

Lewis County
Department of Public Works
Engineering Division

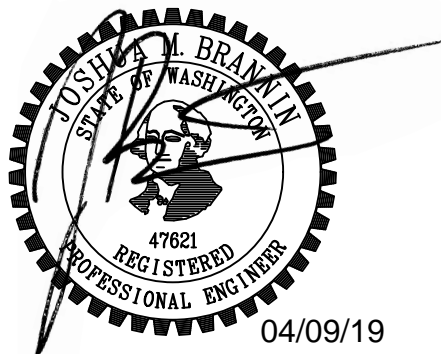
**CONTRACT
PROVISIONS AND PLANS
FOR CONSTRUCTION OF:**

***Borst Avenue
Improvements***

COUNTY ROAD PROJECT NO. 2139

April 9, 2019

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



BOARD OF COUNTY COMMISSIONERS

Edna Fund, District No. 1
Robert C. Jackson, District No. 2
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STANDARD AMENDMENTS

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1 **INTRODUCTION**

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

4 **AMENDMENTS TO THE STANDARD SPECIFICATIONS**

5
6 The following Amendments to the Standard Specifications are made a part of this contract and
7 supersede any conflicting provisions of the Standard Specifications. For informational purposes,
8 the date following each Amendment title indicates the implementation date of the Amendment or
9 the latest date of revision.

10
11 Each Amendment contains all current revisions to the applicable section of the Standard
12 Specifications and may include references which do not apply to this particular project.

13
14 **Section 1-01, Definitions and Terms**
15 **August 6, 2018**

16 **1-01.3 Definitions**

17 The following new term and definition is inserted before the definition for “Shoulder”:

18
19 **Sensitive Area** – Natural features, which may be previously altered by human activity, that
20 are present on or adjacent to the project location and protected, managed, or regulated by
21 local, tribal, state, or federal agencies.

22
23 The following new term and definition is inserted after the definition for “Working Drawings”:

24
25 **WSDOT Form** – Forms developed and maintained by WSDOT that are required or available
26 for use on a project. These forms can be downloaded from the forms catalogue at:

27
28 <http://wsdot.wa.gov/forms/pdfForms.html>

29
30 **Section 1-02, Bid Procedures and Conditions**
31 **October 30, 2018**

32 **1-02.4(1) General**

33 This section is supplemented with the following:

34
35 Prospective Bidders are advised that the Contracting Agency may include a partially
36 completed Washington State Department of Ecology (Ecology) Transfer of Coverage
37 (Ecology Form ECY 020-87a) for the Construction Stormwater General Permit (CSWGP) as
38 part of the Bid Documents. When the Contracting Agency requires the transfer of coverage
39 of the CSWGP to the Contractor, an informational copy of the Transfer of Coverage and the
40 associated CSWGP will be included in the appendices. As a condition of Section 1-03.3, the
41 Contractor is required to complete sections I, III, and VIII of the Transfer of Coverage and
42 return the form to the Contracting Agency.

43
44 The Contracting Agency is responsible for compliance with the CSWGP until the end of day
45 that the Contract is executed. Beginning on the day after the Contract is executed, the

1 Contractor shall assume complete legal responsibility for compliance with the CSWGP and
2 full implementation of all conditions of the CSWGP as they apply to the Contract Work.
3

4 **1-02.5 Proposal Forms**

5 The first sentence of the first paragraph is revised to read:
6

7 At the request of a Bidder, the Contracting Agency will provide a physical Proposal Form for
8 any project on which the Bidder is eligible to Bid.
9

10 **1-02.6 Preparation of Proposal**

11 Item number 1 of the second paragraph is revised to read:
12

- 13 1. A unit price for each item (omitting digits more than two places to the right of the decimal
14 point),
15

16 In the third sentence of the fourth paragraph, "WSDOT Form 422-031" is revised to read "WSDOT
17 Form 422-031U".
18

19 The following new paragraph is inserted before the last paragraph:
20

21 The Bidder shall submit with their Bid a completed Contractor Certification Wage Law
22 Compliance form (WSDOT Form 272-009). Failure to return this certification as part of the
23 Bid Proposal package will make this Bid Nonresponsive and ineligible for Award. A Contractor
24 Certification of Wage Law Compliance form is included in the Proposal Forms.
25
26

27 **Section 1-03, Award and Execution of Contract** 28 **January 2, 2018**

29 **1-03.3 Execution of Contract**

30 The first paragraph is revised to read:
31

32 Within 20 calendar days after the Award date, the successful Bidder shall return the signed
33 Contracting Agency-prepared Contract, an insurance certification as required by Section 1-
34 07.18, a satisfactory bond as required by law and Section 1-03.4, the Transfer of Coverage
35 form for the Construction Stormwater General Permit with sections I, III, and VIII completed
36 when provided, and shall be registered as a contractor in the state of Washington.
37

38 **1-03.5 Failure to Execute Contract**

39 The first sentence is revised to read:
40

41 Failure to return the insurance certification and bond with the signed Contract as required in
42 Section 1-03.3, or failure to provide Disadvantaged, Minority or Women's Business
43 Enterprise information if required in the Contract, or failure or refusal to sign the Contract, or
44 failure to register as a contractor in the state of Washington, or failure to return the completed
45 Transfer of Coverage for the Construction Stormwater General Permit to the Contracting
46 Agency when provided shall result in forfeiture of the proposal bond or deposit of this Bidder.
47

1 **Section 1-05, Control of Work**
2 **August 6, 2018**

3 **1-05.5 Vacant**

4 This section, including title, is revised to read:

5
6
7
8
9

6 **1-05.5 Tolerances**

7 Geometrical tolerances shall be measured from the points, lines, and surfaces defined in
8 Contract documents.

10 A plus (+) tolerance increases the amount or dimension to which it applies, or raises a
11 deviation from level. A minus (-) tolerance decreases the amount or dimension to which it
12 applies, or lowers a deviation from level. Where only one signed tolerance is specified (+ or
13 -), there is no specified tolerance in the opposing direction.

15 Tolerances shall not be cumulative. The most restrictive tolerance shall control.

17 Tolerances shall not extend the Work beyond the Right of Way or other legal boundaries
18 identified in the Contract documents. If application of tolerances causes the extension of the
19 Work beyond the Right of Way or legal boundaries, the tolerance shall be reduced for that
20 specific instance.

22 Tolerances shall not violate other Contract requirements. If application of tolerances causes
23 the Work to violate other Contract requirements, the tolerance shall be reduced for that
24 specific instance. If application of tolerances causes conflicts with other components or
25 aspects of the Work, the tolerance shall be reduced for that specific instance.

26

27 **1-05.9 Equipment**

28 The following new paragraph is inserted before the first paragraph:

29

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

33

34 This section is supplemented with the following:

35

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

38

39 **Section 1-06, Control of Material**
40 **January 7, 2019**

41 **1-06.1(3) Aggregate Source Approval (ASA) Database**

42 This section is supplemented with the following:

43

44 Regardless of status of the source, whether listed or not listed in the ASA database the source
45 owner may be asked to provide testing results for toxicity in accordance with Section 9-
46 03.21(1).

47

1 **1-06.2(2)D Quality Level Analysis**

2 This section is supplemented with the following new subsection:

3
4 **1-06.2(2)D5 Quality Level Calculation – HMA Compaction**

5 The procedures for determining the quality level and pay factor for HMA compaction are as
6 follows:

- 7
8 1. Determine the arithmetic mean, X_m , for compaction of the lot:
9

10
$$X_m = \frac{\sum x}{n}$$

11 Where:

12 x = individual compaction test values for each subplot in the lot.

13 $\sum x$ = summation of individual compaction test values

14 n = total number test values
15
16

- 17 2. Compute the sample standard deviation, “S”, for each constituent:
18

19
$$S = \left[\frac{n\sum x^2 - (\sum x)^2}{n(n-1)} \right]^{\frac{1}{2}}$$

20
21 Where:

22 $\sum x^2$ = summation of the squares of individual compaction test values

23 $(\sum x)^2$ = summation of the individual compaction test values squared
24

- 25 3. Compute the lower quality index (Q_L):
26

27
$$Q_L = \frac{X_m - LSL}{S}$$

28
29 Where:

30 $LSL = 92.0$
31

- 32 4. Determine P_L (the percent within the lower Specification limit which corresponds to
33 a given Q_L) from Table 1. For negative values of Q_L , P_L is equal to 100 minus the
34 table P_L . If the value of Q_L does not correspond exactly to a figure in the table, use
35 the next higher value.
36

- 37 5. Determine the quality level (the total percent within Specification limits):
38

39 Quality Level = P_L
40

- 41 6. Using the quality level from step 5, determine the composite pay factor (CPF) from
42 Table 2.
43

- 1 7. If the CPF determined from step 6 is 1.00 or greater: use that CPF for the
2 compaction lot; however, the maximum HMA compaction CPF using an LSL = 92.0
3 shall be 1.05.
4
- 5 8. If the CPF from step 6 is not 1.00 or greater: repeat steps 3 through 6 using an LSL
6 = 91.5. The value thus determined shall be the HMA compaction CPF for that lot;
7 however, the maximum HMA compaction CPF using an LSL = 91.5 shall be 1.00.
8

9 **1-06.2(2)D1 Quality Level Analysis**

10 The following new sentence is inserted after the first sentence:

11
12 The quality level calculations for HMA compaction are completed using the formulas in
13 Section 1-06.2(2)D5.
14

15 **1-06.2(2)D4 Quality Level Calculation**

16 The first paragraph (excluding the numbered list) is revised to read:

17
18 The procedures for determining the quality level and pay factors for a material, other than
19 HMA compaction, are as follows:
20

21 **1-06.6 Recycled Materials**

22 The first three sentences of the second paragraph are revised to read:

23
24 The Contractor shall submit a Recycled Material Utilization Plan on WSDOT Form 350-075A
25 within 30 calendar days after the Contract is executed. The plan shall provide the Contractor's
26 anticipated usage of recycled concrete aggregates for meeting the requirements of these
27 Specifications. The quantity of recycled concrete aggregate will be provided in tons and as a
28 percentage of the Plan quantity for eligible material listed in Section 9-03.21(1)E Table on
29 Maximum Allowable percent (By Weight) of Recycled Material.
30

31 The last paragraph is revised to read:

32
33 Within 30 calendar days after Physical Completion, the Contractor shall report the quantity
34 of recycled concrete aggregates that were utilized in the construction of the project for each
35 eligible item listed in Section 9-03.21(1)E. The Contractor's report shall be provided on
36 WSDOT Form 350-075A, Recycled Materials Reporting.
37

38 **1-06.6(1)A General**

39 Item 1(a) in the second paragraph is revised to read:

- 40
41 a. The estimated costs for the Work for each material with 25 percent recycled concrete
42 aggregate. The cost estimate shall include for each material a documented price quote
43 from the supplier with the lowest total cost for the Work.
44

45 **Section 1-07, Legal Relations and Responsibilities to the Public** 46 **August 6, 2018**

47 **1-07.5 Environmental Regulations**

48 This section is supplemented with the following new subsections:
49

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

2 When temporary fills are permitted, the Contractor shall remove fills in their entirety and the
3 affected areas returned to pre-construction elevations.
4

5 If a U.S. Army Corps of Engineers permit is noted in Section 1-07.6 of the Special Provisions,
6 the Contractor shall retain a copy of the permit or the verification letter (in the case of a
7 Nationwide Permit) on the worksite for the life of the Contract. The Contractor shall provide
8 copies of the permit or verification letter to all subcontractors involved with the authorized
9 work prior to their commencement of any work in waters of the U.S.
10

11 **1-07.5(6) U.S. Fish/Wildlife Services and National Marine Fisheries Service**

12 The Contracting Agency will provide fish exclusion and handling services if the Work dictates.
13 However, if the Contractor discovers any fish stranded by the project and a Contracting
14 Agency biologist is not available, they shall immediately release the fish into a flowing stream
15 or open water.
16

17 **1-07.5(1) General**

18 The first sentence is deleted and replaced with the following:
19

20 No Work shall occur within areas under the jurisdiction of resource agencies unless
21 authorized in the Contract.
22

23 The third paragraph is deleted.
24

25 **1-07.5(2) State Department of Fish and Wildlife**

26 This section is revised to read:
27

28 In doing the Work, the Contractor shall:
29

- 30 1. Not degrade water in a way that would harm fish, wildlife, or their habitat.
- 31
- 32 2. Not place materials below or remove them from the ordinary high water line except
33 as may be specified in the Contract.
34
- 35 3. Not allow equipment to enter waters of the State except as specified in the
36 Contract.
37
- 38 4. Revegetate in accordance with the Plans, unless the Special Provisions permit
39 otherwise.
40
- 41 5. Prevent any fish-threatening silt buildup on the bed or bottom of any body of water.
42
- 43 6. Ensure continuous stream flow downstream of the Work area.
44
- 45 7. Dispose of any project debris by removal, burning, or placement above high-water
46 flows.
47
- 48 8. Immediately notify the Engineer and stop all work causing impacts, if at any time,
49 as a result of project activities, fish are observed in distress or a fish kill occurs.
50

1 If the Work in (1) through (3) above differs little from what the Contract requires, the
2 Contracting Agency will measure and pay for it at unit Contract prices. But if Contract items
3 do not cover those areas, the Contracting Agency will pay pursuant to Section 1-09.4. Work
4 in (4) through (8) above shall be incidental to Contract pay items.
5

6 **1-07.5(3) State Department of Ecology**

7 This section is revised to read:

8
9 In doing the Work, the Contractor shall:

- 10 1. Comply with Washington State Water Quality Standards.
- 11 2. Perform Work in such a manner that all materials and substances not specifically
12 identified in the Contract documents to be placed in the water do not enter waters
13 of the State, including wetlands. These include, but are not limited to, petroleum
14 products, hydraulic fluid, fresh concrete, concrete wastewater, process wastewater,
15 slurry materials and waste from shaft drilling, sediments, sediment-laden water,
16 chemicals, paint, solvents, or other toxic or deleterious materials.
17
- 18 3. Use equipment that is free of external petroleum-based products.
19
- 20 4. Remove accumulations of soil and debris from drive mechanisms (wheels, tracks,
21 tires) and undercarriage of equipment prior to using equipment below the ordinary
22 high water line.
23
- 24 5. Clean loose dirt and debris from all materials placed below the ordinary high water
25 line. No materials shall be placed below the ordinary high water line without the
26 Engineer's concurrence.
27
- 28 6. When a violation of the Construction Stormwater General Permit (CSWGP) occurs,
29 immediately notify the Engineer and fill out WSDOT Form 422-011, Contractor
30 ECAP Report, and submit the form to the Engineer within 48 hours of the violation.
31
- 32 7. Once Physical Completion has been given, prepare a Notice of Termination
33 (Ecology Form ECY 020-87) and submit the Notice of Termination electronically to
34 the Engineer in a PDF format a minimum of 7 calendar days prior to submitting the
35 Notice of Termination to Ecology.
36
- 37 8. Transfer the CSWGP coverage to the Contracting Agency when Physical
38 Completion has been given and the Engineer has determined that the project site
39 is not stabilized from erosion.
40
- 41 9. Submit copies of all correspondence with Ecology electronically to the Engineer in
42 a PDF format within four calendar days.
43
44
45

46 **1-07.5(4) Air Quality**

47 This section is revised to read:

48
49 The Contractor shall comply with all regional clean air authority and/or State Department of
50 Ecology rules and regulations.

1
2 The air quality permit process may include additional State Environment Policy Act (SEPA)
3 requirements. Contractors shall contact the appropriate regional air pollution control authority
4 well in advance of beginning Work.

5
6 When the Work includes demolition or renovation of any existing facility or structure that
7 contains Asbestos Containing Material (ACM) and/or Presumed Asbestos-Containing
8 Material (PACM), the Contractor shall comply with the National Emission Standards for
9 Hazardous Air Pollutants (NESHAP).

10
11 Any requirements included in Federal and State regulations regarding air quality that applies
12 to the “owner or operator” shall be the responsibility of the Contractor.

13
14 **1-07.7(1) General**

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

16
17 When the Contractor moves equipment or materials on or over Structures, culverts or pipes,
18 the Contractor may operate equipment with only the load-limit restrictions in Section 1-
19 07.7(2).

20
21 The first sentence of the last paragraph is revised to read:

22
23 Unit prices shall cover all costs for operating over Structures, culverts and pipes.

24
25 **1-07.9(1) General**

26 The last sentence of the sixth paragraph is revised to read:

27
28 Generally, the Contractor initiates the request by preparing standard form 1444 Request for
29 Authorization of Additional Classification and Rate, available at
30 <https://www.dol.gov/whd/recovery/dbsurvey/conformance.htm>, and submitting it to the
31 Engineer for further action.

32
33 **1-07.9(2) Posting Notices**

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

35
36 The Contractor shall ensure the most current edition of the following are posted:

37
38 In items 1 through 10, the revision dates are deleted.

39
40 **1-07.11(2) Contractual Requirements**

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

42
43 Item numbers 1 through 9 are revised to read 2 through 10, respectively.

44
45 After the preceding Amendment is applied, the following new item number 1 is inserted:

- 46
47 1. The Contractor shall maintain a Work site that is free of harassment, humiliation, fear,
48 hostility and intimidation at all times. Behaviors that violate this requirement include but
49 are not limited to:

- 1 a. Persistent conduct that is offensive and unwelcome.
- 2
- 3 b. Conduct that is considered to be hazing.
- 4
- 5 c. Jokes about race, gender, or sexuality that are offensive.
- 6
- 7 d. Unwelcome, unwanted, rude or offensive conduct or advances of a sexual nature
- 8 which interferes with a person's ability to perform their job or creates an intimidating,
- 9 hostile, or offensive work environment.
- 10
- 11 e. Language or conduct that is offensive, threatening, intimidating or hostile based on
- 12 race, gender, or sexual orientation.
- 13
- 14 f. Repeating rumors about individuals in the Work Site that are considered to be
- 15 harassing or harmful to the individual's reputation.
- 16

17 **1-07.11(5) Sanctions**

18 This section is supplemented with the following:

19

20 Immediately upon the Engineer's request, the Contractor shall remove from the Work site

21 any employee engaging in behaviors that promote harassment, humiliation, fear or

22 intimidation including but not limited to those described in these specifications.

23

24 **1-07.11(6) Incorporation of Provisions**

25 The first sentence is revised to read:

26

27 The Contractor shall include the provisions of Section 1-07.11(2) Contractual Requirements

28 (1) through (5) and the Section 1-07.11(5) Sanctions in every subcontract including

29 procurement of materials and leases of equipment.

30

31 **1-07.15(1) Spill Prevention, Control, and Countermeasures Plan**

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

33

34 An SPCC Plan template and guidance information is available at

35 [http://www.wsdot.wa.gov/environment/technical/disciplines/hazardous-materials/spill-](http://www.wsdot.wa.gov/environment/technical/disciplines/hazardous-materials/spill-prevent-report)

36 [prevent-report.](http://www.wsdot.wa.gov/environment/technical/disciplines/hazardous-materials/spill-prevent-report)

37

38 **1-07.18 Public Liability and Property Damage Insurance**

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

40

41 This policy shall be kept in force from the execution date of the Contract until the Physical

42 Completion Date.

43

44 **Section 1-08, Prosecution and Progress**

45 **January 7, 2019**

46 **1-08.1 Subcontracting**

47 The first sentence of the seventh paragraph is revised to read:

48

1 All Work that is not performed by the Contractor will be considered as subcontracting except:
2 (1) purchase of sand, gravel, crushed stone, crushed slag, batched concrete aggregates,
3 ready-mix concrete, off-site fabricated structural steel, other off-site fabricated items, and any
4 other materials supplied by established and recognized commercial plants; or (2) delivery of
5 these materials to the Work site in vehicles owned or operated by such plants or by
6 recognized independent or commercial hauling companies hired by those commercial plants.
7

8 The following new paragraph is inserted after the seventh paragraph:
9

10 The Contractor shall not use businesses (material suppliers, vendors, subcontractors, etc.)
11 with federal purchasing exclusions. Businesses with exclusions are identified using the
12 System for Award Management web page at www.SAM.gov.
13

14 **1-08.5 Time for Completion**

15 Item number 2 of the sixth paragraph is supplemented with the following:
16

- 17 f. A copy of the Notice of Termination sent to the Washington State Department of Ecology
18 (Ecology); the elapse of 30 calendar days from the date of receipt of the Notice of
19 Termination by Ecology; and no rejection of the Notice of Termination by Ecology. This
20 requirement will not apply if the Construction Stormwater General Permit is transferred
21 back to the Contracting Agency in accordance with Section 8-01.3(16).
22

23 **1-08.7 Maintenance During Suspension**

24 The fifth paragraph is revised to read:
25

26 The Contractor shall protect and maintain all other Work in areas not used by traffic. All costs
27 associated with protecting and maintaining such Work shall be the responsibility of the
28 Contractor.
29

30 **Section 1-09, Measurement and Payment**

31 **August 6, 2018**

32 **1-09.2(1) General Requirements for Weighing Equipment**

33 The last paragraph is supplemented with the following:
34

35 When requested by the Engineer, the Contractor's representative shall collect the tickets
36 throughout the day and provide them to the Engineer's designated receiver, not later than
37 the end of shift, for reconciliation. Tickets for loads not verified as delivered will receive no
38 pay.
39

40 **1-09.2(2) Specific Requirements for Batching Scales**

41 The last sentence of the first paragraph is revised to read:
42

43 Batching scales used for concrete or hot mix asphalt shall not be used for batching
44 other materials.
45

46 **1-09.10 Payment for Surplus Processed Materials**

47 The following sentence is inserted after the first sentence of the second paragraph:
48

1 For Hot Mix Asphalt, the Plan quantity and quantity used will be adjusted for the quantity of
2 Asphalt and quantity of RAP or other materials incorporated into the mix.

3
4 **Section 2-02, Removal of Structures and Obstructions**
5 **April 2, 2018**

6 **2-02.3(3) Removal of Pavement, Sidewalks, Curbs, and Gutters**

7 In item number 3 of the first paragraph, the second sentence is revised to read:

8
9 For concrete pavement removal, a second vertical full depth relief saw cut offset 12 to 18
10 inches from and parallel to the initial saw cut is also required, unless the Engineer allows
11 otherwise.

12
13 **Section 2-09, Structure Excavation**
14 **April 2, 2018**

15 **2-09.2 Materials**

16 In the first paragraph, the references to “Portland Cement” and “Aggregates for Portland Cement
17 Concrete” are revised to read:

18
19 Cement 9-01
20 Fine Aggregate for Concrete 9-03.1(2)

21
22 **2-09.3(3)D Shoring and Cofferdams**

23 The first sentence of the sixth paragraph is revised to read:

24
25 Structural shoring and cofferdams shall be designed for conditions stated in this Section
26 using methods shown in Division I Section 5 of the AASHTO *Standard Specifications for*
27 *Highway Bridges Seventeenth Edition – 2002* for allowable stress design, or the AASHTO
28 *LRFD Bridge Design Specifications* for load and resistance factor design.

29
30 **Section 3-01, Production from Quarry and Pit Sites**
31 **April 2, 2018**

32 **3-01.1 Description**

33 The first paragraph is revised to read:

34
35 This Work shall consist of manufacturing and producing crushed and screened aggregates
36 including pit run aggregates of the kind, quality, and grading specified for use in the
37 construction of concrete, hot mix asphalt, crushed surfacing, maintenance rock, ballast,
38 gravel base, gravel backfill, gravel borrow, riprap, and bituminous surface treatments of all
39 descriptions.

40
41 **Section 4-04, Ballast and Crushed Surfacing**
42 **April 2, 2018**

43 **4-04.3(5) Shaping and Compaction**

44 This section is supplemented with the following new paragraph:
45

1 When using 100% Recycled Concrete Aggregate, the Contractor may submit a written
2 request to use a test point evaluation for compaction acceptance testing in lieu of compacting
3 to 95% of the standard density as determined by the requirements of Section 2-03.3(14)D.
4 The test point evaluation shall be performed in accordance with SOP 738.
5

6 **Section 5-01, Cement Concrete Pavement Rehabilitation** 7 **January 7, 2019**

8 **5-01.2 Materials**

9 The reference for Concrete Patching Material is revised to read:

10 Concrete Patching Material, Grout, and Mortar 9-20.1
11
12

13 **5-01.3(1)A1 Concrete Patching Materials**

14 In this section, each reference to "9-20" is revised to read "9-20.1".
15

16 **5-01.3(4) Replace Cement Concrete Panel**

17 This section's content is deleted and replaced with the following new subsections:
18

19 **5-01.3(4)A General**

20 Curing, cold weather work, concrete pavement construction in adjacent lines, and protection
21 of pavement shall meet the requirements of Section 5-05.3(13) through Section 5-05.3(15).
22 The Contractor, at no cost to the Contracting Agency, shall repair any damage to existing
23 pavement caused by the Contractor's operations.
24

25 **5-01.3(4)B Sawing and Dimensional Requirements**

26 Concrete slabs to be replaced as shown in the Plans or staked by the Engineer shall be at
27 least 6.0 feet long and full width of an existing pavement panel. The portion of the panel to
28 remain in place shall have a minimum dimension of 6 feet in length and full panel width;
29 otherwise the entire panel shall be removed and replaced. There shall be no new joints closer
30 than 3.0 feet to an existing transverse joint or crack. A vertical full depth saw cut is required
31 along all longitudinal joints and at transverse locations and, unless the Engineer allows
32 otherwise, an additional vertical full depth relief saw cut located 12 to 18 inches from and
33 parallel to the initial longitudinal and transverse saw cut locations is also required. Removal
34 of existing cement concrete pavement shall not cause damage to adjacent slabs that are to
35 remain in place. In areas that will be ground, slab replacements shall be performed prior to
36 pavement grinding.
37

38 Side forms shall meet the requirements of Section 5-05.3(7)B whenever a sawed full depth
39 vertical face cannot be maintained.
40

41 **5-01.3(4)C Dowel Bars and Tie Bars**

42 For the half of a dowel bar or tie bar placed in fresh concrete, comply with the requirements
43 of Section 5-05.
44

45 For the half of a dowel bar or tie bar placed in hardened concrete, comply with the Standard
46 Plans and the following.
47

1 After drilling, secure dowel bars and tie bars into the existing pavement with either an epoxy
2 bonding agent Type I or IV as specified in Section 9-26.1, or a grout Type 2 for non-shrink
3 applications as specified in Section 9-20.3.

4
5 Dowel bars shall be placed at the mid depth of the concrete slab, centered over the
6 transverse joint, and parallel to the centerline and to the roadway surface, within the
7 tolerances in the table below. Dowel bars may be adjusted to avoid contact with existing
8 dowel bars in the transverse joint at bridge approach slabs or existing panels provided the
9 adjusted dowel bars meet the tolerances below.

10
11 Tie bars shall be placed at the mid depth of the concrete slab, centered over the joint,
12 perpendicular to centerline, and parallel to the roadway surface, within the tolerances in the
13 table below. The horizontal position of tie bars may be adjusted to avoid contact with existing
14 tie bars in the longitudinal joint where panel replacement takes place, provided the adjusted
15 tie bars meet the tolerances below.

Placement Tolerances		
	Dowel Bars	Tie Bars
Vertical: Center of Bar to Center of Slab Depth	± 1.00 inch max	± 1.00 inch max
Dowel Bar Centered Over the Transverse Joint	± 1.00 inch max	N/A
Tie Bar Centered Over the Longitudinal Joint	N/A	± 1.00 inch max
Parallel to Centerline Over the Length of the Dowel Bar	± 0.50 inch max	N/A
Perpendicular to Longitudinal Joint Over the Length of the Tie Bar	N/A	± 1.00 inch max
Parallel to Roadway Surface Over the Length of the Bar	± 0.50 inch max	± 1.00 inch max

17
18 Dowel bars and tie bars shall be placed according to the Standard Plan when multiple panels
19 are placed. Panels shall be cast separately from the bridge approach slab.

20
21 Dowel bars to be drilled into existing concrete or at a new transverse contraction joint shall
22 have a parting compound, such as curing compound, grease, or other Engineer accepted
23 equal, applied to them prior to placement.

24
25 Clean the drilled holes in accordance with the epoxy or grout manufacturer's instructions.
26 Holes shall be clean and dry at the time of placing the epoxy, or grout and tie bars. Completely
27 fill the void between the tie bar and the outer limits of the drilled hole with epoxy or grout. Use
28 retention rings to prevent leakage of the epoxy or grout and support the tie bar to prevent
29 movement until the epoxy or grout has cured the minimum time recommended by the
30 manufacturer.

31 32 **5-01.3(4)D Foundation Preparation**

33 The Contractor shall smooth the surfacing below the removed panel and compact it to the
34 satisfaction of the Engineer. Crushed surfacing base course, or hot mix asphalt may be
35 needed to bring the surfacing to grade prior to placing the new concrete.

1 If the material under the removed panel is uncompactable and the Engineer requires it, the
2 Contractor shall excavate the Subgrade 2 feet, place a soil stabilization construction
3 geotextile meeting the requirements of Section 9-33, and backfill with crushed surfacing base
4 course. This Work may include:

- 5
- 6 1. Furnishing and hauling crushed surfacing base course to the project site.
- 7
- 8 2. Excavating uncompactable material.
- 9
- 10 3. Furnishing and placing a soil stabilization construction geotextile.
- 11
- 12 4. Backfilling and compacting crushed surfacing base course.
- 13
- 14 5. Removing, hauling and restocking any unused crushed surfacing base course.
- 15

16 **5-01.3(4)E Concrete Finishing**

17 Grade control shall be the responsibility of the Contractor.

18 All panels shall be struck off level with the adjacent panels and floated to a smooth surface.

19 Final finish texturing shall meet the requirements of Section 5-05.3(11).

20
21 In areas where the Plans do not require grinding, the surface smoothness will be measured
22 with a 10-foot straightedge by the Engineer in accordance with Section 5-05.3(12). If the
23 replacement panel is located in an area that will be ground as part of concrete pavement
24 grinding in accordance with Section 5-01.3(9), the surface smoothness shall be measured,
25 by the Contractor, in conjunction with the smoothness measurement done in accordance with
26 Section 5-01.3(10).
27
28

29 **5-01.3(4)F Joints**

30 All transverse and longitudinal joints shall be sawed and sealed in accordance with Section
31 5-05.3(8). The Contractor may use a hand pushed single blade saw for sawing joints.
32
33

34 **5-01.3(4)G Cracked Panels**

35 Replacement panels that crack shall be repaired as specified in Section 5-05.3(22) at no cost
36 to the Contracting Agency. When repairing replacement panels that have cracked, epoxy-
37 coated dowel bars meeting the requirements of Section 9-07.5(1) may be substituted for the
38 corrosion resistant dowel bars specified.
39

40 **5-01.3(4)H Opening to Traffic**

41 Opening to traffic shall meet the requirements of Section 5-05.3(17).
42

43 **5-01.3(5) Partial Depth Spall Repair**

44 The second sentence of the third paragraph is revised to read:

45 All sandblasting residue shall be removed.
46
47

48 **5-01.3(7) Sealing Existing Concrete Random Cracks**

49 The second sentence of the second paragraph is revised to read:
50

1 Immediately prior to sealing, the cracks shall be clean.

2
3 **5-01.3(8) Sealing Existing Longitudinal and Transverse Joint**

4 The first sentence of the fifth paragraph is revised to read:

5
6 Immediately prior to sealing, the cracks shall be clean.

7
8 **5-01.3(10) Pavement Smoothness**

9 This section is revised to read:

10
11 Pavement surface smoothness for cement concrete pavement grinding on this project will
12 include International Roughness Index (IRI) testing. Ride quality will be evaluated using the
13 Mean Roughness Index (MRI) calculated by averaging the IRI data for the left and right wheel
14 path within the section.

15
16 **Smoothness Testing Equipment and Operator Certification**

17 Use an inertial profiler and operator that meet the requirements of Section 5-05.3(3)E.

18
19 **Surface Smoothness**

20 Operate the inertial profiler in accordance with AASHTO R 57. Collect two longitudinal traces,
21 one in each wheel path. Collect the control profile at locations designated in Table 2 prior to
22 any pavement rehabilitation Work on the areas to be tested. Collect an acceptance profile at
23 locations designated in Table 2 after completion of all cement concrete pavement grinding on
24 the project. Profiles shall be collected in a continuous pass including areas excluded from
25 pay adjustments. Provide notice to the Engineer a minimum of seven calendar days prior to
26 testing.
27

Table 2 Locations Requiring MRI Testing	
Travel lanes where cement concrete grinding is shown in the plans	Control profile
Additional locations designated by the Engineer	Control profile
Travel lanes with completed cement concrete pavement grinding	Acceptance profile
Bridges, approach panels and 0.02 miles before and after bridges and approach panels and other excluded areas within lanes requiring testing	Control and acceptance profile
Ramps, Shoulders and Tapers	Do not test

28
29 Within 30 calendar days after the Contractor's testing, the Engineer may perform verification
30 testing. If the verification testing shows a difference in MRI greater than the 10 percent, the
31 following resolution process will be followed:
32

1. The profiles, equipment and procedures will be evaluated to determine the cause of the difference.
2. If the cause of the discrepancy cannot be resolved the pavement shall be retested with both profilers at a mutually agreed time. The two profilers will test the section within 30 minutes of each other. If the retest shows a difference in MRI equal or greater than the percentages shown in Table 2 of AASHTO R 54 the Engineer's test results will be used for pavement smoothness acceptance.

The Contractor shall evaluate profiles for acceptance or corrective action using the current version of ProVAL and provide the results including the profile data in unfiltered electronic Engineering Research Division (ERD) file format to the Engineer within 3 calendar days of completing each days profile testing. If the profile data files are created using an export option in the manufacturer's software where filter settings can be specified, use the filter settings that were used to create data files for certification.

Analyze the entire profile. Exclude areas listed in Table 3.

Table 3	
Areas Excluded from MRI Acceptance Requirements	
Location	Exclude
Beginning and end of grinding	Pavement within 0.02 mile
Bridges and approach slabs	The bridge and approach slab and 0.02 mile from the ends of the bridge or approach slab
Defects in the existing roadway identified by the Contractor that adversely affect the MRI such as dips, depressions and wheel path longitudinal joints. ¹	0.01-mile section containing the defect and the 0.01-mile section following the section with the defect.
¹ The presence of defects is subject to verification by the Engineer	

Report the MRI results in inches per mile for each 0.01-mile section and each 0.10-mile section. Do not truncate 0.10-mile sections for areas excluded from MRI acceptance requirements. MRI requirements will not apply to 0.10-mile sections with more than three 0.01 mile-sections excluded. MRI requirements for the individual 0.01-mile sections shall still apply. The Engineer will verify the analysis.

The MRI for each 0.10 mile of ground lane will comply with the following:

Control Profile MRI per 0.10 Mile	Maximum MRI of Acceptance Profile per 0.10 Mile
≤130 inches/mile	78 inches/mile
>130 inches/mile	0.6 x Control Profile MRI

1 The MRI for each 0.01 mile of the completed cement concrete grinding shall not exceed 160
2 inches/mile.

3
4 All Work is subject to parallel and transverse 10-foot straightedge requirements, corrective
5 work and disincentive adjustments.

6
7 Surface smoothness of travel lanes including areas subject to MRI testing shall not vary more
8 than 1/8 inch from the lower edge of a 10-foot straightedge placed on the surface parallel to
9 the centerline.

10
11 The smoothness perpendicular to the centerline will be measured with a 10-foot straightedge
12 within the lanes. There shall be not vertical elevation difference of more than a 1/4 inch
13 between lanes.

14
15 Pavement that does not meet these requirements will be subject to corrective Work. All
16 corrective Work shall be completed at no additional expense, including traffic control, to the
17 Contracting Agency. Pavement shall be repaired by one or more of the following methods:

- 18 1. Diamond grinding.
- 19 2. By other method accepted by the Engineer.

20
21
22
23 Repair areas shall be re-profiled to ensure they no longer require corrective Work. With
24 concurrence of the Engineer, a 10-foot straight edge may be used in place of the inertial
25 profiler.

26
27 If correction of the roadway as listed above either will not or does not produce satisfactory
28 results as to smoothness or serviceability the Engineer may accept the completed pavement
29 and a credit will be calculated in accordance with Section 5-01.5. Under these circumstances,
30 the decision whether to accept the completed pavement or to require corrective work as
31 described above shall be vested entirely in the Engineer.

32 33 **5-01.5 Payment**

34 This section is supplemented with the following:

35
36 "Grinding Smoothness Compliance Adjustment", by calculation.

37 Grinding Smoothness Compliance Adjustments will be based on the requirements in Section
38 5-01.3(10) and the following calculations:

39
40 A smoothness compliance adjustment will be calculated in the sum of minus \$100 for
41 each and every section of single traffic lane 0.01 mile in length and \$1,000 for each and
42 every section of single traffic lane 0.10 mile in length that does not meet the requirements
43 in Section 5-01.3(10) after corrective Work.

44 45 **Section 5-04, Hot Mix Asphalt** 46 **January 7, 2019**

47 **5-04.1 Description**

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

1 The manufacture of HMA may include additives or processes that reduce the optimum mixing
2 temperature (Warm Mix Asphalt) or serve as a compaction aid in accordance with these
3 Specifications.
4

5 **5-04.2 Materials**

6 The reference to “Warm Mix Asphalt Additive” is revised to read “HMA Additive”.
7

8 **5-04.2(1) How to Get an HMA Mix Design on the QPL**

9 The last bullet in the first paragraph is revised to read:
10

- 11 • Do not include HMA additives that reduce the optimum mixing temperature or serve as
12 a compaction aid when developing a mix design or submitting a mix design for QPL
13 evaluation. The use of HMA additives is not part of the process for obtaining approval
14 for listing a mix design on the QPL. Refer to Section 5-04.2(2)B.
15

16 In the table, “WSDOT Standard Practice QC-8” is revised to read “WSDOT Standard Practice
17 QC-8 located in the WSDOT Materials Manual M 46-01”.
18

19 **5-04.2(1)C Mix Design Resubmittal for QPL Approval**

20 Item number 3 of the first paragraph is revised to read:
21

- 22 3. Changes in modifiers used in the asphalt binder.
23

24 **5-04.2(2)B Using Warm Mix Asphalt Processes**

25 This section, including title, is revised to read:
26

27 **5-04.2(2)B Using HMA Additives**

28 The Contractor may, at the Contractor’s discretion, elect to use additives that reduce the
29 optimum mixing temperature or serve as a compaction aid for producing HMA. Additives
30 include organic additives, chemical additives and foaming processes. The use of Additives is
31 subject to the following:
32

- 33 • Do not use additives that reduce the mixing temperature in accordance with Section
34 5-04.3(6) in the production of High RAP/Any RAS mixtures.
35
- 36 • Before using additives, obtain the Engineer’s approval using WSDOT Form 350-
37 076 to describe the proposed additive and process.
38

39 **5-04.3(3)A Mixing Plant**

40 In item number 5 of the first paragraph, “WSDOT T 168” is revised to read “FOP for AASHTO T
41 168”.
42

43 **5-04.3(4) Preparation of Existing Paved Surfaces**

44 The first sentence of the fourth paragraph is revised to read:
45

46 Unless otherwise allowed by the Engineer, use cationic emulsified asphalt CSS-1, CSS-1h,
47 or Performance Graded (PG) asphalt for tack coat.
48

49 **5-04.3(6) Mixing**

50 The first paragraph is revised to read:

1
2 The asphalt supplier shall introduce recycling agent and anti-stripping additive, in the amount
3 designated on the QPL for the mix design, into the asphalt binder prior to shipment to the
4 asphalt mixing plant.

5
6 The seventh paragraph is revised to read:

7
8 Upon discharge from the mixer, ensure that the temperature of the HMA does not exceed the
9 optimum mixing temperature shown on the accepted Mix Design Report by more than 25°F,
10 or as allowed by the Engineer. When an additive is included in the manufacture of HMA, do
11 not heat the additive (at any stage of production including in binder storage tanks) to a
12 temperature higher than the maximum recommended by the manufacturer of the additive.

13
14 **5-04.3(7) Spreading and Finishing**

15 The last row of the table is revised to read:

16

$\frac{3}{8}$ inch	0.25 feet	0.30 feet
--------------------	-----------	-----------

17
18 **5-04.3(8) Aggregate Acceptance Prior to Incorporation in HMA**

19 The following new paragraph is inserted after the first paragraph:

20
21 The Contracting Agency's combined aggregate bulk specific gravity (Gsb) blend as shown
22 on the HMA Mix Design will be used for VMA calculations until the Contractor submits a
23 written request for a Gsb test. The new Gsb will be used in the VMA calculations for HMA
24 from the date the Engineer receives the written request for a Gsb retest. The Contractor may
25 request aggregate specific gravity (Gsb) testing be performed by the Contracting Agency
26 twice per project. The Gsb blend of the combined stockpiles will be used to calculate voids
27 in mineral aggregate (VMA) of any HMA produced after the new Gsb is determined.

28
29 **5-04.3(9)A1 Test Section – When Required, When to Stop**

30 The following new row is inserted after the second row in Table 9:

31

VMA	Minimum PF_i of 0.95 based on the criteria in Section 5-04.3(9)B4 ²	None ⁴
-----	--	-------------------

32
33 **5-04.3(9)A2 Test Section – Evaluating the HMA Mixture in a Test Section**

34 In Table 9a, the test property "Gradation, Asphalt Binder, and V_a " is revised to read "Gradation,
35 Asphalt Binder, VMA, and V_a "

36
37 In Table 9a, the first column of the third row is revised to read:

38

Aggregates: Sand Equivalent Uncompacted Void Content Fracture

39
40 **5-04.3(9)B3 Mixture Statistical Evaluation – Acceptance Testing**

41 In Table 11, " V_a " is revised to read "VMA and V_a "

1
2 **5-04.3(9)B5 Mixture Statistical Evaluation – Composite Pay Factors (CPF)**

3 The following new row is inserted above the last row in Table 12:
4

Voids in Mineral Aggregate (VMA)	2
----------------------------------	---

5
6 **5-04.3(9)B7 Mixture Statistical Evaluation – Retests**

7 The second to last sentence is revised to read:
8

9 The sample will be tested for a complete gradation analysis, asphalt binder content, VMA
10 and V_a , and the results of the retest will be used for the acceptance of the HMA mixture in
11 place of the original mixture subplot sample test results.
12

13 **5-04.3(10)C1 HMA Compaction Statistical Evaluation – Lots and Sublots**

14 The bulleted item in the fourth paragraph is revised to read:
15

- 16 • For a compaction lot in progress with a compaction CPF less than 0.75 using an LSL =
17 91.5, a new compaction lot will begin at the Contractor’s request after the Engineer is
18 satisfied that material conforming to the Specifications can be produced. See also
19 Section 5-04.3(11)F.
20

21 **5-04.3(10)C2 HMA Compaction Statistical Evaluation – Acceptance Testing**

22 In the table, “WSDOT FOP for AASHTO T 355” is revised to read “FOP for AASHTO T 355”.
23

24 **5-04.3(10)C3 HMA Statistical Compaction – Price Adjustments**

25 In the first paragraph, “WSDOT FOP for AASHTO T 355” is revised to read “FOP for AASHTO T
26 355”.
27

28 The first sentence in the second paragraph is revised to read:
29

30 For each HMA compaction lot (that is accepted by Statistical Evaluation) which does not meet
31 the criteria in the preceding paragraph, the compaction lot shall be evaluated in accordance
32 with Section 1-06.2(2)D5 to determine the appropriate Composite Pay Factor (CPF).
33

34 The last two paragraphs are revised to read:
35

36 Determine the Compaction Price Adjustment (CPA) from the table below, selecting the
37 equation for CPA that corresponds to the value of CPF determined above.
38

Calculating HMA Compaction Price Adjustment (CPA)	
Value of CPF	Equation for Calculating CPA
When CPF > 1.00	$CPA = [1.00 \times (CPF - 1.00)] \times Q \times UP$
When CPF = 1.00	CPA = \$0
When CPF < 1.0	$CPA = [0.60 \times (CPF - 1.00)] \times Q \times UP$

39
40 Where

41 CPA = Compaction Price Adjustment for the compaction lot (\$)

1 CPF = Composite Pay Factor for the compaction lot (maximum is 1.05)
2 Q = Quantity in the compaction lot (tons)
3 UP = Unit price of the HMA in the compaction lot (\$/ton)
4

5-04.3(10)C4 HMA Statistical Compaction – Requests for Retesting

6 The first sentence is revised to read:
7

8 For a compaction subplot that has been tested with a nuclear density gauge that did not meet
9 the minimum of 91.5 percent of the theoretical maximum density in a compaction lot with a
10 CPF below 1.00 and thus subject to a price reduction or rejection, the Contractor may request
11 that a core, taken at the same location as the nuclear density test, be used for determination
12 of the relative density of the compaction subplot.
13

5-04.3(13) Surface Smoothness

15 The second to last paragraph is revised to read:
16

17 When concrete pavement is to be placed on HMA, the surface tolerance of the HMA shall be
18 such that no surface elevation lies above the Plan grade minus the specified Plan depth of
19 concrete pavement. Prior to placing the concrete pavement, bring any such irregularities to
20 the required tolerance by grinding or other means allowed by the Engineer.
21

5-04.5 Payment

23 The paragraph following the Bid item “Crack Sealing-LF”, per linear foot is revised to read:
24

25 The unit Contract price per linear foot for “Crack Sealing-LF” shall be full payment for all
26 costs incurred to perform the Work described in Section 5-04.3(4)A.
27

Section 5-05, Cement Concrete Pavement January 7, 2019

5-05.1 Description

31 In the first paragraph, “portland cement concrete” is revised to read “cement concrete”.
32

5-05.2 Materials

34 In the first paragraph, the reference to “Portland Cement” is revised to read:
35

Cement	9-01
--------	------

38 In the first paragraph, the section reference for Concrete Patching Material is revised to read “9-
39 20.1”.
40

5-05.3(1) Concrete Mix Design for Paving

42 The table title in item number 4 is revised to read **Concrete Batch Weights**.
43

44 In item 4a, “Portland Cement” is revised to read “Cement”.
45

5-05.3(3)E Smoothness Testing Equipment

47 This section is revised to read:
48

1 Inertial profilers shall meet all requirements of AASHTO M 328 and be certified in accordance
2 with AASHTO R 56 within the preceding 12 months.

3
4 The inertial profiler operator shall be certified as required by AASHTO R 56 within three years
5 preceding profile measurement.
6

7 Equipment or operator certification by other states or a profiler certification facility will be
8 accepted provided the certification meets the requirements of AASHTO R 56. Documentation
9 verifying certification by another state shall be submitted to the Engineer a minimum of 14
10 calendar days prior to profile measurement. Equipment certification documentation shall
11 include the information required by part 8.5 and 8.6 of AASHTO R 56. Operator
12 documentation shall include a statement from the certifying state that indicates the operator
13 is certified to operate the inertial profiler to be used on the project. The decision whether
14 another state's certification meets the requirements of AASHTO R 56 shall be vested entirely
15 in the Engineer.
16

17 **5-05.3(4) Measuring and Batching Materials**

18 Item number 2 is revised to read:

- 19
20 2. **Batching Materials** – On all projects requiring more than 2,500 cubic yards of concrete
21 for paving, the batching plant shall be equipped to proportion aggregates and cement
22 by weight by means of automatic and interlocked proportioning devices of accepted type.
23

24 **5-05.3(4)A Acceptance of Portland Cement Concrete Pavement**

25 This section's title is revised to read:

26 **Acceptance of Portland Cement or Blended Hydraulic Cement Concrete** 27 **Pavement** 28

29
30 The first sentence is revised to read:

31
32 Acceptance of portland cement or blended hydraulic cement concrete pavement shall be as
33 provided under statistical or nonstatistical acceptance.
34

35 **5-05.3(7) Placing, Spreading, and Compacting Concrete**

36 This section's content is deleted.
37

38 **5-05.3(10) Tie Bars and Corrosion Resistant Dowel Bars**

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

40
41 The tie bar holes shall be clean before grouting.
42

43 **5-05.3(12) Surface Smoothness**

44 This section is revised to read:

45
46 Pavement surface smoothness for this project will include International Roughness Index
47 (IRI) testing. The Contractor shall perform IRI testing on each through lane, climbing lane,
48 and passing lane, greater than 0.25 mile in length and these lanes will be subject to
49 incentive/disincentive adjustments. Ride quality will be evaluated using the Mean Roughness

1 Index (MRI) calculated by averaging the IRI data for the left and right wheel path within the
2 section.

3
4 Ramps, shoulders and tapers will not be included in MRI testing for pavement smoothness
5 and will not be subject to incentive adjustments. All Work is subject to parallel and transverse
6 10-foot straightedge requirements, corrective work and disincentive adjustments.

7
8 Operate the inertial profiler in accordance with AASHTO R 57. Collect two longitudinal traces,
9 one in each wheel path. Collect profile data after completion of all concrete paving on the
10 project in a continuous pass including areas excluded from pay adjustments. Provide notice
11 to the Engineer a minimum of seven calendar days prior to testing.

12
13 Within 30 calendar days after the Contractor's testing, the Engineer may perform verification
14 testing. If the verification testing shows a difference in MRI greater than the percentages
15 shown in Table 2 of AASHTO R 54 the following resolution process will be followed:

- 16
17 1. The profiles, equipment and procedures will be evaluated to determine the cause
18 of the difference.
- 19
20 2. If the cause of the discrepancy cannot be resolved the pavement shall be retested
21 with both profilers at a mutually agreed time. The two profilers will test the section
22 within 30 minutes of each other. If the retest shows a difference in MRI equal or
23 greater than the percentages shown in Table 2 of AASHTO R 54 the Engineer's test
24 results will be used to establish pay adjustments.

25
26 Surface smoothness of travel lanes not subject to MRI testing will be measured with a 10-
27 foot straightedge no later than 5:00 p.m. of the day following the placing of the concrete. The
28 completed surface of the wearing course shall not vary more than $\frac{1}{8}$ inch from the lower edge
29 of a 10-foot straightedge placed on the surface parallel to the centerline.

30
31 Smoothness perpendicular to the centerline will be measured with a 10-foot straightedge
32 across all lanes with the same cross slope, including shoulders when composed of cement
33 concrete pavement. The overlapping 10-foot straightedge measurement shall be
34 discontinued at a point 6 inches from the most extreme outside edge of the finished cement
35 concrete pavement. The completed surface of the wearing course shall not vary more than
36 $\frac{1}{4}$ inch from the lower edge of a 10-foot straightedge placed on the surface perpendicular to
37 the centerline. Any deviations in excess of the above tolerances shall be corrected.

38
39 The Contractor shall evaluate profiles for acceptance, incentive payments, disincentive
40 payments, or corrective action using the current version of ProVAL and provide the results
41 including the profile data in unfiltered electronic Engineering Research Division (ERD) file
42 format to the Engineer within 2 calendar days of completing testing each section of pavement.
43 If the profile data files are created using an export option in the manufacturer's software
44 where filter settings can be specified, use the filter settings that were used to create data files
45 for certification. Analyze the entire profile. Exclude any areas specifically identified in the
46 Contract. Exclude from the analysis the first 100 feet after the start of the paving operations
47 and last 100 feet prior to the end of the paving operation, the first 100 feet on either side of
48 bridge Structures and bridge approach slab. Report the MRI results in inches per mile for
49 each 52.8 foot section and horizontal distance measurements in project stationing to the
50 nearest foot. Include pay adjustments in the results. The Engineer will verify the analysis.

1 Corrective work for pavement smoothness may be taken by the Contractor prior to MRI
2 testing. After completion of the MRI testing the Contractor shall measure the smoothness of
3 each 52.8-foot section with an MRI greater than 125 inches per mile with a 10-foot
4 straightedge within 14 calendar days or as allowed by the Engineer. The Contractor shall
5 identify all locations that require corrective work and provide the straight edge measurements
6 at each location that exceeds the allowable limit to the Engineer. If all measurements in a
7 52.8-foot section comply with smoothness requirements, the Contractor shall provide the
8 maximum measurement to the Engineer and a statement that corrective work is not required.
9 Unless allowed by the Engineer, corrective work shall be taken by the Contractor for
10 pavement identified by the Contractor or Engineer that does not meet the following
11 requirements:

- 12 1. The completed surface shall be of uniform texture, smooth, uniform as to crown and
13 grade, and free from defects of all kinds.
- 14 2. The completed surface shall not vary more than $\frac{1}{8}$ inch from the lower edge of a
15 10-foot straightedge placed on the surface parallel to the centerline.
- 16 3. The completed surface shall vary not more than $\frac{1}{4}$ inch in 10 feet from the rate of
17 transverse slope shown in the Plans.

18
19
20
21
22 All corrective work shall be completed at no additional expense, including traffic control, to
23 the Contracting Agency. Corrective work shall not begin until the concrete has reached its
24 design strength unless allowed by the Engineer. Pavement shall be repaired by one or more
25 of the following methods:

- 26 1. Diamond grinding; repairs shall not reduce pavement thickness by more than $\frac{1}{4}$
27 inch less than the thickness shown in the Plans. When required by the Engineer,
28 the Contractor shall verify the thickness of the concrete pavement by coring.
29 Thickness reduction due to corrective work will not be included in thickness
30 measurements for calculating the Thickness Deficiency in Section 5-05.5(1)A.
- 31 2. Removal and replacement of the cement concrete pavement.
- 32 3. By other method allowed by the Engineer.

33
34
35
36
37 For repairs following MRI testing the repaired area shall be checked by the Contractor with a
38 10-foot straightedge to ensure it no longer requires corrective work. With concurrence of the
39 Engineer an inertial profiler may be used in place of the 10-foot straight edge.

40
41 If correction of the roadway as listed above either will not or does not produce satisfactory
42 results as to smoothness or serviceability the Engineer may accept the completed pavement
43 and a credit will be calculated in accordance with Section 5-05.5. The credit will be in addition
44 to the price adjustment for MRI. Under these circumstances, the decision whether to accept
45 the completed pavement or to require corrective work as described above shall be vested
46 entirely in the Engineer.

47 **5-05.3(22) Repair of Defective Pavement Slabs**

48 The last sentence of the fourth paragraph is revised to read:

49
50
51 All sandblasting residue shall be removed.

1
2 **5-05.4 Measurement**

3 Item number 3 of the second paragraph is revised to read:

- 4
5 3. The depth shall be determined in accordance with Section 5-05.5(1). The depth utilized
6 to calculate the volume shall not exceed the Plan depth plus 0.04 feet.

7
8 The third paragraph is revised to read:

9
10 The volume of cement concrete pavement in each thickness lot shall equal the measured
11 length × width × thickness measurement.

12
13 The last paragraph is revised to read:

14
15 The calculation for cement concrete compliance adjustment is the volume of concrete
16 represented by the CPF and the Thickness deficiency adjustment.

17
18 **5-05.5 Payment**

19 The paragraph following the Bid item “Cement Conc. Pavement”, per cubic yard is supplemented
20 with the following:

21
22 All costs associated with performing the magnetic pulse induction thickness testing shall be
23 included in the unit Contract price per cubic yard for “Cement Conc. Pavement”.

24
25 The Bid item “Ride Smoothness Compliance Adjustment”, by calculation, and the paragraph
26 following this bid item are revised to read:

27
28 “Ride Smoothness Compliance Adjustment”, by calculation.

29
30 Smoothness Compliance Adjustments will be based on the requirements in Section 5-
31 05.3(12) and the following calculations:

- 32
33 1. Final MRI acceptance and incentive/disincentive payments for pavement
34 smoothness will be calculated as the average of the ten 52.8-foot sections in each
35 528 feet in accordance with the price adjustment schedule.
36
37 a. For sections of a lane that are a minimum of 52.8 feet and less than 528 feet,
38 the price adjustment will be calculated using the average of the 52.8 foot MRI
39 values and the price adjustment prorated for the length of the section.
40
41 b. MRI values per 52.8-feet that were measured prior to corrective work will be
42 included in the 528 foot price adjustment for sections with corrective work.
43
44 2. In addition to the price adjustment for MRI a smoothness compliance adjustment
45 will be calculated in the sum of minus \$1000.00 for each and every section of single
46 traffic lane 52.8 feet in length in that does not meet the 10-foot straight edge
47 requirements in Section 5-05.3(12) after corrective Work.
48

Price Adjustment Schedule

MRI for each 528 ft. section	Pay Adjustment Schedule
in. / mi.	\$ / 0.10 mi.
< 30	2400
30	2400
31	2320
32	2240
33	2160
34	2080
35	2000
36	1920
37	1840
38	1760
39	1680
40	1600
41	1520
42	1440
43	1360
44	1280
45	1200
46	1120
47	1040
48	960
49	880
50	800
51	720
52	640
53	560
54	480
55	400
56	320
57	240
58	160
59	80
60	0
61	0
62	0
63	0
64	0
65	0
66	0
67	0
68	0
69	0
70	0
71	0
72	0
73	0
74	0

75	0
76	-80
77	-160
78	-240
79	-320
80	-400
81	-480
82	-560
83	-640
84	-720
85	-800
86	-880
87	-960
88	-1040
89	-1120
90	-1200
91	-1280
92	-1360
93	-1440
94	-1520
95	-1600
96	-1680
97	-1760
98	-1840
99	-1920
100	-2000
101	-2080
102	-2160
103	-2240
104	-2320
105	-2400
106	-2480
107	-2560
108	-2640
109	-2720
110	-2800
111	-2880
112	-2960
113	-3040
114	-3120
115	-3200
116	-3280
117	-3360
118	-3440
119	-3520
120	-3600
121	-3680
122	-3760
123	-3840

124	-3920
≥125	-4000

The bid item “Portland Cement Concrete Compliance Adjustment”, by calculation, and the paragraph following this bid item are revised to read:

“Cement Concrete Compliance Adjustment”, by calculation.

Payment for “Cement Concrete Compliance Adjustment” will be calculated by multiplying the unit Contract price for the cement concrete pavement, times the volume for adjustment, times the percent of adjustment determined from the calculated CPF and the Deficiency Adjustment listed in Section 5-05.5(1)A.

5-05.5(1) Pavement Thickness

This section is revised to read:

Cement concrete pavement shall be constructed in accordance with the thickness requirements in the Plans and Specifications. Tolerances allowed for Subgrade construction and other provisions, which may affect thickness, shall not be construed to modify such thickness requirements.

Thickness measurements in each lane paved shall comply with the following:

Thickness Testing of Cement Concrete Pavement	
Thickness Lot Size	15 panels maximum
Thickness test location determined by	Engineer will select testing locations in accordance with WSDOT TM 716 method B.
Sample method	AASHTO T 359
Sample preparation performed by	Contractor provides, places, and secures disks in the presence of the Engineer ¹
Measurement method	AASHTO T 359
Thickness measurement performed by	Contractor, in the presence of the Engineer ²
¹ Reflectors shall be located at within 0.5 feet of the center of the panel. The Contractor shall supply a sufficient number of 300 mm-diameter round reflectors meeting the requirements of AASHTO T 359 to accomplish the required testing. ² The Contractor shall provide all equipment and materials needed to perform the testing.	

Thickness measurements shall be rounded to the nearest 0.01 foot.

Each thickness test location where the pavement thickness is deficient by more than 0.04 foot, shall be subject to price reduction or corrective action as shown in Table 2.

Table 2 Thickness Deficiency

0.04' < Thickness Deficiency ≤ 0.06'	10
0.06' < Thickness deficiency ≤ 0.08'	25
Thickness deficiency > 0.08'	Remove and replace the panels or the panels may be accepted with no payment at the discretion of the Engineer.

The price reduction shall be computed by multiplying the percent price reduction in Table 2 by the unit Contract price by the volume of pavement represented by the thickness test lot.

Additional cores may be taken by the Contractor to determine the limits of an area that has a thickness deficiency greater than 0.04 feet. Cores shall be taken at the approximate center of the panel. Only the panels within the limits of the deficiency area as determined by the cores will be subject to a price reduction or corrective action. The cores shall be taken in the presence of the Engineer and delivered to the Engineer for measurement. All costs for the additional cores including filling the core holes with patching material meeting the requirements of Section 9-20 will be the responsibility of the Contractor.

5-05.5(1)A Thickness Deficiency of 0.05 Foot or Less

This section, including title, is revised to read:

5-05.5(1)A Vacant

5-05.5(1)B Thickness Deficiency of More Than 0.05 Foot

This section, including title, is revised to read:

5-05.5(1)B Vacant

**Section 6-01, General Requirements for Structures
January 7, 2019**

This section is supplemented with the following new subsections:

6-01.16 Repair of Defective Work

6-01.16(1) General

When using repair procedures that are described elsewhere in the Contract Documents, the Working Drawing submittal requirements of this Section shall not apply to those repairs unless noted otherwise.

Repair procedures for defective Work shall be submitted as Type 2 Working Drawings. Type 2E Working Drawings shall be submitted when required by the Engineer. As an alternative to submitting Type 2 or 2E Working Drawings, defective Work within the limits of applicability of a pre-approved repair procedure may be repaired using that procedure. Repairs using a pre-approved repair procedure shall be submitted as a Type 1 Working Drawing.

Pre-approved repair procedures shall consist of the following:

- The procedures listed in Section 6-01.16(2)
- For precast concrete, repair procedures in the annual plant approval process documents that have been approved for use by the Contracting Agency.

All Working Drawings for repair procedures shall include:

- A description of the defective Work including location, extent and pictures
- Materials to be used in the repair. Repairs using manufactured products shall include written manufacturer recommendations for intended uses of the product, surface preparation, mixing, aggregate extension (if applicable), ambient and surface temperature limits, placement methods, finishing and curing.
- Construction procedures
- Plan details of the area to be repaired
- Calculations for Type 2E Working Drawings

Material manufacturer's instructions and recommendations shall supersede any conflicting requirements in pre-approved repair procedures.

The Engineer shall be notified prior to performing any repair procedure and shall be given an opportunity to inspect the repair work being performed.

6-01.16(2) Pre-Approved Repair Procedures

6-01.16(2)A Concrete Spalls and Poor Consolidation (Rock Pockets, Honeycombs, Voids, etc.)

This repair shall be limited to the following areas:

- Areas that are not on top Roadway surfaces (with or without an overlay) including but not limited to concrete bridge decks, bridge approach slabs or cement concrete pavement
- Areas that are not underwater
- Areas that are not on precast barrier, except for the bottom 4 inches (but not to exceed 1 inch above blockouts)
- Areas that do not affect structural adequacy as determined by the Engineer.

The repair procedure is as follows:

1. Remove all loose and unsound concrete. Impact breakers shall not exceed 15 pounds in weight when removing concrete adjacent to reinforcement or other embedments and shall not exceed 30 pounds in weight otherwise. Operate impact breakers at angles less than 45 degrees as measured from the surface of the concrete to the tool and moving away from the edge

1 of the defective Work. Concrete shall be completely removed from
2 exposed surfaces of existing steel reinforcing bars. If half or more of the
3 circumference of any steel reinforcing bar is exposed, if the reinforcing bar
4 is loose or if the bond to existing concrete is poor then concrete shall be
5 removed at least $\frac{3}{4}$ inch behind the reinforcing bar. Do not damage any
6 existing reinforcement. Stop work and allow the Engineer to inspect the
7 repair area after removing all loose and unsound concrete. Submit a
8 modified repair procedure when required by the Engineer.
9

- 10 2. Square the edges of the repair area by cutting an edge perpendicular to
11 the concrete surface around the repair area. The geometry of the repair
12 perimeter shall minimize the edge length and shall be rectangular with
13 perpendicular edges, avoiding reentrant corners. The depth of the cut shall
14 be a minimum of $\frac{3}{4}$ inch, but shall be reduced if necessary to avoid
15 damaging any reinforcement. For repairs on vertical surfaces, the top edge
16 shall slope up toward the front at a 1-vertical-to-3-horizontal slope.
17
- 18 3. Remove concrete within the repair area to a depth at least matching the
19 cut depth at the edges. Large variations in the depth of removal within
20 short distances shall be avoided. Roughen the concrete surface. The
21 concrete surface should be roughened to at least Concrete Surface Profile
22 (CSP) 5 in accordance with ICRI Guideline No. 310.2R, unless a different
23 CSP is recommended by the patching material manufacturer.
24
- 25 4. Inspect the concrete repair surface for delaminations, debonding,
26 microcracking and voids using hammer tapping or a chain drag. Remove
27 any additional loose or unsound concrete in accordance with steps 1
28 through 3.
29
- 30 5. Select a patching material in accordance with Section 9-20.2 that is
31 appropriate for the repair location and thickness. The concrete patching
32 material shall be pumpable or self-consolidating as required for the type of
33 placement that suits the repair. The patching material shall have a
34 minimum compressive strength at least equal to the specified compressive
35 strength of the concrete.
36
- 37 6. Prepare the concrete surface and reinforcing steel in accordance with the
38 patching material manufacturer's recommendations. At a minimum, clean
39 the concrete surfaces (including perimeter edges) and reinforcing steel
40 using oil-free abrasive blasting or high-pressure (minimum 5,000 psi)
41 water blasting. All dirt, dust, loose particles, rust, laitance, oil, film,
42 microcracked/bruised concrete or foreign material of any sort shall be
43 removed. Damage to the epoxy coating on steel reinforcing bars shall be
44 repaired in accordance with Section 6-02.3(24)H.
45
- 46 7. Construct forms if necessary, such as for patching vertical or overhead
47 surfaces or where patching extends to the edge or corner of a placement.
48
- 49 8. When recommended by the patching material manufacturer, saturate the
50 concrete in the repair area and remove any free water at the concrete
51 surface to obtain a saturated surface dry (SSD) substrate. When

1 recommended by the patching material manufacturer, apply a primer,
2 scrub coat or bonding agent to the existing surfaces. Epoxy bonding
3 agents, if used, shall be Type II or Type V in accordance with Section 9-
4 26.1.

5
6 9. Place and consolidate the patching material in accordance with the
7 manufacturer's recommendations. Work the material firmly into all
8 surfaces of the repair area with sufficient pressure to achieve proper bond
9 to the concrete.

10
11 10. The patching material shall be textured, cured and finished in accordance
12 with the patching material manufacturer's recommendations and/or the
13 requirements for the repaired component. Protect the newly placed patch
14 from vibration in accordance with Section 6-02.3(6)D.

15
16 11. When the completed repair does not match the existing concrete color and
17 will be visible to the public, a sand and cement mixture that is color
18 matched to the existing concrete shall be rubbed, brushed, or applied to
19 the surface of the patching material and the concrete.

20
21 **6-01.10 Utilities Supported by or Attached to Bridges**

22 In the third paragraph, "Federal Standard 595" is revised to read "SAE AMS Standard 595".

23
24 **6-01.12 Final Cleanup**

25 The second sentence of the first paragraph is revised to read:

26
27 Structure decks shall be clean.

28
29 The second paragraph is deleted.

30
31 **Section 6-02, Concrete Structures**
32 **January 7, 2019**

33 **6-02.1 Description**

34 The first sentence is revised to read:

35
36 This Work consists of the construction of all Structures (and their parts) made of portland
37 cement or blended hydraulic cement concrete with or without reinforcement, including bridge
38 approach slabs.

39
40 **6-02.2 Materials**

41 In the first paragraph, the references to "Portland Cement" and "Aggregates for Portland Cement
42 Concrete" are revised to read:

43
44 Cement 9-01
45 Aggregates for Concrete 9-03.1

46
47 **6-02.3(2) Proportioning Materials**

48 The second paragraph is revised to read:

1 Unless otherwise specified, the Contractor shall use Type I or II portland cement or blended
2 hydraulic cement in all concrete as defined in Section 9-01.2(1).
3

4 **6-02.3(2)A Contractor Mix Design**

5 The last sentence of the last paragraph is revised to read:
6

7 For all other concrete, air content shall be a minimum of 4.5 percent and a maximum of 7.5
8 percent for all concrete placed above the finished ground line unless noted otherwise.
9

10 **6-02.3(2)A1 Contractor Mix Design for Concrete Class 4000D**

11 Item number 5 of the first paragraph is deleted.
12

13 Item number 6 of the first paragraph (after the preceding Amendment is applied) is renumbered
14 to 5.
15

16 **6-02.3(2)B Commercial Concrete**

17 The second paragraph is revised to read:
18

19 Where concrete Class 3000 is specified for items such as, culvert headwalls, plugging
20 culverts, concrete pipe collars, pipe anchors, monument cases, Type PPB, PS, I, FB and RM
21 signal standards, pedestals, cabinet bases, guardrail anchors, fence post footings,
22 sidewalks, concrete curbs, curbs and gutters, and gutters, the Contractor may use
23 commercial concrete. If commercial concrete is used for sidewalks, concrete curbs, curbs
24 and gutters, and gutters, it shall have a minimum cementitious material content of 564 pounds
25 per cubic yard of concrete, shall be air entrained, and the tolerances of Section 6-02.3(5)C
26 shall apply.
27

28 **6-02.3(4) Ready-Mix Concrete**

29 The first sentence of the first paragraph is revised to read:
30

31 All concrete, except lean concrete, shall be batched in a prequalified manual, semi-
32 automatic, or automatic plant as described in Section 6-02.3(4)A.
33

34 **6-02.3(4)D Temperature and Time For Placement**

35 The following is inserted after the first sentence of the first paragraph:
36

37 The upper temperature limit for placement for Class 4000D concrete may be increased to a
38 maximum of 80°F if allowed by the Engineer.
39

40 **6-02.3(5)C Conformance to Mix Design**

41 Item number 1 of the second paragraph is revised to read:
42

- 43 1. Cement weight plus 5 percent or minus 1 percent of that specified in the mix design.
44

45 **6-02.3(6)A1 Hot Weather Protection**

46 The first paragraph is revised to read:
47

48 The Contractor shall provide concrete within the specified temperature limits. Cooling of the
49 coarse aggregate piles by sprinkling with water is permitted provided the moisture content is
50 monitored, the mixing water is adjusted for the free water in the aggregate and the coarse

1 aggregate is removed from at least 1 foot above the bottom of the pile. Sprinkling of fine
2 aggregate piles with water is not allowed. Refrigerating mixing water or replacing all or part
3 of the mixing water with crushed ice is permitted, provided the ice is completely melted by
4 placing time.

5
6 The second sentence of the second paragraph is revised to read:

7
8 These surfaces include forms, reinforcing steel, steel beam flanges, and any others that
9 touch the concrete.

10
11 **6-02.3(7) Vacant**

12 This section, including title, is revised to read:

13
14 **6-02.3(7) Tolerances**

15 Unless noted otherwise, concrete construction tolerances shall be in accordance with this
16 section. Tolerances in this section do not apply to cement concrete pavement.

17
18 Horizontal deviation of roadway crown points, cross-slope break points, and curb, barrier or
19 railing edges from alignment or work line: ± 1.0 inch

20
21 Deviation from plane: ± 0.5 inch in 10 feet

22
23 Deviation from plane for roadway surfaces: ± 0.25 inch in 10 feet

24
25 Deviation from plumb or specified batter: ± 0.5 inch in 10 feet, but not to exceed a total of ± 1.5
26 inches

27
28 Vertical deviation from profile grade for roadway surfaces: ± 1 inch

29
30 Vertical deviation of top surfaces (except roadway surfaces): ± 0.75 inch

31
32 Thickness of bridge decks and other structural slabs not at grade: ± 0.25 inch

33
34 Length, width and thickness of elements such as columns, beams, crossbeams, diaphragms,
35 corbels, piers, abutments and walls, including dimensions to construction joints in initial
36 placements: $+0.5$ inch, -0.25 inch

37
38 Length, width and thickness of spread footing foundations: $+2$ inches, -0.5 inch

39
40 Horizontal location of the as-placed edge of spread footing foundations: The greater of $\pm 2\%$
41 of the horizontal dimension of the foundation perpendicular to the edge and ± 0.5 inch.
42 However, the tolerance shall not exceed ± 2 inches.

43
44 Location of opening, insert or embedded item at concrete surface: ± 0.5 inch

45
46 Cross-sectional dimensions of opening: ± 0.5 inch

47
48 Bridge deck, bridge approach slab, and bridge traffic barrier expansion joint gaps with a
49 specified temperature range, measured at a stable temperature: ± 0.25 inch

1 Horizontal deviation of centerline of bearing pad, oak block or other bearing assembly: ±0.125
2 inch

3
4 Horizontal deviation of centerline of supported element from centerline of bearing pad, oak
5 block or other bearing assembly ±0.25 inch

6
7 Vertical deviation of top of bearing pad, oak block or other bearing assembly: ±0.125 inch
8

9 **6-02.3(10)C Finishing Equipment**

10 The first paragraph is revised to read:

11
12 The finishing machine shall be self-propelled and be capable of forward and reverse
13 movement under positive control. The finishing machine shall be equipped with augers and
14 a rotating cylindrical single or double drum screed. The finishing machine shall have the
15 necessary adjustments to produce the required cross section, line, and grade. The finishing
16 machine shall be capable of raising the screeds, augers, and any other parts of the finishing
17 mechanical operation to clear the screeded surface, and returning to the specified grade
18 under positive control. Unless otherwise allowed by the Engineer, a finishing machine
19 manufacturer technical representative shall be on site to assist the first use of the machine
20 on the Contract.

21
22 The first sentence of the second paragraph is revised to read:

23
24 For bridge deck widening of 20 feet or less, and for bridge approach slabs, or where jobsite
25 conditions do not allow the use of the conventional configuration finishing machines, or
26 modified conventional machines as described above; the Contractor may submit a Type 2
27 Working Drawing proposing the use of a hand-operated motorized power screed such as a
28 “Texas” or “Bunyan” screed.

29
30 **6-02.3(10)D4 Monitoring Bridge Deck Concrete Temperature After Placement**

31 This section, including title, is revised to read:

32
33 **6-02.3(10)D4 Vacant**

34
35 **6-02.3(10)D5 Bridge Deck Concrete Finishing and Texturing**

36 In the third subparagraph of the first paragraph, the last sentence is revised to read:

37
38 The Contractor shall texture the bridge deck surface to within 3-inches minimum and 24-
39 inches maximum of the edge of concrete at expansion joints, within 1-foot minimum and 2-
40 feet maximum of the curb line, and within 3-inches minimum and 9-inches maximum of the
41 perimeter of bridge drain assemblies.

