

# Contract Provisions and Plans

**For Construction of:**

## **THE SKAGIT FIELDS PROJECT**

SKAGIT COUNTY PARKS DEPARTMENT

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## SCOPE OF WORK

### Skagit Fields Project



This contract provides for the construction of a grass recreation field. This work includes but is not limited to; clearing, grubbing and tilling, rough and fine grading, soil amendment and seeding, temporary erosion and sedimentation control, detention pond, storm drainage piping and structures, grass lined swales, wood chip path and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the 2023 Standard Specifications.

**Schedule:** All work is to be completed between July 1 and October 31. The project shall be physically completed within 85 working days.

**Measurement & Payment:** Each item will be per the bid proposal.

**Skagit Fields Project**  
**2023**  
**Skagit County**  
**Department of Parks and Recreation**  
**Mount Vernon, Washington 98273-5625**

**NOTICE TO ALL PLAN HOLDERS**

Copies of the plans and specifications are available at Skagit County Parks and Recreation, 1730 Continental Place, Mount Vernon, WA 98273-5625. Telephone: (360) 416-1350. You may receive the bid information electronically; copies of the plans and specifications are available at: <http://www.skagitcounty.net/rfp>

**APPROVED:**



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Brian Adams  
Parks and Recreation Department Director

**PLANS AND SPECIFICATIONS APPROVED:**

BOARD OF COUNTY COMMISSIONERS  
SKAGIT COUNTY, WASHINGTON



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Ron Wesen, Chair



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Lisa Janicki, Commissioner



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Peter Browning, Commissioner

# SKAGIT FIELDS PROJECT

## SPECIAL PROVISIONS SPECIFICATIONS

### CERTIFICATION

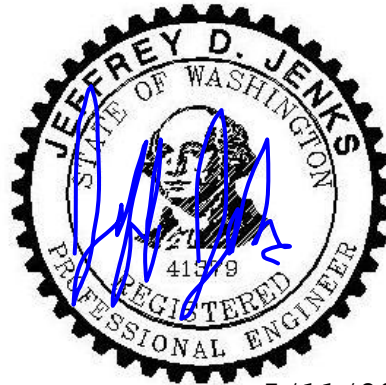
I hereby certify that these contract documents were prepared by me or under my direct supervision, and that I am a duly registered Professional Engineer or Licensed Landscape Architect under the laws of the State of Washington.

Jeffrey D. Jenks, P.E.

Reid Middleton  
728 134<sup>th</sup> ST SW, Suite 200  
Everett WA, 98204

Sections:  
2-02, 2-05, 2-08, 4-04, 7-04, 8-26, 8-30, 8-31, 9-03

Project Engineer for site grading, storm drainage, embankment, TESC, and responsible for associated sections of this document.



5/11/2023



## NOTICE OF CALL FOR BIDS

NOTICE IS HEREBY GIVEN by SKAGIT COUNTY that sealed bids will be received and publicly opened in the Commissioners' Hearing Room, 1800 Continental Place, Mount Vernon, WA 98273 on **Tuesday, June 20, 2023 at the hour of 12:00 p.m.**, or as soon thereafter as possible, for the following construction work:

### PROJECT DESCRIPTION: Skagit Fields Project

Attendance will be in-person or remote by computer, tablet or smartphone:  
<https://bit.ly/SkagitBoCCMtg> or by telephone: 1 (253) 215-8782 Meeting ID: 871 8000  
1980 Passcode: 14357.

This contract provides for the construction of a grass recreation field. This work includes but is not limited to; clearing, grubbing and tilling, rough and fine grading, soil amendment and seeding, temporary erosion and sedimentation control, detention pond, storm drainage piping and structures, grass lined swales, wood chip path and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the 2023 Standard Specifications.

**All work is to be completed between July 1 and October 31. The project shall be physically completed within 85 working days. The Engineer's Estimate is \$847,096.**

Contractor and all subcontractors shall have a contractor's license to work in the State of Washington.

Information, copies of maps, plans, specifications, and addenda for this project will be available on-line beginning **May 25, 2023** at <http://www.skagitcounty.net/rfp> or obtained at Skagit County Parks Department, 1730 Continental Place, Mount Vernon, WA 98273-5625; (360) 416-1350. Contractors who download plans and specifications are advised to e-mail [mahenry@co.skagit.wa.us](mailto:mahenry@co.skagit.wa.us) to be added to plan holders list to receive any addenda that may be issued.

An optional, non-mandatory pre-bid meeting will be held Wednesday, June 7, 2023 at 10:00 a.m. at the **Skagit Fields parking area, 2727 East College Way, Mount Vernon, WA**. All technical questions regarding this project are to be submitted **no later than 4:30 p.m., Friday, June 9, 2023** in writing to Brian Adams, Project Manager, or by e-mail to [briana@co.skagit.wa.us](mailto:briana@co.skagit.wa.us) with the subject line reading, "**Skagit Fields Project**". All project specific questions and response to answers for this project will be available on-line as received. **All Addenda will be posted on-line for this project by 5:00 p.m. Wednesday, June 14, 2023.** If further Addenda are required, the bid opening may be postponed.

All bid envelopes must be plainly marked on the outside, "**Sealed Bid for Skagit Fields Project**". Sealed bids shall be received by one of the following delivery methods before **Tuesday, June 20, 2023 at the hour of 12:00 p.m.** Proposals are to be submitted on the forms provided in the Bid Proposal Packet. Incomplete proposals and proposals received after the time fixed for the opening cannot be considered. Oral, telephonic, telegraphic, electronic or faxed proposals will not be accepted. All bidding shall be based upon compliance with the Contract Provisions and Plans.

1. **Hand delivered:** Bids delivered in person shall be received only at the office of the SKAGIT COUNTY COMMISSIONERS, Reception Desk, 1800 Continental Place, Suite 100, Mount Vernon, WA 98273-5625.

**BID GUARANTY:** No bid will be considered unless accompanied by a surety company bid bond, or a certified or cashier's check payable to the order of Skagit County for a sum not less than five percent (5%) of the total amount of the bid. A Contract Bond covering performance and payment will be required with the contract. Washington State Prevailing Wage Rates apply to this contract and bidders are advised to consider this charge when tabulating bids.

Skagit County reserves the right to reject any or all bids, and the right to waive any informalities or irregularities in any bid or in any bidding and to further award the Project to the lowest, responsive, responsible bidder whose bid complies with all of the prescribed formalities, as it best serves the interest of Skagit County. After the date and hour set for the opening of bids, no bidder may withdraw its bid unless the award of the contract is delayed for a period exceeding sixty (60) calendar days following bid opening. All bidders agree to be bound by their bids until the expiration of this stated time period.

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

For questions regarding Skagit County's Title VI Program, you may contact the Public Works Department's Title VI Liaison, Michael See, at (360) 416-1400.

The Board of Skagit County Commissioners reserves the right to reject any or all bids.

NOTICE GIVEN BY ORDER OF THE BOARD OF SKAGIT COUNTY COMMISSIONERS this 22 day of May 2023.

  
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**Clerk of the Board**

Published: Skagit Valley Herald – May 25 and June 1, 2023

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## INTRODUCTION TO THE SPECIAL PROVISIONS

*(December 10, 2020 APWA GSP)*

The work on this project shall be accomplished in accordance with the *Standard Specifications for Road, Bridge and Municipal Construction*, 2023 edition, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State Chapter (hereafter "Standard Specifications"). The Standard Specifications, as modified or supplemented by these Special Provisions, all of which are made a part of the Contract Documents, shall govern all of the Work.

These Special Provisions are made up of both General Special Provisions (GSPs) from various sources, which may have project-specific fill-ins; and project-specific Special Provisions. Each Provision either supplements, modifies, or replaces the comparable Standard Specification, or is a new Provision. The deletion, amendment, alteration, or addition to any subsection or portion of the Standard Specifications is meant to pertain only to that particular portion of the section, and in no way should it be interpreted that the balance of the section does not apply.

The project-specific Special Provisions are not labeled as such. The GSPs are labeled under the headers of each GSP, with the effective date of the GSP and its source. For example:

*(June 24, 2021 APWA GSP)*

*(September 7, 2021 WSDOT GSP)*

*(December 9, 2020 SkagitR)*

Also incorporated into the Contract Documents by reference are:

- *Standard Plans for Road, Bridge and Municipal Construction*, WSDOT/APWA, current edition

Contractor shall obtain copies of these publications, at Contractor's own expense.

### Division 1 General Requirements

#### DESCRIPTION OF WORK

(March 13, 1995)

This Contract provides for the improvement of \*\*\*a grass recreation field. This work includes but is not limited to; clearing, grubbing and tilling, rough and fine grading, soil amendment and seeding, temporary erosion and sedimentation control, detention pond, storm drainage piping and structures, grass lined swales, wood chip path\*\*\* and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

#### 1-01 DEFINITIONS AND TERMS

1 **1-01.3 Definitions**  
2 *(January 19, 2022 APWA GSP)*  
3

4 Delete the heading **Completion Dates** and the three paragraphs that follow it, and replace  
5 them with the following:  
6

7 **Dates**

8 ***Bid Opening Date***

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

10 ***Award Date***

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

13 ***Contract Execution Date***

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

15 ***Notice to Proceed Date***

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

17 ***Substantial Completion Date***

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

23 ***Physical Completion Date***

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

27 ***Completion Date***

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

32 ***Final Acceptance Date***

33 The date on which the Contracting Agency accepts the Work as complete.  
34

35 Supplement this Section with the following:  
36

37 All references in the Standard Specifications or WSDOT General Special Provisions, to  
38 the terms "Department of Transportation", "Washington State Transportation  
39 Commission", "Commission", "Secretary of Transportation", "Secretary", "Headquarters",  
40 and "State Treasurer" shall be revised to read "Contracting Agency".  
41

42 All references to the terms "State" or "state" shall be revised to read "Contracting  
43 Agency" unless the reference is to an administrative agency of the State of Washington,  
44 a State statute or regulation, or the context reasonably indicates otherwise.  
45

46 All references to "State Materials Laboratory" shall be revised to read "Contracting  
47 Agency designated location".  
48

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

**Additive**

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

**Alternate**

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

**Business Day**

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

**Contract Bond**

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

**Contract Documents**

See definition for “Contract”.

**Contract Time**

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

**Notice of Award**

The written notice from the Contracting Agency to the successful Bidder signifying the Contracting Agency’s acceptance of the Bid Proposal.

**Notice to Proceed**

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

**Traffic**

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

**1-02 BID PROCEDURES AND CONDITIONS**

**1-02.1 Prequalification of Bidders**

Delete this section and replace it with the following:

**1-02.1 Qualifications of Bidder**

*(January 24, 2011 APWA GSP)*

1 Before award of a public works contract, a bidder must meet at least the minimum  
2 qualifications of RCW 39.04.350(1) to be considered a responsible bidder and qualified to  
3 be awarded a public works project.  
4

5 **1-02.2 Plans and Specifications**  
6 *(June 27, 2011 APWA GSP)*  
7

8 Delete this section and replace it with the following:  
9

10 Information as to where Bid Documents can be obtained or reviewed can be found in the  
11 Call for Bids (Advertisement for Bids) for the work.  
12

13 After award of the contract, plans and specifications will be issued to the Contractor at no  
14 cost as detailed below:  
15

To Prime Contractor	No. of Sets	Basis of Distribution
Reduced plans (11" x 17")	***3***	Furnished automatically upon award.
Contract Provisions	***3***	Furnished automatically upon award.
Large plans (e.g., 22" x 34")	***1***	Furnished only upon request.

16  
17 Additional plans and Contract Provisions may be obtained by the Contractor from the  
18 source stated in the Call for Bids, at the Contractor's own expense.  
19

20 **1-02.4 Examination of Plans, Specifications and Site of Work**  
21

22 **1-02.4(1) General**  
23 *(January 19, 2022 APWA GSP Option B)*  
24

25 The first sentence of the ninth paragraph, beginning with "Any prospective Bidder  
26 desiring...", is revised to read:  
27

28 Any prospective Bidder desiring an explanation or interpretation of the Bid Documents,  
29 shall request the explanation or interpretation in writing by close of business \*\*\*10\*\*\*  
30 business days preceding the bid opening to allow a written reply to reach all  
31 prospective Bidders before the submission of their Bids.  
32

33 **1-02.5 Proposal Forms**  
34 *(July 31, 2017 APWA GSP)*  
35

36 Delete this section and replace it with the following:  
37

38 The Proposal Form will identify the project and its location and describe the work. It will  
39 also list estimated quantities, units of measurement, the items of work, and the materials  
40 to be furnished at the unit bid prices. The bidder shall complete spaces on the proposal  
41 form that call for, but are not limited to, unit prices; extensions; summations; the total bid



amount; signatures; date; and, where applicable, retail sales taxes and acknowledgment of addenda; the bidder's name, address, telephone number, and signature; the bidder's UDBE/DBE/M/WBE commitment, if applicable; a State of Washington Contractor's Registration Number; and a Business License Number, if applicable. Bids shall be completed by typing or shall be printed in ink by hand, preferably in black ink. The required certifications are included as part of the Proposal Form.

The Contracting Agency reserves the right to arrange the proposal forms with alternates and additives, if such be to the advantage of the Contracting Agency. The bidder shall bid on all alternates and additives set forth in the Proposal Form unless otherwise specified.

**1-02.6 Preparation of Proposal**  
(December 10, 2020 APWA GSP, Option B)

Supplement the second paragraph with the following:

4. If a minimum bid amount has been established for any item, the unit or lump sum price must equal or exceed the minimum amount stated.
5. Any correction to a bid made by interlineation, alteration, or erasure, shall be initialed by the signer of the bid.

Delete the last two paragraphs, and replace them with the following:

The Bidder shall submit with their Bid a completed Contractor Certification Wage Law Compliance form, provided by the Contracting Agency. Failure to return this certification as part of the Bid Proposal package will make this Bid Nonresponsive and ineligible for Award. A Contractor Certification of Wage Law Compliance form is included in the Proposal Forms.

The Bidder shall make no stipulation on the Bid Form, nor qualify the bid in any manner.

A bid by a corporation shall be executed in the corporate name, by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign).

A bid by a partnership shall be executed in the partnership name, and signed by a partner. A copy of the partnership agreement shall be submitted with the Bid Form if any UDBE requirements are to be satisfied through such an agreement.

A bid by a joint venture shall be executed in the joint venture name and signed by a member of the joint venture. A copy of the joint venture agreement shall be submitted with the Bid Form if any UDBE requirements are to be satisfied through such an agreement.

(August 2, 2004)

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

Add the following new section:

**1-02.6(1) Recycled Materials Proposal**  
(January 4, 2016 APWA GSP)

1 The Bidder shall submit with the Bid, its proposal for incorporating recycled materials into  
2 the project, using the form provided in the Contract Provisions.

3  
4 **1-02.7 Bid Deposit**  
5 *(March 8, 2013 APWA GSP)*  
6

7 Supplement this section with the following:  
8

9 Bid bonds shall contain the following:

- 10 1. Contracting Agency-assigned number for the project;
- 11 2. Name of the project;
- 12 3. The Contracting Agency named as obligee;
- 13 4. The amount of the bid bond stated either as a dollar figure or as a percentage which  
14 represents five percent of the maximum bid amount that could be awarded;
- 15 5. Signature of the bidder's officer empowered to sign official statements. The signature  
16 of the person authorized to submit the bid should agree with the signature on the  
17 bond, and the title of the person must accompany the said signature;
- 18 6. The signature of the surety's officer empowered to sign the bond and the power of  
19 attorney.  
20

21 If so stated in the Contract Provisions, bidder must use the bond form included in the  
22 Contract Provisions.  
23

24 If so stated in the Contract Provisions, cash will not be accepted for a bid deposit.  
25

26 **1-02.10 Withdrawing, Revising, or Supplementing Proposal**  
27 *(July 23, 2015 APWA GSP)*  
28

29 Delete this section, and replace it with the following:  
30

31 After submitting a physical Bid Proposal to the Contracting Agency, the Bidder may  
32 withdraw, revise, or supplement it if:  
33

- 34 1. The Bidder submits a written request signed by an authorized person and  
35 physically delivers it to the place designated for receipt of Bid Proposals, and
- 36 2. The Contracting Agency receives the request before the time set for receipt of  
37 Bid Proposals, and
- 38 3. The revised or supplemented Bid Proposal (if any) is received by the Contracting  
39 Agency before the time set for receipt of Bid Proposals.  
40

41 If the Bidder's request to withdraw, revise, or supplement its Bid Proposal is received  
42 before the time set for receipt of Bid Proposals, the Contracting Agency will return the  
43 unopened Proposal package to the Bidder. The Bidder must then submit the revised or  
44 supplemented package in its entirety. If the Bidder does not submit a revised or  
45 supplemented package, then its bid shall be considered withdrawn.  
46

47 Late revised or supplemented Bid Proposals or late withdrawal requests will be date  
48 recorded by the Contracting Agency and returned unopened. Mailed, emailed, or faxed  
49 requests to withdraw, revise, or supplement a Bid Proposal are not acceptable.  
50

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

2 *(July 14, 2016 SkagitR)*

3  
4 Section 1-02.12 is supplemented with the following:

5  
6 Sealed bids shall be received at the time and location specified in the Call for Bids, unless  
7 modified by addenda.

8  
9 **1-02.13 Irregular Proposals**

10 *(December 30, 2022 APWA GSP)*

11  
12 Delete this section and replace it with the following:

- 13  
14 1. A Proposal will be considered irregular and will be rejected if:
- 15 a. The Bidder is not prequalified when so required;
  - 16 b. The authorized Proposal form furnished by the Contracting Agency is not  
17 used or is altered;
  - 18 c. The completed Proposal form contains any unauthorized additions, deletions,  
19 alternate Bids, or conditions;
  - 20 d. The Bidder adds provisions reserving the right to reject or accept the award,  
21 or enter into the Contract;
  - 22 e. A price per unit cannot be determined from the Bid Proposal;
  - 23 f. The Proposal form is not properly executed;
  - 24 g. The Bidder fails to submit or properly complete a subcontractor list (WSDOT  
25 Form 271-015), if applicable, as required in Section 1-02.6;
  - 26 h. The Bidder fails to submit or properly complete a Disadvantaged Business  
27 Enterprise Certification (WSDOT Form 272-056), if applicable, as required in  
28 Section 1-02.6;
  - 29 i. The Bidder fails to submit Written Confirmations (WSDOT Form 422-031)  
30 from each DBE firm listed on the Bidder's completed DBE Utilization  
31 Certification that they are in agreement with the bidder's DBE participation  
32 commitment, if applicable, as required in Section 1-02.6, or if the written  
33 confirmation that is submitted fails to meet the requirements of the Special  
34 Provisions;
  - 35 j. The Bidder fails to submit DBE Good Faith Effort documentation, if applicable,  
36 as required in Section 1-02.6, or if the documentation that is submitted fails to  
37 demonstrate that a Good Faith Effort to meet the Condition of Award was  
38 made;
  - 39 k. The Bidder fails to submit a DBE Bid Item Breakdown (WSDOT Form 272-  
40 054), if applicable, as required in Section 1-02.6, or if the documentation that  
41 is submitted fails to meet the requirements of the Special Provisions;
  - 42 l. The Bidder fails to submit DBE Trucking Credit Forms (WSDOT Form 272-  
43 058), if applicable, as required in Section 1-02.6, or if the documentation that  
44 is submitted fails to meet the requirements of the Special Provisions;
  - 45 m. The Bid Proposal does not constitute a definite and unqualified offer to meet  
46 the material terms of the Bid invitation; or
  - 47 n. More than one Proposal is submitted for the same project from a Bidder  
48 under the same or different names.
- 49  
50 2. A Proposal may be considered irregular and may be rejected if:
- 51 a. The Proposal does not include a unit price for every Bid item;

- b. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Contracting Agency;
- c. Receipt of Addenda is not acknowledged;
- d. A member of a joint venture or partnership and the joint venture or partnership submit Proposals for the same project (in such an instance, both Bids may be rejected); or
- e. If Proposal form entries are not made in ink.

#### **1-02.14 Disqualification of Bidders**

*(May 17, 2018 APWA GSP, Option A)*

Delete this section and replace it with the following:

A Bidder will be deemed not responsible if the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1), as amended.

The Contracting Agency will verify that the Bidder meets the mandatory bidder responsibility criteria in RCW 39.04.350(1). To assess bidder responsibility, the Contracting Agency reserves the right to request documentation as needed from the Bidder and third parties concerning the Bidder's compliance with the mandatory bidder responsibility criteria.

If the Contracting Agency determines the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1) and is therefore not a responsible Bidder, the Contracting Agency shall notify the Bidder in writing, with the reasons for its determination. If the Bidder disagrees with this determination, it may appeal the determination within two (2) business days of the Contracting Agency's determination by presenting its appeal and any additional information to the Contracting Agency. The Contracting Agency will consider the appeal and any additional information before issuing its final determination. If the final determination affirms that the Bidder is not responsible, the Contracting Agency will not execute a contract with any other Bidder until at least two business days after the Bidder determined to be not responsible has received the Contracting Agency's final determination.

#### **1-02.15 Pre Award Information**

*(December 30, 2022 APWA GSP)*

Revise this section to read:

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

1. A complete statement of the origin, composition, and manufacture of any or all materials to be used,
2. Samples of these materials for quality and fitness tests,
3. A progress schedule (in a form the Contracting Agency requires) showing the order of and time required for the various phases of the work,
4. A breakdown of costs assigned to any bid item,
5. Attendance at a conference with the Engineer or representatives of the Engineer,
6. Obtain, and furnish a copy of, a business license to do business in the city or county where the work is located.

- 1 7. Any other information or action taken that is deemed necessary to ensure that the  
2 bidder is the lowest responsible bidder.

3  
4 **1-03 Award and Execution of Contract**

5  
6 **1-03.1 Consideration of Bids**

7 *(December 30, 2022 APWA GSP)*

8  
9 Revise the first paragraph to read:

10  
11 After opening and reading proposals, the Contracting Agency will check them for  
12 correctness of extensions of the prices per unit and the total price. If a discrepancy exists  
13 between the price per unit and the extended amount of any bid item, the price per unit will  
14 control. If a minimum bid amount has been established for any item and the bidder's unit  
15 or lump sum price is less than the minimum specified amount, the Contracting Agency will  
16 unilaterally revise the unit or lump sum price, to the minimum specified amount and  
17 recalculate the extension. The total of extensions, corrected where necessary, including  
18 sales taxes where applicable and such additives and/or alternates as selected by the  
19 Contracting Agency, will be used by the Contracting Agency for award purposes and to fix  
20 the Awarded Contract Price amount and the amount of the contract bond.

21  
22 **1-03.1(1) Identical Bid Totals**

23 *(December 30, 2022 APWA GSP)*

24  
25 Revise this section to read:

26  
27 After opening Bids, if two or more lowest responsive Bid totals are exactly equal, then  
28 the tie-breaker will be the Bidder with an equal lowest bid, that proposed to use the  
29 highest percentage of recycled materials in the Project, per the form submitted with the  
30 Bid Proposal. If those percentages are also exactly equal, then the tie-breaker will be  
31 determined by drawing as follows: Two or more slips of paper will be marked as follows:  
32 one marked "Winner" and the other(s) marked "unsuccessful". The slips will be folded to  
33 make the marking unseen. The slips will be placed inside a box. One authorized  
34 representative of each Bidder shall draw a slip from the box. Bidders shall draw in  
35 alphabetic order by the name of the firm as registered with the Washington State  
36 Department of Licensing. The slips shall be unfolded and the firm with the slip marked  
37 "Winner" will be determined to be the successful Bidder and eligible for Award of the  
38 Contract. Only those Bidders who submitted a Bid total that is exactly equal to the lowest  
39 responsive Bid, and with a proposed recycled materials percentage that is exactly equal  
40 to the highest proposed recycled materials amount, are eligible to draw.

41  
42 **1-03.3 Execution of Contract**

43 *(January 19, 2022 APWA GSP)*

44  
45 Revise this section to read:

46  
47 Within 3 calendar days of Award date (not including Saturdays, Sundays and Holidays),  
48 the successful Bidder shall provide the information necessary to execute the Contract to  
49 the Contracting Agency. The Bidder shall send the contact information, including the full  
50 name, email address, and phone number, for the authorized signer and bonding agent to  
51 the Contracting Agency.



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

Within \*\*\*20\*\*\* calendar days after the award date, the successful bidder shall return the signed Contracting Agency-prepared contract, an insurance certification as required by Section 1-07.18, a satisfactory bond as required by law and Section 1-03.4, the Transfer of Coverage form for the Construction Stormwater General Permit with sections I, III, and VIII completed when provided. Before execution of the contract by the Contracting Agency, the successful bidder shall provide any pre-award information the Contracting Agency may require under Section 1-02.15.

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

If the bidder experiences circumstances beyond their control that prevents return of the contract documents within the calendar days after the award date stated above, the Contracting Agency may grant up to a maximum of \*\*\*10\*\*\* additional calendar days for return of the documents, provided the Contracting Agency deems the circumstances warrant it.

#### **1-03.4 Contract Bond**

*(July 23, 2015 APWA GSP)*

Delete the first paragraph and replace it with the following:

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

1. Be on Contracting Agency-furnished form(s);
2. Be signed by an approved surety (or sureties) that:
  - a. Is registered with the Washington State Insurance Commissioner, and
  - b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
3. Guarantee that the Contractor will perform and comply with all obligations, duties, and conditions under the Contract, including but not limited to the duty and obligation to indemnify, defend, and protect the Contracting Agency against all losses and claims related directly or indirectly from any failure:
  - a. Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform and comply with all contract obligations, conditions, and duties, or
  - b. Of the Contractor (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;
4. Be conditioned upon the payment of taxes, increases, and penalties incurred on the project under titles 50, 51, and 82 RCW; and

- 1 5. Be accompanied by a power of attorney for the Surety's officer empowered to sign  
2 the bond; and  
3 6. Be signed by an officer of the Contractor empowered to sign official statements (sole  
4 proprietor or partner). If the Contractor is a corporation, the bond(s) must be signed  
5 by the president or vice president, unless accompanied by written proof of the  
6 authority of the individual signing the bond(s) to bind the corporation (i.e., corporate  
7 resolution, power of attorney, or a letter to such effect signed by the president or vice  
8 president).  
9

10 **1-03.7 Judicial Review**  
11 *(December 30, 2022 APWA GSP)*  
12

13 Revise this section to read:  
14

15 All decisions made by the Contracting Agency regarding the Award and execution of the  
16 Contract or Bid rejection shall be conclusive subject to the scope of judicial review  
17 permitted under Washington Law. Such review, if any, shall be timely filed in the Superior  
18 Court of the county where the Contracting Agency headquarters is located, provided that  
19 where an action is asserted against a county, RCW 36.01.050 shall control venue and  
20 jurisdiction.  
21

22 **1-04 Scope of the Work**  
23

24 **1-04.2 Coordination of Contract Documents, Plans, Special Provisions,**  
25 **Specifications, and Addenda**  
26 *(December 30, 2022 APWA GSP)*  
27

28 Revise the second paragraph to read:  
29

30 Any inconsistency in the parts of the contract shall be resolved by following this order of  
31 precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so forth):

- 32 1. Addenda,  
33 2. Proposal Form,  
34 3. Special Provisions,  
35 4. Contract Plans,  
36 5. Standard Specifications,  
37 6. Contracting Agency's Standard Plans or Details (if any), and  
38 7. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.  
39

40 **1-04.4 Changes**  
41 *(January 19, 2022 APWA GSP)*  
42

43 The first two sentences of the last paragraph of Section 1-04.4 are deleted.  
44

45 **1-05 Control of Work**  
46

47 **1-05.7 Removal of Defective and Unauthorized Work**  
48 *(October 1, 2005 APWA GSP)*  
49

50 Supplement this section with the following:  
51

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

6  
7 If the Contractor fails to comply with a written order to remedy what the Engineer  
8 determines to be an emergency situation, the Engineer may have the defective and  
9 unauthorized work corrected immediately, have the rejected work removed and replaced,  
10 or have work the Contractor refuses to perform completed by using Contracting Agency  
11 or other forces. An emergency situation is any situation when, in the opinion of the  
12 Engineer, a delay in its remedy could be potentially unsafe, or might cause serious risk  
13 of loss or damage to the public.

14  
15 Direct or indirect costs incurred by the Contracting Agency attributable to correcting and  
16 remedying defective or unauthorized work, or work the Contractor failed or refused to  
17 perform, shall be paid by the Contractor. Payment will be deducted by the Engineer from  
18 monies due, or to become due, the Contractor. Such direct and indirect costs shall  
19 include in particular, but without limitation, compensation for additional professional  
20 services required, and costs for repair and replacement of work of others destroyed or  
21 damaged by correction, removal, or replacement of the Contractor's unauthorized work.

22  
23 No adjustment in contract time or compensation will be allowed because of the delay in  
24 the performance of the work attributable to the exercise of the Contracting Agency's  
25 rights provided by this Section.

26  
27 The rights exercised under the provisions of this section shall not diminish the  
28 Contracting Agency's right to pursue any other avenue for additional remedy or damages  
29 with respect to the Contractor's failure to perform the work as required.

### 30 31 32 **1-05.11 Final Inspection**

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

### 35 36 **1-05.11 Final Inspections and Operational Testing** 37 *(October 1, 2005 APWA GSP)*

#### 38 39 **1-05.11(1) Substantial Completion Date**

40  
41 When the Contractor considers the work to be substantially complete, the Contractor  
42 shall so notify the Engineer and request the Engineer establish the Substantial  
43 Completion Date. The Contractor's request shall list the specific items of work that  
44 remain to be completed in order to reach physical completion. The Engineer will  
45 schedule an inspection of the work with the Contractor to determine the status of  
46 completion. The Engineer may also establish the Substantial Completion Date  
47 unilaterally.

48  
49 If, after this inspection, the Engineer concurs with the Contractor that the work is  
50 substantially complete and ready for its intended use, the Engineer, by written notice to  
51 the Contractor, will set the Substantial Completion Date. If, after this inspection the  
52 Engineer does not consider the work substantially complete and ready for its intended

1 use, the Engineer will, by written notice, so notify the Contractor giving the reasons  
2 therefor.

3  
4 Upon receipt of written notice concurring in or denying substantial completion, whichever  
5 is applicable, the Contractor shall pursue vigorously, diligently and without unauthorized  
6 interruption, the work necessary to reach Substantial and Physical Completion. The  
7 Contractor shall provide the Engineer with a revised schedule indicating when the  
8 Contractor expects to reach substantial and physical completion of the work.

9  
10 The above process shall be repeated until the Engineer establishes the Substantial  
11 Completion Date and the Contractor considers the work physically complete and ready for  
12 final inspection.

### 13 14 **1-05.11(2) Final Inspection and Physical Completion Date**

15  
16 When the Contractor considers the work physically complete and ready for final  
17 inspection, the Contractor by written notice, shall request the Engineer to schedule a  
18 final inspection. The Engineer will set a date for final inspection. The Engineer and the  
19 Contractor will then make a final inspection and the Engineer will notify the Contractor in  
20 writing of all particulars in which the final inspection reveals the work incomplete or  
21 unacceptable. The Contractor shall immediately take such corrective measures as are  
22 necessary to remedy the listed deficiencies. Corrective work shall be pursued vigorously,  
23 diligently, and without interruption until physical completion of the listed deficiencies. This  
24 process will continue until the Engineer is satisfied the listed deficiencies have been  
25 corrected.

26  
27 If action to correct the listed deficiencies is not initiated within 7 days after receipt of the  
28 written notice listing the deficiencies, the Engineer may, upon written notice to the  
29 Contractor, take whatever steps are necessary to correct those deficiencies pursuant to  
30 Section 1-05.7.

31 The Contractor will not be allowed an extension of contract time because of a delay in  
32 the performance of the work attributable to the exercise of the Engineer's right  
33 hereunder.

34  
35 Upon correction of all deficiencies, the Engineer will notify the Contractor and the  
36 Contracting Agency, in writing, of the date upon which the work was considered physically  
37 complete. That date shall constitute the Physical Completion Date of the contract, but shall  
38 not imply acceptance of the work or that all the obligations of the Contractor under the  
39 contract have been fulfilled.

### 40 41 **1-05.11(3) Operational Testing**

42  
43 It is the intent of the Contracting Agency to have at the Physical Completion Date a  
44 complete and operable system. Therefore when the work involves the installation of  
45 machinery or other mechanical equipment; street lighting, electrical distribution or signal  
46 systems; irrigation systems; buildings; or other similar work it may be desirable for the  
47 Engineer to have the Contractor operate and test the work for a period of time after final  
48 inspection but prior to the physical completion date. Whenever items of work are listed in  
49 the Contract Provisions for operational testing they shall be fully tested under operating  
50 conditions for the time period specified to ensure their acceptability prior to the Physical  
51 Completion Date. During and following the test period, the Contractor shall correct any  
52 items of workmanship, materials, or equipment which prove faulty, or that are not in first

class operating condition. Equipment, electrical controls, meters, or other devices and equipment to be tested during this period shall be tested under the observation of the Engineer, so that the Engineer may determine their suitability for the purpose for which they were installed. The Physical Completion Date cannot be established until testing and corrections have been completed to the satisfaction of the Engineer.

The costs for power, gas, labor, material, supplies, and everything else needed to successfully complete operational testing, shall be included in the unit contract prices related to the system being tested, unless specifically set forth otherwise in the proposal.

Operational and test periods, when required by the Engineer, shall not affect a manufacturer's guaranties or warranties furnished under the terms of the contract.

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

Delete the sixth and seventh paragraphs of this section.

**1-05.15 Method of Serving Notices**  
(December 30, 2022 APWA GSP)

Revise the second paragraph to read:

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

Add the following new section:

**1-05.16 Water and Power**  
(October 1, 2005 APWA GSP)

The Contractor shall make necessary arrangements, and shall bear the costs for power and water necessary for the performance of the work, unless the contract includes power and water as a pay item.

**1-06 Control of Material**

**1-06.6 Recycled Materials**  
(January 4, 2016 APWA GSP)

Delete this section, including its subsections, and replace it with the following:

The Contractor shall make their best effort to utilize recycled materials in the construction of the project. Approval of such material use shall be as detailed elsewhere in the Standard Specifications.



Prior to Physical Completion the Contractor shall report the quantity of recycled materials that were utilized in the construction of the project for each of the items listed in Section 9-03.21. The report shall include hot mix asphalt, recycled concrete aggregate, recycled glass, steel furnace slag and other recycled materials (e.g. utilization of on-site material and aggregates from concrete returned to the supplier). The Contractor's report shall be provided on DOT form 350-075 Recycled Materials Reporting.

## **1-07 Legal Relations and Responsibilities to the Public**

### **1-07.1 Laws to be Observed**

*(October 1, 2005 APWA GSP)*

Supplement this section with the following:

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

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

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

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

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

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

#### **1-07.2 State Sales Tax**

*(June 27, 2011 APWA GSP)*

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

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

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

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

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

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

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

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

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

1       **1-07.2(3) Services**

2  
3       The Contractor shall not collect retail sales tax from the Contracting Agency on any  
4       contract wholly for professional or other services (as defined in Washington State  
5       Department of Revenue Rules 138 and 244).  
6

7       **1-07.7           Load Limits**

8  
9       Section 1-07.7 is supplemented with the following:  
10

11       (March 13, 1995)  
12       If the sources of materials provided by the Contractor necessitates hauling over roads  
13       other than State Highways, the Contractor shall, at the Contractor's expense, make all  
14       arrangements for the use of the haul routes.  
15

16       **1-07.9           Wages**

17  
18       **1-07.9(1)       General**

19  
20       Section 1-07.9(1) is supplemented with the following:  
21

22       (January 9, 2023)  
23       The Federal wage rates incorporated in this contract have been established by the  
24       Secretary of Labor under United States Department of Labor General Decision No.  
25       WA20230001.  
26

27       The State rates incorporated in this contract are applicable to all construction  
28       activities associated with this contract.  
29

30       **1-07.9(5)A Required Documents**  
31       *(December 30, 2022 APWA GSP)*  
32

33       This section is revised to read as follows:  
34

35       All Statements of Intent to Pay Prevailing Wages, Affidavits of Wages Paid and Certified  
36       Payrolls, including a signed Statement of Compliance for Federal-aid projects, shall be  
37       submitted to the Engineer and to the State L&I online Prevailing Wage Intent & Affidavit  
38       (PWIA) system.  
39

40       **1-07.17       Utilities and Similar Facilities**

41  
42       Section 1-07.17 is supplemented with the following:  
43

44       (April 26, 2021)  
45       Locations and dimensions shown in the Plans for existing facilities are in accordance with  
46       available information obtained without uncovering, measuring, or other verification.  
47

48       The following addresses and telephone numbers of utility companies known or suspected  
49       of having facilities within the project limits are supplied for the Contractor's convenience:  
50       \*\*\*

51       Ziply Fiber  
52       Contact: Dennis Keller

1 595 Pease Road Burlington, WA 98233  
2 Office: (425) 283-1078  
3 [dennis.keller@ziply.com](mailto:dennis.keller@ziply.com)  
4  
5 Public Utility District No. 1 of Skagit County  
6 Contact: Mike Demers  
7 1415 Freeway Drive Mount Vernon, WA. 98273  
8 Office and Emergency: (360) 424-7104  
9 [demers@skagitpud.org](mailto:demers@skagitpud.org)  
10  
11 Puget Sound Energy  
12 Contact: Jane Major  
13 1660 Park Lane, Burlington, WA 98233  
14 (360) 766-5571  
15 [jane.major@pse.com](mailto:jane.major@pse.com)  
16  
17 Quest Local Network  
18 Contact: Gary for locates (206) 473-0736 or Scott (360) 441-2913  
19  
20 Comcast  
21 Contact: Shane Turner  
22 (360) 316-9405  
23 [shane\\_turner2@comcast.com](mailto:shane_turner2@comcast.com)  
24  
25 Astound Broadband  
26 Fiber Contact: Mike Robles  
27 (360) 392-8897  
28 [mike.robles@astound.com](mailto:mike.robles@astound.com)  
29  
30 Cable Contact: Todd Gibbons  
31 (360) 333-7627  
32 [todd.gibbons@astound.com](mailto:todd.gibbons@astound.com)  
33  
34 Cascade Natural Gas  
35 Contact: Matthew Johnson – Field Operations Coordinator  
36 1520 S 2<sup>nd</sup> Street, Mount Vernon, WA 98273  
37 (360) 336-3910  
38 [Matthew.Johnson@cngc.com](mailto:Matthew.Johnson@cngc.com)  
39  
40 Utility Location Center (One Call Center) (800) 424-5555, 811, <https://call811.com/>  
41 \*\*\*  
42  
43  
44

## 1-07.18 Public Liability and Property Damage Insurance

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

### 1-07.18 Insurance

(December 30, 2022 APWA GSP)

#### 1-07.18(1) General Requirements

- A. The Contractor shall procure and maintain the insurance described in all subsections of section 1-07.18 of these Special Provisions, from insurers with a current A. M. Best rating of not less than A-: VII and licensed to do business in the State of Washington.

- 1 The Contracting Agency reserves the right to approve or reject the insurance provided,  
2 based on the insurer's financial condition.  
3
- 4 B. The Contractor shall keep this insurance in force without interruption from the  
5 commencement of the Contractor's Work through the term of the Contract and for thirty  
6 (30) days after the Physical Completion date, unless otherwise indicated below.  
7
- 8 C. If any insurance policy is written on a claims-made form, its retroactive date, and that of  
9 all subsequent renewals, shall be no later than the effective date of this Contract. The  
10 policy shall state that coverage is claims made and state the retroactive date. Claims-  
11 made form coverage shall be maintained by the Contractor for a minimum of 36 months  
12 following the Completion Date or earlier termination of this Contract, and the Contractor  
13 shall annually provide the Contracting Agency with proof of renewal. If renewal of the  
14 claims made form of coverage becomes unavailable, or economically prohibitive, the  
15 Contractor shall purchase an extended reporting period ("tail") or execute another form of  
16 guarantee acceptable to the Contracting Agency to assure financial responsibility for  
17 liability for services performed.  
18
- 19 D. The Contractor's Automobile Liability, Commercial General Liability and Excess or  
20 Umbrella Liability insurance policies shall be primary and non-contributory insurance as  
21 respects the Contracting Agency's insurance, self-insurance, or self-insured pool  
22 coverage. Any insurance, self-insurance, or self-insured pool coverage maintained by the  
23 Contracting Agency shall be excess of the Contractor's insurance and shall not contribute  
24 with it.  
25
- 26 E. The Contractor shall provide the Contracting Agency and all additional insureds with  
27 written notice of any policy cancellation, within two business days of their receipt of such  
28 notice.  
29
- 30 F. The Contractor shall not begin work under the Contract until the required insurance has  
31 been obtained and approved by the Contracting Agency  
32
- 33 G. Failure on the part of the Contractor to maintain the insurance as required shall  
34 constitute a material breach of contract, upon which the Contracting Agency may, after  
35 giving five business days' notice to the Contractor to correct the breach, immediately  
36 terminate the Contract or, at its discretion, procure or renew such insurance and pay any  
37 and all premiums in connection therewith, with any sums so expended to be repaid to the  
38 Contracting Agency on demand, or at the sole discretion of the Contracting Agency,  
39 offset against funds due the Contractor from the Contracting Agency.  
40
- 41 H. All costs for insurance shall be incidental to and included in the unit or lump sum prices  
42 of the Contract and no additional payment will be made.  
43

44 **1-07.18(2) Additional Insured**

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

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

50 The above-listed entities shall be additional insured(s) for the full available limits of liability  
51 maintained by the Contractor, irrespective of whether such limits maintained by the  
52 Contractor are greater than those required by this Contract, and irrespective of whether the

1 Certificate of Insurance provided by the Contractor pursuant to 1-07.18(4) describes limits  
2 lower than those maintained by the Contractor.

3  
4 For Commercial General Liability insurance coverage, the required additional insured  
5 endorsements shall be at least as broad as ISO forms CG 20 10 10 01 for ongoing  
6 operations and CG 20 37 10 01 for completed operations.

7  
8 **1-07.18(3) Subcontractors**

9 The Contractor shall cause each subcontractor of every tier to provide insurance coverage  
10 that complies with all applicable requirements of the Contractor-provided insurance as set  
11 forth herein, except the Contractor shall have sole responsibility for determining the limits of  
12 coverage required to be obtained by subcontractors.

13  
14 The Contractor shall ensure that all subcontractors of every tier add all entities listed in  
15 1-07.18(2) as additional insureds, and provide proof of such on the policies as required by  
16 that section as detailed in 1-07.18(2) using an endorsement as least as broad as ISO CG 20  
17 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

18  
19 Upon request by the Contracting Agency, the Contractor shall forward to the Contracting  
20 Agency evidence of insurance and copies of the additional insured endorsements of each  
21 subcontractor of every tier as required in 1-07.18(4) Verification of Coverage.

22  
23 **1-07.18(4) Verification of Coverage**

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

30  
31 Verification of coverage shall include:

- 32 1. An ACORD certificate or a form determined by the Contracting Agency to be equivalent.  
33 2. Copies of all endorsements naming Contracting Agency and all other entities listed in  
34 1-07.18(2) as additional insured(s), showing the policy number. The Contractor may  
35 submit a copy of any blanket additional insured clause from its policies instead of a  
36 separate endorsement.  
37 3. Any other amendatory endorsements to show the coverage required herein.  
38 4. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy  
39 these requirements – actual endorsements must be submitted.

40  
41 Upon request by the Contracting Agency, the Contractor shall forward to the Contracting  
42 Agency a full and certified copy of the insurance policy(s). If Builders Risk insurance is  
43 required on this Project, a full and certified copy of that policy is required when the  
44 Contractor delivers the signed Contract for the work.

45  
46 **1-07.18(5) Coverages and Limits**

47 The insurance shall provide the minimum coverages and limits set forth below. Contractor's  
48 maintenance of insurance, its scope of coverage, and limits as required herein shall not be  
49 construed to limit the liability of the Contractor to the coverage provided by such insurance,

1 or otherwise limit the Contracting Agency's recourse to any remedy available at law or in  
2 equity.

3  
4 All deductibles and self-insured retentions must be disclosed and are subject to approval by  
5 the Contracting Agency. The cost of any claim payments falling within the deductible or self-  
6 insured retention shall be the responsibility of the Contractor. In the event an additional  
7 insured incurs a liability subject to any policy's deductibles or self-insured retention, said  
8 deductibles or self-insured retention shall be the responsibility of the Contractor.

9  
10 **1-07.18(5)A Commercial General Liability**

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

17  
18 The Commercial General Liability insurance shall be endorsed to provide a per project  
19 general aggregate limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

20  
21 Contractor shall maintain Commercial General Liability Insurance arising out of the  
22 Contractor's completed operations for at least three years following Substantial Completion  
23 of the Work.

24  
25 Such policy must provide the following minimum limits:

26	\$1,000,000	Each Occurrence
27	\$2,000,000	General Aggregate
28	\$2,000,000	Products & Completed Operations Aggregate
29	\$1,000,000	Personal & Advertising Injury each offence
30	\$1,000,000	Stop Gap / Employers' Liability each accident

31  
32 **1-07.18(5)B Automobile Liability**

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

37  
38 Such policy must provide the following minimum limit:

39	\$1,000,000	Combined single limit each accident
----	-------------	-------------------------------------

40  
41 **1-07.18(5)C Workers' Compensation**

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

44  
45 **1-08 PROSECUTION AND PROGRESS**

46  
47 Add the following new section:  
48

1       **1-08.0 Preliminary Matters**  
2       (May 25, 2006 APWA GSP)

3  
4 Add the following new section:

5  
6       **1-08.0(1) Preconstruction Conference**  
7       (October 10, 2008 APWA GSP)

8  
9 Prior to the Contractor beginning the work, a preconstruction conference will be held  
10 between the Contractor, the Engineer and such other interested parties as may be  
11 invited. The purpose of the preconstruction conference will be:

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

20  
21 The Contractor shall prepare and submit at the preconstruction conference the following:

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

25  
26 Add the following new section:

27  
28       **1-08.0(2) Hours of Work**  
29       (December 8, 2014 APWA GSP)

30  
31 Except in the case of emergency or unless otherwise approved by the Engineer, the  
32 normal working hours for the Contract shall be any consecutive 8-hour period between  
33 7:00 a.m. and 6:00 p.m. Monday through Friday, exclusive of a lunch break. If the  
34 Contractor desires different than the normal working hours stated above, the request  
35 must be submitted in writing prior to the preconstruction conference, subject to the  
36 provisions below. The working hours for the Contract shall be established at or prior to  
37 the preconstruction conference.

38  
39 All working hours and days are also subject to local permit and ordinance conditions (such  
40 as noise ordinances).

41  
42 If the Contractor wishes to deviate from the established working hours, the Contractor  
43 shall submit a written request to the Engineer for consideration. This request shall state  
44 what hours are being requested, and why. Requests shall be submitted for review no  
45 later than (5) days prior to the day(s) the Contractor is requesting to change the hours.

46  
47 If the Contracting Agency approves such a deviation, such approval may be subject to  
48 certain other conditions, which will be detailed in writing. For example:



- 1 1. On non-Federal aid projects, requiring the Contractor to reimburse the Contracting  
2 Agency for the costs in excess of straight-time costs for Contracting Agency  
3 representatives who worked during such times. (The Engineer may require  
4 designated representatives to be present during the work. Representatives who  
5 may be deemed necessary by the Engineer include, but are not limited to: survey  
6 crews; personnel from the Contracting Agency's material testing lab; inspectors;  
7 and other Contracting Agency employees or third party consultants when, in the  
8 opinion of the Engineer, such work necessitates their presence.)
- 9 2. Considering the work performed on Saturdays, Sundays, and holidays as working  
10 days with regard to the contract time.
- 11 3. Considering multiple work shifts as multiple working days with respect to contract  
12 time even though the multiple shifts occur in a single 24-hour period.
- 13 4. If a 4-10 work schedule is requested and approved the non working day for the  
14 week will be charged as a working day.
- 15 5. If Davis Bacon wage rates apply to this Contract, all requirements must be met and  
16 recorded properly on certified payroll

### 17 **1-08.1 Subcontracting**

18 *(December 30, 2022 APWA GSP, Option A)*

19 Section 1-08.1 is supplemented with the following:

20  
21 Prior to any subcontractor or lower tier subcontractor beginning work, the Contractor  
22 shall submit to the Engineer a certification (WSDOT Form 420-004) that a written  
23 agreement between the Contractor and the subcontractor or between the subcontractor  
24 and any lower tier subcontractor has been executed. This certification shall also  
25 guarantee that these subcontract agreements include all the documents required by the  
26 Special Provision Federal Agency Inspection.

27  
28 A subcontractor or lower tier subcontractor will not be permitted to perform any work  
29 under the contract until the following documents have been completed and submitted to  
30 the Engineer:

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

34  
35 The Contractor shall submit to the Engineer a completed Monthly Retainage Report  
36 (WSDOT Form 272-065) within 15 calendar days after receipt of every monthly progress  
37 payment until every subcontractor and lower tier subcontractor's retainage has been  
38 released.

39  
40 The Contractor's records pertaining to the requirements of this Special Provision shall be  
41 open to inspection or audit by representatives of the Contracting Agency during the life of  
42 the contract and for a period of not less than three years after the date of acceptance of  
43 the contract. The Contractor shall retain these records for that period. The Contractor  
44 shall also guarantee that these records of all subcontractors and lower tier

1 subcontractors shall be available and open to similar inspection or audit for the same  
2 time period.

### 4 **1-08.3 Progress Schedule**

#### 6 **1-08.3(2)A Type A Progress Schedule**

7 *(March 13, 2012 APWA GSP)*

9 Revise this section to read:

11 The Contractor shall submit \*\*\*3\*\*\* copies of a Type A Progress Schedule no later than at  
12 the preconstruction conference, or some other mutually agreed upon submittal time. The  
13 schedule may be a critical path method (CPM) schedule, bar chart, or other standard  
14 schedule format. Regardless of which format used, the schedule shall identify the critical  
15 path. The Engineer will evaluate the Type A Progress Schedule and approve or return the  
16 schedule for corrections within 15 calendar days of receiving the submittal.

### 18 **1-08.4 Prosecution of Work**

20 Delete this section and replace it with the following:

#### 22 **1-08.4 Notice to Proceed and Prosecution of Work**

23 *(July 23, 2015 APWA GSP)*

25 Notice to Proceed will be given after the contract has been executed and the contract  
26 bond and evidence of insurance have been approved and filed by the Contracting  
27 Agency. The Contractor shall not commence with the work until the Notice to Proceed  
28 has been given by the Engineer. The Contractor shall commence construction activities  
29 on the project site within ten days of the Notice to Proceed Date, unless otherwise  
30 approved in writing. The Contractor shall diligently pursue the work to the physical  
31 completion date within the time specified in the contract. Voluntary shutdown or slowing  
32 of operations by the Contractor shall not relieve the Contractor of the responsibility to  
33 complete the work within the time(s) specified in the contract.

35 When shown in the Plans, the first order of work shall be the installation of high visibility  
36 fencing to delineate all areas for protection or restoration, as described in the Contract.  
37 Installation of high visibility fencing adjacent to the roadway shall occur after the  
38 placement of all necessary signs and traffic control devices in accordance with 1-10.1(2).  
39 Upon construction of the fencing, the Contractor shall request the Engineer to inspect the  
40 fence. No other work shall be performed on the site until the Contracting Agency has  
41 accepted the installation of high visibility fencing, as described in the Contract.

### 43 **1-08.5 Time for Completion**

45 Section 1-08.5 is supplemented with the following:

47 *(March 13, 1995)*

48 This project shall be physically completed within \*\*\* 85 \*\*\* working days.

**1-08.5 Time for Completion**  
(December 30, 2022 APWA GSP, Option A)

Revise the third and fourth paragraphs to read:

Contract time shall begin on the first working day following the Notice to Proceed Date.

Each working day shall be charged to the contract as it occurs, until the contract work is physically complete. If substantial completion has been granted and all the authorized working days have been used, charging of working days will cease. Each week the Engineer will provide the Contractor a statement that shows the number of working days: (1) charged to the contract the week before; (2) specified for the physical completion of the contract; and (3) remaining for the physical completion of the contract. The statement will also show the nonworking days and all partial or whole days the Engineer declares as unworkable. The statement will be identified as a Written Determination by the Engineer. If the Contractor does not agree with the Written Determination of working days, the Contractor shall pursue the protest procedures in accordance with Section 1-04.5. By failing to follow the procedures of Section 1-04.5, the Contractor shall be deemed as having accepted the statement as correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a working day then the fifth day of that week will be charged as a working day whether or not the Contractor works on that day.

Revise the sixth paragraph to read:

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

1. The physical work on the project must be complete; and
2. The Contractor must furnish all documentation required by the contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Project Engineer prior to establishing a completion date:
  - a. Certified Payrolls (per Section 1-07.9(5)).
  - b. Material Acceptance Certification Documents
  - c. Monthly Reports of Amounts Credited as DBE Participation, as required by the Contract Provisions.
  - d. Final Contract Voucher Certification
  - e. Copies of the approved "Affidavit of Prevailing Wages Paid" for the Contractor and all Subcontractors
  - f. A copy of the Notice of Termination sent to the Washington State Department of Ecology (Ecology); the elapse of 30 calendar days from the date of receipt of the Notice of Termination by Ecology; and no rejection of the Notice of Termination by Ecology. This requirement will not apply if the Construction Stormwater General Permit is transferred back to the Contracting Agency in accordance with Section 8-01.3(16).
  - g. Property owner releases per Section 1-07.24

1  
2 **1-08.9 Liquidated Damages**

3 *(March 3, 2021 APWA GSP, Option A)*  
4

5 Replace Section 1-08.9 with the following:  
6

7 Time is of the essence of the Contract. Delays inconvenience the traveling public,  
8 obstruct traffic, interfere with and delay commerce, and increase risk to Highway users.  
9 Delays also cost tax payers undue sums of money, adding time needed for  
10 administration, engineering, inspection, and supervision.

11  
12 Accordingly, the Contractor agrees:

- 13  
14 1. To pay liquidated damages in the amount of \*\*\* \$1,000 \*\*\* for each working  
15 day beyond the number of working days established for Physical Completion,  
16 and  
17  
18 2. To authorize the Engineer to deduct these liquidated damages from any  
19 money due or coming due to the Contractor.  
20

21 When the Contract Work has progressed to Substantial Completion as defined in the  
22 Contract, the Engineer may determine the Contract Work is Substantially Complete. The  
23 Engineer will notify the Contractor in writing of the Substantial Completion Date. For  
24 overruns in Contract time occurring after the date so established, liquidated damages  
25 identified above will not apply. For overruns in Contract time occurring after the  
26 Substantial Completion Date, liquidated damages shall be assessed on the basis of  
27 direct engineering and related costs assignable to the project until the actual Physical  
28 Completion Date of all the Contract Work. The Contractor shall complete the remaining  
29 Work as promptly as possible. Upon request by the Project Engineer, the Contractor  
30 shall furnish a written schedule for completing the physical Work on the Contract.

31  
32 Liquidated damages will not be assessed for any days for which an extension of time is  
33 granted. No deduction or payment of liquidated damages will, in any degree, release the  
34 Contractor from further obligations and liabilities to complete the entire Contract.  
35

36 **1-09 Measurement and Payment**

37  
38 **1-09.2(5) Measurement**

39 *(December 30, 2022 APWA GSP)*  
40

41 Revise the first paragraph to read:  
42

43 **Scale Verification Checks** – At the Engineer’s discretion, the Engineer may perform  
44 verification checks on the accuracy of each batch, hopper, or platform scale used in  
45 weighing contract items of Work.  
46

47 **1-09.6 Force Account**

48 *(December 30, 2022 APWA GSP)*  
49

50 Supplement this section with the following:  
51

The Contracting Agency has estimated and included in the Proposal, dollar amounts for all items to be paid per force account, only to provide a common proposal for Bidders. All such dollar amounts are to become a part of Contractor's total bid. However, the Contracting Agency does not warrant expressly or by implication, that the actual amount of work will correspond with those estimates. Payment will be made on the basis of the amount of work actually authorized by the Engineer.

#### **1-09.9 Payments**

*(December 30, 2022 APWA GSP)*

Section 1-09.9 is revised to read:

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

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

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

The initial progress estimate will be made not later than 30 days after the Contractor commences the work, and successive progress estimates will be made every month thereafter until the Completion Date. Progress estimates made during progress of the work are tentative, and made only for the purpose of determining progress payments. The progress estimates are subject to change at any time prior to the calculation of the final payment.

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

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

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

1. Retainage per Section 1-09.9(1), on non FHWA-funded projects;
2. The amount of progress payments previously made; and

1           3. Funds withheld by the Contracting Agency for disbursement in accordance with the  
2           Contract Documents.

3  
4           Progress payments for work performed shall not be evidence of acceptable performance  
5           or an admission by the Contracting Agency that any work has been satisfactorily  
6           completed. The determination of payments under the contract will be final in accordance  
7           with Section 1-05.1.

8  
9           Failure to perform obligations under the Contract by the Contractor may be decreed by the  
10          Contracting Agency to be adequate reason for withholding any payments until compliance  
11          is achieved.

12  
13          Upon completion of all Work and after final inspection (Section 1-05.11), the amount due  
14          the Contractor under the Contract will be paid based upon the final estimate made by the  
15          Engineer and presentation of a Final Contract Voucher Certification to be signed by the  
16          Contractor. The Contractor's signature on such voucher shall be deemed a release of all  
17          claims of the Contractor unless a Certified Claim is filed in accordance with the  
18          requirements of Section 1-09.11 and is expressly excepted from the Contractor's  
19          certification on the Final Contract Voucher Certification. The date the Contracting Agency  
20          signs the Final Contract Voucher Certification constitutes the final acceptance date  
21          (Section 1-05.12).

22  
23          If the Contractor fails, refuses, or is unable to sign and return the Final Contract Voucher  
24          Certification or any other documentation required for completion and final acceptance of  
25          the Contract, the Contracting Agency reserves the right to establish a Completion Date (for  
26          the purpose of meeting the requirements of RCW 60.28) and unilaterally accept the  
27          Contract. Unilateral final acceptance will occur only after the Contractor has been provided  
28          the opportunity, by written request from the Engineer, to voluntarily submit such  
29          documents. If voluntary compliance is not achieved, formal notification of the impending  
30          establishment of a Completion Date and unilateral final acceptance will be provided by  
31          email with delivery confirmation from the Contracting Agency to the Contractor, which will  
32          provide 30 calendar days for the Contractor to submit the necessary documents. The 30  
33          calendar day period will begin on the date the email with delivery confirmation is received  
34          by the Contractor. The date the Contracting Agency unilaterally signs the Final Contract  
35          Voucher Certification shall constitute the Completion Date and the final acceptance date  
36          (Section 1-05.12). The reservation by the Contracting Agency to unilaterally accept the  
37          Contract will apply to Contracts that are Physically Completed in accordance with Section  
38          1-08.5, or for Contracts that are terminated in accordance with Section 1-08.10. Unilateral  
39          final acceptance of the Contract by the Contracting Agency does not in any way relieve  
40          the Contractor of their responsibility to comply with all Federal, State, tribal, or local laws,  
41          ordinances, and regulations that affect the Work under the Contract.

42  
43          Payment to the Contractor of partial estimates, final estimates, and retained percentages  
44          shall be subject to controlling laws.

45  
46          **1-09.9(1) Retainage**

47  
48          Section 1-09.9(1) content and title is deleted and replaced with the following:

49  
50                 **(June 27, 2011)**  
51                 **Vacant**  
52

1 **1-09.11 Disputes and Claims**

2  
3 **1-09.11(3) Time Limitation and Jurisdiction**

4 *(December 30, 2022 APWA GSP)*

5  
6 Revise this section to read:

7  
8 For the convenience of the parties to the Contract it is mutually agreed by the parties that  
9 all claims or causes of action which the Contractor has against the Contracting Agency  
10 arising from the Contract shall be brought within 180 calendar days from the date of final  
11 acceptance (Section 1-05.12) of the Contract by the Contracting Agency; and it is further  
12 agreed that all such claims or causes of action shall be brought only in the Superior Court  
13 of the county where the Contracting Agency headquarters is located, provided that where  
14 an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction.  
15 The parties understand and agree that the Contractor's failure to bring suit within the time  
16 period provided, shall be a complete bar to all such claims or causes of action. It is further  
17 mutually agreed by the parties that when claims or causes of action which the Contractor  
18 asserts against the Contracting Agency arising from the Contract are filed with the  
19 Contracting Agency or initiated in court, the Contractor shall permit the Contracting Agency  
20 to have timely access to all records deemed necessary by the Contracting Agency to assist  
21 in evaluating the claims or action.  
22

23 **1-09.13(3)A Arbitration General**

24 *(January 19, 2022 APWA GSP)*

25  
26 Revise the third paragraph to read:

27  
28 The Contracting Agency and the Contractor mutually agree to be bound by the decision of  
29 the arbitrator, and judgment upon the award rendered by the arbitrator may be entered in  
30 the Superior Court of the county in which the Contracting Agency's headquarters is  
31 located, provided that where claims subject to arbitration are asserted against a county,  
32 RCW 36.01.050 shall control venue and jurisdiction of the Superior Court. The decision of  
33 the arbitrator and the specific basis for the decision shall be in writing. The arbitrator shall  
34 use the Contract as a basis for decisions.  
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## DIVISION 2 - EARTHWORK

Section 2-05 is Vacant. Replace with the Following:

### **2-05 Tilling**

#### **2-05.1 Description**

Till grass to 12" deep per Rough Grading Sequence Notes on the plans.

#### **2-05.2 Payment**

"Tilling", per acre.

Section 2-08 is Vacant. Replace with the Following:

### **2-08 Grading and Excavation**

#### **2-08.1 Description**

This work includes rough grading, fine grading, and detention pond grading.

#### **2-08.2 Vacant**

#### **2-08.3 Construction Requirements**

##### **2-08.3(1) Rough Grading**

After clearing, grubbing and tilling, rough grade the site to grades shown and the plans and per Grading Notes and Rough Grading Sequence Notes on the plans. The maximum slope within the fields area is 2.5% in any direction.

##### **2-08.3(2) Fine Grading**

After completion of rough grading, fine grade the site per the Fine Grading Sequence Notes on the plans.

##### **2-08.3(3) Detention Pond Excavation**

Excavate detention pond to lines and grades shown on the plans. Place excess excavated soil in the excess soil mound area shown on the plans. Compact pond bottom and side slopes to 90% maximum density. Work includes Emergency Overflow Spillway.

##### **2-08.3(4) Grass Lined Swale**

Excavate and grade grass lined swales to lines and grades shown on the plans.



1	<b>2-08.3(5) Biofiltration Swale</b>
2	Excavate and grade biofiltration swales to lines and grades shown
3	on the plans.
4	
5	<b>2-08.4 Measurement</b>
6	Rough and fine grading will be measured per square yard within the
7	clearing limits.
8	Detention Pond will be lump sum including excavation, excess soil
9	mound, compaction, and emergency overflow spillway.
10	Grass Lined Swales and Biofiltration Swales will be per linear foot
11	measured along the bottom of the swale.
12	
13	<b>2-08.5 Payment</b>
14	Payment for "Rough Grading", per square yard.
15	Payment for "Fine Grading", per square yard.
16	Payment for "Detention Pond", lump sum.
17	Payment for "Grass Lined Swale", per linear foot.
18	Payment for "Biofiltration Swale", per linear foot.
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## DIVISION 4 - BASES

### 4-04 Ballast and Crushed Surfacing

#### 4-04.2 Materials

Add material to section

Field Sand: Section 9.03.9(5)

#### 4-04.4 Measurement

Add to end of section

Field Sand will be measured by the ton.

#### 4-04.5 Payment

Add to the end of section, "Field Sand", per ton.

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**DIVISION 7 - DRAINAGE STRUCTURES, STORM SEWERS, SANITARY  
SEWERS, WATER MAINS AND CONDUITS**

**7-04 Storm Sewers**

**7-04.5 Payment**

Payment for Storm Drain Pipe will be by linear foot and include excavation, Gravel Backfill for Pipe Zone Bedding, backfill and compaction.

“Storm Drain Pipe, 8” diameter”, per linear foot.

“Storm Drain Pipe, 12” diameter”, per linear foot.

**7-05 Manholes, Inlets, Catch Basins and Drywells**

**7-05.5 Payment**

Payment for Catch Basin Type 2 Control Structure will include all excavation, bedding, backfill and compaction, control riser and all other items required for a complete installation.

“Catch Basin Type 2 Control Structure”, per each.

## DIVISION 8 - MISCELLANEOUS CONSTRUCTION

### 8-27 Unanticipated Site Work

#### 8-27.1 Description

Unanticipated site work shall be performed at locations designated by the Engineer, and at locations proposed by the Contractor and approved by the Engineer.

#### 8-27.3 Construction Requirements

The Contractor and the Contracting Agencies' representative or Engineer shall reconcile the hours of work of labor and equipment on a daily basis for the purpose of tracking all work under this item. The Contractor shall supply the Engineer with material invoices for all materials incorporated into this work in a timely manner. Invoices shall be original or copies of original invoices from the material supplier.

#### 8-27.4 Measurement

Work performed under item "Unanticipated Site Work" shall be measured in accordance with Section 1-09.6 force account.

#### 8-27.5 Payment

Payment will be made in accordance with Section 1-04.1. for the following bid item: "Unanticipated Site Work", by force account as provided in Section 1-09.6. To provide for a common proposal for all bidders, the Contracting Agency has entered an amount in the proposal to become a part of the Contractor's total bid.

### 8-30 Wood Chip Path

#### 8-30.1 Description

This work consists of constructing a "hog fuel" path for access to the site, as shown on the plan sheets.

#### 8-30.2 Materials

The material for the wood chip path, hog fuel, is a broad term for wood residue and waste product processed through a chipper or mill into coarse chunks with a grading from 5" to 2". For this project, an acceptable substitute for hog fuel is the "arborist mulch" as sold by Skagit Soils in Mount Vernon.

#### 8-30.3 Construction Requirements

Compact subgrade and place a 4" thick layer of hog fuel distributed and compacted into place.

#### 8-30.4 Measurement

Measurement for payment of bid item "Wood Chip Path" shall be by cubic yard of placed hog fuel mulch or alternative as approved by architect.

#### 8-30.5 Payment

Payment for "Wood Chip Path" shall be per cubic yard of placed material and shall include the cost of compaction of the subgrade, the wood material

1 and haul, placement and compaction of wood material, and all labor,  
2 materials, and equipment necessary to satisfactorily complete the work  
3  
4  
5 **8-31 Hydroseeding**  
6  
7  
8 **8-31.1 Description**  
9 This work consists of topsoil testing, soil amendment, fertilizer, lime and  
10 hydroseeding of field, pond, swales and meadow areas shown on the  
11 plans.  
12 **8-31.2 Materials**  
13 Amendment, Fertilizer, Lime, and Seed mixes as shown and noted on the  
14 plans.  
15 **8-31.3 Construction Requirements**  
16 Provide topsoil testing as required by notes on the plans. Provide,  
17 amendment, fertilizer, lime, and seed at the rates and mixes shown on the  
18 plans. Seeding shall not be done during windy weather or when the ground  
19 is frozen or excessively wet. Do not place fertilizer in hydroseeder tank  
20 more than 1 hour prior to application.  
21 **8-31.4 Measurement**  
22 Measurement of payment for hydroseeding will be per acre.  
23 **8-31.5 Payment**  
24 Payment for hydroseeding will be per acre including testing, soil  
25 amendment, fertilizer, lime and seeding. Acceptance per notes on the  
26 plans.  
27 Payment for "Hydroseed Fields", per acre.  
28 Payment for "Hydroseed Pond and Swales", per acre.  
29 Payment for "Hydroseed Meadow", per acre.  
30  
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## DIVISION 9 – MATERIALS

### 9-03 Aggregates

Add Section 9-03.9(5) with the following:

#### 9-03.9(5) Field Sand

Field Sand shall meet all requirements ASTM C33.

Field Sand shall be graded to conform to the following requirements expressed as percentages by weight:

Sieve Size	Percent Passing
3/8-inch	100
No. 4	95-100
No. 8	80-100
No. 16	50-85
No. 30	25-60
No. 50	5-30
No. 100	0-10

1   **Appendices**  
2   **(January 2, 2012)**  
3   The following appendix is attached and made a part of this contract:  
4  
5       APPENDIX A:  
6       Standard Plans  
7  
8       APPENDIX B:  
9       Wage Rates  
10      Washington State Prevailing Wage Rates  
11  
12      APPENDIX C:  
13      Construction Contract - Informational Only  
14      Contract Bond - Informational Only  
15  
16      APPENDIX D:  
17      Proposal Forms - Informational Only  
18  
19      APPENDIX E:  
20      Permits  
21  
22      APPENDIX F:  
23      Stormwater Pollution Prevention Plan (SWPPP)  
24  
25      APPENDIX G:  
26      Vicinity Map and Plans  
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1 (January 9, 2023)

2 **Standard Plans**

3 The State of Washington Standard Plans for Road, Bridge and Municipal Construction M21-  
4 01, effective September 30, 2022, is made a part of this contract.

5  
6 The Standard Plans are revised as follows:

7  
8 A-10.30

9 RISER RING detail (Including SECTION view and RISER RING DIMENSIONS table):  
10 The RISER RING detail is deleted from the plan.

11  
12 INSTALLATION detail, SECTION A: The "1/4"" callout is revised to read "+/- 1/4" (SEE  
13 CONTRACT ~ Note: The + 1/4" installation is shown in the Section A view)"

14  
15 B-90.40

16 Valve Detail – DELETED

17  
18 C-8

19 DELETED

20  
21 C-8A

22 DELETED

23  
24 C-20.42

25 Plan View (Case 22A-31), callout, was; "BEAM GUARDRAIL ANCHOR TYPE 10 PAY  
26 LIMIT" is revised to read; "BEAM GUARDRAIL ANCHOR TYPE 11 PAY LIMIT"

27  
28 C-23.60

29 DELETED

30  
31 C-23.70

32 Sheet 1, Detail A, callout, was – "EIGHT 5/8" x 1/2" (IN) BOLTS W/ HEX NUTS AND  
33 WASHERS (SEE NOTE 5)" is revised to read: "EIGHT 5/8" x 1-1/2" (IN) BOLTS W/ HEX  
34 NUTS AND WASHERS (SEE NOTE 5)".

35 Sheet 2, ANCHOR RAIL ELEMENT DETAIL and associated Enlarged Detail, 3/4"  
36 Diameter hole pattern (8 holes), callout, "3/4" DIAMETER HOLE (TYP.)" is revised to read:  
37 "29/32" x 1 1/8" (IN) SLOT (TYP.)"

38  
39 D-2.04

40 DELETED

41  
42 D-2.06

43 DELETED

44  
45 D-2.08

46 DELETED

47  
48 D-2.32

49 DELETED

50  
51 D-2.34



1 DELETED  
2  
3 D-2.60  
4 DELETED  
5  
6 D-2.62  
7 DELETED  
8  
9 D-2.64  
10 DELETED  
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12 D-2.66  
13 DELETED  
14  
15 D-2.68  
16 DELETED  
17  
18 D-2.80  
19 DELETED  
20  
21 D-2.88  
22 DELETED  
23  
24 D-3.15  
25 DELETED  
26  
27 D-3.16  
28 DELETED  
29  
30 D-3.17  
31 DELETED  
32  
33 D-3.10  
34 Sheet 1, Typical Section, callout – “FOR WALLS WITH SINGLE SLOPE TRAFFIC  
35 BARRIER. USE THE DETAILS ABOVE THE MATCH LINE ON STANDARD PLAN D-  
36 3.15” is revised to read; “FOR WALLS WITH SINGLE SLOPE TRAFFIC BARRIER, SEE  
37 CONTRACT PLANS”  
38 Sheet 1, Typical Section, callout – “FOR WALLS WITH F-SHAPE TRAFFIC BARRIER.  
39 USE THE DETAILS ABOVE THE MATCH LINE ON STANDARD PLAN D-3.16” is revised  
40 to read; “FOR WALLS WITH F-SHAPE TRAFFIC BARRIER, SEE CONTRACT PLANS”  
41  
42 D-3.11  
43 Sheet 1, Typical Section, callout – ““B” BRIDGE APPROACH SLAB (SEE BRIDGE  
44 PLANS) OR PERMANENT GEOSYNTHETIC WALL BARRIER ~ SEE STANDARD  
45 PLANS D-3.15 OR D-3.16” is revised to read; “B” BRIDGE APPROACH SLAB OR  
46 MOMENT SLAB (SEE CONTRACT PLANS)  
47 Sheet 1, Typical Section, callout – “TYPICAL BARRIER ON BRIDGE APPROACH SLAB  
48 (SEE BRIDGE PLANS) OR PERMANENT GEOSYNTHETIC WALL BARRIER ~ SEE  
49 STANDARD PLANS D-3.15 OR D-3.16” is revised to read; “TYPICAL BARRIER ON  
50 BRIDGE APPROACH SLAB OR MOMENT SLAB (SEE CONTRACT PLANS)  
51  
52 D-10.10

Wall Type 1 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT Bridge Design Manual (BDM) and the revisions stated in the 11/3/15 Bridge Design memorandum.

