9%	80%
4	88.0% to 88.9%	75%
5	At or below 87.9%	Mix is removed

6  
7  
8 **DIVISION 6**  
9 **STRUCTURES**  
10

11 **6-01 GENERAL REQUIREMENTS FOR STRUCTURES**

12  
13 **6-01.2 Foundation Data**

14 Section 6-01.2 is supplemented with the following:

15  
16 (\*\*\*\*\*)

17 The attached log of test boring pages are reproductions of the original Log of Test Boring for the  
18 test holes shown in the Plans that are found in Appendix A.

19  
20 A copy of the geotechnical recommendations report may be requested from the office of the  
21 Contracting Agency for review by prospective bidders.  
22

23 **6-02 CONCRETE STRUCTURES**

24  
25 **6-02.1 Description**

26 Section 6-02.1 is supplemented with the following:

27  
28 (\*\*\*\*\*)

29 The Contractor shall supply and install prestressed concrete slab girders as per the Contract Plans and  
30 these specifications. The “Superstructure – Graf Rd MP 1.01 Bridge” shall be designed to support  
31 AASHTO HL-93 loading per the latest version of the WSDOT Bridge Design Manual. Bridge dead  
32 loads shall include the Contractor supplied superstructure, the depicted HMA overlay (per Contract  
33 Plans), a future 0.15-ft HMA overlay not depicted in the Contract Plans, guardrail, extruded curb, and  
34 any other applicable permanent loads related to the superstructure. Precast units shall be connected  
35 using weld ties (or an approved equivalent) and grouted per the manufacturer’s recommendation. The  
36 outside slab girders shall include a drip edge and thrie-beam guardrail/bridge rail system with the ability  
37 to withstand TL-2 vehicle impacts (35 MPH speed zone). Bridge rail and reducer sections to proposed  
38 Type 31 Guardrail shall be included in the “Superstructure – Graf Rd MP 1.01 Bridge”. Slab girders  
39 shall incorporate waterproofing materials at the Portland cement concrete top surface, pigmented  
40 sealer at the exposed outside slab girders, and a bitumen coating at slab girder to backfill contact  
41 points (precast unit ends, sides and bearing areas). The slab girder center joint and guardrail  
42 attachments at the outside sections shall be designed to incorporate a 1.5% normal crown and 0.27%  
43 longitudinal slope per the Contract Plans.  
44

45 Two sets of superstructure plans stamped and certified by a Civil Engineer licensed in the State of  
46 Washington shall be provided to Lewis County within forty-five working days of contract award. Plans  
47 shall include connection details, lifting details, assembly, and installation details. Contract Plans depict  
48 Guardrail with the slab girder superstructure depth at 26-inches and 30-feet wide to accommodate a  
49 28-foot (minimum) finished roadway surface. Variations (within 5%) in superstructure width and/or  
50 depth due to various manufacturer’s forms or construction methods shall be accepted provided all

1 previously listed requirements and the 28-ft minimum roadway surface is achieved with the proposed  
2 superstructure.

### 3 4 **6-02.2 Materials**

5 Section 6-02.2 is supplemented with the following:

6  
7 **(\*\*\*\*\*)**

8 Asphalt for Waterproofing	9-11.1
9 Waterproofing Fabric	9-11.2
10 Fence and Guardrail	9-16

### 11 12 **6-02.3 Construction Requirements**

#### 13 14 **6-02.3(14) Finishing Concrete Surfaces**

##### 15 16 **6-02.3(14)C Pigmented Sealer for Concrete Surfaces**

17 Section 6-02.3(14)C is supplemented with the following:

18  
19 (April 6, 2009)

20 The color of the pigmented sealer shall be Washington Gray.

21  
22 **(\*\*\*\*\*)**

23 A coating shall be applied at slab girder to backfill contact points to prevent corrosion of  
24 the embedded concrete. Slab girder ends, sides and bearing areas shall be coated with  
25 CSS-1, Asphalt for Waterproofing or other approved material at the manufacturer's plant  
26 prior to slab girder shipment to the construction site.

### 27 28 29 **6-02.4 Measurement**

30 Section 6-02.4 is supplemented with the following:

31  
32 (August 2, 2010)

33 \*\*\*Superstructure – Graf Road MP 1.01 Bridge\*\*\* contains the following approximate quantities of  
34 materials and work:

35  
36 \*\*\*

37 PRESTRESSED CONC. SLAB GIRDER	1,860	S.F.
38 ASPHALT FOR WATER PROOFING & WATERPROOFING FABRIC	1,860	S.F.
39 CORROSION PREVENTION COATING	200	S.F.
40 PIGMENTED SEALER	260	S.F.
41 GROUT	2	C.Y.
42 BRIDGE RAIL	124	L.F.
43 INSERTS FOR 1/2" DIA ROD HANGERS	12	EACH

44  
45 \*\*\*

46 The quantities are listed only for the convenience of the Contractor in determining the volume of  
47 work involved and are not guaranteed to be accurate. The prospective bidders shall verify these  
48 quantities before submitting a bid. No adjustments other than for approved changes will be made  
49 in the lump sum contract price for \*\*\*Superstructure – Graf Road MP 1.01 Bridge\*\*\* even though  
50 the actual quantities required may deviate from those listed.

### 51 52 **6-02.5 Payment**

1 The third bid item under Section 6-02.5 is supplemented with the following:

2  
3 (June 26, 2000)

4 All costs in connection with furnishing and installing the prestressed concrete slab girders, deck  
5 waterproofing, corrosion prevention sealer (at embedded concrete areas), grout, conduit inserts,  
6 and thrie-beam guardrail system with reducers shall be included in the lump sum contract price for  
7 \*\*\*\*“Superstructure – Graf Road MP 1.01 Bridge”\*\*\*\*.

## 10 **6-13, STRUCTURAL EARTH WALLS**

### 11 **6-13.1 Description**

12 (\*\*\*\*\*)

13 Section 6-13.1 is supplemented with the following:

14  
15  
16 The Work includes construction of Geosynthetic Reinforced Soil (GRS) walls for bridge  
17 abutments and wingwalls as detailed in these Special Provisions and the Contract Plans  
18 (Appendix G). The GRS-IBS Geosynthetic Reinforced Soil Integrated Bridge System Interim  
19 Implementation Guide--Chapter 7 Construction (Appendix C) is provided as general guidance  
20 for this type of wall construction.

21  
22 The Work includes construction of Reinforced Soil Foundations (RSF) for bridge abutments  
23 and wingwalls as detailed in these Special Provisions and the Contract Plans (Appendix G).

### 24 **6-13.2 Materials**

25 (\*\*\*\*\*)

26 Section 6-13.2 is supplemented with the following:

27  
28  
29 All Geosynthetic Reinforcement for construction of the GRS and RSF abutments and wingwalls  
30 shall meet the following material requirements:

31 Ultimate Tensile Strength--4,800 lb/ft

32 (Geotextiles ASTM D 4595 or geogrids ASTM D 6637)

33 Tensile Strength at 2% Strain--1,370 lb/ft

34 Splicing shall be per the manufacturer’s recommendation

35 Submit technical data for and samples of Geotextile for approval by the Engineer

36  
37 Concrete Masonry Unit (CMU) blocks shall meet material requirements of Section 9-12 *Masonry*  
38 *Units* be gray in color and exposed blocks (above solid core blocks) shall include a gray colored  
39 fractured surface finish.

40  
41 Polystyrene Foam Board shall conform to AASHTO M230, Type IV.

### 42 **6-13.3 Construction Requirements**

43 (\*\*\*\*\*)

44 Section 6-13.3 is supplemented with the following:

45  
46  
47 GRS bridge abutments and wingwalls shall be constructed using CMUs, Geosynthetic Reinforcement,  
48 and Gravel Borrow for Structural Earth Walls Incl. Haul (open-graded and well-graded backfill material)  
49 per the Contract Plans. Geotextile fabric shall be pulled taunt to remove all wrinkles and lay flat prior  
50 placing and compacting the backfill material. Splices shall be 24-inches minimum apart outside the  
51 beam seat and bearing bed zone per the manufacturer’s requirements (no splices are allowed in the

1 beam seat and bearing bed zones). Construction equipment shall not be allowed directly on the  
2 Geotextile, place a 4-inch minimum backfill material lift height prior to compacting. Wheeled  
3 compaction equipment shall not be allowed within 3-feet of the wall face and restrict all construction  
4 equipment to 5 MPH or less with no sudden stopping/turning when transporting material. CMU blocks  
5 shall be staggered, including corners, so there are no vertical joints greater than one CMU block high  
6 and all blocks shall be set with a vertical wall face batter of 0-degrees. The wall shall be checked for  
7 level alignment of CMU block rows at least every other Geosynthetic Reinforcement layer. Correct any  
8 alignment deviations greater than 0.25-inches. The top three CMU blocks in the GRS abutment wall  
9 and wingwalls shall be core filled with commercial concrete and include a #4 rebar (grade 60 epoxy  
10 coated) in each block cell. The beam seat shall include a solid CMU, 4-inch polystyrene foam board  
11 immediately behind the block wall, and core filled top sloping away from the wall under the bridge  
12 (rounded coping cap elsewhere) as depicted in the Contract Plans. The top of the wall under the bridge  
13 shall include a 4-inch polystyrene foam board and flashing (secured with construction adhesive) to  
14 create a flush wall surface at the bridge/wall interface.

15  
16 RSF shall be constructed using Geosynthetic Reinforcement encapsulating the entire foundation with 3-  
17 ft (minimum) Geosynthetic Reinforcement overlap tails on the downstream end. The RSF shall be  
18 constructed with Well-Graded backfill material and compacted in lifts not to exceed 0.5-feet.

19  
20 A 4-inch diameter (Schedule 40) conduit shall be installed on top of the beam seat zone layer along the  
21 upstream side between the wall and guardrail posts. The conduit shall extend through the wall (at the  
22 stream ends) and to the existing ground surface beyond the Geotextile Reinforcement. All conduit  
23 ends shall be capped.

### 24 **6-13.3(7) Backfill**

25 (\*\*\*\*\*)

26  
27 Section 6-13.3(7), fifth paragraph is replaced with the following:

28  
29 Layer thickness within the beam seat zone and bearing bed zone shall not exceed 4-inches and shall  
30 be compacted to 98 percent of the maximum density as determined by the compaction control tests  
31 described in Section 2-03.3(14)D. Layer thickness elsewhere within the GRS shall not exceed 8-  
32 inches. Layer thickness prior to compaction efforts shall not exceed 0.5-feet within the RSF. Backfill  
33 material in the RSF and GRS (outside the beam seat and bearing zones) shall be compacted to 95  
34 percent of the maximum density as determined by the compaction control tests described in Section 2-  
35 03.3(14)D. The Contractor shall not use sheepsfoot rollers or rollers with protrusions for compacting  
36 backfill material with Geosynthetic Reinforcement. The Contractor shall compact the backfill material  
37 within the zone within 3-feet of the face of the CMU blocks in a manner that achieves compaction  
38 without causing damage to or distortion of the lower CMU blocks.

39  
40 Open-Graded or Well-Graded Backfill Material [per Special Provisions 9-03.14(4) Gravel Borrow for  
41 Structural Earth Wall shall be constructed as follows within the GRS and RSF:

42 <u>Backfill Material Type</u>	43 <u>Project Location</u>
44 Well-Graded	All Layers Above CMU Row 16
45 Open-Graded	Lower 16 Rows of GRS (At Solid CMU Blocks)
46 Well-Graded	RSF

47  
48 The Contracting Agency may conduct a minimum of two random compaction tests per lift to verify the  
49 Contractors compaction effort meets the compaction percentage as described in the Contract Plans.

### 50 **6-13.4 Measurement**

51 (\*\*\*\*\*)

52  
2020 Graf Road MP 1.01 Culvert Replacement Project  
CMP-1531

1 Section 6-13.4 is replaced with the following:

2  
3 “Structural Earth Wall” shall be measured by the square foot of completed vertical wall in place and  
4 shall include all material (Geosynthetic Reinforcement, CMUs, concrete, rebar, polystyrene, conduit,  
5 etc.), labor and equipment necessary to complete the wall. The bottom limits for vertical measurement  
6 shall be the bottom of the RSF or GRS at wall sides. The top limit for vertical measurement shall be the  
7 top of the wall as shown on the Contract Plans. The horizontal limits for measurement shall be from the  
8 end of the wall to the end of the wall.

9  
10 “Gravel Borrow for Structural Earth Wall Incl. Haul”, shall be measured per cubic yard for material  
11 compacted and incorporated into the project as depicted in the Contract Plans. Measurements for this  
12 bid item shall be determined by computer aided drafting software based on planned excavation limits.  
13 The Contractor shall be responsible for supplying, hauling and compaction of material replacement due  
14 to excavation beyond the plan limits for the GRS and RSF.

### 15 **6-13.5 Payment**

16 (\*\*\*\*\*)

17 Section 6-13.5 paragraph three is replaced with the following:

18  
19  
20 “Structural Earth Wall” per square foot of completed wall shall be full payment for all material  
21 (Geosynthetic Reinforcement, CMUs, concrete, rebar, polystyrene, conduit, etc.), labor and equipment  
22 necessary to complete the wall as depicted in the Contract Plans and described in the Special  
23 Provisions.  
24

## 25 **DIVISION 8**

### 26 **MISCELLANEOUS CONSTRUCTION**

### 27 **8-01, EROSION CONTROL AND WATER POLLUTION CONTROL**

#### 28 **8-01.3 Construction Requirements**

29 Section 8-01.3 is supplemented with the following:

##### 30 **Treatment of pH for Concrete Work**

31 Stormwater or dewatering water that has come in contact with concrete rubble, concrete pours,  
32 concrete grindings or cement treated soils shall be maintained between pH 6.5 and pH 8.5 before  
33 it is allowed to enter surface waters and discharges shall not cause a receiving water pH change of  
34 more than 0.2 pH units.

35 The Contractor shall test runoff during each rain event causing runoff to leave the project site  
36 during concrete pouring, grinding, rubblizing activities, when soils are being treated with cement  
37 and during the first three storms following those activities. If discharging directly to surface waters  
38 the Contractor shall test the pH of the water at the point of discharge, once the pour or grinding  
39 has begun for each shift, and periodically, as requested by the Engineer, thereafter. If a test  
40 indicates the pH is above 8.5, the Contractor shall immediately discontinue work and initiate  
41 treatment according to the plan to lower the pH.

42 Unless specific measures are identified in the Special Provisions, the pH of water may be reduced  
43 by infiltration, or dispersion in vegetation or compost.  
44  
45  
46  
47  
48  
49



1  
2 Work may resume, with treatment, once the pH of the treated material is between 6.5 and 8.5 or it  
3 can be demonstrated that the runoff will not reach surface waters.  
4

5 Any additional BMP items as stated in the TESC Plan and ordered to be placed by the Engineer  
6 but not included in the Proposal shall be paid by force account as provided in Section 1-09.6 of the  
7 Standard Specifications.  
8

9 **8-01.3(1) General**  
10 (April 3, 2006)  
11

12 **8-01.3(1)A Submittals**

13 Section 8-01.3(1)A is supplemented with the following:  
14

15 Prior to beginning any concrete or grinding work, the Contractor shall submit a plan, for the  
16 Engineer's review and approval, outlining the procedures to be used to prevent high pH  
17 stormwater or dewatering water from entering surface waters. The plan shall include how the pH  
18 of the water will be maintained between pH 6.5 and pH 8.5 prior to being discharged from the  
19 project or entering surface waters.  
20

21 **8-01.3(2) Seeding, Fertilizing, and Mulching**

22 **8-01.3(2)B Seeding and Fertilizing**

23 (\*\*\*\*\*)  
24

25 Section 8-01.3(2)B is supplemented with the following:  
26

27 Seed Mix - Roadside: Grass seed, of the following composition, proportion, and quality shall be  
28 applied at the rate of \*\*\*80 \*\*\* pounds of pure live seed per acre on all areas requiring permanent  
29 roadside seeding within the project limits.  
30

31 Kind and Variety of 32 Seed in Mixture by 33 Common Name and 34 <u>(Botanical name)</u>	Pounds Pure Live Seed (PLS) Per Acre
35 36 Deschampsia elongata 37 Slender Hairgrass	5.88
38 39 <i>Elymus glaucus</i> 40 Blue Wildrye	39
41 42 Festuca idahonesis 43 Idaho Fescue	12.74
44 45 <i>Festuca ovina</i> 46 Sheep Fescue	4.21
47 48 <i>Hordeum brachyantherum</i> 49 Meadow Barley	16.86
50 51 <i>Koeler cristata</i> 52 Prairie Junegrass	1.31

3  
4 After seeding the Contractor shall be responsible to ensure a healthy stand of grass, otherwise, the  
5 Contractor shall, restore eroded areas, clean up materials, and reapply the seed, at no cost to the  
6 Contracting Agency.

7  
8 Seeds shall be certified “Weed Free,” indicating there are no noxious or nuisance weeds in the  
9 seed.

10  
11 **8-01.3(2)D Mulching**

12 (\*\*\*\*\*)

13 Section 8-01.3(2)D is supplemented with the following:

14  
15 Long-Term Wood Cellulose Fiber mulch shall be applied at a rate of 4,000 pounds per acre with all  
16 permanent seed mixes and shall conform to Section 9-14.4(2)A Long-Term Mulch of the Standard  
17 Specifications. No more than 2,000 pounds shall be applied in any single lift.

18  
19 **8-01.3(2)E Tackifiers**

20 (\*\*\*\*\*)

21 Section 8-01.3(2)E is supplemented with the following:

22  
23 PAM shall be added to seed mixes at the time of hydraulic application. Application rates and  
24 methods shall conform to Section 8-01.3(2)E of the Standard Specifications.

25  
26 **8-01.3(3) Placing Biodegradable Erosion Control Blanket**

27 (\*\*\*\*\*)

28 Section 8-01.3(3) is supplemented with the following:

29  
30 The Contractor shall place Biodegradable Erosion Control Blanket on slopes steeper than 3:1  
31 (Section 9-14.5(2)D, Table 6 of the Standard Specifications) where shown in the plans. Prior to  
32 placing Erosion Control Blanket the Contractor shall hand seed area with seed mix as described in  
33 this Special Provision.

34  
35 **8-01.5 Payment**

36 (\*\*\*\*\*)

37 Section 8-01.5 is supplemented with the following:

38  
39 The unit contract price per Linear Foot (L.F.) for “High Visibility Silt Fence” shall be full pay for  
40 all cost to obtain, install, maintain, and remove the fence as specified. Once removed, the  
41 fencing shall remain the property of the Contractor.

42  
43 The unit contract price per acre for “Seeding and Mulching” shall be full pay for furnishing and  
44 installing the specified seed mix, mulch, and PAM, chemical weed and grass control/removal  
45 immediately prior to seeding to produce the specified surface conditions, scarification of  
46 compacted areas, minor filling of ruts, and all material and equipment necessary and incidental  
47 to the approved application of the specified seed.

48  
49 The unit contract price per square yard for “Biodegradable Erosion Control Blanket” shall be full  
50 pay for furnishing and installing the specified Biodegradable Erosion Control Blanket and seed  
51 mix. The seed mix shall be considered incidental to this bid item.

1 **8-02 ROADSIDE RESTORATION**

2  
3 **8-02.1 Description**

4 Section 8-02.1 is supplemented with the following:

5  
6 (\*\*\*\*\*)

7 The work described in this section, regardless of the nature or type of the materials encountered,  
8 includes supplying plant material, planting, installing plant protectors, installing weed barrier mats  
9 (at tree and shrub locations in Zone 2) and installing identification stakes as shown in the Contract  
10 Plans, marked in the field, and as directed by the Engineer. This work shall be accomplished in  
11 accordance with all environmental permits regulating the work.

12  
13 **8-02.3 Construction Requirements**

14 Section 8-02.3 is supplemented with the following:

15  
16 (\*\*\*\*\*)

17 **PLANTING MITIGATION CONSTRUCTION**

18  
19 The Contractor shall grade, plant, and otherwise construct mitigated planting areas as shown in  
20 the Contract Plans, marked in the field, and required by the Engineer. The planting of the  
21 enhancement sites shall be performed by a biologist, horticulturist, landscape architect or other  
22 similar professional. The credentials of the supervisor of this work shall be approved by the  
23 Engineer prior to beginning work on this item.

24 **Planting Zones**

25 Planting zones shall be as follows:

Planting Zone	Scientific Name	Common Name	Type	Size of Plants (Material)	Planting Density (Spacing)	Proportion of Planting in Strata (%)	Number of Plants
Zone 1: OHWM to 100-yr Elev	<i>Salix hookeriana</i>	Dune Willow	T/S	live stakes	3' centers	50	100
	<i>Salix sitchensis</i>	Sitka Willow	T/S	live stakes	3' centers	50	100
Area: 1,940 sf							
Zone 2: Riparian Zone Outside Road Right of Way	<i>Pseudotsuga menziesii</i>	Douglas fir	T	1 gallon container	12' centers	50	25
	<i>Acer Macrophyllum</i>	Bigleaf Maple	T	1 gallon container	12' centers	50	25
	<i>Sambucus racemosa</i>	Red Elderberry	S	1 gallon container	6' centers	35	70
	<i>Symphoricarpos albus</i>	Snowberry	S	1 gallon container	6' centers	65	128
Area: 7,110 sf							

28 **Plant Establishment**

29  
30 (\*\*\*\*\*)

31  
32 The Contractor shall provide a one-year plant guarantee period from the date of final acceptance,  
33 in accordance with performance standards of local, state and federal permits. At the end of the  
34 one-year guarantee period, all dead and unacceptable plant materials shall be replaced by the  
35 Contractor at the Contractor's expense. The Contractor shall provide maintenance and monitoring  
36 efforts during the guarantee period.

All shrubs and trees in Zone 2 shall be marked with a monitoring stake and include a biodegradable 3-foot square (or diameter) weed control mat. Weed control mats shall be Kraft Paper Square Mulch Mat, Vispore Tree Mat, Tree Square Mat, DeWitt Tree Mat Circle, or an equivalent weed control mat approved by the Engineer. Monitoring stakes shall be installed to a depth of 18 inches. Monitoring stakes shall be three to six feet above grade. The top six inches of the monitoring stakes shall be painted and color coded to species, to aid in identification of dead and/or missing species.

(\*\*\*\*\*)

Plant Protectors shall be placed around all tree and shrub species to be planted with the exception of *willow stakes* and *Symphoricarpos albus* (snowberry). Plant protectors shall be made of solid flexible plastic and should be held in place with bamboo or wood stakes. Plant protectors shall be installed to a depth of three inches below the soil surface and extend nine to twelve inches above the surface. Stakes should extend a minimum two inches below and minimum two inches above the plant protector and be placed 2 to 3 inches away from the plant. Plant protectors shall be secured to stakes with a minimum of two zip ties or equivalent.

**8-02.3(14) Plant Replacement**

(\*\*\*\*\*)

8-02.03(14) is supplemented with the following:

Monitoring stakes will be installed to a depth of 18 inches. Monitoring stakes should be three to six feet above grade. The top six inches of the monitoring stakes shall be painted, with permanent paint (anticipated to last a period of 5 years) using the table provided below, to aid in identification of dead and/or missing species.

ID	Species	Color
1	<i>Salix hookeriana</i>	Yellow (ribbon only on live stakes)
2	<i>Salix sitchensis</i>	Yellow w black line (ribbon only on live stakes)
3	<i>Acer macrophyllum</i>	Orange
4	<i>Pseudotsuga menziesii</i>	Green
5	<i>Sambucus racemosa</i>	Red with black line
	<i>Symphoricarpos albus</i>	White

**8-02.4 Measurement**

Section 8-02.4 is supplemented with the following:

(\*\*\*\*\*)

“Streamside Mitigation Planting”, no specific unit of measure will apply to this lump sum item. Items specified are approximate and are provided for estimating purposes only. The successful Contractor shall provide the Contracting Agency a lump sum breakdown of all items after bid award.

**8-02.5 Payment**

Section 8-02.5 is supplemented with the following:

“Streamside Mitigation Planting”

The unit contract price per Lump Sum for “Streamside Mitigation Planting” shall be full compensation for furnishing and installing all plants, live stakes, monitoring stakes, weed control mats, and plant protectors - as described in Special Provision and in accordance with the USACE NWP Permit on the project site and all other applicable requirements and regulations. Material descriptions and construction requirements are as described in this Special Provision. The long

1 term monitoring and maintenance (after one-year plant guarantee period) shall be completed by  
2 others.

3  
4 **8-11, GUARDRAIL**

5 **8-11.3(1) Beam Guardrail**

6 (\*\*\*\*\*)

7 Section 8-11.3(1) is supplemented with the following:

8  
9 All posts for this project shall be galvanized steel posts. See Section 9-16.3(2) Posts and Blocks  
10 of these Special Provisions.

11  
12 **8-15 RIPRAP**

13  
14 **8-15.2 Materials**

15 (\*\*\*\*\*)

16 Section 8-15.1 is supplemented with the following:

17  
18 Rock for Erosion Control and Scour Protection Class B 9-13.4(2)

19  
20 Rock for Filter Blanket shall meet the gradation requirements 9-03.9(3)  
21 for Crushed Surfacing Base Course

22  
23 Streambed Sediment 9-03.11(1)

24  
25 10" Cobbles 9-03.11(2)

26  
27 **Large Woody Debris**

28  
29 Large woody debris shall consist of logs with root wads anchored with four boulders per log.  
30 Ballast rock shall be Three Man Rock. Trunk diameter of logs with root wads will range from 16-  
31 inch to 18-inch diameter at breast height (DBH). Trunk lengths shall be 15-feet long. The intact  
32 root wad shall consist of stout roots, such that roots of minimum 2-inch diameter shall form a  
33 root wad at least 4-feet in diameter. Logs with root wads shall consist of Douglas Fir species  
34 that are free from rot or decay. Three Man Rock shall meet the requirements of Section 9-  
35 13.7(1), of the WSDOT Standard Specifications. Three Man Rock shall be sub-angular at  
36 exposed rock face.

37  
38 Three Man Rock 9-13.7(1)

39  
40 Cable shall be galvanized or stainless, steel core, 1/2-inch diameter and shall have a minimum  
41 working load of 10,000 pounds.

42  
43 Epoxy adhesive used to secure cable to ballast rock as shown on the drawings shall be  
44 approved by the Engineer. Under no circumstances shall epoxy adhesive be applied in a  
45 submerged condition. Epoxy shall be field tested for pullout strength prior to acceptance.

46  
47 Galvanized 1/2" chain shall have a minimum working load of 10,000 pounds.

48  
49 **8-15.3 Construction Requirements**

50 (\*\*\*\*\*)

1 Section 8-15.3 is supplemented with the following:

2  
3 **Large Woody Debris**

4  
5 This work consists of placing large woody debris at locations shown in the Contract Plans.

6  
7 Care should be taken when handling log materials to minimize damage such as abrasion, splitting,  
8 crushing and shearing to the tree trunk and root wads where intact and required. The chain's axis  
9 shall be perpendicular to the woody debris axis to hold the woody debris down tightly to the  
10 underlying material. Local excavation may be required to partially embed logs or ballast rock.  
11 Each log shall have two anchor points  $\frac{1}{4}$  length from each end of log with two Three Man Rock at  
12 each anchor point or as directed by the Engineer. Minimize distance between logs and Three Man  
13 Rock. Make a complete wrap with the chain and hold with 4-inch staples around each piece of  
14 woody debris to be anchored at each end. Cable shall be epoxied into the Three Man Rock as  
15 shown on the Contract Plans with two anchor points for each log. Holes shall be drilled into the  
16 Three Man Rock to secure cable with epoxy per the manufacturer's requirements (hole depth, hole  
17 diameter, etc.) to develop pullout strength exceeding 6,000 pounds in fractured concrete. Drill  
18 holes in rock shall not be within 12 inches of each other, as shown on the drawings. Holes shall be  
19 placed in solid rock only, away from obvious fractures or other inconsistencies observed on the  
20 rock surface. Holes shall be scoured with a brush, flushed with water and allowed to dry, and then  
21 cleared as a final measure by blowing with compressed air prior to introduction of the adhesive.  
22 Cable ends should be cleaned of any oil residue by dipping in a can of acetone or otherwise  
23 cleaning. Epoxy adhesive shall not be applied in a submerged condition. Make a complete wrap  
24 with the chain around each piece of woody debris to be anchored as shown on the plans.  
25 Following anchoring, chain shall not have more than a 1-inch gap between the cable and the  
26 woody debris when levered with a steel bar. The chain shall be tight between the rock anchored  
27 end and the woody debris after placement, no slack will be allowed. There should be no slack in  
28 the chain when the cable eye is inserted into the bottom of the epoxy filled drill holes. Fill drill holes  
29 enough epoxy to insure complete coverage. Excess epoxy should come out the top of the hole as  
30 the cable is seated in to the drill hole.

31  
32 **Streambed Mix**

33  
34 The Contractor shall create "Streambed Mix" by combining 2 parts Streambed Sediment and 1 part  
35 10" Cobbles on-site or prior to hauling. Place Streambed Mix in the new stream channel and  
36 culvert as profiled and detailed in the Plans. Streambed mix shall be placed in approximately 1-foot  
37 lifts. Additional Streambed Sediment shall be placed on top of the Streambed Mix to provide  
38 stability to the cobble mix and be placed in area of voids and watered to create a uniform, non-  
39 porous bed. Applications of watering and infilling shall be repeated until all visible voids are filled  
40 with Streambed Sediment and the surface is sealed. This additional Streambed Sediment shall be  
41 paid as "Streambed Mix".

42  
43 **8-15.3(7) Filter Blanket**

44 Section 8-15.3(7) is supplemented with the following:

45  
46 Filter Blanket material shall be placed over the RSF and along the CMU wall to provide an  
47 approximate 0.5-foot cushion for placement of scour protection rock. **The Filter Blanket**  
48 **material shall be considered incidental to "Rock for Erosion Control and Scour**  
49 **Protection Class B" per ton bid item.**

50  
51 **8-15.4 Measurement**

52 **(\*\*\*\*\*)**

1 Section 8-15.4 is supplemented with the following:

2  
3 “Rock for Erosion Control and Scour Protection Class B” will be measured per Ton. The unit  
4 contract price per ton for Rock for Erosion Control and Scour Protection Class B shall be full  
5 pay for furnishing all labor, tools, materials (including Filter Blanket material), and equipment  
6 required to place material as shown in the Contract Plans.

7  
8 “Large Woody Debris” including logs with root wads attached shall be measured per each  
9 installed including cable, chain, Three Man Rock, drilling, 4-inch staples, epoxy, local  
10 excavation for partial embedment, and placing cable into Three Man Rock.

11  
12 “Streambed Mix” will be measured per Ton. The unit contract price per ton for Streambed Mix  
13 shall be full pay for furnishing all labor, mixing, haul, tools, materials, and equipment required  
14 to place material as shown in the Contract Plans.

### 15 **8-15.5 Payment**

16 (\*\*\*\*\*)

17 Section 8-15.5 is supplemented with the following:

18  
19  
20 “Rock for Erosion Control and Scour Protection Class B” per Ton.

21 The unit contract price per ton for the class or kind of riprap specified shall be full pay for  
22 furnishing all labor, tools, equipment, and materials required to construct the riprap, except for  
23 excavation.

24  
25 “Large Woody Debris”, per each.

26 Payment for “Large Woody Debris” per each including logs with root wads attached shall be  
27 full pay for supplying the material, labor, tools, and equipment for installed “Large Woody  
28 Debris”. Cable and chain, Three Man Rock, drilling, 4-inch staples, epoxy, and placing cable  
29 into Three Man Rock required for installation of “Large Woody Debris” shall be incidental to  
30 the “Large Woody Debris” pay item.

31  
32 “Streambed Mix” per Ton.

## 33 **DIVISION 9**

### 34 **MATERIALS**

35 (\*\*\*\*\*)

### 36 **SECTION 9-02, BITUMINOUS MATERIALS**

#### 37 **9-02.1 Asphalt Material, General**

38 The second paragraph is revised to read:

39  
40  
41  
42 The Asphalt Supplier of Performance Graded (PG) asphalt binder and emulsified asphalt shall  
43 have a Quality Control Plan (QCP) in accordance with WSDOT QC 2 “Standard Practice for  
44 Asphalt Suppliers That Certify Performance Graded and Emulsified Asphalts”. The Asphalt  
45 Supplier’s QCP shall be submitted and receive the acceptance of the WSDOT State Materials  
46 Laboratory. Once accepted, any change to the QCP will require a new QCP to be submitted for  
47 acceptance. The Asphalt Supplier of PG asphalt binder and emulsified asphalt shall certify through  
48 the Bill of Lading that the PG asphalt binder or emulsified asphalt meets the Specification  
49 requirements of the Contract.

#### 50 **9-02.1(4) Performance Graded Asphalt Binder (PGAB)**

1 This section's title is revised to read:

2  
3 **Performance Graded (PG) Asphalt Binder**  
4

5 The first paragraph is revised to read:

6  
7 PG asphalt binder meeting the requirements of AASHTO M 332 Table 1 of the grades specified in  
8 the Contract shall be used in the production of HMA. For HMA with greater than 20 percent RAP  
9 by total weight of HMA, or any amount of RAS, the new asphalt binder, recycling agent and  
10 recovered asphalt (RAP and/or RAS) when blended in the proportions of the mix design shall meet  
11 the PG asphalt binder requirements of AASHTO M 332 Table 1 for the grade of asphalt binder  
12 specified by the Contract.  
13

14 The second paragraph, including the table, is revised to read:

15  
16 In addition to AASHTO M 332 Table 1 specification requirements, PG asphalt binders shall meet  
17 the following requirements:  
18

		Additional Requirements by Performance Grade (PG) Asphalt Binders					
Property	Test Method	PG58S-22	PG58H-22	PG58V-22	PG64S-28	PG64H-28	PG64V-28
RTFO Residue: Average Percent Recovery @ 3.2 kPa	AASHTO T 350 <sup>1</sup>			30% Min.	20% Min.	25% Min.	30% Min.
<sup>1</sup> Specimen conditioned in accordance with AASHTO T 240 – RTFO.							

19  
20 The third paragraph is revised to read:

21  
22 The RTFO  $J_{nr,diff}$  and the PAV direct tension specifications of AASHTO M 332 are not required.  
23

24 This section is supplemented with the following:

25  
26 If the asphalt binder verification sample test results fail to meet AASHTO Test Method T 350  
27 “Standard Method of Test for Multiple Stress Creep Recovery (MSCR) Test of Asphalt Binder  
28 Using a Dynamic Shear Rheometer (DSR)” for average percent recovery @ 3.2 kPa for the  
29 applicable grades of binder in accordance with Section 9-02.1(4), the Contracting Agency may  
30 elect to test the sample using AASHTO Test Method T 301 “Standard Method of Test for Elastic  
31 Recovery Test of Asphalt Materials by Means of a Ductilometer.”  
32

33 When AASHTO T 301 is used, a minimum of 65% elastic recovery (ER) will be required when  
34 tested at 25°C ± 0.5°C.  
35

36 **9-03 AGGREGATES**

37  
38 **9-03.8 Aggregates for Hot Mix Asphalt**  
39



1 **9-03.8 (2) HMA Test Requirements**

2 (\*\*\*\*\*)

3 Section 9-03.8(2) is supplemented with the following:

4 **ESAL's**

5 The number of ESAL's for the design and acceptance of the HMA for Interstate Avenue shall be  
6 \*\*\* 1\*\*\* million.

7  
8  
9 **9-03.8(7) HMA Tolerances and Adjustments**

10 (\*\*\*\*\*)

11 Delete item 1 and replace it with the following:

12  
13 **1. Job Mix Formula Tolerances.** After the JMF is determined as required in 5-04.3(7)A, the  
14 constituents of the mixture at the time of acceptance shall conform to the following tolerances:

	<b>Nonstatistical Evaluation</b>	<b>Commercial Evaluation</b>
Aggregate, percent passing		
1", 3/4", 1/2", and 3/8" sieves	±6%	±8%
U.S. No. 4 sieve	±6%	±8%
U.S. No. 8 sieve	±4%	±8%
U.S. No. 16 sieve	±4%	±8%
U.S. No. 30 sieve	±4%	±8%
U.S. No. 50 sieve	±4%	±8%
U.S. No. 100 sieve	±4%	±8%
U.S. No. 200 sieve	±2.0%	±3.0%
Asphalt Binder	±0.5%	±0.7%
VMA	1.5% below minimum value in 9-03.8(2)	
VFA	min. and max. as listed in 9-03.8(2)	
Va	2.5% minimum and 5.5% maximum	

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31  
32  
33 These tolerance limits constitute the allowable limits as described in Section 1-06.2. The tolerance  
34 limit for aggregate shall not exceed the limits of the control points section, except the tolerance  
35 limits for sieves designated as 100% passing will be 99-100.

36  
37 **9-03.14(4) Gravel Borrow for Structural Earth Wall**

38 (\*\*\*\*\*)

39 Section 9-03.14(4) grading is replaced with the following:

40  
41 Open-Graded Backfill Material for Geosynthetic Reinforced Soil

42 Lower 16 CMU Rows (Layers with Solid CMUs)

Sieve Size	Percent Passing
1/2-Inch	100
3/8-Inch	90-100
No. 4	20-55
No. 8	5-30
No. 16	0-10
No. 50	0-5
Plasticity Index (PI) (AASHTO T-90)	PI less than or equal to 6

1  
2 Well-Graded Backfill Material for Geosynthetic Reinforced Soil  
3 Reinforced Soil Foundation (RSF) and All Layers Above CMU Row 16

4 Sieve Size	Percent Passing
5 1 ¼-Inch	99-100
6 1-Inch	80-100
7 5/8-Inch	50-80
8 No. 4	20-45
9 No. 40	3-18
10 No. 200	7.5 max.
11 % Fracture	75 min.
12 Sand Equivalent	40 min.

13  
14 **9-16.3(2) Posts and Blocks**

15 Section 9-16.3(2) is supplemented with the following:

16  
17 (\*\*\*\*\*)

18 All guardrail posts shall be galvanized steel.  
19

20 **POWER EQUIPMENT**

21 (\*\*\*\*\*)

22 The successful bidder will be required to furnish the County a list of all equipment that they anticipate  
23 utilizing on this project.  
24

25 The bidder's attention is directed to the attached Power Equipment Form, which the successful bidder  
26 will be required to complete and return with the contract documents. This information will enable hourly  
27 rental rates to be computed by the County, utilizing the "Rental Rate Blue Book for Construction  
28 Equipment". No payment for any force account work will be allowed until this form has been returned  
29 and accepted by the County.  
30

31 **E-VERIFY**

32 (\*\*\*\*\*)

33 "Effective June 21st, 2010, all contracts with a value of  $\geq$  \$100,000 shall require that the awarded  
34 contractor register with the Department of Homeland Security E-Verify program. Contractors shall have  
35 sixty days after the execution of the contract to register and enter into a Memorandum of Understanding  
36 (MOU) with the Department of Homeland Security (DHS) E-Verify program. After completing the MOU  
37 the contractor shall have an additional sixty days to provide a written record on the authorized  
38 employment status of their employees and those of any sub-contractor(s) currently assigned to the  
39 contract. Employees hired during the execution of the contract and after submission of the initial  
40 verification will be verified to the county within 30 days of hire, as reported from the E-Verify program.  
41 The contractor will continue to update the County on all corrective actions required and changes made  
42 during the performance of the contract."  
43

44 **BOND**

45 (\*\*\*\*\*)

46 The Bidder's special attention is directed to the attached bond form, which the successful bidder will be  
47 required to execute and furnish the County. **NO OTHER BOND FORMS WILL BE ACCEPTED.** The  
48 bond shall be for the full amount of the contract.  
49

50 **LEWIS COUNTY ESTIMATES AND PAYMENT POLICY**

2020 Graf Road MP 1.01 Culvert Replacement Project  
CMP-1531

1 (\*\*\*\*\*)

2 Payment cutoff shall be the last day of each month, inclusive of that day. On or before the 5th day of  
3 each calendar month during the term of this contract, the Contracting Agency shall prepare monthly  
4 Progress Payments for work completed and material furnished. If the Contractor agrees, the  
5 Contractor will approve the Progress Payment and return the estimate to the Contracting Agency by the  
6 15<sup>th</sup> day of that same calendar month. The Contracting Agency shall prepare a voucher based upon  
7 the approved Progress Payment and payment based thereon shall be due the Contractor near the 10<sup>th</sup>  
8 day of the next calendar month. Material Supply contracts involving delivery of prefabricated material  
9 or stockpile material only (no physical work on Contracting Agency property) may be reimbursed via  
10 Contractor generated invoices upon written approval by the Engineer. Reimbursement by invoice shall  
11 not be subject to late charges listed on the Contractor's standard invoice form.

12  
13 When the Contractor reports the work is completed he/she shall then notify the Contracting Agency.  
14 The Contracting Agency shall inspect the work and report any deficiencies to the Contractor. When the  
15 Contracting Agency is satisfied the work has been completed in accordance with all plans and  
16 specifications, the Contracting Agency shall then accept the work.

17  
18 Upon completion of all work described in this Contract, the Contracting Agency shall prepare a Final  
19 Progress Payment and Final Contract Voucher for approval by the Contractor and processing for final  
20 payment. Release of the Contract Bond will be 60 days following Contracting Agency Final Acceptance  
21 of Contract, provided the conditions of Section 1-03.4 and Section 1-07.2 of these Special Provisions  
22 have been satisfied.  
23

## 24 **APPENDICES**

25 (July 12, 1999)

26 The following appendices are attached and made a part of this contract:

27  
28 \*\*\*\*\* APPENDIX A:

29 Boring Logs

30  
31 APPENDIX B:

32 Washington State Prevailing Wage Rates

33 Wage Rate Supplement

34 Wage Rate Benefit Code Key

35  
36 APPENDIX C:

37 U.S Dept. of Transportation GRS-IBS Interim Implementation Guide Ch. 7 -- Construction

38  
39 APPENDIX D:

40 Bid Proposal Documents

41  
42 APPENDIX E:

43 Contract Documents

44  
45 APPENDIX F:

46 Permit Documents

47  
48 APPENDIX G:

49 Contract Plans \*\*\*\*\*  
50



(April 1, 2019)

## **STANDARD PLANS**

The State of Washington Standard Plans for Road, Bridge and Municipal Construction M21-01 transmitted under Publications Transmittal No. PT 16-048, effective August 6, 2018 is made a part of this contract.

The Standard Plans are revised as follows:

### A-40.10

Section View, PCCP to HMA Longitudinal Joint, callout, was – “Sawed Groove ~ Width 3/16” (IN) MIN. to 5/16” (IN) MAX. ~ Depth 1” (IN) MIN. ~ see Std. Spec. 5-04.3(12)B” is revised to read; “Sawed Groove ~ Width 3/16” (IN) MIN. to 5/16” (IN) MAX. ~ Depth 1” (IN) MIN. ~ see Std. Spec. Section 5-04.3(12)A2”

Section View, Transverse Contraction Joint, dimension, was – “D/4” is revised to read: “D/3 to D/4”

### A-50.10

Sheet 2 of 2, Plan, with Single Slope Barrier, reference C-14a is revised to C-70.10

### A-50.20

Sheet 2 of 2, Plan, with Anchored Barrier, reference C-14a is revised to C-70.10

### A-50.30

Sheet 2 of 2, Plan (top), reference C-14a is revised to C-70.1

### B-10.60

DELETED

### B-82.20

DELETED

### B-90.40

Valve Detail - DELETED

### C-1b

STEEL POST Detail on page 2: The upper callout is changed from “3/4” (IN) DIAM. HOLE (TYP.)” to “3/4” (IN) OR 13/16” (IN) DIAM. HOLE (TYP.)”

### C-2C

CASE 9A (typical of 2 callouts): The dimensions were “3'-0” MIN. ~ TO FACE OF GUARDRAIL”. are now revised to read “5'-0” MIN ~ TO FACE OF GUARDRAIL”.

### C-4b

DELETED

### C-4e

DELETED

#### C-4f

Sheet 1, BULLNOSE GRADING PLAN: Slopes shall be not steeper than 10H:1V for the bullnose guardrail system including slopes into the guardrail face to 1 foot behind the guardrail post.

Sheet 2, POST 1R & 1L, 2R & 2L, 3R TO 8R and 3L TO 8L, 9R TO 12 R and 9L TO 12L elevation view details: Slopes into the guardrail face to 1 foot behind the guardrail post shall not be steeper than 10H:1V.

Sheet 3, SECTION B, callout – was: “THE NUT SHALL BE ASTM A563D STEEL, AND GALVANIZED ACCORDING TO STANDARD SPEC. 9-16.3(3).” Is revised to read: “THE NUT SHALL BE ASTM A307 STEEL, AND GALVANIZED ACCORDING TO STANDARD SPEC. 9-16.3(3).”

#### C-20.10

STEEL POST Detail: The upper callout is changed from “1/4” (IN) DIAM. HOLE FOR ANTI-ROTATION 16d NAIL (TYP.)” to “1/4” (IN) OR 13/16” (IN) DIAM. HOLE FOR ANTI-ROTATION 16d NAIL (TYP.)”

The lower callout is changed from “3/4” (IN) DIAM. HOLE FOR BUTTON HEAD BOLT (TYP.)” to “3/4” (IN) OR 13/16” (IN) DIAM. HOLE FOR BUTTON HEAD BOLT (TYP.)”

#### C-20.14

CASE 3-31: The dimension was “5'-0” MIN” from the back of guardrail to the center of railroad signal support is now revised to “5'-0” MIN” from face of guardrail to the front edge of the railroad signal support.

Note 3, was – “The slope from the edge of the shoulder into the face of the guardrail cannot exceed 10H : 1V when the face of the guardrail is less than 12' – 0” from the edge of the shoulder.” is revised to read: “The slope from the edge of the shoulder into the face of the guardrail cannot be steeper than 10H : 1V when the face of the guardrail is less than 12' – 0” from the edge of the shoulder. The slope from the edge of the shoulder into the face of the guardrail cannot be steeper than 6H : 1V when the guardrail is 12' – 0” or more from the edge of the shoulder.”

#### C-20.18

ALL CASES: The dimensions were “3'-0” MIN” from the face of guardrail to the front edge of the fixed feature are now revised to “5'-0” MIN” from the face of guardrail to the front edge of the fixed feature.

Note 1, was – “The slope from the edge of the shoulder into the face of the guardrail should not exceed 10H : 1V when the guardrail is within 12' – 0” from the edge of the shoulder.” Is revised to read: “The slope from the edge of the shoulder into the face of the guardrail should not be steeper than 10H : 1V when the guardrail is less than 12' – 0” from the edge of the shoulder. The slope from the edge of the shoulder into the face of the guardrail should not be steeper than 6H : 1V when the guardrail is 12' – 0” or more from the edge of shoulder.”

#### C-20.41

BOX CULVERT POST, ELEVATION VIEW Detail: The upper callout is changed from “3/4” (IN) DIAM. HOLE” to “3/4” (IN) OR 13/16” (IN) DIAM. HOLE”

C-20.45

STEEL POST Detail: The upper callout is changed from “1/4” (IN) DIAM. HOLE FOR ANTI-ROTATION 16d NAIL (TYP.)” to “1/4” (IN) OR 13/16” (IN) DIAM. HOLE FOR ANTI-ROTATION 16d NAIL (TYP.)”

The lower callout is changed from “3/4” (IN) DIAM. HOLE FOR BUTTON HEAD BOLT (TYP.) ~ SEE DETAIL AT RIGHT” to “3/4” (IN) OR 13/16” (IN) DIAM. HOLE FOR BUTTON HEAD BOLT (TYP.) ~ SEE DETAIL AT RIGHT”

C-22.14

DELETED

C-22.16

Note 3, formula, was: “Elevation G = (Elevation S – D x (0.1) + 31” is revised to read: “Elevation G = (Elevation S – D x (0.1) + 31/12”

C-22.40

PLAN VIEW, MSKT-SP-MGS (TL-3) SHOWN: The dimension was “4'-0” MIN” from the face of the terminal to the edge of the widened embankment is now revised to “4'-0” MIN” from the back of the terminal post to the edge of the widened embankment.

Elevation View, MSKT-SP-MGS (TL-3), dimension, MSKT-SP-MGS (TL-3) SYSTEM LENGTH = 50' – 0” , dimension is revised to read: 46' – 10 1/2”

Elevation View, SOFTSTOP (TL-3), dimension, SOFTSTOP (TL-3) SYSTEM LENGTH = 50' – 9 1/2”, dimension is revised to read: 50' – 10 1/2”

Note 6, was – “...a maximum taper of 25.4 : 1 or flatter is allowed over the system length of 50' – 9 □” with a maximum...” is revised to read: “...a maximum taper of 25.44 : 1 or flatter is allowed over the system length of 50' – 10 □” with a maximum...”

C-22.45

PLAN VIEW, MSKT-SP-MGS (TL-2) SHOWN: The dimension was “4'-0” MIN” from the face of the terminal to the edge of the widened embankment is now revised to “4'-0” MIN” from the back of the terminal post to the edge of the widened embankment.

Elevation View, MSKT-SP-MGS (TL-2), dimension, MSKT-SP-MGS (TL-2) SYSTEM LENGTH = 25' – 0”, dimension is revised to read 34' – 4 1/2”

Elevation View, SOFTSTOP (TL-2), dimension, SOFTSTOP (TL-2) SYSTEM LENGTH = 38' – 3 1/2”, dimension is revised to read 38' – 4 1/2”

Note 6, was – “...flare of 38.29 : 1 or flatter is allowed over the system length of 38' – 3 □” with a maximum...” is revised to read: “...flare of 38.38 : 1 or flatter is allowed over the system length of 38' – 4 □” with a maximum...”

C-25.26

Elevation View, TYPE 23: The guardrail height dimension was 2'-8" from the top of the thrie beam to the top of the bridge curb is now revised to 2'-8" from the top of the thrie beam to the top of the ground line.

C-25.80

Plan View, callout, was – "12" (IN) BLOCKOUT" is revised to read; "12" (IN) or 8" (IN) BLOCKOUT (12" (IN) SHOWN)"

Elevation View, add labels to posts (below view); beginning at left side of view – Label Posts as follows; POST 1, POST 2 through POST 6".

General Notes, add Note 6. Note reads as follows; "6. Post 1 shall use an 8 inch blockout, and posts 2 through post 6 shall use 12 inch or 8 inch blockouts."

C-40.14

DELETED

C-90.10

DELETED

D-10.10

Wall Type 1 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT Bridge Design Manual (BDM) and the revisions stated in the 11/3/15 Bridge Design memorandum.

D-10.15

Wall Type 2 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT BDM and the revisions stated in the 11/3/15 Bridge Design memorandum.

D-10.20

Wall Type 3 may be used in all cases. The last sentence of Note 6 on Wall Type 3 shall be revised to read: The seismic design of these walls has been completed using a site adjusted (effective) peak ground acceleration of 0.32g.

D-10.25

Wall Type 4 may be used in all cases. The last sentence of Note 6 on Wall Type 4 shall be revised to read: The seismic design of these walls has been completed using a site adjusted (effective) peak ground acceleration of 0.32g.

D-10.30

Wall Type 5 may be used in all cases.

D-10.35

Wall Type 6 may be used in all cases.

D-10.40

Wall Type 7 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in



accordance with the current WSDOT BDM and the revisions stated in the 11/3/15 Bridge Design memorandum.

D-10.45

Wall Type 8 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT BDM and the revisions stated in the revisions stated in the 11/3/15 Bridge Design memorandum.

D-15.10

STD Plans D-15 series “Traffic Barrier Details for Reinforced Concrete Retaining Walls” are withdrawn. Special designs in accordance with the current WSDOT BDM are required in place of these STD Plans.

D-15.20

STD Plans D-15 series “Traffic Barrier Details for Reinforced Concrete Retaining Walls” are withdrawn. Special designs in accordance with the current WSDOT BDM are required in place of these STD Plans.

D-15.30

STD Plans D-15 series “Traffic Barrier Details for Reinforced Concrete Retaining Walls” are withdrawn. Special designs in accordance with the current WSDOT BDM are required in place of these STD Plans.

F-10.12

Section Title, was – “Depressed Curb Section” is revised to read: “Depressed Curb and Gutter Section”

F-10.40

“EXTRUDED CURB AT CUT SLOPE”, Section detail - Deleted

F-10.42

DELETE – “Extruded Curb at Cut Slope” View

H-70.20

Sheet 2, Spacing Detail, Mailbox Support Type 1, reference to Standard Plan I-70.10 is revised to H-70.10

I-30.30

8” Diameter Wattle Spacing Table, lower left corner, was –“Slope:1H : 1V, Maximum Spacing:10’ – 0”” is revised to read: “Slope:1H : 1V, Maximum Spacing:8’ – 0””.

J-10.21

Note 18, was – “When service cabinet is installed within right of way fence, see Standard Plan J-10.22 for details.” Is revised to read; “When service cabinet is installed within right of way fence, or the meter base is mounted on the exterior of the cabinet, see Standard Plan J-10.22 for details.”

J-10.22

Key Note 1, was – “Meter base per serving utility requirements~ as a minimum, the meter base shall be safety socket box with factory-installed test bypass facility that meets the requirements of EUSERC drawing 305.” Is revised to read; “Meter base per serving utility requirements~ as a minimum, the meter base shall be safety socket box with factory-installed test bypass facility that meets the requirements of EUSERC drawing 305. When the utility requires meter base to be mounted on the side or back of the service cabinet, the meter base enclosure shall be fabricated from type 304 stainless steel.”

Key Note 4, “Test with (SPDT Snap Action, Positive close 15 Amp – 120/277 volt “T” rated). Is revised to read: “Test Switch (SPDT snap action, positive close 15 amp – 120/277 volt “T” rated).”

Key Note 14, was – “Hinged dead front with □ turn fasteners or slide latch.” Is revised to read; “Hinged dead front with □ turn fasteners or slide latch. ~ Dead front panel bolts shall not extend into the vertical limits of the breaker array(s).”

Key Note 15, was – “Cabinet Main Bonding Jumper. Buss shall be 4 lug tinned copper. See Cabinet Main bonding Jumper detail, Standard Plan J-3b.“ is revised to read; “Cabinet Main Bonding Jumper Assembly ~ Buss shall be 4 lug tinned copper ~ See Standard Plan J-10.20 for Cabinet Main Bonding Jumper Assembly details.”

Note 1, was – “...socket box mounting detail, see Standard Plan J-3b.” is revised to read to read: “...socket box mounting detail, see Standard Plan J-10.20.”

Note 6, was – “...See door hinge detail, Standard Plan J-3b.” is revised to read: “...See door hinge detail, Standard Plan J-10.20.”

#### J-20.10

Add Note 5, “5. One accessible pedestrian signal assembly per pedestrian pushbutton post.”

#### J-20.11

Sheet 2, Foundation Detail, Elevation, callout – “Type 1 Signal Pole” is revised to read: “Type PS or Type 1 Signal Pole”

Sheet 2, Foundation Detail, Elevation, add note below Title, “(Type 1 Signal Pole Shown)”

Add Note 6, “6. One accessible pedestrian signal assembly per pedestrian pushbutton post.”

#### J-20.26

Add Note 1, “1. One accessible pedestrian pushbutton station per pedestrian pushbutton post.”

#### J-20.16

View A, callout, was – LOCK NIPPLE, is revised to read; CHASE NIPPLE

#### J-21.10

Sheet 1, Elevation View, Round Concrete Foundation Detail, callout – “ANCHOR BOLTS ~ □” (IN) x 30” (IN) FULL THREAD ~ THREE REQ’D. PER ASSEMBLY” IS REVISED TO READ: “ANCHOR BOLTS ~ □” (IN) x 30” (IN) FULL THREAD ~ FOUR REQ’D. PER ASSEMBLY”

Sheet 1 of 2, Elevation view (Round), add dimension depicting the distance from the top of the foundation to find 2 #4 reinforcing bar shown, to read; 3” CLR.. Delete “(TYP.)” from the 2 □” CLR. dimension, depicting the distance from the bottom of the foundation to find 2 # 4 reinf. Bar.

Sheet 1 of 2, Elevation view (Square), add dimension depicting the distance from the top of the foundation to find 1 #4 reinforcing bar shown, to read; 3” CLR. Delete “(TYP.)” from the 2

□" CLR. dimension, depicting the distance from the bottom of the foundation to find 1 # 4 reinf. Bar.

Sheet 2 of 2, Elevation view (Round), add dimension depicting the distance from the top of the foundation to find 2 #4 reinforcing bar shown, to read; 3" CLR. Delete "(TYP.)" from the 2 □" CLR. dimension, depicting the distance from the bottom of the foundation to find 2 # 4 reinf. Bar.

Sheet 2 of 2, Elevation view (Square), add dimension depicting the distance from the top of the foundation to find 1 #4 reinforcing bar shown, to read; 3" CLR. Delete "(TYP.)" from the 2 □" CLR. dimension, depicting the distance from the bottom of the foundation to find 1 # 4 reinf. Bar.

Detail F, callout, "Heavy Hex Clamping Bolt (TYP.) ~ 3/4" (IN) Diam. Torque Clamping Bolts (see Note 3)" is revised to read; "Heavy Hex Clamping Bolt (TYP.) ~ 3/4" (IN) Diam. Torque Clamping Bolts (see Note 1)"

Detail F, callout, "3/4" (IN) x 2' - 6" Anchor Bolt (TYP.) ~ Four Required (See Note 4)" is revised to read; "3/4" (IN) x 2' - 6" Anchor Bolt (TYP.) ~ Three Required (See Note 2)"

J-21.15

Partial View, callout, was – LOCK NIPPLE ~ 1 □" DIAM., is revised to read; CHASE NIPPLE ~ 1 □" (IN) DIAM.