42
43 **6-02.3(10)F Bridge Approach Slab Orientation and Anchors**

44 The second to last paragraph is revised to read:

45
46 The compression seal shall be a 2½ inch wide gland and shall conform to Section 9-04.1(4).
47

48 The last paragraph is deleted.
49

1 **6-02.3(13)A Strip Seal Expansion Joint System**

2 In item number 3 of the third paragraph, "Federal Standard 595" is revised to read "SAE AMS
3 Standard 595".
4

5 **6-02.3(13)B Compression Seal Expansion Joint System**

6 The first paragraph is revised to read:
7

8 Compression seal glands shall conform to Section 9-04.1(4) and be sized as shown in the
9 Plans.
10

11 **6-02.3(14)C Pigmented Sealer for Concrete Surfaces**

12 This section is supplemented with the following new paragraph:
13

14 Pigmented Sealer Materials shall be a product listed in the current WSDOT Qualified
15 Products List (QPL). If the pigmented sealer material is not listed in the current WSDOT
16 QPL, a sample shall be submitted to the State Materials Laboratory in Tumwater for
17 evaluation and acceptance in accordance with Section 9-08.3.
18

19 **6-02.3(20) Grout for Anchor Bolts and Bridge Bearings**

20 The second, third and fourth paragraphs are revised to read:
21

22 Grout shall be a workable mix with a viscosity that is suitable for the intended application.
23 Grout shall not be placed outside of the manufacturer recommended range of thickness. The
24 Contractor shall receive concurrence from the Engineer before using the grout.
25

26 Field grout cubes and cylinders shall be fabricated and tested in accordance with Section 9-
27 20.3 when requested by the Engineer, but not less than once per bridge pier or once per day.
28

29 Before placing grout, the substrate on which it is to be placed shall be prepared as
30 recommended by the manufacturer to ensure proper bonding. The grout shall be cured as
31 recommended by the manufacturer. The grout may be loaded when a minimum of 4,000 psi
32 compressive strength is attained.
33

34 The fifth paragraph is deleted.
35

36 **6-02.3(23) Opening to Traffic**

37 This section is supplemented with the following new paragraph:
38

39 After curing bridge approach slabs in accordance with Section 6-02.3(11), the
40 bridge approach slabs may be opened to traffic when a minimum compressive strength
41 of 2,500 psi is achieved.
42

43 **6-02.3(24)C Placing and Fastening**

44 This section is revised to read:
45

46 The Contractor shall position reinforcing steel as the Plans require and shall ensure that the
47 steel is set within specified tolerances. Adjustments to reinforcing details outside of specified
48 tolerances to avoid interferences and for other purposes are acceptable when approved by
49 the Engineer.
50

1 When spacing between bars is 1 foot or more, they shall be tied at all intersections. When
2 spacing is less than 1 foot, every other intersection shall be tied. If the Plans require bundled
3 bars, they shall be tied together with wires at least every 6 feet. All epoxy-coated bars in the
4 top mat of the bridge deck shall be tied at all intersections, however they may be tied at
5 alternate intersections when spacing is less than 1 foot in each direction and they are
6 supported by continuous supports meeting all other requirements of supports for epoxy-
7 coated bars. Other epoxy-coated bars shall also be tied at all intersections, but shall be tied
8 at alternate intersections when spacing is less than 1 foot in each direction. Wire used for
9 tying epoxy-coated reinforcing steel shall be plastic coated. **Tack welding is not permitted**
10 **on reinforcing steel.**

11
12 Abrupt bends in the steel are permitted only when one steel member bends around another.
13 Vertical stirrups shall pass around main reinforcement or be firmly attached to it.
14

15 For slip-formed concrete, the reinforcing steel bars shall be tied at all intersections and cross
16 braced to keep the cage from moving during concrete placement. Cross bracing shall be with
17 additional reinforcing steel. Cross bracing shall be placed both longitudinally and
18 transversely.
19

20 After reinforcing steel bars are placed in a traffic or pedestrian barrier and prior to slip-form
21 concrete placement, the Contractor shall check clearances and reinforcing steel bar
22 placement. This check shall be accomplished by using a template or by operating the slip-
23 form machine over the entire length of the traffic or pedestrian barrier. All clearance and
24 reinforcing steel bar placement deficiencies shall be corrected by the Contractor before slip-
25 form concrete placement.
26

27 Precast concrete supports (or other accepted devices) shall be used to maintain the concrete
28 coverage required by the Plans. The precast concrete supports shall:

- 29 1. Have a bearing surface measuring not greater than 2 inches in either dimension, and
- 30 2. Have a compressive strength equal to or greater than that of the concrete in which they
31 are embedded.
32
33
34

35 In slabs, each precast concrete support shall have either: (1) a grooved top that will hold the
36 reinforcing bar in place, or (2) an embedded wire that protrudes and is tied to the reinforcing
37 steel. If this wire is used around epoxy-coated bars, it shall be coated with plastic.
38

39 Precast concrete supports may be accepted based on a Manufacturer's Certificate of
40 Compliance.
41

42 In lieu of precast concrete supports, the Contractor may use metal or all-plastic supports to
43 hold uncoated bars. Any surface of a metal support that will not be covered by at least ½ inch
44 of concrete shall be one of the following:
45

- 46 1. Hot-dip galvanized after fabrication in keeping with AASHTO M232 Class D;
- 47 2. Coated with plastic firmly bonded to the metal. This plastic shall be at least 3/32 inch
48 thick where it touches the form and shall not react chemically with the concrete
49 when tested in the State Materials Laboratory. The plastic shall not shatter or crack
50

1 at or above -5°F and shall not deform enough to expose the metal at or below 200°F;
2 or

- 3
4 3. Stainless steel that meet the requirements of ASTM A493, Type 302. Stainless steel
5 chair supports are not required to be galvanized or plastic coated.
6

7 In lieu of precast concrete supports, epoxy-coated reinforcing bars may be supported by one
8 of the following:
9

- 10 1. Metal supports coated entirely with a dielectric material such as epoxy or plastic,
11
12 2. Other epoxy-coated reinforcing bars, or
13
14 3. All-plastic supports.
15

16 Damaged coatings on metal bar supports shall be repaired prior to placing concrete.
17

18 All-plastic supports shall be lightweight, non-porous, and chemically inert in concrete. All-
19 plastic supports shall have rounded seatings, shall not deform under load during normal
20 temperatures, and shall not shatter or crack under impact loading in cold weather. All-plastic
21 supports shall be placed at spacings greater than 1 foot along the bar and shall have at least
22 25 percent of their gross place area perforated to compensate for the difference in the
23 coefficient of thermal expansion between plastic and concrete. The shape and configuration
24 of all-plastic supports shall permit complete concrete consolidation in and around the support.
25

26 A “mat” is two adjacent and perpendicular layers of reinforcing steel. In bridge decks, top and
27 bottom mats shall be supported adequately enough to hold both in their proper positions. If
28 bar supports directly support, or are directly supported on No. 4 bars, they shall be spaced
29 at not more than 3-foot intervals (or not more than 4-foot intervals for bars No. 5 and larger).
30 Wire ties to girder stirrups shall not be considered as supports. To provide a rigid mat, the
31 Contractor shall add other supports and tie wires to the top mat as needed.
32

33 Unless noted otherwise, the minimum concrete cover for main reinforcing bars shall be:
34

35 3 inches to a concrete surface deposited against earth without intervening forms.
36

37 2½ inches to the top surface of a concrete bridge deck or bridge approach slab.
38

39 2 inches to a concrete surface when not specified otherwise in this section or in the
40 Contract documents.
41

42 1½ inches to a concrete barrier or curb surface.
43

44 Except for top cover in bridge decks and bridge approach slabs, minimum concrete cover to
45 ties and stirrups may be reduced by ½ inch but shall not be less than 1 inch. Minimum
46 concrete cover shall also be provided to the outermost part of mechanical splices and headed
47 steel reinforcing bars.
48

49 Reinforcing steel bar location, concrete cover and clearance shall not vary more than the
50 following tolerances from what is specified in the Contract documents:
51

1 Reinforcing bar location for members 12 inches or less in thickness: ± 0.25 inch

2
3 Reinforcing bar location for members greater than 12 inches in thickness: ± 0.375 inch

4
5 Reinforcing bar location for bars placed at equal spacing within a plane: the greater of
6 either ± 1 inch or ± 1 bar diameter within the plane. The total number of bars shall not be
7 fewer than that specified.

8
9 The clearance between reinforcement shall not be less than the greater of the bar
10 diameter or 1 inch for unbundled bars. For bundled bars, the clearance between bundles
11 shall not be less than the greater of 1 inch or a bar diameter derived from the equivalent
12 total area of all bars in the bundle.

13
14 Longitudinal location of bends and ends of bars: ± 1 inch

15
16 Embedded length of bars and length of bar lap splices:

17
18 No. 3 through No. 11: -1 inch

19
20 No. 14 through No. 18: -2 inches

21
22 Concrete cover measured perpendicular to concrete surface (except for the top surface
23 of bridge decks, bridge approach slabs and other roadway surfaces): ± 0.25 inch

24
25 Concrete cover measured perpendicular to concrete surface for the top surface of bridge
26 decks, bridge approach slabs and other roadway surfaces: +0.25 inch, -0 inch

27
28 Before placing any concrete, the Contractor shall:

- 29
30 1. Clean all mortar from reinforcement, and
31
32 2. Obtain the Engineer's permission to place concrete after the Engineer has
33 inspected the placement of the reinforcing steel. (Any concrete placed without the
34 Engineer's permission shall be rejected and removed.)

35 36 **6-02.3(25)H Finishing**

37 The last paragraph is revised to read:

38
39 The Contractor may repair defects in prestressed concrete girders in accordance with
40 Section 6-01.16.

41 42 **6-02.3(25)I Fabrication Tolerances**

43 Item number 12 of the first paragraph is revised to read:

44
45 12. Stirrup Projection from Top of Girder:

46
47 Wide flange thin deck and slab girders: $\pm \frac{1}{2}$ inch

48
49 All other girders: $\pm \frac{3}{4}$ inch

50

1 **6-02.3(27) Concrete for Precast Units**

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

3
4 Type III portland cement or blended hydraulic cement is permitted to be used in precast
5 concrete units.
6

7 **6-02.3(28)B Casting**

8 In the second paragraph, the reference to Section 6-02.3(25)B is revised to read Section 6-
9 02.3(25)C.

10
11 **6-02.3(28)D Contractors Control Strength**

12 In the first paragraph, “WSDOT FOP for AASHTO T 23” is revised to read “FOP for AASHTO T
13 23”.

14
15 **6-02.3(28)E Finishing**

16 This section is supplemented with the following:

17
18 The Contractor may repair defects in precast panels in accordance with Section 6-01.16.
19

20 **Section 6-05, Piling**
21 **January 2, 2018**

22 **6-05.3(9)A Pile Driving Equipment Approval**

23 The fourth sentence of the second paragraph is revised to read:

24
25 For prestressed concrete piles, the allowable driving stress in kips per square inch shall be
26 $0.095 \cdot \sqrt{f'_c}$ plus prestress in tension, and $0.85f'_c$ minus prestress in compression, where f'_c
27 is the concrete compressive strength in kips per square inch.
28

29 **Section 6-07, Painting**
30 **January 7, 2019**

31 **6-07.1 Description**

32 The first sentence is revised to read:

33
34 This work consists of containment, surface preparation, shielding adjacent areas from work,
35 testing and disposing of debris, furnishing and applying paint, and cleaning up after painting
36 is completed.
37

38 **6-07.2 Materials**

39 The material reference for Paint is revised to read:

40
41 Paint and Related Materials 9-08
42

43 **6-07.3(1)A Work Force Qualifications for Shop Application of Paint**

44 This section is supplemented with the following new sentence:

45
46 The work force may be accepted based on the approved facility.
47

1 **6-07.3(1)B Work Force Qualifications for Field Application of Paint**

2 The first two paragraphs are revised to read:

3
4 The Contractor preparing the surface and applying the paint shall be certified under
5 SSPC-QP 1 or NACE International Institute Contractor Accreditation Program (NIICAP) AS
6 1.

7
8 The Contractor removing and otherwise disturbing existing paint containing lead and other
9 hazardous materials shall be certified under SSPC-QP 2, Category A or NIICAP AS 2.

10
11 The third paragraph (up until the colon) is revised to read:

12
13 In lieu of the above SSPC or NIICAP certifications, the Contractor performing the specified
14 work shall complete both of the following actions:

15
16 Item number 2 of the third paragraph is revised to read:

- 17
18 2. The Contractor's quality control inspector(s) for the project shall be NACE-certified CIP
19 Level 3 or SSPC Protective Coating Inspector (PCI) Level 3.

20
21 **6-07.3(2) Submittals**

22 The first paragraph is supplemented with the following:

23
24 Each component of the plan shall identify the specification section it represents.

25
26 **6-07.3(2)B Contractor's Quality Control Program Submittal Component**

27 The numbered list in the first paragraph is revised to read:

- 28
29 1. Description of the inspection procedures, tools, techniques and the acceptance criteria
30 for all phases of work.
31
32 2. Procedure for implementation of corrective action for non-conformance work.
33
34 3. The paint system manufacturer's recommended methods of preventing defects.
35
36 4. The Contractor's frequency of quality control inspection for each phase of work.
37
38 5. Example of each completed form(s) of the daily quality control report used to document
39 the inspection work and tests performed by the Contractor's quality control personnel.

40
41 **6-07.3(2)C Paint System Manufacturer and Paint System Information Submittal**
42 **Component**

43 Item number 1 is revised to read:

- 44
45 1. Product data sheets and Safety Data Sheets (SDS) on the paint materials, paint
46 preparation, and paint application, as specified by the paint manufacturer, including:
47
48 a. All application instructions, including the mixing and thinning directions.
49
50 b. Recommended spray nozzles and pressures.

- 1
2 c. Minimum and maximum drying time between coats.
3
4 d. Restrictions on temperature and humidity.
5
6 e. Repair procedures for shop and field applied coatings.
7
8 f. Maximum dry film thickness for each coat.
9
10 g. Minimum wet film thickness for each coat to achieve the specified minimum dry film
11 thickness.
12

13 **6-07.3(2)D Hazardous Waste Containment, Collection, Testing, and Disposal**
14 **Submittal Component**

15 The first paragraph (up until the colon) is revised to read:

16
17 The hazardous waste containment, collection, testing, and disposal shall meet all Federal
18 and State requirements, and the submittal component of the painting plan shall include the
19 following:
20

21 **6-07.3(2)E Cleaning and Surface Preparation Submittal Component**

22 Item 1(b) of the first paragraph is revised to read::

- 23
24 b. Type, manufacturer, and brand of abrasive blast material and all associated additives,
25 including Safety Data Sheets (SDS).
26

27 **6-07.3(3)B Quality Control and Quality Assurance for Field Application of Paint**

28 The last sentence of the first paragraph (excluding the numbered list) is revised to read:

29
30 The Contractor's quality control operations shall include a minimum monitoring and
31 documenting the following for each working day:
32

33 Item number 1 in the fourth paragraph is revised to read:

- 34
35 1. Environmental conditions for painting in accordance with ASTM E 337.
36

37 Item number 4 in the fourth paragraph is revised to read:

- 38
39 4. Pictorial of surface preparation guides in accordance with SSPC-VIS 1, 3, 4, and 5.
40

41 Item number 5 in the fourth paragraph is revised to read:

- 42
43 5. Surface profile by Keanne-Tator comparator in accordance with ASTM D 4417 and
44 SSPC PA17.
45

46 **6-07.3(4) Paint System Manufacturer's Technical Representative**

47 This section is revised to read:
48

1 The paint system manufacturer's representative shall be present at the jobsite for the pre-
2 painting conference and for the first day of paint application, and shall be available to the
3 Contractor and Contracting Agency for consultation for the full project duration.
4

5 **6-07.3(5) Pre-Painting Conference**

6 The second paragraph is revised to read:
7

8 If the Contractor's key personnel change between any work operations, an additional
9 conference shall be held if requested by the Engineer.
10

11 **6-07.3(6)A Paint Containers**

12 In item number 2 of the first paragraph, "Federal Standard 595" is revised to read "SAE AMS
13 Standard 595".
14

15 **6-07.3(6)B Paint Storage**

16 Item number 2 of the second paragraph is revised to read:
17

- 18 2. The Contractor shall monitor and document daily the paint material storage facility with
19 a high-low recording thermometer device.
20

21 **6-07.3(7) Paint Sampling and Testing**

22 The first two paragraphs are revised to read:
23

24 The Contractor shall provide the Engineer 1 quart of each paint representing each lot.
25 Samples shall be accompanied with a Safety Data Sheet.
26

27 If the quantity of paint required for each component of the paint system for the entire project
28 is 20 gallons or less, then the paint system components will be accepted as specified in
29 Section 9-08.1(7).
30

31 **6-07.3(8)A Paint Film Thickness Measurement Gages**

32 The first paragraph is revised to read:
33

34 Paint dry film thickness measurements shall be performed with either a Type 1 pull-off gage
35 or a Type 2 electronic gage as specified in SSPC Paint Application Specification No. 2,
36 Procedure for Determining Conformance to Dry Coating Thickness Requirements.
37

38 **6-07.3(9) Painting New Steel Structures**

39 The last sentence of the second paragraph is revised to read:
40

41 Welded shear connectors are not required to painted.
42

43 The last paragraph is revised to read:
44

45 Temporary attachments or supports for scaffolding, containment or forms shall not damage
46 the paint system.
47

48 **6-07.3(9)A Paint System**

49 The first paragraph is revised to read:
50

1 The paint system applied to new steel surfaces shall consist of the following:

2
3 Option 1 (component based paint system):

4	Primer Coat – Inorganic Zinc Rich	9-08.1(2)C
5	Intermediate Coat – Moisture Cured Polyurethane	9-08.1(2)G
6	Intermediate Stripe Coat – Moisture Cured Polyurethane	9-08.1(2)G
7	Top Coat – Moisture Cured Polyurethane	9-08.1(2)H
8		

9
10 Option 2 (performance based paint system):

11	Primer Coat – Inorganic Zinc Rich	9-08.1(2)M
12	Intermediate Coat – Epoxy	9-08.1(2)M
13	Intermediate Stripe Coat – Epoxy	9-08.1(2)M
14	Top Coat – Polyurethane	9-08.1(2)M
15		

16
17 The following new paragraph is inserted after the first paragraph:

18
19 Paints and related materials shall be products listed in the current WSDOT Qualified Products
20 List (QPL). Component based paint systems shall be listed on the QPL in the applicable
21 sections of Section 9-08. Performance based systems shall be listed on the current Northeast
22 Protective Coatings Committee (NEPCOAT) Qualified Products List “A” as listed on the
23 WSDOT QPL in Section 9-08.1(2)M. If the paint and related materials for the component
24 based system is not listed in the current WSDOT QPL, a sample shall be submitted to the
25 State Materials Laboratory in Tumwater for evaluation and acceptance in accordance with
26 Section 9-08.

27
28 **6-07.3(9)C Mixing and Thinning Paint**

29 This section is revised to read:

30
31 The Contractor shall thoroughly mix paint in accordance with the manufacturer’s written
32 recommendations and by mechanical means to ensure a uniform and lump free composition.
33 Paint shall not be mixed by means of air stream bubbling or boxing. Paint shall be mixed in
34 the original containers and mixing shall continue until all pigment or metallic powder is in
35 suspension. Care shall be taken to ensure that the solid material that has settled to the
36 bottom of the container is thoroughly dispersed. After mixing, the Contractor shall inspect the
37 paint for uniformity and to ensure that no unmixed pigment or lumps are present.

38
39 Catalysts, curing agents, hardeners, initiators, or dry metallic powders that are packaged
40 separately may be added to the base paint in accordance with the paint manufacturer’s
41 written recommendations and only after the paint is thoroughly mixed to achieve a uniform
42 mixture with all particles wetted. The Contractor shall then add the proper volume of curing
43 agent to the correct volume of base and mix thoroughly. The mixture shall be used within the
44 pot life specified by the manufacturer. Unused portions shall be discarded at the end of each
45 work day. Accelerants are not permitted except as allowed by the Engineer.

46
47 The Contractor shall not add additional thinner at the application site except as allowed by
48 the Engineer. The amount and type of thinner, if allowed, shall conform to the manufacturer’s
49 specifications. If recommended by the manufacturer and allowed by the Engineer, a
50 measuring cup shall be used for the addition of thinner to any paint with graduations in

1 ounces. No un-measured addition of thinner to paint will be allowed. Any paint found to be
2 thinned by unacceptable methods will be rejected.

3
4 When recommended by the manufacturer, the Contractor shall constantly agitate paint during
5 application by use of paint pots equipped with mechanical agitators.

6
7 The Contractor shall strain all paint after mixing to remove undesirable matter, but without
8 removing the pigment or metallic powder.

9
10 Paint shall be stored and mixed in a secure, contained location to eliminate the potential for
11 spills into State waters and onto the ground and highway surfaces.

12
13 **6-07.3(9)D Coating Thickness**

14 This section is revised to read:

15
16 Dry film thickness shall be measured in accordance with SSPC Paint Application
17 Specification No. 2, *Procedure for Determining Conformance to Dry Coating Thickness*
18 *Requirements*.

19
20 The minimum dry film thickness of the primer coat shall not be less than 2.5 mils.

21
22 The minimum dry film thickness of each coat (combination of intermediate and intermediate
23 stripe, and top) shall be not less than 3.0 mils.

24
25 The dry film thickness of each coat shall not be thicker than the paint manufacturer's
26 recommended maximum thickness.

27
28 The minimum wet film thickness of each coat shall be specified by the paint manufacturer to
29 achieve the minimum dry film thickness.

30
31 Film thickness, wet and dry, will be measured by gages conforming to Section 6-07.3(8)A.

32
33 Wet measurements will be taken immediately after the paint is applied in accordance with
34 ASTM D4414. Dry measurements will be taken after the coating is dry and hard in
35 accordance with SSPC Paint Application Specification No. 2.

36
37 Each painter shall be equipped with wet film thickness gages and shall be responsible for
38 performing frequent checks of the paint film thickness throughout application.

39
40 Coating thickness measurements may be made by the Engineer after the application of each
41 coat and before the application of the succeeding coat. In addition, the Engineer may inspect
42 for uniform and complete coverage and appearance. One hundred percent of all thickness
43 measurements shall meet or exceed the minimum wet film thickness. In areas where wet film
44 thickness measurements are impractical, dry film thickness measurements may be made. If
45 a question arises about an individual coat's thickness or coverage, it may be verified by the
46 use of a Tooke gage in accordance with ASTM D4138.

47
48 If the specified number of coats does not produce a combined dry film thickness of at least
49 the sum of the thicknesses required per coat, if an individual coat does not meet the minimum
50 thickness, or if visual inspection shows incomplete coverage, the coating system will be
51 rejected and the Contractor shall discontinue painting and surface preparation operations

1 and shall submit a Type 2 Working Drawing of the repair proposal. The repair proposal shall
2 include documentation demonstrating the cause of the less-than-minimum thickness, along
3 with physical test results, as necessary, and modifications to Work methods to prevent similar
4 results. The Contractor shall not resume painting or surface preparation operations until
5 receiving the Engineer's acceptance of the completed repair.
6

7 **6-07.3(9)E Surface Temperature Requirements Prior to Application of Paint**

8 This section, including title, is revised to read:
9

10 **6-07.3(9)E Environmental Condition Requirements Prior to Application of** 11 **Paint**

12 Paint shall be applied only during periods when:
13

- 14 1. Air and steel temperatures are in accordance with the paint manufacturer's
15 recommendations but in no case less than 35°F nor greater than 115°F.
16
- 17 2. Steel surface temperature is a minimum of 5°F above the dew point.
18
- 19 3. Steel surface is not wet.
20
- 21 4. Relative humidity is within the manufacturer's recommended range.
22
- 23 5. The anticipated ambient temperature will remain above 35°F or the manufacturer's
24 minimum temperature, whichever is greater, during the paint drying and curing
25 period.
26

27 Application will not be allowed if conditions are not favorable for proper application and
28 performance of the paint.
29

30 Paint shall not be applied when weather conditions are unfavorable to proper curing. If a paint
31 system manufacturer's recommendations allow for application of a paint under environmental
32 conditions other than those specified, the Contractor shall submit a Type 2 Working Drawing
33 consisting of a letter from the paint manufacturer specifying the environmental conditions
34 under which the paint can be applied. Application of paint under environmental conditions
35 other than those specified in this section will not be allowed without the Engineer's
36 concurrence.
37

38 **6-07.3(9)F Shop Surface Cleaning and Preparation**

39 The last sentence is revised to read:
40

41 The entire steel surface to be painted, including surfaces specified in Section 6-07.3(9)G to
42 receive a mist coat of primer, shall be cleaned to a near white condition in accordance with
43 SSPC-SP 10, *Near-white Metal Blast Cleaning*, and shall be in this condition immediately
44 prior to paint application.
45

46 **6-07.3(9)G Application of Shop Primer Coat**

47 The first paragraph is supplemented with the following:
48
49

1 Repairs of the shop primer coat shall be prepared in accordance with the painting plan. Shop
2 primer coat repair paint shall be selected from the approved component based or
3 performance based paint system in accordance with Section 6-07.3(10)H.
4

5 **6-07.3(9)H Containment for Field Coating**

6 This section is revised to read:
7

8 The Contractor shall use a containment system in accordance with Section 6-07.3(10)A for
9 surface preparation and prime coating of all uncoated areas remaining, including bolts, nuts,
10 washers, and splice plates.
11

12 During painting operations of the intermediate, stripe and top coats the Contractor shall
13 furnish, install, and maintain drip tarps below the areas to be painted to contain all spilled
14 paint, buckets, brushes, and other deleterious material, and prevent such materials from
15 reaching the environment below or adjacent to the structure being painted. Drip tarps shall
16 be absorbent material and hung to minimize puddling. The Contractor shall evaluate the
17 project-specific conditions to determine the specific type and extent of containment needed
18 to control the paint emissions and shall submit a containment plan in accordance with Section
19 6-07.3(2).
20

21 **6-07.3(9)I Application of Field Coatings**

22 This section is revised to read:
23

24 An on-site supervisor shall be present for each work shift at the bridge site.
25

26 Upon completion of erection Work, all uncoated or damaged areas remaining, including bolts,
27 nuts, washers, and splice plates, shall be prepared in accordance with Section 6-07.3(9)F,
28 followed by a field primer coat of a zinc-rich primer and final coats of paint selected from the
29 approved component or performance based paint system in accordance with Section 6-
30 07.3(10)H. . The intermediate, intermediate stripe, and top coats shall be applied in
31 accordance with the manufacturer's written recommendations.
32

33 Upon completion of erection Work, welds for steel column jackets may be prepared in
34 accordance with SSPC-SP 15, Commercial Grade Power Tool Cleaning.
35

36 The minimum drying time between coats shall be as shown in the product data sheets, but
37 not less than 12 hours. The Contractor shall determine whether the paint has cured
38 sufficiently for proper application of succeeding coats.
39

40 The maximum time between intermediate and top coats shall be in accordance with the
41 manufacturer's written recommendations. If the maximum time between coats is exceeded,
42 all newly coated surfaces shall be prepared to SSPC-SP 7, *Brush-off Blast Cleaning*, and
43 shall be repainted with the same paint that was cleaned, at no additional cost to the
44 Contracting Agency.
45

46 Each coat shall be applied in a uniform layer, completely covering the preceding coat. The
47 Contractor shall correct runs, sags, skips, or other deficiencies before application of
48 succeeding coats. Such corrective work may require re-cleaning, application of additional
49 paint, or other means as determined by the Engineer, at no additional cost to the Contracting
50 Agency.
51

1 Dry film thickness measurements will be made in accordance with Section 6-07.3(9)D.
2

3 All paint damage that occurs shall be repaired in accordance with the manufacturer's written
4 recommendations. On bare areas or areas of insufficient primer thickness, the repair shall
5 include field-applied zinc-rich primer and the final coats of paint selected from the approved
6 component or performance based paint system in accordance with Section 6-07.3(10)H. On
7 areas where the primer is at least equal to the minimum required dry film thickness, the repair
8 shall include the application of the final two coats of the paint system. All paint repair
9 operations shall be performed by the Contractor at no additional cost or time to the
10 Contracting Agency.
11

12 **6-07.3(10)A Containment**

13 The first sentence of the third paragraph is revised to read:
14

15 Emissions shall be assessed by Visible Emission Observations (Method A) in SSPC
16 Technology Update No. 7, *Conducting Ambient Air, Soil, and Water Sampling of Surface*
17 *Preparation and Paint Disturbance Activities*, Section 6.2 and shall be limited to the Level A
18 Acceptance Criteria Option Level 0 Emissions standard.
19

20 **6-07.3(10)D Surface Preparation Prior to Overcoat Painting**

21 The first paragraph is revised to read:
22

23 The Contractor shall remove any visible oil, grease, and road tar in accordance with SSPC-
24 SP 1, *Solvent Cleaning*.
25

26 The second paragraph is revised to read:
27

28 Following any preparation by SSPC-SP1, all steel surfaces to be painted shall be prepared
29 in accordance with SSPC-SP 7, *Brush-off Blast Cleaning*. Surfaces inaccessible to brush-off
30 blast shall be prepared in accordance with SSPC-SP 3, *Power Tool Cleaning*, as allowed by
31 the Engineer.
32

33 The first sentence of the third paragraph is revised to read:
34

35 Following brush-off blast cleaning, the Contractor shall perform spot abrasive blast cleaning
36 in accordance with SSPC-SP 6, *Commercial Blast Cleaning*.
37

38 The second to last sentence of the third paragraph is revised to read:
39

40 For small areas, as allowed by the Engineer, the Contractor may substitute cleaning in
41 accordance with SSPC-SP 15, *Commercial Grade Power Tool Cleaning*.
42

43 **6-07.3(10)G Treatment of Pack and Rust Gaps**

44 The second paragraph is revised to read:
45

46 Pack rust forming a gap between steel surfaces of $\frac{1}{16}$ to $\frac{1}{4}$ inch shall be cleaned to a depth
47 of at least one half of the gap width. The gaps shall be cleaned and prepared in accordance
48 with SSPC-SP6. The cleaned gap shall be treated with rust penetrating sealer, prime coated,
49 and then caulked to form a watertight seal along the top edge and the two sides of the steel

1 pieces involved, using the rust penetrating sealer and caulk as accepted by the Engineer.
2 The bottom edge or lowest edge of the steel pieces involved shall not be caulked.

3
4 The third paragraph is supplemented with the following:

5
6 Caulk shall be a single-component urethane sealant conforming to Section 9-08.7.

7
8 The fifth paragraph is revised to read:

9
10 At locations where gaps between steel surfaces exceed ¼ inch, the Contractor shall clean
11 and prepare the gap in accordance SSPC-SP6, apply the rust penetrating sealer, apply the
12 prime coat, and then fill the gap with foam backer rod material as accepted by the Engineer.
13 The foam backer rod material shall be of sufficient diameter to fill the crevice or gap. The
14 Contractor shall apply caulk over the foam backer rod material to form a watertight seal.

15
16 This section is supplemented with the following new paragraph:

17
18 Caulk and backer rod, if needed, shall be placed prior to applying the top coat. The
19 Contractor, with the concurrence of the Engineer, may apply the rust penetrating sealer after
20 application of the prime coat provided the primer is removed in the areas to be sealed. The
21 areas to be sealed shall be re-cleaned and re-prepared in accordance with SSPC-SP6.

22 23 **6-07.3(10)H Paint System**

24 The first paragraph is revised to read:

25
26 The paint system applied to existing steel surfaces shall consist of the following five-coat
27 system:

28
29 Option 1 (component based system):

30		
31	Primer Coat – Zinc-filled Moisture Cured Polyurethane	9-08.1(2)F
32	Primer Stripe Coat - Moisture Cured Polyurethane	9-08.1(2)F
33	Intermediate Coat - Moisture Cured Polyurethane	9-08.1(2)G
34	Intermediate Stripe Coat - Moisture Cured Polyurethane	9-08.1(2)G
35	Top Coat - Moisture Cured Polyurethane	9-08.1(2)H
36		

37 Option 2 (performance based system):

38		
39	Primer Coat – Zinc-rich Epoxy	9-08.1(2)N
40	Primer Stripe Coat – Epoxy	9-08.1(2)N
41	Intermediate Coat – Epoxy	9-08.1(2)N
42	Intermediate Stripe Coat – Epoxy	9-08.1(2)N
43	Top Coat – Polyurethane	9-08.1(2)N
44		

45 The following new paragraph is inserted after the first paragraph:

46
47 Paints and related materials shall be a product listed in the current WSDOT Qualified
48 Products List (QPL). Component based paint systems shall be listed on the QPL in the
49 applicable sections of Section 9-08. Performance based systems shall be listed on the
50 current Northeast Protective Coatings Committee (NEPCOAT) Qualified Products List “B” as
51 listed on the WSDOT QPL in Section 9-08.1(2)N. If the paint and related material for the

1 component based system is not listed in the current WSDOT QPL, a sample shall be
2 submitted to the State Materials Laboratory in Tumwater for evaluation and acceptance in
3 accordance with Section 9-08.
4

5 **6-07.3(10)J Mixing and Thinning Paint**

6 This section is revised to read:

7
8 Mixing and thinning paint shall be in accordance with Section 6-07.3(9)C.
9

10 **6-07.3(10)K Coating Thickness**

11 This section is revised to read:

12
13 Coating thickness shall be in accordance with Section 6-07.3(9)D except the minimum dry
14 film thickness of each coat (combination of primer and primer stripe, combination of
15 intermediate and intermediate stripe, and top) shall not be less than 3.0 mils.
16

17 **6-07.3(10)L Environmental Condition Requirements Prior to Application of Paint**

18 This section is revised to read:

19
20 Environmental conditions shall be in accordance with Section 6-07.3(9)E.
21

22 **6-07.3(10)M Steel Surface Condition Requirements Prior to Application of Paint**

23 The third paragraph is revised to read:

24
25 Edges of existing paint shall be feathered in accordance with SSPC-PA 1, *Shop, Field, and*
26 *Maintenance Coating of Metals*, Note 15.20.
27

28 **6-07.3(10)N Field Coating Application Methods**

29 The third sentence is revised to read:

30
31 The Contractor may apply stripe coat paint using spray or brush but shall follow spray
32 application using a brush to ensure complete coverage around structural geometric
33 irregularities and to push the paint into gaps between existing steel surfaces and around
34 rivets and bolts.
35

36 **6-07.3(10)O Applying Field Coatings**

37 The second to last paragraph is revised to read:

38
39 Each application of primer, primer stripe, intermediate, intermediate stripe, and top coat shall
40 be considered as separately applied coats. The Contractor shall not use a preceding or
41 subsequent coat to remedy a deficiency in another coat. The Contractor shall apply the top
42 coat to at least the minimum specified top coat thickness, to provide a uniform appearance
43 and consistent finish coverage.
44

45 **6-07.3(10)P Field Coating Repair**

46 The second sentence is revised to read:

47
48 Repair areas shall be cleaned of all damaged paint and the system reapplied using all coats
49 typical to the paint system and shall meet the minimum coating thickness.
50

1 **6-07.3(11)A Painting of Galvanized Surfaces**

2 This section is revised to read:

3
4 All galvanized surfaces receiving paint shall be prepared for painting in accordance with the
5 ASTM D 6386. The method of preparation shall be brush-off in accordance with SSPC-SP16
6 *Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and*
7 *Non-Ferrous Metals* or as otherwise allowed by the Engineer. The Contractor shall not begin
8 painting until receiving the Engineer's acceptance of the prepared galvanized surface. For
9 galvanized bolts used for replacement of deteriorated existing rivets, the Contractor, with the
10 concurrence of the Engineer and after successful demonstration testing, may prepare
11 galvanized surfaces in accordance with SSPC-SP1 followed by SSPC-SP2, *Hand Tool*
12 *Cleaning* or SSPC-SP3, *Power Tool Cleaning*. The demonstration testing shall include
13 adhesion testing of the first coat of paint over galvanized bolts, nuts, and washers or a
14 representative galvanized surface. Adhesion testing shall be performed in accordance with
15 ASTM D 4541 for 600 psi minimum adhesion. A minimum of 3 successful tests shall be
16 performed on the galvanized surface prepared and painted using the same methods and
17 materials to be used on the galvanized bolts, nuts and washers in the field.
18

19 **6-07.3(11)A2 Paint Coat Materials**

20 This section is revised to read:

21
22 The Contractor shall paint the dry surface as follows:

- 23
24 1. The first coat over a galvanized surface shall be an epoxy polyamide conforming to
25 Section 9-08.1(2)E . In the case of galvanized bolts used for replacement of
26 deteriorated existing rivets and for small surface areas less than or equal to one
27 square foot, an intermediate moisture cured polyurethane conforming to Section 9-
28 08.1(2)G may be used as a first coat. In both cases the first coat shall be compatible
29 with galvanizing and as recommended by the top coat manufacturer.
30
31 2. The second coat shall be a top coat moisture cured aliphatic polyurethane
32 conforming to Section 9-08.1(2)H or a top coat polyurethane conforming to Section
33 6-07.3(10)H Option 2 NEPCOAT performance based paint specification compatible
34 with the first coat as recommended by the manufacturer.
35

36 Each coat shall be dry before the next coat is applied. All coats applied in the shop shall be
37 dried hard before shipment.
38

39 **6-07.3(11)B Powder Coating of Galvanized Surfaces**

40 This section is revised to read:

41
42 Powder coating of galvanized surfaces shall consist of the following coats:

- 43
44 1. The first coat shall be an epoxy powder primer coat conforming to Section 9-08.2.
45
46 2. The second coat shall be a polyester finish coat conforming to Section 9-08.2.
47

48 **6-07.3(11)B3 Galvanized Surface Cleaning and Preparation**

49 The first three paragraphs are revised to read:
50

1 Galvanized surfaces receiving the powder coating shall be cleaned and prepared for coating
2 in accordance with ASTM D 7803, and the project-specific powder coating plan.
3

4 Assemblies conforming to the ASTM D 7803 definition for newly galvanized steel shall
5 receive surface smoothing and surface cleaning in accordance with ASTM D 7803, Section
6 5, and surface preparation in accordance with ASTM D 7803, Section 5.1.3.
7

8 Assemblies conforming to the ASTM D 7803 definition for partially weathered galvanized
9 steel shall be checked and prepared in accordance with ASTM D 7803, Section 6, before
10 then receiving surface smoothing and surface cleaning in accordance with ASTM D 7803,
11 Section 5, and surface preparation in accordance with ASTM D 7803, Section 5.1.3.
12

13 The fourth paragraph (up until the colon) is revised to read:
14

15 Assemblies conforming to the ASTM D 7803 definition for weathered galvanized steel shall
16 be prepared in accordance with ASTM D 7803, Section 7 before then receiving surface
17 smoothing and surface cleaning in accordance with ASTM D 7803, Section 5, and surface
18 preparation in accordance with ASTM D 7803, Section 5.3 except as follows:
19

20 **6-07.3(11)B5 Testing**

21 Item number 4 in the first paragraph is revised to read:
22

- 23 4. Adhesion testing in accordance with ASTM D 4541 for 600 psi minimum adhesion for
24 the complete two-component system.
25

26 The second sentence of the fourth paragraph is revised to read:
27

28 Rejected assemblies shall be repaired or recoated by the Contractor, at no additional
29 expense to the Contracting Agency, in accordance with the powder coating manufacturer's
30 recommendation as detailed in the project-specific powder coating plan, until the assemblies
31 satisfy the acceptance testing requirements.
32

33 **6-07.3(12) Painting Ferry Terminal Structures**

34 This section is revised to read:
35

36 Painting of ferry terminal Structures shall be in accordance with Section 6-07.3 as
37 supplemented below.
38

39 This section is supplemented with the following new subsections:
40

41 **6-07.3(12)A Painting New Steel Ferry Terminal Structures**

42 Painting of new steel Structures shall be in accordance with Section 6-07.3(9) except that all
43 coatings (primer, intermediate, intermediate stripe, and top) shall be applied in the shop with
44 the following exceptions:
45

- 46 1. Steel surfaces to be field welded.
- 47 2. Steel surfaces to be greased.
- 48 3. The length of piles designated in the Plans not requiring painting.
- 49
- 50

1
2 The minimum drying time between coats shall be as shown in the product data sheets, but
3 not less than 12 hours. The Contractor shall determine whether the paint has cured
4 sufficiently for proper application of succeeding coats.

5
6 **6-07.3(12)A1 Paint Systems**

7 Paint systems for Structural Steel, which includes vehicle transfer spans and towers,
8 pedestrian overhead loading structures and towers, upland structural steel and other
9 elements as designated in the Special Provisions shall be as specified in Section 6-
10 07.3(9)A.

11
12 Paint systems for Piling, Landing Aids and Life Ladders shall be as specified in the
13 Special Provisions.

14
15 **6-07.3(12)A2 Paint Color**

16 Paint colors shall be as specified in the Special Provisions.

17
18 **6-07.3(12)A3 Coating Thickness**

19 Coating thicknesses shall be as specified in the Special Provisions.

20
21 **6-07.3(12)A4 Application of Field Coatings**

22 An on-site supervisor shall be present for each work shift at the project site.

23
24 Upon completion of erection Work, all uncoated or damaged areas remaining, including
25 bolts, nuts, washers, splice plates, and field welds shall be prepared in accordance with
26 SSPC-SP 1, Solvent Cleaning, followed by SSPC-SP 11, *Power Tool Cleaning to Bare*
27 *Metal*. Surface preparation shall be measured according to SSPC-VIS 3. SSPC-SP 11
28 shall be performed for a minimum distance of 1 inch from the uncoated or damaged
29 area. In addition, intact shop-applied coating surrounding the area shall be abraded or
30 sanded for a distance of 6 inches out from the properly prepared clean/bare metal areas
31 to provide adequate roughness for application of field coatings. All sanding dust and
32 contamination shall be removed prior to application of field coatings.

33
34 Field applied paint for Structural Steel shall conform to Section 6-07.3(10)H, as
35 applicable. Field applied paint for Piling, Landing Aids and Life Ladders shall be as
36 specified in the Special Provisions.

37
38 For areas above the tidal zone, the minimum drying time between coats shall be as
39 shown in the product data sheets, but not less than 12 hours. For areas within the tidal
40 zone, the minimum drying time between coats shall be as recommended by the paint
41 system manufacturer. The Contractor shall determine whether the paint has cured
42 sufficiently for proper application of succeeding coats.

43
44 The maximum time between intermediate and top coats shall be in accordance with the
45 manufacturer's written recommendations. If the maximum time between coats is
46 exceeded, all newly coated surfaces shall be prepared to SSPC-SP 3, *Power Tool*
47 *Cleaning*, and shall be repainted with the same paint that was cleaned, at no additional
48 cost to the Contracting Agency.

49
50 Each coat shall be applied in a uniform layer, completely covering the preceding coat.
51 The Contractor shall correct runs, sags, skips, or other deficiencies before application of

1 succeeding coats. Such corrective work may require re-cleaning, application of
2 additional paint, or other means as determined by the Engineer, at no additional cost to
3 the Contracting Agency.
4

5 Surface preparation for underwater locations shall consist of removing all dirt, oil,
6 grease, loose paint, loose rust, and marine growth from the area that is to be repaired.
7 The sound paint surrounding the damaged area shall be roughened to meet the
8 requirements of the manufacturer. Paint for underwater applications shall be as specified
9 in the Special Provisions and shall be applied in accordance with the manufacturer's
10 recommendations.
11

12 **6-07.3(12)B Painting Existing Steel Ferry Terminal Structures**

13 Painting of existing steel structures shall be in accordance with Section 6-07.3(10) as
14 supplemented by the following.
15

16 **6-07.3(12)B1 Containment**

17 Containment for full removal shall be in accordance with Section 6-07.3(10)A.
18 Containment for overcoat systems shall be in accordance with all applicable Permits as
19 required in the Special Provisions.
20

21 Prior to cleaning the Contractor shall enclose all exposed electrical and mechanical
22 equipment to seal out dust, water, and paint. Non-metallic surfaces shall not be abrasive
23 blasted or painted. Unless otherwise specified, the following metallic surfaces shall not
24 be painted and shall be protected from abrasive blasting and painting:
25

- 26 1. Galvanized and stainless steel surfaces not previously painted,
- 27 2. Non-skid surfaces,
- 28 3. Unpainted intentionally greased surfaces,
- 29 4. Equipment labels, identification plates, tags, etc.,
- 30 5. Fire and emergency containers or boxes,
- 31 6. Mechanical hardware such as hoist sheaves, hydraulic cylinders, gear boxes,
32 wire rope, etc.
33
34
35
36
37
38

39 The Contractor shall submit a Type 2 Working Drawing consisting of materials and
40 equipment used to shield components specified to not be cleaned and painted.
41 The Contractor shall shut off the power prior to working around electrical equipment. The
42 Contractor shall follow the lock-out/tag-out safety provisions of the WAC 296-803 and all
43 other applicable safety standards.
44

45 **6-07.3(12)B2 Surface Preparation**

46 For applications above high water and within the tidal zone, surface preparation for
47 overcoat painting shall be in accordance with SSPC-SP 1, *Solvent Cleaning*, followed
48 by SSPC-SP 3, *Power Tool Cleaning*. Use of wire brushes is not allowed. After SP 3
49 cleaning has been completed all surfaces exhibiting coating failure down to the steel
50 substrate, and those exhibiting visible corrosion, shall be prepared down to clean bare
51 steel in accordance with SSPC-SP 15, Commercial Grade *Power Tool Cleaning*.

1 Surface preparation shall be measured according to SSPC-VIS 3. SSPC-SP 15 shall
2 be performed for a minimum distance of 1 inch from the area exhibiting failure or visible
3 corrosion. In addition, intact shop-applied coating surrounding the repair area shall be
4 abraded or sanded for a distance of 6 inches out from the properly prepared clean/bare
5 metal areas to provide adequate roughness for application of repair coatings. All sanding
6 dust and contamination shall be removed prior to application of repair coatings. Surface
7 preparation for full paint removal shall be in accordance with Section 6-07.3(10)E except
8 SSPC-SP 11 will be permitted as detailed in the Contractor's painting plan and as
9 allowed by the Engineer.

10
11 Surface preparation for underwater locations shall consist of removing all dirt, oil,
12 grease, loose paint, loose rust, and marine growth from the area that is to be repaired.
13 The sound paint surrounding the damaged area shall be roughened as required by the
14 coating manufacturer.

15
16 Removed marine growth may be released to state waters provided the marine growth is
17 not mixed with contaminants (paint, oil, rust, etc.) and it shall not accumulate on the sea
18 bed. All marine growth containing contaminants shall be collected for proper disposal.

19
20 Surface preparation for the underside of bridge decks (consisting of either a steel grid
21 system of main bars or tees and a light gauge metal form, in-filled with concrete or a
22 corrugated light gauge metal form, infilled with concrete) shall be in accordance with
23 SSPC-SP 2, *Hand Tool Cleaning* or SSPC-SP 3, *Power Tool Cleaning* with the intent of
24 not causing further damage to the light gauge metal form. Following removal of any pack
25 rust and corroded sections from the underside of the bridge deck, cleaning and flushing
26 to remove salts and prior to applying the primer coat, the Contractor shall seal the entire
27 underside of the deck system with rust-penetrating sealer. Damage to galvanized metal
28 forms and/or grids shall be repaired in accordance with ASTM A 780, with the preferred
29 method of repair using paints containing zinc dust.

30
31 **6-07.3(12)B3 Paint Systems**

32 Paints systems for Structural Steel, which includes vehicle transfer spans and towers,
33 pedestrian overhead loading structures and towers, upland structural steel and other
34 elements as designated in the Special Provisions shall be as specified in Section 6-
35 07.3(10)H.

36
37 Paint systems for Piling, Landing Aids, Life Ladders, underside of vehicle transfer span
38 bridge decks, non-skid surface treated areas, and anti-graffiti coatings shall be as
39 specified in the Special Provisions.

40
41 **6-07.3(12)B4 Paint Color**

42 Paint colors shall be as specified in the Special Provisions.

43
44 **6-07.3(12)B5 Coating Thickness**

45 Coating thicknesses shall be as specified in the Special Provisions.

46
47 **6-07.3(12)B6 Application of Field Coatings**

48 Application of field coatings shall be in accordance with Section 6-07.3(10)O and Section
49 6-07.3(12)A2 except for the following:
50

- 1 1. All coatings applied in the field shall be applied using a brush or roller. Spray
2 application methods may be used if allowed by the Engineer.
- 3
- 4 2. Applied coatings shall not be immersed until the coating has been cured as
5 required by the coating manufacturer.
- 6
- 7 3. Non-skid surface treatment products shall be applied in accordance with the
8 manufacturer's recommendations.
- 9
- 10 4. Anti-graffiti coatings shall be applied in one coat following application of the top
11 coat, where specified in the Plans.
- 12

13 **6-07.3(14)B Reference Standards**

14 The second standard reference (to SSPC CS 23.00), and its accompanying title, is revised to
15 read:

16		
17	SSPC CS 23.00	Specification for the Application of Thermal Spray Coatings
18		(Metallizing) of Aluminum, Zinc, and Their Alloys and
19		Composites for the Corrosion Protection of Steel
20		

21 **Section 6-08, Bituminous Surfacing on Structure Decks** 22 **January 7, 2019**

23 **6-08.3(7)A Concrete Deck Preparation**

24 The first sentence of the first paragraph is revised to read:

25
26 The Contractor, with the Engineer, shall inspect the exposed concrete deck to establish the
27 extent of bridge deck repair in accordance with Section 6-09.3(6).
28

29 **6-08.3(8)A Structure Deck Preparation**

30 The second sentence of the last paragraph is revised to read:

31
32 Prior to applying the primer or sheet membrane, all dust and loose material shall be removed
33 from the Structure Deck.
34

35 **Section 6-09, Modified Concrete Overlays** 36 **January 7, 2019**

37 **6-09.3 Construction Requirements**

38 This section is supplemented with the following new subsection:
39

40 **6-09.3(15) Sealing and Texturing Concrete Overlay**

41 After the requirements for checking for bond have been met, all joints and visible cracks shall
42 be filled and sealed with a high molecular weight methacrylate resin (HMWM). Cracks 1/16
43 inch and greater in width shall receive two applications of HMWM. Immediately following the
44 application of HMWM, the wetted surface shall be coated with sand for abrasive finish.
45

46 After all cracks have been filled and sealed and the HMWM resin has cured, the concrete
47 overlay surface shall receive a longitudinally sawn texture in accordance with Section 6-
48 02.3(10)D5.

1
2 Traffic shall not be permitted on the finished concrete until it has reached a minimum
3 compressive strength of 3,000 psi as verified by rebound number determined in accordance
4 with ASTM C805 and the longitudinally sawn texture is completed.
5

6 **6-09.3(1)B Rotary Milling Machines**

7 This section is revised to read:
8

9 Rotary milling machines used to remove an upper layer of existing concrete overlay, when
10 present, shall have a maximum operating weight of 50,000 pounds and conform to Section
11 6-08.3(5)B.
12

13 **6-09.3(1)C Hydro-Demolition Machines**

14 The first sentence of this section is revised to read:
15

16 Hydro-demolition machines shall consist of filtering and pumping units operating in
17 conjunction with a remote-controlled robotic device, using high-velocity water jets to remove
18 sound concrete to the nominal scarification depth shown in the Plans with a single pass of
19 the machine, and with the simultaneous removal of deteriorated concrete.
20

21 **6-09.3(1)D Shot Blasting Machines**

22 This section, including title, is revised to read:
23

24 **6-09.3(1)D Vacant**

26 **6-09.3(1)E Air Compressor**

27 This section is revised to read:
28

29 Air compressors shall be equipped with oil traps to eliminate oil from being blown onto the
30 bridge deck.
31

32 **6-09.3(1)J Finishing Machine**

33 This section is revised to read:
34

35 The finishing machine shall meet the requirements of Section 6-02.3(10) and the following
36 requirements:
37

38 The finishing machine shall be equipped with augers, followed by an oscillating, vibrating
39 screed, vibrating roller tamper, or a vibrating pan, followed by a rotating cylindrical
40 double drum screed. The vibrating screed, roller tamper or pan shall be of sufficient
41 length and width to properly consolidate the mixture. The vibrating frequency of the
42 vibrating screed, roller tamper or pan shall be variable with positive control.
43

44 **6-09.3(2) Submittals**

45 Item number 1 and 2 are revised to read:
46

- 47 1. A Type 1 Working Drawing consisting of catalog cuts and operating parameters of the
48 hydro-demolition machine selected by the Contractor for use in this project to scarify
49 concrete surfaces.
50

- 1 2. A Type 1 Working Drawing consisting of catalog cuts, operating parameters, axle loads,
2 and axle spacing of the rotary milling machine (if used to remove an upper layer of
3 existing concrete overlay when present).
4

5 The first sentence of item number 3 is revised to read:
6

7 A Type 2 Working Drawing of the Runoff Water Disposal Plan.
8

9 **6-09.3(5)A General**

10 The first sentence of the fourth paragraph is revised to read:
11

12 All areas of the deck that are inaccessible to the selected scarifying machine shall be scarified
13 to remove the concrete surface matrix to a maximum nominal scarification depth shown in
14 the Plans by a method acceptable to the Engineer.
15

16 This section is supplemented with the following:
17

18 Concrete process water generated by scarifying concrete surface and removing existing
19 concrete overlay operations shall be contained, collected, and disposed of in accordance
20 with Section 5-01.3(11) and Section 6-09.3(5)C, and the Section 6-09.3(2) Runoff Water
21 Disposal Plan.
22

23 **6-09.3(5)B Testing of Hydro-Demolition and Shot Blasting Machines**

24 This section's title is revised to read:
25

26 **Testing of Hydro-Demolition Machines**

27
28 The second paragraph is revised to read:
29

30 In the "sound" area of concrete, the equipment shall be programmed to remove concrete to
31 the nominal scarification depth shown in the Plans with a single pass of the machine.
32

33 **6-09.3(5)D Shot Blasting**

34 This section, including title, is revised to read:
35

36 **6-09.3(5)D Vacant**

37 38 **6-09.3(5)E Rotomilling**

39 This section, including title, is revised to read:
40

41 **6-09.3(5)E Removing Existing Concrete Overlay Layer by Rotomilling**

42 When the Contractor elects to remove the upper layer of existing concrete overlay, when
43 present, by rotomilling prior to final scarifying, the entire concrete surface of the bridge deck
44 shall be milled to remove the surface matrix to the depth specified in the Plans with a
45 tolerance as specified in Section 6-08.3(5)B. The operating parameters of the rotary milling
46 machine shall be monitored in order to prevent the unnecessary removal of concrete below
47 the specified removal depth.
48

49 **6-09.3(6) Further Deck Preparation**

50 The first paragraph is revised to read::

1
2 Once the lane or strip being overlaid has been cleaned of debris from scarifying, the
3 Contractor, with the Engineer, shall perform a visual inspection of the scarified surface. The
4 Contractor shall mark those areas of the existing bridge deck that are authorized by the
5 Engineer for further deck preparation by the Contractor.
6

7 Item number 4 of the second paragraph is deleted.

8
9 The first sentence of the third paragraph is deleted.

10 11 **6-09.3(6)A Equipment for Further Deck Preparation**

12 This section is revised to read:

13
14 Further deck preparation shall be performed using either power driven hand tools conforming
15 to Section 6-09.3(1)A, or hydro-demolition machines conforming to Section 6-09.3(1)C.
16

17 **6-09.3(6)B Deck Repair Preparation**

18 The second paragraph is deleted.

19
20 The last sentence of the second paragraph (after the preceding Amendment is applied) is revised
21 to read:

22
23 In no case shall the depth of a sawn vertical cut exceed $\frac{3}{4}$ inch or to the top of the top steel
24 reinforcing bars, whichever is less.
25

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

27
28 Where existing steel reinforcing bars inside deck repair areas show deterioration greater than
29 20-percent section loss, the Contractor shall furnish and place steel reinforcing bars
30 alongside the deteriorated bars in accordance with the details shown in the Standard Plans.
31

32 The last paragraph is deleted.
33

34 **6-09.3(7) Surface Preparation for Concrete Overlay**

35 The first seven paragraphs are deleted and replaced with the following:

36
37 Following the completion of any required further deck preparation the entire lane or strip
38 being overlaid shall be cleaned to be free from oil and grease, rust and other foreign material
39 that may still be present. These materials shall be removed by detergent-cleaning or other
40 method accepted by the Engineer followed by sandblasting.
41

42 After detergent cleaning and sandblasting is completed, the entire lane or strip being overlaid
43 shall be cleaned in final preparation for placing concrete.
44

45 Hand tool chipping, sandblasting and cleaning in areas adjacent to a lane or strip being
46 cleaned in final preparation for placing concrete shall be discontinued when final preparation
47 is begun. Scarifying and hand tool chipping shall remain suspended until the concrete has
48 been placed and the requirement for curing time has been satisfied. Sandblasting and
49 cleaning shall remain suspended for the first 24 hours of curing time after the completion of
50 concrete placing.

1
2 Scarification, and removal of the upper layer of concrete overlay when present, may proceed
3 during the final cleaning and overlay placement phases of the Work on adjacent portions of
4 the Structure so long as the scarification and concrete overlay removal operations are
5 confined to areas which are a minimum of 100 feet away from the defined limits of the final
6 cleaning or overlay placement in progress. If the scarification and concrete overlay removal
7 impedes or interferes in any way with the final cleaning or overlay placement as determined
8 by the Engineer, the scarification and concrete overlay removal Work shall be terminated
9 immediately and the scarification and concrete overlay removal equipment removed
10 sufficiently away from the area being prepared or overlaid to eliminate the conflict. If the grade
11 is such that water and contaminants from the scarification and concrete overlay removal
12 operation will flow into the area being prepared or overlaid, the scarification and concrete
13 overlay removal operation shall be terminated and shall remain suspended for the first 24
14 hours of curing time after the completion of concrete placement.

15 16 **6-09.3(11) Placing Concrete Overlay**

17 The first sentence of item number 3 in the fourth paragraph is revised to read:

18
19 Concrete shall not be placed when the temperature of the concrete surface is less than 45°F
20 or greater than 75°F, and wind velocity at the construction site is in excess of 10 mph.

21 22 **6-09.3(12) Finishing Concrete Overlay**

23 The third paragraph is deleted.

24
25 The last paragraph is deleted.

26 27 **6-09.3(13) Curing Concrete Overlay**

28 The first sentence of the first paragraph is revised to read:

29
30 As the finishing operation progresses, the concrete shall be immediately covered with a
31 single layer of clean, new or used, wet burlap.

32
33 The last sentence of the second paragraph is deleted.

34
35 The following two new paragraphs are inserted after the second paragraph:

36
37 As an alternative to the application of burlap and fog spraying described above, the
38 Contractor may propose a curing system using proprietary curing blankets specifically
39 manufactured for bridge deck curing. The Contractor shall submit a Type 2 Working Drawing
40 consisting of details of the proprietary curing blanket system, including product literature and
41 details of how the system is to be installed and maintained.

42
43 The wet curing regimen as described shall remain in place for a minimum of 42-hours.

44
45 The last paragraph is deleted.

46 47 **6-09.3(14) Checking for Bond**

48 The first sentence of the first paragraph is revised to read:

1 After the requirements for curing have been met, the entire overlaid surface shall be sounded
2 by the Contractor, in a manner accepted by and in the presence of the Engineer, to ensure
3 total bond of the concrete to the bridge deck.
4

5 The last sentence of the first paragraph is deleted.
6

7 The second paragraph is deleted.
8

9 **Section 6-10, Concrete Barrier**
10 **August 6, 2018**

11 **6-10.2 Materials**

12 In the first paragraph, the reference to “Portland Cement” is revised to read:
13

14 Cement 9-01
15

16 **6-10.3(6) Placing Concrete Barrier**

17 The first two sentences of the first paragraph are revised to read:
18

19 Precast concrete barriers Type 2, Type 4, Type F, precast single slope barrier, and transitions
20 shall rest on a paved foundation shaped to a uniform grade and section. The foundation
21 surface for precast concrete barriers Type 2, Type 4, Type F, precast single slope barrier, and
22 transitions shall meet this test for uniformity: When a 10-foot straightedge is placed on the
23 surface parallel to the centerline for the barrier, the surface shall not vary more than ¼ inch
24 from the lower edge of the straightedge.
25

26 **Section 6-11, Reinforced Concrete Walls**
27 **April 2, 2018**

28 **6-11.2 Materials**

29 In the first paragraph, the reference to “Aggregates for Portland Cement Concrete” is revised to
30 read:
31

32 Aggregates for Concrete 9-03.1
33

34 **Section 6-12, Noise Barrier Walls**
35 **August 6, 2018**

36 **6-12.2 Materials**

37 In the first paragraph, the reference to “Aggregates for Portland Cement Concrete” is revised to
38 read:
39

40 Aggregates for Concrete 9-03.1
41

42 The first paragraph is supplemented with the following new material reference:
43

44 Noise Barrier Wall Access Door 9-06.17
45

46 **6-12.3(9) Access Doors and Concrete Landing Pads**

47 The second paragraph is deleted and replaced with the following:

1
2 All frame and door surfaces, except stainless steel surfaces, shall be painted in accordance
3 with Section 6-07.3(9). Primer shall be applied to all non-stainless steel surfaces. All primer
4 coated exposed metal surfaces shall be field painted with the remaining Section 6-07.3(9)A
5 paint system coats. The top coat, when dry, shall match the color specified in the Plans or
6 Special Provisions.
7

8 This section is supplemented with the following:
9

10 Access door deadbolt locks shall be capable of accepting a Best CX series core. The
11 Contractor shall furnish and install a spring-loaded construction core lock with each lock. The
12 Engineer will furnish the permanent Best CX series core for the Contractor to install at the
13 conclusion of the project.
14

15 **Section 6-13, Structural Earth Walls** 16 **August 6, 2018**

17 **6-13.2 Materials**

18 In the first paragraph, the reference to "Aggregates for Portland Cement Concrete" is revised to
19 read:
20

21 Aggregates for Concrete 9-03.1
22

23 **6-13.3(4) Precast Concrete Facing Panel and Concrete Block Fabrication**

24 Item number 1 of the sixth paragraph is revised to read:
25

- 26 1. Vertical dimensions shall be $\pm \frac{1}{16}$ inch of the Plan dimension, and the rear height shall
27 not exceed the front height.
28

29 Item number 3 of the sixth paragraph is revised to read:
30

- 31 3. All other dimensions shall be $\pm \frac{1}{4}$ inch of the Plan dimension.
32

33 **Section 6-14, Geosynthetic Retaining Walls** 34 **April 2, 2018**

35 **6-14.2 Materials**

36 In the first paragraph, the references to "Portland Cement" and "Aggregates for Portland Cement
37 Concrete" are revised to read:
38

39 Cement 9-01
40 Aggregates for Concrete 9-03.1
41

42 **Section 6-16, Soldier Pile and Soldier Pile Tieback Walls** 43 **April 2, 2018**

44 **6-16.2 Materials**

45 In the first paragraph, the reference to "Aggregates for Portland Cement Concrete" is revised to
46 read:
47

1 Aggregates for Concrete 9-03.1
2

3 **Section 6-18, Shotcrete Facing**
4 **January 2, 2018**

5 **6-18.3(3) Testing**

6 In the last sentence of the first paragraph, “AASHTO T 24” is revised to read “ASTM C1604”.
7

8 **6-18.3(3)B Production Testing**

9 In the last sentence, “AASHTO T 24” is revised to read “ASTM C1604”.
10

11 **6-18.3(4) Qualifications of Contractor’s Personnel**

12 In the last sentence of the second paragraph, “AASHTO T 24” is revised to read “ASTM C1604”.
13

14 **Section 6-19, Shafts**
15 **January 7, 2019**

16 **6-19.2 Materials**

17 In the first paragraph, the references to “Portland Cement” and “Aggregates for Portland Cement
18 Concrete” are revised to read:
19

20 Cement 9-01
21 Aggregates for Concrete 9-03.1
22

23 **6-19.3(1)A Shaft Construction Tolerances**

24 The last paragraph is supplemented with the following:
25

26 The elevation of the top of the reinforcing cage for drilled shafts shall be within +6 inches and
27 -3 inches from the elevation shown in the Plans.
28

29 **6-19.3(2)D Nondestructive QA Testing Organization and Personnel**

30 Item number 4 in the first paragraph is revised to read:
31

32 4. Personnel preparing test reports shall be a Professional Engineer, licensed under Title
33 18 RCW, State of Washington, and shall seal the report in accordance with WAC 196-
34 23-020.
35

36 **6-19.3(3)C Conduct of Shaft Casing Installation and Removal and Shaft**
37 **Excavation Operations**

38 The first paragraph is supplemented with the following:
39

40 In no case shall shaft excavation and casing placement extend below the bottom of shaft
41 excavation as shown in the Plans.
42

43 **6-19.3(6)E Thermal Wire and Thermal Access Point (TAPS)**

44 The third sentence of the third paragraph is revised to read:
45

46 The thermal wire shall extend from the bottom of the reinforcement cage to the top of the
47 shaft, with a minimum of 5-feet of slack wire provided above the top of shaft.
48

1 The following new sentence is inserted after the third sentence of the third paragraph:

2
3 All thermal wires in a shaft shall be equal lengths.

4
5 **6-19.3(9)D Nondestructive QA Testing Results Submittal**

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

7
8 Results shall be a Type 2E Working Drawing presented in a written report.

9
10 **Section 7-02, Culverts**

11 **April 2, 2018**

12 **7-02.2 Materials**

13 In the first paragraph, the references to “Portland Cement” and “Aggregates for Portland Cement
14 Concrete” are revised to read:

15
16 Cement 9-01
17 Aggregates for Concrete 9-03.1

18
19 **7-02.3(6)A4 Excavation and Bedding Preparation**

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

21
22 The bedding course shall be a 6-inch minimum thickness layer of culvert bedding material,
23 defined as granular material either conforming to Section 9-03.12(3) or to AASHTO Grading
24 No. 57 as specified in Section 9-03.1(4)C.

25
26 **Section 7-05, Manholes, Inlets, Catch Basins, and Drywells**

27 **August 6, 2018**

28 **7-05.3 Construction Requirements**

29 The fourth sentence of the third paragraph is deleted.

30
31 **Section 7-08, General Pipe Installation Requirements**

32 **April 2, 2018**

33 **7-08.3(3) Backfilling**

34 The fifth sentence of the fourth paragraph is revised to read:

35
36 All compaction shall be in accordance with the Compaction Control Test of Section 2-
37 03.3(14)D except in the case that 100% Recycled Concrete Aggregate is used.

38
39 The following new sentences are inserted after the fifth sentence of the fourth paragraph:

40
41 When 100% Recycled Concrete Aggregate is used, the Contractor may submit a written
42 request to use a test point evaluation for compaction acceptance. Test Point evaluation shall
43 be performed in accordance with SOP 738.

1 **Section 8-01, Erosion Control and Water Pollution Control**
2 **April 2, 2018**

3 **8-01.1 Description**

4 This section is revised to read:

5
6 This Work consists of furnishing, installing, maintaining, removing and disposing of best
7 management practices (BMPs), as defined in the Washington Administrative Code (WAC)
8 173-201A, to manage erosion and water quality in accordance with these Specifications and
9 as shown in the Plans or as designated by the Engineer.

10
11 The Contracting Agency may have a National Pollution Discharge Elimination System
12 Construction Stormwater General Permit (CSWGP) as identified in the Contract Special
13 Provisions. The Contracting Agency may or may not transfer coverage of the CSWGP to the
14 Contractor when a CSWGP has been obtained. The Contracting Agency may not have a
15 CSWGP for the project but may have another water quality related permit as identified in the
16 Contract Special Provisions or the Contracting Agency may not have water quality related
17 permits but the project is subject to applicable laws for the Work. Section 8-01 covers all of
18 these conditions.

19
20 **8-01.2 Materials**

21 The first paragraph is revised to read:

22
23 Materials shall meet the requirements of the following sections:

24

25	Corrugated Polyethylene Drain Pipe	9-05.1(6)
26	Quarry Spalls	9-13
27	Erosion Control and Roadside Planting	9-14
28	Construction Geotextile	9-33

29

30 **8-01.3(1) General**

31 This section is revised to read:

32
33 Adaptive management shall be employed throughout the duration of the project for the
34 implementation of erosion and water pollution control permit requirements for the current
35 condition of the project site. The adaptive management includes the selection and utilization
36 of BMPs, scheduling of activities, prohibiting unacceptable practices, implementing
37 maintenance procedures, and other managerial practices that when used singularly or in
38 combination, prevent or reduce the release of pollutants to waters of the State. The adaptive
39 management shall use the means and methods identified in this section and means and
40 methods identified in the Washington State Department of Transportation's Temporary
41 Erosion and Sediment Control Manual or the Washington State Department of Ecology's
42 Stormwater Management Manuals for construction stormwater.

43
44 The Contractor shall install a high visibility fence along the site preservation lines shown in
45 the Plans or as instructed by the Engineer.

46
47 Throughout the life of the project, the Contractor shall preserve and protect the delineated
48 preservation area, acting immediately to repair or restore any fencing damaged or removed.

49

1 All discharges to surface waters shall comply with surface water quality standards as defined
2 in Washington Administrative Code (WAC) Chapter 173-201A. All discharges to the ground
3 shall comply with groundwater quality standards WAC Chapter 173-200.
4

5 The Contractor shall comply with the CSWGP when the project is covered by the CSWGP.
6 Temporary Work, at a minimum, shall include the implementation of:
7

- 8 1. Sediment control measures prior to ground disturbing activities to ensure all
9 discharges from construction areas receive treatment prior to discharging from the
10 site.
- 11 2. Flow control measures to prevent erosive flows from developing.
- 12 3. Water management strategies and pollution prevention measures to prevent
13 contamination of waters that will be discharged to surface waters or the ground.
- 14 4. Erosion control measures to stabilize erodible earth not being worked.
- 15 5. Maintenance of BMPs to ensure continued compliant performance.
- 16 6. Immediate corrective action if evidence suggests construction activity is not in
17 compliance. Evidence includes sampling data, olfactory or visual evidence such as
18 the presence of suspended sediment, turbidity, discoloration, or oil sheen in
19 discharges.
20
21
22
23
24
25

26 To the degree possible, the Contractor shall coordinate this temporary Work with permanent
27 drainage and erosion control Work the Contract requires.
28

29 Clearing, grubbing, excavation, borrow, or fill within the Right of Way shall never expose more
30 erodible earth than as listed below:
31

Western Washington (West of the Cascade Mountain Crest)		Eastern Washington (East of the Cascade Mountain Crest)	
May 1 through September 30	17 Acres	April 1 through October 31	17 Acres
October 1 through April 30	5 Acres	November 1 through March 31	5 Acres

32 The Engineer may increase or decrease the limits based on project conditions.
33
34

35 Erodible earth is defined as any surface where soils, grindings, or other materials may be
36 capable of being displaced and transported by rain, wind, or surface water runoff.
37

38 Erodible earth not being worked, whether at final grade or not, shall be covered within the
39 specified time period (see the table below), using BMPs for erosion control.
40

Western Washington	Eastern Washington
---------------------------	---------------------------

(West of the Cascade Mountain Crest)	
October 1 through April 30	2 days maximum
May 1 to September 30	7 days maximum

(East of the Cascade Mountain Crest)	
October 1 through June 30	5 days maximum
November 1 through March 31	10 days maximum

1
2 When applicable, the Contractor shall be responsible for all Work required for compliance
3 with the CSWGP including annual permit fees.
4

5 If the Engineer, under Section 1-08.6, orders the Work suspended, the Contractor shall
6 continue to comply with this division during the suspension.
7

8 Nothing in this Section shall relieve the Contractor from complying with other Contract
9 requirements.
10

11 **8-01.3(1)A Submittals**

12 This section's content is deleted.
13

14 This section is supplemented with the following new subsection:
15

16 **8-01.3(1)A1 Temporary Erosion and Sediment Control**

17 A Temporary Erosion and Sediment Control (TESC) plan consists of a narrative section and
18 plan sheets that meets the Washington State Department of Ecology's Stormwater Pollution
19 Prevention Plan (SWPPP) requirement in the CSWGP. Abbreviated TESC plans are not
20 required to include plan sheets and are used on small projects that disturb soil and have the
21 potential to discharge but are not covered by the CSWGP. The contract uses the term "TESC
22 plan" to describe both TESC plans and abbreviated TESC plans. When the Contracting
23 Agency has developed a TESC plan for a Contract, the narrative is included in the appendix
24 to the Special Provisions and the TESC plan sheets, when required, are included in the
25 Contract Plans. The Contracting Agency TESC plan will not include off-site areas used to
26 directly support construction activity.
27

28 The Contractor shall either adopt the TESC Plan in the Contract or develop a new TESC
29 Plan. If the Contractor adopts the Contracting Agency TESC Plan, the Contractor shall modify
30 the TESC Plan to meet the Contractor's schedule, method of construction, and to include off-
31 site areas that will be used to directly support construction activity such as equipment staging
32 yards, material storage areas, or borrow areas. Contractor TESC Plans shall include all high
33 visibility fence delineation shown on the Contracting Agency Contract Plans. All TESC Plans
34 shall meet the requirements of the current edition of the WSDOT Temporary Erosion and
35 Sediment Control Manual M 3109 and be adaptively managed as needed throughout
36 construction based on site inspections and discharge samples to maintain compliance with
37 the CSWGP. The Contractor shall develop a schedule for implementation of the TESC work
38 and incorporate it into the Contractor's progress schedule.
39

40 The Contractor shall submit their TESC Plan (either the adopted plan or new plan) and
41 implementation schedule as Type 2 Working Drawings. At the request of the Engineer,
42 updated TESC Plans shall be submitted as Type 1 Working Drawings.

1
2 **8-01.3(1)B Erosion and Sediment Control (ESC) Lead**

3 This section is revised to read:

4
5 The Contractor shall identify the ESC Lead at the preconstruction discussions and in the
6 TESC Plan. The ESC Lead shall have, for the life of the Contract, a current Certificate of
7 Training in Construction Site Erosion and Sediment Control from a course approved by the
8 Washington State Department of Ecology. The ESC Lead must be onsite or on call at all
9 times throughout construction. The ESC Lead shall be listed on the Emergency Contact List
10 required under Section 1-05.13(1).

11
12 The ESC Lead shall implement the TESC Plan. Implementation shall include, but is not
13 limited to:

- 14
- 15 1. Installing, adaptively managing, and maintaining temporary erosion and sediment
16 control BMPs to assure continued performance of their intended function. Damaged
17 or inadequate BMPs shall be corrected immediately.
 - 18 2. Updating the TESC Plan to reflect current field conditions.
 - 19 3. Discharge sampling and submitting Discharge Monitoring Reports (DMRs) to the
20 Washington State Department of Ecology in accordance with the CSWGP.
 - 21 4. Develop and maintain the Site Log Book as defined in the CSWGP. When the Site
22 Log Book or portion thereof is electronically developed, the electronic
23 documentation must be accessible onsite. As a part of the Site Log Book, the
24 Contractor shall develop and maintain a tracking table to show that identified TESC
25 compliance issues are fully resolved within 10 calendar days. The table shall include
26 the date an issue was identified, a description of how it was resolved, and the date
27 the issue was fully resolved.
- 28
29
30
31

32 The ESC Lead shall also inspect all areas disturbed by construction activities, all on-site
33 erosion and sediment control BMPs, and all stormwater discharge points at least once every
34 calendar week and within 24-hours of runoff events in which stormwater discharges from the
35 site. Inspections of temporarily stabilized, inactive sites may be reduced to once every
36 calendar month. The Washington State Department of Ecology's Erosion and Sediment
37 Control Site Inspection Form, located at <https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Construction-stormwater-permit>,
38 shall be completed for each inspection and a copy shall be submitted to the Engineer no later
39 than the end of the next working day following the inspection.
40
41

42 **8-01.3(1)C Water Management**

43 This section is supplemented with the following new subsections:

44
45 **8-01.3(1)C5 Water Management for In-Water Work Below Ordinary High Water
46 Mark (OHWM)**

47 Work over surface waters of the state (defined in WAC 173-201A-010) or below the OHWM
48 (defined in RCW 90.58.030) must comply with water quality standards for surface waters of
49 the state of Washington.
50

1 **8-01.3(1)C6 Environmentally Acceptable Hydraulic Fluid**

2 All equipment containing hydraulic fluid that extends from a bridge deck over surface waters
3 of the state or below the OHWM, shall be equipped with an environmentally acceptable
4 hydraulic fluid. The fluid shall meet specific requirements for biodegradability, aquatic toxicity,
5 and bioaccumulation in accordance with the United States Environmental Protection Agency
6 (EPA) publication EPA800-R-11-002. Acceptance shall be in accordance with Section 1-06.3,
7 Manufacturer’s Certification of Compliance.

8
9 The designation of environmentally acceptable hydraulic fluid does not mean fluid spills are
10 acceptable. The Contractor shall respond to spills to land or water in accordance with the
11 Contract.

12
13 **8-01.3(1)C7 Turbidity Curtain**

14 All Work for the turbidity curtain shall be in accordance with the manufacturer’s
15 recommendations for the site conditions. Removal procedures shall be developed and used
16 to minimize silt release and disturbance of silt. The Contractor shall submit a Type 2 Working
17 Drawing, detailing product information, installation and removal procedures, equipment and
18 workforce needs, maintenance plans, and emergency repair/replacement plans.

19
20 Turbidity curtain materials, installation, and maintenance shall be sufficient to comply with
21 water quality standards.

22
23 The Contractor shall notify the Engineer 10 days in advance of removing the turbidity curtain.
24 All components of the turbidity curtain shall be removed from the project.

25
26 **8-01.3(1)C1 Disposal of Dewatering Water**

27 This section is revised to read:

28
29 When uncontaminated groundwater is encountered in an excavation on a project it may be
30 infiltrated within vegetated areas of the right of way not designated as Sensitive Areas or
31 incorporated into an existing stormwater conveyance system at a rate that will not cause
32 erosion or flooding in any receiving surface water.

33
34 Alternatively, the Contractor may pursue independent disposal and treatment alternatives
35 that do not use the stormwater conveyance system provided it is in compliance with the
36 applicable WACs and permits.

37
38 **8-01.3(1)C2 Process Wastewater**

39 This section is revised to read:

40
41 Wastewater generated on-site as a byproduct of a construction process shall not be
42 discharged to surface waters of the State. Some sources of process wastewater may be
43 infiltrated in accordance with the CSWGP with concurrence from the Engineer. Some sources
44 of process wastewater may be disposed via independent disposal and treatment alternatives
45 in compliance with the applicable WACs and permits.

46
47 **8-01.3(1)C3 Shaft Drilling Slurry Wastewater**

48 This section is revised to read:

1 Wastewater generated on-site during shaft drilling activity shall be managed and disposed of
2 in accordance with the requirements below. No shaft drilling slurry wastewater shall be
3 discharged to surface waters of the State. Neither the sediment nor liquid portions of the shaft
4 drilling slurry wastewater shall be contaminated, as detectable by visible or olfactory
5 indication (e.g., chemical sheen or smell).
6

7 1. Water-only shaft drilling slurry or water slurry with accepted flocculants may be
8 infiltrated on-site. Flocculants used shall meet the requirements of Section 9-14.5(1)
9 or shall be chitosan products listed as General Use Level Designation (GULD) on
10 the Washington State Department of Ecology's stormwater treatment technologies
11 webpage for construction treatment. Infiltration is permitted if the following
12 requirements are met:
13

14 a. Wastewater shall have a pH of 6.5 – 8.5 prior to discharge.