D-10.15

Wall Type 2 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT BDM and the revisions stated in the 11/3/15 Bridge Design memorandum.

D-10.30

Wall Type 5 may be used in all cases.

D-10.35

Wall Type 6 may be used in all cases.

D-10.40

Wall Type 7 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT BDM and the revisions stated in the 11/3/15 Bridge Design memorandum.

D-10.45

Wall Type 8 may be used if no traffic barrier is attached on top of the wall. Walls with traffic barriers attached on top of the wall are considered non-standard and shall be designed in accordance with the current WSDOT BDM and the revisions stated in the revisions stated in the 11/3/15 Bridge Design memorandum.

D-15.10

STD Plans D-15 series "Traffic Barrier Details for Reinforced Concrete Retaining Walls" are withdrawn. Special designs in accordance with the current WSDOT BDM are required in place of these STD Plans.

D-15.20

STD Plans D-15 series "Traffic Barrier Details for Reinforced Concrete Retaining Walls" are withdrawn. Special designs in accordance with the current WSDOT BDM are required in place of these STD Plans.

D-15.30

STD Plans D-15 series "Traffic Barrier Details for Reinforced Concrete Retaining Walls" are withdrawn. Special designs in accordance with the current WSDOT BDM are required in place of these STD Plans.

F-10.18

Note 2, "Region Traffic engineer approval is needed to install a truck apron lower than 3'." - DELETED

J-10.10

Sheet 4 of 6, "Foundation Size Reference Table", PAD WIDTH column, Type 33xD=6' – 3" is revised to read: 7' – 3". Type 342LX / NEMA P44=5' – 10" is revised to read: 6' – 10"

Sheet 5 of 6, Plan View, "FOR EXAMPLE PAD SHOWN HERE:, "first bullet" item, "SPACE BETWEEN TYPE B MOD. CABINET AND 33x CABINET IS 6" (IN)" IS REVISED TO READ: "SPACE BETWEEN TYPE B MOD. CABINET (BACK OF ALL CHANNEL STEEL) AND 33x CABINET IS 6" (IN) (CHANNEL STEEL ADDS ABOUT 5" (IN))"

J-10.16

Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

J-10.17

Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

J-10.18

Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

J-20.10

Elevation View, horizontal dimension to edge of sidewalk 10" (IN) OR LESS DESIRABLE ~ 18" (IN) MAXIMUM is revised to read: "10" (IN) MAXIMUM"

J-20.26

Add Note 1, "1. One accessible pedestrian pushbutton station per pedestrian pushbutton post."

J-20.16

View A, callout, was – LOCK NIPPLE, is revised to read; CHASE NIPPLE

J-21.10

Sheet 1, Elevation View, Round Concrete Foundation Detail, callout – "ANCHOR BOLTS ~ 3/4" (IN) x 30" (IN) FULL THREAD ~ THREE REQ'D. PER ASSEMBLY" IS REVISED TO READ: "ANCHOR BOLTS ~ 3/4" (IN) x 30" (IN) FULL THREAD ~ FOUR REQ'D. PER ASSEMBLY"

Sheet 1 of 2, Elevation view (Round), add dimension depicting the distance from the top of the foundation to find 2 #4 reinforcing bar shown, to read; 3" CLR. Delete "(TYP.)" from the 2 1/2" CLR. dimension, depicting the distance from the bottom of the foundation to find 2 # 4 reinf. Bar.

Sheet 1 of 2, Elevation view (Square), add dimension depicting the distance from the top of the foundation to find 1 #4 reinforcing bar shown, to read; 3" CLR. Delete "(TYP.)" from the 2 1/2" CLR. dimension, depicting the distance from the bottom of the foundation to find 1 # 4 reinf. Bar.

Sheet 2 of 2, Elevation view (Round), add dimension depicting the distance from the top of the foundation to find 2 #4 reinforcing bar shown, to read; 3" CLR. Delete "(TYP.)" from the 2 1/2" CLR. dimension, depicting the distance from the bottom of the foundation to find 2 # 4 reinf. Bar.

Sheet 2 of 2, Elevation view (Square), add dimension depicting the distance from the top of the foundation to find 1 #4 reinforcing bar shown, to read; 3" CLR. Delete "(TYP.)" from the 2 1/2" CLR. dimension, depicting the distance from the bottom of the foundation to find 1 # 4 reinf. Bar.

Detail F, callout, "Heavy Hex Clamping Bolt (TYP.) ~ 3/4" (IN) Diam. Torque Clamping Bolts (see Note 3)" is revised to read; "Heavy Hex Clamping Bolt (TYP.) ~ 3/4" (IN) Diam. Torque Clamping Bolts (see Note 1)"

Detail F, callout, "3/4" (IN) x 2' – 6" Anchor Bolt (TYP.) ~ Four Required (See Note 4)" is revised to read; "3/4" (IN) x 2' – 6" Anchor Bolt (TYP.) ~ Three Required (See Note 2)"

1 J-21.15  
2 Partial View, callout, was – LOCK NIPPLE ~ 1 ½” DIAM., is revised to read; CHASE  
3 NIPPLE ~ 1 ½” (IN) DIAM.  
4  
5 J-21.16  
6 Detail A, callout, was – LOCKNIPPLE, is revised to read; CHASE NIPPLE  
7  
8 J-22.15  
9 Ramp Meter Signal Standard, elevation, dimension 4’ - 6” is revised to read; 6’-0”  
10 (2x) Detail A, callout, was – LOCK NIPPLE ~ 1 ½” DIAM. is revised to read; CHASE  
11 NIPPLE ~ 1 ½” (IN) DIAM.  
12  
13 J-40.10  
14 Sheet 2 of 2, Detail F, callout, “12 – 13 x 1 ½” S.S. PENTA HEAD BOLT AND 12” S. S.  
15 FLAT WASHER” is revised to read; “12 – 13 x 1 ½” S.S. PENTA HEAD BOLT AND 1/2”  
16 (IN) S. S. FLAT WASHER”  
17  
18 J-40.36  
19 Note 1, second sentence; “Finish shall be # 2B for backbox and # 4 for the cover.” Is  
20 revised to read; “Finish shall be # 2B for barrier box and HRAP (Hot Rolled Annealed and  
21 Pickled) for the cover.”  
22  
23 J-40.37  
24 Note 1, second sentence; “Finish shall be # 2B for backbox and # 4 for the cover.” Is  
25 revised to read; “Finish shall be # 2B for barrier box and HRAP (Hot Rolled Annealed and  
26 Pickled) for the cover.”  
27  
28 J-75.20  
29 Key Notes, note 16, second bullet point, was: “1/2” (IN) x 0.45” (IN) Stainless Steel  
30 Bands”, add the following to the end of the note: “Alternate: Stainless steel cable with  
31 stainless steel ends, nuts, bolts, and washers may be used in place of stainless steel  
32 bands and associated hardware.”  
33  
34 J-75.41  
35 DELETED  
36  
37 J-75.55  
38 Notes, Note A1, Revise reference, was – G-90.29, should be – G-90.20.  
39  
40 K-80.20  
41 DELETED  
42  
43 L-5.10  
44 Sheet 2, Typical Elevation, callout - “2’ – 0” MIN. LAP SPLICE BETWEEN (mark) A #3  
45 BAR AND WALL REINFORCEMENT ~ TYPICAL” is revised to read: “2’ – 0” MIN. LAP  
46 SPLICE BETWEEN (MARK) A #4 BAR AND WALL REINFORCEMENT ~ TYPICAL”  
47 Section C, callout; “(mark) A #3” is revised to read: “(mark) A #4”, callout - “(mark) B #3”  
48 is revised to read: “(mark) B #4”, callout - “(mark) C #3 TIE” is revised to read: “(mark) C  
49 #4 TIE”  
50 Reinforcing Steel Bending Diagram, (mark) B detail, callout – “128 deg.” is revised to  
51 read: “123 deg.”, callout – “51 deg.” is revised to read: “57 deg.”  
52

1 The following are the Standard Plan numbers applicable at the time this project was  
2 advertised. The date shown with each plan number is the publication approval date  
3 shown in the lower right-hand corner of that plan. Standard Plans showing different dates  
4 shall not be used in this contract.  
5

A-10.10-00.....8/7/07      A-30.35-00.....10/12/07      A-50.10-01.....8/17/21  
A-10.20-00.....10/5/07      A-40.00-01.....7/6/22      A-50.40-01.....8/17/21  
A-10.30-00.....10/5/07      A-40.10-04.....7/31/19      A-60.10-03.....12/23/14  
A-20.10-00.....8/31/07      A-40.15-00.....8/11/09      A-60.20-03.....12/23/14  
A-30.10-00.....11/8/07      A-40.20-04.....1/18/17      A-60.30-01.....6/28/18  
A-30.30-01.....6/16/11      A-40.50-02.....12/23/14      A-60.40-00.....8/31/07

6  
B-5.20-03.....9/9/20      B-30.50-03.....2/27/18      B-75.20-03.....8/17/21  
B-5.40-02.....1/26/17      B-30.60-00.....9/9/20      B-75.50-02.....3/15/22  
B-5.60-02.....1/26/17      B-30.70-04.....2/27/18      B-75.60-00.....6/8/06  
B-10.20-02.....3/2/18      B-30.80-01.....2/27/18      B-80.20-00.....6/8/06  
B-10.40-02.....8/17/21      B-30.90-02.....1/26/17      B-80.40-00.....6/1/06  
B-10.70-02.....8/17/21      B-35.20-00.....6/8/06      B-85.10-01.....6/10/08  
B-15.20-01.....2/7/12      B-35.40-00.....6/8/06      B-85.20-00.....6/1/06  
B-15.40-01.....2/7/12      B-40.20-00.....6/1/06      B-85.30-00.....6/1/06  
B-15.60-02.....1/26/17      B-40.40-02.....1/26/17      B-85.40-00.....6/8/06  
B-20.20-02.....3/16/12      B-45.20-01.....7/11/17      B-85.50-01.....6/10/08  
B-20.40-04.....2/27/18      B-45.40-01.....7/21/17      B-90.10-00.....6/8/06  
B-20.60-03.....3/15/12      B-50.20-00.....6/1/06      B-90.20-00.....6/8/06  
B-25.20-02.....2/27/18      B-55.20-03.....8/17/21      B-90.30-00.....6/8/06  
B-25.60-02.....2/27/18      B-60.20-02.....9/9/20      B-90.40-01.....1/26/17  
B-30.05-00.....9/9/20      B-60.40-01.....2/27/18      B-90.50-00.....6/8/06  
B-30.10-03.....2/27/18      B-65.20-01.....4/26/12      B-95.20-02.....8/17/21  
B-30.15-00.....2/27/18      B-65.40-00.....6/1/06      B-95.40-01.....6/28/18  
B-30.20-04.....2/27/18      B-70.20-01.....3/15/22  
B-30.30-03.....2/27/18      B-70.60-01.....1/26/17  
B-30.40-03.....2/27/18

7  
C-1.....9/8/22      C-22.40-09.....9/8/22      C-60.70-01.....9/8/22  
C-1b.....9/8/22      C-22.45-06.....9/8/22      C-60.80-01.....9/8/22  
C-1d.....10/31/03      C-23.70-00.....8/22/22      C-70.15-00.....8/17/21  
C-2c.....8/12/19      C-24.10-03.....7/24/22      C-70.10-03.....8/20/21  
C-4f.....8/12/19      C-24.15-00.....3/15/22      C-75.10-02.....9/16/20  
C-6a.....9/8/22      C-25.20-07.....8/20/21      C-75.20-03.....8/20/21  
C-7.....9/8/22      C-25.22-06.....8/20/21      C-75.30-03.....8/20/21  
C-7a.....9/8/22      C-25.26-05.....8/20/21      C-80.10-02.....9/16/20  
C-20.10-08.....9/8/22      C-25.30-01.....8/20/21      C-80.20-01.....6/11/14  
C-20.14-05.....9/8/22      C-25.80-05.....8/12/19      C-80.30-02.....8/20/21  
C-20.15-02.....6/11/14      C-60.10-02.....9/8/22      C-80.40-01.....6/11/14  
C-20.18-04.....9/8/22      C-60.15-00.....8/17/21      C-85.10-00.....4/8/12  
C-20.40-09.....9/8/22      C-60.20-01.....9/8/22      C-85.11-01.....9/16/20  
C-20.41-04.....8/22/22      C-60.30-01.....8/17/21      C-85.15-02.....8/27/21  
C-20.42-05.....7/14/15      C-60.40-00.....8/17/21      C-85.18-03.....9/8/22  
C-20.43-00.....8/22/22      C-60.45-00.....8/17/21  
C-20.45-03.....9/8/22      C-60.50-00.....8/17/21  
C-22.16-07.....9/16/20      C-60.60-00.....8/17/21

8

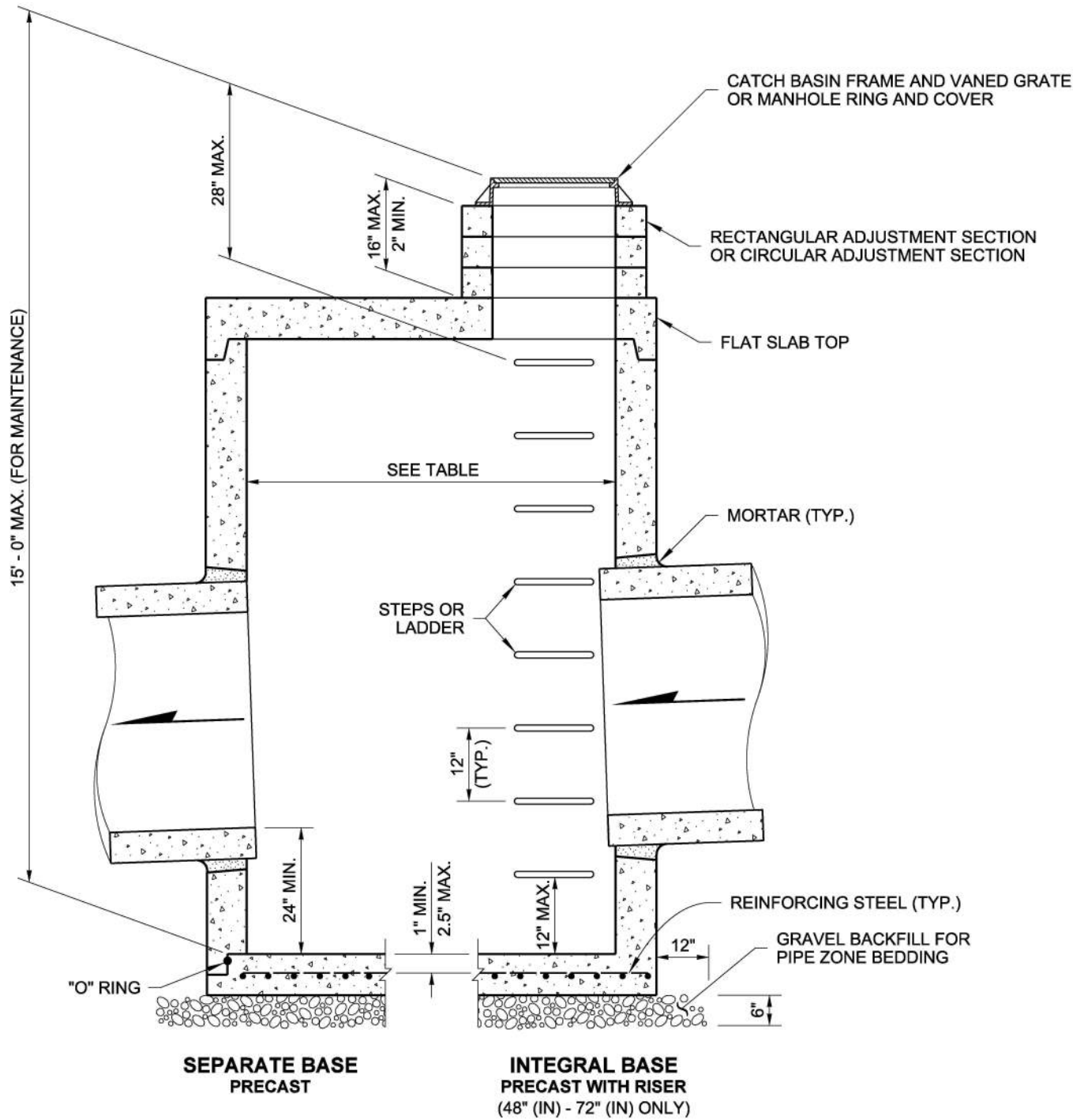
	D-2.36-03.....6/11/14	D-4.....12/11/98	D-10.35-00.....7/8/08
	D-2.46-02.....8/13/21	D-6.....6/19/98	D-10.40-01.....12/2/08
	D-2.84-00.....11/10/05	D-10.10-01.....12/2/08	D-10.45-01.....12/2/08
	D-2.92-01.....4/26/22	D-10.15-01.....12/2/08	
	D-3.09-00.....5/17/12	D-10.20-01.....8/7/19	
	D-3.10-01.....5/29/13	D-10.25-01.....8/7/19	
	D-3.11-03.....6/11/14	D-10.30-00.....7/8/08	
1	E-1.....2/21/07	E-4.....8/27/03	
	E-2.....5/29/98	E-4a.....8/27/03	
2			
	F-10.12-04.....9/24/20	F-10.62-02.....4/22/14	F-40.15-04.....9/25/20
	F-10.16-00.....12/20/06	F-10.64-03.....4/22/14	F-40.16-03.....6/29/16
	F-10.18-03.....3/28/22	F-30.10-04.....9/25/20	F-45.10-03.....8/13/21
	F-10.40-04.....9/24/20	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	
3			
	G-10.10-00.....9/20/07	G-26.10-00.....7/31/19	
	G-20.10-03.....8/20/21	G-30.10-04.....6/23/15	
	G-22.10-04.....6/28/18	G-50.10-03.....6/28/18	
	G-24.10-00.....11/8/07	G-90.10-03.....7/11/17	
	G-24.20-01.....2/7/12	G-90.20-05.....7/11/17	
	G-24.30-02.....6/28/18	G-90.30-04.....7/11/17	
	G-24.40-07.....6/28/18	G-95.10-02.....6/28/18	
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	G-24.60-05.....6/28/18	G-95.30-03.....6/28/18	
	G-25.10-05.....9/16/20		
4			
	H-10.10-00.....7/3/08	H-32.10-00.....9/20/07	H-70.10-02.....8/17/21
	H-10.15-00.....7/3/08	H-60.10-01.....7/3/08	H-70.20-02.....8/17/21
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	I-30.10-02.....3/22/13	I-30.30-02.....6/12/19	I-50.20-02.....7/6/22
	I-30.15-02.....3/22/13	I-30.40-02.....6/12/19	I-60.10-01.....6/10/13
	I-30.16-01.....7/11/19	I-30.60-02.....6/12/19	I-60.20-01.....6/10/13
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	J-10.....7/18/97	J-28.22-00.....8/07/07	J-50.30-00.....6/3/11
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	J-10.16-02.....8/18/21	J-28.42-01.....6/11/14	J-60.14-01.....7/31/19
	J-10.17-02.....8/18/21	J-28.43-01.....6/28/18	J-75.10-02.....7/10/15
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	K-70.20-01.....6/1/16	K-80.32-00.....8/17/21	K-80.35-01.....9/16/20
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	M-7.50-01.....1/30/07	M-24.65-00.....7/11/17	
	M-9.50-02.....6/24/14	M-24.66-00.....7/11/17	
	M-9.60-00.....2/10/09	M-40.10-03.....6/24/14	
4			
5			

# **APPENDIX A**

## **Standard Plans**





NOTES

1. No steps are required when height is 4' or less.
2. The bottom of the precast catch basin may be sloped to facilitate cleaning.
3. The rectangular frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.
4. Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3**.

CATCH BASIN DIMENSIONS				
CATCH BASIN DIAMETER	MIN. WALL THICKNESS	MIN. BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS
48"	4"	6"	36"	8"
54"	4.5"	8"	42"	8"
60"	5"	8"	48"	8"
72"	6"	8"	60"	12"
84"	8"	12"	72"	12"
96"	8"	12"	84"	12"
120"	10"	12"	96"	12"
144"	12"	12"	108"	12"

PIPE ALLOWANCES					
CATCH BASIN DIAMETER	PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER				
	CONCRETE	ALL METAL	CPSSP ① PP ④	SOLID WALL PVC ②	PROFILE WALL PVC ③
48"	24"	30"	24"	30"	30"
54"	30"	36"	30"	36"	36"
60"	36"	42"	36"	42"	42"
72"	42"	54"	42"	48"	48"
84"	54"	60"	54"	48"	48"
96"	60"	72"	60"	48"	48"
120"	66"	84"	60"	48"	48"
144"	78"	96"	60"	48"	48"

- ① Corrugated Polyethylene Storm Sewer Pipe (See **Standard Specification Section 9-05.20**)
- ② (See **Standard Specification Section 9-05.12(1)**)
- ③ (See **Standard Specification Section 9-05.12(2)**)
- ④ Polypropylene Pipe (See **Standard Specification Section 9-05.24**)



Heilman, Julie  
Feb 20 2018 12:49 PM  
cosign

CATCH BASIN TYPE 2

STANDARD PLAN B-10.20-02

SHEET 1 OF 1 SHEET

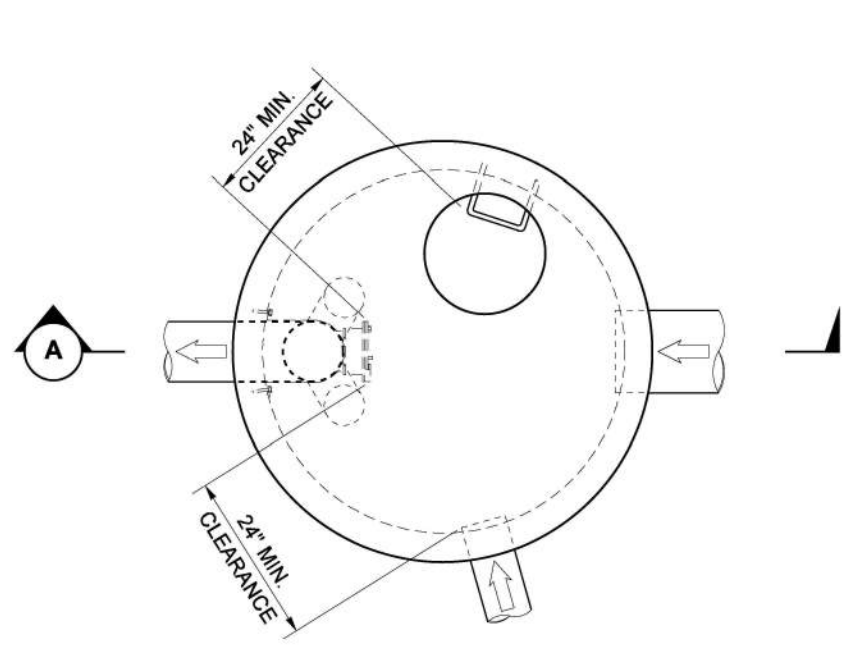
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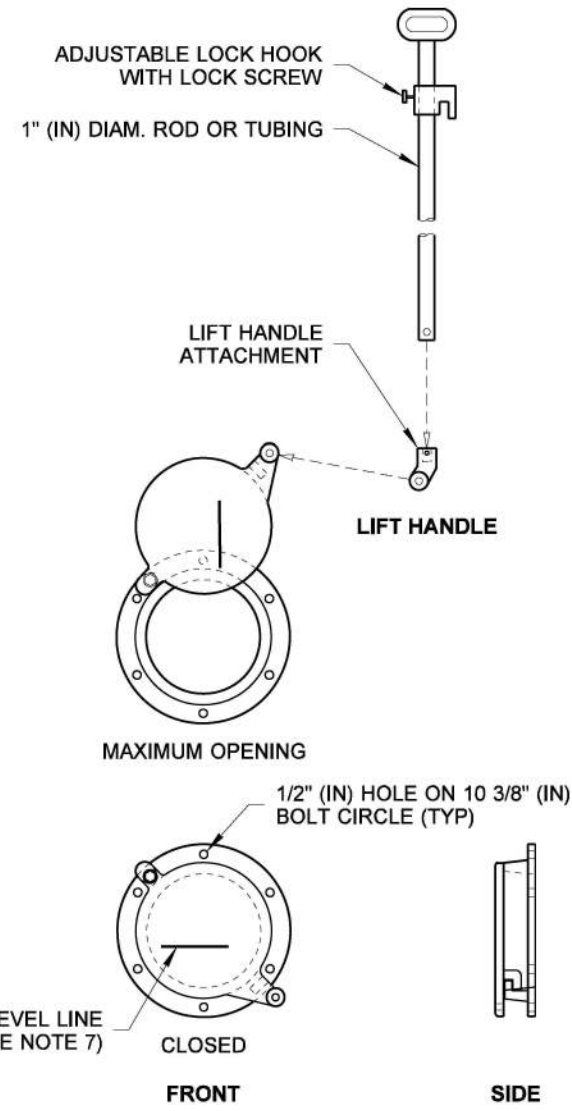
STATE DESIGN ENGINEER

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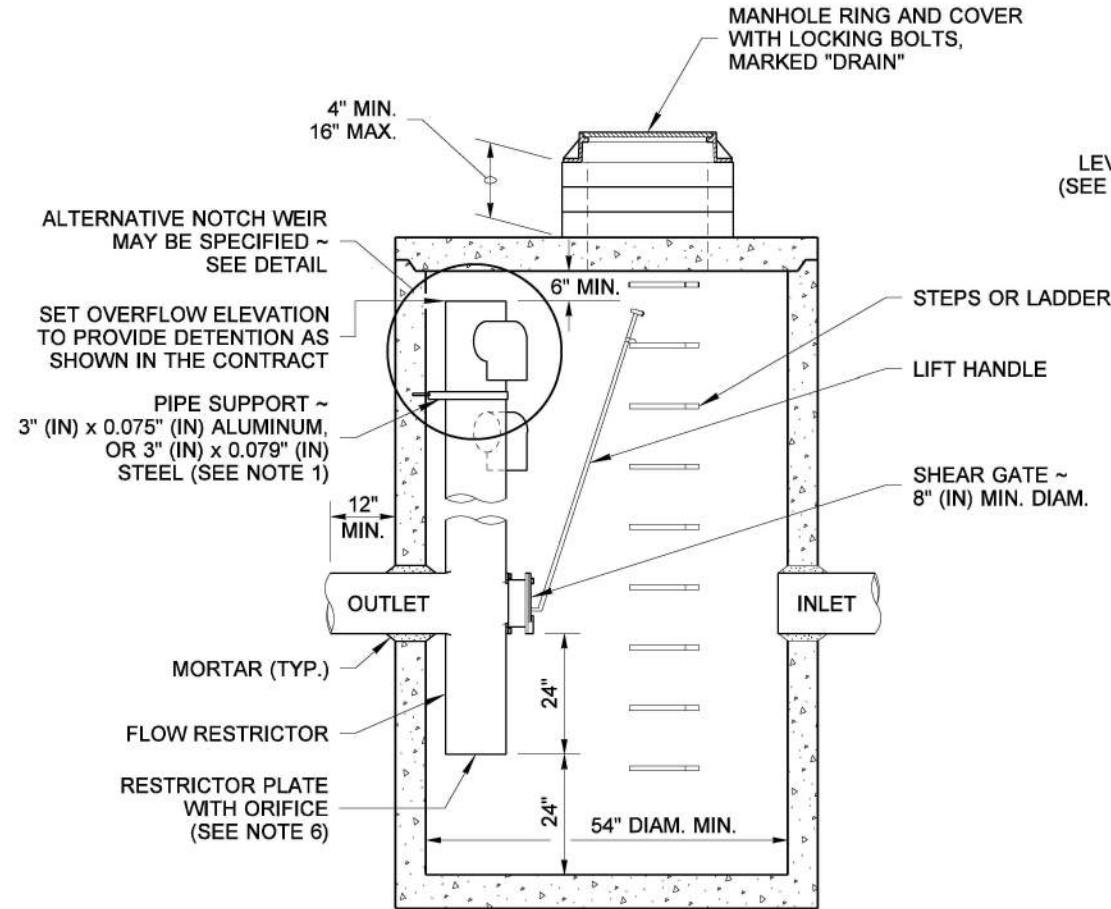
DRAWN BY: FERN LIDDELL



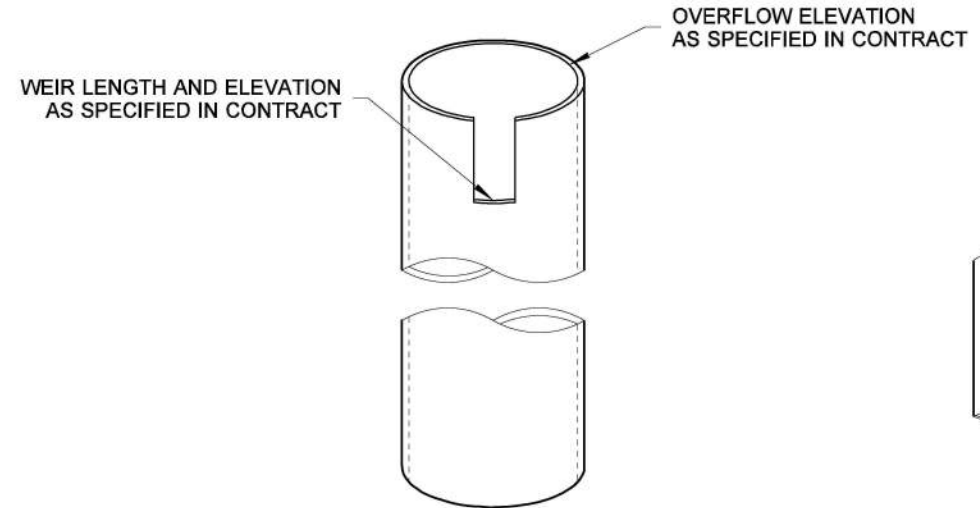
PLAN VIEW



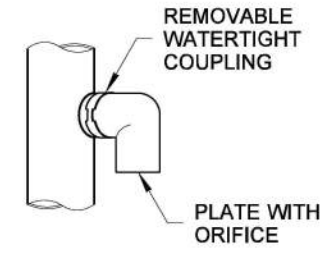
SHEAR GATE DETAILS



SECTION A



NOTCH WEIR DETAIL



ELBOW DETAIL

NOTES

1. The pipe supports and the flow restrictor shall be constructed of the same material and be anchored at a maximum spacing of 36" (in). Attach the pipe supports to the manhole with 5/8" (in) stainless steel expansion bolts or embed the supports into the manhole wall 2" (in).
2. The vertical riser stem of the flow restrictor shall be the same diameter as the horizontal outlet pipe with a minimum diameter of 12" (in).
3. The flow restrictor shall be fabricated from one of the following materials:
  - 0.060" (in) Corrugated Aluminum Alloy Drain Pipe
  - 0.064" (in) Corrugated Galvanized Steel Drain Pipe with Treatment 1
  - 0.064" (in) Corrugated Aluminized Steel Drain Pipe
  - 0.060" (in) Aluminum alloy flat sheet, in accordance with **ASTM B 209, 5052 H32 or EPS**
  - High Density Polyethylene Storm Sewer Pipe
4. The frame and ladder or steps are to be offset so that: the shear gate is visible from the top; the climb-down space is clear of the riser and gate; the frame is clear of the curb.
5. The multi-orifice elbows may be located as shown, or all placed on one side of the riser to assure ladder clearance. The size of the elbows and their placement shall be specified in the Contract.
6. Restrictor plate with orifice as specified in the Contract. The opening is to be cut round and smooth.
7. The shear gate shall be made of aluminum alloy in accordance with **ASTM B 26 and ASTM B 275, designation ZG32A**; or cast iron in accordance with **ASTM A 48, Class 30B**.

The lift handle shall be made of a similar metal to the gate (to prevent galvanic corrosion), it may be of solid rod or hollow tubing, with adjustable hook as required.

A neoprene rubber gasket is required between the riser mounting flange and the gate flange.

Install the gate so that the level-line mark is level when the gate is closed.

The mating surfaces of the lid and the body shall be machined for proper fit.

All shear gate bolts shall be stainless steel.
8. The shear gate maximum opening shall be controlled by limited hinge movement, a stop tab, or some other device.
9. Alternative shear gate designs are acceptable if material specifications are met.



Aug 17, 2021

**CATCH BASIN TYPE 2  
WITH FLOW RESTRICTOR  
STANDARD PLAN B-10.40-02**

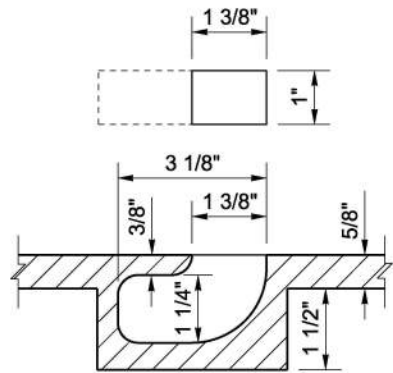
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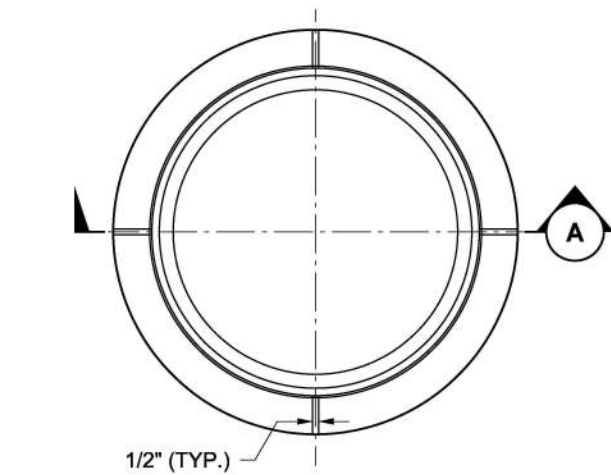
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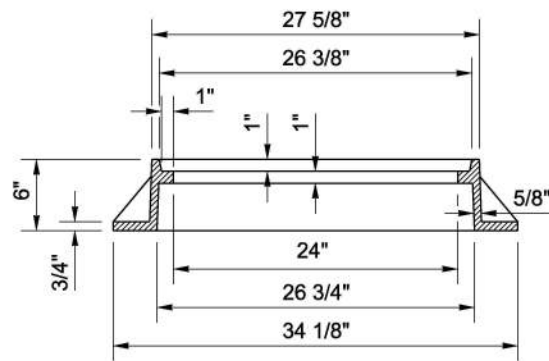
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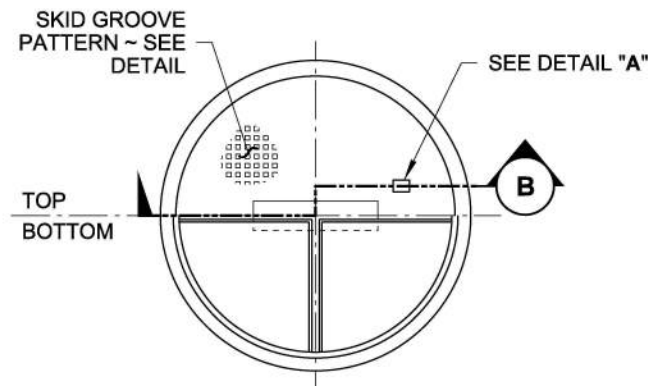
BLIND PICK NOTCH  
DETAIL "A"



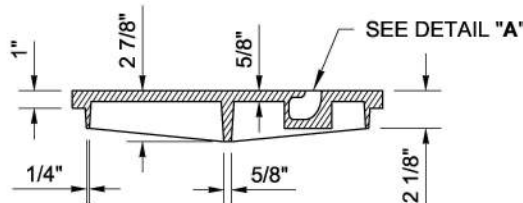
RING PLAN



RING SECTION A

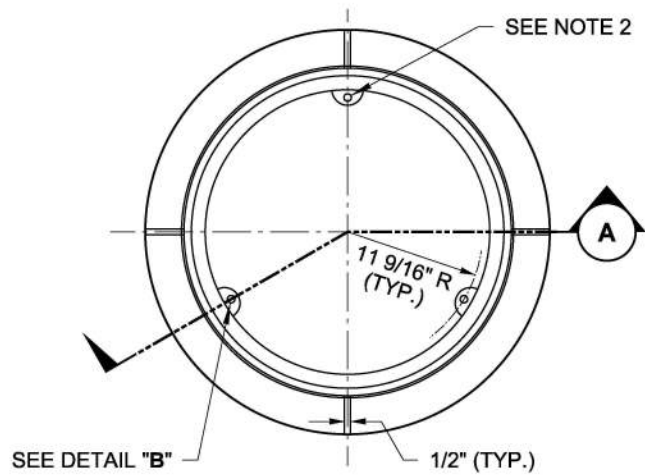


COVER PLAN

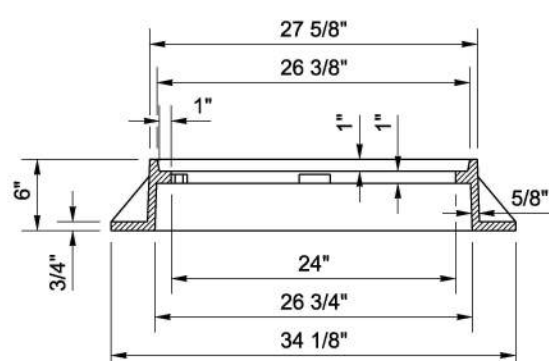


COVER SECTION B  
(SEE NOTE 7)

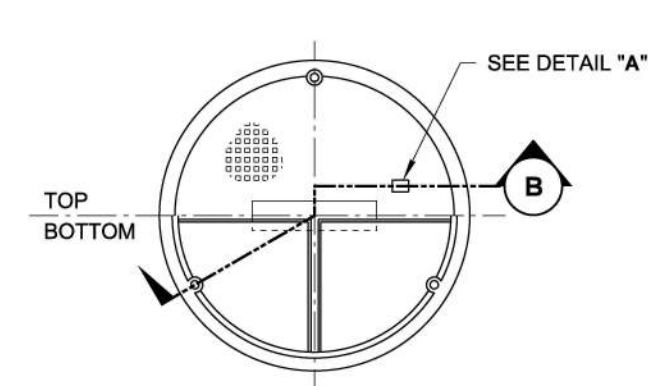
STANDARD  
TYPE 1



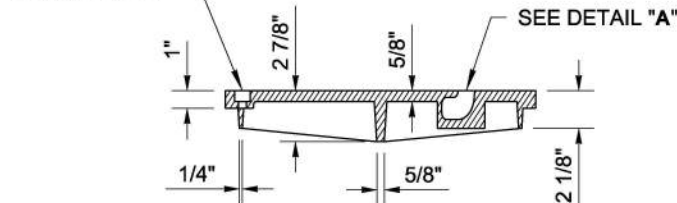
RING PLAN



RING SECTION A

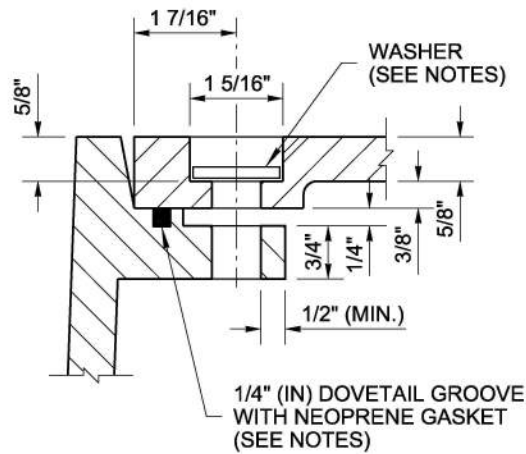


COVER PLAN

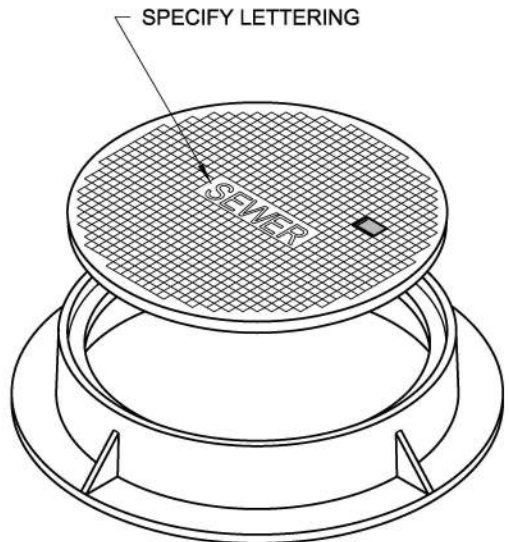


COVER SECTION B  
(SEE NOTE 7)

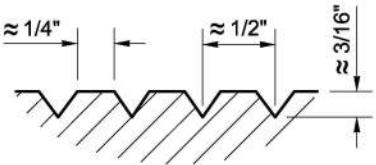
BOLT-DOWN / WATERTIGHT  
TYPE 2



BOLT-DOWN / WATERTIGHT  
DETAIL "B"



ISOMETRIC VIEW



SKID GROOVE PATTERN  
DETAIL

- NOTES**
1. The gasket and groove may be in the seat (frame) or in the underside of the cover. The gasket may be "T" shaped in section. The groove may be cast or machined.
  2. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 3 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S) 5/8" - 11 NC x 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt down holes varies by manufacturer.
  3. For bolt-down manhole ring and covers that are not designated "Watertight," the neoprene gasket, groove, and washer are not required.
  4. Washer shall be neoprene (Detail "B").
  5. In lieu of blind pick notch for manhole covers, a single 1" (in) pick hole is acceptable. Hole location and number of holes may vary by manufacturer.
  6. Alternative reinforcing designs are acceptable in lieu of the rib design.
  7. For clarity, the vertical scale of the Cover Section has been exaggerated, it is 1.5 times the horizontal scale (1H:1.5V).



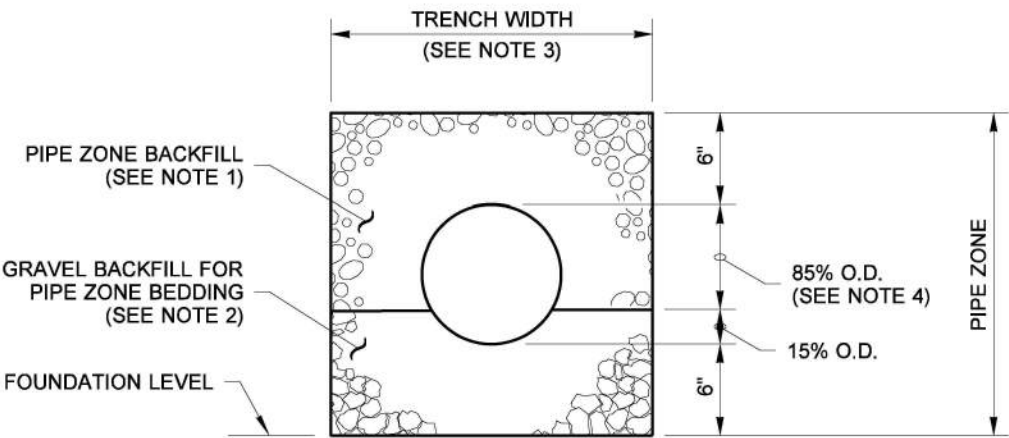
Julie Heilman  
Heilman, Julie  
Feb 20 2018 12:55 PM  
**CIRCULAR FRAME (RING)  
AND COVER**

**STANDARD PLAN B-30.70-04**

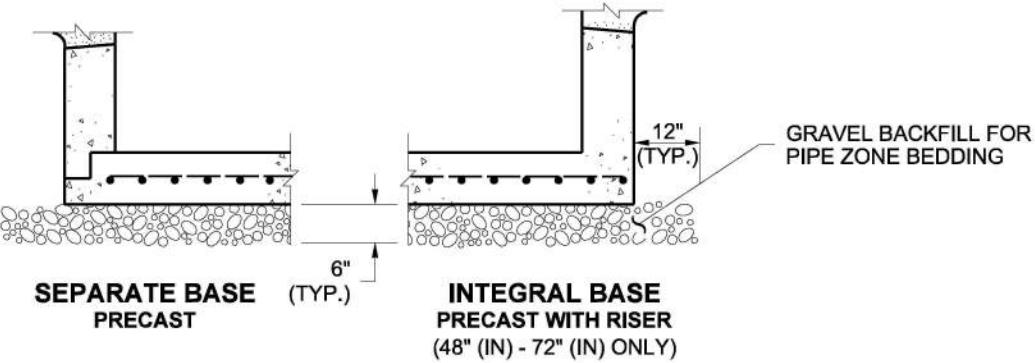
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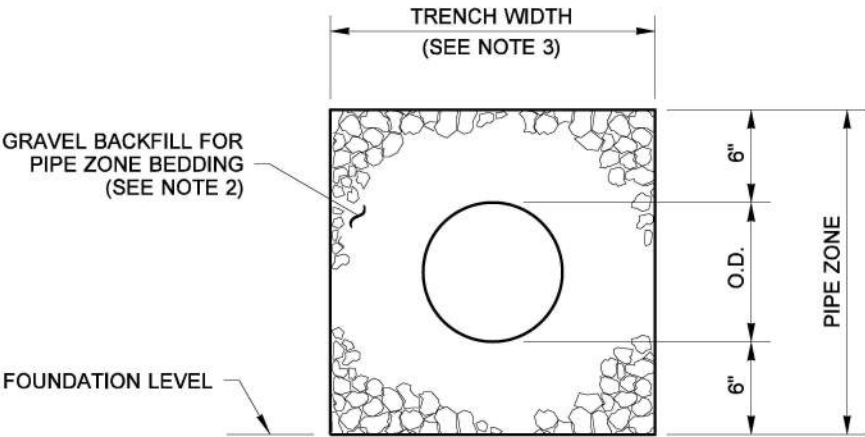


CONCRETE AND DUCTILE IRON PIPE

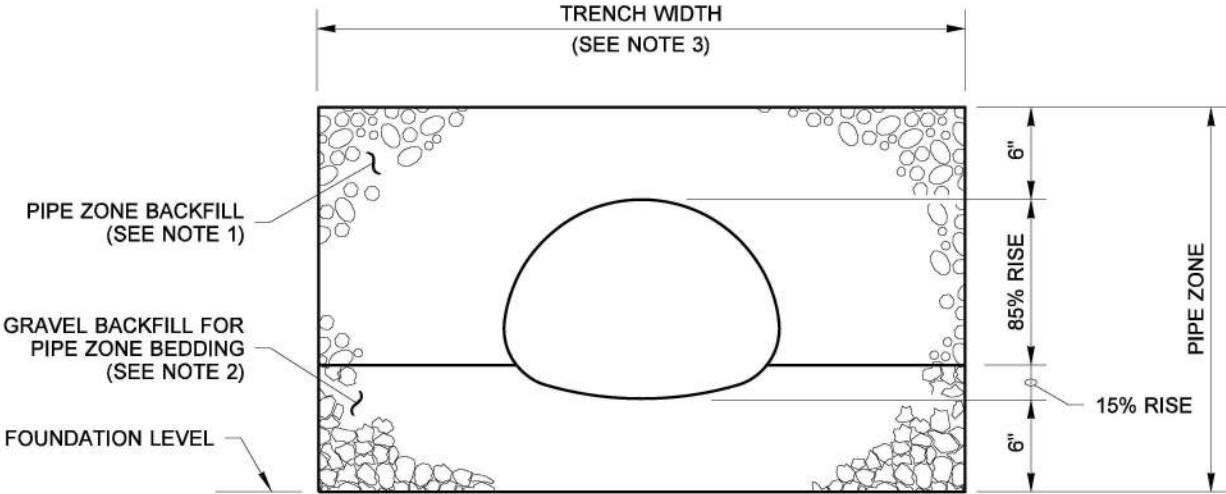


TYPICAL CONDITION FOR DRAINAGE STRUCTURE

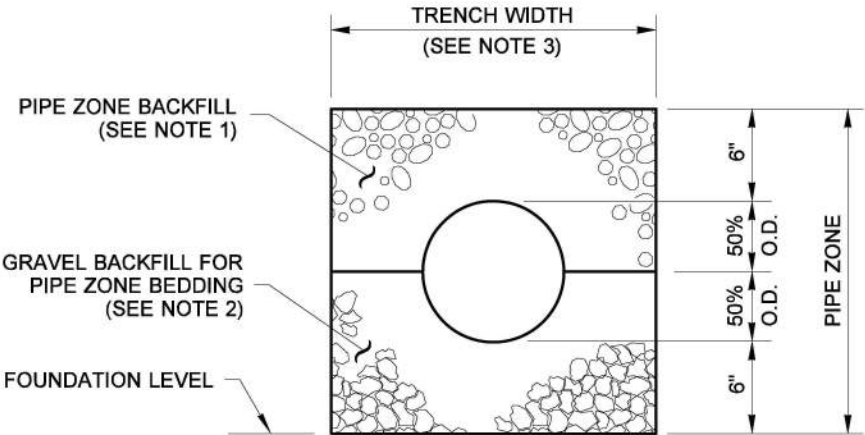
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THERMOPLASTIC PIPE



PIPE ARCHES



METAL AND STEEL RIB REINFORCED POLYETHYLENE PIPE

CLEARANCE BETWEEN PIPES FOR MULTIPLE INSTALLATIONS		
PIPE	SIZE	MINIMUM DISTANCE BETWEEN BARRELS
CIRCULAR PIPE (DIAMETER)	UP TO 48"	24"
METAL PIPE ARCH (SPAN)	48" AND LARGER	DIAMETER/2 OR 36" WHICHEVER IS LESS

NOTES

1. See **Standard Specifications Section 7-08.3(3)** for Pipe Zone Backfill.
2. See **Standard Specifications Section 9-03.12(3)** for Gravel Backfill for Pipe Zone Bedding.
3. See **Standard Specifications Section 2-09.4** for Measurement of Trench Width.
4. For sanitary sewer installation, concrete pipe shall be imbedded to spring line.



Aug 17, 2021

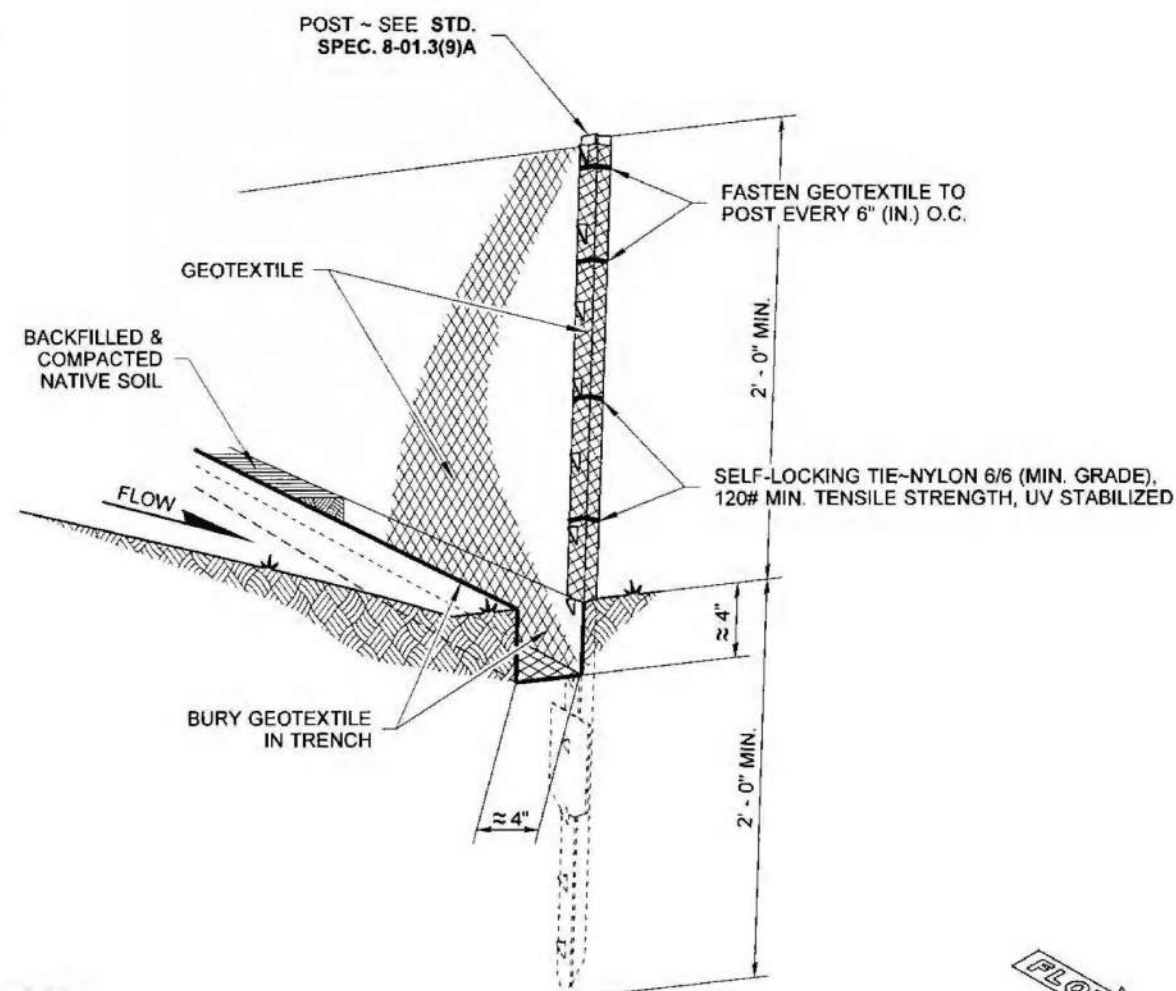
PIPE ZONE BEDDING AND BACKFILL  
STANDARD PLAN B-55.20-03

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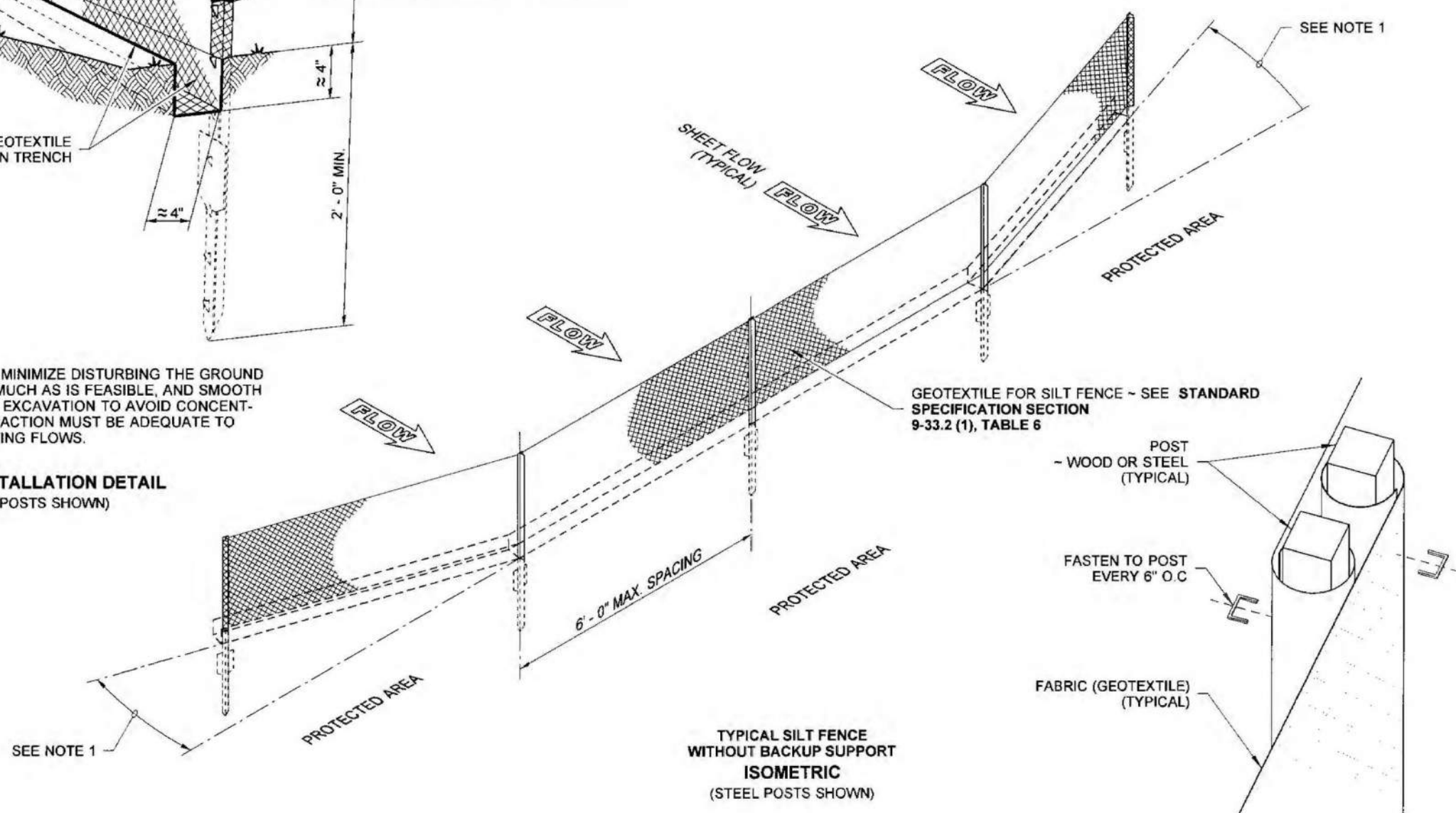
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### NOTE

DURING EXCAVATION, MINIMIZE DISTURBING THE GROUND AROUND TRENCH AS MUCH AS IS FEASIBLE, AND SMOOTH SURFACE FOLLOWING EXCAVATION TO AVOID CONCENTRATING FLOWS. COMPACTION MUST BE ADEQUATE TO PREVENT UNDERCUTTING FLOWS.

**TYPICAL INSTALLATION DETAIL**  
(STEEL POSTS SHOWN)



SPliced fence sections shall be close enough together to prevent silt laden water from escaping through the fence at the overlap.

**SPLICE DETAIL**  
(WOOD POSTS SHOWN)

## NOTES

1. Install the ends of the silt fence to point slightly upslope to prevent sediment from flowing around the ends of the fence.
2. Perform maintenance in accordance with **Standard Specifications 8-01.3(9)A and 8-01.3(15)**.
3. Splices shall never be placed in low spots or sump locations. If splices are located in low or sump areas, the fence may need to be reinstalled unless the Project Engineer approves the installation.
4. Install silt fencing parallel to mapped contour lines.



STATE OF  
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LANDSCAPE ARCHITECT  
*Sandra L. Salisbury*  
SANDRA L. SALISBURY  
CERTIFICATE NO. 000860  
March 11, 2013

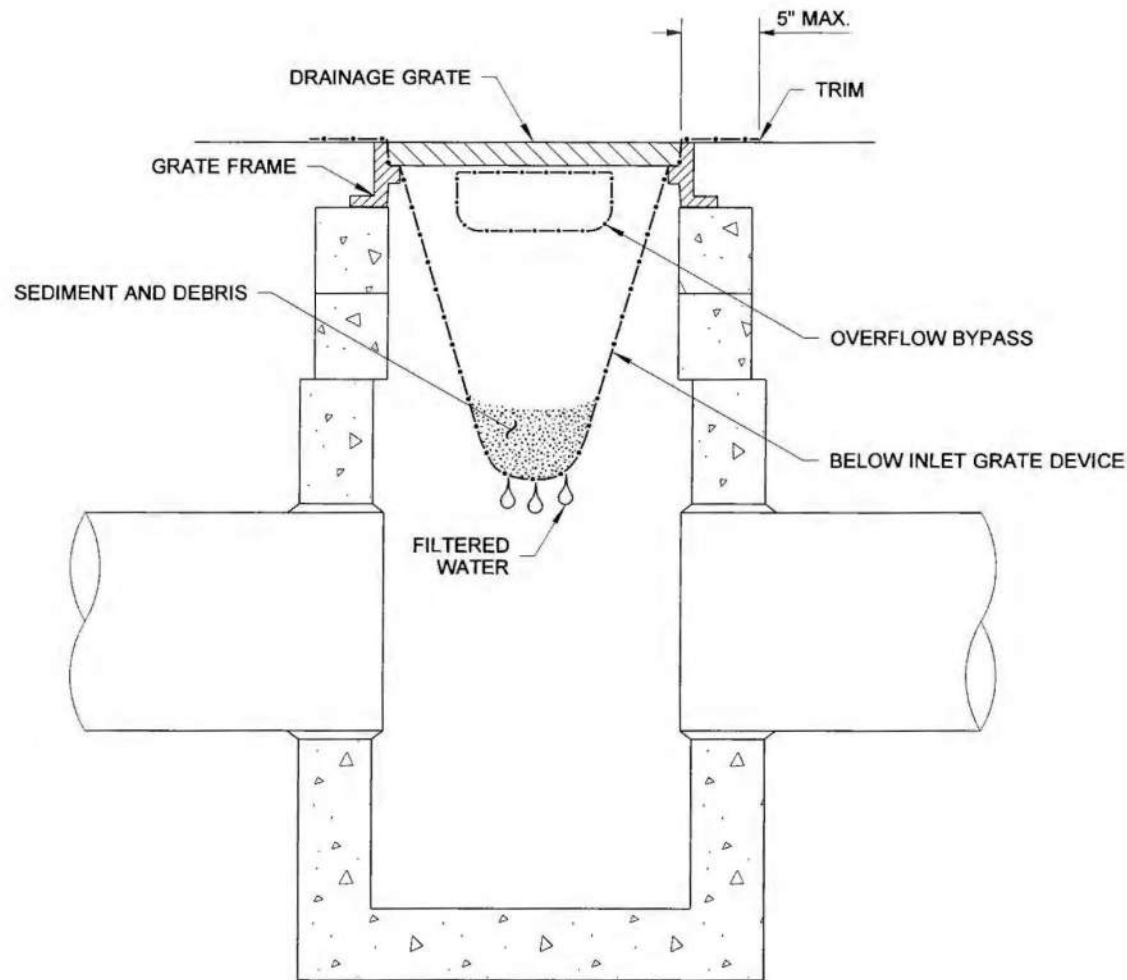
## SILT FENCE

**STANDARD PLAN I-30.15-02**

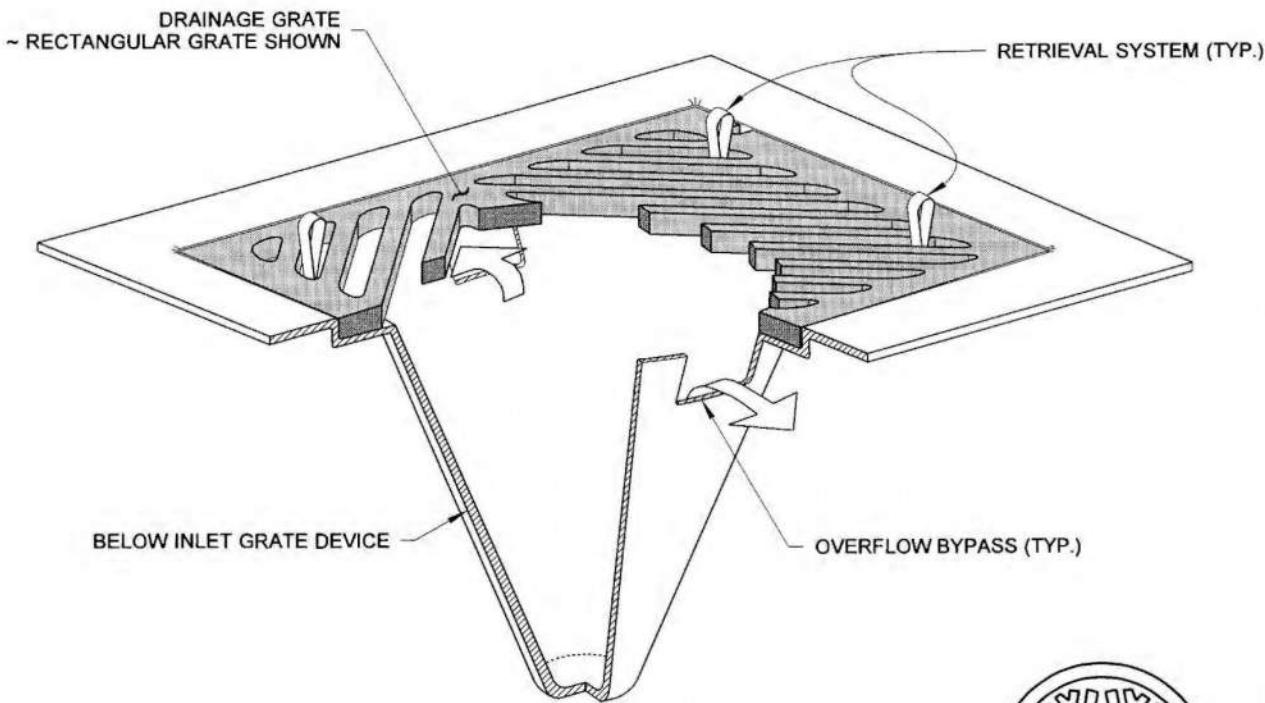
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SECTION VIEW  
NOT TO SCALE



ISOMETRIC VIEW

NOTES

1. Size the Below Inlet Grate Device (BIGD) for the storm water structure it will service.
2. The BIGD shall have a built-in high-flow relief system (overflow bypass).
3. The retrieval system must allow removal of the BIGD without spilling the collected material.
4. Perform maintenance in accordance with Standard Specification 8-01.3(15).