J-21.16

Detail A, callout, was – LOCKNIPPLE, is revised to read; CHASE NIPPLE

J-22.15

Ramp Meter Signal Standard, elevation, dimension 4' - 6" is revised to read; 6'-0"  
(2x) Detail A, callout, was – LOCK NIPPLE ~ 1 □" DIAM. is revised to read; CHASE NIPPLE ~ 1 □" (IN) DIAM.

J-40.10

Sheet 2 of 2, Detail F, callout, "12 – 13 x 1 □" S.S. PENTA HEAD BOLT AND 12" S. S. FLAT WASHER" is revised to read; "12 – 13 x 1 □" S.S. PENTA HEAD BOLT AND 1/2" (IN) S. S. FLAT WASHER"

J-60.14

All references to J-16b (6x) are revised to read; J-60.11

K-80.30

In the NARROW BASE, END view, the reference to Std. Plan C-8e is revised to Std. Plan K-80.35  
Plan Title, was "ALTERNATIVE TEMPORARY CONC. BARRIER (F-SHAPE)" is revised to read: "CONCRETE BARRIER TYPE F"

The following are the Standard Plan numbers applicable at the time this project was advertised. The date shown with each plan number is the publication approval date shown in the lower right-hand corner of that plan. Standard Plans showing different dates shall not be used in this contract.

A-10.10-00.....8/7/07	A-40.00-00.....8/11/09	A-50.30-00.....11/17/08
A-10.20-00.....10/5/07	A-40.10-03.....12/23/14	A-50.40-00.....11/17/08

A-10.30-00.....10/5/07	A-40.15-00.....8/11/09	A-60.10-03.....12/23/14
A-20.10-00.....8/31/07	A-40.20-04.....1/18/17	A-60.20-03.....12/23/14
A-30.10-00.....11/8/07	A-40.50-02.....12/23/14	A-60.30-01.....6/28/18
A-30.30-01.....6/16/11	A-50.10-00.....11/17/08	A-60.40-00.....8/31/07
A-30.35-00.....10/12/07	A-50.20-01.....9/22/09	

B-5.20-02.....1/26/17	B-30.50-03.....2/27/18	B-75.20-02.....2/27/18
B-5.40-02.....1/26/17	B-30.70-04.....2/27/18	B-75.50-01.....6/10/08
B-5.60-02.....1/26/17	B-30.80-01.....2/27/18	B-75.60-00.....6/8/06
B-10.20-02.....3/2/18	B-30.90-02.....1/26/17	B-80.20-00.....6/8/06
B-10.40-01.....1/26/17	B-35.20-00.....6/8/06	B-80.40-00.....6/1/06
B-10.70-00.....1/26/17	B-35.40-00.....6/8/06	B-85.10-01.....6/10/08
B-15.20-01.....2/7/12	B-40.20-00.....6/1/06	B-85.20-00.....6/1/06
B-15.40-01.....2/7/12	B-40.40-02.....1/26/17	B-85.30-00.....6/1/06
B-15.60-02.....1/26/17	B-45.20-01.....7/11/17	B-85.40-00.....6/8/06
B-20.20-02.....3/16/12	B-45.40-01.....7/21/17	B-85.50-01.....6/10/08
B-20.40-04.....2/27/18	B-50.20-00.....6/1/06	B-90.10-00.....6/8/06
B-20.60-03.....3/15/12	B-55.20-02.....2/27/18	B-90.20-00.....6/8/06
B-25.20-02.....2/27/18	B-60.20-01.....6/28/18	B-90.30-00.....6/8/06
B-25.60-02.....2/27/18	B-60.40-01.....2/27/18	B-90.40-01.....1/26/17
B-30.10-03.....2/27/18	B-65.20-01.....4/26/12	B-90.50-00.....6/8/06
B-30.15-00.....2/27/18	B-65.40-00.....6/1/06	B-95.20-01.....2/3/09
B-30.20-04.....2/27/18	B-70.20-00.....6/1/06	B-95.40-01.....6/28/18
B-30.30-03.....2/27/18	B-70.60-01.....1/26/17	
B-30.40-03.....2/27/18		

C-1.....6/28/18	C-20.15-02.....6/11/14	C-40.18-03.....7/21/17
C-1a.....7/14/15	C-20.18-02.....6/11/14	C-70.10-01.....6/17/14
C-1b.....7/14/15	C-20.19-02.....6/11/14	C-75.10-01.....6/11/14
C-1d.....10/31/03	C-20.40-06.....7/21/17	C-75.20-01.....6/11/14
C-2c.....6/21/06	C-20.41-01.....7/14/15	C-75.30-01.....6/11/14
C-4f.....7/2/12	C-20.42-05.....7/14/15	C-80.10-01.....6/11/14
C-6a.....10/14/09	C-20.45.01.....7/2/12	C-80.20-01.....6/11/14
C-7.....6/16/11	C-22.16-06.....7/21/17	C-80.30-01.....6/11/14
C-7a.....6/16/11	C-22.40-06.....7/21/17	C-80.40-01.....6/11/14
C-8.....2/10/09	C-22.45-03.....7/21/17	C-80.50-00.....4/8/12
C-8a.....7/25/97	C-23.60-04.....7/21/17	C-85.10-00.....4/8/12
C-8b.....2/29/16	C.24.10-01.....6/11/14	C-85.11-00.....4/8/12
C-8e.....2/21/07	C-25.20-06.....7/14/15	C-85.14-01.....6/11/14
C-8f.....6/30/04	C-25.22-05.....7/14/15	C-85.15-01.....6/30/14
C-16a.....7/21/17	C-25.26-03.....7/14/15	C-85.16-01.....6/17/14
C-20.10-04.....7/21/17	C-25.30-00.....6/28/18	C-85-18-01.....6/11/14
C-20.11-00.....7/21/17	C-25.80-04.....7/15/16	C-85.20-01.....6/11/14
C-20.14-03.....6/11/14	C-40.16-02.....7/2/12	

D-2.04-00.....11/10/05	D-2.48-00.....11/10/05	D-3.17-02.....5/9/16
D-2.06-01.....1/6/09	D-2.64-01.....1/6/09	D-4.....12/11/98
D-2.08-00.....11/10/05	D-2.66-00.....11/10/05	D-6.....6/19/98

D-2.14-00.....11/10/05	D-2.68-00.....11/10/05	D-10.10-01.....12/2/08
D-2.16-00.....11/10/05	D-2.80-00.....11/10/05	D-10.15-01.....12/2/08
D-2.18-00.....11/10/05	D-2.82-00.....11/10/05	D-10.20-00.....7/8/08
D-2.20-00.....11/10/05	D-2.84-00.....11/10/05	D-10.25-00.....7/8/08
D-2.32-00.....11/10/05	D-2.86-00.....11/10/05	D-10.30-00.....7/8/08
D-2.34-01.....1/6/09	D-2.88-00.....11/10/05	D-10.35-00.....7/8/08
D-2.36-03.....6/11/14	D-2.92-00.....11/10/05	D-10.40-01.....12/2/08
D-2.42-00.....11/10/05	D-3.09-00.....5/17/12	D-10.45-01.....12/2/08
D-2.44-00.....11/10/05	D-3.10-01.....5/29/13	D-15.10-01.....12/2/08
D-2.60-00.....11/10/05	D-3.11-03.....6/11/14	D-15.20-03.....5/9/16
D-2.62-00.....11/10/05	D-3.15-02.....6/10/13	D-15.30-01.....12/02/08
D-2.46-01.....6/11/14	D-3.16-02.....5/29/13	

E-1.....2/21/07	E-4.....8/27/03
E-2.....5/29/98	E-4a.....8/27/03

F-10.12-03.....6/11/14	F-10.62-02.....4/22/14	F-40.15-03.....6/29/16
F-10.16-00.....12/20/06	F-10.64-03.....4/22/14	F-40.16-03.....6/29/16
F-10.18-01.....7/11/17	F-30.10-03.....6/11/14	F-45.10-02.....7/15/16
F-10.40-03.....6/29/16	F-40.12-03.....6/29/16	F-80.10-04.....7/15/16
F-10.42-00.....1/23/07	F-40.14-03.....6/29/16	

G-10.10-00.....9/20/07	G-25.10-04.....6/10/13	G-90.10-03.....7/11/17
G-20.10-02.....6/23/15	G-30.10-04.....6/23/15	G-90.11-00.....4/28/16
G-22.10-04.....6/28/18	G-50.10-03.....6/28/18	G-90.20-05.....7/11/17
G-24.10-00.....11/8/07	G-60.10-04.....6/28/18	G-90.30-04.....7/11/17
G-24.20-01.....2/7/12	G-60.20-02.....6/18/15	G-90.40-02.....4/28/16
G-24.30-02.....6/28/18	G-60.30-02.....6/18/15	G-95.10-02.....6/28/18
G-24.40-07.....6/28/18	G-70.10-03.....6/18/15	G-95.20-03.....6/28/18
G-24.50-04.....7/11/17	G-70.20-04.....7/21/17	G-95.30-03.....6/28/18
G-24.60-05.....6/28/18	G-70.30-04.....7/21/17	

H-10.10-00.....7/3/08	H-32.10-00.....9/20/07	H-70.10-01.....2/7/12
H-10.15-00.....7/3/08	H-60.10-01.....7/3/08	H-70.20-01.....2/16/12
H-30.10-00.....10/12/07	H-60.20-01.....7/3/08	H-70.30-02.....2/7/12

I-10.10-01.....8/11/09	I-30.20-00.....9/20/07	I-40.20-00.....9/20/07
I-30.10-02.....3/22/13	I-30.30-01.....6/10/13	I-50.20-01.....6/10/13
I-30.15-02.....3/22/13	I-30.40-01.....6/10/13	I-60.10-01.....6/10/13
I-30.16-00.....3/22/13	I-30.60-01.....3/7/18	I-60.20-01.....6/10/13
I-30.17-00.....3/22/13	I-40.10-00.....9/20/07	I-80.10-02.....7/15/16

J-10.....7/18/97	J-28.22-00.....8/07/07	J-50.25-00.....6/3/11
J-10.10-03.....6/3/15	J-28.24-01.....6/3/15	J-50.30-00.....6/3/11
J-10.15-01.....6/11/14	J-28.26-01.....12/02/08	J-60.05-01.....7/21/16
J-10.16-00.....6/3/15	J-28.30-03.....6/11/14	J-60.11-00.....5/20/13
J-10.17-00.....6/3/15	J-28.40-02.....6/11/14	J-60.12-00.....5/20/13
J-10.18-00.....6/3/15	J-28.42-01.....6/11/14	J-60.13-00.....6/16/10

J-10.20-01.....6/1/16	J-28.43-01.....6/28/18	J-60.14-00.....6/16/10
J-10.21-00.....6/3/15	J-28.45-03.....7/21/16	J-75.10-02.....7/10/15
J-10.22-00.....5/29/13	J-28.50-03.....7/21/16	J-75.20-01.....7/10/15
J-10.25-00.....7/11/17	J-28.60-02.....7/21/16	J-75.30-02.....7/10/15
J-12.15-00.....6/28/18	J-28.70-03.....7/21/17	J-75.40-02.....6/1/16
J-12.16-00.....6/28/18	J-29.10-01.....7/21/16	J-75.41-01.....6/29/16
J-15.10-01.....6/11/14	J-29.15-01.....7/21/16	J-75.45-02.....6/1/16
J-15.15-02.....7/10/15	J-29.16-02.....7/21/16	J-80.10-00.....6/28/18
J-20.10-03.....6/30/14	J-30.10-00.....6/18/15	J-80.15-00.....6/28/18
J-20.11-02.....6/30/14	J-40.05-00.....7/21/16	J-81.10-00.....6/28/18
J-20.15-03.....6/30/14	J-40.10-04.....4/28/16	J-86.10-00.....6/28/18
J-20.16-02.....6/30/14	J-40.20-03.....4/28/16	J-90.10-03.....6/28/18
J-20.20-02.....5/20/13	J-40.30-04.....4/28/16	J-90.20-03.....6/28/18
J-20.26-01.....7/12/12	J-40.35-01.....5/29/13	J-90.21-02.....6/28/18
J-21.10-04.....6/30/14	J-40.36-02.....7/21/17	J-90.50-00.....6/28/18
J-21.15-01.....6/10/13	J-40.37-02.....7/21/17	
J-21.16-01.....6/10/13	J-40.38-01.....5/20/13	
J-21.17-01.....6/10/13	J-40.39-00.....5/20/13	
J-21.20-01.....6/10/13	J-40.40-01.....4/28/16	
J-22.15-02.....7/10/15	J-45.36-00.....7/21/17	
J-22.16-03.....7/10/15	J-50.05-00.....7/21/17	
J-26.10-03.....7/21/16	J-50.10-00.....6/3/11	
J-26.15-01.....5/17/12	J-50.11-01.....7/21/17	
J-26.20-01.....6/28/18	J-50.12-01.....7/21/17	
J-27.10-01.....7/21/16	J-50.15-01.....7/21/17	
J-27.15-00.....3/15/12	J-50.16-01.....3/22/13	
J-28.10-01.....5/11/11	J-50.20-00.....6/3/11	

K-70.20-01.....6/1/16  
 K-80.10-01.....6/1/16  
 K-80.20-00.....12/20/06  
 K-80.30-00.....2/21/07  
 K-80.35-00.....2/21/07  
 K-80.37-00.....2/21/07

L-10.10-02.....6/21/12	L-40.10-02.....6/21/12	L-70.10-01.....5/21/08
L-20.10-03.....7/14/15	L-40.15-01.....6/16/11	L-70.20-01.....5/21/08
L-30.10-02.....6/11/14	L-40.20-02.....6/21/12	

M-1.20-03.....6/24/14	M-12.10-01.....6/28/18	M-40.10-03.....6/24/14
M-1.40-02.....6/3/11	M-15.10-01.....2/6/07	M-40.20-00...10/12/07
M-1.60-02.....6/3/11	M-17.10-02.....7/3/08	M-40.30-01.....7/11/17
M-1.80-03.....6/3/11	M-20.10-02.....6/3/11	M-40.40-00.....9/20/07
M-2.20-03.....7/10/15	M-20.20-02.....4/20/15	M-40.50-00.....9/20/07
M-2.21-00.....7/10/15	M-20.30-04.....2/29/16	M-40.60-00.....9/20/07
M-3.10-03.....6/3/11	M-20.40-03.....6/24/14	M-60.10-01.....6/3/11
M-3.20-02.....6/3/11	M-20.50-02.....6/3/11	M-60.20-02.....6/27/11
M-3.30-03.....6/3/11	M-24.20-02.....4/20/15	M-65.10-02.....5/11/11

M-3.40-03.....6/3/11	M-24.40-02.....4/20/15	M-80.10-01.....6/3/11
M-3.50-02.....6/3/11	M-24.50-00.....6/16/11	M-80.20-00.....6/10/08
M-5.10-02.....6/3/11	M-24.60-04.....6/24/14	M-80.30-00.....6/10/08
M-7.50-01.....1/30/07	M-24.65-00.....7/11/17	
M-9.50-02.....6/24/14	M-24.66-00.....7/11/17	
M-9.60-00.....2/10/09		
M-11.10-02.....7/11/17		

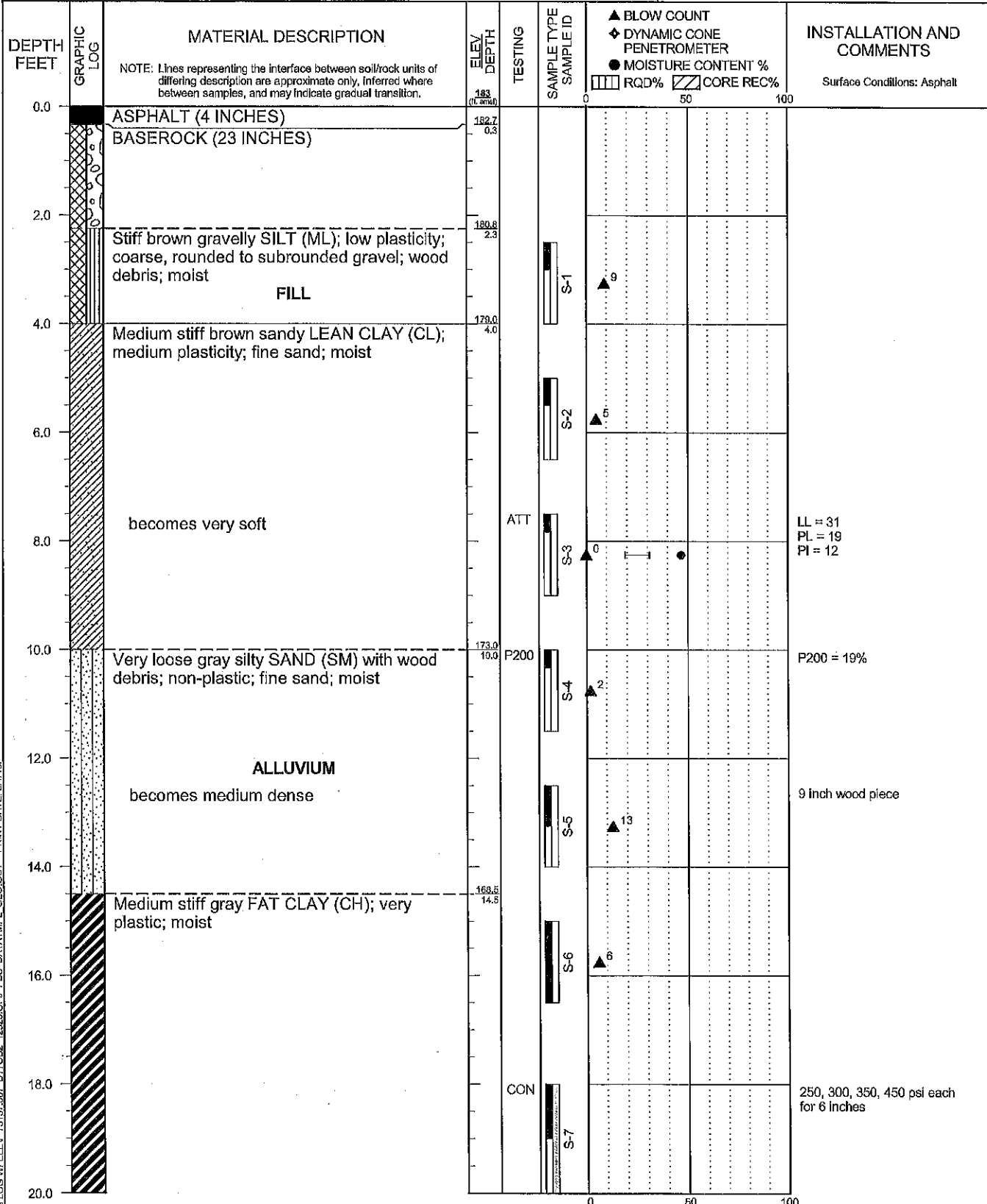




# **APPENDIX A**

## **GEOTECHNICAL REPORT – BORING LOGS**






BORING LOG W/ ELEV 73137.DWG BIT0B2 12223.GPJ PBS DATATMPL GEO.GDT PRINT DATE: 8/1/16

DRILLING METHOD: Mud Rotary  
 DRILLED BY: Hard Core Drilling  
 LOGGED BY: T. Ruhl

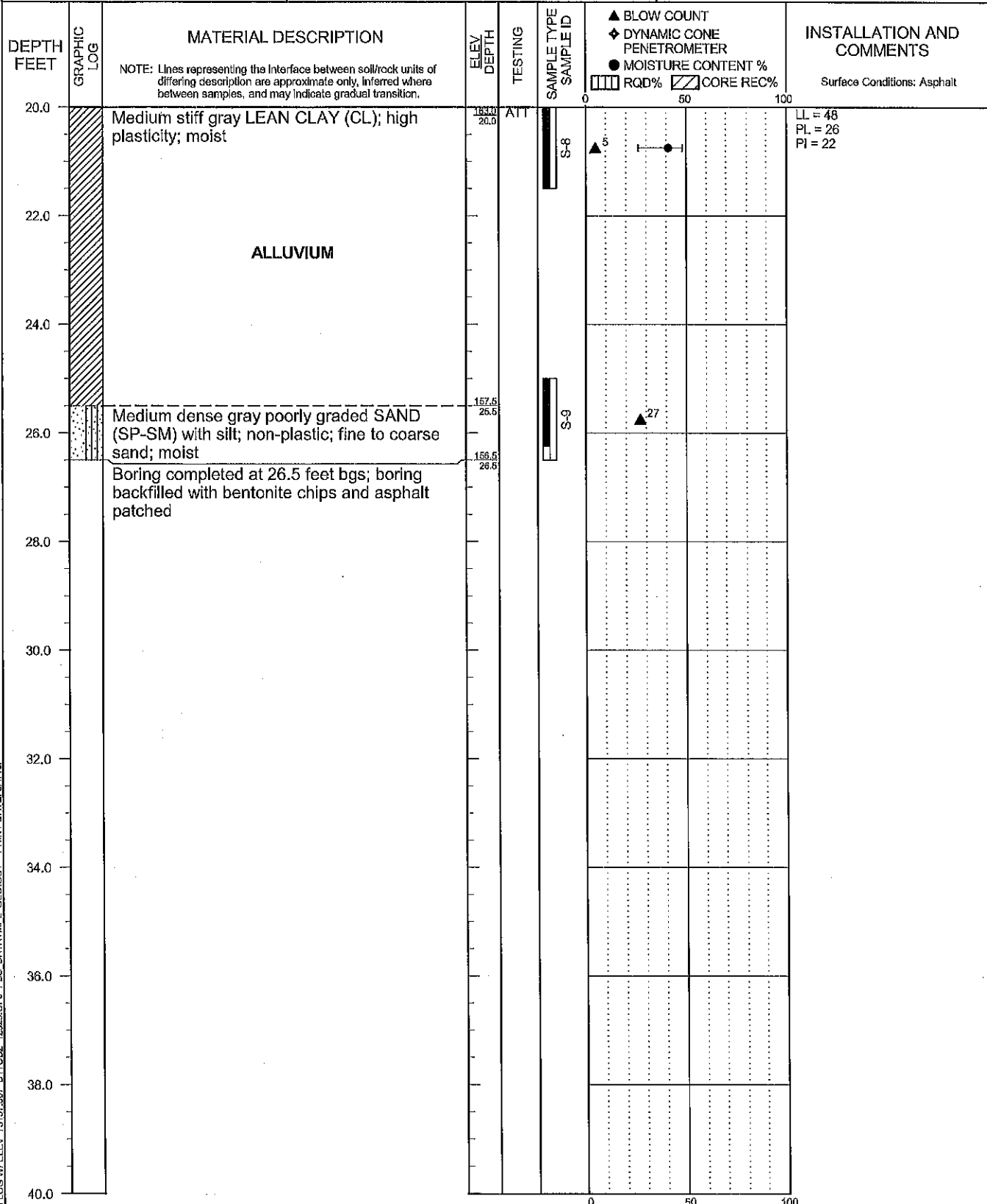
BIT DIAMETER: 4 7/8 Inches  
 HAMMER EFFICIENCY PERCENT: 72  
 LOGGING COMPLETED: 12/23/15

**FIGURE A1**  
 Page 1 of 2


**PBS**  
 Engineering + Environmental  
 4412 SW Corbett Avenue  
 Portland, Oregon 97239  
 Phone: 503.248.1939  
 Fax: 866.727.0140

**GRAF ROAD CULVERT REPLACEMENT**  
**CENTRALIA, WASHINGTON**  
  
 PBS PROJECT NUMBER:  
 73137.007

**BORING B-1**  
 (continued)  
  
 APPROX. BORING B-1 LOCATION:  
 48.70825, -122.99536

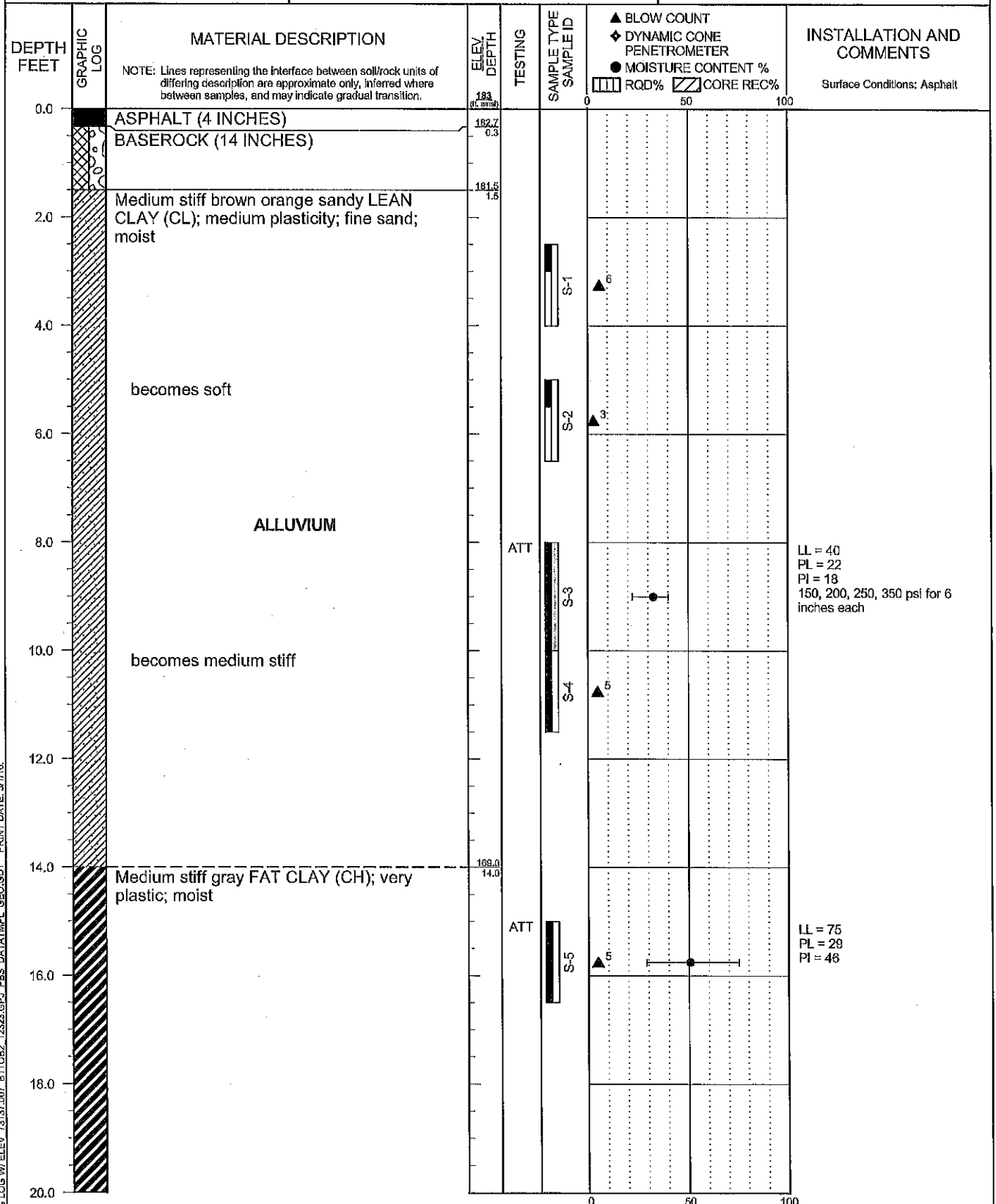


BORING LOG W/ ELEV 73137.007 BITOB2 12323.GPJ PBS DATA1MPL GEO.GDT PRINT DATE: 3/7/16

DRILLING METHOD: Mud Rotary  
 DRILLED BY: Hard Core Drilling  
 LOGGED BY: T. Rikl

BIT DIAMETER: 4 7/8 inches  
 HAMMER EFFICIENCY PERCENT: 72  
 LOGGING COMPLETED: 12/23/15


**FIGURE A1**  
 Page 2 of 2



BORING LOG W/ ELEV 73137.007 B1062 12322.GPJ PBS DATATMPL GEO.GDT PRINT DATE: 3/1/18

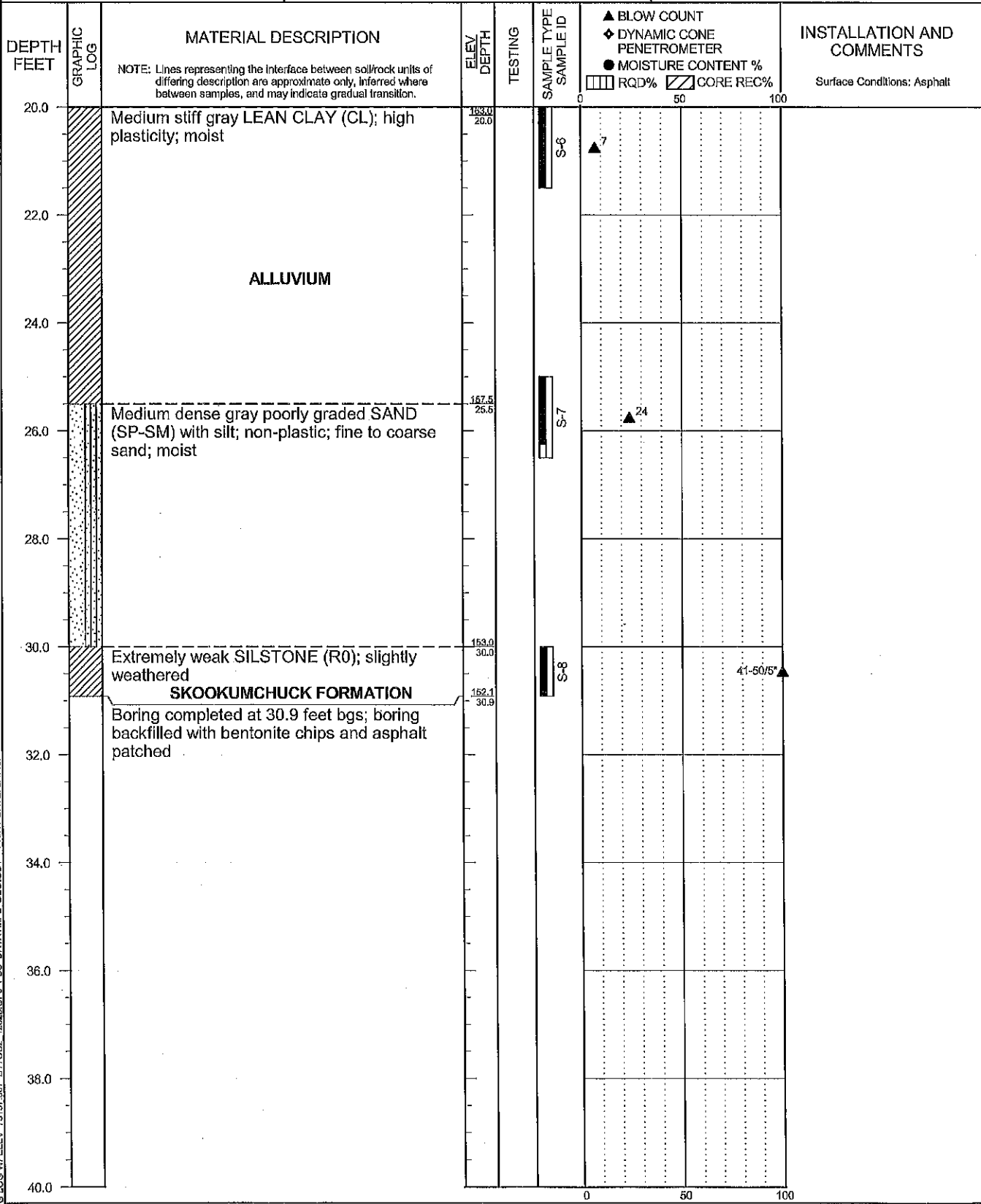
DRILLING METHOD: Mud Rotary  
 DRILLED BY: Hard Core Drilling  
 LOGGED BY: T. Ridd

BIT DIAMETER: 4 7/8 Inches  
 HAMMER EFFICIENCY PERCENT: 72  
 LOGGING COMPLETED: 12/23/15


**PBS**  
 Engineering + Environmental  
 4412 SW Corbett Avenue  
 Portland, Oregon 97239  
 Phone: 503.248.1939  
 Fax: 866.727.0140

GRAF ROAD CULVERT REPLACEMENT  
 CENTRALIA, WASHINGTON  
 PBS PROJECT NUMBER:  
 73137.007

**BORING B-2**  
 (continued)  
 APPROX. BORING B-2 LOCATION:  
 46.70637, -122.99663



BORING LOG W/ ELEV 73137.007 BIT0B2 12233.GPJ PBS DATATMPL GEO.GDT PRINT DATE: 3/1/16

DRILLING METHOD: Mud Rotary  
 DRILLED BY: Hard Core Drilling  
 LOGGED BY: T. Rikli

BIT DIAMETER: 4 7/8 Inches  
 HAMMER EFFICIENCY PERCENT: 72  
 LOGGING COMPLETED: 12/23/15

**FIGURE A2**  
 Page 2 of 2

# **APPENDIX B**

## **WASHINGTON STATE PREVAILING WAGE RATES**

### **INCLUDING:**

**State Wage Rates**

**Wage Rate Supplements**

**Wage Rate Benefit Codes**





State of Washington  
 Department of Labor & Industries  
 Prevailing Wage Section - Telephone 360-902-5335  
 PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

Journey Level Prevailing Wage Rates for the Effective Date: 11/25/2019

<u>County</u>	<u>Trade</u>	<u>Job Classification</u>	<u>Wage</u>	<u>Holiday</u>	<u>Overtime</u>	<u>Note</u>	<u>*Risk Class</u>
Lewis	<a href="#">Asbestos Abatement Workers</a>	Journey Level	\$50.86	<u>5D</u>	<u>1H</u>		<a href="#">View</a>
Lewis	<a href="#">Boilermakers</a>	Journey Level	\$69.04	<u>5N</u>	<u>1C</u>		<a href="#">View</a>
Lewis	<a href="#">Brick Mason</a>	Journey Level	\$58.82	<u>5A</u>	<u>1M</u>		<a href="#">View</a>
Lewis	<a href="#">Brick Mason</a>	Pointer-Caulker-Cleaner	\$58.82	<u>5A</u>	<u>1M</u>		<a href="#">View</a>
Lewis	<a href="#">Building Service Employees</a>	Janitor	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Building Service Employees</a>	Shampooer	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Building Service Employees</a>	Waxer	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Building Service Employees</a>	Window Cleaner	\$13.22		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Cabinet Makers (In Shop)</a>	Journey Level	\$23.17		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Carpenters</a>	Acoustical Worker	\$62.44	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Carpenters</a>	Carpenter	\$62.44	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Carpenters</a>	Carpenters on Stationary Tools	\$62.57	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Carpenters</a>	Creosoted Material	\$62.54	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Carpenters</a>	Floor Finisher	\$62.44	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Carpenters</a>	Floor Layer	\$62.44	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Carpenters</a>	Scaffold Erector	\$62.44	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Application of all Composition Mastic	\$62.97	<u>7A</u>	<u>4U</u>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Application of all Epoxy Material	\$62.47	<u>7A</u>	<u>4U</u>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Application of all Plastic Material	\$62.97	<u>7A</u>	<u>4U</u>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Application of Sealing Compound	\$62.47	<u>7A</u>	<u>4U</u>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Application of Underlayment	\$62.97	<u>7A</u>	<u>4U</u>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Building General	\$62.47	<u>7A</u>	<u>4U</u>		<a href="#">View</a>

Lewis	<a href="#">Cement Masons</a>	Composition or Kalman Floors	\$62.97	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Concrete Paving	\$62.47	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Curb & Gutter Machine	\$62.97	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Curb & Gutter, Sidewalks	\$62.47	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Curing Concrete	\$62.47	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Finish Colored Concrete	\$62.97	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Floor Grinding	\$62.97	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Floor Grinding/Polisher	\$62.47	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Green Concrete Saw, self-powered	\$62.97	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Grouting of all Plates	\$62.47	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Grouting of all Tilt-up Panels	\$62.47	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Gunite Nozzleman	\$62.97	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Hand Powered Grinder	\$62.97	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Journey Level	\$62.47	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Patching Concrete	\$62.47	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Pneumatic Power Tools	\$62.97	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Power Chipping & Brushing	\$62.97	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Sand Blasting Architectural Finish	\$62.97	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Screed & Rodding Machine	\$62.97	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Spackling or Skim Coat Concrete	\$62.47	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Troweling Machine Operator	\$62.97	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Troweling Machine Operator on Colored Slabs	\$62.97	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Cement Masons</a>	Tunnel Workers	\$62.97	<a href="#">7A</a>	<a href="#">4U</a>		<a href="#">View</a>
Lewis	<a href="#">Divers &amp; Tenders</a>	Bell/Vehicle or Submersible Operator (Not Under Pressure)	\$116.20	<a href="#">7A</a>	<a href="#">4C</a>		<a href="#">View</a>
Lewis	<a href="#">Divers &amp; Tenders</a>	Dive Supervisor/Master	\$79.23	<a href="#">7A</a>	<a href="#">4C</a>		<a href="#">View</a>
Lewis	<a href="#">Divers &amp; Tenders</a>	Diver	\$116.20	<a href="#">7A</a>	<a href="#">4C</a>	<a href="#">8V</a>	<a href="#">View</a>
Lewis	<a href="#">Divers &amp; Tenders</a>	Diver On Standby	\$74.23	<a href="#">7A</a>	<a href="#">4C</a>		<a href="#">View</a>
Lewis	<a href="#">Divers &amp; Tenders</a>	Diver Tender	\$67.31	<a href="#">7A</a>	<a href="#">4C</a>		<a href="#">View</a>
Lewis	<a href="#">Divers &amp; Tenders</a>	Manifold Operator	\$67.31	<a href="#">7A</a>	<a href="#">4C</a>		<a href="#">View</a>
Lewis	<a href="#">Divers &amp; Tenders</a>	Manifold Operator Mixed Gas	\$72.31	<a href="#">7A</a>	<a href="#">4C</a>		<a href="#">View</a>
Lewis	<a href="#">Divers &amp; Tenders</a>	Remote Operated Vehicle Operator/Technician	\$67.31	<a href="#">7A</a>	<a href="#">4C</a>		<a href="#">View</a>
Lewis	<a href="#">Divers &amp; Tenders</a>	Remote Operated Vehicle Tender	\$62.69	<a href="#">7A</a>	<a href="#">4C</a>		<a href="#">View</a>
Lewis	<a href="#">Dredge Workers</a>	Assistant Engineer	\$56.44	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
Lewis	<a href="#">Dredge Workers</a>	Assistant Mate (Deckhand)	\$56.00	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
Lewis	<a href="#">Dredge Workers</a>	Boatmen	\$56.44	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
Lewis	<a href="#">Dredge Workers</a>	Engineer Welder	\$57.51	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
Lewis	<a href="#">Dredge Workers</a>	Leverman, Hydraulic	\$58.67	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>

Lewis	<a href="#">Dredge Workers</a>	Mates	\$56.44	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
Lewis	<a href="#">Dredge Workers</a>	Oiler	\$56.00	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
Lewis	<a href="#">Drywall Applicator</a>	Journey Level	\$62.44	<a href="#">5D</a>	<a href="#">1H</a>		<a href="#">View</a>
Lewis	<a href="#">Drywall Tapers</a>	Journey Level	\$62.94	<a href="#">5P</a>	<a href="#">1E</a>		<a href="#">View</a>
Lewis	<a href="#">Electrical Fixture Maintenance Workers</a>	Journey Level	\$12.00		<a href="#">1</a>		<a href="#">View</a>
Lewis	<a href="#">Electricians - Inside</a>	Cable Splicer	\$74.69	<a href="#">5C</a>	<a href="#">1G</a>		<a href="#">View</a>
Lewis	<a href="#">Electricians - Inside</a>	Journey Level	\$69.96	<a href="#">5C</a>	<a href="#">1G</a>		<a href="#">View</a>
Lewis	<a href="#">Electricians - Inside</a>	Lead Covered Cable Splicer	\$79.41	<a href="#">5C</a>	<a href="#">1G</a>		<a href="#">View</a>
Lewis	<a href="#">Electricians - Inside</a>	Welder	\$74.69	<a href="#">5C</a>	<a href="#">1G</a>		<a href="#">View</a>
Lewis	<a href="#">Electricians - Motor Shop</a>	Craftsman	\$15.37		<a href="#">1</a>		<a href="#">View</a>
Lewis	<a href="#">Electricians - Motor Shop</a>	Journey Level	\$14.69		<a href="#">1</a>		<a href="#">View</a>
Lewis	<a href="#">Electricians - Powerline Construction</a>	Cable Splicer	\$79.60	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Lewis	<a href="#">Electricians - Powerline Construction</a>	Certified Line Welder	\$72.98	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Lewis	<a href="#">Electricians - Powerline Construction</a>	Groundperson	\$47.94	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Lewis	<a href="#">Electricians - Powerline Construction</a>	Heavy Line Equipment Operator	\$72.98	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Lewis	<a href="#">Electricians - Powerline Construction</a>	Journey Level Lineperson	\$72.98	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Lewis	<a href="#">Electricians - Powerline Construction</a>	Line Equipment Operator	\$62.06	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Lewis	<a href="#">Electricians - Powerline Construction</a>	Meter Installer	\$47.94	<a href="#">5A</a>	<a href="#">4D</a>	<a href="#">8W</a>	<a href="#">View</a>
Lewis	<a href="#">Electricians - Powerline Construction</a>	Pole Sprayer	\$72.98	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Lewis	<a href="#">Electricians - Powerline Construction</a>	Powderperson	\$54.55	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Lewis	<a href="#">Electronic Technicians</a>	Journey Level	\$44.70	<a href="#">6Z</a>	<a href="#">1B</a>		<a href="#">View</a>
Lewis	<a href="#">Elevator Constructors</a>	Mechanic	\$94.22	<a href="#">7D</a>	<a href="#">4A</a>		<a href="#">View</a>
Lewis	<a href="#">Elevator Constructors</a>	Mechanic In Charge	\$101.73	<a href="#">7D</a>	<a href="#">4A</a>		<a href="#">View</a>
Lewis	<a href="#">Fabricated Precast Concrete Products</a>	Journey Level	\$13.50		<a href="#">1</a>		<a href="#">View</a>
Lewis	<a href="#">Fabricated Precast Concrete Products</a>	Journey Level - In-Factory Work Only	\$13.50		<a href="#">1</a>		<a href="#">View</a>
Lewis	<a href="#">Fence Erectors</a>	Fence Erector	\$43.11	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Fence Erectors</a>	Fence Laborer	\$43.11	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Flaggers</a>	Journey Level	\$43.11	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Glaziers</a>	Journey Level	\$66.51	<a href="#">7L</a>	<a href="#">1Y</a>		<a href="#">View</a>
Lewis	<a href="#">Heat &amp; Frost Insulators And Asbestos Workers</a>	Journeyman	\$76.61	<a href="#">5J</a>	<a href="#">4H</a>		<a href="#">View</a>
Lewis	<a href="#">Heating Equipment Mechanics</a>	Journey Level	\$85.88	<a href="#">7F</a>	<a href="#">1E</a>		<a href="#">View</a>
Lewis	<a href="#">Hod Carriers &amp; Mason Tenders</a>	Journey Level	\$52.44	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Industrial Power Vacuum Cleaner</a>	Journey Level	\$12.00		<a href="#">1</a>		<a href="#">View</a>

Lewis	<a href="#">Inland Boatmen</a>	Boat Operator	\$61.41	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
Lewis	<a href="#">Inland Boatmen</a>	Cook	\$56.48	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
Lewis	<a href="#">Inland Boatmen</a>	Deckhand	\$57.48	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
Lewis	<a href="#">Inland Boatmen</a>	Deckhand Engineer	\$58.81	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
Lewis	<a href="#">Inland Boatmen</a>	Launch Operator	\$58.89	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
Lewis	<a href="#">Inland Boatmen</a>	Mate	\$57.31	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
Lewis	<a href="#">Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</a>	Cleaner Operator, Foamer Operator	\$12.00		<a href="#">1</a>		<a href="#">View</a>
Lewis	<a href="#">Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</a>	Grout Truck Operator	\$12.00		<a href="#">1</a>		<a href="#">View</a>
Lewis	<a href="#">Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</a>	Head Operator	\$12.78		<a href="#">1</a>		<a href="#">View</a>
Lewis	<a href="#">Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</a>	Technician	\$12.00		<a href="#">1</a>		<a href="#">View</a>
Lewis	<a href="#">Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</a>	Tv Truck Operator	\$12.00		<a href="#">1</a>		<a href="#">View</a>
Lewis	<a href="#">Insulation Applicators</a>	Journey Level	\$62.44	<a href="#">7A</a>	<a href="#">4C</a>		<a href="#">View</a>
Lewis	<a href="#">Ironworkers</a>	Journeyman	\$72.18	<a href="#">7N</a>	<a href="#">1O</a>		<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Air, Gas Or Electric Vibrating Screed	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Airtrac Drill Operator	\$52.44	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Ballast Regular Machine	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Batch Weighman	\$43.11	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Brick Pavers	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Brush Cutter	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Brush Hog Feeder	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Burner	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Caisson Worker	\$52.44	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Carpenter Tender	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Cement Dumper-paving	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Cement Finisher Tender	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Change House Or Dry Shack	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Chipping Gun (30 Lbs. And Over)	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Chipping Gun (Under 30 Lbs.)	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Choker Setter	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Chuck Tender	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Clary Power Spreader	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Clean-up Laborer	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Concrete Dumper/Chute Operator	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Concrete Form Stripper	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Concrete Placement Crew	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>

Lewis	<a href="#">Laborers</a>	Concrete Saw Operator/Core Driller	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Crusher Feeder	\$43.11	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Curing Laborer	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Demolition: Wrecking & Moving (Incl. Charred Material)	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Ditch Digger	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Diver	\$52.44	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Drill Operator (Hydraulic, Diamond)	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Dry Stack Walls	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Dump Person	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Epoxy Technician	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Erosion Control Worker	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Faller & Bucker Chain Saw	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Fine Graders	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Firewatch	\$43.11	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Form Setter	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Gabian Basket Builders	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	General Laborer	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Grade Checker & Transit Person	\$52.44	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Grinders	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Grout Machine Tender	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Groutmen (Pressure) Including Post Tension Beams	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Guardrail Erector	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Hazardous Waste Worker (Level A)	\$52.44	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Hazardous Waste Worker (Level B)	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Hazardous Waste Worker (Level C)	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	High Scaler	\$52.44	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Jackhammer	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Laserbeam Operator	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Maintenance Person	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Manhole Builder-Mudman	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Material Yard Person	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Motorman-Dinky Locomotive	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Nozzleman (Concrete Pump, Green Cutter When Using Combination Of High Pressure Air & Water On Concrete & Rock, Sandblast, Gunite, Shotcrete, Water Blaster, Vacuum Blaster)	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>

Lewis	<a href="#">Laborers</a>	Pavement Breaker	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Pilot Car	\$43.11	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Pipe Layer Lead	\$52.44	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Pipe Layer/Tailor	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Pipe Pot Tender	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Pipe Reliner	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Pipe Wrapper	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Pot Tender	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Powderman	\$52.44	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Powderman's Helper	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Power Jacks	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Railroad Spike Puller - Power	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Raker - Asphalt	\$52.44	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Re-timberman	\$52.44	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Remote Equipment Operator	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Rigger/Signal Person	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Rip Rap Person	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Rivet Buster	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Rodder	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Scaffold Erector	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Scale Person	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Sloper (Over 20")	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Sloper Sprayer	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Spreader (Concrete)	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Stake Hopper	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Stock Piler	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Swinging Stage/Boatswain Chair	\$43.11	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Tamper & Similar Electric, Air & Gas Operated Tools	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Tamper (Multiple & Self-propelled)	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Timber Person - Sewer (Lagger, Shorer & Cribber)	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Toolroom Person (at Jobsite)	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Topper	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Track Laborer	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Track Liner (Power)	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Traffic Control Laborer	\$46.10	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">9C</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Traffic Control Supervisor	\$46.10	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">9C</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Truck Spotter	\$50.86	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Tugger Operator	\$51.80	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 0-30 psi	\$120.61	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 30.01-44.00	\$125.64	<a href="#">7A</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>



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Lewis	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 44.01-54.00 psi	\$129.32	<u>7A</u>	<u>4V</u>	<u>9B</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 54.01-60.00 psi	\$135.02	<u>7A</u>	<u>4V</u>	<u>9B</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 60.01-64.00 psi	\$137.14	<u>7A</u>	<u>4V</u>	<u>9B</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 64.01-68.00 psi	\$142.24	<u>7A</u>	<u>4V</u>	<u>9B</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 68.01-70.00 psi	\$144.14	<u>7A</u>	<u>4V</u>	<u>9B</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 70.01-72.00 psi	\$146.14	<u>7A</u>	<u>4V</u>	<u>9B</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 72.01-74.00 psi	\$148.14	<u>7A</u>	<u>4V</u>	<u>9B</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Tunnel Work-Guage and Lock Tender	\$52.54	<u>7A</u>	<u>4V</u>	<u>8Y</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Tunnel Work-Miner	\$52.54	<u>7A</u>	<u>4V</u>	<u>8Y</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Vibrator	\$51.80	<u>7A</u>	<u>4V</u>	<u>8Y</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Vinyl Seamer	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Watchman	\$39.18	<u>7A</u>	<u>4V</u>	<u>8Y</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Welder	\$51.80	<u>7A</u>	<u>4V</u>	<u>8Y</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Well Point Laborer	\$51.80	<u>7A</u>	<u>4V</u>	<u>8Y</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers</a>	Window Washer/Cleaner	\$39.18	<u>7A</u>	<u>4V</u>	<u>8Y</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers - Underground Sewer &amp; Water</a>	General Laborer & Topman	\$50.86	<u>7A</u>	<u>4V</u>	<u>8Y</u>	<a href="#">View</a>
Lewis	<a href="#">Laborers - Underground Sewer &amp; Water</a>	Pipe Layer	\$51.80	<u>7A</u>	<u>4V</u>	<u>8Y</u>	<a href="#">View</a>
Lewis	<a href="#">Landscape Construction</a>	Landscape Construction/Landscaping Or Planting Laborers	\$39.18	<u>7A</u>	<u>4V</u>	<u>8Y</u>	<a href="#">View</a>
Lewis	<a href="#">Landscape Construction</a>	Landscape Operator	\$65.71	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Landscape Maintenance</a>	Groundskeeper	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Lathers</a>	Journey Level	\$62.44	<u>5D</u>	<u>1H</u>		<a href="#">View</a>
Lewis	<a href="#">Marble Setters</a>	Journey Level	\$58.82	<u>5A</u>	<u>1M</u>		<a href="#">View</a>
Lewis	<a href="#">Metal Fabrication (In Shop)</a>	Fitter	\$15.16		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Metal Fabrication (In Shop)</a>	Laborer	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Metal Fabrication (In Shop)</a>	Machine Operator	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Metal Fabrication (In Shop)</a>	Painter	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Metal Fabrication (In Shop)</a>	Welder	\$15.16		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Millwright</a>	Journey Level	\$63.94	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Modular Buildings</a>	Cabinet Assembly	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Modular Buildings</a>	Electrician	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Modular Buildings</a>	Equipment Maintenance	\$12.00		<u>1</u>		<a href="#">View</a>

Lewis	<a href="#">Modular Buildings</a>	Plumber	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Modular Buildings</a>	Production Worker	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Modular Buildings</a>	Tool Maintenance	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Modular Buildings</a>	Utility Person	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Modular Buildings</a>	Welder	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Painters</a>	Journey Level	\$43.40	<u>6Z</u>	<u>2B</u>		<a href="#">View</a>
Lewis	<a href="#">Pile Driver</a>	Crew Tender	\$67.31	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Pile Driver</a>	Crew Tender/Technician	\$67.31	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Pile Driver</a>	Hyperbaric Worker - Compressed Air Worker 0- 30.00 PSI	\$77.93	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Pile Driver</a>	Hyperbaric Worker - Compressed Air Worker 30.01 - 44.00 PSI	\$82.93	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Pile Driver</a>	Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI	\$86.93	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Pile Driver</a>	Hyperbaric Worker - Compressed Air Worker 54.01 - 60.00 PSI	\$91.93	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Pile Driver</a>	Hyperbaric Worker - Compressed Air Worker 60.01 - 64.00 PSI	\$94.43	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Pile Driver</a>	Hyperbaric Worker - Compressed Air Worker 64.01 - 68.00 PSI	\$99.43	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Pile Driver</a>	Hyperbaric Worker - Compressed Air Worker 68.01 - 70.00 PSI	\$101.43	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Pile Driver</a>	Hyperbaric Worker - Compressed Air Worker 70.01 - 72.00 PSI	\$103.43	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Pile Driver</a>	Hyperbaric Worker - Compressed Air Worker 72.01 - 74.00 PSI	\$105.43	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Pile Driver</a>	Journey Level	\$62.69	<u>7A</u>	<u>4C</u>		<a href="#">View</a>
Lewis	<a href="#">Plasterers</a>	Journey Level	\$59.42	<u>7Q</u>	<u>1R</u>		<a href="#">View</a>
Lewis	<a href="#">Playground &amp; Park Equipment Installers</a>	Journey Level	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Plumbers &amp; Pipefitters</a>	Journey Level	\$74.72	<u>5A</u>	<u>1G</u>		<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Asphalt Plant Operator	\$66.81	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Assistant Engineers	\$62.85	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Barrier Machine (zipper)	\$66.22	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Batch Plant Operator: Concrete	\$66.22	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Bobcat	\$62.85	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Brokk - Remote Demolition Equipment	\$62.85	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Brooms	\$62.85	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Bump Cutter	\$66.22	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Cableways	\$66.81	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>



Lewis	<a href="#">Power Equipment Operators</a>	Chipper	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Compressor	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Concrete Pump: Truck Mount With Boom Attachment Over 42m	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Concrete Finish Machine - laser Screed	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Conveyors	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Cranes, 100 Tons - 199 Tons, Or 150 Ft Of Boom (including Jib With Attachments)	\$67.49	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Cranes: 20 Tons Through 44 Tons With Attachments	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Cranes: 200 tons to 299 tons, or 250' of boom (including jib with attachments)	\$68.17	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Cranes: 300 tons and over, or 300' of boom (including jib with attachments)	\$68.84	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom (including Jib With Attachments)	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Cranes: A-frame - 10 Tons And Under	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Cranes: Friction 200 tons and over. Tower Cranes: over 250' in height from base to boom.	\$68.84	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Cranes: Friction cranes through 199 tons	\$68.17	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Cranes: Through 19 Tons With Attachments A-frame Over 10 Tons	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Crusher	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Deck Engineer/deck Winches (power)	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Derricks, On Building Work	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Dozers D-9 & Under	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Drill Oilers: Auger Type, Truck Or Crane Mount	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Drilling Machine	\$67.49	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Elevator And Man-lift: Permanent And Shaft Type	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>

Lewis	<a href="#">Power Equipment Operators</a>	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$66.22	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Forklift: 3000 Lbs And Over With Attachments	\$65.71	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Forklifts: Under 3000 Lbs. With Attachments	\$62.85	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Grade Engineer: Using Blueprints, Cut Sheets,etc.	\$66.22	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Gradechecker/stakeman	\$62.85	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Guardrail punch/Auger	\$66.22	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$66.81	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$66.22	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Horizontal/directional Drill Locator	\$65.71	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Horizontal/directional Drill Operator	\$66.22	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Hydralifts/Boom Trucks Over 10 Tons	\$65.71	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Hydralifts/boom Trucks, 10 Tons And Under	\$62.85	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Loader, Overhead 8 Yards. & Over	\$67.49	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$66.81	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Loaders, Overhead Under 6 Yards	\$66.22	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Loaders, Plant Feed	\$66.22	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Loaders: Elevating Type Belt	\$65.71	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Locomotives, All	\$66.22	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Material Transfer Device	\$66.22	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Mechanics, All (Leadmen - \$0.50 Per Hour Over Mechanic)	\$67.49	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Motor patrol graders	\$66.81	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$66.81	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$62.85	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Outside Hoists (elevators And Manlifts), Air Tuggers,strato	\$65.71	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Overhead, Bridge Type	\$66.22	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>

		Crane: 20 Tons Through 44 Tons					
Lewis	<a href="#">Power Equipment Operators</a>	Overhead, Bridge Type: 100 Tons And Over	\$67.49	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Overhead, Bridge Type: 45 Tons Through 99 Tons	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Pavement Breaker	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Pile Driver (other Than Crane Mount)	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Plant Oiler - Asphalt, Crusher	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Posthole Digger, Mechanical	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Power Plant	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Pumps - Water	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Quad 9, HD 41, D10 And Over	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Quick Tower - No Cab, Under 100 Feet In Height Based To Boom	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Rigger And Bellman	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Rigger/Signal Person, Bellman (Certified)	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Rollagon	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Roller, Other Than Plant Mix	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Roller, Plant Mix Or Multi-lift Materials	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Roto-mill, Roto-grinder	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Saws - Concrete	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Scraper, Self Propelled Under 45 Yards	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Scrapers - Concrete & Carry All	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Scrapers, Self-propelled: 45 Yards And Over	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Service Engineers - Equipment	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Shotcrete/gunite Equipment	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Shovel , Excavator, Backhoe, Tractors Under 15 Metric Tons.	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>