15
16 b. The amount of flocculant added to the slurry shall be kept to the minimum
17 needed to adequately settle out solids. The flocculant shall be thoroughly mixed
18 into the slurry.
19

20 c. The slurry removed from the shaft shall be contained in a leak proof cell or tank
21 for a minimum of 3 hours.
22

23 d. The infiltration rate shall be reduced if needed to prevent wastewater from
24 leaving the infiltration location. The infiltration site shall be monitored regularly
25 during infiltration activity. All wastewater discharged to the ground shall fully
26 infiltrate and discharges shall stop before the end of each work day.
27

28 e. Drilling spoils and settled sediments remaining in the containment cell or tank
29 shall be disposed of in accordance with Section 6-19.3(4)F.
30

31 f. Infiltration locations shall be in upland areas at least 150 feet away from surface
32 waters, wells, on-site sewage systems, aquifer sensitive recharge areas, sole
33 source aquifers, well head protection areas, and shall be marked on the plan
34 sheets before the infiltration activity begins.
35

36 g. Prior to infiltration, the Contractor shall submit a Shaft Drilling Slurry
37 Wastewater Management and Infiltration Plan as a Type 2 Working Drawing.
38 This Plan shall be kept on-site, adapted if needed to meet the construction
39 requirements, and updated to reflect what is being done in the field. The
40 Working Drawing shall include, at a minimum, the following information:
41

42 i. Plan sheet showing the proposed infiltration location and all surface
43 waters, wells, on-site sewage systems, aquifer-sensitive recharge areas,
44 sole source aquifers, and well-head protection areas within 150 feet.
45

46 ii. The proposed elevation of soil surface receiving the wastewater for
47 infiltration and the anticipated phreatic surface (i.e., saturated soil).
48

49 iii. The source of the water used to produce the slurry.
50

51 iv. The estimated total volume of wastewater to be infiltrated.

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- v. The accepted flocculant to be used (if any).
- vi. The controls or methods used to prevent surface wastewater runoff from leaving the infiltration location.
- vii. The strategy for removing slurry wastewater from the shaft and containing the slurry wastewater once it has been removed from the shaft.
- viii. The strategy for monitoring infiltration activity and adapting methods to ensure compliance.
- ix. A contingency plan that can be implemented immediately if it becomes evident that the controls in place or methods being used are not adequate.
- x. The strategy for cleaning up the infiltration location after the infiltration activity is done. Cleanup shall include stabilizing any loose sediment on the surface within the infiltration area generated as a byproduct of suspended solids in the infiltrated wastewater or soil disturbance associated with BMP placement and removal.

- 2. Shaft drilling mineral slurry, synthetic slurry, or slurry with polymer additives not allowed for infiltration shall be contained and disposed of by the Contractor at an accepted disposal facility in accordance with Section 2-03.3(7)C. Spoils that have come into contact with mineral slurry shall be disposed of in accordance with Section 6-19.3(4)F.

8-01.3(1)C4 Management of Off-Site Water

This section is revised to read:

Prior to clearing and grubbing, the Contractor shall intercept all sources of off-site surface water and overland flow that will run-on to the project. Off-site surface water run-on shall be diverted through or around the project in a way that does not introduce construction related pollution. It shall be diverted to its preconstruction discharge location in a manner that does not increase preconstruction flow rate and velocity and protects contiguous properties and waterways from erosion. The Contractor shall submit a Type 2 Working Drawing consisting of the method for performing this Work.

8-01.3(1)E Detention/Retention Pond Construction

This section is revised to read:

Whether permanent or temporary, ponds shall be constructed before beginning other grading and excavation Work in the area that drains into that pond. Detention/retention ponds may be constructed concurrently with grading and excavation when allowed by the Engineer. Temporary conveyances shall be installed concurrently with grading in accordance with the TESC Plan so that newly graded areas drain to the pond as they are exposed.

8-01.3(2)F Dates for Application of Final Seed, Fertilizer, and Mulch

In the table, the second column heading is revised to read:

1 **Eastern Washington¹**
2 **(East of the Cascade Mountain Crest)**

3
4 Footnote 1 in the table is revised to read:

5
6 Seeding may be allowed outside these dates when allowed or directed by the Engineer.
7

8 **8-01.3(5) Plastic Covering**

9 The first sentence of the first paragraph is revised to read:

10
11 **Erosion Control** – Plastic coverings used to temporarily cover stockpiled materials, slopes
12 or bare soils shall be installed and maintained in a way that prevents water from intruding
13 under the plastic and prevents the plastic cover from being damaged by wind.
14

15 **8-01.3(7) Stabilized Construction Entrance**

16 The first paragraph is revised to read:

17
18 Temporary stabilized construction entrance shall be constructed in accordance with the
19 *Standard Plans*, prior to construction vehicles entering the roadway from locations that
20 generate sediment track out on the roadway. Material used for stabilized construction
21 entrance shall be free of extraneous materials that may cause or contribute to track out.
22

23 **8-01.3(8) Street Cleaning**

24 This section is revised to read:

25
26 Self-propelled pickup street sweepers shall be used to remove and collect dirt and other
27 debris from the Roadway. The street sweeper shall effectively collect these materials and
28 prevent them from being washed or blown off the Roadway or into waters of the State. Street
29 sweepers shall not generate fugitive dust and shall be designed and operated in compliance
30 with applicable air quality standards. Material collected by the street sweeper shall be
31 disposed of in accordance with Section 2-03.3(7)C.
32

33 When allowed by the Engineer, power broom sweepers may be used in non-environmentally
34 sensitive areas. The broom sweeper shall sweep dirt and other debris from the roadway into
35 the work area. The swept material shall be prevented from entering or washing into waters
36 of the State.
37

38 Street washing with water will require the concurrence of the Engineer.
39

40 **8-01.3(12) Compost Socks**

41 The first two sentences of the first paragraph are revised to read:

42
43 Compost socks are used to disperse flow and sediment. Compost socks shall be installed as
44 soon as construction will allow but before flow conditions create erosive flows or discharges
45 from the site. Compost socks shall be installed prior to any mulching or compost placement.
46

47 **8-01.3(13) Temporary Curb**

48 The second to last sentence of the second paragraph is revised to read:

49
50 Temporary curbs shall be a minimum of 4 inches in height.

1
2 **8-01.3(14) Temporary Pipe Slope Drain**

3 The third and fourth paragraphs are revised to read:

4
5 The pipe fittings shall be water tight and the pipe secured to the slope with metal posts, wood
6 stakes, sand bags, or as allowed by the Engineer.

7
8 The water shall be discharged to a stabilized conveyance, sediment trap, stormwater pond,
9 rock splash pad, or vegetated strip, in a manner to prevent erosion and maintain water quality
10 compliance.

11
12 The last paragraph is deleted.

13
14 **8-01.3(15) Maintenance**

15 This section is revised to read:

16
17 Erosion and sediment control BMPs shall be maintained or adaptively managed as required
18 by the CSWGP until the Engineer determines they are no longer needed. When deficiencies
19 in functional performance are identified, the deficiencies shall be rectified immediately.

20
21 The BMPs shall be inspected on the schedule outlined in Section 8-01.3(1)B for damage and
22 sediment deposits. Damage to or undercutting of BMPs shall be repaired immediately.

23
24 In areas where the Contractor's activities have compromised the erosion control functions of
25 the existing grasses, the Contractor shall overseed at no additional cost to the Contracting
26 Agency.

27
28 The quarry spalls of construction entrances shall be refreshed, replaced, or screened to
29 maintain voids between the spalls for collecting mud and dirt.

30
31 Unless otherwise specified, when the depth of accumulated sediment and debris reaches
32 approximately $\frac{1}{3}$ the height of the BMP the deposits shall be removed. Debris or
33 contaminated sediment shall be disposed of in accordance with Section 2-03.3(7)C. Clean
34 sediments may be stabilized on-site using BMPs as allowed by the Engineer.

35
36 **8-01.3(16) Removal**

37 This section is revised to read:

38
39 The Contractor shall remove all temporary BMPs, all associated hardware and associated
40 accumulated sediment deposition from the project limits prior to Physical Completion unless
41 otherwise allowed by the Engineer. When the temporary BMP materials are made of natural
42 plant fibers unaltered by synthetic materials the Engineer may allow leaving the BMP in place.

43
44 The Contractor shall remove BMPs and associated hardware in a way that minimizes soil
45 disturbance. The Contractor shall permanently stabilize all bare and disturbed soil after
46 removal of BMPs. If the installation and use of the erosion control BMPs have compacted or
47 otherwise rendered the soil inhospitable to plant growth, such as construction entrances, the
48 Contractor shall take measures to rehabilitate the soil to facilitate plant growth. This may
49 include, but is not limited to, ripping the soil, incorporating soil amendments, or seeding with
50 the specified seed.

1
2 At the request of the Contractor and at the sole discretion of the Engineer the CSWGP may
3 be transferred back to the Contracting Agency. Approval of the Transfer of Coverage request
4 will require the following:

- 5
6 1. All other Work required for Contract Completion has been completed.
7
8 2. All Work required for compliance with the CSWGP has been completed to the
9 maximum extent possible. This includes removal of BMPs that are no longer
10 needed and the site has undergone all Stabilization identified for meeting the
11 requirements of Final Stabilization in the CSWGP.
12
13 3. An Equitable Adjustment change order for the cost of Work that has not been
14 completed by the Contractor.
15
16 4. Submittal of the Washington State Department of Ecology Transfer of Coverage
17 form (Ecology form ECY 020-87a) to the Engineer.
18

19 If the Engineer approves the transfer of coverage back to the Contracting Agency, the
20 requirement in Section 1-07.5(3) for the Contractor's submittal of the Notice of Termination
21 form to the Washington State Department of Ecology will not apply.
22

23 **8-01.4 Measurement**

24 This section's content is deleted and replaced with the following new subsections:
25

26 **8-01.4(1) Lump Sum Bid for Project (No Unit Items)**

27 When the Bid Proposal contains the item "Erosion Control and Water Pollution Prevention"
28 there will be no measurement of unit or force account items for Work defined in Section 8-01
29 except as described in Sections 8-01.4(3) and 8-01.4(4). Also, except as described in Section
30 8-01.4(3), all of Sections 8-01.4(2) and 8-01.5(2) are deleted.
31

32 **8-01.4(2) Item Bids**

33 When the Proposal does not contain the items "Erosion Control and Water Pollution
34 Prevention", Section 8-01.4(1) and 8-01.5(1) are deleted and the Bid Proposal will contain
35 some or all of the following items measured as noted.
36

37 ESC lead will be measured per day for each day that an inspection is made and a report
38 is filed.
39

40 Biodegradable erosion control blanket and plastic covering will be measured by the
41 square yard along the ground slope line of surface area covered and accepted.
42

43 Turbidity curtains will be measured by the linear foot along the ground line of the installed
44 curtain.
45

46 Check dams will be measured per linear foot one time only along the ground line of the
47 completed check dam. No additional measurement will be made for check dams that are
48 required to be rehabilitated or replaced due to wear.
49

1 Stabilized construction entrances will be measured by the square yard by ground slope
2 measurement for each entrance constructed.

3
4 Tire wash facilities will be measured per each for each tire wash installed.

5
6 Street cleaning will be measured by the hour for the actual time spent cleaning
7 pavement, refilling with water, dumping and transport to and from cleaning locations
8 within the project limits, as authorized by the Engineer. Time to mobilize the equipment
9 to or from the project limits on which street cleaning is required will not be measured.

10
11 Inlet protections will be measured per each for each initial installation at a
12 drainage structure.

13
14 Silt fence, gravel filter, compost berms, and wood chip berms will be measured by
15 the linear foot along the ground line of the completed barrier.

16
17 Wattles and compost socks will be measured by the linear foot.

18
19 Temporary curbs will be measured by the linear foot along the ground line of the
20 completed installation.

21
22 Temporary pipe slope drains will be measured by the linear foot along the flow line of
23 the pipe.

24
25 Coir logs will be measured by the linear foot along the ground line of the completed
26 installation.

27
28 Outlet protections will be measured per each initial installation at an outlet location.

29
30 Tackifiers will be measure by the acre by ground slope measurement.

31
32 **8-01.4(3) Reinstating Unit Items with Lump Sum Erosion Control and Water**
33 **Pollution Prevention**

34 The Contract Provisions may establish the project as lump sum, in accordance with Section
35 8-01.4(1) and also include one or more of the items included above in Section 8-01.4(2).
36 When that occurs, the corresponding measurement provision in Section 8-01.4(2) is not
37 deleted and the Work under that item will be measured as specified.

38
39 **8-01.4(4) Items not included with Lump Sum Erosion Control and Water**
40 **Pollution Prevention**

41 Compost blanket will be measured by the square yard by ground slope surface area covered
42 and accepted.

43
44 Mulching will be measured by the acre by ground slope surface area covered and accepted.

45
46 Seeding, fertilizing, liming, mulching, and mowing, will be measured by the acre by ground
47 slope measurement.

1 Seeding and fertilizing by hand will be measured by the square yard by ground slope
2 measurement. No adjustment in area size will be made for the vegetation free zone around
3 each plant.

4
5 Fencing will be measured by the linear foot along the ground line of the completed fence.
6

7 **8-01.5 Payment**

8 This section's content is deleted and replaced with the following new subsections:
9

10 **8-01.5(1) Lump Sum Bid for Project (No Unit Items)**

11 Payment will be made for the following Bid item when it is included in the Proposal:
12

13 "Erosion Control and Water Pollution Prevention", lump sum.
14

15 The lump sum Contract price for "Erosion Control and Water Pollution Prevention" shall
16 be full pay to perform the Work as described in Section 8-01 except for costs
17 compensated by Bid Proposal items inserted through Contract Provisions as described
18 in Section 8-01.4(2). Progress payments for the lump sum item "Erosion Control and
19 Water Pollution Prevention" will be made as follows:
20

- 21 1. The Contracting Agency will pay 15 percent of the bid amount for the initial set
22 up for the item. Initial set up includes the following:
 - 23 a. Acceptance of the TESC Plan provided by the Contracting Agency or
24 submittal of a new TESC Plan,
25
 - 26 b. Submittal of a schedule for the installation of the BMPs, and
27
 - 28 c. Identifying water quality sampling locations.
29
- 30 2. 70 percent of the bid amount will be paid in accordance with Section 1-09.9.
31
- 32 3. Once the project is physically complete and copies of the all reports submitted
33 to the Washington State Department of Ecology have been submitted to the
34 Engineer, and, if applicable, transference of the CSWGP back to the
35 Contracting Agency is complete, the remaining 15 percent of the bid amount
36 shall be paid in accordance with Section 1-09.9.
37

38 **8-01.5(2) Item Bids**

39 "ESC Lead", per day.
40

41 "Turbidity Curtain", per linear foot.
42

43 "Biodegradable Erosion Control Blanket", per square yard.
44

45 "Plastic Covering", per square yard.
46

47 "Check Dam", per linear foot.
48

49 "Inlet Protection", per each.
50

- 1
- 2 "Gravel Filter Berm", per linear foot.
- 3
- 4 "Stabilized Construction Entrance", per square yard.
- 5
- 6 "Street Cleaning", per hour.
- 7
- 8 "Silt Fence", per linear foot.
- 9
- 10 "Wood Chip Berm", per linear foot.
- 11
- 12 "Compost Berm", per linear foot.
- 13
- 14 "Wattle", per linear foot.
- 15
- 16 "Compost Sock", per linear foot.
- 17
- 18 "Coir Log", per linear foot.
- 19
- 20 "Temporary Curb", per linear foot.
- 21
- 22 "Temporary Pipe Slope Drain", per linear foot.
- 23
- 24 "Temporary Seeding", per acre.
- 25
- 26 "Outlet Protection", per each.
- 27
- 28 "Tackifier", per acre.
- 29
- 30 "Erosion/Water Pollution Control", by force account as provided in Section 1-09.6.

31
32 Maintenance and removal of erosion and water pollution control devices including removal
33 and disposal of sediment, stabilization and rehabilitation of soil disturbed by these activities,
34 and any additional Work deemed necessary by the Engineer to control erosion and water
35 pollution will be paid by force account in accordance with Section 1-09.6.
36

37 To provide a common Proposal for all Bidders, the Contracting Agency has entered an
38 amount in the Proposal to become a part of the Contractor's total Bid.
39

40 **8-01.5(3) Reinstating Unit Items with Lump Sum Erosion Control and Water**
41 **Pollution Prevention**

42 The Contract may establish the project as lump sum, in accordance with Section 8-01.4(1)
43 and also reinstate the measurement of one or more of the items described in Section 8-
44 01.4(2), except for Erosion/Water Pollution Control, by force account. When that occurs, the
45 corresponding payment provision in Section 8-01.5(2) is not deleted and the Work under that
46 item will be paid as specified.
47

1 **8-01.5(4) Items not included with Lump Sum Erosion Control and Water**
2 **Pollution Prevention**

3 Payment will be made for each of the following Bid items when they are included in the
4 Proposal:

5
6 "Compost Blanket", per square yard.

7
8 "Mulching", per acre

9
10 "Mulching with PAM", per acre

11
12 "Mulching with Short-Term Mulch", per acre.

13
14 "Mulching with Moderate-Term Mulch", per acre.

15
16 "Mulching with Long-Term Mulch", per acre.

17
18 "Seeding, Fertilizing and Mulching", per acre.

19
20 "Seeding and Fertilizing", per acre.

21
22 "Seeding and Fertilizing by Hand", per square yard.

23
24 "Second Application of Fertilizer", per acre.

25
26 "Liming", per acre.

27
28 "Mowing", per acre.

29
30 "Seeding and Mulching", per acre.

31
32 "High Visibility Fence", per linear foot.

33
34 **Section 8-02, Roadside Restoration**
35 **January 2, 2018**

36 **8-02.2 Materials**

37 The reference to the material "Soil" is revised to read "Topsoil".

38
39 **8-02.5 Payment**

40 The following new paragraph is inserted following the Bid item "Plant Selection ____", per each:

41
42 The unit Contract price for "Plant Selection ____", per each shall be full pay for all Work to
43 perform the work as specified within the planting area prior to planting for weed control,
44 planting area preparation and installation of plants with initial watering.

45
46 The paragraph following the Bid item "PSIPE ____", per each is revised to read:

47
48 The unit Contract price for "PSIPE ____", per each, shall be full pay for all Work to perform
49 the work as specified within the planting area for weed control and planting area preparation,

1 planting, cleanup, and water necessary to complete planting operations as specified to the
2 end of first year plant establishment.

3
4 **Section 8-04, Curbs, Gutters, and Spillways**
5 **April 2, 2018**

6 **8-04.2 Materials**

7 In the first paragraph, the reference to “Portland Cement” is revised to read:

8
9 Cement 9-01

10
11 **8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways**

12 The first paragraph is supplemented with the following:

13
14 Roundabout truck apron cement concrete curb and gutter shall be constructed with air
15 entrained concrete Class 4000 conforming to the requirements of Section 6-02.

16
17 **Section 8-06, Cement Concrete Driveway Entrances**
18 **April 2, 2018**

19 **8-06.2 Materials**

20 In the first paragraph, the reference to “Portland Cement” is revised to read:

21
22 Cement 9-01

23
24 **8-06.3 Construction Requirements**

25 The first paragraph is revised to read:

26
27 Cement concrete driveway approaches shall be constructed with air entrained concrete
28 Class 4000 conforming to the requirements of Section 6-02 or Portland Cement or Blended
29 Hydraulic Cement Concrete Pavement conforming to the requirements of Section 5-05.

30
31 **Section 8-07, Precast Traffic Curb**
32 **April 2, 2018**

33 **8-07.3(1) Installing Curbs**

34 The first sentence of the first paragraph is revised to read:

35
36 The curb shall be firmly bedded for its entire length and breadth on a mortar bed conforming
37 to Section 9-20.4(3) composed of one part Portland cement or blended hydraulic cement and
38 two parts sand.

39
40 The fourth paragraph is revised to read:

41
42 All joints between adjacent pieces of curb except joints for expansion and/or drainage as
43 designated by the Engineer shall be filled with mortar composed of one part Portland cement
44 or blended hydraulic cement and two parts sand.

1 **Section 8-11, Guardrail**
2 **August 6, 2018**

3 **8-11.3(1)C Terminal and Anchor Installation**

4 The first paragraph is revised to read:

5
6 All excavation and backfilling required for installation of anchors shall be performed in
7 accordance with Section 2-09, except that the costs thereof shall be included in the unit
8 Contract price for the anchor installed.

9
10 The first sentence of the second to last paragraph is revised to read:

11
12 Assembly and installation of Beam Guardrail Non-flared Terminals for Type 31 guardrail shall
13 be supervised at all times by a manufacturer’s representative, or an installer who has been
14 trained and certified by the manufacturer.

15
16 The last paragraph is revised to read:

17
18 Beam Guardrail Non-flared Terminals for Type 31 guardrail shall meet the crash test and
19 evaluation criteria in the Manual for Assessing Safety Hardware (MASH).

20

21 **8-11.4 Measurement**

22 The third paragraph is revised to read:

23
24 Measurement of beam guardrail _____ terminal will be per each for the completed terminal.

25

26 The fourth paragraph is revised to read:

27
28 Measurement of beam guardrail Type 31 buried terminal Type 2 will be per linear foot for the
29 completed terminal.

30

31 The sixth paragraph is revised to read:

32
33 Measurement of beam guardrail anchor Type 10 will be per each for the completed anchor,
34 including the attachment of the anchor to the guardrail.

35

36 **8-11.5 Payment**

37 The Bid item “Beam Guardrail Anchor Type _____”, per each is revised to read “Beam Guardrail
38 Anchor Type 10”, per each.

39

40 The Bid item “Beam Guardrail Buried Terminal Type 1”, per each is deleted from this section.

41

42 The Bid item “Beam Guardrail Buried Terminal Type 2”, per linear foot and the following paragraph
43 are revised to read:

44

45 “Beam Guardrail Type 31 Buried Terminal Type 2”, per linear foot.

46

47 The unit Contract price per linear foot for “Beam Guardrail Type 31 Buried Terminal Type 2”
48 shall be full payment for all costs to obtain and provide materials and perform the Work as
49 described in Section 8-11.3(1)C.

1
2 **Section 8-14, Cement Concrete Sidewalks**
3 **April 2, 2018**

4 **8-14.2 Materials**

5 In the first paragraph, the reference to “Portland Cement” is revised to read:

6
7 Cement 9-01

8
9 In the second paragraph, each reference to “Federal Standard 595” is revised to read “SAE AMS
10 Standard 595”.

11
12 **Section 8-16, Concrete Slope Protection**
13 **April 2, 2018**

14 **8-16.2 Materials**

15 In the first paragraph, the last two material references are revised to read:

16
17 Poured Portland Cement or Blended Hydraulic Cement
18 Concrete Slope Protection 9-13.5(2)
19 Pneumatically Placed Portland Cement or Blended
20 Hydraulic Cement Concrete Slope Protection 9-13.5(3)

21
22 **Section 8-17, Impact Attenuator Systems**
23 **January 7, 2019**

24 **8-17.3 Construction Requirements**

25 This section is supplemented with the following:

26
27 Permanent impact attenuators shall meet the crash test and evaluation criteria of the Manual
28 for Assessing Safety Hardware (MASH), except as otherwise noted in the Plans or Special
29 Provisions.

30
31 **Section 8-20, Illumination, Traffic Signal Systems, Intelligent Transportation**
32 **Systems, and Electrical**
33 **August 6, 2018**

34 **8-20.1(1) Regulations and Code**

35 The last paragraph is revised to read:

36
37 Persons performing electrical Work shall be certified in accordance with and supervised as
38 required by RCW 19.28.161. Proof of certification shall be worn at all times in accordance
39 with WAC 296-46B-942. Persons failing to meet these certification requirements may not
40 perform any electrical work, and shall stop any active electrical work, until their certification
41 is provided and worn in accordance with this Section.

42
43 **8-20.2(2) Equipment List and Drawings**

44 This section is renumbered:

45

1 **8-20.2(1) Equipment List and Drawings**

2
3 **8-20.3(4) Foundations**

4 The second sentence of the first paragraph is revised to read:

5
6 Concrete for Type II, III, IV, V, and CCTV signal standards and light standard foundations
7 shall be Class 4000P and does not require air entrainment.

8
9 **8-20.3(5)A General**

10 The last two sentences of the last paragraph is deleted.

11
12 This section is supplemented with the following:

13
14 All conduits shall include a pull tape with the equipment grounding conductor. The pull tape
15 shall be attached to the conduit near the end bell or grounded end bushing, or to duct plugs
16 or caps if present, at both ends of the conduit.

17
18 **8-20.3(8) Wiring**

19 The seventeenth paragraph is supplemented with the following:

20
21 Pulling tape shall meet the requirements of Section 9-29.1(10). Pull string may not be used.

22
23 **8-20.3(14)C Induction Loop Vehicle Detectors**

24 Item number 2 is deleted.

25
26 Item numbers 3 through 12 are renumbered to 2 through 11, respectively.

27
28 **Section 8-21, Permanent Signing**

29 **January 7 2019**

30 **8-21.3(5) Sign Relocation**

31 The second sentence of the first paragraph is revised to read:

32
33 Where the existing sign Structure is mounted on concrete pedestals, the Contractor shall
34 remove the pedestal to a minimum of 2 feet below finished grade and backfill the remaining
35 hole with material similar to that surrounding the hole.

36
37 **8-21.3(9)F Foundations**

38 Item number 3 of the twelfth paragraph is supplemented with the following new sentence:

39
40 Class 4000P concrete for roadside sign structures does not require air entrainment.

41
42 **Section 9-02, Bituminous Materials**

43 **January 7, 2019**

44 **9-02.1 Asphalt Material, General**

45 The second paragraph is revised to read:

46
47 The Asphalt Supplier of Performance Graded (PG) asphalt binder and emulsified asphalt
48 shall have a Quality Control Plan (QCP) in accordance with WSDOT QC 2 "Standard Practice

for Asphalt Suppliers That Certify Performance Graded and Emulsified Asphalts”. The Asphalt Supplier’s QCP shall be submitted and receive the acceptance of the WSDOT State Materials Laboratory. Once accepted, any change to the QCP will require a new QCP to be submitted for acceptance. The Asphalt Supplier of PG asphalt binder and emulsified asphalt shall certify through the Bill of Lading that the PG asphalt binder or emulsified asphalt meets the Specification requirements of the Contract.

9-02.1(4) Performance Graded Asphalt Binder (PGAB)

This section’s title is revised to read:

Performance Graded (PG) Asphalt Binder

The first paragraph is revised to read:

PG asphalt binder meeting the requirements of AASHTO M 332 Table 1 of the grades specified in the Contract shall be used in the production of HMA. For HMA with greater than 20 percent RAP by total weight of HMA, or any amount of RAS, the new asphalt binder, recycling agent and recovered asphalt (RAP and/or RAS) when blended in the proportions of the mix design shall meet the PG asphalt binder requirements of AASHTO M 332 Table 1 for the grade of asphalt binder specified by the Contract.

The second paragraph, including the table, is revised to read:

In addition to AASHTO M 332 Table 1 specification requirements, PG asphalt binders shall meet the following requirements:

		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 ¹			30% Min.	20% Min.	25% Min.	30% Min.
¹ Specimen conditioned in accordance with AASHTO T 240 – RTFO.							

The third paragraph is revised to read:

The RTFO J_{nriff} and the PAV direct tension specifications of AASHTO M 332 are not required.

9-02.1(6) Cationic Emulsified Asphalt

This section is revised to read:

1 Cationic Emulsified Asphalt meeting the requirements of AASHTO M 208 Table 1 of the
2 grades specified in the Contract shall be used.
3

4 **9-02.5 Warm Mix Asphalt (WMA) Additive**

5 This section, including title, is revised to read:
6

7 **9-02.5 HMA Additive**

8 Additives for HMA shall be accepted by the Engineer.
9

10 **Section 9-03, Aggregates**

11 **January 7, 2019**

12 **9-03.1 Aggregates for Portland Cement Concrete**

13 This section's title is revised to read:
14

15 **Aggregates for Concrete**

17 **9-03.1(1) General Requirements**

18 The first two sentences of the first paragraph are revised to read:
19

20 Concrete aggregates shall be manufactured from ledge rock, talus, or sand and gravel in
21 accordance with the provisions of Section 3-01. Reclaimed aggregate may be used if it
22 complies with the specifications for concrete.
23

24 The second paragraph (up until the colon) is revised to read:
25

26 Aggregates for concrete shall meet the following test requirements:
27

28 The second sentence of the second to last paragraph is revised to read:
29

30 The Contractor shall submit test results according to ASTM C1567 through the Engineer to
31 the State Materials Laboratory that demonstrate that the proposed fly ash when used with
32 the proposed aggregates and cement will control the potential expansion to 0.20 percent or
33 less before the fly ash and aggregate sources may be used in concrete.
34

35 **9-03.1(2) Fine Aggregate for Portland Cement Concrete**

36 This section's title is revised to read:
37

38 **Fine Aggregate for Concrete**

40 **9-03.1(4) Coarse Aggregate for Portland Cement Concrete**

41 This section's title is revised to read:
42

43 **Coarse Aggregate for Concrete**

45 **9-03.1(4)C Grading**

46 The first paragraph (up until the colon) is revised to read:
47

Coarse aggregate for concrete when separated by means of laboratory sieves shall conform to one or more of the following gradings as called for elsewhere in these Specifications, Special Provisions, or in the Plans:

9-03.1(5) Combined Aggregate Gradation for Portland Cement Concrete

This section's title is revised to read:

Combined Aggregate Gradation for Concrete

9-03.1(5)B Grading

In the last paragraph, "WSDOT FOP for WAQTC/AASHTO T 27/T 11" is revised to read "FOP for WAQTC/AASHTO T 27/T 11".

9-03.2 Aggregate for Job-Mixed Portland Cement Mortar

This section's title is revised to read:

Aggregate for Job-Mixed Portland Cement or Blended Hydraulic Cement Mortar

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

Fine aggregate for portland cement or blended hydraulic cement mortar shall consist of sand or other inert materials, or combinations thereof, accepted by the Engineer, having hard, strong, durable particles free from adherent coating.

9-03.4(1) General Requirements

The first paragraph (up until the colon) is revised to read:

Aggregate for bituminous surface treatment shall be manufactured from ledge rock, talus, or gravel, in accordance with Section 3-01. Aggregates for Bituminous Surface Treatment shall meet the following test requirements:

9-03.8(1) General Requirements

The first paragraph (up until the colon) is revised to read:

Aggregates for Hot Mix Asphalt shall meet the following test requirements:

9-03.8(2) HMA Test Requirements

The two tables in the second paragraph are replaced with the following three tables:

Mix Criteria	HMA Class							
	3/8 inch		1/2 inch		3/4 inch		1 inch	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Voids in Mineral Aggregate (VMA), %	15.0		14.0		13.0		12.0	
Voids Filled With Asphalt (VFA), %								
ESAL's (millions)	VFA							
< 0.3	70	80	70	80	70	80	67	80
0.3 to < 3	65	78	65	78	65	78	65	78
≥ 3	73	76	65	75	65	75	65	75

Dust/Asphalt Ratio	0.6	1.6	0.6	1.6	0.6	1.6	0.6	1.6
--------------------	-----	-----	-----	-----	-----	-----	-----	-----

Test Method	ESAL's (millions)	Number of Passes
Hamburg Wheel-Track Testing, FOP for AASHTO T 324 Minimum Number of Passes with no Stripping Inflection Point and Maximum Rut Depth of 10mm	< 0.3	10,000
	0.3 to < 3	12,500
	≥ 3	15,000
Indirect Tensile (IDT) Strength (psi) of Bituminous Materials FOP for ASTM D6931		175 Maximum

	ESAL's (millions)	N initial	N design	N maximum
% Gmm	< 0.3	≤ 91.5	96.0	≤ 98.0
	0.3 to < 3	≤ 90.5	96.0	≤ 98.0
	≥ 3	≤ 89.0	96.0	≤ 98.0
Gyratory Compaction (number of gyrations)	< 0.3	6	50	75
	0.3 to < 3	7	75	115
	> 3	8	100	160

9-03.8(7) HMA Tolerances and Adjustments

In the table in item number 1, the fifth row is revised to read:

Asphalt binder	-0.4% to 0.5%		±0.7%
----------------	---------------	--	-------

In the table in item number 1, the following new row is inserted before the last row:

Voids in Mineral Aggregate, VMA	-1.0%		
---------------------------------	-------	--	--

9-03.9(1) Ballast

The second paragraph (up until the colon) is revised to read:

Aggregates for ballast shall meet the following test requirements:

9-03.14(4) Gravel Borrow for Structural Earth Wall

The second sentence of the first paragraph is revised to read:

The material shall be substantially free of shale or other soft, poor durability particles, and shall not contain recycled materials, such as glass, shredded tires, concrete rubble, or asphaltic concrete rubble.

9-03.21(1)B Recycled Concrete Aggregate Approval and Acceptance

The first sentence of the second paragraph is revised to read:

Recycled concrete aggregate may be used as coarse aggregate or blended with coarse aggregate for Commercial Concrete, Class 3000 concrete, or Cement Concrete Pavement.

Item number 4 of the second paragraph is revised to read:

- 1
2 4. For Cement Concrete Pavement mix designs using recycled concrete aggregates, the
3 Contractor shall submit evidence that ASR mitigating measures control expansion in
4 accordance with Section 9-03.1(1).
5

6 This section is supplemented with the following new subsection:
7

8 **9-03.21(1)B1 Recycled Concrete Aggregate Approval and Acceptance**

9 Recycled concrete aggregate may be approved through a three tiered system that consists
10 of the following:
11

Tier 1	
Approval Requirements	Approval of the Reclamation Facility is not required.
Acceptance Requirements	Certification of toxicity characteristics in accordance with Section 9-03.21(1). Field acceptance testing in accordance with Section 3-04.
Approved to provide the following Aggregate Materials:	
9-03.10 Aggregate for Gravel Base 9-03.12(1)B Gravel Backfill for Foundations Class B 9-03.12(2) Gravel Backfill for Walls 9-03.12(3) Gravel Backfill for Pipe Zone Bedding 9-03.14(1) Gravel Borrow 9-03.14(2) Select Borrow 9-03.14(2) Select Borrow (greater than 3 feet below subgrade and side slope) 9-03.14(3) Common Borrow 9-03.14(3) Common Borrow (greater than 3 feet below subgrade and side slope) 9-03.17 Foundation Material Class A and Class B 9-03.18 Foundation Material Class C 9-03.19 Bank Run Gravel for Trench Backfill	

Tier 2	
Approval Requirements	The Reclamation Facility shall have a Quality Control Plan (QCP) in accordance with WSDOT QC 9 "Standard Practice for Approval of Reclamation Facilities of WSDOT Recycled Concrete and Returned Concrete". The Reclamation Facility's QCP shall be submitted and approved by the WSDOT State Materials Laboratory. Once accepted, any changes to the QCP will require a new QCP to be submitted for acceptance. Evaluation of aggregate source properties (LA Wear and Degradation) for the recycled concrete aggregate is not required.
Acceptance Requirements	Certification of toxicity characteristics in accordance with Section 9-03.21(1), required if requested.

	Field acceptance testing in accordance with Section 3-04 is required. Provide certification in accordance with WSDOT QC 9 for every lot. A lot shall be no larger than 10,000 tons.
Approved to provide the following Aggregate Materials:	
Tier 1 aggregate materials 9-03.1 Coarse Aggregate for Commercial Concrete or Concrete class 3000 9-03.9(1) Ballast 9-03.9(2) Permeable Ballast 9-03.9(3) Crushed Surfacing 9-03.12(1)A Gravel Backfill for Foundations Class A	

1

Tier 3	
Approval Requirements	The Reclamation Facility shall have a Quality Control Plan (QCP) in accordance with WSDOT QC 10 "Standard Practice for Approval of Reclamation Facilities of Recycled Concrete Aggregates from Stockpiles of Unknown Sources". The Reclamation Facility's QCP shall be submitted and approved by the WSDOT State Materials Laboratory. Once accepted, any changes to the QCP will require a new QCP to be submitted for acceptance. Evaluation of aggregate source properties (LA Wear and Degradation) for the recycled concrete aggregate is required.
Acceptance Requirements	Certification of toxicity characteristics in accordance with Section 9-03.21(1) is required. Field acceptance testing in accordance with Section 3-04 is required. Provide certification in accordance with WSDOT QC 10 for every lot. A lot shall be no larger than 10,000 tons
Approved to provide the following Aggregate Materials:	
Tier 1 aggregate materials 9-03.1 Coarse Aggregate for Commercial Concrete or Concrete class 3000 9-03.9(1) Ballast 9-03.9(2) Permeable Ballast 9-03.9(3) Crushed Surfacing 9-03.12(1)A Gravel Backfill for Foundations Class A	

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10

For Reclamation Facilities that do not participate in Tier 2 and Tier 3, approval of recycled concrete aggregate will be in accordance with Section 9-03.21(1), and acceptance will be in accordance with Section 3-04.

9-03.21(1)E Table on Maximum Allowable percent (By Weight) of Recycled Material

"Portland Cement" is deleted from the first two rows in the table.

1 The following new row is inserted after the second row:
2

Coarse Aggregate for Concrete Pavement	9-03.1(4)	0	100	0	0
--	-----------	---	-----	---	---

3
4 The first column of the fourth row (after the preceding Amendment is applied) is revised to read:
5

6 Coarse Aggregate for Commercial Concrete and Class 3000 Concrete
7

8 **Section 9-04, Joint and Crack Sealing Materials**
9 **January 7, 2019**

10 This section's title is revised to read:
11

12 **Joint Sealing Materials**
13

14 **9-04.1(2) Premolded Joint Filler for Expansion Joints**

15 In this section, each reference to "AASHTO T 42" is revised to read "ASTM D 545".
16

17 **9-04.2(1)A1 Hot Poured Sealant for Cement Concrete Pavement**

18 This section is supplemented with the following:
19

20 Hot poured sealant for cement concrete pavement is acceptable for installations in joints
21 where cement concrete pavement abuts a bituminous pavement.
22

23 **9-04.2(1)A2 Hot Poured Sealant for Bituminous Pavement**

24 This section is supplemented with the following:
25

26 Hot poured sealant for bituminous pavement is acceptable for installations in joints where
27 cement concrete pavement abuts a bituminous pavement.
28

29 **9-04.2(1)B Sand Slurry for Bituminous Pavement**

30 Item number 2 of the first paragraph is revised to read:
31

32 2. Two percent portland cement or blended hydraulic cement, and
33

34 **9-04.3 Joint Mortar**

35 The first paragraph is revised to read:
36

37 Mortar for hand mortared joints shall conform to Section 9-20.4(3) and consist of one part
38 portland cement or blended hydraulic cement, three parts fine sand, and sufficient water to
39 allow proper workability.
40

41 **9-04.5 Flexible Plastic Gaskets**

42 In the table, the Test Method value for **Specific Gravity at 77°F** is revised to read "ASTM D71".
43

44 In the table, the Test Method value for **Flash Point COC, F** is revised to read "ASTM D93 REV
45 A".
46

47 In the table, the Test Method value for **Volatile Matter** is revised to read "ASTM D6".
48

1 **Section 9-05, Drainage Structures and Culverts**
2 **January 7, 2019**

3 **9-05.3(1)A End Design and Joints**

4 The second sentence of the first paragraph is revised to read:

5
6 The joints and gasket material shall meet the requirements of ASTM C990.

7
8 **9-05.3(1)C Age at Shipment**

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

10
11 Unless it is tested and accepted at an earlier age, it shall not be considered ready for
12 shipment sooner than 28 days after manufacture when made with Type II portland cement or
13 blended hydraulic cement, nor sooner than 7 days when made with Type III portland cement.

14
15 **9-05.7(3) Concrete Storm Sewer Pipe Joints**

16 The second sentence is revised to read:

17
18 The joints and gasket material shall meet the requirements of ASTM C990.

19
20 **9-05.7(4)A Hydrostatic Pressure on Pipes in Straight Alignment**

21 The first sentence is revised to read:

22
23 Hydrostatic pressure tests on pipes in straight alignment shall be made in accordance with
24 the procedure outlined in Section 10 of ASTM C990, except that they shall be performed on
25 an assembly consisting of not less than three nor more than five pipe sections selected from
26 stock by the Engineer and assembled in accordance with standard installation instructions
27 issued by the manufacturer.

28
29 **9-05.24(1) Polypropylene Culvert Pipe and Storm Sewer Pipe**

30 This section is revised to read:

31
32 Polypropylene culvert and storm sewer pipe shall conform to the following requirements:

- 33
- 34 1. For dual wall pipe sizes up to 60 inches: ASTM F2881 or AASHTO M 330, Type S
 - 35 or Type D.
 - 36
 - 37 2. For double or triple wall pipe sizes up to 60 inches: ASTM F2764.
 - 38
 - 39 3. Fittings shall be factory welded, injection molded, or PVC.
 - 40

41 **9-05.24(2) Polypropylene Sanitary Sewer Pipe**

42 This section is revised to read:

43
44 Polypropylene sanitary sewer pipe shall conform to the following requirements:

- 45
- 46 1. For pipe sizes up to 60 inches: ASTM F2764.
 - 47
 - 48 2. Fittings shall be factory welded, injection molded, or PVC.
 - 49

1 **Section 9-06, Structural Steel and Related Materials**
2 **January 7, 2019**

3 **9-06.5 Bolts**

4 This section's title is revised to read:

5

6 **Bolts and Rods**

7

8 **9-06.5(4) Anchor Bolts**

9 This section, including title, is revised to read:

10

11 **9-06.5(4) Anchor Bolts and Anchor Rods**

12 Anchor bolts and anchor rods shall meet the requirements of ASTM F1554 and, unless
13 otherwise specified, shall be Grade 105 and shall conform to Supplemental Requirements
14 S2, S3, and S4.

15

16 Nuts for ASTM F1554 Grade 105 black anchor bolts and anchor rods shall conform to ASTM
17 A563, Grade D or DH. Nuts for ASTM F1554 Grade 105 galvanized anchor bolts and anchor
18 rods shall conform to either ASTM A563, Grade DH, or AASHTO M292, Grade 2H, and shall
19 conform to the overlapping, lubrication, and rotational testing requirements in Section 9-
20 06.5(3). Nuts for ASTM F1554 Grade 36 or 55 black or galvanized anchor bolts and anchor
21 rods shall conform to ASTM A563, Grade A or DH. Washers shall conform to ASTM F436.

22

23 The bolts and rods shall be tested by the manufacturer in accordance with the requirements
24 of the pertinent Specification and as specified in these Specifications. Anchor bolts, anchor
25 rods, nuts, and washers shall be inspected prior to shipping to the project site. The Contractor
26 shall submit to the Engineer for acceptance a Manufacturer's Certificate of Compliance for
27 the anchor bolts, anchor rods, nuts, and washers, as defined in Section 1-06.3. If the
28 Engineer deems it appropriate, the Contractor shall provide a sample of the anchor bolt,
29 anchor rod, nut, and washer for testing.

30

31 All bolts, rods, nuts, and washers shall be marked and identified as required in the pertinent
32 Specification.

33

34 **9-06.15 Welded Shear Connectors**

35 The third paragraph is revised to read:

36

37 Mechanical properties shall be determined in accordance with AASHTO T 244.

38

39 **9-06.17 Vacant**

40 This section, including title, is revised to read:

41

42 **9-06.17 Noise Barrier Wall Access Door**

43 Access door frames shall be formed of 14-gauge steel to the size and dimensions shown in
44 the Plans. The access door frame head and jamb members shall be mitered, securely
45 welded, and ground smooth. Each head shall have two anchors and each jamb shall have
46 three anchors. The hinges shall be reinforced with ¼-inch by 12-inch plate, width equal to
47 the full inside width of the frame.

48

1 Access doors shall be full flush 1-3/4-inch thick seamless doors with a polystyrene core. Door
2 faces shall be constructed with smooth seamless 14-gauge roller-levered, cold-rolled steel
3 sheet conforming to ASTM A 792 Type SS, Grade 33 minimum, Coating Designation AZ55
4 minimum. The vertical edges shall be neat interlocked hemmed edge seam. The top and
5 bottom of the door shall be enclosed with 14-gauge channels. Mortise and reinforcement for
6 locks and hinges shall be 10-gauge steel. Welded top cap shall be ground and filled for
7 exterior applications. The bottom channel shall have weep holes.

8
9 Each access door shall have three hinges. Access door hinges shall be ASTM A 276 Type
10 316 stainless steel, 4-1/2-inches square, with stainless steel ball bearing and non-removable
11 pins.

12
13 Each access door shall have two pull plates. The pull plates shall be ASTM A 240 Type 316
14 stainless steel, with a grip handle of one-inch diameter and 8 to 10-inches in length.

15
16 The door assembly shall be fabricated and assembled as a complete unit including all
17 hardware specified prior to shipment.

18 19 **9-06.18 Metal Bridge Railing**

20 The second sentence of the first paragraph is revised to read:

21
22 Steel used for metal railings, when galvanized after fabrication in accordance with AASHTO
23 M111, shall have a controlled silicon content of either 0.00 to 0.06 percent or 0.15 to 0.25
24 percent.

25 26 **Section 9-07, Reinforcing Steel** 27 **January 7, 2019**

28 **9-07.5(1) Epoxy-Coated Dowel Bars (for Cement Concrete Rehabilitation)**

29 This section (including title) is revised to read:

30 31 **9-07.5(1) Dowel Bars for Cement Concrete Pavement Rehabilitation**

32 Dowel bars for Cement Concrete Pavement Rehabilitation shall be 1 1/2 inch outside diameter
33 plain round steel bars or tubular bars 18 inches in length and meet the requirements of one
34 of the following dowel bar types:

- 35
36 1. Epoxy-coated dowel bars shall be round plain steel bars of the dimensions shown
37 in the Standard Plans. They shall conform to AASHTO M31, Grade 60 or ASTM
38 A615, Grade 60 and shall be coated in accordance with ASTM A1078 Type 2
39 coating, except that the bars may be cut to length after being coated. Cut ends shall
40 be coated in accordance with ASTM A1078 with a patching material that is
41 compatible with the coating, inert in concrete and recommended by the coating
42 manufacturer. The thickness of the epoxy coating shall be 10 mils plus or minus 2
43 mils. The Contractor shall furnish a written certification that properly identifies the
44 coating material, the number of each batch of coating material used, quantity
45 represented, date of manufacture, name and address of manufacturer, and a
46 statement that the supplied coating material meets the requirements of ASTM
47 A1078 Type 2 coating. Patching material, compatible with the coating material and
48 inert in concrete and recommended by the manufacturer shall be supplied with each
49 shipment for field repairs by the Contractor.

- 1
2 2. ASTM A513 steel tubes made from Grade 60 Carbon Steel Tube with a 1.625 inch
3 outside diameter and a 0.120 inch wall thickness. Both the inside and outside of
4 the tube shall be zinc coated with G40 galvanizing in accordance with ASTM A653.
5 Following zinc coating the tubes shall be coated in accordance with Section 9-
6 07.5(1) item 1. The ends of the tube shall be capped to prevent intrusion of concrete
7 or other materials.
8

9 **9-07.5(2) Corrosion Resistant Dowel Bars (for Cement Concrete Pavement and
10 Cement Concrete Pavement Rehabilitation)**

11 The first paragraph (up until the colon) is revised to read:

12
13 Corrosion resistant dowel bars shall be 1½ inch outside diameter plain round steel bars or
14 tubular bars 18 inches in length and meet the requirements of one of the following:
15

16 Item number 4 and 5 of the first paragraph are revised to read:

- 17
18 4. Corrosion-resistant, low-carbon, chromium plain steel bars for concrete reinforcement
19 meeting all the requirements of ASTM A 1035 Alloy Type CS Grade 100 or Alloy Type
20 CS Grade 120.
21
22 5. Zinc Clad dowel bars shall be 1½ inch solid bars or 1.625 inch outside diameter by 0.120
23 inch wall tubular bars meeting the chemical and physical properties of AASHTO M 31,
24 Grade 60, or AASHTO M 255, Grade 60. The bars shall have a minimum of 0.035 inches
25 A710 Zinc alloy clad to the plain steel inner bar or tube. A710 Zinc shall be composed
26 of: zinc: 99.5 percent, by weight, minimum; copper: 0.1-0.25 percent, by weight; and
27 iron: 0.0020 percent, by weight, maximum. Each end of tubular bars shall be plugged
28 using a snug-fitting insert to prohibit any intrusion of concrete or other materials.
29

30 The numbered list in the first paragraph is supplemented with the following:

- 31
32 6. Multicoated fusion bonded epoxy bars shall consist of an ASTM A615 bar with alternating
33 layers of ASTM A934 coating and an abrasion resistant overcoat (ARO). The ASTM
34 A934 coating shall form the base and there shall be two layers of each coating material.
35 The minimum thickness of the combined layers of the ASTM A934 coating and ARO
36 coating shall be 20 mils. The ARO shall meet the following requirements:
37

Test	Method	Specification
Gouge Resistance	NACE TM0215, 30 kg wt., LS-1 bit @ 25°C	< 0.22 mm
Gouge Resistance	NACE TM0215, 50 kg wt., LS-1 bit @ 25°C	< 0.44 mm

- 38
39 7. ASTM A513 steel tubes made from Grade 60 Carbon Steel Tube with a 1.625 inch
40 outside diameter and a 0.120 inch wall thickness. Both the inside and outside of the tube
41 shall be zinc coated with G90 galvanizing in accordance with ASTM A653. Following
42 zinc coating the tubes shall be coated in accordance with Section 9-07.5(1) item 1. The
43 ends of the tube shall be capped to prevent intrusion of concrete or other materials.
44

45 The last paragraph is revised to read:

1
2 Stainless Steel Clad and Stainless Steel Tube Dowel bar ends shall be sealed with a patching
3 material (primer and finish coat) used for patching epoxy-coated reinforcing steel as required
4 in Section 9-07.3, item 6.
5

6 **9-07.7 Wire Mesh**

7 This section is supplemented with the following:
8

9 Welded wire manufacturers shall participate in the NTPEP Audit Program for Reinforcing
10 Steel (rebar) Manufacturers and shall be listed on the NTPEP audit program website
11 displaying that they are NTPEP compliant.
12

13 **Section 9-08, Paints and Related Materials** 14 **January 7, 2019**

15 **9-08.1(1) Description**

16 The first sentence is revised to read:
17

18 Paint used for highway and bridge structure applications shall be made from materials
19 meeting the requirements of the applicable Federal and State Paint Specifications,
20 Department of Defense (DOD), American Society of Testing of Materials (ASTM), and The
21 Society for Protective Coatings (SSPC) specifications in effect at time of manufacture.
22

23 **9-08.1(2) Paint Types**

24 This section is supplemented with the following new subsections:
25

26 **9-08.1(2)M NEPCOAT Qualified Products List A**

27 Qualified products used shall be part of a NEPCOAT system supplied by the same
28 manufacturer.
29

30 **9-08.1(2)N NEPCOAT Qualified Products List B**

31 Qualified products used shall be part of a NEPCOAT system supplied by the same
32 manufacturer.
33

34 **9-08.1(2)D Organic Zinc-Rich Primer**

35 This section, including title, is revised to read:
36

37 **Vacant**
38

39 **9-08.1(2)E Epoxy Polyamide**

40 This section is revised to read:
41

42 Epoxy polyamide shall be a two-component system conforming to MIL-DTL-24441 or SSPC
43 Coating Standard No. 42.
44

45 **9-08.1(2)H Top Coat, Single-Component, Moisture-Cured Polyurethane**

46 This section is revised to read:
47

48 Vehicle Type: Moisture-cured aliphatic polyurethane.
49

1 Color and Gloss: Meet the SAE AMS Standard 595 Color as specified in the table
2 below.
3

4 The Top Coat shall meet the following requirements:

5 The resin shall be an aliphatic urethane.
6

7 Minimum-volume solids 50 percent.
8

9 The top coat shall be semi-gloss.
10
11

Color	Semi-Gloss
Washington Gray	26357
Mt. Baker Gray	26134
Mt. St. Helens Gray	26306
Cascade Green	24158

12
13 **9-08.1(2)I Rust-Penetrating Sealer**

14 This section is revised to read:
15

16 Rust-penetrating sealer shall be a two-component, chemically-cured, 100 percent solids
17 epoxy.
18

19 **9-08.1(2)J Black Enamel**

20 This section is revised to read:
21

22 The enamel shall conform to Federal Specification MIL PRF 24635E Type II Class 2.
23

24 **9-08.1(2)K Orange Equipment Enamel**

25 The first paragraph is revised to read:
26

27 The enamel shall be an alkyd gloss enamel conforming to Federal Specification MIL-PRF-
28 24635E Type II Class 1. The color, when dry, shall match that of SAE AMS Standard 595,
29 color number 12246.
30

31 **9-08.1(2)L Exterior Acrylic Latex Paint-White**

32 The first paragraph is revised to read:
33

34 This paint shall conform to Federal Specification MIL-PRF-24635E Type II Class 1, 2 or 3.
35

36 **9-08.1(7) Acceptance**

37 This section is revised to read:
38

39 For projects with moisture-cured polyurethane quantities less than 20 gallons, acceptance
40 will be by the Manufacturer's Certificate of Compliance.
41

42 For projects with moisture-cured polyurethane quantities greater than 20 gallons, the product
43 shall be listed in the current WSDOT Qualified Products List (QPL). If the lot number is listed
44 on the QPL, it may be accepted without additional testing. If the lot number is not listed on

1 the QPL, a 1 quart sample shall be submitted to the State Materials Laboratory for testing
2 and acceptance.

3
4 For all other paint types, acceptance will be based on visual inspection.

5
6 **9-08.1(8) Standard Colors**

7 In the first paragraph, the reference to “Federal Standard 595” is revised to read “SAE AMS
8 Standard 595”.

9
10 The second paragraph is revised to read:

11
12 Unless otherwise specified, all top or finish coats shall be semi-gloss, with the paint falling
13 within the range of 35 to 70 on the 60-degree gloss meter.

14
15 **9-08.2 Powder Coating Materials for Coating Galvanized Surfaces**

16 The last paragraph is revised to read:

17
18 Repair materials shall be as recommended by the powder coating manufacturer and as
19 specified in the Contractor’s powder coating plan as accepted by the Engineer.

20
21 **9-08.3 Pigmented Sealer Materials for Coating of Concrete Surfaces**

22 This section, including title, is revised to read:

23
24 **9-08.3 Concrete Surface Treatments**

25 **9-08.3(1) Pigmented Sealer Materials**

26 The pigmented sealer shall be a semi-opaque, colored toner containing only methyl
27 methacrylate-ethyl acrylate copolymer resins, toning pigments suspended in solution at
28 all times by a chemical suspension agent, and solvent. Toning pigments shall be laminar
29 silicates, titanium dioxide, and inorganic oxides only. There shall be no settling or color
30 variation. Tinting shall occur at the factory at the time of manufacture and placement in
31 containers, prior to initial shipment. Use of vegetable or marine oils, paraffin materials,
32 stearates, or organic pigments in any part of coating formulation will not be permitted.
33 The color of pigmented sealer shall be as specified by the Contracting Agency. The
34 Contractor shall submit a 1-quart wet sample, a drawdown color sample, and
35 spectrophotometer or colorimeter readings taken in accordance with ASTM D2244, for
36 each batch and corresponding standard color card. The calculated Delta E shall not
37 exceed 1.5 from the Commission Internationale de l’Eclairage (CIELAB) when measured
38 at 10 degrees Standard Observer and Illuminant D 65.

39
40 The 1-quart wet sample shall be submitted in the manufacturer’s labeled container with
41 product number, batch number, and size of batch. The companion drawdown color
42 sample shall be labeled with the product number, batch number, and size of batch. The
43 Contractor shall submit the specified samples and readings to the Engineer at least 14
44 calendar days prior to the scheduled application of the sealer. The Contractor shall not
45 begin applying pigmented sealer until receiving the Engineer’s written approval of the
46 pigmented sealer color samples.

47
48 **9-08.3(2) Exposed Aggregate Concrete Coatings and Sealers**

49 **9-08.3(2)A Retardant Coating**

50 Retardant coating shall exhibit the following properties:

- 1
- 2
- 3 1. Retards the set of the surface mortar of the concrete without preventing
- 4 the concrete to reach the specified 28 day compressive strength.
- 5
- 6 2. Leaves the aggregate with its original color and luster, and firmly
- 7 embedded in the concrete matrix.
- 8
- 9 3. Allows the removal of the surface mortar in accordance with the methods
- 10 specified in Section 6-02.3(14)E without the use of acidic washing
- 11 compounds.
- 12
- 13 4. Allows for uniform removal of the surface mortar.

14 If the Contractor proposes use of a retardant coating that is not listed in the current
15 WSDOT QPL, the Contractor shall submit a Type 2 Working Drawing consisting of
16 a one quart product sample from a current lot along with supporting product
17 information, Safety Data Sheet, and a Manufacturer's Certificate of Compliance
18 stating that the product conforms to the above performance requirements.

19 **9-08.3(2)B Clear Sealer**

20 The sealer for concrete surfaces with exposed aggregate finish shall be a clear,
21 non-gloss, penetrating sealer of either a silane, siloxane, or silicone based
22 formulation.

23 **9-08.3(3) Permeon Treatment**

24 Permeon treatment shall be a product of known consistent performance in producing
25 the SAE AMS Standard 595 Color No. 30219 target color hue established by WSDOT,
26 either selected from the WSDOT Qualified Products List (QPL), or an equivalent product
27 accepted by the Engineer. For acceptance of products not listed in the current WSDOT
28 QPL, the Contractor shall submit Type 3 Working Drawings consisting of a one quart
29 product sample from a current lot, supporting product information and a Safety Data
30 Sheet.

31 **Section 9-13, Riprap, Quarry Spalls, Slope Protection, and Rock for Erosion and** 32 **Scour Protection and Rock Walls** 33 **April 2, 2018**

34 **9-13.1(1) General**

35 The last paragraph is revised to read:

36 Riprap and quarry spalls shall be free from segregation, seams, cracks, and other defects
37 tending to destroy its resistance to weather and shall meet the following test requirements:

38 **9-13.5 Concrete Slope Protection**

39 This section is revised to read:

40 Concrete slope protection shall consist of reinforced portland cement or blended hydraulic
41 cement concrete poured or pneumatically placed upon the slope with a rustication joint
42 pattern or semi-open concrete masonry units placed upon the slope closely adjoining each
43 other.

1
2 **9-13.5(2) Poured Portland Cement Concrete Slope Protection**

3 This section's title is revised to read:

4
5 **Poured Portland Cement or Blended Hydraulic Cement Concrete Slope**
6 **Protection**

7
8 **9-13.5(3) Pneumatically Placed Portland Cement Concrete Slope Protection**

9 This section's title is revised to read:

10
11 **Pneumatically Placed Portland Cement or Blended Hydraulic Cement**
12 **Concrete Slope Protection**

13
14 The first paragraph is revised to read:

15
16 **Cement** – This material shall be portland cement or blended hydraulic cement as specified
17 in Section 9-01.

18
19 **9-13.7(1) Rock for Rock Walls and Chinking Material**

20 The first paragraph (up until the colon) is revised to read:

21
22 Rock for rock walls and chinking material shall be hard, sound and durable material,
23 free from seams, cracks, and other defects tending to destroy its resistance to weather,
24 and shall meet the following test requirements:

25
26 **Section 9-14, Erosion Control and Roadside Planting**
27 **August 6, 2018**

28 **9-14.4(2) Hydraulically Applied Erosion Control Products (HECPs)**

29 In Table 1, the last four rows are deleted.

30
31 **9-14.4(2)A Long-Term Mulch**

32 The first paragraph is supplemented with the following:

33
34 Products containing cellulose fiber produced from paper or paper components will not be
35 accepted.

36
37 Table 2 is supplemented with the following new rows:

38

Water Holding Capacity	ASTM D 7367	800 percent minimum
Organic Matter Content	AASHTO T 267	90 percent minimum
Seed Germination Enhancement	ASTM D 7322	Long Term 420 percent minimum

39
40
41 **9-14.4(2)B Moderate-Term Mulch**

42 This section is revised to read:

43
44 Within 48 hours of application, the Moderate-Term Mulch shall bond with the soil surface to
45 create a continuous, absorbent, flexible, erosion-resistant blanket. Moderate-Term Mulch

1 shall effectively perform the intended erosion control function in accordance with Section 8-
2 01.3(1) for a minimum of 3 months, or until temporary vegetation has been established,
3 whichever comes first.

4
5 Moderate-Term Mulch shall not be used in conjunction with permanent seeding.
6

7 **9-14.4(2)C Short-Term Mulch**

8 This section is revised to read:

9
10 Short-Term Mulch shall effectively perform the intended erosion control function in
11 accordance with Section 8-01.3(1) for a minimum of 2 months, or until temporary vegetation
12 has been established, whichever comes first. Short-Term Mulch shall not be used in
13 conjunction with permanent seeding.
14

15 **Section 9-16, Fence and Guardrail** 16 **August 6, 2018**

17 **9-16.3(1) Rail Element**

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

19
20 All rail elements shall be formed from 12-gage steel except for thrie beam reducer sections,
21 reduced length thrie beam rail elements, thrie beams used for bridge rail retrofits, and Design
22 F end sections, which shall be formed from 10-gage steel.
23

24 **9-16.3(5) Anchors**

25 The last paragraph is revised to read:

26
27 Cement grout shall conform to Section 9-20.3(4) and consist of one part portland cement or
28 blended hydraulic cement and two parts sand.
29

30 **Section 9-18, Precast Traffic Curb** 31 **April 2, 2018**

32 **9-18.1(1) Aggregates and Proportioning**

33 Item number 1 of the first paragraph is revised to read:

- 34
35 1. Portland cement or blended hydraulic cement shall conform to the requirements of
36 Section 9-01 except that it may be Type I portland cement conforming to AASHTO M 85.
37

38 **Section 9-20, Concrete Patching Material, Grout, and Mortar** 39 **January 7, 2019**

40 **9-20.1 Patching Material**

41 This section, including title, is revised to read:

42 **9-20.1 Patching Material for Cement Concrete Pavement**

43 Concrete patching material shall be prepackaged mortar extended with aggregate. The
44 amount of aggregate for extension shall conform to the manufacturer's recommendation.
45
46

Patching mortar and patching mortar extended with aggregate shall contain cementitious material and conform to Sections 9-20.1(1) and 9-20.1(2). The Manufacturer shall use the services of a laboratory that has an equipment calibration verification system and a technician training and evaluation process in accordance with AASHTO R 18 to perform all tests specified in Section 9-20.1.

9-20.1(1) Patching Mortar

Patching mortar shall conform to the following requirements:

Compressive Strength	ASTM Test Method	Specification
at 3 hours	C 39	Minimum 3,000 psi
at 24 hours	C 39	Minimum 5,000 psi
Length Change		
at 28 days	C 157	0.15 percent maximum
Total Chloride Ion Content	C 1218	1 lb/yd ³ maximum
Bond Strength		
at 24 hours	C 882 (As modified by C 928, Section 9.5)	Minimum 1,000 psi
Scaling Resistance (at 25 cycles of freezing and thawing)	C 672 (As modified by C 928, Section 9.4)	1 lb/ft ² maximum

9-20.1(2) Patching Mortar Extended with Aggregate

Patching mortar extended with aggregate shall meet the following requirements:

Compressive Strength	ASTM Test Method	Specification
at 3 hours	C 39	Minimum 3,000 psi
at 24 hours	C 39	Minimum 5,000 psi
Length Change		
at 28 days	C 157	0.15 percent maximum
Bond Strength		
at 24 hours	C 882 (As modified by ASTM C928, Section 9.5)	Minimum 1,000 psi
Scaling Resistance (at 25 cycles of freezing and thawing)	C 672	2 Maximum Visual Rating
Freeze thaw	C 666	Maximum expansion 0.10% Minimum durability 90.0%

9-20.1(3) Aggregate

Aggregate used to extend the patching mortar shall conform to Section 9-03.1(4) and be AASHTO Grading No. 8. A Manufacturer's Certificate of Compliance shall be submitted showing the aggregate source and the gradation. Mitigation for Alkali Silica Reaction

1 (ASR) will not be required for the extender aggregate used for concrete patching
2 material.

3
4 **9-20.1(4) Water**

5 Water shall meet the requirements of Section 9-25.1. The quantity of water shall be
6 within the limits recommended by the repair material manufacturer.

7
8 **9-20.2 Specifications**

9 This section, including title, is revised to read:

10
11 **9-20.2 Patching Material for Concrete Structure Repair**

12 Concrete patching material shall be a prepackaged mixture of portland or blended hydraulic
13 cement, aggregate, and admixtures. Fly ash, ground granulated blast furnace slag and
14 microsilica fume may be used. The concrete patching material may be shrinkage
15 compensated. The concrete patching material shall also meet the following requirements:

- 16 • Compressive strength of 6000 psi or higher at 28 days in accordance with AASHTO
17 T 22 (ASTM C 39), unless noted otherwise
- 18 • Bond strength of 250 psi or higher at 28 days or less in accordance with ASTM C
19 1583 or ICRI 210.3R
- 20 • Shrinkage shall be 0.05 percent (500 microstrain) or lower at 28 days in accordance
21 with AASHTO T 160 (ASTM C 157) as modified by ICRI 320.3R
- 22 • Permeability shall be 2,000 coulombs or lower at 28 days in accordance with
23 AASHTO T 277 (ASTM C 1202)
- 24 • Freeze-thaw resistance shall have a durability factor of 90 percent or higher after a
25 minimum of 300 cycles in accordance with AASHTO T 161 Procedure A (ASTM C
26 666)
- 27 • Soluble chloride ion limits in Section 6-02.3(2) shall be satisfied

28
29
30
31
32
33
34
35 **9-20.2(1) Patching Mortar**

36 This section, including title, is deleted in its entirety.

37
38 **9-20.2(2) Patching Mortar Extended with Aggregate**

39 This section, including title, is deleted in its entirety.

40
41 **9-20.3(3) Grout Type 3 for Unconfined Bearing Pad Applications**

42 This section is revised to read:

43
44 Grout Type 3 shall be a prepackaged material that does not include expansive admixtures
45 meeting the following requirements:

- 46 • Compressive strength shall be 4000 psi or higher at 28 days in accordance with
47 AASHTO T 22 (ASTM C 39) for grout extended with coarse aggregate or AASHTO
48 T 106 (ASTM C109) otherwise.

- 1 • Bond strength shall meet one of the following:
 - 2
 - 3 ◦ 250 psi or higher at 28 days or less in accordance with ASTM C1583.
 - 4
 - 5 ◦ 2000 psi or higher at 28 days or less in accordance with ASTM C882. The
 - 6 following modification to ASTM C882 is acceptable: use Type 3 Grout in lieu of
 - 7 epoxy resin base bonding system and freshly mixed portland-cement mortar in
 - 8 the procedure for testing Type II and V systems.
 - 9
- 10 • Drying shrinkage shall be 0.08 percent (800 microstrain) or lower at 28 days in
- 11 accordance with AASHTO T 160 (ASTM C157). The following modification to
- 12 AASHTO T 160 is acceptable: use a standard specimen size of 3 x 3 x 11-¼ inches.
- 13

14 **9-20.5 Bridge Deck Repair Material**

15 Item number 3 of the first paragraph is revised to read:

- 16
- 17 3. Permeability of less than 2,000 coulombs at 28-days or more in accordance with
- 18 AASHTO T 277.
- 19

20 **Section 9-21, Raised Pavement Markers (RPM)**

21 **January 2, 2018**

22 **9-21.2 Raised Pavement Markers Type 2**

23 This section's content is deleted.

24 **9-21.2(1) Physical Properties**

25 This section, including title, is revised to read:

26 **9-21.2(1) Standard Raised Pavement Markers Type 2**

27

28 The marker housing shall contain reflective faces as shown in the Plans to reflect incident

29 light from either a single or opposite directions and meet the requirements of ASTM D 4280

30 including Flexural strength requirements.

31

32 **9-21.2(2) Optical Requirements**

33 This section, including title, is revised to read:

34 **9-21.2(2) Abrasion Resistant Raised Markers Type 2**

35

36 Abrasion Resistant Raised Markers Type 2 shall comply with Section 9-21.2(1) and meet the

37 requirements of ASTM D 4280 with the following additional requirement: The coefficient of

38 luminous intensity of the markers shall be measured after subjecting the entire lens surface

39 to the test described in ASTM D 4280 Section 9.5 using a sand drop apparatus. After the

40 exposure described above, retroreflected values shall not be less than 0.5 times a nominal

41 unblemished sample.

42

43 **9-21.2(3) Strength Requirements**

44 This section is deleted in its entirety.

45

46

1 **Section 9-26, Epoxy Resins**
2 **January 7, 2019**

3 **9-26.1(1) General**

4 The following new sentence is inserted after the first sentence of the first paragraph:

5
6 For pre-packaged cartridge kits, the epoxy bonding agent shall meet the requirements of
7 ASTM C881 when mixed according to manufacturer instructions, utilizing the manufacturer's
8 mixing nozzle.

9
10 **9-26.1(2) Packaging and Marking**

11 The first sentence of the first paragraph is revised to read:

12
13 The components of the epoxy system furnished under these Specifications shall be supplied
14 in separate containers or pre-packaged cartridge kits that are non-reactive with the materials
15 contained.

16
17 The second paragraph is revised to read:

18
19 Separate containers shall be marked by permanent marking that identify the formulator,
20 "Component A" (contains the Epoxy Resin) and "Component B" (Contains the Curing Agent),
21 type, grade, class, lot or batch number, mixing instructions and the quantity contained in
22 pounds or gallons as defined by these Specifications.

23
24 The following new paragraph is inserted after the second paragraph:

25
26 Pre-packaged cartridge kits shall be marked by permanent marking that identify the
27 formulator, type, grade, class, lot or batch number, mixing instructions and the quantity
28 contained in ounces or milliliters as defined by these Specifications.

29
30 **Section 9-28, Signing Materials and Fabrication**
31 **April 2, 2018**

32 **9-28.10 Vacant**

33 This section, including title, is revised to read:

34
35 **9-28.10 Digital Printing**

36 Transparent and opaque durable inks used in digital printed sign messages shall be as
37 recommended by the manufacturer. When properly applied, digital printed colors shall have
38 a warranty life of the base retroreflective sign sheeting. Digital applied colors shall present a
39 smooth surface, free from foreign material, and all messages and borders shall be clear and
40 sharp. Digital printed signs shall conform to 70% of the retroreflective minimum values
41 established for its type and color. Digitally printed signs shall meet the daytime color and
42 luminance, and nighttime color requirements of ASTM D 4956. No variations in color or
43 overlapping of colors will be permitted. Digital printed permanent traffic signs shall have an
44 integrated engineered match component clear protective overlay recommended by the
45 sheeting manufacturer applied to the entire face of the sign. On Temporary
46 construction/maintenance signs printed with black ink only, the protective overlay film is
47 optional, as long as the finished sign has a warranty of a minimum of three years from sign
48 sheeting manufacturer.

1
2 All digital printed traffic control signs shall be an integrated engineered match component
3 system. The integrated engineered match component system shall consist of retroreflective
4 sheeting, durable ink(s), and clear overlay film all from the same manufacturer applied to
5 aluminum substrate conforming to Section 9-28.8.
6

7 The sign fabricator shall use an approved integrated engineered match component system
8 as listed on the Qualified Products List (QPL). Each approved digital printer shall only use
9 the compatible retroreflective sign sheeting manufacturer's engineered match component
10 system products.
11

12 Each retroreflective sign sheeting manufacturer/integrated engineered match component
13 system listed on the QPL shall certify a department approved sign fabricator is approved to
14 operate their compatible digital printer. The sign fabricator shall re-certify annually with the
15 retroreflective sign manufacturer to ensure their digital printer is still meeting manufacturer's
16 specifications for traffic control signs. Documentation of each re-certification shall be
17 submitted to the QPL Engineer annually.
18

19 **9-28.11 Hardware**

20 The last paragraph is revised to read:
21

22 All steel parts shall be galvanized in accordance with AASHTO M111. Steel bolts and related
23 connecting hardware shall be galvanized in accordance with ASTM F 2329.
24

25 **9-28.14(2) Steel Structures and Posts**

26 The first sentence of the third paragraph is revised to read:
27

28 Anchor rods for sign bridge and cantilever sign structure foundations shall conform to Section
29 9-06.5(4), including Supplemental Requirement S4 tested at -20°F.
30

31 In the second sentence of the fourth paragraph, "AASHTO M232" is revised to read "ASTM F
32 2329".
33

34 The first sentence of the fifth paragraph is revised to read:
35

36 Except as otherwise noted, steel used for sign structures and posts shall have a controlled
37 silicon content of either 0.00 to 0.06 percent or 0.15 to 0.25 percent.
38

39 The last sentence of the last paragraph is revised to read:
40

41 If such modifications are contemplated, the Contractor shall submit a Type 2 Working
42 Drawing of the proposed modifications.
43

44 **Section 9-29, Illumination, Signal, Electrical** 45 **January 7, 2019**

46 **9-29.1 Conduit, Innerduct, and Outerduct**

47 This section is supplemented with the following new subsections:
48

1 **9-29.1(10) Pull Tape**

2 Pull tape shall be pre-lubricated polyester pulling tape. The pull tape shall have a minimum
3 width of ½-inch and a minimum tensile strength of 500 pounds. Pull tape may have
4 measurement marks.
5

6 **9-29.1(11) Foam Conduit Sealant**

7 Foam conduit sealant shall be self-expanding waterproof foam designed to prevent both
8 water and pest intrusion. The foam shall be designed for use in and around electrical
9 equipment, including both insulated and bare conductors.
10

11 **9-29.2(1) Junction Boxes**

12 The first paragraph is revised to read:

13
14 For the purposes of this Specification concrete is defined as portland cement or blended
15 hydraulic cement concrete and non-concrete is all others.
16

17 **9-29.2(1)A2 Non-Concrete Junction Boxes**

18 The first paragraph is revised to read:

19
20 Material for the non-concrete junction boxes shall be of a quality that will provide for a similar
21 life expectancy as portland cement or blended hydraulic cement concrete in a direct burial
22 application.
23

24 **9-29.2(2)A Standard Duty Cable Vaults and Pull Boxes**

25 In the table in the last paragraph, the fourth, fifth and sixth rows are revised to read:
26

Slip Resistant Lid	ASTM A36 steel
Frame	ASTM A36 steel
Slip Resistant Frame	ASTM A36 steel

27
28 **9-29.3(2)A1 Single Conductor Current Carrying**

29 This second sentence is revised to read:

30
31 Insulation shall be XLP (cross-linked polyethylene) or EPR (Ethylene Propylene Rubber),
32 Type USE (Underground Service Entrance) or USE-2, and rated for 600-volts or higher.
33

34 **9-29.6 Light and Signal Standards**

35 In the first sentence of the third paragraph, "AASHTO M232" is revised to read "ASTM F 2329".
36

37 Item number 2 of the last paragraph is revised to read:

- 38
39 2. The steel light and signal standard fabricator's shop drawing submittal, including
40 supporting design calculations, submitted as a Type 2E Working Drawing in accordance
41 with Section 8-20.2(1) and the Special Provisions.
42

43 **9-29.6(1) Steel Light and Signal Standards**

44 In the second paragraph, "AASHTO M232" is revised to read "ASTM F 2329".
45

46 The first sentence of the last paragraph is revised to read:
47

1 Steel used for light and signal standards shall have a controlled silicon content of either 0.00
2 to 0.06 percent or 0.15 to 0.25 percent.

3
4 **9-29.6(5) Foundation Hardware**

5 In the last paragraph, "AASHTO M232" is revised to read "ASTM F 2329".

6
7 **9-29.10(1) Conventional Roadway Luminaires**

8 This section is revised to read:

9
10 All conventional roadway luminaires shall meet 3G vibration requirements as described in
11 ANSI C136.31.

12
13 All luminaires shall have housings fabricated from aluminum. The housing shall be painted
14 flat gray, SAE AMS Standard 595 color chip No. 26280, unless otherwise specified in the
15 Contract. Painted housings shall withstand a 1,000 hour salt spray test as specified in ASTM
16 B117.