STATE OF  
WASHINGTON  
REGISTERED  
LANDSCAPE ARCHITECT  
*Mark W. Maurer*  
MARK W. MAURER  
CERTIFICATE NO. 000598  
9/20/07

**STORM DRAIN  
INLET PROTECTION  
STANDARD PLAN I-40.20-00**

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION  
*Pamela Bakst* 9/20/07  
STATE DESIGN ENGINEER DATE  
Washington State Department of Transportation

# **APPENDIX B**

## **Wage Rates**

### **Washington State Prevailing Wage Rates**

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: 06/20/2023**

<u>County</u>	<u>Trade</u>	<u>Job Classification</u>	<u>Wage</u>	<u>Holiday</u>	<u>Overtime</u>	<u>Note</u>	<u>*Risk Class</u>
Skagit	<a href="#">Asbestos Abatement Workers</a>	Journey Level	\$56.80	5D	1H		<a href="#">View</a>
Skagit	<a href="#">Boilermakers</a>	Journey Level	\$74.29	5N	1C		<a href="#">View</a>
Skagit	<a href="#">Brick Mason</a>	Journey Level	\$66.32	7E	1N		<a href="#">View</a>
Skagit	<a href="#">Brick Mason</a>	Pointer-Caulker-Cleaner	\$66.32	7E	1N		<a href="#">View</a>
Skagit	<a href="#">Building Service Employees</a>	Janitor	\$15.74		1		<a href="#">View</a>
Skagit	<a href="#">Building Service Employees</a>	Shampooer	\$15.74		1		<a href="#">View</a>
Skagit	<a href="#">Building Service Employees</a>	Waxer	\$15.74		1		<a href="#">View</a>
Skagit	<a href="#">Building Service Employees</a>	Window Cleaner	\$15.74		1		<a href="#">View</a>
Skagit	<a href="#">Cabinet Makers (In Shop)</a>	Journey Level	\$18.85		1		<a href="#">View</a>
Skagit	<a href="#">Carpenters</a>	Acoustical Worker	\$71.53	15J	4C		<a href="#">View</a>
Skagit	<a href="#">Carpenters</a>	Bridge, Dock And Wharf Carpenters	\$71.53	15J	4C		<a href="#">View</a>
Skagit	<a href="#">Carpenters</a>	Floor Layer & Floor Finisher	\$71.53	15J	4C		<a href="#">View</a>
Skagit	<a href="#">Carpenters</a>	Journey Level	\$71.53	15J	4C		<a href="#">View</a>
Skagit	<a href="#">Carpenters</a>	Scaffold Erector	\$71.53	15J	4C		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Application of all Composition Mastic	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Application of all Epoxy Material	\$69.59	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Application of all Plastic Material	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Application of Sealing Compound	\$69.59	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Application of Underlayment	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Building General	\$69.59	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Composition or Kalman Floors	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Concrete Paving	\$69.59	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Curb & Gutter Machine	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Curb & Gutter, Sidewalks	\$69.59	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Curing Concrete	\$69.59	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Finish Colored Concrete	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Floor Grinding	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Floor Grinding/Polisher	\$69.59	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Green Concrete Saw, self-powered	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Grouting of all Plates	\$69.59	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Grouting of all Tilt-up Panels	\$69.59	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Guniting Nozzleman	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Hand Powered Grinder	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Journey Level	\$69.59	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Patching Concrete	\$69.59	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Pneumatic Power Tools	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Power Chipping & Brushing	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Sand Blasting Architectural Finish	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Screed & Rodding Machine	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Spackling or Skim Coat Concrete	\$69.59	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Troweling Machine Operator	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Troweling Machine Operator on Colored Slabs	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Cement Masons</a>	Tunnel Workers	\$70.09	15J	4U		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Bell/Vehicle or Submersible Operator (Not Under Pressure)	\$126.05	15J	4C		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Dive Supervisor/Master	\$89.94	15J	4C		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Diver	\$126.05	15J	4C	8V	<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Diver On Standby	\$84.94	15J	4C		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Diver Tender	\$77.16	15J	4C		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 0-30.00 PSI	\$89.09	15J	4C		<a href="#">View</a>



Skagit	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 30.01 - 44.00 PSI	\$94.09	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI	\$107.09	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 54.01 - 60.00 PSI	\$103.09	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 60.01 - 64.00 PSI	\$105.59	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 64.01 - 68.00 PSI	\$110.59	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 68.01 - 70.00 PSI	\$112.59	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 70.01 - 72.00 PSI	\$114.59	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Hyperbaric Worker - Compressed Air Worker 72.01 - 74.00 PSI	\$116.59	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Manifold Operator	\$77.16	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Manifold Operator Mixed Gas	\$82.16	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Remote Operated Vehicle Operator /Technician	\$77.16	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Divers &amp; Tenders</a>	Remote Operated Vehicle Tender	\$71.98	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Dredge Workers</a>	Assistant Engineer	\$76.56	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
Skagit	<a href="#">Dredge Workers</a>	Assistant Mate (Deckhand)	\$75.97	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
Skagit	<a href="#">Dredge Workers</a>	Boatmen	\$76.56	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
Skagit	<a href="#">Dredge Workers</a>	Engineer Welder	\$78.03	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
Skagit	<a href="#">Dredge Workers</a>	Leverman, Hydraulic	\$79.59	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
Skagit	<a href="#">Dredge Workers</a>	Mates	\$76.56	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
Skagit	<a href="#">Dredge Workers</a>	Oiler	\$75.97	<a href="#">5D</a>	<a href="#">3F</a>		<a href="#">View</a>
Skagit	<a href="#">Drywall Applicator</a>	Journey Level	\$71.53	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Drywall Tapers</a>	Journey Level	\$70.61	<a href="#">5P</a>	<a href="#">1E</a>		<a href="#">View</a>
Skagit	<a href="#">Electrical Fixture Maintenance Workers</a>	Journey Level	\$21.48		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Electricians - Inside</a>	Cable Splicer	\$86.71	<a href="#">7H</a>	<a href="#">1E</a>		<a href="#">View</a>
Skagit	<a href="#">Electricians - Inside</a>	Construction Stock Person	\$41.31	<a href="#">7H</a>	<a href="#">1D</a>		<a href="#">View</a>
Skagit	<a href="#">Electricians - Inside</a>	Journey Level	\$81.23	<a href="#">7H</a>	<a href="#">1E</a>		<a href="#">View</a>
Skagit	<a href="#">Electricians - Motor Shop</a>	Craftsman	\$15.74		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Electricians - Motor Shop</a>	Journey Level	\$15.74		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Electricians - Powerline Construction</a>	Cable Splicer	\$93.00	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Skagit	<a href="#">Electricians - Powerline Construction</a>	Certified Line Welder	\$85.42	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Skagit	<a href="#">Electricians - Powerline Construction</a>	Groundperson	\$55.27	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Skagit	<a href="#">Electricians - Powerline Construction</a>	Heavy Line Equipment Operator	\$85.42	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Skagit	<a href="#">Electricians - Powerline Construction</a>	Journey Level Lineperson	\$85.42	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Skagit	<a href="#">Electricians - Powerline Construction</a>	Line Equipment Operator	\$73.35	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Skagit	<a href="#">Electricians - Powerline Construction</a>	Meter Installer	\$55.27	<a href="#">5A</a>	<a href="#">4D</a>	<a href="#">8W</a>	<a href="#">View</a>
Skagit	<a href="#">Electricians - Powerline Construction</a>	Pole Sprayer	\$85.42	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Skagit	<a href="#">Electricians - Powerline Construction</a>	Powderperson	\$63.50	<a href="#">5A</a>	<a href="#">4D</a>		<a href="#">View</a>
Skagit	<a href="#">Electronic Technicians</a>	Electronic Technicians Journey Level	\$51.68	<a href="#">5B</a>	<a href="#">1B</a>		<a href="#">View</a>
Skagit	<a href="#">Elevator Constructors</a>	Mechanic	\$107.49	<a href="#">7D</a>	<a href="#">4A</a>		<a href="#">View</a>
Skagit	<a href="#">Elevator Constructors</a>	Mechanic In Charge	\$116.13	<a href="#">7D</a>	<a href="#">4A</a>		<a href="#">View</a>
Skagit	<a href="#">Fabricated Precast Concrete Products</a>	Journey Level	\$15.74		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Fabricated Precast Concrete Products</a>	Journey Level - In-Factory Work Only	\$15.74		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Fence Erectors</a>	Fence Erector	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Fence Erectors</a>	Fence Laborer	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Flaggers</a>	Journey Level	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Glaziers</a>	Journey Level	\$75.91	<a href="#">7L</a>	<a href="#">1Y</a>		<a href="#">View</a>
Skagit	<a href="#">Heat &amp; Frost Insulators And Asbestos Workers</a>	Journey Level	\$84.84	<a href="#">15H</a>	<a href="#">11C</a>		<a href="#">View</a>
Skagit	<a href="#">Heating Equipment Mechanics</a>	Mechanic	\$88.45	<a href="#">7F</a>	<a href="#">1E</a>		<a href="#">View</a>
Skagit	<a href="#">Hod Carriers &amp; Mason Tenders</a>	Journey Level	\$59.85	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Industrial Power Vacuum Cleaner</a>	Journey Level	\$15.74		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Inland Boatmen</a>	Boat Operator	\$61.41	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
Skagit	<a href="#">Inland Boatmen</a>	Cook	\$56.48	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
Skagit	<a href="#">Inland Boatmen</a>	Deckhand	\$57.48	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
Skagit	<a href="#">Inland Boatmen</a>	Deckhand Engineer	\$58.81	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
Skagit	<a href="#">Inland Boatmen</a>	Launch Operator	\$58.89	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
Skagit	<a href="#">Inland Boatmen</a>	Mate	\$57.31	<a href="#">5B</a>	<a href="#">1K</a>		<a href="#">View</a>
Skagit	<a href="#">Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</a>	Cleaner Operator, Foamer Operator	\$15.74		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</a>	Grout Truck Operator	\$15.74		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</a>	Head Operator	\$15.74		<a href="#">1</a>		<a href="#">View</a>

Skagit	<a href="#">Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</a>	Technician	\$15.74		1		<a href="#">View</a>
Skagit	<a href="#">Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</a>	Tv Truck Operator	\$15.74		1		<a href="#">View</a>
Skagit	<a href="#">Insulation Applicators</a>	Journey Level	\$71.53	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Ironworkers</a>	Journeyman	\$83.79	<a href="#">15K</a>	<a href="#">11N</a>		<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Air, Gas Or Electric Vibrating Screed	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Airtrac Drill Operator	\$58.56	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Ballast Regular Machine	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Batch Weighman	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Brick Pavers	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Brush Cutter	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Brush Hog Feeder	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Burner	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Caisson Worker	\$58.56	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Carpenter Tender	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Cement Dumper-paving	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Cement Finisher Tender	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Change House Or Dry Shack	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Chipping Gun (30 Lbs. And Over)	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Chipping Gun (Under 30 Lbs.)	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Choker Setter	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Chuck Tender	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Clary Power Spreader	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Clean-up Laborer	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Concrete Dumper/Chute Operator	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Concrete Form Stripper	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Concrete Placement Crew	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Concrete Saw Operator/Core Driller	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Crusher Feeder	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Curing Laborer	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Demolition: Wrecking & Moving (Incl. Charred Material)	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Ditch Digger	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Diver	\$58.56	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Drill Operator (Hydraulic, Diamond)	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Dry Stack Walls	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Dump Person	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Epoxy Technician	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Erosion Control Worker	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Faller & Bucker Chain Saw	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Fine Graders	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Firewatch	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Form Setter	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Gabian Basket Builders	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	General Laborer	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Grade Checker & Transit Person	\$59.85	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Grinders	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Grout Machine Tender	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Groutmen (Pressure) Including Post Tension Beams	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Guardrail Erector	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Hazardous Waste Worker (Level A)	\$58.56	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Hazardous Waste Worker (Level B)	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Hazardous Waste Worker (Level C)	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	High Scaler	\$58.56	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Jackhammer	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Laserbeam Operator	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Maintenance Person	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Manhole Builder-Mudman	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Material Yard Person	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Mold Abatement Worker	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Motorman-Dinky Locomotive	\$59.95	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	nozzleman (concrete pump, green cutter when using combination of high pressure air & water on concrete & rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster)	\$59.85	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Pavement Breaker	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>

Skagit	<a href="#">Laborers</a>	Pilot Car	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Pipe Layer (Lead)	\$59.85	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Pipe Layer/Tailor	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Pipe Pot Tender	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Pipe Reliner	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Pipe Wrapper	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Pot Tender	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Powderman	\$58.56	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Powderman's Helper	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Power Jacks	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Railroad Spike Puller - Power	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Raker - Asphalt	\$59.85	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Re-timberman	\$58.56	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Remote Equipment Operator	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Rigger/Signal Person	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Rip Rap Person	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Rivet Buster	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Rodder	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Scaffold Erector	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Scale Person	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Sloper (Over 20")	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Sloper Sprayer	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Spreader (Concrete)	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Stake Hopper	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Stock Piler	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Swinging Stage/Boatswain Chair	\$48.14	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Tamper & Similar Electric, Air & Gas Operated Tools	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Tamper (Multiple & Self-propelled)	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Timber Person - Sewer (Lagger, Shorer & Cribber)	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Toolroom Person (at Jobsite)	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Topper	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Track Laborer	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Track Liner (Power)	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Traffic Control Laborer	\$51.48	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9C</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Traffic Control Supervisor	\$54.55	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9C</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Truck Spotter	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Tugger Operator	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 0-30 psi	\$158.87	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 30.01-44.00 psi	\$163.90	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 44.01-54.00 psi	\$167.58	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 54.01-60.00 psi	\$173.28	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 60.01-64.00 psi	\$175.40	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 64.01-68.00 psi	\$180.50	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 68.01-70.00 psi	\$182.40	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 70.01-72.00 psi	\$184.40	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Tunnel Work-Compressed Air Worker 72.01-74.00 psi	\$186.40	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">9B</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Tunnel Work-Guage and Lock Tender	\$59.95	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Tunnel Work-Miner	\$59.95	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Vibrator	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Vinyl Seamer	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Watchman	\$43.76	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Welder	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Well Point Laborer	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers</a>	Window Washer/Cleaner	\$43.76	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers - Underground Sewer &amp; Water</a>	General Laborer & Topman	\$56.80	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Laborers - Underground Sewer &amp; Water</a>	Pipe Layer	\$57.84	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Landscape Construction</a>	Landscape Construction/Landscaping Or Planting Laborers	\$43.76	<a href="#">15J</a>	<a href="#">4V</a>	<a href="#">8Y</a>	<a href="#">View</a>
Skagit	<a href="#">Landscape Construction</a>	Landscape Operator	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>

Skagit	<a href="#">Landscape Maintenance</a>	Groundskeeper	\$15.74		1		<a href="#">View</a>
Skagit	<a href="#">Lathers</a>	Journey Level	\$71.53	<u>15J</u>	<u>4C</u>		<a href="#">View</a>
Skagit	<a href="#">Marble Setters</a>	Journey Level	\$66.32	<u>7E</u>	<u>1N</u>		<a href="#">View</a>
Skagit	<a href="#">Metal Fabrication (In Shop)</a>	Fitter	\$15.74		1		<a href="#">View</a>
Skagit	<a href="#">Metal Fabrication (In Shop)</a>	Laborer	\$15.74		1		<a href="#">View</a>
Skagit	<a href="#">Metal Fabrication (In Shop)</a>	Machine Operator	\$15.74		1		<a href="#">View</a>
Skagit	<a href="#">Metal Fabrication (In Shop)</a>	Painter	\$15.74		1		<a href="#">View</a>
Skagit	<a href="#">Metal Fabrication (In Shop)</a>	Welder	\$15.74		1		<a href="#">View</a>
Skagit	<a href="#">Millwright</a>	Journey Level	\$73.08	<u>15J</u>	<u>4C</u>		<a href="#">View</a>
Skagit	<a href="#">Modular Buildings</a>	Journey Level	\$15.74		1		<a href="#">View</a>
Skagit	<a href="#">Painters</a>	Journey Level	\$49.46	<u>6Z</u>	<u>11J</u>		<a href="#">View</a>
Skagit	<a href="#">Pile Driver</a>	Crew Tender	\$77.16	<u>15J</u>	<u>4C</u>		<a href="#">View</a>
Skagit	<a href="#">Pile Driver</a>	Journey Level	\$71.98	<u>15J</u>	<u>4C</u>		<a href="#">View</a>
Skagit	<a href="#">Plasterers</a>	Journey Level	\$67.49	<u>7Q</u>	<u>1R</u>		<a href="#">View</a>
Skagit	<a href="#">Plasterers</a>	Nozzleman	\$71.49	<u>7Q</u>	<u>1R</u>		<a href="#">View</a>
Skagit	<a href="#">Playground &amp; Park Equipment Installers</a>	Journey Level	\$15.74		1		<a href="#">View</a>
Skagit	<a href="#">Plumbers &amp; Pipefitters</a>	Journey Level	\$84.72	<u>5A</u>	<u>1G</u>		<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Asphalt Plant Operators	\$80.12	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Assistant Engineer	\$75.35	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Barrier Machine (zipper)	\$79.41	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Batch Plant Operator: concrete	\$79.41	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Boat Operator	\$80.33	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Bobcat	\$75.35	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Brokk - Remote Demolition Equipment	\$75.35	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Brooms	\$75.35	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Bump Cutter	\$79.41	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Cableways	\$80.12	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Chipper	\$79.41	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Compressor	\$75.35	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Concrete Finish Machine - Laser Screed	\$75.35	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$78.80	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	\$80.12	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$79.41	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Conveyors	\$78.80	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Cranes Friction: 200 tons and over	\$82.76	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Cranes, A-frame: 10 tons and under	\$75.55	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	\$81.12	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Cranes: 20 tons through 44 tons with attachments	\$79.62	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	\$81.97	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Cranes: 300 tons and over or 300' of boom including jib with attachments	\$82.76	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	\$80.33	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Cranes: Friction cranes through 199 tons	\$81.97	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Cranes: through 19 tons with attachments, a-frame over 10 tons	\$79.00	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Crusher	\$79.41	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Deck Engineer/Deck Winches (power)	\$79.41	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Derricks, On Building Work	\$80.12	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Dozers D-9 & Under	\$78.80	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Drill Oilers: Auger Type, Truck Or Crane Mount	\$78.80	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Drilling Machine	\$80.92	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Elevator and man-lift: permanent and shaft type	\$75.35	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$79.41	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Forklift: 3000 lbs and over with attachments	\$78.80	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Forklifts: under 3000 lbs. with attachments	\$75.35	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$79.41	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Gradechecker/Stakeman	\$75.35	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Guardrail Punch	\$79.41	<u>15J</u>	<u>11G</u>	<u>8X</u>	<a href="#">View</a>

Skagit	<a href="#">Power Equipment Operators</a>	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Horizontal/Directional Drill Locator	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Horizontal/Directional Drill Operator	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Hydralifts/Boom Trucks Over 10 Tons	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Hydralifts/boom trucks: 10 tons and under	\$75.55	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Leverman	\$81.75	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Loaders, Overhead Under 6 Yards	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Loaders, Plant Feed	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Loaders: Elevating Type Belt	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Locomotives, All	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Material Transfer Device	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Mechanics: All (Leadmen - \$0.50 per hour over mechanic)	\$80.92	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Motor Patrol Graders	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Overhead, bridge type Crane: 20 tons through 44 tons	\$79.62	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Overhead, bridge type: 100 tons and over	\$81.12	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Overhead, bridge type: 45 tons through 99 tons	\$80.33	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Pavement Breaker	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Pile Driver (other Than Crane Mount)	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Plant Oiler - Asphalt, Crusher	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Posthole Digger, Mechanical	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Power Plant	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Pumps - Water	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Quad 9, Hd 41, D10 And Over	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Quick Tower: no cab, under 100 feet in height base to boom	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Rigger and Bellman	\$75.55	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Rigger/Signal Person, Bellman(Certified)	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Rollagon	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Roller, Other Than Plant Mix	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Roller, Plant Mix Or Multi-lift Materials	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Roto-mill, Roto-grinder	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Saws - Concrete	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Scraper, Self Propelled Under 45 Yards	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Scrapers - Concrete & Carry All	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Scrapers, Self-propelled: 45 Yards And Over	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Service Engineers: Equipment	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Shotcrete/Gunite Equipment	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$80.92	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$81.75	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Slipform Pavers	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Spreader, Topsider & Screedman	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Subgrader Trimmer	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Tower Bucket Elevators	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Tower Crane: over 175' through 250' in height, base to boom	\$81.97	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Tower crane: up to 175' in height base to boom	\$81.12	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>



Skagit	<a href="#">Power Equipment Operators</a>	Tower Cranes: over 250' in height from base to boom	\$82.76	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Transporters, All Track Or Truck Type	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Trenching Machines	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Truck Crane Oiler/Driver: 100 tons and over	\$79.62	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Truck crane oiler/driver: under 100 tons	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Truck Mount Portable Conveyor	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Vac Truck (Vactor Guzzler, Hydro Excavator)	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Welder	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Wheel Tractors, Farmall Type	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators</a>	Yo Yo Pay Dozer	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Asphalt Plant Operators	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Assistant Engineer	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Barrier Machine (zipper)	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Batch Plant Operator, Concrete	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Boat Operator	\$80.33	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Bobcat	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Brokk - Remote Demolition Equipment	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Brooms	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Bump Cutter	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cableways	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Chipper	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Compressor	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Concrete Finish Machine - Laser Screed	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Conveyors	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes Friction: 200 tons and over	\$82.76	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes, A-frame: 10 tons and under	\$75.55	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	\$81.12	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: 20 tons through 44 tons with attachments	\$79.62	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: 20 tons through 44 tons with attachments	\$79.62	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	\$81.97	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: 300 tons and over or 300' of boom including jib with attachments	\$82.76	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	\$80.33	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: Friction cranes through 199 tons	\$81.97	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Cranes: through 19 tons with attachments, a-frame over 10 tons	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Crusher	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Deck Engineer /Deck Winches (power)	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Derricks, On Building Work	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Dozers D-9 & Under	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>

Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Drill Oilers: Auger Type, Truck Or Crane Mount	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Drilling Machine	\$80.92	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Elevator and man-lift: permanent and shaft type	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Forklift: 3000 lbs and over with attachments	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Forklifts: under 3000 lbs. with attachments	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Gradechecker /Stakeman	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Guardrail Punch	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Horizontal/Directional Drill Locator	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Horizontal/Directional Drill Operator	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Hydralifts/boom trucks: 10 tons and under	\$75.55	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Hydralifts/boom trucks: over 10 tons	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Leverman	\$81.75	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Loaders, Overhead Under 6 Yards	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Loaders, Plant Feed	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Loaders: Elevating Type Belt	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Locomotives, All	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Material Transfer Device	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Mechanics: All (Leadmen - \$0.50 per hour over mechanic)	\$80.92	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Motor Patrol Graders	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Overhead, bridge type Crane: 20 tons through 44 tons	\$79.62	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Overhead, bridge type: 100 tons and over	\$81.12	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Overhead, bridge type: 45 tons through 99 tons	\$80.33	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Pavement Breaker	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Pile Driver (other Than Crane Mount)	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Plant Oiler - Asphalt, Crusher	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Posthole Digger, Mechanical	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Power Plant	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Pumps - Water	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Quad 9, Hd 41, D10 And Over	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>

Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Quick Tower: no cab, under 100 feet in height base to boom	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Rigger and Bellman	\$75.55	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Rigger/Signal Person, Bellman(Certified)	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Rollagon	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Roller, Other Than Plant Mix	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Roller, Plant Mix Or Multi-lift Materials	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Roto-mill, Roto-grinder	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Saws - Concrete	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Scraper, Self Propelled Under 45 Yards	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Scrapers - Concrete & Carry All	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Scrapers, Self-propelled: 45 Yards And Over	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Shotcrete/Gunite Equipment	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$80.92	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$81.75	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Slipform Pavers	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Spreader, Topsider & Screedman	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Subgrader Trimmer	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Tower Bucket Elevators	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Tower Crane: over 175' through 250' in height, base to boom	\$81.97	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Tower crane: up to 175' in height base to boom	\$81.12	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Tower Cranes: over 250' in height from base to boom	\$82.76	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Transporters, All Track Or Truck Type	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Trenching Machines	\$78.80	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Truck Crane Oiler/Driver: 100 tons and over	\$79.62	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Truck Crane Oiler/Driver: 100 tons and over	\$79.62	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Truck crane oiler/driver: under 100 tons	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Truck Mount Portable Conveyor	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Vac Truck (Vactor Guzzler, Hydro Excavator)	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Welder	\$80.12	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Wheel Tractors, Farmall Type	\$75.35	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Equipment Operators- Underground Sewer &amp; Water</a>	Yo Yo Pay Dozer	\$79.41	<a href="#">15J</a>	<a href="#">11G</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Power Line Clearance Tree Trimmers</a>	Journey Level In Charge	\$57.22	<a href="#">5A</a>	<a href="#">4A</a>		<a href="#">View</a>
Skagit	<a href="#">Power Line Clearance Tree Trimmers</a>	Spray Person	\$54.32	<a href="#">5A</a>	<a href="#">4A</a>		<a href="#">View</a>
Skagit	<a href="#">Power Line Clearance Tree Trimmers</a>	Tree Equipment Operator	\$57.22	<a href="#">5A</a>	<a href="#">4A</a>		<a href="#">View</a>
Skagit	<a href="#">Power Line Clearance Tree Trimmers</a>	Tree Trimmer	\$51.18	<a href="#">5A</a>	<a href="#">4A</a>		<a href="#">View</a>
Skagit	<a href="#">Power Line Clearance Tree Trimmers</a>	Tree Trimmer Groundperson	\$38.99	<a href="#">5A</a>	<a href="#">4A</a>		<a href="#">View</a>



Skagit	<a href="#">Refrigeration &amp; Air Conditioning Mechanics</a>	Journey Level	\$85.71	<a href="#">5A</a>	<a href="#">1G</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Brick Mason</a>	Journey Level	\$32.30		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Carpenters</a>	Journey Level	\$32.48		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Cement Masons</a>	Journey Level	\$20.67		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Drywall Applicators</a>	Journey Level	\$49.92	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Drywall Tapers</a>	Journey Level	\$34.10		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Electricians</a>	Journey Level	\$44.85	<a href="#">7E</a>	<a href="#">1D</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Glaziers</a>	Journey Level	\$51.80	<a href="#">7L</a>	<a href="#">1H</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Insulation Applicators</a>	Journey Level	\$23.91		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Laborers</a>	Journey Level	\$23.64		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Marble Setters</a>	Journey Level	\$32.30		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Painters</a>	Journey Level	\$24.50		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Plumbers &amp; Pipefitters</a>	Journey Level	\$84.72	<a href="#">5A</a>	<a href="#">1G</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Refrigeration &amp; Air Conditioning Mechanics</a>	Journey Level	\$49.71	<a href="#">5A</a>	<a href="#">1G</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Sheet Metal Workers</a>	Journey Level	\$24.60		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Soft Floor Layers</a>	Journey Level	\$30.31		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Sprinkler Fitters (Fire Protection)</a>	Journey Level	\$32.87		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Stone Masons</a>	Journey Level	\$32.30		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Terrazzo Workers</a>	Journey Level	\$32.30		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Terrazzo/Tile Finishers</a>	Journey Level	\$35.85		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Residential Tile Setters</a>	Journey Level	\$32.30		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Roofers</a>	Journey Level	\$60.95	<a href="#">5A</a>	<a href="#">3H</a>		<a href="#">View</a>
Skagit	<a href="#">Roofers</a>	Using Irritable Bituminous Materials	\$63.95	<a href="#">5A</a>	<a href="#">3H</a>		<a href="#">View</a>
Skagit	<a href="#">Sheet Metal Workers</a>	Journey Level (Field or Shop)	\$88.45	<a href="#">7E</a>	<a href="#">1E</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Boilermaker	\$41.83	<a href="#">7V</a>	<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Carpenter	\$41.83	<a href="#">7V</a>	<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Crane Operator	\$41.83	<a href="#">7V</a>	<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Electrician	\$41.83	<a href="#">7V</a>	<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Heat & Frost Insulator	\$84.84	<a href="#">15H</a>	<a href="#">11C</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Laborer	\$41.83	<a href="#">7V</a>	<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Machinist	\$41.83	<a href="#">7V</a>	<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Operating Engineer	\$41.83	<a href="#">7V</a>	<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Painter	\$41.83	<a href="#">7V</a>	<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Pipefitter	\$41.83	<a href="#">7V</a>	<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Rigger	\$41.83	<a href="#">7V</a>	<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Sheet Metal	\$41.83	<a href="#">7V</a>	<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Shipfitter	\$41.83	<a href="#">7V</a>	<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Warehouse/Teamster	\$41.83	<a href="#">7V</a>	<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	New Construction Welder / Burner	\$41.83	<a href="#">7V</a>	<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Boilermaker	\$50.35	<a href="#">7X</a>	<a href="#">4J</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Carpenter	\$50.95	<a href="#">7X</a>	<a href="#">4J</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Crane Operator	\$45.06	<a href="#">7Y</a>	<a href="#">4K</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Electrician	\$50.42	<a href="#">7X</a>	<a href="#">4J</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Heat & Frost Insulator	\$84.84	<a href="#">15H</a>	<a href="#">11C</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Laborer	\$50.95	<a href="#">7X</a>	<a href="#">4J</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Machinist	\$50.95	<a href="#">7X</a>	<a href="#">4J</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Operating Engineer	\$45.06	<a href="#">7Y</a>	<a href="#">4K</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Painter	\$50.95	<a href="#">7X</a>	<a href="#">4J</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Pipefitter	\$50.95	<a href="#">7X</a>	<a href="#">4J</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Rigger	\$50.35	<a href="#">7X</a>	<a href="#">4J</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Sheet Metal	\$50.35	<a href="#">7X</a>	<a href="#">4J</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Shipwright	\$50.95	<a href="#">7X</a>	<a href="#">4J</a>		<a href="#">View</a>
Skagit	<a href="#">Shipbuilding &amp; Ship Repair</a>	Ship Repair Warehouse / Teamster	\$45.06	<a href="#">7Y</a>	<a href="#">4K</a>		<a href="#">View</a>
Skagit	<a href="#">Sign Makers &amp; Installers (Electrical)</a>	Journey Level	\$16.03		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Sign Makers &amp; Installers (Non-Electrical)</a>	Journey Level	\$15.74		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Soft Floor Layers</a>	Journey Level	\$62.39	<a href="#">15J</a>	<a href="#">4C</a>		<a href="#">View</a>
Skagit	<a href="#">Solar Controls For Windows</a>	Journey Level	\$15.74		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Sprinkler Fitters (Fire Protection)</a>	Journey Level	\$92.49	<a href="#">5C</a>	<a href="#">1X</a>		<a href="#">View</a>
Skagit	<a href="#">Stage Rigging Mechanics (Non Structural)</a>	Journey Level	\$15.74		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Stone Masons</a>	Journey Level	\$66.32	<a href="#">7E</a>	<a href="#">1N</a>		<a href="#">View</a>
Skagit	<a href="#">Street And Parking Lot Sweeper Workers</a>	Journey Level	\$15.74		<a href="#">1</a>		<a href="#">View</a>
Skagit	<a href="#">Surveyors</a>	Assistant Construction Site Surveyor	\$79.00	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Surveyors</a>	Chainman	\$75.55	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Surveyors</a>	Construction Site Surveyor	\$80.33	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>
Skagit	<a href="#">Surveyors</a>	Drone Operator (when used in conjunction with	\$75.55	<a href="#">7A</a>	<a href="#">11H</a>	<a href="#">8X</a>	<a href="#">View</a>

		survey work only)					
Skagit	<a href="#">Surveyors</a>	Ground Penetrating Radar Operator	\$75.55	<u>7A</u>	<u>11H</u>	<u>8X</u>	<a href="#">View</a>
Skagit	<a href="#">Telecommunication Technicians</a>	Telecom Technician Journey Level	\$51.68	<u>5B</u>	<u>1B</u>		<a href="#">View</a>
Skagit	<a href="#">Telephone Line Construction - Outside</a>	Cable Splicer	\$39.15	<u>5A</u>	<u>2B</u>		<a href="#">View</a>
Skagit	<a href="#">Telephone Line Construction - Outside</a>	Hole Digger/Ground Person	\$26.29	<u>5A</u>	<u>2B</u>		<a href="#">View</a>
Skagit	<a href="#">Telephone Line Construction - Outside</a>	Telephone Equipment Operator (Light)	\$32.72	<u>5A</u>	<u>2B</u>		<a href="#">View</a>
Skagit	<a href="#">Telephone Line Construction - Outside</a>	Telephone Lineperson	\$37.00	<u>5A</u>	<u>2B</u>		<a href="#">View</a>
Skagit	<a href="#">Terrazzo Workers</a>	Journey Level	\$60.36	<u>7E</u>	<u>1N</u>		<a href="#">View</a>
Skagit	<a href="#">Tile Setters</a>	Journey Level	\$60.36	<u>7E</u>	<u>1N</u>		<a href="#">View</a>
Skagit	<a href="#">Tile, Marble &amp; Terrazzo Finishers</a>	Finisher	\$51.19	<u>7E</u>	<u>1N</u>		<a href="#">View</a>
Skagit	<a href="#">Traffic Control Stripers</a>	Journey Level	\$51.90	<u>7A</u>	<u>1K</u>		<a href="#">View</a>
Skagit	<a href="#">Truck Drivers</a>	Asphalt Mix Over 16 Yards	\$71.70	<u>15J</u>	<u>11M</u>	<u>8L</u>	<a href="#">View</a>
Skagit	<a href="#">Truck Drivers</a>	Asphalt Mix To 16 Yards	\$70.86	<u>15J</u>	<u>11M</u>	<u>8L</u>	<a href="#">View</a>
Skagit	<a href="#">Truck Drivers</a>	Dump Truck	\$70.86	<u>15J</u>	<u>11M</u>	<u>8L</u>	<a href="#">View</a>
Skagit	<a href="#">Truck Drivers</a>	Dump Truck & Trailer	\$71.70	<u>15J</u>	<u>11M</u>	<u>8L</u>	<a href="#">View</a>
Skagit	<a href="#">Truck Drivers</a>	Other Trucks	\$71.70	<u>15J</u>	<u>11M</u>	<u>8L</u>	<a href="#">View</a>
Skagit	<a href="#">Truck Drivers - Ready Mix</a>	Transit Mix	\$71.70	<u>15J</u>	<u>11M</u>	<u>8L</u>	<a href="#">View</a>
Skagit	<a href="#">Well Drillers &amp; Irrigation Pump Installers</a>	Irrigation Pump Installer	\$15.74		<u>1</u>		<a href="#">View</a>
Skagit	<a href="#">Well Drillers &amp; Irrigation Pump Installers</a>	Oiler	\$15.74		<u>1</u>		<a href="#">View</a>
Skagit	<a href="#">Well Drillers &amp; Irrigation Pump Installers</a>	Well Driller	\$15.74		<u>1</u>		<a href="#">View</a>

## Benefit Code Key – Effective 3/3/2023 thru 8/30/2023

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### Overtime Codes

**Overtime calculations** are based on the hourly rate actually paid to the worker. On public works projects, the hourly rate must be not less than the prevailing rate of wage minus the hourly rate of the cost of fringe benefits actually provided for the worker.

1. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
  - B. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - C. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - D. The first two (2) hours before or after a five-eight (8) hour workweek day or a four-ten (10) hour workweek day and the first eight (8) hours worked the next day after either workweek shall be paid at one and one-half times the hourly rate of wage. All additional hours worked and all worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.
  - G. The first ten (10) hours worked on Saturdays and the first ten (10) hours worked on a fifth calendar weekday in a four-ten hour schedule, shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - H. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions or equipment breakdown) shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - I. All hours worked on Sundays and holidays shall also be paid at double the hourly rate of wage.
  - J. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage.
  - K. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
  - M. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - N. All hours worked on Saturdays (except makeup days) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

**Overtime Codes Continued**

1. O. The first ten (10) hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays, holidays and after twelve (12) hours, Monday through Friday and after ten (10) hours on Saturday shall be paid at double the hourly rate of wage.
- P. All hours worked on Saturdays (except makeup days if circumstances warrant) and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
- Q. The first two (2) hours after eight (8) regular hours Monday through Friday and up to ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays (except Christmas day) shall be paid at double the hourly rate of wage. All hours worked on Christmas day shall be paid at two and one-half times the hourly rate of wage.
- R. All hours worked on Sundays and holidays shall be paid at two times the hourly rate of wage.
- 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.
- 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.
- M. This code appears to be missing. All hours worked on Saturdays, Sundays and holidays shall be paid at double 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.

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.

- F. All hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.
- H. All work performed on Sundays between March 16th and October 14th and all Holidays shall be compensated for at two (2) times the regular rate of pay. Work performed on Sundays between October 15th and March 15th shall be compensated at one and one half (1-1/2) times the regular rate of pay.
- J. All hours worked between the hours of 10:00 pm and 5:00 am, Monday through Friday, and all hours worked on Saturdays shall be paid at a one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- K. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

**Overtime Codes Continued**

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
- 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.
- 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.
- 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.
- 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.

**Overtime Codes Continued**

4. 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.
- 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.
- 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.
- S. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, work performed in excess of (10) hours shall be paid at one and one half (1-1/2) times the hourly rate of pay. On Monday through Friday, work performed outside the normal work hours of 6:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations).

All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Multiple Shift Operations: When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. Special Shifts: The Special Shift Premium is the basic hourly rate of pay plus \$2.00 an hour. When due to conditions beyond the control of the employer or when an owner (not acting as the contractor), a government agency or the contract specifications require more than four (4) hours of a special shift can only be performed outside the normal 6am to 6pm shift then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid the special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday).

**Overtime Codes Continued**

4. V. Work performed in excess of ten (10) hours of straight time per day when four ten (10) hour shifts are established or outside the normal shift (5 am to 6pm), and all work on Saturdays, except for make-up days shall be paid at time and one-half (1 ½) the straight time rate.

In the event the job is down due to weather conditions, then Saturday may, be worked as a voluntary make-up day at the straight time rate. However, Saturday shall not be utilized as a make-up day when a holiday falls on Friday. All work performed on Sundays and holidays and work in excess of twelve (12) hours per day shall be paid at double (2x) the straight time rate of pay.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

- X. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. Work performed outside the normal shift of 6 am to 6pm shall be paid at one and one-half the straight time rate, (except for special shifts or three shift operations). All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. Shifts may be established when considered necessary by the Employer.

The Employer may establish shifts consisting of eight (8) or ten (10) hours of work (subject to WAC 296-127-022), that shall constitute a normal forty (40) hour work week. The Employer can change from a 5-eight to a 4-ten hour schedule or back to the other. All hours of work on these shifts shall be paid for at the straight time hourly rate. Work performed in excess of eight hours (or ten hours per day (subject to WAC 296-127-022) shall be paid at one and one-half the straight time rate.

When due to conditions beyond the control of the Employer, or when contract specifications require that work can only be performed outside the regular day shift, then by mutual agreement a special shift may be worked at the straight time rate, eight (8) hours work for eight (8) hours pay. The starting time shall be arranged to fit such conditions of work.

When an employee returns to work without at a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

11. 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 After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

- C 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. All non-overtime and non-holiday hours worked between 4:00 pm and 5:00 am, Monday through Friday, shall be paid at a premium rate of 15% over the hourly rate of wage.



**Overtime Codes Continued**

11. D. 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.
- After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.
- E. The first two (2) hours after eight (8) regular hours Monday through Friday, the first ten (10) hours on Saturday, and the first ten (10) hours worked on Holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, and Sundays shall be paid at double the hourly rate of wage.
- After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.
- F. 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-half times the hourly rate of wage 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.
- G. 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 nine (9) hours or more. When an employee returns to work without at least nine (9) 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 nine (9) hours rest period.
- H. 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 ten (10) hours or more. When an employee returns to work without at least ten (10) 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 ten (10) hours rest period.

**Overtime Codes Continued**

11. J. All hours worked on holidays shall be paid at double the hourly rate of wage.
- K. On Monday through Friday hours worked outside 4:00 am and 5:00 pm, and the first two (2) hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked over 10 hours per day Monday through Friday, and all hours worked on Saturdays, Sundays, and Holidays worked shall be paid at double the hourly rate of wage.
- L. An employee working outside 5:00 am and 5:00 pm shall receive an additional two dollar (\$2.00) per hour for all hours worked that shift. All hours worked on holidays shall be paid at one and one-half 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.
- M. 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.
- Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 am to 6:00 pm, then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shift shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten shifts.
- 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. All work performed after 6:00 pm Saturday to 5:00 am Monday, all work performed over twelve (12) hours, and all work performed on holidays shall be paid at double the straight time rate of pay.
- Shift Pay Premium: In an addition to any overtime already required, all hours worked between the hours of 6:00 pm and 5:00 am shall receive an additional two dollars (\$2.00) per hour.
- N. All work performed over twelve hours in a shift and all work performed on Sundays and Holidays shall be paid at double the straight time rate.
- Any time worked over eight (8) hours on Saturday shall be paid double the straight time rate, except employees assigned to work six 10-hour shifts per week shall be paid double the straight time rate for any time worked on Saturday over 10 hours.

Benefit Code Key – Effective 3/3/2023 thru 8/30/2023

**Holiday Codes**

5. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, and Christmas Day (7).
- B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, the day before Christmas, and Christmas Day (8).
- C. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).
- D. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8).
- H. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Day after Thanksgiving Day, And Christmas (6).
- I. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).
- 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).
- 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. 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).

**Holiday Codes Continued**

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.
- 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.

**Holiday Codes Continued**

7. 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.
- 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.
- 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.
- 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, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, Christmas Eve, and Christmas Day (9). Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday. Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

**Holiday Codes Continued**

15. G. New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, the last scheduled workday before Christmas, and Christmas Day (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.
- 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.

**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.
- 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.

**Note Codes Continued**

8. 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.
- V. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.
- Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - \$2.00 per foot for each foot over 50 feet. Over 101' to 150' - \$3.00 per foot for each foot over 101 feet. Over 151' to 220' - \$4.00 per foot for each foot over 220 feet. Over 221' - \$5.00 per foot for each foot over 221 feet.
- Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25' to 300' - \$1.00 per foot from entrance. 300' to 600' - \$1.50 per foot beginning at 300'. Over 600' - \$2.00 per foot beginning at 600'.
- W. Meter Installers work on single phase 120/240V self-contained residential meters. The Lineman/Groundmen rates would apply to meters not fitting this description.
- X. Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: \$2.00, Class B Suit: \$1.50, Class C Suit: \$1.00, and Class D Suit: \$0.50. Special Shift Premium: Basic hourly rate plus \$2.00 per hour.
- When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 5 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)
- Y. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.
- Swinging Stage/Boatswains Chair: Employees working on a swinging state or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.
- Z. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.
- Special Shift Premium: Basic hourly rate plus \$2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as a contractor), a government agency or the contract specifications require that more than (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they will be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

**Note Codes Continued**

9. A. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.

Special Shift Premium: Basic hourly rate plus \$2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications require that more than four (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Certified Crane Operator Premium: Crane operators requiring certifications shall be paid \$0.50 per hour above their classification rate.

Boom Pay Premium: All cranes including tower shall be paid as follows based on boom length:

(A) – 130' to 199' – \$0.50 per hour over their classification rate.

(B) – 200' to 299' – \$0.80 per hour over their classification rate.

(C) – 300' and over – \$1.00 per hour over their classification rate.

- B. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

- C. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. These classifications are only effective on or after August 31, 2012.

- D. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, bridges, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.
- E. Heavy Construction includes construction, repair, alteration or additions to the production, fabrication or manufacturing portions of industrial or manufacturing plants, hydroelectric or nuclear power plants and atomic reactor construction. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$1.00, Level B: \$0.75, Level C: \$0.50, And Level D: \$0.25.
- F. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.



**Note Codes Continued**

9. H. One (1) person crew shall consist of a Party Chief. (Total Station or similar one (1) person survey system). Two (2) person survey party shall consist of at least a Party Chief and a Chain Person. Three (3) person survey party shall consist of at least a Party Chief, an Instrument Person, and a Chain Person.

## **APPENDIX C**

### **Construction Contract and Contract Bond-Informational Only**

## CONSTRUCTION CONTRACT AGREEMENT

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THIS AGREEMENT, effective upon the date of mutual execution, is made and entered into between Skagit County, Washington, and \_\_\_\_\_, hereinafter called the Contractor.

WITNESSETH:

That in consideration of the terms and conditions contained herein and attached and made a part of this agreement, the parties hereto covenant and agree as follows:

- I. The Contractor shall do all work and furnish all tools, materials, equipment, and transportation required for the construction of **Skagit Fields Project** in accordance with and as described in the attached plans and specifications and the Washington State Department of Transportation *Standard Specifications for Road, Bridge, and Municipal Construction M 41-10 2023 edition*, which are by this reference incorporated herein and made a part hereof, and shall perform any changes to the work in accord with the Contract Documents.
- II. The Contractor shall provide and bear the expense of all equipment, work, and labor of any sort whatsoever that may be required for the transfer of materials and for constructing and completing the work provided for in this contract and every part thereof and shall guarantee said materials and work for a period of one year after substantial completion of this contract, except as may be modified by the plans, specifications and/or contract documents.
- III. Skagit County, Washington, hereby promises and agrees with the Contractor to retain and does retain the Contractor to provide the materials and to do and cause to be done the above-described work and to complete and finish 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 attached specifications and the schedule of prices bid and hereto attached, at the time and in the manner and upon the conditions provided for in this contract.
- IV. The Contractor for himself/herself, and for his/her heirs, executors, administrators, successors, and assigns, does hereby agree to full performance of all covenants required of the Contractor in the contract.
- V. It is further provided that no liability shall attach to Skagit County by reason of entering into this contract, except as provided herein.

IN WITNESS WHEREOF the Contractor has executed this instrument on the day and year first below written, and the Authorized Official has caused this instrument to be executed by and in the name of Skagit County the day and year first above written.

CONTRACTOR

Signature \_\_\_\_\_

Mailing Address:

Printed \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Telephone No. (\_\_\_\_) \_\_\_\_-\_\_\_\_

DATED this \_\_\_\_ day of \_\_\_\_\_, 2023.

**BOARD OF COUNTY COMMISSIONERS  
SKAGIT COUNTY, WASHINGTON**

\_\_\_\_\_  
Ron Wesen, Chair

\_\_\_\_\_  
Lisa Janicki, Commissioner

\_\_\_\_\_  
Peter Browning, Commissioner

Attest:

\_\_\_\_\_  
Clerk of the Board

For contracts under \$5,000:  
Authorization per Resolution R20030146

Recommended:

\_\_\_\_\_  
County Administrator

\_\_\_\_\_  
Department Head

Approved as to form:

\_\_\_\_\_  
Civil Deputy Prosecuting Attorney

Approved as to indemnification:

\_\_\_\_\_  
Risk Manager

Approved as to budget:

\_\_\_\_\_  
Budget & Finance Director

## CONTRACT BOND

**KNOW ALL MEN BY THESE PRESENTS**, that Skagit County, a Municipal Corporation of Washington, has awarded

\_\_\_\_\_ of \_\_\_\_\_, as Principal, and \_\_\_\_\_ as Surety, are jointly and severally held and bound unto the County of Skagit in the penal sum of \_\_\_\_\_ (\$\_\_\_\_\_), dollars, for the payment of which we jointly and severally bind ourselves, our heirs, executors, administrators, and assigns, and successors and assigns, firmly by these presents.

**THE CONDITION** of this bond is such that whereas, on the \_\_\_\_\_ day of \_\_\_\_\_ A.D., 2023, the said Principal, herein, executed a certain contract with the County of Skagit by the items, conditions and provisions of which contract the said \_\_\_\_\_, Principal, herein agree to furnish all material and do certain work, to wit: That \_\_\_\_\_ will undertake and complete the construction of \_\_\_\_\_

### Skagit Fields Project

according to the maps, plans and specifications made a part of said contract, which contract as so executed, is hereunto attached, is now referred to and by reference is incorporated herein and made a part hereof as fully for all purposes as if here set forth at length. The bond shall cover all approved change orders as if they were in the original contract.

**NOW, THEREFORE**, if the Principal herein shall faithfully and truly observe and comply with the terms, conditions and provisions of said contract in all respects and shall well and truly and fully do and perform all matters and things by \_\_\_\_\_ (principal) undertaken to be performed under said contract, upon the terms proposed therein, and within the time prescribed therein, and until the same is accepted, and shall pay all laborers, mechanics, subcontractors and material men, and all persons who shall supply such contractor or subcontractor with provisions and supplies for the carrying on of such work, and shall in all respects faithfully perform said contract according to law, then this obligation to be void, otherwise to remain in full force and effect.

**WITNESS** our hands this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
(Principal)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attorney-in-Fact, Surety

\_\_\_\_\_  
Name and Address  
Local Office of Agent

APPROVED AS TO FORM  
RICH WEYRICH  
Skagit County Prosecuting Attorney

APPROVED AS TO FORM  
MARY HOUBEN  
Skagit County Risk Manager

BY: \_\_\_\_\_  
Approving Authority

DATE: \_\_\_\_\_, 2023

\_\_\_\_\_  
SURETY BOND NUMBER

\_\_\_\_\_  
CONTRACT NUMBER

\_\_\_\_\_

\_\_\_\_\_

## **APPENDIX D**

### **Proposal Forms-Informational Only**

**SKAGIT COUNTY**  
**Skagit County Parks and Recreation**  
**1730 Continental Place**  
**Mount Vernon, WA 98273**

**BID PROPOSAL**

**Skagit Fields Project**

Skagit County, Washington

2023

**\*\* ENTIRE PROPOSAL TO BE RETURNED AS YOUR BID PACKAGE \*\***

All bid envelopes must be plainly marked on the outside, **"Sealed Bid: Skagit Fields Project"**

**BID DUE DATE AND TIME: Tuesday, June 20, 2023 at 12:00 p.m.**

Late and/or incomplete bids will not be considered. Oral, telephonic, telegraphic, electronic, or faxed proposals will not be accepted.

Sealed Bids will be accepted at the following location by one of the following delivery methods:

**Bids May be Hand-Delivered or Mailed to:**

Skagit County Commissioners Office  
Attn: Reception Desk  
**Sealed Bid: Skagit Fields Project**  
1800 Continental Place  
Mount Vernon, WA 98273

**FAILURE TO SIGN OR COMPLETE ALL INFORMATION ON THE FORMS PROVIDED CAN RESULT IN  
REJECTION OF THE PROPOSAL AS NON-RESPONSIVE**



**CONDITION OF AWARD:**

It is the intent of Skagit County to award a contract to the lowest responsive and responsible bidder. All terms and conditions listed in the Contract Provisions and Specifications apply to this condition.

**MANDATORY BIDDER CRITERIA:**

Before award, the bidder must meet the following bidder responsibility criteria to be considered a responsible bidder. The bidder may be required by Skagit County to submit documentation demonstrating compliance with the criteria. The bidder must:

1. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of bid submittal.
2. Have a current Washington Unified Business Identifier (UBI) number.
3. Have Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW. Not applicable to sole proprietors if the owner performs work himself/herself.
4. Have a Washington Employment Security Department number (ESD), as required in Title 50 RCW **(and, if the lowest responsive and responsible bidder, provide documentation from ESD in the form of a letter or statement within 24 hours of submitting bid);**
5. Have a Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
6. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3) and;
7. Not be excluded or suspended from bidding on any public works contract under federal laws.

**SCHEDULE:**

Contractor shall not commence work until notice to proceed has been given by Skagit County; this occurs after the Contract has been executed by Skagit County Board of County Commissioners.

**PAYMENT:**

Invoices can be submitted after work is performed. Payment is made when the Contractor has filed his/her "Intent to Pay Prevailing Wages" with the Washington State Department of Labor and Industries. Final payment is made when the Contractor has filed his/her "Affidavit of Paying Prevailing Wages".

**FAILURE TO SIGN OR COMPLETE ALL INFORMATION ON THE FORMS PROVIDED CAN RESULT IN REJECTION OF THE PROPOSAL AS NON-RESPONSIVE**

This certifies that the undersigned has examined the entire bid proposal and contract provisions and specifications for the:

## Skagit Fields Project

and the contract governing the work embraced in this project, and the method by which payment will be made for said work, is understood. The undersigned hereby proposes to undertake and complete the work, or as much thereof as can be completed with the money available in accordance with the said description of work and contract, and the following schedule of rates and prices. Bidder acknowledges all requirements and signed all certificates contained herein. Bidder agrees to pay labor not less than the prevailing rates of wages in accordance with the requirements of the special provisions for this project.

Note: The work on this contract is to be performed upon lands whose ownership obligates the Contractor to pay State sales tax on portions of the project work and obligates the Contractor to collect State sales tax from the Contracting Agency on other portions of the project as follows:

1. The provisions of Section 1-07.2(2) and Department of Revenue Rule 170 apply.

**Please use ink, print legibly, and initial and date any changes, erasures, or cross-outs. All unit prices, when relevant, are mandatory and shall control.**

Item No.	Section	Description	Quantity	Unit	Unit Price	Amount
1	1-09	Mobilization	1	LS		
2	1-05	Project Surveying	1	LS		
3	1-07	SPCC Plan	1	LS		
4	2-01	Clearing and Grubbing (1.16 Ac)	1	LS		
5	2-02	Removing Existing Structure Barn	1	LS		
6	2-02	Removing Existing Structure Greenhouse	1	LS		
7	2-03	Embankment Compaction	2,300	CY		
8	2-05	Tilling	11	AC		
9	2-08	Rough Grading	55,140	SY		
10	2-08	Fine Grading	55,140	SY		
11	2-08	Detention Pond	1	LS		
12	2-08	Grass Lined Swales	740	LF		
13	2-08	Biofiltration Swales	275	LF		
14	2-11	Trimming and Cleanup	1	LS		
15	4-04	Field Sand	7,600	TON		
16	7-04	Storm Drain Pipe 12" Diam.	160	LF		
17	7-04	Storm Drain Pipe 8" Diam.	113	LF		
18	7-05	Type 2 Catch Basin Control Structure	1	EA		
19	7-05	Connection to Existing Drainage Structure	1	EA		
20	8-01	High Visibility Fencing	140	LF		
21	8-01	Silt Fence	3,600	LF		
22	8-01	Erosion Control and Water Pollution Prevention	1	LS		
23	8-01	Biodegradable Erosion Control Blanket	865	SY		
24	8-27SP	Unanticipated Site Work (Force Account)	Est	DOL	1	30,000

Item No.	Section	Description	Quantity	Unit	Unit Price	Amount
25	8-30SP	Wood Chip Path	27	CY		
26	8-31SP	Hydroseed Field	11	AC		
27	8-31SP	Hydroseed Pond and Swales	1.1	AC		
28	8-31SP	Hydroseed Meadow	0.9	AC		

**Project** Skagit Fields Project

**Date** \_\_\_\_\_

**Construction in 2023 is predicated on obtaining funding and all applicable permits to allow construction in the allowable work period specified in this contract. Bid and unit prices shall be binding for the duration of the contract.**

**SUBTOTAL**

**Washington State Sales Tax (8.8%)**

**TOTAL BID AMOUNT**

**FAILURE TO SIGN OR COMPLETE ALL INFORMATION ON THE FORMS PROVIDED CAN RESULT IN REJECTION OF THE PROPOSAL AS NON-RESPONSIVE**

## 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.

The undersigned hereby agrees to pay labor not less than the prevailing rates of wages in accordance with the requirements of the special provisions for this project.

A proposal guaranty in an amount, which is equal to five percent (5%) of the estimated bid amount, based upon the approximate estimate of above prices and in the form as indicated below is attached hereto:

- ☐ CASHIER'S CHECK In the amount of \$ \_\_\_\_\_ Dollars
- ☐ CERTIFIED CHECK In the amount of \$ \_\_\_\_\_ Dollars  
(Payable to Skagit County)
- ☐ PROPOSAL BOND In the amount of five percent (5%) of the total estimated bid.

☐ Bidder hereby acknowledges having read the Water Quality Certification Conditions, specifically General Condition No.12.

If addendums have been issued:

Receipt is hereby acknowledged of Addendum(s) No.(s) \_\_\_\_\_

**S  
I  
G  
N**

**Signature of Authorized Official(s):**

Firm Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone No. \_\_\_\_\_

State of Washington Contractor's License No. \_\_\_\_\_

UBI No. \_\_\_\_\_ Employment Security Department No. \_\_\_\_\_

Note:

- (1) This proposal form is not transferable and any alteration of the firm's name entered hereon without prior permission from Skagit County will be cause for considering the proposal irregular and subsequent rejection of the bid.
- (2) Please refer to Section 1-02.6 of the Standard Specifications, "Preparation of Proposal", or "Article 4" of the Instruction to Bidders for building construction jobs.

**FAILURE TO SIGN OR COMPLETE ALL INFORMATION ON THE FORMS PROVIDED CAN RESULT IN  
REJECTION OF THE PROPOSAL AS NON-RESPONSIVE**

## **NON-COLLUSION DECLARATION**

**I, by signing the proposal on page 6, hereby declare, under penalty of perjury under the laws of the United States that the following statements are true and correct:**

1. That the undersigned person(s), firm, association or corporation has (have) not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the project for which this proposal is submitted.
2. That by signing the signature page of this proposal, I am deemed to have signed and have agreed to the provisions of this declaration.

### **NOTICE TO ALL BIDDERS**

To report bid rigging activities call:

**1-800-424-9071**

The U.S. Department of Transportation (USDOT) operates the above toll free 'hotline' Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Standard Time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the 'hotline' to report such activities.

The 'hotline' is part of USDOT's continuing effort to identify and investigate highway construction 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.

### **MUST ACCOMPANY EACH BID**

**FAILURE TO SIGN OR COMPLETE ALL INFORMATION ON THE FORMS PROVIDED CAN RESULT IN REJECTION OF THE PROPOSAL AS NON-RESPONSIVE**

## NON-DISBARMENT CERTIFICATION

Are you on Comptroller General's list of Ineligible Contractors or list of parties excluded from Federal procurement or non-procurement programs? ☐ NO ☐ YES

Company Name: \_\_\_\_\_

Type of Business ☐ Corporation ☐ Partnership (general) ☐ Partnership (limited)  
☐ Sole Proprietorship ☐ Limited Liability Company

FID #: \_\_\_\_\_

Company Address: \_\_\_\_\_

The County/State/Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-Mail: \_\_\_\_\_

Print Name of Signatory: \_\_\_\_\_

Print Title of Signatory: \_\_\_\_\_

**MUST ACCOMPANY EACH BID**

**FAILURE TO SIGN OR COMPLETE ALL INFORMATION ON THE FORMS PROVIDED CAN RESULT IN  
REJECTION OF THE PROPOSAL AS NON-RESPONSIVE**

**SUBMIT THE  
ENCLOSED PROPOSAL  
BOND FORM WITH  
YOUR PROPOSAL**

**USE OF OTHER FORMS  
MAY SUBJECT YOUR  
BID TO REJECTION**

## PROPOSAL BOND

KNOW ALL MEN BY THESE PRESENTS, That we, \_\_\_\_\_

\_\_\_\_\_ of

\_\_\_\_\_ as principal, and the

\_\_\_\_\_ a corporation duly

organized under the laws of the State of \_\_\_\_\_,  
and authorized to do business in the State of Washington, as surety, are held and firmly bound unto  
Skagit County in the full and penal sum of five (5) percent of the total amount of the bid proposal of said  
principal for the work hereinafter described for the payment of which, well and truly to be made, we bind  
our heirs, executors, administrators and assigns, and successors and assigns, firmly by these presents.

The condition of this bond is such, that whereas the principal herein is herewith submitting his or  
its sealed proposal for the following construction, to wit:

### **Skagit Fields Project**

said bid and proposal, by reference thereto, being made a part hereof.

NOW THEREFORE, If the said proposal bid by said principal be accepted, and the contract be  
awarded to said principal, and if said principal shall duly make and enter into and execute said contract  
and shall furnish bond as required by Skagit County within a period of ten (10) days from and after said  
award, exclusive of the day of such award, then this obligation shall be null and void, otherwise it shall  
remain and be in full force and effect.

IN TESTIMONY WHEREOF, the principal and surety have caused these presents to be signed  
and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
(Principal)

\_\_\_\_\_  
(Surety)

\_\_\_\_\_  
(Attorney-in-fact)





## Certification of Compliance with Wage Payment Statutes

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date (May 25, 2023), 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.*

## BIDDER'S QUALIFICATION CERTIFICATE

The undersigned hereby certifies and submits the following qualifications:

1. Name and Address \_\_\_\_\_

2. Washington Registration No. Expires: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ (M/D/Y)

3. Number of years in contracting business under present name: \_\_\_\_\_ years

4. Particular types of construction work performed by your company:

\_\_\_\_\_  
\_\_\_\_\_

5. List and provide a brief summary of several recent construction projects performed that meet the **SUPPLEMENTAL RESPONSIBLE BIDDER CRITERIA** as specified in this contract:

**Project 1 Name:** \_\_\_\_\_

Contractor project manager name and phone number: \_\_\_\_\_

Owner name and phone number: \_\_\_\_\_

Owner's project manager name and phone number: \_\_\_\_\_

Description of project and how project meets Supplemental Responsible Bidder

Criteria: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Initial contract value: \_\_\_\_\_

Final contract value: \_\_\_\_\_

Initial contract time: \_\_\_\_\_ to \_\_\_\_\_

Final contract time: \_\_\_\_\_ to \_\_\_\_\_

**Project 2 Name:** \_\_\_\_\_

Contractor project manager name and phone number: \_\_\_\_\_

Owner name and phone number: \_\_\_\_\_

\_\_\_\_\_

Owner's project manager name and phone number: \_\_\_\_\_

Description of project and how project meets Supplemental Responsible Bidder Criteria: \_\_\_\_\_

Initial contract value: \_\_\_\_\_

Final contract value: \_\_\_\_\_

Initial contract time: \_\_\_\_\_ to \_\_\_\_\_

Final contract time: \_\_\_\_\_ to \_\_\_\_\_

**Project 3 Name:** \_\_\_\_\_

Contractor project manager name and phone number: \_\_\_\_\_

Owner name and phone number: \_\_\_\_\_

Owner's project manager name and phone number: \_\_\_\_\_

Description of project and how project meets Supplemental Responsible Bidder Criteria: \_\_\_\_\_

Initial contract value: \_\_\_\_\_

Final contract value: \_\_\_\_\_

Initial contract time: \_\_\_\_\_ to \_\_\_\_\_

Final contract time: \_\_\_\_\_ to \_\_\_\_\_

Hydraulic Project Approval Permit Number: \_\_\_\_\_

**Project 4 Name:** \_\_\_\_\_

Contractor project manager name and phone number: \_\_\_\_\_

Owner name and phone number: \_\_\_\_\_

Owner's project manager name and phone number: \_\_\_\_\_

Description of project and how project meets Supplemental Responsible Bidder

Criteria: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Initial contract value: \_\_\_\_\_

Final contract value: \_\_\_\_\_

Initial contract time: \_\_\_\_\_ to \_\_\_\_\_

Final contract time: \_\_\_\_\_ to \_\_\_\_\_

**Project 5 Name:** \_\_\_\_\_

Contractor project manager name and phone number: \_\_\_\_\_

\_\_\_\_\_

Owner name and phone number: \_\_\_\_\_

\_\_\_\_\_

Owner's project manager name and phone number: \_\_\_\_\_

\_\_\_\_\_

Description of project and how project meets Supplemental Responsible Bidder Criteria: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Initial contract value: \_\_\_\_\_

Final contract value: \_\_\_\_\_

Initial contract time: \_\_\_\_\_ to \_\_\_\_\_

Final contract time: \_\_\_\_\_ to \_\_\_\_\_

Hydraulic Project Approval Permit Number: \_\_\_\_\_

6. Gross amount of contracts now in hand \$ \_\_\_\_\_

7. Bank Reference(s):

Name	Address	Account No.	Type
------	---------	-------------	------

a. \_\_\_\_\_

b. \_\_\_\_\_

By: \_\_\_\_\_  
(Authorized Signature)

Title: \_\_\_\_\_

8. Litigation Background (all projects in past 5 years resulting in partial or final settlement of the contract by arbitration or litigation in the courts):

Client	Contract Amount	Total \$ claims	Settlement \$
--------	-----------------	-----------------	---------------

a. \_\_\_\_\_

b. \_\_\_\_\_

9. Choose one of the following:

- ☐ Bidder has Industrial Insurance coverage for employees working in Washington as required in Title 51 RCW; or
- ☐ Bidder is not required to have Industrial Insurance coverage as required in Title 512 RCW.

10. Choose one of the following:

- ☐ Bidder's Washington Employment Security Department registration number is \_\_\_\_\_; or
- ☐ Bidder is not required to register with the Washington Employment Security Department pursuant to Title 50 RCW.

11. Choose one of the following:

- ☐ Bidder' Washington State Department of Revenue registration number is: \_\_\_\_\_; or
- ☐ Bidder is not required to register with the Washington State Department of Revenue pursuant to Title 82 RCW.

I am the \_\_\_\_\_ (title) of Bidder, have authority to bind Bidder, am over the age of 18, and have personal knowledge of the facts set forth above.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2023, at \_\_\_\_\_ (city),

\_\_\_\_\_ (state).

Signature \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

End of Bidder's Qualification Certificate

# **APPENDIX E**

## **Permits**



**STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY**

*Northwest Regional Office 3190 160th SE Bellevue, Washington 98008-5452 (425) 649-7000*

December 8, 2020

Skagit County Parks and Recreation  
ATTN: Brian Adams, Director  
1730 Continental Place  
Mount Veronon, WA 98273

RE: Water Quality Certification Order No. **19504** for Corps Reference No. **NWS-2018-1164**,  
Skagit Fields Project, City of Mount Vernon, Skagit County, Washington

Dear Brian Adams:

On December 17, 2019, Skagit County Parks and Recreation submitted a request for a Section 401 Water Quality Certification (WQC) under the federal Clean Water Act for the Skagit Fields Project in the City of Mount Vernon, Skagit County County, Washington.

On behalf of the state of Washington, the Department of Ecology certifies that the work described in the Joint Aquatic Resource Permit Application (JARPA), as revised by a letter from Graham-Bunting Associates dated December 2, 2020, including the final site plan dated November 30, 2020, and the public notice complies with applicable provisions of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, as amended, and applicable state laws. This certification is subject to the conditions contained in the enclosed Order.

Please ensure that anyone doing work under this Order has read, is familiar with, and is able to follow all of the provisions within the attached Order.

If you have any questions about this decision, please contact Neil Molstad at (425) 389-5549 or Neil.Molstad@ecy.wa.gov. The enclosed Order may be appealed by following the procedures described within the Order.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe Burcar".

Joe Burcar, Section Manager  
Shorelands and Environmental Assistance Program  
Northwest Regional Office

Enclosure

Sent by electronic mail to: [briana@co.skagit.wa.us](mailto:briana@co.skagit.wa.us)

e-cc: Ron Wilcox, Corps of Engineers  
Marianne Manville-Ailles, City of Mount Vernon  
Graham-Bunting Associates  
Loree' Randall, Ecology, HQ SEA  
Neil Molstad, Ecology, NWRO SEA  
Stephanie Barney, Ecology, BFO WQP  
ECY RE FEDPERMITS



<b>IN THE MATTER OF GRANTING A</b>	)	<b>ORDER # 19504</b>
<b>WATER QUALITY</b>	)	<b>Corps Reference No. NWS-2018-1164</b>
<b>CERTIFICATION TO</b>	)	Skagit Fields Project, wetlands within the
<b>SKAGIT COUNTY PARKS AND</b>	)	drainage area of an unnamed tributary to
<b>RECREATION</b>	)	Trumpeter Creek, located in the City of Mount
in accordance with 33 U.S.C. 1341	)	Vernon, Skagit County, Washington.
(FWPCA § 401), RCW 90.48.120, RCW	)	
90.48.260 and Chapter 173-201A WAC		

Brian Adams, Director  
 Skagit County Parks and Recreation  
 1730 Continental Place  
 Mount Vernon, WA 98273

On December 17, 2019, the Department of Ecology (Ecology) received a request from Skagit County Parks and Recreation for a Section 401 Water Quality Certification (WQC). A public notice regarding the request was distributed by Ecology for the above-referenced project pursuant to the provisions of Chapter 173-225 Washington Administrative Code (WAC) on December 31, 2019.

The proposed project entails construction of five soccer playfields, a picnic area, and permeable walking paths, resulting in direct impacts to 3.24 acres of wetland and indirect impacts to 0.61 acres of wetland. The project site is located in Section 16, Township 34N, Range 4E, within Water Resource Inventory Area (WRIA) 3 (Lower Skagit-Samish).

## **AUTHORITIES**

In exercising authority under 33 United State Code (U.S.C). § 1341, Revised Code of Washington (RCW) 90.48.120, and RCW 90.48.260, Ecology has reviewed the WQC request pursuant to the following:

1. Conformance with applicable water quality-based, technology-based, and toxic or pretreatment effluent limitations as provided under 33 U.S.C. §§1311, 1312, 1313, 1316, and 1317 (FWPCA §§ 301, 302, 303, 306, and 307);
2. Conformance with the state water quality standards contained in Chapter 173-201A WAC and authorized by 33 U.S.C. §1313 and by Chapter 90.48 RCW, and with other applicable state laws;
3. Conformance with the provision of using all known, available, and reasonable methods to prevent and control pollution of state waters as required by RCW 90.48.010; and,
4. Conformance with Washington's prohibition on discharges that cause or tend to cause pollution of waters of the state of Washington. RCW 90.48.080.

## **WATER QUALITY CERTIFICATION CONDITIONS**

With this Water Quality Certification (WQC) and through issuance of this Order, Ecology certifies that it has reasonable assurance that the activity as revised by the applicant in a letter from Graham-Bunting Associates dated December 2, 2020, and depicted through the final site plan dated November 30, 2020, and conditioned by this Order, will be conducted in a manner that will comply with applicable water quality standards and other appropriate requirements of state law. In view of the foregoing and in accordance with 33 U.S.C. §1341, RCW 90.48.120, RCW 90.48.260 Chapter 173-200 WAC and Chapter 173-201A WAC, this WQC is granted to Skagit County Parks and Recreation (Applicant) subject to the conditions within this Order.

Issuance of this WQC for this proposal does not authorize the Applicant to exceed applicable state water quality standards (Chapter 173-201A WAC), ground water quality standards (Chapter 173-200 WAC) or sediment quality standards (Chapter 173-204 WAC). Furthermore, nothing in this WQC absolves the Applicant from liability for contamination and any subsequent cleanup of surface waters, ground waters, or sediments resulting from project construction or operations.

### **A. General Conditions**

1. In this Order, the term “Applicant” shall mean Skagit County Parks and Recreation, its agents, assignees, and contractors.
2. All submittals required by this Order shall be sent to Ecology’s Headquarters Office, Attn: Federal Permit Manager, PO Box 47600, Olympia, WA, 98504 or via e-mail to [fednotification@ecy.wa.gov](mailto:fednotification@ecy.wa.gov) and cc to [neil.molstad@ecy.wa.gov](mailto:neil.molstad@ecy.wa.gov). The submittals shall be identified with Order # 19504 and include the Applicant name, project name, project contact, and the contact phone number.
3. Work authorized by this Order is limited to the work described in the Joint Aquatic Resource Permit Application (JARPA) received by Ecology on December 17, 2019, revised by a letter from Graham-Bunting Associates dated December 2, 2020, and depicted on a site plan dated November 30, 2020.
4. The Applicant shall obtain Ecology review and approval before undertaking any further changes to the proposed project that might significantly and adversely affect water quality, other than those project changes required by this Order.
5. Within 30 days of receipt of any updated information, Ecology will determine if the revised project requires a new public notice and Water Quality Certification or if a modification to this Order is required.
6. This Order is not effective until the U.S. Army Corps of Engineers (Corps) issues a permit for this project.
7. The Applicant shall send (per condition A.2 above) a copy of the final Corps permit to Ecology’s Federal Permit Manager within two weeks of receiving it.

8. The Applicant shall keep copies of this Order on the job site and readily available for reference by Ecology personnel, the construction superintendent, construction managers and lead workers, and state and local government inspectors.
9. The Applicant shall provide access to the project site and all mitigation sites upon request by Ecology personnel for site inspections, monitoring, and/or necessary data collection, to ensure that conditions of this Order are being met.
10. Nothing in this Order waives Ecology's authority to issue additional orders if Ecology determines that further actions are necessary to implement the water quality laws of the state. Further, Ecology retains continuing jurisdiction to make modifications hereto through supplemental order, if additional impacts due to project construction or operation are identified (*e.g.*, violations of water quality standards, downstream erosion, etc.), or if additional conditions are necessary to further protect water quality.
11. In the event of changes or amendments to the state water quality, ground water quality, or sediment standards, or changes in or amendments to the state Water Pollution Control Act (RCW 90.48) or the federal Clean Water Act, Ecology may issue an amendment to this Order to incorporate any such changes or amendments applicable to this project.
12. The Applicant shall ensure that all project engineers, contractors, and other workers at the project site with authority to direct work have read and understand relevant conditions of this Order and all permits, approvals, and documents referenced in this Order. The Applicant shall provide Ecology a signed statement (see Attachment A for an example) from each signatory that s/he has read and understands the conditions of this Order and the above-referenced permits, plans, documents and approvals. These statements shall be provided to Ecology before construction begins.
13. This Order does not authorize direct, indirect, permanent, or temporary impacts to waters of the state or related aquatic resources, except as specifically provided for in conditions of this Order.
14. Failure of any person or entity to comply with the Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.
15. This Order will automatically transfer to a new owner or operator if:
  - a. A written agreement between the Applicant and new owner or operator with the specific transfer date of the Order's obligations, coverage, and liability is submitted to Ecology per condition A.2.;
  - b. A copy of this Order is provided to the new owner or operator; and,
  - c. If Ecology does not notify the new Applicant that this Order must be modified to complete the transfer.

16. Conditions in this Order apply to all planned phases of the construction and the mitigation for this project.

## **B. Notification Requirements**

1. The following notification shall be made via phone or e-mail (e-mail is preferred) to Ecology's Federal Permit Manager via e-mail to [fednotification@ecy.wa.gov](mailto:fednotification@ecy.wa.gov) and cc to [neil.molstad@ecy.wa.gov](mailto:neil.molstad@ecy.wa.gov). Notifications shall be identified with Order No. 19504 and include the Applicant name, project name, project location, project contact and the contact phone number.
  - a. At least ten (10) days prior to any pre-construction meetings
  - b. At least ten (10) days prior to the onset of any work on site
  - c. At least seven (7) days within the start of impacts to wetlands
  - d. Immediately following a violation of the state water quality standards or when the project is out of compliance with any condition of this Order
  - e. Within fourteen (14) days after completion of construction
2. In addition to the phone or e-mail notification required under B.1.d. above, the Applicant shall submit a detailed written report to Ecology within five (5) days that describes the nature of the event, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of any samples taken, and any other pertinent information.
3. If the project construction is not completed within 13 months of issuance of this Order, the Applicant shall submit per Condition A2 a written construction status report and submit status reports every 12 months until construction is completed.

## **C. Timing**

1. This Order is valid until the Applicant meets all its requirements and the applicant has received written notification from Ecology to that effect.

## **D. Water Quality Criteria**

1. This Order does not authorize the Applicant to exceed applicable turbidity standards beyond the limits established in WAC 173-201A-200(1)(e)(i).
2. Visible turbidity anywhere beyond the temporary area of mixing (point of compliance) from the activity shall be considered an exceedance of the standard.
3. If water quality exceedances for turbidity are observed outside the point of compliance, work shall cease immediately and the Applicant or the contractor shall assess the cause of the water quality problem and take immediate action to stop, contain, and correct the problem and prevent further water quality turbidity exceedances.
4. Notification of exceedances shall be made to Ecology's Federal Permit Manager within 24 hours of occurrence. Notification shall be made by telephone to (425) 389-5549 or by

e-mail at neil.molstad@ecy.wa.gov. The Applicant shall, at a minimum, provide Ecology with the following information:

- a. Corps Reference No. NWS-2018-1164, Order No. 19504, project name and applicant name.
- b. A description of the nature, extent, and cause of the exceedance.
- c. The period of non-compliance, including exact dates, duration, and times and/or the anticipated time when the project will return to compliance.
- d. The steps taken, or to be taken, to reduce, eliminate, and prevent recurrence of the non-compliance.
- e. In addition, within five (5) days after notification of an exceedance, the Applicant shall submit a written report to Ecology that describes the nature of the exceedance, water quality monitoring results and location, photographs, and any other pertinent information.

## **E. Construction**

### General Conditions

1. All work in and near waters of the state shall be conducted to minimize turbidity, erosion, and other water quality impacts. Construction stormwater, sediment, and erosion control Best Management Practices (BMPs) suitable to prevent exceedances of state water quality standards shall be in place before starting maintenance and shall be maintained throughout the duration of the activity.
2. All clearing limits, stockpiles, staging areas, and trees to be preserved shall clearly be marked prior to commencing construction activities and maintained until all work is completed for each project.
3. No stockpiling or staging of materials shall occur at or below the Ordinary High Water Mark (OHWM) of any waterbody, non-modified wetland, or wetland buffer.
4. The Applicant shall obtain and comply with the conditions of the Construction Stormwater Permit (National Pollutant Discharge Elimination System – NPDES) issued for this project.
5. Within the project limits<sup>1</sup> all environmentally sensitive areas including, but not limited to, non-modified wetlands, wetland buffers, and mitigation areas shall be fenced with high visibility construction (HVF) prior to commencing construction activities. Construction activities include equipment staging, materials storage, and work vehicle parking.  
*Note: This condition does not apply to activities such as pre-construction surveying and installing HVF and construction zone signage.*

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<sup>1</sup> Project limits include mitigation sites, staging areas, borrow sources, and other sites developed or used to support project construction.

- a. If the project will be constructed in stages<sup>2</sup> a detailed description and drawings of the stages shall be sent to Ecology for review at least 20 days prior to placing HVF.
  - b. Condition 2.a. shall apply to each stage.
  - c. All field staff shall be trained to recognize HVF, understand its purpose and properly install it in the appropriate locations.
  - d. HVF shall be maintained until all work is completed for each project or each stage of a staged project.
6. All clearing limits, stockpiles, staging areas, and trees to be preserved shall clearly be marked prior to commencing construction activities and maintained until all work is completed for each project.
7. No petroleum products, fresh concrete, lime or concrete, chemicals, or other toxic or deleterious materials shall be allowed to enter waters of the state.
8. All construction debris, excess sediment, and other solid waste material shall be properly managed and disposed of in an upland disposal site approved by the appropriate regulatory authority.
9. Turbid de-watering water associated with in-water work shall not be discharged directly to waters of the state, including wetlands. Turbid de-watering water shall be routed to an upland area for on-site or off-site settling.
10. Clean de-watering water associated with in-water work that has been tested and confirmed to meet water quality standards may be discharged directly to waters of the state including wetlands. The discharge outfall method shall be designed and operated so as not to cause erosion or scour in the stream channel, banks, or vegetation.
11. All equipment being used below the ordinary high water mark shall utilize biodegradable hydraulic fluid.

#### Equipment & Maintenance

12. Staging areas will be located a minimum of 50 feet and, where practical, 200 feet, from waters of the state including wetlands. If a staging area must be located within 50 feet of waters of the state, then the Applicant shall provide a written explanation and obtain approval from Ecology's Federal Permit Manager before placing the staging area in the 50-foot setback area.
13. Equipment used for this project shall be free of external petroleum-based products while used around the waters of the state, including wetlands. Accumulation of soils or debris shall be removed from the drive mechanisms (wheels, tires, tracks, etc.) and the undercarriage of equipment prior to its use around waters of the state, including wetlands.

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<sup>2</sup> A stage is part of a project that has been separated into at least two distinct areas to be built during separate timeframes.

14. No equipment shall enter, operate, be stored or parked within any sensitive area except as specifically provided for in this Order.
15. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters.
16. Wash water containing oils, grease, or other hazardous materials resulting from washing of equipment or working areas shall not be discharged into state waters. The Applicant shall set up a designated area for washing down equipment.
17. A separate area shall be set aside, which does not have any possibility of draining to surface waters, for the wash-out of concrete delivery trucks, pumping equipment, and tools.