Lewis	<a href="#">Power Equipment Operators</a>	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$67.49	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$68.17	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Slipform Pavers	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Spreader, Topsider & Screedman	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Subgrader Trimmer	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Tower Bucket Elevators	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Tower crane over 175' through 250' in height, base to boom	\$68.17	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Tower Crane Up: To 175' In Height, Base To Boom	\$67.49	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Transporters, All Track Or Truck Type	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Trenching Machines	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Truck Crane Oiler/driver - 100 Tons And Over	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Truck Crane Oiler/driver Under 100 Tons	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Truck Mount Portable Conveyor	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Welder	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Wheel Tractors, Farmall Type	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators</a>	Yo Yo Pay Dozer	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Asphalt Plant Operator	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Assistant Engineers	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Barrier Machine (zipper)	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Batch Plant Operator: Concrete	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Bobcat	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Brokk - Remote Demolition Equipment	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Brooms	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Bump Cutter	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>

Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cableways	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Chipper	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Compressor	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Concrete Pump: Truck Mount With Boom Attachment Over 42m	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Concrete Finish Machine - laser Screed	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Conveyors	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes, 100 Tons - 199 Tons, Or 150 Ft Of Boom (including Jib With Attachments)	\$67.49	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes, 200 tons to 299 tons, or 250' of boom (including jib with attachments)	\$68.17	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes, Over 300 Tons, Or 300' Of Boom Including Jib With Attachments	\$68.84	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: 20 Tons Through 44 Tons With Attachments	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	cranes: 300 tons and over, or 300' of boom (including jib with attachments)	\$68.84	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom (including Jib With Attachments)	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: A-frame - 10 Tons And Under	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: Friction 200 tons and over. Tower Cranes: over 250' in height from base to boom.	\$68.84	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: Friction cranes through 199 tons	\$68.17	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>

Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: Through 19 Tons With Attachments A-frame Over 10 Tons	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Crusher	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Deck Engineer/deck Winches (power)	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Derricks, On Building Work	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Dozers D-9 & Under	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Drill Oilers: Auger Type, Truck Or Crane Mount	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Drilling Machine	\$67.49	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Elevator And Man-lift: Permanent And Shaft Type	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Forklift: 3000 Lbs And Over With Attachments	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Forklifts: Under 3000 Lbs. With Attachments	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Grade Engineer: Using Blueprints, Cut Sheets,etc.	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Gradechecker/stakeman	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Guardrail punch/Auger	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Horizontal/directional Drill Locator	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Horizontal/directional Drill Operator	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>



Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Hydralifts/Boom Trucks Over 10 Tons	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Hydralifts/boom Trucks, 10 Tons And Under	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Loader, Overhead 8 Yards. & Over	\$67.49	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Loaders, Overhead Under 6 Yards	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Loaders, Plant Feed	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Loaders: Elevating Type Belt	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Locomotives, All	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Material Transfer Device	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Mechanics, All (Leadmen - \$0.50 Per Hour Over Mechanic)	\$67.49	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Motor patrol graders	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Outside Hoists (elevators And Manlifts), Air Tuggers, strato	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Overhead, Bridge Type Crane: 20 Tons Through 44 Tons	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Overhead, Bridge Type: 100 Tons And Over	\$67.49	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Overhead, Bridge Type: 45 Tons Through 99 Tons	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Pavement Breaker	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment</a>	Pile Driver (other Than	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>

	<a href="#">Operators- Underground Sewer &amp; Water</a>	Crane Mount)					
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Plant Oiler - Asphalt, Crusher	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Posthole Digger, Mechanical	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Power Plant	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Pumps - Water	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Quad 9, HD 41, D10 And Over	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Quick Tower - No Cab, Under 100 Feet In Height Based To Boom	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Rigger And Bellman	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Rigger/Signal Person, Bellman (Certified)	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Rollagon	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Roller, Other Than Plant Mix	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Roller, Plant Mix Or Multi-lift Materials	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Roto-mill, Roto-grinder	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Saws - Concrete	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Scraper, Self Propelled Under 45 Yards	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Scrapers - Concrete & Carry All	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Scrapers, Self-propelled: 45 Yards And Over	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground</a>	Service Engineers - Equipment	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>



	<a href="#">Sewer &amp; Water</a>						
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Shotcrete/gunite Equipment	\$62.85	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Shovel , Excavator, Backhoe, Tractors Under 15 Metric Tons.	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$67.49	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$68.17	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Slipform Pavers	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Spreader, Topsider & Screedman	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Subgrader Trimmer	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Tower Bucket Elevators	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Tower crane over 175' through 250' in height, base to boom	\$68.17	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Tower Crane: Up To 175' In Height, Base To Boom	\$67.49	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Transporters, All Track Or Truck Type	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Trenching Machines	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Truck Crane Oiler/driver - 100 Tons And Over	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Truck Crane Oiler/driver Under 100 Tons	\$65.71	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Truck Mount Portable Conveyor	\$66.22	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Welder	\$66.81	<a href="#">7A</a>	<a href="#">3K</a>	<a href="#">8X</a>	<a href="#">View</a>

Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Wheel Tractors, Farmall Type	\$62.85	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Yo Yo Pay Dozer	\$66.22	<u>7A</u>	<u>3K</u>	<u>8X</u>	<a href="#">View</a>
Lewis	<a href="#">Power Line Clearance Tree Trimmers</a>	Journey Level In Charge	\$50.96	<u>5A</u>	<u>4A</u>		<a href="#">View</a>
Lewis	<a href="#">Power Line Clearance Tree Trimmers</a>	Spray Person	\$48.35	<u>5A</u>	<u>4A</u>		<a href="#">View</a>
Lewis	<a href="#">Power Line Clearance Tree Trimmers</a>	Tree Equipment Operator	\$50.96	<u>5A</u>	<u>4A</u>		<a href="#">View</a>
Lewis	<a href="#">Power Line Clearance Tree Trimmers</a>	Tree Trimmer	\$45.54	<u>5A</u>	<u>4A</u>		<a href="#">View</a>
Lewis	<a href="#">Power Line Clearance Tree Trimmers</a>	Tree Trimmer Groundperson	\$34.51	<u>5A</u>	<u>4A</u>		<a href="#">View</a>
Lewis	<a href="#">Refrigeration &amp; Air Conditioning Mechanics</a>	Journey Level	\$74.71	<u>5A</u>	<u>1G</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Brick Mason</a>	Journey Level	\$21.96		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Carpenters</a>	Journey Level	\$24.89		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Cement Masons</a>	Journey Level	\$16.79		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Drywall Applicators</a>	Journey Level	\$36.07		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Drywall Tapers</a>	Journey Level	\$24.48		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Electricians</a>	Journey Level	\$34.53	<u>5A</u>	<u>1B</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Glaziers</a>	Journey Level	\$25.40		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Insulation Applicators</a>	Journey Level	\$17.05		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Laborers</a>	Journey Level	\$23.10		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Marble Setters</a>	Journey Level	\$21.96		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Painters</a>	Journey Level	\$18.76		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Plumbers &amp; Pipefitters</a>	Journey Level	\$26.35		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Refrigeration &amp; Air Conditioning Mechanics</a>	Journey Level	\$32.14		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Sheet Metal Workers</a>	Journey Level	\$33.28		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Soft Floor Layers</a>	Journey Level	\$14.86		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Sprinkler Fitters (Fire Protection)</a>	Journey Level	\$20.28		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Stone Masons</a>	Journey Level	\$21.96		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Terrazzo Workers</a>	Journey Level	\$14.86		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Terrazzo/Tile Finishers</a>	Journey Level	\$14.86		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Residential Tile Setters</a>	Journey Level	\$14.86		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Roofers</a>	Journey Level	\$52.87	<u>5A</u>	<u>20</u>		<a href="#">View</a>
Lewis	<a href="#">Roofers</a>	Using Irritable Bituminous Materials	\$55.87	<u>5A</u>	<u>20</u>		<a href="#">View</a>
Lewis	<a href="#">Sheet Metal Workers</a>	Journey Level (Field or	\$85.88	<u>7F</u>	<u>1E</u>		<a href="#">View</a>

		Shop)					
Lewis	<a href="#">Sign Makers &amp; Installers (Electrical)</a>	Journey Level	\$18.04		1		<a href="#">View</a>
Lewis	<a href="#">Sign Makers &amp; Installers (Non-Electrical)</a>	Journey Level	\$50.86	7A	4V	8Y	<a href="#">View</a>
Lewis	<a href="#">Soft Floor Layers</a>	Journey Level	\$51.07	5A	3J		<a href="#">View</a>
Lewis	<a href="#">Solar Controls For Windows</a>	Journey Level	\$12.00		1		<a href="#">View</a>
Lewis	<a href="#">Sprinkler Fitters (Fire Protection)</a>	Journey Level	\$61.68	7J	1R		<a href="#">View</a>
Lewis	<a href="#">Stage Rigging Mechanics (Non Structural)</a>	Journey Level	\$13.23		1		<a href="#">View</a>
Lewis	<a href="#">Stone Masons</a>	Journey Level	\$58.82	5A	1M		<a href="#">View</a>
Lewis	<a href="#">Street And Parking Lot Sweeper Workers</a>	Journey Level	\$16.00		1		<a href="#">View</a>
Lewis	<a href="#">Surveyors</a>	Chain Person	\$65.11	7A	3K		<a href="#">View</a>
Lewis	<a href="#">Surveyors</a>	Instrument Persion	\$65.71	7A	3K		<a href="#">View</a>
Lewis	<a href="#">Surveyors</a>	Party Chief	\$66.81	7A	3K		<a href="#">View</a>
Lewis	<a href="#">Telecommunication Technicians</a>	Journey Level	\$44.70	6Z	1B		<a href="#">View</a>
Lewis	<a href="#">Telephone Line Construction - Outside</a>	Cable Splicer	\$41.81	5A	2B		<a href="#">View</a>
Lewis	<a href="#">Telephone Line Construction - Outside</a>	Hole Digger/Ground Person	\$23.53	5A	2B		<a href="#">View</a>
Lewis	<a href="#">Telephone Line Construction - Outside</a>	Installer (Repairer)	\$40.09	5A	2B		<a href="#">View</a>
Lewis	<a href="#">Telephone Line Construction - Outside</a>	Special Aparatus Installer I	\$41.81	5A	2B		<a href="#">View</a>
Lewis	<a href="#">Telephone Line Construction - Outside</a>	Special Apparatus Installer II	\$40.99	5A	2B		<a href="#">View</a>
Lewis	<a href="#">Telephone Line Construction - Outside</a>	Telephone Equipment Operator (Heavy)	\$41.81	5A	2B		<a href="#">View</a>
Lewis	<a href="#">Telephone Line Construction - Outside</a>	Telephone Equipment Operator (Light)	\$38.92	5A	2B		<a href="#">View</a>
Lewis	<a href="#">Telephone Line Construction - Outside</a>	Telephone Lineperson	\$38.92	5A	2B		<a href="#">View</a>
Lewis	<a href="#">Telephone Line Construction - Outside</a>	Television Groundperson	\$22.32	5A	2B		<a href="#">View</a>
Lewis	<a href="#">Telephone Line Construction - Outside</a>	Television Lineperson/Installer	\$29.60	5A	2B		<a href="#">View</a>
Lewis	<a href="#">Telephone Line Construction - Outside</a>	Television System Technician	\$35.20	5A	2B		<a href="#">View</a>
Lewis	<a href="#">Telephone Line Construction - Outside</a>	Television Technician	\$31.67	5A	2B		<a href="#">View</a>
Lewis	<a href="#">Telephone Line Construction - Outside</a>	Tree Trimmer	\$38.92	5A	2B		<a href="#">View</a>
Lewis	<a href="#">Terrazzo Workers</a>	Journey Level	\$54.06	5A	1M		<a href="#">View</a>
Lewis	<a href="#">Tile Setters</a>	Journey Level	\$54.06	5A	1M		<a href="#">View</a>
Lewis	<a href="#">Tile, Marble &amp; Terrazzo Finishers</a>	Finisher	\$44.89	5A	1B		<a href="#">View</a>
Lewis	<a href="#">Traffic Control Stripers</a>	Journey Level	\$47.68	7A	1K		<a href="#">View</a>
Lewis	<a href="#">Truck Drivers</a>	Asphalt Mix Over 16 Yards	\$60.84	5D	4Y	8L	<a href="#">View</a>

Lewis	<a href="#">Truck Drivers</a>	Asphalt Mix To 16 Yards	\$60.00	<u>5D</u>	<u>4Y</u>	<u>8L</u>	<a href="#">View</a>
Lewis	<a href="#">Truck Drivers</a>	Dump Truck	\$60.00	<u>5D</u>	<u>4Y</u>	<u>8L</u>	<a href="#">View</a>
Lewis	<a href="#">Truck Drivers</a>	Dump Truck & Trailer	\$60.84	<u>5D</u>	<u>4Y</u>	<u>8L</u>	<a href="#">View</a>
Lewis	<a href="#">Truck Drivers</a>	Other Trucks	\$60.84	<u>5D</u>	<u>4Y</u>	<u>8L</u>	<a href="#">View</a>
Lewis	<a href="#">Truck Drivers - Ready Mix</a>	Transit Mix	\$60.84	<u>5D</u>	<u>4Y</u>	<u>8L</u>	<a href="#">View</a>
Lewis	<a href="#">Well Drillers &amp; Irrigation Pump Installers</a>	Irrigation Pump Installer	\$18.18		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Well Drillers &amp; Irrigation Pump Installers</a>	Oiler	\$12.00		<u>1</u>		<a href="#">View</a>
Lewis	<a href="#">Well Drillers &amp; Irrigation Pump Installers</a>	Well Driller	\$18.00		<u>1</u>		<a href="#">View</a>

**Washington State Department of Labor and Industries  
Policy Statement  
(Regarding the Production of "Standard" or "Non-standard" Items)**

Below is the department's (State L&I's) list of criteria to be used in determining whether a prefabricated item is "standard" or "non-standard". For items not appearing on WSDOT's predetermined list, these criteria shall be used by the Contractor (and the Contractor's subcontractors, agents to subcontractors, suppliers, manufacturers, and fabricators) to determine coverage under RCW 39.12. The production, in the State of Washington, of non-standard items is covered by RCW 39.12, and the production of standard items is not. The production of any item outside the State of Washington is not covered by RCW 39.12.

1. Is the item fabricated for a public works project? If not, it is not subject to RCW 39.12. If it is, go to question 2.
2. Is the item fabricated on the public works jobsite? If it is, the work is covered under RCW 39.12. If not, go to question 3.
3. Is the item fabricated in an assembly/fabrication plant set up for, and dedicated primarily to, the public works project? If it is, the work is covered by RCW 39.12. If not, go to question 4.
4. Does the item require any assembly, cutting, modification or other fabrication by the supplier? If not, the work is not covered by RCW 39.12. If yes, go to question 5.
5. Is the prefabricated item intended for the public works project typically an inventory item which could reasonably be sold on the general market? If not, the work is covered by RCW 39.12. If yes, go to question 6.
6. Does the specific prefabricated item, generally defined as standard, have any unusual characteristics such as shape, type of material, strength requirements, finish, etc? If yes, the work is covered under RCW 39.12.

Any firm with questions regarding the policy, WSDOT's Predetermined List, or for determinations of covered and non-covered workers shall be directed to State L&I at (360) 902-5330.

**WSDOT's  
Predetermined List for  
Suppliers - Manufactures - Fabricator**

Below is a list of potentially prefabricated items, originally furnished by WSDOT to Washington State Department of Labor and Industries, that may be considered non-standard and therefore covered by the prevailing wage law, RCW 39.12. Items marked with an X in the "YES" column should be considered to be non-standard and therefore covered by RCW 39.12. Items marked with an X in the "NO" column should be considered to be standard and therefore not covered. Of course, exceptions to this general list may occur, and in that case shall be evaluated according to the criteria described in State and L&I's policy statement.

<b>ITEM DESCRIPTION</b>	<b>YES</b>	<b>NO</b>
1. Metal rectangular frames, solid metal covers, herringbone grates, and bi-directional vaned grates for Catch Basin Types 1, 1L, 1P, and 2 and Concrete Inlets. See Std. Plans		<b>X</b>
2. Metal circular frames (rings) and covers, circular grates, and prefabricated ladders for Manhole Types 1, 2, and 3, Drywell Types 1, 2, and 3 and Catch Basin Type 2. See Std. Plans		<b>X</b>
3. Prefabricated steel grate supports and welded grates, metal frames and dual vaned grates, and Type 1, 2, and 3 structural tubing grates for Drop Inlets. See Std. Plans.		<b>X</b>
4. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes smaller than 60 inch diameter.		<b>X</b>
5. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes larger than 60 inch diameter.		<b>X</b>
6. Corrugated Steel Pipe - Steel lock seam corrugated pipe for culverts and storm sewers, sizes 30 inch to 120 inches in diameter. May also be treated, 1 thru 5.		<b>X</b>
7. Corrugated Aluminum Pipe - Aluminum lock seam corrugated pipe for culverts and storm sewers, sizes 30 inch to 120 inches in diameter. May also be treated, #5.		<b>X</b>

ITEM DESCRIPTION	YES	NO
8. Anchor Bolts & Nuts - Anchor Bolts and Nuts, for mounting sign structures, luminaries and other items, shall be made from commercial bolt stock. See Contract Plans and Std. Plans for size and material type.		<b>X</b>
9. Aluminum Pedestrian Handrail - Pedestrian handrail conforming to the type and material specifications set forth in the contract plans. Welding of aluminum shall be in accordance with Section 9-28.14(3).	<b>X</b>	
10. Major Structural Steel Fabrication - Fabrication of major steel items such as trusses, beams, girders, etc., for bridges.	<b>X</b>	
11. Minor Structural Steel Fabrication - Fabrication of minor steel Items such as special hangers, brackets, access doors for structures, access ladders for irrigation boxes, bridge expansion joint systems, etc., involving welding, cutting, punching and/or boring of holes. See Contact Plans for item description and shop drawings.	<b>X</b>	
12. Aluminum Bridge Railing Type BP - Metal bridge railing conforming to the type and material specifications set forth in the Contract Plans. Welding of aluminum shall be in accordance with Section 9-28.14(3).		<b>X</b>
13. Concrete Piling--Precast-Prestressed concrete piling for use as 55 and 70 ton concrete piling. Concrete to conform to Section 9-19.1 of Std. Spec..	<b>X</b>	
14. Precast Manhole Types 1, 2, and 3 with cones, adjustment sections and flat top slabs. See Std. Plans.		<b>X</b>
15. Precast Drywell Types 1, 2, and with cones and adjustment Sections. See Std. Plans.		<b>X</b>
16. Precast Catch Basin - Catch Basin type 1, 1L, 1P, and 2 With adjustment sections. See Std. Plans.		<b>X</b>

ITEM DESCRIPTION	YES	NO
17. Precast Concrete Inlet - with adjustment sections, See Std. Plans		<b>X</b>
18. Precast Drop Inlet Type 1 and 2 with metal grate supports. See Std. Plans.		<b>X</b>
19. Precast Grate Inlet Type 2 with extension and top units. See Std. Plans		<b>X</b>
20. Metal frames, vaned grates, and hoods for Combination Inlets. See Std. Plans		<b>X</b>
21. Precast Concrete Utility Vaults - Precast Concrete utility vaults of various sizes. Used for in ground storage of utility facilities and controls. See Contract Plans for size and construction requirements. Shop drawings are to be provided for approval prior to casting		<b>X</b>
22. Vault Risers - For use with Valve Vaults and Utilities  X Vaults.		<b>X</b>
23. Valve Vault - For use with underground utilities. See Contract Plans for details.		<b>X</b>
24. Precast Concrete Barrier - Precast Concrete Barrier for use as new barrier or may also be used as Temporary Concrete Barrier. Only new state approved barrier may be used as permanent barrier.		<b>X</b>
25. Reinforced Earth Wall Panels – Reinforced Earth Wall Panels in size and shape as shown in the Plans. Fabrication plant has annual approval for methods and materials to be used. See Shop Drawing. Fabrication at other locations may be approved, after facilities inspection, contact HQ. Lab.	<b>X</b>	
26. Precast Concrete Walls - Precast Concrete Walls - tilt-up wall panel in size and shape as shown in Plans. Fabrication plant has annual approval for methods and materials to be used	<b>X</b>	



ITEM DESCRIPTION	YES	NO
27. Precast Railroad Crossings - Concrete Crossing Structure Slabs.	<b>X</b>	
28. 12, 18 and 26 inch Standard Precast Prestressed Girder – Standard Precast Prestressed Girder for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	<b>X</b>	
29. Prestressed Concrete Girder Series 4-14 - Prestressed Concrete Girders for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	<b>X</b>	
30. Prestressed Tri-Beam Girder - Prestressed Tri-Beam Girders for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	<b>X</b>	
31. Prestressed Precast Hollow-Core Slab – Precast Prestressed Hollow-core slab for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A.	<b>X</b>	
32. Prestressed-Bulb Tee Girder - Bulb Tee Prestressed Girder for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	<b>X</b>	
33. Monument Case and Cover See Std. Plan.		<b>X</b>

ITEM DESCRIPTION	YES	NO
34. Cantilever Sign Structure - Cantilever Sign Structure fabricated from steel tubing meeting AASHTO-M-183. See Std. Plans, and Contract Plans for details. The steel structure shall be galvanized after fabrication in accordance with AASHTO-M-111.	<b>X</b>	
35. Mono-tube Sign Structures - Mono-tube Sign Bridge fabricated to details shown in the Plans. Shop drawings for approval are required prior to fabrication.	<b>X</b>	
36. Steel Sign Bridges - Steel Sign Bridges fabricated from steel tubing meeting AASHTO-M-138 for Aluminum Alloys. See Std. Plans, and Contract Plans for details. The steel structure shall be galvanized after fabrication in accordance with AASHTO-M-111.	<b>X</b>	
37. Steel Sign Post - Fabricated Steel Sign Posts as detailed in Std Plans. Shop drawings for approval are to be provided prior to fabrication		<b>X</b>
38. Light Standard-Prestressed - Spun, prestressed, hollow concrete poles.	<b>X</b>	
39. Light Standards - Lighting Standards for use on highway illumination systems, poles to be fabricated to conform with methods and materials as specified on Std. Plans. See Special Provisions for pre-approved drawings.	<b>X</b>	
40. Traffic Signal Standards - Traffic Signal Standards for use on highway and/or street signal systems. Standards to be fabricated to conform with methods and material as specified on Std. Plans. See Special Provisions for pre-approved drawings	<b>X</b>	
41. Precast Concrete Sloped Mountable Curb (Single and DualFaced) See Std. Plans.		<b>X</b>

ITEM DESCRIPTION	YES	NO
42. Traffic Signs - Prior to approval of a Fabricator of Traffic Signs, the sources of the following materials must be submitted and approved for reflective sheeting, legend material, and aluminum sheeting. <b>NOTE:</b> *** Fabrication inspection required. Only signs tagged "Fabrication Approved" by WSDOT Sign Fabrication Inspector to be installed	<b>X</b>	<b>X</b>
	Custom Message	Std Signing Message
43. Cutting & bending reinforcing steel		<b>X</b>
44. Guardrail components	<b>X</b>	<b>X</b>
	Custom End Sec	Standard Sec
45. Aggregates/Concrete mixes	Covered by WAC 296-127-018	
46. Asphalt	Covered by WAC 296-127-018	
47. Fiber fabrics		<b>X</b>
48. Electrical wiring/components		<b>X</b>
49. treated or untreated timber pile		<b>X</b>
50. Girder pads (elastomeric bearing)	<b>X</b>	
51. Standard Dimension lumber		<b>X</b>
52. Irrigation components		<b>X</b>

ITEM DESCRIPTION	YES	NO
53. Fencing materials		<b>X</b>
54. Guide Posts		<b>X</b>
55. Traffic Buttons		<b>X</b>
56. Epoxy		<b>X</b>
57. Cribbing		<b>X</b>
58. Water distribution materials		<b>X</b>
59. Steel "H" piles		<b>X</b>
60. Steel pipe for concrete pile casings		<b>X</b>
61. Steel pile tips, standard		<b>X</b>
62. Steel pile tips, custom	<b>X</b>	

Prefabricated items specifically produced for public works projects that are prefabricated in a county other than the county wherein the public works project is to be completed, the wage for the offsite prefabrication shall be the applicable prevailing wage for the county in which the actual prefabrication takes place.

It is the manufacturer of the prefabricated product to verify that the correct county wage rates are applied to work they perform.

See RCW [39.12.010](#)

(The definition of "locality" in RCW [39.12.010](#)(2) contains the phrase "wherein the physical work is being performed." The department interprets this phrase to mean the actual work site.

## **WSDOT's List of State Occupations not applicable to Heavy and Highway Construction Projects**

This project is subject to the state hourly minimum rates for wages and fringe benefits in the contract provisions, as provided by the state Department of Labor and Industries.

The following list of occupations, is comprised of those occupations that are not normally used in the construction of heavy and highway projects.

When considering job classifications for use and / or payment when bidding on, or building heavy and highway construction projects for, or administered by WSDOT, these Occupations will be excepted from the included "Washington State Prevailing Wage Rates For Public Work Contracts" documents.

- Building Service Employees
- Electrical Fixture Maintenance Workers
- Electricians - Motor Shop
- Heating Equipment Mechanics
- Industrial Engine and Machine Mechanics
- Industrial Power Vacuum Cleaners
- Inspection, Cleaning, Sealing of Water Systems by Remote Control
- Laborers - Underground Sewer & Water
- Machinists (Hydroelectric Site Work)
- Modular Buildings
- Playground & Park Equipment Installers
- Power Equipment Operators - Underground Sewer & Water
- Residential \*\*\* ALL ASSOCIATED RATES \*\*\*
- Sign Makers and Installers (Non-Electrical)
- Sign Makers and Installers (Electrical)
- Stage Rigging Mechanics (Non Structural)

The following occupations may be used only as outlined in the preceding text concerning "WSDOT's list for Suppliers - Manufacturers - Fabricators"

- Fabricated Precast Concrete Products
- Metal Fabrication (In Shop)

Definitions for the Scope of Work for prevailing wages may be found at the Washington State Department of Labor and Industries web site and in WAC Chapter 296-127.

**Washington State Department of Labor and Industries  
Policy Statements  
(Regarding Production and Delivery of Gravel, Concrete, Asphalt, etc.)**

**WAC 296-127-018 Agency filings affecting this section**

**Coverage and exemptions of workers involved in the production and delivery of gravel, concrete, asphalt, or similar materials.**

(1) The materials covered under this section include but are not limited to: Sand, gravel, crushed rock, concrete, asphalt, or other similar materials.

(2) All workers, regardless of by whom employed, are subject to the provisions of chapter 39.12 RCW when they perform any or all of the following functions:

(a) They deliver or discharge any of the above-listed materials to a public works project site:

(i) At one or more point(s) directly upon the location where the material will be incorporated into the project; or

(ii) At multiple points at the project; or

(iii) Adjacent to the location and coordinated with the incorporation of those materials.

(b) They wait at or near a public works project site to perform any tasks subject to this section of the rule.

(c) They remove any materials from a public works construction site pursuant to contract requirements or specifications (e.g., excavated materials, materials from demolished structures, clean-up materials, etc.).

(d) They work in a materials production facility (e.g., batch plant, borrow pit, rock quarry, etc.) which is established for a public works project for the specific, but not necessarily exclusive, purpose of supplying materials for the project.

(e) They deliver concrete to a public works site regardless of the method of incorporation.

(f) They assist or participate in the incorporation of any materials into the public works project.

(3) All travel time that relates to the work covered under subsection (2) of this section requires the payment of prevailing wages. Travel time includes time spent waiting to load, loading, transporting, waiting to unload, and delivering materials. Travel time would include all time spent in travel in support of a public works project whether the vehicle is empty or full. For example, travel time spent returning to a supply source to obtain another load of material for use on a public works site or returning to the public works site to obtain another load of excavated material is time spent in travel that is subject to prevailing wage. Travel to a supply source, including travel from a public works site, to obtain materials for use on a private project would not be travel subject to the prevailing wage.

(4) Workers are not subject to the provisions of chapter 39.12 RCW when they deliver materials to a stockpile.

(a) A "stockpile" is defined as materials delivered to a pile located away from the site of incorporation such that the stockpiled materials must be physically moved from the stockpile and transported to another location on the project site in order to be incorporated into the project.

(b) A stockpile does not include any of the functions described in subsection (2)(a) through (f) of this section; nor does a stockpile include materials delivered or distributed to multiple locations upon the project site; nor does a stockpile include materials dumped at the place of incorporation, or adjacent to the location and coordinated with the incorporation.

(5) The applicable prevailing wage rate shall be determined by the locality in which the work is performed. Workers subject to subsection (2)(d) of this section, who produce such materials at an off-site facility shall be paid the applicable prevailing wage rates for the county in which the off-site facility is located. Workers subject to subsection (2) of this section, who deliver such materials to a public works project site shall be paid the applicable prevailing wage rates for the county in which the public works project is located.

[Statutory Authority: Chapter 39.12 RCW, RCW 43.22.051 and 43.22.270. 08-24-101, § 296-127-018, filed 12/2/08, effective 1/2/09. Statutory Authority: Chapters 39.04 and 39.12 RCW and RCW 43.22.270. 92-01-104 and 92-08-101, § 296-127-018, filed 12/18/91 and 4/1/92, effective 8/31/92.]

Benefit Code Key – Effective 8/31/2019 thru 3/3/2020

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**Overtime Codes**

**Overtime calculations** are based on the hourly rate actually paid to the worker. On public works projects, the hourly rate must be not less than the prevailing rate of wage minus the hourly rate of the cost of fringe benefits actually provided for the worker.

1. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
  - B. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - C. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - D. The first two (2) hours before or after a five-eight (8) hour workweek day or a four-ten (10) hour workweek day and the first eight (8) hours worked the next day after either workweek shall be paid at one and one-half times the hourly rate of wage. All additional hours worked and all worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.
  - G. The first ten (10) hours worked on Saturdays and the first ten (10) hours worked on a fifth calendar weekday in a four-ten hour schedule, shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - H. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions or equipment breakdown) shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - I. All hours worked on Sundays and holidays shall also be paid at double the hourly rate of wage.
  - J. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage.
  - K. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
  - M. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - N. All hours worked on Saturdays (except makeup days) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.



**Overtime Codes Continued**

1. O. The first ten (10) hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays, holidays and after twelve (12) hours, Monday through Friday and after ten (10) hours on Saturday shall be paid at double the hourly rate of wage.
- P. All hours worked on Saturdays (except makeup days if circumstances warrant) and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
- Q. The first two (2) hours after eight (8) regular hours Monday through Friday and up to ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays (except Christmas day) shall be paid at double the hourly rate of wage. All hours worked on Christmas day shall be paid at two and one-half times the hourly rate of wage.
- R. All hours worked on Sundays and holidays shall be paid at two times the hourly rate of wage.
- S. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays and all other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.
- U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays (except Labor Day) shall be paid at two times the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.
- V. All hours worked on Sundays and holidays (except Thanksgiving Day and Christmas day) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Thanksgiving Day and Christmas day shall be paid at double the hourly rate of wage.
- W. All hours worked on Saturdays and Sundays (except make-up days due to conditions beyond the control of the employer) shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
- X. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over twelve (12) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage. When holiday falls on Saturday or Sunday, the day before Saturday, Friday, and the day after Sunday, Monday, shall be considered the holiday and all work performed shall be paid at double the hourly rate of wage.
- Y. All hours worked outside the hours of 5:00 am and 5:00 pm (or such other hours as may be agreed upon by any employer and the employee) and all hours worked in excess of eight (8) hours per day (10 hours per day for a 4 x 10 workweek) and on Saturdays and holidays (except labor day) shall be paid at one and one-half times the hourly rate of wage. (except for employees who are absent from work without prior approval on a scheduled workday during the workweek shall be paid at the straight-time rate until they have worked 8 hours in a day (10 in a 4 x 10 workweek) or 40 hours during that workweek.) All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and Labor Day shall be paid at double the hourly rate of wage.
- Z. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid the straight time rate of pay in addition to holiday pay.

**Overtime Codes Continued**

2. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
- B. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.
  - C. All hours worked on Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at two times the hourly rate of wage.
  - F. The first eight (8) hours worked on holidays shall be paid at the straight hourly rate of wage in addition to the holiday pay. All hours worked in excess of eight (8) hours on holidays shall be paid at double the hourly rate of wage.
  - G. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.
  - H. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.
  - O. All hours worked on Sundays and holidays shall be paid at one and one-half times the hourly rate of wage.
  - R. All hours worked on Sundays and holidays and all hours worked over sixty (60) in one week shall be paid at double the hourly rate of wage.
  - U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked over 12 hours in a day or on Sundays and holidays shall be paid at double the hourly rate of wage.
  - W. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The first eight (8) hours worked on the fifth day shall be paid at one and one-half times the hourly rate of wage. All other hours worked on the fifth, sixth, and seventh days and on holidays shall be paid at double the hourly rate of wage.
3. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
- A. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal shift, and all work on Saturdays shall be paid at time and one-half the straight time rate. Hours worked over twelve hours (12) in a single shift and all work performed after 6:00 pm Saturday to 6:00 am Monday and holidays shall be paid at double the straight time rate of pay. Any shift starting between the hours of 6:00 pm and midnight shall receive an additional one dollar (\$1.00) per hour for all hours worked that shift. The employer shall have the sole discretion to assign overtime work to employees. Primary consideration for overtime work shall be given to employees regularly assigned to the work to be performed on overtime situations. After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.
  - C. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays shall be paid at double the hourly rate of wage. After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

**Overtime Codes Continued**

3.
  - E. All hours worked Sundays and holidays shall be paid at double the hourly rate of wage. Each week, once 40 hours of straight time work is achieved, then any hours worked over 10 hours per day Monday through Saturday shall be paid at double the hourly wage rate.
  - F. All hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.
  - H. All work performed on Sundays between March 16th and October 14th and all Holidays shall be compensated for at two (2) times the regular rate of pay. Work performed on Sundays between October 15th and March 15th shall be compensated at one and one half (1-1/2) times the regular rate of pay.
  - J. All hours worked between the hours of 10:00 pm and 5:00 am, Monday through Friday, and all hours worked on Saturdays shall be paid at a one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - K. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

4. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
  - A. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage.
  - B. All hours worked over twelve (12) hours per day and all hours worked on holidays shall be paid at double the hourly rate of wage.
  - C. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay. On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay. All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.

**Overtime Codes Continued**

4. D. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturday, Sundays and holidays shall be paid at double the hourly rate of pay. Rates include all members of the assigned crew.

**EXCEPTION:**

On all multipole structures and steel transmission lines, switching stations, regulating, capacitor stations, generating plants, industrial plants, associated installations and substations, except those substations whose primary function is to feed a distribution system, will be paid overtime under the following rates:

The first two (2) hours after eight (8) regular hours Monday through Friday of overtime on a regular workday, shall be paid at one and one-half times the hourly rate of wage. All hours in excess of ten (10) hours will be at two (2) times the hourly rate of wage. The first eight (8) hours worked on Saturday will be paid at one and one-half (1-1/2) times the hourly rate of wage. All hours worked in excess of eight (8) hours on Saturday, and all hours worked on Sundays and holidays will be at the double the hourly rate of wage.

All overtime eligible hours performed on the above described work that is energized, shall be paid at the double the hourly rate of wage.

- E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one and one half (1½) times the regular shift rate for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

- F. All hours worked between the hours of 6:00 pm and 6:00 am, Monday through Saturday, shall be paid at a premium rate of 20% over the hourly rate of wage. All hours worked on Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.

- G. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

- H. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, and all hours on Sunday shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.

- I. The First eight (8) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) per day on Saturdays shall be paid at double the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

- J. The first eight (8) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) hours on a Saturday shall be paid at double the hourly rate of wage. All hours worked over twelve (12) in a day, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

- K. All hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage, so long as Saturday is the sixth consecutive day worked. All hours worked over twelve (12) in a day Monday through Saturday, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.

**Overtime Codes Continued**

4. L. The first twelve (12) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on a Saturday in excess of twelve (12) hours shall be paid at double the hourly rate of pay. All hours worked over twelve (12) in a day Monday through Friday, and all hours worked on Sundays shall be paid at double the hourly rate of wage. All hours worked on a holiday shall be paid at one and one-half times the hourly rate of wage, except that all hours worked on Labor Day shall be paid at double the hourly rate of pay.
- M. All hours worked on Sunday and Holidays shall be paid at double the hourly rate. Any employee reporting to work less than nine (9) hours from their previous quitting time shall be paid for such time at time and one-half times the hourly rate.
- N. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays, and all work performed between the hours of midnight (12:00 AM) and eight AM (8:00 AM) every day shall be paid at double the hourly rate of wage.
- O. All hours worked between midnight Friday to midnight Sunday shall be paid at one and one-half the hourly rate of wage. After an employee has worked in excess of eight (8) continuous hours in any one or more calendar days, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of six (6) hours or more. All hours worked on Holidays shall be paid at double the hourly rate of wage.
- P. All hours worked on Holidays shall be paid at one and one-half times the hourly rate of wage.
- Q. The first four (4) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over twelve (12) hours Monday through Saturday shall be paid at double the hourly rate. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- R. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage, so long as Saturday is the sixth consecutive day worked. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- S. All hours worked on Saturdays and Holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays shall be paid at double the hourly rate of wage.
- T. The first two (2) hours of overtime for hours worked Monday-Friday shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day shall be paid at double the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. For work on Saturday which is scheduled prior to the end of shift on Friday, the first six (6) hours work shall be paid at one and one-half times the hourly rate of wage, and all hours over (6) shall be paid double the hourly rate of wage. For work on Saturday which was assigned following the close of shift on Friday, all work shall be paid at double the hourly rate of wage.
- U. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. (Except on makeup days if work is lost due to inclement weather, then the first eight (8) hours on Saturday may be paid the regular rate.) All hours worked over twelve (12) hours Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

**Overtime Codes Continued**

4. V. Work performed in excess of ten (10) hours of straight time per day when four ten (10) hour shifts are established or outside the normal shift (5 am to 6pm), and all work on Saturdays, except for make-up days shall be paid at time and one-half (1 ½) the straight time rate.

In the event the job is down due to weather conditions, then Saturday may, be worked as a voluntary make-up day at the straight time rate. However, Saturday shall not be utilized as a make-up day when a holiday falls on Friday. All work performed on Sundays and holidays and work in excess of twelve (12) hours per day shall be paid at double (2x) the straight time rate of pay.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

- W. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

- X. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. Work performed outside the normal shift of 6 am to 6pm shall be paid at one and one-half the straight time rate, (except for special shifts or three shift operations). All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. Shifts may be established when considered necessary by the Employer.

The Employer may establish shifts consisting of eight (8) or ten (10) hours of work (subject to WAC 296-127-022), that shall constitute a normal forty (40) hour work week. The Employer can change from a 5-eight to a 4-ten hour schedule or back to the other. All hours of work on these shifts shall be paid for at the straight time hourly rate. Work performed in excess of eight hours (or ten hours per day (subject to WAC 296-127-022) shall be paid at one and one-half the straight time rate.

When due to conditions beyond the control of the Employer, or when contract specifications require that work can only be performed outside the regular day shift, then by mutual agreement a special shift may be worked at the straight time rate, eight (8) hours work for eight (8) hours pay. The starting time shall be arranged to fit such conditions of work.

When an employee returns to work without at a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

**Overtime Codes Continued**

4. Y. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal shift, and all work on Saturdays shall be paid at time and one-half the straight time rate. All work performed after 6:00 pm Saturday to 6:00 am Monday and holidays shall be paid at double the straight time rate of pay.

Any shift starting between the hours of 6:00 pm and midnight shall receive an additional one dollar (\$1.00) per hour for all hours worked that shift.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

**Holiday Codes**

5. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, and Christmas Day (7).
- B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, the day before Christmas, and Christmas Day (8).
- C. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).
- D. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8).
- H. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Day after Thanksgiving Day, And Christmas (6).
- I. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).
- J. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Eve Day, And Christmas Day (7).
- K. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9).
- L. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (8).
- N. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, The Friday After Thanksgiving Day, And Christmas Day (9).
- P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday And Saturday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9). If A Holiday Falls On Sunday, The Following Monday Shall Be Considered As A Holiday.
- Q. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).

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**Holiday Codes Continued**

5. R. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day After Thanksgiving Day, One-Half Day Before Christmas Day, And Christmas Day. (7 1/2).
- S. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, And Christmas Day (7).
- T. Paid Holidays: New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, Christmas Day, And The Day Before Or After Christmas (9).
- Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).
6. A. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).
- E. Paid Holidays: New Year's Day, Day Before Or After New Year's Day, Presidents Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and a Half-Day On Christmas Eve Day. (9 1/2).
- G. Paid Holidays: New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and Christmas Eve Day (11).
- H. Paid Holidays: New Year's Day, New Year's Eve Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, Christmas Day, The Day After Christmas, And A Floating Holiday (10).
- I. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, And Christmas Day (7).
- T. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Last Working Day Before Christmas Day, And Christmas Day (9).
- Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). If a holiday falls on Saturday, the preceding Friday shall be considered as the holiday. If a holiday falls on Sunday, the following Monday shall be considered as the holiday.
7. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any Holiday Which Falls On A Sunday Shall Be Observed As A Holiday On The Following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- C. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.



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**Holiday Codes Continued**

7. D. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Unpaid Holidays: President's Day. Any paid holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any paid holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- E. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- F. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the last working day before Christmas day and Christmas day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- G. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.
- H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- J. Holidays: New Year's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- L. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Last Work Day before Christmas Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- M. Paid Holidays: New Year's Day, The Day after or before New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, And the Day after or before Christmas Day (10). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. When Christmas falls on a Saturday, the preceding Friday shall be observed as a holiday.
- P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

**Holiday Codes Continued**

7. Q. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- R. Paid Holidays: New Year's Day, the day after or before New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and the day after or before Christmas Day (10). If any of the listed holidays fall on Saturday, the preceding Friday shall be observed as the holiday. If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.
- S. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, the Day after Christmas, and A Floating Holiday (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.
- T. Paid Holidays: New Year's Day, the Day after or before New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and The Day after or before Christmas Day. (10). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- V. Holidays: New Year's Day, President's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, the day before or after Christmas, and the day before or after New Year's Day. If any of the above listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.
- W. Holidays: New Year's Day, Day After New Year's, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day, Christmas Day, the day after Christmas, the day before New Year's Day, and a Floating Holiday.
- X. Holidays: New Year's Day, Day before or after New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and the day before or after Christmas day. If a holiday falls on a Saturday or on a Friday that is the normal day off, then the holiday will be taken on the last normal workday. If the holiday falls on a Monday that is the normal day off or on a Sunday, then the holiday will be taken on the next normal workday.
- Y. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day. (8) If the holiday falls on a Sunday, then the day observed by the federal government shall be considered a holiday and compensated accordingly.
- Z. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
15. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the day before Christmas Day and Christmas Day. (8) Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.
- B. Holidays: New Year's Day, Martin Luther King Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day. (9)
- C. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the day before Christmas Day and Christmas Day. (8)

Benefit Code Key – Effective 8/31/2019 thru 3/3/2020

**Holiday Codes Continued**

15. D. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, and the day after Christmas.
- E. Holidays: the day before New Years's Day, New Year's Day, Martin Luther King, Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Friday after Thanksgiving Day, the day before Christmas, and Christmas Day. (12)

**Note Codes**

8. D. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.
- L. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$0.75, Level B: \$0.50, And Level C: \$0.25.
- M. Workers on hazmat projects receive additional hourly premiums as follows: Levels A & B: \$1.00, Levels C & D: \$0.50.
- N. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$1.00, Level B: \$0.75, Level C: \$0.50, And Level D: \$0.25.
- P. Workers on hazmat projects receive additional hourly premiums as follows -Class A Suit: \$2.00, Class B Suit: \$1.50, Class C Suit: \$1.00, And Class D Suit \$0.50.
- Q. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.
- S. Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.
- T. Effective August 31, 2012 – A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.
- U. Workers on hazmat projects receive additional hourly premiums as follows – Class A Suit: \$2.00, Class B Suit: \$1.50, And Class C Suit: \$1.00. Workers performing underground work receive an additional \$0.40 per hour for any and all work performed underground, including operating, servicing and repairing of equipment. The premium for underground work shall be paid for the entire shift worked. Workers who work suspended by a rope or cable receive an additional \$0.50 per hour. The premium for work suspended shall be paid for the entire shift worked. Workers who do “pioneer” work (break open a cut, build road, etc.) more than one hundred fifty (150) feet above grade elevation receive an additional \$0.50 per hour.

**Note Codes Continued**

8. V. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.
- Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - \$2.00 per foot for each foot over 50 feet. Over 101' to 150' - \$3.00 per foot for each foot over 101 feet. Over 151' to 220' - \$4.00 per foot for each foot over 220 feet. Over 221' - \$5.00 per foot for each foot over 221 feet.
- Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25' to 300' - \$1.00 per foot from entrance. 300' to 600' - \$1.50 per foot beginning at 300'. Over 600' - \$2.00 per foot beginning at 600'.
- W. Meter Installers work on single phase 120/240V self-contained residential meters. The Lineman/Groundmen rates would apply to meters not fitting this description.
- X. Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: \$2.00, Class B Suit: \$1.50, Class C Suit: \$1.00, and Class D Suit: \$0.50. Special Shift Premium: Basic hourly rate plus \$2.00 per hour.
- When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 5 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)
- Y. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.
- Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.
- Z. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.
- Special Shift Premium: Basic hourly rate plus \$2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as a contractor), a government agency or the contract specifications require that more than (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they will be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

**Note Codes Continued**

9. A. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.

Special Shift Premium: Basic hourly rate plus \$2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications require that more than four (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Certified Crane Operator Premium: Crane operators requiring certifications shall be paid \$0.50 per hour above their classification rate.

Boom Pay Premium: All cranes including tower shall be paid as follows based on boom length:

- (A) – 130’ to 199’ – \$0.50 per hour over their classification rate.
- (B) – 200’ to 299’ – \$0.80 per hour over their classification rate.
- (C) – 300’ and over – \$1.00 per hour over their classification rate.

- B. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

- C. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. These classifications are only effective on or after August 31, 2012.

- D. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, bridges, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.

- E. Heavy Construction includes construction, repair, alteration or additions to the production, fabrication or manufacturing portions of industrial or manufacturing plants, hydroelectric or nuclear power plants and atomic reactor construction. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$1.00, Level B: \$0.75, Level C: \$0.50, And Level D: \$0.25.

## **APPENDIX C**

**U.S. DEPT. OF TRANSPORTATION – FEDERAL HIGHWAY ADMINISTRATION  
“GEOSYNTHETIC REINFORCED SOIL INTEGRATED BRIDGE SYSTEM INTERIM  
IMPLEMENTATION GUIDE” CHAPTER 7 -- CONSTRUCTION**



## CHAPTER 7. CONSTRUCTION

### 7.1 INTRODUCTION

GRS construction uses basic earthwork methods, primarily for excavation and compaction, along with sound general construction practices. The materials needed for GRS construction are readily available, which is a benefit of the generic nature of the system. This chapter provides guidance on most field-related scenarios, particularly with respect to a concrete modular block facing; however, this guidance can also be adapted to other GRS structures built with different facing types. All methods that are presented have been field-tested and applied during the construction of GRS-IBS. The techniques outlined can be applied to efficiently construct the layered system and have been proven to quickly construct the GRS-IBS. The contractor will ultimately choose the methods most efficient for the site, crew, and equipment on hand.

GRS construction has two principal components: (1) logistics and (2) aspects associated with actual construction. Logistics occur after the final design and before construction, outlining a plan for implementation and control of the construction process. Even though building a GRS abutment is for the most part as simple as repeatedly placing a row of facing block, a layer of well-compacted granular fill, and a sheet of reinforcement, the process is hampered without adequate planning to ensure optimum flow and placement of material throughout the course of the project.

Design plans should be made to easily provide information on the abutment layout, the reinforcement schedule, and the facing block schedule. The plans should also contain information on the limits of excavation and details about assembly of the GRS-IBS. It is important to lay out the abutments to scale, with accurate dimensions of the materials used to meet the planned elevations and limits of the abutment with respect to the superstructure and integrated approach. Additionally, an accurate illustration allows for a more precise estimate of material quantities that can be detailed on the plan with construction notes.

This chapter conveys the importance of the following details to ensure rapid GRS construction:

- **Careful attention to the first row of blocks:** Since all other courses of block are built off the first row, it is essential to ensure that the bottom row is level and even for fast construction.
- **Optimization of crew size and equipment for enhanced productivity:** Too many laborers or excess onsite equipment can cause confusion and slow down the construction process.
- **Allowance of time for a labor crew to adjust to the construction of the GRS-IBS:** Having each crew member do his or her part in the three basic steps of GRS construction (i.e., laying a course of facing block, compacting a layer of granular backfill, and placing a layer of reinforcement) dramatically improves productivity.



- **Establishment of a central position of the excavator:** Typically, it is best to limit movement of the excavator by locating it toward the back of the abutment where it can both reach and place material without moving.

## 7.2 LABOR, TOOLS, AND EQUIPMENT

The labor and equipment needs are minimal for GRS abutments and IBSs and do not require much specialized training or mobilization. The following subsections provide additional detail on the labor, tools, and equipment needs.

### 7.2.1 Labor

In many situations, a typical labor crew on GRS-IBS projects consists of five workers: four laborers and one equipment operator (figure 45). The equipment operator is central to the project and provides support to the labor crew. He or she is responsible for shaping the excavation to facilitate construction of the RSF and the GRS abutment in addition to placing fill material and moving facing units into the work area. Typically, one member of the labor crew has the role of foreman and is responsible for the layout of excavation limits and grades, alignment of wall face, placement of facing blocks, compaction of fill, and placement of geosynthetic reinforcement, as well as other activities to streamline production and the flow of material to the job site.



Source: FHWA.

**Figure 45. Photo. Typical labor crew with centrally located track hoe.**

### 7.2.2 Tools and Equipment

For most construction projects, specialized equipment is not required to construct GRS-IBS. Simple tools that are readily available and relatively inexpensive can be used. These include

hand tools, measuring devices, and heavy equipment. The contractor may modify the following lists of tools and equipment depending on the site, crew, and size of the IBS.

Typical hand tools include the following:

- Gravel rake (concrete spreader).
- Shovels (flat blade and spade).
- Heavy rakes.
- Broom to sweep top of blocks.
- Whisk broom.
- A 2- to 3-lb sledgehammer and wood two-by-fours to align blocks.
- Heavy rubber mallet.
- Spade trowel.
- Razor knives or utility knives to cut reinforcement.
- Hand tamper with metal base plate.
- Chainsaw to cut reinforcement roll.
- Concrete saw.
- 5-gal bucket.
- Block lifter.
- Standard concrete mixing and finishing tools.

Typical measuring devices include the following:

- Survey equipment.
- Laser level.
- String line to align blocks.
- A 4-ft carpenter's level.
- Plum bob to check wall batter.
- Measuring tapes.
- Chalk line.

Typical heavy equipment includes the following:

- Walk-behind vibratory plate tampers (200 lb and 18 inches wide or larger).
- Track hoe excavator.
- Riding smooth drum vibratory roller (compacting 3.28 ft from wall face).
- Pallet forks for the excavator (for moving CMU block in and out of work area).
- Trash pump and hose for dewatering the foundation excavation.
- Backhoe (as needed for material staging).

### **7.3 SITE PREPARATION**

GRS is built from the bottom up and generally from within the footprint of the structure. Staging and delivery of materials to the site should allow for continuous GRS construction and effective use of the space. Delivered material should be easily accessible to the excavator, which is the central piece of equipment. As shown in figure 46, the excavator is positioned inside the wall

area for easy placement of fill, block, and other materials. Labor should be organized to assemble construction materials as needed on the work platform.



Source: FHWA.

**Figure 46. Photo. Cut slope of retained soil.**

### **7.3.1 Site Layout**

Site preparation begins with a survey of the bridge site to stake limits for the excavation. Reference stakes should be located in an area where they will remain undisturbed during construction of the base of the wall, which is usually about 5 ft from the excavation.

The base of the GRS abutment and wing walls should be constructed to within 1 inch of the staked elevations. The external GRS abutment and wing walls should be constructed to within  $\pm 0.5$  inch of the surveyed staked dimensions.

### **7.3.2 Excavation**

All excavations should comply with Occupational Safety and Health Administration requirements.<sup>(52)</sup> Excavation of the site involves shaping the slope for temporary slope stability, safety, and constructability. The temporary cut in the retained soil should be designed to accommodate movement of labor. The design of a temporary excavation needs to consider the loading imposed by heavy equipment and the reach limits of the excavator. Figure 47 shows a typical cut slope in stiff clay. The excavation should include provisions for drainage with a sloped cut to facilitate the movement of water. Any open excavations that form a pit should be backfilled with crushed aggregate and compacted. Excavation also includes the clearing and grubbing of vegetation. In situations where the retained fill is stable, the volume of excavation can be limited to reduce the size of the GRS composite. In the case of an abutment application, this would form a horseshoe-shaped excavation, as shown in figure 45 and figure 47.



Source: FHWA.

**Figure 47. Photo. Horseshoe-shaped excavation with native soil still intact in middle.**

Building in a flooded excavation can be addressed through a variety of methods ranging from using dewatering pumps (figure 48), building a coffer dam with sheeting (figure 49), or quickly compacting the structural backfill to create the stable working platform. The selection will depend on the influx of water at the site.



Copyright: Defiance County, OH.

**Figure 48. Photo. Dewatering during excavation of the RSF.**





Copyright: King County, WA.

**Figure 49. Photo. Sheet-pile supported excavation.**

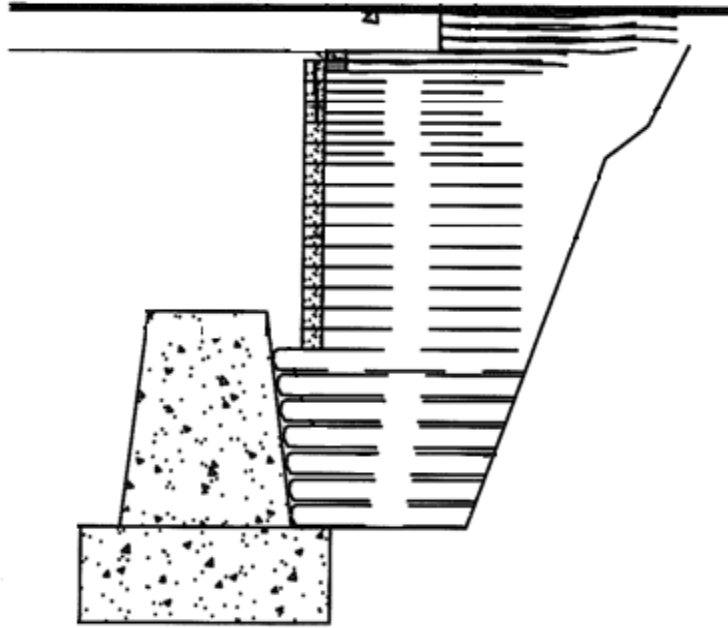
### **7.3.3 Placement of Abutment Behind Existing Substructure**

In some situations, it may be beneficial to build the GRS-IBS behind an existing substructure. Project feasibility, environmental considerations, and other factors need to be assessed before selecting this type of project layout. Building the bridge behind an existing substructure often requires the removal of the top part of the existing abutment walls to provide additional space for the width of the new GRS-IBS. Figure 50 through figure 52 illustrate this technique. Note that the design of the GRS-IBS is the same whether it is built behind an existing abutment or not.



Copyright: St. Lawrence County, NY.

**Figure 50. Photo. GRS-IBS built behind an existing concrete abutment.**



Copyright: St. Lawrence County, NY.

**Figure 51. Illustration. Cross section of a GRS-IBS built behind an existing concrete abutment.**



Source: FHWA.

**Figure 52. Photo. Building the RSF behind an existing abutment.**

## 7.4 RSF

The depth and footprint of the excavation for the RSF should be based on external stability and, if necessary, the hydraulic analysis. The base of the RSF should be cut smooth. It should be excavated to uniform depth, and all loose, unstable material should be removed from the site (figure 53). If the base of the excavation is left open, it should be graded to one end to facilitate the removal of any intrusion of water with a pump. If flooded, all water should be removed along



with soft, saturated soils. The excavation should be backfilled as soon as possible to provide a suitable foundation and avoid adverse weather delays. The construction of the RSF can typically be completed in less than 1 day but is dependent on the size and depth of excavation, type of materials, equipment, and experience.



Copyright: Defiance County, OH.

**Figure 53. Photo. RSF excavation below the stream level.**

The base of the excavation should be compacted before construction of the RSF. This may require proof rolling, and any soft spots or voids should be backfilled with compacted fill material. Figure 54 shows the preparation of the RSF cut.



Source: FHWA.

**Figure 54. Photo. RSF cut preparation.**

The RSF shall be encapsulated in geotextile reinforcement placed perpendicular to the abutment face to protect it from possible erosion due to scour (figure 55). The reinforcement sheets should be measured and sized to fully enclose the RSF on three sides: the face and the two wing wall sides.