17
18 Each housing shall include a four bolt slip-fitter mount capable of accepting a nominal 2"
19 tenon and adjustable within +/- 5 degrees of the axis of the tenon. The clamping bracket(s)
20 and the cap screws shall not bottom out on the housing bosses when adjusted within the +/-
21 5 degree range. No part of the slipfitter mounting brackets on the luminaires shall develop a
22 permanent set in excess of 0.2 inch when the cap screws used for mounting are tightened to
23 a torque of 32 foot-pounds. Each luminaire shall include leveling reference points for both
24 transverse and longitudinal adjustment.

25
26 All luminaires shall include shorting caps when shipped. The caps shall be removed and
27 provided to the Contracting Agency when an alternate control device is required to be
28 installed in the photocell socket. House side shields shall be included when required by the
29 Contract. Order codes shall be modified to the minimum extent necessary to include the
30 option for house side shields.

31
32 This section is supplemented with the following new subsections:

33
34 **9-29.10(1)A High Pressure Sodium (HPS) Conventional Roadway Luminaires**

35 HPS conventional roadway luminaires shall meet the following requirements:

- 36
37 1. General shape shall be "cobrahead" style, with flat glass lens and full cutoff optics.
38
39 2. Light pattern distribution shall be IES Type III.
40
41 3. The reflector of all luminaires shall be of a snap-in design or secured with screws.
42 The reflector shall be polished aluminum or prismatic borosilicate glass.
43
44 4. Flat lenses shall be formed from heat resistant, high-impact, molded borosilicate or
45 tempered glass.
46
47 5. The lens shall be mounted in a doorframe assembly, which shall be hinged to the
48 luminaire and secured in the closed position to the luminaire by means of an
49 automatic latch. The lens and doorframe assembly, when closed, shall exert
50 pressure against a gasket seat. The lens shall not allow any light output above 90

degrees nadir. Gaskets shall be composed of material capable of withstanding the temperatures involved and shall be securely held in place.

6. The ballast shall be mounted on a separate exterior door, which shall be hinged to the luminaire and secured in the closed position to the luminaire housing by means of an automatic type of latch (a combination hex/slot stainless steel screw fastener may supplement the automatic-type latch).
7. Each luminaire shall be capable of accepting a 150, 200, 250, 310, or 400 watt lamp complete and associated ballast. Lamps shall mount horizontally.

9-29.10(1)B Light Emitting Diode (LED) Conventional Roadway Luminaires

LED Conventional Roadway Luminaires are divided into classes based on their equivalent High Pressure Sodium (HPS) luminaires. Current classes are 200W, 250W, 310W, and 400W. LED luminaires are required to be pre-approved in order to verify their photometric output. To be considered for pre-approval, LED luminaires must meet the requirements of this section.

LED luminaires shall include a removable access door, with tool-less entry, for access to electronic components and the terminal block. The access door shall be removable, but include positive retention such that it can hang freely without disconnecting from the luminaire housing. LED drivers may be mounted either to the interior of the luminaire housing or to the removable door itself.

LED drivers shall be removable for user replacement. All internal modular components shall be connected by means of mechanical plug and socket type quick disconnects. Wire nuts may not be used for any purpose. All external electrical connections to the luminaire shall be made through the terminal block.

LED luminaires shall include a 7-pin NEMA photocell receptacle. The LED driver(s) shall be dimmable from ten volts to zero volts. LED output shall have a Correlated Color Temperature (CCT) of 4000K nominal (4000-4300K) and a Color Rendering Index (CRI) of 70 or greater. LED output shall be a minimum of 85% at 75,000 hours at 25 degrees Celsius.

LED luminaires shall be available for 120V, 240V, and 480V supply voltages. Voltages refer to the supply voltages to the luminaires present in the field. LED power usage shall not exceed the following maximum values for the applicable wattage class:

Class	Max. Wattage
200W	110W
250W	165W
310W	210W
400W	275W

Only one brand of LED conventional roadway luminaire may be used on a Contract. They do not necessarily have to be the same brand as any high-mast, underdeck, or wall-mount luminaires when those types of luminaires are specified in the Contract. LED luminaires shall include a standard 10 year manufacturer warranty.

1 The list of pre-approved LED Conventional Roadway Luminaires is available at
2 <http://www.wsdot.wa.gov/Design/Traffic/ledluminaires.htm>.
3

4 **9-29.10(2) Decorative Luminaires**

5 This section, including title, is revised to read:
6

7 **9-29.10(2) Vacant**

8 **9-29.12 Electrical Splice Materials**

9 This section is supplemented with the following new subsections:
10
11

12 **9-29.12(3) Splice Enclosures**

13 **9-29.12(3)A Heat Shrink Splice Enclosure**

14 Heat shrink splice enclosures shall be medium or heavy wall cross-linked polyolefin,
15 meeting the requirements of AMS-DTL-23053/15, with thermoplastic adhesive sealant.
16 Heat shrink splices used for “wye” connections require rubber electrical mastic tape.
17

18 **9-29.12(3)B Molded Splice Enclosure**

19 Molded splice enclosures shall use epoxy resin in a clear rigid plastic mold. The material
20 used shall be compatible with the insulation material of the insulated conductor or cable.
21 The component materials of the resin insulation shall be packaged ready for convenient
22 mixing without removing from the package.
23

24 **9-29.12(4) Re-Enterable Splice Enclosure**

25 Re-enterable splice enclosures shall use either dielectric grease or a flexible resin contained
26 in a two-piece plastic mold. The mold shall either snap together or use stainless steel hose
27 clamps.
28

29 **9-29.12(5) Vinyl Electrical Tape for Splices**

30 Vinyl electrical tape in splicing applications shall meet the requirements of MIL-I-24391C.
31

32 **9-29.12(1) Illumination Circuit Splices**

33 This section is revised to read:
34

35 Underground illumination circuit splices shall be solderless crimped connections capable of
36 securely joining the wires, both mechanically and electrically, as defined in Section 8-20.3(8).
37 Aerial illumination splices shall be solderless crimp connectors or split bolt vice-type
38 connectors.
39

40 **9-29.12(1)A Heat Shrink Splice Enclosure**

41 This section is deleted in its entirety.
42

43 **9-29.12(1)B Molded Splice Enclosure**

44 This section is deleted in its entirety.
45

46 **9-29.12(2) Traffic Signal Splice Material**

47 This section is revised to read:
48

49 Induction loop splices and magnetometer splices shall use an uninsulated barrel-type
50 crimped connector capable of being soldered.

1
2 **9-29.13(10)D Cabinets for Type 170E and 2070 Controllers**

3 The first sentence of item number 4 is revised to read:

4
5 A disposable paper filter element with dimensions of 12" × 16" × 1" shall be provided in lieu
6 of a metal filter.

7
8 Item number 6 is revised to read:

- 9
10 6. LED light strips shall be provided for cabinet lighting, powered from the Equipment
11 breaker on the Power Distribution Assembly. Each LED light strip shall be approximately
12 12 inches long, have a minimum output of 320 lumens, and have a color temperature of
13 4100K (cool white) or higher. There shall be three light strips for each rack within the
14 cabinet. Lighting shall be ceiling mounted – rack mounted lighting is not permitted. Light
15 strips shall be installed in the locations shown in the Standard Plans. Lighting shall not
16 interfere with the proper operation of any other ceiling mounted equipment. All lighting
17 fixtures above a rack shall energize automatically when either door to that respective
18 rack is opened. Each door switch shall be labeled "Light".

19
20 Item number 7 is revised to read:

- 21
22 7. Rack mounted equipment shall be as shown in the Standard Plans. The cabinet shall
23 use PDA #2LX and Output File #1LX. Where an Auxiliary Output File is required, Output
24 File #2LX shall also be included.

25
26 This section is supplemented with the following new item:

- 27
28 9. The PCB connectors for Field Terminal Blocks FT1 through FT6 on Output Files #1LX
29 and #2LX shall be capable of accepting minimum 14 AWG field wiring, have a pitch of
30 5.08 mm, and use screw flange type locking to secure the plug and socket connection.
31 The sockets on the Field Terminal Panel shall be secured to the panel such that
32 unplugging a connector will not result in the socket moving or separating from the panel.

33
34 **9-29.13(11) Cabinets for Type 170E and 2070 Controllers**

35 Item number 2 is revised to read:

- 36
37 2. Rack mounted equipment shall be as shown in the Standard Plans.

38
39 Item number 3 is revised to read:

- 40
41 3. PDA #3LX shall be furnished with three Model 200 Load Switches installed. PDA #3LX
42 shall be modified to include a second Model 430 transfer relay, mounted on the rear of
43 the PDA and wired as shown in the Standard Plans.

44
45 **9-29.13(12) ITS Cabinet**

46 This section's title is revised to read:

47
48 **Type 331L ITS Cabinet**

49
50 The first paragraph (excluding the numbered list) is revised to read:

1
2 Basic ITS cabinets shall be Model 331L Cabinets, unless otherwise specified in the Contract.
3 Type 331L Cabinets shall be constructed in accordance with the TEES, with the following
4 modifications:

5
6 Item number 6 of the first paragraph is revised to read:

- 7
8 6. LED light strips shall be provided for cabinet lighting, powered from the Equipment
9 breaker on the Power Distribution Assembly. Each LED light strip shall be approximately
10 12 inches long, have a minimum output of 320 lumens, and have a color temperature of
11 4100K (cool white) or higher. There shall be three light strips for each rack within the
12 cabinet. Lighting shall be ceiling mounted – rack mounted lighting is not permitted. Light
13 strips shall be installed in the locations shown in the Standard Plans. Lighting shall not
14 interfere with the proper operation of any other ceiling mounted equipment. All lighting
15 fixtures above a rack shall energize automatically when either door to that respective
16 rack is opened. Each door switch shall be labeled “Light”.

17 18 **9-29.16(2)E Painting Signal Heads**

19 In the first sentence, “Federal Standard 595” is revised to read “SAE AMS Standard 595”.

20 21 **9-29.17 Signal Head Mounting Brackets and Fittings**

22 In the first paragraph, item number 2 under **Stainless Steel** is revised to read:

- 23
24 2. Bands or cables for Type N mount.

25 26 **9-29.20 Pedestrian Signals**

27 In item 2C of the second paragraph, “Federal Standard 595” is revised to read “SAE AMS
28 Standard 595”.

29 30 **9-29.24 Service Cabinets**

31 The third sentence of item number 6 is revised to read:

32
33 The dead front cover shall have cutouts for the entire breaker array, with blank covers where
34 no circuit breakers are installed.

35
36 Item number 8 is revised to read:

- 37
38 8. Lighting contactors shall meet the requirements of Section 9-29.24(2).

39
40 The last sentence of item number 10 is revised to read:

41
42 Dead front panels shall prevent access to any exposed, live components, and shall cover all
43 equipment except for circuit breakers (including blank covers), the photocell test/bypass
44 switch, and the GFCI receptacle.

45 46 **9-29.24(2) Electrical Circuit Breakers and Contactors**

47 This section is revised to read:

48
49 All circuit breakers shall be bolt-on type, with the RMS-symmetrical interrupting capacity
50 described in this Section. Circuit breakers for 120/240/277 volt circuits shall be rated at 240

1 or 277 volts, as applicable, with an interrupting capacity of not less than 10,000 amperes.
2 Circuit breakers for 480 volt circuits shall be rated at 480 volts, and shall have an interrupting
3 capacity of not less than 14,000 amperes.
4

5 Lighting contactors shall be rated for tungsten or ballasted (such as sodium vapor, mercury
6 vapor, metal halide, and fluorescent) lamp loads. Contactors for 120/240/277 volt circuits
7 shall be rated at 240 volts maximum line to line voltage, or 277 volts maximum line to neutral
8 voltage, as applicable. Contactors for 480 volt circuits shall be rated at 480 volt maximum
9 line to line voltage.
10

11 **Section 9-33, Construction Geosynthetic**
12 **August 6, 2018**

13 **9-33.4(1) Geosynthetic Material Approval**

14 The second sentence of the first paragraph is revised to read:
15

16 If the geosynthetics material is not listed in the current WSDOT QPL, a Manufacturer's
17 Certificate of Compliance including Certified Test Reports of each proposed geosynthetic
18 shall be submitted to the State Materials Laboratory in Tumwater for evaluation.
19

20 The last paragraph is revised to read:
21

22 Geosynthetics used as reinforcement in permanent geosynthetic retaining walls, reinforced
23 slopes, reinforced embankments, and other geosynthetic reinforcement applications require
24 proof of compliance with the National Transportation Product Evaluation Program (NTPEP)
25 in accordance with AASHTO Standard Practice R 69, Standard Practice for Determination of
26 Long-Term Strength for Geosynthetic Reinforcement.
27

28 **Section 9-34, Pavement Marking Material**
29 **January 7, 2019**

30 **9-34.2(2) Color**

31 The first sentence is revised to read:
32

33 Paint draw-downs shall be prepared according to ASTM D823.
34

35 Each reference to "Federal Standard 595" is revised to read "SAE AMS Standard 595".
36

37 **9-34.2(3) Prohibited Materials**

38 This section is revised to read:
39

40 Traffic paint shall not contain mercury, lead, chromium, diarylide pigments, toluene,
41 chlorinated solvents, hydrolysable chlorine derivatives, ethylene-based glycol ethers and
42 their acetates, nor any other EPA hazardous waste material over the regulatory levels in
43 accordance with CFR 40 Part 261.24.
44

45 **9-34.2(5) Low VOC Waterborne Paint**

46 The heading "Standard Waterborne Paint" is supplemented with "Type 1 and 2".
47

48 The heading "High-Build Waterborne Paint" is supplemented with "Type 4".

1
2
3
4
5
6
7
8
9
10

The heading “Cold Weather Waterborne Paint” is supplemented with “Type 5”.

In the row beginning with “ @90°F”, each minimum value is revised to read “60”.

In the row beginning with “Fineness of Grind, (Hegman Scale)”, each minimum value is revised to read “3”.

The last four rows are replaced with the following:

Vehicle Composition	ASTM D 2621	100% acrylic emulsion	100% cross-linking acrylic ⁴	100% acrylic emulsion
Freeze-Thaw Stability, KU	ASTM D 2243 and D 562	@ 5 cycles show no coagulation or change in viscosity greater than ± 10 KU	@ 5 cycles show no coagulation or change in viscosity greater than ± 10 KU	@ 3 cycles show no coagulation or change in viscosity greater than ± 10 KU
Heat Stability	ASTM D 562 ²	± 10 KU from the initial viscosity	± 10 KU from the initial viscosity	± 10 KU from the initial Viscosity
Low Temperature Film Formation	ASTM D 2805 ³	No Cracks*		No Cracks
Cold Flexibility ⁵	ASTM D522	Pass at 0.5 in mandrel*		
Test Deck Durability ⁶	ASTM D913	≥70% paint retention in wheel track*		
Mud Cracking	(See note 7)	No Cracks	No Cracks	

11
12
13
14

After the preceding Amendments are applied, the following new column is inserted after the “Standard Waterborne Paint Type 1 and 2” column:

Semi-Durable Waterborne Paint Type 3			
White		Yellow	
Min.	Max.	Min.	Max.
Within ± 0.3 of qualification sample			
80	95	80	95
60		60	
77		77	
	65		65
43		43	
	1.25		1.25
3		3	
0.98		0.96	
88		50	
100°		100°	
9.5		9.5	
	10		10
100% acrylic emulsion			

@ 5 cycles show no coagulation or change in viscosity greater than \pm 10 KU
\pm 10 KU from the initial viscosity
No Cracks
Pass at 0.25 in mandrel
\geq 70% paint retention in wheel track
No Cracks

The footnotes are supplemented with the following:

⁴Cross-linking acrylic shall meet the requirements of federal specification TT-P-1952F Section 3.1.1.

⁵Cold Flexibility: The paint shall be applied to an aluminum panel at a wet film thickness of 15 mils and allowed to dry under ambient conditions (50 \pm 10% RH and 72 \pm 5 °F) for 24 hours. A cylindrical mandrel apparatus (in accordance with ASTM D522 method B) shall be put in a 40°F refrigerator when the paint is drawn down. After 24 hours, the aluminum panel with dry paint shall be put in the 40°F refrigerator with the mandrel apparatus for 2 hours. After 2 hours, the panel and test apparatus shall be removed and immediately tested to according to ASTM D522 to evaluate cold flexibility. Paint must show no evidence of cracking, chipping or flaking when bent 180 degrees over a mandrel bar of specified diameter.

⁶NTPEP test deck, or a test deck conforming to ASTM D713, shall be conducted for a minimum of six months with the following additional requirements: it shall be applied at 15 wet mils to a test deck that is located at 40N latitude or higher with at least 10,000 ADT and which was applied during the months of September through November.

⁷Paint is applied to an approximately 4"x12" aluminum panel using a drawdown bar with a 50 mil gap. The coated panel is allowed to dry under ambient conditions (50 \pm 10% RH and 72 \pm 5 °F) for 24 hours. Visual evaluation of the dry film shall reveal no cracks.

9-34.3 Plastic

In the first sentence of the last paragraph, "Federal Standard 595" is revised to read "SAE AMS Standard 595".

9-34.3(2) Type B – Pre-Formed Fused Thermoplastic

In the last two paragraphs, each reference to "Federal Standard 595" is revised to read "SAE AMS Standard 595".

9-34.3(4) Type D – Liquid Cold Applied Methyl Methacrylate

The Test Method value for **Adhesion to PCC or HMA, psi** is revised to read "ASTM D4541¹".

9-34.4 Glass Beads for Pavement Marking Materials

In the Test Method column of the table titled Metal Concentration Limits, "EPA 3052 SW-846 6010C" is revised to read "EPA 3052 SW-846 6010D".

9-34.5(1) Temporary Pavement Marking Tape – Short Duration

This section, including title, is revised to read:

1 **9-34.5(1) Temporary Pavement Marking Tape – Short Duration (Removable)**

2 Temporary pavement marking tape for short duration (usage is for up to two months) shall
3 conform to ASTM D4592 Type I except that black tape, black mask tape and the black portion
4 of the contrast removable tape, shall be non-reflective.
5

6 **9-34.5(2) Temporary Pavement Marking Tape – Long Duration**

7 This section's title is revised to read:
8

9 **Temporary Pavement Marking Tape – Long Duration (Non-Removable)**

10
11 The first sentence is revised to read:
12

13 Temporary pavement marking tape for long duration (usage is for greater than two months
14 and less than one year) shall conform to ASTM D4592 Type II.
15

16 ASTM E2176 is deleted from the second sentence.
17

18 **9-34.7(1) Requirements**

19 The first paragraph is revised to read:
20

21 Field performance evaluation is required for low VOC solvent-based paint per Section 9-
22 34.2(4), Type A – liquid hot applied thermoplastic per Section 9-34.3(1), Type B – preformed
23 fused thermoplastic per Section 9-34.3(2), Type C – cold applied preformed tape per Section
24 9-34.3(3), and Type D – liquid applied methyl methacrylate per Section 9-34.3(4).
25

26 The last paragraph is deleted.
27

28 **9-34.7(1)C Auto No-Track Time**

29 The first paragraph is revised to read:
30

31 Auto No-Track Time will only be required for low VOC solvent-based paint in accordance with
32 Section 9-34.2(4).
33

34 The second and third sentences of the second paragraph are deleted.
35
36

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SPECIAL PROVISIONS

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1 **INTRODUCTION TO THE SPECIAL PROVISIONS**

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
5 the foregoing Amendments to the Standard Specifications.
6

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

- 17 (date) General Special Provision
- 18 (*****) Notes a revision to a General Special Provision
19 and also notes a Project Specific Special Provision.
- 20 (APWA GSP) American Public Works Association General Special Provision
21

22 **General Specific Special Provisions** are similar to Standard Specifications in that they typically
23 apply to many projects, usually in more than one Region. Usually, the only difference from one
24 project to another is 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
30 part of 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 Transpiration)” 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
37 Lewis County Road Fund.
38

39 Also incorporated into the Contract Documents by reference are:

- 40 • *Manual on Uniform Traffic Control Devices for Streets and Highways*, currently adopted
41 edition, with Washington State modifications, if any
- 42 • *Design and Development Guidelines*, City of Centralia, currently adopted edition
43

44 Contractor shall obtain copies of these publications, at Contractor’s own expense.

1 **Division 1**
2 **General Requirements**

3
4 **DESCRIPTION OF WORK**

5
6 (March 13, 1995)

7 This Contract provides for the improvement of *** Borst Ave between Eshom Rd and Johnson
8 Rd which includes roadway grading and alignment, pedestrian walkways and accessibility,
9 stormwater facilities, street lighting, resetting of hydrants, landscaping, *** and other work, all in
10 accordance with the attached Contract Plans, these Contract Provisions, and the Standard
11 Specifications.

12
13 **1-01.3 Definitions**

14 *(January 4, 2016 APWA GSP)*

15
16 Delete the heading **Completion Dates** and the three paragraphs that follow it, and replace them
17 with the following:

18
19 **Dates**

20
21 ***Bid Opening Date***

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

23 ***Award Date***

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

26 ***Contract Execution Date***

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

28 ***Notice to Proceed Date***

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

30 ***Substantial Completion Date***

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

36 ***Physical Completion Date***

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

40 ***Completion Date***

41 The day all the Work specified in the Contract is completed and all the obligations of the
42 Contractor under the contract are fulfilled by the Contractor. All documentation required
43 by the Contract and required by law must be furnished by the Contractor before
44 establishment of this date.

45 ***Final Acceptance Date***

46 The date on which the Contracting Agency accepts the Work as complete.
47

1 Supplement this Section with the following:
2

3 All references in the Standard Specifications, Amendments, or WSDOT General Special
4 Provisions, to the terms "Department of Transportation", "Washington State Transportation
5 Commission", "Commission", "Secretary of Transportation", "Secretary", "Headquarters", and
6 "State Treasurer" shall be revised to read "Contracting Agency".
7

8 All references to the terms "State" or "state" shall be revised to read "Contracting Agency"
9 unless the reference is to an administrative agency of the State of Washington, a State
10 statute or regulation, or the context reasonably indicates otherwise.
11

12 All references to "State Materials Laboratory" shall be revised to read "Contracting Agency
13 designated location".
14

15 All references to "final contract voucher certification" shall be interpreted to mean the
16 Contracting Agency form(s) by which final payment is authorized, and final completion and
17 acceptance granted.
18

19 **Additive**

20 A supplemental unit of work or group of bid items, identified separately in the Bid Proposal,
21 which may, at the discretion of the Contracting Agency, be awarded in addition to the base
22 bid.
23

24 **Alternate**

25 One of two or more units of work or groups of bid items, identified separately in the Bid
26 Proposal, from which the Contracting Agency may make a choice between different
27 methods or material of construction for performing the same work.
28

29 **Business Day**

30 A business day is any day from Monday through Friday except holidays as listed in Section
31 1-08.5.
32

33 **Contract Bond**

34 The definition in the Standard Specifications for "Contract Bond" applies to whatever bond
35 form(s) are required by the Contract Documents, which may be a combination of a Payment
36 Bond and a Performance Bond.
37

38 **Contract Documents**

39 See definition for "Contract".
40

41 **Contract Time**

42 The period of time established by the terms and conditions of the Contract within which the
43 Work must be physically completed.
44

45 **Notice of Award**

46 The written notice from the Contracting Agency to the successful Bidder signifying the
47 Contracting Agency's acceptance of the Bid Proposal.
48
49
50
51

1 **Notice to Proceed**

2 The written notice from the Contracting Agency or Engineer to the Contractor authorizing
3 and directing the Contractor to proceed with the Work and establishing the date on which
4 the Contract time begins.

5
6 **Traffic**

7 Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs, and
8 equestrian traffic.

9
10 **1-02 BID PROCEDURES AND CONDITIONS**

11
12 **1-02.1 Prequalification of Bidders**

13
14 Delete this section and replace it with the following:

15
16 **1-02.1 Qualifications of Bidder**

17 *(January 24, 2011 APWA GSP)*

18
19 Before award of a public works contract, a bidder must meet at least the minimum
20 qualifications of RCW 39.04.350(1) to be considered a responsible bidder and qualified to be
21 awarded a public works project.

22
23 **1-02.2 Plans and Specifications**

24 **(*****)**

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

26
27 Copies of the plans, specifications and soils information are on file in the office of:

28
29 Lewis County Public Works Department
30 2025 NE Kresky Ave.
31 Chehalis, Washington 98532
32 (360) 740-2612
33

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

35
36 Prospective bidders may obtain plans and specifications from Lewis County Public Works
37 Department in Chehalis, Washington or download from the Lewis County Website at
38 www.lewiscountywa.gov
39

40 **Examination of Plans, Specifications and Site of Work**

41
42 **1-02.4(1) General**

43 *(August 15, 2016 APWA GSP Option B)*

44
45 The first sentence of the last paragraph is revised to read:

46
47 Any prospective Bidder desiring an explanation or interpretation of the Bid Documents,
48 shall request the explanation or interpretation in writing by close of business \$\$ 5

1 \$\$ business days preceding the bid opening to allow a written reply to reach all prospective
2 Bidders before the submission of their Bids.

3
4 **1-02.4(2) Subsurface Information**

5
6 Section 1-02.4(2) is supplemented with the following:

7
8 (*****)

9 The soils information used for study and design of this project is available in Appendix
10 E:

11
12 The soils information includes the following:

13
14 *** Geotechnical Engineering Report ***
15 Boring Logs

16
17 **1-02.5 Proposal Forms**

18 *(July 31, 2017 APWA GSP)*

19
20 Delete this section and replace it with the following:

21
22 The Proposal Form will identify the project and its location and describe the work. It will also
23 list estimated quantities, units of measurement, the items of work, and the materials to be
24 furnished at the unit bid prices. The bidder shall complete spaces on the proposal form that
25 call for, but are not limited to, unit prices; extensions; summations; the total bid amount;
26 signatures; date; and, where applicable, retail sales taxes and acknowledgment of addenda;
27 the bidder's name, address, telephone number, and signature; the bidder's
28 UDBE/DBE/M/WBE commitment, if applicable; a State of Washington Contractor's
29 Registration Number; and a Business License Number, if applicable. Bids shall be
30 completed by typing or shall be printed in ink by hand, preferably in black ink. The required
31 certifications are included as part of the Proposal Form.

32
33 The Contracting Agency reserves the right to arrange the proposal forms with alternates and
34 additives, if such be to the advantage of the Contracting Agency. The bidder shall bid on all
35 alternates and additives set forth in the Proposal Form unless otherwise specified.

36
37 **1-02.6 Preparation of Proposal**

38 *(July 11, 2018 APWA GSP)*

39
40 Supplement the second paragraph with the following:

- 41
42 4. If a minimum bid amount has been established for any item, the unit or lump sum price
43 must equal or exceed the minimum amount stated.
- 44 5. Any correction to a bid made by interlineation, alteration, or erasure, shall be initialed
45 by the signer of the bid.

46
47 Delete the last two paragraphs, and replace them with the following:

48
49 If no Subcontractor is listed, the Bidder acknowledges that it does not intend to use any
50 Subcontractor to perform those items of work.

1
2 The Bidder shall submit with their Bid a completed Contractor Certification Wage Law
3 Compliance form, provided by the Contracting Agency. Failure to return this certification as
4 part of the Bid Proposal package will make this Bid Nonresponsive and ineligible for Award.
5 A Contractor Certification of Wage Law Compliance form is included in the Proposal Forms.
6

7 The Bidder shall make no stipulation on the Bid Form, nor qualify the bid in any manner.
8

9 A bid by a corporation shall be executed in the corporate name, by the president or a vice
10 president (or other corporate officer accompanied by evidence of authority to sign).
11

12 A bid by a partnership shall be executed in the partnership name, and signed by a partner. A
13 copy of the partnership agreement shall be submitted with the Bid Form if any UDBE
14 requirements are to be satisfied through such an agreement.
15

16 A bid by a joint venture shall be executed in the joint venture name and signed by a member
17 of the joint venture. A copy of the joint venture agreement shall be submitted with the Bid
18 Form if any UDBE requirements are to be satisfied through such an agreement.
19

20 Section 1-02.6 is supplemented with the following:
21

22 ***(August 7, 2006)***

23 ***Progress Schedule Minimum Bid***

24 A minimum bid of *** \$5000.00 *** lump sum has been established for the item "Type *** B
25 *** Progress Schedule." The Contractor's bid shall equal or exceed that amount. If the
26 Contractor's bid is less than the minimum specified amount, the Contracting Agency will
27 unilaterally revise the bid amount to the minimum specified amount and recalculate the
28 Contractor's total bid amount. The corrected total bid amount will be used by the Contracting
29 Agency for award purposes and to fix the amount of the contract bond.
30

31 **1-02.10 Withdrawing, Revising, or Supplementing Proposal**

32 *(July 23, 2015 APWA GSP)*
33

34 Delete this section, and replace it with the following:
35

36 After submitting a physical Bid Proposal to the Contracting Agency, the Bidder may withdraw,
37 revise, or supplement it if:
38

- 39 1. The Bidder submits a written request signed by an authorized person and physically
40 delivers it to the place designated for receipt of Bid Proposals, and
- 41 2. The Contracting Agency receives the request before the time set for receipt of Bid
42 Proposals, and
- 43 3. The revised or supplemented Bid Proposal (if any) is received by the Contracting
44 Agency before the time set for receipt of Bid Proposals.
45

46 If the Bidder's request to withdraw, revise, or supplement its Bid Proposal is received before
47 the time set for receipt of Bid Proposals, the Contracting Agency will return the unopened
48 Proposal package to the Bidder. The Bidder must then submit the revised or supplemented
49 package in its entirety. If the Bidder does not submit a revised or supplemented package,
50 then its bid shall be considered withdrawn.

1
2 Late revised or supplemented Bid Proposals or late withdrawal requests will be date recorded
3 by the Contracting Agency and returned unopened. Mailed, emailed, or faxed requests to
4 withdraw, revise, or supplement a Bid Proposal are not acceptable.
5

6 **1-02.13 Irregular Proposals**

7 *(June 20, 2017 APWA GSP)*
8

9 Delete this section and replace it with the following:
10

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

48 **1-02.14 Disqualification of Bidders**

49 *(May 17, 2018 APWA GSP, Option A)*
50

51 Delete this section and replace it with the following:

1
2 A Bidder will be deemed not responsible if the Bidder does not meet the mandatory bidder
3 responsibility criteria in RCW 39.04.350(1), as amended.
4

5 The Contracting Agency will verify that the Bidder meets the mandatory bidder responsibility
6 criteria in RCW 39.04.350(1). To assess bidder responsibility, the Contracting Agency
7 reserves the right to request documentation as needed from the Bidder and third parties
8 concerning the Bidder's compliance with the mandatory bidder responsibility criteria.
9

10 If the Contracting Agency determines the Bidder does not meet the mandatory bidder
11 responsibility criteria in RCW 39.04.350(1) and is therefore not a responsible Bidder, the
12 Contracting Agency shall notify the Bidder in writing, with the reasons for its determination. If
13 the Bidder disagrees with this determination, it may appeal the determination within two (2)
14 business days of the Contracting Agency's determination by presenting its appeal and any
15 additional information to the Contracting Agency. The Contracting Agency will consider the
16 appeal and any additional information before issuing its final determination. If the final
17 determination affirms that the Bidder is not responsible, the Contracting Agency will not
18 execute a contract with any other Bidder until at least two business days after the Bidder
19 determined to be not responsible has received the Contracting Agency's final determination.
20

21 **1-02.15 Pre Award Information** 22 *(August 14, 2013 APWA GSP)*

23
24 Revise this section to read:

25
26 Before awarding any contract, the Contracting Agency may require one or more of these
27 items or actions of the apparent lowest responsible bidder:

- 28 1. A complete statement of the origin, composition, and manufacture of any or all materials
29 to be used,
- 30 2. Samples of these materials for quality and fitness tests,
- 31 3. A progress schedule (in a form the Contracting Agency requires) showing the order of
32 and time required for the various phases of the work,
- 33 4. A breakdown of costs assigned to any bid item,
- 34 5. Attendance at a conference with the Engineer or representatives of the Engineer,
- 35 6. Obtain, and furnish a copy of, a business license to do business in the city or county
36 where the work is located.
- 37 7. Any other information or action taken that is deemed necessary to ensure that the bidder
38 is the lowest responsible bidder.
39

40 41 **1-03 Award and Execution of Contract**

42 43 **1-03.1 Consideration of Bids** 44 *(January 23, 2006 APWA GSP)*

45
46 Revise the first paragraph to read:

47
48 After opening and reading proposals, the Contracting Agency will check them for correctness
49 of extensions of the prices per unit and the total price. If a discrepancy exists between the
50 price per unit and the extended amount of any bid item, the price per unit will control. If a

1 minimum bid amount has been established for any item and the bidder's unit or lump sum
2 price is less than the minimum specified amount, the Contracting Agency will unilaterally
3 revise the unit or lump sum price, to the minimum specified amount and recalculate the
4 extension. The total of extensions, corrected where necessary, including sales taxes where
5 applicable and such additives and/or alternates as selected by the Contracting Agency, will be
6 used by the Contracting Agency for award purposes and to fix the Awarded Contract Price
7 amount and the amount of the contract bond.

8
9 **1-03.3 Execution of Contract**

10 *(October 1, 2005 APWA GSP)*

11
12 Revise this section to read:

13
14 Copies of the Contract Provisions, including the unsigned Form of Contract, will be available
15 for signature by the successful bidder on the first business day following award. The number
16 of copies to be executed by the Contractor will be determined by the Contracting Agency.

17
18 Within ~~\$\$ 20 \$\$~~ calendar days after the award date, the successful bidder shall return the
19 signed Contracting Agency-prepared contract, an insurance certification as required by
20 Section 1-07.18, and a satisfactory bond as required by law and Section 1-03.4. Before
21 execution of the contract by the Contracting Agency, the successful bidder shall provide any
22 pre-award information the Contracting Agency may require under Section 1-02.15.

23
24 Until the Contracting Agency executes a contract, no proposal shall bind the Contracting
25 Agency nor shall any work begin within the project limits or within Contracting Agency-
26 furnished sites. The Contractor shall bear all risks for any work begun outside such areas
27 and for any materials ordered before the contract is executed by the Contracting Agency.

28
29 If the bidder experiences circumstances beyond their control that prevents return of the
30 contract documents within the calendar days after the award date stated above, the
31 Contracting Agency may grant up to a maximum of ~~\$\$ 20 \$\$~~ additional calendar days for
32 return of the documents, provided the Contracting Agency deems the circumstances warrant
33 it.

34
35
36 **1-03.7 Judicial Review**

37 *(November 30, 2018 APWA GSP)*

38
39 Revise this section to read:

40
41 Any decision made by the Contracting Agency regarding the Award and execution of the
42 Contract or Bid rejection shall be conclusive subject to the scope of judicial review permitted
43 under Washington Law. Such review, if any, shall be timely filed in the Superior Court of the
44 county where the Contracting Agency headquarters is located, provided that where an action
45 is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction.

46
47 **1-04 Scope of the Work**

1 **1-04.2 Coordination of Contract Documents, Plans, Special Provisions,**
2 **Specifications, and Addenda**
3 **(*****)**

4
5 Revise the second paragraph to read:

6
7 Any inconsistency in the parts of the contract shall be resolved by following this order of
8 precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so forth):

- 9 1. Addenda,
- 10 2. Proposal Form,
- 11 3. Special Provisions,
- 12 4. Contract Plans,
- 13 5. Amendments to the Standard Specifications,
- 14 6. Standard Specifications,
- 15 7. City of Centralia Design and Development, and
- 16 8. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.

17
18 **1-05 Conformity With And Deviations From Plans And Stakes**

19
20 Section 1-05.4 is supplemented with the following:

21
22 ***(August 7, 2017)***

23 ***Contractor Surveying - Roadway***

24 Copies of the Contracting Agency provided primary survey control data are available for the
25 bidder's inspection at the office of the Engineer.

26
27 The Contractor shall be responsible for setting, maintaining, and resetting all alignment
28 stakes, slope stakes, and grades necessary for the construction of the roadbed, drainage,
29 surfacing, paving, channelization and pavement marking, illumination and signals, guardrails
30 and barriers, and signing. Except for the survey control data to be furnished by the
31 Contracting Agency, calculations, surveying, and measuring required for setting and
32 maintaining the necessary lines and grades shall be the Contractor's responsibility.

33
34 The Contractor shall inform the Engineer when monuments are discovered that were not
35 identified in the Plans and construction activity may disturb or damage the monuments. All
36 monuments noted on the plans "DO NOT DISTURB" shall be protected throughout the length
37 of the project or be replaced at the Contractors expense.

38
39 Detailed survey records shall be maintained, including a description of the work performed
40 on each shift, the methods utilized, and the control points used. The record shall be adequate
41 to allow the survey to be reproduced. A copy of each day's record shall be provided to the
42 Engineer within three working days after the end of the shift.

43
44 The meaning of words and terms used in this provision shall be as listed in "Definitions of
45 Surveying and Associated Terms" current edition, published by the American Congress on
46 Surveying and Mapping and the American Society of Civil Engineers.

47
48 The survey work shall include but not be limited to the following:
49

- 1 1. Verify the primary horizontal and vertical control furnished by the Contracting
2 Agency, and expand into secondary control by adding stakes and hubs as well as
3 additional survey control needed for the project. Provide descriptions of secondary
4 control to the Contracting Agency. The description shall include coordinates and
5 elevations of all secondary control points.
6
- 7 2. Establish, the centerlines of all alignments, by placing hubs, stakes, or marks on
8 centerline or on offsets to centerline at all curve points (PCs, PTs, and PIs) and at
9 points on the alignments spaced no further than 50 feet.
10
- 11 3. Establish clearing limits, placing stakes at all angle points and at intermediate points
12 not more than 50 feet apart. The clearing and grubbing limits shall be 5 feet beyond
13 the toe of a fill and 10 feet beyond the top of a cut unless otherwise shown in the
14 Plans.
15
- 16 4. Establish grading limits, placing slope stakes at centerline increments not more than
17 50 feet apart. Establish offset reference to all slope stakes. If Global Positioning
18 Satellite (GPS) Machine Controls are used to provide grade control, then slope
19 stakes may be omitted at the discretion of the Contractor
20
- 21 5. Establish the horizontal and vertical location of all drainage features, placing offset
22 stakes to all drainage structures and to pipes at a horizontal interval not greater
23 than 25 feet.
24
- 25 6. Establish roadbed and surfacing elevations by placing stakes at the top of subgrade
26 and at the top of each course of surfacing. Subgrade and surfacing stakes shall be
27 set at horizontal intervals not greater than 50 feet in tangent sections, 25 feet in
28 curve sections with a radius less than 300 feet, and at 10-foot intervals in
29 intersection radii with a radius less than 10 feet. Transversely, stakes shall be
30 placed at all locations where the roadway slope changes and at additional points
31 such that the transverse spacing of stakes is not more than 12 feet. If GPS Machine
32 Controls are used to provide grade control, then roadbed and surfacing stakes may
33 be omitted at the discretion of the Contractor.
34
- 35 7. Establish intermediate elevation benchmarks as needed to check work throughout
36 the project.
37
- 38 8. Provide references for paving pins at 25-foot intervals or provide simultaneous
39 surveying to establish location and elevation of paving pins as they are being
40 placed.
41
- 42 9. For all other types of construction included in this provision, (including but not limited
43 to channelization and pavement marking, illumination and signals, guardrails and
44 barriers, and signing) provide staking and layout as necessary to adequately locate,
45 construct, and check the specific construction activity.
46
- 47 10. Contractor shall determine if changes are needed to the profiles or roadway
48 sections shown in the Contract Plans in order to achieve proper smoothness and
49 drainage where matching into existing features, such as a smooth transition from
50 new pavement to existing pavement. The Contractor shall submit these changes to
51 the Engineer for review and approval 10 days prior to the beginning of work.

1
2 The Contractor shall provide the Contracting Agency copies of any calculations and staking
3 data when requested by the Engineer.
4

5 To facilitate the establishment of these lines and elevations, the Contracting Agency will
6 provide the Contractor with primary survey control information consisting of descriptions of
7 two primary control points used for the horizontal and vertical control, and descriptions of two
8 additional primary control points for every additional three miles of project length. Primary
9 control points will be described by reference to the project alignment and the coordinate
10 system and elevation datum utilized by the project. In addition, the Contracting Agency will
11 supply horizontal coordinates for the beginning and ending points and for each Point of
12 Intersection (PI) on each alignment included in the project.
13

14 The Contractor shall ensure a surveying accuracy within the following tolerances:
15

	<u>Vertical</u>	<u>Horizontal</u>
16 Slope stakes	±0.10 feet	±0.10 feet
17 Subgrade grade stakes set		
18 0.04 feet below grade	±0.01 feet	±0.5 feet (parallel to alignment) ±0.1 feet (normal to alignment)
21		
22		
23		
24 Stationing on roadway	N/A	±0.1 feet
25 Alignment on roadway	N/A	±0.04 feet
26 Surfacing grade stakes	±0.01 feet	±0.5 feet (parallel to alignment) ±0.1 feet (normal to alignment)
27		
28		
29		
30		
31 Roadway paving pins for		
32 surfacing or paving	±0.01 feet	±0.2 feet (parallel to alignment) ±0.1 feet (normal to alignment)
33		
34		
35		
36		

37 The Contracting Agency may spot-check the Contractor's surveying. These spot-checks will
38 not change the requirements for normal checking by the Contractor.
39

40 When staking roadway alignment and stationing, the Contractor shall perform independent
41 checks from different secondary control to ensure that the points staked are within the
42 specified survey accuracy tolerances.
43

44 The Contractor shall calculate coordinates for the alignment. The Contracting Agency will
45 verify these coordinates prior to issuing approval to the Contractor for commencing with the
46 work. The Contracting Agency will require up to seven calendar days from the date the data
47 is received.
48

1 Contract work to be performed using contractor-provided stakes shall not begin until the
2 stakes are approved by the Contracting Agency. Such approval shall not relieve the
3 Contractor of responsibility for the accuracy of the stakes.
4

5 Stakes shall be marked in accordance with Standard Plan A10.10. When stakes are needed
6 that are not described in the Plans, then those stakes shall be marked, at no additional cost
7 to the Contracting Agency as ordered by the Engineer.
8

9 **Payment**

10 Payment will be made for the following bid item when included in the proposal:

11 "Roadway Surveying", lump sum.
12
13

14 The lump sum contract price for "Roadway Surveying" shall be full pay for all labor,
15 equipment, materials, and supervision utilized to perform the Work specified, including any
16 resurveying, checking, correction of errors, replacement of missing or damaged stakes, and
17 coordination efforts.
18

19 **(April 2, 2018)**

20 **Contractor Surveying – ADA Features**

21 **ADA Feature Staking Requirements**

22 The Contractor shall be responsible for setting, maintaining, and resetting all alignment
23 stakes, and grades necessary for the construction of the ADA features. Calculations,
24 surveying, and measuring required for setting and maintaining the necessary lines and
25 grades shall be the Contractor's responsibility. The Contractor shall build the ADA
26 features within the specifications in the Standard Plans and contract documents.
27

28 **ADA Feature As-Built Measurements**

29 The Contractor shall be responsible for providing electronic As-Built records of all ADA
30 feature improvements completed in the Contract.
31

32 The survey work shall include but not be limited to completing the measurements,
33 recording the required measurements and completing other data fill-ins found on the
34 ADA Measurement Forms, and transmitting the electronic Forms to the Engineer. The
35 ADA Measurement Forms are found at the following website location:
36

37 <http://www.wsdot.wa.gov/Design/ADAGuidance.htm>
38

39 In the instance where an ADA Feature does not meet accessibility requirements, all work
40 to replace non-conforming work and then to measure, record the as-built measurements,
41 and transmit the electronic Forms to the Engineer shall be completed at no additional
42 cost to the Contracting Agency, as ordered by the Engineer.
43

44 **Payment**

45 Payment will be made for the following bid item that is included in the Proposal:

46 "ADA Features Surveying", lump sum.
47
48

49 The unit Contract price per lump sum for "ADA Features Surveying" shall be full pay for all
50 the Work as specified.

1
2 **1-05.7 Removal of Defective and Unauthorized Work**

3 *(October 1, 2005 APWA GSP)*

4
5 Supplement this section with the following:

6
7 If the Contractor fails to remedy defective or unauthorized work within the time specified in a
8 written notice from the Engineer, or fails to perform any part of the work required by the
9 Contract Documents, the Engineer may correct and remedy such work as may be identified
10 in the written notice, with Contracting Agency forces or by such other means as the
11 Contracting Agency may deem necessary.

12
13 If the Contractor fails to comply with a written order to remedy what the Engineer determines
14 to be an emergency situation, the Engineer may have the defective and unauthorized work
15 corrected immediately, have the rejected work removed and replaced, or have work the
16 Contractor refuses to perform completed by using Contracting Agency or other forces. An
17 emergency situation is any situation when, in the opinion of the Engineer, a delay in its
18 remedy could be potentially unsafe, or might cause serious risk of loss or damage to the
19 public.

20
21 Direct or indirect costs incurred by the Contracting Agency attributable to correcting and
22 remedying defective or unauthorized work, or work the Contractor failed or refused to
23 perform, shall be paid by the Contractor. Payment will be deducted by the Engineer from
24 monies due, or to become due, the Contractor. Such direct and indirect costs shall include in
25 particular, but without limitation, compensation for additional professional services required,
26 and costs for repair and replacement of work of others destroyed or damaged by correction,
27 removal, or replacement of the Contractor's unauthorized work.

28
29 No adjustment in contract time or compensation will be allowed because of the delay in the
30 performance of the work attributable to the exercise of the Contracting Agency's rights
31 provided by this Section.

32
33 The rights exercised under the provisions of this section shall not diminish the Contracting
34 Agency's right to pursue any other avenue for additional remedy or damages with respect to
35 the Contractor's failure to perform the work as required.

36
37
38 **1-05.13 Superintendents, Labor and Equipment of Contractor**

39 *(August 14, 2013 APWA GSP)*

40
41 Delete the sixth and seventh paragraphs of this section.

42
43 **1-05.15 Method of Serving Notices**

44 *(March 25, 2009 APWA GSP)*

45 Revise the second paragraph to read:

46
47 All correspondence from the Contractor shall be directed to the Project Engineer. All
48 correspondence from the Contractor constituting any notification, notice of protest, notice of
49 dispute, or other correspondence constituting notification required to be furnished under the
50 Contract, must be in paper format, hand delivered or sent via mail delivery service to the
51 Project Engineer's office. Electronic copies such as e-mails or electronically delivered

1 copies of correspondence will not constitute such notice and will not comply with the
2 requirements of the Contract.

3
4 Add the following new section:

5
6 **1-05.18 Record Drawings**
7 *(March 8, 2013 APWA GSP)*

8
9 The Contractor shall maintain one set of full size plans for Record Drawings, updated with
10 clear and accurate red-lined field revisions on a daily basis, and within 2 business days after
11 receipt of information that a change in Work has occurred. The Contractor shall not conceal
12 any work until the required information is recorded.

13
14 This Record Drawing set shall be used for this purpose alone, shall be kept separate from
15 other Plan sheets, and shall be clearly marked as Record Drawings. These Record Drawings
16 shall be kept on site at the Contractor's field office, and shall be available for review by the
17 Contracting Agency at all times. The Contractor shall bring the Record Drawings to each
18 progress meeting for review.

19
20 The preparation and upkeep of the Record Drawings is to be the assigned responsibility of a
21 single, experienced, and qualified individual. The quality of the Record Drawings, in terms of
22 accuracy, clarity, and completeness, is to be adequate to allow the Contracting Agency to
23 modify the computer-aided drafting (CAD) Contract Drawings to produce a complete set of
24 Record Drawings for the Contracting Agency without further investigative effort by the
25 Contracting Agency.

26
27 The Record Drawing markups shall document all changes in the Work, both concealed and
28 visible. Items that must be shown on the markups include but are not limited to:

- 29
- 30 • Actual dimensions, arrangement, and materials used when different than shown in the
 - 31 Plans.
 - 32 • Changes made by Change Order or Field Order.
 - 33 • Changes made by the Contractor.
 - 34 • Accurate locations of storm sewer, sanitary sewer, water mains and other water
 - 35 appurtenances, structures, conduits, light standards, vaults, width of roadways,
 - 36 sidewalks, landscaping areas, building footprints, channelization and pavement
 - 37 markings, etc. Include pipe invert elevations, top of castings (manholes, inlets, etc.).
 - 38

39 If the Contract calls for the Contracting Agency to do all surveying and staking, the Contracting
40 Agency will provide the elevations at the tolerances the Contracting Agency requires for the
41 Record Drawings.

42
43 When the Contract calls for the Contractor to do the surveying/staking, the applicable
44 tolerance limits include, but are not limited to the following:

	Vertical	Horizontal
As-built sanitary & storm invert and grate elevations	± 0.01 foot	± 0.01 foot
As-built monumentation	± 0.001 foot	± 0.001 foot

As-built waterlines, inverts, valves, hydrants	± 0.10 foot	± 0.10 foot
As-built ponds/swales/water features	± 0.10 foot	± 0.10 foot
As-built buildings (fin. Floor elev.)	± 0.01 foot	± 0.10 foot
As-built gas lines, power, TV, Tel, Com	± 0.10 foot	± 0.10 foot
As-built signs, signals, etc.	N/A	± 0.10 foot

1
2 Making Entries on the Record Drawings:
3

- 4 • Use erasable colored pencil (not ink) for all markings on the Record Drawings,
5 conforming to the following color code:
6 • Additions - Red
7 • Deletions - Green
8 • Comments - Blue
9 • Dimensions- Graphite
10 • Provide the applicable reference for all entries, such as the change order number, the
11 request for information (RFI) number, or the approved shop drawing number.
12 • Date all entries.
13 • Clearly identify all items in the entry with notes similar to those in the Contract Drawings
14 (such as pipe symbols, centerline elevations, materials, pipe joint abbreviations, etc.).
15

16 The Contractor shall certify on the Record Drawings that said drawings are an accurate
17 depiction of built conditions, and in conformance with the requirements detailed above. The
18 Contractor shall submit final Record Drawings to the Contracting Agency. Contracting Agency
19 acceptance of the Record Drawings is one of the requirements for achieving Physical
20 Completion.
21

22 Payment will be made for the following bid item:
23

Record (Minimum Bid \$ 5,000.00)	Drawings	Lump Sum
-------------------------------------	----------	----------

24
25 Payment for this item will be made on a prorated monthly basis for work completed in
26 accordance with this section up to 75% of the lump sum bid. The final 25% of the lump sum
27 item will be paid upon submittal and approval of the completed Record Drawings set prepared
28 in conformance with these Special Provisions.
29

30 A minimum bid amount has been entered in the Bid Proposal for this item. The Contractor
31 must bid at least that amount.
32

33 **1-07 Legal Relations and Responsibilities to the Public**
34

35 **1-07.1 Laws to be Observed**
36 *(October 1, 2005 APWA GSP)*
37

38 Supplement this section with the following:
39

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

1
2 The Washington State Department of Labor and Industries shall be the sole and paramount
3 administrative agency responsible for the administration of the provisions of the Washington
4 Industrial Safety and Health Act of 1973 (WISHA).

5
6 The Contractor shall maintain at the project site office, or other well known place at the
7 project site, all articles necessary for providing first aid to the injured. The Contractor shall
8 establish, publish, and make known to all employees, procedures for ensuring immediate
9 removal to a hospital, or doctor's care, persons, including employees, who may have been
10 injured on the project site. Employees should not be permitted to work on the project site
11 before the Contractor has established and made known procedures for removal of injured
12 persons to a hospital or a doctor's care.

13
14 The Contractor shall have sole responsibility for the safety, efficiency, and adequacy of the
15 Contractor's plant, appliances, and methods, and for any damage or injury resulting from
16 their failure, or improper maintenance, use, or operation. The Contractor shall be solely and
17 completely responsible for the conditions of the project site, including safety for all persons
18 and property in the performance of the work. This requirement shall apply continuously, and
19 not be limited to normal working hours. The required or implied duty of the Engineer to
20 conduct construction review of the Contractor's performance does not, and shall not, be
21 intended to include review and adequacy of the Contractor's safety measures in, on, or near
22 the project site.

23
24
25 Section 1-07.1 is supplemented with the following:

26
27 **(April 3, 2006)**

28 **Confined Space**

29 Confined spaces are known to exist at the following locations:

30
31 *** Stormwater conveyance structures between 5 and 10 feet deep ***

32
33 The Contractor shall be fully responsible for the safety and health of all on-site workers and
34 compliant with Washington Administrative Code (WAC 296-809).

35
36 The Contractor shall prepare and implement a confined space program for each of the
37 confined spaces identified above. The Contractor's Confined Space program shall be sent to
38 the Contracting Agency at least 30 days prior to the Contractor beginning work in or adjacent
39 to the confined space. No work shall be performed in or adjacent to the confined space until
40 the plan is submitted to the Engineer as required. The Contractor shall communicate with the
41 Engineer to ensure a coordinated effort for providing and maintaining a safe worksite for both
42 the Contracting Agency's and Contractor's workers when working in or near a confined
43 space.

44
45 All costs to prepare and implement the confined space program shall be included in the bid
46 prices for the various items associated with the confined space work.

1 **1-07.2 State Taxes**
2

3 Delete this section, including its sub-sections, in its entirety and replace it with the following:
4

5 **1-07.2 State Sales Tax**
6 *(June 27, 2011 APWA GSP)*
7

8 The Washington State Department of Revenue has issued special rules on the State sales
9 tax. Sections 1-07.2(1) through 1-07.2(3) are meant to clarify those rules. The Contractor
10 should contact the Washington State Department of Revenue for answers to questions in
11 this area. The Contracting Agency will not adjust its payment if the Contractor bases a bid
12 on a misunderstood tax liability.
13

14 The Contractor shall include all Contractor-paid taxes in the unit bid prices or other contract
15 amounts. In some cases, however, state retail sales tax will not be included. Section 1-
16 07.2(2) describes this exception.
17

18 The Contracting Agency will pay the retained percentage (or release the Contract Bond if a
19 FHWA-funded Project) only if the Contractor has obtained from the Washington State
20 Department of Revenue a certificate showing that all contract-related taxes have been paid
21 (RCW 60.28.051). The Contracting Agency may deduct from its payments to the Contractor
22 any amount the Contractor may owe the Washington State Department of Revenue,
23 whether the amount owed relates to this contract or not. Any amount so deducted will be
24 paid into the proper State fund.
25

26 **1-07.2(1) State Sales Tax — Rule 171**
27

28 WAC 458-20-171, and its related rules, apply to building, repairing, or improving streets,
29 roads, etc., which are owned by a municipal corporation, or political subdivision of the state,
30 or by the United States, and which are used primarily for foot or vehicular traffic. This
31 includes storm or combined sewer systems within and included as a part of the street or
32 road drainage system and power lines when such are part of the roadway lighting system.
33 For work performed in such cases, the Contractor shall include Washington State Retail
34 Sales Taxes in the various unit bid item prices, or other contract amounts, including those
35 that the Contractor pays on the purchase of the materials, equipment, or supplies used or
36 consumed in doing the work.
37

38 **1-07.2(2) State Sales Tax — Rule 170**
39

40 WAC 458-20-170, and its related rules, apply to the constructing and repairing of new or
41 existing buildings, or other structures, upon real property. This includes, but is not limited to,
42 the construction of streets, roads, highways, etc., owned by the state of Washington; water
43 mains and their appurtenances; sanitary sewers and sewage disposal systems unless such
44 sewers and disposal systems are within, and a part of, a street or road drainage system;
45 telephone, telegraph, electrical power distribution lines, or other conduits or lines in or above
46 streets or roads, unless such power lines become a part of a street or road lighting system;
47 and installing or attaching of any article of tangible personal property in or to real property,
48 whether or not such personal property becomes a part of the realty by virtue of installation.
49

50 For work performed in such cases, the Contractor shall collect from the Contracting Agency,
51 retail sales tax on the full contract price. The Contracting Agency will automatically add this

1 sales tax to each payment to the Contractor. For this reason, the Contractor shall not
2 include the retail sales tax in the unit bid item prices, or in any other contract amount subject
3 to Rule 170, with the following exception.
4

5 Exception: The Contracting Agency will not add in sales tax for a payment the Contractor or
6 a subcontractor makes on the purchase or rental of tools, machinery, equipment, or
7 consumable supplies not integrated into the project. Such sales taxes shall be included in
8 the unit bid item prices or in any other contract amount.
9

10 **1-07.2(3) Services**

11
12 The Contractor shall not collect retail sales tax from the Contracting Agency on any contract
13 wholly for professional or other services (as defined in Washington State Department of
14 Revenue Rules 138 and 244).
15

16 **1-07.5 Environmental Regulations**

17
18 Section 1-07.5 is supplemented with the following:
19

20 ***(September 20, 2010)***

21 ***Environmental Commitments***

22 The following Provisions summarize the requirements, in addition to those required
23 elsewhere in the Contract, imposed upon the Contracting Agency by the various documents
24 referenced in the Special Provision **Permits and Licenses**. Throughout the work, the
25 Contractor shall comply with the following requirements:
26

27 (August 3, 2009)

28 The intentional bypass of stormwater from all or any portion of a stormwater treatment
29 system is prohibited without the approval of the Engineer.
30

31 ***(August 3, 2009)***

32 ***Payment***

33 All costs to comply with this special provision for the environmental commitments and
34 requirements are incidental to the contract and are the responsibility of the Contractor. The
35 Contractor shall include all related costs in the associated bid prices of the contract.
36

37 **1-07.6 Permits and Licenses**

38
39 Section 1-07.6 is supplemented with the following:
40

41 (*****)

42 The Contracting Agency has obtained the below-listed permit(s) for this project. A copy of the
43 permit(s) is attached as an appendix for informational purposes. Copies of these permits,
44 including a copy of the Transfer of Coverage form, when applicable, are required to be onsite
45 at all times.
46

47 Contact with the permitting agencies, concerning the below-listed permit(s), shall be made
48 through the Engineer with the exception of when the Construction Stormwater General
49 Permit coverage is transferred to the Contractor, direct communication with the Department
50 of Ecology is allowed. The Contractor shall be responsible for obtaining Ecology's approval

1 for any Work requiring additional approvals (e.g. Request for Chemical Treatment Form).
2 The Contractor shall obtain additional permits as necessary. All costs to obtain and comply
3 with additional permits shall be included in the applicable Bid items for the Work involved.
4

NAME OF DOCUMENT	PERMITTING AGENCY	PERMIT REFERENCE NO.
Construction General Stormwater Permit	Department of Ecology	WAR307786

5
6 **1-07.7 Load Limits**

7
8 Section 1-07.7 is supplemented with the following:
9

10 (March 13, 1995)

11 If the sources of materials provided by the Contractor necessitates hauling over roads other
12 than State Highways, the Contractor shall, at the Contractor's expense, make all
13 arrangements for the use of the haul routes.
14

15 **1-07.11 Requirements for Nondiscrimination**

16
17 Section 1-07.11 is supplemented with the following:
18

19 ***(January 7, 2019)***

20 ***Voluntary Minority, Small, Veteran and Women's Business Enterprise***
21 ***(MSVWBE) Participation***

22 **General Statement**

23 The participation of minority, small, veteran, and women business enterprises
24 (MSVWBE) is an important strategic objective for the State of Washington. Voluntary
25 goals for minority, small, veteran and women business enterprises are included in this
26 Contract. The Contractor is encouraged to utilize MSVWBEs in accordance with these
27 Specifications, RCW 39.19 and Executive Order 13-01 (issued by the Governor of
28 Washington on May 10, 2013).
29

30 The goals are voluntary; efforts to provide MSVWBEs maximum practicable
31 opportunities are encouraged.
32

33 **Non-Discrimination**

34 Contractors shall not create barriers to open and fair opportunities for all businesses,
35 including MSVWBEs, to participate in the Work on this Contract. This includes the
36 opportunity to compete for subcontracts as sources of supplies, equipment, construction
37 or services.
38

39 The Contractor shall make Voluntary MSVWBE Participation a part of all subcontracts
40 and agreements entered into as a result of this Contract.
41

42 **Voluntary MSVWBE Participation Goals**

43 Goals for voluntary MSVWBE participation have been established as a percentage of
44 Contractor's total Bid amount.
45

46 The Contracting Agency has established the following voluntary goals:
47

1	Minority	10%
2	Small	5%
3	Veteran	5%
4	Women	6%

5
6 Amounts paid to an MSVWBE will be credited to every voluntary goal in which they are
7 eligible. In other words, participation may be credited for participation in more than one
8 category. If the Contractor is a MSVWBE, their Work will be credited to the voluntary
9 goals in which they are eligible.

10
11 **MSVWBE Abbreviations and Definitions**

12 **Broker** – A business firm that provides a bona fide service, such as professional,
13 technical, consultant or managerial services and assistance in the procurement of
14 essential personnel, facilities, equipment, materials, or supplies required for the
15 performance of the Contract; or, persons/companies who arrange or expedite
16 transactions.

17
18 **Commercially Useful Function (CUF)**

19 A MSVWBE performs a commercially useful function when it is responsible for
20 execution of the work of the contract and is carrying out its responsibilities by
21 actually performing, managing, and supervising the work involved. To perform a
22 commercially useful function, the MSVWBE must also be responsible, with respect
23 to materials and supplies used on the contract, for negotiating price, determining
24 quality and quantity, ordering the material, and installing (where applicable) and
25 paying for the material itself.

26
27 The MSVWBE does not perform a CUF if its role is limited to that of an extra
28 participant in a transaction, contract, or Project through which the funds are passed
29 in order to obtain the appearance of MSVWBE participation.

30
31 **Manufacturer (MSVWBE)** – A MSVWBE firm that operates or maintains a factory
32 or establishment that produces on the premises the materials, supplies, articles, or
33 equipment required under the Contract. A MSVWBE Manufacturer shall produce
34 finished goods or products from raw or unfinished material or purchase and
35 substantially alters goods and materials to make them suitable for construction use
36 before reselling them.

37
38 **Minority Business Enterprise (MBE)** – A minority owned business meeting the
39 requirements of RCW 39.19 and WAC 326-20 and certified by the Washington State
40 Office of Minority & Women’s Business Enterprises.

41
42 **Pass Through** – When the MSVWBE firm participates as an extra participant in a
43 transaction, through which funds are passed in order to give the appearance of
44 participation by the MSVWBE firm and count toward the voluntary goal.

45
46 **Small Business** – A business meeting the Washington State requirements for a
47 “Small business”, “Minibusiness” or “Microbusiness as defined in RCW 39.26.010
48 and included on the WSDOT Office of Equal Opportunity list of Small Businesses
49 at <http://www.wsdot.wa.gov/equalopportunity/bddirectory.htm>

1 **Supplier (MSVWBE)** – A MSVWBE firm that owns, operates, or maintains a store,
2 warehouse, or other establishment in which the materials or supplies required for
3 the performance of a Contract are bought, kept in stock, and regularly sold to the
4 public in the usual course of business. To be a Supplier, the MSVWBE firm must be
5 an established business that engages in as its principal business and in its own
6 name the purchase and sale of the products in question. A Supplier in such items
7 as steel, cement, gravel, stone, and petroleum products need not own, operate or
8 maintain a place of business if it both owns and operates distribution equipment for
9 the products. Any supplementing of suppliers’ own distribution equipment shall be
10 by long-term formal lease agreements and not on an ad-hoc basis. Brokers,
11 packagers, manufacturers’ representatives, or other persons who arrange or
12 expedite transactions shall not be regarded as Suppliers within the meaning of this
13 definition.
14

15 **Veteran Business** – A veteran owned business meeting the requirements of RCW
16 43.60A.010 and included on the WSDOT Office of Equal Opportunity list of Veteran
17 Businesses at <http://www.wsdot.wa.gov/equalopportunity/bddirectory.htm>
18

19 **Women Business Enterprise (WBE)** – A women owned business meeting the
20 requirements of RCW 39.19 and WAC 326-20 and certified by the Washington State
21 Office of Minority & Women’s Business Enterprises.
22

23 **Crediting MSVWBE Participation**

24 Subcontractors proposed as counting toward the MSVWBE goal must be certified and
25 be performing a CUF during the execution of the Work.
26

27 MSVWBE participation cannot be counted toward the Contractor’s MSVWBE Voluntary
28 Goal until the amount being counted has actually been paid to the MSVWBE.
29

30 The following are some examples of what may be counted as MSVWBE participation:
31

32 **MSVWBE Prime Contractor**

33 Only take credit for that portion of the total dollar value of the Contract equal to the
34 distinct, clearly defined portion of the Work that the MSVWBE Prime Contractor
35 performs with its own forces and is credited to perform.
36

37 **MSVWBE Subcontractor**

38 Only take credit for that portion of the total dollar value of the subcontract that is
39 equal to the distinct, clearly defined portion of the Work that the MSVWBE performs
40 with its own forces. The value of work performed by the MSVWBE includes the cost
41 of supplies and materials purchased by the MSVWBE and equipment leased by the
42 MSVWBE, for its work on the Contract. Supplies, materials or equipment obtained
43 by a MSVWBE that are not utilized or incorporated in the Contract work by the
44 MSVWBE will not be eligible for MSVWBE credit unless the MSVWBE is certified
45 as a supplier or equipment leasing company.
46

47 The supplies, materials, and equipment purchased or leased from the Contractor or
48 its affiliate, including any Contractor’s resources available to MSVWBE
49 subcontractors at no cost, shall not be credited toward the MSVWBE Voluntary
50 Goals.
51

1 MSVWBE credit will not be given in instances where the equipment lease includes
2 the operator. The MSVWBE is expected to operate the equipment used in the
3 performance of its work under the contract with its own forces.
4

5 If a MSVWBE subcontracts a portion of the Work of its contract to another firm, the
6 value of the subcontracted Work may be counted toward the MSVWBE Voluntary
7 Goal only if the MSVWBE's Lower-Tier Subcontractor is also a MSVWBE.
8

9 **MSVWBE Subcontract and Lower Tier Subcontract Documents**

10 There must be a subcontract agreement that fully describes the distinct elements
11 of Work committed to be performed by the MSVWBE. The subcontract agreement
12 shall incorporate requirements of the Contract. Subcontract agreements of all tiers,
13 including lease agreements, shall be readily available at the Project site for the
14 Engineer's review.
15

16 **MSVWBE Service Provider**

17 When a MSVWBE participates as a service provider or consultant and provides a
18 bona fide services such as professional, technical, consultant, or managerial
19 services, 100 percent of the total cost counts toward the MSVWBE Voluntary Goal
20 if the firm performs a CUF.
21

22 **MSVWBE Broker**

23 When a MSVWBE participates as a broker (i.e. arranging a transaction or service
24 but does not provide a work product or enhancement), only the dollar value of the
25 fee or commission charged or 20 percent of the total dollar value of expenditures
26 by the MSVWBE (whichever is greater) counts toward the MSVWBE Voluntary Goal
27 if the firm performs a CUF.
28

29 **Trucking**

30 A MSVWBE trucking firm's participation will be credited to MSVWBE Voluntary Goal
31 if the MSVWBE trucking firm has one leased or owned truck working on the project
32 and the MSVWBE trucking firm performs a CUF. MSVWBE trucking companies
33 may lease trucks from other MSVWBE firms and non-MSVWBE firms and count
34 this work toward the MSVWBE Voluntary Goal.
35

36 A MSVWBE trucking firm that is also a supplier or manufacturer of the materials or
37 goods being transported can count 100 percent of the dollar value toward the
38 MSVWBE Voluntary Goal. For an MSVWBE that is not a supplier or manufacturer,
39 only the fee charged to deliver the goods or materials can be counted toward the
40 MSVWBE Voluntary Goal.
41

42 **MSVWBE Manufacturer and MSVWBE Supplier**

43 If materials or supplies are obtained from a MSVWBE Manufacturer, one hundred
44 percent (100%) of the cost of materials or supplies can count toward the MSVWBE
45 Voluntary Goal.
46

47 One hundred percent (100%) of the cost of materials or supplies purchased from a
48 MSVWBE Supplier may be credited toward meeting the MSVWBE Voluntary Goal.
49 If the role of the MSVWBE Supplier is determined to be that of a pass-through, then
50 no MSVWBE credit will be given for its services. If the role of the MSVWBE Supplier

1 is determined to be that of a Broker, then MSVWBE credit shall be limited to the fee
2 or commission it receives for its services.
3

4 **Procedures after Execution**

5 **Commercially Useful Function (CUF)**

6 The Contractor may only take credit for the payments made for Work performed by
7 a MSVWBE that is determined to be performing a CUF. Payment must be
8 commensurate with the work actually performed by the MSVWBE, if the Contractor
9 wants to receive credit for their participation. If a MSVWBE does not perform "all" of
10 its responsibilities on a contract, it has not performed a CUF and their Work cannot
11 be counted toward MSVWBE Voluntary Goal.
12

13 To determine whether an MSVWBE is performing a CUF, the Contractor shall
14 evaluate the amount of work subcontracted, industry practices, whether the amount
15 the firm is to be paid under the contract is commensurate with the work it is actually
16 performing and the MSVWBE credit claimed for its performance of the work, and
17 other relevant factors.
18

19 **Leasing of Equipment**

20 Leasing of equipment from a leasing company is allowed. However,
21 leasing/purchasing equipment from the Contractor is not allowed. Lease
22 agreements shall be readily available for review by the Engineer.
23

24 **Traffic Control**

25 In order for a MSVWBE traffic control company to be considered to be
26 performing a CUF, the MSVWBE must be in control of its work inclusive of
27 supervision. The MSVWBE shall employ a Traffic Control Supervisor who is
28 directly involved in the management and supervision of the traffic control
29 employees and services.
30

31 **Joint Checks**

32 Joint checks will only be allowed for the purpose of purchasing supplies and
33 materials. The MSVWBE Subcontractor must submit a request to the Engineer and
34 receive approval from the Engineer prior to using a joint check to pay for supplies
35 and materials. Supplies and materials purchased with an approved joint check shall
36 count toward the voluntary goals.
37

38 Joint checks that did not receive prior approval from the Engineer or used for
39 purposes other than the purchase of supplies and materials shall not count towards
40 the voluntary goals.
41

42 **Prompt Payment**

43 Prompt payment to all subcontractors shall be in accordance with Section 1-08.1.
44 Prompt payment requirements apply to progress payments as well as return of
45 retainage.
46

47 Refer to Section 1-08.1 for additional reporting requirements associated with this
48 contract.
49

1 **Removal from MSVWBE Program**

2 When a MSVWBE is “removed” from the MSVWBE program during the course of
3 the Contract, the participation of that MSVWBE shall continue to count towards the
4 MSVWBE Voluntary Goal as long as the subcontract with the MSVWBE was
5 executed prior to the removal notice.
6

7 **MSVWBE Participation Plan**

8 A MSVWBE Participation Plan shall be submitted to the Engineer prior to the start of
9 Work on the project. The plan is submitted for the Contracting Agency’s information. The
10 plan shall include the information identified in the guidelines at
11 <http://www.wsdot.wa.gov/EqualOpportunity/MSVWBE.htm>.
12

13 Approval of the plan is not required; however, an incomplete plan will be returned for
14 correction and resubmittal. An updated MSVWBE Participation Plan will be submitted
15 for Review and Comment annually on the date the original Participation Plan was
16 submitted. The Contractor shall provide a 30 Calendar Day review period for WSDOT
17 Review and Comment on all MSVWBE Participation Plan submittals.
18

19 **MSVWBE Reporting**

20 The Contractor shall report payments to all firms that were used as Subcontractors,
21 lower tier Subcontractors, manufactures, regular dealers, or service providers on the
22 Contract Work each month between Execution of the Contract and when the Contract
23 final estimate is processed, using the application available at
24 <https://wsdot.diversitycompliance.com>. The monthly report is due 20 Calendar Days
25 following the end of the month, whether payments were made or work occurred.
26

27 The monthly report shall include payments to all businesses regardless of their listing on
28 the MSVWBE Inclusion Plan. If the Contractor is a MSVWBE, the amounts paid by
29 WSDOT for Work performed by the certified Contractor shall also be reported.
30

31 After Execution of the Contract, the Contractor shall send an email to
32 CRP@wsdot.wa.gov containing the following information: the first and last name, email
33 address, title, and phone number of the person who will be submitting the above reports
34 for their company. The email shall include the WSDOT contract number they will be
35 reporting on. After receipt of this information by WSDOT, the Contractor will receive an
36 email providing information about their assignment. Training and instructions are
37 available in the application.
38

39 Refer to Section 1-08.1 for additional reporting requirements associated with this
40 contract.
41

42 **MSVWBE Payment**

43 All costs for implementation of the requirements for Voluntary MSVWBE Participation
44 shall be included in the associated items of Contract Work.
45
46
47

48 **1-07.13 Contractor's Responsibility for Work**

49 ***Repair of Damage***

1 Section 1-07.13(4) is revised to read:
2

3 (August 6, 2001)

4 The Contractor shall promptly repair all damage to either temporary or permanent work
5 as directed by the Engineer. For damage qualifying for relief under Sections 1-07.13(1),
6 1-07.13(2) or 1-07.13(3), payment will be made in accordance with Section 1-04.4.
7 Payment will be limited to repair of damaged work only. No payment will be made for
8 delay or disruption of work.
9

10 **1-07.16 Protection and Restoration of Property**

11 ***Vegetation Protection and Restoration***

12 Section 1-07.16(2) is supplemented with the following:
13

14 (August 2, 2010)

15 Vegetation and soil protection zones for trees shall extend out from the trunk to a
16 distance of 1 foot radius for each inch of trunk diameter at breast height.
17

18 Vegetation and soil protection zones for shrubs shall extend out from the stems at
19 ground level to twice the radius of the shrub.
20

21 Vegetation and soil protection zones for herbaceous vegetation shall extend to
22 encompass the diameter of the plant as measured from the outer edge of the plant.
23

24 **1-07.17 Utilities and Similar Facilities**

25 Section 1-07.17 is supplemented with the following:
26

27 (April 2, 2007)

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

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

34 (*****)

35 Power:

36 Centralia City Light
37 1100 N Tower Ave
38 Centralia, WA 98531
39 (360) 330-7512
40

41 Water:

42 City of Centralia
43 1100 N Tower Ave
44 Centralia, WA 98531
45 (360) 330-7512
46

47 Sewer:
48
49
50
51

1 City of Centralia
2 1100 N Tower Ave
3 Centralia, WA 98531
4 (360) 330-7512

5
6 Communications:
7 CenturyLink
8 (360) 736-9941
9

10 Natural Gas:
11 Puget Sound Energy
12 2711 Pacific Ave. SE
13 Olympia, WA 98501
14 (425) 392-6412
15
16

17 Add the following section:

18 (*****)

19
20 **1-07.17(1) Utility Construction, Removal, or Relocation by the Contractor**

21 Section 1-07.17(1) is supplemented with the following:

22 (*****)

23 **Force Account – Pole Holding**

24
25 Payment

26 Payment will be made in accordance with Section 1-04.1, for the following bid items:

27
28 “Force Account – Pole Holding”, by force account as provided in Section 1-09.6.
29

30 To provide a common proposal for all bidders, the Contracting Agency has entered an amount
31 in the proposal to become a part of the Contractor’s total bid.
32

33 **1-07.18 Public Liability and Property Damage Insurance**

34
35 Delete this section in its entirety, and replace it with the following:

36
37 **1-07.18 Insurance**

38 *(January 4, 2016 APWA GSP)*
39

40 **1-07.18(1) General Requirements**

41 A. The Contractor shall procure and maintain the insurance described in all subsections of
42 section 1-07.18 of these Special Provisions, from insurers with a current A. M. Best rating of
43 not less than A-: VII and licensed to do business in the State of Washington. The
44 Contracting Agency reserves the right to approve or reject the insurance provided, based on
45 the insurer’s financial condition.
46

47 B. The Contractor shall keep this insurance in force without interruption from the
48 commencement of the Contractor’s Work through the term of the Contract and for thirty (30)
49 days after the Physical Completion date, unless otherwise indicated below.