#### **F. Wetlands**

1. The Applicant shall mitigate wetland impacts as described in the letter from Graham-Bunting Associates dated December 2, 2020, (hereafter called the “mitigation plan”), or as revised and approved by Ecology.
2. Prior to impacting wetlands, the Applicant shall submit to Ecology documentation from the bank sponsor verifying the purchase of 2.99 wetland mitigation bank credits (credits) from the Skagit Environmental Mitigation Bank and/or the Nookachamps Mitigation Bank. This documentation must include the permit number, permit issuance date, impact acreage, the amount of credits required by the permit, and date of credit purchase.
3. The Applicant shall notify Ecology of any changes to the amount of wetland impacts, or revisions to the mitigation plan.
4. The Applicant shall complete the purchase of credits before the impacts to wetlands occur or Ecology may require additional compensation to account for temporal loss of wetland functions.
5. A portion of the proposed project consists of preserved wetland, compensation site buffer, and off-site wetland buffer. This area is depicted on the November 30, 2020, site plan for the project. The Applicant shall provide Ecology with documentation of a recorded restrictive covenant for this portion of the Skagit Fields project.

Specifically, the Applicant shall:

- a. Request a restrictive covenant template from Ecology or use an appropriate alternative to develop a draft restrictive covenant.
- b. Send the draft restrictive covenant to Ecology for review and approval.

- c. Record the Ecology-approved restrictive covenant with the County Recording Office, Registrar of Deeds, or other official responsible for maintaining records for, or interest in, real property.
  - d. Record the restrictive covenant with a figure that corresponds with the legal description showing the area that is being protected, a copy of this Order, and a site map showing the location of wetlands and their buffers that are being protected.
  - e. Send a copy of the recorded restrictive covenant to Ecology.
6. The Applicant shall comply with all applicable requirements of the City of Mount Vernon Critical Areas Ordinance regarding the proposed compensation site and off-site wetland buffers.

#### **G. Emergency/Contingency Measures**

1. The Applicant shall develop and implement a spill prevention and containment plan for this project.
2. The Applicant shall have adequate and appropriate spill cleanup material available on site at all times during construction.
3. The Applicant shall have adequate and appropriate spill response materials available on site to respond to any release of petroleum products or any other material into waters of the state.
4. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters.
5. Work causing distressed or dying fish and discharges of oil, fuel, or chemicals into state waters or onto land with a potential for entry into state waters is prohibited. If such work, conditions, or discharges occur, the Applicant shall notify Ecology's Federal Permit Manager per condition B.1. and immediately take the following actions:
  - a. Cease operations at the location of the non-compliance.
  - b. Assess the cause of the water quality problem and take appropriate measures to correct the problem and prevent further environmental damage.
  - c. In the event of a discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, containment and cleanup efforts shall begin immediately and be completed as soon as possible, taking precedence over normal work. Cleanup shall include proper disposal of any spilled material and used cleanup materials.
  - d. Immediately notify Ecology's Regional Spill Response Office and the Washington State Department of Fish & Wildlife with the nature and details of the problem, any actions taken to correct the problem, and any proposed changes in operation to prevent further problems.



- e. Immediately notify the National Response Center at 1-800-424-8802, for actual spills to water only.
6. Notify Ecology's Regional Spill Response Office immediately if chemical containers (e.g. drums) are discovered on-site or any conditions present indicating disposal or burial of chemicals on-site that may impact surface water or ground water.

#### **YOUR RIGHT TO APPEAL**

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do both of the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

#### **ADDRESS AND LOCATION INFORMATION**

<b>Street Addresses</b>	<b>Mailing Addresses</b>
<b>Department of Ecology</b> Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	<b>Department of Ecology</b> Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
<b>Pollution Control Hearings Board</b> 1111 Israel Road SW STE 301 Tumwater, WA 98501	<b>Pollution Control Hearings Board</b> PO Box 40903 Olympia, WA 98504-0903

#### **CONTACT INFORMATION**

Please direct all questions about this Order to:

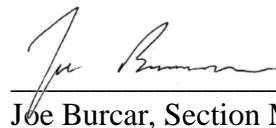
Neil Molstad  
Department of Ecology  
Northwest Regional Office  
3190 160<sup>th</sup> Avenue SE  
Bellevue, WA 98008  
(425) 649-7007  
neil.molstad@ecy.wa.gov

## MORE INFORMATION

- **Pollution Control Hearings Board Website**  
<http://www.eluho.wa.gov/Board/PCHB>
- **Chapter 43.21B RCW - Environmental and Land Use Hearings Office – Pollution Control Hearings Board**  
<http://app.leg.wa.gov/RCW/default.aspx?cite=43.21B>
- **Chapter 371-08 WAC – Practice And Procedure**  
<http://app.leg.wa.gov/WAC/default.aspx?cite=371-08>
- **Chapter 34.05 RCW – Administrative Procedure Act**  
<http://app.leg.wa.gov/RCW/default.aspx?cite=34.05>
- **Chapter 90.48 RCW – Water Pollution Control**  
<http://app.leg.wa.gov/RCW/default.aspx?cite=90.48>
- **Chapter 173.204 WAC – Sediment Management Standards**  
<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-204>
- **Chapter 173-200 WAC – Water Quality Standards for Ground Waters of the State of Washington**  
<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-200>
- **Chapter 173-201A WAC – Water Quality Standards for Surface Waters of the State of Washington**  
<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A>

## SIGNATURE

Dated this 8th day of December, 2020, at the Department of Ecology, Bellevue, Washington.



Joe Burcar, Section Manager  
Shorelands and Environmental Assistance Program  
Northwest Regional Office

**Attachment A**  
**Statement of Understanding**  
**Water Quality Certification Conditions**

Skagit Fields  
Skagit County Parks and Recreation  
Water Quality Certification Order No. **19504**  
and  
Corps Reference No. **NWS-2018-1164**

I, \_\_\_\_\_, state that I will be involved as an agent or contractor for Skagit County Parks and Recreation in the site preparation and/or construction of the Skagit Fields project located in the City of Mount Vernon, Skagit County, Washington. I further state that I have read and understand the relevant conditions of Washington Department of Ecology Water Quality Certification Order No. 19504 and the applicable permits and approvals referenced therein which pertain to the project-related work for which I am responsible.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

\_\_\_\_\_  
Phone

\_\_\_\_\_  
Company



**DEVELOPMENT SERVICES**  
910 Cleveland Avenue  
Mount Vernon, WA 98273  
(360) 336-6214 -- Office  
PermitTech@mountvernonwa.gov

## ENGINEERING PERMIT

**PERMIT TYPE:** FILL AND GRADE PERMIT

**PERMIT #:** ENGR21-0255

**ISSUE DATE:** 10/06/2022

**PARCEL #:** P25052

**PERMIT EXPIRATION:** 10/14/2022

**SITE ADDRESS:** 2727 EAST COLLEGE WAY

**OWNER:**

STATE OF WA, STATE BOARD FOR & COMM TECH...  
VALLEY COLLEGE, 2405 E COLLEGE WAY  
MOUNT VERNON, WA 98273

**CONTRACTOR:**

Owner Contractor Per RCW 18.27

MOUNT VERNON, WA 98273

**CONTRACTOR LICENSE #:** Not Applicable

**THIS PERMIT AUTHORIZES THE BELOW DESCRIBED WORK:**

Fill & Grade for soccer fields and associated amenities

**CONDITIONS AND COMMENTS APPLICABLE TO THIS PERMIT:**

1. Erosion and Sediment control BMP's shall be in place and inspected prior to commencing any construction activity.
2. Prior to commencing construction the wetland compensation area must be fenced and signed per MVMC15.40.040(L)(4) and (5)
3. Prior to commencing construction, the applicant is required to provide the City the WAR# for the sites Construction Stormwater General Permit. No groundwork may occur until the subject permit has been issued by the Department of Ecology.

This permit is issued by the Development Review Engineer and shall expire and become null and void if the work authorized by this permit is not commenced within one (1) year from the date of permit issuance. All work is required to comply with the City's municipal code and Engineering Standards, the WA State Department of Transportation Standard Specifications for Roads, Bridges and Municipal Construction.

By signing this permit I certify I will do all of my own work or use only registered and licensed contractors to do work performed under the permit resulting from this application. I understand that Labor & Industries provides information regarding contractor registration laws (RCW 18.27.110).

By signing this permit I acknowledge I have been made aware that:

1. I am responsible for having all utilities located prior to construction activities commencing.
2. Compliance with all applicable laws is the responsibility of the contractor and property owner completing the work authorized with this permit.
3. The City is not responsible for, and does not authorize work required to comply with Federal, State, County or other local laws, permits or mandates that the City does not have jurisdiction over.

Any person engaged in ground disturbing activity who encounters or discovers historical and/or archeological materials in or on the ground shall:

1. Immediately cease any activity which may cause further disturbance;
2. Make a reasonable effort to protect the area from further disturbance; and,
3. Report the presence and location of the material to the proper authorities in the most expeditious manner possible.

I declare under penalty of perjury under the laws of the State of Washington that all of the statements and answers contained in the materials provided to the City allowing this permit to be issued, is in all respects true, correct, and complete to the best of my knowledge and belief. By affixing my signature below, I certify that I am the owner, or am acting as the Owner's authorized agent and I will ensure all provisions of laws and ordinances governing the type of work this permit includes will be complied with whether specified herein or not, including calls for inspections.

When signed and dated below, this is your permit. Permission is hereby given to do the above-described work, according to the conditions hereon and according to the approved plans and specifications pertaining thereto, subject to compliance with the ordinances of the City of Mount Vernon.

**BY SIGNING BELOW I HEREBY ACKNOWLEDGE THAT I HAVE READ THIS DOCUMENT, UNDERSTAND ITS CONTENTS AND AGREE TO BE BOUND BY ITS TERMS.**



Signature of Owner

10/7/22

Date



Development Review Engineer Signature

10/06/2022

Date

**DEVELOPMENT SERVICES**

910 Cleveland Avenue  
Mount Vernon, WA 98273  
(360) 336-6214 -- Office

**FILL AND GRADE PERMIT INSPECTION RECORD****ISSUE DATE:** 10/06/2022**PERMIT TYPE:** Fill and Grade Permit**PERMIT #:** ENGR21-0255**THIS PERMIT AUTHORIZES THE BELOW DESCRIBED WORK:**

Fill &amp; Grade for soccer fields and associated amenities

**INSPECTIONS REQUIRED FOR THIS PERMIT**

INSPECTION	STAFF	DATE	COMMENTS
1. PIPE BEDDING			
2. UTILITY TRENCH - STORM SEWER			
3. EROSION CONTROL			
4. CLEARING LIMITS			
5. PROPERTY CORNERS			
6. SUBGRADE INSTALLATION			
7. SIGNAGE			
8. FIBER CONDUIT			
9. STORMWATER POND			
10. STORMWATER STRUCTURES			

**NOTICE OF DECISION:**  
*for a* **CRITICAL AREA PERMIT**

**A. BACKGROUND INFORMATION:**

<b>APPLICATION NAME &amp; NUMBER</b>	Skagit Fields Critical Areas Review; PLAN20-0185		
<b>APPLICANT:</b>	Skagit County Parks and Recreation; Brian Adams, Director	<b>APPLICABLE MVMC:</b>	15.40
<b>SUMMARY/DESCRIPTION:</b>	<p>Proposed is the construction of six soccer fields, six picnic tables on concrete pads, a wood chip plaza area, and wood chip paths to connect the fields and to connect to offsite paths and sidewalks. Parking for the fields will be provided in the existing Skagit Valley College Parking lots adjacent to the fields. Sanitary service will be provided at a recently installed restroom facility at the existing playfields to the north. Skagit Fields will be constructed of natural soils and turf to minimize impervious areas and reduce overall construction costs. The fields will be deeply tilled, graded and covered with up to 3 inches of motor sand, a final 1 inch of blended levelling sandy soil will be distributed over the entire field(s). The fields will be sloped from north to south at an average gradient of 2%. No underdrains are proposed. Each field will be adaptable to all levels of play with moveable goals and no permanently installed field boundaries. Irrigation will be provided on a temporary basis as needed to establish grass. No lights are proposed. Earthwork associated with creating the fields is expected to be approximately 19,000 cubic yards and include cut, fill and till for ballfields then top dressed with sandy soil to create playable fields.</p> <p>The proposal would fill 4.24 acres of wetlands located on the property. Wetland impacts would be mitigated by purchase of credits from one of two local wetland banks and enhancing a buffer along the eastern property line to protect off-site wetlands.</p>		
<b>PROJECT LOCATION:</b>	The proposed Skagit Fields has street addresses of 2727, 2791, 2891, 2911 East College Way in Mount Vernon, WA. The fields are on parcels described by the Skagit County Assessor as parcel P25052, P25055, P25048, P25050, is within a portion of the NW ¼ of Section 16, Township 34N, Range 04E, W.M., and is generally located on the eastern side of the Skagit Valley College campus.		
<b>EXHIBITS:</b>	<b>EXHIBIT A:</b> Army Corps of Engineers (ACOE) Nationwide Permit (NWS-2018-1164) Dated May 5, 2021		

**B. DETERMINATION & JUSTIFICATION:**

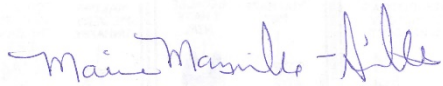
Upon review of the request, the Mount Vernon Municipal Code, and Exhibits the Development Services Department Director, or his/her authorized designee, has made the following determination:

1. The Applicant can complete the work outlined within the ACOE Nationwide Permit accompanying this permit identified as **Exhibit A**.
2. The approved ACOE permit includes the following conditions:
  - e. A status report on the implementation of the authorized work and on the construction of the mitigation shall be submitted annually to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch (Corps) by October 31st each year until mitigation construction is complete as determined by the Corps. This report must prominently display the reference number NWS-2018-1164.

- f. An as-built mitigation construction report and as-built drawings of the mitigation area(s) shall be submitted upon completion of mitigation construction, in lieu of the status report described in Special Condition "e." This report must be submitted to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch (Corps) for review and approval and must prominently display the reference number NWS-2018-1164. The year mitigation construction is completed, as determined by the Corps, represents Year 0 for mitigation monitoring.
- g. Mitigation monitoring reports shall be submitted annually for 5 years to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch (Corps) by October 31st of each monitoring year. Year 1 monitoring will occur at least one year after completion of the mitigation site(s) as determined by the Corps. All reports must prominently display the reference number NWS-2018-1164.

Each of the documents described in the above ACOE conditions must also be provided to the City of Mount Vernon at the same time they are provided to the ACOE. City biologists will review the documents and as necessary monitor the compensation area. If deficiencies are noted the City will inform the applicant so that corrections can be made as necessary.

3. The report submitted under ACOE condition "f." must contain performance standards that will form the basis for future monitoring and maintenance. Upon review by the City biologists, those standards could be revised or supplemented to comply with City requirements.
4. The compensation area must be fenced and signed per MVMC 15.40.040(L)(4) and (5).



**Marianne Manville-Ailles, Senior Planner**  
**Development Services Department**

June 7, 2021

**Date**

### **C. EXPIRATION/APPEALS/NOTES TO APPLICANT:**

MVMC 14.05.060 classifies Administrative Determinations as Type I permit processes. MVMC 14.05.050(B) explains that Type I permits are administrative applications where a final decision is made by the Development Services Director without public notice or a public hearing. The Director's decision may be appealed in an open record appeal hearing to the Hearing Examiner; and the Hearing Examiner's decision may be appealed in a closed record appeal to the City Council.

MVMC 14.05.170(C) states that appeals from administrative decision shall be filed within 14 days of the date of the Administrative Decision. The date of this Decision is noted next to the signature of this Decision above. In addition, MVMC 14.05.170(A)(1) states that such an appeal must contain the information outlined in MVMC 14.05.160(C)(3) and must be accompanied by the required appeal fee.

Consistent with MVMC 14.05.140 this approval shall expire within two years of the date this document was signed by the approval authority, as indicated above, should no further action be taken by the applicant.

Further information may be obtained by contacting the Department Services Department at: 910 Cleveland Ave, Mount Vernon, WA 98273, (360) 336-6214.





**DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, SEATTLE DISTRICT  
P.O. BOX 3755  
SEATTLE, WASHINGTON 98124-3755**

Regulatory Branch

May 5, 2021

Mr. Brian Adams  
Director  
Skagit County Parks and Recreation  
1730 Continental Place  
Mount Vernon, Washington 98273

Reference: NWS-2018-1164  
Skagit County Parks &  
Recreation (Skagit  
Playfield)

Dear Mr. Adams:

Enclosed is a Department of the Army permit which authorizes performance of the work described in your referenced application. You are cautioned that any change in the location or plans of the work will require submittal of revised plans to this office for approval prior to accomplishment. Deviation from the approved plans may result in imposition of criminal or civil penalties.

Your attention is drawn to General Condition 1 of the permit which specifies the expiration date for completion of the work. Upon completing the authorized work, please fill out and return the enclosed *Certificate of Compliance with Department of the Army Permit* form.

We are interested in your experience with our Regulatory Program and encourage you to complete a customer service survey form. This form and information about our program is available on our website at: [www.nws.usace.army.mil](http://www.nws.usace.army.mil) select "Regulatory Branch, Permit Information" and then "Contact Us."

A copy of this letter with the enclosure will be furnished to Ms. Patricia Bunting at

-2-

gba@fidalgo.net. If you have any questions, please contact Ms. Pamela Sanguinetti at pamel.sanguinetti@usace.army.mil or at (206) 764-6904.

Sincerely,

A handwritten signature in dark ink, appearing to read "Michelle Walker", with a stylized, cursive script.

*For* Michelle Walker  
Chief, Regulatory Branch

Enclosures

## DEPARTMENT OF THE ARMY PERMIT

**Permittee:** Skagit County Parks and Recreation

1730 Continental Place  
Mt. Vernon, Washington 98273

**Permit No:** NWS-2018-1164

**Issuing Office:** Seattle District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the U.S. Army Corps of Engineers (Corps) having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

**Project Description:** Fill 3.24 acres of wetlands in accordance with the plans and drawings dated December 18, 2020, attached hereto which are incorporated in and made a part of this permit. The purpose of the project is to provide a recreational playfield complex with soccer fields.

**Project Location:** In wetlands at 2727 East College Way, Mt. Vernon, Skagit County, Washington.

### **Permit Conditions:**

#### *General Conditions:*

1. The time limit for completing the work authorized ends on May 5, 2026. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least 1 month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in accordance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification to this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.
7. After a detailed and careful review of all the conditions contained in this permit, the permittee acknowledges that, although said conditions were required by the Corps, nonetheless the permittee agreed to those conditions voluntarily to facilitate issuance of the permit; the permittee will comply fully with all the terms of all the permit conditions.

Skagit County Parks and Recreation

NWS-2018-1164

*Special Conditions:*

- a. You must provide a copy of the permit transmittal letter, the permit form, and drawings to all contractors performing any of the authorized work.
- b. You shall implement and abide by the Bank Use Plan for Skagit Fields, Revised, dated December 20, 2020, and obtain mitigation bank credits from the Skagit Environmental Bank in accordance with Table 4) of the Bank Use Plan.
- c. You shall obtain from the Skagit Environmental Bank sponsor documentation of the completed mitigation bank transaction. You shall submit to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch documentation on the completed mitigation bank transaction prior to performing work in waters of the U.S. authorized by this permit. All submittals must prominently display the reference number NWS-2018-1164.
- d. You shall implement and abide by the mitigation plan, On-site Mitigation Plan for Skagit Fields dated December 20, 2020, and as modified by the permit special conditions. Mitigation shall be constructed before or concurrent with the work authorized by the permit.
- e. A status report on the implementation of the authorized work and on the construction of the mitigation shall be submitted annually to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch (Corps) by October 31st each year until mitigation construction is complete as determined by the Corps. This report must prominently display the reference number NWS-2018-1164.
- f. An as-built mitigation construction report and as-built drawings of the mitigation area(s) shall be submitted upon completion of mitigation construction, in lieu of the status report described in Special Condition "e." This report must be submitted to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch (Corps) for review and approval and must prominently display the reference number NWS-2018-1164. The year mitigation construction is completed, as determined by the Corps, represents Year 0 for mitigation monitoring.
- g. Mitigation monitoring reports shall be submitted annually for 5 years to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch (Corps) by October 31st of each monitoring year. Year 1 monitoring will occur at least one year after completion of the mitigation site(s) as determined by the Corps. All reports must prominently display the reference number NWS-2018-1164.

**Further Information:**

1. Congressional Authorities. You have been authorized to undertake the activity described above pursuant to:

- ☐ Section 10 of the Rivers and Harbor Act of 1899 (33 United States Code (U.S.C.) 403).
- ☒ Section 404 of the Clean Water Act (33 U.S.C. 1344).
- ☐ Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C 1413).

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain other Federal, State, or local authorization required by law.
- b. This permit does not grant any property rights or exclusive privileges.

Skagit County Parks and Recreation

NWS-2018-1164

- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of the permit.
- b. The information provided by you in support of your application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 Code of Federal Regulations (CFR), Part 325.7 or enforcement procedures such as those contained in 33 CFR, Parts 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR, Part 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Skagit County Parks and Recreation

NWS-2018-1164

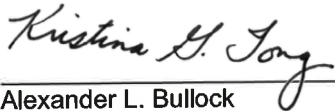


NAME OF PERMITTEE Brian Adams

5/5/2021

(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.



Alexander L. Bullock  
Colonel, Corps of Engineers  
District Engineer

5/5/2021

(DATE)

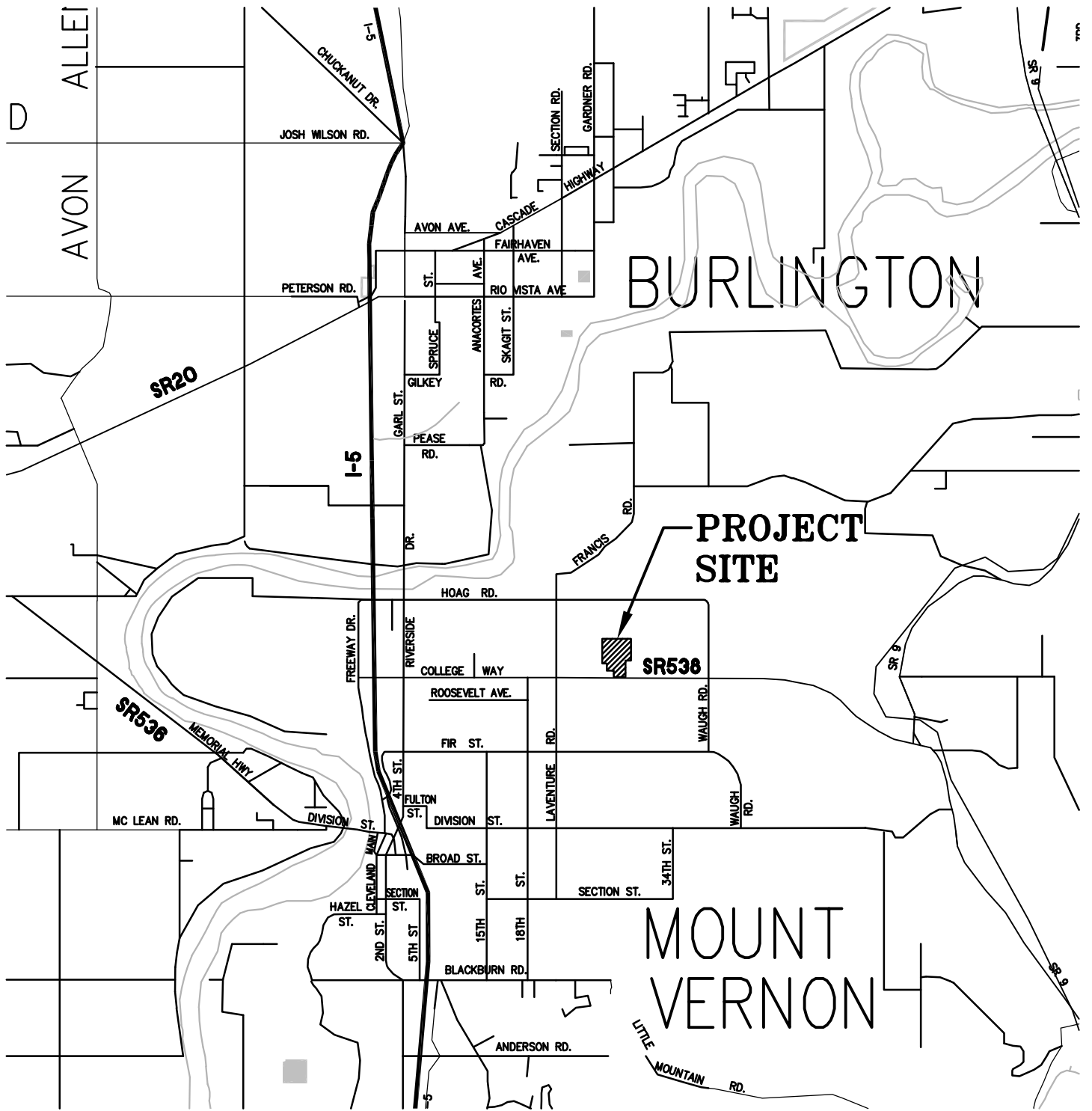
Skagit County Parks and Recreation

NWS-2018-1164

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFeree)

\_\_\_\_\_  
(DATE)



Lat/Long: 48.437196; -122.304007

## Skagit Fields

Purpose: Wetland Fill: 3.24 ac  
In: Abutting Wetlands to unnamed trib to Trumpeter Creek  
At: Mount Vernon, WA, Skagit County

## VICINITY MAP

APPLICANT: SKAGIT COUNTY AND SKAGIT VALLEY COLLEGE  
Datum: WA State Plane Coordinates, NGVD 29  
Adjacent Property Owners: Skagit Valley College, Apostolic Assembly of Faith

REFERENCE NUMBER:  
NWS-2018-1164

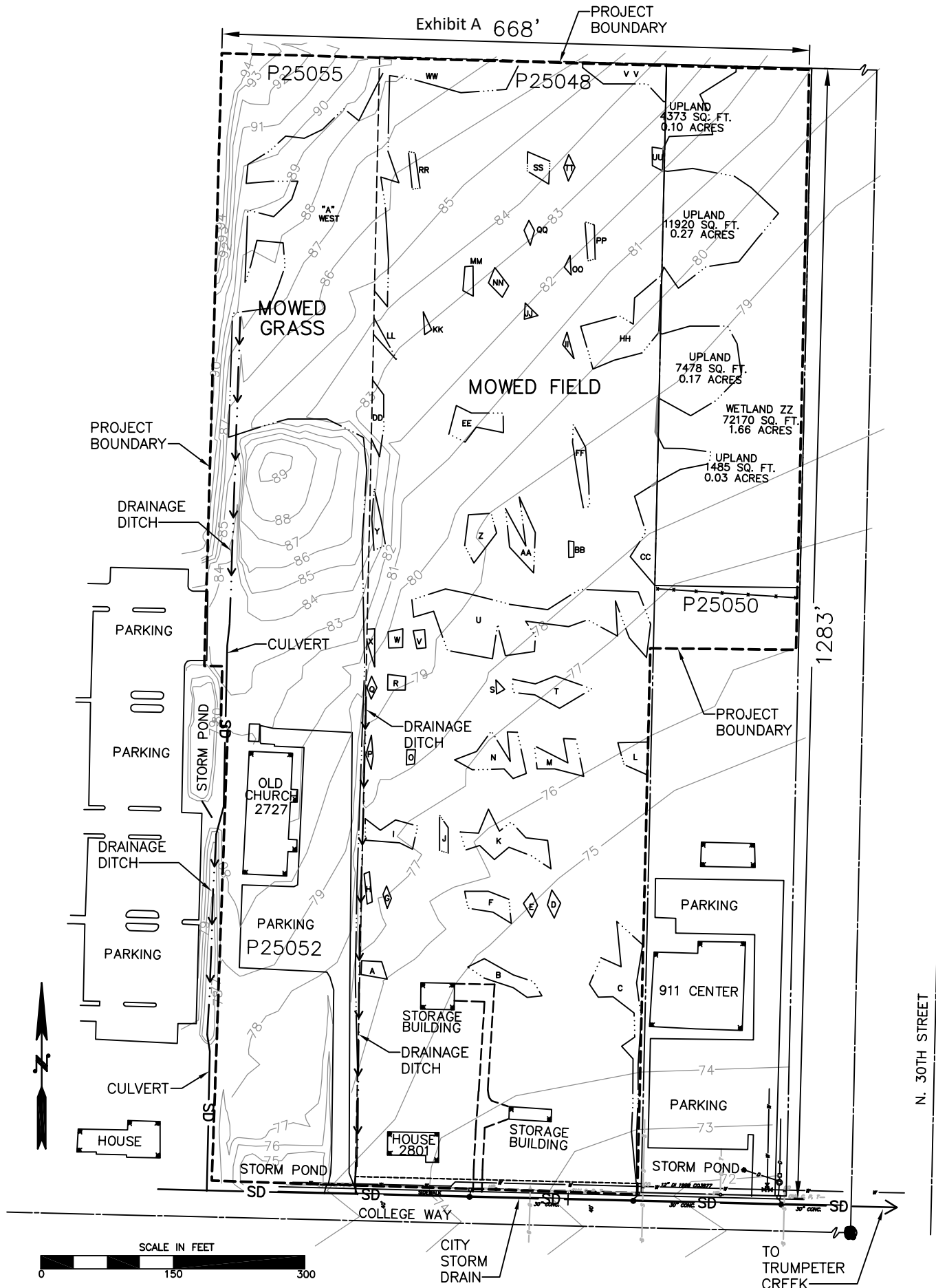
Sheet 1 of 7  
Dec. 18, 2020



Sheet 2 of 7  
Dec. 18, 2020

Exhibit A 668'

PROJECT  
BOUNDARY



## Skagit Fields

Purpose: Wetland Fill: 3.24 ac

In: Abutting Wetlands to unnamed trib to Trumpeter Creek

At: Mount Vernon, WA, Skagit County

## WETLAND DELINEATION

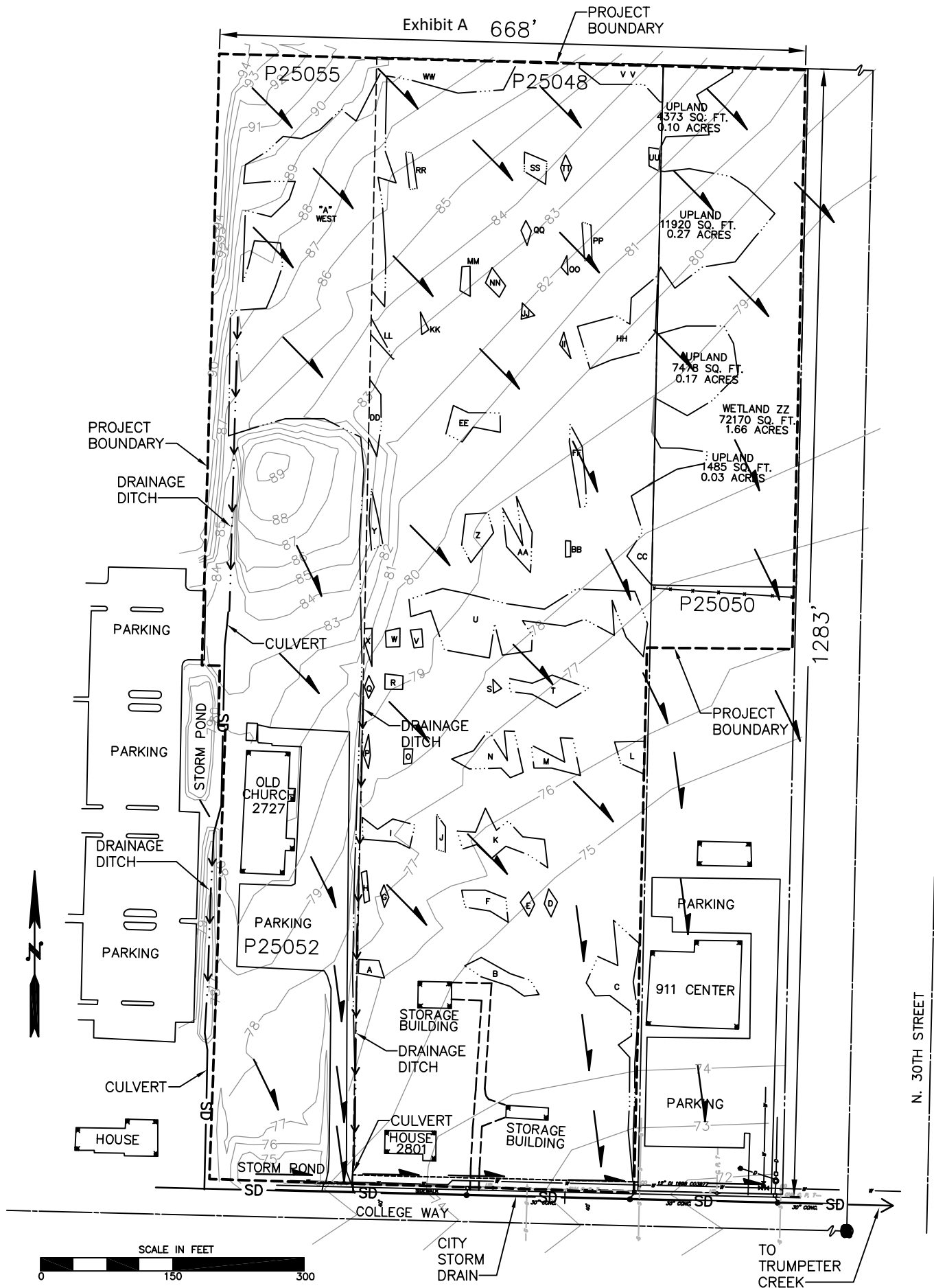
APPLICANT: SKAGIT COUNTY AND SKAGIT VALLEY COLLEGE

Datum: WA State Plane Coordinates, NGVD 29

Adjacent Property Owners: Skagit Valley College, Apostolic Assembly of Faith

REFERENCE NUMBER:  
NWS-2018-1164

Sheet 3 of 7  
Dec. 18, 2020



# Skagit Fields

Purpose: Wetland Fill: 3.24 ac  
 In: Abutting Wetlands to unnamed trib to Trumpeter Creek  
 At: Mount Vernon, WA, Skagit County

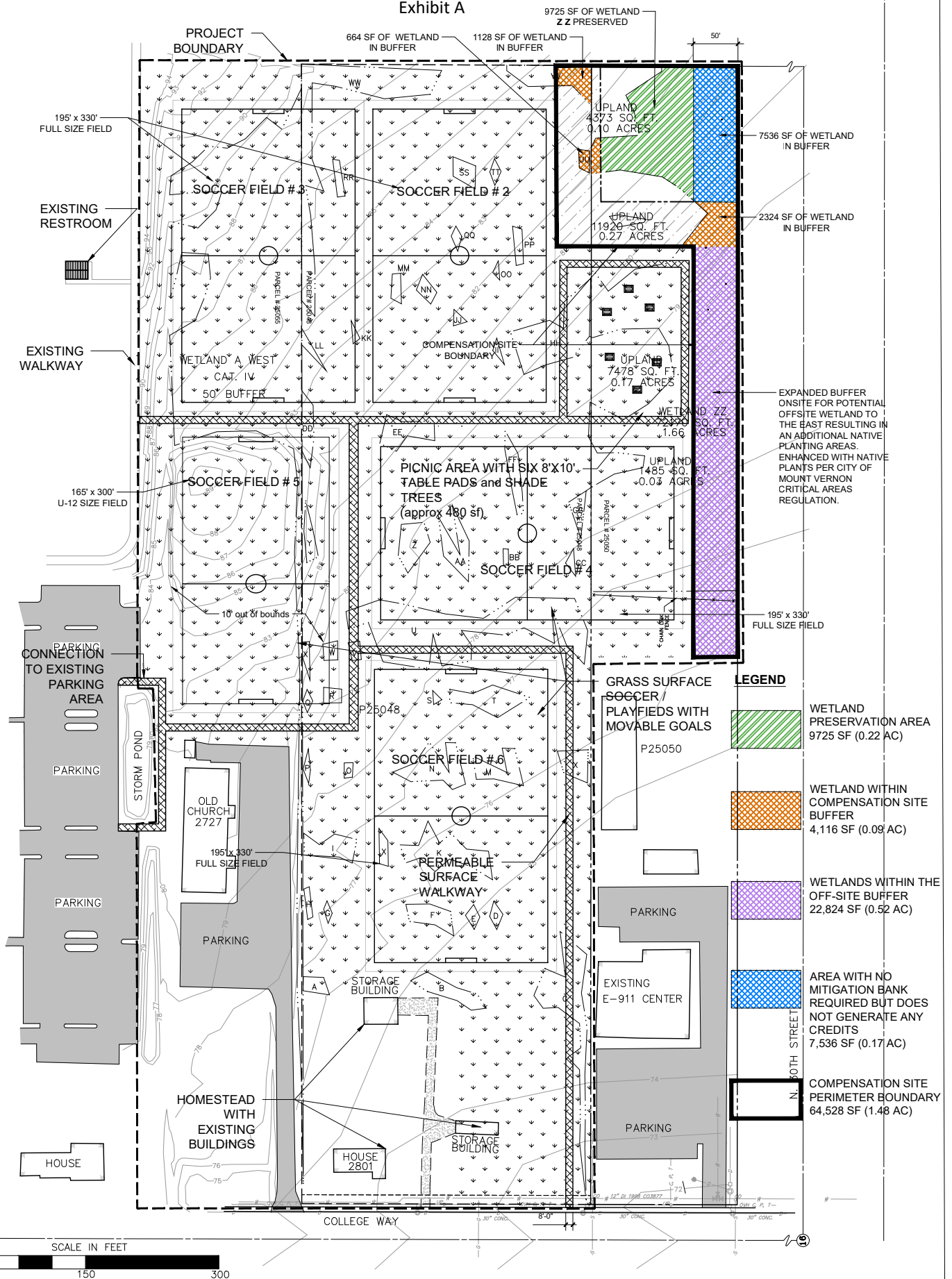
## FLOW VECTOR MAP

APPLICANT: SKAGIT COUNTY AND SKAGIT VALLEY COLLEGE  
 Datum: WA State Plane Coordinates, NGVD 29  
 Adjacent Property Owners: Skagit Valley College, Apostolic Assembly of Faith

REFERENCE NUMBER:  
 NWS-2018-1164

Sheet 4 of 7  
 Dec. 18, 2020

# Exhibit A



## PROPOSED SITE PLAN

REFERENCE NUMBER:  
NWS-2018-1164

### Skagit Fields

Purpose: Wetland Fill; (3.24 ac)

In: Abutting Wetlands to unnamed trib to Trumpeter Creek

At: Mount Vernon, WA, Skagit County

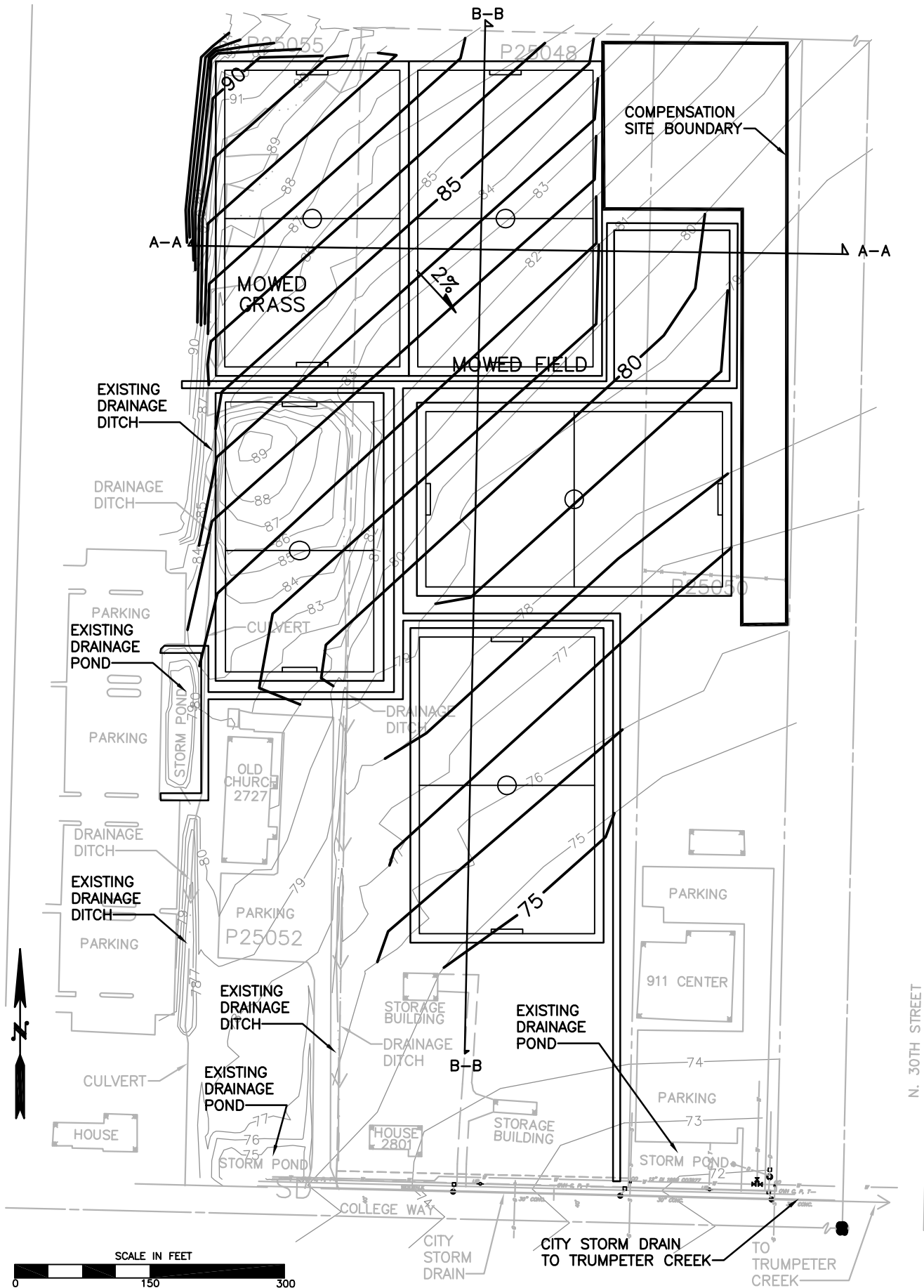
APPLICANT: SKAGIT COUNTY AND SKAGIT VALLEY COLLEGE

Datum: WA State Plane Coordinates, NGVD 29

Adjacent Property Owners: Skagit Valley College, Apostolic Assembly of Faith

Sheet 5 of 7

Dec. 18, 2020



# Skagit Fields

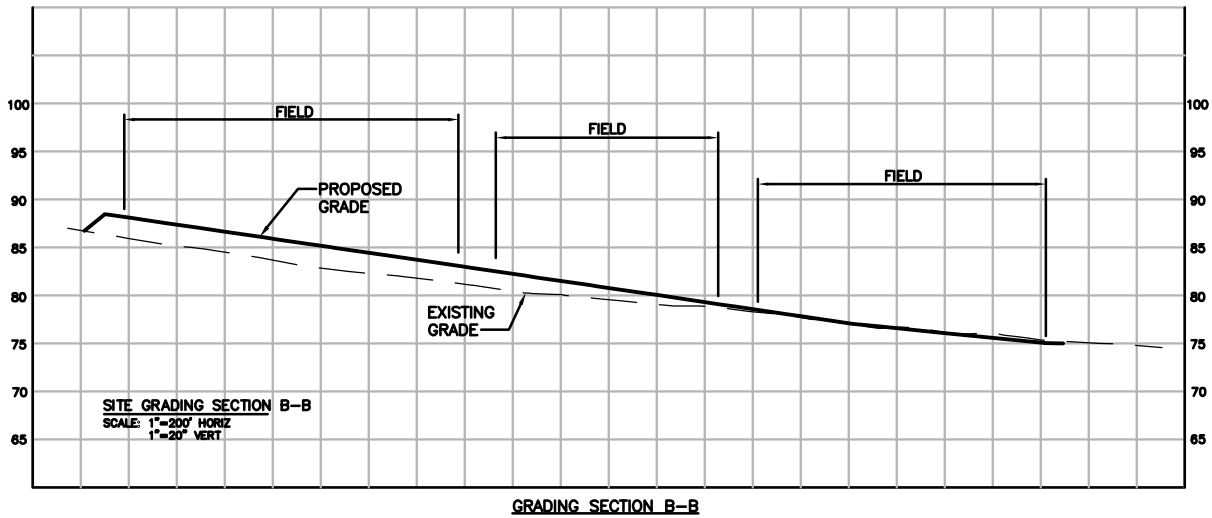
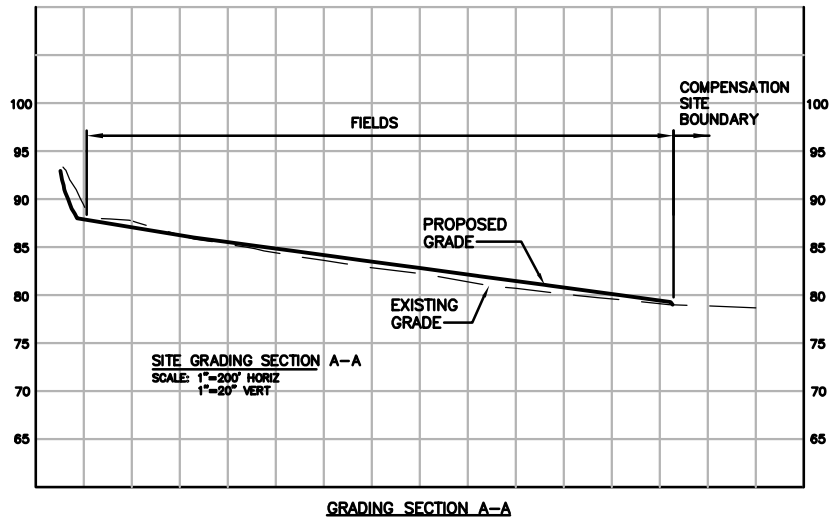
Purpose: Wetland Fill: 3.24 ac  
 In: Abutting Wetlands to unnamed trib to Trumpeter Creek  
 At: Mount Vernon, WA, Skagit County

## PROPOSED GRADING

APPLICANT: SKAGIT COUNTY AND SKAGIT VALLEY COLLEGE  
 Datum: WA State Plane Coordinates, NGVD 29  
 Adjacent Property Owners: Skagit Valley College, Apostolic Assembly of Faith

REFERENCE NUMBER:  
 NWS-2018-1164

Sheet 6 of 7  
 Dec. 18, 2020



## Skagit Fields

Purpose: Wetland Fill: 3.24 ac  
In: Abutting Wetlands to unnamed trib to Trumpeter Creek  
At: Mount Vernon, WA, Skagit County

## PROPOSED GRADING SECTIONS

APPLICANT: SKAGIT COUNTY AND SKAGIT VALLEY COLLEGE  
Datum: WA State Plane Coordinates, NGVD 29  
Adjacent Property Owners: Skagit Valley College, Apostolic Assembly of Faith

REFERENCE NUMBER:  
NWS-2018-1164

Sheet 7 of 7  
Dec. 18, 2020



***Graham-Bunting Associates***

*Environmental & Land Use Services*

*3643 Legg Road, Bow, WA 98232*

*Ph.360.766.4441*

December 2, 2020

WA State Department of Ecology  
NW Regional Office  
Attention: Neil Molstad (Wetland Specialist)  
3190 160<sup>th</sup> Ave SE  
Bellevue, WA 98008

**Re: Revision 2 Skagit Fields Proposal NWS-2018-1164 (Avoidance & Minimization)**

The following revised measures to avoid and minimize wetland impacts are submitted for Water Quality Certification in conjunction with the above referenced Department of Army (DOA) permit. The revised measures are based on Department of Ecology (Ecology) guidance contained in Ecology Publication 20-06-010 (Wetland Mitigation in Washington State; Versions 2, Draft for Public Review – October 2020). The measures were developed through a series of online meetings with Neil Molstad and other Ecology staff during November 2020.

As originally submitted the DOA permit application called for direct impacts to 4.24 acres of Category IV wetlands. Subsequent revisions reduced impacts to 4.19 acres. The subject proposal further reduces direct impacts to 3.24 acres and indirect impacts to 1.0 acres. The total area within the compensation site boundary is 1.48 acres. The reduction in wetland impacts results from the following revisions to the Skagit Fields project:

- The original proposal for 6 fields has been reduced to 5 fields
- A compensation site including wetlands and uplands is established in the NE corner of the project site preserving a portion of Wetland ZZ within a 50' perimeter buffer
- The compensation site includes a 50' onsite wetland buffer to potential offsite wetlands extending from the SE corner of the perimeter buffer along the entire eastern property line
- In addition the compensation site will be connected to an offsite corridor of native vegetation which extends 165 feet east to north 30<sup>th</sup> street

While the measures outlined above are intended to demonstrate continued efforts to avoid and minimize wetland impacts consistent with Ecology guidance, the remaining wetland impacts are proposed to be mitigated, on a compensatory basis, at a certified wetland mitigation bank. The availability of bank credits was confirmed with Skagit Environmental Wetland Mitigation Bank and Nookachamps Mitigation Bank which are located within their respective service areas, in the Nookachamps Watershed, a short distance from the project site. Purchase of credits will be made following authorization of the DOA permit.

The table on the following page provides a description of the areas within the compensation site boundary, the type (direct/indirect) of impact, the ratio required for mitigation bank credits, the size of the areas described and the credits required for purchase at the mitigation bank.

<b>Summary of Wetland Compensation Site and Wetland Mitigation Bank Credits</b>				
<b>Compensation Site Area Description</b>	<b>Impact</b>	<b>Ratio Required for Mitigation Bank Credits</b>	<b>Size of Area</b>	<b>Bank Credits Needed or Generated</b>
A preserved portion of Wetland ZZ protected by a perimeter buffer	None	Produces Credits at a 12:1 ratio (per Ecology)	9,725 sf (0.22 ac.)	0.22/12=0.018 Credits generated (to be subtracted from bank credits needed)
The portion of Wetland ZZ within the Compensation Site Buffer that does not generate the need for Mitigation Bank Credits	None	No mitigation credit required (Per Ecology)	7,536 sf (0.17 ac.)	None
Wetlands within the Compensation Site Perimeter Buffer and the offsite wetland buffer (Portions of V V, ZZ and all of UU)	Indirect	0.425 to 1 (per Ecology)	26,940 sf (0.61 ac)	0.259
<b>Areas Not within the Compensation Site Boundary</b>				
Wetlands A through ZZ	Direct	0.85 to 1	3.24	2.75
<b>Total Credits to purchase</b>				<b>2.99</b>

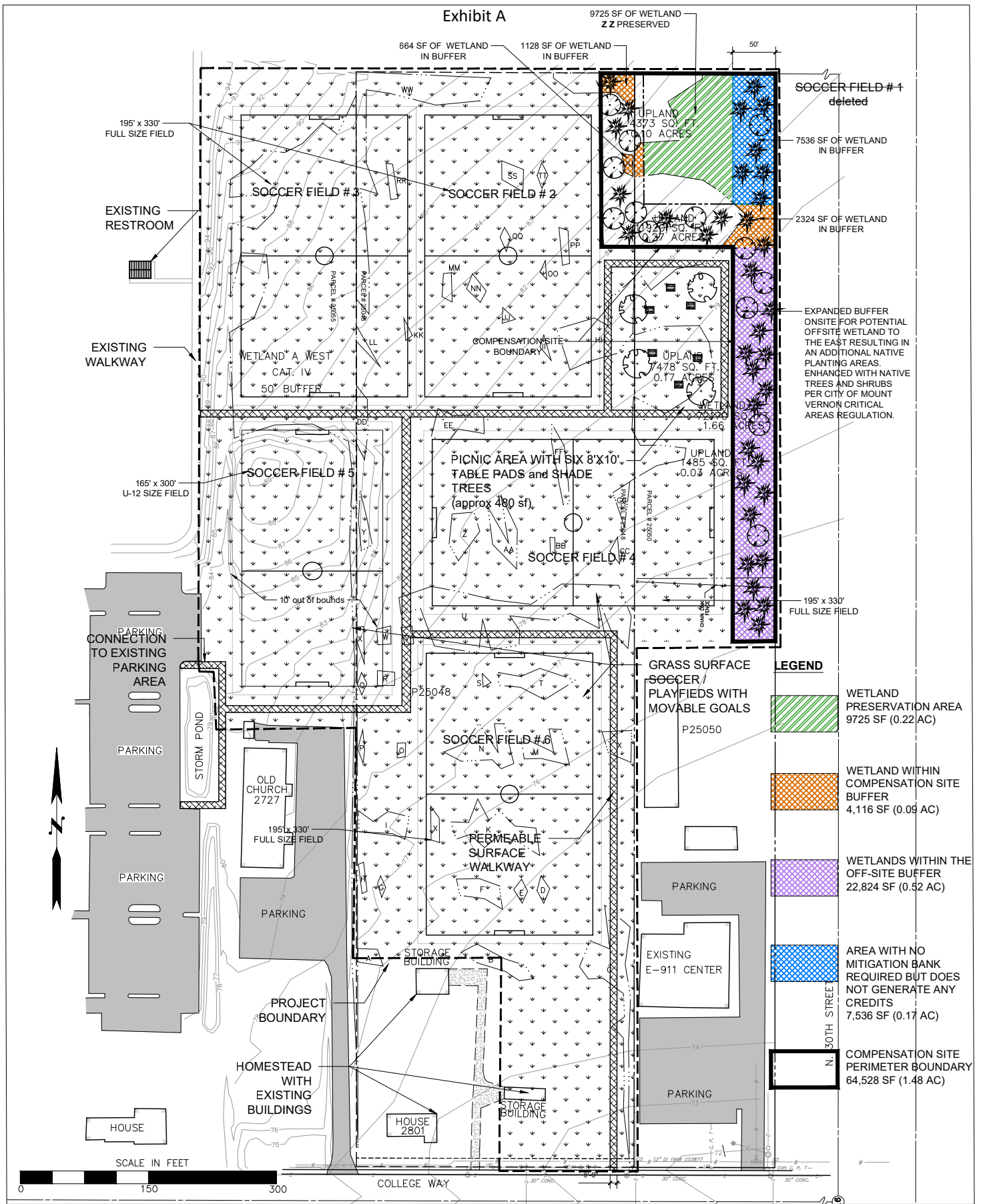
Attached is the proposed site plan depicting project revisions. Please contact Oscar Graham or myself with any questions. Thank you for your guidance on this matter.

Sincerely,



Patricia Bunting, PWS





# Skagit Fields

Purpose: Wetland Fill; (3.24 ac)

In: Abutting Wetlands to unnamed trib to Trumpeter Creek

At: Mount Vernon, WA, Skagit County

APPLICANT: SKAGIT COUNTY AND SKAGIT VALLEY COLLEGE

Datum: WA State Plane Coordinates, NGVD 29

Adjacent Property Owners: Skagit Valley College, Apostolic Assembly of Faith

**Attachment B**

Nov 30, 2020

## **APPENDIX F**

# **Stormwater Pollution Prevention Plan (SWPPP)**

**Construction Stormwater General Permit**

# **Stormwater Pollution Prevention Plan (SWPPP)**

for  
**Skagit Fields**

Prepared for:  
**The Washington State Department of Ecology  
Northwest Region**

<b>Permittee/Owner</b>	<b>Developer</b>	<b>Operator/Contractor</b>
Permittee: Skagit County Parks	Skagit County Parks	TBD

**The project is located at 2801 E College Way, Mount Vernon, WA 98273.**

**Certified Erosion and Sediment Control Lead (CESCL)**

<b>Name</b>	<b>Organization</b>	<b>Contact Phone Number</b>
TBD	TBD	TBD

**SWPPP Prepared By**

<b>Name</b>	<b>Organization</b>	<b>Contact Phone Number</b>
Jeff Jenks	Reid Middleton, Inc.	425 741 3800

**SWPPP Preparation Date  
April 23, 2023**

**Project Construction Dates**

<b>Activity/Phase</b>	<b>Start Date</b>	<b>End Date</b>
Construction	~June 2023	TBD

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- B. BMP Detail
- C. Correspondence
- D. Site Inspection Form
- E. Construction Stormwater General Permit (CSWGP)
- F. 303(d) List Waterbodies/TMDL Waterbodies Information
- G. Contaminated Site Information
- H. Engineering Calculations

## List of Acronyms and Abbreviations

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<b>Acronym/Abbreviation</b>	<b>Explanation</b>
<b>303(d)</b>	Section of the Clean Water Act pertaining to Impaired Waterbodies
<b>BFO</b>	Bellingham Field Office of the Department of Ecology
<b>BMP(s)</b>	Best Management Practice(s)
<b>CESCL</b>	Certified Erosion and Sediment Control Lead
<b>CO<sub>2</sub></b>	Carbon Dioxide
<b>CRO</b>	Central Regional Office of the Department of Ecology
<b>CSWGP</b>	Construction Stormwater General Permit
<b>CWA</b>	Clean Water Act
<b>DMR</b>	Discharge Monitoring Report
<b>DO</b>	Dissolved Oxygen
<b>Ecology</b>	Washington State Department of Ecology
<b>EPA</b>	United States Environmental Protection Agency
<b>ERO</b>	Eastern Regional Office of the Department of Ecology
<b>ERTS</b>	Environmental Report Tracking System
<b>ESC</b>	Erosion and Sediment Control
<b>GULD</b>	General Use Level Designation
<b>NPDES</b>	National Pollutant Discharge Elimination System
<b>NTU</b>	Nephelometric Turbidity Units
<b>NWRO</b>	Northwest Regional Office of the Department of Ecology
<b>pH</b>	Power of Hydrogen
<b>RCW</b>	Revised Code of Washington
<b>SPCC</b>	Spill Prevention, Control, and Countermeasure
<b>su</b>	Standard Units
<b>SWMMEW</b>	Stormwater Management Manual for Eastern Washington
<b>SWMMWW</b>	Stormwater Management Manual for Western Washington
<b>SWPPP</b>	Stormwater Pollution Prevention Plan
<b>TESC</b>	Temporary Erosion and Sediment Control
<b>SWRO</b>	Southwest Regional Office of the Department of Ecology
<b>TMDL</b>	Total Maximum Daily Load
<b>VFO</b>	Vancouver Field Office of the Department of Ecology
<b>WAC</b>	Washington Administrative Code
<b>WSDOT</b>	Washington Department of Transportation
<b>WWHM</b>	Western Washington Hydrology Model

**Intentionally Left Blank**

# 1 Project Information

*Project/Site Name:* Skagit Fields

*Street/Location:* 2801 E College Way

*City:* Mount Vernon *State:* WA *Zip code:* 98273

*Subdivision:*

*Receiving waterbody:* Trumpeter Creek

## 1.1 Existing Conditions

The existing site is a mowed grass field east of Skagit Valley College. The south side of the site is bounded by an existing church building, homestead and the Skagit County 911 Center building. The site slopes down from the northwest corner to the southeast corner. Grades vary from about 4% in the northwest corner to 1% in the southeast corner. Some existing fill has been mounded along the west side of the site, north of the existing church building. Existing drainage ditch located along the west side of the site will not be modified by this project.

Total acreage:	24 acres
Disturbed acreage:	12.7 acres
Existing structures:	Wood barn and shed at SW corner of project.
Landscape topography:	Slopes range from 1%-4%
Drainage patterns:	The site slopes from northwest to southeast at an average grade about 2%. The project site is a grass field that primarily infiltrates. Any surface runoff drains overland to the southeast and is not collected by any drainage facilities until it reaches a shallow ditch along East College Way. The ditch overflows to the city storm drain system and outfalls to Trumpeter Creek.
Existing Vegetation:	Grass meadow/field with areas of brush
Critical Areas (wetlands, streams, high erosion risk, steep or difficult to stabilize slopes):	Numerous Class IV wetlands onsite. Wetland fill permits: City of Mount Vernon PLAN20-0184, PLAN20-0185 U.S. Army Corps of Engineers: NWS-2018-1164

*List of known impairments for 303(d) listed or Total Maximum Daily Load (TMDL) for the receiving waterbody:*

No known listed impairments for Trumpeter Creek.

*Table 1 includes a list of suspected and/or known contaminants associated with the construction activity.*

No known contaminants are present on the site.

### Table 1 – Summary of Site Pollutant Constituents



Constituent (Pollutant)	Location	Depth	Concentration
None Known	N/A	N/A	N/A

## 1.2 Proposed Construction Activities

The existing grass will be tilled approximately 12-inches deep and graded to smooth the site. The overall general slope down to the southeast will be maintained. After grading, 4-inches of sand will be blended in with the soil and fine graded to create a smooth playing surface. The site will then be seeded back to a grass field. Wood chip paths will connect between the fields and the Skagit Valley College parking lot on the west side of the site and East College Way south of the site.

A detention pond will be excavated at the south end of the project. Soil excavated for the pond will be mounded onsite and seeded with meadow grass seed.

All disturbed areas will be seeded with grass.

### **Contaminated Site Information:**

*Proposed activities regarding contaminated soils or groundwater (example: on-site treatment system, authorized sanitary sewer discharge):*

There are no known contaminated soils on site and no contaminated discharges will be created by this project.

## 2 Construction Stormwater Best Management Practices (BMPs)

The SWPPP is a living document reflecting current conditions and changes throughout the life of the project. These changes may be informal (i.e., hand-written notes and deletions). Update the SWPPP when the CESCL has noted a deficiency in BMPs or deviation from original design.

### 2.1 The 13 Elements

#### 2.1.1 Element 1: Preserve Vegetation/Mark Clearing Limits

A number of BMPs will be used to preserve vegetation and identify areas that will not be disturbed. Clearing limits will be marked by silt fence.

List and describe BMPs:

- BMP C101: Preserve Natural Vegetation
- BMP C102: Buffer Zones
- BMP C233: Silt Fence

Responsible Staff: TBD

#### 2.1.2 Element 2: Establish Construction Access

Access to the site will be from existing parking lots either at the church building or from Skagit Valley College. Stabilized Construction Entrance will be constructed at the access point to the fields. Vehicles will be inspected prior to leaving the site to prevent tracking of sediment off site. A wheel wash will be used if required to prevent tracking sediment off site.

List and describe BMPs:

- BMP C105: Stabilized Construction Entrance.
- BMP C106: Wheel Wash, if needed.

Responsible Staff: TBD

#### 2.1.3 Element 3: Control Flow Rates

*Will you construct stormwater retention and/or detention facilities?*

☒ Yes ☐ No

*Will you use permanent infiltration ponds or other low impact development (example: rain gardens, bioretention, porous pavement) to control flow during construction?*

☒ Yes ☐ No

Diversion ditches and check dams will be used to prevent erosion during construction.

New detention pond may be used as a sediment trap if needed. Accumulated sediment will be removed from pond prior to final seeding.

List and describe BMPs:

- BMP C207: Check Dams
- BMP C240: Sediment Trap, if needed
- BMP C233: Silt Fence
- BMP C220: Storm Drain Inlet Protection, if needed (No known structures within limits)

Responsible Staff: TBD

#### **2.1.4 Element 4: Install Sediment Controls**

Sediment controls will be installed to minimize sediment discharge from the site. Sediment controls will be installed before tilling and grading begins. All runoff will pass through a sediment control BMP before leaving the site. Sediment controls will be regularly inspected and repaired as needed.

List and describe BMPs:

- BMP C233: Silt Fence
- BMP C220: Storm Drain Inlet Protection, if needed.
- BMP C240: Sediment Trap, if required

Silt fencing will be installed along the downslope construction limits before any tilling or grading begins.

New detention pond may be used as a sediment trap if needed. Accumulated sediment will be removed from pond prior to final seeding.

Responsible Staff: TBD

#### **2.1.5 Element 5: Stabilize Soils**

Exposed soils will be stabilized throughout the project using a variety of methods. During construction, soils will be stabilized within the time window allowed by the following table. All exposed soils will be seeded following the conclusion of grading. Dust on site will be controlled as necessary.

#### **West of the Cascade Mountains Crest**

Season	Dates	Number of Days Soils Can be Left Exposed
During the Dry Season	May 1 – September 30	7 days
During the Wet Season	October 1 – April 30	2 days

Soils must be stabilized at the end of the shift before a holiday or weekend if needed based on the weather forecast.

*Anticipated project dates:*

*Start date: June 2023*

*End date: September 2023*

*Will you construct during the wet season?*

☐ Yes ☒ No

List and describe BMPs:

- BMP C120: Temporary and Permanent Seeding
- BMP C121: Mulching
- BMP C123: Plastic Covering
- BMP C140: Dust Control

Responsible Staff: TBD

### **2.1.6 Element 6: Protect Slopes**

*Will steep slopes be present at the site during construction?*

☐ Yes ☒ No

No steep slopes are present at the project site. No steep slopes will be created by the project.

List and describe BMPs:

- N/A

Responsible Staff: TBD

### **2.1.7 Element 7: Protect Drain Inlets**

No catch basins exist within the project limits. The drainage ditch on the west side (uphill side) will be protected with check dams.

List and describe BMPs:

- BMP C207: Check Dams

Responsible Staff: TBD

### 2.1.8 Element 8: Stabilize Channels and Outlets

Provide stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes, and downstream reaches, will be installed at the outlets of all conveyance systems.

Existing site outfalls will not be impacted by this project.

### 2.1.9 Element 9: Control Pollutants

The following pollutants are anticipated to be present on site:

**Table 2 – Pollutants**

Pollutant (List pollutants and source, if applicable)
Wheel wash water
Concrete dust/wash water
Portable Toilets

Pollutants will be handled and disposed of in ways that will not cause contamination of stormwater. The site will be kept clean during construction, and all demolition debris will be disposed. Spill prevention will be taken when any polluting materials are being used. All BMPs will be installed before any construction phase involving pollutant generation. All BMPs will be inspected regularly and will be maintained as necessary.

List and describe BMPs:

- BMP C151: Concrete Handling
- BMP C153: Material Delivery, Storage, and Containment
- BMP C154: Concrete Washout Area

Responsible Staff: TBD

*Will maintenance, fueling, and/or repair of heavy equipment and vehicles occur on site?*

☐ Yes ☒ No

Any maintenance, fueling, or repair will occur after proper spill prevention measures are taken. Drip pans will be used while conducting maintenance or fueling. All on-site fueling or petroleum tanks will include secondary containment.

List and describe BMPs:

- Inspect all incoming vehicles, parts, and equipment stored outside for leaks.
- Use drip pans.
- Remove liquids and batteries from vehicles in a dedicated area designed to prevent stormwater contamination.
- Empty oil and fuel filters before disposal.
- Do not pour/convey wash water, liquid waste, or other pollutants into storm drains. Check with local sanitary sewer authority before discharging to sanitary sewers.
- Maintain, update, and implement a spill prevention and emergency cleanup plan.

Installation Schedules: BMPs will be installed prior to fueling operations.

Inspection and Maintenance plan: Drip pans shall be emptied immediately following a spill or leak collected in an uncovered area. Clean any contaminated surfaces immediately following any spill or leak incident.

Responsible Staff: TBD

*Will wheel wash or tire bath system BMPs be used during construction?*

☒ Yes ☐ No (If Required)

If proper permitting is received from the local sewer district, waste water generated by BMPs may be discharged to the sewer. If this permit is not received or is not desired, the following BMPs may be used.

List and describe BMPs:

- BMP C250: Construction Stormwater Chemical Treatment
- BMP C251: Construction Stormwater Filtration

Installation Schedules: TBD

Inspection and Maintenance plan: TBD

Responsible Staff: TBD

Will pH-modifying sources be present on site?

☐ Yes ☒ No

**Table 3 – pH-Modifying Sources**

<input type="checkbox"/>	None
<input type="checkbox"/>	Bulk cement
<input type="checkbox"/>	Cement kiln dust
<input type="checkbox"/>	Fly ash
<input checked="" type="checkbox"/>	Other cementitious materials
<input type="checkbox"/>	New concrete washing or curing waters
<input type="checkbox"/>	Waste streams generated from concrete grinding and sawing
<input type="checkbox"/>	Exposed aggregate processes
<input type="checkbox"/>	Dewatering concrete vaults
<input type="checkbox"/>	Concrete pumping and mixer washout waters
<input type="checkbox"/>	Recycled concrete
<input type="checkbox"/>	Recycled concrete stockpiles
<input type="checkbox"/>	Other (i.e., calcium lignosulfate) [please describe:       ]

List and describe BMPs:

- BMP C252: High pH Neutralization using CO<sub>2</sub>
- BMP C253: pH Control for High pH Water

Installation Schedules: Prior to pH-altering activities

Inspection and Maintenance plan: pH sampling will occur weekly when stormwater discharge is present. A log book will be kept of all sampling. BMPs will be implemented if the pH is outside the range of 6.5 to 8.5 su.

Responsible Staff: TBD

Concrete trucks must not be washed out onto the ground, or into storm drains, open ditches, streets, or streams. Excess concrete must not be dumped on site, except in designated concrete washout areas with appropriate BMPs installed.
---

*Will uncontaminated water from water-only based shaft drilling for construction of building, road, and bridge foundations be infiltrated, provided the wastewater is managed in a way that prohibits discharge to surface waters?*

☐ Yes ☒ No

List and describe BMPs: N/A

Installation Schedules: N/A

Inspection and Maintenance plan: N/A

Responsible Staff: N/A

### 2.1.10 Element 10: Control Dewatering

Dewatering is **not** expected to be necessary as part of the construction of this project. It is **not** anticipated that any water will be contaminated. Water generated by the dewatering of foundations and trenching will be discharged through a controlled conveyance system and sediment trap.

Clean, non-turbid dewatering water will be discharged through the existing stormwater catch basins.

Highly turbid waters shall be treated separately from stormwater. Options for treatment of turbid waters are checked below.

**Table 4 – Dewatering BMPs**

<input checked="" type="checkbox"/>	Infiltration
<input type="checkbox"/>	Transport off site in a vehicle (vacuum truck for legal disposal)
<input type="checkbox"/>	Ecology-approved on-site chemical treatment or other suitable treatment technologies
<input type="checkbox"/>	Sanitary or combined sewer discharge with local sewer district approval (last resort)
<input checked="" type="checkbox"/>	Use of sedimentation bag with discharge to ditch or swale (small volumes of localized dewatering) <b>Non-contaminated only.</b>

All groundwater that is suspected to be contaminated will be pumped and disposed of properly. Disposal of contaminated groundwater will be disposed of in an Ecology licensed facility.

List and describe BMPs:

- BMP C236: Vegetative Filtration
- BMP C207: Check Dams
- BMP C240: Sediment Trap, if required

Installation Schedules: If Required, No Dewatering Anticipated

Inspection and Maintenance plan: BMPs will be installed before any dewatering activity begins.

Responsible Staff: TBD

### 2.1.11 Element 11: Maintain BMPs

All temporary and permanent Erosion and Sediment Control (ESC) BMPs shall be maintained and repaired as needed to ensure continued performance of their intended function.

Maintenance and repair shall be conducted in accordance with each particular BMP specification (see *Volume II of the SWMMWW* or *Chapter 7 of the SWMMEW*).

Visual monitoring of all BMPs installed at the site will be conducted at least once every calendar week and within 24 hours of any stormwater or non-stormwater discharge from the site. If the



site becomes inactive and is temporarily stabilized, the inspection frequency may be reduced to once every calendar month.

All temporary ESC BMPs shall be removed within 30 days after final site stabilization is achieved or after the temporary BMPs are no longer needed.

Trapped sediment shall be stabilized on site or removed. Disturbed soil resulting from removal of either BMPs or vegetation shall be permanently stabilized.

Additionally, protection must be provided for all BMPs installed for the permanent control of stormwater from sediment and compaction. BMPs that are to remain in place following completion of construction shall be examined and restored to full operating condition. If sediment enters these BMPs during construction, the sediment shall be removed and the facility shall be returned to conditions specified in the construction documents.

## 2.1.12 Element 12: Manage the Project

The project will be managed based on the following principles:

- Projects will be phased to the maximum extent practicable and seasonal work limitations will be taken into account.
- Inspection and monitoring:
  - Inspection, maintenance, and repair of all BMPs will occur as needed to ensure performance of their intended function.
  - Site inspections and monitoring will be conducted in accordance with Special Condition S4 of the CSWGP. Sampling locations are indicated on the [Site Map](#). Sampling station(s) are located in accordance with applicable requirements of the CSWGP.
- Maintain an updated SWPPP:
  - The SWPPP will be updated, maintained, and implemented in accordance with Special Conditions S3, S4, and S9 of the CSWGP.

As site work progresses, the SWPPP will be modified routinely to reflect changing site conditions. The SWPPP will be reviewed monthly to ensure the content is current.