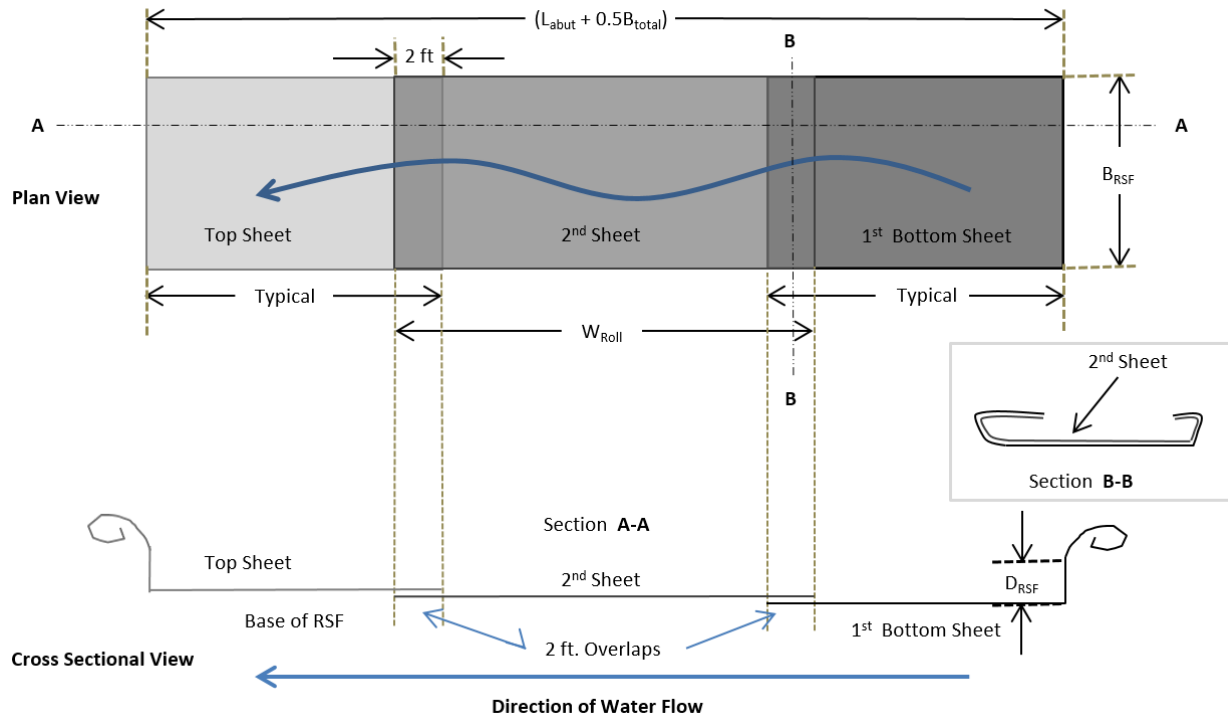


Source: FHWA.

**Figure 55. Photo. Encapsulation of fill in RSF.**

If the GRS abutment is built on an RSF, particularly for water crossings, and if more than one sheet of reinforcement is needed to encapsulate the excavation, the first reinforcement sheet placed in the excavation shall be on the upstream side of the RSF with the subsequent sheet(s) placed on top with a 2-ft minimum overlap (figure 56). All overlapped sections of reinforcement in the area of the RSF should be oriented to prevent running water or surface runoff from penetrating the layers of reinforcement. The first layer of reinforcement should be placed on the upstream side of the abutment with subsequent layers (if needed) overlapped a minimum of 2 ft on the downstream side. This prevents water from infiltrating the RSF. The wrapped corners of the RSF need to be tight and without exposed soil within the RSF to complete the encapsulation.





Source: FHWA.

**Figure 56. Illustration. RSF geotextile layout with respect to water flow direction.**

Where:

$L_{abut}$  = abutment length.

$B_{total}$  = total base width of the GRS abutment including the width of the facing.

$B_{RSF}$  = base width of the RSF.

$W_{roll}$  = width of the reinforcement roll.

$D_{RSF}$  = depth of the RSF.

Note that in water crossings and some soil conditions, generic concrete bin blocks (2 by 2 by 6 ft) have been used to form the perimeter of the RSF to facilitate construction (figure 57 and figure 58). Alternatively, welded wire baskets have also been used to form the perimeter of the RSF.



Copyright: North Hopewell Township, York County, PA.

**Figure 57. Photo. Construction of the RSF with large concrete bin blocks.**



Copyright: North Hopewell Township, York County, PA.

**Figure 58. Photo. Completed RSF constructed within perimeter of concrete bin blocks.**

Typical reinforcement spacing in the RSF is 12 inches. The reinforcement should be pulled taut to remove all wrinkles prior to placing and compacting the structural backfill. Fill should be placed from the face to the back to roll folds or wrinkles to the free end of the reinforcement layer.

The RSF should be constructed with structural fill, as specified in chapter 3. The structural fill is to be compacted in accordance with section 7.5 in compacted lifts not to exceed 8 inches. The first course of wall block sits directly on the RSF, as shown in figure 59, so it is important that the fill material is graded and level before encapsulating the RSF.



Source: FHWA.

**Figure 59. Photo. Placement of wall block on wrapped RSF.**

After this, a channel rock geotextile apron can be fixed to the abutment to stabilize and prevent the filtration or loss of material beneath the riprap for GRS-IBS construction for water crossings,. The geotextile apron can be placed beneath the first course of the facing blocks; however, if greater than 0.5 inch of material is used to level the first course of the facing block on the RSF, it is suggested to place the channel rock geotextile apron between the first and second courses to protect the leveling material from erosion.

The use of solid block at the base of the abutment should be considered to protect against vehicle impacts or any damage due to placement of channel rock that extends above the solid block zone. For water crossings, riprap protection should be placed in a manner to prevent damage to the wall face. Impact of large rock or concrete fragments during placement can crack the CMU block. Larger rocks should be uniformly distributed and placed firmly in contact with each other, with smaller rocks and fragments filling the voids between the larger rocks. This procedure often requires hand placement of smaller rocks to fill the voids. Chapter 9 provides repair procedures in the event that any CMU block is damaged.

## **7.5 COMPACTION**

Compaction of the backfill should be to at least 95 percent of maximum dry density according to AASHTO T 99 for a well-graded aggregate and a method specification (e.g., three passes of the compactor) for an open-graded aggregate.<sup>(53)</sup> Backfill material containing fines should be compacted at a moisture content close to optimum ( $\pm 2$  percent). Lifts of 8 inches should be compacted using vibratory roller compaction equipment. The facing blocks provide a form for each lift of fill. Other stiffness-based compaction control methods can be used. For open-graded fills, compact to non-movement or no appreciable displacement and both the compaction of the

aggregate and movement of the facing block should be visually assessed as outlined in section 7.5.1 and section 7.7.3.

Since the facing elements are not rigidly connected to the reinforcement, hand-operated compaction equipment (e.g., a lightweight mechanical tamper, plate, or roller) is recommended within 3 ft of the front of the wall face. It is very important for adequate GRS performance that the backfill is properly compacted. The backfill in the bearing bed reinforcement zone should be compacted to 100 percent of the maximum density according to AASHTO T 99 for a well-graded backfill or according to a method specification if the backfill is open-graded.<sup>(53)</sup>

Onsite compaction equipment should be selected to achieve the required density of the fill materials. Considering that compaction is critical to the success of the project, compaction equipment should be in good operating order for efficient use. In addition, backup equipment should be available to provide quality construction throughout the project and to avoid construction delays.

### **7.5.1 Compaction Procedure**

Once fill is placed at the required thickness and graded, all areas behind the modular block should be compacted to the required density. Any depression behind the facing block should be filled level to the top of the modular block prior to compaction.

Compaction directly behind the modular block should be performed in a manner that maintains wall alignment while improving the density of fill behind the block. This can be achieved in the following ways:

- Placing a fill lift directly behind the modular block face and rodding or foot tamping along the row of block while exerting downward pressure on the block to prevent lateral movement. For multiple lifts, the top lift height is slightly higher than the block to compensate for compression of the fill during compaction.
- Using a lightweight vibratory plate compactor directly behind the modular block while exerting downward pressure on the block to prevent lateral movement.
- Using larger vibratory compactors for the remainder of the fill area 3 ft from the face of the GRS wall. Outward block movement should be checked for and adjusted accordingly.

The most common compaction QC tool is the nuclear density gauge. Other instruments are also available for compaction control, such as the Clegg hammer, the soil stiffness gauge, or the falling weight deflectometer. These devices are typically used by correlating their measurements to soil density and moisture content. Method-based compaction specifications can also be used. For open-graded fills, compact to non-movement or no appreciable displacement, and the fills should be visually assessed.

## **7.6 REINFORCEMENT**

Generally, the length of the reinforcement layers will follow the cut slope, as shown in figure 20. While the reinforcement layers in the GRS abutment can be any geosynthetic, the RSF and



integrated approach should be constructed and encapsulated with a geotextile to confine the compacted granular fill. The geosynthetic should be placed so that the strongest direction is perpendicular to the abutment face, as shown in figure 60 for a geotextile. Where the roll ends, the next roll should begin. Overlapping between sheets is not required. The geosynthetic reinforcement should extend between layers of CMU blocks to provide a frictional connection. The geosynthetic reinforcement should cover a minimum of 85 percent of the top surface of the CMU blocks; any excess can be removed by either burning it with a propane torch or cutting it with a razor knife.



Source: FHWA.

**Figure 60. Photo. Geotextile reinforcement rolled out parallel to the wall face (strong direction perpendicular to the wall face).**

After the geosynthetic is rolled out, it should be laid so that it is taut, free of wrinkles, and flat. The geosynthetic can be held in place with the fill. Placement of fill should be from the wall face backward to remove and prevent the formation of wrinkles in the geosynthetic. A conscious effort should be taken during placement of fill to prevent the development of wrinkles.

Splices of reinforcement can occur without overlap. Splice seams should be staggered to avoid a continuous break in the reinforcement throughout the GRS structure. Following this procedure, all splice seams can run either perpendicular or parallel to the wall face.

Overlaps of adjacent geosynthetic should be trimmed where they are in contact with the surface of the facing block to avoid varying geosynthetic thicknesses between the CMU block. Any seams in the geosynthetic should be staggered with each successive layer of the GRS abutment. All seams between adjacent sheets of geosynthetic located in the area beneath the footprint of the beam seat should be perpendicular to the abutment wall face.

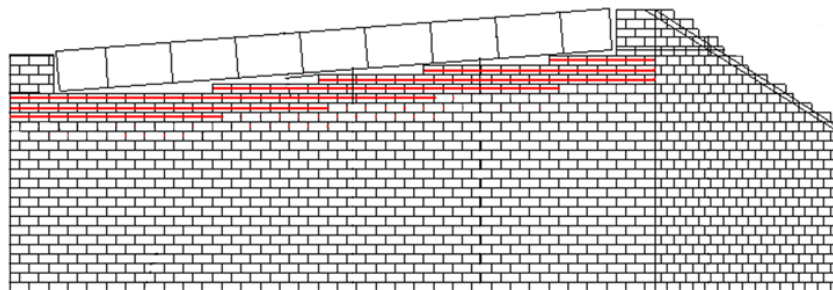
### 7.6.1 Operating Equipment on Geosynthetic Reinforcement

Driving is not allowed directly on the geosynthetic reinforcement. A minimum 6-inch layer of granular fill should be placed prior to operating any vehicles or equipment over the geosynthetic reinforcement. In the bearing reinforcement zone, hand-operated compaction equipment should be used over the 4-inch lifts to prevent excessive installation damage of the geosynthetic reinforcement. Rubber-tired equipment may pass over the geosynthetic reinforcement at speeds less than 5 mi/h. Skid steers and tracked vehicles can cause considerable damage to the geosynthetic reinforcement. For example, a track hoe once operating on a GRS structure turned and pulled the fabric, causing deformation to the wall face. For this reason, it is recommended to restrict the use of these vehicles on GRS structures. If absolutely necessary, use may be permitted provided no sudden braking or sharp turning occur and a minimum 6-inch cover is placed.

### 7.6.2 Bearing Reinforcement Bed

The bearing reinforcement bed provides additional strength in the upper GRS wall layers directly beneath the bearing area of the superstructure. These reinforcement layers are not sandwiched between two consecutive rows of block but are placed behind the facing block at 4-inch spacing. This 4-inch reinforcement spacing is generally placed in the top three to five layers of the GRS abutment or as determined by the design (see chapter 4).

Bearing bed reinforcement spacing in superelevated abutment walls requires additional planning. The 4-inch reinforcement spacing needs to be placed in the top three or more courses of block at each elevation across the length of the abutment wall (see the red reinforcement lines in figure 61). The reinforcement schedule will guide field personnel in the proper placement of the geosynthetic along a wall block course.



Source: FHWA.

**Figure 61. Illustration. Superelevation reinforcement schedule.**

### 7.6.3 Superelevation

The reinforcement layers become stair-stepped in the upper wall layers as the superelevation of the abutment is constructed (figure 62). The reinforcement terminates along the angle surface of the superelevation. The GRS wall reinforcement schedule should show the termination of each layer of reinforcement across the abutment wall from low to high elevation (figure 61).



Copyright: Defiance County, OH.

**Figure 62. Photo. Superelevation reinforcement layers.**

## **7.7 WALL FACE**

This manual focuses on the use of concrete modular blocks for the wall facing; however, since GRS is internally stable, any facing elements can be used in construction. For simplicity, CMUs are used throughout this section to refer to the facing. For flexible facings other than the CMU block (including different types of concrete modular blocks, wrapped, timber, natural rock, or welded wire basket facing), alternative construction guidelines may need to be followed and/or developed. These other facing systems are described by Wu et al.<sup>(40)</sup> The general design guidelines for GRS-IBS, however, remain the same as those in this manual.

### **7.7.1 Leveling Course**

Setting the first course of facing block level and grading it is critical in maintaining wall alignment for the entire height of the abutment. Typically, the first course is placed on top of the RSF directly on the geotextile; however, due to the large aggregate size of the RSF fill material, a thin leveling layer of fine aggregate can help set the facing blocks to grade and prevent them from rocking. The leveling layer should be kept to a minimum thickness (i.e., no more than 0.5 inch). If the leveling layer exceeds this thickness and there is the potential for water to erode and undermine the aggregate, mortar or grout should be placed in the gap between the RSF and the first course.

### **7.7.2 Setting the CMU Block**

CMU block wall construction should begin at the lowest portion of the excavation, with each layer placed horizontally as shown in the project plans. Each layer should be constructed entirely before beginning the next layer. A stretcher or running bond should be maintained between courses of block so that the joints between the blocks are offset with each row.

Since the CMU blocks are dry stacked without mortar, it is important to avoid cracking the blocks and to maintain a horizontal uniform elevation by sweeping the top surface of the blocks clean of debris and fill material prior to the placement of the next layer of geosynthetic and CMU

blocks. Gravel material between layers of blocks creates point loads that can cause cracks. Also, gravel material between the blocks causes them to rock, making it difficult to secure a good fit.

When setting a course of blocks, each block should be placed tightly against the adjoining block, preventing gaps from which fill material can escape. Before proceeding to the next layer, it is often useful to walk along the top of the blocks to easily identify a poorly seated block.

To avoid cutting a block when the CMU block schedule shows the wall terminating with half a block, a full CMU block can be turned 90 degrees, placing the 8-inches width toward the face. This typically occurs at the termination of a wing wall. The end block that forms the termination does not have to be a corner CMU block (with two finished sides) because the ends of most wing walls are embedded into the fill slope.

### 7.7.3 Wall Face Alignment

When placing and compacting fill behind the CMU blocks, it is sometimes necessary to set the blocks back about 0.5 inch to allow for lateral outward movement of the CMU blocks during compaction. It should be noted that each combination of wall facing and backfill reacts differently during the compaction process, and adjustment of the setback distance between block courses should be performed as needed to maintain the necessary batter.

Alignment of the GRS abutment wall should be checked for plumbness at least every other layer, and any deviations greater than 0.5 inch should be corrected. Wall face verticality or batter should be maintained to conform to the limits and shape of the abutments to avoid potential as-built changes in the setback distance and clear space. While there are some cases of GRS abutments being built with poor face alignment, without exhibiting instability, wall appearance is a serviceability issue because questions may arise on whether the wall was built with poor alignment (e.g., a bulge) or if it experienced post-construction deformations. Before placing the backfill, every other row of block alignment should be checked with a string line referenced off the back of the facing block from wall corner to corner (figure 63).



Copyright: Defiance County, OH.

**Figure 63. Photo. Checking block alignment with string line reference from the back of the block.**



If CMU blocks become displaced during construction, they can often be hammered back into position using a 3-lb sledgehammer and a block of wood as protection. If the CMU blocks are excessively out of alignment, the fill material needs to be excavated, the CMU blocks need to be repositioned, and the fill material needs to be replaced and recompact.

#### **7.7.4 Block Alignment for Battered Walls**

Block alignment for battered walls is similar to that for vertical walls. In abutment situations where the face wall turns to form the wing wall, however, it is necessary to trim blocks on either end to account for the reduced wall length. All cuts should be performed to maintain the standard running or stretcher bond between the rows of dry-stacked blocks, with the vertical joints of each course midway between those of adjoining courses.

In special situations, negative battered walls (not abutments) have been constructed when the top area needs to be greater than the bottom, as in the case of road widening shown in figure 64. The negative batter can be created by offsetting the CMU block by a measured amount in consecutive wall layers and then filling and compacting as specified. Again, this practice is typically limited to walls and has not been used for GRS abutments, but it helps highlight the stability of closely spaced GRS.



Copyright: GeoStabilizational International.

**Figure 64. Photo. Negative batter wall face.**

#### **7.7.5 Superelevation**

When the plans shows a superelevation for the bridge, the top courses of CMU blocks beneath the superstructure should be trimmed to match the elevation difference and clear space across the

abutment (figure 65). This will produce a sloped face wall and aid in construction of the beam seat. One method is to snap a chalk line along the back of the block at the superelevation slope. A carpenter's angle finder can also be used to mark the cut.



Source: FHWA.

**Figure 65. Photo. Blocks trimmed to match superelevation.**

#### 7.7.6 Wall Corners and Curves

Right-angle wall corners, as shown in figure 66, are constructed with CMU corner blocks that have architectural detail on two sides, providing an aesthetic finish. Facing wall and wing wall courses should be staggered to form a tight, interlocking, stable corner.



Source: FHWA.

**Figure 66. Photo. Right-angle wall corner.**

Walls with angles larger or smaller than 90 degrees require additional effort. The corner blocks need to be cut to form the angled face. As a result, a vertical seam or joint is formed at the corner (figure 67). Corners with vertical seams may have open block joints, making it prudent to fill the corner blocks with a concrete mix and install bent rebar to close and connect the seam at each

course of block, as shown in figure 68. This procedure secures the two faces and prevents compaction-induced separation during construction of subsequent GRS layers. It may also be used wherever added strength at the wall corner is desired. Alternatively, the wing walls can be built without cutting the block by gradually turning the blocks to avoid the need for cutting blocks and the subsequent vertical joint at the junction between the wing wall and abutment faces (e.g., see figure 69 through figure 71).



Copyright: Defiance County, OH.

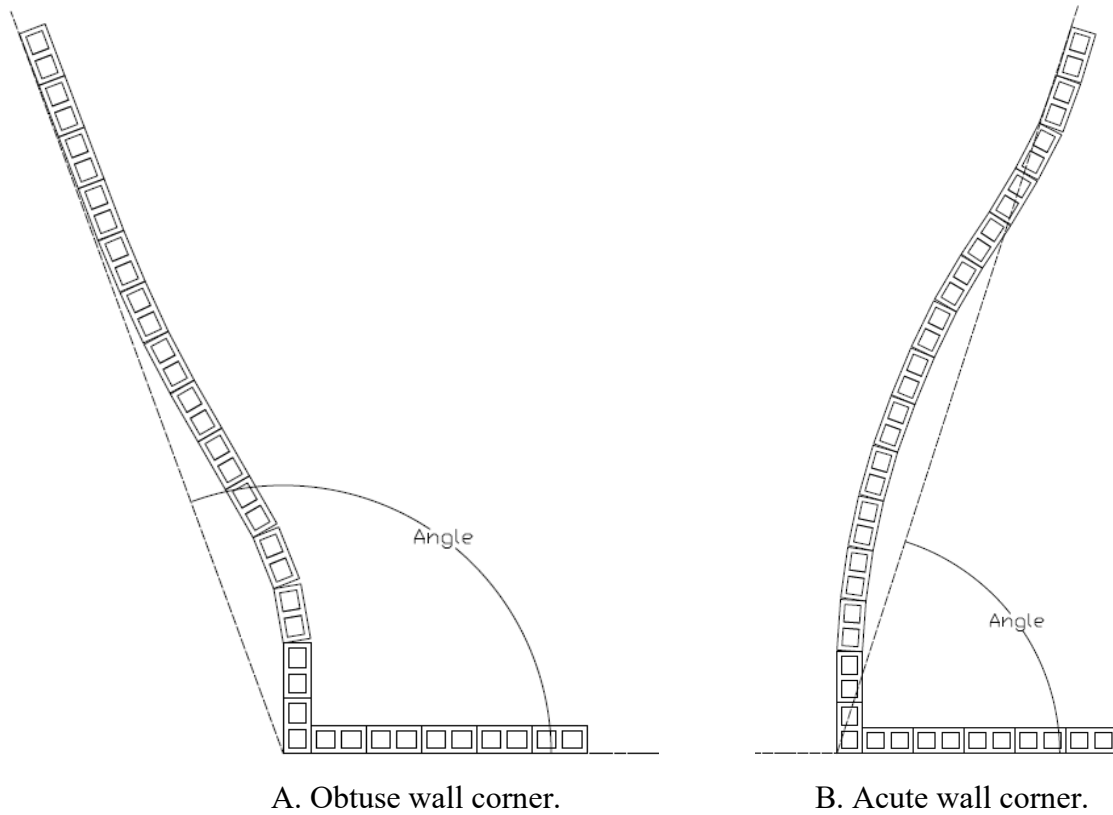
**Figure 67. Photo. Vertical seam in the wing wall.**



Copyright: Defiance County, OH.

**Figure 68. Photo. Rebar installed in the vertical seam prior to grout.**





Source of subfigure images: FHWA.

**Figure 69. Illustrations. Examples of alternative obtuse and acute wall corner details with rectangular blocks.**



Source: FHWA.

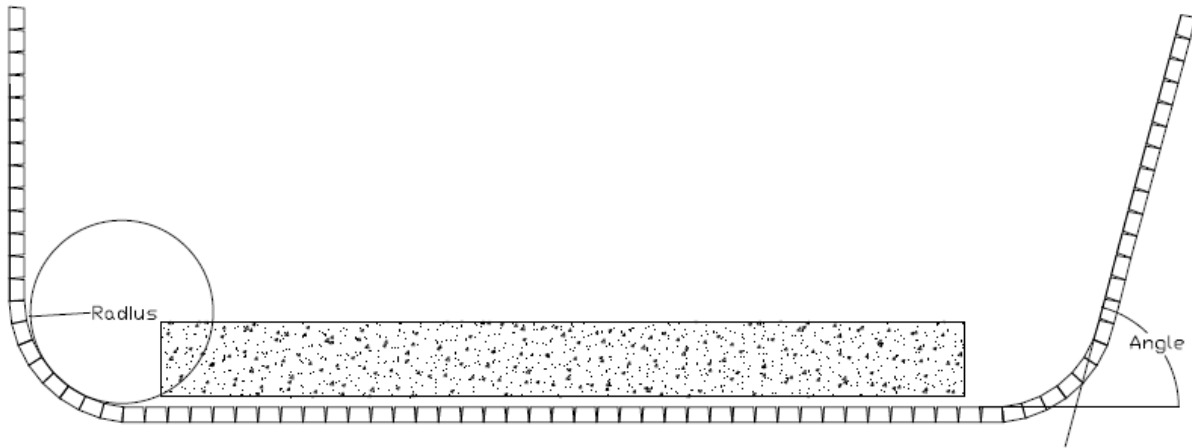
**Figure 70. Photo. Alternative wing wall obtuse angle corner detail with CMU blocks.**



Source: FHWA.

**Figure 71. Photo. Alternative wing wall acute angle corner detail with CMU blocks.**

Curves can also be constructed in lieu of a sharp corner when using SRW blocks. Figure 72 illustrates how the layout of a GRS abutment can be formed in a curved shape from the transition into the wing walls. The size of the radius to create the convex curved wing wall is dictated by the tapered shape of the SRW blocks. These layouts are aesthetic and may offer some advantages in some hydraulic conditions depending on the project requirements. Note that these details can create a larger footprint area of the abutment, leading to an increased volume of fill material needed. Regardless, the layout of the block schedule should include details of how the parapets link to the sides of the superstructure as discussed in section 7.9.3 found later in this chapter. An example of a curved corner on a GRS-IBS under construction is shown in figure 73.



Source: FHWA.

**Figure 72. Illustration. Abutment layout with curved wing walls.**



Copyright: Hamilton County, IN.

**Figure 73. Photo. GRS-IBS with curved corner details under construction.**

### 7.7.7 Top of Wall Facing

The top three courses of CMU blocks in the abutment are susceptible to movement simply from not having the weight of successive layers holding them in place. To prevent displacement, the hollow cores of the top three courses of CMU blocks are filled with a concrete wall fill and pinned together with No. 4 rebar, preferably epoxy-coated, and embedded with a minimum 2-inch cover (figure 74).





Copyright: Defiance County, OH.

**Figure 74. Photo. Connecting the top courses of blocks.**

To grout and pin the top of the wall, the reinforcement between the top two courses of CMU blocks needs to be removed to open the core for placement of concrete wall fill and a 20-inch-long No. 4 rebar dowel, preferably epoxy-coated with 2-inch cover (see chapter 3). This can be accomplished either by cutting the reinforcement with a razor knife or by burning the geosynthetic reinforcement.

The concrete wall fill is placed in two steps. After the block void is filled with concrete to the top of the block and the steel rebar is inserted, a thin layer of the same concrete mix is placed on top of the block to form the coping cap, as shown in figure 75 and figure 76. The coping is then hand-troweled either square or round and sloped to drain. A wet-cast cap is more durable than a dry-cast cap and eliminates the need to furnish and install a separate cap unit.



Source: FHWA.

**Figure 75. Photo. Square coping cap.**



Copyright: Defiance County, OH.

**Figure 76. Photo. Rounded coping cap.**

Once the top of the wall has been tied together, care should be taken to avoid any construction activity that may pull on the top layer of the reinforcement. The frictional connection between the block is strong, and when courses are pinned together, the entire grouted wall face can be pulled out of alignment.

If another type of concrete modular block is used for the abutment face, the designer will need to develop a suitable method of connection. Many proprietary SRW systems have pre-engineered methods of connection, which may or may not be compatible with the wall face layout or pinning and grouting as previously discussed. An alternative method may include the use of concrete adhesives. Regardless, coping and connecting the top wall face is important.

## **7.8 BEAM SEAT**

The beam seat is constructed directly above the bearing bed reinforcement zone. The superstructure is then positioned on top of the beam seat, as shown in figure 77 and figure 78. The purpose of the beam seat is to ensure that the superstructure bears on the GRS abutment and not the wall facing block and to provide the necessary clear space between the superstructure and the wall face. Typically, the clear space is 3 inches, or 2 percent of the abutment height, depending on the required design (see chapter 4).





Source: FHWA.

**Figure 77. Photo. Box beam placed on the beam seat.**



Copyright: Defiance County, OH.

**Figure 78. Photo. Detailed view of a box beam placed on a beam seat.**

In general, the thickness of the beam seat is approximately 8 inches and consists of two 4-inch lifts of wrapped-face GRS. Before construction of the beam seat, the cores of the CMU blocks on the abutment wall face must be pinned with No. 4 rebar and filled with concrete wall mix (figure 79).



Source: FHWA.

**Figure 79. Photo. Bearing area block grouted prior to beam placement.**

### 7.8.1 Beam Seat Procedure

Once the block elevation beneath the bearing area is established and the hollow cores are filled with grout, the beam seat is ready for construction. The following steps should be used to construct the beam seat:

1. Place precut 4-inch-thick foam board on the top of the bearing bed reinforcement. Sometimes, a thin layer of backfill may be necessary beneath the foam board for grading purposes and to ensure the proper clear space height and drainage (crown in bridge) (figure 80). The foam board should butt against the back face of the CMU block. The exposed edge of the foam board helps form the nose of the reinforcement wrap across the length of the bearing area. The stiffness of the foam board should allow it to compress as the beam settles (see chapter 3).



Source: FHWA.

**Figure 80. Photo. Foam board and 4-inch-thick block assembly to form a beam seat.**

2. Set the 4-inch-thick solid concrete blocks on top of the foam board across the entire length of the bearing area (figure 81). The back edge of the top CMU face block holds the

4-inch-thick concrete block in place during compaction. Note that the distance between the top of the grouted CMU block and the top of the beam seat (the clear space) is the distance the beams can settle before bearing on the facing blocks.



Source: FHWA.

**Figure 81. Photo. A 4-inch-thick concrete block on top of a foam board against the top of the CMU face block.**

3. Use the first 4-inch wrapped layer of compacted fill as the thickness to the top of the foam board (figure 82).



Source: FHWA.

**Figure 82. Photo. First 4-inch wrap butted against the foam board.**

4. Place the second 4-inch wrapped layer of compacted fill to the top of the 4-inch-thick solid block, creating the clear space as shown in figure 83. The top of this layer controls the beam elevation and should therefore be carefully compacted and graded.





Source: FHWA.

**Figure 83. Photo. Top 4-inch wrap butted against a 4-inch solid block.**

5. Grade the surface aggregate of the beam seat (as necessary) to about 0.5 inch to aid in seating the superstructure and to maximize contact with the bearing area before folding the final wrap.

For temporary GRS abutments, it may be possible to add an additional layer of reinforcement placed between the beam seat and concrete or steel beams to provide additional protection of the beam seat (figure 84). The additional layer of reinforcement may decrease the sliding resistance between the superstructure and the beam seat.



Source: FHWA.

**Figure 84. Photo. Additional reinforcement under the beam.**

### 7.8.2 Setback

The setback is the distance between the back of the facing block and the front of the beam seat. This distance can be established during construction of the beam seat and placement of the block

and foam board used to form the beam seat wrap. The setback distance is usually 8 inches but can be greater.

### 7.8.3 Drip Edge

The optional drip edge (e.g., aluminum flashing) is installed prior to setting the bridge beams and is placed in between the bottom of the beams and the foam board. The flashing is held in place by the pressure of the beams on the compressible foam board (figure 85). The length of the flashing should extend beyond the outside edge of the bridge beams and be trimmed to fit against the parapets.



Source: FHWA.

**Figure 85. Photo. Aluminum flashing (drip edge) between the beams and the top of the CMU facing.**

### 7.8.4 CIP or Precast Footing

For GRS-IBS built without adjacent concrete beams, a CIP or precast footing may be necessary, as with steel beams or spread girders (figure 86 and figure 87). Figure 88 illustrates a simple method to create a composite bridge superstructure with multiple steel girders. The result forms a semi-integral type abutment. The final stage in the illustration (stage 5) is the placement of the deck to complete the composite bridge.



Source: FHWA.

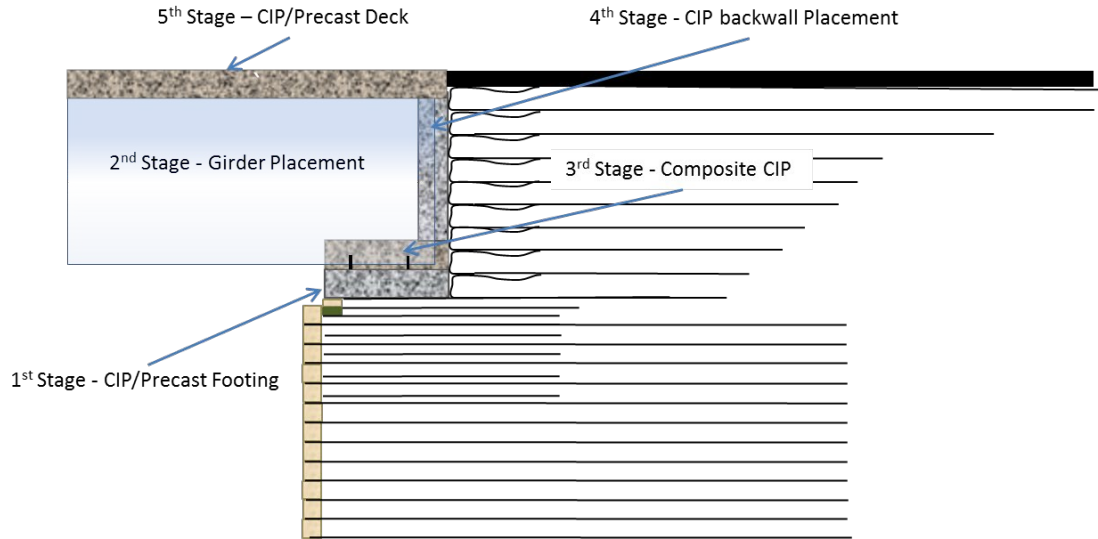
**Figure 86. Photo. Steel girder on CIP footing.**



Source: FHWA.

**Figure 87. Photo. CIP footings for steel girders.**





Source: FHWA.

**Figure 88. Illustration. Details to cast steel girders and backwall on CIP footing.**

## 7.9 PLACEMENT OF SUPERSTRUCTURE

Prepare the beam seat as described in section 7.8.1. The grade of the beam seat will control the final elevation of the bridge.

### 7.9.1 Crane Position on GRS Mass

The crane used for placement of the superstructure can be positioned on the GRS abutment provided the outrigger pads are sized less than the factored bearing resistance of the GRS mass. The outrigger pads should be sized for 4,000 lb/ft<sup>2</sup> near the face of the abutment wall, with greater loads able to be supported with increasing distance from the abutment face (figure 89).



Source: FHWA.

**Figure 89. Photo. Outrigger pads near the wall face.**

### 7.9.2 Superstructure Placement on the Beam Seat (Without CIP Footing)

Since the bearing surface is aggregate under a layer of geosynthetic reinforcement, it is important to set beams square and level. They should never be dragged over the beam seat surface, which could create the potential for an uneven bearing area or a void under the beam, producing uneven bearing stresses between bridge elements.

### 7.9.3 Wing Walls and Parapets

Wing walls and parapets are constructed after the superstructure is set. The CMU block in the parapet wall should be trimmed or saw cut for a custom fit against the beam edge of the superstructure to prevent the loss of fill material. Figure 90 and figure 91 show the construction of the parapet against the superstructure. If the gap between the superstructure and the facing block is difficult to fill using thin slices of cut facing block, a mortar mix or other material should be used to close the gap.



Source: FHWA.

**Figure 90. Photo. First view of parapet and wing wall construction.**



Source: FHWA.

**Figure 91. Photo. Second view of parapet and wing wall construction.**



## 7.10 APPROACH INTEGRATION

A properly constructed integrated approach that transitions the road to the bridge is essential for minimizing settlement in front of the bridge beams and mitigating the bump at the end of the bridge. This is accomplished by compacting and reinforcing the approach fill with wrapped geotextile layers. The material for the integrated approach zone should be well-graded, as outlined in chapter 3.

Once the superstructure is in place, the approach to the bridge can be constructed using the following steps:

1. Trim a geotextile reinforcement sheet to provide the planned length after it is wrapped, and place it behind the beam end (figure 92). The width of the sheet should allow for wrapping of the sides after the fill layer is placed and compacted. Wrapping of the sides prevents lateral migration of the fill.



Source: FHWA.

**Figure 92. Photo. Reinforcement placement.**

2. Place a 6-inch-thick lift of fill and compact per compaction specifications for road base (figure 93). Add a secondary layer of reinforcement on top of the 6-inch-thick lift and then place another 6-inch-thick lift of fill and compact (figure 94). Fold back the reinforcement sheet to wrap the compacted fill layer and smooth wrinkles (figure 95).



Source: FHWA.

**Figure 93. Photo. First 6-inch-thick fill lift.**



Source: FHWA.

**Figure 94. Photo. Secondary reinforcement sheet.**



Source: FHWA.

**Figure 95. Photo. Completed wrapped approach layer.**

3. Repeat these steps until the integrated approach is approximately 2 inches from the top of the beam grade, as shown in figure 96.



Source: FHWA.

**Figure 96. Photo. Second 6-inch-thick fill lift.**

Multiple sheets can be used along the width of the approach as long as all seams are kept perpendicular to the beam ends. The typical wrap reinforcement spacing is 12 inches, with intermediate layers spaced at 6 inches and compacted in 6-inch-thick lifts. However, in the case of beams with a reduced depth, the spacing of the wrapped layers may need to be reduced, and the intermediate layers may need to be eliminated. At a minimum, the top two reinforcement layers of the integrated approach should extend 3 ft over the cut slope to blend the roadway on to the GRS abutment. The top wrap fold should increase in length with each successive wrapped layer until the fill is 2 inches below the bridge grade. It is important to ensure that the backfill used is specified to limit the amount of fines in the integrated approach to prevent frost heave.

#### **7.10.1 Wrapped Reinforcement Layers on Sides**

If lateral spreading of the fill in the integrated approach will be an issue (e.g., wing walls are not sufficient to confine the fill at the sides), the reinforcement sheets comprising the wrapped layers should be folded over along the sides and perpendicular to the bridge (figure 97).





Source: FHWA.

**Figure 97. Photo. Completed approach fill.**

### **7.10.2 Preloading**

In some situations, it might be beneficial to preload the abutment before paving to minimize post-construction deformation or settlement within the GRS abutment. A simple method of preloading can be achieved by parking fully loaded trucks on the bridge for several days before placing the asphalt pavement.

### **7.10.3 Paving**

The top layer of reinforcement should be kept approximately 2 inches below the beam grade. This will allow a layer of aggregate cover to be placed to protect the reinforcement from contact with hot mix asphalt.

When IBS is finished with asphalt mix overlay, a layer of paving fabric or waterproof membrane should be extended over the beams onto the approach way (see figure 15). Extending the paving fabric 3 ft over the beam approach interface is recommended to bridge the gap and provide an interface to accommodate thermal movement, minimize surface water infiltration, and prevent cracks in the road. Note that paving fabric is already used on top of the beams as a barrier to water infiltration and to absorb stresses to minimize reflective and fatigue cracking of the new asphalt surface layer. When the superstructure has a nonasphalt wearing surface, a control joint should be detailed to tie the bridge surface with the approach roadway material (figure 98).



Source: FHWA.

**Figure 98. Photo. Control joint between the concrete deck and asphalt pavement.**

#### **7.10.4 Guardrail Posts**

Nondisplacement steel H posts are recommended for any railing that is driven through the reinforcement (figure 99). It is also possible to drill through the GRS with an auger to set other types of posts; both methods are acceptable. Depending on the jurisdiction, some guardrail post installation occurs after paving by augering through the asphalt and into the reinforced fill. After the posts are set, the holes are filled and recompact, and an asphalt patch is placed in the area around the post.



Source: FHWA.

**Figure 99. Photo. Guardrail posts.**

## 7.11 SITE DRAINAGE

The GRS-IBS construction area should be protected from surface runoff during the project. Critical areas are behind the abutment wall at the interface between the GRS abutment and the retained fill, at the base of the abutment, and at any location where a fill slope meets the wall face. The design needs to include provisions for surface drainage along the fill slope adjacent to the wing walls. Provisions for drainage should also be included at the boundary of the wing walls and the fill slope. Long walls built along variable elevation or the abutment wing walls are often stepped to reduce excavation. In these situations, the termination of wall steps should be sufficiently embedded to prevent problems with erosion. The drainage swell or channel should be separated from the wall to avoid flow directly against the wall face.

Site preparation for drainage should include the following:

- **Grading:** The site should be graded to drain away from the GRS every night in anticipation of precipitation to avoid saturation of soil.
- **Diversion trenches:** An alternative to grading is placing diversion trenches around the perimeter to divert water.
- **Compaction of loose soil:** Any loose soil placed to construct GRS should be graded and compacted before stoppage of work for the day. Also, onsite stockpiles of fill material containing fines should be protected from excess precipitation.

## 7.12 UTILITIES

All utilities that pass through a GRS abutment should follow local, State, and Federal utility codes. With GRS, utilities can be placed in the reinforced zone, passing either perpendicular or parallel through the GRS fill (figure 100). Reinforcement can be trimmed to accommodate pipes and casing, and extra reinforcement sheets can be added to replace cut out sections. Waterlines should be installed with a sleeve pipe in the abutment to prevent any erosion or loss of material should there be a break (figure 101).



Source: FHWA.

**Figure 100. Photo. Utilities through a GRS abutment.**



Copyright: Anderson County, SC.

**Figure 101. Photo. Waterline through a GRS abutment.**

Some items to consider related to utility construction include the following:

- **Wall stability:** Waterlines within a GRS abutment should be contained in a sleeve pipe (see figure 101) so that in the event the waterline breaks with the abutment, the unleached water exits the wall without saturating the wall face.

- **Utility ports:** Pass-through portals should be detailed and constructed for fit against the wall face to prevent the loss of backfill material. Utility ports should also be designed to accommodate any differential movement.
- **Repair access:** Utilities passing through an abutment should be laid out for somewhat easy access in the event of repair or maintenance. This consideration should include not only the abutment but also traffic.
- **Attachments and connections to the wall face:** Hanging utilities on an abutment wall face are permitted, provided the connections are compatible with the facing type. Additionally, connections should be designed to accommodate lateral and vertical movement associated with substructure–superstructure interaction.





# **APPENDIX D**

## **BID PROPOSAL DOCUMENTS**

### **INCLUDING:**

**Notice to Contractor**

**Proposal Form**

**Non-Collusion Declaration**

**Proposal Signature Page**

**Certification of Compliance with Wage Payment Statutes**





## 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 11:00 a.m. on **Tuesday, December 17, 2019**, at the Lewis County Courthouse in Chehalis, Washington for the 2020 Graf Road MP 1.01 Culvert Replacement Project, CMP 1531.

#### **SEALED BIDS MUST BE DELIVERED BY OR BEFORE 11:00 A.M. on Tuesday, December 17, 2019**

(Lewis County official time is displayed on Axxess Intertel phones in the office of the Board of County Commissioners.  
**Bids submitted after 11:00 AM 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 **11:00 A.M.** on the date specified for opening, and in an envelope clearly marked: **"SEALED BID FOR 2020 GRAF ROAD MP 1.01 CULVERT REPLACEMENT, CMP 1531, TO BE OPENED ON OR AFTER 11:00 A.M. ON TUESDAY, DECEMBER 17, 2019"**.

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](http://www.lewiscountywa.gov) or you may call the Lewis County Engineers office @ (360)740-2612 and request a copy be mailed to you. All Contractor questions and Lewis County clarifying answers will be posted on our website and emailed to all Contractors registered on Lewis County's Planholder List. Plan or specification changes shall be accomplished through official project addendums.

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.



## PROPOSAL

TO: BOARD OF COUNTY COMMISSIONERS  
LEWIS COUNTY  
CHEHALIS, WASHINGTON 98532

This certifies that the undersigned has examined the location of the 2020 GRAF ROAD MP 1.01 CULVERT REPLACEMENT PROJECT CMP-1531, in Lewis County, Washington, and that the plans, specifications and contract governing the work embraced in these improvements, and the method by which payment will be made for said work is understood. The undersigned hereby proposes to undertake and complete the work embraced in this improvement, or as much thereof as can be completed with the money available in accordance with the said plans, specifications and contract, and the following schedules of rates and prices:

NOTE: Unit prices for all items, all extensions, and total amount of bid shall be shown: All entries must be typed or entered in ink.

ITEM NO.	PLAN QUANTITY	ITEM DESCRIPTION	UNIT PRICE DOLLARS CENTS	AMOUNT DOLLARS CENTS
1	1 L.S.	MOBILIZATION	LUMP SUM	\$
2	0.32 ACRE	CLEARING AND GRUBBING	\$	\$
3	1 L.S.	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	\$
4	340 C.Y.	ROADWAY EXCAVATION INCL. HAUL	\$	\$
5	3,650 C.Y.	STRUCTURE EXCAVATION CLASS A INCL. HAUL	\$	\$
6	1 L.S.	TEMPORARY ACCESS ROAD	LUMP SUM	\$
7	280 TON	STREAMBED MIX	\$	\$
8	450 C.Y.	ROCK / SOIL MIX	\$	\$
9	700 TON	ROCK FOR EROSION CONTROL AND SCOUR PROTECTION CL. B	\$	\$
10	1 L.S.	TEMPORARY STREAM DIVERSION	LUMP SUM	\$
11	3,720 S.F.	STRUCTURAL EARTH WALL	\$	\$
12	1,547 C.Y.	GRAVEL BORROW FOR STRUCTURAL EARTH WALL INCL. HAUL	\$	\$
13	1 L.S.	SUPERSTRUCTURE - GRAF ROAD MP 1.01 BRIDGE	LUMP SUM	\$
14	790 TON	CRUSHED SURFACING BASE COURSE	\$	\$
15	225 TON	CRUSHED SURFACING TOP COURSE	\$	\$
16	30 TON	SHOULDER FINISHING	\$	\$
17	244 TON	HMA CL. 3/8 IN PG 58H-22 FIBER REINFORCED	\$	\$
18	10 TON	HMA FOR APPRACH CL. 3/8 IN PG 58H-22	\$	\$
19	1 CALC.	EROSION / WATER POLLUTION CONTROL	CALCULATED	\$ 5,000.00

ITEM NO.	PLAN QUANTITY	ITEM DESCRIPTION	UNIT PRICE DOLLARS CENTS	AMOUNT DOLLARS CENTS
20	4 EA.	LARGE WOODY DEBRIS	\$	\$
21	1 L.S.	STREAMSIDE MITIGATION PLANTING	LUMP SUM	\$
22	15 DAY	ESC LEAD	\$	\$
23	0.5 ACRE	SEEDING AND MULCHING	\$	\$
24	150 S.Y.	STABILIZED CONSTRUCTION ENTRANCE	\$	\$
25	350 L.F.	HIGH VISIBILITY FENCE	\$	\$
26	530 L.F.	HIGH VISIBILITY SILT FENCE	\$	\$
27	630 S.Y.	BIODEGRADABLE EROSION CONTROL BLANKET	\$	\$
28	2 EA.	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL	\$	\$
29	275 L.F.	EXTRUDED CURB (TYPE 2 OR 5)	\$	\$
30	2 EA.	BEAM GUARDRAIL ANCHOR TYPE 10	\$	\$
31	130 L.F.	BEAM GUARDRAIL TYPE 31	\$	\$
32	1 L.S.	PROJECT TEMPORARY TRAFFIC CONTROL	LUMP SUM	\$
33	1 L.S.	TRIMMING AND CLEANUP	LUMP SUM	\$
34	0 EST.	REIMBURSEMENT FOR THIRD PARTY DAMAGE	ESTIMATED	\$0.00
35	1 CALC.	MINOR CHANGE	CALCULATED	\$ 25,000.00
36	1 L.S.	SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN	LUMP SUM	\$
			TOTAL BID	\$

**Failure to return this Declaration as part of the bid proposal package will make the bid nonresponsive and ineligible for award.**

## **NON-COLLUSION DECLARATION**

I, by signing the proposal, hereby declare, under penalty of perjury under the laws of the United States that the following statements are true and correct:

1. That the undersigned person(s), firm, association or corporation has (have) not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the project for which this proposal is submitted.
2. That by signing the signature page of this proposal, I am deemed to have signed and to have agreed to the provisions of this declaration.

## **NOTICE TO ALL BIDDERS**

To report rigging activities call:

**1-800-424-9071**

The U.S. Department of Transportation (USDOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of USDOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the USDOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.



PROPOSAL - SIGNATURE PAGE

The bidder is hereby advised that by signature of this proposal he/she is deemed to have acknowledged all requirements and signed all certificates contained herein.

A proposal guaranty in an amount of five percent (5%) of the total bid, based upon the approximate estimate of quantities at the above prices and in the form as indicated below, is attached hereto:

CASH  IN THE AMOUNT OF \_\_\_\_\_

CASHIER'S CHECK  \_\_\_\_\_ DOLLARS

CERTIFIED CHECK  (\$\_\_\_\_\_) PAYABLE TO THE LEWIS COUNTY TREASURER

PROPOSAL BOND  IN THE AMOUNT OF 5% OF THE BID

\*\* Receipt is hereby acknowledged of addendum(s) No.(s) \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, & \_\_\_\_\_

SIGNATURE OF AUTHORIZED OFFICIAL(S)

***Proposal Must be Signed***

\_\_\_\_\_

Firm Name

\_\_\_\_\_

Address

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

State of Washington Contractor's License No.

\_\_\_\_\_

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

\_\_\_\_\_

Telephone No.

\_\_\_\_\_

Federal ID No.

\_\_\_\_\_

**Note:**

This proposal form is not transferable and any alteration of the firm's name entered hereon without prior permission from the Lewis County Engineer will be cause for considering the proposal irregular and subsequent rejection of the bid.

\* Attach Power of Attorney



## Lewis County Department of Public Works

Josh Metcalf, PE, Director

Tim Fife, PE, County Engineer

### Certification of Compliance with Wage Payment Statutes

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date ( \_\_\_\_\_ ), the bidder is not a "willful" violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

I certify under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

\_\_\_\_\_  
Bidder's Business Name

\_\_\_\_\_  
Signature of Authorized Official\*

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
City

\_\_\_\_\_  
State

Check One:

Sole Proprietorship  Partnership  Joint Venture  Corporation

State of Incorporation, or if not a corporation, State where business entity was formed:

\_\_\_\_\_  
If a co-partnership, give firm name under which business is transacted:

\_\_\_\_\_  
*\* If a corporation, proposal must be executed in the corporate name by the president or vice-president (or any other corporate officer accompanied by evidence of authority to sign). If a co-partnership, proposal must be executed by a partner.*



# **APPENDIX E**

## **CONTRACT DOCUMENTS**

### **INCLUDING:**

**Contract Form**

**Contract Bond**

**Power Equipment List**



**CONTRACT**

THIS AGREEMENT, made and entered into this \_\_\_ day of \_\_\_\_\_, 2020, between the BOARD OF COUNTY COMMISSIONERS of LEWIS COUNTY, State of Washington, acting under and by virtue of RCW 36.77.040, hereinafter called

the Board, and \_\_\_\_\_ of \_\_\_\_\_

for \_\_\_sel\_\_\_, heirs, executors, administrators, successors and assigns, hereinafter called the Contractor.

WITNESSETH:

That in consideration of the payments, covenants and agreements hereinafter mentioned to be made and performed by the parties hereto, the parties hereto covenant and agree as follows:

**DESCRIPTION OF WORK:**

1. The Contractor shall do all work and furnish all material necessary to improve Graf Road MP 1.01 by installing a stream bypass, removing the existing concrete twin box culvert, excavation, Geosynthetic Reinforced Soil construction, precast voided slab bridge construction, streambed restoration, road restoration, guardrail, hydroseeding, and other work, all in Lewis County Washington, in accordance with and as described in the attached plans and specifications, and in full compliance with the terms, conditions and stipulations herein set forth and attached, now referred to and by such reference incorporated herein and made a part hereof as fully for all purposes as if here set forth at length, and shall perform any alterations in or additions to the work covered by this contract and every part thereof and any extra work which may be ordered as provided in this contract and every part thereof.

The Contractor shall provide and be at the expense of all materials, labor, carriage, tools, implements and conveniences and things of every description that may be requisite for the transfer of materials and for constructing and completing the work provided for in this contract and every part thereof.

2. The County hereby promises and agrees with the Contractor to hire and does hire the Contractor to provide the materials and to do and cause to be done the above described work and to complete and furnish the same according to the attached plans and specifications and the terms and conditions herein contained, and hereby contracts to pay for the same according to the schedule of unit or itemized prices at the time and in the manner and upon the conditions provided for in this contract and every part thereof. The County further agrees to hire the contractor to perform any alterations in or conditions to the work covered by this contract and every part thereof and any force account work that may be ordered and to pay for the same under the terms of this contract and the attached plans and specifications.

3. The Contractor for himself, and for his heirs, executors, administrators, successors and assigns, does hereby agree to the full performance of all the covenants herein contained upon the part of the Contractor.

4. It is further provided that no liability shall attach to the County be reason of entering into this contract, except as expressly provided herein.

**Contract - 1**

5. CANCELLATION OF CONTRACT FOR VIOLATION OF STATE POLICY

This contract, pursuant to RCW 49.28.040 to RCW 49.28.060, may be canceled by the officers or agents of the Owner authorized to contract for or supervise the execution of such work, in case such work is not performed in accordance with the policy of the State of Washington.

6. DOCUMENTS COMPRISING CONTRACT

All documents hereto attached, including but not being limited to the advertisement for bids, information for bidders, bid proposal form, general conditions (if any), special conditions (if any), complete specifications and the complete plans, are hereby made a part of this contract.

IN WITNESS WHEREOF, the said Contractor has executed this instrument, and the said Board of County Commissioners of aforesaid County, pursuant to resolution duly adopted, has caused this instrument to be executed by and in the name of said Board by its Chairman, duly attested by its Clerk, the day and year first above written, and the seal of said Board to be hereunto affixed on the date in this instrument first above written.

\_\_\_\_\_

By: \_\_\_\_\_

\_\_\_\_\_

Contractor

Performance of foregoing contract assured in accordance with the terms of the accompanying bond.

Dated: \_\_\_\_\_, 2020

By: \_\_\_\_\_  
Surety

By: \_\_\_\_\_  
Attorney-in-fact

APPROVED AS TO FORM:

JONATHAN MEYER Prosecuting Attorney

By: \_\_\_\_\_  
Civil Deputy

APPROVED:

\_\_\_\_\_

County Engineer

**Contract – 2**

**CONTRACT BOND FOR  
LEWIS COUNTY, WASHINGTON**

**Bond No.** \_\_\_\_\_

WE, \_\_\_\_\_ d/b/a \_\_\_\_\_  
(Insert legal name of Contractor) (Insert trade name of Contractor, if any)

(hereinafter "Principal"), and \_\_\_\_\_ (hereinafter "Surety"), are held and firmly bound unto **LEWIS COUNTY, WASHINGTON** (hereinafter "County"), as Obligee, in an amount (in lawful money of the United States of America) equal to the total compensation and expense reimbursement payable to Principal for satisfactory completion of Principal's work under Contract No. **CMP 1531** between Principal and County, which total is *initially* \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), for the payment of which sum Principal and Surety bind themselves, their executors, administrators, legal representatives, successors and assigns, jointly and severally, firmly by these presents.. Said contract (hereinafter referred to as "the Contract") is for the **2020 Graf Road MP 1.01 Culvert Replacement Project** and is made a part hereof by this reference. The Contract includes the original agreement as well as all documents attached thereto or made a part thereof and amendments, change orders, and any other document modifying, adding to or deleting from said Contract any portion thereof.

This Bond is executed in accordance with the laws of the State of Washington, and is subject to all provisions thereof and the ordinances of County insofar as they are not in conflict therewith, and is entered into for the use and benefit of County, and all laborers, mechanics, subcontractors, and materialmen, and all persons who supply such person or persons, or subcontractors, with provisions or supplies for the carrying on of the work covered by Contract No. **CMP 1531**, between the below-named Contractor and County for the **2020 Graf Road MP 1.01 Culvert Replacement Project**, a copy of which Contract, by this reference is made a part hereof and is hereinafter referred to as "the Contract." (The Contract as defined herein includes the aforesaid agreement together with all of the Contract documents including addenda, exhibits, attachments, modifications, alterations, and additions thereto, deletions therefrom, amendments and any other document or provision attached to or incorporated into the Contract)

**THE CONDITION OF THIS OBLIGATION** is such that if Contractor shall promptly and faithfully perform the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

**THE PARTIES FURTHER ACKNOWLEDGE & AGREE AS FOLLOWS:**

- (1) Surety hereby consents to, and waives notice of, any alteration, change order, or other modification of the Contract and any extension of time made by County, except that any single or cumulative change order amounting to more than twenty-five percent (25%) of the penal sum of this bond shall require Surety's written consent.
- (2) Surety recognizes that the Contract includes provisions for additions, deletions, and modifications to the work or Contract Time and the amounts payable to Contractor. Subject to the limitations contained in paragraph (1) above, no such change or any combination thereof, shall void or impair Surety's obligation hereunder.
- (3) Surety is subject to the provisions contained in Section 1-03.4, "Contract Bond," of the Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction. And such provisions are incorporated by reference. A copy may be viewed at WSDOT's website [www.wsdot.wa.gov/fasc/EngineeringPublications/Manuals/](http://www.wsdot.wa.gov/fasc/EngineeringPublications/Manuals/).
- (4) Whenever County has declared Contractor to be in default and County has given Surety written notice of such declaration, Surety shall promptly (in no event more than thirty [30] days following receipt of such notice), specify, in written notice to County, which of the following actions Surety intends to take to remedy such default, and thereafter shall:
  - (a) Remedy the default within fifteen (15) days after its notice to County, as stated in such notice; or
  - (b) Assume within fifteen (15) days following its notice to County, full responsibility for the completion of the Contract in accordance with all of its provisions, as stated in such notice, and become entitled to payment of the balance of the Contract sum as provided in the Contract; or
  - (c) Pay County upon completion of the Contract, in cash, the cost of completion together with all other reasonable costs and expenses incurred by County as a result of Contractor's default, including but not limited to those incurred by County to mitigate its losses, which may include but are not limited to attorneys' fees and the cost of efforts to complete the work prior to Surety's exercising any option available to it under this Bond; or
  - (d) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon a determination by County and Surety jointly of the lowest responsible bidder, arrange for one or more agreements between such bidder and County, and make available as work progresses (even though there is a default or a succession of defaults under such agreement(s) for completion arranged for under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract price, but not exceeding, including other costs and damages for which Surety may be liable hereunder, the penal sum of this Bond. The term "balance of the Contract price," as used in this paragraph, shall mean the total amount payable by County to Contractor under the Contract, less the amount properly paid by County to Contractor.



(5) If County commences suit and obtains judgment against Surety for recovery hereunder, then Surety, in addition to such judgment, shall pay all costs and attorneys' fees incurred by County in enforcement of County's rights hereunder. The venue for any action arising out of or in connection with this bond shall be in Lewis County, Washington.

(6) No right or action shall accrue on this Bond to or for the use of any person or corporation other than Lewis County, except as herein provided.