- 1
2 C. If any insurance policy is written on a claims made form, its retroactive date, and that of all
3 subsequent renewals, shall be no later than the effective date of this Contract. The policy
4 shall state that coverage is claims made, and state the retroactive date. Claims-made form
5 coverage shall be maintained by the Contractor for a minimum of 36 months following the
6 Completion Date or earlier termination of this Contract, and the Contractor shall annually
7 provide the Contracting Agency with proof of renewal. If renewal of the claims made form of
8 coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase
9 an extended reporting period ("tail") or execute another form of guarantee acceptable to the
10 Contracting Agency to assure financial responsibility for liability for services performed.
11
12 D. The Contractor's Automobile Liability, Commercial General Liability and Excess or Umbrella
13 Liability insurance policies shall be primary and non-contributory insurance as respects the
14 Contracting Agency's insurance, self-insurance, or self-insured pool coverage. Any insurance,
15 self-insurance, or self-insured pool coverage maintained by the Contracting Agency shall be
16 excess of the Contractor's insurance and shall not contribute with it.
17
18 E. The Contractor shall provide the Contracting Agency and all additional insureds with written
19 notice of any policy cancellation, within two business days of their receipt of such notice.
20
21 F. The Contractor shall not begin work under the Contract until the required insurance has
22 been obtained and approved by the Contracting Agency
23
24 G. Failure on the part of the Contractor to maintain the insurance as required shall constitute a
25 material breach of contract, upon which the Contracting Agency may, after giving five
26 business days' notice to the Contractor to correct the breach, immediately terminate the
27 Contract or, at its discretion, procure or renew such insurance and pay any and all premiums
28 in connection therewith, with any sums so expended to be repaid to the Contracting Agency
29 on demand, or at the sole discretion of the Contracting Agency, offset against funds due the
30 Contractor from the Contracting Agency.
31
32 H. All costs for insurance shall be incidental to and included in the unit or lump sum prices of
33 the Contract and no additional payment will be made.
34

35 **1-07.18(2) Additional Insured**

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

- 39 ▪ the Contracting Agency and its officers, elected officials, employees, agents, and
40 volunteers
41 ▪ City of Centralia

42 The above-listed entities shall be additional insured(s) for the full available limits of liability
43 maintained by the Contractor, irrespective of whether such limits maintained by the Contractor
44 are greater than those required by this Contract, and irrespective of whether the Certificate of
45 Insurance provided by the Contractor pursuant to 1-07.18(4) describes limits lower than those
46 maintained by the Contractor.
47

48 For Commercial General Liability insurance coverage, the required additional insured
49 endorsements shall be at least as broad as ISO forms CG 20 10 10 01 for ongoing operations
50 and CG 20 37 10 01 for completed operations.
51

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

2 The Contractor shall cause each Subcontractor of every tier to provide insurance coverage that
3 complies with all applicable requirements of the Contractor-provided insurance as set forth herein,
4 except the Contractor shall have sole responsibility for determining the limits of coverage required
5 to be obtained by Subcontractors.
6

7 The Contractor shall ensure that all Subcontractors of every tier add all entities listed in
8 1-07.18(2) as additional insureds, and provide proof of such on the policies as required by that
9 section as detailed in 1-07.18(2) using an endorsement as least as broad as ISO CG 20 10 10
10 01 for ongoing operations and CG 20 37 10 01 for completed operations.
11

12 Upon request by the Contracting Agency, the Contractor shall forward to the Contracting
13 Agency evidence of insurance and copies of the additional insured endorsements of each
14 Subcontractor of every tier as required in 1-07.18(4) Verification of Coverage.
15

16 **1-07.18(4) Verification of Coverage**

17 The Contractor shall deliver to the Contracting Agency a Certificate(s) of Insurance and
18 endorsements for each policy of insurance meeting the requirements set forth herein when the
19 Contractor delivers the signed Contract for the work. Failure of Contracting Agency to demand
20 such verification of coverage with these insurance requirements or failure of Contracting Agency
21 to identify a deficiency from the insurance documentation provided shall not be construed as a
22 waiver of Contractor's obligation to maintain such insurance.
23

24 Verification of coverage shall include:

- 25 1. An ACORD certificate or a form determined by the Contracting Agency to be equivalent.
- 26 2. Copies of all endorsements naming Contracting Agency and all other entities listed in
27 1-07.18(2) as additional insured(s), showing the policy number. The Contractor may submit
28 a copy of any blanket additional insured clause from its policies instead of a separate
29 endorsement.
- 30 3. Any other amendatory endorsements to show the coverage required herein.
- 31 4. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these
32 requirements – actual endorsements must be submitted.
33

34 Upon request by the Contracting Agency, the Contractor shall forward to the Contracting
35 Agency a full and certified copy of the insurance policy(s). If Builders Risk insurance is required
36 on this Project, a full and certified copy of that policy is required when the Contractor delivers
37 the signed Contract for the work.
38

39 **1-07.18(5) Coverages and Limits**

40 The insurance shall provide the minimum coverages and limits set forth below. Contractor's
41 maintenance of insurance, its scope of coverage, and limits as required herein shall not be
42 construed to limit the liability of the Contractor to the coverage provided by such insurance, or
43 otherwise limit the Contracting Agency's recourse to any remedy available at law or in equity.
44

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

1
2 **1-07.18(5)A Commercial General Liability**

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

8
9 The Commercial General Liability insurance shall be endorsed to provide a per project general
10 aggregate limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

11
12 Contractor shall maintain Commercial General Liability Insurance arising out of the Contractor's
13 completed operations for at least three years following Substantial Completion of the Work.

14
15 Such policy must provide the following minimum limits:

16	\$1,000,000	Each Occurrence
17	\$2,000,000	General Aggregate
18	\$2,000,000	Products & Completed Operations Aggregate
19	\$1,000,000	Personal & Advertising Injury each offence
20	\$1,000,000	Stop Gap / Employers' Liability each accident

21
22 **1-07.18(5)B Automobile Liability**

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

27
28 Such policy must provide the following minimum limit:

29	\$1,000,000	Combined single limit each accident
----	-------------	-------------------------------------

30
31 **1-07.18(5)C Workers' Compensation**

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

34
35 **1-07.23 Public Convenience and Safety**

36
37 ***Construction Under Traffic***

38
39 Section 1-07.23(1) is supplemented with the following:

40
41 **(January 2, 2012)**

42 **Work Zone Clear Zone**

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

48
49 During nonworking hours equipment or materials shall not be within the WZCZ
50 unless they are protected by permanent guardrail or temporary concrete barrier.

1 The use of temporary concrete barrier shall be permitted only if the Engineer
2 approves the installation and location.

3
4 During actual hours of work, unless protected as described above, only materials
5 absolutely necessary to construction shall be within the WZCZ and only
6 construction vehicles absolutely necessary to construction shall be allowed within
7 the WZCZ or allowed to stop or park on the shoulder of the roadway.

8
9 The Contractor's nonessential vehicles and employees private vehicles shall not be
10 permitted to park within the WZCZ at any time unless protected as described above.

11
12 Deviation from the above requirements shall not occur unless the Contractor has
13 requested the deviation in writing and the Engineer has provided written approval.

14
15 Minimum WZCZ distances are measured from the edge of traveled way and will be
16 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

17
18 * or 2-feet beyond the outside edge of sidewalk

19
20 **Minimum Work Zone Clear Zone Distance**

21
22 **1-07.24 Rights of Way**
23 *(July 23, 2015 APWA GSP)*

24
25 Delete this section and replace it with the following:

26
27 Street Right of Way lines, limits of easements, and limits of construction permits are
28 indicated in the Plans. The Contractor's construction activities shall be confined within these
29 limits, unless arrangements for use of private property are made.

30
31 Generally, the Contracting Agency will have obtained, prior to bid opening, all rights of way
32 and easements, both permanent and temporary, necessary for carrying out the work.
33 Exceptions to this are noted in the Bid Documents or will be brought to the Contractor's
34 attention by a duly issued Addendum.

35
36 Whenever any of the work is accomplished on or through property other than public Right of
37 Way, the Contractor shall meet and fulfill all covenants and stipulations of any easement
38 agreement obtained by the Contracting Agency from the owner of the private property.
39 Copies of the easement agreements may be included in the Contract Provisions or made
40 available to the Contractor as soon as practical after they have been obtained by the
41 Engineer.

42
43 Whenever easements or rights of entry have not been acquired prior to advertising, these
44 areas are so noted in the Plans. The Contractor shall not proceed with any portion of the

1 work in areas where right of way, easements or rights of entry have not been acquired until
2 the Engineer certifies to the Contractor that the right of way or easement is available or that
3 the right of entry has been received. If the Contractor is delayed due to acts of omission on
4 the part of the Contracting Agency in obtaining easements, rights of entry or right of way, the
5 Contractor will be entitled to an extension of time. The Contractor agrees that such delay
6 shall not be a breach of contract.

7
8 Each property owner shall be given 48 hours notice prior to entry by the Contractor. This
9 includes entry onto easements and private property where private improvements must be
10 adjusted.

11
12 The Contractor shall be responsible for providing, without expense or liability to the
13 Contracting Agency, any additional land and access thereto that the Contractor may desire
14 for temporary construction facilities, storage of materials, or other Contractor needs.
15 However, before using any private property, whether adjoining the work or not, the
16 Contractor shall file with the Engineer a written permission of the private property owner,
17 and, upon vacating the premises, a written release from the property owner of each property
18 disturbed or otherwise interfered with by reasons of construction pursued under this
19 contract. The statement shall be signed by the private property owner, or proper authority
20 acting for the owner of the private property affected, stating that permission has been
21 granted to use the property and all necessary permits have been obtained or, in the case of
22 a release, that the restoration of the property has been satisfactorily accomplished. The
23 statement shall include the parcel number, address, and date of signature. Written releases
24 must be filed with the Engineer before the Completion Date will be established.

25 26 **1-08 Prosecution and Progress**

27
28 Add the following new section:

29 30 **1-08.0 Preliminary Matters** 31 (May 25, 2006 APWA GSP)

32
33
34 Add the following new section:

35 36 **1-08.0(1) Preconstruction Conference** 37 (October 10, 2008 APWA GSP)

38
39 Prior to the Contractor beginning the work, a preconstruction conference will be held
40 between the Contractor, the Engineer and such other interested parties as may be invited.
41 The purpose of the preconstruction conference will be:

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

1
2 The Contractor shall prepare and submit at the preconstruction conference the following:

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

6
7 Add the following new section:

8
9 **1-08.0(2) Hours of Work**

10 *(December 8, 2014 APWA GSP)*

11
12 Except in the case of emergency or unless otherwise approved by the Engineer, the normal
13 working hours for the Contract shall be any consecutive 8-hour period between 7:00 a.m.
14 and 6:00 p.m. Monday through Friday, exclusive of a lunch break. If the Contractor desires
15 different than the normal working hours stated above, the request must be submitted in
16 writing prior to the preconstruction conference, subject to the provisions below. The working
17 hours for the Contract shall be established at or prior to the preconstruction conference.
18

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

21
22 If the Contractor wishes to deviate from the established working hours, the Contractor shall
23 submit a written request to the Engineer for consideration. This request shall state what
24 hours are being requested, and why. Requests shall be submitted for review no later than 7
25 calendar days prior to the day(s) the Contractor is requesting to change the hours.

26
27 If the Contracting Agency approves such a deviation, such approval may be subject to
28 certain other conditions, which will be detailed in writing. For example:

- 29 1. On non-Federal aid projects, requiring the Contractor to reimburse the Contracting
30 Agency for the costs in excess of straight-time costs for Contracting Agency
31 representatives who worked during such times. (The Engineer may require
32 designated representatives to be present during the work. Representatives who may
33 be deemed necessary by the Engineer include, but are not limited to: survey crews;
34 personnel from the Contracting Agency's material testing lab; inspectors; and other
35 Contracting Agency employees or third party consultants when, in the opinion of the
36 Engineer, such work necessitates their presence.)
- 37 2. Considering the work performed on Saturdays, Sundays, and holidays as working
38 days with regard to the contract time.
- 39 3. Considering multiple work shifts as multiple working days with respect to contract time
40 even though the multiple shifts occur in a single 24-hour period.
- 41 4. If a 4-10 work schedule is requested and approved the non working day for the week
42 will be charged as a working day.
- 43 5. If Davis Bacon wage rates apply to this Contract, all requirements must be met and
44 recorded properly on certified payroll
45

1 **1-08.1 Subcontracting**
2 *(November 30, 2018 APWA GSP, Option B)*

3
4 Delete the eighth paragraph.

5
6 **1-08.3(2)B Type B Progress Schedule**
7 *(*****)*

8
9 Revise the first paragraph to read:

10
11 The Contractor shall submit a preliminary Type B Progress Schedule at or prior to the
12 preconstruction conference. The preliminary Type B Progress Schedule shall comply with all
13 of these requirements and the requirements of Section 1-08.3(1), except that it may be limited
14 to only those activities occurring within the first 60-working days of the project.

15
16 Revise the first sentence of the second paragraph to read:

17
18 The Contractor shall submit 1 PDF copy via email to the Engineer of a Type B Progress
19 Schedule depicting the entire project no later than 21-calendar days after the preconstruction
20 conference.

21
22 **1-08.4 Prosecution of Work**

23
24 Delete this section and replace it with the following:

25
26 **1-08.4 Notice to Proceed and Prosecution of Work**
27 *(July 23, 2015 APWA GSP)*

28
29 Notice to Proceed will be given after the contract has been executed and the contract bond
30 and evidence of insurance have been approved and filed by the Contracting Agency. The
31 Contractor shall not commence with the work until the Notice to Proceed has been given by
32 the Engineer. The Contractor shall commence construction activities on the project site
33 within ten days of the Notice to Proceed Date, unless otherwise approved in writing. The
34 Contractor shall diligently pursue the work to the physical completion date within the time
35 specified in the contract. Voluntary shutdown or slowing of operations by the Contractor
36 shall not relieve the Contractor of the responsibility to complete the work within the time(s)
37 specified in the contract.

38
39 When shown in the Plans, the first order of work shall be the installation of high visibility
40 fencing to delineate all areas for protection or restoration, as described in the Contract.
41 Installation of high visibility fencing adjacent to the roadway shall occur after the placement
42 of all necessary signs and traffic control devices in accordance with 1-10.1(2). Upon
43 construction of the fencing, the Contractor shall request the Engineer to inspect the fence.
44 No other work shall be performed on the site until the Contracting Agency has accepted the
45 installation of high visibility fencing, as described in the Contract.

46
47 **1-08.5 Time for Completion**
48 *(November 30, 2018 APWA GSP, Option A)*

49
50 Revise the third and fourth paragraphs to read:

1 Contract time shall begin on the first working day following the Notice to Proceed Date.

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

19
20 Revise the sixth paragraph to read:

21
22 The Engineer will give the Contractor written notice of the completion date of the contract
23 after all the Contractor's obligations under the contract have been performed by the
24 Contractor. The following events must occur before the Completion Date can be
25 established:

- 26 1. The physical work on the project must be complete; and
- 27 2. The Contractor must furnish all documentation required by the contract and required by
28 law, to allow the Contracting Agency to process final acceptance of the contract. The
29 following documents must be received by the Project Engineer prior to establishing a
30 completion date:
- 31 a. Certified Payrolls (per Section 1-07.9(5)).
 - 32 b. Material Acceptance Certification Documents
 - 33 c. Monthly Reports of Amounts Credited as DBE Participation, as required by the
34 Contract Provisions.
 - 35 d. Final Contract Voucher Certification
 - 36 e. Copies of the approved "Affidavit of Prevailing Wages Paid" for the Contractor and all
37 Subcontractors
 - 38 f. A copy of the Notice of Termination sent to the Washington State Department of
39 Ecology (Ecology); the elapse of 30 calendar days from the date of receipt of the
40 Notice of Termination by Ecology; and no rejection of the Notice of Termination by
41 Ecology. This requirement will not apply if the Construction Stormwater General
42 Permit is transferred back to the Contracting Agency in accordance with Section 8-
43 01.3(16).
 - 44 g. Property owner releases per Section 1-07.24

45
46 Section 1-08.5 is supplemented with the following:

47
48 (March 13, 1995)

49 This project shall be physically completed within *** 120 *** working days.

1
2 **1-08.9 Liquidated Damages**

3 *(August 14, 2013 APWA GSP)*
4

5 Revise the fourth paragraph to read:
6

7 When the Contract Work has progressed to Substantial Completion as defined in the
8 Contract, the Engineer may determine that the work is Substantially Complete. The
9 Engineer will notify the Contractor in writing of the Substantial Completion Date. For
10 overruns in Contract time occurring after the date so established, the formula for liquidated
11 damages shown above will not apply. For overruns in Contract time occurring after the
12 Substantial Completion Date, liquidated damages shall be assessed on the basis of direct
13 engineering and related costs assignable to the project until the actual Physical Completion
14 Date of all the Contract Work. The Contractor shall complete the remaining Work as
15 promptly as possible. Upon request by the Project Engineer, the Contractor shall furnish a
16 written schedule for completing the physical Work on the Contract.
17

18 **1-09 Measurement and Payment**

19
20 **1-09.2(1) General Requirements for Weighing Equipment**

21 *(July 23, 2015 APWA GSP, Option 2)*
22

23 Revise item 4 of the fifth paragraph to read:
24

- 25 4. Test results and scale weight records for each day's hauling operations are provided to
26 the Engineer daily. Reporting shall utilize WSDOT form 422-027, Scaleman's Daily
27 Report, unless the printed ticket contains the same information that is on the Scaleman's
28 Daily Report Form. The scale operator must provide AM and/or PM tare weights for
29 each truck on the printed ticket.
30

31 **1-09.2(5) Measurement**

32 *(May 2, 2017 APWA GSP)*
33

34 Revise the first paragraph to read:
35

36 **Scale Verification Checks** – At the Engineer's discretion, the Engineer may perform
37 verification checks on the accuracy of each batch, hopper, or platform scale used in weighing
38 contract items of Work.
39

40 **1-09.6 Force Account**

41 *(October 10, 2008 APWA GSP)*
42

43 Supplement this section with the following:
44

45 The Contracting Agency has estimated and included in the Proposal, dollar amounts for all
46 items to be paid per force account, only to provide a common proposal for Bidders. All such
47 dollar amounts are to become a part of Contractor's total bid. However, the Contracting
48 Agency does not warrant expressly or by implication, that the actual amount of work will
49 correspond with those estimates. Payment will be made on the basis of the amount of work
50 actually authorized by Engineer.

1
2 **1-09.9 Payments**

3 *(March 13, 2012 APWA GSP)*
4

5 Supplement this section with the following:
6

7 Lump sum item breakdowns are not required when the bid price for the lump sum item is
8 less than \$20,000.
9

10 **1-09.11(3) Time Limitation and Jurisdiction**

11 *(November 30, 2018 APWA GSP)*
12

13 Revise this section to read:
14

15 For the convenience of the parties to the Contract it is mutually agreed by the parties that any
16 claims or causes of action which the Contractor has against the Contracting Agency arising
17 from the Contract shall be brought within 180 calendar days from the date of final acceptance
18 (Section 1-05.12) of the Contract by the Contracting Agency; and it is further agreed that any
19 such claims or causes of action shall be brought only in the Superior Court of the county
20 where the Contracting Agency headquarters is located, provided that where an action is
21 asserted against a county, RCW 36.01.050 shall control venue and jurisdiction. The parties
22 understand and agree that the Contractor's failure to bring suit within the time period provided,
23 shall be a complete bar to any such claims or causes of action. It is further mutually agreed
24 by the parties that when any claims or causes of action which the Contractor asserts against
25 the Contracting Agency arising from the Contract are filed with the Contracting Agency or
26 initiated in court, the Contractor shall permit the Contracting Agency to have timely access to
27 any records deemed necessary by the Contracting Agency to assist in evaluating the claims
28 or action.
29

30 **1-09.13(3) Claims \$250,000 or Less**

31 *(October 1, 2005 APWA GSP)*
32

33 Delete this section and replace it with the following:
34

35 The Contractor and the Contracting Agency mutually agree that those claims that total
36 \$250,000 or less, submitted in accordance with Section 1-09.11 and not resolved by
37 nonbinding ADR processes, shall be resolved through litigation unless the parties mutually
38 agree in writing to resolve the claim through binding arbitration.
39

40 **1-09.13(3)A Administration of Arbitration**

41 *(November 30, 2018 APWA GSP)*
42

43 Revise the third paragraph to read:
44

45 The Contracting Agency and the Contractor mutually agree to be bound by the decision of the
46 arbitrator, and judgment upon the award rendered by the arbitrator may be entered in the
47 Superior Court of the county in which the Contracting Agency's headquarters is located,
48 provided that where claims subject to arbitration are asserted against a county, RCW
49 36.01.050 shall control venue and jurisdiction of the Superior Court. The decision of the
50 arbitrator and the specific basis for the decision shall be in writing. The arbitrator shall use the
51 Contract as a basis for decisions.

1
2 **1-09.13(4) Claims in Excess of \$250,000**

3
4 Section 1-09.13(4) is hereby deleted and replaced with the following:

5
6 **CLAIMS RESOLUTION**

7 (*****)

8
9 Any dispute arising from the contract shall be processed in accordance with Section 1-04.5
10 and Sections 1-09.11 through 1-09.13(1) of the Standard Specifications. The provisions of
11 these sections must be complied with in full as a condition precedent to the Contractor's right
12 to seek claims resolution through arbitration or litigation. The Contractor may file with the
13 Engineer a request for binding arbitration; the Engineer's decision regarding that request
14 shall be final and unappealable. Nothing in this paragraph affects or tolls the limitations
15 period as set forth in Section 1-09.11(3) of the Standard Specifications. However, if the
16 Contractor files a lawsuit raising any claim(s) arising from the contract, the parties shall, if the
17 Engineer so directs, submit such claim(s) to binding arbitration, subject to the rights of any
18 party thereto to file with the Lewis County Superior Court motions to dismiss or for summary
19 judgment at any time. In any binding arbitration proceeding, the provisions of subparagraphs
20 (a) and (b) shall apply.

21
22 a) Unless the parties otherwise agree, all disputes subject to arbitration shall be heard
23 in a single arbitration hearing, and then only after completion of the contract. The
24 parties shall be bound by Ch. 7.04 RCW generally, and by the arbitration rules
25 hereafter stated, and shall, for purposes of administration of the arbitration, comply
26 where applicable with the 1994 Lewis County Superior Court Mandatory Arbitration
27 Rules (LMAR) sections 1.1(b), 1.3, 2.3, 3.1, 3.2(a) and (b), 5.1, 5.2 (except as
28 referenced to MAR 5.2), 5.3, 6.1, 6.2 (including the referenced MAR 6.2), and 8.6.
29 There shall be one arbitrator, to be chosen by mutual agreement of the parties from
30 the list provided by the Lewis County Superior Court Administrator. If the parties
31 cannot agree on a person to serve as arbitrator, the matter shall be submitted for
32 appointment of an arbitrator under LMAR 2.3. The arbitrator shall determine the
33 scope and extent of discovery, except that the Contractor shall provide and update
34 the information required by Section 1-09.11(2) of the Standard Specifications.
35 Additionally, each party shall file a statement of proof with the other party and the
36 arbitrator at least 20 calendar days before the scheduled arbitration hearing. The
37 statement of proof shall include:

- 38
39 1. The name, business address and contact telephone number of each witness
40 who will testify at the hearing.
41
42 2. For each witness to be offered as an expert, a statement of the subject matter
43 and a statement of the facts, resource materials (not protected by privilege)
44 and learned treatises upon which the expert is expected to testify and render
45 an opinion(s), synopsis of the basis for such opinion(s), and a resume of the
46 expert detailing his/her qualifications as an expert and pursuant to rendering
47 such opinion(s). A list of documents and other exhibits the party intends to
48 offer in evidence at the arbitration hearing. Either party may request a copy
49 of any document listed, and a copy or description of any other exhibit listed.
50 The party receiving the request shall provide the copies or description within
51 five (5) calendar days. The parties or arbitrator may subpoena parties in

1 accordance with the Superior Court Mandatory Arbitration Rules (MAR) of
2 Washington, Rule 4.3, and witness fees and costs shall be provided for under
3 Rule 6.4, thereof. The arbitrator may permit a party to call a witness or offer
4 a document or other exhibit not included in the statement of proof only upon
5 a showing of good cause.
6

7 b) The arbitration hearing shall be conducted at a location within Lewis County,
8 Washington. The extent of application of the Washington Rules of Evidence shall be
9 determined in the exercise of sound discretion of the arbitrator, except that such
10 Rules should be liberally construed in order to promote justice. The parties should
11 stipulate to the admission of evidence when there is no genuine issue as to its
12 relevance or authenticity. The decision of the arbitrator and the specific grounds for
13 the decision shall be in writing. The arbitrator shall use the contract as a basis for its
14 decisions. The County and the Contractor agree to be bound by the decision of the
15 arbitrator, subject to such remedies as are provided in Ch. 7.04 RCW. Judgment
16 upon the award rendered by the arbitrator shall be entered as judgment before the
17 presiding judge of the Superior Court for Lewis County. Each party shall bear its own
18 costs in connection with the arbitration. Each party shall pay one-half of the
19 arbitrator's fees and expenses.
20
21

22 **1-10 Temporary Traffic Control**

23 **1-10.2 Traffic Control Management**

24 ***General***

25 Section 1-10.2(1) is supplemented with the following:
26
27

28 (January 3, 2017)

29 Only training with WSDOT TCS card and WSDOT training curriculum is recognized in
30 the State of Washington. The Traffic Control Supervisor shall be certified by one of the
31 following:
32
33

34 The Northwest Laborers-Employers Training Trust
35 27055 Ohio Ave.
36 Kingston, WA 98346
37 (360) 297-3035
38
39

40 Evergreen Safety Council
41 12545 135th Ave. NE
42 Kirkland, WA 98034-8709
43 1-800-521-0778
44

45 The American Traffic Safety Services Association
46 15 Riverside Parkway, Suite 100
47 Fredericksburg, Virginia 22406-1022
48 Training Dept. Toll Free (877) 642-4637
49 Phone: (540) 368-1701
50

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

2 (*****)

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

4
5 The Traffic Control Plan is included in the project plans for temporary traffic control and
6 Pedestrian Traffic Control use on this project. Alternating one-way traffic shall be maintained
7 by the Contractor as shown in the Traffic Control Plan. All signs required for this project (as
8 shown on the Traffic Control Plan) shall be the Contractors responsibility to furnish, erect,
9 and maintain. The Contractor shall adopt the Traffic Control Plan in writing to the Engineer
10 or furnish a new plan. The Contractor shall conduct his operation on the roadway in a manner
11 that one-way traffic is maintained at all times, unless otherwise directed by the Engineer.

12
13 If determined by the Engineer that additional signing (not shown on the Traffic Control Plan)
14 is needed, it shall be the Contractors responsibility to furnish, erect, and maintain these
15 additional signs at no cost to the Contracting Agency.

16
17 **1-10.2(3) Conformance to Established Standards**

18 (*****)

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

20
21 The latest version of the WSDOT Manual M54-44 "Work Zone Traffic Control Guidelines for
22 Maintenance Operations" (WZTCG) is hereby made a part of this contract by reference as if
23 contained fully herein.

24
25 **EXISTING SIGNS**

26 (*****)

27
28 During the life of the contract, the Contractor shall be responsible for all existing signs damaged
29 or removed by construction operations.

30
31 Warning and regulatory signs may be temporarily relocated to portable sign stands for
32 convenience of construction subject to the approval of the Engineer. The signs shall be located
33 at or as near as practical to their original locations and shall have a minimum vertical clearance
34 above the pavement in accordance with the Manual on Uniform Traffic Control Devices. Upon
35 completion of construction in the area immediately surrounding the permanent sign location, the
36 Contractor shall reinstall the sign and supports in their permanent locations.

37
38 Signs damaged or removed shall be replaced by the contractor at no cost to the County.

39
40 All cost involved in removing, maintaining and resetting existing signs as specified shall be
41 considered incidental to the project and included in the various bid items therein. No additional
42 compensation will be allowed.

43
44 **1-10.4 Measurement**

45
46 **1-10.4(1) Lump Sum Bid for Project (No Unit Items)**

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

1
2
3
4
5
6
7
8
9
10
11
12
13

(August 2, 2004)

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

1-10.5(2) Item Bids With Lump Sum Bid for Incidentals

Section 1-10.5(2) is supplemented with the following:

"Pedestrian Traffic Control" lump sum.

The lump sum Contract payment shall be full compensation for all costs incurred by the Contractor in performing the Work for pedestrian traffic control, and temporary pedestrian ramps as defined in Section 1-10 and shown in the Contract Plans.

1 **Division 2**
2 **Earthwork**

3
4 **2-02 Removal of Structures and Obstructions**

5
6 **2-02.3 Construction Requirements**

7
8 Section 2-02.3 is supplemented with the following:

9
10 **(February 17, 1998)**
11 **Removal of Obstructions**

12 **(*****)**

13 The following items identified on the Plans shall be paid for as part of Removal of Structures
14 and Obstructions:

15
16 Segmented Block Wall located at station A 13+38, 27' left to A 13+46, 26' left, shall remove
17 and salvage and return to the Resident at address:

18 3317 Borst Ave
19 Centralia, WA 98531

20 The Contractor shall coordinate with the Resident at the address above for the return of the
21 Segmented Block Wall.

22
23 Landscaping Rocks located at station A 13+58, 24' left to A 13+85, 24' left, the Contractor
24 shall remove, salvage and return to the Resident at address:

25 3315 Borst Ave.
26 Centralia, WA 98531

27 The Contractor shall coordinate with the Resident at the address above for the return of the
28 Landscaping Rocks.

29
30 Remove and reset fence located at 2705 Borst Ave. Remove fence at station A 38+90, 26'
31 left to A 39+25, 26' left. The Contractor shall rest the fence in kind and to the acceptance of
32 the Engineer.

33
34 Remove and reset fence located at the intersection of Allen Ave and Borst Ave. Remove
35 fence at station I 80+18, 25' left to I 80+24, 25' left or to nearest post. The Contractor shall
36 rest the fence in kind and to the acceptance of the Engineer.

37
38 **2-03 Roadway Excavation and Embankment**

39
40 **2-03.1 Description**

41 Section 2-03.1 is supplemented with the following:

42
43 **(*****)**

44
45 Utility potholing work shall consist of excavation, haul, and disposal of existing roadbed and
46 shoulder material at all utility pothole locations as identified by the Contractor and approved
47 by the Engineer.

1
2 The Contractor shall perform underground utility exploration (utility potholing). This work shall
3 begin after the Contractor has called the utilities for field locations and the utilities have
4 identified and located their respective facilities. Potholing work shall be completed a minimum
5 14 calendar days prior to the Contractor's scheduled excavations for the affected utilities.
6

7 Utility potholing shall be used to determine whether conflicts will be encountered in the
8 installation of underground structures. Locations to be potholed will either be where contract
9 excavation indicates close proximity to existing utilities or where the utility's field locate marks
10 indicate utilities may be present. Pothole locations shall be approved by the Engineer upon
11 notification by the Contractor of a potential conflict between construction and utilities.
12

13 **2-03.3 Construction Requirements**

14 Section 2-03.3 is supplemented with the following:

15
16 (*****)

17 ***Utility Potholing***

18
19 The Contractor shall use a vacuum excavator or other means as ordered by the Engineer.
20 The vacuum excavator operator shall be competent and experienced in operation of the
21 equipment.
22

23 Pot holing shall expose utilities or other conflicts within the depth and width to be excavated
24 for future structures. The Contractor shall record the type of conflict, including the material,
25 size, diameter, and utility. The station, offset, top elevation, and bottom elevation shall be
26 recorded. Horizontal locations and elevations shall be recorded with an accuracy of ± 0.05
27 feet. The Contractor shall ensure observations and accurate measurements are recorded
28 before backfilling.
29

30 The Contractor shall notify the utility and the Engineer of all objects exposed and found in
31 conflict and shall provide location and elevation data within 2 days of performing the Work.
32 The Contractor shall immediately notify the utility and the Engineer if a conflict is discovered.
33

34 Potholes shall be backfilled or safely covered if left unattended at any time. Costs for
35 materials and labor to safely cover the pothole shall be incidental to the unit price for
36 potholing.
37

38 The Contracting Agency assumes no risk for the excavation and exposure of any utility by the
39 contractor and assumes no liability for any damages incurred to any utility resulting from the
40 Contractor's operations.
41

42 Contractor responsible for all cost required to protect public and private utilities as provided in
43 Section 1-07.17.
44

45 ***2-03.3(7) Disposal of Surplus Material***

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

47
48 (*****)

49 No waste site has been provided to the Contractor for the disposal of unsuitable and excess
50 excavation material. The Contractor shall make his own arrangement to acquire a site for
51 the disposal of unsuitable and excess excavation material.

1
2 The Contractor shall make his own arrangements to acquire a site and obtain all
3 environmental permits required for the disposal of the unsuitable excavation material. The
4 Contracting Agency must approve the waste site prior to it being utilized. Approval cannot
5 be given until the Contracting Agency receives copies of all environmental approvals.
6

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

10 11 **2-03.4 Measurement**

12 Section 2-03.4 is supplemented with the following:

13
14 (March 13, 1995)

15 Only one determination of the original ground elevation will be made on this project.
16 Measurement for roadway excavation and embankment will be based on the original ground
17 elevations recorded previous to the award of this contract.
18

19 If discrepancies are discovered in the ground elevations which will materially affect the
20 quantities of earthwork, the original computations of earthwork quantities will be adjusted
21 accordingly.
22

23 Earthwork quantities will be computed, either manually or by means of electronic data
24 processing equipment, by use of the average end area method or by the finite element
25 analysis method utilizing digital terrain modeling techniques.
26

27 Copies of the ground cross-section notes will be available for the bidder's inspection, before
28 the opening of bids, at the Engineer's office and at the Region office.
29

30 Upon award of the contract, copies of the original ground cross-sections will be furnished to
31 the successful bidder on request to the Engineer.
32

33 (*****)

34 Saw cutting shall be considered incidental to "Roadway Excavation Incl. Haul".
35

36 (*****)

37 Utility potholing will be measured per each.
38

39 **2-03.5 Payment**

40 Section 2-03.5 is supplemented with the following:

41
42 (*****)

43 "Utility Pothole", per each.

44 The unit Contract price per each for "Utility Pothole" shall be full pay for all Work to pothole
45 and record locations and elevations of utilities and objects, including but not limited to,
46 vacuum truck or similar non-destructive equipment, labor, backfill, patching, disposal, and
47 cleanup.
48
49

1 **Division 3**

2 **Aggregate Production and Acceptance**

3
4 **3-01 PRODUCTION FROM QUARRY AND PIT SITES**

5
6 **3-01.4(1) Acquisition and Development**

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

9
10 Section 3-01.4(1) is supplemented with the following:

11
12 No source has been provided for any materials necessary for the construction of this project.

13

1 **Division 5**
2 **Surface Treatments and Pavements**

3
4 **5-04 HOT MIX ASPHALT**

5
6 (*****)
7 Section 5-04 is supplemented with the following:

8
9
10 Delete WSDOT Section 5-04, Hot Mix Asphalt as printed in the Standard Specifications
11 for Road, Bridge and Municipal Construction, 2018 edition, and replace it with Section 5-
12 04, Hot Mix Asphalt as printed in the Standard Specifications for Road, Bridge and
13 Municipal Construction, 2016 edition.

14
15 **5-04.1 Description**

16
17 (*****)
18 Section 5-04.1 is supplemented with the following:

19
20 The term "Approach" shall include Road approaches, driveways, and extensions.

21
22 **Superintendents, Labor, and Equipment of Contractor**

23 Section 5-04.1 is supplemented with the following:

24
25 The Contractor shall have a sufficient number of qualified personnel on the project
26 to insure the following minimum crew size:

- 27
28 One paving superintendent
29 One paver operator
30 Two screed operators
31 Three roller operators
32 Two rakers

33
34 These workers shall be present and not assigned to dual activities that would stop
35 them from fulfilling their assigned task while the paver is in operation. There will
36 be one assigned supervisor who will be in charge of paving operations and who
37 will be responsible for work performed.

38
39 **5-04.2 Materials**

40
41 **Mix Design – Obtaining Project Approval**

42
43 Section 5-04.2(2) is supplemented with the following
44 (*****)

45
46 **(January 3, 2011)**
47 **ESAL's**

48 The number of ESAL's for the design and acceptance of the HMA shall be ***
49 2.4 *** million.

1 **5-04.3 Construction Requirements**

2 (*****)

3 Section 5-04.3 is supplemented with the following:

4
5 Sand and tack all edges, cold joints, and tapers which join existing asphalt, (such as
6 asphalt concrete approaches, intersections, and curb and gutter).

7
8 Wing out, rake, and compact a beveled edge when paving past approaches (driveways),
9 street intersections, curb faces, edges of gutters and, where applicable, provide an
10 acceptable transition from roadway to approaches by paving an adequate ramp as
11 directed by the Engineer. Mainline shall be paved before road approaches. Any approach
12 greater than 30 feet at its narrowest point shall be done with a paving machine.

13
14 Pave to a depth of one inch or less at the curb face, unless otherwise directed by the
15 Engineer.

16
17 The Contractor shall not Plane more bituminous pavement than can be paved back with
18 one lift of HMA in the same day.

19
20 **5-04.3(3) Hot Mix Asphalt Pavers**

21 (*****)

22 Section 5-04.3(3) is supplemented with the following:

23
24 **5-04.3(3)A Material Transfer Device**

25 **Vehicle**

26 (*****)

27 Delete this section and replace it with the following:

28
29 **5-04.3(3)A Material Transfer Device / Vehicle**

30
31 **Self- Propelled Material Transfer Vehicle**

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

39
40 The transfer vehicle’s holding hopper shall have a minimum capacity of 15 tons. The material
41 transfer vehicle shall mix the HMA after delivery by the hauling equipment but prior to lay
42 down by the paving machine. Mixing of the HMA material shall be sufficient to obtain a
43 consistent temperature throughout the mixture. If a transfer vehicle does not have holding or
44 mixing capabilities, the paving machine shall be fitted with a holding and mixing hopper
45 having a minimum capacity of 15 tons.

46
47 Prior to use, the Contractor shall submit the manufacturer and model number of the
48 equipment to the Engineer for review and approval. All costs to incorporate the material
49 transfer device or vehicle into the paving train shall be included in the unit contract price for
50 the HMA.

1 The Contractor shall deliver the mixture to the paving machine at a rate that provides
2 continuous operation of the paving machine, except for unavoidable delay or breakdown. If
3 excessive stopping of the paving machine occurs during paving operations, the Engineer
4 may suspend paving operations until the mixture deliver rate matches the paving machine
5 operation.
6

7 **5-04.3(5)E Pavement Repair**

8 (*****)

9 Section 5-04.3(5)E is supplemented with the following:

10
11 Excavation for pavement repair shall be performed by a pavement grinder unless
12 otherwise approved by the Engineer.

13
14 Any Pavement Repair Excavation directed by the Engineer below 1-foot depth shall be
15 done to the satisfaction of the Engineer and paid for by force account.
16
17

18 **5-04.3(7) Preparation of Aggregates**

19
20 **5-04.3(7)A Mix Design**

21
22 **5-04.3(7)A1 General**

23 (*****)

24 Supplement Section 5-04.3(7)A1 with the following:

25
26 The maximum quantity of RAP allowable in all HMA used in a pavement preleveling
27 course shall not exceed 20% and shall be paid for under its respective bid item. No RAP
28 will be allowed in the wearing course or HMA for Pavement Repair @ bridge ends.
29

30 The Engineer shall approve the RAP stockpile prior to use.

31
32 The Contractor shall submit four samples of the designed Hot Mix Asphalt mix to the
33 Engineer's representative for ignition furnace calibration at least five (5) days prior to
34 paving. Samples will be taken in conformance to WSDOT Test Method T 726.
35

36 **5-04.3(7)A2 Statistical or Nonstatistical Evaluation**

37 (*****)

38
39 Delete this section and replace it with the following;
40

41 **5-04.3(7)A2 Nonstatistical and Commercial Evaluation**

42 Mix designs for HMA accepted by Nonstatistical or Commercial evaluation shall;

- 43 • Be submitted to the Project Engineer on WSDOT Form 350-042
- 44 • Have the aggregate structure and asphalt binder content determined in accordance with
- 45 WSDOT Standard Operating Procedure 732 and meet the requirements of Sections 9-
- 46 03.8(2) and 9-03.8(6).
- 47 • Have anti-strip requirements, if any, for the proposed mix design determined in
- 48 accordance with WSDOT Test Method T 718 or based on historic anti-strip and
- 49 aggregate source compatibility from WSDOT lab testing. Anti-strip evaluation of HMA
- 50

- 1 mix designs utilized that include RAP will be completed without the inclusion of the RAP.
- 2 • At or prior to the preconstruction meeting, the contractor shall provide one of the following
 - 3 mix design verification certifications for Contracting Agency review;
 - 4 • The proposed mix design indicated on a WSDOT mix design/anti-strip report that is
 - 5 within one year of the approval date
 - 6 • The proposed HMA mix design submittal (Form 350-042) with the seal and certification
 - 7 (stamp & signature) of a valid licensed Washington State Professional Engineer.
 - 8 • The proposed mix design by a qualified City or County laboratory mix design report that is
 - 9 within one year of the approval date.

10
11 The mix design will be performed by a lab accredited by a national authority such as
12 Laboratory Accreditation Bureau, L-A-B for Construction Materials Testing, The
13 Construction Materials Engineering Council (CMEC's) ISO 17025 or AASHTO
14 Accreditation Program (AAP) and shall supply evidence of participation in the AASHTO
15 Material Reference Laboratory (AMRL) program.

16
17 At the discretion of the Engineer, agencies may accept mix designs verified beyond the
18 one year verification period with a certification from the Contractor that the materials and
19 sources are the same as those shown on the original mix design. Evaluation of anti-strip
20 additives are to be provided as part of the mix design acceptance criteria. Acceptable
21 anti-strip evaluations include 1.) a WSDOT validated mix design showing the validated
22 anti-strip additive and dosage 2.) an historic anti-strip determination from WSDOT not
23 greater than two (2) calendar years old or 3.) a passing TSR test at the anti-strip dosage
24 proposed by the Contractor.

25
26 No paving shall begin prior to Contracting Agency approval of the Contractor provided
27 mix design.

28
29 **5-04.3(8)A1, General**
30 (*****)

31
32 Delete this section and replace it with the following:

33
34 **5-04.3(8)A1, General**

35
36 Acceptance of HMA shall be as defined under nonstatistical or commercial evaluation.
37 Nonstatistical evaluation will be used for all HMA not designated as Commercial HMA in
38 the contract documents.

39
40 The mix design will be the initial JMF for the class of HMA. The Contractor may
41 request a change in the JMF. Any adjustments to the JMF will require the approval of
42 the Project Engineer and must be made in accordance with Section 9-03.8(7).

43
44 Commercial evaluation may be used for Commercial HMA and for other classes of HMA in
45 the following applications: sidewalks, road approaches, ditches, slopes, paths, trails,
46 gores, prelevel, and pavement repair. Other nonstructural applications of HMA accepted
47 by commercial evaluation shall be as approved by the Project Engineer. Sampling and
48 testing of HMA accepted by commercial evaluation will be at the option of the Project
49 Engineer. Commercial HMA can be accepted by a contractor certificate of compliance
50 letter stating the material meets the HMA requirements defined in the contract.

1
2 **5-04.3(8)A4, Definition of Sampling Lot and Sublot**

3 (*****)

4 Section 5-04.3(8)A4 is supplemented with the following:

5
6 For HMA in a structural application, sampling and testing for total project quantities less
7 than 400 tons is at the discretion of the engineer. For HMA used in a structural application
8 and with a total project quantity less than 800 tons but more than 400 tons, a minimum of
9 one acceptance test shall be performed:

10 If test results are found to be within specification requirements, additional testing will be at
11 the Engineer's discretion.

12 If test results are found not to be within specification requirements, additional testing as
13 needed to determine a CPF shall be performed.

14
15 **5-04.3(8)A5 Test Results**

16 (*****)

17 The first paragraph of this section is deleted.

18
19
20 **5-04.3(8)A6 Test Methods**

21 (*****)

22 Delete this section and replace it with the following;

23
24 **5-04.3(8)A6 Test Methods**

25
26 Testing of HMA for compliance of Va will be at the option of the Contracting Agency. If
27 tested, compliance of Va will be by WSDOT Standard Operating Procedure SOP 731.
28 Testing for compliance of asphalt binder content will be by WSDOT FOP for AASHTO T
29 308. Testing for compliance of gradation will be by WAQTC FOP for AASHTO T 27/T 11.

30
31 **5-04.3(9) Spreading and Finishing**

32 (*****)

33 Section 5-04.3(9) is supplemented with the following:

34
35 The Contractor shall meet with the Engineer or representative by the end of each
36 working day to verify and confirm in writing and by signature the daily yields and
37 quantities.

38
39 If the Contractor fails to follow this procedure, the Contractor accepts the Engineer's
40 estimated quantities for the work completed that day.

41
42 **Overages**

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

48
49 This provision shall not relieve the Contractor of his/her responsibility to complete each
50 section in its entirety.

1
2 **5-04.3(10) Compaction**
3

4 **5-04.3(10)B Control**

5 (*****)

6 Section 5-04.3(10)B1 thru 5-04.3(10)B4 are deleted and replaced with:
7

8 HMA used in traffic lanes, including lanes for ramps, truck climbing, weaving, speed
9 changes, and left turn channelization, and having a specified compacted course
10 thickness is greater than 0.10 foot, shall be compacted to a specified level of relative
11 density. The specified level of relative density shall be a Composite Pay Factor (CPF) of
12 not less than .75, using a minimum of 92.0 percent of the reference maximum density
13 as determined by WSDOT FOP for AASHTO T 209. The level of compaction attained
14 will be determined as the average of not less than 5 nuclear density gauge tests taken
15 on the day the mix is placed (after completion of the finish rolling) at randomly selected
16 locations within each lot. The quantity of a lot shall be no greater than a single day's
17 production or approximately 300 tons, whichever is less. The quantity represented by
18 each sub-lot will be 100 tons or a portion of 100 tons within the lot.
19

20 A test section(s) shall be constructed for the purpose of determining if the mix is
21 compactable, to establish a nuclear density gauge correlation factor, and meets the
22 requirements of Sections 5-04.
23

24 The test section shall be constructed at the beginning of production paving for the project
25 and will be at least 40 tons and a maximum of 60 tons. The first and last 25 feet of
26 paving will not be included in the test section. No further paving will be performed for
27 the remainder of the day, and the next two days following the test section, or as directed
28 by the Engineer.
29

30 Construction of the test section shall be done using the equipment and rolling patterns
31 that the Contractor expects to use in the paving operation. A test section will be
32 considered to have established compactibility, based on the results of three density
33 determinations, when the average of the three tests exceeds 93 percent or when all
34 three tests individually exceed 92 percent of the maximum density determined by
35 WSDOT FOP for AASHTO T209. This will require consideration of the presence of the
36 correlation factor for the nuclear density gauge and may require resolution after the
37 correlation factor is known. When results have demonstrated that the mix is not
38 compactable, or not capable of meeting the requirements in Sections 5-04, the
39 Contractor shall construct a new test section after appropriate adjustments to the mix
40 have been made.
41

42 The HMA used for the test section shall be measured by the ton and paid for its
43 associated HMA bid item. All costs associated with constructing the test section or
44 sections will be incidental to the cost of the HMA.
45

46 On the initial days' production with a new HMA mix a test section may be avoided if the
47 Agency and Contractor agree to accept the compaction based on a nuclear gauge
48 density correlation factor of 1.0 with 92 percent of maximum density nuclear gauge
49 reading. Compaction results less than 92 percent of maximum density will be subject to
50 a price adjustment in accordance with special provision 5-04.5(1)B. Subsequent
51 compaction testing shall be completed and accepted using density correlation values

1 determined in accordance with WSDOT SOP T 730 and nuclear gauge density readings
2 conducted in a accordance with WSDOT FOP for WAQTC T 355
3

4 For compaction lots falling below a 1.00 pay factor and thus subject to price reduction
5 or rejection, cores may be used as an alternate to the nuclear density gauge tests. When
6 cores are requested by the Contractor the request shall be made by noon of the first
7 working day following placement of the mix. The contractor shall be responsible for
8 obtaining the core samples at the locations designated by the Engineer. The Contractor
9 shall be responsible for providing traffic control. The Engineer shall be responsible for
10 the testing of the core samples and the costs incurred. When the cores indicate the
11 acceptable level of compaction within a lot has not been achieved, the cost for the testing
12 will be deducted from any monies due or that may become due the contractor under the
13 contract at the rate of \$200 per core.
14

15 HMA, constructed under conditions other than listed above shall be compacted on the
16 basis of a test point evaluation of the compaction train. The test point evaluation shall
17 be performed in accordance with instruction from the Engineer. The number of passes
18 with an approved compaction train, required to attain the maximum point density, shall
19 be used on all subsequent paving.
20

21 The number of passes with an approved compaction train, required to attain the
22 maximum test point density, shall be used on all subsequent paving.
23

24 In addition to the randomly selected locations for tests of the density, the Engineer may
25 also isolate from a normal lot any area that is suspected of being defective in relative
26 density. Such isolated material will not include an original sample location. A minimum
27 of 5 randomly located density tests will be taken. The isolated area will then be evaluated
28 for price adjustment in accordance with the statistical evaluation section, considering it
29 as a separate lot.
30

31 Control lots not meeting the prescribed density standard shall be removed and replaced
32 with satisfactory material. At the option of the Engineer, non-complying material may be
33 accepted at a reduced price. See 5-04.5(1)B of this Special Provision.
34

35 **5-04.3(12) Joints**

36 (*****)

37 Section 5-04.3(12) is supplemented with the following:
38

39 ***Sealing Joints and Feather Ends***

40
41 After placement of the HMA Pavement, the Contractor will be required to seal all joints,
42 including approaches or any feathered ends with pavement grade asphalt and sand.
43

44 All costs associated with providing and placing the liquid asphalt as specified above shall be
45 incidental to and included in the unit contract price per ton for the HMA.
46

47 **5-04.3(15) HMA Road Approach**

48 (*****)

49 Section 5-04.3(15) is supplemented with the following:
50

1 HMA for driveway approaches shall be constructed at the locations shown in the Plans or
2 where designated by the Engineer. The work shall be performed in accordance with Section
3 5-04.
4

5 The Contractor shall reshape the approaches to the right of way line, or as directed by the
6 Engineer prior to the placement of the HMA. If ordered by the Engineer, the Contractor shall
7 place HMA in the approaches in-order to make grade adjustments. Placement of this material
8 shall be in such a manner that the approach will be accessible to traffic at all times. Sections
9 where asphalt has been removed or ground out, must be compacted before new HMA is
10 placed.
11

12 This work will take place no more than 7 days following the overlay and will not relieve the
13 Contractor of the responsibility of providing an accessible approach the day of paving. No
14 new sections for paving will be available to the Contractor until the approaches (for work 7
15 days prior) have been completed. The dimensions and percent of slope will change for each
16 driveway, and the finished product shall meet the satisfaction of the Engineer.
17

18 **Bridge Approach Repair**
19 (*****)
20

21 The Contractor shall grind bridge approaches as marked in the field and to the depths as
22 directed by the Engineer to achieve a smooth transition to the bridge deck with 0.20 foot of
23 HMA. The unit contract price per ton for "HMA For Pavement Repair Class 1/2 In. PG 58H-
24 22" shall be full compensation for all labor for preparation and all extra or additional costs
25 involved in grading existing surfacing material to reshape approaches and furnishing, placing
26 and compaction of the HMA in approaches regardless of location, length, width or design.
27 Mobilization to each bridge site shall be included in the lump sum "Mobilization" Bid Item. All
28 costs for grinding the bridge approaches including labor, equipment, and hauling the material
29 off to an approved waste site shall be included in the unit contract price per Square Yard for
30 "Pavement Repair Excavation, Incl. Haul". The Contractor shall provide the County
31 information for the permitted waste site. No waste site shall be provided by Lewis County.
32 The Contractors permitted waste site shall be pre-approved by the Engineer in writing before
33 use.
34

35 **5-04.4 Measurement**
36 (*****)

37 Section 5-04.4 is supplemented with the following:

38 "HMA Class 1/2 In. PG 58-22" per Ton.
39

40 **5-04.5 Payment**
41

42 **5-04.5(1) Quality Assurance Price Adjustment**
43 (*****)

44 Delete the fourth sentence of Section 5-04.5(1).
45

46 Supplement Section 5-04.5(1) with the following:
47
48

1 In the event that test results indicate the HMA does not meet specifications, a change order
2 will be issued for the price adjustments for Quality of HMA Mixture and Quality of HMA
3 Compaction based upon these specifications.
4

5 **5-04.5(1)B Price Adjustments for Quality of HMA Compaction**
6 **(*****)**
7

8 Delete this section and replace it with the following:
9

10 The maximum CPF of a compaction lot is 1.00.

11
12 For each compaction lot of HMA when the CPF is less than 1.00, a Nonconforming Compaction
13 Factor (NCCF) will be determined. THE NCCF equals the algebraic difference of CPF minus
14 1.00 multiplied by 40 percent. The Compaction Price Adjustment will be calculated as the
15 product of the NCCF, the quantity of HMA in the lot in tons and the unit contract price per ton of
16 the mix.
17

18 **(*****)**
19 The CPF shall be as follows:

<u>Compaction</u>	<u>CPF</u>
91.0% to 91.9%	95%
90.0% to 90.9%	90%
89.0% to 89.9%	80%
88.0% to 88.9%	75%
At or below 87.9%	Mix is removed

20
21
22
23
24
25
26
27
28
29
30

1 **Division 7**

2 **Drainage Structures, Storm Sewers, Sanitary**
3 **Sewers, Water Mains, and Conduits**

4
5 **7-04 Storm Sewer**

6
7 **7-04.3 Construction Requirements**

8 Add the following section:

9
10 (*****)

11
12 **7-04.3(2) Perforated Storm Sewer Pipe**

13
14 Class 2 perforations shall be used unless otherwise specified. When Class 1 perforations
15 are specified the perforated pipe shall be laid with the perforations down. Upon final
16 acceptance of Work, all perforated storm sewer pipes shall be open, clean, and free draining.
17 Perforated pipe does not require a watertight joint. Perforated storm sewer pipe shall be
18 jointed using either flexible elastomeric seal as described in Section 9-04.8 or solvent cement
19 as described in Section 9-04.9, as the option of the Contractor unless otherwise specified in
20 the Plans. The bell shall be laid upstream.

21
22 Perforated Storm Sewer Pipe shall meet the requirements of AASHTO M278.

23
24 **7-04.4 Measurement**

25 Section 7-04.4 is supplemented with the following:

26
27 (*****)

28
29 Perforated storm sewer pipe will be measured by the linear feet measured along the invert,
30 from center of manhole to center of manhole, and will include the length through elbows,
31 tees, and fittings.

32
33 **7-04.5 Payment**

34 Section 7-04.5 is supplemented with the following:

35
36 (*****)

37
38 “Perforated Schedule A Storm Sewer Pipe 12 In. Diam.”, per linear foot

39 The unit Contract price per linear foot of “Perforated Schedule A Storm Sewer Pipe 12 In.
40 Diam.” shall be full pay for all Work to complete the installation of the installation, including,
41 but not limited to Structure Excavation Class B including Haul, removal and disposal of
42 existing man-made and natural objects in conflict, pipe zone bedding, couplers, pipe collars,
43 trench backfill material, backfilling, compaction, low pressure storm sewer testing, cleaning,
44 surface restoration, and all pipe outfall armoring as required by the plans.

45
46 “Schedule A Storm Sewer Pipe 12 In. Diam.”, per linear foot

47 The unit Contract price per linear foot for each size and kind of “Schedule A Storm Sewer
48 Pipe 12 In. Diam.” shall be full pay for all Work to complete the installation, including, but not
49 limited to Structure Excavation Class B including Haul, removal and disposal of existing man-
50 made and natural objects in conflict, pipe zone bedding, couplers, pipe collars, trench backfill

1 material, backfilling, compaction, low pressure storm sewer testing, cleaning, surface
2 restoration, and all pipe outfall armoring as required by the plans.

3 4 **7-05 Manholes, Inlets, Catch Basins, and Drywells**

5 6 **7-05.2 Materials**

7 Section 7-05.2 is supplemented with the following:

8
9 (*****)

10
11 The Catch Basin Type PVC required for this contract shall be manufactured from PVC pipe
12 stock, utilizing a thermoforming process to reform the pipe stock to the specified
13 configuration. The drainage pipe connection stubs shall be manufactured from PVC pipe
14 stock and formed to provide a watertight connection with the specified pipe system. This
15 joint tightness shall conform to ASTM D3212 for joints for drain and sewer plastic pipe using
16 flexible elastomeric seals. The flexible elastomeric seals shall conform to ASTM F477. The
17 pipe bell spigot shall be joined to the main body of the drain basin or catch basin. The raw
18 materials used to manufacture the pipe stock that is used to manufacture the main body and
19 stubs of the surface drainage inlets shall conform to ASTM D1784 cell class 12454.

20
21 The ductile iron rates for each of these fittings are to be considered an integral part of the
22 surface drainage inlet and shall be furnished by the same manufacturer. The grates and
23 frames furnished for all surface drainage inlets shall be ductile iron for sizes 8", 10", 12", 15",
24 18", 24" and 30" and shall be made specifically for each basin so as to provide a round bottom
25 flange that closely matches the diameter of the surface drainage inlet. Ductile iron used in
26 the manufacture of the castings shall conform to ASTM A536 grade 70-50-05. Grates and
27 covers shall be provided painted black.

28 29 **7-05.3 Construction Requirements**

30 Add the following sections:

31
32 (*****)

33 34 ***7-05.3(5) Catch Basin Type PVC***

35
36 The specified PVC surface drainage inlet shall be installed using conventional flexible pipe
37 backfill materials and procedures. The backfill material shall be crushed stone or other
38 granular material meeting requirements of class 1, class 2, or class 3 material as defined in
39 ASTM D2321. Bedding and backfill for surface drainage inlets shall be well placed and
40 compacted uniformly in accordance with ASTM D2321. The drain basin body will be cut at
41 the time of the final grade. No brick, stone or concrete block will be required to set the grate
42 to the final grade height. For load rated installations, a concrete slab shall be poured under
43 and around the grate and frame. The concrete slab must be designed taking into
44 consideration local soil conditions, traffic loading, and other applicable design factors. For
45 other installation considerations such as migration of fines, ground water, and soft
46 foundations refer to ASTM D2321 guidelines.

47 48 ***7-05.3(6) Adjust Valve Box and Meter Box to Grade***

1 Where show in the Plans or where directed by the Engineer, the existing valve box shall be
2 adjusted to the grade as staked or otherwise designated by the Engineer. The adjustment of
3 the valve boxes or meter boxes shall be made without adjustment in grade to the main line
4 or service lines.

5
6 The existing valve cover, meter cover, and frame shall first be removed and thoroughly
7 cleaned for reinstalling at the new elevation. From that point, the existing Structure shall
8 conform to the requirements specified above, and the finished Structure shall conform to the
9 requirements of the Standard Plans except as approved by the Engineer.

10
11 **7-05.3(7) Abandon Existing Catch Basin**

12
13 Where it is required that an existing catch basin be abandoned, the Structure shall be broken
14 down to a depth of at least 4 feet below the revised surface elevation, all connections plugged
15 as specified in Section 7-08.3(4), and the catch basin filled with sand and compacted to 90
16 percent density as specified in Section 2-03.3(14)C. Debris resulting from breaking the upper
17 part of the catch basin may be mixed with the sand subject to the approval of the Engineer.
18 The frame and grate shall be salvaged, and all other surplus material disposed of.

19
20 **7-05.3(8) Connection to Existing Pipe**

21
22 Connections to the existing pipe shall not be started until all materials, equipment, and labor
23 necessary to properly complete the Work are assembled on the site. Once Work is started
24 on a connection, it shall proceed continuously without interruption and as rapidly as possible
25 until completed.

26
27 All damage caused by the Contractor's operations to existing joints in pipe and existing pipe
28 to remain in-service shall be repaired by the Contractor at no additions expense to the
29 Contracting Agency.

30
31 **7-05.3(9) Locking Solid Metal Cover and Frame for Catch Basin**

32
33 Castings for solid metal covers for catch basins shall be cast steel or ductile iron as specified
34 in Sections 9-05.15 and 9-05.15(2) of the WSDOT Standard Specifications.

35
36 **7-05.3(10) Beehive Grate**

37
38 Where it is required that a drainage structure uses a beehive grate, a grate shall be provided
39 that meets the detail of the Contract Plans and fist a rectangular frame of WSDOT Standard
40 Plan B-30.10.

41
42 **7-05.4 Measurement**

43 Section 7-05.4 is supplemented with the following:

44
45 (*****)

46
47 Adjust valve box and adjust meter box will be measured per each.

48
49 Abandon existing catch basin will be measured per each.

1 Catch Basin Type PVC will be measured per each.

2
3 Connection to existing pipe will be measured per each.

4
5 Locking solid metal cover and frame for catch basin will be measured per each.

6
7 Beehive grate shall be measured per each.

8
9 **7-05.5 Payment**

10 Section 7-05.5 is supplemented with the following:

11
12 (*****)

13
14 "Catch Basin Type PVC with Dome Grate", per each.

15
16 "Catch Basin Type1", per each.

17
18 "Catch Basin Type 2 48 In. Diam.", per each.

19
20 "Adjust Valve Box", per each.

21 "Adjust Meter Box", per each.

22 The unit Contract price per each for "Adjust Valve Box" or "Adjust Meter Box" shall be full pay
23 for all costs necessary to make the adjustment including restoration of adjacent areas in a
24 manner acceptable to the Engineer.

25
26 "Abandon Existing Catch Basin", per each.

27
28 "Connection to Existing Pipe", per each.

29 The unit Contract price per linear foot for "Connection to Existing Pipe" shall be full pay for
30 all Work to complete the connection to the existing pipe, including but not limited to pipe
31 cutting, taping selves, and tees.

32
33 "Locking Solid Metal Cover and Frame for Catch Basin", per each

34 The unit Contract price per each for "Locking Solid Metal Cover and Frame for Catch Basin"
35 shall be full pay for furnishing, installing, and any modifications necessary to install the locking
36 solid metal cover and frame.

37
38 "Beehive Grate", per each.

39 The unit Contract price per each for "Beehive Grate" shall be full pay for furnishing, installing,
40 and any modifications necessary to install the beehive grate.

41
42 "Connection to Drainage Structure", per each.

43 The unit Contract price per each for "Connection to Drainage Structure" shall be full pay for
44 all Work to complete the connection to the existing drainage structure, including but not
45 limited to cutting opening in structure for pipe connection, cutting flush any steel
46 reinforcement flush with opening, placing pipe to plan invert elevation, cutting pipe flush with
47 inside of structure, installing grout around structure opening and pipe.

48
49 The unit contract price per each for drainage structure of the type and size specified in the
50 plans shall be full pay for all labor, materials, equipment and work necessary to provide a
51 completed installation. Installation shall include Structure Excavation Class B including Haul,

1 furnishing and placing of all accessories such as frames, grates, cast iron rings, covers, steps
2 and hardware, connections to new and existing facilities, foundation preparation,
3 groundwater control to 250 gpm, backfill, native or imported bedding material, compaction,
4 cleaning, intermediate and final rim adjustments and all other items essential for the
5 completion of the installation as specified.
6

7 There will be no additional payment for temporary adjustments to rims/grates to allow surface
8 drainage into the structure prior to final overlay.
9

10
11
12

Division 8
Miscellaneous Construction

8-01 Erosion Control and Water Pollution Control

8-01.2 Materials

Section 8-01.2 is supplemented with the following:

Permeable Ballast	9-03.9(2)
Soil	9-14.1
Select Borrow	9-03.14(2)

8-01.3 Construction Requirements

Seeding, Fertilizing and Mulching

Seeding and Fertilizing

Section 8-01.3(2)B is supplemented with the following:

(*****)

Seed mixes used on this project and shall be certified. The list of approved seed varieties is shown in the tables below. They shall be applied at the given rates. The application rate shall be two pounds per 1000 square feet.

Kind and Variety of Seed	Percent By Weight	Minimum Pure Seed	Minimum Germination	Maximum Weed Seed
Equal Mix 3-Perennial Ryegrasses	60%	98%	90%	0.5%
One Chewing Fine Fescue	20%	98%	90%	0.5%
One Creeping Red Fescue	20%	98%	90%	0.5%

PERENNIAL RYEGRASSES

Hawkeye	Catalina II	Gator 3	Kokomo
Admire	All Star 2	Applaud	Mach 1
SR 4420	Amazing	Repell III	SR 4220
Brightstar SLT	Pentium	Grand Slam	Pennant II
Manhattan 4	Brightstar II	Cathedral II	Charger II
Elfkin	Inspire	Line Drive	Pinnacle II
Pizzazz	Promise	Seville II	Terradyne

1 **FINE FESCUES**

2 Creeping Red

Salsa Cindy Jasper Salem
Flyer

3 Chewing

Tiffany Shadow II Treazure E Longfellow
Weekend Tamara Enjoy Victory
Bridgeport Shadow W/Endo Proformer Southport
Bargreen Jamestown II

4
5
6 (*****)

7 Fertilizer shall be 1-pound nitrogen from ammonium sulfate, 0.5-pound water
8 insoluble organic nitrogen, 2 pounds of phosphorous, and 2 pounds of potassium
9 per 1,000 square feet, or a 10-20-20 turf fertilizer mix at 10 pounds per 1000
10 square feet with 1.5 pounds of water insoluble organic nitrogen per 1000 square
11 feet.

12
13 Fertilizer for Trees and Shrubs shall be granular, tablet, or spikes applied at a rate
14 recommended by the manufacturer for the size of the plant or as directed by the
15 Engineer. Fertilizer shall be a 20-10-5 plant mix with 7% water soluble organic
16 nitrogen and 13% water insoluble organic nitrogen or as approved by the
17 Engineer. All trees shall have an application of beneficial mycorrhizal fungi
18 applied at time of planting in accordance with the manufacturer's
19 recommendations. Mycorrhizal fungi shall be ROOTS' Transplant 1-Step by
20 Verdicon, Inc. or approved equal.

21
22
23 Add the following sections:

24 (*****)

25
26 **8-01.3(17) Bioretention Area**

27
28 Bioretention area shall be construct as shown and specified in the Plans.

29
30 **8-01.3(17)A Root Barrier**

31
32 The root barriers are black molded modular panels manufactured using 50% recycled
33 polyethylene plastic with ultraviolet inhibitors and 0.085" (2.16 mm) in thickness. Each panel
34 has vertical 90° root deflecting ribs and vented channels for deep watering and aeration,
35 protruding 7/8" in height. The ribs have a minimum thickness of 0.085" (2.16 mm) and are
36 placed 4 1/2" (11.4 cm) apart. An integrated 90° 1/2" – 3/4" raised rib, panel to panel joining
37 system for instant assembly by sliding one panel into another.

38
39 Install root barrier sheet material in accordance with manufacturer's instructions at location
40 indicated in the Plans. Protect root barrier from damage during construction.

1 **8-01.3(18) Infiltration Trench**

2
3 Infiltration trench shall be constructed as shown and specified in the Plans.

4
5 **8-01.4 Measurement**

6 Section 8-01.4 is supplemented with the following:

7 (*****)

8
9 Seeding, fertilizing, and mulching will be lump sum and there will be no base payment on any
10 unit of measurement.

11
12 The length of bioretention area and will be the number of linear feet of completed installation
13 measured along the centerline of the bioretention area.

14
15 The length of infiltration trench and will be the number of linear feet of completed installation
16 measured along the centerline of the infiltration trench.

17
18 Utility service sleeving will be measured per each.

19
20 **8-01.5 Payment**

21 Section 8-01.5 is supplemented with the following:

22 (*****)

23
24 “Seeding, Fertilizing, and Mulching”, lump sum.

25
26 “Bioretention Area”, per linear foot.

27
28 The unit Contract price per linear foot of “Bioretention Area” shall be full pay for all Work to
29 complete the installation of the bioretention area, including but not limited to, Structure
30 Excavation Class B Inc. Haul, Topsoil Type A, bark mulch, root barrier, disposal, and cleanup.

31
32 “Infiltration Trench”, per linear foot.

33
34 The unit Contract price per linear foot of “Infiltration Trench” shall be full pay for all Work to
35 complete the installation of the infiltration trench, including but not limited to, Geotextile for
36 Underground Drainage, Permeable Ballast, Select Borrow, Structure Excavation Class B Inc.
37 Haul, disposal, and cleanup.

38
39 “Utility Service Sleeving”, per each.

40
41 The unit Contract price per each for “Utility Service Sleeving” shall be the cost for all Work to
42 complete, including but not limited to, conduit pipe, epoxy, clamp, disposal, and clean up.

43
44 **8-02 Roadside Restoration**

45
46 **8-02.2 Materials**

1 **Erosion Control and Roadside Planting**

2
3 Section 8-02.2 is supplemented with the following:

4	(*****)	
5	Topsoil Type A	9-14.1(1)
6	Bark or Wood Chip Mulch	9-14.4(3)

7
8
9 **8-02.3 Construction Requirements**

10
11 Section 8-02.3 is supplemented with the following:

12
13 (*****)
14 The Contractor shall have facilities, equipment, and personnel adequate for work specified.
15 Pruning and trimming of existing trees to remain shall be performed by a specialist with at
16 least 5 years experience in arborculture.

17
18 All plants shall be delivered with the following:

- 19 1. Label trees and bundles of like shrubs and grasses with legible identification nursery
- 20 labels.
- 21 2. Identify botanical and common plant name and size.
- 22 3. Use durable waterproof labels with water-resistant ink, which will remain legible for
- 23 project duration.

24
25
26 **Weed and Pest Control**

27
28 Section 8-02.3(3) is supplemented with the following:

29
30 (*****)
31 After installing imported topsoil, the Contractor shall apply a pre-emergent
32 herbicide in landscaped areas. Pre-emergent herbicide shall not be applied in
33 turf areas. Post-emergent herbicide shall be required if weeds appear before
34 project completion as directed by the Engineer.

35
36 **Topsoil**

37
38 **Topsoil Type A**

39
40 Section 8-02.3(4)A is supplemented with the following:

41
42 (*****)
43 Topsoil Type A shall be placed to a non-compacted depth as specified in the project
44 plans. The topsoil shall be thoroughly blended prior to placement.

45
46 The Contractor shall submit a Type 1 Working Drawing consisting of independent
47 test results from an accredited laboratory demonstrating the Topsoil Type A meets
48 the requirements of Section 9-14.1(1). The Type 1 Working Drawing shall also
49 include the Request for Approval of Material in accordance with Section 1-06.1(2).

1
2 The Contractor shall thoroughly scarify the subgrade by tilling, disking or harrowing
3 after the subgrade elevation has been established as indicated on the Plans.
4

5 Prior to placement of topsoil, the Engineer shall approve native or imported material.
6 If the Contractor furnishes and places Topsoil Type A without prior approval, it shall
7 be done at the Contractor's expense. Final grading shall include raking, floating,
8 dragging, and rolling to remove all surface irregularities and to provide a firm,
9 smooth surface with positive drainage. Imported topsoil shall not be placed more
10 than 3 days prior to permanent seeding.
11

12 The Engineer reserves the right to randomly sample and test the topsoil as it is
13 placed. Test results shall be compared to the requirements of Sec. 9-14. If it is
14 determined the topsoil does not meet requirements, the Contractor shall be required
15 to remove the topsoil quantity as determined by the Engineer.
16

17 The Contractor may take samples of the topsoil to be removed for testing. If soil
18 samples from areas to be removed are shown to meet the requirements, the
19 Engineer may reduce the quantity to be removed as represented by the passing
20 samples. All costs incurred by the Contractor to test topsoil shall be borne by the
21 Contractor and no further compensation will be allowed.
22

23 24 ***Planting***

25
26 Section 8-02.3(8) is supplemented with the following:
27

28 The Contractor shall make required field adjustments as directed by the Engineer
29 without additional cost and avoid obstructions. Plants not properly planted or
30 heeled-in will be rejected and shall be removed from the site.
31

32 Maintenance shall begin following the installation of each plant and shall continue
33 until project acceptance. Work includes watering, weeding, cultivating, tightening
34 and repairing guys, removal of dead materials, resetting plants to proper grades or
35 upright positions and other operations necessary to ensure proper growth and
36 survival of all plant material.
37

38 If it is discovered that horsetail has been imported with a planting, the Contractor
39 shall remove the tree or bush in its entirety including the rootball and surrounding
40 soil and replace the tree or bush in kind.
41

42 ***Bark or Wood Chip Mulch***

43
44 Section 8-02.3(11) is supplemented with the following:
45

46 (*****)

47 The Contractor shall submit a sample to the Engineer for approval prior to use.
48

49 **8-02.4 Measurement**

1 Section 8-02.4 is supplemented with the following:

2
3 (January 5, 2015)

4 Topsoil, mulch and soil amendments will be measured by the square yard along the grade
5 and slope of the area covered after application.

6
7 Compost will be measured by the square yard along the grade and slope of the area covered
8 after application.

9
10 **8-02.5 Payment**

11
12 Section 8-02.5 is supplemented with the following:

13
14 (*****)

15 "Bark or Wood Chip Mulch", per square yard.

16
17 The unit Contract price per square yard for "Bark or Wood Chip Mulch" shall be full pay for
18 furnishing and spreading the mulch onto the existing soil.

19
20 "Topsoil Type ____", per square yard.

21
22 The unit Contract price per square yard for "Topsoil Type ____" shall be full pay for all costs
23 for the specified Work.

24
25 (*****)

26
27 Payment will be per each for all plant bid items included in the bid proposal under the
28 Common Name for each plant.

29
30 The unit contract price per each shall be for full compensation for all labor, material and
31 equipment necessary to install and maintain all items as specified complete. Price shall also
32 include but not be limited to preparation, delivery, planting, protecting, pruning, pressure
33 treated wood or concrete headers, rebar ties, tree stakes, guying, wrapping, rubber tree tie,
34 fertilizer, fertilizer tablets, backfill soil mix, bark mulch, pre-emergent and post-emergent
35 herbicides, and geotextile root control system as shown in the plans.

36
37 **8-04 Curbs, Gutters, and Spillways**

38
39 **8-04.4 Measurement**

40 Section 8-04.4 is supplemented with the following:

41
42 (*****)

43
44 Cement conc. curb inlet will be measured per each.

45
46 **8-04.5 Payment**

47 Section 8-04.5 is supplemented with the following:

48
49 (*****)

50
51 "Cement Conc. Curb Inlet", per each.

1 **8-14 Cement Concrete Sidewalks**

2
3 **8-14.1 Description**

4
5 Section 8-14.1 is revised to read:

6
7 (April 3, 2017)

8 This Work consists of constructing cement concrete sidewalks, curb ramps, bus stop shelter
9 foundations, masonry sidewalks, and ramp grinding in accordance with details shown in the
10 Plans, Standard Plans, these Specifications, and in conformity to the lines and grades shown
11 in the Plans, Standard Plans, and as established by the Engineer.

12
13 **8-14.3 Construction Requirements**

14
15 Section 8-14.3 is supplemented with the following:

16
17 (April 3, 2017)

18 The Contractor shall request a pre-construction meeting with the Engineer to be held two to
19 five working days before any work can start on cement concrete sidewalks, curb ramps or
20 other pedestrian access routes to discuss construction requirements. Those attending shall
21 include:

- 22
23 1. The Contractor and Subcontractor in charge of constructing forms, and placing, and
24 finishing the cement concrete.
25
26 2. Engineer (or representative) and Project Inspectors for the cement concrete
27 sidewalk, curb ramp or pedestrian access route Work.

28
29 Items to be discussed in this meeting shall include, at a minimum, the following:

- 30
31 1. Slopes shown on the Plans.
32
33 2. Inspection
34
35 3. Traffic control
36
37 4. Pedestrian control, access routes and delineation
38
39 5. Accommodating utilities
40
41 6. Form work
42
43 7. Installation of detectable warning surfaces
44
45 8. Contractor ADA survey and ADA Feature as-built requirements
46
47 9. Cold Weather Protection
48

1 **(January 7, 2019)**

2 **Timing Restrictions**

3 Curb ramps shall be constructed on one leg of the intersection at a time. The curb ramps
4 shall be completed and open to traffic within five calendar days before construction can begin
5 on another leg of the intersection unless otherwise allowed by the Engineer.
6

7 Unless otherwise allowed by the Engineer, the five calendar day time restriction begins when
8 an existing curb ramp for the quadrant or traffic island/median is closed to pedestrian use
9 and ends when the quadrant or traffic island/median is fully functional and open for pedestrian
10 access.
11

12 **(January 7, 2019)**

13 **Layout and Conformance to Grades**

14 Using the information provided in the Contract documents, the Contractor shall lay out, grade,
15 and form each new curb ramp, sidewalk, and curb and gutter.
16

17 **8-20 Illumination, Traffic Signal Systems, Intelligent Transportation Systems, and**
18 **Electrical**

19
20 **8-20.1 Description**

21
22 **Permitting and Inspections**

23
24 Section 8-20.1(3) is supplemented with the following:
25

26 (*****)

27
28 Contractor shall obtain all necessary permits and schedule all required inspections
29 for the Illumination System. All costs for obtaining the permits, the permit fees,
30 service connection fees, and inspections are incidental to the work and shall be paid
31 by the Contractor.
32

33 **8-20.2 Materials**

34
35 Section 8-20.2 is supplemented with the following:
36

37 (*****)

38 Foam Conduit Sealant 9-29.1
39 Standard Duty Cable Vaults and Pull Boxes 9-29.2(2)
40

41 **8-21 Permanent Signing**

42
43 **8-21.2 Materials**

44
45 **Roadside Sign Structures**

46 Section 8-21.2 is supplemented with the following:
47

48 (*****)

49 Perforated Steel Square Sign Post System 9-06.16
50

1 **Division 9**
2 **Materials**

3
4 **9-02 Bituminous Materials**

5
6 **9-02.1 Asphalt Material, General**

7
8 (*****)

9
10 The second paragraph is revised to read:

11
12 The Asphalt Supplier of Performance Graded (PG) asphalt binder and emulsified asphalt
13 shall have a Quality Control Plan (QCP) in accordance with WSDOT QC 2 “Standard Practice
14 for Asphalt Suppliers That Certify Performance Graded and Emulsified Asphalts”. The
15 Asphalt Supplier’s QCP shall be submitted and receive the acceptance of the WSDOT State
16 Materials Laboratory. Once accepted, any change to the QCP will require a new QCP to be
17 submitted for acceptance. The Asphalt Supplier of PG asphalt binder and emulsified asphalt
18 shall certify through the Bill of Lading that the PG asphalt binder or emulsified asphalt meets
19 the Specification requirements of the Contract.