**Table 5 – Management**

<input checked="" type="checkbox"/>	Design the project to fit the existing topography, soils, and drainage patterns
<input checked="" type="checkbox"/>	Emphasize erosion control rather than sediment control
<input checked="" type="checkbox"/>	Minimize the extent and duration of the area exposed
<input checked="" type="checkbox"/>	Keep runoff velocities low
<input checked="" type="checkbox"/>	Retain sediment on site
<input checked="" type="checkbox"/>	Thoroughly monitor site and maintain all ESC measures
<input checked="" type="checkbox"/>	Schedule major earthwork during the dry season
<input type="checkbox"/>	Other (please describe)



### Table 6 – BMP Implementation Schedule

[illegible]



### **2.1.13      Element 13: Protect Low Impact Development (LID) BMPs**

#### **Biofiltration Swales:**

If biofiltration swales are used to convey runoff during construction, clean sediment from biofiltration swales before applying topsoil, erosion control blanket and seeding.

### 3 Pollution Prevention Team

**Table 7 – Team Information**

<b>Title</b>	<b>Name(s)</b>	<b>Phone Number</b>
Certified Erosion and Sediment Control Lead (CESCL)	TBD	TBD
Resident Engineer	TBD	TBD
Emergency Ecology Contact	TBD	TBD
Emergency Permittee/Owner Contact	TBD	TBD
Non-Emergency Owner Contact	TBD	TBD
Monitoring Personnel	TBD	TBD
Ecology Regional Office	Northwest Region	360-649-7000

## 4 Monitoring and Sampling Requirements

Monitoring includes visual inspection, sampling for water quality parameters of concern, and documentation of the inspection and sampling findings in a site log book. A site log book will be maintained for all on-site construction activities and will include:

- A record of the implementation of the SWPPP and other permit requirements
- Site inspections
- Stormwater sampling data

A blank form is provided in Appendix D.

The site log book must be maintained on site or within reasonable access to the site and be made available upon request to Ecology or the local jurisdiction.

Numeric effluent limits may be required for certain discharges to 303(d) listed waterbodies. See CSWGP Special Condition S8 and Section 5 of this template.

### 4.1 Site Inspection

Site inspections will be conducted at least once every calendar week and within 24 hours following any discharge from the site. For sites that are temporarily stabilized and inactive, the required frequency is reduced to once per calendar month.

The discharge point(s) are indicated on the Site Map (see Appendix A) and in accordance with the applicable requirements of the CSWGP.

### 4.2 Stormwater Quality Sampling

#### 4.2.1 Turbidity Sampling

Requirements include calibrated turbidity meter or transparency tube to sample site discharges for compliance with the CSWGP. Sampling will be conducted at all discharge points at least once per calendar week.

Method for sampling turbidity:

**Table 8 – Turbidity Sampling Method**

<input checked="" type="checkbox"/>	Turbidity Meter/Turbidimeter (required for disturbances 5 acres or greater in size)
<input type="checkbox"/>	Transparency Tube (option for disturbances less than 1 acre and up to 5 acres in size)

The benchmark for turbidity value is 25 nephelometric turbidity units (NTU) and a transparency less than 33 centimeters.

If the discharge's turbidity is 26 to 249 NTU or the transparency is less than 33 cm but equal to or greater than 6 cm, the following steps will be conducted:

1. Review the SWPPP for compliance with Special Condition S9. Make appropriate revisions within 7 days of the date the discharge exceeded the benchmark.
2. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible. Address the problems within 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.
3. Document BMP implementation and maintenance in the site log book.

If the turbidity exceeds 250 NTU or the transparency is 6 cm or less at any time, the following steps will be conducted:

1. Telephone or submit an electronic report to the applicable Ecology Region's Environmental Report Tracking System (ERTS) within 24 hours.
  - **Central Region** (Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima): (509) 575-2490 or [http://www.ecy.wa.gov/programs/spills/forms/nerts\\_online/CRO\\_nerts\\_online.html](http://www.ecy.wa.gov/programs/spills/forms/nerts_online/CRO_nerts_online.html)
  - **Eastern Region** (Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman): (509) 329-3400 or [http://www.ecy.wa.gov/programs/spills/forms/nerts\\_online/ERO\\_nerts\\_online.html](http://www.ecy.wa.gov/programs/spills/forms/nerts_online/ERO_nerts_online.html)
  - **Northwest Region** (King, Kitsap, Island, San Juan, Skagit, Snohomish, Whatcom): (425) 649-7000 or [http://www.ecy.wa.gov/programs/spills/forms/nerts\\_online/NWRO\\_nerts\\_online.html](http://www.ecy.wa.gov/programs/spills/forms/nerts_online/NWRO_nerts_online.html)
  - **Southwest Region** (Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Lewis, Mason, Pacific, Pierce, Skamania, Thurston, Wahkiakum): (360) 407-6300 or [http://www.ecy.wa.gov/programs/spills/forms/nerts\\_online/SWRO\\_nerts\\_online.html](http://www.ecy.wa.gov/programs/spills/forms/nerts_online/SWRO_nerts_online.html)
2. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible. Address the problems within 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.
3. Document BMP implementation and maintenance in the site log book.
4. Continue to sample discharges daily until one of the following is true:
  - Turbidity is 25 NTU (or lower).
  - Transparency is 33 cm (or greater).
  - Compliance with the water quality limit for turbidity is achieved.
    - 1 - 5 NTU over background turbidity, if background is less than 50 NTU.
    - 1% - 10% over background turbidity, if background is 50 NTU or greater.
  - The discharge stops or is eliminated.



## 4.2.2 pH Sampling

pH monitoring is required for “Significant concrete work” (i.e., greater than 1000 cubic yards poured concrete over the life of the project). The use of recycled concrete or engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD] or fly ash) also requires pH monitoring.

For significant concrete work, pH sampling will start the first day concrete is poured and continue until it is cured, typically three (3) weeks after the last pour.

For engineered soils and recycled concrete, pH sampling begins when engineered soils or recycled concrete are first exposed to precipitation and continues until the area is fully stabilized.

If the measured pH is 8.5 or greater, the following measures will be taken:

1. Prevent high pH water from entering storm sewer systems or surface water.
2. Adjust or neutralize the high pH water to the range of 6.5 to 8.5 su using appropriate technology, such as carbon dioxide (CO<sub>2</sub>) sparging (liquid or dry ice).
3. Written approval will be obtained from Ecology prior to the use of chemical treatment other than CO<sub>2</sub> sparging or dry ice.

Method for sampling pH:

**Table 9 – pH Sampling Method**

<input type="checkbox"/>	pH meter
<input type="checkbox"/>	pH test kit
<input type="checkbox"/>	Wide range pH indicator paper

## 5 Discharges to 303(d) or Total Maximum Daily Load (TMDL) Waterbodies

### 5.1 303(d) Listed Waterbodies

*Is the receiving water 303(d) (Category 5) listed for turbidity, fine sediment, phosphorus, or pH?*

☒ Yes ☒ No

List the impairment(s):

### 5.2 TMDL Waterbodies

Waste Load Allocation for CWSGP discharges: No TMDL waterbodies in this project.

List and describe BMPs: N/A

Discharges to TMDL receiving waterbodies will meet in-stream water quality criteria at the point of discharge.

The Construction Stormwater General Permit Proposed New Discharge to an Impaired Water Body form is included in Appendix F.

## **6 Reporting and Record Keeping**

### **6.1 Record Keeping**

#### **6.1.1 Site Log Book**

A site log book will be maintained for all on-site construction activities and will include:

- A record of the implementation of the SWPPP and other permit requirements
- Site inspections
- Sample logs

#### **6.1.2 Records Retention**

Records will be retained during the life of the project and for a minimum of three (3) years following the termination of permit coverage in accordance with Special Condition S5.C of the CSWGP.

Permit documentation to be retained on site:

- CSWGP
- Permit Coverage Letter
- SWPPP
- Site Log Book

Permit documentation will be provided within 14 days of receipt of a written request from Ecology. A copy of the SWPPP or access to the SWPPP will be provided to the public when requested in writing in accordance with Special Condition S5.G.2.b of the CSWGP.

#### **6.1.3 Updating the SWPPP**

The SWPPP will be modified if:

- Found ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site.
- There is a change in design, construction, operation, or maintenance at the construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the State.

The SWPPP will be modified within seven (7) days if inspection(s) or investigation(s) determine additional or modified BMPs are necessary for compliance. An updated timeline for BMP implementation will be prepared.

## 6.2 Reporting

### 6.2.1 Discharge Monitoring Reports

**Cumulative soil disturbance is less than one (1) acre; reporting is not required.**

### 6.2.2 Notification of Noncompliance

If any term or condition of the permit is not met, and the resulting noncompliance may cause a threat to human health or the environment, the following actions will be taken:

1. Ecology will be notified within 24 hours of the failure to comply by calling the applicable Regional office ERTS phone number (Regional office numbers listed below).
2. Immediate action will be taken to prevent the discharge/pollution or otherwise stop or correct the noncompliance. If applicable, sampling and analysis of any noncompliance will be repeated immediately and the results submitted to Ecology within five (5) days of becoming aware of the violation.
3. A detailed written report describing the noncompliance will be submitted to Ecology within five (5) days, unless requested earlier by Ecology.

Any time turbidity sampling indicates turbidity is 250 NTUs or greater, or water transparency is 6 cm or less, the Ecology Regional office will be notified by phone within 24 hours of analysis, as required by Special Condition S5.A of the CSWGP.

- **Central Region** at (509) 575-2490 for Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, or Yakima County.
- **Eastern Region** at (509) 329-3400 for Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, or Whitman County.
- **Northwest Region** at (425) 649-7000 for Island, King, Kitsap, San Juan, Skagit, Snohomish, or Whatcom County.
- **Southwest Region** at (360) 407-6300 for Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Lewis, Mason, Pacific, Pierce, Skamania, Thurston, or Wahkiakum County.

Include the following information:

1. Your name and phone number
2. Permit number
3. City/County of project
4. Sample results
5. Date/Time of call
6. Date/Time of sample
7. Project name

In accordance with Special Condition S4.D.5.b of the CSWGP, the Ecology Regional office will be notified if chemical treatment other than CO<sub>2</sub> sparging is planned for adjustment of high pH water.

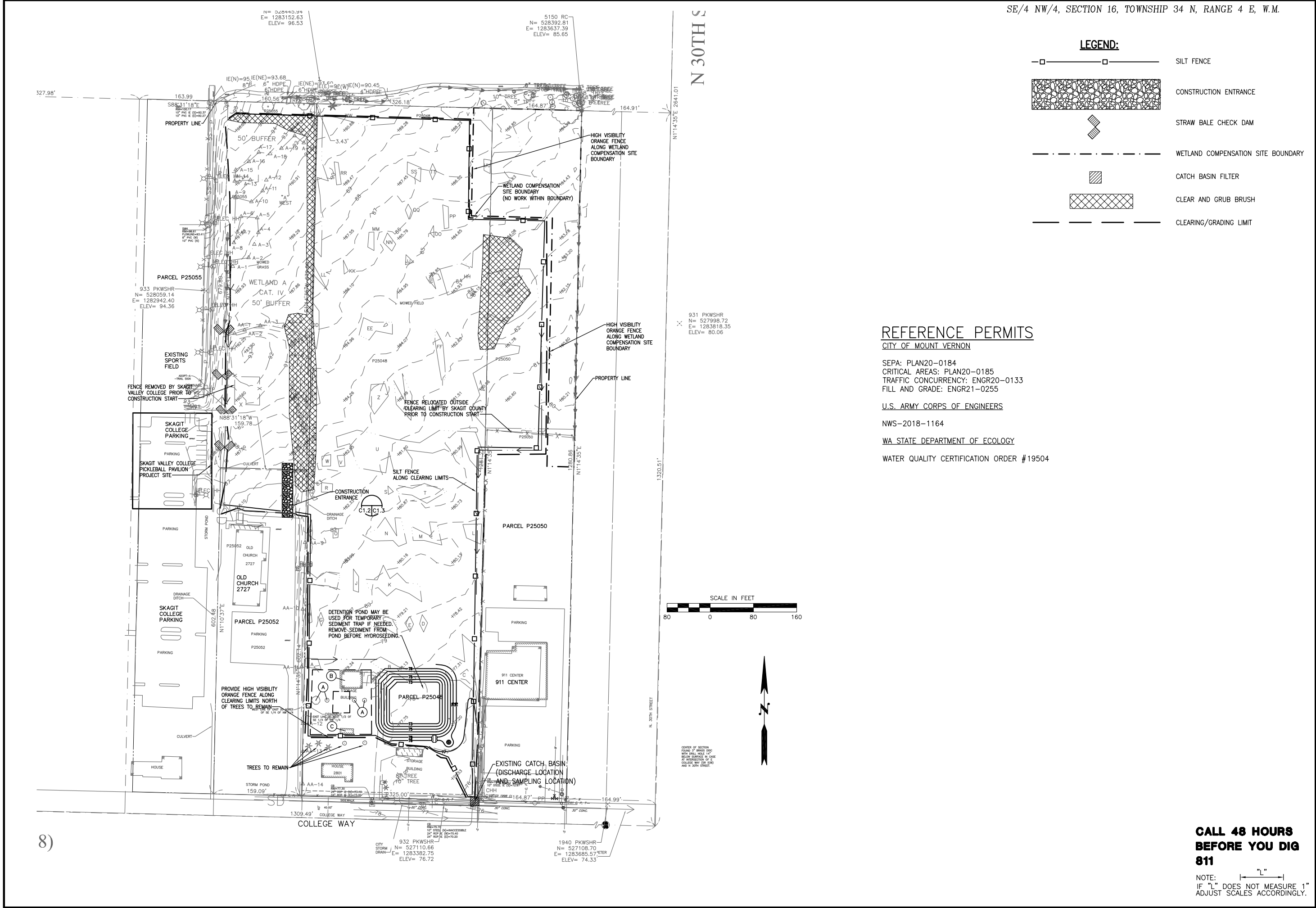


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## **Appendix A**

### **Site Map**





REVISION	
NO.	DATE
BY	
728 134th Street SW - Suite 200 Everett, Washington 98204 Ph: 425 741-3800	
Reid Middleton	
SKAGIT COUNTY SKAGIT FIELDS NPDES CONSTRUCTION STORMWATER SITE MAP	
SCALE AS SHOWN	
DES. JDJ	SHEET NO.
DR. JDJ	1
CH. ---	OF SHEETS
F.B. ---	
DATE 04/01/2023	
FILE NO. 21-2018-016	

# SKAGIT COUNY PARKS AND RECREATION

## SKAGIT FIELDS

### PROJECT INFORMATION

1.

PROJECT NAME: SKAGIT FIELDS
2.

OWNER:  
SKAGIT COUNY PARKS AND RECREATION  
1730 CONTINENTAL PLACE  
MOUNT VERNON, WA, 98273  
360-416-1356  
BRIAN ADAMS
3.

CIVIL ENGINEER:  
REID MIDDLETON  
728 134TH ST SW, SUITE 200  
EVERETT WA 98204  
425-741-3800  
JEFF JENKS
4.

SURVEYOR:  
REID MIDDLETON  
728 134TH ST SW, SUITE 200  
EVERETT WA 98204  
425-741-3800  
ROB MCCABE
5.

LANDSCAPE ARCHITECT:  
ECCOS DESIGN LLC  
505 SOUTH FIRST STREET  
MOUNT VERNON, WA, 98273  
360-419-7400  
PATRIK DYLAN, PLA
6.

ENVIRONMENTAL LAND USE:  
GRAHAM-BUNTING ASSOCIATES  
3643 LEGG ROAD  
BOW, WA 98232  
360-766-4441  
PATRICIA BUNTING  
OSCAR GRAHAM
7.

CITY OF MOUNT VERNON  
INSPECTIONS: 360-336-6243  
PUBLIC WORKS: 360-336-6204  
DEVELOPMENT SERVICES: 360-336-6214

### SITE INFORMATION

SITE ADDRESS:

2801 EAST COLLEGE WAY

PARCEL NUMBERS:

P25048, P25050, P25052, P25055

ZONING:

PUBLIC

PROPERTY AREA:

24.06 ACRES (SUM OF SUBJECT PARCELS)

WORK AREA:

11 ACRES

SITE DESIGN BASED ON RECORD DRAWINGS, ASSESSORS MAPPING, WETLAND SURVEY AND AERIAL PHOTOGRAPHY

### REFERENCE PERMITS

CITY OF MOUNT VERNON

SEPA: PLAN20-0184  
CRITICAL AREAS: PLAN20-0185  
TRAFFIC CONCURRENCY: ENGR20-0133  
FILL AND GRADE: ENGR21-0255

U.S. ARMY CORPS OF ENGINEERS

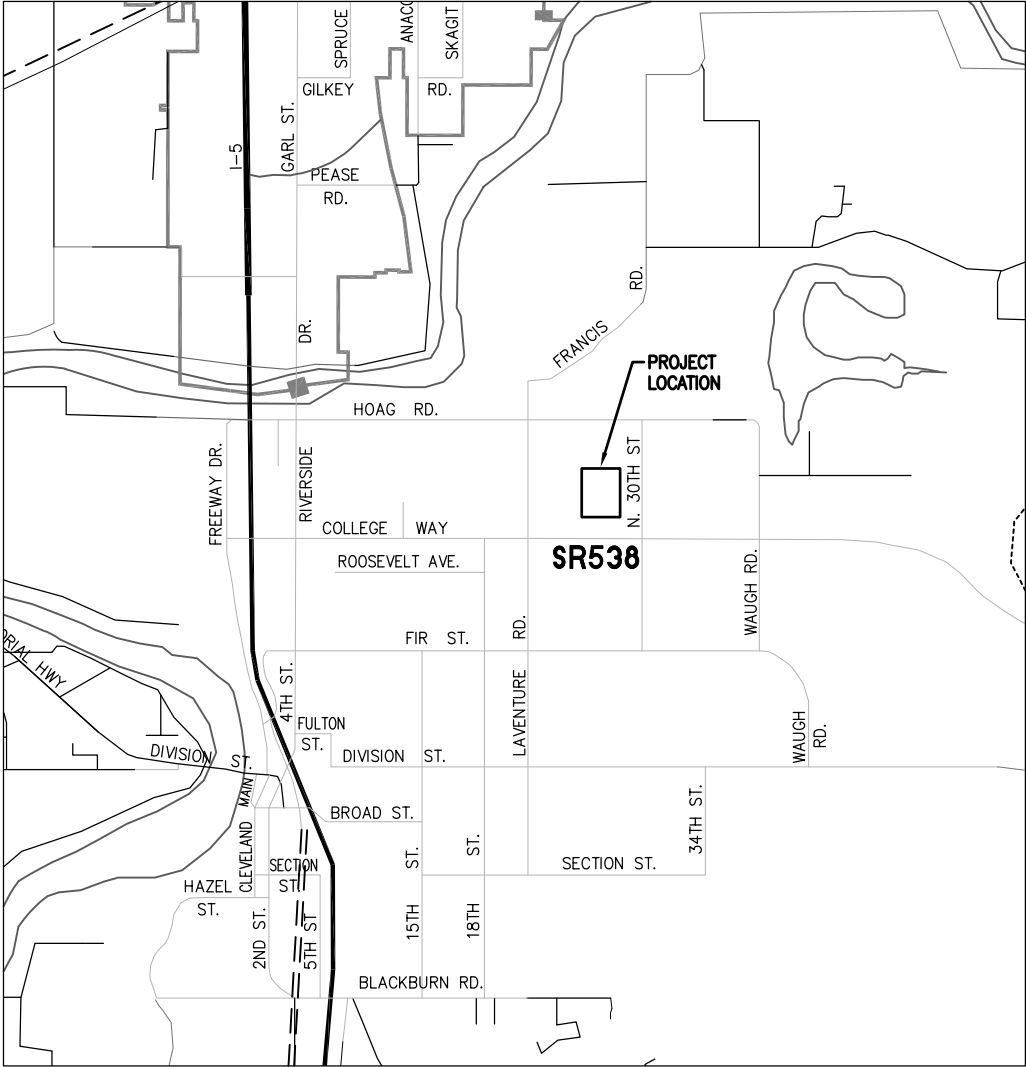
NWS-2018-1164

WA STATE DEPARTMENT OF ECOLOGY

WATER QUALITY CERTIFICATION ORDER #19504

## MOUNT VERNON, WASHINGTON

### NW SECTION 16, TOWNSHIP 34, RANGE 4E, W.M.



VICINITY MAP

## SHEET INDEX

SHEET	TITLE
C1.0	COVER SHEET
V1.0	EXISTING CONDITIONS
V1.1	EXISTING CONDITIONS
V1.2	EXISTING CONDITIONS
C1.1	EXISTING WETLANDS
C1.2	DEMOLITION AND CLEARING AND TEMPORARY EROSION AND SEDIMENT CONTROL PLAN
C1.3	DEMOLITION AND CLEARING AND TEMPORARY EROSION AND SEDIMENT CONTROL PLAN
C1.4	FIELD LAYOUT PLAN
C1.5	FIELD LAYOUT PLAN
C2.0	GRADING AND DRAINAGE PLAN
C2.1	GRADING AND DRAINAGE PLAN
C2.2	GENERAL NOTES
C2.3	DETAILS
C3.0	MATERIALS PLAN
C3.1	MATERIALS PLAN

### GENERAL CONSTRUCTION REQUIREMENTS

1.
- ALL WORK AND MATERIAL SHALL CONFORM TO THE 2020 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND CURRENT WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.

### SUBMITTAL NOTES:

SUBMIT THE FOLLOWING TO SKAGIT COUNTY PARKS REPRESENTATIVE:

1.
- EROSION CONTROL SUBMITTALS LISTED ON SHEETS C1.2 AND C1.3.
2.
- STORM DRAINAGE SUBMITTALS LISTED ON SHEET C2.1.
3.
- HAVE TOPSOIL IN 'FIELD' AREA TESTED BY A CERTIFIED SOIL TESTING LABORATORY TO DETERMINE THE TYPE AND QUANTITY OF SOIL AMENDMENTS NECESSARY AS PART OF AMENDMENT FERTILIZER. THREE SEPARATE LOCATIONS AT LEAST 100 FEET APART ARE TO BE TESTED. REVIEW WITH OWNER ADEQUACY OF SPECIFIED AMENDMENT FERTILIZER.
4.
- SIEVE ANALYSIS OF IMPORTED ASTM C-33 DRAINAGE SAND
5.
- CERTIFICATION OF GRASS SEED FROM VENDOR.
6.
- SUBMIT LIST OF MACHINERY TO BE USED DURING SUBGRADE PREPARATION AND TOPSOILING OPERATIONS. NO RUBBER TIRED MACHINERY WILL BE PERMITTED EXCEPT FOR LIGHT-WEIGHT, FARM TRACTOR GRADE MACHINERY WITH WIDE TIRES DESIGNED FOR TURF USE. ALL HEAVY MACHINERY MUST BE TRACK DRIVEN.
7.
- CHAIN LINK FENCE SHOP DRAWING AND MATERIAL CATALOG CUTS FOR POSTS, FENCE FABRIC AND BARBED WIRE.

CALL 48 HOURS  
BEFORE YOU DIG  
811

NOTE: IF "L" DOES NOT MEASURE 1" ADJUST SCALES ACCORDINGLY.

728 134th Street SW - Suite 200  
Everett, Washington 98204  
Ph: 425 741-3800

Reid Middleton

SKAGIT COUNTY  
SKAGIT FIELDS  
COVER SHEET

SCALE 1"=60'  
DES. JDJ  
DR. JDJ  
CH. ---  
F.B. ---  
DATE 04/01/2023  
FILE NO. 21-2018-016

REVISION

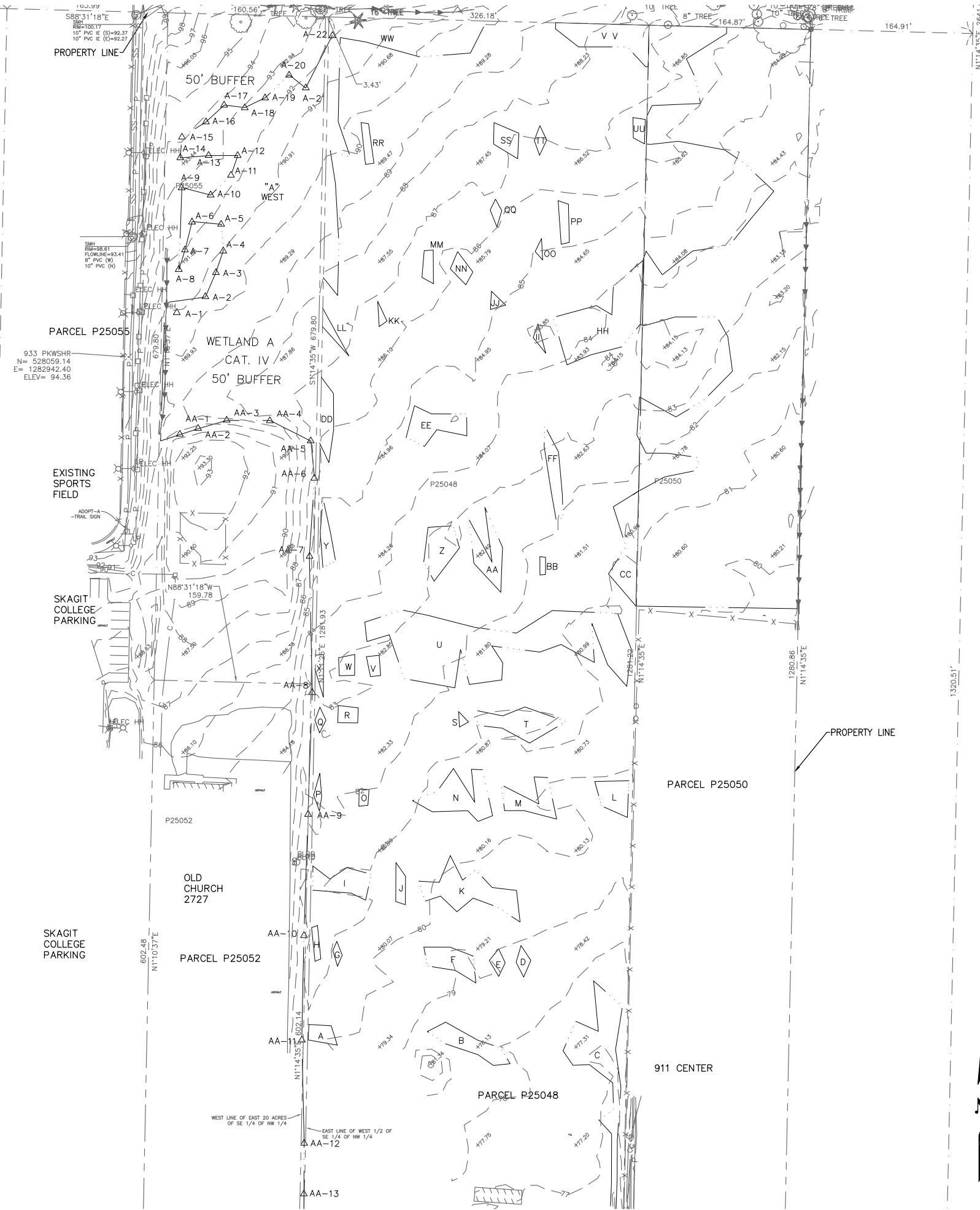
BY

DATE

NO.

SHEET NO. C1.0  
OF SHEETS 1

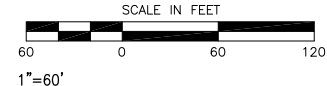
SE/4 NW/4, SECTION 16, TOWNSHIP 34 N, RANGE 4 E, W.M.



- LEGEND:**
- 80 --- EXISTING GRADE CONTOUR
  - WETLAND BOUNDARY
  - PROPERTY LINE
  - TT WETLAND DESIGNATION

- NOTE:**
- WETLAND BOUNDARIES SHOWN FROM 2016 WETLAND DELINEATION SURVEY PROVIDED BY SKAGIT COUNTY AND WERE NOT FIELD SURVEYED BY REID MIDDLETON.
  - WETLAND FILL PERMIT:
    - US ARMY CORPS OF ENGINEERS, NWS-2018-1164

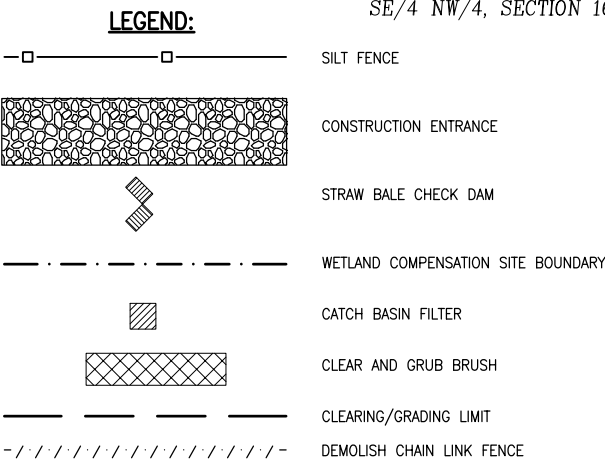
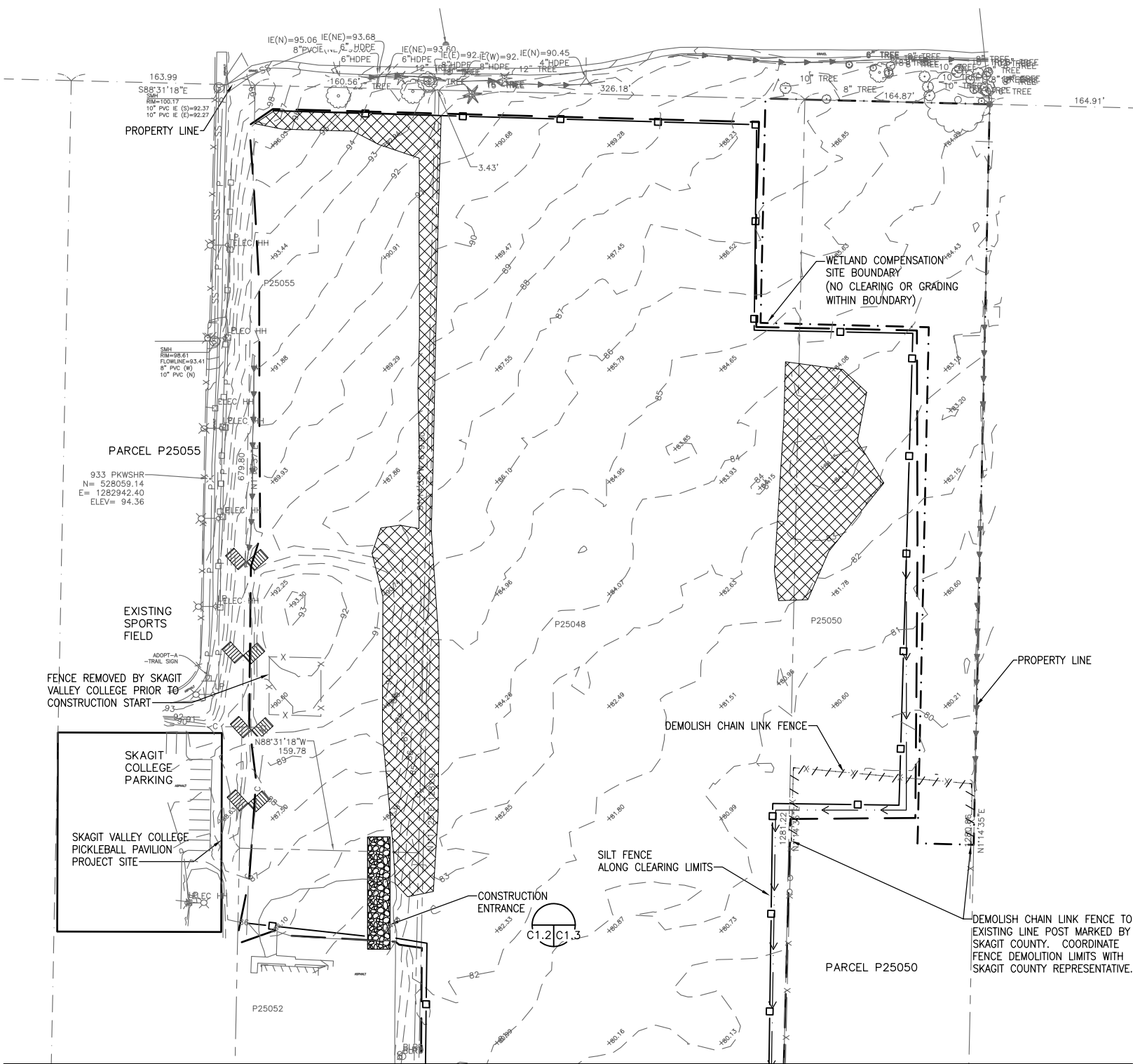
931 PK  
N= 527  
E= 128  
ELEV=



**CALL 48 HOURS  
BEFORE YOU DIG  
811**

NOTE: IF "L" DOES NOT MEASURE 1" ADJUST SCALES ACCORDINGLY.

SKAGIT COUNTY SKAGIT FIELDS EXISTING WETLANDS		728 134th Street SW - Suite 200 Everett, Washington 98204 Ph: 425 741-3800		REID MIDDLETON		REVISION	
FILE NO. 21-2018-016		DATE 04/01/2023		SHEET NO. C1.1		BY	
SCALE 1"=60'		DES. JDJ		DR. JDJ		CH. ---	
F.B. ---		OF		SHEETS		DATE	



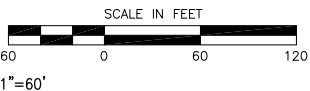
**EROSION CONTROL NOTES:**

APPROVAL OF THIS EROSION AND SEDIMENT CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.)

1. PRIOR TO COMMENCING CONSTRUCTION, ALL CRITICAL AREAS, INCLUDING WETLAND BUFFERS, STREAM BUFFER, LANDFILL AREAS AND CONDITIONS AS DETERMINED BY THE CITY INSPECTOR SHALL BE CONTINUOUSLY DEMARCATED IN THE FIELD USING FLAGGING TAPE OR FENCING. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF MOUNT VERNON STANDARDS AND SPECIFICATIONS
2. EROSION CONTROL METHODS AND MATERIALS SHALL MEET REQUIREMENTS OF THE APWA/WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (CURRENT EDITION) AND REQUIREMENTS SET FORTH IN VOLUME II OF THE "STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON". BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY, EDITION CURRENTLY ADOPTED BY THE CITY OF MOUNT VERNON. THE CONTRACTOR SHALL FOLLOW RECOMMENDATIONS MADE BY SUPPLIERS AND MANUFACTURERS OF MATERIALS AND EQUIPMENT USED.
3. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE INSTALLED AND IN OPERATION IN ADVANCE OF ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS. WHEREVER POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL
4. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS. ADDITIONALLY, MORE ESC FACILITIES MAY BE REQUIRED TO ENSURE COMPLETE SILTATION CONTROL. DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY CONSTRUCTION ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES OVER AND ABOVE THE MINIMUM REQUIREMENTS AS MAY BE NEEDED.
5. ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY
6. A COPY OF THE APPROVED EROSION CONTROL PLANS MUST BE KEPT ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS
7. A CLEARING CONTROL FENCE SHALL BE INSTALLED AT THE DRIP LINE OF TREES TO BE SAVED WHEREVER THE TREE CANOPIES EXTEND INTO THE AREA TO BE CLEARED.
8. OFF-SITE STREETS MUST BE KEPT CLEAN AT ALL TIMES. IF DIRT IS DEPOSITED ON THE PUBLIC STREET SYSTEM, THE STREET SHALL BE IMMEDIATELY CLEANED WITH POWER SWEEPER OR OTHER APPROVED EQUIPMENT. ALL ADJACENT OFF-SITE PROPERTIES AND DRAINAGE FACILITIES SHALL BE PROTECTED FROM DAMAGE. ALL VEHICLES SHALL LEAVE THE SITE BY WAY OF THE CONSTRUCTION ENTRANCE AND SHALL BE CLEANED OF ALL DIRT THAT WOULD BE DEPOSITED ON THE PUBLIC STREETS.
9. ALL PROPERTIES ADJACENT TO THE PROJECT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND RUNOFF. DO NOT FLUSH SEDIMENT OR CONCRETE BY-PRODUCTS OR CLEAN TRUCKS NEAR OR INTO THE STORM DRAINAGE OR SEWER SYSTEM.
10. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF THESE FACILITIES IS THE RESPONSIBILITY OF THE OWNER/APPLICANT/SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
11. ANY AREA OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS.
12. ANY AREA NEEDING ESC MEASURES NOT REQUIRING IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN FIFTEEN (15) CALENDAR DAYS.
13. THE ESC FACILITIES ON ACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A WEEK AND WITHIN TWENTY-FOUR (24) HOURS FOLLOWING A STORM EVENT.
14. AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
15. STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL OFF-SITE PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
16. PRIOR TO THE BEGINNING OF THE WET SEASON THE CONTRACTOR SHALL DETERMINE BMP MEASURES. ALL DISTURBED AREAS SHALL BE INSPECTED BY THE CONTRACTOR TO IDENTIFY WHICH AREAS SHALL BE STABILIZED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE STABILIZED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON.

**DEMOLITION AND CLEARING AND GRUBBING NOTES:**

1. COMPLY WITH WSDOT STANDARD SPECIFICATION SECTION 2-01.3.
2. REMOVE AND DISPOSE DEBRIS TO A SKAGIT COUNTY APPROVED, CONTRACTOR PROVIDED OFFSITE WASTE SITE.
3. COMPLY WITH CITY OF MOUNT VERNON DEMOLITION PERMIT CONDITIONS.



**CALL 48 HOURS BEFORE YOU DIG 811**

NOTE: IF "L" DOES NOT MEASURE 1" ADJUST SCALES ACCORDINGLY.

SE/4 NW/4, SECTION 16, TOWNSHIP 34 N, RANGE 4 E, W.M.

REID MIDDLETON

SKAGIT COUNTY  
SKAGIT FIELDS

DEMOLITION, CLEARING AND TEMPORARY EROSION AND SEDIMENT CONTROL PLAN

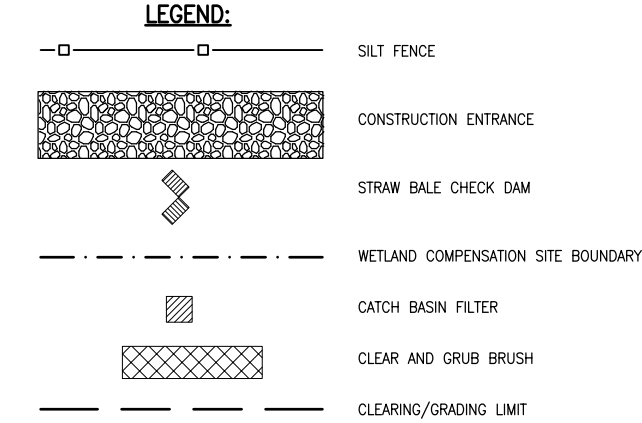
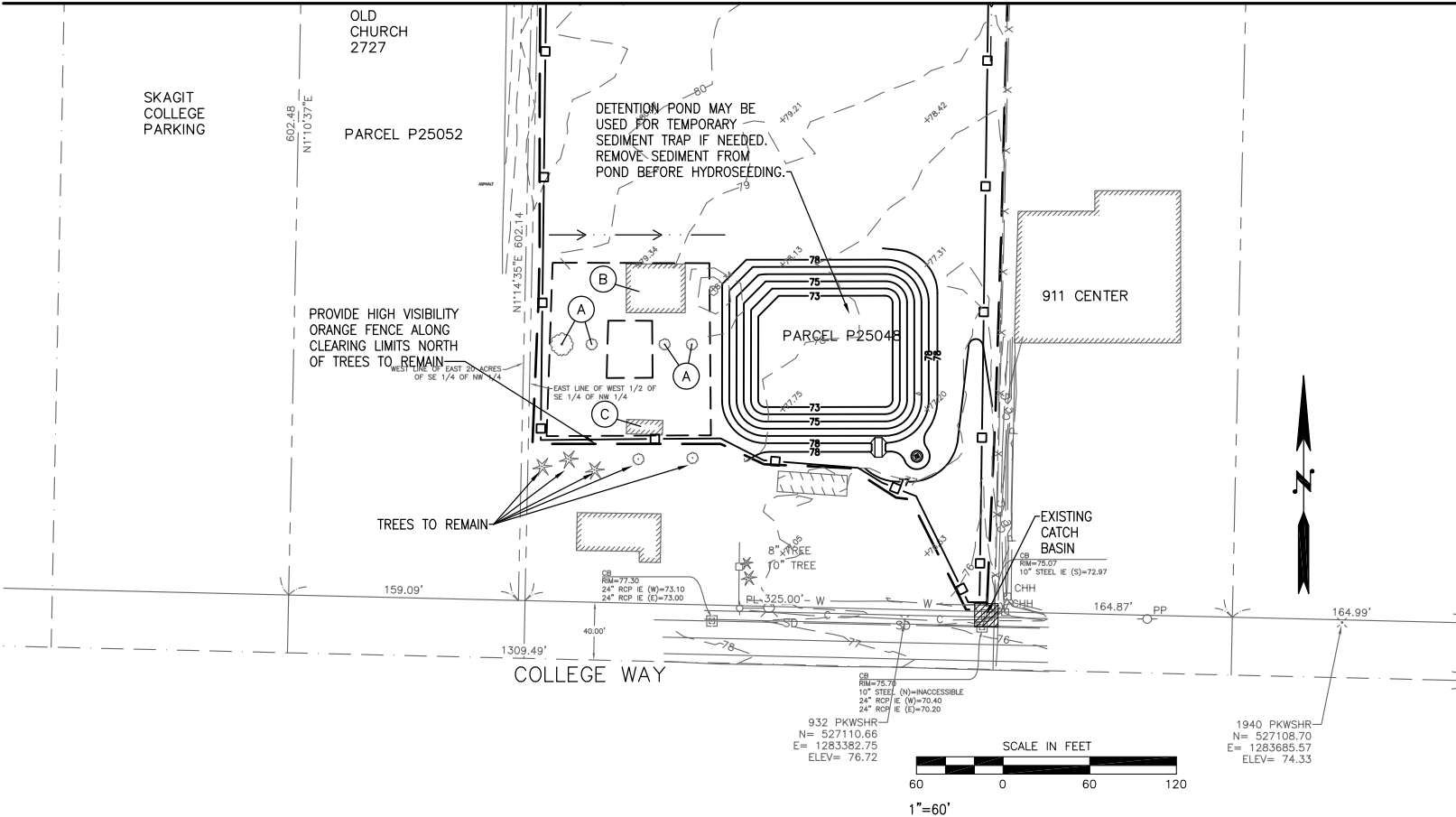
728 134th Street SW - Suite 200  
Everett, Washington 98204  
Ph: 425 741-3800

SCALE 1"=60'  
DES. JDJ  
DR. JDJ  
CH. ---  
F.B. ---  
DATE 04/01/2023  
FILE NO. 21-2018-016

SHEET NO. C1.2  
OF SHEETS

NO. DATE BY REVISION

MATCHLINE A SEE SHEET C1.2



**DEMOLITION CONSTRUCTION NOTES:**

- (A) DEMOLISH TREE
- (B) DEMOLISH BARN
- (C) DEMOLISH GREENHOUSE

**EROSION CONTROL CONSTRUCTION NOTES:**

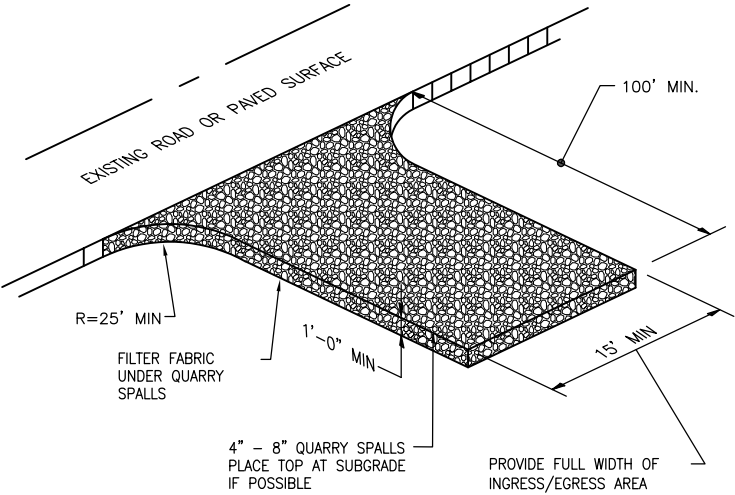
- COMPLY WITH WASHINGTON STATE DEPARTMENT OF ECOLOGY NPDES GENERAL PERMIT FOR CONSTRUCTION
  - PRIOR TO BEGINNING WORK, FILE "TRANSFER OF COVERAGE" FORM WITH DEPARTMENT OF ECOLOGY TO TRANSFER PERMITTEE OF NPDES GENERAL PERMIT FROM SKAGIT COUNTY PARKS TO THE CONTRACTOR.
  - COMPLY WITH ALL PERMIT REQUIREMENTS, PROCEDURES AND REPORTING REQUIREMENTS.
  - UPDATE AND MAINTAIN STORMWATER POLLUTION PREVENTION PLAN (SWPPP) DOCUMENTS AS REQUIRED BY THE PERMIT.
  - AT THE COMPLETION OF THE PROEJCT FILE "NOTICE OF TERMINATION" FORM TO DEPARTMENT OF ECOLOGY.
  - SUBMIT THE FOLLOWING DOCUMENTATION TO SKAGIT COUNTY PARKS:
    - COPY OF NOTICE OF TRANSFER AND NOTICE OF TERMINATION FORMS.
    - COPIES OF MONTHLY REPORTS AND TEST RESULTS FILED WITH DEPARTMENT OF ECOLOGY.
- MAINTAIN EROSION CONTROL THROUGH THE DURATION OF THE PROJECT. ADJUST OR MOVE SWALES, BERMS, BALES, SILT FENCES, ETC AS NECESSARY DURING CONSTRUCTION TO DIRECT SITE RUNOFF TO THE SEDIMENT TRAP.
- PROVIDE ADDITIONAL SILT CONTROL AND TEMPORARY EROSION CONTROL MEASURES REQUIRED TO PROTECT SOILS AND PREVENT SILT-LADEN RUNOFF FROM LEAVING PROJECT SITE.
- MONITOR AND MAINTAIN SILT CONTROL MEASURES. INSPECT AND REPAIR TEMPORARY EROSION CONTROL FACILITIES AT LEAST ONCE PER WEEK, DURING AND AFTER STORMS, AND PRIOR TO WEEKENDS AND HOLIDAYS.

**DEMOLITION AND CLEARING AND GRUBBING NOTES:**

- COMPLY WITH WSDOT STANDARD SPECIFICATION SECTION 2-01.3.
- REMOVE AND DISPOSE DEBRIS TO A SKAGIT COUNTY APPROVED, CONTRACTOR PROVIDED OFFSITE WASTE SITE.
- COMPLY WITH CITY OF MOUNT VERNON DEMOLITION PERMIT CONDITIONS.

**EROSION CONTROL MATERIAL NOTES:**

- FILTER FABRIC FENCE:
  - WSDOT STANDARD PLAN I-30.15-02.
  - WSDOT STANDARD SPECIFICATIONS SECTION 9-33, TABLE 6, GEOTEXTILE FOR TEMPORARY SILT FENCE
- FILTER BAG INSERTS:
  - WSDOT STANDARD PLAN I-40.20-00.
  - COMMERCIALLY MANUFACTURED FILTER BAGS SPECIFICALLY MANUFACTURED FOR SILT FILTERING AND WHICH WILL PROVIDE FILTERING PERFORMANCE REQUIRED.
- QUARRY SPALLS: WSDOT STANDARD SPECIFICATION SECTION 9-13.6



C1.2 C1.3 NOT TO SCALE

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Everett, Washington 98204  
Ph: 425 741-3800

**Reid Middleton**

SKAGIT COUNTY  
SKAGIT FIELDS  
CLEARING AND TEMPORARY EROSION AND  
SEDIMENT CONTROL PLAN

SCALE	1"=60'	SHEET NO.	
DES.	JDJ		
DR.	JDJ		C1.3
CH.	---		
F.B.	---		
DATE	04/01/2023		
FILE NO.	21-2018-016		

SE/4 NW/4, SECTION 16, TOWNSHIP 34 N, RANGE 4 E, W.M.

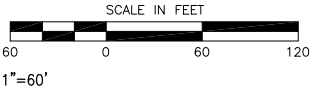
LEGEND:

- PROPERTY LINE
- WETLAND COMPENSATION SITE BOUNDARY
- NON-PERMANENT SOCCER FIELD LAYOUT
- WOOD CHIP PATH, 8' WIDE, TYPICAL

LAYOUT NOTES:

1. SOCCER FIELD LAYOUT IS SHOWN FOR INFORMATION ONLY. NO PERMANENT FIELD MARKINGS OR BOUNDARIES WILL BE CONSTRUCTED.

MATCHLINE A SEE SHEET C1.5



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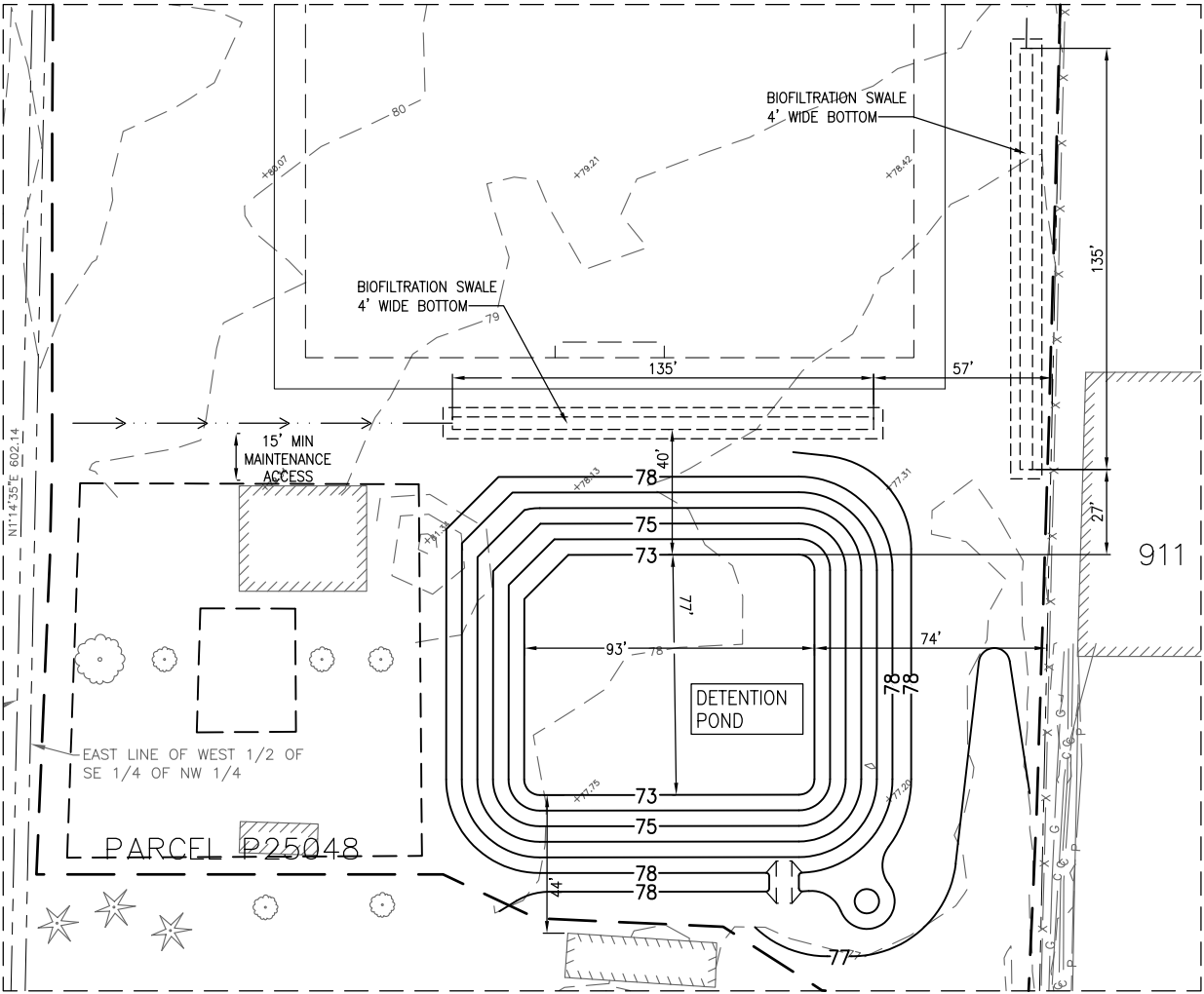
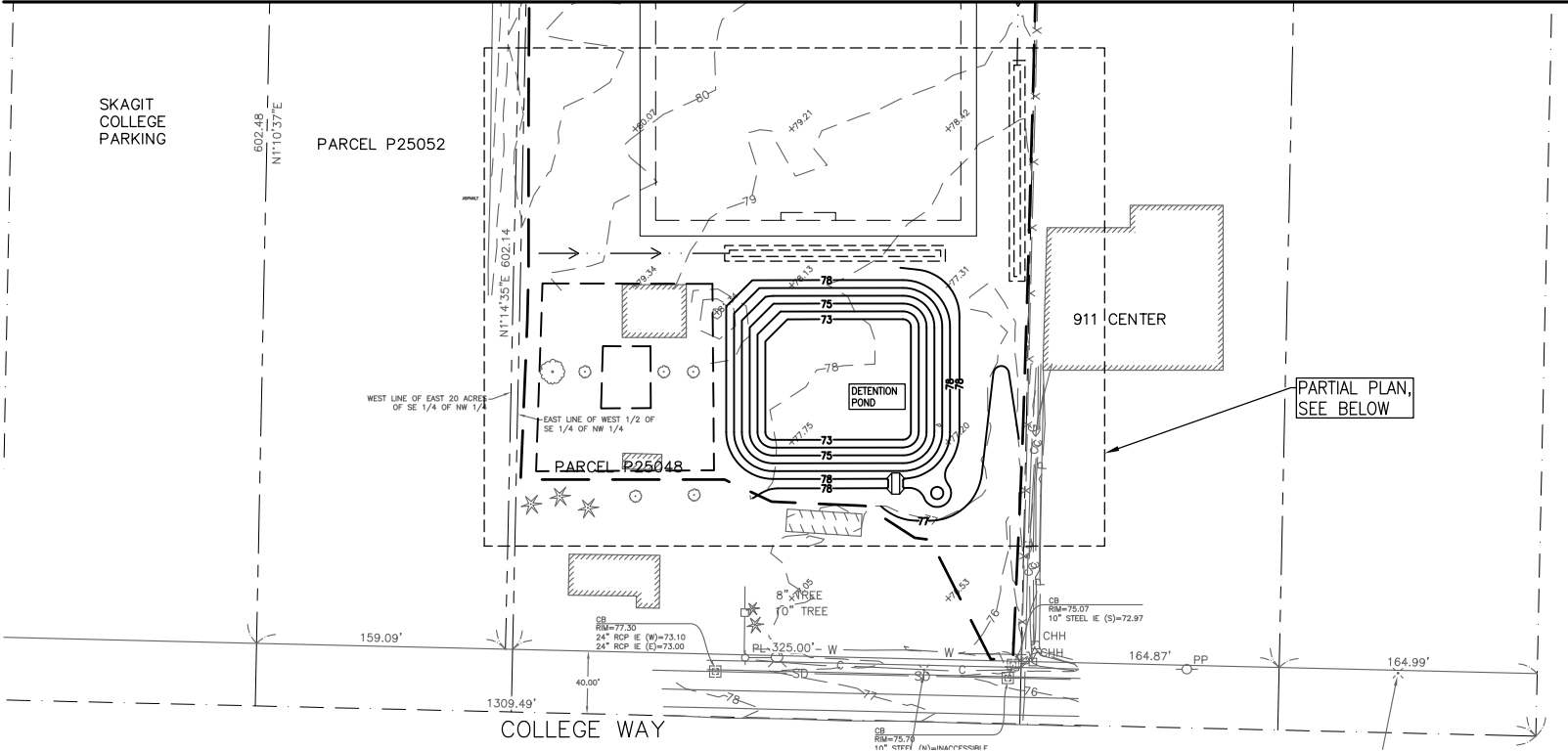
Reid Middleton

SKAGIT COUNTY  
SKAGIT FIELDS  
FIELD LAYOUT PLAN

SCALE		1"=60'	
DES.	JDJ	SHEET NO.	
DR.	JDJ	C1.4	
CH.	---		
F.B.			
		OF	SHEETS
DATE		04/01/2023	
FILE NO.		21-2018-016	

MATCHLINE A SEE SHEET C1.4

SE/4 NW/4, SECTION 16, TOWNSHIP 34 N, RANGE 4 E, W.M.



PARTIAL PLAN

**CALL 48 HOURS  
BEFORE YOU DIG  
811**

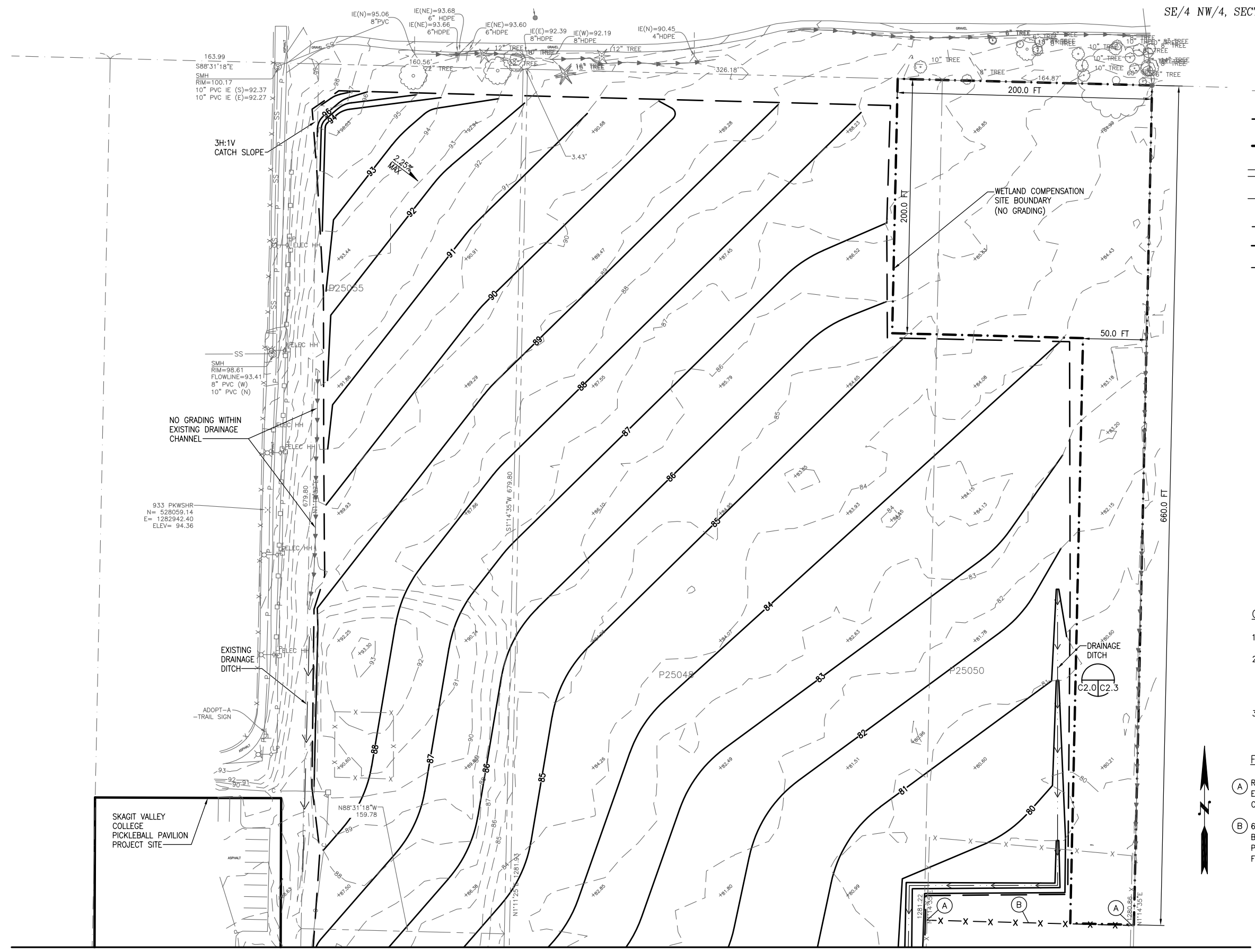
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**Reid Middleton**

SKAGIT COUNTY  
SKAGIT FIELDS  
FIELD LAYOUT PLAN

SCALE	1"=60'	SHEET NO.
DES.	JDJ	C1.5
DR.	JDJ	
CH.	---	
F.B.	---	
DATE	04/01/2023	
FILE NO.	21-2018-016	



SE/4 NW/4, SECTION 16, TOWNSHIP 34 N, RANGE 4 E, W.M.

- LEGEND:**
- 80 EXISTING GRADE CONTOUR
  - 80 PROPOSED GRADE CONTOUR (BEFORE 4" MORTAR SAND)
  - COMPENSATION SITE BOUNDARY
  - WOOD CHIP PATH
  - GRASS LINED DITCH
  - SD STORM DRAIN PIPE
  - CLEARING/GRADING LIMIT
  - X-X-X-X 6-FOOT CHAIN LINK FENCE WITH 3-ROWS BARBED WIRE

**ROUGH GRADING SEQUENCE NOTES:**

SEE SHEET C2.2

**FINE GRADING SEQUENCE NOTES:**

SEE SHEET C2.2

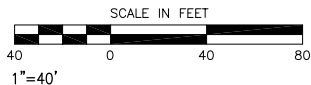
**GRADING NOTES:**

- ROUGH GRADING CONTOURS SHOWN ARE APPROXIMATE.
- GRADING INTENT IS TO SMOOTH THE SITE FOR GRASS SOCCER FIELDS. OTHER THAN IMPORTED MORTAR SAND AND REMOVAL OF ROCKS, NO IMPORT OF EXPORT OF SOIL IS ANTICIPATED.
- MAXIMUM SLOPE WITHIN THE FIELDS SEEDING AREA IS 2.25% SLOPE.

**FENCE CONSTRUCTION NOTES:**

- REPLACE EXISTING LINE POST WITH CORNER POST. CONNECT EXISTING FENCE FABRIC, TOP POST AND BARBED WIRE TO NEW CORNER POST.
- 6-FOOT TALL CHAIN LINK FENCE WITH TOP RAIL AND 3-ROWS BARBED WIRE PER WSDOT STANDARD SPECIFICATION 8-12. POSTS SPACING 10-FOOT O.C. MAXIMUM. SEE CHAIN LINK FENCE MATERIAL NOTES ON SHEET C3.1.

MATCHLINE A SEE SHEET C2.1



**CALL 48 HOURS BEFORE YOU DIG 811**

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728 134th Street SW - Suite 200 Everett, Washington 98204 Ph: 425 741-3800	
<b>Reid Middleton</b>	
SKAGIT COUNTY SKAGIT FIELDS	GRADING AND DRAINAGE PLAN
SCALE 1"=40'	SHEET NO. C2.0
DES. JDJ	CH. JDJ
DATE 04/01/2023	FILE NO. 21-2018-016



MATCHLINE A SEE SHEET C2.0

LEGEND:

- 80 EXISTING GRADE CONTOUR
- 80 PROPOSED GRADE CONTOUR (BEFORE 4" MORTAR SAND)
- COMPENSATION SITE BOUNDARY
- WOOD CHIP PATH
- GRASS LINED DITCH
- SD STORM DRAIN PIPE
- CLEARING/GRADING LIMIT

ROUGH GRADING SEQUENCE NOTES:

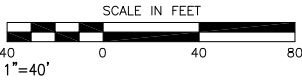
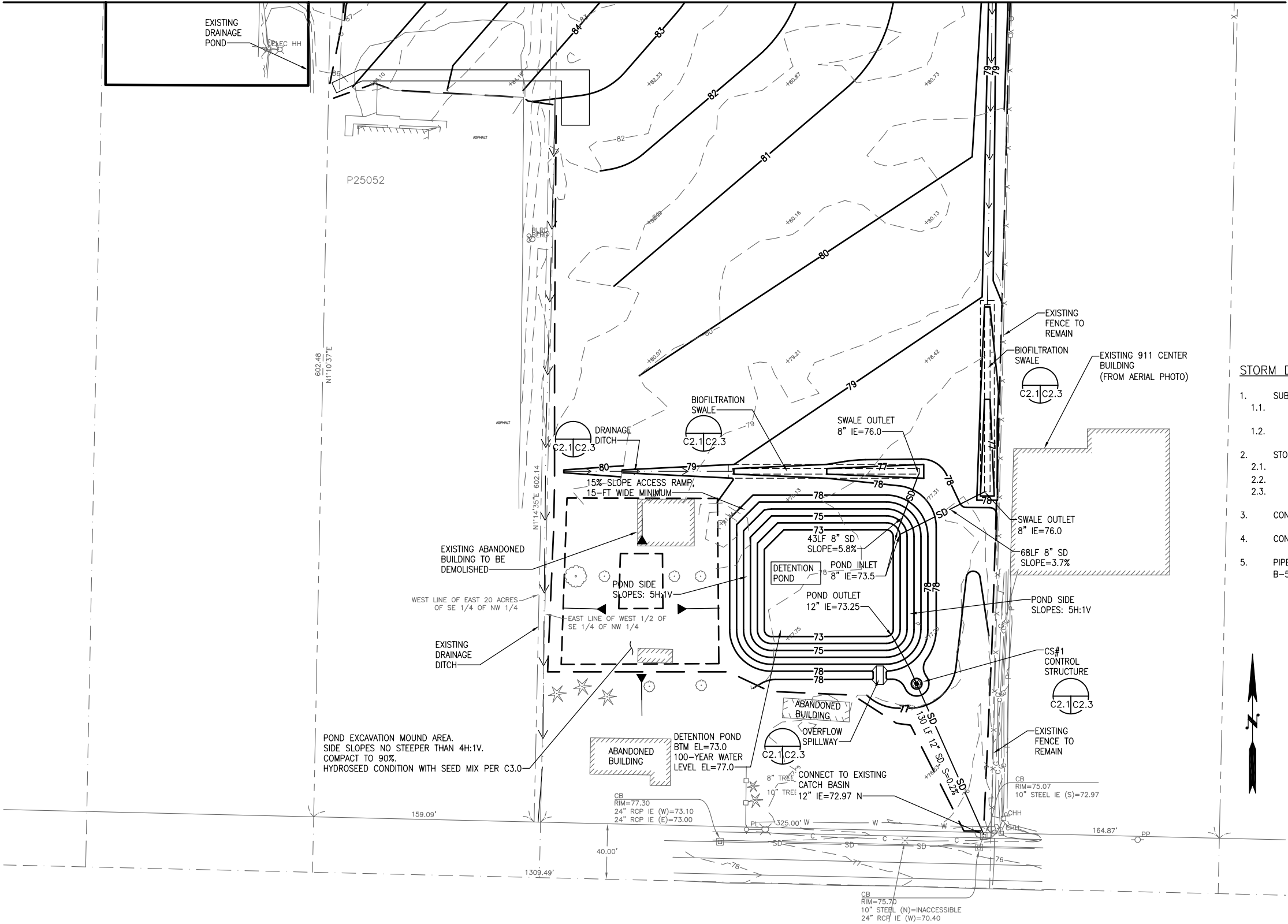
SEE SHEET C2.2

FINE GRADING SEQUENCE NOTES:

SEE SHEET C2.2

STORM DRAIN CONSTRUCTION NOTES:

- SUBMIT THE FOLLOWING:
  - CATALOG CUTS AND SPECIFICATIONS FOR PIPE, FITTINGS, EROSION CONTROL BLANKET AND MANHOLES.
  - SHOP DRAWING FOR CONTROL STRUCTURE AND CONTROL RISER.
- STORM DRAIN PIPE MATERIAL:
  - HDPE PER WSDOT STANDARD SPECIFICATION 9-05.20
  - PVC, ASTM D3034, SDR 35 PER WSDOT 9-05.12(1)
  - APPROVED SUBSTITUTION
- CONSTRUCT PIPE PER WSDOT STANDARD SPECIFICATION 7-04.3.
- CONSTRUCT CONTROL STRUCTURE PER WSDOT STANDARD SPECIFICATION 7-05.
- PIPE AND STRUCTURE BEDDING AND BACKFILL PER WSDOT STANDARD PLAN B-55.20-03.