(7) No rider, amendment or other document modifies this Bond except as follows, which by this reference is incorporated herein:

**SURETY'S QUALIFICATIONS:** Every Surety named on this bond must appear on the United States Treasury Department's most current list (Circular 570 as amended or superseded) and be authorized by the Washington State Insurance Commissioner to transact business as a surety in the State of Washington. In addition, the Surety must have a current rating of at least A-:VII in A. M. Best's Key Rating Guide.

**INSTRUCTIONS FOR SIGNATURES:** This bond must be signed by the president or a vice-president of a corporation; the managing general partner of a partnership; managing joint venturer of a joint venture; manager of a limited liability company or, if no manager has been designated, a member of such LLC; a general partner of a limited liability partnership; or the owner(s) of a sole proprietorship. If the bond is signed by any other representative, the Principal must attach currently-dated, written proof of that signer's authority to bind the Principal, identifying and quoting the provision in the corporate articles of incorporation, bylaws, Board resolution, partnership agreement, certificate of formation, or other document authorizing delegation of signature authority to such signer, and confirmation acceptable to the County that such delegation was in effect on the date the bond was signed. **A NOTARY PUBLIC MUST ACKNOWLEDGE EACH SIGNATURE BELOW.**

**FOR THE SURETY:**

**FOR THE PRINCIPAL:**

By \_\_\_\_\_  
(Signature of Attorney-in-Fact)  
\_\_\_\_\_  
(Type or print name of Attorney-in-Fact)  
\_\_\_\_\_  
(Type or print telephone number for Attorney-in-Fact)

By: \_\_\_\_\_  
(Signature of authorized signer for Contractor)  
\_\_\_\_\_  
(Type or print name of signer for Contractor)  
\_\_\_\_\_  
(Type or print title of signer for Contractor)

STATE OF \_\_\_\_\_ )  
 ) ss:  
COUNTY OF \_\_\_\_\_ )

**ACKNOWLEDGMENT FOR CONTRACTOR**

On this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me a notary public in and for the State of \_\_\_\_\_, duly commissioned and sworn, personally appeared \_\_\_\_\_, the person described in and who executed the foregoing bond, and acknowledged to me that \_\_\_\_\_ signed and sealed said bond as the free and voluntary act and deed of the Contractor so identified in the foregoing bond for the uses and purposes therein mentioned, and on oath stated that \_\_\_\_\_ is authorized to execute said bond for the Contractor named therein. WITNESS my hand and official seal hereto affixed the day and year in this certificate first above written.

\_\_\_\_\_  
(Signature of Notary Public) (Print or type name of Notary Public)  
Notary Public in and for the State of \_\_\_\_\_ residing at \_\_\_\_\_  
My commission expires \_\_\_\_\_ **SEAL →**

STATE OF \_\_\_\_\_ )  
 ) ss:  
COUNTY OF \_\_\_\_\_ )

**ACKNOWLEDGMENT FOR SURETY**

On this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me a notary public in and for the State of \_\_\_\_\_, duly commissioned and sworn, personally appeared \_\_\_\_\_, Attorney-in-Fact for the Surety that executed the foregoing bond, and acknowledged said bond to be the free and voluntary act and deed of the Surety for the uses and purposes therein mentioned, and on oath stated that \_\_\_\_\_ is authorized to execute said bond on behalf of the Surety, and that the seal affixed on said bond or the annexed Power of Attorney is the corporate seal of said Surety. WITNESS my hand and official seal hereto affixed the day and year in this certificate first above written.

\_\_\_\_\_  
(Signature of Notary Public) (Print or type name of Notary Public)  
Notary Public in and for the State of \_\_\_\_\_ residing at \_\_\_\_\_  
My commission expires \_\_\_\_\_ **SEAL →**

**POWER EQUIPMENT LIST**

The undersigned furthermore certifies that he/she is thoroughly aware that time is of the essence for the completion of this contract within the time specified in the special provisions, and hereby agrees to provide the Engineer a list of his power equipment to be used on this project.

This equipment list will be used in computing any Force Account that may be performed within this contract.

**The Contractor must complete this form in its entirety.**

**POWER EQUIPMENT**

Type of Equipment	Make	Model Number	Serial Number	* Capacity	Year Built



# APPENDIX F

PERMIT DOCUMENTS

TESC PLAN



CENWS-ODR

Reference Number and Name: NWS-2016-490; Lewis County Public Works (Scammon Creek Barrier Removal)

**MEMORANDUM FOR RECORD**

**SUBJECT:** Memorandum Documenting Nationwide Permit 27 Re-Verification

1. I have reviewed the e-mail request dated 20 August 2019, submitted by the applicant, regarding a time extension request which would require a NWP re-verification for the work referenced above.
2. There are no changes in circumstances surrounding the project except the applicant requires additional time to complete the work. The work still complies with the Endangered Species Act and the requirements for Historic Properties. Agency coordination is not required because the basic impacts have not changed. This time extension will have no additional environmental impacts and the project will still meet all conditions of the referenced NWP. The authorized work is re-verified until March 18, 2022, unless the NWP is modified, reissued, or revoked prior to that date.
3. An extension of time to complete the authorized activity, would result in no more than minimal individual and cumulative adverse environmental effects and would not be contrary to the public interest. Therefore, re-verification of the work is authorized.



---

Prepared by: Evan G. Carnes, Project Manager

29 August 2019

Date





REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
SEATTLE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 3755  
SEATTLE, WASHINGTON 98124-3755

Regulatory Branch

September 12, 2016

Ms. Ann Weckback  
Lewis County Public Works  
2025 Northeast Kresky Avenue  
Chehalis, Washington 98532

Reference: NWS-2016-490  
Lewis Co. Public Works  
(Scammon Creek Barrier  
Removal)

Dear Ms. Ann Weckback:

We have reviewed your application to replace two adjacent box culverts with a bridge on Graf Road in Scammon Creek at Centralia, Lewis County, Washington. Based on the information you provided to us, Nationwide Permit (NWP) 27, Aquatic Habitat Restoration, Establishment, and Enhancement Activities (Federal Register February 21, 2012, Vol. 77, No. 34), authorizes your proposal as depicted on the enclosed drawings dated May 12, 2016.

In order for this authorization to be valid, you must ensure the work is performed in accordance with the enclosed *NWP 27, Terms and Conditions* and the following special condition:

a. This U.S. Army Corps of Engineers (Corps) permit does not authorize you to take a threatened or endangered species. In order to legally take a listed species, you must have a separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or ESA Section 7 consultation Biological Opinion (BO) with non-discretionary "incidental take" provisions with which you must comply). The Regional Road Maintenance Program Limit 10 BO prepared by the National Marine Fisheries Service (NMFS) contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with the specified "incidental take" in the BO (NMFS Reference Numbers 2003-00313, 2004-00647, 2009-03290, and WCR-2014-304). Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take of the BO. These terms and conditions are incorporated by reference in this permit. Failure to comply with the commitments made in this document constitutes non-compliance with the ESA and your Corps permit. The NMFS is the appropriate authority to determine compliance with the ESA.



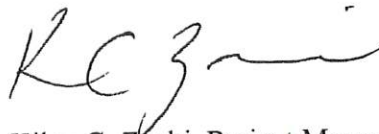
The U.S Fish and Wildlife Service completed no effect determinations for the National Historic Preservation Act, Section 7 of the Endangered Species Act (ESA), and Magnuson Stevens Act essential fish habitat (EFH) for its involvement in the proposed activity. For the purpose of this Department of the Army authorization, we have determined this project will comply with the requirements of these laws provided you comply with all of the permit general conditions. We have determined the permit action is sufficiently addressed in their ESA and EFH consultation documents. By this letter we are advising you and the Services, in accordance with 50 CFR 402.07 and 50 CFR 600.920(b), that this agency has served as the lead Federal agency for the ESA and EFH consultation responsibilities for the activity described above.

The authorized work complies with the Washington State Department of Ecology's (Ecology) Water Quality Certification and the Coastal Zone Management Act requirements for this NWP. No further coordination with Ecology is required.

We have prepared and enclosed a *Preliminary Jurisdictional Determination (JD)* dated July 11, 2016, which is a written indication that wetlands and waterways within your project area may be waters of the U.S. Such waters will be treated as jurisdictional waters of the U.S. for purposes of computation of impact area and compensatory mitigation requirements associated with your permit application. If you believe the Preliminary JD is inaccurate, you may request an Approved JD, which is an official determination regarding the presence or absence of waters of the U.S. If one is requested, please be aware that we may require the submittal of additional information to complete an approved JD and work authorized in this letter may not occur until the approved JD has been finalized.

Upon completing the authorized work, you must fill out and return the enclosed *Certificate of Compliance with Department of the Army Permit* form. Thank you for your cooperation during the permitting process. We are interested in your experience with our Regulatory Program and encourage you to complete a customer service survey form. This form and information about our program is available on our website at [www.nws.usace.army.mil](http://www.nws.usace.army.mil) select "Regulatory Branch, Permit Information" and then "Contact Us." If you have any questions, please contact me at [kiley.c.zaubi@usace.army.mil](mailto:kiley.c.zaubi@usace.army.mil) or (206) 764-3262.

Sincerely,














Kiley C. Zaubi, Project Manager  
Regulatory Branch




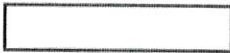




Enclosures

## LEGEND

### EXISTING FEATURES

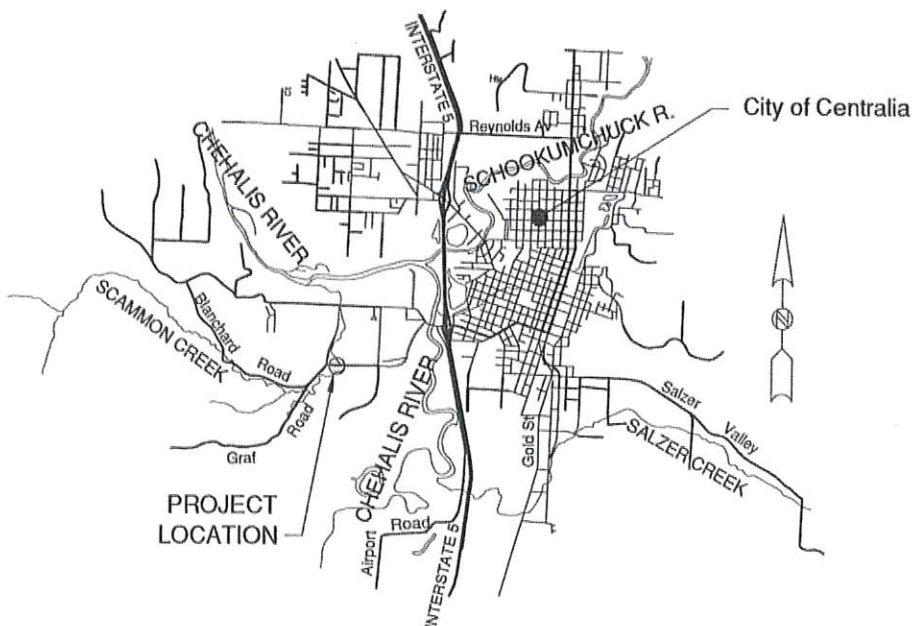
	CONIFER TREE
	DECIDUOUS TREE
	EDGE OF ROAD
	DITCH
	EDGE OF STREAM
	FENCE
	BST ROADWAY
	MAILBOX
	FENCEPOST
	POWER POLE
	OHWM

### NEW CONSTRUCTION

	EDGE OF PAVEMENT
	CENTERLINE
	GUARDRAIL
	HMA
	GUARDRAIL LANDING / SHOULDER ROCK
	SHOULDER
	OHWM
	PROPOSED AREA OF POTENTIAL EFFECT

### SURVEY SYMBOLS

	SIXTEENTH LINE
	RIGHT OF WAY
	PROPERTY LINE



**VICINITY MAP**  
NTS

REFERENCE NUMBER:

*NWS-2016-490*

PROPOSED PROJECT: SCAMMON CREEK  
BARRIER REMOVAL

PROJECT LOCATION (ADDRESS):

GRAF ROAD MP 1.01  
CENTRALIA, WA 98531

Sec 13 Twn 14N R 3W

APPLICANT: LEWIS COUNTY

LAT/LONG: 46D 42' 23"/-122D 59' 45"

IN: (waterbody) SCAMMON CREEK  
NEAR/AT: (city) CENTRALIA  
COUNTY: LEWIS

ADJACENT PROPERTY OWNERS:

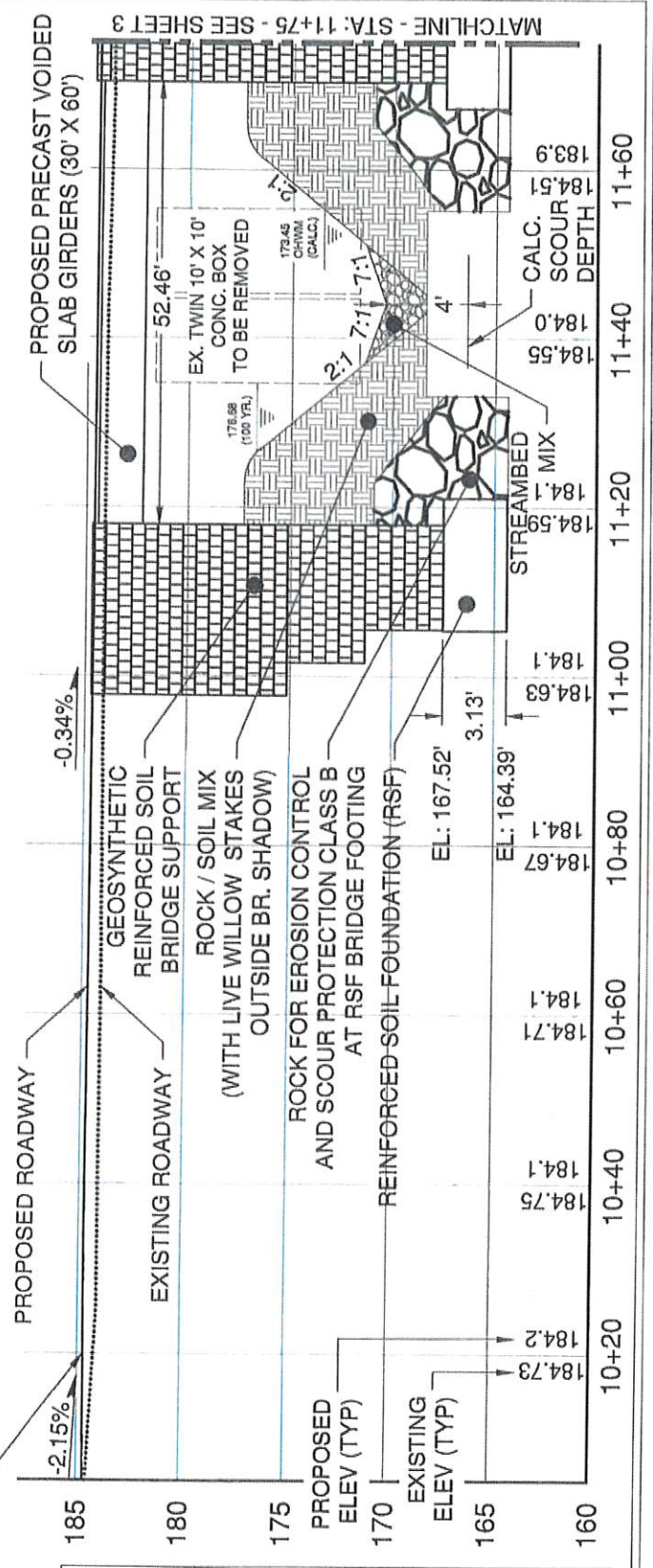
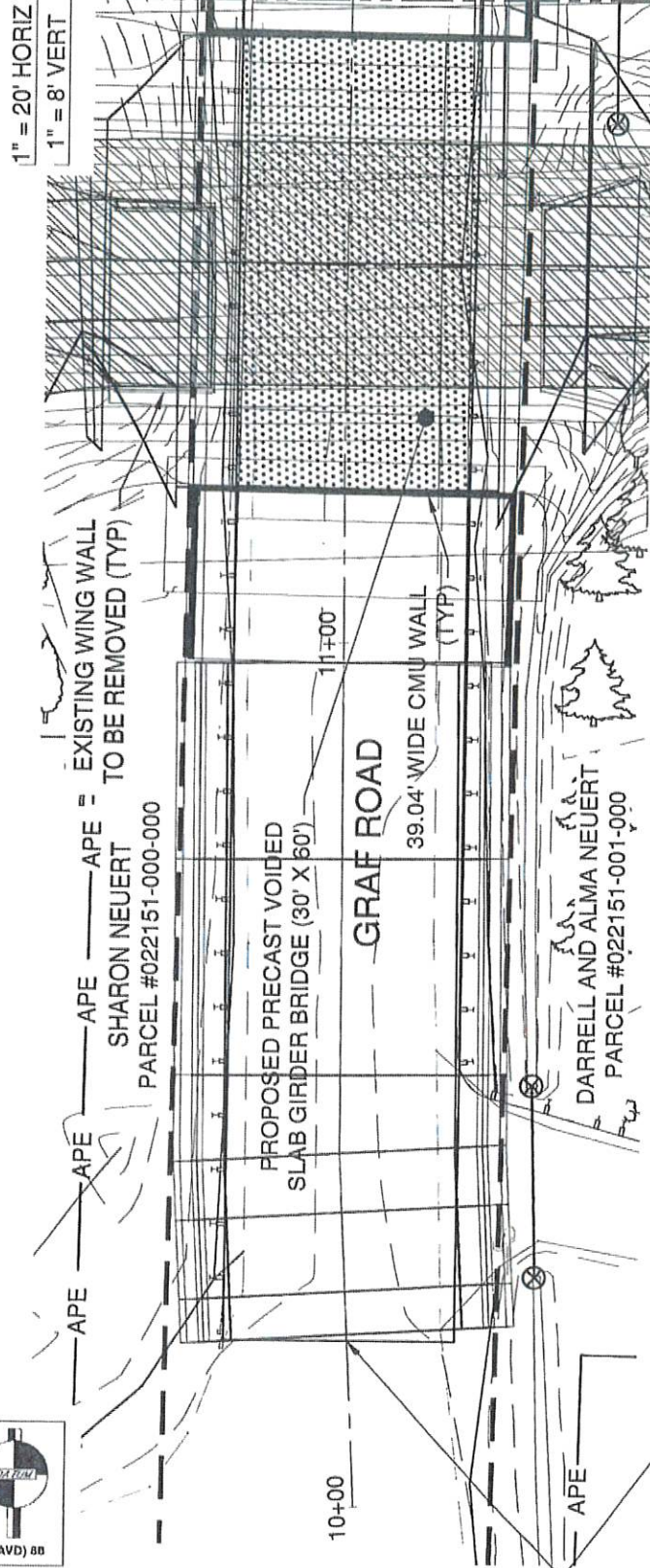
DATUM: NAVD88  
1. PARCEL#022151-000-000 MOXNESS, CHAD & ASHLEY  
2. PARCEL#022151-001-000 DARRELL AND ALMA NEUERT  
3. PARCEL#022141-000-000 TRACY & MARSHA WITCHY







MATCHLINE - STA: 11+75 - SEE SHEET 3



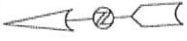
REFERENCE NUMBER: NWS-2016-490  
 APPLICANT NAME: LEWIS COUNTY  
 PROPOSED PROJECT: SCAMMON CREEK BARRIER REMOVAL  
 LOCATION: MP 1.01 GRAF ROAD  
 SHEET 2 OF 8      DATE: 05/12/2016

BEGINNING OF PROJECT (BOP)  
 STA: 10+20  
 ELEV: 184.25

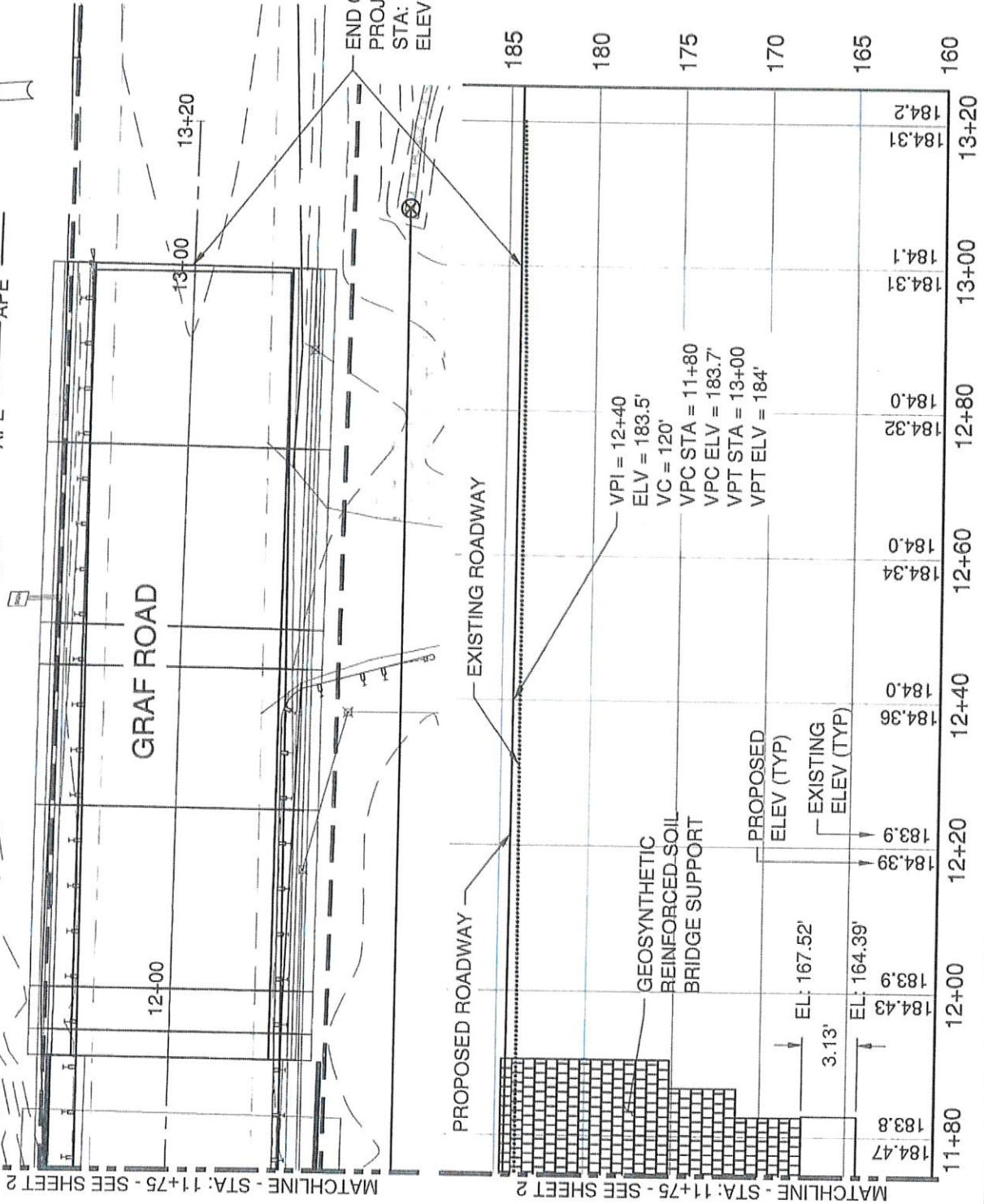




1" = 20' HORIZ  
1" = 8' VERT



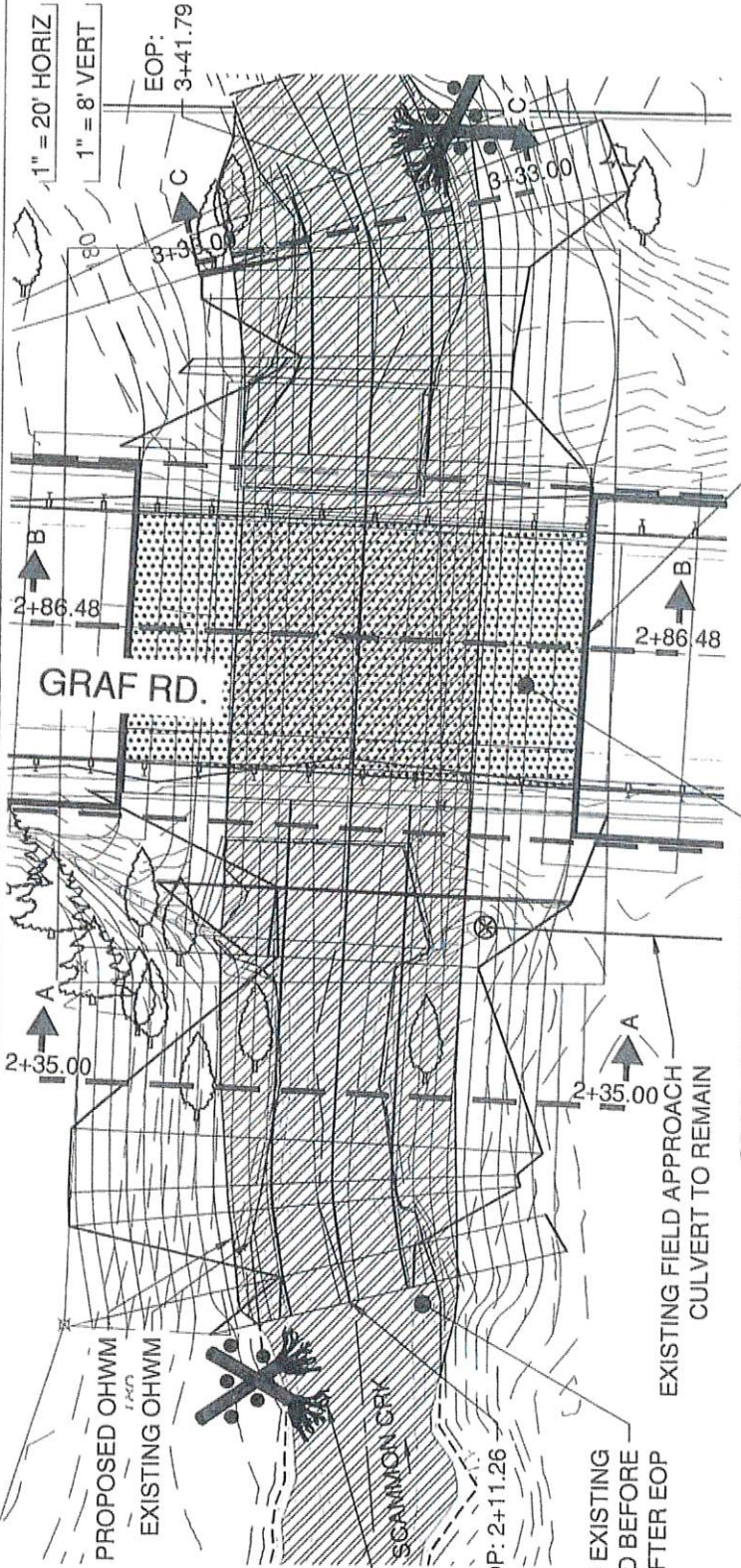
END OF PROJECT (EOP)  
STA: 13+00  
ELEV: 184.00



REFERENCE NUMBER: NWS-2016-490  
 APPLICANT NAME: LEWIS COUNTY  
 PROPOSED PROJECT: SCAMMON CREEK  
 BARRIER REMOVAL  
 LOCATION: MP 1.01 GRAF ROAD  
 SHEET 3 OF 8      DATE: 05/12/2016







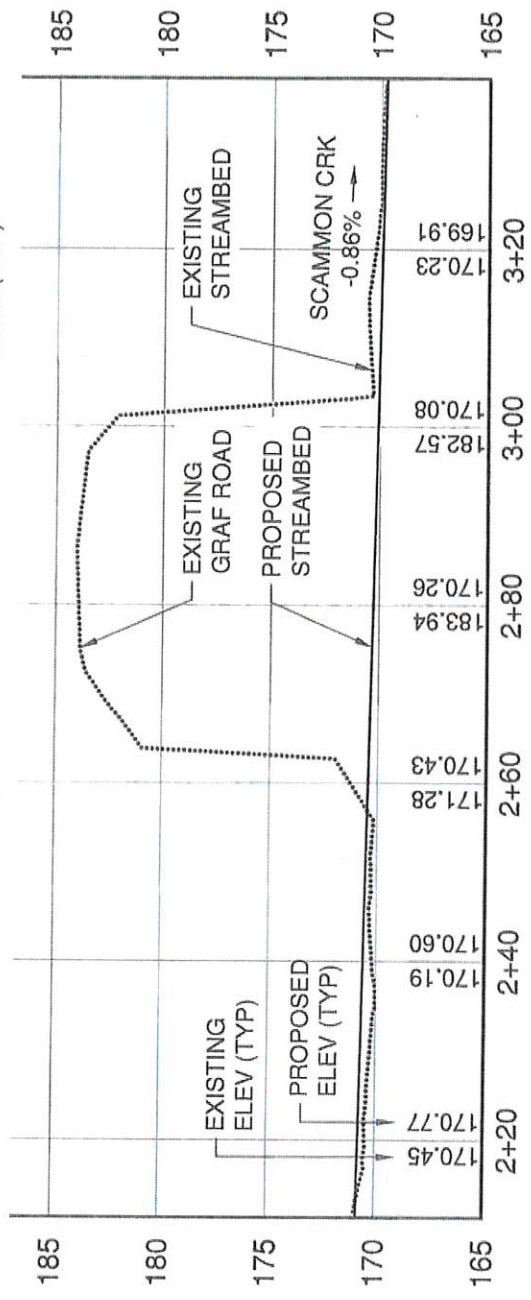
ANCHORED LARGE WOODY DEBRIS (SEE DETAIL ON PAGE 6 OF 8)



TRANSITION TO EXISTING STREAMBED BEFORE BOP AND AFTER EOP

BOP: 2+11.26

PROP. 60' LONG PRECAST CONCRETE BRIDGE

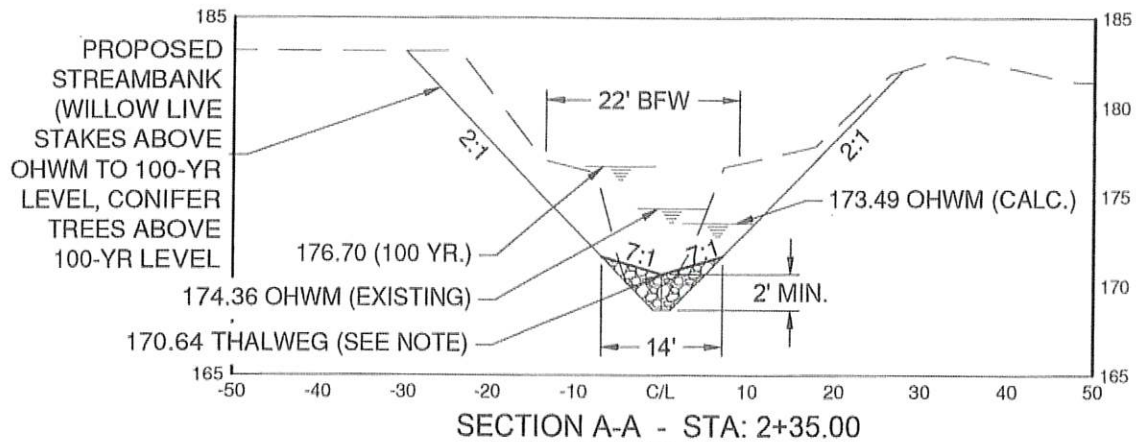
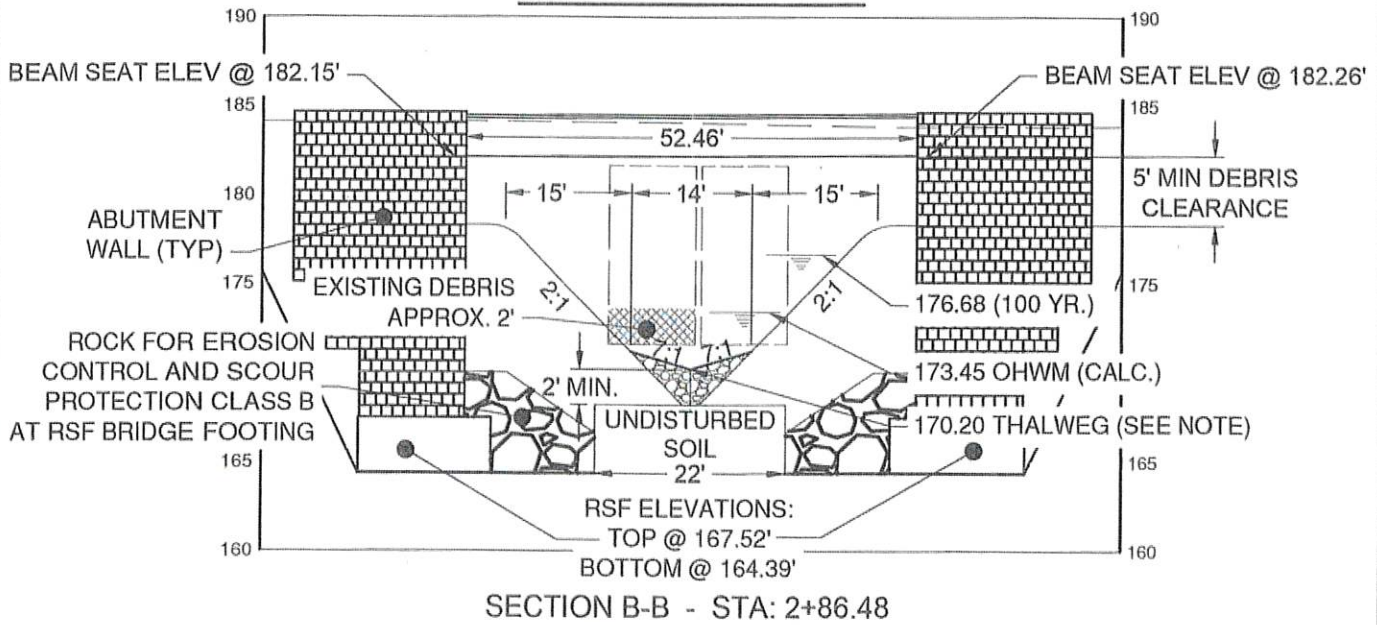
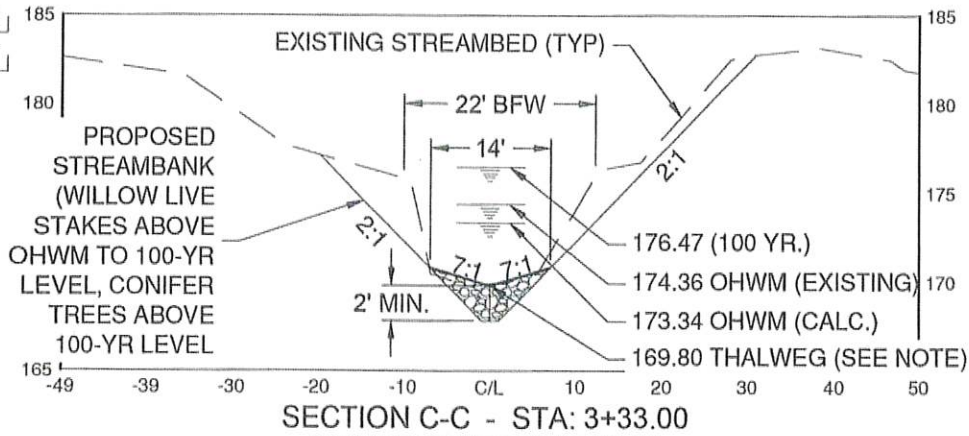


REFERENCE NUMBER: NWS-2016-490  
 APPLICANT NAME: LEWIS COUNTY  
 PROPOSED PROJECT: SCAMMON CREEK BARRIER REMOVAL  
 LOCATION: MP 1.01 GRAF ROAD  
 SHEET 4 OF 8      DATE: 05/12/2016





1" = 20' HORIZ  
1" = 10' VERT

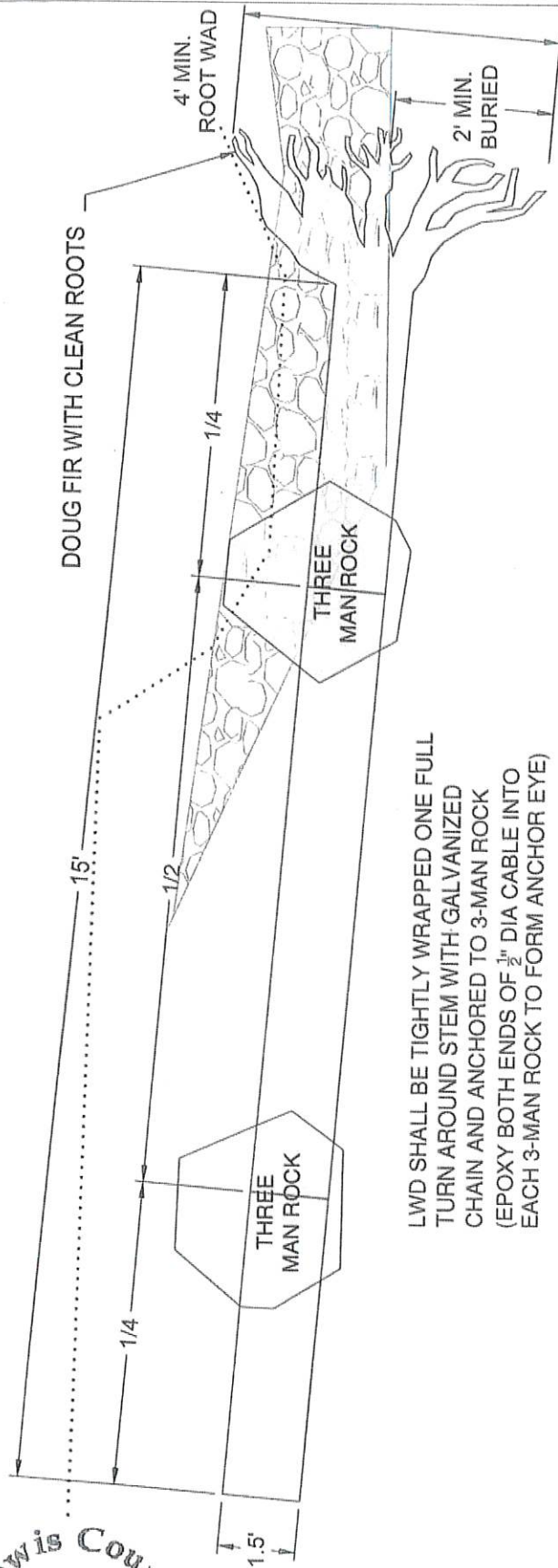


NOTE:  
THALWEG INCLUDES A  
MEANDERING 0.5' DEEP LOW  
FLOW NOTCH (NOT DEPICTED)

REFERENCE NUMBER: NWS-2016-490  
 APPLICANT NAME: LEWIS COUNTY  
 PROPOSED PROJECT: SCAMMON CREEK  
 BARRIER REMOVAL  
 LOCATION: MP 1.01 GRAF ROAD  
 SHEET 5 OF 8 DATE: 05/12/2016



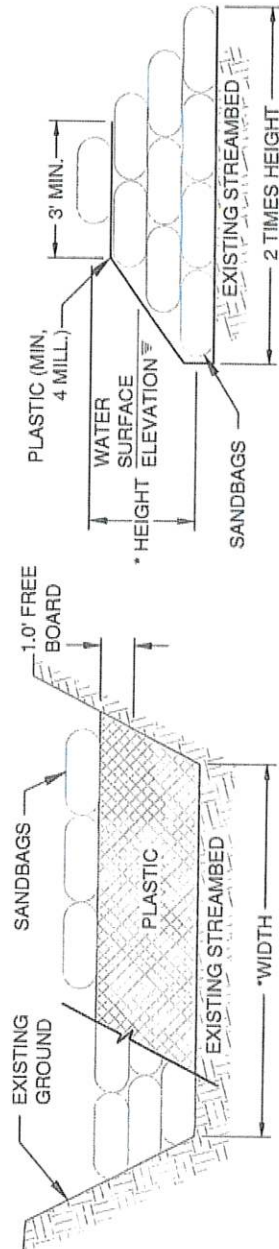




LWD SHALL BE TIGHTLY WRAPPED ONE FULL TURN AROUND STEM WITH GALVANIZED CHAIN AND ANCHORED TO 3-MAN ROCK (EPOXY BOTH ENDS OF 1/2" DIA CABLE INTO EACH 3-MAN ROCK TO FORM ANCHOR EYE)

**LARGE WOODY DEBRIS**

NOT TO SCALE



\* WIDTH OF COFFER DAM SHALL BE DETERMINED BY THE EXISTING BANK OF THE STREAM AT THE TIME OF CONSTRUCTION.

**COFFER DAM - PROFILE VIEW**

NOT TO SCALE

\* HEIGHT OF COFFER DAM SHALL BE DETERMINED BY THE WATER SURFACE ELEVATION AT THE TIME OF CONSTRUCTION.

**COFFER DAM - SECTION VIEW**

NOT TO SCALE

**NOTES:**

1. SANDBAGS SHALL BE USED IN ACCORDANCE WITH APPLICABLE PERMITS.
2. INSTALL COFFER DAM AND DEWATER SITE PRIOR TO CONSTRUCTION.
3. PROVIDE 1.0' FREEBOARD.

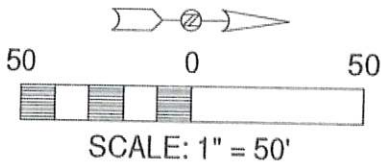
REFERENCE NUMBER: NWS-2016-490  
 APPLICANT NAME: LEWIS COUNTY  
 PROPOSED PROJECT: SCAMMON CREEK BARRIER REMOVAL  
 LOCATION: MP 1.01 GRAF ROAD  
 SHEET 6 OF 8 DATE: 05/12/2016





**CONSTRUCTION NOTES:**

- 1 INSTALL COFFER DAM PER DETAILS ON SHEET 6 OF 8 AS STAKED IN THE FIELD BY THE ENGINEER.
- 2 INSTALL SPILL CONTAINED PUMP SYSTEM FOR STREAM BY-PASS.
- 3 INSTALL SILT FENCE AROUND STAGING AREA AS DIRECTED BY THE ENGINEER (DEPICTED).
- 4 FISH SCREEN PER WDFW REQUIREMENTS.
- 5 INSTALL SPILL CONTAINED PUMP SYSTEM FOR WORK WATER. PUMP WORK WATER ALONG NW DITCH APPROXIMATELY 300' TO DRAIN AWAY FROM PROJECT THROUGH GRASS LINED DITCH.
- 6 HIGH VISIBILITY FENCE
- 7 QUARRY SPALL CONSTRUCTION ENTRANCE



**APE NOTE:**

APE EXTENDS 1500' WITHIN EXISTING 40' WIDE RIGHT-OF-WAY IN ALL DIRECTIONS FOR CONSTRUCTION SIGN PLACEMENT.

PARCEL # 022141-000-000

AFN 3423478

Witchey, Tracy L. & Marsha P

PARCEL # 022151-001-000

AFN 3404875

Neuert, Darrell & Alma

PARCEL # 022151-000-000

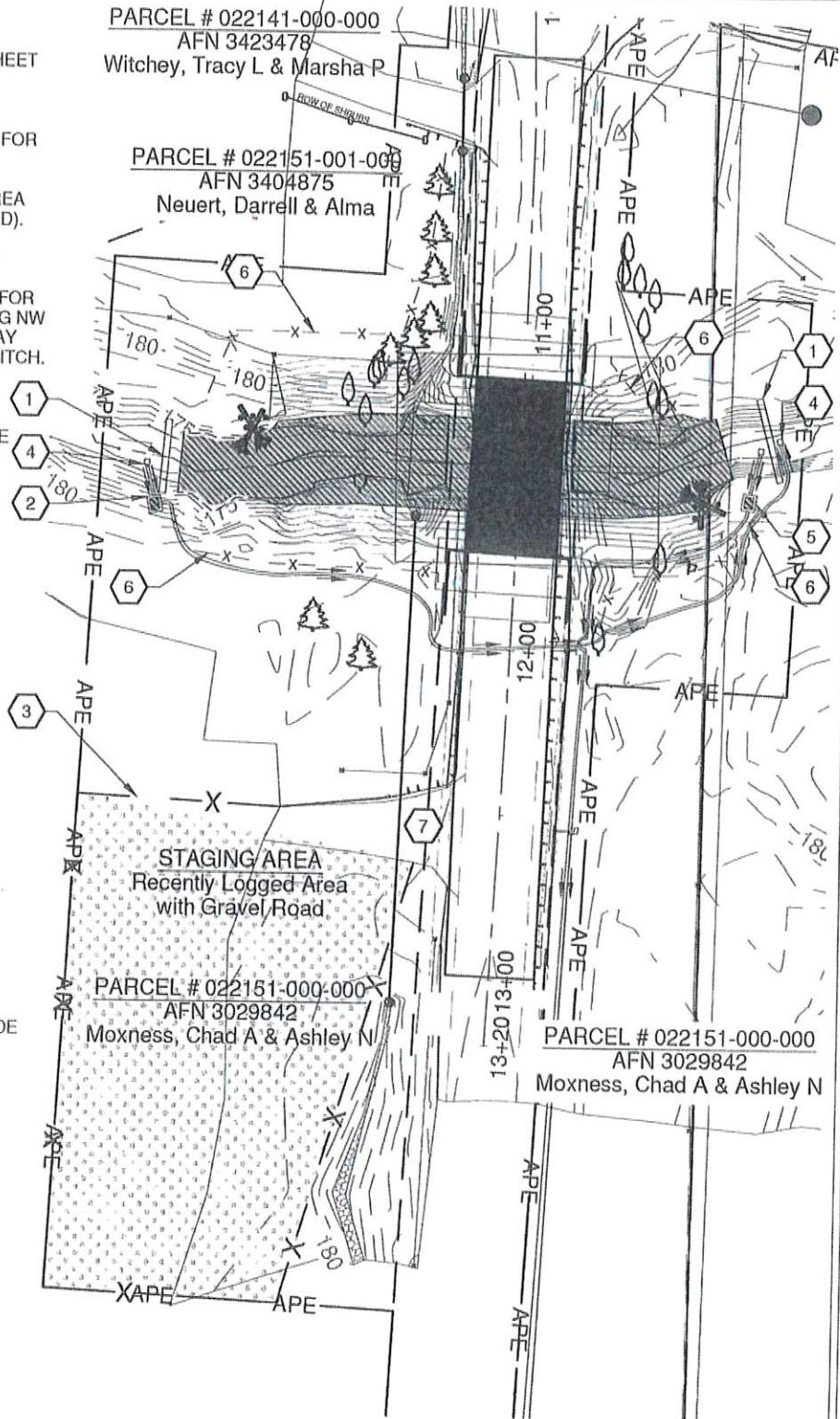
AFN 3029842

Moxness, Chad A & Ashley N

PARCEL # 022151-000-000

AFN 3029842

Moxness, Chad A & Ashley N



Department of Public Works

REFERENCE NUMBER: NWS-2016-490  
 APPLICANT NAME: LEWIS COUNTY  
 PROPOSED PROJECT: SCAMMON CREEK  
 BARRIER REMOVAL  
 LOCATION: MP 1.01 GRAF ROAD  
 SHEET 7 OF 8      DATE: 05/12/2016



# SUMMARY OF QUANTITIES

## Culvert Replacement (Sta 2+11.26 to 3+41.79) Quantities Below OHWM

Streambed Mix (Fill)	151 CY
Soil/Rock Mix (Fill)	74 CY
Sandbags for Cofferdams (Temporary Fill)	12 CY
<u>Total Fill Quantity Below OHWM</u>	<u>237 CY</u>
<u>Total Excavation Quantity Below OHWM</u>	<u>642 CY</u>

## Culvert Replacement (Sta 2+11.26 to 3+41.79) Between OHWM and 100 Year Flood Elevation

Soil/Rock Mix (Fill)	117 CY
<u>Total Fill Quantity Between OHWM and 100 Year Flood Elevation</u>	<u>117 CY</u>
<u>Total Excavation Quantity Between OHWM and 100 Year Flood Elevation</u>	<u>144 CY</u>

## Culvert Replacement (Sta 2+11.26 to 3+41.79) Above 100 Year Flood Elevation

<u>Total Fill Quantity Outside 100 Year Flood Elevation</u>	<u>2696 CY</u>
<u>Total Excavation Outside 100 Year Flood Elevation</u>	<u>3164 CY</u>

## Culvert Replacement (Sta 2+11.26 to 3+41.79) Project Quantities

All Excavation	3950 CY
Fill (Streambed Mix, Soil/Rock Mix, Sandbags, Buried Scour Protection, HMA, etc.)	3050 CY



Department of Public Works

REFERENCE NUMBER: NWS-2016-490  
APPLICANT NAME: LEWIS COUNTY  
PROPOSED PROJECT: SCAMMON CREEK  
BARRIER REMOVAL  
LOCATION: MP 1.01 GRAF ROAD  
SHEET 8 OF 8      DATE: 05/12/2016







US Army Corps  
of Engineers®  
Seattle District

# NATIONWIDE PERMIT 27

## Terms and Conditions

Effective Date: March 19, 2017



- 
- A. Description of Authorized Activities
  - B. U.S. Army Corps of Engineers (Corps) National General Conditions for all NWP
  - C. Corps Seattle District Regional General Conditions
  - D. Corps Regional Specific Conditions for this NWP
  - E. Washington Department of Ecology (Ecology) Section 401 Water Quality Certification (401 Certification): General Conditions
  - F. Ecology 401 Certification: Specific Conditions for this NWP
  - G. Coastal Zone Management Consistency Response for this NWP
- 

In addition to any special condition that may be required on a case-by-case basis by the District Engineer, the following terms and conditions must be met, as applicable, for a Nationwide Permit (NWP) authorization to be valid in Washington State.

### A. DESCRIPTION OF AUTHORIZED ACTIVITIES

27. Aquatic Habitat Restoration, Enhancement, and Establishment Activities. Activities in waters of the United States associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas, the restoration and enhancement of non-tidal streams and other non-tidal open waters, and the rehabilitation or enhancement of tidal streams, tidal wetlands, and tidal open waters, provided those activities result in net increases in aquatic resource functions and services.

To be authorized by this NWP, the aquatic habitat restoration, enhancement, or establishment activity must be planned, designed, and implemented so that it results in aquatic habitat that resembles an ecological reference. An ecological reference may be based on the characteristics of an intact aquatic habitat or riparian area of the same type that exists in the region. An ecological reference may be based on a conceptual model developed from regional ecological knowledge of the target aquatic habitat type or riparian area.

To the extent that a Corps permit is required, activities authorized by this NWP include, but are not limited to: the removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms, as well as discharges of dredged or fill material to restore appropriate stream channel configurations after small water control structures, dikes, and berms, are removed; the installation of current deflectors; the enhancement, rehabilitation, or re-establishment of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to enhance, rehabilitate, or re-establish stream meanders; the removal of stream barriers, such as undersized culverts, fords, and grade control structures; the backfilling of artificial channels; the removal of existing drainage structures, such as drain tiles, and the filling, blocking, or reshaping of drainage ditches to restore wetland hydrology; the installation of structures or fills necessary to restore or enhance wetland or stream hydrology; the construction of small nesting islands; the construction of open water areas; the construction of oyster habitat over unvegetated bottom in tidal waters; shellfish seeding; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation and the planting of appropriate wetland species; re-establishment of submerged aquatic vegetation in areas where those plant communities previously existed; re-establishment of tidal wetlands in tidal waters where those wetlands previously existed; mechanized land clearing to remove non-native invasive, exotic, or nuisance vegetation; and other related activities. Only native plant species should be planted at the site.



This NWP authorizes the relocation of non-tidal waters, including non-tidal wetlands and streams, on the project site provided there are net increases in aquatic resource functions and services. Except for the relocation of non-tidal waters on the project site, this NWP does not authorize the conversion of a stream or natural wetlands to another aquatic habitat type (e.g., the conversion of a stream to wetland or vice versa) or uplands. Changes in wetland plant communities that occur when wetland hydrology is more fully restored during wetland rehabilitation activities are not considered a conversion to another aquatic habitat type. This NWP does not authorize stream channelization. This NWP does not authorize the relocation of tidal waters or the conversion of tidal waters, including tidal wetlands, to other aquatic uses, such as the conversion of tidal wetlands into open water impoundments. Compensatory mitigation is not required for activities authorized by this NWP since these activities must result in net increases in aquatic resource functions and services.

Reversion. For enhancement, restoration, and establishment activities conducted: (1) In accordance with the terms and conditions of a binding stream or wetland enhancement or restoration agreement, or a wetland establishment agreement, between the landowner and the U.S. Fish and Wildlife Service (FWS), the Natural Resources Conservation Service (NRCS), the Farm Service Agency (FSA), the National Marine Fisheries Service (NMFS), the National Ocean Service (NOS), U.S. Forest Service (USFS), or their designated state cooperating agencies; (2) as voluntary wetland restoration, enhancement, and establishment actions documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or (3) on reclaimed surface coal mine lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the Office of Surface Mining Reclamation and Enforcement (OSMRE) or the applicable state agency, this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or establishment activities). The reversion must occur within five years after expiration of a limited term wetland restoration or establishment agreement or permit, and is authorized in these circumstances even if the discharge occurs after this NWP expires. The five-year reversion limit does not apply to agreements without time limits reached between the landowner and the FWS, NRCS, FSA, NMFS, NOS, USFS, or an appropriate state cooperating agency. This NWP also authorizes discharges of dredged or fill material in waters of the United States for the reversion of wetlands that were restored, enhanced, or established on prior-converted cropland or on uplands, in accordance with a binding agreement between the landowner and NRCS, FSA, FWS, or their designated state cooperating agencies (even though the restoration, enhancement, or establishment activity did not require a section 404 permit). The prior condition will be documented in the original agreement or permit, and the determination of return to prior conditions will be made by the Federal agency or appropriate state agency executing the agreement or permit. Before conducting any reversion activity the permittee or the appropriate Federal or state agency must notify the district engineer and include the documentation of the prior condition. Once an area has reverted to its prior physical condition, it will be subject to whatever the Corps Regulatory requirements are applicable to that type of land at the time. The requirement that the activity results in a net increase in aquatic resource functions and services does not apply to reversion activities meeting the above conditions. Except for the activities described above, this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit would be required for any reversion.

Reporting. For those activities that do not require pre-construction notification, the permittee must submit to the district engineer a copy of: (1) The binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement, or a project description, including project plans and location map; (2) the NRCS or USDA Technical Service Provider documentation for the voluntary stream enhancement or restoration action or wetland restoration, enhancement, or establishment action; or (3) the SMCRA permit issued by OSMRE or the applicable state agency. The report must also include information on baseline ecological conditions on the project site, such as a delineation of wetlands, streams, and/or other aquatic habitats. These documents must be submitted to the district



engineer at least 30 days prior to commencing activities in waters of the United States authorized by this NWP.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing any activity (see general condition 32), except for the following activities: (1) Activities conducted on non-Federal public lands and private lands, in accordance with the terms and conditions of a binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement between the landowner and the FWS, NRCS, FSA, NMFS, NOS, USFS or their designated state cooperating agencies; (2) Voluntary stream or wetland restoration or enhancement action, or wetland establishment action, documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or (3) The reclamation of surface coal mine lands, in accordance with an SMCRA permit issued by the OSMRE or the applicable state agency. However, the permittee must submit a copy of the appropriate documentation to the district engineer to fulfill the reporting requirement. (Authorities: Sections 10 and 404) Note: This NWP can be used to authorize compensatory mitigation projects, including mitigation banks and in-lieu fee projects. However, this NWP does not authorize the reversion of an area used for a compensatory mitigation project to its prior condition, since compensatory mitigation is generally intended to be permanent.

## B. CORPS NATIONAL GENERAL CONDITIONS FOR ALL NWPs

To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation. (b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States. (c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.
5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.
6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).
7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.
8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.
9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).
10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.
11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.
12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.
13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.
14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.
15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.
16. Wild and Scenic Rivers. (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible



inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. (b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. The permittee shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status. (c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: <http://www.rivers.gov/>.

17. Tribal Rights. No NWP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on listed species and critical habitat caused by the NWP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the NWP activity and are later in time, but still are reasonably certain to occur. (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA. (c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed activity or that utilize the designated critical habitat that might be affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species or critical habitat, or until ESA section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps. (d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs. (e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take"



provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required. (g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at <http://www.fws.gov/> or <http://www.fws.gov/ipac> and <http://www.nmfs.noaa.gov/pr/species/esa/> respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to determine applicable measures to reduce impacts to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties. (a) In cases where the district engineer determines that the activity may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied. (b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act. If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106. (c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out



appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect. Where the non-Federal applicant has identified historic properties on which the activity might have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. (d) For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps. (e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment. (a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters. (b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district



engineer may authorize activities under these NWP's only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal: (a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site). (b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal. (c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. (d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation to ensure that the activity results in no more than minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)). (e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. Restored riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses. (f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWP's, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation. (2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f)). (3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation. (4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting



a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). (5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided. (6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs. (h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management. (i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.