20
21 **9-02.1(4) Performance Graded Asphalt Binder (PGAB)**

22
23 (*****)

24
25 This section’s title is revised to read:

26
27 ***Performance Graded (PG) Asphalt Binder***

28
29 The first paragraph is revised to read:

30
31 PG asphalt binder meeting the requirements of AASHTO M 332 Table 1 of the grades
32 specified in the Contract shall be used in the production of HMA. For HMA with greater than
33 20 percent RAP by total weight of HMA, or any amount of RAS, the new asphalt binder,
34 recycling agent and recovered asphalt (RAP and/or RAS) when blended in the proportions
35 of the mix design shall meet the PG asphalt binder requirements of AASHTO M 332 Table 1
36 for the grade of asphalt binder specified by the Contract.

37
38 The second paragraph, including the table, is revised to read:

39
40 In addition to AASHTO M 332 Table 1 specification requirements, PG asphalt binders shall
41 meet the following requirements:

42

		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:	AASHTO T 350 ¹			30% Min.	20% Min.	25% Min.	30% Min.

Average Percent Recovery @ 3.2 kPa							
¹ Specimen conditioned in accordance with AASHTO T 240 – RTFO.							

The third paragraph is revised to read:

The RTFO $J_{nr\text{diff}}$ and the PAV direct tension specifications of AASHTO M 332 are not required.

This section is supplemented with the following:

If the asphalt binder verification sample test results fail to meet AASHTO Test Method T 350 “Standard Method of Test for Multiple Stress Creep Recovery (MSCR) Test of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)” for average percent recovery @ 3.2 kPa for the applicable grades of binder in accordance with Section 9-02.1(4), the Contracting Agency may elect to test the sample using AASHTO Test Method T 301 “Standard Method of Test for Elastic Recovery Test of Asphalt Materials by Means of a Ductilometer.”

When AASHTO T 301 is used, a minimum of 65% elastic recovery (ER) will be required when tested at $25^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$.

9-03 AGGREGATES

9-03.8 Aggregates for Hot Mix Asphalt

9-03.8(7) HMA Tolerances and Adjustments

(*****)

Delete item 1 and replace it with the following:

1. **Job Mix Formula Tolerances.** After the JMF is determined as required in 5-04.3(7)A, the constituents of the mixture at the time of acceptance shall conform to the following tolerances:

	Nonstatistical Evaluation	Commercial Evaluation
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%

1	VMA	1.5% below minimum value in 9-03.8(2)
2	VFA	min. and max. as listed in 9-03.8(2)
3	Va	2.5% minimum and 5.5% maximum

4
5
6 These tolerance limits constitute the allowable limits as described in Section 1-06.2. The
7 tolerance limit for aggregate shall not exceed the limits of the control points section, except
8 the tolerance limits for sieves designated as 100% passing will be 99-100.
9

10 **9-06 STRUCTURAL STEEL AND RELATED MATERIALS**

11
12 **9-06.16 Roadside Sign Structures**

13 Section 9-06.16 is supplemented with the following:
14

15 (January 3, 2011)

16 **Perforated Steel Square Sign Post System**

17 Where noted in the Plans, steel sign post systems shall be square, pre-punched
18 galvanized steel tubing, that are NCHRP 350 Test Level 3 Certified and FHWA
19 approved. The steel sign post system shall include all anchor sleeves, and other
20 hardware required for a complete sign installation.
21

22 System Acceptance

23 Systems listed in the current QPL will be accepted per the QPL approval code.

24 Systems not listed in the QPL will be accepted based on a Supplier's Certificate of
25 Compliance. The Supplier's Certificate of Compliance will be a contract specific letter
26 from the supplier stating the system is NCHRP 350 Test Level 3 compliant.
27

28 **9-14 EROSION CONTROL AND ROADSIDE PLANTING**

29
30 **FERTILIZER**

31
32 **9-14.3 Fertilizer**

33 **(*****)**

34 Section 9-14.3 is supplemented with the following:

35 Fertilizer shall be 1 pound nitrogen from ammonium sulfate, 0.5 pound water insoluble organic
36 nitrogen, 2 pounds of phosphorous, and 2 pounds of potassium per 1,000 square feet, or a 10-
37 20-20 turf fertilizer mix at 435 pounds per acre with 60 pounds of water insoluble organic nitrogen
38 per acre.
39

40 Fertilizer for Trees and Shrubs shall be granular, tablet, or spikes applied at a rate recommended
41 by the manufacturer for the size of the plant or as directed by the Engineer. Fertilizer shall be a
42 20-10-5 plant mix with 7% water soluble organic nitrogen and 13% water insoluble organic
43 nitrogen or as approved by the Engineer. All trees shall have an application of beneficial
44 mycorrhizal fungi applied at time of planting in accordance with the manufacturer's
45 recommendations. Mycorrhizal fungi shall be ROOTS' Transplant 1-Step by Verdicon, Inc. or
46 approved equal.
47

1 Fertilizer tablets for all plants shall be 20-10-5, 21 gram or 10 gram tablets distributed as follows:
2 All trees: 4-21 gram tablets, all shrubs (except 1 gallons): 3-21 gram tablets, all 1 gallons: 1-21
3 gram tablet, all 2-1/4" and 4" pot ground covers: 1-10 gram tablet each. Set tablets directly next
4 to rootball.

5
6

7 **TOPSOIL**

8 Section 9-14.1 is supplemented with the following:

9

10 **(*****)**

11 **Backfill Mix**

12 Backfill mix for all plants shall be a blend of 1/3 Topsoil Type A, 1/3 coarse sand, and 1/3 soil
13 amendment specified in 9-14.4.

14

15

9-14.1(1) Topsoil Type A

Section 9-14.1(1) is supplemented with the following:

(*****)

Topsoil Type A shall be composed of a three way winter mix consisting of:

2 parts	Soil
2 parts	Medium Compost
3 parts	Sand

Soil shall be classified as gravelly sand, well-graded sand, poorly graded sand, or silty sand.

Medium Compost shall be a weed free well decomposed, humus-like material derived from the decomposition of grass clippings, leaves, branches, wood, and other organic materials. Compost shall be produced at a permitted solid waste composting facility (Composts containing shavings, cedar sawdust, or straw will not be permitted).

Sand shall consist of 100 percent passing the 3/8 inch sieve, minimum 95 percent passing the #4 sieve, and maximum of 5 percent passing the #100 sieve.

Topsoil shall meet the following requirements:

Screen Size (approximate particle size)	5/8" maximum
Maturity measure (C:N ratio)	30:1
Total Nitrogen	0.5% minimum
PH range	5.5-8.0
Foreign matter by dry weight	1% maximum

The Contractor shall provide a sample of the topsoil and a laboratory analysis with recommendations from the laboratory for desired additives for the Engineers approval. The Contractor shall incorporate any additives recommended by the laboratory.

The Contractor shall submit a Particle Size Analysis as a Type 1 Working Drawing from an independent accredited soils testing laboratory indicating the Material source and compliance with all Topsoil Type A specifications. The laboratory analysis shall be with a sample size of no less than 2 pounds.

The Medium Compost shall conform to the requirements of Section 9-14.4(8).

1
2 **MULCH AND AMENDMENTS**
3

4 **9-14.4(3) Bark or Wood Chip Mulch**

5 The first paragraph of Section 9-14.4(3) is revised to read:
6

7 (*****)

8 Bark or wood chip mulch shall be composted fine grind Hemlock or Douglas Fir. It
9 shall not contain resin, tannin, or other compounds in quantities that would be
10 detrimental to plant life. Sawdust shall not be used as mulch. Mulch produced from
11 finished wood products or construction debris will not be allowed.
12
13

14 **9-29 ILLUMINATION, SIGNAL, ELECTRICAL**

15 **9-29.1 Conduit, Innerduct, and Outerduct**

16 Section 9-29.1 is supplemented with the following:
17

18 (*****)
19

20 Foam Conduit Sealant

21
22 (January 7, 2019)

23 The following products are accepted for use as foam conduit sealant:
24

- 25 • CRC Minimal Expansion Foam (No. 14077)
 - 26 • Polywater FST Foam Duct Sealant
 - 27 • Superior Industries Foam Seal
 - 28 • Todol Duo Fill 400
- 29

30 **9-29.2(2)A Standard Duty Cable Vaults and Pull Boxes**

31 Section 9-29.2(2)A is supplemented with the following:
32

33 (August 1, 2016)

34 Both the slip-resistant lid and slip-resistant frame shall be treated with Mebac#1
35 as manufactured by IKG industries, or SlipNOT Grade 3-coarse as
36 manufactured by

37 W.S. Molnar Co. Where the exposed portion of the frame is ½ inch wide or less
38 the slip-resistant treatment may be omitted on that portion of the frame. The
39 slip-resistant lid shall be identified with permanent marking on the underside
40 indicating the type of surface treatment (“M1” for Mebac#1; or “S3” for SlipNOT
41 Grade 3- coarse) and the year manufactured. The permanent marking shall be

42 1/8 inch line thickness formed with a mild steel weld bead.
43

1 **Appendices**
2 **(January 2, 2012)**

3 The following appendices are attached and made a part of this contract:

4
5 *** APPENDIX A:
6 Washington State Prevailing Wage Rate
7

8 APPENDIX B:
9 Bid Proposal Documents
10

11 APPENDIX C:
12 Contract Documents
13

14 APPENDIX D
15 Stormwater Pollution Prevention Plan
16

17 APPENDIX E
18 Geotechnical Report
19

20 APPENDIX F
21 Construction General Stormwater Permit
22

23 APPENDIX G:
24 Contract Plans – Bound Separately ***
25
26

1 **(January 7, 2019)**
2 **Standard Plans**

3 The State of Washington Standard Plans for Road, Bridge and Municipal Construction M21-01
4 transmitted under Publications Transmittal No. PT 16-048, effective August 6, 2018 is made a part
5 of this contract.
6

7 The Standard Plans are revised as follows:
8

9 A-40.10

10 Section View, PCCP to HMA Longitudinal Joint, callout, was – “Sawed Groove ~ Width 3/16”
11 (IN) MIN. to 5/16” (IN) MAX. ~ Depth 1” (IN) MIN. ~ see Std. Spec. 5-04.3(12)B” is revised to
12 read; “Sawed Groove ~ Width 3/16” (IN) MIN. to 5/16” (IN) MAX. ~ Depth 1” (IN) MIN. ~ see
13 Std. Spec. Section 5-04.3(12)A2”

14 Section View, Transverse Contraction Joint, dimension, was – “D/4” is revised to read: “D/3
15 to D/4”
16

17 A-50.10

18 Sheet 2 of 2, Plan, with Single Slope Barrier, reference C-14a is revised to C-70.10
19

20 A-50.20

21 Sheet 2 of 2, Plan, with Anchored Barrier, reference C-14a is revised to C-70.10
22

23 A-50.30

24 Sheet 2 of 2, Plan (top), reference C-14a is revised to C-70.1
25

26 B-10.60

27 DELETED
28

29 B-82.20

30 DELETED
31

32 B-90.40

33 Valve Detail - DELETED
34

35 C-2C

36 CASE 9A (typical of 2 callouts): The dimensions were “3'-0” MIN. ~ TO FACE OF
37 GUARDRAIL”. are now revised to read “5'-0” MIN ~ TO FACE OF GUARDRAIL”.
38

39 C-4b

40 DELETED
41

42 C-4e

43 DELETED
44

45 C-4f

46 Sheet 1, BULLNOSE GRADING PLAN: Slopes shall be not steeper than 10H:1V for the
47 bullnose guardrail system including slopes into the guardrail face to 1 foot behind the
48 guardrail post.
49

1 Sheet 2, POST 1R & 1L, 2R & 2L, 3R TO 8R and 3L TO 8L, 9R TO 12 R and 9L TO 12L
2 elevation view details: Slopes into the guardrail face to 1 foot behind the guardrail post shall
3 not be steeper than 10H:1V.
4

5 Sheet 3, SECTION B, callout – was: “THE NUT SHALL BE ASTM A563D STEEL, AND
6 GALVANIZED ACCORDING TO STANDARD SPEC. 9-16.3(3).” Is revised to read: “THE NUT
7 SHALL BE ASTM A307 STEEL, AND GALVANIZED ACCORDING TO STANDARD SPEC.
8 9-16.3(3).”
9

10 C-20.14

11 CASE 3-31: The dimension was “5’-0” MIN” from the back of guardrail to the center of railroad
12 signal support is now revised to “5’-0” MIN” from face of guardrail to the front edge of the
13 railroad signal support.
14

15 Note 3, was – “The slope from the edge of the shoulder into the face of the guardrail cannot
16 exceed 10H : 1V when the face of the guardrail is less than 12’ – 0” from the edge of the
17 shoulder.” is revised to read: “The slope from the edge of the shoulder into the face of the
18 guardrail cannot be steeper than 10H : 1V when the face of the guardrail is less than 12’ – 0”
19 from the edge of the shoulder. The slope from the edge of the shoulder into the face of the
20 guardrail cannot be steeper than 6H : 1V when the guardrail is 12’ – 0” or more from the edge
21 of the shoulder.”
22

23 C-20.18

24 ALL CASES: The dimensions were “3’-0” MIN” from the face of guardrail to the front edge of
25 the fixed feature are now revised to “5’-0” MIN” from the face of guardrail to the front edge of
26 the fixed feature.
27

28 Note 1, was – “The slope from the edge of the shoulder into the face of the guardrail should
29 not exceed 10H : 1V when the guardrail is within 12’ – 0” from the edge of the shoulder.” Is
30 revised to read: “The slope from the edge of the shoulder into the face of the guardrail should
31 not be steeper than 10H : 1V when the guardrail is less than 12’ – 0” from the edge of the
32 shoulder. The slope from the edge of the shoulder into the face of the guardrail should not
33 be steeper than 6H : 1V when the guardrail is 12’ – 0” or more from the edge of shoulder.”
34

35 C-22.14

36 DELETED
37

38 C-22.16

39 Note 3, formula, was: “Elevation G = (Elevation S – D x (0.1) + 31” is revised to read:
40 “Elevation G = (Elevation S – D x (0.1) + 31/12”
41

42 C-22.40

43 PLAN VIEW, MSKT-SP-MGS (TL-3) SHOWN: The dimension was “4’-0” MIN” from the face
44 of the terminal to the edge of the widened embankment is now revised to “4’-0” MIN” from
45 the back of the terminal post to the edge of the widened embankment.
46

47 Elevation View, MSKT-SP-MGS (TL-3), dimension, MSKT-SP-MGS (TL-3) SYSTEM
48 LENGTH = 50’ – 0” , dimension is revised to read: 46’ – 10 1/2”
49

50 Elevation View, SOFTSTOP (TL-3), dimension, SOFTSTOP (TL-3) SYSTEM
51 LENGTH = 50’ – 9 1/2” , dimension is revised to read: 50’ – 10 1/2”

1
2 Note 6, was – "...a maximum taper of 25.4 : 1 or flatter is allowed over the system length of
3 50' – 9 1/2" with a maximum..." is revised to read: "...a maximum taper of 25.44 : 1 or flatter
4 is allowed over the system length of 50' – 10 1/2" with a maximum..."

5
6 C-22.45

7 PLAN VIEW, MSKT-SP-MGS (TL-2) SHOWN: The dimension was "4'-0" MIN" from the face
8 of the terminal to the edge of the widened embankment is now revised to "4'-0" MIN" from
9 the back of the terminal post to the edge of the widened embankment.

10
11
12 Elevation View, MSKT-SP-MGS (TL-2), dimension, MSKT-SP-MGS (TL-2) SYSTEM
13 LENGTH = 25' – 0", dimension is revised to read 34' – 4 1/2"

14
15 Elevation View, SOFTSTOP (TL-2), dimension, SOFTSTOP (TL-2) SYSTEM
16 LENGTH = 38' – 3 1/2", dimension is revised to read 38' – 4 1/2"

17
18 Note 6, was – "...flare of 38.29 : 1 or flatter is allowed over the system length of 38' – 3 1/2"
19 with a maximum..." is revised to read: "...flare of 38.38 : 1 or flatter is allowed over the system
20 length of 38' – 4 1/2" with a maximum..."

21
22 C-25.26

23 Elevation View, TYPE 23: The guardrail height dimension was 2'-8" from the top of the thrie
24 beam to the top of the bridge curb is now revised to 2'-8" from the top of the thrie beam to
25 the top of the ground line.

26
27 C-25.80

28 Plan View, callout, was – "12" (IN) BLOCKOUT" is revised to read; "12" (IN) or 8" (IN)
29 BLOCKOUT (12" (IN) SHOWN)"

30 Elevation View, add labels to posts (below view); beginning at left side of view – Label Posts
31 as follows; POST 1, POST 2 through POST 6".

32 General Notes, add Note 6. Note reads as follows; "6. Post 1 shall use an 8 inch blockout,
33 and posts 2 through post 6 shall use 12 inch or 8 inch blockouts."

34
35 C-40.14

36 DELETED

37
38 C-90.10

39 DELETED

40
41 D-10.10

42 Wall Type 1 may be used if no traffic barrier is attached on top of the wall. Walls with traffic
43 barriers attached on top of the wall are considered non-standard and shall be designed in
44 accordance with the current WSDOT Bridge Design Manual (BDM) and the revisions stated
45 in the 11/3/15 Bridge Design memorandum.

46
47 D-10.15

48 Wall Type 2 may be used if no traffic barrier is attached on top of the wall. Walls with traffic
49 barriers attached on top of the wall are considered non-standard and shall be designed in
50 accordance with the current WSDOT BDM and the revisions stated in the 11/3/15 Bridge
51 Design memorandum.

1
2 D-10.20
3 Wall Type 3 may be used in all cases. The last sentence of Note 6 on Wall Type 3 shall be
4 revised to read: The seismic design of these walls has been completed using a site adjusted
5 (effective) peak ground acceleration of 0.32g.
6

7 D-10.25
8 Wall Type 4 may be used in all cases. The last sentence of Note 6 on Wall Type 4 shall be
9 revised to read: The seismic design of these walls has been completed using a site adjusted
10 (effective) peak ground acceleration of 0.32g.
11

12 D-10.30
13 Wall Type 5 may be used in all cases.
14

15 D-10.35
16 Wall Type 6 may be used in all cases.
17

18 D-10.40
19 Wall Type 7 may be used if no traffic barrier is attached on top of the wall. Walls with traffic
20 barriers attached on top of the wall are considered non-standard and shall be designed in
21 accordance with the current WSDOT BDM and the revisions stated in the 11/3/15 Bridge
22 Design memorandum.
23

24 D-10.45
25 Wall Type 8 may be used if no traffic barrier is attached on top of the wall. Walls with traffic
26 barriers attached on top of the wall are considered non-standard and shall be designed in
27 accordance with the current WSDOT BDM and the revisions stated in the revisions stated in
28 the 11/3/15 Bridge Design memorandum.
29

30 D-15.10
31 STD Plans D-15 series "Traffic Barrier Details for Reinforced Concrete Retaining Walls" are
32 withdrawn. Special designs in accordance with the current WSDOT BDM are required in
33 place of these STD Plans.
34

35 D-15.20
36 STD Plans D-15 series "Traffic Barrier Details for Reinforced Concrete Retaining Walls" are
37 withdrawn. Special designs in accordance with the current WSDOT BDM are required in
38 place of these STD Plans.
39

40 D-15.30
41 STD Plans D-15 series "Traffic Barrier Details for Reinforced Concrete Retaining Walls" are
42 withdrawn. Special designs in accordance with the current WSDOT BDM are required in
43 place of these STD Plans.
44

45 F-10.12
46 Section Title, was – "Depressed Curb Section" is revised to read: "Depressed Curb and
47 Gutter Section"
48

49 F-10.40
50 "EXTRUDED CURB AT CUT SLOPE", Section detail - Deleted
51

1 F-10.42

2 DELETE – “Extruded Curb at Cut Slope” View

3
4 H-70.20

5 Sheet 2, Spacing Detail, Mailbox Support Type 1, reference to Standard Plan I-70.10 is
6 revised to H-70.10

7
8 I-30.30

9 8” Diameter Wattle Spacing Table, lower left corner, was –“Slope:1H : 1V, Maximum
10 Spacing:10’ – 0”” is revised to read: “Slope:1H : 1V, Maximum Spacing:8’ – 0””.

11
12 J-10.21

13 Note 18, was – “When service cabinet is installed within right of way fence, see Standard
14 Plan J-10.22 for details.” Is revised to read; “When service cabinet is installed within right of
15 way fence, or the meter base is mounted on the exterior of the cabinet, see Standard Plan
16 J-10.22 for details.”

17
18 J-10.22

19 Key Note 1, was – “Meter base per serving utility requirements~ as a minimum, the meter
20 base shall be safety socket box with factory-installed test bypass facility that meets the
21 requirements of EUSERC drawing 305.” Is revised to read; “Meter base per serving utility
22 requirements~ as a minimum, the meter base shall be safety socket box with factory-installed
23 test bypass facility that meets the requirements of EUSERC drawing 305. When the utility
24 requires meter base to be mounted on the side or back of the service cabinet, the meter base
25 enclosure shall be fabricated from type 304 stainless steel.”

26 Key Note 4, “Test with (SPDT Snap Action, Positive close 15 Amp – 120/277 volt “T” rated).
27 Is revised to read: “Test Switch (SPDT snap action, positive close 15 amp – 120/277 volt “T”
28 rated).”

29 Key Note 14, was – “Hinged dead front with ¼ turn fasteners or slide latch.” Is revised to
30 read; “Hinged dead front with ¼ turn fasteners or slide latch. ~ Dead front panel bolts shall
31 not extend into the vertical limits of the breaker array(s).”

32 Key Note 15, was – “Cabinet Main Bonding Jumper. Buss shall be 4 lug tinned copper. See
33 Cabinet Main bonding Jumper detail, Standard Plan J-3b.” is revised to read; “Cabinet Main
34 Bonding Jumper Assembly ~ Buss shall be 4 lug tinned copper ~ See Standard Plan J-10.20
35 for Cabinet Main Bonding Jumper Assembly details.”

36 Note 1, was – “...socket box mounting detail, see Standard Plan J-3b.” is revised to read to
37 read: “...socket box mounting detail, see Standard Plan J-10.20.”

38 Note 6, was – “...See door hinge detail, Standard Plan J-3b.” is revised to read: “...See door
39 hinge detail, Standard Plan J-10.20.”

40
41 J-20.10

42 Add Note 5, “5. One accessible pedestrian signal assembly per pedestrian pushbutton post.”

43
44 J-20.11

45 Sheet 2, Foundation Detail, Elevation, callout – “Type 1 Signal Pole” is revised to read: “Type
46 PS or Type 1 Signal Pole”

47 Sheet 2, Foundation Detail, Elevation, add note below Title, “(Type 1 Signal Pole Shown)”

48 Add Note 6, “6. One accessible pedestrian signal assembly per pedestrian pushbutton post.”

49
50 J-20.26

1 Add Note 1, "1. One accessible pedestrian pushbutton station per pedestrian pushbutton
2 post."

3
4 J-20.16

5 View A, callout, was – LOCK NIPPLE, is revised to read; CHASE NIPPLE
6

7 J-21.10

8 Sheet 1, Elevation View, Round Concrete Foundation Detail, callout – "ANCHOR BOLTS ~
9 3/4" (IN) x 30" (IN) FULL THREAD ~ THREE REQ'D. PER ASSEMBLY" IS REVISED TO
10 READ: "ANCHOR BOLTS ~ 3/4" (IN) x 30" (IN) FULL THREAD ~ FOUR REQ'D. PER
11 ASSEMBLY"

12 Sheet 1 of 2, Elevation view (Round), add dimension depicting the distance from the top of
13 the foundation to find 2 #4 reinforcing bar shown, to read; 3" CLR.. Delete "(TYP.)" from the
14 2 1/2" CLR. dimension, depicting the distance from the bottom of the foundation to find 2 # 4
15 reinf. Bar.

16 Sheet 1 of 2, Elevation view (Square), add dimension depicting the distance from the top of
17 the foundation to find 1 #4 reinforcing bar shown, to read; 3" CLR. Delete "(TYP.)" from the 2
18 1/2" CLR. dimension, depicting the distance from the bottom of the foundation to find 1 # 4
19 reinf. Bar.

20 Sheet 2 of 2, Elevation view (Round), add dimension depicting the distance from the top of
21 the foundation to find 2 #4 reinforcing bar shown, to read; 3" CLR. Delete "(TYP.)" from the 2
22 1/2" CLR. dimension, depicting the distance from the bottom of the foundation to find 2 # 4
23 reinf. Bar.

24 Sheet 2 of 2, Elevation view (Square), add dimension depicting the distance from the top of
25 the foundation to find 1 #4 reinforcing bar shown, to read; 3" CLR. Delete "(TYP.)" from the 2
26 1/2" CLR. dimension, depicting the distance from the bottom of the foundation to find 1 # 4
27 reinf. Bar.

28 Detail F, callout, "Heavy Hex Clamping Bolt (TYP.) ~ 3/4" (IN) Diam. Torque Clamping Bolts
29 (see Note 3)" is revised to read; "Heavy Hex Clamping Bolt (TYP.) ~ 3/4" (IN) Diam. Torque
30 Clamping Bolts (see Note 1)"

31 Detail F, callout, "3/4" (IN) x 2' – 6" Anchor Bolt (TYP.) ~ Four Required (See Note 4)" is
32 revised to read; "3/4" (IN) x 2' – 6" Anchor Bolt (TYP.) ~ Three Required (See Note 2)"
33

34 J-21.15

35 Partial View, callout, was – LOCK NIPPLE ~ 1 1/2" DIAM., is revised to read; CHASE NIPPLE
36 ~ 1 1/2" (IN) DIAM.
37

38 J-21.16

39 Detail A, callout, was – LOCKNIPPLE, is revised to read; CHASE NIPPLE
40

41 J-22.15

42 Ramp Meter Signal Standard, elevation, dimension 4' - 6" is revised to read; 6'-0"
43 (2x) Detail A, callout, was – LOCK NIPPLE ~ 1 1/2" DIAM. is revised to read; CHASE NIPPLE
44 ~ 1 1/2" (IN) DIAM.
45

46 J-40.10

47 Sheet 2 of 2, Detail F, callout, "12 – 13 x 1 1/2" S.S. PENTA HEAD BOLT AND 12" S. S. FLAT
48 WASHER" is revised to read; "12 – 13 x 1 1/2" S.S. PENTA HEAD BOLT AND 1/2" (IN) S. S.
49 FLAT WASHER"
50

51 J-60.14

1 All references to J-16b (6x) are revised to read; J-60.11

2
3 K-80.30

4 In the NARROW BASE, END view, the reference to Std. Plan C-8e is revised to Std. Plan K-
5 80.35

6 Plan Title, was "ALTERNATIVE TEMPORARY CONC. BARRIER (F-SHAPE)" is revised to
7 read: "CONCRETE BARRIER TYPE F"

8
9 The following are the Standard Plan numbers applicable at the time this project was
10 advertised. The date shown with each plan number is the publication approval date shown
11 in the lower right-hand corner of that plan. Standard Plans showing different dates shall not
12 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	

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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	

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E-1.....2/21/07	E-4.....8/27/03
E-2.....5/29/98	E-4a.....8/27/03

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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	

4

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	

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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

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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

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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
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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
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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
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L-30.10-02.....6/11/14 L-40.20-02.....6/21/12

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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
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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
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Appendix A

Washington State Prevailing Wage Rate

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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: 4/9/2019

<u>County</u>	<u>Trade</u>	<u>Job Classification</u>	<u>Wage</u>	<u>Holiday</u>	<u>Overtime</u>	<u>Note</u>
Lewis	Asbestos Abatement Workers	Journey Level	\$46.57	<u>5D</u>	<u>1H</u>	
Lewis	Boilermakers	Journey Level	\$66.54	<u>5N</u>	<u>1C</u>	
Lewis	Brick Mason	Journey Level	\$57.32	<u>5A</u>	<u>1M</u>	
Lewis	Brick Mason	Pointer-Caulker-Cleaner	\$57.32	<u>5A</u>	<u>1M</u>	
Lewis	Building Service Employees	Janitor	\$12.00		<u>1</u>	
Lewis	Building Service Employees	Shampooer	\$12.00		<u>1</u>	
Lewis	Building Service Employees	Waxer	\$12.00		<u>1</u>	
Lewis	Building Service Employees	Window Cleaner	\$13.22		<u>1</u>	
Lewis	Cabinet Makers (In Shop)	Journey Level	\$23.17		<u>1</u>	
Lewis	Carpenters	Acoustical Worker	\$60.04	<u>5D</u>	<u>4C</u>	
Lewis	Carpenters	Bridge, Dock And Wharf Carpenters	\$60.04	<u>5D</u>	<u>4C</u>	
Lewis	Carpenters	Carpenter	\$60.04	<u>5D</u>	<u>4C</u>	
Lewis	Carpenters	Carpenters on Stationary Tools	\$60.17	<u>5D</u>	<u>4C</u>	
Lewis	Carpenters	Creosoted Material	\$60.14	<u>5D</u>	<u>4C</u>	
Lewis	Carpenters	Floor Finisher	\$60.04	<u>5D</u>	<u>4C</u>	
Lewis	Carpenters	Floor Layer	\$60.04	<u>5D</u>	<u>4C</u>	
Lewis	Carpenters	Scaffold Erector	\$60.04	<u>5D</u>	<u>4C</u>	
Lewis	Cement Masons	Journey Level	\$60.07	<u>7A</u>	<u>4U</u>	
Lewis	Divers & Tenders	Bell/Vehicle or Submersible Operator (Not Under Pressure)	\$113.60	<u>5D</u>	<u>4C</u>	
Lewis	Divers & Tenders	Dive Supervisor/Master	\$76.33	<u>5D</u>	<u>4C</u>	
Lewis	Divers & Tenders	Diver	\$113.60	<u>5D</u>	<u>4C</u>	<u>8V</u>
Lewis	Divers & Tenders	Diver On Standby	\$71.33	<u>5D</u>	<u>4C</u>	
Lewis	Divers & Tenders	Diver Tender	\$64.71	<u>5D</u>	<u>4C</u>	
Lewis	Divers & Tenders	Manifold Operator	\$64.71	<u>5D</u>	<u>4C</u>	
Lewis	Divers & Tenders	Manifold Operator Mixed Gas	\$69.71	<u>5D</u>	<u>4C</u>	
Lewis	Divers & Tenders	Remote Operated Vehicle Operator/Technician	\$64.71	<u>5D</u>	<u>4C</u>	
Lewis	Divers & Tenders	Remote Operated Vehicle Tender	\$60.29	<u>5A</u>	<u>4C</u>	
Lewis	Dredge Workers	Assistant Engineer	\$56.44	<u>5D</u>	<u>3F</u>	
Lewis	Dredge Workers	Assistant Mate (Deckhand)	\$56.00	<u>5D</u>	<u>3F</u>	

Lewis	Dredge Workers	Boatmen	\$56.44	<u>5D</u>	<u>3F</u>	
Lewis	Dredge Workers	Engineer Welder	\$57.51	<u>5D</u>	<u>3F</u>	
Lewis	Dredge Workers	Leverman, Hydraulic	\$58.67	<u>5D</u>	<u>3F</u>	
Lewis	Dredge Workers	Mates	\$56.44	<u>5D</u>	<u>3F</u>	
Lewis	Dredge Workers	Oiler	\$56.00	<u>5D</u>	<u>3F</u>	
Lewis	Drywall Applicator	Journey Level	\$58.48	<u>5D</u>	<u>1H</u>	
Lewis	Drywall Tapers	Journey Level	\$59.32	<u>5P</u>	<u>1E</u>	
Lewis	Electrical Fixture Maintenance Workers	Journey Level	\$12.00		<u>1</u>	
Lewis	Electricians - Inside	Cable Splicer	\$71.81	<u>5C</u>	<u>1G</u>	
Lewis	Electricians - Inside	Journey Level	\$67.31	<u>5C</u>	<u>1G</u>	
Lewis	Electricians - Inside	Lead Covered Cable Splicer	\$76.31	<u>5C</u>	<u>1G</u>	
Lewis	Electricians - Inside	Welder	\$71.81	<u>5C</u>	<u>1G</u>	
Lewis	Electricians - Motor Shop	Craftsman	\$15.37		<u>1</u>	
Lewis	Electricians - Motor Shop	Journey Level	\$14.69		<u>1</u>	
Lewis	Electricians - Powerline Construction	Cable Splicer	\$79.60	<u>5A</u>	<u>4D</u>	
Lewis	Electricians - Powerline Construction	Certified Line Welder	\$72.98	<u>5A</u>	<u>4D</u>	
Lewis	Electricians - Powerline Construction	Groundperson	\$47.94	<u>5A</u>	<u>4D</u>	
Lewis	Electricians - Powerline Construction	Heavy Line Equipment Operator	\$72.98	<u>5A</u>	<u>4D</u>	
Lewis	Electricians - Powerline Construction	Journey Level Lineperson	\$72.98	<u>5A</u>	<u>4D</u>	
Lewis	Electricians - Powerline Construction	Line Equipment Operator	\$62.06	<u>5A</u>	<u>4D</u>	
Lewis	Electricians - Powerline Construction	Meter Installer	\$47.94	<u>5A</u>	<u>4D</u>	<u>8W</u>
Lewis	Electricians - Powerline Construction	Pole Sprayer	\$72.98	<u>5A</u>	<u>4D</u>	
Lewis	Electricians - Powerline Construction	Powderperson	\$54.55	<u>5A</u>	<u>4D</u>	
Lewis	Electronic Technicians	Journey Level	\$43.19	<u>6Z</u>	<u>1B</u>	
Lewis	Elevator Constructors	Mechanic	\$94.22	<u>7D</u>	<u>4A</u>	
Lewis	Elevator Constructors	Mechanic In Charge	\$101.73	<u>7D</u>	<u>4A</u>	
Lewis	Fabricated Precast Concrete Products	Journey Level	\$13.50		<u>1</u>	
Lewis	Fabricated Precast Concrete Products	Journey Level - In-Factory Work Only	\$13.50		<u>1</u>	
Lewis	Fence Erectors	Fence Erector	\$41.45	<u>7A</u>	<u>3I</u>	
Lewis	Fence Erectors	Fence Laborer	\$41.45	<u>7A</u>	<u>3I</u>	
Lewis	Flaggers	Journey Level	\$41.45	<u>7A</u>	<u>3I</u>	
Lewis	Glaziers	Journey Level	\$64.56	<u>7L</u>	<u>1Y</u>	
Lewis	Heat & Frost Insulators And Asbestos Workers	Journeyman	\$73.58	<u>5J</u>	<u>4H</u>	
Lewis	Heating Equipment Mechanics	Journey Level	\$82.51	<u>7F</u>	<u>1E</u>	
Lewis	Hod Carriers & Mason Tenders	Journey Level	\$50.42	<u>7A</u>	<u>3I</u>	
Lewis	Industrial Power Vacuum Cleaner	Journey Level	\$12.00		<u>1</u>	

Lewis	Inland Boatmen	Boat Operator	\$61.41	<u>5B</u>	<u>1K</u>	
Lewis	Inland Boatmen	Cook	\$56.48	<u>5B</u>	<u>1K</u>	
Lewis	Inland Boatmen	Deckhand	\$57.48	<u>5B</u>	<u>1K</u>	
Lewis	Inland Boatmen	Deckhand Engineer	\$58.81	<u>5B</u>	<u>1K</u>	
Lewis	Inland Boatmen	Launch Operator	\$58.89	<u>5B</u>	<u>1K</u>	
Lewis	Inland Boatmen	Mate	\$57.31	<u>5B</u>	<u>1K</u>	
Lewis	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Cleaner Operator, Foamer Operator	\$12.00		<u>1</u>	
Lewis	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Grout Truck Operator	\$12.00		<u>1</u>	
Lewis	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Head Operator	\$12.78		<u>1</u>	
Lewis	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Technician	\$12.00		<u>1</u>	
Lewis	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Tv Truck Operator	\$12.00		<u>1</u>	
Lewis	Insulation Applicators	Journey Level	\$60.04	<u>5D</u>	<u>4C</u>	
Lewis	Ironworkers	Journeyman	\$69.28	<u>7N</u>	<u>1O</u>	
Lewis	Laborers	Air, Gas Or Electric Vibrating Screed	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Airtrac Drill Operator	\$50.42	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Ballast Regular Machine	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Batch Weighman	\$41.45	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Brick Pavers	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Brush Cutter	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Brush Hog Feeder	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Burner	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Caisson Worker	\$50.42	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Carpenter Tender	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Caulker	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Cement Dumper-paving	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Cement Finisher Tender	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Change House Or Dry Shack	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Chipping Gun (under 30 Lbs.)	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Chipping Gun(30 Lbs. And Over)	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Choker Setter	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Chuck Tender	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Clary Power Spreader	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Clean-up Laborer	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Concrete Dumper/chute Operator	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Concrete Form Stripper	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Concrete Placement Crew	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Concrete Saw Operator/core Driller	\$49.81	<u>7A</u>	<u>3I</u>	

Lewis	Laborers	Crusher Feeder	\$41.45	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Curing Laborer	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Demolition: Wrecking & Moving (incl. Charred Material)	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Ditch Digger	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Diver	\$50.42	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Drill Operator (hydraulic,diamond)	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Dry Stack Walls	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Dump Person	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Epoxy Technician	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Erosion Control Worker	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Faller & Bucker Chain Saw	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Fine Graders	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Firewatch	\$41.45	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Form Setter	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Gabian Basket Builders	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	General Laborer	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Grade Checker & Transit Person	\$50.42	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Grinders	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Grout Machine Tender	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Groutmen (pressure)including Post Tension Beams	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Guardrail Erector	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Hazardous Waste Worker (level A)	\$50.42	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Hazardous Waste Worker (level B)	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Hazardous Waste Worker (level C)	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	High Scaler	\$50.42	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Jackhammer	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Laserbeam Operator	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Maintenance Person	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Manhole Builder-mudman	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Material Yard Person	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Motorman-dinky Locomotive	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Nozzleman (concrete Pump, Green Cutter When Using Combination Of High Pressure Air & Water On Concrete & Rock, Sandblast, Gunite, Shotcrete, Water Bla	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Pavement Breaker	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Pilot Car	\$41.45	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Pipe Layer Lead	\$50.42	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Pipe Layer/tailor	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Pipe Pot Tender	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Pipe Reliner	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Pipe Wrapper	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Pot Tender	\$48.90	<u>7A</u>	<u>3I</u>	

Lewis	Laborers	Powderman	\$50.42	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Powderman's Helper	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Power Jacks	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Railroad Spike Puller - Power	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Raker - Asphalt	\$50.42	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Re-timberman	\$50.42	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Remote Equipment Operator	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Rigger/signal Person	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Rip Rap Person	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Rivet Buster	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Rodder	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Scaffold Erector	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Scale Person	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Sloper (over 20")	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Sloper Sprayer	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Spreader (concrete)	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Stake Hopper	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Stock Piler	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Tamper & Similar Electric, Air & Gas Operated Tools	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Tamper (multiple & Self-propelled)	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Timber Person - Sewer (lagger, Shorer & Cribber)	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Toolroom Person (at Jobsite)	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Topper	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Track Laborer	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Track Liner (power)	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Traffic Control Laborer	\$44.33	<u>7A</u>	<u>3I</u>	<u>8R</u>
Lewis	Laborers	Traffic Control Supervisor	\$44.33	<u>7A</u>	<u>3I</u>	<u>8R</u>
Lewis	Laborers	Truck Spotter	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Tugger Operator	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Tunnel Work-Compressed Air Worker 0-30 psi	\$107.60	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Lewis	Laborers	Tunnel Work-Compressed Air Worker 30.01-44.00 psi	\$112.63	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Lewis	Laborers	Tunnel Work-Compressed Air Worker 44.01-54.00 psi	\$116.31	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Lewis	Laborers	Tunnel Work-Compressed Air Worker 54.01-60.00 psi	\$122.01	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Lewis	Laborers	Tunnel Work-Compressed Air Worker 60.01-64.00 psi	\$124.13	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Lewis	Laborers	Tunnel Work-Compressed Air Worker 64.01-68.00 psi	\$129.23	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Lewis	Laborers	Tunnel Work-Compressed Air Worker 68.01-70.00 psi	\$131.13	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Lewis	Laborers	Tunnel Work-Compressed Air Worker 70.01-72.00 psi	\$133.13	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Lewis	Laborers	Tunnel Work-Compressed Air	\$135.13	<u>7A</u>	<u>3I</u>	<u>8Q</u>

		Worker 72.01-74.00 psi				
Lewis	Laborers	Tunnel Work-Guage and Lock Tender	\$50.52	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Lewis	Laborers	Tunnel Work-Miner	\$50.52	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Lewis	Laborers	Vibrator	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Vinyl Seamer	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Watchman	\$37.67	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Welder	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Well Point Laborer	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Laborers	Window Washer/cleaner	\$37.67	<u>7A</u>	<u>3I</u>	
Lewis	Laborers - Underground Sewer & Water	General Laborer & Topman	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Laborers - Underground Sewer & Water	Pipe Layer	\$49.81	<u>7A</u>	<u>3I</u>	
Lewis	Landscape Construction	Landscape Laborer	\$37.67	<u>7A</u>	<u>3I</u>	
Lewis	Landscape Construction	Landscape Operator	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Landscape Maintenance	Groundskeeper	\$12.00		<u>1</u>	
Lewis	Lathers	Journey Level	\$58.48	<u>5D</u>	<u>1H</u>	
Lewis	Marble Setters	Journey Level	\$57.32	<u>5A</u>	<u>1M</u>	
Lewis	Metal Fabrication (In Shop)	Fitter	\$15.16		<u>1</u>	
Lewis	Metal Fabrication (In Shop)	Laborer	\$12.00		<u>1</u>	
Lewis	Metal Fabrication (In Shop)	Machine Operator	\$12.00		<u>1</u>	
Lewis	Metal Fabrication (In Shop)	Painter	\$12.00		<u>1</u>	
Lewis	Metal Fabrication (In Shop)	Welder	\$15.16		<u>1</u>	
Lewis	Millwright	Journey Level	\$61.54	<u>5D</u>	<u>4C</u>	
Lewis	Modular Buildings	Cabinet Assembly	\$12.00		<u>1</u>	
Lewis	Modular Buildings	Electrician	\$12.00		<u>1</u>	
Lewis	Modular Buildings	Equipment Maintenance	\$12.00		<u>1</u>	
Lewis	Modular Buildings	Plumber	\$12.00		<u>1</u>	
Lewis	Modular Buildings	Production Worker	\$12.00		<u>1</u>	
Lewis	Modular Buildings	Tool Maintenance	\$12.00		<u>1</u>	
Lewis	Modular Buildings	Utility Person	\$12.00		<u>1</u>	
Lewis	Modular Buildings	Welder	\$12.00		<u>1</u>	
Lewis	Painters	Journey Level	\$42.50	<u>6Z</u>	<u>2B</u>	
Lewis	Pile Driver	Crew Tender/Technician	\$64.71	<u>5D</u>	<u>4C</u>	
Lewis	Pile Driver	Hyperbaric Worker - Compressed Air Worker 0-30.00 PSI	\$74.87	<u>5D</u>	<u>4C</u>	
Lewis	Pile Driver	Hyperbaric Worker - Compressed Air Worker 30.01 - 44.00 PSI	\$79.87	<u>5D</u>	<u>4C</u>	
Lewis	Pile Driver	Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI	\$83.87	<u>5D</u>	<u>4C</u>	
Lewis	Pile Driver	Hyperbaric Worker - Compressed Air Worker 54.01 - 60.00 PSI	\$88.87	<u>5D</u>	<u>4C</u>	
Lewis	Pile Driver	Hyperbaric Worker - Compressed Air Worker 60.01 - 64.00 PSI	\$91.37	<u>5D</u>	<u>4C</u>	
Lewis	Pile Driver	Hyperbaric Worker - Compressed Air Worker 64.01 - 68.00 PSI	\$96.37	<u>5D</u>	<u>4C</u>	
Lewis	Pile Driver	Hyperbaric Worker - Compressed Air Worker 68.01 - 70.00 PSI	\$98.37	<u>5D</u>	<u>4C</u>	

Lewis	Pile Driver	Hyperbaric Worker - Compressed Air Worker 70.01 - 72.00 PSI	\$100.37	<u>5D</u>	<u>4C</u>	
Lewis	Pile Driver	Hyperbaric Worker - Compressed Air Worker 72.01 - 74.00 PSI	\$102.37	<u>5D</u>	<u>4C</u>	
Lewis	Pile Driver	Journey Level	\$60.29	<u>5D</u>	<u>4C</u>	
Lewis	Pile Driver	Manifold Operator (LST)	\$69.71	<u>5D</u>	<u>4C</u>	
Lewis	Plasterers	Journey Level	\$56.54	<u>7Q</u>	<u>1R</u>	
Lewis	Playground & Park Equipment Installers	Journey Level	\$12.00		<u>1</u>	
Lewis	Plumbers & Pipefitters	Journey Level	\$71.42	<u>5A</u>	<u>1G</u>	
Lewis	Power Equipment Operators	Asphalt Plant Operator	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Assistant Engineers	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Barrier Machine (zipper)	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Batch Plant Operator: Concrete	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Bobcat	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Brokk - Remote Demolition Equipment	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Brooms	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Bump Cutter	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Cableways	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Chipper	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Compressor	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Over 42m	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Concrete Finish Machine -laser Screed	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Conveyors	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Cranes, 100 Tons - 199 Tons, Or 150 Ft Of Boom (including Jib With Attachments)	\$64.41	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Cranes: 20 Tons Through 44 Tons With Attachments	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Cranes: 200 tons to 299 tons, or 250' of boom (including jib with attachments)	\$65.06	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Cranes: 300 tons and over, or 300' of boom (including jib with attachments)	\$65.70	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom (including Jib With Attachments)	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Cranes: A-frame - 10 Tons And Under	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Cranes: Friction 200 tons and over. Tower Cranes: over 250' in height from base to boom.	\$65.70	<u>7A</u>	<u>3K</u>	<u>8X</u>

Lewis	Power Equipment Operators	Cranes: Friction cranes through 199 tons	\$65.06	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Cranes: Through 19 Tons With Attachments A-frame Over 10 Tons	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Crusher	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Deck Engineer/deck Winches (power)	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Derricks, On Building Work	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Dozers D-9 & Under	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Drill Oilers: Auger Type, Truck Or Crane Mount	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Drilling Machine	\$64.41	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Elevator And Man-lift: Permanent And Shaft Type	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Forklift: 3000 Lbs And Over With Attachments	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Forklifts: Under 3000 Lbs. With Attachments	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Grade Engineer: Using Blueprints, Cut Sheets, etc.	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Gradechecker/stakeman	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Guardrail punch/Auger	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Horizontal/directional Drill Locator	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Horizontal/directional Drill Operator	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Hydralifts/Boom Trucks Over 10 Tons	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Hydralifts/boom Trucks, 10 Tons And Under	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Loader, Overhead 8 Yards. & Over	\$64.41	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Loaders, Overhead Under 6 Yards	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Loaders, Plant Feed	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Loaders: Elevating Type Belt	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Locomotives, All	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Material Transfer Device	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Mechanics, All (Leadmen - \$0.50 Per Hour Over Mechanic)	\$64.41	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Motor patrol graders	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Mucking Machine, Mole, Tunnel	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>

		Drill, Boring, Road Header And/or Shield				
Lewis	Power Equipment Operators	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Outside Hoists (elevators And Manlifts), Air Tuggers, strato	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Overhead, Bridge Type Crane: 20 Tons Through 44 Tons	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Overhead, Bridge Type: 100 Tons And Over	\$64.41	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Overhead, Bridge Type: 45 Tons Through 99 Tons	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Pavement Breaker	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Pile Driver (other Than Crane Mount)	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Plant Oiler - Asphalt, Crusher	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Posthole Digger, Mechanical	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Power Plant	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Pumps - Water	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Quad 9, HD 41, D10 And Over	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Quick Tower - No Cab, Under 100 Feet In Height Based To Boom	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Rigger And Bellman	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Rigger/Signal Person, Bellman (Certified)	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Rollagon	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Roller, Other Than Plant Mix	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Roller, Plant Mix Or Multi-lift Materials	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Roto-mill, Roto-grinder	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Saws - Concrete	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Scraper, Self Propelled Under 45 Yards	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Scrapers - Concrete & Carry All	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Scrapers, Self-propelled: 45 Yards And Over	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Service Engineers - Equipment	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Shotcrete/gunite Equipment	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Shovel , Excavator, Backhoe, Tractors Under 15 Metric Tons.	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$64.41	<u>7A</u>	<u>3K</u>	<u>8X</u>

Lewis	Power Equipment Operators	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$65.06	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Slipform Pavers	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Spreader, Topsider & Screedman	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Subgrader Trimmer	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Tower Bucket Elevators	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Tower crane over 175' through 250' in height, base to boom	\$65.06	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Tower Crane Up: To 175' In Height, Base To Boom	\$64.41	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Transporters, All Track Or Truck Type	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Trenching Machines	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Truck Crane Oiler/driver - 100 Tons And Over	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Truck Crane Oiler/driver Under 100 Tons	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Truck Mount Portable Conveyor	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Welder	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Wheel Tractors, Farmall Type	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators	Yo Yo Pay Dozer	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators- Underground Sewer & Water	Asphalt Plant Operator	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators- Underground Sewer & Water	Assistant Engineers	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators- Underground Sewer & Water	Barrier Machine (zipper)	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators- Underground Sewer & Water	Batch Plant Operator: Concrete	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators- Underground Sewer & Water	Bobcat	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators- Underground Sewer & Water	Brokk - Remote Demolition Equipment	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators- Underground Sewer & Water	Brooms	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators- Underground Sewer & Water	Bump Cutter	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators- Underground Sewer & Water	Cableways	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators- Underground Sewer & Water	Chipper	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators- Underground Sewer & Water	Compressor	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators- Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Over 42m	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators- Underground Sewer & Water	Concrete Finish Machine -laser Screed	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators- Underground Sewer & Water	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators- Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Up To	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>

		42m				
Lewis	Power Equipment Operators-Underground Sewer & Water	Conveyors	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Cranes, 100 Tons - 199 Tons, Or 150 Ft Of Boom (including Jib With Attachments)	\$64.41	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Cranes, 200 tons to 299 tons, or 250' of boom (including jib with attachments)	\$65.06	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Cranes, Over 300 Tons, Or 300' Of Boom Including Jib With Attachments	\$65.70	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Cranes: 20 Tons Through 44 Tons With Attachments	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	cranes: 300 tons and over, or 300' of boom (including jib with attachments)	\$65.70	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom (including Jib With Attachments)	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Cranes: A-frame - 10 Tons And Under	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Cranes: Friction 200 tons and over. Tower Cranes: over 250' in height from base to boom.	\$65.70	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Cranes: Friction cranes through 199 tons	\$65.06	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Cranes: Through 19 Tons With Attachments A-frame Over 10 Tons	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Crusher	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Deck Engineer/deck Winches (power)	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Derricks, On Building Work	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Dozers D-9 & Under	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Drill Oilers: Auger Type, Truck Or Crane Mount	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Drilling Machine	\$64.41	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Elevator And Man-lift: Permanent And Shaft Type	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Forklift: 3000 Lbs And Over With Attachments	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Forklifts: Under 3000 Lbs. With Attachments	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Grade Engineer: Using Blueprints, Cut Sheets,etc.	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Gradechecker/stakeman	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>

Lewis	Power Equipment Operators-Underground Sewer & Water	Guardrail punch/Auger	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Horizontal/directional Drill Locator	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Horizontal/directional Drill Operator	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Hydralifts/Boom Trucks Over 10 Tons	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Hydralifts/boom Trucks, 10 Tons And Under	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Loader, Overhead 8 Yards. & Over	\$64.41	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Loaders, Overhead Under 6 Yards	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Loaders, Plant Feed	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Loaders: Elevating Type Belt	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Locomotives, All	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Material Transfer Device	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Mechanics, All (Leadmen - \$0.50 Per Hour Over Mechanic)	\$64.41	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Motor patrol graders	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Outside Hoists (elevators And Manlifts), Air Tuggers, strato	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Overhead, Bridge Type Crane: 20 Tons Through 44 Tons	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Overhead, Bridge Type: 100 Tons And Over	\$64.41	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Overhead, Bridge Type: 45 Tons Through 99 Tons	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Pavement Breaker	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Pile Driver (other Than Crane Mount)	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-	Plant Oiler - Asphalt, Crusher	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>

	Underground Sewer & Water					
Lewis	Power Equipment Operators-Underground Sewer & Water	Posthole Digger, Mechanical	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Power Plant	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Pumps - Water	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Quad 9, HD 41, D10 And Over	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Quick Tower - No Cab, Under 100 Feet In Height Based To Boom	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Rigger And Bellman	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Rigger/Signal Person, Bellman (Certified)	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Rollagon	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Roller, Other Than Plant Mix	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Roller, Plant Mix Or Multi-lift Materials	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Roto-mill, Roto-grinder	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Saws - Concrete	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Scraper, Self Propelled Under 45 Yards	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Scrapers - Concrete & Carry All	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Scrapers, Self-propelled: 45 Yards And Over	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Service Engineers - Equipment	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Shotcrete/gunite Equipment	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Shovel , Excavator, Backhoe, Tractors Under 15 Metric Tons.	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$64.41	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$65.06	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Slipform Pavers	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Spreader, Topsider & Screedman	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>

Lewis	Power Equipment Operators-Underground Sewer & Water	Subgrader Trimmer	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Tower Bucket Elevators	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Tower crane over 175' through 250' in height, base to boom	\$65.06	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Tower Crane: Up To 175' In Height, Base To Boom	\$64.41	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Transporters, All Track Or Truck Type	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Trenching Machines	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Truck Crane Oiler/driver - 100 Tons And Over	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Truck Crane Oiler/driver Under 100 Tons	\$62.71	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Truck Mount Portable Conveyor	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Welder	\$63.76	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Wheel Tractors, Farmall Type	\$59.98	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Equipment Operators-Underground Sewer & Water	Yo Yo Pay Dozer	\$63.20	<u>7A</u>	<u>3K</u>	<u>8X</u>
Lewis	Power Line Clearance Tree Trimmers	Journey Level In Charge	\$49.96	<u>5A</u>	<u>4A</u>	
Lewis	Power Line Clearance Tree Trimmers	Spray Person	\$47.37	<u>5A</u>	<u>4A</u>	
Lewis	Power Line Clearance Tree Trimmers	Tree Equipment Operator	\$49.96	<u>5A</u>	<u>4A</u>	
Lewis	Power Line Clearance Tree Trimmers	Tree Trimmer	\$44.57	<u>5A</u>	<u>4A</u>	
Lewis	Power Line Clearance Tree Trimmers	Tree Trimmer Groundperson	\$33.60	<u>5A</u>	<u>4A</u>	
Lewis	Refrigeration & Air Conditioning Mechanics	Journey Level	\$70.71	<u>5A</u>	<u>1G</u>	
Lewis	Residential Brick Mason	Journey Level	\$57.32	<u>5A</u>	<u>1M</u>	
Lewis	Residential Carpenters	Journey Level	\$45.05	<u>5D</u>	<u>4C</u>	
Lewis	Residential Cement Masons	Journey Level	\$60.07	<u>7A</u>	<u>4U</u>	
Lewis	Residential Drywall Applicators	Journey Level	\$45.05	<u>5D</u>	<u>4C</u>	
Lewis	Residential Drywall Tapers	Journey Level	\$45.19	<u>5P</u>	<u>1E</u>	
Lewis	Residential Electricians	Journey Level	\$34.53	<u>5A</u>	<u>1B</u>	
Lewis	Residential Glaziers	Journey Level	\$64.56	<u>7L</u>	<u>1Y</u>	
Lewis	Residential Insulation Applicators	Journey Level	\$45.05	<u>5D</u>	<u>4C</u>	
Lewis	Residential Laborers	Journey Level	\$36.68	<u>7A</u>	<u>1H</u>	
Lewis	Residential Marble Setters	Journey Level	\$57.32	<u>5A</u>	<u>1M</u>	
Lewis	Residential Painters	Journey Level	\$42.50	<u>6Z</u>	<u>2B</u>	
Lewis	Residential Plumbers & Pipefitters	Journey Level	\$44.34	<u>5A</u>	<u>1G</u>	
Lewis	Residential Refrigeration & Air Conditioning Mechanics	Journey Level	\$41.01	<u>5A</u>	<u>1G</u>	
Lewis	Residential Sheet Metal Workers	Journey Level (Field or Shop)	\$50.01	<u>7F</u>	<u>1R</u>	

Lewis	Residential Soft Floor Layers	Journey Level	\$49.43	<u>5A</u>	<u>3J</u>	
Lewis	Residential Sprinkler Fitters (Fire Protection)	Journey Level	\$34.76	<u>7J</u>	<u>1R</u>	
Lewis	Residential Stone Masons	Journey Level	\$57.32	<u>5A</u>	<u>1M</u>	
Lewis	Residential Terrazzo Workers	Journey Level	\$52.61	<u>5A</u>	<u>1M</u>	
Lewis	Residential Terrazzo/Tile Finishers	Journey Level	\$43.44	<u>5A</u>	<u>1B</u>	
Lewis	Residential Tile Setters	Journey Level	\$52.61	<u>5A</u>	<u>1M</u>	
Lewis	Roofers	Journey Level	\$52.89	<u>5A</u>	<u>2O</u>	
Lewis	Roofers	Using Irritable Bituminous Materials	\$54.12	<u>5A</u>	<u>2O</u>	
Lewis	Sheet Metal Workers	Journey Level (Field or Shop)	\$82.51	<u>7F</u>	<u>1E</u>	
Lewis	Sign Makers & Installers (Electrical)	Journey Level	\$18.04		<u>1</u>	
Lewis	Sign Makers & Installers (Non-Electrical)	Journey Level	\$48.90	<u>7A</u>	<u>3I</u>	
Lewis	Soft Floor Layers	Journey Level	\$49.43	<u>5A</u>	<u>3J</u>	
Lewis	Solar Controls For Windows	Journey Level	\$12.00		<u>1</u>	
Lewis	Sprinkler Fitters (Fire Protection)	Journey Level	\$61.68	<u>7J</u>	<u>1R</u>	
Lewis	Stage Rigging Mechanics (Non Structural)	Journey Level	\$13.23		<u>1</u>	
Lewis	Stone Masons	Journey Level	\$57.32	<u>5A</u>	<u>1M</u>	
Lewis	Street And Parking Lot Sweeper Workers	Journey Level	\$16.00		<u>1</u>	
Lewis	Surveyors	Chain Person	\$62.14	<u>7A</u>	<u>3K</u>	
Lewis	Surveyors	Instrument Persion	\$62.71	<u>7A</u>	<u>3K</u>	
Lewis	Surveyors	Party Chief	\$63.76	<u>7A</u>	<u>3K</u>	
Lewis	Telecommunication Technicians	Journey Level	\$43.19	<u>6Z</u>	<u>1B</u>	
Lewis	Telephone Line Construction - Outside	Cable Splicer	\$41.22	<u>5A</u>	<u>2B</u>	
Lewis	Telephone Line Construction - Outside	Hole Digger/Ground Person	\$23.12	<u>5A</u>	<u>2B</u>	
Lewis	Telephone Line Construction - Outside	Installer (Repairer)	\$39.53	<u>5A</u>	<u>2B</u>	
Lewis	Telephone Line Construction - Outside	Special Aparatus Installer I	\$41.22	<u>5A</u>	<u>2B</u>	
Lewis	Telephone Line Construction - Outside	Special Apparatus Installer II	\$40.41	<u>5A</u>	<u>2B</u>	
Lewis	Telephone Line Construction - Outside	Telephone Equipment Operator (Heavy)	\$41.22	<u>5A</u>	<u>2B</u>	
Lewis	Telephone Line Construction - Outside	Telephone Equipment Operator (Light)	\$38.36	<u>5A</u>	<u>2B</u>	
Lewis	Telephone Line Construction - Outside	Telephone Lineperson	\$38.36	<u>5A</u>	<u>2B</u>	
Lewis	Telephone Line Construction - Outside	Television Groundperson	\$21.92	<u>5A</u>	<u>2B</u>	
Lewis	Telephone Line Construction - Outside	Television Lineperson/Installer	\$29.13	<u>5A</u>	<u>2B</u>	
Lewis	Telephone Line Construction - Outside	Television System Technician	\$34.68	<u>5A</u>	<u>2B</u>	
Lewis	Telephone Line Construction - Outside	Television Technician	\$31.18	<u>5A</u>	<u>2B</u>	

Lewis	Telephone Line Construction - Outside	Tree Trimmer	\$38.36	<u>5A</u>	<u>2B</u>	
Lewis	Terrazzo Workers	Journey Level	\$52.61	<u>5A</u>	<u>1M</u>	
Lewis	Tile Setters	Journey Level	\$52.61	<u>5A</u>	<u>1M</u>	
Lewis	Tile, Marble & Terrazzo Finishers	Finisher	\$43.44	<u>5A</u>	<u>1B</u>	
Lewis	Traffic Control Stripers	Journey Level	\$46.23	<u>7A</u>	<u>1K</u>	
Lewis	Truck Drivers	Asphalt Mix Over 16 Yards	\$54.30	<u>5D</u>	<u>3A</u>	<u>8L</u>
Lewis	Truck Drivers	Asphalt Mix To 16 Yards	\$53.46	<u>5D</u>	<u>3A</u>	<u>8L</u>
Lewis	Truck Drivers	Dump Truck	\$53.46	<u>5D</u>	<u>3A</u>	<u>8L</u>
Lewis	Truck Drivers	Dump Truck & Trailer	\$54.30	<u>5D</u>	<u>3A</u>	<u>8L</u>
Lewis	Truck Drivers	Other Trucks	\$54.30	<u>5D</u>	<u>3A</u>	<u>8L</u>
Lewis	Truck Drivers - Ready Mix	Journey Level	\$38.82	<u>6I</u>	<u>2H</u>	
Lewis	Well Drillers & Irrigation Pump Installers	Irrigation Pump Installer	\$18.18		<u>1</u>	
Lewis	Well Drillers & Irrigation Pump Installers	Oiler	\$12.00		<u>1</u>	
Lewis	Well Drillers & Irrigation Pump Installers	Well Driller	\$18.00		<u>1</u>	

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.

ITEM DESCRIPTION	YES	NO
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		X
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		X
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.		X
4. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes smaller than 60 inch diameter.		X
5. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes larger than 60 inch diameter.		X
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.		X
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.		X

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.		X
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).	X	
10. Major Structural Steel Fabrication - Fabrication of major steel items such as trusses, beams, girders, etc., for bridges.	X	
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.	X	
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).		X
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..	X	
14. Precast Manhole Types 1, 2, and 3 with cones, adjustment sections and flat top slabs. See Std. Plans.		X
15. Precast Drywell Types 1, 2, and with cones and adjustment Sections. See Std. Plans.		X
16. Precast Catch Basin - Catch Basin type 1, 1L, 1P, and 2 With adjustment sections. See Std. Plans.		X

ITEM DESCRIPTION	YES	NO
17. Precast Concrete Inlet - with adjustment sections, See Std. Plans		X
18. Precast Drop Inlet Type 1 and 2 with metal grate supports. See Std. Plans.		X
19. Precast Grate Inlet Type 2 with extension and top units. See Std. Plans		X
20. Metal frames, vaned grates, and hoods for Combination Inlets. See Std. Plans		X
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		X
22. Vault Risers - For use with Valve Vaults and Utilities X Vaults.		X
23. Valve Vault - For use with underground utilities. See Contract Plans for details.		X
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.		X
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.	X	
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	X	

ITEM DESCRIPTION	YES	NO
27. Precast Railroad Crossings - Concrete Crossing Structure Slabs.	X	
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	X	
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	X	
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	X	
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.	X	
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	X	
33. Monument Case and Cover See Std. Plan.		X

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.	X	
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.	X	
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.	X	
37. Steel Sign Post - Fabricated Steel Sign Posts as detailed in Std Plans. Shop drawings for approval are to be provided prior to fabrication		X
38. Light Standard-Prestressed - Spun, prestressed, hollow concrete poles.	X	
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.	X	
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	X	
41. Precast Concrete Sloped Mountable Curb (Single and DualFaced) See Std. Plans.		X

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. NOTE: *** Fabrication inspection required. Only signs tagged "Fabrication Approved" by WSDOT Sign Fabrication Inspector to be installed	X	X
	Custom Message	Std Signing Message
43. Cutting & bending reinforcing steel		X
44. Guardrail components	X	X
	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		X
48. Electrical wiring/components		X
49. treated or untreated timber pile		X
50. Girder pads (elastomeric bearing)	X	
51. Standard Dimension lumber		X
52. Irrigation components		X

ITEM DESCRIPTION	YES	NO
53. Fencing materials		X
54. Guide Posts		X
55. Traffic Buttons		X
56. Epoxy		X
57. Cribbing		X
58. Water distribution materials		X
59. Steel "H" piles		X
60. Steel pipe for concrete pile casings		X
61. Steel pile tips, standard		X
62. Steel pile tips, custom	X	

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 3/3/2019 thru 8/30/2019

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.
- I. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. In the event the job is down due to weather conditions during a five day work week (Monday through Friday,) or a four day-ten hour work week (Tuesday through Friday,) 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 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.
- 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.

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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.

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).

Holiday Codes Continued

- 5. 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).
- 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-

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Day On Christmas Eve Day. (9 1/2).

Holiday Codes Continued

6. 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).
6. 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.
- 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.

Holiday Codes Continued

7. 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.
- 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.

Holiday Codes Continued

7. 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)
- 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.

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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.
- R. 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.
- 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.)

APPENDIX B

Bid Proposal Documents

Including:

Notice to Contractor

Non-Collusion Declaration

Proposal Signature Page

Certification of Compliance

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Lewis County Department of Public Works

Erik P. Martin, Director

Tim Fife, PE, County Engineer

NOTICE TO CONTRACTORS

NOTICE IS HERBY 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, April 30, 2019**, at the Lewis County Courthouse in Chehalis, Washington, for the 2018 Countywide HMA Project - CRP 2179C. This contract provides for the improvement of ***** Borst Ave between Eshom Rd and Johnson Rd which includes roadway grading and alignment, pedestrian walkways and accessibility, stormwater facilities, street lighting, resetting of hydrants, landscaping***** and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

SEALED BIDS MUST BE DELIVERED BY OR BEFORE 11:00 A.M. on Tuesday, April 30, 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 Lewis County Commissioners Office (351 N.W. North Street, Room 209, CMS-01, Chehalis, Washington 98532), by or before **11:00 A.M.** on the date specified for delivery, and in an envelope clearly marked: **"SEALED BID FOR BORST AVENUE IMPROVEMENTS - CRP 2139, TO BE OPENED ON OR AFTER 11:00 A.M. ON April 30, 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 performance bond within the time stated in the specifications, the bid proposal deposit shall be forfeited to the Lewis County Public Works Department.

Informational copies of maps, plans and specifications are on file for inspection in the office of the County Engineer of Lewis County in Chehalis, Washington. The contract documents may be viewed and downloaded from Lewis County's Web Site @ www.lewiscountywa.gov or you may call the Lewis County Engineers office @ (360)740-2612 and request a copy be mailed to you.

The Lewis County Public Works Department in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, subtitle A, Office of the Secretary, Part 21, nondiscrimination in Federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure 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.

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PROPOSAL

To: Board of County Commissioners
 Lewis County
 Chehalis, WA 98532

This certifies that the undersigned has examined the location of the Borst Avenue Improvement Project, CRP 2139, in the City of Centralia and 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 or 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 #	DESCRIPTION	UNIT	PLAN QUANTITY	UNIT PRICES DOLLARS CENTS	AMMOUNT DOLLARS CENTES
1	MOBILIZATION	L.S.	1	Lump Sum	\$
2	CLEARING AND GRUBBING	ACRE	0.30	\$	\$
3	REMOVAL OF STRUCTURE AND OBSTRUCTION	L.S.	1	Lump Sum	\$
4	ROADWAY EXCAVATION INCLUDING HAUL	C.Y.	9,085	\$	\$
5	SELECT BORROW INCL. HAUL	TON	130	\$	\$
6	CATCH BASIN TYPE 1	EACH	4	\$	\$
7	CATCH BASIN TYPE PVC WITH DOME GRATE	EACH	16	\$	\$
8	CATCH BASIN TYPE 2 48 IN. DIAM.	EACH	17	\$	\$
9	BEEHIVE GRATE	EACH	1	\$	\$
10	SCHEDULE A STORM SEWER PIPE 12 IN. DIAM.	L.F.	210	\$	\$
11	PERFORATED SCHEDULE A STORM SEWER PIPE 12 IN. DIAM.	L.F.	2,806	\$	\$
12	HYDRANT ASSEMBLY	EACH	1	\$	\$
13	RESETTING EXISTING HYDRANTS	EACH	4	\$	\$
14	PVC PIPE FOR WATER MAIN 6 IN. DIAM.	L.F.	6	\$	\$
15	CRUSHED SURFACING BASE COURSE	TON	8,285	\$	\$
16	PLANING BITUMINOUS PAVEMENT	S.Y.	505	\$	\$
17	HMA CLASS 1/2" PG 58-22	TON	3,855	\$	\$
18	ESC LEAD	DAY	24	\$	\$
19	SEEDING, FERTILIZING, & MULCHING	ACRE	0.40	\$	\$
20	INLET PROTECTION	EACH	46	\$	\$
21	WATTLE	L.F.	3,336	\$	\$
22	EROSION /WATER POLLUTION CONTROL	EST.	1	Estimated	\$ 10,000

ITEM #	DESCRIPTION	UNIT	PLAN QUANTITY	UNIT PRICES DOLLARS CENTS	AMMOUNT DOLLARS CENTS
23	BIORETENTION AREA	L.F.	2,730	\$	\$
24	INFILTRATION TRENCH	L.F.	2,845	\$	\$
25	PSIPE BERKELEY SEDGE	EACH	678	\$	\$
26	PSIPE EVERILLO JAPANESE SEDGE	EACH	215	\$	\$
27	PSIPE LITTLE BLUE STEM	EACH	1,425	\$	\$
28	PSIPE ROCKCRESS	EACH	327	\$	\$
29	PSIPE SHASTA SULFUR BUCKWHEAT	EACH	327	\$	\$
30	PSIPE SHRUBBY PENSTEMON	EACH	327	\$	\$
31	PSIPE SMALL CAMAS	EACH	1,994	\$	\$
32	PSIPE SOFT RUSH	EACH	534	\$	\$
33	CEMENT CONC. TRAFFIC CURB AND GUTTER	L.F.	5,791	\$	\$
34	CEMENT CONC. TRAFFIC CURB	L.F.	2,882	\$	\$
35	CEMENT CONC. PEDESTRIAN CURB	L.F.	544	\$	\$
36	CEMENT CONC. CURB INLET	EACH	141	\$	\$
37	PLASTIC LINE	L.F.	7,750	\$	\$
38	PLASTIC WIDE LANE LINE	L.F.	215	\$	\$
39	PLASTIC CROSSWALK LINE	S.F.	1,310	\$	\$
40	PLASTIC STOP LINE	L.F.	205	\$	\$
41	PLASTIC TRAFFIC ARROW	EACH	4	\$	\$
42	PERMANENT SIGNING	L.S.	1	Lump Sum	\$
43	TEMPORARY PAVEMENT MARKING-SHORT DURATION	L.F.	655	\$	\$
44	ILLUMINATION SYSTEM	L.S.	1	Lump Sum	\$
45	PROJECT TEMPORARY TRAFFIC CONTROL	L.S.	1	Lump Sum	\$
46	ADJUST MANHOLE	EACH	18	\$	\$
47	ADJUST CATCH BASIN	EACH	4	\$	\$
48	ADJUST VALVE BOX	EACH	17	\$	\$
49	ADJUST METER BOX	EACH	18	\$	\$
50	LOCKING SOLID METAL COVER AND FRAME FOR CATCH BASIN	EACH	3	\$	\$
51	TYPE B PROGRESS SCHEDULE	L.S.	1	Lump Sum	\$
52	SHORING OR EXTRA EXCAVATION CLASS B	S.F.	20,220	\$	\$
53	ROADWAY SURVEYING	L.S.	1	Lump Sum	\$
54	ADA FEATURES SURVEYING	L.S.	1	Lump Sum	\$
55	CEMENT CONC. SIDEWALK	S.Y.	696	\$	\$
56	MONOLITHIC CEMENT CONC. CURB AND SIDEWALK	S.Y.	3,285	\$	\$
57	CEMENT CONC. CURB RAMP TYPE PARALLEL	EACH	15	\$	\$
58	CEMENT CONC. CURB RAMP TYPE PERPENDICULAR	EACH	6	\$	\$

ITEM #	DESCRIPTION	UNIT	PLAN QUANTITY	UNIT PRICES DOLLARS CENTS	AMMOUNT DOLLARS CENTS
59	CEMENT CONC. CURB RAMP TYPE SINGLE DIRECTION	EACH	9	\$	\$
60	CEMENT CONC. DRIVEWAY ENTRANCE TYPE 1	S.Y.	135	\$	\$
61	CEMENT CONC. DRIVEWAY ENTRANCE TYPE 3	S.Y.	1,700	\$	\$
62	CONNECTION TO DRAINAGE STRUCTURE	EACH	3	\$	\$
63	CONNECTION TO EXISTING PIPE	EACH	3	\$	\$
64	UTILITY SERVICE SLEEVING	EACH	41	\$	\$
65	RECORD DRAWING	L.S.	1	Lump Sum	\$
66	FORCE ACCOUNT - POLE HOLDING	EST.	1	Estimated	\$ 20,000
67	UTILITY POTHOLING	EACH	48	\$	\$
68	ABANDON EXISTING CATCH BASIN	EACH	11	\$	\$
69	ROADSIDE CLEANUP	EST.	1	Estimated	\$ 10,000
70	MAIL BOX SUPPORT TYPE 1	EACH	32		
71	MAIL BOX SUPPORT TYPE 2	EACH	2		
72	MINOR CHANGE	EST.	1	Estimated	\$ 15,000
73	SPCC	L.S.	1	Lump Sum	\$

Total \$ _____

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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, participation 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 have agreed to the provisions of this declaration.**

NOTICE TO ALL BIDDERS

To report bid rigging activities

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, bid 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.

DOT Form 272-036H
Revised 10/94

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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. _____

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

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Lewis County Department of Public Works

Erik P. Martin, PE, Director / County Engineer

Tim Fife, PE, Assistant 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.*

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APPENDIX C

Contract Documents

Including:

Contract Form

Performance Bond

Power Equipment List

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CONTRACT

THIS AGREEMENT, made and entered into this ___ day of _____, 2018, 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 various roads in Lewis County by pavement repair, cleaning, sweeping, applying tack coat, paving with HMA, approach transitions, shoulder finishing, traffic control and paving various Bridge approaches with HMA, 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 by reason of entering into this contract, except as expressly provided herein.

Contract - 1

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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: _____, 2018

By: _____

Surety

By: _____

Attorney-in-fact

APPROVED AS TO FORM:

JONATHAN L. MEYER, Prosecuting Attorney

By: _____

Civil Deputy

APPROVED:

County Engineer

Contract – 2

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**PERFORMANCE 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. CRP 2179C, 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 Borst Avenue Improvements 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. CRP 2179C, between the below-named Contractor and County for the Borst Avenue Improvements 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/Publications/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.