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SKAGIT COUNTY  
SKAGIT FIELDS  
GRADING AND DRAINAGE PLAN

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CITY OF MOUNT VERNON GENERAL/GRADING NOTES:

1. AN ENGINEERING INSPECTION CARD IS PROVIDED WITH THE ISSUANCE OF EACH PERMIT. THESE ARE THE MINIMUM REQUIRED INSPECTIONS. OTHER INSPECTIONS MIGHT BE REQUIRED AS DETERMINED BY THE CITY INSPECTOR AND THE SCOPE OF THE WORK.
2. THE CONTRACTOR SHALL CALL FOR REQUIRED INSPECTIONS BY CALLING THE INSPECTION LINE NUMBER (360)336-6243. FAILURE TO PROPERLY NOTIFY THE CITY OF REQUIRED INSPECTION MIGHT RESULT ON NON-ACCEPTANCE OF THE WORK.
3. ALL CONTRACTORS WORKING IN THE CITY OF MOUNT VERNON MUST HAVE A CITY OF MOUNT VERNON BUSINESS LICENSE.
4. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION. CONTACT "ONE CALL": 1-800 424-5555 (OR 811)
5. ALL CONTRACTORS, SUBCONTRACTORS, TRADES AND CRAFTS PERFORMING WORK DURING CONSTRUCTION MUST ADHERE TO THE SAFETY REGULATIONS FOR CONTRACTORS AND OWNER'S EMPLOYEES IN ACCORDANCE WITH CURRENT WISHA STANDARDS AND REQUIREMENTS.
6. IN ADDITION TO MEETING THE CURRENT CITY OF MOUNT VERNON ENGINEERING STANDARD, ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND THE AMERICAN PUBLIC WORKS ASSOCIATION STANDARDS AND PRACTICES.
7. NATIVE FILL AND/OR MATERIAL WILL NOT BE ALLOWED IN UTILITY TRENCHES AND INSIDE THE ROAD PRISM. PLEASE BE AWARE THAT CITY CODES, STANDARDS AND DETAILS SUPERSEDE.
8. TRAFFIC CONTROL SHALL STRICTLY ADHERE TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS. BEFORE ISSUANCE OF A RIGHT-OF WAY PERMIT, THERE IS TO BE AN APPROVED TRAFFIC CONTROL PLAN BY THE CITY'S DEVELOPMENT SERVICES ENGINEERING DIVISION. NO FULL ROAD CLOSURES WILL BE ALLOWED UNLESS APPROVED BY THE PUBLIC WORKS DIRECTOR.
9. 72 HOUR NOTICE IS REQUIRED FOR LANE CLOSURE NOTIFICATIONS
10. SURVEY STAKING IS REQUIRED FOR ALL UTILITIES AND LOT CORNERS.
11. SCHEDULE INSPECTIONS 24 HOURS IN ADVANCE. INSPECTION REQUESTS MUST BE CALLED IN BEFORE 8 AM FOR SAME DAY INSPECTIONS. THE INSPECTION LINE NUMBER IS (360)336-6243.
12. THE PERMITEE IS RESPONSIBLE FOR DAMAGES TO CITY PROPERTY, PAVEMENT, WALKS, UTILITIES, STREET STRIPING, THERMOPLASTICS OR UNDERGROUND CABLES. TRAFFIC SIGNAL DETECTION LOOPS DAMAGED BY CONSTRUCTION WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE UNLESS DIRECTED OTHERWISE BY THE PUBLIC WORKS DIRECTOR.
13. COATED 12 GAUGE OR 14 GAUGE LOCATION WIRE MUST BE INSTALLED OVER ALL UNDERGROUND PVC OR OTHER NON-METALLIC PIPE UNLESS DIRECTED OTHERWISE BY THE INSPECTOR.
14. REVISIONS TO THE APPROVED CIVIL PLANS MUST BE SUBMITTED FOR REVIEW AND APPROVAL BY THE DEVELOPMENT SERVICES ENGINEERING MANAGER.
15. CONSTRUCTION AS-BUILT REQUIREMENTS ARE AS FOLLOWS: THE SITE SHALL BE RESURVEYED AND PLANS APPROPRIATELY MODIFIED BY THE ENGINEER OF RECORD. SUBMIT 1 RED LINED COPY OF PLANS TO APPROVE FOR AS-BUILT.
16. AFTER APPROVAL AND RETURN OF RED LINE PLANS, NEED 1 HARD COPY PLUS 1 AUTOCAD, 1 PDF AND 1 TIF FILE OF FINAL AS-BUILT ON CD, PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION.
17. ALL GRADING DESIGN AND CONSTRUCTION ACTIVITY SHALL COMPLY TITLE 15.16, ALL MOUNT VERNON MUNICIPAL CODE, INCLUDING BUT NOT LIMITED TO 13.33 STORMWATER DRAINAGE UTILITY AND 15.40 CRITICAL AREAS.
18. ALL GRADING DESIGN AND CONSTRUCTION ACTIVITY SHALL COMPLY WITH THE CITY OF MOUNT VERNON ENGINEERING STANDARDS AND THE CURRENT WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.
19. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO ANY CONSTRUCTION OR GRADING ACTIVITY.
20. A COPY OF THE FILL & GRADE PERMIT AND APPROVED PLANS SHALL BE KEPT ON-SITE DURING CONSTRUCTION.
21. DEVIATION AND REVISIONS TO THE APPROVED PLANS SHALL BE APPROVED BY THE PROJECT'S ENGINEER AND THE CITY OF MOUNT VERNON.
22. RETAINING WALL GREATER THAN 4- FEET IN HEIGHT REQUIRE SEPARATE BUILDING PERMIT.
23. NO GRADING ACTIVITY MAY OCCUR WITHIN A CRITICAL AREA OR CRITICAL AREA BUFFER WITHOUT SPECIFIC APPROVAL.
24. IT SHALL BE THE RESPONSIBILITY OF BOTH THE PERMITEE AND THE PROPERTY OWNER TO ADVISE THE CITY IMMEDIATELY OF ANY DISCREPANCIES, HAZARDOUS CONDITIONS OR PROBLEMS AFFECTING SAFETY AND STABILITY OF THE PROJECT
25. UNLESS OTHERWISE RECOMMENDED IN THE GEOTECHNICAL REPORT: THE SLOPE OF CUT SURFACES SHALL BE NO STEEPER THAN IS SAFE FOR THE INTENDED USE, AND SHALL NOT BE STEEPER THAN THREE UNITS HORIZONTAL TO ONE UNIT VERTICAL (3:1).
26. ALL FILL MATERIAL SHALL MEET THE STANDARD FOR THE INTENDED FUTURE USE. MATERIAL TO BE PLACE IN AREAS OF FUTURE BUILDING SITE SHALL BE STRUCTURAL FILL MATERIAL. TESTING SHALL BE REQUIRED AS DEEMED NECESSARY BY THE CITY OF MOUNT VERNON.
27. THE GROUND SURFACE SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, TOPSOIL AND OTHER UNSUITABLE MATERIALS, AND SCARIFYING THE GROUND TO PROVE A BOND WITH THE FILL MATERIAL.
28. FILL MATERIAL SHALL NOT INCLUDE ORGANIC, FROZEN OR OTHER DELETERIOUS MATERIALS. NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL GREATER THAN 12-INCHES IN ANY DIMENSION SHALL BE INCLUDED IN FILLS.
29. ALL FILL MATERIAL SHALL BE COMPACTED AT A MINIMUM TO 90 PERCENT OF MAXIMUM DENSITY AS DETERMINED BY ASTM D 1557 MODIFIED PROCTOR, IN LIFTS NOT EXCEEDING 12-INCHES IN DEPTH. TESTS TO DETERMINE THE DENSITY OF COMPACTED FILLS SHALL BE MADE ON THE BASIS OF NOT LESS THAN ONE TEST PER 7000 SQUARE FEET OF COMPACTED AREA PER 2-FOOT VERTICAL LIFT. ADDITIONAL TESTING MAY BE REQUIRED AT THE DIRECTION OF THE CITY INSPECTOR.
30. COMPACTION OF TEMPORARY STOCKPILE FILLS SHALL NOT BE REQUIRED, EXCEPT WHERE THE BUILDING OFFICIAL DETERMINES THAT COMPACTION IS NECESSARY AS A SAFETY MEASURE.
31. PROPERTY LOCATION AND APPROVED SETBACKS MUST BE ESTABLISHED AND STAKES SET UNDER THE SUPERVISION OF A REGISTERED LAND SURVEYOR WHEN GRADING ACTIVITIES OCCUR. THOSE STAKES MUST BE MAINTAINED IN PLACE UNTIL FINAL INSPECTION OF WORKS SO THAT THE INSPECTOR CAN DETERMINE AT ANY TIME IF THE EXCAVATION IS PROPERLY LOCATED AS RELATED TO PROPERTY LINES.
32. SETBACK DIMENSIONS SHALL BE MEASURED PERPENDICULAR TO THE PROPERTY LINE.
33. THE SETBACK AT THE TOP OF A CUT SLOPE SHALL NOT BE LESS THAN 5- FEET OR THAN IS REQUIRED TO ACCOMMODATE ANY REQUIRED INTERCEPTOR DRAINS, WHICHEVER IS GREATER.
34. THE TOE OF A SLOPE DISTANCE TO PROPERTY AND EASEMENT LINES SHALL BE AS FOLLOWS: FOR SLOPES LESS THAN 11- FEET IN HEIGHT THE MINIMUM DISTANCE SHALL BE 5- FEET. FOR SLOPES 11- FEET IN HEIGHT OR GREATER THE MINIMUM DISTANCE SHALL BE HEIGHT/2

35. THE TOP OR TOE OF A SLOPE DISTANCE TO A STRUCTURE SHALL BE NOT LESS THAN 10 FEET.
36. DRAINAGE SHALL BE PROVIDED IN ACCORDANCE WITH CITY OF MOUNT VERNON MUNICIPAL CODE 13.33 AND ENGINEERING STANDARDS AS THEY ARE CURRENTLY WRITTEN OR AS THEY MAY BE AMENDED IN THE FUTURE.
37. TERRACING AND BENCHING SHALL BE PROVIDED AS RECOMMENDED IN THE GEOTECHNICAL REPORT
38. INTERCEPTOR DRAINS SHALL BE INSTALLED ALONG THE TOP OF CUT SLOPES RECEIVING DRAINAGE FROM A TRIBUTARY WIDTH GREATER THAN 40- FEET, MEASURE HORIZONTALLY. DRAINS SHALL BE CONSTRUCTED OF SOLID, NOT FLEXIBLE, PIPE.
39. DOWN DRAINS SHALL TERMINATE INTO A CATCH BASIN OR OTHER APPROVED RECEIVER TO PREVENT SCOURING AT THE OUTFALL.
40. FOR CONSTRUCTION SITE 1-ACRE OR LARGER A CERTIFIED EROSION & SEDIMENT CONTROL LEAD SHALL BE IDENTIFIED FOR THE PROJECT AND SHALL BE ON-CALL AT ALL TIMES. THE NAME AND PHONE NUMBER OF THE CONTACT PERSON SHALL BE POSTED ON SITE.
41. NO TRACKING OF MUD OR DEBRIS ON TO PUBLIC STREETS IS ALLOWED.
42. ALL GRADING ACTIVITY IS LIMITED TO THE HOURS BETWEEN 7:00 AM AND 9:00 PM MONDAY THROUGH FRIDAY AND 8:00 AM AND 9:00 PM SATURDAY AND SUNDAY. THE BUILDING OFFICIAL IS AUTHORIZED TO GRANT AN EXTENSION OF WORKING HOURS.
43. PROJECTS SHALL BE INSPECTED AT VARIOUS STAGES OF THE WORK TO DETERMINE THAT ADEQUATE CONTROL IS BEING EXERCISED. STAGES OF WORK SUBJECT TO INSPECTION INCLUDE, BUT ARE NOT LIMITED TO: PRE-CONSTRUCTION, EROSION CONTROL, GRADING ACTIVITIES, INSTALLATION OF UTILITIES, STORMWATER FACILITIES, RETAINING WALLS, LANDSCAPING AND COMPLETION OF PROJECT.

CITY OF MOUNT VERNON STORM DRAIN NOTES:

1. ALL PIPE MATERIAL, JOINTS AND PROTECTIVE TREATMENT SHALL BE IN ACCORDANCE WITH WSDOT SPECIFICATIONS UNLESS OTHERWISE SPECIFIED.
2. ON SITE-CONVEYANCE PIPE SHALL BE RIGID GASKETED PIPES
3. STORM PIPE SHALL BE A MINIMUM OF 12 INCHES DIAMETER UNLESS OTHERWISE SPECIFIED
4. WYES OR TEES WILL BE ALLOWED ON ROOF/YARD DRAIN SYSTEMS WITH CLEAN-OUTS UPSTREAM. CLEAN-OUTS MUST BE LOCATED OUTSIDE CITY ROW.
5. ALL CONNECTIONS TO STORM STRUCTURES MUST HAVE SAND COLLARS IF SMOOTH OUTSIDE WALL PVC AND MUST BE INSPECTED PRIOR TO BACKFILLING. CONNECTIONS TO THE STORM WATER SYSTEM SHALL BE MADE ONLY AT STRUCTURES UNLESS OTHERWISE APPROVED.
6. STORM SEWER STUB TO BE IDENTIFIED WITH A PAINTED WHITE PRESSURE TREATED 2" X 4" MARKER BOARD INDICATING THE DEPTH TO THE TOP OF THE PIPE WITH A CLEAN OUT AT THE PROPERTY LINE.
7. PIPE COVER SHALL BE 24" MINIMUM UNLESS OTHERWISE SPECIFIED.
8. RESTRICTOR ORIFICE/ FLOW CONTROL ASSEMBLY MUST BE INSPECTED PRIOR TO INSTALLATION.
9. NEW STORM SEWER SYSTEMS AND RECONNECTION TO EXISTING SYSTEMS MUST BE VACTORED, SCREENED AND FLUSHED PRIOR TO FINAL ACCEPTANCE.
10. DETENTION PONDS DESIGNED FOR USE AS SEDIMENT PONDS SHALL BE CLEANED OF SEDIMENT ACCUMULATION BEFORE CONNECTION TO CITY STORMWATER SYSTEM AND BEFORE ACCEPTANCE OF THE PROJECT
11. PVC PIPE SHALL BE ENCASED IN A STEEL OR DUCTILE IRON CASING WHEN CROSSING UNDER IMPROVEMENTS WHERE THE ABILITY TO REMOVE AND REPLACE PIPE WITHOUT DISTURBANCE TO THE IMPROVEMENT IS NEEDED
12. CASINGS SHALL EXTEND A MINIMUM OF 5' PAST EACH EDGE OF THE IMPROVEMENT, OR A DISTANCE EQUAL TO THE DEPTH OF PIPE, WHICHEVER IS GREATER. THE CARRIER PIPE SHALL BE SUPPORTED BY CASING SPACERS WHERE CASING LENGTH EXCEEDS 10'

GENERAL NOTES:

1. SITE DESIGN IS BASED ON SURVEY PREPARED BY REID MIDDLETON.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES TO REMAIN. FIELD VERIFY THE LOCATION OF UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CALL THE UNDERGROUND UTILITY LOCATING SERVICE LOCATE LINE AT "811" ASSISTANCE IN LOCATING UNDERGROUND UTILITIES. THE UNDERGROUND UTILITY LOCATING SERVICE WILL NOT LOCATE ALL UTILITIES.
3. TRAFFIC LANES IN PUBLIC STREETS SHALL BE MAINTAINED AND ANY PARTIAL ROAD CLOSURES REQUIRED SHALL BE APPROVED BY THE CITY OF MOUNT VERNON FIRE, POLICE AND ENGINEERING DEPARTMENTS PRIOR TO CONSTRUCTION.
4. SEE EROSION CONTROL GENERAL NOTES ON SHEET C1.2 AND C1.3.

GENERAL CONSTRUCTION REQUIREMENTS

1. ALL WORK AND MATERIAL SHALL CONFORM TO THE 2020 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND CURRENT WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.

ROUGH GRADING SEQUENCE NOTES:

1. CLEAR AND GRUB BRUSH AS SHOWN ON SHEET C1.2 AND C1.3
2. TILL EXISTING GRASS 12" DEEP.
3. GRADE SITE TO PROPOSED CONTOURS.

FINE GRADING SEQUENCE NOTES:

AFTER COMPLETION OF ROUGH GRADING:

1. APPLY 4" OF SAND TO SURFACE AND CULTIVATE TOPSOIL TO A MINIMUM 6" DEPTH BY SCARIFYING OR OTHER DISKING METHODS TO THOROUGHLY INCORPORATE AMENDMENTS INTO THE TOPSOIL. MAINTAIN A LOOSE FRIABLE SEED BED. AT NO TIME WILL RUBBER TIED LOADERS OR GRADERS HAVING GREATER COMPACTION THAN A SMALL FARM TRACTOR BE ALLOWED ON TOPSOIL. KEEP ALL HEAVY EQUIPMENT AND TRUCKS OFF PREPARED TOPSOIL. DO NOT PREPARE WHILE GROUND IS WET OR FROZEN.
2. APPLY LIME AND AMENDMENT FERTILIZER TO SAND/SOIL. MIX LIME & FERTILIZER INTO TOP 4-6" OF SOIL BY RAKING OR TILLING.
3. RE-GRADE WHERE AND AS REQUIRED TO PROPERLY MEET ALL PROPOSED FINISH GRADES.
4. REMOVE FROM SURFACE ANY VISIBLE WEEDS, DEBRIS, FOREIGN MATTER AND STONES HAVING ANY DIMENSION GREATER THAN 1". REMOVE FROM PROPERTY.
5. FINE GRADE TO A SMOOTH UNIFORM SURFACE. THE ENTIRE AREA SHALL PRESENT AN EVEN GRADE WITH NO DEPRESSIONS WHERE WATER WILL STAND. TOPSOIL SHALL BE SMOOTHLY BLENDED TO EXISTING FINISH GRADES AND ADJACENT EXISTING CONDITIONS, MAINTAIN DESIGNED SURFACE DRAINAGE PATTERNS. ROUND OFF ALL TOP AND TOE OF SLOPES. AREA CAN BE LIGHTLY ROLLED.
6. APPROVAL OF SURFACE BY OWNERS REP SHALL BE OBTAINED BEFORE SEEDING OPERATIONS BEGIN.
7. HYDROSEEDING: MIX SPECIFIED FIELD SEED, SLOW-RELEASE STARTER FERTILIZER (SECONDARY / IN ADDITION TO AMENDMENT FERTILIZER), AND FIBER MULCH IN WATER, USING EQUIPMENT SPECIFICALLY DESIGNED FOR HYDROSEED APPLICATION. CONTINUE MIXING UNTIL UNIFORMLY BLENDED INTO HOMOGENEOUS SLURRY SUITABLE FOR HYDRAULIC APPLICATION.
  - 7.1. MIX SLURRY WITH FIBER-MULCH MANUFACTURER'S RECOMMENDED TACKIFIER.
  - 7.2. SPRAY-APPLY SLURRY UNIFORMLY TO ALL AREAS TO BE SEEDDED IN A TWO-STEP PROCESS. APPLY FIRST SLURRY COAT AT A RATE SO THAT MULCH COMPONENT IS DEPOSITED AT NOT LESS THAN 500-LB/ACRE DRY WEIGHT, AND SEED COMPONENT IS DEPOSITED AT NOT LESS THAN THE SPECIFIED SEED-SOWING RATE. APPLY SLURRY COVER COAT OF FIBER MULCH (HYDRO MULCHING) AT A RATE OF 1000 LB./ACRE
  - 7.3. SEE FIELD MATERIAL NOTES FOR SEED MIX.

ACCEPTANCE:

1. FIELD SEEDDED TURF WILL BE SATISFACTORY AND ELIGIBLE FOR OWNER'S ACCEPTANCE PROVIDED ALL REQUIREMENTS HAVE BEEN MET AND A HEALTHY, UNIFORM, DENSE STAND OF GRASS IS ESTABLISHED, FREE OF WEEDS AND BARE SPOTS AND SURFACE IRREGULARITIES, WITH COVERAGE EXCEEDING 90 PERCENT OVER ANY 5-FOOT SQUARE SELECTED BY THE ENGINEER. ENGINEER OR REP SELECTED BY THE OWNER SHALL BE THE SOLE JUDGE OF ACCEPTANCE. LAWNS MUST BE FREE OF WEEDS, CRABGRASS, AND OTHER UNDESIRABLE PLANTS, WITH NO DISEASES PRESENT. ACCEPTANCE WILL NOT BE MADE UNTIL ALL DAMAGED AREAS HAVE BEEN REPAIRED.

CALL 48 HOURS  
BEFORE YOU DIG  
811

NOTE: IF "L" DOES NOT MEASURE 1" ADJUST SCALES ACCORDINGLY.

SKAGIT COUNTY  
SKAGIT FIELDS  
GENERAL NOTES

728 134th Street SW Suite 200  
Everett, Washington 98204  
Ph: 425 741-3800

Reid Middleton

REVISION

BY

DATE

NO.

21-2018-016

04/01/2023

1

C2.2

1"=40'

DES. JDJ

DR. JDJ

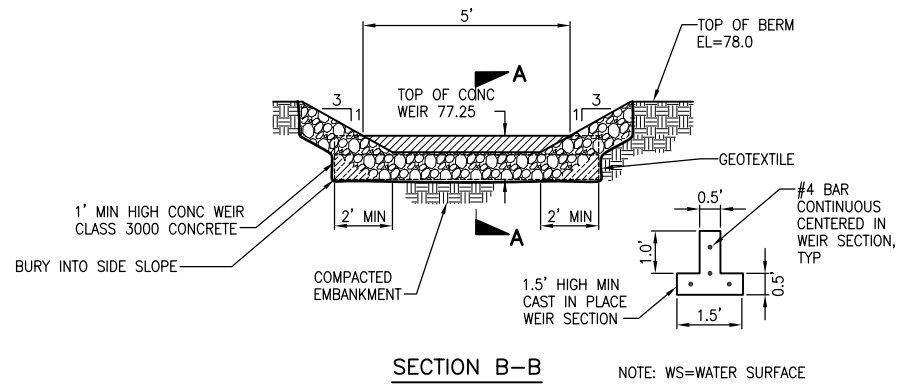
CH. ---

F.B.

SHEET NO.

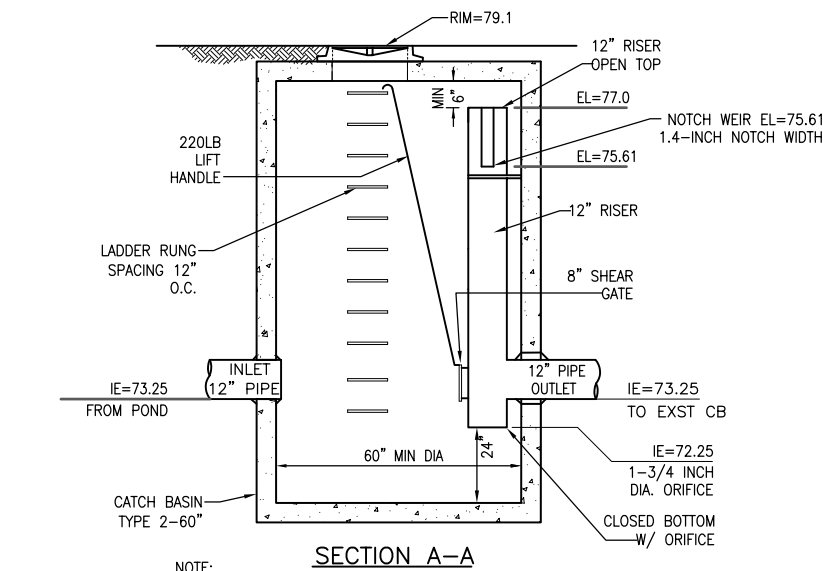
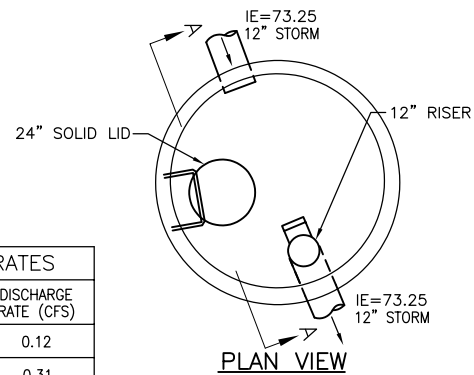
OF

SHEETS



**1 EMERGENCY OVERFLOW SPILLWAY**  
C2.1|C2.3 NOT TO SCALE

FLOW RATES	
DESIGN STORM	DISCHARGE RATE (CFS)
2 YR	0.12
10 YR	0.31
50 YR	0.59
100 YR	0.75

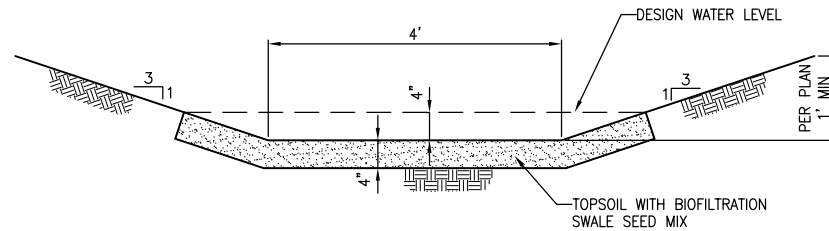


NOTE:  
SEE STRUCTURE NOTES THIS SHEET

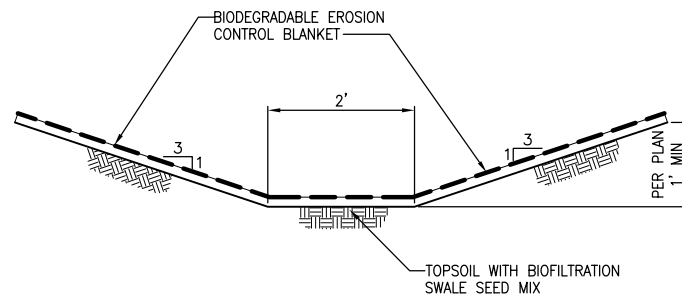
**2 STORM DRAIN STRUCTURE**  
C2.1|C2.3 NOT TO SCALE

**STORM DRAIN STRUCTURE NOTES**

- CATCH BASIN TYPE-2 PER WSDOT STANDARD PLAN B-10.20-02 AND B-10.40-02.
- SHEAR GATE AND LIFT HANDLE DETAILS PER WSDOT STANDARD PLAN B-10.40-00.
- FRAME AND COVER PER WSDOT STANDARD PLAN B-30.70-04.



**3 BIOFILTRATION SWALE**  
C2.1|C2.3 NOT TO SCALE



**4 GRASS LINED DRAINAGE DITCH**  
C2.1|C2.3 NOT TO SCALE

**NOTES**

- BIOFILTRATION SWALE SEED MIX:
  - 75%-80% TALL OR MEADOW FESCUE
  - 10%-15% SEASIDE/COLONIAL BENTGRASS
  - 5%-10% REDTOP
- BIODEGRADABLE EROSION CONTROL BLANKET
  - PER WSDOT STANDARD SPECIFICATION SECTION 8-01.3(3) AND SECTION 9-14.6(2)
- EROSION CONTROL BLANKET PER WSDOT STANDARD SPECIFICATION 8-01.3(3).

**NOTES**

- BIOFILTRATION SWALE SEED MIX:
  - 75%-80% TALL OR MEADOW FESCUE
  - 10%-15% SEASIDE/COLONIAL BENTGRASS
  - 5%-10% REDTOP
- BIODEGRADABLE EROSION CONTROL BLANKET
  - PER WSDOT STANDARD SPECIFICATION SECTION 8-01.3(3) AND SECTION 9-14.6(2)
- EROSION CONTROL BLANKET PER WSDOT STANDARD SPECIFICATION 8-01.3(3).

**CALL 48 HOURS  
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811**

NOTE: IF "L" DOES NOT MEASURE 1" ADJUST SCALES ACCORDINGLY.

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Everett, Washington 98204  
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**Reid Middleton**

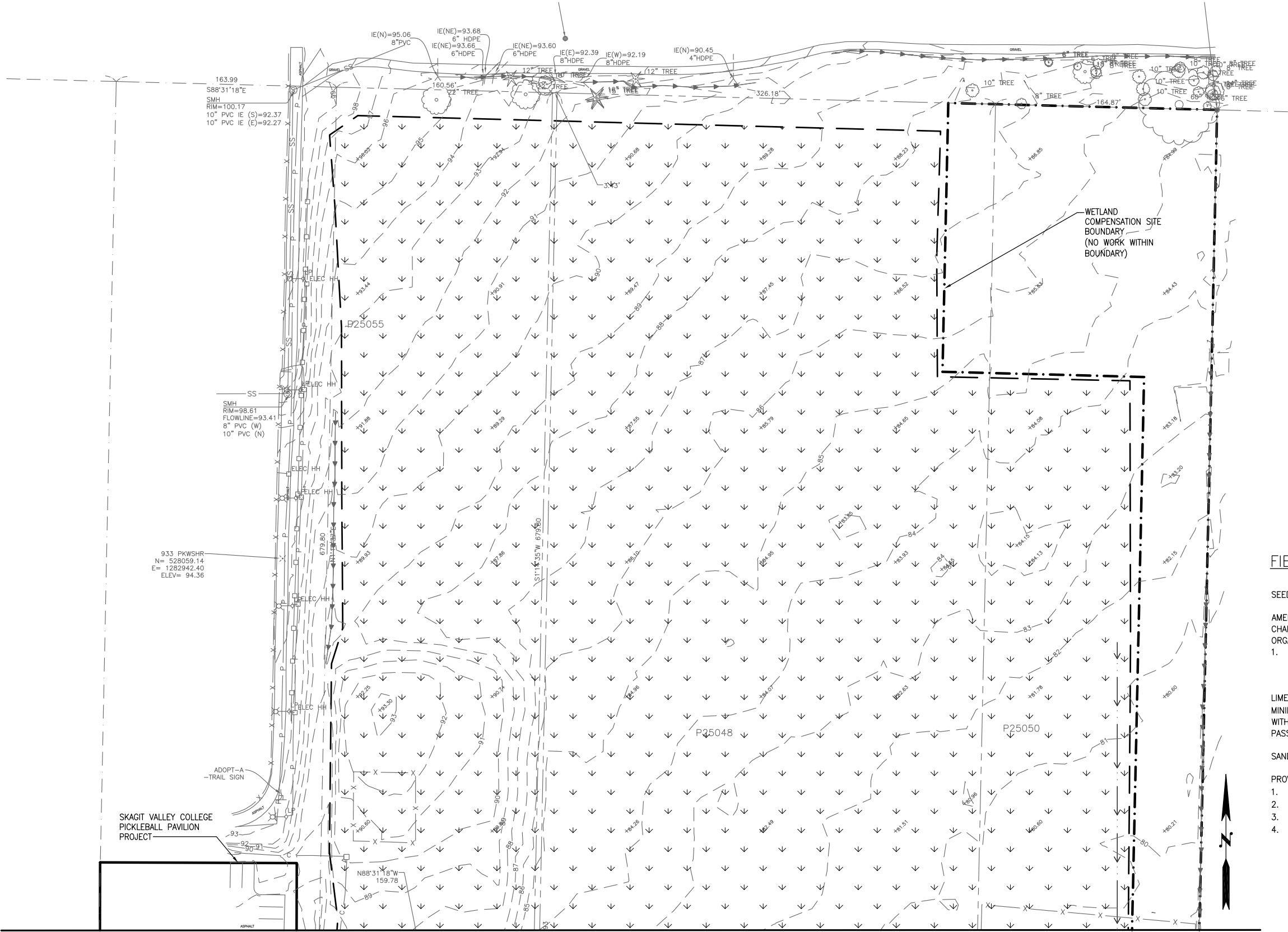
SKAGIT COUNTY  
SKAGIT FIELDS  
DETAILS

SCALE	1"=40'
DES.	JDJ
DR.	JDJ
CH.	---
F.B.	---
DATE	04/01/2023
FILE NO.	21-2018-016

**C2.3**

OF SHEETS

SE/4 NW/4, SECTION 16, TOWNSHIP 34 N, RANGE 4 E, W.M.



LEGEND:

- LIMIT OF WORK
- - - - - COMPENSATION SITE BOUNDARY (NO GRADING)
- WOOD CHIP PATH
- HYDROSEED FIELD SEED MIX
- HYDROSEED POND SEED MIX
- HYDROSEED MEADOW SEED MIX

MEADOW SEED MIX: 120 LBS/ACRE

REDFLOW OR OREGON BENTGRASS	20%
RED FESCUE	70%
WHITE DUTCH CLOVER	10%

POND/BIOFILTRATION SEED MIX: 120 LBS/ACRE

TALL OR MEADOW FESCUE	75-80%
SEASIDE/CREEPING BENTGRASS	10-15%
REDFLOW BENTGRASS	5-10%

FIELD SEED MIX: 130 LBS/ACRE

IMPROVED KENTUCKY BLUEGRASS	40%
PERENNIAL RYEGRASS	60%

FIELD MATERIAL NOTES:

SEED: SUITABLE FOR USE IN SKAGIT COUNTY. MIX PER TABLE ON THIS SHEET.

AMENDMENT FERTILIZER: COMMERCIAL GRADE COMPLETE FERTILIZER OF NEUTRAL CHARACTER, CONSISTING OF WATER SOLUBLE NITROGEN, DERIVED FROM NATURAL ORGANIC SOURCES OF UREA AMMONIUM, PHOSPHATE, OR SIMILAR MATERIAL.

- COMPOSITION: NITROGEN, PHOSPHORUS, AND POTASSIUM IN AMOUNTS RECOMMENDED IN SOIL REPORTS FROM A QUALIFIED SOIL TESTING AGENCY.

LIME: ASTM C 602, CLASS T, AGRICULTURAL GROUND LIME STONE CONTAINING A MINIMUM 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE), WITH A MINIMUM 50 PERCENT PASSING A 100 MESH SIEVE, AND 98 PERCENT PASSING A 20-MESH SIEVE, FOR POWDER FORM OF LIME.

SAND: ASTM C-33

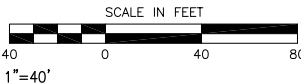
PROVIDE MATERIALS IN NOT LESS THAN THE FOLLOWING QUANTITIES:

- FIELD SEED: 130 LBS/ACRE.
- AMENDMENT FERTILIZER: 310 LBS/ACRE
- LIME PER 100 LBS / 1000 SQ. FT.
- SAND: 4" OVER ENTIRE 'FIELD' AREA

WOOD CHIP PATH MATERIAL NOTES:

- WOOD CHIP PATH SHALL BE 4" THICK HOG FUEL.

MATCHLINE A SEE SHEET C3.1



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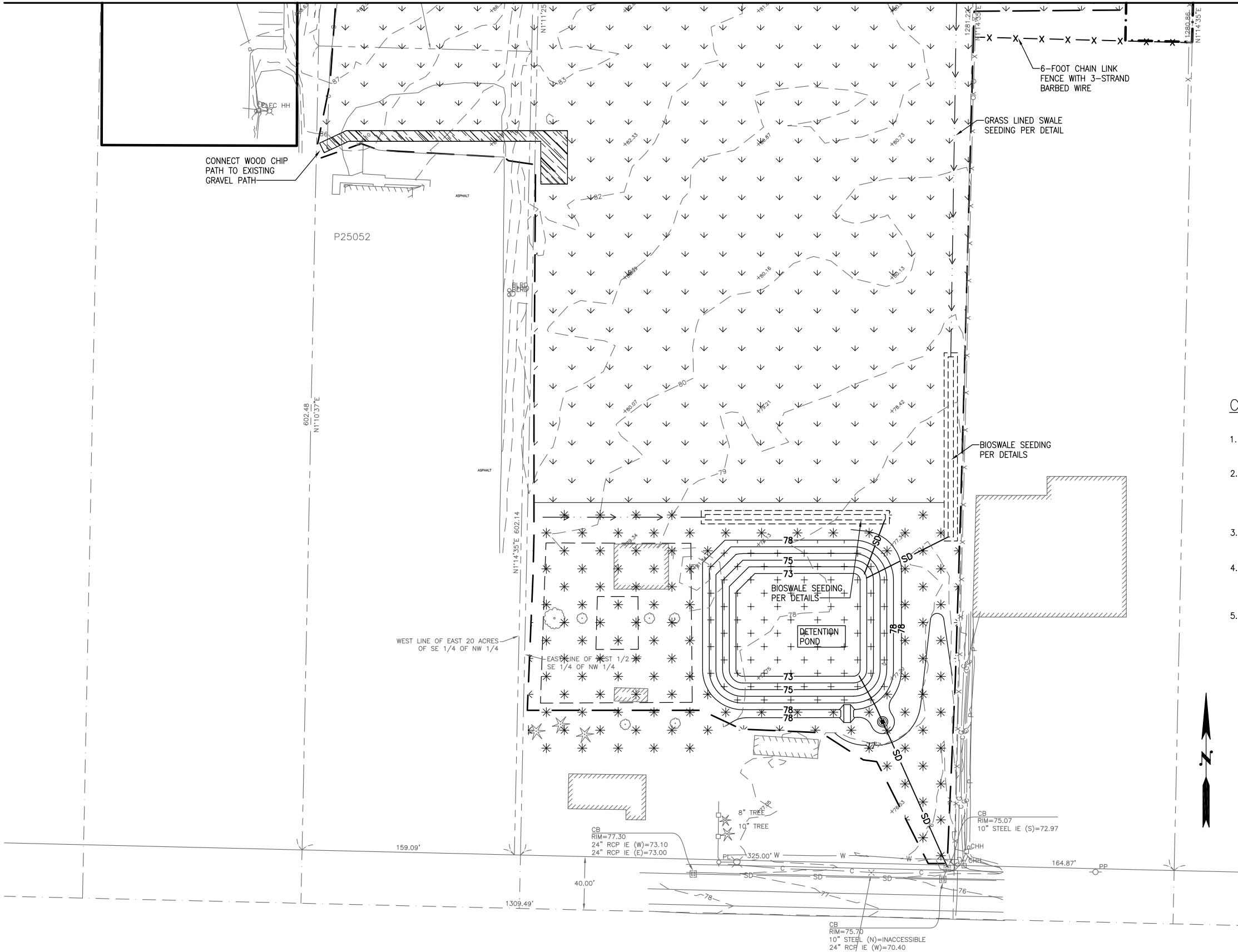
Reid Middleton

SKAGIT COUNTY  
SKAGIT FIELDS  
MATERIALS PLAN

SCALE 1"=40'	SHEET NO.
DES. JDJ	C3.0
DR. JDJ	
CH. ---	
F.B. ---	
DATE 04/01/2023	
FILE NO. 21-2018-016	

MATCHLINE A SEE SHEET C3.0

SE/4 NW/4, SECTION 16, TOWNSHIP 34 N, RANGE 4 E, W.M.



LEGEND:

- — — — — LIMIT OF WORK
- - - - - COMPENSATION SITE BOUNDARY (NO GRADING)
- WOOD CHIP PATH
- HYDROSEED SOCCER FIELD SEED MIX
- HYDROSEED POND SEED MIX
- HYDROSEED MEADOW SEED MIX
- X — X — X — X — 6-FOOT CHAIN LINK FENCE WITH 3-ROWS BARBED WIRE

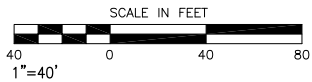
FIELD MATERIAL NOTES:  
SEE SHEET C3.0

CHAIN LINK FENCE MATERIAL NOTES:

- CHAIN LINK FABRIC: PER WSDOT STANDARD SPECIFICATION 9-16.1(1)B. 9-GAGE WIRE.
- POSTS: PER WSDOT STANDARD SPECIFICATION 9-16.1
  - POST DIAMETER:
    - LINE POSTS 2-3/8" O.D.
    - CORNER POSTS 2-7/8" O.D.
- FITTINGS AND HARDWARE PER WSDOT STANDARD SPECIFICATION 9-16.1(1)D.
- POST FOOTINGS: 10-INCH DIAMETER, 36-INCH DEEP PER WSDOT STANDARD PLAN L-20.10-03. CONCRETE PER WSDOT STANDARD SPECIFICATION 9-16.1(1)F.
- BARBED WIRE: AASHTO M280, TWO STRANDS 12-1/2 GAGE TWISTED WITH 4-POINT 14 GAGE BARBS SPACED A MAXIMUM OF 5 INCHES APART.

MATERIAL NOTES:

- SEE SHEET C3.0



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**Reid Middleton**

SKAGIT COUNTY  
SKAGIT FIELDS  
MATERIALS PLAN

SCALE	1"=40'	SHEET NO.
DES.	JDJ	C3.1
DR.	JDJ	
CH.	---	
F.B.	---	
DATE	04/01/2023	
FILE NO.	21-2018-016	



## **Appendix B**

### **BMP Detail**

## **BMP C101: Preserving Natural Vegetation**

### ***Purpose***

The purpose of preserving natural vegetation is to reduce erosion wherever practicable. Limiting site disturbance is the single most effective method for reducing erosion. For example, conifers can hold up to about 50 percent of all rain that falls during a storm. Up to 20-30 percent of this rain may never reach the ground but is taken up by the tree or evaporates. Another benefit is that the rain held in the tree can be released slowly to the ground after the storm.

### ***Conditions of Use***

Natural vegetation should be preserved on steep slopes, near perennial and intermittent watercourses or swales, and on building sites in wooded areas.

- As required by local governments.
- Phase construction to preserve natural vegetation on the project site for as long as possible during the construction period.

### ***Design and Installation Specifications***

Natural vegetation can be preserved in natural clumps or as individual trees, shrubs and vines.

The preservation of individual plants is more difficult because heavy equipment is generally used to remove unwanted vegetation. The points to remember when attempting to save individual plants are:

- Is the plant worth saving? Consider the location, species, size, age, vigor, and the work involved. Local governments may also have ordinances to save natural vegetation and trees.
- Fence or clearly mark areas around trees that are to be saved. It is preferable to keep ground disturbance away from the trees at least as far out as the dripline.

Plants need protection from three kinds of injuries:

- *Construction Equipment* - This injury can be above or below the ground level. Damage results from scarring, cutting of roots, and compaction of the soil. Placing a fenced buffer zone around plants to be saved prior to construction can prevent construction equipment injuries.
- *Grade Changes* - Changing the natural ground level will alter grades, which affects the plant's ability to obtain the necessary air, water, and minerals. Minor fills usually do not cause problems although sensitivity between species does vary and should be checked. Trees can typically tolerate fill of 6 inches or less. For shrubs



and other plants, the fill should be less.

When there are major changes in grade, it may become necessary to supply air to the roots of plants. This can be done by placing a layer of gravel and a tile system over the roots before the fill is made. A tile system protects a tree from a raised grade. The tile system should be laid out on the original grade leading from a dry well around the tree trunk. The system should then be covered with small stones to allow air to circulate over the root area.

Lowering the natural ground level can seriously damage trees and shrubs. The highest percentage of the plant roots are in the upper 12 inches of the soil and cuts of only 2-3 inches can cause serious injury. To protect the roots it may be necessary to terrace the immediate area around the plants to be saved. If roots are exposed, construction of retaining walls may be needed to keep the soil in place. Plants can also be preserved by leaving them on an undisturbed, gently sloping mound. To increase the chances for survival, it is best to limit grade changes and other soil disturbances to areas outside the dripline of the plant.

- *Excavations* - Protect trees and other plants when excavating for drainfields, power, water, and sewer lines. Where possible, the trenches should be routed around trees and large shrubs. When this is not possible, it is best to tunnel under them. This can be done with hand tools or with power augers. If it is not possible to route the trench around plants to be saved, then the following should be observed:
  - Cut as few roots as possible. When you have to cut, cut clean. Paint cut root ends with a wood dressing like asphalt base paint if roots will be exposed for more than 24-hours.
  - Backfill the trench as soon as possible.
  - Tunnel beneath root systems as close to the center of the main trunk to preserve most of the important feeder roots.

Some problems that can be encountered with a few specific trees are:

- Maple, Dogwood, Red alder, Western hemlock, Western red cedar, and Douglas fir do not readily adjust to changes in environment and special care should be taken to protect these trees.
- The windthrow hazard of Pacific silver fir and madrona is high, while that of Western hemlock is moderate. The danger of windthrow increases where dense stands have been thinned. Other species (unless they are on shallow, wet soils less than 20 inches deep) have a low windthrow hazard.
- Cottonwoods, maples, and willows have water-seeking roots. These can cause trouble in sewer lines and infiltration fields. On the other hand, they thrive in high moisture conditions that other trees would not.
- Thinning operations in pure or mixed stands of Grand fir, Pacific silver fir, Noble fir,

Sitka spruce, Western red cedar, Western hemlock, Pacific dogwood, and Red alder can cause serious disease problems. Disease can become established through damaged limbs, trunks, roots, and freshly cut stumps. Diseased and weakened trees are also susceptible to insect attack.

### ***Maintenance Standards***

Inspect flagged and/or fenced areas regularly to make sure flagging or fencing has not been removed or damaged. If the flagging or fencing has been damaged or visibility reduced, it shall be repaired or replaced immediately and visibility restored.

- If tree roots have been exposed or injured, “prune” cleanly with an appropriate pruning saw or loppers directly above the damaged roots and recover with native soils. Treatment of sap flowing trees (fir, hemlock, pine, soft maples) is not advised as sap forms a natural healing barrier.

## **BMP C102: Buffer Zones**

### ***Purpose***

Creation of an undisturbed area or strip of natural vegetation or an established suitable planting that will provide a living filter to reduce soil erosion and runoff velocities.

### ***Conditions of Use***

Natural buffer zones are used along streams, wetlands and other bodies of water that need protection from erosion and sedimentation. Vegetative buffer zones can be used to protect natural swales and can be incorporated into the natural landscaping of an area.

Critical-areas buffer zones should not be used as sediment treatment areas. These areas shall remain completely undisturbed. The local permitting authority may expand the buffer widths temporarily to allow the use of the expanded area for removal of sediment.

### ***Design and Installation Specifications***

- Preserving natural vegetation or plantings in clumps, blocks, or strips is generally the easiest and most successful method.
- Leave all unstable steep slopes in natural vegetation.
- Mark clearing limits and keep all equipment and construction debris out of the natural areas and buffer zones. Steel construction fencing is the most effective method in protecting sensitive areas and buffers. Alternatively, wire-backed silt fence on steel posts is marginally effective. Flagging alone is typically not effective.
- Keep all excavations outside the dripline of trees and shrubs.
- Do not push debris or extra soil into the buffer zone area because it will cause

damage from burying and smothering.

- Vegetative buffer zones for streams, lakes or other waterways shall be established by the local permitting authority or other state or federal permits or approvals.

### ***Maintenance Standards***

Inspect the area frequently to make sure flagging remains in place and the area remains undisturbed. Replace all damaged flagging immediately.

## **BMP C103: High Visibility Fence**

### ***Purpose***

Fencing is intended to:

1. Restrict clearing to approved limits.
2. Prevent disturbance of sensitive areas, their buffers, and other areas required to be left undisturbed.
3. Limit construction traffic to designated construction entrances, exits, or internal roads.
4. Protect areas where marking with survey tape may not provide adequate protection.

### ***Conditions of Use***

To establish clearing limits plastic, fabric, or metal fence may be used:

- At the boundary of sensitive areas, their buffers, and other areas required to be left uncleared.
- As necessary to control vehicle access to and on the site.

### ***Design and Installation Specifications***

High visibility plastic fence shall be composed of a high-density polyethylene material and shall be at least four feet in height. Posts for the fencing shall be steel or wood and placed every 6 feet on center (maximum) or as needed to ensure rigidity. The fencing shall be fastened to the post every six inches with a polyethylene tie. On long continuous lengths of fencing, a tension wire or rope shall be used as a top stringer to prevent sagging between posts. The fence color shall be high visibility orange. The fence tensile strength shall be 360 lbs./ft. using the ASTM D4595 testing method.

If appropriate install fabric silt fence in accordance with [BMP C233: Silt Fence \(p.367\)](#) to act as high visibility fence. Silt fence shall be at least 3 feet high and must be highly visible to meet the requirements of this BMP.

Metal fences shall be designed and installed according to the manufacturer's specifications.

Metal fences shall be at least 3 feet high and must be highly visible.

Fences shall not be wired or stapled to trees.

### ***Maintenance Standards***

If the fence has been damaged or visibility reduced, it shall be repaired or replaced immediately and visibility restored.

## **BMP C105: Stabilized Construction Entrance / Exit**

### ***Purpose***

Stabilized Construction entrances are established to reduce the amount of sediment transported onto paved roads by vehicles or equipment. This is done by constructing a stabilized pad of quarry spalls at entrances and exits for construction sites.

### ***Conditions of Use***

Construction entrances shall be stabilized wherever traffic will be entering or leaving a construction site if paved roads or other paved areas are within 1,000 feet of the site.

For residential construction provide stabilized construction entrances for each residence, rather than only at the main subdivision entrance. Stabilized surfaces shall be of sufficient length/width to provide vehicle access/parking, based on lot size/configuration.

On large commercial, highway, and road projects, the designer should include enough extra materials in the contract to allow for additional stabilized entrances not shown in the initial Construction SWPPP. It is difficult to determine exactly where access to these projects will take place; additional materials will enable the contractor to install them where needed.

### ***Design and Installation Specifications***

See [Figure II-4.1.1 Stabilized Construction Entrance \(p.273\)](#) for details. Note: the 100' minimum length of the entrance shall be reduced to the maximum practicable size when the size or configuration of the site does not allow the full length (100').

Construct stabilized construction entrances with a 12-inch thick pad of 4-inch to 8-inch quarry spalls, a 4-inch course of asphalt treated base (ATB), or use existing pavement. Do not use crushed concrete, cement, or calcium chloride for construction entrance stabilization because these products raise pH levels in stormwater and concrete discharge to surface waters of the State is prohibited.

A separation geotextile shall be placed under the spalls to prevent fine sediment from pumping up into the rock pad. The geotextile shall meet the following standards:

Grab Tensile Strength (ASTM D4751)	200 psi min.
Grab Tensile Elongation (ASTM D4632)	30% max.
Mullen Burst Strength (ASTM D3786-80a)	400 psi min.
AOS (ASTM D4751)	20-45 (U.S. standard sieve size)

- Consider early installation of the first lift of asphalt in areas that will be paved; this can be used as a stabilized entrance. Also consider the installation of excess concrete as a stabilized entrance. During large concrete pours, excess concrete is often available for this purpose.
- Fencing (see [BMP C103: High Visibility Fence \(p.269\)](#)) shall be installed as necessary to restrict traffic to the construction entrance.
- Whenever possible, the entrance shall be constructed on a firm, compacted subgrade. This can substantially increase the effectiveness of the pad and reduce the need for maintenance.
- Construction entrances should avoid crossing existing sidewalks and back of walk drains if at all possible. If a construction entrance must cross a sidewalk or back of walk drain, the full length of the sidewalk and back of walk drain must be covered and protected from sediment leaving the site.

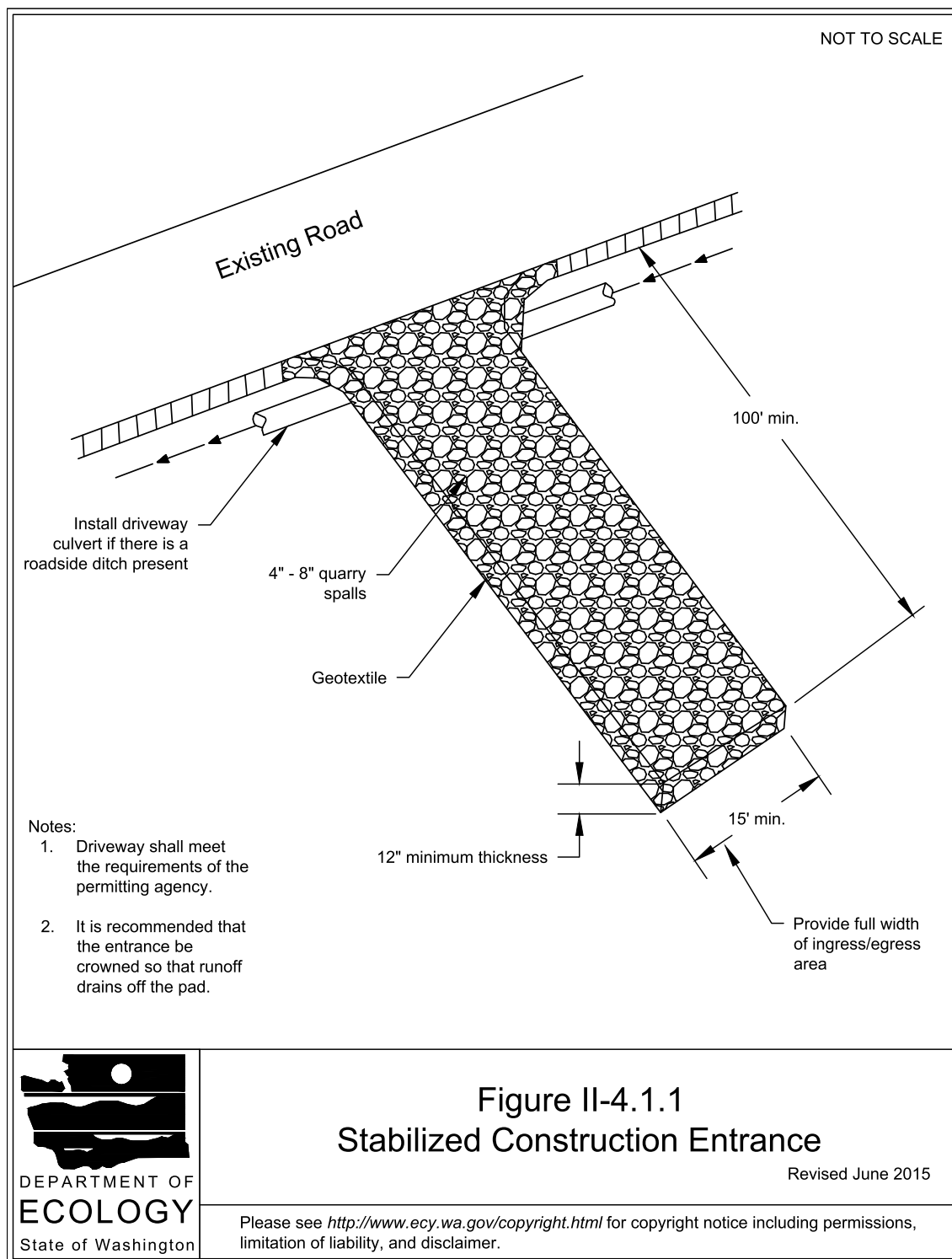
### ***Maintenance Standards***

Quarry spalls shall be added if the pad is no longer in accordance with the specifications.

- If the entrance is not preventing sediment from being tracked onto pavement, then alternative measures to keep the streets free of sediment shall be used. This may include replacement/cleaning of the existing quarry spalls, street sweeping, an increase in the dimensions of the entrance, or the installation of a wheel wash.
- Any sediment that is tracked onto pavement shall be removed by shoveling or street sweeping. The sediment collected by sweeping shall be removed or stabilized on site. The pavement shall not be cleaned by washing down the street, except when high efficiency sweeping is ineffective and there is a threat to public safety. If it is necessary to wash the streets, the construction of a small sump to contain the wash water shall be considered. The sediment would then be washed into the sump where it can be controlled.
- Perform street sweeping by hand or with a high efficiency sweeper. Do not use a non-high efficiency mechanical sweeper because this creates dust and throws soils into storm systems or conveyance ditches.

- Any quarry spalls that are loosened from the pad, which end up on the roadway shall be removed immediately.
- If vehicles are entering or exiting the site at points other than the construction entrance(s), fencing (see BMP C103) shall be installed to control traffic.
- Upon project completion and site stabilization, all construction accesses intended as permanent access for maintenance shall be permanently stabilized.

**Figure II-4.1.1 Stabilized Construction Entrance**



## ***Approved as Equivalent***

Ecology has approved products as able to meet the requirements of [BMP C105: Stabilized Construction Entrance / Exit](#). The products did not pass through the Technology Assessment Protocol – Ecology (TAPE) process. Local jurisdictions may choose not to accept this product approved as equivalent, or may require additional testing prior to consideration for local use. The products are available for review on Ecology’s website at <http://www.ecy.wa.gov/programs/wq/stormwater/newtech/equivalent.html>

## **BMP C106: Wheel Wash**

### ***Purpose***

Wheel washes reduce the amount of sediment transported onto paved roads by motor vehicles.

### ***Conditions of Use***

When a stabilized construction entrance (see [BMP C105: Stabilized Construction Entrance / Exit \(p.270\)](#)) is not preventing sediment from being tracked onto pavement.

- Wheel washing is generally an effective BMP when installed with careful attention to topography. For example, a wheel wash can be detrimental if installed at the top of a slope abutting a right-of-way where the water from the dripping truck can run unimpeded into the street.
- Pressure washing combined with an adequately sized and surfaced pad with direct drainage to a large 10-foot x 10-foot sump can be very effective.
- Discharge wheel wash or tire bath wastewater to a separate on-site treatment system that prevents discharge to surface water, such as closed-loop recirculation or upland land application, or to the sanitary sewer with local sewer district approval.
- Wheel wash or tire bath wastewater should not include wastewater from concrete washout areas.

### ***Design and Installation Specifications***

Suggested details are shown in [Figure II-4.1.2 Wheel Wash \(p.276\)](#). The Local Permitting Authority may allow other designs. A minimum of 6 inches of asphalt treated base (ATB) over crushed base material or 8 inches over a good subgrade is recommended to pave the wheel wash.

Use a low clearance truck to test the wheel wash before paving. Either a belly dump or lowboy will work well to test clearance.

Keep the water level from 12 to 14 inches deep to avoid damage to truck hubs and filling the truck tongues with water.



Midpoint spray nozzles are only needed in extremely muddy conditions.

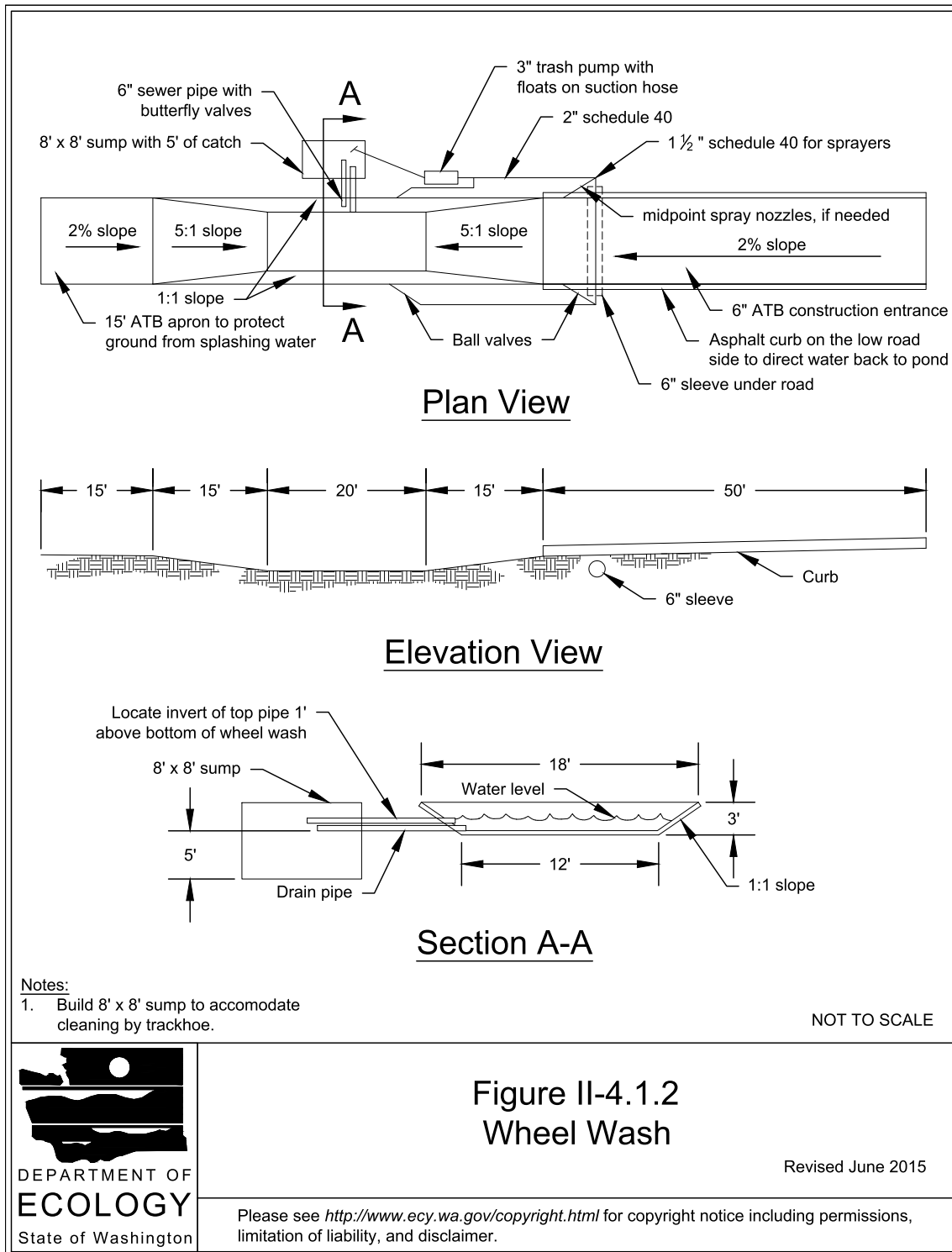
Wheel wash systems should be designed with a small grade change, 6- to 12-inches for a 10-foot-wide pond, to allow sediment to flow to the low side of pond to help prevent re-suspension of sediment. A drainpipe with a 2- to 3-foot riser should be installed on the low side of the pond to allow for easy cleaning and refilling. Polymers may be used to promote coagulation and flocculation in a closed-loop system. Polyacrylamide (PAM) added to the wheel wash water at a rate of 0.25 - 0.5 pounds per 1,000 gallons of water increases effectiveness and reduces cleanup time. If PAM is already being used for dust or erosion control and is being applied by a water truck, the same truck can be used to change the wash water.

### ***Maintenance Standards***

The wheel wash should start out the day with fresh water.

The wash water should be changed a minimum of once per day. On large earthwork jobs where more than 10-20 trucks per hour are expected, the wash water will need to be changed more often.

**Figure II-4.1.2 Wheel Wash**



- Storm drain inlets shall be protected to prevent sediment-laden water entering the storm drain system (see [BMP C220: Storm Drain Inlet Protection \(p.357\)](#)).

### ***Maintenance Standards***

Inspect stabilized areas regularly, especially after large storm events.

Crushed rock, gravel base, etc., shall be added as required to maintain a stable driving surface and to stabilize any areas that have eroded.

Following construction, these areas shall be restored to pre-construction condition or better to prevent future erosion.

Perform street cleaning at the end of each day or more often if necessary.

## **BMP C120: Temporary and Permanent Seeding**

### ***Purpose***

Seeding reduces erosion by stabilizing exposed soils. A well-established vegetative cover is one of the most effective methods of reducing erosion.

### ***Conditions of Use***

Use seeding throughout the project on disturbed areas that have reached final grade or that will remain unworked for more than 30 days.

The optimum seeding windows for western Washington are April 1 through June 30 and September 1 through October 1.

Between July 1 and August 30 seeding requires irrigation until 75 percent grass cover is established.

Between October 1 and March 30 seeding requires a cover of mulch with straw or an erosion control blanket until 75 percent grass cover is established.

Review all disturbed areas in late August to early September and complete all seeding by the end of September. Otherwise, vegetation will not establish itself enough to provide more than average protection.

- Mulch is required at all times for seeding because it protects seeds from heat, moisture loss, and transport due to runoff. Mulch can be applied on top of the seed or simultaneously by hydroseeding. See [BMP C121: Mulching \(p.284\)](#) for specifications.
- Seed and mulch, all disturbed areas not otherwise vegetated at final site stabilization. Final stabilization means the completion of all soil disturbing activities at the site and the establishment of a permanent vegetative cover, or equivalent per-

manent stabilization measures (such as pavement, riprap, gabions, or geotextiles) which will prevent erosion.

## ***Design and Installation Specifications***

Seed retention/detention ponds as required.

Install channels intended for vegetation before starting major earthwork and hydroseed with a Bonded Fiber Matrix. For vegetated channels that will have high flows, install erosion control blankets over hydroseed. Before allowing water to flow in vegetated channels, establish 75 percent vegetation cover. If vegetated channels cannot be established by seed before water flow; install sod in the channel bottom—over hydromulch and erosion control blankets.

- Confirm the installation of all required surface water control measures to prevent seed from washing away.
- Hydroseed applications shall include a minimum of 1,500 pounds per acre of mulch with 3 percent tackifier. See [BMP C121: Mulching \(p.284\)](#) for specifications.
- Areas that will have seeding only and not landscaping may need compost or meal-based mulch included in the hydroseed in order to establish vegetation. Re-install native topsoil on the disturbed soil surface before application.
- When installing seed via hydroseeding operations, only about 1/3 of the seed actually ends up in contact with the soil surface. This reduces the ability to establish a good stand of grass quickly. To overcome this, consider increasing seed quantities by up to 50 percent.
- Enhance vegetation establishment by dividing the hydromulch operation into two phases:
  1. Phase 1- Install all seed and fertilizer with 25-30 percent mulch and tackifier onto soil in the first lift.
  2. Phase 2- Install the rest of the mulch and tackifier over the first lift.

Or, enhance vegetation by:

1. Installing the mulch, seed, fertilizer, and tackifier in one lift.
2. Spread or blow straw over the top of the hydromulch at a rate of 800-1000 pounds per acre.
3. Hold straw in place with a standard tackifier.

Both of these approaches will increase cost moderately but will greatly improve and enhance vegetative establishment. The increased cost may be offset by the reduced need for:

- Irrigation.
- Reapplication of mulch.
- Repair of failed slope surfaces.

This technique works with standard hydromulch (1,500 pounds per acre minimum) and BFM/MBFMs (3,000 pounds per acre minimum).

- Seed may be installed by hand if:
  - Temporary and covered by straw, mulch, or topsoil.
  - Permanent in small areas (usually less than 1 acre) and covered with mulch, topsoil, or erosion blankets.
  - The seed mixes listed in the tables below include recommended mixes for both temporary and permanent seeding.
  - Apply these mixes, with the exception of the wetland mix, at a rate of 120 pounds per acre. This rate can be reduced if soil amendments or slow-release fertilizers are used.
  - Consult the local suppliers or the local conservation district for their recommendations because the appropriate mix depends on a variety of factors, including location, exposure, soil type, slope, and expected foot traffic. Alternative seed mixes approved by the local authority may be used.
  - Other mixes may be appropriate, depending on the soil type and hydrology of the area.
- [Table II-4.1.2 Temporary Erosion Control Seed Mix \(p.280\)](#) lists the standard mix for areas requiring a temporary vegetative cover.

**Table II-4.1.2 Temporary Erosion Control Seed Mix**

	% Weight	% Purity	% Germination
Chewings or annual blue grass <i>Festuca rubra var. commutata</i> or <i>Poa annua</i>	40	98	90
Perennial rye <i>Lolium perenne</i>	50	98	90
Redtop or colonial bentgrass <i>Agrostis alba</i> or <i>Agrostis tenuis</i>	5	92	85
White dutch clover <i>Trifolium repens</i>	5	98	90

- [Table II-4.1.3 Landscaping Seed Mix \(p.281\)](#) lists a recommended mix for landscaping seed.

**Table II-4.1.3 Landscaping Seed Mix**

	% Weight	% Purity	% Germination
Perennial rye blend <i>Lolium perenne</i>	70	98	90
Chewings and red fescue blend <i>Festuca rubra</i> var. <i>commutata</i> or <i>Festuca rubra</i>	30	98	90

- [Table II-4.1.4 Low-Growing Turf Seed Mix \(p.281\)](#) lists a turf seed mix for dry situations where there is no need for watering. This mix requires very little maintenance.

**Table II-4.1.4 Low-Growing Turf Seed Mix**

	% Weight	% Purity	% Germination
Dwarf tall fescue (several varieties) <i>Festuca arundinacea</i> var.	45	98	90
Dwarf perennial rye (Barclay) <i>Lolium perenne</i> var. <i>barclay</i>	30	98	90
Red fescue <i>Festuca rubra</i>	20	98	90
Colonial bentgrass <i>Agrostis tenuis</i>	5	98	90

- [Table II-4.1.5 Bioswale Seed Mix\\* \(p.281\)](#) lists a mix for bioswales and other intermittently wet areas.

**Table II-4.1.5 Bioswale Seed Mix\***

	% Weight	% Purity	% Germination
Tall or meadow fescue <i>Festuca arundinacea</i> or <i>Festuca elatior</i>	75-80	98	90
Seaside/Creeping bentgrass <i>Agrostis palustris</i>	10-15	92	85
Redtop bentgrass <i>Agrostis alba</i> or <i>Agrostis gigantea</i>	5-10	90	80
* Modified Briargreen, Inc. Hydroseeding Guide Wetlands Seed Mix			

- [Table II-4.1.6 Wet Area Seed Mix\\* \(p.282\)](#) lists a low-growing, relatively non-invasive seed mix appropriate for very wet areas that are not regulated wetlands. Apply

this mixture at a rate of 60 pounds per acre. Consult Hydraulic Permit Authority (HPA) for seed mixes if applicable.

**Table II-4.1.6 Wet Area Seed Mix\***

	% Weight	% Purity	% Germination
Tall or meadow fescue <i>Festuca arundinacea</i> or <i>Festuca elatior</i>	60-70	98	90
Seaside/Creeping bentgrass <i>Agrostis palustris</i>	10-15	98	85
Meadow foxtail <i>Alepocurus pratensis</i>	10-15	90	80
Alsike clover <i>Trifolium hybridum</i>	1-6	98	90
Redtop bentgrass <i>Agrostis alba</i>	1-6	92	85
* Modified Briargreen, Inc. Hydroseeding Guide Wetlands Seed Mix			

- [Table II-4.1.7 Meadow Seed Mix \(p.282\)](#) lists a recommended meadow seed mix for infrequently maintained areas or non-maintained areas where colonization by native plants is desirable. Likely applications include rural road and utility right-of-way. Seeding should take place in September or very early October in order to obtain adequate establishment prior to the winter months. Consider the appropriateness of clover, a fairly invasive species, in the mix. Amending the soil can reduce the need for clover.

**Table II-4.1.7 Meadow Seed Mix**

	% Weight	% Purity	% Germination
Redtop or Oregon bentgrass <i>Agrostis alba</i> or <i>Agrostis oregonensis</i>	20	92	85
Red fescue <i>Festuca rubra</i>	70	98	90
White dutch clover <i>Trifolium repens</i>	10	98	90

- **Roughening and Rototilling:**
  - The seedbed should be firm and rough. Roughen all soil no matter what the slope. Track walk slopes before seeding if engineering purposes require

compaction. Backblading or smoothing of slopes greater than 4H:1V is not allowed if they are to be seeded.

- Restoration-based landscape practices require deeper incorporation than that provided by a simple single-pass rototilling treatment. Wherever practical, initially rip the subgrade to improve long-term permeability, infiltration, and water inflow qualities. At a minimum, permanent areas shall use soil amendments to achieve organic matter and permeability performance defined in engineered soil/landscape systems. For systems that are deeper than 8 inches complete the rototilling process in multiple lifts, or prepare the engineered soil system per specifications and place to achieve the specified depth.
- **Fertilizers:**
  - Conducting soil tests to determine the exact type and quantity of fertilizer is recommended. This will prevent the over-application of fertilizer.
  - Organic matter is the most appropriate form of fertilizer because it provides nutrients (including nitrogen, phosphorus, and potassium) in the least water-soluble form.
  - In general, use 10-4-6 N-P-K (nitrogen-phosphorus-potassium) fertilizer at a rate of 90 pounds per acre. Always use slow-release fertilizers because they are more efficient and have fewer environmental impacts. Do not add fertilizer to the hydromulch machine, or agitate, more than 20 minutes before use. Too much agitation destroys the slow-release coating.
  - There are numerous products available that take the place of chemical fertilizers. These include several with seaweed extracts that are beneficial to soil microbes and organisms. If 100 percent cottonseed meal is used as the mulch in hydroseed, chemical fertilizer may not be necessary. Cottonseed meal provides a good source of long-term, slow-release, available nitrogen.
- **Bonded Fiber Matrix and Mechanically Bonded Fiber Matrix:**
  - On steep slopes use Bonded Fiber Matrix (BFM) or Mechanically Bonded Fiber Matrix (MBFM) products. Apply BFM/MBFM products at a minimum rate of 3,000 pounds per acre of mulch with approximately 10 percent tackifier. Achieve a minimum of 95 percent soil coverage during application. Numerous products are available commercially. Installed products per manufacturer's instructions. Most products require 24-36 hours to cure before rainfall and cannot be installed on wet or saturated soils. Generally, products come in 40-50 pound bags and include all necessary ingredients except for seed and fertilizer.



- BFM and MBFMs provide good alternatives to blankets in most areas requiring vegetation establishment. Advantages over blankets include:
  - BFM and MBFMs do not require surface preparation.
  - Helicopters can assist in installing BFM and MBFMs in remote areas.
  - On slopes steeper than 2.5H:1V, blanket installers may require ropes and harnesses for safety.
  - Installing BFM and MBFMs can save at least \$1,000 per acre compared to blankets.

### ***Maintenance Standards***

Reseed any seeded areas that fail to establish at least 80 percent cover (100 percent cover for areas that receive sheet or concentrated flows). If reseeding is ineffective, use an alternate method such as sodding, mulching, or nets/blankets. If winter weather prevents adequate grass growth, this time limit may be relaxed at the discretion of the local authority when sensitive areas would otherwise be protected.

- Reseed and protect by mulch any areas that experience erosion after achieving adequate cover. Reseed and protect by mulch any eroded area.
- Supply seeded areas with adequate moisture, but do not water to the extent that it causes runoff.

### ***Approved as Equivalent***

Ecology has approved products as able to meet the requirements of [BMP C120: Temporary and Permanent Seeding](#). The products did not pass through the Technology Assessment Protocol – Ecology (TAPE) process. Local jurisdictions may choose not to accept this product approved as equivalent, or may require additional testing prior to consideration for local use. The products are available for review on Ecology’s website at <http://www.ecy.wa.gov/programs/wq/stormwater/newtech/equivalent.html>.

## **BMP C121: Mulching**

### ***Purpose***

Mulching soils provides immediate temporary protection from erosion. Mulch also enhances plant establishment by conserving moisture, holding fertilizer, seed, and topsoil in place, and moderating soil temperatures. There is an enormous variety of mulches that can be used. This section discusses only the most common types of mulch.

### ***Conditions of Use***

As a temporary cover measure, mulch should be used:

- For less than 30 days on disturbed areas that require cover.
- At all times for seeded areas, especially during the wet season and during the hot summer months.
- During the wet season on slopes steeper than 3H:1V with more than 10 feet of vertical relief.

Mulch may be applied at any time of the year and must be refreshed periodically.

- For seeded areas mulch may be made up of 100 percent: cottonseed meal; fibers made of wood, recycled cellulose, hemp, kenaf; compost; or blends of these. Tackifier shall be plant-based, such as guar or alpha plantago, or chemical-based such as polyacrylamide or polymers. Any mulch or tackifier product used shall be installed per manufacturer's instructions. Generally, mulches come in 40-50 pound bags. Seed and fertilizer are added at time of application.

### ***Design and Installation Specifications***

For mulch materials, application rates, and specifications, see [Table II-4.1.8 Mulch Standards and Guidelines \(p.286\)](#). Always use a 2-inch minimum mulch thickness; increase the thickness until the ground is 95% covered (i.e. not visible under the mulch layer). Note: Thickness may be increased for disturbed areas in or near sensitive areas or other areas highly susceptible to erosion.

Where the option of "Compost" is selected, it should be a coarse compost that meets the following size gradations when tested in accordance with the U.S. Composting Council "Test Methods for the Examination of Compost and Composting" (TMECC) Test Method 02.02-B.

#### **Coarse Compost**

Minimum Percent passing 3" sieve openings 100%

Minimum Percent passing 1" sieve openings 90%

Minimum Percent passing ¾" sieve openings 70%

Minimum Percent passing ¼" sieve openings 40%

Mulch used within the ordinary high-water mark of surface waters should be selected to minimize potential flotation of organic matter. Composted organic materials have higher specific gravities (densities) than straw, wood, or chipped material. Consult Hydraulic Permit Authority (HPA) for mulch mixes if applicable.

### ***Maintenance Standards***

- The thickness of the cover must be maintained.
- Any areas that experience erosion shall be remulched and/or protected with a net

or blanket. If the erosion problem is drainage related, then the problem shall be fixed and the eroded area remulched.