27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature: "When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

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(Transferee)

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(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include: (a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions; (b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and (c) The signature of the permittee certifying the completion of the activity and mitigation. The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States. If an NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission is not authorized by NWP until the appropriate Corps office issues the section 408 permission to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification. (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as



possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. For single and complete linear projects, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);



(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-Federal permittees, if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed activity or utilize the designated critical habitat that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-Federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

(10) For an activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from the Corps office having jurisdiction over that USACE project.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is an NWP PCN and must include all of the applicable information required in paragraphs (b)(1) through (10) of this general condition. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals. (d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal. (2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of stream bed; (iii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iv) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes. (3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or



other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5. (4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act. (5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

District Engineer's Decision: 1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the individual crossings of waters of the United States to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to streams or of an otherwise applicable limit, as provided for in NWPs 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51, 52, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects. For those NWPs that have a waivable 300 linear foot limit for losses of intermittent and ephemeral stream bed and a 1/2-acre limit (i.e., NWPs 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52), the loss of intermittent and ephemeral stream bed, plus any other losses of jurisdictional waters and wetlands, cannot exceed 1/2-acre. 2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method



may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns. 3. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters (e.g., streams). The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer. 4. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either: (a) that the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31, or to evaluate PCNs for activities authorized by NWPs 21, 49, and 50), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

Further Information: 1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP. 2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law. 3. NWPs do not grant any property rights or exclusive privileges. 4. NWPs do not authorize any injury to the property or rights of others. 5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

C. CORPS SEATTLE DISTRICT REGIONAL GENERAL CONDITIONS: The following conditions apply to all NWPs for the Seattle District in Washington State, unless specified.



**1. Project Drawings:** Drawings must be submitted with pre-construction notification (PCN). Drawings must provide a clear understanding of the proposed project, and how waters of the U.S. will be affected. Drawings must be originals and not reduced copies of large-scale plans. Engineering drawings are not required. Existing and proposed site conditions (manmade and landscape features) must be drawn to scale.

**2. Aquatic Resources Requiring Special Protection:** Activities resulting in a loss of waters of the United States in mature forested wetlands, bogs and peatlands, aspen-dominated wetlands, alkali wetlands, vernal pools, camas prairie wetlands, estuarine wetlands, wetlands in coastal lagoons, and wetlands in dunal systems along the Washington coast cannot be authorized by a NWP, except by the following NWPs:

- NWP 3 – Maintenance
- NWP 20 – Response Operations for Oil and Hazardous Substances
- NWP 32 – Completed Enforcement Actions
- NWP 38 – Cleanup of Hazardous and Toxic Waste

In order to use one of the above-referenced NWPs in any of the aquatic resources requiring special protection, prospective permittees must submit a PCN to the Corps of Engineers (see NWP general condition 32) and obtain written authorization before commencing work.

**3. New Bank Stabilization in Tidal Waters of Puget Sound:** Activities involving new bank stabilization in tidal waters in Water Resource Inventory Areas (WRIAs) 8, 9, 10, 11 and 12 (within the areas identified on Figures 1a through 1e on Corps website) cannot be authorized by NWP.

**4. Commencement Bay:** The following NWPs may not be used to authorize activities located in the Commencement Bay Study Area (see Figure 2 on Corps website):

- NWP 12 – Utility Line Activities (substations)
- NWP 13 – Bank Stabilization
- NWP 14 – Linear Transportation Projects
- NWP 23 – Approved Categorical Exclusions
- NWP 29 – Residential Developments
- NWP 39 – Commercial and Institutional Developments
- NWP 40 – Agricultural Activities
- NWP 41 – Reshaping Existing Drainage Ditches
- NWP 42 – Recreational Facilities
- NWP 43 – Stormwater and Wastewater Management Facilities

**5. Bank Stabilization:** All projects including new or maintenance bank stabilization activities require PCN to the Corps of Engineers (see NWP general condition 32). For new bank stabilization projects only, the following must be submitted to the Corps of Engineers:

- a. The cause of the erosion and the distance of any existing structures from the area(s) being stabilized.
- b. The type and length of existing bank stabilization within 300 feet of the proposed project.
- c. A description of current conditions and expected post-project conditions in the waterbody.
- d. A statement describing how the project incorporates elements avoiding and minimizing adverse environmental effects to the aquatic environment and nearshore riparian area, including vegetation impacts in the waterbody.

In addition to a. through d., the results from any relevant geotechnical investigations can be submitted with the PCN if it describes current or expected conditions in the waterbody.

**6. Crossings of Waters of the United States:** Any project including installing, replacing, or modifying crossings of waters of the United States, such as culverts or bridges, requires submittal of a PCN to the



Corps of Engineers (see NWP general condition 32). If a culvert is proposed to cross waters of the U.S. where salmonid species are present or could be present, the project must apply the stream simulation design method from the Washington Department of Fish and Wildlife located in the *Water Crossing Design Guidelines* (2013), or a design method which provides passage at all life stages at all flows where the salmonid species would naturally seek passage. If the stream simulation design method is not applied for a culvert where salmonid species are present or could be present, the project proponent must provide a rationale in the PCN sufficient to establish one of the following:

- a. The existence of extraordinary site conditions.
- b. How the proposed design will provide equivalent or better fish passage and fisheries habitat benefits than the stream simulation design method.

If a culvert is proposed to cross waters of the U.S. where salmonid species are present or could be present, project proponents must provide a monitoring plan with the PCN that specifies how the proposed culvert will be assessed over a five-year period from the time of construction completion to ensure its effectiveness in providing passage at all life stages at all flows where the salmonid species would naturally seek passage. Culverts installed under emergency authorization that do not meet the above design criteria will be required to meet the above design criteria to receive an after-the-fact nationwide permit verification.

**7. Stream Loss:** A PCN is required for all activities that result in the loss of any linear feet of stream beds. No activity shall result in the loss of any linear feet of perennial stream beds or the loss of greater than 300 linear feet of intermittent and/or ephemeral stream beds. A stream may be rerouted if it is designed in a manner that maintains or restores hydrologic, ecologic, and geomorphic stream processes, provided there is not a reduction in the linear feet of stream bed. Streams include brooks, creeks, rivers, and historical waters of the U.S. that have been channelized into ditches. This condition does not apply to ditches constructed in uplands. Stream loss restrictions may be waived by the district engineer on a case-by-case basis provided the activities result in net increases of aquatic resource functions and services.

**8. Mitigation:** Pre-construction notification is required for any project that will result in permanent wetland losses that exceed 1,000 square feet. In addition to the requirements of General Condition 23 (Mitigation), compensatory mitigation at a minimum one-to-one ratio will be required for all permanent wetland losses that exceed 1,000 square feet. When a PCN is required for wetland losses less than 1,000 square feet, the Corps of Engineers may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Compensatory mitigation for impacts to marine waters, lakes, and streams will be determined on a case-by-case basis. If temporary impacts to waters of the U.S. exceed six months, the Corps of Engineers may require compensatory mitigation for temporal effects.

**9. Magnuson-Stevens Fishery Conservation and Management Act – Essential Fish Habitat**  
Essential Fish Habitat (EFH) is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. If EFH may be adversely affected by a proposed activity, the prospective permittee must provide a written EFH assessment with an analysis of the effects of the proposed action on EFH. The assessment must identify the type(s) of essential fish habitat (i.e., Pacific salmon, groundfish, and/or coastal-pelagic species) that may be affected. If the Corps of Engineers determines the project will adversely affect EFH, consultation with NOAA Fisheries will be required. Federal agencies should follow their own procedures for complying with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act. If PCN is required for the proposed activity, Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

**10. Forage Fish:** For projects in forage fish spawning habitat, in-water work must occur within designated forage fish work windows, or when forage fish are not spawning. If working outside of a designated work window, or if forage fish work windows are closed year round, work may occur if the



work window restriction is released for a period of time after a forage fish spawning survey has been conducted by a biologist approved by the Washington State Department of Fish and Wildlife (WDFW). Forage fish species with designated in-water work windows include Pacific sand lance (*Ammodytes hexapterus*), Pacific herring (*Clupea pallasii*), and surf smelt (*Hypomesus pretiosus*). This RGC does not apply to NWP 48, *Commercial Shellfish Aquaculture Activities*. Please see specific regional conditions for NWP 48.

**11. Notification of Permit Requirements:** The permittee must provide a copy of the nationwide permit authorization letter, conditions, and permit drawings to all contractors and any other parties performing the authorized work prior to the commencement of any work in waters of the U.S. The permittee must ensure all appropriate contractors and any other parties performing the authorized work at the project site have read and understand relevant NWP conditions as well as plans, approvals, and documents referenced in the NWP letter. A copy of these documents must be maintained onsite throughout the duration of construction.

**12. Construction Boundaries:** Permittees must clearly mark all construction area boundaries before beginning work on projects that involve grading or placement of fill. Boundary markers and/or construction fencing must be maintained and clearly visible for the duration of construction. Permittees should avoid and minimize removal of native vegetation (including submerged aquatic vegetation) to the maximum extent possible.

**13. Temporary Impacts and Site Restoration**

- a. Temporary impacts to waters of the U.S. must not exceed six months unless the prospective permittee requests and receives a waiver by the district engineer. Temporary impacts to waters of the U.S. must be identified in the PCN.
- b. No more than 1/2 acre of waters of the U.S. may be temporarily filled unless the prospective permittee requests and receives a waiver from the district engineer (temporary fills do not affect specified limits for loss of waters associated with specific nationwide permits).
- c. Native soils removed from waters of the U.S. for project construction should be stockpiled and used for site restoration. Restoration of temporarily disturbed areas must include returning the area to pre-project ground surface contours. If native soil is not available from the project site for restoration, suitable clean soil of the same textural class may be used. Other soils may be used only if identified in the PCN.
- d. The permittee must revegetate disturbed areas with native plant species sufficient in number, spacing, and diversity to restore affected functions. A maintenance and monitoring plan commensurate with the impacts, may be required. Revegetation must begin as soon as site conditions allow within the same growing season as the disturbance unless the schedule is approved by the Corps of Engineers. Native plants removed from waters of the U.S. for project construction should be stockpiled and used for revegetation when feasible. Temporary Erosion and Sediment Control measures must be removed as soon as the area has established vegetation sufficient to control erosion and sediment.
- e. If the Corps determines the project will result in temporary impacts of submerged aquatic vegetation (SAV) that are more than minimal, a monitoring plan must be submitted. If recovery is not achieved by the end of the monitoring period, contingencies must be implemented, and additional monitoring will be required.

This RGC does not apply to NWP 48, *Commercial Shellfish Aquaculture Activities*. Please see specific regional conditions for NWP 48.

**D. CORPS REGIONAL SPECIFIC CONDITIONS FOR THIS NWP:**

1. A pre-construction notification (PCN) must be submitted to the district engineer (see NWP general condition 32) for any proposed project located in a Department of the Army permit compensatory mitigation site, Comprehensive Environmental Response, Compensation and Liability Act (Superfund)



site, Resource Conservation and Recovery Act hazardous waste clean-up site, Washington State Department of Ecology compensatory mitigation site, or Washington State Model Toxics Control Act clean-up site.

2. For projects subject to PCN, if there is a loss of waters of the U.S., the project proponent must explain in the PCN why the loss is necessary and show how it would be fully offset by the beneficial elements of the project.
3. The PCN must contain a description of pre-project site conditions (including photographs), aquatic functions the site provides, and benefits anticipated from project construction.
4. The project proponent must include maintenance and monitoring plans with the PCN.
5. Restoration projects involving shellfish seeding must use shellfish native to the watershed.

#### E. ECOLOGY 401 CERTIFICATION: GENERAL CONDITIONS

In addition to all the Corps National and Seattle Districts' Regional permit conditions, the following State General Section 401 Water Quality Certification (Section 401) conditions apply to all Nationwide Permits whether **certified** or **partially certified** in the State of Washington.

1. **For in-water construction activities.** Ecology Section 401 review is required for projects or activities authorized under NWP that will cause, or may be likely to cause or contribute to an exceedance of a State water quality standard (Chapter 173-201A WAC) or sediment management standard (Chapter 173-204 WAC). State water quality standards and sediment management standards are available on Ecology's website. Note: In-water activities include any activity within a wetland and/or activities below the ordinary high water mark (OHWM).
2. **Projects or Activities Discharging to Impaired Waters.** Ecology Section 401 review is required for projects or activities authorized under NWP if the project or activity will occur in a 303(d) listed segment of a waterbody or upstream of a listed segment and may result in further exceedances of the specific listed parameter. To determine if your project or activity is in a 303(d) listed segment of a waterbody, visit Ecology's Water Quality Assessment webpage for maps and search tools.
3. **Application.** For projects or activities that will require Ecology Section 401 review, applicants must provide Ecology with a Joint Aquatic Resources Permit Application (JARPA) along with the documentation provided to the Corps, as described in National General Condition 32, Pre-Construction Notification, including, when applicable: (a) A description of the project, including site plans, project purpose, direct and indirect adverse environmental effects the project would cause, best management practices (BMPs), and any other Department of the Army or federal agency permits used or intended to be used to authorize any part of the proposed project or any related activity. (b) Drawings indicating the Ordinary High Water Mark (OHWM), delineation of special aquatic sites and other waters of the state. Wetland delineations must be prepared in accordance with the current method required by the Corps and shall include Ecology's Wetland Rating form. Wetland rating forms are subject to review and verification by Ecology staff. Guidance for determining the OHWM is available on Ecology's website. (c) A statement describing how the mitigation requirement will be satisfied. A conceptual or detailed mitigation or restoration plan may be submitted. See State General Condition 5 for details on mitigation requirements. (d) Other applicable requirements of Corps Nationwide Permit General Condition 32, Corps Regional Conditions, or notification conditions of the applicable NWP. (e) Within 180 calendar days from receipt of applicable documents noted above **and** a copy of the final authorization letter from the Corps providing coverage for a proposed project or activity under the NWP Program Ecology will provide the applicant notice of whether an individual Section 401 will be required for the project. If

Ecology fails to act within a year after receipt of **both** of these documents, Section 401 is presumed waived.

**4. Aquatic resources requiring special protection.** Certain aquatic resources are unique, difficult-to-replace components of the aquatic environment in Washington State. Activities that would affect these resources must be avoided to the greatest extent possible. Compensating for adverse impacts to high value aquatic resources is typically difficult, prohibitively expensive, and may not be possible in some landscape settings. Ecology Section 401 review is required for activities in or affecting the following aquatic resources (and not prohibited by Seattle District Regional General Condition): (a) Wetlands with special characteristics (as defined in the Washington State Wetland Rating Systems for western and eastern Washington, Ecology Publications #14-06-029 and #14-06-030):

- Estuarine wetlands.
- Wetlands of High Conservation Value.
- Bogs.
- Old-growth and mature forested wetlands.
- Wetlands in coastal lagoons.
- Interdunal wetlands.
- Vernal pools.
- Alkali wetlands.

(b) Fens, aspen-dominated wetlands, camas prairie wetlands. (c) Marine water with eelgrass (*Zostera marina*) beds (except for NWP 48). (d) Category I wetlands. (e) Category II wetlands with a habitat score  $\geq 8$  points. This State General Condition does not apply to the following Nationwide Permits: NWP 20 – *Response Operations for Oil and Hazardous Substances*, NWP 32 – *Completed Enforcement Actions*

**5. Mitigation.** Applicants are required to show that they have followed the mitigation sequence and have first avoided and minimized impacts to aquatic resources wherever practicable. For projects requiring Ecology Section 401 review with unavoidable impacts to aquatic resources, adequate compensatory mitigation must be provided.

(a) Wetland mitigation plans submitted for Ecology review and approval shall be based on the most current guidance provided in Wetland Mitigation in Washington State, Parts 1 and 2 (available on Ecology's website) and shall, at a minimum, include the following:

- i. A description of the measures taken to avoid and minimize impacts to wetlands and other waters of the U.S.
- ii. The nature of the proposed impacts (i.e., acreage of wetlands and functions lost or degraded).
- iii. The rationale for the mitigation site that was selected.
- iv. The goals and objectives of the compensatory mitigation project.
- v. How the mitigation project will be accomplished, including construction sequencing, best management practices to protect water quality, proposed performance standards for measuring success and the proposed buffer widths.
- vi. How it will be maintained and monitored to assess progress towards goals and objectives. Monitoring will generally be required for a minimum of five years. For forested and scrub-shrub wetlands, 10 years of monitoring will often be necessary.
- vii. How the compensatory mitigation site will be legally protected for the long term.

Refer to Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Ecology Publication #06-06-011b) and Selecting Wetland Mitigation Sites Using a Watershed Approach (Ecology Publications #09-06-032 (Western Washington) and #10-06-007 (Eastern Washington)) for guidance on selecting suitable mitigation sites and developing mitigation plans. Ecology encourages the use of alternative mitigation approaches, including credit/debit methodology, advance mitigation, and other programmatic approach such as mitigation banks and in-lieu fee programs. If you are interested in proposing use of an alternative mitigation approach, consult with the appropriate Ecology regional staff person. Information on alternative mitigation approaches is available on Ecology's website.



(b) Mitigation for other aquatic resource impacts will be determined on a case-by-case basis.

**6. Temporary Fills.** Ecology Section 401 review is required for any project or activity with temporary fill in wetlands or other waters of the state for more than 90 days, unless the applicant has received written approval from Ecology. Note: This State General Condition does not apply to projects or activities authorized under NWP 33, *Temporary Construction, Access, and Dewatering*

**7. Stormwater pollution prevention:** All projects that involve land disturbance or impervious surfaces must implement stormwater pollution prevention or control measures to avoid discharge of pollutants in stormwater runoff to waters of the State.

(a) For land disturbances during construction, the applicant must obtain and implement permits (e.g., Construction Stormwater General Permit) where required and follow Ecology's current stormwater manual.

(b) Following construction, prevention or treatment of on-going stormwater runoff from impervious surfaces shall be provided.

Ecology's Stormwater Management and Design Manuals and stormwater permit information are available on Ecology's website.

**8. State Section 401 Review for PCNs not receiving 45-day response from the Seattle District.** In the event the Seattle District Corps does not issue a NWP authorization letter within 45 calendar days of receipt of a **complete** pre-construction notification, the applicant must contact Ecology for Section 401 review prior to commencing work.

#### F. ECOLOGY 401 CERTIFICATION: SPECIFIC CONDITIONS FOR THIS NWP:

Certified subject to conditions. Ecology Section 401 review is required for projects or activities authorized under this NWP if:

1. The project or activity involves fill in tidal waters.
2. The project or activity affects ½ acre or more of wetlands.
3. The project or activity is a mitigation bank or an advanced mitigation site.

The project or activity is in or adjoining a known contaminated or cleanup site.

#### G. COASTAL ZONE MANAGEMENT CONSISTENCY RESPONSE FOR THIS NWP:

(Note: This only applies in the following counties: Clallam, Grays Harbor, Island, Jefferson, King, Kitsap, Mason, Pacific, Pierce, San Juan, Skagit, Snohomish, Thurston, Wahkiakum and Whatcom)

Response: Ecology concurs that this NWP is consistent with the CZMP, subject to the following condition: An individual Coastal Zone Management Consistency Determination is required for project or activities under this NWP if State Section 401 review is required.

General Conditions: For Non-Federal Permittees

1. Necessary Data and Information. A Coastal Zone Management Program "Certification of Consistency" form is required for projects located within a coastal county. "Certification of Consistency" forms are available on Ecology's website. The form shall include a description of the proposed project or activity and evidence of compliance with the applicable enforceable policies of the Washington Coastal Zone Management Program (CZMP). Also, a map of the site location is required.

2. Timing. Within 6 months from receipt of the necessary data and information, Ecology will provide a federal consistency determination for the proposed project or activity. If Ecology fails to act within the 6 month period, concurrence with the CZMP is presumed.

General Conditions: For Federal Permittees (Agencies)

1. Necessary Data and Information. Federal agencies shall submit the determination, information, and analysis required by 15 CFR 930.39 to obtain a federal consistency determination.

2. Timing. Within 60 days from receipt of the necessary data and information, Ecology will provide a federal consistency determination for the proposed project or activity. If Ecology fails to act within the 60 day period, concurrence with the CZMP is presumed.







US Army Corps  
of Engineers  
Seattle District

## CERTIFICATE OF COMPLIANCE WITH DEPARTMENT OF THE ARMY PERMIT



Permit Number: NWS-2016-490

Name of Permittee: Lewis County Public Works

Date of Re-Verification: August 29, 2019

Upon completion of the activity authorized by this permit, please check the applicable boxes below, date and sign this certification, and return it to the following address:

Department of the Army  
U.S. Army Corps of Engineers  
Seattle District, Regulatory Branch  
Post Office Box 3755  
Seattle, Washington 98124-3755

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with the terms and conditions of your authorization, your permit may be subject to suspension, modification, or revocation.

<input type="checkbox"/>	<p>The work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of this permit.</p> <p>Date work complete: _____</p> <p><input type="checkbox"/> Photographs and as-built drawings of the authorized work (OPTIONAL, unless required as a Special Condition of the permit).</p>
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<input type="checkbox"/>	<p>If applicable, the mitigation required (e.g., construction and plantings) in the above-referenced permit has been completed in accordance with the terms and conditions of this permit (not including future monitoring).</p> <p>Date work complete: _____ <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Photographs and as-built drawings of the mitigation (OPTIONAL, unless required as a Special Condition of the permit).</p>
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<input type="checkbox"/>	<p>Provide phone number/email for scheduling site visits (must have legal authority to grant property access).</p> <p>Printed Name: _____</p> <p>Phone Number: _____ Email: _____</p>
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Printed Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_





# HYDRAULIC PROJECT APPROVAL

Washington Department of  
Fish & Wildlife  
PO Box 43234  
Olympia, WA 98504-3234  
(360) 902-2200

Issued Date: September 05, 2019  
Project End Date: September 04, 2024

Permit Number: 2019-5-90+01  
FPA/Public Notice Number: N/A  
Application ID: 18913

PERMITTEE	AUTHORIZED AGENT OR CONTRACTOR
Lewis County Public Works ATTENTION: Ann Weckback 2025 NE Kresky Ave Chehalis, WA 98532-2308	

**Project Name:** Scammon Creek RM 1.15 (Graf Rd MP 1.01) Barrier Removal Project

**Project Description:** Lewis County Public Works will replace the existing double box culvert with a new bridge consisting of a geosynthetic reinforced soil (GRS) foundation and precast concrete deck. The proposed channel geometry incorporates a 14-ft channel bottom width and 2:1 side slopes to simulate Scammon Creek’s channel shape and provide a 25-ft wide channel at bankfull flows. At the time of construction a portion of Graf Rd will be closed. The staging area for the project will be located southeast of the project in an adjacent property owner’s field.

## PROVISIONS

### TIMING - PLANS - INVASIVE SPECIES CONTROL

- 1. TIMING LIMITATION:** You may begin the project on September 5, 2019 and you must complete the project by September 4, 2024. All work below the ordinary high water mark shall be limited to July 1 to September 30.
- 2. APPROVED PLANS:** You must accomplish the work per plans and specifications submitted with the application and approved by the Washington Department of Fish and Wildlife, except as modified by this Hydraulic Project Approval. You must have a copy of these plans available on site during all phases of the project construction.
- 3. INVASIVE SPECIES CONTROL:** Follow Level 1 Decontamination protocol for low risk locations. Thoroughly remove visible dirt and organic debris from all equipment and gear (including drive mechanisms, wheels, tires, tracks, buckets and undercarriage) before arriving and leaving the job site to prevent the transport and introduction of invasive species. Properly dispose of any water and chemicals used to clean gear and equipment. For contaminated or high risk sites please refer to the Level 2 Decontamination protocol. You can find this and additional information in the Washington Department of Fish and Wildlife’s "Invasive Species Management Protocols", available online at <https://wdfw.wa.gov/species-habitats/invasive/prevention>.

### NOTIFICATION REQUIREMENTS

- 4. PRE- AND POST-CONSTRUCTION NOTIFICATION:** You, your agent, or contractor must contact the Washington Department of Fish and Wildlife by e-mail at [HPAapplications@dfw.wa.gov](mailto:HPAapplications@dfw.wa.gov); mail to Post Office Box 43234, Olympia, Washington 98504-3234; or fax to (360) 902-2946 at least three business days before starting work, and again within seven days after completing the work. The notification must include the permittee's name, project location, starting date for work or date the work was completed, and the permit number. The Washington Department of Fish and Wildlife may conduct inspections during and after construction; however, the Washington Department of Fish and Wildlife will notify you or your agent before conducting the inspection.
- 5. FISH KILL/ WATER QUALITY PROBLEM NOTIFICATION:** If a fish kill occurs or fish are observed in distress at the job site, immediately stop all activities causing harm. Immediately notify the Washington Department of Fish and Wildlife of the problem. If the likely cause of the fish kill or fish distress is related to water quality, also notify the Washington Military Department Emergency Management Division at 1-800-258-5990. Activities related to the fish kill



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or fish distress must not resume until the Washington Department of Fish and Wildlife gives approval. The Washington Department of Fish and Wildlife may require additional measures to mitigate impacts.

## STAGING, JOB SITE ACCESS, AND EQUIPMENT

6. Establish staging areas (used for equipment storage, vehicle storage, fueling, servicing, and hazardous material storage) in a location and manner that will prevent contaminants such as petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state.
7. Design and locate new temporary access roads to prevent erosion and sediment delivery to waters of the state.
8. Clearly mark boundaries to establish the limit of work associated with site access and construction.
9. Confine the use of equipment to the specific access and work corridor shown in the approved plans.
10. Remove soil or debris from the drive mechanisms (wheels, tires, tracks, etc.) and undercarriage of equipment prior to operating the equipment waterward of the ordinary high water line.
11. If wet or muddy conditions exist, in or near a riparian zone or wetland area, use equipment that reduces ground pressure.
12. Check equipment daily for leaks and complete any required repairs in an upland location before using the equipment in or near the water.
13. Use environmentally acceptable lubricants composed of biodegradable base oils such as vegetable oils, synthetic esters, and polyalkylene glycols in equipment operated in or near the water.

## CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION CONTAINMENT

14. Work in the dry watercourse (when no natural flow is occurring in the channel, or when flow is diverted around the job site).
15. Protect all disturbed areas from erosion. Maintain erosion and sediment control until all work and cleanup of the job site is complete.
16. All erosion control materials that will remain onsite must be composed of 100% biodegradable materials.
17. Straw used for erosion and sediment control, must be certified free of noxious weeds and their seeds.
18. Stop all hydraulic project activities except those needed to control erosion and siltation, if flow conditions arise that will result in erosion or siltation of waters of the state.
19. Prevent project contaminants, such as petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials, from entering or leaching into waters of the state.
20. Use tarps or other methods to prevent treated wood, sawdust, trimmings, drill shavings and other debris from contacting the bed or waters of the state.
21. Deposit waste material from the project, such as construction debris, silt, excess dirt, or overburden, in an upland area above the limits of anticipated floodwater unless the material is approved by the Washington Department of Fish and Wildlife for reuse in the project.
22. Deposit all trash from the project at an appropriate upland disposal location.

## CONSTRUCTION MATERIALS

23. To prevent leaching, construct forms to contain any wet concrete. Place impervious material over wet concrete that will come in contact with waters of the state. Forms and impervious materials must remain in place until the concrete is cured.
24. Do not use wood treated with oil-type preservatives (creosote, pentachlorophenol) in any hydraulic project. You may use wood treated with waterborne preservatives (ACZA, ACQ) provided the wood is approved by the Western



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Wood Preservers Institute for use in the aquatic environment. Any use of treated wood in the aquatic environment must follow guidelines and best management practices available at [www.wwpinstitute.org](http://www.wwpinstitute.org).

## IN-WATER WORK AREA ISOLATION USING A COFFERDAM STRUCTURE

25. Use a cofferdam, dike, or similar structure to exclude water from the work area.
26. Maintain water quality when installing and removing the cofferdam, dike or similar structure.
27. Install the cofferdam, dike or similar structure and remove fish prior to the start of other work in the wetted perimeter.
28. Route the construction water (wastewater) from the project to an upland area above the limits of anticipated floodwater. Remove fine sediment and other contaminants before discharging the construction water to waters of the state.
29. Sequence the work to minimize the duration of dewatering.

## FISH LIFE REMOVAL

30. All persons participating in capture and removal must have training, knowledge, and skills in the safe handling of fish life.
31. Place block nets upstream and downstream of the in-water work area before capturing and removing fish life.
32. Capture and safely move fish life from the work area to the nearest suitable free-flowing water.

## BRIDGE

33. Design and construct the bridge to pass water, ice, large wood, and associated woody material and sediment likely to move under the bridge during the 100-year flood flows.
34. Prevent the existing structure and associated construction materials from entering the stream when removing them.
35. Install biotechnical slope protection outside the bridge shadow as shown in the approved plans.

## DEMOBILIZATION AND CLEANUP

36. To prevent fish from stranding, backfill trenches, depressions, and holes in the bed that may entrain fish during high water or wave action.
37. To minimize sediment delivery to the stream or stream channel, do not return in-stream flows to the work area until all in-channel work is completed and the bed and banks are stabilized.
38. Seed areas disturbed by construction activities with a native seed mix suitable for the site that has at least one quick-establishing plant species.
39. Complete replanting of riparian vegetation during the first dormant season (late fall through late winter) after project completion per the approved plan. Maintain plantings for at least three years to ensure at least eighty percent of the plantings survive. Failure to achieve the eighty percent survival in year three will require you to submit a plan with follow-up measures to achieve requirements or reasons to modify requirements.
40. Upon completion of the project, remove all materials or equipment from the site and dispose of all excess spoils and waste materials in an upland area above the limits of anticipated floodwater.
41. Return water flow slowly to the in-water work area to prevent the downstream release of sediment laden water. If necessary, install silt fencing above the bypass outlet to capture sediment during re-watering of the channel.
42. Remove temporary erosion and sediment control methods after job site is stabilized or within three months of project completion, whichever is sooner.



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Issued Date: September 05, 2019  
Project End Date: September 04, 2024

Permit Number: 2019-5-90+01  
FPA/Public Notice Number: N/A  
Application ID: 18913

LOCATION #1:		Site Name: Graf Road MP 1.01 MP 1.01 Graf Road, Centralia, WA 98531				
WORK START:		June 1, 2020		WORK END:		October 31, 2020
<u>WRIA</u>		<u>Waterbody:</u>			<u>Tributary to:</u>	
23 - Upper Chehalis - Upstream of Porter		Scammon Creek			Chehalis River	
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
NE 1/4	13	14 N	03 W	46.706334	-122.993245	Lewis
<u>Location #1 Driving Directions</u>						
From I-5 take exit 81, Mellen Street, and travel west. Turn left onto Military Rd. Continue straight, Military Rd will become Graf Rd. Continue west 0.4 miles to the project site.						

## APPLY TO ALL HYDRAULIC PROJECT APPROVALS

This Hydraulic Project Approval pertains only to those requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW. Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (local, state and/or federal) that may be necessary for this project.

This Hydraulic Project Approval shall be available on the job site at all times and all its provisions followed by the person (s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work.

This Hydraulic Project Approval does not authorize trespass.

The person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work may be held liable for any loss or damage to fish life or fish habitat that results from failure to comply with the provisions of this Hydraulic Project Approval.

Failure to comply with the provisions of this Hydraulic Project Approval could result in civil action against you, including, but not limited to, a stop work order or notice to comply, and/or a gross misdemeanor criminal charge, possibly punishable by fine and/or imprisonment.

All Hydraulic Project Approvals issued under RCW 77.55.021 are subject to additional restrictions, conditions, or revocation if the Department of Fish and Wildlife determines that changed conditions require such action. The person(s) to whom this Hydraulic Project Approval is issued has the right to appeal those decisions. Procedures for filing appeals are listed below.





# HYDRAULIC PROJECT APPROVAL

Washington Department of  
Fish & Wildlife  
PO Box 43234  
Olympia, WA 98504-3234  
(360) 902-2200

Issued Date: September 05, 2019  
Project End Date: September 04, 2024

Permit Number: 2019-5-90+01  
FPA/Public Notice Number: N/A  
Application ID: 18913

---

**MINOR MODIFICATIONS TO THIS HPA:** You may request approval of minor modifications to the required work timing or to the plans and specifications approved in this HPA unless this is a General HPA. If this is a General HPA you must use the Major Modification process described below. Any approved minor modification will require issuance of a letter documenting the approval. A minor modification to the required work timing means any change to the work start or end dates of the current work season to enable project or work phase completion. Minor modifications will be approved only if spawning or incubating fish are not present within the vicinity of the project. You may request subsequent minor modifications to the required work timing. A minor modification of the plans and specifications means any changes in the materials, characteristics or construction of your project that does not alter the project's impact to fish life or habitat and does not require a change in the provisions of the HPA to mitigate the impacts of the modification. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a minor modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you did not use APPS you must submit a written request that clearly indicates you are seeking a minor modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234, or by email to [HPAapplications@dfw.wa.gov](mailto:HPAapplications@dfw.wa.gov). You should allow up to 45 days for the department to process your request.

**MAJOR MODIFICATIONS TO THIS HPA:** You may request approval of major modifications to any aspect of your HPA. Any approved change other than a minor modification to your HPA will require issuance of a new HPA. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a major modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you did not use APPS you must submit a written request that clearly indicates you are requesting a major modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send your written request by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234. You may email your request for a major modification to [HPAapplications@dfw.wa.gov](mailto:HPAapplications@dfw.wa.gov). You should allow up to 45 days for the department to process your request.

## APPEALS INFORMATION

If you wish to appeal the issuance, denial, conditioning, or modification of a Hydraulic Project Approval (HPA), Washington Department of Fish and Wildlife (WDFW) recommends that you first contact the department employee who issued or denied the HPA to discuss your concerns. Such a discussion may resolve your concerns without the need for further appeal action. If you proceed with an appeal, you may request an informal or formal appeal. WDFW encourages you to take advantage of the informal appeal process before initiating a formal appeal. The informal appeal process includes a review by department management of the HPA or denial and often resolves issues faster and with less legal complexity than the formal appeal process. If the informal appeal process does not resolve your concerns, you may advance your appeal to the formal process. You may contact the HPA Appeals Coordinator at (360) 902-2534 for more information.

**A. INFORMAL APPEALS:** WAC 220-660-460 is the rule describing how to request an informal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete informal appeal procedures. The following information summarizes that rule.





# HYDRAULIC PROJECT APPROVAL

Washington Department of  
Fish & Wildlife  
PO Box 43234  
Olympia, WA 98504-3234  
(360) 902-2200

Issued Date: September 05, 2019  
Project End Date: September 04, 2024

Permit Number: 2019-5-90+01  
FPA/Public Notice Number: N/A  
Application ID: 18913

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request an informal appeal of that action. You must send your request to WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to [HPAapplications@dfw.wa.gov](mailto:HPAapplications@dfw.wa.gov); fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. WDFW must receive your request within 30 days from the date you receive notice of the decision. If you agree, and you applied for the HPA, resolution of the appeal may be facilitated through an informal conference with the WDFW employee responsible for the decision and a supervisor. If a resolution is not reached through the informal conference, or you are not the person who applied for the HPA, the HPA Appeals Coordinator or designee may conduct an informal hearing or review and recommend a decision to the Director or designee. If you are not satisfied with the results of the informal appeal, you may file a request for a formal appeal.

B. FORMAL APPEALS: WAC 220-660-470 is the rule describing how to request a formal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete formal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request a formal appeal of that action. You must send your request for a formal appeal to the clerk of the Pollution Control Hearings Boards and serve a copy on WDFW within 30 days from the date you receive notice of the decision. You may serve WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to [HPAapplications@dfw.wa.gov](mailto:HPAapplications@dfw.wa.gov); fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, you may request a formal appeal within 30 days from the date you receive the Director's or designee's written decision in response to the informal appeal.

C. FAILURE TO APPEAL WITHIN THE REQUIRED TIME PERIODS: If there is no timely request for an appeal, the WDFW action shall be final and unappealable.

Habitat Biologist      Scott.Brummer@dfw.wa.gov  
Scott Brummer      360-785-0472

for Director  
WDFW



DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, SEATTLE DISTRICT  
P.O. BOX 3755  
SEATTLE, WASHINGTON 98124-3755

Regulatory Branch

August 29, 2019

Ms. Ann Weckback  
Lewis County Public Works  
2025 Northeast Kresky Avenue  
Chehalis, Washington 98532

Reference: NWS-2016-490  
Lewis Co. Public Works  
(Scammon Creek Barrier  
Removal)

Dear Ms. Weckback:

On August 20, 2019, you requested a time extension for the verification of the above-referenced Nationwide Permit (NWP) 27 verification issued to you on September 12, 2016. The work authorized was to replace two adjacent box culverts with a bridge on Graf Road in Scammon Creek at Centralia, Lewis County, Washington.

We have reviewed your request and verified that this NWP still authorizes this project provided you ensure that the work is performed in accordance with the enclosed approved plans dated May 12, 2016.

This NWP verification supersedes the verification authorized by this office on September 12, 2016. All other terms and conditions contained in the original NWP verification remain in full force and effect. Our verification of this NWP authorization is valid until March 18, 2022, unless the NWP is modified, reissued, or revoked prior to that date. If the authorized work has not been completed by that date and you have commenced or are under contract to commence this activity before March 18, 2022, you will have until March 18, 2023, to complete the activity under the enclosed terms and conditions of this NWP. Failure to comply with all terms and conditions of this NWP verification invalidates this authorization and could result in a violation of Section 404 of the Clean Water Act. You must also obtain all State and local permits that apply to this project.

If you have any questions, please contact me at [evan.g.carnes@usace.army.mil](mailto:evan.g.carnes@usace.army.mil) or by phone at (206) 316-3049.

Sincerely,

A handwritten signature in black ink that reads "Evan G. Carnes". The signature is written in a cursive style with a large, stylized initial "E".

Evan G. Carnes, Project Manager  
Regulatory Branch

Enclosures

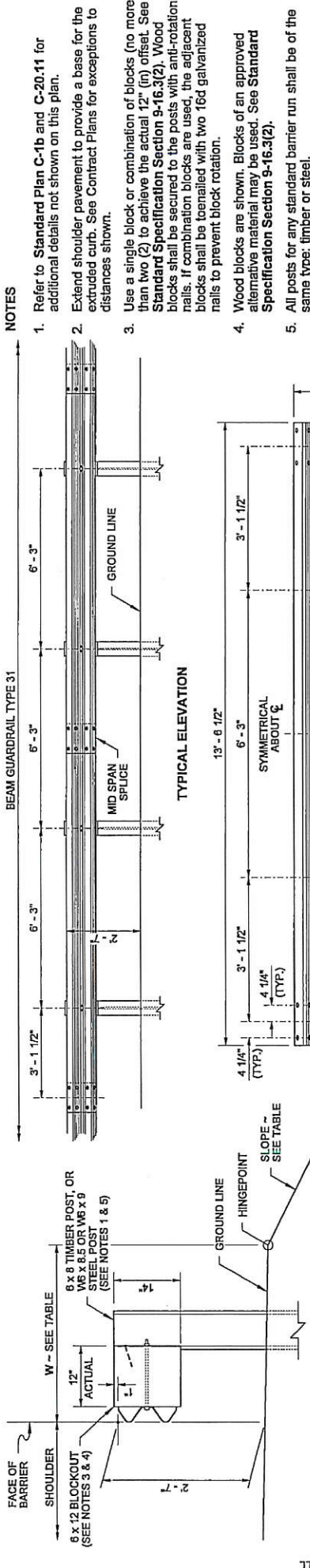
# APPENDIX G

**STANDARD PLANS**

**CONTRACT PLANS**

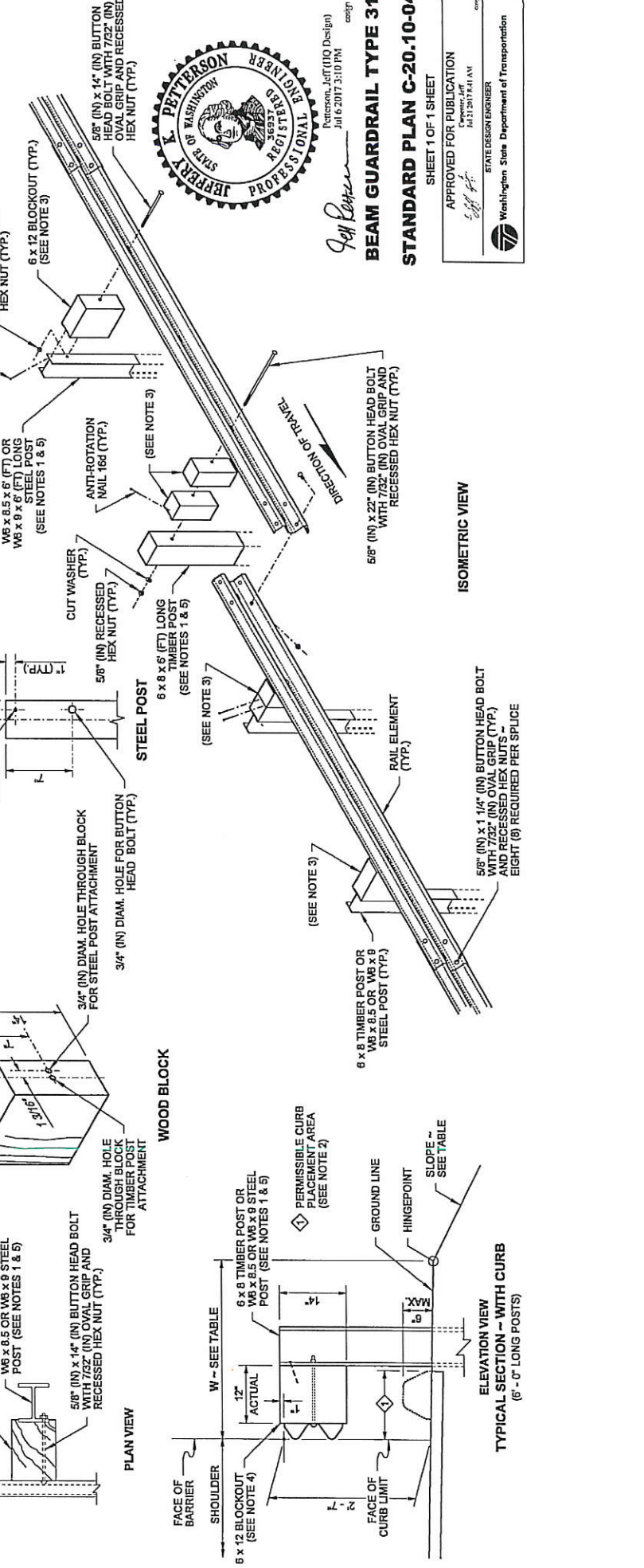


BEAM GUARDRAIL TYPE 31

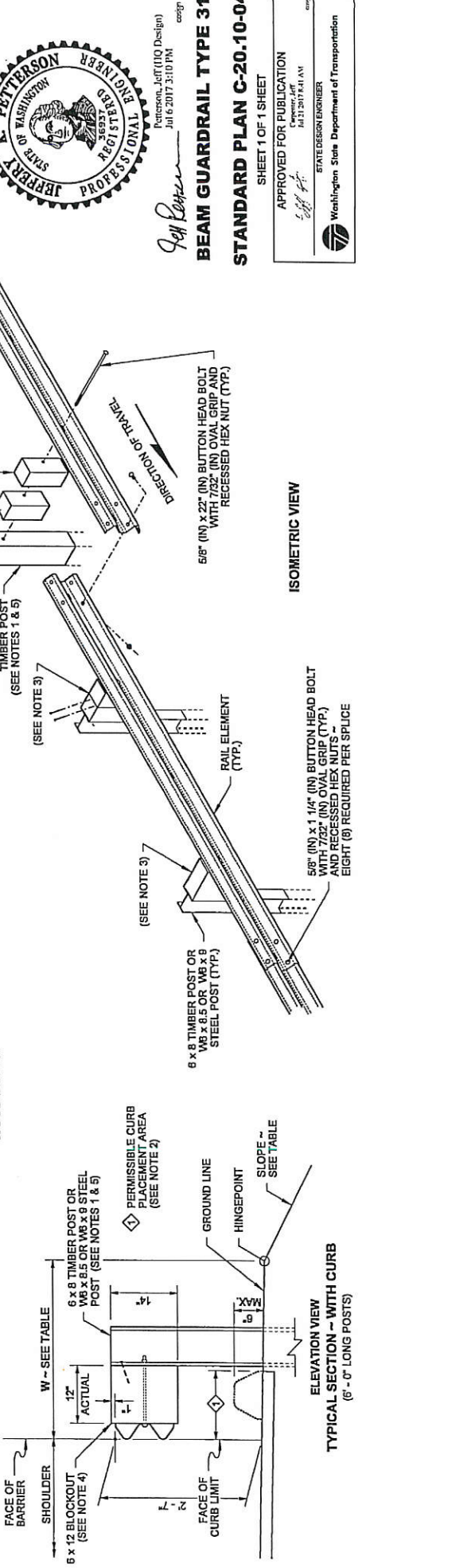


SLOPE \ EMBANKMENT TABLE

SLOPE	W (FT)
2H : 1V OR FLATTER	2.5 MIN.
STEEPER THAN 2H : 1V BUT NOT STEEPER THAN 1H : 1V	4.0 MIN.



WOOD BLOCK



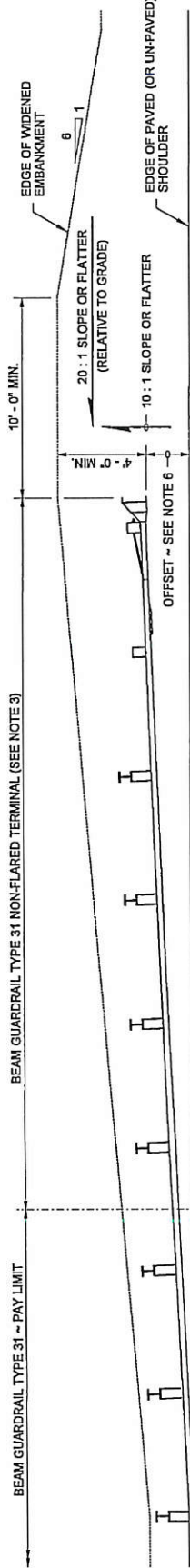
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 5/24/17  
 JAL:JTB/EAJ:AV  
 STATE DESIGN ENGINEER  
 Washington State Department of Transportation

Peterson, Jeff (110 Design)  
 July 6 2017 3:10 PM  
 design

**BEAM GUARDRAIL TYPE 31**  
**STANDARD PLAN C-20.10-04**  
 SHEET 1 OF 1 SHEET

ISOMETRIC VIEW

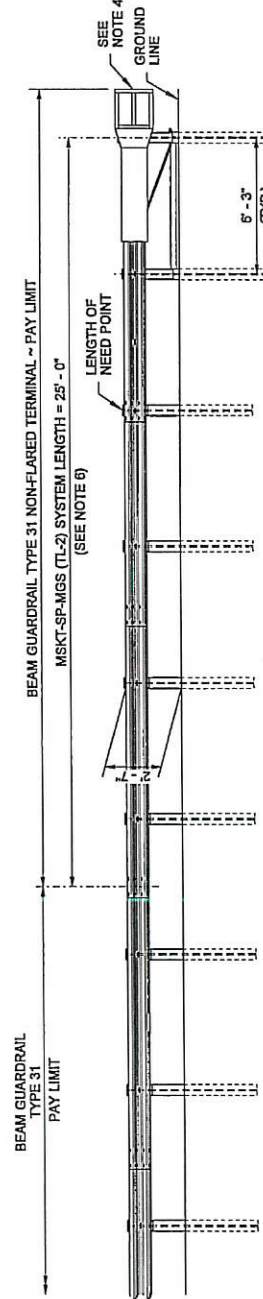
ELEVATION VIEW



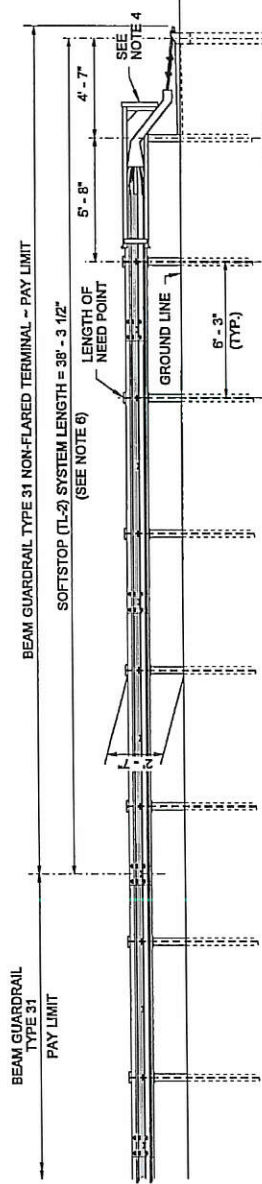
**NOTES**

1. The Implementation of the Manual for Assessment of Safety Hardware (MASH) criteria may result in the acceptance of guardrail terminal systems currently not shown on this plan. Non-Flared terminals shall be selected from the WSDOT Qualified Products List (QPL) or approved through the WSDOT Request for Approval of Materials (RAM) process.
2. This terminal is MASH compliant at Test Level Two (TL-2) and may be used in applications with posted speeds of 45 mph or less.
3. An MSKT-SP-MGS (TL-2) as manufactured by Road Systems, Inc. or SOFTSTOP (TL-2), as manufactured by Trinity Highway Products, LLC shall be installed according to manufacturer's recommendations.
4. A reflectorized object marker shall be installed according to manufacturer's recommendations.
5. When snow load post washers and snow load rail washers are required by the Contract, the snow load rail washers shall not be installed within the terminal limits.
6. Terminal shall be installed at a widening, ensuring the end piece is entirely off the shoulder. While this terminal does not require an offset at the end, a flare is recommended. For the MSKT-SP-MGS (TL-2), a maximum flare of 25 : 1 or flatter over the length of the terminal is allowed with a maximum offset of 24" (ft) over 50' (ft).
7. For the SOFTSTOP (TL-2) a maximum flare of 38.29 : 1 or flatter is allowed over the system length of 38' - 3 1/2" with a maximum offset of 12" (ft) at the anchor post.
8. For terminal details, see WSDOT approved manufacturer's drawings. These terminals are supplied with steel posts only. They can be used with guardrail runs composed of steel or wood guardrail or wood guardrail posts.

**PLAN VIEW**  
MSKT-SP-MGS (TL-2) SHOWN



**ELEVATION VIEW**  
MSKT-SP-MGS (TL-2)  
(SEE NOTE 6)



**ELEVATION VIEW**  
SOFTSTOP (TL-2)  
(SEE NOTE 6)



**JEFF PETERSON**  
PROFESSIONAL ENGINEER  
STATE OF WASHINGTON  
LICENSE NO. 16373  
EXPIRES JULY 16, 2017 3:14 PM

**BEAM GUARDRAIL TYPE 31  
NON-FLARED TERMINAL  
(POSTED SPEED  
45 MPH AND BELOW)**

**STANDARD PLAN C-22-45-03**

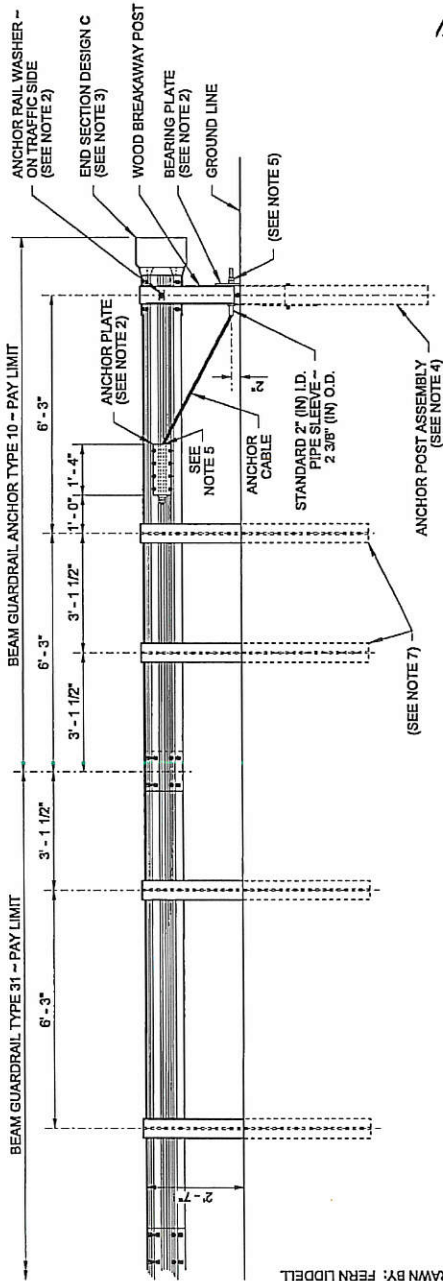
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION  
JULY 2017 8:23 AM  
STATE DESIGN ENGINEER  
Washington State Department of Transportation



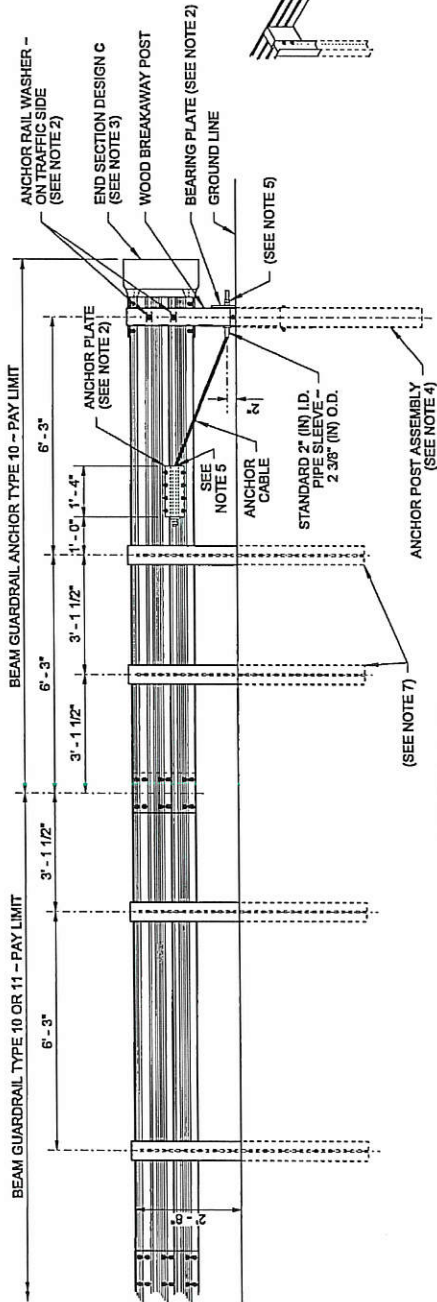
**NOTES**

1. For use on the end of guardrail runs when a crashworthy terminal is not required.
2. For additional details not shown, see Sheet 2 of this Plan.
3. For end section details, see Standard Plans C-7 and C-7a.
4. Use details for Wood Breakaway post shown on this plan and components shown on Standard Plan C-1b.
5. Fasten the Anchor Cable using two 1" (in) nuts and washer, at both ends of cable. Outside nut shall be torqued against inside nut a minimum of 100 ft.-lbs.
6. Wood blocks shown. Blocks of alternate material may be used. See Standard Specification, Section 9-16.3(2).
7. Posts shall match those of the connecting run; timber or steel.
8. Anchor plate may be constructed from 1/4" (in) plates welded to equal strength and dimensions as shown.
9. Eight 5/8" (in) x 1/2" (in) machine bolts with hex nut and washer. Place washer on face side of rail.