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(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 _____)
 COUNTY OF _____) ss: **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 _____)
 COUNTY OF _____) ss: **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 →**

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APPENDIX D

Stormwater Pollution Prevention Plan

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Construction SWPPP

Borst Avenue Improvement
Centralia, WA

January 2019



SCJ ALLIANCE
CONSULTING SERVICES



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CONSTRUCTION STORMWATER POLLUTION PREVENTION ELEMENTS

Objective of Stormwater Pollution Prevention Plan

The purpose of a Construction Stormwater Pollution Prevention Plan (SWPPP) is to describe the potential for pollution problems during the duration of a construction project. The SWPPP also explains and illustrates the measures that may need to be taken on the construction site to control said problems. The SWPPP is a guideline for the Contractor to follow during the construction process to prevent erosion and migration of sediments. Erosion control measures are not limited to those that are identified in this SWPPP or on the temporary erosion and sediment control plans. Construction Best Management Practices (BMPs) shall be installed as necessary to meet the Department of Ecology's guidelines for construction stormwater pollution prevention and the requirements that are set forth in the National Pollutant Discharge Elimination System (NPDES) Permit.

This SWPPP was prepared in accordance to the established guidelines and BMPs that are set forth in *Volume 2 of the 2012 Department of Ecology Stormwater Management Manual for Western Washington (SWMMWW)*. The SWMMWW describes the twelve (12) elements of construction stormwater pollution prevention. The twelve (12) elements include the following:

- Element #1 – Preserve Vegetation/Mark Clearing Limits
- Element #2 – Establish Construction Access
- Element #3 – Control Flow Rates
- Element #4 – Install Sediment Controls
- Element #5 – Stabilize Soils
- Element #6 – Protect Slopes
- Element #7 – Protect Drain Inlets
- Element #8 – Stabilize Channels and Outlets
- Element #9 – Control Pollutants
- Element #10 – Control Dewatering
- Element #11 – Maintain BMPs
- Element #12 – Manage the Project

Summary of Elements

The BMPs listed in this report, or their equivalent, are required. Any revisions by the Contractor to the BMPs listed in the SWPPP shall be approved by the Engineer in writing. Thus, if the Contractor does not require a BMP or needs to modify a BMP, the Contractor shall document the reason(s) and present the documentation to the Engineer for approval.

Element #1 – Preserve Vegetation/Mark Clearing Limits

Prior to beginning land disturbing activities, which include site clearing and grading, the Contractor shall mark the clearing limits (including trees) that are to be preserved within the construction zone. High-visibility fences shall be installed/erected as shown on the temporary erosion and sediment control plan and in accordance with the landscaping plan. The following BMPs are applicable for this project. If the following BMPs are not shown on the construction plan set, the Engineer reserves the right to direct the Contractor to install, construct, and/or implement said BMPs.



- BMP C101: Preserving Natural Vegetation
- BMP C103: High-Visibility Plastic or Metal Fence
- BMP C104: Stake and Wire Fence

Element #2 - Establish Construction Access

A stabilized construction entrance shall be constructed to minimize the tracking of sediment onto any public road. The stabilized construction entrance shall be constructed per the TESC plans and details and in accordance with the requirements of BMP C105.

- BMP C105: Stabilized Construction Entrance / Exit

Element #3 - Control Flow Rates

Properties and waterways downstream from the development site shall be protected from erosion due to increases in the volume, velocity, and/or peak flow rates of stormwater runoff from the project site. The following BMPs are applicable for this project. If the following BMPs are not shown on the construction plan set, the Engineer reserves the right to direct the Contractor to install, construct, and/or implement said BMPs.

- BMP C240: Sediment Trap

Element #4 - Install Sediment Controls

Prior to leaving a construction site or prior to discharging into an infiltration facility, stormwater runoff must pass through a sediment pond or some other appropriate BMP for removal of sediments. Silt fencing and straw bale barriers shall be constructed as shown on the temporary and erosion sediment control plans. The following BMPs are applicable for this project. If the following BMPs are not shown on the construction plan set, the Engineer reserves the right to direct the Contractor to install, construct, and/or implement said BMPs.

- BMP C230: Straw Bale Barrier
- BMP C231: Brush Barrier
- BMP C232: Gravel Filter Berm
- BMP C233: Silt Fence
- BMP C234: Vegetated Strip
- BMP C235: Wattles
- BMP C240: Sediment Trap
- BMP C251: Construction Stormwater Filtration

Element #5 - Stabilize Soils

All exposed and unworked soils shall be stabilized by application of effective BMPs, which protect the soil from the erosive forces of raindrop impact, flowing water, and from wind erosion. From October 01 through April 30 of each calendar year, no soils shall remain exposed and unworked for more than two (2) days. From May 01 to September 30 of each calendar year, no soils shall remain exposed and



unworked for more than seven (7) days. This condition applies to all on-site soils, whether at final grade or not.

In areas where the on-site soils will remain unworked for more than the aforementioned time duration limits or have reached final grade, seeding and mulching shall be installed in accordance with BMP C120 and C121. Sod shall be installed in accordance with BMP C124 for disturbed areas that require immediate vegetative cover. Dust control shall be used as needed to prevent wind transport of dust from disturbed soil surfaces and in accordance with BMP C140. If the following BMPs are not shown on the construction plan set, the Engineer reserves the right to direct the Contractor to install, construct, and/or implement said BMPs.

BMP C120: Temporary and Permanent Seeding

BMP C121: Mulching

BMP C123: Plastic Covering

BMP C124: Sodding

BMP C125: Topsoiling / Composting

BMP C140: Dust Control

Element #6 - Protecting Slopes

Slopes shall be constructed in such a manner that will minimize erosion. This shall include, but is not limited to: placing excavated material on the uphill side of trenches, collecting drainage at the top of slopes, etc. If the following BMPs are not shown on the construction plan set, the Engineer reserves the right to direct the Contractor to install, construct, and/or implement said BMPs.

BMP C200: Interceptor Dike and Swale

BMP C205: Subsurface Drains

BMP C206: Level Spreader

BMP C207: Check Dams

Element #7 - Protect Drain Inlets

All storm drain catch basins/inlets that are in use during construction, as well as all existing structures within the project limits, shall be protected so that stormwater runoff shall not enter any conveyance system without first being filtered or treated to remove sediment from sediment laden runoff. Install storm drain inlet protection devices as shown on the erosion and sediment control plans and in accordance with BMP C220.

BMP C220: Storm Drain Inlet Protection

Element #8 - Stabilize Channels and Outlets

All temporary on-site conveyance channels shall be constructed and stabilized to prevent erosion. Stabilization that is adequate to prevent erosion of outlets and drainage channels shall be provided. If the following BMPs are not shown on the construction plan set, the Engineer reserves the right to direct the Contractor to install, construct, and/or implement said BMPs.

BMP C202: Channel Lining



BMP C209: Outlet Protection

Element #9 - Control Pollutants

All pollutants, including waste materials and demolition of debris, that are generated or brought on-site during construction activities shall be handled and disposed of in a manner that does not cause contamination of stormwater. Maintenance and repair of heavy equipment and vehicles involving oil changes, hydraulic system drawdown, solvent and degreasing cleaning operations, fuel tank drawdown and removal, and other activities which may result in discharge or spillage of pollutants to the ground or into stormwater runoff must be conducted using spill prevention measures. Contaminated surfaces shall be cleaned immediately following any discharge or spill incident. Emergency repairs may be performed on-site using temporary plastic placed beneath and, if raining, over the vehicle. Application of agricultural chemicals, including fertilizers and pesticides, shall be conducted in a manner and at application rates that will not result in loss of chemical(s) to stormwater runoff. Manufacturers' recommendations shall be followed for application rates and procedures. The following Source Control BMPs will be prepared/implemented by the Contractor for this project.

- A Spill Prevention Plan
- Maintenance of storm drainage facilities
- Street sweeping at an interval that's prescribed by the Engineer and/or the City of Centralia

Element #10 - Control Dewatering

All foundation, vault, and trench dewatering activities shall be routed to a sediment pond for basic filtering/treatment. Clean, non-turbid dewatered water, as determined by the Certified Professional in Erosion and Sediment Control, can be discharged to systems tributary to state surface waters, provided the dewatering flow does not cause erosion or flooding to receiving waters.

Highly turbid or otherwise contaminated dewatered water that's from construction equipment operation, clamshell digging, concrete tremie pour, or work inside a cofferdam, shall be handled separately from stormwater at the site. Some disposal options, depending on site constraints, may include:

- Transport off-site in a vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute State waters
- On-site treatment using chemical treatment or other suitable treatment technologies
- Sanitary sewer discharge with local sewer district's approval if there is no other option

Element #11 - Maintain BMPs

All temporary and permanent erosion and sediment control BMPs shall be maintained and repaired as needed to assure continued performance of their intended function. All maintenance and repairs shall be completed in accordance with the practices, procedures, and materials for each respective BMP. Sediment Control BMPs shall be inspected weekly or after a runoff-producing storm event during the dry season and daily during the wet season.



All temporary erosion and Sediment Control BMPs shall be removed within thirty (30) days after final site stabilization is achieved or after the temporary BMPs are no longer needed. Trapped sediment shall be removed or stabilized on-site. Disturbed soil areas resulting from removal of BMPs or vegetation shall be permanently stabilized.

Element #12 - Manage the Project

- Phasing of Construction - the project shall be phased where feasible in order to prevent, to the maximum extent practicable, the transport of sediment from the site during construction. Revegetation of exposed areas and maintenance of said vegetation shall be an integral part of the clearing activities for each phase.
- Seasonal Work Limitations - from October 01 through April 30, clearing, grading, and other soil disturbing activities shall only be permitted if shown to the satisfaction of the local permitting authority that silt-laden runoff will be prevented from leaving the construction site.

The following activities are exempt for the seasonal clearing and grading limitations:

1. Routine maintenance and necessary repair of erosion and sediment control BMPs.
 2. Routine maintenance of public facilities or existing utility structures that do not expose the soil or result in the removal of the vegetative cover to the soil.
 3. Activities where there is 100% infiltration of surface runoff within the site in approved and installed erosion and sediment control facilities.
- Inspection and Monitoring - all BMPs shall be inspected, maintained, and repaired as needed to assure continued performance of their intended function.

The Certified Professional in Erosion and Sediment Control for this project is

_____. _____ shall be on-site or on-call at all times during construction. The role of the Certified Professional in Erosion and Sediment Control is to identify problems or failures of erosion control measures in the field and to promptly initiate corrective measures. The Certified Professional in Erosion and Sediment Control shall be compensated by the Contractor.

Sampling and analysis of discharged stormwater from the construction site may be necessary to ensure compliance with the standards.

Whenever inspection and/or monitoring reveals that the BMPs identified in the Construction SWPPP are inadequate, due to the actual discharge of or potential to discharge a significant amount of any pollutant, the Construction SWPPP shall be modified, as appropriate, in a timely manner.

- Maintenance of the Construction SWPPP - the Construction SWPPP shall be retained on-site or within reasonable access to the site. The Construction SWPPP shall be modified whenever there is a significant change in the design, construction, operation, and/or maintenance of any BMP.



PROJECT DESCRIPTION

Location

The site address for the proposed project is Borst Avenue, from Johnson Road to Eshom Road, in Centralia, WA 98531.

Project Overview

The proposed project includes demolition of the existing paved roadway and construction of a new paved roadway to include: concrete curbs, gutters, & sidewalks; stormwater collection, conveyance, treatment & infiltration facilities.

EXISTING SITE CONDITIONS

Existing Drainage System

The site is currently developed as a paved roadway. On-site generated stormwater runoff from Johnson Road to Allen Avenue is collected and conveyed to the Chehalis River via the City of Centralia Stormwater System. On-site generated stormwater runoff from Allen Avenue to Eshom Road sheet flows across the roadway and is infiltrated on-site.

Existing Topography & Vegetation

Currently, the site consists of a paved roadway approximately 24' wide, with primarily gravel shoulders on both sides 4-6' wide throughout the corridor. The site is primarily flat and has approximately 0.2% drop in elevation from east to west.

ADJACENT AREAS

Johnson Road and Eshom Road are positioned to the east and west of the project site; The intersecting roads are: Allen Avenue, Sandy Drive, Sharon Street, Rotary Lane, Cypress Lane, Mikayla Lane, N Scheuber Road, McKinley Lane N, Pheasant Road, and Cowlitz Road; a combination of single and multi-family residences are located to the north and south.

CRITICAL AREAS

According to best available information, the project is not positioned in a critical area.

SOILS

Six (6) on-site hollow-stem auger borings were completed throughout the corridor by Holocene Drilling Inc., under the guidance of Landau Associates Inc. The soil type observed beneath the existing surface conditions is categorized primarily as glacial outwash. This soil type, in a loose to very dense condition, consists of gray-brown sand and gravel with cobbles and silt.



EROSION PROBLEM AREAS

Potential on-site erosion control problems are not anticipated for this project.

CONSTRUCTION PHASING

This project will be completed in one (1) phase.

CONSTRUCTION SCHEDULE

Anticipated construction activities and sequences are shown in the following table.

CONSTRUCTION ACTIVITY	ANTICIPATED DATE OF COMPLETION
Contractor Notice to Proceed	06/01/2019
Install Erosion Control Facilities	06/01/2019
Begin Site Rough Grading	06/15/2019
Begin Installing Site Utilities	06/30/2019
Begin Concrete Installation and Paving	07/10/2019
Stabilize Site	08/30/2019
Project Substantial Completion	09/15/2019

Table 1: Construction Schedule

ENGINEERING CALCULATIONS

Refer to this project's Stormwater Site Plan for stormwater design calculations.

SITE PLAN

TESC plans are enclosed in the Stormwater Site Plan.

REFERENCES

Volume II of the 2012 Department of Ecology Stormwater Management Manual for Western Washington.

END OF CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN

APPENDIX E

Geotechnical Report

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Geotechnical Engineering Report Borst Avenue Redevelopment Centralia, Washington

May 8, 2018

Prepared for

SCJ Alliance
8730 Tallon Lane NE, Suite 200
Lacey, Washington



955 Malin Lane SW, Suite B
Tumwater, WA 98501
(360) 791-3178

Geotechnical Engineering Report Borst Avenue Redevelopment Centralia, Washington

This document was prepared by, or under the direct supervision of, the undersigned, whose seal is affixed below.

Name: Lance Levine
Washington/No. 45853

Date: May 8, 2018



Document prepared by:


Project Manager

Lance Levine, PE

Document reviewed by:


Quality Reviewer

Calvin McCaughan, PE

Date: May 8, 2018
Project No.: 1174024.010
File path: Y:\1174\024.010\R\Signature Page.docx
Project Coordinator: MCS

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2	Illumination Structures Allowable Lateral Bearing Resistance
3	Pavement Design Parameters
4	Recommended Asphalt Pavement Design Sections
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APPENDICES

<u>Appendix</u>	<u>Title</u>
A	Field Explorations
B	Laboratory Testing
C	Pavement Testing and Backcalculation Report

LIST OF ABBREVIATIONS AND ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
bgs.....	below ground surface
City.....	City of Centralia
County.....	Lewis County
ESAL	equivalent single-axle load
ft.....	foot/feet
FWD	falling weight deflectometer
GDM.....	Geotechnical Design Manual
HMA.....	hot-mix asphalt
LAI	Landau Associates, Inc.
MDD.....	maximum dry density
psf	pounds per square foot
psi.....	pounds per square inch
SCJ	SCJ Alliance
SWMMWW	2012 Stormwater Management Manual for Western Washington
WSDOT.....	Washington State Department of Transportation

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1.0 INTRODUCTION

This report summarizes the results of geotechnical engineering services provided by Landau Associates, Inc. (LAI) in support of the City of Centralia's (City) and Lewis County's (County) proposed Borst Avenue Redevelopment project in Centralia, Washington (site).

The general project location is shown on Figure 1. Figure 2 shows pertinent site features and the approximate locations of the explorations completed for this study. A description of our field explorations and summary logs of the conditions observed are provided in Appendix A. A description of our laboratory testing program and results of analyses performed on select samples obtained from the explorations are provided in Appendix B. Appendix C provides the results of falling weight deflectometer (FWD) tests performed along Borst Avenue.

This report has been prepared based on discussions with, and information provided by, representatives of SCJ Alliance (SCJ), the City, and the County; data collected during our field investigation and laboratory testing program; our familiarity with geologic conditions in the vicinity of the project area; and our experience with similar projects. Our services were provided in accordance with the terms set forth in the SCJ Subconsultant Agreement for Professional Services, dated February 19, 2018.

1.1 Project Understanding

We understand that the project includes the reconstruction of a 4,400-foot (ft)-long segment of Borst Avenue between Johnson Road and Eshom Road. Improvements will include the addition of new pavement with a sidewalk and infiltration facilities along the north side of the road. Realignment of shallow utilities may be required to accommodate the improvements.

We have been asked to provide infiltration rates for the area along the alignment as well as light pole recommendations and a new pavement design based on procedures presented in the American Association of State Highway and Transportation Officials' (AASHTO's) *Guide for Design of Pavement Structures* (1993). We understand that about 63 percent of the site is located within City limits and about 37 percent is within County jurisdiction.

1.2 Scope of Services

The purpose of our services was to explore subsurface conditions at the site and develop geotechnical conclusions and recommendations to support design and construction of the improvements. Our scope of services included the following tasks:

- reviewing available geologic maps and geotechnical reports for the project area.
- coordinating public and private utility locates.

- exploring subsurface soil and groundwater conditions at the site by advancing 13 borings 4.5 to 21.5 ft below ground surface (bgs) and completing one of the borings with a monitoring well.
- collecting representative soil samples and completing laboratory testing to aid in classification and estimation of engineering soil properties.
- conducting FWD survey of both lanes of the existing road.
- evaluating soil infiltration using the grain size methods provided in the Washington State Department of Ecology's *2012 Stormwater Management Manual for Western Washington* (2012 SWMMWW), amended in 2014, and presenting factored soil infiltration rates.
- providing recommendations for new hot-mix asphalt (HMA) pavement sections in accordance with the design method set forth by AASHTO in *Guide for Design of Pavement Structures* (1993).
- providing the estimated allowable lateral bearing resistance of illumination structures (i.e., light poles) in general accordance with the methods described in Section 17.2.1 of the Washington State Department of Transportation (WSDOT) *Geotechnical Design Manual* (GDM; 2015).
- preparing this geotechnical engineering report presenting our conclusions and recommendations along with supporting data.

2.0 SITE CONDITIONS

The following sections describe the geologic setting of the project area and the surface and subsurface conditions observed during our field explorations. Interpretations of the site conditions are based on our review of available geologic and geotechnical information and on the results of our site reconnaissance, subsurface explorations, and laboratory testing.

2.1 Geologic Review

Geologic information for the project area was obtained from the *Geologic Map of the Centralia Quadrangle, Washington* (Schasse 1987). Near-surface soil at the site is mapped as Vashon outwash gravel (Qgog), a material generally consisting of stratified, poorly to moderately sorted outwash sand and gravel that may contain silt or clay. Glacial outwash in the vicinity of the site typically exhibits moderate to high permeability and moderate shear strength. This unit was deposited by meltwater streams emanating from the face of a retreating glacier. The soils encountered in our explorations were generally consistent with the mapped geology for the site.

2.2 Surface Conditions

The site currently consists of a two-lane, asphalt-surfaced road oriented east to west. The pavement appears to vary from areas in fair condition to areas with failed conditions. No sidewalks border the road, except at the eastern end of the site.

2.3 Subsurface Explorations

Subsurface conditions at the site were explored on March 15, 2018 by advancing six hollow-stem auger borings (B-1 through B-5 and MW-1) 4.5 to 21.5 ft bgs. On April 4, 2018, seven push-probe borings were advanced 19 to 20 ft bgs using a Geoprobe™. Holocene Drilling, Inc., subcontracted by LAI, used track-mounted drill rigs to advance the borings at the approximate locations shown on Figure 2.

2.3.1 Soil Conditions

We categorized the soil observed beneath existing surface conditions (i.e., asphalt pavement and crushed gravel) as glacial outwash (outwash). Outwash, in a loose to very dense condition, consisting of gray-brown sand and gravel with cobbles and silt, was observed in all of the explorations to the depth explored. A description of the field explorations and summary logs of the conditions observed are provided in Appendix A.

Although boulders are too large to have been observed in the 1.5-inch inside-diameter, split-spoon sampler, they are often found in glacial deposits and may be present throughout the site. The contractor should be prepared to handle such oversized material.

2.3.2 Groundwater Conditions

During our March and April 2018 explorations, groundwater was observed between 17 and 20 ft bgs.

See Table 1 for depths to groundwater at the time of drilling. The groundwater conditions reported herein and on the summary exploration logs are for the specific locations and dates indicated and may not be indicative of other locations and/or times. Groundwater conditions will vary depending on local subsurface conditions, weather conditions, and other factors. Furthermore, groundwater levels in the project area are expected to fluctuate seasonally, with maximum groundwater levels occurring during late winter and early spring.

Table 1. Groundwater Depths

Exploration	Depth (ft)	Date
MW-1	19.0	3-15-18
MW-1	18.7	3-29-18
MW-1	19.6	4-4-18
B-6	19.5	4-4-18
B-7	17.0	4-4-18
B-8	19.5	4-4-18
B-9	19.5	4-4-18
B-10	20.0	4-4-18

ft = feet

3.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the conditions observed in our explorations and the results of our engineering analysis, it is our opinion that subsurface conditions at the site will provide suitable support for the proposed improvements, provided the recommendations contained herein are incorporated into the project design.

3.1 Illumination Pole Foundations

Proposed site improvements include the addition of illumination structures (i.e., light poles). We observed loose to very dense soil conditions in our explorations. Estimated allowable lateral bearing resistances for specific locations and depth intervals are provided in Table 2. Lateral bearing resistance was developed in general accordance with the methods described in Section 17.2.1 of the WSDOT GDM (2015).

Table 2. Illumination Structures Allowable Lateral Bearing Resistance

Location	Depth (ft)	Allowable Lateral Bearing Resistance (psf)
B-1	0.5–7	4,500
	7–10	3,500
B-2	0.5–4	1,000
	4–7	3,500
	7–10	1,500
B-3	0.5–4	3,100
	4–7	3,500
	7–10	4,500
B-4	0.5–4	4,200
	4–7	3,500
	7–10	4,500
B-5	0.5–4	2,100
B-6	0.5–4	1,500
	4–7	3,500
	7–10	4,200
B-7	0.5–4	1,500
	4–10	3,500
B-8	0.5–4	1,500
	4–7	3,500
	7–10	4,200

Location	Depth (ft)	Allowable Lateral Bearing Resistance (psf)
B-9	0.5–4	1,500
	4–7	3,500
	7–10	4,200
B-10	0.5–4	1,500
	4–7	3,500
	7–10	4,200
B-11	0.5–4	1,500
	4–7	3,500
	7–10	4,200
B-12	0.5–4	1,500
	4–7	3,500
	7–10	4,200
MW-1	0.5–4	4,200
	4–10	4,500

ft = feet

psf = pounds per square foot

3.2 Pavement Design

Current plans call for the reconstruction of 4,400 linear feet of Borst Avenue. The functional roadway classification of Borst Avenue is a major collector.

Pavement Services, subcontracted by LAI, completed FWD testing to evaluate the condition of the existing pavement subgrade (see Appendix C). The resilient moduli, obtained by FWD testing (and corresponding California Bearing Ratio value), were used in our pavement design. We recommend SCJ confirm the pavement design parameters provided in Table 3.

Table 3. Pavement Design Parameters

	City Portion	County Portion
Road Classification	Major Collector	Major Collector
Average Daily Traffic Count	1,800	1,800
Pavement Design Life	20 years	20 years
Design Serviceability Loss	2.2	2.2
Terminal Serviceability Index	2	2
Traffic in Design Lane	100 percent	100 percent

	City Portion	County Portion
Level of Reliability	90	90
Expected Growth Rate	2 percent	2 percent
California Bearing Ratio	3.58 percent	4.55 percent
Resilient Modulus	5,779 psi	6,738 psi
ESALs	2,400,000	2,400,000

ESAL = equivalent single-axle load
psi = pounds per square inch

The recommended pavement design sections in Table 4 are based on the AASHTO 1993 design method. The alternate section uses a Tensorar® TX5 geogrid to reinforce the crushed aggregate base layer.

Table 4. Recommended Asphalt Pavement Design Sections

Layer	Minimum Thickness		Alternate Minimum Thickness with Tensorar® TX5 Geogrid	
	Inches	Feet	Inches	Feet
HMA Pavement	4	0.33	4	0.33
Crushed Surfacing	8	0.67	6 ^(a)	0.5
Ballast or Compacted Native Soils	16	1.33	10	0.83

HMA = hot-mix asphalt

(a) Tensorar® TX5 geogrid used at the bottom of the crushed aggregate base layer

Pavement sections should be constructed on 16 inches of subgrade consisting of uniformly firm and unyielding onsite soil or ballast compacted to at least 95 percent of the maximum dry density (MDD). If prepared as recommended, the subgrade soils should provide adequate support of the pavement section.

HMA pavement should be class ½ inch, PG64-22 conforming to Section 5-04 of the WSDOT 2018 *Standard Specifications for Road, Bridge, and Municipal Construction* (2018 WSDOT Standard Specifications). The asphalt should be compacted to at least 91 percent of the Rice density. Base course, ballast material, and crushed surfacing should be compacted to at least 95 percent of the MDD, per ASTM International test method D1557, and should meet the requirements for Crushed Surfacing Base Course (Section 9-03.9[3] of the 2018 WSDOT Standard Specifications) and for Ballast (Section 9-03.9[1] of the 2018 WSDOT Standard Specifications). Prevention of road-base saturation is essential for pavement durability; thus, efforts should be made to limit the amount of water entering the base course.

3.3 Infiltration Rate Assessment

We understand stormwater generated by the proposed improvements will be infiltrated in facilities located along the north side of Borst Avenue, designed in accordance with the 2012 SWMMWW (Ecology 2014). The site is underlain by outwash, a unit that typically is well suited for infiltration, provided there is adequate separation between the bottom of the stormwater facilities and the groundwater table. During our March and April 2018 explorations, groundwater was observed between 17 and 20 ft bgs. When estimating infiltration rates, we assumed the groundwater observed at 17 ft bgs was near the seasonal high groundwater table.

Infiltration rates for onsite soils were estimated using the soil grain size analysis method and correction factors in the 2012 SWMMWW and the results of our laboratory tests (Appendix B). Correction factors to account for site variability and the number of locations tested ($CF_v = 0.8$), test method ($CF_t = 0.40$), and biofouling and siltation effects ($CF_m = 0.9$) were applied to the initial infiltration rates. We assumed a separation of at least 13 ft between the base of the facility and seasonal high groundwater (Dwt). We also assumed a ponded water depth (Dpond) of 1 ft. These assumptions should be verified or corrected during final design. The preliminary infiltration rates provided in Table 5 vary according to the location and depth of the exploration.

Table 5. Preliminary Infiltration Rates

Exploration and Sample Depth (ft bgs)	Depth Range (ft bgs)	Preliminary (factored) Infiltration Rate (inches/hour)
B-1	0.5–6	1.0
B-1	6–9.5	1.2
B-2	0.5–7	0.5
B-2	7–11.5	0.8
B-3	0.5–16.5	0.5
B-4	0.5–6	1.5
B-6	2–8	1.0
B-7	2.5–19	0.6
B-8	3–20	0.8
B-9	0.5–4.5	0.8
B-9	4.5–20	0.7
B-10	2–20	2.9
B-11	1.5–20	0.6
B-12	2–12	1.5
MW-1	0.5–14	1.0

Note: Seasonal high groundwater is assumed to be at or near 17 ft bgs.

bgs = below ground surface

ft = feet

4.0 CONSTRUCTION SUPPORT

We should be asked to review the geotechnical portions of the plans and specifications for the proposed improvements in advance of project bidding. The purpose of our review is to verify that the recommendations presented in this geotechnical engineering report have been properly interpreted and implemented in the design and project specifications.

We recommend that monitoring, testing, and consultation be provided during construction to confirm that the conditions observed are consistent with those indicated by our explorations, to provide expedient recommendations should conditions differ from those anticipated, and to evaluate whether geotechnical activities comply with the project plans, specifications, and the recommendations contained in this report. Such geotechnical activities include observation of roadway subgrades and compaction testing of structural fill. We would be pleased to provide these services for you.

5.0 USE OF THIS REPORT

Landau Associates, Inc. (LAI) prepared this geotechnical engineering report for the exclusive use of SCJ Alliance, Lewis County, and the City of Centralia for specific application to the proposed Lewis County Borst Avenue Redevelopment project in Centralia, Washington. Use of this report by others or for another project is at the user's sole risk. Within the limitations of scope, schedule, and budget, our services have been completed in accordance with generally accepted practices of the geotechnical engineering profession; no other warranty, express or implied, is made as to the professional advice included in this report.

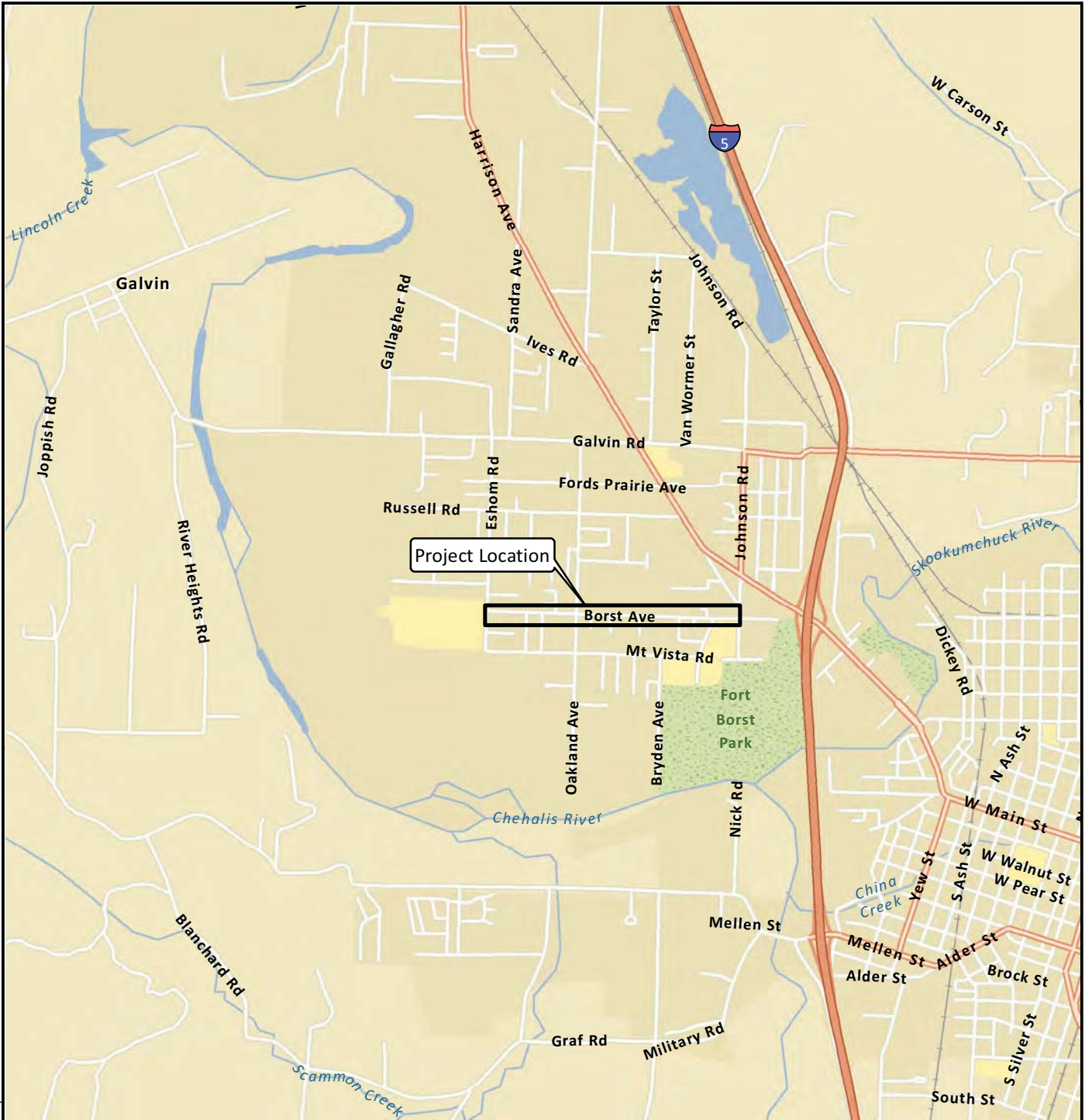
The conclusions and recommendations contained in this report are based in part on the subsurface data obtained from the explorations completed for this study. There may be some variation in subsurface soil and groundwater conditions at the site, and the nature and extent of the variations may not become evident until construction. Accordingly, a contingency for unanticipated conditions should be included in the construction budget and schedule.

If variations in subsurface conditions are encountered during construction, LAI should be notified for review of the recommendations in this report and revision of such if necessary. If there is a substantial lapse of time between submission of this report and the start of construction, we recommend that we review this report to determine the applicability of the conclusions and recommendations contained herein.

We appreciate the opportunity to be of service to you on this project. If you have questions or require additional information, please contact us at (360) 791-3178.

6.0 REFERENCES

- AASHTO. 1993. *Guide for Design of Pavement Structures*. American Association of State Highway and Transportation Officials.
- ASTM. 2003. D420-D5876: Annual Book of ASTM Standards. In Soil and Rock(I). West Conshohocken, PA: ASTM International.
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Data Source: Esri 2012



Borst Avenue Redevelopment
Centralia, Washington

Vicinity Map

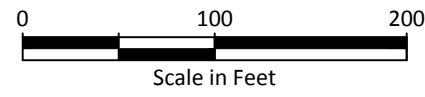
Figure
1



Source: Google Earth Pro, 2018

Note

- 1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.



Borst Avenue Redevelopment
Centralia, Washington

Site and Exploration Location Plan

Figure
2



Field Explorations

APPENDIX A FIELD EXPLORATIONS

Subsurface conditions at the site were explored on March 15, 2018 by advancing six hollow-stem auger borings (B-1 through B-5 and MW-1) 4.5 to 21.5 feet (ft) below ground surface (bgs). On April 4, 2018, seven push-probe borings were advanced 19 to 20 ft bgs using a Geoprobe™. Holocene Drilling, Inc., subcontracted by Landau Associates, Inc. (LAI), used track-mounted drill rigs to advance the borings at the approximate locations shown on Figure 2.

The geotechnical field investigation was coordinated and monitored by LAI personnel, who also obtained representative soil samples, maintained a detailed record of the subsurface soil and groundwater conditions observed, and described the soil encountered by visual and textural examination. Each representative soil type observed was described using the soil classification system and key shown on Figure A-1 and in general accordance with ASTM International test method D2488, *Standard Practice for Description and Identification of Soils (Visual-Manual Procedures)*. Logs of our explorations are presented on Figures A-2 through A-14. These logs represent our interpretation of subsurface conditions identified during the field explorations. The stratigraphic contacts shown on the individual logs represent the approximate boundaries between soil types; actual transitions may be more gradual. The soil and groundwater conditions depicted are for the specific dates and locations reported and are not necessarily representative of other locations and/or times.

Disturbed soil samples from the hollow-stem auger borings were obtained at 2½- and 5-ft intervals using a 1.5-inch inside-diameter, standard penetration test, split-spoon sampler. The sampler was driven up to 18 inches (or a portion thereof) into the undisturbed soil at the base of the boring with a 140-pound automatic hammer falling a distance of approximately 30 inches. The number of blows required to drive the sampler for the final 12 inches (or a portion thereof) of soil penetration is noted on the boring logs adjacent to the appropriate sample notation. Samples were collected from each notable layer of the Geoprobe™ borings. Upon completion of drilling and sampling, the boreholes were decommissioned in general accordance with the requirements of Washington Administrative Code 173-160.

Soil Classification System

	MAJOR DIVISIONS	CLEAN GRAVEL (Little or no fines)	GRAPHIC SYMBOL	LETTER SYMBOL ⁽¹⁾	TYPICAL DESCRIPTIONS ⁽²⁾⁽³⁾
COARSE-GRAINED SOIL (More than 50% of material is larger than No. 200 sieve size)	GRAVEL AND GRAVELLY SOIL (More than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (Little or no fines)		GW	Well-graded gravel; gravel/sand mixture(s); little or no fines
		GRAVEL WITH FINES (Appreciable amount of fines)		GP	Poorly graded gravel; gravel/sand mixture(s); little or no fines
		GRAVEL WITH FINES (Appreciable amount of fines)		GM	Silty gravel; gravel/sand/silt mixture(s)
	SAND AND SANDY SOIL (More than 50% of coarse fraction passed through No. 4 sieve)	CLEAN SAND (Little or no fines)		SW	Well-graded sand; gravelly sand; little or no fines
		CLEAN SAND (Little or no fines)		SP	Poorly graded sand; gravelly sand; little or no fines
		SAND WITH FINES (Appreciable amount of fines)		SM	Silty sand; sand/silt mixture(s)
FINE-GRAINED SOIL (More than 50% of material is smaller than No. 200 sieve size)	SILT AND CLAY (Liquid limit less than 50)	SILT AND CLAY (Liquid limit less than 50)		ML	Inorganic silt and very fine sand; rock flour; silty or clayey fine sand or clayey silt with slight plasticity
		SILT AND CLAY (Liquid limit less than 50)		CL	Inorganic clay of low to medium plasticity; gravelly clay; sandy clay; silty clay; lean clay
		SILT AND CLAY (Liquid limit less than 50)		OL	Organic silt; organic, silty clay of low plasticity
	SILT AND CLAY (Liquid limit greater than 50)	SILT AND CLAY (Liquid limit greater than 50)		MH	Inorganic silt; micaceous or diatomaceous fine sand
		SILT AND CLAY (Liquid limit greater than 50)		CH	Inorganic clay of high plasticity; fat clay
		SILT AND CLAY (Liquid limit greater than 50)		OH	Organic clay of medium to high plasticity; organic silt
	HIGHLY ORGANIC SOIL		PT	Peat; humus; swamp soil with high organic content	

OTHER MATERIALS	GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
PAVEMENT		AC or PC	Asphalt concrete pavement or Portland cement pavement
ROCK		RK	Rock (See Rock Classification)
WOOD		WD	Wood, lumber, wood chips
DEBRIS		DB	Construction debris, garbage

- Notes:
- USCS letter symbols correspond to symbols used by the Unified Soil Classification System and ASTM classification methods. Dual letter symbols (e.g., SP-SM for sand or gravel) indicate soil with an estimated 5-15% fines. Multiple letter symbols (e.g., ML/CL) indicate borderline or multiple soil classifications.
 - Soil descriptions are based on the general approach presented in the Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), outlined in ASTM D 2488. Where laboratory index testing has been conducted, soil classifications are based on the Standard Test Method for Classification of Soils for Engineering Purposes, as outlined in ASTM D 2487.
 - Soil description terminology is based on visual estimates (in the absence of laboratory test data) of the percentages of each soil type and is defined as follows:
 - Primary Constituent: > 50% - "GRAVEL," "SAND," "SILT," "CLAY," etc.
 - Secondary Constituents: > 30% and ≤ 50% - "very gravelly," "very sandy," "very silty," etc.
 - > 15% and ≤ 30% - "gravelly," "sandy," "silty," etc.
 - Additional Constituents: > 5% and ≤ 15% - "with gravel," "with sand," "with silt," etc.
 - ≤ 5% - "with trace gravel," "with trace sand," "with trace silt," etc., or not noted.
 - Soil density or consistency descriptions are based on judgement using a combination of sampler penetration blow counts, drilling or excavating conditions, field tests, and laboratory tests, as appropriate.

Drilling and Sampling Key		Field and Lab Test Data
SAMPLER TYPE	SAMPLE NUMBER & INTERVAL	
Code	Description	Code
a	3.25-inch O.D., 2.42-inch I.D. Split Spoon	PP = 1.0
b	2.00-inch O.D., 1.50-inch I.D. Split Spoon	TV = 0.5
c	Shelby Tube	PID = 100
d	Grab Sample	W = 10
e	Single-Tube Core Barrel	D = 120
f	Double-Tube Core Barrel	-200 = 60
g	2.50-inch O.D., 2.00-inch I.D. WSDOT	GS
h	3.00-inch O.D., 2.375-inch I.D. Mod. California	AL
i	Other - See text if applicable	GT
1	300-lb Hammer, 30-inch Drop	CA
2	140-lb Hammer, 30-inch Drop	
3	Pushed	
4	Vibrocore (Rotasonic/Geoprobe)	
5	Other - See text if applicable	

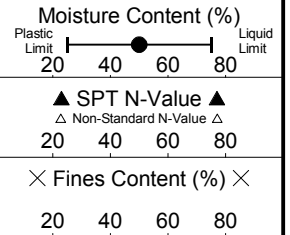
Groundwater	
	Approximate water level at time of drilling (ATD)
	Approximate water level at time other than ATD

B-01

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Depth (ft)	Elevation (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Soil Profile Description
0						AC		2 inches of asphalt over 4 inches of base course (ASPHALT)
0 - 1		S-1	b2	91	W = 2 GS			Brown to gray, sandy, fine to coarse GRAVEL with silt (very dense, moist) (OUTWASH)
1 - 2		S-2	b2	69				-Grades to gray
2 - 3		S-3	b2	21	W = 9 GS		GP-GM	Brown, very sandy, fine to coarse GRAVEL with silt (medium dense, moist)
3 - 4		S-4	b2	72			GP-GM	Gray, sandy, fine to coarse GRAVEL with silt (very dense, moist) -Grades to brown to gray and very dense
4 - 5								-Grades to with sand and cobbles
5 - 6		S-5	b2	55				

Groundwater

Groundwater Not Encountered

Boring Completed 03/15/18
 Total Depth of Boring = 16.5 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/30/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Redevelopment
 Centralia, Washington

Log of Boring B-01

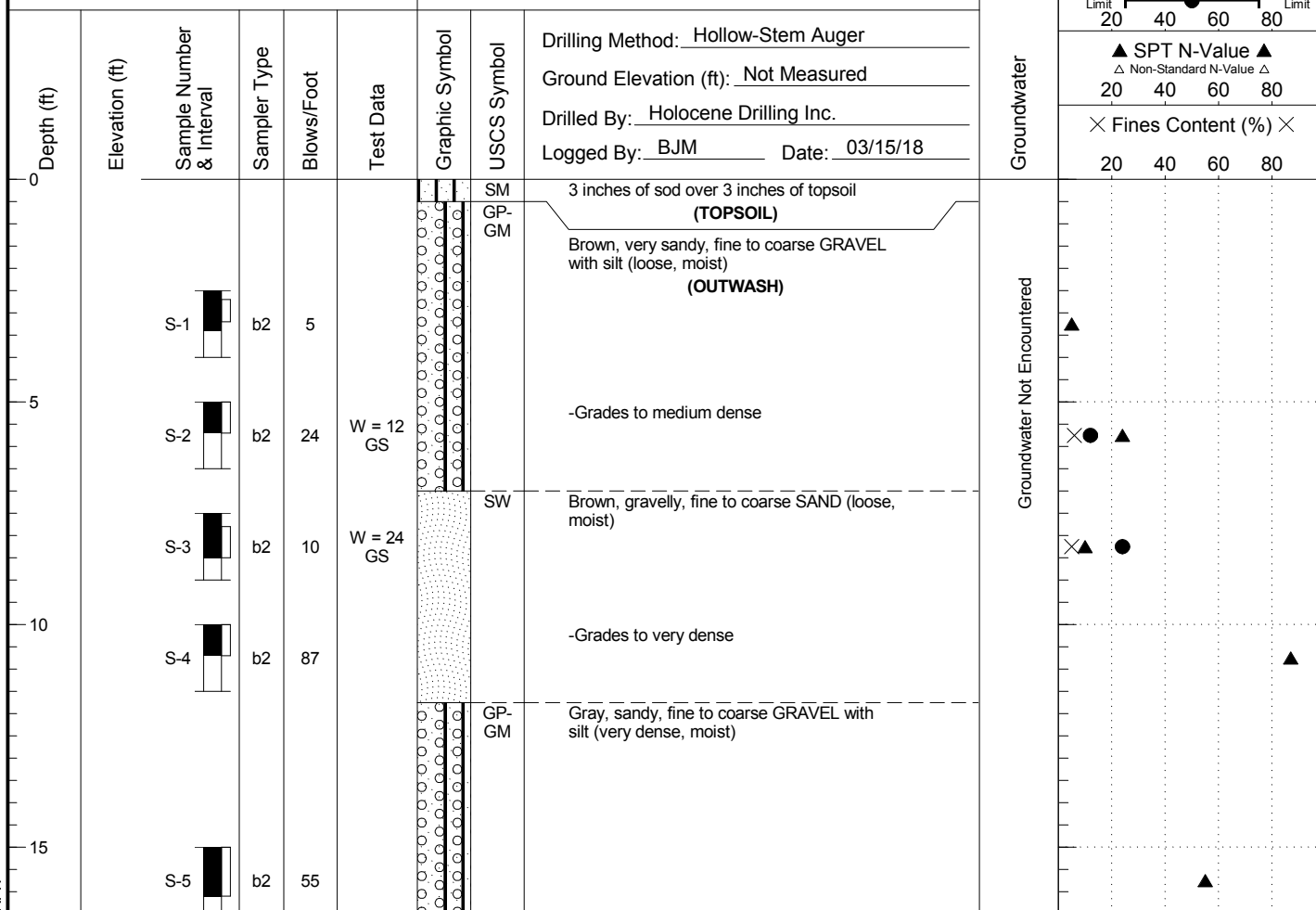
Figure
A-2

B-02

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Boring Completed 03/15/18
Total Depth of Boring = 16.5 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/30/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Redevelopment
Centralia, Washington

Log of Boring B-02

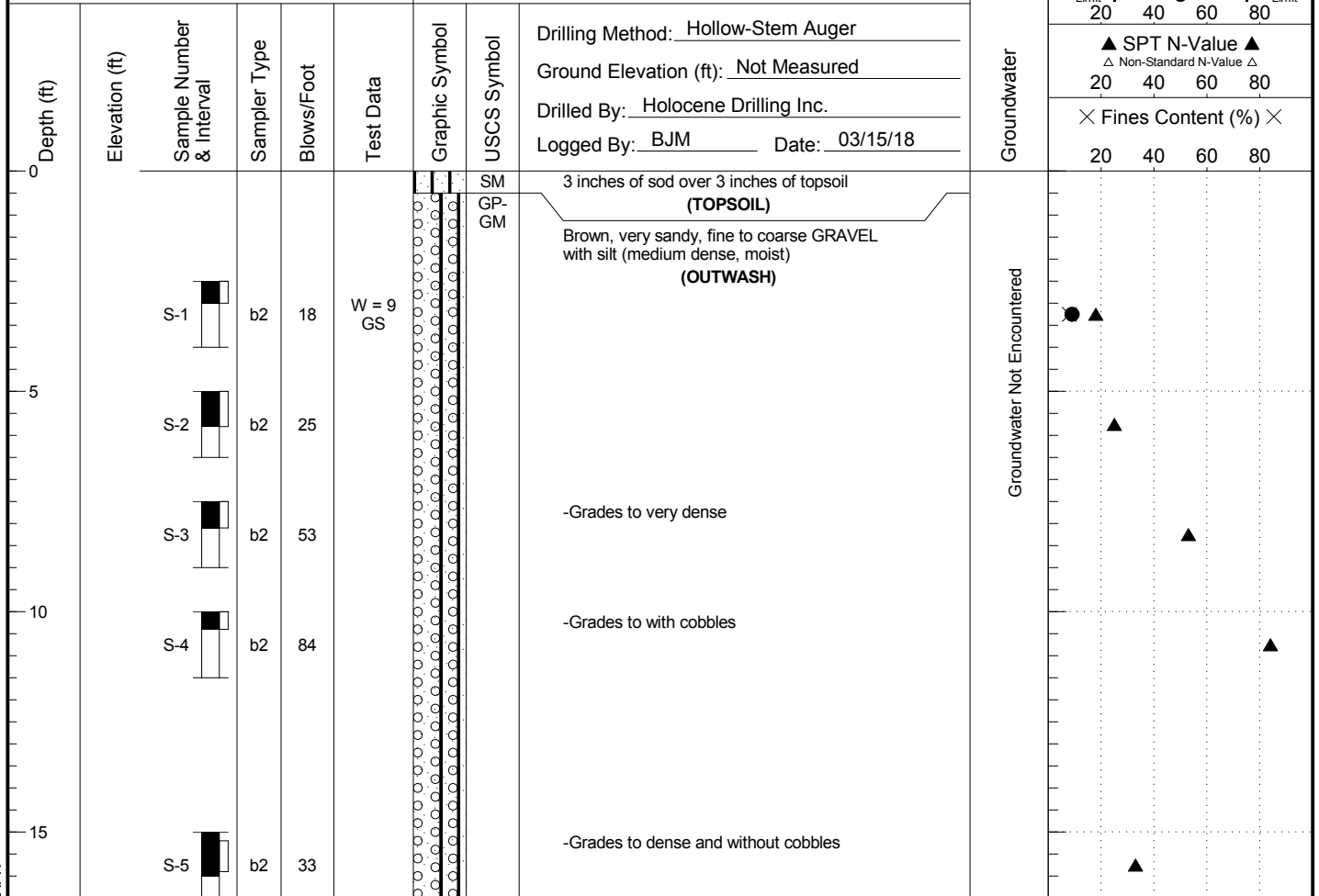
Figure
A-3

B-03

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Boring Completed 03/15/18
Total Depth of Boring = 16.5 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/30/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



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Centralia, Washington

Log of Boring B-03

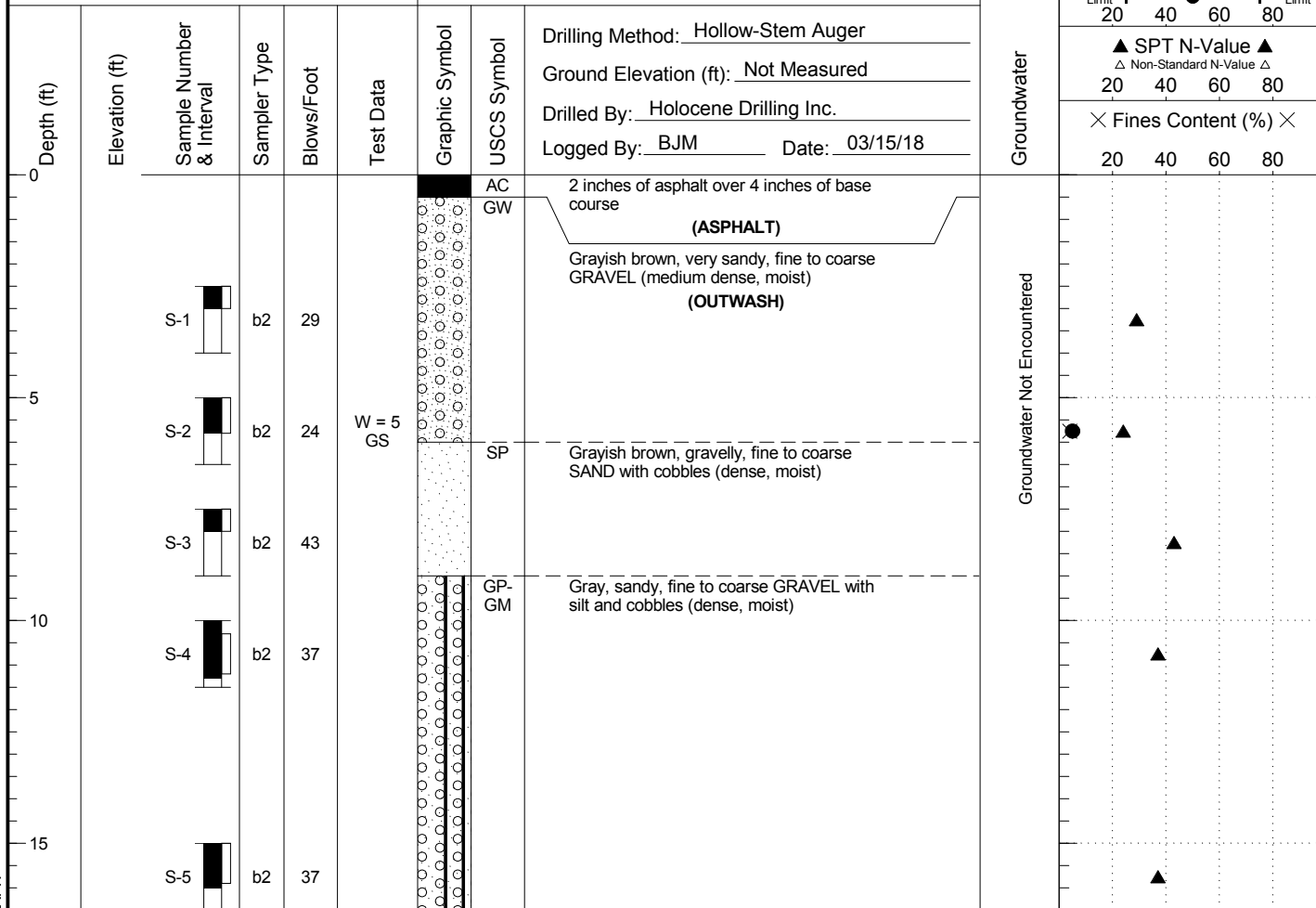
Figure
A-4

B-04

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Boring Completed 03/15/18
Total Depth of Boring = 16.5 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/30/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



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Centralia, Washington

Log of Boring B-04

Figure
A-5

B-05

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE

Depth (ft)	Elevation (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Drilling Method: <u>Hollow-Stem Auger</u> Ground Elevation (ft): <u>Not Measured</u> Drilled By: <u>Holocene Drilling Inc.</u> Logged By: <u>BJM</u> Date: <u>03/15/18</u>	Groundwater	Moisture Content (%)			
										Plastic Limit	Liquid Limit		
0		S-1	b2	13			GM	3 inches of asphalt over 9 inches of base course	Groundwater	▲ SPT N-Value ▲ △ Non-Standard N-Value △ × Fines Content (%) × 20 40 60 80			
0							GP-GM	(ASPHALT) Brown, sandy, fine to coarse GRAVEL with silt (medium dense, moist) (OUTWASH)	Groundwater Not Encountered				

Boring Completed 03/15/18
Total Depth of Boring = 4.5 ft.

Stopped drilling due to gas pocket

1174024.01 4/30/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



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Log of Boring B-05

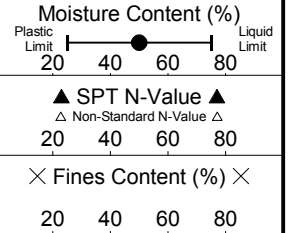
Figure
A-6

B-06

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Depth (ft)	Elevation (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™
0								Ground Elevation (ft): Not measured
0		S-1	i			AC SP- SM		Drilled By: Holocene Drilling Inc.
0								Logged By: DAR Date: 04/04/18
0								1 inch of asphalt over 4 inches of crushed rock (ASPHALT)
0								Dark brown, gravelly, fine to coarse SAND with silt (loose, moist) (OUTWASH)
0								Brown, very gravelly, fine to coarse SAND with silt (medium dense, moist)
5		S-2	i	W = 6 GS				
10		S-3	i				GP- GM	Brown, fine to coarse GRAVEL with sand and silt (dense, moist)
15		S-4	i					-Grades to sandy
20								-Grades to wet

Groundwater

19.5 ft ATD

Boring Completed 04/04/18
Total Depth of Boring = 20.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/30/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



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Log of Boring B-06

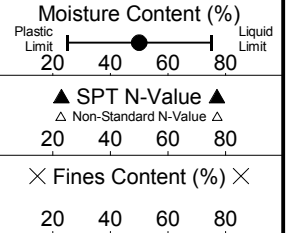
Figure
A-7

B-07

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Drilling Method: Geoprobe™
 Ground Elevation (ft): Not measured
 Drilled By: Holocene Drilling Inc.
 Logged By: DAR Date: 04/04/18

Depth (ft)	Elevation (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Description
0							AC SM	1 inch of asphalt over 3 inches of crushed rock (ASPHALT)
0 - 1		S-1	i				GP-GM	Dark brown, very silty, fine SAND (loose, moist) (OUTWASH)
1 - 6		S-2	i		W = 8 GS			Brown, very sandy, fine to coarse GRAVEL with silt (medium dense, moist)
6 - 11		S-3	i					-Grades to dense
11 - 19		S-4	i					-Grades to wet

Groundwater

17.0 ft ATD

Boring Completed 04/04/18
 Total Depth of Boring = 19.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/30/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



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Log of Boring B-07

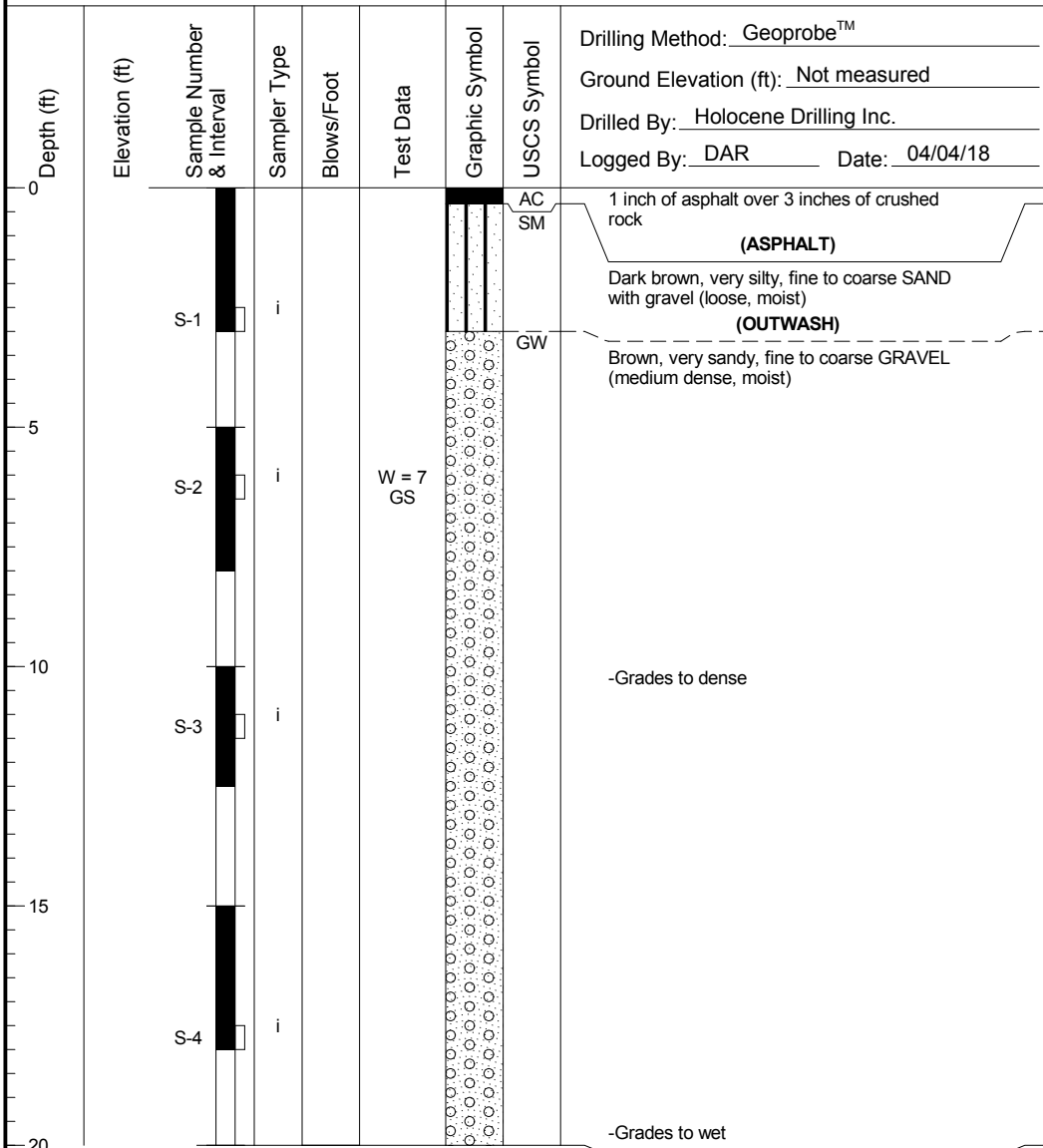
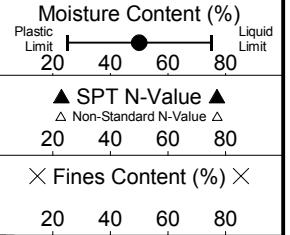
Figure
A-8

B-08

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Groundwater

19.5 ft ATD

Boring Completed 04/04/18
 Total Depth of Boring = 20.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/30/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Redevelopment
 Centralia, Washington

Log of Boring B-08

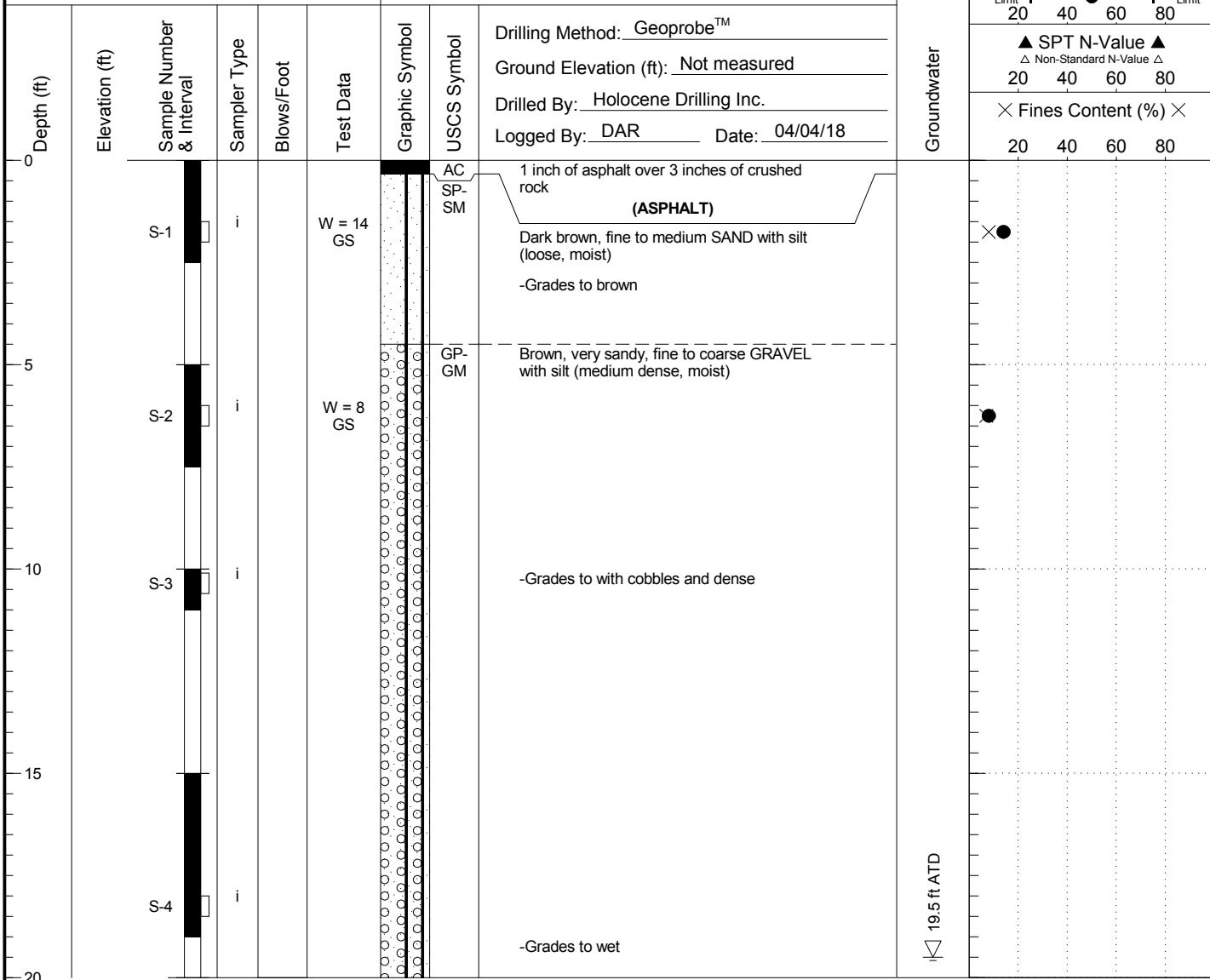
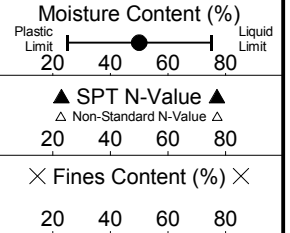
Figure
A-9

B-09

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Boring Completed 04/04/18
 Total Depth of Boring = 20.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/30/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Redevelopment
 Centralia, Washington

Log of Boring B-09

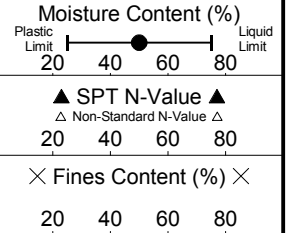
Figure
A-10

B-10

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Depth (ft)	Elevation (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Soil Description
0						AC SP- SM		1 inch of asphalt over 4 inches of crushed rock (ASPHALT)
0 - 1		S-1	I3					Dark brown to black, fine to coarse SAND with silt and gravel (loose, moist) (OUTWASH) Brown, sandy, fine to coarse GRAVEL (medium dense, moist)
1 - 2								
2 - 3		S-2	I3	W = 5 GS				
3 - 4								
4 - 5		S-3	I3					-Grades to dense
5 - 6								
6 - 7		S-4	I3					
7 - 8								
8 - 9		S-5	I3					-Grades to moist to wet
9 - 10								
10 - 11								
11 - 12								
12 - 13								
13 - 14								
14 - 15								
15 - 16								
16 - 17								
17 - 18								
18 - 19								
19 - 20								

Groundwater

20.0 ft ATD

Boring Completed 04/04/18
 Total Depth of Boring = 20.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/30/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



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 Centralia, Washington

Log of Boring B-10

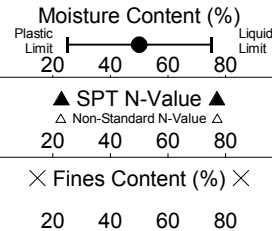
Figure
A-11

B-11

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Depth (ft)	Elevation (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Soil Profile Description
0								Drilling Method: Geoprobe™ Ground Elevation (ft): Not measured Drilled By: Holocene Drilling Inc. Logged By: DAR Date: 04/04/18
0 - 1		S-1	i3				GP-GM	Crushed rock surfacing (loose, moist) (FILL)
1 - 5		S-2	i3	W = 6 GS			SP-SM	Dark brown, fine to coarse SAND with gravel and silt (loose, moist) (OUTWASH)
5 - 11		S-3	i3				GP-GM	Brown, very sandy, fine to coarse GRAVEL with silt (medium dense, moist)
11 - 15		S-4	i3					-Grades to dense
15 - 20		S-5	i3					-Grades to moist to wet

Groundwater

Groundwater Not Encountered

Boring Completed 04/04/18
 Total Depth of Boring = 20.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/30/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



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Log of Boring B-11

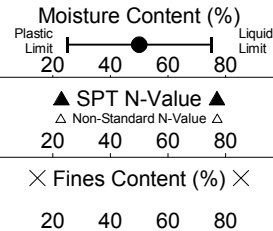
Figure
A-12

B-12

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Depth (ft)	Elevation (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Description
0								Drilling Method: Geoprobe™ Ground Elevation (ft): Not measured Drilled By: Holocene Drilling Inc. Logged By: DAR Date: 04/04/18
0 - 1		S-1	i			AC SP- SM		0.5 inches of asphalt over 3 inches of crushed rock (ASPHALT)
1 - 5		S-2	i		W = 5 GS	GW		Dark brown to black, fine to coarse SAND with gravel and silt (loose, moist) (OUTWASH) Brown, sandy, fine to coarse GRAVEL (medium dense, moist)
5 - 10								-Grades to dense
10 - 13		S-3	i			SP		Brown, fine to coarse SAND with gravel (dense, moist)
13 - 15						GP- GM		Brown, sandy, fine to coarse GRAVEL with silt (dense, moist)
15 - 18						SP		Brown, fine to coarse SAND with gravel (dense, moist)
18 - 20		S-4				GP- GM		Brown, sandy, fine to coarse GRAVEL with silt (dense, moist)

Groundwater

Groundwater Not Encountered

Boring Completed 04/04/18
Total Depth of Boring = 20.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/30/18 Y:\1174024.01\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Redevelopment
Centralia, Washington

Log of Boring B-12

Figure
A-13

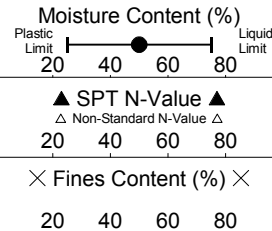
MW-1

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE

WELL DETAIL



Drilling Method: Hollow-Stem Auger

Ground Elevation (ft): Not Measured

Drilled By: Holocene Drilling Inc.

Logged By: BJM Date: 03/15/18

Depth (ft)

Elevation (ft)

Sample Number & Interval

Sampler Type

Blows/Foot

Test Data

Graphic Symbol

USCS Symbol

3 inches of sod over 3 inches of topsoil
(TOPSOIL)
 Brown, very sandy, fine to coarse GRAVEL with silt (medium dense, moist)
(OUTWASH)

WELL DETAIL

0

5

10

15

20

25

S-1

b2

26

S-2

b2

37

W = 6
GS

S-3

b2

50

S-4

b2

74

S-5

b2

36

S-6

b2

26

SM
GW-GM

GP

SM

Gray, cobbly, sandy, fine to coarse GRAVEL (dense, moist)

Brown, silty, fine to coarse SAND with gravel (medium dense, moist)

-Grades to dense

-Grades to very dense

-Grades to wet

Boring Completed 03/15/18
 Total Depth of Boring = 21.5 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/30/18 Y:\1174024.01\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Redevelopment
 Centralia, Washington

Log of Boring MW-1

Figure
A-14

Laboratory Testing

APPENDIX B LABORATORY TESTING

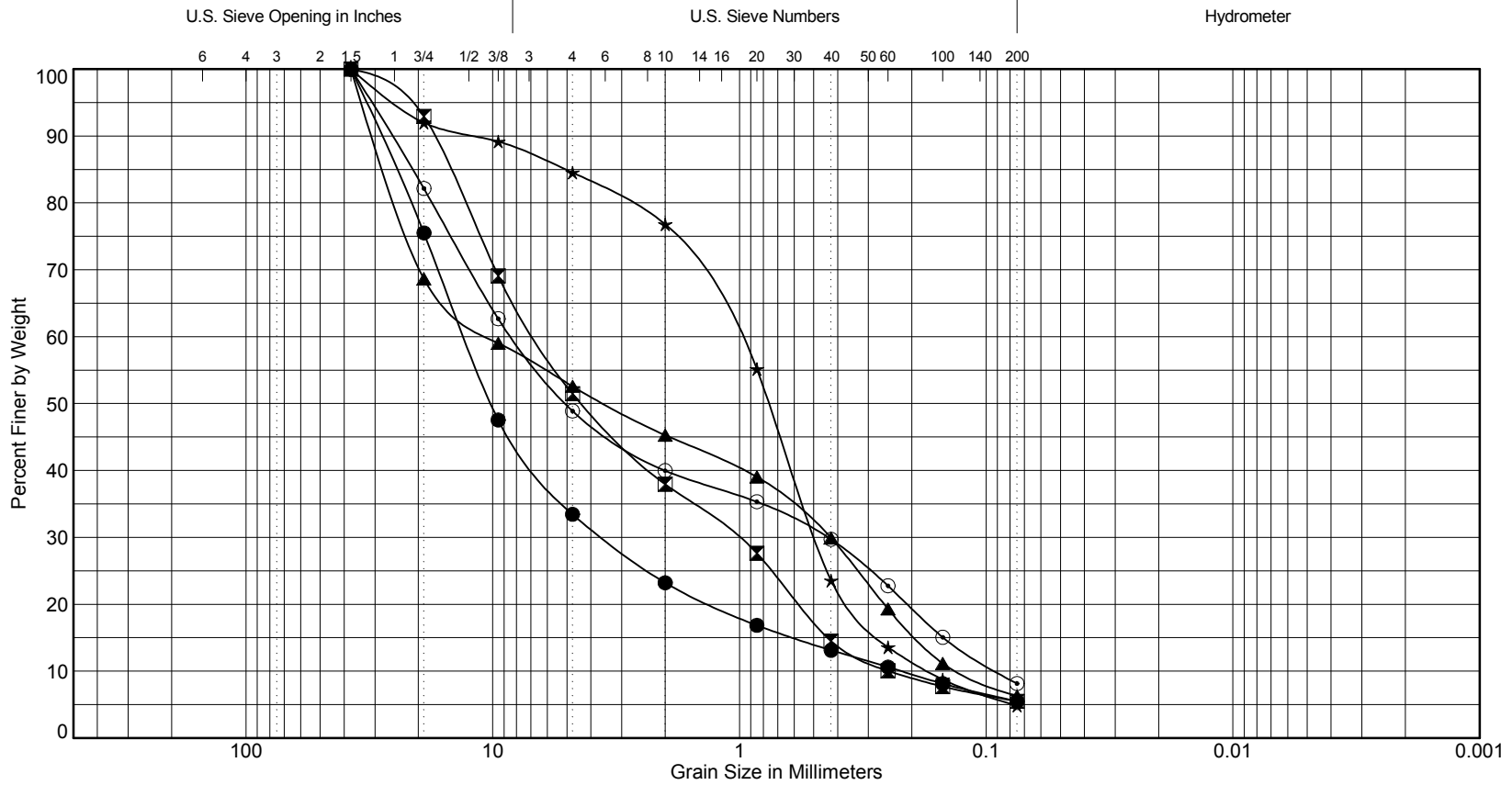
Natural moisture content determinations and grain size analyses were performed on select samples obtained from the borings. Laboratory testing was performed in general accordance with the ASTM International (ASTM) standard test methods described below. The samples were checked against the field log descriptions and updated where appropriate in general accordance with ASTM test method D2487, *Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)*.

Natural Moisture Content

Natural moisture content determinations were performed on select soil samples obtained from the explorations in general accordance with ASTM test method D2216. The natural moisture content is shown as $W = xx$ (i.e., percent of dry weight) at the respective sample depth in the column labeled "Test Data" on the summary exploration logs presented in Appendix A.