**Table II-4.1.8 Mulch Standards and Guidelines**

Mulch Material	Quality Standards	Application Rates	Remarks
Straw	Air-dried; free from undesirable seed and coarse material.	2"-3" thick; 5 bales per 1,000 sf or 2-3 tons per acre	Cost-effective protection when applied with adequate thickness. Hand-application generally requires greater thickness than blown straw. The thickness of straw may be reduced by half when used in conjunction with seeding. In windy areas straw must be held in place by crimping, using a tackifier, or covering with netting. Blown straw always has to be held in place with a tackifier as even light winds will blow it away. Straw, however, has several deficiencies that should be considered when selecting mulch materials. It often introduces and/or encourages the propagation of weed species and it has no significant long-term benefits. It should also not be used within the ordinary high-water elevation of surface waters (due to flotation).
Hydromulch	No growth inhibiting factors.	Approx. 25-30 lbs per 1,000 sf or 1,500 - 2,000 lbs per acre	Shall be applied with hydromulcher. Shall not be used without seed and tackifier unless the application rate is at least doubled. Fibers longer than about 3/4 - 1 inch clog hydromulch equipment. Fibers should be kept to less than 3/4 inch.
Compost	No visible water or dust during handling. Must be produced per WAC 173-350, Solid Waste Handling Standards, but may have up to 35%	2" thick min.; approx. 100 tons per acre (approx. 800 lbs per yard)	More effective control can be obtained by increasing thickness to 3". Excellent mulch for protecting final grades until landscaping because it can be directly seeded or tilled into soil as an amendment. Compost used for mulch has a coarser size gradation than compost used for <a href="#">BMP C125: Topsoiling / Composting (p.297)</a> or <a href="#">BMP T5.13: Post-Construction Soil Quality and Depth (p.911)</a> . It is more stable and practical to use in wet areas and during rainy weather conditions. Do not use near wetlands or near phosphorous impaired water bodies.

**Table II-4.1.8 Mulch Standards and Guidelines (continued)**

Mulch Material	Quality Standards	Application Rates	Remarks
	biosolids.		
Chipped Site Vegetation	Average size shall be several inches. Gradations from fines to 6 inches in length for texture, variation, and interlocking properties.	2" thick min.;	This is a cost-effective way to dispose of debris from clearing and grubbing, and it eliminates the problems associated with burning. Generally, it should not be used on slopes above approx. 10% because of its tendency to be transported by run-off. It is not recommended within 200 feet of surface waters. If seeding is expected shortly after mulch, the decomposition of the chipped vegetation may tie up nutrients important to grass establishment.
Wood-based Mulch or Wood Straw	No visible water or dust during handling. Must be purchased from a supplier with a Solid Waste Handling Permit or one exempt from solid waste regulations.	2" thick min.; approx. 100 tons per acre (approx. 800 lbs. per cubic yard)	This material is often called "hog or hogged fuel". The use of mulch ultimately improves the organic matter in the soil. Special caution is advised regarding the source and composition of wood-based mulches. Its preparation typically does not provide any weed seed control, so evidence of residual vegetation in its composition or known inclusion of weed plants or seeds should be monitored and prevented (or minimized).
Wood Strand Mulch	A blend of loose, long, thin wood pieces derived from native conifer or deciduous trees with	2" thick min.	Cost-effective protection when applied with adequate thickness. A minimum of 95-percent of the wood strand shall have lengths between 2 and 10-inches, with a width and thickness between 1/16 and 3/8-inches. The mulch shall not contain resin, tannin, or other compounds in quantities that would be detrimental to plant life. Sawdust or wood shavings shall not be used as mulch. (WSDOT specification (9-14.4(4)))

**Table II-4.1.8 Mulch Standards and Guidelines (continued)**

Mulch Material	Quality Standards	Application Rates	Remarks
	high length-to-width ratio.		

## **BMP C122: Nets and Blankets**

### ***Purpose***

Erosion control nets and blankets are intended to prevent erosion and hold seed and mulch in place on steep slopes and in channels so that vegetation can become well established. In addition, some nets and blankets can be used to permanently reinforce turf to protect drainage ways during high flows. Nets (commonly called matting) are strands of material woven into an open, but high-tensile strength net (for example, coconut fiber matting). Blankets are strands of material that are not tightly woven, but instead form a layer of interlocking fibers, typically held together by a biodegradable or photodegradable netting (for example, excelsior or straw blankets). They generally have lower tensile strength than nets, but cover the ground more completely. Coir (coconut fiber) fabric comes as both nets and blankets.

### ***Conditions of Use***

Erosion control nets and blankets should be used:

- To aid permanent vegetated stabilization of slopes 2H:1V or greater and with more than 10 feet of vertical relief.
- For drainage ditches and swales (highly recommended). The application of appropriate netting or blanket to drainage ditches and swales can protect bare soil from channelized runoff while vegetation is established. Nets and blankets also can capture a great deal of sediment due to their open, porous structure. Nets and blankets can be used to permanently stabilize channels and may provide a cost-effective, environmentally preferable alternative to riprap. 100 percent synthetic blankets manufactured for use in ditches may be easily reused as temporary ditch liners.

Disadvantages of blankets include:

- Surface preparation required.
- On slopes steeper than 2.5H:1V, blanket installers may need to be roped and harnessed for safety.
- They cost at least \$4,000-6,000 per acre installed.

Advantages of blankets include:

- Installation without mobilizing special equipment.
- Installation by anyone with minimal training
- Installation in stages or phases as the project progresses.
- Installers can hand place seed and fertilizer as they progress down the slope.
- Installation in any weather.
- There are numerous types of blankets that can be designed with various parameters in mind. Those parameters include: fiber blend, mesh strength, longevity, biodegradability, cost, and availability.

### ***Design and Installation Specifications***

- See [Figure II-4.1.3 Channel Installation \(p.292\)](#) and [Figure II-4.1.4 Slope Installation \(p.293\)](#) for typical orientation and installation of blankets used in channels and as slope protection. Note: these are typical only; all blankets must be installed per manufacturer's installation instructions.
- Installation is critical to the effectiveness of these products. If good ground contact is not achieved, runoff can concentrate under the product, resulting in significant erosion.
- Installation of Blankets on Slopes:
  1. Complete final grade and track walk up and down the slope.
  2. Install hydromulch with seed and fertilizer.
  3. Dig a small trench, approximately 12 inches wide by 6 inches deep along the top of the slope.
  4. Install the leading edge of the blanket into the small trench and staple approximately every 18 inches. NOTE: Staples are metal, "U"-shaped, and a minimum of 6 inches long. Longer staples are used in sandy soils. Biodegradable stakes are also available.
  5. Roll the blanket slowly down the slope as installer walks backwards. NOTE: The blanket rests against the installer's legs. Staples are installed as the blanket is unrolled. It is critical that the proper staple pattern is used for the blanket being installed. The blanket is not to be allowed to roll down the slope on its own as this stretches the blanket making it impossible to maintain soil contact. In addition, no one is allowed to walk on the blanket after it is in place.
  6. If the blanket is not long enough to cover the entire slope length, the trailing edge of the upper blanket should overlap the leading edge of the lower

blanket and be stapled. On steeper slopes, this overlap should be installed in a small trench, stapled, and covered with soil.

- With the variety of products available, it is impossible to cover all the details of appropriate use and installation. Therefore, it is critical that the design engineer consult the manufacturer's information and that a site visit takes place in order to ensure that the product specified is appropriate. Information is also available at the following web sites:

1. WSDOT (Section 3.2.4):

<http://www.wsdot.wa.gov/NR/rdonlyres/3B41E087-FA86-4717-932D-D7A8556CCD57/0/ErosionTrainingManual.pdf>

2. Texas Transportation Institute:

[http://www.txdot.gov/business/doing\\_business/product\\_evaluation/erosion\\_control.htm](http://www.txdot.gov/business/doing_business/product_evaluation/erosion_control.htm)

- Use jute matting in conjunction with mulch ([BMP C121: Mulching \(p.284\)](#)). Excelsior, woven straw blankets and coir (coconut fiber) blankets may be installed without mulch. There are many other types of erosion control nets and blankets on the market that may be appropriate in certain circumstances.
- In general, most nets (e.g., jute matting) require mulch in order to prevent erosion because they have a fairly open structure. Blankets typically do not require mulch because they usually provide complete protection of the surface.
- Extremely steep, unstable, wet, or rocky slopes are often appropriate candidates for use of synthetic blankets, as are riverbanks, beaches and other high-energy environments. If synthetic blankets are used, the soil should be hydromulched first.
- 100-percent biodegradable blankets are available for use in sensitive areas. These organic blankets are usually held together with a paper or fiber mesh and stitching which may last up to a year.
- Most netting used with blankets is photodegradable, meaning they break down under sunlight (not UV stabilized). However, this process can take months or years even under bright sun. Once vegetation is established, sunlight does not reach the mesh. It is not uncommon to find non-degraded netting still in place several years after installation. This can be a problem if maintenance requires the use of mowers or ditch cleaning equipment. In addition, birds and small animals can become trapped in the netting.

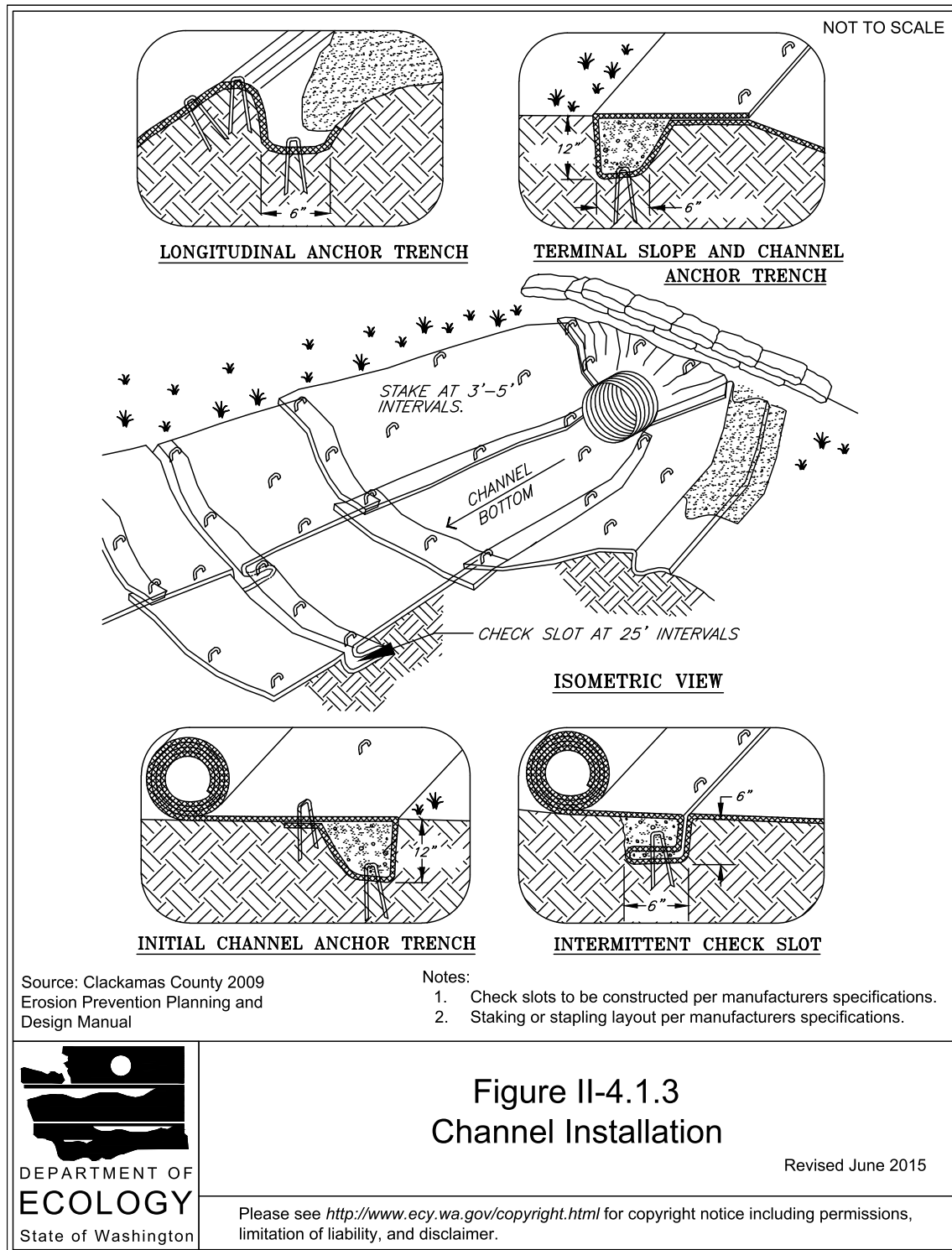
### ***Maintenance Standards***

- Maintain good contact with the ground. Erosion must not occur beneath the net or blanket.

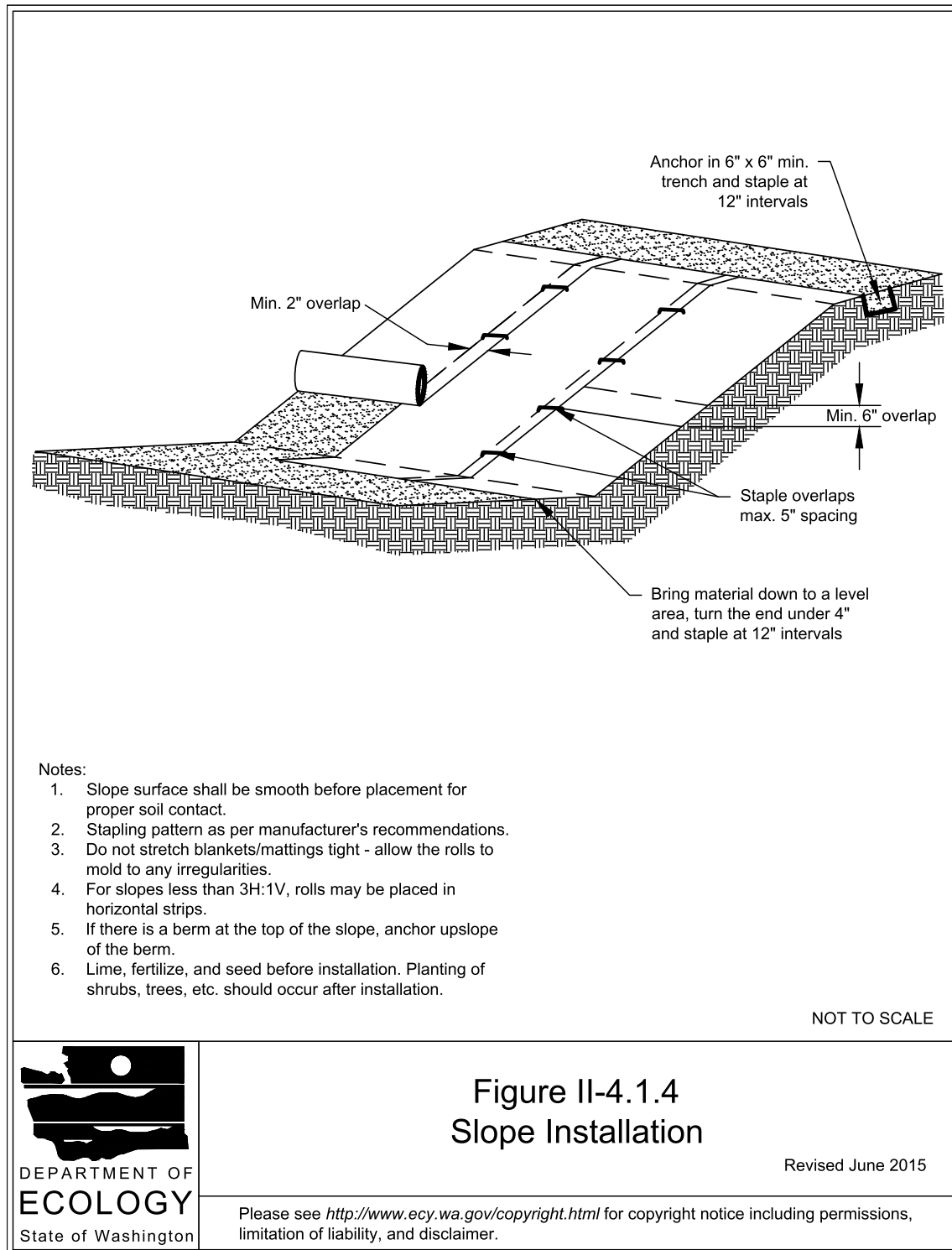
- Repair and staple any areas of the net or blanket that are damaged or not in close contact with the ground.
- Fix and protect eroded areas if erosion occurs due to poorly controlled drainage.



**Figure II-4.1.3 Channel Installation**



**Figure II-4.1.4 Slope Installation**



## **BMP C123: Plastic Covering**

### ***Purpose***

Plastic covering provides immediate, short-term erosion protection to slopes and disturbed areas.

### ***Conditions of Use***

Plastic covering may be used on disturbed areas that require cover measures for less than 30 days, except as stated below.

- Plastic is particularly useful for protecting cut and fill slopes and stockpiles. Note: The relatively rapid breakdown of most polyethylene sheeting makes it unsuitable for long-term (greater than six months) applications.
- Due to rapid runoff caused by plastic covering, do not use this method upslope of areas that might be adversely impacted by concentrated runoff. Such areas include steep and/or unstable slopes.
- Plastic sheeting may result in increased runoff volumes and velocities, requiring additional on-site measures to counteract the increases. Creating a trough with wattles or other material can convey clean water away from these areas.
- To prevent undercutting, trench and backfill rolled plastic covering products.
- While plastic is inexpensive to purchase, the added cost of installation, maintenance, removal, and disposal make this an expensive material, up to \$1.50-2.00 per square yard.
- Whenever plastic is used to protect slopes install water collection measures at the base of the slope. These measures include plastic-covered berms, channels, and pipes used to convey clean rainwater away from bare soil and disturbed areas. Do not mix clean runoff from a plastic covered slope with dirty runoff from a project.
- Other uses for plastic include:
  1. Temporary ditch liner.
  2. Pond liner in temporary sediment pond.
  3. Liner for bermed temporary fuel storage area if plastic is not reactive to the type of fuel being stored.
  4. Emergency slope protection during heavy rains.
  5. Temporary drainpipe (“elephant trunk”) used to direct water.

## ***Design and Installation Specifications***

- Plastic slope cover must be installed as follows:
  1. Run plastic up and down slope, not across slope.
  2. Plastic may be installed perpendicular to a slope if the slope length is less than 10 feet.
  3. Minimum of 8-inch overlap at seams.
  4. On long or wide slopes, or slopes subject to wind, tape all seams.
  5. Place plastic into a small (12-inch wide by 6-inch deep) slot trench at the top of the slope and backfill with soil to keep water from flowing underneath.
  6. Place sand filled burlap or geotextile bags every 3 to 6 feet along seams and tie them together with twine to hold them in place.
  7. Inspect plastic for rips, tears, and open seams regularly and repair immediately. This prevents high velocity runoff from contacting bare soil which causes extreme erosion.
  8. Sandbags may be lowered into place tied to ropes. However, all sandbags must be staked in place.
- Plastic sheeting shall have a minimum thickness of 0.06 millimeters.
- If erosion at the toe of a slope is likely, a gravel berm, riprap, or other suitable protection shall be installed at the toe of the slope in order to reduce the velocity of runoff.

## ***Maintenance Standards***

- Torn sheets must be replaced and open seams repaired.
- Completely remove and replace the plastic if it begins to deteriorate due to ultra-violet radiation.
- Completely remove plastic when no longer needed.
- Dispose of old tires used to weight down plastic sheeting appropriately.

## ***Approved as Equivalent***

Ecology has approved products as able to meet the requirements of [BMP C123: Plastic Covering](#). The products did not pass through the Technology Assessment Protocol – Ecology (TAPE) process. Local jurisdictions may choose not to accept this product approved as equivalent, or may require additional testing prior to consideration for local use. The products are available for review on Ecology’s website at <http://www.ecy.wa.gov/programs/wq/stormwater/newtech/equivalent.html>

## **BMP C140: Dust Control**

### ***Purpose***

Dust control prevents wind transport of dust from disturbed soil surfaces onto roadways, drainage ways, and surface waters.

### ***Conditions of Use***

- In areas (including roadways) subject to surface and air movement of dust where on-site and off-site impacts to roadways, drainage ways, or surface waters are likely.

### ***Design and Installation Specifications***

- Vegetate or mulch areas that will not receive vehicle traffic. In areas where planting, mulching, or paving is impractical, apply gravel or landscaping rock.
- Limit dust generation by clearing only those areas where immediate activity will take place, leaving the remaining area(s) in the original condition. Maintain the original ground cover as long as practical.
- Construct natural or artificial windbreaks or windscreens. These may be designed as enclosures for small dust sources.
- Sprinkle the site with water until surface is wet. Repeat as needed. To prevent carryout of mud onto street, refer to [BMP C105: Stabilized Construction Entrance / Exit \(p.270\)](#).
- Irrigation water can be used for dust control. Irrigation systems should be installed as a first step on sites where dust control is a concern.
- Spray exposed soil areas with a dust palliative, following the manufacturer's instructions and cautions regarding handling and application. Used oil is prohibited from use as a dust suppressant. Local governments may approve other dust palliatives such as calcium chloride or PAM.
- PAM ([BMP C126: Polyacrylamide \(PAM\) for Soil Erosion Protection \(p.300\)](#)) added to water at a rate of 0.5 lbs. per 1,000 gallons of water per acre and applied from a water truck is more effective than water alone. This is due to increased infiltration of water into the soil and reduced evaporation. In addition, small soil particles are bonded together and are not as easily transported by wind. Adding PAM may actually reduce the quantity of water needed for dust control. Use of PAM could be a cost-effective dust control method.

Techniques that can be used for unpaved roads and lots include:

- Lower speed limits. High vehicle speed increases the amount of dust stirred up from unpaved roads and lots.
- Upgrade the road surface strength by improving particle size, shape, and mineral types that make up the surface and base materials.
- Add surface gravel to reduce the source of dust emission. Limit the amount of fine particles (those smaller than .075 mm) to 10 to 20 percent.
- Use geotextile fabrics to increase the strength of new roads or roads undergoing reconstruction.
- Encourage the use of alternate, paved routes, if available.
- Restrict use of paved roadways by tracked vehicles and heavy trucks to prevent damage to road surface and base.
- Apply chemical dust suppressants using the admix method, blending the product with the top few inches of surface material. Suppressants may also be applied as surface treatments.
- Pave unpaved permanent roads and other trafficked areas.
- Use vacuum street sweepers.
- Remove mud and other dirt promptly so it does not dry and then turn into dust.
- Limit dust-causing work on windy days.
- Contact your local Air Pollution Control Authority for guidance and training on other dust control measures. Compliance with the local Air Pollution Control Authority constitutes compliance with this BMP.

### ***Maintenance Standards***

Respray area as necessary to keep dust to a minimum.

## **BMP C150: Materials on Hand**

### ***Purpose***

Keep quantities of erosion prevention and sediment control materials on the project site at all times to be used for regular maintenance and emergency situations such as unexpected heavy summer rains. Having these materials on-site reduces the time needed to implement BMPs when inspections indicate that existing BMPs are not meeting the Construction SWPPP requirements. In addition, contractors can save money by buying some materials in bulk and storing them at their office or yard.

## **BMP C151: Concrete Handling**

### ***Purpose***

Concrete work can generate process water and slurry that contain fine particles and high pH, both of which can violate water quality standards in the receiving water. Concrete spillage or concrete discharge to surface waters of the State is prohibited. Use this BMP to minimize and eliminate concrete, concrete process water, and concrete slurry from entering waters of the state.

### ***Conditions of Use***

Any time concrete is used, utilize these management practices. Concrete construction projects include, but are not limited to, the following:

- Curbs
- Sidewalks
- Roads
- Bridges
- Foundations
- Floors
- Runways

### ***Design and Installation Specifications***

- Assure that washout of concrete trucks, chutes, pumps, and internals is performed at an approved off-site location or in designated concrete washout areas. Do not wash out concrete trucks onto the ground, or into storm drains, open ditches, streets, or streams. Refer to [BMP C154: Concrete Washout Area \(p.317\)](#) for information on concrete washout areas.
- Return unused concrete remaining in the truck and pump to the originating batch plant for recycling. Do not dump excess concrete on site, except in designated concrete washout areas.
- Wash off hand tools including, but not limited to, screeds, shovels, rakes, floats, and trowels into formed areas only.
- Wash equipment difficult to move, such as concrete pavers in areas that do not directly drain to natural or constructed stormwater conveyances.
- Do not allow washdown from areas, such as concrete aggregate driveways, to drain directly to natural or constructed stormwater conveyances.
- Contain washwater and leftover product in a lined container when no formed areas

are available. Dispose of contained concrete in a manner that does not violate ground water or surface water quality standards.

- Always use forms or solid barriers for concrete pours, such as pilings, within 15-feet of surface waters.
- Refer to [BMP C252: High pH Neutralization Using CO2 \(p.409\)](#) and [BMP C253: pH Control for High pH Water \(p.412\)](#) for pH adjustment requirements.
- Refer to the Construction Stormwater General Permit for pH monitoring requirements if the project involves one of the following activities:
  - Significant concrete work (greater than 1,000 cubic yards poured concrete or recycled concrete used over the life of a project).
  - The use of engineered soils amended with (but not limited to) Portland cement-treated base, cement kiln dust or fly ash.
  - Discharging stormwater to segments of water bodies on the 303(d) list (Category 5) for high pH.

### ***Maintenance Standards***

Check containers for holes in the liner daily during concrete pours and repair the same day.

## **BMP C152: Sawcutting and Surfacing Pollution Prevention**

### ***Purpose***

Sawcutting and surfacing operations generate slurry and process water that contains fine particles and high pH (concrete cutting), both of which can violate the water quality standards in the receiving water. Concrete spillage or concrete discharge to surface waters of the State is prohibited. Use this BMP to minimize and eliminate process water and slurry created through sawcutting or surfacing from entering waters of the State.

### ***Conditions of Use***

Utilize these management practices anytime sawcutting or surfacing operations take place. Sawcutting and surfacing operations include, but are not limited to, the following:

- Sawing
- Coring
- Grinding
- Roughening



- Hydro-demolition
- Bridge and road surfacing

### ***Design and Installation Specifications***

- Vacuum slurry and cuttings during cutting and surfacing operations.
- Slurry and cuttings shall not remain on permanent concrete or asphalt pavement overnight.
- Slurry and cuttings shall not drain to any natural or constructed drainage conveyance including stormwater systems. This may require temporarily blocking catch basins.
- Dispose of collected slurry and cuttings in a manner that does not violate ground water or surface water quality standards.
- Do not allow process water generated during hydro-demolition, surface roughening or similar operations to drain to any natural or constructed drainage conveyance including stormwater systems. Dispose process water in a manner that does not violate ground water or surface water quality standards.
- Handle and dispose cleaning waste material and demolition debris in a manner that does not cause contamination of water. Dispose of sweeping material from a pick-up sweeper at an appropriate disposal site.

### ***Maintenance Standards***

Continually monitor operations to determine whether slurry, cuttings, or process water could enter waters of the state. If inspections show that a violation of water quality standards could occur, stop operations and immediately implement preventive measures such as berms, barriers, secondary containment, and vacuum trucks.

## **BMP C153: Material Delivery, Storage and Containment**

### ***Purpose***

Prevent, reduce, or eliminate the discharge of pollutants to the stormwater system or watercourses from material delivery and storage. Minimize the storage of hazardous materials on-site, store materials in a designated area, and install secondary containment.

### ***Conditions of Use***

**These procedures are suitable for use at all construction sites with delivery and storage of the following materials:**

- Petroleum products such as fuel, oil and grease
- Soil stabilizers and binders (e.g., Polyacrylamide)
- Fertilizers, pesticides and herbicides
- Detergents
- Asphalt and concrete compounds
- Hazardous chemicals such as acids, lime, adhesives, paints, solvents, and curing compounds
- Any other material that may be detrimental if released to the environment

### ***Design and Installation Specifications***

**The following steps should be taken to minimize risk:**

- Temporary storage area should be located away from vehicular traffic, near the construction entrance(s), and away from waterways or storm drains.
- Material Safety Data Sheets (MSDS) should be supplied for all materials stored. Chemicals should be kept in their original labeled containers.
- Hazardous material storage on-site should be minimized.
- Hazardous materials should be handled as infrequently as possible.
- During the wet weather season (Oct 1 – April 30), consider storing materials in a covered area.
- Materials should be stored in secondary containments, such as earthen dike, horse trough, or even a children's wading pool for non-reactive materials such as detergents, oil, grease, and paints. Small amounts of material may be secondarily contained in "bus boy" trays or concrete mixing trays.
- Do not store chemicals, drums, or bagged materials directly on the ground. Place these items on a pallet and, when possible, and within secondary containment.
- If drums must be kept uncovered, store them at a slight angle to reduce ponding of rainwater on the lids to reduce corrosion. Domed plastic covers are inexpensive and snap to the top of drums, preventing water from collecting.

### ***Material Storage Areas and Secondary Containment Practices:***

- Liquids, petroleum products, and substances listed in 40 CFR Parts 110, 117, or 302 shall be stored in approved containers and drums and shall not be overfilled. Containers and drums shall be stored in temporary secondary containment facilities.
- Temporary secondary containment facilities shall provide for a spill containment

volume able to contain 10% of the total enclosed container volume of all containers, or 110% of the capacity of the largest container within its boundary, whichever is greater.

- Secondary containment facilities shall be impervious to the materials stored therein for a minimum contact time of 72 hours.
- Secondary containment facilities shall be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills shall be collected and placed into drums. These liquids shall be handled as hazardous waste unless testing determines them to be non-hazardous.
- Sufficient separation should be provided between stored containers to allow for spill cleanup and emergency response access.
- During the wet weather season (Oct 1 – April 30), each secondary containment facility shall be covered during non-working days, prior to and during rain events.
- Keep material storage areas clean, organized and equipped with an ample supply of appropriate spill clean-up material (spill kit).
- The spill kit should include, at a minimum:
  - 1-Water Resistant Nylon Bag
  - 3-Oil Absorbent Socks 3"x 4'
  - 2-Oil Absorbent Socks 3"x 10'
  - 12-Oil Absorbent Pads 17"x19"
  - 1-Pair Splash Resistant Goggles
  - 3-Pair Nitrile Gloves
  - 10-Disposable Bags with Ties
  - Instructions

## **BMP C154: Concrete Washout Area**

### ***Purpose***

Prevent or reduce the discharge of pollutants to stormwater from concrete waste by conducting washout off-site, or performing on-site washout in a designated area to prevent pollutants from entering surface waters or ground water.

### ***Conditions of Use***

Concrete washout area best management practices are implemented on construction projects where:

- Concrete is used as a construction material
- It is not possible to dispose of all concrete wastewater and washout off-site (ready mix plant, etc.).
- Concrete trucks, pumpers, or other concrete coated equipment are washed on-site.
- Note: If less than 10 concrete trucks or pumpers need to be washed out on-site, the washwater may be disposed of in a formed area awaiting concrete or an upland disposal site where it will not contaminate surface or ground water. The upland disposal site shall be at least 50 feet from sensitive areas such as storm drains, open ditches, or water bodies, including wetlands.

## ***Design and Installation Specifications***

### **Implementation**

The following steps will help reduce stormwater pollution from concrete wastes:

- Perform washout of concrete trucks at an approved off-site location or in designated concrete washout areas only.
- Do not wash out concrete trucks onto the ground, or into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped on-site, except in designated concrete washout areas.
- Concrete washout areas may be prefabricated concrete washout containers, or self-installed structures (above-grade or below-grade).
- Prefabricated containers are most resistant to damage and protect against spills and leaks. Companies may offer delivery service and provide regular maintenance and disposal of solid and liquid waste.
- If self-installed concrete washout areas are used, below-grade structures are preferred over above-grade structures because they are less prone to spills and leaks.
- Self-installed above-grade structures should only be used if excavation is not practical.

### **Education**

- Discuss the concrete management techniques described in this BMP with the ready-mix concrete supplier before any deliveries are made.
- Educate employees and subcontractors on the concrete waste management techniques described in this BMP.
- Arrange for contractor's superintendent or Certified Erosion and Sediment Control

Lead (CESCL) to oversee and enforce concrete waste management procedures.

- A sign should be installed adjacent to each temporary concrete washout facility to inform concrete equipment operators to utilize the proper facilities.

## **Contracts**

Incorporate requirements for concrete waste management into concrete supplier and sub-contractor agreements.

## **Location and Placement**

- Locate washout area at least 50 feet from sensitive areas such as storm drains, open ditches, or water bodies, including wetlands.
- Allow convenient access for concrete trucks, preferably near the area where the concrete is being poured.
- If trucks need to leave a paved area to access washout, prevent track-out with a pad of rock or quarry spalls (see [BMP C105: Stabilized Construction Entrance / Exit \(p.270\)](#)). These areas should be far enough away from other construction traffic to reduce the likelihood of accidental damage and spills.
- The number of facilities you install should depend on the expected demand for storage capacity.
- On large sites with extensive concrete work, washouts should be placed in multiple locations for ease of use by concrete truck drivers.

## **On-site Temporary Concrete Washout Facility, Transit Truck Washout Procedures:**

- Temporary concrete washout facilities shall be located a minimum of 50 ft from sensitive areas including storm drain inlets, open drainage facilities, and water-courses. See [Figure II-4.1.7a Concrete Washout Area \(p.322\)](#), [Figure II-4.1.7b Concrete Washout Area \(p.323\)](#), and [Figure II-4.1.8 Prefabricated Concrete Washout Container w/Ramp \(p.324\)](#).
- Concrete washout facilities shall be constructed and maintained in sufficient quantity and size to contain all liquid and concrete waste generated by washout operations.
- Washout of concrete trucks shall be performed in designated areas only.
- Concrete washout from concrete pumper bins can be washed into concrete pumper trucks and discharged into designated washout area or properly disposed of off-site.
- Once concrete wastes are washed into the designated area and allowed to

harden, the concrete should be broken up, removed, and disposed of per applicable solid waste regulations. Dispose of hardened concrete on a regular basis.

- Temporary Above-Grade Concrete Washout Facility
  - Temporary concrete washout facility (type above grade) should be constructed as shown on the details below, with a recommended minimum length and minimum width of 10 ft, but with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations.
  - Plastic lining material should be a minimum of 10 mil polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.
- Temporary Below-Grade Concrete Washout Facility
  - Temporary concrete washout facilities (type below grade) should be constructed as shown on the details below, with a recommended minimum length and minimum width of 10 ft. The quantity and volume should be sufficient to contain all liquid and concrete waste generated by washout operations.
  - Lath and flagging should be commercial type.
  - Plastic lining material shall be a minimum of 10 mil polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.
  - Liner seams shall be installed in accordance with manufacturers' recommendations.
  - Soil base shall be prepared free of rocks or other debris that may cause tears or holes in the plastic lining material.

## ***Maintenance Standards***

### **Inspection and Maintenance**

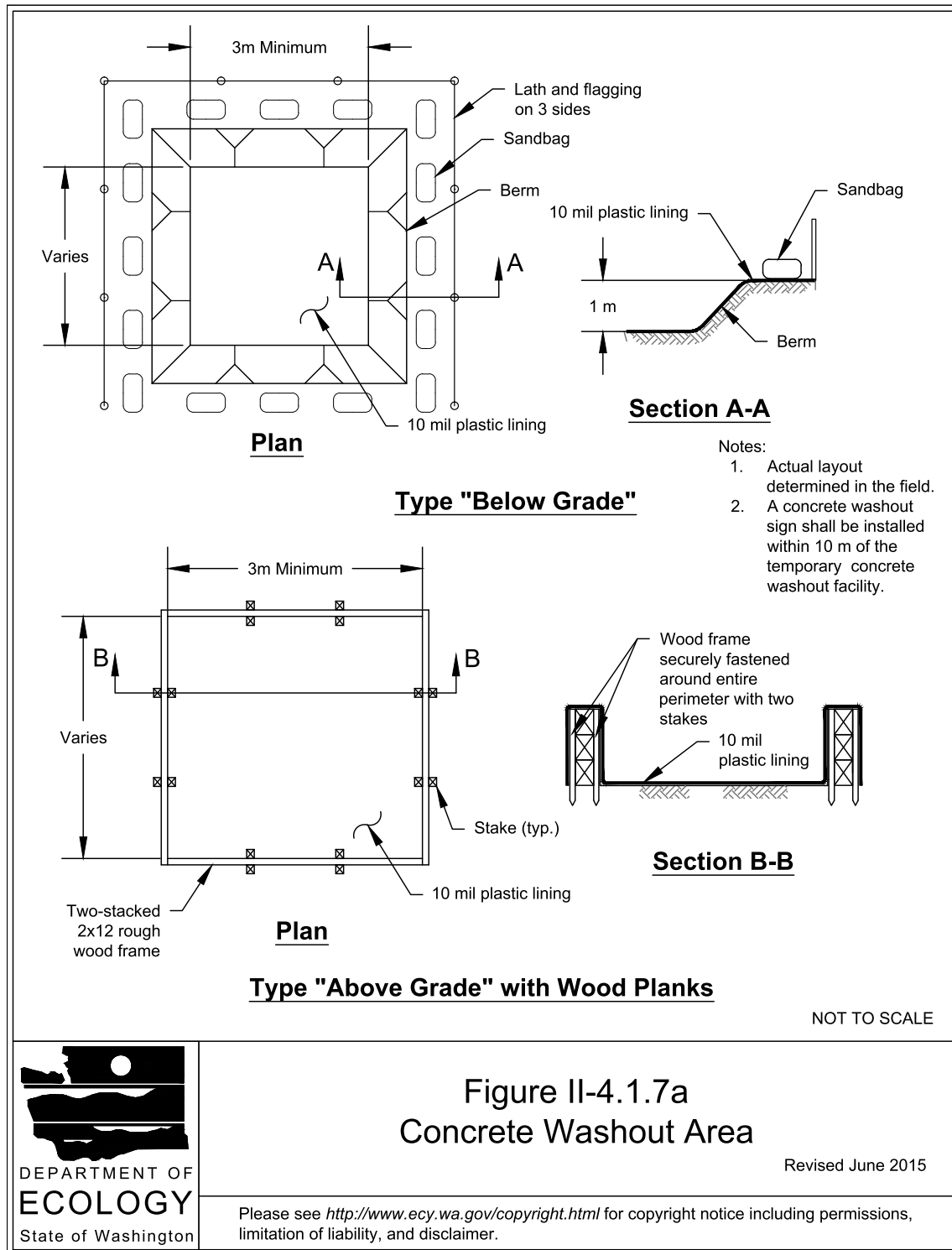
- Inspect and verify that concrete washout BMPs are in place prior to the commencement of concrete work.
- During periods of concrete work, inspect daily to verify continued performance.
  - Check overall condition and performance.
  - Check remaining capacity (% full).
  - If using self-installed washout facilities, verify plastic liners are intact and side-walls are not damaged.
  - If using prefabricated containers, check for leaks.

- Washout facilities shall be maintained to provide adequate holding capacity with a minimum freeboard of 12 inches.
- Washout facilities must be cleaned, or new facilities must be constructed and ready for use once the washout is 75% full.
- If the washout is nearing capacity, vacuum and dispose of the waste material in an approved manner.
  - Do not discharge liquid or slurry to waterways, storm drains or directly onto ground.
  - Do not use sanitary sewer without local approval.
  - Place a secure, non-collapsing, non-water collecting cover over the concrete washout facility prior to predicted wet weather to prevent accumulation and overflow of precipitation.
  - Remove and dispose of hardened concrete and return the structure to a functional condition. Concrete may be reused on-site or hauled away for disposal or recycling.
- When you remove materials from the self-installed concrete washout, build a new structure; or, if the previous structure is still intact, inspect for signs of weakening or damage, and make any necessary repairs. Re-line the structure with new plastic after each cleaning.

### **Removal of Temporary Concrete Washout Facilities**

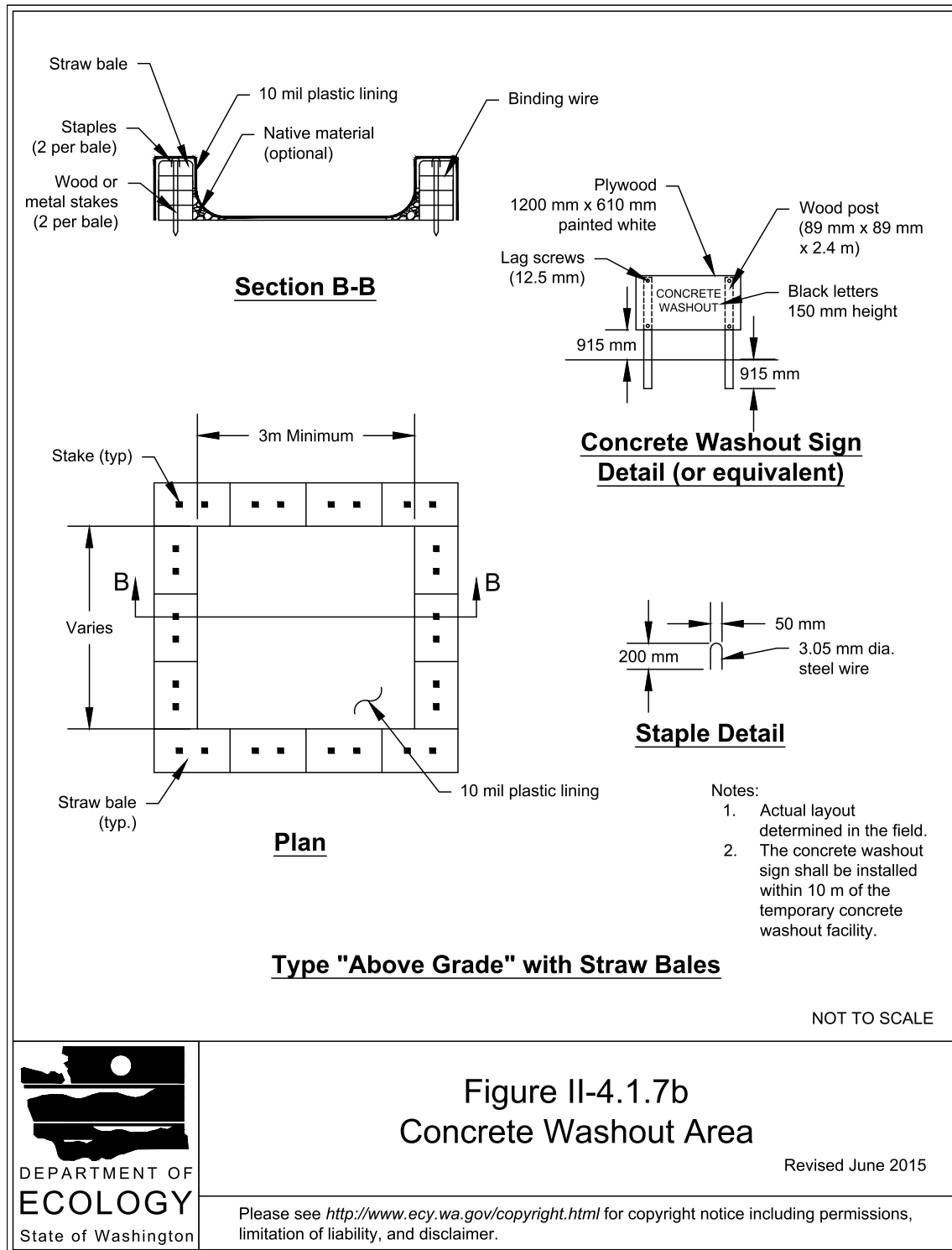
- When temporary concrete washout facilities are no longer required for the work, the hardened concrete, slurries and liquids shall be removed and properly disposed of.
- Materials used to construct temporary concrete washout facilities shall be removed from the site of the work and disposed of or recycled.
- Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities shall be backfilled, repaired, and stabilized to prevent erosion.

**Figure II-4.1.7a Concrete Washout Area**

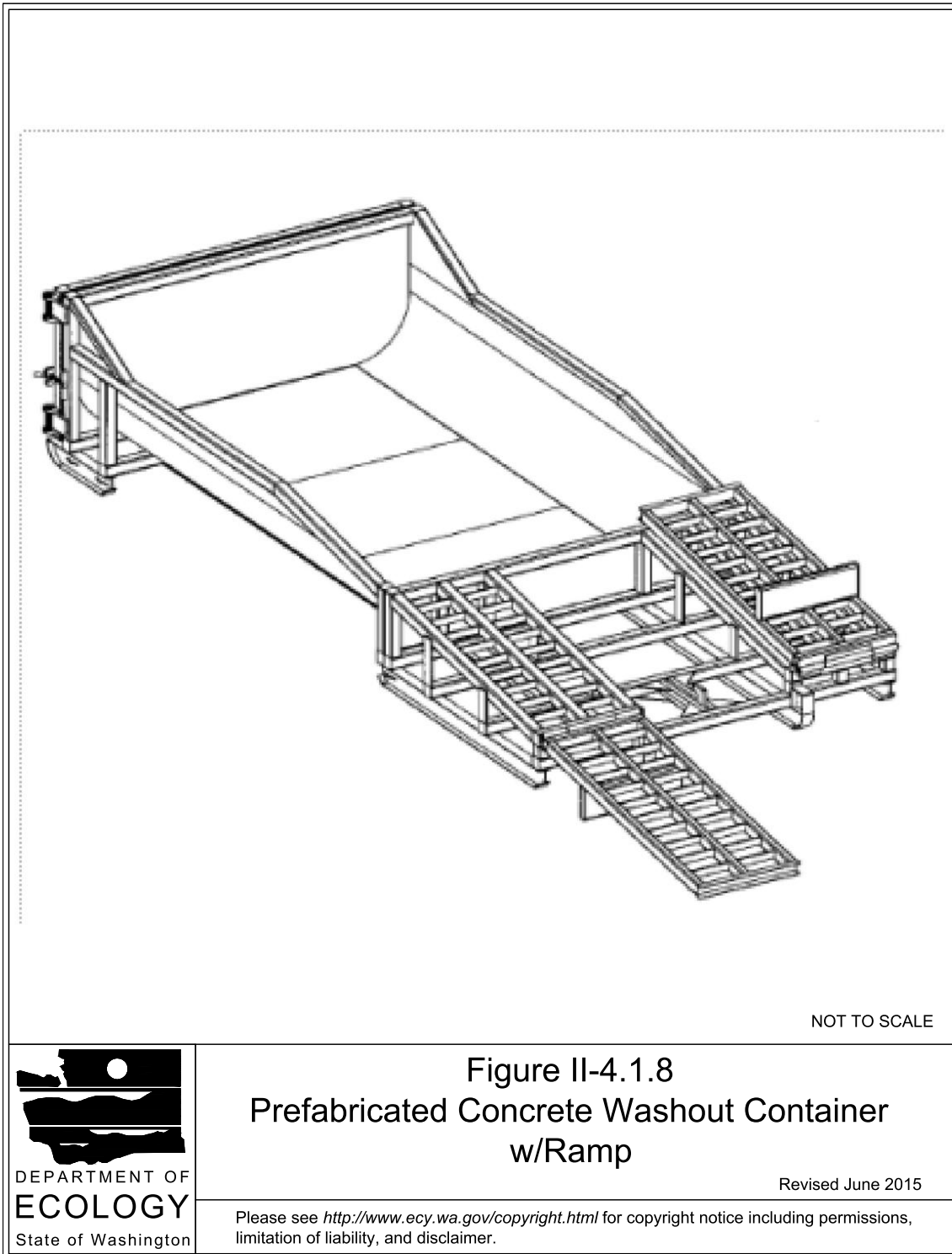




**Figure II-4.1.7b Concrete Washout Area**



**Figure II-4.1.8 Prefabricated Concrete Washout Container w/Ramp**



## **BMP C205: Subsurface Drains**

### ***Purpose***

To intercept, collect, and convey ground water to a satisfactory outlet, using a perforated pipe or conduit below the ground surface. Subsurface drains are also known as “french drains.” The perforated pipe provides a dewatering mechanism to drain excessively wet soils, provide a stable base for construction, improve stability of structures with shallow foundations, or to reduce hydrostatic pressure to improve slope stability.

### ***Conditions of Use***

Use when excessive water must be removed from the soil. The soil permeability, depth to water table and impervious layers are all factors which may govern the use of subsurface drains.

### ***Design and Installation Specifications***

**Relief drains** are used either to lower the water table in large, relatively flat areas, improve the growth of vegetation, or to remove surface water.

Relief drains are installed along a slope and drain in the direction of the slope.

They can be installed in a grid pattern, a herringbone pattern, or a random pattern.

- **Interceptor drains** are used to remove excess ground water from a slope, stabilize steep slopes, and lower the water table immediately below a slope to prevent the soil from becoming saturated.

Interceptor drains are installed perpendicular to a slope and drain to the side of the slope.

They usually consist of a single pipe or series of single pipes instead of a patterned layout.

- **Depth and spacing of interceptor drains** - The depth of an interceptor drain is determined primarily by the depth to which the water table is to be lowered or the depth to a confining layer. For practical reasons, the maximum depth is usually limited to 6 feet, with a minimum cover of 2 feet to protect the conduit.
- The soil should have depth and sufficient permeability to permit installation of an effective drainage system at a depth of 2 to 6 feet.
- An adequate outlet for the drainage system must be available either by gravity or by pumping.
- The quantity and quality of discharge needs to be accounted for in the receiving stream (additional detention may be required).
- This standard does not apply to subsurface drains for building foundations or deep

excavations.

- The capacity of an interceptor drain is determined by calculating the maximum rate of ground water flow to be intercepted. Therefore, it is good practice to make complete subsurface investigations, including hydraulic conductivity of the soil, before designing a subsurface drainage system.
- **Size of drain** - Size subsurface drains to carry the required capacity without pressure flow. Minimum diameter for a subsurface drain is 4 inches.
- The minimum velocity required to prevent silting is 1.4 ft./sec. The line shall be graded to achieve this velocity at a minimum. The maximum allowable velocity using a sand-gravel filter or envelope is 9 ft/sec.
- Filter material and fabric shall be used around all drains for proper bedding and filtration of fine materials. Envelopes and filters should surround the drain to a minimum of 3-inch thickness.
- The outlet of the subsurface drain shall empty into a sediment pond through a catch basin. If free of sediment, it can then empty into a receiving channel, swale, or stable vegetated area adequately protected from erosion and undermining.
- The trench shall be constructed on a continuous grade with no reverse grades or low spots.
- Soft or yielding soils under the drain shall be stabilized with gravel or other suitable material.
- Backfilling shall be done immediately after placement of the pipe. No sections of pipe shall remain uncovered overnight or during a rainstorm. Backfill material shall be placed in the trench in such a manner that the drain pipe is not displaced or damaged.
- Do not install permanent drains near trees to avoid the tree roots that tend to clog the line. Use solid pipe with watertight connections where it is necessary to pass a subsurface drainage system through a stand of trees.
- **Outlet** - Ensure that the outlet of a drain empties into a channel or other watercourse above the normal water level.
- Secure an animal guard to the outlet end of the pipe to keep out rodents.
- Use outlet pipe of corrugated metal, cast iron, or heavy-duty plastic without perforations and at least 10 feet long. Do not use an envelope or filter material around the outlet pipe, and bury at least two-thirds of the pipe length.
- When outlet velocities exceed those allowable for the receiving stream, outlet protection must be provided.

## ***Maintenance Standards***

Subsurface drains shall be checked periodically to ensure that they are free-flowing and not clogged with sediment or roots.

- The outlet shall be kept clean and free of debris.
- Surface inlets shall be kept open and free of sediment and other debris.
- Trees located too close to a subsurface drain often clog the system with their roots. If a drain becomes clogged, relocate the drain or remove the trees as a last resort. Drain placement should be planned to minimize this problem.
- Where drains are crossed by heavy vehicles, the line shall be checked to ensure that it is not crushed.

## **BMP C206: Level Spreader**

### ***Purpose***

To provide a temporary outlet for dikes and diversions consisting of an excavated depression constructed at zero grade across a slope. To convert concentrated runoff to sheet flow and release it onto areas stabilized by existing vegetation or an engineered filter strip.

### ***Conditions of Use***

Used when a concentrated flow of water needs to be dispersed over a large area with existing stable vegetation.

- Items to consider are:
  1. What is the risk of erosion or damage if the flow may become concentrated?
  2. Is an easement required if discharged to adjoining property?
  3. Most of the flow should be as ground water and not as surface flow.
  4. Is there an unstable area downstream that cannot accept additional ground water?
- Use only where the slopes are gentle, the water volume is relatively low, and the soil will adsorb most of the low flow events.

### ***Design and Installation Specifications***

Use above undisturbed areas that are stabilized by existing vegetation.

If the level spreader has any low points, flow will concentrate, create channels and may cause erosion.

## **BMP C207: Check Dams**

### ***Purpose***

Construction of small dams across a swale or ditch reduces the velocity of concentrated flow and dissipates energy at the check dam.

### ***Conditions of Use***

Where temporary channels or permanent channels are not yet vegetated, channel lining is infeasible, and/or velocity checks are required.

- Check dams may not be placed in streams unless approved by the State Department of Fish and Wildlife. Check dams may not be placed in wetlands without approval from a permitting agency.
- Do not place check dams below the expected backwater from any salmonid bearing water between October 1 and May 31 to ensure that there is no loss of high flow refuge habitat for overwintering juvenile salmonids and emergent salmonid fry.
- Construct rock check dams from appropriately sized rock. The rock used must be large enough to stay in place given the expected design flow through the channel. The rock must be placed by hand or by mechanical means (no dumping of rock to form dam) to achieve complete coverage of the ditch or swale and to ensure that the center of the dam is lower than the edges.
- Check dams may also be constructed of either rock or pea-gravel filled bags. Numerous new products are also available for this purpose. They tend to be reusable, quick and easy to install, effective, and cost efficient.
- Place check dams perpendicular to the flow of water.
- The dam should form a triangle when viewed from the side. This prevents undercutting as water flows over the face of the dam rather than falling directly onto the ditch bottom.
- Before installing check dams impound and bypass upstream water flow away from the work area. Options for bypassing include pumps, siphons, or temporary channels.
- Check dams in association with sumps work more effectively at slowing flow and retaining sediment than just a check dam alone. A deep sump should be provided immediately upstream of the check dam.
- In some cases, if carefully located and designed, check dams can remain as permanent installations with very minor regrading. They may be left as either spillways, in which case accumulated sediment would be graded and seeded, or as

check dams to prevent further sediment from leaving the site.

- The maximum spacing between the dams shall be such that the toe of the upstream dam is at the same elevation as the top of the downstream dam.
- Keep the maximum height at 2 feet at the center of the dam.
- Keep the center of the check dam at least 12 inches lower than the outer edges at natural ground elevation.
- Keep the side slopes of the check dam at 2H:1V or flatter.
- Key the stone into the ditch banks and extend it beyond the abutments a minimum of 18 inches to avoid washouts from overflow around the dam.
- Use filter fabric foundation under a rock or sand bag check dam. If a blanket ditch liner is used, filter fabric is not necessary. A piece of organic or synthetic blanket cut to fit will also work for this purpose.
- In the case of grass-lined ditches and swales, all check dams and accumulated sediment shall be removed when the grass has matured sufficiently to protect the ditch or swale - unless the slope of the swale is greater than 4 percent. The area beneath the check dams shall be seeded and mulched immediately after dam removal.
- Ensure that channel appurtenances, such as culvert entrances below check dams, are not subject to damage or blockage from displaced stones. [Figure II-4.2.7 Rock Check Dam \(p.354\)](#) depicts a typical rock check dam.

### ***Maintenance Standards***

Check dams shall be monitored for performance and sediment accumulation during and after each runoff producing rainfall. Sediment shall be removed when it reaches one half the sump depth.

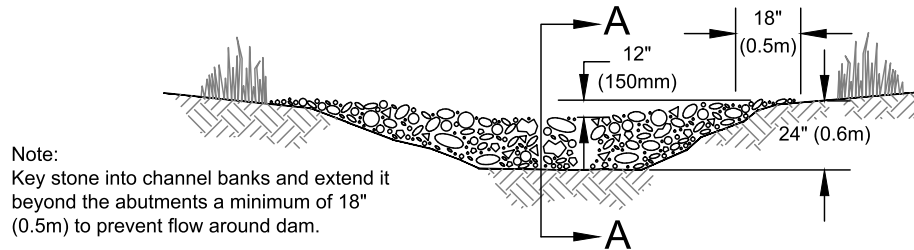
- Anticipate submergence and deposition above the check dam and erosion from high flows around the edges of the dam.
- If significant erosion occurs between dams, install a protective riprap liner in that portion of the channel.

### ***Approved as Equivalent***

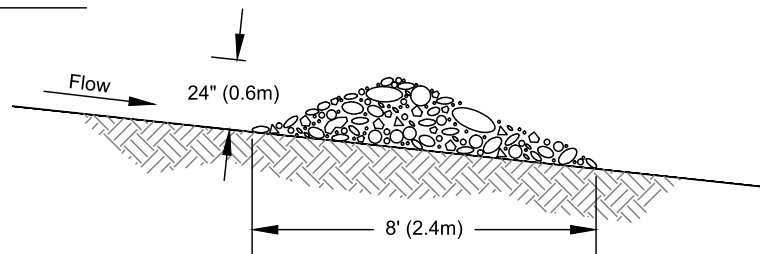
Ecology has approved products as able to meet the requirements of [BMP C207: Check Dams](#). The products did not pass through the Technology Assessment Protocol – Ecology (TAPE) process. Local jurisdictions may choose not to accept this product approved as equivalent, or may require additional testing prior to consideration for local use. The products are available for review on Ecology's website at <http://www.ecy.wa.gov/programs/wq/stormwater/newtech/equivalent.html>

**Figure II-4.2.7 Rock Check Dam**

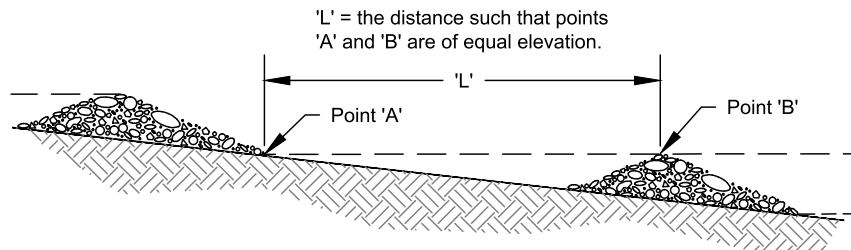
### View Looking Upstream



### Section A-A



### Spacing Between Check Dams



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**Figure II-4.2.7  
Rock Check Dam**

Revised July 2015

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- In the case of grass-lined ditches and swales, check dams and accumulated sediment shall be removed when the grass has matured sufficiently to protect the ditch or swale unless the slope of the swale is greater than 4 percent. The area beneath the check dams shall be seeded and mulched immediately after dam removal.

### ***Maintenance Standards***

- Triangular silt dams shall be inspected for performance and sediment accumulation during and after each runoff producing rainfall. Sediment shall be removed when it reaches one half the height of the dam.
- Anticipate submergence and deposition above the triangular silt dam and erosion from high flows around the edges of the dam. Immediately repair any damage or any undercutting of the dam.

## **BMP C209: Outlet Protection**

### ***Purpose***

Outlet protection prevents scour at conveyance outlets and minimizes the potential for downstream erosion by reducing the velocity of concentrated stormwater flows.

### ***Conditions of Use***

Outlet protection is required at the outlets of all ponds, pipes, ditches, or other conveyances, and where runoff is conveyed to a natural or manmade drainage feature such as a stream, wetland, lake, or ditch.

### ***Design and Installation Specifications***

The receiving channel at the outlet of a culvert shall be protected from erosion by rock lining a minimum of 6 feet downstream and extending up the channel sides a minimum of 1-foot above the maximum tailwater elevation or 1-foot above the crown, whichever is higher. For large pipes (more than 18 inches in diameter), the outlet protection lining of the channel is lengthened to four times the diameter of the culvert.

- Standard wingwalls, and tapered outlets and paved channels should also be considered when appropriate for permanent culvert outlet protection. (See WSDOT Hydraulic Manual, available through WSDOT Engineering Publications).
- Organic or synthetic erosion blankets, with or without vegetation, are usually more effective than rock, cheaper, and easier to install. Materials can be chosen using manufacturer product specifications. ASTM test results are available for most products and the designer can choose the correct material for the expected flow.
- With low flows, vegetation (including sod) can be effective.
- The following guidelines shall be used for riprap outlet protection:

1. If the discharge velocity at the outlet is less than 5 fps (pipe slope less than 1 percent), use 2-inch to 8-inch riprap. Minimum thickness is 1-foot.
  2. For 5 to 10 fps discharge velocity at the outlet (pipe slope less than 3 percent), use 24-inch to 48-inch riprap. Minimum thickness is 2 feet.
  3. For outlets at the base of steep slope pipes (pipe slope greater than 10 percent), an engineered energy dissipater shall be used.
- Filter fabric or erosion control blankets should always be used under riprap to prevent scour and channel erosion.
  - New pipe outfalls can provide an opportunity for low-cost fish habitat improvements. For example, an alcove of low-velocity water can be created by constructing the pipe outfall and associated energy dissipater back from the stream edge and digging a channel, over-widened to the upstream side, from the outfall. Overwintering juvenile and migrating adult salmonids may use the alcove as shelter during high flows. Bank stabilization, bioengineering, and habitat features may be required for disturbed areas. This work may require a HPA. See [Volume V \(p.765\)](#) for more information on outfall system design.

### ***Maintenance Standards***

- Inspect and repair as needed.
- Add rock as needed to maintain the intended function.
- Clean energy dissipater if sediment builds up.

## **BMP C220: Storm Drain Inlet Protection**

### ***Purpose***

Storm drain inlet protection prevents coarse sediment from entering drainage systems prior to permanent stabilization of the disturbed area.

### ***Conditions of Use***

Use storm drain inlet protection at inlets that are operational before permanent stabilization of the disturbed drainage area. Provide protection for all storm drain inlets downslope and within 500 feet of a disturbed or construction area, unless conveying runoff entering catch basins to a sediment pond or trap.

Also consider inlet protection for lawn and yard drains on new home construction. These small and numerous drains coupled with lack of gutters in new home construction can add significant amounts of sediment into the roof drain system. If possible delay installing lawn and yard drains until just before landscaping or cap these drains to pre-

## **BMP C232: Gravel Filter Berm**

### ***Purpose***

A gravel filter berm is constructed on rights-of-way or traffic areas within a construction site to retain sediment by using a filter berm of gravel or crushed rock.

### ***Conditions of Use***

Where a temporary measure is needed to retain sediment from rights-of-way or in traffic areas on construction sites.

### ***Design and Installation Specifications***

- Berm material shall be  $\frac{3}{4}$  to 3 inches in size, washed well-grade gravel or crushed rock with less than 5 percent fines.
- Spacing of berms:
  - Every 300 feet on slopes less than 5 percent
  - Every 200 feet on slopes between 5 percent and 10 percent
  - Every 100 feet on slopes greater than 10 percent
- Berm dimensions:
  - 1 foot high with 3H:1V side slopes
  - 8 linear feet per 1 cfs runoff based on the 10-year, 24-hour design storm

### ***Maintenance Standards***

- Regular inspection is required. Sediment shall be removed and filter material replaced as needed.

## **BMP C233: Silt Fence**

### ***Purpose***

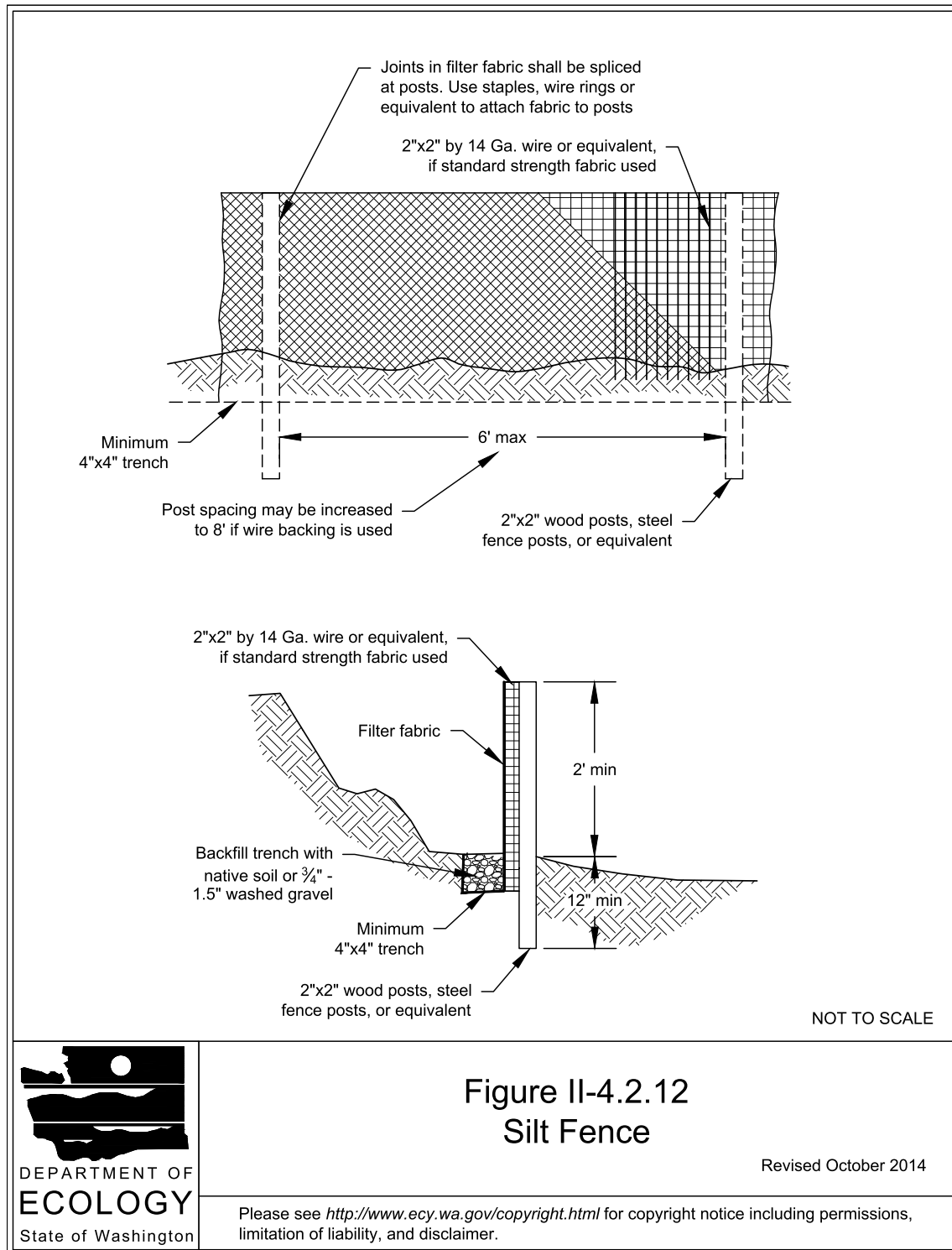
Use of a silt fence reduces the transport of coarse sediment from a construction site by providing a temporary physical barrier to sediment and reducing the runoff velocities of overland flow. See [Figure II-4.2.12 Silt Fence \(p.369\)](#) for details on silt fence construction.

### ***Conditions of Use***

Silt fence may be used downslope of all disturbed areas.

- Silt fence shall prevent soil carried by runoff water from going beneath, through, or over the top of the silt fence, but shall allow the water to pass through the fence.
- Silt fence is not intended to treat concentrated flows, nor is it intended to treat substantial amounts of overland flow. Convey any concentrated flows through the drainage system to a sediment pond.
- Do not construct silt fences in streams or use in V-shaped ditches. Silt fences do not provide an adequate method of silt control for anything deeper than sheet or overland flow.

**Figure II-4.2.12 Silt Fence**



## Design and Installation Specifications

- Use in combination with sediment basins or other BMPs.
- Maximum slope steepness (normal (perpendicular) to fence line) 1H:1V.
- Maximum sheet or overland flow path length to the fence of 100 feet.
- Do not allow flows greater than 0.5 cfs.
- The geotextile used shall meet the following standards. All geotextile properties listed below are minimum average roll values (i.e., the test result for any sampled roll in a lot shall meet or exceed the values shown in [Table II-4.2.3 Geotextile Standards \(p.370\)](#)):

**Table II-4.2.3 Geotextile Standards**

Polymeric Mesh AOS (ASTM D4751)	0.60 mm maximum for slit film woven (#30 sieve). 0.30 mm maximum for all other geotextile types (#50 sieve). 0.15 mm minimum for all fabric types (#100 sieve).
Water Permittivity (ASTM D4491)	0.02 sec <sup>-1</sup> minimum
Grab Tensile Strength (ASTM D4632)	180 lbs. Minimum for extra strength fabric. 100 lbs minimum for standard strength fabric.
Grab Tensile Strength (ASTM D4632)	30% maximum
Ultraviolet Resistance (ASTM D4355)	70% minimum

- Support standard strength fabrics with wire mesh, chicken wire, 2-inch x 2-inch wire, safety fence, or jute mesh to increase the strength of the fabric. Silt fence materials are available that have synthetic mesh backing attached.
- Filter fabric material shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life at a temperature range of 0°F. to 120°F.
- One-hundred percent biodegradable silt fence is available that is strong, long lasting, and can be left in place after the project is completed, if permitted by local regulations.
- Refer to [Figure II-4.2.12 Silt Fence \(p.369\)](#) for standard silt fence details. Include the following standard Notes for silt fence on construction plans and specifications:

- Inspect the slope after significant storms and repair any areas where wattles are not tightly abutted or water has scoured beneath the wattles.

### ***Approved as Equivalent***

Ecology has approved products as able to meet the requirements of [BMP C235: Wattles](#). The products did not pass through the Technology Assessment Protocol – Ecology (TAPE) process. Local jurisdictions may choose not to accept this product approved as equivalent, or may require additional testing prior to consideration for local use. The products are available for review on Ecology’s website at <http://www.ecy.wa.gov/programs/wq/stormwater/newtech/equivalent.html>

## **BMP C236: Vegetative Filtration**

### ***Purpose***

Vegetative Filtration may be used in conjunction with [BMP C241: Temporary Sediment Pond \(p.388\)](#), [BMP C206: Level Spreader \(p.348\)](#) and a pumping system with surface intake to improve turbidity levels of stormwater discharges by filtering through existing vegetation where undisturbed forest floor duff layer or established lawn with thatch layer are present. Vegetative Filtration can also be used to infiltrate dewatering waste from foundations, vaults, and trenches as long as runoff does not occur.

### ***Conditions of Use***

- For every five acre of disturbed soil use one acre of grass field, farm pasture, or wooded area. Reduce or increase this area depending on project size, ground water table height, and other site conditions.
- Wetlands shall not be used for filtration.
- Do not use this BMP in areas with a high ground water table, or in areas that will have a high seasonal ground water table during the use of this BMP.
- This BMP may be less effective on soils that prevent the infiltration of the water, such as hard till.
- Using other effective source control measures throughout a construction site will prevent the generation of additional highly turbid water and may reduce the time period or area need for this BMP.
- Stop distributing water into the vegetated area if standing water or erosion results.

### ***Design Criteria***

- Find land adjacent to the project that has a vegetated field, preferably a farm field, or wooded area.
- If the project site does not contain enough vegetated field area consider obtaining

permission from adjacent landowners (especially for farm fields).

- Install a pump and downstream distribution manifold depending on the project size. Generally, the main distribution line should reach 100 to 200-feet long (many large projects, or projects on tight soil, will require systems that reach several thousand feet long with numerous branch lines off of the main distribution line).
- The manifold should have several valves, allowing for control over the distribution area in the field.
- Install several branches of 4" schedule 20, swaged-fit common septic tight-lined sewer line, or 6" fire hose, which can convey the turbid water out to various sections of the field. See [Figure II-4.2.15 Manifold and Branches in a Wooded, Vegetated Spray Field \(p.382\)](#).
- Determine the branch length based on the field area geography and number of branches. Typically, branches stretch from 200-feet to several thousand feet. Always, lay branches on contour with the slope.
- On uneven ground, sprinklers perform well. Space sprinkler heads so that spray patterns do not overlap.
- On relatively even surfaces, a level spreader using 4-inch perforated pipe may be used as an alternative option to the sprinkler head setup. Install drain pipe at the highest point on the field and at various lower elevations to ensure full coverage of the filtration area. Pipe should be placed with the holes up to allow for a gentle weeping of stormwater evenly out all holes. Leveling the pipe by staking and using sandbags may be required.
- To prevent the over saturation of the field area, rotate the use of branches or spray heads. Do this as needed based on monitoring the spray field.
- Monitor the spray field on a daily basis to ensure that over saturation of any portion of the field doesn't occur at any time. The presence of standing puddles of water or creation of concentrated flows visually signify that over saturation of the field has occurred.
- Since the operator is handling contaminated water, physically monitor the vegetated spray field all the way down to the nearest surface water, or furthest spray area, to ensure that the water has not caused overland or concentrated flows, and has not created erosion around the spray nozzle.
- Monitoring usually needs to take place 3-5 times per day to ensure sheet-flow into state waters. Do not exceed water quality standards for turbidity.
- Ecology strongly recommends that a separate inspection log be developed, maintained and kept with the existing site logbook to aid the operator conducting inspections. This separate "Field Filtration Logbook" can also aid the facility in



demonstrating compliance with permit conditions.