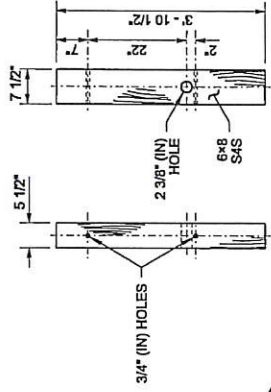


**ELEVATION VIEW  
W-BEAM**

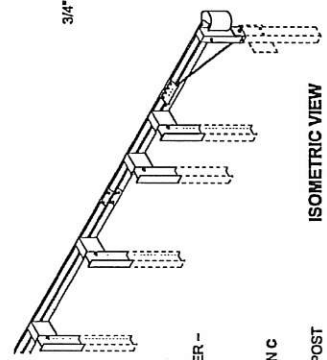
DRAWN BY: FERN LIDDELL



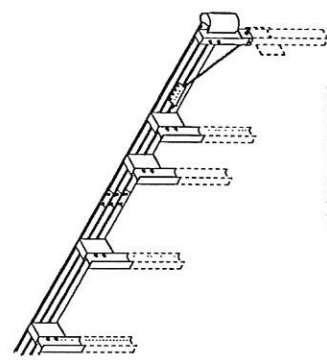
**ELEVATION VIEW  
THRIE BEAM**



**WOOD BREAKAWAY  
POST DETAIL**



**ISOMETRIC VIEW**



**ISOMETRIC VIEW**



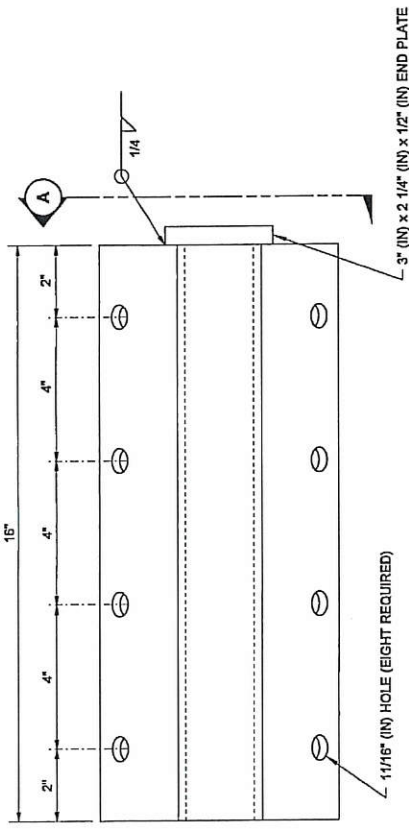
Jeff Peterson  
Peterson, Jeff (100 Design)  
Jul 6 2017 3:15 PM  
cogp

**BEAM GUARDRAIL (TYPE 31)  
ANCHOR TYPE 10**

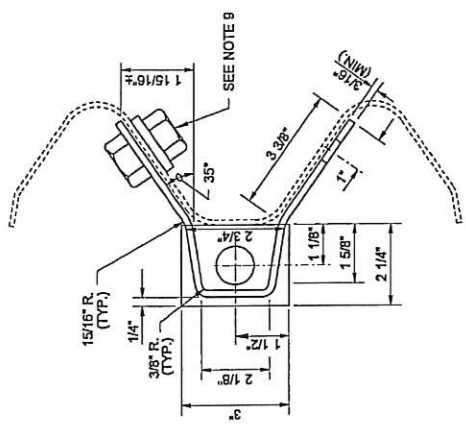
**STANDARD PLAN C-23.60-04**

SHEET 1 OF 2 SHEETS

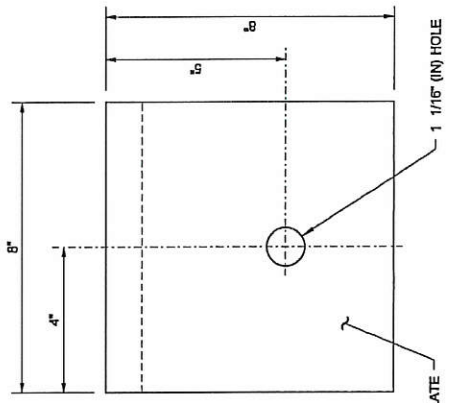
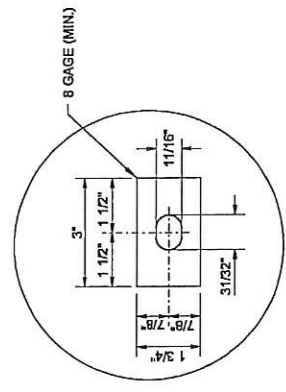
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 4:37:10 PM  
 STATE DESIGN ENGINEER  
 Washington State Department of Transportation



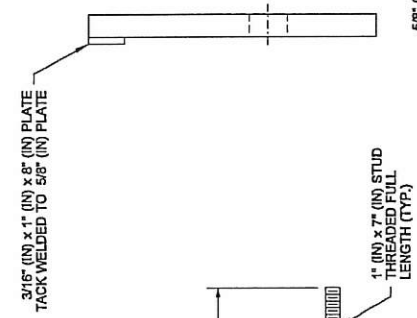
**ANCHOR PLATE**  
(SEE NOTE 8)



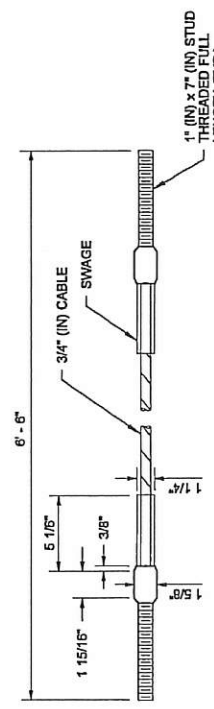
**SECTION A**



**BEARING PLATE**



**ANCHOR CABLE**



**BEAM GUARDRAIL (TYPE 31)  
ANCHOR TYPE 10**

**STANDARD PLAN C-23.60-04**

SHEET 2 OF 2 SHEETS

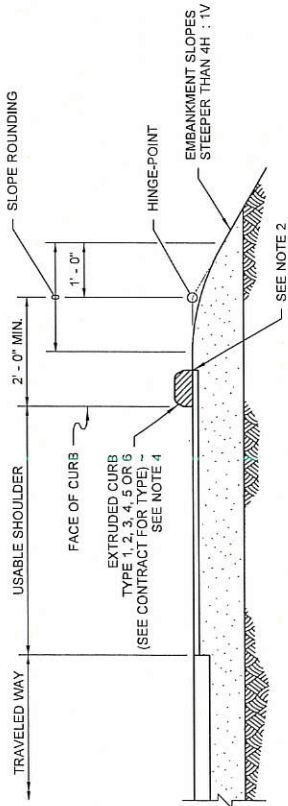
APPROVED FOR PUBLICATION

*Jeff Petersen*  
Engineer, PE  
Jul 21 2017 ACS:AM

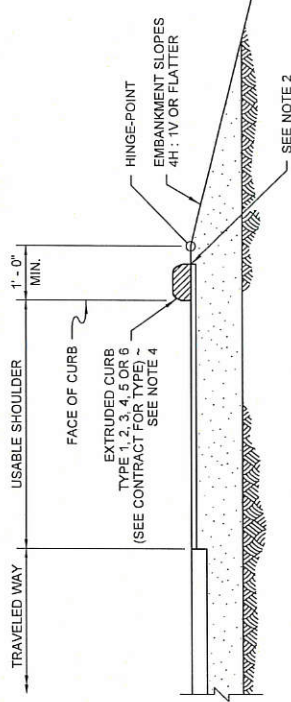
STATE DESIGN ENGINEER  
Washington State Department of Transportation

**NOTES**

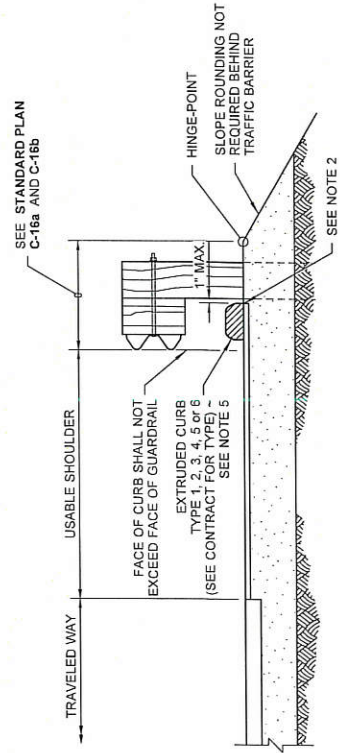
1. The installation of curb in areas with existing guardrail could require the removal and resetting of the guardrail or its components.
2. Extend shoulder pavement to provide a base for the extruded curb.
3. See Contract for exception to distances shown.
4. Type 3 and 6 curbs are not used on roadways with a posted speed greater than 40 mph.
5. Type 3 and 6 are not used under beam guardrail on roadways with a posted speed greater than 50 mph.
6. For extruded curb placement at Beam Guardrail Type 31, See **Standard Plan C-20-10**.
7. For extruded curb details, See **Standard Plan F-10.42**.



**EXTRUDED CURB WITH SLOPE ROUNDING**



**EXTRUDED CURB WITHOUT SLOPE ROUNDING**



**EXTRUDED CURB AT BEAM GUARDRAIL**



Scott Zeller  
 Jun 24, 2016 7:18 AM  
 28680



**EXTRUDED CURB  
 PLACEMENT**

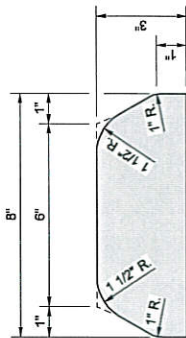
**STANDARD PLAN F-10.40-03**

SHEET 1 OF 1 SHEET

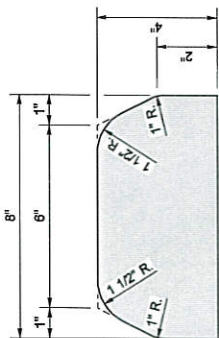
APPROVED FOR PUBLICATION  
 Carpenter, Jeff  
 Jun 29, 2016 2:27 PM

Washington State Department of Transportation

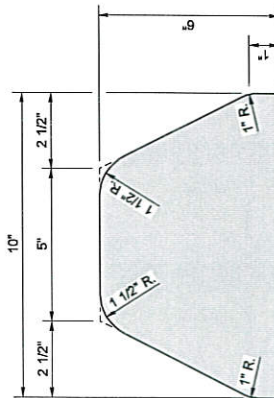




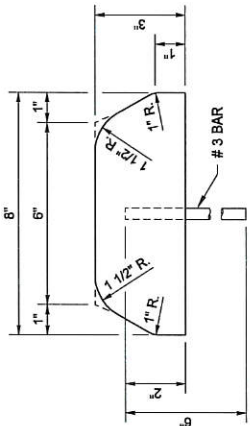
**TYPE 1**  
(HOT MIX ASPHALT)



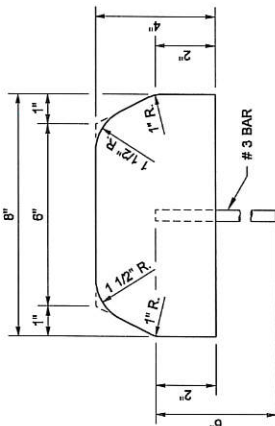
**TYPE 2**  
(HOT MIX ASPHALT)



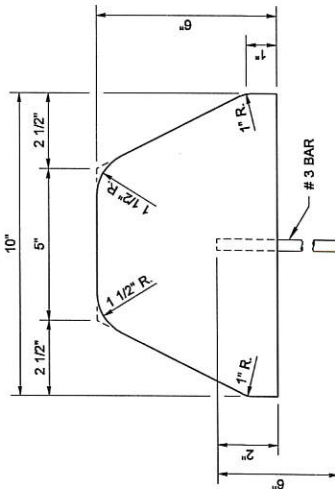
**TYPE 3**  
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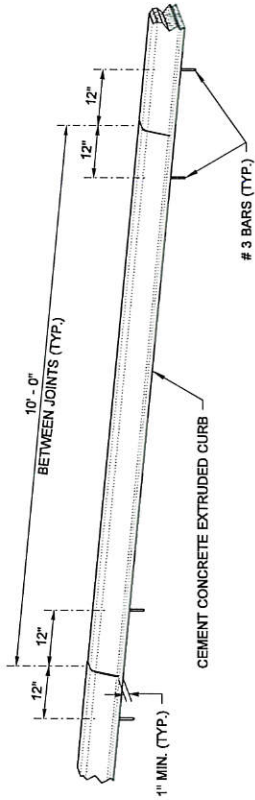
**TYPE 4**  
(CEMENT CONCRETE)



**TYPE 5**  
(CEMENT CONCRETE)

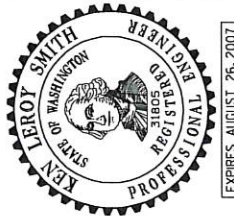


**TYPE 6**  
(CEMENT CONCRETE)



**SPACING OF ANCHOR BARS**  
(FOR TYPES 4, 5, AND 6)

**NOTE**  
JOINTS MAY BE FORMED DURING INSTALLATION USING A RIGID DIVIDER OR SAWCUT AFTER CONCRETE CURES TO MINIMUM STRENGTH.



**EXTRUDED CURB**

**STANDARD PLAN F-10-42-00**

SHEET 1 OF 1 SHEET

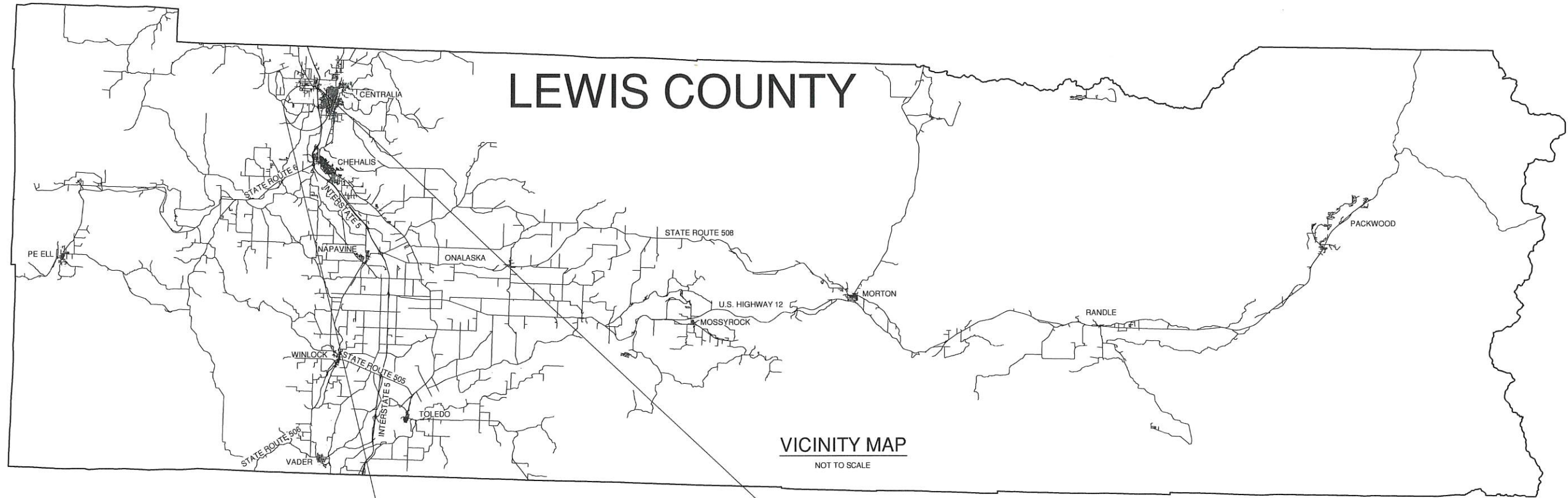
APPROVED FOR PUBLICATION  
**Ken L. Smith**  
 STATE DESIGN ENGINEER  
 DATE 01-23-07  
 Washington State Department of Transportation

NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT UNLESS IT IS APPROVED FOR PUBLICATION IN ACCORDANCE WITH THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

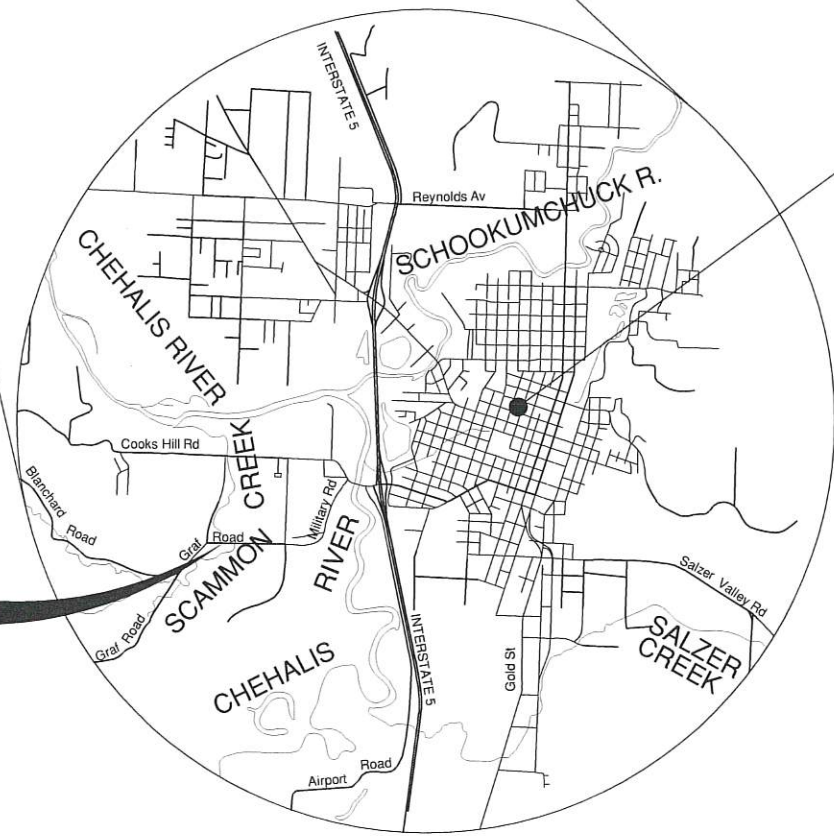


# 2020 GRAF ROAD M.P. 1.01 CULVERT REPLACEMENT PROJECT - CMP 1531

(SCAMMON CREEK RM 1.15 BARRIER REMOVAL, WCRI PROJECT: 14-1267)



LEWIS COUNTY  
DEPARTMENT OF PUBLIC WORKS  
APPROVED FOR CONSTRUCTION:  
*[Signature]* 11-20-19  
Asst. County Engineer Date



CITY OF  
CENTRALIA

SHEET INDEX	
NO.	DESCRIPTION
1	VICINITY MAP AND SHEET INDEX
2	SUMMARY OF QUANTITIES
3	LEGEND
4	T.E.S.C. AND TEMPORARY STREAM DIVERSION PLAN
5	STRUCTURAL EARTH WALL EXCAVATION PLAN/PROFILE
6	STRUCTURAL EARTH WALL PLAN AND PROFILE
7	STRUCTURAL EARTH WALL AND BRIDGE DETAILS
8	ROAD PLAN AND PROFILE
9	ROAD DETAILS
10	GUARDRAIL PLAN
11	STREAM PLAN AND PROFILE
12	STREAM CROSS SECTIONS
13	LARGE WOODY DEBRIS DETAILS
14	PLANTING PLAN AND DETAILS
15	RIGHT OF WAY MAP
16	TRAFFIC CONTROL PLAN

**COMMISSIONERS:**  
EDNA FUND, DISTRICT 1  
ROBERT C. JACKSON, DISTRICT 2  
GARY STAMPER, DISTRICT 3

SEC. 13 TWP. 14N. RNG. 3W. W.M.

LAND LINES ARE APPROXIMATE

ITEM NUMBER	STD. ITEM NO.	ITEM DESCRIPTION	TOTAL QUANTITY	UNIT
<b>PREPARATION</b>				
1	0001	MOBILIZATION	LUMP SUM	LUMP SUM
2	0025	CLEARING AND GRUBBING	0.32	ACRE
3	0050	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	LUMP SUM
<b>GRADING</b>				
4	0310	ROADWAY EXCAVATION INCL. HAUL	340	C.Y.
5	4006	STRUCTURE EXCAVATION CLASS A INCL. HAUL	3650	C.Y.
6	S.P.	TEMPORARY ACCESS ROAD	LUMP SUM	LUMP SUM
<b>DRAINAGE</b>				
7	1093	STREAMBED MIX	280	TON
8	S.P.	ROCK/SOIL MIX	450	C.Y.
9	S.P.	ROCK FOR EROSION AND SCOUR PROTECTION CLASS B	700	TON
10	3075	TEMPORARY STREAM DIVERSION	LUMP SUM	LUMP SUM
<b>BRIDGE</b>				
11	7169	STRUCTURAL EARTH WALL	3720	S.F.
12	7568	GRAVEL BORROW FOR STRUCTURAL EARTH WALL INCL. HAUL	1547	C.Y.
13	4300	SUPERSTRUCTURE - GRAF ROAD MP 1.01 BRIDGE	LUMP SUM	LUMP SUM
<b>SURFACING</b>				
14	5100	CRUSHED SURFACING BASE COURSE	790	TON
15	5120	CRUSHED SURFACING TOP COURSE	225	TON
16	S.P.	SHOULDER FINISHING	30	TON
<b>HOT MIX ASPHALT</b>				
17	S.P.	HMA CL. 3/8 IN. PG 58H-22 FIBER REINFORCED	244	TON
18	S.P.	HMA FOR APPROACH CL. 3/8 IN. PG 58H-22 FIBER REINFORCED	10	TON
<b>EROSION CONTROL AND ROADSIDE PLANTING</b>				
19	6490	EROSION/WATER POLLUTION CONTROL	CALCULATED	CALCULATED
20	S.P.	LARGE WOODY DEBRIS	4	EACH
21	S.P.	STREAMSIDE MITIGATION PLANTING	LUMP SUM	LUMP SUM
22	6403	ESC LEAD	15	DAY
23	6414	SEEDING AND MULCHING	0.5	ACRE
24	6468	STABILIZED CONSTRUCTION ENTRANCE	150	S.Y.
25	6630	HIGH VISIBILITY FENCE	350	L.F.
26	6635	HIGH VISIBILITY SILT FENCE	530	L.F.
27	6455	BIODEGRADABLE EROSION CONTROL BLANKET	630	S.Y.
<b>TRAFFIC</b>				
28	6719	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL	2	EACH
29	6727	EXTRUDED CURB (TYPE 2 OR 5)	275	L.F.
30	6766	BEAM GUARDRAIL ANCHOR TYPE 10	2	EACH
31	6757	BEAM GUARDRAIL TYPE 31	130	L.F.
32	6971	PROJECT TEMPORARY TRAFFIC CONTROL	LUMP SUM	LUMP SUM
<b>OTHER ITEMS</b>				
33	7490	TRIMMING AND CLEANUP	LUMP SUM	LUMP SUM
34	7725	REIMBURSEMENT FOR THIRD PARTY DAMAGE	ESTIMATE	DOLLAR
35	7728	MINOR CHANGE	CALCULATED	CALCULATED
36	7736	SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN	LUMP SUM	LUMP SUM



2025 NE KRESKY AVE.  
CHEHALIS WA 98532  
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DRAWN BY : WSR  
CHECKED BY :  
DATE : 11/20/2019

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2020 GRAF ROAD MP 1.01  
CULVERT REPLACEMENT

COUNTY MAINTENANCE PROJECT NO: 1531

SUMMARY OF QUANTITIES

SHEET  
2 OF 16












Rodney Troy Lakey, P.E.  
Senior Engineer  
Design/ENV.

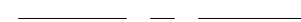

Date: Nov 20, 2019

### LEGEND






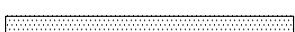







EXISTING FEATURES

-  CONIFER TREE
-  DECIDUOUS TREE
-  EDGE OF ROAD
-  SHOULDER
-  DITCH
-  EDGE OF STREAM
-  EXISTING CULVERT
-  INDEX CONTOUR LINES
-  CONTOUR LINES

SURVEY SYMBOLS

-  SECTION LINE
-  RIGHT OF WAY

NEW CONSTRUCTION

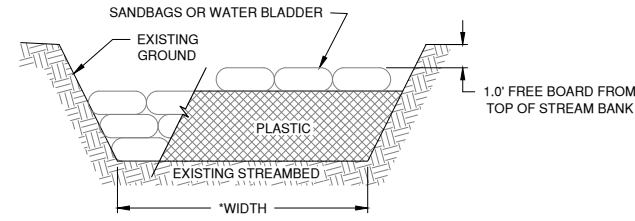
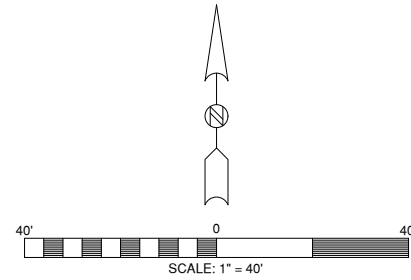
-  AREA OF POTENTIAL EFFECT (APE) - NO CONSTRUCTION ACTIVITY OUTSIDE THIS BOUNDARY
-  CENTERLINE
-  HIGH VISIBILITY FENCE
-  HIGH VISIBILITY SILT FENCE
-  HMA
-  GUARDRAIL LANDING / SHOULDER ROCK
-  CUT LIMIT
-  FILL LIMIT
-  DITCH
-  LARGE WOODY DEBRIS
-  INDEX CONTOUR LINES
-  CONTOUR LINES
-  CMU BLOCK

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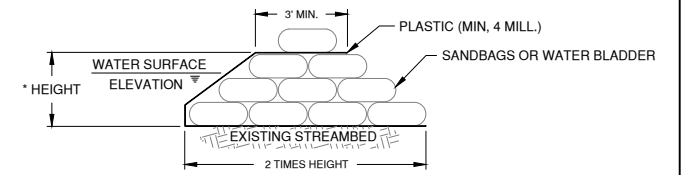
SEC. 13 TWP. 14N. RNG. 3W. W.M.

LAND LINES ARE APPROXIMATE



\* WIDTH OF COFFER DAM SHALL BE DETERMINED BY THE EXISTING BANK OF THE STREAM AT THE TIME OF CONSTRUCTION.

- NOTES:  
 1. SANDBAGS SHALL BE USED IN ACCORDANCE WITH APPLICABLE PERMITS.  
 2. INSTALL COFFER DAM AND DEWATER SITE PRIOR TO CONSTRUCTION.  
 3. PROVIDE 1.0' FREEBOARD.

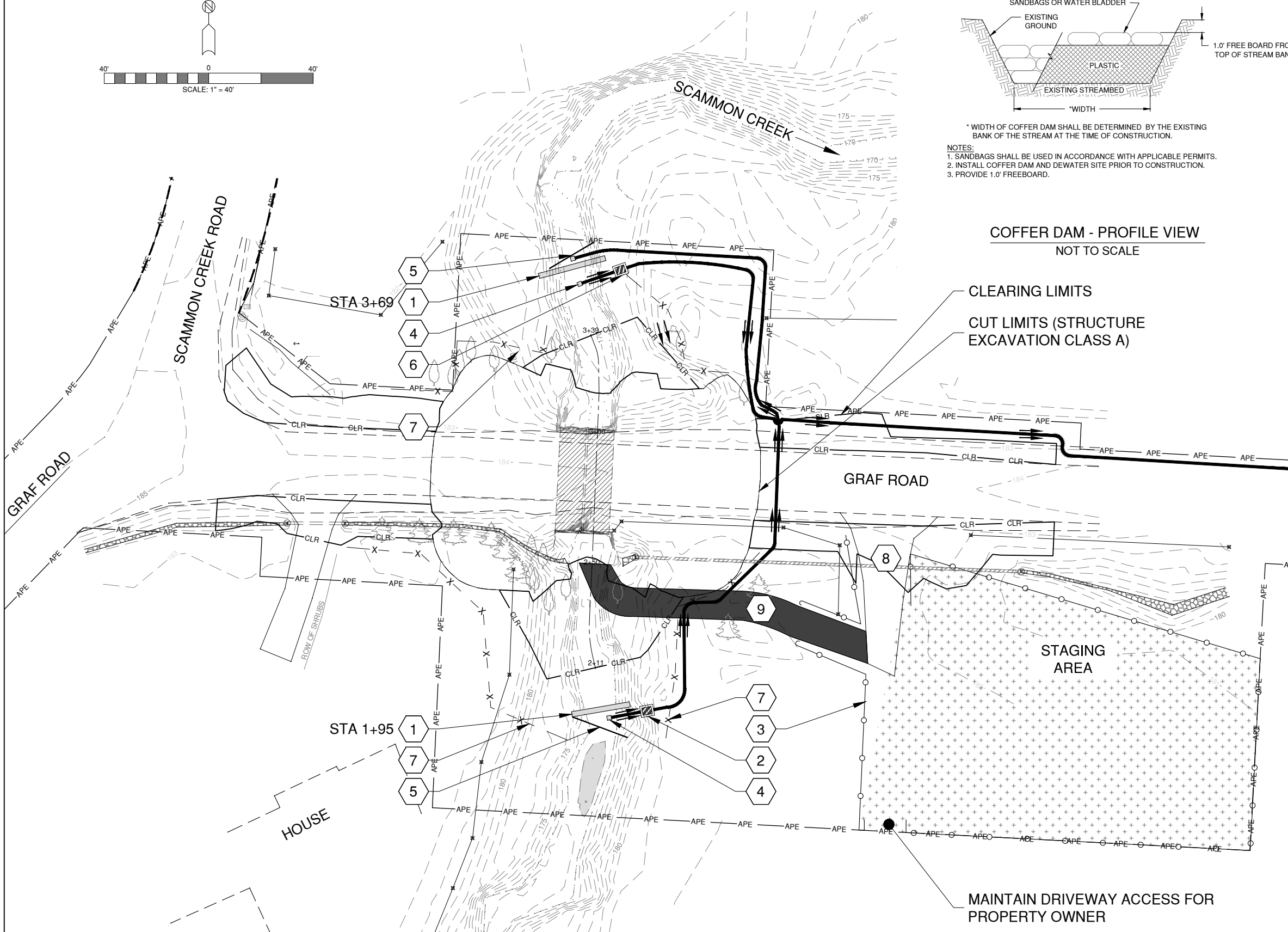


\* HEIGHT OF COFFER DAM SHALL BE DETERMINED BY THE WATER SURFACE ELEVATION AT THE TIME OF CONSTRUCTION.

- NOTES:  
 1. SANDBAGS SHALL BE USED IN ACCORDANCE WITH APPLICABLE PERMITS.  
 2. INSTALL COFFER DAM AND DEWATER SITE PRIOR TO CONSTRUCTION.  
 3. PROVIDE 1.0' FREEBOARD.

COFFER DAM - PROFILE VIEW  
NOT TO SCALE

COFFER DAM - SECTION VIEW  
NOT TO SCALE



- NOTES:  
 1. SANDBAGS SHALL BE USED IN ACCORDANCE WITH APPLICABLE PERMITS.  
 2. INSTALL COFFER DAM AND DEWATER SITE PRIOR TO CONSTRUCTION.  
 3. PROVIDE 1.0' FREEBOARD.

CONSTRUCTION NOTES:

- 1 INSTALL COFFERDAM PER DETAILS ABOVE AT STREAM STATIONS 1+95 AND 3+69.
- 2 INSTALL SPILL CONTAINED PUMP SYSTEM FOR TEMPORARY STREAM DIVERSION.
- 3 INSTALL HIGH VISIBILITY SILT FENCE AROUND STAGING AREA AS DIRECTED BY THE ENGINEER.
- 4 PUMP INTAKE SCREEN OVER ALL HOSES PER WDFW REQUIREMENTS.
- 5 FISH DIVERSION SCREEN UPSTREAM OF BYPASS INTAKE AND DOWNSTREAM OF BYPASS OUTLET PER HPA PROVISIONS, 30° ANGLE FROM PERPENDICULAR.
- 6 INSTALL SPILL CONTAINED PUMP SYSTEM FOR DEWATERING. PUMP WORK WATER ALONG NE DITCH APPROXIMATELY 200' TO DRAIN AWAY FROM PROJECT THROUGH GRASS LINED DITCH, WITH STRAW WADDLES PLACED EVERY 25' WITHIN COUNTY RIGHT OF WAY.
- 7 HIGH VISIBILITY FENCE AS DIRECTED BY THE ENGINEER.
- 8 STABILIZED CONSTRUCTION ENTRANCE AT STAGING AREA ENTRANCE.
- 9 TEMPORARY ACCESS ROAD.

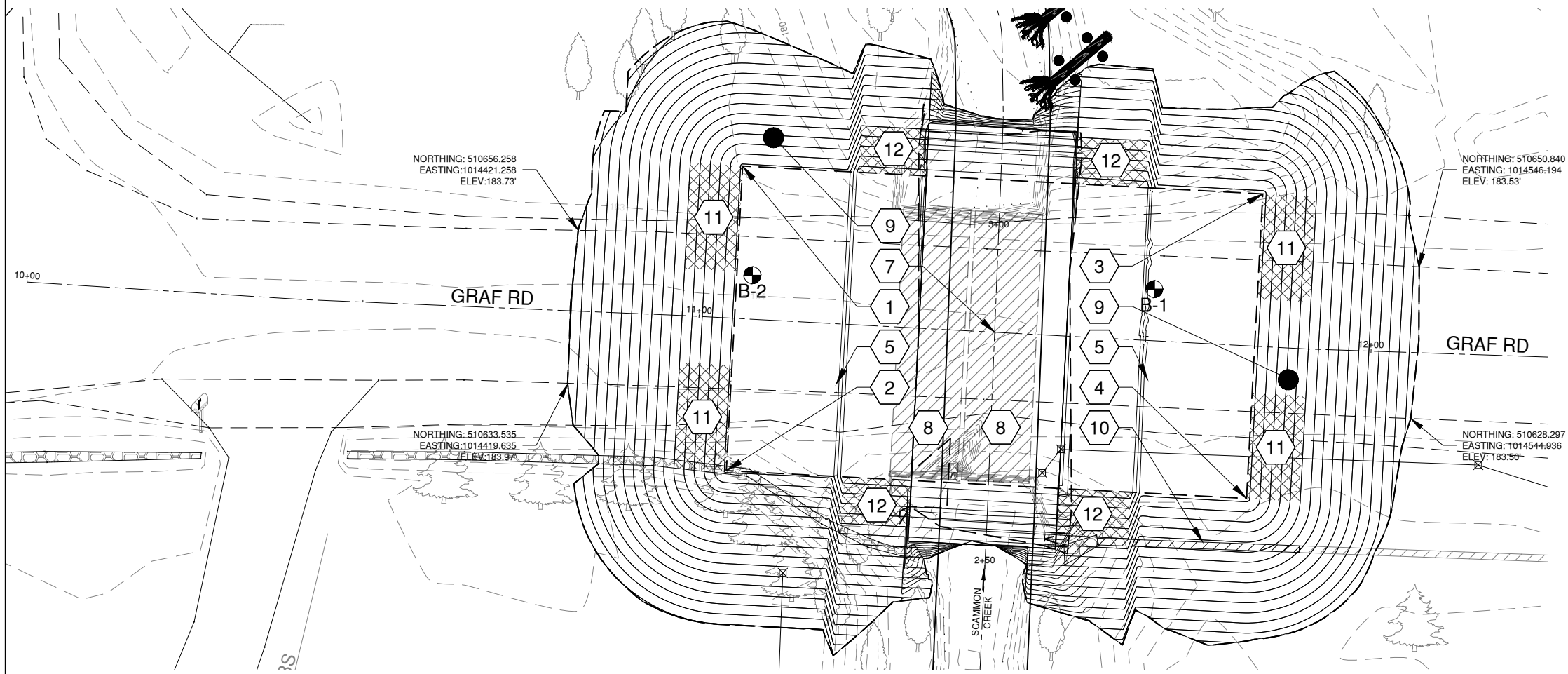
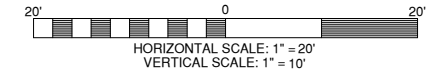
MAINTAIN DRIVEWAY ACCESS FOR PROPERTY OWNER

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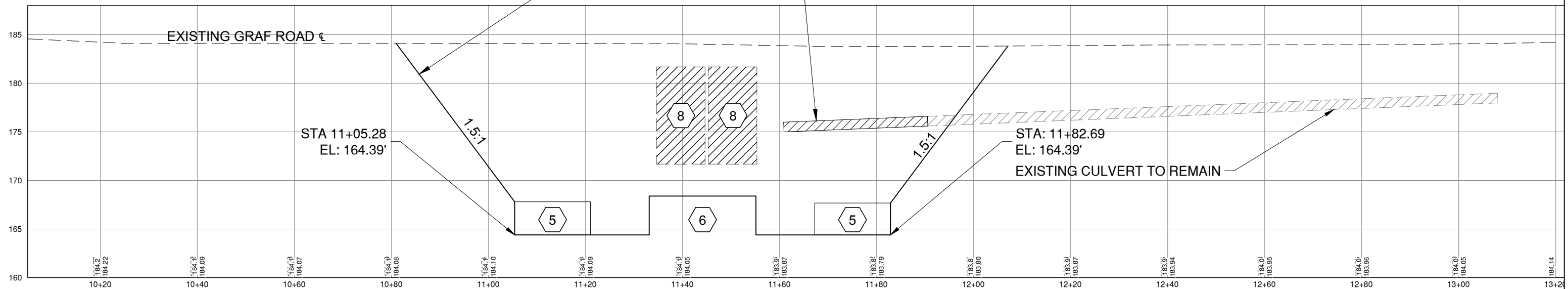
SEC. 13 TWP. 14N. RNG. 3W. W.M.

LAND LINES ARE APPROXIMATE



CONSTRUCTION NOTES:

- 1 BOTTOM OF CUT: N: 510665.801 E: 1014445.651 ELEV: 164.39' STA: 11+05.26 22.65 LT
- 2 BOTTOM OF CUT: N: 510620.573 E: 1014443.226 ELEV: 164.39' STA: 11+05.26 22.65 RT
- 3 BOTTOM OF CUT: N: 510661.657 E: 1014522.948 ELEV: 164.39' STA: 11+82.70 22.65 LT
- 4 BOTTOM OF CUT: N: 510616.428 E: 1014520.523 ELEV: 164.39' STA: 11+82.70 22.65 RT
- 5 ROAD STA 11+05.26 TO 11+20.89 AND 11+67.07 TO 11+82.70, INSTALL REINFORCED SOIL FOUNDATIONS PER DETAILS ON SHEET 6.
- 6 22' W x 4' H AREA ALONG STREAM CENTERLINE TO REMAIN UNDISTURBED.
- 7 ROAD  $\epsilon$  STA 11+43.98 CROSSES STREAM  $\epsilon$  STA 2+84.91 (STREAM  $\epsilon$  PERPENDICULAR TO ROAD  $\epsilon$ ).
- 8 EXISTING 10' x 10' CONCRETE BOX CULVERTS TO BE REMOVED.
- 9 STRUCTURE EXCAVATION CLASS A INCL. HAUL
- 10 REMOVE EXISTING 12 IN. DIA CULVERT ROAD STA 11+60.91 RT TO 11+90.35 RT.
- 11 EXCAVATION FOR WINGWALL REINFORCED SOIL FOUNDATION (RSF)
- 12 EXCAVATION FOR ROCK FOR EROSION CONTROL & SCOUR PROTECTION AT TERMINALS



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 DATE : 11/20/2019

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2020 GRAF ROAD MP 1.01  
 CULVERT REPLACEMENT

COUNTY MAINTENANCE PROJECT NO: 1531  
 STRUCTURAL EARTH WALL  
 EXCAVATION PLAN AND PROFILE

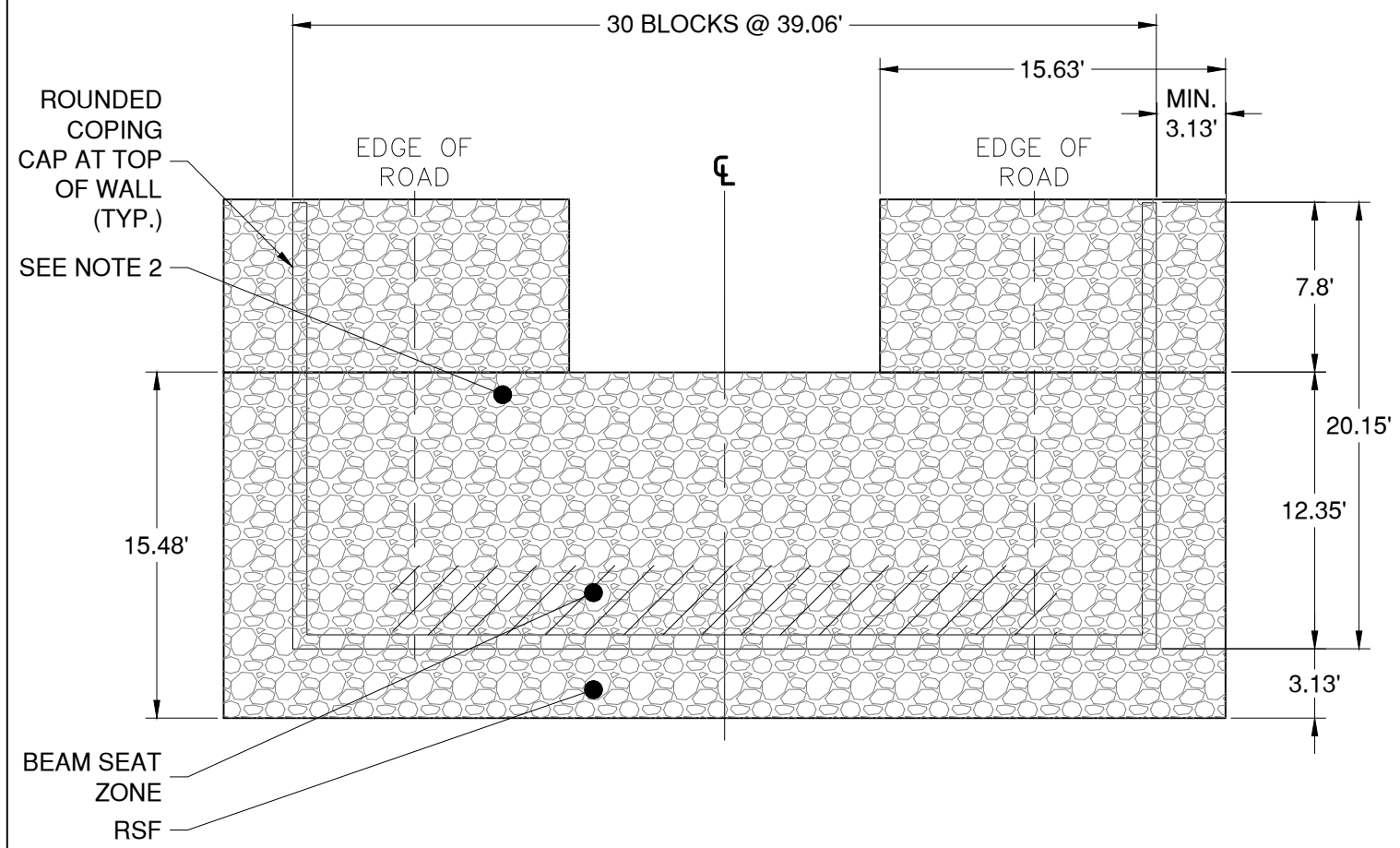
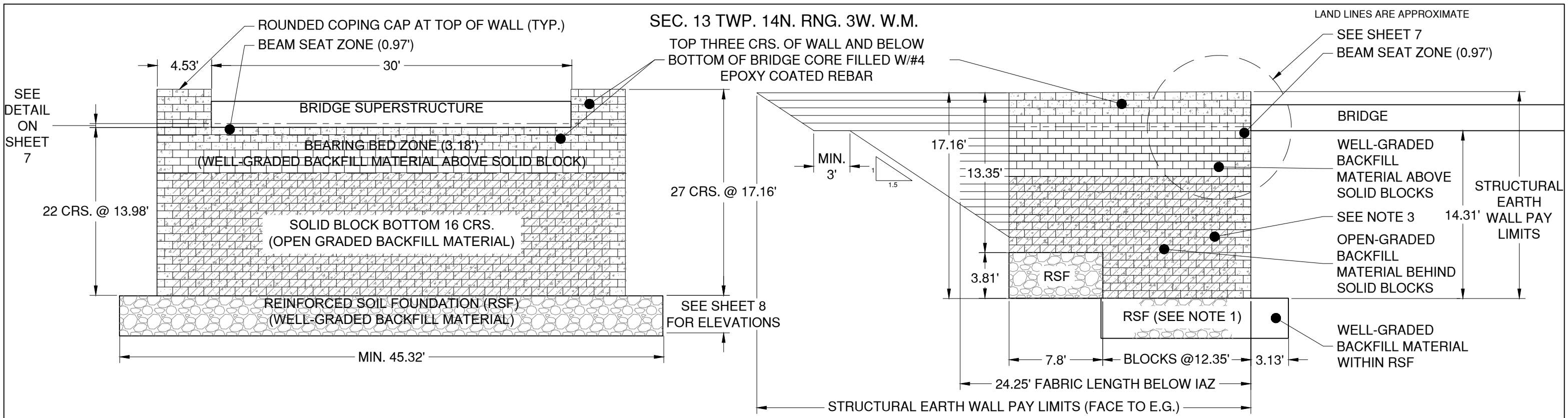
SHEET  
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Rodney Troy Lakey, P.E.  
 Senior Engineer  
 Design/ENV.  
 Date: Nov 20, 2019





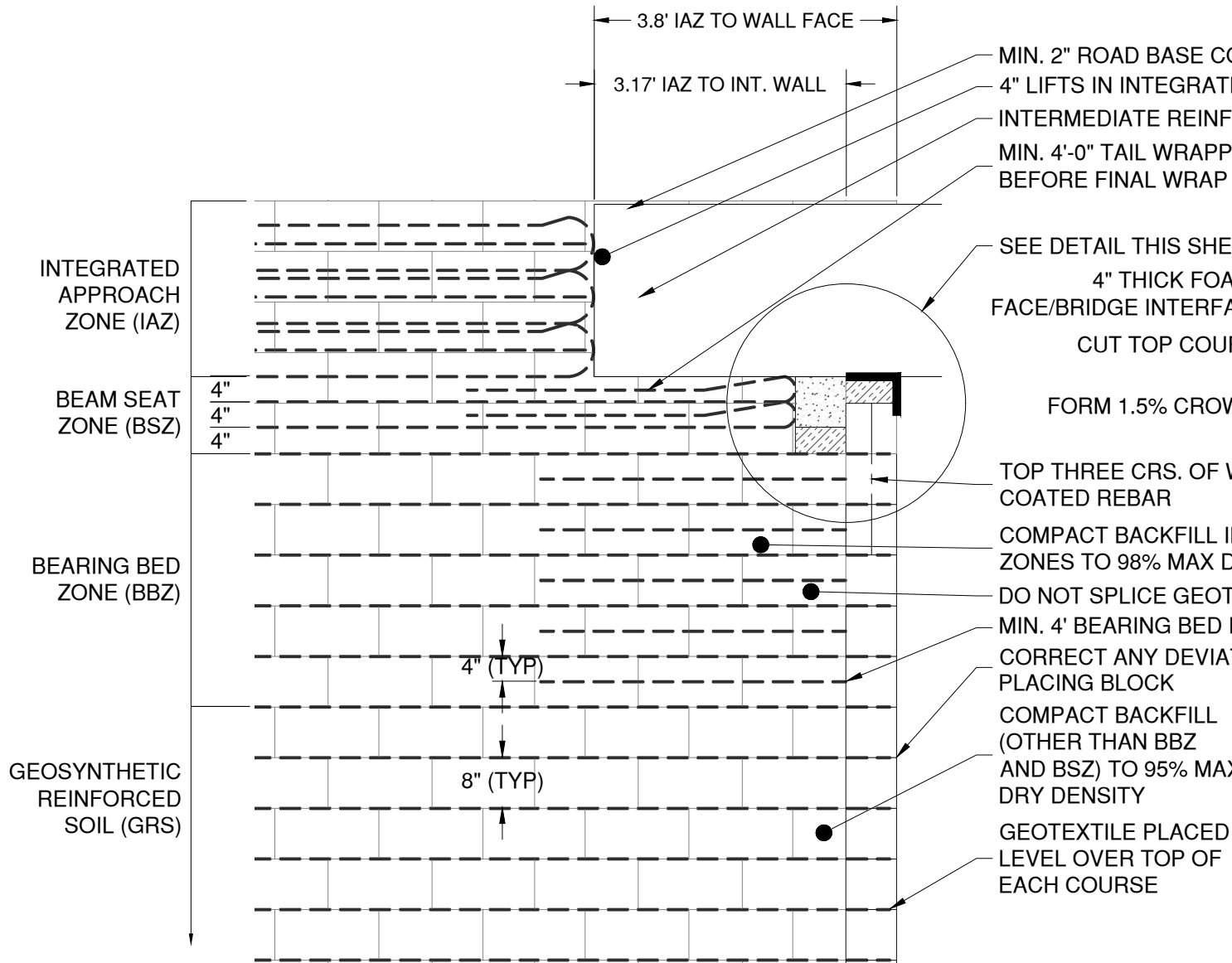


**NOTES:**

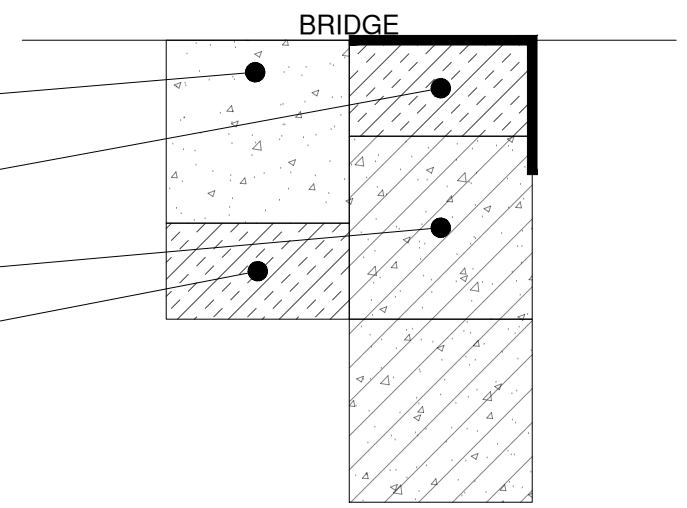
- CONSTRUCTION CONSISTS OF STANDARD CMU BLOCK (NOMINAL 8" x 8" x 16") WITH NO MORTAR. FIRST 16 CRS. ALONG WALL FACE ARE SOLID CMU BLOCK (DEPICTED WITH HATCHING). SEE SHEET 9 FOR FABRIC PLACEMENT DETAILS.
1. REINFORCED SOIL FOUNDATION (RSF)
    - 1.1. ENCAPSULATE RSF IN GEOTEXTILE WITH 3' OVERLAPS FACING DOWNSTREAM.
    - 1.2. CONSTRUCT IN LIFTS NO MORE THAN 0.5' COMPACTED HEIGHT.
    - 1.3. FINAL GRADING AND COMPACTION MUST OCCUR BEFORE ENCAPSULATING THE TOP TO PREVENT DAMAGE TO GEOTEXTILE.
  2. INTEGRATED APPROACH
    - 2.1. ONLY BEGIN PLACEMENT OF GEOTEXTILE AND BACKFILL MATERIAL IN INTEGRATED APPROACH AFTER PLACEMENT OF BRIDGE SUPERSTRUCTURE.
    - 2.2. 0.17' COVER OVER LAST LAYER OF GEOTEXTILE TO PREVENT DAMAGE FROM PAVEMENT PLACEMENT.
    - 2.3. LIFTS CAN CHANGE HEIGHT TO MATCH EXISTING APPROACHES, BUT SHALL NOT EXCEED 0.5'.
  3. GEOTEXTILE FABRIC PLACEMENT
    - 3.1. PULL TIGHT AND LAY FLAT BEFORE PLACING BACKFILL MATERIAL.
    - 3.2. ANY SPLICES MUST BE STAGGERED AT LEAST 2' APART.
    - 3.3. FABRIC MUST COVER 85% OF FULL BLOCK WIDTH TO THE FRONT OF THE BLOCK. FOR CORE FILLING, CUT OR BURN AFTER NEXT COURSE IS PLACED.
  4. MATERIALS
    - 4.1. GEOTEXTILE FABRIC
      - 4.1.1. REQUIRED ULTIMATE TENSILE STRENGTH = 4,800 lb/ft PER ASTM D 4595
      - 4.1.2. TENSILE STRENGTH @ 2% STRAIN = 1,370 lb/ft
    - 4.2. REINFORCED SOIL FOUNDATION
      - 4.2.1. USE WELL-GRADED BACKFILL MATERIAL
    - 4.3. BACKFILL
      - 4.3.1. ALL MATERIAL SHALL MEET GRADATION OUTLINED IN THE SPECIAL PROVISIONS FOR OPEN-GRADED AND WELL-GRADED MATERIAL

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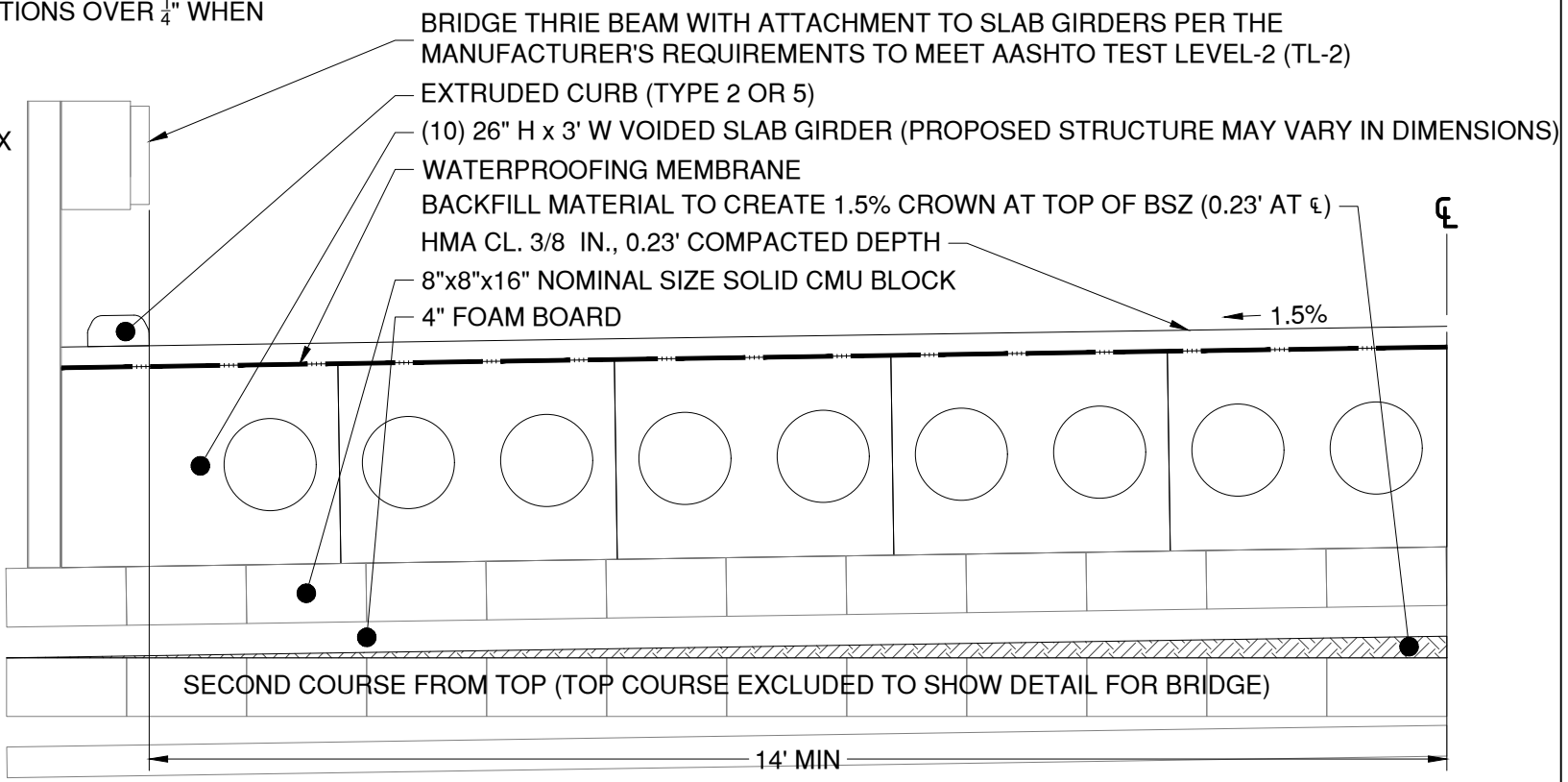




MIN. 2" ROAD BASE COVERAGE TO PROTECT GEOTEXTILE  
4" LIFTS IN INTEGRATED APPROACH ZONE (6 LIFTS @ 4" = 24")  
INTERMEDIATE REINFORCEMENT LAYERS BETWEEN LIFTS  
MIN. 4'-0" TAIL WRAPPED OVER EACH LIFT (6'-0" MAX IN BEAM SEAT), BEFORE FINAL WRAP GRADING MY BE REQUIRED ON BEAM SEAT  
SOLID CMU USED ON BEARING SEAT  
SEE DETAIL THIS SHEET  
4" THICK FOAM BOARD AND ALUMINUM FLASHING AT WALL FACE/BRIDGE INTERFACE WITH CONSTRUCTION ADHESIVE APPLIED  
CUT TOP COURSE CMU ALONG CROWN SLOPE TO MAINTAIN 3" GAP UNDER BRIDGE  
FORM 1.5% CROWN WITH BACKFILL MATERIAL UNDER 4" THICK FOAM BOARD (SEE DETAIL BELOW)



TOP THREE CRS. OF WALL CORE FILLED W/#4 EPOXY COATED REBAR  
COMPACT BACKFILL IN BEARING BED AND BEAM SEAT ZONES TO 98% MAX DRY DENSITY  
DO NOT SPLICE GEOTEXTILE IN BEARING BED ZONE  
MIN. 4' BEARING BED REINFORCEMENT LENGTH (TYP.)  
CORRECT ANY DEVIATIONS OVER 1/4" WHEN PLACING BLOCK  
COMPACT BACKFILL (OTHER THAN BBZ AND BSZ) TO 95% MAX DRY DENSITY  
GEOTEXTILE PLACED LEVEL OVER TOP OF EACH COURSE



BRIDGE SECTION(TYPICAL)  
NOT TO SCALE

**GENERAL NOTES:**

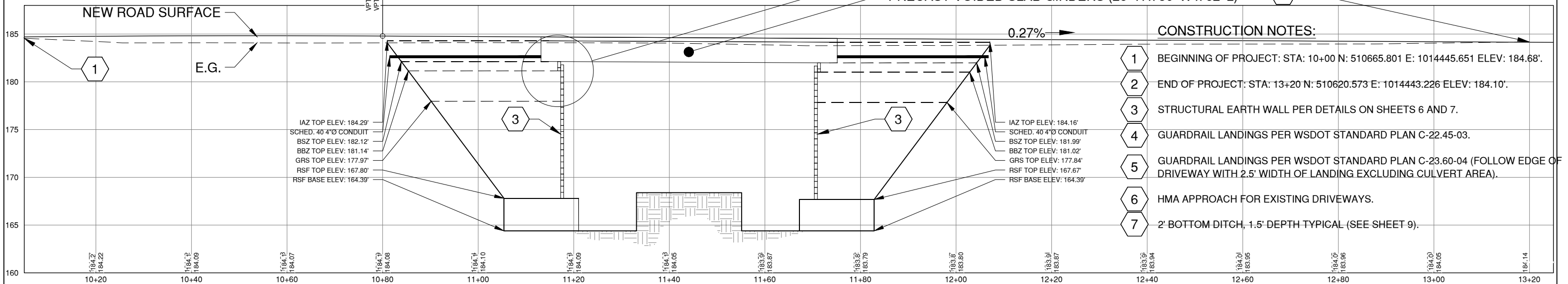
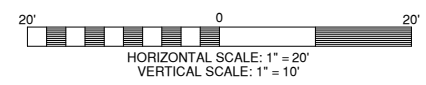
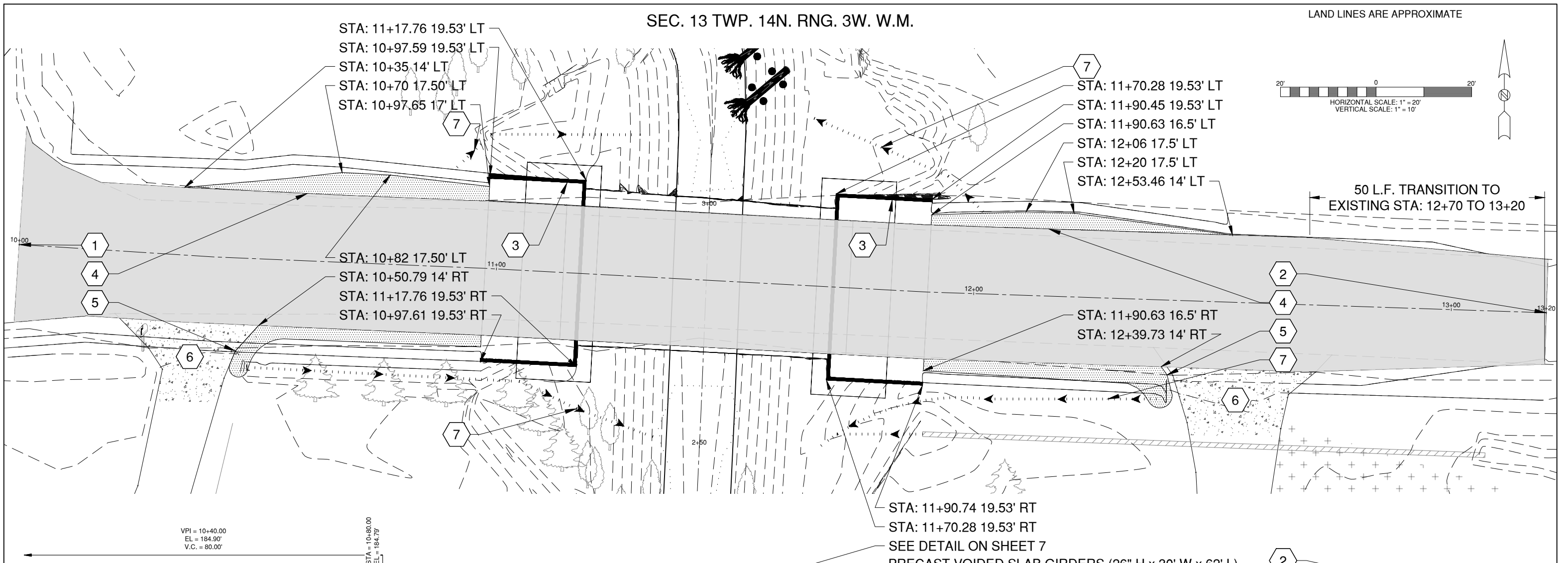
- DESIGN SPECIFICATIONS
  - DESIGN FROM *DESIGN AND CONSTRUCTION GUIDELINES FOR GEOSYNTHETIC REINFORCED SOIL ABUTMENTS AND INTEGRATED BRIDGE SYSTEMS*, FHWA-HRT-17-080, JUNE 2018.
- INSTALLATION NOTES
  - NO TRACKED EQUIPMENT NEAR GEOTEXTILES.
  - WHEELED EQUIPMENT WILL ONLY BE USED IF IT IS RUBBER-TIRED AND A 6" BASE IS PLACED OVER GEOTEXTILE.
  - ONLY HAND-OPERATED COMPACTION EQUIPMENT IS ALLOWED WITHIN 3'-0" OF WALL FACE.
  - VERTICAL WALL FACE BATTER = 0°
  - DURING BRIDGE SUPERSTRUCTURE INSTALLATION, THE CRANE MAY BE PLACED ON THE GRS ABUTMENT IF THE OUTRIGGER PADS SHALL BE SIZED FOR LESS THAN 4,000psf NEAR THE FACE OF THE ABUTMENT WALL.
  - A LAYER OF GEOTEXTILE FABRIC CAN BE PLACED ON BEAM SEAT BEFORE SUPERSTRUCTURE PLACEMENT.
  - DO NOT SLIDE OR DRAG SUPERSTRUCTURE ON BEAM SEAT DURING PLACEMENT.