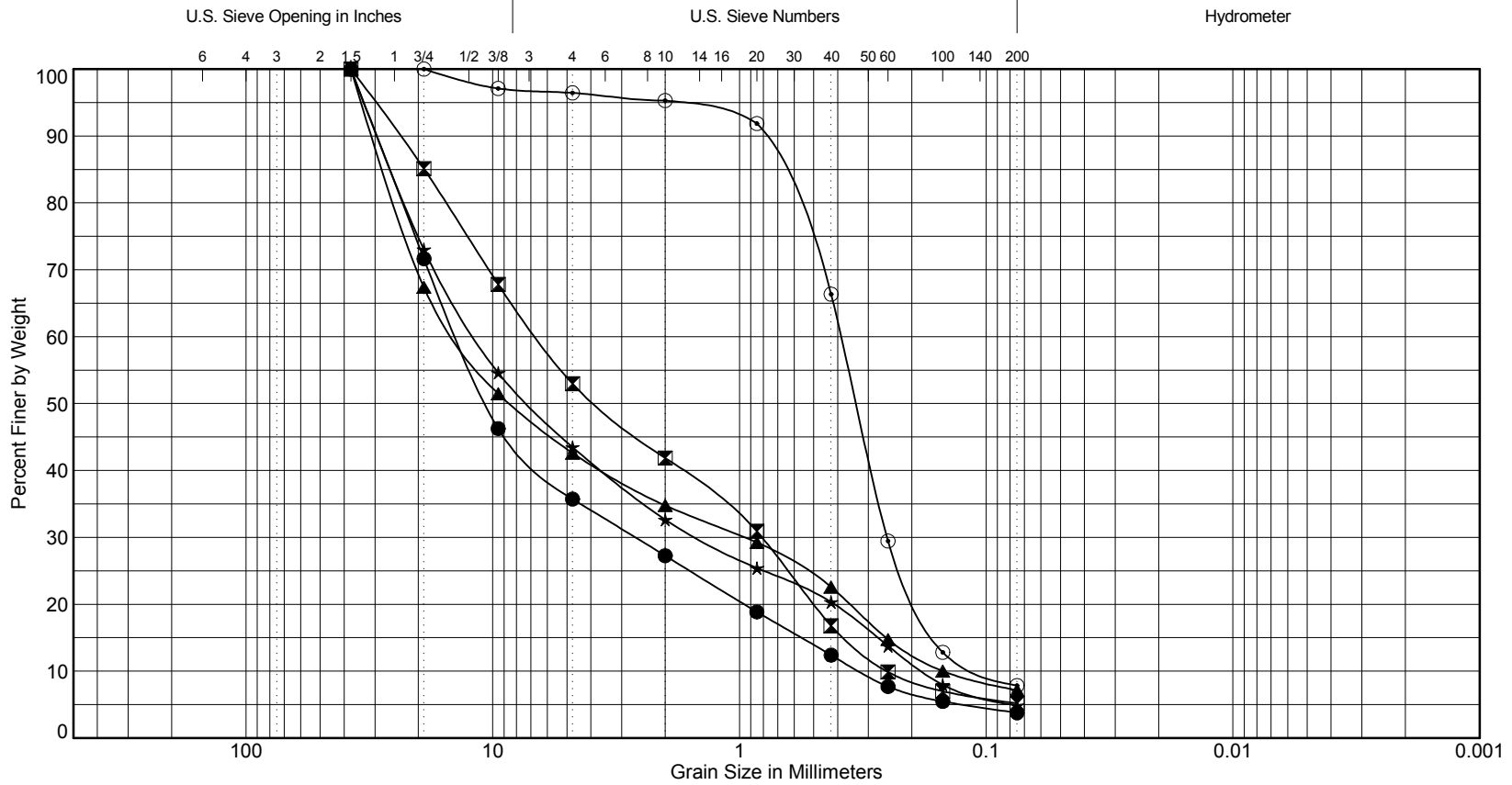
Grain Size Analyses

To provide an indication of the grain size distribution of the onsite soil, sieve analyses were conducted on representative soil samples obtained from the explorations in accordance with ASTM test method D422. Samples selected for grain size analyses are designated with a "GS" in the column labeled "Test Data" on the summary exploration logs in Appendix A. The results of the grain size analyses are presented in the form of grain size distribution curves on Figures B-1 through B-3 in this appendix.



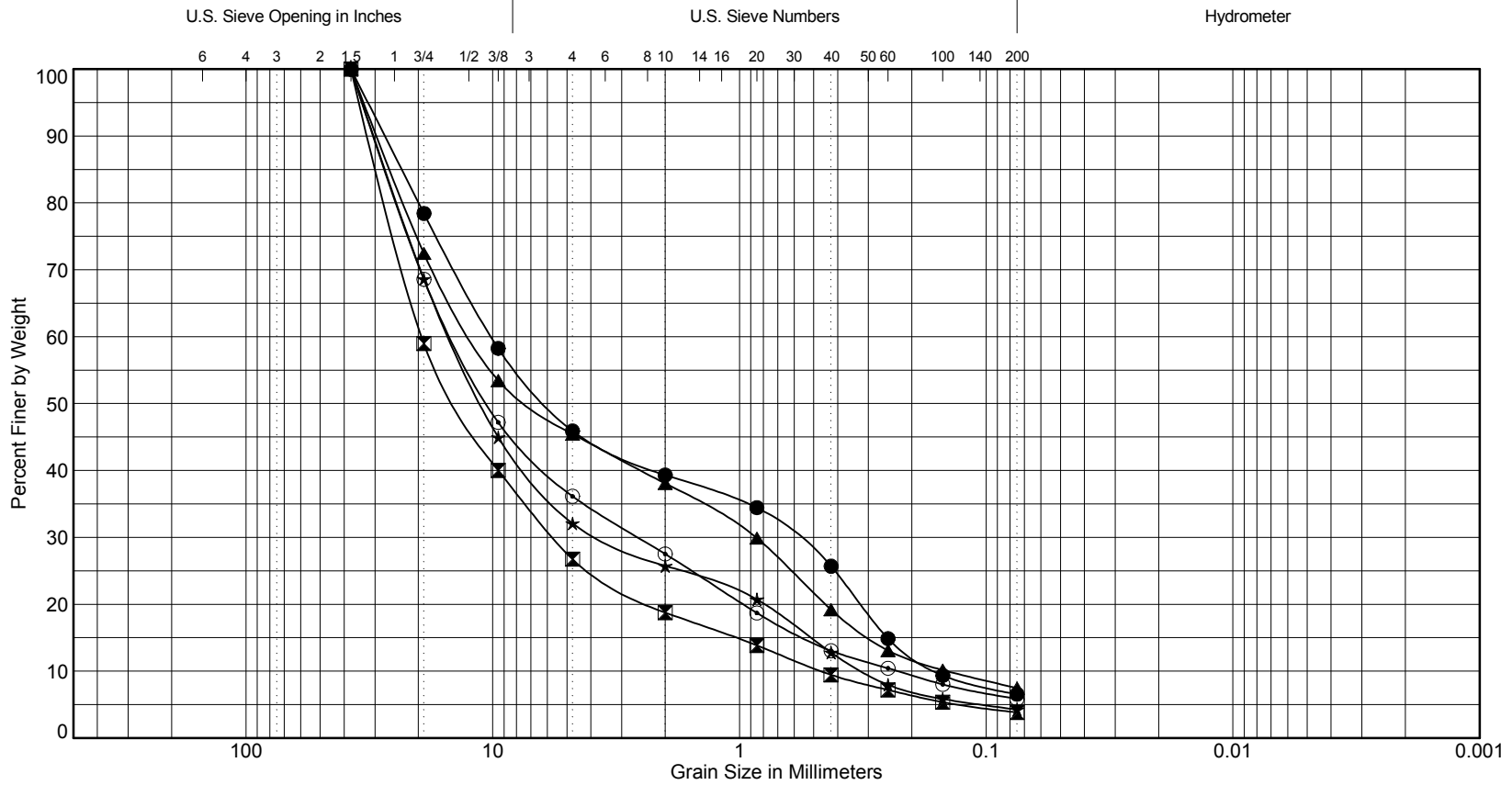
Cobbles	Gravel		Sand			Silt or Clay
	Coarse	Fine	Coarse	Medium	Fine	

Symbol	Exploration Number	Sample Number	Depth (ft)	Natural Moisture (%)	Soil Description	Unified Soil Classification
●	B-01	S-1	2.5	2	Sandy, fine to coarse GRAVEL with silt	GP-GM
⊠	B-01	S-3	7.5	9	Very sandy, fine to coarse GRAVEL with silt	GP-GM
▲	B-02	S-2	5.0	12	Very sandy, fine to coarse GRAVEL with silt	GP-GM
★	B-02	S-3	7.9	24	Gravelly, fine to coarse SAND	SW
⊙	B-03	S-1	2.5	9	Very sandy, fine to coarse GRAVEL with silt	GP-GM



Cobbles	Gravel		Sand			Silt or Clay
	Coarse	Fine	Coarse	Medium	Fine	

Symbol	Exploration Number	Sample Number	Depth (ft)	Natural Moisture (%)	Soil Description	Unified Soil Classification
●	B-04	S-2	5.0	5	Very sandy, fine to coarse GRAVEL	GW
⊠	B-06	S-2	6.0	6	Very gravelly, fine to coarse SAND with silt	SP-SM
▲	B-07	S-2	6.0	8	Very sandy, fine to coarse GRAVEL with silt	GP-GM
★	B-08	S-2	6.0	7	Very sandy, fine to coarse GRAVEL	GW
⊙	B-09	S-1	1.5	14	Fine to medium SAND with silt	SP-SM



Cobbles	Gravel		Sand			Silt or Clay
	Coarse	Fine	Coarse	Medium	Fine	

Symbol	Exploration Number	Sample Number	Depth (ft)	Natural Moisture (%)	Soil Description	Unified Soil Classification
●	B-09	S-2	6.0	8	Very sandy, fine to coarse GRAVEL with silt	GP-GM
⊠	B-10	S-2	6.0	5	Sandy, fine to coarse GRAVEL	GP
▲	B-11	S-2	6.0	6	Very sandy, fine to coarse GRAVEL with silt	GP-GM
★	B-12	S-2	7.0	5	Sandy, fine to coarse GRAVEL	GW
⊙	MW-1	S-2	5.0	6	Very sandy, fine to coarse GRAVEL with silt	GW-GM

Pavement Testing and Backcalculation Report

APPENDIX C

PAVEMENT TESTING AND BACKCALCULATION REPORT

This appendix provides the results of falling weight deflectometer (FWD) testing completed by Pavement Services on April 4, 2018. The FWD tests were performed in accordance with ASTM International test method D4694, using a KUAB Model 150 FWD device at approximately 100-foot intervals along both lanes of Borst Avenue.

The FWD test sequence consisted of four impact loads applied to the roadway surface at each test point. The initial impact load was used to seat the test equipment. Following this load, test measurements were made at nominal impact loads of 6,000; 9,000; and 12,000 pounds (lbs). The loads were applied with a 12-inch-diameter, segmented load plate designed to apply uniform surface pressure, despite irregularities in the roadway surface. Surface deflection was measured by seismometers (absolute deflection sensors) positioned at 0, 8, 12, 18, 24, 36, 48, and 60 inches from the center of the load plate. The FWD deflection data were normalized to a 9,000-lb load basis.

The effective subgrade resilient modulus (M_r) and effective structural number (S_{Neff}) of the existing pavement structure were backcalculated for each FWD test location using an equivalent pavement thickness backcalculation procedure. The resilient modulus values were corrected using a factor of 0.33, as recommended in the American Association of State Highway and Transportation Officials' *Guide for Design of Pavement Structures* (1993).

Pavement Testing and Backcalculation Report

Borst Avenue Redevelopment

April 30, 2018

Prepared for:



Landau Associates, Inc.
955 Malin Ln SW Suite B
Tumwater, WA 98501

Prepared by:



6026 NE 112th Avenue
Portland, OR 97220
503-235-0377
www.pavement.services



4-30-2018

Expires 10-12-2018

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INTRODUCTION

This report documents pavement testing and backcalculation analysis for the section of Borst Avenue from Eshom Road to Johnson Road in Centralia, Washington. The specific section of Borst Ave that is the subject of this study is the 4,400 ft long existing roadway segment from Eshom Rd to Johnson Rd. The project limits were identified to us by Landau Associates, Inc. and are shown in Figure 1. The western project limit at the intersection of Eshom Rd is the opposite side of the intersection from the entrance to the Centralia High School parking lot. The eastern project limit at the intersection with Johnson Rd is just north of Centralia Middle School. Within the project limits, Borst Ave is generally configured as a two-lane road (EB, WB) with occasional turn pockets. The posted speed limit is 30 mph.

The scope of our services included Falling Weight Deflectometer (FWD) testing, backcalculation and analysis of the FWD data to estimate subgrade resilient modulus.



Figure 1 — Borst Ave Vicinity Map (Source: Google Earth)

FIELD INVESTIGATION

Existing Conditions

Borst Ave is currently paved with hot mix asphalt (HMA) within the project limits. A thorough field investigation of existing pavement conditions was not included as part of this project work scope.

Falling Weight Deflectometer Testing

On April 4th, 2018, we conducted FWD testing at an interval of 100 ft in the eastbound and westbound travel directions along Borst Ave. The tests were conducted in accordance with ASTM D4694 using our KUAB 150 Falling Weight Deflectometer device, as shown in Figure 2. The FWD test sequence consisted of four impact loads applied to the roadway surface at each test point. The initial impact load was used to seat the test equipment. Following this load, test measurements were made at nominal impact loads of 6,000, 9,000 and 12,000 lbs, respectively. The loads were applied using a 12-inch diameter segmented load plate designed to apply a uniform surface pressure despite irregularities in the roadway surface. Surface deflection was measured by seismometers (absolute deflection sensors) positioned at 0, 8, 12, 18, 24, 36, 48 and 60 inches from the

center of the load plate. The FWD deflection data were normalized to a 9,000 lb (9-kip) load basis are included in Appendix B.



Figure 2—KUAB 150 Falling Weight Deflectometer

Delineation of Analysis Units

The effective subgrade resilient modulus (M_r) and effective structural number (SN_{eff}) of the existing pavement structure were backcalculated for each FWD test location using an equivalent pavement thickness backcalculation procedure that is independent of pavement thickness or composition. The resilient modulus values were corrected using the factor of 0.33 as recommended in the AASHTO Guide. Based on analysis of the FWD data, two analysis units were used to determine the M_r and SN_{eff} of the existing pavement structure. Analysis Unit 1 on the west side of the project includes STA 10+00 to 39+50, and Analysis Unit 2 on the east side includes STA 40+00 to 54+07. The dividing line between the two sections is between Rotary Lane and Sharon Street, around 2615 Borst Avenue.

Soil Exploration

Twelve shoulder borings through the aggregate base and subgrade soil to the depth of around 20 ft were conducted within Analysis Unit 1 by Holocene Drilling Inc under contract to others. The boring locations were selected by Landau Associates on the shoulders of the eastbound and westbound lanes. Logs of the soil explorations are included in Appendix A.

Explorations conducted by Holocene Drilling indicate that the existing base layer varies from 3 to 9 inches thick. No details on the consistency of the base material were given in their logs. Outwash and alluvium soils make up the shallower subgrade layers, consisting of sandy/silty gravel or gravely/silty sand. The groundwater table was at the maximum explored depth (20 ft) where encountered.

These results are generally consistent with the USDA Soil Survey for the Lewis County Area, which indicates shallow gravelly sandy loam over extremely gravelly sand throughout the Borst Ave project extents. These soils occur on glacial outwash and glacial drift plains and are typical of the Puget Sound region.

Table 1—Summary of Pavement Core Explorations by Others

Boring No.	HMA Thick, in	AB Thick, in	Subgrade Description
01	2	4	Very sandy, fine to coarse GRAVEL with silt (very dense, moist)
02	-	-	Silty, fine to coarse SAND with trace gravel (loose, moist)
03	-	-	Fine to coarse SAND with silt and gravel (medium dense, moist)
04	2	4	Gravelly, fine to coarse SAND with silt (medium dense, moist)
05	3	9	Fine to coarse SAND with silt and gravel (medium dense, moist)
06	1	4	Fine to coarse SAND with silt and gravel (loose, moist)
07	1	3	Very silty, fine to coarse SAND (loose, moist)
08	1	3	Very silty, fine to coarse SAND with gravel (loose, moist)
09	1	3	Fine to coarse SAND with silt (loose, moist)
10	1	4	Fine to coarse GRAVEL with silt (medium dense, moist)
11	-	-	Sandy, fine to coarse GRAVEL with silt (medium dense, moist)
12	0.5	3	Sandy, fine to coarse GRAVEL with silt (medium dense, moist)

Backcalculation Analysis

We conducted backcalculation analysis of the FWD test data using the methods prescribed in Chapter 5 and Appendix L of the AASHTO Guide. The AASHTO method allows the user to backcalculate the M_r at each FWD test location by solving a closed form equation and applying a correction factor to obtain effective subgrade resilient modulus (M_r) values appropriate for use in design. Appendix C of this report includes the AASHTO backcalculated values of the uncorrected and corrected subgrade M_r as well as the effective structural number of the existing pavement for each FWD test point along the project alignment. A statistical summary of the FWD backcalculation analysis results is shown in Table 2.

Table 2—Statistical Summary of Backcalculated Subgrade Resilient Modulus

Analysis Unit	Analysis Parameter	Mean (\bar{x})	Std Deviation s	COV	$\bar{x} - s $
1	Mr, psi	6,735	1,625	24%	5,110
	S _{Neff}	2.22	0.40	18%	1.82
2	Mr, psi	5,776	2,794	48%	2,982
	S _{Neff}	2.14	0.78	36%	1.36

We recommend that the design subgrade resilient modulus be selected as the mean value, as suggested by the AASHTO Guide. Using this method, the design subgrade resilient modulus for Analysis Unit 1 is 6,735 psi, and for Analysis Unit 2 it is 5,776 psi.

Limitations

This report was prepared solely for Landau Associates, Inc. in support of pavement design and construction for Borst Ave. The opinions and recommendations contained within the report are not intended, nor should they be construed, to represent a warranty, either express or implied. Our work has been performed in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the locale. No other warranty, expressed or implied, is made.

We appreciate the opportunity to assist you in this project. Please feel free to contact us with any questions that you may have regarding the data in this report.



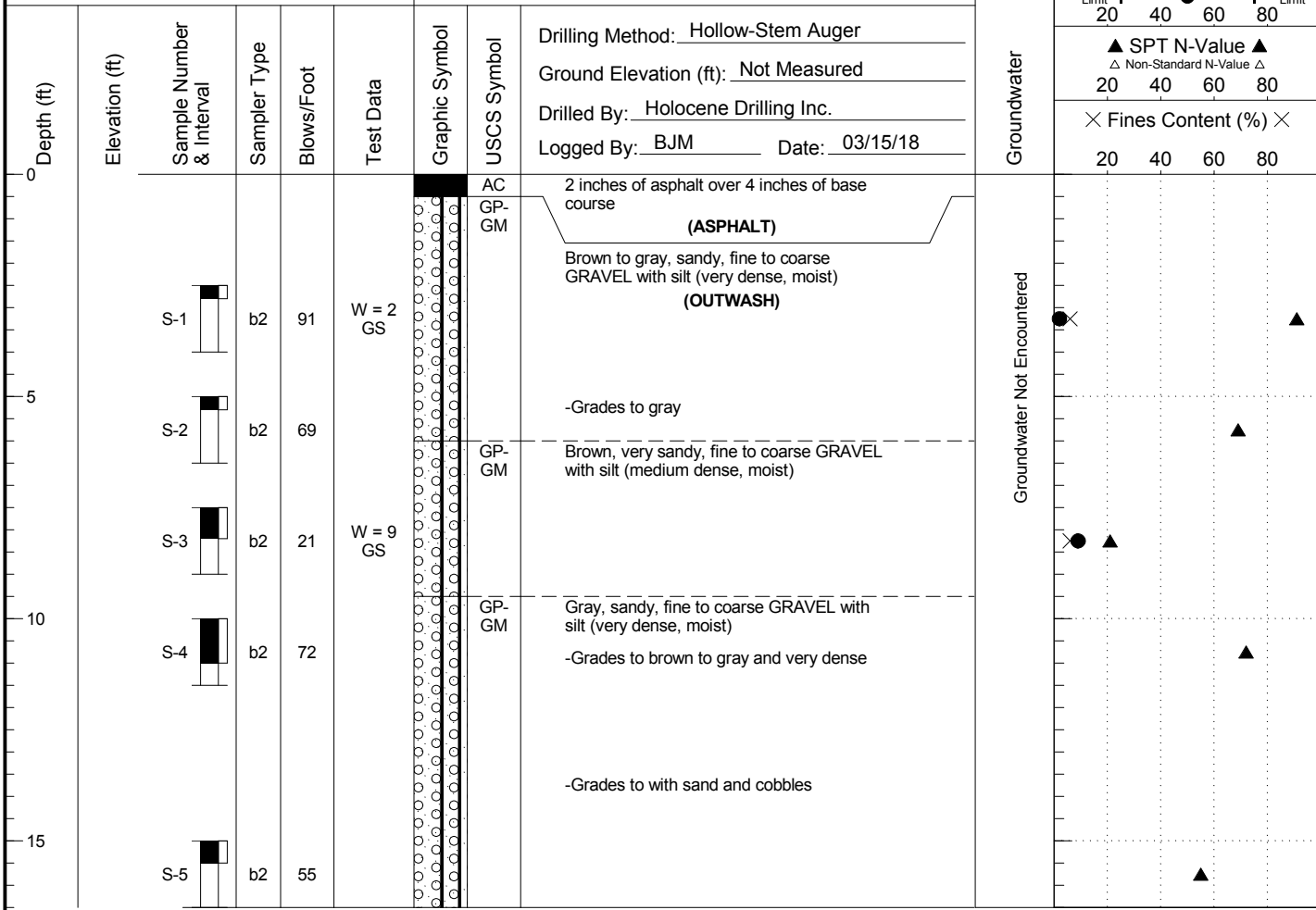
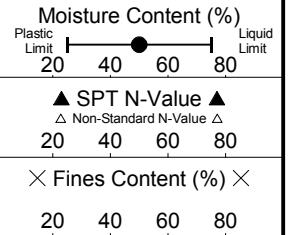
APPENDIX A: BORING LOGS CONDUCTED BY OTHERS

B-01

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Boring Completed 03/15/18
 Total Depth of Boring = 16.5 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/27/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Improvements
 Centralia, Washington

Log of Boring B-01

Figure
A-2

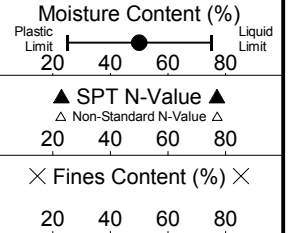
B-02

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE

Groundwater

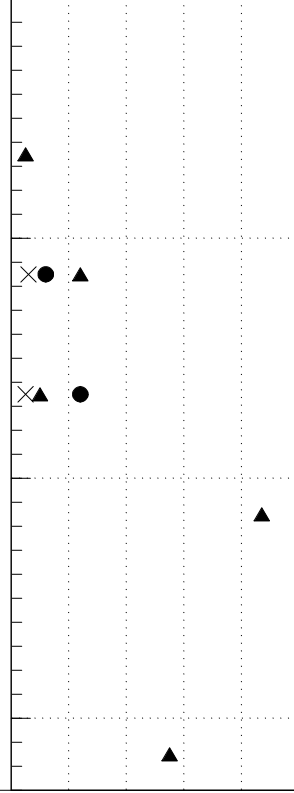


Drilling Method: Hollow-Stem Auger
 Ground Elevation (ft): Not Measured
 Drilled By: Holocene Drilling Inc.
 Logged By: BJM Date: 03/15/18

1174024.01 4/27/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH

Depth (ft)	Elevation (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Description
0							SM	3 inches of sod over 3 inches of topsoil (TOPSOIL)
0-5		S-1	b2	5			GP-GM	Brown, very sandy, fine to coarse GRAVEL with silt (loose, moist) (OUTWASH)
5-10		S-2	b2	24	W = 12 GS			-Grades to medium dense
10-15		S-3	b2	10	W = 24 GS		SW	Brown, gravelly, fine to coarse SAND (loose, moist)
15-20		S-4	b2	87				-Grades to very dense
20-25		S-5	b2	55			GP-GM	Gray, sandy, fine to coarse GRAVEL with silt (very dense, moist)

Groundwater Not Encountered



Boring Completed 03/15/18
 Total Depth of Boring = 16.5 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Borst Avenue Improvements
 Centralia, Washington

Log of Boring B-02

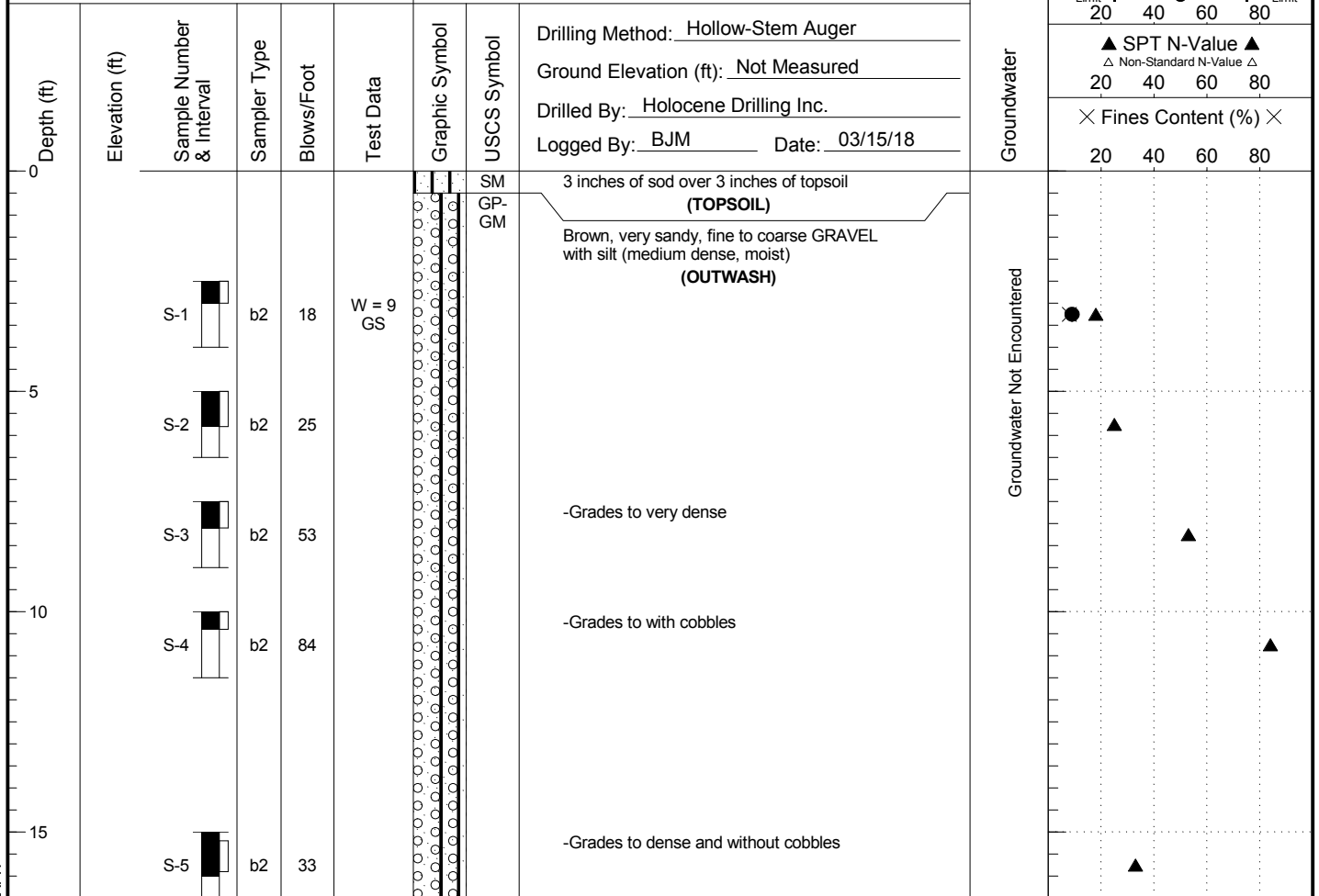
Figure
A-3

B-03

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Boring Completed 03/15/18
Total Depth of Boring = 16.5 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/27/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Improvements
Centralia, Washington

Log of Boring B-03

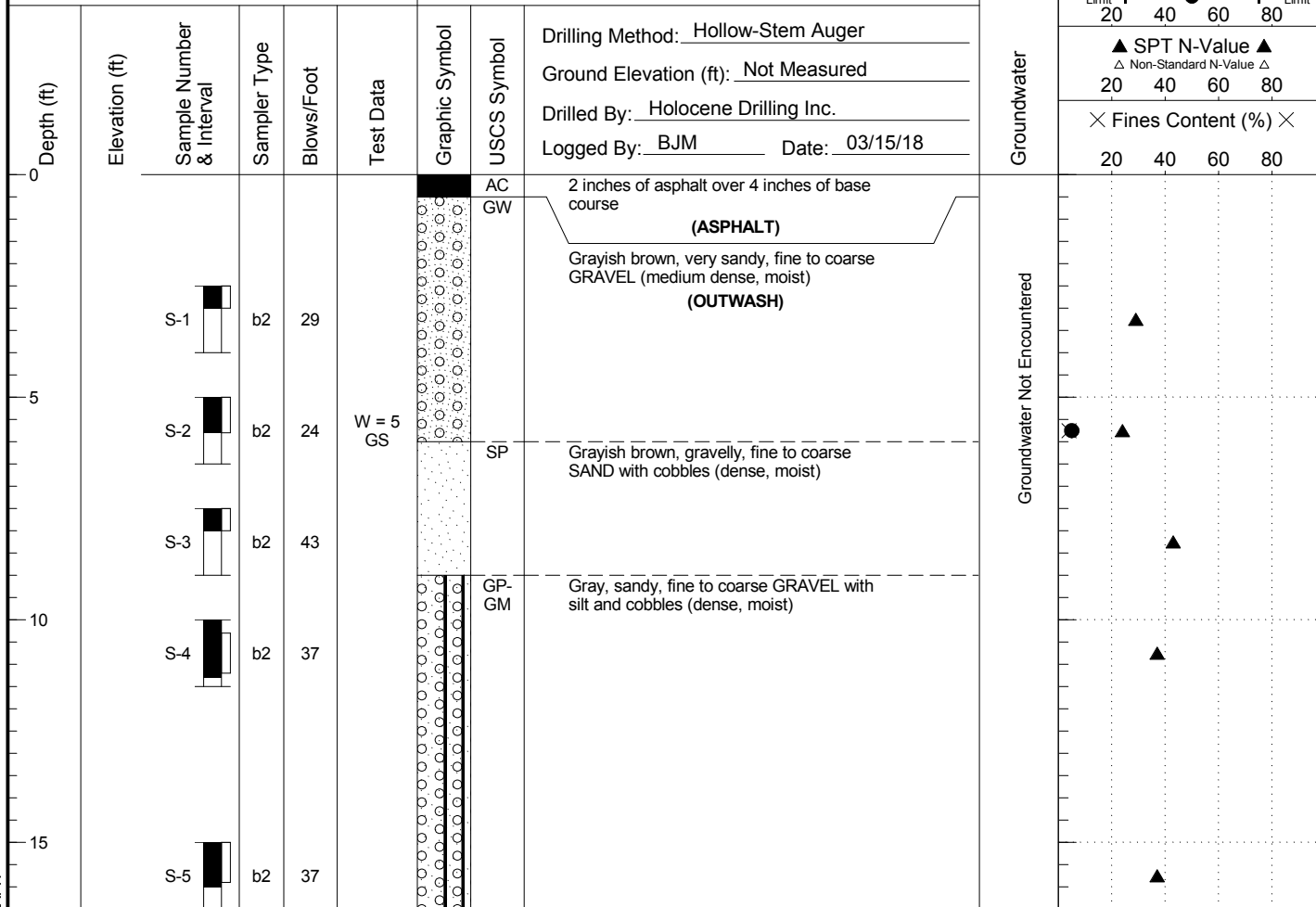
Figure
A-4

B-04

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Boring Completed 03/15/18
Total Depth of Boring = 16.5 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/27/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Improvements
Centralia, Washington

Log of Boring B-04

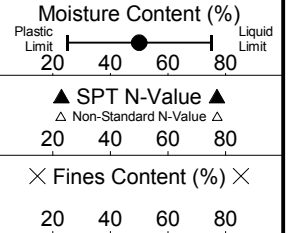
Figure
A-5

B-05

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Depth (ft)	Elevation (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Soil Profile Description
0		S-1	b2	13			GM	3 inches of asphalt over 9 inches of base course
							GP-GM	(ASPHALT) Brown, sandy, fine to coarse GRAVEL with silt (medium dense, moist) (OUTWASH)

Groundwater

Groundwater Not Encountered

Stopped drilling due to gas pocket

Boring Completed 03/15/18
 Total Depth of Boring = 4.5 ft.

1174024.01 4/27/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Borst Avenue Improvements
 Centralia, Washington

Log of Boring B-05

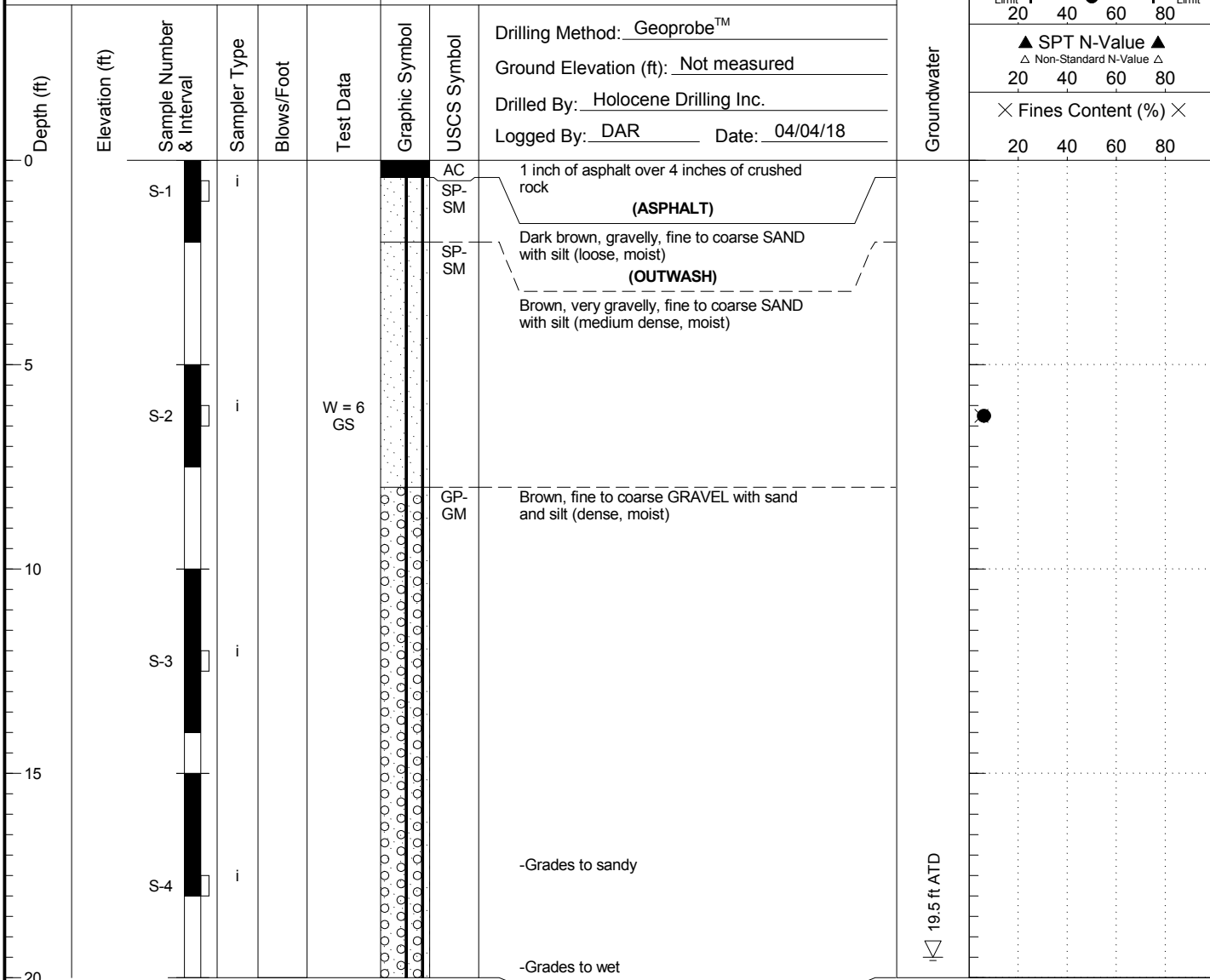
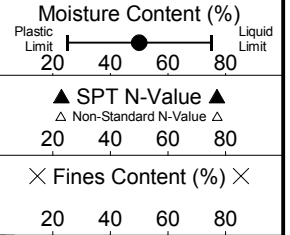
Figure
A-6

B-06

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Boring Completed 04/04/18
Total Depth of Boring = 20.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/27/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Improvements
Centralia, Washington

Log of Boring B-06

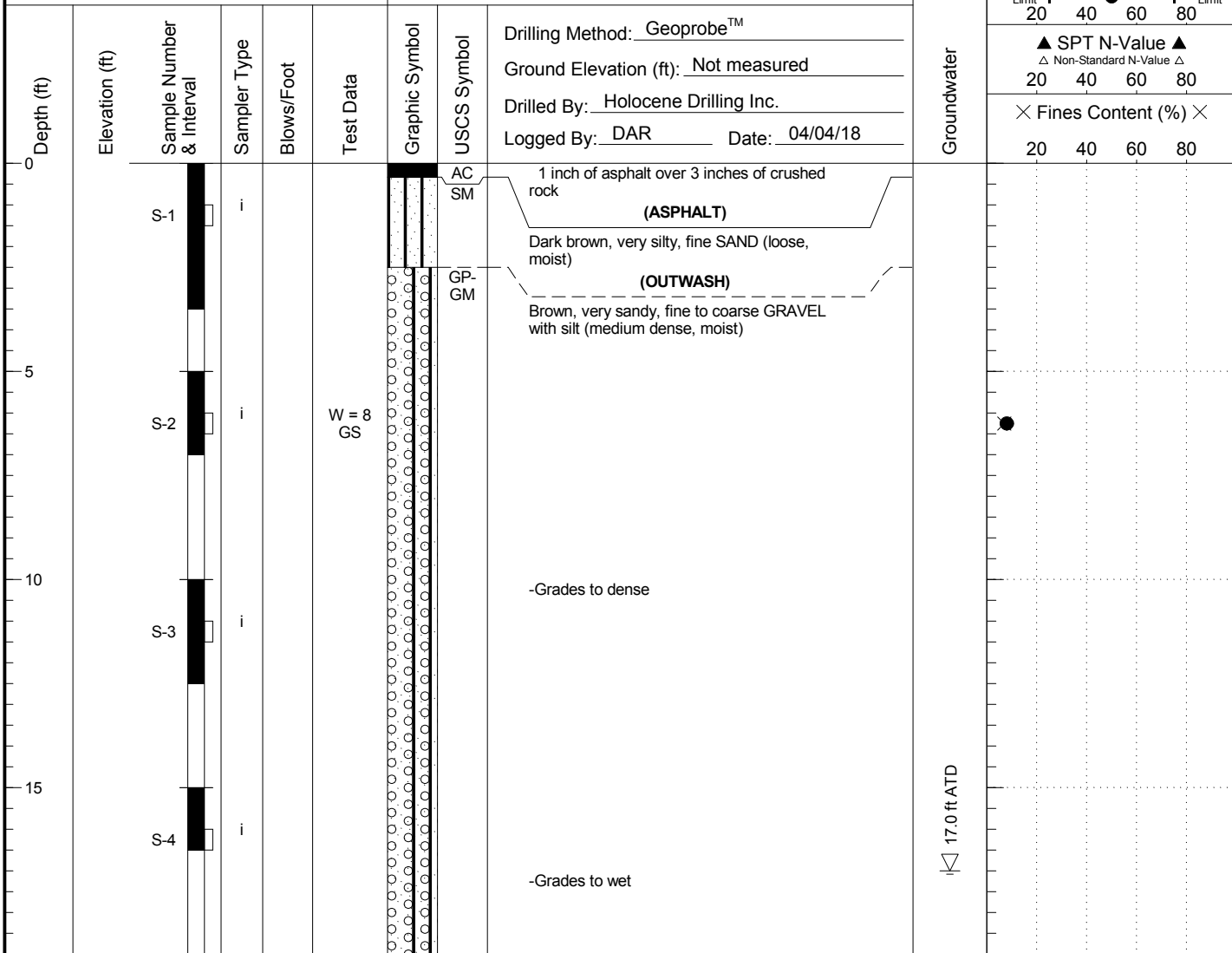
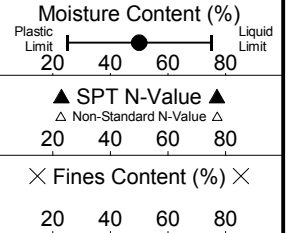
Figure
A-7

B-07

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Boring Completed 04/04/18
 Total Depth of Boring = 19.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/27/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Improvements
 Centralia, Washington

Log of Boring B-07

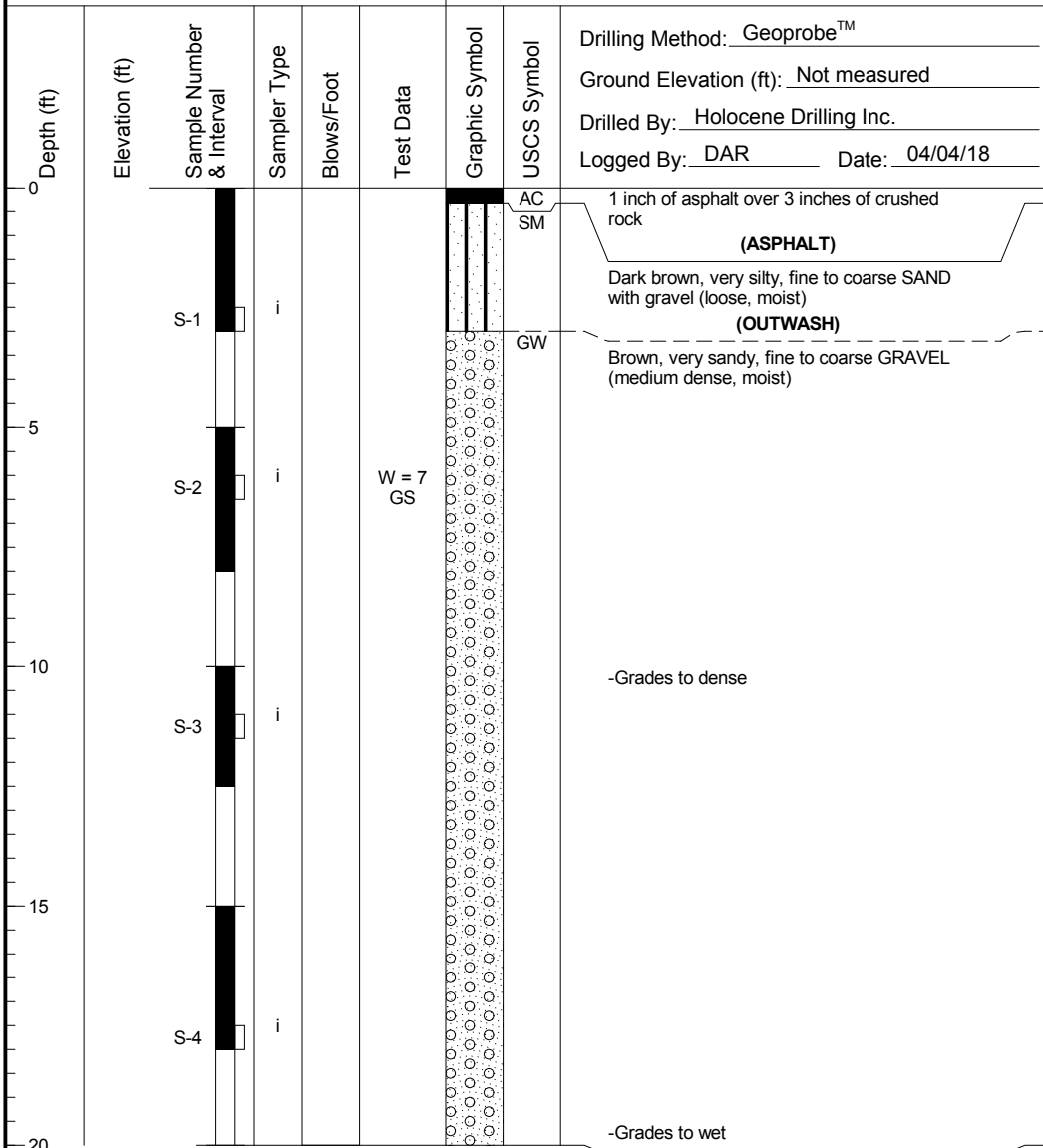
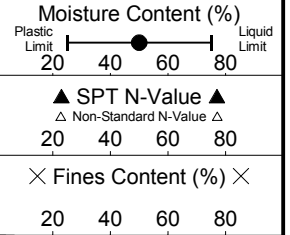
Figure
A-8

B-08

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Boring Completed 04/04/18
 Total Depth of Boring = 20.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/27/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Improvements
 Centralia, Washington

Log of Boring B-08

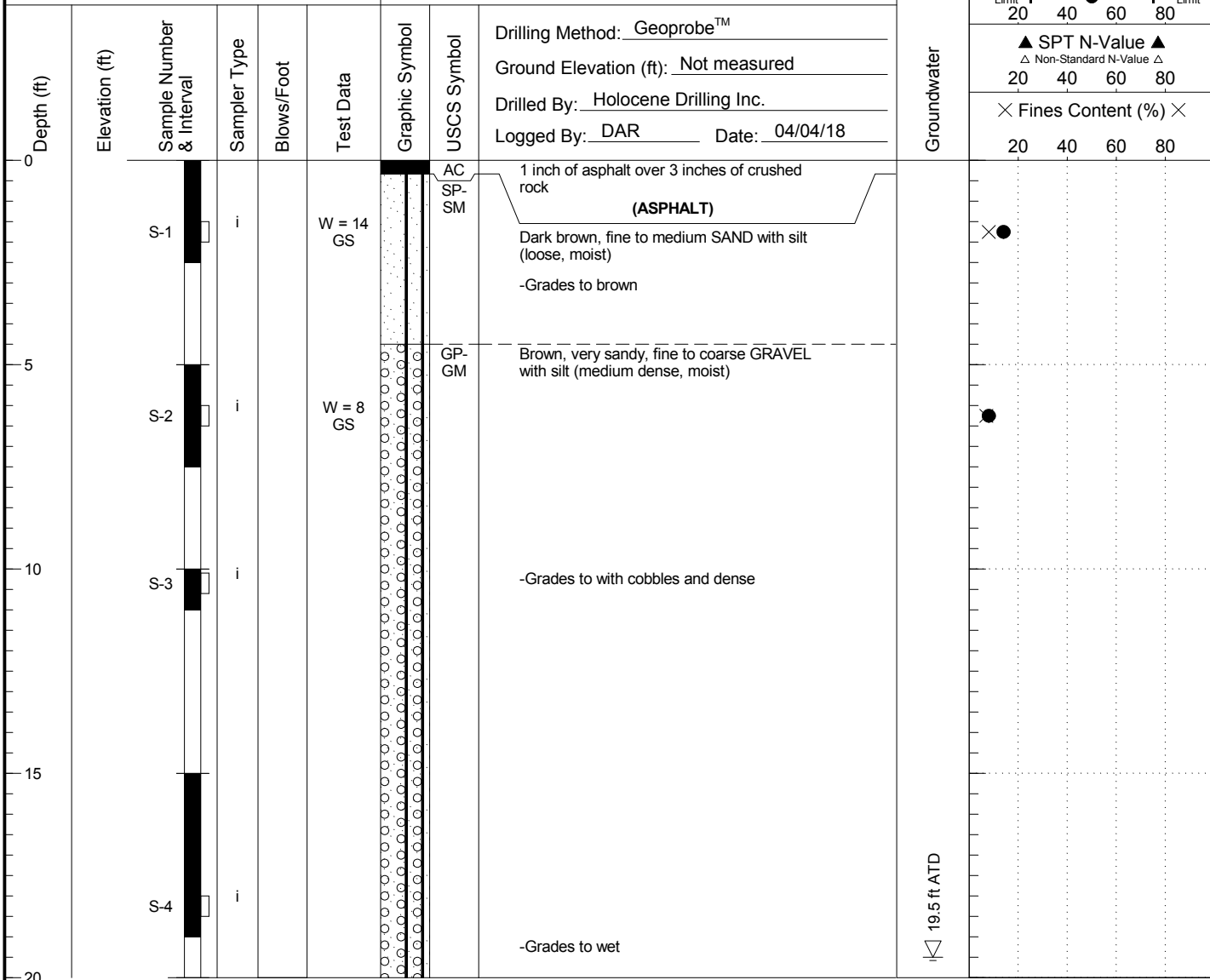
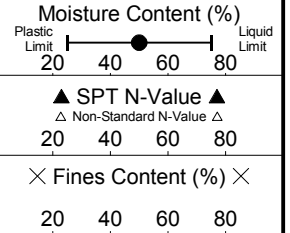
Figure
A-9

B-09

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Boring Completed 04/04/18
 Total Depth of Boring = 20.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/27/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Improvements
 Centralia, Washington

Log of Boring B-09

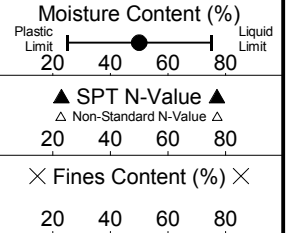
Figure
A-10

B-10

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Depth (ft)	Elevation (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Soil Description
0						AC SP- SM		1 inch of asphalt over 4 inches of crushed rock (ASPHALT)
0 - 1		S-1	I3					Dark brown to black, fine to coarse SAND with silt and gravel (loose, moist) (OUTWASH) Brown, sandy, fine to coarse GRAVEL (medium dense, moist)
1 - 8		S-2	I3	W = 5 GS				-Grades to dense
8 - 13		S-3	I3					
13 - 15		S-4	I3					
15 - 20		S-5	I3					-Grades to moist to wet

Groundwater

20.0 ft ATD

Boring Completed 04/04/18
 Total Depth of Boring = 20.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/27/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Improvements
 Centralia, Washington

Log of Boring B-10

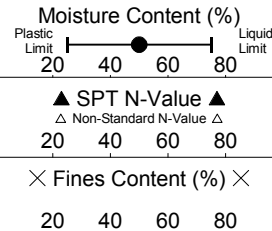
Figure
A-11

B-11

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Depth (ft)	Elevation (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Soil Profile Description
0								Crushed rock surfacing (loose, moist) (FILL)
0 - 1		S-1	i3				GP-GM	Dark brown, fine to coarse SAND with gravel and silt (loose, moist) (OUTWASH)
1 - 5		S-2	i3	W = 6 GS			GP-GM	Brown, very sandy, fine to coarse GRAVEL with silt (medium dense, moist)
5 - 11		S-3	i3					-Grades to dense
11 - 15		S-4	i3					
15 - 20		S-5	i3					-Grades to moist to wet

Groundwater

Groundwater Not Encountered

Boring Completed 04/04/18
 Total Depth of Boring = 20.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/27/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Improvements
 Centralia, Washington

Log of Boring B-11

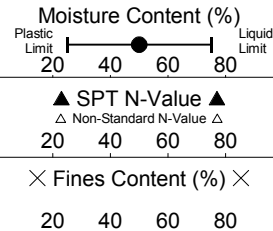
Figure
A-12

B-12

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE



Drilling Method: Geoprobe™
 Ground Elevation (ft): Not measured
 Drilled By: Holocene Drilling Inc.
 Logged By: DAR Date: 04/04/18

Groundwater

Groundwater Not Encountered

Depth (ft)

Elevation (ft)

Sample Number & Interval

Sampler Type

Blows/Foot

Test Data

Graphic Symbol

USCS Symbol

AC SP-SM 0.5 inches of asphalt over 3 inches of crushed rock
(ASPHALT)
 GP-GM Dark brown to black, fine to coarse SAND with gravel and silt (loose, moist)
(OUTWASH)
 Brown, sandy, fine to coarse GRAVEL (medium dense, moist)
 -Grades to dense
 SP Brown, fine to coarse SAND with gravel (dense, moist)
 GP-GM Brown, sandy, fine to coarse GRAVEL with silt (dense, moist)
 SP Brown, fine to coarse SAND with gravel (dense, moist)
 GP-GM Brown, sandy, fine to coarse GRAVEL with silt (dense, moist)

S-1

i

S-2

i

W = 5
GS

S-3

i

S-4

Boring Completed 04/04/18
 Total Depth of Boring = 20.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/27/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Improvements
 Centralia, Washington

Log of Boring B-12

Figure
A-13

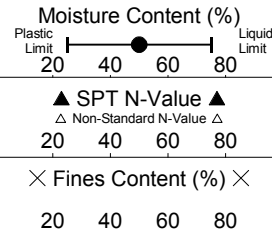
MW-1

LAI Project No: 1174024.010

SAMPLE DATA

SOIL PROFILE

WELL DETAIL



Drilling Method: Hollow-Stem Auger

Ground Elevation (ft): Not Measured

Drilled By: Holocene Drilling Inc.

Logged By: BJM Date: 03/15/18

Depth (ft)

Elevation (ft)

Sample Number & Interval

Sampler Type

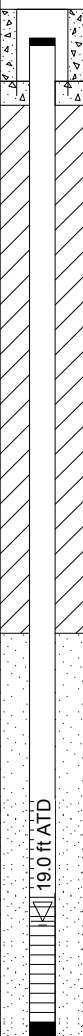
Blows/Foot

Test Data

Graphic Symbol

USCS Symbol

3 inches of sod over 3 inches of topsoil
(TOPSOIL)
 Brown, very sandy, fine to coarse GRAVEL with silt (medium dense, moist)
(OUTWASH)



S-1

b2

26

W = 6
GS

S-2

b2

37

S-3

b2

50

S-4

b2

74

S-5

b2

36

GP

Gray, cobby, sandy, fine to coarse GRAVEL (dense, moist)

S-6

b2

26

SM

Brown, silty, fine to coarse SAND with gravel (medium dense, moist)

-Grades to wet

Boring Completed 03/15/18
 Total Depth of Boring = 21.5 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1174024.01 4/27/18 Y:\1174024.010\1174024.010.GPJ SOIL BORING LOG WITH GRAPH



Borst Avenue Improvements
 Centralia, Washington

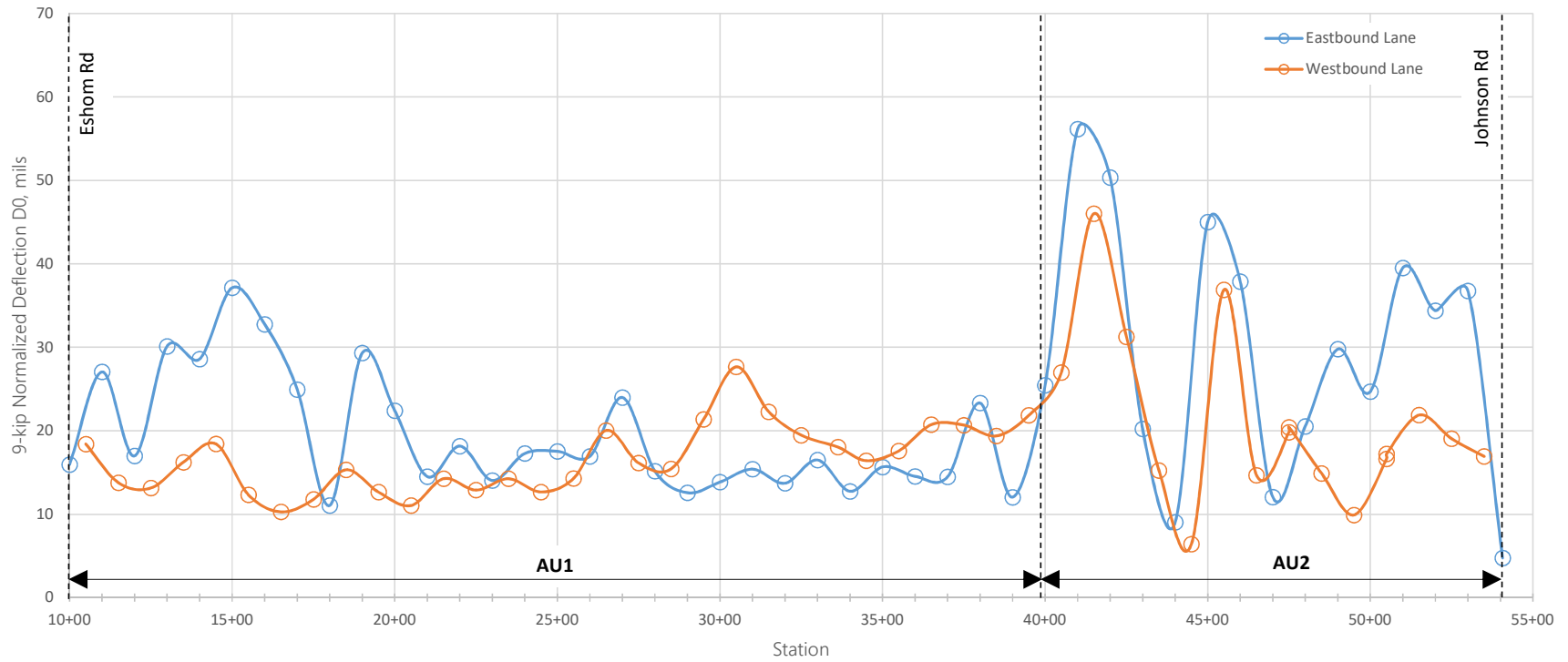
Log of Boring MW-1

Figure
A-14

APPENDIX B: 9-KIP NORMALIZED DEFLECTIONS

Borst Avenue Redevelopment

FWD 9-kip D0 Deflection Profile and Analysis Units



APPENDIX C: BACKCALCULATION ANALYSIS

Index No.	Test Station	Lane	Analysis Unit	68 °F Temp. Adj. DO, in	AC Thickness, in	AB Thickness, in.	Total Pvmnt Thickness (D), in	Backcalculation Analysis Results					
								Uncorrected Subgrade Modulus (Mr @ r >= 0.7ae), psi	Mr Correction Factor, Cf	Corrected Subgrade Mr, psi	Pavement Modulus (Ep), psi	SNeff	Outlier ¹
1	10+00	EB	1	0.011	3	4	7	15,261	0.33	5,036	665,047	2.75	
2	11+00	EB	1	0.018	3	4	7	12,198	0.33	4,025	244,255	1.97	
3	12+00	EB	1	0.012	3	4	7	22,736	0.33	7,503	264,028	2.02	
4	13+00	EB	1	0.020	3	4	7	13,735	0.33	4,533	142,572	1.65	
5	14+00	EB	1	0.019	3	4	7	14,789	0.33	4,880	144,940	1.65	
6	15+00	EB	1	0.025	3	4	7	15,655	0.33	5,166	64,449	1.26	
7	16+00	EB	1	0.022	3	4	7	9,859	0.33	3,254	196,779	1.83	
8	17+00	EB	1	0.017	3	4	7	15,033	0.33	4,961	204,756	1.86	
9	18+00	EB	1	0.008	3	4	7	31,457	0.33	10,381	442,394	2.40	
10	19+00	EB	1	0.020	3	4	7	12,530	0.33	4,135	169,759	1.74	
11	20+00	EB	1	0.015	3	4	7	13,090	0.33	4,320	336,023	2.19	
12	21+00	EB	1	0.010	3	4	7	18,724	0.33	6,179	626,219	2.69	
13	22+00	EB	1	0.012	3	4	7	14,756	0.33	4,870	504,708	2.51	
14	23+00	EB	1	0.010	3	4	7	18,018	0.33	5,946	750,356	2.86	
15	24+00	EB	1	0.012	3	4	7	15,367	0.33	5,071	563,357	2.60	
16	25+00	EB	1	0.012	3	4	7	16,069	0.33	5,303	428,859	2.38	
17	26+00	EB	1	0.012	3	4	7	24,002	0.33	7,921	232,232	1.94	
18	27+00	EB	1	0.016	3	4	7	19,517	0.33	6,441	136,944	1.62	
19	28+00	EB	1	0.010	3	4	7	23,427	0.33	7,731	366,366	2.25	
20	29+00	EB	1	0.009	3	4	7	28,205	0.33	9,308	402,286	2.33	
21	30+00	EB	1	0.009	3	4	7	25,809	0.33	8,517	362,552	2.25	
22	31+00	EB	1	0.010	3	4	7	22,431	0.33	7,402	346,239	2.21	
23	32+00	EB	1	0.009	3	4	7	27,118	0.33	8,949	354,222	2.23	
24	33+00	EB	1	0.011	3	4	7	22,232	0.33	7,337	318,422	2.15	
25	34+00	EB	1	0.009	3	4	7	23,210	0.33	7,659	601,807	2.66	
26	35+00	EB	1	0.011	3	4	7	21,109	0.33	6,966	409,656	2.34	
27	36+00	EB	1	0.010	3	4	7	24,757	0.33	8,170	323,163	2.16	
28	37+00	EB	1	0.010	3	4	7	25,004	0.33	8,251	333,472	2.18	
29	38+00	EB	1	0.016	3	4	7	14,702	0.33	4,852	248,584	1.98	
30	39+00	EB	1	0.008	3	4	7	27,099	0.33	8,943	528,501	2.55	
64	39+50	WB	1	0.015	3	4	7	19,236	0.33	6,348	193,173	1.82	
65	38+50	WB	1	0.013	3	4	7	23,746	0.33	7,836	179,999	1.78	
66	37+50	WB	1	0.014	3	4	7	21,154	0.33	6,981	180,686	1.78	
67	36+50	WB	1	0.014	3	4	7	12,855	0.33	4,242	436,123	2.39	
68	35+50	WB	1	0.012	3	4	7	21,288	0.33	7,025	251,796	1.99	
69	34+50	WB	1	0.011	3	4	7	21,940	0.33	7,240	290,011	2.09	
70	33+63	WB	1	0.012	3	4	7	20,824	0.33	6,872	280,363	2.06	
71	32+50	WB	1	0.013	3	4	7	21,154	0.33	6,981	198,789	1.84	
72	31+50	WB	1	0.015	3	4	7	20,599	0.33	6,798	158,747	1.71	
73	30+50	WB	1	0.019	3	4	7	19,894	0.33	6,565	90,529	1.41	x
74	29+50	WB	1	0.015	3	4	7	20,164	0.33	6,654	173,816	1.76	
75	28+50	WB	1	0.010	3	4	7	25,710	0.33	8,484	261,773	2.02	
76	27+50	WB	1	0.011	3	4	7	19,432	0.33	6,412	393,559	2.31	
77	26+50	WB	1	0.014	3	4	7	18,883	0.33	6,231	237,496	1.95	
78	25+50	WB	1	0.010	3	4	7	16,711	0.33	5,515	801,401	2.93	
79	24+50	WB	1	0.009	3	4	7	23,817	0.33	7,859	511,788	2.52	
80	23+50	WB	1	0.010	3	4	7	16,546	0.33	5,460	807,220	2.93	
81	22+50	WB	1	0.009	3	4	7	18,214	0.33	6,011	886,096	3.03	
82	21+50	WB	1	0.010	3	4	7	19,738	0.33	6,513	501,228	2.50	
83	20+50	WB	1	0.008	3	4	7	26,526	0.33	8,754	602,435	2.66	
84	19+50	WB	1	0.009	3	4	7	24,396	0.33	8,051	509,953	2.52	
85	18+50	WB	1	0.010	3	4	7	19,135	0.33	6,315	513,986	2.52	
86	17+50	WB	1	0.008	3	4	7	26,456	0.33	8,730	528,703	2.55	
87	16+50	WB	1	0.007	3	4	7	30,201	0.33	9,966	603,451	2.66	
88	15+50	WB	1	0.008	3	4	7	31,432	0.33	10,373	349,235	2.22	
89	14+50	WB	1	0.013	3	4	7	21,609	0.33	7,131	223,919	1.91	
90	13+50	WB	1	0.011	3	4	7	20,094	0.33	6,631	396,894	2.31	
91	12+50	WB	1	0.009	3	4	7	19,894	0.33	6,565	709,217	2.81	
92	11+50	WB	1	0.009	3	4	7	17,778	0.33	5,867	767,386	2.88	
93	10+50	WB	1	0.013	3	4	7	17,199	0.33	5,676	369,272	2.26	

Statistical Summary of Backcalculation Results

Corrected Subgrade Mr, psi							
Analysis Unit	Begin Sta.	End Sta.	COV	Mean (X̄)	Std Deviation s	X̄ - s	15th Percentile
1	10+00	39+50	24%	6,735	1,625	5,110	4,949

Pavement Modulus, Ep, psi							
Analysis Unit	Begin Sta.	End Sta.	COV	Mean (X̄)	Std Deviation s	X̄ - s	15th Percentile
1	10+00	39+50	51%	390,364	197,561	192,803	189,427

SNeff							
Analysis Unit	Begin Sta.	End Sta.	COV	Mean (X̄)	Std Deviation s	X̄ - s	15th Percentile
1	10+00	39+50	18%	2.22	0.40	1.82	1.78

Index No.	Test Station	Lane	Analysis Unit	68 °F Temp. Adj. DO, in	AC Thickness, in	AB Thickness, in.	Total Pvmt Thickness (D), in	Backcalculation Analysis Results					
								Uncorrected Subgrade Modulus (Mr @ r >= 0.7ae), psi	Mr Correction Factor, Cf	Corrected Subgrade Mr, psi	Pavement Modulus (Ep), psi	S _{Neff}	Outlier ¹
31	40+00	EB	1	0.017	3	4	7	15,101	0.33	4,983	192,610	1.82	
32	41+00	EB	1	0.038	3	4	7	15,456	0.33	5,100	23,173	0.90	x
33	42+00	EB	1	0.034	3	4	7	9,126	0.33	3,011	72,523	1.31	x
34	43+00	EB	1	0.014	3	4	7	20,846	0.33	6,879	187,007	1.80	
35	44+00	EB	1	0.006	3	4	7	31,630	0.33	10,438	785,895	2.91	
36	45+00	EB	1	0.031	3	4	7	9,293	0.33	3,067	94,108	1.43	x
37	46+00	EB	1	0.026	3	4	7	9,041	0.33	2,984	167,709	1.74	
38	47+00	EB	1	0.008	3	4	7	24,757	0.33	8,170	625,888	2.69	
39	48+00	EB	1	0.014	3	4	7	21,020	0.33	6,937	181,198	1.78	
40	49+00	EB	1	0.020	3	4	7	12,636	0.33	4,170	167,572	1.74	
41	50+00	EB	1	0.017	3	4	7	18,314	0.33	6,044	143,280	1.65	
42	51+00	EB	1	0.027	3	4	7	15,123	0.33	4,991	59,113	1.23	x
43	52+00	EB	1	0.023	3	4	7	11,605	0.33	3,830	133,176	1.61	
44	53+00	EB	1	0.025	3	4	7	11,555	0.33	3,813	111,950	1.52	
45	54+07	EB	1	0.003	3	4	7	33,932	0.33	11,197	2,726,924	4.40	x
46	53+50	WB	1	0.012	3	4	7	12,518	0.33	4,131	829,533	2.96	
47	52+50	WB	1	0.013	3	4	7	12,806	0.33	4,226	545,288	2.57	
48	51+50	WB	1	0.015	3	4	7	11,525	0.33	3,803	448,688	2.41	
49	50+50	WB	1	0.012	3	4	7	10,799	0.33	3,564	1,079,602	3.23	
52	50+50	WB	1	0.011	3	4	7	11,067	0.33	3,652	1,127,274	3.28	
53	49+50	WB	1	0.007	3	4	7	27,969	0.33	9,230	861,061	3.00	
54	48+50	WB	1	0.010	3	4	7	19,545	0.33	6,450	528,080	2.55	
55	47+50	WB	1	0.014	3	4	7	15,450	0.33	5,098	339,277	2.20	
56	47+50	WB	1	0.013	3	4	7	14,767	0.33	4,873	393,508	2.31	
57	46+50	WB	1	0.010	3	4	7	23,959	0.33	7,906	332,957	2.18	
58	45+50	WB	1	0.025	3	4	7	11,241	0.33	3,709	116,212	1.54	
59	44+50	WB	1	0.004	3	4	7	46,854	0.33	15,462	717,496	2.82	
60	43+50	WB	1	0.010	3	4	7	18,990	0.33	6,267	522,061	2.54	
61	42+50	WB	1	0.021	3	4	7	12,143	0.33	4,007	158,293	1.70	
62	41+50	WB	1	0.031	3	4	7	13,897	0.33	4,586	45,170	1.12	x
63	40+50	WB	1	0.018	3	4	7	19,603	0.33	6,469	102,245	1.47	

Statistical Summary of Backcalculation Results

Corrected Subgrade Mr, psi							
Analysis Unit	Begin Sta.	End Sta.	COV	Mean (x̄)	Std Deviation s	x̄ · s	15th Percentile
1	40+00	54+07	48%	5,776	2,794	2,982	3,681

Pavement Modulus, Ep, psi							
Analysis Unit	Begin Sta.	End Sta.	COV	Mean (x̄)	Std Deviation s	x̄ · s	15th Percentile
1	40+00	54+07	73%	431,914	317,416	114,498	139,238

S _{Neff}							
Analysis Unit	Begin Sta.	End Sta.	COV	Mean (x̄)	Std Deviation s	x̄ · s	15th Percentile
1	40+00	54+07	36%	2.14	0.78	1.36	1.45

APPENDIX F

Construction Stormwater General Permit

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Notice of Intent Construction Stormwater General Permit

Application Type: New Renewal Permit Number:

NOI 21243
:

I. Contact Information

Permittee		
Honorific:	First Name: Tim	Last Name: Fife
Organization Name: Lewis County		Title: County Engineer
Mailing Address: 2025 NE Kresky Ave		
City: Chehalis	State: WA	Zip Code: 98532-2308
Email: tim.fife@lewiscountywa.gov		
Primary Phone: 360-740-1123	Secondary Phone:	
UBI Number:		
Site Contact		
Honorific:	First Name: Tim	Last Name: Fife
Organization Name: Lewis County		Title: Public Works Director
Mailing Address: 2025 NE Kresky Ave		
City: Chehalis	State: WA	Zip Code: 98532-2308
Email: tim.fife@lewiscountywa.gov		
Primary Phone: 360-740-1123	Secondary Phone:	
UBI Number:		
Site Owner		
Honorific:	First Name: Lewis	Last Name: County
Organization Name: Lewis County		Title:
Mailing Address: 2025 NE Kresky Ave		
City: Chehalis	State: WA	Zip Code: 98532-2308
Email: tim.fife@lewiscountywa.gov		
Primary Phone: 360-740-1123	Secondary Phone:	
UBI Number:		

II. Electronic Discharge Monitoring Reporting

You must submit monthly discharge monitoring reports using Ecology’s Electronic Discharge Monitoring Reporting (WQWebDMR) system. To sign up for WQWebDMR, or to register a new site, go to ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits, and click on the “Construction Stormwater” link. You will find information on WQWebDMR under the “WQWebDMR and PARIS” link on the right-hand side. If you are unable to submit your DMRs electronically, you may contact Ecology to request a waiver. Ecology will generally only grant waiver requests to those permittees without internet access. Only a permittee or representative, designated in writing, may request access to or a waiver from WQWebDMR. To have the ability to use the system immediately, you must submit the Electronic Signature Agreement with your application. If you have questions on this process, contact Ecology’s WQWebDMR staff at WQWebPortal@ecy.wa.gov or 360-407-7097.

III. Site Information

Site Project Name: Borst Avenue Improvement

Street Address or Location Description: Borst Avenue from Johnson Road to Eshom Road

City: Centralia

County: Lewis

Zip Code: 98531

Latitude: 46.727097

Longitude: -122.990074

Type of Construction Activity:

- Residential
 Commercial
 Industrial
 Highway or Road (city, county, state)
 Utilities (specify):
 Other (specify):

Site Acreage

Total site/project size: 4.5 acres

Total disturbed area: 4.5 acres

Total area of soil disturbance for your site/project over the life of the project. Include grading, equipment staging, excavation, borrow pit, material storage areas, dump areas, haul roads, side-cast areas, off-site construction support areas, and all other soil disturbance acreage associated with the project.

Will 1,000 cubic yards or more of poured concrete or recycled concrete be used over the life of the project? Yes No

Estimated project start date: 5/1/2019

Estimated project completion date: 10/1/2019

Other Permits

None

IV. Existing Site Conditions

1. Are you aware of contaminated soils on this site? Yes No
2. Are you aware of groundwater contamination located within the site boundary? Yes No
3. If you answered yes to question 1 or 2, will any contaminated soils be disturbed or will any contaminated groundwater be discharged due to the proposed construction activity? Yes No

If yes, please provide detailed information (as known and readily available) on the nature and extent of the contamination (concentrations, locations, and depth) as well as pollution prevention and/or treatment Best Management Practices (BMPs) proposed to control the discharge of soil and/or groundwater contaminants in stormwater. This should include information that would be included in related portions of the Stormwater Pollution Prevention Plan (SWPPP) that describe how contaminated and potentially contaminated construction stormwater and dewatering water will be managed. You may attach this information separately, if needed

V. Stormwater Pollution Prevention Plan (SWPPP)

You must develop a SWPPP prior to starting construction. Do not submit your SWPPP with your application. If you answered yes to the questions in Part IV, please submit the information that would be included in related portions of the SWPPP that describe how contaminated and potentially contaminated construction stormwater and dewatering water will be managed.

VI. Best Management Practices (BMPs)

You must use the BMPs listed in the Stormwater Management Manual for Western Washington or the Stormwater Management Manual for Eastern Washington or other manuals approved by Ecology. Alternatively, you may use demonstrably equivalent BMPs on the basis of permit condition S9.C.4. If you intend to use a BMP at your site that is not included in these manuals, but that you believe meets the definition of a demonstrably equivalent BMP, you must notify the appropriate regional office. (See Definitions in the Construction Stormwater General Permit).*

<http://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Construction-stormwater-permit#contacts>

*Note that if you receive permit coverage without indicating the preference for a demonstrably equivalent BMP and later decide to use one, you must provide Ecology with notice of the selection of an equivalent BMP no less than 60 days before the intended use of the equivalent BMP.

VII. Discharge/Receiving Water Information

Indicate whether your site’s stormwater and/or dewatering water could enter surface waters, directly and/or indirectly:

Water will discharge directly or indirectly (through a storm drain system or roadside ditch) into one or more surface waterbodies (wetlands, creeks, lakes, and all other surface waters and water courses).

If your discharge is to a storm sewer system, provide the name of the operator of the storm sewer system:

City of Centralia

Water will discharge to ground with 100% infiltration, with no potential to reach surface waters under any conditions.

If your project includes dewatering, you must include dewatering plans and discharge locations in your site Stormwater Pollution Prevention Plan.

Location of Discharge into Surface Waterbody

Outfall Number	Outfall Description	Surface Waterbody Name	Outfall Type	Latitude	Longitude
1	Chehalis River Outfall	Chehalis River	Surface Water Body	46.719569	-122.981266

VIII. State Environmental Policy Act (SEPA)

This Notice of Intent (NOI) is incomplete and cannot be approved until the applicable SEPA requirements under Chapter 197-11 WAC are met.

Who is the SEPA lead agency on your site? Lewis County

Has the SEPA lead agency issued a final decision on your checklist? Yes No Exempt

If No: The NOI is incomplete. Ecology will hold the application until a final SEPA decision is made or the Construction Stormwater NOI public comment period ends, whichever is later. You must notify Ecology once the lead agency has issued a determination.

If Yes: Type of SEPA decision issued: DNS

Date of final SEPA decision: 10/23/2018

Date when all SEPA-related comment & appeal periods ended or will end: 10/13/2018

If Exempt:

- Watershed Restoration & Fish Habitat Enhancement Exemption (RCW 43.21C.0382).
- Infill Development Exemption (RCW 43.21C.229).
- Planned Action Exemption (RCW 43.21C.031).
- Categorical Exemption. Under what section of the SEPA Rule (WAC 197-11-800) is it exempt?
Section: _____

IX. Public Notice

You must publish a public notice at least **once** a week for **two** consecutive weeks with **seven days** between publications, in at least a **single** newspaper of general circulation in the county in which the facility is located. Ecology cannot grant permit coverage sooner than the end of the 30-day public comment period, which begins on the date of the **second** public notice.

Newspaper Name	First Public Notice Date	Second Public Notice Date
Centralia-The Chronicle	3/5/2019	3/12/2019

X. Certification of Permittees

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

Permittee Signature

3/8/2019

Date

2/28/2019

WQWebNOI - Print Certification

MAR 18 2019

WATER QUALITY PROGRAM

Application Id: 21243**Certification
Received:**
(Ecology use)**Facility/Site
Name:** Borst Avenue Improvement**Permit Number:**
(Ecology use)**Facility Address:** Borst Avenue from Johnson Road to Eshom
Road**Facility County:** Lewis**Permittee Name:** Tim Fife**Permittee Title:** County
Engineer**Permittee Email:** tim.fife@lewiscountywa.gov**Permittee Phone:** 3607401123**Permittee
Address:** 2025 NE Kresky Ave
Chehalis, WA 98532-2308**Company Name:** Lewis County**Disturbed
Acreage:** 4.5**Certification of Permittee**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Roscoe C. Jackson, Lewis County

CHAIRMAN - BOCC

Printed Name / Company

Title

[Signature]

3-4-19

Signature of Permittee *

Date

* Federal regulations require this application is signed by one of the following:

- A. For a corporation: By a responsible corporate officer, of at least the level of vice president.
- B. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively.
- C. For a municipality, state, federal, or other public facility: By either a principal executive officer or ranking elected official.

Please print, sign and mail this form to the following address:

Department of Ecology
ATTN: Water Quality Program, Construction Stormwater P.O. Box 47696
Olympia, WA 98504-7696

APPENDIX G

Contract Plans – Bound Separately