### ***Maintenance Standards***

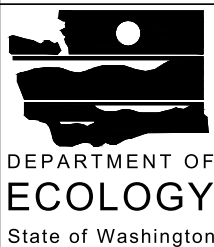
- Inspect the spray nozzles daily, at a minimum, for leaks and plugging from sediment particles.
- If erosion, concentrated flows, or over saturation of the field occurs, rotate the use of branches or spray heads or move the branches to a new field location.
- Check all branches and the manifold for unintended leaks.

<b>Flowpath Guidelines for Vegetative Filtration</b>		
Average Slope	Average Area % Slope	Estimated Flowpath Length (ft)
1.5H:1V	67%	250
2H:1V	50%	200
4H:1V	25%	150
6H:1V	16.7%	115
10H:1V	10%	100

**Figure II-4.2.15 Manifold and Branches in a Wooded, Vegetated Spray Field**



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State of Washington

**Figure II-4.2.15**  
**Manifold and Branches in a Wooded,**  
**Vegetated Spray Field**

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## **BMP C240: Sediment Trap**

### ***Purpose***

A sediment trap is a small temporary ponding area with a gravel outlet used to collect and store sediment from sites cleared and/or graded during construction. Sediment traps, along with other perimeter controls, shall be installed before any land disturbance takes place in the drainage area.

### ***Conditions of Use***

Prior to leaving a construction site, stormwater runoff must pass through a sediment pond or trap or other appropriate sediment removal best management practice. Non-engineered sediment traps may be used on-site prior to an engineered sediment trap or sediment pond to provide additional sediment removal capacity.

It is intended for use on sites where the tributary drainage area is less than 3 acres, with no unusual drainage features, and a projected build-out time of six months or less. The sediment trap is a temporary measure (with a design life of approximately 6 months) and shall be maintained until the site area is permanently protected against erosion by vegetation and/or structures.

Sediment traps and ponds are only effective in removing sediment down to about the medium silt size fraction. Runoff with sediment of finer grades (fine silt and clay) will pass through untreated, emphasizing the need to control erosion to the maximum extent first.

Whenever possible, sediment-laden water shall be discharged into on-site, relatively level, vegetated areas (see [BMP C234: Vegetated Strip \(p.375\)](#)). This is the only way to effectively remove fine particles from runoff unless chemical treatment or filtration is used. This can be particularly useful after initial treatment in a sediment trap or pond. The areas of release must be evaluated on a site-by-site basis in order to determine appropriate locations for and methods of releasing runoff. Vegetated wetlands shall not be used for this purpose. Frequently, it may be possible to pump water from the collection point at the downhill end of the site to an upslope vegetated area. Pumping shall only augment the treatment system, not replace it, because of the possibility of pump failure or runoff volume in excess of pump capacity.

All projects that are constructing permanent facilities for runoff quantity control should use the rough-graded or final-graded permanent facilities for traps and ponds. This includes combined facilities and infiltration facilities. When permanent facilities are used as temporary sedimentation facilities, the surface area requirement of a sediment trap or pond must be met. If the surface area requirements are larger than the surface area of the permanent facility, then the trap or pond shall be enlarged to comply with the surface

area requirement. The permanent pond shall also be divided into two cells as required for sediment ponds.

Either a permanent control structure or the temporary control structure (described in [BMP C241: Temporary Sediment Pond \(p.388\)](#)) can be used. If a permanent control structure is used, it may be advisable to partially restrict the lower orifice with gravel to increase residence time while still allowing dewatering of the pond. A shut-off valve may be added to the control structure to allow complete retention of stormwater in emergency situations. In this case, an emergency overflow weir must be added.

A skimmer may be used for the sediment trap outlet if approved by the Local Permitting Authority.

### ***Design and Installation Specifications***

- See [Figure II-4.2.16 Cross Section of Sediment Trap \(p.386\)](#) and [Figure II-4.2.17 Sediment Trap Outlet \(p.387\)](#) for details.
- If permanent runoff control facilities are part of the project, they should be used for sediment retention.
- To determine the sediment trap geometry, first calculate the design surface area (SA) of the trap, measured at the invert of the weir. Use the following equation:

$$SA = FS(Q_2/V_s)$$

where

$Q_2$  = Design inflow based on the peak discharge from the developed 2-year runoff event from the contributing drainage area as computed in the hydrologic analysis. The 10-year peak flow shall be used if the project size, expected timing and duration of construction, or downstream conditions warrant a higher level of protection. If no hydrologic analysis is required, the Rational Method may be used.

$V_s$  = The settling velocity of the soil particle of interest. The 0.02 mm (medium silt) particle with an assumed density of 2.65 g/cm<sup>3</sup> has been selected as the particle of interest and has a settling velocity ( $V_s$ ) of 0.00096 ft/sec.

FS = A safety factor of 2 to account for non-ideal settling.

Therefore, the equation for computing surface area becomes:

$$SA = 2 \times Q_2 / 0.00096$$

or

2080 square feet per cfs of inflow

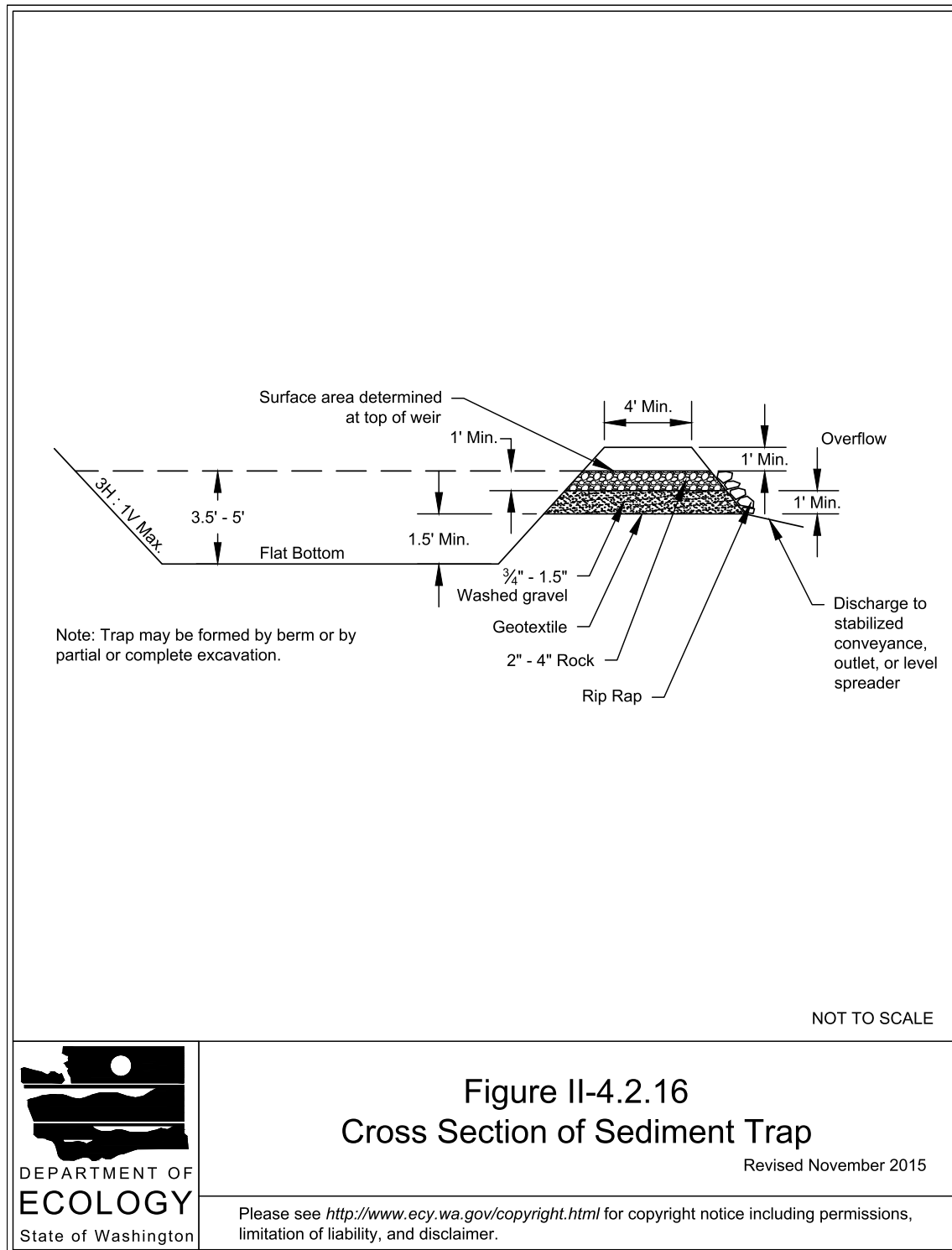
Note: Even if permanent facilities are used, they must still have a surface area that is at least as large as that derived from the above formula. If they do not, the pond must be enlarged.

- To aid in determining sediment depth, all sediment traps shall have a staff gauge with a prominent mark 1-foot above the bottom of the trap.
- Sediment traps may not be feasible on utility projects due to the limited work space or the short-term nature of the work. Portable tanks may be used in place of sediment traps for utility projects.

### ***Maintenance Standards***

- Sediment shall be removed from the trap when it reaches 1-foot in depth.
- Any damage to the pond embankments or slopes shall be repaired.

**Figure II-4.2.16 Cross Section of Sediment Trap**

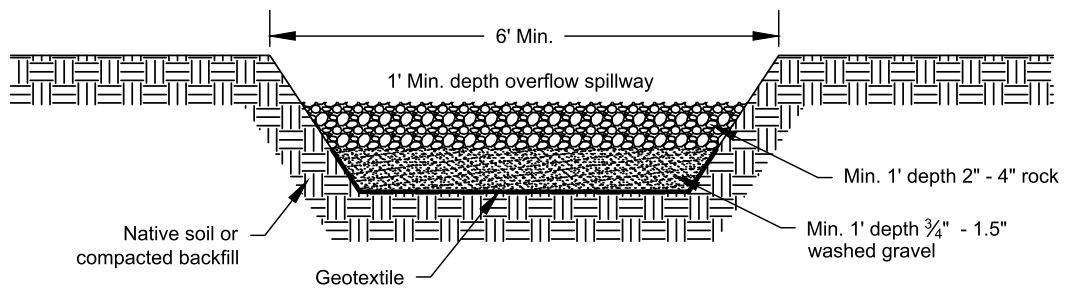


**Figure II-4.2.16**  
**Cross Section of Sediment Trap**

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**Figure II-4.2.17 Sediment Trap Outlet**



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**Figure II-4.2.17  
Sediment Trap Outlet**

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## **BMP C241: Temporary Sediment Pond**

### ***Purpose***

Sediment ponds remove sediment from runoff originating from disturbed areas of the site. Sediment ponds are typically designed to remove sediment no smaller than medium silt (0.02 mm). Consequently, they usually reduce turbidity only slightly.

### ***Conditions of Use***

Prior to leaving a construction site, stormwater runoff must pass through a sediment pond or other appropriate sediment removal best management practice.

A sediment pond shall be used where the contributing drainage area is 3 acres or more. Ponds must be used in conjunction with erosion control practices to reduce the amount of sediment flowing into the basin.

### ***Design and Installation Specifications***

- Sediment basins must be installed only on sites where failure of the structure would not result in loss of life, damage to homes or buildings, or interruption of use or service of public roads or utilities. Also, sediment traps and ponds are attractive to children and can be very dangerous. Compliance with local ordinances regarding health and safety must be addressed. If fencing of the pond is required, the type of fence and its location shall be shown on the ESC plan.
- Structures having a maximum storage capacity at the top of the dam of 10 acre-ft (435,600 ft<sup>3</sup>) or more are subject to the Washington Dam Safety Regulations ([Chapter 173-175 WAC](#)).
- See [Figure II-4.2.18 Sediment Pond Plan View \(p.391\)](#), [Figure II-4.2.19 Sediment Pond Cross Section \(p.392\)](#), and [Figure II-4.2.20 Sediment Pond Riser Detail \(p.393\)](#) for details.
- If permanent runoff control facilities are part of the project, they should be used for sediment retention. The surface area requirements of the sediment basin must be met. This may require temporarily enlarging the permanent basin to comply with the surface area requirements. The permanent control structure must be temporarily replaced with a control structure that only allows water to leave the pond from the surface or by pumping. The permanent control structure must be installed after the site is fully stabilized. .
- Use of infiltration facilities for sedimentation basins during construction tends to clog the soils and reduce their capacity to infiltrate. If infiltration facilities are to be used, the sides and bottom of the facility must only be rough excavated to a minimum of 2 feet above final grade. Final grading of the infiltration facility shall occur only when all contributing drainage areas are fully stabilized. The infiltration



pretreatment facility should be fully constructed and used with the sedimentation basin to help prevent clogging.

- Determining Pond Geometry

Obtain the discharge from the hydrologic calculations of the peak flow for the 2-year runoff event ( $Q_2$ ). The 10-year peak flow shall be used if the project size, expected timing and duration of construction, or downstream conditions warrant a higher level of protection. If no hydrologic analysis is required, the Rational Method may be used.

Determine the required surface area at the top of the riser pipe with the equation:

$$SA = 2 \times Q_2 / 0.00096$$

or

2080 square feet per cfs of inflow

See [BMP C240: Sediment Trap \(p.383\)](#) for more information on the derivation of the surface area calculation.

The basic geometry of the pond can now be determined using the following design criteria:

- Required surface area SA (from Step 2 above) at top of riser.
- Minimum 3.5-foot depth from top of riser to bottom of pond.
- Maximum 3H:1V interior side slopes and maximum 2H:1V exterior slopes. The interior slopes can be increased to a maximum of 2H:1V if fencing is provided at or above the maximum water surface.
- One foot of freeboard between the top of the riser and the crest of the emergency spillway.
- Flat bottom.
- Minimum 1-foot deep spillway.
- Length-to-width ratio between 3:1 and 6:1.
- Sizing of Discharge Mechanisms.

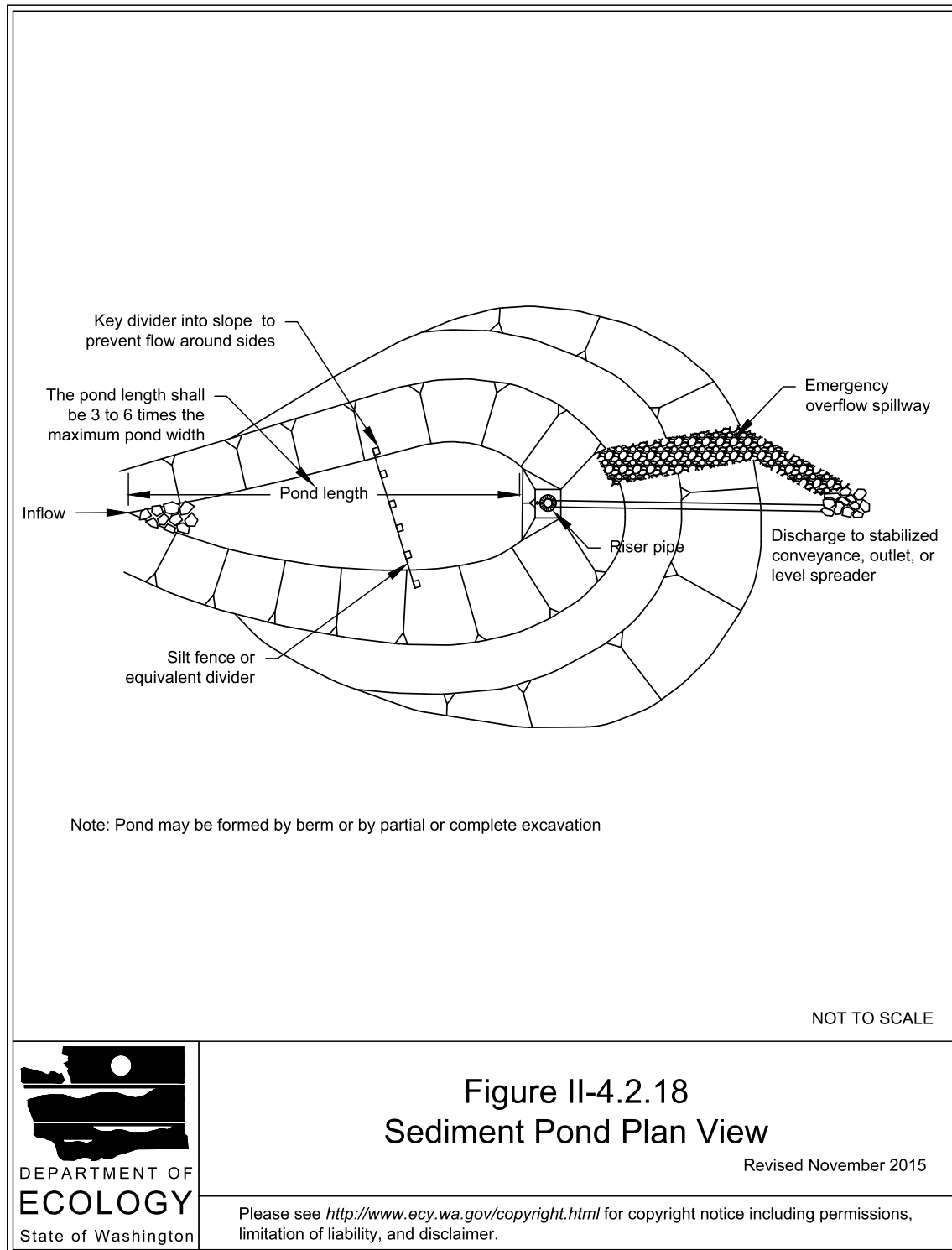
The outlet for the basin consists of a combination of principal and emergency spillways. These outlets must pass the peak runoff expected from the contributing drainage area for a 100-year storm. If, due to site conditions and basin geometry, a separate emergency spillway is not feasible, the principal spillway must pass the entire peak runoff expected from the 100-year storm. However, an attempt to provide a separate emergency spillway should always be made. The runoff calculations should be based on the site conditions during construction. The flow

through the dewatering orifice cannot be utilized when calculating the 100-year storm elevation because of its potential to become clogged; therefore, available spillway storage must begin at the principal spillway riser crest.

The principal spillway designed by the procedures contained in this standard will result in some reduction in the peak rate of runoff. However, the riser outlet design will not adequately control the basin discharge to the predevelopment discharge limitations as stated in [I-2.5.7 Minimum Requirement #7: Flow Control \(p.64\)](#).

However, if the basin for a permanent stormwater detention pond is used for a temporary sedimentation basin, the control structure for the permanent pond can be used to maintain predevelopment discharge limitations. The size of the basin, the expected life of the construction project, the anticipated downstream effects and the anticipated weather conditions during construction, should be considered to determine the need of additional discharge control. See [Figure II-4.2.21 Riser Inflow Curves \(p.394\)](#) for riser inflow curves.

**Figure II-4.2.18 Sediment Pond Plan View**

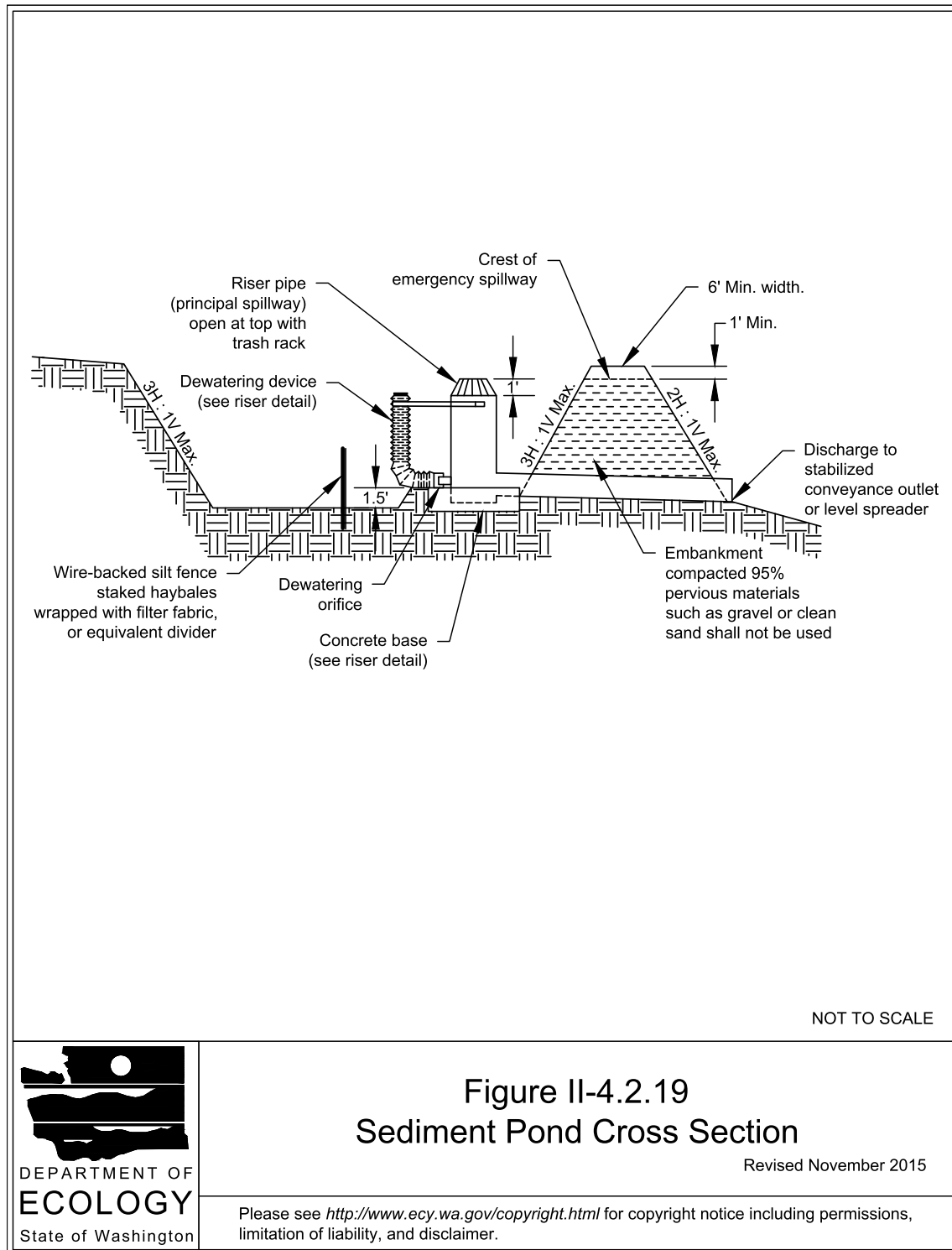


**Figure II-4.2.18  
Sediment Pond Plan View**

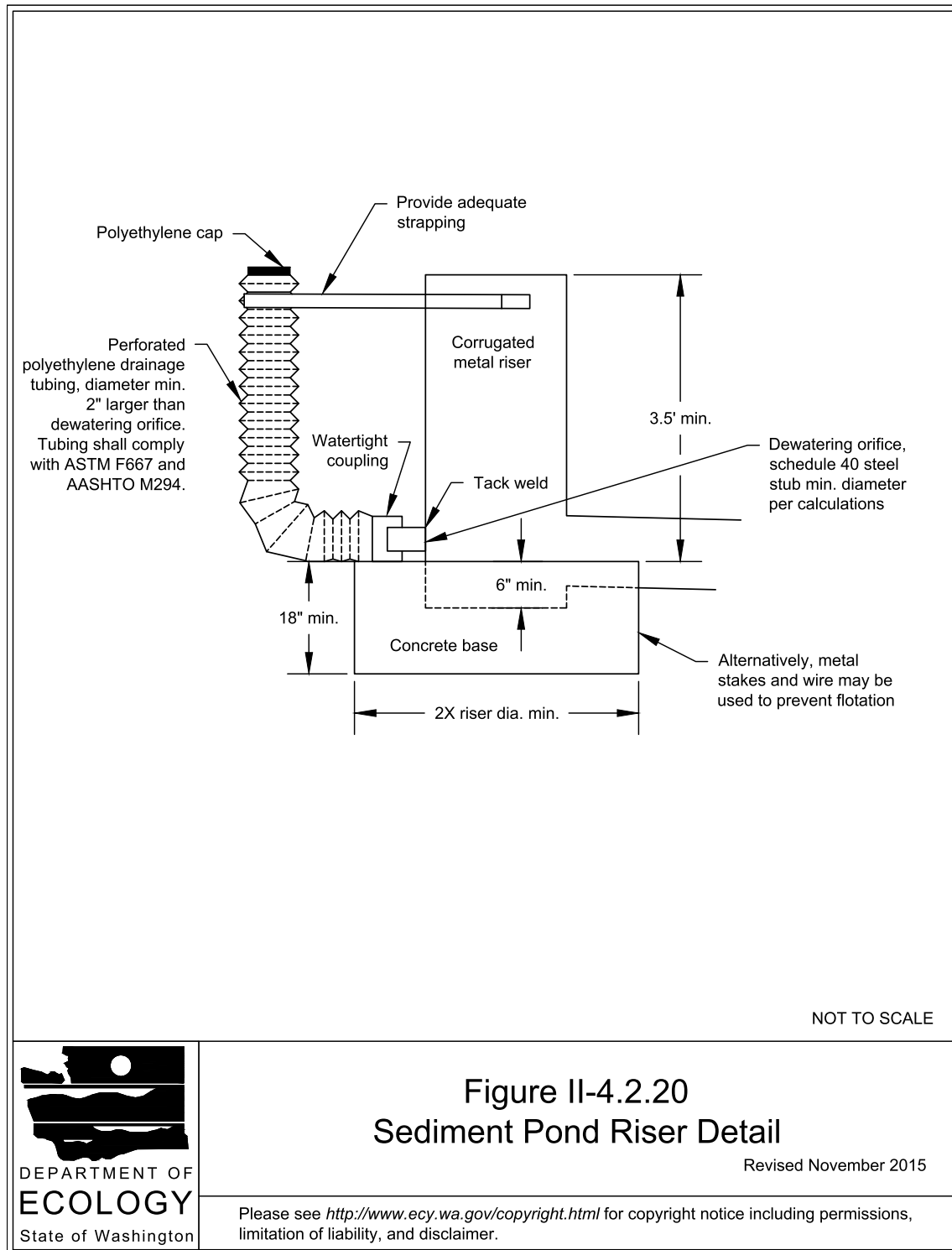
Revised November 2015

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**Figure II-4.2.19 Sediment Pond Cross Section**



**Figure II-4.2.20 Sediment Pond Riser Detail**

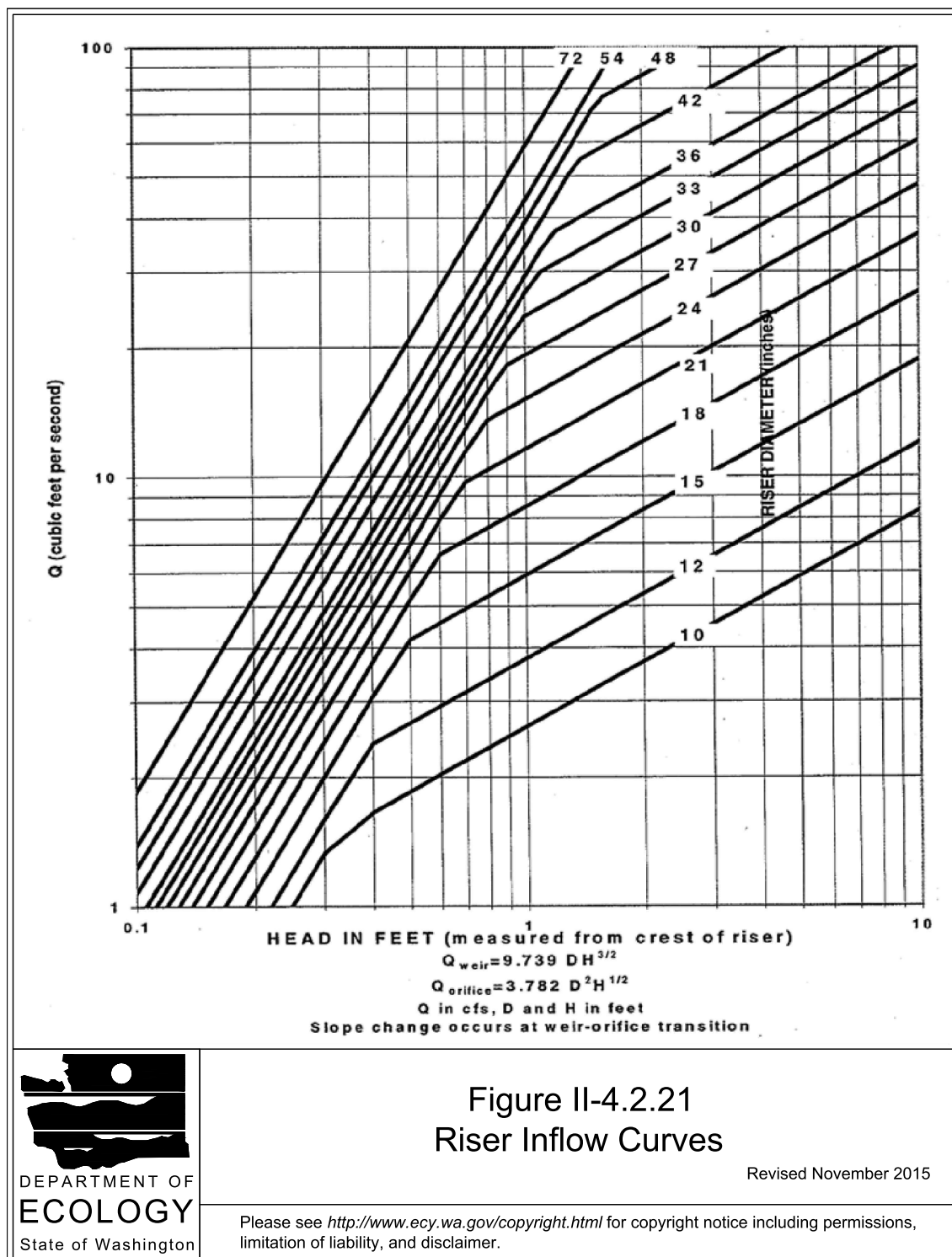


**Figure II-4.2.20  
Sediment Pond Riser Detail**

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**Figure II-4.2.21 Riser Inflow Curves**



**Principal Spillway:** Determine the required diameter for the principal spillway (riser pipe). The diameter shall be the minimum necessary to pass the site's 15-minute, 10-year flowrate. If using the Western Washington Hydrology Model (WWHM), Version 2 or 3, design flow is the 10-year (1 hour) flow for the developed (unmitigated) site, multiplied by a factor of 1.6. Use [Figure II-4.2.21 Riser Inflow Curves \(p.394\)](#) to determine this diameter (h = 1-foot). *Note: A permanent control structure may be used instead of a temporary riser.*

**Emergency Overflow Spillway:** Determine the required size and design of the emergency overflow spillway for the developed 100-year peak flow using the method contained in Volume III.

**Dewatering Orifice:** Determine the size of the dewatering orifice(s) (minimum 1-inch diameter) using a modified version of the discharge equation for a vertical orifice and a basic equation for the area of a circular orifice. Determine the required area of the orifice with the following equation:

$$A_o = \frac{A_s(2h)^{0.5}}{0.6 \times 3600 T g^{0.5}}$$

where

$A_o$  = orifice area (square feet)

$A_s$  = pond surface area (square feet)

h = head of water above orifice (height of riser in feet)

T = dewatering time (24 hours)

g = acceleration of gravity (32.2 feet/second<sup>2</sup>)

Convert the required surface area to the required diameter D of the orifice:

$$D = 24 \times \sqrt{\frac{A_o}{\pi}} = 13.54 \times \sqrt{A_o}$$

The vertical, perforated tubing connected to the dewatering orifice must be at least 2 inches larger in diameter than the orifice to improve flow characteristics. The size and number of perforations in the tubing should be large enough so that the tubing does not restrict flow. The orifice should control the flow rate.

- Additional Design Specifications

The pond shall be divided into two roughly equal volume cells by a permeable divider that will reduce turbulence while allowing movement of water between cells. The divider shall be at least one-half the height of the riser and a minimum of one foot below the top of the riser. Wire-backed, 2- to 3-foot high, extra strength filter fabric supported by treated 4"x4"s can be used as a divider. Alternatively,

staked straw bales wrapped with filter fabric (geotextile) may be used. If the pond is more than 6 feet deep, a different mechanism must be proposed. A riprap embankment is one acceptable method of separation for deeper ponds. Other designs that satisfy the intent of this provision are allowed as long as the divider is permeable, structurally sound, and designed to prevent erosion under or around the barrier.

To aid in determining sediment depth, one-foot intervals shall be prominently marked on the riser.

If an embankment of more than 6 feet is proposed, the pond must comply with the criteria contained in [Volume III \(p.423\)](#) regarding dam safety for detention BMPs.

- The most common structural failure of sedimentation basins is caused by piping. Piping refers to two phenomena: (1) water seeping through fine-grained soil, eroding the soil grain by grain and forming pipes or tunnels; and, (2) water under pressure flowing upward through a granular soil with a head of sufficient magnitude to cause soil grains to lose contact and capability for support.

The most critical construction sequences to prevent piping will be:

1. Tight connections between riser and barrel and other pipe connections.
2. Adequate anchoring of riser.
3. Proper soil compaction of the embankment and riser footing.
4. Proper construction of anti-seep devices.

### ***Maintenance Standards***

- Sediment shall be removed from the pond when it reaches 1-foot in depth.
- Any damage to the pond embankments or slopes shall be repaired.

## **BMP C250: Construction Stormwater Chemical Treatment**

### ***Purpose***

This BMP applies when using stormwater chemicals in batch treatment or flow-through treatment.

Turbidity is difficult to control once fine particles are suspended in stormwater runoff from a construction site. Sedimentation ponds are effective at removing larger particulate matter by gravity settling, but are ineffective at removing smaller particulates such as clay and fine silt. Traditional erosion and sediment control BMPs may not be adequate to ensure compliance with the water quality standards for turbidity in receiving water.

Chemical treatment can reliably provide exceptional reductions of turbidity and associated pollutants. Chemical treatment may be required to meet turbidity stormwater dis-



charge requirements, especially when construction is to proceed through the wet season.

### ***Conditions of Use***

Formal written approval from Ecology is required for the use of chemical treatment regardless of site size. The Local Permitting Authority may also require review and approval. When approved, the chemical treatment systems must be included in the Construction Stormwater Pollution Prevention Plan (SWPPP).

### ***Design and Installation Specifications***

See [Appendix II-B: Background Information on Chemical Treatment \(p.419\)](#) for background information on chemical treatment.

**Criteria for Chemical Treatment Product Use:** Chemically treated stormwater discharged from construction sites must be nontoxic to aquatic organisms. The Chemical Technology Assessment Protocol (CTAPE) must be used to evaluate chemicals proposed for stormwater treatment. Only chemicals approved by Ecology under the CTAPE may be used for stormwater treatment. The approved chemicals, their allowable application techniques (batch treatment or flow-through treatment), allowable application rates, and conditions of use can be found at the Department of Ecology Emerging Technologies website: <http://www.ecy.wa.gov/programs/wq/stormwater/newtech/technologies.html>.

**Treatment System Design Considerations:** The design and operation of a chemical treatment system should take into consideration the factors that determine optimum, cost-effective performance. It is important to recognize the following:

- Only Ecology approved chemicals may be used and must follow approved dose rate.
- The pH of the stormwater must be in the proper range for the polymers to be effective, which is typically 6.5 to 8.5
- The coagulant must be mixed rapidly into the water to ensure proper dispersion.
- A flocculation step is important to increase the rate of settling, to produce the lowest turbidity, and to keep the dosage rate as low as possible.
- Too little energy input into the water during the flocculation phase results in flocs that are too small and/or insufficiently dense. Too much energy can rapidly destroy floc as it is formed.
- Care must be taken in the design of the withdrawal system to minimize outflow velocities and to prevent floc discharge. Discharge from a batch treatment system should be directed through a physical filter such as a vegetated swale that would catch any unintended floc discharge. Currently, flow-through systems always

discharge through the chemically enhanced sand filtration system.

- System discharge rates must take into account downstream conveyance integrity.

### **Polymer Batch Treatment Process Description:**

A batch chemical treatment system consists of the stormwater collection system (either temporary diversion or the permanent site drainage system), a storage pond, pumps, a chemical feed system, treatment cells, and interconnecting piping.

The batch treatment system shall use a minimum of two lined treatment cells in addition to an untreated stormwater storage pond. Multiple treatment cells allow for clarification of treated water while other cells are being filled or emptied. Treatment cells may be ponds or tanks. Ponds with constructed earthen embankments greater than six feet high or which impound more than 10 acre-feet require special engineering analyses. The Ecology Dam Safety Section has specific design criteria for dams in Washington State (see <http://www.ecy.wa.gov/programs/wr/dams/GuidanceDocs.html>).

Stormwater is collected at interception point(s) on the site and is diverted by gravity or by pumping to an untreated stormwater storage pond or other untreated stormwater holding area. The stormwater is stored until treatment occurs. It is important that the holding pond be large enough to provide adequate storage.

The first step in the treatment sequence is to check the pH of the stormwater in the untreated stormwater storage pond. The pH is adjusted by the application of carbon dioxide or a base until the stormwater in the storage pond is within the desired pH range, 6.5 to 8.5. When used, carbon dioxide is added immediately downstream of the transfer pump. Typically sodium bicarbonate (baking soda) is used as a base, although other bases may be used. When needed, base is added directly to the untreated stormwater storage pond. The stormwater is recirculated with the treatment pump to provide mixing in the storage pond. Initial pH adjustments should be based on daily bench tests. Further pH adjustments can be made at any point in the process.

Once the stormwater is within the desired pH range (dependant on polymer being used), the stormwater is pumped from the untreated stormwater storage pond to a treatment cell as polymer is added. The polymer is added upstream of the pump to facilitate rapid mixing.

After polymer addition, the water is kept in a lined treatment cell for clarification of the sediment-floc. In a batch mode process, clarification typically takes from 30 minutes to several hours. Prior to discharge samples are withdrawn for analysis of pH, flocculent chemical concentration, and turbidity. If both are acceptable, the treated water is discharged.

Several configurations have been developed to withdraw treated water from the treatment cell. The original configuration is a device that withdraws the treated water from just beneath the water surface using a float with adjustable struts that prevent the float

from settling on the cell bottom. This reduces the possibility of picking up sediment-floc from the bottom of the pond. The struts are usually set at a minimum clearance of about 12 inches; that is, the float will come within 12 inches of the bottom of the cell. Other systems have used vertical guides or cables which constrain the float, allowing it to drift up and down with the water level. More recent designs have an H-shaped array of pipes, set on the horizontal.

This scheme provides for withdrawal from four points rather than one. This configuration reduces the likelihood of sucking settled solids from the bottom. It also reduces the tendency for a vortex to form. Inlet diffusers, a long floating or fixed pipe with many small holes in it, are also an option.

Safety is a primary concern. Design should consider the hazards associated with operations, such as sampling. Facilities should be designed to reduce slip hazards and drowning. Tanks and ponds should have life rings, ladders, or steps extending from the bottom to the top.

### **Polymer Batch Treatment Process Description:**

At a minimum, a flow-through chemical treatment system consists of the stormwater collection system (either temporary diversion or the permanent site drainage system), an untreated stormwater storage pond, and the chemically enhanced sand filtration system.

Stormwater is collected at interception point(s) on the site and is diverted by gravity or by pumping to an untreated stormwater storage pond or other untreated stormwater holding area. The stormwater is stored until treatment occurs. It is important that the holding pond be large enough to provide adequate storage.

Stormwater is then pumped from the untreated stormwater storage pond to the chemically enhanced sand filtration system where polymer is added. Adjustments to pH may be necessary before chemical addition. The sand filtration system continually monitors the stormwater for turbidity and pH. If the discharge water is ever out of an acceptable range for turbidity or pH, the water is recycled to the untreated stormwater pond where it can be retreated.

***For batch treatment and flow-through treatment***, the following equipment should be located in a lockable shed:

- The chemical injector.
- Secondary containment for acid, caustic, buffering compound, and treatment chemical.
- Emergency shower and eyewash.
- Monitoring equipment which consists of a pH meter and a turbidimeter.

## **System Sizing:**

Certain sites are required to implement flow control for the developed sites. These sites must also control stormwater release rates during construction. Generally, these are sites that discharge stormwater directly, or indirectly, through a conveyance system, into a fresh water. System sizing is dependent on flow control requirements.

## **Sizing Criteria for Batch Treatment Systems for Flow Control Exempt Water Bodies:**

The total volume of the untreated stormwater storage pond and treatment ponds or tanks must be large enough to treat stormwater that is produced during multiple day storm events. It is recommended that at a minimum the untreated stormwater storage pond be sized to hold 1.5 times the runoff volume of the 10-year, 24-hour storm event. Bypass should be provided around the chemical treatment system to accommodate extreme storm events. Runoff volume shall be calculated using the methods presented in [Chapter III-2 - Hydrologic Analysis \(p.429\)](#). Worst-case land cover conditions (i.e., producing the most runoff) should be used for analyses (in most cases, this would be the land cover conditions just prior to final landscaping).

Primary settling should be encouraged in the untreated stormwater storage pond. A fore-bay with access for maintenance may be beneficial.

There are two opposing considerations in sizing the treatment cells. A larger cell is able to treat a larger volume of water each time a batch is processed. However, the larger the cell the longer the time required to empty the cell. A larger cell may also be less effective at flocculation and therefore require a longer settling time. The simplest approach to sizing the treatment cell is to multiply the allowable discharge flow rate times the desired drawdown time. A 4-hour drawdown time allows one batch per cell per 8-hour work period, given 1 hour of flocculation followed by two hours of settling.

If the discharge is directly to a flow control exempt receiving water listed in [Appendix I-E: Flow Control-Exempt Surface Waters \(p.133\)](#) or to an infiltration system, there is no discharge flow limit.

Ponds sized for flow control water bodies must at a minimum meet the sizing criteria for flow control exempt waters.

## **Sizing Criteria for Flow-Through Treatment Systems for Flow Control Exempt Water Bodies:**

When sizing storage ponds or tanks for flow-through systems for flow control exempt water bodies, the treatment system capacity should be a factor. The untreated stormwater storage pond or tank should be sized to hold 1.5 times the runoff volume of the 10-year, 24-hour storm event minus the treatment system flowrate for an 8-hour period. For a chitosan-enhanced sand filtration system, the treatment system flowrate should be

sized using a hydraulic loading rate between 6-8 gpm/ft<sup>2</sup>. Other hydraulic loading rates may be more appropriate for other systems. Bypass should be provided around the chemical treatment system to accommodate extreme storms. Runoff volume shall be calculated using the methods presented in [Chapter III-2 - Hydrologic Analysis \(p.429\)](#). Worst-case land cover conditions (i.e., producing the most runoff) should be used for analyses (in most cases, this would be the land cover conditions just prior to final landscaping).

### **Sizing Criteria for Flow Control Water Bodies:**

Sites that must implement flow control for the developed site condition must also control stormwater release rates during construction. Construction site stormwater discharges shall not exceed the discharge durations of the pre-developed condition for the range of pre-developed discharge rates from ½ of the 2-year flow through the 10-year flow as predicted by an approved continuous runoff model. The pre-developed condition to be matched shall be the land cover condition immediately prior to the development project. This restriction on release rates can affect the size of the storage pond and treatment cells.

The following is how WWHM can be used to determine the release rates from the chemical treatment systems:

1. Determine the pre-developed flow durations to be matched by entering the existing land use area under the “Pre-developed” scenario in WWHM. The default flow range is from ½ of the 2-year flow through the 10-year flow.
2. Enter the post developed land use area in the “Developed Unmitigated” scenario in WWHM.
3. Copy the land use information from the “Developed Unmitigated” to “Developed Mitigated” scenario.
4. While in the “Developed Mitigated” scenario, add a pond element under the basin element containing the post-developed land use areas. This pond element represents information on the available untreated stormwater storage and discharge from the chemical treatment system. In cases where the discharge from the chemical treatment system is controlled by a pump, a stage/storage/discharge (SSD) table representing the pond must be generated outside WWHM and imported into WWHM. WWHM can route the runoff from the post-developed condition through this SSD table (the pond) and determine compliance with the flow duration standard. This would be an iterative design procedure where if the initial SSD table proved to be inadequate, the designer would have to modify the SSD table outside WWHM and re-import in WWHM and route the runoff through it again. The iteration will continue until a pond that complies with the flow duration standard is correctly sized.

Notes on SSD table characteristics:

- The pump discharge rate would likely be initially set at just below  $\frac{1}{2}$  of the 2-year flow from the pre-developed condition. As runoff coming into the untreated stormwater storage pond increases and the available untreated stormwater storage volume gets used up, it would be necessary to increase the pump discharge rate above  $\frac{1}{2}$  of the 2-year. The increase(s) above  $\frac{1}{2}$  of the 2-year must be such that they provide some relief to the untreated stormwater storage needs but at the same time will not cause violations of the flow duration standard at the higher flows. The final design SSD table will identify the appropriate pumping rates and the corresponding stage and storages.
  - When building such a flow control system, the design must ensure that any automatic adjustments to the pumping rates will be as a result of changes to the available storage in accordance with the final design SSD table.
5. It should be noted that the above procedures would be used to meet the flow control requirements. The chemical treatment system must be able to meet the runoff treatment requirements. It is likely that the discharge flow rate of  $\frac{1}{2}$  of the 2-year or more may exceed the treatment capacity of the system. If that is the case, the untreated stormwater discharge rate(s) (i.e., influent to the treatment system) must be reduced to allow proper treatment. Any reduction in the flows would likely result in the need for a larger untreated stormwater storage volume.

If the discharge is to a municipal storm drainage system, the allowable discharge rate may be limited by the capacity of the public system. It may be necessary to clean the municipal storm drainage system prior to the start of the discharge to prevent scouring solids from the drainage system. If the municipal storm drainage system discharges to a water body not on the flow control exempt list, the project site is subject to flow control requirements. Obtain permission from the owner of the collection system before discharging to it.

If system design does not allow you to discharge at the slower rates as described above and if the site has a retention or detention pond that will serve the planned development, the discharge from the treatment system may be directed to the permanent retention/detention pond to comply with the flow control requirement. In this case, the untreated stormwater storage pond and treatment system will be sized according to the sizing criteria for flow-through treatment systems for flow control exempt water bodies described earlier except all discharge (water passing through the treatment system and stormwater bypassing the treatment system) will be directed into the permanent retention/detention pond. If site constraints make locating the untreated stormwater storage pond difficult, the permanent retention/detention pond may be divided to serve as the untreated stormwater storage pond and the post-treatment flow control pond. A berm or barrier must be used in this case so the untreated water does not mix with the treated water. Both untreated stormwater storage requirements, and adequate post-treatment

flow control must be achieved. The post-treatment flow control pond's revised dimensions must be entered into the WWHM and the WWHM must be run to confirm compliance with the flow control requirement.

### ***Maintenance Standards***

**Monitoring:** At a minimum, the following monitoring shall be conducted. Test results shall be recorded on a daily log kept on site. Additional testing may be required by the NPDES permit based on site conditions.

#### Operational Monitoring:

- Total volume treated and discharged.
- Flow must be continuously monitored and recorded at not greater than 15-minute intervals.
- Type and amount of chemical used for pH adjustment.
- Amount of polymer used for treatment.
- Settling time.

#### Compliance Monitoring:

- Influent and effluent pH, flocculent chemical concentration, and turbidity must be continuously monitored and recorded at not greater than 15-minute intervals. pH and turbidity of the receiving water.

#### Biomonitoring:

Treated stormwater must be non-toxic to aquatic organisms. Treated stormwater must be tested for aquatic toxicity or residual chemicals. Frequency of biomonitoring will be determined by Ecology.

Residual chemical tests must be approved by Ecology prior to their use.

If testing treated stormwater for aquatic toxicity, you must test for acute (lethal) toxicity. Bioassays shall be conducted by a laboratory accredited by Ecology, unless otherwise approved by Ecology. Acute toxicity tests shall be conducted per the CTAPE protocol.

**Discharge Compliance: Prior to discharge, treated stormwater must be sampled and tested for compliance with pH, flocculent chemical concentration, and turbidity limits.** These limits may be established by the Construction Stormwater General Permit or a site-specific discharge permit. Sampling and testing for other pollutants may also be necessary at some sites. pH must be within the range of 6.5 to 8.5 standard units and not cause a change in the pH of the receiving water of more than 0.2 standard units. Treated stormwater samples and measurements shall be taken from the discharge pipe or another location representative of the nature of the treated stormwater discharge. Samples used for determining compliance with the water quality standards in the

receiving water shall not be taken from the treatment pond prior to decanting. Compliance with the water quality standards is determined in the receiving water.

**Operator Training:** Each contractor who intends to use chemical treatment shall be trained by an experienced contractor. Each site using chemical treatment must have an operator trained and certified by an organization approved by Ecology.

**Standard BMPs:** Surface stabilization BMPs should be implemented on site to prevent significant erosion. All sites shall use a truck wheel wash to prevent tracking of sediment off site.

**Sediment Removal and Disposal:**

- Sediment shall be removed from the storage or treatment cells as necessary. Typically, sediment removal is required at least once during a wet season and at the decommissioning of the cells. Sediment remaining in the cells between batches may enhance the settling process and reduce the required chemical dosage.
- Sediment that is known to be non-toxic may be incorporated into the site away from drainages.

## **BMP C251: Construction Stormwater Filtration**

### ***Purpose***

Filtration removes sediment from runoff originating from disturbed areas of the site.

### ***Background Information:***

Filtration with sand media has been used for over a century to treat water and wastewater. The use of sand filtration for treatment of stormwater has developed recently, generally to treat runoff from streets, parking lots, and residential areas. The application of filtration to construction stormwater treatment is currently under development.

### ***Conditions of Use***

Traditional BMPs used to control soil erosion and sediment loss from sites under development may not be adequate to ensure compliance with the water quality standard for turbidity in the receiving water. Filtration may be used in conjunction with gravity settling to remove sediment as small as fine silt (0.5 µm). The reduction in turbidity will be dependent on the particle size distribution of the sediment in the stormwater. In some circumstances, sedimentation and filtration may achieve compliance with the water quality standard for turbidity.

The use of construction stormwater filtration does not require approval from Ecology as long as treatment chemicals are not used. Filtration in conjunction with polymer treatment requires testing under the Chemical Technology Assessment Protocol – Ecology (CTAPE) before it can be initiated. Approval from the appropriate regional Ecology office



must be obtained at each site where polymers use is proposed prior to use. For more guidance on stormwater chemical treatment see [BMP C250: Construction Stormwater Chemical Treatment \(p.396\)](#).

### ***Design and Installation Specifications***

Two types of filtration systems may be applied to construction stormwater treatment: rapid and slow. Rapid sand filters are the typical system used for water and wastewater treatment. They can achieve relatively high hydraulic flow rates, on the order of 2 to 20 gpm/sf, because they have automatic backwash systems to remove accumulated solids. In contrast, slow sand filters have very low hydraulic rates, on the order of 0.02 gpm/sf, because they do not have backwash systems. Slow sand filtration has generally been used to treat stormwater. Slow sand filtration is mechanically simple in comparison to rapid sand filtration but requires a much larger filter area.

**Filtration Equipment.** Sand media filters are available with automatic backwashing features that can filter to 50 µm particle size. Screen or bag filters can filter down to 5 µm. Fiber wound filters can remove particles down to 0.5 µm. Filters should be sequenced from the largest to the smallest pore opening. Sediment removal efficiency will be related to particle size distribution in the stormwater.

**Treatment Process Description.** Stormwater is collected at interception point(s) on the site and is diverted to an untreated stormwater sediment pond or tank for removal of large sediment and storage of the stormwater before it is treated by the filtration system. The untreated stormwater is pumped from the trap, pond, or tank through the filtration system in a rapid sand filtration system. Slow sand filtration systems are designed as flow through systems using gravity.

### ***Maintenance Standards***

Rapid sand filters typically have automatic backwash systems that are triggered by a pre-set pressure drop across the filter. If the backwash water volume is not large or substantially more turbid than the untreated stormwater stored in the holding pond or tank, backwash return to the untreated stormwater pond or tank may be appropriate. However, other means of treatment and disposal may be necessary.

- Screen, bag, and fiber filters must be cleaned and/or replaced when they become clogged.
- Sediment shall be removed from the storage and/or treatment ponds as necessary. Typically, sediment removal is required once or twice during a wet season and at the decommissioning of the ponds.

## **Sizing Criteria for Flow-Through Treatment Systems for Flow Control Exempt Water Bodies:**

When sizing storage ponds or tanks for flow-through systems for flow control exempt water bodies the treatment system capacity should be a factor. The untreated stormwater storage pond or tank should be sized to hold 1.5 times the runoff volume of the 10-year, 24-hour storm event minus the treatment system flowrate for an 8-hour period. For a chitosan-enhanced sand filtration system, the treatment system flowrate should be sized using a hydraulic loading rate between 6-8 gpm/ft<sup>2</sup>. Other hydraulic loading rates may be more appropriate for other systems. Bypass should be provided around the chemical treatment system to accommodate extreme storms. Runoff volume shall be calculated using the methods presented in [Chapter III-2 - Hydrologic Analysis \(p.429\)](#). Worst-case conditions (i.e., producing the most runoff) should be used for analyses (most likely conditions present prior to final landscaping).

## **Sizing Criteria for Flow Control Water Bodies:**

Sites that must implement flow control for the developed site condition must also control stormwater release rates during construction. Construction site stormwater discharges shall not exceed the discharge durations of the pre-developed condition for the range of pre-developed discharge rates from 1/2 of the 2-year flow through the 10-year flow as predicted by an approved continuous runoff model. The pre-developed condition to be matched shall be the land cover condition immediately prior to the development project. This restriction on release rates can affect the size of the storage pond, the filtration system, and the flow rate through the filter system.

The following is how WWHM can be used to determine the release rates from the filtration systems:

1. Determine the pre-developed flow durations to be matched by entering the land use area under the “Pre-developed” scenario in WWHM. The default flow range is from ½ of the 2-year flow through the 10-year flow.
2. Enter the post developed land use area in the “Developed Unmitigated” scenario in WWHM.
3. Copy the land use information from the “Developed Unmitigated” to “Developed Mitigated” scenario.
4. There are two possible ways to model stormwater filtration systems:
  - a. The stormwater filtration system uses an untreated stormwater storage pond/tank and the discharge from this pond/tank is pumped to one or more filters. In-line filtration chemicals would be added to the flow right after the pond/tank and before the filter(s). Because the discharge is pumped, WWHM can’t generate a stage/storage /discharge (SSD) table for this system. This

system is modeled the same way as described in [BMP C250: Construction Stormwater Chemical Treatment \(p.396\)](#) and is as follows:

While in the “Developed Mitigated” scenario, add a pond element under the basin element containing the post-developed land use areas. This pond element represents information on the available untreated stormwater storage and discharge from the filtration system. In cases where the discharge from the filtration system is controlled by a pump, a stage/storage/discharge (SSD) table representing the pond must be generated outside WWHM and imported into WWHM. WWHM can route the runoff from the post-developed condition through this SSD table (the pond) and determine compliance with the flow duration standard. This would be an iterative design procedure where if the initial SSD table proved to be out of compliance, the designer would have to modify the SSD table outside WWHM and re-import in WWHM and route the runoff through it again. The iteration will continue until a pond that enables compliance with the flow duration standard is designed.

Notes on SSD table characteristics:

- The pump discharge rate would likely be initially set at just below  $\frac{1}{2}$  of the 2-year flow from the pre-developed condition. As runoff coming into the untreated stormwater storage pond increases and the available untreated stormwater storage volume gets used up, it would be necessary to increase the pump discharge rate above  $\frac{1}{2}$  of the 2-year. The increase(s) above  $\frac{1}{2}$  of the 2-year must be such that they provide some relief to the untreated stormwater storage needs but at the same time they will not cause violations of the flow duration standard at the higher flows. The final design SSD table will identify the appropriate pumping rates and the corresponding stage and storages.
  - When building such a flow control system, the design must ensure that any automatic adjustments to the pumping rates will be as a result of changes to the available storage in accordance with the final design SSD table.
- b. The stormwater filtration system uses a storage pond/tank and the discharge from this pond/tank gravity flows to the filter. This is usually a slow sand filter system and it is possible to model it in WWHM as a Filter element or as a combination of Pond and Filter element placed in series. The stage/storage/discharge table(s) may then be generated within WWHM as follows:
- i. While in the “Developed Mitigated” scenario, add a Filter element under the basin element containing the post-developed land use areas. The length and width of this filter element would have to be the same as the bottom length and width of the upstream untreated stormwater storage pond/tank.

- ii. In cases where the length and width of the filter is not the same as those for the bottom of the upstream untreated stormwater storage tank/pond, the treatment system may be modeled as a Pond element followed by a Filter element. By having these two elements, WWHM would then generate a SSD table for the storage pond which then gravity flows to the Filter element. The Filter element downstream of the untreated stormwater storage pond would have a storage component through the media, and an overflow component for when the filtration capacity is exceeded.

WWHM can route the runoff from the post-developed condition through the treatment systems in 4b and determine compliance with the flow duration standard. This would be an iterative design procedure where if the initial sizing estimates for the treatment system proved to be inadequate, the designer would have to modify the system and route the runoff through it again. The iteration would continue until compliance with the flow duration standard is achieved.

5. It should be noted that the above procedures would be used to meet the flow control requirements. The filtration system must be able to meet the runoff treatment requirements. It is likely that the discharge flow rate of  $\frac{1}{2}$  of the 2-year or more may exceed the treatment capacity of the system. If that is the case, the untreated stormwater discharge rate(s) (i.e., influent to the treatment system) must be reduced to allow proper treatment. Any reduction in the flows would likely result in the need for a larger untreated stormwater storage volume.

If system design does not allow you to discharge at the slower rates as described above and if the site has a retention or detention pond that will serve the planned development, the discharge from the treatment system may be directed to the permanent retention/detention pond to comply with the flow control requirements. In this case, the untreated stormwater storage pond and treatment system will be sized according to the sizing criteria for flow-through treatment systems for flow control exempt waterbodies described earlier except all discharges (water passing through the treatment system and stormwater bypassing the treatment system) will be directed into the permanent retention/detention pond. If site constraints make locating the untreated stormwater storage pond difficult, the permanent retention/detention pond may be divided to serve as the untreated stormwater discharge pond and the post-treatment flow control pond. A berm or barrier must be used in this case so the untreated water does not mix with the treated water. Both untreated stormwater storage requirements, and adequate post-treatment flow control must be achieved. The post-treatment flow control pond's revised dimensions must be entered into the WWHM and the WWHM must be run to confirm compliance with the flow control requirement.

## **BMP C252: High pH Neutralization Using CO<sub>2</sub>**

### ***Purpose***

When pH levels in stormwater rise above 8.5 it is necessary to lower the pH levels to the acceptable range of 6.5 to 8.5, this process is called pH neutralization. pH neutralization involves the use of solid or compressed carbon dioxide gas in water requiring neutralization. Neutralized stormwater may be discharged to surface waters under the General Construction NPDES permit.

Neutralized process water such as concrete truck wash-out, hydro-demolition, or saw-cutting slurry must be managed to prevent discharge to surface waters. Any stormwater contaminated during concrete work is considered process wastewater and must not be discharged to surface waters.

### **Reason for pH Neutralization:**

A pH level range of 6.5 to 8.5 is typical for most natural watercourses, and this neutral pH is required for the survival of aquatic organisms. Should the pH rise or drop out of this range, fish and other aquatic organisms may become stressed and may die.

Calcium hardness can contribute to high pH values and cause toxicity that is associated with high pH conditions. A high level of calcium hardness in waters of the state is not allowed.

The water quality standard for pH in Washington State is in the range of 6.5 to 8.5. Ground water standard for calcium and other dissolved solids in Washington State is less than 500 mg/l.

### ***Conditions of Use***

#### **Causes of High pH:**

High pH at construction sites is most commonly caused by the contact of stormwater with poured or recycled concrete, cement, mortars, and other Portland cement or lime containing construction materials. (See [BMP C151: Concrete Handling \(p.313\)](#) for more information on concrete handling procedures). The principal caustic agent in cement is calcium hydroxide (free lime).

#### **Advantages of CO<sub>2</sub> Sparging:**

- Rapidly neutralizes high pH water.
- Cost effective and safer to handle than acid compounds.
- CO<sub>2</sub> is self-buffering. It is difficult to overdose and create harmfully low pH levels.
- Material is readily available.

### **The Chemical Process:**

When carbon dioxide (CO<sub>2</sub>) is added to water (H<sub>2</sub>O), carbonic acid (H<sub>2</sub>CO<sub>3</sub>) is formed which can further dissociate into a proton (H<sup>+</sup>) and a bicarbonate anion (HCO<sub>3</sub><sup>-</sup>) as shown below:



The free proton is a weak acid that can lower the pH. Water temperature has an effect on the reaction as well. The colder the water temperature is the slower the reaction occurs and the warmer the water temperature is the quicker the reaction occurs. Most construction applications in Washington State have water temperatures in the 50°F or higher range so the reaction is almost simultaneous.

### ***Design and Installation Specifications***

#### **Treatment Process:**

High pH water may be treated using continuous treatment, continuous discharge systems. These manufactured systems continuously monitor influent and effluent pH to ensure that pH values are within an acceptable range before being discharged. All systems must have fail safe automatic shut off switches in the event that pH is not within the acceptable discharge range. Only trained operators may operate manufactured systems. System manufacturers often provide trained operators or training on their devices.

The following procedure may be used when not using a continuous discharge system:

1. Prior to treatment, the appropriate jurisdiction should be notified in accordance with the regulations set by the jurisdiction.
2. Every effort should be made to isolate the potential high pH water in order to treat it separately from other stormwater on-site.
3. Water should be stored in an acceptable storage facility, detention pond, or containment cell prior to treatment.
4. Transfer water to be treated to the treatment structure. Ensure that treatment structure size is sufficient to hold the amount of water that is to be treated. Do not fill tank completely, allow at least 2 feet of freeboard.
5. The operator samples the water for pH and notes the clarity of the water. As a rule of thumb, less CO<sub>2</sub> is necessary for clearer water. This information should be recorded.
6. In the pH adjustment structure, add CO<sub>2</sub> until the pH falls in the range of 6.9-7.1. Remember that pH water quality standards apply so adjusting pH to within 0.2 pH units of receiving water (background pH) is recommended. It is unlikely that pH can be adjusted to within 0.2 pH units using dry ice. Compressed carbon dioxide gas should be introduced to the water using a carbon dioxide diffuser located near the

bottom of the tank, this will allow carbon dioxide to bubble up through the water and diffuse more evenly.

7. Slowly discharge the water making sure water does not get stirred up in the process. Release about 80% of the water from the structure leaving any sludge behind.
8. Discharge treated water through a pond or drainage system.
9. Excess sludge needs to be disposed of properly as concrete waste. If several batches of water are undergoing pH treatment, sludge can be left in treatment structure for the next batch treatment. Dispose of sludge when it fills 50% of tank volume.

Sites that must implement flow control for the developed site must also control stormwater release rates during construction. All treated stormwater must go through a flow control facility before being released to surface waters which require flow control.

### ***Maintenance Standards***

#### **Safety and Materials Handling:**

- All equipment should be handled in accordance with OSHA rules and regulations.
- Follow manufacturer guidelines for materials handling.

#### **Operator Records:**

Each operator should provide:

- A diagram of the monitoring and treatment equipment.
- A description of the pumping rates and capacity the treatment equipment is capable of treating.

Each operator should keep a written record of the following:

- Client name and phone number.
- Date of treatment.
- Weather conditions.
- Project name and location.
- Volume of water treated.
- pH of untreated water.
- Amount of CO<sub>2</sub> needed to adjust water to a pH range of 6.9-7.1.
- pH of treated water.
- Discharge point location and description.

A copy of this record should be given to the client/contractor who should retain the record for three years.

## **BMP C253: pH Control for High pH Water**

### ***Purpose***

When pH levels in stormwater rise above 8.5 it is necessary to lower the pH levels to the acceptable range of 6.5 to 8.5, this process is called pH neutralization. Stormwater with pH levels exceeding water quality standards may be treated by infiltration, dispersion in vegetation or compost, pumping to a sanitary sewer, disposal at a permitted concrete batch plant with pH neutralization capabilities, or carbon dioxide sparging. [BMP C252: High pH Neutralization Using CO2 \(p.409\)](#) gives guidelines for carbon dioxide sparging.

### **Reason for pH Neutralization:**

A pH level range of 6.5 to 8.5 is typical for most natural watercourses, and this pH range is required for the survival of aquatic organisms. Should the pH rise or drop out of this range, fish and other aquatic organisms may become stressed and may die.

### ***Conditions of Use***

#### **Causes of High pH:**

High pH levels at construction sites are most commonly caused by the contact of stormwater with poured or recycled concrete, cement, mortars, and other Portland cement or lime containing construction materials. (See [BMP C151: Concrete Handling \(p.313\)](#) for more information on concrete handling procedures). The principal caustic agent in cement is calcium hydroxide (free lime).

### ***Design and Installation Specifications***

#### **Disposal Methods:**

##### **Infiltration**

- Infiltration is only allowed if soil type allows all water to infiltrate (no surface runoff) without causing or contributing to a violation of surface or ground water quality standards.
- Infiltration techniques should be consistent with [Chapter V-7 - Infiltration and Bioretention Treatment Facilities \(p.957\)](#)

##### **Dispersion**

Use [BMP T5.30: Full Dispersion \(p.939\)](#)

##### **Sanitary Sewer Disposal**

- Local sewer authority approval is required prior to disposal via the sanitary sewer.



### **Concrete Batch Plant Disposal**

- Only permitted facilities may accept high pH water.
- Facility should be contacted before treatment to ensure they can accept the high pH water.

### **Stormwater Discharge**

Any pH treatment options that generate treated water that must be discharged off site are subject to flow control requirements. Sites that must implement flow control for the developed site must also control stormwater release rates during construction. All treated stormwater must go through a flow control facility before being released to surface waters which require flow control.



## **Appendix C**

### **Correspondence**



**Appendix D**

**Site Inspection Form**

# Construction Stormwater Site Inspection Form

Project Name \_\_\_\_\_ Permit # \_\_\_\_\_ Inspection Date \_\_\_\_\_ Time \_\_\_\_\_

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*

Print Name: \_\_\_\_\_

Approximate rainfall amount since the last inspection (in inches): \_\_\_\_\_

Approximate rainfall amount in the last 24 hours (in inches): \_\_\_\_\_

Current Weather Clear ☐ Cloudy ☐ Mist ☐ Rain ☐ Wind ☐ Fog ☐

A. Type of inspection: Weekly ☐ Post Storm Event ☐ Other ☐

## B. Phase of Active Construction (check all that apply):

Pre Construction/installation of erosion/sediment controls	<input type="checkbox"/>	Clearing/Demo/Grading	<input type="checkbox"/>	Infrastructure/storm/roads	<input type="checkbox"/>
Concrete pours	<input type="checkbox"/>	Vertical Construction/buildings	<input type="checkbox"/>	Utilities	<input type="checkbox"/>
Offsite improvements	<input type="checkbox"/>	Site temporary stabilized	<input type="checkbox"/>	Final stabilization	<input type="checkbox"/>

## C. Questions:

- |  |     |       |    |       |
|--|-----|-------|----|-------|
| 1. Were all areas of construction and discharge points inspected?  | Yes | _____ | No | _____ |
| 2. Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen            | Yes | _____ | No | _____ |
| 3. Was a water quality sample taken during inspection? ( <i>refer to permit conditions S4 &amp; S5</i> ) | Yes | _____ | No | _____ |
| 4. Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*                       | Yes | _____ | No | _____ |
| 5. If yes to #4 was it reported to Ecology?  | Yes | _____ | No | _____ |
| 6. Is pH sampling required? pH range required is 6.5 to 8.5.   | Yes | _____ | No | _____ |

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: \_\_\_\_\_ Date: \_\_\_\_\_

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

# Construction Stormwater Site Inspection Form

**D. Check the observed status of all items. Provide "Action Required" details and dates.**

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)						
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?						
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.						
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?						
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?						
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).						
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.						
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.						
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?						

# Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?						
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?						
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?						
	Is off-site storm water managed separately from stormwater generated on the site?						
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?						
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?						
7 Drain Inlets	Storm drain inlets made operable during construction are protected.						
	Are existing storm drains within the influence of the project protected?						
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?						
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?						
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?						
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?						
	Has secondary containment been provided capable of containing 110% of the volume?						
	Were contaminated surfaces cleaned immediately after a spill incident?						
	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?						



# Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.						
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.						
	Dewatering has been done to an approved source and in compliance with the SWPPP.						
	Were there any clean non turbid dewatering discharges?						
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?						
12 Manage the Project	Has the project been phased to the maximum degree practicable?						
	Has regular inspection, monitoring and maintenance been performed as required by the permit?						
	Has the SWPPP been updated, implemented and records maintained?						
13 Protect LID	Is all Bioretention and Rain Garden Facilities protected from sedimentation with appropriate BMPs?						
	Is the Bioretention and Rain Garden protected against over compaction of construction equipment and foot traffic to retain its infiltration capabilities?						
	Permeable pavements are clean and free of sediment and sediment laden-water runoff. Muddy construction equipment has not been on the base material or pavement.						
	Have soiled permeable pavements been cleaned of sediments and pass infiltration test as required by stormwater manual methodology?						
	Heavy equipment has been kept off existing soils under LID facilities to retain infiltration rate.						

**E. Check all areas that have been inspected. ✓**

All in place BMPs ☐ All disturbed soils ☐ All concrete wash out area ☐ All material storage areas ☐  
 All discharge locations ☐ All equipment storage areas ☐ All construction entrances/exits ☐

## Construction Stormwater Site Inspection Form

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F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials

*Attach additional page if needed*

**Sign the following certification:**

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) \_\_\_\_\_ (Signature) \_\_\_\_\_ Date: \_\_\_\_\_

Title/Qualification of Inspector: \_\_\_\_\_





## **Appendix E**

### **Construction Stormwater General Permit (CSWGP)**



## **Appendix F**

### **303(d) List Waterbodies/TMDL Waterbodies Information**





**Appendix G**

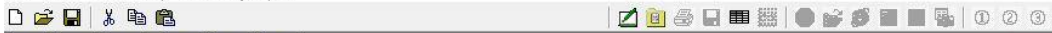
**Contaminated Site Information**

(None Known)



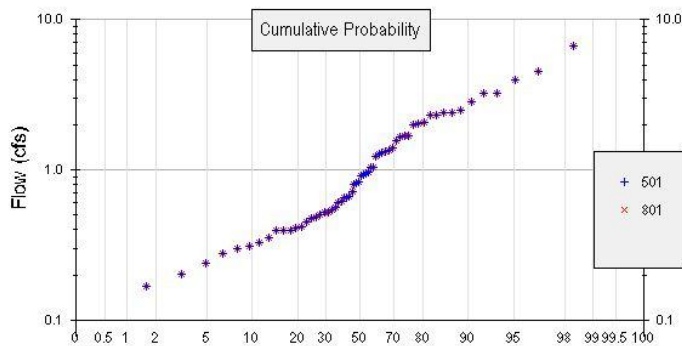
# **Appendix H**

## **Engineering Calculations**



Analysis Help

Analysis



Stream Protection Duration LID Duration Flow Frequency Water Quality Hydrograph  
Wetland Input Volumes LID Report Recharge Duration Recharge Predeveloped Recharge Mitigated

Analyze datasets

Compact WDM

Delete Selected

☐ Monthly FF

501 POC 1 Predeveloped flow  
801 POC 1 Mitigated flow

All Datasets Flow Stage Precip Evap POC 1

Flood Frequency Method

☒ Log Pearson Type III 17B☐ Weibull☐ Cunnane☐ Gringorten

## Flow Frequency

Flow(cfs)	Predeveloped	Mitigated
2 Year =	0.8682	0.8682
5 Year =	1.8272	1.8272
10 Year =	2.7184	2.7184
25 Year =	4.1786	4.1786
50 Year =	5.5356	5.5356
100 Year =	7.1455	7.1455

## Annual Peaks

1949	2.8636	2.8636
1950	0.5645	0.5645
1951	2.3857	2.3857
1952	2.0464	2.0464
1953	2.3002	2.3002
1954	1.2709	1.2709
1955	0.3938	0.3938
1956	0.3278	0.3278
1957	2.3856	2.3856
1958	0.7975	0.7975
1959	0.7105	0.7105
1960	1.2365	1.2365
1961	0.6673	0.6673
1962	0.4167	0.4167
1963	0.9156	0.9156
1964	0.4502	0.4502
1965	2.3293	2.3293
1966	0.6568	0.6568
1967	0.4785	0.4785
1968	1.3924	1.3924
1969	0.8363	0.8363
1970	2.4887	2.4887
1971	1.3502	1.3502
1972	0.3983	0.3983
1973	0.9412	0.9412
1974	1.0452	1.0452
1975	4.5149	4.5149
1976	3.2407	3.2407

X 0  
Y 6

#

Wed 10:01 a - default(3) - Finish Predeveloped

Basin Total 11 Acres

Deselect Zero

Select By:

GO