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LAND LINES ARE APPROXIMATE



- CONSTRUCTION NOTES:**
- 1 BEGINNING OF PROJECT: STA: 10+00 N: 510665.801 E: 1014445.651 ELEV: 184.68'.
  - 2 END OF PROJECT: STA: 13+20 N: 510620.573 E: 1014443.226 ELEV: 184.10'.
  - 3 STRUCTURAL EARTH WALL PER DETAILS ON SHEETS 6 AND 7.
  - 4 GUARDRAIL LANDINGS PER WSDOT STANDARD PLAN C-22.45-03.
  - 5 GUARDRAIL LANDINGS PER WSDOT STANDARD PLAN C-23.60-04 (FOLLOW EDGE OF DRIVEWAY WITH 2.5' WIDTH OF LANDING EXCLUDING CULVERT AREA).
  - 6 HMA APPROACH FOR EXISTING DRIVEWAYS.
  - 7 2' BOTTOM DITCH, 1.5' DEPTH TYPICAL (SEE SHEET 9).

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2020 GRAF ROAD MP 1.01  
 CULVERT REPLACEMENT

COUNTY MAINTENANCE PROJECT NO: 1531  
 ROAD PLAN AND PROFILE

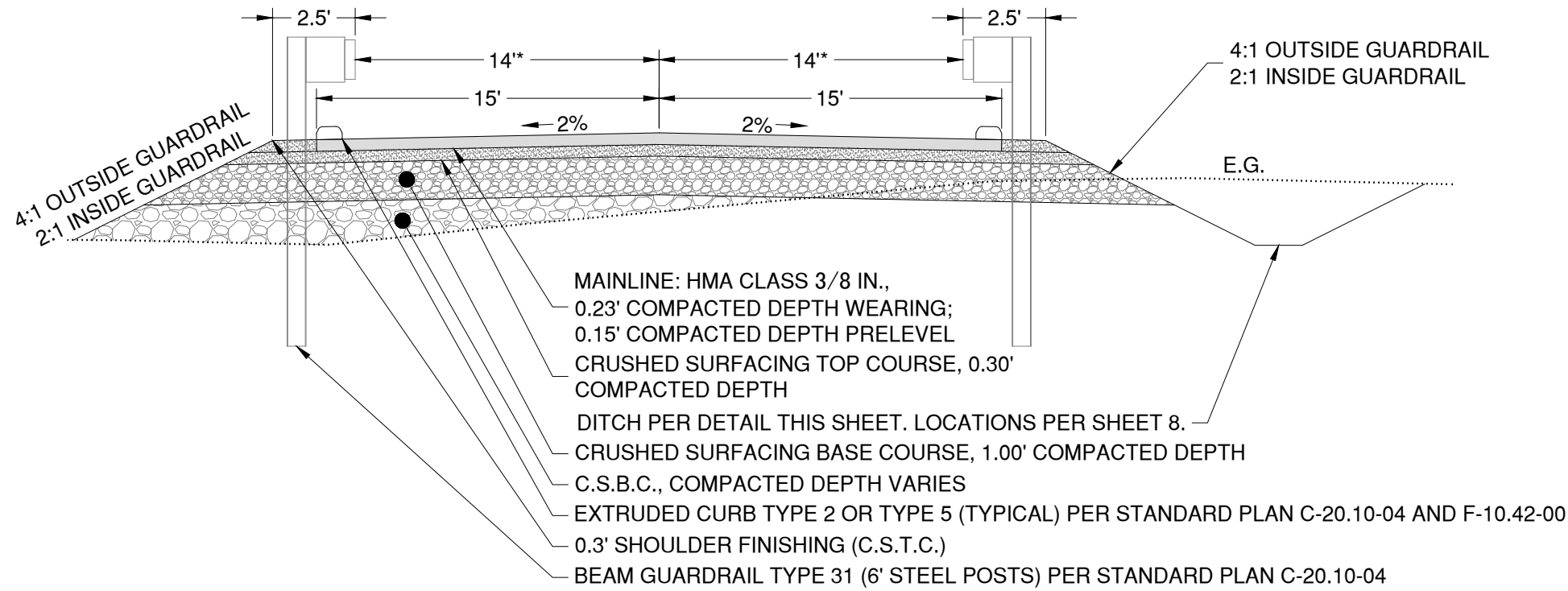
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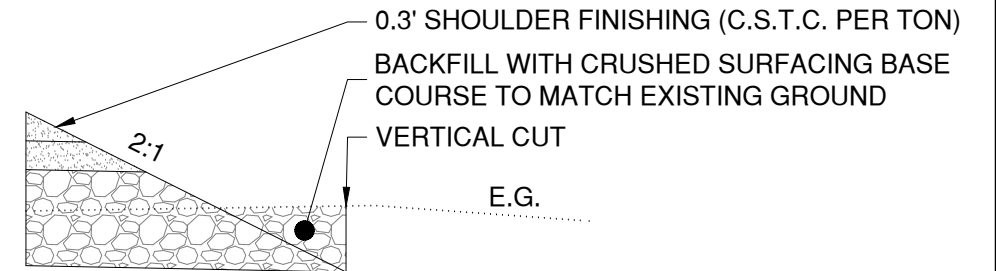




\* WIDTH VARIES AT GUARDRAIL LANDINGS AND TRANSITIONS TO EXISTING ROADWAY

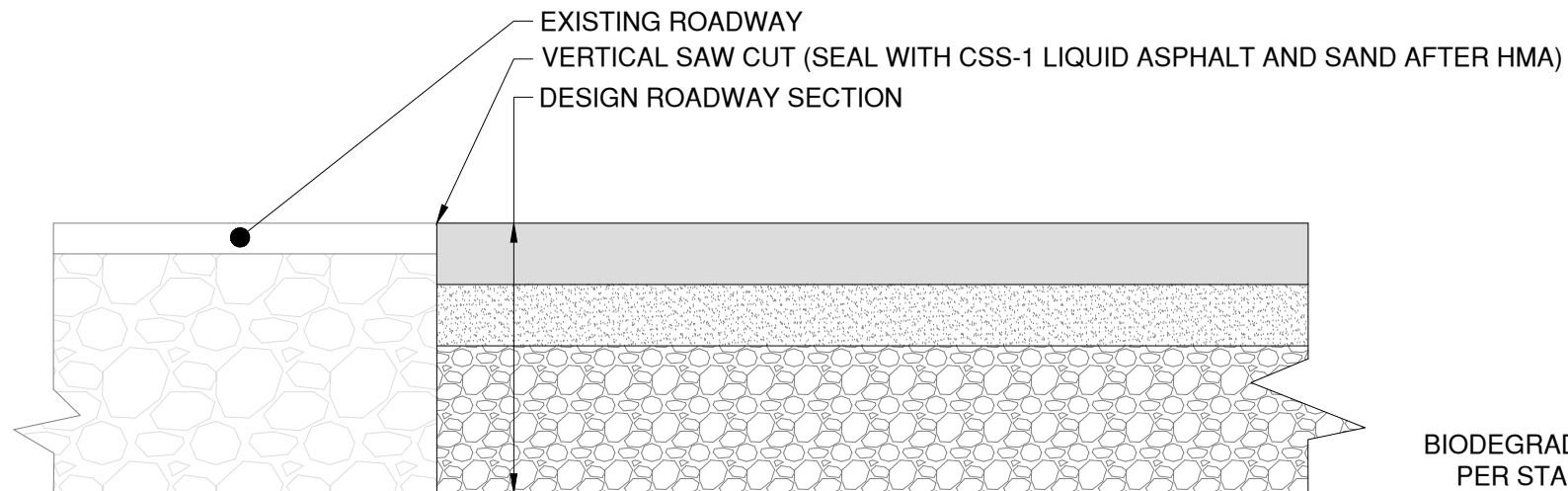
**ROADWAY SECTION**

NOT TO SCALE



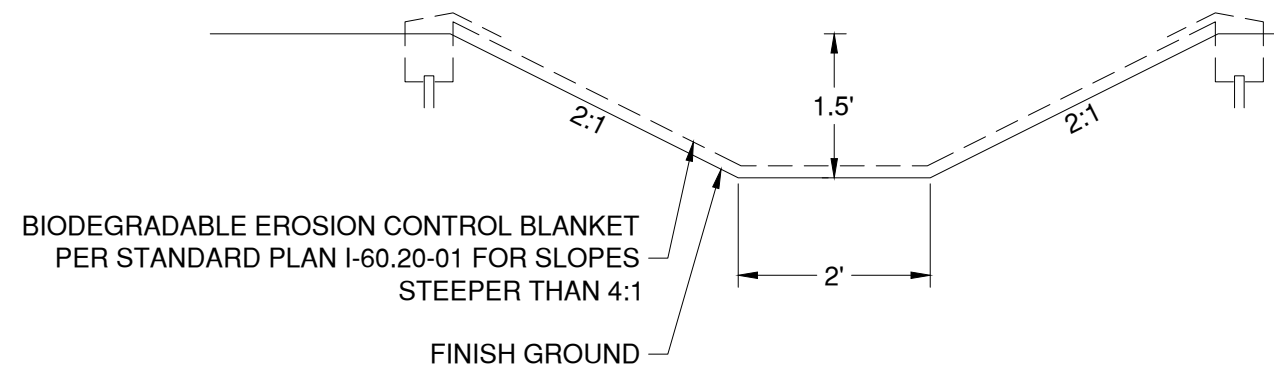
**SUBGRADE VERTICAL CUT**

NOT TO SCALE



**PAVEMENT BUTT JOINT**

NOT TO SCALE



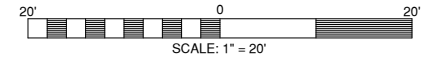
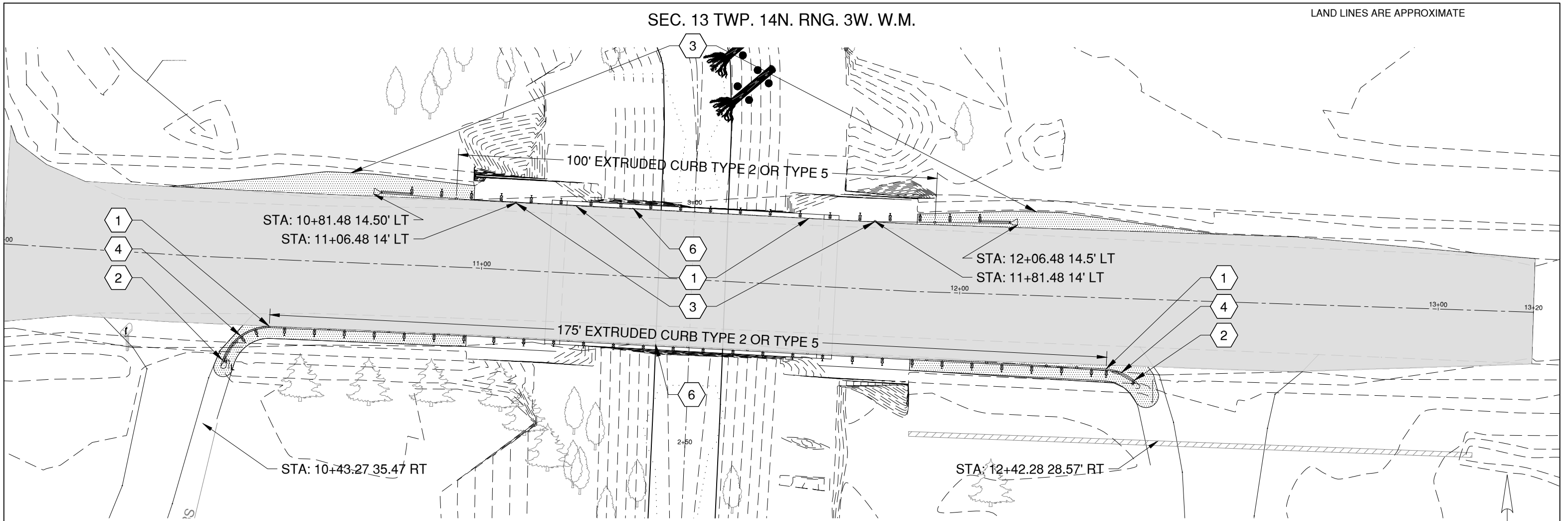
**ROADSIDE DITCH (TYPICAL)**

NOT TO SCALE

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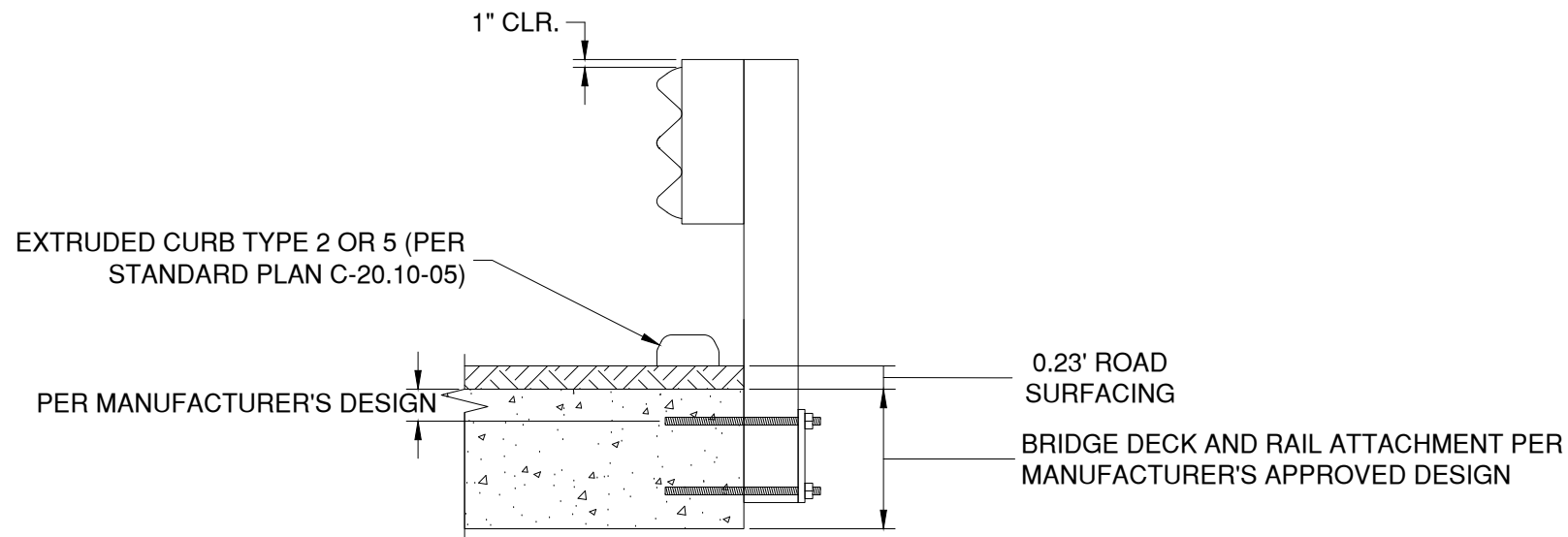






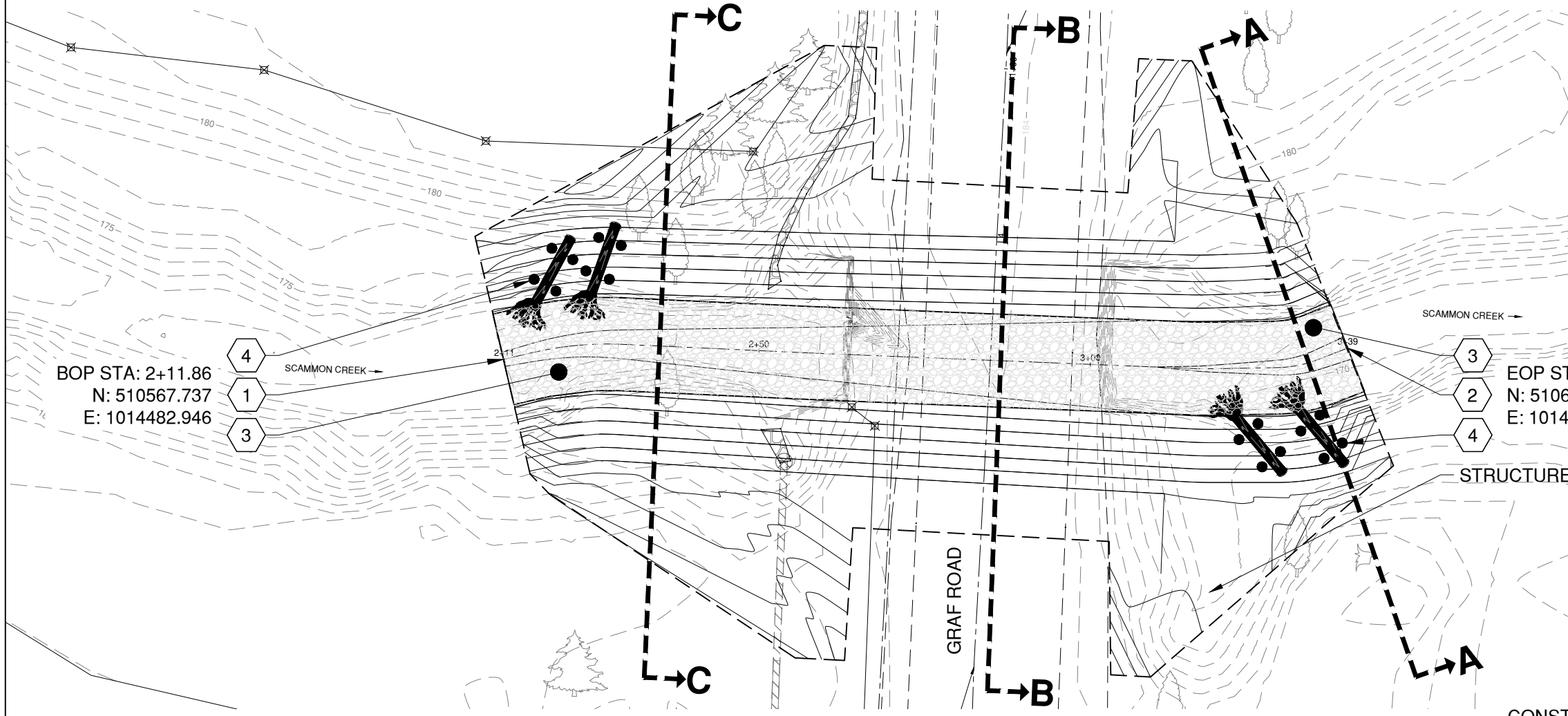
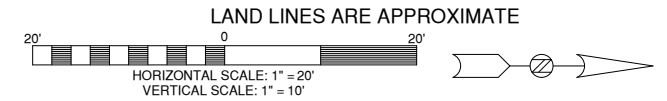
**CONSTRUCTION NOTES:**

- 1 BEAM GUARDRAIL TYPE 31
- 2 BEAM GUARDRAIL TYPE 31 ANCHOR TYPE 10 (PER STANDARD PLAN C-23.60-04)
- 3 BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL (PER STANDARD PLAN C-22.45-03)
- 4 BEAM GUARDRAIL TYPE 31 10' RADIUS (1 PIECE)
- 5 SHOULDER/GUARDRAIL LANDING LIMITS
- 6 BRIDGE RAIL (INCLUDED IN SUPERSTRUCTURE)



NO.	DATE	REVISION	BY	APP.





Proposed Stream Centerline					
Start Station	End Station	Length	Radius	Direction	PI Station
2+11.26	2+15.79	4.53'		N13°03'25.511"W	
2+15.79	2+29.49	13.71'	50'		2+22.68
2+29.49	2+57.63	28.13'		N2°39'01.096"E	
2+57.63	2+57.91	0.28'	50'		2+57.77
2+57.91	3+15.37	57.46'		N2°19'28.203"E	
3+15.37	3+18.24	2.87'	50'		3+16.80
3+18.24	3+28.15	9.91'		N0°57'51.640"W	
3+28.15	3+34.48	6.33'	17.863'		3+31.35
3+34.48	3+39.28	4.80'		N21°15'48.910"W	

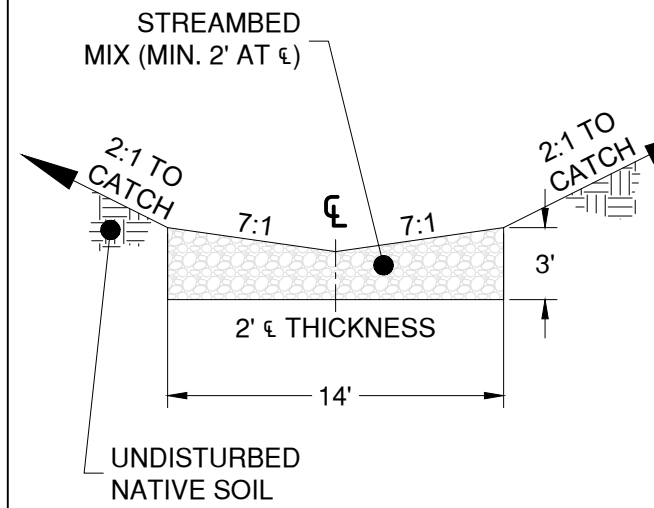
BOP STA: 2+11.86  
 N: 510567.737  
 E: 1014482.946

EOP STA: 3+39.28  
 N: 510694.982  
 E: 1014481.242

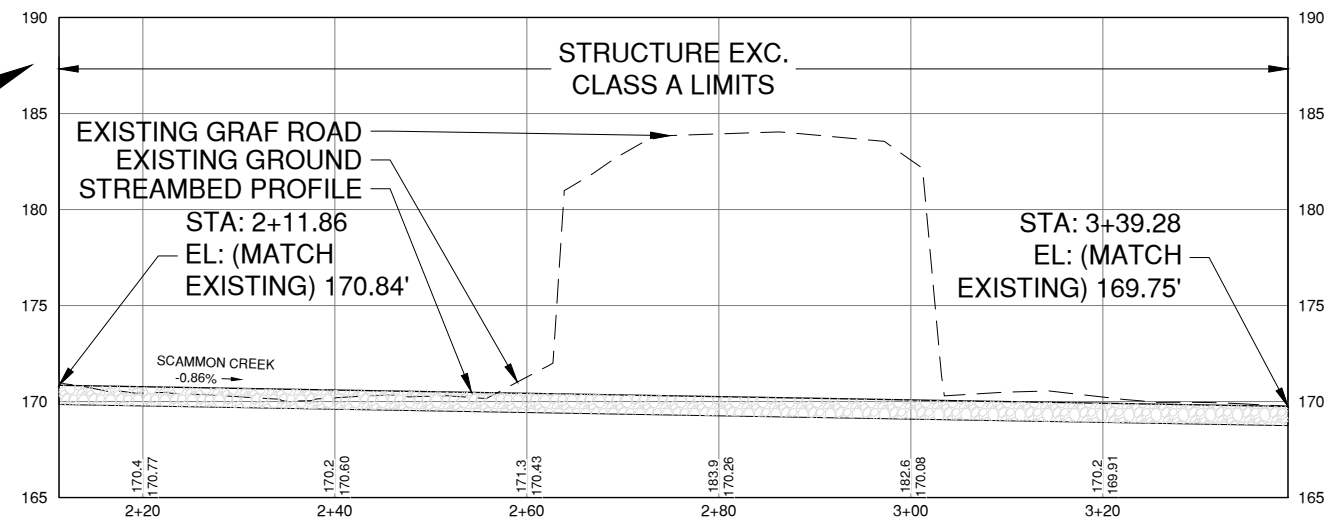
STRUCTURE EXCAVATION CLASS A LIMITS

**CONSTRUCTION NOTES:**

- NEW ROAD CONTOURS OMITTED THIS SHEET TO AVOID CLUTTER..
- 1 BEGINNING OF PROJECT STA: 2+11.86 N: 510567.737 E: 1014482.946 EL: 170.84'
- 2 END OF PROJECT STA: 3+39.28 N: 510694.982 E: 1014481.242 EL: 169.74'
- 3 STREAMBED MIX
- 4 LARGE WOODY DEBRIS PER DETAILS SHEET 13



STREAM EXCAVATION OUTSIDE BRIDGE  
 SCALE: 1" = 8'

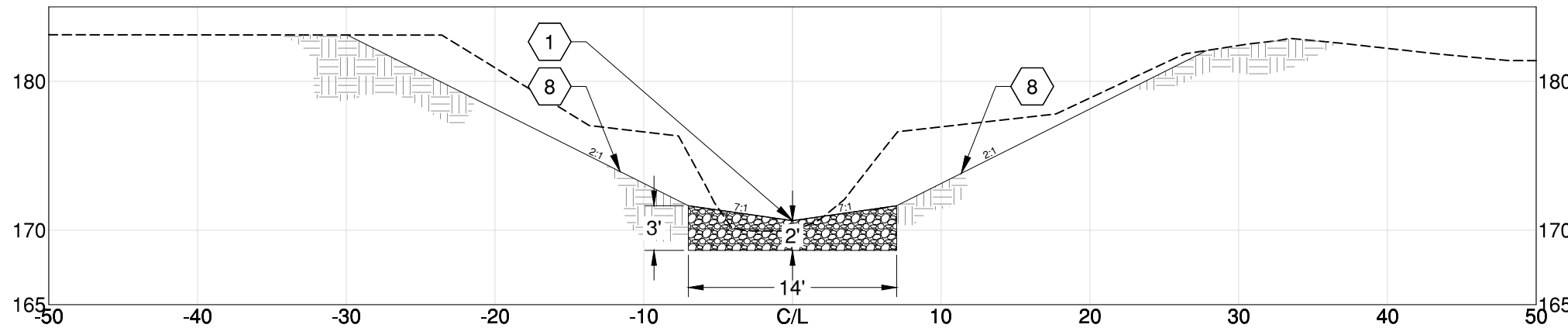
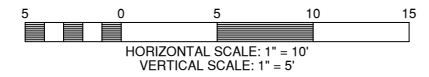


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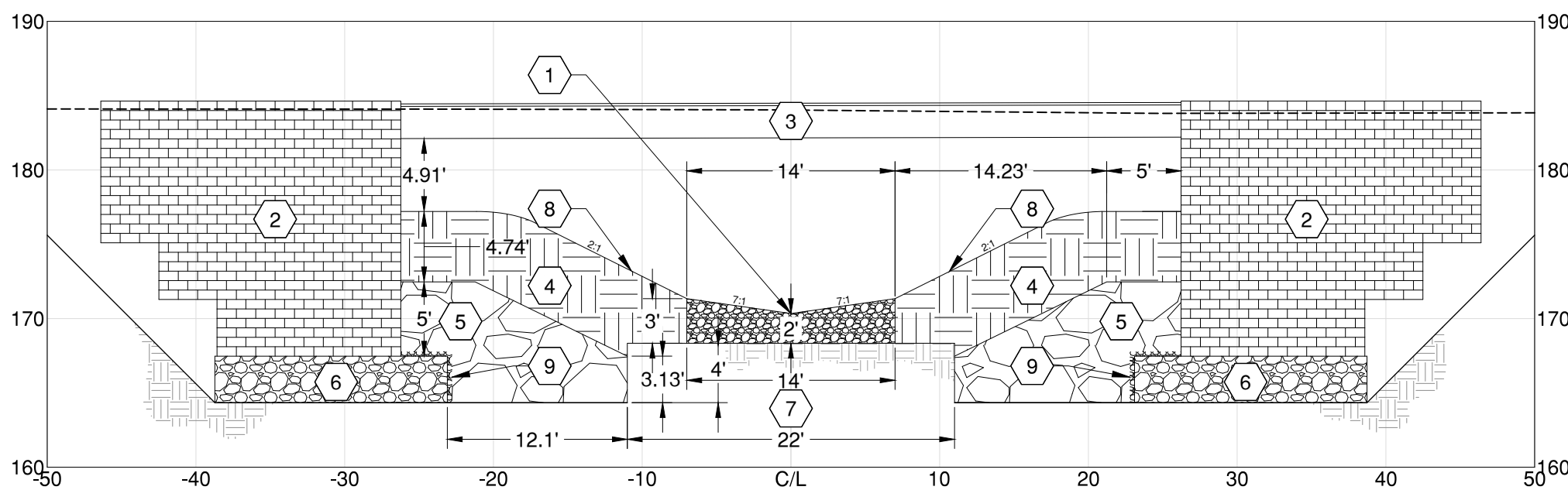


SEC. 13 TWP. 14N. RNG. 3W. W.M.

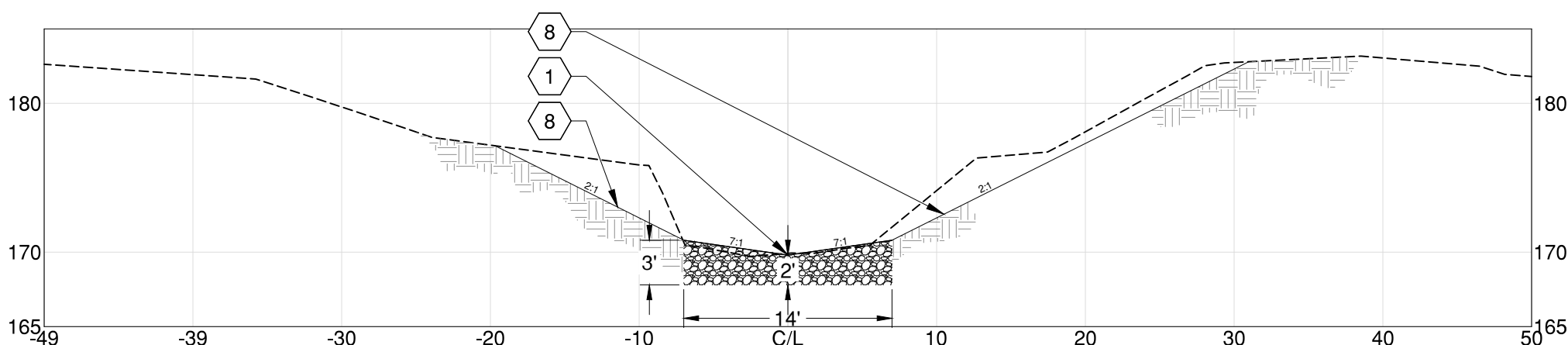
LAND LINES ARE APPROXIMATE



SECTION A-A  
STATION 2+35



SECTION B-B  
STATION 2+86.48

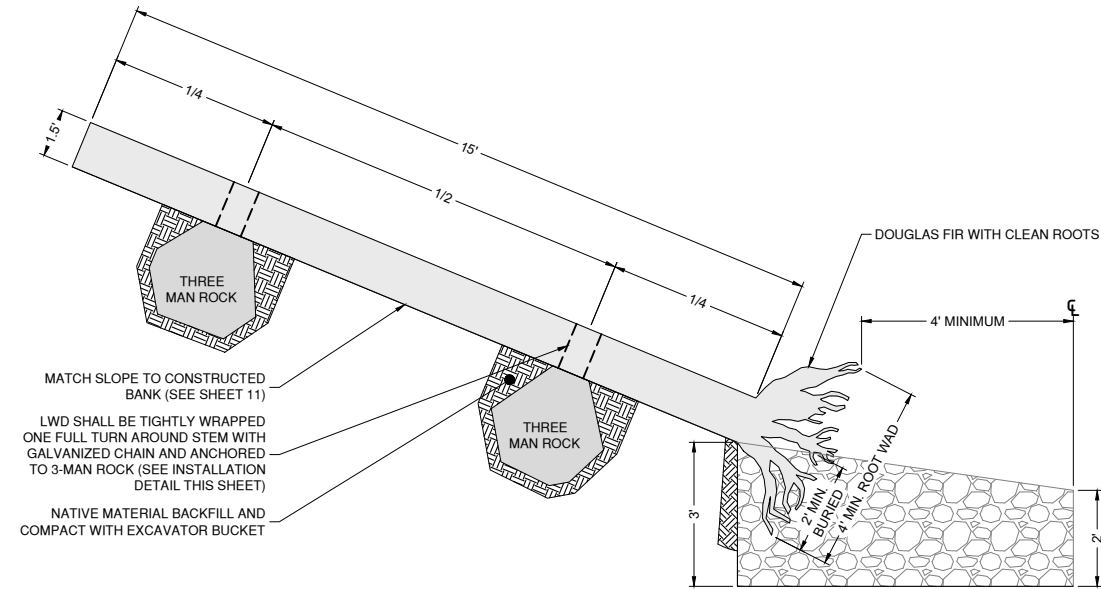


SECTION C-C  
STATION 3+33

- 1 STREAMBED MIX MIN. 2' WITH A MEANDERING 0.5' LOW FLOW NOTCH (NOT DEPICTED).
- 2 GRS-IBS ABUTMENT PER DETAILS ON SHEETS 6 & 7.
- 3 2.17' T x 30' W x 62' L BRIDGE SUPERSTRUCTURE.
- 4 ROCK/SOIL MIX (WITH LIVE WILLOW STAKES OUTSIDE BRIDGE SHADOW).
- 5 ROCK FOR EROSION CONTROL AND SCOUR PROTECTION CLASS B AT RSF BRIDGE FOOTING.
- 6 RSF:  
TOP ELEV: SEE SHEET 8  
BOTTOM ELEV: 164.39'
- 7 UNDISTURBED SOIL.
- 8 BIODEGRADABLE EROSION CONTROL BLANKET AT 2:1 SLOPES, AS DIRECTED BY THE ENGINEER.
- 9 0.5' FILTER BLANKET BETWEEN RSF AND ROCK FOR EROSION CONTROL.

NO.	DATE	REVISION	BY	APP.

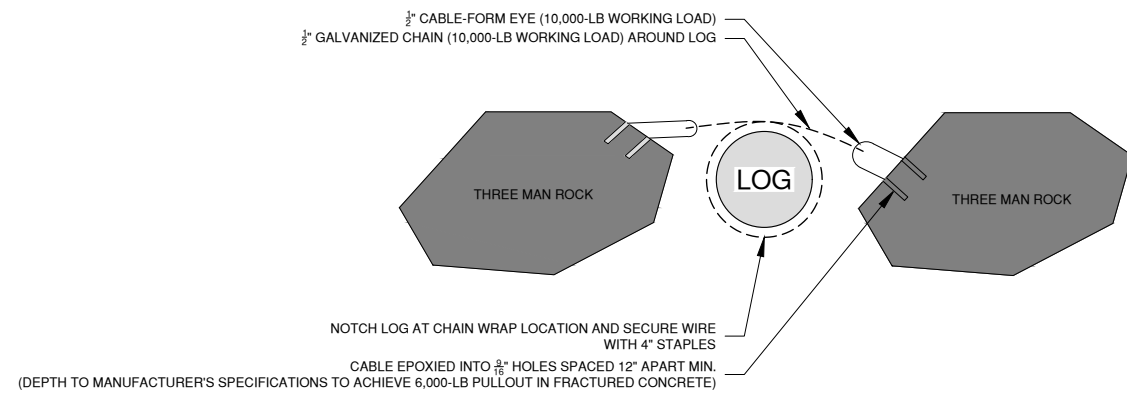




MATCH SLOPE TO CONSTRUCTED BANK (SEE SHEET 11)  
 LWD SHALL BE TIGHTLY WRAPPED ONE FULL TURN AROUND STEM WITH GALVANIZED CHAIN AND ANCHORED TO 3-MAN ROCK (SEE INSTALLATION DETAIL THIS SHEET)  
 NATIVE MATERIAL BACKFILL AND COMPACT WITH EXCAVATOR BUCKET

**LARGE WOODY DEBRIS**

NOT TO SCALE

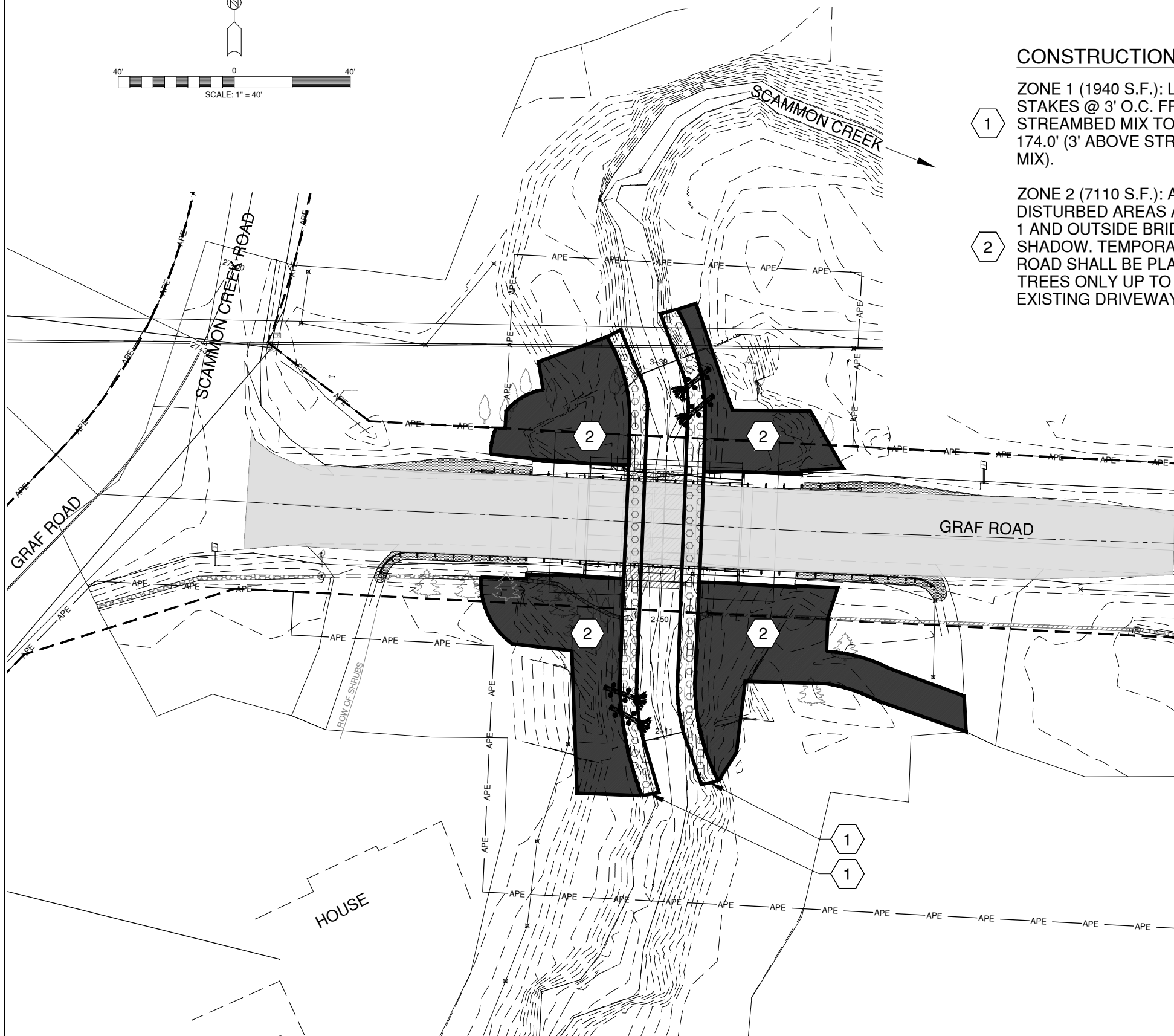
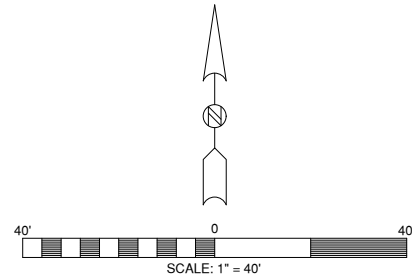


**CHAIN / CABLE INSTALLATION**

NOT TO SCALE

NO.	DATE	REVISION	BY	APP.

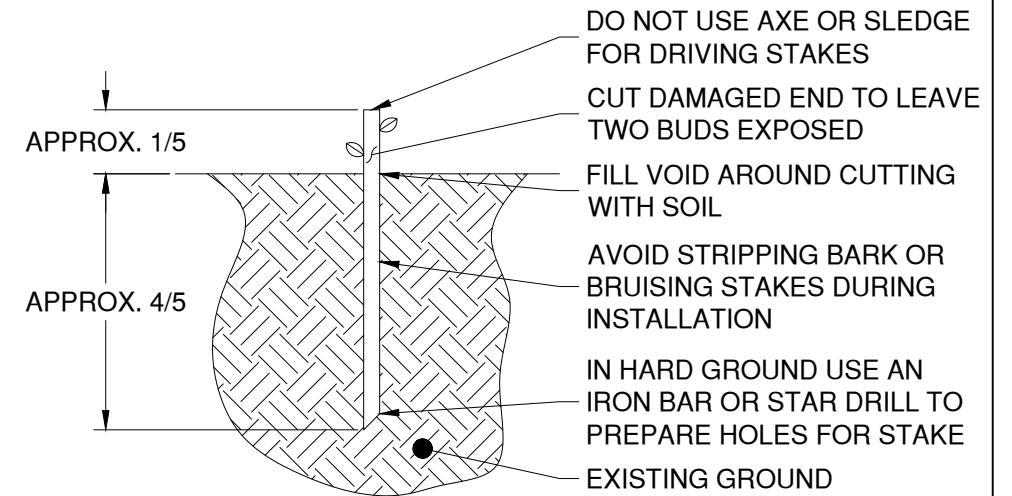




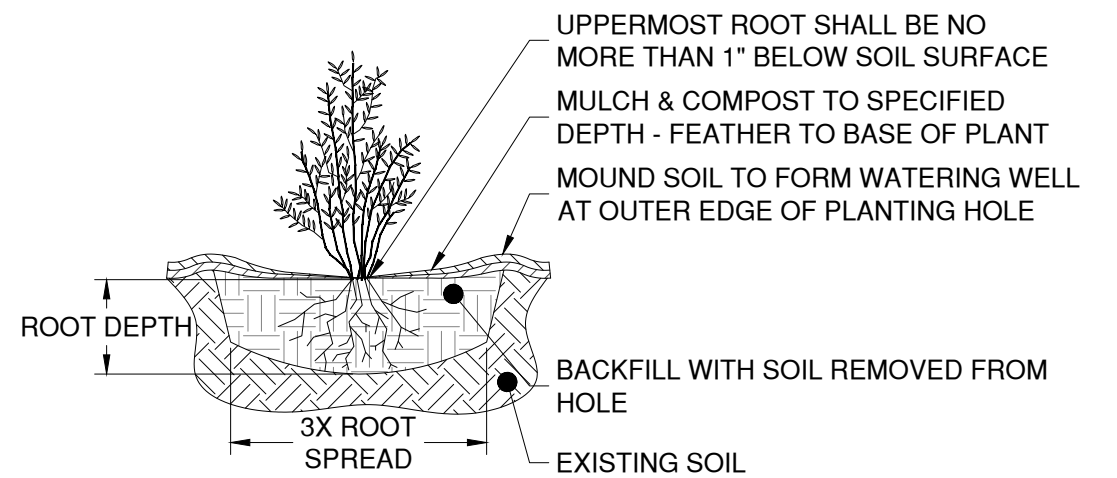
**CONSTRUCTION NOTES:**

1 ZONE 1 (1940 S.F.): LIVE WILLOW STAKES @ 3' O.C. FROM STREAMBED MIX TO ELEVATION 174.0' (3' ABOVE STREAMBED MIX).

2 ZONE 2 (7110 S.F.): ALL DISTURBED AREAS ABOVE ZONE 1 AND OUTSIDE BRIDGE SHADOW. TEMPORARY ACCESS ROAD SHALL BE PLANTED WITH TREES ONLY UP TO THE EXISTING DRIVEWAY.



**LIVE STAKE INSTALLATION**  
NOT TO SCALE







**TREE AND SHRUB PLANTING**  
NOT TO SCALE

NO.	DATE	REVISION	BY	APP.

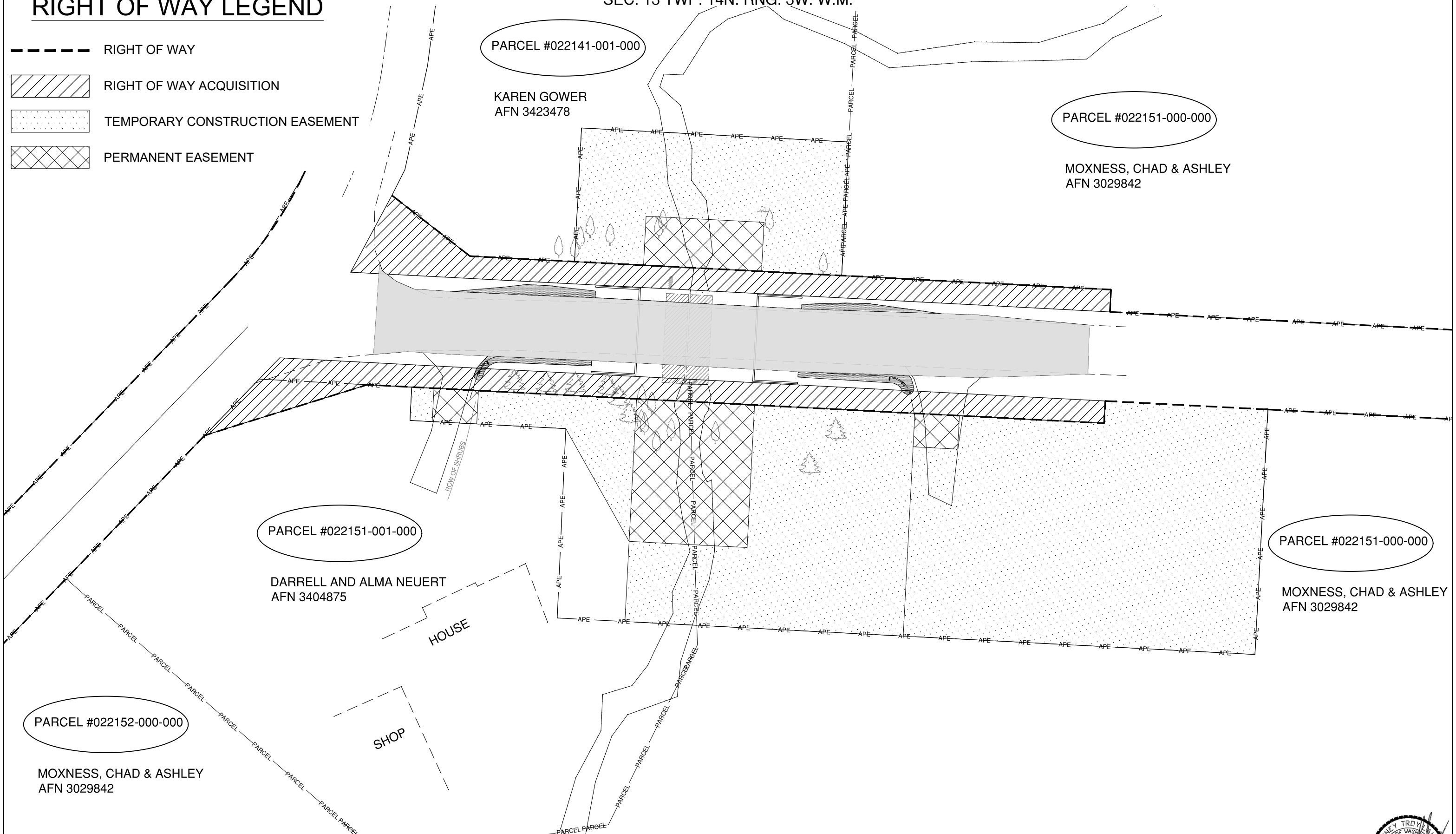



# RIGHT OF WAY LEGEND

-  RIGHT OF WAY
-  RIGHT OF WAY ACQUISITION
-  TEMPORARY CONSTRUCTION EASEMENT
-  PERMANENT EASEMENT

SEC. 13 TWP. 14N. RNG. 3W. W.M.

LAND LINES ARE APPROXIMATE

2025 NE KRESKY AVE.  
CHEHALIS WA 98532  
PHONE # (360) 740-1123  
FAX # (360) 740-2719

DESIGNED BY : RTL  
DRAWN BY : WSR  
CHECKED BY :  
DATE : 11/20/2019

NO.	DATE	REVISION	BY	APP.

2020 GRAF ROAD MP 1.01  
CULVERT REPLACEMENT

COUNTY MAINTENANCE PROJECT NO: 1531  
RIGHT OF WAY MAP

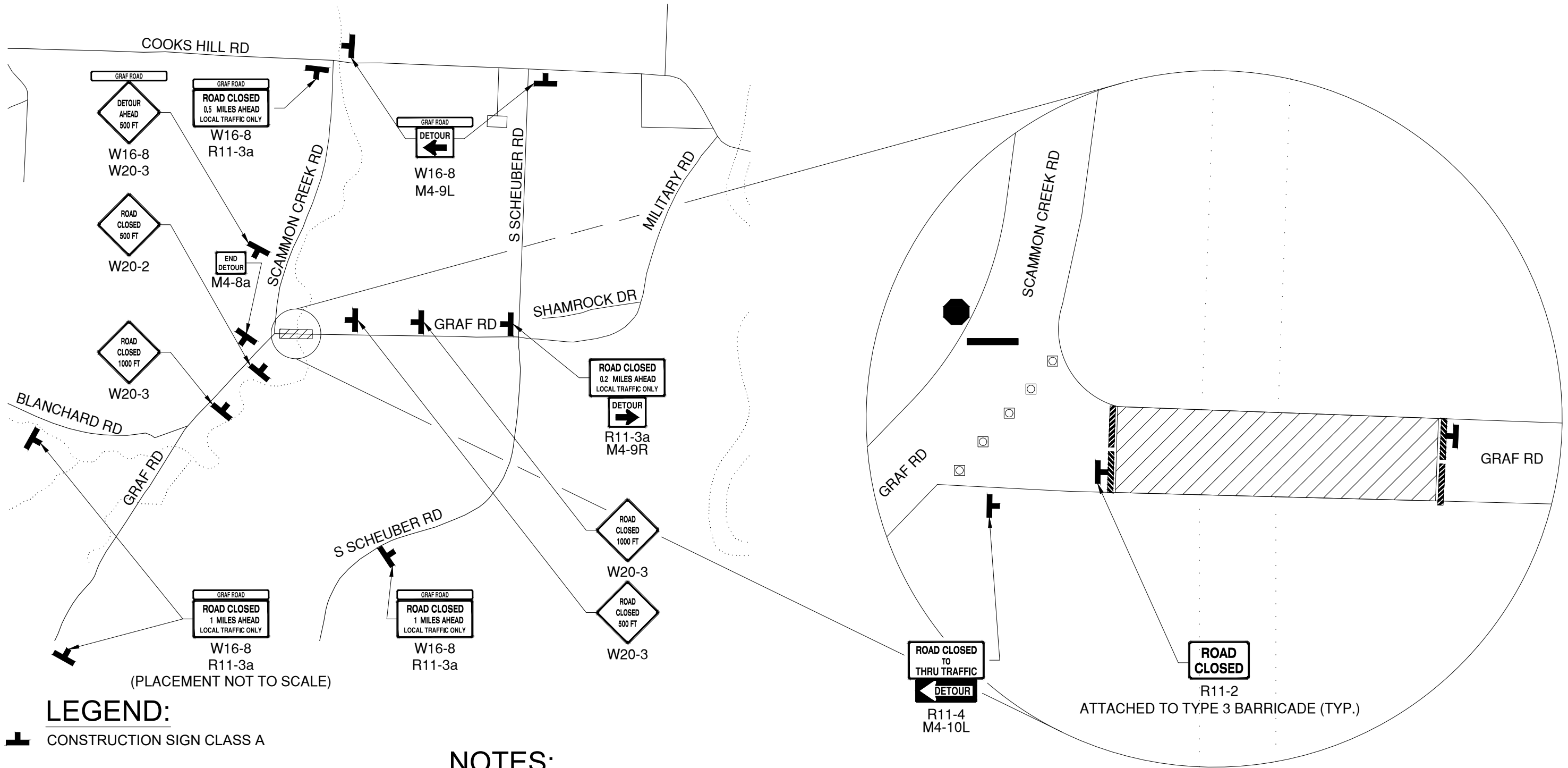
SHEET  
15  
OF  
16








Rodney Troy Lakey, P.E.  
Senior Engineer  
Design/ENV.  
Date: Nov 20, 2019







**LEGEND:**

-  CONSTRUCTION SIGN CLASS A
-  TYPE 3 BARRICADE
-  28" TRAFFIC CONE (@ 40' SPACING MAX.)
-  WORK AREA
-  EXISTING STOP SIGN AND STOP BAR TO REMAIN

**NOTES:**

1. ALL WORK SHALL COMPLY WITH THE LATEST VERSION OF THE MUTCD AND OTHER APPLICABLE PROVISIONS.
2. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED SUCH THAT THE SIGN OR DEVICE FARTHEST FROM THE WORK AREA SHALL BE PLACED FIRST AND SHALL BE PLACED PROGRESSIVELY TOWARD WORK AREA.
3. CONSTRUCTION SIGNAGE SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE MESSAGE IS NOT APPLICABLE OR NOT IN USE.

(PLACEMENT NOT TO SCALE)

ROAD CLOSED TO THRU TRAFFIC  
DETOUR  
R11-4  
M4-10L

ROAD CLOSED  
R11-2  
ATTACHED TO TYPE 3 BARRICADE (TYP.)

NO.	DATE	REVISION	BY	APP.